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Technical Note

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**TABLE OF ATTENUATION AS A FUNCTION
OF VANE ANGLE FOR ROTARY-VANE ATTENUATORS**
($A = -40 \log_{10} \cos \theta$)

WILBUR LARSON



**U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS**

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NATIONAL BUREAU OF STANDARDS

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TABLE OF ATTENUATION AS A FUNCTION OF
VANE ANGLE FOR ROTARY VANE ATTENUATORS

$$(A = -40 \log_{10} \cos \theta)$$

Wilbur Larson

The table of attenuation as a function of vane angle gives the attenuation in decibels produced by an angular displacement of the vane of a rotary-vane attenuator assuming ideal behavior of the attenuator. The attenuations for vane angles corresponding to the function $A = -40 \log_{10} \cos \theta$ are given in the table, where A is the attenuation in decibels and θ is the vane angle in degrees. The attenuations in decibels are given for increments of 0.001° for the values of θ from zero to 89.999° to the sixth decimal place and for the values of θ from 89.000° to 89.999° to the fifth decimal place.

The table was designed for determining the attenuation in decibels of a rotary-vane attenuation utilizing a scale marked in degrees. Also, the table can be used to determine correct decibel markings for a rotary vane attenuator with a direct reading scale regardless of gear ratio. The table can be used as an aid in analyzing the calibration data of a rotary-vane attenuator for characteristics which include inherent error, resettability, and gearing eccentricity.

1. INTRODUCTION

The rotary vane attenuator is considered to be the most suitable microwave attenuator for wide-band applications because the attenuation is theoretically independent of frequency and the phase shift variations in the attenuator are small. The attenuation produced in a rotary-vane attenuator is ideally a function of the angle formed by the position of the rotating vane relative to the fixed vanes. In practice, departures from this ideal behavior are usually small. The attenuation value, A , may be given in decibels as a function of this angle, θ , by the expression¹

$$A = -40 \log_{10} \cos \theta \tag{1}$$

Tables of $\log_{10} \cos \theta$ are available², but do not give the attenuation of (1) directly. Instead, additional calculation is required. For example, the value of attenuation in decibels for a given vane angle in degrees can be determined from existing tables with the following procedure.

Let θ equal 55.790°

1. $A = -40 \log \cos 55.790^\circ$
2. $A = -40 (9.749 \quad 9122 \quad 558-10)$ from the table²
3. $A = 40 (10.000 \quad 0000 \quad 000-10)$
 9.749 9122 558-10
4. $A = 40x \quad 0.250 \quad 0877 \quad 442$
5. $A = \quad 10.003 \quad 5097 \quad 680 \text{ db}$

The purpose of the table* in this report of the function $-40 \log_{10} \cos \theta$ is to eliminate the calculations as illustrated above. For the value θ equal to 55.790° , on page 118, in column one and row thirty the attenuation in decibels is read directly as 10.003510 db.

Most commercially-available rotary-vane attenuators utilize read out scales in decibels. However, an important problem of scale resolution is present when direct decibel markings are used because the resolution decreases very rapidly at high values of attenuation. If one would like the resolution to be constant, a linear scale of the angular position of the rotor would be required. A scale in degrees of vane rotation would

*The values of the table were obtained from the log and cos subroutines in Fortran II employing the 7090 computer. The table was thoroughly checked for accuracy by taking first difference and by independent checking at intervals with the Peters table. The values in decibels were found to be accurate to one unit in the last place and even errors of one should be very rare. The differences were obtained directly from the computer to 7 decimal places for θ from zero to 88.999° and to 6 decimal places for θ from 89.000° to 89.999° . For θ from 89.500 to 89.999° some second differences were calculated also. The independent check with Peters' table was performed at intervals of 0.5° for θ from 0.499° to 89.999° and more frequently for θ from 89.500 to 89.999° .

meet this requirement. Then, for a rotary-vane attenuator with this kind of scale, a table is very useful for determining the attenuation in decibels for the scale setting in degrees. Also, the table would be useful for determining the accuracy of the scale markings in decibels of a rotary vane attenuator.

2. TABLE OF ATTENUATION IN DECIBELS VERSUS VANE ANGLE IN DEGREES

Assuming ideal behavior of the attenuator, this table can be used to determine attenuation as a function of vane angle for rotary-vane attenuators having a scale marked in degrees. In this table, the attenuation in decibels versus the vane angle, θ (theta), is given in incremental parts of one thousandth of a degree from zero to 89.999° . The range of the angle θ is shown at the top of each page. At the left of each page, the values of θ are listed in a vertical column in 0.010° increments. Across the top of each page, the values of θ are listed in a horizontal row in 0.001° increments. The attenuation in decibels is given in the table to the sixth decimal place for values of θ from zero to 88.999° and to the fifth decimal place for values of θ from 89.000° to 89.999° .

3. SCALE READOUT IN DEGREES

Let us consider a high-revolution readout for a rotary-vane attenuator in which one revolution of the control knob rotates the vane one degree. This would require ninety turns of the knob to obtain an attenuation change from zero to maximum. For an attenuator with this amount of gear reduction, scale markings of one-thousandth of a degree are attainable. A linear scale readout of this type has been designed and constructed at NBS.*

4. SCALE READOUT IN DECIBELS

The dial of the rotary-vane attenuator may have either a direct-reading scale of the attenuation in decibels or an angular scale of the vane

*Report by the author in preparation.

position in degrees. To correctly place the marks on the scale for a direct decibel readout, tables or calculations are required to determine the angular position for each incremental value of the scale. Consider, as an example, an attenuator with a scale attached to the drive mechanism which has a gear ratio of 12. The scale of this attenuator is turned three revolutions to rotate the vane from zero to 90° . The angular position of the vane corresponding to a given attenuation in decibels can be determined with the aid of the table. For example, referring to page 45 in the table, the vane angle which represents one decibel of attenuation is found to be equal to 19.255° . The corresponding rotation of the scale of an attenuator with a gear ratio of 12 is 231.060° . From the table it also can be shown that the 50 db mark will fall at an angle of 1041.312° from the zero reference.

5. RESETTABILITY

Assuming no gear backlash or other contributing causes, the resettability, or operator error in setting the dial of the rotary-vane attenuator at one position, may be determined over the entire scale with the use of the table. For example, during the calibration of a rotary-vane attenuator, with a scale marked in decibels, it is observed that the measured deviation in attenuation increases approximately 0.03 db when the dial setting is set by a width of one mark on the left side of the scale mark of 20 db and that the measured deviation in attenuation decreases approximately 0.03 db when the dial setting is set by a width of one mark on the right side of the same scale mark. Referring to page 150, the table shows that the vane angle which represents 20 db of attenuation is found to be equal to 71.565° . A deviation in attenuation of approximately ± 0.03 db at an attenuation of 20 db corresponds to a vane angle deviation of $\pm 0.033^\circ$. If the marks on the entire scale of the attenuator are of equal width, the deviations in vane angle setting corresponding to dial settings on one side

of the mark to the other side will be of the same value. However, anywhere on the scale the corresponding values of deviation in attenuation will follow the \cos^2 law for each dial setting in decibels. The curves in figure 1 show the limits of deviation in attenuation caused by a deviation in the vane angle of ± 0.033 over a range of zero to 40 db. The points for these curves were determined using the table. In practice, the resettability may be better or worse than the above example, depending upon the care taken and upon the skill of the operator.

The table can be used to determine the required resettability for a rotary vane attenuator. As an example, for an attenuation difference of 0.1 db referenced to the zero setting of the attenuator, the resettability must be better than $\pm 0.061^\circ$ for the error in attenuation difference to be less than ± 0.002 db; or the resettability must be better than $\pm 0.0005^\circ$ for the error to be less than $\pm 0.00002^\circ$.

6. ACKNOWLEDGEMENTS

The calculations for the table were programmed for an electronic computer by B. C. Yates.

7. REFERENCES

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2. Peters, J. (1919) Zehnstellige Logarithmen der trigonometrischen Funktionen, von 0° bis 90° für jedes Tausendstel des Grades, Copyright was obtained from Verlag der Optischen Anstalt, C. P. Goerz AKt. - Ges., Berlin-Friedenau from 1918-1938 and the D VanNostrand Company in 1942.

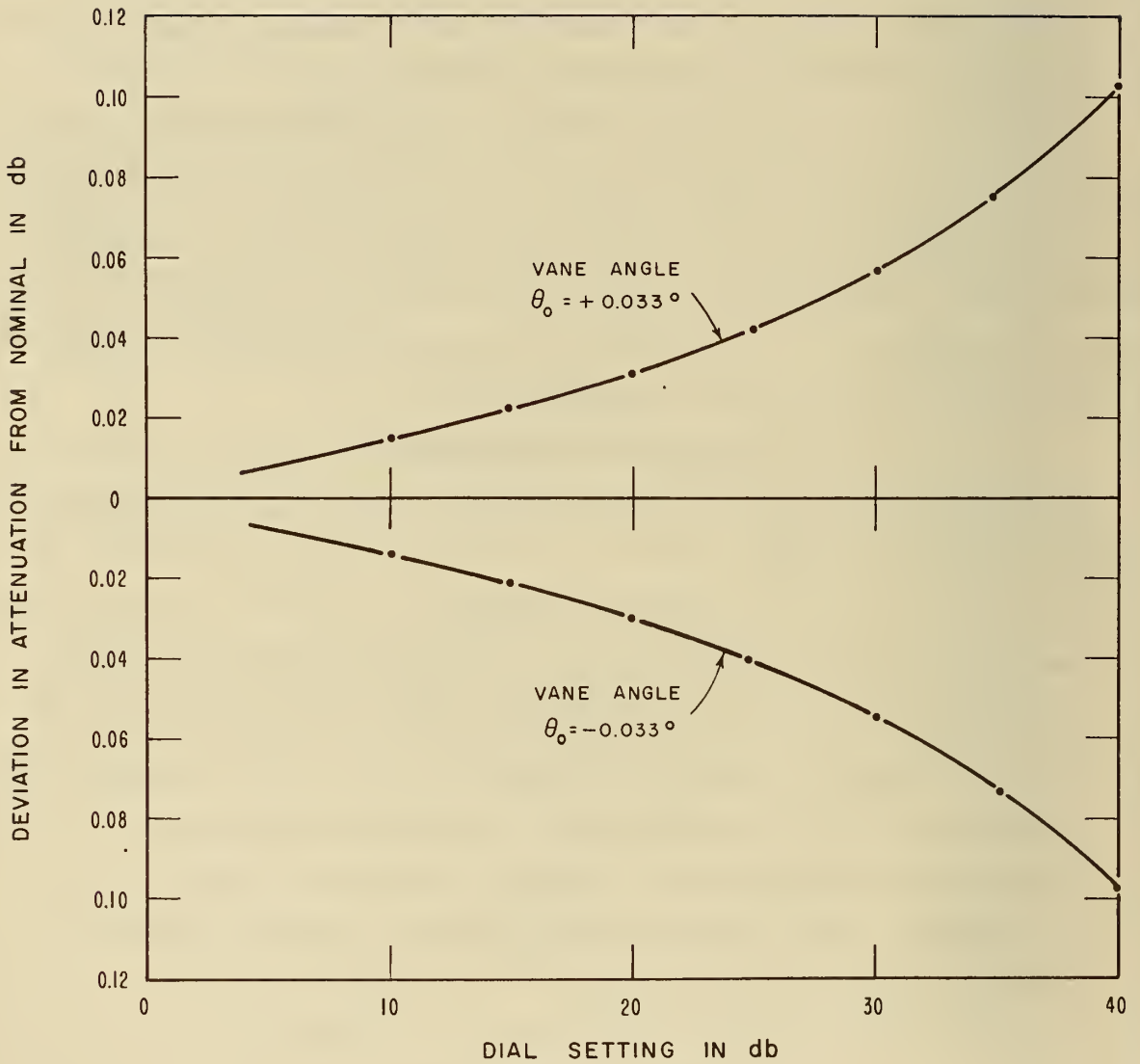


Figure 1. Graph of the deviations of attenuation from nominal versus dial settings in decibels with a resettability in vane angle setting of $\pm 0.033^\circ$.

ATTENUATION IN DECIBELS
THETA FROM 0.000 TO 0.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| 0.010 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000001 | 0.000001 | 0.000001 | 0.000001 | 0.000001 | 0.000001 |
| 0.020 | 0.000001 | 0.000001 | 0.000001 | 0.000001 | 0.000002 | 0.000002 | 0.000002 | 0.000002 | 0.000002 | 0.000002 |
| 0.030 | 0.000002 | 0.000003 | 0.000003 | 0.000003 | 0.000003 | 0.000003 | 0.000003 | 0.000004 | 0.000004 | 0.000004 |
| 0.040 | 0.000004 | 0.000004 | 0.000005 | 0.000005 | 0.000005 | 0.000005 | 0.000006 | 0.000006 | 0.000006 | 0.000006 |
| 0.050 | 0.000007 | 0.000007 | 0.000007 | 0.000008 | 0.000008 | 0.000008 | 0.000009 | 0.000009 | 0.000009 | 0.000009 |
| 0.060 | 0.000010 | 0.000010 | 0.000010 | 0.000011 | 0.000011 | 0.000011 | 0.000012 | 0.000012 | 0.000012 | 0.000013 |
| 0.070 | 0.000013 | 0.000013 | 0.000014 | 0.000014 | 0.000014 | 0.000015 | 0.000015 | 0.000016 | 0.000016 | 0.000017 |
| 0.080 | 0.000017 | 0.000017 | 0.000018 | 0.000018 | 0.000019 | 0.000019 | 0.000020 | 0.000020 | 0.000020 | 0.000021 |
| 0.090 | 0.000021 | 0.000022 | 0.000022 | 0.000023 | 0.000023 | 0.000024 | 0.000024 | 0.000025 | 0.000025 | 0.000026 |
| 0.100 | 0.000026 | 0.000027 | 0.000028 | 0.000028 | 0.000029 | 0.000030 | 0.000030 | 0.000031 | 0.000031 | 0.000031 |
| 0.110 | 0.000032 | 0.000033 | 0.000033 | 0.000034 | 0.000034 | 0.000035 | 0.000036 | 0.000037 | 0.000037 | 0.000037 |
| 0.120 | 0.000038 | 0.000039 | 0.000039 | 0.000040 | 0.000041 | 0.000041 | 0.000042 | 0.000043 | 0.000043 | 0.000044 |
| 0.130 | 0.000045 | 0.000045 | 0.000046 | 0.000047 | 0.000048 | 0.000048 | 0.000050 | 0.000050 | 0.000050 | 0.000051 |
| 0.140 | 0.000052 | 0.000053 | 0.000053 | 0.000054 | 0.000055 | 0.000056 | 0.000056 | 0.000057 | 0.000058 | 0.000059 |
| 0.150 | 0.000060 | 0.000060 | 0.000061 | 0.000062 | 0.000063 | 0.000064 | 0.000065 | 0.000066 | 0.000066 | 0.000067 |
| 0.160 | 0.000068 | 0.000069 | 0.000069 | 0.000070 | 0.000071 | 0.000072 | 0.000073 | 0.000074 | 0.000075 | 0.000076 |
| 0.170 | 0.000076 | 0.000077 | 0.000078 | 0.000079 | 0.000080 | 0.000081 | 0.000082 | 0.000083 | 0.000084 | 0.000085 |
| 0.180 | 0.000086 | 0.000087 | 0.000088 | 0.000089 | 0.000090 | 0.000091 | 0.000092 | 0.000093 | 0.000094 | 0.000095 |
| 0.190 | 0.000096 | 0.000097 | 0.000098 | 0.000099 | 0.000100 | 0.000101 | 0.000102 | 0.000103 | 0.000104 | 0.000105 |
| 0.200 | 0.000106 | 0.000107 | 0.000108 | 0.000109 | 0.000110 | 0.000111 | 0.000112 | 0.000113 | 0.000114 | 0.000116 |
| 0.210 | 0.000117 | 0.000118 | 0.000119 | 0.000120 | 0.000121 | 0.000122 | 0.000123 | 0.000125 | 0.000126 | 0.000127 |
| 0.220 | 0.000128 | 0.000129 | 0.000130 | 0.000132 | 0.000133 | 0.000134 | 0.000135 | 0.000136 | 0.000138 | 0.000139 |
| 0.230 | 0.000140 | 0.000141 | 0.000142 | 0.000144 | 0.000145 | 0.000146 | 0.000147 | 0.000149 | 0.000150 | 0.000151 |
| 0.240 | 0.000152 | 0.000154 | 0.000155 | 0.000156 | 0.000158 | 0.000159 | 0.000160 | 0.000161 | 0.000163 | 0.000164 |
| 0.250 | 0.000165 | 0.000167 | 0.000168 | 0.000169 | 0.000171 | 0.000172 | 0.000173 | 0.000175 | 0.000176 | 0.000177 |
| 0.260 | 0.000179 | 0.000180 | 0.000182 | 0.000183 | 0.000184 | 0.000186 | 0.000187 | 0.000189 | 0.000190 | 0.000191 |
| 0.270 | 0.000193 | 0.000194 | 0.000196 | 0.000197 | 0.000199 | 0.000200 | 0.000202 | 0.000203 | 0.000204 | 0.000206 |
| 0.280 | 0.000207 | 0.000209 | 0.000210 | 0.000212 | 0.000213 | 0.000215 | 0.000216 | 0.000218 | 0.000219 | 0.000221 |
| 0.290 | 0.000223 | 0.000224 | 0.000226 | 0.000227 | 0.000229 | 0.000230 | 0.000232 | 0.000233 | 0.000235 | 0.000237 |
| 0.300 | 0.000238 | 0.000240 | 0.000241 | 0.000243 | 0.000245 | 0.000246 | 0.000248 | 0.000249 | 0.000251 | 0.000253 |
| 0.310 | 0.000254 | 0.000256 | 0.000258 | 0.000259 | 0.000261 | 0.000263 | 0.000264 | 0.000266 | 0.000268 | 0.000269 |
| 0.320 | 0.000271 | 0.000273 | 0.000274 | 0.000276 | 0.000278 | 0.000279 | 0.000281 | 0.000283 | 0.000285 | 0.000286 |
| 0.330 | 0.000288 | 0.000290 | 0.000292 | 0.000293 | 0.000295 | 0.000297 | 0.000299 | 0.000300 | 0.000302 | 0.000304 |
| 0.340 | 0.000306 | 0.000308 | 0.000309 | 0.000311 | 0.000313 | 0.000315 | 0.000317 | 0.000319 | 0.000320 | 0.000322 |
| 0.350 | 0.000324 | 0.000326 | 0.000328 | 0.000330 | 0.000332 | 0.000333 | 0.000335 | 0.000337 | 0.000339 | 0.000341 |
| 0.360 | 0.000343 | 0.000345 | 0.000347 | 0.000349 | 0.000351 | 0.000352 | 0.000354 | 0.000356 | 0.000358 | 0.000360 |
| 0.370 | 0.000362 | 0.000364 | 0.000366 | 0.000368 | 0.000370 | 0.000372 | 0.000374 | 0.000376 | 0.000378 | 0.000380 |
| 0.380 | 0.000382 | 0.000384 | 0.000386 | 0.000388 | 0.000390 | 0.000392 | 0.000394 | 0.000396 | 0.000398 | 0.000400 |
| 0.390 | 0.000402 | 0.000404 | 0.000407 | 0.000409 | 0.000411 | 0.000413 | 0.000415 | 0.000417 | 0.000419 | 0.000421 |
| 0.400 | 0.000423 | 0.000425 | 0.000428 | 0.000430 | 0.000432 | 0.000434 | 0.000436 | 0.000438 | 0.000440 | 0.000443 |
| 0.410 | 0.000445 | 0.000447 | 0.000449 | 0.000451 | 0.000453 | 0.000456 | 0.000458 | 0.000460 | 0.000462 | 0.000465 |
| 0.420 | 0.000467 | 0.000469 | 0.000471 | 0.000473 | 0.000476 | 0.000478 | 0.000480 | 0.000482 | 0.000485 | 0.000487 |
| 0.430 | 0.000489 | 0.000491 | 0.000494 | 0.000496 | 0.000498 | 0.000501 | 0.000503 | 0.000505 | 0.000508 | 0.000510 |
| 0.440 | 0.000512 | 0.000515 | 0.000517 | 0.000519 | 0.000522 | 0.000524 | 0.000526 | 0.000529 | 0.000531 | 0.000533 |
| 0.450 | 0.000536 | 0.000538 | 0.000541 | 0.000543 | 0.000545 | 0.000548 | 0.000550 | 0.000553 | 0.000555 | 0.000558 |
| 0.460 | 0.000560 | 0.000562 | 0.000565 | 0.000567 | 0.000570 | 0.000572 | 0.000575 | 0.000577 | 0.000580 | 0.000582 |
| 0.470 | 0.000584 | 0.000587 | 0.000589 | 0.000592 | 0.000594 | 0.000597 | 0.000599 | 0.000602 | 0.000605 | 0.000607 |
| 0.480 | 0.000610 | 0.000612 | 0.000615 | 0.000617 | 0.000620 | 0.000622 | 0.000625 | 0.000628 | 0.000630 | 0.000633 |
| 0.490 | 0.000635 | 0.000638 | 0.000640 | 0.000643 | 0.000646 | 0.000648 | 0.000651 | 0.000654 | 0.000656 | 0.000659 |

ATTENUATION IN DECIBELS
 THETA FROM 0.500 TO 0.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.000661 | 0.000664 | 0.000667 | 0.000669 | 0.000672 | 0.000675 | 0.000677 | 0.000680 | 0.000683 | 0.000685 |
| 0.510 | 0.000688 | 0.000691 | 0.000694 | 0.000696 | 0.000699 | 0.000702 | 0.000704 | 0.000707 | 0.000710 | 0.000713 |
| 0.520 | 0.000715 | 0.000718 | 0.000721 | 0.000724 | 0.000726 | 0.000729 | 0.000732 | 0.000735 | 0.000738 | 0.000740 |
| 0.530 | 0.000743 | 0.000746 | 0.000749 | 0.000752 | 0.000754 | 0.000757 | 0.000760 | 0.000763 | 0.000766 | 0.000769 |
| 0.540 | 0.000772 | 0.000774 | 0.000777 | 0.000780 | 0.000783 | 0.000786 | 0.000789 | 0.000792 | 0.000795 | 0.000797 |
| 0.550 | 0.000800 | 0.000803 | 0.000806 | 0.000809 | 0.000812 | 0.000815 | 0.000818 | 0.000821 | 0.000824 | 0.000827 |
| 0.560 | 0.000830 | 0.000833 | 0.000836 | 0.000839 | 0.000842 | 0.000845 | 0.000848 | 0.000851 | 0.000854 | 0.000857 |
| 0.570 | 0.000860 | 0.000863 | 0.000866 | 0.000869 | 0.000872 | 0.000875 | 0.000878 | 0.000881 | 0.000884 | 0.000887 |
| 0.580 | 0.000890 | 0.000893 | 0.000896 | 0.000899 | 0.000902 | 0.000905 | 0.000909 | 0.000912 | 0.000915 | 0.000918 |
| 0.590 | 0.000921 | 0.000924 | 0.000927 | 0.000930 | 0.000934 | 0.000937 | 0.000940 | 0.000943 | 0.000946 | 0.000949 |
| 0.600 | 0.000953 | 0.000956 | 0.000959 | 0.000962 | 0.000965 | 0.000968 | 0.000972 | 0.000975 | 0.000978 | 0.000981 |
| 0.610 | 0.000985 | 0.000988 | 0.000991 | 0.000994 | 0.000997 | 0.001001 | 0.001004 | 0.001007 | 0.001011 | 0.001014 |
| 0.620 | 0.001017 | 0.001020 | 0.001024 | 0.001027 | 0.001030 | 0.001034 | 0.001037 | 0.001040 | 0.001044 | 0.001047 |
| 0.630 | 0.001050 | 0.001054 | 0.001057 | 0.001060 | 0.001064 | 0.001067 | 0.001074 | 0.001077 | 0.001080 | 0.001083 |
| 0.640 | 0.001084 | 0.001087 | 0.001091 | 0.001094 | 0.001097 | 0.001101 | 0.001104 | 0.001108 | 0.001111 | 0.001114 |
| 0.650 | 0.001118 | 0.001121 | 0.001125 | 0.001128 | 0.001132 | 0.001135 | 0.001139 | 0.001142 | 0.001146 | 0.001149 |
| 0.660 | 0.001153 | 0.001156 | 0.001160 | 0.001163 | 0.001167 | 0.001170 | 0.001174 | 0.001177 | 0.001181 | 0.001184 |
| 0.670 | 0.001188 | 0.001191 | 0.001195 | 0.001198 | 0.001202 | 0.001206 | 0.001209 | 0.001213 | 0.001216 | 0.001220 |
| 0.680 | 0.001223 | 0.001227 | 0.001231 | 0.001234 | 0.001238 | 0.001242 | 0.001245 | 0.001249 | 0.001252 | 0.001256 |
| 0.690 | 0.001260 | 0.001263 | 0.001267 | 0.001271 | 0.001274 | 0.001278 | 0.001282 | 0.001285 | 0.001289 | 0.001293 |
| 0.700 | 0.001297 | 0.001300 | 0.001304 | 0.001308 | 0.001311 | 0.001315 | 0.001319 | 0.001323 | 0.001326 | 0.001330 |
| 0.710 | 0.001334 | 0.001338 | 0.001341 | 0.001345 | 0.001349 | 0.001353 | 0.001356 | 0.001360 | 0.001364 | 0.001368 |
| 0.720 | 0.001372 | 0.001375 | 0.001379 | 0.001383 | 0.001387 | 0.001391 | 0.001395 | 0.001398 | 0.001402 | 0.001406 |
| 0.730 | 0.001410 | 0.001414 | 0.001418 | 0.001422 | 0.001426 | 0.001429 | 0.001433 | 0.001437 | 0.001441 | 0.001445 |
| 0.740 | 0.001449 | 0.001453 | 0.001457 | 0.001461 | 0.001465 | 0.001469 | 0.001473 | 0.001476 | 0.001480 | 0.001484 |
| 0.750 | 0.001488 | 0.001492 | 0.001496 | 0.001500 | 0.001504 | 0.001508 | 0.001512 | 0.001516 | 0.001520 | 0.001524 |
| 0.760 | 0.001528 | 0.001532 | 0.001536 | 0.001540 | 0.001544 | 0.001548 | 0.001553 | 0.001557 | 0.001561 | 0.001565 |
| 0.770 | 0.001569 | 0.001573 | 0.001577 | 0.001581 | 0.001585 | 0.001589 | 0.001593 | 0.001597 | 0.001602 | 0.001606 |
| 0.780 | 0.001610 | 0.001614 | 0.001618 | 0.001622 | 0.001626 | 0.001630 | 0.001635 | 0.001639 | 0.001643 | 0.001647 |
| 0.790 | 0.001651 | 0.001656 | 0.001660 | 0.001664 | 0.001668 | 0.001672 | 0.001677 | 0.001681 | 0.001685 | 0.001689 |
| 0.800 | 0.001693 | 0.001698 | 0.001702 | 0.001706 | 0.001710 | 0.001715 | 0.001719 | 0.001723 | 0.001727 | 0.001732 |
| 0.810 | 0.001736 | 0.001740 | 0.001745 | 0.001749 | 0.001753 | 0.001758 | 0.001762 | 0.001766 | 0.001770 | 0.001775 |
| 0.820 | 0.001779 | 0.001783 | 0.001788 | 0.001792 | 0.001797 | 0.001801 | 0.001805 | 0.001810 | 0.001814 | 0.001818 |
| 0.830 | 0.001823 | 0.001827 | 0.001832 | 0.001836 | 0.001840 | 0.001845 | 0.001849 | 0.001854 | 0.001858 | 0.001863 |
| 0.840 | 0.001867 | 0.001871 | 0.001876 | 0.001880 | 0.001885 | 0.001889 | 0.001894 | 0.001898 | 0.001903 | 0.001907 |
| 0.850 | 0.001912 | 0.001916 | 0.001921 | 0.001925 | 0.001930 | 0.001934 | 0.001939 | 0.001943 | 0.001948 | 0.001952 |
| 0.860 | 0.001957 | 0.001962 | 0.001966 | 0.001971 | 0.001975 | 0.001980 | 0.001984 | 0.001989 | 0.001994 | 0.001998 |
| 0.870 | 0.002003 | 0.002007 | 0.002012 | 0.002017 | 0.002021 | 0.002026 | 0.002030 | 0.002035 | 0.002040 | 0.002044 |
| 0.880 | 0.002049 | 0.002054 | 0.002058 | 0.002063 | 0.002068 | 0.002072 | 0.002077 | 0.002082 | 0.002086 | 0.002091 |
| 0.890 | 0.002096 | 0.002101 | 0.002105 | 0.002110 | 0.002115 | 0.002119 | 0.002124 | 0.002129 | 0.002134 | 0.002138 |
| 0.900 | 0.002143 | 0.002148 | 0.002153 | 0.002158 | 0.002162 | 0.002167 | 0.002172 | 0.002177 | 0.002182 | 0.002186 |
| 0.910 | 0.002191 | 0.002196 | 0.002201 | 0.002206 | 0.002210 | 0.002215 | 0.002220 | 0.002225 | 0.002230 | 0.002235 |
| 0.920 | 0.002240 | 0.002244 | 0.002249 | 0.002254 | 0.002259 | 0.002264 | 0.002269 | 0.002274 | 0.002279 | 0.002284 |
| 0.930 | 0.002289 | 0.002293 | 0.002298 | 0.002303 | 0.002308 | 0.002313 | 0.002318 | 0.002323 | 0.002328 | 0.002333 |
| 0.940 | 0.002338 | 0.002343 | 0.002348 | 0.002353 | 0.002358 | 0.002363 | 0.002368 | 0.002373 | 0.002378 | 0.002383 |
| 0.950 | 0.002388 | 0.002393 | 0.002398 | 0.002403 | 0.002408 | 0.002413 | 0.002418 | 0.002423 | 0.002428 | 0.002433 |
| 0.960 | 0.002439 | 0.002444 | 0.002449 | 0.002454 | 0.002459 | 0.002464 | 0.002469 | 0.002474 | 0.002479 | 0.002484 |
| 0.970 | 0.002490 | 0.002495 | 0.002500 | 0.002505 | 0.002510 | 0.002515 | 0.002521 | 0.002526 | 0.002531 | 0.002536 |
| 0.980 | 0.002541 | 0.002546 | 0.002552 | 0.002557 | 0.002562 | 0.002567 | 0.002572 | 0.002578 | 0.002583 | 0.002588 |
| 0.990 | 0.002593 | 0.002599 | 0.002604 | 0.002609 | 0.002614 | 0.002620 | 0.002625 | 0.002630 | 0.002635 | 0.002641 |

ATTENUATION IN DECIBELS
THETA FROM 1.000 TO 1.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.002646 | 0.002651 | 0.002657 | 0.002662 | 0.002667 | 0.002673 | 0.002678 | 0.002683 | 0.002689 | 0.002694 |
| 0.010 | 0.002699 | 0.002705 | 0.002710 | 0.002715 | 0.002721 | 0.002726 | 0.002731 | 0.002737 | 0.002742 | 0.002748 |
| 0.020 | 0.002753 | 0.002758 | 0.002764 | 0.002769 | 0.002775 | 0.002780 | 0.002785 | 0.002791 | 0.002796 | 0.002802 |
| 0.030 | 0.002807 | 0.002813 | 0.002818 | 0.002824 | 0.002829 | 0.002834 | 0.002840 | 0.002845 | 0.002851 | 0.002856 |
| 0.040 | 0.002862 | 0.002867 | 0.002873 | 0.002878 | 0.002884 | 0.002889 | 0.002895 | 0.002901 | 0.002906 | 0.002912 |
| 0.050 | 0.002917 | 0.002923 | 0.002928 | 0.002934 | 0.002940 | 0.002945 | 0.002951 | 0.002956 | 0.002962 | 0.002967 |
| 0.060 | 0.002973 | 0.002979 | 0.002984 | 0.002990 | 0.002996 | 0.003001 | 0.003007 | 0.003012 | 0.003018 | 0.003024 |
| 0.070 | 0.003029 | 0.003035 | 0.003041 | 0.003046 | 0.003052 | 0.003058 | 0.003064 | 0.003069 | 0.003075 | 0.003081 |
| 0.080 | 0.003086 | 0.003092 | 0.003098 | 0.003103 | 0.003109 | 0.003115 | 0.003121 | 0.003126 | 0.003132 | 0.003138 |
| 0.090 | 0.003144 | 0.003150 | 0.003155 | 0.003161 | 0.003167 | 0.003173 | 0.003178 | 0.003184 | 0.003190 | 0.003196 |
| 0.100 | 0.003202 | 0.003208 | 0.003213 | 0.003219 | 0.003225 | 0.003231 | 0.003237 | 0.003243 | 0.003248 | 0.003254 |
| 0.110 | 0.003260 | 0.003266 | 0.003272 | 0.003278 | 0.003284 | 0.003290 | 0.003296 | 0.003301 | 0.003307 | 0.003313 |
| 0.120 | 0.003319 | 0.003325 | 0.003331 | 0.003337 | 0.003343 | 0.003349 | 0.003355 | 0.003361 | 0.003367 | 0.003373 |
| 0.130 | 0.003379 | 0.003385 | 0.003391 | 0.003397 | 0.003403 | 0.003409 | 0.003415 | 0.003421 | 0.003427 | 0.003433 |
| 0.140 | 0.003439 | 0.003445 | 0.003451 | 0.003457 | 0.003463 | 0.003469 | 0.003475 | 0.003481 | 0.003487 | 0.003493 |
| 0.150 | 0.003499 | 0.003505 | 0.003512 | 0.003518 | 0.003524 | 0.003530 | 0.003536 | 0.003542 | 0.003548 | 0.003554 |
| 0.160 | 0.003561 | 0.003567 | 0.003573 | 0.003579 | 0.003585 | 0.003591 | 0.003597 | 0.003604 | 0.003610 | 0.003616 |
| 0.170 | 0.003622 | 0.003628 | 0.003635 | 0.003641 | 0.003647 | 0.003653 | 0.003659 | 0.003666 | 0.003672 | 0.003678 |
| 0.180 | 0.003684 | 0.003691 | 0.003697 | 0.003703 | 0.003709 | 0.003716 | 0.003722 | 0.003728 | 0.003734 | 0.003741 |
| 0.190 | 0.003747 | 0.003753 | 0.003760 | 0.003766 | 0.003772 | 0.003779 | 0.003785 | 0.003791 | 0.003798 | 0.003804 |
| 0.200 | 0.003810 | 0.003817 | 0.003823 | 0.003829 | 0.003836 | 0.003842 | 0.003849 | 0.003855 | 0.003861 | 0.003868 |
| 0.210 | 0.003874 | 0.003881 | 0.003887 | 0.003893 | 0.003899 | 0.003906 | 0.003913 | 0.003919 | 0.003926 | 0.003932 |
| 0.220 | 0.003938 | 0.003945 | 0.003951 | 0.003958 | 0.003964 | 0.003971 | 0.003977 | 0.003984 | 0.003990 | 0.003997 |
| 0.230 | 0.004003 | 0.004010 | 0.004016 | 0.004023 | 0.004029 | 0.004036 | 0.004042 | 0.004049 | 0.004055 | 0.004062 |
| 0.240 | 0.004069 | 0.004075 | 0.004082 | 0.004088 | 0.004095 | 0.004101 | 0.004108 | 0.004115 | 0.004121 | 0.004128 |
| 0.250 | 0.004134 | 0.004141 | 0.004148 | 0.004154 | 0.004161 | 0.004168 | 0.004174 | 0.004181 | 0.004188 | 0.004194 |
| 0.260 | 0.004201 | 0.004208 | 0.004214 | 0.004221 | 0.004228 | 0.004234 | 0.004241 | 0.004248 | 0.004254 | 0.004261 |
| 0.270 | 0.004268 | 0.004275 | 0.004281 | 0.004288 | 0.004295 | 0.004302 | 0.004308 | 0.004315 | 0.004322 | 0.004329 |
| 0.280 | 0.004335 | 0.004342 | 0.004349 | 0.004356 | 0.004362 | 0.004369 | 0.004376 | 0.004383 | 0.004390 | 0.004397 |
| 0.290 | 0.004403 | 0.004410 | 0.004417 | 0.004424 | 0.004431 | 0.004438 | 0.004444 | 0.004451 | 0.004458 | 0.004465 |
| 0.300 | 0.004472 | 0.004479 | 0.004486 | 0.004493 | 0.004499 | 0.004506 | 0.004513 | 0.004520 | 0.004527 | 0.004534 |
| 0.310 | 0.004541 | 0.004548 | 0.004555 | 0.004562 | 0.004569 | 0.004576 | 0.004583 | 0.004590 | 0.004597 | 0.004604 |
| 0.320 | 0.004611 | 0.004618 | 0.004625 | 0.004632 | 0.004639 | 0.004646 | 0.004653 | 0.004660 | 0.004667 | 0.004674 |
| 0.330 | 0.004681 | 0.004688 | 0.004695 | 0.004702 | 0.004709 | 0.004716 | 0.004723 | 0.004730 | 0.004737 | 0.004744 |
| 0.340 | 0.004751 | 0.004758 | 0.004766 | 0.004773 | 0.004780 | 0.004787 | 0.004794 | 0.004801 | 0.004808 | 0.004815 |
| 0.350 | 0.004823 | 0.004830 | 0.004837 | 0.004844 | 0.004851 | 0.004858 | 0.004866 | 0.004873 | 0.004880 | 0.004887 |
| 0.360 | 0.004894 | 0.004901 | 0.004909 | 0.004916 | 0.004923 | 0.004930 | 0.004938 | 0.004945 | 0.004952 | 0.004959 |
| 0.370 | 0.004967 | 0.004974 | 0.004981 | 0.004988 | 0.004996 | 0.005003 | 0.005010 | 0.005017 | 0.005025 | 0.005032 |
| 0.380 | 0.005039 | 0.005047 | 0.005054 | 0.005061 | 0.005069 | 0.005076 | 0.005083 | 0.005091 | 0.005098 | 0.005105 |
| 0.390 | 0.005113 | 0.005120 | 0.005127 | 0.005135 | 0.005142 | 0.005149 | 0.005157 | 0.005164 | 0.005172 | 0.005179 |
| 0.400 | 0.005186 | 0.005194 | 0.005201 | 0.005209 | 0.005216 | 0.005224 | 0.005231 | 0.005238 | 0.005246 | 0.005253 |
| 0.410 | 0.005261 | 0.005268 | 0.005276 | 0.005283 | 0.005291 | 0.005298 | 0.005306 | 0.005313 | 0.005321 | 0.005328 |
| 0.420 | 0.005336 | 0.005343 | 0.005351 | 0.005358 | 0.005366 | 0.005373 | 0.005381 | 0.005388 | 0.005396 | 0.005404 |
| 0.430 | 0.005411 | 0.005419 | 0.005426 | 0.005434 | 0.005441 | 0.005449 | 0.005457 | 0.005464 | 0.005472 | 0.005479 |
| 0.440 | 0.005487 | 0.005495 | 0.005502 | 0.005510 | 0.005518 | 0.005525 | 0.005533 | 0.005541 | 0.005548 | 0.005556 |
| 0.450 | 0.005564 | 0.005571 | 0.005579 | 0.005587 | 0.005594 | 0.005602 | 0.005610 | 0.005617 | 0.005625 | 0.005633 |
| 0.460 | 0.005641 | 0.005648 | 0.005656 | 0.005664 | 0.005672 | 0.005679 | 0.005687 | 0.005695 | 0.005703 | 0.005710 |
| 0.470 | 0.005718 | 0.005726 | 0.005734 | 0.005741 | 0.005749 | 0.005757 | 0.005765 | 0.005773 | 0.005781 | 0.005788 |
| 0.480 | 0.005796 | 0.005804 | 0.005812 | 0.005820 | 0.005828 | 0.005835 | 0.005843 | 0.005851 | 0.005859 | 0.005867 |
| 0.490 | 0.005875 | 0.005883 | 0.005891 | 0.005898 | 0.005906 | 0.005914 | 0.005922 | 0.005930 | 0.005938 | 0.005946 |

ATTENUATION IN DECIBELS
 THETA FROM 1.500 TO 1.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.005954 | 0.005962 | 0.005970 | 0.005978 | 0.005986 | 0.005994 | 0.006002 | 0.006010 | 0.006018 | 0.006026 |
| 0.510 | 0.006034 | 0.006042 | 0.006050 | 0.006058 | 0.006066 | 0.006074 | 0.006082 | 0.006090 | 0.006098 | 0.006106 |
| 0.520 | 0.006114 | 0.006122 | 0.006130 | 0.006138 | 0.006146 | 0.006154 | 0.006162 | 0.006170 | 0.006178 | 0.006186 |
| 0.530 | 0.006194 | 0.006203 | 0.006211 | 0.006219 | 0.006227 | 0.006235 | 0.006243 | 0.006251 | 0.006259 | 0.006268 |
| 0.540 | 0.006276 | 0.006284 | 0.006292 | 0.006300 | 0.006308 | 0.006317 | 0.006325 | 0.006333 | 0.006341 | 0.006349 |
| 0.550 | 0.006357 | 0.006366 | 0.006374 | 0.006382 | 0.006390 | 0.006399 | 0.006407 | 0.006415 | 0.006423 | 0.006432 |
| 0.560 | 0.006440 | 0.006448 | 0.006456 | 0.006465 | 0.006473 | 0.006481 | 0.006489 | 0.006498 | 0.006506 | 0.006514 |
| 0.570 | 0.006523 | 0.006531 | 0.006539 | 0.006548 | 0.006556 | 0.006564 | 0.006573 | 0.006581 | 0.006589 | 0.006598 |
| 0.580 | 0.006606 | 0.006614 | 0.006623 | 0.006631 | 0.006639 | 0.006648 | 0.006656 | 0.006665 | 0.006673 | 0.006681 |
| 0.590 | 0.006690 | 0.006698 | 0.006707 | 0.006715 | 0.006724 | 0.006732 | 0.006740 | 0.006749 | 0.006757 | 0.006766 |
| 0.600 | 0.006774 | 0.006783 | 0.006791 | 0.006800 | 0.006808 | 0.006817 | 0.006825 | 0.006834 | 0.006842 | 0.006851 |
| 0.610 | 0.006859 | 0.006868 | 0.006876 | 0.006885 | 0.006893 | 0.006902 | 0.006910 | 0.006919 | 0.006928 | 0.006936 |
| 0.620 | 0.006945 | 0.006953 | 0.006962 | 0.006971 | 0.006979 | 0.006988 | 0.006996 | 0.007005 | 0.007014 | 0.007022 |
| 0.630 | 0.007031 | 0.007039 | 0.007048 | 0.007057 | 0.007065 | 0.007074 | 0.007083 | 0.007091 | 0.007100 | 0.007109 |
| 0.640 | 0.007117 | 0.007126 | 0.007135 | 0.007143 | 0.007152 | 0.007161 | 0.007169 | 0.007178 | 0.007187 | 0.007196 |
| 0.650 | 0.007204 | 0.007213 | 0.007222 | 0.007231 | 0.007239 | 0.007248 | 0.007257 | 0.007266 | 0.007274 | 0.007283 |
| 0.660 | 0.007292 | 0.007301 | 0.007310 | 0.007318 | 0.007327 | 0.007336 | 0.007345 | 0.007354 | 0.007362 | 0.007371 |
| 0.670 | 0.007360 | 0.007369 | 0.007378 | 0.007387 | 0.007396 | 0.007404 | 0.007413 | 0.007422 | 0.007431 | 0.007440 |
| 0.680 | 0.007469 | 0.007478 | 0.007487 | 0.007495 | 0.007504 | 0.007513 | 0.007522 | 0.007531 | 0.007540 | 0.007549 |
| 0.690 | 0.007558 | 0.007567 | 0.007576 | 0.007585 | 0.007594 | 0.007603 | 0.007612 | 0.007621 | 0.007630 | 0.007639 |
| 0.700 | 0.007648 | 0.007657 | 0.007666 | 0.007675 | 0.007684 | 0.007693 | 0.007702 | 0.007711 | 0.007720 | 0.007729 |
| 0.710 | 0.007738 | 0.007747 | 0.007756 | 0.007765 | 0.007774 | 0.007783 | 0.007792 | 0.007801 | 0.007811 | 0.007820 |
| 0.720 | 0.007829 | 0.007838 | 0.007847 | 0.007856 | 0.007865 | 0.007874 | 0.007883 | 0.007893 | 0.007902 | 0.007911 |
| 0.730 | 0.007920 | 0.007929 | 0.007938 | 0.007948 | 0.007957 | 0.007966 | 0.007975 | 0.007984 | 0.007993 | 0.008003 |
| 0.740 | 0.008012 | 0.008021 | 0.008030 | 0.008040 | 0.008049 | 0.008058 | 0.008067 | 0.008076 | 0.008086 | 0.008095 |
| 0.750 | 0.008104 | 0.008114 | 0.008123 | 0.008132 | 0.008141 | 0.008151 | 0.008160 | 0.008169 | 0.008179 | 0.008188 |
| 0.760 | 0.008197 | 0.008206 | 0.008216 | 0.008225 | 0.008234 | 0.008244 | 0.008253 | 0.008262 | 0.008272 | 0.008281 |
| 0.770 | 0.008291 | 0.008300 | 0.008309 | 0.008319 | 0.008328 | 0.008337 | 0.008347 | 0.008356 | 0.008366 | 0.008375 |
| 0.780 | 0.008385 | 0.008394 | 0.008403 | 0.008413 | 0.008422 | 0.008432 | 0.008441 | 0.008451 | 0.008460 | 0.008470 |
| 0.790 | 0.008479 | 0.008488 | 0.008498 | 0.008507 | 0.008517 | 0.008526 | 0.008536 | 0.008545 | 0.008555 | 0.008565 |
| 0.800 | 0.008574 | 0.008584 | 0.008593 | 0.008603 | 0.008612 | 0.008622 | 0.008631 | 0.008641 | 0.008650 | 0.008660 |
| 0.810 | 0.008670 | 0.008679 | 0.008689 | 0.008698 | 0.008708 | 0.008718 | 0.008727 | 0.008737 | 0.008746 | 0.008756 |
| 0.820 | 0.008766 | 0.008775 | 0.008785 | 0.008795 | 0.008804 | 0.008814 | 0.008824 | 0.008833 | 0.008843 | 0.008853 |
| 0.830 | 0.008862 | 0.008872 | 0.008882 | 0.008891 | 0.008901 | 0.008911 | 0.008920 | 0.008930 | 0.008940 | 0.008950 |
| 0.840 | 0.008957 | 0.008967 | 0.008977 | 0.008987 | 0.008997 | 0.009006 | 0.009016 | 0.009026 | 0.009037 | 0.009047 |
| 0.850 | 0.009057 | 0.009067 | 0.009077 | 0.009086 | 0.009096 | 0.009106 | 0.009116 | 0.009126 | 0.009136 | 0.009145 |
| 0.860 | 0.009155 | 0.009165 | 0.009175 | 0.009185 | 0.009195 | 0.009205 | 0.009214 | 0.009224 | 0.009234 | 0.009244 |
| 0.870 | 0.009254 | 0.009264 | 0.009274 | 0.009284 | 0.009294 | 0.009304 | 0.009313 | 0.009323 | 0.009333 | 0.009343 |
| 0.880 | 0.009353 | 0.009363 | 0.009373 | 0.009383 | 0.009393 | 0.009403 | 0.009413 | 0.009423 | 0.009433 | 0.009443 |
| 0.890 | 0.009453 | 0.009463 | 0.009473 | 0.009483 | 0.009493 | 0.009503 | 0.009513 | 0.009523 | 0.009533 | 0.009543 |
| 0.900 | 0.009553 | 0.009563 | 0.009573 | 0.009584 | 0.009594 | 0.009604 | 0.009614 | 0.009624 | 0.009634 | 0.009644 |
| 0.910 | 0.009654 | 0.009664 | 0.009674 | 0.009685 | 0.009695 | 0.009705 | 0.009715 | 0.009725 | 0.009735 | 0.009745 |
| 0.920 | 0.009756 | 0.009766 | 0.009776 | 0.009786 | 0.009796 | 0.009806 | 0.009817 | 0.009827 | 0.009837 | 0.009847 |
| 0.930 | 0.009857 | 0.009868 | 0.009878 | 0.009888 | 0.009898 | 0.009909 | 0.009919 | 0.009929 | 0.009939 | 0.009950 |
| 0.940 | 0.009960 | 0.009970 | 0.009980 | 0.009991 | 0.010001 | 0.010011 | 0.010022 | 0.010032 | 0.010042 | 0.010053 |
| 0.950 | 0.010063 | 0.010073 | 0.010084 | 0.010094 | 0.010104 | 0.010115 | 0.010125 | 0.010135 | 0.010146 | 0.010156 |
| 0.960 | 0.010166 | 0.010177 | 0.010187 | 0.010198 | 0.010208 | 0.010218 | 0.010229 | 0.010239 | 0.010250 | 0.010260 |
| 0.970 | 0.010270 | 0.010281 | 0.010291 | 0.010302 | 0.010312 | 0.010323 | 0.010333 | 0.010344 | 0.010354 | 0.010364 |
| 0.980 | 0.010375 | 0.010385 | 0.010396 | 0.010406 | 0.010417 | 0.010427 | 0.010438 | 0.010448 | 0.010459 | 0.010469 |
| 0.990 | 0.010480 | 0.010491 | 0.010501 | 0.010512 | 0.010522 | 0.010533 | 0.010543 | 0.010554 | 0.010564 | 0.010575 |

ATTENUATION IN DECIBELS
 THETA FROM 2.000 TO 2.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.010586 | 0.010596 | 0.010607 | 0.010617 | 0.010628 | 0.010639 | 0.010649 | 0.010660 | 0.010671 | 0.010681 |
| 0.010 | 0.010692 | 0.010702 | 0.010713 | 0.010724 | 0.010734 | 0.010745 | 0.010756 | 0.010766 | 0.010777 | 0.010788 |
| 0.020 | 0.010798 | 0.010809 | 0.010820 | 0.010831 | 0.010841 | 0.010852 | 0.010863 | 0.010873 | 0.010884 | 0.010895 |
| 0.030 | 0.010906 | 0.010916 | 0.010927 | 0.010938 | 0.010949 | 0.010959 | 0.010970 | 0.010981 | 0.010992 | 0.011003 |
| 0.040 | 0.011013 | 0.011024 | 0.011035 | 0.011046 | 0.011057 | 0.011067 | 0.011078 | 0.011089 | 0.011100 | 0.011111 |
| 0.050 | 0.011122 | 0.011133 | 0.011143 | 0.011154 | 0.011165 | 0.011176 | 0.011187 | 0.011198 | 0.011209 | 0.011220 |
| 0.060 | 0.011230 | 0.011241 | 0.011252 | 0.011263 | 0.011274 | 0.011285 | 0.011296 | 0.011307 | 0.011318 | 0.011329 |
| 0.070 | 0.011340 | 0.011351 | 0.011362 | 0.011373 | 0.011384 | 0.011395 | 0.011406 | 0.011417 | 0.011428 | 0.011439 |
| 0.080 | 0.011450 | 0.011461 | 0.011472 | 0.011483 | 0.011494 | 0.011505 | 0.011516 | 0.011527 | 0.011538 | 0.011549 |
| 0.090 | 0.011560 | 0.011571 | 0.011582 | 0.011593 | 0.011604 | 0.011615 | 0.011626 | 0.011638 | 0.011649 | 0.011660 |
| 0.100 | 0.011671 | 0.011682 | 0.011693 | 0.011704 | 0.011715 | 0.011727 | 0.011738 | 0.011749 | 0.011760 | 0.011771 |
| 0.110 | 0.011782 | 0.011794 | 0.011805 | 0.011816 | 0.011827 | 0.011838 | 0.011849 | 0.011861 | 0.011872 | 0.011883 |
| 0.120 | 0.011894 | 0.011906 | 0.011917 | 0.011928 | 0.011939 | 0.011951 | 0.011962 | 0.011973 | 0.011984 | 0.011996 |
| 0.130 | 0.012007 | 0.012018 | 0.012029 | 0.012041 | 0.012052 | 0.012063 | 0.012075 | 0.012086 | 0.012097 | 0.012109 |
| 0.140 | 0.012120 | 0.012131 | 0.012143 | 0.012154 | 0.012165 | 0.012177 | 0.012188 | 0.012199 | 0.012211 | 0.012222 |
| 0.150 | 0.012233 | 0.012245 | 0.012256 | 0.012268 | 0.012279 | 0.012290 | 0.012302 | 0.012313 | 0.012325 | 0.012336 |
| 0.160 | 0.012348 | 0.012359 | 0.012370 | 0.012382 | 0.012393 | 0.012405 | 0.012416 | 0.012428 | 0.012439 | 0.012451 |
| 0.170 | 0.012462 | 0.012474 | 0.012485 | 0.012497 | 0.012508 | 0.012520 | 0.012531 | 0.012543 | 0.012554 | 0.012566 |
| 0.180 | 0.012577 | 0.012589 | 0.012600 | 0.012612 | 0.012623 | 0.012635 | 0.012647 | 0.012658 | 0.012670 | 0.012681 |
| 0.190 | 0.012693 | 0.012705 | 0.012716 | 0.012728 | 0.012739 | 0.012751 | 0.012763 | 0.012774 | 0.012786 | 0.012798 |
| 0.200 | 0.012809 | 0.012821 | 0.012832 | 0.012844 | 0.012856 | 0.012867 | 0.012879 | 0.012891 | 0.012903 | 0.012914 |
| 0.210 | 0.012926 | 0.012938 | 0.012949 | 0.012961 | 0.012973 | 0.012984 | 0.012996 | 0.013008 | 0.013020 | 0.013031 |
| 0.220 | 0.013043 | 0.013055 | 0.013067 | 0.013078 | 0.013090 | 0.013102 | 0.013114 | 0.013126 | 0.013137 | 0.013149 |
| 0.230 | 0.013161 | 0.013173 | 0.013185 | 0.013196 | 0.013208 | 0.013220 | 0.013232 | 0.013244 | 0.013256 | 0.013267 |
| 0.240 | 0.013279 | 0.013291 | 0.013303 | 0.013315 | 0.013327 | 0.013339 | 0.013351 | 0.013362 | 0.013374 | 0.013386 |
| 0.250 | 0.013398 | 0.013410 | 0.013422 | 0.013434 | 0.013446 | 0.013458 | 0.013470 | 0.013482 | 0.013494 | 0.013506 |
| 0.260 | 0.013518 | 0.013530 | 0.013542 | 0.013553 | 0.013565 | 0.013577 | 0.013589 | 0.013601 | 0.013613 | 0.013625 |
| 0.270 | 0.013637 | 0.013650 | 0.013662 | 0.013674 | 0.013686 | 0.013698 | 0.013710 | 0.013722 | 0.013734 | 0.013746 |
| 0.280 | 0.013758 | 0.013770 | 0.013782 | 0.013794 | 0.013806 | 0.013818 | 0.013830 | 0.013842 | 0.013854 | 0.013866 |
| 0.290 | 0.013879 | 0.013891 | 0.013903 | 0.013915 | 0.013927 | 0.013939 | 0.013951 | 0.013963 | 0.013975 | 0.013988 |
| 0.300 | 0.014000 | 0.014013 | 0.014025 | 0.014037 | 0.014049 | 0.014061 | 0.014074 | 0.014086 | 0.014098 | 0.014110 |
| 0.310 | 0.014122 | 0.014135 | 0.014147 | 0.014159 | 0.014171 | 0.014184 | 0.014196 | 0.014208 | 0.014220 | 0.014233 |
| 0.320 | 0.014245 | 0.014257 | 0.014270 | 0.014282 | 0.014294 | 0.014307 | 0.014319 | 0.014331 | 0.014343 | 0.014356 |
| 0.330 | 0.014368 | 0.014380 | 0.014393 | 0.014405 | 0.014418 | 0.014430 | 0.014442 | 0.014455 | 0.014467 | 0.014479 |
| 0.340 | 0.014492 | 0.014504 | 0.014517 | 0.014529 | 0.014541 | 0.014554 | 0.014566 | 0.014579 | 0.014591 | 0.014603 |
| 0.350 | 0.014616 | 0.014628 | 0.014641 | 0.014653 | 0.014666 | 0.014678 | 0.014691 | 0.014703 | 0.014716 | 0.014728 |
| 0.360 | 0.014741 | 0.014753 | 0.014766 | 0.014778 | 0.014791 | 0.014803 | 0.014816 | 0.014828 | 0.014841 | 0.014853 |
| 0.370 | 0.014866 | 0.014878 | 0.014891 | 0.014904 | 0.014916 | 0.014929 | 0.014941 | 0.014954 | 0.014966 | 0.014979 |
| 0.380 | 0.014992 | 0.015004 | 0.015017 | 0.015029 | 0.015042 | 0.015055 | 0.015067 | 0.015080 | 0.015093 | 0.015105 |
| 0.390 | 0.015118 | 0.015131 | 0.015143 | 0.015156 | 0.015169 | 0.015181 | 0.015194 | 0.015207 | 0.015219 | 0.015232 |
| 0.400 | 0.015245 | 0.015257 | 0.015270 | 0.015283 | 0.015296 | 0.015308 | 0.015321 | 0.015334 | 0.015347 | 0.015359 |
| 0.410 | 0.015372 | 0.015385 | 0.015398 | 0.015410 | 0.015423 | 0.015436 | 0.015449 | 0.015461 | 0.015474 | 0.015487 |
| 0.420 | 0.015500 | 0.015513 | 0.015526 | 0.015538 | 0.015551 | 0.015564 | 0.015577 | 0.015590 | 0.015603 | 0.015615 |
| 0.430 | 0.015628 | 0.015641 | 0.015654 | 0.015667 | 0.015680 | 0.015693 | 0.015706 | 0.015718 | 0.015731 | 0.015744 |
| 0.440 | 0.015757 | 0.015770 | 0.015783 | 0.015796 | 0.015809 | 0.015822 | 0.015835 | 0.015848 | 0.015861 | 0.015874 |
| 0.450 | 0.015887 | 0.015900 | 0.015913 | 0.015926 | 0.015939 | 0.015952 | 0.015965 | 0.015978 | 0.015991 | 0.016004 |
| 0.460 | 0.016017 | 0.016030 | 0.016043 | 0.016056 | 0.016069 | 0.016082 | 0.016095 | 0.016108 | 0.016121 | 0.016134 |
| 0.470 | 0.016147 | 0.016160 | 0.016173 | 0.016186 | 0.016200 | 0.016213 | 0.016226 | 0.016239 | 0.016252 | 0.016265 |
| 0.480 | 0.016278 | 0.016291 | 0.016305 | 0.016318 | 0.016331 | 0.016344 | 0.016357 | 0.016370 | 0.016383 | 0.016397 |
| 0.490 | 0.016410 | 0.016423 | 0.016436 | 0.016449 | 0.016463 | 0.016476 | 0.016489 | 0.016502 | 0.016515 | 0.016529 |

ATTENUATION IN DECIBELS
THETA FROM 2.500 TO 2.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.016542 | 0.016555 | 0.016568 | 0.016582 | 0.016595 | 0.016608 | 0.016621 | 0.016635 | 0.016648 | 0.016661 |
| 0.510 | 0.016675 | 0.016688 | 0.016701 | 0.016714 | 0.016728 | 0.016741 | 0.016754 | 0.016768 | 0.016781 | 0.016794 |
| 0.520 | 0.016808 | 0.016821 | 0.016834 | 0.016848 | 0.016861 | 0.016875 | 0.016888 | 0.016901 | 0.016915 | 0.016928 |
| 0.530 | 0.016941 | 0.016955 | 0.016968 | 0.016982 | 0.016995 | 0.017009 | 0.017022 | 0.017035 | 0.017049 | 0.017062 |
| 0.540 | 0.017076 | 0.017089 | 0.017103 | 0.017116 | 0.017130 | 0.017143 | 0.017157 | 0.017170 | 0.017183 | 0.017197 |
| 0.550 | 0.017210 | 0.017224 | 0.017237 | 0.017251 | 0.017265 | 0.017278 | 0.017292 | 0.017305 | 0.017319 | 0.017332 |
| 0.560 | 0.017346 | 0.017359 | 0.017373 | 0.017386 | 0.017400 | 0.017414 | 0.017427 | 0.017441 | 0.017454 | 0.017468 |
| 0.570 | 0.017482 | 0.017495 | 0.017509 | 0.017522 | 0.017536 | 0.017550 | 0.017563 | 0.017577 | 0.017591 | 0.017604 |
| 0.580 | 0.017618 | 0.017632 | 0.017645 | 0.017659 | 0.017673 | 0.017686 | 0.017700 | 0.017714 | 0.017727 | 0.017741 |
| 0.590 | 0.017755 | 0.017769 | 0.017782 | 0.017796 | 0.017810 | 0.017823 | 0.017837 | 0.017851 | 0.017865 | 0.017878 |
| 0.600 | 0.017892 | 0.017906 | 0.017920 | 0.017934 | 0.017947 | 0.017961 | 0.017975 | 0.017989 | 0.018003 | 0.018016 |
| 0.610 | 0.018030 | 0.018044 | 0.018058 | 0.018072 | 0.018086 | 0.018099 | 0.018113 | 0.018127 | 0.018141 | 0.018155 |
| 0.620 | 0.018169 | 0.018183 | 0.018196 | 0.018210 | 0.018224 | 0.018238 | 0.018252 | 0.018266 | 0.018280 | 0.018294 |
| 0.630 | 0.018308 | 0.018322 | 0.018336 | 0.018349 | 0.018363 | 0.018377 | 0.018391 | 0.018405 | 0.018419 | 0.018433 |
| 0.640 | 0.018447 | 0.018461 | 0.018475 | 0.018489 | 0.018503 | 0.018517 | 0.018531 | 0.018545 | 0.018559 | 0.018573 |
| 0.650 | 0.018587 | 0.018601 | 0.018615 | 0.018629 | 0.018643 | 0.018657 | 0.018672 | 0.018686 | 0.018700 | 0.018714 |
| 0.660 | 0.018728 | 0.018742 | 0.018756 | 0.018770 | 0.018784 | 0.018798 | 0.018812 | 0.018827 | 0.018841 | 0.018855 |
| 0.670 | 0.018869 | 0.018883 | 0.018897 | 0.018911 | 0.018926 | 0.018940 | 0.018954 | 0.018968 | 0.018982 | 0.018996 |
| 0.680 | 0.019011 | 0.019025 | 0.019039 | 0.019053 | 0.019067 | 0.019082 | 0.019096 | 0.019110 | 0.019124 | 0.019139 |
| 0.690 | 0.019153 | 0.019167 | 0.019181 | 0.019196 | 0.019210 | 0.019224 | 0.019238 | 0.019253 | 0.019267 | 0.019281 |
| 0.700 | 0.019296 | 0.019310 | 0.019324 | 0.019338 | 0.019353 | 0.019367 | 0.019381 | 0.019396 | 0.019410 | 0.019424 |
| 0.710 | 0.019439 | 0.019453 | 0.019468 | 0.019482 | 0.019496 | 0.019511 | 0.019525 | 0.019539 | 0.019554 | 0.019568 |
| 0.720 | 0.019583 | 0.019597 | 0.019611 | 0.019626 | 0.019640 | 0.019655 | 0.019669 | 0.019684 | 0.019698 | 0.019712 |
| 0.730 | 0.019727 | 0.019741 | 0.019756 | 0.019770 | 0.019785 | 0.019799 | 0.019814 | 0.019828 | 0.019843 | 0.019857 |
| 0.740 | 0.019872 | 0.019886 | 0.019901 | 0.019915 | 0.019930 | 0.019944 | 0.019959 | 0.019973 | 0.019988 | 0.020003 |
| 0.750 | 0.020017 | 0.020032 | 0.020046 | 0.020061 | 0.020075 | 0.020090 | 0.020105 | 0.020119 | 0.020134 | 0.020148 |
| 0.760 | 0.020163 | 0.020178 | 0.020192 | 0.020207 | 0.020222 | 0.020236 | 0.020251 | 0.020265 | 0.020280 | 0.020295 |
| 0.770 | 0.020309 | 0.020324 | 0.020338 | 0.020353 | 0.020368 | 0.020383 | 0.020398 | 0.020412 | 0.020427 | 0.020442 |
| 0.780 | 0.020456 | 0.020471 | 0.020486 | 0.020501 | 0.020515 | 0.020530 | 0.020545 | 0.020560 | 0.020574 | 0.020589 |
| 0.790 | 0.020604 | 0.020619 | 0.020633 | 0.020648 | 0.020663 | 0.020678 | 0.020693 | 0.020707 | 0.020722 | 0.020737 |
| 0.800 | 0.020752 | 0.020767 | 0.020782 | 0.020796 | 0.020811 | 0.020826 | 0.020841 | 0.020856 | 0.020871 | 0.020886 |
| 0.810 | 0.020900 | 0.020915 | 0.020930 | 0.020945 | 0.020960 | 0.020975 | 0.020990 | 0.021005 | 0.021020 | 0.021035 |
| 0.820 | 0.021050 | 0.021064 | 0.021079 | 0.021094 | 0.021109 | 0.021124 | 0.021139 | 0.021154 | 0.021169 | 0.021184 |
| 0.830 | 0.021199 | 0.021214 | 0.021229 | 0.021244 | 0.021259 | 0.021274 | 0.021289 | 0.021304 | 0.021319 | 0.021334 |
| 0.840 | 0.021349 | 0.021364 | 0.021379 | 0.021394 | 0.021410 | 0.021425 | 0.021440 | 0.021455 | 0.021470 | 0.021485 |
| 0.850 | 0.021500 | 0.021515 | 0.021530 | 0.021545 | 0.021560 | 0.021576 | 0.021591 | 0.021606 | 0.021621 | 0.021636 |
| 0.860 | 0.021651 | 0.021666 | 0.021681 | 0.021697 | 0.021712 | 0.021727 | 0.021742 | 0.021757 | 0.021773 | 0.021788 |
| 0.870 | 0.021803 | 0.021818 | 0.021833 | 0.021849 | 0.021864 | 0.021879 | 0.021894 | 0.021909 | 0.021925 | 0.021940 |
| 0.880 | 0.021955 | 0.021970 | 0.021986 | 0.022001 | 0.022016 | 0.022032 | 0.022047 | 0.022062 | 0.022077 | 0.022093 |
| 0.890 | 0.022108 | 0.022123 | 0.022139 | 0.022154 | 0.022169 | 0.022185 | 0.022200 | 0.022215 | 0.022231 | 0.022246 |
| 0.900 | 0.022261 | 0.022277 | 0.022292 | 0.022307 | 0.022323 | 0.022338 | 0.022354 | 0.022369 | 0.022384 | 0.022400 |
| 0.910 | 0.022415 | 0.022431 | 0.022446 | 0.022461 | 0.022477 | 0.022492 | 0.022508 | 0.022523 | 0.022539 | 0.022554 |
| 0.920 | 0.022570 | 0.022585 | 0.022600 | 0.022616 | 0.022631 | 0.022647 | 0.022662 | 0.022678 | 0.022693 | 0.022709 |
| 0.930 | 0.022724 | 0.022740 | 0.022756 | 0.022771 | 0.022787 | 0.022802 | 0.022818 | 0.022833 | 0.022849 | 0.022864 |
| 0.940 | 0.022880 | 0.022895 | 0.022911 | 0.022927 | 0.022942 | 0.022958 | 0.022973 | 0.022989 | 0.023005 | 0.023020 |
| 0.950 | 0.023036 | 0.023052 | 0.023067 | 0.023083 | 0.023098 | 0.023114 | 0.023130 | 0.023145 | 0.023161 | 0.023177 |
| 0.960 | 0.023192 | 0.023208 | 0.023224 | 0.023239 | 0.023255 | 0.023271 | 0.023287 | 0.023302 | 0.023318 | 0.023334 |
| 0.970 | 0.023349 | 0.023365 | 0.023381 | 0.023397 | 0.023412 | 0.023428 | 0.023444 | 0.023460 | 0.023476 | 0.023491 |
| 0.980 | 0.023507 | 0.023523 | 0.023539 | 0.023554 | 0.023570 | 0.023586 | 0.023602 | 0.023618 | 0.023633 | 0.023649 |
| 0.990 | 0.023665 | 0.023681 | 0.023697 | 0.023713 | 0.023729 | 0.023744 | 0.023760 | 0.023776 | 0.023792 | 0.023808 |

ATTENUATION IN DECIBELS
THETA FROM 3.000 TO 3.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.023824 | 0.023840 | 0.023856 | 0.023871 | 0.023887 | 0.023903 | 0.023919 | 0.023935 | 0.023951 | 0.023967 |
| 0.010 | 0.023983 | 0.024015 | 0.024031 | 0.024047 | 0.024063 | 0.024079 | 0.024095 | 0.024111 | 0.024127 | 0.024143 |
| 0.020 | 0.024143 | 0.024159 | 0.024175 | 0.024191 | 0.024207 | 0.024223 | 0.024239 | 0.024255 | 0.024271 | 0.024287 |
| 0.030 | 0.024303 | 0.024319 | 0.024335 | 0.024351 | 0.024367 | 0.024383 | 0.024399 | 0.024415 | 0.024431 | 0.024447 |
| 0.040 | 0.024464 | 0.024480 | 0.024496 | 0.024512 | 0.024528 | 0.024544 | 0.024560 | 0.024576 | 0.024592 | 0.024609 |
| 0.050 | 0.024625 | 0.024641 | 0.024657 | 0.024673 | 0.024689 | 0.024706 | 0.024722 | 0.024738 | 0.024754 | 0.024770 |
| 0.060 | 0.024787 | 0.024803 | 0.024819 | 0.024835 | 0.024852 | 0.024868 | 0.024884 | 0.024900 | 0.024917 | 0.024933 |
| 0.070 | 0.024949 | 0.024965 | 0.024982 | 0.024998 | 0.025014 | 0.025030 | 0.025047 | 0.025063 | 0.025079 | 0.025096 |
| 0.080 | 0.025112 | 0.025128 | 0.025145 | 0.025161 | 0.025177 | 0.025194 | 0.025210 | 0.025226 | 0.025243 | 0.025259 |
| 0.090 | 0.025275 | 0.025292 | 0.025308 | 0.025324 | 0.025341 | 0.025357 | 0.025374 | 0.025390 | 0.025406 | 0.025423 |
| 0.100 | 0.025439 | 0.025456 | 0.025472 | 0.025489 | 0.025505 | 0.025521 | 0.025538 | 0.025554 | 0.025571 | 0.025587 |
| 0.110 | 0.025604 | 0.025620 | 0.025637 | 0.025653 | 0.025670 | 0.025686 | 0.025703 | 0.025719 | 0.025736 | 0.025752 |
| 0.120 | 0.025769 | 0.025785 | 0.025802 | 0.025818 | 0.025835 | 0.025851 | 0.025868 | 0.025885 | 0.025901 | 0.025918 |
| 0.130 | 0.025934 | 0.025951 | 0.025967 | 0.025984 | 0.026001 | 0.026017 | 0.026034 | 0.026050 | 0.026067 | 0.026084 |
| 0.140 | 0.026100 | 0.026117 | 0.026134 | 0.026150 | 0.026167 | 0.026184 | 0.026200 | 0.026217 | 0.026234 | 0.026250 |
| 0.150 | 0.026267 | 0.026284 | 0.026300 | 0.026317 | 0.026334 | 0.026350 | 0.026367 | 0.026384 | 0.026401 | 0.026417 |
| 0.160 | 0.026434 | 0.026451 | 0.026468 | 0.026484 | 0.026501 | 0.026518 | 0.026535 | 0.026551 | 0.026568 | 0.026585 |
| 0.170 | 0.026602 | 0.026618 | 0.026635 | 0.026652 | 0.026669 | 0.026686 | 0.026703 | 0.026719 | 0.026736 | 0.026753 |
| 0.180 | 0.026770 | 0.026787 | 0.026804 | 0.026820 | 0.026837 | 0.026854 | 0.026871 | 0.026888 | 0.026905 | 0.026922 |
| 0.190 | 0.026939 | 0.026955 | 0.026972 | 0.026989 | 0.027006 | 0.027023 | 0.027040 | 0.027057 | 0.027074 | 0.027091 |
| 0.200 | 0.027108 | 0.027125 | 0.027142 | 0.027159 | 0.027176 | 0.027193 | 0.027210 | 0.027227 | 0.027244 | 0.027261 |
| 0.210 | 0.027278 | 0.027295 | 0.027312 | 0.027329 | 0.027346 | 0.027363 | 0.027380 | 0.027397 | 0.027414 | 0.027431 |
| 0.220 | 0.027448 | 0.027465 | 0.027482 | 0.027499 | 0.027516 | 0.027533 | 0.027550 | 0.027567 | 0.027585 | 0.027602 |
| 0.230 | 0.027619 | 0.027636 | 0.027653 | 0.027670 | 0.027687 | 0.027704 | 0.027722 | 0.027739 | 0.027756 | 0.027773 |
| 0.240 | 0.027790 | 0.027807 | 0.027824 | 0.027842 | 0.027859 | 0.027876 | 0.027893 | 0.027910 | 0.027928 | 0.027945 |
| 0.250 | 0.027962 | 0.027979 | 0.027996 | 0.028014 | 0.028031 | 0.028048 | 0.028065 | 0.028083 | 0.028100 | 0.028117 |
| 0.260 | 0.028134 | 0.028151 | 0.028169 | 0.028186 | 0.028204 | 0.028221 | 0.028238 | 0.028255 | 0.028273 | 0.028290 |
| 0.270 | 0.028307 | 0.028325 | 0.028342 | 0.028359 | 0.028377 | 0.028394 | 0.028411 | 0.028429 | 0.028446 | 0.028464 |
| 0.280 | 0.028481 | 0.028498 | 0.028516 | 0.028533 | 0.028550 | 0.028568 | 0.028585 | 0.028603 | 0.028620 | 0.028638 |
| 0.290 | 0.028655 | 0.028672 | 0.028690 | 0.028707 | 0.028725 | 0.028742 | 0.028760 | 0.028777 | 0.028795 | 0.028812 |
| 0.300 | 0.028830 | 0.028847 | 0.028864 | 0.028882 | 0.028899 | 0.028917 | 0.028934 | 0.028952 | 0.028970 | 0.028987 |
| 0.310 | 0.029005 | 0.029022 | 0.029040 | 0.029057 | 0.029075 | 0.029092 | 0.029110 | 0.029127 | 0.029145 | 0.029163 |
| 0.320 | 0.029180 | 0.029198 | 0.029215 | 0.029233 | 0.029251 | 0.029268 | 0.029286 | 0.029303 | 0.029321 | 0.029339 |
| 0.330 | 0.029356 | 0.029374 | 0.029392 | 0.029409 | 0.029427 | 0.029445 | 0.029462 | 0.029480 | 0.029498 | 0.029515 |
| 0.340 | 0.029533 | 0.029551 | 0.029568 | 0.029586 | 0.029604 | 0.029622 | 0.029639 | 0.029657 | 0.029675 | 0.029693 |
| 0.350 | 0.029710 | 0.029728 | 0.029746 | 0.029764 | 0.029781 | 0.029799 | 0.029817 | 0.029835 | 0.029852 | 0.029870 |
| 0.360 | 0.029888 | 0.029906 | 0.029924 | 0.029941 | 0.029959 | 0.029977 | 0.029995 | 0.030013 | 0.030031 | 0.030048 |
| 0.370 | 0.030066 | 0.030084 | 0.030102 | 0.030120 | 0.030138 | 0.030156 | 0.030173 | 0.030191 | 0.030209 | 0.030227 |
| 0.380 | 0.030245 | 0.030263 | 0.030281 | 0.030299 | 0.030317 | 0.030335 | 0.030353 | 0.030371 | 0.030388 | 0.030406 |
| 0.390 | 0.030424 | 0.030442 | 0.030460 | 0.030478 | 0.030496 | 0.030514 | 0.030532 | 0.030550 | 0.030568 | 0.030586 |
| 0.400 | 0.030604 | 0.030622 | 0.030640 | 0.030658 | 0.030676 | 0.030694 | 0.030712 | 0.030730 | 0.030749 | 0.030767 |
| 0.410 | 0.030785 | 0.030803 | 0.030821 | 0.030839 | 0.030857 | 0.030875 | 0.030893 | 0.030911 | 0.030929 | 0.030947 |
| 0.420 | 0.030966 | 0.030984 | 0.031002 | 0.031020 | 0.031038 | 0.031056 | 0.031074 | 0.031093 | 0.031111 | 0.031129 |
| 0.430 | 0.031147 | 0.031165 | 0.031183 | 0.031202 | 0.031220 | 0.031238 | 0.031256 | 0.031274 | 0.031293 | 0.031311 |
| 0.440 | 0.031329 | 0.031347 | 0.031365 | 0.031384 | 0.031402 | 0.031420 | 0.031438 | 0.031457 | 0.031475 | 0.031493 |
| 0.450 | 0.031512 | 0.031530 | 0.031548 | 0.031566 | 0.031585 | 0.031603 | 0.031621 | 0.031640 | 0.031658 | 0.031676 |
| 0.460 | 0.031695 | 0.031713 | 0.031731 | 0.031750 | 0.031768 | 0.031786 | 0.031805 | 0.031823 | 0.031841 | 0.031860 |
| 0.470 | 0.031878 | 0.031897 | 0.031915 | 0.031933 | 0.031952 | 0.031970 | 0.031989 | 0.032007 | 0.032025 | 0.032044 |
| 0.480 | 0.032062 | 0.032081 | 0.032099 | 0.032118 | 0.032136 | 0.032155 | 0.032173 | 0.032192 | 0.032210 | 0.032228 |
| 0.490 | 0.032247 | 0.032265 | 0.032284 | 0.032302 | 0.032321 | 0.032339 | 0.032358 | 0.032377 | 0.032395 | 0.032414 |

ATTENUATION IN DECIBELS
 THETA FROM 3.500 TO 3.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.032432 | 0.032451 | 0.032469 | 0.032488 | 0.032506 | 0.032525 | 0.032543 | 0.032562 | 0.032581 | 0.032599 |
| 0.510 | 0.032618 | 0.032636 | 0.032655 | 0.032674 | 0.032692 | 0.032711 | 0.032730 | 0.032748 | 0.032767 | 0.032785 |
| 0.520 | 0.032804 | 0.032823 | 0.032841 | 0.032860 | 0.032879 | 0.032897 | 0.032916 | 0.032935 | 0.032953 | 0.032972 |
| 0.530 | 0.032991 | 0.033010 | 0.033028 | 0.033047 | 0.033066 | 0.033084 | 0.033103 | 0.033122 | 0.033141 | 0.033159 |
| 0.540 | 0.033178 | 0.033197 | 0.033216 | 0.033234 | 0.033253 | 0.033272 | 0.033291 | 0.033310 | 0.033328 | 0.033347 |
| 0.550 | 0.033366 | 0.033385 | 0.033404 | 0.033422 | 0.033441 | 0.033460 | 0.033479 | 0.033498 | 0.033517 | 0.033535 |
| 0.560 | 0.033554 | 0.033573 | 0.033592 | 0.033611 | 0.033630 | 0.033649 | 0.033668 | 0.033687 | 0.033705 | 0.033724 |
| 0.570 | 0.033743 | 0.033762 | 0.033781 | 0.033800 | 0.033819 | 0.033838 | 0.033857 | 0.033876 | 0.033895 | 0.033914 |
| 0.580 | 0.033953 | 0.033972 | 0.033991 | 0.034010 | 0.034028 | 0.034047 | 0.034066 | 0.034085 | 0.034104 | 0.034123 |
| 0.590 | 0.034163 | 0.034182 | 0.034201 | 0.034220 | 0.034239 | 0.034258 | 0.034277 | 0.034296 | 0.034315 | 0.034334 |
| 0.600 | 0.034373 | 0.034392 | 0.034411 | 0.034430 | 0.034449 | 0.034468 | 0.034487 | 0.034506 | 0.034525 | 0.034544 |
| 0.610 | 0.034584 | 0.034603 | 0.034622 | 0.034641 | 0.034660 | 0.034679 | 0.034698 | 0.034717 | 0.034736 | 0.034755 |
| 0.620 | 0.034796 | 0.034815 | 0.034834 | 0.034853 | 0.034872 | 0.034891 | 0.034910 | 0.034929 | 0.034948 | 0.034967 |
| 0.630 | 0.034988 | 0.035007 | 0.035026 | 0.035045 | 0.035064 | 0.035083 | 0.035102 | 0.035121 | 0.035140 | 0.035159 |
| 0.640 | 0.035179 | 0.035198 | 0.035217 | 0.035236 | 0.035255 | 0.035274 | 0.035293 | 0.035312 | 0.035331 | 0.035350 |
| 0.650 | 0.035370 | 0.035389 | 0.035408 | 0.035427 | 0.035446 | 0.035465 | 0.035484 | 0.035503 | 0.035522 | 0.035541 |
| 0.660 | 0.035581 | 0.035600 | 0.035619 | 0.035638 | 0.035657 | 0.035676 | 0.035695 | 0.035714 | 0.035733 | 0.035752 |
| 0.670 | 0.035793 | 0.035812 | 0.035831 | 0.035850 | 0.035869 | 0.035888 | 0.035907 | 0.035926 | 0.035945 | 0.035964 |
| 0.680 | 0.035985 | 0.036004 | 0.036023 | 0.036042 | 0.036061 | 0.036080 | 0.036099 | 0.036118 | 0.036137 | 0.036156 |
| 0.690 | 0.036197 | 0.036216 | 0.036235 | 0.036254 | 0.036273 | 0.036292 | 0.036311 | 0.036330 | 0.036349 | 0.036368 |
| 0.700 | 0.036410 | 0.036429 | 0.036448 | 0.036467 | 0.036486 | 0.036505 | 0.036524 | 0.036543 | 0.036562 | 0.036581 |
| 0.710 | 0.036604 | 0.036623 | 0.036642 | 0.036661 | 0.036680 | 0.036699 | 0.036718 | 0.036737 | 0.036756 | 0.036775 |
| 0.720 | 0.036800 | 0.036819 | 0.036838 | 0.036857 | 0.036876 | 0.036895 | 0.036914 | 0.036933 | 0.036952 | 0.036971 |
| 0.730 | 0.037000 | 0.037019 | 0.037038 | 0.037057 | 0.037076 | 0.037095 | 0.037114 | 0.037133 | 0.037152 | 0.037171 |
| 0.740 | 0.037200 | 0.037219 | 0.037238 | 0.037257 | 0.037276 | 0.037295 | 0.037314 | 0.037333 | 0.037352 | 0.037371 |
| 0.750 | 0.037400 | 0.037419 | 0.037438 | 0.037457 | 0.037476 | 0.037495 | 0.037514 | 0.037533 | 0.037552 | 0.037571 |
| 0.760 | 0.037600 | 0.037619 | 0.037638 | 0.037657 | 0.037676 | 0.037695 | 0.037714 | 0.037733 | 0.037752 | 0.037771 |
| 0.770 | 0.037800 | 0.037819 | 0.037838 | 0.037857 | 0.037876 | 0.037895 | 0.037914 | 0.037933 | 0.037952 | 0.037971 |
| 0.780 | 0.038000 | 0.038019 | 0.038038 | 0.038057 | 0.038076 | 0.038095 | 0.038114 | 0.038133 | 0.038152 | 0.038171 |
| 0.790 | 0.038200 | 0.038219 | 0.038238 | 0.038257 | 0.038276 | 0.038295 | 0.038314 | 0.038333 | 0.038352 | 0.038371 |
| 0.800 | 0.038400 | 0.038419 | 0.038438 | 0.038457 | 0.038476 | 0.038495 | 0.038514 | 0.038533 | 0.038552 | 0.038571 |
| 0.810 | 0.038600 | 0.038619 | 0.038638 | 0.038657 | 0.038676 | 0.038695 | 0.038714 | 0.038733 | 0.038752 | 0.038771 |
| 0.820 | 0.038800 | 0.038819 | 0.038838 | 0.038857 | 0.038876 | 0.038895 | 0.038914 | 0.038933 | 0.038952 | 0.038971 |
| 0.830 | 0.039000 | 0.039019 | 0.039038 | 0.039057 | 0.039076 | 0.039095 | 0.039114 | 0.039133 | 0.039152 | 0.039171 |
| 0.840 | 0.039200 | 0.039219 | 0.039238 | 0.039257 | 0.039276 | 0.039295 | 0.039314 | 0.039333 | 0.039352 | 0.039371 |
| 0.850 | 0.039400 | 0.039419 | 0.039438 | 0.039457 | 0.039476 | 0.039495 | 0.039514 | 0.039533 | 0.039552 | 0.039571 |
| 0.860 | 0.039600 | 0.039619 | 0.039638 | 0.039657 | 0.039676 | 0.039695 | 0.039714 | 0.039733 | 0.039752 | 0.039771 |
| 0.870 | 0.039800 | 0.039819 | 0.039838 | 0.039857 | 0.039876 | 0.039895 | 0.039914 | 0.039933 | 0.039952 | 0.039971 |
| 0.880 | 0.040000 | 0.040019 | 0.040038 | 0.040057 | 0.040076 | 0.040095 | 0.040114 | 0.040133 | 0.040152 | 0.040171 |
| 0.890 | 0.040200 | 0.040219 | 0.040238 | 0.040257 | 0.040276 | 0.040295 | 0.040314 | 0.040333 | 0.040352 | 0.040371 |
| 0.900 | 0.040400 | 0.040419 | 0.040438 | 0.040457 | 0.040476 | 0.040495 | 0.040514 | 0.040533 | 0.040552 | 0.040571 |
| 0.910 | 0.040600 | 0.040619 | 0.040638 | 0.040657 | 0.040676 | 0.040695 | 0.040714 | 0.040733 | 0.040752 | 0.040771 |
| 0.920 | 0.040800 | 0.040819 | 0.040838 | 0.040857 | 0.040876 | 0.040895 | 0.040914 | 0.040933 | 0.040952 | 0.040971 |
| 0.930 | 0.041000 | 0.041019 | 0.041038 | 0.041057 | 0.041076 | 0.041095 | 0.041114 | 0.041133 | 0.041152 | 0.041171 |
| 0.940 | 0.041200 | 0.041219 | 0.041238 | 0.041257 | 0.041276 | 0.041295 | 0.041314 | 0.041333 | 0.041352 | 0.041371 |
| 0.950 | 0.041400 | 0.041419 | 0.041438 | 0.041457 | 0.041476 | 0.041495 | 0.041514 | 0.041533 | 0.041552 | 0.041571 |
| 0.960 | 0.041600 | 0.041619 | 0.041638 | 0.041657 | 0.041676 | 0.041695 | 0.041714 | 0.041733 | 0.041752 | 0.041771 |
| 0.970 | 0.041800 | 0.041819 | 0.041838 | 0.041857 | 0.041876 | 0.041895 | 0.041914 | 0.041933 | 0.041952 | 0.041971 |
| 0.980 | 0.042000 | 0.042019 | 0.042038 | 0.042057 | 0.042076 | 0.042095 | 0.042114 | 0.042133 | 0.042152 | 0.042171 |
| 0.990 | 0.042200 | 0.042219 | 0.042238 | 0.042257 | 0.042276 | 0.042295 | 0.042314 | 0.042333 | 0.042352 | 0.042371 |

ATTENUATION IN DECIBELS
THETA FROM 4.000 TO 4.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.042368 | 0.042390 | 0.042411 | 0.042432 | 0.042453 | 0.042474 | 0.042496 | 0.042517 | 0.042538 | 0.042559 |
| 0.010 | 0.042581 | 0.042602 | 0.042623 | 0.042644 | 0.042666 | 0.042687 | 0.042708 | 0.042730 | 0.042751 | 0.042772 |
| 0.020 | 0.042793 | 0.042815 | 0.042836 | 0.042857 | 0.042879 | 0.042900 | 0.042921 | 0.042943 | 0.042964 | 0.042985 |
| 0.030 | 0.043007 | 0.043028 | 0.043050 | 0.043071 | 0.043092 | 0.043114 | 0.043135 | 0.043156 | 0.043178 | 0.043199 |
| 0.040 | 0.043221 | 0.043242 | 0.043264 | 0.043285 | 0.043306 | 0.043328 | 0.043349 | 0.043371 | 0.043392 | 0.043414 |
| 0.050 | 0.043435 | 0.043457 | 0.043478 | 0.043500 | 0.043521 | 0.043543 | 0.043564 | 0.043586 | 0.043607 | 0.043629 |
| 0.060 | 0.043650 | 0.043672 | 0.043693 | 0.043715 | 0.043736 | 0.043758 | 0.043779 | 0.043801 | 0.043822 | 0.043844 |
| 0.070 | 0.043866 | 0.043887 | 0.043909 | 0.043930 | 0.043952 | 0.043973 | 0.043995 | 0.044017 | 0.044038 | 0.044060 |
| 0.080 | 0.044082 | 0.044103 | 0.044125 | 0.044146 | 0.044168 | 0.044190 | 0.044211 | 0.044233 | 0.044255 | 0.044276 |
| 0.090 | 0.044298 | 0.044320 | 0.044341 | 0.044363 | 0.044385 | 0.044407 | 0.044428 | 0.044450 | 0.044472 | 0.044493 |
| 0.100 | 0.044515 | 0.044537 | 0.044559 | 0.044580 | 0.044602 | 0.044624 | 0.044646 | 0.044667 | 0.044689 | 0.044711 |
| 0.110 | 0.044733 | 0.044755 | 0.044776 | 0.044798 | 0.044820 | 0.044842 | 0.044864 | 0.044885 | 0.044907 | 0.044929 |
| 0.120 | 0.044951 | 0.044973 | 0.044995 | 0.045016 | 0.045038 | 0.045060 | 0.045082 | 0.045104 | 0.045126 | 0.045148 |
| 0.130 | 0.045170 | 0.045191 | 0.045213 | 0.045235 | 0.045257 | 0.045279 | 0.045301 | 0.045323 | 0.045345 | 0.045367 |
| 0.140 | 0.045389 | 0.045411 | 0.045433 | 0.045455 | 0.045477 | 0.045499 | 0.045520 | 0.045542 | 0.045564 | 0.045586 |
| 0.150 | 0.045608 | 0.045630 | 0.045652 | 0.045674 | 0.045696 | 0.045719 | 0.045741 | 0.045763 | 0.045785 | 0.045807 |
| 0.160 | 0.045829 | 0.045851 | 0.045873 | 0.045895 | 0.045917 | 0.045939 | 0.045961 | 0.045983 | 0.046005 | 0.046027 |
| 0.170 | 0.046049 | 0.046072 | 0.046094 | 0.046116 | 0.046138 | 0.046160 | 0.046182 | 0.046204 | 0.046227 | 0.046249 |
| 0.180 | 0.046271 | 0.046293 | 0.046315 | 0.046337 | 0.046359 | 0.046382 | 0.046404 | 0.046426 | 0.046448 | 0.046470 |
| 0.190 | 0.046493 | 0.046515 | 0.046537 | 0.046559 | 0.046582 | 0.046604 | 0.046626 | 0.046648 | 0.046671 | 0.046693 |
| 0.200 | 0.046715 | 0.046737 | 0.046760 | 0.046782 | 0.046804 | 0.046826 | 0.046848 | 0.046871 | 0.046893 | 0.046916 |
| 0.210 | 0.046938 | 0.046960 | 0.046983 | 0.047005 | 0.047027 | 0.047050 | 0.047072 | 0.047094 | 0.047117 | 0.047139 |
| 0.220 | 0.047161 | 0.047184 | 0.047206 | 0.047229 | 0.047251 | 0.047273 | 0.047296 | 0.047318 | 0.047341 | 0.047363 |
| 0.230 | 0.047385 | 0.047408 | 0.047430 | 0.047453 | 0.047475 | 0.047498 | 0.047520 | 0.047543 | 0.047565 | 0.047587 |
| 0.240 | 0.047610 | 0.047632 | 0.047655 | 0.047677 | 0.047700 | 0.047722 | 0.047745 | 0.047767 | 0.047790 | 0.047812 |
| 0.250 | 0.047835 | 0.047858 | 0.047880 | 0.047903 | 0.047925 | 0.047947 | 0.047970 | 0.047993 | 0.048015 | 0.048038 |
| 0.260 | 0.048061 | 0.048083 | 0.048106 | 0.048128 | 0.048151 | 0.048174 | 0.048196 | 0.048219 | 0.048241 | 0.048264 |
| 0.270 | 0.048287 | 0.048309 | 0.048332 | 0.048355 | 0.048377 | 0.048400 | 0.048423 | 0.048445 | 0.048468 | 0.048491 |
| 0.280 | 0.048513 | 0.048536 | 0.048559 | 0.048581 | 0.048604 | 0.048627 | 0.048650 | 0.048672 | 0.048695 | 0.048718 |
| 0.290 | 0.048740 | 0.048763 | 0.048786 | 0.048809 | 0.048832 | 0.048854 | 0.048877 | 0.048900 | 0.048923 | 0.048945 |
| 0.300 | 0.048968 | 0.048991 | 0.049014 | 0.049037 | 0.049059 | 0.049082 | 0.049105 | 0.049128 | 0.049151 | 0.049174 |
| 0.310 | 0.049196 | 0.049219 | 0.049242 | 0.049265 | 0.049288 | 0.049311 | 0.049334 | 0.049357 | 0.049379 | 0.049402 |
| 0.320 | 0.049425 | 0.049448 | 0.049471 | 0.049494 | 0.049517 | 0.049540 | 0.049563 | 0.049586 | 0.049609 | 0.049632 |
| 0.330 | 0.049654 | 0.049677 | 0.049700 | 0.049723 | 0.049746 | 0.049769 | 0.049792 | 0.049815 | 0.049838 | 0.049861 |
| 0.340 | 0.049884 | 0.049907 | 0.049930 | 0.049953 | 0.049976 | 0.050000 | 0.050022 | 0.050046 | 0.050069 | 0.050092 |
| 0.350 | 0.050115 | 0.050138 | 0.050161 | 0.050184 | 0.050207 | 0.050230 | 0.050253 | 0.050276 | 0.050299 | 0.050322 |
| 0.360 | 0.050346 | 0.050369 | 0.050392 | 0.050415 | 0.050438 | 0.050461 | 0.050484 | 0.050508 | 0.050531 | 0.050554 |
| 0.370 | 0.050577 | 0.050600 | 0.050623 | 0.050647 | 0.050670 | 0.050693 | 0.050716 | 0.050739 | 0.050762 | 0.050786 |
| 0.380 | 0.050809 | 0.050832 | 0.050855 | 0.050879 | 0.050902 | 0.050925 | 0.050948 | 0.050972 | 0.050995 | 0.051018 |
| 0.390 | 0.051041 | 0.051065 | 0.051088 | 0.051111 | 0.051135 | 0.051158 | 0.051181 | 0.051205 | 0.051228 | 0.051251 |
| 0.400 | 0.051275 | 0.051298 | 0.051321 | 0.051345 | 0.051368 | 0.051391 | 0.051415 | 0.051438 | 0.051461 | 0.051485 |
| 0.410 | 0.051508 | 0.051531 | 0.051555 | 0.051578 | 0.051602 | 0.051625 | 0.051648 | 0.051672 | 0.051695 | 0.051719 |
| 0.420 | 0.051742 | 0.051766 | 0.051789 | 0.051813 | 0.051836 | 0.051859 | 0.051883 | 0.051906 | 0.051930 | 0.051953 |
| 0.430 | 0.051977 | 0.052000 | 0.052024 | 0.052047 | 0.052071 | 0.052094 | 0.052118 | 0.052141 | 0.052165 | 0.052188 |
| 0.440 | 0.052212 | 0.052236 | 0.052259 | 0.052283 | 0.052306 | 0.052330 | 0.052353 | 0.052377 | 0.052400 | 0.052424 |
| 0.450 | 0.052448 | 0.052471 | 0.052495 | 0.052518 | 0.052542 | 0.052566 | 0.052589 | 0.052613 | 0.052637 | 0.052660 |
| 0.460 | 0.052684 | 0.052708 | 0.052731 | 0.052755 | 0.052779 | 0.052802 | 0.052826 | 0.052850 | 0.052873 | 0.052897 |
| 0.470 | 0.052921 | 0.052944 | 0.052968 | 0.052992 | 0.053015 | 0.053039 | 0.053063 | 0.053087 | 0.053110 | 0.053134 |
| 0.480 | 0.053158 | 0.053182 | 0.053205 | 0.053229 | 0.053253 | 0.053277 | 0.053301 | 0.053324 | 0.053348 | 0.053372 |
| 0.490 | 0.053396 | 0.053420 | 0.053443 | 0.053467 | 0.053491 | 0.053515 | 0.053539 | 0.053563 | 0.053586 | 0.053610 |

ATTENUATION IN DECIBELS
THETA FROM 4.500 TO 4.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.053634 | 0.053658 | 0.053682 | 0.053706 | 0.053730 | 0.053753 | 0.053777 | 0.053801 | 0.053825 | 0.053849 |
| 0.510 | 0.053873 | 0.053897 | 0.053921 | 0.053945 | 0.053969 | 0.053993 | 0.054017 | 0.054041 | 0.054064 | 0.054088 |
| 0.520 | 0.054112 | 0.054136 | 0.054160 | 0.054184 | 0.054208 | 0.054232 | 0.054256 | 0.054280 | 0.054304 | 0.054328 |
| 0.530 | 0.054352 | 0.054376 | 0.054400 | 0.054424 | 0.054448 | 0.054473 | 0.054497 | 0.054521 | 0.054545 | 0.054569 |
| 0.540 | 0.054593 | 0.054617 | 0.054641 | 0.054665 | 0.054689 | 0.054713 | 0.054737 | 0.054761 | 0.054786 | 0.054810 |
| 0.550 | 0.054834 | 0.054858 | 0.054882 | 0.054906 | 0.054930 | 0.054955 | 0.054979 | 0.055003 | 0.055027 | 0.055051 |
| 0.560 | 0.055075 | 0.055100 | 0.055124 | 0.055148 | 0.055172 | 0.055196 | 0.055221 | 0.055245 | 0.055269 | 0.055294 |
| 0.570 | 0.055317 | 0.055342 | 0.055366 | 0.055390 | 0.055414 | 0.055439 | 0.055463 | 0.055487 | 0.055512 | 0.055536 |
| 0.580 | 0.055560 | 0.055584 | 0.055609 | 0.055633 | 0.055657 | 0.055682 | 0.055706 | 0.055730 | 0.055755 | 0.055779 |
| 0.590 | 0.055803 | 0.055828 | 0.055852 | 0.055876 | 0.055901 | 0.055925 | 0.055949 | 0.055974 | 0.055998 | 0.056023 |
| 0.600 | 0.056047 | 0.056071 | 0.056096 | 0.056120 | 0.056145 | 0.056169 | 0.056193 | 0.056218 | 0.056242 | 0.056267 |
| 0.610 | 0.056291 | 0.056316 | 0.056340 | 0.056364 | 0.056389 | 0.056413 | 0.056438 | 0.056462 | 0.056487 | 0.056511 |
| 0.620 | 0.056536 | 0.056560 | 0.056585 | 0.056609 | 0.056634 | 0.056658 | 0.056683 | 0.056708 | 0.056732 | 0.056757 |
| 0.630 | 0.056761 | 0.056786 | 0.056810 | 0.056835 | 0.056859 | 0.056884 | 0.056909 | 0.056933 | 0.056958 | 0.056982 |
| 0.640 | 0.057027 | 0.057052 | 0.057076 | 0.057101 | 0.057125 | 0.057150 | 0.057175 | 0.057199 | 0.057224 | 0.057249 |
| 0.650 | 0.057273 | 0.057298 | 0.057323 | 0.057347 | 0.057372 | 0.057397 | 0.057421 | 0.057446 | 0.057471 | 0.057495 |
| 0.660 | 0.057520 | 0.057545 | 0.057570 | 0.057594 | 0.057619 | 0.057644 | 0.057669 | 0.057693 | 0.057718 | 0.057743 |
| 0.670 | 0.057768 | 0.057792 | 0.057817 | 0.057842 | 0.057867 | 0.057891 | 0.057916 | 0.057941 | 0.057966 | 0.057991 |
| 0.680 | 0.058016 | 0.058040 | 0.058065 | 0.058090 | 0.058115 | 0.058140 | 0.058165 | 0.058189 | 0.058214 | 0.058239 |
| 0.690 | 0.058264 | 0.058289 | 0.058314 | 0.058339 | 0.058364 | 0.058388 | 0.058413 | 0.058438 | 0.058463 | 0.058488 |
| 0.700 | 0.058513 | 0.058538 | 0.058563 | 0.058588 | 0.058613 | 0.058638 | 0.058663 | 0.058688 | 0.058713 | 0.058738 |
| 0.710 | 0.058763 | 0.058788 | 0.058813 | 0.058838 | 0.058863 | 0.058888 | 0.058913 | 0.058938 | 0.058963 | 0.058988 |
| 0.720 | 0.059013 | 0.059038 | 0.059063 | 0.059088 | 0.059113 | 0.059138 | 0.059163 | 0.059188 | 0.059213 | 0.059238 |
| 0.730 | 0.059263 | 0.059288 | 0.059313 | 0.059338 | 0.059364 | 0.059389 | 0.059414 | 0.059439 | 0.059464 | 0.059489 |
| 0.740 | 0.059514 | 0.059539 | 0.059565 | 0.059590 | 0.059615 | 0.059640 | 0.059665 | 0.059690 | 0.059715 | 0.059741 |
| 0.750 | 0.059766 | 0.059791 | 0.059816 | 0.059842 | 0.059867 | 0.059892 | 0.059917 | 0.059943 | 0.059968 | 0.059993 |
| 0.760 | 0.060018 | 0.060043 | 0.060069 | 0.060094 | 0.060119 | 0.060145 | 0.060170 | 0.060195 | 0.060220 | 0.060246 |
| 0.770 | 0.060271 | 0.060296 | 0.060322 | 0.060347 | 0.060372 | 0.060398 | 0.060423 | 0.060448 | 0.060474 | 0.060499 |
| 0.780 | 0.060524 | 0.060550 | 0.060575 | 0.060600 | 0.060626 | 0.060651 | 0.060676 | 0.060702 | 0.060727 | 0.060753 |
| 0.790 | 0.060778 | 0.060803 | 0.060829 | 0.060854 | 0.060880 | 0.060905 | 0.060931 | 0.060956 | 0.060981 | 0.061007 |
| 0.800 | 0.061032 | 0.061058 | 0.061083 | 0.061109 | 0.061134 | 0.061160 | 0.061185 | 0.061211 | 0.061236 | 0.061262 |
| 0.810 | 0.061287 | 0.061313 | 0.061338 | 0.061364 | 0.061389 | 0.061415 | 0.061440 | 0.061466 | 0.061492 | 0.061517 |
| 0.820 | 0.061543 | 0.061568 | 0.061594 | 0.061619 | 0.061645 | 0.061671 | 0.061696 | 0.061722 | 0.061747 | 0.061773 |
| 0.830 | 0.061799 | 0.061824 | 0.061850 | 0.061875 | 0.061901 | 0.061927 | 0.061952 | 0.061978 | 0.062004 | 0.062029 |
| 0.840 | 0.062055 | 0.062081 | 0.062106 | 0.062132 | 0.062158 | 0.062183 | 0.062209 | 0.062235 | 0.062261 | 0.062286 |
| 0.850 | 0.062312 | 0.062338 | 0.062363 | 0.062389 | 0.062415 | 0.062441 | 0.062466 | 0.062492 | 0.062518 | 0.062544 |
| 0.860 | 0.062570 | 0.062595 | 0.062621 | 0.062647 | 0.062673 | 0.062699 | 0.062724 | 0.062750 | 0.062776 | 0.062802 |
| 0.870 | 0.062828 | 0.062853 | 0.062879 | 0.062905 | 0.062931 | 0.062957 | 0.062983 | 0.063009 | 0.063034 | 0.063060 |
| 0.880 | 0.063086 | 0.063112 | 0.063138 | 0.063164 | 0.063190 | 0.063216 | 0.063242 | 0.063268 | 0.063293 | 0.063319 |
| 0.890 | 0.063345 | 0.063371 | 0.063397 | 0.063423 | 0.063449 | 0.063475 | 0.063501 | 0.063527 | 0.063553 | 0.063579 |
| 0.900 | 0.063605 | 0.063631 | 0.063657 | 0.063683 | 0.063709 | 0.063735 | 0.063761 | 0.063787 | 0.063813 | 0.063839 |
| 0.910 | 0.063865 | 0.063891 | 0.063917 | 0.063943 | 0.063969 | 0.063995 | 0.064021 | 0.064048 | 0.064074 | 0.064100 |
| 0.920 | 0.064126 | 0.064152 | 0.064178 | 0.064204 | 0.064230 | 0.064256 | 0.064283 | 0.064309 | 0.064335 | 0.064361 |
| 0.930 | 0.064387 | 0.064413 | 0.064440 | 0.064466 | 0.064492 | 0.064518 | 0.064544 | 0.064570 | 0.064597 | 0.064623 |
| 0.940 | 0.064649 | 0.064675 | 0.064701 | 0.064728 | 0.064754 | 0.064780 | 0.064806 | 0.064833 | 0.064859 | 0.064885 |
| 0.950 | 0.064911 | 0.064938 | 0.064964 | 0.064990 | 0.065016 | 0.065043 | 0.065069 | 0.065095 | 0.065122 | 0.065148 |
| 0.960 | 0.065174 | 0.065200 | 0.065227 | 0.065253 | 0.065279 | 0.065306 | 0.065332 | 0.065358 | 0.065385 | 0.065411 |
| 0.970 | 0.065438 | 0.065464 | 0.065490 | 0.065517 | 0.065543 | 0.065569 | 0.065596 | 0.065622 | 0.065649 | 0.065675 |
| 0.980 | 0.065701 | 0.065728 | 0.065754 | 0.065781 | 0.065807 | 0.065834 | 0.065860 | 0.065887 | 0.065913 | 0.065939 |
| 0.990 | 0.065966 | 0.065992 | 0.066019 | 0.066045 | 0.066072 | 0.066098 | 0.066125 | 0.066151 | 0.066178 | 0.066204 |

ATTENUATION IN DECIBELS
 THETA FROM 5.000 TO 5.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.066231 | 0.066257 | 0.066284 | 0.066311 | 0.066337 | 0.066364 | 0.066390 | 0.066417 | 0.066443 | 0.066470 |
| 0.010 | 0.066496 | 0.066523 | 0.066550 | 0.066576 | 0.066603 | 0.066629 | 0.066656 | 0.066683 | 0.066709 | 0.066736 |
| 0.020 | 0.066763 | 0.066789 | 0.066816 | 0.066842 | 0.066869 | 0.066895 | 0.066922 | 0.066949 | 0.066976 | 0.067002 |
| 0.030 | 0.067029 | 0.067056 | 0.067083 | 0.067109 | 0.067136 | 0.067163 | 0.067189 | 0.067216 | 0.067243 | 0.067270 |
| 0.040 | 0.067296 | 0.067323 | 0.067350 | 0.067377 | 0.067404 | 0.067431 | 0.067457 | 0.067484 | 0.067510 | 0.067537 |
| 0.050 | 0.067564 | 0.067591 | 0.067618 | 0.067644 | 0.067671 | 0.067698 | 0.067725 | 0.067752 | 0.067778 | 0.067805 |
| 0.060 | 0.067832 | 0.067859 | 0.067886 | 0.067913 | 0.067940 | 0.067966 | 0.067993 | 0.068020 | 0.068047 | 0.068074 |
| 0.070 | 0.068101 | 0.068128 | 0.068155 | 0.068182 | 0.068208 | 0.068235 | 0.068262 | 0.068289 | 0.068316 | 0.068343 |
| 0.080 | 0.068370 | 0.068397 | 0.068424 | 0.068451 | 0.068478 | 0.068505 | 0.068532 | 0.068559 | 0.068586 | 0.068613 |
| 0.090 | 0.068640 | 0.068667 | 0.068694 | 0.068721 | 0.068748 | 0.068775 | 0.068802 | 0.068829 | 0.068856 | 0.068883 |
| 0.100 | 0.068910 | 0.068937 | 0.068964 | 0.068991 | 0.069019 | 0.069046 | 0.069073 | 0.069100 | 0.069127 | 0.069154 |
| 0.110 | 0.069181 | 0.069208 | 0.069235 | 0.069262 | 0.069290 | 0.069317 | 0.069344 | 0.069371 | 0.069398 | 0.069425 |
| 0.120 | 0.069452 | 0.069480 | 0.069507 | 0.069534 | 0.069561 | 0.069588 | 0.069616 | 0.069643 | 0.069670 | 0.069697 |
| 0.130 | 0.069724 | 0.069752 | 0.069779 | 0.069806 | 0.069833 | 0.069861 | 0.069888 | 0.069915 | 0.069942 | 0.069970 |
| 0.140 | 0.069997 | 0.070024 | 0.070051 | 0.070079 | 0.070106 | 0.070133 | 0.070161 | 0.070188 | 0.070215 | 0.070243 |
| 0.150 | 0.070270 | 0.070297 | 0.070325 | 0.070352 | 0.070379 | 0.070407 | 0.070434 | 0.070461 | 0.070489 | 0.070516 |
| 0.160 | 0.070543 | 0.070571 | 0.070598 | 0.070626 | 0.070653 | 0.070680 | 0.070708 | 0.070735 | 0.070763 | 0.070790 |
| 0.170 | 0.070817 | 0.070845 | 0.070872 | 0.070900 | 0.070927 | 0.070955 | 0.070982 | 0.071010 | 0.071037 | 0.071065 |
| 0.180 | 0.071092 | 0.071120 | 0.071147 | 0.071175 | 0.071202 | 0.071230 | 0.071257 | 0.071285 | 0.071312 | 0.071340 |
| 0.190 | 0.071367 | 0.071395 | 0.071422 | 0.071450 | 0.071477 | 0.071505 | 0.071533 | 0.071560 | 0.071588 | 0.071615 |
| 0.200 | 0.071643 | 0.071670 | 0.071698 | 0.071726 | 0.071753 | 0.071781 | 0.071808 | 0.071836 | 0.071864 | 0.071891 |
| 0.210 | 0.071919 | 0.071947 | 0.071974 | 0.072002 | 0.072030 | 0.072057 | 0.072085 | 0.072113 | 0.072140 | 0.072168 |
| 0.220 | 0.072196 | 0.072223 | 0.072251 | 0.072279 | 0.072307 | 0.072334 | 0.072362 | 0.072390 | 0.072418 | 0.072445 |
| 0.230 | 0.072473 | 0.072501 | 0.072529 | 0.072556 | 0.072584 | 0.072612 | 0.072640 | 0.072667 | 0.072695 | 0.072723 |
| 0.240 | 0.072751 | 0.072779 | 0.072806 | 0.072834 | 0.072862 | 0.072890 | 0.072918 | 0.072946 | 0.072973 | 0.073001 |
| 0.250 | 0.073029 | 0.073057 | 0.073085 | 0.073113 | 0.073141 | 0.073169 | 0.073196 | 0.073224 | 0.073252 | 0.073280 |
| 0.260 | 0.073308 | 0.073336 | 0.073364 | 0.073392 | 0.073420 | 0.073448 | 0.073476 | 0.073504 | 0.073531 | 0.073559 |
| 0.270 | 0.073587 | 0.073615 | 0.073643 | 0.073671 | 0.073699 | 0.073727 | 0.073755 | 0.073783 | 0.073811 | 0.073839 |
| 0.280 | 0.073867 | 0.073895 | 0.073923 | 0.073951 | 0.073979 | 0.074008 | 0.074036 | 0.074064 | 0.074092 | 0.074120 |
| 0.290 | 0.074148 | 0.074176 | 0.074204 | 0.074232 | 0.074260 | 0.074288 | 0.074316 | 0.074344 | 0.074373 | 0.074401 |
| 0.300 | 0.074429 | 0.074457 | 0.074485 | 0.074513 | 0.074541 | 0.074570 | 0.074598 | 0.074626 | 0.074654 | 0.074682 |
| 0.310 | 0.074710 | 0.074739 | 0.074767 | 0.074795 | 0.074823 | 0.074851 | 0.074880 | 0.074908 | 0.074936 | 0.074964 |
| 0.320 | 0.074992 | 0.075021 | 0.075049 | 0.075077 | 0.075105 | 0.075134 | 0.075162 | 0.075190 | 0.075218 | 0.075247 |
| 0.330 | 0.075275 | 0.075303 | 0.075332 | 0.075360 | 0.075388 | 0.075417 | 0.075445 | 0.075473 | 0.075501 | 0.075530 |
| 0.340 | 0.075558 | 0.075586 | 0.075615 | 0.075643 | 0.075672 | 0.075700 | 0.075728 | 0.075757 | 0.075785 | 0.075813 |
| 0.350 | 0.075842 | 0.075870 | 0.075899 | 0.075927 | 0.075955 | 0.075984 | 0.076012 | 0.076041 | 0.076069 | 0.076098 |
| 0.360 | 0.076126 | 0.076154 | 0.076183 | 0.076211 | 0.076240 | 0.076268 | 0.076297 | 0.076325 | 0.076354 | 0.076382 |
| 0.370 | 0.076411 | 0.076439 | 0.076468 | 0.076496 | 0.076525 | 0.076553 | 0.076582 | 0.076610 | 0.076639 | 0.076667 |
| 0.380 | 0.076696 | 0.076725 | 0.076753 | 0.076782 | 0.076810 | 0.076839 | 0.076867 | 0.076896 | 0.076925 | 0.076953 |
| 0.390 | 0.076982 | 0.077010 | 0.077039 | 0.077068 | 0.077096 | 0.077125 | 0.077154 | 0.077182 | 0.077211 | 0.077239 |
| 0.400 | 0.077268 | 0.077297 | 0.077325 | 0.077354 | 0.077383 | 0.077412 | 0.077440 | 0.077469 | 0.077498 | 0.077526 |
| 0.410 | 0.077555 | 0.077584 | 0.077612 | 0.077641 | 0.077670 | 0.077699 | 0.077727 | 0.077756 | 0.077785 | 0.077814 |
| 0.420 | 0.077842 | 0.077871 | 0.077900 | 0.077929 | 0.077958 | 0.077986 | 0.078015 | 0.078044 | 0.078073 | 0.078102 |
| 0.430 | 0.078130 | 0.078159 | 0.078188 | 0.078217 | 0.078246 | 0.078275 | 0.078303 | 0.078332 | 0.078361 | 0.078390 |
| 0.440 | 0.078419 | 0.078448 | 0.078477 | 0.078505 | 0.078534 | 0.078563 | 0.078592 | 0.078621 | 0.078650 | 0.078679 |
| 0.450 | 0.078708 | 0.078737 | 0.078766 | 0.078795 | 0.078824 | 0.078853 | 0.078882 | 0.078910 | 0.078939 | 0.078968 |
| 0.460 | 0.078997 | 0.079026 | 0.079055 | 0.079084 | 0.079113 | 0.079142 | 0.079171 | 0.079200 | 0.079229 | 0.079258 |
| 0.470 | 0.079287 | 0.079316 | 0.079346 | 0.079375 | 0.079404 | 0.079433 | 0.079462 | 0.079491 | 0.079520 | 0.079549 |
| 0.480 | 0.079578 | 0.079607 | 0.079636 | 0.079665 | 0.079694 | 0.079723 | 0.079753 | 0.079782 | 0.079811 | 0.079840 |
| 0.490 | 0.079869 | 0.079898 | 0.079928 | 0.079957 | 0.079986 | 0.080015 | 0.080044 | 0.080073 | 0.080103 | 0.080132 |

ATTENUATION IN DECIBELS
THETA FROM 5.500 TO 5.999 DEGREES

| THETA IN DEGREES | 0.600 | 0.601 | 0.602 | 0.603 | 0.604 | 0.605 | 0.606 | 0.607 | 0.608 | 0.609 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.080161 | 0.080190 | 0.080219 | 0.080248 | 0.080278 | 0.080307 | 0.080336 | 0.080365 | 0.080395 | 0.080424 |
| 0.510 | 0.080453 | 0.080482 | 0.080512 | 0.080541 | 0.080570 | 0.080599 | 0.080629 | 0.080658 | 0.080687 | 0.080717 |
| 0.520 | 0.080746 | 0.080775 | 0.080804 | 0.080834 | 0.080863 | 0.080892 | 0.080922 | 0.080951 | 0.080980 | 0.081010 |
| 0.530 | 0.081039 | 0.081068 | 0.081098 | 0.081127 | 0.081157 | 0.081186 | 0.081215 | 0.081245 | 0.081274 | 0.081304 |
| 0.540 | 0.081333 | 0.081362 | 0.081392 | 0.081421 | 0.081451 | 0.081480 | 0.081509 | 0.081539 | 0.081568 | 0.081598 |
| 0.550 | 0.081627 | 0.081657 | 0.081686 | 0.081716 | 0.081745 | 0.081775 | 0.081804 | 0.081834 | 0.081863 | 0.081893 |
| 0.560 | 0.081922 | 0.081952 | 0.081981 | 0.082011 | 0.082040 | 0.082070 | 0.082099 | 0.082129 | 0.082158 | 0.082188 |
| 0.570 | 0.082218 | 0.082247 | 0.082277 | 0.082306 | 0.082336 | 0.082365 | 0.082395 | 0.082425 | 0.082454 | 0.082484 |
| 0.580 | 0.082514 | 0.082543 | 0.082573 | 0.082602 | 0.082632 | 0.082662 | 0.082691 | 0.082721 | 0.082751 | 0.082780 |
| 0.590 | 0.082810 | 0.082840 | 0.082869 | 0.082899 | 0.082929 | 0.082958 | 0.082988 | 0.083018 | 0.083048 | 0.083077 |
| 0.600 | 0.083107 | 0.083137 | 0.083166 | 0.083196 | 0.083226 | 0.083256 | 0.083285 | 0.083315 | 0.083345 | 0.083375 |
| 0.610 | 0.083405 | 0.083434 | 0.083464 | 0.083494 | 0.083524 | 0.083554 | 0.083583 | 0.083613 | 0.083643 | 0.083673 |
| 0.620 | 0.083703 | 0.083733 | 0.083762 | 0.083792 | 0.083822 | 0.083852 | 0.083882 | 0.083912 | 0.083942 | 0.083971 |
| 0.630 | 0.084001 | 0.084031 | 0.084061 | 0.084091 | 0.084121 | 0.084151 | 0.084181 | 0.084211 | 0.084241 | 0.084270 |
| 0.640 | 0.084300 | 0.084330 | 0.084360 | 0.084390 | 0.084420 | 0.084450 | 0.084480 | 0.084510 | 0.084540 | 0.084570 |
| 0.650 | 0.084600 | 0.084630 | 0.084660 | 0.084690 | 0.084720 | 0.084750 | 0.084780 | 0.084810 | 0.084840 | 0.084870 |
| 0.660 | 0.084900 | 0.084930 | 0.084960 | 0.084991 | 0.085021 | 0.085051 | 0.085081 | 0.085111 | 0.085141 | 0.085171 |
| 0.670 | 0.085201 | 0.085231 | 0.085261 | 0.085291 | 0.085322 | 0.085352 | 0.085382 | 0.085412 | 0.085442 | 0.085472 |
| 0.680 | 0.085502 | 0.085533 | 0.085563 | 0.085593 | 0.085623 | 0.085653 | 0.085683 | 0.085714 | 0.085744 | 0.085774 |
| 0.690 | 0.085804 | 0.085834 | 0.085865 | 0.085895 | 0.085925 | 0.085955 | 0.085986 | 0.086016 | 0.086046 | 0.086076 |
| 0.700 | 0.086107 | 0.086137 | 0.086167 | 0.086197 | 0.086228 | 0.086258 | 0.086288 | 0.086319 | 0.086349 | 0.086379 |
| 0.710 | 0.086409 | 0.086440 | 0.086470 | 0.086500 | 0.086531 | 0.086561 | 0.086591 | 0.086622 | 0.086652 | 0.086683 |
| 0.720 | 0.086713 | 0.086743 | 0.086774 | 0.086804 | 0.086834 | 0.086865 | 0.086895 | 0.086926 | 0.086956 | 0.086986 |
| 0.730 | 0.087017 | 0.087047 | 0.087078 | 0.087108 | 0.087139 | 0.087169 | 0.087200 | 0.087230 | 0.087260 | 0.087291 |
| 0.740 | 0.087321 | 0.087352 | 0.087382 | 0.087413 | 0.087443 | 0.087474 | 0.087504 | 0.087535 | 0.087565 | 0.087596 |
| 0.750 | 0.087626 | 0.087657 | 0.087687 | 0.087718 | 0.087749 | 0.087779 | 0.087810 | 0.087840 | 0.087871 | 0.087901 |
| 0.760 | 0.087932 | 0.087963 | 0.087993 | 0.088024 | 0.088054 | 0.088085 | 0.088116 | 0.088146 | 0.088177 | 0.088207 |
| 0.770 | 0.088238 | 0.088269 | 0.088299 | 0.088330 | 0.088361 | 0.088391 | 0.088422 | 0.088453 | 0.088484 | 0.088514 |
| 0.780 | 0.088545 | 0.088575 | 0.088606 | 0.088637 | 0.088668 | 0.088698 | 0.088729 | 0.088760 | 0.088790 | 0.088821 |
| 0.790 | 0.088852 | 0.088883 | 0.088913 | 0.088944 | 0.088975 | 0.089006 | 0.089036 | 0.089067 | 0.089098 | 0.089129 |
| 0.800 | 0.089160 | 0.089190 | 0.089221 | 0.089252 | 0.089283 | 0.089314 | 0.089344 | 0.089375 | 0.089406 | 0.089437 |
| 0.810 | 0.089468 | 0.089499 | 0.089530 | 0.089560 | 0.089591 | 0.089622 | 0.089653 | 0.089684 | 0.089715 | 0.089746 |
| 0.820 | 0.089777 | 0.089808 | 0.089838 | 0.089869 | 0.089900 | 0.089931 | 0.089962 | 0.089993 | 0.090024 | 0.090055 |
| 0.830 | 0.090086 | 0.090117 | 0.090148 | 0.090179 | 0.090210 | 0.090241 | 0.090272 | 0.090303 | 0.090334 | 0.090365 |
| 0.840 | 0.090396 | 0.090427 | 0.090458 | 0.090489 | 0.090520 | 0.090551 | 0.090582 | 0.090613 | 0.090644 | 0.090675 |
| 0.850 | 0.090706 | 0.090737 | 0.090768 | 0.090799 | 0.090830 | 0.090862 | 0.090893 | 0.090924 | 0.090955 | 0.090986 |
| 0.860 | 0.091017 | 0.091048 | 0.091079 | 0.091110 | 0.091142 | 0.091173 | 0.091204 | 0.091235 | 0.091266 | 0.091297 |
| 0.870 | 0.091329 | 0.091360 | 0.091391 | 0.091422 | 0.091453 | 0.091484 | 0.091516 | 0.091547 | 0.091578 | 0.091609 |
| 0.880 | 0.091641 | 0.091672 | 0.091703 | 0.091734 | 0.091765 | 0.091797 | 0.091828 | 0.091859 | 0.091890 | 0.091922 |
| 0.890 | 0.091984 | 0.092016 | 0.092047 | 0.092078 | 0.092109 | 0.092141 | 0.092172 | 0.092203 | 0.092235 | 0.092267 |
| 0.900 | 0.092266 | 0.092297 | 0.092329 | 0.092360 | 0.092391 | 0.092423 | 0.092454 | 0.092486 | 0.092517 | 0.092548 |
| 0.910 | 0.092580 | 0.092611 | 0.092642 | 0.092674 | 0.092705 | 0.092737 | 0.092768 | 0.092799 | 0.092831 | 0.092862 |
| 0.920 | 0.092894 | 0.092925 | 0.092957 | 0.092988 | 0.093020 | 0.093051 | 0.093083 | 0.093114 | 0.093145 | 0.093177 |
| 0.930 | 0.093208 | 0.093240 | 0.093271 | 0.093303 | 0.093334 | 0.093366 | 0.093398 | 0.093429 | 0.093461 | 0.093492 |
| 0.940 | 0.093524 | 0.093555 | 0.093587 | 0.093618 | 0.093650 | 0.093681 | 0.093713 | 0.093745 | 0.093776 | 0.093808 |
| 0.950 | 0.093839 | 0.093871 | 0.093903 | 0.093934 | 0.093966 | 0.093997 | 0.094029 | 0.094061 | 0.094092 | 0.094124 |
| 0.960 | 0.094156 | 0.094187 | 0.094219 | 0.094251 | 0.094282 | 0.094314 | 0.094346 | 0.094377 | 0.094409 | 0.094441 |
| 0.970 | 0.094472 | 0.094504 | 0.094536 | 0.094568 | 0.094599 | 0.094631 | 0.094663 | 0.094695 | 0.094726 | 0.094758 |
| 0.980 | 0.094790 | 0.094822 | 0.094853 | 0.094885 | 0.094917 | 0.094949 | 0.094980 | 0.095012 | 0.095044 | 0.095076 |
| 0.990 | 0.095108 | 0.095139 | 0.095171 | 0.095203 | 0.095235 | 0.095267 | 0.095299 | 0.095330 | 0.095362 | 0.095394 |

ATTENUATION IN DECIBELS
 THETA FROM 6.000 TO 6.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.095426 | 0.095458 | 0.095490 | 0.095522 | 0.095554 | 0.095585 | 0.095617 | 0.095649 | 0.095681 | 0.095713 |
| 0.010 | 0.095745 | 0.095777 | 0.095809 | 0.095841 | 0.095873 | 0.095905 | 0.095937 | 0.095969 | 0.096001 | 0.096032 |
| 0.020 | 0.096064 | 0.096096 | 0.096128 | 0.096160 | 0.096192 | 0.096224 | 0.096256 | 0.096288 | 0.096320 | 0.096352 |
| 0.030 | 0.096384 | 0.096416 | 0.096449 | 0.096481 | 0.096513 | 0.096545 | 0.096577 | 0.096609 | 0.096641 | 0.096673 |
| 0.040 | 0.096705 | 0.096737 | 0.096769 | 0.096801 | 0.096833 | 0.096865 | 0.096898 | 0.096930 | 0.096962 | 0.096994 |
| 0.050 | 0.097026 | 0.097058 | 0.097090 | 0.097122 | 0.097155 | 0.097187 | 0.097219 | 0.097251 | 0.097283 | 0.097316 |
| 0.060 | 0.097348 | 0.097380 | 0.097412 | 0.097444 | 0.097476 | 0.097509 | 0.097541 | 0.097573 | 0.097605 | 0.097638 |
| 0.070 | 0.097670 | 0.097702 | 0.097734 | 0.097767 | 0.097799 | 0.097831 | 0.097863 | 0.097896 | 0.097928 | 0.097960 |
| 0.080 | 0.097993 | 0.098025 | 0.098057 | 0.098089 | 0.098122 | 0.098154 | 0.098186 | 0.098219 | 0.098251 | 0.098283 |
| 0.090 | 0.098316 | 0.098348 | 0.098380 | 0.098413 | 0.098445 | 0.098478 | 0.098510 | 0.098542 | 0.098575 | 0.098607 |
| 0.100 | 0.098639 | 0.098672 | 0.098704 | 0.098737 | 0.098769 | 0.098802 | 0.098834 | 0.098866 | 0.098899 | 0.098931 |
| 0.110 | 0.098964 | 0.098996 | 0.099029 | 0.099061 | 0.099094 | 0.099126 | 0.099159 | 0.099191 | 0.099224 | 0.099256 |
| 0.120 | 0.099289 | 0.099321 | 0.099354 | 0.099386 | 0.099419 | 0.099451 | 0.099484 | 0.099516 | 0.099549 | 0.099581 |
| 0.130 | 0.099614 | 0.099647 | 0.099679 | 0.099712 | 0.099744 | 0.099777 | 0.099809 | 0.099842 | 0.099875 | 0.099907 |
| 0.140 | 0.099940 | 0.099972 | 0.100005 | 0.100038 | 0.100070 | 0.100103 | 0.100136 | 0.100168 | 0.100201 | 0.100234 |
| 0.150 | 0.100266 | 0.100299 | 0.100332 | 0.100364 | 0.100397 | 0.100430 | 0.100462 | 0.100495 | 0.100528 | 0.100561 |
| 0.160 | 0.100593 | 0.100626 | 0.100659 | 0.100691 | 0.100724 | 0.100757 | 0.100790 | 0.100822 | 0.100855 | 0.100888 |
| 0.170 | 0.100921 | 0.100954 | 0.100986 | 0.101019 | 0.101052 | 0.101085 | 0.101118 | 0.101150 | 0.101183 | 0.101216 |
| 0.180 | 0.101249 | 0.101282 | 0.101314 | 0.101347 | 0.101380 | 0.101413 | 0.101446 | 0.101479 | 0.101512 | 0.101544 |
| 0.190 | 0.101577 | 0.101610 | 0.101643 | 0.101676 | 0.101709 | 0.101742 | 0.101775 | 0.101808 | 0.101841 | 0.101874 |
| 0.200 | 0.101906 | 0.101939 | 0.101972 | 0.102005 | 0.102038 | 0.102071 | 0.102104 | 0.102137 | 0.102170 | 0.102203 |
| 0.210 | 0.102236 | 0.102269 | 0.102302 | 0.102335 | 0.102368 | 0.102401 | 0.102434 | 0.102467 | 0.102500 | 0.102533 |
| 0.220 | 0.102566 | 0.102599 | 0.102632 | 0.102665 | 0.102698 | 0.102732 | 0.102765 | 0.102798 | 0.102831 | 0.102864 |
| 0.230 | 0.102897 | 0.102930 | 0.102963 | 0.102996 | 0.103029 | 0.103063 | 0.103096 | 0.103129 | 0.103162 | 0.103195 |
| 0.240 | 0.103228 | 0.103261 | 0.103295 | 0.103328 | 0.103361 | 0.103394 | 0.103427 | 0.103460 | 0.103494 | 0.103527 |
| 0.250 | 0.103560 | 0.103593 | 0.103626 | 0.103660 | 0.103693 | 0.103726 | 0.103759 | 0.103793 | 0.103826 | 0.103859 |
| 0.260 | 0.103892 | 0.103926 | 0.103959 | 0.103992 | 0.104025 | 0.104059 | 0.104092 | 0.104125 | 0.104159 | 0.104192 |
| 0.270 | 0.104225 | 0.104259 | 0.104292 | 0.104325 | 0.104359 | 0.104392 | 0.104425 | 0.104459 | 0.104492 | 0.104525 |
| 0.280 | 0.104559 | 0.104592 | 0.104625 | 0.104659 | 0.104692 | 0.104726 | 0.104759 | 0.104792 | 0.104826 | 0.104859 |
| 0.290 | 0.104893 | 0.104926 | 0.104959 | 0.104993 | 0.105026 | 0.105060 | 0.105093 | 0.105127 | 0.105160 | 0.105194 |
| 0.300 | 0.105227 | 0.105260 | 0.105294 | 0.105327 | 0.105361 | 0.105394 | 0.105428 | 0.105461 | 0.105495 | 0.105528 |
| 0.310 | 0.105562 | 0.105596 | 0.105629 | 0.105663 | 0.105696 | 0.105730 | 0.105763 | 0.105797 | 0.105830 | 0.105864 |
| 0.320 | 0.105898 | 0.105931 | 0.105965 | 0.105998 | 0.106032 | 0.106065 | 0.106099 | 0.106133 | 0.106166 | 0.106200 |
| 0.330 | 0.106234 | 0.106267 | 0.106301 | 0.106335 | 0.106368 | 0.106402 | 0.106436 | 0.106469 | 0.106503 | 0.106537 |
| 0.340 | 0.106570 | 0.106604 | 0.106638 | 0.106671 | 0.106705 | 0.106739 | 0.106772 | 0.106806 | 0.106840 | 0.106874 |
| 0.350 | 0.106907 | 0.106941 | 0.106975 | 0.107009 | 0.107042 | 0.107076 | 0.107110 | 0.107144 | 0.107177 | 0.107211 |
| 0.360 | 0.107245 | 0.107279 | 0.107313 | 0.107346 | 0.107380 | 0.107414 | 0.107448 | 0.107482 | 0.107516 | 0.107549 |
| 0.370 | 0.107583 | 0.107617 | 0.107651 | 0.107685 | 0.107719 | 0.107753 | 0.107788 | 0.107820 | 0.107854 | 0.107888 |
| 0.380 | 0.107922 | 0.107956 | 0.107990 | 0.108024 | 0.108058 | 0.108092 | 0.108125 | 0.108159 | 0.108193 | 0.108227 |
| 0.390 | 0.108261 | 0.108295 | 0.108329 | 0.108363 | 0.108397 | 0.108431 | 0.108465 | 0.108499 | 0.108533 | 0.108567 |
| 0.400 | 0.108601 | 0.108635 | 0.108669 | 0.108703 | 0.108737 | 0.108771 | 0.108805 | 0.108839 | 0.108873 | 0.108907 |
| 0.410 | 0.108941 | 0.108976 | 0.109010 | 0.109044 | 0.109078 | 0.109112 | 0.109146 | 0.109180 | 0.109214 | 0.109248 |
| 0.420 | 0.109282 | 0.109316 | 0.109351 | 0.109385 | 0.109419 | 0.109453 | 0.109487 | 0.109521 | 0.109555 | 0.109589 |
| 0.430 | 0.109624 | 0.109658 | 0.109692 | 0.109726 | 0.109760 | 0.109795 | 0.109829 | 0.109863 | 0.109897 | 0.109932 |
| 0.440 | 0.109966 | 0.110000 | 0.110034 | 0.110068 | 0.110103 | 0.110137 | 0.110171 | 0.110205 | 0.110240 | 0.110274 |
| 0.450 | 0.110308 | 0.110343 | 0.110377 | 0.110411 | 0.110445 | 0.110479 | 0.110514 | 0.110548 | 0.110583 | 0.110617 |
| 0.460 | 0.110651 | 0.110686 | 0.110720 | 0.110754 | 0.110789 | 0.110823 | 0.110857 | 0.110892 | 0.110926 | 0.110960 |
| 0.470 | 0.110995 | 0.111029 | 0.111064 | 0.111098 | 0.111132 | 0.111167 | 0.111201 | 0.111236 | 0.111270 | 0.111304 |
| 0.480 | 0.111339 | 0.111373 | 0.111408 | 0.111442 | 0.111477 | 0.111511 | 0.111546 | 0.111580 | 0.111615 | 0.111649 |
| 0.490 | 0.111684 | 0.111718 | 0.111753 | 0.111787 | 0.111822 | 0.111856 | 0.111891 | 0.111925 | 0.111960 | 0.111994 |

ATTENUATION IN DECIBELS
THETA FROM 6.500 TO 6.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.112029 | 0.112063 | 0.112098 | 0.112132 | 0.112167 | 0.112202 | 0.112236 | 0.112271 | 0.112305 | 0.112340 |
| 0.510 | 0.112374 | 0.112409 | 0.112444 | 0.112478 | 0.112513 | 0.112548 | 0.112582 | 0.112617 | 0.112651 | 0.112686 |
| 0.520 | 0.112721 | 0.112755 | 0.112790 | 0.112825 | 0.112859 | 0.112894 | 0.112928 | 0.112963 | 0.112998 | 0.113033 |
| 0.530 | 0.113068 | 0.113102 | 0.113137 | 0.113172 | 0.113206 | 0.113241 | 0.113276 | 0.113311 | 0.113345 | 0.113380 |
| 0.540 | 0.113415 | 0.113450 | 0.113484 | 0.113519 | 0.113554 | 0.113589 | 0.113623 | 0.113658 | 0.113693 | 0.113728 |
| 0.550 | 0.113763 | 0.113798 | 0.113832 | 0.113867 | 0.113902 | 0.113937 | 0.113972 | 0.114007 | 0.114041 | 0.114076 |
| 0.560 | 0.114111 | 0.114146 | 0.114181 | 0.114216 | 0.114251 | 0.114285 | 0.114320 | 0.114355 | 0.114390 | 0.114425 |
| 0.570 | 0.114460 | 0.114495 | 0.114530 | 0.114565 | 0.114600 | 0.114635 | 0.114670 | 0.114705 | 0.114740 | 0.114775 |
| 0.580 | 0.114809 | 0.114844 | 0.114879 | 0.114914 | 0.114949 | 0.114984 | 0.115019 | 0.115054 | 0.115089 | 0.115124 |
| 0.590 | 0.115159 | 0.115195 | 0.115230 | 0.115265 | 0.115300 | 0.115335 | 0.115370 | 0.115405 | 0.115440 | 0.115475 |
| 0.600 | 0.115510 | 0.115545 | 0.115580 | 0.115615 | 0.115650 | 0.115686 | 0.115721 | 0.115756 | 0.115791 | 0.115826 |
| 0.610 | 0.115861 | 0.115896 | 0.115931 | 0.115967 | 0.116002 | 0.116037 | 0.116072 | 0.116107 | 0.116142 | 0.116178 |
| 0.620 | 0.116213 | 0.116248 | 0.116283 | 0.116318 | 0.116354 | 0.116389 | 0.116424 | 0.116459 | 0.116494 | 0.116530 |
| 0.630 | 0.116565 | 0.116600 | 0.116635 | 0.116671 | 0.116706 | 0.116741 | 0.116776 | 0.116812 | 0.116847 | 0.116882 |
| 0.640 | 0.116918 | 0.116953 | 0.116988 | 0.117023 | 0.117059 | 0.117094 | 0.117129 | 0.117165 | 0.117200 | 0.117235 |
| 0.650 | 0.117271 | 0.117306 | 0.117341 | 0.117377 | 0.117412 | 0.117448 | 0.117483 | 0.117518 | 0.117554 | 0.117589 |
| 0.660 | 0.117625 | 0.117660 | 0.117695 | 0.117731 | 0.117766 | 0.117802 | 0.117837 | 0.117872 | 0.117908 | 0.117943 |
| 0.670 | 0.117979 | 0.118014 | 0.118050 | 0.118085 | 0.118121 | 0.118156 | 0.118192 | 0.118227 | 0.118263 | 0.118298 |
| 0.680 | 0.118334 | 0.118369 | 0.118405 | 0.118440 | 0.118476 | 0.118511 | 0.118547 | 0.118582 | 0.118618 | 0.118653 |
| 0.690 | 0.118669 | 0.118725 | 0.118760 | 0.118796 | 0.118831 | 0.118867 | 0.118903 | 0.118938 | 0.118974 | 0.119009 |
| 0.700 | 0.119045 | 0.119081 | 0.119116 | 0.119152 | 0.119187 | 0.119223 | 0.119259 | 0.119294 | 0.119330 | 0.119366 |
| 0.710 | 0.119401 | 0.119437 | 0.119473 | 0.119508 | 0.119544 | 0.119580 | 0.119615 | 0.119651 | 0.119687 | 0.119723 |
| 0.720 | 0.119758 | 0.119794 | 0.119830 | 0.119866 | 0.119901 | 0.119937 | 0.119973 | 0.120009 | 0.120044 | 0.120080 |
| 0.730 | 0.120116 | 0.120152 | 0.120187 | 0.120223 | 0.120259 | 0.120295 | 0.120331 | 0.120366 | 0.120402 | 0.120438 |
| 0.740 | 0.120474 | 0.120510 | 0.120546 | 0.120581 | 0.120617 | 0.120653 | 0.120689 | 0.120725 | 0.120761 | 0.120797 |
| 0.750 | 0.120832 | 0.120868 | 0.120904 | 0.120940 | 0.120976 | 0.121012 | 0.121048 | 0.121084 | 0.121120 | 0.121156 |
| 0.760 | 0.121192 | 0.121228 | 0.121264 | 0.121299 | 0.121335 | 0.121371 | 0.121407 | 0.121443 | 0.121479 | 0.121515 |
| 0.770 | 0.121591 | 0.121587 | 0.121623 | 0.121659 | 0.121695 | 0.121731 | 0.121767 | 0.121803 | 0.121839 | 0.121875 |
| 0.780 | 0.121911 | 0.121948 | 0.121984 | 0.122020 | 0.122056 | 0.122092 | 0.122128 | 0.122164 | 0.122200 | 0.122236 |
| 0.790 | 0.122272 | 0.122308 | 0.122344 | 0.122381 | 0.122417 | 0.122453 | 0.122489 | 0.122525 | 0.122561 | 0.122597 |
| 0.800 | 0.122633 | 0.122670 | 0.122706 | 0.122742 | 0.122778 | 0.122814 | 0.122850 | 0.122887 | 0.122923 | 0.122959 |
| 0.810 | 0.122995 | 0.123031 | 0.123068 | 0.123104 | 0.123140 | 0.123176 | 0.123212 | 0.123249 | 0.123285 | 0.123321 |
| 0.820 | 0.123358 | 0.123394 | 0.123430 | 0.123466 | 0.123503 | 0.123539 | 0.123575 | 0.123612 | 0.123648 | 0.123684 |
| 0.830 | 0.123721 | 0.123757 | 0.123793 | 0.123829 | 0.123866 | 0.123902 | 0.123938 | 0.123975 | 0.124011 | 0.124048 |
| 0.840 | 0.124084 | 0.124120 | 0.124157 | 0.124193 | 0.124229 | 0.124266 | 0.124302 | 0.124339 | 0.124375 | 0.124411 |
| 0.850 | 0.124448 | 0.124484 | 0.124521 | 0.124557 | 0.124594 | 0.124630 | 0.124667 | 0.124703 | 0.124739 | 0.124776 |
| 0.860 | 0.124812 | 0.124849 | 0.124885 | 0.124922 | 0.124958 | 0.124995 | 0.125031 | 0.125068 | 0.125104 | 0.125141 |
| 0.870 | 0.125177 | 0.125214 | 0.125250 | 0.125287 | 0.125324 | 0.125360 | 0.125397 | 0.125433 | 0.125470 | 0.125506 |
| 0.880 | 0.125543 | 0.125580 | 0.125616 | 0.125653 | 0.125689 | 0.125726 | 0.125763 | 0.125799 | 0.125836 | 0.125872 |
| 0.890 | 0.125909 | 0.125946 | 0.125982 | 0.126019 | 0.126055 | 0.126092 | 0.126129 | 0.126166 | 0.126202 | 0.126239 |
| 0.900 | 0.126276 | 0.126312 | 0.126349 | 0.126386 | 0.126423 | 0.126459 | 0.126496 | 0.126533 | 0.126569 | 0.126606 |
| 0.910 | 0.126643 | 0.126680 | 0.126716 | 0.126753 | 0.126790 | 0.126827 | 0.126863 | 0.126900 | 0.126937 | 0.126974 |
| 0.920 | 0.127011 | 0.127047 | 0.127084 | 0.127121 | 0.127158 | 0.127195 | 0.127232 | 0.127268 | 0.127305 | 0.127342 |
| 0.930 | 0.127379 | 0.127416 | 0.127453 | 0.127489 | 0.127526 | 0.127563 | 0.127600 | 0.127637 | 0.127674 | 0.127711 |
| 0.940 | 0.127748 | 0.127785 | 0.127821 | 0.127858 | 0.127895 | 0.127932 | 0.127969 | 0.128006 | 0.128043 | 0.128080 |
| 0.950 | 0.128117 | 0.128154 | 0.128191 | 0.128228 | 0.128265 | 0.128302 | 0.128339 | 0.128376 | 0.128413 | 0.128450 |
| 0.960 | 0.128487 | 0.128524 | 0.128561 | 0.128598 | 0.128635 | 0.128672 | 0.128709 | 0.128746 | 0.128783 | 0.128820 |
| 0.970 | 0.128857 | 0.128894 | 0.128931 | 0.128968 | 0.129005 | 0.129043 | 0.129080 | 0.129117 | 0.129154 | 0.129191 |
| 0.980 | 0.129228 | 0.129265 | 0.129302 | 0.129339 | 0.129377 | 0.129414 | 0.129451 | 0.129488 | 0.129525 | 0.129562 |
| 0.990 | 0.129600 | 0.129637 | 0.129674 | 0.129711 | 0.129748 | 0.129786 | 0.129823 | 0.129860 | 0.129897 | 0.129934 |

ATTENUATION IN DECIBELS
THETA FROM 7.000 TO 7.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.129972 | 0.130009 | 0.130046 | 0.130083 | 0.130121 | 0.130158 | 0.130195 | 0.130232 | 0.130270 | 0.130307 |
| 0.010 | 0.130344 | 0.130381 | 0.130419 | 0.130456 | 0.130493 | 0.130531 | 0.130568 | 0.130605 | 0.130643 | 0.130680 |
| 0.020 | 0.130717 | 0.130755 | 0.130792 | 0.130829 | 0.130867 | 0.130904 | 0.130941 | 0.130979 | 0.131016 | 0.131053 |
| 0.030 | 0.131091 | 0.131128 | 0.131166 | 0.131203 | 0.131240 | 0.131278 | 0.131315 | 0.131353 | 0.131390 | 0.131428 |
| 0.040 | 0.131465 | 0.131502 | 0.131540 | 0.131577 | 0.131615 | 0.131652 | 0.131690 | 0.131727 | 0.131765 | 0.131802 |
| 0.050 | 0.131840 | 0.131877 | 0.131915 | 0.131952 | 0.131990 | 0.132027 | 0.132065 | 0.132102 | 0.132140 | 0.132177 |
| 0.060 | 0.132215 | 0.132252 | 0.132290 | 0.132328 | 0.132365 | 0.132403 | 0.132440 | 0.132478 | 0.132516 | 0.132553 |
| 0.070 | 0.132591 | 0.132628 | 0.132666 | 0.132704 | 0.132741 | 0.132779 | 0.132816 | 0.132854 | 0.132892 | 0.132929 |
| 0.080 | 0.132967 | 0.133005 | 0.133042 | 0.133080 | 0.133118 | 0.133155 | 0.133193 | 0.133231 | 0.133268 | 0.133306 |
| 0.090 | 0.133344 | 0.133382 | 0.133419 | 0.133457 | 0.133495 | 0.133532 | 0.133570 | 0.133608 | 0.133646 | 0.133683 |
| 0.100 | 0.133721 | 0.133759 | 0.133797 | 0.133835 | 0.133872 | 0.133910 | 0.133948 | 0.133986 | 0.134024 | 0.134061 |
| 0.110 | 0.134099 | 0.134137 | 0.134175 | 0.134213 | 0.134250 | 0.134288 | 0.134326 | 0.134364 | 0.134402 | 0.134440 |
| 0.120 | 0.134478 | 0.134515 | 0.134553 | 0.134591 | 0.134629 | 0.134667 | 0.134705 | 0.134743 | 0.134781 | 0.134819 |
| 0.130 | 0.134857 | 0.134895 | 0.134932 | 0.134970 | 0.135008 | 0.135046 | 0.135084 | 0.135122 | 0.135160 | 0.135198 |
| 0.140 | 0.135236 | 0.135274 | 0.135312 | 0.135350 | 0.135388 | 0.135426 | 0.135464 | 0.135502 | 0.135540 | 0.135578 |
| 0.150 | 0.135616 | 0.135654 | 0.135692 | 0.135730 | 0.135768 | 0.135806 | 0.135844 | 0.135882 | 0.135920 | 0.135959 |
| 0.160 | 0.135997 | 0.136035 | 0.136073 | 0.136111 | 0.136149 | 0.136187 | 0.136225 | 0.136264 | 0.136302 | 0.136340 |
| 0.170 | 0.136378 | 0.136416 | 0.136454 | 0.136492 | 0.136531 | 0.136569 | 0.136607 | 0.136645 | 0.136683 | 0.136721 |
| 0.180 | 0.136760 | 0.136798 | 0.136836 | 0.136874 | 0.136912 | 0.136951 | 0.136989 | 0.137027 | 0.137065 | 0.137104 |
| 0.190 | 0.137142 | 0.137180 | 0.137218 | 0.137257 | 0.137295 | 0.137333 | 0.137371 | 0.137409 | 0.137448 | 0.137486 |
| 0.200 | 0.137525 | 0.137563 | 0.137601 | 0.137640 | 0.137678 | 0.137716 | 0.137754 | 0.137793 | 0.137831 | 0.137870 |
| 0.210 | 0.137908 | 0.137946 | 0.137985 | 0.138023 | 0.138061 | 0.138100 | 0.138138 | 0.138177 | 0.138215 | 0.138253 |
| 0.220 | 0.138292 | 0.138330 | 0.138369 | 0.138407 | 0.138445 | 0.138484 | 0.138522 | 0.138561 | 0.138599 | 0.138638 |
| 0.230 | 0.138676 | 0.138715 | 0.138753 | 0.138792 | 0.138830 | 0.138868 | 0.138907 | 0.138945 | 0.138984 | 0.139022 |
| 0.240 | 0.139061 | 0.139100 | 0.139138 | 0.139177 | 0.139215 | 0.139254 | 0.139292 | 0.139331 | 0.139369 | 0.139408 |
| 0.250 | 0.139446 | 0.139485 | 0.139524 | 0.139562 | 0.139601 | 0.139639 | 0.139678 | 0.139717 | 0.139755 | 0.139794 |
| 0.260 | 0.139832 | 0.139871 | 0.139910 | 0.139948 | 0.139987 | 0.140026 | 0.140064 | 0.140103 | 0.140142 | 0.140180 |
| 0.270 | 0.140219 | 0.140258 | 0.140296 | 0.140335 | 0.140374 | 0.140412 | 0.140451 | 0.140490 | 0.140529 | 0.140567 |
| 0.280 | 0.140606 | 0.140645 | 0.140683 | 0.140722 | 0.140761 | 0.140800 | 0.140838 | 0.140877 | 0.140916 | 0.140955 |
| 0.290 | 0.140994 | 0.141032 | 0.141071 | 0.141110 | 0.141149 | 0.141188 | 0.141226 | 0.141265 | 0.141304 | 0.141343 |
| 0.300 | 0.141382 | 0.141421 | 0.141459 | 0.141498 | 0.141537 | 0.141576 | 0.141615 | 0.141654 | 0.141693 | 0.141731 |
| 0.310 | 0.141770 | 0.141809 | 0.141848 | 0.141887 | 0.141926 | 0.141965 | 0.142004 | 0.142043 | 0.142082 | 0.142121 |
| 0.320 | 0.142160 | 0.142199 | 0.142237 | 0.142276 | 0.142315 | 0.142354 | 0.142393 | 0.142432 | 0.142471 | 0.142510 |
| 0.330 | 0.142549 | 0.142588 | 0.142627 | 0.142666 | 0.142705 | 0.142744 | 0.142783 | 0.142822 | 0.142862 | 0.142901 |
| 0.340 | 0.142940 | 0.142979 | 0.143018 | 0.143057 | 0.143096 | 0.143135 | 0.143174 | 0.143213 | 0.143252 | 0.143291 |
| 0.350 | 0.143330 | 0.143370 | 0.143409 | 0.143448 | 0.143487 | 0.143526 | 0.143565 | 0.143604 | 0.143643 | 0.143683 |
| 0.360 | 0.143722 | 0.143761 | 0.143800 | 0.143839 | 0.143879 | 0.143918 | 0.143957 | 0.143996 | 0.144035 | 0.144074 |
| 0.370 | 0.144114 | 0.144153 | 0.144192 | 0.144231 | 0.144271 | 0.144310 | 0.144349 | 0.144388 | 0.144428 | 0.144467 |
| 0.380 | 0.144506 | 0.144545 | 0.144585 | 0.144624 | 0.144663 | 0.144703 | 0.144742 | 0.144781 | 0.144820 | 0.144860 |
| 0.390 | 0.144899 | 0.144938 | 0.144978 | 0.145017 | 0.145056 | 0.145096 | 0.145135 | 0.145175 | 0.145214 | 0.145253 |
| 0.400 | 0.145293 | 0.145332 | 0.145371 | 0.145411 | 0.145450 | 0.145490 | 0.145529 | 0.145568 | 0.145608 | 0.145647 |
| 0.410 | 0.145687 | 0.145726 | 0.145766 | 0.145805 | 0.145844 | 0.145884 | 0.145923 | 0.145963 | 0.146002 | 0.146041 |
| 0.420 | 0.146081 | 0.146121 | 0.146160 | 0.146200 | 0.146239 | 0.146279 | 0.146318 | 0.146358 | 0.146397 | 0.146437 |
| 0.430 | 0.146476 | 0.146516 | 0.146555 | 0.146595 | 0.146635 | 0.146674 | 0.146714 | 0.146753 | 0.146793 | 0.146832 |
| 0.440 | 0.146872 | 0.146912 | 0.146951 | 0.146991 | 0.147030 | 0.147070 | 0.147110 | 0.147149 | 0.147189 | 0.147229 |
| 0.450 | 0.147268 | 0.147308 | 0.147348 | 0.147387 | 0.147427 | 0.147467 | 0.147506 | 0.147546 | 0.147586 | 0.147625 |
| 0.460 | 0.147665 | 0.147705 | 0.147744 | 0.147784 | 0.147824 | 0.147864 | 0.147903 | 0.147943 | 0.147983 | 0.148023 |
| 0.470 | 0.148062 | 0.148102 | 0.148142 | 0.148182 | 0.148221 | 0.148261 | 0.148301 | 0.148341 | 0.148380 | 0.148420 |
| 0.480 | 0.148460 | 0.148500 | 0.148540 | 0.148580 | 0.148619 | 0.148659 | 0.148699 | 0.148739 | 0.148779 | 0.148819 |
| 0.490 | 0.148858 | 0.148898 | 0.148938 | 0.148978 | 0.149018 | 0.149058 | 0.149098 | 0.149138 | 0.149178 | 0.149217 |

ATTENUATION IN DECIBELS
THETA FROM 7.500 TO 7.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.149257 | 0.149297 | 0.149337 | 0.149377 | 0.149417 | 0.149457 | 0.149497 | 0.149537 | 0.149577 | 0.149617 |
| 0.510 | 0.149657 | 0.149697 | 0.149737 | 0.149777 | 0.149817 | 0.149857 | 0.149897 | 0.149937 | 0.149977 | 0.150017 |
| 0.520 | 0.150057 | 0.150097 | 0.150137 | 0.150177 | 0.150217 | 0.150257 | 0.150297 | 0.150337 | 0.150377 | 0.150417 |
| 0.530 | 0.150457 | 0.150497 | 0.150537 | 0.150577 | 0.150618 | 0.150658 | 0.150698 | 0.150738 | 0.150778 | 0.150818 |
| 0.540 | 0.150858 | 0.150898 | 0.150939 | 0.150979 | 0.151019 | 0.151059 | 0.151099 | 0.151139 | 0.151180 | 0.151220 |
| 0.550 | 0.151260 | 0.151300 | 0.151340 | 0.151380 | 0.151421 | 0.151461 | 0.151501 | 0.151541 | 0.151582 | 0.151622 |
| 0.560 | 0.151662 | 0.151702 | 0.151743 | 0.151783 | 0.151823 | 0.151863 | 0.151904 | 0.151944 | 0.151984 | 0.152024 |
| 0.570 | 0.152065 | 0.152105 | 0.152145 | 0.152186 | 0.152226 | 0.152266 | 0.152307 | 0.152347 | 0.152387 | 0.152428 |
| 0.580 | 0.152468 | 0.152508 | 0.152549 | 0.152589 | 0.152629 | 0.152669 | 0.152710 | 0.152750 | 0.152791 | 0.152831 |
| 0.590 | 0.152872 | 0.152912 | 0.152952 | 0.152993 | 0.153033 | 0.153074 | 0.153114 | 0.153155 | 0.153195 | 0.153235 |
| 0.600 | 0.153276 | 0.153316 | 0.153357 | 0.153397 | 0.153438 | 0.153478 | 0.153519 | 0.153559 | 0.153600 | 0.153640 |
| 0.610 | 0.153681 | 0.153721 | 0.153762 | 0.153802 | 0.153843 | 0.153883 | 0.153924 | 0.153964 | 0.154005 | 0.154046 |
| 0.620 | 0.154086 | 0.154127 | 0.154167 | 0.154208 | 0.154248 | 0.154289 | 0.154330 | 0.154370 | 0.154411 | 0.154451 |
| 0.630 | 0.154492 | 0.154533 | 0.154573 | 0.154614 | 0.154654 | 0.154695 | 0.154736 | 0.154776 | 0.154817 | 0.154858 |
| 0.640 | 0.154898 | 0.154939 | 0.154980 | 0.155020 | 0.155061 | 0.155102 | 0.155143 | 0.155183 | 0.155224 | 0.155265 |
| 0.650 | 0.155305 | 0.155346 | 0.155387 | 0.155428 | 0.155468 | 0.155509 | 0.155550 | 0.155591 | 0.155631 | 0.155672 |
| 0.660 | 0.155713 | 0.155754 | 0.155794 | 0.155835 | 0.155876 | 0.155917 | 0.155958 | 0.155998 | 0.156039 | 0.156080 |
| 0.670 | 0.156121 | 0.156162 | 0.156203 | 0.156243 | 0.156284 | 0.156325 | 0.156366 | 0.156407 | 0.156448 | 0.156489 |
| 0.680 | 0.156530 | 0.156570 | 0.156611 | 0.156652 | 0.156693 | 0.156734 | 0.156775 | 0.156816 | 0.156857 | 0.156898 |
| 0.690 | 0.156939 | 0.156980 | 0.157021 | 0.157061 | 0.157102 | 0.157143 | 0.157184 | 0.157225 | 0.157266 | 0.157307 |
| 0.700 | 0.157348 | 0.157389 | 0.157430 | 0.157471 | 0.157512 | 0.157553 | 0.157594 | 0.157635 | 0.157676 | 0.157717 |
| 0.710 | 0.157759 | 0.157800 | 0.157841 | 0.157882 | 0.157923 | 0.157964 | 0.158005 | 0.158046 | 0.158087 | 0.158128 |
| 0.720 | 0.158169 | 0.158210 | 0.158251 | 0.158292 | 0.158334 | 0.158375 | 0.158416 | 0.158457 | 0.158498 | 0.158539 |
| 0.730 | 0.158581 | 0.158622 | 0.158663 | 0.158704 | 0.158745 | 0.158786 | 0.158828 | 0.158869 | 0.158910 | 0.158951 |
| 0.740 | 0.158992 | 0.159034 | 0.159075 | 0.159116 | 0.159157 | 0.159198 | 0.159240 | 0.159281 | 0.159322 | 0.159363 |
| 0.750 | 0.159405 | 0.159446 | 0.159487 | 0.159529 | 0.159570 | 0.159611 | 0.159652 | 0.159694 | 0.159735 | 0.159776 |
| 0.760 | 0.159818 | 0.159859 | 0.159900 | 0.159942 | 0.159983 | 0.160024 | 0.160066 | 0.160107 | 0.160148 | 0.160190 |
| 0.770 | 0.160231 | 0.160272 | 0.160314 | 0.160355 | 0.160397 | 0.160438 | 0.160479 | 0.160521 | 0.160562 | 0.160604 |
| 0.780 | 0.160645 | 0.160686 | 0.160728 | 0.160769 | 0.160811 | 0.160852 | 0.160894 | 0.160935 | 0.160977 | 0.161018 |
| 0.790 | 0.161050 | 0.161101 | 0.161143 | 0.161184 | 0.161226 | 0.161267 | 0.161309 | 0.161350 | 0.161392 | 0.161433 |
| 0.800 | 0.161475 | 0.161516 | 0.161558 | 0.161599 | 0.161641 | 0.161682 | 0.161724 | 0.161765 | 0.161807 | 0.161849 |
| 0.810 | 0.161890 | 0.161932 | 0.161973 | 0.162015 | 0.162057 | 0.162098 | 0.162140 | 0.162181 | 0.162223 | 0.162265 |
| 0.820 | 0.162306 | 0.162348 | 0.162390 | 0.162431 | 0.162473 | 0.162515 | 0.162556 | 0.162598 | 0.162640 | 0.162681 |
| 0.830 | 0.162723 | 0.162765 | 0.162806 | 0.162848 | 0.162890 | 0.162932 | 0.162973 | 0.163015 | 0.163057 | 0.163098 |
| 0.840 | 0.163140 | 0.163182 | 0.163224 | 0.163266 | 0.163307 | 0.163349 | 0.163391 | 0.163433 | 0.163474 | 0.163516 |
| 0.850 | 0.163558 | 0.163600 | 0.163642 | 0.163683 | 0.163725 | 0.163767 | 0.163809 | 0.163851 | 0.163893 | 0.163934 |
| 0.860 | 0.163976 | 0.164018 | 0.164060 | 0.164102 | 0.164144 | 0.164186 | 0.164228 | 0.164269 | 0.164311 | 0.164353 |
| 0.870 | 0.164395 | 0.164437 | 0.164479 | 0.164521 | 0.164563 | 0.164605 | 0.164647 | 0.164689 | 0.164731 | 0.164773 |
| 0.880 | 0.164814 | 0.164856 | 0.164898 | 0.164940 | 0.164982 | 0.165024 | 0.165066 | 0.165108 | 0.165150 | 0.165192 |
| 0.890 | 0.165234 | 0.165276 | 0.165318 | 0.165360 | 0.165403 | 0.165445 | 0.165487 | 0.165529 | 0.165571 | 0.165613 |
| 0.900 | 0.165655 | 0.165697 | 0.165739 | 0.165781 | 0.165823 | 0.165865 | 0.165907 | 0.165949 | 0.165992 | 0.166034 |
| 0.910 | 0.166076 | 0.166118 | 0.166160 | 0.166202 | 0.166244 | 0.166287 | 0.166329 | 0.166371 | 0.166413 | 0.166455 |
| 0.920 | 0.166497 | 0.166540 | 0.166582 | 0.166624 | 0.166666 | 0.166708 | 0.166751 | 0.166793 | 0.166835 | 0.166877 |
| 0.930 | 0.166919 | 0.166962 | 0.167004 | 0.167046 | 0.167088 | 0.167131 | 0.167173 | 0.167215 | 0.167257 | 0.167300 |
| 0.940 | 0.167342 | 0.167384 | 0.167427 | 0.167469 | 0.167511 | 0.167554 | 0.167596 | 0.167638 | 0.167680 | 0.167723 |
| 0.950 | 0.167765 | 0.167808 | 0.167850 | 0.167892 | 0.167935 | 0.167977 | 0.168019 | 0.168062 | 0.168104 | 0.168146 |
| 0.960 | 0.168189 | 0.168231 | 0.168274 | 0.168316 | 0.168358 | 0.168401 | 0.168443 | 0.168486 | 0.168528 | 0.168571 |
| 0.970 | 0.168613 | 0.168656 | 0.168698 | 0.168740 | 0.168783 | 0.168825 | 0.168868 | 0.168910 | 0.168953 | 0.168995 |
| 0.980 | 0.169038 | 0.169080 | 0.169123 | 0.169165 | 0.169208 | 0.169250 | 0.169293 | 0.169335 | 0.169378 | 0.169421 |
| 0.990 | 0.169463 | 0.169506 | 0.169548 | 0.169591 | 0.169633 | 0.169676 | 0.169719 | 0.169761 | 0.169804 | 0.169846 |

ATTENUATION IN DECIBELS
THETA FROM 8.000 TO 8.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.169889 | 0.169932 | 0.169974 | 0.170017 | 0.170059 | 0.170102 | 0.170145 | 0.170187 | 0.170230 | 0.170273 |
| 0.010 | 0.170315 | 0.170358 | 0.170401 | 0.170443 | 0.170486 | 0.170529 | 0.170571 | 0.170614 | 0.170657 | 0.170700 |
| 0.020 | 0.170742 | 0.170785 | 0.170828 | 0.170870 | 0.170913 | 0.170956 | 0.170999 | 0.171041 | 0.171084 | 0.171127 |
| 0.030 | 0.171170 | 0.171213 | 0.171255 | 0.171298 | 0.171341 | 0.171384 | 0.171426 | 0.171469 | 0.171512 | 0.171555 |
| 0.040 | 0.171598 | 0.171641 | 0.171683 | 0.171726 | 0.171769 | 0.171812 | 0.171855 | 0.171898 | 0.171941 | 0.171983 |
| 0.050 | 0.172026 | 0.172069 | 0.172112 | 0.172155 | 0.172198 | 0.172241 | 0.172284 | 0.172327 | 0.172370 | 0.172412 |
| 0.060 | 0.172455 | 0.172498 | 0.172541 | 0.172584 | 0.172627 | 0.172670 | 0.172713 | 0.172756 | 0.172799 | 0.172842 |
| 0.070 | 0.172865 | 0.172908 | 0.172951 | 0.172994 | 0.173037 | 0.173080 | 0.173123 | 0.173166 | 0.173209 | 0.173252 |
| 0.080 | 0.173315 | 0.173358 | 0.173401 | 0.173444 | 0.173487 | 0.173530 | 0.173574 | 0.173617 | 0.173660 | 0.173703 |
| 0.090 | 0.173746 | 0.173789 | 0.173832 | 0.173875 | 0.173918 | 0.173961 | 0.174005 | 0.174048 | 0.174091 | 0.174134 |
| 0.100 | 0.174177 | 0.174220 | 0.174263 | 0.174307 | 0.174350 | 0.174393 | 0.174436 | 0.174479 | 0.174522 | 0.174566 |
| 0.110 | 0.174609 | 0.174652 | 0.174695 | 0.174739 | 0.174782 | 0.174825 | 0.174868 | 0.174911 | 0.174955 | 0.174998 |
| 0.120 | 0.175041 | 0.175084 | 0.175128 | 0.175171 | 0.175214 | 0.175258 | 0.175301 | 0.175344 | 0.175387 | 0.175431 |
| 0.130 | 0.175474 | 0.175517 | 0.175561 | 0.175604 | 0.175647 | 0.175691 | 0.175734 | 0.175777 | 0.175821 | 0.175864 |
| 0.140 | 0.175907 | 0.175951 | 0.175994 | 0.176038 | 0.176081 | 0.176124 | 0.176168 | 0.176211 | 0.176255 | 0.176298 |
| 0.150 | 0.176341 | 0.176385 | 0.176428 | 0.176472 | 0.176515 | 0.176559 | 0.176602 | 0.176645 | 0.176689 | 0.176732 |
| 0.160 | 0.176776 | 0.176819 | 0.176863 | 0.176906 | 0.176950 | 0.176993 | 0.177037 | 0.177080 | 0.177124 | 0.177167 |
| 0.170 | 0.177211 | 0.177254 | 0.177298 | 0.177341 | 0.177385 | 0.177429 | 0.177472 | 0.177516 | 0.177559 | 0.177603 |
| 0.180 | 0.177646 | 0.177690 | 0.177734 | 0.177777 | 0.177821 | 0.177864 | 0.177908 | 0.177952 | 0.177995 | 0.178039 |
| 0.190 | 0.178082 | 0.178126 | 0.178170 | 0.178213 | 0.178257 | 0.178301 | 0.178344 | 0.178388 | 0.178432 | 0.178475 |
| 0.200 | 0.178519 | 0.178563 | 0.178607 | 0.178650 | 0.178694 | 0.178738 | 0.178781 | 0.178825 | 0.178869 | 0.178913 |
| 0.210 | 0.178956 | 0.179000 | 0.179044 | 0.179088 | 0.179131 | 0.179175 | 0.179219 | 0.179263 | 0.179306 | 0.179350 |
| 0.220 | 0.179394 | 0.179438 | 0.179482 | 0.179526 | 0.179569 | 0.179613 | 0.179657 | 0.179701 | 0.179745 | 0.179789 |
| 0.230 | 0.179832 | 0.179876 | 0.179920 | 0.179964 | 0.180008 | 0.180052 | 0.180096 | 0.180139 | 0.180183 | 0.180227 |
| 0.240 | 0.180271 | 0.180315 | 0.180359 | 0.180403 | 0.180447 | 0.180491 | 0.180535 | 0.180579 | 0.180623 | 0.180667 |
| 0.250 | 0.180710 | 0.180754 | 0.180798 | 0.180842 | 0.180886 | 0.180930 | 0.180974 | 0.181018 | 0.181062 | 0.181106 |
| 0.260 | 0.181150 | 0.181194 | 0.181238 | 0.181282 | 0.181326 | 0.181370 | 0.181415 | 0.181459 | 0.181503 | 0.181547 |
| 0.270 | 0.181591 | 0.181635 | 0.181679 | 0.181723 | 0.181767 | 0.181811 | 0.181855 | 0.181899 | 0.181944 | 0.181988 |
| 0.280 | 0.182034 | 0.182078 | 0.182122 | 0.182166 | 0.182210 | 0.182254 | 0.182298 | 0.182342 | 0.182386 | 0.182429 |
| 0.290 | 0.182473 | 0.182517 | 0.182562 | 0.182606 | 0.182650 | 0.182694 | 0.182738 | 0.182783 | 0.182827 | 0.182871 |
| 0.300 | 0.182915 | 0.182960 | 0.183004 | 0.183048 | 0.183092 | 0.183137 | 0.183181 | 0.183225 | 0.183269 | 0.183314 |
| 0.310 | 0.183358 | 0.183402 | 0.183446 | 0.183491 | 0.183535 | 0.183579 | 0.183624 | 0.183668 | 0.183712 | 0.183757 |
| 0.320 | 0.183801 | 0.183845 | 0.183889 | 0.183934 | 0.183978 | 0.184023 | 0.184067 | 0.184112 | 0.184156 | 0.184200 |
| 0.330 | 0.184245 | 0.184289 | 0.184333 | 0.184378 | 0.184422 | 0.184467 | 0.184511 | 0.184556 | 0.184600 | 0.184644 |
| 0.340 | 0.184689 | 0.184733 | 0.184778 | 0.184822 | 0.184867 | 0.184911 | 0.184956 | 0.185000 | 0.185045 | 0.185089 |
| 0.350 | 0.185134 | 0.185178 | 0.185223 | 0.185267 | 0.185312 | 0.185356 | 0.185401 | 0.185445 | 0.185490 | 0.185534 |
| 0.360 | 0.185579 | 0.185623 | 0.185668 | 0.185713 | 0.185757 | 0.185802 | 0.185846 | 0.185891 | 0.185936 | 0.185980 |
| 0.370 | 0.186025 | 0.186069 | 0.186114 | 0.186159 | 0.186203 | 0.186248 | 0.186292 | 0.186337 | 0.186382 | 0.186426 |
| 0.380 | 0.186471 | 0.186516 | 0.186560 | 0.186605 | 0.186650 | 0.186694 | 0.186739 | 0.186784 | 0.186829 | 0.186873 |
| 0.390 | 0.186913 | 0.186958 | 0.187003 | 0.187048 | 0.187092 | 0.187137 | 0.187181 | 0.187226 | 0.187271 | 0.187315 |
| 0.400 | 0.187365 | 0.187410 | 0.187455 | 0.187500 | 0.187545 | 0.187589 | 0.187634 | 0.187679 | 0.187724 | 0.187769 |
| 0.410 | 0.187813 | 0.187858 | 0.187903 | 0.187948 | 0.187993 | 0.188038 | 0.188083 | 0.188127 | 0.188172 | 0.188217 |
| 0.420 | 0.188262 | 0.188307 | 0.188352 | 0.188397 | 0.188442 | 0.188486 | 0.188531 | 0.188576 | 0.188621 | 0.188666 |
| 0.430 | 0.188711 | 0.188756 | 0.188801 | 0.188846 | 0.188891 | 0.188936 | 0.188981 | 0.189026 | 0.189071 | 0.189116 |
| 0.440 | 0.189161 | 0.189206 | 0.189251 | 0.189296 | 0.189341 | 0.189386 | 0.189431 | 0.189476 | 0.189521 | 0.189566 |
| 0.450 | 0.189611 | 0.189656 | 0.189701 | 0.189746 | 0.189791 | 0.189836 | 0.189881 | 0.189926 | 0.189971 | 0.190016 |
| 0.460 | 0.190062 | 0.190107 | 0.190152 | 0.190197 | 0.190242 | 0.190287 | 0.190332 | 0.190377 | 0.190422 | 0.190468 |
| 0.470 | 0.190513 | 0.190558 | 0.190603 | 0.190648 | 0.190693 | 0.190739 | 0.190784 | 0.190829 | 0.190874 | 0.190919 |
| 0.480 | 0.190965 | 0.191010 | 0.191055 | 0.191100 | 0.191145 | 0.191191 | 0.191236 | 0.191281 | 0.191326 | 0.191372 |
| 0.490 | 0.191417 | 0.191462 | 0.191507 | 0.191553 | 0.191598 | 0.191643 | 0.191688 | 0.191734 | 0.191779 | 0.191824 |

ATTENUATION IN DECIBELS
 THETA FROM 8.500 TO 8.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.191870 | 0.191915 | 0.191960 | 0.192006 | 0.192051 | 0.192096 | 0.192142 | 0.192187 | 0.192232 | 0.192278 |
| 0.510 | 0.192323 | 0.192368 | 0.192414 | 0.192459 | 0.192505 | 0.192550 | 0.192595 | 0.192641 | 0.192686 | 0.192732 |
| 0.520 | 0.192777 | 0.192822 | 0.192868 | 0.192913 | 0.192959 | 0.193004 | 0.193050 | 0.193095 | 0.193141 | 0.193186 |
| 0.530 | 0.193232 | 0.193277 | 0.193322 | 0.193368 | 0.193413 | 0.193459 | 0.193504 | 0.193550 | 0.193595 | 0.193641 |
| 0.540 | 0.193687 | 0.193732 | 0.193778 | 0.193823 | 0.193869 | 0.193914 | 0.193960 | 0.194005 | 0.194051 | 0.194097 |
| 0.550 | 0.194142 | 0.194188 | 0.194233 | 0.194279 | 0.194324 | 0.194370 | 0.194416 | 0.194461 | 0.194507 | 0.194553 |
| 0.560 | 0.194598 | 0.194644 | 0.194689 | 0.194735 | 0.194781 | 0.194826 | 0.194872 | 0.194918 | 0.194963 | 0.195009 |
| 0.570 | 0.195055 | 0.195101 | 0.195146 | 0.195192 | 0.195238 | 0.195283 | 0.195329 | 0.195375 | 0.195421 | 0.195466 |
| 0.580 | 0.195512 | 0.195558 | 0.195604 | 0.195649 | 0.195695 | 0.195741 | 0.195787 | 0.195832 | 0.195878 | 0.195924 |
| 0.590 | 0.195970 | 0.196016 | 0.196061 | 0.196107 | 0.196153 | 0.196199 | 0.196245 | 0.196290 | 0.196336 | 0.196382 |
| 0.600 | 0.196428 | 0.196474 | 0.196520 | 0.196566 | 0.196611 | 0.196657 | 0.196703 | 0.196749 | 0.196795 | 0.196841 |
| 0.610 | 0.196887 | 0.196933 | 0.196979 | 0.197025 | 0.197071 | 0.197116 | 0.197162 | 0.197208 | 0.197254 | 0.197300 |
| 0.620 | 0.197346 | 0.197392 | 0.197438 | 0.197484 | 0.197530 | 0.197576 | 0.197622 | 0.197668 | 0.197714 | 0.197760 |
| 0.630 | 0.197806 | 0.197852 | 0.197898 | 0.197944 | 0.197990 | 0.198035 | 0.198082 | 0.198128 | 0.198174 | 0.198220 |
| 0.640 | 0.198267 | 0.198313 | 0.198359 | 0.198405 | 0.198451 | 0.198497 | 0.198543 | 0.198589 | 0.198635 | 0.198681 |
| 0.650 | 0.198727 | 0.198774 | 0.198820 | 0.198866 | 0.198912 | 0.198958 | 0.199004 | 0.199050 | 0.199097 | 0.199143 |
| 0.660 | 0.199189 | 0.199235 | 0.199281 | 0.199328 | 0.199374 | 0.199420 | 0.199466 | 0.199512 | 0.199559 | 0.199605 |
| 0.670 | 0.199651 | 0.199697 | 0.199744 | 0.199790 | 0.199836 | 0.199882 | 0.199929 | 0.199975 | 0.200021 | 0.200067 |
| 0.680 | 0.200114 | 0.200160 | 0.200206 | 0.200253 | 0.200299 | 0.200345 | 0.200391 | 0.200438 | 0.200484 | 0.200530 |
| 0.690 | 0.200577 | 0.200623 | 0.200669 | 0.200716 | 0.200762 | 0.200809 | 0.200855 | 0.200901 | 0.200948 | 0.200994 |
| 0.700 | 0.201040 | 0.201087 | 0.201133 | 0.201180 | 0.201226 | 0.201273 | 0.201319 | 0.201365 | 0.201412 | 0.201458 |
| 0.710 | 0.201505 | 0.201551 | 0.201598 | 0.201644 | 0.201691 | 0.201737 | 0.201784 | 0.201830 | 0.201876 | 0.201923 |
| 0.720 | 0.201969 | 0.202016 | 0.202062 | 0.202109 | 0.202156 | 0.202202 | 0.202249 | 0.202295 | 0.202342 | 0.202388 |
| 0.730 | 0.202435 | 0.202481 | 0.202528 | 0.202574 | 0.202621 | 0.202668 | 0.202714 | 0.202761 | 0.202807 | 0.202854 |
| 0.740 | 0.202901 | 0.202947 | 0.202994 | 0.203040 | 0.203087 | 0.203134 | 0.203180 | 0.203227 | 0.203274 | 0.203320 |
| 0.750 | 0.203367 | 0.203414 | 0.203460 | 0.203507 | 0.203554 | 0.203600 | 0.203647 | 0.203694 | 0.203741 | 0.203787 |
| 0.760 | 0.203834 | 0.203881 | 0.203927 | 0.203974 | 0.204021 | 0.204068 | 0.204114 | 0.204161 | 0.204208 | 0.204255 |
| 0.770 | 0.204301 | 0.204348 | 0.204395 | 0.204442 | 0.204489 | 0.204535 | 0.204582 | 0.204629 | 0.204676 | 0.204723 |
| 0.780 | 0.204769 | 0.204816 | 0.204863 | 0.204910 | 0.204957 | 0.205004 | 0.205051 | 0.205097 | 0.205144 | 0.205191 |
| 0.790 | 0.205238 | 0.205285 | 0.205332 | 0.205379 | 0.205426 | 0.205472 | 0.205519 | 0.205566 | 0.205613 | 0.205660 |
| 0.800 | 0.205707 | 0.205754 | 0.205801 | 0.205848 | 0.205895 | 0.205942 | 0.205989 | 0.206036 | 0.206083 | 0.206130 |
| 0.810 | 0.206177 | 0.206224 | 0.206271 | 0.206318 | 0.206365 | 0.206412 | 0.206459 | 0.206506 | 0.206553 | 0.206600 |
| 0.820 | 0.206647 | 0.206694 | 0.206741 | 0.206788 | 0.206835 | 0.206882 | 0.206929 | 0.206976 | 0.207023 | 0.207071 |
| 0.830 | 0.207118 | 0.207165 | 0.207212 | 0.207259 | 0.207306 | 0.207353 | 0.207400 | 0.207447 | 0.207494 | 0.207542 |
| 0.840 | 0.207589 | 0.207636 | 0.207683 | 0.207730 | 0.207778 | 0.207825 | 0.207872 | 0.207919 | 0.207966 | 0.208014 |
| 0.850 | 0.208061 | 0.208108 | 0.208155 | 0.208202 | 0.208250 | 0.208297 | 0.208344 | 0.208391 | 0.208439 | 0.208486 |
| 0.860 | 0.208533 | 0.208580 | 0.208628 | 0.208675 | 0.208722 | 0.208769 | 0.208817 | 0.208864 | 0.208911 | 0.208959 |
| 0.870 | 0.209006 | 0.209053 | 0.209101 | 0.209148 | 0.209195 | 0.209243 | 0.209290 | 0.209337 | 0.209385 | 0.209432 |
| 0.880 | 0.209479 | 0.209527 | 0.209574 | 0.209622 | 0.209669 | 0.209716 | 0.209764 | 0.209811 | 0.209859 | 0.209906 |
| 0.890 | 0.209953 | 0.210001 | 0.210048 | 0.210096 | 0.210143 | 0.210191 | 0.210238 | 0.210285 | 0.210333 | 0.210380 |
| 0.900 | 0.210428 | 0.210475 | 0.210523 | 0.210570 | 0.210618 | 0.210665 | 0.210713 | 0.210760 | 0.210808 | 0.210855 |
| 0.910 | 0.210903 | 0.210950 | 0.210998 | 0.211046 | 0.211093 | 0.211141 | 0.211188 | 0.211236 | 0.211283 | 0.211331 |
| 0.920 | 0.211379 | 0.211426 | 0.211474 | 0.211521 | 0.211569 | 0.211617 | 0.211664 | 0.211712 | 0.211759 | 0.211807 |
| 0.930 | 0.211855 | 0.211902 | 0.211950 | 0.211998 | 0.212045 | 0.212093 | 0.212141 | 0.212188 | 0.212236 | 0.212284 |
| 0.940 | 0.212331 | 0.212379 | 0.212427 | 0.212475 | 0.212522 | 0.212570 | 0.212618 | 0.212665 | 0.212713 | 0.212761 |
| 0.950 | 0.212809 | 0.212856 | 0.212904 | 0.212952 | 0.213000 | 0.213047 | 0.213095 | 0.213143 | 0.213191 | 0.213239 |
| 0.960 | 0.213286 | 0.213334 | 0.213382 | 0.213430 | 0.213478 | 0.213525 | 0.213573 | 0.213621 | 0.213669 | 0.213717 |
| 0.970 | 0.213765 | 0.213813 | 0.213860 | 0.213908 | 0.213956 | 0.214004 | 0.214052 | 0.214100 | 0.214148 | 0.214196 |
| 0.980 | 0.214244 | 0.214291 | 0.214339 | 0.214387 | 0.214435 | 0.214483 | 0.214531 | 0.214579 | 0.214627 | 0.214675 |
| 0.990 | 0.214723 | 0.214771 | 0.214819 | 0.214867 | 0.214915 | 0.214963 | 0.215011 | 0.215059 | 0.215107 | 0.215155 |

ATTENUATION IN DECIBELS
THETA FROM 9.000 TO 9.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.215203 | 0.215251 | 0.215299 | 0.215347 | 0.215395 | 0.215443 | 0.215491 | 0.215539 | 0.215587 | 0.215635 |
| 0.010 | 0.215683 | 0.215731 | 0.215780 | 0.215828 | 0.215876 | 0.215924 | 0.215972 | 0.216020 | 0.216068 | 0.216116 |
| 0.020 | 0.216164 | 0.216213 | 0.216261 | 0.216309 | 0.216357 | 0.216405 | 0.216453 | 0.216501 | 0.216550 | 0.216598 |
| 0.030 | 0.216646 | 0.216694 | 0.216742 | 0.216791 | 0.216839 | 0.216887 | 0.216935 | 0.216983 | 0.217032 | 0.217080 |
| 0.040 | 0.217128 | 0.217176 | 0.217225 | 0.217273 | 0.217321 | 0.217369 | 0.217418 | 0.217466 | 0.217514 | 0.217562 |
| 0.050 | 0.217611 | 0.217659 | 0.217707 | 0.217755 | 0.217804 | 0.217852 | 0.217901 | 0.217949 | 0.217997 | 0.218046 |
| 0.060 | 0.218094 | 0.218142 | 0.218191 | 0.218239 | 0.218287 | 0.218336 | 0.218384 | 0.218433 | 0.218481 | 0.218529 |
| 0.070 | 0.218578 | 0.218626 | 0.218675 | 0.218723 | 0.218771 | 0.218820 | 0.218868 | 0.218917 | 0.218965 | 0.219014 |
| 0.080 | 0.219062 | 0.219110 | 0.219159 | 0.219207 | 0.219256 | 0.219304 | 0.219353 | 0.219401 | 0.219450 | 0.219498 |
| 0.090 | 0.219547 | 0.219595 | 0.219644 | 0.219692 | 0.219741 | 0.219789 | 0.219838 | 0.219887 | 0.219935 | 0.219984 |
| 0.100 | 0.220032 | 0.220081 | 0.220129 | 0.220178 | 0.220226 | 0.220275 | 0.220324 | 0.220372 | 0.220421 | 0.220469 |
| 0.110 | 0.220518 | 0.220567 | 0.220615 | 0.220664 | 0.220713 | 0.220761 | 0.220810 | 0.220859 | 0.220907 | 0.220956 |
| 0.120 | 0.221055 | 0.221103 | 0.221151 | 0.221199 | 0.221248 | 0.221297 | 0.221345 | 0.221394 | 0.221443 | 0.221492 |
| 0.130 | 0.221492 | 0.221540 | 0.221589 | 0.221638 | 0.221686 | 0.221735 | 0.221784 | 0.221833 | 0.221882 | 0.221930 |
| 0.140 | 0.221979 | 0.222028 | 0.222077 | 0.222125 | 0.222174 | 0.222223 | 0.222272 | 0.222321 | 0.222369 | 0.222418 |
| 0.150 | 0.222467 | 0.222516 | 0.222565 | 0.222614 | 0.222663 | 0.222711 | 0.222760 | 0.222809 | 0.222858 | 0.222907 |
| 0.160 | 0.222956 | 0.223005 | 0.223054 | 0.223102 | 0.223151 | 0.223200 | 0.223249 | 0.223298 | 0.223347 | 0.223396 |
| 0.170 | 0.223445 | 0.223494 | 0.223543 | 0.223592 | 0.223641 | 0.223690 | 0.223739 | 0.223788 | 0.223837 | 0.223886 |
| 0.180 | 0.223935 | 0.223984 | 0.224033 | 0.224082 | 0.224131 | 0.224180 | 0.224229 | 0.224278 | 0.224327 | 0.224376 |
| 0.190 | 0.224425 | 0.224474 | 0.224523 | 0.224572 | 0.224621 | 0.224670 | 0.224719 | 0.224768 | 0.224818 | 0.224867 |
| 0.200 | 0.224916 | 0.224965 | 0.225014 | 0.225063 | 0.225112 | 0.225161 | 0.225210 | 0.225260 | 0.225309 | 0.225358 |
| 0.210 | 0.225407 | 0.225456 | 0.225505 | 0.225553 | 0.225604 | 0.225653 | 0.225702 | 0.225751 | 0.225801 | 0.225850 |
| 0.220 | 0.225899 | 0.225948 | 0.225997 | 0.226047 | 0.226096 | 0.226145 | 0.226194 | 0.226244 | 0.226293 | 0.226342 |
| 0.230 | 0.226391 | 0.226441 | 0.226490 | 0.226539 | 0.226588 | 0.226638 | 0.226687 | 0.226736 | 0.226786 | 0.226835 |
| 0.240 | 0.226884 | 0.226934 | 0.226983 | 0.227032 | 0.227082 | 0.227131 | 0.227180 | 0.227230 | 0.227279 | 0.227328 |
| 0.250 | 0.227378 | 0.227427 | 0.227477 | 0.227526 | 0.227575 | 0.227625 | 0.227674 | 0.227724 | 0.227773 | 0.227822 |
| 0.260 | 0.227872 | 0.227921 | 0.227971 | 0.228020 | 0.228070 | 0.228119 | 0.228169 | 0.228218 | 0.228268 | 0.228317 |
| 0.270 | 0.228366 | 0.228416 | 0.228465 | 0.228515 | 0.228564 | 0.228614 | 0.228664 | 0.228713 | 0.228763 | 0.228812 |
| 0.280 | 0.228862 | 0.228911 | 0.228961 | 0.229010 | 0.229060 | 0.229109 | 0.229159 | 0.229209 | 0.229258 | 0.229308 |
| 0.290 | 0.229357 | 0.229407 | 0.229457 | 0.229506 | 0.229556 | 0.229605 | 0.229655 | 0.229705 | 0.229754 | 0.229804 |
| 0.300 | 0.229854 | 0.229903 | 0.229953 | 0.230003 | 0.230052 | 0.230102 | 0.230152 | 0.230201 | 0.230251 | 0.230301 |
| 0.310 | 0.230350 | 0.230400 | 0.230450 | 0.230499 | 0.230549 | 0.230599 | 0.230649 | 0.230698 | 0.230748 | 0.230798 |
| 0.320 | 0.230848 | 0.230897 | 0.230947 | 0.230997 | 0.231047 | 0.231096 | 0.231146 | 0.231196 | 0.231246 | 0.231296 |
| 0.330 | 0.231345 | 0.231395 | 0.231445 | 0.231495 | 0.231545 | 0.231595 | 0.231644 | 0.231694 | 0.231744 | 0.231794 |
| 0.340 | 0.231844 | 0.231894 | 0.231944 | 0.231994 | 0.232043 | 0.232093 | 0.232143 | 0.232193 | 0.232243 | 0.232293 |
| 0.350 | 0.232343 | 0.232393 | 0.232443 | 0.232493 | 0.232543 | 0.232593 | 0.232643 | 0.232692 | 0.232742 | 0.232792 |
| 0.360 | 0.232842 | 0.232892 | 0.232942 | 0.232992 | 0.233042 | 0.233092 | 0.233142 | 0.233192 | 0.233242 | 0.233292 |
| 0.370 | 0.233342 | 0.233392 | 0.233442 | 0.233492 | 0.233543 | 0.233593 | 0.233643 | 0.233693 | 0.233743 | 0.233793 |
| 0.380 | 0.233843 | 0.233893 | 0.233943 | 0.233993 | 0.234043 | 0.234093 | 0.234144 | 0.234194 | 0.234244 | 0.234294 |
| 0.390 | 0.234344 | 0.234394 | 0.234444 | 0.234495 | 0.234545 | 0.234595 | 0.234645 | 0.234695 | 0.234745 | 0.234795 |
| 0.400 | 0.234846 | 0.234896 | 0.234946 | 0.234996 | 0.235047 | 0.235097 | 0.235147 | 0.235197 | 0.235247 | 0.235298 |
| 0.410 | 0.235348 | 0.235398 | 0.235448 | 0.235499 | 0.235549 | 0.235599 | 0.235650 | 0.235700 | 0.235750 | 0.235800 |
| 0.420 | 0.235851 | 0.235901 | 0.235951 | 0.236002 | 0.236052 | 0.236102 | 0.236153 | 0.236203 | 0.236253 | 0.236304 |
| 0.430 | 0.236354 | 0.236404 | 0.236455 | 0.236505 | 0.236556 | 0.236606 | 0.236656 | 0.236707 | 0.236757 | 0.236807 |
| 0.440 | 0.236858 | 0.236908 | 0.236959 | 0.237009 | 0.237060 | 0.237110 | 0.237160 | 0.237211 | 0.237261 | 0.237312 |
| 0.450 | 0.237362 | 0.237413 | 0.237463 | 0.237514 | 0.237564 | 0.237615 | 0.237665 | 0.237716 | 0.237766 | 0.237817 |
| 0.460 | 0.237867 | 0.237918 | 0.237968 | 0.238019 | 0.238069 | 0.238120 | 0.238171 | 0.238221 | 0.238271 | 0.238322 |
| 0.470 | 0.238373 | 0.238423 | 0.238474 | 0.238524 | 0.238575 | 0.238626 | 0.238676 | 0.238727 | 0.238777 | 0.238828 |
| 0.480 | 0.238879 | 0.238929 | 0.238980 | 0.239031 | 0.239081 | 0.239132 | 0.239182 | 0.239233 | 0.239284 | 0.239334 |
| 0.490 | 0.239385 | 0.239436 | 0.239487 | 0.239537 | 0.239588 | 0.239639 | 0.239689 | 0.239740 | 0.239791 | 0.239842 |

ATTENUATION IN DECIBELS
THETA FROM 9.500 TO 9.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.230892 | 0.239943 | 0.239974 | 0.240045 | 0.240075 | 0.240146 | 0.240197 | 0.240268 | 0.240298 | 0.240347 |
| 0.510 | 0.240400 | 0.240451 | 0.240502 | 0.240552 | 0.240603 | 0.240654 | 0.240705 | 0.240756 | 0.240806 | 0.240857 |
| 0.520 | 0.240908 | 0.240959 | 0.241010 | 0.241061 | 0.241112 | 0.241162 | 0.241213 | 0.241264 | 0.241315 | 0.241366 |
| 0.530 | 0.241417 | 0.241468 | 0.241519 | 0.241570 | 0.241620 | 0.241671 | 0.241722 | 0.241773 | 0.241824 | 0.241875 |
| 0.540 | 0.241926 | 0.241977 | 0.242028 | 0.242079 | 0.242130 | 0.242181 | 0.242232 | 0.242283 | 0.242334 | 0.242385 |
| 0.550 | 0.242436 | 0.242487 | 0.242538 | 0.242589 | 0.242640 | 0.242691 | 0.242742 | 0.242793 | 0.242844 | 0.242895 |
| 0.560 | 0.242946 | 0.242997 | 0.243048 | 0.243099 | 0.243150 | 0.243201 | 0.243252 | 0.243303 | 0.243354 | 0.243405 |
| 0.570 | 0.243457 | 0.243508 | 0.243559 | 0.243610 | 0.243662 | 0.243713 | 0.243764 | 0.243815 | 0.243866 | 0.243918 |
| 0.580 | 0.243969 | 0.244020 | 0.244071 | 0.244122 | 0.244173 | 0.244225 | 0.244276 | 0.244327 | 0.244378 | 0.244429 |
| 0.590 | 0.244481 | 0.244532 | 0.244583 | 0.244634 | 0.244686 | 0.244737 | 0.244788 | 0.244839 | 0.244891 | 0.244942 |
| 0.600 | 0.244993 | 0.245045 | 0.245096 | 0.245147 | 0.245198 | 0.245250 | 0.245301 | 0.245352 | 0.245404 | 0.245455 |
| 0.610 | 0.245506 | 0.245558 | 0.245609 | 0.245660 | 0.245712 | 0.245763 | 0.245814 | 0.245866 | 0.245917 | 0.245969 |
| 0.620 | 0.246020 | 0.246071 | 0.246123 | 0.246174 | 0.246226 | 0.246277 | 0.246328 | 0.246380 | 0.246431 | 0.246483 |
| 0.630 | 0.246534 | 0.246586 | 0.246637 | 0.246688 | 0.246740 | 0.246791 | 0.246843 | 0.246894 | 0.246946 | 0.246997 |
| 0.640 | 0.247049 | 0.247100 | 0.247152 | 0.247203 | 0.247255 | 0.247306 | 0.247358 | 0.247409 | 0.247461 | 0.247513 |
| 0.650 | 0.247564 | 0.247616 | 0.247667 | 0.247719 | 0.247770 | 0.247822 | 0.247874 | 0.247925 | 0.247977 | 0.248028 |
| 0.660 | 0.248080 | 0.248132 | 0.248183 | 0.248235 | 0.248286 | 0.248338 | 0.248390 | 0.248441 | 0.248493 | 0.248545 |
| 0.670 | 0.248596 | 0.248648 | 0.248700 | 0.248751 | 0.248803 | 0.248855 | 0.248906 | 0.248958 | 0.249010 | 0.249061 |
| 0.680 | 0.249113 | 0.249165 | 0.249217 | 0.249268 | 0.249320 | 0.249372 | 0.249424 | 0.249475 | 0.249527 | 0.249579 |
| 0.690 | 0.249631 | 0.249683 | 0.249734 | 0.249786 | 0.249838 | 0.249890 | 0.249941 | 0.249993 | 0.250045 | 0.250097 |
| 0.700 | 0.250149 | 0.250200 | 0.250252 | 0.250304 | 0.250356 | 0.250408 | 0.250460 | 0.250512 | 0.250563 | 0.250615 |
| 0.710 | 0.250667 | 0.250719 | 0.250771 | 0.250823 | 0.250875 | 0.250927 | 0.250979 | 0.251030 | 0.251082 | 0.251134 |
| 0.720 | 0.251186 | 0.251238 | 0.251290 | 0.251342 | 0.251394 | 0.251446 | 0.251498 | 0.251550 | 0.251602 | 0.251654 |
| 0.730 | 0.251706 | 0.251758 | 0.251810 | 0.251862 | 0.251914 | 0.251966 | 0.252018 | 0.252070 | 0.252122 | 0.252174 |
| 0.740 | 0.252226 | 0.252278 | 0.252330 | 0.252382 | 0.252434 | 0.252486 | 0.252538 | 0.252590 | 0.252643 | 0.252695 |
| 0.750 | 0.252747 | 0.252799 | 0.252851 | 0.252903 | 0.252955 | 0.253007 | 0.253059 | 0.253111 | 0.253164 | 0.253216 |
| 0.760 | 0.253268 | 0.253320 | 0.253372 | 0.253424 | 0.253477 | 0.253529 | 0.253581 | 0.253633 | 0.253685 | 0.253738 |
| 0.770 | 0.253790 | 0.253842 | 0.253894 | 0.253946 | 0.253999 | 0.254051 | 0.254103 | 0.254155 | 0.254208 | 0.254260 |
| 0.780 | 0.254312 | 0.254364 | 0.254417 | 0.254469 | 0.254521 | 0.254573 | 0.254626 | 0.254678 | 0.254730 | 0.254783 |
| 0.790 | 0.254835 | 0.254887 | 0.254940 | 0.254992 | 0.255044 | 0.255097 | 0.255149 | 0.255201 | 0.255254 | 0.255306 |
| 0.800 | 0.255358 | 0.255411 | 0.255463 | 0.255516 | 0.255568 | 0.255620 | 0.255673 | 0.255725 | 0.255778 | 0.255830 |
| 0.810 | 0.255882 | 0.255935 | 0.255987 | 0.256040 | 0.256092 | 0.256145 | 0.256197 | 0.256250 | 0.256302 | 0.256354 |
| 0.820 | 0.256407 | 0.256459 | 0.256512 | 0.256564 | 0.256617 | 0.256669 | 0.256722 | 0.256774 | 0.256827 | 0.256879 |
| 0.830 | 0.256932 | 0.256985 | 0.257037 | 0.257090 | 0.257142 | 0.257195 | 0.257247 | 0.257300 | 0.257352 | 0.257405 |
| 0.840 | 0.257458 | 0.257510 | 0.257563 | 0.257615 | 0.257668 | 0.257721 | 0.257773 | 0.257825 | 0.257879 | 0.257931 |
| 0.850 | 0.257984 | 0.258036 | 0.258089 | 0.258142 | 0.258194 | 0.258247 | 0.258300 | 0.258352 | 0.258405 | 0.258458 |
| 0.860 | 0.258510 | 0.258563 | 0.258616 | 0.258669 | 0.258721 | 0.258774 | 0.258827 | 0.258880 | 0.258932 | 0.258985 |
| 0.870 | 0.259038 | 0.259091 | 0.259143 | 0.259196 | 0.259249 | 0.259302 | 0.259354 | 0.259407 | 0.259460 | 0.259513 |
| 0.880 | 0.259566 | 0.259618 | 0.259671 | 0.259724 | 0.259777 | 0.259830 | 0.259882 | 0.259935 | 0.259988 | 0.260041 |
| 0.890 | 0.260094 | 0.260147 | 0.260200 | 0.260252 | 0.260305 | 0.260358 | 0.260411 | 0.260464 | 0.260517 | 0.260570 |
| 0.900 | 0.260623 | 0.260676 | 0.260729 | 0.260782 | 0.260834 | 0.260887 | 0.260940 | 0.260993 | 0.261046 | 0.261099 |
| 0.910 | 0.261152 | 0.261205 | 0.261258 | 0.261311 | 0.261364 | 0.261417 | 0.261470 | 0.261523 | 0.261576 | 0.261629 |
| 0.920 | 0.261682 | 0.261735 | 0.261788 | 0.261841 | 0.261894 | 0.261947 | 0.262000 | 0.262053 | 0.262107 | 0.262160 |
| 0.930 | 0.262213 | 0.262266 | 0.262319 | 0.262372 | 0.262425 | 0.262478 | 0.262531 | 0.262584 | 0.262638 | 0.262691 |
| 0.940 | 0.262744 | 0.262797 | 0.262850 | 0.262903 | 0.262956 | 0.263009 | 0.263063 | 0.263116 | 0.263169 | 0.263222 |
| 0.950 | 0.263275 | 0.263329 | 0.263382 | 0.263435 | 0.263488 | 0.263541 | 0.263595 | 0.263648 | 0.263701 | 0.263754 |
| 0.960 | 0.263808 | 0.263861 | 0.263914 | 0.263967 | 0.264020 | 0.264074 | 0.264127 | 0.264180 | 0.264234 | 0.264287 |
| 0.970 | 0.264340 | 0.264394 | 0.264447 | 0.264500 | 0.264553 | 0.264607 | 0.264660 | 0.264713 | 0.264767 | 0.264820 |
| 0.980 | 0.264873 | 0.264927 | 0.264980 | 0.265034 | 0.265087 | 0.265140 | 0.265194 | 0.265247 | 0.265300 | 0.265354 |
| 0.990 | 0.265407 | 0.265461 | 0.265514 | 0.265568 | 0.265621 | 0.265674 | 0.265728 | 0.265781 | 0.265835 | 0.265888 |

ATTENUATION IN DECIBELS
THETA FROM 10.000 TO 10.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.265942 | 0.265995 | 0.266049 | 0.266102 | 0.266156 | 0.266209 | 0.266263 | 0.266316 | 0.266370 | 0.266423 |
| 0.010 | 0.266477 | 0.266530 | 0.266584 | 0.266637 | 0.266691 | 0.266744 | 0.266798 | 0.266851 | 0.266905 | 0.266958 |
| 0.020 | 0.267012 | 0.267066 | 0.267119 | 0.267173 | 0.267226 | 0.267280 | 0.267333 | 0.267387 | 0.267441 | 0.267494 |
| 0.030 | 0.267548 | 0.267602 | 0.267655 | 0.267709 | 0.267762 | 0.267816 | 0.267870 | 0.267923 | 0.267977 | 0.268031 |
| 0.040 | 0.268084 | 0.268138 | 0.268192 | 0.268246 | 0.268299 | 0.268353 | 0.268407 | 0.268460 | 0.268514 | 0.268568 |
| 0.050 | 0.268622 | 0.268675 | 0.268729 | 0.268783 | 0.268837 | 0.268890 | 0.268944 | 0.268998 | 0.269052 | 0.269105 |
| 0.060 | 0.269159 | 0.269213 | 0.269267 | 0.269321 | 0.269374 | 0.269428 | 0.269482 | 0.269536 | 0.269590 | 0.269643 |
| 0.070 | 0.269697 | 0.269751 | 0.269805 | 0.269859 | 0.269913 | 0.269967 | 0.270020 | 0.270074 | 0.270128 | 0.270182 |
| 0.080 | 0.270236 | 0.270290 | 0.270344 | 0.270398 | 0.270452 | 0.270506 | 0.270559 | 0.270613 | 0.270667 | 0.270721 |
| 0.090 | 0.270775 | 0.270829 | 0.270883 | 0.270937 | 0.270991 | 0.271045 | 0.271099 | 0.271153 | 0.271207 | 0.271261 |
| 0.100 | 0.271315 | 0.271369 | 0.271423 | 0.271477 | 0.271531 | 0.271585 | 0.271639 | 0.271693 | 0.271747 | 0.271801 |
| 0.110 | 0.271855 | 0.271909 | 0.271964 | 0.272018 | 0.272072 | 0.272126 | 0.272180 | 0.272234 | 0.272288 | 0.272342 |
| 0.120 | 0.272396 | 0.272450 | 0.272505 | 0.272559 | 0.272613 | 0.272667 | 0.272721 | 0.272775 | 0.272829 | 0.272884 |
| 0.130 | 0.272938 | 0.272992 | 0.273046 | 0.273100 | 0.273154 | 0.273209 | 0.273263 | 0.273317 | 0.273371 | 0.273425 |
| 0.140 | 0.273480 | 0.273534 | 0.273588 | 0.273642 | 0.273697 | 0.273751 | 0.273805 | 0.273859 | 0.273914 | 0.273968 |
| 0.150 | 0.274022 | 0.274077 | 0.274131 | 0.274185 | 0.274239 | 0.274294 | 0.274348 | 0.274402 | 0.274457 | 0.274511 |
| 0.160 | 0.274565 | 0.274620 | 0.274674 | 0.274728 | 0.274783 | 0.274837 | 0.274891 | 0.274946 | 0.275000 | 0.275055 |
| 0.170 | 0.275109 | 0.275163 | 0.275218 | 0.275272 | 0.275327 | 0.275381 | 0.275435 | 0.275490 | 0.275544 | 0.275599 |
| 0.180 | 0.275653 | 0.275708 | 0.275762 | 0.275816 | 0.275871 | 0.275925 | 0.275980 | 0.276034 | 0.276089 | 0.276143 |
| 0.190 | 0.276198 | 0.276252 | 0.276307 | 0.276361 | 0.276416 | 0.276470 | 0.276525 | 0.276579 | 0.276634 | 0.276689 |
| 0.200 | 0.276743 | 0.276798 | 0.276852 | 0.276907 | 0.276961 | 0.277016 | 0.277071 | 0.277125 | 0.277180 | 0.277234 |
| 0.210 | 0.277289 | 0.277344 | 0.277398 | 0.277453 | 0.277507 | 0.277562 | 0.277617 | 0.277671 | 0.277726 | 0.277781 |
| 0.220 | 0.277835 | 0.277890 | 0.277945 | 0.277999 | 0.278054 | 0.278109 | 0.278163 | 0.278218 | 0.278273 | 0.278327 |
| 0.230 | 0.278382 | 0.278437 | 0.278492 | 0.278546 | 0.278601 | 0.278656 | 0.278711 | 0.278766 | 0.278820 | 0.278875 |
| 0.240 | 0.278930 | 0.278984 | 0.279039 | 0.279094 | 0.279149 | 0.279204 | 0.279258 | 0.279313 | 0.279368 | 0.279423 |
| 0.250 | 0.279478 | 0.279532 | 0.279587 | 0.279642 | 0.279697 | 0.279752 | 0.279807 | 0.279862 | 0.279916 | 0.279971 |
| 0.260 | 0.280026 | 0.280081 | 0.280136 | 0.280191 | 0.280246 | 0.280301 | 0.280356 | 0.280410 | 0.280465 | 0.280520 |
| 0.270 | 0.280575 | 0.280630 | 0.280685 | 0.280740 | 0.280795 | 0.280850 | 0.280905 | 0.280960 | 0.281015 | 0.281070 |
| 0.280 | 0.281125 | 0.281180 | 0.281235 | 0.281290 | 0.281345 | 0.281400 | 0.281455 | 0.281510 | 0.281565 | 0.281620 |
| 0.290 | 0.281675 | 0.281730 | 0.281785 | 0.281840 | 0.281895 | 0.281950 | 0.282005 | 0.282060 | 0.282116 | 0.282171 |
| 0.300 | 0.282226 | 0.282281 | 0.282336 | 0.282391 | 0.282446 | 0.282501 | 0.282556 | 0.282612 | 0.282667 | 0.282722 |
| 0.310 | 0.282777 | 0.282832 | 0.282887 | 0.282943 | 0.282998 | 0.283053 | 0.283108 | 0.283163 | 0.283218 | 0.283274 |
| 0.320 | 0.283329 | 0.283384 | 0.283439 | 0.283494 | 0.283550 | 0.283605 | 0.283660 | 0.283715 | 0.283771 | 0.283826 |
| 0.330 | 0.283881 | 0.283936 | 0.283992 | 0.284047 | 0.284102 | 0.284158 | 0.284213 | 0.284268 | 0.284323 | 0.284379 |
| 0.340 | 0.284434 | 0.284489 | 0.284545 | 0.284600 | 0.284655 | 0.284711 | 0.284766 | 0.284821 | 0.284877 | 0.284932 |
| 0.350 | 0.284988 | 0.285043 | 0.285098 | 0.285154 | 0.285209 | 0.285265 | 0.285320 | 0.285375 | 0.285431 | 0.285486 |
| 0.360 | 0.285542 | 0.285597 | 0.285652 | 0.285708 | 0.285763 | 0.285819 | 0.285874 | 0.285930 | 0.285985 | 0.286041 |
| 0.370 | 0.286096 | 0.286152 | 0.286207 | 0.286263 | 0.286318 | 0.286374 | 0.286429 | 0.286485 | 0.286540 | 0.286596 |
| 0.380 | 0.286651 | 0.286707 | 0.286762 | 0.286818 | 0.286873 | 0.286929 | 0.286985 | 0.287040 | 0.287096 | 0.287151 |
| 0.390 | 0.287207 | 0.287262 | 0.287318 | 0.287374 | 0.287429 | 0.287485 | 0.287541 | 0.287596 | 0.287652 | 0.287707 |
| 0.400 | 0.287763 | 0.287819 | 0.287874 | 0.287930 | 0.287986 | 0.288041 | 0.288097 | 0.288153 | 0.288208 | 0.288264 |
| 0.410 | 0.288320 | 0.288376 | 0.288431 | 0.288487 | 0.288543 | 0.288598 | 0.288654 | 0.288710 | 0.288766 | 0.288821 |
| 0.420 | 0.288877 | 0.288933 | 0.288989 | 0.289044 | 0.289100 | 0.289156 | 0.289212 | 0.289268 | 0.289323 | 0.289379 |
| 0.430 | 0.289435 | 0.289491 | 0.289547 | 0.289602 | 0.289658 | 0.289714 | 0.289770 | 0.289826 | 0.289882 | 0.289937 |
| 0.440 | 0.289993 | 0.290049 | 0.290105 | 0.290161 | 0.290217 | 0.290273 | 0.290329 | 0.290385 | 0.290440 | 0.290496 |
| 0.450 | 0.290552 | 0.290608 | 0.290664 | 0.290720 | 0.290776 | 0.290832 | 0.290888 | 0.290944 | 0.291000 | 0.291056 |
| 0.460 | 0.291112 | 0.291168 | 0.291224 | 0.291280 | 0.291336 | 0.291392 | 0.291448 | 0.291504 | 0.291560 | 0.291616 |
| 0.470 | 0.291672 | 0.291728 | 0.291784 | 0.291840 | 0.291896 | 0.291952 | 0.292008 | 0.292064 | 0.292120 | 0.292176 |
| 0.480 | 0.292232 | 0.292288 | 0.292344 | 0.292401 | 0.292457 | 0.292513 | 0.292569 | 0.292625 | 0.292681 | 0.292737 |
| 0.490 | 0.292793 | 0.292850 | 0.292906 | 0.292962 | 0.293018 | 0.293074 | 0.293130 | 0.293187 | 0.293243 | 0.293299 |

ATTENUATION IN DECIBELS
THETA FROM 10.500 TO 10.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.293355 | 0.293411 | 0.293467 | 0.293524 | 0.293580 | 0.293636 | 0.293692 | 0.293749 | 0.293805 | 0.293861 |
| 0.510 | 0.293917 | 0.293974 | 0.294030 | 0.294086 | 0.294142 | 0.294199 | 0.294255 | 0.294311 | 0.294367 | 0.294424 |
| 0.520 | 0.294480 | 0.294536 | 0.294593 | 0.294649 | 0.294705 | 0.294762 | 0.294818 | 0.294874 | 0.294931 | 0.294987 |
| 0.530 | 0.295043 | 0.295100 | 0.295156 | 0.295212 | 0.295269 | 0.295325 | 0.295382 | 0.295438 | 0.295494 | 0.295551 |
| 0.540 | 0.295607 | 0.295664 | 0.295720 | 0.295776 | 0.295833 | 0.295889 | 0.295946 | 0.296002 | 0.296059 | 0.296115 |
| 0.550 | 0.296172 | 0.296228 | 0.296285 | 0.296341 | 0.296398 | 0.296454 | 0.296511 | 0.296567 | 0.296624 | 0.296680 |
| 0.560 | 0.296737 | 0.296793 | 0.296850 | 0.296906 | 0.296963 | 0.297019 | 0.297076 | 0.297132 | 0.297189 | 0.297245 |
| 0.570 | 0.297302 | 0.297359 | 0.297415 | 0.297472 | 0.297528 | 0.297585 | 0.297642 | 0.297698 | 0.297755 | 0.297811 |
| 0.580 | 0.297868 | 0.297925 | 0.297981 | 0.298038 | 0.298095 | 0.298151 | 0.298208 | 0.298265 | 0.298321 | 0.298378 |
| 0.590 | 0.298435 | 0.298491 | 0.298548 | 0.298605 | 0.298661 | 0.298718 | 0.298775 | 0.298832 | 0.298888 | 0.298945 |
| 0.600 | 0.299002 | 0.299059 | 0.299115 | 0.299172 | 0.299229 | 0.299286 | 0.299342 | 0.299399 | 0.299456 | 0.299513 |
| 0.610 | 0.299570 | 0.299626 | 0.299683 | 0.299740 | 0.299797 | 0.299854 | 0.299910 | 0.299967 | 0.300024 | 0.300081 |
| 0.620 | 0.300138 | 0.300195 | 0.300251 | 0.300308 | 0.300365 | 0.300422 | 0.300479 | 0.300536 | 0.300593 | 0.300650 |
| 0.630 | 0.300707 | 0.300763 | 0.300820 | 0.300877 | 0.300934 | 0.300991 | 0.301048 | 0.301105 | 0.301162 | 0.301219 |
| 0.640 | 0.301276 | 0.301333 | 0.301390 | 0.301447 | 0.301504 | 0.301561 | 0.301618 | 0.301675 | 0.301732 | 0.301789 |
| 0.650 | 0.301846 | 0.301903 | 0.301960 | 0.302017 | 0.302074 | 0.302131 | 0.302188 | 0.302245 | 0.302302 | 0.302359 |
| 0.660 | 0.302416 | 0.302473 | 0.302530 | 0.302587 | 0.302645 | 0.302702 | 0.302759 | 0.302816 | 0.302873 | 0.302930 |
| 0.670 | 0.302987 | 0.303044 | 0.303101 | 0.303159 | 0.303216 | 0.303273 | 0.303330 | 0.303387 | 0.303444 | 0.303502 |
| 0.680 | 0.303559 | 0.303616 | 0.303673 | 0.303730 | 0.303787 | 0.303845 | 0.303902 | 0.303959 | 0.304016 | 0.304074 |
| 0.690 | 0.304131 | 0.304188 | 0.304245 | 0.304302 | 0.304360 | 0.304417 | 0.304474 | 0.304532 | 0.304589 | 0.304646 |
| 0.700 | 0.304703 | 0.304761 | 0.304818 | 0.304875 | 0.304933 | 0.304990 | 0.305047 | 0.305105 | 0.305162 | 0.305219 |
| 0.710 | 0.305277 | 0.305334 | 0.305391 | 0.305449 | 0.305506 | 0.305563 | 0.305621 | 0.305678 | 0.305735 | 0.305793 |
| 0.720 | 0.305850 | 0.305908 | 0.305965 | 0.306022 | 0.306080 | 0.306137 | 0.306195 | 0.306252 | 0.306310 | 0.306367 |
| 0.730 | 0.306425 | 0.306482 | 0.306539 | 0.306597 | 0.306654 | 0.306712 | 0.306770 | 0.306827 | 0.306884 | 0.306942 |
| 0.740 | 0.306999 | 0.307057 | 0.307114 | 0.307172 | 0.307229 | 0.307287 | 0.307344 | 0.307402 | 0.307460 | 0.307517 |
| 0.750 | 0.307575 | 0.307632 | 0.307690 | 0.307747 | 0.307805 | 0.307863 | 0.307920 | 0.307978 | 0.308035 | 0.308093 |
| 0.760 | 0.308151 | 0.308208 | 0.308266 | 0.308323 | 0.308381 | 0.308439 | 0.308496 | 0.308554 | 0.308612 | 0.308669 |
| 0.770 | 0.308727 | 0.308785 | 0.308842 | 0.308900 | 0.308958 | 0.309015 | 0.309073 | 0.309131 | 0.309189 | 0.309246 |
| 0.780 | 0.309304 | 0.309362 | 0.309420 | 0.309477 | 0.309535 | 0.309593 | 0.309651 | 0.309708 | 0.309766 | 0.309824 |
| 0.790 | 0.309862 | 0.309939 | 0.309997 | 0.310055 | 0.310113 | 0.310171 | 0.310228 | 0.310286 | 0.310344 | 0.310402 |
| 0.800 | 0.310460 | 0.310518 | 0.310575 | 0.310633 | 0.310691 | 0.310749 | 0.310807 | 0.310865 | 0.310923 | 0.310980 |
| 0.810 | 0.311038 | 0.311096 | 0.311154 | 0.311212 | 0.311270 | 0.311328 | 0.311386 | 0.311444 | 0.311502 | 0.311560 |
| 0.820 | 0.311618 | 0.311676 | 0.311733 | 0.311791 | 0.311849 | 0.311907 | 0.311965 | 0.312023 | 0.312081 | 0.312139 |
| 0.830 | 0.312178 | 0.312236 | 0.312294 | 0.312351 | 0.312409 | 0.312467 | 0.312525 | 0.312583 | 0.312641 | 0.312700 |
| 0.840 | 0.312778 | 0.312836 | 0.312894 | 0.312952 | 0.313010 | 0.313068 | 0.313126 | 0.313184 | 0.313242 | 0.313300 |
| 0.850 | 0.313358 | 0.313417 | 0.313475 | 0.313533 | 0.313591 | 0.313649 | 0.313707 | 0.313765 | 0.313824 | 0.313882 |
| 0.860 | 0.313940 | 0.313998 | 0.314056 | 0.314114 | 0.314173 | 0.314231 | 0.314289 | 0.314347 | 0.314405 | 0.314464 |
| 0.870 | 0.314522 | 0.314580 | 0.314638 | 0.314696 | 0.314755 | 0.314813 | 0.314871 | 0.314929 | 0.314988 | 0.315046 |
| 0.880 | 0.315104 | 0.315163 | 0.315221 | 0.315279 | 0.315337 | 0.315396 | 0.315454 | 0.315512 | 0.315571 | 0.315629 |
| 0.890 | 0.315687 | 0.315746 | 0.315804 | 0.315862 | 0.315921 | 0.315979 | 0.316037 | 0.316096 | 0.316154 | 0.316212 |
| 0.900 | 0.316271 | 0.316329 | 0.316388 | 0.316446 | 0.316504 | 0.316563 | 0.316621 | 0.316680 | 0.316738 | 0.316797 |
| 0.910 | 0.316855 | 0.316913 | 0.316972 | 0.317030 | 0.317089 | 0.317147 | 0.317206 | 0.317264 | 0.317323 | 0.317381 |
| 0.920 | 0.317440 | 0.317498 | 0.317557 | 0.317615 | 0.317674 | 0.317732 | 0.317791 | 0.317849 | 0.317908 | 0.317966 |
| 0.930 | 0.318025 | 0.318083 | 0.318142 | 0.318201 | 0.318259 | 0.318318 | 0.318376 | 0.318435 | 0.318494 | 0.318552 |
| 0.940 | 0.318611 | 0.318669 | 0.318728 | 0.318787 | 0.318845 | 0.318904 | 0.318962 | 0.319021 | 0.319080 | 0.319138 |
| 0.950 | 0.319197 | 0.319256 | 0.319314 | 0.319373 | 0.319432 | 0.319490 | 0.319549 | 0.319608 | 0.319667 | 0.319725 |
| 0.960 | 0.319784 | 0.319843 | 0.319901 | 0.319960 | 0.320019 | 0.320078 | 0.320136 | 0.320195 | 0.320254 | 0.320313 |
| 0.970 | 0.320371 | 0.320430 | 0.320489 | 0.320548 | 0.320606 | 0.320665 | 0.320724 | 0.320783 | 0.320842 | 0.320901 |
| 0.980 | 0.320959 | 0.321018 | 0.321077 | 0.321136 | 0.321195 | 0.321254 | 0.321312 | 0.321371 | 0.321430 | 0.321489 |
| 0.990 | 0.321548 | 0.321607 | 0.321666 | 0.321725 | 0.321783 | 0.321842 | 0.321901 | 0.321960 | 0.322019 | 0.322078 |

ATTENUATION IN DECIBELS
 THETA FROM 11.000 TO 11.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.322137 | 0.322196 | 0.322255 | 0.322314 | 0.322373 | 0.322432 | 0.322491 | 0.322550 | 0.322609 | 0.322668 |
| 0.010 | 0.322727 | 0.322786 | 0.322845 | 0.322904 | 0.322963 | 0.323022 | 0.323081 | 0.323140 | 0.323199 | 0.323258 |
| 0.020 | 0.323317 | 0.323376 | 0.323435 | 0.323494 | 0.323553 | 0.323612 | 0.323671 | 0.323730 | 0.323789 | 0.323848 |
| 0.030 | 0.323907 | 0.323967 | 0.324026 | 0.324085 | 0.324144 | 0.324203 | 0.324262 | 0.324321 | 0.324380 | 0.324440 |
| 0.040 | 0.324499 | 0.324558 | 0.324617 | 0.324676 | 0.324735 | 0.324795 | 0.324854 | 0.324913 | 0.324972 | 0.325031 |
| 0.050 | 0.325091 | 0.325150 | 0.325209 | 0.325268 | 0.325327 | 0.325387 | 0.325446 | 0.325505 | 0.325564 | 0.325624 |
| 0.060 | 0.325683 | 0.325742 | 0.325801 | 0.325861 | 0.325920 | 0.325979 | 0.326039 | 0.326098 | 0.326157 | 0.326217 |
| 0.070 | 0.326276 | 0.326335 | 0.326394 | 0.326454 | 0.326513 | 0.326573 | 0.326632 | 0.326691 | 0.326751 | 0.326810 |
| 0.080 | 0.326869 | 0.326929 | 0.326988 | 0.327047 | 0.327107 | 0.327166 | 0.327226 | 0.327285 | 0.327344 | 0.327404 |
| 0.090 | 0.327463 | 0.327523 | 0.327582 | 0.327642 | 0.327701 | 0.327761 | 0.327820 | 0.327879 | 0.327939 | 0.327998 |
| 0.100 | 0.328058 | 0.328117 | 0.328177 | 0.328236 | 0.328296 | 0.328355 | 0.328415 | 0.328474 | 0.328534 | 0.328593 |
| 0.110 | 0.328653 | 0.328713 | 0.328772 | 0.328832 | 0.328891 | 0.328951 | 0.329010 | 0.329070 | 0.329130 | 0.329189 |
| 0.120 | 0.329249 | 0.329308 | 0.329368 | 0.329428 | 0.329487 | 0.329547 | 0.329606 | 0.329666 | 0.329726 | 0.329785 |
| 0.130 | 0.329845 | 0.329905 | 0.329964 | 0.330024 | 0.330084 | 0.330143 | 0.330203 | 0.330263 | 0.330322 | 0.330382 |
| 0.140 | 0.330442 | 0.330501 | 0.330561 | 0.330621 | 0.330681 | 0.330740 | 0.330800 | 0.330860 | 0.330919 | 0.330979 |
| 0.150 | 0.331039 | 0.331099 | 0.331159 | 0.331218 | 0.331278 | 0.331338 | 0.331398 | 0.331457 | 0.331517 | 0.331577 |
| 0.160 | 0.331637 | 0.331697 | 0.331757 | 0.331816 | 0.331876 | 0.331936 | 0.331996 | 0.332056 | 0.332116 | 0.332175 |
| 0.170 | 0.332235 | 0.332295 | 0.332355 | 0.332415 | 0.332475 | 0.332535 | 0.332595 | 0.332655 | 0.332714 | 0.332774 |
| 0.180 | 0.332834 | 0.332894 | 0.332954 | 0.333014 | 0.333074 | 0.333134 | 0.333194 | 0.333254 | 0.333314 | 0.333374 |
| 0.190 | 0.333434 | 0.333494 | 0.333554 | 0.333614 | 0.333674 | 0.333734 | 0.333794 | 0.333854 | 0.333914 | 0.333974 |
| 0.200 | 0.334034 | 0.334094 | 0.334154 | 0.334214 | 0.334274 | 0.334334 | 0.334394 | 0.334454 | 0.334514 | 0.334574 |
| 0.210 | 0.334634 | 0.334695 | 0.334755 | 0.334815 | 0.334875 | 0.334935 | 0.334995 | 0.335055 | 0.335115 | 0.335175 |
| 0.220 | 0.335236 | 0.335296 | 0.335356 | 0.335416 | 0.335476 | 0.335536 | 0.335597 | 0.335657 | 0.335717 | 0.335777 |
| 0.230 | 0.335837 | 0.335898 | 0.335958 | 0.336018 | 0.336078 | 0.336138 | 0.336199 | 0.336259 | 0.336319 | 0.336379 |
| 0.240 | 0.336440 | 0.336500 | 0.336560 | 0.336620 | 0.336681 | 0.336741 | 0.336801 | 0.336862 | 0.336922 | 0.336982 |
| 0.250 | 0.337042 | 0.337103 | 0.337163 | 0.337223 | 0.337284 | 0.337344 | 0.337404 | 0.337465 | 0.337525 | 0.337585 |
| 0.260 | 0.337646 | 0.337706 | 0.337767 | 0.337827 | 0.337887 | 0.337948 | 0.338008 | 0.338068 | 0.338129 | 0.338189 |
| 0.270 | 0.338250 | 0.338310 | 0.338371 | 0.338431 | 0.338491 | 0.338552 | 0.338612 | 0.338673 | 0.338733 | 0.338794 |
| 0.280 | 0.338854 | 0.338915 | 0.338975 | 0.339036 | 0.339096 | 0.339157 | 0.339217 | 0.339278 | 0.339338 | 0.339399 |
| 0.290 | 0.339459 | 0.339520 | 0.339580 | 0.339641 | 0.339701 | 0.339762 | 0.339822 | 0.339883 | 0.339944 | 0.340004 |
| 0.300 | 0.340065 | 0.340125 | 0.340186 | 0.340247 | 0.340307 | 0.340368 | 0.340428 | 0.340489 | 0.340550 | 0.340610 |
| 0.310 | 0.340671 | 0.340732 | 0.340792 | 0.340853 | 0.340913 | 0.340974 | 0.341035 | 0.341095 | 0.341156 | 0.341217 |
| 0.320 | 0.341278 | 0.341338 | 0.341399 | 0.341460 | 0.341520 | 0.341581 | 0.341642 | 0.341703 | 0.341763 | 0.341824 |
| 0.330 | 0.341885 | 0.341946 | 0.342006 | 0.342067 | 0.342128 | 0.342189 | 0.342249 | 0.342310 | 0.342371 | 0.342432 |
| 0.340 | 0.342493 | 0.342553 | 0.342614 | 0.342675 | 0.342736 | 0.342797 | 0.342857 | 0.342918 | 0.342979 | 0.343040 |
| 0.350 | 0.343101 | 0.343162 | 0.343223 | 0.343283 | 0.343344 | 0.343405 | 0.343466 | 0.343527 | 0.343588 | 0.343649 |
| 0.360 | 0.343710 | 0.343771 | 0.343832 | 0.343892 | 0.343953 | 0.344014 | 0.344075 | 0.344136 | 0.344197 | 0.344258 |
| 0.370 | 0.344319 | 0.344380 | 0.344441 | 0.344502 | 0.344563 | 0.344624 | 0.344685 | 0.344746 | 0.344807 | 0.344868 |
| 0.380 | 0.344929 | 0.344990 | 0.345051 | 0.345112 | 0.345173 | 0.345234 | 0.345295 | 0.345356 | 0.345417 | 0.345479 |
| 0.390 | 0.345540 | 0.345601 | 0.345662 | 0.345723 | 0.345784 | 0.345845 | 0.345906 | 0.345967 | 0.346028 | 0.346090 |
| 0.400 | 0.346151 | 0.346212 | 0.346273 | 0.346334 | 0.346395 | 0.346456 | 0.346518 | 0.346579 | 0.346640 | 0.346701 |
| 0.410 | 0.346762 | 0.346824 | 0.346885 | 0.346946 | 0.347007 | 0.347068 | 0.347130 | 0.347191 | 0.347252 | 0.347313 |
| 0.420 | 0.347375 | 0.347436 | 0.347497 | 0.347558 | 0.347620 | 0.347681 | 0.347742 | 0.347803 | 0.347865 | 0.347926 |
| 0.430 | 0.347987 | 0.348049 | 0.348110 | 0.348171 | 0.348232 | 0.348294 | 0.348355 | 0.348416 | 0.348478 | 0.348539 |
| 0.440 | 0.348601 | 0.348662 | 0.348723 | 0.348785 | 0.348846 | 0.348907 | 0.348969 | 0.349030 | 0.349092 | 0.349153 |
| 0.450 | 0.349214 | 0.349276 | 0.349337 | 0.349399 | 0.349460 | 0.349521 | 0.349583 | 0.349644 | 0.349706 | 0.349767 |
| 0.460 | 0.349829 | 0.349890 | 0.349952 | 0.350013 | 0.350075 | 0.350136 | 0.350198 | 0.350259 | 0.350321 | 0.350382 |
| 0.470 | 0.350444 | 0.350505 | 0.350567 | 0.350628 | 0.350690 | 0.350751 | 0.350813 | 0.350874 | 0.350936 | 0.350998 |
| 0.480 | 0.351059 | 0.351121 | 0.351182 | 0.351244 | 0.351305 | 0.351367 | 0.351429 | 0.351490 | 0.351552 | 0.351614 |
| 0.490 | 0.351675 | 0.351737 | 0.351798 | 0.351860 | 0.351922 | 0.351983 | 0.352045 | 0.352107 | 0.352168 | 0.352230 |

ATTENUATION IN DECIBELS
THETA FROM 11.500 TO 11.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.352292 | 0.352353 | 0.352415 | 0.352477 | 0.352539 | 0.352600 | 0.352662 | 0.352724 | 0.352785 | 0.352847 |
| 0.510 | 0.352909 | 0.352971 | 0.353032 | 0.353094 | 0.353156 | 0.353218 | 0.353279 | 0.353341 | 0.353403 | 0.353465 |
| 0.520 | 0.353527 | 0.353588 | 0.353650 | 0.353712 | 0.353774 | 0.353836 | 0.353897 | 0.353959 | 0.354021 | 0.354083 |
| 0.530 | 0.354145 | 0.354207 | 0.354268 | 0.354330 | 0.354392 | 0.354454 | 0.354516 | 0.354578 | 0.354640 | 0.354702 |
| 0.540 | 0.354764 | 0.354825 | 0.354887 | 0.354949 | 0.355011 | 0.355073 | 0.355135 | 0.355197 | 0.355259 | 0.355321 |
| 0.550 | 0.355383 | 0.355445 | 0.355507 | 0.355569 | 0.355631 | 0.355693 | 0.355755 | 0.355817 | 0.355879 | 0.355941 |
| 0.560 | 0.356003 | 0.356065 | 0.356127 | 0.356189 | 0.356251 | 0.356313 | 0.356375 | 0.356437 | 0.356499 | 0.356561 |
| 0.570 | 0.356623 | 0.356685 | 0.356747 | 0.356809 | 0.356872 | 0.356934 | 0.356996 | 0.357058 | 0.357120 | 0.357182 |
| 0.580 | 0.357244 | 0.357306 | 0.357368 | 0.357431 | 0.357493 | 0.357555 | 0.357617 | 0.357679 | 0.357741 | 0.357804 |
| 0.590 | 0.357866 | 0.357928 | 0.357990 | 0.358052 | 0.358115 | 0.358177 | 0.358239 | 0.358301 | 0.358363 | 0.358426 |
| 0.600 | 0.358488 | 0.358550 | 0.358612 | 0.358675 | 0.358737 | 0.358799 | 0.358861 | 0.358924 | 0.358986 | 0.359048 |
| 0.610 | 0.359111 | 0.359173 | 0.359235 | 0.359297 | 0.359360 | 0.359422 | 0.359484 | 0.359547 | 0.359609 | 0.359671 |
| 0.620 | 0.359734 | 0.359796 | 0.359858 | 0.359921 | 0.359983 | 0.360046 | 0.360108 | 0.360170 | 0.360233 | 0.360295 |
| 0.630 | 0.360357 | 0.360420 | 0.360482 | 0.360545 | 0.360607 | 0.360670 | 0.360732 | 0.360794 | 0.360857 | 0.360919 |
| 0.640 | 0.360982 | 0.361044 | 0.361107 | 0.361169 | 0.361232 | 0.361294 | 0.361357 | 0.361419 | 0.361482 | 0.361544 |
| 0.650 | 0.361607 | 0.361669 | 0.361732 | 0.361794 | 0.361857 | 0.361919 | 0.361982 | 0.362044 | 0.362107 | 0.362169 |
| 0.660 | 0.362232 | 0.362295 | 0.362357 | 0.362420 | 0.362482 | 0.362545 | 0.362608 | 0.362670 | 0.362733 | 0.362795 |
| 0.670 | 0.362858 | 0.362921 | 0.362983 | 0.363046 | 0.363108 | 0.363171 | 0.363234 | 0.363296 | 0.363359 | 0.363422 |
| 0.680 | 0.363484 | 0.363547 | 0.363610 | 0.363673 | 0.363735 | 0.363798 | 0.363861 | 0.363923 | 0.363986 | 0.364049 |
| 0.690 | 0.364112 | 0.364174 | 0.364237 | 0.364300 | 0.364363 | 0.364425 | 0.364488 | 0.364551 | 0.364614 | 0.364676 |
| 0.700 | 0.364739 | 0.364802 | 0.364865 | 0.364928 | 0.364990 | 0.365053 | 0.365116 | 0.365179 | 0.365242 | 0.365304 |
| 0.710 | 0.365367 | 0.365430 | 0.365493 | 0.365556 | 0.365619 | 0.365682 | 0.365744 | 0.365807 | 0.365870 | 0.365933 |
| 0.720 | 0.365996 | 0.366059 | 0.366122 | 0.366185 | 0.366248 | 0.366311 | 0.366374 | 0.366436 | 0.366499 | 0.366562 |
| 0.730 | 0.366625 | 0.366688 | 0.366751 | 0.366814 | 0.366877 | 0.366940 | 0.367003 | 0.367066 | 0.367129 | 0.367192 |
| 0.740 | 0.367255 | 0.367318 | 0.367381 | 0.367444 | 0.367507 | 0.367570 | 0.367633 | 0.367696 | 0.367759 | 0.367822 |
| 0.750 | 0.367885 | 0.367949 | 0.368012 | 0.368075 | 0.368138 | 0.368201 | 0.368264 | 0.368327 | 0.368390 | 0.368453 |
| 0.760 | 0.368516 | 0.368580 | 0.368643 | 0.368706 | 0.368769 | 0.368832 | 0.368895 | 0.368958 | 0.369021 | 0.369084 |
| 0.770 | 0.369148 | 0.369211 | 0.369274 | 0.369337 | 0.369401 | 0.369464 | 0.369527 | 0.369590 | 0.369653 | 0.369717 |
| 0.780 | 0.369780 | 0.369843 | 0.369906 | 0.369969 | 0.370033 | 0.370096 | 0.370159 | 0.370222 | 0.370286 | 0.370349 |
| 0.790 | 0.370412 | 0.370476 | 0.370539 | 0.370602 | 0.370666 | 0.370729 | 0.370792 | 0.370856 | 0.370919 | 0.370982 |
| 0.800 | 0.371046 | 0.371109 | 0.371172 | 0.371236 | 0.371299 | 0.371362 | 0.371426 | 0.371489 | 0.371552 | 0.371616 |
| 0.810 | 0.371679 | 0.371743 | 0.371806 | 0.371869 | 0.371933 | 0.371996 | 0.372060 | 0.372123 | 0.372187 | 0.372250 |
| 0.820 | 0.372314 | 0.372377 | 0.372440 | 0.372504 | 0.372567 | 0.372631 | 0.372694 | 0.372758 | 0.372821 | 0.372885 |
| 0.830 | 0.372948 | 0.373012 | 0.373075 | 0.373139 | 0.373202 | 0.373266 | 0.373329 | 0.373393 | 0.373457 | 0.373520 |
| 0.840 | 0.373584 | 0.373647 | 0.373711 | 0.373774 | 0.373838 | 0.373902 | 0.373965 | 0.374029 | 0.374092 | 0.374156 |
| 0.850 | 0.374220 | 0.374283 | 0.374347 | 0.374410 | 0.374474 | 0.374538 | 0.374601 | 0.374665 | 0.374729 | 0.374792 |
| 0.860 | 0.374856 | 0.374920 | 0.374983 | 0.375047 | 0.375111 | 0.375174 | 0.375238 | 0.375302 | 0.375366 | 0.375429 |
| 0.870 | 0.375493 | 0.375557 | 0.375620 | 0.375684 | 0.375748 | 0.375812 | 0.375875 | 0.375939 | 0.376003 | 0.376067 |
| 0.880 | 0.376131 | 0.376194 | 0.376258 | 0.376322 | 0.376386 | 0.376450 | 0.376513 | 0.376577 | 0.376641 | 0.376705 |
| 0.890 | 0.376769 | 0.376832 | 0.376896 | 0.376960 | 0.377024 | 0.377088 | 0.377152 | 0.377216 | 0.377280 | 0.377343 |
| 0.900 | 0.377407 | 0.377471 | 0.377535 | 0.377599 | 0.377663 | 0.377727 | 0.377791 | 0.377855 | 0.377919 | 0.377983 |
| 0.910 | 0.378046 | 0.378110 | 0.378174 | 0.378238 | 0.378302 | 0.378366 | 0.378430 | 0.378494 | 0.378558 | 0.378622 |
| 0.920 | 0.378666 | 0.378730 | 0.378794 | 0.378858 | 0.378922 | 0.378986 | 0.379050 | 0.379114 | 0.379178 | 0.379242 |
| 0.930 | 0.379327 | 0.379391 | 0.379455 | 0.379519 | 0.379583 | 0.379647 | 0.379711 | 0.379775 | 0.379839 | 0.379903 |
| 0.940 | 0.379967 | 0.380032 | 0.380096 | 0.380160 | 0.380224 | 0.380288 | 0.380352 | 0.380416 | 0.380480 | 0.380544 |
| 0.950 | 0.380609 | 0.380673 | 0.380737 | 0.380801 | 0.380865 | 0.380930 | 0.380994 | 0.381058 | 0.381122 | 0.381186 |
| 0.960 | 0.381251 | 0.381315 | 0.381379 | 0.381444 | 0.381508 | 0.381572 | 0.381636 | 0.381701 | 0.381765 | 0.381829 |
| 0.970 | 0.381893 | 0.381958 | 0.382022 | 0.382086 | 0.382150 | 0.382215 | 0.382279 | 0.382343 | 0.382408 | 0.382472 |
| 0.980 | 0.382536 | 0.382601 | 0.382665 | 0.382729 | 0.382794 | 0.382858 | 0.382923 | 0.382987 | 0.383051 | 0.383116 |
| 0.990 | 0.383180 | 0.383244 | 0.383309 | 0.383373 | 0.383438 | 0.383502 | 0.383566 | 0.383631 | 0.383695 | 0.383760 |

ATTENUATION IN DECIBELS
 THETA FROM 12.000 TO 12.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.383889 | 0.383953 | 0.384018 | 0.384082 | 0.384147 | 0.384211 | 0.384275 | 0.384340 | 0.384404 | 0.384469 |
| 0.010 | 0.384469 | 0.384533 | 0.384598 | 0.384663 | 0.384727 | 0.384792 | 0.384856 | 0.384921 | 0.384985 | 0.385050 |
| 0.020 | 0.385114 | 0.385179 | 0.385243 | 0.385308 | 0.385373 | 0.385437 | 0.385502 | 0.385566 | 0.385631 | 0.385695 |
| 0.030 | 0.385760 | 0.385825 | 0.385889 | 0.385954 | 0.386019 | 0.386083 | 0.386148 | 0.386213 | 0.386277 | 0.386342 |
| 0.040 | 0.386407 | 0.386471 | 0.386536 | 0.386601 | 0.386665 | 0.386730 | 0.386795 | 0.386859 | 0.386924 | 0.386989 |
| 0.050 | 0.387053 | 0.387118 | 0.387183 | 0.387248 | 0.387312 | 0.387377 | 0.387442 | 0.387507 | 0.387571 | 0.387636 |
| 0.060 | 0.387701 | 0.387766 | 0.387831 | 0.387895 | 0.387960 | 0.388025 | 0.388090 | 0.388155 | 0.388219 | 0.388284 |
| 0.070 | 0.388349 | 0.388414 | 0.388479 | 0.388544 | 0.388608 | 0.388673 | 0.388738 | 0.388803 | 0.388868 | 0.388933 |
| 0.080 | 0.388998 | 0.389063 | 0.389127 | 0.389192 | 0.389257 | 0.389322 | 0.389387 | 0.389452 | 0.389517 | 0.389582 |
| 0.090 | 0.389647 | 0.389712 | 0.389777 | 0.389842 | 0.389907 | 0.389972 | 0.390037 | 0.390102 | 0.390167 | 0.390232 |
| 0.100 | 0.390297 | 0.390362 | 0.390427 | 0.390492 | 0.390557 | 0.390622 | 0.390687 | 0.390752 | 0.390817 | 0.390882 |
| 0.110 | 0.390947 | 0.391012 | 0.391077 | 0.391142 | 0.391207 | 0.391272 | 0.391337 | 0.391402 | 0.391467 | 0.391532 |
| 0.120 | 0.391598 | 0.391663 | 0.391728 | 0.391793 | 0.391858 | 0.391923 | 0.391988 | 0.392053 | 0.392119 | 0.392184 |
| 0.130 | 0.392249 | 0.392314 | 0.392379 | 0.392444 | 0.392509 | 0.392575 | 0.392640 | 0.392705 | 0.392770 | 0.392836 |
| 0.140 | 0.392901 | 0.392966 | 0.393031 | 0.393097 | 0.393162 | 0.393227 | 0.393292 | 0.393358 | 0.393423 | 0.393488 |
| 0.150 | 0.393553 | 0.393619 | 0.393684 | 0.393749 | 0.393815 | 0.393880 | 0.393945 | 0.394010 | 0.394076 | 0.394141 |
| 0.160 | 0.394206 | 0.394272 | 0.394337 | 0.394402 | 0.394468 | 0.394533 | 0.394599 | 0.394664 | 0.394729 | 0.394795 |
| 0.170 | 0.394860 | 0.394925 | 0.394991 | 0.395056 | 0.395122 | 0.395187 | 0.395252 | 0.395318 | 0.395383 | 0.395449 |
| 0.180 | 0.395514 | 0.395580 | 0.395645 | 0.395711 | 0.395776 | 0.395841 | 0.395907 | 0.395972 | 0.396038 | 0.396103 |
| 0.190 | 0.396169 | 0.396234 | 0.396300 | 0.396365 | 0.396431 | 0.396496 | 0.396562 | 0.396627 | 0.396693 | 0.396759 |
| 0.200 | 0.396824 | 0.396890 | 0.396955 | 0.397021 | 0.397086 | 0.397152 | 0.397218 | 0.397283 | 0.397349 | 0.397414 |
| 0.210 | 0.397480 | 0.397546 | 0.397611 | 0.397677 | 0.397742 | 0.397808 | 0.397874 | 0.397939 | 0.398005 | 0.398071 |
| 0.220 | 0.398136 | 0.398202 | 0.398268 | 0.398333 | 0.398399 | 0.398465 | 0.398530 | 0.398596 | 0.398662 | 0.398727 |
| 0.230 | 0.398793 | 0.398859 | 0.398925 | 0.398990 | 0.399056 | 0.399122 | 0.399188 | 0.399253 | 0.399319 | 0.399385 |
| 0.240 | 0.399451 | 0.399516 | 0.399582 | 0.399648 | 0.399714 | 0.399780 | 0.399845 | 0.399911 | 0.399977 | 0.400043 |
| 0.250 | 0.400109 | 0.400175 | 0.400240 | 0.400306 | 0.400372 | 0.400438 | 0.400504 | 0.400570 | 0.400636 | 0.400702 |
| 0.260 | 0.400767 | 0.400833 | 0.400899 | 0.400965 | 0.401031 | 0.401097 | 0.401163 | 0.401229 | 0.401295 | 0.401360 |
| 0.270 | 0.401426 | 0.401492 | 0.401558 | 0.401624 | 0.401690 | 0.401756 | 0.401822 | 0.401888 | 0.401954 | 0.402020 |
| 0.280 | 0.402086 | 0.402152 | 0.402218 | 0.402284 | 0.402350 | 0.402416 | 0.402482 | 0.402548 | 0.402614 | 0.402680 |
| 0.290 | 0.402746 | 0.402812 | 0.402878 | 0.402945 | 0.403011 | 0.403077 | 0.403143 | 0.403209 | 0.403275 | 0.403341 |
| 0.300 | 0.403407 | 0.403473 | 0.403539 | 0.403605 | 0.403672 | 0.403738 | 0.403804 | 0.403870 | 0.403936 | 0.404002 |
| 0.310 | 0.404068 | 0.404135 | 0.404201 | 0.404267 | 0.404333 | 0.404399 | 0.404466 | 0.404532 | 0.404598 | 0.404664 |
| 0.320 | 0.404730 | 0.404797 | 0.404863 | 0.404929 | 0.404995 | 0.405062 | 0.405128 | 0.405194 | 0.405260 | 0.405327 |
| 0.330 | 0.405393 | 0.405459 | 0.405525 | 0.405592 | 0.405658 | 0.405724 | 0.405791 | 0.405857 | 0.405923 | 0.405990 |
| 0.340 | 0.406056 | 0.406122 | 0.406189 | 0.406255 | 0.406321 | 0.406388 | 0.406454 | 0.406520 | 0.406587 | 0.406653 |
| 0.350 | 0.406719 | 0.406786 | 0.406852 | 0.406919 | 0.406985 | 0.407051 | 0.407118 | 0.407184 | 0.407251 | 0.407317 |
| 0.360 | 0.407384 | 0.407450 | 0.407516 | 0.407583 | 0.407649 | 0.407716 | 0.407782 | 0.407849 | 0.407915 | 0.407982 |
| 0.370 | 0.408048 | 0.408115 | 0.408181 | 0.408248 | 0.408314 | 0.408381 | 0.408447 | 0.408514 | 0.408580 | 0.408647 |
| 0.380 | 0.408713 | 0.408780 | 0.408847 | 0.408913 | 0.408980 | 0.409046 | 0.409113 | 0.409179 | 0.409246 | 0.409313 |
| 0.390 | 0.409379 | 0.409446 | 0.409512 | 0.409579 | 0.409646 | 0.409712 | 0.409779 | 0.409846 | 0.409912 | 0.409979 |
| 0.400 | 0.410046 | 0.410112 | 0.410179 | 0.410246 | 0.410312 | 0.410379 | 0.410446 | 0.410512 | 0.410579 | 0.410646 |
| 0.410 | 0.410712 | 0.410779 | 0.410846 | 0.410913 | 0.410979 | 0.411046 | 0.411113 | 0.411180 | 0.411246 | 0.411313 |
| 0.420 | 0.411380 | 0.411447 | 0.411513 | 0.411580 | 0.411647 | 0.411714 | 0.411781 | 0.411847 | 0.411914 | 0.411981 |
| 0.430 | 0.412048 | 0.412115 | 0.412182 | 0.412248 | 0.412315 | 0.412382 | 0.412449 | 0.412516 | 0.412583 | 0.412650 |
| 0.440 | 0.412716 | 0.412783 | 0.412850 | 0.412917 | 0.412984 | 0.413051 | 0.413118 | 0.413185 | 0.413252 | 0.413319 |
| 0.450 | 0.413386 | 0.413453 | 0.413519 | 0.413586 | 0.413653 | 0.413720 | 0.413787 | 0.413854 | 0.413921 | 0.413988 |
| 0.460 | 0.414055 | 0.414122 | 0.414189 | 0.414256 | 0.414323 | 0.414390 | 0.414457 | 0.414524 | 0.414591 | 0.414658 |
| 0.470 | 0.414725 | 0.414793 | 0.414860 | 0.414927 | 0.414994 | 0.415061 | 0.415128 | 0.415195 | 0.415262 | 0.415329 |
| 0.480 | 0.415396 | 0.415463 | 0.415530 | 0.415598 | 0.415665 | 0.415732 | 0.415799 | 0.415866 | 0.415933 | 0.416000 |
| 0.490 | 0.416068 | 0.416135 | 0.416202 | 0.416269 | 0.416336 | 0.416403 | 0.416471 | 0.416538 | 0.416605 | 0.416672 |

ATTENUATION IN DECIBELS
THETA FROM 12.500 TO 12.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.416739 | 0.416807 | 0.416874 | 0.416941 | 0.417008 | 0.417076 | 0.417143 | 0.417210 | 0.417277 | 0.417345 |
| 0.510 | 0.417412 | 0.417479 | 0.417546 | 0.417614 | 0.417681 | 0.417748 | 0.417816 | 0.417883 | 0.417950 | 0.418018 |
| 0.520 | 0.418085 | 0.418152 | 0.418220 | 0.418287 | 0.418354 | 0.418422 | 0.418489 | 0.418556 | 0.418624 | 0.418691 |
| 0.530 | 0.418758 | 0.418826 | 0.418893 | 0.418961 | 0.419028 | 0.419095 | 0.419163 | 0.419230 | 0.419297 | 0.419365 |
| 0.540 | 0.419433 | 0.419500 | 0.419567 | 0.419635 | 0.419702 | 0.419770 | 0.419837 | 0.419905 | 0.419972 | 0.420040 |
| 0.550 | 0.420107 | 0.420175 | 0.420242 | 0.420310 | 0.420377 | 0.420445 | 0.420512 | 0.420580 | 0.420647 | 0.420715 |
| 0.560 | 0.420782 | 0.420850 | 0.420918 | 0.420985 | 0.421053 | 0.421120 | 0.421188 | 0.421255 | 0.421323 | 0.421391 |
| 0.570 | 0.421458 | 0.421526 | 0.421593 | 0.421661 | 0.421729 | 0.421796 | 0.421864 | 0.421932 | 0.421999 | 0.422067 |
| 0.580 | 0.422135 | 0.422202 | 0.422270 | 0.422338 | 0.422405 | 0.422473 | 0.422541 | 0.422608 | 0.422676 | 0.422744 |
| 0.590 | 0.422811 | 0.422879 | 0.422947 | 0.423015 | 0.423082 | 0.423150 | 0.423218 | 0.423286 | 0.423353 | 0.423421 |
| 0.600 | 0.423489 | 0.423557 | 0.423624 | 0.423692 | 0.423760 | 0.423828 | 0.423896 | 0.423963 | 0.424031 | 0.424099 |
| 0.610 | 0.424167 | 0.424235 | 0.424303 | 0.424370 | 0.424438 | 0.424506 | 0.424574 | 0.424642 | 0.424710 | 0.424778 |
| 0.620 | 0.424845 | 0.424913 | 0.424981 | 0.425049 | 0.425117 | 0.425185 | 0.425253 | 0.425321 | 0.425389 | 0.425457 |
| 0.630 | 0.425525 | 0.425593 | 0.425660 | 0.425728 | 0.425796 | 0.425864 | 0.425932 | 0.426000 | 0.426068 | 0.426136 |
| 0.640 | 0.426204 | 0.426272 | 0.426340 | 0.426408 | 0.426476 | 0.426544 | 0.426612 | 0.426680 | 0.426748 | 0.426816 |
| 0.650 | 0.426884 | 0.426953 | 0.427021 | 0.427089 | 0.427157 | 0.427225 | 0.427293 | 0.427361 | 0.427429 | 0.427497 |
| 0.660 | 0.427565 | 0.427633 | 0.427701 | 0.427770 | 0.427838 | 0.427906 | 0.427974 | 0.428042 | 0.428110 | 0.428178 |
| 0.670 | 0.428247 | 0.428315 | 0.428383 | 0.428451 | 0.428519 | 0.428587 | 0.428656 | 0.428724 | 0.428792 | 0.428860 |
| 0.680 | 0.428928 | 0.428997 | 0.429065 | 0.429133 | 0.429201 | 0.429270 | 0.429338 | 0.429406 | 0.429474 | 0.429543 |
| 0.690 | 0.429611 | 0.429679 | 0.429747 | 0.429816 | 0.429884 | 0.429952 | 0.430021 | 0.430089 | 0.430157 | 0.430226 |
| 0.700 | 0.430294 | 0.430362 | 0.430431 | 0.430499 | 0.430567 | 0.430636 | 0.430704 | 0.430772 | 0.430841 | 0.430909 |
| 0.710 | 0.430977 | 0.431046 | 0.431114 | 0.431183 | 0.431251 | 0.431319 | 0.431388 | 0.431456 | 0.431525 | 0.431593 |
| 0.720 | 0.431662 | 0.431730 | 0.431798 | 0.431867 | 0.431935 | 0.432004 | 0.432072 | 0.432141 | 0.432209 | 0.432278 |
| 0.730 | 0.432346 | 0.432415 | 0.432483 | 0.432552 | 0.432620 | 0.432689 | 0.432757 | 0.432826 | 0.432894 | 0.432963 |
| 0.740 | 0.433031 | 0.433100 | 0.433169 | 0.433237 | 0.433306 | 0.433374 | 0.433443 | 0.433511 | 0.433580 | 0.433649 |
| 0.750 | 0.433717 | 0.433786 | 0.433854 | 0.433923 | 0.433992 | 0.434060 | 0.434129 | 0.434198 | 0.434266 | 0.434335 |
| 0.760 | 0.434404 | 0.434472 | 0.434541 | 0.434610 | 0.434678 | 0.434747 | 0.434816 | 0.434884 | 0.434953 | 0.435022 |
| 0.770 | 0.435090 | 0.435159 | 0.435228 | 0.435297 | 0.435365 | 0.435434 | 0.435503 | 0.435572 | 0.435640 | 0.435709 |
| 0.780 | 0.435778 | 0.435847 | 0.435915 | 0.435984 | 0.436053 | 0.436122 | 0.436191 | 0.436259 | 0.436328 | 0.436397 |
| 0.790 | 0.436466 | 0.436535 | 0.436604 | 0.436672 | 0.436741 | 0.436810 | 0.436879 | 0.436948 | 0.437017 | 0.437086 |
| 0.800 | 0.437154 | 0.437223 | 0.437292 | 0.437361 | 0.437430 | 0.437499 | 0.437568 | 0.437637 | 0.437706 | 0.437775 |
| 0.810 | 0.437844 | 0.437913 | 0.437982 | 0.438050 | 0.438119 | 0.438188 | 0.438257 | 0.438326 | 0.438395 | 0.438464 |
| 0.820 | 0.438533 | 0.438602 | 0.438671 | 0.438740 | 0.438809 | 0.438878 | 0.438947 | 0.439016 | 0.439085 | 0.439154 |
| 0.830 | 0.439274 | 0.439343 | 0.439412 | 0.439481 | 0.439550 | 0.439619 | 0.439688 | 0.439757 | 0.439826 | 0.439895 |
| 0.840 | 0.439914 | 0.439983 | 0.440053 | 0.440122 | 0.440191 | 0.440260 | 0.440329 | 0.440398 | 0.440467 | 0.440536 |
| 0.850 | 0.440606 | 0.440675 | 0.440744 | 0.440813 | 0.440882 | 0.440952 | 0.441021 | 0.441090 | 0.441159 | 0.441228 |
| 0.860 | 0.441298 | 0.441367 | 0.441436 | 0.441505 | 0.441574 | 0.441644 | 0.441713 | 0.441782 | 0.441851 | 0.441921 |
| 0.870 | 0.441990 | 0.442059 | 0.442129 | 0.442198 | 0.442267 | 0.442336 | 0.442406 | 0.442475 | 0.442544 | 0.442614 |
| 0.880 | 0.442683 | 0.442752 | 0.442822 | 0.442891 | 0.442960 | 0.443030 | 0.443099 | 0.443168 | 0.443238 | 0.443307 |
| 0.890 | 0.443377 | 0.443446 | 0.443515 | 0.443585 | 0.443654 | 0.443724 | 0.443793 | 0.443863 | 0.443932 | 0.444001 |
| 0.900 | 0.444071 | 0.444140 | 0.444210 | 0.444279 | 0.444349 | 0.444418 | 0.444487 | 0.444557 | 0.444626 | 0.444696 |
| 0.910 | 0.444765 | 0.444835 | 0.444904 | 0.444974 | 0.445043 | 0.445113 | 0.445183 | 0.445252 | 0.445322 | 0.445391 |
| 0.920 | 0.445461 | 0.445530 | 0.445600 | 0.445669 | 0.445739 | 0.445809 | 0.445878 | 0.445948 | 0.446017 | 0.446087 |
| 0.930 | 0.446156 | 0.446226 | 0.446296 | 0.446365 | 0.446435 | 0.446505 | 0.446574 | 0.446644 | 0.446714 | 0.446783 |
| 0.940 | 0.446853 | 0.446922 | 0.446992 | 0.447062 | 0.447132 | 0.447201 | 0.447271 | 0.447341 | 0.447410 | 0.447480 |
| 0.950 | 0.447550 | 0.447619 | 0.447689 | 0.447759 | 0.447828 | 0.447898 | 0.447968 | 0.448038 | 0.448108 | 0.448177 |
| 0.960 | 0.448247 | 0.448317 | 0.448387 | 0.448457 | 0.448526 | 0.448596 | 0.448666 | 0.448735 | 0.448806 | 0.448875 |
| 0.970 | 0.448945 | 0.449015 | 0.449085 | 0.449155 | 0.449225 | 0.449294 | 0.449364 | 0.449434 | 0.449504 | 0.449574 |
| 0.980 | 0.449644 | 0.449714 | 0.449784 | 0.449854 | 0.449923 | 0.449993 | 0.450063 | 0.450133 | 0.450203 | 0.450273 |
| 0.990 | 0.450343 | 0.450413 | 0.450483 | 0.450553 | 0.450623 | 0.450693 | 0.450763 | 0.450833 | 0.450903 | 0.450973 |

ATTENUATION IN DECIBELS
 THETA FROM 13.000 TO 13.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.451043 | 0.451113 | 0.451183 | 0.451253 | 0.451323 | 0.451393 | 0.451463 | 0.451533 | 0.451603 | 0.451673 |
| 0.010 | 0.451743 | 0.451813 | 0.451883 | 0.451953 | 0.452023 | 0.452093 | 0.452163 | 0.452233 | 0.452304 | 0.452374 |
| 0.020 | 0.452444 | 0.452514 | 0.452584 | 0.452654 | 0.452724 | 0.452794 | 0.452865 | 0.452935 | 0.453005 | 0.453075 |
| 0.030 | 0.453145 | 0.453215 | 0.453285 | 0.453356 | 0.453426 | 0.453496 | 0.453566 | 0.453636 | 0.453707 | 0.453777 |
| 0.040 | 0.453847 | 0.453917 | 0.453988 | 0.454058 | 0.454128 | 0.454198 | 0.454268 | 0.454339 | 0.454409 | 0.454479 |
| 0.050 | 0.454550 | 0.454620 | 0.454690 | 0.454760 | 0.454831 | 0.454901 | 0.454971 | 0.455042 | 0.455112 | 0.455182 |
| 0.060 | 0.455293 | 0.455363 | 0.455433 | 0.455504 | 0.455574 | 0.455644 | 0.455715 | 0.455785 | 0.455855 | 0.455925 |
| 0.070 | 0.455956 | 0.456027 | 0.456097 | 0.456167 | 0.456238 | 0.456308 | 0.456379 | 0.456449 | 0.456519 | 0.456590 |
| 0.080 | 0.456660 | 0.456731 | 0.456801 | 0.456872 | 0.456942 | 0.457013 | 0.457083 | 0.457154 | 0.457224 | 0.457295 |
| 0.090 | 0.457365 | 0.457436 | 0.457506 | 0.457576 | 0.457647 | 0.457718 | 0.457788 | 0.457859 | 0.457929 | 0.458000 |
| 0.100 | 0.458070 | 0.458141 | 0.458211 | 0.458282 | 0.458353 | 0.458423 | 0.458494 | 0.458564 | 0.458635 | 0.458706 |
| 0.110 | 0.458776 | 0.458847 | 0.458917 | 0.458988 | 0.459059 | 0.459129 | 0.459200 | 0.459271 | 0.459341 | 0.459412 |
| 0.120 | 0.459483 | 0.459553 | 0.459624 | 0.459695 | 0.459765 | 0.459836 | 0.459907 | 0.459977 | 0.460048 | 0.460119 |
| 0.130 | 0.460150 | 0.460260 | 0.460331 | 0.460402 | 0.460472 | 0.460543 | 0.460614 | 0.460685 | 0.460756 | 0.460826 |
| 0.140 | 0.460897 | 0.460968 | 0.461039 | 0.461109 | 0.461180 | 0.461251 | 0.461322 | 0.461393 | 0.461463 | 0.461534 |
| 0.150 | 0.461605 | 0.461676 | 0.461747 | 0.461818 | 0.461888 | 0.461959 | 0.462030 | 0.462101 | 0.462172 | 0.462243 |
| 0.160 | 0.462314 | 0.462385 | 0.462456 | 0.462526 | 0.462597 | 0.462668 | 0.462739 | 0.462810 | 0.462881 | 0.462952 |
| 0.170 | 0.463023 | 0.463094 | 0.463165 | 0.463236 | 0.463307 | 0.463378 | 0.463449 | 0.463520 | 0.463591 | 0.463662 |
| 0.180 | 0.463733 | 0.463804 | 0.463875 | 0.463946 | 0.464017 | 0.464088 | 0.464159 | 0.464230 | 0.464301 | 0.464372 |
| 0.190 | 0.464443 | 0.464514 | 0.464585 | 0.464656 | 0.464727 | 0.464798 | 0.464869 | 0.464941 | 0.465012 | 0.465083 |
| 0.200 | 0.465154 | 0.465225 | 0.465296 | 0.465367 | 0.465438 | 0.465509 | 0.465581 | 0.465652 | 0.465723 | 0.465794 |
| 0.210 | 0.465865 | 0.465936 | 0.466008 | 0.466079 | 0.466150 | 0.466221 | 0.466292 | 0.466364 | 0.466435 | 0.466506 |
| 0.220 | 0.466577 | 0.466648 | 0.466720 | 0.466791 | 0.466862 | 0.466933 | 0.467005 | 0.467076 | 0.467147 | 0.467218 |
| 0.230 | 0.467290 | 0.467361 | 0.467432 | 0.467504 | 0.467575 | 0.467646 | 0.467718 | 0.467789 | 0.467860 | 0.467932 |
| 0.240 | 0.468003 | 0.468074 | 0.468146 | 0.468217 | 0.468288 | 0.468359 | 0.468431 | 0.468502 | 0.468574 | 0.468645 |
| 0.250 | 0.468716 | 0.468788 | 0.468859 | 0.468931 | 0.469002 | 0.469074 | 0.469145 | 0.469216 | 0.469288 | 0.469359 |
| 0.260 | 0.469431 | 0.469502 | 0.469574 | 0.469645 | 0.469717 | 0.469788 | 0.469859 | 0.469931 | 0.470002 | 0.470074 |
| 0.270 | 0.470145 | 0.470217 | 0.470288 | 0.470360 | 0.470432 | 0.470503 | 0.470575 | 0.470646 | 0.470718 | 0.470789 |
| 0.280 | 0.470861 | 0.470932 | 0.471004 | 0.471075 | 0.471147 | 0.471219 | 0.471290 | 0.471362 | 0.471433 | 0.471505 |
| 0.290 | 0.471577 | 0.471648 | 0.471720 | 0.471792 | 0.471863 | 0.471935 | 0.472006 | 0.472078 | 0.472150 | 0.472221 |
| 0.300 | 0.472293 | 0.472365 | 0.472436 | 0.472508 | 0.472580 | 0.472652 | 0.472723 | 0.472795 | 0.472867 | 0.472938 |
| 0.310 | 0.473010 | 0.473082 | 0.473154 | 0.473225 | 0.473297 | 0.473369 | 0.473441 | 0.473512 | 0.473584 | 0.473656 |
| 0.320 | 0.473728 | 0.473799 | 0.473871 | 0.473943 | 0.474015 | 0.474087 | 0.474158 | 0.474230 | 0.474302 | 0.474374 |
| 0.330 | 0.474466 | 0.474518 | 0.474589 | 0.474661 | 0.474733 | 0.474805 | 0.474877 | 0.474949 | 0.475021 | 0.475093 |
| 0.340 | 0.475164 | 0.475236 | 0.475308 | 0.475380 | 0.475452 | 0.475524 | 0.475596 | 0.475668 | 0.475740 | 0.475812 |
| 0.350 | 0.475984 | 0.476056 | 0.476128 | 0.476200 | 0.476272 | 0.476344 | 0.476416 | 0.476488 | 0.476560 | 0.476632 |
| 0.360 | 0.476804 | 0.476876 | 0.476948 | 0.477020 | 0.477092 | 0.477164 | 0.477236 | 0.477308 | 0.477380 | 0.477452 |
| 0.370 | 0.477524 | 0.477596 | 0.477668 | 0.477740 | 0.477812 | 0.477884 | 0.477956 | 0.478028 | 0.478100 | 0.478172 |
| 0.380 | 0.478312 | 0.478384 | 0.478456 | 0.478528 | 0.478600 | 0.478672 | 0.478744 | 0.478816 | 0.478888 | 0.478960 |
| 0.390 | 0.479168 | 0.479240 | 0.479312 | 0.479384 | 0.479456 | 0.479528 | 0.479600 | 0.479672 | 0.479744 | 0.479816 |
| 0.400 | 0.479968 | 0.480040 | 0.480112 | 0.480184 | 0.480256 | 0.480328 | 0.480400 | 0.480472 | 0.480544 | 0.480616 |
| 0.410 | 0.480768 | 0.480840 | 0.480912 | 0.480984 | 0.481056 | 0.481128 | 0.481200 | 0.481272 | 0.481344 | 0.481416 |
| 0.420 | 0.481516 | 0.481588 | 0.481660 | 0.481732 | 0.481804 | 0.481876 | 0.481948 | 0.482020 | 0.482092 | 0.482164 |
| 0.430 | 0.482264 | 0.482336 | 0.482408 | 0.482480 | 0.482552 | 0.482624 | 0.482696 | 0.482768 | 0.482840 | 0.482912 |
| 0.440 | 0.483064 | 0.483136 | 0.483208 | 0.483280 | 0.483352 | 0.483424 | 0.483496 | 0.483568 | 0.483640 | 0.483712 |
| 0.450 | 0.483812 | 0.483884 | 0.483956 | 0.484028 | 0.484100 | 0.484172 | 0.484244 | 0.484316 | 0.484388 | 0.484460 |
| 0.460 | 0.484512 | 0.484584 | 0.484656 | 0.484728 | 0.484800 | 0.484872 | 0.484944 | 0.485016 | 0.485088 | 0.485160 |
| 0.470 | 0.485264 | 0.485336 | 0.485408 | 0.485480 | 0.485552 | 0.485624 | 0.485696 | 0.485768 | 0.485840 | 0.485912 |
| 0.480 | 0.486064 | 0.486136 | 0.486208 | 0.486280 | 0.486352 | 0.486424 | 0.486496 | 0.486568 | 0.486640 | 0.486712 |
| 0.490 | 0.486812 | 0.486884 | 0.486956 | 0.487028 | 0.487100 | 0.487172 | 0.487244 | 0.487316 | 0.487388 | 0.487460 |

ATTENUATION IN DECIBELS
 THETA FROM 13.500 TO 13.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.486739 | 0.486812 | 0.486885 | 0.486958 | 0.487031 | 0.487103 | 0.487176 | 0.487249 | 0.487322 | 0.487395 |
| 0.510 | 0.487463 | 0.487540 | 0.487613 | 0.487686 | 0.487759 | 0.487832 | 0.487905 | 0.487978 | 0.488051 | 0.488123 |
| 0.520 | 0.488196 | 0.488269 | 0.488341 | 0.488415 | 0.488488 | 0.488561 | 0.488634 | 0.488707 | 0.488780 | 0.488853 |
| 0.530 | 0.488926 | 0.488999 | 0.489072 | 0.489145 | 0.489217 | 0.489290 | 0.489363 | 0.489436 | 0.489509 | 0.489582 |
| 0.540 | 0.489655 | 0.489728 | 0.489802 | 0.489875 | 0.489948 | 0.490021 | 0.490094 | 0.490167 | 0.490240 | 0.490313 |
| 0.550 | 0.490386 | 0.490459 | 0.490532 | 0.490605 | 0.490678 | 0.490751 | 0.490824 | 0.490898 | 0.490971 | 0.491044 |
| 0.560 | 0.491117 | 0.491190 | 0.491263 | 0.491336 | 0.491409 | 0.491483 | 0.491556 | 0.491629 | 0.491702 | 0.491775 |
| 0.570 | 0.491848 | 0.491922 | 0.491995 | 0.492068 | 0.492141 | 0.492214 | 0.492288 | 0.492361 | 0.492434 | 0.492507 |
| 0.580 | 0.492591 | 0.492654 | 0.492727 | 0.492800 | 0.492874 | 0.492947 | 0.493020 | 0.493093 | 0.493167 | 0.493240 |
| 0.590 | 0.493313 | 0.493386 | 0.493460 | 0.493533 | 0.493606 | 0.493680 | 0.493753 | 0.493826 | 0.493900 | 0.493973 |
| 0.600 | 0.494046 | 0.494120 | 0.494193 | 0.494266 | 0.494340 | 0.494413 | 0.494487 | 0.494560 | 0.494633 | 0.494707 |
| 0.610 | 0.494780 | 0.494854 | 0.494927 | 0.495000 | 0.495074 | 0.495147 | 0.495221 | 0.495294 | 0.495368 | 0.495441 |
| 0.620 | 0.495515 | 0.495588 | 0.495661 | 0.495735 | 0.495808 | 0.495882 | 0.495955 | 0.496029 | 0.496102 | 0.496176 |
| 0.630 | 0.496249 | 0.496323 | 0.496397 | 0.496470 | 0.496544 | 0.496617 | 0.496691 | 0.496764 | 0.496838 | 0.496911 |
| 0.640 | 0.496985 | 0.497058 | 0.497132 | 0.497206 | 0.497279 | 0.497353 | 0.497426 | 0.497500 | 0.497574 | 0.497647 |
| 0.650 | 0.497721 | 0.497795 | 0.497868 | 0.497942 | 0.498016 | 0.498089 | 0.498163 | 0.498236 | 0.498310 | 0.498384 |
| 0.660 | 0.498458 | 0.498531 | 0.498605 | 0.498679 | 0.498752 | 0.498826 | 0.498900 | 0.498973 | 0.499047 | 0.499121 |
| 0.670 | 0.499195 | 0.499268 | 0.499342 | 0.499416 | 0.499490 | 0.499563 | 0.499637 | 0.499711 | 0.499785 | 0.499859 |
| 0.680 | 0.499932 | 0.500006 | 0.500080 | 0.500154 | 0.500228 | 0.500301 | 0.500375 | 0.500449 | 0.500523 | 0.500597 |
| 0.690 | 0.500671 | 0.500745 | 0.500818 | 0.500892 | 0.500966 | 0.501040 | 0.501114 | 0.501188 | 0.501262 | 0.501336 |
| 0.700 | 0.501409 | 0.501483 | 0.501557 | 0.501631 | 0.501705 | 0.501779 | 0.501853 | 0.501927 | 0.502001 | 0.502075 |
| 0.710 | 0.502149 | 0.502223 | 0.502297 | 0.502371 | 0.502445 | 0.502519 | 0.502593 | 0.502667 | 0.502741 | 0.502815 |
| 0.720 | 0.502889 | 0.502963 | 0.503037 | 0.503111 | 0.503185 | 0.503259 | 0.503333 | 0.503407 | 0.503481 | 0.503555 |
| 0.730 | 0.503629 | 0.503703 | 0.503778 | 0.503852 | 0.503926 | 0.504000 | 0.504074 | 0.504148 | 0.504222 | 0.504296 |
| 0.740 | 0.504437 | 0.504511 | 0.504585 | 0.504659 | 0.504733 | 0.504807 | 0.504881 | 0.504955 | 0.505029 | 0.505103 |
| 0.750 | 0.505112 | 0.505186 | 0.505260 | 0.505335 | 0.505409 | 0.505483 | 0.505557 | 0.505631 | 0.505705 | 0.505780 |
| 0.760 | 0.505854 | 0.505928 | 0.506002 | 0.506077 | 0.506151 | 0.506226 | 0.506300 | 0.506374 | 0.506448 | 0.506523 |
| 0.770 | 0.506597 | 0.506671 | 0.506746 | 0.506820 | 0.506894 | 0.506969 | 0.507043 | 0.507117 | 0.507192 | 0.507266 |
| 0.780 | 0.507340 | 0.507415 | 0.507489 | 0.507563 | 0.507638 | 0.507712 | 0.507787 | 0.507861 | 0.507935 | 0.508010 |
| 0.790 | 0.508084 | 0.508159 | 0.508233 | 0.508307 | 0.508382 | 0.508456 | 0.508531 | 0.508605 | 0.508680 | 0.508754 |
| 0.800 | 0.508829 | 0.508903 | 0.508978 | 0.509052 | 0.509127 | 0.509201 | 0.509276 | 0.509350 | 0.509425 | 0.509499 |
| 0.810 | 0.509574 | 0.509648 | 0.509723 | 0.509797 | 0.509872 | 0.509946 | 0.510021 | 0.510095 | 0.510170 | 0.510245 |
| 0.820 | 0.510319 | 0.510394 | 0.510468 | 0.510543 | 0.510618 | 0.510692 | 0.510767 | 0.510841 | 0.510916 | 0.510991 |
| 0.830 | 0.511065 | 0.511140 | 0.511215 | 0.511289 | 0.511364 | 0.511439 | 0.511513 | 0.511588 | 0.511663 | 0.511737 |
| 0.840 | 0.511812 | 0.511887 | 0.511961 | 0.512036 | 0.512111 | 0.512186 | 0.512260 | 0.512335 | 0.512410 | 0.512484 |
| 0.850 | 0.512559 | 0.512634 | 0.512709 | 0.512784 | 0.512858 | 0.512933 | 0.513008 | 0.513083 | 0.513157 | 0.513232 |
| 0.860 | 0.513307 | 0.513382 | 0.513457 | 0.513531 | 0.513606 | 0.513681 | 0.513756 | 0.513831 | 0.513906 | 0.513981 |
| 0.870 | 0.514055 | 0.514130 | 0.514205 | 0.514280 | 0.514355 | 0.514430 | 0.514505 | 0.514580 | 0.514654 | 0.514729 |
| 0.880 | 0.514804 | 0.514879 | 0.514954 | 0.515029 | 0.515104 | 0.515179 | 0.515254 | 0.515329 | 0.515404 | 0.515479 |
| 0.890 | 0.515554 | 0.515629 | 0.515704 | 0.515779 | 0.515854 | 0.515929 | 0.516004 | 0.516079 | 0.516154 | 0.516229 |
| 0.900 | 0.516304 | 0.516379 | 0.516454 | 0.516529 | 0.516604 | 0.516679 | 0.516754 | 0.516829 | 0.516904 | 0.516979 |
| 0.910 | 0.517054 | 0.517130 | 0.517205 | 0.517280 | 0.517355 | 0.517430 | 0.517505 | 0.517580 | 0.517655 | 0.517730 |
| 0.920 | 0.517806 | 0.517881 | 0.517956 | 0.518031 | 0.518106 | 0.518181 | 0.518257 | 0.518332 | 0.518407 | 0.518482 |
| 0.930 | 0.518557 | 0.518633 | 0.518708 | 0.518783 | 0.518858 | 0.518933 | 0.519009 | 0.519084 | 0.519159 | 0.519234 |
| 0.940 | 0.519310 | 0.519385 | 0.519460 | 0.519535 | 0.519611 | 0.519686 | 0.519761 | 0.519837 | 0.519912 | 0.519987 |
| 0.950 | 0.520063 | 0.520138 | 0.520213 | 0.520288 | 0.520364 | 0.520439 | 0.520515 | 0.520590 | 0.520665 | 0.520741 |
| 0.960 | 0.520816 | 0.520891 | 0.520966 | 0.521042 | 0.521117 | 0.521193 | 0.521268 | 0.521344 | 0.521419 | 0.521495 |
| 0.970 | 0.521570 | 0.521645 | 0.521721 | 0.521796 | 0.521872 | 0.521947 | 0.522023 | 0.522098 | 0.522174 | 0.522249 |
| 0.980 | 0.522324 | 0.522400 | 0.522475 | 0.522551 | 0.522626 | 0.522702 | 0.522777 | 0.522853 | 0.522929 | 0.523004 |
| 0.990 | 0.523080 | 0.523155 | 0.523231 | 0.523306 | 0.523382 | 0.523457 | 0.523533 | 0.523608 | 0.523684 | 0.523760 |

ATTENUATION IN DECIBELS
THETA FROM 14.000 TO 14.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.523835 | 0.523911 | 0.523986 | 0.524062 | 0.524138 | 0.524213 | 0.524289 | 0.524365 | 0.524440 | 0.524516 |
| 0.010 | 0.524591 | 0.524667 | 0.524743 | 0.524818 | 0.524894 | 0.524970 | 0.525045 | 0.525121 | 0.525197 | 0.525273 |
| 0.020 | 0.525349 | 0.525424 | 0.525500 | 0.525575 | 0.525651 | 0.525727 | 0.525803 | 0.525878 | 0.525954 | 0.526030 |
| 0.030 | 0.526106 | 0.526181 | 0.526257 | 0.526333 | 0.526409 | 0.526485 | 0.526560 | 0.526636 | 0.526712 | 0.526788 |
| 0.040 | 0.526864 | 0.526939 | 0.527015 | 0.527091 | 0.527167 | 0.527243 | 0.527319 | 0.527394 | 0.527470 | 0.527546 |
| 0.050 | 0.527622 | 0.527698 | 0.527774 | 0.527850 | 0.527926 | 0.528002 | 0.528077 | 0.528153 | 0.528229 | 0.528305 |
| 0.060 | 0.528381 | 0.528457 | 0.528533 | 0.528609 | 0.528685 | 0.528761 | 0.528837 | 0.528913 | 0.528989 | 0.529065 |
| 0.070 | 0.529141 | 0.529217 | 0.529293 | 0.529369 | 0.529445 | 0.529521 | 0.529597 | 0.529673 | 0.529749 | 0.529825 |
| 0.080 | 0.529901 | 0.529977 | 0.530053 | 0.530129 | 0.530205 | 0.530281 | 0.530357 | 0.530433 | 0.530509 | 0.530585 |
| 0.090 | 0.530662 | 0.530738 | 0.530814 | 0.530890 | 0.530966 | 0.531042 | 0.531118 | 0.531194 | 0.531271 | 0.531347 |
| 0.100 | 0.531423 | 0.531499 | 0.531575 | 0.531651 | 0.531727 | 0.531804 | 0.531880 | 0.531956 | 0.532032 | 0.532109 |
| 0.110 | 0.532185 | 0.532261 | 0.532337 | 0.532413 | 0.532489 | 0.532566 | 0.532642 | 0.532718 | 0.532795 | 0.532871 |
| 0.120 | 0.532947 | 0.533023 | 0.533100 | 0.533176 | 0.533252 | 0.533329 | 0.533405 | 0.533481 | 0.533557 | 0.533634 |
| 0.130 | 0.533710 | 0.533786 | 0.533863 | 0.533939 | 0.534015 | 0.534092 | 0.534168 | 0.534245 | 0.534321 | 0.534397 |
| 0.140 | 0.534474 | 0.534550 | 0.534626 | 0.534703 | 0.534779 | 0.534856 | 0.534932 | 0.535008 | 0.535085 | 0.535161 |
| 0.150 | 0.535238 | 0.535314 | 0.535391 | 0.535467 | 0.535544 | 0.535620 | 0.535696 | 0.535773 | 0.535849 | 0.535926 |
| 0.160 | 0.536002 | 0.536079 | 0.536155 | 0.536232 | 0.536308 | 0.536385 | 0.536461 | 0.536538 | 0.536615 | 0.536691 |
| 0.170 | 0.536768 | 0.536844 | 0.536921 | 0.536997 | 0.537074 | 0.537150 | 0.537227 | 0.537304 | 0.537380 | 0.537457 |
| 0.180 | 0.537533 | 0.537610 | 0.537687 | 0.537763 | 0.537840 | 0.537917 | 0.537993 | 0.538070 | 0.538146 | 0.538223 |
| 0.190 | 0.538300 | 0.538376 | 0.538453 | 0.538530 | 0.538607 | 0.538683 | 0.538760 | 0.538837 | 0.538914 | 0.538990 |
| 0.200 | 0.539067 | 0.539143 | 0.539220 | 0.539297 | 0.539374 | 0.539450 | 0.539527 | 0.539604 | 0.539681 | 0.539757 |
| 0.210 | 0.539834 | 0.539911 | 0.539988 | 0.540065 | 0.540141 | 0.540218 | 0.540295 | 0.540372 | 0.540449 | 0.540525 |
| 0.220 | 0.540602 | 0.540679 | 0.540756 | 0.540833 | 0.540910 | 0.540986 | 0.541063 | 0.541140 | 0.541217 | 0.541294 |
| 0.230 | 0.541371 | 0.541448 | 0.541525 | 0.541602 | 0.541678 | 0.541755 | 0.541832 | 0.541909 | 0.541986 | 0.542063 |
| 0.240 | 0.542140 | 0.542217 | 0.542294 | 0.542371 | 0.542448 | 0.542525 | 0.542602 | 0.542679 | 0.542756 | 0.542833 |
| 0.250 | 0.542910 | 0.542987 | 0.543064 | 0.543141 | 0.543218 | 0.543295 | 0.543372 | 0.543449 | 0.543526 | 0.543603 |
| 0.260 | 0.543660 | 0.543737 | 0.543814 | 0.543891 | 0.543968 | 0.544045 | 0.544123 | 0.544200 | 0.544277 | 0.544354 |
| 0.270 | 0.544451 | 0.544528 | 0.544605 | 0.544682 | 0.544759 | 0.544837 | 0.544914 | 0.544991 | 0.545068 | 0.545145 |
| 0.280 | 0.545222 | 0.545300 | 0.545377 | 0.545454 | 0.545531 | 0.545608 | 0.545685 | 0.545763 | 0.545840 | 0.545917 |
| 0.290 | 0.545994 | 0.546072 | 0.546149 | 0.546226 | 0.546303 | 0.546381 | 0.546458 | 0.546535 | 0.546612 | 0.546690 |
| 0.300 | 0.546767 | 0.546844 | 0.546921 | 0.546999 | 0.547076 | 0.547153 | 0.547231 | 0.547308 | 0.547385 | 0.547463 |
| 0.310 | 0.547540 | 0.547617 | 0.547695 | 0.547772 | 0.547849 | 0.547927 | 0.548004 | 0.548082 | 0.548159 | 0.548236 |
| 0.320 | 0.548314 | 0.548391 | 0.548468 | 0.548546 | 0.548623 | 0.548701 | 0.548778 | 0.548856 | 0.548933 | 0.549010 |
| 0.330 | 0.549088 | 0.549165 | 0.549243 | 0.549320 | 0.549398 | 0.549475 | 0.549553 | 0.549630 | 0.549708 | 0.549785 |
| 0.340 | 0.549863 | 0.549940 | 0.550018 | 0.550095 | 0.550173 | 0.550250 | 0.550328 | 0.550405 | 0.550483 | 0.550561 |
| 0.350 | 0.550638 | 0.550716 | 0.550793 | 0.550871 | 0.550948 | 0.551026 | 0.551104 | 0.551181 | 0.551259 | 0.551336 |
| 0.360 | 0.551414 | 0.551492 | 0.551569 | 0.551647 | 0.551725 | 0.551802 | 0.551880 | 0.551958 | 0.552035 | 0.552113 |
| 0.370 | 0.552191 | 0.552268 | 0.552346 | 0.552424 | 0.552501 | 0.552579 | 0.552657 | 0.552734 | 0.552812 | 0.552890 |
| 0.380 | 0.552968 | 0.553045 | 0.553123 | 0.553201 | 0.553279 | 0.553356 | 0.553434 | 0.553512 | 0.553590 | 0.553667 |
| 0.390 | 0.553745 | 0.553823 | 0.553901 | 0.553979 | 0.554056 | 0.554134 | 0.554212 | 0.554290 | 0.554368 | 0.554446 |
| 0.400 | 0.554523 | 0.554601 | 0.554679 | 0.554757 | 0.554835 | 0.554913 | 0.554991 | 0.555068 | 0.555146 | 0.555224 |
| 0.410 | 0.555302 | 0.555380 | 0.555458 | 0.555536 | 0.555614 | 0.555692 | 0.555770 | 0.555848 | 0.555926 | 0.556004 |
| 0.420 | 0.556081 | 0.556159 | 0.556237 | 0.556315 | 0.556393 | 0.556471 | 0.556549 | 0.556627 | 0.556705 | 0.556783 |
| 0.430 | 0.556861 | 0.556939 | 0.557017 | 0.557095 | 0.557173 | 0.557252 | 0.557330 | 0.557408 | 0.557486 | 0.557564 |
| 0.440 | 0.557642 | 0.557720 | 0.557798 | 0.557876 | 0.557954 | 0.558032 | 0.558110 | 0.558188 | 0.558267 | 0.558345 |
| 0.450 | 0.558423 | 0.558501 | 0.558579 | 0.558657 | 0.558735 | 0.558814 | 0.558892 | 0.558970 | 0.559048 | 0.559126 |
| 0.460 | 0.559204 | 0.559283 | 0.559361 | 0.559439 | 0.559517 | 0.559595 | 0.559674 | 0.559752 | 0.559830 | 0.559908 |
| 0.470 | 0.559987 | 0.560065 | 0.560143 | 0.560221 | 0.560300 | 0.560378 | 0.560456 | 0.560534 | 0.560613 | 0.560691 |
| 0.480 | 0.560769 | 0.560848 | 0.560926 | 0.561004 | 0.561082 | 0.561161 | 0.561239 | 0.561317 | 0.561396 | 0.561474 |
| 0.490 | 0.561553 | 0.561631 | 0.561709 | 0.561788 | 0.561866 | 0.561944 | 0.562023 | 0.562101 | 0.562180 | 0.562258 |

ATTENUATION IN DECIBELS
THETA FROM 14.500 TO 14.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.562336 | 0.562415 | 0.562493 | 0.562572 | 0.562650 | 0.562728 | 0.562807 | 0.562885 | 0.562964 | 0.563042 |
| 0.510 | 0.563121 | 0.563199 | 0.563278 | 0.563356 | 0.563435 | 0.563513 | 0.563592 | 0.563670 | 0.563749 | 0.563827 |
| 0.520 | 0.563906 | 0.563984 | 0.564063 | 0.564141 | 0.564220 | 0.564298 | 0.564377 | 0.564456 | 0.564534 | 0.564613 |
| 0.530 | 0.564691 | 0.564770 | 0.564848 | 0.564927 | 0.565006 | 0.565084 | 0.565163 | 0.565241 | 0.565320 | 0.565399 |
| 0.540 | 0.565477 | 0.565556 | 0.565635 | 0.565713 | 0.565792 | 0.565871 | 0.565949 | 0.566028 | 0.566107 | 0.566185 |
| 0.550 | 0.566264 | 0.566343 | 0.566421 | 0.566500 | 0.566579 | 0.566658 | 0.566736 | 0.566815 | 0.566894 | 0.566972 |
| 0.560 | 0.567051 | 0.567130 | 0.567209 | 0.567287 | 0.567366 | 0.567445 | 0.567524 | 0.567603 | 0.567681 | 0.567760 |
| 0.570 | 0.567839 | 0.567918 | 0.567997 | 0.568075 | 0.568154 | 0.568233 | 0.568312 | 0.568391 | 0.568470 | 0.568548 |
| 0.580 | 0.568627 | 0.568706 | 0.568785 | 0.568864 | 0.568943 | 0.569022 | 0.569101 | 0.569180 | 0.569258 | 0.569337 |
| 0.590 | 0.569416 | 0.569495 | 0.569574 | 0.569653 | 0.569732 | 0.569811 | 0.569890 | 0.569969 | 0.570048 | 0.570127 |
| 0.600 | 0.570206 | 0.570285 | 0.570364 | 0.570443 | 0.570522 | 0.570601 | 0.570680 | 0.570759 | 0.570838 | 0.570917 |
| 0.610 | 0.570996 | 0.571075 | 0.571154 | 0.571233 | 0.571312 | 0.571391 | 0.571470 | 0.571549 | 0.571628 | 0.571707 |
| 0.620 | 0.571786 | 0.571865 | 0.571945 | 0.572024 | 0.572103 | 0.572182 | 0.572261 | 0.572340 | 0.572419 | 0.572498 |
| 0.630 | 0.572578 | 0.572657 | 0.572736 | 0.572815 | 0.572894 | 0.572973 | 0.573053 | 0.573132 | 0.573211 | 0.573290 |
| 0.640 | 0.573369 | 0.573449 | 0.573528 | 0.573607 | 0.573686 | 0.573765 | 0.573845 | 0.573924 | 0.574003 | 0.574082 |
| 0.650 | 0.574162 | 0.574241 | 0.574320 | 0.574399 | 0.574479 | 0.574558 | 0.574637 | 0.574717 | 0.574796 | 0.574875 |
| 0.660 | 0.574954 | 0.575034 | 0.575113 | 0.575192 | 0.575272 | 0.575351 | 0.575430 | 0.575510 | 0.575589 | 0.575669 |
| 0.670 | 0.575748 | 0.575827 | 0.575907 | 0.575986 | 0.576065 | 0.576145 | 0.576224 | 0.576304 | 0.576383 | 0.576462 |
| 0.680 | 0.576542 | 0.576621 | 0.576701 | 0.576780 | 0.576860 | 0.576939 | 0.577019 | 0.577098 | 0.577178 | 0.577257 |
| 0.690 | 0.577336 | 0.577416 | 0.577495 | 0.577575 | 0.577654 | 0.577734 | 0.577814 | 0.577893 | 0.577973 | 0.578052 |
| 0.700 | 0.578132 | 0.578211 | 0.578291 | 0.578370 | 0.578450 | 0.578529 | 0.578609 | 0.578689 | 0.578768 | 0.578848 |
| 0.710 | 0.578927 | 0.579007 | 0.579087 | 0.579166 | 0.579246 | 0.579325 | 0.579405 | 0.579485 | 0.579564 | 0.579644 |
| 0.720 | 0.579724 | 0.579803 | 0.579883 | 0.579963 | 0.580042 | 0.580122 | 0.580202 | 0.580281 | 0.580361 | 0.580441 |
| 0.730 | 0.580520 | 0.580600 | 0.580680 | 0.580760 | 0.580839 | 0.580919 | 0.580999 | 0.581079 | 0.581158 | 0.581238 |
| 0.740 | 0.581318 | 0.581398 | 0.581477 | 0.581557 | 0.581637 | 0.581717 | 0.581797 | 0.581876 | 0.581956 | 0.582036 |
| 0.750 | 0.582116 | 0.582196 | 0.582275 | 0.582355 | 0.582435 | 0.582515 | 0.582595 | 0.582675 | 0.582755 | 0.582834 |
| 0.760 | 0.582914 | 0.582994 | 0.583074 | 0.583154 | 0.583234 | 0.583314 | 0.583394 | 0.583474 | 0.583554 | 0.583633 |
| 0.770 | 0.583713 | 0.583793 | 0.583873 | 0.583953 | 0.584033 | 0.584113 | 0.584193 | 0.584273 | 0.584353 | 0.584433 |
| 0.780 | 0.584513 | 0.584593 | 0.584673 | 0.584753 | 0.584833 | 0.584913 | 0.584993 | 0.585073 | 0.585153 | 0.585233 |
| 0.790 | 0.585313 | 0.585393 | 0.585473 | 0.585553 | 0.585634 | 0.585714 | 0.585794 | 0.585874 | 0.585954 | 0.586034 |
| 0.800 | 0.586114 | 0.586194 | 0.586274 | 0.586354 | 0.586435 | 0.586515 | 0.586595 | 0.586675 | 0.586755 | 0.586835 |
| 0.810 | 0.586915 | 0.586996 | 0.587076 | 0.587156 | 0.587236 | 0.587316 | 0.587395 | 0.587477 | 0.587557 | 0.587637 |
| 0.820 | 0.587717 | 0.587798 | 0.587878 | 0.587958 | 0.588038 | 0.588119 | 0.588199 | 0.588279 | 0.588359 | 0.588440 |
| 0.830 | 0.588520 | 0.588600 | 0.588680 | 0.588761 | 0.588841 | 0.588921 | 0.589002 | 0.589082 | 0.589162 | 0.589242 |
| 0.840 | 0.589323 | 0.589403 | 0.589484 | 0.589564 | 0.589644 | 0.589725 | 0.589805 | 0.589885 | 0.589966 | 0.590046 |
| 0.850 | 0.590127 | 0.590207 | 0.590287 | 0.590368 | 0.590448 | 0.590529 | 0.590609 | 0.590689 | 0.590770 | 0.590850 |
| 0.860 | 0.590931 | 0.591011 | 0.591092 | 0.591172 | 0.591253 | 0.591333 | 0.591414 | 0.591494 | 0.591574 | 0.591655 |
| 0.870 | 0.591735 | 0.591816 | 0.591896 | 0.591977 | 0.592058 | 0.592138 | 0.592219 | 0.592299 | 0.592380 | 0.592460 |
| 0.880 | 0.592541 | 0.592621 | 0.592702 | 0.592783 | 0.592863 | 0.592944 | 0.593024 | 0.593105 | 0.593185 | 0.593266 |
| 0.890 | 0.593347 | 0.593427 | 0.593508 | 0.593589 | 0.593669 | 0.593750 | 0.593830 | 0.593911 | 0.593992 | 0.594072 |
| 0.900 | 0.594153 | 0.594234 | 0.594315 | 0.594395 | 0.594476 | 0.594557 | 0.594637 | 0.594718 | 0.594799 | 0.594879 |
| 0.910 | 0.594960 | 0.595041 | 0.595122 | 0.595202 | 0.595283 | 0.595364 | 0.595445 | 0.595525 | 0.595606 | 0.595687 |
| 0.920 | 0.595768 | 0.595849 | 0.595929 | 0.596010 | 0.596091 | 0.596172 | 0.596253 | 0.596334 | 0.596414 | 0.596495 |
| 0.930 | 0.596576 | 0.596657 | 0.596738 | 0.596818 | 0.596899 | 0.596980 | 0.597061 | 0.597142 | 0.597223 | 0.597304 |
| 0.940 | 0.597385 | 0.597466 | 0.597546 | 0.597627 | 0.597708 | 0.597789 | 0.597870 | 0.597951 | 0.598032 | 0.598113 |
| 0.950 | 0.598194 | 0.598275 | 0.598356 | 0.598437 | 0.598518 | 0.598599 | 0.598680 | 0.598761 | 0.598842 | 0.598923 |
| 0.960 | 0.599004 | 0.599085 | 0.599166 | 0.599247 | 0.599328 | 0.599409 | 0.599490 | 0.599571 | 0.599652 | 0.599733 |
| 0.970 | 0.599814 | 0.599895 | 0.599976 | 0.600057 | 0.600139 | 0.600220 | 0.600301 | 0.600382 | 0.600464 | 0.600544 |
| 0.980 | 0.600625 | 0.600706 | 0.600787 | 0.600869 | 0.600950 | 0.601031 | 0.601112 | 0.601193 | 0.601274 | 0.601356 |
| 0.990 | 0.601437 | 0.601518 | 0.601599 | 0.601680 | 0.601762 | 0.601843 | 0.601924 | 0.602005 | 0.602086 | 0.602168 |

ATTENUATION IN DECIBELS
THETA FROM 15.000 TO 15.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.602249 | 0.602330 | 0.602411 | 0.602493 | 0.602574 | 0.602655 | 0.602736 | 0.602818 | 0.602899 | 0.602980 |
| 0.010 | 0.603062 | 0.603143 | 0.603224 | 0.603305 | 0.603387 | 0.603468 | 0.603549 | 0.603631 | 0.603712 | 0.603793 |
| 0.020 | 0.603875 | 0.603956 | 0.604038 | 0.604119 | 0.604200 | 0.604282 | 0.604363 | 0.604444 | 0.604526 | 0.604607 |
| 0.030 | 0.604689 | 0.604770 | 0.604851 | 0.604933 | 0.605014 | 0.605096 | 0.605177 | 0.605259 | 0.605340 | 0.605422 |
| 0.040 | 0.605503 | 0.605585 | 0.605666 | 0.605747 | 0.605829 | 0.605910 | 0.605992 | 0.606073 | 0.606155 | 0.606236 |
| 0.050 | 0.606318 | 0.606400 | 0.606481 | 0.606563 | 0.606644 | 0.606726 | 0.606807 | 0.606889 | 0.606970 | 0.607052 |
| 0.060 | 0.607134 | 0.607215 | 0.607297 | 0.607378 | 0.607460 | 0.607542 | 0.607623 | 0.607705 | 0.607786 | 0.607868 |
| 0.070 | 0.607950 | 0.608031 | 0.608113 | 0.608195 | 0.608276 | 0.608358 | 0.608440 | 0.608521 | 0.608603 | 0.608685 |
| 0.080 | 0.608766 | 0.608848 | 0.608930 | 0.609011 | 0.609093 | 0.609175 | 0.609257 | 0.609338 | 0.609420 | 0.609502 |
| 0.090 | 0.609584 | 0.609665 | 0.609747 | 0.609829 | 0.609911 | 0.609992 | 0.610074 | 0.610156 | 0.610238 | 0.610320 |
| 0.100 | 0.610401 | 0.610483 | 0.610565 | 0.610647 | 0.610729 | 0.610810 | 0.610892 | 0.610974 | 0.611056 | 0.611138 |
| 0.110 | 0.611220 | 0.611302 | 0.611383 | 0.611465 | 0.611547 | 0.611629 | 0.611711 | 0.611793 | 0.611875 | 0.611957 |
| 0.120 | 0.612039 | 0.612121 | 0.612202 | 0.612284 | 0.612366 | 0.612448 | 0.612530 | 0.612612 | 0.612694 | 0.612776 |
| 0.130 | 0.612858 | 0.612940 | 0.613022 | 0.613104 | 0.613186 | 0.613268 | 0.613350 | 0.613432 | 0.613514 | 0.613596 |
| 0.140 | 0.613678 | 0.613760 | 0.613842 | 0.613924 | 0.614006 | 0.614088 | 0.614171 | 0.614253 | 0.614335 | 0.614417 |
| 0.150 | 0.614499 | 0.614581 | 0.614663 | 0.614745 | 0.614827 | 0.614909 | 0.614991 | 0.615074 | 0.615156 | 0.615238 |
| 0.160 | 0.615320 | 0.615402 | 0.615484 | 0.615567 | 0.615649 | 0.615731 | 0.615813 | 0.615895 | 0.615977 | 0.616060 |
| 0.170 | 0.616142 | 0.616224 | 0.616306 | 0.616388 | 0.616471 | 0.616553 | 0.616635 | 0.616717 | 0.616800 | 0.616882 |
| 0.180 | 0.616964 | 0.617046 | 0.617129 | 0.617211 | 0.617293 | 0.617376 | 0.617458 | 0.617540 | 0.617622 | 0.617705 |
| 0.190 | 0.617787 | 0.617869 | 0.617952 | 0.618034 | 0.618116 | 0.618199 | 0.618281 | 0.618363 | 0.618446 | 0.618528 |
| 0.200 | 0.618611 | 0.618693 | 0.618775 | 0.618858 | 0.618940 | 0.619022 | 0.619105 | 0.619187 | 0.619270 | 0.619352 |
| 0.210 | 0.619435 | 0.619517 | 0.619599 | 0.619682 | 0.619764 | 0.619847 | 0.619929 | 0.620012 | 0.620094 | 0.620177 |
| 0.220 | 0.620259 | 0.620342 | 0.620424 | 0.620507 | 0.620589 | 0.620672 | 0.620754 | 0.620837 | 0.620919 | 0.621002 |
| 0.230 | 0.621084 | 0.621167 | 0.621249 | 0.621332 | 0.621415 | 0.621497 | 0.621580 | 0.621662 | 0.621745 | 0.621828 |
| 0.240 | 0.621910 | 0.621993 | 0.622075 | 0.622158 | 0.622241 | 0.622323 | 0.622406 | 0.622488 | 0.622571 | 0.622654 |
| 0.250 | 0.622736 | 0.622819 | 0.622902 | 0.622984 | 0.623067 | 0.623150 | 0.623233 | 0.623315 | 0.623398 | 0.623481 |
| 0.260 | 0.623563 | 0.623646 | 0.623729 | 0.623812 | 0.623894 | 0.623977 | 0.624060 | 0.624142 | 0.624225 | 0.624308 |
| 0.270 | 0.624391 | 0.624474 | 0.624556 | 0.624639 | 0.624722 | 0.624805 | 0.624888 | 0.624970 | 0.625053 | 0.625136 |
| 0.280 | 0.625219 | 0.625302 | 0.625384 | 0.625467 | 0.625550 | 0.625633 | 0.625716 | 0.625799 | 0.625882 | 0.625965 |
| 0.290 | 0.626047 | 0.626130 | 0.626213 | 0.626296 | 0.626379 | 0.626462 | 0.626545 | 0.626628 | 0.626711 | 0.626794 |
| 0.300 | 0.626877 | 0.626960 | 0.627042 | 0.627125 | 0.627208 | 0.627291 | 0.627374 | 0.627457 | 0.627540 | 0.627623 |
| 0.310 | 0.627706 | 0.627789 | 0.627872 | 0.627955 | 0.628038 | 0.628121 | 0.628204 | 0.628287 | 0.628371 | 0.628454 |
| 0.320 | 0.628537 | 0.628620 | 0.628703 | 0.628786 | 0.628869 | 0.628952 | 0.629035 | 0.629118 | 0.629201 | 0.629284 |
| 0.330 | 0.629367 | 0.629451 | 0.629534 | 0.629617 | 0.629700 | 0.629783 | 0.629866 | 0.629949 | 0.630033 | 0.630116 |
| 0.340 | 0.630199 | 0.630282 | 0.630365 | 0.630448 | 0.630532 | 0.630615 | 0.630698 | 0.630781 | 0.630864 | 0.630948 |
| 0.350 | 0.631031 | 0.631114 | 0.631197 | 0.631281 | 0.631364 | 0.631447 | 0.631530 | 0.631614 | 0.631697 | 0.631780 |
| 0.360 | 0.631863 | 0.631947 | 0.632030 | 0.632113 | 0.632197 | 0.632280 | 0.632363 | 0.632447 | 0.632530 | 0.632613 |
| 0.370 | 0.632697 | 0.632780 | 0.632863 | 0.632947 | 0.633030 | 0.633113 | 0.633197 | 0.633280 | 0.633364 | 0.633447 |
| 0.380 | 0.633530 | 0.633614 | 0.633697 | 0.633781 | 0.633864 | 0.633947 | 0.634031 | 0.634114 | 0.634198 | 0.634281 |
| 0.390 | 0.634365 | 0.634448 | 0.634532 | 0.634615 | 0.634699 | 0.634782 | 0.634865 | 0.634949 | 0.635032 | 0.635116 |
| 0.400 | 0.635199 | 0.635283 | 0.635367 | 0.635450 | 0.635534 | 0.635617 | 0.635701 | 0.635784 | 0.635868 | 0.635951 |
| 0.410 | 0.636035 | 0.636118 | 0.636202 | 0.636286 | 0.636369 | 0.636453 | 0.636536 | 0.636620 | 0.636704 | 0.636787 |
| 0.420 | 0.636871 | 0.636955 | 0.637038 | 0.637122 | 0.637205 | 0.637289 | 0.637373 | 0.637456 | 0.637540 | 0.637624 |
| 0.430 | 0.637707 | 0.637791 | 0.637875 | 0.637959 | 0.638042 | 0.638126 | 0.638210 | 0.638293 | 0.638377 | 0.638461 |
| 0.440 | 0.638545 | 0.638628 | 0.638712 | 0.638796 | 0.638880 | 0.638963 | 0.639047 | 0.639131 | 0.639215 | 0.639298 |
| 0.450 | 0.639382 | 0.639466 | 0.639550 | 0.639634 | 0.639718 | 0.639801 | 0.639885 | 0.639969 | 0.640053 | 0.640137 |
| 0.460 | 0.640221 | 0.640304 | 0.640388 | 0.640472 | 0.640556 | 0.640640 | 0.640724 | 0.640808 | 0.640892 | 0.640975 |
| 0.470 | 0.641059 | 0.641143 | 0.641227 | 0.641311 | 0.641395 | 0.641479 | 0.641563 | 0.641647 | 0.641731 | 0.641815 |
| 0.480 | 0.641899 | 0.641983 | 0.642067 | 0.642151 | 0.642235 | 0.642319 | 0.642403 | 0.642487 | 0.642571 | 0.642655 |
| 0.490 | 0.642739 | 0.642823 | 0.642907 | 0.642991 | 0.643075 | 0.643159 | 0.643243 | 0.643327 | 0.643411 | 0.643495 |

ATTENUATION IN DECIBELS
 THETA FROM 15.500 TO 15.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.643579 | 0.643663 | 0.643748 | 0.643832 | 0.643916 | 0.644000 | 0.644084 | 0.644168 | 0.644252 | 0.644336 |
| 0.510 | 0.644420 | 0.644505 | 0.644589 | 0.644673 | 0.644757 | 0.644841 | 0.644925 | 0.645010 | 0.645094 | 0.645178 |
| 0.520 | 0.645262 | 0.645346 | 0.645431 | 0.645515 | 0.645599 | 0.645683 | 0.645767 | 0.645852 | 0.645936 | 0.646020 |
| 0.530 | 0.646104 | 0.646189 | 0.646273 | 0.646357 | 0.646441 | 0.646526 | 0.646610 | 0.646694 | 0.646779 | 0.646863 |
| 0.540 | 0.646947 | 0.647032 | 0.647116 | 0.647200 | 0.647285 | 0.647369 | 0.647453 | 0.647538 | 0.647622 | 0.647706 |
| 0.550 | 0.647791 | 0.647875 | 0.647959 | 0.648044 | 0.648128 | 0.648213 | 0.648297 | 0.648381 | 0.648466 | 0.648550 |
| 0.560 | 0.648635 | 0.648719 | 0.648803 | 0.648888 | 0.648972 | 0.649056 | 0.649141 | 0.649226 | 0.649310 | 0.649395 |
| 0.570 | 0.649479 | 0.649564 | 0.649648 | 0.649733 | 0.649817 | 0.649902 | 0.649986 | 0.650071 | 0.650155 | 0.650240 |
| 0.580 | 0.650324 | 0.650409 | 0.650493 | 0.650578 | 0.650662 | 0.650747 | 0.650832 | 0.650916 | 0.651001 | 0.651085 |
| 0.590 | 0.651170 | 0.651255 | 0.651339 | 0.651424 | 0.651508 | 0.651593 | 0.651678 | 0.651762 | 0.651847 | 0.651932 |
| 0.600 | 0.652016 | 0.652101 | 0.652185 | 0.652270 | 0.652355 | 0.652440 | 0.652524 | 0.652609 | 0.652694 | 0.652778 |
| 0.610 | 0.652863 | 0.652948 | 0.653032 | 0.653117 | 0.653202 | 0.653287 | 0.653371 | 0.653456 | 0.653541 | 0.653626 |
| 0.620 | 0.653710 | 0.653795 | 0.653880 | 0.653965 | 0.654050 | 0.654134 | 0.654219 | 0.654304 | 0.654389 | 0.654474 |
| 0.630 | 0.654658 | 0.654743 | 0.654828 | 0.654913 | 0.654998 | 0.655083 | 0.655167 | 0.655252 | 0.655337 | 0.655422 |
| 0.640 | 0.655407 | 0.655492 | 0.655577 | 0.655662 | 0.655745 | 0.655831 | 0.655916 | 0.656001 | 0.656086 | 0.656171 |
| 0.650 | 0.656256 | 0.656341 | 0.656426 | 0.656511 | 0.656596 | 0.656681 | 0.656766 | 0.656851 | 0.656936 | 0.657021 |
| 0.660 | 0.657106 | 0.657191 | 0.657276 | 0.657361 | 0.657446 | 0.657531 | 0.657616 | 0.657701 | 0.657786 | 0.657871 |
| 0.670 | 0.657956 | 0.658041 | 0.658126 | 0.658211 | 0.658296 | 0.658381 | 0.658466 | 0.658551 | 0.658637 | 0.658722 |
| 0.680 | 0.658807 | 0.658892 | 0.658977 | 0.659062 | 0.659147 | 0.659232 | 0.659317 | 0.659402 | 0.659488 | 0.659573 |
| 0.690 | 0.659658 | 0.659743 | 0.659828 | 0.659914 | 0.659999 | 0.660084 | 0.660169 | 0.660254 | 0.660340 | 0.660425 |
| 0.700 | 0.660510 | 0.660595 | 0.660681 | 0.660766 | 0.660851 | 0.660936 | 0.661022 | 0.661107 | 0.661192 | 0.661277 |
| 0.710 | 0.661363 | 0.661448 | 0.661533 | 0.661618 | 0.661704 | 0.661789 | 0.661874 | 0.661960 | 0.662045 | 0.662130 |
| 0.720 | 0.662216 | 0.662301 | 0.662386 | 0.662472 | 0.662557 | 0.662642 | 0.662728 | 0.662813 | 0.662899 | 0.662984 |
| 0.730 | 0.663069 | 0.663155 | 0.663240 | 0.663326 | 0.663411 | 0.663496 | 0.663582 | 0.663667 | 0.663753 | 0.663839 |
| 0.740 | 0.663924 | 0.664009 | 0.664095 | 0.664180 | 0.664265 | 0.664351 | 0.664436 | 0.664522 | 0.664607 | 0.664693 |
| 0.750 | 0.664778 | 0.664864 | 0.664949 | 0.665035 | 0.665120 | 0.665206 | 0.665292 | 0.665377 | 0.665463 | 0.665548 |
| 0.760 | 0.665634 | 0.665719 | 0.665805 | 0.665891 | 0.665976 | 0.666062 | 0.666147 | 0.666233 | 0.666319 | 0.666404 |
| 0.770 | 0.666490 | 0.666575 | 0.666661 | 0.666747 | 0.666832 | 0.666918 | 0.667004 | 0.667089 | 0.667175 | 0.667261 |
| 0.780 | 0.667346 | 0.667432 | 0.667518 | 0.667603 | 0.667689 | 0.667775 | 0.667860 | 0.667946 | 0.668032 | 0.668118 |
| 0.790 | 0.668203 | 0.668289 | 0.668375 | 0.668461 | 0.668546 | 0.668632 | 0.668718 | 0.668804 | 0.668889 | 0.668975 |
| 0.800 | 0.669061 | 0.669147 | 0.669233 | 0.669318 | 0.669404 | 0.669490 | 0.669576 | 0.669662 | 0.669748 | 0.669833 |
| 0.810 | 0.669919 | 0.670005 | 0.670091 | 0.670177 | 0.670263 | 0.670349 | 0.670434 | 0.670520 | 0.670606 | 0.670692 |
| 0.820 | 0.670778 | 0.670864 | 0.670950 | 0.671036 | 0.671122 | 0.671208 | 0.671294 | 0.671380 | 0.671466 | 0.671552 |
| 0.830 | 0.671637 | 0.671723 | 0.671809 | 0.671895 | 0.671981 | 0.672067 | 0.672153 | 0.672239 | 0.672325 | 0.672411 |
| 0.840 | 0.672497 | 0.672583 | 0.672669 | 0.672756 | 0.672842 | 0.672928 | 0.673014 | 0.673100 | 0.673186 | 0.673272 |
| 0.850 | 0.673358 | 0.673444 | 0.673530 | 0.673616 | 0.673702 | 0.673788 | 0.673875 | 0.673961 | 0.674047 | 0.674133 |
| 0.860 | 0.674210 | 0.674305 | 0.674391 | 0.674477 | 0.674564 | 0.674650 | 0.674736 | 0.674822 | 0.674908 | 0.674995 |
| 0.870 | 0.675081 | 0.675167 | 0.675253 | 0.675339 | 0.675426 | 0.675512 | 0.675598 | 0.675684 | 0.675770 | 0.675857 |
| 0.880 | 0.675943 | 0.676029 | 0.676115 | 0.676202 | 0.676288 | 0.676374 | 0.676461 | 0.676547 | 0.676633 | 0.676719 |
| 0.890 | 0.676806 | 0.676892 | 0.676978 | 0.677065 | 0.677151 | 0.677237 | 0.677324 | 0.677410 | 0.677496 | 0.677583 |
| 0.900 | 0.677669 | 0.677756 | 0.677842 | 0.677928 | 0.678015 | 0.678101 | 0.678187 | 0.678274 | 0.678360 | 0.678447 |
| 0.910 | 0.678533 | 0.678620 | 0.678706 | 0.678792 | 0.678879 | 0.678965 | 0.679052 | 0.679138 | 0.679225 | 0.679311 |
| 0.920 | 0.679398 | 0.679484 | 0.679571 | 0.679657 | 0.679744 | 0.679830 | 0.679917 | 0.680003 | 0.680090 | 0.680176 |
| 0.930 | 0.680263 | 0.680349 | 0.680436 | 0.680522 | 0.680609 | 0.680696 | 0.680782 | 0.680869 | 0.680955 | 0.681042 |
| 0.940 | 0.681128 | 0.681215 | 0.681302 | 0.681388 | 0.681475 | 0.681561 | 0.681648 | 0.681735 | 0.681821 | 0.681908 |
| 0.950 | 0.681995 | 0.682081 | 0.682168 | 0.682255 | 0.682341 | 0.682428 | 0.682515 | 0.682601 | 0.682688 | 0.682775 |
| 0.960 | 0.682862 | 0.682948 | 0.683035 | 0.683122 | 0.683208 | 0.683295 | 0.683382 | 0.683469 | 0.683555 | 0.683642 |
| 0.970 | 0.683729 | 0.683816 | 0.683902 | 0.683989 | 0.684076 | 0.684163 | 0.684250 | 0.684336 | 0.684423 | 0.684510 |
| 0.980 | 0.684597 | 0.684684 | 0.684771 | 0.684857 | 0.684944 | 0.685031 | 0.685118 | 0.685205 | 0.685292 | 0.685379 |
| 0.990 | 0.685465 | 0.685552 | 0.685639 | 0.685726 | 0.685813 | 0.685900 | 0.685987 | 0.686074 | 0.686161 | 0.686248 |

ATTENUATION IN DECIBELS
THETA FROM 16.000 TO 16.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.686335 | 0.686421 | 0.686508 | 0.686595 | 0.686682 | 0.686769 | 0.686856 | 0.686943 | 0.687030 | 0.687117 |
| 0.010 | 0.687204 | 0.687291 | 0.687378 | 0.687465 | 0.687552 | 0.687639 | 0.687726 | 0.687813 | 0.687900 | 0.687987 |
| 0.020 | 0.688074 | 0.688162 | 0.688249 | 0.688336 | 0.688423 | 0.688510 | 0.688597 | 0.688684 | 0.688771 | 0.688858 |
| 0.030 | 0.688945 | 0.689032 | 0.689120 | 0.689207 | 0.689294 | 0.689381 | 0.689468 | 0.689555 | 0.689642 | 0.689730 |
| 0.040 | 0.689817 | 0.689904 | 0.689991 | 0.690078 | 0.690165 | 0.690253 | 0.690340 | 0.690427 | 0.690514 | 0.690601 |
| 0.050 | 0.690689 | 0.690776 | 0.690863 | 0.690950 | 0.691038 | 0.691125 | 0.691212 | 0.691299 | 0.691387 | 0.691474 |
| 0.060 | 0.691561 | 0.691648 | 0.691736 | 0.691823 | 0.691910 | 0.691998 | 0.692085 | 0.692172 | 0.692260 | 0.692347 |
| 0.070 | 0.692434 | 0.692522 | 0.692609 | 0.692696 | 0.692784 | 0.692871 | 0.692958 | 0.693046 | 0.693133 | 0.693221 |
| 0.080 | 0.693308 | 0.693395 | 0.693483 | 0.693570 | 0.693658 | 0.693745 | 0.693833 | 0.693920 | 0.694007 | 0.694095 |
| 0.090 | 0.694182 | 0.694269 | 0.694357 | 0.694445 | 0.694532 | 0.694620 | 0.694707 | 0.694795 | 0.694882 | 0.694970 |
| 0.100 | 0.695057 | 0.695145 | 0.695232 | 0.695320 | 0.695408 | 0.695495 | 0.695582 | 0.695670 | 0.695757 | 0.695845 |
| 0.110 | 0.695933 | 0.696020 | 0.696108 | 0.696195 | 0.696283 | 0.696370 | 0.696458 | 0.696546 | 0.696633 | 0.696721 |
| 0.120 | 0.696809 | 0.696896 | 0.696984 | 0.697071 | 0.697159 | 0.697247 | 0.697334 | 0.697422 | 0.697510 | 0.697597 |
| 0.130 | 0.697685 | 0.697773 | 0.697860 | 0.697948 | 0.698036 | 0.698124 | 0.698211 | 0.698299 | 0.698387 | 0.698474 |
| 0.140 | 0.698562 | 0.698650 | 0.698738 | 0.698825 | 0.698913 | 0.699001 | 0.699089 | 0.699177 | 0.699264 | 0.699352 |
| 0.150 | 0.699440 | 0.699528 | 0.699616 | 0.699703 | 0.699791 | 0.699879 | 0.699967 | 0.700055 | 0.700143 | 0.700230 |
| 0.160 | 0.700318 | 0.700406 | 0.700494 | 0.700582 | 0.700670 | 0.700758 | 0.700845 | 0.700933 | 0.701021 | 0.701109 |
| 0.170 | 0.701197 | 0.701285 | 0.701373 | 0.701461 | 0.701549 | 0.701637 | 0.701725 | 0.701813 | 0.701901 | 0.701989 |
| 0.180 | 0.702076 | 0.702164 | 0.702252 | 0.702340 | 0.702428 | 0.702516 | 0.702604 | 0.702692 | 0.702780 | 0.702868 |
| 0.190 | 0.702956 | 0.703045 | 0.703133 | 0.703221 | 0.703309 | 0.703397 | 0.703485 | 0.703573 | 0.703661 | 0.703749 |
| 0.200 | 0.703837 | 0.703925 | 0.704013 | 0.704101 | 0.704189 | 0.704278 | 0.704366 | 0.704454 | 0.704542 | 0.704630 |
| 0.210 | 0.704718 | 0.704806 | 0.704895 | 0.704983 | 0.705071 | 0.705159 | 0.705247 | 0.705335 | 0.705424 | 0.705512 |
| 0.220 | 0.705600 | 0.705688 | 0.705776 | 0.705865 | 0.705953 | 0.706041 | 0.706129 | 0.706217 | 0.706306 | 0.706394 |
| 0.230 | 0.706482 | 0.706570 | 0.706659 | 0.706747 | 0.706835 | 0.706924 | 0.707012 | 0.707100 | 0.707188 | 0.707277 |
| 0.240 | 0.707365 | 0.707453 | 0.707542 | 0.707630 | 0.707718 | 0.707807 | 0.707895 | 0.707983 | 0.708072 | 0.708160 |
| 0.250 | 0.708249 | 0.708337 | 0.708425 | 0.708514 | 0.708602 | 0.708690 | 0.708779 | 0.708867 | 0.708956 | 0.709044 |
| 0.260 | 0.709133 | 0.709221 | 0.709309 | 0.709398 | 0.709486 | 0.709575 | 0.709663 | 0.709752 | 0.709840 | 0.709929 |
| 0.270 | 0.710017 | 0.710106 | 0.710194 | 0.710283 | 0.710371 | 0.710460 | 0.710548 | 0.710637 | 0.710725 | 0.710814 |
| 0.280 | 0.710902 | 0.710991 | 0.711079 | 0.711168 | 0.711257 | 0.711345 | 0.711434 | 0.711522 | 0.711611 | 0.711699 |
| 0.290 | 0.711788 | 0.711877 | 0.711965 | 0.712054 | 0.712143 | 0.712231 | 0.712320 | 0.712408 | 0.712497 | 0.712586 |
| 0.300 | 0.712674 | 0.712763 | 0.712852 | 0.712940 | 0.713029 | 0.713118 | 0.713206 | 0.713295 | 0.713384 | 0.713473 |
| 0.310 | 0.713561 | 0.713650 | 0.713739 | 0.713827 | 0.713916 | 0.714005 | 0.714094 | 0.714182 | 0.714271 | 0.714360 |
| 0.320 | 0.714449 | 0.714538 | 0.714626 | 0.714715 | 0.714804 | 0.714893 | 0.714982 | 0.715070 | 0.715159 | 0.715248 |
| 0.330 | 0.715337 | 0.715426 | 0.715514 | 0.715603 | 0.715692 | 0.715781 | 0.715870 | 0.715959 | 0.716048 | 0.716137 |
| 0.340 | 0.716225 | 0.716314 | 0.716403 | 0.716492 | 0.716581 | 0.716670 | 0.716759 | 0.716848 | 0.716937 | 0.717026 |
| 0.350 | 0.717115 | 0.717204 | 0.717293 | 0.717381 | 0.717470 | 0.717559 | 0.717648 | 0.717737 | 0.717826 | 0.717915 |
| 0.360 | 0.718004 | 0.718093 | 0.718182 | 0.718271 | 0.718360 | 0.718449 | 0.718538 | 0.718628 | 0.718717 | 0.718806 |
| 0.370 | 0.718895 | 0.718984 | 0.719073 | 0.719162 | 0.719251 | 0.719340 | 0.719429 | 0.719518 | 0.719607 | 0.719696 |
| 0.380 | 0.719786 | 0.719875 | 0.719964 | 0.720053 | 0.720142 | 0.720231 | 0.720320 | 0.720410 | 0.720500 | 0.720588 |
| 0.390 | 0.720677 | 0.720766 | 0.720855 | 0.720945 | 0.721034 | 0.721123 | 0.721212 | 0.721301 | 0.721391 | 0.721480 |
| 0.400 | 0.721569 | 0.721658 | 0.721748 | 0.721837 | 0.721926 | 0.722015 | 0.722105 | 0.722194 | 0.722283 | 0.722373 |
| 0.410 | 0.722462 | 0.722551 | 0.722640 | 0.722730 | 0.722819 | 0.722908 | 0.722998 | 0.723087 | 0.723176 | 0.723266 |
| 0.420 | 0.723355 | 0.723444 | 0.723534 | 0.723623 | 0.723712 | 0.723802 | 0.723891 | 0.723981 | 0.724070 | 0.724159 |
| 0.430 | 0.724249 | 0.724338 | 0.724428 | 0.724517 | 0.724606 | 0.724696 | 0.724785 | 0.724875 | 0.724964 | 0.725054 |
| 0.440 | 0.725143 | 0.725233 | 0.725322 | 0.725412 | 0.725501 | 0.725591 | 0.725680 | 0.725770 | 0.725859 | 0.725949 |
| 0.450 | 0.726038 | 0.726128 | 0.726217 | 0.726307 | 0.726396 | 0.726486 | 0.726575 | 0.726665 | 0.726754 | 0.726844 |
| 0.460 | 0.726934 | 0.727023 | 0.727113 | 0.727202 | 0.727292 | 0.727382 | 0.727471 | 0.727561 | 0.727650 | 0.727740 |
| 0.470 | 0.727830 | 0.727919 | 0.728009 | 0.728099 | 0.728188 | 0.728278 | 0.728368 | 0.728457 | 0.728547 | 0.728637 |
| 0.480 | 0.728726 | 0.728816 | 0.728906 | 0.728995 | 0.729085 | 0.729175 | 0.729265 | 0.729354 | 0.729444 | 0.729534 |
| 0.490 | 0.729624 | 0.729713 | 0.729803 | 0.729893 | 0.729983 | 0.730072 | 0.730162 | 0.730252 | 0.730342 | 0.730432 |

ATTENUATION IN DECIBELS
THETA FROM 16.500 TO 16.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.730521 | 0.730611 | 0.730701 | 0.730791 | 0.730881 | 0.730971 | 0.731060 | 0.731150 | 0.731240 | 0.731330 |
| 0.510 | 0.731420 | 0.731510 | 0.731600 | 0.731689 | 0.731779 | 0.731869 | 0.731959 | 0.732049 | 0.732139 | 0.732229 |
| 0.520 | 0.732319 | 0.732409 | 0.732499 | 0.732589 | 0.732679 | 0.732769 | 0.732858 | 0.732948 | 0.733038 | 0.733128 |
| 0.530 | 0.733218 | 0.733308 | 0.733398 | 0.733488 | 0.733578 | 0.733668 | 0.733758 | 0.733848 | 0.733938 | 0.734028 |
| 0.540 | 0.734118 | 0.734208 | 0.734298 | 0.734389 | 0.734479 | 0.734569 | 0.734659 | 0.734749 | 0.734839 | 0.734929 |
| 0.550 | 0.735019 | 0.735109 | 0.735199 | 0.735289 | 0.735379 | 0.735469 | 0.735559 | 0.735649 | 0.735739 | 0.735829 |
| 0.560 | 0.735920 | 0.736011 | 0.736101 | 0.736191 | 0.736281 | 0.736371 | 0.736461 | 0.736552 | 0.736642 | 0.736732 |
| 0.570 | 0.736822 | 0.736912 | 0.737003 | 0.737093 | 0.737183 | 0.737273 | 0.737364 | 0.737454 | 0.737544 | 0.737634 |
| 0.580 | 0.737725 | 0.737815 | 0.737905 | 0.737996 | 0.738086 | 0.738176 | 0.738266 | 0.738357 | 0.738447 | 0.738537 |
| 0.590 | 0.738628 | 0.738718 | 0.738808 | 0.738899 | 0.738989 | 0.739079 | 0.739170 | 0.739260 | 0.739350 | 0.739441 |
| 0.600 | 0.739531 | 0.739622 | 0.739712 | 0.739802 | 0.739893 | 0.739983 | 0.740074 | 0.740164 | 0.740255 | 0.740345 |
| 0.610 | 0.740435 | 0.740526 | 0.740616 | 0.740707 | 0.740797 | 0.740888 | 0.740978 | 0.741069 | 0.741159 | 0.741250 |
| 0.620 | 0.741340 | 0.741431 | 0.741521 | 0.741612 | 0.741702 | 0.741793 | 0.741883 | 0.741974 | 0.742064 | 0.742155 |
| 0.630 | 0.742245 | 0.742336 | 0.742427 | 0.742517 | 0.742608 | 0.742699 | 0.742789 | 0.742879 | 0.742970 | 0.743061 |
| 0.640 | 0.743151 | 0.743242 | 0.743333 | 0.743423 | 0.743514 | 0.743604 | 0.743695 | 0.743786 | 0.743876 | 0.743967 |
| 0.650 | 0.744058 | 0.744148 | 0.744239 | 0.744330 | 0.744421 | 0.744511 | 0.744602 | 0.744693 | 0.744783 | 0.744874 |
| 0.660 | 0.744965 | 0.745056 | 0.745146 | 0.745237 | 0.745328 | 0.745419 | 0.745509 | 0.745600 | 0.745691 | 0.745782 |
| 0.670 | 0.745872 | 0.745963 | 0.746054 | 0.746145 | 0.746236 | 0.746326 | 0.746417 | 0.746508 | 0.746599 | 0.746690 |
| 0.680 | 0.746791 | 0.746871 | 0.746962 | 0.747053 | 0.747144 | 0.747235 | 0.747326 | 0.747417 | 0.747508 | 0.747598 |
| 0.690 | 0.747689 | 0.747780 | 0.747871 | 0.747962 | 0.748053 | 0.748144 | 0.748235 | 0.748326 | 0.748417 | 0.748508 |
| 0.700 | 0.748599 | 0.748690 | 0.748781 | 0.748872 | 0.748963 | 0.749054 | 0.749145 | 0.749236 | 0.749327 | 0.749418 |
| 0.710 | 0.749509 | 0.749600 | 0.749691 | 0.749782 | 0.749873 | 0.749964 | 0.750055 | 0.750146 | 0.750237 | 0.750328 |
| 0.720 | 0.750519 | 0.750610 | 0.750701 | 0.750792 | 0.750883 | 0.750974 | 0.751065 | 0.751156 | 0.751247 | 0.751338 |
| 0.730 | 0.751530 | 0.751621 | 0.751712 | 0.751803 | 0.751894 | 0.751985 | 0.752076 | 0.752167 | 0.752258 | 0.752349 |
| 0.740 | 0.752524 | 0.752615 | 0.752706 | 0.752797 | 0.752888 | 0.752979 | 0.753070 | 0.753161 | 0.753252 | 0.753343 |
| 0.750 | 0.753534 | 0.753625 | 0.753716 | 0.753807 | 0.753898 | 0.753989 | 0.754080 | 0.754171 | 0.754262 | 0.754353 |
| 0.760 | 0.754667 | 0.754758 | 0.754849 | 0.754940 | 0.755031 | 0.755122 | 0.755213 | 0.755304 | 0.755395 | 0.755486 |
| 0.770 | 0.754980 | 0.755072 | 0.755163 | 0.755254 | 0.755346 | 0.755437 | 0.755529 | 0.755620 | 0.755711 | 0.755803 |
| 0.780 | 0.755694 | 0.755786 | 0.755877 | 0.755968 | 0.756060 | 0.756151 | 0.756243 | 0.756334 | 0.756426 | 0.756517 |
| 0.790 | 0.756809 | 0.756900 | 0.756992 | 0.757083 | 0.757175 | 0.757266 | 0.757358 | 0.757449 | 0.757541 | 0.757632 |
| 0.800 | 0.757724 | 0.757815 | 0.757907 | 0.757998 | 0.758090 | 0.758182 | 0.758273 | 0.758365 | 0.758456 | 0.758548 |
| 0.810 | 0.758640 | 0.758731 | 0.758823 | 0.758914 | 0.759006 | 0.759098 | 0.759189 | 0.759281 | 0.759372 | 0.759464 |
| 0.820 | 0.759556 | 0.759647 | 0.759739 | 0.759831 | 0.759922 | 0.760014 | 0.760106 | 0.760198 | 0.760289 | 0.760381 |
| 0.830 | 0.760473 | 0.760564 | 0.760656 | 0.760748 | 0.760840 | 0.760931 | 0.761023 | 0.761115 | 0.761207 | 0.761298 |
| 0.840 | 0.761390 | 0.761482 | 0.761574 | 0.761665 | 0.761757 | 0.761849 | 0.761941 | 0.762033 | 0.762124 | 0.762216 |
| 0.850 | 0.762308 | 0.762400 | 0.762492 | 0.762584 | 0.762675 | 0.762767 | 0.762859 | 0.762951 | 0.763043 | 0.763135 |
| 0.860 | 0.763227 | 0.763319 | 0.763410 | 0.763502 | 0.763594 | 0.763686 | 0.763778 | 0.763870 | 0.763962 | 0.764054 |
| 0.870 | 0.764146 | 0.764238 | 0.764330 | 0.764422 | 0.764514 | 0.764606 | 0.764698 | 0.764790 | 0.764882 | 0.764974 |
| 0.880 | 0.765065 | 0.765158 | 0.765250 | 0.765342 | 0.765434 | 0.765526 | 0.765618 | 0.765710 | 0.765802 | 0.765894 |
| 0.890 | 0.765986 | 0.766078 | 0.766170 | 0.766262 | 0.766354 | 0.766446 | 0.766538 | 0.766630 | 0.766722 | 0.766815 |
| 0.900 | 0.766907 | 0.766999 | 0.767091 | 0.767183 | 0.767275 | 0.767367 | 0.767460 | 0.767552 | 0.767644 | 0.767736 |
| 0.910 | 0.767828 | 0.767920 | 0.768013 | 0.768105 | 0.768197 | 0.768289 | 0.768381 | 0.768474 | 0.768566 | 0.768658 |
| 0.920 | 0.768750 | 0.768842 | 0.768935 | 0.769027 | 0.769119 | 0.769211 | 0.769304 | 0.769396 | 0.769488 | 0.769581 |
| 0.930 | 0.769673 | 0.769765 | 0.769857 | 0.769950 | 0.770042 | 0.770134 | 0.770227 | 0.770319 | 0.770411 | 0.770504 |
| 0.940 | 0.770596 | 0.770688 | 0.770781 | 0.770873 | 0.770965 | 0.771058 | 0.771150 | 0.771243 | 0.771335 | 0.771427 |
| 0.950 | 0.771520 | 0.771612 | 0.771705 | 0.771797 | 0.771889 | 0.771982 | 0.772074 | 0.772167 | 0.772259 | 0.772352 |
| 0.960 | 0.772444 | 0.772537 | 0.772629 | 0.772722 | 0.772814 | 0.772907 | 0.772999 | 0.773092 | 0.773184 | 0.773277 |
| 0.970 | 0.773369 | 0.773462 | 0.773554 | 0.773647 | 0.773739 | 0.773832 | 0.773924 | 0.774017 | 0.774109 | 0.774202 |
| 0.980 | 0.774295 | 0.774387 | 0.774480 | 0.774572 | 0.774665 | 0.774758 | 0.774850 | 0.774943 | 0.775035 | 0.775128 |
| 0.990 | 0.775221 | 0.775313 | 0.775406 | 0.775499 | 0.775591 | 0.775684 | 0.775777 | 0.775869 | 0.775962 | 0.776055 |

ATTENUATION IN DECIBELS
 THETA FROM 17.000 TO 17.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.776147 | 0.776240 | 0.776333 | 0.776425 | 0.776518 | 0.776611 | 0.776704 | 0.776796 | 0.776889 | 0.776982 |
| 0.010 | 0.777075 | 0.777167 | 0.777260 | 0.777353 | 0.777446 | 0.777538 | 0.777631 | 0.777724 | 0.777817 | 0.777910 |
| 0.020 | 0.778002 | 0.778094 | 0.778188 | 0.778281 | 0.778374 | 0.778467 | 0.778559 | 0.778652 | 0.778745 | 0.778838 |
| 0.030 | 0.778931 | 0.779024 | 0.779117 | 0.779209 | 0.779302 | 0.779395 | 0.779488 | 0.779581 | 0.779674 | 0.779767 |
| 0.040 | 0.779860 | 0.779953 | 0.780046 | 0.780139 | 0.780232 | 0.780325 | 0.780418 | 0.780510 | 0.780603 | 0.780696 |
| 0.050 | 0.780789 | 0.780882 | 0.780975 | 0.781068 | 0.781161 | 0.781254 | 0.781347 | 0.781440 | 0.781533 | 0.781627 |
| 0.060 | 0.781720 | 0.781813 | 0.781906 | 0.781999 | 0.782092 | 0.782185 | 0.782278 | 0.782371 | 0.782464 | 0.782557 |
| 0.070 | 0.782650 | 0.782743 | 0.782836 | 0.782930 | 0.783023 | 0.783116 | 0.783209 | 0.783302 | 0.783395 | 0.783488 |
| 0.080 | 0.783582 | 0.783675 | 0.783768 | 0.783861 | 0.783954 | 0.784047 | 0.784141 | 0.784234 | 0.784327 | 0.784420 |
| 0.090 | 0.784513 | 0.784607 | 0.784700 | 0.784793 | 0.784886 | 0.784980 | 0.785073 | 0.785166 | 0.785259 | 0.785353 |
| 0.100 | 0.785446 | 0.785539 | 0.785632 | 0.785726 | 0.785819 | 0.785912 | 0.786006 | 0.786099 | 0.786192 | 0.786286 |
| 0.110 | 0.786379 | 0.786472 | 0.786566 | 0.786659 | 0.786752 | 0.786846 | 0.786939 | 0.787032 | 0.787126 | 0.787219 |
| 0.120 | 0.787313 | 0.787406 | 0.787499 | 0.787593 | 0.787686 | 0.787780 | 0.787873 | 0.787966 | 0.788060 | 0.788153 |
| 0.130 | 0.788247 | 0.788340 | 0.788434 | 0.788527 | 0.788621 | 0.788714 | 0.788808 | 0.788901 | 0.788995 | 0.789088 |
| 0.140 | 0.789182 | 0.789275 | 0.789369 | 0.789462 | 0.789556 | 0.789649 | 0.789743 | 0.789836 | 0.789930 | 0.790023 |
| 0.150 | 0.790117 | 0.790210 | 0.790304 | 0.790398 | 0.790491 | 0.790585 | 0.790678 | 0.790772 | 0.790866 | 0.790959 |
| 0.160 | 0.791053 | 0.791146 | 0.791240 | 0.791334 | 0.791427 | 0.791521 | 0.791615 | 0.791708 | 0.791802 | 0.791896 |
| 0.170 | 0.791989 | 0.792083 | 0.792177 | 0.792270 | 0.792364 | 0.792458 | 0.792552 | 0.792645 | 0.792739 | 0.792833 |
| 0.180 | 0.792926 | 0.793020 | 0.793114 | 0.793208 | 0.793301 | 0.793395 | 0.793489 | 0.793583 | 0.793677 | 0.793770 |
| 0.190 | 0.793864 | 0.793958 | 0.794052 | 0.794146 | 0.794239 | 0.794333 | 0.794427 | 0.794521 | 0.794615 | 0.794709 |
| 0.200 | 0.794802 | 0.794896 | 0.794990 | 0.795084 | 0.795178 | 0.795272 | 0.795366 | 0.795459 | 0.795553 | 0.795647 |
| 0.210 | 0.795741 | 0.795835 | 0.795929 | 0.796023 | 0.796117 | 0.796211 | 0.796305 | 0.796399 | 0.796493 | 0.796587 |
| 0.220 | 0.796681 | 0.796775 | 0.796869 | 0.796963 | 0.797057 | 0.797151 | 0.797245 | 0.797339 | 0.797433 | 0.797527 |
| 0.230 | 0.797621 | 0.797715 | 0.797809 | 0.797903 | 0.797997 | 0.798091 | 0.798185 | 0.798279 | 0.798373 | 0.798467 |
| 0.240 | 0.798561 | 0.798655 | 0.798749 | 0.798843 | 0.798938 | 0.799032 | 0.799126 | 0.799220 | 0.799314 | 0.799408 |
| 0.250 | 0.799502 | 0.799596 | 0.799691 | 0.799785 | 0.799879 | 0.799973 | 0.800067 | 0.800161 | 0.800256 | 0.800350 |
| 0.260 | 0.800444 | 0.800538 | 0.800632 | 0.800727 | 0.800821 | 0.800915 | 0.801009 | 0.801104 | 0.801198 | 0.801292 |
| 0.270 | 0.801386 | 0.801481 | 0.801575 | 0.801669 | 0.801763 | 0.801858 | 0.801952 | 0.802046 | 0.802141 | 0.802235 |
| 0.280 | 0.802329 | 0.802424 | 0.802518 | 0.802612 | 0.802707 | 0.802801 | 0.802895 | 0.802990 | 0.803084 | 0.803178 |
| 0.290 | 0.803273 | 0.803367 | 0.803462 | 0.803556 | 0.803650 | 0.803745 | 0.803839 | 0.803934 | 0.804028 | 0.804122 |
| 0.300 | 0.804217 | 0.804311 | 0.804406 | 0.804500 | 0.804595 | 0.804689 | 0.804784 | 0.804878 | 0.804972 | 0.805067 |
| 0.310 | 0.805161 | 0.805256 | 0.805350 | 0.805445 | 0.805539 | 0.805634 | 0.805729 | 0.805823 | 0.805918 | 0.806012 |
| 0.320 | 0.806107 | 0.806201 | 0.806296 | 0.806390 | 0.806485 | 0.806580 | 0.806674 | 0.806769 | 0.806863 | 0.806958 |
| 0.330 | 0.807052 | 0.807147 | 0.807242 | 0.807336 | 0.807431 | 0.807525 | 0.807620 | 0.807715 | 0.807810 | 0.807904 |
| 0.340 | 0.807999 | 0.808094 | 0.808188 | 0.808283 | 0.808378 | 0.808472 | 0.808567 | 0.808662 | 0.808756 | 0.808851 |
| 0.350 | 0.808946 | 0.809041 | 0.809135 | 0.809230 | 0.809325 | 0.809420 | 0.809514 | 0.809609 | 0.809704 | 0.809799 |
| 0.360 | 0.809893 | 0.809988 | 0.810083 | 0.810178 | 0.810273 | 0.810367 | 0.810462 | 0.810557 | 0.810652 | 0.810747 |
| 0.370 | 0.810841 | 0.810936 | 0.811031 | 0.811126 | 0.811221 | 0.811316 | 0.811411 | 0.811505 | 0.811600 | 0.811695 |
| 0.380 | 0.811790 | 0.811885 | 0.811980 | 0.812075 | 0.812170 | 0.812265 | 0.812360 | 0.812455 | 0.812550 | 0.812644 |
| 0.390 | 0.812739 | 0.812834 | 0.812929 | 0.813024 | 0.813119 | 0.813214 | 0.813309 | 0.813404 | 0.813499 | 0.813594 |
| 0.400 | 0.813689 | 0.813784 | 0.813879 | 0.813974 | 0.814069 | 0.814164 | 0.814260 | 0.814355 | 0.814450 | 0.814545 |
| 0.410 | 0.814640 | 0.814735 | 0.814830 | 0.814925 | 0.815020 | 0.815115 | 0.815210 | 0.815305 | 0.815401 | 0.815496 |
| 0.420 | 0.815591 | 0.815686 | 0.815781 | 0.815876 | 0.815971 | 0.816067 | 0.816162 | 0.816257 | 0.816352 | 0.816447 |
| 0.430 | 0.816542 | 0.816638 | 0.816733 | 0.816828 | 0.816923 | 0.817018 | 0.817114 | 0.817209 | 0.817304 | 0.817399 |
| 0.440 | 0.817495 | 0.817590 | 0.817685 | 0.817780 | 0.817876 | 0.817971 | 0.818066 | 0.818161 | 0.818257 | 0.818352 |
| 0.450 | 0.818447 | 0.818543 | 0.818638 | 0.818733 | 0.818829 | 0.818924 | 0.819019 | 0.819115 | 0.819210 | 0.819305 |
| 0.460 | 0.819401 | 0.819496 | 0.819591 | 0.819687 | 0.819782 | 0.819878 | 0.819973 | 0.820068 | 0.820164 | 0.820259 |
| 0.470 | 0.820355 | 0.820450 | 0.820546 | 0.820641 | 0.820736 | 0.820832 | 0.820927 | 0.821023 | 0.821118 | 0.821214 |
| 0.480 | 0.821309 | 0.821405 | 0.821500 | 0.821596 | 0.821691 | 0.821787 | 0.821882 | 0.821978 | 0.822073 | 0.822169 |
| 0.490 | 0.822264 | 0.822360 | 0.822455 | 0.822551 | 0.822646 | 0.822742 | 0.822838 | 0.822933 | 0.823029 | 0.823124 |

ATTENUATION IN DECIBELS
THETA FROM 17.500 TO 17.999 DEGREES

THETA IN
DEGREES

| | | | | | | | | | | |
|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.823220 | 0.823316 | 0.823411 | 0.823507 | 0.823602 | 0.823698 | 0.823794 | 0.823889 | 0.823985 | 0.824081 |
| 0.510 | 0.824176 | 0.824272 | 0.824368 | 0.824463 | 0.824559 | 0.824655 | 0.824750 | 0.824846 | 0.824942 | 0.825037 |
| 0.520 | 0.825133 | 0.825229 | 0.825324 | 0.825420 | 0.825516 | 0.825612 | 0.825707 | 0.825803 | 0.825899 | 0.825995 |
| 0.530 | 0.826090 | 0.826186 | 0.826282 | 0.826378 | 0.826474 | 0.826569 | 0.826665 | 0.826761 | 0.826857 | 0.826953 |
| 0.540 | 0.827048 | 0.827144 | 0.827240 | 0.827336 | 0.827432 | 0.827528 | 0.827624 | 0.827719 | 0.827815 | 0.827911 |
| 0.550 | 0.828007 | 0.828103 | 0.828199 | 0.828295 | 0.828391 | 0.828487 | 0.828582 | 0.828678 | 0.828774 | 0.828870 |
| 0.560 | 0.828966 | 0.829062 | 0.829158 | 0.829254 | 0.829350 | 0.829446 | 0.829542 | 0.829638 | 0.829734 | 0.829830 |
| 0.570 | 0.829926 | 0.830022 | 0.830118 | 0.830214 | 0.830310 | 0.830406 | 0.830502 | 0.830598 | 0.830694 | 0.830790 |
| 0.580 | 0.830836 | 0.830932 | 0.831028 | 0.831124 | 0.831220 | 0.831316 | 0.831412 | 0.831508 | 0.831604 | 0.831700 |
| 0.590 | 0.831847 | 0.831943 | 0.832039 | 0.832135 | 0.832231 | 0.832327 | 0.832423 | 0.832519 | 0.832615 | 0.832711 |
| 0.600 | 0.832809 | 0.832905 | 0.833001 | 0.833097 | 0.833193 | 0.833289 | 0.833386 | 0.833482 | 0.833578 | 0.833675 |
| 0.610 | 0.833771 | 0.833867 | 0.833963 | 0.834060 | 0.834156 | 0.834252 | 0.834348 | 0.834445 | 0.834541 | 0.834637 |
| 0.620 | 0.834733 | 0.834830 | 0.834926 | 0.835022 | 0.835119 | 0.835215 | 0.835311 | 0.835408 | 0.835504 | 0.835600 |
| 0.630 | 0.835697 | 0.835793 | 0.835889 | 0.835986 | 0.836082 | 0.836179 | 0.836275 | 0.836371 | 0.836468 | 0.836564 |
| 0.640 | 0.836661 | 0.836757 | 0.836853 | 0.836950 | 0.837046 | 0.837143 | 0.837239 | 0.837336 | 0.837432 | 0.837528 |
| 0.650 | 0.837625 | 0.837721 | 0.837818 | 0.837914 | 0.838011 | 0.838107 | 0.838204 | 0.838300 | 0.838397 | 0.838493 |
| 0.660 | 0.838590 | 0.838686 | 0.838783 | 0.838880 | 0.838976 | 0.839073 | 0.839169 | 0.839266 | 0.839362 | 0.839459 |
| 0.670 | 0.839556 | 0.839652 | 0.839749 | 0.839845 | 0.839942 | 0.840039 | 0.840135 | 0.840232 | 0.840328 | 0.840425 |
| 0.680 | 0.840522 | 0.840618 | 0.840715 | 0.840812 | 0.840908 | 0.841005 | 0.841102 | 0.841198 | 0.841295 | 0.841392 |
| 0.690 | 0.841488 | 0.841585 | 0.841682 | 0.841779 | 0.841875 | 0.841972 | 0.842069 | 0.842165 | 0.842262 | 0.842359 |
| 0.700 | 0.842456 | 0.842553 | 0.842649 | 0.842746 | 0.842843 | 0.842940 | 0.843036 | 0.843133 | 0.843230 | 0.843327 |
| 0.710 | 0.843424 | 0.843520 | 0.843617 | 0.843714 | 0.843811 | 0.843908 | 0.844005 | 0.844102 | 0.844198 | 0.844295 |
| 0.720 | 0.844392 | 0.844489 | 0.844586 | 0.844683 | 0.844780 | 0.844877 | 0.844974 | 0.845070 | 0.845167 | 0.845264 |
| 0.730 | 0.845361 | 0.845458 | 0.845555 | 0.845652 | 0.845749 | 0.845846 | 0.845943 | 0.846040 | 0.846137 | 0.846234 |
| 0.740 | 0.846331 | 0.846428 | 0.846525 | 0.846622 | 0.846719 | 0.846816 | 0.846913 | 0.847010 | 0.847107 | 0.847204 |
| 0.750 | 0.847301 | 0.847398 | 0.847495 | 0.847592 | 0.847689 | 0.847786 | 0.847884 | 0.847981 | 0.848078 | 0.848175 |
| 0.760 | 0.848272 | 0.848369 | 0.848466 | 0.848563 | 0.848660 | 0.848758 | 0.848855 | 0.848952 | 0.849049 | 0.849146 |
| 0.770 | 0.849243 | 0.849341 | 0.849438 | 0.849535 | 0.849632 | 0.849729 | 0.849826 | 0.849924 | 0.850021 | 0.850118 |
| 0.780 | 0.850215 | 0.850313 | 0.850410 | 0.850507 | 0.850604 | 0.850702 | 0.850799 | 0.850896 | 0.850993 | 0.851091 |
| 0.790 | 0.851188 | 0.851285 | 0.851383 | 0.851480 | 0.851577 | 0.851674 | 0.851772 | 0.851869 | 0.851966 | 0.852064 |
| 0.800 | 0.852258 | 0.852356 | 0.852453 | 0.852551 | 0.852648 | 0.852745 | 0.852843 | 0.852940 | 0.853037 | 0.853134 |
| 0.810 | 0.853330 | 0.853427 | 0.853525 | 0.853622 | 0.853719 | 0.853817 | 0.853914 | 0.854012 | 0.854109 | 0.854206 |
| 0.820 | 0.854304 | 0.854402 | 0.854500 | 0.854597 | 0.854694 | 0.854792 | 0.854889 | 0.854987 | 0.855084 | 0.855181 |
| 0.830 | 0.855377 | 0.855474 | 0.855572 | 0.855669 | 0.855767 | 0.855864 | 0.855962 | 0.856059 | 0.856156 | 0.856254 |
| 0.840 | 0.856352 | 0.856450 | 0.856548 | 0.856645 | 0.856743 | 0.856841 | 0.856938 | 0.857036 | 0.857134 | 0.857231 |
| 0.850 | 0.857329 | 0.857426 | 0.857524 | 0.857622 | 0.857719 | 0.857817 | 0.857915 | 0.858012 | 0.858110 | 0.858207 |
| 0.860 | 0.858305 | 0.858403 | 0.858501 | 0.858599 | 0.858696 | 0.858794 | 0.858892 | 0.858989 | 0.859087 | 0.859185 |
| 0.870 | 0.859383 | 0.859481 | 0.859578 | 0.859676 | 0.859774 | 0.859872 | 0.859970 | 0.860068 | 0.860166 | 0.860264 |
| 0.880 | 0.860461 | 0.860559 | 0.860657 | 0.860755 | 0.860853 | 0.860951 | 0.861049 | 0.861147 | 0.861245 | 0.861343 |
| 0.890 | 0.861441 | 0.861539 | 0.861637 | 0.861735 | 0.861833 | 0.861931 | 0.862029 | 0.862127 | 0.862225 | 0.862323 |
| 0.900 | 0.862421 | 0.862519 | 0.862617 | 0.862715 | 0.862813 | 0.862911 | 0.863009 | 0.863107 | 0.863205 | 0.863303 |
| 0.910 | 0.863394 | 0.863492 | 0.863590 | 0.863688 | 0.863786 | 0.863884 | 0.863982 | 0.864080 | 0.864178 | 0.864276 |
| 0.920 | 0.864374 | 0.864472 | 0.864570 | 0.864668 | 0.864766 | 0.864864 | 0.864962 | 0.865060 | 0.865158 | 0.865256 |
| 0.930 | 0.865354 | 0.865452 | 0.865550 | 0.865648 | 0.865746 | 0.865844 | 0.865942 | 0.866040 | 0.866138 | 0.866236 |
| 0.940 | 0.866326 | 0.866424 | 0.866522 | 0.866620 | 0.866718 | 0.866816 | 0.866914 | 0.867012 | 0.867110 | 0.867208 |
| 0.950 | 0.867300 | 0.867398 | 0.867496 | 0.867594 | 0.867692 | 0.867790 | 0.867888 | 0.867986 | 0.868084 | 0.868182 |
| 0.960 | 0.868270 | 0.868368 | 0.868466 | 0.868564 | 0.868662 | 0.868760 | 0.868858 | 0.868956 | 0.869054 | 0.869152 |
| 0.970 | 0.869240 | 0.869338 | 0.869436 | 0.869534 | 0.869632 | 0.869730 | 0.869828 | 0.869926 | 0.870024 | 0.870122 |
| 0.980 | 0.870210 | 0.870308 | 0.870406 | 0.870504 | 0.870602 | 0.870700 | 0.870798 | 0.870896 | 0.870994 | 0.871092 |
| 0.990 | 0.871190 | 0.871288 | 0.871386 | 0.871484 | 0.871582 | 0.871680 | 0.871778 | 0.871876 | 0.871974 | 0.872072 |

ATTENUATION IN DECIBELS
THETA FROM 18.000 TO 18.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.871747 | 0.871845 | 0.871944 | 0.872043 | 0.872141 | 0.872240 | 0.872338 | 0.872437 | 0.872535 | 0.872634 |
| 0.010 | 0.872732 | 0.872831 | 0.872930 | 0.873028 | 0.873127 | 0.873225 | 0.873324 | 0.873423 | 0.873521 | 0.873620 |
| 0.020 | 0.873718 | 0.873817 | 0.873916 | 0.874014 | 0.874113 | 0.874212 | 0.874310 | 0.874409 | 0.874508 | 0.874606 |
| 0.030 | 0.874705 | 0.874804 | 0.874902 | 0.875001 | 0.875100 | 0.875199 | 0.875297 | 0.875396 | 0.875495 | 0.875593 |
| 0.040 | 0.875692 | 0.875791 | 0.875890 | 0.875988 | 0.876087 | 0.876186 | 0.876285 | 0.876384 | 0.876482 | 0.876581 |
| 0.050 | 0.876680 | 0.876779 | 0.876878 | 0.876976 | 0.877075 | 0.877174 | 0.877273 | 0.877372 | 0.877471 | 0.877569 |
| 0.060 | 0.877668 | 0.877767 | 0.877866 | 0.877965 | 0.878064 | 0.878163 | 0.878262 | 0.878361 | 0.878459 | 0.878558 |
| 0.070 | 0.878657 | 0.878756 | 0.878855 | 0.878954 | 0.879053 | 0.879152 | 0.879251 | 0.879350 | 0.879449 | 0.879548 |
| 0.080 | 0.879647 | 0.879746 | 0.879845 | 0.879944 | 0.880043 | 0.880142 | 0.880241 | 0.880340 | 0.880439 | 0.880538 |
| 0.090 | 0.880637 | 0.880736 | 0.880835 | 0.880934 | 0.881033 | 0.881132 | 0.881231 | 0.881330 | 0.881429 | 0.881529 |
| 0.100 | 0.881628 | 0.881727 | 0.881826 | 0.881925 | 0.882024 | 0.882123 | 0.882222 | 0.882321 | 0.882421 | 0.882520 |
| 0.110 | 0.882619 | 0.882718 | 0.882817 | 0.882916 | 0.883016 | 0.883115 | 0.883214 | 0.883313 | 0.883412 | 0.883512 |
| 0.120 | 0.883611 | 0.883710 | 0.883809 | 0.883908 | 0.884008 | 0.884107 | 0.884206 | 0.884305 | 0.884405 | 0.884504 |
| 0.130 | 0.884603 | 0.884703 | 0.884802 | 0.884901 | 0.885000 | 0.885100 | 0.885199 | 0.885298 | 0.885398 | 0.885497 |
| 0.140 | 0.885596 | 0.885696 | 0.885795 | 0.885894 | 0.885994 | 0.886093 | 0.886192 | 0.886292 | 0.886391 | 0.886491 |
| 0.150 | 0.886590 | 0.886689 | 0.886789 | 0.886888 | 0.886988 | 0.887087 | 0.887186 | 0.887285 | 0.887385 | 0.887485 |
| 0.160 | 0.887584 | 0.887684 | 0.887783 | 0.887883 | 0.887982 | 0.888081 | 0.888181 | 0.888280 | 0.888380 | 0.888479 |
| 0.170 | 0.888579 | 0.888678 | 0.888778 | 0.888877 | 0.888977 | 0.889077 | 0.889176 | 0.889276 | 0.889375 | 0.889475 |
| 0.180 | 0.889574 | 0.889674 | 0.889773 | 0.889873 | 0.889973 | 0.890072 | 0.890172 | 0.890271 | 0.890371 | 0.890471 |
| 0.190 | 0.890570 | 0.890670 | 0.890770 | 0.890869 | 0.890969 | 0.891069 | 0.891168 | 0.891268 | 0.891368 | 0.891467 |
| 0.200 | 0.891567 | 0.891667 | 0.891766 | 0.891866 | 0.891966 | 0.892065 | 0.892165 | 0.892265 | 0.892365 | 0.892464 |
| 0.210 | 0.892564 | 0.892664 | 0.892764 | 0.892863 | 0.892963 | 0.893063 | 0.893163 | 0.893262 | 0.893362 | 0.893462 |
| 0.220 | 0.893562 | 0.893662 | 0.893761 | 0.893861 | 0.893961 | 0.894061 | 0.894161 | 0.894261 | 0.894360 | 0.894460 |
| 0.230 | 0.894560 | 0.894660 | 0.894760 | 0.894860 | 0.894960 | 0.895059 | 0.895159 | 0.895259 | 0.895359 | 0.895459 |
| 0.240 | 0.895559 | 0.895659 | 0.895758 | 0.895858 | 0.895958 | 0.896059 | 0.896159 | 0.896259 | 0.896359 | 0.896458 |
| 0.250 | 0.896558 | 0.896658 | 0.896758 | 0.896858 | 0.896958 | 0.897058 | 0.897158 | 0.897259 | 0.897358 | 0.897458 |
| 0.260 | 0.897559 | 0.897659 | 0.897759 | 0.897859 | 0.897959 | 0.898059 | 0.898159 | 0.898259 | 0.898359 | 0.898459 |
| 0.270 | 0.898559 | 0.898659 | 0.898759 | 0.898860 | 0.898960 | 0.899060 | 0.899160 | 0.899260 | 0.899360 | 0.899460 |
| 0.280 | 0.899560 | 0.899661 | 0.899761 | 0.899861 | 0.899961 | 0.900061 | 0.900161 | 0.900262 | 0.900362 | 0.900462 |
| 0.290 | 0.900562 | 0.900663 | 0.900763 | 0.900863 | 0.900963 | 0.901063 | 0.901164 | 0.901264 | 0.901364 | 0.901464 |
| 0.300 | 0.901565 | 0.901665 | 0.901765 | 0.901866 | 0.901966 | 0.902066 | 0.902166 | 0.902267 | 0.902367 | 0.902467 |
| 0.310 | 0.902568 | 0.902668 | 0.902768 | 0.902869 | 0.902969 | 0.903069 | 0.903170 | 0.903270 | 0.903371 | 0.903471 |
| 0.320 | 0.903571 | 0.903672 | 0.903772 | 0.903873 | 0.903973 | 0.904073 | 0.904174 | 0.904274 | 0.904375 | 0.904475 |
| 0.330 | 0.904576 | 0.904676 | 0.904776 | 0.904877 | 0.904977 | 0.905078 | 0.905178 | 0.905279 | 0.905379 | 0.905480 |
| 0.340 | 0.905580 | 0.905681 | 0.905781 | 0.905882 | 0.905982 | 0.906083 | 0.906183 | 0.906284 | 0.906385 | 0.906485 |
| 0.350 | 0.906586 | 0.906686 | 0.906787 | 0.906887 | 0.906988 | 0.907089 | 0.907189 | 0.907290 | 0.907390 | 0.907491 |
| 0.360 | 0.907592 | 0.907692 | 0.907793 | 0.907894 | 0.907994 | 0.908095 | 0.908195 | 0.908296 | 0.908397 | 0.908497 |
| 0.370 | 0.908598 | 0.908699 | 0.908800 | 0.908900 | 0.909001 | 0.909102 | 0.909202 | 0.909303 | 0.909404 | 0.909505 |
| 0.380 | 0.909605 | 0.909706 | 0.909807 | 0.909908 | 0.910008 | 0.910109 | 0.910210 | 0.910311 | 0.910411 | 0.910512 |
| 0.390 | 0.910613 | 0.910714 | 0.910815 | 0.910915 | 0.911016 | 0.911117 | 0.911218 | 0.911319 | 0.911420 | 0.911520 |
| 0.400 | 0.911621 | 0.911722 | 0.911823 | 0.911924 | 0.912025 | 0.912126 | 0.912227 | 0.912327 | 0.912428 | 0.912529 |
| 0.410 | 0.912630 | 0.912731 | 0.912832 | 0.912933 | 0.913034 | 0.913135 | 0.913236 | 0.913337 | 0.913438 | 0.913539 |
| 0.420 | 0.913640 | 0.913741 | 0.913842 | 0.913943 | 0.914044 | 0.914145 | 0.914246 | 0.914347 | 0.914448 | 0.914549 |
| 0.430 | 0.914650 | 0.914751 | 0.914852 | 0.914953 | 0.915054 | 0.915155 | 0.915256 | 0.915357 | 0.915458 | 0.915559 |
| 0.440 | 0.915660 | 0.915761 | 0.915863 | 0.915964 | 0.916065 | 0.916166 | 0.916267 | 0.916368 | 0.916469 | 0.916570 |
| 0.450 | 0.916672 | 0.916773 | 0.916874 | 0.916975 | 0.917076 | 0.917177 | 0.917279 | 0.917380 | 0.917481 | 0.917582 |
| 0.460 | 0.917683 | 0.917785 | 0.917886 | 0.917987 | 0.918088 | 0.918189 | 0.918291 | 0.918392 | 0.918493 | 0.918595 |
| 0.470 | 0.918696 | 0.918797 | 0.918898 | 0.919000 | 0.919101 | 0.919202 | 0.919304 | 0.919405 | 0.919506 | 0.919608 |
| 0.480 | 0.919709 | 0.919810 | 0.919912 | 0.920013 | 0.920114 | 0.920216 | 0.920317 | 0.920418 | 0.920520 | 0.920621 |
| 0.490 | 0.920722 | 0.920824 | 0.920925 | 0.921027 | 0.921128 | 0.921229 | 0.921331 | 0.921432 | 0.921534 | 0.921635 |

ATTENUATION IN DECIBELS
THETA FROM 18.500 TO 18.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 0.921737 | 0.921838 | 0.921940 | 0.922041 | 0.922142 | 0.922244 | 0.922345 | 0.922447 | 0.922548 | 0.922650 |
| 0.510 | 0.922751 | 0.922853 | 0.922954 | 0.923056 | 0.923157 | 0.923259 | 0.923361 | 0.923462 | 0.923564 | 0.923665 |
| 0.520 | 0.923767 | 0.923868 | 0.923970 | 0.924071 | 0.924173 | 0.924275 | 0.924376 | 0.924478 | 0.924579 | 0.924681 |
| 0.530 | 0.924783 | 0.924884 | 0.924986 | 0.925088 | 0.925189 | 0.925291 | 0.925393 | 0.925494 | 0.925596 | 0.925698 |
| 0.540 | 0.925799 | 0.925901 | 0.926003 | 0.926104 | 0.926206 | 0.926308 | 0.926409 | 0.926511 | 0.926613 | 0.926715 |
| 0.550 | 0.926816 | 0.926918 | 0.927020 | 0.927122 | 0.927223 | 0.927325 | 0.927427 | 0.927529 | 0.927630 | 0.927732 |
| 0.560 | 0.927834 | 0.927936 | 0.928038 | 0.928140 | 0.928241 | 0.928343 | 0.928444 | 0.928547 | 0.928649 | 0.928751 |
| 0.570 | 0.928852 | 0.928954 | 0.929056 | 0.929158 | 0.929260 | 0.929362 | 0.929464 | 0.929566 | 0.929667 | 0.929769 |
| 0.580 | 0.929871 | 0.929973 | 0.930075 | 0.930177 | 0.930279 | 0.930381 | 0.930483 | 0.930585 | 0.930687 | 0.930789 |
| 0.590 | 0.930891 | 0.930993 | 0.931095 | 0.931197 | 0.931299 | 0.931401 | 0.931503 | 0.931605 | 0.931707 | 0.931809 |
| 0.600 | 0.931911 | 0.932013 | 0.932115 | 0.932217 | 0.932319 | 0.932421 | 0.932523 | 0.932625 | 0.932727 | 0.932829 |
| 0.610 | 0.932931 | 0.933034 | 0.933136 | 0.933238 | 0.933340 | 0.933442 | 0.933544 | 0.933646 | 0.933748 | 0.933851 |
| 0.620 | 0.933953 | 0.934055 | 0.934157 | 0.934259 | 0.934361 | 0.934464 | 0.934566 | 0.934668 | 0.934770 | 0.934872 |
| 0.630 | 0.934975 | 0.935077 | 0.935179 | 0.935281 | 0.935383 | 0.935486 | 0.935588 | 0.935690 | 0.935792 | 0.935895 |
| 0.640 | 0.935997 | 0.936099 | 0.936202 | 0.936304 | 0.936406 | 0.936508 | 0.936611 | 0.936713 | 0.936815 | 0.936918 |
| 0.650 | 0.937020 | 0.937122 | 0.937225 | 0.937327 | 0.937429 | 0.937532 | 0.937634 | 0.937736 | 0.937839 | 0.937941 |
| 0.660 | 0.938044 | 0.938146 | 0.938248 | 0.938351 | 0.938453 | 0.938556 | 0.938658 | 0.938760 | 0.938863 | 0.938965 |
| 0.670 | 0.939068 | 0.939170 | 0.939273 | 0.939375 | 0.939478 | 0.939580 | 0.939683 | 0.939785 | 0.939888 | 0.939990 |
| 0.680 | 0.940093 | 0.940195 | 0.940298 | 0.940400 | 0.940503 | 0.940605 | 0.940708 | 0.940810 | 0.940913 | 0.941015 |
| 0.690 | 0.941118 | 0.941221 | 0.941323 | 0.941426 | 0.941528 | 0.941631 | 0.941733 | 0.941836 | 0.941939 | 0.942041 |
| 0.700 | 0.942144 | 0.942247 | 0.942349 | 0.942452 | 0.942554 | 0.942657 | 0.942760 | 0.942862 | 0.942965 | 0.943068 |
| 0.710 | 0.943170 | 0.943273 | 0.943376 | 0.943479 | 0.943581 | 0.943684 | 0.943787 | 0.943889 | 0.943992 | 0.944095 |
| 0.720 | 0.944198 | 0.944300 | 0.944403 | 0.944506 | 0.944609 | 0.944711 | 0.944814 | 0.944917 | 0.945020 | 0.945123 |
| 0.730 | 0.945225 | 0.945328 | 0.945431 | 0.945534 | 0.945637 | 0.945739 | 0.945842 | 0.945945 | 0.946048 | 0.946151 |
| 0.740 | 0.946254 | 0.946357 | 0.946459 | 0.946562 | 0.946665 | 0.946769 | 0.946871 | 0.946974 | 0.947077 | 0.947180 |
| 0.750 | 0.947283 | 0.947386 | 0.947488 | 0.947591 | 0.947694 | 0.947797 | 0.947900 | 0.948003 | 0.948106 | 0.948209 |
| 0.760 | 0.948312 | 0.948415 | 0.948518 | 0.948621 | 0.948724 | 0.948827 | 0.948930 | 0.949033 | 0.949136 | 0.949239 |
| 0.770 | 0.949342 | 0.949445 | 0.949548 | 0.949651 | 0.949754 | 0.949857 | 0.949961 | 0.950064 | 0.950167 | 0.950270 |
| 0.780 | 0.950373 | 0.950476 | 0.950579 | 0.950682 | 0.950785 | 0.950888 | 0.950992 | 0.951095 | 0.951198 | 0.951301 |
| 0.790 | 0.951404 | 0.951507 | 0.951610 | 0.951714 | 0.951817 | 0.951921 | 0.952023 | 0.952126 | 0.952230 | 0.952333 |
| 0.800 | 0.952436 | 0.952539 | 0.952642 | 0.952746 | 0.952849 | 0.952952 | 0.953055 | 0.953159 | 0.953262 | 0.953365 |
| 0.810 | 0.953468 | 0.953572 | 0.953675 | 0.953778 | 0.953882 | 0.953985 | 0.954088 | 0.954192 | 0.954295 | 0.954398 |
| 0.820 | 0.954502 | 0.954605 | 0.954708 | 0.954812 | 0.954915 | 0.955018 | 0.955122 | 0.955225 | 0.955328 | 0.955432 |
| 0.830 | 0.955535 | 0.955639 | 0.955742 | 0.955845 | 0.955949 | 0.956052 | 0.956156 | 0.956259 | 0.956362 | 0.956466 |
| 0.840 | 0.956569 | 0.956673 | 0.956776 | 0.956880 | 0.956983 | 0.957087 | 0.957190 | 0.957294 | 0.957397 | 0.957501 |
| 0.850 | 0.957604 | 0.957708 | 0.957811 | 0.957915 | 0.958018 | 0.958122 | 0.958225 | 0.958329 | 0.958432 | 0.958536 |
| 0.860 | 0.958640 | 0.958743 | 0.958847 | 0.958950 | 0.959054 | 0.959158 | 0.959261 | 0.959365 | 0.959468 | 0.959572 |
| 0.870 | 0.959676 | 0.959779 | 0.959883 | 0.959987 | 0.960090 | 0.960194 | 0.960297 | 0.960401 | 0.960505 | 0.960608 |
| 0.880 | 0.960712 | 0.960816 | 0.960920 | 0.961023 | 0.961127 | 0.961231 | 0.961334 | 0.961438 | 0.961542 | 0.961646 |
| 0.890 | 0.961749 | 0.961853 | 0.961957 | 0.962061 | 0.962164 | 0.962268 | 0.962372 | 0.962476 | 0.962580 | 0.962683 |
| 0.900 | 0.962787 | 0.962891 | 0.962995 | 0.963099 | 0.963202 | 0.963306 | 0.963410 | 0.963514 | 0.963618 | 0.963722 |
| 0.910 | 0.963825 | 0.963929 | 0.964033 | 0.964137 | 0.964241 | 0.964345 | 0.964449 | 0.964553 | 0.964657 | 0.964761 |
| 0.920 | 0.964864 | 0.964968 | 0.965072 | 0.965176 | 0.965280 | 0.965384 | 0.965488 | 0.965592 | 0.965696 | 0.965800 |
| 0.930 | 0.965904 | 0.966008 | 0.966112 | 0.966216 | 0.966320 | 0.966424 | 0.966528 | 0.966632 | 0.966736 | 0.966840 |
| 0.940 | 0.966944 | 0.967048 | 0.967152 | 0.967256 | 0.967360 | 0.967464 | 0.967569 | 0.967673 | 0.967777 | 0.967881 |
| 0.950 | 0.967985 | 0.968089 | 0.968193 | 0.968297 | 0.968401 | 0.968505 | 0.968610 | 0.968714 | 0.968818 | 0.968922 |
| 0.960 | 0.969026 | 0.969130 | 0.969235 | 0.969339 | 0.969443 | 0.969547 | 0.969651 | 0.969755 | 0.969860 | 0.969964 |
| 0.970 | 0.970068 | 0.970172 | 0.970277 | 0.970381 | 0.970485 | 0.970589 | 0.970694 | 0.970798 | 0.970902 | 0.971006 |
| 0.980 | 0.971111 | 0.971215 | 0.971319 | 0.971423 | 0.971528 | 0.971632 | 0.971736 | 0.971841 | 0.971945 | 0.972049 |
| 0.990 | 0.972154 | 0.972258 | 0.972362 | 0.972467 | 0.972571 | 0.972675 | 0.972780 | 0.972884 | 0.972989 | 0.973093 |

ATTENUATION IN DECIBELS
THETA FROM 19.000 TO 19.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 0.973197 | 0.973302 | 0.973406 | 0.973511 | 0.973615 | 0.973719 | 0.973824 | 0.973928 | 0.974033 | 0.974137 |
| 0.010 | 0.974242 | 0.974346 | 0.974451 | 0.974555 | 0.974660 | 0.974764 | 0.974869 | 0.974973 | 0.975078 | 0.975182 |
| 0.020 | 0.975287 | 0.975391 | 0.975496 | 0.975600 | 0.975705 | 0.975809 | 0.975914 | 0.976018 | 0.976123 | 0.976227 |
| 0.030 | 0.976332 | 0.976437 | 0.976541 | 0.976646 | 0.976750 | 0.976855 | 0.976960 | 0.977064 | 0.977169 | 0.977273 |
| 0.040 | 0.977378 | 0.977483 | 0.977587 | 0.977692 | 0.977797 | 0.977901 | 0.978006 | 0.978111 | 0.978215 | 0.978320 |
| 0.050 | 0.978425 | 0.978529 | 0.978634 | 0.978739 | 0.978844 | 0.978948 | 0.979053 | 0.979158 | 0.979262 | 0.979367 |
| 0.060 | 0.979472 | 0.979577 | 0.979681 | 0.979786 | 0.979891 | 0.979996 | 0.980101 | 0.980205 | 0.980310 | 0.980415 |
| 0.070 | 0.980520 | 0.980625 | 0.980729 | 0.980834 | 0.980939 | 0.981044 | 0.981149 | 0.981254 | 0.981358 | 0.981463 |
| 0.080 | 0.981568 | 0.981673 | 0.981778 | 0.981883 | 0.981988 | 0.982093 | 0.982198 | 0.982302 | 0.982407 | 0.982512 |
| 0.090 | 0.982617 | 0.982722 | 0.982827 | 0.982932 | 0.983037 | 0.983142 | 0.983247 | 0.983352 | 0.983457 | 0.983562 |
| 0.100 | 0.983667 | 0.983772 | 0.983877 | 0.983982 | 0.984087 | 0.984192 | 0.984297 | 0.984402 | 0.984507 | 0.984612 |
| 0.110 | 0.984717 | 0.984822 | 0.984927 | 0.985032 | 0.985137 | 0.985242 | 0.985347 | 0.985453 | 0.985558 | 0.985663 |
| 0.120 | 0.985768 | 0.985873 | 0.985978 | 0.986083 | 0.986188 | 0.986293 | 0.986399 | 0.986504 | 0.986609 | 0.986714 |
| 0.130 | 0.986819 | 0.986924 | 0.987030 | 0.987135 | 0.987240 | 0.987345 | 0.987450 | 0.987556 | 0.987661 | 0.987766 |
| 0.140 | 0.987871 | 0.987976 | 0.988082 | 0.988187 | 0.988292 | 0.988397 | 0.988503 | 0.988608 | 0.988713 | 0.988818 |
| 0.150 | 0.988924 | 0.989029 | 0.989134 | 0.989240 | 0.989345 | 0.989450 | 0.989556 | 0.989661 | 0.989766 | 0.989872 |
| 0.160 | 0.989977 | 0.990082 | 0.990188 | 0.990293 | 0.990398 | 0.990504 | 0.990609 | 0.990714 | 0.990820 | 0.990925 |
| 0.170 | 0.991031 | 0.991136 | 0.991242 | 0.991347 | 0.991452 | 0.991558 | 0.991663 | 0.991769 | 0.991874 | 0.991980 |
| 0.180 | 0.992085 | 0.992191 | 0.992296 | 0.992401 | 0.992507 | 0.992612 | 0.992718 | 0.992823 | 0.992929 | 0.993034 |
| 0.190 | 0.993140 | 0.993246 | 0.993351 | 0.993457 | 0.993562 | 0.993668 | 0.993773 | 0.993879 | 0.993984 | 0.994090 |
| 0.200 | 0.994196 | 0.994301 | 0.994407 | 0.994512 | 0.994618 | 0.994724 | 0.994829 | 0.994935 | 0.995040 | 0.995146 |
| 0.210 | 0.995252 | 0.995357 | 0.995463 | 0.995569 | 0.995674 | 0.995780 | 0.995886 | 0.995991 | 0.996097 | 0.996203 |
| 0.220 | 0.996308 | 0.996414 | 0.996520 | 0.996626 | 0.996731 | 0.996837 | 0.996943 | 0.997048 | 0.997154 | 0.997260 |
| 0.230 | 0.997366 | 0.997472 | 0.997577 | 0.997683 | 0.997789 | 0.997895 | 0.998000 | 0.998106 | 0.998212 | 0.998318 |
| 0.240 | 0.998424 | 0.998529 | 0.998635 | 0.998741 | 0.998847 | 0.998953 | 0.999059 | 0.999165 | 0.999271 | 0.999376 |
| 0.250 | 0.999482 | 0.999588 | 0.999694 | 0.999800 | 0.999906 | 1.000012 | 1.000118 | 1.000223 | 1.000329 | 1.000435 |
| 0.260 | 1.000541 | 1.000647 | 1.000753 | 1.000859 | 1.000965 | 1.001071 | 1.001177 | 1.001283 | 1.001389 | 1.001495 |
| 0.270 | 1.001601 | 1.001707 | 1.001813 | 1.001919 | 1.002025 | 1.002131 | 1.002237 | 1.002343 | 1.002449 | 1.002555 |
| 0.280 | 1.002661 | 1.002767 | 1.002873 | 1.002979 | 1.003085 | 1.003192 | 1.003298 | 1.003404 | 1.003510 | 1.003616 |
| 0.290 | 1.003722 | 1.003828 | 1.003934 | 1.004040 | 1.004147 | 1.004253 | 1.004359 | 1.004465 | 1.004571 | 1.004677 |
| 0.300 | 1.004784 | 1.004890 | 1.004996 | 1.005102 | 1.005208 | 1.005315 | 1.005421 | 1.005527 | 1.005633 | 1.005739 |
| 0.310 | 1.005846 | 1.005952 | 1.006058 | 1.006164 | 1.006271 | 1.006377 | 1.006483 | 1.006589 | 1.006696 | 1.006802 |
| 0.320 | 1.006908 | 1.007015 | 1.007121 | 1.007227 | 1.007334 | 1.007440 | 1.007546 | 1.007653 | 1.007759 | 1.007865 |
| 0.330 | 1.007972 | 1.008078 | 1.008184 | 1.008291 | 1.008397 | 1.008503 | 1.008610 | 1.008716 | 1.008823 | 1.008929 |
| 0.340 | 1.009035 | 1.009142 | 1.009248 | 1.009355 | 1.009461 | 1.009568 | 1.009674 | 1.009780 | 1.009887 | 1.009993 |
| 0.350 | 1.010100 | 1.010206 | 1.010313 | 1.010419 | 1.010526 | 1.010632 | 1.010739 | 1.010845 | 1.010952 | 1.011058 |
| 0.360 | 1.011165 | 1.011271 | 1.011378 | 1.011485 | 1.011591 | 1.011698 | 1.011804 | 1.011911 | 1.012017 | 1.012124 |
| 0.370 | 1.012231 | 1.012337 | 1.012444 | 1.012550 | 1.012657 | 1.012764 | 1.012870 | 1.012977 | 1.013083 | 1.013190 |
| 0.380 | 1.013297 | 1.013403 | 1.013510 | 1.013617 | 1.013723 | 1.013830 | 1.013937 | 1.014043 | 1.014150 | 1.014257 |
| 0.390 | 1.014364 | 1.014470 | 1.014577 | 1.014684 | 1.014790 | 1.014897 | 1.015004 | 1.015111 | 1.015217 | 1.015324 |
| 0.400 | 1.015431 | 1.015538 | 1.015645 | 1.015751 | 1.015858 | 1.015965 | 1.016072 | 1.016179 | 1.016285 | 1.016392 |
| 0.410 | 1.016499 | 1.016606 | 1.016713 | 1.016820 | 1.016926 | 1.017033 | 1.017140 | 1.017247 | 1.017354 | 1.017461 |
| 0.420 | 1.017568 | 1.017675 | 1.017781 | 1.017888 | 1.017995 | 1.018102 | 1.018209 | 1.018316 | 1.018423 | 1.018530 |
| 0.430 | 1.018637 | 1.018744 | 1.018851 | 1.018958 | 1.019065 | 1.019172 | 1.019279 | 1.019386 | 1.019493 | 1.019600 |
| 0.440 | 1.019707 | 1.019814 | 1.019921 | 1.020028 | 1.020135 | 1.020242 | 1.020349 | 1.020456 | 1.020563 | 1.020670 |
| 0.450 | 1.020777 | 1.020884 | 1.020991 | 1.021098 | 1.021205 | 1.021312 | 1.021420 | 1.021527 | 1.021634 | 1.021741 |
| 0.460 | 1.021848 | 1.021955 | 1.022062 | 1.022169 | 1.022277 | 1.022384 | 1.022491 | 1.022598 | 1.022705 | 1.022812 |
| 0.470 | 1.022920 | 1.023027 | 1.023134 | 1.023241 | 1.023348 | 1.023456 | 1.023563 | 1.023670 | 1.023777 | 1.023885 |
| 0.480 | 1.023992 | 1.024099 | 1.024206 | 1.024314 | 1.024421 | 1.024528 | 1.024635 | 1.024743 | 1.024850 | 1.024957 |
| 0.490 | 1.025065 | 1.025172 | 1.025279 | 1.025386 | 1.025494 | 1.025601 | 1.025709 | 1.025816 | 1.025923 | 1.026031 |

ATTENUATION IN DECIBELS
 THETA FROM 19.500 TO 19.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.020138 | 1.026245 | 1.026353 | 1.026460 | 1.026567 | 1.026675 | 1.026782 | 1.026890 | 1.026997 | 1.027104 |
| 0.510 | 1.027212 | 1.027319 | 1.027427 | 1.027534 | 1.027642 | 1.027749 | 1.027857 | 1.027964 | 1.028071 | 1.028179 |
| 0.520 | 1.028286 | 1.028394 | 1.028501 | 1.028609 | 1.028716 | 1.028824 | 1.028931 | 1.029039 | 1.029147 | 1.029254 |
| 0.530 | 1.029362 | 1.029469 | 1.029577 | 1.029684 | 1.029792 | 1.029899 | 1.030007 | 1.030115 | 1.030222 | 1.030330 |
| 0.540 | 1.030437 | 1.030545 | 1.030653 | 1.030760 | 1.030868 | 1.030975 | 1.031083 | 1.031191 | 1.031298 | 1.031406 |
| 0.550 | 1.031514 | 1.031621 | 1.031729 | 1.031837 | 1.031944 | 1.032052 | 1.032160 | 1.032268 | 1.032375 | 1.032483 |
| 0.560 | 1.032591 | 1.032698 | 1.032804 | 1.032914 | 1.033022 | 1.033129 | 1.033237 | 1.033345 | 1.033453 | 1.033560 |
| 0.570 | 1.033666 | 1.033776 | 1.033884 | 1.033992 | 1.034099 | 1.034207 | 1.034315 | 1.034423 | 1.034531 | 1.034638 |
| 0.580 | 1.034746 | 1.034854 | 1.034962 | 1.035070 | 1.035178 | 1.035286 | 1.035394 | 1.035501 | 1.035609 | 1.035717 |
| 0.590 | 1.035925 | 1.035933 | 1.036041 | 1.036149 | 1.036257 | 1.036365 | 1.036473 | 1.036581 | 1.036689 | 1.036796 |
| 0.600 | 1.036904 | 1.037012 | 1.037120 | 1.037228 | 1.037336 | 1.037444 | 1.037552 | 1.037660 | 1.037768 | 1.037876 |
| 0.610 | 1.037984 | 1.038092 | 1.038200 | 1.038308 | 1.038416 | 1.038525 | 1.038633 | 1.038741 | 1.038849 | 1.038957 |
| 0.620 | 1.039065 | 1.039173 | 1.039281 | 1.039389 | 1.039497 | 1.039605 | 1.039713 | 1.039822 | 1.039930 | 1.040038 |
| 0.630 | 1.040146 | 1.040254 | 1.040362 | 1.040470 | 1.040579 | 1.040687 | 1.040795 | 1.040903 | 1.041011 | 1.041119 |
| 0.640 | 1.041228 | 1.041336 | 1.041444 | 1.041552 | 1.041661 | 1.041770 | 1.041877 | 1.041985 | 1.042093 | 1.042202 |
| 0.650 | 1.042310 | 1.042418 | 1.042527 | 1.042635 | 1.042743 | 1.042851 | 1.042960 | 1.043068 | 1.043176 | 1.043285 |
| 0.660 | 1.043393 | 1.043501 | 1.043610 | 1.043718 | 1.043826 | 1.043935 | 1.044043 | 1.044151 | 1.044260 | 1.044368 |
| 0.670 | 1.044476 | 1.044585 | 1.044693 | 1.044802 | 1.044910 | 1.045019 | 1.045127 | 1.045235 | 1.045344 | 1.045452 |
| 0.680 | 1.045561 | 1.045669 | 1.045777 | 1.045886 | 1.045994 | 1.046103 | 1.046211 | 1.046320 | 1.046428 | 1.046537 |
| 0.690 | 1.046645 | 1.046754 | 1.046862 | 1.046971 | 1.047079 | 1.047188 | 1.047296 | 1.047405 | 1.047513 | 1.047622 |
| 0.700 | 1.047731 | 1.047839 | 1.047948 | 1.048056 | 1.048165 | 1.048273 | 1.048382 | 1.048491 | 1.048599 | 1.048708 |
| 0.710 | 1.048816 | 1.048925 | 1.049034 | 1.049142 | 1.049251 | 1.049360 | 1.049468 | 1.049577 | 1.049686 | 1.049794 |
| 0.720 | 1.049903 | 1.050012 | 1.050120 | 1.050229 | 1.050338 | 1.050446 | 1.050555 | 1.050664 | 1.050773 | 1.050881 |
| 0.730 | 1.050990 | 1.051099 | 1.051207 | 1.051316 | 1.051425 | 1.051534 | 1.051643 | 1.051751 | 1.051860 | 1.051969 |
| 0.740 | 1.052078 | 1.052186 | 1.052295 | 1.052404 | 1.052512 | 1.052622 | 1.052731 | 1.052839 | 1.052948 | 1.053057 |
| 0.750 | 1.053166 | 1.053275 | 1.053384 | 1.053493 | 1.053601 | 1.053710 | 1.053819 | 1.053928 | 1.054037 | 1.054146 |
| 0.760 | 1.054255 | 1.054364 | 1.054472 | 1.054581 | 1.054690 | 1.054799 | 1.054908 | 1.055017 | 1.055126 | 1.055235 |
| 0.770 | 1.055344 | 1.055453 | 1.055562 | 1.055671 | 1.055780 | 1.055889 | 1.055998 | 1.056107 | 1.056216 | 1.056325 |
| 0.780 | 1.056434 | 1.056543 | 1.056652 | 1.056762 | 1.056871 | 1.056980 | 1.057089 | 1.057198 | 1.057307 | 1.057416 |
| 0.790 | 1.057525 | 1.057634 | 1.057743 | 1.057852 | 1.057961 | 1.058071 | 1.058180 | 1.058289 | 1.058398 | 1.058507 |
| 0.800 | 1.058616 | 1.058725 | 1.058835 | 1.058944 | 1.059053 | 1.059162 | 1.059271 | 1.059381 | 1.059490 | 1.059599 |
| 0.810 | 1.059708 | 1.059817 | 1.059927 | 1.060036 | 1.060145 | 1.060254 | 1.060364 | 1.060473 | 1.060582 | 1.060691 |
| 0.820 | 1.060801 | 1.060910 | 1.061019 | 1.061129 | 1.061238 | 1.061347 | 1.061456 | 1.061566 | 1.061675 | 1.061784 |
| 0.830 | 1.061894 | 1.062003 | 1.062112 | 1.062222 | 1.062331 | 1.062440 | 1.062550 | 1.062659 | 1.062769 | 1.062878 |
| 0.840 | 1.062987 | 1.063097 | 1.063206 | 1.063316 | 1.063425 | 1.063534 | 1.063644 | 1.063753 | 1.063863 | 1.063972 |
| 0.850 | 1.064082 | 1.064191 | 1.064301 | 1.064410 | 1.064520 | 1.064629 | 1.064738 | 1.064848 | 1.064957 | 1.065067 |
| 0.860 | 1.065176 | 1.065286 | 1.065396 | 1.065505 | 1.065615 | 1.065724 | 1.065834 | 1.065943 | 1.066053 | 1.066162 |
| 0.870 | 1.066272 | 1.066382 | 1.066491 | 1.066601 | 1.066710 | 1.066820 | 1.066930 | 1.067039 | 1.067149 | 1.067258 |
| 0.880 | 1.067368 | 1.067478 | 1.067587 | 1.067697 | 1.067807 | 1.067916 | 1.068026 | 1.068136 | 1.068245 | 1.068355 |
| 0.890 | 1.068465 | 1.068574 | 1.068684 | 1.068794 | 1.068903 | 1.069013 | 1.069123 | 1.069233 | 1.069342 | 1.069452 |
| 0.900 | 1.069562 | 1.069672 | 1.069781 | 1.069891 | 1.070001 | 1.070111 | 1.070221 | 1.070330 | 1.070440 | 1.070550 |
| 0.910 | 1.070660 | 1.070770 | 1.070879 | 1.070989 | 1.071099 | 1.071209 | 1.071319 | 1.071429 | 1.071538 | 1.071648 |
| 0.920 | 1.071758 | 1.071868 | 1.071978 | 1.072088 | 1.072198 | 1.072308 | 1.072418 | 1.072527 | 1.072637 | 1.072747 |
| 0.930 | 1.072857 | 1.072967 | 1.073077 | 1.073187 | 1.073297 | 1.073407 | 1.073517 | 1.073627 | 1.073737 | 1.073847 |
| 0.940 | 1.073957 | 1.074067 | 1.074177 | 1.074287 | 1.074397 | 1.074507 | 1.074617 | 1.074727 | 1.074837 | 1.074947 |
| 0.950 | 1.075057 | 1.075167 | 1.075277 | 1.075387 | 1.075497 | 1.075607 | 1.075717 | 1.075827 | 1.075937 | 1.076047 |
| 0.960 | 1.076158 | 1.076268 | 1.076378 | 1.076488 | 1.076598 | 1.076708 | 1.076818 | 1.076928 | 1.077038 | 1.077149 |
| 0.970 | 1.077259 | 1.077369 | 1.077479 | 1.077589 | 1.077699 | 1.077809 | 1.077919 | 1.078029 | 1.078139 | 1.078249 |
| 0.980 | 1.078361 | 1.078471 | 1.078581 | 1.078691 | 1.078801 | 1.078911 | 1.079021 | 1.079131 | 1.079241 | 1.079351 |
| 0.990 | 1.079464 | 1.079574 | 1.079685 | 1.079795 | 1.079905 | 1.080016 | 1.080126 | 1.080236 | 1.080347 | 1.080457 |

ATTENUATION IN DECIBELS
 THETA FROM 20.000 TO 20.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.080567 | 1.080678 | 1.080788 | 1.080898 | 1.081009 | 1.081119 | 1.081230 | 1.081340 | 1.081450 | 1.081561 |
| 0.010 | 1.081671 | 1.081782 | 1.081892 | 1.082002 | 1.082113 | 1.082223 | 1.082334 | 1.082444 | 1.082555 | 1.082665 |
| 0.020 | 1.082776 | 1.082886 | 1.082997 | 1.083107 | 1.083218 | 1.083328 | 1.083439 | 1.083549 | 1.083660 | 1.083770 |
| 0.030 | 1.083881 | 1.083991 | 1.084102 | 1.084212 | 1.084323 | 1.084433 | 1.084544 | 1.084655 | 1.084765 | 1.084876 |
| 0.040 | 1.084986 | 1.085097 | 1.085207 | 1.085318 | 1.085429 | 1.085539 | 1.085650 | 1.085761 | 1.085871 | 1.085982 |
| 0.050 | 1.086093 | 1.086203 | 1.086314 | 1.086425 | 1.086535 | 1.086646 | 1.086757 | 1.086867 | 1.086978 | 1.087089 |
| 0.060 | 1.087199 | 1.087310 | 1.087421 | 1.087532 | 1.087642 | 1.087753 | 1.087864 | 1.087975 | 1.088085 | 1.088196 |
| 0.070 | 1.088307 | 1.088418 | 1.088528 | 1.088639 | 1.088750 | 1.088861 | 1.088972 | 1.089082 | 1.089193 | 1.089304 |
| 0.080 | 1.089415 | 1.089526 | 1.089637 | 1.089747 | 1.089858 | 1.089969 | 1.090080 | 1.090191 | 1.090302 | 1.090413 |
| 0.090 | 1.090523 | 1.090634 | 1.090745 | 1.090856 | 1.090967 | 1.091078 | 1.091189 | 1.091300 | 1.091411 | 1.091522 |
| 0.100 | 1.091633 | 1.091744 | 1.091855 | 1.091966 | 1.092077 | 1.092188 | 1.092299 | 1.092410 | 1.092521 | 1.092632 |
| 0.110 | 1.092743 | 1.092854 | 1.092965 | 1.093076 | 1.093187 | 1.093298 | 1.093409 | 1.093520 | 1.093631 | 1.093742 |
| 0.120 | 1.093853 | 1.093964 | 1.094075 | 1.094186 | 1.094297 | 1.094408 | 1.094520 | 1.094631 | 1.094742 | 1.094853 |
| 0.130 | 1.094964 | 1.095075 | 1.095186 | 1.095297 | 1.095409 | 1.095520 | 1.095631 | 1.095742 | 1.095853 | 1.095964 |
| 0.140 | 1.096076 | 1.096187 | 1.096298 | 1.096409 | 1.096520 | 1.096632 | 1.096743 | 1.096854 | 1.096965 | 1.097077 |
| 0.150 | 1.097188 | 1.097299 | 1.097410 | 1.097522 | 1.097633 | 1.097744 | 1.097856 | 1.097967 | 1.098078 | 1.098189 |
| 0.160 | 1.098301 | 1.098412 | 1.098523 | 1.098635 | 1.098746 | 1.098857 | 1.098969 | 1.099080 | 1.099191 | 1.099303 |
| 0.170 | 1.099414 | 1.099526 | 1.099637 | 1.099748 | 1.099860 | 1.099971 | 1.100083 | 1.100194 | 1.100305 | 1.100417 |
| 0.180 | 1.100528 | 1.100640 | 1.100751 | 1.100863 | 1.100974 | 1.101085 | 1.101197 | 1.101308 | 1.101420 | 1.101531 |
| 0.190 | 1.101643 | 1.101754 | 1.101866 | 1.101977 | 1.102089 | 1.102200 | 1.102312 | 1.102423 | 1.102535 | 1.102647 |
| 0.200 | 1.102758 | 1.102870 | 1.102981 | 1.103093 | 1.103204 | 1.103316 | 1.103427 | 1.103539 | 1.103651 | 1.103762 |
| 0.210 | 1.103874 | 1.103986 | 1.104097 | 1.104209 | 1.104320 | 1.104432 | 1.104544 | 1.104655 | 1.104767 | 1.104879 |
| 0.220 | 1.104990 | 1.105102 | 1.105214 | 1.105325 | 1.105437 | 1.105549 | 1.105660 | 1.105772 | 1.105884 | 1.105996 |
| 0.230 | 1.106107 | 1.106219 | 1.106331 | 1.106443 | 1.106554 | 1.106666 | 1.106778 | 1.106890 | 1.107001 | 1.107113 |
| 0.240 | 1.107225 | 1.107337 | 1.107449 | 1.107560 | 1.107672 | 1.107784 | 1.107896 | 1.108008 | 1.108120 | 1.108231 |
| 0.250 | 1.108343 | 1.108455 | 1.108567 | 1.108679 | 1.108791 | 1.108903 | 1.109015 | 1.109126 | 1.109238 | 1.109350 |
| 0.260 | 1.109462 | 1.109574 | 1.109686 | 1.109798 | 1.109910 | 1.110022 | 1.110134 | 1.110246 | 1.110358 | 1.110470 |
| 0.270 | 1.110582 | 1.110694 | 1.110806 | 1.110918 | 1.111030 | 1.111142 | 1.111254 | 1.111366 | 1.111478 | 1.111590 |
| 0.280 | 1.111702 | 1.111814 | 1.111926 | 1.112038 | 1.112150 | 1.112262 | 1.112374 | 1.112486 | 1.112598 | 1.112710 |
| 0.290 | 1.112822 | 1.112934 | 1.113046 | 1.113159 | 1.113271 | 1.113383 | 1.113495 | 1.113607 | 1.113719 | 1.113831 |
| 0.300 | 1.113944 | 1.114056 | 1.114168 | 1.114280 | 1.114392 | 1.114504 | 1.114617 | 1.114729 | 1.114841 | 1.114953 |
| 0.310 | 1.115065 | 1.115178 | 1.115290 | 1.115402 | 1.115514 | 1.115627 | 1.115739 | 1.115851 | 1.115963 | 1.116076 |
| 0.320 | 1.116188 | 1.116300 | 1.116412 | 1.116525 | 1.116637 | 1.116749 | 1.116862 | 1.116974 | 1.117086 | 1.117199 |
| 0.330 | 1.117311 | 1.117423 | 1.117536 | 1.117648 | 1.117760 | 1.117873 | 1.117985 | 1.118097 | 1.118210 | 1.118322 |
| 0.340 | 1.118435 | 1.118547 | 1.118659 | 1.118772 | 1.118884 | 1.118997 | 1.119109 | 1.119221 | 1.119334 | 1.119446 |
| 0.350 | 1.119559 | 1.119671 | 1.119784 | 1.119896 | 1.120009 | 1.120121 | 1.120234 | 1.120346 | 1.120459 | 1.120571 |
| 0.360 | 1.120684 | 1.120796 | 1.120909 | 1.121021 | 1.121134 | 1.121246 | 1.121359 | 1.121471 | 1.121584 | 1.121697 |
| 0.370 | 1.121809 | 1.121922 | 1.122034 | 1.122147 | 1.122259 | 1.122372 | 1.122485 | 1.122597 | 1.122710 | 1.122823 |
| 0.380 | 1.122935 | 1.123048 | 1.123160 | 1.123273 | 1.123386 | 1.123498 | 1.123611 | 1.123724 | 1.123836 | 1.123949 |
| 0.390 | 1.124062 | 1.124175 | 1.124287 | 1.124400 | 1.124513 | 1.124625 | 1.124738 | 1.124851 | 1.124964 | 1.125076 |
| 0.400 | 1.125189 | 1.125302 | 1.125415 | 1.125527 | 1.125640 | 1.125753 | 1.125866 | 1.125979 | 1.126091 | 1.126204 |
| 0.410 | 1.126317 | 1.126430 | 1.126543 | 1.126655 | 1.126768 | 1.126881 | 1.126994 | 1.127107 | 1.127220 | 1.127333 |
| 0.420 | 1.127445 | 1.127558 | 1.127671 | 1.127784 | 1.127897 | 1.128010 | 1.128123 | 1.128236 | 1.128349 | 1.128462 |
| 0.430 | 1.128575 | 1.128687 | 1.128800 | 1.128913 | 1.129026 | 1.129139 | 1.129252 | 1.129365 | 1.129478 | 1.129591 |
| 0.440 | 1.129704 | 1.129817 | 1.129930 | 1.130043 | 1.130156 | 1.130269 | 1.130382 | 1.130495 | 1.130608 | 1.130721 |
| 0.450 | 1.130835 | 1.130948 | 1.131061 | 1.131174 | 1.131287 | 1.131400 | 1.131513 | 1.131626 | 1.131739 | 1.131852 |
| 0.460 | 1.131965 | 1.132079 | 1.132192 | 1.132305 | 1.132418 | 1.132531 | 1.132644 | 1.132757 | 1.132870 | 1.132984 |
| 0.470 | 1.133097 | 1.133210 | 1.133323 | 1.133436 | 1.133550 | 1.133663 | 1.133776 | 1.133889 | 1.134003 | 1.134116 |
| 0.480 | 1.134229 | 1.134342 | 1.134455 | 1.134568 | 1.134682 | 1.134795 | 1.134909 | 1.135022 | 1.135135 | 1.135248 |
| 0.490 | 1.135362 | 1.135475 | 1.135588 | 1.135702 | 1.135815 | 1.135928 | 1.136042 | 1.136155 | 1.136268 | 1.136382 |

ATTENUATION IN DECIBELS
 THETA FROM 20.500 TO 20.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.136435 | 1.136608 | 1.136722 | 1.136835 | 1.136948 | 1.137062 | 1.137175 | 1.137289 | 1.137402 | 1.137515 |
| 0.510 | 1.137629 | 1.137742 | 1.137856 | 1.137969 | 1.138083 | 1.138196 | 1.138309 | 1.138423 | 1.138536 | 1.138650 |
| 0.520 | 1.138763 | 1.138877 | 1.138990 | 1.139104 | 1.139217 | 1.139331 | 1.139444 | 1.139558 | 1.139671 | 1.139785 |
| 0.530 | 1.139898 | 1.140012 | 1.140126 | 1.140239 | 1.140353 | 1.140466 | 1.140580 | 1.140693 | 1.140807 | 1.140921 |
| 0.540 | 1.141034 | 1.141148 | 1.141261 | 1.141375 | 1.141489 | 1.141602 | 1.141716 | 1.141830 | 1.141943 | 1.142057 |
| 0.550 | 1.142170 | 1.142284 | 1.142398 | 1.142512 | 1.142625 | 1.142739 | 1.142853 | 1.142966 | 1.143080 | 1.143194 |
| 0.560 | 1.143307 | 1.143421 | 1.143535 | 1.143649 | 1.143762 | 1.143876 | 1.143990 | 1.144104 | 1.144217 | 1.144331 |
| 0.570 | 1.144445 | 1.144559 | 1.144673 | 1.144786 | 1.144900 | 1.145014 | 1.145128 | 1.145242 | 1.145355 | 1.145469 |
| 0.580 | 1.145583 | 1.145697 | 1.145811 | 1.145925 | 1.146038 | 1.146152 | 1.146266 | 1.146380 | 1.146494 | 1.146608 |
| 0.590 | 1.146722 | 1.146836 | 1.146950 | 1.147064 | 1.147177 | 1.147291 | 1.147405 | 1.147519 | 1.147633 | 1.147747 |
| 0.600 | 1.147861 | 1.147975 | 1.148089 | 1.148203 | 1.148317 | 1.148431 | 1.148545 | 1.148659 | 1.148773 | 1.148887 |
| 0.610 | 1.149001 | 1.149115 | 1.149229 | 1.149343 | 1.149457 | 1.149571 | 1.149685 | 1.149799 | 1.149913 | 1.150028 |
| 0.620 | 1.150142 | 1.150256 | 1.150370 | 1.150484 | 1.150598 | 1.150712 | 1.150826 | 1.150940 | 1.151054 | 1.151169 |
| 0.630 | 1.151283 | 1.151397 | 1.151511 | 1.151625 | 1.151739 | 1.151854 | 1.151968 | 1.152082 | 1.152196 | 1.152310 |
| 0.640 | 1.152424 | 1.152539 | 1.152653 | 1.152767 | 1.152881 | 1.152996 | 1.153110 | 1.153224 | 1.153338 | 1.153453 |
| 0.650 | 1.153567 | 1.153681 | 1.153795 | 1.153910 | 1.154024 | 1.154138 | 1.154253 | 1.154367 | 1.154481 | 1.154595 |
| 0.660 | 1.154710 | 1.154824 | 1.154938 | 1.155053 | 1.155167 | 1.155281 | 1.155396 | 1.155510 | 1.155625 | 1.155739 |
| 0.670 | 1.155853 | 1.155968 | 1.156082 | 1.156197 | 1.156311 | 1.156425 | 1.156540 | 1.156654 | 1.156769 | 1.156883 |
| 0.680 | 1.156998 | 1.157112 | 1.157226 | 1.157341 | 1.157455 | 1.157570 | 1.157684 | 1.157799 | 1.157913 | 1.158028 |
| 0.690 | 1.158142 | 1.158257 | 1.158371 | 1.158486 | 1.158600 | 1.158715 | 1.158829 | 1.158944 | 1.159059 | 1.159173 |
| 0.700 | 1.159288 | 1.159402 | 1.159517 | 1.159631 | 1.159746 | 1.159861 | 1.159975 | 1.160090 | 1.160204 | 1.160319 |
| 0.710 | 1.160548 | 1.160663 | 1.160778 | 1.160892 | 1.161007 | 1.161122 | 1.161236 | 1.161351 | 1.161466 | 1.161581 |
| 0.720 | 1.161810 | 1.161924 | 1.162039 | 1.162154 | 1.162268 | 1.162383 | 1.162498 | 1.162613 | 1.162728 | 1.162843 |
| 0.730 | 1.162727 | 1.162842 | 1.162957 | 1.163072 | 1.163186 | 1.163301 | 1.163416 | 1.163531 | 1.163646 | 1.163761 |
| 0.740 | 1.163875 | 1.163990 | 1.164105 | 1.164220 | 1.164335 | 1.164449 | 1.164564 | 1.164679 | 1.164794 | 1.164909 |
| 0.750 | 1.165024 | 1.165138 | 1.165253 | 1.165368 | 1.165483 | 1.165598 | 1.165713 | 1.165828 | 1.165943 | 1.166058 |
| 0.760 | 1.166173 | 1.166288 | 1.166403 | 1.166517 | 1.166632 | 1.166747 | 1.166862 | 1.166977 | 1.167092 | 1.167207 |
| 0.770 | 1.167322 | 1.167437 | 1.167552 | 1.167667 | 1.167782 | 1.167897 | 1.168012 | 1.168127 | 1.168242 | 1.168357 |
| 0.780 | 1.168472 | 1.168588 | 1.168703 | 1.168818 | 1.168933 | 1.169048 | 1.169163 | 1.169278 | 1.169393 | 1.169508 |
| 0.790 | 1.169623 | 1.169738 | 1.169854 | 1.169969 | 1.170084 | 1.170199 | 1.170314 | 1.170429 | 1.170544 | 1.170660 |
| 0.800 | 1.170775 | 1.170890 | 1.171005 | 1.171120 | 1.171235 | 1.171350 | 1.171466 | 1.171581 | 1.171696 | 1.171811 |
| 0.810 | 1.171927 | 1.172042 | 1.172157 | 1.172272 | 1.172388 | 1.172503 | 1.172618 | 1.172734 | 1.172849 | 1.172964 |
| 0.820 | 1.173079 | 1.173195 | 1.173310 | 1.173425 | 1.173541 | 1.173656 | 1.173771 | 1.173887 | 1.174002 | 1.174117 |
| 0.830 | 1.174233 | 1.174348 | 1.174463 | 1.174579 | 1.174694 | 1.174809 | 1.174925 | 1.175040 | 1.175156 | 1.175271 |
| 0.840 | 1.175386 | 1.175501 | 1.175617 | 1.175733 | 1.175848 | 1.175964 | 1.176079 | 1.176195 | 1.176310 | 1.176425 |
| 0.850 | 1.176541 | 1.176656 | 1.176772 | 1.176887 | 1.177003 | 1.177118 | 1.177234 | 1.177349 | 1.177465 | 1.177580 |
| 0.860 | 1.177696 | 1.177812 | 1.177927 | 1.178043 | 1.178158 | 1.178274 | 1.178389 | 1.178505 | 1.178620 | 1.178736 |
| 0.870 | 1.178852 | 1.178967 | 1.179083 | 1.179198 | 1.179314 | 1.179430 | 1.179545 | 1.179661 | 1.179777 | 1.179892 |
| 0.880 | 1.180008 | 1.180124 | 1.180239 | 1.180355 | 1.180471 | 1.180586 | 1.180702 | 1.180817 | 1.180933 | 1.181047 |
| 0.890 | 1.181165 | 1.181281 | 1.181396 | 1.181512 | 1.181628 | 1.181743 | 1.181859 | 1.181975 | 1.182091 | 1.182206 |
| 0.900 | 1.182322 | 1.182438 | 1.182554 | 1.182670 | 1.182785 | 1.182901 | 1.183017 | 1.183133 | 1.183249 | 1.183365 |
| 0.910 | 1.183480 | 1.183596 | 1.183712 | 1.183828 | 1.183944 | 1.184060 | 1.184176 | 1.184291 | 1.184407 | 1.184523 |
| 0.920 | 1.184639 | 1.184755 | 1.184871 | 1.184987 | 1.185103 | 1.185219 | 1.185335 | 1.185451 | 1.185566 | 1.185682 |
| 0.930 | 1.185798 | 1.185914 | 1.186030 | 1.186146 | 1.186262 | 1.186378 | 1.186494 | 1.186610 | 1.186726 | 1.186842 |
| 0.940 | 1.186958 | 1.187074 | 1.187190 | 1.187306 | 1.187422 | 1.187538 | 1.187655 | 1.187771 | 1.187887 | 1.188003 |
| 0.950 | 1.188119 | 1.188235 | 1.188351 | 1.188467 | 1.188583 | 1.188699 | 1.188815 | 1.188932 | 1.189048 | 1.189164 |
| 0.960 | 1.189280 | 1.189396 | 1.189512 | 1.189628 | 1.189744 | 1.189861 | 1.189977 | 1.190093 | 1.190209 | 1.190325 |
| 0.970 | 1.190442 | 1.190558 | 1.190674 | 1.190790 | 1.190907 | 1.191023 | 1.191139 | 1.191255 | 1.191371 | 1.191488 |
| 0.980 | 1.191604 | 1.191720 | 1.191837 | 1.191953 | 1.192069 | 1.192185 | 1.192302 | 1.192418 | 1.192534 | 1.192651 |
| 0.990 | 1.192767 | 1.192883 | 1.193000 | 1.193116 | 1.193232 | 1.193348 | 1.193465 | 1.193581 | 1.193698 | 1.193814 |

ATTENUATION IN DECIBELS
 THETA FROM 21.000 TO 21.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.193930 | 1.194047 | 1.194163 | 1.194280 | 1.194396 | 1.194512 | 1.194629 | 1.194745 | 1.194862 | 1.194978 |
| 0.010 | 1.195095 | 1.195211 | 1.195328 | 1.195444 | 1.195560 | 1.195677 | 1.195793 | 1.195910 | 1.196026 | 1.196143 |
| 0.020 | 1.196259 | 1.196376 | 1.196492 | 1.196609 | 1.196725 | 1.196842 | 1.196959 | 1.197075 | 1.197192 | 1.197308 |
| 0.030 | 1.197425 | 1.197541 | 1.197658 | 1.197775 | 1.197891 | 1.198008 | 1.198124 | 1.198241 | 1.198358 | 1.198474 |
| 0.040 | 1.198591 | 1.198707 | 1.198824 | 1.198941 | 1.199057 | 1.199174 | 1.199291 | 1.199407 | 1.199524 | 1.199641 |
| 0.050 | 1.199757 | 1.199874 | 1.199991 | 1.200107 | 1.200224 | 1.200341 | 1.200458 | 1.200574 | 1.200691 | 1.200808 |
| 0.060 | 1.200925 | 1.201041 | 1.201158 | 1.201275 | 1.201392 | 1.201508 | 1.201625 | 1.201742 | 1.201859 | 1.201976 |
| 0.070 | 1.202092 | 1.202209 | 1.202326 | 1.202443 | 1.202560 | 1.202676 | 1.202793 | 1.202910 | 1.203027 | 1.203144 |
| 0.080 | 1.203261 | 1.203378 | 1.203495 | 1.203611 | 1.203728 | 1.203845 | 1.203962 | 1.204079 | 1.204196 | 1.204313 |
| 0.090 | 1.204430 | 1.204547 | 1.204664 | 1.204781 | 1.204898 | 1.205015 | 1.205131 | 1.205248 | 1.205365 | 1.205482 |
| 0.100 | 1.205599 | 1.205716 | 1.205833 | 1.205950 | 1.206067 | 1.206184 | 1.206301 | 1.206419 | 1.206536 | 1.206653 |
| 0.110 | 1.206770 | 1.206887 | 1.207004 | 1.207121 | 1.207238 | 1.207355 | 1.207472 | 1.207589 | 1.207706 | 1.207823 |
| 0.120 | 1.207940 | 1.208058 | 1.208175 | 1.208292 | 1.208409 | 1.208526 | 1.208643 | 1.208760 | 1.208878 | 1.208995 |
| 0.130 | 1.209112 | 1.209229 | 1.209346 | 1.209463 | 1.209581 | 1.209698 | 1.209815 | 1.209932 | 1.210050 | 1.210167 |
| 0.140 | 1.210284 | 1.210401 | 1.210518 | 1.210636 | 1.210753 | 1.210870 | 1.210988 | 1.211105 | 1.211222 | 1.211339 |
| 0.150 | 1.211457 | 1.211574 | 1.211691 | 1.211809 | 1.211926 | 1.212043 | 1.212161 | 1.212278 | 1.212395 | 1.212513 |
| 0.160 | 1.212630 | 1.212747 | 1.212865 | 1.212982 | 1.213099 | 1.213217 | 1.213334 | 1.213452 | 1.213569 | 1.213686 |
| 0.170 | 1.213804 | 1.213921 | 1.214039 | 1.214156 | 1.214274 | 1.214391 | 1.214508 | 1.214626 | 1.214743 | 1.214861 |
| 0.180 | 1.214978 | 1.215096 | 1.215213 | 1.215331 | 1.215448 | 1.215566 | 1.215683 | 1.215801 | 1.215918 | 1.216036 |
| 0.190 | 1.216153 | 1.216271 | 1.216389 | 1.216506 | 1.216624 | 1.216741 | 1.216859 | 1.216976 | 1.217094 | 1.217212 |
| 0.200 | 1.217329 | 1.217447 | 1.217564 | 1.217682 | 1.217800 | 1.217917 | 1.218035 | 1.218152 | 1.218270 | 1.218388 |
| 0.210 | 1.218505 | 1.218623 | 1.218741 | 1.218858 | 1.218976 | 1.219094 | 1.219212 | 1.219329 | 1.219447 | 1.219565 |
| 0.220 | 1.219682 | 1.219800 | 1.219918 | 1.220036 | 1.220153 | 1.220271 | 1.220389 | 1.220507 | 1.220624 | 1.220742 |
| 0.230 | 1.220860 | 1.220978 | 1.221096 | 1.221213 | 1.221331 | 1.221449 | 1.221567 | 1.221685 | 1.221802 | 1.221920 |
| 0.240 | 1.222038 | 1.222156 | 1.222274 | 1.222392 | 1.222509 | 1.222627 | 1.222745 | 1.222862 | 1.222981 | 1.223099 |
| 0.250 | 1.223217 | 1.223335 | 1.223453 | 1.223571 | 1.223688 | 1.223806 | 1.223924 | 1.224042 | 1.224160 | 1.224278 |
| 0.260 | 1.224396 | 1.224514 | 1.224632 | 1.224750 | 1.224868 | 1.224986 | 1.225104 | 1.225222 | 1.225340 | 1.225458 |
| 0.270 | 1.225576 | 1.225694 | 1.225812 | 1.225930 | 1.226048 | 1.226166 | 1.226284 | 1.226403 | 1.226521 | 1.226639 |
| 0.280 | 1.226757 | 1.226875 | 1.226993 | 1.227111 | 1.227229 | 1.227347 | 1.227465 | 1.227584 | 1.227702 | 1.227820 |
| 0.290 | 1.227938 | 1.228056 | 1.228174 | 1.228292 | 1.228411 | 1.228529 | 1.228647 | 1.228765 | 1.228883 | 1.229002 |
| 0.300 | 1.229120 | 1.229238 | 1.229356 | 1.229474 | 1.229593 | 1.229711 | 1.229829 | 1.229947 | 1.230066 | 1.230184 |
| 0.310 | 1.230302 | 1.230420 | 1.230539 | 1.230657 | 1.230775 | 1.230894 | 1.231012 | 1.231130 | 1.231249 | 1.231367 |
| 0.320 | 1.231485 | 1.231604 | 1.231722 | 1.231840 | 1.231959 | 1.232077 | 1.232195 | 1.232314 | 1.232432 | 1.232550 |
| 0.330 | 1.232669 | 1.232787 | 1.232906 | 1.233024 | 1.233142 | 1.233261 | 1.233379 | 1.233498 | 1.233616 | 1.233735 |
| 0.340 | 1.233853 | 1.233972 | 1.234090 | 1.234208 | 1.234327 | 1.234445 | 1.234564 | 1.234682 | 1.234801 | 1.234919 |
| 0.350 | 1.235038 | 1.235156 | 1.235275 | 1.235393 | 1.235512 | 1.235631 | 1.235749 | 1.235868 | 1.235986 | 1.236105 |
| 0.360 | 1.236223 | 1.236342 | 1.236461 | 1.236579 | 1.236698 | 1.236816 | 1.236935 | 1.237054 | 1.237172 | 1.237291 |
| 0.370 | 1.237409 | 1.237528 | 1.237647 | 1.237765 | 1.237884 | 1.238003 | 1.238121 | 1.238240 | 1.238359 | 1.238477 |
| 0.380 | 1.238596 | 1.238715 | 1.238834 | 1.238952 | 1.239071 | 1.239190 | 1.239308 | 1.239427 | 1.239546 | 1.239665 |
| 0.390 | 1.239783 | 1.239902 | 1.240021 | 1.240140 | 1.240258 | 1.240377 | 1.240496 | 1.240615 | 1.240734 | 1.240852 |
| 0.400 | 1.240971 | 1.241090 | 1.241209 | 1.241328 | 1.241447 | 1.241565 | 1.241684 | 1.241803 | 1.241922 | 1.242041 |
| 0.410 | 1.242160 | 1.242279 | 1.242398 | 1.242516 | 1.242635 | 1.242754 | 1.242873 | 1.242992 | 1.243111 | 1.243230 |
| 0.420 | 1.243349 | 1.243468 | 1.243587 | 1.243706 | 1.243825 | 1.243944 | 1.244063 | 1.244182 | 1.244301 | 1.244420 |
| 0.430 | 1.244539 | 1.244658 | 1.244777 | 1.244896 | 1.245015 | 1.245134 | 1.245253 | 1.245372 | 1.245491 | 1.245610 |
| 0.440 | 1.245729 | 1.245848 | 1.245967 | 1.246086 | 1.246205 | 1.246324 | 1.246443 | 1.246563 | 1.246682 | 1.246801 |
| 0.450 | 1.246920 | 1.247039 | 1.247158 | 1.247277 | 1.247397 | 1.247516 | 1.247635 | 1.247754 | 1.247873 | 1.247992 |
| 0.460 | 1.248112 | 1.248231 | 1.248350 | 1.248469 | 1.248588 | 1.248708 | 1.248827 | 1.248946 | 1.249065 | 1.249184 |
| 0.470 | 1.249304 | 1.249423 | 1.249542 | 1.249661 | 1.249781 | 1.249900 | 1.250019 | 1.250139 | 1.250258 | 1.250377 |
| 0.480 | 1.250497 | 1.250616 | 1.250735 | 1.250854 | 1.250974 | 1.251093 | 1.251212 | 1.251332 | 1.251451 | 1.251571 |
| 0.490 | 1.251690 | 1.251809 | 1.251929 | 1.252048 | 1.252167 | 1.252287 | 1.252406 | 1.252526 | 1.252645 | 1.252764 |

ATTENUATION IN DECIBELS
THETA FROM 21.500 TO 21.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.252854 | 1.253003 | 1.253123 | 1.253242 | 1.253362 | 1.253481 | 1.253601 | 1.253720 | 1.253840 | 1.253959 |
| 0.510 | 1.254073 | 1.254198 | 1.254318 | 1.254437 | 1.254557 | 1.254676 | 1.254796 | 1.254915 | 1.255035 | 1.255154 |
| 0.520 | 1.255274 | 1.255393 | 1.255513 | 1.255632 | 1.255752 | 1.255871 | 1.255991 | 1.256111 | 1.256230 | 1.256350 |
| 0.530 | 1.256470 | 1.256589 | 1.256709 | 1.256828 | 1.256948 | 1.257068 | 1.257187 | 1.257307 | 1.257427 | 1.257546 |
| 0.540 | 1.257666 | 1.257786 | 1.257905 | 1.258025 | 1.258145 | 1.258265 | 1.258384 | 1.258504 | 1.258624 | 1.258743 |
| 0.550 | 1.258883 | 1.258983 | 1.259103 | 1.259222 | 1.259342 | 1.259462 | 1.259582 | 1.259701 | 1.259821 | 1.259941 |
| 0.560 | 1.260061 | 1.260181 | 1.260300 | 1.260420 | 1.260540 | 1.260660 | 1.260780 | 1.260900 | 1.261019 | 1.261139 |
| 0.570 | 1.261259 | 1.261379 | 1.261499 | 1.261619 | 1.261739 | 1.261858 | 1.261978 | 1.262098 | 1.262218 | 1.262338 |
| 0.580 | 1.262458 | 1.262578 | 1.262698 | 1.262818 | 1.262938 | 1.263058 | 1.263178 | 1.263298 | 1.263418 | 1.263538 |
| 0.590 | 1.263658 | 1.263778 | 1.263897 | 1.264017 | 1.264137 | 1.264258 | 1.264378 | 1.264498 | 1.264618 | 1.264738 |
| 0.600 | 1.264858 | 1.264978 | 1.265098 | 1.265218 | 1.265338 | 1.265458 | 1.265578 | 1.265698 | 1.265818 | 1.265938 |
| 0.610 | 1.266058 | 1.266178 | 1.266299 | 1.266419 | 1.266539 | 1.266659 | 1.266779 | 1.266899 | 1.267019 | 1.267140 |
| 0.620 | 1.267260 | 1.267380 | 1.267500 | 1.267620 | 1.267740 | 1.267861 | 1.267981 | 1.268101 | 1.268221 | 1.268341 |
| 0.630 | 1.268462 | 1.268582 | 1.268702 | 1.268822 | 1.268943 | 1.269063 | 1.269183 | 1.269303 | 1.269424 | 1.269544 |
| 0.640 | 1.269664 | 1.269785 | 1.269905 | 1.270025 | 1.270145 | 1.270266 | 1.270386 | 1.270506 | 1.270627 | 1.270747 |
| 0.650 | 1.270867 | 1.270988 | 1.271108 | 1.271229 | 1.271349 | 1.271469 | 1.271590 | 1.271710 | 1.271830 | 1.271951 |
| 0.660 | 1.272071 | 1.272192 | 1.272312 | 1.272433 | 1.272553 | 1.272673 | 1.272794 | 1.272914 | 1.273035 | 1.273155 |
| 0.670 | 1.273276 | 1.273396 | 1.273517 | 1.273637 | 1.273758 | 1.273878 | 1.273999 | 1.274119 | 1.274240 | 1.274360 |
| 0.680 | 1.274481 | 1.274601 | 1.274722 | 1.274842 | 1.274963 | 1.275083 | 1.275204 | 1.275325 | 1.275445 | 1.275566 |
| 0.690 | 1.275686 | 1.275807 | 1.275928 | 1.276048 | 1.276169 | 1.276289 | 1.276410 | 1.276531 | 1.276651 | 1.276772 |
| 0.700 | 1.276893 | 1.277013 | 1.277134 | 1.277255 | 1.277375 | 1.277496 | 1.277617 | 1.277737 | 1.277858 | 1.277979 |
| 0.710 | 1.278099 | 1.278220 | 1.278341 | 1.278462 | 1.278582 | 1.278703 | 1.278824 | 1.278945 | 1.279065 | 1.279186 |
| 0.720 | 1.279307 | 1.279428 | 1.279549 | 1.279669 | 1.279790 | 1.279911 | 1.280032 | 1.280153 | 1.280273 | 1.280394 |
| 0.730 | 1.280515 | 1.280636 | 1.280757 | 1.280878 | 1.280998 | 1.281119 | 1.281240 | 1.281361 | 1.281482 | 1.281603 |
| 0.740 | 1.281724 | 1.281845 | 1.281966 | 1.282086 | 1.282207 | 1.282328 | 1.282449 | 1.282570 | 1.282691 | 1.282812 |
| 0.750 | 1.282933 | 1.283054 | 1.283175 | 1.283296 | 1.283417 | 1.283538 | 1.283659 | 1.283780 | 1.283901 | 1.284022 |
| 0.760 | 1.284143 | 1.284264 | 1.284385 | 1.284506 | 1.284627 | 1.284748 | 1.284869 | 1.284990 | 1.285111 | 1.285232 |
| 0.770 | 1.285354 | 1.285475 | 1.285596 | 1.285717 | 1.285838 | 1.285959 | 1.286080 | 1.286201 | 1.286322 | 1.286444 |
| 0.780 | 1.286565 | 1.286686 | 1.286807 | 1.286928 | 1.287049 | 1.287170 | 1.287292 | 1.287413 | 1.287534 | 1.287655 |
| 0.790 | 1.287776 | 1.287898 | 1.288019 | 1.288140 | 1.288261 | 1.288383 | 1.288504 | 1.288625 | 1.288746 | 1.288868 |
| 0.800 | 1.288989 | 1.289110 | 1.289231 | 1.289353 | 1.289474 | 1.289595 | 1.289717 | 1.289838 | 1.289959 | 1.290081 |
| 0.810 | 1.290202 | 1.290323 | 1.290445 | 1.290566 | 1.290687 | 1.290809 | 1.290930 | 1.291051 | 1.291173 | 1.291294 |
| 0.820 | 1.291415 | 1.291537 | 1.291658 | 1.291780 | 1.291901 | 1.292022 | 1.292144 | 1.292265 | 1.292387 | 1.292508 |
| 0.830 | 1.292630 | 1.292751 | 1.292873 | 1.292994 | 1.293116 | 1.293237 | 1.293359 | 1.293480 | 1.293602 | 1.293723 |
| 0.840 | 1.293845 | 1.293966 | 1.294088 | 1.294209 | 1.294331 | 1.294452 | 1.294574 | 1.294695 | 1.294817 | 1.294938 |
| 0.850 | 1.295060 | 1.295182 | 1.295303 | 1.295425 | 1.295546 | 1.295668 | 1.295790 | 1.295911 | 1.296033 | 1.296154 |
| 0.860 | 1.296276 | 1.296398 | 1.296519 | 1.296641 | 1.296763 | 1.296884 | 1.297006 | 1.297128 | 1.297249 | 1.297371 |
| 0.870 | 1.297493 | 1.297614 | 1.297736 | 1.297858 | 1.297980 | 1.298101 | 1.298223 | 1.298345 | 1.298467 | 1.298588 |
| 0.880 | 1.296710 | 1.298832 | 1.298954 | 1.299075 | 1.299197 | 1.299319 | 1.299441 | 1.299563 | 1.299684 | 1.299806 |
| 0.890 | 1.299928 | 1.300050 | 1.300172 | 1.300293 | 1.300415 | 1.300537 | 1.300659 | 1.300781 | 1.300903 | 1.301025 |
| 0.900 | 1.301146 | 1.301268 | 1.301390 | 1.301512 | 1.301634 | 1.301756 | 1.301878 | 1.302000 | 1.302122 | 1.302244 |
| 0.910 | 1.302366 | 1.302488 | 1.302610 | 1.302731 | 1.302853 | 1.302975 | 1.303097 | 1.303219 | 1.303341 | 1.303463 |
| 0.920 | 1.303585 | 1.303707 | 1.303829 | 1.303951 | 1.304073 | 1.304195 | 1.304318 | 1.304440 | 1.304562 | 1.304684 |
| 0.930 | 1.304806 | 1.304928 | 1.305050 | 1.305172 | 1.305294 | 1.305416 | 1.305538 | 1.305660 | 1.305782 | 1.305905 |
| 0.940 | 1.306027 | 1.306149 | 1.306271 | 1.306393 | 1.306515 | 1.306637 | 1.306760 | 1.306882 | 1.307004 | 1.307126 |
| 0.950 | 1.307248 | 1.307371 | 1.307493 | 1.307615 | 1.307737 | 1.307859 | 1.307982 | 1.308104 | 1.308226 | 1.308348 |
| 0.960 | 1.308471 | 1.308593 | 1.308715 | 1.308837 | 1.308960 | 1.309082 | 1.309204 | 1.309326 | 1.309448 | 1.309571 |
| 0.970 | 1.309693 | 1.309816 | 1.309938 | 1.310060 | 1.310183 | 1.310305 | 1.310427 | 1.310550 | 1.310672 | 1.310794 |
| 0.980 | 1.310917 | 1.311039 | 1.311162 | 1.311284 | 1.311406 | 1.311529 | 1.311651 | 1.311774 | 1.311896 | 1.312018 |
| 0.990 | 1.312141 | 1.312263 | 1.312386 | 1.312508 | 1.312631 | 1.312753 | 1.312876 | 1.313000 | 1.313121 | 1.313244 |

ATTENUATION IN DECIBELS
THETA FROM 22.000 TO 22.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.313366 | 1.313488 | 1.313611 | 1.313733 | 1.313856 | 1.313978 | 1.314101 | 1.314223 | 1.314346 | 1.314468 |
| 0.010 | 1.314591 | 1.314713 | 1.314836 | 1.314959 | 1.315081 | 1.315204 | 1.315326 | 1.315449 | 1.315572 | 1.315694 |
| 0.020 | 1.315817 | 1.315939 | 1.316062 | 1.316185 | 1.316308 | 1.316430 | 1.316553 | 1.316675 | 1.316798 | 1.316920 |
| 0.030 | 1.317043 | 1.317166 | 1.317289 | 1.317411 | 1.317534 | 1.317657 | 1.317780 | 1.317902 | 1.318025 | 1.318148 |
| 0.040 | 1.318270 | 1.318393 | 1.318516 | 1.318639 | 1.318762 | 1.318884 | 1.319007 | 1.319130 | 1.319253 | 1.319375 |
| 0.050 | 1.319498 | 1.319621 | 1.319744 | 1.319867 | 1.319989 | 1.320112 | 1.320235 | 1.320358 | 1.320481 | 1.320604 |
| 0.060 | 1.320727 | 1.320849 | 1.320972 | 1.321095 | 1.321218 | 1.321341 | 1.321464 | 1.321587 | 1.321710 | 1.321833 |
| 0.070 | 1.321956 | 1.322078 | 1.322201 | 1.322324 | 1.322447 | 1.322570 | 1.322693 | 1.322816 | 1.322939 | 1.323062 |
| 0.080 | 1.323185 | 1.323308 | 1.323431 | 1.323554 | 1.323677 | 1.323800 | 1.323923 | 1.324046 | 1.324169 | 1.324292 |
| 0.090 | 1.324415 | 1.324538 | 1.324662 | 1.324785 | 1.324908 | 1.325031 | 1.325154 | 1.325277 | 1.325400 | 1.325523 |
| 0.100 | 1.325646 | 1.325769 | 1.325892 | 1.326016 | 1.326139 | 1.326262 | 1.326385 | 1.326508 | 1.326631 | 1.326755 |
| 0.110 | 1.326878 | 1.327001 | 1.327124 | 1.327247 | 1.327370 | 1.327494 | 1.327617 | 1.327740 | 1.327863 | 1.327987 |
| 0.120 | 1.328130 | 1.328253 | 1.328376 | 1.328499 | 1.328623 | 1.328746 | 1.328869 | 1.328993 | 1.329116 | 1.329239 |
| 0.130 | 1.329342 | 1.329466 | 1.329589 | 1.329712 | 1.329836 | 1.329959 | 1.330082 | 1.330206 | 1.330329 | 1.330452 |
| 0.140 | 1.330576 | 1.330699 | 1.330822 | 1.330946 | 1.331069 | 1.331193 | 1.331316 | 1.331439 | 1.331563 | 1.331686 |
| 0.150 | 1.331810 | 1.331933 | 1.332057 | 1.332180 | 1.332303 | 1.332427 | 1.332550 | 1.332674 | 1.332797 | 1.332921 |
| 0.160 | 1.333044 | 1.333168 | 1.333291 | 1.333415 | 1.333538 | 1.333662 | 1.333785 | 1.333909 | 1.334032 | 1.334156 |
| 0.170 | 1.334279 | 1.334403 | 1.334526 | 1.334650 | 1.334774 | 1.334897 | 1.335021 | 1.335144 | 1.335268 | 1.335392 |
| 0.180 | 1.335515 | 1.335639 | 1.335762 | 1.335886 | 1.336010 | 1.336133 | 1.336257 | 1.336381 | 1.336504 | 1.336628 |
| 0.190 | 1.336752 | 1.336875 | 1.336999 | 1.337123 | 1.337246 | 1.337370 | 1.337494 | 1.337617 | 1.337741 | 1.337865 |
| 0.200 | 1.337999 | 1.338122 | 1.338246 | 1.338369 | 1.338493 | 1.338617 | 1.338741 | 1.338865 | 1.338989 | 1.339112 |
| 0.210 | 1.339226 | 1.339350 | 1.339474 | 1.339598 | 1.339721 | 1.339845 | 1.339969 | 1.340093 | 1.340217 | 1.340341 |
| 0.220 | 1.340464 | 1.340588 | 1.340712 | 1.340836 | 1.340960 | 1.341084 | 1.341208 | 1.341332 | 1.341455 | 1.341579 |
| 0.230 | 1.341703 | 1.341827 | 1.341951 | 1.342075 | 1.342199 | 1.342323 | 1.342447 | 1.342571 | 1.342695 | 1.342819 |
| 0.240 | 1.342943 | 1.343067 | 1.343191 | 1.343315 | 1.343439 | 1.343563 | 1.343687 | 1.343811 | 1.343935 | 1.344059 |
| 0.250 | 1.344183 | 1.344307 | 1.344431 | 1.344555 | 1.344679 | 1.344803 | 1.344927 | 1.345051 | 1.345175 | 1.345299 |
| 0.260 | 1.345424 | 1.345548 | 1.345672 | 1.345796 | 1.345920 | 1.346044 | 1.346168 | 1.346292 | 1.346417 | 1.346541 |
| 0.270 | 1.346665 | 1.346789 | 1.346913 | 1.347037 | 1.347162 | 1.347286 | 1.347410 | 1.347534 | 1.347658 | 1.347783 |
| 0.280 | 1.347907 | 1.348031 | 1.348155 | 1.348280 | 1.348404 | 1.348528 | 1.348652 | 1.348777 | 1.348901 | 1.349025 |
| 0.290 | 1.349149 | 1.349274 | 1.349398 | 1.349522 | 1.349647 | 1.349771 | 1.349895 | 1.350020 | 1.350144 | 1.350268 |
| 0.300 | 1.350393 | 1.350517 | 1.350641 | 1.350766 | 1.350890 | 1.351014 | 1.351139 | 1.351263 | 1.351388 | 1.351512 |
| 0.310 | 1.351636 | 1.351761 | 1.351885 | 1.352010 | 1.352134 | 1.352258 | 1.352383 | 1.352507 | 1.352632 | 1.352756 |
| 0.320 | 1.352881 | 1.353005 | 1.353130 | 1.353254 | 1.353379 | 1.353503 | 1.353628 | 1.353752 | 1.353877 | 1.354001 |
| 0.330 | 1.354126 | 1.354250 | 1.354375 | 1.354499 | 1.354624 | 1.354749 | 1.354873 | 1.354998 | 1.355122 | 1.355247 |
| 0.340 | 1.355371 | 1.355496 | 1.355621 | 1.355745 | 1.355870 | 1.355995 | 1.356119 | 1.356244 | 1.356368 | 1.356493 |
| 0.350 | 1.356618 | 1.356742 | 1.356867 | 1.356992 | 1.357116 | 1.357241 | 1.357366 | 1.357491 | 1.357615 | 1.357740 |
| 0.360 | 1.357865 | 1.357989 | 1.358114 | 1.358239 | 1.358364 | 1.358488 | 1.358613 | 1.358738 | 1.358863 | 1.358987 |
| 0.370 | 1.359112 | 1.359237 | 1.359362 | 1.359487 | 1.359611 | 1.359736 | 1.359861 | 1.360111 | 1.360235 | 1.360359 |
| 0.380 | 1.360360 | 1.360485 | 1.360610 | 1.360735 | 1.360860 | 1.360985 | 1.361109 | 1.361234 | 1.361359 | 1.361484 |
| 0.390 | 1.361609 | 1.361734 | 1.361859 | 1.361984 | 1.362109 | 1.362234 | 1.362359 | 1.362484 | 1.362608 | 1.362733 |
| 0.400 | 1.362858 | 1.362983 | 1.363108 | 1.363233 | 1.363358 | 1.363483 | 1.363608 | 1.363733 | 1.363858 | 1.363983 |
| 0.410 | 1.364108 | 1.364233 | 1.364358 | 1.364484 | 1.364609 | 1.364734 | 1.364859 | 1.364984 | 1.365109 | 1.365234 |
| 0.420 | 1.365359 | 1.365484 | 1.365609 | 1.365734 | 1.365859 | 1.365985 | 1.366110 | 1.366235 | 1.366360 | 1.366485 |
| 0.430 | 1.366610 | 1.366735 | 1.366861 | 1.366986 | 1.367111 | 1.367236 | 1.367361 | 1.367486 | 1.367612 | 1.367737 |
| 0.440 | 1.367862 | 1.367987 | 1.368113 | 1.368238 | 1.368363 | 1.368488 | 1.368613 | 1.368739 | 1.368864 | 1.368989 |
| 0.450 | 1.369115 | 1.369240 | 1.369365 | 1.369490 | 1.369616 | 1.369741 | 1.369866 | 1.369992 | 1.370117 | 1.370242 |
| 0.460 | 1.370368 | 1.370493 | 1.370618 | 1.370744 | 1.370869 | 1.370994 | 1.371120 | 1.371245 | 1.371371 | 1.371496 |
| 0.470 | 1.371621 | 1.371747 | 1.371872 | 1.371998 | 1.372123 | 1.372248 | 1.372374 | 1.372499 | 1.372625 | 1.372750 |
| 0.480 | 1.372876 | 1.373001 | 1.373127 | 1.373252 | 1.373378 | 1.373503 | 1.373629 | 1.373754 | 1.373880 | 1.374005 |
| 0.490 | 1.374131 | 1.374256 | 1.374382 | 1.374507 | 1.374633 | 1.374758 | 1.374884 | 1.375009 | 1.375135 | 1.375261 |

ATTENUATION IN DECIBELS
THETA FROM 22.500 TO 22.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.375386 | 1.375512 | 1.375637 | 1.375763 | 1.375889 | 1.376014 | 1.376140 | 1.376265 | 1.376391 | 1.376517 |
| 0.510 | 1.376642 | 1.376768 | 1.376894 | 1.377019 | 1.377145 | 1.377271 | 1.377396 | 1.377522 | 1.377648 | 1.377773 |
| 0.520 | 1.377899 | 1.378025 | 1.378151 | 1.378276 | 1.378402 | 1.378528 | 1.378654 | 1.378779 | 1.378905 | 1.379031 |
| 0.530 | 1.379157 | 1.379282 | 1.379408 | 1.379534 | 1.379660 | 1.379786 | 1.379911 | 1.380037 | 1.380163 | 1.380289 |
| 0.540 | 1.380415 | 1.380540 | 1.380666 | 1.380792 | 1.380918 | 1.381044 | 1.381170 | 1.381296 | 1.381421 | 1.381547 |
| 0.550 | 1.381673 | 1.381799 | 1.381925 | 1.382051 | 1.382177 | 1.382303 | 1.382429 | 1.382555 | 1.382681 | 1.382807 |
| 0.560 | 1.382933 | 1.383059 | 1.383184 | 1.383310 | 1.383436 | 1.383562 | 1.383688 | 1.383814 | 1.383940 | 1.384066 |
| 0.570 | 1.384192 | 1.384318 | 1.384445 | 1.384571 | 1.384697 | 1.384823 | 1.384949 | 1.385075 | 1.385201 | 1.385327 |
| 0.580 | 1.385453 | 1.385579 | 1.385705 | 1.385831 | 1.385957 | 1.386083 | 1.386210 | 1.386336 | 1.386462 | 1.386588 |
| 0.590 | 1.386714 | 1.386840 | 1.386966 | 1.387093 | 1.387219 | 1.387345 | 1.387471 | 1.387597 | 1.387724 | 1.387850 |
| 0.600 | 1.387976 | 1.388102 | 1.388228 | 1.388355 | 1.388481 | 1.388607 | 1.388733 | 1.388860 | 1.388986 | 1.389112 |
| 0.610 | 1.389238 | 1.389365 | 1.389491 | 1.389617 | 1.389743 | 1.389870 | 1.389996 | 1.390122 | 1.390249 | 1.390375 |
| 0.620 | 1.390501 | 1.390628 | 1.390754 | 1.390880 | 1.391007 | 1.391133 | 1.391259 | 1.391386 | 1.391512 | 1.391639 |
| 0.630 | 1.391765 | 1.391891 | 1.392018 | 1.392144 | 1.392271 | 1.392397 | 1.392523 | 1.392650 | 1.392776 | 1.392903 |
| 0.640 | 1.393029 | 1.393156 | 1.393282 | 1.393409 | 1.393535 | 1.393662 | 1.393788 | 1.393915 | 1.394041 | 1.394168 |
| 0.650 | 1.394294 | 1.394421 | 1.394547 | 1.394674 | 1.394800 | 1.394927 | 1.395053 | 1.395180 | 1.395306 | 1.395433 |
| 0.660 | 1.395560 | 1.395686 | 1.395813 | 1.395939 | 1.396066 | 1.396193 | 1.396319 | 1.396446 | 1.396572 | 1.396699 |
| 0.670 | 1.396826 | 1.396952 | 1.397079 | 1.397206 | 1.397332 | 1.397459 | 1.397586 | 1.397712 | 1.397839 | 1.397966 |
| 0.680 | 1.398092 | 1.398219 | 1.398346 | 1.398473 | 1.398599 | 1.398726 | 1.398853 | 1.398979 | 1.399106 | 1.399233 |
| 0.690 | 1.399360 | 1.399487 | 1.399613 | 1.399740 | 1.399867 | 1.399994 | 1.400120 | 1.400247 | 1.400374 | 1.400501 |
| 0.700 | 1.400628 | 1.400755 | 1.400881 | 1.401008 | 1.401135 | 1.401262 | 1.401389 | 1.401516 | 1.401643 | 1.401769 |
| 0.710 | 1.401896 | 1.402023 | 1.402150 | 1.402277 | 1.402404 | 1.402531 | 1.402658 | 1.402785 | 1.402912 | 1.403039 |
| 0.720 | 1.403166 | 1.403293 | 1.403419 | 1.403546 | 1.403673 | 1.403800 | 1.403927 | 1.404054 | 1.404181 | 1.404308 |
| 0.730 | 1.404435 | 1.404562 | 1.404689 | 1.404816 | 1.404944 | 1.405071 | 1.405198 | 1.405325 | 1.405452 | 1.405579 |
| 0.740 | 1.405706 | 1.405833 | 1.405960 | 1.406087 | 1.406214 | 1.406341 | 1.406468 | 1.406596 | 1.406723 | 1.406850 |
| 0.750 | 1.406977 | 1.407104 | 1.407231 | 1.407358 | 1.407486 | 1.407613 | 1.407740 | 1.407867 | 1.407994 | 1.408121 |
| 0.760 | 1.408249 | 1.408376 | 1.408503 | 1.408630 | 1.408758 | 1.408885 | 1.409012 | 1.409139 | 1.409267 | 1.409394 |
| 0.770 | 1.409521 | 1.409648 | 1.409776 | 1.409903 | 1.410030 | 1.410157 | 1.410285 | 1.410412 | 1.410539 | 1.410667 |
| 0.780 | 1.410794 | 1.410921 | 1.411049 | 1.411176 | 1.411303 | 1.411431 | 1.411558 | 1.411685 | 1.411813 | 1.411940 |
| 0.790 | 1.412068 | 1.412195 | 1.412322 | 1.412450 | 1.412577 | 1.412705 | 1.412832 | 1.412959 | 1.413087 | 1.413214 |
| 0.800 | 1.413342 | 1.413469 | 1.413597 | 1.413724 | 1.413852 | 1.413979 | 1.414107 | 1.414234 | 1.414362 | 1.414489 |
| 0.810 | 1.414617 | 1.414744 | 1.414872 | 1.414999 | 1.415127 | 1.415254 | 1.415382 | 1.415509 | 1.415637 | 1.415764 |
| 0.820 | 1.415992 | 1.416120 | 1.416247 | 1.416375 | 1.416502 | 1.416630 | 1.416758 | 1.416885 | 1.417013 | 1.417140 |
| 0.830 | 1.417168 | 1.417296 | 1.417423 | 1.417551 | 1.417679 | 1.417806 | 1.417934 | 1.418062 | 1.418189 | 1.418317 |
| 0.840 | 1.418445 | 1.418573 | 1.418700 | 1.418828 | 1.418956 | 1.419083 | 1.419211 | 1.419339 | 1.419467 | 1.419594 |
| 0.850 | 1.419722 | 1.419850 | 1.419978 | 1.420105 | 1.420233 | 1.420361 | 1.420489 | 1.420617 | 1.420744 | 1.420872 |
| 0.860 | 1.421000 | 1.421128 | 1.421256 | 1.421384 | 1.421511 | 1.421639 | 1.421767 | 1.421895 | 1.422023 | 1.422151 |
| 0.870 | 1.422279 | 1.422407 | 1.422534 | 1.422662 | 1.422790 | 1.422918 | 1.423046 | 1.423174 | 1.423302 | 1.423430 |
| 0.880 | 1.423558 | 1.423686 | 1.423814 | 1.423942 | 1.424070 | 1.424198 | 1.424326 | 1.424454 | 1.424582 | 1.424710 |
| 0.890 | 1.424838 | 1.424966 | 1.425094 | 1.425222 | 1.425350 | 1.425478 | 1.425606 | 1.425734 | 1.425862 | 1.425990 |
| 0.900 | 1.426118 | 1.426246 | 1.426374 | 1.426502 | 1.426630 | 1.426758 | 1.426887 | 1.427015 | 1.427143 | 1.427271 |
| 0.910 | 1.427399 | 1.427527 | 1.427655 | 1.427784 | 1.427912 | 1.428040 | 1.428168 | 1.428296 | 1.428424 | 1.428553 |
| 0.920 | 1.428681 | 1.428809 | 1.428937 | 1.429065 | 1.429194 | 1.429322 | 1.429450 | 1.429578 | 1.429707 | 1.429835 |
| 0.930 | 1.429963 | 1.430091 | 1.430220 | 1.430348 | 1.430476 | 1.430604 | 1.430733 | 1.430861 | 1.430989 | 1.431118 |
| 0.940 | 1.431246 | 1.431374 | 1.431503 | 1.431631 | 1.431759 | 1.431888 | 1.432016 | 1.432144 | 1.432273 | 1.432401 |
| 0.950 | 1.432530 | 1.432658 | 1.432786 | 1.432915 | 1.433043 | 1.433172 | 1.433300 | 1.433428 | 1.433557 | 1.433685 |
| 0.960 | 1.433814 | 1.433942 | 1.434071 | 1.434199 | 1.434328 | 1.434456 | 1.434585 | 1.434713 | 1.434842 | 1.434970 |
| 0.970 | 1.435099 | 1.435227 | 1.435356 | 1.435484 | 1.435613 | 1.435741 | 1.435870 | 1.435998 | 1.436127 | 1.436255 |
| 0.980 | 1.436384 | 1.436513 | 1.436641 | 1.436770 | 1.436898 | 1.437027 | 1.437156 | 1.437284 | 1.437413 | 1.437541 |
| 0.990 | 1.437670 | 1.437799 | 1.437927 | 1.438056 | 1.438185 | 1.438313 | 1.438442 | 1.438571 | 1.438700 | 1.438828 |

ATTENUATION IN DECIBELS
 THETA FROM 23.000 TO 23.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.438957 | 1.439085 | 1.439214 | 1.439343 | 1.439472 | 1.439600 | 1.439729 | 1.439858 | 1.439986 | 1.440115 |
| 0.010 | 1.440244 | 1.440373 | 1.440502 | 1.440630 | 1.440759 | 1.440888 | 1.441017 | 1.441145 | 1.441274 | 1.441403 |
| 0.020 | 1.441532 | 1.441661 | 1.441790 | 1.441918 | 1.442047 | 1.442176 | 1.442305 | 1.442434 | 1.442563 | 1.442692 |
| 0.030 | 1.442820 | 1.442949 | 1.443078 | 1.443207 | 1.443336 | 1.443465 | 1.443594 | 1.443723 | 1.443852 | 1.443981 |
| 0.040 | 1.444110 | 1.444239 | 1.444368 | 1.444496 | 1.444625 | 1.444754 | 1.444883 | 1.445012 | 1.445141 | 1.445270 |
| 0.050 | 1.445399 | 1.445528 | 1.445657 | 1.445786 | 1.445915 | 1.446044 | 1.446174 | 1.446303 | 1.446432 | 1.446561 |
| 0.060 | 1.446690 | 1.446819 | 1.446948 | 1.447077 | 1.447206 | 1.447335 | 1.447464 | 1.447594 | 1.447723 | 1.447852 |
| 0.070 | 1.447981 | 1.448110 | 1.448239 | 1.448368 | 1.448497 | 1.448627 | 1.448756 | 1.448885 | 1.449014 | 1.449143 |
| 0.080 | 1.449273 | 1.449402 | 1.449531 | 1.449660 | 1.449789 | 1.449919 | 1.450048 | 1.450177 | 1.450306 | 1.450435 |
| 0.090 | 1.450565 | 1.450694 | 1.450823 | 1.450953 | 1.451082 | 1.451211 | 1.451341 | 1.451470 | 1.451599 | 1.451728 |
| 0.100 | 1.451858 | 1.451987 | 1.452116 | 1.452246 | 1.452375 | 1.452504 | 1.452634 | 1.452763 | 1.452893 | 1.453022 |
| 0.110 | 1.453151 | 1.453281 | 1.453410 | 1.453540 | 1.453669 | 1.453798 | 1.453928 | 1.454057 | 1.454187 | 1.454316 |
| 0.120 | 1.454645 | 1.454775 | 1.454904 | 1.455034 | 1.455163 | 1.455293 | 1.455422 | 1.455552 | 1.455681 | 1.455811 |
| 0.130 | 1.455740 | 1.455870 | 1.456000 | 1.456129 | 1.456258 | 1.456388 | 1.456517 | 1.456647 | 1.456776 | 1.456906 |
| 0.140 | 1.457036 | 1.457165 | 1.457295 | 1.457424 | 1.457554 | 1.457684 | 1.457813 | 1.457943 | 1.458073 | 1.458202 |
| 0.150 | 1.458332 | 1.458461 | 1.458591 | 1.458721 | 1.458850 | 1.458980 | 1.459110 | 1.459239 | 1.459369 | 1.459499 |
| 0.160 | 1.459628 | 1.459758 | 1.459888 | 1.460018 | 1.460147 | 1.460277 | 1.460407 | 1.460536 | 1.460666 | 1.460796 |
| 0.170 | 1.460926 | 1.461056 | 1.461185 | 1.461315 | 1.461445 | 1.461575 | 1.461704 | 1.461834 | 1.461964 | 1.462094 |
| 0.180 | 1.462224 | 1.462354 | 1.462483 | 1.462613 | 1.462743 | 1.462873 | 1.463003 | 1.463133 | 1.463262 | 1.463392 |
| 0.190 | 1.463522 | 1.463652 | 1.463782 | 1.463912 | 1.464042 | 1.464172 | 1.464302 | 1.464432 | 1.464562 | 1.464691 |
| 0.200 | 1.464821 | 1.464951 | 1.465081 | 1.465211 | 1.465341 | 1.465471 | 1.465601 | 1.465731 | 1.465861 | 1.465991 |
| 0.210 | 1.466251 | 1.466381 | 1.466511 | 1.466641 | 1.466771 | 1.466901 | 1.467031 | 1.467161 | 1.467291 | 1.467421 |
| 0.220 | 1.467422 | 1.467552 | 1.467682 | 1.467812 | 1.467942 | 1.468072 | 1.468202 | 1.468332 | 1.468462 | 1.468592 |
| 0.230 | 1.468723 | 1.468853 | 1.468983 | 1.469113 | 1.469243 | 1.469373 | 1.469504 | 1.469634 | 1.469764 | 1.469894 |
| 0.240 | 1.470024 | 1.470155 | 1.470285 | 1.470415 | 1.470545 | 1.470675 | 1.470806 | 1.470936 | 1.471066 | 1.471196 |
| 0.250 | 1.471327 | 1.471457 | 1.471587 | 1.471718 | 1.471848 | 1.471978 | 1.472108 | 1.472239 | 1.472369 | 1.472499 |
| 0.260 | 1.472630 | 1.472760 | 1.472890 | 1.473021 | 1.473151 | 1.473281 | 1.473412 | 1.473542 | 1.473672 | 1.473803 |
| 0.270 | 1.473933 | 1.474064 | 1.474194 | 1.474324 | 1.474455 | 1.474585 | 1.474716 | 1.474846 | 1.474977 | 1.475107 |
| 0.280 | 1.475237 | 1.475368 | 1.475498 | 1.475629 | 1.475759 | 1.475890 | 1.476020 | 1.476151 | 1.476281 | 1.476412 |
| 0.290 | 1.476542 | 1.476673 | 1.476803 | 1.476934 | 1.477064 | 1.477195 | 1.477325 | 1.477456 | 1.477587 | 1.477717 |
| 0.300 | 1.477848 | 1.477978 | 1.478109 | 1.478239 | 1.478370 | 1.478501 | 1.478631 | 1.478762 | 1.478893 | 1.479023 |
| 0.310 | 1.479154 | 1.479284 | 1.479415 | 1.479546 | 1.479676 | 1.479807 | 1.479938 | 1.480068 | 1.480199 | 1.480330 |
| 0.320 | 1.480460 | 1.480591 | 1.480722 | 1.480853 | 1.480983 | 1.481114 | 1.481245 | 1.481376 | 1.481506 | 1.481637 |
| 0.330 | 1.481768 | 1.481899 | 1.482029 | 1.482160 | 1.482291 | 1.482422 | 1.482553 | 1.482683 | 1.482814 | 1.482945 |
| 0.340 | 1.483076 | 1.483207 | 1.483337 | 1.483468 | 1.483599 | 1.483730 | 1.483861 | 1.483992 | 1.484123 | 1.484253 |
| 0.350 | 1.484384 | 1.484515 | 1.484646 | 1.484777 | 1.484908 | 1.485039 | 1.485170 | 1.485301 | 1.485432 | 1.485563 |
| 0.360 | 1.485694 | 1.485825 | 1.485955 | 1.486086 | 1.486217 | 1.486348 | 1.486479 | 1.486610 | 1.486741 | 1.486872 |
| 0.370 | 1.487003 | 1.487134 | 1.487265 | 1.487396 | 1.487528 | 1.487659 | 1.487790 | 1.487921 | 1.488052 | 1.488183 |
| 0.380 | 1.488314 | 1.488445 | 1.488576 | 1.488707 | 1.488838 | 1.488969 | 1.489100 | 1.489232 | 1.489363 | 1.489494 |
| 0.390 | 1.489625 | 1.489756 | 1.489887 | 1.490018 | 1.490150 | 1.490281 | 1.490412 | 1.490543 | 1.490674 | 1.490806 |
| 0.400 | 1.490937 | 1.491068 | 1.491199 | 1.491330 | 1.491462 | 1.491593 | 1.491724 | 1.491855 | 1.491987 | 1.492118 |
| 0.410 | 1.492249 | 1.492380 | 1.492512 | 1.492643 | 1.492774 | 1.492905 | 1.493037 | 1.493168 | 1.493299 | 1.493431 |
| 0.420 | 1.493562 | 1.493693 | 1.493825 | 1.493956 | 1.494087 | 1.494219 | 1.494350 | 1.494482 | 1.494613 | 1.494744 |
| 0.430 | 1.494876 | 1.495007 | 1.495138 | 1.495270 | 1.495401 | 1.495533 | 1.495664 | 1.495796 | 1.495927 | 1.496058 |
| 0.440 | 1.496190 | 1.496321 | 1.496453 | 1.496584 | 1.496716 | 1.496848 | 1.496979 | 1.497110 | 1.497242 | 1.497373 |
| 0.450 | 1.497505 | 1.497636 | 1.497768 | 1.497899 | 1.498031 | 1.498162 | 1.498294 | 1.498426 | 1.498557 | 1.498689 |
| 0.460 | 1.498820 | 1.498952 | 1.499083 | 1.499215 | 1.499347 | 1.499478 | 1.499610 | 1.499741 | 1.499873 | 1.500005 |
| 0.470 | 1.500136 | 1.500268 | 1.500400 | 1.500531 | 1.500663 | 1.500795 | 1.500926 | 1.501058 | 1.501190 | 1.501321 |
| 0.480 | 1.501453 | 1.501585 | 1.501717 | 1.501848 | 1.501980 | 1.502112 | 1.502244 | 1.502375 | 1.502507 | 1.502639 |
| 0.490 | 1.502771 | 1.502903 | 1.503034 | 1.503166 | 1.503298 | 1.503429 | 1.503561 | 1.503693 | 1.503825 | 1.503957 |

ATTENUATION IN DECIBELS
THETA FROM 23.500 TO 23.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.504089 | 1.504220 | 1.504352 | 1.504484 | 1.504616 | 1.504748 | 1.504880 | 1.505012 | 1.505143 | 1.505275 |
| 0.510 | 1.505407 | 1.505539 | 1.505671 | 1.505803 | 1.505935 | 1.506067 | 1.506199 | 1.506331 | 1.506463 | 1.506595 |
| 0.520 | 1.506726 | 1.506858 | 1.506990 | 1.507122 | 1.507254 | 1.507386 | 1.507518 | 1.507650 | 1.507782 | 1.507914 |
| 0.530 | 1.508046 | 1.508178 | 1.508310 | 1.508442 | 1.508574 | 1.508706 | 1.508838 | 1.508970 | 1.509102 | 1.509235 |
| 0.540 | 1.509367 | 1.509499 | 1.509631 | 1.509763 | 1.509895 | 1.510027 | 1.510160 | 1.510292 | 1.510424 | 1.510556 |
| 0.550 | 1.510688 | 1.510820 | 1.510952 | 1.511085 | 1.511217 | 1.511349 | 1.511481 | 1.511613 | 1.511745 | 1.511878 |
| 0.560 | 1.512010 | 1.512142 | 1.512274 | 1.512406 | 1.512538 | 1.512671 | 1.512803 | 1.512935 | 1.513068 | 1.513200 |
| 0.570 | 1.513332 | 1.513465 | 1.513597 | 1.513729 | 1.513861 | 1.513994 | 1.514126 | 1.514258 | 1.514391 | 1.514523 |
| 0.580 | 1.514655 | 1.514788 | 1.514920 | 1.515052 | 1.515185 | 1.515317 | 1.515449 | 1.515582 | 1.515714 | 1.515847 |
| 0.590 | 1.515979 | 1.516111 | 1.516244 | 1.516376 | 1.516509 | 1.516641 | 1.516774 | 1.516906 | 1.517038 | 1.517171 |
| 0.600 | 1.517303 | 1.517436 | 1.517568 | 1.517701 | 1.517833 | 1.517966 | 1.518098 | 1.518231 | 1.518363 | 1.518496 |
| 0.610 | 1.518628 | 1.518761 | 1.518893 | 1.519026 | 1.519158 | 1.519291 | 1.519424 | 1.519556 | 1.519689 | 1.519821 |
| 0.620 | 1.519954 | 1.520086 | 1.520219 | 1.520352 | 1.520484 | 1.520617 | 1.520749 | 1.520882 | 1.521015 | 1.521147 |
| 0.630 | 1.521280 | 1.521413 | 1.521545 | 1.521678 | 1.521811 | 1.521943 | 1.522076 | 1.522209 | 1.522341 | 1.522474 |
| 0.640 | 1.522607 | 1.522740 | 1.522872 | 1.523005 | 1.523138 | 1.523271 | 1.523403 | 1.523536 | 1.523669 | 1.523802 |
| 0.650 | 1.523934 | 1.524067 | 1.524200 | 1.524333 | 1.524465 | 1.524598 | 1.524731 | 1.524864 | 1.524997 | 1.525130 |
| 0.660 | 1.525262 | 1.525395 | 1.525528 | 1.525661 | 1.525794 | 1.525927 | 1.526060 | 1.526192 | 1.526325 | 1.526458 |
| 0.670 | 1.526591 | 1.526724 | 1.526857 | 1.526990 | 1.527123 | 1.527256 | 1.527389 | 1.527522 | 1.527655 | 1.527788 |
| 0.680 | 1.527920 | 1.528053 | 1.528186 | 1.528319 | 1.528452 | 1.528585 | 1.528718 | 1.528851 | 1.528984 | 1.529117 |
| 0.690 | 1.529250 | 1.529383 | 1.529517 | 1.529650 | 1.529783 | 1.529916 | 1.530049 | 1.530182 | 1.530315 | 1.530448 |
| 0.700 | 1.530581 | 1.530714 | 1.530847 | 1.530980 | 1.531114 | 1.531247 | 1.531380 | 1.531513 | 1.531646 | 1.531779 |
| 0.710 | 1.532045 | 1.532178 | 1.532312 | 1.532445 | 1.532578 | 1.532711 | 1.532845 | 1.532978 | 1.533111 | 1.533244 |
| 0.720 | 1.533377 | 1.533511 | 1.533644 | 1.533777 | 1.533910 | 1.534044 | 1.534177 | 1.534310 | 1.534443 | 1.534577 |
| 0.730 | 1.534577 | 1.534710 | 1.534843 | 1.534977 | 1.535110 | 1.535243 | 1.535377 | 1.535510 | 1.535643 | 1.535777 |
| 0.740 | 1.535910 | 1.536043 | 1.536177 | 1.536310 | 1.536443 | 1.536577 | 1.536710 | 1.536843 | 1.536977 | 1.537110 |
| 0.750 | 1.537244 | 1.537377 | 1.537510 | 1.537644 | 1.537777 | 1.537911 | 1.538044 | 1.538178 | 1.538311 | 1.538444 |
| 0.760 | 1.538578 | 1.538712 | 1.538845 | 1.538978 | 1.539112 | 1.539245 | 1.539379 | 1.539513 | 1.539646 | 1.539780 |
| 0.770 | 1.539913 | 1.540047 | 1.540180 | 1.540314 | 1.540447 | 1.540581 | 1.540714 | 1.540848 | 1.540982 | 1.541115 |
| 0.780 | 1.541249 | 1.541382 | 1.541516 | 1.541650 | 1.541783 | 1.541917 | 1.542050 | 1.542184 | 1.542318 | 1.542451 |
| 0.790 | 1.542585 | 1.542719 | 1.542852 | 1.542986 | 1.543120 | 1.543253 | 1.543387 | 1.543521 | 1.543655 | 1.543788 |
| 0.800 | 1.543922 | 1.544056 | 1.544189 | 1.544323 | 1.544457 | 1.544591 | 1.544724 | 1.544858 | 1.544992 | 1.545126 |
| 0.810 | 1.545260 | 1.545393 | 1.545527 | 1.545661 | 1.545795 | 1.545929 | 1.546062 | 1.546196 | 1.546330 | 1.546464 |
| 0.820 | 1.546598 | 1.546732 | 1.546865 | 1.546999 | 1.547133 | 1.547267 | 1.547401 | 1.547535 | 1.547669 | 1.547803 |
| 0.830 | 1.547937 | 1.548070 | 1.548204 | 1.548338 | 1.548472 | 1.548606 | 1.548740 | 1.548874 | 1.549008 | 1.549142 |
| 0.840 | 1.549276 | 1.549410 | 1.549544 | 1.549678 | 1.549812 | 1.549946 | 1.550080 | 1.550214 | 1.550348 | 1.550482 |
| 0.850 | 1.550616 | 1.550750 | 1.550884 | 1.551018 | 1.551152 | 1.551286 | 1.551420 | 1.551555 | 1.551689 | 1.551823 |
| 0.860 | 1.551957 | 1.552091 | 1.552225 | 1.552359 | 1.552493 | 1.552627 | 1.552761 | 1.552895 | 1.553030 | 1.553164 |
| 0.870 | 1.553298 | 1.553432 | 1.553567 | 1.553701 | 1.553835 | 1.553969 | 1.554103 | 1.554238 | 1.554372 | 1.554506 |
| 0.880 | 1.554640 | 1.554774 | 1.554909 | 1.555043 | 1.555177 | 1.555311 | 1.555446 | 1.555580 | 1.555714 | 1.555849 |
| 0.890 | 1.555983 | 1.556117 | 1.556251 | 1.556386 | 1.556520 | 1.556654 | 1.556789 | 1.556923 | 1.557057 | 1.557192 |
| 0.900 | 1.557326 | 1.557460 | 1.557595 | 1.557729 | 1.557864 | 1.557998 | 1.558132 | 1.558267 | 1.558401 | 1.558536 |
| 0.910 | 1.558670 | 1.558804 | 1.558939 | 1.559073 | 1.559208 | 1.559342 | 1.559477 | 1.559611 | 1.559746 | 1.559880 |
| 0.920 | 1.560014 | 1.560149 | 1.560283 | 1.560418 | 1.560552 | 1.560687 | 1.560822 | 1.560956 | 1.561091 | 1.561225 |
| 0.930 | 1.561360 | 1.561494 | 1.561629 | 1.561763 | 1.561898 | 1.562032 | 1.562167 | 1.562302 | 1.562436 | 1.562571 |
| 0.940 | 1.562705 | 1.562840 | 1.562975 | 1.563109 | 1.563244 | 1.563379 | 1.563513 | 1.563648 | 1.563783 | 1.563917 |
| 0.950 | 1.564052 | 1.564187 | 1.564321 | 1.564456 | 1.564591 | 1.564725 | 1.564860 | 1.564995 | 1.565129 | 1.565264 |
| 0.960 | 1.565399 | 1.565534 | 1.565668 | 1.565803 | 1.565938 | 1.566073 | 1.566207 | 1.566342 | 1.566477 | 1.566612 |
| 0.970 | 1.566747 | 1.566881 | 1.567016 | 1.567151 | 1.567286 | 1.567421 | 1.567556 | 1.567690 | 1.567825 | 1.567960 |
| 0.980 | 1.568095 | 1.568230 | 1.568365 | 1.568500 | 1.568634 | 1.568769 | 1.568904 | 1.569039 | 1.569174 | 1.569309 |
| 0.990 | 1.569444 | 1.569579 | 1.569714 | 1.569849 | 1.569984 | 1.570119 | 1.570254 | 1.570389 | 1.570524 | 1.570659 |

ATTENUATION IN DECIBELS
THETA FROM 24.000 TO 24.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.570793 | 1.570928 | 1.571063 | 1.571198 | 1.571334 | 1.571469 | 1.571604 | 1.571739 | 1.571874 | 1.572009 |
| 0.010 | 1.572144 | 1.572279 | 1.572414 | 1.572549 | 1.572684 | 1.572819 | 1.572954 | 1.573089 | 1.573224 | 1.573359 |
| 0.020 | 1.573495 | 1.573630 | 1.573765 | 1.573900 | 1.574035 | 1.574170 | 1.574305 | 1.574441 | 1.574576 | 1.574711 |
| 0.030 | 1.574866 | 1.574981 | 1.575116 | 1.575252 | 1.575387 | 1.575522 | 1.575657 | 1.575793 | 1.575928 | 1.576063 |
| 0.040 | 1.576198 | 1.576333 | 1.576469 | 1.576604 | 1.576739 | 1.576875 | 1.577010 | 1.577145 | 1.577280 | 1.577416 |
| 0.050 | 1.577551 | 1.577686 | 1.577822 | 1.577957 | 1.578092 | 1.578228 | 1.578363 | 1.578498 | 1.578634 | 1.578769 |
| 0.060 | 1.578904 | 1.579040 | 1.579175 | 1.579311 | 1.579446 | 1.579581 | 1.579717 | 1.579852 | 1.579988 | 1.580123 |
| 0.070 | 1.580258 | 1.580394 | 1.580529 | 1.580665 | 1.580800 | 1.580936 | 1.581071 | 1.581207 | 1.581342 | 1.581478 |
| 0.080 | 1.581613 | 1.581749 | 1.581884 | 1.582020 | 1.582155 | 1.582291 | 1.582426 | 1.582562 | 1.582697 | 1.582833 |
| 0.090 | 1.582968 | 1.583104 | 1.583240 | 1.583375 | 1.583511 | 1.583646 | 1.583782 | 1.583917 | 1.584053 | 1.584189 |
| 0.100 | 1.584460 | 1.584596 | 1.584731 | 1.584867 | 1.585003 | 1.585138 | 1.585274 | 1.585410 | 1.585545 | 1.585681 |
| 0.110 | 1.585817 | 1.585952 | 1.586088 | 1.586224 | 1.586359 | 1.586495 | 1.586631 | 1.586767 | 1.586902 | 1.587037 |
| 0.120 | 1.587038 | 1.587174 | 1.587310 | 1.587445 | 1.587581 | 1.587717 | 1.587853 | 1.587989 | 1.588124 | 1.588260 |
| 0.130 | 1.588396 | 1.588532 | 1.588668 | 1.588803 | 1.588939 | 1.589075 | 1.589211 | 1.589347 | 1.589483 | 1.589619 |
| 0.140 | 1.589754 | 1.589890 | 1.590026 | 1.590162 | 1.590298 | 1.590434 | 1.590570 | 1.590706 | 1.590842 | 1.590978 |
| 0.150 | 1.591114 | 1.591249 | 1.591385 | 1.591521 | 1.591657 | 1.591793 | 1.591929 | 1.592065 | 1.592201 | 1.592337 |
| 0.160 | 1.592473 | 1.592609 | 1.592745 | 1.592881 | 1.593017 | 1.593153 | 1.593289 | 1.593425 | 1.593562 | 1.593698 |
| 0.170 | 1.593834 | 1.593970 | 1.594106 | 1.594242 | 1.594378 | 1.594514 | 1.594650 | 1.594786 | 1.594922 | 1.595059 |
| 0.180 | 1.595195 | 1.595331 | 1.595467 | 1.595603 | 1.595739 | 1.595875 | 1.596012 | 1.596148 | 1.596284 | 1.596420 |
| 0.190 | 1.596693 | 1.596829 | 1.596965 | 1.597101 | 1.597237 | 1.597374 | 1.597510 | 1.597646 | 1.597782 | 1.597918 |
| 0.200 | 1.598327 | 1.598464 | 1.598600 | 1.598736 | 1.598873 | 1.599009 | 1.599145 | 1.599281 | 1.599417 | 1.599554 |
| 0.210 | 1.599827 | 1.600191 | 1.600555 | 1.600919 | 1.601283 | 1.601647 | 1.602011 | 1.602375 | 1.602739 | 1.603103 |
| 0.220 | 1.603467 | 1.603831 | 1.604195 | 1.604559 | 1.604923 | 1.605287 | 1.605651 | 1.606015 | 1.606379 | 1.606743 |
| 0.230 | 1.607107 | 1.607471 | 1.607835 | 1.608199 | 1.608563 | 1.608927 | 1.609291 | 1.609655 | 1.610019 | 1.610383 |
| 0.240 | 1.610747 | 1.611111 | 1.611475 | 1.611839 | 1.612203 | 1.612567 | 1.612931 | 1.613295 | 1.613659 | 1.614023 |
| 0.250 | 1.614387 | 1.614751 | 1.615115 | 1.615479 | 1.615843 | 1.616207 | 1.616571 | 1.616935 | 1.617299 | 1.617663 |
| 0.260 | 1.618003 | 1.618367 | 1.618731 | 1.619095 | 1.619459 | 1.619823 | 1.620187 | 1.620551 | 1.620915 | 1.621279 |
| 0.270 | 1.621643 | 1.622007 | 1.622371 | 1.622735 | 1.623099 | 1.623463 | 1.623827 | 1.624191 | 1.624555 | 1.624919 |
| 0.280 | 1.625283 | 1.625647 | 1.626011 | 1.626375 | 1.626739 | 1.627103 | 1.627467 | 1.627831 | 1.628195 | 1.628559 |
| 0.290 | 1.628923 | 1.629287 | 1.629651 | 1.630015 | 1.630379 | 1.630743 | 1.631107 | 1.631471 | 1.631835 | 1.632199 |
| 0.300 | 1.632559 | 1.632923 | 1.633287 | 1.633651 | 1.634015 | 1.634379 | 1.634743 | 1.635107 | 1.635471 | 1.635835 |
| 0.310 | 1.636199 | 1.636563 | 1.636927 | 1.637291 | 1.637655 | 1.638019 | 1.638383 | 1.638747 | 1.639111 | 1.639475 |
| 0.320 | 1.639821 | 1.640185 | 1.640549 | 1.640913 | 1.641277 | 1.641641 | 1.642005 | 1.642369 | 1.642733 | 1.643097 |
| 0.330 | 1.643461 | 1.643825 | 1.644189 | 1.644553 | 1.644917 | 1.645281 | 1.645645 | 1.646009 | 1.646373 | 1.646737 |
| 0.340 | 1.647097 | 1.647461 | 1.647825 | 1.648189 | 1.648553 | 1.648917 | 1.649281 | 1.649645 | 1.650009 | 1.650373 |
| 0.350 | 1.650733 | 1.651097 | 1.651461 | 1.651825 | 1.652189 | 1.652553 | 1.652917 | 1.653281 | 1.653645 | 1.654009 |
| 0.360 | 1.654345 | 1.654709 | 1.655073 | 1.655437 | 1.655801 | 1.656165 | 1.656529 | 1.656893 | 1.657257 | 1.657621 |
| 0.370 | 1.657953 | 1.658317 | 1.658681 | 1.659045 | 1.659409 | 1.659773 | 1.660137 | 1.660501 | 1.660865 | 1.661229 |
| 0.380 | 1.661593 | 1.661957 | 1.662321 | 1.662685 | 1.663049 | 1.663413 | 1.663777 | 1.664141 | 1.664505 | 1.664869 |
| 0.390 | 1.665233 | 1.665597 | 1.665961 | 1.666325 | 1.666689 | 1.667053 | 1.667417 | 1.667781 | 1.668145 | 1.668509 |
| 0.400 | 1.668853 | 1.669217 | 1.669581 | 1.669945 | 1.670309 | 1.670673 | 1.671037 | 1.671401 | 1.671765 | 1.672129 |
| 0.410 | 1.672489 | 1.672853 | 1.673217 | 1.673581 | 1.673945 | 1.674309 | 1.674673 | 1.675037 | 1.675401 | 1.675765 |
| 0.420 | 1.676129 | 1.676493 | 1.676857 | 1.677221 | 1.677585 | 1.677949 | 1.678313 | 1.678677 | 1.679041 | 1.679405 |
| 0.430 | 1.679769 | 1.680133 | 1.680497 | 1.680861 | 1.681225 | 1.681589 | 1.681953 | 1.682317 | 1.682681 | 1.683045 |
| 0.440 | 1.683409 | 1.683773 | 1.684137 | 1.684501 | 1.684865 | 1.685229 | 1.685593 | 1.685957 | 1.686321 | 1.686685 |
| 0.450 | 1.687045 | 1.687409 | 1.687773 | 1.688137 | 1.688501 | 1.688865 | 1.689229 | 1.689593 | 1.689957 | 1.690321 |
| 0.460 | 1.690681 | 1.691045 | 1.691409 | 1.691773 | 1.692137 | 1.692501 | 1.692865 | 1.693229 | 1.693593 | 1.693957 |
| 0.470 | 1.694313 | 1.694677 | 1.695041 | 1.695405 | 1.695769 | 1.696133 | 1.696497 | 1.696861 | 1.697225 | 1.697589 |
| 0.480 | 1.697925 | 1.698289 | 1.698653 | 1.699017 | 1.699381 | 1.699745 | 1.700109 | 1.700473 | 1.700837 | 1.701201 |
| 0.490 | 1.701565 | 1.701929 | 1.702293 | 1.702657 | 1.703021 | 1.703385 | 1.703749 | 1.704113 | 1.704477 | 1.704841 |

ATTENUATION IN DECIBELS
THETA FROM 24.500 TO 24.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.639084 | 1.639222 | 1.639360 | 1.639498 | 1.639636 | 1.639775 | 1.639913 | 1.640051 | 1.640189 | 1.640327 |
| 0.510 | 1.640466 | 1.640604 | 1.640742 | 1.640880 | 1.641019 | 1.641157 | 1.641295 | 1.641434 | 1.641572 | 1.641710 |
| 0.520 | 1.641848 | 1.641987 | 1.642125 | 1.642263 | 1.642402 | 1.642540 | 1.642678 | 1.642817 | 1.642955 | 1.643093 |
| 0.530 | 1.643232 | 1.643370 | 1.643508 | 1.643647 | 1.643785 | 1.643924 | 1.644062 | 1.644200 | 1.644339 | 1.644477 |
| 0.540 | 1.644616 | 1.644754 | 1.644893 | 1.645031 | 1.645169 | 1.645308 | 1.645446 | 1.645585 | 1.645723 | 1.645862 |
| 0.550 | 1.646000 | 1.646139 | 1.646277 | 1.646416 | 1.646554 | 1.646693 | 1.646831 | 1.646970 | 1.647108 | 1.647247 |
| 0.560 | 1.647386 | 1.647524 | 1.647663 | 1.647801 | 1.647940 | 1.648078 | 1.648216 | 1.648355 | 1.648494 | 1.648633 |
| 0.570 | 1.648771 | 1.648910 | 1.649049 | 1.649187 | 1.649326 | 1.649465 | 1.649603 | 1.649742 | 1.649881 | 1.650019 |
| 0.580 | 1.650158 | 1.650297 | 1.650435 | 1.650574 | 1.650713 | 1.650852 | 1.650990 | 1.651129 | 1.651268 | 1.651406 |
| 0.590 | 1.651545 | 1.651684 | 1.651823 | 1.651961 | 1.652100 | 1.652239 | 1.652378 | 1.652517 | 1.652655 | 1.652794 |
| 0.600 | 1.652933 | 1.653072 | 1.653211 | 1.653349 | 1.653488 | 1.653627 | 1.653766 | 1.653905 | 1.654044 | 1.654183 |
| 0.610 | 1.654321 | 1.654460 | 1.654599 | 1.654738 | 1.654877 | 1.655016 | 1.655155 | 1.655294 | 1.655433 | 1.655572 |
| 0.620 | 1.655711 | 1.655849 | 1.655988 | 1.656127 | 1.656266 | 1.656405 | 1.656544 | 1.656683 | 1.656822 | 1.656961 |
| 0.630 | 1.657100 | 1.657239 | 1.657378 | 1.657517 | 1.657656 | 1.657795 | 1.657934 | 1.658073 | 1.658213 | 1.658352 |
| 0.640 | 1.658491 | 1.658630 | 1.658769 | 1.658908 | 1.659047 | 1.659186 | 1.659325 | 1.659464 | 1.659603 | 1.659743 |
| 0.650 | 1.659882 | 1.660021 | 1.660160 | 1.660299 | 1.660438 | 1.660577 | 1.660717 | 1.660856 | 1.660995 | 1.661134 |
| 0.660 | 1.661273 | 1.661413 | 1.661552 | 1.661691 | 1.661830 | 1.661969 | 1.662109 | 1.662248 | 1.662387 | 1.662526 |
| 0.670 | 1.662666 | 1.662805 | 1.662944 | 1.663083 | 1.663223 | 1.663362 | 1.663501 | 1.663641 | 1.663780 | 1.663919 |
| 0.680 | 1.664059 | 1.664198 | 1.664337 | 1.664477 | 1.664616 | 1.664755 | 1.664895 | 1.665034 | 1.665173 | 1.665313 |
| 0.690 | 1.665452 | 1.665592 | 1.665731 | 1.665870 | 1.666010 | 1.666149 | 1.666289 | 1.666428 | 1.666567 | 1.666707 |
| 0.700 | 1.666846 | 1.666986 | 1.667125 | 1.667265 | 1.667404 | 1.667544 | 1.667683 | 1.667823 | 1.667962 | 1.668102 |
| 0.710 | 1.668241 | 1.668381 | 1.668520 | 1.668660 | 1.668799 | 1.668939 | 1.669078 | 1.669218 | 1.669358 | 1.669497 |
| 0.720 | 1.669637 | 1.669776 | 1.669916 | 1.670055 | 1.670195 | 1.670335 | 1.670474 | 1.670614 | 1.670754 | 1.670893 |
| 0.730 | 1.671033 | 1.671173 | 1.671312 | 1.671452 | 1.671592 | 1.671731 | 1.671871 | 1.672011 | 1.672150 | 1.672290 |
| 0.740 | 1.672430 | 1.672569 | 1.672709 | 1.672849 | 1.672989 | 1.673128 | 1.673268 | 1.673408 | 1.673548 | 1.673687 |
| 0.750 | 1.673827 | 1.673967 | 1.674107 | 1.674246 | 1.674386 | 1.674526 | 1.674666 | 1.674806 | 1.674945 | 1.675085 |
| 0.760 | 1.675225 | 1.675365 | 1.675505 | 1.675645 | 1.675785 | 1.675924 | 1.676064 | 1.676204 | 1.676344 | 1.676484 |
| 0.770 | 1.676624 | 1.676764 | 1.676904 | 1.677044 | 1.677184 | 1.677323 | 1.677463 | 1.677603 | 1.677743 | 1.677883 |
| 0.780 | 1.678023 | 1.678163 | 1.678303 | 1.678443 | 1.678583 | 1.678723 | 1.678863 | 1.679003 | 1.679143 | 1.679283 |
| 0.790 | 1.679423 | 1.679563 | 1.679703 | 1.679843 | 1.679983 | 1.680123 | 1.680264 | 1.680404 | 1.680544 | 1.680684 |
| 0.800 | 1.680824 | 1.680964 | 1.681104 | 1.681244 | 1.681384 | 1.681524 | 1.681665 | 1.681805 | 1.681945 | 1.682085 |
| 0.810 | 1.682225 | 1.682365 | 1.682505 | 1.682646 | 1.682786 | 1.682926 | 1.683066 | 1.683206 | 1.683347 | 1.683487 |
| 0.820 | 1.683627 | 1.683767 | 1.683907 | 1.684048 | 1.684188 | 1.684328 | 1.684468 | 1.684609 | 1.684749 | 1.684889 |
| 0.830 | 1.685030 | 1.685170 | 1.685310 | 1.685450 | 1.685591 | 1.685731 | 1.685871 | 1.686012 | 1.686152 | 1.686292 |
| 0.840 | 1.686433 | 1.686573 | 1.686714 | 1.686854 | 1.686994 | 1.687135 | 1.687275 | 1.687415 | 1.687556 | 1.687696 |
| 0.850 | 1.687837 | 1.687977 | 1.688117 | 1.688258 | 1.688393 | 1.688539 | 1.688679 | 1.688820 | 1.688960 | 1.689101 |
| 0.860 | 1.689241 | 1.689382 | 1.689522 | 1.689663 | 1.689803 | 1.689944 | 1.690084 | 1.690225 | 1.690365 | 1.690506 |
| 0.870 | 1.690646 | 1.690787 | 1.690927 | 1.691068 | 1.691208 | 1.691349 | 1.691490 | 1.691630 | 1.691771 | 1.691911 |
| 0.880 | 1.692052 | 1.692193 | 1.692333 | 1.692474 | 1.692615 | 1.692755 | 1.692896 | 1.693036 | 1.693177 | 1.693318 |
| 0.890 | 1.693458 | 1.693599 | 1.693740 | 1.693881 | 1.694021 | 1.694162 | 1.694303 | 1.694444 | 1.694584 | 1.694725 |
| 0.900 | 1.694866 | 1.695006 | 1.695147 | 1.695288 | 1.695429 | 1.695569 | 1.695710 | 1.695851 | 1.695992 | 1.696132 |
| 0.910 | 1.696273 | 1.696414 | 1.696555 | 1.696696 | 1.696836 | 1.696977 | 1.697118 | 1.697259 | 1.697400 | 1.697541 |
| 0.920 | 1.697682 | 1.697822 | 1.697963 | 1.698104 | 1.698245 | 1.698386 | 1.698527 | 1.698668 | 1.698809 | 1.698950 |
| 0.930 | 1.699091 | 1.699232 | 1.699372 | 1.699513 | 1.699654 | 1.699795 | 1.699936 | 1.700077 | 1.700218 | 1.700359 |
| 0.940 | 1.700500 | 1.700641 | 1.700782 | 1.700923 | 1.701064 | 1.701205 | 1.701346 | 1.701487 | 1.701628 | 1.701769 |
| 0.950 | 1.701910 | 1.702052 | 1.702193 | 1.702334 | 1.702475 | 1.702616 | 1.702757 | 1.702898 | 1.703039 | 1.703180 |
| 0.960 | 1.703321 | 1.703463 | 1.703604 | 1.703745 | 1.703886 | 1.704027 | 1.704168 | 1.704309 | 1.704451 | 1.704592 |
| 0.970 | 1.704733 | 1.704874 | 1.705015 | 1.705157 | 1.705298 | 1.705439 | 1.705580 | 1.705721 | 1.705863 | 1.706004 |
| 0.980 | 1.706145 | 1.706286 | 1.706428 | 1.706569 | 1.706710 | 1.706852 | 1.706993 | 1.707134 | 1.707275 | 1.707417 |
| 0.990 | 1.707558 | 1.707699 | 1.707841 | 1.707982 | 1.708123 | 1.708265 | 1.708406 | 1.708547 | 1.708689 | 1.708830 |

ATTENUATION IN DECIBELS
THETA FROM 25.000 TO 25.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.708972 | 1.709113 | 1.709254 | 1.709396 | 1.709537 | 1.709679 | 1.709820 | 1.709961 | 1.710103 | 1.710244 |
| 0.010 | 1.710386 | 1.710527 | 1.710669 | 1.710810 | 1.710952 | 1.711093 | 1.711234 | 1.711376 | 1.711517 | 1.711659 |
| 0.020 | 1.711800 | 1.711942 | 1.712084 | 1.712225 | 1.712367 | 1.712508 | 1.712650 | 1.712791 | 1.712933 | 1.713074 |
| 0.030 | 1.713216 | 1.713357 | 1.713499 | 1.713641 | 1.713782 | 1.713924 | 1.714065 | 1.714207 | 1.714349 | 1.714490 |
| 0.040 | 1.714632 | 1.714774 | 1.714915 | 1.715057 | 1.715199 | 1.715340 | 1.715482 | 1.715624 | 1.715765 | 1.715907 |
| 0.050 | 1.716049 | 1.716190 | 1.716332 | 1.716474 | 1.716616 | 1.716757 | 1.716899 | 1.717041 | 1.717183 | 1.717324 |
| 0.060 | 1.717466 | 1.717608 | 1.717750 | 1.717891 | 1.718033 | 1.718175 | 1.718317 | 1.718459 | 1.718600 | 1.718742 |
| 0.070 | 1.718884 | 1.719026 | 1.719168 | 1.719310 | 1.719451 | 1.719593 | 1.719735 | 1.719877 | 1.720019 | 1.720161 |
| 0.080 | 1.720303 | 1.720445 | 1.720587 | 1.720728 | 1.720870 | 1.721012 | 1.721154 | 1.721296 | 1.721438 | 1.721580 |
| 0.090 | 1.721722 | 1.721864 | 1.722006 | 1.722148 | 1.722290 | 1.722432 | 1.722574 | 1.722716 | 1.722858 | 1.723000 |
| 0.100 | 1.723142 | 1.723284 | 1.723426 | 1.723568 | 1.723710 | 1.723852 | 1.723994 | 1.724136 | 1.724278 | 1.724420 |
| 0.110 | 1.724563 | 1.724705 | 1.724847 | 1.724989 | 1.725131 | 1.725273 | 1.725415 | 1.725557 | 1.725699 | 1.725842 |
| 0.120 | 1.725984 | 1.726126 | 1.726268 | 1.726410 | 1.726552 | 1.726695 | 1.726837 | 1.726979 | 1.727121 | 1.727263 |
| 0.130 | 1.727406 | 1.727548 | 1.727690 | 1.727832 | 1.727975 | 1.728117 | 1.728259 | 1.728401 | 1.728544 | 1.728686 |
| 0.140 | 1.728828 | 1.728970 | 1.729113 | 1.729255 | 1.729397 | 1.729540 | 1.729682 | 1.729824 | 1.729967 | 1.730109 |
| 0.150 | 1.730251 | 1.730394 | 1.730536 | 1.730678 | 1.730821 | 1.730963 | 1.731106 | 1.731248 | 1.731390 | 1.731533 |
| 0.160 | 1.731675 | 1.731818 | 1.731960 | 1.732102 | 1.732245 | 1.732387 | 1.732530 | 1.732672 | 1.732815 | 1.732957 |
| 0.170 | 1.733100 | 1.733242 | 1.733385 | 1.733527 | 1.733670 | 1.733812 | 1.733955 | 1.734097 | 1.734240 | 1.734382 |
| 0.180 | 1.734525 | 1.734667 | 1.734810 | 1.734952 | 1.735095 | 1.735238 | 1.735380 | 1.735523 | 1.735665 | 1.735808 |
| 0.190 | 1.735951 | 1.736093 | 1.736236 | 1.736378 | 1.736521 | 1.736664 | 1.736806 | 1.736949 | 1.737092 | 1.737234 |
| 0.200 | 1.737377 | 1.737520 | 1.737662 | 1.737805 | 1.737948 | 1.738090 | 1.738233 | 1.738376 | 1.738519 | 1.738661 |
| 0.210 | 1.738804 | 1.738947 | 1.739089 | 1.739232 | 1.739375 | 1.739518 | 1.739661 | 1.739803 | 1.739946 | 1.740089 |
| 0.220 | 1.740232 | 1.740374 | 1.740517 | 1.740660 | 1.740803 | 1.740946 | 1.741089 | 1.741231 | 1.741374 | 1.741517 |
| 0.230 | 1.741660 | 1.741803 | 1.741946 | 1.742089 | 1.742232 | 1.742374 | 1.742517 | 1.742660 | 1.742803 | 1.742946 |
| 0.240 | 1.743089 | 1.743232 | 1.743375 | 1.743518 | 1.743661 | 1.743804 | 1.743947 | 1.744090 | 1.744233 | 1.744376 |
| 0.250 | 1.744519 | 1.744662 | 1.744805 | 1.744948 | 1.745091 | 1.745234 | 1.745377 | 1.745520 | 1.745663 | 1.745806 |
| 0.260 | 1.745949 | 1.746092 | 1.746235 | 1.746378 | 1.746521 | 1.746664 | 1.746807 | 1.746950 | 1.747094 | 1.747237 |
| 0.270 | 1.747380 | 1.747523 | 1.747666 | 1.747809 | 1.747952 | 1.748096 | 1.748239 | 1.748382 | 1.748525 | 1.748668 |
| 0.280 | 1.748811 | 1.748955 | 1.749098 | 1.749241 | 1.749384 | 1.749527 | 1.749671 | 1.749814 | 1.749957 | 1.750100 |
| 0.290 | 1.750244 | 1.750387 | 1.750530 | 1.750673 | 1.750817 | 1.750960 | 1.751103 | 1.751247 | 1.751390 | 1.751533 |
| 0.300 | 1.751677 | 1.751820 | 1.751963 | 1.752107 | 1.752250 | 1.752393 | 1.752537 | 1.752680 | 1.752823 | 1.752967 |
| 0.310 | 1.753110 | 1.753253 | 1.753397 | 1.753540 | 1.753684 | 1.753827 | 1.753970 | 1.754114 | 1.754257 | 1.754401 |
| 0.320 | 1.754544 | 1.754688 | 1.754831 | 1.754975 | 1.755118 | 1.755262 | 1.755405 | 1.755549 | 1.755692 | 1.755836 |
| 0.330 | 1.755979 | 1.756123 | 1.756266 | 1.756410 | 1.756553 | 1.756697 | 1.756840 | 1.756984 | 1.757127 | 1.757271 |
| 0.340 | 1.757414 | 1.757558 | 1.757702 | 1.757845 | 1.757989 | 1.758132 | 1.758276 | 1.758420 | 1.758563 | 1.758707 |
| 0.350 | 1.758851 | 1.758994 | 1.759138 | 1.759282 | 1.759425 | 1.759569 | 1.759713 | 1.759856 | 1.760000 | 1.760144 |
| 0.360 | 1.760287 | 1.760431 | 1.760575 | 1.760719 | 1.760862 | 1.761006 | 1.761150 | 1.761293 | 1.761437 | 1.761581 |
| 0.370 | 1.761725 | 1.761869 | 1.762012 | 1.762156 | 1.762300 | 1.762444 | 1.762588 | 1.762731 | 1.762875 | 1.763019 |
| 0.380 | 1.763163 | 1.763307 | 1.763451 | 1.763594 | 1.763738 | 1.763882 | 1.764026 | 1.764170 | 1.764314 | 1.764458 |
| 0.390 | 1.764602 | 1.764745 | 1.764889 | 1.765033 | 1.765177 | 1.765321 | 1.765465 | 1.765609 | 1.765753 | 1.765897 |
| 0.400 | 1.766041 | 1.766185 | 1.766329 | 1.766473 | 1.766617 | 1.766761 | 1.766905 | 1.767049 | 1.767193 | 1.767337 |
| 0.410 | 1.767481 | 1.767625 | 1.767769 | 1.767913 | 1.768057 | 1.768201 | 1.768345 | 1.768489 | 1.768633 | 1.768777 |
| 0.420 | 1.768922 | 1.769066 | 1.769210 | 1.769354 | 1.769498 | 1.769642 | 1.769786 | 1.769930 | 1.770075 | 1.770219 |
| 0.430 | 1.770363 | 1.770507 | 1.770651 | 1.770795 | 1.770939 | 1.771084 | 1.771228 | 1.771372 | 1.771516 | 1.771661 |
| 0.440 | 1.771805 | 1.771949 | 1.772093 | 1.772237 | 1.772382 | 1.772526 | 1.772670 | 1.772814 | 1.772959 | 1.773103 |
| 0.450 | 1.773247 | 1.773392 | 1.773536 | 1.773680 | 1.773825 | 1.773969 | 1.774113 | 1.774258 | 1.774402 | 1.774546 |
| 0.460 | 1.774691 | 1.774835 | 1.774979 | 1.775124 | 1.775268 | 1.775412 | 1.775557 | 1.775701 | 1.775846 | 1.775990 |
| 0.470 | 1.776134 | 1.776279 | 1.776423 | 1.776568 | 1.776712 | 1.776857 | 1.777001 | 1.777146 | 1.777290 | 1.777435 |
| 0.480 | 1.777579 | 1.777724 | 1.777868 | 1.778013 | 1.778157 | 1.778302 | 1.778446 | 1.778591 | 1.778735 | 1.778880 |
| 0.490 | 1.779024 | 1.779169 | 1.779313 | 1.779458 | 1.779602 | 1.779747 | 1.779892 | 1.780036 | 1.780181 | 1.780325 |

ATTENUATION IN DECIBELS
THETA FROM 25.500 TO 25.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.780470 | 1.780615 | 1.780759 | 1.780904 | 1.781049 | 1.781193 | 1.781338 | 1.781483 | 1.781627 | 1.781772 |
| 0.510 | 1.781917 | 1.782061 | 1.782206 | 1.782351 | 1.782495 | 1.782640 | 1.782785 | 1.782929 | 1.783074 | 1.783219 |
| 0.520 | 1.783364 | 1.783508 | 1.783653 | 1.783798 | 1.783943 | 1.784087 | 1.784232 | 1.784377 | 1.784522 | 1.784667 |
| 0.530 | 1.784811 | 1.784956 | 1.785101 | 1.785246 | 1.785391 | 1.785536 | 1.785680 | 1.785825 | 1.785970 | 1.786115 |
| 0.540 | 1.786260 | 1.786405 | 1.786550 | 1.786695 | 1.786839 | 1.786984 | 1.787129 | 1.787274 | 1.787419 | 1.787564 |
| 0.550 | 1.787709 | 1.787854 | 1.787999 | 1.788144 | 1.788289 | 1.788434 | 1.788579 | 1.788724 | 1.788869 | 1.789014 |
| 0.560 | 1.789159 | 1.789304 | 1.789449 | 1.789594 | 1.789739 | 1.789884 | 1.790029 | 1.790174 | 1.790319 | 1.790464 |
| 0.570 | 1.790609 | 1.790754 | 1.790899 | 1.791044 | 1.791189 | 1.791335 | 1.791480 | 1.791625 | 1.791770 | 1.791915 |
| 0.580 | 1.792206 | 1.792351 | 1.792496 | 1.792641 | 1.792786 | 1.792931 | 1.793076 | 1.793221 | 1.793367 | 1.793512 |
| 0.590 | 1.793512 | 1.793657 | 1.793802 | 1.793947 | 1.794093 | 1.794238 | 1.794383 | 1.794528 | 1.794674 | 1.794819 |
| 0.600 | 1.794964 | 1.795109 | 1.795255 | 1.795400 | 1.795545 | 1.795691 | 1.795836 | 1.795981 | 1.796127 | 1.796272 |
| 0.610 | 1.796417 | 1.796563 | 1.796708 | 1.796853 | 1.796999 | 1.797144 | 1.797289 | 1.797435 | 1.797580 | 1.797725 |
| 0.620 | 1.797871 | 1.798016 | 1.798162 | 1.798307 | 1.798452 | 1.798598 | 1.798743 | 1.798889 | 1.799034 | 1.799180 |
| 0.630 | 1.799325 | 1.799471 | 1.799616 | 1.799762 | 1.799907 | 1.800053 | 1.800198 | 1.800344 | 1.800489 | 1.800635 |
| 0.640 | 1.800780 | 1.800926 | 1.801071 | 1.801217 | 1.801362 | 1.801508 | 1.801653 | 1.801799 | 1.801944 | 1.802090 |
| 0.650 | 1.802236 | 1.802381 | 1.802527 | 1.802672 | 1.802818 | 1.802964 | 1.803109 | 1.803255 | 1.803401 | 1.803546 |
| 0.660 | 1.803692 | 1.803838 | 1.803983 | 1.804129 | 1.804275 | 1.804420 | 1.804566 | 1.804712 | 1.804857 | 1.805003 |
| 0.670 | 1.805149 | 1.805295 | 1.805440 | 1.805586 | 1.805732 | 1.805877 | 1.806023 | 1.806169 | 1.806315 | 1.806461 |
| 0.680 | 1.806606 | 1.806752 | 1.806898 | 1.807044 | 1.807190 | 1.807335 | 1.807481 | 1.807627 | 1.807773 | 1.807919 |
| 0.690 | 1.808065 | 1.808210 | 1.808356 | 1.808502 | 1.808648 | 1.808794 | 1.808940 | 1.809086 | 1.809232 | 1.809377 |
| 0.700 | 1.809523 | 1.809669 | 1.809815 | 1.809961 | 1.810107 | 1.810253 | 1.810399 | 1.810545 | 1.810691 | 1.810837 |
| 0.710 | 1.810983 | 1.811129 | 1.811275 | 1.811421 | 1.811567 | 1.811713 | 1.811859 | 1.812005 | 1.812151 | 1.812297 |
| 0.720 | 1.812443 | 1.812589 | 1.812735 | 1.812881 | 1.813027 | 1.813173 | 1.813319 | 1.813466 | 1.813612 | 1.813758 |
| 0.730 | 1.813904 | 1.814050 | 1.814196 | 1.814342 | 1.814488 | 1.814635 | 1.814781 | 1.814927 | 1.815073 | 1.815219 |
| 0.740 | 1.815365 | 1.815512 | 1.815658 | 1.815804 | 1.815950 | 1.816096 | 1.816243 | 1.816389 | 1.816535 | 1.816681 |
| 0.750 | 1.816827 | 1.816974 | 1.817120 | 1.817266 | 1.817412 | 1.817559 | 1.817705 | 1.817851 | 1.817998 | 1.818144 |
| 0.760 | 1.818270 | 1.818417 | 1.818563 | 1.818709 | 1.818855 | 1.819002 | 1.819148 | 1.819294 | 1.819441 | 1.819587 |
| 0.770 | 1.819754 | 1.819900 | 1.820046 | 1.820193 | 1.820339 | 1.820486 | 1.820632 | 1.820778 | 1.820925 | 1.821071 |
| 0.780 | 1.821218 | 1.821364 | 1.821511 | 1.821657 | 1.821803 | 1.821950 | 1.822096 | 1.822243 | 1.822389 | 1.822536 |
| 0.790 | 1.822682 | 1.822829 | 1.822975 | 1.823122 | 1.823268 | 1.823415 | 1.823562 | 1.823708 | 1.823855 | 1.824001 |
| 0.800 | 1.824148 | 1.824294 | 1.824441 | 1.824588 | 1.824734 | 1.824881 | 1.825027 | 1.825174 | 1.825321 | 1.825467 |
| 0.810 | 1.825614 | 1.825760 | 1.825907 | 1.826054 | 1.826200 | 1.826347 | 1.826494 | 1.826640 | 1.826787 | 1.826934 |
| 0.820 | 1.827080 | 1.827227 | 1.827374 | 1.827521 | 1.827667 | 1.827814 | 1.827961 | 1.828108 | 1.828254 | 1.828401 |
| 0.830 | 1.828548 | 1.828695 | 1.828841 | 1.828988 | 1.829135 | 1.829282 | 1.829429 | 1.829575 | 1.829722 | 1.829869 |
| 0.840 | 1.830016 | 1.830163 | 1.830309 | 1.830456 | 1.830603 | 1.830750 | 1.830897 | 1.831044 | 1.831191 | 1.831338 |
| 0.850 | 1.831484 | 1.831631 | 1.831778 | 1.831925 | 1.832072 | 1.832219 | 1.832366 | 1.832513 | 1.832660 | 1.832807 |
| 0.860 | 1.832954 | 1.833101 | 1.833248 | 1.833395 | 1.833542 | 1.833689 | 1.833836 | 1.833983 | 1.834130 | 1.834277 |
| 0.870 | 1.834424 | 1.834571 | 1.834718 | 1.834865 | 1.835012 | 1.835159 | 1.835306 | 1.835453 | 1.835600 | 1.835747 |
| 0.880 | 1.835894 | 1.836041 | 1.836188 | 1.836336 | 1.836483 | 1.836630 | 1.836777 | 1.836924 | 1.837071 | 1.837218 |
| 0.890 | 1.837366 | 1.837513 | 1.837660 | 1.837807 | 1.837954 | 1.838101 | 1.838249 | 1.838396 | 1.838543 | 1.838690 |
| 0.900 | 1.838837 | 1.838985 | 1.839132 | 1.839279 | 1.839426 | 1.839574 | 1.839721 | 1.839868 | 1.840015 | 1.840163 |
| 0.910 | 1.840310 | 1.840457 | 1.840605 | 1.840752 | 1.840899 | 1.841047 | 1.841194 | 1.841341 | 1.841489 | 1.841636 |
| 0.920 | 1.841783 | 1.841931 | 1.842078 | 1.842225 | 1.842373 | 1.842520 | 1.842667 | 1.842815 | 1.842962 | 1.843110 |
| 0.930 | 1.843257 | 1.843405 | 1.843552 | 1.843699 | 1.843847 | 1.843994 | 1.844142 | 1.844289 | 1.844437 | 1.844584 |
| 0.940 | 1.844732 | 1.844879 | 1.845027 | 1.845174 | 1.845322 | 1.845469 | 1.845617 | 1.845764 | 1.845912 | 1.846059 |
| 0.950 | 1.846207 | 1.846354 | 1.846502 | 1.846649 | 1.846797 | 1.846944 | 1.847092 | 1.847240 | 1.847387 | 1.847535 |
| 0.960 | 1.847683 | 1.847830 | 1.847978 | 1.848126 | 1.848273 | 1.848421 | 1.848568 | 1.848716 | 1.848864 | 1.849011 |
| 0.970 | 1.849159 | 1.849307 | 1.849454 | 1.849602 | 1.849750 | 1.849898 | 1.850045 | 1.850193 | 1.850341 | 1.850489 |
| 0.980 | 1.850636 | 1.850784 | 1.850932 | 1.851080 | 1.851227 | 1.851375 | 1.851523 | 1.851671 | 1.851819 | 1.851966 |
| 0.990 | 1.852114 | 1.852262 | 1.852410 | 1.852558 | 1.852705 | 1.852853 | 1.853001 | 1.853149 | 1.853297 | 1.853445 |

ATTENUATION IN DECIBELS
 THETA FROM 26.000 TO 26.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 1.853593 | 1.853740 | 1.853888 | 1.854036 | 1.854184 | 1.854332 | 1.854480 | 1.854628 | 1.854776 | 1.854924 |
| 0.010 | 1.855072 | 1.855220 | 1.855368 | 1.855515 | 1.855663 | 1.855811 | 1.855959 | 1.856107 | 1.856255 | 1.856403 |
| 0.020 | 1.856551 | 1.856699 | 1.856847 | 1.856995 | 1.857143 | 1.857291 | 1.857440 | 1.857588 | 1.857736 | 1.857884 |
| 0.030 | 1.858032 | 1.858180 | 1.858328 | 1.858476 | 1.858624 | 1.858772 | 1.858920 | 1.859068 | 1.859217 | 1.859365 |
| 0.040 | 1.859513 | 1.859661 | 1.859809 | 1.859957 | 1.860105 | 1.860254 | 1.860402 | 1.860550 | 1.860698 | 1.860846 |
| 0.050 | 1.860995 | 1.861143 | 1.861291 | 1.861439 | 1.861587 | 1.861736 | 1.861884 | 1.862032 | 1.862180 | 1.862329 |
| 0.060 | 1.862477 | 1.862625 | 1.862774 | 1.862922 | 1.863070 | 1.863218 | 1.863367 | 1.863515 | 1.863663 | 1.863812 |
| 0.070 | 1.863960 | 1.864108 | 1.864257 | 1.864405 | 1.864553 | 1.864702 | 1.864850 | 1.864999 | 1.865147 | 1.865295 |
| 0.080 | 1.865444 | 1.865592 | 1.865741 | 1.865889 | 1.866037 | 1.866186 | 1.866334 | 1.866483 | 1.866631 | 1.866780 |
| 0.090 | 1.866928 | 1.867077 | 1.867225 | 1.867374 | 1.867522 | 1.867670 | 1.867819 | 1.867968 | 1.868116 | 1.868265 |
| 0.100 | 1.868413 | 1.868562 | 1.868710 | 1.868859 | 1.869007 | 1.869156 | 1.869304 | 1.869453 | 1.869602 | 1.869750 |
| 0.110 | 1.869899 | 1.870047 | 1.870196 | 1.870345 | 1.870493 | 1.870642 | 1.870790 | 1.870939 | 1.871088 | 1.871236 |
| 0.120 | 1.871385 | 1.871534 | 1.871682 | 1.871831 | 1.871980 | 1.872128 | 1.872277 | 1.872426 | 1.872575 | 1.872723 |
| 0.130 | 1.872872 | 1.873021 | 1.873170 | 1.873318 | 1.873467 | 1.873616 | 1.873765 | 1.873913 | 1.874062 | 1.874211 |
| 0.140 | 1.874360 | 1.874508 | 1.874657 | 1.874806 | 1.874955 | 1.875104 | 1.875253 | 1.875401 | 1.875550 | 1.875699 |
| 0.150 | 1.875848 | 1.875997 | 1.876146 | 1.876295 | 1.876443 | 1.876592 | 1.876741 | 1.876890 | 1.877039 | 1.877188 |
| 0.160 | 1.877337 | 1.877486 | 1.877635 | 1.877784 | 1.877933 | 1.878082 | 1.878231 | 1.878380 | 1.878529 | 1.878678 |
| 0.170 | 1.878827 | 1.878976 | 1.879125 | 1.879274 | 1.879423 | 1.879572 | 1.879721 | 1.879870 | 1.880019 | 1.880168 |
| 0.180 | 1.880317 | 1.880466 | 1.880615 | 1.880764 | 1.880913 | 1.881062 | 1.881211 | 1.881360 | 1.881509 | 1.881659 |
| 0.190 | 1.881808 | 1.881957 | 1.882106 | 1.882255 | 1.882404 | 1.882553 | 1.882703 | 1.882852 | 1.883001 | 1.883150 |
| 0.200 | 1.883299 | 1.883448 | 1.883598 | 1.883747 | 1.883896 | 1.884045 | 1.884195 | 1.884344 | 1.884493 | 1.884642 |
| 0.210 | 1.884791 | 1.884941 | 1.885090 | 1.885239 | 1.885389 | 1.885538 | 1.885687 | 1.885836 | 1.885986 | 1.886135 |
| 0.220 | 1.886284 | 1.886434 | 1.886583 | 1.886732 | 1.886882 | 1.887031 | 1.887180 | 1.887330 | 1.887479 | 1.887629 |
| 0.230 | 1.887778 | 1.887927 | 1.888077 | 1.888226 | 1.888376 | 1.888525 | 1.888674 | 1.888824 | 1.888973 | 1.889123 |
| 0.240 | 1.889272 | 1.889422 | 1.889571 | 1.889721 | 1.889870 | 1.890019 | 1.890169 | 1.890318 | 1.890468 | 1.890617 |
| 0.250 | 1.890767 | 1.890917 | 1.891066 | 1.891216 | 1.891365 | 1.891515 | 1.891664 | 1.891814 | 1.891963 | 1.892113 |
| 0.260 | 1.892263 | 1.892412 | 1.892562 | 1.892711 | 1.892861 | 1.893010 | 1.893160 | 1.893310 | 1.893459 | 1.893609 |
| 0.270 | 1.893759 | 1.893908 | 1.894058 | 1.894208 | 1.894357 | 1.894507 | 1.894657 | 1.894806 | 1.894956 | 1.895106 |
| 0.280 | 1.895256 | 1.895405 | 1.895555 | 1.895705 | 1.895854 | 1.896004 | 1.896154 | 1.896304 | 1.896453 | 1.896603 |
| 0.290 | 1.896753 | 1.896903 | 1.897053 | 1.897202 | 1.897352 | 1.897502 | 1.897652 | 1.897802 | 1.897951 | 1.898101 |
| 0.300 | 1.898251 | 1.898401 | 1.898551 | 1.898701 | 1.898851 | 1.899001 | 1.899150 | 1.899300 | 1.899450 | 1.899600 |
| 0.310 | 1.899750 | 1.899900 | 1.900050 | 1.900200 | 1.900350 | 1.900500 | 1.900650 | 1.900800 | 1.900950 | 1.901099 |
| 0.320 | 1.901249 | 1.901399 | 1.901549 | 1.901699 | 1.901849 | 1.901999 | 1.902149 | 1.902299 | 1.902450 | 1.902600 |
| 0.330 | 1.902750 | 1.902900 | 1.903050 | 1.903200 | 1.903350 | 1.903500 | 1.903650 | 1.903800 | 1.903950 | 1.904100 |
| 0.340 | 1.904250 | 1.904400 | 1.904551 | 1.904701 | 1.904851 | 1.905001 | 1.905151 | 1.905301 | 1.905451 | 1.905602 |
| 0.350 | 1.905752 | 1.905902 | 1.906052 | 1.906202 | 1.906353 | 1.906503 | 1.906653 | 1.906803 | 1.906953 | 1.907104 |
| 0.360 | 1.907254 | 1.907404 | 1.907554 | 1.907705 | 1.907855 | 1.908005 | 1.908156 | 1.908306 | 1.908456 | 1.908606 |
| 0.370 | 1.908757 | 1.908907 | 1.909057 | 1.909208 | 1.909358 | 1.909508 | 1.909659 | 1.909809 | 1.909959 | 1.910110 |
| 0.380 | 1.910260 | 1.910410 | 1.910561 | 1.910711 | 1.910862 | 1.911012 | 1.911162 | 1.911313 | 1.911463 | 1.911614 |
| 0.390 | 1.911764 | 1.911915 | 1.912065 | 1.912216 | 1.912366 | 1.912516 | 1.912667 | 1.912817 | 1.912968 | 1.913118 |
| 0.400 | 1.913269 | 1.913419 | 1.913570 | 1.913720 | 1.913871 | 1.914022 | 1.914172 | 1.914323 | 1.914473 | 1.914624 |
| 0.410 | 1.914774 | 1.914925 | 1.915075 | 1.915226 | 1.915377 | 1.915527 | 1.915678 | 1.915829 | 1.915979 | 1.916130 |
| 0.420 | 1.916280 | 1.916431 | 1.916582 | 1.916732 | 1.916883 | 1.917034 | 1.917184 | 1.917335 | 1.917486 | 1.917636 |
| 0.430 | 1.917787 | 1.917938 | 1.918089 | 1.918239 | 1.918390 | 1.918541 | 1.918691 | 1.918842 | 1.918993 | 1.919144 |
| 0.440 | 1.919295 | 1.919445 | 1.919596 | 1.919747 | 1.919898 | 1.920048 | 1.920199 | 1.920350 | 1.920501 | 1.920652 |
| 0.450 | 1.920803 | 1.920953 | 1.921104 | 1.921255 | 1.921406 | 1.921557 | 1.921708 | 1.921859 | 1.922009 | 1.922160 |
| 0.460 | 1.922311 | 1.922462 | 1.922613 | 1.922764 | 1.922915 | 1.923066 | 1.923217 | 1.923368 | 1.923519 | 1.923670 |
| 0.470 | 1.923821 | 1.923972 | 1.924123 | 1.924274 | 1.924425 | 1.924576 | 1.924727 | 1.924878 | 1.925029 | 1.925180 |
| 0.480 | 1.925331 | 1.925482 | 1.925633 | 1.925784 | 1.925935 | 1.926086 | 1.926237 | 1.926388 | 1.926539 | 1.926690 |
| 0.490 | 1.926841 | 1.926992 | 1.927144 | 1.927295 | 1.927446 | 1.927597 | 1.927748 | 1.927899 | 1.928050 | 1.928201 |

ATTENUATION IN DECIBELS
THETA FROM 26.500 TO 26.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 1.928353 | 1.928504 | 1.928655 | 1.928806 | 1.928957 | 1.929103 | 1.929260 | 1.929411 | 1.929562 | 1.929713 |
| 0.510 | 1.929865 | 1.930016 | 1.930167 | 1.930318 | 1.930470 | 1.930621 | 1.930772 | 1.930923 | 1.931074 | 1.931226 |
| 0.520 | 1.931377 | 1.931529 | 1.931680 | 1.931831 | 1.931983 | 1.932134 | 1.932285 | 1.932437 | 1.932588 | 1.932739 |
| 0.530 | 1.932891 | 1.933042 | 1.933193 | 1.933345 | 1.933496 | 1.933648 | 1.933799 | 1.933950 | 1.934102 | 1.934253 |
| 0.540 | 1.934405 | 1.934556 | 1.934708 | 1.934859 | 1.935010 | 1.935162 | 1.935313 | 1.935465 | 1.935616 | 1.935768 |
| 0.550 | 1.935919 | 1.936071 | 1.936222 | 1.936374 | 1.936525 | 1.936677 | 1.936828 | 1.936980 | 1.937131 | 1.937283 |
| 0.560 | 1.937435 | 1.937586 | 1.937738 | 1.937889 | 1.938041 | 1.938193 | 1.938344 | 1.938496 | 1.938647 | 1.938799 |
| 0.570 | 1.938951 | 1.939102 | 1.939254 | 1.939405 | 1.939557 | 1.939709 | 1.939860 | 1.940012 | 1.940164 | 1.940315 |
| 0.580 | 1.940467 | 1.940619 | 1.940771 | 1.940922 | 1.941074 | 1.941226 | 1.941377 | 1.941529 | 1.941681 | 1.941833 |
| 0.590 | 1.941934 | 1.942136 | 1.942288 | 1.942440 | 1.942592 | 1.942743 | 1.942895 | 1.943047 | 1.943199 | 1.943351 |
| 0.600 | 1.943502 | 1.943654 | 1.943806 | 1.943958 | 1.944110 | 1.944262 | 1.944414 | 1.944565 | 1.944717 | 1.944869 |
| 0.610 | 1.945021 | 1.945173 | 1.945325 | 1.945477 | 1.945629 | 1.945781 | 1.945933 | 1.946084 | 1.946236 | 1.946388 |
| 0.620 | 1.946844 | 1.946996 | 1.947148 | 1.947300 | 1.947452 | 1.947604 | 1.947756 | 1.947908 | 1.948060 | 1.948212 |
| 0.630 | 1.948060 | 1.948212 | 1.948364 | 1.948516 | 1.948668 | 1.948820 | 1.948973 | 1.949125 | 1.949277 | 1.949429 |
| 0.640 | 1.949581 | 1.949733 | 1.949885 | 1.950037 | 1.950189 | 1.950341 | 1.950494 | 1.950646 | 1.950798 | 1.950950 |
| 0.650 | 1.951102 | 1.951254 | 1.951406 | 1.951559 | 1.951711 | 1.951863 | 1.952015 | 1.952167 | 1.952320 | 1.952472 |
| 0.660 | 1.952624 | 1.952776 | 1.952929 | 1.953081 | 1.953233 | 1.953385 | 1.953538 | 1.953690 | 1.953842 | 1.953994 |
| 0.670 | 1.954147 | 1.954299 | 1.954451 | 1.954604 | 1.954756 | 1.954908 | 1.955061 | 1.955213 | 1.955365 | 1.955518 |
| 0.680 | 1.955670 | 1.955822 | 1.955975 | 1.956127 | 1.956279 | 1.956432 | 1.956584 | 1.956737 | 1.956889 | 1.957041 |
| 0.690 | 1.957194 | 1.957346 | 1.957499 | 1.957651 | 1.957804 | 1.957956 | 1.958108 | 1.958261 | 1.958413 | 1.958566 |
| 0.700 | 1.958718 | 1.958871 | 1.959023 | 1.959176 | 1.959328 | 1.959481 | 1.959633 | 1.959786 | 1.959939 | 1.960091 |
| 0.710 | 1.960244 | 1.960396 | 1.960549 | 1.960701 | 1.960854 | 1.961007 | 1.961159 | 1.961312 | 1.961464 | 1.961617 |
| 0.720 | 1.961770 | 1.961922 | 1.962075 | 1.962227 | 1.962380 | 1.962533 | 1.962685 | 1.962838 | 1.962991 | 1.963143 |
| 0.730 | 1.963296 | 1.963449 | 1.963602 | 1.963754 | 1.963907 | 1.964060 | 1.964212 | 1.964365 | 1.964518 | 1.964671 |
| 0.740 | 1.964823 | 1.964976 | 1.965129 | 1.965282 | 1.965434 | 1.965587 | 1.965740 | 1.965893 | 1.966046 | 1.966198 |
| 0.750 | 1.966351 | 1.966504 | 1.966657 | 1.966810 | 1.966963 | 1.967115 | 1.967268 | 1.967421 | 1.967574 | 1.967727 |
| 0.760 | 1.967880 | 1.968033 | 1.968186 | 1.968339 | 1.968491 | 1.968644 | 1.968797 | 1.968950 | 1.969103 | 1.969256 |
| 0.770 | 1.969499 | 1.969652 | 1.969805 | 1.969958 | 1.970111 | 1.970264 | 1.970417 | 1.970570 | 1.970723 | 1.970876 |
| 0.780 | 1.970939 | 1.971092 | 1.971245 | 1.971398 | 1.971551 | 1.971704 | 1.971857 | 1.972010 | 1.972163 | 1.972316 |
| 0.790 | 1.972469 | 1.972623 | 1.972776 | 1.972929 | 1.973082 | 1.973235 | 1.973388 | 1.973541 | 1.973694 | 1.973848 |
| 0.800 | 1.974001 | 1.974154 | 1.974307 | 1.974460 | 1.974613 | 1.974767 | 1.974920 | 1.975073 | 1.975226 | 1.975379 |
| 0.810 | 1.975533 | 1.975686 | 1.975839 | 1.975992 | 1.976146 | 1.976299 | 1.976452 | 1.976605 | 1.976759 | 1.976912 |
| 0.820 | 1.977065 | 1.977218 | 1.977372 | 1.977525 | 1.977678 | 1.977832 | 1.977985 | 1.978138 | 1.978292 | 1.978445 |
| 0.830 | 1.978598 | 1.978752 | 1.978905 | 1.979058 | 1.979212 | 1.979365 | 1.979519 | 1.979672 | 1.979825 | 1.979979 |
| 0.840 | 1.980132 | 1.980286 | 1.980439 | 1.980592 | 1.980746 | 1.980899 | 1.981053 | 1.981206 | 1.981360 | 1.981513 |
| 0.850 | 1.981667 | 1.981820 | 1.981974 | 1.982127 | 1.982281 | 1.982434 | 1.982588 | 1.982741 | 1.982895 | 1.983048 |
| 0.860 | 1.983202 | 1.983355 | 1.983509 | 1.983663 | 1.983816 | 1.983970 | 1.984123 | 1.984277 | 1.984431 | 1.984584 |
| 0.870 | 1.984738 | 1.984891 | 1.985045 | 1.985199 | 1.985352 | 1.985506 | 1.985660 | 1.985813 | 1.985967 | 1.986121 |
| 0.880 | 1.986274 | 1.986428 | 1.986582 | 1.986735 | 1.986889 | 1.987043 | 1.987197 | 1.987350 | 1.987504 | 1.987658 |
| 0.890 | 1.987812 | 1.987965 | 1.988119 | 1.988273 | 1.988427 | 1.988580 | 1.988734 | 1.988888 | 1.989042 | 1.989196 |
| 0.900 | 1.989349 | 1.989503 | 1.989657 | 1.989811 | 1.989965 | 1.990119 | 1.990272 | 1.990426 | 1.990580 | 1.990734 |
| 0.910 | 1.990888 | 1.991042 | 1.991196 | 1.991350 | 1.991504 | 1.991657 | 1.991811 | 1.991965 | 1.992119 | 1.992273 |
| 0.920 | 1.992427 | 1.992581 | 1.992735 | 1.992889 | 1.993043 | 1.993197 | 1.993351 | 1.993505 | 1.993659 | 1.993813 |
| 0.930 | 1.993967 | 1.994121 | 1.994275 | 1.994429 | 1.994583 | 1.994737 | 1.994891 | 1.995045 | 1.995199 | 1.995353 |
| 0.940 | 1.995507 | 1.995662 | 1.995816 | 1.995970 | 1.996124 | 1.996278 | 1.996432 | 1.996586 | 1.996740 | 1.996895 |
| 0.950 | 1.997049 | 1.997203 | 1.997357 | 1.997511 | 1.997665 | 1.997820 | 1.997974 | 1.998128 | 1.998282 | 1.998436 |
| 0.960 | 1.998591 | 1.998745 | 1.998899 | 1.999053 | 1.999207 | 1.999362 | 1.999516 | 1.999670 | 1.999825 | 1.999979 |
| 0.970 | 2.000133 | 2.000287 | 2.000442 | 2.000596 | 2.000750 | 2.000905 | 2.001059 | 2.001213 | 2.001368 | 2.001522 |
| 0.980 | 2.001676 | 2.001831 | 2.001985 | 2.002139 | 2.002294 | 2.002448 | 2.002602 | 2.002757 | 2.002911 | 2.003066 |
| 0.990 | 2.003220 | 2.003375 | 2.003529 | 2.003683 | 2.003838 | 2.003992 | 2.004147 | 2.004301 | 2.004456 | 2.004610 |

THETA IN DEGREES

ATTENUATION IN DECIBELS
THETA FROM 27.000 TO 27.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.004765 | 2.004919 | 2.005074 | 2.005228 | 2.005383 | 2.005537 | 2.005692 | 2.005846 | 2.006001 | 2.006155 |
| 0.010 | 2.006310 | 2.006464 | 2.006619 | 2.006774 | 2.006928 | 2.007083 | 2.007237 | 2.007392 | 2.007546 | 2.007701 |
| 0.020 | 2.007856 | 2.008010 | 2.008165 | 2.008320 | 2.008474 | 2.008629 | 2.008783 | 2.008938 | 2.009093 | 2.009248 |
| 0.030 | 2.009402 | 2.009557 | 2.009712 | 2.009866 | 2.010021 | 2.010176 | 2.010330 | 2.010485 | 2.010640 | 2.010795 |
| 0.040 | 2.010949 | 2.011104 | 2.011259 | 2.011414 | 2.011568 | 2.011723 | 2.011878 | 2.012033 | 2.012188 | 2.012343 |
| 0.050 | 2.012497 | 2.012652 | 2.012807 | 2.012962 | 2.013117 | 2.013271 | 2.013426 | 2.013581 | 2.013736 | 2.013891 |
| 0.060 | 2.014046 | 2.014201 | 2.014356 | 2.014510 | 2.014665 | 2.014820 | 2.014975 | 2.015130 | 2.015285 | 2.015440 |
| 0.070 | 2.015595 | 2.015750 | 2.015905 | 2.016060 | 2.016215 | 2.016370 | 2.016525 | 2.016680 | 2.016835 | 2.016990 |
| 0.080 | 2.017145 | 2.017300 | 2.017455 | 2.017610 | 2.017765 | 2.017920 | 2.018075 | 2.018230 | 2.018385 | 2.018540 |
| 0.090 | 2.018695 | 2.018850 | 2.019006 | 2.019161 | 2.019316 | 2.019471 | 2.019626 | 2.019781 | 2.019936 | 2.020091 |
| 0.100 | 2.020247 | 2.020402 | 2.020557 | 2.020712 | 2.020867 | 2.021022 | 2.021178 | 2.021333 | 2.021488 | 2.021643 |
| 0.110 | 2.021798 | 2.021954 | 2.022109 | 2.022264 | 2.022419 | 2.022575 | 2.022730 | 2.022885 | 2.023040 | 2.023196 |
| 0.120 | 2.023351 | 2.023506 | 2.023661 | 2.023817 | 2.023972 | 2.024127 | 2.024283 | 2.024438 | 2.024593 | 2.024749 |
| 0.130 | 2.024904 | 2.025059 | 2.025215 | 2.025370 | 2.025526 | 2.025681 | 2.025836 | 2.025992 | 2.026147 | 2.026303 |
| 0.140 | 2.026458 | 2.026613 | 2.026769 | 2.026924 | 2.027080 | 2.027235 | 2.027391 | 2.027546 | 2.027702 | 2.027857 |
| 0.150 | 2.028012 | 2.028168 | 2.028323 | 2.028479 | 2.028634 | 2.028790 | 2.028946 | 2.029101 | 2.029257 | 2.029412 |
| 0.160 | 2.029568 | 2.029723 | 2.029879 | 2.030034 | 2.030190 | 2.030346 | 2.030501 | 2.030657 | 2.030812 | 2.030968 |
| 0.170 | 2.031124 | 2.031279 | 2.031435 | 2.031590 | 2.031746 | 2.031902 | 2.032057 | 2.032213 | 2.032369 | 2.032524 |
| 0.180 | 2.032680 | 2.032836 | 2.032991 | 2.033147 | 2.033303 | 2.033459 | 2.033614 | 2.033770 | 2.033926 | 2.034082 |
| 0.190 | 2.034237 | 2.034393 | 2.034549 | 2.034705 | 2.034860 | 2.035016 | 2.035172 | 2.035328 | 2.035484 | 2.035639 |
| 0.200 | 2.035795 | 2.035951 | 2.036107 | 2.036263 | 2.036419 | 2.036574 | 2.036730 | 2.036886 | 2.037042 | 2.037198 |
| 0.210 | 2.037354 | 2.037510 | 2.037666 | 2.037821 | 2.037977 | 2.038133 | 2.038289 | 2.038445 | 2.038601 | 2.038757 |
| 0.220 | 2.038913 | 2.039069 | 2.039225 | 2.039381 | 2.039537 | 2.039693 | 2.039849 | 2.040005 | 2.040161 | 2.040317 |
| 0.230 | 2.040473 | 2.040629 | 2.040785 | 2.040941 | 2.041097 | 2.041253 | 2.041409 | 2.041565 | 2.041721 | 2.041877 |
| 0.240 | 2.042033 | 2.042189 | 2.042346 | 2.042502 | 2.042658 | 2.042814 | 2.042970 | 2.043126 | 2.043282 | 2.043438 |
| 0.250 | 2.043595 | 2.043751 | 2.043907 | 2.044063 | 2.044219 | 2.044375 | 2.044532 | 2.044688 | 2.044844 | 2.045000 |
| 0.260 | 2.045156 | 2.045313 | 2.045469 | 2.045625 | 2.045781 | 2.045938 | 2.046094 | 2.046250 | 2.046406 | 2.046563 |
| 0.270 | 2.046719 | 2.046875 | 2.047032 | 2.047188 | 2.047344 | 2.047501 | 2.047657 | 2.047813 | 2.047970 | 2.048126 |
| 0.280 | 2.048282 | 2.048439 | 2.048595 | 2.048751 | 2.048908 | 2.049064 | 2.049221 | 2.049377 | 2.049533 | 2.049690 |
| 0.290 | 2.049846 | 2.050003 | 2.050159 | 2.050315 | 2.050472 | 2.050628 | 2.050785 | 2.050941 | 2.051098 | 2.051254 |
| 0.300 | 2.051411 | 2.051567 | 2.051724 | 2.051880 | 2.052037 | 2.052193 | 2.052350 | 2.052506 | 2.052663 | 2.052819 |
| 0.310 | 2.052976 | 2.053133 | 2.053289 | 2.053446 | 2.053602 | 2.053759 | 2.053915 | 2.054072 | 2.054229 | 2.054385 |
| 0.320 | 2.054542 | 2.054699 | 2.054855 | 2.055012 | 2.055168 | 2.055325 | 2.055482 | 2.055638 | 2.055795 | 2.055952 |
| 0.330 | 2.056108 | 2.056265 | 2.056422 | 2.056579 | 2.056735 | 2.056892 | 2.057049 | 2.057205 | 2.057362 | 2.057519 |
| 0.340 | 2.057676 | 2.057832 | 2.057989 | 2.058146 | 2.058303 | 2.058460 | 2.058616 | 2.058773 | 2.058930 | 2.059087 |
| 0.350 | 2.059244 | 2.059400 | 2.059557 | 2.059714 | 2.059871 | 2.060028 | 2.060185 | 2.060342 | 2.060498 | 2.060655 |
| 0.360 | 2.060812 | 2.060969 | 2.061126 | 2.061283 | 2.061440 | 2.061597 | 2.061754 | 2.061911 | 2.062068 | 2.062225 |
| 0.370 | 2.062382 | 2.062538 | 2.062695 | 2.062852 | 2.063009 | 2.063166 | 2.063323 | 2.063480 | 2.063637 | 2.063794 |
| 0.380 | 2.063951 | 2.064108 | 2.064265 | 2.064423 | 2.064580 | 2.064737 | 2.064894 | 2.065051 | 2.065208 | 2.065365 |
| 0.390 | 2.065522 | 2.065679 | 2.065836 | 2.065993 | 2.066150 | 2.066308 | 2.066465 | 2.066622 | 2.066779 | 2.066936 |
| 0.400 | 2.067093 | 2.067250 | 2.067408 | 2.067565 | 2.067722 | 2.067879 | 2.068036 | 2.068194 | 2.068351 | 2.068508 |
| 0.410 | 2.068665 | 2.068823 | 2.068980 | 2.069137 | 2.069294 | 2.069451 | 2.069609 | 2.069766 | 2.069923 | 2.070081 |
| 0.420 | 2.070238 | 2.070395 | 2.070552 | 2.070710 | 2.070867 | 2.071024 | 2.071182 | 2.071339 | 2.071496 | 2.071654 |
| 0.430 | 2.071811 | 2.071969 | 2.072126 | 2.072283 | 2.072441 | 2.072598 | 2.072755 | 2.072913 | 2.073070 | 2.073228 |
| 0.440 | 2.073385 | 2.073543 | 2.073700 | 2.073857 | 2.074015 | 2.074172 | 2.074330 | 2.074487 | 2.074645 | 2.074802 |
| 0.450 | 2.074960 | 2.075117 | 2.075275 | 2.075432 | 2.075590 | 2.075747 | 2.075905 | 2.076062 | 2.076220 | 2.076378 |
| 0.460 | 2.076535 | 2.076693 | 2.076850 | 2.077008 | 2.077165 | 2.077323 | 2.077481 | 2.077638 | 2.077796 | 2.077953 |
| 0.470 | 2.078111 | 2.078269 | 2.078426 | 2.078584 | 2.078741 | 2.078899 | 2.079057 | 2.079215 | 2.079372 | 2.079530 |
| 0.480 | 2.079688 | 2.079845 | 2.079999 | 2.080156 | 2.080311 | 2.080466 | 2.080621 | 2.080776 | 2.080931 | 2.081087 |
| 0.490 | 2.081265 | 2.081423 | 2.081581 | 2.081738 | 2.081896 | 2.082054 | 2.082212 | 2.082370 | 2.082527 | 2.082685 |

ATTENUATION IN DECIBELS
THETA FROM 27.500 TO 27.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.082843 | 2.083001 | 2.083159 | 2.083317 | 2.083474 | 2.083632 | 2.083790 | 2.083948 | 2.084106 | 2.084264 |
| 0.510 | 2.084422 | 2.084580 | 2.084738 | 2.084895 | 2.085053 | 2.085211 | 2.085369 | 2.085527 | 2.085685 | 2.085843 |
| 0.520 | 2.086001 | 2.086159 | 2.086317 | 2.086475 | 2.086633 | 2.086791 | 2.086949 | 2.087107 | 2.087265 | 2.087423 |
| 0.530 | 2.087581 | 2.087739 | 2.087897 | 2.088055 | 2.088213 | 2.088371 | 2.088529 | 2.088687 | 2.088846 | 2.089004 |
| 0.540 | 2.089162 | 2.089320 | 2.089478 | 2.089636 | 2.089794 | 2.089952 | 2.090110 | 2.090269 | 2.090427 | 2.090585 |
| 0.550 | 2.090743 | 2.090901 | 2.091059 | 2.091218 | 2.091376 | 2.091534 | 2.091692 | 2.091850 | 2.092009 | 2.092167 |
| 0.560 | 2.092325 | 2.092483 | 2.092642 | 2.092800 | 2.092958 | 2.093116 | 2.093275 | 2.093433 | 2.093591 | 2.093750 |
| 0.570 | 2.093908 | 2.094066 | 2.094224 | 2.094383 | 2.094541 | 2.094699 | 2.094858 | 2.095016 | 2.095174 | 2.095333 |
| 0.580 | 2.095650 | 2.095808 | 2.095966 | 2.096125 | 2.096283 | 2.096442 | 2.096600 | 2.096758 | 2.096917 | 2.097075 |
| 0.590 | 2.097075 | 2.097234 | 2.097392 | 2.097551 | 2.097709 | 2.097868 | 2.098026 | 2.098184 | 2.098343 | 2.098502 |
| 0.600 | 2.098660 | 2.098819 | 2.098977 | 2.099136 | 2.099294 | 2.099453 | 2.099611 | 2.099770 | 2.099928 | 2.100087 |
| 0.610 | 2.100245 | 2.100404 | 2.100563 | 2.100721 | 2.100880 | 2.101038 | 2.101197 | 2.101356 | 2.101514 | 2.101673 |
| 0.620 | 2.101831 | 2.101990 | 2.102149 | 2.102307 | 2.102466 | 2.102625 | 2.102783 | 2.102942 | 2.103101 | 2.103260 |
| 0.630 | 2.103418 | 2.103577 | 2.103736 | 2.103894 | 2.104053 | 2.104212 | 2.104371 | 2.104529 | 2.104688 | 2.104847 |
| 0.640 | 2.105006 | 2.105164 | 2.105323 | 2.105482 | 2.105641 | 2.105800 | 2.105958 | 2.106117 | 2.106276 | 2.106435 |
| 0.650 | 2.106594 | 2.106753 | 2.106911 | 2.107070 | 2.107229 | 2.107388 | 2.107547 | 2.107706 | 2.107865 | 2.108024 |
| 0.660 | 2.108183 | 2.108341 | 2.108500 | 2.108659 | 2.108818 | 2.108977 | 2.109136 | 2.109295 | 2.109454 | 2.109613 |
| 0.670 | 2.109772 | 2.109931 | 2.110090 | 2.110249 | 2.110408 | 2.110567 | 2.110726 | 2.110885 | 2.111044 | 2.111203 |
| 0.680 | 2.111362 | 2.111521 | 2.111680 | 2.111839 | 2.111998 | 2.112157 | 2.112316 | 2.112476 | 2.112635 | 2.112794 |
| 0.690 | 2.112953 | 2.113112 | 2.113271 | 2.113430 | 2.113589 | 2.113749 | 2.113908 | 2.114067 | 2.114226 | 2.114385 |
| 0.700 | 2.114544 | 2.114704 | 2.114863 | 2.115022 | 2.115181 | 2.115340 | 2.115500 | 2.115659 | 2.115818 | 2.115977 |
| 0.710 | 2.116136 | 2.116296 | 2.116455 | 2.116614 | 2.116774 | 2.116933 | 2.117092 | 2.117251 | 2.117411 | 2.117570 |
| 0.720 | 2.117729 | 2.117889 | 2.118048 | 2.118207 | 2.118367 | 2.118526 | 2.118685 | 2.118845 | 2.119004 | 2.119163 |
| 0.730 | 2.119323 | 2.119482 | 2.119642 | 2.119801 | 2.119960 | 2.120120 | 2.120279 | 2.120439 | 2.120598 | 2.120758 |
| 0.740 | 2.120917 | 2.121076 | 2.121236 | 2.121395 | 2.121555 | 2.121714 | 2.121874 | 2.122033 | 2.122193 | 2.122352 |
| 0.750 | 2.122512 | 2.122671 | 2.122831 | 2.122990 | 2.123150 | 2.123309 | 2.123469 | 2.123629 | 2.123788 | 2.123948 |
| 0.760 | 2.124107 | 2.124267 | 2.124427 | 2.124586 | 2.124746 | 2.124905 | 2.125065 | 2.125225 | 2.125384 | 2.125544 |
| 0.770 | 2.125704 | 2.125863 | 2.126023 | 2.126183 | 2.126342 | 2.126502 | 2.126662 | 2.126821 | 2.126981 | 2.127141 |
| 0.780 | 2.127300 | 2.127460 | 2.127620 | 2.127780 | 2.127939 | 2.128099 | 2.128259 | 2.128419 | 2.128578 | 2.128738 |
| 0.790 | 2.128898 | 2.129058 | 2.129218 | 2.129377 | 2.129537 | 2.129697 | 2.129857 | 2.130017 | 2.130176 | 2.130336 |
| 0.800 | 2.130696 | 2.130856 | 2.131016 | 2.131176 | 2.131336 | 2.131496 | 2.131655 | 2.131815 | 2.131975 | 2.132135 |
| 0.810 | 2.132295 | 2.132455 | 2.132615 | 2.132775 | 2.132935 | 2.133095 | 2.133255 | 2.133415 | 2.133575 | 2.133735 |
| 0.820 | 2.133895 | 2.134055 | 2.134215 | 2.134375 | 2.134535 | 2.134695 | 2.134855 | 2.135015 | 2.135175 | 2.135335 |
| 0.830 | 2.135295 | 2.135455 | 2.135615 | 2.135775 | 2.135935 | 2.136095 | 2.136255 | 2.136416 | 2.136576 | 2.136736 |
| 0.840 | 2.136896 | 2.137056 | 2.137216 | 2.137376 | 2.137536 | 2.137697 | 2.137857 | 2.138017 | 2.138177 | 2.138337 |
| 0.850 | 2.138497 | 2.138658 | 2.138818 | 2.138978 | 2.139138 | 2.139299 | 2.139459 | 2.139619 | 2.139779 | 2.139939 |
| 0.860 | 2.140100 | 2.140260 | 2.140420 | 2.140581 | 2.140741 | 2.140901 | 2.141061 | 2.141222 | 2.141382 | 2.141542 |
| 0.870 | 2.141703 | 2.141863 | 2.142023 | 2.142184 | 2.142344 | 2.142504 | 2.142665 | 2.142825 | 2.142986 | 2.143146 |
| 0.880 | 2.143306 | 2.143467 | 2.143627 | 2.143788 | 2.143948 | 2.144108 | 2.144269 | 2.144429 | 2.144590 | 2.144750 |
| 0.890 | 2.144911 | 2.145071 | 2.145232 | 2.145392 | 2.145553 | 2.145713 | 2.145874 | 2.146034 | 2.146195 | 2.146355 |
| 0.900 | 2.146516 | 2.146676 | 2.146837 | 2.146997 | 2.147158 | 2.147318 | 2.147479 | 2.147640 | 2.147800 | 2.147961 |
| 0.910 | 2.148121 | 2.148282 | 2.148443 | 2.148603 | 2.148764 | 2.148924 | 2.149085 | 2.149246 | 2.149406 | 2.149567 |
| 0.920 | 2.149728 | 2.149888 | 2.150049 | 2.150210 | 2.150370 | 2.150531 | 2.150692 | 2.150853 | 2.151013 | 2.151174 |
| 0.930 | 2.151335 | 2.151495 | 2.151656 | 2.151817 | 2.151978 | 2.152139 | 2.152299 | 2.152460 | 2.152621 | 2.152782 |
| 0.940 | 2.152942 | 2.153103 | 2.153264 | 2.153425 | 2.153586 | 2.153747 | 2.153907 | 2.154068 | 2.154229 | 2.154390 |
| 0.950 | 2.154551 | 2.154712 | 2.154873 | 2.155033 | 2.155194 | 2.155355 | 2.155516 | 2.155677 | 2.155838 | 2.155999 |
| 0.960 | 2.156160 | 2.156321 | 2.156482 | 2.156643 | 2.156804 | 2.156965 | 2.157126 | 2.157287 | 2.157448 | 2.157609 |
| 0.970 | 2.157770 | 2.157931 | 2.158092 | 2.158253 | 2.158414 | 2.158575 | 2.158736 | 2.158897 | 2.159058 | 2.159219 |
| 0.980 | 2.159380 | 2.159541 | 2.159702 | 2.159863 | 2.160024 | 2.160185 | 2.160346 | 2.160507 | 2.160668 | 2.160829 |
| 0.990 | 2.160991 | 2.161152 | 2.161313 | 2.161474 | 2.161635 | 2.161795 | 2.161956 | 2.162117 | 2.162278 | 2.162439 |

ATTENUATION IN DECIBELS
 THETA FROM 28.000 TO 28.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.162603 | 2.162764 | 2.162925 | 2.163087 | 2.163248 | 2.163409 | 2.163570 | 2.163732 | 2.163893 | 2.164054 |
| 0.010 | 2.164215 | 2.164377 | 2.164538 | 2.164699 | 2.164861 | 2.165022 | 2.165183 | 2.165344 | 2.165506 | 2.165667 |
| 0.020 | 2.164828 | 2.164990 | 2.165151 | 2.165313 | 2.165474 | 2.165635 | 2.165797 | 2.165958 | 2.166120 | 2.166281 |
| 0.030 | 2.165442 | 2.165604 | 2.165765 | 2.165927 | 2.166088 | 2.166249 | 2.166411 | 2.166572 | 2.166734 | 2.166895 |
| 0.040 | 2.166057 | 2.166218 | 2.166380 | 2.166541 | 2.166703 | 2.166864 | 2.167026 | 2.167187 | 2.167349 | 2.167510 |
| 0.050 | 2.166672 | 2.166834 | 2.166995 | 2.167157 | 2.167318 | 2.167480 | 2.167641 | 2.167803 | 2.167964 | 2.168126 |
| 0.060 | 2.167288 | 2.167449 | 2.167611 | 2.167773 | 2.167934 | 2.168096 | 2.168258 | 2.168419 | 2.168581 | 2.168743 |
| 0.070 | 2.167904 | 2.168066 | 2.168228 | 2.168389 | 2.168551 | 2.168713 | 2.168875 | 2.169036 | 2.169198 | 2.169360 |
| 0.080 | 2.168522 | 2.168683 | 2.168845 | 2.169007 | 2.169169 | 2.169330 | 2.169492 | 2.169654 | 2.169816 | 2.169978 |
| 0.090 | 2.169139 | 2.169301 | 2.169463 | 2.169625 | 2.169787 | 2.169949 | 2.170111 | 2.170272 | 2.170434 | 2.170596 |
| 0.100 | 2.169758 | 2.169920 | 2.170082 | 2.170244 | 2.170406 | 2.170568 | 2.170729 | 2.170891 | 2.171053 | 2.171215 |
| 0.110 | 2.180377 | 2.180539 | 2.180701 | 2.180863 | 2.181025 | 2.181187 | 2.181349 | 2.181511 | 2.181673 | 2.181835 |
| 0.120 | 2.181997 | 2.182159 | 2.182321 | 2.182483 | 2.182645 | 2.182807 | 2.182969 | 2.183132 | 2.183294 | 2.183456 |
| 0.130 | 2.183618 | 2.183780 | 2.183942 | 2.184104 | 2.184266 | 2.184428 | 2.184590 | 2.184753 | 2.184915 | 2.185077 |
| 0.140 | 2.185239 | 2.185401 | 2.185563 | 2.185726 | 2.185888 | 2.186050 | 2.186212 | 2.186374 | 2.186537 | 2.186699 |
| 0.150 | 2.186861 | 2.187023 | 2.187186 | 2.187348 | 2.187510 | 2.187672 | 2.187835 | 2.187997 | 2.188159 | 2.188321 |
| 0.160 | 2.188484 | 2.188646 | 2.188808 | 2.188971 | 2.189133 | 2.189295 | 2.189458 | 2.189620 | 2.189782 | 2.189945 |
| 0.170 | 2.190107 | 2.190269 | 2.190432 | 2.190594 | 2.190757 | 2.190919 | 2.191081 | 2.191244 | 2.191406 | 2.191569 |
| 0.180 | 2.191731 | 2.191894 | 2.192056 | 2.192218 | 2.192381 | 2.192543 | 2.192706 | 2.192868 | 2.193031 | 2.193193 |
| 0.190 | 2.193356 | 2.193518 | 2.193681 | 2.193843 | 2.194006 | 2.194168 | 2.194331 | 2.194493 | 2.194656 | 2.194819 |
| 0.200 | 2.194981 | 2.195144 | 2.195306 | 2.195469 | 2.195631 | 2.195794 | 2.195957 | 2.196119 | 2.196282 | 2.196445 |
| 0.210 | 2.196607 | 2.196770 | 2.196932 | 2.197095 | 2.197258 | 2.197420 | 2.197583 | 2.197746 | 2.197909 | 2.198071 |
| 0.220 | 2.198234 | 2.198397 | 2.198559 | 2.198722 | 2.198885 | 2.199048 | 2.199210 | 2.199373 | 2.199536 | 2.199699 |
| 0.230 | 2.199861 | 2.200024 | 2.200187 | 2.200350 | 2.200512 | 2.200675 | 2.200838 | 2.201001 | 2.201164 | 2.201327 |
| 0.240 | 2.201489 | 2.201652 | 2.201815 | 2.201978 | 2.202141 | 2.202304 | 2.202467 | 2.202630 | 2.202792 | 2.202955 |
| 0.250 | 2.203118 | 2.203281 | 2.203444 | 2.203607 | 2.203770 | 2.203933 | 2.204096 | 2.204259 | 2.204422 | 2.204585 |
| 0.260 | 2.204748 | 2.204911 | 2.205074 | 2.205237 | 2.205400 | 2.205563 | 2.205726 | 2.205889 | 2.206052 | 2.206215 |
| 0.270 | 2.206378 | 2.206541 | 2.206704 | 2.206867 | 2.207030 | 2.207193 | 2.207356 | 2.207519 | 2.207682 | 2.207846 |
| 0.280 | 2.208009 | 2.208172 | 2.208335 | 2.208498 | 2.208661 | 2.208824 | 2.208988 | 2.209151 | 2.209314 | 2.209477 |
| 0.290 | 2.209640 | 2.209803 | 2.209967 | 2.210130 | 2.210293 | 2.210456 | 2.210619 | 2.210783 | 2.210946 | 2.211109 |
| 0.300 | 2.211272 | 2.211436 | 2.211599 | 2.211762 | 2.211925 | 2.212089 | 2.212252 | 2.212415 | 2.212579 | 2.212742 |
| 0.310 | 2.212905 | 2.213069 | 2.213232 | 2.213395 | 2.213559 | 2.213722 | 2.213885 | 2.214049 | 2.214212 | 2.214375 |
| 0.320 | 2.214539 | 2.214702 | 2.214866 | 2.215029 | 2.215192 | 2.215356 | 2.215519 | 2.215683 | 2.215846 | 2.216010 |
| 0.330 | 2.216173 | 2.216337 | 2.216500 | 2.216663 | 2.216827 | 2.216990 | 2.217154 | 2.217317 | 2.217481 | 2.217644 |
| 0.340 | 2.217808 | 2.217972 | 2.218135 | 2.218299 | 2.218462 | 2.218626 | 2.218789 | 2.218953 | 2.219116 | 2.219280 |
| 0.350 | 2.219444 | 2.219607 | 2.219771 | 2.219934 | 2.220098 | 2.220262 | 2.220425 | 2.220589 | 2.220753 | 2.220916 |
| 0.360 | 2.221080 | 2.221244 | 2.221407 | 2.221571 | 2.221735 | 2.221898 | 2.222062 | 2.222226 | 2.222389 | 2.222553 |
| 0.370 | 2.222717 | 2.222881 | 2.223044 | 2.223208 | 2.223372 | 2.223536 | 2.223699 | 2.223863 | 2.224027 | 2.224191 |
| 0.380 | 2.224355 | 2.224518 | 2.224682 | 2.224846 | 2.225010 | 2.225174 | 2.225337 | 2.225501 | 2.225665 | 2.225829 |
| 0.390 | 2.225993 | 2.226157 | 2.226321 | 2.226485 | 2.226648 | 2.226812 | 2.226976 | 2.227140 | 2.227304 | 2.227468 |
| 0.400 | 2.227632 | 2.227796 | 2.227960 | 2.228124 | 2.228288 | 2.228452 | 2.228616 | 2.228780 | 2.228944 | 2.229108 |
| 0.410 | 2.229272 | 2.229436 | 2.229600 | 2.229764 | 2.229928 | 2.230092 | 2.230256 | 2.230420 | 2.230584 | 2.230748 |
| 0.420 | 2.230912 | 2.231076 | 2.231240 | 2.231404 | 2.231568 | 2.231732 | 2.231897 | 2.232061 | 2.232225 | 2.232389 |
| 0.430 | 2.232553 | 2.232717 | 2.232881 | 2.233046 | 2.233210 | 2.233374 | 2.233538 | 2.233702 | 2.233866 | 2.234031 |
| 0.440 | 2.234195 | 2.234359 | 2.234523 | 2.234688 | 2.234852 | 2.235016 | 2.235180 | 2.235344 | 2.235509 | 2.235673 |
| 0.450 | 2.235837 | 2.236002 | 2.236166 | 2.236330 | 2.236494 | 2.236659 | 2.236823 | 2.236987 | 2.237152 | 2.237316 |
| 0.460 | 2.237480 | 2.237645 | 2.237809 | 2.237973 | 2.238138 | 2.238302 | 2.238467 | 2.238631 | 2.238795 | 2.238960 |
| 0.470 | 2.239124 | 2.239289 | 2.239453 | 2.239617 | 2.239782 | 2.239946 | 2.240111 | 2.240275 | 2.240440 | 2.240604 |
| 0.480 | 2.240769 | 2.240933 | 2.241098 | 2.241262 | 2.241427 | 2.241591 | 2.241756 | 2.241920 | 2.242085 | 2.242249 |
| 0.490 | 2.242414 | 2.242578 | 2.242743 | 2.242908 | 2.243072 | 2.243237 | 2.243401 | 2.243566 | 2.243731 | 2.243895 |

ATTENUATION IN DECIBELS
THETA FROM 28.500 TO 28.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.244060 | 2.244224 | 2.244389 | 2.244554 | 2.244718 | 2.244883 | 2.245048 | 2.245212 | 2.245377 | 2.245542 |
| 0.510 | 2.245706 | 2.245871 | 2.246036 | 2.246200 | 2.246365 | 2.246530 | 2.246695 | 2.246859 | 2.247024 | 2.247189 |
| 0.520 | 2.247354 | 2.247518 | 2.247683 | 2.247848 | 2.248013 | 2.248177 | 2.248342 | 2.248507 | 2.248672 | 2.248837 |
| 0.530 | 2.249002 | 2.249166 | 2.249331 | 2.249496 | 2.249661 | 2.249826 | 2.249991 | 2.250155 | 2.250320 | 2.250485 |
| 0.540 | 2.250650 | 2.250815 | 2.250980 | 2.251145 | 2.251310 | 2.251475 | 2.251640 | 2.251805 | 2.251969 | 2.252134 |
| 0.550 | 2.252599 | 2.252764 | 2.252929 | 2.253094 | 2.253259 | 2.253424 | 2.253589 | 2.253754 | 2.253919 | 2.254084 |
| 0.560 | 2.253949 | 2.254114 | 2.254279 | 2.254444 | 2.254609 | 2.254774 | 2.254939 | 2.255104 | 2.255269 | 2.255434 |
| 0.570 | 2.255600 | 2.255765 | 2.255930 | 2.256095 | 2.256260 | 2.256425 | 2.256590 | 2.256755 | 2.256920 | 2.257085 |
| 0.580 | 2.257251 | 2.257416 | 2.257581 | 2.257746 | 2.257911 | 2.258076 | 2.258241 | 2.258406 | 2.258571 | 2.258736 |
| 0.590 | 2.258903 | 2.259068 | 2.259233 | 2.259398 | 2.259563 | 2.259728 | 2.259893 | 2.260058 | 2.260223 | 2.260388 |
| 0.600 | 2.260556 | 2.260721 | 2.260887 | 2.261052 | 2.261217 | 2.261383 | 2.261548 | 2.261714 | 2.261879 | 2.262044 |
| 0.610 | 2.262210 | 2.262375 | 2.262540 | 2.262706 | 2.262871 | 2.263037 | 2.263202 | 2.263367 | 2.263533 | 2.263698 |
| 0.620 | 2.263864 | 2.264029 | 2.264195 | 2.264360 | 2.264526 | 2.264691 | 2.264856 | 2.265022 | 2.265187 | 2.265353 |
| 0.630 | 2.265518 | 2.265684 | 2.265850 | 2.266015 | 2.266181 | 2.266346 | 2.266512 | 2.266677 | 2.266843 | 2.267008 |
| 0.640 | 2.267174 | 2.267340 | 2.267505 | 2.267671 | 2.267836 | 2.268002 | 2.268168 | 2.268333 | 2.268499 | 2.268664 |
| 0.650 | 2.268830 | 2.268996 | 2.269161 | 2.269327 | 2.269493 | 2.269658 | 2.269824 | 2.269990 | 2.270156 | 2.270321 |
| 0.660 | 2.270487 | 2.270653 | 2.270818 | 2.270984 | 2.271150 | 2.271316 | 2.271481 | 2.271647 | 2.271813 | 2.271979 |
| 0.670 | 2.272145 | 2.272310 | 2.272476 | 2.272642 | 2.272808 | 2.272974 | 2.273139 | 2.273305 | 2.273471 | 2.273637 |
| 0.680 | 2.273803 | 2.273969 | 2.274134 | 2.274300 | 2.274466 | 2.274632 | 2.274798 | 2.274964 | 2.275130 | 2.275296 |
| 0.690 | 2.275462 | 2.275628 | 2.275794 | 2.275959 | 2.276125 | 2.276291 | 2.276457 | 2.276623 | 2.276789 | 2.276955 |
| 0.700 | 2.277121 | 2.277287 | 2.277453 | 2.277619 | 2.277785 | 2.277951 | 2.278117 | 2.278283 | 2.278449 | 2.278615 |
| 0.710 | 2.278782 | 2.278948 | 2.279114 | 2.279280 | 2.279446 | 2.279612 | 2.279778 | 2.279944 | 2.280110 | 2.280276 |
| 0.720 | 2.280403 | 2.280569 | 2.280735 | 2.280901 | 2.281067 | 2.281233 | 2.281399 | 2.281565 | 2.281731 | 2.281897 |
| 0.730 | 2.282104 | 2.282270 | 2.282437 | 2.282603 | 2.282769 | 2.282935 | 2.283101 | 2.283267 | 2.283434 | 2.283600 |
| 0.740 | 2.283767 | 2.283933 | 2.284099 | 2.284265 | 2.284432 | 2.284598 | 2.284764 | 2.284931 | 2.285097 | 2.285263 |
| 0.750 | 2.285430 | 2.285596 | 2.285762 | 2.285929 | 2.286095 | 2.286262 | 2.286428 | 2.286594 | 2.286761 | 2.286927 |
| 0.760 | 2.287093 | 2.287260 | 2.287426 | 2.287593 | 2.287759 | 2.287925 | 2.288092 | 2.288258 | 2.288425 | 2.288591 |
| 0.770 | 2.288758 | 2.288924 | 2.289091 | 2.289257 | 2.289424 | 2.289590 | 2.289757 | 2.289923 | 2.290090 | 2.290256 |
| 0.780 | 2.290423 | 2.290589 | 2.290756 | 2.290922 | 2.291089 | 2.291256 | 2.291422 | 2.291589 | 2.291755 | 2.291922 |
| 0.790 | 2.292089 | 2.292255 | 2.292422 | 2.292588 | 2.292755 | 2.292922 | 2.293088 | 2.293255 | 2.293422 | 2.293588 |
| 0.800 | 2.293755 | 2.293922 | 2.294088 | 2.294255 | 2.294422 | 2.294589 | 2.294755 | 2.294922 | 2.295089 | 2.295256 |
| 0.810 | 2.295422 | 2.295589 | 2.295756 | 2.295923 | 2.296089 | 2.296256 | 2.296423 | 2.296590 | 2.296757 | 2.296923 |
| 0.820 | 2.297090 | 2.297257 | 2.297424 | 2.297591 | 2.297757 | 2.297924 | 2.298091 | 2.298258 | 2.298425 | 2.298592 |
| 0.830 | 2.298759 | 2.298926 | 2.299092 | 2.299259 | 2.299426 | 2.299593 | 2.299760 | 2.299927 | 2.300094 | 2.300261 |
| 0.840 | 2.300428 | 2.300595 | 2.300762 | 2.300929 | 2.301096 | 2.301263 | 2.301430 | 2.301597 | 2.301764 | 2.301931 |
| 0.850 | 2.302098 | 2.302265 | 2.302432 | 2.302599 | 2.302766 | 2.302933 | 2.303100 | 2.303267 | 2.303434 | 2.303601 |
| 0.860 | 2.303768 | 2.303936 | 2.304103 | 2.304270 | 2.304437 | 2.304604 | 2.304771 | 2.304938 | 2.305105 | 2.305273 |
| 0.870 | 2.305440 | 2.305607 | 2.305774 | 2.305941 | 2.306109 | 2.306276 | 2.306443 | 2.306610 | 2.306777 | 2.306945 |
| 0.880 | 2.307112 | 2.307279 | 2.307446 | 2.307614 | 2.307781 | 2.307948 | 2.308115 | 2.308283 | 2.308450 | 2.308617 |
| 0.890 | 2.308784 | 2.308952 | 2.309119 | 2.309286 | 2.309454 | 2.309621 | 2.309788 | 2.309956 | 2.310123 | 2.310290 |
| 0.900 | 2.310458 | 2.310625 | 2.310793 | 2.310960 | 2.311127 | 2.311295 | 2.311462 | 2.311630 | 2.311797 | 2.311964 |
| 0.910 | 2.312132 | 2.312299 | 2.312467 | 2.312634 | 2.312802 | 2.312969 | 2.313137 | 2.313304 | 2.313472 | 2.313639 |
| 0.920 | 2.313807 | 2.313974 | 2.314142 | 2.314309 | 2.314477 | 2.314644 | 2.314812 | 2.314979 | 2.315147 | 2.315315 |
| 0.930 | 2.315482 | 2.315650 | 2.315817 | 2.315985 | 2.316153 | 2.316320 | 2.316488 | 2.316655 | 2.316823 | 2.316991 |
| 0.940 | 2.317158 | 2.317326 | 2.317494 | 2.317661 | 2.317829 | 2.317997 | 2.318164 | 2.318332 | 2.318500 | 2.318667 |
| 0.950 | 2.318835 | 2.319003 | 2.319171 | 2.319338 | 2.319506 | 2.319674 | 2.319842 | 2.319999 | 2.320177 | 2.320345 |
| 0.960 | 2.320513 | 2.320680 | 2.320848 | 2.321016 | 2.321184 | 2.321352 | 2.321519 | 2.321687 | 2.321855 | 2.322023 |
| 0.970 | 2.322191 | 2.322359 | 2.322527 | 2.322694 | 2.322862 | 2.323030 | 2.323198 | 2.323366 | 2.323534 | 2.323702 |
| 0.980 | 2.323870 | 2.324038 | 2.324206 | 2.324374 | 2.324542 | 2.324709 | 2.324877 | 2.325045 | 2.325213 | 2.325381 |
| 0.990 | 2.325549 | 2.325717 | 2.325885 | 2.326053 | 2.326221 | 2.326389 | 2.326557 | 2.326725 | 2.326893 | 2.327062 |

ATTENUATION IN DECIBELS
THEIA FROM 29.000 TO 29.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.327230 | 2.327398 | 2.327566 | 2.327734 | 2.327902 | 2.328070 | 2.328238 | 2.328406 | 2.328574 | 2.328742 |
| 0.010 | 2.328911 | 2.329079 | 2.329247 | 2.329415 | 2.329583 | 2.329751 | 2.329920 | 2.330088 | 2.330256 | 2.330424 |
| 0.020 | 2.330592 | 2.330761 | 2.330929 | 2.331097 | 2.331265 | 2.331433 | 2.331602 | 2.331770 | 2.331938 | 2.332106 |
| 0.030 | 2.332275 | 2.332443 | 2.332611 | 2.332779 | 2.332948 | 2.333116 | 2.333284 | 2.333453 | 2.333621 | 2.333789 |
| 0.040 | 2.333953 | 2.334126 | 2.334294 | 2.334463 | 2.334631 | 2.334799 | 2.334968 | 2.335136 | 2.335305 | 2.335473 |
| 0.050 | 2.335641 | 2.335810 | 2.335978 | 2.336147 | 2.336315 | 2.336484 | 2.336652 | 2.336821 | 2.336989 | 2.337157 |
| 0.060 | 2.337326 | 2.337494 | 2.337663 | 2.337831 | 2.338000 | 2.338168 | 2.338337 | 2.338505 | 2.338674 | 2.338843 |
| 0.070 | 2.339011 | 2.339180 | 2.339348 | 2.339517 | 2.339685 | 2.339854 | 2.340022 | 2.340191 | 2.340360 | 2.340528 |
| 0.080 | 2.340697 | 2.340865 | 2.341034 | 2.341203 | 2.341371 | 2.341540 | 2.341709 | 2.341877 | 2.342046 | 2.342215 |
| 0.090 | 2.342383 | 2.342552 | 2.342721 | 2.342889 | 2.343058 | 2.343227 | 2.343396 | 2.343564 | 2.343733 | 2.343902 |
| 0.100 | 2.344071 | 2.344239 | 2.344408 | 2.344577 | 2.344746 | 2.344914 | 2.345083 | 2.345252 | 2.345421 | 2.345590 |
| 0.110 | 2.345758 | 2.345927 | 2.346096 | 2.346265 | 2.346434 | 2.346603 | 2.346772 | 2.346940 | 2.347109 | 2.347278 |
| 0.120 | 2.347447 | 2.347616 | 2.347785 | 2.347954 | 2.348123 | 2.348292 | 2.348461 | 2.348630 | 2.348798 | 2.348967 |
| 0.130 | 2.349136 | 2.349305 | 2.349474 | 2.349643 | 2.349812 | 2.349981 | 2.350150 | 2.350319 | 2.350488 | 2.350657 |
| 0.140 | 2.350826 | 2.350995 | 2.351164 | 2.351333 | 2.351503 | 2.351672 | 2.351841 | 2.352010 | 2.352179 | 2.352348 |
| 0.150 | 2.352517 | 2.352686 | 2.352855 | 2.353024 | 2.353194 | 2.353363 | 2.353532 | 2.353701 | 2.353870 | 2.354039 |
| 0.160 | 2.354208 | 2.354378 | 2.354547 | 2.354716 | 2.354885 | 2.355054 | 2.355224 | 2.355393 | 2.355562 | 2.355731 |
| 0.170 | 2.355901 | 2.356070 | 2.356239 | 2.356408 | 2.356578 | 2.356747 | 2.356916 | 2.357085 | 2.357255 | 2.357424 |
| 0.180 | 2.357593 | 2.357763 | 2.357932 | 2.358101 | 2.358271 | 2.358440 | 2.358609 | 2.358779 | 2.358948 | 2.359117 |
| 0.190 | 2.359287 | 2.359456 | 2.359626 | 2.359795 | 2.359964 | 2.360134 | 2.360303 | 2.360473 | 2.360642 | 2.360811 |
| 0.200 | 2.360981 | 2.361150 | 2.361320 | 2.361489 | 2.361659 | 2.361828 | 2.361998 | 2.362167 | 2.362337 | 2.362506 |
| 0.210 | 2.362676 | 2.362845 | 2.363015 | 2.363184 | 2.363354 | 2.363523 | 2.363693 | 2.363863 | 2.364032 | 2.364202 |
| 0.220 | 2.364371 | 2.364541 | 2.364710 | 2.364880 | 2.365050 | 2.365220 | 2.365390 | 2.365560 | 2.365730 | 2.365900 |
| 0.230 | 2.366067 | 2.366237 | 2.366407 | 2.366577 | 2.366746 | 2.366916 | 2.367086 | 2.367255 | 2.367425 | 2.367595 |
| 0.240 | 2.367764 | 2.367934 | 2.368104 | 2.368274 | 2.368443 | 2.368613 | 2.368783 | 2.368953 | 2.369122 | 2.369292 |
| 0.250 | 2.369462 | 2.369632 | 2.369802 | 2.369971 | 2.370141 | 2.370311 | 2.370481 | 2.370651 | 2.370821 | 2.370991 |
| 0.260 | 2.371160 | 2.371330 | 2.371500 | 2.371670 | 2.371840 | 2.372010 | 2.372180 | 2.372350 | 2.372520 | 2.372690 |
| 0.270 | 2.372859 | 2.373029 | 2.373199 | 2.373369 | 2.373539 | 2.373709 | 2.373879 | 2.374049 | 2.374219 | 2.374389 |
| 0.280 | 2.374559 | 2.374729 | 2.374899 | 2.375069 | 2.375239 | 2.375409 | 2.375579 | 2.375749 | 2.375919 | 2.376089 |
| 0.290 | 2.376260 | 2.376430 | 2.376600 | 2.376770 | 2.376940 | 2.377110 | 2.377280 | 2.377450 | 2.377620 | 2.377790 |
| 0.300 | 2.377961 | 2.378131 | 2.378301 | 2.378471 | 2.378641 | 2.378811 | 2.378982 | 2.379152 | 2.379322 | 2.379492 |
| 0.310 | 2.379662 | 2.379833 | 2.380003 | 2.380173 | 2.380343 | 2.380514 | 2.380684 | 2.380854 | 2.381024 | 2.381195 |
| 0.320 | 2.381365 | 2.381535 | 2.381705 | 2.381876 | 2.382046 | 2.382216 | 2.382387 | 2.382557 | 2.382727 | 2.382898 |
| 0.330 | 2.383068 | 2.383238 | 2.383409 | 2.383579 | 2.383750 | 2.383920 | 2.384090 | 2.384261 | 2.384431 | 2.384602 |
| 0.340 | 2.384772 | 2.384942 | 2.385113 | 2.385283 | 2.385454 | 2.385624 | 2.385795 | 2.385965 | 2.386136 | 2.386306 |
| 0.350 | 2.386477 | 2.386647 | 2.386818 | 2.386988 | 2.387159 | 2.387329 | 2.387500 | 2.387670 | 2.387841 | 2.388011 |
| 0.360 | 2.388182 | 2.388352 | 2.388523 | 2.388694 | 2.388864 | 2.389035 | 2.389205 | 2.389376 | 2.389547 | 2.389717 |
| 0.370 | 2.389888 | 2.390058 | 2.390229 | 2.390400 | 2.390570 | 2.390741 | 2.390912 | 2.391082 | 2.391253 | 2.391424 |
| 0.380 | 2.391594 | 2.391765 | 2.391936 | 2.392107 | 2.392277 | 2.392448 | 2.392619 | 2.392790 | 2.392960 | 2.393131 |
| 0.390 | 2.393302 | 2.393473 | 2.393643 | 2.393814 | 2.393985 | 2.394156 | 2.394327 | 2.394497 | 2.394668 | 2.394839 |
| 0.400 | 2.395010 | 2.395181 | 2.395352 | 2.395522 | 2.395693 | 2.395864 | 2.396035 | 2.396206 | 2.396377 | 2.396548 |
| 0.410 | 2.396719 | 2.396890 | 2.397061 | 2.397231 | 2.397402 | 2.397573 | 2.397744 | 2.397915 | 2.398086 | 2.398257 |
| 0.420 | 2.398428 | 2.398599 | 2.398770 | 2.398941 | 2.399112 | 2.399283 | 2.399454 | 2.399625 | 2.399796 | 2.399967 |
| 0.430 | 2.400138 | 2.400309 | 2.400480 | 2.400651 | 2.400823 | 2.400994 | 2.401165 | 2.401336 | 2.401507 | 2.401678 |
| 0.440 | 2.401849 | 2.402020 | 2.402191 | 2.402363 | 2.402534 | 2.402705 | 2.402876 | 2.403047 | 2.403218 | 2.403390 |
| 0.450 | 2.403561 | 2.403732 | 2.403903 | 2.404074 | 2.404246 | 2.404417 | 2.404588 | 2.404759 | 2.404930 | 2.405102 |
| 0.460 | 2.405273 | 2.405444 | 2.405616 | 2.405787 | 2.405958 | 2.406129 | 2.406301 | 2.406472 | 2.406643 | 2.406815 |
| 0.470 | 2.406986 | 2.407157 | 2.407329 | 2.407500 | 2.407671 | 2.407843 | 2.408014 | 2.408185 | 2.408357 | 2.408528 |
| 0.480 | 2.408700 | 2.408871 | 2.409042 | 2.409214 | 2.409385 | 2.409557 | 2.409728 | 2.409900 | 2.410071 | 2.410242 |
| 0.490 | 2.410414 | 2.410585 | 2.410757 | 2.410928 | 2.411100 | 2.411271 | 2.411443 | 2.411614 | 2.411786 | 2.411957 |

ATTENUATION IN DECIBELS
THETA FROM 29.500 TO 29.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.412129 | 2.412300 | 2.412472 | 2.412644 | 2.412815 | 2.412987 | 2.413158 | 2.413330 | 2.413502 | 2.413673 |
| 0.510 | 2.413845 | 2.414016 | 2.414188 | 2.414360 | 2.414531 | 2.414703 | 2.414874 | 2.415046 | 2.415218 | 2.415389 |
| 0.520 | 2.415561 | 2.415733 | 2.415905 | 2.416076 | 2.416248 | 2.416420 | 2.416591 | 2.416763 | 2.416935 | 2.417107 |
| 0.530 | 2.417278 | 2.417450 | 2.417622 | 2.417794 | 2.417965 | 2.418137 | 2.418309 | 2.418481 | 2.418653 | 2.418824 |
| 0.540 | 2.418996 | 2.419168 | 2.419340 | 2.419512 | 2.419683 | 2.419855 | 2.420027 | 2.420199 | 2.420371 | 2.420543 |
| 0.550 | 2.420715 | 2.420887 | 2.421058 | 2.421230 | 2.421402 | 2.421574 | 2.421746 | 2.421918 | 2.422090 | 2.422262 |
| 0.560 | 2.422434 | 2.422606 | 2.422778 | 2.422950 | 2.423122 | 2.423294 | 2.423466 | 2.423638 | 2.423810 | 2.423982 |
| 0.570 | 2.424154 | 2.424326 | 2.424498 | 2.424670 | 2.424842 | 2.425014 | 2.425186 | 2.425358 | 2.425530 | 2.425702 |
| 0.580 | 2.425874 | 2.426047 | 2.426219 | 2.426391 | 2.426563 | 2.426735 | 2.426907 | 2.427079 | 2.427251 | 2.427424 |
| 0.590 | 2.427596 | 2.427768 | 2.427940 | 2.428112 | 2.428285 | 2.428457 | 2.428629 | 2.428801 | 2.428973 | 2.429146 |
| 0.600 | 2.429318 | 2.429490 | 2.429662 | 2.429835 | 2.430007 | 2.430179 | 2.430351 | 2.430524 | 2.430696 | 2.430868 |
| 0.610 | 2.431041 | 2.431213 | 2.431385 | 2.431558 | 2.431730 | 2.431902 | 2.432075 | 2.432247 | 2.432419 | 2.432592 |
| 0.620 | 2.432764 | 2.432936 | 2.433109 | 2.433281 | 2.433454 | 2.433626 | 2.433798 | 2.433971 | 2.434143 | 2.434316 |
| 0.630 | 2.434488 | 2.434661 | 2.434833 | 2.435006 | 2.435178 | 2.435350 | 2.435523 | 2.435695 | 2.435868 | 2.436040 |
| 0.640 | 2.436213 | 2.436386 | 2.436558 | 2.436731 | 2.436903 | 2.437076 | 2.437248 | 2.437421 | 2.437593 | 2.437766 |
| 0.650 | 2.437939 | 2.438111 | 2.438284 | 2.438456 | 2.438629 | 2.438802 | 2.438974 | 2.439147 | 2.439319 | 2.439492 |
| 0.660 | 2.439665 | 2.439837 | 2.440010 | 2.440183 | 2.440355 | 2.440528 | 2.440701 | 2.440874 | 2.441046 | 2.441219 |
| 0.670 | 2.441392 | 2.441564 | 2.441737 | 2.441910 | 2.442083 | 2.442255 | 2.442428 | 2.442601 | 2.442774 | 2.442947 |
| 0.680 | 2.443119 | 2.443292 | 2.443465 | 2.443638 | 2.443811 | 2.443983 | 2.444156 | 2.444329 | 2.444502 | 2.444675 |
| 0.690 | 2.444848 | 2.445021 | 2.445193 | 2.445366 | 2.445539 | 2.445712 | 2.445885 | 2.446058 | 2.446231 | 2.446404 |
| 0.700 | 2.446577 | 2.446750 | 2.446923 | 2.447096 | 2.447269 | 2.447442 | 2.447614 | 2.447787 | 2.447960 | 2.448133 |
| 0.710 | 2.448306 | 2.448479 | 2.448652 | 2.448826 | 2.448999 | 2.449172 | 2.449345 | 2.449518 | 2.449691 | 2.449864 |
| 0.720 | 2.450037 | 2.450210 | 2.450383 | 2.450556 | 2.450729 | 2.450902 | 2.451075 | 2.451249 | 2.451422 | 2.451595 |
| 0.730 | 2.451768 | 2.451941 | 2.452114 | 2.452288 | 2.452461 | 2.452634 | 2.452807 | 2.452980 | 2.453153 | 2.453327 |
| 0.740 | 2.453500 | 2.453673 | 2.453846 | 2.454020 | 2.454193 | 2.454366 | 2.454539 | 2.454713 | 2.454886 | 2.455059 |
| 0.750 | 2.455232 | 2.455406 | 2.455579 | 2.455752 | 2.455926 | 2.456099 | 2.456272 | 2.456446 | 2.456619 | 2.456792 |
| 0.760 | 2.456966 | 2.457139 | 2.457312 | 2.457486 | 2.457659 | 2.457833 | 2.458006 | 2.458179 | 2.458353 | 2.458526 |
| 0.770 | 2.458700 | 2.458873 | 2.459047 | 2.459220 | 2.459393 | 2.459567 | 2.459740 | 2.459914 | 2.460087 | 2.460261 |
| 0.780 | 2.460434 | 2.460608 | 2.460781 | 2.460955 | 2.461128 | 2.461302 | 2.461475 | 2.461649 | 2.461823 | 2.461996 |
| 0.790 | 2.462170 | 2.462343 | 2.462517 | 2.462690 | 2.462864 | 2.463038 | 2.463211 | 2.463385 | 2.463558 | 2.463732 |
| 0.800 | 2.463906 | 2.464079 | 2.464253 | 2.464427 | 2.464600 | 2.464774 | 2.464948 | 2.465121 | 2.465295 | 2.465469 |
| 0.810 | 2.465642 | 2.465816 | 2.465990 | 2.466164 | 2.466337 | 2.466511 | 2.466685 | 2.466859 | 2.467032 | 2.467206 |
| 0.820 | 2.467380 | 2.467554 | 2.467728 | 2.467901 | 2.468075 | 2.468249 | 2.468423 | 2.468597 | 2.468770 | 2.468944 |
| 0.830 | 2.469118 | 2.469292 | 2.469466 | 2.469640 | 2.469814 | 2.469988 | 2.470161 | 2.470335 | 2.470509 | 2.470683 |
| 0.840 | 2.470857 | 2.471031 | 2.471205 | 2.471379 | 2.471553 | 2.471727 | 2.471901 | 2.472075 | 2.472249 | 2.472423 |
| 0.850 | 2.472597 | 2.472771 | 2.472945 | 2.473119 | 2.473293 | 2.473467 | 2.473641 | 2.473815 | 2.473989 | 2.474163 |
| 0.860 | 2.474337 | 2.474511 | 2.474685 | 2.474859 | 2.475033 | 2.475207 | 2.475381 | 2.475555 | 2.475730 | 2.475904 |
| 0.870 | 2.476078 | 2.476252 | 2.476426 | 2.476600 | 2.476774 | 2.476949 | 2.477123 | 2.477297 | 2.477471 | 2.477645 |
| 0.880 | 2.477820 | 2.477994 | 2.478168 | 2.478342 | 2.478516 | 2.478691 | 2.478865 | 2.479039 | 2.479213 | 2.479388 |
| 0.890 | 2.479562 | 2.479736 | 2.479910 | 2.480085 | 2.480259 | 2.480433 | 2.480608 | 2.480782 | 2.480956 | 2.481131 |
| 0.900 | 2.481305 | 2.481479 | 2.481654 | 2.481828 | 2.482002 | 2.482177 | 2.482351 | 2.482526 | 2.482700 | 2.482874 |
| 0.910 | 2.483049 | 2.483223 | 2.483398 | 2.483572 | 2.483747 | 2.483921 | 2.484095 | 2.484270 | 2.484444 | 2.484619 |
| 0.920 | 2.484793 | 2.484968 | 2.485142 | 2.485317 | 2.485491 | 2.485666 | 2.485840 | 2.486015 | 2.486189 | 2.486364 |
| 0.930 | 2.486539 | 2.486713 | 2.486888 | 2.487062 | 2.487237 | 2.487411 | 2.487586 | 2.487761 | 2.487935 | 2.488110 |
| 0.940 | 2.488284 | 2.488459 | 2.488634 | 2.488808 | 2.488983 | 2.489158 | 2.489332 | 2.489507 | 2.489682 | 2.489856 |
| 0.950 | 2.490031 | 2.490206 | 2.490380 | 2.490555 | 2.490730 | 2.490905 | 2.491079 | 2.491254 | 2.491429 | 2.491604 |
| 0.960 | 2.491778 | 2.491953 | 2.492128 | 2.492303 | 2.492478 | 2.492652 | 2.492827 | 2.493002 | 2.493177 | 2.493352 |
| 0.970 | 2.493526 | 2.493701 | 2.493876 | 2.494051 | 2.494226 | 2.494401 | 2.494576 | 2.494751 | 2.494925 | 2.495100 |
| 0.980 | 2.495275 | 2.495450 | 2.495625 | 2.495800 | 2.495975 | 2.496150 | 2.496325 | 2.496500 | 2.496675 | 2.496850 |
| 0.990 | 2.497025 | 2.497200 | 2.497375 | 2.497550 | 2.497725 | 2.497900 | 2.498075 | 2.498250 | 2.498425 | 2.498600 |

ATTENUATION IN DECIBELS
THETA FROM 30.000 TO 30.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.498775 | 2.498950 | 2.499125 | 2.499300 | 2.499475 | 2.499650 | 2.499825 | 2.500000 | 2.500175 | 2.500350 |
| 0.010 | 2.500526 | 2.500701 | 2.500876 | 2.501051 | 2.501226 | 2.501401 | 2.501576 | 2.501752 | 2.501927 | 2.502102 |
| 0.020 | 2.502277 | 2.502452 | 2.502628 | 2.502803 | 2.502978 | 2.503153 | 2.503328 | 2.503504 | 2.503679 | 2.503854 |
| 0.030 | 2.504029 | 2.504204 | 2.504380 | 2.504555 | 2.504730 | 2.504906 | 2.505081 | 2.505256 | 2.505432 | 2.505607 |
| 0.040 | 2.505782 | 2.505958 | 2.506133 | 2.506308 | 2.506484 | 2.506659 | 2.506834 | 2.507010 | 2.507185 | 2.507361 |
| 0.050 | 2.507536 | 2.507711 | 2.507887 | 2.508062 | 2.508238 | 2.508413 | 2.508589 | 2.508764 | 2.508939 | 2.509115 |
| 0.060 | 2.509290 | 2.509466 | 2.509641 | 2.509817 | 2.509992 | 2.510168 | 2.510343 | 2.510519 | 2.510694 | 2.510870 |
| 0.070 | 2.511045 | 2.511221 | 2.511397 | 2.511572 | 2.511748 | 2.511923 | 2.512099 | 2.512274 | 2.512450 | 2.512626 |
| 0.080 | 2.512801 | 2.512977 | 2.513153 | 2.513328 | 2.513504 | 2.513679 | 2.513855 | 2.514031 | 2.514206 | 2.514382 |
| 0.090 | 2.514558 | 2.514733 | 2.514909 | 2.515085 | 2.515261 | 2.515436 | 2.515612 | 2.515788 | 2.515963 | 2.516139 |
| 0.100 | 2.516315 | 2.516491 | 2.516667 | 2.516842 | 2.517018 | 2.517194 | 2.517370 | 2.517545 | 2.517721 | 2.517897 |
| 0.110 | 2.518073 | 2.518249 | 2.518425 | 2.518600 | 2.518776 | 2.518952 | 2.519128 | 2.519304 | 2.519480 | 2.519656 |
| 0.120 | 2.519832 | 2.520007 | 2.520183 | 2.520359 | 2.520535 | 2.520711 | 2.520887 | 2.521063 | 2.521239 | 2.521415 |
| 0.130 | 2.521591 | 2.521767 | 2.521943 | 2.522119 | 2.522295 | 2.522471 | 2.522647 | 2.522823 | 2.522999 | 2.523175 |
| 0.140 | 2.523351 | 2.523527 | 2.523703 | 2.523879 | 2.524055 | 2.524231 | 2.524407 | 2.524583 | 2.524759 | 2.524936 |
| 0.150 | 2.525112 | 2.525288 | 2.525464 | 2.525640 | 2.525816 | 2.525992 | 2.526168 | 2.526344 | 2.526520 | 2.526697 |
| 0.160 | 2.526873 | 2.527049 | 2.527225 | 2.527402 | 2.527578 | 2.527754 | 2.527930 | 2.528106 | 2.528282 | 2.528459 |
| 0.170 | 2.528635 | 2.528811 | 2.528988 | 2.529164 | 2.529340 | 2.529517 | 2.529693 | 2.529869 | 2.530045 | 2.530222 |
| 0.180 | 2.530398 | 2.530574 | 2.530751 | 2.530927 | 2.531103 | 2.531280 | 2.531456 | 2.531633 | 2.531809 | 2.531985 |
| 0.190 | 2.532162 | 2.532338 | 2.532514 | 2.532691 | 2.532867 | 2.533044 | 2.533220 | 2.533397 | 2.533573 | 2.533749 |
| 0.200 | 2.533926 | 2.534102 | 2.534279 | 2.534455 | 2.534632 | 2.534808 | 2.534985 | 2.535161 | 2.535338 | 2.535514 |
| 0.210 | 2.535691 | 2.535867 | 2.536044 | 2.536221 | 2.536397 | 2.536574 | 2.536750 | 2.536927 | 2.537103 | 2.537280 |
| 0.220 | 2.537457 | 2.537633 | 2.537810 | 2.537986 | 2.538163 | 2.538340 | 2.538516 | 2.538693 | 2.538870 | 2.539046 |
| 0.230 | 2.539223 | 2.539400 | 2.539576 | 2.539753 | 2.539930 | 2.540107 | 2.540283 | 2.540460 | 2.540637 | 2.540813 |
| 0.240 | 2.540990 | 2.541167 | 2.541344 | 2.541520 | 2.541697 | 2.541874 | 2.542051 | 2.542228 | 2.542404 | 2.542581 |
| 0.250 | 2.542758 | 2.542935 | 2.543112 | 2.543288 | 2.543465 | 2.543642 | 2.543819 | 2.543996 | 2.544173 | 2.544350 |
| 0.260 | 2.544527 | 2.544703 | 2.544880 | 2.545057 | 2.545234 | 2.545411 | 2.545588 | 2.545765 | 2.545942 | 2.546119 |
| 0.270 | 2.546296 | 2.546473 | 2.546650 | 2.546827 | 2.547004 | 2.547181 | 2.547358 | 2.547535 | 2.547712 | 2.547889 |
| 0.280 | 2.548066 | 2.548243 | 2.548420 | 2.548597 | 2.548774 | 2.548951 | 2.549128 | 2.549305 | 2.549482 | 2.549659 |
| 0.290 | 2.549836 | 2.550013 | 2.550191 | 2.550368 | 2.550545 | 2.550722 | 2.550899 | 2.551076 | 2.551253 | 2.551431 |
| 0.300 | 2.551608 | 2.551785 | 2.551962 | 2.552139 | 2.552316 | 2.552494 | 2.552671 | 2.552848 | 2.553025 | 2.553203 |
| 0.310 | 2.553380 | 2.553557 | 2.553734 | 2.553912 | 2.554089 | 2.554266 | 2.554443 | 2.554621 | 2.554798 | 2.554975 |
| 0.320 | 2.555153 | 2.555330 | 2.555507 | 2.555685 | 2.555862 | 2.556039 | 2.556217 | 2.556394 | 2.556571 | 2.556749 |
| 0.330 | 2.556926 | 2.557104 | 2.557281 | 2.557458 | 2.557636 | 2.557813 | 2.557991 | 2.558168 | 2.558345 | 2.558523 |
| 0.340 | 2.558700 | 2.558878 | 2.559055 | 2.559233 | 2.559410 | 2.559588 | 2.559765 | 2.559943 | 2.560120 | 2.560298 |
| 0.350 | 2.560475 | 2.560653 | 2.560830 | 2.561008 | 2.561185 | 2.561363 | 2.561541 | 2.561718 | 2.561896 | 2.562073 |
| 0.360 | 2.562251 | 2.562428 | 2.562606 | 2.562784 | 2.562961 | 2.563139 | 2.563317 | 2.563494 | 2.563672 | 2.563850 |
| 0.370 | 2.564027 | 2.564204 | 2.564383 | 2.564560 | 2.564738 | 2.564916 | 2.565093 | 2.565271 | 2.565449 | 2.565627 |
| 0.380 | 2.565804 | 2.565982 | 2.566160 | 2.566338 | 2.566515 | 2.566693 | 2.566871 | 2.567049 | 2.567226 | 2.567404 |
| 0.390 | 2.567582 | 2.567760 | 2.567938 | 2.568116 | 2.568293 | 2.568471 | 2.568649 | 2.568827 | 2.569005 | 2.569183 |
| 0.400 | 2.569361 | 2.569538 | 2.569716 | 2.569894 | 2.570072 | 2.570250 | 2.570428 | 2.570606 | 2.570784 | 2.570962 |
| 0.410 | 2.571140 | 2.571318 | 2.571496 | 2.571674 | 2.571852 | 2.572030 | 2.572208 | 2.572386 | 2.572564 | 2.572742 |
| 0.420 | 2.572920 | 2.573098 | 2.573276 | 2.573454 | 2.573632 | 2.573810 | 2.573988 | 2.574166 | 2.574344 | 2.574522 |
| 0.430 | 2.574700 | 2.574878 | 2.575056 | 2.575235 | 2.575413 | 2.575591 | 2.575769 | 2.575947 | 2.576125 | 2.576303 |
| 0.440 | 2.576482 | 2.576660 | 2.576838 | 2.577016 | 2.577194 | 2.577372 | 2.577551 | 2.577729 | 2.577907 | 2.578085 |
| 0.450 | 2.578264 | 2.578442 | 2.578620 | 2.578798 | 2.578977 | 2.579155 | 2.579333 | 2.579511 | 2.579690 | 2.579868 |
| 0.460 | 2.580046 | 2.580225 | 2.580403 | 2.580581 | 2.580759 | 2.580938 | 2.581116 | 2.581295 | 2.581473 | 2.581651 |
| 0.470 | 2.581830 | 2.582008 | 2.582187 | 2.582365 | 2.582543 | 2.582722 | 2.582900 | 2.583079 | 2.583257 | 2.583436 |
| 0.480 | 2.583614 | 2.583792 | 2.583971 | 2.584149 | 2.584328 | 2.584506 | 2.584685 | 2.584863 | 2.585042 | 2.585220 |
| 0.490 | 2.585399 | 2.585577 | 2.585756 | 2.585934 | 2.586113 | 2.586292 | 2.586470 | 2.586649 | 2.586827 | 2.587006 |

ATTENUATION IN DECIBELS
 THETA FROM 30.500 TO 30.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.587184 | 2.587363 | 2.587542 | 2.587720 | 2.587899 | 2.588078 | 2.588256 | 2.588435 | 2.588613 | 2.588792 |
| 0.510 | 2.588971 | 2.589149 | 2.589328 | 2.589507 | 2.589686 | 2.589864 | 2.590043 | 2.590222 | 2.590400 | 2.590579 |
| 0.520 | 2.590937 | 2.591115 | 2.591294 | 2.591473 | 2.591652 | 2.591830 | 2.592009 | 2.592188 | 2.592367 | 2.592546 |
| 0.530 | 2.592546 | 2.592724 | 2.592903 | 2.593082 | 2.593261 | 2.593440 | 2.593618 | 2.593797 | 2.593976 | 2.594155 |
| 0.540 | 2.594334 | 2.594513 | 2.594692 | 2.594871 | 2.595050 | 2.595228 | 2.595407 | 2.595586 | 2.595765 | 2.595944 |
| 0.550 | 2.596123 | 2.596302 | 2.596481 | 2.596660 | 2.596839 | 2.597018 | 2.597197 | 2.597376 | 2.597555 | 2.597734 |
| 0.560 | 2.597913 | 2.598092 | 2.598271 | 2.598450 | 2.598629 | 2.598808 | 2.598987 | 2.599166 | 2.599345 | 2.599524 |
| 0.570 | 2.599704 | 2.599883 | 2.600062 | 2.600241 | 2.600420 | 2.600599 | 2.600778 | 2.600957 | 2.601136 | 2.601316 |
| 0.580 | 2.601674 | 2.601853 | 2.602032 | 2.602211 | 2.602390 | 2.602569 | 2.602748 | 2.602927 | 2.603106 | 2.603285 |
| 0.590 | 2.603327 | 2.603466 | 2.603645 | 2.603825 | 2.604004 | 2.604183 | 2.604362 | 2.604542 | 2.604721 | 2.604900 |
| 0.600 | 2.605080 | 2.605259 | 2.605438 | 2.605618 | 2.605797 | 2.605976 | 2.606156 | 2.606335 | 2.606514 | 2.606694 |
| 0.610 | 2.606873 | 2.607052 | 2.607232 | 2.607411 | 2.607591 | 2.607770 | 2.607949 | 2.608129 | 2.608308 | 2.608488 |
| 0.620 | 2.608667 | 2.608847 | 2.609026 | 2.609206 | 2.609385 | 2.609565 | 2.609744 | 2.609924 | 2.610103 | 2.610283 |
| 0.630 | 2.610467 | 2.610647 | 2.610827 | 2.611007 | 2.611187 | 2.611366 | 2.611546 | 2.611725 | 2.611905 | 2.612085 |
| 0.640 | 2.612258 | 2.612437 | 2.612617 | 2.612797 | 2.612976 | 2.613156 | 2.613335 | 2.613515 | 2.613695 | 2.613874 |
| 0.650 | 2.614054 | 2.614234 | 2.614413 | 2.614593 | 2.614773 | 2.614952 | 2.615132 | 2.615312 | 2.615492 | 2.615671 |
| 0.660 | 2.615851 | 2.616031 | 2.616211 | 2.616390 | 2.616570 | 2.616750 | 2.616930 | 2.617109 | 2.617289 | 2.617469 |
| 0.670 | 2.617649 | 2.617829 | 2.618008 | 2.618188 | 2.618368 | 2.618548 | 2.618728 | 2.618908 | 2.619087 | 2.619267 |
| 0.680 | 2.619447 | 2.619627 | 2.619807 | 2.619987 | 2.620167 | 2.620347 | 2.620527 | 2.620707 | 2.620887 | 2.621066 |
| 0.690 | 2.621246 | 2.621426 | 2.621606 | 2.621786 | 2.621966 | 2.622146 | 2.622326 | 2.622506 | 2.622686 | 2.622866 |
| 0.700 | 2.623046 | 2.623226 | 2.623406 | 2.623586 | 2.623766 | 2.623946 | 2.624127 | 2.624307 | 2.624487 | 2.624667 |
| 0.710 | 2.624847 | 2.625027 | 2.625207 | 2.625387 | 2.625567 | 2.625747 | 2.625928 | 2.626108 | 2.626288 | 2.626468 |
| 0.720 | 2.626648 | 2.626828 | 2.627009 | 2.627189 | 2.627369 | 2.627549 | 2.627729 | 2.627910 | 2.628090 | 2.628270 |
| 0.730 | 2.628450 | 2.628630 | 2.628811 | 2.628991 | 2.629171 | 2.629351 | 2.629532 | 2.629712 | 2.629892 | 2.630073 |
| 0.740 | 2.630253 | 2.630433 | 2.630614 | 2.630794 | 2.630974 | 2.631155 | 2.631335 | 2.631515 | 2.631696 | 2.631876 |
| 0.750 | 2.632056 | 2.632237 | 2.632417 | 2.632598 | 2.632778 | 2.632958 | 2.633139 | 2.633319 | 2.633500 | 2.633680 |
| 0.760 | 2.633861 | 2.634041 | 2.634222 | 2.634402 | 2.634582 | 2.634763 | 2.634943 | 2.635124 | 2.635304 | 2.635485 |
| 0.770 | 2.635865 | 2.635846 | 2.636027 | 2.636207 | 2.636388 | 2.636568 | 2.636749 | 2.636929 | 2.637110 | 2.637291 |
| 0.780 | 2.637471 | 2.637652 | 2.637832 | 2.638013 | 2.638194 | 2.638374 | 2.638555 | 2.638735 | 2.638916 | 2.639097 |
| 0.790 | 2.639277 | 2.639458 | 2.639639 | 2.639819 | 2.640000 | 2.640181 | 2.640362 | 2.640542 | 2.640723 | 2.640904 |
| 0.800 | 2.641084 | 2.641265 | 2.641446 | 2.641627 | 2.641807 | 2.641988 | 2.642169 | 2.642350 | 2.642531 | 2.642711 |
| 0.810 | 2.642892 | 2.643073 | 2.643254 | 2.643435 | 2.643616 | 2.643796 | 2.643977 | 2.644158 | 2.644339 | 2.644520 |
| 0.820 | 2.644701 | 2.644882 | 2.645062 | 2.645243 | 2.645424 | 2.645605 | 2.645786 | 2.645967 | 2.646148 | 2.646329 |
| 0.830 | 2.646510 | 2.646691 | 2.646872 | 2.647053 | 2.647234 | 2.647415 | 2.647596 | 2.647777 | 2.647958 | 2.648139 |
| 0.840 | 2.648320 | 2.648501 | 2.648683 | 2.648863 | 2.649044 | 2.649225 | 2.649406 | 2.649587 | 2.649768 | 2.649949 |
| 0.850 | 2.650130 | 2.650312 | 2.650493 | 2.650674 | 2.650855 | 2.651036 | 2.651217 | 2.651398 | 2.651579 | 2.651761 |
| 0.860 | 2.651942 | 2.652123 | 2.652304 | 2.652485 | 2.652667 | 2.652848 | 2.653029 | 2.653210 | 2.653391 | 2.653573 |
| 0.870 | 2.653754 | 2.653935 | 2.654116 | 2.654298 | 2.654479 | 2.654660 | 2.654841 | 2.655023 | 2.655204 | 2.655385 |
| 0.880 | 2.655567 | 2.655748 | 2.655929 | 2.656111 | 2.656292 | 2.656473 | 2.656654 | 2.656836 | 2.657017 | 2.657199 |
| 0.890 | 2.657380 | 2.657562 | 2.657743 | 2.657924 | 2.658106 | 2.658287 | 2.658469 | 2.658650 | 2.658831 | 2.659013 |
| 0.900 | 2.659194 | 2.659376 | 2.659557 | 2.659739 | 2.659920 | 2.660102 | 2.660283 | 2.660465 | 2.660646 | 2.660828 |
| 0.910 | 2.661039 | 2.661191 | 2.661372 | 2.661554 | 2.661736 | 2.661917 | 2.662099 | 2.662280 | 2.662462 | 2.662643 |
| 0.920 | 2.662825 | 2.663007 | 2.663188 | 2.663370 | 2.663551 | 2.663733 | 2.663915 | 2.664096 | 2.664278 | 2.664460 |
| 0.930 | 2.664641 | 2.664823 | 2.665005 | 2.665186 | 2.665368 | 2.665550 | 2.665732 | 2.665913 | 2.666095 | 2.666277 |
| 0.940 | 2.666458 | 2.666640 | 2.666822 | 2.667004 | 2.667186 | 2.667367 | 2.667549 | 2.667731 | 2.667913 | 2.668094 |
| 0.950 | 2.668276 | 2.668458 | 2.668640 | 2.668822 | 2.669004 | 2.669185 | 2.669367 | 2.669549 | 2.669731 | 2.669913 |
| 0.960 | 2.670095 | 2.670277 | 2.670459 | 2.670641 | 2.670822 | 2.671004 | 2.671186 | 2.671368 | 2.671550 | 2.671732 |
| 0.970 | 2.671914 | 2.672096 | 2.672278 | 2.672460 | 2.672642 | 2.672824 | 2.673006 | 2.673188 | 2.673370 | 2.673552 |
| 0.980 | 2.673734 | 2.673916 | 2.674098 | 2.674280 | 2.674462 | 2.674644 | 2.674826 | 2.675008 | 2.675191 | 2.675373 |
| 0.990 | 2.675555 | 2.675737 | 2.675919 | 2.676101 | 2.676283 | 2.676465 | 2.676648 | 2.676830 | 2.677012 | 2.677194 |

ATTENUATION IN DECIBELS
THETA FROM 31.000 TO 31.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.677376 | 2.677558 | 2.677741 | 2.677923 | 2.678105 | 2.678287 | 2.678469 | 2.678652 | 2.678834 | 2.679016 |
| 0.010 | 2.679198 | 2.679381 | 2.679563 | 2.679745 | 2.679927 | 2.680110 | 2.680292 | 2.680474 | 2.680657 | 2.680839 |
| 0.020 | 2.681021 | 2.681204 | 2.681386 | 2.681568 | 2.681751 | 2.681933 | 2.682115 | 2.682298 | 2.682480 | 2.682662 |
| 0.030 | 2.682845 | 2.683027 | 2.683210 | 2.683392 | 2.683574 | 2.683757 | 2.683939 | 2.684122 | 2.684304 | 2.684487 |
| 0.040 | 2.684669 | 2.684852 | 2.685034 | 2.685216 | 2.685399 | 2.685581 | 2.685764 | 2.685946 | 2.686129 | 2.686312 |
| 0.050 | 2.686494 | 2.686677 | 2.686859 | 2.687042 | 2.687224 | 2.687407 | 2.687589 | 2.687772 | 2.687955 | 2.688137 |
| 0.060 | 2.688320 | 2.688502 | 2.688685 | 2.688868 | 2.689050 | 2.689233 | 2.689416 | 2.689598 | 2.689781 | 2.689964 |
| 0.070 | 2.690146 | 2.690329 | 2.690512 | 2.690694 | 2.690877 | 2.691060 | 2.691242 | 2.691425 | 2.691608 | 2.691791 |
| 0.080 | 2.691973 | 2.692156 | 2.692339 | 2.692522 | 2.692705 | 2.692887 | 2.693070 | 2.693253 | 2.693436 | 2.693619 |
| 0.090 | 2.693801 | 2.693984 | 2.694167 | 2.694350 | 2.694533 | 2.694716 | 2.694898 | 2.695081 | 2.695264 | 2.695447 |
| 0.100 | 2.695630 | 2.695813 | 2.695996 | 2.696179 | 2.696362 | 2.696545 | 2.696728 | 2.696910 | 2.697093 | 2.697276 |
| 0.110 | 2.697459 | 2.697642 | 2.697825 | 2.698008 | 2.698191 | 2.698374 | 2.698557 | 2.698740 | 2.698923 | 2.699106 |
| 0.120 | 2.699289 | 2.699472 | 2.699656 | 2.699839 | 2.700022 | 2.700205 | 2.700388 | 2.700571 | 2.700754 | 2.700937 |
| 0.130 | 2.701120 | 2.701303 | 2.701486 | 2.701670 | 2.701853 | 2.702036 | 2.702219 | 2.702402 | 2.702585 | 2.702769 |
| 0.140 | 2.702952 | 2.703135 | 2.703318 | 2.703501 | 2.703684 | 2.703868 | 2.704051 | 2.704234 | 2.704417 | 2.704601 |
| 0.150 | 2.704784 | 2.704967 | 2.705150 | 2.705334 | 2.705517 | 2.705700 | 2.705884 | 2.706067 | 2.706250 | 2.706434 |
| 0.160 | 2.706617 | 2.706800 | 2.706984 | 2.707167 | 2.707350 | 2.707534 | 2.707717 | 2.707900 | 2.708084 | 2.708267 |
| 0.170 | 2.708451 | 2.708634 | 2.708817 | 2.709001 | 2.709184 | 2.709368 | 2.709551 | 2.709735 | 2.709918 | 2.710102 |
| 0.180 | 2.710285 | 2.710468 | 2.710652 | 2.710835 | 2.711019 | 2.711202 | 2.711386 | 2.711570 | 2.711753 | 2.711937 |
| 0.190 | 2.712120 | 2.712304 | 2.712487 | 2.712671 | 2.712854 | 2.713038 | 2.713222 | 2.713405 | 2.713589 | 2.713772 |
| 0.200 | 2.713956 | 2.714140 | 2.714323 | 2.714507 | 2.714691 | 2.714874 | 2.715058 | 2.715242 | 2.715425 | 2.715609 |
| 0.210 | 2.715793 | 2.715976 | 2.716160 | 2.716344 | 2.716527 | 2.716711 | 2.716895 | 2.717079 | 2.717262 | 2.717446 |
| 0.220 | 2.717630 | 2.717814 | 2.717997 | 2.718181 | 2.718365 | 2.718549 | 2.718733 | 2.718916 | 2.719100 | 2.719284 |
| 0.230 | 2.719468 | 2.719652 | 2.719836 | 2.720019 | 2.720203 | 2.720387 | 2.720571 | 2.720755 | 2.720939 | 2.721123 |
| 0.240 | 2.721307 | 2.721491 | 2.721674 | 2.721858 | 2.722042 | 2.722226 | 2.722410 | 2.722594 | 2.722778 | 2.722962 |
| 0.250 | 2.723146 | 2.723330 | 2.723514 | 2.723698 | 2.723882 | 2.724066 | 2.724250 | 2.724434 | 2.724618 | 2.724802 |
| 0.260 | 2.724986 | 2.725170 | 2.725354 | 2.725538 | 2.725723 | 2.725907 | 2.726091 | 2.726275 | 2.726459 | 2.726643 |
| 0.270 | 2.726827 | 2.727011 | 2.727195 | 2.727380 | 2.727564 | 2.727748 | 2.727932 | 2.728116 | 2.728300 | 2.728485 |
| 0.280 | 2.728669 | 2.728853 | 2.729037 | 2.729221 | 2.729406 | 2.729590 | 2.729774 | 2.729958 | 2.730143 | 2.730327 |
| 0.290 | 2.730511 | 2.730695 | 2.730880 | 2.731064 | 2.731248 | 2.731433 | 2.731617 | 2.731801 | 2.731986 | 2.732170 |
| 0.300 | 2.732354 | 2.732539 | 2.732723 | 2.732907 | 2.733092 | 2.733276 | 2.733460 | 2.733645 | 2.733829 | 2.734014 |
| 0.310 | 2.734198 | 2.734383 | 2.734567 | 2.734751 | 2.734936 | 2.735120 | 2.735305 | 2.735489 | 2.735674 | 2.735858 |
| 0.320 | 2.736043 | 2.736227 | 2.736412 | 2.736596 | 2.736781 | 2.736965 | 2.737150 | 2.737334 | 2.737519 | 2.737703 |
| 0.330 | 2.737888 | 2.738072 | 2.738257 | 2.738442 | 2.738626 | 2.738811 | 2.738995 | 2.739180 | 2.739365 | 2.739549 |
| 0.340 | 2.739734 | 2.739919 | 2.740103 | 2.740288 | 2.740472 | 2.740657 | 2.740842 | 2.741027 | 2.741211 | 2.741396 |
| 0.350 | 2.741581 | 2.741765 | 2.741950 | 2.742135 | 2.742320 | 2.742504 | 2.742689 | 2.742874 | 2.743059 | 2.743244 |
| 0.360 | 2.743428 | 2.743613 | 2.743798 | 2.743982 | 2.744167 | 2.744352 | 2.744537 | 2.744722 | 2.744907 | 2.745091 |
| 0.370 | 2.745276 | 2.745461 | 2.745646 | 2.745831 | 2.746016 | 2.746201 | 2.746385 | 2.746570 | 2.746755 | 2.746940 |
| 0.380 | 2.747125 | 2.747310 | 2.747495 | 2.747680 | 2.747865 | 2.748050 | 2.748235 | 2.748420 | 2.748605 | 2.748790 |
| 0.390 | 2.748975 | 2.749160 | 2.749345 | 2.749530 | 2.749715 | 2.749900 | 2.750085 | 2.750270 | 2.750455 | 2.750640 |
| 0.400 | 2.750825 | 2.751010 | 2.751195 | 2.751380 | 2.751565 | 2.751751 | 2.751936 | 2.752121 | 2.752306 | 2.752491 |
| 0.410 | 2.752676 | 2.752861 | 2.753046 | 2.753232 | 2.753417 | 2.753602 | 2.753787 | 2.753972 | 2.754158 | 2.754343 |
| 0.420 | 2.754528 | 2.754713 | 2.754898 | 2.755084 | 2.755269 | 2.755454 | 2.755639 | 2.755825 | 2.756010 | 2.756195 |
| 0.430 | 2.756380 | 2.756566 | 2.756751 | 2.756936 | 2.757122 | 2.757307 | 2.757492 | 2.757678 | 2.757863 | 2.758048 |
| 0.440 | 2.758234 | 2.758419 | 2.758604 | 2.758790 | 2.758975 | 2.759161 | 2.759346 | 2.759531 | 2.759717 | 2.759902 |
| 0.450 | 2.760088 | 2.760273 | 2.760459 | 2.760644 | 2.760830 | 2.761015 | 2.761201 | 2.761386 | 2.761571 | 2.761757 |
| 0.460 | 2.761942 | 2.762128 | 2.762313 | 2.762499 | 2.762684 | 2.762870 | 2.763056 | 2.763241 | 2.763427 | 2.763612 |
| 0.470 | 2.763998 | 2.764183 | 2.764369 | 2.764554 | 2.764739 | 2.764924 | 2.765109 | 2.765294 | 2.765479 | 2.765664 |
| 0.480 | 2.765954 | 2.766139 | 2.766325 | 2.766510 | 2.766695 | 2.766880 | 2.767065 | 2.767250 | 2.767435 | 2.767620 |
| 0.490 | 2.767511 | 2.767697 | 2.767882 | 2.768068 | 2.768254 | 2.768440 | 2.768625 | 2.768811 | 2.768997 | 2.769183 |

ATTENUATION IN DECIBELS
THETA FROM 31.500 TO 31.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.769369 | 2.769554 | 2.769740 | 2.769926 | 2.770112 | 2.770298 | 2.770483 | 2.770669 | 2.770855 | 2.771041 |
| 0.510 | 2.771227 | 2.771413 | 2.771599 | 2.771785 | 2.771970 | 2.772156 | 2.772342 | 2.772528 | 2.772714 | 2.772900 |
| 0.520 | 2.773086 | 2.773272 | 2.773458 | 2.773644 | 2.773830 | 2.774016 | 2.774202 | 2.774388 | 2.774574 | 2.774760 |
| 0.530 | 2.774946 | 2.775132 | 2.775318 | 2.775504 | 2.775690 | 2.775876 | 2.776062 | 2.776248 | 2.776434 | 2.776620 |
| 0.540 | 2.776806 | 2.776992 | 2.777178 | 2.777365 | 2.777551 | 2.777737 | 2.777923 | 2.778109 | 2.778295 | 2.778481 |
| 0.550 | 2.778668 | 2.778854 | 2.779040 | 2.779226 | 2.779412 | 2.779598 | 2.779785 | 2.779971 | 2.780157 | 2.780343 |
| 0.560 | 2.780529 | 2.780716 | 2.780902 | 2.781088 | 2.781274 | 2.781461 | 2.781647 | 2.781833 | 2.782020 | 2.782206 |
| 0.570 | 2.782392 | 2.782579 | 2.782765 | 2.782951 | 2.783138 | 2.783324 | 2.783510 | 2.783697 | 2.783883 | 2.784069 |
| 0.580 | 2.784256 | 2.784442 | 2.784628 | 2.784815 | 2.785001 | 2.785188 | 2.785374 | 2.785561 | 2.785747 | 2.785933 |
| 0.590 | 2.786120 | 2.786306 | 2.786493 | 2.786679 | 2.786866 | 2.787052 | 2.787239 | 2.787425 | 2.787612 | 2.787798 |
| 0.600 | 2.787985 | 2.788171 | 2.788358 | 2.788544 | 2.788731 | 2.788917 | 2.789104 | 2.789291 | 2.789477 | 2.789664 |
| 0.610 | 2.789850 | 2.790037 | 2.790224 | 2.790410 | 2.790597 | 2.790783 | 2.790970 | 2.791157 | 2.791343 | 2.791530 |
| 0.620 | 2.791717 | 2.791903 | 2.792090 | 2.792277 | 2.792463 | 2.792650 | 2.792837 | 2.793024 | 2.793210 | 2.793397 |
| 0.630 | 2.793584 | 2.793771 | 2.793957 | 2.794144 | 2.794331 | 2.794518 | 2.794704 | 2.794891 | 2.795078 | 2.795265 |
| 0.640 | 2.795452 | 2.795638 | 2.795825 | 2.796011 | 2.796199 | 2.796386 | 2.796573 | 2.796760 | 2.796946 | 2.797133 |
| 0.650 | 2.797320 | 2.797507 | 2.797694 | 2.797881 | 2.798068 | 2.798254 | 2.798442 | 2.798629 | 2.798816 | 2.799002 |
| 0.660 | 2.799189 | 2.799376 | 2.799563 | 2.799750 | 2.799937 | 2.800124 | 2.800311 | 2.800498 | 2.800685 | 2.800872 |
| 0.670 | 2.801059 | 2.801247 | 2.801434 | 2.801621 | 2.801808 | 2.801995 | 2.802182 | 2.802369 | 2.802556 | 2.802743 |
| 0.680 | 2.802930 | 2.803117 | 2.803304 | 2.803492 | 2.803679 | 2.803866 | 2.804053 | 2.804240 | 2.804427 | 2.804615 |
| 0.690 | 2.804802 | 2.804989 | 2.805176 | 2.805363 | 2.805550 | 2.805738 | 2.805925 | 2.806112 | 2.806299 | 2.806487 |
| 0.700 | 2.806674 | 2.806861 | 2.807048 | 2.807236 | 2.807423 | 2.807610 | 2.807798 | 2.807985 | 2.808172 | 2.808360 |
| 0.710 | 2.808547 | 2.808734 | 2.808922 | 2.809109 | 2.809296 | 2.809484 | 2.809671 | 2.809858 | 2.810046 | 2.810233 |
| 0.720 | 2.810421 | 2.810608 | 2.810795 | 2.810983 | 2.811170 | 2.811358 | 2.811545 | 2.811733 | 2.811920 | 2.812107 |
| 0.730 | 2.812295 | 2.812482 | 2.812670 | 2.812857 | 2.813045 | 2.813232 | 2.813420 | 2.813607 | 2.813795 | 2.813982 |
| 0.740 | 2.814170 | 2.814358 | 2.814545 | 2.814733 | 2.814920 | 2.815108 | 2.815295 | 2.815483 | 2.815671 | 2.815858 |
| 0.750 | 2.816046 | 2.816234 | 2.816421 | 2.816609 | 2.816796 | 2.816984 | 2.817172 | 2.817359 | 2.817547 | 2.817735 |
| 0.760 | 2.817922 | 2.818110 | 2.818298 | 2.818486 | 2.818673 | 2.818861 | 2.819049 | 2.819237 | 2.819424 | 2.819612 |
| 0.770 | 2.819800 | 2.819988 | 2.820175 | 2.820363 | 2.820551 | 2.820739 | 2.820927 | 2.821114 | 2.821302 | 2.821490 |
| 0.780 | 2.821678 | 2.821866 | 2.822054 | 2.822241 | 2.822429 | 2.822617 | 2.822805 | 2.822993 | 2.823181 | 2.823369 |
| 0.790 | 2.823557 | 2.823745 | 2.823932 | 2.824120 | 2.824308 | 2.824496 | 2.824684 | 2.824872 | 2.825060 | 2.825248 |
| 0.800 | 2.825436 | 2.825624 | 2.825812 | 2.826000 | 2.826188 | 2.826376 | 2.826564 | 2.826752 | 2.826940 | 2.827128 |
| 0.810 | 2.827316 | 2.827504 | 2.827693 | 2.827881 | 2.828069 | 2.828257 | 2.828445 | 2.828633 | 2.828821 | 2.829009 |
| 0.820 | 2.829197 | 2.829386 | 2.829574 | 2.829762 | 2.829950 | 2.830138 | 2.830326 | 2.830514 | 2.830703 | 2.830891 |
| 0.830 | 2.831079 | 2.831267 | 2.831456 | 2.831644 | 2.831832 | 2.832020 | 2.832209 | 2.832397 | 2.832585 | 2.832773 |
| 0.840 | 2.832962 | 2.833150 | 2.833338 | 2.833526 | 2.833715 | 2.833903 | 2.834091 | 2.834280 | 2.834468 | 2.834656 |
| 0.850 | 2.834845 | 2.835033 | 2.835221 | 2.835410 | 2.835598 | 2.835787 | 2.835975 | 2.836163 | 2.836352 | 2.836540 |
| 0.860 | 2.836729 | 2.836917 | 2.837106 | 2.837294 | 2.837482 | 2.837671 | 2.837859 | 2.838048 | 2.838236 | 2.838425 |
| 0.870 | 2.838613 | 2.838802 | 2.838990 | 2.839179 | 2.839367 | 2.839556 | 2.839744 | 2.839933 | 2.840122 | 2.840310 |
| 0.880 | 2.840499 | 2.840687 | 2.840876 | 2.841064 | 2.841253 | 2.841442 | 2.841630 | 2.841819 | 2.842008 | 2.842196 |
| 0.890 | 2.842385 | 2.842573 | 2.842762 | 2.842951 | 2.843139 | 2.843328 | 2.843517 | 2.843706 | 2.843894 | 2.844083 |
| 0.900 | 2.844272 | 2.844460 | 2.844649 | 2.844838 | 2.845027 | 2.845215 | 2.845404 | 2.845593 | 2.845782 | 2.845970 |
| 0.910 | 2.846159 | 2.846348 | 2.846537 | 2.846726 | 2.846915 | 2.847103 | 2.847292 | 2.847481 | 2.847670 | 2.847859 |
| 0.920 | 2.848048 | 2.848236 | 2.848425 | 2.848614 | 2.848803 | 2.848992 | 2.849181 | 2.849370 | 2.849559 | 2.849748 |
| 0.930 | 2.849937 | 2.850126 | 2.850315 | 2.850504 | 2.850692 | 2.850881 | 2.851070 | 2.851259 | 2.851448 | 2.851637 |
| 0.940 | 2.851826 | 2.852015 | 2.852205 | 2.852394 | 2.852583 | 2.852772 | 2.852961 | 2.853150 | 2.853339 | 2.853528 |
| 0.950 | 2.853717 | 2.853906 | 2.854095 | 2.854284 | 2.854473 | 2.854663 | 2.854852 | 2.855041 | 2.855230 | 2.855419 |
| 0.960 | 2.855608 | 2.855797 | 2.855987 | 2.856176 | 2.856365 | 2.856554 | 2.856743 | 2.856933 | 2.857122 | 2.857311 |
| 0.970 | 2.857500 | 2.857689 | 2.857879 | 2.858068 | 2.858257 | 2.858446 | 2.858636 | 2.858825 | 2.859014 | 2.859204 |
| 0.980 | 2.859393 | 2.859582 | 2.859772 | 2.859961 | 2.860150 | 2.860340 | 2.860529 | 2.860718 | 2.860908 | 2.861097 |
| 0.990 | 2.861286 | 2.861476 | 2.861665 | 2.861855 | 2.862044 | 2.862233 | 2.862423 | 2.862612 | 2.862802 | 2.862991 |

ATTENUATION IN DECIBELS
THETA FROM 32.000 TO 32.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 2.863181 | 2.863370 | 2.863560 | 2.863749 | 2.863939 | 2.864128 | 2.864318 | 2.864507 | 2.864697 | 2.864886 |
| 0.010 | 2.865076 | 2.865265 | 2.865455 | 2.865644 | 2.865834 | 2.866023 | 2.866213 | 2.866402 | 2.866592 | 2.866782 |
| 0.020 | 2.866971 | 2.867161 | 2.867350 | 2.867540 | 2.867730 | 2.867919 | 2.868109 | 2.868299 | 2.868488 | 2.868678 |
| 0.030 | 2.868868 | 2.869057 | 2.869247 | 2.869437 | 2.869626 | 2.869816 | 2.870006 | 2.870196 | 2.870385 | 2.870575 |
| 0.040 | 2.870765 | 2.870955 | 2.871144 | 2.871334 | 2.871524 | 2.871714 | 2.871903 | 2.872093 | 2.872283 | 2.872473 |
| 0.050 | 2.872663 | 2.872853 | 2.873042 | 2.873232 | 2.873422 | 2.873612 | 2.873802 | 2.873992 | 2.874182 | 2.874371 |
| 0.060 | 2.874561 | 2.874751 | 2.874941 | 2.875131 | 2.875321 | 2.875511 | 2.875701 | 2.875891 | 2.876081 | 2.876271 |
| 0.070 | 2.876661 | 2.876851 | 2.877041 | 2.877231 | 2.877421 | 2.877611 | 2.877801 | 2.877991 | 2.878181 | 2.878371 |
| 0.080 | 2.878361 | 2.878551 | 2.878741 | 2.878931 | 2.879121 | 2.879311 | 2.879501 | 2.879691 | 2.879881 | 2.880071 |
| 0.090 | 2.880262 | 2.880452 | 2.880642 | 2.880832 | 2.881022 | 2.881212 | 2.881402 | 2.881593 | 2.881783 | 2.881973 |
| 0.100 | 2.882353 | 2.882544 | 2.882734 | 2.882924 | 2.883114 | 2.883304 | 2.883495 | 2.883685 | 2.883875 | 2.884065 |
| 0.110 | 2.884065 | 2.884256 | 2.884446 | 2.884636 | 2.884827 | 2.885017 | 2.885207 | 2.885398 | 2.885588 | 2.885778 |
| 0.120 | 2.885969 | 2.886159 | 2.886349 | 2.886540 | 2.886730 | 2.886920 | 2.887111 | 2.887301 | 2.887491 | 2.887682 |
| 0.130 | 2.887872 | 2.888063 | 2.888253 | 2.888444 | 2.888634 | 2.888824 | 2.889015 | 2.889205 | 2.889396 | 2.889586 |
| 0.140 | 2.889777 | 2.889967 | 2.890158 | 2.890348 | 2.890539 | 2.890729 | 2.890920 | 2.891110 | 2.891301 | 2.891492 |
| 0.150 | 2.891682 | 2.891873 | 2.892063 | 2.892254 | 2.892444 | 2.892635 | 2.892826 | 2.893016 | 2.893207 | 2.893397 |
| 0.160 | 2.893588 | 2.893779 | 2.893969 | 2.894160 | 2.894351 | 2.894541 | 2.894732 | 2.894923 | 2.895113 | 2.895304 |
| 0.170 | 2.895495 | 2.895686 | 2.895876 | 2.896067 | 2.896258 | 2.896448 | 2.896639 | 2.896830 | 2.897021 | 2.897211 |
| 0.180 | 2.897402 | 2.897593 | 2.897784 | 2.897975 | 2.898165 | 2.898356 | 2.898547 | 2.898738 | 2.898929 | 2.899120 |
| 0.190 | 2.899310 | 2.899501 | 2.899692 | 2.899883 | 2.900074 | 2.900265 | 2.900456 | 2.900647 | 2.900838 | 2.901029 |
| 0.200 | 2.901219 | 2.901410 | 2.901601 | 2.901792 | 2.901983 | 2.902174 | 2.902365 | 2.902556 | 2.902747 | 2.902938 |
| 0.210 | 2.903129 | 2.903320 | 2.903511 | 2.903702 | 2.903893 | 2.904084 | 2.904275 | 2.904466 | 2.904657 | 2.904848 |
| 0.220 | 2.905040 | 2.905231 | 2.905422 | 2.905613 | 2.905804 | 2.905995 | 2.906186 | 2.906377 | 2.906568 | 2.906760 |
| 0.230 | 2.906951 | 2.907142 | 2.907333 | 2.907524 | 2.907715 | 2.907907 | 2.908098 | 2.908289 | 2.908480 | 2.908671 |
| 0.240 | 2.908863 | 2.909054 | 2.909245 | 2.909436 | 2.909628 | 2.909819 | 2.910010 | 2.910201 | 2.910393 | 2.910584 |
| 0.250 | 2.910775 | 2.910967 | 2.911158 | 2.911349 | 2.911541 | 2.911732 | 2.911923 | 2.912113 | 2.912306 | 2.912497 |
| 0.260 | 2.912689 | 2.912880 | 2.913071 | 2.913263 | 2.913454 | 2.913646 | 2.913837 | 2.914028 | 2.914220 | 2.914411 |
| 0.270 | 2.914603 | 2.914794 | 2.914986 | 2.915177 | 2.915369 | 2.915560 | 2.915752 | 2.915943 | 2.916135 | 2.916326 |
| 0.280 | 2.916518 | 2.916709 | 2.916901 | 2.917092 | 2.917284 | 2.917475 | 2.917667 | 2.917859 | 2.918050 | 2.918242 |
| 0.290 | 2.918433 | 2.918625 | 2.918816 | 2.919008 | 2.919200 | 2.919391 | 2.919583 | 2.919775 | 2.919966 | 2.920158 |
| 0.300 | 2.920350 | 2.920541 | 2.920733 | 2.920925 | 2.921116 | 2.921308 | 2.921500 | 2.921692 | 2.921883 | 2.922075 |
| 0.310 | 2.922267 | 2.922458 | 2.922650 | 2.922842 | 2.923034 | 2.923226 | 2.923417 | 2.923609 | 2.923801 | 2.923993 |
| 0.320 | 2.924185 | 2.924376 | 2.924568 | 2.924760 | 2.924952 | 2.925144 | 2.925336 | 2.925527 | 2.925719 | 2.925911 |
| 0.330 | 2.926103 | 2.926295 | 2.926487 | 2.926679 | 2.926871 | 2.927063 | 2.927255 | 2.927447 | 2.927639 | 2.927830 |
| 0.340 | 2.928022 | 2.928214 | 2.928406 | 2.928598 | 2.928790 | 2.928982 | 2.929174 | 2.929366 | 2.929558 | 2.929750 |
| 0.350 | 2.929942 | 2.930135 | 2.930327 | 2.930519 | 2.930711 | 2.930903 | 2.931095 | 2.931287 | 2.931479 | 2.931671 |
| 0.360 | 2.931863 | 2.932055 | 2.932247 | 2.932440 | 2.932632 | 2.932824 | 2.933016 | 2.933208 | 2.933400 | 2.933593 |
| 0.370 | 2.933785 | 2.933977 | 2.934169 | 2.934361 | 2.934554 | 2.934746 | 2.934938 | 2.935130 | 2.935323 | 2.935515 |
| 0.380 | 2.935707 | 2.935899 | 2.936092 | 2.936284 | 2.936476 | 2.936668 | 2.936861 | 2.937053 | 2.937245 | 2.937438 |
| 0.390 | 2.937630 | 2.937822 | 2.938015 | 2.938207 | 2.938399 | 2.938592 | 2.938784 | 2.938977 | 2.939169 | 2.939361 |
| 0.400 | 2.939554 | 2.939746 | 2.939939 | 2.940131 | 2.940324 | 2.940516 | 2.940708 | 2.940901 | 2.941093 | 2.941286 |
| 0.410 | 2.941478 | 2.941671 | 2.941863 | 2.942056 | 2.942248 | 2.942441 | 2.942633 | 2.942826 | 2.943018 | 2.943211 |
| 0.420 | 2.943404 | 2.943596 | 2.943789 | 2.943981 | 2.944174 | 2.944366 | 2.944559 | 2.944752 | 2.944944 | 2.945137 |
| 0.430 | 2.945330 | 2.945522 | 2.945715 | 2.945908 | 2.946100 | 2.946293 | 2.946486 | 2.946678 | 2.946871 | 2.947064 |
| 0.440 | 2.947256 | 2.947449 | 2.947642 | 2.947834 | 2.948027 | 2.948220 | 2.948413 | 2.948605 | 2.948798 | 2.948991 |
| 0.450 | 2.949184 | 2.949377 | 2.949569 | 2.949762 | 2.949955 | 2.950148 | 2.950341 | 2.950533 | 2.950726 | 2.950919 |
| 0.460 | 2.951112 | 2.951305 | 2.951498 | 2.951691 | 2.951883 | 2.952076 | 2.952269 | 2.952462 | 2.952655 | 2.952848 |
| 0.470 | 2.953041 | 2.953234 | 2.953427 | 2.953620 | 2.953813 | 2.954006 | 2.954199 | 2.954392 | 2.954585 | 2.954778 |
| 0.480 | 2.954971 | 2.955164 | 2.955357 | 2.955550 | 2.955743 | 2.955936 | 2.956129 | 2.956322 | 2.956515 | 2.956708 |
| 0.490 | 2.956901 | 2.957094 | 2.957287 | 2.957480 | 2.957674 | 2.957867 | 2.958060 | 2.958253 | 2.958446 | 2.958639 |

ATTENUATION IN DECIBELS
THETA FROM 32.500 TO 32.999 DEGREES

| THETA IN DEGREES | 0.00C | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 2.958832 | 2.959025 | 2.959219 | 2.959412 | 2.959605 | 2.959798 | 2.959991 | 2.960185 | 2.960378 | 2.960571 |
| 0.510 | 2.960764 | 2.960957 | 2.961151 | 2.961344 | 2.961537 | 2.961730 | 2.961924 | 2.962117 | 2.962310 | 2.962504 |
| 0.520 | 2.962697 | 2.962890 | 2.963084 | 2.963277 | 2.963470 | 2.963664 | 2.963857 | 2.964050 | 2.964244 | 2.964437 |
| 0.530 | 2.964630 | 2.964824 | 2.965017 | 2.965211 | 2.965404 | 2.965597 | 2.965791 | 2.965984 | 2.966178 | 2.966371 |
| 0.540 | 2.966565 | 2.966758 | 2.966951 | 2.967145 | 2.967338 | 2.967532 | 2.967725 | 2.967919 | 2.968112 | 2.968306 |
| 0.550 | 2.968499 | 2.968693 | 2.968886 | 2.969080 | 2.969274 | 2.969468 | 2.969662 | 2.969855 | 2.970048 | 2.970241 |
| 0.560 | 2.970435 | 2.970629 | 2.970822 | 2.971016 | 2.971210 | 2.971403 | 2.971597 | 2.971790 | 2.971984 | 2.972178 |
| 0.570 | 2.972371 | 2.972565 | 2.972759 | 2.972953 | 2.973146 | 2.973340 | 2.973534 | 2.973727 | 2.973921 | 2.974115 |
| 0.580 | 2.974309 | 2.974502 | 2.974696 | 2.974890 | 2.975084 | 2.975277 | 2.975471 | 2.975665 | 2.975859 | 2.976053 |
| 0.590 | 2.976247 | 2.976440 | 2.976634 | 2.976828 | 2.977022 | 2.977216 | 2.977410 | 2.977603 | 2.977797 | 2.977991 |
| 0.600 | 2.978185 | 2.978379 | 2.978573 | 2.978767 | 2.978961 | 2.979155 | 2.979349 | 2.979543 | 2.979737 | 2.979931 |
| 0.610 | 2.980125 | 2.980319 | 2.980513 | 2.980707 | 2.980901 | 2.981095 | 2.981289 | 2.981483 | 2.981677 | 2.981871 |
| 0.620 | 2.982065 | 2.982259 | 2.982453 | 2.982647 | 2.982841 | 2.983035 | 2.983229 | 2.983423 | 2.983617 | 2.983811 |
| 0.630 | 2.984006 | 2.984200 | 2.984394 | 2.984588 | 2.984782 | 2.984976 | 2.985170 | 2.985365 | 2.985559 | 2.985753 |
| 0.640 | 2.985947 | 2.986141 | 2.986336 | 2.986530 | 2.986724 | 2.986918 | 2.987113 | 2.987307 | 2.987501 | 2.987695 |
| 0.650 | 2.987890 | 2.988084 | 2.988278 | 2.988472 | 2.988667 | 2.988861 | 2.989055 | 2.989250 | 2.989444 | 2.989638 |
| 0.660 | 2.989833 | 2.990027 | 2.990221 | 2.990416 | 2.990610 | 2.990804 | 2.990999 | 2.991193 | 2.991388 | 2.991582 |
| 0.670 | 2.991777 | 2.991971 | 2.992165 | 2.992360 | 2.992554 | 2.992749 | 2.992943 | 2.993138 | 2.993332 | 2.993527 |
| 0.680 | 2.993721 | 2.993916 | 2.994110 | 2.994305 | 2.994499 | 2.994694 | 2.994888 | 2.995083 | 2.995277 | 2.995472 |
| 0.690 | 2.995667 | 2.995861 | 2.996056 | 2.996250 | 2.996445 | 2.996639 | 2.996834 | 2.997029 | 2.997223 | 2.997418 |
| 0.700 | 2.997613 | 2.997807 | 2.998002 | 2.998197 | 2.998391 | 2.998586 | 2.998781 | 2.998975 | 2.999170 | 2.999365 |
| 0.710 | 2.999559 | 2.999754 | 2.999949 | 3.000144 | 3.000338 | 3.000533 | 3.000728 | 3.000923 | 3.001117 | 3.001312 |
| 0.720 | 3.001507 | 3.001702 | 3.001897 | 3.002091 | 3.002286 | 3.002481 | 3.002676 | 3.002871 | 3.003066 | 3.003261 |
| 0.730 | 3.003455 | 3.003650 | 3.003845 | 3.004040 | 3.004235 | 3.004430 | 3.004625 | 3.004820 | 3.005015 | 3.005210 |
| 0.740 | 3.005404 | 3.005599 | 3.005794 | 3.005989 | 3.006184 | 3.006379 | 3.006574 | 3.006769 | 3.006964 | 3.007159 |
| 0.750 | 3.007354 | 3.007549 | 3.007744 | 3.007939 | 3.008134 | 3.008330 | 3.008525 | 3.008720 | 3.008915 | 3.009110 |
| 0.760 | 3.009305 | 3.009500 | 3.009695 | 3.009890 | 3.010085 | 3.010280 | 3.010476 | 3.010671 | 3.010866 | 3.011061 |
| 0.770 | 3.011256 | 3.011451 | 3.011647 | 3.011842 | 3.012037 | 3.012232 | 3.012427 | 3.012623 | 3.012818 | 3.013013 |
| 0.780 | 3.013208 | 3.013404 | 3.013599 | 3.013794 | 3.013989 | 3.014185 | 3.014380 | 3.014575 | 3.014771 | 3.014966 |
| 0.790 | 3.015161 | 3.015356 | 3.015552 | 3.015747 | 3.015943 | 3.016138 | 3.016333 | 3.016529 | 3.016724 | 3.016919 |
| 0.800 | 3.017115 | 3.017310 | 3.017506 | 3.017701 | 3.017896 | 3.018092 | 3.018287 | 3.018483 | 3.018678 | 3.018874 |
| 0.810 | 3.019069 | 3.019265 | 3.019460 | 3.019656 | 3.019851 | 3.020047 | 3.020242 | 3.020438 | 3.020633 | 3.020829 |
| 0.820 | 3.021624 | 3.021820 | 3.022016 | 3.022211 | 3.022406 | 3.022602 | 3.022798 | 3.022993 | 3.023188 | 3.023384 |
| 0.830 | 3.022980 | 3.023176 | 3.023371 | 3.023567 | 3.023763 | 3.023958 | 3.024154 | 3.024350 | 3.024545 | 3.024741 |
| 0.840 | 3.024937 | 3.025132 | 3.025328 | 3.025524 | 3.025719 | 3.025915 | 3.026111 | 3.026307 | 3.026502 | 3.026698 |
| 0.850 | 3.026894 | 3.027090 | 3.027285 | 3.027481 | 3.027677 | 3.027873 | 3.028069 | 3.028264 | 3.028460 | 3.028656 |
| 0.860 | 3.028852 | 3.029048 | 3.029244 | 3.029440 | 3.029635 | 3.029831 | 3.030027 | 3.030223 | 3.030419 | 3.030615 |
| 0.870 | 3.030811 | 3.031007 | 3.031203 | 3.031399 | 3.031595 | 3.031790 | 3.031986 | 3.032182 | 3.032378 | 3.032574 |
| 0.880 | 3.032770 | 3.032966 | 3.033162 | 3.033358 | 3.033554 | 3.033750 | 3.033946 | 3.034143 | 3.034339 | 3.034535 |
| 0.890 | 3.034731 | 3.034927 | 3.035123 | 3.035319 | 3.035515 | 3.035711 | 3.035907 | 3.036103 | 3.036299 | 3.036496 |
| 0.900 | 3.036692 | 3.036888 | 3.037084 | 3.037280 | 3.037476 | 3.037673 | 3.037869 | 3.038065 | 3.038261 | 3.038457 |
| 0.910 | 3.038654 | 3.038850 | 3.039046 | 3.039242 | 3.039439 | 3.039635 | 3.039831 | 3.040027 | 3.040224 | 3.040420 |
| 0.920 | 3.040616 | 3.040812 | 3.041009 | 3.041205 | 3.041401 | 3.041598 | 3.041794 | 3.041990 | 3.042187 | 3.042383 |
| 0.930 | 3.042580 | 3.042776 | 3.042972 | 3.043169 | 3.043365 | 3.043561 | 3.043758 | 3.043954 | 3.044151 | 3.044347 |
| 0.940 | 3.044544 | 3.044740 | 3.044937 | 3.045133 | 3.045329 | 3.045526 | 3.045722 | 3.045919 | 3.046115 | 3.046312 |
| 0.950 | 3.046508 | 3.046705 | 3.046901 | 3.047098 | 3.047295 | 3.047491 | 3.047688 | 3.047884 | 3.048081 | 3.048277 |
| 0.960 | 3.048474 | 3.048671 | 3.048867 | 3.049064 | 3.049260 | 3.049457 | 3.049654 | 3.049850 | 3.050047 | 3.050244 |
| 0.970 | 3.050440 | 3.050637 | 3.050834 | 3.051030 | 3.051227 | 3.051424 | 3.051621 | 3.051817 | 3.052014 | 3.052211 |
| 0.980 | 3.052407 | 3.052604 | 3.052801 | 3.052998 | 3.053194 | 3.053391 | 3.053588 | 3.053785 | 3.053982 | 3.054178 |
| 0.990 | 3.054375 | 3.054572 | 3.054769 | 3.054966 | 3.055163 | 3.055360 | 3.055556 | 3.055753 | 3.055950 | 3.056147 |

ATTENUATION IN DECIBELS
 THETA FROM 33.000 TO 33.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 3.056344 | 3.056541 | 3.056738 | 3.056935 | 3.057132 | 3.057328 | 3.057525 | 3.057722 | 3.057919 | 3.058116 |
| 0.010 | 3.058313 | 3.058510 | 3.058707 | 3.058904 | 3.059101 | 3.059298 | 3.059495 | 3.059692 | 3.059889 | 3.060086 |
| 0.020 | 3.060283 | 3.060480 | 3.060677 | 3.060875 | 3.061072 | 3.061269 | 3.061466 | 3.061663 | 3.061860 | 3.062057 |
| 0.030 | 3.062254 | 3.062451 | 3.062648 | 3.062846 | 3.063043 | 3.063240 | 3.063437 | 3.063634 | 3.063831 | 3.064029 |
| 0.040 | 3.064226 | 3.064423 | 3.064620 | 3.064817 | 3.065015 | 3.065212 | 3.065409 | 3.065606 | 3.065804 | 3.066001 |
| 0.050 | 3.066198 | 3.066395 | 3.066593 | 3.066790 | 3.066987 | 3.067185 | 3.067382 | 3.067579 | 3.067777 | 3.067974 |
| 0.060 | 3.068171 | 3.068369 | 3.068566 | 3.068763 | 3.068961 | 3.069158 | 3.069355 | 3.069553 | 3.069750 | 3.069948 |
| 0.070 | 3.070145 | 3.070343 | 3.070540 | 3.070737 | 3.070935 | 3.071132 | 3.071330 | 3.071527 | 3.071725 | 3.071922 |
| 0.080 | 3.072120 | 3.072317 | 3.072515 | 3.072712 | 3.072910 | 3.073107 | 3.073305 | 3.073502 | 3.073700 | 3.073898 |
| 0.090 | 3.074095 | 3.074293 | 3.074490 | 3.074688 | 3.074885 | 3.075083 | 3.075281 | 3.075478 | 3.075676 | 3.075874 |
| 0.100 | 3.076071 | 3.076269 | 3.076467 | 3.076664 | 3.076862 | 3.077060 | 3.077257 | 3.077455 | 3.077653 | 3.077850 |
| 0.110 | 3.078048 | 3.078246 | 3.078444 | 3.078641 | 3.078839 | 3.079037 | 3.079235 | 3.079432 | 3.079630 | 3.079828 |
| 0.120 | 3.080026 | 3.080224 | 3.080421 | 3.080619 | 3.080817 | 3.081015 | 3.081213 | 3.081411 | 3.081608 | 3.081806 |
| 0.130 | 3.082004 | 3.082202 | 3.082400 | 3.082598 | 3.082796 | 3.082994 | 3.083192 | 3.083389 | 3.083587 | 3.083785 |
| 0.140 | 3.083983 | 3.084181 | 3.084379 | 3.084577 | 3.084775 | 3.084973 | 3.085171 | 3.085369 | 3.085567 | 3.085765 |
| 0.150 | 3.085963 | 3.086161 | 3.086359 | 3.086557 | 3.086755 | 3.086953 | 3.087151 | 3.087350 | 3.087548 | 3.087746 |
| 0.160 | 3.087944 | 3.088142 | 3.088340 | 3.088538 | 3.088736 | 3.088934 | 3.089133 | 3.089331 | 3.089529 | 3.089727 |
| 0.170 | 3.089925 | 3.090123 | 3.090322 | 3.090520 | 3.090718 | 3.090916 | 3.091114 | 3.091313 | 3.091511 | 3.091709 |
| 0.180 | 3.091907 | 3.092106 | 3.092304 | 3.092502 | 3.092700 | 3.092899 | 3.093097 | 3.093295 | 3.093494 | 3.093692 |
| 0.190 | 3.093890 | 3.094089 | 3.094287 | 3.094485 | 3.094684 | 3.094882 | 3.095080 | 3.095279 | 3.095477 | 3.095676 |
| 0.200 | 3.095874 | 3.096072 | 3.096271 | 3.096469 | 3.096668 | 3.096866 | 3.097065 | 3.097263 | 3.097461 | 3.097660 |
| 0.210 | 3.097858 | 3.098057 | 3.098255 | 3.098454 | 3.098652 | 3.098851 | 3.099049 | 3.099248 | 3.099447 | 3.099645 |
| 0.220 | 3.099844 | 3.100042 | 3.100241 | 3.100439 | 3.100638 | 3.100836 | 3.101035 | 3.101234 | 3.101432 | 3.101631 |
| 0.230 | 3.101830 | 3.102028 | 3.102227 | 3.102425 | 3.102624 | 3.102823 | 3.103021 | 3.103220 | 3.103419 | 3.103618 |
| 0.240 | 3.103816 | 3.104015 | 3.104214 | 3.104412 | 3.104611 | 3.104810 | 3.105009 | 3.105207 | 3.105406 | 3.105605 |
| 0.250 | 3.105804 | 3.106002 | 3.106201 | 3.106400 | 3.106599 | 3.106798 | 3.106997 | 3.107195 | 3.107394 | 3.107593 |
| 0.260 | 3.107792 | 3.107991 | 3.108190 | 3.108389 | 3.108587 | 3.108786 | 3.108985 | 3.109184 | 3.109383 | 3.109582 |
| 0.270 | 3.109781 | 3.109980 | 3.110179 | 3.110378 | 3.110577 | 3.110776 | 3.110975 | 3.111174 | 3.111373 | 3.111572 |
| 0.280 | 3.111771 | 3.111970 | 3.112169 | 3.112368 | 3.112567 | 3.112766 | 3.112965 | 3.113164 | 3.113363 | 3.113562 |
| 0.290 | 3.113761 | 3.113960 | 3.114159 | 3.114358 | 3.114557 | 3.114757 | 3.114956 | 3.115155 | 3.115354 | 3.115553 |
| 0.300 | 3.115752 | 3.115951 | 3.116151 | 3.116350 | 3.116549 | 3.116748 | 3.116947 | 3.117147 | 3.117346 | 3.117545 |
| 0.310 | 3.117744 | 3.117944 | 3.118143 | 3.118342 | 3.118541 | 3.118741 | 3.118940 | 3.119139 | 3.119338 | 3.119538 |
| 0.320 | 3.119737 | 3.119936 | 3.120136 | 3.120335 | 3.120534 | 3.120734 | 3.120933 | 3.121132 | 3.121332 | 3.121531 |
| 0.330 | 3.121731 | 3.121930 | 3.122129 | 3.122329 | 3.122528 | 3.122728 | 3.122927 | 3.123126 | 3.123326 | 3.123525 |
| 0.340 | 3.123725 | 3.123924 | 3.124124 | 3.124323 | 3.124523 | 3.124722 | 3.124922 | 3.125121 | 3.125321 | 3.125520 |
| 0.350 | 3.125720 | 3.125919 | 3.126119 | 3.126319 | 3.126518 | 3.126718 | 3.126917 | 3.127117 | 3.127316 | 3.127516 |
| 0.360 | 3.127716 | 3.127915 | 3.128115 | 3.128315 | 3.128514 | 3.128714 | 3.128913 | 3.129113 | 3.129313 | 3.129513 |
| 0.370 | 3.129712 | 3.129912 | 3.130112 | 3.130311 | 3.130511 | 3.130711 | 3.130910 | 3.131110 | 3.131310 | 3.131510 |
| 0.380 | 3.131710 | 3.131909 | 3.132109 | 3.132309 | 3.132509 | 3.132708 | 3.132908 | 3.133108 | 3.133308 | 3.133508 |
| 0.390 | 3.133708 | 3.133907 | 3.134107 | 3.134307 | 3.134507 | 3.134707 | 3.134907 | 3.135107 | 3.135307 | 3.135506 |
| 0.400 | 3.135706 | 3.135906 | 3.136106 | 3.136306 | 3.136506 | 3.136706 | 3.136906 | 3.137106 | 3.137306 | 3.137506 |
| 0.410 | 3.137706 | 3.137906 | 3.138106 | 3.138306 | 3.138506 | 3.138706 | 3.138906 | 3.139106 | 3.139306 | 3.139506 |
| 0.420 | 3.139706 | 3.139906 | 3.140106 | 3.140307 | 3.140507 | 3.140707 | 3.140907 | 3.141107 | 3.141307 | 3.141507 |
| 0.430 | 3.141707 | 3.141908 | 3.142108 | 3.142308 | 3.142508 | 3.142708 | 3.142908 | 3.143109 | 3.143309 | 3.143509 |
| 0.440 | 3.143709 | 3.143909 | 3.144110 | 3.144310 | 3.144510 | 3.144710 | 3.144911 | 3.145111 | 3.145311 | 3.145512 |
| 0.450 | 3.145712 | 3.145912 | 3.146113 | 3.146313 | 3.146513 | 3.146713 | 3.146914 | 3.147114 | 3.147315 | 3.147515 |
| 0.460 | 3.147715 | 3.147916 | 3.148116 | 3.148316 | 3.148516 | 3.148717 | 3.148918 | 3.149118 | 3.149319 | 3.149519 |
| 0.470 | 3.149719 | 3.149920 | 3.150120 | 3.150321 | 3.150521 | 3.150722 | 3.150922 | 3.151123 | 3.151323 | 3.151524 |
| 0.480 | 3.151724 | 3.151925 | 3.152125 | 3.152326 | 3.152526 | 3.152727 | 3.152928 | 3.153128 | 3.153329 | 3.153529 |
| 0.490 | 3.153730 | 3.153931 | 3.154131 | 3.154332 | 3.154532 | 3.154733 | 3.154934 | 3.155134 | 3.155335 | 3.155535 |

ATTENUATION IN DECIBELS
THETA FROM 33.500 TO 33.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 3.155736 | 3.155937 | 3.156138 | 3.156338 | 3.156539 | 3.156740 | 3.156941 | 3.157141 | 3.157342 | 3.157543 |
| 0.510 | 3.157744 | 3.157944 | 3.158145 | 3.158346 | 3.158547 | 3.158747 | 3.158948 | 3.159149 | 3.159350 | 3.159551 |
| 0.520 | 3.159752 | 3.159952 | 3.160153 | 3.160354 | 3.160554 | 3.160756 | 3.160957 | 3.161158 | 3.161358 | 3.161559 |
| 0.530 | 3.161760 | 3.161961 | 3.162162 | 3.162363 | 3.162564 | 3.162765 | 3.162966 | 3.163167 | 3.163368 | 3.163569 |
| 0.540 | 3.163770 | 3.163971 | 3.164172 | 3.164373 | 3.164574 | 3.164775 | 3.164976 | 3.165177 | 3.165378 | 3.165579 |
| 0.550 | 3.165780 | 3.165981 | 3.166182 | 3.166383 | 3.166584 | 3.166785 | 3.166986 | 3.167188 | 3.167389 | 3.167590 |
| 0.560 | 3.167791 | 3.167992 | 3.168193 | 3.168394 | 3.168596 | 3.168797 | 3.168998 | 3.169199 | 3.169400 | 3.169601 |
| 0.570 | 3.169803 | 3.170004 | 3.170205 | 3.170406 | 3.170608 | 3.170809 | 3.171010 | 3.171211 | 3.171413 | 3.171614 |
| 0.580 | 3.171815 | 3.172016 | 3.172218 | 3.172419 | 3.172620 | 3.172822 | 3.173023 | 3.173224 | 3.173426 | 3.173627 |
| 0.590 | 3.173828 | 3.174030 | 3.174231 | 3.174433 | 3.174634 | 3.174835 | 3.175037 | 3.175238 | 3.175440 | 3.175641 |
| 0.600 | 3.175842 | 3.176044 | 3.176245 | 3.176447 | 3.176648 | 3.176850 | 3.177051 | 3.177253 | 3.177454 | 3.177656 |
| 0.610 | 3.177857 | 3.178059 | 3.178260 | 3.178462 | 3.178663 | 3.178865 | 3.179067 | 3.179268 | 3.179470 | 3.179671 |
| 0.620 | 3.179873 | 3.180074 | 3.180276 | 3.180478 | 3.180679 | 3.180881 | 3.181083 | 3.181284 | 3.181486 | 3.181688 |
| 0.630 | 3.181889 | 3.182091 | 3.182293 | 3.182494 | 3.182696 | 3.182898 | 3.183099 | 3.183301 | 3.183503 | 3.183705 |
| 0.640 | 3.183906 | 3.184108 | 3.184310 | 3.184512 | 3.184713 | 3.184915 | 3.185117 | 3.185319 | 3.185520 | 3.185722 |
| 0.650 | 3.185924 | 3.186126 | 3.186328 | 3.186530 | 3.186731 | 3.186933 | 3.187135 | 3.187337 | 3.187539 | 3.187741 |
| 0.660 | 3.187943 | 3.188145 | 3.188347 | 3.188548 | 3.188750 | 3.188952 | 3.189154 | 3.189356 | 3.189558 | 3.189760 |
| 0.670 | 3.189962 | 3.190164 | 3.190366 | 3.190568 | 3.190770 | 3.190972 | 3.191174 | 3.191376 | 3.191578 | 3.191780 |
| 0.680 | 3.191982 | 3.192184 | 3.192386 | 3.192588 | 3.192791 | 3.192993 | 3.193195 | 3.193397 | 3.193599 | 3.193801 |
| 0.690 | 3.194003 | 3.194205 | 3.194407 | 3.194610 | 3.194812 | 3.195014 | 3.195216 | 3.195418 | 3.195620 | 3.195823 |
| 0.700 | 3.196025 | 3.196227 | 3.196429 | 3.196632 | 3.196834 | 3.197036 | 3.197238 | 3.197441 | 3.197643 | 3.197845 |
| 0.710 | 3.198047 | 3.198250 | 3.198452 | 3.198654 | 3.198857 | 3.199059 | 3.199261 | 3.199463 | 3.199666 | 3.199868 |
| 0.720 | 3.200071 | 3.200273 | 3.200475 | 3.200678 | 3.200880 | 3.201082 | 3.201285 | 3.201487 | 3.201690 | 3.201892 |
| 0.730 | 3.202094 | 3.202297 | 3.202499 | 3.202702 | 3.202904 | 3.203107 | 3.203309 | 3.203512 | 3.203714 | 3.203917 |
| 0.740 | 3.204119 | 3.204322 | 3.204524 | 3.204727 | 3.204929 | 3.205132 | 3.205334 | 3.205537 | 3.205740 | 3.205942 |
| 0.750 | 3.206145 | 3.206347 | 3.206550 | 3.206753 | 3.206955 | 3.207158 | 3.207360 | 3.207563 | 3.207766 | 3.207968 |
| 0.760 | 3.208171 | 3.208374 | 3.208576 | 3.208779 | 3.208982 | 3.209184 | 3.209387 | 3.209590 | 3.209793 | 3.209995 |
| 0.770 | 3.210198 | 3.210401 | 3.210604 | 3.210806 | 3.211009 | 3.211212 | 3.211415 | 3.211617 | 3.211820 | 3.212023 |
| 0.780 | 3.212226 | 3.212429 | 3.212631 | 3.212834 | 3.213037 | 3.213240 | 3.213443 | 3.213646 | 3.213849 | 3.214051 |
| 0.790 | 3.214254 | 3.214457 | 3.214660 | 3.214863 | 3.215066 | 3.215269 | 3.215472 | 3.215675 | 3.215878 | 3.216081 |
| 0.800 | 3.216284 | 3.216487 | 3.216690 | 3.216893 | 3.217096 | 3.217299 | 3.217502 | 3.217705 | 3.217908 | 3.218111 |
| 0.810 | 3.218314 | 3.218517 | 3.218720 | 3.218923 | 3.219126 | 3.219329 | 3.219532 | 3.219735 | 3.219938 | 3.220142 |
| 0.820 | 3.220345 | 3.220548 | 3.220751 | 3.220954 | 3.221157 | 3.221360 | 3.221564 | 3.221767 | 3.221970 | 3.222174 |
| 0.830 | 3.222376 | 3.222579 | 3.222783 | 3.222986 | 3.223189 | 3.223392 | 3.223596 | 3.223799 | 3.224002 | 3.224205 |
| 0.840 | 3.224409 | 3.224612 | 3.224815 | 3.225019 | 3.225222 | 3.225425 | 3.225628 | 3.225832 | 3.226035 | 3.226238 |
| 0.850 | 3.226442 | 3.226645 | 3.226849 | 3.227052 | 3.227255 | 3.227459 | 3.227662 | 3.227866 | 3.228069 | 3.228272 |
| 0.860 | 3.228476 | 3.228679 | 3.228883 | 3.229086 | 3.229290 | 3.229493 | 3.229697 | 3.229900 | 3.230103 | 3.230307 |
| 0.870 | 3.230510 | 3.230714 | 3.230918 | 3.231121 | 3.231325 | 3.231528 | 3.231732 | 3.231935 | 3.232139 | 3.232342 |
| 0.880 | 3.232546 | 3.232750 | 3.232953 | 3.233157 | 3.233360 | 3.233564 | 3.233768 | 3.233971 | 3.234175 | 3.234379 |
| 0.890 | 3.234582 | 3.234786 | 3.234989 | 3.235193 | 3.235397 | 3.235601 | 3.235804 | 3.236008 | 3.236212 | 3.236415 |
| 0.900 | 3.236619 | 3.236823 | 3.237027 | 3.237230 | 3.237434 | 3.237638 | 3.237842 | 3.238046 | 3.238249 | 3.238453 |
| 0.910 | 3.238657 | 3.238861 | 3.239065 | 3.239268 | 3.239472 | 3.239676 | 3.239880 | 3.240084 | 3.240288 | 3.240492 |
| 0.920 | 3.240695 | 3.240899 | 3.241103 | 3.241307 | 3.241511 | 3.241715 | 3.241919 | 3.242123 | 3.242327 | 3.242531 |
| 0.930 | 3.242735 | 3.242939 | 3.243143 | 3.243347 | 3.243551 | 3.243755 | 3.243959 | 3.244163 | 3.244367 | 3.244571 |
| 0.940 | 3.244775 | 3.244979 | 3.245183 | 3.245387 | 3.245591 | 3.245795 | 3.245999 | 3.246203 | 3.246407 | 3.246612 |
| 0.950 | 3.246816 | 3.247020 | 3.247224 | 3.247428 | 3.247632 | 3.247836 | 3.248040 | 3.248245 | 3.248449 | 3.248653 |
| 0.960 | 3.248857 | 3.249061 | 3.249266 | 3.249470 | 3.249674 | 3.249878 | 3.250082 | 3.250287 | 3.250491 | 3.250695 |
| 0.970 | 3.250900 | 3.251104 | 3.251308 | 3.251513 | 3.251717 | 3.251921 | 3.252125 | 3.252330 | 3.252534 | 3.252738 |
| 0.980 | 3.252943 | 3.253147 | 3.253352 | 3.253556 | 3.253760 | 3.253965 | 3.254169 | 3.254373 | 3.254578 | 3.254782 |
| 0.990 | 3.254987 | 3.255191 | 3.255396 | 3.255600 | 3.255805 | 3.256009 | 3.256213 | 3.256418 | 3.256622 | 3.256827 |

ATTENUATION IN DECIBELS
THETA FROM 34.000 TO 34.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 3.257031 | 3.257236 | 3.257440 | 3.257645 | 3.257850 | 3.258054 | 3.258259 | 3.258463 | 3.258668 | 3.258872 |
| 0.010 | 3.259077 | 3.259281 | 3.259486 | 3.259691 | 3.259895 | 3.260100 | 3.260305 | 3.260509 | 3.260714 | 3.260918 |
| 0.020 | 3.261120 | 3.261328 | 3.261532 | 3.261737 | 3.261942 | 3.262147 | 3.262351 | 3.262556 | 3.262761 | 3.262965 |
| 0.030 | 3.263170 | 3.263375 | 3.263580 | 3.263784 | 3.263989 | 3.264194 | 3.264399 | 3.264603 | 3.264808 | 3.265013 |
| 0.040 | 3.265218 | 3.265423 | 3.265628 | 3.265832 | 3.266037 | 3.266242 | 3.266447 | 3.266652 | 3.266857 | 3.267062 |
| 0.050 | 3.267266 | 3.267471 | 3.267676 | 3.267881 | 3.268086 | 3.268291 | 3.268496 | 3.268701 | 3.268906 | 3.269111 |
| 0.060 | 3.269316 | 3.269521 | 3.269726 | 3.269931 | 3.270136 | 3.270341 | 3.270546 | 3.270751 | 3.270956 | 3.271161 |
| 0.070 | 3.271366 | 3.271571 | 3.271776 | 3.271981 | 3.272186 | 3.272391 | 3.272596 | 3.272801 | 3.273006 | 3.273212 |
| 0.080 | 3.273417 | 3.273622 | 3.273827 | 3.274032 | 3.274237 | 3.274442 | 3.274648 | 3.274853 | 3.275058 | 3.275263 |
| 0.090 | 3.275468 | 3.275674 | 3.275879 | 3.276084 | 3.276289 | 3.276494 | 3.276700 | 3.276905 | 3.277110 | 3.277315 |
| 0.100 | 3.277521 | 3.277726 | 3.277931 | 3.278137 | 3.278342 | 3.278547 | 3.278753 | 3.278958 | 3.279163 | 3.279369 |
| 0.110 | 3.279574 | 3.279779 | 3.279985 | 3.280190 | 3.280395 | 3.280601 | 3.280806 | 3.281012 | 3.281217 | 3.281422 |
| 0.120 | 3.281628 | 3.281833 | 3.282039 | 3.282244 | 3.282450 | 3.282655 | 3.282861 | 3.283066 | 3.283272 | 3.283477 |
| 0.130 | 3.283683 | 3.283888 | 3.284094 | 3.284299 | 3.284505 | 3.284711 | 3.284916 | 3.285121 | 3.285327 | 3.285532 |
| 0.140 | 3.285738 | 3.285944 | 3.286149 | 3.286355 | 3.286560 | 3.286766 | 3.286972 | 3.287177 | 3.287383 | 3.287589 |
| 0.150 | 3.287794 | 3.288000 | 3.288206 | 3.288411 | 3.288617 | 3.288823 | 3.289028 | 3.289234 | 3.289440 | 3.289646 |
| 0.160 | 3.289851 | 3.290057 | 3.290263 | 3.290469 | 3.290674 | 3.290880 | 3.291086 | 3.291292 | 3.291497 | 3.291703 |
| 0.170 | 3.291909 | 3.292115 | 3.292321 | 3.292527 | 3.292732 | 3.292938 | 3.293144 | 3.293350 | 3.293556 | 3.293762 |
| 0.180 | 3.293968 | 3.294174 | 3.294380 | 3.294585 | 3.294791 | 3.294997 | 3.295203 | 3.295409 | 3.295615 | 3.295821 |
| 0.190 | 3.296027 | 3.296233 | 3.296439 | 3.296645 | 3.296851 | 3.297057 | 3.297263 | 3.297469 | 3.297675 | 3.297881 |
| 0.200 | 3.298087 | 3.298293 | 3.298499 | 3.298705 | 3.298911 | 3.299118 | 3.299324 | 3.299530 | 3.299736 | 3.299942 |
| 0.210 | 3.300148 | 3.300354 | 3.300560 | 3.300766 | 3.300973 | 3.301179 | 3.301385 | 3.301591 | 3.301797 | 3.302004 |
| 0.220 | 3.302210 | 3.302416 | 3.302622 | 3.302828 | 3.303035 | 3.303241 | 3.303447 | 3.303653 | 3.303860 | 3.304066 |
| 0.230 | 3.304272 | 3.304478 | 3.304685 | 3.304891 | 3.305097 | 3.305304 | 3.305510 | 3.305716 | 3.305923 | 3.306129 |
| 0.240 | 3.306535 | 3.306742 | 3.306948 | 3.307155 | 3.307362 | 3.307569 | 3.307775 | 3.307982 | 3.308189 | 3.308395 |
| 0.250 | 3.308399 | 3.308606 | 3.308812 | 3.309019 | 3.309225 | 3.309432 | 3.309638 | 3.309845 | 3.310051 | 3.310258 |
| 0.260 | 3.310464 | 3.310671 | 3.310877 | 3.311084 | 3.311290 | 3.311497 | 3.311703 | 3.311910 | 3.312117 | 3.312323 |
| 0.270 | 3.312530 | 3.312736 | 3.312943 | 3.313150 | 3.313356 | 3.313563 | 3.313769 | 3.313976 | 3.314183 | 3.314389 |
| 0.280 | 3.314596 | 3.314803 | 3.315009 | 3.315216 | 3.315423 | 3.315629 | 3.315836 | 3.316043 | 3.316250 | 3.316456 |
| 0.290 | 3.316663 | 3.316870 | 3.317077 | 3.317283 | 3.317490 | 3.317697 | 3.317904 | 3.318111 | 3.318317 | 3.318524 |
| 0.300 | 3.318731 | 3.318938 | 3.319145 | 3.319351 | 3.319558 | 3.319765 | 3.319972 | 3.320179 | 3.320386 | 3.320593 |
| 0.310 | 3.320800 | 3.321007 | 3.321213 | 3.321420 | 3.321627 | 3.321834 | 3.322041 | 3.322248 | 3.322455 | 3.322662 |
| 0.320 | 3.322869 | 3.323076 | 3.323283 | 3.323490 | 3.323697 | 3.323904 | 3.324111 | 3.324318 | 3.324525 | 3.324732 |
| 0.330 | 3.324939 | 3.325146 | 3.325353 | 3.325560 | 3.325768 | 3.325975 | 3.326182 | 3.326389 | 3.326596 | 3.326803 |
| 0.340 | 3.327010 | 3.327217 | 3.327424 | 3.327632 | 3.327839 | 3.328046 | 3.328253 | 3.328460 | 3.328667 | 3.328874 |
| 0.350 | 3.329082 | 3.329289 | 3.329496 | 3.329704 | 3.329911 | 3.330118 | 3.330325 | 3.330533 | 3.330740 | 3.330947 |
| 0.360 | 3.331154 | 3.331362 | 3.331569 | 3.331776 | 3.331984 | 3.332191 | 3.332398 | 3.332606 | 3.332813 | 3.333020 |
| 0.370 | 3.333228 | 3.333435 | 3.333643 | 3.333850 | 3.334057 | 3.334265 | 3.334472 | 3.334680 | 3.334887 | 3.335094 |
| 0.380 | 3.335302 | 3.335509 | 3.335717 | 3.335924 | 3.336132 | 3.336339 | 3.336547 | 3.336754 | 3.336962 | 3.337169 |
| 0.390 | 3.337377 | 3.337584 | 3.337792 | 3.337999 | 3.338207 | 3.338414 | 3.338622 | 3.338830 | 3.339037 | 3.339245 |
| 0.400 | 3.339452 | 3.339660 | 3.339868 | 3.340075 | 3.340283 | 3.340490 | 3.340698 | 3.340906 | 3.341113 | 3.341321 |
| 0.410 | 3.341529 | 3.341736 | 3.341944 | 3.342152 | 3.342359 | 3.342567 | 3.342775 | 3.342983 | 3.343190 | 3.343398 |
| 0.420 | 3.343606 | 3.343814 | 3.344021 | 3.344229 | 3.344437 | 3.344645 | 3.344853 | 3.345060 | 3.345268 | 3.345476 |
| 0.430 | 3.345684 | 3.345892 | 3.346100 | 3.346307 | 3.346515 | 3.346723 | 3.346931 | 3.347139 | 3.347347 | 3.347555 |
| 0.440 | 3.347763 | 3.347971 | 3.348178 | 3.348386 | 3.348594 | 3.348802 | 3.349010 | 3.349218 | 3.349426 | 3.349634 |
| 0.450 | 3.349842 | 3.350050 | 3.350258 | 3.350466 | 3.350674 | 3.350882 | 3.351090 | 3.351298 | 3.351506 | 3.351714 |
| 0.460 | 3.351922 | 3.352130 | 3.352339 | 3.352547 | 3.352755 | 3.352963 | 3.353171 | 3.353379 | 3.353587 | 3.353795 |
| 0.470 | 3.354003 | 3.354212 | 3.354420 | 3.354628 | 3.354836 | 3.355044 | 3.355253 | 3.355461 | 3.355669 | 3.355877 |
| 0.480 | 3.356085 | 3.356294 | 3.356502 | 3.356710 | 3.356918 | 3.357127 | 3.357335 | 3.357543 | 3.357751 | 3.357960 |
| 0.490 | 3.358168 | 3.358376 | 3.358585 | 3.358793 | 3.359001 | 3.359210 | 3.359418 | 3.359626 | 3.359835 | 3.360043 |

ATTENUATION IN DECIBELS
THETA FROM 34.500 TO 34.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 3.360251 | 3.360460 | 3.360668 | 3.360877 | 3.361085 | 3.361293 | 3.361502 | 3.361710 | 3.361919 | 3.362127 |
| 0.510 | 3.362336 | 3.362544 | 3.362752 | 3.362961 | 3.363169 | 3.363378 | 3.363586 | 3.363795 | 3.364003 | 3.364212 |
| 0.520 | 3.364421 | 3.364629 | 3.364838 | 3.365046 | 3.365255 | 3.365463 | 3.365672 | 3.365880 | 3.366089 | 3.366298 |
| 0.530 | 3.366506 | 3.366715 | 3.366924 | 3.367132 | 3.367341 | 3.367549 | 3.367758 | 3.367967 | 3.368175 | 3.368384 |
| 0.540 | 3.368593 | 3.368802 | 3.369010 | 3.369219 | 3.369428 | 3.369636 | 3.369845 | 3.370054 | 3.370263 | 3.370471 |
| 0.550 | 3.370680 | 3.370889 | 3.371098 | 3.371306 | 3.371515 | 3.371724 | 3.371933 | 3.372142 | 3.372351 | 3.372559 |
| 0.560 | 3.372768 | 3.372977 | 3.373186 | 3.373395 | 3.373604 | 3.373813 | 3.374022 | 3.374230 | 3.374439 | 3.374648 |
| 0.570 | 3.374857 | 3.375066 | 3.375275 | 3.375484 | 3.375693 | 3.375902 | 3.376111 | 3.376320 | 3.376529 | 3.376738 |
| 0.580 | 3.376947 | 3.377156 | 3.377365 | 3.377574 | 3.377783 | 3.377992 | 3.378201 | 3.378410 | 3.378619 | 3.378828 |
| 0.590 | 3.379037 | 3.379246 | 3.379455 | 3.379664 | 3.379874 | 3.380083 | 3.380292 | 3.380501 | 3.380710 | 3.380919 |
| 0.600 | 3.381128 | 3.381338 | 3.381547 | 3.381756 | 3.381965 | 3.382174 | 3.382383 | 3.382593 | 3.382802 | 3.383011 |
| 0.610 | 3.383220 | 3.383430 | 3.383639 | 3.383848 | 3.384057 | 3.384267 | 3.384476 | 3.384685 | 3.384895 | 3.385104 |
| 0.620 | 3.385313 | 3.385522 | 3.385732 | 3.385941 | 3.386150 | 3.386360 | 3.386569 | 3.386779 | 3.386988 | 3.387197 |
| 0.630 | 3.387407 | 3.387616 | 3.387825 | 3.388035 | 3.388244 | 3.388454 | 3.388663 | 3.388873 | 3.389082 | 3.389292 |
| 0.640 | 3.389501 | 3.389710 | 3.389920 | 3.390129 | 3.390339 | 3.390548 | 3.390758 | 3.390968 | 3.391177 | 3.391387 |
| 0.650 | 3.391596 | 3.391806 | 3.392015 | 3.392225 | 3.392434 | 3.392644 | 3.392854 | 3.393063 | 3.393273 | 3.393482 |
| 0.660 | 3.393692 | 3.393902 | 3.394111 | 3.394321 | 3.394531 | 3.394740 | 3.394950 | 3.395160 | 3.395369 | 3.395579 |
| 0.670 | 3.395789 | 3.395998 | 3.396208 | 3.396418 | 3.396628 | 3.396837 | 3.397047 | 3.397257 | 3.397467 | 3.397676 |
| 0.680 | 3.397886 | 3.398096 | 3.398306 | 3.398516 | 3.398725 | 3.398935 | 3.399145 | 3.399355 | 3.399565 | 3.399775 |
| 0.690 | 3.399984 | 3.400194 | 3.400404 | 3.400614 | 3.400824 | 3.401034 | 3.401244 | 3.401454 | 3.401664 | 3.401873 |
| 0.700 | 3.402083 | 3.402293 | 3.402503 | 3.402713 | 3.402923 | 3.403133 | 3.403343 | 3.403553 | 3.403763 | 3.403973 |
| 0.710 | 3.404183 | 3.404393 | 3.404603 | 3.404813 | 3.405023 | 3.405233 | 3.405444 | 3.405654 | 3.405864 | 3.406074 |
| 0.720 | 3.406284 | 3.406494 | 3.406704 | 3.406914 | 3.407124 | 3.407334 | 3.407545 | 3.407755 | 3.407965 | 3.408175 |
| 0.730 | 3.408385 | 3.408595 | 3.408806 | 3.409016 | 3.409226 | 3.409436 | 3.409646 | 3.409857 | 3.410067 | 3.410277 |
| 0.740 | 3.410487 | 3.410698 | 3.410908 | 3.411118 | 3.411328 | 3.411539 | 3.411749 | 3.411959 | 3.412170 | 3.412380 |
| 0.750 | 3.412590 | 3.412801 | 3.413011 | 3.413221 | 3.413432 | 3.413642 | 3.413852 | 3.414063 | 3.414273 | 3.414484 |
| 0.760 | 3.414694 | 3.414904 | 3.415115 | 3.415325 | 3.415536 | 3.415746 | 3.415957 | 3.416167 | 3.416378 | 3.416588 |
| 0.770 | 3.416799 | 3.417009 | 3.417220 | 3.417430 | 3.417641 | 3.417851 | 3.418062 | 3.418272 | 3.418483 | 3.418693 |
| 0.780 | 3.418904 | 3.419114 | 3.419325 | 3.419536 | 3.419746 | 3.419957 | 3.420167 | 3.420378 | 3.420589 | 3.420799 |
| 0.790 | 3.421010 | 3.421221 | 3.421431 | 3.421642 | 3.421853 | 3.422063 | 3.422274 | 3.422485 | 3.422696 | 3.422906 |
| 0.800 | 3.423117 | 3.423328 | 3.423538 | 3.423749 | 3.423960 | 3.424171 | 3.424381 | 3.424592 | 3.424803 | 3.425014 |
| 0.810 | 3.425224 | 3.425435 | 3.425646 | 3.425857 | 3.426068 | 3.426279 | 3.426489 | 3.426700 | 3.426911 | 3.427122 |
| 0.820 | 3.427333 | 3.427544 | 3.427755 | 3.427966 | 3.428177 | 3.428388 | 3.428598 | 3.428809 | 3.429020 | 3.429231 |
| 0.830 | 3.429442 | 3.429653 | 3.429864 | 3.430075 | 3.430286 | 3.430497 | 3.430708 | 3.430919 | 3.431130 | 3.431341 |
| 0.840 | 3.431552 | 3.431763 | 3.431974 | 3.432185 | 3.432396 | 3.432607 | 3.432818 | 3.433030 | 3.433241 | 3.433452 |
| 0.850 | 3.433663 | 3.433874 | 3.434085 | 3.434296 | 3.434507 | 3.434719 | 3.434930 | 3.435141 | 3.435352 | 3.435563 |
| 0.860 | 3.435775 | 3.435986 | 3.436197 | 3.436408 | 3.436619 | 3.436831 | 3.437042 | 3.437253 | 3.437464 | 3.437676 |
| 0.870 | 3.437887 | 3.438098 | 3.438309 | 3.438521 | 3.438732 | 3.438943 | 3.439155 | 3.439366 | 3.439578 | 3.439789 |
| 0.880 | 3.440000 | 3.440211 | 3.440423 | 3.440634 | 3.440845 | 3.441057 | 3.441268 | 3.441480 | 3.441691 | 3.441903 |
| 0.890 | 3.442114 | 3.442325 | 3.442537 | 3.442748 | 3.442960 | 3.443171 | 3.443383 | 3.443594 | 3.443806 | 3.444017 |
| 0.900 | 3.444229 | 3.444440 | 3.444652 | 3.444863 | 3.445075 | 3.445286 | 3.445498 | 3.445709 | 3.445921 | 3.446133 |
| 0.910 | 3.446344 | 3.446556 | 3.446767 | 3.446979 | 3.447191 | 3.447402 | 3.447614 | 3.447826 | 3.448037 | 3.448249 |
| 0.920 | 3.448460 | 3.448672 | 3.448884 | 3.449096 | 3.449308 | 3.449520 | 3.449731 | 3.449943 | 3.450155 | 3.450366 |
| 0.930 | 3.450578 | 3.450789 | 3.451001 | 3.451213 | 3.451425 | 3.451636 | 3.451848 | 3.452060 | 3.452272 | 3.452484 |
| 0.940 | 3.452695 | 3.452907 | 3.453119 | 3.453331 | 3.453543 | 3.453755 | 3.453967 | 3.454178 | 3.454390 | 3.454602 |
| 0.950 | 3.454814 | 3.455026 | 3.455238 | 3.455450 | 3.455662 | 3.455874 | 3.456086 | 3.456298 | 3.456510 | 3.456722 |
| 0.960 | 3.456934 | 3.457146 | 3.457358 | 3.457570 | 3.457782 | 3.457994 | 3.458206 | 3.458418 | 3.458630 | 3.458842 |
| 0.970 | 3.459054 | 3.459266 | 3.459478 | 3.459690 | 3.459902 | 3.460114 | 3.460326 | 3.460538 | 3.460750 | 3.460963 |
| 0.980 | 3.461175 | 3.461387 | 3.461599 | 3.461811 | 3.462023 | 3.462235 | 3.462448 | 3.462660 | 3.462872 | 3.463084 |
| 0.990 | 3.463297 | 3.463509 | 3.463721 | 3.463933 | 3.464146 | 3.464358 | 3.464570 | 3.464782 | 3.464995 | 3.465207 |

ATTENUATION IN DECIBELS
 THETA FROM 35.000 TO 35.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 3.465419 | 3.465632 | 3.465844 | 3.466056 | 3.466268 | 3.466481 | 3.466693 | 3.466906 | 3.467118 | 3.467330 |
| 0.010 | 3.467543 | 3.467755 | 3.467967 | 3.468180 | 3.468392 | 3.468605 | 3.468817 | 3.469029 | 3.469242 | 3.469454 |
| 0.020 | 3.469667 | 3.469879 | 3.470092 | 3.470304 | 3.470517 | 3.470729 | 3.470942 | 3.471154 | 3.471367 | 3.471579 |
| 0.030 | 3.471792 | 3.472004 | 3.472217 | 3.472429 | 3.472642 | 3.472855 | 3.473067 | 3.473280 | 3.473492 | 3.473705 |
| 0.040 | 3.473917 | 3.474130 | 3.474343 | 3.474555 | 3.474768 | 3.474981 | 3.475193 | 3.475406 | 3.475619 | 3.475831 |
| 0.050 | 3.476044 | 3.476257 | 3.476469 | 3.476682 | 3.476895 | 3.477108 | 3.477320 | 3.477533 | 3.477746 | 3.477959 |
| 0.060 | 3.478171 | 3.478384 | 3.478597 | 3.478810 | 3.479023 | 3.479235 | 3.479448 | 3.479661 | 3.479874 | 3.480087 |
| 0.070 | 3.480299 | 3.480512 | 3.480725 | 3.480938 | 3.481151 | 3.481364 | 3.481577 | 3.481790 | 3.482003 | 3.482215 |
| 0.080 | 3.482428 | 3.482641 | 3.482854 | 3.483067 | 3.483280 | 3.483493 | 3.483706 | 3.483919 | 3.484132 | 3.484345 |
| 0.090 | 3.484558 | 3.484771 | 3.484984 | 3.485197 | 3.485410 | 3.485623 | 3.485836 | 3.486049 | 3.486262 | 3.486475 |
| 0.100 | 3.486689 | 3.486902 | 3.487115 | 3.487328 | 3.487541 | 3.487754 | 3.487967 | 3.488180 | 3.488394 | 3.488607 |
| 0.110 | 3.488820 | 3.489033 | 3.489246 | 3.489459 | 3.489673 | 3.489886 | 3.490099 | 3.490312 | 3.490525 | 3.490739 |
| 0.120 | 3.490952 | 3.491165 | 3.491378 | 3.491592 | 3.491805 | 3.492018 | 3.492232 | 3.492445 | 3.492658 | 3.492871 |
| 0.130 | 3.493085 | 3.493298 | 3.493511 | 3.493725 | 3.493938 | 3.494152 | 3.494365 | 3.494578 | 3.494792 | 3.495005 |
| 0.140 | 3.495218 | 3.495432 | 3.495645 | 3.495859 | 3.496072 | 3.496286 | 3.496499 | 3.496713 | 3.496926 | 3.497139 |
| 0.150 | 3.497353 | 3.497566 | 3.497780 | 3.497993 | 3.498207 | 3.498420 | 3.498634 | 3.498848 | 3.499061 | 3.499275 |
| 0.160 | 3.499488 | 3.499702 | 3.499915 | 3.500129 | 3.500342 | 3.500556 | 3.500770 | 3.500983 | 3.501197 | 3.501411 |
| 0.170 | 3.501624 | 3.501838 | 3.502052 | 3.502265 | 3.502479 | 3.502693 | 3.502906 | 3.503120 | 3.503334 | 3.503547 |
| 0.180 | 3.503761 | 3.503975 | 3.504188 | 3.504402 | 3.504616 | 3.504830 | 3.505043 | 3.505257 | 3.505471 | 3.505685 |
| 0.190 | 3.505899 | 3.506112 | 3.506326 | 3.506540 | 3.506754 | 3.506968 | 3.507182 | 3.507395 | 3.507609 | 3.507823 |
| 0.200 | 3.508037 | 3.508251 | 3.508465 | 3.508679 | 3.508893 | 3.509107 | 3.509320 | 3.509534 | 3.509748 | 3.509962 |
| 0.210 | 3.510176 | 3.510390 | 3.510604 | 3.510818 | 3.511032 | 3.511246 | 3.511460 | 3.511674 | 3.511888 | 3.512102 |
| 0.220 | 3.512316 | 3.512530 | 3.512744 | 3.512958 | 3.513172 | 3.513387 | 3.513601 | 3.513815 | 3.514029 | 3.514243 |
| 0.230 | 3.514457 | 3.514671 | 3.514885 | 3.515099 | 3.515314 | 3.515528 | 3.515742 | 3.515956 | 3.516170 | 3.516384 |
| 0.240 | 3.516599 | 3.516813 | 3.517027 | 3.517241 | 3.517455 | 3.517670 | 3.517884 | 3.518098 | 3.518312 | 3.518526 |
| 0.250 | 3.518741 | 3.518955 | 3.519170 | 3.519384 | 3.519598 | 3.519812 | 3.520027 | 3.520241 | 3.520455 | 3.520670 |
| 0.260 | 3.520884 | 3.521098 | 3.521313 | 3.521527 | 3.521742 | 3.521956 | 3.522170 | 3.522385 | 3.522599 | 3.522814 |
| 0.270 | 3.523028 | 3.523242 | 3.523457 | 3.523671 | 3.523886 | 3.524100 | 3.524315 | 3.524529 | 3.524744 | 3.524958 |
| 0.280 | 3.525173 | 3.525387 | 3.525602 | 3.525816 | 3.526031 | 3.526246 | 3.526460 | 3.526675 | 3.526889 | 3.527104 |
| 0.290 | 3.527318 | 3.527533 | 3.527748 | 3.527962 | 3.528177 | 3.528391 | 3.528606 | 3.528821 | 3.529035 | 3.529250 |
| 0.300 | 3.529465 | 3.529679 | 3.529894 | 3.530109 | 3.530324 | 3.530538 | 3.530753 | 3.530968 | 3.531182 | 3.531397 |
| 0.310 | 3.531612 | 3.531827 | 3.532041 | 3.532256 | 3.532471 | 3.532686 | 3.532901 | 3.533115 | 3.533330 | 3.533545 |
| 0.320 | 3.533760 | 3.533975 | 3.534189 | 3.534404 | 3.534619 | 3.534834 | 3.535049 | 3.535264 | 3.535479 | 3.535694 |
| 0.330 | 3.535900 | 3.536123 | 3.536338 | 3.536553 | 3.536768 | 3.536983 | 3.537198 | 3.537413 | 3.537628 | 3.537843 |
| 0.340 | 3.538058 | 3.538273 | 3.538488 | 3.538703 | 3.538918 | 3.539133 | 3.539348 | 3.539563 | 3.539778 | 3.539993 |
| 0.350 | 3.540208 | 3.540423 | 3.540639 | 3.540854 | 3.541069 | 3.541284 | 3.541499 | 3.541714 | 3.541929 | 3.542144 |
| 0.360 | 3.542359 | 3.542575 | 3.542790 | 3.543005 | 3.543220 | 3.543435 | 3.543651 | 3.543866 | 3.544081 | 3.544296 |
| 0.370 | 3.544511 | 3.544727 | 3.544942 | 3.545157 | 3.545372 | 3.545588 | 3.545803 | 3.546018 | 3.546233 | 3.546449 |
| 0.380 | 3.546664 | 3.546879 | 3.547095 | 3.547310 | 3.547525 | 3.547741 | 3.547956 | 3.548171 | 3.548387 | 3.548602 |
| 0.390 | 3.548818 | 3.549033 | 3.549248 | 3.549464 | 3.549679 | 3.549895 | 3.550110 | 3.550326 | 3.550541 | 3.550756 |
| 0.400 | 3.550972 | 3.551187 | 3.551403 | 3.551618 | 3.551834 | 3.552049 | 3.552265 | 3.552480 | 3.552696 | 3.552911 |
| 0.410 | 3.553127 | 3.553343 | 3.553558 | 3.553774 | 3.553989 | 3.554205 | 3.554420 | 3.554636 | 3.554852 | 3.555067 |
| 0.420 | 3.555283 | 3.555498 | 3.555714 | 3.555930 | 3.556145 | 3.556361 | 3.556577 | 3.556792 | 3.557008 | 3.557224 |
| 0.430 | 3.557440 | 3.557655 | 3.557871 | 3.558087 | 3.558302 | 3.558518 | 3.558734 | 3.558950 | 3.559165 | 3.559381 |
| 0.440 | 3.559597 | 3.559813 | 3.560029 | 3.560244 | 3.560460 | 3.560676 | 3.560892 | 3.561108 | 3.561324 | 3.561539 |
| 0.450 | 3.561755 | 3.561971 | 3.562187 | 3.562403 | 3.562619 | 3.562835 | 3.563051 | 3.563267 | 3.563482 | 3.563698 |
| 0.460 | 3.563914 | 3.564130 | 3.564346 | 3.564562 | 3.564778 | 3.564994 | 3.565210 | 3.565426 | 3.565642 | 3.565858 |
| 0.470 | 3.566074 | 3.566290 | 3.566506 | 3.566722 | 3.566938 | 3.567154 | 3.567370 | 3.567587 | 3.567803 | 3.568019 |
| 0.480 | 3.568235 | 3.568451 | 3.568667 | 3.568883 | 3.569099 | 3.569315 | 3.569531 | 3.569748 | 3.569964 | 3.570180 |
| 0.490 | 3.570396 | 3.570613 | 3.570829 | 3.571045 | 3.571261 | 3.571477 | 3.571694 | 3.571910 | 3.572126 | 3.572342 |

ATTENUATION IN DECIBELS
THETA FROM 35.500 TO 35.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 3.572559 | 3.572775 | 3.572991 | 3.573207 | 3.573424 | 3.573640 | 3.573856 | 3.574073 | 3.574289 | 3.574505 |
| 0.510 | 3.574722 | 3.574938 | 3.575154 | 3.575371 | 3.575587 | 3.575804 | 3.576020 | 3.576236 | 3.576453 | 3.576669 |
| 0.520 | 3.576886 | 3.577102 | 3.577318 | 3.577535 | 3.577751 | 3.577968 | 3.578184 | 3.578401 | 3.578617 | 3.578834 |
| 0.530 | 3.579050 | 3.579267 | 3.579483 | 3.579700 | 3.579916 | 3.580133 | 3.580349 | 3.580566 | 3.580783 | 3.580999 |
| 0.540 | 3.581216 | 3.581432 | 3.581649 | 3.581866 | 3.582082 | 3.582299 | 3.582515 | 3.582732 | 3.582949 | 3.583165 |
| 0.550 | 3.583382 | 3.583599 | 3.583815 | 3.584032 | 3.584249 | 3.584465 | 3.584682 | 3.584899 | 3.585116 | 3.585332 |
| 0.560 | 3.585549 | 3.585766 | 3.585983 | 3.586199 | 3.586416 | 3.586633 | 3.586850 | 3.587066 | 3.587283 | 3.587500 |
| 0.570 | 3.587717 | 3.587934 | 3.588151 | 3.588368 | 3.588584 | 3.588801 | 3.589018 | 3.589235 | 3.589452 | 3.589669 |
| 0.580 | 3.589886 | 3.590102 | 3.590319 | 3.590536 | 3.590753 | 3.590970 | 3.591187 | 3.591404 | 3.591621 | 3.591838 |
| 0.590 | 3.592055 | 3.592272 | 3.592489 | 3.592706 | 3.592923 | 3.593140 | 3.593357 | 3.593574 | 3.593791 | 3.594008 |
| 0.600 | 3.594225 | 3.594442 | 3.594659 | 3.594877 | 3.595094 | 3.595311 | 3.595528 | 3.595745 | 3.595962 | 3.596179 |
| 0.610 | 3.596396 | 3.596613 | 3.596831 | 3.597048 | 3.597265 | 3.597482 | 3.597699 | 3.597917 | 3.598134 | 3.598351 |
| 0.620 | 3.598568 | 3.598785 | 3.599003 | 3.599220 | 3.599437 | 3.599654 | 3.599872 | 3.600089 | 3.600306 | 3.600524 |
| 0.630 | 3.600741 | 3.600958 | 3.601175 | 3.601393 | 3.601610 | 3.601828 | 3.602045 | 3.602262 | 3.602480 | 3.602697 |
| 0.640 | 3.602914 | 3.603132 | 3.603349 | 3.603567 | 3.603784 | 3.604001 | 3.604219 | 3.604436 | 3.604654 | 3.604871 |
| 0.650 | 3.605089 | 3.605306 | 3.605524 | 3.605741 | 3.605959 | 3.606176 | 3.606394 | 3.606611 | 3.606829 | 3.607046 |
| 0.660 | 3.607264 | 3.607481 | 3.607699 | 3.607916 | 3.608134 | 3.608351 | 3.608569 | 3.608787 | 3.609004 | 3.609222 |
| 0.670 | 3.609440 | 3.609657 | 3.609875 | 3.610092 | 3.610310 | 3.610528 | 3.610745 | 3.610963 | 3.611181 | 3.611398 |
| 0.680 | 3.611616 | 3.611834 | 3.612052 | 3.612269 | 3.612487 | 3.612705 | 3.612923 | 3.613140 | 3.613358 | 3.613576 |
| 0.690 | 3.613794 | 3.614011 | 3.614229 | 3.614447 | 3.614665 | 3.614883 | 3.615101 | 3.615318 | 3.615536 | 3.615754 |
| 0.700 | 3.615972 | 3.616190 | 3.616408 | 3.616626 | 3.616843 | 3.617061 | 3.617279 | 3.617497 | 3.617715 | 3.617933 |
| 0.710 | 3.618151 | 3.618369 | 3.618587 | 3.618805 | 3.619023 | 3.619241 | 3.619459 | 3.619677 | 3.619895 | 3.620113 |
| 0.720 | 3.620331 | 3.620549 | 3.620767 | 3.620985 | 3.621203 | 3.621421 | 3.621639 | 3.621857 | 3.622075 | 3.622293 |
| 0.730 | 3.622512 | 3.622730 | 3.622948 | 3.623166 | 3.623384 | 3.623602 | 3.623820 | 3.624039 | 3.624257 | 3.624475 |
| 0.740 | 3.624693 | 3.624911 | 3.625129 | 3.625348 | 3.625566 | 3.625784 | 3.626002 | 3.626221 | 3.626439 | 3.626657 |
| 0.750 | 3.626875 | 3.627094 | 3.627312 | 3.627530 | 3.627748 | 3.627967 | 3.628185 | 3.628403 | 3.628622 | 3.628840 |
| 0.760 | 3.629058 | 3.629277 | 3.629495 | 3.629714 | 3.629932 | 3.630150 | 3.630369 | 3.630587 | 3.630805 | 3.631024 |
| 0.770 | 3.631242 | 3.631461 | 3.631679 | 3.631898 | 3.632116 | 3.632335 | 3.632553 | 3.632772 | 3.632990 | 3.633209 |
| 0.780 | 3.633427 | 3.633646 | 3.633864 | 3.634083 | 3.634301 | 3.634520 | 3.634738 | 3.634957 | 3.635175 | 3.635394 |
| 0.790 | 3.635613 | 3.635831 | 3.636050 | 3.636268 | 3.636487 | 3.636706 | 3.636924 | 3.637143 | 3.637362 | 3.637580 |
| 0.800 | 3.637799 | 3.638018 | 3.638236 | 3.638455 | 3.638674 | 3.638892 | 3.639111 | 3.639330 | 3.639548 | 3.639767 |
| 0.810 | 3.639986 | 3.640205 | 3.640423 | 3.640642 | 3.640861 | 3.641080 | 3.641299 | 3.641517 | 3.641736 | 3.641955 |
| 0.820 | 3.642174 | 3.642393 | 3.642612 | 3.642830 | 3.643049 | 3.643268 | 3.643487 | 3.643706 | 3.643925 | 3.644144 |
| 0.830 | 3.644363 | 3.644582 | 3.644801 | 3.645019 | 3.645238 | 3.645457 | 3.645676 | 3.645895 | 3.646114 | 3.646333 |
| 0.840 | 3.646552 | 3.646771 | 3.646990 | 3.647209 | 3.647428 | 3.647647 | 3.647866 | 3.648085 | 3.648304 | 3.648523 |
| 0.850 | 3.648742 | 3.648962 | 3.649181 | 3.649400 | 3.649619 | 3.649838 | 3.650057 | 3.650276 | 3.650495 | 3.650714 |
| 0.860 | 3.650934 | 3.651153 | 3.651372 | 3.651591 | 3.651810 | 3.652029 | 3.652248 | 3.652467 | 3.652687 | 3.652906 |
| 0.870 | 3.653126 | 3.653345 | 3.653564 | 3.653783 | 3.654003 | 3.654222 | 3.654441 | 3.654660 | 3.654880 | 3.655099 |
| 0.880 | 3.655318 | 3.655538 | 3.655757 | 3.655976 | 3.656196 | 3.656415 | 3.656634 | 3.656854 | 3.657073 | 3.657292 |
| 0.890 | 3.657512 | 3.657731 | 3.657951 | 3.658170 | 3.658389 | 3.658609 | 3.658828 | 3.659048 | 3.659267 | 3.659487 |
| 0.900 | 3.659706 | 3.659926 | 3.660145 | 3.660365 | 3.660584 | 3.660804 | 3.661023 | 3.661243 | 3.661462 | 3.661682 |
| 0.910 | 3.661901 | 3.662121 | 3.662340 | 3.662560 | 3.662780 | 3.663000 | 3.663219 | 3.663438 | 3.663658 | 3.663878 |
| 0.920 | 3.664097 | 3.664317 | 3.664537 | 3.664756 | 3.664976 | 3.665196 | 3.665415 | 3.665635 | 3.665855 | 3.666074 |
| 0.930 | 3.666294 | 3.666514 | 3.666734 | 3.666953 | 3.667173 | 3.667393 | 3.667613 | 3.667832 | 3.668052 | 3.668272 |
| 0.940 | 3.668492 | 3.668712 | 3.668931 | 3.669151 | 3.669371 | 3.669591 | 3.669811 | 3.670031 | 3.670250 | 3.670470 |
| 0.950 | 3.670690 | 3.670910 | 3.671130 | 3.671350 | 3.671570 | 3.671790 | 3.672010 | 3.672229 | 3.672449 | 3.672669 |
| 0.960 | 3.672889 | 3.673109 | 3.673329 | 3.673549 | 3.673769 | 3.673989 | 3.674209 | 3.674429 | 3.674649 | 3.674869 |
| 0.970 | 3.675089 | 3.675309 | 3.675529 | 3.675749 | 3.675970 | 3.676190 | 3.676410 | 3.676630 | 3.676850 | 3.677070 |
| 0.980 | 3.677290 | 3.677510 | 3.677730 | 3.677951 | 3.678171 | 3.678391 | 3.678611 | 3.678831 | 3.679051 | 3.679272 |
| 0.990 | 3.679492 | 3.679712 | 3.679932 | 3.680152 | 3.680373 | 3.680593 | 3.680813 | 3.681033 | 3.681254 | 3.681474 |

ATTENUATION IN DECIBELS
THETA FROM 36.000 TO 36.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 3.681674 | 3.681914 | 3.682135 | 3.682355 | 3.682575 | 3.682796 | 3.683016 | 3.683236 | 3.683457 | 3.683677 |
| 0.010 | 3.682897 | 3.683138 | 3.683388 | 3.683638 | 3.683888 | 3.684138 | 3.684388 | 3.684638 | 3.684888 | 3.685138 |
| 0.020 | 3.684101 | 3.684352 | 3.684603 | 3.684854 | 3.685105 | 3.685356 | 3.685607 | 3.685858 | 3.686109 | 3.686360 |
| 0.030 | 3.685306 | 3.685557 | 3.685808 | 3.686059 | 3.686310 | 3.686561 | 3.686812 | 3.687063 | 3.687314 | 3.687565 |
| 0.040 | 3.686512 | 3.686763 | 3.687014 | 3.687265 | 3.687516 | 3.687767 | 3.688018 | 3.688269 | 3.688520 | 3.688771 |
| 0.050 | 3.687719 | 3.687970 | 3.688221 | 3.688472 | 3.688723 | 3.688974 | 3.689225 | 3.689476 | 3.689727 | 3.689978 |
| 0.060 | 3.688926 | 3.689177 | 3.689428 | 3.689679 | 3.689930 | 3.690181 | 3.690432 | 3.690683 | 3.690934 | 3.691185 |
| 0.070 | 3.690134 | 3.690385 | 3.690636 | 3.690887 | 3.691138 | 3.691389 | 3.691640 | 3.691891 | 3.692142 | 3.692393 |
| 0.080 | 3.691343 | 3.691594 | 3.691845 | 3.692096 | 3.692347 | 3.692598 | 3.692849 | 3.693100 | 3.693351 | 3.693602 |
| 0.090 | 3.692553 | 3.692804 | 3.693055 | 3.693306 | 3.693557 | 3.693808 | 3.694059 | 3.694310 | 3.694561 | 3.694812 |
| 0.100 | 3.693763 | 3.694014 | 3.694265 | 3.694516 | 3.694767 | 3.695018 | 3.695269 | 3.695520 | 3.695771 | 3.696022 |
| 0.110 | 3.694974 | 3.695225 | 3.695476 | 3.695727 | 3.695978 | 3.696229 | 3.696480 | 3.696731 | 3.696982 | 3.697233 |
| 0.120 | 3.696184 | 3.696435 | 3.696686 | 3.696937 | 3.697188 | 3.697439 | 3.697690 | 3.697941 | 3.698192 | 3.698443 |
| 0.130 | 3.697395 | 3.697646 | 3.697897 | 3.698148 | 3.698399 | 3.698650 | 3.698901 | 3.699152 | 3.699403 | 3.699654 |
| 0.140 | 3.698606 | 3.698857 | 3.699108 | 3.699359 | 3.699610 | 3.699861 | 3.700112 | 3.700363 | 3.700614 | 3.700865 |
| 0.150 | 3.699817 | 3.700068 | 3.700319 | 3.700570 | 3.700821 | 3.701072 | 3.701323 | 3.701574 | 3.701825 | 3.702076 |
| 0.160 | 3.701028 | 3.701279 | 3.701530 | 3.701781 | 3.702032 | 3.702283 | 3.702534 | 3.702785 | 3.703036 | 3.703287 |
| 0.170 | 3.702239 | 3.702490 | 3.702741 | 3.702992 | 3.703243 | 3.703494 | 3.703745 | 3.703996 | 3.704247 | 3.704498 |
| 0.180 | 3.703450 | 3.703701 | 3.703952 | 3.704203 | 3.704454 | 3.704705 | 3.704956 | 3.705207 | 3.705458 | 3.705709 |
| 0.190 | 3.704661 | 3.704912 | 3.705163 | 3.705414 | 3.705665 | 3.705916 | 3.706167 | 3.706418 | 3.706669 | 3.706920 |
| 0.200 | 3.705872 | 3.706123 | 3.706374 | 3.706625 | 3.706876 | 3.707127 | 3.707378 | 3.707629 | 3.707880 | 3.708131 |
| 0.210 | 3.707083 | 3.707334 | 3.707585 | 3.707836 | 3.708087 | 3.708338 | 3.708589 | 3.708840 | 3.709091 | 3.709342 |
| 0.220 | 3.708294 | 3.708545 | 3.708796 | 3.709047 | 3.709298 | 3.709549 | 3.709800 | 3.709951 | 3.710202 | 3.710453 |
| 0.230 | 3.709505 | 3.709756 | 3.709907 | 3.710158 | 3.710409 | 3.710660 | 3.710911 | 3.711162 | 3.711413 | 3.711664 |
| 0.240 | 3.710716 | 3.710967 | 3.711218 | 3.711469 | 3.711720 | 3.711971 | 3.712222 | 3.712473 | 3.712724 | 3.712975 |
| 0.250 | 3.711927 | 3.712178 | 3.712429 | 3.712680 | 3.712931 | 3.713182 | 3.713433 | 3.713684 | 3.713935 | 3.714186 |
| 0.260 | 3.713138 | 3.713389 | 3.713640 | 3.713891 | 3.714142 | 3.714393 | 3.714644 | 3.714895 | 3.715146 | 3.715397 |
| 0.270 | 3.714349 | 3.714600 | 3.714851 | 3.715102 | 3.715353 | 3.715604 | 3.715855 | 3.716106 | 3.716357 | 3.716608 |
| 0.280 | 3.715560 | 3.715811 | 3.716062 | 3.716313 | 3.716564 | 3.716815 | 3.717066 | 3.717317 | 3.717568 | 3.717819 |
| 0.290 | 3.716771 | 3.717022 | 3.717273 | 3.717524 | 3.717775 | 3.718026 | 3.718277 | 3.718528 | 3.718779 | 3.719030 |
| 0.300 | 3.717982 | 3.718233 | 3.718484 | 3.718735 | 3.718986 | 3.719237 | 3.719488 | 3.719739 | 3.719990 | 3.720241 |
| 0.310 | 3.719193 | 3.719444 | 3.719695 | 3.719946 | 3.720197 | 3.720448 | 3.720699 | 3.720950 | 3.721201 | 3.721452 |
| 0.320 | 3.720404 | 3.720655 | 3.720906 | 3.721157 | 3.721408 | 3.721659 | 3.721910 | 3.722161 | 3.722412 | 3.722663 |
| 0.330 | 3.721615 | 3.721866 | 3.722117 | 3.722368 | 3.722619 | 3.722870 | 3.723121 | 3.723372 | 3.723623 | 3.723874 |
| 0.340 | 3.722826 | 3.723077 | 3.723328 | 3.723579 | 3.723830 | 3.724081 | 3.724332 | 3.724583 | 3.724834 | 3.725085 |
| 0.350 | 3.724037 | 3.724288 | 3.724539 | 3.724790 | 3.725041 | 3.725292 | 3.725543 | 3.725794 | 3.726045 | 3.726296 |
| 0.360 | 3.725248 | 3.725499 | 3.725750 | 3.726001 | 3.726252 | 3.726503 | 3.726754 | 3.727005 | 3.727256 | 3.727507 |
| 0.370 | 3.726459 | 3.726710 | 3.726961 | 3.727212 | 3.727463 | 3.727714 | 3.727965 | 3.728216 | 3.728467 | 3.728718 |
| 0.380 | 3.727670 | 3.727921 | 3.728172 | 3.728423 | 3.728674 | 3.728925 | 3.729176 | 3.729427 | 3.729678 | 3.729929 |
| 0.390 | 3.728881 | 3.729132 | 3.729383 | 3.729634 | 3.729885 | 3.730136 | 3.730387 | 3.730638 | 3.730889 | 3.731140 |
| 0.400 | 3.730092 | 3.730343 | 3.730594 | 3.730845 | 3.731096 | 3.731347 | 3.731598 | 3.731849 | 3.732100 | 3.732351 |
| 0.410 | 3.731303 | 3.731554 | 3.731805 | 3.732056 | 3.732307 | 3.732558 | 3.732809 | 3.733060 | 3.733311 | 3.733562 |
| 0.420 | 3.732514 | 3.732765 | 3.733016 | 3.733267 | 3.733518 | 3.733769 | 3.734020 | 3.734271 | 3.734522 | 3.734773 |
| 0.430 | 3.733725 | 3.733976 | 3.734227 | 3.734478 | 3.734729 | 3.734980 | 3.735231 | 3.735482 | 3.735733 | 3.735984 |
| 0.440 | 3.734936 | 3.735187 | 3.735438 | 3.735689 | 3.735940 | 3.736191 | 3.736442 | 3.736693 | 3.736944 | 3.737195 |
| 0.450 | 3.736147 | 3.736398 | 3.736649 | 3.736900 | 3.737151 | 3.737402 | 3.737653 | 3.737904 | 3.738155 | 3.738406 |
| 0.460 | 3.737358 | 3.737609 | 3.737860 | 3.738111 | 3.738362 | 3.738613 | 3.738864 | 3.739115 | 3.739366 | 3.739617 |
| 0.470 | 3.738569 | 3.738820 | 3.739071 | 3.739322 | 3.739573 | 3.739824 | 3.740075 | 3.740326 | 3.740577 | 3.740828 |
| 0.480 | 3.739780 | 3.740031 | 3.740282 | 3.740533 | 3.740784 | 3.741035 | 3.741286 | 3.741537 | 3.741788 | 3.742039 |
| 0.490 | 3.740991 | 3.741242 | 3.741493 | 3.741744 | 3.741995 | 3.742246 | 3.742497 | 3.742748 | 3.742999 | 3.743250 |
| 0.500 | 3.742202 | 3.742453 | 3.742704 | 3.742955 | 3.743206 | 3.743457 | 3.743708 | 3.743959 | 3.744210 | 3.744461 |
| 0.510 | 3.743413 | 3.743664 | 3.743915 | 3.744166 | 3.744417 | 3.744668 | 3.744919 | 3.745170 | 3.745421 | 3.745672 |
| 0.520 | 3.744624 | 3.744875 | 3.745126 | 3.745377 | 3.745628 | 3.745879 | 3.746130 | 3.746381 | 3.746632 | 3.746883 |
| 0.530 | 3.745835 | 3.746086 | 3.746337 | 3.746588 | 3.746839 | 3.747090 | 3.747341 | 3.747592 | 3.747843 | 3.748094 |
| 0.540 | 3.747046 | 3.747297 | 3.747548 | 3.747799 | 3.748050 | 3.748301 | 3.748552 | 3.748803 | 3.749054 | 3.749305 |
| 0.550 | 3.748257 | 3.748508 | 3.748759 | 3.749010 | 3.749261 | 3.749512 | 3.749763 | 3.749914 | 3.750165 | 3.750416 |
| 0.560 | 3.749468 | 3.749719 | 3.749970 | 3.750221 | 3.750472 | 3.750723 | 3.750974 | 3.751225 | 3.751476 | 3.751727 |
| 0.570 | 3.750679 | 3.750930 | 3.751181 | 3.751432 | 3.751683 | 3.751934 | 3.752185 | 3.752436 | 3.752687 | 3.752938 |
| 0.580 | 3.751890 | 3.752141 | 3.752392 | 3.752643 | 3.752894 | 3.753145 | 3.753396 | 3.753647 | 3.753898 | 3.754149 |
| 0.590 | 3.753101 | 3.753352 | 3.753603 | 3.753854 | 3.754105 | 3.754356 | 3.754607 | 3.754858 | 3.755109 | 3.755360 |
| 0.600 | 3.754312 | 3.754563 | 3.754814 | 3.755065 | 3.755316 | 3.755567 | 3.755818 | 3.756069 | 3.756320 | 3.756571 |
| 0.610 | 3.755523 | 3.755774 | 3.756025 | 3.756276 | 3.756527 | 3.756778 | 3.757029 | 3.757280 | 3.757531 | 3.757782 |
| 0.620 | 3.756734 | 3.756985 | 3.757236 | 3.757487 | 3.757738 | 3.757989 | 3.758240 | 3.758491 | 3.758742 | 3.758993 |
| 0.630 | 3.757945 | 3.758196 | 3.758447 | 3.758698 | 3.758949 | 3.759200 | 3.759451 | 3.759702 | 3.759953 | 3.760204 |
| 0.640 | 3.759156 | 3.759407 | 3.759658 | 3.759909 | 3.760160 | 3.760411 | 3.760662 | 3.760913 | 3.761164 | 3.761415 |
| 0.650 | 3.760367 | 3.760618 | 3.760869 | 3.761120 | 3.761371 | 3.761622 | 3.761873 | 3.762124 | 3.762375 | 3.762626 |
| 0.660 | 3.761578 | 3.761829 | 3.762080 | 3.762331 | 3.762582 | 3.762833 | 3.763084 | 3.763335 | 3.763586 | 3.763837 |
| 0.670 | 3.762789 | 3.763040 | 3.763291 | 3.763542 | 3.763793 | 3.764044 | 3.764295 | 3.764546 | 3.764797 | 3.765048 |
| 0.680 | 3.763990 | 3.764241 | 3.764492 | 3.764743 | 3.764994 | 3.765245 | 3.765496 | 3.765747 | 3.765998 | 3.766249 |
| 0.690 | 3.765201 | 3.765452 | 3.765703 | 3.765954 | 3.766205 | 3.766456 | 3.766707 | 3.766958 | 3.767209 | 3.767460 |
| 0.700 | 3.766412 | 3.766663 | 3.766914 | 3.767165 | 3.767416 | 3.767667 | 3.767918 | 3.768169 | 3.768420 | 3.768671 |
| 0.710 | 3.767623 | 3.767874 | 3.768125 | 3.768376 | 3.768627 | 3.768878 | 3.769129 | 3.769380 | 3.769631 | 3.769882 |
| 0.720 | 3.768834 | 3.769085 | 3.769336 | 3.769587 | 3.769838 | 3.770089 | 3.770340 | 3.770591 | 3.770842 | 3.771093 |
| 0.730 | 3.770045 | 3.770296 | 3.770547 | 3.770798 | 3.771049 | 3.771300 | 3.771551 | 3.771802 | 3.772053 | 3.772304 |
| 0.740 | 3.771256 | 3.771507 | 3.771758 | 3.772009 | 3.772260 | 3.772511 | 3.772762 | 3.773013 | 3.773264 | 3.773515 |
| 0.750 | 3.772467 | 3.772718 | 3.772969 | 3.773220 | 3.773471 | 3.773722 | 3.773973 | 3.774224 | 3.774475 | 3.774726 |
| 0.760 | 3.773630 | 3.773881 | 3.774132 | 3.774383 | 3.774634 | 3.774885 | 3.775136 | 3.775387 | 3.775638 | 3.775889 |
| 0.770 | 3.774841 | 3.775092 | 3.775343 | 3.775594 | 3.775845 | 3.776096 | 3.776347 | 3.776598 | 3.776849 | 3.777100 |
| 0.780 | 3.776052 | 3.776303 | 3.776554 | 3.776805 | 3.777056 | 3.777307 | 3.777558 | 3.777809 | 3.778060 | 3.778311 |
| 0.790 | 3.777263 | 3.777514 | 3.777765 | 3.778016 | 3.778267 | 3.778518 | 3.778769 | 3.779020 | 3.779271 | 3.779522 |
| 0.800 | 3.778474 | 3.778725 | 3.778976 | 3.779227 | 3.779478 | 3.779729 | 3.779980 | 3.780231 | 3.780482 | 3.780733 |
| 0.810 | 3.780945 | 3.781196 | 3.781447 | 3.781698 | 3.781949 | 3.782200 | 3.782451 | 3.782702 | 3.782953 | 3.783204 |
| 0.820 | 3.783415 | 3.783666 | 3.783917 | 3.784168 | 3.784419 | 3.784670 | 3.784921 | 3.785172 | 3.785423 | 3.785674 |
| 0.830 | 3.786085 | 3.786336 | 3.786587 | 3.7 | | | | | | |

ATTENUATION IN DECIBELS
THETA FROM 36.500 TO 36.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 3.792851 | 3.793075 | 3.793300 | 3.793524 | 3.793749 | 3.793973 | 3.794197 | 3.794422 | 3.794646 | 3.794871 |
| 0.510 | 3.795095 | 3.795319 | 3.795544 | 3.795768 | 3.795993 | 3.796217 | 3.796442 | 3.796666 | 3.796891 | 3.797115 |
| 0.520 | 3.797340 | 3.797564 | 3.797789 | 3.798013 | 3.798238 | 3.798462 | 3.798687 | 3.798912 | 3.799136 | 3.799361 |
| 0.530 | 3.799585 | 3.799810 | 3.800035 | 3.800259 | 3.800484 | 3.800708 | 3.800933 | 3.801158 | 3.801382 | 3.801607 |
| 0.540 | 3.801832 | 3.802056 | 3.802281 | 3.802506 | 3.802731 | 3.802955 | 3.803180 | 3.803405 | 3.803629 | 3.803854 |
| 0.550 | 3.804079 | 3.804304 | 3.804528 | 3.804753 | 3.804978 | 3.805203 | 3.805428 | 3.805652 | 3.805877 | 3.806102 |
| 0.560 | 3.806327 | 3.806552 | 3.806777 | 3.807002 | 3.807226 | 3.807451 | 3.807676 | 3.807901 | 3.808126 | 3.808351 |
| 0.570 | 3.808801 | 3.809026 | 3.809251 | 3.809476 | 3.809701 | 3.809926 | 3.810151 | 3.810375 | 3.810600 | 3.810825 |
| 0.580 | 3.810325 | 3.810550 | 3.810775 | 3.811000 | 3.811225 | 3.811450 | 3.811675 | 3.811900 | 3.812125 | 3.812350 |
| 0.590 | 3.813076 | 3.813301 | 3.813526 | 3.813751 | 3.813976 | 3.814201 | 3.814426 | 3.814651 | 3.814876 | 3.815101 |
| 0.600 | 3.815327 | 3.815552 | 3.815777 | 3.816002 | 3.816227 | 3.816452 | 3.816677 | 3.816902 | 3.817127 | 3.817352 |
| 0.610 | 3.817805 | 3.818030 | 3.818255 | 3.818481 | 3.818706 | 3.818931 | 3.819156 | 3.819381 | 3.819606 | 3.819831 |
| 0.620 | 3.819832 | 3.820058 | 3.820283 | 3.820508 | 3.820734 | 3.820959 | 3.821185 | 3.821410 | 3.821635 | 3.821861 |
| 0.630 | 3.822086 | 3.822312 | 3.822537 | 3.822762 | 3.822988 | 3.823213 | 3.823439 | 3.823664 | 3.823889 | 3.824115 |
| 0.640 | 3.824341 | 3.824566 | 3.824792 | 3.825017 | 3.825243 | 3.825468 | 3.825694 | 3.825919 | 3.826145 | 3.826371 |
| 0.650 | 3.826596 | 3.826822 | 3.827047 | 3.827273 | 3.827499 | 3.827724 | 3.827950 | 3.828175 | 3.828401 | 3.828627 |
| 0.660 | 3.828852 | 3.829078 | 3.829304 | 3.829529 | 3.829755 | 3.829981 | 3.830207 | 3.830432 | 3.830658 | 3.830884 |
| 0.670 | 3.831109 | 3.831335 | 3.831561 | 3.831787 | 3.832013 | 3.832238 | 3.832464 | 3.832690 | 3.832916 | 3.833142 |
| 0.680 | 3.833367 | 3.833593 | 3.833819 | 3.834045 | 3.834271 | 3.834497 | 3.834722 | 3.834948 | 3.835174 | 3.835400 |
| 0.690 | 3.835626 | 3.835852 | 3.836078 | 3.836304 | 3.836530 | 3.836756 | 3.836982 | 3.837208 | 3.837434 | 3.837660 |
| 0.700 | 3.837866 | 3.838112 | 3.838338 | 3.838564 | 3.838790 | 3.839016 | 3.839242 | 3.839468 | 3.839694 | 3.839920 |
| 0.710 | 3.840146 | 3.840372 | 3.840598 | 3.840824 | 3.841050 | 3.841276 | 3.841503 | 3.841729 | 3.841955 | 3.842181 |
| 0.720 | 3.842407 | 3.842633 | 3.842859 | 3.843086 | 3.843312 | 3.843538 | 3.843764 | 3.843990 | 3.844217 | 3.844443 |
| 0.730 | 3.844669 | 3.844895 | 3.845122 | 3.845348 | 3.845574 | 3.845800 | 3.846027 | 3.846253 | 3.846479 | 3.846706 |
| 0.740 | 3.846932 | 3.847158 | 3.847385 | 3.847611 | 3.847837 | 3.848064 | 3.848290 | 3.848516 | 3.848743 | 3.848969 |
| 0.750 | 3.849196 | 3.849422 | 3.849648 | 3.849875 | 3.850101 | 3.850328 | 3.850554 | 3.850781 | 3.851007 | 3.851234 |
| 0.760 | 3.851460 | 3.851687 | 3.851913 | 3.852140 | 3.852366 | 3.852593 | 3.852819 | 3.853046 | 3.853272 | 3.853499 |
| 0.770 | 3.853725 | 3.853952 | 3.854179 | 3.854405 | 3.854632 | 3.854858 | 3.855085 | 3.855312 | 3.855538 | 3.855765 |
| 0.780 | 3.855992 | 3.856218 | 3.856445 | 3.856672 | 3.856898 | 3.857125 | 3.857352 | 3.857578 | 3.857805 | 3.858032 |
| 0.790 | 3.858258 | 3.858485 | 3.858712 | 3.858939 | 3.859165 | 3.859392 | 3.859619 | 3.859846 | 3.860073 | 3.860299 |
| 0.800 | 3.860526 | 3.860753 | 3.860980 | 3.861207 | 3.861434 | 3.861660 | 3.861887 | 3.862114 | 3.862341 | 3.862568 |
| 0.810 | 3.862795 | 3.863022 | 3.863249 | 3.863476 | 3.863703 | 3.863929 | 3.864156 | 3.864383 | 3.864610 | 3.864837 |
| 0.820 | 3.865064 | 3.865291 | 3.865518 | 3.865745 | 3.865972 | 3.866199 | 3.866426 | 3.866653 | 3.866880 | 3.867107 |
| 0.830 | 3.867335 | 3.867562 | 3.867789 | 3.868016 | 3.868243 | 3.868470 | 3.868697 | 3.868924 | 3.869151 | 3.869378 |
| 0.840 | 3.869606 | 3.869833 | 3.870060 | 3.870287 | 3.870514 | 3.870741 | 3.870968 | 3.871196 | 3.871423 | 3.871650 |
| 0.850 | 3.871877 | 3.872105 | 3.872332 | 3.872559 | 3.872786 | 3.873014 | 3.873241 | 3.873468 | 3.873696 | 3.873923 |
| 0.860 | 3.874150 | 3.874378 | 3.874605 | 3.874832 | 3.875060 | 3.875287 | 3.875514 | 3.875742 | 3.875969 | 3.876196 |
| 0.870 | 3.876424 | 3.876651 | 3.876879 | 3.877106 | 3.877333 | 3.877561 | 3.877788 | 3.878016 | 3.878243 | 3.878471 |
| 0.880 | 3.878698 | 3.878926 | 3.879153 | 3.879381 | 3.879608 | 3.879836 | 3.880063 | 3.880291 | 3.880518 | 3.880746 |
| 0.890 | 3.880973 | 3.881201 | 3.881429 | 3.881656 | 3.881884 | 3.882111 | 3.882339 | 3.882567 | 3.882794 | 3.883022 |
| 0.900 | 3.883477 | 3.883705 | 3.883932 | 3.884160 | 3.884388 | 3.884615 | 3.884843 | 3.885071 | 3.885299 | 3.885527 |
| 0.910 | 3.885526 | 3.885754 | 3.885982 | 3.886209 | 3.886437 | 3.886665 | 3.886893 | 3.887121 | 3.887348 | 3.887576 |
| 0.920 | 3.887804 | 3.888032 | 3.888260 | 3.888487 | 3.888715 | 3.888943 | 3.889171 | 3.889399 | 3.889627 | 3.889855 |
| 0.930 | 3.890082 | 3.890310 | 3.890538 | 3.890766 | 3.890994 | 3.891222 | 3.891450 | 3.891678 | 3.891906 | 3.892134 |
| 0.940 | 3.892362 | 3.892590 | 3.892818 | 3.893046 | 3.893274 | 3.893502 | 3.893730 | 3.893958 | 3.894186 | 3.894414 |
| 0.950 | 3.894642 | 3.894870 | 3.895098 | 3.895326 | 3.895554 | 3.895782 | 3.896011 | 3.896239 | 3.896467 | 3.896695 |
| 0.960 | 3.896923 | 3.897151 | 3.897379 | 3.897607 | 3.897835 | 3.898063 | 3.898292 | 3.898520 | 3.898748 | 3.898977 |
| 0.970 | 3.899205 | 3.899433 | 3.899661 | 3.899890 | 3.900118 | 3.900346 | 3.900574 | 3.900803 | 3.901031 | 3.901259 |
| 0.980 | 3.901487 | 3.901716 | 3.901944 | 3.902172 | 3.902401 | 3.902629 | 3.902858 | 3.903086 | 3.903314 | 3.903543 |
| 0.990 | 3.903771 | 3.903999 | 3.904228 | 3.904456 | 3.904685 | 3.904913 | 3.905142 | 3.905370 | 3.905598 | 3.905827 |

ATTENUATION IN DECIBELS
THETA FROM 37.000 TO 37.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 3.906055 | 3.906284 | 3.906512 | 3.906741 | 3.906969 | 3.907198 | 3.907426 | 3.907655 | 3.907883 | 3.908112 |
| 0.010 | 3.908340 | 3.908569 | 3.908798 | 3.909026 | 3.909255 | 3.909483 | 3.909712 | 3.909941 | 3.910169 | 3.910398 |
| 0.020 | 3.910626 | 3.910855 | 3.911084 | 3.911312 | 3.911541 | 3.911770 | 3.911998 | 3.912227 | 3.912456 | 3.912685 |
| 0.030 | 3.912913 | 3.913142 | 3.913371 | 3.913599 | 3.913828 | 3.914057 | 3.914286 | 3.914515 | 3.914743 | 3.914972 |
| 0.040 | 3.915201 | 3.915430 | 3.915659 | 3.915887 | 3.916116 | 3.916345 | 3.916574 | 3.916803 | 3.917032 | 3.917260 |
| 0.050 | 3.917489 | 3.917718 | 3.917947 | 3.918176 | 3.918405 | 3.918634 | 3.918863 | 3.919092 | 3.919321 | 3.919550 |
| 0.060 | 3.919779 | 3.920008 | 3.920237 | 3.920466 | 3.920695 | 3.920924 | 3.921153 | 3.921382 | 3.921611 | 3.921840 |
| 0.070 | 3.922069 | 3.922298 | 3.922527 | 3.922756 | 3.922985 | 3.923214 | 3.923443 | 3.923672 | 3.923902 | 3.924131 |
| 0.080 | 3.924360 | 3.924589 | 3.924818 | 3.925047 | 3.925276 | 3.925506 | 3.925735 | 3.925964 | 3.926193 | 3.926422 |
| 0.090 | 3.926652 | 3.926881 | 3.927110 | 3.927339 | 3.927569 | 3.927798 | 3.928027 | 3.928256 | 3.928486 | 3.928715 |
| 0.100 | 3.928944 | 3.929174 | 3.929403 | 3.929632 | 3.929861 | 3.930091 | 3.930320 | 3.930550 | 3.930779 | 3.931008 |
| 0.110 | 3.931238 | 3.931467 | 3.931696 | 3.931926 | 3.932155 | 3.932385 | 3.932614 | 3.932844 | 3.933073 | 3.933302 |
| 0.120 | 3.933532 | 3.933761 | 3.933991 | 3.934220 | 3.934450 | 3.934679 | 3.934909 | 3.935138 | 3.935368 | 3.935598 |
| 0.130 | 3.935827 | 3.936057 | 3.936286 | 3.936516 | 3.936745 | 3.936975 | 3.937205 | 3.937434 | 3.937664 | 3.937893 |
| 0.140 | 3.938123 | 3.938353 | 3.938582 | 3.938812 | 3.939042 | 3.939271 | 3.939501 | 3.939731 | 3.939960 | 3.940190 |
| 0.150 | 3.940420 | 3.940650 | 3.940879 | 3.941109 | 3.941339 | 3.941569 | 3.941798 | 3.942028 | 3.942258 | 3.942488 |
| 0.160 | 3.942717 | 3.942947 | 3.943177 | 3.943407 | 3.943637 | 3.943867 | 3.944096 | 3.944326 | 3.944556 | 3.944786 |
| 0.170 | 3.945016 | 3.945246 | 3.945476 | 3.945706 | 3.945936 | 3.946165 | 3.946395 | 3.946625 | 3.946855 | 3.947085 |
| 0.180 | 3.947315 | 3.947545 | 3.947775 | 3.948005 | 3.948235 | 3.948465 | 3.948695 | 3.948925 | 3.949155 | 3.949385 |
| 0.190 | 3.949615 | 3.949845 | 3.950075 | 3.950306 | 3.950536 | 3.950766 | 3.950996 | 3.951226 | 3.951456 | 3.951686 |
| 0.200 | 3.951916 | 3.952146 | 3.952377 | 3.952607 | 3.952837 | 3.953067 | 3.953297 | 3.953527 | 3.953758 | 3.953988 |
| 0.210 | 3.954218 | 3.954448 | 3.954679 | 3.954909 | 3.955139 | 3.955369 | 3.955600 | 3.955830 | 3.956060 | 3.956290 |
| 0.220 | 3.956521 | 3.956751 | 3.956981 | 3.957212 | 3.957442 | 3.957672 | 3.957903 | 3.958133 | 3.958363 | 3.958594 |
| 0.230 | 3.958824 | 3.959055 | 3.959285 | 3.959515 | 3.959746 | 3.959976 | 3.960207 | 3.960437 | 3.960668 | 3.960898 |
| 0.240 | 3.961128 | 3.961359 | 3.961589 | 3.961820 | 3.962050 | 3.962281 | 3.962511 | 3.962742 | 3.962972 | 3.963203 |
| 0.250 | 3.963434 | 3.963664 | 3.963895 | 3.964125 | 3.964356 | 3.964586 | 3.964817 | 3.965048 | 3.965278 | 3.965509 |
| 0.260 | 3.965740 | 3.965970 | 3.966201 | 3.966431 | 3.966662 | 3.966893 | 3.967124 | 3.967354 | 3.967585 | 3.967816 |
| 0.270 | 3.968046 | 3.968277 | 3.968508 | 3.968739 | 3.968969 | 3.969200 | 3.969431 | 3.969662 | 3.969892 | 3.970123 |
| 0.280 | 3.970354 | 3.970585 | 3.970816 | 3.971046 | 3.971277 | 3.971508 | 3.971739 | 3.971970 | 3.972201 | 3.972432 |
| 0.290 | 3.972662 | 3.972893 | 3.973124 | 3.973355 | 3.973586 | 3.973817 | 3.974048 | 3.974279 | 3.974510 | 3.974741 |
| 0.300 | 3.974972 | 3.975203 | 3.975434 | 3.975665 | 3.975896 | 3.976127 | 3.976358 | 3.976589 | 3.976820 | 3.977051 |
| 0.310 | 3.977282 | 3.977513 | 3.977744 | 3.977975 | 3.978206 | 3.978437 | 3.978668 | 3.978899 | 3.979131 | 3.979362 |
| 0.320 | 3.979593 | 3.979824 | 3.980055 | 3.980286 | 3.980518 | 3.980749 | 3.980980 | 3.981211 | 3.981442 | 3.981673 |
| 0.330 | 3.981905 | 3.982136 | 3.982367 | 3.982598 | 3.982830 | 3.983061 | 3.983292 | 3.983523 | 3.983755 | 3.983986 |
| 0.340 | 3.984217 | 3.984449 | 3.984680 | 3.984911 | 3.985143 | 3.985374 | 3.985605 | 3.985837 | 3.986068 | 3.986299 |
| 0.350 | 3.986531 | 3.986762 | 3.986994 | 3.987225 | 3.987456 | 3.987688 | 3.987919 | 3.988151 | 3.988382 | 3.988614 |
| 0.360 | 3.988845 | 3.989077 | 3.989308 | 3.989540 | 3.989771 | 3.990003 | 3.990234 | 3.990466 | 3.990697 | 3.990929 |
| 0.370 | 3.991160 | 3.991392 | 3.991623 | 3.991855 | 3.992087 | 3.992318 | 3.992550 | 3.992781 | 3.993013 | 3.993245 |
| 0.380 | 3.993476 | 3.993708 | 3.993940 | 3.994171 | 3.994403 | 3.994635 | 3.994866 | 3.995098 | 3.995330 | 3.995561 |
| 0.390 | 3.995793 | 3.996025 | 3.996257 | 3.996488 | 3.996720 | 3.996952 | 3.997184 | 3.997415 | 3.997647 | 3.997879 |
| 0.400 | 3.998111 | 3.998343 | 3.998574 | 3.998806 | 3.999038 | 3.999270 | 3.999502 | 3.999734 | 3.999966 | 4.000197 |
| 0.410 | 4.000429 | 4.000661 | 4.000893 | 4.001125 | 4.001357 | 4.001589 | 4.001821 | 4.002053 | 4.002285 | 4.002517 |
| 0.420 | 4.002749 | 4.002981 | 4.003213 | 4.003445 | 4.003677 | 4.003909 | 4.004141 | 4.004373 | 4.004605 | 4.004837 |
| 0.430 | 4.005069 | 4.005301 | 4.005533 | 4.005765 | 4.006000 | 4.006229 | 4.006461 | 4.006694 | 4.006926 | 4.007158 |
| 0.440 | 4.007390 | 4.007622 | 4.007854 | 4.008086 | 4.008319 | 4.008551 | 4.008783 | 4.009015 | 4.009247 | 4.009480 |
| 0.450 | 4.009712 | 4.009944 | 4.010176 | 4.010409 | 4.010641 | 4.010873 | 4.011105 | 4.011338 | 4.011570 | 4.011802 |
| 0.460 | 4.012035 | 4.012267 | 4.012499 | 4.012731 | 4.012964 | 4.013196 | 4.013429 | 4.013661 | 4.013894 | 4.014126 |
| 0.470 | 4.014358 | 4.014591 | 4.014823 | 4.015055 | 4.015288 | 4.015520 | 4.015753 | 4.015985 | 4.016218 | 4.016450 |
| 0.480 | 4.016683 | 4.016915 | 4.017147 | 4.017380 | 4.017612 | 4.017845 | 4.018077 | 4.018310 | 4.018543 | 4.018775 |
| 0.490 | 4.019008 | 4.019240 | 4.019473 | 4.019705 | 4.019938 | 4.020171 | 4.020403 | 4.020636 | 4.020868 | 4.021101 |

ATTENUATION IN DECIBELS
 THETA FROM 37.500 TO 37.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 4.021334 | 4.021566 | 4.021799 | 4.022032 | 4.022264 | 4.022497 | 4.022730 | 4.022963 | 4.023195 | 4.023428 |
| 0.510 | 4.023661 | 4.023893 | 4.024126 | 4.024359 | 4.024592 | 4.024825 | 4.025057 | 4.025290 | 4.025523 | 4.025756 |
| 0.520 | 4.025988 | 4.026221 | 4.026454 | 4.026687 | 4.026920 | 4.027153 | 4.027386 | 4.027618 | 4.027851 | 4.028084 |
| 0.530 | 4.028317 | 4.028550 | 4.028783 | 4.029016 | 4.029249 | 4.029482 | 4.029715 | 4.029948 | 4.030181 | 4.030414 |
| 0.540 | 4.030647 | 4.030879 | 4.031112 | 4.031345 | 4.031578 | 4.031812 | 4.032045 | 4.032278 | 4.032511 | 4.032744 |
| 0.550 | 4.032977 | 4.033210 | 4.033443 | 4.033676 | 4.033909 | 4.034142 | 4.034375 | 4.034608 | 4.034842 | 4.035075 |
| 0.560 | 4.035308 | 4.035541 | 4.035774 | 4.036007 | 4.036241 | 4.036474 | 4.036707 | 4.036940 | 4.037173 | 4.037407 |
| 0.570 | 4.037640 | 4.037873 | 4.038106 | 4.038340 | 4.038573 | 4.038806 | 4.039039 | 4.039273 | 4.039506 | 4.039739 |
| 0.580 | 4.039973 | 4.040206 | 4.040439 | 4.040673 | 4.040906 | 4.041139 | 4.041373 | 4.041606 | 4.041840 | 4.042073 |
| 0.590 | 4.042306 | 4.042540 | 4.042773 | 4.043007 | 4.043240 | 4.043473 | 4.043707 | 4.043940 | 4.044174 | 4.044407 |
| 0.600 | 4.044641 | 4.044874 | 4.045108 | 4.045341 | 4.045575 | 4.045808 | 4.046042 | 4.046275 | 4.046509 | 4.046743 |
| 0.610 | 4.046976 | 4.047210 | 4.047443 | 4.047677 | 4.047911 | 4.048144 | 4.048378 | 4.048611 | 4.048845 | 4.049079 |
| 0.620 | 4.049312 | 4.049546 | 4.049780 | 4.050013 | 4.050247 | 4.050481 | 4.050714 | 4.050948 | 4.051182 | 4.051416 |
| 0.630 | 4.051649 | 4.051883 | 4.052117 | 4.052351 | 4.052584 | 4.052818 | 4.053052 | 4.053286 | 4.053520 | 4.053753 |
| 0.640 | 4.053987 | 4.054221 | 4.054455 | 4.054689 | 4.054923 | 4.055156 | 4.055390 | 4.055624 | 4.055858 | 4.056092 |
| 0.650 | 4.056326 | 4.056560 | 4.056794 | 4.057028 | 4.057262 | 4.057496 | 4.057730 | 4.057964 | 4.058197 | 4.058432 |
| 0.660 | 4.058665 | 4.058899 | 4.059133 | 4.059368 | 4.059602 | 4.059836 | 4.060070 | 4.060304 | 4.060538 | 4.060772 |
| 0.670 | 4.061006 | 4.061240 | 4.061474 | 4.061708 | 4.061942 | 4.062176 | 4.062411 | 4.062645 | 4.062879 | 4.063113 |
| 0.680 | 4.063347 | 4.063581 | 4.063815 | 4.064050 | 4.064284 | 4.064518 | 4.064752 | 4.064986 | 4.065221 | 4.065455 |
| 0.690 | 4.065689 | 4.065923 | 4.066158 | 4.066392 | 4.066626 | 4.066861 | 4.067095 | 4.067329 | 4.067563 | 4.067798 |
| 0.700 | 4.068032 | 4.068266 | 4.068501 | 4.068735 | 4.068970 | 4.069204 | 4.069438 | 4.069673 | 4.069907 | 4.070141 |
| 0.710 | 4.070376 | 4.070610 | 4.070845 | 4.071079 | 4.071314 | 4.071548 | 4.071783 | 4.072017 | 4.072252 | 4.072486 |
| 0.720 | 4.072721 | 4.072955 | 4.073190 | 4.073424 | 4.073659 | 4.073893 | 4.074128 | 4.074362 | 4.074597 | 4.074831 |
| 0.730 | 4.075066 | 4.075301 | 4.075535 | 4.075770 | 4.076004 | 4.076239 | 4.076474 | 4.076708 | 4.076943 | 4.077178 |
| 0.740 | 4.077412 | 4.077647 | 4.077882 | 4.078116 | 4.078351 | 4.078586 | 4.078821 | 4.079055 | 4.079290 | 4.079525 |
| 0.750 | 4.079759 | 4.079994 | 4.080229 | 4.080464 | 4.080699 | 4.080933 | 4.081168 | 4.081403 | 4.081638 | 4.081873 |
| 0.760 | 4.082170 | 4.082342 | 4.082514 | 4.082687 | 4.082860 | 4.083032 | 4.083205 | 4.083378 | 4.083551 | 4.083724 |
| 0.770 | 4.084456 | 4.084691 | 4.084926 | 4.085161 | 4.085396 | 4.085631 | 4.085866 | 4.086101 | 4.086336 | 4.086571 |
| 0.780 | 4.086806 | 4.087041 | 4.087276 | 4.087511 | 4.087746 | 4.087981 | 4.088216 | 4.088451 | 4.088686 | 4.088921 |
| 0.790 | 4.089157 | 4.089392 | 4.089627 | 4.089862 | 4.090097 | 4.090332 | 4.090567 | 4.090802 | 4.091037 | 4.091273 |
| 0.800 | 4.091508 | 4.091743 | 4.091978 | 4.092214 | 4.092449 | 4.092684 | 4.092919 | 4.093154 | 4.093390 | 4.093625 |
| 0.810 | 4.093860 | 4.094096 | 4.094331 | 4.094566 | 4.094801 | 4.095037 | 4.095272 | 4.095507 | 4.095743 | 4.095978 |
| 0.820 | 4.096213 | 4.096449 | 4.096684 | 4.096919 | 4.097155 | 4.097390 | 4.097626 | 4.097861 | 4.098096 | 4.098332 |
| 0.830 | 4.098567 | 4.098803 | 4.099038 | 4.099274 | 4.099509 | 4.099745 | 4.099980 | 4.100216 | 4.100451 | 4.100687 |
| 0.840 | 4.100922 | 4.101158 | 4.101393 | 4.101629 | 4.101864 | 4.102100 | 4.102335 | 4.102571 | 4.102807 | 4.103042 |
| 0.850 | 4.103278 | 4.103513 | 4.103749 | 4.103985 | 4.104220 | 4.104456 | 4.104692 | 4.104927 | 4.105163 | 4.105398 |
| 0.860 | 4.105674 | 4.105910 | 4.106146 | 4.106381 | 4.106617 | 4.106853 | 4.107088 | 4.107324 | 4.107560 | 4.107795 |
| 0.870 | 4.107992 | 4.108227 | 4.108463 | 4.108699 | 4.108935 | 4.109170 | 4.109406 | 4.109642 | 4.109878 | 4.110114 |
| 0.880 | 4.110350 | 4.110586 | 4.110821 | 4.111057 | 4.111293 | 4.111529 | 4.111765 | 4.112001 | 4.112237 | 4.112473 |
| 0.890 | 4.112709 | 4.112945 | 4.113181 | 4.113417 | 4.113653 | 4.113889 | 4.114125 | 4.114361 | 4.114597 | 4.114833 |
| 0.900 | 4.115069 | 4.115305 | 4.115541 | 4.115777 | 4.116013 | 4.116249 | 4.116485 | 4.116721 | 4.116957 | 4.117193 |
| 0.910 | 4.117429 | 4.117665 | 4.117902 | 4.118138 | 4.118374 | 4.118610 | 4.118846 | 4.119082 | 4.119319 | 4.119555 |
| 0.920 | 4.119791 | 4.120027 | 4.120263 | 4.120500 | 4.120736 | 4.120972 | 4.121208 | 4.121445 | 4.121681 | 4.121917 |
| 0.930 | 4.122153 | 4.122390 | 4.122626 | 4.122862 | 4.123099 | 4.123335 | 4.123571 | 4.123808 | 4.124044 | 4.124280 |
| 0.940 | 4.124517 | 4.124753 | 4.124989 | 4.125226 | 4.125462 | 4.125699 | 4.125935 | 4.126171 | 4.126408 | 4.126644 |
| 0.950 | 4.126881 | 4.127117 | 4.127354 | 4.127590 | 4.127827 | 4.128063 | 4.128300 | 4.128536 | 4.128773 | 4.129009 |
| 0.960 | 4.129246 | 4.129482 | 4.129719 | 4.129955 | 4.130192 | 4.130429 | 4.130665 | 4.130902 | 4.131138 | 4.131375 |
| 0.970 | 4.131612 | 4.131848 | 4.132085 | 4.132321 | 4.132558 | 4.132795 | 4.133031 | 4.133268 | 4.133505 | 4.133742 |
| 0.980 | 4.133978 | 4.134215 | 4.134452 | 4.134688 | 4.134925 | 4.135162 | 4.135399 | 4.135635 | 4.135872 | 4.136109 |
| 0.990 | 4.136346 | 4.136583 | 4.136819 | 4.137056 | 4.137293 | 4.137530 | 4.137767 | 4.138004 | 4.138240 | 4.138477 |

ATTENUATION IN DECIBELS
THETA FROM 38.000 TO 38.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 4.138714 | 4.138951 | 4.139188 | 4.139425 | 4.139662 | 4.139899 | 4.140136 | 4.140373 | 4.140610 | 4.140846 |
| 0.010 | 4.141033 | 4.141320 | 4.141557 | 4.141794 | 4.142031 | 4.142268 | 4.142505 | 4.142742 | 4.142979 | 4.143216 |
| 0.020 | 4.143454 | 4.143691 | 4.143928 | 4.144165 | 4.144402 | 4.144639 | 4.144876 | 4.145113 | 4.145350 | 4.145587 |
| 0.030 | 4.145824 | 4.146062 | 4.146299 | 4.146536 | 4.146773 | 4.147010 | 4.147247 | 4.147485 | 4.147722 | 4.147959 |
| 0.040 | 4.148196 | 4.148434 | 4.148671 | 4.148908 | 4.149145 | 4.149383 | 4.149620 | 4.149857 | 4.150094 | 4.150332 |
| 0.050 | 4.150569 | 4.150806 | 4.151044 | 4.151281 | 4.151518 | 4.151755 | 4.151993 | 4.152230 | 4.152468 | 4.152705 |
| 0.060 | 4.152942 | 4.153180 | 4.153417 | 4.153655 | 4.153892 | 4.154130 | 4.154367 | 4.154604 | 4.154842 | 4.155079 |
| 0.070 | 4.155317 | 4.155554 | 4.155792 | 4.156029 | 4.156267 | 4.156504 | 4.156742 | 4.156979 | 4.157217 | 4.157454 |
| 0.080 | 4.157692 | 4.157930 | 4.158167 | 4.158405 | 4.158642 | 4.158880 | 4.159118 | 4.159355 | 4.159593 | 4.159830 |
| 0.090 | 4.160068 | 4.160306 | 4.160543 | 4.160781 | 4.161019 | 4.161256 | 4.161494 | 4.161732 | 4.161970 | 4.162207 |
| 0.100 | 4.162445 | 4.162683 | 4.162921 | 4.163158 | 4.163396 | 4.163634 | 4.163872 | 4.164110 | 4.164347 | 4.164585 |
| 0.110 | 4.164823 | 4.165061 | 4.165298 | 4.165536 | 4.165774 | 4.166012 | 4.166250 | 4.166488 | 4.166726 | 4.166964 |
| 0.120 | 4.167201 | 4.167439 | 4.167677 | 4.167915 | 4.168153 | 4.168391 | 4.168629 | 4.168867 | 4.169105 | 4.169343 |
| 0.130 | 4.169581 | 4.169819 | 4.170057 | 4.170295 | 4.170533 | 4.170771 | 4.171009 | 4.171247 | 4.171485 | 4.171723 |
| 0.140 | 4.171961 | 4.172199 | 4.172437 | 4.172676 | 4.172914 | 4.173152 | 4.173390 | 4.173628 | 4.173866 | 4.174104 |
| 0.150 | 4.174342 | 4.174581 | 4.174819 | 4.175057 | 4.175295 | 4.175533 | 4.175772 | 4.176010 | 4.176248 | 4.176486 |
| 0.160 | 4.176724 | 4.176963 | 4.177201 | 4.177439 | 4.177678 | 4.177916 | 4.178154 | 4.178392 | 4.178631 | 4.178869 |
| 0.170 | 4.179107 | 4.179346 | 4.179584 | 4.179822 | 4.180061 | 4.180299 | 4.180538 | 4.180776 | 4.181014 | 4.181253 |
| 0.180 | 4.181491 | 4.181730 | 4.181968 | 4.182207 | 4.182445 | 4.182683 | 4.182922 | 4.183160 | 4.183399 | 4.183637 |
| 0.190 | 4.183876 | 4.184114 | 4.184353 | 4.184591 | 4.184830 | 4.185068 | 4.185307 | 4.185546 | 4.185784 | 4.186023 |
| 0.200 | 4.186261 | 4.186500 | 4.186738 | 4.186977 | 4.187216 | 4.187454 | 4.187693 | 4.187932 | 4.188170 | 4.188409 |
| 0.210 | 4.188648 | 4.188886 | 4.189125 | 4.189364 | 4.189602 | 4.189841 | 4.190080 | 4.190319 | 4.190557 | 4.190796 |
| 0.220 | 4.191035 | 4.191274 | 4.191512 | 4.191751 | 4.191990 | 4.192229 | 4.192468 | 4.192706 | 4.192945 | 4.193184 |
| 0.230 | 4.193423 | 4.193662 | 4.193901 | 4.194139 | 4.194378 | 4.194617 | 4.194856 | 4.195095 | 4.195334 | 4.195573 |
| 0.240 | 4.195812 | 4.196051 | 4.196290 | 4.196529 | 4.196768 | 4.197007 | 4.197246 | 4.197485 | 4.197724 | 4.197963 |
| 0.250 | 4.198202 | 4.198441 | 4.198680 | 4.198919 | 4.199158 | 4.199397 | 4.199636 | 4.199875 | 4.200114 | 4.200353 |
| 0.260 | 4.200592 | 4.200831 | 4.201070 | 4.201310 | 4.201549 | 4.201788 | 4.202027 | 4.202266 | 4.202505 | 4.202744 |
| 0.270 | 4.202984 | 4.203223 | 4.203462 | 4.203701 | 4.203941 | 4.204180 | 4.204419 | 4.204658 | 4.204897 | 4.205136 |
| 0.280 | 4.205376 | 4.205615 | 4.205855 | 4.206094 | 4.206333 | 4.206572 | 4.206812 | 4.207051 | 4.207290 | 4.207530 |
| 0.290 | 4.207769 | 4.208009 | 4.208248 | 4.208487 | 4.208727 | 4.208966 | 4.209206 | 4.209445 | 4.209684 | 4.209924 |
| 0.300 | 4.210163 | 4.210403 | 4.210642 | 4.210882 | 4.211121 | 4.211361 | 4.211600 | 4.211840 | 4.212079 | 4.212319 |
| 0.310 | 4.212558 | 4.212798 | 4.213037 | 4.213277 | 4.213516 | 4.213756 | 4.213996 | 4.214235 | 4.214475 | 4.214714 |
| 0.320 | 4.214954 | 4.215194 | 4.215433 | 4.215673 | 4.215913 | 4.216152 | 4.216392 | 4.216631 | 4.216871 | 4.217111 |
| 0.330 | 4.217351 | 4.217590 | 4.217830 | 4.218070 | 4.218309 | 4.218549 | 4.218789 | 4.219029 | 4.219269 | 4.219508 |
| 0.340 | 4.219748 | 4.219988 | 4.220228 | 4.220468 | 4.220707 | 4.220947 | 4.221187 | 4.221427 | 4.221667 | 4.221907 |
| 0.350 | 4.222146 | 4.222386 | 4.222626 | 4.222866 | 4.223106 | 4.223346 | 4.223586 | 4.223826 | 4.224066 | 4.224306 |
| 0.360 | 4.224546 | 4.224786 | 4.225026 | 4.225266 | 4.225506 | 4.225746 | 4.225986 | 4.226226 | 4.226466 | 4.226706 |
| 0.370 | 4.226946 | 4.227186 | 4.227426 | 4.227666 | 4.227906 | 4.228146 | 4.228386 | 4.228626 | 4.228866 | 4.229107 |
| 0.380 | 4.229347 | 4.229587 | 4.229827 | 4.230067 | 4.230307 | 4.230547 | 4.230788 | 4.231028 | 4.231268 | 4.231508 |
| 0.390 | 4.231748 | 4.231989 | 4.232229 | 4.232469 | 4.232709 | 4.232950 | 4.233190 | 4.233430 | 4.233671 | 4.233911 |
| 0.400 | 4.234151 | 4.234391 | 4.234632 | 4.234872 | 4.235112 | 4.235353 | 4.235593 | 4.235834 | 4.236074 | 4.236314 |
| 0.410 | 4.236795 | 4.237035 | 4.237276 | 4.237516 | 4.237757 | 4.237997 | 4.238238 | 4.238478 | 4.238719 | 4.238959 |
| 0.420 | 4.238959 | 4.239200 | 4.239440 | 4.239681 | 4.239921 | 4.240162 | 4.240402 | 4.240643 | 4.240883 | 4.241124 |
| 0.430 | 4.241364 | 4.241605 | 4.241845 | 4.242086 | 4.242327 | 4.242567 | 4.242808 | 4.243048 | 4.243289 | 4.243530 |
| 0.440 | 4.243770 | 4.244011 | 4.244252 | 4.244492 | 4.244733 | 4.244974 | 4.245214 | 4.245455 | 4.245696 | 4.245937 |
| 0.450 | 4.246177 | 4.246418 | 4.246659 | 4.246900 | 4.247141 | 4.247382 | 4.247622 | 4.247863 | 4.248104 | 4.248344 |
| 0.460 | 4.248585 | 4.248826 | 4.249067 | 4.249308 | 4.249549 | 4.249789 | 4.250030 | 4.250271 | 4.250512 | 4.250753 |
| 0.470 | 4.250994 | 4.251235 | 4.251476 | 4.251717 | 4.251958 | 4.252199 | 4.252439 | 4.252680 | 4.252921 | 4.253162 |
| 0.480 | 4.253403 | 4.253644 | 4.253885 | 4.254126 | 4.254367 | 4.254608 | 4.254849 | 4.255090 | 4.255332 | 4.255573 |
| 0.490 | 4.255814 | 4.256055 | 4.256296 | 4.256537 | 4.256778 | 4.257019 | 4.257261 | 4.257502 | 4.257743 | 4.257984 |

ATTENUATION IN DECIBELS
THETA FROM 38.500 TO 38.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 4.258225 | 4.258466 | 4.258708 | 4.258949 | 4.259190 | 4.259431 | 4.259672 | 4.259914 | 4.260155 | 4.260396 |
| 0.510 | 4.260637 | 4.260879 | 4.261120 | 4.261361 | 4.261602 | 4.261844 | 4.262085 | 4.262326 | 4.262568 | 4.262809 |
| 0.520 | 4.263050 | 4.263292 | 4.263533 | 4.263774 | 4.264016 | 4.264257 | 4.264499 | 4.264740 | 4.264981 | 4.265223 |
| 0.530 | 4.265464 | 4.265706 | 4.265947 | 4.266189 | 4.266430 | 4.266671 | 4.266913 | 4.267154 | 4.267396 | 4.267637 |
| 0.540 | 4.267879 | 4.268120 | 4.268362 | 4.268604 | 4.268845 | 4.269087 | 4.269328 | 4.269570 | 4.269811 | 4.270053 |
| 0.550 | 4.270295 | 4.270536 | 4.270778 | 4.271019 | 4.271261 | 4.271503 | 4.271744 | 4.271986 | 4.272228 | 4.272469 |
| 0.560 | 4.272711 | 4.272953 | 4.273194 | 4.273436 | 4.273678 | 4.273920 | 4.274161 | 4.274403 | 4.274645 | 4.274887 |
| 0.570 | 4.275128 | 4.275370 | 4.275612 | 4.275854 | 4.276096 | 4.276337 | 4.276579 | 4.276821 | 4.277063 | 4.277305 |
| 0.580 | 4.277547 | 4.277788 | 4.278030 | 4.278272 | 4.278514 | 4.278756 | 4.278998 | 4.279240 | 4.279482 | 4.279724 |
| 0.590 | 4.279966 | 4.280208 | 4.280450 | 4.280692 | 4.280934 | 4.281176 | 4.281418 | 4.281660 | 4.281902 | 4.282144 |
| 0.600 | 4.282366 | 4.282628 | 4.282870 | 4.283112 | 4.283354 | 4.283596 | 4.283838 | 4.284080 | 4.284322 | 4.284564 |
| 0.610 | 4.284806 | 4.285049 | 4.285291 | 4.285533 | 4.285775 | 4.286017 | 4.286259 | 4.286501 | 4.286744 | 4.286986 |
| 0.620 | 4.287228 | 4.287470 | 4.287713 | 4.287955 | 4.288197 | 4.288439 | 4.288682 | 4.288924 | 4.289166 | 4.289408 |
| 0.630 | 4.289651 | 4.289893 | 4.290135 | 4.290378 | 4.290620 | 4.290862 | 4.291105 | 4.291347 | 4.291589 | 4.291832 |
| 0.640 | 4.292074 | 4.292316 | 4.292559 | 4.292801 | 4.293044 | 4.293286 | 4.293528 | 4.293771 | 4.294013 | 4.294256 |
| 0.650 | 4.294498 | 4.294741 | 4.294983 | 4.295226 | 4.295468 | 4.295711 | 4.295953 | 4.296196 | 4.296438 | 4.296681 |
| 0.660 | 4.296923 | 4.297166 | 4.297409 | 4.297651 | 4.297894 | 4.298136 | 4.298379 | 4.298622 | 4.298864 | 4.299107 |
| 0.670 | 4.299349 | 4.299592 | 4.299835 | 4.300077 | 4.300320 | 4.300563 | 4.300805 | 4.301048 | 4.301291 | 4.301534 |
| 0.680 | 4.301776 | 4.302019 | 4.302262 | 4.302505 | 4.302747 | 4.302990 | 4.303233 | 4.303476 | 4.303718 | 4.303961 |
| 0.690 | 4.304204 | 4.304447 | 4.304690 | 4.304933 | 4.305175 | 4.305418 | 4.305661 | 4.305904 | 4.306147 | 4.306390 |
| 0.700 | 4.306633 | 4.306876 | 4.307119 | 4.307361 | 4.307604 | 4.307847 | 4.308090 | 4.308333 | 4.308576 | 4.308819 |
| 0.710 | 4.309062 | 4.309305 | 4.309548 | 4.309791 | 4.310034 | 4.310277 | 4.310520 | 4.310763 | 4.311006 | 4.311249 |
| 0.720 | 4.311493 | 4.311736 | 4.311979 | 4.312222 | 4.312465 | 4.312708 | 4.312951 | 4.313194 | 4.313437 | 4.313681 |
| 0.730 | 4.313924 | 4.314167 | 4.314410 | 4.314653 | 4.314896 | 4.315139 | 4.315383 | 4.315626 | 4.315869 | 4.316113 |
| 0.740 | 4.316356 | 4.316599 | 4.316842 | 4.317086 | 4.317329 | 4.317572 | 4.317815 | 4.318059 | 4.318302 | 4.318545 |
| 0.750 | 4.318789 | 4.319032 | 4.319275 | 4.319519 | 4.319762 | 4.320006 | 4.320249 | 4.320492 | 4.320736 | 4.320979 |
| 0.760 | 4.321223 | 4.321466 | 4.321710 | 4.321953 | 4.322196 | 4.322440 | 4.322683 | 4.322927 | 4.323170 | 4.323414 |
| 0.770 | 4.323657 | 4.323901 | 4.324144 | 4.324388 | 4.324631 | 4.324875 | 4.325119 | 4.325362 | 4.325606 | 4.325849 |
| 0.780 | 4.326093 | 4.326337 | 4.326580 | 4.326824 | 4.327067 | 4.327311 | 4.327555 | 4.327798 | 4.328042 | 4.328286 |
| 0.790 | 4.328529 | 4.328773 | 4.329017 | 4.329260 | 4.329504 | 4.329748 | 4.329992 | 4.330235 | 4.330479 | 4.330723 |
| 0.800 | 4.330967 | 4.331210 | 4.331454 | 4.331698 | 4.331942 | 4.332186 | 4.332429 | 4.332673 | 4.332917 | 4.333161 |
| 0.810 | 4.333405 | 4.333649 | 4.333893 | 4.334136 | 4.334380 | 4.334624 | 4.334868 | 4.335112 | 4.335356 | 4.335600 |
| 0.820 | 4.335844 | 4.336088 | 4.336332 | 4.336576 | 4.336820 | 4.337064 | 4.337308 | 4.337552 | 4.337796 | 4.338040 |
| 0.830 | 4.338284 | 4.338528 | 4.338772 | 4.339016 | 4.339260 | 4.339504 | 4.339748 | 4.339992 | 4.340236 | 4.340481 |
| 0.840 | 4.340725 | 4.340969 | 4.341213 | 4.341457 | 4.341701 | 4.341945 | 4.342189 | 4.342433 | 4.342678 | 4.342922 |
| 0.850 | 4.343166 | 4.343410 | 4.343655 | 4.343899 | 4.344143 | 4.344387 | 4.344632 | 4.344876 | 4.345120 | 4.345365 |
| 0.860 | 4.345609 | 4.345853 | 4.346097 | 4.346342 | 4.346586 | 4.346830 | 4.347075 | 4.347319 | 4.347564 | 4.347808 |
| 0.870 | 4.348052 | 4.348297 | 4.348541 | 4.348785 | 4.349030 | 4.349274 | 4.349519 | 4.349763 | 4.350008 | 4.350252 |
| 0.880 | 4.350497 | 4.350741 | 4.350985 | 4.351230 | 4.351474 | 4.351719 | 4.351964 | 4.352208 | 4.352453 | 4.352697 |
| 0.890 | 4.352942 | 4.353186 | 4.353431 | 4.353675 | 4.353920 | 4.354165 | 4.354409 | 4.354654 | 4.354898 | 4.355143 |
| 0.900 | 4.355388 | 4.355632 | 4.355877 | 4.356122 | 4.356366 | 4.356611 | 4.356856 | 4.357100 | 4.357345 | 4.357590 |
| 0.910 | 4.357835 | 4.358079 | 4.358324 | 4.358569 | 4.358814 | 4.359058 | 4.359303 | 4.359548 | 4.359793 | 4.360038 |
| 0.920 | 4.360282 | 4.360527 | 4.360772 | 4.361017 | 4.361262 | 4.361507 | 4.361751 | 4.361996 | 4.362241 | 4.362486 |
| 0.930 | 4.362731 | 4.362976 | 4.363221 | 4.363466 | 4.363711 | 4.363956 | 4.364201 | 4.364446 | 4.364691 | 4.364936 |
| 0.940 | 4.365181 | 4.365426 | 4.365671 | 4.365916 | 4.366161 | 4.366406 | 4.366651 | 4.366896 | 4.367141 | 4.367386 |
| 0.950 | 4.367831 | 4.368076 | 4.368321 | 4.368566 | 4.368811 | 4.369056 | 4.369301 | 4.369546 | 4.369791 | 4.370036 |
| 0.960 | 4.370082 | 4.370327 | 4.370572 | 4.370817 | 4.371063 | 4.371308 | 4.371553 | 4.371799 | 4.372044 | 4.372289 |
| 0.970 | 4.372534 | 4.372780 | 4.373025 | 4.373270 | 4.373516 | 4.373761 | 4.374006 | 4.374251 | 4.374497 | 4.374742 |
| 0.980 | 4.374987 | 4.375233 | 4.375478 | 4.375724 | 4.375969 | 4.376214 | 4.376460 | 4.376705 | 4.376951 | 4.377196 |
| 0.990 | 4.377441 | 4.377687 | 4.377932 | 4.378178 | 4.378423 | 4.378669 | 4.378914 | 4.379160 | 4.379405 | 4.379651 |

ATTENUATION IN DECIBELS
THETA FROM 39.000 TO 39.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 4.379896 | 4.380142 | 4.380387 | 4.380633 | 4.380878 | 4.381124 | 4.381369 | 4.381615 | 4.381861 | 4.382106 |
| 0.010 | 4.382352 | 4.382597 | 4.382843 | 4.383089 | 4.383334 | 4.383580 | 4.383826 | 4.384071 | 4.384317 | 4.384563 |
| 0.020 | 4.384808 | 4.385054 | 4.385300 | 4.385545 | 4.385791 | 4.386037 | 4.386283 | 4.386528 | 4.386774 | 4.387020 |
| 0.030 | 4.387266 | 4.387512 | 4.387757 | 4.388003 | 4.388249 | 4.388495 | 4.388741 | 4.388987 | 4.389232 | 4.389478 |
| 0.040 | 4.389724 | 4.389970 | 4.390216 | 4.390462 | 4.390708 | 4.390954 | 4.391199 | 4.391445 | 4.391691 | 4.391937 |
| 0.050 | 4.392183 | 4.392429 | 4.392675 | 4.392921 | 4.393167 | 4.393413 | 4.393659 | 4.393905 | 4.394151 | 4.394397 |
| 0.060 | 4.394643 | 4.394889 | 4.395135 | 4.395382 | 4.395628 | 4.395874 | 4.396120 | 4.396366 | 4.396612 | 4.396858 |
| 0.070 | 4.397104 | 4.397350 | 4.397597 | 4.397843 | 4.398089 | 4.398335 | 4.398581 | 4.398827 | 4.399074 | 4.399320 |
| 0.080 | 4.399566 | 4.399812 | 4.400059 | 4.400305 | 4.400551 | 4.400797 | 4.401044 | 4.401290 | 4.401536 | 4.401782 |
| 0.090 | 4.402029 | 4.402275 | 4.402521 | 4.402768 | 4.403014 | 4.403260 | 4.403507 | 4.403753 | 4.404000 | 4.404246 |
| 0.100 | 4.404492 | 4.404739 | 4.404985 | 4.405232 | 4.405478 | 4.405724 | 4.405971 | 4.406217 | 4.406464 | 4.406710 |
| 0.110 | 4.406957 | 4.407203 | 4.407450 | 4.407696 | 4.407943 | 4.408189 | 4.408436 | 4.408682 | 4.408929 | 4.409175 |
| 0.120 | 4.409422 | 4.409669 | 4.409915 | 4.410162 | 4.410408 | 4.410655 | 4.410902 | 4.411148 | 4.411395 | 4.411642 |
| 0.130 | 4.411888 | 4.412135 | 4.412382 | 4.412628 | 4.412875 | 4.413122 | 4.413368 | 4.413615 | 4.413862 | 4.414109 |
| 0.140 | 4.414355 | 4.414602 | 4.414849 | 4.415096 | 4.415342 | 4.415589 | 4.415836 | 4.416083 | 4.416330 | 4.416576 |
| 0.150 | 4.416823 | 4.417070 | 4.417317 | 4.417564 | 4.417811 | 4.418058 | 4.418304 | 4.418551 | 4.418798 | 4.419045 |
| 0.160 | 4.419292 | 4.419539 | 4.419786 | 4.420033 | 4.420280 | 4.420527 | 4.420774 | 4.421021 | 4.421268 | 4.421515 |
| 0.170 | 4.421762 | 4.422009 | 4.422256 | 4.422503 | 4.422750 | 4.422997 | 4.423244 | 4.423491 | 4.423738 | 4.423985 |
| 0.180 | 4.424232 | 4.424479 | 4.424727 | 4.424974 | 4.425221 | 4.425468 | 4.425715 | 4.425962 | 4.426210 | 4.426457 |
| 0.190 | 4.426704 | 4.426951 | 4.427198 | 4.427445 | 4.427692 | 4.427939 | 4.428187 | 4.428434 | 4.428682 | 4.428929 |
| 0.200 | 4.429176 | 4.429424 | 4.429671 | 4.429918 | 4.430165 | 4.430413 | 4.430660 | 4.430907 | 4.431155 | 4.431402 |
| 0.210 | 4.431649 | 4.431897 | 4.432144 | 4.432392 | 4.432639 | 4.432886 | 4.433134 | 4.433381 | 4.433629 | 4.433876 |
| 0.220 | 4.434124 | 4.434371 | 4.434618 | 4.434866 | 4.435113 | 4.435361 | 4.435608 | 4.435856 | 4.436104 | 4.436351 |
| 0.230 | 4.436599 | 4.436846 | 4.437094 | 4.437341 | 4.437589 | 4.437836 | 4.438084 | 4.438332 | 4.438579 | 4.438827 |
| 0.240 | 4.439074 | 4.439322 | 4.439570 | 4.439817 | 4.440065 | 4.440313 | 4.440560 | 4.440808 | 4.441056 | 4.441303 |
| 0.250 | 4.441551 | 4.441799 | 4.442047 | 4.442294 | 4.442542 | 4.442790 | 4.443038 | 4.443285 | 4.443533 | 4.443781 |
| 0.260 | 4.444029 | 4.444277 | 4.444524 | 4.444772 | 4.445020 | 4.445268 | 4.445516 | 4.445764 | 4.446012 | 4.446259 |
| 0.270 | 4.446507 | 4.446755 | 4.447003 | 4.447251 | 4.447499 | 4.447747 | 4.447995 | 4.448243 | 4.448491 | 4.448739 |
| 0.280 | 4.448987 | 4.449235 | 4.449483 | 4.449731 | 4.449979 | 4.450227 | 4.450475 | 4.450723 | 4.450971 | 4.451219 |
| 0.290 | 4.451467 | 4.451715 | 4.451963 | 4.452211 | 4.452459 | 4.452708 | 4.452956 | 4.453204 | 4.453452 | 4.453700 |
| 0.300 | 4.453948 | 4.454196 | 4.454445 | 4.454693 | 4.454941 | 4.455189 | 4.455437 | 4.455686 | 4.455934 | 4.456182 |
| 0.310 | 4.456643 | 4.456891 | 4.457139 | 4.457387 | 4.457635 | 4.457883 | 4.458131 | 4.458379 | 4.458627 | 4.458875 |
| 0.320 | 4.458913 | 4.459162 | 4.459410 | 4.459658 | 4.459907 | 4.460155 | 4.460403 | 4.460652 | 4.460900 | 4.461149 |
| 0.330 | 4.461397 | 4.461646 | 4.461894 | 4.462142 | 4.462391 | 4.462639 | 4.462888 | 4.463136 | 4.463385 | 4.463633 |
| 0.340 | 4.463882 | 4.464130 | 4.464379 | 4.464627 | 4.464876 | 4.465124 | 4.465373 | 4.465622 | 4.465870 | 4.466119 |
| 0.350 | 4.466367 | 4.466616 | 4.466865 | 4.467113 | 4.467362 | 4.467611 | 4.467859 | 4.468108 | 4.468357 | 4.468605 |
| 0.360 | 4.468894 | 4.469143 | 4.469391 | 4.469640 | 4.469889 | 4.470137 | 4.470386 | 4.470634 | 4.470884 | 4.471133 |
| 0.370 | 4.471341 | 4.471590 | 4.471839 | 4.472088 | 4.472336 | 4.472585 | 4.472834 | 4.473083 | 4.473332 | 4.473581 |
| 0.380 | 4.473830 | 4.474078 | 4.474327 | 4.474576 | 4.474825 | 4.475074 | 4.475323 | 4.475572 | 4.475821 | 4.476070 |
| 0.390 | 4.476319 | 4.476568 | 4.476817 | 4.477066 | 4.477315 | 4.477564 | 4.477813 | 4.478062 | 4.478311 | 4.478560 |
| 0.400 | 4.478809 | 4.479058 | 4.479307 | 4.479556 | 4.479805 | 4.480054 | 4.480303 | 4.480552 | 4.480801 | 4.481050 |
| 0.410 | 4.481300 | 4.481549 | 4.481798 | 4.482047 | 4.482296 | 4.482545 | 4.482795 | 4.483044 | 4.483293 | 4.483542 |
| 0.420 | 4.483791 | 4.484041 | 4.484290 | 4.484539 | 4.484788 | 4.485038 | 4.485287 | 4.485536 | 4.485785 | 4.486035 |
| 0.430 | 4.486284 | 4.486533 | 4.486783 | 4.487032 | 4.487281 | 4.487531 | 4.487780 | 4.488029 | 4.488279 | 4.488528 |
| 0.440 | 4.488778 | 4.489027 | 4.489276 | 4.489526 | 4.489775 | 4.490025 | 4.490274 | 4.490524 | 4.490773 | 4.491023 |
| 0.450 | 4.491272 | 4.491522 | 4.491771 | 4.492021 | 4.492270 | 4.492520 | 4.492769 | 4.493019 | 4.493268 | 4.493518 |
| 0.460 | 4.493767 | 4.494017 | 4.494267 | 4.494516 | 4.494766 | 4.495016 | 4.495265 | 4.495515 | 4.495764 | 4.496014 |
| 0.470 | 4.496264 | 4.496513 | 4.496763 | 4.497013 | 4.497262 | 4.497512 | 4.497762 | 4.498012 | 4.498261 | 4.498511 |
| 0.480 | 4.498761 | 4.499011 | 4.499260 | 4.499510 | 4.499760 | 4.500010 | 4.500260 | 4.500509 | 4.500759 | 4.501009 |
| 0.490 | 4.501259 | 4.501509 | 4.501759 | 4.502008 | 4.502258 | 4.502508 | 4.502758 | 4.503008 | 4.503258 | 4.503508 |

ATTENUATION IN DECIBELS
THETA FROM 39.500 TO 39.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 4.503758 | 4.504008 | 4.504258 | 4.504508 | 4.504758 | 4.505008 | 4.505258 | 4.505508 | 4.505758 | 4.506007 |
| 0.510 | 4.506258 | 4.506508 | 4.506758 | 4.507008 | 4.507258 | 4.507508 | 4.507758 | 4.508008 | 4.508258 | 4.508508 |
| 0.520 | 4.508758 | 4.509008 | 4.509258 | 4.509509 | 4.509759 | 4.510009 | 4.510259 | 4.510509 | 4.510759 | 4.511010 |
| 0.530 | 4.511260 | 4.511510 | 4.511760 | 4.512010 | 4.512261 | 4.512511 | 4.512761 | 4.513011 | 4.513262 | 4.513512 |
| 0.540 | 4.513762 | 4.514013 | 4.514263 | 4.514513 | 4.514763 | 4.515014 | 4.515264 | 4.515514 | 4.515765 | 4.516015 |
| 0.550 | 4.516266 | 4.516516 | 4.516766 | 4.517017 | 4.517267 | 4.517518 | 4.517768 | 4.518018 | 4.518269 | 4.518519 |
| 0.560 | 4.518770 | 4.519020 | 4.519271 | 4.519521 | 4.519772 | 4.520022 | 4.520273 | 4.520523 | 4.520774 | 4.521024 |
| 0.570 | 4.521275 | 4.521526 | 4.521776 | 4.522027 | 4.522277 | 4.522528 | 4.522778 | 4.523029 | 4.523280 | 4.523530 |
| 0.580 | 4.523781 | 4.524032 | 4.524282 | 4.524533 | 4.524784 | 4.525034 | 4.525285 | 4.525536 | 4.525786 | 4.526037 |
| 0.590 | 4.526288 | 4.526539 | 4.526789 | 4.527040 | 4.527291 | 4.527542 | 4.527792 | 4.528043 | 4.528294 | 4.528545 |
| 0.600 | 4.528796 | 4.529047 | 4.529297 | 4.529548 | 4.529799 | 4.530050 | 4.530301 | 4.530552 | 4.530803 | 4.531053 |
| 0.610 | 4.531304 | 4.531555 | 4.531806 | 4.532057 | 4.532308 | 4.532559 | 4.532810 | 4.533061 | 4.533312 | 4.533563 |
| 0.620 | 4.533814 | 4.534065 | 4.534316 | 4.534567 | 4.534818 | 4.535069 | 4.535320 | 4.535571 | 4.535822 | 4.536073 |
| 0.630 | 4.536324 | 4.536575 | 4.536827 | 4.537078 | 4.537329 | 4.537580 | 4.537831 | 4.538082 | 4.538333 | 4.538585 |
| 0.640 | 4.538836 | 4.539087 | 4.539338 | 4.539589 | 4.539841 | 4.540092 | 4.540343 | 4.540594 | 4.540846 | 4.541097 |
| 0.650 | 4.541348 | 4.541599 | 4.541851 | 4.542102 | 4.542353 | 4.542605 | 4.542856 | 4.543107 | 4.543359 | 4.543610 |
| 0.660 | 4.543861 | 4.544113 | 4.544364 | 4.544615 | 4.544867 | 4.545118 | 4.545370 | 4.545621 | 4.545872 | 4.546124 |
| 0.670 | 4.546375 | 4.546627 | 4.546878 | 4.547130 | 4.547381 | 4.547633 | 4.547884 | 4.548136 | 4.548387 | 4.548639 |
| 0.680 | 4.548890 | 4.549142 | 4.549393 | 4.549645 | 4.549896 | 4.550148 | 4.550400 | 4.550651 | 4.550903 | 4.551154 |
| 0.690 | 4.551406 | 4.551658 | 4.551909 | 4.552161 | 4.552413 | 4.552664 | 4.552916 | 4.553168 | 4.553419 | 4.553671 |
| 0.700 | 4.553923 | 4.554174 | 4.554426 | 4.554678 | 4.554930 | 4.555181 | 4.555433 | 4.555685 | 4.555937 | 4.556189 |
| 0.710 | 4.556440 | 4.556692 | 4.556944 | 4.557196 | 4.557448 | 4.557700 | 4.557951 | 4.558203 | 4.558455 | 4.558707 |
| 0.720 | 4.558959 | 4.559211 | 4.559463 | 4.559715 | 4.559967 | 4.560219 | 4.560470 | 4.560722 | 4.560974 | 4.561226 |
| 0.730 | 4.561478 | 4.561730 | 4.561982 | 4.562234 | 4.562486 | 4.562738 | 4.562990 | 4.563242 | 4.563494 | 4.563747 |
| 0.740 | 4.563999 | 4.564251 | 4.564503 | 4.564755 | 4.565007 | 4.565259 | 4.565511 | 4.565763 | 4.566015 | 4.566268 |
| 0.750 | 4.566520 | 4.566772 | 4.567024 | 4.567276 | 4.567528 | 4.567780 | 4.568031 | 4.568283 | 4.568535 | 4.568787 |
| 0.760 | 4.569042 | 4.569294 | 4.569546 | 4.569799 | 4.570051 | 4.570303 | 4.570556 | 4.570808 | 4.571060 | 4.571312 |
| 0.770 | 4.571565 | 4.571817 | 4.572070 | 4.572322 | 4.572574 | 4.572827 | 4.573079 | 4.573331 | 4.573584 | 4.573836 |
| 0.780 | 4.574089 | 4.574341 | 4.574594 | 4.574846 | 4.575099 | 4.575351 | 4.575603 | 4.575856 | 4.576109 | 4.576361 |
| 0.790 | 4.576613 | 4.576866 | 4.577119 | 4.577371 | 4.577624 | 4.577876 | 4.578129 | 4.578381 | 4.578634 | 4.578887 |
| 0.800 | 4.579139 | 4.579392 | 4.579644 | 4.579897 | 4.580150 | 4.580402 | 4.580655 | 4.580908 | 4.581160 | 4.581413 |
| 0.810 | 4.581666 | 4.581918 | 4.582171 | 4.582424 | 4.582677 | 4.582929 | 4.583182 | 4.583435 | 4.583688 | 4.583940 |
| 0.820 | 4.584193 | 4.584446 | 4.584699 | 4.584952 | 4.585204 | 4.585457 | 4.585710 | 4.585963 | 4.586216 | 4.586469 |
| 0.830 | 4.586722 | 4.586975 | 4.587227 | 4.587480 | 4.587733 | 4.587986 | 4.588239 | 4.588492 | 4.588745 | 4.588998 |
| 0.840 | 4.589251 | 4.589504 | 4.589757 | 4.590010 | 4.590263 | 4.590516 | 4.590769 | 4.591022 | 4.591275 | 4.591528 |
| 0.850 | 4.591781 | 4.592034 | 4.592287 | 4.592540 | 4.592793 | 4.593046 | 4.593300 | 4.593553 | 4.593806 | 4.594059 |
| 0.860 | 4.594312 | 4.594565 | 4.594818 | 4.595072 | 4.595325 | 4.595578 | 4.595831 | 4.596084 | 4.596338 | 4.596591 |
| 0.870 | 4.596844 | 4.597097 | 4.597351 | 4.597604 | 4.597857 | 4.598110 | 4.598364 | 4.598617 | 4.598870 | 4.599124 |
| 0.880 | 4.599377 | 4.599630 | 4.599884 | 4.600137 | 4.600390 | 4.600644 | 4.600897 | 4.601150 | 4.601404 | 4.601657 |
| 0.890 | 4.601911 | 4.602164 | 4.602417 | 4.602671 | 4.602924 | 4.603178 | 4.603431 | 4.603685 | 4.603938 | 4.604192 |
| 0.900 | 4.604445 | 4.604699 | 4.604952 | 4.605206 | 4.605459 | 4.605713 | 4.605967 | 4.606220 | 4.606474 | 4.606727 |
| 0.910 | 4.606981 | 4.607234 | 4.607488 | 4.607742 | 4.607995 | 4.608249 | 4.608503 | 4.608756 | 4.609010 | 4.609264 |
| 0.920 | 4.609517 | 4.609771 | 4.610025 | 4.610278 | 4.610532 | 4.610786 | 4.611040 | 4.611293 | 4.611547 | 4.611801 |
| 0.930 | 4.612055 | 4.612308 | 4.612562 | 4.612816 | 4.613070 | 4.613324 | 4.613577 | 4.613831 | 4.614085 | 4.614339 |
| 0.940 | 4.614593 | 4.614847 | 4.615101 | 4.615355 | 4.615608 | 4.615862 | 4.616116 | 4.616370 | 4.616624 | 4.616878 |
| 0.950 | 4.617132 | 4.617386 | 4.617640 | 4.617894 | 4.618148 | 4.618402 | 4.618656 | 4.618910 | 4.619164 | 4.619418 |
| 0.960 | 4.619672 | 4.619926 | 4.620180 | 4.620434 | 4.620688 | 4.620942 | 4.621197 | 4.621451 | 4.621705 | 4.621959 |
| 0.970 | 4.622213 | 4.622467 | 4.622721 | 4.622976 | 4.623230 | 4.623484 | 4.623738 | 4.623992 | 4.624246 | 4.624501 |
| 0.980 | 4.624755 | 4.625009 | 4.625263 | 4.625518 | 4.625772 | 4.626026 | 4.626280 | 4.626535 | 4.626789 | 4.627043 |
| 0.990 | 4.627298 | 4.627552 | 4.627806 | 4.628061 | 4.628315 | 4.628569 | 4.628824 | 4.629078 | 4.629332 | 4.629587 |

ATTENUATION IN DECIBELS
THETA FROM 40.000 TO 40.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 4.629841 | 4.630096 | 4.630350 | 4.630605 | 4.630859 | 4.631113 | 4.631368 | 4.631622 | 4.631877 | 4.632131 |
| 0.010 | 4.632386 | 4.632640 | 4.632895 | 4.633149 | 4.633404 | 4.633658 | 4.633913 | 4.634168 | 4.634422 | 4.634677 |
| 0.020 | 4.634931 | 4.635186 | 4.635441 | 4.635695 | 4.635950 | 4.636204 | 4.636459 | 4.636714 | 4.636968 | 4.637223 |
| 0.030 | 4.637478 | 4.637732 | 4.637987 | 4.638242 | 4.638496 | 4.638751 | 4.639005 | 4.639261 | 4.639515 | 4.639770 |
| 0.040 | 4.640025 | 4.640280 | 4.640535 | 4.640789 | 4.641044 | 4.641299 | 4.641554 | 4.641809 | 4.642063 | 4.642318 |
| 0.050 | 4.642573 | 4.642828 | 4.643083 | 4.643338 | 4.643593 | 4.643848 | 4.644102 | 4.644357 | 4.644612 | 4.644867 |
| 0.060 | 4.645122 | 4.645377 | 4.645632 | 4.645887 | 4.646142 | 4.646397 | 4.646652 | 4.646907 | 4.647162 | 4.647417 |
| 0.070 | 4.647672 | 4.647927 | 4.648182 | 4.648437 | 4.648692 | 4.648947 | 4.649203 | 4.649458 | 4.649713 | 4.649968 |
| 0.080 | 4.650223 | 4.650478 | 4.650733 | 4.650988 | 4.651244 | 4.651499 | 4.651754 | 4.652009 | 4.652264 | 4.652520 |
| 0.090 | 4.652775 | 4.653030 | 4.653285 | 4.653541 | 4.653796 | 4.654051 | 4.654306 | 4.654562 | 4.654817 | 4.655072 |
| 0.100 | 4.655537 | 4.655838 | 4.656139 | 4.656440 | 4.656741 | 4.657042 | 4.657343 | 4.657644 | 4.657945 | 4.658246 |
| 0.110 | 4.657881 | 4.658136 | 4.658392 | 4.658647 | 4.658903 | 4.659158 | 4.659414 | 4.659669 | 4.659925 | 4.660180 |
| 0.120 | 4.660436 | 4.660691 | 4.660947 | 4.661202 | 4.661458 | 4.661713 | 4.661969 | 4.662224 | 4.662480 | 4.662735 |
| 0.130 | 4.662991 | 4.663247 | 4.663502 | 4.663758 | 4.664013 | 4.664269 | 4.664525 | 4.664780 | 4.665036 | 4.665292 |
| 0.140 | 4.665547 | 4.665803 | 4.666059 | 4.666314 | 4.666570 | 4.666826 | 4.667081 | 4.667337 | 4.667593 | 4.667849 |
| 0.150 | 4.668104 | 4.668360 | 4.668616 | 4.668872 | 4.669128 | 4.669383 | 4.669639 | 4.669895 | 4.670151 | 4.670407 |
| 0.160 | 4.670663 | 4.670918 | 4.671174 | 4.671430 | 4.671686 | 4.671942 | 4.672198 | 4.672454 | 4.672710 | 4.672966 |
| 0.170 | 4.673222 | 4.673478 | 4.673734 | 4.673990 | 4.674245 | 4.674501 | 4.674757 | 4.675013 | 4.675269 | 4.675526 |
| 0.180 | 4.675782 | 4.676038 | 4.676294 | 4.676550 | 4.676806 | 4.677062 | 4.677318 | 4.677574 | 4.677830 | 4.678086 |
| 0.190 | 4.678342 | 4.678599 | 4.678855 | 4.679111 | 4.679367 | 4.679623 | 4.679879 | 4.680135 | 4.680392 | 4.680648 |
| 0.200 | 4.680904 | 4.681160 | 4.681417 | 4.681673 | 4.681929 | 4.682185 | 4.682442 | 4.682698 | 4.682954 | 4.683210 |
| 0.210 | 4.683467 | 4.683723 | 4.683979 | 4.684236 | 4.684492 | 4.684748 | 4.685005 | 4.685261 | 4.685518 | 4.685774 |
| 0.220 | 4.686030 | 4.686287 | 4.686543 | 4.686800 | 4.687056 | 4.687312 | 4.687569 | 4.687825 | 4.688082 | 4.688338 |
| 0.230 | 4.688595 | 4.688851 | 4.689108 | 4.689364 | 4.689621 | 4.689877 | 4.690134 | 4.690390 | 4.690647 | 4.690904 |
| 0.240 | 4.691160 | 4.691417 | 4.691673 | 4.691930 | 4.692187 | 4.692443 | 4.692700 | 4.692956 | 4.693213 | 4.693470 |
| 0.250 | 4.693726 | 4.693983 | 4.694240 | 4.694497 | 4.694753 | 4.695010 | 4.695267 | 4.695523 | 4.695780 | 4.696037 |
| 0.260 | 4.696294 | 4.696550 | 4.696807 | 4.697064 | 4.697321 | 4.697578 | 4.697834 | 4.698091 | 4.698348 | 4.698605 |
| 0.270 | 4.698862 | 4.699119 | 4.699375 | 4.699632 | 4.699889 | 4.700146 | 4.700403 | 4.700660 | 4.700917 | 4.701174 |
| 0.280 | 4.701431 | 4.701688 | 4.701945 | 4.702202 | 4.702459 | 4.702716 | 4.702973 | 4.703230 | 4.703487 | 4.703744 |
| 0.290 | 4.704001 | 4.704258 | 4.704515 | 4.704772 | 4.705029 | 4.705286 | 4.705543 | 4.705800 | 4.706057 | 4.706314 |
| 0.300 | 4.706571 | 4.706829 | 4.707086 | 4.707343 | 4.707600 | 4.707857 | 4.708114 | 4.708372 | 4.708629 | 4.708886 |
| 0.310 | 4.709143 | 4.709400 | 4.709658 | 4.709915 | 4.710172 | 4.710429 | 4.710687 | 4.710944 | 4.711201 | 4.711459 |
| 0.320 | 4.711716 | 4.711973 | 4.712231 | 4.712488 | 4.712745 | 4.713003 | 4.713260 | 4.713517 | 4.713775 | 4.714032 |
| 0.330 | 4.714289 | 4.714547 | 4.714804 | 4.715062 | 4.715319 | 4.715577 | 4.715834 | 4.716091 | 4.716349 | 4.716606 |
| 0.340 | 4.716864 | 4.717121 | 4.717379 | 4.717636 | 4.717894 | 4.718151 | 4.718409 | 4.718667 | 4.718924 | 4.719182 |
| 0.350 | 4.719439 | 4.719697 | 4.719954 | 4.720212 | 4.720470 | 4.720727 | 4.720985 | 4.721243 | 4.721501 | 4.721758 |
| 0.360 | 4.722016 | 4.722273 | 4.722531 | 4.722789 | 4.723046 | 4.723304 | 4.723562 | 4.723819 | 4.724077 | 4.724335 |
| 0.370 | 4.724593 | 4.724850 | 4.725108 | 4.725366 | 4.725624 | 4.725882 | 4.726139 | 4.726397 | 4.726655 | 4.726913 |
| 0.380 | 4.727171 | 4.727429 | 4.727687 | 4.727944 | 4.728202 | 4.728460 | 4.728718 | 4.728976 | 4.729234 | 4.729492 |
| 0.390 | 4.729750 | 4.730008 | 4.730266 | 4.730524 | 4.730782 | 4.731040 | 4.731298 | 4.731556 | 4.731814 | 4.732072 |
| 0.400 | 4.732330 | 4.732588 | 4.732846 | 4.733104 | 4.733362 | 4.733620 | 4.733878 | 4.734136 | 4.734394 | 4.734653 |
| 0.410 | 4.734911 | 4.735169 | 4.735427 | 4.735685 | 4.735943 | 4.736201 | 4.736459 | 4.736717 | 4.736976 | 4.737234 |
| 0.420 | 4.737492 | 4.737751 | 4.738009 | 4.738267 | 4.738525 | 4.738784 | 4.739042 | 4.739300 | 4.739558 | 4.739817 |
| 0.430 | 4.740075 | 4.740333 | 4.740592 | 4.740850 | 4.741108 | 4.741367 | 4.741625 | 4.741883 | 4.742142 | 4.742400 |
| 0.440 | 4.742659 | 4.742917 | 4.743176 | 4.743434 | 4.743692 | 4.743951 | 4.744209 | 4.744468 | 4.744726 | 4.744985 |
| 0.450 | 4.745243 | 4.745502 | 4.745760 | 4.746019 | 4.746277 | 4.746536 | 4.746794 | 4.747053 | 4.747311 | 4.747570 |
| 0.460 | 4.747829 | 4.748087 | 4.748346 | 4.748604 | 4.748863 | 4.749122 | 4.749380 | 4.749639 | 4.749898 | 4.750156 |
| 0.470 | 4.750415 | 4.750674 | 4.750932 | 4.751191 | 4.751450 | 4.751708 | 4.751967 | 4.752226 | 4.752485 | 4.752743 |
| 0.480 | 4.753002 | 4.753261 | 4.753520 | 4.753778 | 4.754037 | 4.754296 | 4.754554 | 4.754814 | 4.755073 | 4.755331 |
| 0.490 | 4.755590 | 4.755849 | 4.756108 | 4.756367 | 4.756626 | 4.756885 | 4.757144 | 4.757403 | 4.757661 | 4.757920 |

ATTENUATION IN DECIBELS
 THETA FROM 40.500 TO 40.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 4.758179 | 4.758438 | 4.758697 | 4.758956 | 4.759215 | 4.759474 | 4.759733 | 4.759992 | 4.760251 | 4.760510 |
| 0.510 | 4.760769 | 4.761028 | 4.761287 | 4.761546 | 4.761806 | 4.762065 | 4.762324 | 4.762583 | 4.762842 | 4.763101 |
| 0.520 | 4.763360 | 4.763619 | 4.763879 | 4.764138 | 4.764397 | 4.764656 | 4.764915 | 4.765174 | 4.765434 | 4.765693 |
| 0.530 | 4.765952 | 4.766211 | 4.766471 | 4.766730 | 4.766989 | 4.767248 | 4.767508 | 4.767767 | 4.768026 | 4.768285 |
| 0.540 | 4.768545 | 4.768804 | 4.769063 | 4.769323 | 4.769582 | 4.769841 | 4.770101 | 4.770360 | 4.770620 | 4.770879 |
| 0.550 | 4.771133 | 4.771393 | 4.771652 | 4.771911 | 4.772171 | 4.772430 | 4.772690 | 4.772949 | 4.773208 | 4.773467 |
| 0.560 | 4.773733 | 4.773993 | 4.774252 | 4.774512 | 4.774771 | 4.775031 | 4.775290 | 4.775550 | 4.775809 | 4.776069 |
| 0.570 | 4.776329 | 4.776588 | 4.776848 | 4.777107 | 4.777367 | 4.777626 | 4.777886 | 4.778146 | 4.778406 | 4.778665 |
| 0.580 | 4.778925 | 4.779185 | 4.779444 | 4.779704 | 4.779964 | 4.780223 | 4.780483 | 4.780743 | 4.781003 | 4.781262 |
| 0.590 | 4.781522 | 4.781782 | 4.782042 | 4.782302 | 4.782561 | 4.782821 | 4.783081 | 4.783341 | 4.783601 | 4.783861 |
| 0.600 | 4.784120 | 4.784380 | 4.784640 | 4.784900 | 4.785160 | 4.785420 | 4.785680 | 4.785940 | 4.786200 | 4.786460 |
| 0.610 | 4.786720 | 4.786980 | 4.787240 | 4.787500 | 4.787760 | 4.788020 | 4.788280 | 4.788540 | 4.788800 | 4.789060 |
| 0.620 | 4.789320 | 4.789580 | 4.789840 | 4.790100 | 4.790360 | 4.790620 | 4.790880 | 4.791140 | 4.791400 | 4.791660 |
| 0.630 | 4.791921 | 4.792181 | 4.792441 | 4.792701 | 4.792961 | 4.793221 | 4.793482 | 4.793742 | 4.794002 | 4.794262 |
| 0.640 | 4.794523 | 4.794783 | 4.795043 | 4.795303 | 4.795564 | 4.795824 | 4.796084 | 4.796344 | 4.796605 | 4.796865 |
| 0.650 | 4.797125 | 4.797386 | 4.797646 | 4.797906 | 4.798167 | 4.798427 | 4.798688 | 4.798948 | 4.799208 | 4.799469 |
| 0.660 | 4.799729 | 4.799990 | 4.800250 | 4.800510 | 4.800771 | 4.801031 | 4.801292 | 4.801552 | 4.801813 | 4.802073 |
| 0.670 | 4.802334 | 4.802594 | 4.802855 | 4.803115 | 4.803376 | 4.803636 | 4.803897 | 4.804158 | 4.804418 | 4.804679 |
| 0.680 | 4.804939 | 4.805200 | 4.805461 | 4.805721 | 4.805982 | 4.806243 | 4.806503 | 4.806764 | 4.807025 | 4.807285 |
| 0.690 | 4.807546 | 4.807807 | 4.808067 | 4.808328 | 4.808589 | 4.808850 | 4.809110 | 4.809371 | 4.809632 | 4.809893 |
| 0.700 | 4.810153 | 4.810414 | 4.810675 | 4.810936 | 4.811197 | 4.811457 | 4.811718 | 4.811979 | 4.812240 | 4.812501 |
| 0.710 | 4.812762 | 4.813023 | 4.813283 | 4.813544 | 4.813805 | 4.814066 | 4.814327 | 4.814588 | 4.814849 | 4.815110 |
| 0.720 | 4.815371 | 4.815632 | 4.815893 | 4.816154 | 4.816415 | 4.816676 | 4.816937 | 4.817198 | 4.817459 | 4.817720 |
| 0.730 | 4.817981 | 4.818242 | 4.818503 | 4.818764 | 4.819025 | 4.819287 | 4.819548 | 4.819809 | 4.820070 | 4.820331 |
| 0.740 | 4.820592 | 4.820853 | 4.821115 | 4.821376 | 4.821637 | 4.821898 | 4.822159 | 4.822421 | 4.822682 | 4.822943 |
| 0.750 | 4.823204 | 4.823466 | 4.823727 | 4.823988 | 4.824249 | 4.824511 | 4.824772 | 4.825033 | 4.825295 | 4.825556 |
| 0.760 | 4.825817 | 4.826079 | 4.826340 | 4.826601 | 4.826863 | 4.827124 | 4.827385 | 4.827647 | 4.827908 | 4.828170 |
| 0.770 | 4.828431 | 4.828693 | 4.828954 | 4.829215 | 4.829477 | 4.829738 | 4.830000 | 4.830261 | 4.830523 | 4.830784 |
| 0.780 | 4.831046 | 4.831307 | 4.831569 | 4.831831 | 4.832092 | 4.832354 | 4.832615 | 4.832877 | 4.833138 | 4.833400 |
| 0.790 | 4.833652 | 4.833913 | 4.834175 | 4.834436 | 4.834708 | 4.834970 | 4.835231 | 4.835493 | 4.835755 | 4.836017 |
| 0.800 | 4.836278 | 4.836540 | 4.836802 | 4.837063 | 4.837325 | 4.837587 | 4.837849 | 4.838110 | 4.838372 | 4.838634 |
| 0.810 | 4.838896 | 4.839158 | 4.839419 | 4.839681 | 4.839943 | 4.840205 | 4.840467 | 4.840729 | 4.840991 | 4.841252 |
| 0.820 | 4.841514 | 4.841776 | 4.842038 | 4.842300 | 4.842562 | 4.842824 | 4.843086 | 4.843348 | 4.843610 | 4.843872 |
| 0.830 | 4.844134 | 4.844396 | 4.844658 | 4.844920 | 4.845182 | 4.845444 | 4.845706 | 4.845968 | 4.846230 | 4.846492 |
| 0.840 | 4.846754 | 4.847016 | 4.847278 | 4.847540 | 4.847802 | 4.848065 | 4.848327 | 4.848589 | 4.848851 | 4.849113 |
| 0.850 | 4.849375 | 4.849638 | 4.849900 | 4.850162 | 4.850424 | 4.850686 | 4.850949 | 4.851211 | 4.851473 | 4.851735 |
| 0.860 | 4.851998 | 4.852260 | 4.852522 | 4.852784 | 4.853047 | 4.853309 | 4.853571 | 4.853834 | 4.854096 | 4.854358 |
| 0.870 | 4.854621 | 4.854883 | 4.855145 | 4.855408 | 4.855670 | 4.855933 | 4.856195 | 4.856457 | 4.856720 | 4.856982 |
| 0.880 | 4.857245 | 4.857507 | 4.857770 | 4.858032 | 4.858295 | 4.858557 | 4.858820 | 4.859082 | 4.859345 | 4.859607 |
| 0.890 | 4.859870 | 4.860132 | 4.860395 | 4.860657 | 4.860920 | 4.861182 | 4.861445 | 4.861708 | 4.861971 | 4.862233 |
| 0.900 | 4.862496 | 4.862758 | 4.863021 | 4.863284 | 4.863546 | 4.863809 | 4.864072 | 4.864334 | 4.864597 | 4.864860 |
| 0.910 | 4.865122 | 4.865385 | 4.865648 | 4.865911 | 4.866173 | 4.866436 | 4.866699 | 4.866962 | 4.867224 | 4.867487 |
| 0.920 | 4.867750 | 4.868013 | 4.868276 | 4.868539 | 4.868801 | 4.869064 | 4.869327 | 4.869590 | 4.869853 | 4.870116 |
| 0.930 | 4.870379 | 4.870642 | 4.870905 | 4.871168 | 4.871431 | 4.871693 | 4.871956 | 4.872219 | 4.872482 | 4.872745 |
| 0.940 | 4.873008 | 4.873271 | 4.873534 | 4.873797 | 4.874060 | 4.874324 | 4.874587 | 4.874850 | 4.875113 | 4.875376 |
| 0.950 | 4.875639 | 4.875902 | 4.876165 | 4.876428 | 4.876691 | 4.876954 | 4.877218 | 4.877481 | 4.877744 | 4.878007 |
| 0.960 | 4.878270 | 4.878534 | 4.878797 | 4.879060 | 4.879323 | 4.879586 | 4.879850 | 4.880113 | 4.880376 | 4.880639 |
| 0.970 | 4.880903 | 4.881166 | 4.881429 | 4.881693 | 4.881956 | 4.882219 | 4.882483 | 4.882746 | 4.883009 | 4.883273 |
| 0.980 | 4.883536 | 4.883799 | 4.884063 | 4.884326 | 4.884590 | 4.884853 | 4.885116 | 4.885380 | 4.885643 | 4.885907 |
| 0.990 | 4.886170 | 4.886434 | 4.886697 | 4.886961 | 4.887224 | 4.887488 | 4.887751 | 4.888015 | 4.888278 | 4.888542 |

ATTENUATION IN DECIBELS
THETA FROM 41.000 TO 41.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 4.888805 | 4.889069 | 4.889333 | 4.889596 | 4.889860 | 4.890123 | 4.890387 | 4.890651 | 4.890914 | 4.891178 |
| 0.010 | 4.891442 | 4.891705 | 4.891969 | 4.892233 | 4.892496 | 4.892760 | 4.893024 | 4.893287 | 4.893551 | 4.893815 |
| 0.020 | 4.894079 | 4.894342 | 4.894606 | 4.894870 | 4.895134 | 4.895397 | 4.895661 | 4.895925 | 4.896189 | 4.896453 |
| 0.030 | 4.896717 | 4.896980 | 4.897244 | 4.897508 | 4.897772 | 4.898036 | 4.898300 | 4.898564 | 4.898828 | 4.899091 |
| 0.040 | 4.899355 | 4.899619 | 4.899883 | 4.900147 | 4.900411 | 4.900675 | 4.900939 | 4.901203 | 4.901467 | 4.901731 |
| 0.050 | 4.901995 | 4.902259 | 4.902523 | 4.902787 | 4.903051 | 4.903315 | 4.903580 | 4.903844 | 4.904108 | 4.904372 |
| 0.060 | 4.904636 | 4.904900 | 4.905164 | 4.905428 | 4.905693 | 4.905957 | 4.906221 | 4.906485 | 4.906749 | 4.907013 |
| 0.070 | 4.907278 | 4.907542 | 4.907806 | 4.908070 | 4.908335 | 4.908599 | 4.908863 | 4.909127 | 4.909392 | 4.909656 |
| 0.080 | 4.909920 | 4.910185 | 4.910449 | 4.910713 | 4.910978 | 4.911242 | 4.911506 | 4.911771 | 4.912035 | 4.912299 |
| 0.090 | 4.912564 | 4.912828 | 4.913093 | 4.913357 | 4.913621 | 4.913886 | 4.914150 | 4.914415 | 4.914679 | 4.914944 |
| 0.100 | 4.915208 | 4.915473 | 4.915737 | 4.916002 | 4.916266 | 4.916531 | 4.916795 | 4.917060 | 4.917325 | 4.917589 |
| 0.110 | 4.917854 | 4.918118 | 4.918383 | 4.918647 | 4.918912 | 4.919177 | 4.919441 | 4.919706 | 4.919971 | 4.920235 |
| 0.120 | 4.920500 | 4.920765 | 4.921029 | 4.921294 | 4.921559 | 4.921824 | 4.922088 | 4.922353 | 4.922618 | 4.922882 |
| 0.130 | 4.923147 | 4.923412 | 4.923677 | 4.923942 | 4.924206 | 4.924471 | 4.924736 | 4.925001 | 4.925266 | 4.925531 |
| 0.140 | 4.925795 | 4.926060 | 4.926325 | 4.926590 | 4.926855 | 4.927120 | 4.927385 | 4.927650 | 4.927915 | 4.928180 |
| 0.150 | 4.928445 | 4.928710 | 4.928975 | 4.929240 | 4.929505 | 4.929770 | 4.930035 | 4.930300 | 4.930565 | 4.930830 |
| 0.160 | 4.931095 | 4.931360 | 4.931625 | 4.931890 | 4.932155 | 4.932420 | 4.932685 | 4.932950 | 4.933215 | 4.933481 |
| 0.170 | 4.933746 | 4.934011 | 4.934276 | 4.934541 | 4.934806 | 4.935071 | 4.935337 | 4.935602 | 4.935867 | 4.936132 |
| 0.180 | 4.936398 | 4.936663 | 4.936928 | 4.937193 | 4.937458 | 4.937724 | 4.937989 | 4.938255 | 4.938520 | 4.938785 |
| 0.190 | 4.939050 | 4.939316 | 4.939581 | 4.939847 | 4.940112 | 4.940377 | 4.940643 | 4.940908 | 4.941173 | 4.941439 |
| 0.200 | 4.941704 | 4.941970 | 4.942235 | 4.942501 | 4.942766 | 4.943032 | 4.943297 | 4.943563 | 4.943828 | 4.944094 |
| 0.210 | 4.944359 | 4.944625 | 4.944890 | 4.945156 | 4.945421 | 4.945687 | 4.945952 | 4.946218 | 4.946483 | 4.946749 |
| 0.220 | 4.947015 | 4.947280 | 4.947546 | 4.947812 | 4.948077 | 4.948343 | 4.948609 | 4.948874 | 4.949140 | 4.949406 |
| 0.230 | 4.949671 | 4.949937 | 4.950203 | 4.950468 | 4.950734 | 4.951000 | 4.951266 | 4.951531 | 4.951797 | 4.952063 |
| 0.240 | 4.952329 | 4.952595 | 4.952860 | 4.953126 | 4.953392 | 4.953658 | 4.953924 | 4.954190 | 4.954456 | 4.954721 |
| 0.250 | 4.954987 | 4.955253 | 4.955519 | 4.955785 | 4.956051 | 4.956317 | 4.956583 | 4.956849 | 4.957115 | 4.957381 |
| 0.260 | 4.957647 | 4.957913 | 4.958179 | 4.958445 | 4.958711 | 4.958977 | 4.959243 | 4.959509 | 4.959775 | 4.960041 |
| 0.270 | 4.960307 | 4.960573 | 4.960839 | 4.961105 | 4.961371 | 4.961638 | 4.961904 | 4.962170 | 4.962436 | 4.962702 |
| 0.280 | 4.962968 | 4.963235 | 4.963501 | 4.963767 | 4.964033 | 4.964299 | 4.964566 | 4.964832 | 4.965098 | 4.965364 |
| 0.290 | 4.965631 | 4.965897 | 4.966163 | 4.966429 | 4.966696 | 4.966962 | 4.967228 | 4.967495 | 4.967761 | 4.968027 |
| 0.300 | 4.968294 | 4.968560 | 4.968826 | 4.969093 | 4.969359 | 4.969626 | 4.969892 | 4.970159 | 4.970425 | 4.970691 |
| 0.310 | 4.970958 | 4.971224 | 4.971491 | 4.971757 | 4.972024 | 4.972290 | 4.972557 | 4.972823 | 4.973090 | 4.973356 |
| 0.320 | 4.973623 | 4.973889 | 4.974156 | 4.974423 | 4.974689 | 4.974956 | 4.975222 | 4.975489 | 4.975756 | 4.976022 |
| 0.330 | 4.976289 | 4.976556 | 4.976822 | 4.977089 | 4.977356 | 4.977622 | 4.977889 | 4.978156 | 4.978422 | 4.978689 |
| 0.340 | 4.978956 | 4.979223 | 4.979489 | 4.979756 | 4.980023 | 4.980290 | 4.980556 | 4.980823 | 4.981090 | 4.981357 |
| 0.350 | 4.981624 | 4.981890 | 4.982157 | 4.982424 | 4.982691 | 4.982958 | 4.983225 | 4.983492 | 4.983759 | 4.984025 |
| 0.360 | 4.984292 | 4.984559 | 4.984826 | 4.985093 | 4.985360 | 4.985627 | 4.985894 | 4.986161 | 4.986428 | 4.986695 |
| 0.370 | 4.986962 | 4.987229 | 4.987496 | 4.987763 | 4.988030 | 4.988297 | 4.988564 | 4.988832 | 4.989099 | 4.989366 |
| 0.380 | 4.989633 | 4.989900 | 4.990167 | 4.990434 | 4.990701 | 4.990969 | 4.991236 | 4.991503 | 4.991770 | 4.992037 |
| 0.390 | 4.992304 | 4.992572 | 4.992839 | 4.993106 | 4.993373 | 4.993641 | 4.993908 | 4.994175 | 4.994442 | 4.994710 |
| 0.400 | 4.994977 | 4.995244 | 4.995512 | 4.995779 | 4.996046 | 4.996314 | 4.996581 | 4.996848 | 4.997116 | 4.997383 |
| 0.410 | 4.997918 | 4.998185 | 4.998452 | 4.998720 | 4.998988 | 4.999255 | 4.999523 | 4.999790 | 5.000057 | 5.000323 |
| 0.420 | 5.000325 | 5.000592 | 5.000860 | 5.001127 | 5.001395 | 5.001662 | 5.001930 | 5.002198 | 5.002465 | 5.002733 |
| 0.430 | 5.003000 | 5.003268 | 5.003535 | 5.003803 | 5.004071 | 5.004338 | 5.004606 | 5.004874 | 5.005141 | 5.005409 |
| 0.440 | 5.005677 | 5.005944 | 5.006212 | 5.006480 | 5.006747 | 5.007015 | 5.007283 | 5.007551 | 5.007818 | 5.008086 |
| 0.450 | 5.008354 | 5.008622 | 5.008889 | 5.009157 | 5.009425 | 5.009693 | 5.009961 | 5.010229 | 5.010496 | 5.010764 |
| 0.460 | 5.011032 | 5.011300 | 5.011568 | 5.011836 | 5.012104 | 5.012371 | 5.012639 | 5.012907 | 5.013175 | 5.013443 |
| 0.470 | 5.013711 | 5.013979 | 5.014247 | 5.014515 | 5.014783 | 5.015051 | 5.015319 | 5.015587 | 5.015855 | 5.016123 |
| 0.480 | 5.016391 | 5.016659 | 5.016927 | 5.017195 | 5.017464 | 5.017732 | 5.018000 | 5.018268 | 5.018536 | 5.018804 |
| 0.490 | 5.019072 | 5.019340 | 5.019609 | 5.019877 | 5.020145 | 5.020413 | 5.020681 | 5.020950 | 5.021218 | 5.021486 |

ATTENUATION IN DECIBELS
THETA FROM 41.500 TO 41.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 5.021754 | 5.022023 | 5.022291 | 5.022559 | 5.022827 | 5.023096 | 5.023364 | 5.023632 | 5.023901 | 5.024169 |
| 0.510 | 5.022437 | 5.022706 | 5.022974 | 5.023242 | 5.023511 | 5.023779 | 5.024047 | 5.024316 | 5.024584 | 5.024853 |
| 0.520 | 5.022712 | 5.022981 | 5.023250 | 5.023519 | 5.023788 | 5.024057 | 5.024326 | 5.024595 | 5.024864 | 5.025133 |
| 0.530 | 5.022986 | 5.023255 | 5.023524 | 5.023793 | 5.024062 | 5.024331 | 5.024600 | 5.024869 | 5.025138 | 5.025407 |
| 0.540 | 5.023260 | 5.023529 | 5.023798 | 5.024067 | 5.024336 | 5.024605 | 5.024874 | 5.025143 | 5.025412 | 5.025681 |
| 0.550 | 5.023534 | 5.023803 | 5.024072 | 5.024341 | 5.024610 | 5.024879 | 5.025148 | 5.025417 | 5.025686 | 5.025955 |
| 0.560 | 5.023808 | 5.024077 | 5.024346 | 5.024615 | 5.024884 | 5.025153 | 5.025422 | 5.025691 | 5.025960 | 5.026229 |
| 0.570 | 5.024082 | 5.024351 | 5.024620 | 5.024889 | 5.025158 | 5.025427 | 5.025696 | 5.025965 | 5.026234 | 5.026503 |
| 0.580 | 5.024356 | 5.024625 | 5.024894 | 5.025163 | 5.025432 | 5.025701 | 5.025970 | 5.026239 | 5.026508 | 5.026777 |
| 0.590 | 5.024630 | 5.024899 | 5.025168 | 5.025437 | 5.025706 | 5.025975 | 5.026244 | 5.026513 | 5.026782 | 5.027051 |
| 0.600 | 5.024904 | 5.025173 | 5.025442 | 5.025711 | 5.025980 | 5.026249 | 5.026518 | 5.026787 | 5.027056 | 5.027325 |
| 0.610 | 5.025178 | 5.025447 | 5.025716 | 5.025985 | 5.026254 | 5.026523 | 5.026792 | 5.027061 | 5.027330 | 5.027599 |
| 0.620 | 5.025452 | 5.025721 | 5.025990 | 5.026259 | 5.026528 | 5.026797 | 5.027066 | 5.027335 | 5.027604 | 5.027873 |
| 0.630 | 5.025726 | 5.025995 | 5.026264 | 5.026533 | 5.026802 | 5.027071 | 5.027340 | 5.027609 | 5.027878 | 5.028147 |
| 0.640 | 5.025999 | 5.026268 | 5.026537 | 5.026806 | 5.027075 | 5.027344 | 5.027613 | 5.027882 | 5.028151 | 5.028420 |
| 0.650 | 5.026273 | 5.026542 | 5.026811 | 5.027080 | 5.027349 | 5.027618 | 5.027887 | 5.028156 | 5.028425 | 5.028694 |
| 0.660 | 5.026547 | 5.026816 | 5.027085 | 5.027354 | 5.027623 | 5.027892 | 5.028161 | 5.028430 | 5.028699 | 5.028968 |
| 0.670 | 5.026821 | 5.027090 | 5.027359 | 5.027628 | 5.027897 | 5.028166 | 5.028435 | 5.028704 | 5.028973 | 5.029242 |
| 0.680 | 5.027095 | 5.027364 | 5.027633 | 5.027902 | 5.028171 | 5.028440 | 5.028709 | 5.028978 | 5.029247 | 5.029516 |
| 0.690 | 5.027369 | 5.027638 | 5.027907 | 5.028176 | 5.028445 | 5.028714 | 5.028983 | 5.029252 | 5.029521 | 5.029790 |
| 0.700 | 5.027643 | 5.027912 | 5.028181 | 5.028450 | 5.028719 | 5.028988 | 5.029257 | 5.029526 | 5.029795 | 5.030064 |
| 0.710 | 5.027917 | 5.028186 | 5.028455 | 5.028724 | 5.028993 | 5.029262 | 5.029531 | 5.029800 | 5.030069 | 5.030338 |
| 0.720 | 5.028191 | 5.028460 | 5.028729 | 5.028998 | 5.029267 | 5.029536 | 5.029805 | 5.030074 | 5.030343 | 5.030612 |
| 0.730 | 5.028465 | 5.028734 | 5.028999 | 5.029268 | 5.029537 | 5.029806 | 5.030075 | 5.030344 | 5.030613 | 5.030882 |
| 0.740 | 5.028739 | 5.029008 | 5.029273 | 5.029542 | 5.029811 | 5.030080 | 5.030349 | 5.030618 | 5.030887 | 5.031156 |
| 0.750 | 5.029013 | 5.029282 | 5.029547 | 5.029816 | 5.030085 | 5.030354 | 5.030623 | 5.030892 | 5.031161 | 5.031430 |
| 0.760 | 5.029287 | 5.029556 | 5.029821 | 5.030090 | 5.030359 | 5.030628 | 5.030897 | 5.031166 | 5.031435 | 5.031704 |
| 0.770 | 5.029561 | 5.029830 | 5.030095 | 5.030364 | 5.030633 | 5.030902 | 5.031171 | 5.031440 | 5.031709 | 5.031978 |
| 0.780 | 5.029835 | 5.030104 | 5.030369 | 5.030638 | 5.030907 | 5.031176 | 5.031445 | 5.031714 | 5.031983 | 5.032252 |
| 0.790 | 5.030109 | 5.030378 | 5.030643 | 5.030912 | 5.031181 | 5.031450 | 5.031719 | 5.031988 | 5.032257 | 5.032526 |
| 0.800 | 5.030383 | 5.030652 | 5.030917 | 5.031186 | 5.031455 | 5.031724 | 5.031993 | 5.032262 | 5.032531 | 5.032800 |
| 0.810 | 5.030657 | 5.030926 | 5.031191 | 5.031460 | 5.031729 | 5.031998 | 5.032267 | 5.032536 | 5.032805 | 5.033074 |
| 0.820 | 5.030931 | 5.031200 | 5.031465 | 5.031734 | 5.031999 | 5.032268 | 5.032537 | 5.032806 | 5.033075 | 5.033344 |
| 0.830 | 5.031205 | 5.031474 | 5.031739 | 5.031998 | 5.032267 | 5.032536 | 5.032805 | 5.033074 | 5.033343 | 5.033612 |
| 0.840 | 5.031479 | 5.031748 | 5.031999 | 5.032268 | 5.032537 | 5.032806 | 5.033075 | 5.033344 | 5.033613 | 5.033882 |
| 0.850 | 5.031753 | 5.032022 | 5.032291 | 5.032560 | 5.032829 | 5.033098 | 5.033367 | 5.033636 | 5.033905 | 5.034174 |
| 0.860 | 5.032027 | 5.032296 | 5.032565 | 5.032834 | 5.033103 | 5.033372 | 5.033641 | 5.033910 | 5.034179 | 5.034448 |
| 0.870 | 5.032301 | 5.032570 | 5.032839 | 5.033108 | 5.033377 | 5.033646 | 5.033915 | 5.034184 | 5.034453 | 5.034722 |
| 0.880 | 5.032575 | 5.032844 | 5.033113 | 5.033382 | 5.033651 | 5.033920 | 5.034189 | 5.034458 | 5.034727 | 5.034996 |
| 0.890 | 5.032849 | 5.033118 | 5.033387 | 5.033656 | 5.033925 | 5.034194 | 5.034463 | 5.034732 | 5.034999 | 5.035268 |
| 0.900 | 5.033123 | 5.033392 | 5.033661 | 5.033930 | 5.034199 | 5.034468 | 5.034737 | 5.034999 | 5.035268 | 5.035537 |
| 0.910 | 5.033397 | 5.033666 | 5.033935 | 5.034204 | 5.034473 | 5.034742 | 5.035011 | 5.035280 | 5.035549 | 5.035818 |
| 0.920 | 5.033671 | 5.033940 | 5.034209 | 5.034478 | 5.034747 | 5.035016 | 5.035285 | 5.035554 | 5.035823 | 5.036092 |
| 0.930 | 5.033945 | 5.034214 | 5.034483 | 5.034752 | 5.035021 | 5.035290 | 5.035559 | 5.035828 | 5.036097 | 5.036366 |
| 0.940 | 5.034219 | 5.034488 | 5.034757 | 5.035026 | 5.035295 | 5.035564 | 5.035833 | 5.036102 | 5.036371 | 5.036640 |
| 0.950 | 5.034493 | 5.034762 | 5.035031 | 5.035300 | 5.035569 | 5.035838 | 5.036107 | 5.036376 | 5.036645 | 5.036914 |
| 0.960 | 5.034767 | 5.035036 | 5.035305 | 5.035574 | 5.035843 | 5.036112 | 5.036381 | 5.036650 | 5.036919 | 5.037188 |
| 0.970 | 5.035041 | 5.035310 | 5.035579 | 5.035848 | 5.036117 | 5.036386 | 5.036655 | 5.036924 | 5.037193 | 5.037462 |
| 0.980 | 5.035315 | 5.035584 | 5.035853 | 5.036122 | 5.036391 | 5.036660 | 5.036929 | 5.037198 | 5.037467 | 5.037736 |
| 0.990 | 5.035589 | 5.035858 | 5.036127 | 5.036396 | 5.036665 | 5.036934 | 5.037203 | 5.037472 | 5.037741 | 5.038010 |

ATTENUATION IN DECIBELS
THETA FROM 42.000 TO 42.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 5.157062 | 5.157335 | 5.157608 | 5.157881 | 5.158154 | 5.158427 | 5.158700 | 5.158973 | 5.159246 | 5.159519 |
| 0.010 | 5.159792 | 5.160065 | 5.160338 | 5.160611 | 5.160885 | 5.161158 | 5.161431 | 5.161704 | 5.161977 | 5.162250 |
| 0.020 | 5.162524 | 5.162797 | 5.163070 | 5.163343 | 5.163616 | 5.163890 | 5.164163 | 5.164436 | 5.164709 | 5.164983 |
| 0.030 | 5.165256 | 5.165529 | 5.165802 | 5.166076 | 5.166349 | 5.166622 | 5.166896 | 5.167169 | 5.167443 | 5.167716 |
| 0.040 | 5.167989 | 5.168263 | 5.168536 | 5.168809 | 5.169083 | 5.169356 | 5.169630 | 5.169903 | 5.170177 | 5.170450 |
| 0.050 | 5.170723 | 5.170997 | 5.171270 | 5.171544 | 5.171817 | 5.172091 | 5.172365 | 5.172639 | 5.172912 | 5.173185 |
| 0.060 | 5.173459 | 5.173732 | 5.174006 | 5.174280 | 5.174553 | 5.174827 | 5.175100 | 5.175374 | 5.175648 | 5.175921 |
| 0.070 | 5.176195 | 5.176469 | 5.176742 | 5.177016 | 5.177289 | 5.177563 | 5.177837 | 5.178111 | 5.178385 | 5.178658 |
| 0.080 | 5.178932 | 5.179206 | 5.179480 | 5.179753 | 5.180027 | 5.180301 | 5.180575 | 5.180849 | 5.181123 | 5.181396 |
| 0.090 | 5.181670 | 5.181944 | 5.182218 | 5.182492 | 5.182766 | 5.183040 | 5.183314 | 5.183588 | 5.183861 | 5.184135 |
| 0.100 | 5.184409 | 5.184683 | 5.184957 | 5.185231 | 5.185505 | 5.185779 | 5.186053 | 5.186327 | 5.186601 | 5.186875 |
| 0.110 | 5.187149 | 5.187423 | 5.187698 | 5.187972 | 5.188246 | 5.188520 | 5.188794 | 5.189068 | 5.189342 | 5.189616 |
| 0.120 | 5.189890 | 5.190165 | 5.190439 | 5.190713 | 5.190987 | 5.191261 | 5.191536 | 5.191810 | 5.192084 | 5.192358 |
| 0.130 | 5.192632 | 5.192907 | 5.193181 | 5.193455 | 5.193730 | 5.194004 | 5.194278 | 5.194552 | 5.194827 | 5.195101 |
| 0.140 | 5.195375 | 5.195650 | 5.195924 | 5.196198 | 5.196473 | 5.196747 | 5.197022 | 5.197296 | 5.197570 | 5.197845 |
| 0.150 | 5.198119 | 5.198394 | 5.198668 | 5.198943 | 5.199217 | 5.199492 | 5.199766 | 5.200041 | 5.200315 | 5.200590 |
| 0.160 | 5.200864 | 5.201139 | 5.201413 | 5.201688 | 5.201962 | 5.202237 | 5.202512 | 5.202786 | 5.203061 | 5.203335 |
| 0.170 | 5.203610 | 5.203885 | 5.204159 | 5.204434 | 5.204709 | 5.204983 | 5.205258 | 5.205533 | 5.205807 | 5.206082 |
| 0.180 | 5.206357 | 5.206631 | 5.206906 | 5.207181 | 5.207456 | 5.207731 | 5.208005 | 5.208280 | 5.208555 | 5.208830 |
| 0.190 | 5.209105 | 5.209379 | 5.209654 | 5.209929 | 5.210204 | 5.210479 | 5.210754 | 5.211029 | 5.211303 | 5.211578 |
| 0.200 | 5.211853 | 5.212128 | 5.212403 | 5.212678 | 5.212953 | 5.213228 | 5.213503 | 5.213778 | 5.214053 | 5.214328 |
| 0.210 | 5.214603 | 5.214878 | 5.215153 | 5.215428 | 5.215703 | 5.215978 | 5.216253 | 5.216528 | 5.216803 | 5.217078 |
| 0.220 | 5.217354 | 5.217629 | 5.217904 | 5.218179 | 5.218454 | 5.218729 | 5.219004 | 5.219279 | 5.219555 | 5.219830 |
| 0.230 | 5.220105 | 5.220380 | 5.220656 | 5.220931 | 5.221206 | 5.221481 | 5.221757 | 5.222032 | 5.222307 | 5.222582 |
| 0.240 | 5.222858 | 5.223133 | 5.223408 | 5.223684 | 5.223959 | 5.224234 | 5.224510 | 5.224785 | 5.225061 | 5.225336 |
| 0.250 | 5.225611 | 5.225887 | 5.226162 | 5.226438 | 5.226713 | 5.226988 | 5.227264 | 5.227539 | 5.227815 | 5.228090 |
| 0.260 | 5.228366 | 5.228641 | 5.228917 | 5.229192 | 5.229468 | 5.229743 | 5.230019 | 5.230295 | 5.230570 | 5.230846 |
| 0.270 | 5.231121 | 5.231397 | 5.231673 | 5.231948 | 5.232224 | 5.232499 | 5.232775 | 5.233051 | 5.233326 | 5.233602 |
| 0.280 | 5.233878 | 5.234153 | 5.234429 | 5.234705 | 5.234981 | 5.235256 | 5.235532 | 5.235808 | 5.236084 | 5.236359 |
| 0.290 | 5.236635 | 5.236911 | 5.237187 | 5.237463 | 5.237738 | 5.238014 | 5.238290 | 5.238566 | 5.238842 | 5.239118 |
| 0.300 | 5.239394 | 5.239669 | 5.239945 | 5.240221 | 5.240497 | 5.240773 | 5.241049 | 5.241325 | 5.241601 | 5.241877 |
| 0.310 | 5.242153 | 5.242429 | 5.242705 | 5.242981 | 5.243257 | 5.243533 | 5.243809 | 5.244085 | 5.244361 | 5.244637 |
| 0.320 | 5.244913 | 5.245189 | 5.245465 | 5.245741 | 5.246018 | 5.246294 | 5.246570 | 5.246846 | 5.247122 | 5.247398 |
| 0.330 | 5.247674 | 5.247951 | 5.248227 | 5.248503 | 5.248779 | 5.249055 | 5.249332 | 5.249608 | 5.249884 | 5.250160 |
| 0.340 | 5.250437 | 5.250713 | 5.250989 | 5.251266 | 5.251542 | 5.251818 | 5.252095 | 5.252371 | 5.252647 | 5.252924 |
| 0.350 | 5.253200 | 5.253476 | 5.253753 | 5.254029 | 5.254305 | 5.254582 | 5.254858 | 5.255135 | 5.255411 | 5.255688 |
| 0.360 | 5.255964 | 5.256241 | 5.256517 | 5.256794 | 5.257070 | 5.257347 | 5.257623 | 5.257900 | 5.258176 | 5.258453 |
| 0.370 | 5.258729 | 5.259006 | 5.259282 | 5.259559 | 5.259836 | 5.260112 | 5.260389 | 5.260665 | 5.260942 | 5.261219 |
| 0.380 | 5.261495 | 5.261772 | 5.262049 | 5.262325 | 5.262602 | 5.262879 | 5.263156 | 5.263432 | 5.263709 | 5.263986 |
| 0.390 | 5.264262 | 5.264539 | 5.264816 | 5.265093 | 5.265370 | 5.265646 | 5.265923 | 5.266200 | 5.266477 | 5.266754 |
| 0.400 | 5.267031 | 5.267307 | 5.267584 | 5.267861 | 5.268138 | 5.268415 | 5.268692 | 5.268969 | 5.269246 | 5.269523 |
| 0.410 | 5.269800 | 5.270077 | 5.270353 | 5.270630 | 5.270907 | 5.271184 | 5.271461 | 5.271738 | 5.272016 | 5.272293 |
| 0.420 | 5.272570 | 5.272847 | 5.273124 | 5.273401 | 5.273678 | 5.273955 | 5.274232 | 5.274509 | 5.274786 | 5.275063 |
| 0.430 | 5.275341 | 5.275618 | 5.275895 | 5.276172 | 5.276449 | 5.276726 | 5.277004 | 5.277281 | 5.277558 | 5.277835 |
| 0.440 | 5.278113 | 5.278390 | 5.278667 | 5.278944 | 5.279222 | 5.279499 | 5.279776 | 5.280053 | 5.280331 | 5.280608 |
| 0.450 | 5.280885 | 5.281163 | 5.281440 | 5.281717 | 5.281995 | 5.282272 | 5.282550 | 5.282827 | 5.283104 | 5.283382 |
| 0.460 | 5.283659 | 5.283937 | 5.284214 | 5.284492 | 5.284769 | 5.285047 | 5.285324 | 5.285602 | 5.285879 | 5.286157 |
| 0.470 | 5.286434 | 5.286712 | 5.286989 | 5.287267 | 5.287544 | 5.287822 | 5.288100 | 5.288377 | 5.288655 | 5.288932 |
| 0.480 | 5.289210 | 5.289488 | 5.289765 | 5.290043 | 5.290321 | 5.290598 | 5.290876 | 5.291154 | 5.291431 | 5.291709 |
| 0.490 | 5.291987 | 5.292265 | 5.292542 | 5.292820 | 5.293098 | 5.293376 | 5.293653 | 5.293931 | 5.294209 | 5.294487 |

ATTENUATION IN DECIBELS
 THETA FROM 42.500 TO 42.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 5.294765 | 5.295042 | 5.295320 | 5.295598 | 5.295876 | 5.296154 | 5.296432 | 5.296710 | 5.296988 | 5.297265 |
| 0.510 | 5.297543 | 5.297821 | 5.298099 | 5.298377 | 5.298655 | 5.298933 | 5.299211 | 5.299489 | 5.299767 | 5.300045 |
| 0.520 | 5.300323 | 5.300601 | 5.300879 | 5.301157 | 5.301435 | 5.301713 | 5.301991 | 5.302269 | 5.302548 | 5.302826 |
| 0.530 | 5.303104 | 5.303382 | 5.303660 | 5.303938 | 5.304216 | 5.304495 | 5.304773 | 5.305051 | 5.305329 | 5.305607 |
| 0.540 | 5.305885 | 5.306164 | 5.306442 | 5.306720 | 5.306998 | 5.307277 | 5.307555 | 5.307833 | 5.308111 | 5.308390 |
| 0.550 | 5.308668 | 5.308946 | 5.309225 | 5.309503 | 5.309781 | 5.310060 | 5.310338 | 5.310617 | 5.310895 | 5.311173 |
| 0.560 | 5.311452 | 5.311730 | 5.312009 | 5.312287 | 5.312565 | 5.312844 | 5.313122 | 5.313401 | 5.313679 | 5.313958 |
| 0.570 | 5.314236 | 5.314515 | 5.314793 | 5.315072 | 5.315350 | 5.315629 | 5.315908 | 5.316186 | 5.316465 | 5.316743 |
| 0.580 | 5.317022 | 5.317301 | 5.317579 | 5.317858 | 5.318136 | 5.318415 | 5.318694 | 5.318972 | 5.319251 | 5.319530 |
| 0.590 | 5.319808 | 5.320087 | 5.320366 | 5.320645 | 5.320923 | 5.321202 | 5.321481 | 5.321760 | 5.322038 | 5.322317 |
| 0.600 | 5.322596 | 5.322875 | 5.323154 | 5.323432 | 5.323711 | 5.323990 | 5.324269 | 5.324548 | 5.324827 | 5.325106 |
| 0.610 | 5.325384 | 5.325663 | 5.325942 | 5.326221 | 5.326500 | 5.326779 | 5.327058 | 5.327337 | 5.327616 | 5.327895 |
| 0.620 | 5.328174 | 5.328453 | 5.328732 | 5.329011 | 5.329290 | 5.329569 | 5.329848 | 5.330127 | 5.330406 | 5.330685 |
| 0.630 | 5.330964 | 5.331244 | 5.331523 | 5.331802 | 5.332081 | 5.332360 | 5.332639 | 5.332918 | 5.333197 | 5.333477 |
| 0.640 | 5.333756 | 5.334035 | 5.334314 | 5.334594 | 5.334873 | 5.335152 | 5.335431 | 5.335710 | 5.335990 | 5.336269 |
| 0.650 | 5.336548 | 5.336828 | 5.337107 | 5.337386 | 5.337666 | 5.337945 | 5.338224 | 5.338504 | 5.338783 | 5.339062 |
| 0.660 | 5.339342 | 5.339621 | 5.339900 | 5.340180 | 5.340459 | 5.340739 | 5.341018 | 5.341298 | 5.341577 | 5.341857 |
| 0.670 | 5.342136 | 5.342416 | 5.342695 | 5.342975 | 5.343254 | 5.343534 | 5.343813 | 5.344093 | 5.344372 | 5.344652 |
| 0.680 | 5.344931 | 5.345211 | 5.345491 | 5.345770 | 5.346050 | 5.346329 | 5.346609 | 5.346889 | 5.347168 | 5.347448 |
| 0.690 | 5.347723 | 5.348007 | 5.348287 | 5.348567 | 5.348847 | 5.349126 | 5.349406 | 5.349686 | 5.349966 | 5.350245 |
| 0.700 | 5.350525 | 5.350805 | 5.351085 | 5.351364 | 5.351644 | 5.351924 | 5.352204 | 5.352484 | 5.352764 | 5.353043 |
| 0.710 | 5.353323 | 5.353603 | 5.353883 | 5.354163 | 5.354443 | 5.354723 | 5.355003 | 5.355283 | 5.355563 | 5.355843 |
| 0.720 | 5.356123 | 5.356403 | 5.356683 | 5.356963 | 5.357243 | 5.357523 | 5.357803 | 5.358083 | 5.358363 | 5.358643 |
| 0.730 | 5.358923 | 5.359203 | 5.359483 | 5.359763 | 5.360043 | 5.360323 | 5.360604 | 5.360884 | 5.361164 | 5.361444 |
| 0.740 | 5.361724 | 5.362004 | 5.362284 | 5.362565 | 5.362845 | 5.363125 | 5.363405 | 5.363686 | 5.363966 | 5.364246 |
| 0.750 | 5.364526 | 5.364807 | 5.365087 | 5.365367 | 5.365647 | 5.365928 | 5.366208 | 5.366488 | 5.366769 | 5.367049 |
| 0.760 | 5.367330 | 5.367610 | 5.367890 | 5.368171 | 5.368451 | 5.368731 | 5.369012 | 5.369292 | 5.369573 | 5.369853 |
| 0.770 | 5.370134 | 5.370414 | 5.370695 | 5.370975 | 5.371256 | 5.371536 | 5.371817 | 5.372097 | 5.372378 | 5.372658 |
| 0.780 | 5.372933 | 5.373219 | 5.373500 | 5.373781 | 5.374061 | 5.374342 | 5.374622 | 5.374903 | 5.375184 | 5.375464 |
| 0.790 | 5.375745 | 5.376026 | 5.376306 | 5.376587 | 5.376868 | 5.377148 | 5.377429 | 5.377710 | 5.377991 | 5.378271 |
| 0.800 | 5.378552 | 5.378833 | 5.379114 | 5.379394 | 5.379675 | 5.379956 | 5.380237 | 5.380518 | 5.380799 | 5.381079 |
| 0.810 | 5.381360 | 5.381641 | 5.381922 | 5.382203 | 5.382484 | 5.382765 | 5.383046 | 5.383326 | 5.383607 | 5.383888 |
| 0.820 | 5.384169 | 5.384450 | 5.384731 | 5.385012 | 5.385293 | 5.385574 | 5.385855 | 5.386136 | 5.386417 | 5.386698 |
| 0.830 | 5.386979 | 5.387260 | 5.387542 | 5.387823 | 5.388104 | 5.388385 | 5.388666 | 5.388947 | 5.389228 | 5.389509 |
| 0.840 | 5.389790 | 5.390072 | 5.390353 | 5.390634 | 5.390915 | 5.391196 | 5.391478 | 5.391759 | 5.392040 | 5.392321 |
| 0.850 | 5.392603 | 5.392884 | 5.393165 | 5.393446 | 5.393728 | 5.394009 | 5.394290 | 5.394571 | 5.394853 | 5.395134 |
| 0.860 | 5.395415 | 5.395697 | 5.395978 | 5.396260 | 5.396541 | 5.396822 | 5.397104 | 5.397385 | 5.397667 | 5.397948 |
| 0.870 | 5.398230 | 5.398511 | 5.398792 | 5.399074 | 5.399355 | 5.399637 | 5.399918 | 5.400200 | 5.400481 | 5.400763 |
| 0.880 | 5.401044 | 5.401326 | 5.401608 | 5.401889 | 5.402171 | 5.402452 | 5.402734 | 5.403016 | 5.403297 | 5.403579 |
| 0.890 | 5.403861 | 5.404142 | 5.404424 | 5.404705 | 5.404987 | 5.405269 | 5.405551 | 5.405832 | 5.406114 | 5.406396 |
| 0.900 | 5.406677 | 5.406959 | 5.407241 | 5.407523 | 5.407805 | 5.408086 | 5.408368 | 5.408650 | 5.408932 | 5.409214 |
| 0.910 | 5.409405 | 5.409777 | 5.410059 | 5.410341 | 5.410623 | 5.410905 | 5.411187 | 5.411469 | 5.411750 | 5.412032 |
| 0.920 | 5.412314 | 5.412596 | 5.412878 | 5.413160 | 5.413442 | 5.413724 | 5.414006 | 5.414288 | 5.414570 | 5.414852 |
| 0.930 | 5.415134 | 5.415416 | 5.415698 | 5.415980 | 5.416262 | 5.416544 | 5.416827 | 5.417109 | 5.417391 | 5.417673 |
| 0.940 | 5.417955 | 5.418237 | 5.418519 | 5.418802 | 5.419084 | 5.419366 | 5.419648 | 5.419930 | 5.420213 | 5.420495 |
| 0.950 | 5.420777 | 5.421059 | 5.421342 | 5.421624 | 5.421906 | 5.422188 | 5.422471 | 5.422753 | 5.423035 | 5.423318 |
| 0.960 | 5.423600 | 5.423882 | 5.424165 | 5.424447 | 5.424729 | 5.425012 | 5.425294 | 5.425577 | 5.425859 | 5.426141 |
| 0.970 | 5.426424 | 5.426706 | 5.426989 | 5.427271 | 5.427554 | 5.427836 | 5.428119 | 5.428401 | 5.428684 | 5.428966 |
| 0.980 | 5.429249 | 5.429531 | 5.429814 | 5.430096 | 5.430379 | 5.430661 | 5.430944 | 5.431227 | 5.431509 | 5.431792 |
| 0.990 | 5.432075 | 5.432357 | 5.432640 | 5.432923 | 5.433205 | 5.433488 | 5.433771 | 5.434053 | 5.434336 | 5.434619 |

ATTENUATION IN DECIBELS
THETA FROM 43.000 TO 43.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 5.434901 | 5.435184 | 5.435467 | 5.435750 | 5.436032 | 5.436315 | 5.436598 | 5.436881 | 5.437164 | 5.437446 |
| 0.010 | 5.437729 | 5.438012 | 5.438295 | 5.438578 | 5.438861 | 5.439144 | 5.439426 | 5.439709 | 5.439992 | 5.440275 |
| 0.020 | 5.440558 | 5.440841 | 5.441124 | 5.441407 | 5.441690 | 5.441973 | 5.442256 | 5.442539 | 5.442822 | 5.443105 |
| 0.030 | 5.443388 | 5.443671 | 5.443954 | 5.444237 | 5.444520 | 5.444803 | 5.445086 | 5.445369 | 5.445652 | 5.445935 |
| 0.040 | 5.446219 | 5.446502 | 5.446785 | 5.447068 | 5.447351 | 5.447634 | 5.447918 | 5.448201 | 5.448484 | 5.448767 |
| 0.050 | 5.449050 | 5.449334 | 5.449617 | 5.449900 | 5.450183 | 5.450466 | 5.450750 | 5.451033 | 5.451317 | 5.451600 |
| 0.060 | 5.451883 | 5.452167 | 5.452450 | 5.452733 | 5.453017 | 5.453300 | 5.453583 | 5.453867 | 5.454150 | 5.454434 |
| 0.070 | 5.454717 | 5.455000 | 5.455284 | 5.455567 | 5.455851 | 5.456134 | 5.456418 | 5.456701 | 5.456985 | 5.457268 |
| 0.080 | 5.457552 | 5.457835 | 5.458119 | 5.458402 | 5.458686 | 5.458970 | 5.459253 | 5.459537 | 5.459820 | 5.460104 |
| 0.090 | 5.460388 | 5.460671 | 5.460955 | 5.461239 | 5.461522 | 5.461806 | 5.462089 | 5.462373 | 5.462657 | 5.462941 |
| 0.100 | 5.463224 | 5.463508 | 5.463792 | 5.464076 | 5.464359 | 5.464643 | 5.464927 | 5.465211 | 5.465494 | 5.465778 |
| 0.110 | 5.466062 | 5.466346 | 5.466630 | 5.466914 | 5.467197 | 5.467481 | 5.467765 | 5.468049 | 5.468333 | 5.468617 |
| 0.120 | 5.468901 | 5.469185 | 5.469469 | 5.469753 | 5.470037 | 5.470321 | 5.470604 | 5.470888 | 5.471172 | 5.471456 |
| 0.130 | 5.471740 | 5.472025 | 5.472309 | 5.472593 | 5.472877 | 5.473161 | 5.473445 | 5.473729 | 5.474013 | 5.474297 |
| 0.140 | 5.474581 | 5.474865 | 5.475150 | 5.475434 | 5.475718 | 5.476002 | 5.476286 | 5.476570 | 5.476855 | 5.477139 |
| 0.150 | 5.477423 | 5.477707 | 5.477991 | 5.478276 | 5.478560 | 5.478844 | 5.479128 | 5.479413 | 5.479697 | 5.479981 |
| 0.160 | 5.480266 | 5.480550 | 5.480834 | 5.481119 | 5.481403 | 5.481687 | 5.481972 | 5.482256 | 5.482541 | 5.482825 |
| 0.170 | 5.483109 | 5.483394 | 5.483678 | 5.483963 | 5.484247 | 5.484532 | 5.484816 | 5.485101 | 5.485385 | 5.485670 |
| 0.180 | 5.485954 | 5.486239 | 5.486523 | 5.486808 | 5.487092 | 5.487377 | 5.487661 | 5.487946 | 5.488231 | 5.488515 |
| 0.190 | 5.488800 | 5.489084 | 5.489369 | 5.489654 | 5.489938 | 5.490223 | 5.490508 | 5.490792 | 5.491077 | 5.491362 |
| 0.200 | 5.491646 | 5.491931 | 5.492216 | 5.492501 | 5.492785 | 5.493070 | 5.493355 | 5.493640 | 5.493924 | 5.494209 |
| 0.210 | 5.494494 | 5.494779 | 5.495064 | 5.495349 | 5.495633 | 5.495918 | 5.496203 | 5.496488 | 5.496773 | 5.497058 |
| 0.220 | 5.497343 | 5.497628 | 5.497913 | 5.498198 | 5.498483 | 5.498768 | 5.499053 | 5.499337 | 5.499622 | 5.499907 |
| 0.230 | 5.500193 | 5.500477 | 5.500763 | 5.501048 | 5.501333 | 5.501618 | 5.501903 | 5.502188 | 5.502473 | 5.502758 |
| 0.240 | 5.503043 | 5.503328 | 5.503613 | 5.503899 | 5.504184 | 5.504469 | 5.504754 | 5.505039 | 5.505324 | 5.505610 |
| 0.250 | 5.505895 | 5.506180 | 5.506465 | 5.506751 | 5.507036 | 5.507321 | 5.507606 | 5.507892 | 5.508177 | 5.508462 |
| 0.260 | 5.508748 | 5.509033 | 5.509318 | 5.509604 | 5.509889 | 5.510174 | 5.510460 | 5.510745 | 5.511030 | 5.511316 |
| 0.270 | 5.511601 | 5.511887 | 5.512172 | 5.512457 | 5.512743 | 5.513028 | 5.513314 | 5.513599 | 5.513885 | 5.514170 |
| 0.280 | 5.514456 | 5.514741 | 5.515027 | 5.515312 | 5.515598 | 5.515884 | 5.516169 | 5.516455 | 5.516740 | 5.517026 |
| 0.290 | 5.517312 | 5.517597 | 5.517883 | 5.518168 | 5.518454 | 5.518740 | 5.519025 | 5.519311 | 5.519597 | 5.519882 |
| 0.300 | 5.520168 | 5.520454 | 5.520740 | 5.521025 | 5.521311 | 5.521597 | 5.521883 | 5.522168 | 5.522454 | 5.522740 |
| 0.310 | 5.523026 | 5.523312 | 5.523597 | 5.523883 | 5.524169 | 5.524455 | 5.524741 | 5.525027 | 5.525313 | 5.525599 |
| 0.320 | 5.525895 | 5.526179 | 5.526466 | 5.526742 | 5.527028 | 5.527314 | 5.527600 | 5.527886 | 5.528172 | 5.528458 |
| 0.330 | 5.528744 | 5.529030 | 5.529316 | 5.529602 | 5.529888 | 5.530174 | 5.530460 | 5.530747 | 5.531033 | 5.531319 |
| 0.340 | 5.531605 | 5.531891 | 5.532177 | 5.532463 | 5.532749 | 5.533035 | 5.533321 | 5.533608 | 5.533894 | 5.534180 |
| 0.350 | 5.534467 | 5.534753 | 5.535039 | 5.535325 | 5.535611 | 5.535898 | 5.536184 | 5.536470 | 5.536757 | 5.537043 |
| 0.360 | 5.537329 | 5.537615 | 5.537902 | 5.538188 | 5.538475 | 5.538761 | 5.539047 | 5.539334 | 5.539620 | 5.539906 |
| 0.370 | 5.540193 | 5.540479 | 5.540766 | 5.541052 | 5.541339 | 5.541625 | 5.541911 | 5.542198 | 5.542484 | 5.542771 |
| 0.380 | 5.543058 | 5.543344 | 5.543631 | 5.543917 | 5.544204 | 5.544490 | 5.544777 | 5.545063 | 5.545350 | 5.545637 |
| 0.390 | 5.545923 | 5.546210 | 5.546496 | 5.546783 | 5.547070 | 5.547356 | 5.547643 | 5.547930 | 5.548216 | 5.548503 |
| 0.400 | 5.549077 | 5.549363 | 5.549650 | 5.549937 | 5.550224 | 5.550510 | 5.550797 | 5.551084 | 5.551371 | 5.551658 |
| 0.410 | 5.551657 | 5.551944 | 5.552231 | 5.552518 | 5.552805 | 5.553092 | 5.553379 | 5.553665 | 5.553952 | 5.554239 |
| 0.420 | 5.554526 | 5.554813 | 5.555100 | 5.555387 | 5.555674 | 5.555961 | 5.556248 | 5.556535 | 5.556822 | 5.557109 |
| 0.430 | 5.557376 | 5.557663 | 5.557950 | 5.558237 | 5.558524 | 5.558811 | 5.559098 | 5.559385 | 5.559672 | 5.559959 |
| 0.440 | 5.560266 | 5.560554 | 5.560841 | 5.561128 | 5.561415 | 5.561702 | 5.561989 | 5.562277 | 5.562564 | 5.562851 |
| 0.450 | 5.563138 | 5.563425 | 5.563713 | 5.564000 | 5.564287 | 5.564574 | 5.564862 | 5.565149 | 5.565436 | 5.565724 |
| 0.460 | 5.566011 | 5.566298 | 5.566586 | 5.566873 | 5.567160 | 5.567448 | 5.567735 | 5.568022 | 5.568310 | 5.568597 |
| 0.470 | 5.568895 | 5.569182 | 5.569469 | 5.569757 | 5.570044 | 5.570332 | 5.570619 | 5.570907 | 5.571194 | 5.571482 |
| 0.480 | 5.571759 | 5.572047 | 5.572334 | 5.572622 | 5.572909 | 5.573197 | 5.573485 | 5.573772 | 5.574060 | 5.574347 |
| 0.490 | 5.574635 | 5.574923 | 5.575210 | 5.575498 | 5.575786 | 5.576073 | 5.576361 | 5.576649 | 5.576936 | 5.577224 |

ATTENUATION IN DECIBELS
 THETA FROM 43.500 TO 43.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 5.577512 | 5.577799 | 5.578087 | 5.578375 | 5.578663 | 5.578950 | 5.579238 | 5.579526 | 5.579814 | 5.580102 |
| 0.510 | 5.580389 | 5.580677 | 5.580965 | 5.581253 | 5.581541 | 5.581829 | 5.582117 | 5.582404 | 5.582692 | 5.582980 |
| 0.520 | 5.583268 | 5.583556 | 5.583844 | 5.584132 | 5.584420 | 5.584708 | 5.584996 | 5.585284 | 5.585572 | 5.585860 |
| 0.530 | 5.586148 | 5.586436 | 5.586724 | 5.587012 | 5.587300 | 5.587588 | 5.587876 | 5.588164 | 5.588452 | 5.588740 |
| 0.540 | 5.589029 | 5.589317 | 5.589605 | 5.589893 | 5.590181 | 5.590469 | 5.590757 | 5.591046 | 5.591334 | 5.591622 |
| 0.550 | 5.591910 | 5.592199 | 5.592487 | 5.592775 | 5.593063 | 5.593352 | 5.593640 | 5.593928 | 5.594216 | 5.594505 |
| 0.560 | 5.594793 | 5.595081 | 5.595369 | 5.595657 | 5.595946 | 5.596234 | 5.596522 | 5.596810 | 5.597098 | 5.597388 |
| 0.570 | 5.597677 | 5.597965 | 5.598254 | 5.598542 | 5.598831 | 5.599119 | 5.599408 | 5.599696 | 5.599985 | 5.600273 |
| 0.580 | 5.600562 | 5.600850 | 5.601139 | 5.601427 | 5.601716 | 5.602004 | 5.602293 | 5.602582 | 5.602870 | 5.603159 |
| 0.590 | 5.603447 | 5.603736 | 5.604025 | 5.604313 | 5.604602 | 5.604891 | 5.605179 | 5.605468 | 5.605757 | 5.606045 |
| 0.600 | 5.606334 | 5.606623 | 5.606912 | 5.607200 | 5.607489 | 5.607778 | 5.608067 | 5.608355 | 5.608644 | 5.608933 |
| 0.610 | 5.609222 | 5.609511 | 5.609800 | 5.610088 | 5.610377 | 5.610666 | 5.610955 | 5.611244 | 5.611533 | 5.611822 |
| 0.620 | 5.612111 | 5.612400 | 5.612689 | 5.612978 | 5.613267 | 5.613555 | 5.613845 | 5.614133 | 5.614423 | 5.614712 |
| 0.630 | 5.615001 | 5.615290 | 5.615579 | 5.615868 | 5.616157 | 5.616446 | 5.616735 | 5.617024 | 5.617313 | 5.617602 |
| 0.640 | 5.617891 | 5.618181 | 5.618470 | 5.618759 | 5.619048 | 5.619337 | 5.619626 | 5.619916 | 5.620205 | 5.620494 |
| 0.650 | 5.620783 | 5.621072 | 5.621362 | 5.621651 | 5.621940 | 5.622229 | 5.622519 | 5.622808 | 5.623097 | 5.623387 |
| 0.660 | 5.623676 | 5.623965 | 5.624255 | 5.624544 | 5.624833 | 5.625123 | 5.625412 | 5.625702 | 5.625991 | 5.626280 |
| 0.670 | 5.626570 | 5.626859 | 5.627149 | 5.627438 | 5.627728 | 5.628017 | 5.628307 | 5.628596 | 5.628886 | 5.629175 |
| 0.680 | 5.629465 | 5.629754 | 5.630044 | 5.630333 | 5.630623 | 5.630913 | 5.631202 | 5.631492 | 5.631781 | 5.632071 |
| 0.690 | 5.632361 | 5.632650 | 5.632940 | 5.633230 | 5.633519 | 5.633809 | 5.634099 | 5.634388 | 5.634678 | 5.634968 |
| 0.700 | 5.635257 | 5.635547 | 5.635837 | 5.636127 | 5.636417 | 5.636706 | 5.636996 | 5.637286 | 5.637576 | 5.637866 |
| 0.710 | 5.638155 | 5.638445 | 5.638735 | 5.639025 | 5.639315 | 5.639605 | 5.639895 | 5.640185 | 5.640474 | 5.640764 |
| 0.720 | 5.641054 | 5.641344 | 5.641634 | 5.641924 | 5.642214 | 5.642504 | 5.642794 | 5.643084 | 5.643374 | 5.643664 |
| 0.730 | 5.643954 | 5.644244 | 5.644534 | 5.644824 | 5.645114 | 5.645405 | 5.645695 | 5.645985 | 5.646275 | 5.646565 |
| 0.740 | 5.646855 | 5.647145 | 5.647435 | 5.647726 | 5.648016 | 5.648306 | 5.648596 | 5.648886 | 5.649177 | 5.649467 |
| 0.750 | 5.649757 | 5.650047 | 5.650338 | 5.650628 | 5.650918 | 5.651208 | 5.651499 | 5.651789 | 5.652079 | 5.652370 |
| 0.760 | 5.652660 | 5.652950 | 5.653241 | 5.653531 | 5.653822 | 5.654112 | 5.654402 | 5.654693 | 5.654983 | 5.655274 |
| 0.770 | 5.655564 | 5.655855 | 5.656145 | 5.656435 | 5.656726 | 5.657016 | 5.657307 | 5.657597 | 5.657888 | 5.658179 |
| 0.780 | 5.658469 | 5.658760 | 5.659050 | 5.659341 | 5.659632 | 5.659922 | 5.660213 | 5.660503 | 5.660794 | 5.661084 |
| 0.790 | 5.661375 | 5.661666 | 5.661956 | 5.662247 | 5.662538 | 5.662828 | 5.663119 | 5.663410 | 5.663701 | 5.663991 |
| 0.800 | 5.664282 | 5.664573 | 5.664864 | 5.665154 | 5.665445 | 5.665736 | 5.666027 | 5.666318 | 5.666608 | 5.666899 |
| 0.810 | 5.667190 | 5.667481 | 5.667772 | 5.668063 | 5.668354 | 5.668645 | 5.668935 | 5.669226 | 5.669517 | 5.669808 |
| 0.820 | 5.670099 | 5.670390 | 5.670681 | 5.670972 | 5.671263 | 5.671554 | 5.671845 | 5.672136 | 5.672427 | 5.672718 |
| 0.830 | 5.673009 | 5.673300 | 5.673591 | 5.673882 | 5.674174 | 5.674465 | 5.674756 | 5.675047 | 5.675338 | 5.675629 |
| 0.840 | 5.675920 | 5.676212 | 5.676503 | 5.676794 | 5.677085 | 5.677376 | 5.677667 | 5.677959 | 5.678250 | 5.678541 |
| 0.850 | 5.678832 | 5.679124 | 5.679415 | 5.679706 | 5.679998 | 5.680289 | 5.680580 | 5.680872 | 5.681163 | 5.681454 |
| 0.860 | 5.681746 | 5.682037 | 5.682328 | 5.682620 | 5.682911 | 5.683203 | 5.683494 | 5.683785 | 5.684077 | 5.684368 |
| 0.870 | 5.684660 | 5.684951 | 5.685243 | 5.685534 | 5.685826 | 5.686117 | 5.686409 | 5.686700 | 5.686992 | 5.687283 |
| 0.880 | 5.687575 | 5.687866 | 5.688158 | 5.688450 | 5.688741 | 5.689033 | 5.689324 | 5.689616 | 5.689908 | 5.690199 |
| 0.890 | 5.690491 | 5.690783 | 5.691074 | 5.691366 | 5.691658 | 5.691950 | 5.692242 | 5.692534 | 5.692826 | 5.693118 |
| 0.900 | 5.693408 | 5.693700 | 5.693992 | 5.694284 | 5.694575 | 5.694867 | 5.695159 | 5.695451 | 5.695743 | 5.696035 |
| 0.910 | 5.696326 | 5.696618 | 5.696910 | 5.697202 | 5.697494 | 5.697786 | 5.698078 | 5.698370 | 5.698662 | 5.698954 |
| 0.920 | 5.699246 | 5.699538 | 5.699830 | 5.700122 | 5.700414 | 5.700706 | 5.700998 | 5.701290 | 5.701582 | 5.701874 |
| 0.930 | 5.702166 | 5.702458 | 5.702750 | 5.703042 | 5.703334 | 5.703627 | 5.703919 | 5.704211 | 5.704503 | 5.704795 |
| 0.940 | 5.705087 | 5.705379 | 5.705672 | 5.705964 | 5.706256 | 5.706548 | 5.706841 | 5.707133 | 5.707425 | 5.707717 |
| 0.950 | 5.708010 | 5.708302 | 5.708594 | 5.708886 | 5.709179 | 5.709471 | 5.709763 | 5.710056 | 5.710348 | 5.710640 |
| 0.960 | 5.710933 | 5.711225 | 5.711518 | 5.711810 | 5.712102 | 5.712395 | 5.712687 | 5.712980 | 5.713272 | 5.713565 |
| 0.970 | 5.713857 | 5.714150 | 5.714442 | 5.714735 | 5.715027 | 5.715320 | 5.715612 | 5.715905 | 5.716197 | 5.716490 |
| 0.980 | 5.716783 | 5.717075 | 5.717368 | 5.717660 | 5.717953 | 5.718246 | 5.718538 | 5.718831 | 5.719124 | 5.719416 |
| 0.990 | 5.719709 | 5.720002 | 5.720294 | 5.720587 | 5.720880 | 5.721173 | 5.721465 | 5.721758 | 5.722051 | 5.722344 |

ATTENUATION IN DECIBELS
 THETA FROM 44.000 TO 44.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 5.722636 | 5.722929 | 5.723222 | 5.723515 | 5.723808 | 5.724100 | 5.724393 | 5.724686 | 5.724979 | 5.725272 |
| 0.010 | 5.725565 | 5.725858 | 5.726151 | 5.726444 | 5.726736 | 5.727029 | 5.727322 | 5.727615 | 5.727908 | 5.728201 |
| 0.020 | 5.728494 | 5.728787 | 5.729080 | 5.729373 | 5.729666 | 5.729959 | 5.730252 | 5.730545 | 5.730838 | 5.731132 |
| 0.030 | 5.731425 | 5.731718 | 5.732011 | 5.732304 | 5.732597 | 5.732890 | 5.733184 | 5.733477 | 5.733770 | 5.734063 |
| 0.040 | 5.734356 | 5.734649 | 5.734943 | 5.735236 | 5.735529 | 5.735822 | 5.736116 | 5.736409 | 5.736702 | 5.736995 |
| 0.050 | 5.737289 | 5.737582 | 5.737875 | 5.738169 | 5.738462 | 5.738755 | 5.739049 | 5.739342 | 5.739636 | 5.739929 |
| 0.060 | 5.740222 | 5.740516 | 5.740809 | 5.741103 | 5.741396 | 5.741689 | 5.741983 | 5.742276 | 5.742570 | 5.742863 |
| 0.070 | 5.743157 | 5.743450 | 5.743744 | 5.744037 | 5.744331 | 5.744625 | 5.744918 | 5.745212 | 5.745505 | 5.745799 |
| 0.080 | 5.746092 | 5.746386 | 5.746680 | 5.746973 | 5.747267 | 5.747561 | 5.747854 | 5.748148 | 5.748442 | 5.748735 |
| 0.090 | 5.749029 | 5.749323 | 5.749617 | 5.749910 | 5.750204 | 5.750498 | 5.750792 | 5.751085 | 5.751379 | 5.751673 |
| 0.100 | 5.751967 | 5.752261 | 5.752554 | 5.752848 | 5.753142 | 5.753436 | 5.753730 | 5.754024 | 5.754318 | 5.754611 |
| 0.110 | 5.754905 | 5.755199 | 5.755493 | 5.755787 | 5.756081 | 5.756375 | 5.756669 | 5.756963 | 5.757257 | 5.757551 |
| 0.120 | 5.757845 | 5.758139 | 5.758433 | 5.758727 | 5.759021 | 5.759315 | 5.759609 | 5.759903 | 5.760197 | 5.760492 |
| 0.130 | 5.760786 | 5.761080 | 5.761374 | 5.761668 | 5.761962 | 5.762257 | 5.762551 | 5.762845 | 5.763139 | 5.763433 |
| 0.140 | 5.763728 | 5.764022 | 5.764316 | 5.764610 | 5.764905 | 5.765199 | 5.765493 | 5.765787 | 5.766082 | 5.766376 |
| 0.150 | 5.766670 | 5.766965 | 5.767259 | 5.767553 | 5.767848 | 5.768142 | 5.768437 | 5.768731 | 5.769025 | 5.769320 |
| 0.160 | 5.769614 | 5.769909 | 5.770203 | 5.770498 | 5.770792 | 5.771086 | 5.771381 | 5.771675 | 5.771970 | 5.772264 |
| 0.170 | 5.772559 | 5.772854 | 5.773148 | 5.773443 | 5.773737 | 5.774032 | 5.774326 | 5.774621 | 5.774916 | 5.775210 |
| 0.180 | 5.775505 | 5.775800 | 5.776094 | 5.776389 | 5.776684 | 5.776978 | 5.777273 | 5.777568 | 5.777862 | 5.778157 |
| 0.190 | 5.778452 | 5.778747 | 5.779041 | 5.779336 | 5.779631 | 5.779926 | 5.780220 | 5.780515 | 5.780810 | 5.781105 |
| 0.200 | 5.781400 | 5.781695 | 5.781989 | 5.782284 | 5.782579 | 5.782874 | 5.783169 | 5.783464 | 5.783759 | 5.784054 |
| 0.210 | 5.784349 | 5.784644 | 5.784939 | 5.785234 | 5.785529 | 5.785824 | 5.786119 | 5.786414 | 5.786709 | 5.787004 |
| 0.220 | 5.787299 | 5.787594 | 5.787889 | 5.788184 | 5.788479 | 5.788774 | 5.789069 | 5.789364 | 5.789659 | 5.789955 |
| 0.230 | 5.790250 | 5.790545 | 5.790840 | 5.791135 | 5.791430 | 5.791726 | 5.792021 | 5.792316 | 5.792611 | 5.792906 |
| 0.240 | 5.793202 | 5.793497 | 5.793792 | 5.794088 | 5.794383 | 5.794678 | 5.794973 | 5.795269 | 5.795564 | 5.795859 |
| 0.250 | 5.796155 | 5.796450 | 5.796746 | 5.797041 | 5.797336 | 5.797632 | 5.797927 | 5.798223 | 5.798518 | 5.798813 |
| 0.260 | 5.799109 | 5.799404 | 5.799700 | 5.799995 | 5.800291 | 5.800586 | 5.800882 | 5.801177 | 5.801473 | 5.801768 |
| 0.270 | 5.802064 | 5.802360 | 5.802655 | 5.802951 | 5.803246 | 5.803542 | 5.803838 | 5.804133 | 5.804429 | 5.804725 |
| 0.280 | 5.805020 | 5.805316 | 5.805612 | 5.805907 | 5.806203 | 5.806499 | 5.806794 | 5.807090 | 5.807386 | 5.807682 |
| 0.290 | 5.807977 | 5.808273 | 5.808569 | 5.808865 | 5.809161 | 5.809456 | 5.809752 | 5.810048 | 5.810344 | 5.810640 |
| 0.300 | 5.810936 | 5.811232 | 5.811527 | 5.811823 | 5.812119 | 5.812415 | 5.812711 | 5.813007 | 5.813303 | 5.813599 |
| 0.310 | 5.813895 | 5.814191 | 5.814487 | 5.814783 | 5.815079 | 5.815375 | 5.815671 | 5.815967 | 5.816263 | 5.816559 |
| 0.320 | 5.816855 | 5.817151 | 5.817447 | 5.817744 | 5.818040 | 5.818336 | 5.818632 | 5.818928 | 5.819224 | 5.819520 |
| 0.330 | 5.819817 | 5.820113 | 5.820409 | 5.820705 | 5.821001 | 5.821298 | 5.821594 | 5.821890 | 5.822186 | 5.822483 |
| 0.340 | 5.822779 | 5.823075 | 5.823372 | 5.823668 | 5.823964 | 5.824261 | 5.824557 | 5.824853 | 5.825150 | 5.825446 |
| 0.350 | 5.825742 | 5.826039 | 5.826335 | 5.826632 | 5.826928 | 5.827224 | 5.827521 | 5.827817 | 5.828114 | 5.828410 |
| 0.360 | 5.828707 | 5.829003 | 5.829300 | 5.829596 | 5.829893 | 5.830189 | 5.830486 | 5.830783 | 5.831079 | 5.831376 |
| 0.370 | 5.831672 | 5.831969 | 5.832265 | 5.832562 | 5.832859 | 5.833155 | 5.833452 | 5.833749 | 5.834045 | 5.834342 |
| 0.380 | 5.834639 | 5.834935 | 5.835232 | 5.835529 | 5.835826 | 5.836122 | 5.836419 | 5.836716 | 5.837013 | 5.837310 |
| 0.390 | 5.837606 | 5.837903 | 5.838200 | 5.838497 | 5.838794 | 5.839090 | 5.839387 | 5.839684 | 5.839981 | 5.840278 |
| 0.400 | 5.840575 | 5.840872 | 5.841169 | 5.841466 | 5.841763 | 5.842060 | 5.842357 | 5.842654 | 5.842951 | 5.843248 |
| 0.410 | 5.843545 | 5.843842 | 5.844139 | 5.844436 | 5.844733 | 5.845030 | 5.845327 | 5.845624 | 5.845921 | 5.846218 |
| 0.420 | 5.846515 | 5.846812 | 5.847109 | 5.847407 | 5.847704 | 5.848001 | 5.848298 | 5.848595 | 5.848892 | 5.849190 |
| 0.430 | 5.849487 | 5.849784 | 5.850081 | 5.850379 | 5.850676 | 5.850973 | 5.851270 | 5.851568 | 5.851865 | 5.852162 |
| 0.440 | 5.852460 | 5.852757 | 5.853054 | 5.853352 | 5.853649 | 5.853946 | 5.854244 | 5.854541 | 5.854839 | 5.855136 |
| 0.450 | 5.855433 | 5.855731 | 5.856028 | 5.856326 | 5.856623 | 5.856921 | 5.857218 | 5.857516 | 5.857813 | 5.858111 |
| 0.460 | 5.858408 | 5.858706 | 5.859003 | 5.859301 | 5.859598 | 5.859896 | 5.860194 | 5.860491 | 5.860789 | 5.861086 |
| 0.470 | 5.861384 | 5.861682 | 5.861979 | 5.862277 | 5.862575 | 5.862872 | 5.863170 | 5.863468 | 5.863765 | 5.864063 |
| 0.480 | 5.864361 | 5.864659 | 5.864956 | 5.865254 | 5.865552 | 5.865850 | 5.866148 | 5.866445 | 5.866743 | 5.867041 |
| 0.490 | 5.867339 | 5.867637 | 5.867935 | 5.868232 | 5.868530 | 5.868828 | 5.869126 | 5.869424 | 5.869722 | 5.870020 |

ATTENUATION IN DECIBELS
THETA FROM 44.500 TO 44.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 5.870318 | 5.870616 | 5.870914 | 5.871212 | 5.871510 | 5.871808 | 5.872106 | 5.872404 | 5.872702 | 5.873000 |
| 0.510 | 5.873298 | 5.873596 | 5.873894 | 5.874192 | 5.874490 | 5.874788 | 5.875086 | 5.875384 | 5.875682 | 5.875981 |
| 0.520 | 5.876279 | 5.876577 | 5.876875 | 5.877173 | 5.877472 | 5.877770 | 5.878068 | 5.878366 | 5.878664 | 5.878963 |
| 0.530 | 5.879261 | 5.879559 | 5.879857 | 5.880156 | 5.880454 | 5.880752 | 5.881051 | 5.881349 | 5.881647 | 5.881946 |
| 0.540 | 5.882244 | 5.882542 | 5.882840 | 5.883139 | 5.883438 | 5.883736 | 5.884034 | 5.884333 | 5.884631 | 5.884930 |
| 0.550 | 5.885228 | 5.885527 | 5.885825 | 5.886124 | 5.886422 | 5.886721 | 5.887019 | 5.887318 | 5.887616 | 5.887915 |
| 0.560 | 5.888213 | 5.888512 | 5.888811 | 5.889109 | 5.889408 | 5.889706 | 5.890005 | 5.890304 | 5.890602 | 5.890901 |
| 0.570 | 5.891200 | 5.891498 | 5.891797 | 5.892096 | 5.892395 | 5.892693 | 5.892992 | 5.893291 | 5.893589 | 5.893888 |
| 0.580 | 5.894187 | 5.894486 | 5.894785 | 5.895083 | 5.895382 | 5.895681 | 5.895980 | 5.896279 | 5.896578 | 5.896877 |
| 0.590 | 5.897175 | 5.897474 | 5.897773 | 5.898072 | 5.898371 | 5.898670 | 5.898969 | 5.899268 | 5.899567 | 5.899866 |
| 0.600 | 5.900165 | 5.900464 | 5.900763 | 5.901062 | 5.901361 | 5.901660 | 5.901959 | 5.902258 | 5.902557 | 5.902856 |
| 0.610 | 5.903155 | 5.903454 | 5.903753 | 5.904052 | 5.904352 | 5.904651 | 5.904950 | 5.905249 | 5.905548 | 5.905847 |
| 0.620 | 5.906147 | 5.906446 | 5.906745 | 5.907044 | 5.907344 | 5.907643 | 5.907942 | 5.908241 | 5.908541 | 5.908840 |
| 0.630 | 5.909139 | 5.909438 | 5.909738 | 5.910037 | 5.910336 | 5.910636 | 5.910935 | 5.911235 | 5.911534 | 5.911833 |
| 0.640 | 5.912133 | 5.912432 | 5.912732 | 5.913031 | 5.913330 | 5.913630 | 5.913929 | 5.914229 | 5.914528 | 5.914828 |
| 0.650 | 5.915127 | 5.915427 | 5.915726 | 5.916026 | 5.916325 | 5.916625 | 5.916925 | 5.917224 | 5.917524 | 5.917823 |
| 0.660 | 5.918123 | 5.918423 | 5.918722 | 5.919022 | 5.919322 | 5.919621 | 5.919921 | 5.920221 | 5.920520 | 5.920820 |
| 0.670 | 5.921120 | 5.921419 | 5.921719 | 5.922019 | 5.922319 | 5.922618 | 5.922918 | 5.923218 | 5.923518 | 5.923818 |
| 0.680 | 5.924117 | 5.924417 | 5.924717 | 5.925017 | 5.925317 | 5.925617 | 5.925917 | 5.926216 | 5.926516 | 5.926816 |
| 0.690 | 5.927116 | 5.927416 | 5.927716 | 5.928016 | 5.928316 | 5.928616 | 5.928916 | 5.929216 | 5.929516 | 5.929816 |
| 0.700 | 5.930116 | 5.930416 | 5.930716 | 5.931016 | 5.931316 | 5.931616 | 5.931916 | 5.932217 | 5.932517 | 5.932817 |
| 0.710 | 5.933117 | 5.933417 | 5.933717 | 5.934017 | 5.934318 | 5.934618 | 5.934918 | 5.935218 | 5.935518 | 5.935819 |
| 0.720 | 5.936119 | 5.936419 | 5.936719 | 5.937020 | 5.937320 | 5.937620 | 5.937921 | 5.938221 | 5.938521 | 5.938821 |
| 0.730 | 5.939122 | 5.939422 | 5.939723 | 5.940023 | 5.940323 | 5.940624 | 5.940924 | 5.941225 | 5.941525 | 5.941825 |
| 0.740 | 5.942126 | 5.942426 | 5.942727 | 5.943027 | 5.943328 | 5.943628 | 5.943929 | 5.944229 | 5.944530 | 5.944830 |
| 0.750 | 5.945131 | 5.945432 | 5.945732 | 5.946033 | 5.946333 | 5.946634 | 5.946935 | 5.947235 | 5.947536 | 5.947836 |
| 0.760 | 5.948137 | 5.948438 | 5.948738 | 5.949039 | 5.949340 | 5.949641 | 5.949941 | 5.950242 | 5.950543 | 5.950844 |
| 0.770 | 5.951144 | 5.951445 | 5.951746 | 5.952047 | 5.952347 | 5.952648 | 5.952949 | 5.953250 | 5.953551 | 5.953852 |
| 0.780 | 5.954153 | 5.954453 | 5.954754 | 5.955055 | 5.955356 | 5.955657 | 5.955958 | 5.956259 | 5.956560 | 5.956861 |
| 0.790 | 5.957162 | 5.957463 | 5.957764 | 5.958065 | 5.958366 | 5.958667 | 5.958968 | 5.959269 | 5.959570 | 5.959871 |
| 0.800 | 5.960172 | 5.960473 | 5.960774 | 5.961075 | 5.961377 | 5.961678 | 5.961979 | 5.962280 | 5.962581 | 5.962882 |
| 0.810 | 5.963184 | 5.963485 | 5.963786 | 5.964087 | 5.964388 | 5.964690 | 5.964991 | 5.965292 | 5.965593 | 5.965894 |
| 0.820 | 5.966196 | 5.966497 | 5.966799 | 5.967100 | 5.967401 | 5.967703 | 5.968004 | 5.968305 | 5.968607 | 5.968908 |
| 0.830 | 5.969209 | 5.969511 | 5.969812 | 5.970114 | 5.970415 | 5.970717 | 5.971018 | 5.971319 | 5.971621 | 5.971922 |
| 0.840 | 5.972224 | 5.972525 | 5.972827 | 5.973128 | 5.973430 | 5.973732 | 5.974033 | 5.974335 | 5.974636 | 5.974938 |
| 0.850 | 5.975240 | 5.975541 | 5.975843 | 5.976144 | 5.976446 | 5.976748 | 5.977049 | 5.977351 | 5.977653 | 5.977954 |
| 0.860 | 5.978256 | 5.978558 | 5.978860 | 5.979161 | 5.979463 | 5.979765 | 5.980067 | 5.980368 | 5.980670 | 5.980972 |
| 0.870 | 5.981274 | 5.981576 | 5.981878 | 5.982179 | 5.982481 | 5.982783 | 5.983085 | 5.983387 | 5.983689 | 5.983991 |
| 0.880 | 5.984293 | 5.984595 | 5.984896 | 5.985198 | 5.985500 | 5.985802 | 5.986104 | 5.986406 | 5.986708 | 5.987010 |
| 0.890 | 5.987312 | 5.987614 | 5.987916 | 5.988219 | 5.988521 | 5.988823 | 5.989125 | 5.989427 | 5.989729 | 5.990031 |
| 0.900 | 5.990333 | 5.990635 | 5.990938 | 5.991240 | 5.991542 | 5.991844 | 5.992146 | 5.992449 | 5.992751 | 5.993053 |
| 0.910 | 5.993355 | 5.993657 | 5.993960 | 5.994262 | 5.994564 | 5.994867 | 5.995169 | 5.995471 | 5.995773 | 5.996076 |
| 0.920 | 5.996378 | 5.996680 | 5.996983 | 5.997285 | 5.997588 | 5.997890 | 5.998192 | 5.998495 | 5.998797 | 5.999100 |
| 0.930 | 5.999402 | 5.999705 | 6.000007 | 6.000310 | 6.000612 | 6.000915 | 6.001217 | 6.001520 | 6.001822 | 6.002125 |
| 0.940 | 6.002427 | 6.002730 | 6.003032 | 6.003335 | 6.003638 | 6.003940 | 6.004243 | 6.004545 | 6.004848 | 6.005151 |
| 0.950 | 6.005453 | 6.005756 | 6.006059 | 6.006361 | 6.006664 | 6.006967 | 6.007270 | 6.007572 | 6.007875 | 6.008178 |
| 0.960 | 6.008481 | 6.008783 | 6.009086 | 6.009389 | 6.009692 | 6.009995 | 6.010297 | 6.010600 | 6.010903 | 6.011206 |
| 0.970 | 6.011509 | 6.011812 | 6.012115 | 6.012417 | 6.012720 | 6.013023 | 6.013326 | 6.013629 | 6.013932 | 6.014235 |
| 0.980 | 6.014538 | 6.014841 | 6.015144 | 6.015447 | 6.015750 | 6.016053 | 6.016356 | 6.016659 | 6.016962 | 6.017265 |
| 0.990 | 6.017568 | 6.017872 | 6.018175 | 6.018478 | 6.018781 | 6.019084 | 6.019387 | 6.019690 | 6.019993 | 6.020297 |

ATTENUATION IN DECIBELS
 THETA FROM 45.000 TO 45.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 6.020600 | 6.020903 | 6.021206 | 6.021510 | 6.021813 | 6.022116 | 6.022419 | 6.022722 | 6.023026 | 6.023329 |
| 0.010 | 6.023632 | 6.023936 | 6.024239 | 6.024542 | 6.024846 | 6.025149 | 6.025452 | 6.025756 | 6.026059 | 6.026362 |
| 0.020 | 6.026666 | 6.026969 | 6.027273 | 6.027576 | 6.027880 | 6.028183 | 6.028487 | 6.028790 | 6.029094 | 6.029397 |
| 0.030 | 6.029701 | 6.030004 | 6.030308 | 6.030611 | 6.030915 | 6.031218 | 6.031522 | 6.031825 | 6.032129 | 6.032433 |
| 0.040 | 6.032736 | 6.033040 | 6.033343 | 6.033647 | 6.033951 | 6.034254 | 6.034558 | 6.034862 | 6.035165 | 6.035469 |
| 0.050 | 6.035773 | 6.036077 | 6.036380 | 6.036684 | 6.036988 | 6.037292 | 6.037595 | 6.037899 | 6.038203 | 6.038507 |
| 0.060 | 6.038811 | 6.039114 | 6.039418 | 6.039722 | 6.040026 | 6.040330 | 6.040634 | 6.040938 | 6.041242 | 6.041546 |
| 0.070 | 6.041849 | 6.042153 | 6.042457 | 6.042761 | 6.043065 | 6.043369 | 6.043673 | 6.043977 | 6.044281 | 6.044585 |
| 0.080 | 6.044889 | 6.045193 | 6.045497 | 6.045802 | 6.046106 | 6.046410 | 6.046714 | 6.047018 | 6.047322 | 6.047626 |
| 0.090 | 6.047930 | 6.048234 | 6.048539 | 6.048843 | 6.049147 | 6.049451 | 6.049755 | 6.050060 | 6.050364 | 6.050668 |
| 0.100 | 6.050972 | 6.051277 | 6.051581 | 6.051885 | 6.052189 | 6.052494 | 6.052798 | 6.053102 | 6.053407 | 6.053711 |
| 0.110 | 6.054015 | 6.054320 | 6.054624 | 6.054929 | 6.055233 | 6.055537 | 6.055842 | 6.056146 | 6.056451 | 6.056755 |
| 0.120 | 6.057060 | 6.057364 | 6.057668 | 6.057973 | 6.058277 | 6.058582 | 6.058887 | 6.059191 | 6.059496 | 6.059800 |
| 0.130 | 6.060105 | 6.060409 | 6.060714 | 6.061019 | 6.061323 | 6.061628 | 6.061932 | 6.062237 | 6.062542 | 6.062846 |
| 0.140 | 6.063151 | 6.063456 | 6.063760 | 6.064065 | 6.064370 | 6.064675 | 6.064979 | 6.065284 | 6.065589 | 6.065894 |
| 0.150 | 6.066198 | 6.066503 | 6.066808 | 6.067113 | 6.067418 | 6.067722 | 6.068027 | 6.068332 | 6.068637 | 6.068942 |
| 0.160 | 6.069247 | 6.069552 | 6.069857 | 6.070161 | 6.070466 | 6.070771 | 6.071076 | 6.071381 | 6.071686 | 6.071991 |
| 0.170 | 6.072296 | 6.072601 | 6.072906 | 6.073211 | 6.073516 | 6.073821 | 6.074126 | 6.074431 | 6.074736 | 6.075042 |
| 0.180 | 6.075347 | 6.075652 | 6.075957 | 6.076262 | 6.076567 | 6.076872 | 6.077178 | 6.077483 | 6.077788 | 6.078093 |
| 0.190 | 6.078398 | 6.078704 | 6.079009 | 6.079314 | 6.079619 | 6.079925 | 6.080230 | 6.080535 | 6.080840 | 6.081146 |
| 0.200 | 6.081451 | 6.081756 | 6.082062 | 6.082367 | 6.082672 | 6.082978 | 6.083283 | 6.083588 | 6.083894 | 6.084199 |
| 0.210 | 6.084505 | 6.084810 | 6.085116 | 6.085421 | 6.085726 | 6.086032 | 6.086337 | 6.086643 | 6.086948 | 6.087254 |
| 0.220 | 6.087560 | 6.087865 | 6.088171 | 6.088476 | 6.088782 | 6.089087 | 6.089393 | 6.089698 | 6.090004 | 6.090310 |
| 0.230 | 6.090615 | 6.090921 | 6.091227 | 6.091532 | 6.091838 | 6.092144 | 6.092449 | 6.092755 | 6.093061 | 6.093367 |
| 0.240 | 6.093672 | 6.093978 | 6.094284 | 6.094590 | 6.094895 | 6.095201 | 6.095507 | 6.095813 | 6.096119 | 6.096424 |
| 0.250 | 6.096730 | 6.097036 | 6.097342 | 6.097648 | 6.097954 | 6.098260 | 6.098566 | 6.098871 | 6.099177 | 6.099483 |
| 0.260 | 6.099789 | 6.100095 | 6.100401 | 6.100707 | 6.101013 | 6.101319 | 6.101625 | 6.101931 | 6.102237 | 6.102543 |
| 0.270 | 6.102849 | 6.103155 | 6.103462 | 6.103768 | 6.104074 | 6.104380 | 6.104686 | 6.104992 | 6.105298 | 6.105604 |
| 0.280 | 6.105911 | 6.106217 | 6.106523 | 6.106829 | 6.107135 | 6.107442 | 6.107748 | 6.108054 | 6.108360 | 6.108667 |
| 0.290 | 6.108973 | 6.109279 | 6.109585 | 6.109892 | 6.110198 | 6.110504 | 6.110811 | 6.111117 | 6.111423 | 6.111730 |
| 0.300 | 6.112036 | 6.112343 | 6.112649 | 6.112955 | 6.113262 | 6.113568 | 6.113875 | 6.114181 | 6.114488 | 6.114794 |
| 0.310 | 6.115101 | 6.115407 | 6.115714 | 6.116020 | 6.116327 | 6.116633 | 6.116940 | 6.117246 | 6.117553 | 6.117859 |
| 0.320 | 6.118166 | 6.118473 | 6.118779 | 6.119086 | 6.119393 | 6.119699 | 6.120006 | 6.120313 | 6.120619 | 6.120926 |
| 0.330 | 6.121233 | 6.121539 | 6.121846 | 6.122153 | 6.122460 | 6.122766 | 6.123073 | 6.123380 | 6.123687 | 6.123993 |
| 0.340 | 6.124300 | 6.124607 | 6.124914 | 6.125221 | 6.125528 | 6.125834 | 6.126141 | 6.126448 | 6.126755 | 6.127062 |
| 0.350 | 6.127369 | 6.127676 | 6.127983 | 6.128290 | 6.128597 | 6.128904 | 6.129211 | 6.129518 | 6.129825 | 6.130132 |
| 0.360 | 6.130439 | 6.130746 | 6.131053 | 6.131360 | 6.131667 | 6.131974 | 6.132281 | 6.132588 | 6.132895 | 6.133202 |
| 0.370 | 6.133510 | 6.133817 | 6.134124 | 6.134431 | 6.134738 | 6.135045 | 6.135353 | 6.135660 | 6.135967 | 6.136274 |
| 0.380 | 6.136581 | 6.136889 | 6.137196 | 6.137503 | 6.137810 | 6.138118 | 6.138425 | 6.138732 | 6.139040 | 6.139347 |
| 0.390 | 6.139654 | 6.139962 | 6.140269 | 6.140576 | 6.140884 | 6.141191 | 6.141499 | 6.141806 | 6.142114 | 6.142421 |
| 0.400 | 6.142728 | 6.143036 | 6.143343 | 6.143651 | 6.143958 | 6.144266 | 6.144573 | 6.144881 | 6.145188 | 6.145496 |
| 0.410 | 6.145804 | 6.146111 | 6.146419 | 6.146726 | 6.147034 | 6.147341 | 6.147649 | 6.147957 | 6.148264 | 6.148572 |
| 0.420 | 6.148880 | 6.149187 | 6.149495 | 6.149803 | 6.150110 | 6.150418 | 6.150726 | 6.151034 | 6.151341 | 6.151649 |
| 0.430 | 6.151957 | 6.152265 | 6.152573 | 6.152880 | 6.153188 | 6.153496 | 6.153804 | 6.154112 | 6.154420 | 6.154727 |
| 0.440 | 6.155035 | 6.155343 | 6.155651 | 6.155959 | 6.156267 | 6.156575 | 6.156883 | 6.157191 | 6.157499 | 6.157807 |
| 0.450 | 6.158115 | 6.158423 | 6.158731 | 6.159039 | 6.159347 | 6.159655 | 6.159963 | 6.160271 | 6.160579 | 6.160887 |
| 0.460 | 6.161195 | 6.161503 | 6.161811 | 6.162120 | 6.162428 | 6.162736 | 6.163044 | 6.163352 | 6.163660 | 6.163969 |
| 0.470 | 6.164277 | 6.164585 | 6.164893 | 6.165201 | 6.165510 | 6.165818 | 6.166126 | 6.166435 | 6.166743 | 6.167051 |
| 0.480 | 6.167359 | 6.167668 | 6.167976 | 6.168284 | 6.168593 | 6.168901 | 6.169210 | 6.169518 | 6.169826 | 6.170135 |
| 0.490 | 6.170443 | 6.170752 | 6.171060 | 6.171368 | 6.171677 | 6.171985 | 6.172294 | 6.172602 | 6.172911 | 6.173219 |

ATTENUATION IN DECIBELS
THETA FROM 45.500 TO 45.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 6.173528 | 6.173836 | 6.174145 | 6.174454 | 6.174762 | 6.175071 | 6.175379 | 6.175688 | 6.175997 | 6.176305 |
| 0.510 | 6.176614 | 6.176923 | 6.177231 | 6.177540 | 6.177848 | 6.178157 | 6.178466 | 6.178775 | 6.179083 | 6.179392 |
| 0.520 | 6.179701 | 6.180010 | 6.180318 | 6.180627 | 6.180936 | 6.181245 | 6.181553 | 6.181862 | 6.182171 | 6.182480 |
| 0.530 | 6.182789 | 6.183098 | 6.183407 | 6.183715 | 6.184024 | 6.184333 | 6.184642 | 6.184951 | 6.185260 | 6.185569 |
| 0.540 | 6.185878 | 6.186187 | 6.186496 | 6.186805 | 6.187114 | 6.187423 | 6.187732 | 6.188041 | 6.188350 | 6.188659 |
| 0.550 | 6.188968 | 6.189277 | 6.189586 | 6.189895 | 6.190204 | 6.190514 | 6.190823 | 6.191132 | 6.191441 | 6.191750 |
| 0.560 | 6.192059 | 6.192369 | 6.192678 | 6.192987 | 6.193296 | 6.193605 | 6.193915 | 6.194224 | 6.194533 | 6.194842 |
| 0.570 | 6.195152 | 6.195461 | 6.195770 | 6.196080 | 6.196389 | 6.196698 | 6.197008 | 6.197317 | 6.197626 | 6.197936 |
| 0.580 | 6.198245 | 6.198555 | 6.198864 | 6.199173 | 6.199483 | 6.199792 | 6.200102 | 6.200411 | 6.200721 | 6.201030 |
| 0.590 | 6.201340 | 6.201649 | 6.201959 | 6.202268 | 6.202578 | 6.202887 | 6.203197 | 6.203506 | 6.203816 | 6.204126 |
| 0.600 | 6.204435 | 6.204745 | 6.205054 | 6.205364 | 6.205674 | 6.205983 | 6.206293 | 6.206603 | 6.206912 | 6.207222 |
| 0.610 | 6.207532 | 6.207842 | 6.208151 | 6.208461 | 6.208771 | 6.209081 | 6.209390 | 6.209700 | 6.210010 | 6.210320 |
| 0.620 | 6.210630 | 6.210939 | 6.211249 | 6.211559 | 6.211869 | 6.212179 | 6.212489 | 6.212799 | 6.213109 | 6.213418 |
| 0.630 | 6.213728 | 6.214038 | 6.214348 | 6.214658 | 6.214968 | 6.215278 | 6.215588 | 6.215898 | 6.216208 | 6.216518 |
| 0.640 | 6.216828 | 6.217138 | 6.217448 | 6.217759 | 6.218069 | 6.218379 | 6.218689 | 6.218999 | 6.219309 | 6.219619 |
| 0.650 | 6.219929 | 6.220240 | 6.220550 | 6.220860 | 6.221170 | 6.221480 | 6.221790 | 6.222101 | 6.222411 | 6.222721 |
| 0.660 | 6.223031 | 6.223342 | 6.223652 | 6.223962 | 6.224273 | 6.224583 | 6.224893 | 6.225204 | 6.225514 | 6.225824 |
| 0.670 | 6.226135 | 6.226445 | 6.226755 | 6.227066 | 6.227376 | 6.227687 | 6.227997 | 6.228307 | 6.228618 | 6.228928 |
| 0.680 | 6.229239 | 6.229549 | 6.229860 | 6.230170 | 6.230481 | 6.230791 | 6.231102 | 6.231412 | 6.231723 | 6.232034 |
| 0.690 | 6.232344 | 6.232655 | 6.232965 | 6.233276 | 6.233587 | 6.233897 | 6.234208 | 6.234519 | 6.234829 | 6.235140 |
| 0.700 | 6.235451 | 6.235761 | 6.236072 | 6.236383 | 6.236693 | 6.237004 | 6.237315 | 6.237626 | 6.237936 | 6.238247 |
| 0.710 | 6.238858 | 6.239168 | 6.239479 | 6.239790 | 6.240101 | 6.240412 | 6.240723 | 6.241034 | 6.241345 | 6.241656 |
| 0.720 | 6.241667 | 6.241978 | 6.242288 | 6.242599 | 6.242910 | 6.243221 | 6.243532 | 6.243843 | 6.244154 | 6.244465 |
| 0.730 | 6.244776 | 6.245087 | 6.245398 | 6.245709 | 6.246020 | 6.246332 | 6.246643 | 6.246955 | 6.247266 | 6.247578 |
| 0.740 | 6.247887 | 6.248198 | 6.248509 | 6.248820 | 6.249132 | 6.249443 | 6.249754 | 6.250065 | 6.250376 | 6.250688 |
| 0.750 | 6.250999 | 6.251310 | 6.251621 | 6.251933 | 6.252244 | 6.252555 | 6.252867 | 6.253178 | 6.253489 | 6.253800 |
| 0.760 | 6.254112 | 6.254423 | 6.254735 | 6.255046 | 6.255357 | 6.255669 | 6.255980 | 6.256292 | 6.256603 | 6.256914 |
| 0.770 | 6.257226 | 6.257537 | 6.257849 | 6.258160 | 6.258472 | 6.258783 | 6.259095 | 6.259406 | 6.259718 | 6.260029 |
| 0.780 | 6.260341 | 6.260652 | 6.260964 | 6.261276 | 6.261587 | 6.261899 | 6.262210 | 6.262522 | 6.262834 | 6.263145 |
| 0.790 | 6.263457 | 6.263769 | 6.264080 | 6.264392 | 6.264704 | 6.265016 | 6.265327 | 6.265639 | 6.265951 | 6.266263 |
| 0.800 | 6.266574 | 6.266886 | 6.267198 | 6.267510 | 6.267822 | 6.268133 | 6.268445 | 6.268757 | 6.269069 | 6.269381 |
| 0.810 | 6.269693 | 6.270005 | 6.270317 | 6.270628 | 6.270940 | 6.271252 | 6.271564 | 6.271876 | 6.272188 | 6.272500 |
| 0.820 | 6.272812 | 6.273124 | 6.273436 | 6.273748 | 6.274060 | 6.274372 | 6.274684 | 6.274996 | 6.275309 | 6.275621 |
| 0.830 | 6.275933 | 6.276245 | 6.276557 | 6.276869 | 6.277181 | 6.277493 | 6.277806 | 6.278118 | 6.278430 | 6.278742 |
| 0.840 | 6.279054 | 6.279367 | 6.279679 | 6.279991 | 6.280303 | 6.280616 | 6.280928 | 6.281240 | 6.281552 | 6.281865 |
| 0.850 | 6.282177 | 6.282489 | 6.282802 | 6.283114 | 6.283426 | 6.283739 | 6.284051 | 6.284364 | 6.284676 | 6.284988 |
| 0.860 | 6.285301 | 6.285613 | 6.285926 | 6.286238 | 6.286551 | 6.286863 | 6.287176 | 6.287488 | 6.287801 | 6.288113 |
| 0.870 | 6.288426 | 6.288738 | 6.289051 | 6.289364 | 6.289676 | 6.289989 | 6.290302 | 6.290614 | 6.290927 | 6.291239 |
| 0.880 | 6.291552 | 6.291864 | 6.292177 | 6.292490 | 6.292803 | 6.293115 | 6.293428 | 6.293741 | 6.294053 | 6.294366 |
| 0.890 | 6.294679 | 6.294992 | 6.295304 | 6.295617 | 6.295930 | 6.296243 | 6.296556 | 6.296869 | 6.297181 | 6.297494 |
| 0.900 | 6.297807 | 6.298120 | 6.298433 | 6.298746 | 6.299059 | 6.299372 | 6.299685 | 6.299997 | 6.300310 | 6.300623 |
| 0.910 | 6.300936 | 6.301249 | 6.301562 | 6.301875 | 6.302188 | 6.302501 | 6.302814 | 6.303127 | 6.303441 | 6.303754 |
| 0.920 | 6.304067 | 6.304380 | 6.304693 | 6.305006 | 6.305319 | 6.305632 | 6.305945 | 6.306259 | 6.306572 | 6.306885 |
| 0.930 | 6.307198 | 6.307511 | 6.307825 | 6.308138 | 6.308451 | 6.308764 | 6.309078 | 6.309391 | 6.309704 | 6.310017 |
| 0.940 | 6.310331 | 6.310644 | 6.310957 | 6.311271 | 6.311584 | 6.311897 | 6.312211 | 6.312524 | 6.312838 | 6.313151 |
| 0.950 | 6.313464 | 6.313778 | 6.314091 | 6.314405 | 6.314718 | 6.315032 | 6.315345 | 6.315659 | 6.315972 | 6.316286 |
| 0.960 | 6.316599 | 6.316913 | 6.317226 | 6.317540 | 6.317853 | 6.318167 | 6.318480 | 6.318794 | 6.319108 | 6.319421 |
| 0.970 | 6.319735 | 6.320049 | 6.320362 | 6.320676 | 6.320990 | 6.321303 | 6.321617 | 6.321931 | 6.322244 | 6.322558 |
| 0.980 | 6.322872 | 6.323186 | 6.323499 | 6.323813 | 6.324127 | 6.324441 | 6.324755 | 6.325069 | 6.325382 | 6.325696 |
| 0.990 | 6.326010 | 6.326324 | 6.326638 | 6.326952 | 6.327265 | 6.327579 | 6.327893 | 6.328207 | 6.328521 | 6.328835 |

ATTENUATION IN DECIBELS
THETA FROM 46.000 TO 46.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 6.329149 | 6.329463 | 6.329777 | 6.330091 | 6.330405 | 6.330719 | 6.331033 | 6.331347 | 6.331661 | 6.331975 |
| 0.010 | 6.332289 | 6.332603 | 6.332917 | 6.333232 | 6.333546 | 6.333860 | 6.334174 | 6.334488 | 6.334802 | 6.335116 |
| 0.020 | 6.335431 | 6.335745 | 6.336059 | 6.336373 | 6.336687 | 6.337002 | 6.337316 | 6.337630 | 6.337944 | 6.338259 |
| 0.030 | 6.338573 | 6.338887 | 6.339202 | 6.339516 | 6.339830 | 6.340145 | 6.340459 | 6.340773 | 6.341088 | 6.341402 |
| 0.040 | 6.341717 | 6.342031 | 6.342345 | 6.342660 | 6.342974 | 6.343289 | 6.343603 | 6.343918 | 6.344232 | 6.344547 |
| 0.050 | 6.344861 | 6.345176 | 6.345490 | 6.345805 | 6.346119 | 6.346434 | 6.346748 | 6.347063 | 6.347378 | 6.347692 |
| 0.060 | 6.348007 | 6.348321 | 6.348636 | 6.348951 | 6.349265 | 6.349580 | 6.349895 | 6.350209 | 6.350524 | 6.350839 |
| 0.070 | 6.351154 | 6.351468 | 6.351783 | 6.352098 | 6.352413 | 6.352727 | 6.353042 | 6.353357 | 6.353672 | 6.353987 |
| 0.080 | 6.354302 | 6.354616 | 6.354931 | 6.355246 | 6.355561 | 6.355876 | 6.356191 | 6.356506 | 6.356821 | 6.357136 |
| 0.090 | 6.357451 | 6.357766 | 6.358081 | 6.358396 | 6.358711 | 6.359025 | 6.359340 | 6.359655 | 6.359970 | 6.360286 |
| 0.100 | 6.360601 | 6.360916 | 6.361231 | 6.361546 | 6.361861 | 6.362176 | 6.362491 | 6.362806 | 6.363122 | 6.363437 |
| 0.110 | 6.363752 | 6.364067 | 6.364382 | 6.364697 | 6.365013 | 6.365328 | 6.365643 | 6.365958 | 6.366274 | 6.366589 |
| 0.120 | 6.366904 | 6.367220 | 6.367535 | 6.367850 | 6.368165 | 6.368481 | 6.368796 | 6.369111 | 6.369427 | 6.369742 |
| 0.130 | 6.370058 | 6.370373 | 6.370688 | 6.371004 | 6.371319 | 6.371635 | 6.371950 | 6.372266 | 6.372581 | 6.372897 |
| 0.140 | 6.373212 | 6.373528 | 6.373843 | 6.374159 | 6.374474 | 6.374790 | 6.375105 | 6.375421 | 6.375737 | 6.376052 |
| 0.150 | 6.376368 | 6.376683 | 6.376999 | 6.377315 | 6.377630 | 6.377946 | 6.378262 | 6.378577 | 6.378893 | 6.379209 |
| 0.160 | 6.379524 | 6.379840 | 6.380156 | 6.380472 | 6.380787 | 6.381103 | 6.381419 | 6.381735 | 6.382051 | 6.382366 |
| 0.170 | 6.382682 | 6.382998 | 6.383314 | 6.383630 | 6.383946 | 6.384262 | 6.384578 | 6.384893 | 6.385209 | 6.385525 |
| 0.180 | 6.385841 | 6.386157 | 6.386473 | 6.386789 | 6.387105 | 6.387421 | 6.387737 | 6.388053 | 6.388369 | 6.388685 |
| 0.190 | 6.389001 | 6.389317 | 6.389633 | 6.389949 | 6.390266 | 6.390582 | 6.390898 | 6.391214 | 6.391530 | 6.391846 |
| 0.200 | 6.392162 | 6.392479 | 6.392795 | 6.393111 | 6.393427 | 6.393743 | 6.394059 | 6.394376 | 6.394692 | 6.395008 |
| 0.210 | 6.395325 | 6.395641 | 6.395957 | 6.396273 | 6.396589 | 6.396906 | 6.397222 | 6.397539 | 6.397855 | 6.398172 |
| 0.220 | 6.398488 | 6.398804 | 6.399121 | 6.399437 | 6.399754 | 6.400070 | 6.400387 | 6.400703 | 6.401019 | 6.401336 |
| 0.230 | 6.401652 | 6.401969 | 6.402285 | 6.402602 | 6.402918 | 6.403235 | 6.403552 | 6.403868 | 6.404185 | 6.404501 |
| 0.240 | 6.404818 | 6.405135 | 6.405451 | 6.405768 | 6.406084 | 6.406401 | 6.406718 | 6.407035 | 6.407351 | 6.407668 |
| 0.250 | 6.407985 | 6.408301 | 6.408618 | 6.408935 | 6.409252 | 6.409568 | 6.409885 | 6.410202 | 6.410519 | 6.410836 |
| 0.260 | 6.411152 | 6.411469 | 6.411786 | 6.412103 | 6.412420 | 6.412737 | 6.413054 | 6.413370 | 6.413687 | 6.414004 |
| 0.270 | 6.414321 | 6.414638 | 6.414955 | 6.415272 | 6.415589 | 6.415906 | 6.416223 | 6.416540 | 6.416857 | 6.417174 |
| 0.280 | 6.417491 | 6.417808 | 6.418125 | 6.418442 | 6.418760 | 6.419077 | 6.419394 | 6.419711 | 6.420028 | 6.420345 |
| 0.290 | 6.420662 | 6.420979 | 6.421297 | 6.421614 | 6.421931 | 6.422248 | 6.422566 | 6.422883 | 6.423200 | 6.423517 |
| 0.300 | 6.423835 | 6.424152 | 6.424469 | 6.424786 | 6.425104 | 6.425421 | 6.425738 | 6.426056 | 6.426373 | 6.426690 |
| 0.310 | 6.427008 | 6.427325 | 6.427643 | 6.427960 | 6.428277 | 6.428595 | 6.428912 | 6.429230 | 6.429547 | 6.429865 |
| 0.320 | 6.430182 | 6.430500 | 6.430817 | 6.431135 | 6.431452 | 6.431770 | 6.432087 | 6.432405 | 6.432723 | 6.433040 |
| 0.330 | 6.433358 | 6.433675 | 6.433993 | 6.434311 | 6.434628 | 6.434946 | 6.435264 | 6.435581 | 6.435899 | 6.436217 |
| 0.340 | 6.436534 | 6.436852 | 6.437170 | 6.437488 | 6.437805 | 6.438123 | 6.438441 | 6.438759 | 6.439076 | 6.439394 |
| 0.350 | 6.439712 | 6.440030 | 6.440348 | 6.440666 | 6.440984 | 6.441301 | 6.441619 | 6.441937 | 6.442255 | 6.442573 |
| 0.360 | 6.442891 | 6.443209 | 6.443527 | 6.443845 | 6.444163 | 6.444481 | 6.444799 | 6.445117 | 6.445435 | 6.445753 |
| 0.370 | 6.446071 | 6.446389 | 6.446707 | 6.447025 | 6.447343 | 6.447661 | 6.447979 | 6.448298 | 6.448616 | 6.448934 |
| 0.380 | 6.449252 | 6.449570 | 6.449888 | 6.450207 | 6.450525 | 6.450843 | 6.451161 | 6.451479 | 6.451798 | 6.452116 |
| 0.390 | 6.452434 | 6.452753 | 6.453071 | 6.453389 | 6.453707 | 6.454026 | 6.454344 | 6.454662 | 6.454981 | 6.455299 |
| 0.400 | 6.455618 | 6.455936 | 6.456254 | 6.456573 | 6.456891 | 6.457210 | 6.457528 | 6.457847 | 6.458165 | 6.458483 |
| 0.410 | 6.458802 | 6.459120 | 6.459439 | 6.459758 | 6.460076 | 6.460395 | 6.460713 | 6.461032 | 6.461350 | 6.461669 |
| 0.420 | 6.461987 | 6.462306 | 6.462625 | 6.462943 | 6.463262 | 6.463581 | 6.463899 | 6.464218 | 6.464537 | 6.464855 |
| 0.430 | 6.465174 | 6.465493 | 6.465812 | 6.466130 | 6.466449 | 6.466768 | 6.467087 | 6.467405 | 6.467724 | 6.468043 |
| 0.440 | 6.468362 | 6.468681 | 6.469000 | 6.469318 | 6.469637 | 6.469955 | 6.470274 | 6.470593 | 6.470912 | 6.471231 |
| 0.450 | 6.471551 | 6.471870 | 6.472189 | 6.472508 | 6.472827 | 6.473146 | 6.473465 | 6.473784 | 6.474103 | 6.474422 |
| 0.460 | 6.474741 | 6.475060 | 6.475379 | 6.475698 | 6.476017 | 6.476336 | 6.476655 | 6.476974 | 6.477294 | 6.477613 |
| 0.470 | 6.477932 | 6.478251 | 6.478570 | 6.478889 | 6.479208 | 6.479527 | 6.479846 | 6.480165 | 6.480484 | 6.480803 |
| 0.480 | 6.481124 | 6.481443 | 6.481763 | 6.482082 | 6.482401 | 6.482721 | 6.483040 | 6.483359 | 6.483679 | 6.483998 |
| 0.490 | 6.484317 | 6.484637 | 6.484956 | 6.485276 | 6.485595 | 6.485914 | 6.486234 | 6.486553 | 6.486873 | 6.487192 |

ATTENUATION IN DECIBELS
THETA FROM 46.500 TO 46.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 6.487512 | 6.487831 | 6.488151 | 6.488470 | 6.488790 | 6.489109 | 6.489429 | 6.489749 | 6.490068 | 6.490388 |
| 0.510 | 6.490707 | 6.491027 | 6.491347 | 6.491666 | 6.491986 | 6.492306 | 6.492625 | 6.492945 | 6.493265 | 6.493584 |
| 0.520 | 6.493904 | 6.494224 | 6.494544 | 6.494863 | 6.495183 | 6.495503 | 6.495823 | 6.496142 | 6.496462 | 6.496782 |
| 0.530 | 6.497102 | 6.497422 | 6.497742 | 6.498061 | 6.498381 | 6.498701 | 6.499021 | 6.499341 | 6.499661 | 6.499981 |
| 0.540 | 6.500301 | 6.500621 | 6.500941 | 6.501261 | 6.501581 | 6.501901 | 6.502221 | 6.502541 | 6.502861 | 6.503181 |
| 0.550 | 6.503501 | 6.503821 | 6.504141 | 6.504461 | 6.504781 | 6.505101 | 6.505421 | 6.505742 | 6.506062 | 6.506382 |
| 0.560 | 6.506702 | 6.507022 | 6.507342 | 6.507663 | 6.507983 | 6.508303 | 6.508623 | 6.508943 | 6.509264 | 6.509584 |
| 0.570 | 6.509904 | 6.510225 | 6.510545 | 6.510865 | 6.511185 | 6.511506 | 6.511826 | 6.512147 | 6.512467 | 6.512787 |
| 0.580 | 6.513108 | 6.513428 | 6.513748 | 6.514069 | 6.514389 | 6.514710 | 6.515030 | 6.515351 | 6.515671 | 6.515992 |
| 0.590 | 6.516312 | 6.516633 | 6.516953 | 6.517274 | 6.517594 | 6.517915 | 6.518235 | 6.518556 | 6.518877 | 6.519197 |
| 0.600 | 6.519518 | 6.519838 | 6.520159 | 6.520480 | 6.520800 | 6.521121 | 6.521442 | 6.521762 | 6.522083 | 6.522404 |
| 0.610 | 6.522725 | 6.523045 | 6.523366 | 6.523687 | 6.524008 | 6.524328 | 6.524649 | 6.524970 | 6.525291 | 6.525612 |
| 0.620 | 6.525932 | 6.526253 | 6.526574 | 6.526895 | 6.527216 | 6.527537 | 6.527858 | 6.528179 | 6.528500 | 6.528821 |
| 0.630 | 6.529141 | 6.529462 | 6.529783 | 6.530104 | 6.530425 | 6.530746 | 6.531067 | 6.531388 | 6.531709 | 6.532030 |
| 0.640 | 6.532352 | 6.532673 | 6.532994 | 6.533315 | 6.533636 | 6.533957 | 6.534278 | 6.534599 | 6.534920 | 6.535242 |
| 0.650 | 6.535563 | 6.535884 | 6.536205 | 6.536526 | 6.536848 | 6.537169 | 6.537490 | 6.537811 | 6.538133 | 6.538454 |
| 0.660 | 6.538775 | 6.539096 | 6.539418 | 6.539739 | 6.540060 | 6.540382 | 6.540703 | 6.541024 | 6.541346 | 6.541667 |
| 0.670 | 6.541989 | 6.542310 | 6.542631 | 6.542953 | 6.543274 | 6.543596 | 6.543917 | 6.544239 | 6.544560 | 6.544882 |
| 0.680 | 6.545203 | 6.545525 | 6.545846 | 6.546168 | 6.546489 | 6.546811 | 6.547133 | 6.547454 | 6.547776 | 6.548097 |
| 0.690 | 6.548419 | 6.548741 | 6.549062 | 6.549384 | 6.549706 | 6.550027 | 6.550349 | 6.550671 | 6.550992 | 6.551314 |
| 0.700 | 6.551636 | 6.551958 | 6.552279 | 6.552601 | 6.552923 | 6.553245 | 6.553567 | 6.553888 | 6.554210 | 6.554532 |
| 0.710 | 6.554854 | 6.555176 | 6.555498 | 6.555819 | 6.556141 | 6.556463 | 6.556785 | 6.557107 | 6.557429 | 6.557751 |
| 0.720 | 6.558073 | 6.558395 | 6.558717 | 6.559039 | 6.559361 | 6.559683 | 6.560005 | 6.560327 | 6.560649 | 6.560971 |
| 0.730 | 6.561293 | 6.561615 | 6.561937 | 6.562259 | 6.562582 | 6.562904 | 6.563226 | 6.563548 | 6.563870 | 6.564192 |
| 0.740 | 6.564515 | 6.564837 | 6.565159 | 6.565481 | 6.565803 | 6.566126 | 6.566448 | 6.566770 | 6.567092 | 6.567415 |
| 0.750 | 6.567737 | 6.568059 | 6.568382 | 6.568704 | 6.569026 | 6.569349 | 6.569671 | 6.569993 | 6.570316 | 6.570638 |
| 0.760 | 6.570961 | 6.571283 | 6.571606 | 6.571928 | 6.572250 | 6.572573 | 6.572895 | 6.573218 | 6.573540 | 6.573863 |
| 0.770 | 6.574185 | 6.574508 | 6.574830 | 6.575153 | 6.575476 | 6.575798 | 6.576121 | 6.576443 | 6.576766 | 6.577089 |
| 0.780 | 6.577411 | 6.577734 | 6.578057 | 6.578379 | 6.578702 | 6.579025 | 6.579347 | 6.579670 | 6.579993 | 6.580316 |
| 0.790 | 6.580638 | 6.580961 | 6.581284 | 6.581607 | 6.581929 | 6.582252 | 6.582575 | 6.582898 | 6.583221 | 6.583544 |
| 0.800 | 6.583866 | 6.584189 | 6.584512 | 6.584835 | 6.585158 | 6.585481 | 6.585804 | 6.586127 | 6.586450 | 6.586773 |
| 0.810 | 6.587096 | 6.587419 | 6.587742 | 6.588065 | 6.588388 | 6.588711 | 6.589034 | 6.589357 | 6.589680 | 6.590003 |
| 0.820 | 6.590326 | 6.590649 | 6.590972 | 6.591295 | 6.591619 | 6.591942 | 6.592265 | 6.592588 | 6.592911 | 6.593234 |
| 0.830 | 6.593558 | 6.593881 | 6.594204 | 6.594527 | 6.594850 | 6.595174 | 6.595497 | 6.595820 | 6.596144 | 6.596467 |
| 0.840 | 6.596790 | 6.597114 | 6.597437 | 6.597760 | 6.598084 | 6.598407 | 6.598730 | 6.599054 | 6.599377 | 6.599701 |
| 0.850 | 6.600024 | 6.600347 | 6.600671 | 6.600994 | 6.601318 | 6.601641 | 6.601965 | 6.602288 | 6.602612 | 6.602935 |
| 0.860 | 6.603259 | 6.603583 | 6.603906 | 6.604230 | 6.604554 | 6.604877 | 6.605200 | 6.605524 | 6.605848 | 6.606171 |
| 0.870 | 6.606495 | 6.606819 | 6.607142 | 6.607466 | 6.607790 | 6.608113 | 6.608437 | 6.608761 | 6.609085 | 6.609408 |
| 0.880 | 6.609732 | 6.610056 | 6.610380 | 6.610704 | 6.611027 | 6.611351 | 6.611675 | 6.611999 | 6.612323 | 6.612647 |
| 0.890 | 6.612970 | 6.613294 | 6.613618 | 6.613942 | 6.614266 | 6.614590 | 6.614915 | 6.615239 | 6.615562 | 6.615886 |
| 0.900 | 6.616210 | 6.616534 | 6.616858 | 6.617182 | 6.617506 | 6.617830 | 6.618154 | 6.618478 | 6.618802 | 6.619126 |
| 0.910 | 6.619451 | 6.619775 | 6.620099 | 6.620423 | 6.620747 | 6.621071 | 6.621395 | 6.621720 | 6.622044 | 6.622368 |
| 0.920 | 6.622692 | 6.623016 | 6.623341 | 6.623665 | 6.623989 | 6.624313 | 6.624638 | 6.624962 | 6.625286 | 6.625611 |
| 0.930 | 6.625935 | 6.626259 | 6.626584 | 6.626908 | 6.627232 | 6.627557 | 6.627881 | 6.628206 | 6.628530 | 6.628855 |
| 0.940 | 6.629179 | 6.629503 | 6.629828 | 6.630152 | 6.630477 | 6.630801 | 6.631126 | 6.631450 | 6.631775 | 6.632100 |
| 0.950 | 6.632424 | 6.632749 | 6.633073 | 6.633398 | 6.633722 | 6.634047 | 6.634372 | 6.634696 | 6.635021 | 6.635346 |
| 0.960 | 6.635670 | 6.635995 | 6.636320 | 6.636644 | 6.636969 | 6.637294 | 6.637619 | 6.637943 | 6.638268 | 6.638593 |
| 0.970 | 6.638918 | 6.639243 | 6.639567 | 6.639892 | 6.640217 | 6.640542 | 6.640867 | 6.641192 | 6.641517 | 6.641842 |
| 0.980 | 6.642166 | 6.642491 | 6.642816 | 6.643141 | 6.643466 | 6.643791 | 6.644116 | 6.644441 | 6.644766 | 6.645091 |
| 0.990 | 6.645416 | 6.645741 | 6.646066 | 6.646391 | 6.646716 | 6.647041 | 6.647366 | 6.647691 | 6.648017 | 6.648342 |

ATTENUATION IN DECIBELS
THETA FROM 47.000 TO 47.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 6.648667 | 6.648992 | 6.649317 | 6.649642 | 6.649967 | 6.650293 | 6.650618 | 6.650943 | 6.651268 | 6.651593 |
| 0.010 | 6.651919 | 6.652244 | 6.652569 | 6.652894 | 6.653220 | 6.653545 | 6.653870 | 6.654196 | 6.654521 | 6.654846 |
| 0.020 | 6.655172 | 6.655497 | 6.655823 | 6.656148 | 6.656473 | 6.656799 | 6.657124 | 6.657450 | 6.657775 | 6.658100 |
| 0.030 | 6.658426 | 6.658751 | 6.659077 | 6.659402 | 6.659728 | 6.660053 | 6.660379 | 6.660705 | 6.661030 | 6.661356 |
| 0.040 | 6.661681 | 6.662007 | 6.662333 | 6.662658 | 6.662984 | 6.663309 | 6.663635 | 6.663961 | 6.664286 | 6.664612 |
| 0.050 | 6.664938 | 6.665264 | 6.665589 | 6.665915 | 6.666241 | 6.666566 | 6.666892 | 6.667218 | 6.667544 | 6.667870 |
| 0.060 | 6.668195 | 6.668521 | 6.668847 | 6.669173 | 6.669499 | 6.669825 | 6.670151 | 6.670476 | 6.670802 | 6.671128 |
| 0.070 | 6.671454 | 6.671780 | 6.672106 | 6.672432 | 6.672758 | 6.673084 | 6.673410 | 6.673736 | 6.674062 | 6.674388 |
| 0.080 | 6.674714 | 6.675040 | 6.675366 | 6.675692 | 6.676018 | 6.676344 | 6.676670 | 6.677000 | 6.677323 | 6.677649 |
| 0.090 | 6.677975 | 6.678301 | 6.678628 | 6.678954 | 6.679280 | 6.679606 | 6.679932 | 6.680259 | 6.680585 | 6.680911 |
| 0.100 | 6.681237 | 6.681564 | 6.681890 | 6.682216 | 6.682543 | 6.682869 | 6.683195 | 6.683522 | 6.683848 | 6.684174 |
| 0.110 | 6.684501 | 6.684827 | 6.685153 | 6.685480 | 6.685806 | 6.686133 | 6.686459 | 6.686786 | 6.687112 | 6.687439 |
| 0.120 | 6.687765 | 6.688092 | 6.688418 | 6.688745 | 6.689071 | 6.689398 | 6.689724 | 6.690051 | 6.690378 | 6.690704 |
| 0.130 | 6.691031 | 6.691357 | 6.691684 | 6.692011 | 6.692337 | 6.692664 | 6.692991 | 6.693317 | 6.693644 | 6.693971 |
| 0.140 | 6.694298 | 6.694624 | 6.694951 | 6.695278 | 6.695605 | 6.695932 | 6.696258 | 6.696585 | 6.696912 | 6.697239 |
| 0.150 | 6.697565 | 6.697892 | 6.698219 | 6.698546 | 6.698873 | 6.699200 | 6.699527 | 6.699854 | 6.700181 | 6.700508 |
| 0.160 | 6.700835 | 6.701162 | 6.701488 | 6.701815 | 6.702142 | 6.702469 | 6.702796 | 6.703124 | 6.703451 | 6.703778 |
| 0.170 | 6.704105 | 6.704432 | 6.704759 | 6.705086 | 6.705413 | 6.705740 | 6.706067 | 6.706395 | 6.706722 | 6.707049 |
| 0.180 | 6.707376 | 6.707703 | 6.708030 | 6.708358 | 6.708685 | 6.709012 | 6.709339 | 6.709667 | 6.709994 | 6.710321 |
| 0.190 | 6.710649 | 6.710976 | 6.711303 | 6.711631 | 6.711958 | 6.712285 | 6.712613 | 6.712940 | 6.713267 | 6.713595 |
| 0.200 | 6.713922 | 6.714250 | 6.714577 | 6.714904 | 6.715232 | 6.715559 | 6.715887 | 6.716214 | 6.716542 | 6.716869 |
| 0.210 | 6.717197 | 6.717525 | 6.717852 | 6.718180 | 6.718507 | 6.718835 | 6.719162 | 6.719490 | 6.719818 | 6.720145 |
| 0.220 | 6.720473 | 6.720801 | 6.721128 | 6.721456 | 6.721784 | 6.722111 | 6.722439 | 6.722767 | 6.723094 | 6.723422 |
| 0.230 | 6.723750 | 6.724078 | 6.724406 | 6.724733 | 6.725061 | 6.725389 | 6.725717 | 6.726045 | 6.726372 | 6.726700 |
| 0.240 | 6.727028 | 6.727356 | 6.727684 | 6.728012 | 6.728340 | 6.728668 | 6.728996 | 6.729324 | 6.729652 | 6.729980 |
| 0.250 | 6.730308 | 6.730636 | 6.730964 | 6.731292 | 6.731620 | 6.731948 | 6.732276 | 6.732604 | 6.732932 | 6.733260 |
| 0.260 | 6.733588 | 6.733916 | 6.734244 | 6.734572 | 6.734901 | 6.735229 | 6.735557 | 6.735885 | 6.736213 | 6.736542 |
| 0.270 | 6.736870 | 6.737198 | 6.737526 | 6.737854 | 6.738183 | 6.738511 | 6.738839 | 6.739168 | 6.739496 | 6.739824 |
| 0.280 | 6.740153 | 6.740481 | 6.740809 | 6.741138 | 6.741466 | 6.741794 | 6.742123 | 6.742451 | 6.742780 | 6.743108 |
| 0.290 | 6.743437 | 6.743765 | 6.744093 | 6.744422 | 6.744750 | 6.745079 | 6.745407 | 6.745736 | 6.746064 | 6.746393 |
| 0.300 | 6.746722 | 6.747050 | 6.747379 | 6.747707 | 6.748036 | 6.748365 | 6.748693 | 6.749022 | 6.749351 | 6.749679 |
| 0.310 | 6.750008 | 6.750337 | 6.750665 | 6.750994 | 6.751323 | 6.751651 | 6.751980 | 6.752309 | 6.752638 | 6.752967 |
| 0.320 | 6.753295 | 6.753624 | 6.753953 | 6.754282 | 6.754611 | 6.754939 | 6.755268 | 6.755597 | 6.755926 | 6.756255 |
| 0.330 | 6.756584 | 6.756913 | 6.757242 | 6.757571 | 6.757900 | 6.758229 | 6.758558 | 6.758887 | 6.759216 | 6.759545 |
| 0.340 | 6.759874 | 6.760203 | 6.760532 | 6.760861 | 6.761190 | 6.761519 | 6.761848 | 6.762177 | 6.762506 | 6.762835 |
| 0.350 | 6.763164 | 6.763494 | 6.763823 | 6.764152 | 6.764481 | 6.764810 | 6.765140 | 6.765469 | 6.765798 | 6.766127 |
| 0.360 | 6.766456 | 6.766786 | 6.767115 | 6.767444 | 6.767774 | 6.768103 | 6.768432 | 6.768762 | 6.769091 | 6.769420 |
| 0.370 | 6.769750 | 6.770079 | 6.770408 | 6.770738 | 6.771067 | 6.771397 | 6.771726 | 6.772056 | 6.772385 | 6.772714 |
| 0.380 | 6.773044 | 6.773373 | 6.773703 | 6.774033 | 6.774362 | 6.774692 | 6.775021 | 6.775351 | 6.775680 | 6.776010 |
| 0.390 | 6.776339 | 6.776669 | 6.776999 | 6.777328 | 6.777658 | 6.777988 | 6.778317 | 6.778647 | 6.778977 | 6.779306 |
| 0.400 | 6.779636 | 6.779966 | 6.780296 | 6.780625 | 6.780955 | 6.781285 | 6.781615 | 6.781944 | 6.782274 | 6.782604 |
| 0.410 | 6.782934 | 6.783264 | 6.783594 | 6.783924 | 6.784253 | 6.784583 | 6.784913 | 6.785243 | 6.785573 | 6.785903 |
| 0.420 | 6.786233 | 6.786563 | 6.786893 | 6.787223 | 6.787553 | 6.787883 | 6.788213 | 6.788543 | 6.788873 | 6.789203 |
| 0.430 | 6.789533 | 6.789863 | 6.790193 | 6.790523 | 6.790853 | 6.791183 | 6.791514 | 6.791844 | 6.792174 | 6.792504 |
| 0.440 | 6.792834 | 6.793164 | 6.793495 | 6.793825 | 6.794155 | 6.794485 | 6.794816 | 6.795146 | 6.795476 | 6.795806 |
| 0.450 | 6.796137 | 6.796467 | 6.796797 | 6.797128 | 6.797458 | 6.797788 | 6.798119 | 6.798449 | 6.798779 | 6.799110 |
| 0.460 | 6.799440 | 6.799771 | 6.800101 | 6.800432 | 6.800762 | 6.801092 | 6.801423 | 6.801753 | 6.802084 | 6.802414 |
| 0.470 | 6.802745 | 6.803075 | 6.803406 | 6.803737 | 6.804067 | 6.804398 | 6.804728 | 6.805059 | 6.805390 | 6.805720 |
| 0.480 | 6.806451 | 6.806782 | 6.807112 | 6.807443 | 6.807774 | 6.808104 | 6.808435 | 6.808766 | 6.809097 | 6.809427 |
| 0.490 | 6.809358 | 6.809689 | 6.810019 | 6.810350 | 6.810681 | 6.811012 | 6.811343 | 6.811674 | 6.812004 | 6.812335 |

ATTENUATION IN DECIBELS
THETA FROM 47.500 TO 47.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 6.812666 | 6.812997 | 6.813328 | 6.813659 | 6.813990 | 6.814321 | 6.814652 | 6.814983 | 6.815314 | 6.815645 |
| 0.510 | 6.815975 | 6.816306 | 6.816637 | 6.816969 | 6.817300 | 6.817631 | 6.817962 | 6.818293 | 6.818624 | 6.818955 |
| 0.520 | 6.819286 | 6.819617 | 6.819948 | 6.820279 | 6.820611 | 6.820942 | 6.821273 | 6.821604 | 6.821935 | 6.822267 |
| 0.530 | 6.822598 | 6.822929 | 6.823260 | 6.823591 | 6.823923 | 6.824254 | 6.824585 | 6.824917 | 6.825248 | 6.825579 |
| 0.540 | 6.825911 | 6.826242 | 6.826573 | 6.826905 | 6.827236 | 6.827567 | 6.827899 | 6.828230 | 6.828562 | 6.828893 |
| 0.550 | 6.829225 | 6.829556 | 6.829888 | 6.830219 | 6.830550 | 6.830882 | 6.831214 | 6.831545 | 6.831877 | 6.832208 |
| 0.560 | 6.832540 | 6.832871 | 6.833203 | 6.833535 | 6.833866 | 6.834198 | 6.834529 | 6.834861 | 6.835193 | 6.835524 |
| 0.570 | 6.835856 | 6.836188 | 6.836519 | 6.836851 | 6.837183 | 6.837515 | 6.837846 | 6.838178 | 6.838510 | 6.838842 |
| 0.580 | 6.839174 | 6.839505 | 6.839837 | 6.840169 | 6.840501 | 6.840833 | 6.841165 | 6.841497 | 6.841828 | 6.842160 |
| 0.590 | 6.842492 | 6.842824 | 6.843156 | 6.843488 | 6.843820 | 6.844152 | 6.844484 | 6.844816 | 6.845148 | 6.845480 |
| 0.600 | 6.845812 | 6.846144 | 6.846476 | 6.846808 | 6.847140 | 6.847472 | 6.847805 | 6.848137 | 6.848469 | 6.848801 |
| 0.610 | 6.849133 | 6.849465 | 6.849797 | 6.850130 | 6.850462 | 6.850794 | 6.851126 | 6.851458 | 6.851791 | 6.852123 |
| 0.620 | 6.852455 | 6.852787 | 6.853120 | 6.853452 | 6.853784 | 6.854117 | 6.854449 | 6.854781 | 6.855114 | 6.855446 |
| 0.630 | 6.855779 | 6.856111 | 6.856443 | 6.856776 | 6.857108 | 6.857441 | 6.857773 | 6.858106 | 6.858438 | 6.858770 |
| 0.640 | 6.859103 | 6.859435 | 6.859768 | 6.860101 | 6.860433 | 6.860766 | 6.861098 | 6.861431 | 6.861763 | 6.862096 |
| 0.650 | 6.862429 | 6.862761 | 6.863094 | 6.863427 | 6.863759 | 6.864092 | 6.864425 | 6.864757 | 6.865090 | 6.865423 |
| 0.660 | 6.865755 | 6.866088 | 6.866421 | 6.866754 | 6.867087 | 6.867419 | 6.867752 | 6.868085 | 6.868418 | 6.868751 |
| 0.670 | 6.869083 | 6.869416 | 6.869749 | 6.870082 | 6.870415 | 6.870748 | 6.871081 | 6.871414 | 6.871747 | 6.872080 |
| 0.680 | 6.872413 | 6.872746 | 6.873079 | 6.873412 | 6.873745 | 6.874078 | 6.874411 | 6.874744 | 6.875077 | 6.875410 |
| 0.690 | 6.875743 | 6.876076 | 6.876409 | 6.876742 | 6.877075 | 6.877409 | 6.877742 | 6.878075 | 6.878408 | 6.878741 |
| 0.700 | 6.879074 | 6.879408 | 6.879741 | 6.880074 | 6.880407 | 6.880741 | 6.881074 | 6.881407 | 6.881740 | 6.882074 |
| 0.710 | 6.882407 | 6.882740 | 6.883074 | 6.883407 | 6.883740 | 6.884074 | 6.884407 | 6.884741 | 6.885074 | 6.885407 |
| 0.720 | 6.885741 | 6.886074 | 6.886408 | 6.886741 | 6.887075 | 6.887408 | 6.887742 | 6.888075 | 6.888409 | 6.888742 |
| 0.730 | 6.889076 | 6.889409 | 6.889743 | 6.890077 | 6.890410 | 6.890744 | 6.891077 | 6.891411 | 6.891745 | 6.892078 |
| 0.740 | 6.892412 | 6.892746 | 6.893079 | 6.893413 | 6.893747 | 6.894081 | 6.894414 | 6.894748 | 6.895082 | 6.895416 |
| 0.750 | 6.895749 | 6.896083 | 6.896417 | 6.896751 | 6.897085 | 6.897418 | 6.897752 | 6.898086 | 6.898420 | 6.898754 |
| 0.760 | 6.899089 | 6.899422 | 6.899756 | 6.900090 | 6.900424 | 6.900758 | 6.901092 | 6.901425 | 6.901760 | 6.902093 |
| 0.770 | 6.902427 | 6.902762 | 6.903096 | 6.903430 | 6.903764 | 6.904098 | 6.904432 | 6.904766 | 6.905100 | 6.905434 |
| 0.780 | 6.905768 | 6.906102 | 6.906437 | 6.906771 | 6.907105 | 6.907439 | 6.907773 | 6.908108 | 6.908442 | 6.908776 |
| 0.790 | 6.909110 | 6.909445 | 6.909779 | 6.910113 | 6.910447 | 6.910782 | 6.911116 | 6.911451 | 6.911785 | 6.912119 |
| 0.800 | 6.912454 | 6.912788 | 6.913122 | 6.913457 | 6.913791 | 6.914126 | 6.914460 | 6.914795 | 6.915129 | 6.915463 |
| 0.810 | 6.915798 | 6.916132 | 6.916467 | 6.916801 | 6.917136 | 6.917471 | 6.917805 | 6.918140 | 6.918474 | 6.918809 |
| 0.820 | 6.919143 | 6.919478 | 6.919813 | 6.920147 | 6.920482 | 6.920817 | 6.921151 | 6.921486 | 6.921821 | 6.922155 |
| 0.830 | 6.922490 | 6.922825 | 6.923160 | 6.923494 | 6.923829 | 6.924164 | 6.924499 | 6.924834 | 6.925168 | 6.925503 |
| 0.840 | 6.925838 | 6.926173 | 6.926508 | 6.926843 | 6.927177 | 6.927512 | 6.927847 | 6.928182 | 6.928517 | 6.928852 |
| 0.850 | 6.929187 | 6.929522 | 6.929857 | 6.930192 | 6.930527 | 6.930862 | 6.931197 | 6.931532 | 6.931867 | 6.932202 |
| 0.860 | 6.932537 | 6.932872 | 6.933208 | 6.933543 | 6.933878 | 6.934213 | 6.934548 | 6.934883 | 6.935218 | 6.935554 |
| 0.870 | 6.935869 | 6.936204 | 6.936539 | 6.936874 | 6.937209 | 6.937544 | 6.937879 | 6.938214 | 6.938549 | 6.938884 |
| 0.880 | 6.939241 | 6.939577 | 6.939912 | 6.940247 | 6.940583 | 6.940918 | 6.941253 | 6.941589 | 6.941924 | 6.942260 |
| 0.890 | 6.942595 | 6.942931 | 6.943266 | 6.943601 | 6.943937 | 6.944272 | 6.944608 | 6.944943 | 6.945279 | 6.945614 |
| 0.900 | 6.945950 | 6.946286 | 6.946621 | 6.946957 | 6.947292 | 6.947628 | 6.947964 | 6.948299 | 6.948635 | 6.948970 |
| 0.910 | 6.949306 | 6.949642 | 6.949977 | 6.950313 | 6.950649 | 6.950985 | 6.951320 | 6.951656 | 6.951992 | 6.952328 |
| 0.920 | 6.952663 | 6.952999 | 6.953335 | 6.953671 | 6.954007 | 6.954342 | 6.954678 | 6.955014 | 6.955350 | 6.955686 |
| 0.930 | 6.956027 | 6.956363 | 6.956699 | 6.957035 | 6.957371 | 6.957707 | 6.958043 | 6.958379 | 6.958715 | 6.959051 |
| 0.940 | 6.959362 | 6.959718 | 6.960054 | 6.960390 | 6.960726 | 6.961062 | 6.961398 | 6.961734 | 6.962070 | 6.962406 |
| 0.950 | 6.962742 | 6.963078 | 6.963415 | 6.963751 | 6.964087 | 6.964423 | 6.964759 | 6.965096 | 6.965432 | 6.965768 |
| 0.960 | 6.966104 | 6.966441 | 6.966777 | 6.967113 | 6.967449 | 6.967786 | 6.968122 | 6.968458 | 6.968795 | 6.969131 |
| 0.970 | 6.969468 | 6.969804 | 6.970140 | 6.970477 | 6.970813 | 6.971150 | 6.971486 | 6.971822 | 6.972159 | 6.972495 |
| 0.980 | 6.972832 | 6.973168 | 6.973505 | 6.973841 | 6.974178 | 6.974515 | 6.974851 | 6.975188 | 6.975524 | 6.975861 |
| 0.990 | 6.976197 | 6.976534 | 6.976871 | 6.977207 | 6.977544 | 6.977881 | 6.978218 | 6.978554 | 6.978891 | 6.979227 |

ATTENUATION IN DECIBELS
THETA FROM 48.000 TO 48.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 6.979564 | 6.979901 | 6.980238 | 6.980574 | 6.980911 | 6.981248 | 6.981585 | 6.981922 | 6.982258 | 6.982595 |
| 0.010 | 6.982932 | 6.983269 | 6.983606 | 6.983943 | 6.984280 | 6.984616 | 6.984953 | 6.985290 | 6.985627 | 6.985964 |
| 0.020 | 6.986301 | 6.986638 | 6.986975 | 6.987312 | 6.987649 | 6.987986 | 6.988323 | 6.988660 | 6.988997 | 6.989334 |
| 0.030 | 6.989671 | 6.990008 | 6.990346 | 6.990683 | 6.991020 | 6.991357 | 6.991694 | 6.992031 | 6.992369 | 6.992706 |
| 0.040 | 6.993043 | 6.993380 | 6.993717 | 6.994055 | 6.994392 | 6.994729 | 6.995066 | 6.995404 | 6.995741 | 6.996078 |
| 0.050 | 6.996416 | 6.996753 | 6.997090 | 6.997428 | 6.997765 | 6.998102 | 6.998440 | 6.998777 | 6.999115 | 6.999452 |
| 0.060 | 6.999789 | 7.000127 | 7.000464 | 7.000802 | 7.001139 | 7.001477 | 7.001814 | 7.002152 | 7.002489 | 7.002827 |
| 0.070 | 7.003164 | 7.003502 | 7.003839 | 7.004177 | 7.004515 | 7.004852 | 7.005190 | 7.005528 | 7.005865 | 7.006203 |
| 0.080 | 7.006541 | 7.006878 | 7.007216 | 7.007554 | 7.007891 | 7.008229 | 7.008567 | 7.008905 | 7.009242 | 7.009580 |
| 0.090 | 7.009918 | 7.010256 | 7.010594 | 7.010931 | 7.011269 | 7.011607 | 7.011945 | 7.012283 | 7.012621 | 7.012959 |
| 0.100 | 7.013297 | 7.013634 | 7.013972 | 7.014310 | 7.014648 | 7.014986 | 7.015324 | 7.015662 | 7.016000 | 7.016338 |
| 0.110 | 7.016676 | 7.017014 | 7.017352 | 7.017690 | 7.018028 | 7.018367 | 7.018705 | 7.019043 | 7.019381 | 7.019719 |
| 0.120 | 7.020057 | 7.020395 | 7.020734 | 7.021072 | 7.021410 | 7.021748 | 7.022086 | 7.022425 | 7.022763 | 7.023101 |
| 0.130 | 7.023439 | 7.023778 | 7.024116 | 7.024454 | 7.024793 | 7.025131 | 7.025469 | 7.025808 | 7.026146 | 7.026484 |
| 0.140 | 7.026823 | 7.027161 | 7.027499 | 7.027838 | 7.028176 | 7.028515 | 7.028853 | 7.029192 | 7.029530 | 7.029869 |
| 0.150 | 7.030207 | 7.030546 | 7.030884 | 7.031223 | 7.031561 | 7.031900 | 7.032238 | 7.032577 | 7.032916 | 7.033254 |
| 0.160 | 7.033593 | 7.033931 | 7.034270 | 7.034609 | 7.034947 | 7.035286 | 7.035625 | 7.035964 | 7.036302 | 7.036641 |
| 0.170 | 7.036980 | 7.037318 | 7.037657 | 7.037996 | 7.038335 | 7.038674 | 7.039012 | 7.039351 | 7.039690 | 7.040029 |
| 0.180 | 7.040368 | 7.040707 | 7.041046 | 7.041384 | 7.041723 | 7.042062 | 7.042401 | 7.042740 | 7.043079 | 7.043418 |
| 0.190 | 7.043757 | 7.044096 | 7.044435 | 7.044774 | 7.045113 | 7.045452 | 7.045791 | 7.046130 | 7.046469 | 7.046808 |
| 0.200 | 7.047148 | 7.047487 | 7.047826 | 7.048165 | 7.048504 | 7.048843 | 7.049182 | 7.049522 | 7.049861 | 7.050200 |
| 0.210 | 7.050539 | 7.050878 | 7.051218 | 7.051557 | 7.051896 | 7.052235 | 7.052575 | 7.052914 | 7.053253 | 7.053593 |
| 0.220 | 7.053926 | 7.054265 | 7.054604 | 7.054943 | 7.055282 | 7.055621 | 7.055960 | 7.056300 | 7.056639 | 7.056978 |
| 0.230 | 7.057326 | 7.057666 | 7.058005 | 7.058344 | 7.058684 | 7.059023 | 7.059363 | 7.059703 | 7.060042 | 7.060382 |
| 0.240 | 7.060721 | 7.061061 | 7.061400 | 7.061740 | 7.062080 | 7.062419 | 7.062759 | 7.063099 | 7.063438 | 7.063778 |
| 0.250 | 7.064118 | 7.064457 | 7.064797 | 7.065137 | 7.065477 | 7.065816 | 7.066156 | 7.066496 | 7.066836 | 7.067175 |
| 0.260 | 7.067515 | 7.067855 | 7.068195 | 7.068535 | 7.068875 | 7.069215 | 7.069555 | 7.069895 | 7.070234 | 7.070574 |
| 0.270 | 7.070914 | 7.071254 | 7.071594 | 7.071934 | 7.072274 | 7.072614 | 7.072954 | 7.073294 | 7.073634 | 7.073974 |
| 0.280 | 7.074314 | 7.074654 | 7.074994 | 7.075334 | 7.075674 | 7.076015 | 7.076355 | 7.076695 | 7.077035 | 7.077375 |
| 0.290 | 7.077715 | 7.078055 | 7.078396 | 7.078736 | 7.079076 | 7.079416 | 7.079757 | 7.080097 | 7.080437 | 7.080777 |
| 0.300 | 7.081118 | 7.081458 | 7.081798 | 7.082139 | 7.082479 | 7.082819 | 7.083160 | 7.083500 | 7.083840 | 7.084181 |
| 0.310 | 7.084521 | 7.084862 | 7.085202 | 7.085543 | 7.085883 | 7.086223 | 7.086564 | 7.086904 | 7.087245 | 7.087585 |
| 0.320 | 7.087926 | 7.088267 | 7.088607 | 7.088948 | 7.089288 | 7.089629 | 7.089969 | 7.090310 | 7.090651 | 7.090991 |
| 0.330 | 7.091332 | 7.091673 | 7.092013 | 7.092354 | 7.092695 | 7.093035 | 7.093376 | 7.093717 | 7.094058 | 7.094398 |
| 0.340 | 7.094739 | 7.095080 | 7.095421 | 7.095762 | 7.096102 | 7.096443 | 7.096784 | 7.097125 | 7.097466 | 7.097807 |
| 0.350 | 7.098148 | 7.098488 | 7.098829 | 7.099170 | 7.099511 | 7.099852 | 7.100193 | 7.100534 | 7.100875 | 7.101216 |
| 0.360 | 7.101557 | 7.101898 | 7.102239 | 7.102580 | 7.102921 | 7.103262 | 7.103603 | 7.103944 | 7.104286 | 7.104627 |
| 0.370 | 7.104968 | 7.105309 | 7.105650 | 7.105991 | 7.106332 | 7.106674 | 7.107015 | 7.107356 | 7.107697 | 7.108039 |
| 0.380 | 7.108380 | 7.108721 | 7.109062 | 7.109404 | 7.109745 | 7.110086 | 7.110428 | 7.110769 | 7.111110 | 7.111452 |
| 0.390 | 7.111793 | 7.112134 | 7.112476 | 7.112817 | 7.113159 | 7.113500 | 7.113841 | 7.114183 | 7.114524 | 7.114866 |
| 0.400 | 7.115207 | 7.115549 | 7.115890 | 7.116232 | 7.116573 | 7.116915 | 7.117257 | 7.117598 | 7.117940 | 7.118281 |
| 0.410 | 7.118623 | 7.118965 | 7.119306 | 7.119648 | 7.119989 | 7.120331 | 7.120673 | 7.121015 | 7.121356 | 7.121698 |
| 0.420 | 7.122040 | 7.122381 | 7.122723 | 7.123065 | 7.123407 | 7.123749 | 7.124090 | 7.124432 | 7.124774 | 7.125116 |
| 0.430 | 7.125458 | 7.125800 | 7.126141 | 7.126483 | 7.126825 | 7.127167 | 7.127509 | 7.127851 | 7.128193 | 7.128535 |
| 0.440 | 7.128877 | 7.129219 | 7.129561 | 7.129903 | 7.130245 | 7.130587 | 7.130929 | 7.131271 | 7.131613 | 7.131955 |
| 0.450 | 7.132297 | 7.132639 | 7.132981 | 7.133324 | 7.133666 | 7.134008 | 7.134350 | 7.134692 | 7.135034 | 7.135377 |
| 0.460 | 7.135719 | 7.136061 | 7.136403 | 7.136745 | 7.137088 | 7.137430 | 7.137772 | 7.138115 | 7.138457 | 7.138799 |
| 0.470 | 7.139142 | 7.139484 | 7.139826 | 7.140169 | 7.140511 | 7.140853 | 7.141196 | 7.141538 | 7.141881 | 7.142223 |
| 0.480 | 7.142566 | 7.142908 | 7.143250 | 7.143593 | 7.143935 | 7.144278 | 7.144620 | 7.144963 | 7.145306 | 7.145648 |
| 0.490 | 7.145991 | 7.146333 | 7.146676 | 7.147018 | 7.147361 | 7.147704 | 7.148046 | 7.148389 | 7.148732 | 7.149074 |

ATTENUATION IN DECIBELS
THETA FROM 48.500 TO 48.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 7.149417 | 7.149760 | 7.150102 | 7.150445 | 7.150788 | 7.151131 | 7.151474 | 7.151816 | 7.152159 | 7.152502 |
| 0.510 | 7.152845 | 7.153188 | 7.153530 | 7.153873 | 7.154216 | 7.154559 | 7.154902 | 7.155245 | 7.155588 | 7.155931 |
| 0.520 | 7.156273 | 7.156616 | 7.156959 | 7.157302 | 7.157645 | 7.157988 | 7.158331 | 7.158674 | 7.159017 | 7.159360 |
| 0.530 | 7.159703 | 7.160047 | 7.160390 | 7.160733 | 7.161076 | 7.161419 | 7.161762 | 7.162105 | 7.162448 | 7.162792 |
| 0.540 | 7.163135 | 7.163478 | 7.163821 | 7.164164 | 7.164508 | 7.164851 | 7.165194 | 7.165537 | 7.165881 | 7.166224 |
| 0.550 | 7.166567 | 7.166910 | 7.167254 | 7.167597 | 7.167940 | 7.168284 | 7.168627 | 7.168971 | 7.169314 | 7.169657 |
| 0.560 | 7.170001 | 7.170344 | 7.170688 | 7.171031 | 7.171375 | 7.171718 | 7.172062 | 7.172405 | 7.172749 | 7.173092 |
| 0.570 | 7.173436 | 7.173779 | 7.174123 | 7.174466 | 7.174810 | 7.175153 | 7.175497 | 7.175841 | 7.176184 | 7.176528 |
| 0.580 | 7.176872 | 7.177215 | 7.177559 | 7.177903 | 7.178246 | 7.178590 | 7.178934 | 7.179278 | 7.179621 | 7.179965 |
| 0.590 | 7.180309 | 7.180653 | 7.180996 | 7.181340 | 7.181684 | 7.182028 | 7.182372 | 7.182716 | 7.183060 | 7.183403 |
| 0.600 | 7.183747 | 7.184091 | 7.184435 | 7.184779 | 7.185123 | 7.185467 | 7.185811 | 7.186155 | 7.186499 | 7.186843 |
| 0.610 | 7.187187 | 7.187531 | 7.187875 | 7.188219 | 7.188563 | 7.188907 | 7.189251 | 7.189595 | 7.189940 | 7.190284 |
| 0.620 | 7.190628 | 7.190972 | 7.191316 | 7.191660 | 7.192005 | 7.192349 | 7.192693 | 7.193037 | 7.193381 | 7.193726 |
| 0.630 | 7.194070 | 7.194414 | 7.194759 | 7.195103 | 7.195447 | 7.195792 | 7.196136 | 7.196480 | 7.196825 | 7.197169 |
| 0.640 | 7.197513 | 7.197858 | 7.198202 | 7.198547 | 7.198891 | 7.199235 | 7.199580 | 7.199924 | 7.200269 | 7.200613 |
| 0.650 | 7.200958 | 7.201302 | 7.201647 | 7.201991 | 7.202336 | 7.202681 | 7.203025 | 7.203370 | 7.203714 | 7.204059 |
| 0.660 | 7.204404 | 7.204748 | 7.205093 | 7.205438 | 7.205782 | 7.206127 | 7.206472 | 7.206816 | 7.207161 | 7.207506 |
| 0.670 | 7.207851 | 7.208195 | 7.208540 | 7.208885 | 7.209230 | 7.209574 | 7.209919 | 7.210264 | 7.210609 | 7.210954 |
| 0.680 | 7.211299 | 7.211644 | 7.211988 | 7.212333 | 7.212678 | 7.213023 | 7.213368 | 7.213713 | 7.214058 | 7.214403 |
| 0.690 | 7.214748 | 7.215093 | 7.215438 | 7.215783 | 7.216128 | 7.216473 | 7.216818 | 7.217163 | 7.217508 | 7.217854 |
| 0.700 | 7.218199 | 7.218544 | 7.218889 | 7.219234 | 7.219579 | 7.219924 | 7.220270 | 7.220615 | 7.220960 | 7.221305 |
| 0.710 | 7.221650 | 7.221996 | 7.222341 | 7.222686 | 7.223032 | 7.223377 | 7.223722 | 7.224067 | 7.224413 | 7.224758 |
| 0.720 | 7.225103 | 7.225449 | 7.225794 | 7.226140 | 7.226485 | 7.226830 | 7.227176 | 7.227521 | 7.227867 | 7.228212 |
| 0.730 | 7.228558 | 7.228903 | 7.229249 | 7.229594 | 7.229940 | 7.230285 | 7.230631 | 7.230976 | 7.231322 | 7.231668 |
| 0.740 | 7.232013 | 7.232359 | 7.232704 | 7.233050 | 7.233396 | 7.233741 | 7.234087 | 7.234433 | 7.234778 | 7.235124 |
| 0.750 | 7.235470 | 7.235816 | 7.236161 | 7.236507 | 7.236853 | 7.237199 | 7.237544 | 7.237890 | 7.238236 | 7.238582 |
| 0.760 | 7.238928 | 7.239274 | 7.239619 | 7.239965 | 7.240311 | 7.240657 | 7.241003 | 7.241349 | 7.241695 | 7.242041 |
| 0.770 | 7.242387 | 7.242733 | 7.243079 | 7.243425 | 7.243771 | 7.244117 | 7.244463 | 7.244809 | 7.245155 | 7.245501 |
| 0.780 | 7.245847 | 7.246193 | 7.246539 | 7.246885 | 7.247232 | 7.247578 | 7.247924 | 7.248270 | 7.248616 | 7.248962 |
| 0.790 | 7.249309 | 7.249655 | 7.250001 | 7.250347 | 7.250694 | 7.251040 | 7.251386 | 7.251732 | 7.252079 | 7.252425 |
| 0.800 | 7.252771 | 7.253118 | 7.253464 | 7.253810 | 7.254157 | 7.254503 | 7.254850 | 7.255196 | 7.255542 | 7.255889 |
| 0.810 | 7.256235 | 7.256582 | 7.256928 | 7.257275 | 7.257621 | 7.257968 | 7.258314 | 7.258661 | 7.259007 | 7.259354 |
| 0.820 | 7.259701 | 7.260047 | 7.260394 | 7.260740 | 7.261087 | 7.261434 | 7.261780 | 7.262127 | 7.262474 | 7.262820 |
| 0.830 | 7.263167 | 7.263514 | 7.263860 | 7.264207 | 7.264554 | 7.264901 | 7.265247 | 7.265594 | 7.265941 | 7.266288 |
| 0.840 | 7.266635 | 7.266981 | 7.267328 | 7.267675 | 7.268022 | 7.268369 | 7.268716 | 7.269063 | 7.269410 | 7.269757 |
| 0.850 | 7.270104 | 7.270450 | 7.270797 | 7.271144 | 7.271491 | 7.271838 | 7.272185 | 7.272532 | 7.272879 | 7.273226 |
| 0.860 | 7.273574 | 7.273921 | 7.274268 | 7.274615 | 7.274962 | 7.275309 | 7.275656 | 7.276003 | 7.276350 | 7.276698 |
| 0.870 | 7.277045 | 7.277392 | 7.277739 | 7.278086 | 7.278434 | 7.278781 | 7.279128 | 7.279476 | 7.279823 | 7.280170 |
| 0.880 | 7.280517 | 7.280865 | 7.281212 | 7.281559 | 7.281907 | 7.282254 | 7.282601 | 7.282949 | 7.283296 | 7.283644 |
| 0.890 | 7.283991 | 7.284339 | 7.284686 | 7.285034 | 7.285381 | 7.285728 | 7.286076 | 7.286424 | 7.286771 | 7.287119 |
| 0.900 | 7.287466 | 7.287814 | 7.288161 | 7.288509 | 7.288856 | 7.289204 | 7.289552 | 7.289899 | 7.290247 | 7.290595 |
| 0.910 | 7.290942 | 7.291290 | 7.291638 | 7.291985 | 7.292333 | 7.292681 | 7.293029 | 7.293376 | 7.293724 | 7.294072 |
| 0.920 | 7.294420 | 7.294768 | 7.295115 | 7.295463 | 7.295811 | 7.296159 | 7.296507 | 7.296855 | 7.297203 | 7.297550 |
| 0.930 | 7.297898 | 7.298246 | 7.298594 | 7.298942 | 7.299290 | 7.299638 | 7.299986 | 7.300334 | 7.300682 | 7.301030 |
| 0.940 | 7.301378 | 7.301726 | 7.302074 | 7.302422 | 7.302771 | 7.303119 | 7.303467 | 7.303815 | 7.304163 | 7.304511 |
| 0.950 | 7.304859 | 7.305208 | 7.305556 | 7.305904 | 7.306252 | 7.306600 | 7.306949 | 7.307297 | 7.307645 | 7.307993 |
| 0.960 | 7.308342 | 7.308690 | 7.309038 | 7.309387 | 7.309735 | 7.310083 | 7.310432 | 7.310780 | 7.311128 | 7.311477 |
| 0.970 | 7.311825 | 7.312174 | 7.312522 | 7.312871 | 7.313219 | 7.313568 | 7.313916 | 7.314264 | 7.314613 | 7.314961 |
| 0.980 | 7.315310 | 7.315659 | 7.316007 | 7.316356 | 7.316704 | 7.317053 | 7.317402 | 7.317750 | 7.318099 | 7.318447 |
| 0.990 | 7.318796 | 7.319145 | 7.319493 | 7.319842 | 7.320191 | 7.320540 | 7.320888 | 7.321237 | 7.321586 | 7.321935 |

ATTENUATION IN DECIBELS
THETA FROM 49.500 TO 49.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 7.498223 | 7.498578 | 7.498933 | 7.499288 | 7.499643 | 7.499998 | 7.500354 | 7.500709 | 7.501064 | 7.501419 |
| 0.510 | 7.501774 | 7.502129 | 7.502484 | 7.502839 | 7.503195 | 7.503550 | 7.503905 | 7.504260 | 7.504615 | 7.504970 |
| 0.520 | 7.505326 | 7.505681 | 7.506036 | 7.506392 | 7.506747 | 7.507102 | 7.507457 | 7.507813 | 7.508168 | 7.508523 |
| 0.530 | 7.508879 | 7.509234 | 7.509590 | 7.509945 | 7.510300 | 7.510656 | 7.511011 | 7.511367 | 7.511722 | 7.512078 |
| 0.540 | 7.512433 | 7.512789 | 7.513144 | 7.513500 | 7.513855 | 7.514211 | 7.514566 | 7.514922 | 7.515278 | 7.515633 |
| 0.550 | 7.515989 | 7.516344 | 7.516700 | 7.517056 | 7.517411 | 7.517767 | 7.518123 | 7.518478 | 7.518834 | 7.519190 |
| 0.560 | 7.519546 | 7.519901 | 7.520257 | 7.520613 | 7.520969 | 7.521325 | 7.521680 | 7.522036 | 7.522392 | 7.522748 |
| 0.570 | 7.523104 | 7.523460 | 7.523816 | 7.524171 | 7.524527 | 7.524883 | 7.525239 | 7.525595 | 7.525951 | 7.526307 |
| 0.580 | 7.526663 | 7.527019 | 7.527375 | 7.527731 | 7.528087 | 7.528443 | 7.528799 | 7.529155 | 7.529512 | 7.529868 |
| 0.590 | 7.530224 | 7.530580 | 7.530936 | 7.531292 | 7.531648 | 7.532005 | 7.532361 | 7.532717 | 7.533073 | 7.533429 |
| 0.600 | 7.533786 | 7.534142 | 7.534498 | 7.534855 | 7.535211 | 7.535567 | 7.535923 | 7.536280 | 7.536636 | 7.536992 |
| 0.610 | 7.537349 | 7.537705 | 7.538062 | 7.538418 | 7.538774 | 7.539131 | 7.539487 | 7.539844 | 7.540200 | 7.540557 |
| 0.620 | 7.540913 | 7.541270 | 7.541626 | 7.541983 | 7.542339 | 7.542696 | 7.543052 | 7.543409 | 7.543766 | 7.544122 |
| 0.630 | 7.544479 | 7.544836 | 7.545192 | 7.545549 | 7.545906 | 7.546262 | 7.546619 | 7.546976 | 7.547332 | 7.547689 |
| 0.640 | 7.548046 | 7.548403 | 7.548759 | 7.549116 | 7.549473 | 7.549830 | 7.550187 | 7.550543 | 7.550900 | 7.551257 |
| 0.650 | 7.551614 | 7.551971 | 7.552328 | 7.552685 | 7.553042 | 7.553399 | 7.553756 | 7.554113 | 7.554470 | 7.554827 |
| 0.660 | 7.555184 | 7.555541 | 7.555898 | 7.556255 | 7.556612 | 7.556969 | 7.557326 | 7.557683 | 7.558040 | 7.558397 |
| 0.670 | 7.558754 | 7.559111 | 7.559469 | 7.559826 | 7.560183 | 7.560540 | 7.560897 | 7.561255 | 7.561612 | 7.561969 |
| 0.680 | 7.562326 | 7.562684 | 7.563041 | 7.563398 | 7.563755 | 7.564113 | 7.564470 | 7.564827 | 7.565185 | 7.565542 |
| 0.690 | 7.565899 | 7.566257 | 7.566614 | 7.566972 | 7.567329 | 7.567687 | 7.568044 | 7.568402 | 7.568759 | 7.569117 |
| 0.700 | 7.569474 | 7.569832 | 7.570189 | 7.570547 | 7.570904 | 7.571262 | 7.571619 | 7.571977 | 7.572335 | 7.572692 |
| 0.710 | 7.573050 | 7.573407 | 7.573765 | 7.574123 | 7.574480 | 7.574838 | 7.575196 | 7.575554 | 7.575911 | 7.576269 |
| 0.720 | 7.576627 | 7.576985 | 7.577342 | 7.577700 | 7.578058 | 7.578416 | 7.578774 | 7.579132 | 7.579491 | 7.579849 |
| 0.730 | 7.580205 | 7.580563 | 7.580921 | 7.581279 | 7.581637 | 7.581995 | 7.582353 | 7.582711 | 7.583069 | 7.583427 |
| 0.740 | 7.583785 | 7.584143 | 7.584501 | 7.584859 | 7.585217 | 7.585575 | 7.585933 | 7.586291 | 7.586649 | 7.587007 |
| 0.750 | 7.587366 | 7.587724 | 7.588082 | 7.588440 | 7.588798 | 7.589157 | 7.589515 | 7.589873 | 7.590231 | 7.590589 |
| 0.760 | 7.590948 | 7.591306 | 7.591664 | 7.592023 | 7.592381 | 7.592739 | 7.593098 | 7.593456 | 7.593814 | 7.594173 |
| 0.770 | 7.594531 | 7.594890 | 7.595248 | 7.595606 | 7.595965 | 7.596323 | 7.596682 | 7.597040 | 7.597399 | 7.597757 |
| 0.780 | 7.598116 | 7.598474 | 7.598833 | 7.599191 | 7.599550 | 7.599909 | 7.600267 | 7.600626 | 7.600984 | 7.601343 |
| 0.790 | 7.601702 | 7.602060 | 7.602419 | 7.602778 | 7.603136 | 7.603495 | 7.603854 | 7.604213 | 7.604571 | 7.604930 |
| 0.800 | 7.605289 | 7.605648 | 7.606006 | 7.606365 | 7.606724 | 7.607083 | 7.607442 | 7.607801 | 7.608160 | 7.608518 |
| 0.810 | 7.608877 | 7.609236 | 7.609595 | 7.609954 | 7.610313 | 7.610672 | 7.611031 | 7.611390 | 7.611749 | 7.612108 |
| 0.820 | 7.612467 | 7.612826 | 7.613185 | 7.613544 | 7.613903 | 7.614262 | 7.614622 | 7.614981 | 7.615340 | 7.615699 |
| 0.830 | 7.616058 | 7.616417 | 7.616776 | 7.617136 | 7.617495 | 7.617854 | 7.618213 | 7.618573 | 7.618932 | 7.619291 |
| 0.840 | 7.619650 | 7.620010 | 7.620369 | 7.620728 | 7.621088 | 7.621447 | 7.621806 | 7.622166 | 7.622525 | 7.622884 |
| 0.850 | 7.623244 | 7.623603 | 7.623963 | 7.624322 | 7.624682 | 7.625041 | 7.625401 | 7.625760 | 7.626120 | 7.626479 |
| 0.860 | 7.626839 | 7.627198 | 7.627558 | 7.627917 | 7.628277 | 7.628637 | 7.628996 | 7.629356 | 7.629715 | 7.630075 |
| 0.870 | 7.630435 | 7.630794 | 7.631154 | 7.631514 | 7.631874 | 7.632233 | 7.632593 | 7.632953 | 7.633313 | 7.633672 |
| 0.880 | 7.634032 | 7.634392 | 7.634752 | 7.635112 | 7.635471 | 7.635831 | 7.636191 | 7.636551 | 7.636911 | 7.637271 |
| 0.890 | 7.637631 | 7.637991 | 7.638351 | 7.638711 | 7.639071 | 7.639431 | 7.639791 | 7.640151 | 7.640511 | 7.640871 |
| 0.900 | 7.641231 | 7.641591 | 7.641951 | 7.642311 | 7.642671 | 7.643031 | 7.643391 | 7.643751 | 7.644112 | 7.644472 |
| 0.910 | 7.644832 | 7.645192 | 7.645552 | 7.645913 | 7.646273 | 7.646633 | 7.646993 | 7.647353 | 7.647714 | 7.648074 |
| 0.920 | 7.648434 | 7.648795 | 7.649155 | 7.649515 | 7.649876 | 7.650236 | 7.650596 | 7.650957 | 7.651317 | 7.651678 |
| 0.930 | 7.652038 | 7.652399 | 7.652759 | 7.653120 | 7.653480 | 7.653840 | 7.654201 | 7.654561 | 7.654922 | 7.655283 |
| 0.940 | 7.655643 | 7.656004 | 7.656364 | 7.656725 | 7.657085 | 7.657446 | 7.657807 | 7.658167 | 7.658528 | 7.658889 |
| 0.950 | 7.659249 | 7.659610 | 7.659971 | 7.660332 | 7.660692 | 7.661053 | 7.661414 | 7.661775 | 7.662135 | 7.662496 |
| 0.960 | 7.662857 | 7.663218 | 7.663579 | 7.663940 | 7.664300 | 7.664661 | 7.665022 | 7.665383 | 7.665744 | 7.666105 |
| 0.970 | 7.665466 | 7.665827 | 7.666188 | 7.666549 | 7.666910 | 7.667271 | 7.667632 | 7.667993 | 7.668354 | 7.668715 |
| 0.980 | 7.670076 | 7.670437 | 7.670798 | 7.671159 | 7.671520 | 7.671882 | 7.672243 | 7.672604 | 7.672965 | 7.673326 |
| 0.990 | 7.673687 | 7.674049 | 7.674410 | 7.674771 | 7.675132 | 7.675494 | 7.675855 | 7.676216 | 7.676577 | 7.676939 |

ATTENUATION IN DECIBELS
THETA FROM 50.000 TO 50.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 7.677300 | 7.677661 | 7.678023 | 7.678384 | 7.678746 | 7.679107 | 7.679468 | 7.679830 | 7.680191 | 7.680553 |
| 0.010 | 7.680914 | 7.681276 | 7.681637 | 7.681998 | 7.682360 | 7.682722 | 7.683083 | 7.683445 | 7.683806 | 7.684168 |
| 0.020 | 7.684529 | 7.684891 | 7.685253 | 7.685614 | 7.685976 | 7.686337 | 7.686699 | 7.687061 | 7.687422 | 7.687784 |
| 0.030 | 7.688146 | 7.688508 | 7.688869 | 7.689231 | 7.689593 | 7.689955 | 7.690316 | 7.690678 | 7.691040 | 7.691402 |
| 0.040 | 7.691764 | 7.692126 | 7.692487 | 7.692849 | 7.693211 | 7.693573 | 7.693935 | 7.694297 | 7.694659 | 7.695021 |
| 0.050 | 7.695383 | 7.695745 | 7.696107 | 7.696469 | 7.696831 | 7.697193 | 7.697555 | 7.697917 | 7.698279 | 7.698641 |
| 0.060 | 7.699003 | 7.699365 | 7.699727 | 7.700090 | 7.700452 | 7.700814 | 7.701176 | 7.701538 | 7.701900 | 7.702263 |
| 0.070 | 7.702625 | 7.702987 | 7.703349 | 7.703712 | 7.704074 | 7.704436 | 7.704798 | 7.705161 | 7.705523 | 7.705885 |
| 0.080 | 7.706248 | 7.706610 | 7.706973 | 7.707335 | 7.707697 | 7.708060 | 7.708422 | 7.708785 | 7.709147 | 7.709510 |
| 0.090 | 7.709872 | 7.710235 | 7.710597 | 7.710960 | 7.711322 | 7.711685 | 7.712047 | 7.712410 | 7.712772 | 7.713135 |
| 0.100 | 7.713495 | 7.713860 | 7.714223 | 7.714585 | 7.714948 | 7.715311 | 7.715674 | 7.716036 | 7.716399 | 7.716762 |
| 0.110 | 7.717124 | 7.717487 | 7.717850 | 7.718213 | 7.718576 | 7.718939 | 7.719301 | 7.719664 | 7.720027 | 7.720390 |
| 0.120 | 7.720752 | 7.721115 | 7.721478 | 7.721841 | 7.722204 | 7.722567 | 7.722930 | 7.723293 | 7.723656 | 7.724019 |
| 0.130 | 7.724302 | 7.724665 | 7.725028 | 7.725391 | 7.725754 | 7.726117 | 7.726480 | 7.726843 | 7.727206 | 7.727569 |
| 0.140 | 7.728013 | 7.728376 | 7.728739 | 7.729102 | 7.729465 | 7.729828 | 7.730191 | 7.730554 | 7.730917 | 7.731280 |
| 0.150 | 7.731645 | 7.732008 | 7.732371 | 7.732734 | 7.733097 | 7.733460 | 7.733823 | 7.734186 | 7.734549 | 7.734912 |
| 0.160 | 7.735278 | 7.735641 | 7.736005 | 7.736368 | 7.736731 | 7.737095 | 7.737458 | 7.737822 | 7.738185 | 7.738549 |
| 0.170 | 7.738912 | 7.739276 | 7.739639 | 7.740003 | 7.740366 | 7.740730 | 7.741094 | 7.741457 | 7.741821 | 7.742184 |
| 0.180 | 7.742548 | 7.742912 | 7.743275 | 7.743639 | 7.744003 | 7.744367 | 7.744730 | 7.745094 | 7.745458 | 7.745821 |
| 0.190 | 7.746185 | 7.746549 | 7.746913 | 7.747277 | 7.747640 | 7.748004 | 7.748368 | 7.748732 | 7.749096 | 7.749460 |
| 0.200 | 7.749824 | 7.750188 | 7.750551 | 7.750915 | 7.751279 | 7.751643 | 7.752007 | 7.752371 | 7.752735 | 7.753099 |
| 0.210 | 7.753463 | 7.753827 | 7.754191 | 7.754556 | 7.754920 | 7.755284 | 7.755648 | 7.756012 | 7.756376 | 7.756740 |
| 0.220 | 7.757104 | 7.757469 | 7.757833 | 7.758197 | 7.758561 | 7.758925 | 7.759290 | 7.759654 | 7.760018 | 7.760382 |
| 0.230 | 7.760747 | 7.761111 | 7.761475 | 7.761840 | 7.762204 | 7.762568 | 7.762933 | 7.763297 | 7.763661 | 7.764026 |
| 0.240 | 7.764390 | 7.764755 | 7.765119 | 7.765484 | 7.765848 | 7.766212 | 7.766577 | 7.766941 | 7.767306 | 7.767671 |
| 0.250 | 7.768035 | 7.768400 | 7.768764 | 7.769129 | 7.769493 | 7.769858 | 7.770223 | 7.770587 | 7.770952 | 7.771317 |
| 0.260 | 7.771681 | 7.772046 | 7.772411 | 7.772775 | 7.773140 | 7.773505 | 7.773870 | 7.774234 | 7.774599 | 7.774964 |
| 0.270 | 7.775329 | 7.775694 | 7.776058 | 7.776423 | 7.776788 | 7.777153 | 7.777518 | 7.777883 | 7.778248 | 7.778613 |
| 0.280 | 7.778977 | 7.779342 | 7.779707 | 7.780072 | 7.780437 | 7.780802 | 7.781167 | 7.781532 | 7.781897 | 7.782262 |
| 0.290 | 7.782628 | 7.782993 | 7.783358 | 7.783723 | 7.784088 | 7.784453 | 7.784818 | 7.785183 | 7.785549 | 7.785914 |
| 0.300 | 7.786279 | 7.786644 | 7.787009 | 7.787375 | 7.787740 | 7.788105 | 7.788470 | 7.788836 | 7.789201 | 7.789566 |
| 0.310 | 7.789932 | 7.790297 | 7.790662 | 7.791028 | 7.791393 | 7.791758 | 7.792124 | 7.792489 | 7.792855 | 7.793220 |
| 0.320 | 7.793585 | 7.793951 | 7.794316 | 7.794682 | 7.795047 | 7.795413 | 7.795778 | 7.796144 | 7.796510 | 7.796875 |
| 0.330 | 7.797241 | 7.797606 | 7.797972 | 7.798338 | 7.798703 | 7.799069 | 7.799434 | 7.799800 | 7.800166 | 7.800532 |
| 0.340 | 7.800897 | 7.801263 | 7.801629 | 7.801994 | 7.802360 | 7.802726 | 7.803092 | 7.803458 | 7.803823 | 7.804189 |
| 0.350 | 7.804555 | 7.804921 | 7.805287 | 7.805653 | 7.806019 | 7.806385 | 7.806750 | 7.807116 | 7.807482 | 7.807848 |
| 0.360 | 7.808214 | 7.808580 | 7.808946 | 7.809312 | 7.809678 | 7.810044 | 7.810410 | 7.810776 | 7.811143 | 7.811509 |
| 0.370 | 7.811875 | 7.812241 | 7.812607 | 7.812973 | 7.813339 | 7.813705 | 7.814071 | 7.814438 | 7.814804 | 7.815170 |
| 0.380 | 7.815535 | 7.815903 | 7.816269 | 7.816635 | 7.817001 | 7.817368 | 7.817734 | 7.818100 | 7.818467 | 7.818833 |
| 0.390 | 7.819199 | 7.819566 | 7.819932 | 7.820299 | 7.820665 | 7.821031 | 7.821398 | 7.821764 | 7.822131 | 7.822497 |
| 0.400 | 7.823230 | 7.823597 | 7.823963 | 7.824330 | 7.824696 | 7.825063 | 7.825430 | 7.825796 | 7.826163 | 7.826530 |
| 0.410 | 7.826529 | 7.826896 | 7.827263 | 7.827629 | 7.827996 | 7.828363 | 7.828729 | 7.829096 | 7.829463 | 7.829830 |
| 0.420 | 7.830196 | 7.830563 | 7.830930 | 7.831297 | 7.831664 | 7.832030 | 7.832397 | 7.832764 | 7.833131 | 7.833498 |
| 0.430 | 7.833865 | 7.834232 | 7.834598 | 7.834965 | 7.835332 | 7.835699 | 7.836066 | 7.836433 | 7.836800 | 7.837167 |
| 0.440 | 7.837534 | 7.837901 | 7.838268 | 7.838635 | 7.839002 | 7.839369 | 7.839737 | 7.840104 | 7.840471 | 7.840838 |
| 0.450 | 7.841215 | 7.841572 | 7.841939 | 7.842307 | 7.842674 | 7.843041 | 7.843408 | 7.843775 | 7.844143 | 7.844510 |
| 0.460 | 7.844877 | 7.845245 | 7.845612 | 7.845979 | 7.846346 | 7.846714 | 7.847081 | 7.847449 | 7.847816 | 7.848183 |
| 0.470 | 7.848551 | 7.848918 | 7.849286 | 7.849653 | 7.850020 | 7.850388 | 7.850755 | 7.851123 | 7.851490 | 7.851858 |
| 0.480 | 7.852225 | 7.852593 | 7.852961 | 7.853328 | 7.853696 | 7.854063 | 7.854431 | 7.854799 | 7.855166 | 7.855534 |
| 0.490 | 7.855902 | 7.856269 | 7.856637 | 7.857005 | 7.857372 | 7.857740 | 7.858108 | 7.858476 | 7.858843 | 7.859211 |

ATTENUATION IN DECIBELS
THETA FROM 50.500 TO 50.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 7.859579 | 7.859947 | 7.860315 | 7.860682 | 7.861050 | 7.861418 | 7.861786 | 7.862154 | 7.862522 | 7.862890 |
| 0.510 | 7.863238 | 7.863626 | 7.864014 | 7.864402 | 7.864790 | 7.865178 | 7.865566 | 7.865954 | 7.866342 | 7.866730 |
| 0.520 | 7.866538 | 7.867036 | 7.867534 | 7.868032 | 7.868530 | 7.869028 | 7.869526 | 7.869924 | 7.870422 | 7.870920 |
| 0.530 | 7.870619 | 7.871355 | 7.872092 | 7.872829 | 7.873566 | 7.874303 | 7.875040 | 7.875777 | 7.876514 | 7.877251 |
| 0.540 | 7.874302 | 7.875038 | 7.875774 | 7.876510 | 7.877246 | 7.877982 | 7.878718 | 7.879454 | 7.880190 | 7.880926 |
| 0.550 | 7.877986 | 7.878722 | 7.879458 | 7.880194 | 7.880930 | 7.881666 | 7.882402 | 7.883138 | 7.883874 | 7.884610 |
| 0.560 | 7.881671 | 7.882407 | 7.883143 | 7.883879 | 7.884615 | 7.885351 | 7.886087 | 7.886823 | 7.887559 | 7.888295 |
| 0.570 | 7.885357 | 7.886093 | 7.886829 | 7.887565 | 7.888301 | 7.889037 | 7.889773 | 7.890509 | 7.891245 | 7.891981 |
| 0.580 | 7.889045 | 7.889781 | 7.890517 | 7.891253 | 7.891989 | 7.892725 | 7.893461 | 7.894197 | 7.894933 | 7.895669 |
| 0.590 | 7.892734 | 7.893470 | 7.894206 | 7.894942 | 7.895678 | 7.896414 | 7.897150 | 7.897886 | 7.898622 | 7.899358 |
| 0.600 | 7.896425 | 7.897161 | 7.897897 | 7.898633 | 7.899369 | 7.900105 | 7.900841 | 7.901577 | 7.902313 | 7.903049 |
| 0.610 | 7.900117 | 7.900853 | 7.901589 | 7.902325 | 7.903061 | 7.903797 | 7.904533 | 7.905269 | 7.906005 | 7.906741 |
| 0.620 | 7.903810 | 7.904546 | 7.905282 | 7.906018 | 7.906754 | 7.907490 | 7.908226 | 7.908962 | 7.909698 | 7.910434 |
| 0.630 | 7.907504 | 7.908240 | 7.908976 | 7.909712 | 7.910448 | 7.911184 | 7.911920 | 7.912656 | 7.913392 | 7.914128 |
| 0.640 | 7.911200 | 7.911936 | 7.912672 | 7.913408 | 7.914144 | 7.914880 | 7.915616 | 7.916352 | 7.917088 | 7.917824 |
| 0.650 | 7.914897 | 7.915633 | 7.916369 | 7.917105 | 7.917841 | 7.918577 | 7.919313 | 7.920049 | 7.920785 | 7.921521 |
| 0.660 | 7.918505 | 7.919241 | 7.919977 | 7.920713 | 7.921449 | 7.922185 | 7.922921 | 7.923657 | 7.924393 | 7.925129 |
| 0.670 | 7.922295 | 7.923031 | 7.923767 | 7.924503 | 7.925239 | 7.925975 | 7.926711 | 7.927447 | 7.928183 | 7.928919 |
| 0.680 | 7.925996 | 7.926732 | 7.927468 | 7.928204 | 7.928940 | 7.929676 | 7.930412 | 7.931148 | 7.931884 | 7.932620 |
| 0.690 | 7.929699 | 7.930435 | 7.931171 | 7.931907 | 7.932643 | 7.933379 | 7.934115 | 7.934851 | 7.935587 | 7.936323 |
| 0.700 | 7.933422 | 7.934158 | 7.934894 | 7.935630 | 7.936366 | 7.937102 | 7.937838 | 7.938574 | 7.939310 | 7.940046 |
| 0.710 | 7.937107 | 7.937843 | 7.938579 | 7.939315 | 7.940051 | 7.940787 | 7.941523 | 7.942259 | 7.943095 | 7.943831 |
| 0.720 | 7.940813 | 7.941549 | 7.942285 | 7.943021 | 7.943757 | 7.944493 | 7.945229 | 7.945965 | 7.946701 | 7.947437 |
| 0.730 | 7.944521 | 7.945257 | 7.945993 | 7.946729 | 7.947465 | 7.948201 | 7.948937 | 7.949673 | 7.950409 | 7.951145 |
| 0.740 | 7.948230 | 7.948966 | 7.949702 | 7.950438 | 7.951174 | 7.951910 | 7.952646 | 7.953382 | 7.954118 | 7.954854 |
| 0.750 | 7.951940 | 7.952676 | 7.953412 | 7.954148 | 7.954884 | 7.955620 | 7.956356 | 7.957092 | 7.957828 | 7.958564 |
| 0.760 | 7.955652 | 7.956388 | 7.957124 | 7.957860 | 7.958596 | 7.959332 | 7.960068 | 7.960804 | 7.961540 | 7.962276 |
| 0.770 | 7.959365 | 7.960101 | 7.960837 | 7.961573 | 7.962309 | 7.963045 | 7.963781 | 7.964517 | 7.965253 | 7.965989 |
| 0.780 | 7.963079 | 7.963815 | 7.964551 | 7.965287 | 7.966023 | 7.966759 | 7.967495 | 7.968231 | 7.968967 | 7.969703 |
| 0.790 | 7.966795 | 7.967531 | 7.968267 | 7.969003 | 7.969739 | 7.970475 | 7.971211 | 7.971947 | 7.972683 | 7.973419 |
| 0.800 | 7.970511 | 7.971247 | 7.971983 | 7.972719 | 7.973455 | 7.974191 | 7.974927 | 7.975663 | 7.976399 | 7.977135 |
| 0.810 | 7.974230 | 7.974966 | 7.975702 | 7.976438 | 7.977174 | 7.977910 | 7.978646 | 7.979382 | 7.980118 | 7.980854 |
| 0.820 | 7.977949 | 7.978685 | 7.979421 | 7.980157 | 7.980893 | 7.981629 | 7.982365 | 7.983101 | 7.983837 | 7.984573 |
| 0.830 | 7.981670 | 7.982406 | 7.983142 | 7.983878 | 7.984614 | 7.985350 | 7.986086 | 7.986822 | 7.987558 | 7.988294 |
| 0.840 | 7.985392 | 7.986128 | 7.986864 | 7.987600 | 7.988336 | 7.989072 | 7.989808 | 7.990544 | 7.991280 | 7.992016 |
| 0.850 | 7.989116 | 7.989852 | 7.990588 | 7.991324 | 7.992060 | 7.992796 | 7.993532 | 7.994268 | 7.995004 | 7.995740 |
| 0.860 | 7.992840 | 7.993576 | 7.994312 | 7.995048 | 7.995784 | 7.996520 | 7.997256 | 7.997992 | 7.998728 | 7.999464 |
| 0.870 | 7.996567 | 7.997303 | 7.998039 | 7.998775 | 7.999511 | 8.000247 | 8.000983 | 8.001719 | 8.002455 | 8.003191 |
| 0.880 | 8.000294 | 8.001030 | 8.001766 | 8.002502 | 8.003238 | 8.003974 | 8.004710 | 8.005446 | 8.006182 | 8.006918 |
| 0.890 | 8.004023 | 8.004759 | 8.005495 | 8.006231 | 8.006967 | 8.007703 | 8.008439 | 8.009175 | 8.009911 | 8.010647 |
| 0.900 | 8.007753 | 8.008489 | 8.009225 | 8.009961 | 8.010697 | 8.011433 | 8.012169 | 8.012905 | 8.013641 | 8.014377 |
| 0.910 | 8.011485 | 8.012221 | 8.012957 | 8.013693 | 8.014429 | 8.015165 | 8.015901 | 8.016637 | 8.017373 | 8.018109 |
| 0.920 | 8.015217 | 8.015953 | 8.016689 | 8.017425 | 8.018161 | 8.018897 | 8.019633 | 8.020369 | 8.021105 | 8.021841 |
| 0.930 | 8.018952 | 8.019688 | 8.020424 | 8.021160 | 8.021896 | 8.022632 | 8.023368 | 8.024104 | 8.024840 | 8.025576 |
| 0.940 | 8.022687 | 8.023423 | 8.024159 | 8.024895 | 8.025631 | 8.026367 | 8.027103 | 8.027839 | 8.028575 | 8.029311 |
| 0.950 | 8.026424 | 8.027160 | 8.027896 | 8.028632 | 8.029368 | 8.030104 | 8.030840 | 8.031576 | 8.032312 | 8.033048 |
| 0.960 | 8.030162 | 8.030898 | 8.031634 | 8.032370 | 8.033106 | 8.033842 | 8.034578 | 8.035314 | 8.036050 | 8.036786 |
| 0.970 | 8.033901 | 8.034637 | 8.035373 | 8.036109 | 8.036845 | 8.037581 | 8.038317 | 8.039053 | 8.039789 | 8.040525 |
| 0.980 | 8.037642 | 8.038378 | 8.039114 | 8.039850 | 8.040586 | 8.041322 | 8.042058 | 8.042794 | 8.043530 | 8.044266 |
| 0.990 | 8.041384 | 8.042120 | 8.042856 | 8.043592 | 8.044328 | 8.045064 | 8.045800 | 8.046536 | 8.047272 | 8.048008 |

ATTENUATION IN DECIBELS
 THETA FROM 51.000 TO 51.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 8.045128 | 8.045502 | 8.045877 | 8.046251 | 8.046625 | 8.047000 | 8.047374 | 8.047749 | 8.048123 | 8.048498 |
| 0.010 | 8.048873 | 8.049247 | 8.049622 | 8.049996 | 8.050371 | 8.050745 | 8.051120 | 8.051495 | 8.051869 | 8.052244 |
| 0.020 | 8.052619 | 8.052993 | 8.053368 | 8.053743 | 8.054118 | 8.054492 | 8.054867 | 8.055242 | 8.055617 | 8.055991 |
| 0.030 | 8.056366 | 8.056741 | 8.057116 | 8.057491 | 8.057866 | 8.058241 | 8.058615 | 8.058990 | 8.059365 | 8.059740 |
| 0.040 | 8.060115 | 8.060490 | 8.060865 | 8.061240 | 8.061615 | 8.061990 | 8.062365 | 8.062740 | 8.063115 | 8.063490 |
| 0.050 | 8.063865 | 8.064240 | 8.064615 | 8.064991 | 8.065366 | 8.065741 | 8.066116 | 8.066491 | 8.066866 | 8.067242 |
| 0.060 | 8.067617 | 8.067992 | 8.068367 | 8.068742 | 8.069118 | 8.069493 | 8.069868 | 8.070244 | 8.070619 | 8.070994 |
| 0.070 | 8.071370 | 8.071745 | 8.072120 | 8.072496 | 8.072871 | 8.073246 | 8.073622 | 8.073997 | 8.074373 | 8.074748 |
| 0.080 | 8.075124 | 8.075499 | 8.075875 | 8.076250 | 8.076626 | 8.077001 | 8.077377 | 8.077752 | 8.078128 | 8.078504 |
| 0.090 | 8.078879 | 8.079255 | 8.079630 | 8.080006 | 8.080382 | 8.080757 | 8.081133 | 8.081509 | 8.081885 | 8.082260 |
| 0.100 | 8.082636 | 8.083012 | 8.083388 | 8.083763 | 8.084139 | 8.084515 | 8.084891 | 8.085267 | 8.085643 | 8.086018 |
| 0.110 | 8.086394 | 8.086770 | 8.087146 | 8.087522 | 8.087898 | 8.088274 | 8.088650 | 8.089026 | 8.089402 | 8.089778 |
| 0.120 | 8.090154 | 8.090530 | 8.090906 | 8.091282 | 8.091658 | 8.092034 | 8.092410 | 8.092786 | 8.093163 | 8.093539 |
| 0.130 | 8.093915 | 8.094291 | 8.094667 | 8.095043 | 8.095420 | 8.095796 | 8.096172 | 8.096548 | 8.096924 | 8.097301 |
| 0.140 | 8.097677 | 8.098053 | 8.098430 | 8.098806 | 8.099182 | 8.099559 | 8.099935 | 8.100311 | 8.100688 | 8.101064 |
| 0.150 | 8.101441 | 8.101817 | 8.102193 | 8.102570 | 8.102946 | 8.103323 | 8.103699 | 8.104076 | 8.104452 | 8.104829 |
| 0.160 | 8.105206 | 8.105582 | 8.105958 | 8.106335 | 8.106712 | 8.107088 | 8.107465 | 8.107842 | 8.108218 | 8.108595 |
| 0.170 | 8.108972 | 8.109348 | 8.109725 | 8.110102 | 8.110479 | 8.110855 | 8.111232 | 8.111609 | 8.111986 | 8.112363 |
| 0.180 | 8.112739 | 8.113116 | 8.113493 | 8.113870 | 8.114247 | 8.114624 | 8.115001 | 8.115378 | 8.115754 | 8.116131 |
| 0.190 | 8.116508 | 8.116885 | 8.117262 | 8.117639 | 8.118016 | 8.118393 | 8.118770 | 8.119147 | 8.119524 | 8.119902 |
| 0.200 | 8.120279 | 8.120656 | 8.121033 | 8.121410 | 8.121787 | 8.122164 | 8.122541 | 8.122919 | 8.123296 | 8.123673 |
| 0.210 | 8.124050 | 8.124428 | 8.124805 | 8.125182 | 8.125559 | 8.125937 | 8.126314 | 8.126691 | 8.127069 | 8.127446 |
| 0.220 | 8.127823 | 8.128201 | 8.128578 | 8.128955 | 8.129333 | 8.129710 | 8.130088 | 8.130465 | 8.130843 | 8.131220 |
| 0.230 | 8.131598 | 8.131975 | 8.132353 | 8.132730 | 8.133108 | 8.133485 | 8.133863 | 8.134241 | 8.134618 | 8.134996 |
| 0.240 | 8.135373 | 8.135751 | 8.136129 | 8.136506 | 8.136884 | 8.137262 | 8.137639 | 8.138017 | 8.138395 | 8.138773 |
| 0.250 | 8.139150 | 8.139528 | 8.139906 | 8.140284 | 8.140662 | 8.141039 | 8.141417 | 8.141795 | 8.142173 | 8.142551 |
| 0.260 | 8.142929 | 8.143307 | 8.143685 | 8.144063 | 8.144441 | 8.144819 | 8.145197 | 8.145575 | 8.145952 | 8.146331 |
| 0.270 | 8.146709 | 8.147087 | 8.147465 | 8.147843 | 8.148221 | 8.148599 | 8.148977 | 8.149355 | 8.149733 | 8.150112 |
| 0.280 | 8.150490 | 8.150868 | 8.151246 | 8.151624 | 8.152002 | 8.152381 | 8.152759 | 8.153137 | 8.153516 | 8.153894 |
| 0.290 | 8.154272 | 8.154650 | 8.155029 | 8.155407 | 8.155786 | 8.156164 | 8.156542 | 8.156921 | 8.157299 | 8.157678 |
| 0.300 | 8.158056 | 8.158434 | 8.158813 | 8.159191 | 8.159570 | 8.159948 | 8.160327 | 8.160705 | 8.161084 | 8.161463 |
| 0.310 | 8.161841 | 8.162220 | 8.162598 | 8.162977 | 8.163356 | 8.163734 | 8.164113 | 8.164492 | 8.164870 | 8.165249 |
| 0.320 | 8.165628 | 8.166006 | 8.166385 | 8.166764 | 8.167143 | 8.167521 | 8.167900 | 8.168279 | 8.168658 | 8.169037 |
| 0.330 | 8.169415 | 8.169794 | 8.170173 | 8.170552 | 8.170931 | 8.171310 | 8.171689 | 8.172068 | 8.172447 | 8.172826 |
| 0.340 | 8.173202 | 8.173584 | 8.173963 | 8.174342 | 8.174721 | 8.175100 | 8.175479 | 8.175858 | 8.176237 | 8.176616 |
| 0.350 | 8.176995 | 8.177374 | 8.177754 | 8.178133 | 8.178512 | 8.178891 | 8.179270 | 8.179650 | 8.180029 | 8.180408 |
| 0.360 | 8.180787 | 8.181167 | 8.181546 | 8.181925 | 8.182304 | 8.182684 | 8.183063 | 8.183442 | 8.183822 | 8.184201 |
| 0.370 | 8.184581 | 8.184960 | 8.185339 | 8.185719 | 8.186098 | 8.186478 | 8.186857 | 8.187237 | 8.187616 | 8.187996 |
| 0.380 | 8.188375 | 8.188755 | 8.189134 | 8.189514 | 8.189893 | 8.190273 | 8.190653 | 8.191032 | 8.191412 | 8.191792 |
| 0.390 | 8.192171 | 8.192551 | 8.192931 | 8.193310 | 8.193690 | 8.194070 | 8.194450 | 8.194829 | 8.195209 | 8.195589 |
| 0.400 | 8.195969 | 8.196348 | 8.196728 | 8.197108 | 8.197488 | 8.197868 | 8.198248 | 8.198628 | 8.199008 | 8.199387 |
| 0.410 | 8.199767 | 8.200147 | 8.200527 | 8.200907 | 8.201287 | 8.201667 | 8.202047 | 8.202427 | 8.202807 | 8.203187 |
| 0.420 | 8.203568 | 8.203948 | 8.204328 | 8.204708 | 8.205088 | 8.205468 | 8.205848 | 8.206228 | 8.206609 | 8.206989 |
| 0.430 | 8.207369 | 8.207749 | 8.208129 | 8.208509 | 8.208890 | 8.209270 | 8.209650 | 8.210031 | 8.210411 | 8.210791 |
| 0.440 | 8.211172 | 8.211552 | 8.211932 | 8.212313 | 8.212693 | 8.213074 | 8.213454 | 8.213835 | 8.214215 | 8.214595 |
| 0.450 | 8.214976 | 8.215356 | 8.215737 | 8.216117 | 8.216498 | 8.216879 | 8.217259 | 8.217640 | 8.218020 | 8.218401 |
| 0.460 | 8.218781 | 8.219162 | 8.219543 | 8.219923 | 8.220304 | 8.220685 | 8.221065 | 8.221446 | 8.221827 | 8.222208 |
| 0.470 | 8.222588 | 8.222969 | 8.223350 | 8.223731 | 8.224112 | 8.224492 | 8.224873 | 8.225254 | 8.225635 | 8.226016 |
| 0.480 | 8.226397 | 8.226778 | 8.227158 | 8.227539 | 8.227920 | 8.228301 | 8.228682 | 8.229063 | 8.229444 | 8.229825 |
| 0.490 | 8.230206 | 8.230587 | 8.230968 | 8.231349 | 8.231730 | 8.232112 | 8.232493 | 8.232874 | 8.233255 | 8.233636 |

ATTENUATION IN DECIBELS
 THETA FROM 51.500 TO 51.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 8.234017 | 8.234398 | 8.234780 | 8.235161 | 8.235542 | 8.235923 | 8.236305 | 8.236686 | 8.237067 | 8.237448 |
| 0.510 | 8.237830 | 8.238211 | 8.238592 | 8.238974 | 8.239355 | 8.239736 | 8.240118 | 8.240499 | 8.240880 | 8.241262 |
| 0.520 | 8.241643 | 8.242025 | 8.242406 | 8.242788 | 8.243169 | 8.243551 | 8.243932 | 8.244314 | 8.244695 | 8.245077 |
| 0.530 | 8.245458 | 8.245840 | 8.246222 | 8.246603 | 8.246985 | 8.247367 | 8.247748 | 8.248130 | 8.248512 | 8.248893 |
| 0.540 | 8.249275 | 8.249657 | 8.250038 | 8.250420 | 8.250802 | 8.251184 | 8.251565 | 8.251947 | 8.252329 | 8.252711 |
| 0.550 | 8.253053 | 8.253435 | 8.253816 | 8.254198 | 8.254580 | 8.254962 | 8.255344 | 8.255726 | 8.256108 | 8.256490 |
| 0.560 | 8.256912 | 8.257294 | 8.257676 | 8.258058 | 8.258440 | 8.258822 | 8.259204 | 8.259586 | 8.259968 | 8.260350 |
| 0.570 | 8.260732 | 8.261114 | 8.261496 | 8.261878 | 8.262260 | 8.262642 | 8.263024 | 8.263406 | 8.263788 | 8.264170 |
| 0.580 | 8.264555 | 8.264937 | 8.265319 | 8.265701 | 8.266083 | 8.266465 | 8.266847 | 8.267229 | 8.267611 | 8.267993 |
| 0.590 | 8.268378 | 8.268760 | 8.269143 | 8.269525 | 8.269907 | 8.270290 | 8.270672 | 8.271055 | 8.271437 | 8.271820 |
| 0.600 | 8.272202 | 8.272585 | 8.272968 | 8.273350 | 8.273733 | 8.274115 | 8.274498 | 8.274881 | 8.275263 | 8.275646 |
| 0.610 | 8.276029 | 8.276411 | 8.276794 | 8.277177 | 8.277559 | 8.277942 | 8.278325 | 8.278707 | 8.279090 | 8.279473 |
| 0.620 | 8.279856 | 8.280239 | 8.280622 | 8.281004 | 8.281387 | 8.281770 | 8.282153 | 8.282536 | 8.282919 | 8.283302 |
| 0.630 | 8.283685 | 8.284068 | 8.284451 | 8.284834 | 8.285217 | 8.285600 | 8.285983 | 8.286366 | 8.286749 | 8.287132 |
| 0.640 | 8.287515 | 8.287898 | 8.288281 | 8.288664 | 8.289047 | 8.289430 | 8.289814 | 8.290197 | 8.290580 | 8.290963 |
| 0.650 | 8.291346 | 8.291730 | 8.292113 | 8.292496 | 8.292879 | 8.293263 | 8.293646 | 8.294029 | 8.294413 | 8.294796 |
| 0.660 | 8.295179 | 8.295563 | 8.295946 | 8.296329 | 8.296713 | 8.297096 | 8.297480 | 8.297863 | 8.298247 | 8.298630 |
| 0.670 | 8.299014 | 8.299397 | 8.299781 | 8.300164 | 8.300548 | 8.300931 | 8.301315 | 8.301698 | 8.302082 | 8.302466 |
| 0.680 | 8.302849 | 8.303233 | 8.303617 | 8.304000 | 8.304384 | 8.304768 | 8.305151 | 8.305535 | 8.305919 | 8.306303 |
| 0.690 | 8.306686 | 8.307070 | 8.307454 | 8.307838 | 8.308222 | 8.308605 | 8.308989 | 8.309373 | 8.309757 | 8.310141 |
| 0.700 | 8.310525 | 8.310909 | 8.311293 | 8.311677 | 8.312060 | 8.312444 | 8.312829 | 8.313213 | 8.313596 | 8.313981 |
| 0.710 | 8.314365 | 8.314749 | 8.315133 | 8.315517 | 8.315901 | 8.316285 | 8.316669 | 8.317053 | 8.317437 | 8.317822 |
| 0.720 | 8.318206 | 8.318590 | 8.318974 | 8.319358 | 8.319743 | 8.320127 | 8.320511 | 8.320895 | 8.321280 | 8.321664 |
| 0.730 | 8.322048 | 8.322433 | 8.322817 | 8.323201 | 8.323586 | 8.323970 | 8.324355 | 8.324739 | 8.325123 | 8.325508 |
| 0.740 | 8.325892 | 8.326277 | 8.326661 | 8.327046 | 8.327430 | 8.327815 | 8.328200 | 8.328584 | 8.328968 | 8.329353 |
| 0.750 | 8.329738 | 8.330122 | 8.330507 | 8.330891 | 8.331276 | 8.331661 | 8.332045 | 8.332430 | 8.332815 | 8.333200 |
| 0.760 | 8.333584 | 8.333969 | 8.334354 | 8.334738 | 8.335123 | 8.335508 | 8.335893 | 8.336278 | 8.336663 | 8.337047 |
| 0.770 | 8.337432 | 8.337817 | 8.338202 | 8.338587 | 8.338972 | 8.339357 | 8.339742 | 8.340127 | 8.340512 | 8.340897 |
| 0.780 | 8.341282 | 8.341667 | 8.342052 | 8.342437 | 8.342822 | 8.343207 | 8.343592 | 8.343977 | 8.344362 | 8.344748 |
| 0.790 | 8.345133 | 8.345518 | 8.345903 | 8.346288 | 8.346673 | 8.347059 | 8.347444 | 8.347829 | 8.348214 | 8.348600 |
| 0.800 | 8.348985 | 8.349370 | 8.349756 | 8.350141 | 8.350526 | 8.350911 | 8.351297 | 8.351682 | 8.352068 | 8.352453 |
| 0.810 | 8.352839 | 8.353224 | 8.353609 | 8.353995 | 8.354380 | 8.354766 | 8.355151 | 8.355537 | 8.355922 | 8.356308 |
| 0.820 | 8.356694 | 8.357079 | 8.357465 | 8.357850 | 8.358236 | 8.358621 | 8.359007 | 8.359393 | 8.359779 | 8.360164 |
| 0.830 | 8.360550 | 8.360936 | 8.361321 | 8.361707 | 8.362093 | 8.362479 | 8.362864 | 8.363250 | 8.363636 | 8.364022 |
| 0.840 | 8.364408 | 8.364793 | 8.365179 | 8.365565 | 8.365951 | 8.366337 | 8.366723 | 8.367109 | 8.367495 | 8.367881 |
| 0.850 | 8.368267 | 8.368653 | 8.369039 | 8.369425 | 8.369811 | 8.370197 | 8.370583 | 8.370969 | 8.371355 | 8.371741 |
| 0.860 | 8.372127 | 8.372513 | 8.372900 | 8.373286 | 8.373672 | 8.374058 | 8.374444 | 8.374830 | 8.375217 | 8.375603 |
| 0.870 | 8.375989 | 8.376376 | 8.376762 | 8.377148 | 8.377534 | 8.377920 | 8.378306 | 8.378692 | 8.379078 | 8.379464 |
| 0.880 | 8.379853 | 8.380239 | 8.380625 | 8.381012 | 8.381398 | 8.381785 | 8.382171 | 8.382558 | 8.382944 | 8.383331 |
| 0.890 | 8.383717 | 8.384104 | 8.384490 | 8.384877 | 8.385264 | 8.385650 | 8.386037 | 8.386423 | 8.386810 | 8.387197 |
| 0.900 | 8.387593 | 8.387979 | 8.388365 | 8.388751 | 8.389138 | 8.389524 | 8.389910 | 8.390296 | 8.390682 | 8.391068 |
| 0.910 | 8.391451 | 8.391838 | 8.392224 | 8.392611 | 8.392998 | 8.393385 | 8.393772 | 8.394159 | 8.394546 | 8.394933 |
| 0.920 | 8.395320 | 8.395707 | 8.396094 | 8.396481 | 8.396868 | 8.397255 | 8.397642 | 8.398029 | 8.398416 | 8.398803 |
| 0.930 | 8.399190 | 8.399577 | 8.399964 | 8.400351 | 8.400738 | 8.401126 | 8.401513 | 8.401900 | 8.402287 | 8.402674 |
| 0.940 | 8.403062 | 8.403449 | 8.403836 | 8.404223 | 8.404611 | 8.404998 | 8.405385 | 8.405773 | 8.406160 | 8.406547 |
| 0.950 | 8.406935 | 8.407322 | 8.407709 | 8.408097 | 8.408484 | 8.408872 | 8.409259 | 8.409647 | 8.410034 | 8.410422 |
| 0.960 | 8.410809 | 8.411197 | 8.411584 | 8.411972 | 8.412359 | 8.412747 | 8.413134 | 8.413522 | 8.413910 | 8.414297 |
| 0.970 | 8.414675 | 8.415073 | 8.415468 | 8.415848 | 8.416236 | 8.416623 | 8.417011 | 8.417399 | 8.417787 | 8.418174 |
| 0.980 | 8.418562 | 8.418950 | 8.419338 | 8.419726 | 8.420113 | 8.420500 | 8.420888 | 8.421277 | 8.421665 | 8.422053 |
| 0.990 | 8.422441 | 8.422829 | 8.423217 | 8.423605 | 8.423993 | 8.424381 | 8.424769 | 8.425157 | 8.425545 | 8.425933 |

ATTENUATION IN DECIBELS
THETA FROM 52.000 TO 52.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 8.426321 | 8.426709 | 8.427097 | 8.427485 | 8.427873 | 8.428261 | 8.428649 | 8.429038 | 8.429426 | 8.429814 |
| 0.010 | 8.430202 | 8.430590 | 8.430979 | 8.431367 | 8.431755 | 8.432143 | 8.432532 | 8.432920 | 8.433308 | 8.433697 |
| 0.020 | 8.434685 | 8.434473 | 8.434862 | 8.435250 | 8.435639 | 8.436027 | 8.436415 | 8.436804 | 8.437192 | 8.437581 |
| 0.030 | 8.437969 | 8.438358 | 8.438746 | 8.439135 | 8.439523 | 8.439912 | 8.440300 | 8.440689 | 8.441078 | 8.441466 |
| 0.040 | 8.441855 | 8.442243 | 8.442632 | 8.443021 | 8.443409 | 8.443798 | 8.444187 | 8.444576 | 8.444964 | 8.445353 |
| 0.050 | 8.445742 | 8.446131 | 8.446519 | 8.446908 | 8.447297 | 8.447686 | 8.448075 | 8.448464 | 8.448852 | 8.449241 |
| 0.060 | 8.449630 | 8.450019 | 8.450408 | 8.450797 | 8.451186 | 8.451575 | 8.451964 | 8.452353 | 8.452742 | 8.453131 |
| 0.070 | 8.453520 | 8.453909 | 8.454298 | 8.454687 | 8.455076 | 8.455465 | 8.455855 | 8.456244 | 8.456633 | 8.457022 |
| 0.080 | 8.457411 | 8.457800 | 8.458190 | 8.458579 | 8.458968 | 8.459357 | 8.459747 | 8.460136 | 8.460525 | 8.460914 |
| 0.090 | 8.461304 | 8.461693 | 8.462083 | 8.462472 | 8.462861 | 8.463251 | 8.463640 | 8.464030 | 8.464419 | 8.464808 |
| 0.100 | 8.465198 | 8.465587 | 8.465977 | 8.466366 | 8.466756 | 8.467145 | 8.467535 | 8.467924 | 8.468314 | 8.468704 |
| 0.110 | 8.469093 | 8.469483 | 8.469872 | 8.470262 | 8.470652 | 8.471041 | 8.471431 | 8.471821 | 8.472211 | 8.472600 |
| 0.120 | 8.472990 | 8.473380 | 8.473770 | 8.474159 | 8.474549 | 8.474939 | 8.475329 | 8.475719 | 8.476109 | 8.476498 |
| 0.130 | 8.476888 | 8.477278 | 8.477668 | 8.478058 | 8.478448 | 8.478838 | 8.479228 | 8.479618 | 8.480008 | 8.480398 |
| 0.140 | 8.480768 | 8.481158 | 8.481548 | 8.481938 | 8.482328 | 8.482718 | 8.483108 | 8.483498 | 8.483888 | 8.484279 |
| 0.150 | 8.484689 | 8.485079 | 8.485469 | 8.485860 | 8.486250 | 8.486640 | 8.487030 | 8.487420 | 8.487811 | 8.488201 |
| 0.160 | 8.488591 | 8.488982 | 8.489372 | 8.489762 | 8.490153 | 8.490543 | 8.490934 | 8.491324 | 8.491714 | 8.492105 |
| 0.170 | 8.492495 | 8.492886 | 8.493276 | 8.493667 | 8.494057 | 8.494448 | 8.494838 | 8.495229 | 8.495619 | 8.496010 |
| 0.180 | 8.496400 | 8.496791 | 8.497182 | 8.497572 | 8.497963 | 8.498354 | 8.498744 | 8.499135 | 8.499526 | 8.499916 |
| 0.190 | 8.500307 | 8.500698 | 8.501089 | 8.501479 | 8.501870 | 8.502261 | 8.502652 | 8.503043 | 8.503433 | 8.503824 |
| 0.200 | 8.504215 | 8.504606 | 8.504997 | 8.505388 | 8.505779 | 8.506170 | 8.506561 | 8.506952 | 8.507343 | 8.507734 |
| 0.210 | 8.508125 | 8.508516 | 8.508907 | 8.509298 | 8.509689 | 8.510080 | 8.510471 | 8.510862 | 8.511253 | 8.511644 |
| 0.220 | 8.512035 | 8.512427 | 8.512818 | 8.513209 | 8.513600 | 8.513991 | 8.514383 | 8.514774 | 8.515165 | 8.515556 |
| 0.230 | 8.515948 | 8.516339 | 8.516730 | 8.517122 | 8.517513 | 8.517905 | 8.518296 | 8.518687 | 8.519079 | 8.519470 |
| 0.240 | 8.519861 | 8.520253 | 8.520644 | 8.521036 | 8.521427 | 8.521819 | 8.522210 | 8.522602 | 8.522993 | 8.523385 |
| 0.250 | 8.523777 | 8.524168 | 8.524560 | 8.524951 | 8.525343 | 8.525735 | 8.526126 | 8.526518 | 8.526910 | 8.527301 |
| 0.260 | 8.527693 | 8.528085 | 8.528477 | 8.528868 | 8.529260 | 8.529652 | 8.530044 | 8.530436 | 8.530827 | 8.531219 |
| 0.270 | 8.531611 | 8.532003 | 8.532395 | 8.532787 | 8.533179 | 8.533571 | 8.533962 | 8.534354 | 8.534746 | 8.535138 |
| 0.280 | 8.535530 | 8.535922 | 8.536314 | 8.536706 | 8.537099 | 8.537491 | 8.537883 | 8.538275 | 8.538667 | 8.539059 |
| 0.290 | 8.539451 | 8.539843 | 8.540236 | 8.540628 | 8.541020 | 8.541412 | 8.541804 | 8.542197 | 8.542589 | 8.542981 |
| 0.300 | 8.543766 | 8.544158 | 8.544550 | 8.544943 | 8.545335 | 8.545727 | 8.546120 | 8.546512 | 8.546904 | 8.547296 |
| 0.310 | 8.547297 | 8.547689 | 8.548082 | 8.548474 | 8.548867 | 8.549259 | 8.549652 | 8.550044 | 8.550437 | 8.550829 |
| 0.320 | 8.551222 | 8.551615 | 8.552007 | 8.552400 | 8.552792 | 8.553185 | 8.553578 | 8.553970 | 8.554363 | 8.554756 |
| 0.330 | 8.555148 | 8.555541 | 8.555934 | 8.556327 | 8.556719 | 8.557112 | 8.557505 | 8.557898 | 8.558290 | 8.558683 |
| 0.340 | 8.559076 | 8.559469 | 8.559862 | 8.560255 | 8.560648 | 8.561041 | 8.561434 | 8.561826 | 8.562220 | 8.562613 |
| 0.350 | 8.563005 | 8.563398 | 8.563792 | 8.564185 | 8.564578 | 8.564971 | 8.565364 | 8.565757 | 8.566150 | 8.566543 |
| 0.360 | 8.566936 | 8.567329 | 8.567722 | 8.568116 | 8.568509 | 8.568902 | 8.569295 | 8.569688 | 8.570082 | 8.570475 |
| 0.370 | 8.570868 | 8.571262 | 8.571655 | 8.572048 | 8.572441 | 8.572835 | 8.573228 | 8.573622 | 8.574015 | 8.574408 |
| 0.380 | 8.574802 | 8.575195 | 8.575589 | 8.575982 | 8.576375 | 8.576769 | 8.577163 | 8.577556 | 8.577950 | 8.578343 |
| 0.390 | 8.578737 | 8.579130 | 8.579524 | 8.579917 | 8.580311 | 8.580705 | 8.581098 | 8.581492 | 8.581886 | 8.582279 |
| 0.400 | 8.582673 | 8.583067 | 8.583460 | 8.583854 | 8.584248 | 8.584642 | 8.585035 | 8.585429 | 8.585823 | 8.586217 |
| 0.410 | 8.586611 | 8.587005 | 8.587399 | 8.587792 | 8.588186 | 8.588580 | 8.588974 | 8.589368 | 8.589762 | 8.590156 |
| 0.420 | 8.590950 | 8.591344 | 8.591738 | 8.592132 | 8.592526 | 8.592920 | 8.593314 | 8.593708 | 8.594102 | 8.594496 |
| 0.430 | 8.594491 | 8.594885 | 8.595279 | 8.595673 | 8.596067 | 8.596461 | 8.596856 | 8.597250 | 8.597644 | 8.598038 |
| 0.440 | 8.598433 | 8.598827 | 8.599221 | 8.599616 | 8.600010 | 8.600404 | 8.600799 | 8.601193 | 8.601587 | 8.601982 |
| 0.450 | 8.602376 | 8.602771 | 8.603165 | 8.603559 | 8.603954 | 8.604348 | 8.604743 | 8.605137 | 8.605532 | 8.605926 |
| 0.460 | 8.606321 | 8.606716 | 8.607110 | 8.607505 | 8.607899 | 8.608294 | 8.608689 | 8.609083 | 8.609478 | 8.609873 |
| 0.470 | 8.610267 | 8.610662 | 8.611057 | 8.611452 | 8.611846 | 8.612241 | 8.612636 | 8.613031 | 8.613425 | 8.613820 |
| 0.480 | 8.614215 | 8.614610 | 8.615005 | 8.615400 | 8.615795 | 8.616189 | 8.616584 | 8.616979 | 8.617374 | 8.617769 |
| 0.490 | 8.618164 | 8.618559 | 8.618954 | 8.619349 | 8.619744 | 8.620139 | 8.620534 | 8.620929 | 8.621325 | 8.621720 |

ATTENUATION IN DECIBELS
THETA FROM 52.500 TO 52.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 8.622115 | 8.622510 | 8.622905 | 8.623300 | 8.623695 | 8.624091 | 8.624486 | 8.624881 | 8.625276 | 8.625672 |
| 0.510 | 8.626067 | 8.626462 | 8.626857 | 8.627253 | 8.627648 | 8.628043 | 8.628439 | 8.628834 | 8.629230 | 8.629625 |
| 0.520 | 8.630020 | 8.630416 | 8.630811 | 8.631207 | 8.631602 | 8.631998 | 8.632393 | 8.632789 | 8.633184 | 8.633580 |
| 0.530 | 8.633975 | 8.634371 | 8.634766 | 8.635162 | 8.635558 | 8.635953 | 8.636349 | 8.636744 | 8.637140 | 8.637536 |
| 0.540 | 8.637931 | 8.638327 | 8.638723 | 8.639119 | 8.639514 | 8.639910 | 8.640306 | 8.640702 | 8.641098 | 8.641494 |
| 0.550 | 8.641869 | 8.642265 | 8.642661 | 8.643057 | 8.643453 | 8.643849 | 8.644245 | 8.644640 | 8.645036 | 8.645432 |
| 0.560 | 8.645848 | 8.646244 | 8.646640 | 8.647036 | 8.647432 | 8.647829 | 8.648225 | 8.648621 | 8.649017 | 8.649413 |
| 0.570 | 8.649809 | 8.650205 | 8.650601 | 8.650998 | 8.651394 | 8.651790 | 8.652186 | 8.652582 | 8.652979 | 8.653375 |
| 0.580 | 8.653771 | 8.654167 | 8.654564 | 8.654960 | 8.655356 | 8.655753 | 8.656149 | 8.656545 | 8.656942 | 8.657338 |
| 0.590 | 8.657735 | 8.658131 | 8.658527 | 8.658924 | 8.659320 | 8.659717 | 8.660113 | 8.660510 | 8.660906 | 8.661303 |
| 0.600 | 8.661699 | 8.662096 | 8.662493 | 8.662889 | 8.663286 | 8.663682 | 8.664079 | 8.664476 | 8.664872 | 8.665269 |
| 0.610 | 8.665666 | 8.666062 | 8.666459 | 8.666856 | 8.667253 | 8.667650 | 8.668046 | 8.668443 | 8.668840 | 8.669237 |
| 0.620 | 8.669634 | 8.670030 | 8.670427 | 8.670824 | 8.671221 | 8.671618 | 8.672015 | 8.672412 | 8.672809 | 8.673206 |
| 0.630 | 8.673603 | 8.674000 | 8.674397 | 8.674794 | 8.675191 | 8.675588 | 8.675985 | 8.676382 | 8.676779 | 8.677176 |
| 0.640 | 8.677573 | 8.677971 | 8.678368 | 8.678765 | 8.679162 | 8.679559 | 8.679956 | 8.680354 | 8.680751 | 8.681148 |
| 0.650 | 8.681545 | 8.681943 | 8.682340 | 8.682737 | 8.683135 | 8.683532 | 8.683929 | 8.684327 | 8.684724 | 8.685122 |
| 0.660 | 8.685519 | 8.685916 | 8.686314 | 8.686711 | 8.687109 | 8.687506 | 8.687904 | 8.688301 | 8.688699 | 8.689096 |
| 0.670 | 8.689494 | 8.689892 | 8.690289 | 8.690687 | 8.691084 | 8.691482 | 8.691880 | 8.692277 | 8.692675 | 8.693073 |
| 0.680 | 8.693470 | 8.693868 | 8.694266 | 8.694664 | 8.695061 | 8.695459 | 8.695857 | 8.696255 | 8.696653 | 8.697050 |
| 0.690 | 8.697448 | 8.697846 | 8.698244 | 8.698642 | 8.699040 | 8.699438 | 8.699836 | 8.700234 | 8.700631 | 8.701030 |
| 0.700 | 8.701427 | 8.701825 | 8.702224 | 8.702622 | 8.703020 | 8.703418 | 8.703816 | 8.704214 | 8.704612 | 8.705010 |
| 0.710 | 8.705408 | 8.705806 | 8.706205 | 8.706603 | 8.707001 | 8.707399 | 8.707797 | 8.708196 | 8.708594 | 8.708992 |
| 0.720 | 8.709390 | 8.709789 | 8.710187 | 8.710585 | 8.710984 | 8.711382 | 8.711780 | 8.712179 | 8.712577 | 8.712976 |
| 0.730 | 8.713374 | 8.713772 | 8.714171 | 8.714569 | 8.714968 | 8.715366 | 8.715765 | 8.716163 | 8.716562 | 8.716960 |
| 0.740 | 8.717359 | 8.717758 | 8.718156 | 8.718555 | 8.718953 | 8.719352 | 8.719751 | 8.720149 | 8.720548 | 8.720947 |
| 0.750 | 8.721346 | 8.721744 | 8.722143 | 8.722542 | 8.722941 | 8.723339 | 8.723738 | 8.724137 | 8.724536 | 8.724935 |
| 0.760 | 8.725333 | 8.725732 | 8.726131 | 8.726530 | 8.726929 | 8.727328 | 8.727727 | 8.728126 | 8.728525 | 8.728924 |
| 0.770 | 8.729323 | 8.729722 | 8.730121 | 8.730520 | 8.730919 | 8.731318 | 8.731717 | 8.732116 | 8.732515 | 8.732915 |
| 0.780 | 8.733314 | 8.733713 | 8.734112 | 8.734511 | 8.734910 | 8.735309 | 8.735709 | 8.736108 | 8.736507 | 8.736907 |
| 0.790 | 8.737306 | 8.737705 | 8.738105 | 8.738504 | 8.738903 | 8.739303 | 8.739702 | 8.740101 | 8.740501 | 8.740900 |
| 0.800 | 8.741300 | 8.741699 | 8.742099 | 8.742498 | 8.742898 | 8.743297 | 8.743697 | 8.744096 | 8.744496 | 8.744895 |
| 0.810 | 8.745295 | 8.745694 | 8.746094 | 8.746494 | 8.746893 | 8.747293 | 8.747693 | 8.748092 | 8.748492 | 8.748892 |
| 0.820 | 8.749291 | 8.749691 | 8.750091 | 8.750491 | 8.750890 | 8.751290 | 8.751690 | 8.752090 | 8.752490 | 8.752890 |
| 0.830 | 8.753289 | 8.753689 | 8.754089 | 8.754489 | 8.754889 | 8.755289 | 8.755689 | 8.756089 | 8.756489 | 8.756889 |
| 0.840 | 8.757289 | 8.757689 | 8.758089 | 8.758489 | 8.758889 | 8.759289 | 8.759689 | 8.760090 | 8.760490 | 8.760890 |
| 0.850 | 8.761290 | 8.761690 | 8.762090 | 8.762491 | 8.762891 | 8.763291 | 8.763691 | 8.764091 | 8.764492 | 8.764892 |
| 0.860 | 8.765292 | 8.765693 | 8.766093 | 8.766493 | 8.766894 | 8.767294 | 8.767695 | 8.768095 | 8.768495 | 8.768896 |
| 0.870 | 8.769296 | 8.769697 | 8.770097 | 8.770498 | 8.770898 | 8.771299 | 8.771699 | 8.772100 | 8.772500 | 8.772901 |
| 0.880 | 8.773302 | 8.773702 | 8.774103 | 8.774503 | 8.774904 | 8.775305 | 8.775705 | 8.776106 | 8.776507 | 8.776908 |
| 0.890 | 8.777308 | 8.777709 | 8.778110 | 8.778511 | 8.778911 | 8.779312 | 8.779713 | 8.780114 | 8.780515 | 8.780916 |
| 0.900 | 8.781317 | 8.781718 | 8.782118 | 8.782519 | 8.782920 | 8.783321 | 8.783722 | 8.784123 | 8.784524 | 8.784925 |
| 0.910 | 8.785326 | 8.785727 | 8.786128 | 8.786529 | 8.786931 | 8.787332 | 8.787733 | 8.788134 | 8.788535 | 8.788936 |
| 0.920 | 8.789337 | 8.789739 | 8.790140 | 8.790541 | 8.790942 | 8.791344 | 8.791745 | 8.792146 | 8.792547 | 8.792949 |
| 0.930 | 8.793350 | 8.793751 | 8.794153 | 8.794554 | 8.794955 | 8.795357 | 8.795758 | 8.796160 | 8.796561 | 8.796963 |
| 0.940 | 8.797364 | 8.797765 | 8.798167 | 8.798568 | 8.798970 | 8.799372 | 8.799773 | 8.800175 | 8.800576 | 8.800978 |
| 0.950 | 8.801380 | 8.801781 | 8.802183 | 8.802585 | 8.802986 | 8.803388 | 8.803789 | 8.804191 | 8.804593 | 8.804995 |
| 0.960 | 8.805397 | 8.805798 | 8.806200 | 8.806602 | 8.807004 | 8.807406 | 8.807807 | 8.808209 | 8.808611 | 8.809013 |
| 0.970 | 8.809415 | 8.809817 | 8.810219 | 8.810621 | 8.811023 | 8.811425 | 8.811827 | 8.812229 | 8.812631 | 8.813033 |
| 0.980 | 8.813435 | 8.813837 | 8.814239 | 8.814641 | 8.815043 | 8.815445 | 8.815847 | 8.816250 | 8.816652 | 8.817054 |
| 0.990 | 8.817456 | 8.817858 | 8.818261 | 8.818663 | 8.819065 | 8.819467 | 8.819870 | 8.820272 | 8.820674 | 8.821077 |

ATTENUATION IN DECIBELS
THETA FROM 53.000 TO 53.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 8.821479 | 8.821881 | 8.822284 | 8.822686 | 8.823089 | 8.823491 | 8.823893 | 8.824296 | 8.824698 | 8.825101 |
| 0.010 | 8.825503 | 8.825906 | 8.826308 | 8.826711 | 8.827113 | 8.827516 | 8.827918 | 8.828321 | 8.828724 | 8.829126 |
| 0.020 | 8.829529 | 8.829932 | 8.830334 | 8.830737 | 8.831140 | 8.831542 | 8.831945 | 8.832348 | 8.832751 | 8.833153 |
| 0.030 | 8.833556 | 8.833959 | 8.834362 | 8.834765 | 8.835167 | 8.835570 | 8.835973 | 8.836376 | 8.836779 | 8.837182 |
| 0.040 | 8.837585 | 8.837988 | 8.838391 | 8.838794 | 8.839197 | 8.839600 | 8.840003 | 8.840406 | 8.840809 | 8.841212 |
| 0.050 | 8.841615 | 8.842018 | 8.842421 | 8.842824 | 8.843227 | 8.843630 | 8.844034 | 8.844437 | 8.844840 | 8.845243 |
| 0.060 | 8.845647 | 8.846050 | 8.846453 | 8.846856 | 8.847260 | 8.847663 | 8.848066 | 8.848469 | 8.848873 | 8.849276 |
| 0.070 | 8.849679 | 8.850083 | 8.850486 | 8.850890 | 8.851293 | 8.851697 | 8.852100 | 8.852504 | 8.852907 | 8.853310 |
| 0.080 | 8.853714 | 8.854118 | 8.854521 | 8.854925 | 8.855328 | 8.855732 | 8.856135 | 8.856539 | 8.856943 | 8.857346 |
| 0.090 | 8.857750 | 8.858154 | 8.858557 | 8.858961 | 8.859365 | 8.859769 | 8.860172 | 8.860576 | 8.860980 | 8.861384 |
| 0.100 | 8.861787 | 8.862191 | 8.862595 | 8.862999 | 8.863403 | 8.863807 | 8.864211 | 8.864614 | 8.865018 | 8.865422 |
| 0.110 | 8.865826 | 8.866230 | 8.866634 | 8.867038 | 8.867442 | 8.867846 | 8.868250 | 8.868654 | 8.869058 | 8.869463 |
| 0.120 | 8.869867 | 8.870271 | 8.870675 | 8.871079 | 8.871483 | 8.871887 | 8.872292 | 8.872696 | 8.873100 | 8.873504 |
| 0.130 | 8.873909 | 8.874313 | 8.874717 | 8.875121 | 8.875526 | 8.875930 | 8.876334 | 8.876739 | 8.877143 | 8.877547 |
| 0.140 | 8.877952 | 8.878356 | 8.878761 | 8.879165 | 8.879570 | 8.879974 | 8.880379 | 8.880783 | 8.881188 | 8.881592 |
| 0.150 | 8.881977 | 8.882401 | 8.882806 | 8.883210 | 8.883615 | 8.884020 | 8.884424 | 8.884829 | 8.885234 | 8.885638 |
| 0.160 | 8.886043 | 8.886448 | 8.886852 | 8.887257 | 8.887662 | 8.888067 | 8.888471 | 8.888876 | 8.889281 | 8.889686 |
| 0.170 | 8.890091 | 8.890496 | 8.890900 | 8.891305 | 8.891710 | 8.892115 | 8.892520 | 8.892925 | 8.893330 | 8.893735 |
| 0.180 | 8.894140 | 8.894545 | 8.894950 | 8.895355 | 8.895760 | 8.896165 | 8.896570 | 8.896975 | 8.897380 | 8.897785 |
| 0.190 | 8.898190 | 8.898596 | 8.899001 | 8.899406 | 8.899811 | 8.900216 | 8.900622 | 8.901027 | 8.901432 | 8.901837 |
| 0.200 | 8.902243 | 8.902648 | 8.903053 | 8.903459 | 8.903864 | 8.904269 | 8.904675 | 8.905080 | 8.905486 | 8.905891 |
| 0.210 | 8.906296 | 8.906702 | 8.907107 | 8.907513 | 8.907918 | 8.908324 | 8.908729 | 8.909135 | 8.909540 | 8.909946 |
| 0.220 | 8.910351 | 8.910757 | 8.911163 | 8.911568 | 8.911974 | 8.912380 | 8.912785 | 8.913191 | 8.913597 | 8.914002 |
| 0.230 | 8.914408 | 8.914814 | 8.915219 | 8.915625 | 8.916031 | 8.916437 | 8.916843 | 8.917248 | 8.917654 | 8.918060 |
| 0.240 | 8.918466 | 8.918872 | 8.919278 | 8.919684 | 8.920090 | 8.920496 | 8.920902 | 8.921308 | 8.921714 | 8.922119 |
| 0.250 | 8.922526 | 8.922932 | 8.923338 | 8.923744 | 8.924150 | 8.924556 | 8.924962 | 8.925368 | 8.925774 | 8.926180 |
| 0.260 | 8.926587 | 8.926993 | 8.927399 | 8.927805 | 8.928211 | 8.928618 | 8.929024 | 8.929430 | 8.929836 | 8.930243 |
| 0.270 | 8.930649 | 8.931055 | 8.931462 | 8.931868 | 8.932274 | 8.932681 | 8.933087 | 8.933494 | 8.933900 | 8.934307 |
| 0.280 | 8.934713 | 8.935120 | 8.935526 | 8.935933 | 8.936339 | 8.936746 | 8.937152 | 8.937559 | 8.937965 | 8.938372 |
| 0.290 | 8.938779 | 8.939185 | 8.939592 | 8.939998 | 8.940405 | 8.940812 | 8.941218 | 8.941625 | 8.942032 | 8.942439 |
| 0.300 | 8.942845 | 8.943252 | 8.943659 | 8.944066 | 8.944473 | 8.944879 | 8.945286 | 8.945693 | 8.946100 | 8.946507 |
| 0.310 | 8.946914 | 8.947321 | 8.947728 | 8.948135 | 8.948542 | 8.948949 | 8.949356 | 8.949763 | 8.950170 | 8.950577 |
| 0.320 | 8.950984 | 8.951391 | 8.951798 | 8.952205 | 8.952612 | 8.953019 | 8.953426 | 8.953833 | 8.954241 | 8.954648 |
| 0.330 | 8.955055 | 8.955462 | 8.955870 | 8.956277 | 8.956684 | 8.957091 | 8.957499 | 8.957906 | 8.958313 | 8.958721 |
| 0.340 | 8.959128 | 8.959535 | 8.959943 | 8.960350 | 8.960757 | 8.961165 | 8.961572 | 8.961980 | 8.962387 | 8.962795 |
| 0.350 | 8.963202 | 8.963610 | 8.964017 | 8.964425 | 8.964832 | 8.965240 | 8.965648 | 8.966055 | 8.966463 | 8.966870 |
| 0.360 | 8.967278 | 8.967686 | 8.968094 | 8.968501 | 8.968909 | 8.969317 | 8.969724 | 8.970132 | 8.970540 | 8.970948 |
| 0.370 | 8.971355 | 8.971763 | 8.972171 | 8.972579 | 8.972987 | 8.973395 | 8.973803 | 8.974210 | 8.974618 | 8.975026 |
| 0.380 | 8.975434 | 8.975842 | 8.976250 | 8.976658 | 8.977066 | 8.977474 | 8.977882 | 8.978290 | 8.978698 | 8.979106 |
| 0.390 | 8.979514 | 8.979923 | 8.980331 | 8.980739 | 8.981147 | 8.981555 | 8.981963 | 8.982372 | 8.982780 | 8.983188 |
| 0.400 | 8.983596 | 8.984004 | 8.984413 | 8.984821 | 8.985229 | 8.985638 | 8.986046 | 8.986454 | 8.986863 | 8.987271 |
| 0.410 | 8.987680 | 8.988088 | 8.988496 | 8.988905 | 8.989313 | 8.989722 | 8.990130 | 8.990539 | 8.990947 | 8.991356 |
| 0.420 | 8.991764 | 8.992173 | 8.992581 | 8.992990 | 8.993399 | 8.993807 | 8.994216 | 8.994624 | 8.995033 | 8.995442 |
| 0.430 | 8.995851 | 8.996259 | 8.996668 | 8.997077 | 8.997486 | 8.997894 | 8.998303 | 8.998712 | 8.999121 | 8.999529 |
| 0.440 | 8.999938 | 9.000347 | 9.000756 | 9.001165 | 9.001574 | 9.001983 | 9.002392 | 9.002801 | 9.003210 | 9.003619 |
| 0.450 | 9.004027 | 9.004436 | 9.004845 | 9.005255 | 9.005664 | 9.006073 | 9.006482 | 9.006891 | 9.007300 | 9.007709 |
| 0.460 | 9.008118 | 9.008527 | 9.008937 | 9.009346 | 9.009755 | 9.010164 | 9.010573 | 9.010983 | 9.011392 | 9.011801 |
| 0.470 | 9.012210 | 9.012620 | 9.013029 | 9.013438 | 9.013848 | 9.014257 | 9.014666 | 9.015076 | 9.015485 | 9.015895 |
| 0.480 | 9.016304 | 9.016714 | 9.017123 | 9.017533 | 9.017942 | 9.018352 | 9.018761 | 9.019171 | 9.019580 | 9.019990 |
| 0.490 | 9.020399 | 9.020809 | 9.021219 | 9.021628 | 9.022038 | 9.022447 | 9.022857 | 9.023267 | 9.023677 | 9.024086 |

ATTENUATION IN DECIBELS
THETA FROM 53.500 TO 53.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 9.024496 | 9.024906 | 9.025316 | 9.025725 | 9.026135 | 9.026545 | 9.026955 | 9.027365 | 9.027774 | 9.028184 |
| 0.510 | 9.028594 | 9.029004 | 9.029414 | 9.029824 | 9.030234 | 9.030644 | 9.031054 | 9.031464 | 9.031874 | 9.032284 |
| 0.520 | 9.032694 | 9.033104 | 9.033514 | 9.033924 | 9.034334 | 9.034744 | 9.035154 | 9.035564 | 9.035974 | 9.036384 |
| 0.530 | 9.036795 | 9.037205 | 9.037616 | 9.038026 | 9.038436 | 9.038846 | 9.039256 | 9.039666 | 9.040076 | 9.040487 |
| 0.540 | 9.040898 | 9.041308 | 9.041718 | 9.042129 | 9.042539 | 9.042950 | 9.043360 | 9.043771 | 9.044181 | 9.044591 |
| 0.550 | 9.045002 | 9.045412 | 9.045823 | 9.046233 | 9.046644 | 9.047055 | 9.047465 | 9.047876 | 9.048286 | 9.048697 |
| 0.560 | 9.049108 | 9.049518 | 9.049929 | 9.050340 | 9.050750 | 9.051161 | 9.051572 | 9.051983 | 9.052393 | 9.052804 |
| 0.570 | 9.053215 | 9.053626 | 9.054036 | 9.054447 | 9.054858 | 9.055269 | 9.055680 | 9.056091 | 9.056502 | 9.056913 |
| 0.580 | 9.057323 | 9.057734 | 9.058145 | 9.058556 | 9.058967 | 9.059378 | 9.059789 | 9.060200 | 9.060611 | 9.061023 |
| 0.590 | 9.061434 | 9.061845 | 9.062256 | 9.062667 | 9.063078 | 9.063489 | 9.063900 | 9.064312 | 9.064723 | 9.065134 |
| 0.600 | 9.065545 | 9.065957 | 9.066368 | 9.066779 | 9.067190 | 9.067602 | 9.068013 | 9.068424 | 9.068836 | 9.069247 |
| 0.610 | 9.069659 | 9.070070 | 9.070481 | 9.070893 | 9.071304 | 9.071716 | 9.072127 | 9.072539 | 9.072950 | 9.073362 |
| 0.620 | 9.073773 | 9.074185 | 9.074596 | 9.075008 | 9.075420 | 9.075831 | 9.076243 | 9.076654 | 9.077066 | 9.077478 |
| 0.630 | 9.077889 | 9.078301 | 9.078713 | 9.079125 | 9.079536 | 9.079948 | 9.080360 | 9.080772 | 9.081183 | 9.081595 |
| 0.640 | 9.082007 | 9.082419 | 9.082831 | 9.083243 | 9.083655 | 9.084067 | 9.084478 | 9.084890 | 9.085302 | 9.085714 |
| 0.650 | 9.086126 | 9.086538 | 9.086950 | 9.087362 | 9.087774 | 9.088187 | 9.088599 | 9.089011 | 9.089423 | 9.089835 |
| 0.660 | 9.090247 | 9.090659 | 9.091071 | 9.091484 | 9.091896 | 9.092308 | 9.092720 | 9.093132 | 9.093545 | 9.093957 |
| 0.670 | 9.094369 | 9.094782 | 9.095194 | 9.095606 | 9.096019 | 9.096431 | 9.096843 | 9.097256 | 9.097668 | 9.098081 |
| 0.680 | 9.098493 | 9.098905 | 9.099318 | 9.099730 | 9.100143 | 9.100555 | 9.100968 | 9.101380 | 9.101793 | 9.102206 |
| 0.690 | 9.102618 | 9.103031 | 9.103443 | 9.103856 | 9.104268 | 9.104681 | 9.105094 | 9.105507 | 9.105919 | 9.106332 |
| 0.700 | 9.106745 | 9.107158 | 9.107571 | 9.107983 | 9.108396 | 9.108809 | 9.109222 | 9.109635 | 9.110047 | 9.110460 |
| 0.710 | 9.110873 | 9.111286 | 9.111699 | 9.112112 | 9.112525 | 9.112938 | 9.113351 | 9.113764 | 9.114177 | 9.114590 |
| 0.720 | 9.115003 | 9.115416 | 9.115829 | 9.116242 | 9.116655 | 9.117068 | 9.117482 | 9.117895 | 9.118308 | 9.118721 |
| 0.730 | 9.119134 | 9.119547 | 9.119961 | 9.120374 | 9.120787 | 9.121200 | 9.121614 | 9.122027 | 9.122440 | 9.122854 |
| 0.740 | 9.123268 | 9.123680 | 9.124094 | 9.124507 | 9.124921 | 9.125334 | 9.125747 | 9.126161 | 9.126574 | 9.126988 |
| 0.750 | 9.127401 | 9.127815 | 9.128228 | 9.128642 | 9.129056 | 9.129469 | 9.129883 | 9.130296 | 9.130710 | 9.131124 |
| 0.760 | 9.131537 | 9.131951 | 9.132365 | 9.132778 | 9.133192 | 9.133606 | 9.134019 | 9.134433 | 9.134847 | 9.135261 |
| 0.770 | 9.135674 | 9.136088 | 9.136502 | 9.136916 | 9.137330 | 9.137744 | 9.138158 | 9.138572 | 9.138985 | 9.139399 |
| 0.780 | 9.139813 | 9.140227 | 9.140641 | 9.141055 | 9.141469 | 9.141883 | 9.142297 | 9.142711 | 9.143125 | 9.143540 |
| 0.790 | 9.143954 | 9.144368 | 9.144782 | 9.145196 | 9.145610 | 9.146024 | 9.146439 | 9.146853 | 9.147267 | 9.147681 |
| 0.800 | 9.148095 | 9.148510 | 9.148924 | 9.149338 | 9.149753 | 9.150167 | 9.150581 | 9.150996 | 9.151410 | 9.151824 |
| 0.810 | 9.152239 | 9.152653 | 9.153068 | 9.153482 | 9.153897 | 9.154311 | 9.154726 | 9.155140 | 9.155555 | 9.155969 |
| 0.820 | 9.156384 | 9.156798 | 9.157213 | 9.157628 | 9.158042 | 9.158457 | 9.158872 | 9.159286 | 9.159701 | 9.160116 |
| 0.830 | 9.160530 | 9.160945 | 9.161360 | 9.161775 | 9.162189 | 9.162604 | 9.163019 | 9.163434 | 9.163849 | 9.164263 |
| 0.840 | 9.164678 | 9.165093 | 9.165508 | 9.165923 | 9.166338 | 9.166753 | 9.167168 | 9.167583 | 9.167998 | 9.168413 |
| 0.850 | 9.168828 | 9.169243 | 9.169658 | 9.170073 | 9.170488 | 9.170903 | 9.171318 | 9.171733 | 9.172148 | 9.172563 |
| 0.860 | 9.172979 | 9.173394 | 9.173809 | 9.174224 | 9.174639 | 9.175054 | 9.175469 | 9.175884 | 9.176301 | 9.176716 |
| 0.870 | 9.177131 | 9.177547 | 9.177962 | 9.178377 | 9.178793 | 9.179208 | 9.179623 | 9.180039 | 9.180454 | 9.180870 |
| 0.880 | 9.181285 | 9.181701 | 9.182116 | 9.182532 | 9.182947 | 9.183363 | 9.183778 | 9.184194 | 9.184610 | 9.185025 |
| 0.890 | 9.185441 | 9.185856 | 9.186272 | 9.186688 | 9.187103 | 9.187519 | 9.187935 | 9.188351 | 9.188766 | 9.189182 |
| 0.900 | 9.189598 | 9.190014 | 9.190429 | 9.190845 | 9.191261 | 9.191677 | 9.192093 | 9.192509 | 9.192925 | 9.193341 |
| 0.910 | 9.193756 | 9.194172 | 9.194588 | 9.195004 | 9.195420 | 9.195836 | 9.196252 | 9.196668 | 9.197084 | 9.197500 |
| 0.920 | 9.197917 | 9.198333 | 9.198749 | 9.199165 | 9.199581 | 9.199997 | 9.200413 | 9.200830 | 9.201246 | 9.201662 |
| 0.930 | 9.202078 | 9.202494 | 9.202911 | 9.203327 | 9.203743 | 9.204160 | 9.204576 | 9.204992 | 9.205409 | 9.205825 |
| 0.940 | 9.206241 | 9.206658 | 9.207074 | 9.207491 | 9.207907 | 9.208323 | 9.208740 | 9.209157 | 9.209573 | 9.209990 |
| 0.950 | 9.210406 | 9.210823 | 9.211239 | 9.211656 | 9.212072 | 9.212489 | 9.212906 | 9.213322 | 9.213739 | 9.214156 |
| 0.960 | 9.214572 | 9.214989 | 9.215406 | 9.215822 | 9.216239 | 9.216656 | 9.217073 | 9.217490 | 9.217906 | 9.218323 |
| 0.970 | 9.218740 | 9.219157 | 9.219574 | 9.220008 | 9.220424 | 9.220842 | 9.221261 | 9.221678 | 9.222095 | 9.222512 |
| 0.980 | 9.222909 | 9.223326 | 9.223743 | 9.224160 | 9.224578 | 9.224995 | 9.225412 | 9.225829 | 9.226246 | 9.226663 |
| 0.990 | 9.227080 | 9.227497 | 9.227915 | 9.228332 | 9.228749 | 9.229166 | 9.229583 | 9.230001 | 9.230418 | 9.230835 |

ATTENUATION IN DECIBELS
 THETA FROM 54.000 TO 54.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 9.231253 | 9.231670 | 9.232087 | 9.232504 | 9.232922 | 9.233339 | 9.233757 | 9.234174 | 9.234591 | 9.235009 |
| 0.010 | 9.235426 | 9.235844 | 9.236261 | 9.236679 | 9.237096 | 9.237514 | 9.237931 | 9.238349 | 9.238767 | 9.239184 |
| 0.020 | 9.239602 | 9.240019 | 9.240437 | 9.240855 | 9.241272 | 9.241690 | 9.242108 | 9.242526 | 9.242943 | 9.243361 |
| 0.030 | 9.243779 | 9.244197 | 9.244614 | 9.245032 | 9.245450 | 9.245868 | 9.246286 | 9.246704 | 9.247121 | 9.247539 |
| 0.040 | 9.247957 | 9.248375 | 9.248793 | 9.249211 | 9.249629 | 9.250047 | 9.250465 | 9.250883 | 9.251301 | 9.251719 |
| 0.050 | 9.252137 | 9.252555 | 9.252973 | 9.253392 | 9.253810 | 9.254228 | 9.254646 | 9.255064 | 9.255482 | 9.255900 |
| 0.060 | 9.256319 | 9.256737 | 9.257155 | 9.257574 | 9.257992 | 9.258410 | 9.258829 | 9.259247 | 9.259665 | 9.260084 |
| 0.070 | 9.260502 | 9.260920 | 9.261339 | 9.261757 | 9.262176 | 9.262594 | 9.263013 | 9.263431 | 9.263849 | 9.264268 |
| 0.080 | 9.264687 | 9.265105 | 9.265524 | 9.265942 | 9.266361 | 9.266779 | 9.267198 | 9.267617 | 9.268035 | 9.268454 |
| 0.090 | 9.268873 | 9.269291 | 9.269710 | 9.270129 | 9.270548 | 9.270966 | 9.271385 | 9.271804 | 9.272223 | 9.272642 |
| 0.100 | 9.273060 | 9.273479 | 9.273898 | 9.274317 | 9.274736 | 9.275155 | 9.275574 | 9.275993 | 9.276412 | 9.276831 |
| 0.110 | 9.277250 | 9.277669 | 9.278088 | 9.278507 | 9.278926 | 9.279345 | 9.279764 | 9.280183 | 9.280602 | 9.281021 |
| 0.120 | 9.281440 | 9.281860 | 9.282279 | 9.282698 | 9.283117 | 9.283536 | 9.283955 | 9.284375 | 9.284794 | 9.285213 |
| 0.130 | 9.285633 | 9.286052 | 9.286471 | 9.286891 | 9.287310 | 9.287730 | 9.288149 | 9.288568 | 9.288988 | 9.289407 |
| 0.140 | 9.289827 | 9.290246 | 9.290666 | 9.291085 | 9.291505 | 9.291924 | 9.292344 | 9.292763 | 9.293183 | 9.293602 |
| 0.150 | 9.294022 | 9.294442 | 9.294861 | 9.295281 | 9.295701 | 9.296120 | 9.296540 | 9.296960 | 9.297379 | 9.297799 |
| 0.160 | 9.298219 | 9.298639 | 9.299059 | 9.299478 | 9.299898 | 9.300318 | 9.300738 | 9.301158 | 9.301578 | 9.301998 |
| 0.170 | 9.302418 | 9.302837 | 9.303257 | 9.303677 | 9.304097 | 9.304517 | 9.304937 | 9.305357 | 9.305777 | 9.306197 |
| 0.180 | 9.306617 | 9.307038 | 9.307458 | 9.307878 | 9.308298 | 9.308718 | 9.309138 | 9.309558 | 9.309979 | 9.310399 |
| 0.190 | 9.310819 | 9.311239 | 9.311660 | 9.312080 | 9.312500 | 9.312920 | 9.313341 | 9.313761 | 9.314181 | 9.314602 |
| 0.200 | 9.315022 | 9.315443 | 9.315863 | 9.316283 | 9.316704 | 9.317124 | 9.317545 | 9.317965 | 9.318386 | 9.318806 |
| 0.210 | 9.319227 | 9.319647 | 9.320068 | 9.320489 | 9.320909 | 9.321330 | 9.321750 | 9.322171 | 9.322592 | 9.323012 |
| 0.220 | 9.323433 | 9.323854 | 9.324275 | 9.324695 | 9.325116 | 9.325537 | 9.325958 | 9.326378 | 9.326799 | 9.327220 |
| 0.230 | 9.327641 | 9.328062 | 9.328483 | 9.328903 | 9.329324 | 9.329745 | 9.330166 | 9.330587 | 9.331008 | 9.331429 |
| 0.240 | 9.331850 | 9.332271 | 9.332692 | 9.333113 | 9.333534 | 9.333955 | 9.334376 | 9.334798 | 9.335219 | 9.335640 |
| 0.250 | 9.336061 | 9.336482 | 9.336903 | 9.337325 | 9.337746 | 9.338167 | 9.338588 | 9.339010 | 9.339431 | 9.339852 |
| 0.260 | 9.340273 | 9.340695 | 9.341116 | 9.341537 | 9.341959 | 9.342380 | 9.342802 | 9.343223 | 9.343644 | 9.344066 |
| 0.270 | 9.344487 | 9.344909 | 9.345330 | 9.345752 | 9.346173 | 9.346595 | 9.347017 | 9.347438 | 9.347860 | 9.348281 |
| 0.280 | 9.348703 | 9.349125 | 9.349546 | 9.349968 | 9.350390 | 9.350811 | 9.351233 | 9.351655 | 9.352077 | 9.352498 |
| 0.290 | 9.352920 | 9.353342 | 9.353764 | 9.354185 | 9.354607 | 9.355029 | 9.355451 | 9.355873 | 9.356295 | 9.356717 |
| 0.300 | 9.357139 | 9.357561 | 9.357983 | 9.358405 | 9.358827 | 9.359249 | 9.359671 | 9.360093 | 9.360515 | 9.360937 |
| 0.310 | 9.361359 | 9.361781 | 9.362203 | 9.362625 | 9.363047 | 9.363469 | 9.363892 | 9.364314 | 9.364736 | 9.365158 |
| 0.320 | 9.365581 | 9.366003 | 9.366425 | 9.366847 | 9.367270 | 9.367692 | 9.368114 | 9.368537 | 9.368959 | 9.369381 |
| 0.330 | 9.369804 | 9.370226 | 9.370649 | 9.371071 | 9.371494 | 9.371916 | 9.372339 | 9.372761 | 9.373184 | 9.373606 |
| 0.340 | 9.374451 | 9.374874 | 9.375296 | 9.375719 | 9.376142 | 9.376564 | 9.376987 | 9.377410 | 9.377832 | 9.378254 |
| 0.350 | 9.378255 | 9.378678 | 9.379101 | 9.379523 | 9.379946 | 9.380369 | 9.380792 | 9.381214 | 9.381637 | 9.382060 |
| 0.360 | 9.382483 | 9.382906 | 9.383329 | 9.383752 | 9.384175 | 9.384598 | 9.385021 | 9.385444 | 9.385867 | 9.386290 |
| 0.370 | 9.387136 | 9.387559 | 9.387982 | 9.388405 | 9.388828 | 9.389251 | 9.389674 | 9.390097 | 9.390520 | 9.390943 |
| 0.380 | 9.390944 | 9.391367 | 9.391790 | 9.392213 | 9.392637 | 9.393060 | 9.393483 | 9.393906 | 9.394330 | 9.394753 |
| 0.390 | 9.395176 | 9.395600 | 9.396023 | 9.396446 | 9.396870 | 9.397293 | 9.397717 | 9.398140 | 9.398564 | 9.398987 |
| 0.400 | 9.399410 | 9.399834 | 9.400257 | 9.400681 | 9.401105 | 9.401528 | 9.401952 | 9.402375 | 9.402799 | 9.403223 |
| 0.410 | 9.403646 | 9.404070 | 9.404494 | 9.404917 | 9.405341 | 9.405765 | 9.406188 | 9.406612 | 9.407036 | 9.407460 |
| 0.420 | 9.407884 | 9.408307 | 9.408731 | 9.409155 | 9.409579 | 9.410003 | 9.410427 | 9.410851 | 9.411275 | 9.411698 |
| 0.430 | 9.412122 | 9.412546 | 9.412970 | 9.413394 | 9.413818 | 9.414243 | 9.414667 | 9.415091 | 9.415515 | 9.415939 |
| 0.440 | 9.416363 | 9.416787 | 9.417211 | 9.417635 | 9.418059 | 9.418484 | 9.418908 | 9.419332 | 9.419756 | 9.420181 |
| 0.450 | 9.420605 | 9.421029 | 9.421453 | 9.421878 | 9.422302 | 9.422727 | 9.423151 | 9.423575 | 9.424000 | 9.424424 |
| 0.460 | 9.424848 | 9.425273 | 9.425697 | 9.426122 | 9.426546 | 9.426971 | 9.427395 | 9.427820 | 9.428244 | 9.428668 |
| 0.470 | 9.429074 | 9.429518 | 9.429943 | 9.430367 | 9.430792 | 9.431217 | 9.431641 | 9.432066 | 9.432491 | 9.432916 |
| 0.480 | 9.433340 | 9.433765 | 9.434190 | 9.434615 | 9.435040 | 9.435464 | 9.435889 | 9.436314 | 9.436739 | 9.437164 |
| 0.490 | 9.437539 | 9.438014 | 9.438438 | 9.438863 | 9.439288 | 9.439713 | 9.440138 | 9.440563 | 9.440988 | 9.441413 |

ATTENUATION IN DECIBELS
THETA FROM 54.500 TO 54.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500 | 9.441839 | 9.442264 | 9.442689 | 9.443114 | 9.443539 | 9.443964 | 9.444389 | 9.444814 | 9.445240 | 9.445665 |
| 0.510 | 9.446090 | 9.446515 | 9.446940 | 9.447366 | 9.447791 | 9.448216 | 9.448642 | 9.449067 | 9.449492 | 9.449918 |
| 0.520 | 9.450343 | 9.450768 | 9.451194 | 9.451619 | 9.452044 | 9.452470 | 9.452895 | 9.453321 | 9.453746 | 9.454172 |
| 0.530 | 9.454597 | 9.455023 | 9.455449 | 9.455874 | 9.456300 | 9.456725 | 9.457151 | 9.457577 | 9.458002 | 9.458428 |
| 0.540 | 9.458854 | 9.459279 | 9.459705 | 9.460131 | 9.460557 | 9.460982 | 9.461408 | 9.461834 | 9.462260 | 9.462685 |
| 0.550 | 9.463111 | 9.463537 | 9.463963 | 9.464389 | 9.464815 | 9.465241 | 9.465667 | 9.466093 | 9.466519 | 9.466945 |
| 0.560 | 9.467371 | 9.467797 | 9.468223 | 9.468649 | 9.469075 | 9.469501 | 9.469927 | 9.470353 | 9.470779 | 9.471205 |
| 0.570 | 9.471631 | 9.472058 | 9.472484 | 9.472910 | 9.473336 | 9.473762 | 9.474189 | 9.474615 | 9.475041 | 9.475468 |
| 0.580 | 9.475894 | 9.476320 | 9.476747 | 9.477173 | 9.477599 | 9.478026 | 9.478452 | 9.478878 | 9.479305 | 9.479731 |
| 0.590 | 9.480158 | 9.480584 | 9.481011 | 9.481437 | 9.481864 | 9.482290 | 9.482717 | 9.483144 | 9.483570 | 9.483997 |
| 0.600 | 9.484423 | 9.484850 | 9.485277 | 9.485703 | 9.486130 | 9.486557 | 9.486984 | 9.487410 | 9.487837 | 9.488264 |
| 0.610 | 9.488691 | 9.489117 | 9.489544 | 9.489971 | 9.490398 | 9.490825 | 9.491252 | 9.491678 | 9.492105 | 9.492532 |
| 0.620 | 9.492959 | 9.493386 | 9.493813 | 9.494240 | 9.494667 | 9.495094 | 9.495521 | 9.495948 | 9.496375 | 9.496802 |
| 0.630 | 9.497230 | 9.497657 | 9.498084 | 9.498511 | 9.498938 | 9.499365 | 9.499793 | 9.500220 | 9.500647 | 9.501074 |
| 0.640 | 9.501501 | 9.501929 | 9.502356 | 9.502783 | 9.503211 | 9.503638 | 9.504065 | 9.504493 | 9.504920 | 9.505347 |
| 0.650 | 9.505775 | 9.506202 | 9.506630 | 9.507057 | 9.507485 | 9.507912 | 9.508340 | 9.508767 | 9.509195 | 9.509622 |
| 0.660 | 9.510050 | 9.510478 | 9.510905 | 9.511333 | 9.511760 | 9.512188 | 9.512616 | 9.513044 | 9.513471 | 9.513899 |
| 0.670 | 9.514327 | 9.514754 | 9.515182 | 9.515610 | 9.516038 | 9.516466 | 9.516893 | 9.517321 | 9.517749 | 9.518177 |
| 0.680 | 9.518605 | 9.519033 | 9.519461 | 9.519889 | 9.520317 | 9.520745 | 9.521173 | 9.521600 | 9.522029 | 9.522457 |
| 0.690 | 9.522885 | 9.523313 | 9.523741 | 9.524169 | 9.524597 | 9.525025 | 9.525453 | 9.525881 | 9.526310 | 9.526738 |
| 0.700 | 9.527166 | 9.527594 | 9.528023 | 9.528451 | 9.528879 | 9.529307 | 9.529736 | 9.530164 | 9.530592 | 9.531021 |
| 0.710 | 9.531449 | 9.531877 | 9.532306 | 9.532734 | 9.533163 | 9.533591 | 9.534020 | 9.534448 | 9.534876 | 9.535305 |
| 0.720 | 9.535734 | 9.536162 | 9.536591 | 9.537019 | 9.537448 | 9.537876 | 9.538305 | 9.538734 | 9.539162 | 9.539591 |
| 0.730 | 9.540020 | 9.540448 | 9.540877 | 9.541306 | 9.541735 | 9.542163 | 9.542592 | 9.543021 | 9.543450 | 9.543879 |
| 0.740 | 9.544307 | 9.544736 | 9.545165 | 9.545594 | 9.546023 | 9.546452 | 9.546881 | 9.547310 | 9.547739 | 9.548168 |
| 0.750 | 9.548597 | 9.549026 | 9.549455 | 9.549884 | 9.550313 | 9.550742 | 9.551171 | 9.551600 | 9.552029 | 9.552458 |
| 0.760 | 9.552888 | 9.553317 | 9.553746 | 9.554175 | 9.554604 | 9.555034 | 9.555463 | 9.555892 | 9.556322 | 9.556751 |
| 0.770 | 9.557180 | 9.557609 | 9.558039 | 9.558468 | 9.558897 | 9.559327 | 9.559756 | 9.560186 | 9.560615 | 9.561045 |
| 0.780 | 9.561474 | 9.561904 | 9.562333 | 9.562763 | 9.563192 | 9.563622 | 9.564051 | 9.564481 | 9.564911 | 9.565340 |
| 0.790 | 9.565770 | 9.566200 | 9.566629 | 9.567059 | 9.567489 | 9.567918 | 9.568348 | 9.568778 | 9.569208 | 9.569637 |
| 0.800 | 9.570067 | 9.570497 | 9.570927 | 9.571357 | 9.571787 | 9.572216 | 9.572646 | 9.573076 | 9.573506 | 9.573936 |
| 0.810 | 9.574366 | 9.574796 | 9.575226 | 9.575656 | 9.576086 | 9.576516 | 9.576946 | 9.577376 | 9.577806 | 9.578236 |
| 0.820 | 9.578666 | 9.579097 | 9.579527 | 9.579957 | 9.580387 | 9.580817 | 9.581247 | 9.581678 | 9.582108 | 9.582538 |
| 0.830 | 9.582968 | 9.583399 | 9.583829 | 9.584259 | 9.584690 | 9.585120 | 9.585550 | 9.585981 | 9.586411 | 9.586842 |
| 0.840 | 9.587272 | 9.587703 | 9.588133 | 9.588564 | 9.588994 | 9.589424 | 9.589855 | 9.590286 | 9.590716 | 9.591147 |
| 0.850 | 9.591577 | 9.592008 | 9.592439 | 9.592869 | 9.593300 | 9.593731 | 9.594161 | 9.594592 | 9.595023 | 9.595454 |
| 0.860 | 9.595884 | 9.596315 | 9.596746 | 9.597177 | 9.597607 | 9.598038 | 9.598469 | 9.598900 | 9.599331 | 9.599762 |
| 0.870 | 9.600193 | 9.600623 | 9.601054 | 9.601485 | 9.601916 | 9.602347 | 9.602778 | 9.603209 | 9.603641 | 9.604071 |
| 0.880 | 9.604503 | 9.604934 | 9.605365 | 9.605796 | 9.606227 | 9.606658 | 9.607089 | 9.607521 | 9.607952 | 9.608383 |
| 0.890 | 9.608814 | 9.609246 | 9.609677 | 9.610108 | 9.610539 | 9.610971 | 9.611402 | 9.611833 | 9.612265 | 9.612696 |
| 0.900 | 9.613127 | 9.613559 | 9.613990 | 9.614422 | 9.614853 | 9.615285 | 9.615716 | 9.616148 | 9.616579 | 9.617011 |
| 0.910 | 9.617442 | 9.617874 | 9.618305 | 9.618737 | 9.619169 | 9.619600 | 9.620032 | 9.620464 | 9.620895 | 9.621327 |
| 0.920 | 9.621759 | 9.622190 | 9.622622 | 9.623054 | 9.623486 | 9.623918 | 9.624349 | 9.624781 | 9.625213 | 9.625645 |
| 0.930 | 9.626077 | 9.626509 | 9.626941 | 9.627373 | 9.627804 | 9.628236 | 9.628668 | 9.629100 | 9.629532 | 9.629964 |
| 0.940 | 9.630396 | 9.630828 | 9.631261 | 9.631693 | 9.632125 | 9.632557 | 9.632989 | 9.633421 | 9.633853 | 9.634285 |
| 0.950 | 9.634718 | 9.635150 | 9.635582 | 9.636014 | 9.636447 | 9.636879 | 9.637311 | 9.637743 | 9.638176 | 9.638608 |
| 0.960 | 9.639040 | 9.639473 | 9.639905 | 9.640338 | 9.640770 | 9.641202 | 9.641635 | 9.642067 | 9.642500 | 9.642932 |
| 0.970 | 9.643365 | 9.643797 | 9.644230 | 9.644662 | 9.645095 | 9.645528 | 9.645960 | 9.646393 | 9.646826 | 9.647258 |
| 0.980 | 9.647691 | 9.648124 | 9.648556 | 9.648989 | 9.649422 | 9.649855 | 9.650287 | 9.650720 | 9.651153 | 9.651586 |
| 0.990 | 9.652019 | 9.652452 | 9.652884 | 9.653317 | 9.653750 | 9.654183 | 9.654616 | 9.655049 | 9.655482 | 9.655915 |

ATTENUATION IN DECIBELS
THETA FROM 55.000 TO 55.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 9.656348 | 9.656781 | 9.657214 | 9.657647 | 9.658080 | 9.658513 | 9.658946 | 9.659379 | 9.659812 | 9.660246 |
| 0.010 | 9.660679 | 9.661112 | 9.661545 | 9.661978 | 9.662412 | 9.662845 | 9.663278 | 9.663711 | 9.664145 | 9.664578 |
| 0.020 | 9.665011 | 9.665444 | 9.665878 | 9.666311 | 9.666745 | 9.667178 | 9.667611 | 9.668045 | 9.668478 | 9.668912 |
| 0.030 | 9.669345 | 9.669779 | 9.670212 | 9.670646 | 9.671079 | 9.671513 | 9.671947 | 9.672380 | 9.672814 | 9.673247 |
| 0.040 | 9.673681 | 9.674115 | 9.674548 | 9.674982 | 9.675416 | 9.675850 | 9.676283 | 9.676717 | 9.677151 | 9.677585 |
| 0.050 | 9.678018 | 9.678452 | 9.678886 | 9.679320 | 9.679754 | 9.680188 | 9.680622 | 9.681055 | 9.681489 | 9.681923 |
| 0.060 | 9.682357 | 9.682791 | 9.683225 | 9.683659 | 9.684093 | 9.684527 | 9.684961 | 9.685395 | 9.685830 | 9.686264 |
| 0.070 | 9.686698 | 9.687132 | 9.687566 | 9.688000 | 9.688434 | 9.688869 | 9.689303 | 9.689737 | 9.690171 | 9.690606 |
| 0.080 | 9.691040 | 9.691474 | 9.691909 | 9.692343 | 9.692777 | 9.693211 | 9.693646 | 9.694080 | 9.694515 | 9.694949 |
| 0.090 | 9.695384 | 9.695818 | 9.696253 | 9.696687 | 9.697122 | 9.697556 | 9.697991 | 9.698425 | 9.698860 | 9.699295 |
| 0.100 | 9.699729 | 9.700164 | 9.700598 | 9.701033 | 9.701468 | 9.701902 | 9.702337 | 9.702772 | 9.703207 | 9.703641 |
| 0.110 | 9.704076 | 9.704511 | 9.704946 | 9.705381 | 9.705815 | 9.706250 | 9.706685 | 9.707120 | 9.707555 | 9.707990 |
| 0.120 | 9.708425 | 9.708860 | 9.709295 | 9.709730 | 9.710165 | 9.710600 | 9.711035 | 9.711470 | 9.711905 | 9.712340 |
| 0.130 | 9.712775 | 9.713210 | 9.713645 | 9.714080 | 9.714516 | 9.714951 | 9.715386 | 9.715821 | 9.716256 | 9.716692 |
| 0.140 | 9.717127 | 9.717562 | 9.717997 | 9.718433 | 9.718868 | 9.719303 | 9.719739 | 9.720174 | 9.720610 | 9.721045 |
| 0.150 | 9.721480 | 9.721916 | 9.722351 | 9.722787 | 9.723222 | 9.723658 | 9.724093 | 9.724529 | 9.724964 | 9.725400 |
| 0.160 | 9.725835 | 9.726271 | 9.726707 | 9.727142 | 9.727578 | 9.728014 | 9.728449 | 9.728885 | 9.729321 | 9.729756 |
| 0.170 | 9.730192 | 9.730628 | 9.731064 | 9.731499 | 9.731935 | 9.732371 | 9.732807 | 9.733243 | 9.733679 | 9.734115 |
| 0.180 | 9.734550 | 9.734986 | 9.735422 | 9.735858 | 9.736294 | 9.736730 | 9.737166 | 9.737602 | 9.738038 | 9.738474 |
| 0.190 | 9.738910 | 9.739347 | 9.739783 | 9.740219 | 9.740655 | 9.741091 | 9.741527 | 9.741963 | 9.742400 | 9.742836 |
| 0.200 | 9.743272 | 9.743708 | 9.744145 | 9.744581 | 9.745017 | 9.745453 | 9.745890 | 9.746326 | 9.746763 | 9.747199 |
| 0.210 | 9.747635 | 9.748072 | 9.748508 | 9.748945 | 9.749381 | 9.749817 | 9.750254 | 9.750690 | 9.751127 | 9.751564 |
| 0.220 | 9.752000 | 9.752437 | 9.752873 | 9.753310 | 9.753747 | 9.754183 | 9.754620 | 9.755057 | 9.755493 | 9.755930 |
| 0.230 | 9.756367 | 9.756803 | 9.757240 | 9.757677 | 9.758114 | 9.758550 | 9.758987 | 9.759424 | 9.759861 | 9.760298 |
| 0.240 | 9.760735 | 9.761172 | 9.761608 | 9.762045 | 9.762482 | 9.762919 | 9.763356 | 9.763793 | 9.764230 | 9.764667 |
| 0.250 | 9.765104 | 9.765541 | 9.765979 | 9.766416 | 9.766853 | 9.767290 | 9.767727 | 9.768164 | 9.768601 | 9.769039 |
| 0.260 | 9.769476 | 9.769913 | 9.770350 | 9.770787 | 9.771225 | 9.771662 | 9.772099 | 9.772537 | 9.772974 | 9.773411 |
| 0.270 | 9.773849 | 9.774286 | 9.774724 | 9.775161 | 9.775598 | 9.776036 | 9.776473 | 9.776911 | 9.777348 | 9.777786 |
| 0.280 | 9.778223 | 9.778661 | 9.779098 | 9.779536 | 9.779974 | 9.780411 | 9.780849 | 9.781286 | 9.781724 | 9.782162 |
| 0.290 | 9.782600 | 9.783037 | 9.783475 | 9.783913 | 9.784351 | 9.784788 | 9.785226 | 9.785664 | 9.786102 | 9.786540 |
| 0.300 | 9.786977 | 9.787415 | 9.787853 | 9.788291 | 9.788729 | 9.789167 | 9.789605 | 9.790043 | 9.790481 | 9.790919 |
| 0.310 | 9.791357 | 9.791795 | 9.792233 | 9.792671 | 9.793109 | 9.793547 | 9.793985 | 9.794424 | 9.794862 | 9.795300 |
| 0.320 | 9.795738 | 9.796176 | 9.796615 | 9.797053 | 9.797491 | 9.797929 | 9.798368 | 9.798806 | 9.799244 | 9.799682 |
| 0.330 | 9.800121 | 9.800559 | 9.800998 | 9.801436 | 9.801874 | 9.802313 | 9.802751 | 9.803190 | 9.803628 | 9.804067 |
| 0.340 | 9.804505 | 9.804944 | 9.805382 | 9.805821 | 9.806260 | 9.806698 | 9.807137 | 9.807575 | 9.808014 | 9.808453 |
| 0.350 | 9.808891 | 9.809330 | 9.809769 | 9.810207 | 9.810646 | 9.811085 | 9.811524 | 9.811962 | 9.812401 | 9.812840 |
| 0.360 | 9.813279 | 9.813718 | 9.814157 | 9.814596 | 9.815035 | 9.815473 | 9.815912 | 9.816351 | 9.816790 | 9.817229 |
| 0.370 | 9.817668 | 9.818107 | 9.818546 | 9.818985 | 9.819425 | 9.819864 | 9.820303 | 9.820742 | 9.821181 | 9.821620 |
| 0.380 | 9.822059 | 9.822498 | 9.822938 | 9.823377 | 9.823816 | 9.824255 | 9.824695 | 9.825134 | 9.825573 | 9.826012 |
| 0.390 | 9.826452 | 9.826891 | 9.827331 | 9.827770 | 9.828209 | 9.828649 | 9.829088 | 9.829528 | 9.829967 | 9.830407 |
| 0.400 | 9.830846 | 9.831286 | 9.831725 | 9.832165 | 9.832604 | 9.833044 | 9.833483 | 9.833923 | 9.834363 | 9.834802 |
| 0.410 | 9.835242 | 9.835682 | 9.836121 | 9.836561 | 9.837001 | 9.837441 | 9.837880 | 9.838320 | 9.838760 | 9.839200 |
| 0.420 | 9.839640 | 9.840079 | 9.840519 | 9.840959 | 9.841399 | 9.841839 | 9.842279 | 9.842719 | 9.843159 | 9.843599 |
| 0.430 | 9.844039 | 9.844479 | 9.844919 | 9.845359 | 9.845799 | 9.846239 | 9.846679 | 9.847119 | 9.847559 | 9.847999 |
| 0.440 | 9.848439 | 9.848880 | 9.849320 | 9.849760 | 9.850200 | 9.850641 | 9.851081 | 9.851521 | 9.851961 | 9.852402 |
| 0.450 | 9.852842 | 9.853282 | 9.853723 | 9.854163 | 9.854603 | 9.855044 | 9.855484 | 9.855925 | 9.856365 | 9.856806 |
| 0.460 | 9.857246 | 9.857687 | 9.858127 | 9.858568 | 9.859008 | 9.859449 | 9.859889 | 9.860330 | 9.860770 | 9.861211 |
| 0.470 | 9.861652 | 9.862092 | 9.862533 | 9.862974 | 9.863415 | 9.863855 | 9.864296 | 9.864737 | 9.865178 | 9.865618 |
| 0.480 | 9.866059 | 9.866500 | 9.866941 | 9.867382 | 9.867823 | 9.868263 | 9.868704 | 9.869145 | 9.869586 | 9.870027 |
| 0.490 | 9.870468 | 9.870909 | 9.871350 | 9.871791 | 9.872232 | 9.872673 | 9.873114 | 9.873556 | 9.873997 | 9.874438 |

ATTENUATION IN DECIBELS
 THETA FROM 55.500 TO 55.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 9.874879 | 9.875320 | 9.875761 | 9.876202 | 9.876644 | 9.877085 | 9.877526 | 9.877967 | 9.878409 | 9.878850 |
| 0.510 | 9.879231 | 9.879732 | 9.880174 | 9.880615 | 9.881057 | 9.881498 | 9.881939 | 9.882381 | 9.882822 | 9.883264 |
| 0.520 | 9.883705 | 9.884147 | 9.884583 | 9.885030 | 9.885471 | 9.885913 | 9.886354 | 9.886796 | 9.887238 | 9.887679 |
| 0.530 | 9.888121 | 9.888562 | 9.889004 | 9.889446 | 9.889888 | 9.890329 | 9.890771 | 9.891213 | 9.891654 | 9.892096 |
| 0.540 | 9.892538 | 9.892980 | 9.893422 | 9.893864 | 9.894305 | 9.894747 | 9.895189 | 9.895631 | 9.896073 | 9.896515 |
| 0.550 | 9.896957 | 9.897399 | 9.897841 | 9.898283 | 9.898725 | 9.899167 | 9.899609 | 9.900051 | 9.900493 | 9.900935 |
| 0.560 | 9.901378 | 9.901820 | 9.902262 | 9.902704 | 9.903146 | 9.903589 | 9.904031 | 9.904473 | 9.904915 | 9.905358 |
| 0.570 | 9.905800 | 9.906242 | 9.906685 | 9.907127 | 9.907569 | 9.908011 | 9.908454 | 9.908896 | 9.909339 | 9.909781 |
| 0.580 | 9.910224 | 9.910666 | 9.911109 | 9.911551 | 9.911994 | 9.912436 | 9.912879 | 9.913321 | 9.913764 | 9.914207 |
| 0.590 | 9.914649 | 9.915092 | 9.915535 | 9.915977 | 9.916420 | 9.916863 | 9.917305 | 9.917748 | 9.918191 | 9.918634 |
| 0.600 | 9.919077 | 9.919519 | 9.919962 | 9.920405 | 9.920848 | 9.921291 | 9.921734 | 9.922177 | 9.922620 | 9.923062 |
| 0.610 | 9.923505 | 9.923948 | 9.924391 | 9.924834 | 9.925277 | 9.925721 | 9.926164 | 9.926607 | 9.927050 | 9.927493 |
| 0.620 | 9.927936 | 9.928379 | 9.928822 | 9.929265 | 9.929709 | 9.930152 | 9.930595 | 9.931038 | 9.931482 | 9.931925 |
| 0.630 | 9.932368 | 9.932811 | 9.933255 | 9.933698 | 9.934142 | 9.934585 | 9.935028 | 9.935472 | 9.935915 | 9.936359 |
| 0.640 | 9.936802 | 9.937245 | 9.937689 | 9.938133 | 9.938576 | 9.939020 | 9.939463 | 9.939907 | 9.940350 | 9.940794 |
| 0.650 | 9.941238 | 9.941681 | 9.942125 | 9.942569 | 9.943012 | 9.943456 | 9.943900 | 9.944343 | 9.944787 | 9.945231 |
| 0.660 | 9.945675 | 9.946119 | 9.946562 | 9.947006 | 9.947450 | 9.947894 | 9.948338 | 9.948782 | 9.949226 | 9.949670 |
| 0.670 | 9.950114 | 9.950558 | 9.951002 | 9.951446 | 9.951890 | 9.952334 | 9.952778 | 9.953222 | 9.953666 | 9.954110 |
| 0.680 | 9.954554 | 9.954998 | 9.955442 | 9.955887 | 9.956331 | 9.956775 | 9.957219 | 9.957663 | 9.958108 | 9.958552 |
| 0.690 | 9.958996 | 9.959441 | 9.959885 | 9.960329 | 9.960774 | 9.961218 | 9.961662 | 9.962107 | 9.962551 | 9.962996 |
| 0.700 | 9.963440 | 9.963885 | 9.964329 | 9.964774 | 9.965218 | 9.965663 | 9.966107 | 9.966552 | 9.966996 | 9.967441 |
| 0.710 | 9.967886 | 9.968330 | 9.968775 | 9.969220 | 9.969664 | 9.970109 | 9.970554 | 9.970998 | 9.971443 | 9.971888 |
| 0.720 | 9.972333 | 9.972778 | 9.973222 | 9.973667 | 9.974112 | 9.974557 | 9.975002 | 9.975447 | 9.975892 | 9.976337 |
| 0.730 | 9.976782 | 9.977227 | 9.977672 | 9.978117 | 9.978562 | 9.979007 | 9.979452 | 9.979897 | 9.980342 | 9.980787 |
| 0.740 | 9.981232 | 9.981677 | 9.982122 | 9.982568 | 9.983013 | 9.983458 | 9.983903 | 9.984348 | 9.984794 | 9.985239 |
| 0.750 | 9.985694 | 9.986139 | 9.986585 | 9.987030 | 9.987476 | 9.987921 | 9.988366 | 9.988812 | 9.989257 | 9.989703 |
| 0.760 | 9.990138 | 9.990584 | 9.991029 | 9.991475 | 9.991920 | 9.992366 | 9.992811 | 9.993257 | 9.993702 | 9.994148 |
| 0.770 | 9.994594 | 9.995039 | 9.995485 | 9.995931 | 9.996376 | 9.996822 | 9.997268 | 9.997714 | 9.998159 | 9.998605 |
| 0.780 | 9.999051 | 9.999497 | 9.999943 | 10.000388 | 10.000834 | 10.001280 | 10.001726 | 10.002172 | 10.002618 | 10.003064 |
| 0.790 | 10.003510 | 10.003956 | 10.004402 | 10.004848 | 10.005294 | 10.005740 | 10.006186 | 10.006632 | 10.007078 | 10.007524 |
| 0.800 | 10.007970 | 10.008416 | 10.008862 | 10.009309 | 10.009755 | 10.010201 | 10.010647 | 10.011094 | 10.011540 | 10.011986 |
| 0.810 | 10.012432 | 10.012879 | 10.013325 | 10.013771 | 10.014218 | 10.014664 | 10.015111 | 10.015557 | 10.016003 | 10.016450 |
| 0.820 | 10.016896 | 10.017343 | 10.017789 | 10.018236 | 10.018682 | 10.019129 | 10.019575 | 10.020022 | 10.020469 | 10.020915 |
| 0.830 | 10.021362 | 10.021809 | 10.022255 | 10.022702 | 10.023149 | 10.023595 | 10.024042 | 10.024489 | 10.024936 | 10.025382 |
| 0.840 | 10.025819 | 10.026276 | 10.026723 | 10.027170 | 10.027617 | 10.028063 | 10.028510 | 10.028957 | 10.029404 | 10.029851 |
| 0.850 | 10.030298 | 10.030745 | 10.031192 | 10.031639 | 10.032086 | 10.032533 | 10.032980 | 10.033427 | 10.033874 | 10.034322 |
| 0.860 | 10.034769 | 10.035216 | 10.035663 | 10.036110 | 10.036557 | 10.037005 | 10.037452 | 10.037899 | 10.038346 | 10.038794 |
| 0.870 | 10.039241 | 10.039688 | 10.040136 | 10.040583 | 10.041030 | 10.041478 | 10.041925 | 10.042373 | 10.042820 | 10.043267 |
| 0.880 | 10.043715 | 10.044162 | 10.044610 | 10.045057 | 10.045505 | 10.045953 | 10.046400 | 10.046848 | 10.047295 | 10.047743 |
| 0.890 | 10.048191 | 10.048638 | 10.049086 | 10.049534 | 10.049981 | 10.050429 | 10.050877 | 10.051324 | 10.051772 | 10.052220 |
| 0.900 | 10.052668 | 10.053116 | 10.053564 | 10.054011 | 10.054459 | 10.054907 | 10.055355 | 10.055803 | 10.056251 | 10.056699 |
| 0.910 | 10.057147 | 10.057595 | 10.058043 | 10.058491 | 10.058939 | 10.059387 | 10.059835 | 10.060283 | 10.060731 | 10.061179 |
| 0.920 | 10.061628 | 10.062076 | 10.062524 | 10.062972 | 10.063420 | 10.063869 | 10.064317 | 10.064765 | 10.065213 | 10.065662 |
| 0.930 | 10.066110 | 10.066558 | 10.067007 | 10.067455 | 10.067903 | 10.068352 | 10.068800 | 10.069249 | 10.069697 | 10.070146 |
| 0.940 | 10.070594 | 10.071043 | 10.071491 | 10.071940 | 10.072388 | 10.072837 | 10.073285 | 10.073734 | 10.074183 | 10.074631 |
| 0.950 | 10.075080 | 10.075529 | 10.075977 | 10.076426 | 10.076875 | 10.077323 | 10.077772 | 10.078221 | 10.078670 | 10.079118 |
| 0.960 | 10.079567 | 10.080016 | 10.080465 | 10.080914 | 10.081363 | 10.081812 | 10.082260 | 10.082709 | 10.083158 | 10.083607 |
| 0.970 | 10.084056 | 10.084505 | 10.084954 | 10.085403 | 10.085852 | 10.086302 | 10.086751 | 10.087200 | 10.087649 | 10.088098 |
| 0.980 | 10.088547 | 10.088996 | 10.089446 | 10.089895 | 10.090344 | 10.090793 | 10.091242 | 10.091692 | 10.092141 | 10.092590 |
| 0.990 | 10.093040 | 10.093489 | 10.093938 | 10.094388 | 10.094837 | 10.095287 | 10.095736 | 10.096185 | 10.096635 | 10.097084 |

ATTENUATION IN DECIBELS
 THETA FROM 56.000 TO 56.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 10.097534 | 10.097983 | 10.098433 | 10.098882 | 10.099332 | 10.099782 | 10.100231 | 10.100681 | 10.101130 | 10.101580 |
| 0.010 | 10.102030 | 10.102479 | 10.102929 | 10.103379 | 10.103829 | 10.104278 | 10.104728 | 10.105178 | 10.105628 | 10.106078 |
| 0.020 | 10.106527 | 10.106977 | 10.107427 | 10.107877 | 10.108327 | 10.108777 | 10.109227 | 10.109677 | 10.110127 | 10.110577 |
| 0.030 | 10.111027 | 10.111477 | 10.111927 | 10.112377 | 10.112827 | 10.113277 | 10.113727 | 10.114177 | 10.114627 | 10.115077 |
| 0.040 | 10.115528 | 10.115978 | 10.116428 | 10.116878 | 10.117329 | 10.117779 | 10.118229 | 10.118679 | 10.119130 | 10.119580 |
| 0.050 | 10.120030 | 10.120481 | 10.120931 | 10.121381 | 10.121832 | 10.122282 | 10.122733 | 10.123183 | 10.123634 | 10.124084 |
| 0.060 | 10.124535 | 10.124985 | 10.125436 | 10.125886 | 10.126337 | 10.126788 | 10.127238 | 10.127689 | 10.128139 | 10.128590 |
| 0.070 | 10.129041 | 10.129491 | 10.129942 | 10.130393 | 10.130844 | 10.131294 | 10.131745 | 10.132196 | 10.132647 | 10.133098 |
| 0.080 | 10.133548 | 10.133999 | 10.134450 | 10.134901 | 10.135352 | 10.135803 | 10.136254 | 10.136705 | 10.137156 | 10.137607 |
| 0.090 | 10.138058 | 10.138509 | 10.138960 | 10.139411 | 10.139862 | 10.140313 | 10.140764 | 10.141216 | 10.141667 | 10.142118 |
| 0.100 | 10.142569 | 10.143020 | 10.143472 | 10.143923 | 10.144374 | 10.144825 | 10.145277 | 10.145728 | 10.146179 | 10.146631 |
| 0.110 | 10.147082 | 10.147533 | 10.147985 | 10.148436 | 10.148888 | 10.149339 | 10.149791 | 10.150242 | 10.150694 | 10.151145 |
| 0.120 | 10.151597 | 10.152048 | 10.152500 | 10.152951 | 10.153403 | 10.153854 | 10.154306 | 10.154758 | 10.155209 | 10.155661 |
| 0.130 | 10.156113 | 10.156565 | 10.157016 | 10.157468 | 10.157920 | 10.158372 | 10.158823 | 10.159275 | 10.159727 | 10.160179 |
| 0.140 | 10.160631 | 10.161083 | 10.161535 | 10.161986 | 10.162439 | 10.162890 | 10.163342 | 10.163794 | 10.164246 | 10.164698 |
| 0.150 | 10.165151 | 10.165603 | 10.166055 | 10.166507 | 10.166959 | 10.167411 | 10.167863 | 10.168315 | 10.168767 | 10.169220 |
| 0.160 | 10.169672 | 10.170124 | 10.170576 | 10.171029 | 10.171481 | 10.171933 | 10.172385 | 10.172838 | 10.173290 | 10.173743 |
| 0.170 | 10.174195 | 10.174647 | 10.175100 | 10.175552 | 10.176005 | 10.176457 | 10.176910 | 10.177362 | 10.177815 | 10.178267 |
| 0.180 | 10.178720 | 10.179172 | 10.179625 | 10.180078 | 10.180530 | 10.180983 | 10.181435 | 10.181888 | 10.182341 | 10.182793 |
| 0.190 | 10.183246 | 10.183699 | 10.184152 | 10.184605 | 10.185057 | 10.185510 | 10.185963 | 10.186416 | 10.186869 | 10.187322 |
| 0.200 | 10.187774 | 10.188227 | 10.188680 | 10.189133 | 10.189586 | 10.190039 | 10.190492 | 10.190945 | 10.191398 | 10.191851 |
| 0.210 | 10.192304 | 10.192757 | 10.193211 | 10.193664 | 10.194117 | 10.194570 | 10.195023 | 10.195476 | 10.195930 | 10.196383 |
| 0.220 | 10.196836 | 10.197289 | 10.197743 | 10.198196 | 10.198649 | 10.199103 | 10.199556 | 10.200009 | 10.200463 | 10.200916 |
| 0.230 | 10.201369 | 10.201823 | 10.202276 | 10.202730 | 10.203183 | 10.203637 | 10.204090 | 10.204544 | 10.204997 | 10.205451 |
| 0.240 | 10.205904 | 10.206358 | 10.206812 | 10.207265 | 10.207719 | 10.208173 | 10.208626 | 10.209080 | 10.209534 | 10.209987 |
| 0.250 | 10.210441 | 10.210895 | 10.211349 | 10.211803 | 10.212256 | 10.212710 | 10.213164 | 10.213618 | 10.214072 | 10.214526 |
| 0.260 | 10.214980 | 10.215434 | 10.215888 | 10.216342 | 10.216796 | 10.217250 | 10.217704 | 10.218158 | 10.218612 | 10.219066 |
| 0.270 | 10.219520 | 10.219974 | 10.220428 | 10.220882 | 10.221336 | 10.221791 | 10.222245 | 10.222699 | 10.223153 | 10.223608 |
| 0.280 | 10.224062 | 10.224516 | 10.224970 | 10.225425 | 10.225879 | 10.226333 | 10.226788 | 10.227242 | 10.227697 | 10.228151 |
| 0.290 | 10.228605 | 10.229060 | 10.229514 | 10.229969 | 10.230423 | 10.230878 | 10.231332 | 10.231787 | 10.232242 | 10.232696 |
| 0.300 | 10.233151 | 10.233605 | 10.234060 | 10.234515 | 10.234969 | 10.235424 | 10.235879 | 10.236334 | 10.236788 | 10.237243 |
| 0.310 | 10.237698 | 10.238153 | 10.238608 | 10.239062 | 10.239517 | 10.239972 | 10.240427 | 10.240882 | 10.241337 | 10.241792 |
| 0.320 | 10.242247 | 10.242702 | 10.243157 | 10.243612 | 10.244067 | 10.244522 | 10.244977 | 10.245432 | 10.245887 | 10.246342 |
| 0.330 | 10.246797 | 10.247252 | 10.247707 | 10.248163 | 10.248618 | 10.249073 | 10.249528 | 10.249984 | 10.250439 | 10.250894 |
| 0.340 | 10.251349 | 10.251805 | 10.252260 | 10.252715 | 10.253171 | 10.253626 | 10.254082 | 10.254537 | 10.254992 | 10.255448 |
| 0.350 | 10.255903 | 10.256359 | 10.256814 | 10.257270 | 10.257725 | 10.258181 | 10.258637 | 10.259092 | 10.259548 | 10.260003 |
| 0.360 | 10.260459 | 10.260915 | 10.261370 | 10.261826 | 10.262282 | 10.262738 | 10.263193 | 10.263649 | 10.264105 | 10.264561 |
| 0.370 | 10.265016 | 10.265472 | 10.265928 | 10.266384 | 10.266840 | 10.267296 | 10.267752 | 10.268208 | 10.268664 | 10.269120 |
| 0.380 | 10.269576 | 10.270032 | 10.270488 | 10.270944 | 10.271400 | 10.271856 | 10.272312 | 10.272768 | 10.273224 | 10.273680 |
| 0.390 | 10.274136 | 10.274593 | 10.275049 | 10.275505 | 10.275961 | 10.276417 | 10.276874 | 10.277330 | 10.277786 | 10.278243 |
| 0.400 | 10.278699 | 10.279155 | 10.279612 | 10.280068 | 10.280524 | 10.280981 | 10.281437 | 10.281894 | 10.282350 | 10.282807 |
| 0.410 | 10.283263 | 10.283720 | 10.284176 | 10.284633 | 10.285089 | 10.285546 | 10.286003 | 10.286459 | 10.286916 | 10.287373 |
| 0.420 | 10.287829 | 10.288286 | 10.288743 | 10.289199 | 10.289656 | 10.290113 | 10.290570 | 10.291027 | 10.291483 | 10.291940 |
| 0.430 | 10.292397 | 10.292854 | 10.293311 | 10.293768 | 10.294225 | 10.294682 | 10.295139 | 10.295596 | 10.296053 | 10.296510 |
| 0.440 | 10.296967 | 10.297424 | 10.297881 | 10.298338 | 10.298795 | 10.299252 | 10.299709 | 10.300166 | 10.300624 | 10.301081 |
| 0.450 | 10.301538 | 10.301995 | 10.302452 | 10.302910 | 10.303367 | 10.303824 | 10.304281 | 10.304739 | 10.305196 | 10.305653 |
| 0.460 | 10.306111 | 10.306568 | 10.307026 | 10.307483 | 10.307940 | 10.308398 | 10.308855 | 10.309313 | 10.309770 | 10.310228 |
| 0.470 | 10.310686 | 10.311143 | 10.311601 | 10.312058 | 10.312516 | 10.312973 | 10.313431 | 10.313889 | 10.314347 | 10.314804 |
| 0.480 | 10.315262 | 10.315720 | 10.316177 | 10.316635 | 10.317093 | 10.317551 | 10.318009 | 10.318467 | 10.318924 | 10.319382 |
| 0.490 | 10.319840 | 10.320298 | 10.320756 | 10.321214 | 10.321672 | 10.322130 | 10.322588 | 10.323046 | 10.323504 | 10.323962 |

ATTENUATION IN DECIBELS
THETA FROM 56.500 TO 56.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 10.324420 | 10.324878 | 10.325336 | 10.325794 | 10.326252 | 10.326711 | 10.327169 | 10.327627 | 10.328085 | 10.328543 |
| 0.510 | 10.329002 | 10.329460 | 10.329918 | 10.330377 | 10.330835 | 10.331293 | 10.331751 | 10.332210 | 10.332668 | 10.333127 |
| 0.520 | 10.333585 | 10.334044 | 10.334502 | 10.334960 | 10.335419 | 10.335877 | 10.336336 | 10.336794 | 10.337253 | 10.337712 |
| 0.530 | 10.338170 | 10.338629 | 10.339087 | 10.339546 | 10.340005 | 10.340463 | 10.340922 | 10.341381 | 10.341840 | 10.342298 |
| 0.540 | 10.342757 | 10.343216 | 10.343675 | 10.344133 | 10.344592 | 10.345051 | 10.345510 | 10.345969 | 10.346428 | 10.346887 |
| 0.550 | 10.347346 | 10.347805 | 10.348264 | 10.348723 | 10.349182 | 10.349641 | 10.350100 | 10.350559 | 10.351018 | 10.351477 |
| 0.560 | 10.351936 | 10.352395 | 10.352854 | 10.353313 | 10.353773 | 10.354232 | 10.354691 | 10.355150 | 10.355610 | 10.356069 |
| 0.570 | 10.356528 | 10.356987 | 10.357447 | 10.357906 | 10.358365 | 10.358825 | 10.359284 | 10.359744 | 10.360203 | 10.360662 |
| 0.580 | 10.361122 | 10.361581 | 10.362041 | 10.362500 | 10.362960 | 10.363419 | 10.363879 | 10.364338 | 10.364798 | 10.365258 |
| 0.590 | 10.365718 | 10.366177 | 10.366637 | 10.367097 | 10.367556 | 10.368016 | 10.368476 | 10.368935 | 10.369395 | 10.369855 |
| 0.600 | 10.370315 | 10.370775 | 10.371234 | 10.371694 | 10.372154 | 10.372614 | 10.373074 | 10.373534 | 10.373994 | 10.374454 |
| 0.610 | 10.374914 | 10.375374 | 10.375834 | 10.376294 | 10.376754 | 10.377214 | 10.377674 | 10.378134 | 10.378594 | 10.379055 |
| 0.620 | 10.379515 | 10.379975 | 10.380435 | 10.380895 | 10.381356 | 10.381816 | 10.382276 | 10.382736 | 10.383197 | 10.383657 |
| 0.630 | 10.384117 | 10.384578 | 10.385038 | 10.385498 | 10.385959 | 10.386419 | 10.386880 | 10.387340 | 10.387801 | 10.388261 |
| 0.640 | 10.388722 | 10.389182 | 10.389643 | 10.390103 | 10.390564 | 10.391024 | 10.391485 | 10.391946 | 10.392406 | 10.392867 |
| 0.650 | 10.393328 | 10.393788 | 10.394249 | 10.394710 | 10.395170 | 10.395631 | 10.396092 | 10.396553 | 10.397014 | 10.397475 |
| 0.660 | 10.397935 | 10.398396 | 10.398857 | 10.399318 | 10.399779 | 10.400240 | 10.400701 | 10.401162 | 10.401623 | 10.402084 |
| 0.670 | 10.402545 | 10.403006 | 10.403467 | 10.403928 | 10.404389 | 10.404850 | 10.405312 | 10.405773 | 10.406234 | 10.406695 |
| 0.680 | 10.407156 | 10.407617 | 10.408079 | 10.408540 | 10.409001 | 10.409463 | 10.409924 | 10.410385 | 10.410847 | 10.411308 |
| 0.690 | 10.411769 | 10.412231 | 10.412692 | 10.413154 | 10.413615 | 10.414077 | 10.414538 | 10.414999 | 10.415461 | 10.415923 |
| 0.700 | 10.416384 | 10.416846 | 10.417307 | 10.417769 | 10.418231 | 10.418692 | 10.419154 | 10.419616 | 10.420077 | 10.420539 |
| 0.710 | 10.421001 | 10.421463 | 10.421924 | 10.422386 | 10.422848 | 10.423310 | 10.423772 | 10.424233 | 10.424695 | 10.425157 |
| 0.720 | 10.425619 | 10.426081 | 10.426543 | 10.427005 | 10.427467 | 10.427929 | 10.428391 | 10.428853 | 10.429315 | 10.429777 |
| 0.730 | 10.430239 | 10.430701 | 10.431163 | 10.431625 | 10.432088 | 10.432550 | 10.433012 | 10.433474 | 10.433936 | 10.434399 |
| 0.740 | 10.434861 | 10.435323 | 10.435786 | 10.436248 | 10.436711 | 10.437173 | 10.437635 | 10.438097 | 10.438560 | 10.439022 |
| 0.750 | 10.439485 | 10.439947 | 10.440410 | 10.440872 | 10.441335 | 10.441797 | 10.442260 | 10.442722 | 10.443185 | 10.443647 |
| 0.760 | 10.444110 | 10.444573 | 10.445035 | 10.445498 | 10.445961 | 10.446423 | 10.446886 | 10.447349 | 10.447812 | 10.448274 |
| 0.770 | 10.448737 | 10.449200 | 10.449663 | 10.450126 | 10.450588 | 10.451051 | 10.451514 | 10.451977 | 10.452440 | 10.452903 |
| 0.780 | 10.453366 | 10.453829 | 10.454292 | 10.454755 | 10.455218 | 10.455681 | 10.456144 | 10.456607 | 10.457070 | 10.457533 |
| 0.790 | 10.457997 | 10.458460 | 10.458923 | 10.459386 | 10.459849 | 10.460313 | 10.460776 | 10.461239 | 10.461702 | 10.462166 |
| 0.800 | 10.462629 | 10.463092 | 10.463555 | 10.464019 | 10.464483 | 10.464946 | 10.465409 | 10.465873 | 10.466336 | 10.466800 |
| 0.810 | 10.467263 | 10.467727 | 10.468190 | 10.468654 | 10.469117 | 10.469581 | 10.470045 | 10.470508 | 10.470972 | 10.471436 |
| 0.820 | 10.471899 | 10.472363 | 10.472827 | 10.473290 | 10.473754 | 10.474218 | 10.474682 | 10.475145 | 10.475609 | 10.476073 |
| 0.830 | 10.476537 | 10.477001 | 10.477465 | 10.477929 | 10.478392 | 10.478856 | 10.479320 | 10.479784 | 10.480248 | 10.480712 |
| 0.840 | 10.481176 | 10.481640 | 10.482105 | 10.482569 | 10.483033 | 10.483497 | 10.483961 | 10.484425 | 10.484889 | 10.485353 |
| 0.850 | 10.485818 | 10.486282 | 10.486746 | 10.487210 | 10.487675 | 10.488139 | 10.488603 | 10.489068 | 10.489532 | 10.489996 |
| 0.860 | 10.490461 | 10.490925 | 10.491390 | 10.491854 | 10.492318 | 10.492783 | 10.493247 | 10.493712 | 10.494176 | 10.494641 |
| 0.870 | 10.495106 | 10.495570 | 10.496035 | 10.496499 | 10.496964 | 10.497428 | 10.497893 | 10.498358 | 10.498823 | 10.499287 |
| 0.880 | 10.499752 | 10.500217 | 10.500682 | 10.501146 | 10.501611 | 10.502076 | 10.502541 | 10.503006 | 10.503471 | 10.503935 |
| 0.890 | 10.504400 | 10.504865 | 10.505330 | 10.505795 | 10.506260 | 10.506725 | 10.507190 | 10.507655 | 10.508120 | 10.508585 |
| 0.900 | 10.509050 | 10.509516 | 10.509981 | 10.510446 | 10.510911 | 10.511376 | 10.511841 | 10.512307 | 10.512772 | 10.513237 |
| 0.910 | 10.513702 | 10.514168 | 10.514633 | 10.515098 | 10.515564 | 10.516029 | 10.516494 | 10.516960 | 10.517425 | 10.517891 |
| 0.920 | 10.518356 | 10.518821 | 10.519287 | 10.519753 | 10.520218 | 10.520684 | 10.521149 | 10.521615 | 10.522080 | 10.522546 |
| 0.930 | 10.523011 | 10.523477 | 10.523943 | 10.524408 | 10.524874 | 10.525340 | 10.525806 | 10.526271 | 10.526737 | 10.527203 |
| 0.940 | 10.527669 | 10.528134 | 10.528600 | 10.529066 | 10.529532 | 10.529998 | 10.530464 | 10.530930 | 10.531396 | 10.531862 |
| 0.950 | 10.532328 | 10.532794 | 10.533260 | 10.533726 | 10.534192 | 10.534658 | 10.535124 | 10.535590 | 10.536056 | 10.536522 |
| 0.960 | 10.536988 | 10.537455 | 10.537921 | 10.538387 | 10.538853 | 10.539320 | 10.539786 | 10.540252 | 10.540718 | 10.541185 |
| 0.970 | 10.541651 | 10.542117 | 10.542584 | 10.543050 | 10.543517 | 10.543983 | 10.544449 | 10.544916 | 10.545382 | 10.545849 |
| 0.980 | 10.546315 | 10.546782 | 10.547248 | 10.547715 | 10.548182 | 10.548648 | 10.549115 | 10.549581 | 10.550048 | 10.550515 |
| 0.990 | 10.550981 | 10.551448 | 10.551915 | 10.552382 | 10.552848 | 10.553315 | 10.553782 | 10.554249 | 10.554716 | 10.555182 |

ATTENUATION IN DECIBELS
 THETA FROM 57.000 TO 57.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 10.555649 | 10.556116 | 10.556583 | 10.557050 | 10.557517 | 10.557984 | 10.558451 | 10.558918 | 10.559385 | 10.559852 |
| 0.010 | 10.562319 | 10.562786 | 10.563253 | 10.563720 | 10.564187 | 10.564654 | 10.565121 | 10.565588 | 10.566055 | 10.566522 |
| 0.020 | 10.568991 | 10.569458 | 10.569925 | 10.570392 | 10.570859 | 10.571326 | 10.571793 | 10.572260 | 10.572727 | 10.573194 |
| 0.030 | 10.575664 | 10.576131 | 10.576598 | 10.577065 | 10.577532 | 10.577999 | 10.578466 | 10.578933 | 10.579400 | 10.579867 |
| 0.040 | 10.574339 | 10.574806 | 10.575274 | 10.575742 | 10.576210 | 10.576677 | 10.577145 | 10.577612 | 10.578080 | 10.578548 |
| 0.050 | 10.579016 | 10.579483 | 10.579951 | 10.580419 | 10.580887 | 10.581355 | 10.581823 | 10.582290 | 10.582758 | 10.583226 |
| 0.060 | 10.583694 | 10.584162 | 10.584630 | 10.585098 | 10.585566 | 10.586034 | 10.586502 | 10.586970 | 10.587438 | 10.587906 |
| 0.070 | 10.588375 | 10.588843 | 10.589311 | 10.589779 | 10.590247 | 10.590716 | 10.591184 | 10.591652 | 10.592120 | 10.592589 |
| 0.080 | 10.593057 | 10.593525 | 10.593994 | 10.594462 | 10.594930 | 10.595399 | 10.595867 | 10.596335 | 10.596804 | 10.597272 |
| 0.090 | 10.597741 | 10.598209 | 10.598678 | 10.599146 | 10.599615 | 10.600083 | 10.600552 | 10.601021 | 10.601489 | 10.601958 |
| 0.100 | 10.602427 | 10.602895 | 10.603364 | 10.603833 | 10.604301 | 10.604770 | 10.605239 | 10.605708 | 10.606176 | 10.606645 |
| 0.110 | 10.607114 | 10.607583 | 10.608052 | 10.608521 | 10.608990 | 10.609459 | 10.609928 | 10.610397 | 10.610866 | 10.611335 |
| 0.120 | 10.611804 | 10.612273 | 10.612742 | 10.613211 | 10.613680 | 10.614149 | 10.614618 | 10.615087 | 10.615556 | 10.616025 |
| 0.130 | 10.616495 | 10.616964 | 10.617433 | 10.617902 | 10.618372 | 10.618841 | 10.619310 | 10.619780 | 10.620249 | 10.620718 |
| 0.140 | 10.621188 | 10.621657 | 10.622126 | 10.622596 | 10.623065 | 10.623535 | 10.624004 | 10.624474 | 10.624943 | 10.625413 |
| 0.150 | 10.625382 | 10.625852 | 10.626322 | 10.626791 | 10.627261 | 10.627730 | 10.628200 | 10.628670 | 10.629140 | 10.629610 |
| 0.160 | 10.630579 | 10.631049 | 10.631518 | 10.631988 | 10.632458 | 10.632928 | 10.633398 | 10.633868 | 10.634338 | 10.634807 |
| 0.170 | 10.635277 | 10.635747 | 10.636217 | 10.636687 | 10.637157 | 10.637627 | 10.638097 | 10.638567 | 10.639037 | 10.639507 |
| 0.180 | 10.639977 | 10.640448 | 10.640918 | 10.641388 | 10.641858 | 10.642328 | 10.642798 | 10.643269 | 10.643739 | 10.644209 |
| 0.190 | 10.644679 | 10.645150 | 10.645620 | 10.646090 | 10.646561 | 10.647031 | 10.647501 | 10.647972 | 10.648442 | 10.648913 |
| 0.200 | 10.649383 | 10.649854 | 10.650324 | 10.650795 | 10.651265 | 10.651736 | 10.652206 | 10.652677 | 10.653148 | 10.653618 |
| 0.210 | 10.654089 | 10.654559 | 10.655030 | 10.655501 | 10.655972 | 10.656442 | 10.656913 | 10.657384 | 10.657855 | 10.658325 |
| 0.220 | 10.658796 | 10.659267 | 10.659738 | 10.660209 | 10.660680 | 10.661150 | 10.661621 | 10.662092 | 10.662563 | 10.663034 |
| 0.230 | 10.663505 | 10.663976 | 10.664447 | 10.664918 | 10.665390 | 10.665861 | 10.666332 | 10.666803 | 10.667274 | 10.667745 |
| 0.240 | 10.668216 | 10.668687 | 10.669159 | 10.669630 | 10.670101 | 10.670573 | 10.671044 | 10.671515 | 10.671986 | 10.672458 |
| 0.250 | 10.672929 | 10.673401 | 10.673872 | 10.674343 | 10.674815 | 10.675286 | 10.675758 | 10.676229 | 10.676701 | 10.677172 |
| 0.260 | 10.677644 | 10.678115 | 10.678587 | 10.679058 | 10.679530 | 10.680002 | 10.680473 | 10.680945 | 10.681417 | 10.681888 |
| 0.270 | 10.682360 | 10.682832 | 10.683304 | 10.683775 | 10.684247 | 10.684719 | 10.685191 | 10.685663 | 10.686134 | 10.686606 |
| 0.280 | 10.687073 | 10.687545 | 10.688022 | 10.688494 | 10.688966 | 10.689438 | 10.689910 | 10.690382 | 10.690854 | 10.691326 |
| 0.290 | 10.691798 | 10.692270 | 10.692743 | 10.693215 | 10.693687 | 10.694159 | 10.694631 | 10.695103 | 10.695576 | 10.696048 |
| 0.300 | 10.696520 | 10.696992 | 10.697465 | 10.697937 | 10.698409 | 10.698882 | 10.699354 | 10.699826 | 10.700299 | 10.700771 |
| 0.310 | 10.701244 | 10.701716 | 10.702189 | 10.702661 | 10.703134 | 10.703606 | 10.704079 | 10.704551 | 10.705024 | 10.705497 |
| 0.320 | 10.705969 | 10.706442 | 10.706915 | 10.707387 | 10.707860 | 10.708333 | 10.708805 | 10.709278 | 10.709751 | 10.710224 |
| 0.330 | 10.710697 | 10.711169 | 10.711642 | 10.712115 | 10.712588 | 10.713061 | 10.713534 | 10.714007 | 10.714480 | 10.714953 |
| 0.340 | 10.715426 | 10.715899 | 10.716372 | 10.716845 | 10.717318 | 10.717791 | 10.718264 | 10.718737 | 10.719210 | 10.719683 |
| 0.350 | 10.720157 | 10.720630 | 10.721103 | 10.721576 | 10.722049 | 10.722523 | 10.722996 | 10.723469 | 10.723943 | 10.724416 |
| 0.360 | 10.724889 | 10.725363 | 10.725836 | 10.726309 | 10.726783 | 10.727256 | 10.727730 | 10.728203 | 10.728677 | 10.729150 |
| 0.370 | 10.729624 | 10.730097 | 10.730571 | 10.731045 | 10.731518 | 10.731992 | 10.732466 | 10.732939 | 10.733413 | 10.733886 |
| 0.380 | 10.734360 | 10.734834 | 10.735308 | 10.735781 | 10.736255 | 10.736729 | 10.737203 | 10.737677 | 10.738151 | 10.738624 |
| 0.390 | 10.739098 | 10.739572 | 10.740046 | 10.740520 | 10.740994 | 10.741468 | 10.741942 | 10.742416 | 10.742890 | 10.743364 |
| 0.400 | 10.743838 | 10.744313 | 10.744787 | 10.745261 | 10.745735 | 10.746209 | 10.746683 | 10.747158 | 10.747632 | 10.748106 |
| 0.410 | 10.748580 | 10.749055 | 10.749529 | 10.750003 | 10.750478 | 10.750952 | 10.751426 | 10.751901 | 10.752375 | 10.752849 |
| 0.420 | 10.753324 | 10.753798 | 10.754273 | 10.754747 | 10.755222 | 10.755696 | 10.756171 | 10.756646 | 10.757120 | 10.757595 |
| 0.430 | 10.758069 | 10.758544 | 10.759019 | 10.759493 | 10.759968 | 10.760443 | 10.760918 | 10.761392 | 10.761867 | 10.762342 |
| 0.440 | 10.762817 | 10.763292 | 10.763766 | 10.764241 | 10.764716 | 10.765191 | 10.765666 | 10.766141 | 10.766616 | 10.767091 |
| 0.450 | 10.767566 | 10.768041 | 10.768516 | 10.768991 | 10.769466 | 10.769941 | 10.770416 | 10.770891 | 10.771366 | 10.771842 |
| 0.460 | 10.772317 | 10.772792 | 10.773267 | 10.773742 | 10.774217 | 10.774693 | 10.775168 | 10.775644 | 10.776119 | 10.776594 |
| 0.470 | 10.777070 | 10.777545 | 10.778020 | 10.778496 | 10.778971 | 10.779447 | 10.779922 | 10.780398 | 10.780873 | 10.781349 |
| 0.480 | 10.781824 | 10.782300 | 10.782775 | 10.783251 | 10.783727 | 10.784202 | 10.784678 | 10.785154 | 10.785629 | 10.786105 |
| 0.490 | 10.786581 | 10.787056 | 10.787532 | 10.788008 | 10.788484 | 10.788960 | 10.789435 | 10.789911 | 10.790387 | 10.790863 |

ATTENUATION IN DECIBELS
 THETA FROM 57.500 TO 57.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 10.791339 | 10.791815 | 10.792291 | 10.792767 | 10.793243 | 10.793719 | 10.794195 | 10.794671 | 10.795147 | 10.795623 |
| 0.510 | 10.796099 | 10.796575 | 10.797051 | 10.797528 | 10.798004 | 10.798480 | 10.798956 | 10.799432 | 10.799909 | 10.800385 |
| 0.520 | 10.800861 | 10.801337 | 10.801814 | 10.802290 | 10.802766 | 10.803243 | 10.803719 | 10.804196 | 10.804672 | 10.805148 |
| 0.530 | 10.805625 | 10.806101 | 10.806578 | 10.807054 | 10.807531 | 10.808007 | 10.808484 | 10.808961 | 10.809437 | 10.809914 |
| 0.540 | 10.810390 | 10.810867 | 10.811344 | 10.811821 | 10.812297 | 10.812774 | 10.813251 | 10.813727 | 10.814204 | 10.814681 |
| 0.550 | 10.815158 | 10.815635 | 10.816112 | 10.816589 | 10.817065 | 10.817542 | 10.818019 | 10.818496 | 10.818973 | 10.819450 |
| 0.560 | 10.819927 | 10.820404 | 10.820881 | 10.821358 | 10.821836 | 10.822313 | 10.822790 | 10.823267 | 10.823744 | 10.824221 |
| 0.570 | 10.824698 | 10.825176 | 10.825653 | 10.826130 | 10.826607 | 10.827085 | 10.827562 | 10.828039 | 10.828517 | 10.828994 |
| 0.580 | 10.829471 | 10.829949 | 10.830426 | 10.830904 | 10.831381 | 10.831859 | 10.832336 | 10.832814 | 10.833291 | 10.833769 |
| 0.590 | 10.834246 | 10.834724 | 10.835201 | 10.835679 | 10.836157 | 10.836634 | 10.837112 | 10.837590 | 10.838067 | 10.838545 |
| 0.600 | 10.839023 | 10.839501 | 10.839978 | 10.840456 | 10.840934 | 10.841412 | 10.841890 | 10.842368 | 10.842845 | 10.843323 |
| 0.610 | 10.843801 | 10.844279 | 10.844757 | 10.845235 | 10.845713 | 10.846191 | 10.846669 | 10.847147 | 10.847625 | 10.848104 |
| 0.620 | 10.848582 | 10.849060 | 10.849538 | 10.850016 | 10.850494 | 10.850973 | 10.851451 | 10.851929 | 10.852407 | 10.852886 |
| 0.630 | 10.853364 | 10.853842 | 10.854321 | 10.854799 | 10.855277 | 10.855756 | 10.856234 | 10.856713 | 10.857191 | 10.857669 |
| 0.640 | 10.858148 | 10.858626 | 10.859105 | 10.859583 | 10.860062 | 10.860541 | 10.861019 | 10.861498 | 10.861977 | 10.862455 |
| 0.650 | 10.862934 | 10.863412 | 10.863891 | 10.864370 | 10.864849 | 10.865327 | 10.865806 | 10.866285 | 10.866764 | 10.867243 |
| 0.660 | 10.867722 | 10.868200 | 10.868679 | 10.869158 | 10.869637 | 10.870116 | 10.870595 | 10.871074 | 10.871553 | 10.872032 |
| 0.670 | 10.872511 | 10.872990 | 10.873469 | 10.873948 | 10.874428 | 10.874907 | 10.875386 | 10.875865 | 10.876344 | 10.876823 |
| 0.680 | 10.877303 | 10.877782 | 10.878261 | 10.878740 | 10.879220 | 10.879699 | 10.880178 | 10.880658 | 10.881137 | 10.881616 |
| 0.690 | 10.882096 | 10.882575 | 10.883055 | 10.883534 | 10.884014 | 10.884493 | 10.884973 | 10.885452 | 10.885932 | 10.886411 |
| 0.700 | 10.886891 | 10.887371 | 10.887850 | 10.888330 | 10.888810 | 10.889289 | 10.889769 | 10.890249 | 10.890728 | 10.891208 |
| 0.710 | 10.891688 | 10.892168 | 10.892648 | 10.893127 | 10.893607 | 10.894087 | 10.894567 | 10.895047 | 10.895527 | 10.896007 |
| 0.720 | 10.896487 | 10.896967 | 10.897447 | 10.897927 | 10.898407 | 10.898887 | 10.899367 | 10.899847 | 10.900327 | 10.900807 |
| 0.730 | 10.901288 | 10.901768 | 10.902248 | 10.902728 | 10.903208 | 10.903689 | 10.904169 | 10.904649 | 10.905129 | 10.905610 |
| 0.740 | 10.906090 | 10.906570 | 10.907051 | 10.907531 | 10.908012 | 10.908492 | 10.908973 | 10.909453 | 10.909933 | 10.910414 |
| 0.750 | 10.910895 | 10.911375 | 10.911856 | 10.912336 | 10.912817 | 10.913297 | 10.913778 | 10.914259 | 10.914739 | 10.915220 |
| 0.760 | 10.915701 | 10.916182 | 10.916662 | 10.917143 | 10.917624 | 10.918105 | 10.918585 | 10.919066 | 10.919547 | 10.920028 |
| 0.770 | 10.920509 | 10.920990 | 10.921471 | 10.921952 | 10.922433 | 10.922914 | 10.923395 | 10.923876 | 10.924357 | 10.924838 |
| 0.780 | 10.925319 | 10.925800 | 10.926281 | 10.926762 | 10.927243 | 10.927725 | 10.928206 | 10.928687 | 10.929168 | 10.929649 |
| 0.790 | 10.930131 | 10.930612 | 10.931093 | 10.931575 | 10.932056 | 10.932537 | 10.933019 | 10.933500 | 10.933982 | 10.934463 |
| 0.800 | 10.934945 | 10.935426 | 10.935907 | 10.936389 | 10.936871 | 10.937352 | 10.937834 | 10.938315 | 10.938797 | 10.939278 |
| 0.810 | 10.939760 | 10.940242 | 10.940723 | 10.941205 | 10.941687 | 10.942169 | 10.942650 | 10.943132 | 10.943614 | 10.944096 |
| 0.820 | 10.944578 | 10.945059 | 10.945541 | 10.946023 | 10.946505 | 10.946987 | 10.947469 | 10.947951 | 10.948433 | 10.948915 |
| 0.830 | 10.949397 | 10.949879 | 10.950361 | 10.950843 | 10.951325 | 10.951807 | 10.952289 | 10.952772 | 10.953254 | 10.953736 |
| 0.840 | 10.954218 | 10.954700 | 10.955183 | 10.955665 | 10.956147 | 10.956629 | 10.957112 | 10.957594 | 10.958076 | 10.958559 |
| 0.850 | 10.959041 | 10.959523 | 10.960006 | 10.960488 | 10.960971 | 10.961453 | 10.961936 | 10.962418 | 10.962901 | 10.963383 |
| 0.860 | 10.963866 | 10.964349 | 10.964831 | 10.965314 | 10.965796 | 10.966279 | 10.966762 | 10.967245 | 10.967727 | 10.968210 |
| 0.870 | 10.968693 | 10.969176 | 10.969658 | 10.970141 | 10.970624 | 10.971107 | 10.971590 | 10.972073 | 10.972556 | 10.973038 |
| 0.880 | 10.973521 | 10.974004 | 10.974487 | 10.974970 | 10.975453 | 10.975937 | 10.976420 | 10.976903 | 10.977386 | 10.977869 |
| 0.890 | 10.978352 | 10.978835 | 10.979318 | 10.979802 | 10.980285 | 10.980768 | 10.981251 | 10.981735 | 10.982218 | 10.982701 |
| 0.900 | 10.983184 | 10.983668 | 10.984151 | 10.984635 | 10.985118 | 10.985601 | 10.986085 | 10.986568 | 10.987052 | 10.987535 |
| 0.910 | 10.988010 | 10.988502 | 10.988986 | 10.989469 | 10.989953 | 10.990436 | 10.990920 | 10.991404 | 10.991887 | 10.992371 |
| 0.920 | 10.992855 | 10.993338 | 10.993822 | 10.994306 | 10.994790 | 10.995274 | 10.995757 | 10.996241 | 10.996725 | 10.997209 |
| 0.930 | 10.997673 | 10.998157 | 10.998641 | 10.999125 | 10.999609 | 11.000093 | 11.000577 | 11.001061 | 11.001545 | 11.002029 |
| 0.940 | 11.002533 | 11.003017 | 11.003501 | 11.003985 | 11.004469 | 11.004953 | 11.005438 | 11.005922 | 11.006406 | 11.006890 |
| 0.950 | 11.007375 | 11.007859 | 11.008343 | 11.008827 | 11.009311 | 11.009796 | 11.010280 | 11.010765 | 11.011249 | 11.011734 |
| 0.960 | 11.012218 | 11.012703 | 11.013187 | 11.013672 | 11.014156 | 11.014641 | 11.015125 | 11.015610 | 11.016094 | 11.016579 |
| 0.970 | 11.017064 | 11.017548 | 11.018033 | 11.018518 | 11.019002 | 11.019487 | 11.019972 | 11.020457 | 11.020941 | 11.021426 |
| 0.980 | 11.021911 | 11.022396 | 11.022881 | 11.023366 | 11.023851 | 11.024336 | 11.024820 | 11.025305 | 11.025790 | 11.026275 |
| 0.990 | 11.026760 | 11.027246 | 11.027731 | 11.028216 | 11.028701 | 11.029186 | 11.029671 | 11.030156 | 11.030641 | 11.031126 |

ATTENUATION IN DECIBELS
THETA FROM 58.000 TO 58.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 11.031612 | 11.032097 | 11.032582 | 11.033067 | 11.033553 | 11.034038 | 11.034523 | 11.035009 | 11.035494 | 11.035979 |
| 0.010 | 11.036405 | 11.036950 | 11.037436 | 11.037921 | 11.038406 | 11.038892 | 11.039377 | 11.039863 | 11.040349 | 11.040834 |
| 0.020 | 11.041330 | 11.041805 | 11.042291 | 11.042776 | 11.043262 | 11.043748 | 11.044234 | 11.044719 | 11.045205 | 11.045691 |
| 0.030 | 11.046177 | 11.046662 | 11.047148 | 11.047634 | 11.048120 | 11.048606 | 11.049091 | 11.049577 | 11.050063 | 11.050549 |
| 0.040 | 11.051035 | 11.051521 | 11.052007 | 11.052493 | 11.052979 | 11.053465 | 11.053951 | 11.054438 | 11.054924 | 11.055410 |
| 0.050 | 11.055896 | 11.056382 | 11.056868 | 11.057354 | 11.057841 | 11.058327 | 11.058813 | 11.059299 | 11.059786 | 11.060272 |
| 0.060 | 11.060758 | 11.061245 | 11.061731 | 11.062217 | 11.062704 | 11.063190 | 11.063677 | 11.064163 | 11.064650 | 11.065136 |
| 0.070 | 11.065623 | 11.066109 | 11.066596 | 11.067082 | 11.067569 | 11.068056 | 11.068542 | 11.069029 | 11.069516 | 11.070002 |
| 0.080 | 11.070489 | 11.070976 | 11.071463 | 11.071949 | 11.072436 | 11.072923 | 11.073410 | 11.073897 | 11.074383 | 11.074870 |
| 0.090 | 11.075357 | 11.075844 | 11.076331 | 11.076818 | 11.077305 | 11.077792 | 11.078279 | 11.078766 | 11.079253 | 11.079740 |
| 0.100 | 11.080227 | 11.080714 | 11.081202 | 11.081689 | 11.082176 | 11.082663 | 11.083150 | 11.083637 | 11.084125 | 11.084612 |
| 0.110 | 11.085099 | 11.085587 | 11.086074 | 11.086561 | 11.087049 | 11.087536 | 11.088023 | 11.088511 | 11.088998 | 11.089486 |
| 0.120 | 11.089973 | 11.090461 | 11.090948 | 11.091436 | 11.091923 | 11.092411 | 11.092898 | 11.093386 | 11.093874 | 11.094361 |
| 0.130 | 11.094849 | 11.095337 | 11.095824 | 11.096312 | 11.096800 | 11.097288 | 11.097775 | 11.098263 | 11.098751 | 11.099239 |
| 0.140 | 11.099727 | 11.100214 | 11.100702 | 11.101190 | 11.101678 | 11.102166 | 11.102654 | 11.103142 | 11.103630 | 11.104118 |
| 0.150 | 11.104606 | 11.105094 | 11.105582 | 11.106070 | 11.106559 | 11.107047 | 11.107535 | 11.108023 | 11.108511 | 11.108999 |
| 0.160 | 11.109488 | 11.109976 | 11.110464 | 11.110952 | 11.111441 | 11.111929 | 11.112417 | 11.112906 | 11.113394 | 11.113883 |
| 0.170 | 11.114371 | 11.114859 | 11.115348 | 11.115836 | 11.116325 | 11.116813 | 11.117302 | 11.117790 | 11.118279 | 11.118768 |
| 0.180 | 11.119256 | 11.119745 | 11.120234 | 11.120722 | 11.121211 | 11.121700 | 11.122188 | 11.122677 | 11.123166 | 11.123655 |
| 0.190 | 11.124143 | 11.124632 | 11.125121 | 11.125610 | 11.126099 | 11.126588 | 11.127077 | 11.127566 | 11.128055 | 11.128543 |
| 0.200 | 11.129032 | 11.129521 | 11.130011 | 11.130500 | 11.130989 | 11.131478 | 11.131967 | 11.132456 | 11.132945 | 11.133434 |
| 0.210 | 11.133924 | 11.134413 | 11.134902 | 11.135391 | 11.135880 | 11.136370 | 11.136859 | 11.137348 | 11.137838 | 11.138327 |
| 0.220 | 11.138816 | 11.139306 | 11.139795 | 11.140285 | 11.140774 | 11.141264 | 11.141753 | 11.142243 | 11.142732 | 11.143222 |
| 0.230 | 11.143711 | 11.144201 | 11.144690 | 11.145180 | 11.145670 | 11.146159 | 11.146649 | 11.147139 | 11.147628 | 11.148118 |
| 0.240 | 11.148608 | 11.149098 | 11.149588 | 11.150077 | 11.150567 | 11.151057 | 11.151547 | 11.152037 | 11.152527 | 11.153017 |
| 0.250 | 11.153567 | 11.153996 | 11.154437 | 11.154876 | 11.155316 | 11.155757 | 11.156197 | 11.156637 | 11.157077 | 11.157517 |
| 0.260 | 11.158407 | 11.158897 | 11.159387 | 11.159878 | 11.160369 | 11.160859 | 11.161348 | 11.161839 | 11.162329 | 11.162819 |
| 0.270 | 11.163300 | 11.163800 | 11.164290 | 11.164781 | 11.165271 | 11.165762 | 11.166252 | 11.166742 | 11.167233 | 11.167723 |
| 0.280 | 11.168214 | 11.168704 | 11.169195 | 11.169685 | 11.170176 | 11.170667 | 11.171157 | 11.171648 | 11.172139 | 11.172629 |
| 0.290 | 11.173120 | 11.173611 | 11.174102 | 11.174592 | 11.175083 | 11.175574 | 11.176065 | 11.176556 | 11.177047 | 11.177537 |
| 0.300 | 11.178028 | 11.178519 | 11.179010 | 11.179501 | 11.179992 | 11.180483 | 11.180974 | 11.181465 | 11.181956 | 11.182447 |
| 0.310 | 11.182938 | 11.183429 | 11.183921 | 11.184412 | 11.184903 | 11.185394 | 11.185885 | 11.186377 | 11.186868 | 11.187359 |
| 0.320 | 11.187850 | 11.188342 | 11.188833 | 11.189324 | 11.189816 | 11.190307 | 11.190799 | 11.191290 | 11.191781 | 11.192273 |
| 0.330 | 11.192764 | 11.193256 | 11.193747 | 11.194239 | 11.194731 | 11.195222 | 11.195714 | 11.196205 | 11.196697 | 11.197188 |
| 0.340 | 11.197650 | 11.198172 | 11.198664 | 11.199155 | 11.199647 | 11.200139 | 11.200631 | 11.201122 | 11.201614 | 11.202106 |
| 0.350 | 11.202598 | 11.203090 | 11.203582 | 11.204074 | 11.204566 | 11.205058 | 11.205549 | 11.206042 | 11.206534 | 11.207026 |
| 0.360 | 11.207518 | 11.208010 | 11.208502 | 11.208994 | 11.209486 | 11.209978 | 11.210470 | 11.210963 | 11.211455 | 11.211947 |
| 0.370 | 11.212429 | 11.212932 | 11.213424 | 11.213916 | 11.214408 | 11.214901 | 11.215393 | 11.215886 | 11.216378 | 11.216870 |
| 0.380 | 11.217363 | 11.217855 | 11.218348 | 11.218840 | 11.219333 | 11.219825 | 11.220318 | 11.220811 | 11.221303 | 11.221796 |
| 0.390 | 11.222288 | 11.222781 | 11.223274 | 11.223766 | 11.224259 | 11.224752 | 11.225245 | 11.225737 | 11.226230 | 11.226723 |
| 0.400 | 11.227216 | 11.227709 | 11.228201 | 11.228694 | 11.229187 | 11.229680 | 11.230173 | 11.230666 | 11.231159 | 11.231652 |
| 0.410 | 11.232145 | 11.232638 | 11.233131 | 11.233624 | 11.234117 | 11.234610 | 11.235104 | 11.235597 | 11.236090 | 11.236583 |
| 0.420 | 11.237076 | 11.237570 | 11.238063 | 11.238556 | 11.239049 | 11.239543 | 11.240036 | 11.240529 | 11.241023 | 11.241516 |
| 0.430 | 11.242010 | 11.242503 | 11.242996 | 11.243490 | 11.243983 | 11.244477 | 11.244970 | 11.245464 | 11.245957 | 11.246451 |
| 0.440 | 11.246945 | 11.247438 | 11.247932 | 11.248425 | 11.248919 | 11.249413 | 11.249907 | 11.250400 | 11.250894 | 11.251388 |
| 0.450 | 11.251882 | 11.252375 | 11.252869 | 11.253363 | 11.253857 | 11.254351 | 11.254845 | 11.255339 | 11.255833 | 11.256327 |
| 0.460 | 11.256821 | 11.257315 | 11.257809 | 11.258303 | 11.258797 | 11.259291 | 11.259785 | 11.260279 | 11.260773 | 11.261267 |
| 0.470 | 11.261767 | 11.262256 | 11.262750 | 11.263244 | 11.263738 | 11.264232 | 11.264727 | 11.265221 | 11.265716 | 11.266210 |
| 0.480 | 11.266764 | 11.267259 | 11.267753 | 11.268248 | 11.268742 | 11.269237 | 11.269731 | 11.270226 | 11.270720 | 11.271215 |
| 0.490 | 11.271649 | 11.272144 | 11.272638 | 11.273133 | 11.273628 | 11.274122 | 11.274617 | 11.275112 | 11.275606 | 11.276101 |

ATTENUATION IN DECIBELS
 THETA FROM 58.500 TO 58.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 11.276596 | 11.277091 | 11.277585 | 11.278080 | 11.278575 | 11.279070 | 11.279565 | 11.280060 | 11.280555 | 11.281050 |
| 0.510 | 11.281545 | 11.282040 | 11.282534 | 11.283030 | 11.283525 | 11.284020 | 11.284515 | 11.285010 | 11.285505 | 11.286000 |
| 0.520 | 11.286495 | 11.286990 | 11.287485 | 11.287981 | 11.288476 | 11.288971 | 11.289466 | 11.289961 | 11.290457 | 11.290952 |
| 0.530 | 11.291446 | 11.291943 | 11.292438 | 11.292934 | 11.293429 | 11.293925 | 11.294420 | 11.294916 | 11.295411 | 11.295907 |
| 0.540 | 11.296402 | 11.296898 | 11.297393 | 11.297889 | 11.298384 | 11.298880 | 11.299376 | 11.299871 | 11.300367 | 11.300863 |
| 0.550 | 11.301359 | 11.301854 | 11.302350 | 11.302846 | 11.303342 | 11.303838 | 11.304333 | 11.304829 | 11.305325 | 11.305821 |
| 0.560 | 11.306317 | 11.306813 | 11.307309 | 11.307805 | 11.308301 | 11.308797 | 11.309293 | 11.309789 | 11.310285 | 11.310781 |
| 0.570 | 11.311777 | 11.312270 | 11.312766 | 11.313262 | 11.313758 | 11.314254 | 11.314751 | 11.315247 | 11.315743 | 11.316239 |
| 0.580 | 11.316739 | 11.317232 | 11.317729 | 11.318225 | 11.318721 | 11.319218 | 11.319714 | 11.320211 | 11.320707 | 11.321204 |
| 0.590 | 11.322104 | 11.322600 | 11.323093 | 11.323590 | 11.324086 | 11.324583 | 11.325079 | 11.325576 | 11.326072 | 11.326569 |
| 0.600 | 11.328170 | 11.328667 | 11.329163 | 11.329659 | 11.330157 | 11.330654 | 11.331150 | 11.331647 | 11.332144 | 11.332641 |
| 0.610 | 11.333138 | 11.333635 | 11.334132 | 11.334629 | 11.335126 | 11.335623 | 11.336120 | 11.336617 | 11.337114 | 11.337611 |
| 0.620 | 11.338108 | 11.338605 | 11.339102 | 11.339599 | 11.340097 | 11.340594 | 11.341091 | 11.341588 | 11.342086 | 11.342583 |
| 0.630 | 11.343080 | 11.343577 | 11.344075 | 11.344572 | 11.345069 | 11.345567 | 11.346064 | 11.346562 | 11.347059 | 11.347556 |
| 0.640 | 11.346054 | 11.346551 | 11.347049 | 11.347547 | 11.348044 | 11.348542 | 11.349040 | 11.349537 | 11.350035 | 11.350532 |
| 0.650 | 11.351030 | 11.351528 | 11.352025 | 11.352523 | 11.353021 | 11.353519 | 11.354016 | 11.354514 | 11.355012 | 11.355510 |
| 0.660 | 11.356008 | 11.356506 | 11.357004 | 11.357502 | 11.357999 | 11.358497 | 11.358995 | 11.359493 | 11.359991 | 11.360489 |
| 0.670 | 11.360986 | 11.361486 | 11.361984 | 11.362482 | 11.362980 | 11.363478 | 11.363976 | 11.364475 | 11.364973 | 11.365471 |
| 0.680 | 11.365969 | 11.366468 | 11.366966 | 11.367464 | 11.367963 | 11.368461 | 11.368959 | 11.369458 | 11.369956 | 11.370455 |
| 0.690 | 11.370953 | 11.371452 | 11.371950 | 11.372449 | 11.372947 | 11.373446 | 11.373944 | 11.374443 | 11.374941 | 11.375440 |
| 0.700 | 11.375939 | 11.376437 | 11.376936 | 11.377435 | 11.377934 | 11.378432 | 11.378931 | 11.379430 | 11.379929 | 11.380428 |
| 0.710 | 11.380926 | 11.381425 | 11.381924 | 11.382423 | 11.382922 | 11.383421 | 11.383920 | 11.384419 | 11.384918 | 11.385417 |
| 0.720 | 11.385920 | 11.386415 | 11.386914 | 11.387413 | 11.387913 | 11.388412 | 11.388911 | 11.389410 | 11.389909 | 11.390408 |
| 0.730 | 11.390908 | 11.391407 | 11.391906 | 11.392406 | 11.392905 | 11.393404 | 11.393903 | 11.394403 | 11.394902 | 11.395402 |
| 0.740 | 11.395901 | 11.396401 | 11.396900 | 11.397400 | 11.397899 | 11.398399 | 11.398898 | 11.399398 | 11.399897 | 11.400397 |
| 0.750 | 11.400897 | 11.401396 | 11.401896 | 11.402396 | 11.402895 | 11.403395 | 11.403895 | 11.404395 | 11.404894 | 11.405394 |
| 0.760 | 11.405894 | 11.406394 | 11.406894 | 11.407394 | 11.407894 | 11.408394 | 11.408894 | 11.409394 | 11.409894 | 11.410394 |
| 0.770 | 11.410894 | 11.411394 | 11.411894 | 11.412394 | 11.412894 | 11.413394 | 11.413894 | 11.414394 | 11.414895 | 11.415395 |
| 0.780 | 11.415895 | 11.416395 | 11.416895 | 11.417396 | 11.417896 | 11.418396 | 11.418897 | 11.419397 | 11.419898 | 11.420398 |
| 0.790 | 11.420896 | 11.421399 | 11.421899 | 11.422400 | 11.422900 | 11.423401 | 11.423901 | 11.424402 | 11.424903 | 11.425403 |
| 0.800 | 11.425904 | 11.426404 | 11.426905 | 11.427406 | 11.427907 | 11.428407 | 11.428908 | 11.429409 | 11.429909 | 11.430410 |
| 0.810 | 11.430911 | 11.431412 | 11.431913 | 11.432414 | 11.432915 | 11.433416 | 11.433916 | 11.434417 | 11.434918 | 11.435419 |
| 0.820 | 11.435920 | 11.436421 | 11.436923 | 11.437424 | 11.437925 | 11.438426 | 11.438927 | 11.439428 | 11.439929 | 11.440431 |
| 0.830 | 11.440932 | 11.441433 | 11.441934 | 11.442436 | 11.442937 | 11.443438 | 11.443939 | 11.444441 | 11.444942 | 11.445444 |
| 0.840 | 11.445945 | 11.446446 | 11.446948 | 11.447449 | 11.447951 | 11.448452 | 11.448954 | 11.449455 | 11.449957 | 11.450459 |
| 0.850 | 11.450960 | 11.451462 | 11.451963 | 11.452465 | 11.452967 | 11.453469 | 11.453970 | 11.454472 | 11.454974 | 11.455476 |
| 0.860 | 11.455977 | 11.456479 | 11.456981 | 11.457483 | 11.457985 | 11.458487 | 11.458989 | 11.459491 | 11.459993 | 11.460495 |
| 0.870 | 11.460997 | 11.461499 | 11.462001 | 11.462503 | 11.463005 | 11.463507 | 11.464009 | 11.464511 | 11.465013 | 11.465515 |
| 0.880 | 11.466018 | 11.466520 | 11.467022 | 11.467524 | 11.468027 | 11.468529 | 11.469031 | 11.469534 | 11.470036 | 11.470538 |
| 0.890 | 11.471041 | 11.471543 | 11.472046 | 11.472548 | 11.473051 | 11.473553 | 11.474056 | 11.474558 | 11.475061 | 11.475563 |
| 0.900 | 11.476066 | 11.476569 | 11.477071 | 11.477574 | 11.478077 | 11.478579 | 11.479082 | 11.479585 | 11.480088 | 11.480590 |
| 0.910 | 11.481093 | 11.481596 | 11.482099 | 11.482602 | 11.483104 | 11.483607 | 11.484110 | 11.484613 | 11.485116 | 11.485619 |
| 0.920 | 11.486122 | 11.486625 | 11.487128 | 11.487631 | 11.488134 | 11.488637 | 11.489141 | 11.489644 | 11.490147 | 11.490650 |
| 0.930 | 11.491153 | 11.491656 | 11.492160 | 11.492663 | 11.493166 | 11.493670 | 11.494173 | 11.494676 | 11.495180 | 11.495683 |
| 0.940 | 11.496186 | 11.496690 | 11.497193 | 11.497697 | 11.498200 | 11.498704 | 11.499207 | 11.499711 | 11.500214 | 11.500718 |
| 0.950 | 11.501221 | 11.501725 | 11.502229 | 11.502732 | 11.503236 | 11.503740 | 11.504243 | 11.504747 | 11.505251 | 11.505755 |
| 0.960 | 11.506258 | 11.506762 | 11.507266 | 11.507770 | 11.508274 | 11.508778 | 11.509282 | 11.509786 | 11.510289 | 11.510793 |
| 0.970 | 11.511297 | 11.511801 | 11.512305 | 11.512810 | 11.513314 | 11.513818 | 11.514322 | 11.514826 | 11.515330 | 11.515834 |
| 0.980 | 11.516338 | 11.516843 | 11.517347 | 11.517851 | 11.518355 | 11.518860 | 11.519364 | 11.519868 | 11.520373 | 11.520877 |
| 0.990 | 11.521381 | 11.521886 | 11.522390 | 11.522895 | 11.523399 | 11.523904 | 11.524408 | 11.524913 | 11.525417 | 11.525922 |

ATTENUATION IN DECIBELS
THETA FROM 59.000 TO 59.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 11.526427 | 11.526931 | 11.527436 | 11.527940 | 11.528445 | 11.528950 | 11.529454 | 11.529959 | 11.530464 | 11.530969 |
| 0.010 | 11.531474 | 11.531978 | 11.532483 | 11.532988 | 11.533493 | 11.533998 | 11.534503 | 11.535008 | 11.535513 | 11.536018 |
| 0.020 | 11.536523 | 11.537027 | 11.537533 | 11.538038 | 11.538543 | 11.539048 | 11.539553 | 11.540058 | 11.540563 | 11.541068 |
| 0.030 | 11.541574 | 11.542079 | 11.542584 | 11.543089 | 11.543594 | 11.544100 | 11.544605 | 11.545110 | 11.545616 | 11.546121 |
| 0.040 | 11.546626 | 11.547132 | 11.547637 | 11.548143 | 11.548648 | 11.549154 | 11.549659 | 11.550165 | 11.550670 | 11.551176 |
| 0.050 | 11.551682 | 11.552187 | 11.552693 | 11.553198 | 11.553704 | 11.554210 | 11.554716 | 11.555221 | 11.555727 | 11.556233 |
| 0.060 | 11.556738 | 11.557244 | 11.557750 | 11.558256 | 11.558762 | 11.559268 | 11.559774 | 11.560280 | 11.560786 | 11.561291 |
| 0.070 | 11.556797 | 11.5562304 | 11.562810 | 11.563316 | 11.563822 | 11.564328 | 11.564834 | 11.565340 | 11.565846 | 11.566352 |
| 0.080 | 11.566859 | 11.567365 | 11.567871 | 11.568377 | 11.568883 | 11.569389 | 11.569896 | 11.570402 | 11.570909 | 11.571415 |
| 0.090 | 11.571921 | 11.572428 | 11.572934 | 11.573441 | 11.573947 | 11.574454 | 11.574960 | 11.575467 | 11.575973 | 11.576480 |
| 0.100 | 11.576987 | 11.577493 | 11.578000 | 11.578506 | 11.579013 | 11.579520 | 11.580027 | 11.580533 | 11.581040 | 11.581547 |
| 0.110 | 11.582054 | 11.582560 | 11.583067 | 11.583574 | 11.584081 | 11.584588 | 11.585095 | 11.585602 | 11.586109 | 11.586616 |
| 0.120 | 11.587123 | 11.587630 | 11.588137 | 11.588644 | 11.589151 | 11.589658 | 11.590165 | 11.590672 | 11.591179 | 11.591686 |
| 0.130 | 11.592194 | 11.592701 | 11.593208 | 11.593715 | 11.594223 | 11.594730 | 11.595237 | 11.595744 | 11.596252 | 11.596759 |
| 0.140 | 11.597267 | 11.597774 | 11.598282 | 11.598789 | 11.599296 | 11.599804 | 11.600311 | 11.600819 | 11.601327 | 11.601834 |
| 0.150 | 11.602342 | 11.602849 | 11.603357 | 11.603865 | 11.604372 | 11.604880 | 11.605388 | 11.605895 | 11.606403 | 11.606911 |
| 0.160 | 11.607419 | 11.607927 | 11.608434 | 11.608942 | 11.609450 | 11.609958 | 11.610466 | 11.610974 | 11.611482 | 11.611990 |
| 0.170 | 11.612498 | 11.613006 | 11.613514 | 11.614022 | 11.614530 | 11.615038 | 11.615546 | 11.616054 | 11.616563 | 11.617071 |
| 0.180 | 11.617579 | 11.618087 | 11.618595 | 11.619104 | 11.619612 | 11.620120 | 11.620629 | 11.621137 | 11.621645 | 11.622154 |
| 0.190 | 11.622662 | 11.623170 | 11.623679 | 11.624187 | 11.624696 | 11.625204 | 11.625713 | 11.626221 | 11.626730 | 11.627239 |
| 0.200 | 11.627747 | 11.628256 | 11.628765 | 11.629273 | 11.629782 | 11.630291 | 11.630799 | 11.631308 | 11.631817 | 11.632326 |
| 0.210 | 11.632834 | 11.633343 | 11.633852 | 11.634361 | 11.634870 | 11.635379 | 11.635888 | 11.636397 | 11.636906 | 11.637414 |
| 0.220 | 11.637923 | 11.638433 | 11.638942 | 11.639451 | 11.639960 | 11.640469 | 11.640978 | 11.641487 | 11.641996 | 11.642505 |
| 0.230 | 11.643015 | 11.643524 | 11.644033 | 11.644542 | 11.645052 | 11.645561 | 11.646070 | 11.646580 | 11.647089 | 11.647599 |
| 0.240 | 11.648104 | 11.648617 | 11.649127 | 11.649636 | 11.650146 | 11.650655 | 11.651165 | 11.651674 | 11.652184 | 11.652694 |
| 0.250 | 11.653203 | 11.653713 | 11.654222 | 11.654732 | 11.655242 | 11.655751 | 11.656261 | 11.656771 | 11.657281 | 11.657791 |
| 0.260 | 11.658300 | 11.658810 | 11.659320 | 11.659830 | 11.660340 | 11.660850 | 11.661360 | 11.661870 | 11.662380 | 11.662890 |
| 0.270 | 11.663400 | 11.663910 | 11.664420 | 11.664930 | 11.665440 | 11.665950 | 11.666460 | 11.666970 | 11.667481 | 11.667991 |
| 0.280 | 11.668501 | 11.669011 | 11.669521 | 11.670032 | 11.670542 | 11.671052 | 11.671563 | 11.672073 | 11.672583 | 11.673094 |
| 0.290 | 11.673604 | 11.674115 | 11.674625 | 11.675136 | 11.675646 | 11.676157 | 11.676667 | 11.677178 | 11.677688 | 11.678199 |
| 0.300 | 11.678710 | 11.679220 | 11.679731 | 11.680242 | 11.680752 | 11.681263 | 11.681774 | 11.682285 | 11.682795 | 11.683306 |
| 0.310 | 11.683817 | 11.684328 | 11.684839 | 11.685350 | 11.685861 | 11.686372 | 11.686883 | 11.687393 | 11.687904 | 11.688416 |
| 0.320 | 11.688927 | 11.689438 | 11.689949 | 11.690460 | 11.690971 | 11.691482 | 11.691993 | 11.692504 | 11.693016 | 11.693527 |
| 0.330 | 11.694038 | 11.694549 | 11.695060 | 11.695572 | 11.696083 | 11.696594 | 11.697106 | 11.697617 | 11.698129 | 11.698640 |
| 0.340 | 11.699152 | 11.699663 | 11.700174 | 11.700686 | 11.701197 | 11.701709 | 11.702221 | 11.702732 | 11.703244 | 11.703755 |
| 0.350 | 11.704267 | 11.704779 | 11.705290 | 11.705802 | 11.706314 | 11.706825 | 11.707337 | 11.707849 | 11.708361 | 11.708873 |
| 0.360 | 11.709385 | 11.709896 | 11.710408 | 11.710920 | 11.711432 | 11.711944 | 11.712456 | 11.712968 | 11.713480 | 11.713992 |
| 0.370 | 11.714504 | 11.715016 | 11.715528 | 11.716040 | 11.716553 | 11.717065 | 11.717577 | 11.718089 | 11.718601 | 11.719114 |
| 0.380 | 11.719626 | 11.720138 | 11.720650 | 11.721163 | 11.721675 | 11.722187 | 11.722700 | 11.723212 | 11.723725 | 11.724237 |
| 0.390 | 11.724749 | 11.725262 | 11.725775 | 11.726287 | 11.726799 | 11.727312 | 11.727825 | 11.728337 | 11.728850 | 11.729363 |
| 0.400 | 11.729875 | 11.730388 | 11.730901 | 11.731413 | 11.731926 | 11.732439 | 11.732952 | 11.733464 | 11.733977 | 11.734490 |
| 0.410 | 11.735003 | 11.735515 | 11.736029 | 11.736542 | 11.737055 | 11.737568 | 11.738081 | 11.738594 | 11.739107 | 11.739620 |
| 0.420 | 11.740133 | 11.740646 | 11.741159 | 11.741672 | 11.742185 | 11.742698 | 11.743212 | 11.743725 | 11.744238 | 11.744751 |
| 0.430 | 11.745265 | 11.745778 | 11.746291 | 11.746805 | 11.747318 | 11.747831 | 11.748345 | 11.748858 | 11.749372 | 11.749885 |
| 0.440 | 11.750399 | 11.750912 | 11.751426 | 11.751939 | 11.752453 | 11.752966 | 11.753480 | 11.753994 | 11.754507 | 11.755021 |
| 0.450 | 11.755535 | 11.756048 | 11.756562 | 11.757076 | 11.757589 | 11.758103 | 11.758617 | 11.759131 | 11.759645 | 11.760159 |
| 0.460 | 11.760672 | 11.761186 | 11.761700 | 11.762214 | 11.762728 | 11.763242 | 11.763756 | 11.764270 | 11.764784 | 11.765298 |
| 0.470 | 11.765815 | 11.766327 | 11.766841 | 11.767355 | 11.767869 | 11.768383 | 11.768898 | 11.769412 | 11.769926 | 11.770440 |
| 0.480 | 11.770955 | 11.771469 | 11.771983 | 11.772498 | 11.773012 | 11.773526 | 11.774041 | 11.774555 | 11.775070 | 11.775584 |
| 0.490 | 11.776099 | 11.776613 | 11.777128 | 11.777642 | 11.778157 | 11.778672 | 11.779186 | 11.779701 | 11.780216 | 11.780730 |

ATTENUATION IN DECIBELS
THETA FROM 59.500 TO 59.999 DEGREES

| THETA IN DEGREES | 0.00C | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 11.781245 | 11.781760 | 11.782274 | 11.782789 | 11.783304 | 11.783819 | 11.784334 | 11.784849 | 11.785363 | 11.785878 |
| 0.510 | 11.786393 | 11.786908 | 11.787423 | 11.787938 | 11.788453 | 11.788968 | 11.789483 | 11.789998 | 11.790513 | 11.791028 |
| 0.520 | 11.791543 | 11.792058 | 11.792574 | 11.793089 | 11.793604 | 11.794119 | 11.794635 | 11.795150 | 11.795665 | 11.796181 |
| 0.530 | 11.796696 | 11.797211 | 11.797727 | 11.798242 | 11.798757 | 11.799273 | 11.799788 | 11.800304 | 11.800819 | 11.801335 |
| 0.540 | 11.801850 | 11.802366 | 11.802881 | 11.803397 | 11.803913 | 11.804428 | 11.804944 | 11.805460 | 11.805975 | 11.806491 |
| 0.550 | 11.807007 | 11.807523 | 11.808038 | 11.808554 | 11.809070 | 11.809586 | 11.810102 | 11.810618 | 11.811134 | 11.811649 |
| 0.560 | 11.812165 | 11.812681 | 11.813197 | 11.813713 | 11.814229 | 11.814745 | 11.815261 | 11.815778 | 11.816294 | 11.816810 |
| 0.570 | 11.817326 | 11.817842 | 11.818358 | 11.818874 | 11.819390 | 11.819907 | 11.820423 | 11.820940 | 11.821456 | 11.821972 |
| 0.580 | 11.822489 | 11.823005 | 11.823521 | 11.824038 | 11.824554 | 11.825071 | 11.825587 | 11.826104 | 11.826620 | 11.827137 |
| 0.590 | 11.827653 | 11.828170 | 11.828686 | 11.829203 | 11.829720 | 11.830236 | 11.830753 | 11.831270 | 11.831787 | 11.832303 |
| 0.600 | 11.832820 | 11.833337 | 11.833854 | 11.834371 | 11.834887 | 11.835404 | 11.835921 | 11.836438 | 11.836955 | 11.837472 |
| 0.610 | 11.837989 | 11.838506 | 11.839023 | 11.839540 | 11.840057 | 11.840574 | 11.841091 | 11.841608 | 11.842126 | 11.842643 |
| 0.620 | 11.843160 | 11.843677 | 11.844194 | 11.844712 | 11.845229 | 11.845746 | 11.846264 | 11.846781 | 11.847298 | 11.847816 |
| 0.630 | 11.848333 | 11.848850 | 11.849368 | 11.849885 | 11.850403 | 11.850920 | 11.851438 | 11.851955 | 11.852473 | 11.852990 |
| 0.640 | 11.853508 | 11.854026 | 11.854543 | 11.855061 | 11.855579 | 11.856096 | 11.856614 | 11.857132 | 11.857650 | 11.858167 |
| 0.650 | 11.858685 | 11.859203 | 11.859721 | 11.860239 | 11.860757 | 11.861274 | 11.861792 | 11.862310 | 11.862828 | 11.863346 |
| 0.660 | 11.863864 | 11.864382 | 11.864900 | 11.865419 | 11.865937 | 11.866455 | 11.866973 | 11.867491 | 11.868009 | 11.868527 |
| 0.670 | 11.869046 | 11.869564 | 11.870082 | 11.870600 | 11.871119 | 11.871637 | 11.872155 | 11.872674 | 11.873192 | 11.873711 |
| 0.680 | 11.874229 | 11.874747 | 11.875266 | 11.875784 | 11.876303 | 11.876821 | 11.877340 | 11.877859 | 11.878377 | 11.878896 |
| 0.690 | 11.879414 | 11.879933 | 11.880452 | 11.880970 | 11.881489 | 11.882008 | 11.882527 | 11.883045 | 11.883564 | 11.884083 |
| 0.700 | 11.884602 | 11.885121 | 11.885640 | 11.886159 | 11.886678 | 11.887197 | 11.887715 | 11.888234 | 11.888753 | 11.889272 |
| 0.710 | 11.889792 | 11.890311 | 11.890830 | 11.891349 | 11.891868 | 11.892387 | 11.892906 | 11.893425 | 11.893944 | 11.894464 |
| 0.720 | 11.894963 | 11.895483 | 11.896002 | 11.896521 | 11.897041 | 11.897560 | 11.898079 | 11.898619 | 11.899138 | 11.899657 |
| 0.730 | 11.900177 | 11.900697 | 11.901216 | 11.901736 | 11.902255 | 11.902775 | 11.903294 | 11.903814 | 11.904333 | 11.904853 |
| 0.740 | 11.905377 | 11.905897 | 11.906417 | 11.906937 | 11.907457 | 11.907977 | 11.908497 | 11.909017 | 11.909537 | 11.910057 |
| 0.750 | 11.910571 | 11.911091 | 11.911611 | 11.912130 | 11.912650 | 11.913170 | 11.913690 | 11.914211 | 11.914731 | 11.915251 |
| 0.760 | 11.915771 | 11.916291 | 11.916811 | 11.917331 | 11.917851 | 11.918371 | 11.918892 | 11.919412 | 11.919932 | 11.920453 |
| 0.770 | 11.920973 | 11.921493 | 11.922014 | 11.922534 | 11.923054 | 11.923575 | 11.924095 | 11.924616 | 11.925136 | 11.925657 |
| 0.780 | 11.926177 | 11.926698 | 11.927218 | 11.927739 | 11.928259 | 11.928780 | 11.929301 | 11.929821 | 11.930342 | 11.930863 |
| 0.790 | 11.931383 | 11.931904 | 11.932425 | 11.932946 | 11.933466 | 11.933987 | 11.934508 | 11.935029 | 11.935550 | 11.936071 |
| 0.800 | 11.936592 | 11.937113 | 11.937634 | 11.938155 | 11.938676 | 11.939197 | 11.939718 | 11.940239 | 11.940760 | 11.941281 |
| 0.810 | 11.941802 | 11.942323 | 11.942845 | 11.943366 | 11.943887 | 11.944408 | 11.944929 | 11.945451 | 11.945972 | 11.946493 |
| 0.820 | 11.947015 | 11.947536 | 11.948057 | 11.948579 | 11.949100 | 11.949622 | 11.950143 | 11.950665 | 11.951186 | 11.951708 |
| 0.830 | 11.952229 | 11.952751 | 11.953272 | 11.953794 | 11.954316 | 11.954837 | 11.955359 | 11.955881 | 11.956403 | 11.956924 |
| 0.840 | 11.957446 | 11.957968 | 11.958490 | 11.959011 | 11.959533 | 11.960055 | 11.960577 | 11.961099 | 11.961621 | 11.962143 |
| 0.850 | 11.962665 | 11.963187 | 11.963709 | 11.964231 | 11.964753 | 11.965275 | 11.965797 | 11.966319 | 11.966841 | 11.967364 |
| 0.860 | 11.967886 | 11.968408 | 11.968930 | 11.969453 | 11.969975 | 11.970497 | 11.971019 | 11.971542 | 11.972064 | 11.972586 |
| 0.870 | 11.973109 | 11.973631 | 11.974154 | 11.974676 | 11.975199 | 11.975721 | 11.976244 | 11.976766 | 11.977289 | 11.977811 |
| 0.880 | 11.978334 | 11.978857 | 11.979379 | 11.979902 | 11.980425 | 11.980947 | 11.981470 | 11.981993 | 11.982516 | 11.983038 |
| 0.890 | 11.983561 | 11.984084 | 11.984607 | 11.985130 | 11.985653 | 11.986176 | 11.986699 | 11.987221 | 11.987744 | 11.988268 |
| 0.900 | 11.988791 | 11.989314 | 11.989837 | 11.990360 | 11.990883 | 11.991406 | 11.991929 | 11.992452 | 11.992975 | 11.993497 |
| 0.910 | 11.994022 | 11.994545 | 11.995069 | 11.995592 | 11.996115 | 11.996638 | 11.997162 | 11.997685 | 11.998209 | 11.998732 |
| 0.920 | 11.999256 | 11.999779 | 12.000302 | 12.000826 | 12.001349 | 12.001873 | 12.002397 | 12.002920 | 12.003444 | 12.003968 |
| 0.930 | 12.004491 | 12.005015 | 12.005539 | 12.006062 | 12.006586 | 12.007110 | 12.007634 | 12.008157 | 12.008681 | 12.009205 |
| 0.940 | 12.009729 | 12.010253 | 12.010777 | 12.011301 | 12.011825 | 12.012349 | 12.012873 | 12.013397 | 12.013921 | 12.014445 |
| 0.950 | 12.014969 | 12.015493 | 12.016017 | 12.016541 | 12.017065 | 12.017589 | 12.018114 | 12.018638 | 12.019162 | 12.019686 |
| 0.960 | 12.020211 | 12.020735 | 12.021259 | 12.021784 | 12.022308 | 12.022833 | 12.023357 | 12.023881 | 12.024406 | 12.024930 |
| 0.970 | 12.025455 | 12.025979 | 12.026504 | 12.027028 | 12.027553 | 12.028078 | 12.028602 | 12.029127 | 12.029652 | 12.030176 |
| 0.980 | 12.030701 | 12.031226 | 12.031751 | 12.032275 | 12.032800 | 12.033325 | 12.033850 | 12.034375 | 12.034899 | 12.035424 |
| 0.990 | 12.035940 | 12.036474 | 12.036999 | 12.037524 | 12.038049 | 12.038574 | 12.039099 | 12.039624 | 12.040150 | 12.040675 |

ATTENUATION IN DECIHELDS
 THETA FROM 60.000 TO 60.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 12.041200 | 12.041725 | 12.042250 | 12.042775 | 12.043300 | 12.043826 | 12.044351 | 12.044876 | 12.045402 | 12.045927 |
| 0.010 | 12.046452 | 12.046978 | 12.047503 | 12.048028 | 12.048554 | 12.049079 | 12.049605 | 12.050130 | 12.050656 | 12.051181 |
| 0.020 | 12.051707 | 12.052233 | 12.052758 | 12.053284 | 12.053809 | 12.054335 | 12.054861 | 12.055387 | 12.055912 | 12.056438 |
| 0.030 | 12.056964 | 12.057490 | 12.058015 | 12.058541 | 12.059067 | 12.059593 | 12.060119 | 12.060645 | 12.061171 | 12.061697 |
| 0.040 | 12.062223 | 12.062749 | 12.063275 | 12.063801 | 12.064327 | 12.064853 | 12.065379 | 12.065905 | 12.066431 | 12.066957 |
| 0.050 | 12.067484 | 12.068010 | 12.068536 | 12.069062 | 12.069589 | 12.070115 | 12.070641 | 12.071168 | 12.071694 | 12.072220 |
| 0.060 | 12.072747 | 12.073273 | 12.073800 | 12.074326 | 12.074853 | 12.075379 | 12.075906 | 12.076432 | 12.076959 | 12.077485 |
| 0.070 | 12.078012 | 12.078539 | 12.079065 | 12.079592 | 12.080119 | 12.080646 | 12.081172 | 12.081699 | 12.082226 | 12.082753 |
| 0.080 | 12.083279 | 12.083806 | 12.084333 | 12.084860 | 12.085387 | 12.085914 | 12.086441 | 12.086968 | 12.087495 | 12.088022 |
| 0.090 | 12.088549 | 12.089076 | 12.089603 | 12.090130 | 12.090657 | 12.091185 | 12.091712 | 12.092239 | 12.092766 | 12.093293 |
| 0.100 | 12.093821 | 12.094348 | 12.094875 | 12.095403 | 12.095930 | 12.096457 | 12.096985 | 12.097512 | 12.098040 | 12.098567 |
| 0.110 | 12.099095 | 12.099622 | 12.100150 | 12.100677 | 12.101205 | 12.101732 | 12.102260 | 12.102787 | 12.103315 | 12.103843 |
| 0.120 | 12.104370 | 12.104898 | 12.105426 | 12.105954 | 12.106481 | 12.107009 | 12.107537 | 12.108065 | 12.108593 | 12.109120 |
| 0.130 | 12.109648 | 12.110176 | 12.110704 | 12.111232 | 12.111760 | 12.112288 | 12.112816 | 12.113344 | 12.113872 | 12.114401 |
| 0.140 | 12.114929 | 12.115457 | 12.115985 | 12.116513 | 12.117041 | 12.117569 | 12.118098 | 12.118626 | 12.119154 | 12.119683 |
| 0.150 | 12.120211 | 12.120739 | 12.121268 | 12.121796 | 12.122324 | 12.122853 | 12.123381 | 12.123910 | 12.124438 | 12.124967 |
| 0.160 | 12.125495 | 12.126024 | 12.126552 | 12.127081 | 12.127610 | 12.128138 | 12.128667 | 12.129196 | 12.129725 | 12.130253 |
| 0.170 | 12.130782 | 12.131311 | 12.131840 | 12.132368 | 12.132897 | 12.133426 | 12.133955 | 12.134484 | 12.135013 | 12.135542 |
| 0.180 | 12.136071 | 12.136600 | 12.137129 | 12.137658 | 12.138187 | 12.138716 | 12.139245 | 12.139774 | 12.140303 | 12.140832 |
| 0.190 | 12.141362 | 12.141891 | 12.142420 | 12.142949 | 12.143479 | 12.144008 | 12.144537 | 12.145066 | 12.145596 | 12.146125 |
| 0.200 | 12.146655 | 12.147184 | 12.147713 | 12.148243 | 12.148772 | 12.149302 | 12.149831 | 12.150361 | 12.150890 | 12.151420 |
| 0.210 | 12.151950 | 12.152479 | 12.153009 | 12.153539 | 12.154068 | 12.154598 | 12.155128 | 12.155658 | 12.156187 | 12.156717 |
| 0.220 | 12.157247 | 12.157777 | 12.158307 | 12.158837 | 12.159366 | 12.159896 | 12.160426 | 12.160956 | 12.161486 | 12.162016 |
| 0.230 | 12.162546 | 12.163077 | 12.163607 | 12.164137 | 12.164667 | 12.165197 | 12.165727 | 12.166257 | 12.166788 | 12.167318 |
| 0.240 | 12.167848 | 12.168378 | 12.168909 | 12.169439 | 12.169969 | 12.170500 | 12.171030 | 12.171560 | 12.172091 | 12.172621 |
| 0.250 | 12.173152 | 12.173682 | 12.174213 | 12.174743 | 12.175274 | 12.175804 | 12.176335 | 12.176866 | 12.177396 | 12.177927 |
| 0.260 | 12.178458 | 12.178988 | 12.179519 | 12.180050 | 12.180581 | 12.181111 | 12.181642 | 12.182173 | 12.182704 | 12.183235 |
| 0.270 | 12.183766 | 12.184297 | 12.184828 | 12.185359 | 12.185889 | 12.186421 | 12.186952 | 12.187483 | 12.188014 | 12.188545 |
| 0.280 | 12.189076 | 12.189607 | 12.190138 | 12.190669 | 12.191200 | 12.191732 | 12.192263 | 12.192794 | 12.193326 | 12.193857 |
| 0.290 | 12.194388 | 12.194920 | 12.195451 | 12.195982 | 12.196514 | 12.197045 | 12.197577 | 12.198108 | 12.198640 | 12.199171 |
| 0.300 | 12.199703 | 12.200234 | 12.200766 | 12.201298 | 12.201829 | 12.202361 | 12.202892 | 12.203424 | 12.203956 | 12.204488 |
| 0.310 | 12.205019 | 12.205551 | 12.206083 | 12.206615 | 12.207147 | 12.207678 | 12.208210 | 12.208742 | 12.209274 | 12.209806 |
| 0.320 | 12.210338 | 12.210870 | 12.211402 | 12.211934 | 12.212466 | 12.212998 | 12.213530 | 12.214063 | 12.214595 | 12.215127 |
| 0.330 | 12.215659 | 12.216191 | 12.216724 | 12.217256 | 12.217788 | 12.218320 | 12.218853 | 12.219385 | 12.219917 | 12.220450 |
| 0.340 | 12.220982 | 12.221515 | 12.222047 | 12.222580 | 12.223112 | 12.223645 | 12.224177 | 12.224710 | 12.225242 | 12.225775 |
| 0.350 | 12.226308 | 12.226840 | 12.227373 | 12.227906 | 12.228438 | 12.228971 | 12.229504 | 12.230036 | 12.230569 | 12.231102 |
| 0.360 | 12.231635 | 12.232168 | 12.232701 | 12.233234 | 12.233767 | 12.234300 | 12.234833 | 12.235366 | 12.235898 | 12.236431 |
| 0.370 | 12.236965 | 12.237498 | 12.238031 | 12.238564 | 12.239097 | 12.239630 | 12.240163 | 12.240697 | 12.241230 | 12.241763 |
| 0.380 | 12.242296 | 12.242830 | 12.243363 | 12.243896 | 12.244430 | 12.244963 | 12.245497 | 12.246030 | 12.246563 | 12.247097 |
| 0.390 | 12.247630 | 12.248164 | 12.248697 | 12.249231 | 12.249764 | 12.250298 | 12.250832 | 12.251365 | 12.251899 | 12.252433 |
| 0.400 | 12.252966 | 12.253500 | 12.254034 | 12.254568 | 12.255101 | 12.255635 | 12.256169 | 12.256703 | 12.257237 | 12.257771 |
| 0.410 | 12.258305 | 12.258839 | 12.259373 | 12.259907 | 12.260441 | 12.260975 | 12.261509 | 12.262043 | 12.262577 | 12.263111 |
| 0.420 | 12.263645 | 12.264179 | 12.264714 | 12.265248 | 12.265782 | 12.266316 | 12.266850 | 12.267385 | 12.267919 | 12.268453 |
| 0.430 | 12.268988 | 12.269522 | 12.270056 | 12.270591 | 12.271125 | 12.271660 | 12.272194 | 12.272729 | 12.273263 | 12.273798 |
| 0.440 | 12.274333 | 12.274867 | 12.275402 | 12.275936 | 12.276471 | 12.277006 | 12.277540 | 12.278075 | 12.278610 | 12.279145 |
| 0.450 | 12.279680 | 12.280214 | 12.280749 | 12.281284 | 12.281819 | 12.282354 | 12.282889 | 12.283424 | 12.283959 | 12.284494 |
| 0.460 | 12.285029 | 12.285564 | 12.286099 | 12.286634 | 12.287169 | 12.287704 | 12.288239 | 12.288774 | 12.289310 | 12.289845 |
| 0.470 | 12.290380 | 12.290915 | 12.291450 | 12.291986 | 12.292521 | 12.293056 | 12.293592 | 12.294127 | 12.294663 | 12.295198 |
| 0.480 | 12.295733 | 12.296269 | 12.296804 | 12.297340 | 12.297876 | 12.298411 | 12.298947 | 12.299482 | 12.300018 | 12.300553 |
| 0.490 | 12.301089 | 12.301625 | 12.302161 | 12.302696 | 12.303232 | 12.303768 | 12.304304 | 12.304839 | 12.305375 | 12.305911 |

ATTENUATION IN DECIBELS
THETA FROM 60.500 TO 60.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 12.306447 | 12.306983 | 12.307519 | 12.308055 | 12.308591 | 12.309127 | 12.309663 | 12.310199 | 12.310735 | 12.311271 |
| 0.510 | 12.311807 | 12.312343 | 12.312879 | 12.313416 | 12.313952 | 12.314488 | 12.315024 | 12.315560 | 12.316097 | 12.316633 |
| 0.520 | 12.317169 | 12.317706 | 12.318242 | 12.318778 | 12.319315 | 12.319851 | 12.320388 | 12.320924 | 12.321461 | 12.321997 |
| 0.530 | 12.322534 | 12.323070 | 12.323607 | 12.324143 | 12.324680 | 12.325217 | 12.325753 | 12.326290 | 12.326827 | 12.327363 |
| 0.540 | 12.327900 | 12.328437 | 12.328974 | 12.329511 | 12.330047 | 12.330584 | 12.331121 | 12.331658 | 12.332195 | 12.332732 |
| 0.550 | 12.333269 | 12.333806 | 12.334343 | 12.334880 | 12.335417 | 12.335954 | 12.336491 | 12.337029 | 12.337566 | 12.338103 |
| 0.560 | 12.338640 | 12.339177 | 12.339715 | 12.340252 | 12.340789 | 12.341326 | 12.341864 | 12.342401 | 12.342938 | 12.343476 |
| 0.570 | 12.344013 | 12.344551 | 12.345088 | 12.345626 | 12.346163 | 12.346701 | 12.347238 | 12.347776 | 12.348313 | 12.348851 |
| 0.580 | 12.349388 | 12.349926 | 12.350464 | 12.351002 | 12.351539 | 12.352077 | 12.352615 | 12.353153 | 12.353690 | 12.354228 |
| 0.590 | 12.354766 | 12.355304 | 12.355842 | 12.356380 | 12.356918 | 12.357456 | 12.357994 | 12.358532 | 12.359070 | 12.359608 |
| 0.600 | 12.360146 | 12.360684 | 12.361222 | 12.361760 | 12.362298 | 12.362836 | 12.363375 | 12.363913 | 12.364451 | 12.364990 |
| 0.610 | 12.365528 | 12.366066 | 12.366604 | 12.367143 | 12.367681 | 12.368220 | 12.368758 | 12.369296 | 12.369835 | 12.370373 |
| 0.620 | 12.370912 | 12.371450 | 12.371989 | 12.372528 | 12.373066 | 12.373605 | 12.374143 | 12.374682 | 12.375221 | 12.375759 |
| 0.630 | 12.376298 | 12.376837 | 12.377376 | 12.377915 | 12.378453 | 12.378992 | 12.379531 | 12.380070 | 12.380609 | 12.381148 |
| 0.640 | 12.381687 | 12.382226 | 12.382765 | 12.383304 | 12.383843 | 12.384382 | 12.384921 | 12.385460 | 12.385999 | 12.386538 |
| 0.650 | 12.387077 | 12.387617 | 12.388156 | 12.388695 | 12.389234 | 12.389774 | 12.390313 | 12.390852 | 12.391392 | 12.391931 |
| 0.660 | 12.392470 | 12.393010 | 12.393549 | 12.394089 | 12.394628 | 12.395168 | 12.395707 | 12.396247 | 12.396786 | 12.397326 |
| 0.670 | 12.397866 | 12.398405 | 12.398945 | 12.399485 | 12.400024 | 12.400564 | 12.401104 | 12.401644 | 12.402183 | 12.402723 |
| 0.680 | 12.403263 | 12.403803 | 12.404343 | 12.404883 | 12.405422 | 12.405962 | 12.406502 | 12.407042 | 12.407582 | 12.408122 |
| 0.690 | 12.408662 | 12.409203 | 12.409743 | 12.410283 | 12.410823 | 12.411363 | 12.411903 | 12.412444 | 12.412984 | 12.413524 |
| 0.700 | 12.414064 | 12.414605 | 12.415145 | 12.415685 | 12.416226 | 12.416766 | 12.417306 | 12.417847 | 12.418387 | 12.418928 |
| 0.710 | 12.419468 | 12.420009 | 12.420549 | 12.421090 | 12.421630 | 12.422171 | 12.422711 | 12.423252 | 12.423793 | 12.424334 |
| 0.720 | 12.424874 | 12.425415 | 12.425956 | 12.426497 | 12.427037 | 12.427578 | 12.428119 | 12.428660 | 12.429201 | 12.429742 |
| 0.730 | 12.430283 | 12.430824 | 12.431365 | 12.431906 | 12.432447 | 12.432988 | 12.433529 | 12.434070 | 12.434611 | 12.435152 |
| 0.740 | 12.435693 | 12.436234 | 12.436776 | 12.437317 | 12.437858 | 12.438400 | 12.438941 | 12.439482 | 12.440024 | 12.440565 |
| 0.750 | 12.441106 | 12.441648 | 12.442189 | 12.442731 | 12.443272 | 12.443813 | 12.444355 | 12.444897 | 12.445438 | 12.445980 |
| 0.760 | 12.446521 | 12.447063 | 12.447605 | 12.448146 | 12.448688 | 12.449229 | 12.449771 | 12.450313 | 12.450855 | 12.451397 |
| 0.770 | 12.451939 | 12.452480 | 12.453022 | 12.453564 | 12.454106 | 12.454648 | 12.455190 | 12.455732 | 12.456274 | 12.456816 |
| 0.780 | 12.457358 | 12.457900 | 12.458442 | 12.458984 | 12.459526 | 12.460068 | 12.460611 | 12.461153 | 12.461695 | 12.462237 |
| 0.790 | 12.462780 | 12.463322 | 12.463864 | 12.464407 | 12.464949 | 12.465491 | 12.466034 | 12.466576 | 12.467119 | 12.467661 |
| 0.800 | 12.468204 | 12.468746 | 12.469289 | 12.469831 | 12.470374 | 12.470916 | 12.471459 | 12.472002 | 12.472544 | 12.473087 |
| 0.810 | 12.473630 | 12.474172 | 12.474715 | 12.475258 | 12.475801 | 12.476344 | 12.476887 | 12.477429 | 12.477972 | 12.478515 |
| 0.820 | 12.479058 | 12.479601 | 12.480144 | 12.480687 | 12.481230 | 12.481773 | 12.482316 | 12.482859 | 12.483402 | 12.483946 |
| 0.830 | 12.484469 | 12.485032 | 12.485575 | 12.486118 | 12.486662 | 12.487205 | 12.487748 | 12.488292 | 12.488835 | 12.489378 |
| 0.840 | 12.489927 | 12.490465 | 12.491008 | 12.491552 | 12.492095 | 12.492639 | 12.493182 | 12.493726 | 12.494269 | 12.494813 |
| 0.850 | 12.495377 | 12.495900 | 12.496444 | 12.496988 | 12.497531 | 12.498075 | 12.498619 | 12.499162 | 12.499706 | 12.500250 |
| 0.860 | 12.500794 | 12.501338 | 12.501882 | 12.502426 | 12.502969 | 12.503513 | 12.504057 | 12.504601 | 12.505145 | 12.505689 |
| 0.870 | 12.506233 | 12.506777 | 12.507322 | 12.507866 | 12.508410 | 12.508954 | 12.509498 | 12.510042 | 12.510587 | 12.511131 |
| 0.880 | 12.511675 | 12.512219 | 12.512764 | 12.513308 | 12.513852 | 12.514397 | 12.514941 | 12.515486 | 12.516030 | 12.516575 |
| 0.890 | 12.517119 | 12.517664 | 12.518208 | 12.518753 | 12.519297 | 12.519842 | 12.520387 | 12.520931 | 12.521476 | 12.522021 |
| 0.900 | 12.522565 | 12.523110 | 12.523655 | 12.524200 | 12.524744 | 12.525289 | 12.525834 | 12.526379 | 12.526924 | 12.527469 |
| 0.910 | 12.528014 | 12.528559 | 12.529104 | 12.529649 | 12.530194 | 12.530739 | 12.531284 | 12.531829 | 12.532374 | 12.532919 |
| 0.920 | 12.533464 | 12.534010 | 12.534555 | 12.535100 | 12.535645 | 12.536191 | 12.536736 | 12.537281 | 12.537827 | 12.538372 |
| 0.930 | 12.538917 | 12.539463 | 12.540008 | 12.540554 | 12.541099 | 12.541645 | 12.542190 | 12.542736 | 12.543281 | 12.543827 |
| 0.940 | 12.544373 | 12.544918 | 12.545464 | 12.546010 | 12.546555 | 12.547101 | 12.547647 | 12.548193 | 12.548738 | 12.549284 |
| 0.950 | 12.549830 | 12.550376 | 12.550922 | 12.551468 | 12.552014 | 12.552559 | 12.553105 | 12.553652 | 12.554198 | 12.554744 |
| 0.960 | 12.555290 | 12.555836 | 12.556382 | 12.556928 | 12.557474 | 12.558020 | 12.558567 | 12.559113 | 12.559659 | 12.560205 |
| 0.970 | 12.560752 | 12.561298 | 12.561844 | 12.562391 | 12.562937 | 12.563483 | 12.564030 | 12.564576 | 12.565123 | 12.565669 |
| 0.980 | 12.566216 | 12.566762 | 12.567309 | 12.567855 | 12.568402 | 12.568949 | 12.569495 | 12.570042 | 12.570589 | 12.571135 |
| 0.990 | 12.571682 | 12.572229 | 12.572776 | 12.573323 | 12.573869 | 12.574416 | 12.574963 | 12.575510 | 12.576057 | 12.576604 |

ATTENUATION IN DECIBELS
THETA FROM 61.000 TO 61.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 12.577151 | 12.577698 | 12.578245 | 12.578792 | 12.579339 | 12.579886 | 12.580433 | 12.580980 | 12.581527 | 12.582075 |
| 0.010 | 12.582622 | 12.583169 | 12.583716 | 12.584263 | 12.584811 | 12.585358 | 12.585905 | 12.586453 | 12.587000 | 12.587547 |
| 0.020 | 12.588095 | 12.588642 | 12.589190 | 12.589737 | 12.590285 | 12.590832 | 12.591380 | 12.591927 | 12.592475 | 12.593023 |
| 0.030 | 12.593570 | 12.594118 | 12.594666 | 12.595213 | 12.595761 | 12.596309 | 12.596857 | 12.597404 | 12.597952 | 12.598500 |
| 0.040 | 12.599048 | 12.599596 | 12.600144 | 12.600692 | 12.601240 | 12.601788 | 12.602336 | 12.602884 | 12.603432 | 12.603980 |
| 0.050 | 12.604528 | 12.605076 | 12.605624 | 12.606172 | 12.606720 | 12.607269 | 12.607817 | 12.608365 | 12.608913 | 12.609462 |
| 0.060 | 12.610010 | 12.610558 | 12.611107 | 12.611655 | 12.612203 | 12.612752 | 12.613300 | 12.613849 | 12.614397 | 12.614946 |
| 0.070 | 12.615494 | 12.616043 | 12.616592 | 12.617140 | 12.617689 | 12.618237 | 12.618786 | 12.619335 | 12.619884 | 12.620432 |
| 0.080 | 12.620981 | 12.621530 | 12.622079 | 12.622628 | 12.623176 | 12.623725 | 12.624274 | 12.624823 | 12.625372 | 12.625921 |
| 0.090 | 12.626470 | 12.627019 | 12.627568 | 12.628117 | 12.628666 | 12.629215 | 12.629765 | 12.630314 | 12.630863 | 12.631412 |
| 0.100 | 12.631961 | 12.632511 | 12.633060 | 12.633609 | 12.634158 | 12.634708 | 12.635257 | 12.635807 | 12.636356 | 12.636905 |
| 0.110 | 12.637455 | 12.638004 | 12.638554 | 12.639103 | 12.639653 | 12.640202 | 12.640752 | 12.641302 | 12.641851 | 12.642401 |
| 0.120 | 12.642951 | 12.643500 | 12.644050 | 12.644600 | 12.645150 | 12.645699 | 12.646249 | 12.646799 | 12.647349 | 12.647899 |
| 0.130 | 12.648449 | 12.648999 | 12.649549 | 12.650099 | 12.650648 | 12.651199 | 12.651749 | 12.652299 | 12.652849 | 12.653399 |
| 0.140 | 12.653949 | 12.654499 | 12.655049 | 12.655599 | 12.656149 | 12.656700 | 12.657250 | 12.657801 | 12.658351 | 12.658901 |
| 0.150 | 12.659451 | 12.660002 | 12.660552 | 12.661103 | 12.661653 | 12.662204 | 12.662754 | 12.663305 | 12.663855 | 12.664406 |
| 0.160 | 12.664956 | 12.665507 | 12.666058 | 12.666608 | 12.667159 | 12.667710 | 12.668260 | 12.668811 | 12.669362 | 12.669913 |
| 0.170 | 12.670463 | 12.671014 | 12.671565 | 12.672116 | 12.672667 | 12.673218 | 12.673769 | 12.674320 | 12.674871 | 12.675422 |
| 0.180 | 12.675973 | 12.676524 | 12.677075 | 12.677626 | 12.678177 | 12.678728 | 12.679280 | 12.679831 | 12.680382 | 12.680933 |
| 0.190 | 12.681485 | 12.682036 | 12.682587 | 12.683138 | 12.683690 | 12.684241 | 12.684793 | 12.685344 | 12.685896 | 12.686447 |
| 0.200 | 12.686998 | 12.687550 | 12.688102 | 12.688653 | 12.689205 | 12.689756 | 12.690308 | 12.690860 | 12.691411 | 12.691963 |
| 0.210 | 12.692515 | 12.693066 | 12.693618 | 12.694170 | 12.694722 | 12.695274 | 12.695826 | 12.696378 | 12.696929 | 12.697481 |
| 0.220 | 12.698033 | 12.698585 | 12.699137 | 12.699689 | 12.700241 | 12.700793 | 12.701345 | 12.701898 | 12.702450 | 12.703002 |
| 0.230 | 12.703554 | 12.704106 | 12.704659 | 12.705211 | 12.705763 | 12.706315 | 12.706868 | 12.707420 | 12.707972 | 12.708525 |
| 0.240 | 12.709077 | 12.709630 | 12.710182 | 12.710734 | 12.711287 | 12.711840 | 12.712392 | 12.712945 | 12.713497 | 12.714050 |
| 0.250 | 12.714602 | 12.715155 | 12.715708 | 12.716261 | 12.716813 | 12.717366 | 12.717919 | 12.718472 | 12.719024 | 12.719577 |
| 0.260 | 12.720130 | 12.720683 | 12.721236 | 12.721789 | 12.722342 | 12.722895 | 12.723448 | 12.724001 | 12.724554 | 12.725107 |
| 0.270 | 12.725660 | 12.726213 | 12.726766 | 12.727319 | 12.727873 | 12.728426 | 12.728979 | 12.729532 | 12.730086 | 12.730639 |
| 0.280 | 12.731192 | 12.731746 | 12.732299 | 12.732852 | 12.733406 | 12.733959 | 12.734513 | 12.735066 | 12.735620 | 12.736173 |
| 0.290 | 12.736727 | 12.737280 | 12.737834 | 12.738388 | 12.738941 | 12.739495 | 12.740049 | 12.740602 | 12.741156 | 12.741710 |
| 0.300 | 12.742264 | 12.742818 | 12.743371 | 12.743925 | 12.744479 | 12.745033 | 12.745587 | 12.746141 | 12.746695 | 12.747249 |
| 0.310 | 12.747803 | 12.748357 | 12.748911 | 12.749465 | 12.750019 | 12.750573 | 12.751127 | 12.751682 | 12.752236 | 12.752790 |
| 0.320 | 12.753344 | 12.753899 | 12.754453 | 12.755007 | 12.755561 | 12.756116 | 12.756670 | 12.757225 | 12.757779 | 12.758333 |
| 0.330 | 12.758888 | 12.759442 | 12.759997 | 12.760551 | 12.761106 | 12.761661 | 12.762215 | 12.762770 | 12.763324 | 12.763879 |
| 0.340 | 12.764434 | 12.764989 | 12.765543 | 12.766098 | 12.766653 | 12.767208 | 12.767763 | 12.768317 | 12.768872 | 12.769427 |
| 0.350 | 12.769982 | 12.770537 | 12.771092 | 12.771647 | 12.772202 | 12.772757 | 12.773312 | 12.773867 | 12.774422 | 12.774978 |
| 0.360 | 12.775533 | 12.776088 | 12.776643 | 12.777198 | 12.777754 | 12.778309 | 12.778864 | 12.779420 | 12.779975 | 12.780530 |
| 0.370 | 12.781086 | 12.781641 | 12.782197 | 12.782752 | 12.783308 | 12.783863 | 12.784419 | 12.784974 | 12.785530 | 12.786085 |
| 0.380 | 12.786641 | 12.787197 | 12.787752 | 12.788308 | 12.788864 | 12.789419 | 12.789975 | 12.790531 | 12.791087 | 12.791643 |
| 0.390 | 12.792199 | 12.792754 | 12.793310 | 12.793866 | 12.794422 | 12.794978 | 12.795534 | 12.796090 | 12.796646 | 12.797202 |
| 0.400 | 12.797758 | 12.798314 | 12.798871 | 12.799427 | 12.799983 | 12.800539 | 12.801095 | 12.801652 | 12.802208 | 12.802764 |
| 0.410 | 12.803320 | 12.803877 | 12.804433 | 12.804990 | 12.805546 | 12.806102 | 12.806659 | 12.807215 | 12.807772 | 12.808328 |
| 0.420 | 12.808885 | 12.809441 | 12.809998 | 12.810555 | 12.811111 | 12.811668 | 12.812225 | 12.812781 | 12.813338 | 12.813895 |
| 0.430 | 12.814452 | 12.815009 | 12.815565 | 12.816122 | 12.816679 | 12.817236 | 12.817793 | 12.818350 | 12.818907 | 12.819464 |
| 0.440 | 12.820021 | 12.820578 | 12.821135 | 12.821692 | 12.822249 | 12.822806 | 12.823363 | 12.823920 | 12.824478 | 12.825035 |
| 0.450 | 12.825592 | 12.826149 | 12.826707 | 12.827264 | 12.827821 | 12.828379 | 12.828936 | 12.829494 | 12.830051 | 12.830608 |
| 0.460 | 12.831166 | 12.831723 | 12.832281 | 12.832838 | 12.833396 | 12.833954 | 12.834511 | 12.835069 | 12.835626 | 12.836184 |
| 0.470 | 12.836742 | 12.837300 | 12.837857 | 12.838415 | 12.838973 | 12.839531 | 12.840089 | 12.840647 | 12.841204 | 12.841762 |
| 0.480 | 12.842320 | 12.842878 | 12.843436 | 12.843994 | 12.844552 | 12.845110 | 12.845668 | 12.846226 | 12.846785 | 12.847343 |
| 0.490 | 12.847901 | 12.848459 | 12.849017 | 12.849575 | 12.850134 | 12.850692 | 12.851250 | 12.851809 | 12.852367 | 12.852925 |

ATTENUATION IN DECIBELS
 THETA FROM 61.500 TO 61.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 12.853484 | 12.854042 | 12.854601 | 12.855159 | 12.855718 | 12.856276 | 12.856835 | 12.857393 | 12.857952 | 12.858511 |
| 0.510 | 12.859069 | 12.859628 | 12.860187 | 12.860745 | 12.861304 | 12.861863 | 12.862422 | 12.862980 | 12.863539 | 12.864098 |
| 0.520 | 12.864657 | 12.865216 | 12.865775 | 12.866334 | 12.866893 | 12.867452 | 12.868011 | 12.868570 | 12.869129 | 12.869688 |
| 0.530 | 12.870247 | 12.870806 | 12.871365 | 12.871924 | 12.872483 | 12.873043 | 12.873602 | 12.874161 | 12.874720 | 12.875280 |
| 0.540 | 12.875839 | 12.876398 | 12.876958 | 12.877517 | 12.878077 | 12.878636 | 12.879196 | 12.879755 | 12.880315 | 12.880874 |
| 0.550 | 12.881434 | 12.881993 | 12.882553 | 12.883113 | 12.883672 | 12.884232 | 12.884792 | 12.885351 | 12.885911 | 12.886471 |
| 0.560 | 12.887031 | 12.887591 | 12.888150 | 12.888710 | 12.889270 | 12.889830 | 12.890390 | 12.890950 | 12.891510 | 12.892070 |
| 0.570 | 12.892630 | 12.893190 | 12.893750 | 12.894310 | 12.894870 | 12.895430 | 12.895990 | 12.896551 | 12.897111 | 12.897671 |
| 0.580 | 12.898232 | 12.898792 | 12.899352 | 12.899913 | 12.900473 | 12.901033 | 12.901594 | 12.902154 | 12.902715 | 12.903275 |
| 0.590 | 12.903836 | 12.904396 | 12.904957 | 12.905517 | 12.906078 | 12.906638 | 12.907199 | 12.907760 | 12.908320 | 12.908881 |
| 0.600 | 12.909442 | 12.910003 | 12.910563 | 12.911124 | 12.911685 | 12.912246 | 12.912807 | 12.913368 | 12.913929 | 12.914490 |
| 0.610 | 12.915051 | 12.915612 | 12.916173 | 12.916734 | 12.917295 | 12.917856 | 12.918417 | 12.918978 | 12.919539 | 12.920100 |
| 0.620 | 12.920661 | 12.921223 | 12.921784 | 12.922345 | 12.922907 | 12.923468 | 12.924029 | 12.924591 | 12.925152 | 12.925713 |
| 0.630 | 12.926275 | 12.926836 | 12.927398 | 12.927959 | 12.928521 | 12.929082 | 12.929644 | 12.930206 | 12.930767 | 12.931329 |
| 0.640 | 12.931890 | 12.932452 | 12.933014 | 12.933576 | 12.934137 | 12.934699 | 12.935261 | 12.935823 | 12.936385 | 12.936947 |
| 0.650 | 12.937508 | 12.938070 | 12.938632 | 12.939194 | 12.939756 | 12.940318 | 12.940880 | 12.941442 | 12.942005 | 12.942567 |
| 0.660 | 12.943129 | 12.943691 | 12.944253 | 12.944815 | 12.945378 | 12.945940 | 12.946502 | 12.947065 | 12.947627 | 12.948189 |
| 0.670 | 12.948752 | 12.949314 | 12.949876 | 12.950439 | 12.951001 | 12.951564 | 12.952126 | 12.952689 | 12.953251 | 12.953814 |
| 0.680 | 12.954377 | 12.954939 | 12.955502 | 12.956065 | 12.956627 | 12.957190 | 12.957753 | 12.958315 | 12.958878 | 12.959441 |
| 0.690 | 12.960004 | 12.960567 | 12.961130 | 12.961693 | 12.962256 | 12.962819 | 12.963382 | 12.963945 | 12.964508 | 12.965071 |
| 0.700 | 12.965634 | 12.966197 | 12.966760 | 12.967323 | 12.967886 | 12.968450 | 12.969013 | 12.969576 | 12.970139 | 12.970703 |
| 0.710 | 12.971266 | 12.971829 | 12.972393 | 12.972956 | 12.973519 | 12.974083 | 12.974646 | 12.975210 | 12.975773 | 12.976337 |
| 0.720 | 12.976900 | 12.977464 | 12.978028 | 12.978591 | 12.979155 | 12.979718 | 12.980282 | 12.980846 | 12.981410 | 12.981973 |
| 0.730 | 12.982537 | 12.983101 | 12.983665 | 12.984229 | 12.984793 | 12.985356 | 12.985920 | 12.986484 | 12.987048 | 12.987612 |
| 0.740 | 12.988176 | 12.988740 | 12.989305 | 12.989869 | 12.990433 | 12.990997 | 12.991561 | 12.992125 | 12.992689 | 12.993254 |
| 0.750 | 12.993818 | 12.994382 | 12.994946 | 12.995511 | 12.996075 | 12.996640 | 12.997204 | 12.997768 | 12.998333 | 12.998897 |
| 0.760 | 12.999462 | 13.000026 | 13.000591 | 13.001155 | 13.001720 | 13.002285 | 13.002849 | 13.003414 | 13.003979 | 13.004543 |
| 0.770 | 13.005108 | 13.005673 | 13.006238 | 13.006802 | 13.007367 | 13.007932 | 13.008497 | 13.009062 | 13.009627 | 13.010192 |
| 0.780 | 13.010757 | 13.011322 | 13.011887 | 13.012452 | 13.013017 | 13.013582 | 13.014147 | 13.014712 | 13.015277 | 13.015843 |
| 0.790 | 13.016408 | 13.016973 | 13.017538 | 13.018103 | 13.018669 | 13.019234 | 13.019799 | 13.020365 | 13.020930 | 13.021496 |
| 0.800 | 13.022061 | 13.022627 | 13.023192 | 13.023758 | 13.024323 | 13.024889 | 13.025454 | 13.026020 | 13.026586 | 13.027151 |
| 0.810 | 13.027717 | 13.028283 | 13.028848 | 13.029414 | 13.029980 | 13.030546 | 13.031111 | 13.031677 | 13.032243 | 13.032809 |
| 0.820 | 13.033375 | 13.033941 | 13.034507 | 13.035073 | 13.035639 | 13.036205 | 13.036771 | 13.037337 | 13.037903 | 13.038469 |
| 0.830 | 13.039035 | 13.039601 | 13.040168 | 13.040734 | 13.041300 | 13.041867 | 13.042433 | 13.042999 | 13.043566 | 13.044132 |
| 0.840 | 13.044698 | 13.045265 | 13.045831 | 13.046398 | 13.046964 | 13.047531 | 13.048097 | 13.048664 | 13.049230 | 13.049797 |
| 0.850 | 13.050364 | 13.050930 | 13.051497 | 13.052064 | 13.052630 | 13.053197 | 13.053764 | 13.054331 | 13.054897 | 13.055464 |
| 0.860 | 13.056031 | 13.056598 | 13.057165 | 13.057732 | 13.058299 | 13.058866 | 13.059433 | 13.060000 | 13.060567 | 13.061134 |
| 0.870 | 13.061701 | 13.062268 | 13.062835 | 13.063403 | 13.063970 | 13.064537 | 13.065104 | 13.065672 | 13.066239 | 13.066806 |
| 0.880 | 13.067374 | 13.067941 | 13.068508 | 13.069076 | 13.069643 | 13.070211 | 13.070778 | 13.071346 | 13.071913 | 13.072481 |
| 0.890 | 13.073048 | 13.073616 | 13.074184 | 13.074751 | 13.075319 | 13.075887 | 13.076454 | 13.077022 | 13.077590 | 13.078158 |
| 0.900 | 13.078725 | 13.079293 | 13.079861 | 13.080429 | 13.080997 | 13.081565 | 13.082133 | 13.082701 | 13.083269 | 13.083837 |
| 0.910 | 13.084405 | 13.084973 | 13.085541 | 13.086109 | 13.086677 | 13.087245 | 13.087814 | 13.088382 | 13.088950 | 13.089519 |
| 0.920 | 13.090007 | 13.090575 | 13.091144 | 13.091712 | 13.092280 | 13.092849 | 13.093417 | 13.093986 | 13.094554 | 13.095123 |
| 0.930 | 13.095711 | 13.096280 | 13.096849 | 13.097417 | 13.097986 | 13.098555 | 13.099124 | 13.099693 | 13.100262 | 13.100831 |
| 0.940 | 13.101458 | 13.102027 | 13.102596 | 13.103164 | 13.103733 | 13.104302 | 13.104871 | 13.105440 | 13.106009 | 13.106578 |
| 0.950 | 13.107147 | 13.107716 | 13.108285 | 13.108854 | 13.109423 | 13.109992 | 13.110562 | 13.111131 | 13.111700 | 13.112269 |
| 0.960 | 13.112838 | 13.113408 | 13.113977 | 13.114546 | 13.115116 | 13.115685 | 13.116254 | 13.116824 | 13.117393 | 13.117963 |
| 0.970 | 13.118532 | 13.119102 | 13.119671 | 13.120241 | 13.120811 | 13.121381 | 13.121950 | 13.122520 | 13.123089 | 13.123659 |
| 0.980 | 13.124229 | 13.124799 | 13.125368 | 13.125938 | 13.126508 | 13.127078 | 13.127648 | 13.128217 | 13.128787 | 13.129357 |
| 0.990 | 13.129927 | 13.130497 | 13.131067 | 13.131637 | 13.132207 | 13.132777 | 13.133348 | 13.133918 | 13.134488 | 13.135058 |

ATTENUATION IN DECIBELS
THETA FROM 62.000 TO 62.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 13.135628 | 13.136199 | 13.136769 | 13.137339 | 13.137909 | 13.138480 | 13.139050 | 13.139620 | 13.140191 | 13.140761 |
| 0.010 | 13.141332 | 13.141902 | 13.142473 | 13.143043 | 13.143614 | 13.144184 | 13.144755 | 13.145326 | 13.145896 | 13.146467 |
| 0.020 | 13.147038 | 13.147608 | 13.148179 | 13.148750 | 13.149321 | 13.149891 | 13.150462 | 13.151033 | 13.151604 | 13.152175 |
| 0.030 | 13.152746 | 13.153317 | 13.153888 | 13.154459 | 13.155030 | 13.155601 | 13.156172 | 13.156743 | 13.157314 | 13.157885 |
| 0.040 | 13.158457 | 13.159028 | 13.159599 | 13.160170 | 13.160741 | 13.161311 | 13.161884 | 13.162455 | 13.163027 | 13.163598 |
| 0.050 | 13.164170 | 13.164741 | 13.165313 | 13.165884 | 13.166456 | 13.167027 | 13.167599 | 13.168170 | 13.168742 | 13.169314 |
| 0.060 | 13.169885 | 13.170457 | 13.171028 | 13.171600 | 13.172172 | 13.172744 | 13.173316 | 13.173887 | 13.174459 | 13.175031 |
| 0.070 | 13.175603 | 13.176175 | 13.176747 | 13.177319 | 13.177891 | 13.178463 | 13.179035 | 13.179607 | 13.180179 | 13.180751 |
| 0.080 | 13.181323 | 13.181895 | 13.182468 | 13.183040 | 13.183612 | 13.184184 | 13.184757 | 13.185329 | 13.185901 | 13.186474 |
| 0.090 | 13.187046 | 13.187618 | 13.188191 | 13.188763 | 13.189336 | 13.189908 | 13.190481 | 13.191054 | 13.191626 | 13.192199 |
| 0.100 | 13.192771 | 13.193344 | 13.193917 | 13.194489 | 13.195062 | 13.195635 | 13.196208 | 13.196780 | 13.197353 | 13.197926 |
| 0.110 | 13.198499 | 13.199072 | 13.199645 | 13.200218 | 13.200791 | 13.201363 | 13.201936 | 13.202510 | 13.203083 | 13.203656 |
| 0.120 | 13.204329 | 13.204902 | 13.205475 | 13.206048 | 13.206622 | 13.207195 | 13.207768 | 13.208341 | 13.208915 | 13.209488 |
| 0.130 | 13.209961 | 13.210535 | 13.211108 | 13.211681 | 13.212255 | 13.212828 | 13.213402 | 13.213975 | 13.214549 | 13.215122 |
| 0.140 | 13.215696 | 13.216270 | 13.216843 | 13.217417 | 13.217991 | 13.218564 | 13.219138 | 13.219712 | 13.220286 | 13.220859 |
| 0.150 | 13.221433 | 13.222007 | 13.222581 | 13.223155 | 13.223729 | 13.224303 | 13.224877 | 13.225451 | 13.226025 | 13.226599 |
| 0.160 | 13.227173 | 13.227747 | 13.228321 | 13.228895 | 13.229469 | 13.230044 | 13.230618 | 13.231192 | 13.231766 | 13.232341 |
| 0.170 | 13.232915 | 13.233489 | 13.234064 | 13.234638 | 13.235213 | 13.235787 | 13.236361 | 13.236936 | 13.237510 | 13.238085 |
| 0.180 | 13.238860 | 13.239434 | 13.239809 | 13.240383 | 13.240958 | 13.241533 | 13.242107 | 13.242682 | 13.243257 | 13.243832 |
| 0.190 | 13.244406 | 13.244981 | 13.245556 | 13.246131 | 13.246706 | 13.247281 | 13.247856 | 13.248431 | 13.249006 | 13.249581 |
| 0.200 | 13.250156 | 13.250731 | 13.251306 | 13.251881 | 13.252456 | 13.253031 | 13.253607 | 13.254182 | 13.254757 | 13.255332 |
| 0.210 | 13.255908 | 13.256483 | 13.257058 | 13.257633 | 13.258209 | 13.258785 | 13.259360 | 13.259935 | 13.260511 | 13.261086 |
| 0.220 | 13.261662 | 13.262238 | 13.262813 | 13.263389 | 13.263964 | 13.264540 | 13.265116 | 13.265691 | 13.266267 | 13.266843 |
| 0.230 | 13.267419 | 13.267994 | 13.268570 | 13.269146 | 13.269722 | 13.270298 | 13.270874 | 13.271450 | 13.272026 | 13.272602 |
| 0.240 | 13.273178 | 13.273754 | 13.274330 | 13.274906 | 13.275482 | 13.276058 | 13.276634 | 13.277210 | 13.277786 | 13.278363 |
| 0.250 | 13.278939 | 13.279516 | 13.280092 | 13.280668 | 13.281245 | 13.281821 | 13.282397 | 13.282974 | 13.283550 | 13.284127 |
| 0.260 | 13.284703 | 13.285280 | 13.285856 | 13.286433 | 13.287010 | 13.287586 | 13.288163 | 13.288740 | 13.289316 | 13.289893 |
| 0.270 | 13.290470 | 13.291047 | 13.291623 | 13.292200 | 13.292777 | 13.293354 | 13.293931 | 13.294508 | 13.295085 | 13.295662 |
| 0.280 | 13.296239 | 13.296816 | 13.297393 | 13.297970 | 13.298547 | 13.299124 | 13.299701 | 13.300278 | 13.300856 | 13.301433 |
| 0.290 | 13.302010 | 13.302587 | 13.303165 | 13.303742 | 13.304319 | 13.304897 | 13.305474 | 13.306051 | 13.306629 | 13.307206 |
| 0.300 | 13.307784 | 13.308361 | 13.308939 | 13.309516 | 13.310094 | 13.310672 | 13.311249 | 13.311827 | 13.312405 | 13.312982 |
| 0.310 | 13.313560 | 13.314138 | 13.314716 | 13.315293 | 13.315871 | 13.316449 | 13.317027 | 13.317605 | 13.318183 | 13.318761 |
| 0.320 | 13.319339 | 13.319917 | 13.320495 | 13.321073 | 13.321651 | 13.322229 | 13.322807 | 13.323385 | 13.323963 | 13.324542 |
| 0.330 | 13.325120 | 13.325698 | 13.326276 | 13.326855 | 13.327433 | 13.328011 | 13.328590 | 13.329168 | 13.329746 | 13.330325 |
| 0.340 | 13.330903 | 13.331482 | 13.332060 | 13.332639 | 13.333218 | 13.333796 | 13.334375 | 13.334953 | 13.335532 | 13.336111 |
| 0.350 | 13.336689 | 13.337268 | 13.337847 | 13.338426 | 13.339005 | 13.339583 | 13.340162 | 13.340741 | 13.341320 | 13.341899 |
| 0.360 | 13.342478 | 13.343057 | 13.343636 | 13.344215 | 13.344794 | 13.345373 | 13.345952 | 13.346531 | 13.347111 | 13.347690 |
| 0.370 | 13.348269 | 13.348848 | 13.349427 | 13.350007 | 13.350586 | 13.351165 | 13.351745 | 13.352324 | 13.352903 | 13.353482 |
| 0.380 | 13.354262 | 13.354842 | 13.355421 | 13.356001 | 13.356580 | 13.357160 | 13.357740 | 13.358319 | 13.358899 | 13.359477 |
| 0.390 | 13.359858 | 13.360438 | 13.361018 | 13.361598 | 13.362177 | 13.362757 | 13.363337 | 13.363917 | 13.364497 | 13.365077 |
| 0.400 | 13.365657 | 13.366237 | 13.366817 | 13.367397 | 13.367977 | 13.368557 | 13.369137 | 13.369717 | 13.370297 | 13.370877 |
| 0.410 | 13.371457 | 13.372038 | 13.372618 | 13.373198 | 13.373778 | 13.374359 | 13.374939 | 13.375519 | 13.376100 | 13.376680 |
| 0.420 | 13.377261 | 13.377841 | 13.378422 | 13.379002 | 13.379583 | 13.380163 | 13.380744 | 13.381324 | 13.381905 | 13.382486 |
| 0.430 | 13.383066 | 13.383647 | 13.384228 | 13.384809 | 13.385389 | 13.385970 | 13.386551 | 13.387132 | 13.387713 | 13.388294 |
| 0.440 | 13.388875 | 13.389456 | 13.390037 | 13.390618 | 13.391199 | 13.391780 | 13.392361 | 13.392942 | 13.393523 | 13.394104 |
| 0.450 | 13.394685 | 13.395267 | 13.395848 | 13.396429 | 13.397010 | 13.397592 | 13.398173 | 13.398754 | 13.399336 | 13.399917 |
| 0.460 | 13.400499 | 13.401080 | 13.401661 | 13.402243 | 13.402825 | 13.403406 | 13.403988 | 13.404569 | 13.405151 | 13.405733 |
| 0.470 | 13.406314 | 13.406896 | 13.407478 | 13.408059 | 13.408641 | 13.409223 | 13.409805 | 13.410387 | 13.410968 | 13.411550 |
| 0.480 | 13.412132 | 13.412714 | 13.413296 | 13.413878 | 13.414460 | 13.415042 | 13.415624 | 13.416206 | 13.416789 | 13.417371 |
| 0.490 | 13.417953 | 13.418535 | 13.419117 | 13.419700 | 13.420282 | 13.420864 | 13.421446 | 13.422029 | 13.422611 | 13.423194 |

ATTENUATION IN DECIBELS
THETA FROM 62.500 TO 62.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 13.423776 | 13.424358 | 13.424941 | 13.425523 | 13.426106 | 13.426688 | 13.427271 | 13.427854 | 13.428436 | 13.429019 |
| 0.510 | 13.429602 | 13.430184 | 13.430767 | 13.431350 | 13.431932 | 13.432515 | 13.433098 | 13.433681 | 13.434264 | 13.434847 |
| 0.520 | 13.435430 | 13.436013 | 13.436595 | 13.437178 | 13.437761 | 13.438344 | 13.438927 | 13.439510 | 13.440094 | 13.440677 |
| 0.530 | 13.441260 | 13.441843 | 13.442426 | 13.443010 | 13.443593 | 13.444176 | 13.444760 | 13.445343 | 13.445926 | 13.446510 |
| 0.540 | 13.447093 | 13.447677 | 13.448260 | 13.448843 | 13.449427 | 13.450011 | 13.450594 | 13.451178 | 13.451761 | 13.452345 |
| 0.550 | 13.452929 | 13.453512 | 13.454096 | 13.454680 | 13.455263 | 13.455847 | 13.456431 | 13.457015 | 13.457599 | 13.458183 |
| 0.560 | 13.458767 | 13.459350 | 13.459934 | 13.460518 | 13.461102 | 13.461686 | 13.462271 | 13.462855 | 13.463439 | 13.464023 |
| 0.570 | 13.464607 | 13.465191 | 13.465775 | 13.466360 | 13.466944 | 13.467528 | 13.468113 | 13.468697 | 13.469281 | 13.469866 |
| 0.580 | 13.470450 | 13.471035 | 13.471619 | 13.472203 | 13.472788 | 13.473372 | 13.473957 | 13.474542 | 13.475126 | 13.475711 |
| 0.590 | 13.476295 | 13.476880 | 13.477465 | 13.478050 | 13.478634 | 13.479219 | 13.479804 | 13.480389 | 13.480974 | 13.481559 |
| 0.600 | 13.482144 | 13.482728 | 13.483313 | 13.483898 | 13.484483 | 13.485068 | 13.485654 | 13.486239 | 13.486824 | 13.487409 |
| 0.610 | 13.487994 | 13.488579 | 13.489164 | 13.489750 | 13.490335 | 13.490920 | 13.491505 | 13.492091 | 13.492676 | 13.493262 |
| 0.620 | 13.493847 | 13.494432 | 13.495018 | 13.495603 | 13.496189 | 13.496774 | 13.497360 | 13.497946 | 13.498531 | 13.499117 |
| 0.630 | 13.499702 | 13.500288 | 13.500874 | 13.501459 | 13.502045 | 13.502631 | 13.503217 | 13.503803 | 13.504389 | 13.504974 |
| 0.640 | 13.505560 | 13.506146 | 13.506732 | 13.507318 | 13.507904 | 13.508490 | 13.509076 | 13.509663 | 13.510249 | 13.510835 |
| 0.650 | 13.511421 | 13.512007 | 13.512593 | 13.513180 | 13.513766 | 13.514352 | 13.514938 | 13.515525 | 13.516111 | 13.516697 |
| 0.660 | 13.517284 | 13.517870 | 13.518457 | 13.519043 | 13.519630 | 13.520216 | 13.520803 | 13.521389 | 13.521976 | 13.522563 |
| 0.670 | 13.523149 | 13.523736 | 13.524323 | 13.524909 | 13.525496 | 13.526083 | 13.526670 | 13.527257 | 13.527844 | 13.528430 |
| 0.680 | 13.529017 | 13.529604 | 13.530191 | 13.530778 | 13.531365 | 13.531952 | 13.532539 | 13.533126 | 13.533714 | 13.534301 |
| 0.690 | 13.534888 | 13.535475 | 13.536062 | 13.536649 | 13.537237 | 13.537824 | 13.538411 | 13.538999 | 13.539586 | 13.540174 |
| 0.700 | 13.540761 | 13.541348 | 13.541936 | 13.542523 | 13.543111 | 13.543698 | 13.544286 | 13.544873 | 13.545461 | 13.546049 |
| 0.710 | 13.546636 | 13.547224 | 13.547812 | 13.548400 | 13.548987 | 13.549575 | 13.550163 | 13.550751 | 13.551339 | 13.551927 |
| 0.720 | 13.552515 | 13.553102 | 13.553690 | 13.554278 | 13.554866 | 13.555454 | 13.556043 | 13.556631 | 13.557219 | 13.557807 |
| 0.730 | 13.558395 | 13.558983 | 13.559572 | 13.560160 | 13.560748 | 13.561336 | 13.561925 | 13.562513 | 13.563101 | 13.563690 |
| 0.740 | 13.564278 | 13.564867 | 13.565455 | 13.566044 | 13.566632 | 13.567221 | 13.567809 | 13.568398 | 13.568987 | 13.569575 |
| 0.750 | 13.570164 | 13.570753 | 13.571341 | 13.571930 | 13.572519 | 13.573108 | 13.573696 | 13.574285 | 13.574874 | 13.575463 |
| 0.760 | 13.576052 | 13.576641 | 13.577230 | 13.577819 | 13.578408 | 13.578997 | 13.579586 | 13.580175 | 13.580764 | 13.581353 |
| 0.770 | 13.581943 | 13.582532 | 13.583121 | 13.583710 | 13.584300 | 13.584889 | 13.585478 | 13.586068 | 13.586657 | 13.587246 |
| 0.780 | 13.587836 | 13.588425 | 13.589015 | 13.589604 | 13.590194 | 13.590783 | 13.591373 | 13.591963 | 13.592552 | 13.593142 |
| 0.790 | 13.593732 | 13.594321 | 13.594911 | 13.595501 | 13.596091 | 13.596680 | 13.597270 | 13.597860 | 13.598450 | 13.599040 |
| 0.800 | 13.599630 | 13.600220 | 13.600810 | 13.601400 | 13.601990 | 13.602580 | 13.603170 | 13.603760 | 13.604350 | 13.604941 |
| 0.810 | 13.605531 | 13.606121 | 13.606711 | 13.607300 | 13.607890 | 13.608482 | 13.609072 | 13.609663 | 13.610253 | 13.610844 |
| 0.820 | 13.611434 | 13.612024 | 13.612615 | 13.613206 | 13.613796 | 13.614387 | 13.614977 | 13.615568 | 13.616158 | 13.616749 |
| 0.830 | 13.617340 | 13.617931 | 13.618521 | 13.619112 | 13.619703 | 13.620294 | 13.620885 | 13.621475 | 13.622066 | 13.622657 |
| 0.840 | 13.623248 | 13.623839 | 13.624430 | 13.625021 | 13.625612 | 13.626203 | 13.626795 | 13.627386 | 13.627977 | 13.628568 |
| 0.850 | 13.629159 | 13.629750 | 13.630342 | 13.630933 | 13.631524 | 13.632116 | 13.632707 | 13.633298 | 13.633890 | 13.634481 |
| 0.860 | 13.635073 | 13.635664 | 13.636256 | 13.636847 | 13.637439 | 13.638030 | 13.638622 | 13.639214 | 13.639805 | 13.640397 |
| 0.870 | 13.640989 | 13.641580 | 13.642172 | 13.642764 | 13.643356 | 13.643948 | 13.644540 | 13.645131 | 13.645723 | 13.646315 |
| 0.880 | 13.646907 | 13.647499 | 13.648091 | 13.648683 | 13.649275 | 13.649868 | 13.650460 | 13.651052 | 13.651644 | 13.652236 |
| 0.890 | 13.652828 | 13.653421 | 13.654013 | 13.654605 | 13.655198 | 13.655790 | 13.656382 | 13.656975 | 13.657567 | 13.658160 |
| 0.900 | 13.658752 | 13.659345 | 13.659937 | 13.660530 | 13.661122 | 13.661715 | 13.662308 | 13.662900 | 13.663493 | 13.664086 |
| 0.910 | 13.664678 | 13.665271 | 13.665864 | 13.666457 | 13.667050 | 13.667642 | 13.668235 | 13.668828 | 13.669421 | 13.670014 |
| 0.920 | 13.670607 | 13.671200 | 13.671793 | 13.672386 | 13.672979 | 13.673572 | 13.674165 | 13.674759 | 13.675352 | 13.675945 |
| 0.930 | 13.676538 | 13.677132 | 13.677725 | 13.678318 | 13.678911 | 13.679505 | 13.680098 | 13.680692 | 13.681285 | 13.681879 |
| 0.940 | 13.682472 | 13.683066 | 13.683659 | 13.684253 | 13.684847 | 13.685440 | 13.686034 | 13.686628 | 13.687221 | 13.687815 |
| 0.950 | 13.688409 | 13.689003 | 13.689596 | 13.690190 | 13.690784 | 13.691378 | 13.691972 | 13.692566 | 13.693160 | 13.693754 |
| 0.960 | 13.694348 | 13.694942 | 13.695536 | 13.696130 | 13.696724 | 13.697318 | 13.697912 | 13.698507 | 13.699101 | 13.699695 |
| 0.970 | 13.700269 | 13.700864 | 13.701458 | 13.702052 | 13.702647 | 13.703241 | 13.703836 | 13.704430 | 13.705024 | 13.705619 |
| 0.980 | 13.706233 | 13.706828 | 13.707422 | 13.708017 | 13.708612 | 13.709206 | 13.709801 | 13.710396 | 13.710991 | 13.711585 |
| 0.990 | 13.712180 | 13.712775 | 13.713370 | 13.713965 | 13.714560 | 13.715155 | 13.715750 | 13.716344 | 13.716939 | 13.717534 |

ATTENUATION IN DECIBELS
 THETA FROM 63.000 TO 63.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 13.718129 | 13.718724 | 13.719319 | 13.719915 | 13.720510 | 13.721105 | 13.721700 | 13.722295 | 13.722891 | 13.723486 |
| 0.010 | 13.724081 | 13.724676 | 13.725272 | 13.725867 | 13.726463 | 13.727058 | 13.727654 | 13.728249 | 13.728845 | 13.729440 |
| 0.020 | 13.730036 | 13.730631 | 13.731227 | 13.731822 | 13.732418 | 13.733014 | 13.733609 | 13.734205 | 13.734801 | 13.735397 |
| 0.030 | 13.735993 | 13.736588 | 13.737184 | 13.737780 | 13.738376 | 13.738972 | 13.739568 | 13.740164 | 13.740760 | 13.741356 |
| 0.040 | 13.741952 | 13.742548 | 13.743144 | 13.743740 | 13.744337 | 13.744933 | 13.745529 | 13.746125 | 13.746722 | 13.747318 |
| 0.050 | 13.747914 | 13.748510 | 13.749107 | 13.749703 | 13.750300 | 13.750896 | 13.751493 | 13.752089 | 13.752686 | 13.753282 |
| 0.060 | 13.753879 | 13.754475 | 13.755072 | 13.755669 | 13.756265 | 13.756862 | 13.757459 | 13.758056 | 13.758652 | 13.759249 |
| 0.070 | 13.759846 | 13.760443 | 13.761040 | 13.761637 | 13.762234 | 13.762831 | 13.763428 | 13.764025 | 13.764622 | 13.765219 |
| 0.080 | 13.765816 | 13.766413 | 13.767010 | 13.767607 | 13.768205 | 13.768802 | 13.769399 | 13.769996 | 13.770594 | 13.771191 |
| 0.090 | 13.771788 | 13.772385 | 13.772983 | 13.773581 | 13.774178 | 13.774776 | 13.775373 | 13.775971 | 13.776568 | 13.777166 |
| 0.100 | 13.777763 | 13.778361 | 13.778959 | 13.779556 | 13.780154 | 13.780752 | 13.781350 | 13.781947 | 13.782545 | 13.783143 |
| 0.110 | 13.783741 | 13.784339 | 13.784937 | 13.785535 | 13.786133 | 13.786731 | 13.787329 | 13.787927 | 13.788525 | 13.789123 |
| 0.120 | 13.789721 | 13.790319 | 13.790917 | 13.791516 | 13.792114 | 13.792712 | 13.793310 | 13.793909 | 13.794507 | 13.795105 |
| 0.130 | 13.795704 | 13.796302 | 13.796901 | 13.797499 | 13.798098 | 13.798696 | 13.799295 | 13.799893 | 13.800492 | 13.801091 |
| 0.140 | 13.801679 | 13.802278 | 13.802877 | 13.803475 | 13.804074 | 13.804673 | 13.805272 | 13.805871 | 13.806470 | 13.807069 |
| 0.150 | 13.807677 | 13.808276 | 13.808875 | 13.809474 | 13.810073 | 13.810672 | 13.811271 | 13.811870 | 13.812469 | 13.813068 |
| 0.160 | 13.813668 | 13.814267 | 13.814866 | 13.815465 | 13.816064 | 13.816663 | 13.817263 | 13.817862 | 13.818462 | 13.819061 |
| 0.170 | 13.819661 | 13.820260 | 13.820860 | 13.821459 | 13.822059 | 13.822658 | 13.823258 | 13.823858 | 13.824457 | 13.825057 |
| 0.180 | 13.825657 | 13.826256 | 13.826856 | 13.827456 | 13.828056 | 13.828655 | 13.829255 | 13.829855 | 13.830455 | 13.831055 |
| 0.190 | 13.831655 | 13.832255 | 13.832855 | 13.833455 | 13.834055 | 13.834655 | 13.835255 | 13.835855 | 13.836455 | 13.837055 |
| 0.200 | 13.837656 | 13.838256 | 13.838856 | 13.839457 | 13.840057 | 13.840657 | 13.841258 | 13.841858 | 13.842458 | 13.843059 |
| 0.210 | 13.843659 | 13.844260 | 13.844860 | 13.845461 | 13.846061 | 13.846662 | 13.847263 | 13.847863 | 13.848464 | 13.849065 |
| 0.220 | 13.849666 | 13.850266 | 13.850867 | 13.851468 | 13.852069 | 13.852670 | 13.853271 | 13.853871 | 13.854472 | 13.855073 |
| 0.230 | 13.855674 | 13.856275 | 13.856876 | 13.857477 | 13.858078 | 13.858680 | 13.859281 | 13.859882 | 13.860483 | 13.861084 |
| 0.240 | 13.861686 | 13.862287 | 13.862888 | 13.863490 | 13.864091 | 13.864692 | 13.865294 | 13.865895 | 13.866497 | 13.867098 |
| 0.250 | 13.867700 | 13.868301 | 13.868903 | 13.869504 | 13.870106 | 13.870708 | 13.871309 | 13.871911 | 13.872513 | 13.873114 |
| 0.260 | 13.873716 | 13.874318 | 13.874920 | 13.875522 | 13.876124 | 13.876725 | 13.877327 | 13.877929 | 13.878531 | 13.879133 |
| 0.270 | 13.879735 | 13.880337 | 13.880939 | 13.881542 | 13.882144 | 13.882746 | 13.883348 | 13.883950 | 13.884553 | 13.885155 |
| 0.280 | 13.885757 | 13.886359 | 13.886962 | 13.887564 | 13.888167 | 13.888769 | 13.889372 | 13.889974 | 13.890576 | 13.891179 |
| 0.290 | 13.891782 | 13.892384 | 13.892987 | 13.893589 | 13.894192 | 13.894795 | 13.895398 | 13.896000 | 13.896603 | 13.897206 |
| 0.300 | 13.897809 | 13.898412 | 13.899014 | 13.899617 | 13.900220 | 13.900823 | 13.901426 | 13.902029 | 13.902632 | 13.903235 |
| 0.310 | 13.903838 | 13.904441 | 13.905045 | 13.905648 | 13.906251 | 13.906854 | 13.907457 | 13.908061 | 13.908664 | 13.909267 |
| 0.320 | 13.909871 | 13.910474 | 13.911077 | 13.911681 | 13.912284 | 13.912888 | 13.913491 | 13.914095 | 13.914698 | 13.915302 |
| 0.330 | 13.915905 | 13.916509 | 13.917113 | 13.917717 | 13.918320 | 13.918924 | 13.919528 | 13.920132 | 13.920735 | 13.921339 |
| 0.340 | 13.921943 | 13.922547 | 13.923151 | 13.923755 | 13.924359 | 13.924963 | 13.925567 | 13.926171 | 13.926775 | 13.927379 |
| 0.350 | 13.927983 | 13.928587 | 13.929192 | 13.929796 | 13.930400 | 13.931004 | 13.931609 | 13.932213 | 13.932817 | 13.933422 |
| 0.360 | 13.934026 | 13.934631 | 13.935235 | 13.935839 | 13.936444 | 13.937048 | 13.937653 | 13.938258 | 13.938862 | 13.939467 |
| 0.370 | 13.940071 | 13.940676 | 13.941281 | 13.941886 | 13.942490 | 13.943095 | 13.943700 | 13.944305 | 13.944910 | 13.945515 |
| 0.380 | 13.946120 | 13.946725 | 13.947329 | 13.947935 | 13.948539 | 13.949145 | 13.949750 | 13.950355 | 13.950960 | 13.951565 |
| 0.390 | 13.952170 | 13.952775 | 13.953381 | 13.953986 | 13.954591 | 13.955197 | 13.955802 | 13.956407 | 13.957013 | 13.957618 |
| 0.400 | 13.958624 | 13.959229 | 13.959835 | 13.960440 | 13.961046 | 13.961651 | 13.962257 | 13.962862 | 13.963468 | 13.964074 |
| 0.410 | 13.964680 | 13.965285 | 13.965891 | 13.966497 | 13.967103 | 13.967709 | 13.968315 | 13.968920 | 13.969526 | 13.970132 |
| 0.420 | 13.970738 | 13.971344 | 13.971950 | 13.972556 | 13.973162 | 13.973768 | 13.974374 | 13.974980 | 13.975586 | 13.976192 |
| 0.430 | 13.976800 | 13.977406 | 13.978012 | 13.978618 | 13.979224 | 13.979830 | 13.980436 | 13.981042 | 13.981648 | 13.982254 |
| 0.440 | 13.982863 | 13.983469 | 13.984075 | 13.984681 | 13.985287 | 13.985893 | 13.986499 | 13.987105 | 13.987711 | 13.988317 |
| 0.450 | 13.988930 | 13.989536 | 13.990142 | 13.990748 | 13.991354 | 13.991960 | 13.992566 | 13.993172 | 13.993778 | 13.994384 |
| 0.460 | 13.994990 | 13.995596 | 13.996202 | 13.996808 | 13.997414 | 13.998020 | 13.998626 | 13.999232 | 13.999838 | 14.000444 |
| 0.470 | 14.001044 | 14.001648 | 14.002253 | 14.002858 | 14.003463 | 14.004068 | 14.004673 | 14.005278 | 14.005883 | 14.006488 |
| 0.480 | 14.007092 | 14.007696 | 14.008301 | 14.008906 | 14.009511 | 14.010116 | 14.010721 | 14.011326 | 14.011931 | 14.012536 |
| 0.490 | 14.013141 | 14.013746 | 14.014351 | 14.014956 | 14.015561 | 14.016166 | 14.016771 | 14.017376 | 14.017981 | 14.018586 |

ATTENUATION IN DECIBELS
 THETA FROM 63.500 TO 63.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 14.018902 | 14.019511 | 14.020119 | 14.020727 | 14.021335 | 14.021943 | 14.022552 | 14.023160 | 14.023768 | 14.024377 |
| 0.510 | 14.024985 | 14.025593 | 14.026202 | 14.026810 | 14.027419 | 14.028027 | 14.028636 | 14.029244 | 14.029853 | 14.030461 |
| 0.520 | 14.031070 | 14.031679 | 14.032287 | 14.032896 | 14.033505 | 14.034113 | 14.034722 | 14.035331 | 14.035940 | 14.036549 |
| 0.530 | 14.037158 | 14.037767 | 14.038376 | 14.038985 | 14.039594 | 14.040203 | 14.040812 | 14.041421 | 14.042030 | 14.042639 |
| 0.540 | 14.043248 | 14.043857 | 14.044466 | 14.045076 | 14.045685 | 14.046295 | 14.046904 | 14.047513 | 14.048123 | 14.048732 |
| 0.550 | 14.049341 | 14.049951 | 14.050560 | 14.051170 | 14.051779 | 14.052388 | 14.052999 | 14.053608 | 14.054218 | 14.054828 |
| 0.560 | 14.055437 | 14.056047 | 14.056657 | 14.057266 | 14.057876 | 14.058486 | 14.059096 | 14.059706 | 14.060316 | 14.060926 |
| 0.570 | 14.061536 | 14.062146 | 14.062756 | 14.063366 | 14.063976 | 14.064586 | 14.065196 | 14.065806 | 14.066416 | 14.067027 |
| 0.580 | 14.067637 | 14.068247 | 14.068857 | 14.069468 | 14.070078 | 14.070688 | 14.071299 | 14.071909 | 14.072520 | 14.073130 |
| 0.590 | 14.073741 | 14.074351 | 14.074962 | 14.075572 | 14.076183 | 14.076794 | 14.077404 | 14.078015 | 14.078626 | 14.079236 |
| 0.600 | 14.079847 | 14.080458 | 14.081069 | 14.081680 | 14.082290 | 14.082901 | 14.083512 | 14.084123 | 14.084734 | 14.085345 |
| 0.610 | 14.085956 | 14.086567 | 14.087178 | 14.087790 | 14.088401 | 14.089012 | 14.089623 | 14.090234 | 14.090845 | 14.091457 |
| 0.620 | 14.092068 | 14.092679 | 14.093291 | 14.093902 | 14.094514 | 14.095125 | 14.095737 | 14.096348 | 14.096959 | 14.097571 |
| 0.630 | 14.098183 | 14.098794 | 14.099406 | 14.100018 | 14.100629 | 14.101241 | 14.101853 | 14.102464 | 14.103076 | 14.103688 |
| 0.640 | 14.104300 | 14.104912 | 14.105524 | 14.106135 | 14.106747 | 14.107359 | 14.107971 | 14.108583 | 14.109195 | 14.109808 |
| 0.650 | 14.110420 | 14.111032 | 14.111644 | 14.112256 | 14.112868 | 14.113481 | 14.114093 | 14.114705 | 14.115318 | 14.115930 |
| 0.660 | 14.116542 | 14.117155 | 14.117767 | 14.118380 | 14.118992 | 14.119605 | 14.120217 | 14.120830 | 14.121442 | 14.122055 |
| 0.670 | 14.122668 | 14.123280 | 14.123893 | 14.124506 | 14.125118 | 14.125731 | 14.126344 | 14.126957 | 14.127570 | 14.128183 |
| 0.680 | 14.128796 | 14.129408 | 14.130021 | 14.130634 | 14.131247 | 14.131860 | 14.132474 | 14.133087 | 14.133700 | 14.134313 |
| 0.690 | 14.134926 | 14.135539 | 14.136153 | 14.136766 | 14.137379 | 14.137992 | 14.138606 | 14.139219 | 14.139833 | 14.140446 |
| 0.700 | 14.141059 | 14.141673 | 14.142286 | 14.142900 | 14.143514 | 14.144127 | 14.144741 | 14.145354 | 14.145968 | 14.146582 |
| 0.710 | 14.147195 | 14.147809 | 14.148423 | 14.149037 | 14.149651 | 14.150265 | 14.150878 | 14.151492 | 14.152106 | 14.152720 |
| 0.720 | 14.153334 | 14.153948 | 14.154562 | 14.155176 | 14.155790 | 14.156405 | 14.157019 | 14.157633 | 14.158247 | 14.158861 |
| 0.730 | 14.159476 | 14.160090 | 14.160704 | 14.161319 | 14.161933 | 14.162547 | 14.163162 | 14.163776 | 14.164391 | 14.165005 |
| 0.740 | 14.165620 | 14.166234 | 14.166849 | 14.167464 | 14.168078 | 14.168693 | 14.169307 | 14.169922 | 14.170537 | 14.171152 |
| 0.750 | 14.171767 | 14.172381 | 14.172996 | 14.173611 | 14.174226 | 14.174841 | 14.175456 | 14.176071 | 14.176686 | 14.177301 |
| 0.760 | 14.177916 | 14.178531 | 14.179146 | 14.179762 | 14.180377 | 14.180992 | 14.181607 | 14.182222 | 14.182838 | 14.183453 |
| 0.770 | 14.184068 | 14.184684 | 14.185299 | 14.185915 | 14.186530 | 14.187145 | 14.187761 | 14.188377 | 14.188992 | 14.189608 |
| 0.780 | 14.190223 | 14.190839 | 14.191455 | 14.192070 | 14.192686 | 14.193301 | 14.193918 | 14.194533 | 14.195149 | 14.195765 |
| 0.790 | 14.196381 | 14.196997 | 14.197613 | 14.198229 | 14.198845 | 14.199461 | 14.200077 | 14.200693 | 14.201309 | 14.201925 |
| 0.800 | 14.202541 | 14.203158 | 14.203774 | 14.204390 | 14.205006 | 14.205623 | 14.206239 | 14.206855 | 14.207472 | 14.208088 |
| 0.810 | 14.208704 | 14.209321 | 14.209937 | 14.210554 | 14.211170 | 14.211787 | 14.212404 | 14.213020 | 14.213637 | 14.214254 |
| 0.820 | 14.214870 | 14.215487 | 14.216104 | 14.216720 | 14.217337 | 14.217954 | 14.218571 | 14.219188 | 14.219805 | 14.220422 |
| 0.830 | 14.221039 | 14.221656 | 14.222273 | 14.222890 | 14.223507 | 14.224124 | 14.224741 | 14.225358 | 14.225976 | 14.226593 |
| 0.840 | 14.227210 | 14.227827 | 14.228445 | 14.229062 | 14.229679 | 14.230297 | 14.230914 | 14.231532 | 14.232149 | 14.232766 |
| 0.850 | 14.233384 | 14.234002 | 14.234619 | 14.235237 | 14.235854 | 14.236472 | 14.237090 | 14.237707 | 14.238325 | 14.238943 |
| 0.860 | 14.239561 | 14.240178 | 14.240796 | 14.241414 | 14.242032 | 14.242650 | 14.243268 | 14.243886 | 14.244504 | 14.245122 |
| 0.870 | 14.245740 | 14.246358 | 14.246976 | 14.247594 | 14.248213 | 14.248831 | 14.249449 | 14.250067 | 14.250686 | 14.251304 |
| 0.880 | 14.251922 | 14.252541 | 14.253159 | 14.253777 | 14.254396 | 14.255014 | 14.255633 | 14.256251 | 14.256870 | 14.257488 |
| 0.890 | 14.258107 | 14.258726 | 14.259344 | 14.259963 | 14.260582 | 14.261201 | 14.261819 | 14.262438 | 14.263057 | 14.263676 |
| 0.900 | 14.264295 | 14.264914 | 14.265532 | 14.266152 | 14.266770 | 14.267390 | 14.268009 | 14.268628 | 14.269247 | 14.269866 |
| 0.910 | 14.270485 | 14.271104 | 14.271723 | 14.272343 | 14.272962 | 14.273581 | 14.274201 | 14.274820 | 14.275439 | 14.276059 |
| 0.920 | 14.276678 | 14.277297 | 14.277917 | 14.278537 | 14.279156 | 14.279776 | 14.280395 | 14.281015 | 14.281635 | 14.282254 |
| 0.930 | 14.282874 | 14.283494 | 14.284113 | 14.284733 | 14.285353 | 14.285973 | 14.286593 | 14.287213 | 14.287833 | 14.288453 |
| 0.940 | 14.289073 | 14.289693 | 14.290313 | 14.290933 | 14.291553 | 14.292173 | 14.292793 | 14.293413 | 14.294033 | 14.294654 |
| 0.950 | 14.295274 | 14.295894 | 14.296514 | 14.297135 | 14.297755 | 14.298375 | 14.298996 | 14.299616 | 14.300237 | 14.300857 |
| 0.960 | 14.301478 | 14.302098 | 14.302719 | 14.303340 | 14.303960 | 14.304581 | 14.305202 | 14.305822 | 14.306443 | 14.307064 |
| 0.970 | 14.307685 | 14.308306 | 14.308926 | 14.309547 | 14.310168 | 14.310789 | 14.311410 | 14.312031 | 14.312652 | 14.313273 |
| 0.980 | 14.313894 | 14.314515 | 14.315136 | 14.315758 | 14.316379 | 14.316999 | 14.317621 | 14.318242 | 14.318864 | 14.319485 |
| 0.990 | 14.320106 | 14.320728 | 14.321349 | 14.321971 | 14.322592 | 14.323214 | 14.323835 | 14.324457 | 14.325078 | 14.325700 |

ATTENUATION IN DECIBELS
THETA FROM 64.000 TO 64.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 14.326321 | 14.326943 | 14.327565 | 14.328187 | 14.328808 | 14.329430 | 14.330052 | 14.330674 | 14.331295 | 14.331917 |
| 0.010 | 14.332539 | 14.333161 | 14.333783 | 14.334405 | 14.335027 | 14.335649 | 14.336271 | 14.336893 | 14.337515 | 14.338138 |
| 0.020 | 14.338760 | 14.339382 | 14.340004 | 14.340626 | 14.341249 | 14.341871 | 14.342493 | 14.343116 | 14.343738 | 14.344361 |
| 0.030 | 14.344983 | 14.345606 | 14.346228 | 14.346851 | 14.347473 | 14.348096 | 14.348718 | 14.349341 | 14.349964 | 14.350586 |
| 0.040 | 14.351209 | 14.351832 | 14.352455 | 14.353078 | 14.353700 | 14.354323 | 14.354946 | 14.355569 | 14.356192 | 14.356815 |
| 0.050 | 14.357438 | 14.358061 | 14.358684 | 14.359307 | 14.359929 | 14.360552 | 14.361175 | 14.361800 | 14.362423 | 14.363046 |
| 0.060 | 14.363670 | 14.364293 | 14.364916 | 14.365540 | 14.366163 | 14.366786 | 14.367410 | 14.368033 | 14.368657 | 14.369280 |
| 0.070 | 14.369904 | 14.370528 | 14.371151 | 14.371775 | 14.372398 | 14.373022 | 14.373646 | 14.374270 | 14.374893 | 14.375517 |
| 0.080 | 14.376141 | 14.376765 | 14.377389 | 14.378013 | 14.378637 | 14.379261 | 14.379885 | 14.380509 | 14.381133 | 14.381757 |
| 0.090 | 14.382381 | 14.383005 | 14.383629 | 14.384254 | 14.384878 | 14.385502 | 14.386126 | 14.386751 | 14.387375 | 14.387999 |
| 0.100 | 14.388624 | 14.389248 | 14.389873 | 14.390497 | 14.391122 | 14.391746 | 14.392371 | 14.392995 | 14.393620 | 14.394244 |
| 0.110 | 14.394869 | 14.395494 | 14.396119 | 14.396743 | 14.397368 | 14.397993 | 14.398618 | 14.399243 | 14.399867 | 14.400492 |
| 0.120 | 14.401117 | 14.401742 | 14.402367 | 14.402992 | 14.403617 | 14.404242 | 14.404868 | 14.405493 | 14.406118 | 14.406743 |
| 0.130 | 14.407368 | 14.407994 | 14.408619 | 14.409244 | 14.409869 | 14.410495 | 14.411120 | 14.411746 | 14.412371 | 14.412997 |
| 0.140 | 14.413622 | 14.414248 | 14.414873 | 14.415499 | 14.416124 | 14.416750 | 14.417376 | 14.418001 | 14.418627 | 14.419253 |
| 0.150 | 14.419879 | 14.420504 | 14.421130 | 14.421756 | 14.422382 | 14.423008 | 14.423634 | 14.424260 | 14.424886 | 14.425512 |
| 0.160 | 14.426138 | 14.426764 | 14.427390 | 14.428016 | 14.428642 | 14.429269 | 14.429895 | 14.430521 | 14.431147 | 14.431774 |
| 0.170 | 14.432400 | 14.433026 | 14.433653 | 14.434279 | 14.434906 | 14.435532 | 14.436159 | 14.436785 | 14.437412 | 14.438038 |
| 0.180 | 14.438665 | 14.439292 | 14.439918 | 14.440545 | 14.441172 | 14.441798 | 14.442425 | 14.443052 | 14.443679 | 14.444306 |
| 0.190 | 14.444933 | 14.445560 | 14.446187 | 14.446813 | 14.447441 | 14.448068 | 14.448695 | 14.449322 | 14.449949 | 14.450576 |
| 0.200 | 14.451203 | 14.451830 | 14.452458 | 14.453085 | 14.453712 | 14.454339 | 14.454967 | 14.455594 | 14.456222 | 14.456849 |
| 0.210 | 14.457476 | 14.458104 | 14.458731 | 14.459359 | 14.459986 | 14.460614 | 14.461242 | 14.461869 | 14.462497 | 14.463125 |
| 0.220 | 14.463753 | 14.464380 | 14.465008 | 14.465636 | 14.466264 | 14.466892 | 14.467520 | 14.468147 | 14.468775 | 14.469403 |
| 0.230 | 14.470031 | 14.470659 | 14.471287 | 14.471916 | 14.472544 | 14.473172 | 14.473800 | 14.474428 | 14.475057 | 14.475685 |
| 0.240 | 14.476313 | 14.476941 | 14.477570 | 14.478198 | 14.478827 | 14.479455 | 14.480083 | 14.480712 | 14.481340 | 14.481969 |
| 0.250 | 14.482597 | 14.483226 | 14.483855 | 14.484484 | 14.485112 | 14.485741 | 14.486369 | 14.486998 | 14.487627 | 14.488256 |
| 0.260 | 14.488885 | 14.489514 | 14.490143 | 14.490772 | 14.491400 | 14.492029 | 14.492658 | 14.493288 | 14.493917 | 14.494546 |
| 0.270 | 14.495175 | 14.495804 | 14.496433 | 14.497062 | 14.497692 | 14.498321 | 14.498950 | 14.499580 | 14.500209 | 14.500838 |
| 0.280 | 14.501468 | 14.502097 | 14.502727 | 14.503356 | 14.503986 | 14.504615 | 14.505245 | 14.505875 | 14.506504 | 14.507134 |
| 0.290 | 14.507764 | 14.508393 | 14.509023 | 14.509653 | 14.510283 | 14.510912 | 14.511542 | 14.512172 | 14.512802 | 14.513432 |
| 0.300 | 14.514062 | 14.514692 | 14.515322 | 14.515952 | 14.516582 | 14.517212 | 14.517842 | 14.518473 | 14.519103 | 14.519733 |
| 0.310 | 14.520363 | 14.520994 | 14.521624 | 14.522254 | 14.522885 | 14.523515 | 14.524145 | 14.524776 | 14.525406 | 14.526037 |
| 0.320 | 14.526667 | 14.527298 | 14.527929 | 14.528559 | 14.529190 | 14.529821 | 14.530451 | 14.531082 | 14.531713 | 14.532344 |
| 0.330 | 14.532974 | 14.533605 | 14.534236 | 14.534867 | 14.535498 | 14.536129 | 14.536760 | 14.537391 | 14.538022 | 14.538653 |
| 0.340 | 14.539284 | 14.539915 | 14.540547 | 14.541178 | 14.541809 | 14.542440 | 14.543071 | 14.543703 | 14.544334 | 14.544965 |
| 0.350 | 14.545597 | 14.546228 | 14.546860 | 14.547491 | 14.548123 | 14.548754 | 14.549386 | 14.550017 | 14.550649 | 14.551281 |
| 0.360 | 14.551912 | 14.552544 | 14.553176 | 14.553807 | 14.554439 | 14.555071 | 14.555703 | 14.556335 | 14.556967 | 14.557599 |
| 0.370 | 14.558231 | 14.558862 | 14.559494 | 14.560127 | 14.560759 | 14.561391 | 14.562023 | 14.562655 | 14.563287 | 14.563919 |
| 0.380 | 14.564552 | 14.565184 | 14.565816 | 14.566448 | 14.567081 | 14.567713 | 14.568346 | 14.568978 | 14.569610 | 14.570243 |
| 0.390 | 14.570876 | 14.571508 | 14.572141 | 14.572773 | 14.573406 | 14.574039 | 14.574671 | 14.575304 | 14.575937 | 14.576569 |
| 0.400 | 14.577202 | 14.577835 | 14.578468 | 14.579101 | 14.579734 | 14.580367 | 14.581000 | 14.581633 | 14.582266 | 14.582899 |
| 0.410 | 14.583532 | 14.584165 | 14.584798 | 14.585431 | 14.586064 | 14.586698 | 14.587331 | 14.587964 | 14.588598 | 14.589231 |
| 0.420 | 14.589864 | 14.590498 | 14.591131 | 14.591765 | 14.592398 | 14.593032 | 14.593665 | 14.594299 | 14.594932 | 14.595566 |
| 0.430 | 14.596200 | 14.596833 | 14.597467 | 14.598101 | 14.598734 | 14.599368 | 14.600002 | 14.600636 | 14.601270 | 14.601904 |
| 0.440 | 14.602538 | 14.603172 | 14.603806 | 14.604440 | 14.605074 | 14.605708 | 14.606342 | 14.606976 | 14.607610 | 14.608244 |
| 0.450 | 14.608878 | 14.609513 | 14.610147 | 14.610781 | 14.611416 | 14.612050 | 14.612684 | 14.613319 | 14.613953 | 14.614588 |
| 0.460 | 14.615222 | 14.615857 | 14.616491 | 14.617126 | 14.617761 | 14.618395 | 14.619030 | 14.619665 | 14.620299 | 14.620934 |
| 0.470 | 14.621569 | 14.622204 | 14.622839 | 14.623474 | 14.624109 | 14.624743 | 14.625378 | 14.626013 | 14.626648 | 14.627283 |
| 0.480 | 14.627918 | 14.628554 | 14.629189 | 14.629824 | 14.630459 | 14.631094 | 14.631729 | 14.632365 | 14.633000 | 14.633635 |
| 0.490 | 14.634271 | 14.634906 | 14.635542 | 14.636177 | 14.636812 | 14.637448 | 14.638083 | 14.638719 | 14.639355 | 14.639990 |

ATTENUATION IN DECIBELS
THETA FROM 64.500 TO 64.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 14.640626 | 14.641262 | 14.641897 | 14.642533 | 14.643169 | 14.643805 | 14.644440 | 14.645076 | 14.645712 | 14.646348 |
| 0.510 | 14.646984 | 14.647620 | 14.648256 | 14.648892 | 14.649528 | 14.650164 | 14.650800 | 14.651436 | 14.652072 | 14.652709 |
| 0.520 | 14.653345 | 14.653981 | 14.654617 | 14.655254 | 14.655890 | 14.656526 | 14.657163 | 14.657799 | 14.658436 | 14.659072 |
| 0.530 | 14.659709 | 14.660345 | 14.660982 | 14.661618 | 14.662255 | 14.662892 | 14.663528 | 14.664165 | 14.664802 | 14.665438 |
| 0.540 | 14.666075 | 14.666712 | 14.667349 | 14.667986 | 14.668623 | 14.669260 | 14.669897 | 14.670534 | 14.671171 | 14.671808 |
| 0.550 | 14.672445 | 14.673082 | 14.673719 | 14.674356 | 14.674993 | 14.675631 | 14.676268 | 14.676905 | 14.677542 | 14.678180 |
| 0.560 | 14.678817 | 14.679454 | 14.680092 | 14.680729 | 14.681367 | 14.682004 | 14.682642 | 14.683279 | 14.683917 | 14.684555 |
| 0.570 | 14.685192 | 14.685830 | 14.686468 | 14.687105 | 14.687743 | 14.688381 | 14.689019 | 14.689657 | 14.690295 | 14.690933 |
| 0.580 | 14.691570 | 14.692208 | 14.692846 | 14.693484 | 14.694122 | 14.694760 | 14.695399 | 14.696037 | 14.696675 | 14.697313 |
| 0.590 | 14.697951 | 14.698590 | 14.699228 | 14.699866 | 14.700505 | 14.701143 | 14.701781 | 14.702420 | 14.703058 | 14.703697 |
| 0.600 | 14.704335 | 14.704974 | 14.705612 | 14.706251 | 14.706890 | 14.707528 | 14.708167 | 14.708806 | 14.709444 | 14.710083 |
| 0.610 | 14.710722 | 14.711361 | 14.712000 | 14.712638 | 14.713277 | 14.713916 | 14.714555 | 14.715194 | 14.715833 | 14.716472 |
| 0.620 | 14.717111 | 14.717751 | 14.718390 | 14.719029 | 14.719668 | 14.720307 | 14.720947 | 14.721586 | 14.722225 | 14.722865 |
| 0.630 | 14.723504 | 14.724143 | 14.724783 | 14.725422 | 14.726062 | 14.726701 | 14.727341 | 14.727980 | 14.728620 | 14.729260 |
| 0.640 | 14.729899 | 14.730539 | 14.731179 | 14.731818 | 14.732458 | 14.733098 | 14.733738 | 14.734378 | 14.735018 | 14.735658 |
| 0.650 | 14.736297 | 14.736937 | 14.737577 | 14.738217 | 14.738858 | 14.739498 | 14.740138 | 14.740778 | 14.741418 | 14.742058 |
| 0.660 | 14.742699 | 14.743339 | 14.743979 | 14.744619 | 14.745260 | 14.745900 | 14.746541 | 14.747181 | 14.747822 | 14.748462 |
| 0.670 | 14.749103 | 14.749743 | 14.750384 | 14.751024 | 14.751665 | 14.752306 | 14.752946 | 14.753587 | 14.754228 | 14.754869 |
| 0.680 | 14.755509 | 14.756150 | 14.756791 | 14.757432 | 14.758073 | 14.758714 | 14.759355 | 14.759996 | 14.760637 | 14.761278 |
| 0.690 | 14.761919 | 14.762560 | 14.763201 | 14.763843 | 14.764484 | 14.765125 | 14.765767 | 14.766408 | 14.767049 | 14.767691 |
| 0.700 | 14.768332 | 14.768973 | 14.769615 | 14.770256 | 14.770898 | 14.771539 | 14.772181 | 14.772823 | 14.773464 | 14.774106 |
| 0.710 | 14.774747 | 14.775389 | 14.776031 | 14.776673 | 14.777315 | 14.777956 | 14.778598 | 14.779240 | 14.779882 | 14.780524 |
| 0.720 | 14.781166 | 14.781808 | 14.782450 | 14.783092 | 14.783734 | 14.784376 | 14.785019 | 14.785661 | 14.786303 | 14.786945 |
| 0.730 | 14.787587 | 14.788230 | 14.788872 | 14.789514 | 14.790157 | 14.790799 | 14.791442 | 14.792084 | 14.792727 | 14.793369 |
| 0.740 | 14.794912 | 14.795554 | 14.796197 | 14.796839 | 14.797482 | 14.798125 | 14.798768 | 14.799411 | 14.799996 | 14.800626 |
| 0.750 | 14.800439 | 14.801082 | 14.801725 | 14.802368 | 14.803011 | 14.803654 | 14.804297 | 14.804940 | 14.805583 | 14.806226 |
| 0.760 | 14.806869 | 14.807512 | 14.808155 | 14.808799 | 14.809442 | 14.810085 | 14.810728 | 14.811372 | 14.812015 | 14.812659 |
| 0.770 | 14.813302 | 14.813946 | 14.814589 | 14.815233 | 14.815876 | 14.816520 | 14.817163 | 14.817807 | 14.818451 | 14.819094 |
| 0.780 | 14.819738 | 14.820382 | 14.821025 | 14.821669 | 14.822313 | 14.822957 | 14.823601 | 14.824245 | 14.824889 | 14.825533 |
| 0.790 | 14.826177 | 14.826821 | 14.827465 | 14.828109 | 14.828753 | 14.829397 | 14.830042 | 14.830686 | 14.831330 | 14.831974 |
| 0.800 | 14.833263 | 14.833907 | 14.834552 | 14.835196 | 14.835841 | 14.836485 | 14.837129 | 14.837774 | 14.838419 | 14.839064 |
| 0.810 | 14.839708 | 14.840353 | 14.840997 | 14.841642 | 14.842287 | 14.842931 | 14.843576 | 14.844221 | 14.844866 | 14.845511 |
| 0.820 | 14.845511 | 14.846156 | 14.846801 | 14.847446 | 14.848091 | 14.848736 | 14.849381 | 14.850026 | 14.850671 | 14.851316 |
| 0.830 | 14.851961 | 14.852607 | 14.853252 | 14.853897 | 14.854542 | 14.855188 | 14.855833 | 14.856478 | 14.857124 | 14.857769 |
| 0.840 | 14.858415 | 14.859060 | 14.859706 | 14.860351 | 14.860997 | 14.861643 | 14.862288 | 14.862934 | 14.863580 | 14.864225 |
| 0.850 | 14.864871 | 14.865517 | 14.866163 | 14.866809 | 14.867455 | 14.868100 | 14.868746 | 14.869392 | 14.870038 | 14.870684 |
| 0.860 | 14.871330 | 14.871976 | 14.872623 | 14.873269 | 14.873915 | 14.874561 | 14.875207 | 14.875854 | 14.876500 | 14.877146 |
| 0.870 | 14.877793 | 14.878439 | 14.879086 | 14.879732 | 14.880378 | 14.881025 | 14.881671 | 14.882318 | 14.882965 | 14.883611 |
| 0.880 | 14.884258 | 14.884905 | 14.885551 | 14.886198 | 14.886845 | 14.887492 | 14.888138 | 14.888785 | 14.889432 | 14.890079 |
| 0.890 | 14.890726 | 14.891373 | 14.892020 | 14.892667 | 14.893314 | 14.893961 | 14.894608 | 14.895255 | 14.895903 | 14.896550 |
| 0.900 | 14.897197 | 14.897844 | 14.898492 | 14.899139 | 14.899786 | 14.900434 | 14.901081 | 14.901729 | 14.902376 | 14.903023 |
| 0.910 | 14.903671 | 14.904319 | 14.904966 | 14.905614 | 14.906261 | 14.906909 | 14.907557 | 14.908205 | 14.908852 | 14.909500 |
| 0.920 | 14.910148 | 14.910796 | 14.911444 | 14.912092 | 14.912740 | 14.913388 | 14.914035 | 14.914684 | 14.915332 | 14.915980 |
| 0.930 | 14.916628 | 14.917276 | 14.917924 | 14.918572 | 14.919221 | 14.919869 | 14.920517 | 14.921165 | 14.921814 | 14.922462 |
| 0.940 | 14.923111 | 14.923759 | 14.924407 | 14.925056 | 14.925705 | 14.926353 | 14.927002 | 14.927651 | 14.928300 | 14.928948 |
| 0.950 | 14.929596 | 14.930245 | 14.930894 | 14.931543 | 14.932191 | 14.932840 | 14.933489 | 14.934138 | 14.934787 | 14.935436 |
| 0.960 | 14.936085 | 14.936734 | 14.937383 | 14.938032 | 14.938681 | 14.939331 | 14.939980 | 14.940629 | 14.941278 | 14.941927 |
| 0.970 | 14.942577 | 14.943226 | 14.943875 | 14.944525 | 14.945174 | 14.945824 | 14.946473 | 14.947123 | 14.947772 | 14.948422 |
| 0.980 | 14.949071 | 14.949720 | 14.950371 | 14.951020 | 14.951670 | 14.952320 | 14.952970 | 14.953619 | 14.954269 | 14.954919 |
| 0.990 | 14.955569 | 14.956219 | 14.956869 | 14.957519 | 14.958169 | 14.958819 | 14.959469 | 14.960119 | 14.960769 | 14.961419 |

ATTENUATION IN DECIBELS
THETA FROM 65.000 TO 65.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 14.962070 | 14.962720 | 14.963370 | 14.964020 | 14.964671 | 14.965321 | 14.965971 | 14.966622 | 14.967272 | 14.967923 |
| 0.010 | 14.968573 | 14.969224 | 14.969874 | 14.970525 | 14.971175 | 14.971826 | 14.972477 | 14.973127 | 14.973778 | 14.974429 |
| 0.020 | 14.975080 | 14.975730 | 14.976381 | 14.977032 | 14.977683 | 14.978334 | 14.978985 | 14.979636 | 14.980287 | 14.980938 |
| 0.030 | 14.981589 | 14.982240 | 14.982891 | 14.983542 | 14.984194 | 14.984845 | 14.985496 | 14.986147 | 14.986799 | 14.987450 |
| 0.040 | 14.988101 | 14.988753 | 14.989404 | 14.990056 | 14.990707 | 14.991359 | 14.992010 | 14.992662 | 14.993314 | 14.993965 |
| 0.050 | 14.994617 | 14.995268 | 14.995920 | 14.996572 | 14.997224 | 14.997876 | 14.998527 | 14.999179 | 14.999831 | 15.000483 |
| 0.060 | 15.001135 | 15.001787 | 15.002439 | 15.003091 | 15.003743 | 15.004395 | 15.005048 | 15.005700 | 15.006352 | 15.007004 |
| 0.070 | 15.007656 | 15.008309 | 15.008961 | 15.009614 | 15.010266 | 15.010918 | 15.011571 | 15.012223 | 15.012876 | 15.013528 |
| 0.080 | 15.014181 | 15.014833 | 15.015486 | 15.016139 | 15.016791 | 15.017444 | 15.018097 | 15.018750 | 15.019402 | 15.020055 |
| 0.090 | 15.020708 | 15.021361 | 15.022014 | 15.022667 | 15.023320 | 15.023973 | 15.024626 | 15.025279 | 15.025932 | 15.026585 |
| 0.100 | 15.027238 | 15.027892 | 15.028545 | 15.029198 | 15.029851 | 15.030505 | 15.031158 | 15.031811 | 15.032465 | 15.033118 |
| 0.110 | 15.033772 | 15.034425 | 15.035079 | 15.035732 | 15.036386 | 15.037039 | 15.037693 | 15.038347 | 15.039000 | 15.039654 |
| 0.120 | 15.040308 | 15.040962 | 15.041615 | 15.042269 | 15.042923 | 15.043577 | 15.044231 | 15.044885 | 15.045539 | 15.046193 |
| 0.130 | 15.046847 | 15.047501 | 15.048155 | 15.048810 | 15.049464 | 15.050118 | 15.050772 | 15.051426 | 15.052081 | 15.052735 |
| 0.140 | 15.053389 | 15.054044 | 15.054698 | 15.055353 | 15.056007 | 15.056662 | 15.057316 | 15.057971 | 15.058625 | 15.059280 |
| 0.150 | 15.059935 | 15.060589 | 15.061244 | 15.061899 | 15.062554 | 15.063208 | 15.063863 | 15.064518 | 15.065173 | 15.065828 |
| 0.160 | 15.066483 | 15.067138 | 15.067793 | 15.068448 | 15.069103 | 15.069758 | 15.070413 | 15.071068 | 15.071724 | 15.072379 |
| 0.170 | 15.073034 | 15.073689 | 15.074345 | 15.075000 | 15.075655 | 15.076311 | 15.076966 | 15.077622 | 15.078277 | 15.078933 |
| 0.180 | 15.079588 | 15.080244 | 15.080899 | 15.081555 | 15.082211 | 15.082867 | 15.083522 | 15.084178 | 15.084834 | 15.085490 |
| 0.190 | 15.086146 | 15.086801 | 15.087457 | 15.088113 | 15.088769 | 15.089425 | 15.090081 | 15.090737 | 15.091393 | 15.092050 |
| 0.200 | 15.092706 | 15.093362 | 15.094018 | 15.094674 | 15.095331 | 15.095987 | 15.096643 | 15.097300 | 15.097956 | 15.098613 |
| 0.210 | 15.099269 | 15.099926 | 15.100582 | 15.101238 | 15.101895 | 15.102552 | 15.103208 | 15.103865 | 15.104522 | 15.105178 |
| 0.220 | 15.105835 | 15.106492 | 15.107149 | 15.107806 | 15.108463 | 15.109120 | 15.109776 | 15.110433 | 15.111090 | 15.111747 |
| 0.230 | 15.112404 | 15.113062 | 15.113719 | 15.114376 | 15.115033 | 15.115690 | 15.116348 | 15.117005 | 15.117662 | 15.118319 |
| 0.240 | 15.118977 | 15.119634 | 15.120292 | 15.120949 | 15.121606 | 15.122264 | 15.122922 | 15.123579 | 15.124237 | 15.124894 |
| 0.250 | 15.125552 | 15.126210 | 15.126868 | 15.127525 | 15.128183 | 15.128841 | 15.129499 | 15.130157 | 15.130814 | 15.131472 |
| 0.260 | 15.132130 | 15.132788 | 15.133446 | 15.134104 | 15.134763 | 15.135421 | 15.136079 | 15.136737 | 15.137395 | 15.138053 |
| 0.270 | 15.138712 | 15.139370 | 15.140028 | 15.140687 | 15.141345 | 15.142004 | 15.142662 | 15.143320 | 15.143979 | 15.144637 |
| 0.280 | 15.145296 | 15.145955 | 15.146613 | 15.147272 | 15.147931 | 15.148589 | 15.149248 | 15.149907 | 15.150566 | 15.151225 |
| 0.290 | 15.151883 | 15.152542 | 15.153201 | 15.153860 | 15.154519 | 15.155178 | 15.155837 | 15.156496 | 15.157156 | 15.157815 |
| 0.300 | 15.158474 | 15.159133 | 15.159792 | 15.160452 | 15.161111 | 15.161770 | 15.162430 | 15.163089 | 15.163748 | 15.164408 |
| 0.310 | 15.165067 | 15.165727 | 15.166386 | 15.167046 | 15.167706 | 15.168365 | 15.169025 | 15.169685 | 15.170344 | 15.171004 |
| 0.320 | 15.171664 | 15.172324 | 15.172983 | 15.173643 | 15.174303 | 15.174963 | 15.175623 | 15.176283 | 15.176943 | 15.177603 |
| 0.330 | 15.178263 | 15.178923 | 15.179584 | 15.180244 | 15.180904 | 15.181564 | 15.182225 | 15.182885 | 15.183545 | 15.184205 |
| 0.340 | 15.184866 | 15.185526 | 15.186187 | 15.186847 | 15.187508 | 15.188168 | 15.188829 | 15.189489 | 15.190150 | 15.190811 |
| 0.350 | 15.191471 | 15.192132 | 15.192793 | 15.193454 | 15.194115 | 15.194775 | 15.195436 | 15.196097 | 15.196758 | 15.197419 |
| 0.360 | 15.198080 | 15.198741 | 15.199402 | 15.200063 | 15.200724 | 15.201385 | 15.202047 | 15.202708 | 15.203369 | 15.204030 |
| 0.370 | 15.204692 | 15.205353 | 15.206014 | 15.206676 | 15.207337 | 15.207999 | 15.208660 | 15.209322 | 15.209983 | 15.210645 |
| 0.380 | 15.211306 | 15.211968 | 15.212630 | 15.213291 | 15.213953 | 15.214615 | 15.215277 | 15.215939 | 15.216600 | 15.217262 |
| 0.390 | 15.217924 | 15.218586 | 15.219248 | 15.219910 | 15.220572 | 15.221234 | 15.221896 | 15.222558 | 15.223221 | 15.223883 |
| 0.400 | 15.224545 | 15.225207 | 15.225870 | 15.226532 | 15.227194 | 15.227857 | 15.228519 | 15.229181 | 15.229844 | 15.230506 |
| 0.410 | 15.231169 | 15.231831 | 15.232494 | 15.233157 | 15.233819 | 15.234482 | 15.235145 | 15.235807 | 15.236470 | 15.237133 |
| 0.420 | 15.237796 | 15.238459 | 15.239122 | 15.239784 | 15.240448 | 15.241111 | 15.241773 | 15.242437 | 15.243100 | 15.243763 |
| 0.430 | 15.244426 | 15.245089 | 15.245752 | 15.246415 | 15.247079 | 15.247742 | 15.248405 | 15.249069 | 15.249732 | 15.250395 |
| 0.440 | 15.251059 | 15.251722 | 15.252386 | 15.253049 | 15.253713 | 15.254377 | 15.255040 | 15.255704 | 15.256368 | 15.257031 |
| 0.450 | 15.257695 | 15.258359 | 15.259023 | 15.259686 | 15.260350 | 15.261014 | 15.261678 | 15.262342 | 15.263006 | 15.263670 |
| 0.460 | 15.264334 | 15.264998 | 15.265662 | 15.266327 | 15.266991 | 15.267655 | 15.268319 | 15.268983 | 15.269648 | 15.270312 |
| 0.470 | 15.270976 | 15.271641 | 15.272305 | 15.272970 | 15.273634 | 15.274299 | 15.274963 | 15.275628 | 15.276292 | 15.276957 |
| 0.480 | 15.277622 | 15.278286 | 15.278951 | 15.279616 | 15.280281 | 15.280946 | 15.281610 | 15.282275 | 15.282940 | 15.283605 |
| 0.490 | 15.284270 | 15.284935 | 15.285600 | 15.286265 | 15.286930 | 15.287595 | 15.288261 | 15.288926 | 15.289591 | 15.290256 |

ATTENUATION IN DECIBELS
THETA FROM 65.500 TO 65.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 15.290922 | 15.291587 | 15.292252 | 15.292918 | 15.293583 | 15.294243 | 15.294914 | 15.295579 | 15.296245 | 15.296911 |
| 0.510 | 15.297576 | 15.298242 | 15.298907 | 15.299573 | 15.300239 | 15.300905 | 15.301570 | 15.302236 | 15.302902 | 15.303568 |
| 0.520 | 15.304234 | 15.304900 | 15.305566 | 15.306232 | 15.306898 | 15.307564 | 15.308230 | 15.308896 | 15.309562 | 15.310228 |
| 0.530 | 15.310894 | 15.311561 | 15.312227 | 15.312893 | 15.313560 | 15.314226 | 15.314892 | 15.315559 | 15.316225 | 15.316892 |
| 0.540 | 15.317558 | 15.318225 | 15.318892 | 15.319559 | 15.320226 | 15.320893 | 15.321559 | 15.322226 | 15.322893 | 15.323558 |
| 0.550 | 15.324225 | 15.324892 | 15.325559 | 15.326226 | 15.326893 | 15.327560 | 15.328227 | 15.328894 | 15.329561 | 15.330228 |
| 0.560 | 15.330895 | 15.331562 | 15.332229 | 15.332897 | 15.333564 | 15.334231 | 15.334899 | 15.335566 | 15.336233 | 15.336901 |
| 0.570 | 15.337568 | 15.338236 | 15.338903 | 15.339571 | 15.340238 | 15.340906 | 15.341573 | 15.342241 | 15.342909 | 15.343577 |
| 0.580 | 15.344244 | 15.344912 | 15.345580 | 15.346248 | 15.346916 | 15.347584 | 15.348251 | 15.348919 | 15.349587 | 15.350255 |
| 0.590 | 15.350924 | 15.351592 | 15.352260 | 15.352928 | 15.353596 | 15.354264 | 15.354933 | 15.355601 | 15.356269 | 15.356938 |
| 0.600 | 15.357606 | 15.358274 | 15.358943 | 15.359611 | 15.360280 | 15.360948 | 15.361617 | 15.362285 | 15.362954 | 15.363623 |
| 0.610 | 15.364291 | 15.364960 | 15.365629 | 15.366297 | 15.366966 | 15.367635 | 15.368304 | 15.368973 | 15.369642 | 15.370311 |
| 0.620 | 15.370980 | 15.371649 | 15.372318 | 15.372987 | 15.373656 | 15.374325 | 15.374995 | 15.375664 | 15.376333 | 15.377002 |
| 0.630 | 15.377671 | 15.378341 | 15.379010 | 15.379680 | 15.380349 | 15.381019 | 15.381688 | 15.382357 | 15.383027 | 15.383697 |
| 0.640 | 15.384366 | 15.385036 | 15.385706 | 15.386375 | 15.387045 | 15.387715 | 15.388385 | 15.389054 | 15.389724 | 15.390394 |
| 0.650 | 15.391064 | 15.391734 | 15.392404 | 15.393074 | 15.393744 | 15.394414 | 15.395084 | 15.395754 | 15.396425 | 15.397095 |
| 0.660 | 15.397765 | 15.398435 | 15.399106 | 15.399776 | 15.400446 | 15.401117 | 15.401787 | 15.402458 | 15.403128 | 15.403799 |
| 0.670 | 15.404469 | 15.405140 | 15.405810 | 15.406481 | 15.407152 | 15.407822 | 15.408493 | 15.409164 | 15.409835 | 15.410506 |
| 0.680 | 15.411176 | 15.411847 | 15.412518 | 15.413189 | 15.413860 | 15.414531 | 15.415202 | 15.415873 | 15.416544 | 15.417216 |
| 0.690 | 15.417887 | 15.418558 | 15.419229 | 15.419900 | 15.420572 | 15.421243 | 15.421914 | 15.422586 | 15.423257 | 15.423929 |
| 0.700 | 15.424600 | 15.425272 | 15.425943 | 15.426615 | 15.427287 | 15.427958 | 15.428630 | 15.429302 | 15.429973 | 15.430645 |
| 0.710 | 15.431317 | 15.431989 | 15.432660 | 15.433332 | 15.434004 | 15.434676 | 15.435348 | 15.436020 | 15.436692 | 15.437364 |
| 0.720 | 15.438036 | 15.438709 | 15.439381 | 15.440053 | 15.440725 | 15.441398 | 15.442070 | 15.442742 | 15.443415 | 15.444087 |
| 0.730 | 15.444759 | 15.445432 | 15.446104 | 15.446777 | 15.447449 | 15.448122 | 15.448795 | 15.449467 | 15.450140 | 15.450813 |
| 0.740 | 15.451485 | 15.452158 | 15.452831 | 15.453504 | 15.454177 | 15.454849 | 15.455522 | 15.456195 | 15.456868 | 15.457541 |
| 0.750 | 15.458214 | 15.458887 | 15.459561 | 15.460234 | 15.460907 | 15.461580 | 15.462253 | 15.462927 | 15.463600 | 15.464273 |
| 0.760 | 15.464947 | 15.465620 | 15.466293 | 15.466967 | 15.467640 | 15.468314 | 15.468987 | 15.469661 | 15.470335 | 15.471008 |
| 0.770 | 15.471682 | 15.472356 | 15.473029 | 15.473703 | 15.474377 | 15.475051 | 15.475725 | 15.476399 | 15.477073 | 15.477747 |
| 0.780 | 15.478421 | 15.479095 | 15.479769 | 15.480443 | 15.481117 | 15.481791 | 15.482465 | 15.483139 | 15.483814 | 15.484488 |
| 0.790 | 15.485162 | 15.485837 | 15.486511 | 15.487185 | 15.487860 | 15.488534 | 15.489209 | 15.489883 | 15.490558 | 15.491232 |
| 0.800 | 15.491907 | 15.492582 | 15.493256 | 15.493931 | 15.494606 | 15.495281 | 15.495955 | 15.496630 | 15.497305 | 15.497980 |
| 0.810 | 15.498655 | 15.499330 | 15.500005 | 15.500680 | 15.501355 | 15.502030 | 15.502705 | 15.503380 | 15.504056 | 15.504731 |
| 0.820 | 15.505406 | 15.506081 | 15.506757 | 15.507432 | 15.508107 | 15.508783 | 15.509458 | 15.510134 | 15.510809 | 15.511485 |
| 0.830 | 15.512160 | 15.512836 | 15.513512 | 15.514187 | 15.514863 | 15.515539 | 15.516214 | 15.516890 | 15.517566 | 15.518242 |
| 0.840 | 15.518918 | 15.519594 | 15.520270 | 15.520946 | 15.521622 | 15.522298 | 15.522974 | 15.523650 | 15.524326 | 15.525002 |
| 0.850 | 15.525678 | 15.526355 | 15.527031 | 15.527707 | 15.528383 | 15.529060 | 15.529736 | 15.530413 | 15.531089 | 15.531766 |
| 0.860 | 15.532442 | 15.533119 | 15.533795 | 15.534472 | 15.535149 | 15.535825 | 15.536502 | 15.537179 | 15.537855 | 15.538532 |
| 0.870 | 15.539209 | 15.539886 | 15.540563 | 15.541240 | 15.541917 | 15.542594 | 15.543271 | 15.543948 | 15.544625 | 15.545302 |
| 0.880 | 15.545979 | 15.546656 | 15.547334 | 15.548011 | 15.548688 | 15.549365 | 15.550043 | 15.550720 | 15.551397 | 15.552075 |
| 0.890 | 15.552752 | 15.553430 | 15.554107 | 15.554785 | 15.555463 | 15.556141 | 15.556818 | 15.557496 | 15.558173 | 15.558851 |
| 0.900 | 15.559529 | 15.560207 | 15.560884 | 15.561562 | 15.562240 | 15.562918 | 15.563596 | 15.564274 | 15.564952 | 15.565630 |
| 0.910 | 15.566308 | 15.566987 | 15.567665 | 15.568343 | 15.569021 | 15.569699 | 15.570378 | 15.571056 | 15.571734 | 15.572413 |
| 0.920 | 15.573091 | 15.573770 | 15.574448 | 15.575127 | 15.575805 | 15.576484 | 15.577162 | 15.577841 | 15.578520 | 15.579198 |
| 0.930 | 15.579877 | 15.580556 | 15.581235 | 15.581913 | 15.582592 | 15.583271 | 15.583950 | 15.584629 | 15.585308 | 15.585987 |
| 0.940 | 15.586666 | 15.587345 | 15.588024 | 15.588704 | 15.589383 | 15.590062 | 15.590741 | 15.591421 | 15.592100 | 15.592779 |
| 0.950 | 15.593459 | 15.594138 | 15.594817 | 15.595497 | 15.596176 | 15.596855 | 15.597535 | 15.598214 | 15.598895 | 15.599574 |
| 0.960 | 15.600254 | 15.600934 | 15.601614 | 15.602293 | 15.602973 | 15.603653 | 15.604333 | 15.605013 | 15.605693 | 15.606375 |
| 0.970 | 15.607053 | 15.607733 | 15.608413 | 15.609093 | 15.609773 | 15.610453 | 15.611133 | 15.611814 | 15.612494 | 15.613174 |
| 0.980 | 15.613855 | 15.614535 | 15.615215 | 15.615896 | 15.616576 | 15.617257 | 15.617937 | 15.618618 | 15.619298 | 15.619979 |
| 0.990 | 15.620660 | 15.621340 | 15.622021 | 15.622702 | 15.623383 | 15.624063 | 15.624744 | 15.625425 | 15.626106 | 15.626787 |

ATTENUATION IN DECIBELS
 THETA FROM 66.000 TO 66.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 15.627468 | 15.628149 | 15.628830 | 15.629511 | 15.630192 | 15.630873 | 15.631554 | 15.632236 | 15.632917 | 15.633598 |
| 0.010 | 15.634279 | 15.634961 | 15.635642 | 15.636323 | 15.637005 | 15.637686 | 15.638368 | 15.639049 | 15.639731 | 15.640412 |
| 0.020 | 15.641094 | 15.641776 | 15.642457 | 15.643139 | 15.643821 | 15.644502 | 15.645184 | 15.645866 | 15.646548 | 15.647230 |
| 0.030 | 15.647912 | 15.648594 | 15.649276 | 15.649958 | 15.650640 | 15.651322 | 15.652004 | 15.652686 | 15.653369 | 15.654051 |
| 0.040 | 15.654733 | 15.655415 | 15.656098 | 15.656780 | 15.657462 | 15.658144 | 15.658827 | 15.659510 | 15.660192 | 15.660875 |
| 0.050 | 15.661557 | 15.662240 | 15.662923 | 15.663605 | 15.664288 | 15.664971 | 15.665653 | 15.666336 | 15.667019 | 15.667702 |
| 0.060 | 15.668385 | 15.669068 | 15.669751 | 15.670434 | 15.671117 | 15.671800 | 15.672483 | 15.673166 | 15.673849 | 15.674532 |
| 0.070 | 15.675215 | 15.675899 | 15.676582 | 15.677265 | 15.677949 | 15.678632 | 15.679315 | 15.679999 | 15.680682 | 15.681366 |
| 0.080 | 15.682049 | 15.682733 | 15.683417 | 15.684100 | 15.684784 | 15.685468 | 15.686151 | 15.686835 | 15.687519 | 15.688203 |
| 0.090 | 15.688887 | 15.689570 | 15.690254 | 15.690938 | 15.691622 | 15.692306 | 15.692990 | 15.693674 | 15.694359 | 15.695043 |
| 0.100 | 15.695727 | 15.696411 | 15.697095 | 15.697780 | 15.698464 | 15.699148 | 15.699833 | 15.700517 | 15.701202 | 15.701886 |
| 0.110 | 15.702571 | 15.703255 | 15.703940 | 15.704624 | 15.705309 | 15.705994 | 15.706678 | 15.707363 | 15.708048 | 15.708732 |
| 0.120 | 15.709417 | 15.710102 | 15.710787 | 15.711472 | 15.712157 | 15.712842 | 15.713527 | 15.714212 | 15.714897 | 15.715582 |
| 0.130 | 15.716267 | 15.716953 | 15.717638 | 15.718323 | 15.719008 | 15.719694 | 15.720379 | 15.721064 | 15.721750 | 15.722435 |
| 0.140 | 15.723121 | 15.723806 | 15.724492 | 15.725177 | 15.725863 | 15.726548 | 15.727234 | 15.727920 | 15.728606 | 15.729291 |
| 0.150 | 15.729977 | 15.730663 | 15.731349 | 15.732035 | 15.732721 | 15.733407 | 15.734093 | 15.734779 | 15.735465 | 15.736151 |
| 0.160 | 15.736837 | 15.737523 | 15.738209 | 15.738896 | 15.739582 | 15.740268 | 15.740954 | 15.741641 | 15.742327 | 15.743014 |
| 0.170 | 15.743700 | 15.744386 | 15.745073 | 15.745759 | 15.746446 | 15.747133 | 15.747819 | 15.748506 | 15.749193 | 15.749879 |
| 0.180 | 15.750566 | 15.751253 | 15.751940 | 15.752627 | 15.753314 | 15.754001 | 15.754687 | 15.755374 | 15.756061 | 15.756749 |
| 0.190 | 15.757436 | 15.758123 | 15.758810 | 15.759497 | 15.760184 | 15.760872 | 15.761559 | 15.762246 | 15.762933 | 15.763621 |
| 0.200 | 15.764308 | 15.764996 | 15.765683 | 15.766371 | 15.767058 | 15.767746 | 15.768434 | 15.769121 | 15.769809 | 15.770497 |
| 0.210 | 15.771184 | 15.771872 | 15.772560 | 15.773248 | 15.773936 | 15.774624 | 15.775312 | 15.776000 | 15.776688 | 15.777375 |
| 0.220 | 15.778064 | 15.778752 | 15.779440 | 15.780128 | 15.780816 | 15.781504 | 15.782193 | 15.782881 | 15.783569 | 15.784258 |
| 0.230 | 15.784946 | 15.785634 | 15.786323 | 15.787011 | 15.787700 | 15.788388 | 15.789076 | 15.789765 | 15.790454 | 15.791143 |
| 0.240 | 15.791832 | 15.792521 | 15.793209 | 15.793898 | 15.794587 | 15.795276 | 15.795965 | 15.796654 | 15.797343 | 15.798032 |
| 0.250 | 15.798721 | 15.799410 | 15.800099 | 15.800788 | 15.801477 | 15.802166 | 15.802856 | 15.803545 | 15.804234 | 15.804924 |
| 0.260 | 15.805613 | 15.806302 | 15.806992 | 15.807681 | 15.808371 | 15.809060 | 15.809750 | 15.810440 | 15.811129 | 15.811819 |
| 0.270 | 15.812509 | 15.813198 | 15.813888 | 15.814578 | 15.815268 | 15.815958 | 15.816647 | 15.817337 | 15.818027 | 15.818717 |
| 0.280 | 15.819407 | 15.820097 | 15.820787 | 15.821478 | 15.822168 | 15.822858 | 15.823548 | 15.824238 | 15.824929 | 15.825619 |
| 0.290 | 15.826309 | 15.827000 | 15.827690 | 15.828381 | 15.829071 | 15.829762 | 15.830452 | 15.831143 | 15.831833 | 15.832524 |
| 0.300 | 15.833215 | 15.833905 | 15.834596 | 15.835287 | 15.835978 | 15.836669 | 15.837359 | 15.838050 | 15.838741 | 15.839432 |
| 0.310 | 15.840123 | 15.840814 | 15.841505 | 15.842197 | 15.842888 | 15.843579 | 15.844270 | 15.844961 | 15.845653 | 15.846344 |
| 0.320 | 15.847035 | 15.847727 | 15.848418 | 15.849109 | 15.849801 | 15.850492 | 15.851184 | 15.851875 | 15.852567 | 15.853259 |
| 0.330 | 15.853950 | 15.854642 | 15.855334 | 15.856026 | 15.856717 | 15.857409 | 15.858101 | 15.858793 | 15.859485 | 15.860177 |
| 0.340 | 15.860869 | 15.861561 | 15.862253 | 15.862945 | 15.863637 | 15.864329 | 15.865021 | 15.865714 | 15.866406 | 15.867098 |
| 0.350 | 15.867791 | 15.868483 | 15.869175 | 15.869868 | 15.870560 | 15.871253 | 15.871945 | 15.872638 | 15.873330 | 15.874023 |
| 0.360 | 15.874716 | 15.875408 | 15.876101 | 15.876794 | 15.877486 | 15.878179 | 15.878872 | 15.879565 | 15.880258 | 15.880951 |
| 0.370 | 15.881644 | 15.882337 | 15.883030 | 15.883723 | 15.884416 | 15.885109 | 15.885803 | 15.886496 | 15.887189 | 15.887882 |
| 0.380 | 15.888576 | 15.889269 | 15.889962 | 15.890656 | 15.891349 | 15.892043 | 15.892736 | 15.893430 | 15.894123 | 15.894817 |
| 0.390 | 15.895510 | 15.896204 | 15.896898 | 15.897591 | 15.898285 | 15.898979 | 15.899673 | 15.900367 | 15.901061 | 15.901755 |
| 0.400 | 15.902449 | 15.903143 | 15.903837 | 15.904531 | 15.905225 | 15.905919 | 15.906613 | 15.907307 | 15.908002 | 15.908696 |
| 0.410 | 15.909390 | 15.910084 | 15.910779 | 15.911473 | 15.912168 | 15.912862 | 15.913557 | 15.914251 | 15.914946 | 15.915640 |
| 0.420 | 15.916335 | 15.917030 | 15.917724 | 15.918419 | 15.919114 | 15.919809 | 15.920505 | 15.921198 | 15.921893 | 15.922588 |
| 0.430 | 15.923283 | 15.923978 | 15.924673 | 15.925368 | 15.926063 | 15.926758 | 15.927454 | 15.928149 | 15.928844 | 15.929539 |
| 0.440 | 15.930234 | 15.930930 | 15.931625 | 15.932320 | 15.933016 | 15.933711 | 15.934407 | 15.935102 | 15.935798 | 15.936494 |
| 0.450 | 15.937189 | 15.937885 | 15.938581 | 15.939276 | 15.939972 | 15.940668 | 15.941364 | 15.942060 | 15.942755 | 15.943451 |
| 0.460 | 15.944147 | 15.944843 | 15.945539 | 15.946235 | 15.946931 | 15.947628 | 15.948324 | 15.949020 | 15.949716 | 15.950412 |
| 0.470 | 15.951107 | 15.951805 | 15.952501 | 15.953198 | 15.953894 | 15.954591 | 15.955288 | 15.955984 | 15.956680 | 15.957377 |
| 0.480 | 15.958073 | 15.958770 | 15.959467 | 15.960163 | 15.960860 | 15.961557 | 15.962254 | 15.962951 | 15.963647 | 15.964344 |
| 0.490 | 15.965504 | 15.965738 | 15.966435 | 15.967132 | 15.967829 | 15.968527 | 15.969224 | 15.969921 | 15.970618 | 15.971315 |

ATTENUATION IN DECIBELS
 THETA FROM 66.500 TO 66.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 15.972013 | 15.972710 | 15.973407 | 15.974105 | 15.974802 | 15.975500 | 15.976197 | 15.976895 | 15.977592 | 15.978290 |
| 0.510 | 15.978987 | 15.979685 | 15.980383 | 15.981080 | 15.981778 | 15.982476 | 15.983174 | 15.983872 | 15.984569 | 15.985267 |
| 0.520 | 15.985965 | 15.986663 | 15.987361 | 15.988059 | 15.988757 | 15.989456 | 15.990154 | 15.990852 | 15.991550 | 15.992248 |
| 0.530 | 15.992947 | 15.993645 | 15.994343 | 15.995042 | 15.995740 | 15.996439 | 15.997137 | 15.997836 | 15.998534 | 15.999233 |
| 0.540 | 15.999931 | 16.000630 | 16.001329 | 16.002027 | 16.002726 | 16.003425 | 16.004124 | 16.004822 | 16.005521 | 16.006220 |
| 0.550 | 16.006919 | 16.007618 | 16.008317 | 16.009016 | 16.009715 | 16.010415 | 16.011114 | 16.011813 | 16.012512 | 16.013211 |
| 0.560 | 16.013911 | 16.014610 | 16.015309 | 16.016009 | 16.016708 | 16.017408 | 16.018107 | 16.018806 | 16.019506 | 16.020206 |
| 0.570 | 16.020905 | 16.021605 | 16.022305 | 16.023004 | 16.023704 | 16.024404 | 16.025104 | 16.025804 | 16.026504 | 16.027204 |
| 0.580 | 16.027903 | 16.028603 | 16.029303 | 16.030003 | 16.030704 | 16.031404 | 16.032104 | 16.032804 | 16.033504 | 16.034204 |
| 0.590 | 16.034905 | 16.035605 | 16.036305 | 16.037006 | 16.037706 | 16.038407 | 16.039107 | 16.039808 | 16.040508 | 16.041209 |
| 0.600 | 16.041909 | 16.042610 | 16.043311 | 16.044012 | 16.044712 | 16.045413 | 16.046114 | 16.046815 | 16.047516 | 16.048217 |
| 0.610 | 16.048918 | 16.049618 | 16.050320 | 16.051021 | 16.051722 | 16.052423 | 16.053124 | 16.053825 | 16.054527 | 16.055228 |
| 0.620 | 16.055929 | 16.056630 | 16.057332 | 16.058033 | 16.058735 | 16.059436 | 16.060138 | 16.060839 | 16.061541 | 16.062242 |
| 0.630 | 16.062944 | 16.063646 | 16.064347 | 16.065049 | 16.065751 | 16.066453 | 16.067154 | 16.067856 | 16.068558 | 16.069260 |
| 0.640 | 16.069962 | 16.070664 | 16.071366 | 16.072068 | 16.072770 | 16.073472 | 16.074175 | 16.074877 | 16.075579 | 16.076281 |
| 0.650 | 16.076983 | 16.077686 | 16.078388 | 16.079091 | 16.079793 | 16.080496 | 16.081198 | 16.081901 | 16.082603 | 16.083306 |
| 0.660 | 16.084008 | 16.084711 | 16.085414 | 16.086117 | 16.086819 | 16.087522 | 16.088225 | 16.088928 | 16.089631 | 16.090334 |
| 0.670 | 16.091037 | 16.091740 | 16.092443 | 16.093146 | 16.093849 | 16.094552 | 16.095255 | 16.095958 | 16.096662 | 16.097365 |
| 0.680 | 16.098068 | 16.098772 | 16.099475 | 16.100178 | 16.100882 | 16.101585 | 16.102289 | 16.102993 | 16.103696 | 16.104400 |
| 0.690 | 16.105103 | 16.105807 | 16.106511 | 16.107215 | 16.107919 | 16.108622 | 16.109326 | 16.110030 | 16.110734 | 16.111438 |
| 0.700 | 16.112142 | 16.112846 | 16.113550 | 16.114254 | 16.114958 | 16.115662 | 16.116367 | 16.117071 | 16.117775 | 16.118479 |
| 0.710 | 16.119184 | 16.119888 | 16.120592 | 16.121297 | 16.122001 | 16.122706 | 16.123410 | 16.124115 | 16.124820 | 16.125524 |
| 0.720 | 16.126229 | 16.126934 | 16.127638 | 16.128343 | 16.129048 | 16.129753 | 16.130458 | 16.131162 | 16.131867 | 16.132572 |
| 0.730 | 16.133277 | 16.133982 | 16.134687 | 16.135393 | 16.136098 | 16.136803 | 16.137508 | 16.138213 | 16.138919 | 16.139624 |
| 0.740 | 16.140329 | 16.141035 | 16.141740 | 16.142446 | 16.143151 | 16.143857 | 16.144562 | 16.145268 | 16.145973 | 16.146679 |
| 0.750 | 16.147385 | 16.148090 | 16.148796 | 16.149502 | 16.150208 | 16.150914 | 16.151619 | 16.152325 | 16.153031 | 16.153737 |
| 0.760 | 16.154444 | 16.155149 | 16.155856 | 16.156562 | 16.157268 | 16.157974 | 16.158680 | 16.159387 | 16.160093 | 16.160799 |
| 0.770 | 16.161506 | 16.162212 | 16.162918 | 16.163625 | 16.164331 | 16.165038 | 16.165745 | 16.166451 | 16.167158 | 16.167864 |
| 0.780 | 16.168571 | 16.169278 | 16.169985 | 16.170691 | 16.171398 | 16.172105 | 16.172812 | 16.173519 | 16.174226 | 16.174933 |
| 0.790 | 16.175640 | 16.176347 | 16.177054 | 16.177762 | 16.178469 | 16.179176 | 16.179883 | 16.180590 | 16.181298 | 16.182005 |
| 0.800 | 16.182713 | 16.183420 | 16.184127 | 16.184835 | 16.185542 | 16.186250 | 16.186958 | 16.187665 | 16.188373 | 16.189080 |
| 0.810 | 16.189788 | 16.190496 | 16.191204 | 16.191912 | 16.192620 | 16.193327 | 16.194035 | 16.194743 | 16.195451 | 16.196159 |
| 0.820 | 16.196867 | 16.197576 | 16.198284 | 16.198992 | 16.199700 | 16.200408 | 16.201117 | 16.201825 | 16.202533 | 16.203242 |
| 0.830 | 16.203950 | 16.204659 | 16.205367 | 16.206075 | 16.206784 | 16.207493 | 16.208201 | 16.208910 | 16.209619 | 16.210327 |
| 0.840 | 16.211036 | 16.211745 | 16.212454 | 16.213162 | 16.213871 | 16.214580 | 16.215289 | 16.215998 | 16.216707 | 16.217416 |
| 0.850 | 16.218125 | 16.218835 | 16.219544 | 16.220253 | 16.220962 | 16.221671 | 16.222381 | 16.223090 | 16.223799 | 16.224509 |
| 0.860 | 16.225218 | 16.225928 | 16.226637 | 16.227347 | 16.228056 | 16.228766 | 16.229476 | 16.230185 | 16.230895 | 16.231605 |
| 0.870 | 16.232315 | 16.233024 | 16.233734 | 16.234444 | 16.235154 | 16.235864 | 16.236574 | 16.237284 | 16.237994 | 16.238704 |
| 0.880 | 16.239414 | 16.240124 | 16.240835 | 16.241545 | 16.242255 | 16.242965 | 16.243676 | 16.244386 | 16.245096 | 16.245807 |
| 0.890 | 16.246517 | 16.247228 | 16.247938 | 16.248649 | 16.249360 | 16.250070 | 16.250781 | 16.251492 | 16.252203 | 16.252913 |
| 0.900 | 16.253624 | 16.254335 | 16.255046 | 16.255757 | 16.256468 | 16.257179 | 16.257890 | 16.258601 | 16.259312 | 16.260023 |
| 0.910 | 16.260734 | 16.261445 | 16.262156 | 16.262868 | 16.263579 | 16.264290 | 16.265002 | 16.265713 | 16.266425 | 16.267136 |
| 0.920 | 16.267848 | 16.268559 | 16.269271 | 16.269982 | 16.270694 | 16.271405 | 16.272117 | 16.272829 | 16.273541 | 16.274253 |
| 0.930 | 16.274964 | 16.275676 | 16.276388 | 16.277100 | 16.277812 | 16.278524 | 16.279236 | 16.279948 | 16.280660 | 16.281373 |
| 0.940 | 16.282085 | 16.282797 | 16.283509 | 16.284222 | 16.284934 | 16.285646 | 16.286359 | 16.287071 | 16.287784 | 16.288496 |
| 0.950 | 16.289209 | 16.289921 | 16.290634 | 16.291346 | 16.292058 | 16.292772 | 16.293484 | 16.294197 | 16.294910 | 16.295623 |
| 0.960 | 16.296336 | 16.297049 | 16.297762 | 16.298475 | 16.299188 | 16.299901 | 16.300614 | 16.301327 | 16.302040 | 16.302753 |
| 0.970 | 16.303467 | 16.304180 | 16.304893 | 16.305606 | 16.306320 | 16.307033 | 16.307747 | 16.308460 | 16.309174 | 16.309887 |
| 0.980 | 16.310601 | 16.311314 | 16.312028 | 16.312742 | 16.313455 | 16.314169 | 16.314883 | 16.315597 | 16.316310 | 16.317024 |
| 0.990 | 16.317738 | 16.318452 | 16.319166 | 16.319880 | 16.320594 | 16.321308 | 16.322023 | 16.322737 | 16.323451 | 16.324165 |

ATTENUATION IN DECIBELS
THETA FROM 67.000 TO 67.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 16.324875 | 16.325594 | 16.326308 | 16.327022 | 16.327737 | 16.328451 | 16.329166 | 16.329880 | 16.330595 | 16.331309 |
| 0.010 | 16.332024 | 16.332739 | 16.333453 | 16.334168 | 16.334883 | 16.335598 | 16.336312 | 16.337027 | 16.337742 | 16.338457 |
| 0.020 | 16.339172 | 16.339887 | 16.340602 | 16.341317 | 16.342032 | 16.342747 | 16.343462 | 16.344178 | 16.344893 | 16.345608 |
| 0.030 | 16.346323 | 16.347038 | 16.347754 | 16.348469 | 16.349185 | 16.349900 | 16.350616 | 16.351332 | 16.352047 | 16.352763 |
| 0.040 | 16.353478 | 16.354194 | 16.354910 | 16.355626 | 16.356341 | 16.357057 | 16.357773 | 16.358489 | 16.359205 | 16.359921 |
| 0.050 | 16.360637 | 16.361353 | 16.362069 | 16.362785 | 16.363501 | 16.364218 | 16.364934 | 16.365650 | 16.366366 | 16.367083 |
| 0.060 | 16.367799 | 16.368515 | 16.369231 | 16.369948 | 16.370665 | 16.371381 | 16.372098 | 16.372814 | 16.373531 | 16.374248 |
| 0.070 | 16.374964 | 16.375681 | 16.376398 | 16.377115 | 16.377831 | 16.378548 | 16.379265 | 16.379982 | 16.380699 | 16.381416 |
| 0.080 | 16.382133 | 16.382850 | 16.383567 | 16.384284 | 16.385002 | 16.385719 | 16.386436 | 16.387153 | 16.387871 | 16.388588 |
| 0.090 | 16.389306 | 16.390023 | 16.390740 | 16.391458 | 16.392175 | 16.392893 | 16.393611 | 16.394328 | 16.395046 | 16.395764 |
| 0.100 | 16.396482 | 16.397199 | 16.397917 | 16.398635 | 16.399353 | 16.400071 | 16.400789 | 16.401507 | 16.402225 | 16.402943 |
| 0.110 | 16.403661 | 16.404379 | 16.405097 | 16.405815 | 16.406533 | 16.407252 | 16.407970 | 16.408688 | 16.409407 | 16.410125 |
| 0.120 | 16.410844 | 16.411562 | 16.412281 | 16.413000 | 16.413718 | 16.414436 | 16.415155 | 16.415874 | 16.416592 | 16.417311 |
| 0.130 | 16.418030 | 16.418749 | 16.419468 | 16.420187 | 16.420905 | 16.421624 | 16.422343 | 16.423062 | 16.423781 | 16.424501 |
| 0.140 | 16.425220 | 16.425939 | 16.426658 | 16.427377 | 16.428096 | 16.428815 | 16.429534 | 16.430253 | 16.430972 | 16.431691 |
| 0.150 | 16.432413 | 16.433133 | 16.433852 | 16.434572 | 16.435292 | 16.436011 | 16.436731 | 16.437451 | 16.438170 | 16.438890 |
| 0.160 | 16.439610 | 16.440330 | 16.441050 | 16.441770 | 16.442490 | 16.443210 | 16.443930 | 16.444650 | 16.445370 | 16.446090 |
| 0.170 | 16.446810 | 16.447531 | 16.448251 | 16.448971 | 16.449692 | 16.450412 | 16.451133 | 16.451853 | 16.452573 | 16.453294 |
| 0.180 | 16.454015 | 16.454735 | 16.455456 | 16.456176 | 16.456897 | 16.457618 | 16.458338 | 16.459059 | 16.459780 | 16.460501 |
| 0.190 | 16.461222 | 16.461943 | 16.462664 | 16.463385 | 16.464106 | 16.464827 | 16.465548 | 16.466269 | 16.466990 | 16.467712 |
| 0.200 | 16.468433 | 16.469154 | 16.469876 | 16.470597 | 16.471318 | 16.472040 | 16.472761 | 16.473483 | 16.474204 | 16.474926 |
| 0.210 | 16.475647 | 16.476369 | 16.477091 | 16.477813 | 16.478534 | 16.479256 | 16.480000 | 16.480700 | 16.481421 | 16.482143 |
| 0.220 | 16.482365 | 16.483087 | 16.483809 | 16.484531 | 16.485254 | 16.485976 | 16.486700 | 16.487420 | 16.488142 | 16.488865 |
| 0.230 | 16.490087 | 16.490809 | 16.491532 | 16.492254 | 16.492976 | 16.493699 | 16.494421 | 16.495144 | 16.495867 | 16.496590 |
| 0.240 | 16.497312 | 16.498035 | 16.498757 | 16.499480 | 16.500203 | 16.500926 | 16.501649 | 16.502372 | 16.503095 | 16.503818 |
| 0.250 | 16.504541 | 16.505264 | 16.505987 | 16.506710 | 16.507433 | 16.508156 | 16.508879 | 16.509603 | 16.510326 | 16.511049 |
| 0.260 | 16.511773 | 16.512496 | 16.513220 | 16.513943 | 16.514667 | 16.515390 | 16.516114 | 16.516837 | 16.517561 | 16.518285 |
| 0.270 | 16.519008 | 16.519732 | 16.520456 | 16.521180 | 16.521904 | 16.522628 | 16.523352 | 16.524076 | 16.524800 | 16.525524 |
| 0.280 | 16.526248 | 16.526972 | 16.527696 | 16.528420 | 16.529144 | 16.529869 | 16.530593 | 16.531317 | 16.532042 | 16.532766 |
| 0.290 | 16.533490 | 16.534215 | 16.534939 | 16.535664 | 16.536388 | 16.537113 | 16.537838 | 16.538563 | 16.539287 | 16.540012 |
| 0.300 | 16.540737 | 16.541461 | 16.542186 | 16.542911 | 16.543636 | 16.544361 | 16.545086 | 16.545811 | 16.546536 | 16.547261 |
| 0.310 | 16.547987 | 16.548712 | 16.549437 | 16.550162 | 16.550888 | 16.551613 | 16.552338 | 16.553064 | 16.553789 | 16.554515 |
| 0.320 | 16.555240 | 16.555966 | 16.556691 | 16.557417 | 16.558142 | 16.558868 | 16.559594 | 16.560320 | 16.561045 | 16.561771 |
| 0.330 | 16.562497 | 16.563223 | 16.563949 | 16.564675 | 16.565401 | 16.566127 | 16.566853 | 16.567579 | 16.568305 | 16.569031 |
| 0.340 | 16.569758 | 16.570484 | 16.571210 | 16.571936 | 16.572663 | 16.573389 | 16.574116 | 16.574842 | 16.575569 | 16.576295 |
| 0.350 | 16.577022 | 16.577748 | 16.578475 | 16.579202 | 16.579928 | 16.580655 | 16.581382 | 16.582109 | 16.582836 | 16.583563 |
| 0.360 | 16.584289 | 16.585016 | 16.585743 | 16.586470 | 16.587198 | 16.587925 | 16.588652 | 16.589379 | 16.590106 | 16.590833 |
| 0.370 | 16.591561 | 16.592288 | 16.593015 | 16.593743 | 16.594470 | 16.595198 | 16.595925 | 16.596653 | 16.597380 | 16.598106 |
| 0.380 | 16.598835 | 16.599563 | 16.600291 | 16.601019 | 16.601747 | 16.602475 | 16.603202 | 16.603930 | 16.604658 | 16.605386 |
| 0.390 | 16.606114 | 16.606842 | 16.607570 | 16.608298 | 16.609026 | 16.609755 | 16.610483 | 16.611211 | 16.611939 | 16.612668 |
| 0.400 | 16.613396 | 16.614124 | 16.614853 | 16.615581 | 16.616310 | 16.617038 | 16.617767 | 16.618495 | 16.619224 | 16.619953 |
| 0.410 | 16.620682 | 16.621410 | 16.622139 | 16.622868 | 16.623597 | 16.624326 | 16.625055 | 16.625783 | 16.626513 | 16.627242 |
| 0.420 | 16.627971 | 16.628700 | 16.629429 | 16.630158 | 16.630887 | 16.631617 | 16.632346 | 16.633075 | 16.633805 | 16.634534 |
| 0.430 | 16.635263 | 16.635993 | 16.636722 | 16.637451 | 16.638181 | 16.638911 | 16.639641 | 16.640371 | 16.641100 | 16.641830 |
| 0.440 | 16.642560 | 16.643290 | 16.644019 | 16.644749 | 16.645479 | 16.646209 | 16.646939 | 16.647669 | 16.648399 | 16.649130 |
| 0.450 | 16.649860 | 16.650590 | 16.651320 | 16.652050 | 16.652781 | 16.653511 | 16.654241 | 16.654972 | 16.655702 | 16.656433 |
| 0.460 | 16.657163 | 16.657894 | 16.658624 | 16.659355 | 16.660086 | 16.660816 | 16.661547 | 16.662278 | 16.663009 | 16.663739 |
| 0.470 | 16.664470 | 16.665201 | 16.665932 | 16.666663 | 16.667394 | 16.668125 | 16.668856 | 16.669587 | 16.670318 | 16.671050 |
| 0.480 | 16.671781 | 16.672513 | 16.673244 | 16.673975 | 16.674706 | 16.675438 | 16.676169 | 16.676901 | 16.677632 | 16.678364 |
| 0.490 | 16.679096 | 16.679828 | 16.680559 | 16.681290 | 16.682022 | 16.682754 | 16.683486 | 16.684218 | 16.684950 | 16.685682 |

ATTENUATION IN DECIBELS
THETA FROM 67.500 TO 67.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 16.686414 | 16.687145 | 16.687877 | 16.688610 | 16.689342 | 16.690074 | 16.690806 | 16.691538 | 16.692271 | 16.693003 |
| 0.510 | 16.693735 | 16.694467 | 16.695200 | 16.695932 | 16.696665 | 16.697397 | 16.698130 | 16.698862 | 16.699595 | 16.700328 |
| 0.520 | 16.701060 | 16.701793 | 16.702526 | 16.703259 | 16.703991 | 16.704724 | 16.705457 | 16.706190 | 16.706923 | 16.707656 |
| 0.530 | 16.708389 | 16.709122 | 16.709855 | 16.710588 | 16.711322 | 16.712055 | 16.712788 | 16.713521 | 16.714255 | 16.714988 |
| 0.540 | 16.715721 | 16.716455 | 16.717188 | 16.717922 | 16.718655 | 16.719389 | 16.720123 | 16.720856 | 16.721590 | 16.722324 |
| 0.550 | 16.723058 | 16.723791 | 16.724525 | 16.725259 | 16.725993 | 16.726726 | 16.727461 | 16.728195 | 16.728929 | 16.729663 |
| 0.560 | 16.730397 | 16.731131 | 16.731866 | 16.732600 | 16.733334 | 16.734068 | 16.734803 | 16.735537 | 16.736272 | 16.737006 |
| 0.570 | 16.737741 | 16.738475 | 16.739210 | 16.739944 | 16.740679 | 16.741414 | 16.742148 | 16.742883 | 16.743618 | 16.744353 |
| 0.580 | 16.745087 | 16.745822 | 16.746557 | 16.747292 | 16.748027 | 16.748762 | 16.749497 | 16.750232 | 16.750968 | 16.751703 |
| 0.590 | 16.752438 | 16.753173 | 16.753909 | 16.754644 | 16.755379 | 16.756115 | 16.756850 | 16.757586 | 16.758321 | 16.759057 |
| 0.600 | 16.759792 | 16.760528 | 16.761264 | 16.761999 | 16.762735 | 16.763471 | 16.764207 | 16.764942 | 16.765678 | 16.766414 |
| 0.610 | 16.767150 | 16.767886 | 16.768622 | 16.769358 | 16.770094 | 16.770830 | 16.771567 | 16.772303 | 16.773039 | 16.773775 |
| 0.620 | 16.774512 | 16.775248 | 16.775985 | 16.776721 | 16.777457 | 16.778194 | 16.778930 | 16.779667 | 16.780404 | 16.781140 |
| 0.630 | 16.781877 | 16.782614 | 16.783350 | 16.784087 | 16.784824 | 16.785561 | 16.786298 | 16.787035 | 16.787772 | 16.788509 |
| 0.640 | 16.789246 | 16.789983 | 16.790720 | 16.791457 | 16.792194 | 16.792932 | 16.793669 | 16.794406 | 16.795143 | 16.795881 |
| 0.650 | 16.796618 | 16.797356 | 16.798093 | 16.798831 | 16.799568 | 16.800306 | 16.801044 | 16.801781 | 16.802519 | 16.803257 |
| 0.660 | 16.803994 | 16.804732 | 16.805470 | 16.806208 | 16.806946 | 16.807684 | 16.808422 | 16.809160 | 16.809898 | 16.810636 |
| 0.670 | 16.811374 | 16.812112 | 16.812850 | 16.813589 | 16.814327 | 16.815065 | 16.815804 | 16.816542 | 16.817281 | 16.818019 |
| 0.680 | 16.818758 | 16.819496 | 16.820235 | 16.820973 | 16.821712 | 16.822451 | 16.823189 | 16.823928 | 16.824667 | 16.825406 |
| 0.690 | 16.826145 | 16.826884 | 16.827623 | 16.828362 | 16.829101 | 16.829840 | 16.830579 | 16.831318 | 16.832057 | 16.832796 |
| 0.700 | 16.833536 | 16.834275 | 16.835014 | 16.835754 | 16.836493 | 16.837232 | 16.837972 | 16.838711 | 16.839451 | 16.840190 |
| 0.710 | 16.840930 | 16.841670 | 16.842409 | 16.843149 | 16.843889 | 16.844629 | 16.845369 | 16.846108 | 16.846848 | 16.847588 |
| 0.720 | 16.848378 | 16.849118 | 16.849858 | 16.850598 | 16.851339 | 16.852079 | 16.852819 | 16.853559 | 16.854299 | 16.855039 |
| 0.730 | 16.855730 | 16.856471 | 16.857211 | 16.857951 | 16.858692 | 16.859432 | 16.860173 | 16.860914 | 16.861654 | 16.862395 |
| 0.740 | 16.863136 | 16.863876 | 16.864617 | 16.865358 | 16.866099 | 16.866840 | 16.867581 | 16.868322 | 16.869063 | 16.869804 |
| 0.750 | 16.870545 | 16.871286 | 16.872027 | 16.872768 | 16.873510 | 16.874251 | 16.874992 | 16.875734 | 16.876475 | 16.877216 |
| 0.760 | 16.879558 | 16.880300 | 16.881041 | 16.881782 | 16.882524 | 16.883266 | 16.884007 | 16.884749 | 16.885491 | 16.886233 |
| 0.770 | 16.885374 | 16.886116 | 16.886858 | 16.887600 | 16.888342 | 16.889084 | 16.889826 | 16.890568 | 16.891310 | 16.892052 |
| 0.780 | 16.892795 | 16.893537 | 16.894279 | 16.895021 | 16.895764 | 16.896506 | 16.897249 | 16.897991 | 16.898734 | 16.899476 |
| 0.790 | 16.900219 | 16.900961 | 16.901704 | 16.902447 | 16.903189 | 16.903932 | 16.904675 | 16.905418 | 16.906161 | 16.906904 |
| 0.800 | 16.907646 | 16.908389 | 16.909132 | 16.909875 | 16.910619 | 16.911362 | 16.912105 | 16.912848 | 16.913591 | 16.914335 |
| 0.810 | 16.915078 | 16.915821 | 16.916564 | 16.917308 | 16.918051 | 16.918795 | 16.919538 | 16.920282 | 16.921026 | 16.921769 |
| 0.820 | 16.922515 | 16.923257 | 16.924001 | 16.924744 | 16.925488 | 16.926232 | 16.926976 | 16.927720 | 16.928464 | 16.929208 |
| 0.830 | 16.929952 | 16.930696 | 16.931440 | 16.932184 | 16.932928 | 16.933673 | 16.934417 | 16.935161 | 16.935905 | 16.936650 |
| 0.840 | 16.937394 | 16.938139 | 16.938883 | 16.939628 | 16.940372 | 16.941117 | 16.941862 | 16.942606 | 16.943351 | 16.944096 |
| 0.850 | 16.944841 | 16.945585 | 16.946330 | 16.947075 | 16.947820 | 16.948565 | 16.949310 | 16.950055 | 16.950800 | 16.951545 |
| 0.860 | 16.952291 | 16.953036 | 16.953781 | 16.954527 | 16.955272 | 16.956017 | 16.956762 | 16.957508 | 16.958253 | 16.958999 |
| 0.870 | 16.959744 | 16.960490 | 16.961236 | 16.961981 | 16.962727 | 16.963473 | 16.964218 | 16.964964 | 16.965710 | 16.966456 |
| 0.880 | 16.967207 | 16.967948 | 16.968694 | 16.969440 | 16.970186 | 16.970932 | 16.971678 | 16.972424 | 16.973171 | 16.973917 |
| 0.890 | 16.974663 | 16.975409 | 16.976156 | 16.976902 | 16.977648 | 16.978395 | 16.979141 | 16.979888 | 16.980635 | 16.981381 |
| 0.900 | 16.982128 | 16.982875 | 16.983621 | 16.984368 | 16.985115 | 16.985862 | 16.986609 | 16.987355 | 16.988102 | 16.988849 |
| 0.910 | 16.989597 | 16.990344 | 16.991091 | 16.991838 | 16.992585 | 16.993332 | 16.994080 | 16.994827 | 16.995574 | 16.996321 |
| 0.920 | 16.997069 | 16.997816 | 16.998564 | 16.999311 | 17.000059 | 17.000807 | 17.001554 | 17.002302 | 17.003050 | 17.003797 |
| 0.930 | 17.004545 | 17.005293 | 17.006041 | 17.006789 | 17.007537 | 17.008285 | 17.009033 | 17.009781 | 17.010529 | 17.011277 |
| 0.940 | 17.012025 | 17.012773 | 17.013521 | 17.014270 | 17.015018 | 17.015766 | 17.016515 | 17.017263 | 17.018012 | 17.018760 |
| 0.950 | 17.019509 | 17.020257 | 17.021006 | 17.021755 | 17.022503 | 17.023252 | 17.024001 | 17.024749 | 17.025498 | 17.026247 |
| 0.960 | 17.026976 | 17.027725 | 17.028474 | 17.029223 | 17.029972 | 17.030721 | 17.031470 | 17.032219 | 17.032968 | 17.033717 |
| 0.970 | 17.034487 | 17.035236 | 17.035985 | 17.036735 | 17.037484 | 17.038233 | 17.038982 | 17.039731 | 17.040481 | 17.041230 |
| 0.980 | 17.041982 | 17.042732 | 17.043482 | 17.044231 | 17.044981 | 17.045731 | 17.046481 | 17.047231 | 17.047981 | 17.048731 |
| 0.990 | 17.049481 | 17.050231 | 17.050981 | 17.051731 | 17.052481 | 17.053231 | 17.053982 | 17.054732 | 17.055482 | 17.056233 |

ATTENUATION IN DECIBELS
 THETA FROM 68.000 TO 68.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 17.056983 | 17.057734 | 17.058484 | 17.059235 | 17.059985 | 17.060736 | 17.061486 | 17.062237 | 17.062988 | 17.063739 |
| 0.010 | 17.064489 | 17.065240 | 17.065991 | 17.066742 | 17.067493 | 17.068244 | 17.068995 | 17.069746 | 17.070497 | 17.071248 |
| 0.020 | 17.071993 | 17.072751 | 17.073502 | 17.074253 | 17.075005 | 17.075756 | 17.076507 | 17.077259 | 17.078010 | 17.078762 |
| 0.030 | 17.079513 | 17.080265 | 17.081016 | 17.081768 | 17.082520 | 17.083272 | 17.084023 | 17.084775 | 17.085527 | 17.086279 |
| 0.040 | 17.087031 | 17.087783 | 17.088535 | 17.089287 | 17.090039 | 17.090791 | 17.091543 | 17.092295 | 17.093047 | 17.093800 |
| 0.050 | 17.094552 | 17.095304 | 17.096057 | 17.096809 | 17.097562 | 17.098314 | 17.099067 | 17.099819 | 17.100572 | 17.101325 |
| 0.060 | 17.102077 | 17.102830 | 17.103583 | 17.104336 | 17.105088 | 17.105841 | 17.106594 | 17.107347 | 17.108100 | 17.108853 |
| 0.070 | 17.109606 | 17.110359 | 17.111112 | 17.111866 | 17.112619 | 17.113372 | 17.114125 | 17.114879 | 17.115632 | 17.116385 |
| 0.080 | 17.117139 | 17.117892 | 17.118646 | 17.119399 | 17.120153 | 17.120907 | 17.121660 | 17.122414 | 17.123168 | 17.123921 |
| 0.090 | 17.124675 | 17.125429 | 17.126183 | 17.126937 | 17.127691 | 17.128445 | 17.129199 | 17.129953 | 17.130707 | 17.131461 |
| 0.100 | 17.132216 | 17.132970 | 17.133724 | 17.134479 | 17.135233 | 17.135987 | 17.136742 | 17.137496 | 17.138251 | 17.139005 |
| 0.110 | 17.139760 | 17.140514 | 17.141269 | 17.142024 | 17.142778 | 17.143533 | 17.144288 | 17.145043 | 17.145798 | 17.146553 |
| 0.120 | 17.147308 | 17.148062 | 17.148817 | 17.149573 | 17.150328 | 17.151083 | 17.151838 | 17.152593 | 17.153349 | 17.154104 |
| 0.130 | 17.154859 | 17.155615 | 17.156370 | 17.157126 | 17.157881 | 17.158637 | 17.159392 | 17.160148 | 17.160903 | 17.161659 |
| 0.140 | 17.162415 | 17.163171 | 17.163926 | 17.164682 | 17.165438 | 17.166194 | 17.166950 | 17.167706 | 17.168462 | 17.169218 |
| 0.150 | 17.169974 | 17.170730 | 17.171487 | 17.172243 | 17.172999 | 17.173755 | 17.174512 | 17.175268 | 17.176024 | 17.176781 |
| 0.160 | 17.177537 | 17.178294 | 17.179050 | 17.179807 | 17.180564 | 17.181320 | 17.182077 | 17.182834 | 17.183591 | 17.184348 |
| 0.170 | 17.185104 | 17.185861 | 17.186618 | 17.187375 | 17.188132 | 17.188889 | 17.189646 | 17.190404 | 17.191161 | 17.191918 |
| 0.180 | 17.192675 | 17.193433 | 17.194190 | 17.194947 | 17.195705 | 17.196462 | 17.197220 | 17.197977 | 17.198735 | 17.199492 |
| 0.190 | 17.200250 | 17.201008 | 17.201765 | 17.202523 | 17.203281 | 17.204039 | 17.204797 | 17.205554 | 17.206312 | 17.207070 |
| 0.200 | 17.207829 | 17.208586 | 17.209345 | 17.210103 | 17.210861 | 17.211619 | 17.212377 | 17.213136 | 17.213894 | 17.214652 |
| 0.210 | 17.215411 | 17.216169 | 17.216928 | 17.217686 | 17.218445 | 17.219203 | 17.219962 | 17.220721 | 17.221479 | 17.222238 |
| 0.220 | 17.222997 | 17.223756 | 17.224515 | 17.225274 | 17.226032 | 17.226791 | 17.227551 | 17.228310 | 17.229069 | 17.229828 |
| 0.230 | 17.230587 | 17.231346 | 17.232105 | 17.232865 | 17.233624 | 17.234383 | 17.235143 | 17.235902 | 17.236662 | 17.237421 |
| 0.240 | 17.238181 | 17.238940 | 17.239700 | 17.240460 | 17.241220 | 17.241979 | 17.242739 | 17.243499 | 17.244259 | 17.245018 |
| 0.250 | 17.245779 | 17.246538 | 17.247298 | 17.248059 | 17.248819 | 17.249579 | 17.250339 | 17.251099 | 17.251859 | 17.252620 |
| 0.260 | 17.253380 | 17.254140 | 17.254901 | 17.255661 | 17.256422 | 17.257182 | 17.257943 | 17.258703 | 17.259464 | 17.260225 |
| 0.270 | 17.260985 | 17.261746 | 17.262507 | 17.263268 | 17.264029 | 17.264790 | 17.265551 | 17.266312 | 17.267073 | 17.267834 |
| 0.280 | 17.268595 | 17.269356 | 17.270117 | 17.270878 | 17.271640 | 17.272401 | 17.273162 | 17.273924 | 17.274685 | 17.275446 |
| 0.290 | 17.276208 | 17.276969 | 17.277731 | 17.278493 | 17.279254 | 17.280016 | 17.280778 | 17.281539 | 17.282301 | 17.283063 |
| 0.300 | 17.283825 | 17.284587 | 17.285349 | 17.286111 | 17.286873 | 17.287635 | 17.288397 | 17.289159 | 17.289921 | 17.290684 |
| 0.310 | 17.291446 | 17.292208 | 17.292970 | 17.293733 | 17.294495 | 17.295258 | 17.296020 | 17.296783 | 17.297545 | 17.298308 |
| 0.320 | 17.299071 | 17.299833 | 17.300596 | 17.301359 | 17.302122 | 17.302884 | 17.303647 | 17.304410 | 17.305173 | 17.305936 |
| 0.330 | 17.306699 | 17.307462 | 17.308225 | 17.308989 | 17.309752 | 17.310515 | 17.311278 | 17.312042 | 17.312805 | 17.313568 |
| 0.340 | 17.314332 | 17.315095 | 17.315859 | 17.316622 | 17.317386 | 17.318149 | 17.318913 | 17.319677 | 17.320441 | 17.321204 |
| 0.350 | 17.321968 | 17.322732 | 17.323496 | 17.324260 | 17.325024 | 17.325788 | 17.326552 | 17.327316 | 17.328080 | 17.328844 |
| 0.360 | 17.329608 | 17.330373 | 17.331137 | 17.331901 | 17.332666 | 17.333430 | 17.334194 | 17.334959 | 17.335723 | 17.336488 |
| 0.370 | 17.337253 | 17.338017 | 17.338782 | 17.339547 | 17.340311 | 17.341076 | 17.341841 | 17.342606 | 17.343371 | 17.344136 |
| 0.380 | 17.344901 | 17.345666 | 17.346431 | 17.347196 | 17.347961 | 17.348726 | 17.349491 | 17.350257 | 17.351022 | 17.351787 |
| 0.390 | 17.352553 | 17.353318 | 17.354084 | 17.354849 | 17.355614 | 17.356380 | 17.357146 | 17.357911 | 17.358677 | 17.359443 |
| 0.400 | 17.360209 | 17.360974 | 17.361740 | 17.362506 | 17.363272 | 17.364038 | 17.364804 | 17.365570 | 17.366336 | 17.367102 |
| 0.410 | 17.367868 | 17.368634 | 17.369401 | 17.370167 | 17.370933 | 17.371700 | 17.372466 | 17.373232 | 17.373999 | 17.374765 |
| 0.420 | 17.375332 | 17.376299 | 17.377065 | 17.377832 | 17.378598 | 17.379365 | 17.380132 | 17.380899 | 17.381666 | 17.382433 |
| 0.430 | 17.383199 | 17.383966 | 17.384733 | 17.385500 | 17.386268 | 17.387035 | 17.387802 | 17.388569 | 17.389336 | 17.390104 |
| 0.440 | 17.390871 | 17.391639 | 17.392406 | 17.393173 | 17.393941 | 17.394708 | 17.395476 | 17.396244 | 17.397011 | 17.397779 |
| 0.450 | 17.398546 | 17.399314 | 17.400082 | 17.400850 | 17.401618 | 17.402386 | 17.403154 | 17.403922 | 17.404690 | 17.405458 |
| 0.460 | 17.406226 | 17.406994 | 17.407762 | 17.408530 | 17.409299 | 17.410067 | 17.410835 | 17.411604 | 17.412372 | 17.413141 |
| 0.470 | 17.413909 | 17.414678 | 17.415446 | 17.416215 | 17.416984 | 17.417752 | 17.418521 | 17.419290 | 17.420058 | 17.420827 |
| 0.480 | 17.421596 | 17.422365 | 17.423134 | 17.423903 | 17.424672 | 17.425442 | 17.426211 | 17.426980 | 17.427749 | 17.428518 |
| 0.490 | 17.429287 | 17.430057 | 17.430826 | 17.431596 | 17.432365 | 17.433135 | 17.433904 | 17.434674 | 17.435443 | 17.436213 |

ATTENUATION IN DECIBELS
THETA FROM 68.500 TO 68.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.507 | 17.4326983 | 17.437752 | 17.438522 | 17.439292 | 17.440062 | 17.440832 | 17.441602 | 17.442371 | 17.443141 | 17.443912 |
| 0.510 | 17.444682 | 17.445452 | 17.446222 | 17.446992 | 17.447762 | 17.448533 | 17.449303 | 17.450073 | 17.450844 | 17.451614 |
| 0.520 | 17.452384 | 17.453155 | 17.453926 | 17.454696 | 17.455467 | 17.456238 | 17.457008 | 17.457779 | 17.458550 | 17.459321 |
| 0.530 | 17.460091 | 17.460862 | 17.461633 | 17.462404 | 17.463175 | 17.463946 | 17.464717 | 17.465489 | 17.466260 | 17.467031 |
| 0.540 | 17.467802 | 17.468574 | 17.469345 | 17.470116 | 17.470888 | 17.471659 | 17.472431 | 17.473202 | 17.473974 | 17.474746 |
| 0.550 | 17.475517 | 17.476289 | 17.477061 | 17.477832 | 17.478604 | 17.479376 | 17.480148 | 17.480920 | 17.481692 | 17.482464 |
| 0.560 | 17.483236 | 17.484008 | 17.484780 | 17.485552 | 17.486325 | 17.487097 | 17.487869 | 17.488642 | 17.489414 | 17.490186 |
| 0.570 | 17.490959 | 17.491731 | 17.492504 | 17.493276 | 17.494049 | 17.494822 | 17.495594 | 17.496367 | 17.497140 | 17.497912 |
| 0.580 | 17.498685 | 17.499458 | 17.500231 | 17.501004 | 17.501777 | 17.502550 | 17.503323 | 17.504096 | 17.504869 | 17.505643 |
| 0.590 | 17.506416 | 17.507189 | 17.507963 | 17.508736 | 17.509509 | 17.510282 | 17.511056 | 17.511830 | 17.512603 | 17.513377 |
| 0.600 | 17.514151 | 17.514924 | 17.515698 | 17.516472 | 17.517246 | 17.518019 | 17.518793 | 17.519567 | 17.520341 | 17.521115 |
| 0.610 | 17.521889 | 17.522663 | 17.523438 | 17.524212 | 17.524986 | 17.525760 | 17.526534 | 17.527309 | 17.528083 | 17.528857 |
| 0.620 | 17.529632 | 17.530406 | 17.531181 | 17.531955 | 17.532730 | 17.533504 | 17.534279 | 17.535054 | 17.535829 | 17.536603 |
| 0.630 | 17.537378 | 17.538153 | 17.538928 | 17.539703 | 17.540478 | 17.541253 | 17.542028 | 17.542803 | 17.543578 | 17.544354 |
| 0.640 | 17.545129 | 17.545904 | 17.546679 | 17.547455 | 17.548230 | 17.549006 | 17.549781 | 17.550557 | 17.551332 | 17.552108 |
| 0.650 | 17.552883 | 17.553659 | 17.554435 | 17.555211 | 17.555986 | 17.556762 | 17.557538 | 17.558314 | 17.559090 | 17.559866 |
| 0.660 | 17.560642 | 17.561418 | 17.562194 | 17.562970 | 17.563746 | 17.564523 | 17.565299 | 17.566075 | 17.566852 | 17.567628 |
| 0.670 | 17.568404 | 17.569181 | 17.569957 | 17.570734 | 17.571511 | 17.572287 | 17.573064 | 17.573841 | 17.574617 | 17.575394 |
| 0.680 | 17.576171 | 17.576948 | 17.577725 | 17.578502 | 17.579279 | 17.580056 | 17.580833 | 17.581610 | 17.582387 | 17.583164 |
| 0.690 | 17.583941 | 17.584719 | 17.585496 | 17.586273 | 17.587051 | 17.587828 | 17.588606 | 17.589383 | 17.590161 | 17.590939 |
| 0.700 | 17.591716 | 17.592494 | 17.593271 | 17.594049 | 17.594827 | 17.595605 | 17.596383 | 17.597161 | 17.597939 | 17.598717 |
| 0.710 | 17.599495 | 17.600273 | 17.601051 | 17.601829 | 17.602607 | 17.603385 | 17.604164 | 17.604942 | 17.605720 | 17.606499 |
| 0.720 | 17.607277 | 17.608056 | 17.608834 | 17.609613 | 17.610391 | 17.611170 | 17.611949 | 17.612727 | 17.613506 | 17.614285 |
| 0.730 | 17.615064 | 17.615843 | 17.616621 | 17.617401 | 17.618180 | 17.618959 | 17.619738 | 17.620517 | 17.621296 | 17.622075 |
| 0.740 | 17.622854 | 17.623634 | 17.624413 | 17.625192 | 17.625972 | 17.626751 | 17.627531 | 17.628310 | 17.629090 | 17.629869 |
| 0.750 | 17.630649 | 17.631429 | 17.632208 | 17.632988 | 17.633768 | 17.634548 | 17.635328 | 17.636108 | 17.636888 | 17.637668 |
| 0.760 | 17.638448 | 17.639228 | 17.640008 | 17.640788 | 17.641568 | 17.642349 | 17.643129 | 17.643909 | 17.644690 | 17.645470 |
| 0.770 | 17.646250 | 17.647031 | 17.647811 | 17.648592 | 17.649373 | 17.650153 | 17.650934 | 17.651715 | 17.652495 | 17.653276 |
| 0.780 | 17.654057 | 17.654838 | 17.655619 | 17.656400 | 17.657181 | 17.657962 | 17.658743 | 17.659524 | 17.660306 | 17.661087 |
| 0.790 | 17.661863 | 17.662649 | 17.663430 | 17.664212 | 17.664993 | 17.665775 | 17.666556 | 17.667338 | 17.668119 | 17.668901 |
| 0.800 | 17.669683 | 17.670464 | 17.671246 | 17.672028 | 17.672810 | 17.673592 | 17.674373 | 17.675155 | 17.675937 | 17.676719 |
| 0.810 | 17.677501 | 17.678284 | 17.679066 | 17.679848 | 17.680630 | 17.681412 | 17.682195 | 17.682977 | 17.683759 | 17.684542 |
| 0.820 | 17.685324 | 17.686107 | 17.686889 | 17.687672 | 17.688455 | 17.689237 | 17.690020 | 17.690803 | 17.691586 | 17.692369 |
| 0.830 | 17.693151 | 17.693934 | 17.694717 | 17.695500 | 17.696283 | 17.697066 | 17.697850 | 17.698633 | 17.699416 | 17.700199 |
| 0.840 | 17.700982 | 17.701766 | 17.702549 | 17.703332 | 17.704116 | 17.704899 | 17.705683 | 17.706466 | 17.707250 | 17.708034 |
| 0.850 | 17.709817 | 17.710601 | 17.711385 | 17.712169 | 17.712953 | 17.713737 | 17.714521 | 17.715304 | 17.716088 | 17.716873 |
| 0.860 | 17.716657 | 17.717441 | 17.718225 | 17.719009 | 17.719793 | 17.720578 | 17.721362 | 17.722147 | 17.722931 | 17.723715 |
| 0.870 | 17.724500 | 17.725284 | 17.726069 | 17.726854 | 17.727638 | 17.728423 | 17.729208 | 17.729992 | 17.730777 | 17.731562 |
| 0.880 | 17.732347 | 17.733132 | 17.733917 | 17.734702 | 17.735487 | 17.736272 | 17.737057 | 17.737843 | 17.738628 | 17.739413 |
| 0.890 | 17.740198 | 17.740984 | 17.741769 | 17.742555 | 17.743340 | 17.744126 | 17.744911 | 17.745697 | 17.746482 | 17.747268 |
| 0.900 | 17.748054 | 17.748840 | 17.749625 | 17.750411 | 17.751197 | 17.751983 | 17.752769 | 17.753555 | 17.754341 | 17.755127 |
| 0.910 | 17.755913 | 17.756700 | 17.757486 | 17.758272 | 17.759058 | 17.759845 | 17.760631 | 17.761417 | 17.762204 | 17.762990 |
| 0.920 | 17.763777 | 17.764564 | 17.765350 | 17.766137 | 17.766924 | 17.767710 | 17.768497 | 17.769284 | 17.770071 | 17.770858 |
| 0.930 | 17.771645 | 17.772432 | 17.773219 | 17.774006 | 17.774793 | 17.775580 | 17.776367 | 17.777154 | 17.777942 | 17.778729 |
| 0.940 | 17.779516 | 17.780304 | 17.781091 | 17.781879 | 17.782666 | 17.783454 | 17.784241 | 17.785029 | 17.785817 | 17.786605 |
| 0.950 | 17.787392 | 17.788180 | 17.788968 | 17.789756 | 17.790544 | 17.791332 | 17.792120 | 17.792908 | 17.793696 | 17.794484 |
| 0.960 | 17.795272 | 17.796061 | 17.796849 | 17.797637 | 17.798425 | 17.799214 | 17.800002 | 17.800791 | 17.801579 | 17.802368 |
| 0.970 | 17.803156 | 17.803945 | 17.804734 | 17.805522 | 17.806311 | 17.807100 | 17.807889 | 17.808678 | 17.809467 | 17.810256 |
| 0.980 | 17.811045 | 17.811834 | 17.812623 | 17.813412 | 17.814201 | 17.814990 | 17.815779 | 17.816569 | 17.817358 | 17.818148 |
| 0.990 | 17.818937 | 17.819726 | 17.820516 | 17.821306 | 17.822095 | 17.822885 | 17.823674 | 17.824464 | 17.825254 | 17.826044 |

ATTENUATION IN DECIBELS
THETA FROM 69.000 TO 69.499 DEGREES

| THETA IN DEGREES | 0.003 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 17.826833 | 17.827623 | 17.828413 | 17.829203 | 17.829993 | 17.830783 | 17.831573 | 17.832363 | 17.833153 | 17.833944 |
| 0.010 | 17.834734 | 17.835524 | 17.836315 | 17.837105 | 17.837895 | 17.838686 | 17.839476 | 17.840267 | 17.841057 | 17.841848 |
| 0.020 | 17.842639 | 17.843429 | 17.844220 | 17.845011 | 17.845802 | 17.846592 | 17.847383 | 17.848174 | 17.848965 | 17.849756 |
| 0.030 | 17.850548 | 17.851339 | 17.852130 | 17.852921 | 17.853712 | 17.854503 | 17.855295 | 17.856086 | 17.856878 | 17.857669 |
| 0.040 | 17.858460 | 17.859252 | 17.860044 | 17.860835 | 17.861627 | 17.862418 | 17.863210 | 17.864002 | 17.864794 | 17.865586 |
| 0.050 | 17.866377 | 17.867169 | 17.867961 | 17.868753 | 17.869545 | 17.870337 | 17.871130 | 17.871922 | 17.872714 | 17.873506 |
| 0.060 | 17.874299 | 17.875091 | 17.875883 | 17.876676 | 17.877468 | 17.878261 | 17.879053 | 17.879846 | 17.880639 | 17.881431 |
| 0.070 | 17.882224 | 17.883017 | 17.883810 | 17.884603 | 17.885395 | 17.886188 | 17.886981 | 17.887774 | 17.888567 | 17.889360 |
| 0.080 | 17.890153 | 17.890947 | 17.891740 | 17.892533 | 17.893327 | 17.894120 | 17.894913 | 17.895707 | 17.896500 | 17.897294 |
| 0.090 | 17.898087 | 17.898881 | 17.899674 | 17.900468 | 17.901262 | 17.902056 | 17.902849 | 17.903643 | 17.904437 | 17.905231 |
| 0.100 | 17.906025 | 17.906819 | 17.907613 | 17.908407 | 17.909201 | 17.909996 | 17.910790 | 17.911584 | 17.912378 | 17.913172 |
| 0.110 | 17.913967 | 17.914761 | 17.915556 | 17.916350 | 17.917145 | 17.917939 | 17.918734 | 17.919529 | 17.920324 | 17.921118 |
| 0.120 | 17.921913 | 17.922708 | 17.923503 | 17.924298 | 17.925093 | 17.925888 | 17.926683 | 17.927478 | 17.928273 | 17.929068 |
| 0.130 | 17.929863 | 17.930659 | 17.931454 | 17.932249 | 17.933045 | 17.933840 | 17.934636 | 17.935431 | 17.936227 | 17.937022 |
| 0.140 | 17.937818 | 17.938613 | 17.939409 | 17.940205 | 17.941001 | 17.941797 | 17.942593 | 17.943388 | 17.944184 | 17.944980 |
| 0.150 | 17.945776 | 17.946573 | 17.947369 | 17.948165 | 17.948961 | 17.949757 | 17.950554 | 17.951350 | 17.952146 | 17.952943 |
| 0.160 | 17.953739 | 17.954536 | 17.955332 | 17.956129 | 17.956926 | 17.957722 | 17.958519 | 17.959316 | 17.960113 | 17.960909 |
| 0.170 | 17.961706 | 17.962503 | 17.963300 | 17.964097 | 17.964894 | 17.965691 | 17.966489 | 17.967286 | 17.968083 | 17.968880 |
| 0.180 | 17.969677 | 17.970475 | 17.971272 | 17.972070 | 17.972867 | 17.973665 | 17.974462 | 17.975260 | 17.976058 | 17.976855 |
| 0.190 | 17.977653 | 17.978451 | 17.979248 | 17.980046 | 17.980844 | 17.981642 | 17.982440 | 17.983238 | 17.984036 | 17.984834 |
| 0.200 | 17.986632 | 17.987431 | 17.988229 | 17.989027 | 17.989825 | 17.990624 | 17.991422 | 17.992220 | 17.993019 | 17.993818 |
| 0.210 | 17.993616 | 17.994415 | 17.995214 | 17.996012 | 17.996811 | 17.997610 | 17.998408 | 17.999207 | 18.000006 | 18.000805 |
| 0.220 | 18.001604 | 18.002403 | 18.003202 | 18.004001 | 18.004801 | 18.005600 | 18.006399 | 18.007198 | 18.007998 | 18.008797 |
| 0.230 | 18.009596 | 18.010396 | 18.011195 | 18.011995 | 18.012794 | 18.013594 | 18.014394 | 18.015193 | 18.015993 | 18.016793 |
| 0.240 | 18.017593 | 18.018393 | 18.019192 | 18.019992 | 18.020792 | 18.021592 | 18.022393 | 18.023193 | 18.023993 | 18.024793 |
| 0.250 | 18.025593 | 18.026393 | 18.027194 | 18.027994 | 18.028795 | 18.029595 | 18.030396 | 18.031196 | 18.031997 | 18.032797 |
| 0.260 | 18.033598 | 18.034399 | 18.035200 | 18.036000 | 18.036801 | 18.037602 | 18.038403 | 18.039204 | 18.040005 | 18.040806 |
| 0.270 | 18.041607 | 18.042408 | 18.043209 | 18.044011 | 18.044812 | 18.045613 | 18.046414 | 18.047216 | 18.048017 | 18.048819 |
| 0.280 | 18.049620 | 18.050422 | 18.051224 | 18.052025 | 18.052827 | 18.053628 | 18.054430 | 18.055232 | 18.056034 | 18.056836 |
| 0.290 | 18.057638 | 18.058440 | 18.059242 | 18.060044 | 18.060846 | 18.061648 | 18.062450 | 18.063252 | 18.064055 | 18.064857 |
| 0.300 | 18.065660 | 18.066462 | 18.067264 | 18.068067 | 18.068869 | 18.069672 | 18.070474 | 18.071277 | 18.072080 | 18.072883 |
| 0.310 | 18.073685 | 18.074488 | 18.075291 | 18.076094 | 18.076897 | 18.077700 | 18.078503 | 18.079306 | 18.080109 | 18.080912 |
| 0.320 | 18.081716 | 18.082519 | 18.083322 | 18.084126 | 18.084929 | 18.085732 | 18.086536 | 18.087339 | 18.088143 | 18.088946 |
| 0.330 | 18.089750 | 18.090554 | 18.091357 | 18.092161 | 18.092965 | 18.093769 | 18.094573 | 18.095376 | 18.096180 | 18.096985 |
| 0.340 | 18.097789 | 18.098593 | 18.099397 | 18.100201 | 18.101005 | 18.101810 | 18.102614 | 18.103418 | 18.104223 | 18.105027 |
| 0.350 | 18.105832 | 18.106636 | 18.107441 | 18.108245 | 18.109050 | 18.109855 | 18.110659 | 18.111464 | 18.112269 | 18.113074 |
| 0.360 | 18.113879 | 18.114684 | 18.115489 | 18.116294 | 18.117099 | 18.117904 | 18.118709 | 18.119514 | 18.120320 | 18.121125 |
| 0.370 | 18.121930 | 18.122736 | 18.123541 | 18.124346 | 18.125152 | 18.125957 | 18.126763 | 18.127569 | 18.128374 | 18.129180 |
| 0.380 | 18.129986 | 18.130792 | 18.131598 | 18.132403 | 18.133209 | 18.134015 | 18.134821 | 18.135627 | 18.136433 | 18.137240 |
| 0.390 | 18.138046 | 18.138852 | 18.139658 | 18.140465 | 18.141271 | 18.142077 | 18.142884 | 18.143690 | 18.144497 | 18.145303 |
| 0.400 | 18.146110 | 18.146917 | 18.147723 | 18.148530 | 18.149337 | 18.150144 | 18.150951 | 18.151757 | 18.152565 | 18.153372 |
| 0.410 | 18.154179 | 18.154986 | 18.155793 | 18.156600 | 18.157407 | 18.158214 | 18.159022 | 18.159829 | 18.160636 | 18.161444 |
| 0.420 | 18.162251 | 18.163059 | 18.163866 | 18.164674 | 18.165482 | 18.166289 | 18.167097 | 18.167905 | 18.168713 | 18.169520 |
| 0.430 | 18.170328 | 18.171136 | 18.171944 | 18.172752 | 18.173560 | 18.174369 | 18.175177 | 18.175985 | 18.176793 | 18.177601 |
| 0.440 | 18.178410 | 18.179218 | 18.180027 | 18.180835 | 18.181643 | 18.182452 | 18.183261 | 18.184069 | 18.184878 | 18.185687 |
| 0.450 | 18.186495 | 18.187304 | 18.188113 | 18.188922 | 18.189731 | 18.190540 | 18.191349 | 18.192158 | 18.192967 | 18.193776 |
| 0.460 | 18.194585 | 18.195395 | 18.196204 | 18.197013 | 18.197823 | 18.198632 | 18.199441 | 18.200251 | 18.201060 | 18.201870 |
| 0.470 | 18.202680 | 18.203489 | 18.204299 | 18.205109 | 18.205918 | 18.206728 | 18.207538 | 18.208348 | 18.209158 | 18.209968 |
| 0.480 | 18.210778 | 18.211588 | 18.212398 | 18.213208 | 18.214019 | 18.214829 | 18.215639 | 18.216449 | 18.217260 | 18.218071 |
| 0.490 | 18.218881 | 18.219692 | 18.220502 | 18.221313 | 18.222124 | 18.222934 | 18.223745 | 18.224555 | 18.225366 | 18.226177 |

ATTENUATION IN DECI8ELS
 THETA FROM 69.500 TO 69.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 18.226988 | 18.227799 | 18.228610 | 18.229421 | 18.230232 | 18.231043 | 18.231854 | 18.232666 | 18.233477 | 18.234288 |
| 0.510 | 18.235100 | 18.235911 | 18.236722 | 18.237534 | 18.238345 | 18.239157 | 18.239969 | 18.240780 | 18.241592 | 18.242404 |
| 0.520 | 18.243215 | 18.244027 | 18.244839 | 18.245651 | 18.246463 | 18.247275 | 18.248087 | 18.248899 | 18.249711 | 18.250523 |
| 0.530 | 18.251335 | 18.252148 | 18.252960 | 18.253772 | 18.254585 | 18.255397 | 18.256210 | 18.257022 | 18.257835 | 18.258647 |
| 0.540 | 18.259460 | 18.260273 | 18.261085 | 18.261898 | 18.262711 | 18.263524 | 18.264337 | 18.265150 | 18.265963 | 18.266776 |
| 0.550 | 18.267589 | 18.268402 | 18.269215 | 18.270028 | 18.270841 | 18.271655 | 18.272468 | 18.273281 | 18.274095 | 18.274908 |
| 0.560 | 18.275722 | 18.276535 | 18.277348 | 18.278162 | 18.278976 | 18.279790 | 18.280604 | 18.281418 | 18.282231 | 18.283045 |
| 0.570 | 18.283859 | 18.284673 | 18.285487 | 18.286301 | 18.287115 | 18.287930 | 18.288744 | 18.289558 | 18.290372 | 18.291187 |
| 0.580 | 18.292001 | 18.292815 | 18.293630 | 18.294444 | 18.295259 | 18.296073 | 18.296888 | 18.297703 | 18.298517 | 18.299332 |
| 0.590 | 18.300047 | 18.300962 | 18.301777 | 18.302592 | 18.303407 | 18.304222 | 18.305037 | 18.305852 | 18.306667 | 18.307482 |
| 0.600 | 18.308298 | 18.309113 | 18.309928 | 18.310744 | 18.311559 | 18.312374 | 18.313190 | 18.314006 | 18.314821 | 18.315637 |
| 0.610 | 18.316453 | 18.317268 | 18.318084 | 18.318900 | 18.319715 | 18.320531 | 18.321347 | 18.322163 | 18.322979 | 18.323796 |
| 0.620 | 18.324612 | 18.325428 | 18.326244 | 18.327060 | 18.327877 | 18.328693 | 18.329509 | 18.330326 | 18.331142 | 18.331959 |
| 0.630 | 18.332775 | 18.333592 | 18.334409 | 18.335225 | 18.336042 | 18.336859 | 18.337675 | 18.338492 | 18.339309 | 18.340126 |
| 0.640 | 18.340943 | 18.341760 | 18.342577 | 18.343394 | 18.344212 | 18.345029 | 18.345846 | 18.346663 | 18.347481 | 18.348298 |
| 0.650 | 18.349115 | 18.349933 | 18.350750 | 18.351568 | 18.352386 | 18.353203 | 18.354021 | 18.354839 | 18.355656 | 18.356474 |
| 0.660 | 18.357292 | 18.358110 | 18.358928 | 18.359746 | 18.360564 | 18.361382 | 18.362200 | 18.363018 | 18.363837 | 18.364655 |
| 0.670 | 18.365473 | 18.366292 | 18.367110 | 18.367928 | 18.368747 | 18.369565 | 18.370384 | 18.371202 | 18.372021 | 18.372840 |
| 0.680 | 18.373659 | 18.374477 | 18.375296 | 18.376115 | 18.376934 | 18.377753 | 18.378572 | 18.379391 | 18.380210 | 18.381029 |
| 0.690 | 18.381848 | 18.382663 | 18.383487 | 18.384306 | 18.385126 | 18.385945 | 18.386765 | 18.387584 | 18.388403 | 18.389223 |
| 0.700 | 18.390043 | 18.390862 | 18.391682 | 18.392502 | 18.393322 | 18.394141 | 18.394961 | 18.395781 | 18.396601 | 18.397421 |
| 0.710 | 18.398241 | 18.399061 | 18.399882 | 18.400702 | 18.401522 | 18.402342 | 18.403162 | 18.403983 | 18.404803 | 18.405624 |
| 0.720 | 18.406444 | 18.407265 | 18.408085 | 18.408906 | 18.409727 | 18.410547 | 18.411368 | 18.412189 | 18.413010 | 18.413831 |
| 0.730 | 18.414652 | 18.415473 | 18.416294 | 18.417115 | 18.417936 | 18.418757 | 18.419578 | 18.420399 | 18.421221 | 18.422042 |
| 0.740 | 18.422863 | 18.423685 | 18.424506 | 18.425328 | 18.426150 | 18.426971 | 18.427793 | 18.428614 | 18.429436 | 18.430258 |
| 0.750 | 18.431080 | 18.431902 | 18.432724 | 18.433546 | 18.434367 | 18.435189 | 18.436012 | 18.436834 | 18.437656 | 18.438478 |
| 0.760 | 18.439301 | 18.440123 | 18.440945 | 18.441767 | 18.442590 | 18.443413 | 18.444235 | 18.445058 | 18.445880 | 18.446703 |
| 0.770 | 18.447526 | 18.448348 | 18.449171 | 18.449994 | 18.450817 | 18.451640 | 18.452463 | 18.453286 | 18.454109 | 18.454932 |
| 0.780 | 18.455755 | 18.456578 | 18.457402 | 18.458225 | 18.459048 | 18.459872 | 18.460695 | 18.461518 | 18.462342 | 18.463165 |
| 0.790 | 18.463989 | 18.464813 | 18.465636 | 18.466460 | 18.467284 | 18.468108 | 18.468931 | 18.469755 | 18.470579 | 18.471403 |
| 0.800 | 18.472227 | 18.473052 | 18.473876 | 18.474700 | 18.475524 | 18.476348 | 18.477173 | 18.477997 | 18.478821 | 18.479646 |
| 0.810 | 18.480470 | 18.481295 | 18.482119 | 18.482944 | 18.483768 | 18.484593 | 18.485418 | 18.486243 | 18.487068 | 18.487892 |
| 0.820 | 18.488717 | 18.489542 | 18.490367 | 18.491193 | 18.492018 | 18.492843 | 18.493668 | 18.494493 | 18.495318 | 18.496144 |
| 0.830 | 18.496969 | 18.497795 | 18.498620 | 18.499445 | 18.500271 | 18.501097 | 18.501922 | 18.502748 | 18.503574 | 18.504400 |
| 0.840 | 18.505225 | 18.506051 | 18.506877 | 18.507703 | 18.508529 | 18.509355 | 18.510181 | 18.511007 | 18.511833 | 18.512660 |
| 0.850 | 18.513486 | 18.514312 | 18.515139 | 18.515965 | 18.516791 | 18.517618 | 18.518444 | 18.519271 | 18.520097 | 18.520924 |
| 0.860 | 18.521751 | 18.522578 | 18.523405 | 18.524231 | 18.525058 | 18.525885 | 18.526712 | 18.527539 | 18.528366 | 18.529193 |
| 0.870 | 18.530020 | 18.530848 | 18.531675 | 18.532502 | 18.533329 | 18.534157 | 18.534984 | 18.535812 | 18.536639 | 18.537467 |
| 0.880 | 18.538295 | 18.539122 | 18.539950 | 18.540777 | 18.541605 | 18.542433 | 18.543261 | 18.544089 | 18.544917 | 18.545745 |
| 0.890 | 18.546573 | 18.547401 | 18.548229 | 18.549057 | 18.549886 | 18.550714 | 18.551542 | 18.552371 | 18.553199 | 18.554027 |
| 0.900 | 18.554856 | 18.555684 | 18.556513 | 18.557342 | 18.558170 | 18.558999 | 18.559828 | 18.560657 | 18.561486 | 18.562314 |
| 0.910 | 18.563143 | 18.563972 | 18.564801 | 18.565630 | 18.566460 | 18.567289 | 18.568118 | 18.568947 | 18.569777 | 18.570606 |
| 0.920 | 18.571435 | 18.572265 | 18.573094 | 18.573924 | 18.574753 | 18.575583 | 18.576412 | 18.577242 | 18.578072 | 18.578902 |
| 0.930 | 18.579732 | 18.580561 | 18.581391 | 18.582222 | 18.583051 | 18.583882 | 18.584712 | 18.585542 | 18.586372 | 18.587202 |
| 0.940 | 18.588032 | 18.588863 | 18.589693 | 18.590524 | 18.591354 | 18.592185 | 18.593015 | 18.593846 | 18.594676 | 18.595507 |
| 0.950 | 18.596338 | 18.597169 | 18.598000 | 18.598830 | 18.599661 | 18.600492 | 18.601323 | 18.602154 | 18.602985 | 18.603817 |
| 0.960 | 18.604648 | 18.605479 | 18.606310 | 18.607142 | 18.607973 | 18.608804 | 18.609636 | 18.610467 | 18.611299 | 18.612131 |
| 0.970 | 18.612962 | 18.613794 | 18.614626 | 18.615457 | 18.616289 | 18.617121 | 18.617953 | 18.618785 | 18.619617 | 18.620449 |
| 0.980 | 18.621281 | 18.622113 | 18.622946 | 18.623778 | 18.624610 | 18.625443 | 18.626275 | 18.627107 | 18.627939 | 18.628772 |
| 0.990 | 18.629605 | 18.630437 | 18.631270 | 18.632102 | 18.632935 | 18.633768 | 18.634601 | 18.635434 | 18.636266 | 18.637100 |

ATTENUATION IN DECIBELS
 THETA FROM 70.000 TO 70.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 18.637933 | 18.638766 | 18.639599 | 18.640432 | 18.641265 | 18.642098 | 18.642931 | 18.643765 | 18.644598 | 18.645432 |
| 0.010 | 18.646265 | 18.647099 | 18.647932 | 18.648766 | 18.649599 | 18.650433 | 18.651267 | 18.652100 | 18.652934 | 18.653768 |
| 0.020 | 18.654602 | 18.655436 | 18.656270 | 18.657104 | 18.657938 | 18.658772 | 18.659606 | 18.660440 | 18.661275 | 18.662109 |
| 0.030 | 18.662944 | 18.663778 | 18.664612 | 18.665447 | 18.666281 | 18.667116 | 18.667951 | 18.668785 | 18.669620 | 18.670455 |
| 0.040 | 18.671289 | 18.672124 | 18.672959 | 18.673794 | 18.674629 | 18.675464 | 18.676299 | 18.677135 | 18.677970 | 18.678805 |
| 0.050 | 18.679640 | 18.680475 | 18.681311 | 18.682146 | 18.682982 | 18.683817 | 18.684653 | 18.685488 | 18.686324 | 18.687160 |
| 0.060 | 18.687995 | 18.688831 | 18.689667 | 18.690503 | 18.691339 | 18.692175 | 18.693011 | 18.693847 | 18.694683 | 18.695519 |
| 0.070 | 18.696355 | 18.697191 | 18.698028 | 18.698864 | 18.699700 | 18.700536 | 18.701373 | 18.702209 | 18.703046 | 18.703883 |
| 0.080 | 18.704719 | 18.705555 | 18.706393 | 18.707229 | 18.708066 | 18.708903 | 18.709740 | 18.710577 | 18.711414 | 18.712251 |
| 0.090 | 18.713088 | 18.713925 | 18.714762 | 18.715600 | 18.716437 | 18.717274 | 18.718112 | 18.718949 | 18.719786 | 18.720624 |
| 0.100 | 18.721462 | 18.722299 | 18.723137 | 18.723974 | 18.724812 | 18.725650 | 18.726488 | 18.727326 | 18.728163 | 18.729002 |
| 0.110 | 18.729839 | 18.730677 | 18.731516 | 18.732354 | 18.733192 | 18.734030 | 18.734868 | 18.735707 | 18.736545 | 18.737384 |
| 0.120 | 18.738222 | 18.739060 | 18.739899 | 18.740738 | 18.741576 | 18.742415 | 18.743254 | 18.744092 | 18.744931 | 18.745770 |
| 0.130 | 18.746609 | 18.747448 | 18.748287 | 18.749126 | 18.749965 | 18.750804 | 18.751643 | 18.752483 | 18.753322 | 18.754161 |
| 0.140 | 18.755001 | 18.755840 | 18.756680 | 18.757519 | 18.758359 | 18.759198 | 18.760038 | 18.760878 | 18.761717 | 18.762557 |
| 0.150 | 18.763397 | 18.764237 | 18.765077 | 18.765917 | 18.766757 | 18.767597 | 18.768437 | 18.769277 | 18.770117 | 18.770957 |
| 0.160 | 18.771798 | 18.772638 | 18.773479 | 18.774319 | 18.775159 | 18.776000 | 18.776840 | 18.777681 | 18.778522 | 18.779362 |
| 0.170 | 18.780203 | 18.781044 | 18.781885 | 18.782726 | 18.783567 | 18.784408 | 18.785249 | 18.786090 | 18.786931 | 18.787772 |
| 0.180 | 18.788613 | 18.789454 | 18.790296 | 18.791137 | 18.791979 | 18.792820 | 18.793662 | 18.794503 | 18.795345 | 18.796186 |
| 0.190 | 18.797028 | 18.797870 | 18.798712 | 18.799553 | 18.800395 | 18.801237 | 18.802079 | 18.802921 | 18.803763 | 18.804605 |
| 0.200 | 18.805447 | 18.806289 | 18.807132 | 18.807974 | 18.808816 | 18.809659 | 18.810501 | 18.811343 | 18.812186 | 18.813029 |
| 0.210 | 18.813871 | 18.814714 | 18.815556 | 18.816399 | 18.817242 | 18.818085 | 18.818928 | 18.819771 | 18.820613 | 18.821456 |
| 0.220 | 18.822299 | 18.823143 | 18.823986 | 18.824829 | 18.825672 | 18.826515 | 18.827359 | 18.828202 | 18.829046 | 18.829889 |
| 0.230 | 18.830733 | 18.831576 | 18.832420 | 18.833263 | 18.834107 | 18.834951 | 18.835795 | 18.836639 | 18.837482 | 18.838326 |
| 0.240 | 18.839170 | 18.840014 | 18.840858 | 18.841703 | 18.842547 | 18.843391 | 18.844236 | 18.845080 | 18.845924 | 18.846768 |
| 0.250 | 18.847613 | 18.848457 | 18.849302 | 18.850146 | 18.850991 | 18.851836 | 18.852680 | 18.853525 | 18.854370 | 18.855215 |
| 0.260 | 18.856060 | 18.856905 | 18.857750 | 18.858595 | 18.859440 | 18.860285 | 18.861130 | 18.861975 | 18.862821 | 18.863666 |
| 0.270 | 18.864511 | 18.865357 | 18.866202 | 18.867048 | 18.867893 | 18.868739 | 18.869585 | 18.870430 | 18.871276 | 18.872122 |
| 0.280 | 18.872968 | 18.873814 | 18.874660 | 18.875505 | 18.876351 | 18.877198 | 18.878044 | 18.878890 | 18.879736 | 18.880582 |
| 0.290 | 18.881428 | 18.882275 | 18.883121 | 18.883968 | 18.884814 | 18.885661 | 18.886507 | 18.887354 | 18.888201 | 18.889047 |
| 0.300 | 18.889894 | 18.890741 | 18.891588 | 18.892435 | 18.893282 | 18.894129 | 18.894976 | 18.895823 | 18.896670 | 18.897517 |
| 0.310 | 18.898364 | 18.899212 | 18.900059 | 18.900906 | 18.901754 | 18.902601 | 18.903449 | 18.904296 | 18.905144 | 18.905992 |
| 0.320 | 18.906839 | 18.907687 | 18.908535 | 18.909383 | 18.910230 | 18.911078 | 18.911927 | 18.912775 | 18.913623 | 18.914471 |
| 0.330 | 18.915319 | 18.916167 | 18.917015 | 18.917864 | 18.918712 | 18.919560 | 18.920409 | 18.921257 | 18.922106 | 18.922954 |
| 0.340 | 18.923803 | 18.924652 | 18.925500 | 18.926349 | 18.927198 | 18.928047 | 18.928896 | 18.929745 | 18.930594 | 18.931443 |
| 0.350 | 18.932292 | 18.933141 | 18.933990 | 18.934839 | 18.935689 | 18.936538 | 18.937387 | 18.938237 | 18.939086 | 18.939936 |
| 0.360 | 18.940785 | 18.941635 | 18.942485 | 18.943335 | 18.944184 | 18.945034 | 18.945884 | 18.946734 | 18.947584 | 18.948434 |
| 0.370 | 18.949284 | 18.950134 | 18.950984 | 18.951834 | 18.952684 | 18.953535 | 18.954385 | 18.955235 | 18.956086 | 18.956936 |
| 0.380 | 18.957787 | 18.958637 | 18.959488 | 18.960339 | 18.961189 | 18.962040 | 18.962891 | 18.963742 | 18.964592 | 18.965443 |
| 0.390 | 18.966294 | 18.967145 | 18.967997 | 18.968848 | 18.969699 | 18.970550 | 18.971401 | 18.972253 | 18.973104 | 18.973955 |
| 0.400 | 18.974807 | 18.975658 | 18.976510 | 18.977361 | 18.978213 | 18.979065 | 18.979916 | 18.980768 | 18.981620 | 18.982472 |
| 0.410 | 18.983324 | 18.984176 | 18.985028 | 18.985880 | 18.986732 | 18.987584 | 18.988436 | 18.989289 | 18.990141 | 18.990993 |
| 0.420 | 18.991846 | 18.992698 | 18.993551 | 18.994403 | 18.995255 | 18.996108 | 18.996961 | 18.997813 | 18.998666 | 18.999519 |
| 0.430 | 19.000372 | 19.001225 | 19.002078 | 19.002931 | 19.003784 | 19.004637 | 19.005490 | 19.006343 | 19.007197 | 19.008050 |
| 0.440 | 19.008903 | 19.009757 | 19.010610 | 19.011463 | 19.012317 | 19.013170 | 19.014024 | 19.014878 | 19.015732 | 19.016585 |
| 0.450 | 19.017439 | 19.018293 | 19.019147 | 19.020001 | 19.020855 | 19.021709 | 19.022563 | 19.023417 | 19.024271 | 19.025126 |
| 0.460 | 19.025980 | 19.026834 | 19.027689 | 19.028543 | 19.029397 | 19.030252 | 19.031106 | 19.031961 | 19.032816 | 19.033670 |
| 0.470 | 19.034525 | 19.035380 | 19.036235 | 19.037090 | 19.037945 | 19.038800 | 19.039655 | 19.040510 | 19.041365 | 19.042220 |
| 0.480 | 19.043075 | 19.043931 | 19.044786 | 19.045641 | 19.046497 | 19.047352 | 19.048208 | 19.049063 | 19.049919 | 19.050774 |
| 0.490 | 19.051630 | 19.052486 | 19.053342 | 19.054197 | 19.055053 | 19.055909 | 19.056765 | 19.057621 | 19.058477 | 19.059334 |

ATTENUATION IN DECIBELS
 THETA FROM 70.500 TO 70.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 19.060190 | 19.061046 | 19.061902 | 19.062758 | 19.063615 | 19.064471 | 19.065328 | 19.066184 | 19.067041 | 19.067897 |
| 0.510 | 19.068754 | 19.069611 | 19.070467 | 19.071324 | 19.072181 | 19.073038 | 19.073895 | 19.074752 | 19.075609 | 19.076466 |
| 0.520 | 19.077323 | 19.078180 | 19.079037 | 19.079894 | 19.080752 | 19.081609 | 19.082467 | 19.083324 | 19.084182 | 19.085039 |
| 0.530 | 19.085897 | 19.086755 | 19.087612 | 19.088470 | 19.089328 | 19.090186 | 19.091043 | 19.091901 | 19.092759 | 19.093617 |
| 0.540 | 19.094476 | 19.095334 | 19.096192 | 19.097050 | 19.097908 | 19.098767 | 19.099625 | 19.100483 | 19.101342 | 19.102200 |
| 0.550 | 19.103059 | 19.103917 | 19.104776 | 19.105635 | 19.106493 | 19.107352 | 19.108211 | 19.109070 | 19.109929 | 19.110788 |
| 0.560 | 19.111647 | 19.112506 | 19.113365 | 19.114224 | 19.115084 | 19.115943 | 19.116802 | 19.117661 | 19.118521 | 19.119380 |
| 0.570 | 19.120240 | 19.121099 | 19.121959 | 19.122819 | 19.123678 | 19.124538 | 19.125398 | 19.126258 | 19.127118 | 19.127978 |
| 0.580 | 19.128838 | 19.129698 | 19.130558 | 19.131418 | 19.132278 | 19.133138 | 19.133999 | 19.134859 | 19.135719 | 19.136580 |
| 0.590 | 19.137440 | 19.138301 | 19.139161 | 19.140022 | 19.140882 | 19.141743 | 19.142604 | 19.143465 | 19.144325 | 19.145186 |
| 0.600 | 19.146047 | 19.146909 | 19.147769 | 19.148631 | 19.149492 | 19.150353 | 19.151214 | 19.152075 | 19.152937 | 19.153798 |
| 0.610 | 19.154660 | 19.155521 | 19.156383 | 19.157244 | 19.158106 | 19.158967 | 19.159829 | 19.160691 | 19.161553 | 19.162415 |
| 0.620 | 19.163276 | 19.164138 | 19.165000 | 19.165862 | 19.166724 | 19.167587 | 19.168449 | 19.169311 | 19.170173 | 19.171036 |
| 0.630 | 19.171898 | 19.172760 | 19.173623 | 19.174485 | 19.175348 | 19.176211 | 19.177073 | 19.177936 | 19.178799 | 19.179662 |
| 0.640 | 19.180525 | 19.181387 | 19.182250 | 19.183113 | 19.183976 | 19.184840 | 19.185703 | 19.186566 | 19.187429 | 19.188293 |
| 0.650 | 19.189156 | 19.190019 | 19.190883 | 19.191746 | 19.192610 | 19.193473 | 19.194337 | 19.195201 | 19.196064 | 19.196928 |
| 0.660 | 19.197792 | 19.198656 | 19.199520 | 19.200384 | 19.201248 | 19.202112 | 19.202976 | 19.203840 | 19.204704 | 19.205568 |
| 0.670 | 19.206433 | 19.207297 | 19.208162 | 19.209026 | 19.209891 | 19.210755 | 19.211620 | 19.212485 | 19.213349 | 19.214214 |
| 0.680 | 19.215079 | 19.215944 | 19.216809 | 19.217674 | 19.218539 | 19.219404 | 19.220268 | 19.221134 | 19.221999 | 19.222864 |
| 0.690 | 19.223729 | 19.224595 | 19.225460 | 19.226326 | 19.227191 | 19.228056 | 19.228922 | 19.229788 | 19.230653 | 19.231519 |
| 0.700 | 19.232385 | 19.233251 | 19.234117 | 19.234982 | 19.235848 | 19.236714 | 19.237581 | 19.238446 | 19.239313 | 19.240179 |
| 0.710 | 19.241045 | 19.241911 | 19.242778 | 19.243644 | 19.244511 | 19.245377 | 19.246244 | 19.247111 | 19.247977 | 19.248844 |
| 0.720 | 19.249710 | 19.250577 | 19.251444 | 19.252311 | 19.253178 | 19.254045 | 19.254912 | 19.255779 | 19.256646 | 19.257513 |
| 0.730 | 19.258380 | 19.259248 | 19.260115 | 19.260982 | 19.261850 | 19.262717 | 19.263585 | 19.264452 | 19.265320 | 19.266187 |
| 0.740 | 19.267055 | 19.267923 | 19.268791 | 19.269659 | 19.270526 | 19.271394 | 19.272262 | 19.273130 | 19.273998 | 19.274867 |
| 0.750 | 19.275735 | 19.276603 | 19.277472 | 19.278340 | 19.279209 | 19.280077 | 19.280945 | 19.281814 | 19.282682 | 19.283551 |
| 0.760 | 19.284420 | 19.285288 | 19.286157 | 19.287026 | 19.287895 | 19.288764 | 19.289633 | 19.290502 | 19.291371 | 19.292240 |
| 0.770 | 19.293109 | 19.293978 | 19.294847 | 19.295717 | 19.296586 | 19.297456 | 19.298325 | 19.299195 | 19.300064 | 19.300934 |
| 0.780 | 19.301803 | 19.302673 | 19.303543 | 19.304413 | 19.305282 | 19.306152 | 19.307022 | 19.307892 | 19.308762 | 19.309632 |
| 0.790 | 19.310503 | 19.311373 | 19.312243 | 19.313113 | 19.313984 | 19.314854 | 19.315724 | 19.316595 | 19.317466 | 19.318336 |
| 0.800 | 19.319207 | 19.320077 | 19.320948 | 19.321819 | 19.322690 | 19.323560 | 19.324431 | 19.325302 | 19.326174 | 19.327044 |
| 0.810 | 19.327916 | 19.328787 | 19.329658 | 19.330529 | 19.331401 | 19.332272 | 19.333143 | 19.334015 | 19.334886 | 19.335758 |
| 0.820 | 19.336630 | 19.337501 | 19.338373 | 19.339245 | 19.340117 | 19.340988 | 19.341860 | 19.342732 | 19.343604 | 19.344476 |
| 0.830 | 19.345348 | 19.346220 | 19.347093 | 19.347965 | 19.348837 | 19.349710 | 19.350582 | 19.351454 | 19.352327 | 19.353199 |
| 0.840 | 19.354072 | 19.354945 | 19.355818 | 19.356690 | 19.357563 | 19.358436 | 19.359309 | 19.360182 | 19.361055 | 19.361928 |
| 0.850 | 19.362801 | 19.363674 | 19.364547 | 19.365420 | 19.366294 | 19.367167 | 19.368040 | 19.368914 | 19.369787 | 19.370661 |
| 0.860 | 19.371534 | 19.372408 | 19.373282 | 19.374155 | 19.375029 | 19.375903 | 19.376777 | 19.377651 | 19.378525 | 19.379399 |
| 0.870 | 19.380273 | 19.381147 | 19.382021 | 19.382895 | 19.383770 | 19.384644 | 19.385518 | 19.386393 | 19.387267 | 19.388142 |
| 0.880 | 19.389016 | 19.389891 | 19.390765 | 19.391640 | 19.392515 | 19.393390 | 19.394265 | 19.395139 | 19.396014 | 19.396889 |
| 0.890 | 19.397764 | 19.398640 | 19.399515 | 19.400390 | 19.401265 | 19.402141 | 19.403016 | 19.403891 | 19.404767 | 19.405642 |
| 0.900 | 19.406518 | 19.407393 | 19.408269 | 19.409145 | 19.410021 | 19.410896 | 19.411772 | 19.412648 | 19.413524 | 19.414400 |
| 0.910 | 19.415276 | 19.416152 | 19.417028 | 19.417904 | 19.418781 | 19.419657 | 19.420533 | 19.421410 | 19.422286 | 19.423163 |
| 0.920 | 19.424039 | 19.424916 | 19.425792 | 19.426669 | 19.427546 | 19.428423 | 19.429299 | 19.430176 | 19.431053 | 19.431930 |
| 0.930 | 19.432807 | 19.433684 | 19.434561 | 19.435439 | 19.436316 | 19.437193 | 19.438071 | 19.438948 | 19.439825 | 19.440703 |
| 0.940 | 19.441580 | 19.442458 | 19.443336 | 19.444213 | 19.445091 | 19.445969 | 19.446846 | 19.447725 | 19.448602 | 19.449480 |
| 0.950 | 19.450358 | 19.451236 | 19.452115 | 19.452993 | 19.453871 | 19.454749 | 19.455628 | 19.456506 | 19.457384 | 19.458263 |
| 0.960 | 19.459141 | 19.460020 | 19.460899 | 19.461777 | 19.462656 | 19.463535 | 19.464414 | 19.465292 | 19.466171 | 19.467050 |
| 0.970 | 19.467929 | 19.468808 | 19.469687 | 19.470567 | 19.471446 | 19.472325 | 19.473205 | 19.474084 | 19.474963 | 19.475843 |
| 0.980 | 19.476722 | 19.477602 | 19.478482 | 19.479361 | 19.480241 | 19.481121 | 19.482001 | 19.482880 | 19.483760 | 19.484640 |
| 0.990 | 19.485520 | 19.486400 | 19.487280 | 19.488161 | 19.489041 | 19.489921 | 19.490801 | 19.491682 | 19.492562 | 19.493443 |

THETA IN DEGREES

ATTENUATION IN DECIBELS
 THETA FROM 71.000 TO 71.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 19.494323 | 19.495204 | 19.496084 | 19.496965 | 19.497846 | 19.498727 | 19.499607 | 19.500488 | 19.501369 | 19.502250 |
| 0.010 | 19.503131 | 19.504012 | 19.504893 | 19.505774 | 19.506656 | 19.507537 | 19.508418 | 19.509300 | 19.510181 | 19.511062 |
| 0.020 | 19.511944 | 19.512825 | 19.513707 | 19.514589 | 19.515471 | 19.516352 | 19.517234 | 19.518116 | 19.518998 | 19.519880 |
| 0.030 | 19.520762 | 19.521644 | 19.522526 | 19.523408 | 19.524291 | 19.525173 | 19.526055 | 19.526937 | 19.527820 | 19.528702 |
| 0.040 | 19.529585 | 19.530468 | 19.531350 | 19.532233 | 19.533115 | 19.533998 | 19.534881 | 19.535764 | 19.536647 | 19.537530 |
| 0.050 | 19.538413 | 19.539296 | 19.540179 | 19.541062 | 19.541945 | 19.542828 | 19.543712 | 19.544595 | 19.545479 | 19.546362 |
| 0.060 | 19.547246 | 19.548129 | 19.549013 | 19.549896 | 19.550780 | 19.551664 | 19.552548 | 19.553432 | 19.554316 | 19.555200 |
| 0.070 | 19.556084 | 19.556968 | 19.557852 | 19.558736 | 19.559620 | 19.560504 | 19.561389 | 19.562273 | 19.563158 | 19.564042 |
| 0.080 | 19.564927 | 19.565811 | 19.566696 | 19.567580 | 19.568465 | 19.569350 | 19.570235 | 19.571120 | 19.572005 | 19.572890 |
| 0.090 | 19.573775 | 19.574660 | 19.575545 | 19.576430 | 19.577315 | 19.578201 | 19.579086 | 19.579971 | 19.580857 | 19.581742 |
| 0.100 | 19.582628 | 19.583513 | 19.584399 | 19.585285 | 19.586170 | 19.587056 | 19.587942 | 19.588828 | 19.589714 | 19.590600 |
| 0.110 | 19.591486 | 19.592372 | 19.593258 | 19.594144 | 19.595031 | 19.595917 | 19.596803 | 19.597690 | 19.598576 | 19.599463 |
| 0.120 | 19.600349 | 19.601236 | 19.602122 | 19.603009 | 19.603896 | 19.604783 | 19.605669 | 19.606556 | 19.607443 | 19.608330 |
| 0.130 | 19.609217 | 19.610104 | 19.610991 | 19.611879 | 19.612766 | 19.613653 | 19.614541 | 19.615428 | 19.616316 | 19.617203 |
| 0.140 | 19.618091 | 19.618978 | 19.619866 | 19.620754 | 19.621641 | 19.622529 | 19.623417 | 19.624305 | 19.625193 | 19.626081 |
| 0.150 | 19.626969 | 19.627857 | 19.628745 | 19.629633 | 19.630522 | 19.631410 | 19.632298 | 19.633187 | 19.634075 | 19.634964 |
| 0.160 | 19.635852 | 19.636741 | 19.637630 | 19.638518 | 19.639407 | 19.640296 | 19.641185 | 19.642074 | 19.642963 | 19.643852 |
| 0.170 | 19.644741 | 19.645630 | 19.646519 | 19.647408 | 19.648298 | 19.649187 | 19.650076 | 19.650966 | 19.651855 | 19.652745 |
| 0.180 | 19.653634 | 19.654524 | 19.655414 | 19.656303 | 19.657193 | 19.658083 | 19.658973 | 19.659863 | 19.660753 | 19.661643 |
| 0.190 | 19.662533 | 19.663423 | 19.664313 | 19.665204 | 19.666094 | 19.666984 | 19.667875 | 19.668765 | 19.669656 | 19.670546 |
| 0.200 | 19.671437 | 19.672328 | 19.673218 | 19.674109 | 19.675000 | 19.675890 | 19.676781 | 19.677672 | 19.678563 | 19.679455 |
| 0.210 | 19.680346 | 19.681237 | 19.682128 | 19.683019 | 19.683911 | 19.684802 | 19.685693 | 19.686585 | 19.687476 | 19.688368 |
| 0.220 | 19.689260 | 19.690151 | 19.691043 | 19.691935 | 19.692827 | 19.693718 | 19.694610 | 19.695502 | 19.696394 | 19.697286 |
| 0.230 | 19.698179 | 19.699071 | 19.699963 | 19.700855 | 19.701748 | 19.702640 | 19.703532 | 19.704425 | 19.705317 | 19.706210 |
| 0.240 | 19.707103 | 19.707995 | 19.708888 | 19.709781 | 19.710674 | 19.711567 | 19.712460 | 19.713353 | 19.714246 | 19.715139 |
| 0.250 | 19.716032 | 19.716925 | 19.717818 | 19.718712 | 19.719605 | 19.720499 | 19.721392 | 19.722286 | 19.723179 | 19.724073 |
| 0.260 | 19.724966 | 19.725860 | 19.726754 | 19.727648 | 19.728542 | 19.729435 | 19.730330 | 19.731224 | 19.732118 | 19.733012 |
| 0.270 | 19.733906 | 19.734800 | 19.735694 | 19.736589 | 19.737483 | 19.738378 | 19.739272 | 19.740167 | 19.741061 | 19.741956 |
| 0.280 | 19.742851 | 19.743745 | 19.744640 | 19.745535 | 19.746430 | 19.747325 | 19.748220 | 19.749115 | 19.750010 | 19.750905 |
| 0.290 | 19.751800 | 19.752696 | 19.753591 | 19.754486 | 19.755382 | 19.756277 | 19.757173 | 19.758068 | 19.758964 | 19.759860 |
| 0.300 | 19.760755 | 19.761651 | 19.762547 | 19.763443 | 19.764339 | 19.765235 | 19.766131 | 19.767027 | 19.767923 | 19.768819 |
| 0.310 | 19.769715 | 19.770612 | 19.771508 | 19.772404 | 19.773301 | 19.774197 | 19.775094 | 19.775990 | 19.776887 | 19.777784 |
| 0.320 | 19.778681 | 19.779577 | 19.780474 | 19.781371 | 19.782268 | 19.783165 | 19.784062 | 19.784959 | 19.785856 | 19.786754 |
| 0.330 | 19.787651 | 19.788548 | 19.789446 | 19.790343 | 19.791241 | 19.792138 | 19.793036 | 19.793933 | 19.794831 | 19.795729 |
| 0.340 | 19.796627 | 19.797524 | 19.798422 | 19.799320 | 19.800218 | 19.801116 | 19.802014 | 19.802912 | 19.803811 | 19.804709 |
| 0.350 | 19.805607 | 19.806506 | 19.807404 | 19.808302 | 19.809201 | 19.810100 | 19.810998 | 19.811897 | 19.812796 | 19.813694 |
| 0.360 | 19.814593 | 19.815492 | 19.816391 | 19.817290 | 19.818189 | 19.819088 | 19.819987 | 19.820886 | 19.821786 | 19.822685 |
| 0.370 | 19.823584 | 19.824484 | 19.825383 | 19.826283 | 19.827182 | 19.828082 | 19.828981 | 19.829881 | 19.830781 | 19.831681 |
| 0.380 | 19.832581 | 19.833480 | 19.834380 | 19.835280 | 19.836180 | 19.837080 | 19.837981 | 19.838881 | 19.839781 | 19.840682 |
| 0.390 | 19.841582 | 19.842482 | 19.843383 | 19.844283 | 19.845184 | 19.846085 | 19.846985 | 19.847886 | 19.848787 | 19.849688 |
| 0.400 | 19.850589 | 19.851490 | 19.852391 | 19.853292 | 19.854193 | 19.855094 | 19.855995 | 19.856896 | 19.857798 | 19.858699 |
| 0.410 | 19.859601 | 19.860502 | 19.861403 | 19.862305 | 19.863206 | 19.864108 | 19.865010 | 19.865912 | 19.866814 | 19.867716 |
| 0.420 | 19.868618 | 19.869519 | 19.870422 | 19.871324 | 19.872226 | 19.873128 | 19.874030 | 19.874933 | 19.875835 | 19.876737 |
| 0.430 | 19.877640 | 19.878542 | 19.879445 | 19.880347 | 19.881250 | 19.882153 | 19.883056 | 19.883959 | 19.884861 | 19.885764 |
| 0.440 | 19.886667 | 19.887570 | 19.888473 | 19.889377 | 19.890280 | 19.891183 | 19.892086 | 19.892990 | 19.893893 | 19.894796 |
| 0.450 | 19.895700 | 19.896604 | 19.897507 | 19.898411 | 19.899314 | 19.900218 | 19.901122 | 19.902026 | 19.902930 | 19.903834 |
| 0.460 | 19.904738 | 19.905642 | 19.906546 | 19.907450 | 19.908355 | 19.909259 | 19.910163 | 19.911067 | 19.911972 | 19.912877 |
| 0.470 | 19.913781 | 19.914686 | 19.915590 | 19.916495 | 19.917400 | 19.918305 | 19.919209 | 19.920115 | 19.921019 | 19.921924 |
| 0.480 | 19.922829 | 19.923735 | 19.924640 | 19.925545 | 19.926450 | 19.927356 | 19.928261 | 19.929167 | 19.930072 | 19.930978 |
| 0.490 | 19.931883 | 19.932789 | 19.933695 | 19.934600 | 19.935506 | 19.936412 | 19.937318 | 19.938224 | 19.939130 | 19.940036 |

ATTENUATION IN DECIBELS
THETA FROM 71.500 TO 71.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 19.940942 | 19.941848 | 19.942755 | 19.943661 | 19.944567 | 19.945473 | 19.946380 | 19.947286 | 19.948193 | 19.949100 |
| 0.510 | 19.950006 | 19.950913 | 19.951820 | 19.952727 | 19.953633 | 19.954540 | 19.955447 | 19.956354 | 19.957261 | 19.958169 |
| 0.520 | 19.959070 | 19.959983 | 19.960890 | 19.961797 | 19.962705 | 19.963612 | 19.964520 | 19.965427 | 19.966335 | 19.967243 |
| 0.530 | 19.968150 | 19.969058 | 19.969966 | 19.970874 | 19.971782 | 19.972690 | 19.973598 | 19.974506 | 19.975414 | 19.976322 |
| 0.540 | 19.977230 | 19.978139 | 19.979047 | 19.979955 | 19.980864 | 19.981772 | 19.982681 | 19.983589 | 19.984498 | 19.985407 |
| 0.550 | 19.986315 | 19.987224 | 19.988133 | 19.989042 | 19.989951 | 19.990860 | 19.991769 | 19.992678 | 19.993587 | 19.994497 |
| 0.560 | 19.995406 | 19.996315 | 19.997225 | 19.998134 | 19.999044 | 19.999953 | 20.000863 | 20.001773 | 20.002682 | 20.003592 |
| 0.570 | 20.004502 | 20.005412 | 20.006322 | 20.007232 | 20.008142 | 20.009052 | 20.009962 | 20.010872 | 20.011782 | 20.012693 |
| 0.580 | 20.013603 | 20.014513 | 20.015424 | 20.016334 | 20.017245 | 20.018156 | 20.019066 | 20.019977 | 20.020888 | 20.021799 |
| 0.590 | 20.022709 | 20.023620 | 20.024531 | 20.025442 | 20.026353 | 20.027265 | 20.028176 | 20.029087 | 20.029998 | 20.030910 |
| 0.600 | 20.031821 | 20.032732 | 20.033644 | 20.034556 | 20.035467 | 20.036379 | 20.037291 | 20.038203 | 20.039114 | 20.040026 |
| 0.610 | 20.040938 | 20.041850 | 20.042762 | 20.043674 | 20.044586 | 20.045499 | 20.046411 | 20.047323 | 20.048236 | 20.049148 |
| 0.620 | 20.050061 | 20.050973 | 20.051886 | 20.052798 | 20.053711 | 20.054624 | 20.055537 | 20.056449 | 20.057362 | 20.058275 |
| 0.630 | 20.059188 | 20.060101 | 20.061014 | 20.061928 | 20.062841 | 20.063754 | 20.064667 | 20.065581 | 20.066494 | 20.067408 |
| 0.640 | 20.068321 | 20.069235 | 20.070148 | 20.071062 | 20.071976 | 20.072890 | 20.073802 | 20.074718 | 20.075631 | 20.076545 |
| 0.650 | 20.077460 | 20.078374 | 20.079288 | 20.080202 | 20.081116 | 20.082031 | 20.082945 | 20.083859 | 20.084774 | 20.085688 |
| 0.660 | 20.086603 | 20.087518 | 20.088433 | 20.089347 | 20.090262 | 20.091177 | 20.092092 | 20.093007 | 20.093922 | 20.094837 |
| 0.670 | 20.095752 | 20.096667 | 20.097583 | 20.098498 | 20.099413 | 20.100329 | 20.101244 | 20.102160 | 20.103075 | 20.103991 |
| 0.680 | 20.104907 | 20.105822 | 20.106738 | 20.107654 | 20.108570 | 20.109486 | 20.110402 | 20.111318 | 20.112234 | 20.113150 |
| 0.690 | 20.114066 | 20.114983 | 20.115899 | 20.116815 | 20.117732 | 20.118648 | 20.119565 | 20.120481 | 20.121398 | 20.122315 |
| 0.700 | 20.123231 | 20.124148 | 20.125065 | 20.125982 | 20.126899 | 20.127816 | 20.128733 | 20.129650 | 20.130567 | 20.131485 |
| 0.710 | 20.132402 | 20.133319 | 20.134237 | 20.135154 | 20.136071 | 20.136989 | 20.137907 | 20.138824 | 20.139742 | 20.140660 |
| 0.720 | 20.141577 | 20.142495 | 20.143413 | 20.144331 | 20.145249 | 20.146168 | 20.147086 | 20.148004 | 20.148922 | 20.149840 |
| 0.730 | 20.150759 | 20.151677 | 20.152596 | 20.153514 | 20.154433 | 20.155351 | 20.156270 | 20.157189 | 20.158108 | 20.159026 |
| 0.740 | 20.159945 | 20.160864 | 20.161783 | 20.162702 | 20.163621 | 20.164541 | 20.165460 | 20.166379 | 20.167299 | 20.168218 |
| 0.750 | 20.169137 | 20.170057 | 20.170976 | 20.171896 | 20.172816 | 20.173735 | 20.174655 | 20.175575 | 20.176495 | 20.177415 |
| 0.760 | 20.178335 | 20.179255 | 20.180175 | 20.181095 | 20.182015 | 20.182935 | 20.183855 | 20.184776 | 20.185697 | 20.186617 |
| 0.770 | 20.187537 | 20.188458 | 20.189379 | 20.190299 | 20.191220 | 20.192141 | 20.193062 | 20.193983 | 20.194904 | 20.195825 |
| 0.780 | 20.196746 | 20.197667 | 20.198588 | 20.199509 | 20.200430 | 20.201352 | 20.202273 | 20.203195 | 20.204116 | 20.205038 |
| 0.790 | 20.205959 | 20.206881 | 20.207803 | 20.208724 | 20.209646 | 20.210568 | 20.211490 | 20.212412 | 20.213334 | 20.214256 |
| 0.800 | 20.215178 | 20.216100 | 20.217023 | 20.217945 | 20.218867 | 20.219790 | 20.220712 | 20.221635 | 20.222557 | 20.223480 |
| 0.810 | 20.224403 | 20.225325 | 20.226248 | 20.227171 | 20.228094 | 20.229017 | 20.229940 | 20.230863 | 20.231786 | 20.232709 |
| 0.820 | 20.233633 | 20.234556 | 20.235479 | 20.236403 | 20.237326 | 20.238250 | 20.239173 | 20.240097 | 20.241020 | 20.241944 |
| 0.830 | 20.242868 | 20.243792 | 20.244716 | 20.245640 | 20.246563 | 20.247488 | 20.248412 | 20.249336 | 20.250260 | 20.251184 |
| 0.840 | 20.252109 | 20.253033 | 20.253958 | 20.254882 | 20.255806 | 20.256731 | 20.257655 | 20.258580 | 20.259505 | 20.260430 |
| 0.850 | 20.261355 | 20.262280 | 20.263205 | 20.264130 | 20.265055 | 20.265980 | 20.266905 | 20.267830 | 20.268755 | 20.269681 |
| 0.860 | 20.270607 | 20.271532 | 20.272457 | 20.273383 | 20.274309 | 20.275234 | 20.276160 | 20.277086 | 20.278012 | 20.278938 |
| 0.870 | 20.279864 | 20.280790 | 20.281716 | 20.282642 | 20.283568 | 20.284494 | 20.285420 | 20.286347 | 20.287273 | 20.288200 |
| 0.880 | 20.289126 | 20.290053 | 20.290979 | 20.291906 | 20.292833 | 20.293759 | 20.294686 | 20.295613 | 20.296540 | 20.297467 |
| 0.890 | 20.298394 | 20.299321 | 20.300248 | 20.301176 | 20.302103 | 20.303030 | 20.303958 | 20.304885 | 20.305813 | 20.306740 |
| 0.900 | 20.307668 | 20.308595 | 20.309523 | 20.310451 | 20.311379 | 20.312306 | 20.313234 | 20.314162 | 20.315090 | 20.316019 |
| 0.910 | 20.316947 | 20.317875 | 20.318803 | 20.319731 | 20.320660 | 20.321588 | 20.322517 | 20.323445 | 20.324374 | 20.325302 |
| 0.920 | 20.326231 | 20.327160 | 20.328089 | 20.329018 | 20.329947 | 20.330875 | 20.331805 | 20.332734 | 20.333663 | 20.334592 |
| 0.930 | 20.335521 | 20.336450 | 20.337380 | 20.338309 | 20.339239 | 20.340168 | 20.341098 | 20.342027 | 20.342957 | 20.343887 |
| 0.940 | 20.344817 | 20.345747 | 20.346676 | 20.347606 | 20.348536 | 20.349466 | 20.350397 | 20.351327 | 20.352257 | 20.353187 |
| 0.950 | 20.354418 | 20.355348 | 20.356278 | 20.357208 | 20.358138 | 20.359068 | 20.360000 | 20.360931 | 20.361862 | 20.362793 |
| 0.960 | 20.363424 | 20.364355 | 20.365286 | 20.366217 | 20.367148 | 20.368079 | 20.369011 | 20.369942 | 20.370873 | 20.371805 |
| 0.970 | 20.372736 | 20.373668 | 20.374599 | 20.375531 | 20.376462 | 20.377394 | 20.378326 | 20.379258 | 20.380190 | 20.381122 |
| 0.980 | 20.382054 | 20.382986 | 20.383918 | 20.384850 | 20.385782 | 20.386714 | 20.387647 | 20.388579 | 20.389512 | 20.390444 |
| 0.990 | 20.391377 | 20.392309 | 20.393242 | 20.394175 | 20.395108 | 20.396040 | 20.396973 | 20.397906 | 20.398839 | 20.399772 |

ATTENUATION IN DECIBELS
 THETA FROM 72.000 TO 72.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 20.400705 | 20.401639 | 20.402572 | 20.403505 | 20.404438 | 20.405372 | 20.406305 | 20.407239 | 20.408172 | 20.409106 |
| 0.010 | 20.410039 | 20.410973 | 20.411907 | 20.412841 | 20.413775 | 20.414709 | 20.415643 | 20.416577 | 20.417511 | 20.418445 |
| 0.020 | 20.419379 | 20.420313 | 20.421248 | 20.422182 | 20.423117 | 20.424051 | 20.424986 | 20.425920 | 20.426855 | 20.427790 |
| 0.030 | 20.428774 | 20.429659 | 20.430594 | 20.431529 | 20.432464 | 20.433399 | 20.434334 | 20.435269 | 20.436205 | 20.437140 |
| 0.040 | 20.438075 | 20.439011 | 20.439946 | 20.440881 | 20.441817 | 20.442753 | 20.443688 | 20.444624 | 20.445560 | 20.446496 |
| 0.050 | 20.447432 | 20.448368 | 20.449304 | 20.450240 | 20.451176 | 20.452112 | 20.453048 | 20.453984 | 20.454921 | 20.455857 |
| 0.060 | 20.456794 | 20.457730 | 20.458667 | 20.459603 | 20.460540 | 20.461477 | 20.462413 | 20.463350 | 20.464287 | 20.465224 |
| 0.070 | 20.466161 | 20.467098 | 20.468035 | 20.468972 | 20.469910 | 20.470847 | 20.471784 | 20.472722 | 20.473659 | 20.474597 |
| 0.080 | 20.475534 | 20.476472 | 20.477409 | 20.478347 | 20.479285 | 20.480223 | 20.481161 | 20.482099 | 20.483037 | 20.483975 |
| 0.090 | 20.484913 | 20.485851 | 20.486789 | 20.487728 | 20.488666 | 20.489604 | 20.490543 | 20.491481 | 20.492420 | 20.493358 |
| 0.100 | 20.494297 | 20.495236 | 20.496175 | 20.497113 | 20.498052 | 20.498991 | 20.499930 | 20.500870 | 20.501809 | 20.502748 |
| 0.110 | 20.503687 | 20.504626 | 20.505566 | 20.506505 | 20.507445 | 20.508384 | 20.509324 | 20.510263 | 20.511203 | 20.512143 |
| 0.120 | 20.513083 | 20.514022 | 20.514962 | 20.515902 | 20.516842 | 20.517782 | 20.518723 | 20.519663 | 20.520603 | 20.521543 |
| 0.130 | 20.522484 | 20.523424 | 20.524364 | 20.525305 | 20.526246 | 20.527186 | 20.528127 | 20.529068 | 20.530009 | 20.530949 |
| 0.140 | 20.531890 | 20.532831 | 20.533772 | 20.534714 | 20.535655 | 20.536596 | 20.537537 | 20.538478 | 20.539420 | 20.540361 |
| 0.150 | 20.541303 | 20.542244 | 20.543186 | 20.544127 | 20.545069 | 20.546011 | 20.546953 | 20.547895 | 20.548837 | 20.549779 |
| 0.160 | 20.550721 | 20.551663 | 20.552605 | 20.553547 | 20.554490 | 20.555432 | 20.556374 | 20.557317 | 20.558259 | 20.559202 |
| 0.170 | 20.560144 | 20.561087 | 20.562030 | 20.562973 | 20.563915 | 20.564858 | 20.565801 | 20.566744 | 20.567687 | 20.568630 |
| 0.180 | 20.569574 | 20.570517 | 20.571460 | 20.572403 | 20.573347 | 20.574290 | 20.575234 | 20.576178 | 20.577121 | 20.578065 |
| 0.190 | 20.579009 | 20.579952 | 20.580896 | 20.581840 | 20.582784 | 20.583728 | 20.584672 | 20.585616 | 20.586560 | 20.587505 |
| 0.200 | 20.588449 | 20.589394 | 20.590338 | 20.591282 | 20.592227 | 20.593172 | 20.594116 | 20.595061 | 20.596006 | 20.596951 |
| 0.210 | 20.597895 | 20.598840 | 20.599785 | 20.600730 | 20.601676 | 20.602621 | 20.603566 | 20.604511 | 20.605456 | 20.606402 |
| 0.220 | 20.607347 | 20.608293 | 20.609238 | 20.610184 | 20.611130 | 20.612075 | 20.613021 | 20.613967 | 20.614913 | 20.615859 |
| 0.230 | 20.616805 | 20.617751 | 20.618697 | 20.619643 | 20.620589 | 20.621536 | 20.622482 | 20.623429 | 20.624375 | 20.625322 |
| 0.240 | 20.626268 | 20.627215 | 20.628161 | 20.629108 | 20.630055 | 20.631002 | 20.631949 | 20.632896 | 20.633843 | 20.634790 |
| 0.250 | 20.635737 | 20.636684 | 20.637632 | 20.638579 | 20.639526 | 20.640474 | 20.641421 | 20.642369 | 20.643316 | 20.644264 |
| 0.260 | 20.645212 | 20.646159 | 20.647107 | 20.648055 | 20.649003 | 20.649951 | 20.650899 | 20.651847 | 20.652796 | 20.653744 |
| 0.270 | 20.654692 | 20.655640 | 20.656589 | 20.657537 | 20.658486 | 20.659434 | 20.660383 | 20.661332 | 20.662281 | 20.663229 |
| 0.280 | 20.664178 | 20.665127 | 20.666076 | 20.667025 | 20.667974 | 20.668923 | 20.669873 | 20.670822 | 20.671771 | 20.672720 |
| 0.290 | 20.673670 | 20.674619 | 20.675569 | 20.676519 | 20.677468 | 20.678418 | 20.679368 | 20.680318 | 20.681267 | 20.682217 |
| 0.300 | 20.683167 | 20.684118 | 20.685068 | 20.686018 | 20.686968 | 20.687918 | 20.688869 | 20.689819 | 20.690769 | 20.691720 |
| 0.310 | 20.692671 | 20.693621 | 20.694572 | 20.695523 | 20.696474 | 20.697424 | 20.698375 | 20.699326 | 20.700277 | 20.701228 |
| 0.320 | 20.702180 | 20.703131 | 20.704082 | 20.705033 | 20.705985 | 20.706936 | 20.707888 | 20.708839 | 20.709791 | 20.710742 |
| 0.330 | 20.711694 | 20.712646 | 20.713598 | 20.714550 | 20.715502 | 20.716454 | 20.717406 | 20.718358 | 20.719310 | 20.720262 |
| 0.340 | 20.721215 | 20.722167 | 20.723119 | 20.724072 | 20.725024 | 20.725977 | 20.726930 | 20.727882 | 20.728835 | 20.729788 |
| 0.350 | 20.730741 | 20.731694 | 20.732647 | 20.733600 | 20.734553 | 20.735506 | 20.736459 | 20.737413 | 20.738366 | 20.739319 |
| 0.360 | 20.740273 | 20.741226 | 20.742180 | 20.743134 | 20.744087 | 20.745041 | 20.745994 | 20.746948 | 20.747902 | 20.748856 |
| 0.370 | 20.749810 | 20.750765 | 20.751719 | 20.752673 | 20.753627 | 20.754581 | 20.755536 | 20.756490 | 20.757445 | 20.758399 |
| 0.380 | 20.759354 | 20.760309 | 20.761263 | 20.762218 | 20.763173 | 20.764128 | 20.765083 | 20.766038 | 20.766993 | 20.767948 |
| 0.390 | 20.768903 | 20.769858 | 20.770814 | 20.771769 | 20.772724 | 20.773680 | 20.774636 | 20.775591 | 20.776547 | 20.777502 |
| 0.400 | 20.778458 | 20.779414 | 20.780370 | 20.781326 | 20.782282 | 20.783238 | 20.784194 | 20.785150 | 20.786106 | 20.787063 |
| 0.410 | 20.788019 | 20.788975 | 20.789932 | 20.790888 | 20.791845 | 20.792802 | 20.793758 | 20.794715 | 20.795672 | 20.796629 |
| 0.420 | 20.797585 | 20.798542 | 20.799500 | 20.800457 | 20.801414 | 20.802371 | 20.803328 | 20.804286 | 20.805243 | 20.806201 |
| 0.430 | 20.807158 | 20.808115 | 20.809073 | 20.810031 | 20.810989 | 20.811946 | 20.812904 | 20.813862 | 20.814820 | 20.815778 |
| 0.440 | 20.816736 | 20.817694 | 20.818652 | 20.819611 | 20.820569 | 20.821527 | 20.822486 | 20.823444 | 20.824403 | 20.825361 |
| 0.450 | 20.826320 | 20.827279 | 20.828238 | 20.829196 | 20.830155 | 20.831114 | 20.832073 | 20.833032 | 20.833992 | 20.834951 |
| 0.460 | 20.835910 | 20.836869 | 20.837829 | 20.838788 | 20.839748 | 20.840707 | 20.841667 | 20.842626 | 20.843586 | 20.844546 |
| 0.470 | 20.845506 | 20.846466 | 20.847425 | 20.848386 | 20.849346 | 20.850306 | 20.851266 | 20.852226 | 20.853186 | 20.854147 |
| 0.480 | 20.855107 | 20.856068 | 20.857028 | 20.857989 | 20.858949 | 20.859910 | 20.860871 | 20.861832 | 20.862792 | 20.863754 |
| 0.490 | 20.864715 | 20.865676 | 20.866637 | 20.867598 | 20.868559 | 20.869520 | 20.870482 | 20.871443 | 20.872405 | 20.873366 |

ATTENUATION IN DECIBELS
THETA FROM 72.500 TO 72.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 20.874328 | 20.875289 | 20.876251 | 20.877213 | 20.878175 | 20.879137 | 20.880098 | 20.881060 | 20.882022 | 20.882985 |
| 0.510 | 20.883947 | 20.884909 | 20.885871 | 20.886834 | 20.887796 | 20.888758 | 20.889721 | 20.890684 | 20.891646 | 20.892609 |
| 0.520 | 20.893572 | 20.894534 | 20.895497 | 20.896460 | 20.897423 | 20.898386 | 20.899349 | 20.900313 | 20.901276 | 20.902239 |
| 0.530 | 20.903202 | 20.904166 | 20.905129 | 20.906093 | 20.907056 | 20.908020 | 20.908984 | 20.909947 | 20.910911 | 20.911875 |
| 0.540 | 20.912839 | 20.913803 | 20.914767 | 20.915731 | 20.916695 | 20.917660 | 20.918624 | 20.919588 | 20.920552 | 20.921517 |
| 0.550 | 20.922482 | 20.923446 | 20.924411 | 20.925375 | 20.926340 | 20.927305 | 20.928270 | 20.929235 | 20.930200 | 20.931165 |
| 0.560 | 20.932130 | 20.933095 | 20.934060 | 20.935026 | 20.935991 | 20.936956 | 20.937922 | 20.938887 | 20.939853 | 20.940819 |
| 0.570 | 20.941784 | 20.942750 | 20.943716 | 20.944682 | 20.945647 | 20.946614 | 20.947580 | 20.948546 | 20.949512 | 20.950478 |
| 0.580 | 20.951444 | 20.952411 | 20.953377 | 20.954344 | 20.955310 | 20.956277 | 20.957243 | 20.958210 | 20.959177 | 20.960144 |
| 0.590 | 20.961111 | 20.962077 | 20.963044 | 20.964011 | 20.964979 | 20.965946 | 20.966913 | 20.967880 | 20.968848 | 20.969815 |
| 0.600 | 20.970783 | 20.971750 | 20.972718 | 20.973685 | 20.974653 | 20.975621 | 20.976588 | 20.977556 | 20.978524 | 20.979492 |
| 0.610 | 20.980460 | 20.981429 | 20.982397 | 20.983365 | 20.984333 | 20.985301 | 20.986270 | 20.987238 | 20.988207 | 20.989176 |
| 0.620 | 20.990144 | 20.991113 | 20.992082 | 20.993051 | 20.994020 | 20.994988 | 20.995957 | 20.996926 | 20.997895 | 20.998865 |
| 0.630 | 20.999834 | 21.000803 | 21.001773 | 21.002742 | 21.003712 | 21.004681 | 21.005651 | 21.006620 | 21.007590 | 21.008560 |
| 0.640 | 21.009530 | 21.010500 | 21.011470 | 21.012439 | 21.013410 | 21.014380 | 21.015350 | 21.016320 | 21.017291 | 21.018261 |
| 0.650 | 21.019231 | 21.020202 | 21.021173 | 21.022143 | 21.023114 | 21.024084 | 21.025055 | 21.026026 | 21.026997 | 21.027968 |
| 0.660 | 21.028939 | 21.029910 | 21.030881 | 21.031852 | 21.032824 | 21.033795 | 21.034766 | 21.035738 | 21.036709 | 21.037681 |
| 0.670 | 21.038653 | 21.039624 | 21.040596 | 21.041568 | 21.042540 | 21.043512 | 21.044484 | 21.045456 | 21.046428 | 21.047400 |
| 0.680 | 21.048372 | 21.049344 | 21.050317 | 21.051289 | 21.052262 | 21.053234 | 21.054207 | 21.055179 | 21.056152 | 21.057125 |
| 0.690 | 21.058098 | 21.059070 | 21.060043 | 21.061016 | 21.061990 | 21.062963 | 21.063936 | 21.064909 | 21.065882 | 21.066856 |
| 0.700 | 21.067829 | 21.068803 | 21.069776 | 21.070750 | 21.071723 | 21.072697 | 21.073671 | 21.074645 | 21.075619 | 21.076592 |
| 0.710 | 21.077566 | 21.078541 | 21.079515 | 21.080489 | 21.081463 | 21.082438 | 21.083412 | 21.084386 | 21.085361 | 21.086335 |
| 0.720 | 21.087310 | 21.088284 | 21.089259 | 21.090234 | 21.091209 | 21.092184 | 21.093159 | 21.094134 | 21.095109 | 21.096084 |
| 0.730 | 21.097059 | 21.098035 | 21.099010 | 21.099985 | 21.100961 | 21.101936 | 21.102912 | 21.103888 | 21.104863 | 21.105839 |
| 0.740 | 21.106815 | 21.107791 | 21.108767 | 21.109743 | 21.110719 | 21.111695 | 21.112671 | 21.113647 | 21.114624 | 21.115600 |
| 0.750 | 21.116576 | 21.117553 | 21.118529 | 21.119506 | 21.120482 | 21.121459 | 21.122436 | 21.123413 | 21.124390 | 21.125367 |
| 0.760 | 21.126344 | 21.127321 | 21.128298 | 21.129275 | 21.130252 | 21.131230 | 21.132207 | 21.133185 | 21.134162 | 21.135140 |
| 0.770 | 21.136117 | 21.137095 | 21.138073 | 21.139050 | 21.140028 | 21.141006 | 21.141984 | 21.142962 | 21.143940 | 21.144919 |
| 0.780 | 21.145897 | 21.146875 | 21.147853 | 21.148832 | 21.149810 | 21.150789 | 21.151767 | 21.152746 | 21.153725 | 21.154704 |
| 0.790 | 21.155682 | 21.156661 | 21.157640 | 21.158619 | 21.159598 | 21.160578 | 21.161557 | 21.162536 | 21.163515 | 21.164495 |
| 0.800 | 21.165474 | 21.166453 | 21.167433 | 21.168413 | 21.169392 | 21.170372 | 21.171352 | 21.172332 | 21.173312 | 21.174292 |
| 0.810 | 21.175272 | 21.176252 | 21.177232 | 21.178212 | 21.179192 | 21.180173 | 21.181153 | 21.182134 | 21.183114 | 21.184095 |
| 0.820 | 21.185075 | 21.186056 | 21.187037 | 21.188018 | 21.188998 | 21.189980 | 21.190960 | 21.191941 | 21.192923 | 21.193904 |
| 0.830 | 21.194885 | 21.195867 | 21.196848 | 21.197829 | 21.198811 | 21.199792 | 21.200774 | 21.201756 | 21.202737 | 21.203719 |
| 0.840 | 21.204701 | 21.205683 | 21.206665 | 21.207647 | 21.208629 | 21.209611 | 21.210593 | 21.211576 | 21.212558 | 21.213541 |
| 0.850 | 21.214523 | 21.215506 | 21.216488 | 21.217471 | 21.218453 | 21.219436 | 21.220419 | 21.221402 | 21.222385 | 21.223368 |
| 0.860 | 21.224351 | 21.225334 | 21.226317 | 21.227301 | 21.228284 | 21.229267 | 21.230251 | 21.231234 | 21.232218 | 21.233202 |
| 0.870 | 21.234185 | 21.235169 | 21.236153 | 21.237137 | 21.238121 | 21.239105 | 21.240088 | 21.241073 | 21.242057 | 21.243041 |
| 0.880 | 21.244025 | 21.245010 | 21.245994 | 21.246979 | 21.247963 | 21.248948 | 21.249932 | 21.250917 | 21.251902 | 21.252887 |
| 0.890 | 21.253872 | 21.254857 | 21.255842 | 21.256827 | 21.257812 | 21.258797 | 21.259782 | 21.260768 | 21.261753 | 21.262738 |
| 0.900 | 21.263724 | 21.264710 | 21.265695 | 21.266681 | 21.267667 | 21.268653 | 21.269639 | 21.270624 | 21.271610 | 21.272597 |
| 0.910 | 21.273503 | 21.274489 | 21.275475 | 21.276461 | 21.277447 | 21.278434 | 21.279420 | 21.280407 | 21.281394 | 21.282381 |
| 0.920 | 21.283347 | 21.284334 | 21.285321 | 21.286308 | 21.287295 | 21.288282 | 21.289269 | 21.290256 | 21.291243 | 21.292231 |
| 0.930 | 21.293318 | 21.294306 | 21.295293 | 21.296281 | 21.297268 | 21.298256 | 21.299244 | 21.300231 | 21.301219 | 21.302207 |
| 0.940 | 21.303195 | 21.304183 | 21.305171 | 21.306159 | 21.307148 | 21.308136 | 21.309124 | 21.310113 | 21.311101 | 21.312090 |
| 0.950 | 21.313078 | 21.314067 | 21.315056 | 21.316044 | 21.317033 | 21.318022 | 21.319011 | 21.320000 | 21.320989 | 21.321978 |
| 0.960 | 21.322968 | 21.323957 | 21.324946 | 21.325936 | 21.326925 | 21.327914 | 21.328904 | 21.329894 | 21.330883 | 21.331873 |
| 0.970 | 21.332863 | 21.333853 | 21.334843 | 21.335833 | 21.336823 | 21.337813 | 21.338803 | 21.339793 | 21.340784 | 21.341774 |
| 0.980 | 21.342765 | 21.343755 | 21.344746 | 21.345736 | 21.346727 | 21.347718 | 21.348708 | 21.349699 | 21.350690 | 21.351681 |
| 0.990 | 21.352672 | 21.353663 | 21.354655 | 21.355646 | 21.356637 | 21.357629 | 21.358620 | 21.359612 | 21.360603 | 21.361595 |

ATTENUATION IN DECIBELS
 THETA FROM 73.000 TO 73.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 21.362586 | 21.363578 | 21.364570 | 21.365562 | 21.366554 | 21.367546 | 21.368538 | 21.369530 | 21.370522 | 21.371514 |
| 0.010 | 21.372506 | 21.373499 | 21.374491 | 21.375484 | 21.376476 | 21.377469 | 21.378462 | 21.379454 | 21.380447 | 21.381440 |
| 0.020 | 21.382433 | 21.383426 | 21.384419 | 21.385412 | 21.386405 | 21.387398 | 21.388391 | 21.389385 | 21.390378 | 21.391372 |
| 0.030 | 21.392365 | 21.393359 | 21.394353 | 21.395346 | 21.396340 | 21.397334 | 21.398328 | 21.399322 | 21.400316 | 21.401310 |
| 0.040 | 21.402304 | 21.403298 | 21.404293 | 21.405287 | 21.406281 | 21.407276 | 21.408271 | 21.409265 | 21.410259 | 21.411254 |
| 0.050 | 21.412249 | 21.413244 | 21.414239 | 21.415234 | 21.416229 | 21.417224 | 21.418219 | 21.419214 | 21.420210 | 21.421205 |
| 0.060 | 21.422200 | 21.423196 | 21.424191 | 21.425187 | 21.426183 | 21.427178 | 21.428174 | 21.429170 | 21.430166 | 21.431162 |
| 0.070 | 21.432158 | 21.433154 | 21.434150 | 21.435146 | 21.436142 | 21.437139 | 21.438135 | 21.439132 | 21.440128 | 21.441125 |
| 0.080 | 21.442122 | 21.443118 | 21.444115 | 21.445112 | 21.446109 | 21.447106 | 21.448103 | 21.449100 | 21.450097 | 21.451094 |
| 0.090 | 21.452091 | 21.453089 | 21.454086 | 21.455084 | 21.456081 | 21.457079 | 21.458076 | 21.459074 | 21.460072 | 21.461070 |
| 0.100 | 21.462068 | 21.463065 | 21.464063 | 21.465062 | 21.466060 | 21.467058 | 21.468056 | 21.469054 | 21.470053 | 21.471051 |
| 0.110 | 21.472050 | 21.473048 | 21.474047 | 21.475046 | 21.476045 | 21.477044 | 21.478042 | 21.479041 | 21.480041 | 21.481040 |
| 0.120 | 21.482039 | 21.483038 | 21.484037 | 21.485037 | 21.486036 | 21.487036 | 21.488035 | 21.489034 | 21.490034 | 21.491034 |
| 0.130 | 21.492034 | 21.493033 | 21.494033 | 21.495034 | 21.496033 | 21.497034 | 21.498034 | 21.499034 | 21.500034 | 21.501034 |
| 0.140 | 21.502035 | 21.503036 | 21.504036 | 21.505037 | 21.506037 | 21.507038 | 21.508039 | 21.509040 | 21.510041 | 21.511041 |
| 0.150 | 21.512043 | 21.513044 | 21.514045 | 21.515046 | 21.516047 | 21.517049 | 21.518050 | 21.519052 | 21.520053 | 21.521055 |
| 0.160 | 21.522056 | 21.523058 | 21.524060 | 21.525062 | 21.526064 | 21.527066 | 21.528068 | 21.529070 | 21.530072 | 21.531074 |
| 0.170 | 21.532077 | 21.533079 | 21.534081 | 21.535084 | 21.536086 | 21.537089 | 21.538092 | 21.539094 | 21.540097 | 21.541100 |
| 0.180 | 21.542103 | 21.543106 | 21.544109 | 21.545112 | 21.546115 | 21.547119 | 21.548122 | 21.549125 | 21.550129 | 21.551132 |
| 0.190 | 21.552136 | 21.553139 | 21.554143 | 21.555147 | 21.556151 | 21.557155 | 21.558159 | 21.559163 | 21.560167 | 21.561171 |
| 0.200 | 21.562175 | 21.563179 | 21.564183 | 21.565188 | 21.566192 | 21.567197 | 21.568202 | 21.569206 | 21.570211 | 21.571216 |
| 0.210 | 21.572220 | 21.573225 | 21.574230 | 21.575235 | 21.576240 | 21.577245 | 21.578251 | 21.579256 | 21.580261 | 21.581266 |
| 0.220 | 21.582272 | 21.583278 | 21.584283 | 21.585289 | 21.586295 | 21.587301 | 21.588306 | 21.589312 | 21.590318 | 21.591324 |
| 0.230 | 21.592330 | 21.593337 | 21.594343 | 21.595349 | 21.596355 | 21.597362 | 21.598368 | 21.599375 | 21.600381 | 21.601388 |
| 0.240 | 21.602395 | 21.603402 | 21.604409 | 21.605416 | 21.606422 | 21.607430 | 21.608437 | 21.609444 | 21.610451 | 21.611458 |
| 0.250 | 21.612466 | 21.613473 | 21.614481 | 21.615488 | 21.616496 | 21.617504 | 21.618511 | 21.619519 | 21.620527 | 21.621535 |
| 0.260 | 21.622543 | 21.623551 | 21.624559 | 21.625567 | 21.626576 | 21.627584 | 21.628592 | 21.629601 | 21.630610 | 21.631618 |
| 0.270 | 21.632627 | 21.633635 | 21.634644 | 21.635653 | 21.636662 | 21.637671 | 21.638680 | 21.639689 | 21.640698 | 21.641707 |
| 0.280 | 21.642717 | 21.643726 | 21.644735 | 21.645745 | 21.646755 | 21.647764 | 21.648774 | 21.649783 | 21.650793 | 21.651803 |
| 0.290 | 21.652813 | 21.653823 | 21.654833 | 21.655843 | 21.656853 | 21.657864 | 21.658874 | 21.659884 | 21.660895 | 21.661905 |
| 0.300 | 21.662916 | 21.663927 | 21.664937 | 21.665948 | 21.666959 | 21.667970 | 21.668981 | 21.669992 | 21.671003 | 21.672014 |
| 0.310 | 21.673025 | 21.674036 | 21.675048 | 21.676059 | 21.677071 | 21.678082 | 21.679094 | 21.680105 | 21.681117 | 21.682129 |
| 0.320 | 21.683141 | 21.684153 | 21.685165 | 21.686177 | 21.687189 | 21.688201 | 21.689213 | 21.690225 | 21.691238 | 21.692250 |
| 0.330 | 21.693263 | 21.694275 | 21.695288 | 21.696301 | 21.697313 | 21.698326 | 21.699339 | 21.700352 | 21.701365 | 21.702378 |
| 0.340 | 21.703391 | 21.704404 | 21.705418 | 21.706431 | 21.707444 | 21.708458 | 21.709471 | 21.710485 | 21.711499 | 21.712512 |
| 0.350 | 21.713526 | 21.714540 | 21.715554 | 21.716568 | 21.717582 | 21.718596 | 21.719610 | 21.720624 | 21.721639 | 21.722653 |
| 0.360 | 21.723668 | 21.724682 | 21.725697 | 21.726711 | 21.727726 | 21.728740 | 21.729755 | 21.730770 | 21.731785 | 21.732800 |
| 0.370 | 21.733815 | 21.734830 | 21.735846 | 21.736861 | 21.737876 | 21.738892 | 21.739907 | 21.740923 | 21.741938 | 21.742954 |
| 0.380 | 21.743970 | 21.744985 | 21.746001 | 21.747017 | 21.748033 | 21.749049 | 21.750065 | 21.751081 | 21.752098 | 21.753114 |
| 0.390 | 21.754130 | 21.755147 | 21.756163 | 21.757180 | 21.758197 | 21.759213 | 21.760230 | 21.761247 | 21.762264 | 21.763281 |
| 0.400 | 21.764297 | 21.765315 | 21.766332 | 21.767349 | 21.768366 | 21.769384 | 21.770401 | 21.771419 | 21.772436 | 21.773454 |
| 0.410 | 21.774471 | 21.775489 | 21.776507 | 21.777525 | 21.778543 | 21.779561 | 21.780579 | 21.781597 | 21.782615 | 21.783633 |
| 0.420 | 21.784652 | 21.785670 | 21.786688 | 21.787707 | 21.788725 | 21.789744 | 21.790763 | 21.791781 | 21.792800 | 21.793819 |
| 0.430 | 21.794838 | 21.795857 | 21.796876 | 21.797895 | 21.798915 | 21.799934 | 21.800953 | 21.801973 | 21.802992 | 21.804012 |
| 0.440 | 21.805031 | 21.806051 | 21.807071 | 21.808091 | 21.809110 | 21.810130 | 21.811151 | 21.812171 | 21.813191 | 21.814211 |
| 0.450 | 21.815231 | 21.816252 | 21.817272 | 21.818292 | 21.819311 | 21.820333 | 21.821354 | 21.822375 | 21.823395 | 21.824416 |
| 0.460 | 21.825437 | 21.826458 | 21.827479 | 21.828501 | 21.829522 | 21.830543 | 21.831564 | 21.832586 | 21.833607 | 21.834629 |
| 0.470 | 21.835650 | 21.836672 | 21.837693 | 21.838715 | 21.839737 | 21.840758 | 21.841781 | 21.842803 | 21.843825 | 21.844847 |
| 0.480 | 21.845870 | 21.846892 | 21.847914 | 21.848937 | 21.849959 | 21.850981 | 21.852004 | 21.853027 | 21.854050 | 21.855072 |
| 0.490 | 21.856095 | 21.857118 | 21.858141 | 21.859164 | 21.860188 | 21.861211 | 21.862234 | 21.863257 | 21.864281 | 21.865304 |

ATTENUATION IN DECIBELS
 THETA FROM 73.500 TO 73.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 21.866328 | 21.867351 | 21.868375 | 21.869399 | 21.870423 | 21.871446 | 21.872470 | 21.873494 | 21.874518 | 21.875542 |
| 0.510 | 21.876567 | 21.877591 | 21.878615 | 21.879640 | 21.880664 | 21.881689 | 21.882713 | 21.883738 | 21.884763 | 21.885787 |
| 0.520 | 21.886812 | 21.887837 | 21.888862 | 21.889887 | 21.890912 | 21.891937 | 21.892963 | 21.893988 | 21.895013 | 21.896039 |
| 0.530 | 21.897064 | 21.898090 | 21.899116 | 21.900141 | 21.901167 | 21.902193 | 21.903219 | 21.904245 | 21.905271 | 21.906297 |
| 0.540 | 21.911269 | 21.912294 | 21.913319 | 21.914345 | 21.915370 | 21.916396 | 21.917422 | 21.918448 | 21.919474 | 21.920500 |
| 0.550 | 21.917588 | 21.918615 | 21.919642 | 21.920669 | 21.921696 | 21.922723 | 21.923751 | 21.924778 | 21.925805 | 21.926833 |
| 0.560 | 21.927860 | 21.928888 | 21.929915 | 21.930943 | 21.931971 | 21.932999 | 21.934026 | 21.935054 | 21.936082 | 21.937110 |
| 0.570 | 21.938139 | 21.939167 | 21.940195 | 21.941223 | 21.942252 | 21.943280 | 21.944309 | 21.945338 | 21.946366 | 21.947395 |
| 0.580 | 21.948424 | 21.949453 | 21.950482 | 21.951511 | 21.952540 | 21.953569 | 21.954598 | 21.955627 | 21.956657 | 21.957686 |
| 0.590 | 21.958715 | 21.959745 | 21.960775 | 21.961804 | 21.962834 | 21.963864 | 21.964894 | 21.965924 | 21.966954 | 21.967984 |
| 0.600 | 21.969014 | 21.970044 | 21.971074 | 21.972105 | 21.973135 | 21.974165 | 21.975196 | 21.976227 | 21.977257 | 21.978288 |
| 0.610 | 21.979319 | 21.980350 | 21.981381 | 21.982412 | 21.983443 | 21.984474 | 21.985505 | 21.986536 | 21.987568 | 21.988599 |
| 0.620 | 21.989630 | 21.990662 | 21.991693 | 21.992725 | 21.993757 | 21.994789 | 21.995821 | 21.996853 | 21.997885 | 21.998917 |
| 0.630 | 21.999949 | 22.000981 | 22.002013 | 22.003046 | 22.004078 | 22.005111 | 22.006143 | 22.007175 | 22.008208 | 22.009241 |
| 0.640 | 22.010274 | 22.011307 | 22.012340 | 22.013372 | 22.014405 | 22.015439 | 22.016472 | 22.017505 | 22.018538 | 22.019572 |
| 0.650 | 22.020605 | 22.021639 | 22.022672 | 22.023706 | 22.024740 | 22.025774 | 22.026808 | 22.027842 | 22.028875 | 22.029910 |
| 0.660 | 22.030944 | 22.031978 | 22.033012 | 22.034046 | 22.035081 | 22.036115 | 22.037150 | 22.038184 | 22.039219 | 22.040254 |
| 0.670 | 22.041289 | 22.042324 | 22.043358 | 22.044394 | 22.045429 | 22.046464 | 22.047499 | 22.048534 | 22.049569 | 22.050605 |
| 0.680 | 22.051640 | 22.052676 | 22.053711 | 22.054747 | 22.055783 | 22.056819 | 22.057855 | 22.058891 | 22.059927 | 22.060963 |
| 0.690 | 22.061999 | 22.063035 | 22.064071 | 22.065108 | 22.066144 | 22.067180 | 22.068217 | 22.069253 | 22.070290 | 22.071327 |
| 0.700 | 22.072364 | 22.073401 | 22.074438 | 22.075475 | 22.076512 | 22.077549 | 22.078586 | 22.079623 | 22.080661 | 22.081698 |
| 0.710 | 22.082736 | 22.083773 | 22.084811 | 22.085849 | 22.086886 | 22.087924 | 22.088962 | 22.089999 | 22.091038 | 22.092076 |
| 0.720 | 22.093114 | 22.094152 | 22.095191 | 22.096229 | 22.097267 | 22.098306 | 22.099344 | 22.100383 | 22.101422 | 22.102461 |
| 0.730 | 22.103499 | 22.104538 | 22.105577 | 22.106616 | 22.107656 | 22.108695 | 22.109734 | 22.110773 | 22.111813 | 22.112852 |
| 0.740 | 22.113891 | 22.114931 | 22.115971 | 22.117010 | 22.118050 | 22.119090 | 22.120130 | 22.121170 | 22.122210 | 22.123250 |
| 0.750 | 22.124290 | 22.125330 | 22.126371 | 22.127411 | 22.128452 | 22.129492 | 22.130533 | 22.131573 | 22.132614 | 22.133655 |
| 0.760 | 22.134696 | 22.135737 | 22.136778 | 22.137819 | 22.138860 | 22.139901 | 22.140942 | 22.141984 | 22.143025 | 22.144065 |
| 0.770 | 22.145108 | 22.146150 | 22.147191 | 22.148233 | 22.149275 | 22.150317 | 22.151359 | 22.152401 | 22.153443 | 22.154485 |
| 0.780 | 22.155527 | 22.156569 | 22.157612 | 22.158654 | 22.159697 | 22.160739 | 22.161782 | 22.162824 | 22.163867 | 22.164910 |
| 0.790 | 22.165953 | 22.166996 | 22.168039 | 22.169082 | 22.170125 | 22.171168 | 22.172212 | 22.173255 | 22.174299 | 22.175342 |
| 0.800 | 22.176386 | 22.177429 | 22.178473 | 22.179517 | 22.180561 | 22.181604 | 22.182648 | 22.183692 | 22.184736 | 22.185781 |
| 0.810 | 22.186825 | 22.187869 | 22.188914 | 22.189958 | 22.191003 | 22.192047 | 22.193092 | 22.194137 | 22.195181 | 22.196226 |
| 0.820 | 22.197271 | 22.198316 | 22.199361 | 22.200406 | 22.201452 | 22.202497 | 22.203542 | 22.204588 | 22.205633 | 22.206679 |
| 0.830 | 22.207724 | 22.208770 | 22.209816 | 22.210861 | 22.211907 | 22.212953 | 22.213999 | 22.215045 | 22.216092 | 22.217138 |
| 0.840 | 22.218184 | 22.219230 | 22.220277 | 22.221323 | 22.222370 | 22.223417 | 22.224463 | 22.225510 | 22.226557 | 22.227604 |
| 0.850 | 22.228651 | 22.229698 | 22.230745 | 22.231792 | 22.232839 | 22.233887 | 22.234934 | 22.235982 | 22.237029 | 22.238077 |
| 0.860 | 22.239124 | 22.240172 | 22.241220 | 22.242268 | 22.243316 | 22.244364 | 22.245412 | 22.246460 | 22.247508 | 22.248556 |
| 0.870 | 22.249605 | 22.250653 | 22.251702 | 22.252750 | 22.253799 | 22.254848 | 22.255896 | 22.256945 | 22.257994 | 22.259043 |
| 0.880 | 22.260092 | 22.261141 | 22.262190 | 22.263240 | 22.264289 | 22.265338 | 22.266388 | 22.267437 | 22.268487 | 22.269536 |
| 0.890 | 22.270586 | 22.271636 | 22.272686 | 22.273736 | 22.274786 | 22.275836 | 22.276886 | 22.277936 | 22.278986 | 22.280037 |
| 0.900 | 22.281087 | 22.282138 | 22.283188 | 22.284239 | 22.285290 | 22.286340 | 22.287391 | 22.288442 | 22.289493 | 22.290544 |
| 0.910 | 22.291595 | 22.292646 | 22.293697 | 22.294749 | 22.295800 | 22.296852 | 22.297903 | 22.298955 | 22.300006 | 22.301058 |
| 0.920 | 22.302110 | 22.303162 | 22.304214 | 22.305266 | 22.306318 | 22.307370 | 22.308422 | 22.309474 | 22.310527 | 22.311579 |
| 0.930 | 22.312631 | 22.313684 | 22.314737 | 22.315789 | 22.316842 | 22.317895 | 22.318948 | 22.320001 | 22.321054 | 22.322107 |
| 0.940 | 22.323160 | 22.324213 | 22.325267 | 22.326320 | 22.327373 | 22.328427 | 22.329480 | 22.330534 | 22.331588 | 22.332642 |
| 0.950 | 22.333695 | 22.334749 | 22.335804 | 22.336858 | 22.337912 | 22.338966 | 22.340020 | 22.341074 | 22.342129 | 22.343183 |
| 0.960 | 22.344238 | 22.345293 | 22.346347 | 22.347402 | 22.348457 | 22.349511 | 22.350566 | 22.351621 | 22.352676 | 22.353731 |
| 0.970 | 22.354787 | 22.355843 | 22.356898 | 22.357953 | 22.359009 | 22.360065 | 22.361120 | 22.362176 | 22.363232 | 22.364288 |
| 0.980 | 22.365344 | 22.366400 | 22.367455 | 22.368512 | 22.369568 | 22.370624 | 22.371680 | 22.372737 | 22.373794 | 22.374850 |
| 0.990 | 22.375907 | 22.376963 | 22.378020 | 22.379077 | 22.380134 | 22.381191 | 22.382248 | 22.383305 | 22.384362 | 22.385420 |

ATTENUATION IN DECIBELS
THETA FROM 74.000 TO 74.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 22.386477 | 22.387534 | 22.388592 | 22.389649 | 22.390707 | 22.391765 | 22.392822 | 22.393880 | 22.394938 | 22.395996 |
| 0.010 | 22.397054 | 22.398112 | 22.399170 | 22.400229 | 22.401287 | 22.402345 | 22.403404 | 22.404462 | 22.405521 | 22.406579 |
| 0.020 | 22.407638 | 22.408697 | 22.409756 | 22.410815 | 22.411874 | 22.412933 | 22.413992 | 22.415051 | 22.416111 | 22.417170 |
| 0.030 | 22.418229 | 22.419289 | 22.420348 | 22.421408 | 22.422468 | 22.423527 | 22.424587 | 22.425647 | 22.426707 | 22.427767 |
| 0.040 | 22.428827 | 22.429888 | 22.430948 | 22.432008 | 22.433069 | 22.434129 | 22.435189 | 22.436250 | 22.437311 | 22.438372 |
| 0.050 | 22.439432 | 22.440493 | 22.441554 | 22.442615 | 22.443676 | 22.444738 | 22.445799 | 22.446860 | 22.447922 | 22.448983 |
| 0.060 | 22.450044 | 22.451106 | 22.452168 | 22.453229 | 22.454291 | 22.455353 | 22.456415 | 22.457477 | 22.458539 | 22.459601 |
| 0.070 | 22.460664 | 22.461726 | 22.462788 | 22.463851 | 22.464913 | 22.465976 | 22.467038 | 22.468101 | 22.469164 | 22.470227 |
| 0.080 | 22.471290 | 22.472353 | 22.473416 | 22.474479 | 22.475542 | 22.476605 | 22.477668 | 22.478732 | 22.479796 | 22.480859 |
| 0.090 | 22.481923 | 22.482987 | 22.484050 | 22.485114 | 22.486178 | 22.487242 | 22.488306 | 22.489370 | 22.490434 | 22.491499 |
| 0.100 | 22.492563 | 22.493628 | 22.494692 | 22.495757 | 22.496821 | 22.497886 | 22.498951 | 22.500015 | 22.501080 | 22.502145 |
| 0.110 | 22.503210 | 22.504276 | 22.505341 | 22.506406 | 22.507471 | 22.508537 | 22.509602 | 22.510668 | 22.511733 | 22.512799 |
| 0.120 | 22.513865 | 22.514930 | 22.515996 | 22.517062 | 22.518128 | 22.519195 | 22.520261 | 22.521327 | 22.522393 | 22.523460 |
| 0.130 | 22.524526 | 22.525593 | 22.526659 | 22.527726 | 22.528793 | 22.529860 | 22.530926 | 22.531993 | 22.533060 | 22.534127 |
| 0.140 | 22.535195 | 22.536262 | 22.537329 | 22.538396 | 22.539464 | 22.540531 | 22.541599 | 22.542667 | 22.543734 | 22.544802 |
| 0.150 | 22.545870 | 22.546938 | 22.548006 | 22.549074 | 22.550142 | 22.551211 | 22.552279 | 22.553347 | 22.554416 | 22.555484 |
| 0.160 | 22.556553 | 22.557621 | 22.558690 | 22.559759 | 22.560828 | 22.561897 | 22.562966 | 22.564035 | 22.565104 | 22.566173 |
| 0.170 | 22.567242 | 22.568312 | 22.569381 | 22.570451 | 22.571520 | 22.572590 | 22.573660 | 22.574729 | 22.575799 | 22.576869 |
| 0.180 | 22.577939 | 22.579010 | 22.580080 | 22.581150 | 22.582220 | 22.583290 | 22.584361 | 22.585431 | 22.586502 | 22.587573 |
| 0.190 | 22.588643 | 22.589714 | 22.590785 | 22.591856 | 22.592927 | 22.593998 | 22.595069 | 22.596140 | 22.597212 | 22.598283 |
| 0.200 | 22.599355 | 22.600426 | 22.601497 | 22.602569 | 22.603641 | 22.604713 | 22.605784 | 22.606856 | 22.607929 | 22.609000 |
| 0.210 | 22.610073 | 22.611145 | 22.612217 | 22.613290 | 22.614362 | 22.615434 | 22.616507 | 22.617580 | 22.618652 | 22.619725 |
| 0.220 | 22.620798 | 22.621870 | 22.622944 | 22.624017 | 22.625090 | 22.626163 | 22.627237 | 22.628310 | 22.629384 | 22.630457 |
| 0.230 | 22.631531 | 22.632604 | 22.633678 | 22.634752 | 22.635826 | 22.636899 | 22.637974 | 22.639048 | 22.640122 | 22.641196 |
| 0.240 | 22.642270 | 22.643345 | 22.644419 | 22.645494 | 22.646568 | 22.647643 | 22.648718 | 22.649792 | 22.650867 | 22.651942 |
| 0.250 | 22.653017 | 22.654092 | 22.655168 | 22.656243 | 22.657318 | 22.658393 | 22.659469 | 22.660544 | 22.661620 | 22.662696 |
| 0.260 | 22.663771 | 22.664847 | 22.665923 | 22.666999 | 22.668075 | 22.669151 | 22.670227 | 22.671304 | 22.672380 | 22.673456 |
| 0.270 | 22.674533 | 22.675609 | 22.676686 | 22.677762 | 22.678839 | 22.679916 | 22.680993 | 22.682070 | 22.683147 | 22.684224 |
| 0.280 | 22.685301 | 22.686378 | 22.687456 | 22.688533 | 22.689610 | 22.690688 | 22.691766 | 22.692843 | 22.693921 | 22.694999 |
| 0.290 | 22.696077 | 22.697155 | 22.698233 | 22.699311 | 22.700389 | 22.701467 | 22.702546 | 22.703624 | 22.704702 | 22.705781 |
| 0.300 | 22.706860 | 22.707938 | 22.709017 | 22.710096 | 22.711175 | 22.712254 | 22.713333 | 22.714412 | 22.715491 | 22.716570 |
| 0.310 | 22.717650 | 22.718729 | 22.719809 | 22.720888 | 22.721968 | 22.723047 | 22.724127 | 22.725207 | 22.726287 | 22.727367 |
| 0.320 | 22.728447 | 22.729527 | 22.730607 | 22.731688 | 22.732768 | 22.733848 | 22.734929 | 22.736009 | 22.737090 | 22.738171 |
| 0.330 | 22.739252 | 22.740332 | 22.741413 | 22.742494 | 22.743576 | 22.744657 | 22.745738 | 22.746819 | 22.747900 | 22.748982 |
| 0.340 | 22.750063 | 22.751145 | 22.752227 | 22.753309 | 22.754390 | 22.755472 | 22.756554 | 22.757636 | 22.758718 | 22.759800 |
| 0.350 | 22.760883 | 22.761965 | 22.763047 | 22.764130 | 22.765212 | 22.766295 | 22.767378 | 22.768460 | 22.769543 | 22.770626 |
| 0.360 | 22.771709 | 22.772792 | 22.773875 | 22.774958 | 22.776042 | 22.777125 | 22.778208 | 22.779292 | 22.780375 | 22.781459 |
| 0.370 | 22.782543 | 22.783626 | 22.784710 | 22.785794 | 22.786878 | 22.787962 | 22.789046 | 22.790131 | 22.791215 | 22.792299 |
| 0.380 | 22.793384 | 22.794468 | 22.795553 | 22.796637 | 22.797722 | 22.798807 | 22.799892 | 22.800977 | 22.802062 | 22.803147 |
| 0.390 | 22.804232 | 22.805317 | 22.806402 | 22.807488 | 22.808573 | 22.809659 | 22.810744 | 22.811830 | 22.812916 | 22.814002 |
| 0.400 | 22.815087 | 22.816173 | 22.817259 | 22.818346 | 22.819432 | 22.820518 | 22.821604 | 22.822691 | 22.823777 | 22.824864 |
| 0.410 | 22.825950 | 22.827037 | 22.828124 | 22.829211 | 22.830297 | 22.831384 | 22.832471 | 22.833559 | 22.834646 | 22.835733 |
| 0.420 | 22.836820 | 22.837908 | 22.838995 | 22.840083 | 22.841171 | 22.842258 | 22.843346 | 22.844434 | 22.845522 | 22.846610 |
| 0.430 | 22.847698 | 22.848786 | 22.849874 | 22.850963 | 22.852051 | 22.853139 | 22.854228 | 22.855317 | 22.856405 | 22.857494 |
| 0.440 | 22.858583 | 22.859672 | 22.860761 | 22.861850 | 22.862939 | 22.864028 | 22.865117 | 22.866207 | 22.867296 | 22.868386 |
| 0.450 | 22.869475 | 22.870565 | 22.871655 | 22.872744 | 22.873834 | 22.874924 | 22.876014 | 22.877104 | 22.878194 | 22.879284 |
| 0.460 | 22.880375 | 22.881465 | 22.882555 | 22.883646 | 22.884737 | 22.885827 | 22.886918 | 22.888009 | 22.889100 | 22.890191 |
| 0.470 | 22.891282 | 22.892373 | 22.893464 | 22.894555 | 22.895647 | 22.896738 | 22.897829 | 22.898921 | 22.900012 | 22.901104 |
| 0.480 | 22.902196 | 22.903288 | 22.904380 | 22.905472 | 22.906564 | 22.907656 | 22.908748 | 22.909841 | 22.910933 | 22.912025 |
| 0.490 | 22.913118 | 22.914210 | 22.915303 | 22.916396 | 22.917489 | 22.918581 | 22.919674 | 22.920767 | 22.921860 | 22.922954 |

ATTENUATION IN DECIBELS
 THETA FROM 74.500 TO 74.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 22.924047 | 22.925140 | 22.926234 | 22.927327 | 22.928421 | 22.929514 | 22.930608 | 22.931702 | 22.932796 | 22.933889 |
| 0.510 | 22.934983 | 22.936078 | 22.937172 | 22.938266 | 22.939360 | 22.940454 | 22.941549 | 22.942643 | 22.943738 | 22.944833 |
| 0.520 | 22.945927 | 22.947022 | 22.948117 | 22.949212 | 22.950307 | 22.951402 | 22.952497 | 22.953593 | 22.954688 | 22.955783 |
| 0.530 | 22.956879 | 22.957974 | 22.959070 | 22.960166 | 22.961262 | 22.962357 | 22.963453 | 22.964549 | 22.965645 | 22.966742 |
| 0.540 | 22.967838 | 22.968934 | 22.970030 | 22.971127 | 22.972223 | 22.973320 | 22.974416 | 22.975513 | 22.976610 | 22.977707 |
| 0.550 | 22.978804 | 22.979901 | 22.980998 | 22.982095 | 22.983193 | 22.984290 | 22.985387 | 22.986485 | 22.987582 | 22.988680 |
| 0.560 | 22.989778 | 22.990875 | 22.991973 | 22.993071 | 22.994169 | 22.995267 | 22.996366 | 22.997464 | 22.998562 | 22.999660 |
| 0.570 | 23.000759 | 23.001858 | 23.002956 | 23.004055 | 23.005153 | 23.006252 | 23.007351 | 23.008450 | 23.009549 | 23.010648 |
| 0.580 | 23.011748 | 23.012847 | 23.013946 | 23.015046 | 23.016145 | 23.017245 | 23.018344 | 23.019444 | 23.020544 | 23.021644 |
| 0.590 | 23.022744 | 23.023844 | 23.024944 | 23.026044 | 23.027144 | 23.028245 | 23.029345 | 23.030446 | 23.031546 | 23.032647 |
| 0.600 | 23.033747 | 23.034848 | 23.035949 | 23.037050 | 23.038151 | 23.039252 | 23.040353 | 23.041455 | 23.042556 | 23.043657 |
| 0.610 | 23.044759 | 23.045860 | 23.046962 | 23.048064 | 23.049165 | 23.050267 | 23.051369 | 23.052471 | 23.053573 | 23.054675 |
| 0.620 | 23.055777 | 23.056880 | 23.057982 | 23.059084 | 23.060187 | 23.061290 | 23.062392 | 23.063495 | 23.064598 | 23.065701 |
| 0.630 | 23.066803 | 23.067907 | 23.069010 | 23.070113 | 23.071216 | 23.072320 | 23.073423 | 23.074526 | 23.075630 | 23.076734 |
| 0.640 | 23.077837 | 23.078941 | 23.080045 | 23.081149 | 23.082253 | 23.083357 | 23.084461 | 23.085565 | 23.086670 | 23.087774 |
| 0.650 | 23.088879 | 23.089983 | 23.091088 | 23.092192 | 23.093297 | 23.094402 | 23.095507 | 23.096612 | 23.097717 | 23.098822 |
| 0.660 | 23.099927 | 23.101033 | 23.102138 | 23.103244 | 23.104349 | 23.105455 | 23.106560 | 23.107666 | 23.108772 | 23.109878 |
| 0.670 | 23.110984 | 23.112090 | 23.113196 | 23.114302 | 23.115408 | 23.116515 | 23.117621 | 23.118728 | 23.119834 | 23.120941 |
| 0.680 | 23.122048 | 23.123155 | 23.124261 | 23.125368 | 23.126475 | 23.127583 | 23.128690 | 23.129797 | 23.130904 | 23.132012 |
| 0.690 | 23.133119 | 23.134227 | 23.135334 | 23.136442 | 23.137550 | 23.138658 | 23.139766 | 23.140874 | 23.141982 | 23.143090 |
| 0.700 | 23.144198 | 23.145307 | 23.146415 | 23.147524 | 23.148632 | 23.149741 | 23.150850 | 23.151958 | 23.153067 | 23.154176 |
| 0.710 | 23.155285 | 23.156394 | 23.157503 | 23.158613 | 23.159722 | 23.160831 | 23.161941 | 23.163050 | 23.164160 | 23.165270 |
| 0.720 | 23.166379 | 23.167489 | 23.168599 | 23.169709 | 23.170819 | 23.171930 | 23.173040 | 23.174150 | 23.175261 | 23.176371 |
| 0.730 | 23.177481 | 23.178592 | 23.179703 | 23.180814 | 23.181924 | 23.183035 | 23.184146 | 23.185257 | 23.186368 | 23.187480 |
| 0.740 | 23.188591 | 23.189703 | 23.190814 | 23.191926 | 23.193037 | 23.194149 | 23.195261 | 23.196372 | 23.197484 | 23.198596 |
| 0.750 | 23.199708 | 23.200820 | 23.201933 | 23.203045 | 23.204157 | 23.205270 | 23.206382 | 23.207495 | 23.208608 | 23.209720 |
| 0.760 | 23.210833 | 23.211946 | 23.213059 | 23.214172 | 23.215285 | 23.216398 | 23.217512 | 23.218625 | 23.219738 | 23.220852 |
| 0.770 | 23.221966 | 23.223079 | 23.224193 | 23.225307 | 23.226421 | 23.227535 | 23.228649 | 23.229763 | 23.230877 | 23.231992 |
| 0.780 | 23.233106 | 23.234220 | 23.235335 | 23.236449 | 23.237564 | 23.238679 | 23.239794 | 23.240909 | 23.242024 | 23.243139 |
| 0.790 | 23.244254 | 23.245369 | 23.246484 | 23.247600 | 23.248715 | 23.249831 | 23.250946 | 23.252062 | 23.253178 | 23.254293 |
| 0.800 | 23.255409 | 23.256525 | 23.257641 | 23.258758 | 23.259874 | 23.260990 | 23.262106 | 23.263223 | 23.264339 | 23.265456 |
| 0.810 | 23.266573 | 23.267689 | 23.268806 | 23.269923 | 23.271040 | 23.272157 | 23.273274 | 23.274391 | 23.275509 | 23.276626 |
| 0.820 | 23.277744 | 23.278861 | 23.279979 | 23.281096 | 23.282213 | 23.283332 | 23.284450 | 23.285568 | 23.286686 | 23.287804 |
| 0.830 | 23.288922 | 23.290040 | 23.291159 | 23.292277 | 23.293396 | 23.294515 | 23.295633 | 23.296752 | 23.297871 | 23.298990 |
| 0.840 | 23.300109 | 23.301228 | 23.302347 | 23.303466 | 23.304585 | 23.305705 | 23.306824 | 23.307944 | 23.309063 | 23.310183 |
| 0.850 | 23.311303 | 23.312423 | 23.313543 | 23.314663 | 23.315783 | 23.316903 | 23.318023 | 23.319143 | 23.320264 | 23.321384 |
| 0.860 | 23.322505 | 23.323625 | 23.324746 | 23.325867 | 23.326988 | 23.328109 | 23.329230 | 23.330351 | 23.331472 | 23.332593 |
| 0.870 | 23.333714 | 23.334836 | 23.335957 | 23.337079 | 23.338201 | 23.339322 | 23.340444 | 23.341566 | 23.342688 | 23.343810 |
| 0.880 | 23.344932 | 23.346054 | 23.347176 | 23.348299 | 23.349421 | 23.350543 | 23.351666 | 23.352789 | 23.353911 | 23.355034 |
| 0.890 | 23.356157 | 23.357280 | 23.358403 | 23.359526 | 23.360649 | 23.361773 | 23.362896 | 23.364019 | 23.365143 | 23.366266 |
| 0.900 | 23.367390 | 23.368514 | 23.369638 | 23.370762 | 23.371886 | 23.373010 | 23.374134 | 23.375258 | 23.376382 | 23.377506 |
| 0.910 | 23.378631 | 23.379755 | 23.380880 | 23.382005 | 23.383129 | 23.384254 | 23.385379 | 23.386504 | 23.387629 | 23.388754 |
| 0.920 | 23.389879 | 23.391005 | 23.392130 | 23.393256 | 23.394381 | 23.395507 | 23.396632 | 23.397758 | 23.398884 | 23.400010 |
| 0.930 | 23.401136 | 23.402262 | 23.403388 | 23.404514 | 23.405641 | 23.406767 | 23.407894 | 23.409020 | 23.410147 | 23.411273 |
| 0.940 | 23.412400 | 23.413527 | 23.414654 | 23.415781 | 23.416908 | 23.418035 | 23.419163 | 23.420290 | 23.421417 | 23.422545 |
| 0.950 | 23.423672 | 23.424800 | 23.425928 | 23.427055 | 23.428183 | 23.429311 | 23.430439 | 23.431567 | 23.432696 | 23.433824 |
| 0.960 | 23.434952 | 23.436081 | 23.437209 | 23.438338 | 23.439466 | 23.440595 | 23.441724 | 23.442853 | 23.443982 | 23.445111 |
| 0.970 | 23.446240 | 23.447369 | 23.448498 | 23.449628 | 23.450757 | 23.451887 | 23.453016 | 23.454146 | 23.455276 | 23.456406 |
| 0.980 | 23.457536 | 23.458666 | 23.459796 | 23.460926 | 23.462056 | 23.463187 | 23.464317 | 23.465447 | 23.466578 | 23.467709 |
| 0.990 | 23.468839 | 23.469970 | 23.471101 | 23.472232 | 23.473363 | 23.474494 | 23.475625 | 23.476756 | 23.477888 | 23.479019 |

ATTENUATION IN DECIBELS
THETA FROM 75.000 TO 75.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 23.480151 | 23.481282 | 23.482414 | 23.483546 | 23.484678 | 23.485809 | 23.486941 | 23.488073 | 23.489206 | 23.490338 |
| 0.010 | 23.491470 | 23.492602 | 23.493735 | 23.494867 | 23.496000 | 23.497133 | 23.498266 | 23.499398 | 23.500531 | 23.501664 |
| 0.020 | 23.502797 | 23.503930 | 23.505064 | 23.506197 | 23.507330 | 23.508464 | 23.509597 | 23.510731 | 23.511865 | 23.512999 |
| 0.030 | 23.514132 | 23.515266 | 23.516400 | 23.517534 | 23.518669 | 23.519803 | 23.520937 | 23.522072 | 23.523206 | 23.524341 |
| 0.040 | 23.525476 | 23.526610 | 23.527745 | 23.528880 | 23.530015 | 23.531150 | 23.532285 | 23.533420 | 23.534556 | 23.535691 |
| 0.050 | 23.536827 | 23.537962 | 23.539098 | 23.540233 | 23.541369 | 23.542505 | 23.543641 | 23.544777 | 23.545913 | 23.547049 |
| 0.060 | 23.548186 | 23.549322 | 23.550458 | 23.551595 | 23.552731 | 23.553868 | 23.555005 | 23.556142 | 23.557278 | 23.558415 |
| 0.070 | 23.559552 | 23.560690 | 23.561827 | 23.562964 | 23.564101 | 23.565239 | 23.566376 | 23.567514 | 23.568652 | 23.569790 |
| 0.080 | 23.570927 | 23.572065 | 23.573203 | 23.574341 | 23.575480 | 23.576618 | 23.577756 | 23.578895 | 23.580033 | 23.581172 |
| 0.090 | 23.582310 | 23.583449 | 23.584588 | 23.585727 | 23.586866 | 23.588005 | 23.589144 | 23.590283 | 23.591422 | 23.592562 |
| 0.100 | 23.593701 | 23.594841 | 23.595980 | 23.597120 | 23.598260 | 23.599400 | 23.600539 | 23.601680 | 23.602820 | 23.603960 |
| 0.110 | 23.605100 | 23.606241 | 23.607381 | 23.608521 | 23.609662 | 23.610803 | 23.611943 | 23.613084 | 23.614225 | 23.615366 |
| 0.120 | 23.616507 | 23.617648 | 23.618789 | 23.619931 | 23.621072 | 23.622213 | 23.623355 | 23.624497 | 23.625638 | 23.626780 |
| 0.130 | 23.627922 | 23.629064 | 23.630206 | 23.631348 | 23.632490 | 23.633632 | 23.634775 | 23.635917 | 23.637060 | 23.638202 |
| 0.140 | 23.639345 | 23.640488 | 23.641630 | 23.642773 | 23.643916 | 23.645059 | 23.646202 | 23.647346 | 23.648489 | 23.649632 |
| 0.150 | 23.650776 | 23.651919 | 23.653063 | 23.654207 | 23.655351 | 23.656494 | 23.657638 | 23.658782 | 23.659927 | 23.661071 |
| 0.160 | 23.662215 | 23.663359 | 23.664504 | 23.665648 | 23.666793 | 23.667938 | 23.669082 | 23.670227 | 23.671372 | 23.672517 |
| 0.170 | 23.673662 | 23.674807 | 23.675952 | 23.677098 | 23.678243 | 23.679389 | 23.680534 | 23.681680 | 23.682826 | 23.683971 |
| 0.180 | 23.685117 | 23.686263 | 23.687409 | 23.688555 | 23.689702 | 23.690848 | 23.691994 | 23.693141 | 23.694287 | 23.695434 |
| 0.190 | 23.696581 | 23.697727 | 23.698874 | 23.700021 | 23.701168 | 23.702315 | 23.703463 | 23.704610 | 23.705757 | 23.706905 |
| 0.200 | 23.708052 | 23.709200 | 23.710347 | 23.711495 | 23.712643 | 23.713791 | 23.714939 | 23.716087 | 23.717235 | 23.718383 |
| 0.210 | 23.719532 | 23.720680 | 23.721828 | 23.722977 | 23.724126 | 23.725274 | 23.726423 | 23.727572 | 23.728721 | 23.729870 |
| 0.220 | 23.731019 | 23.732168 | 23.733318 | 23.734467 | 23.735617 | 23.736766 | 23.737916 | 23.739065 | 23.740215 | 23.741365 |
| 0.230 | 23.742515 | 23.743665 | 23.744815 | 23.745965 | 23.747116 | 23.748266 | 23.749416 | 23.750567 | 23.751718 | 23.752868 |
| 0.240 | 23.754019 | 23.755170 | 23.756321 | 23.757472 | 23.758623 | 23.759774 | 23.760925 | 23.762077 | 23.763228 | 23.764380 |
| 0.250 | 23.765531 | 23.766683 | 23.767834 | 23.768986 | 23.770138 | 23.771290 | 23.772442 | 23.773594 | 23.774746 | 23.775899 |
| 0.260 | 23.777051 | 23.778204 | 23.779356 | 23.780509 | 23.781662 | 23.782815 | 23.783967 | 23.785120 | 23.786273 | 23.787426 |
| 0.270 | 23.788580 | 23.789733 | 23.790886 | 23.792040 | 23.793193 | 23.794347 | 23.795501 | 23.796654 | 23.797808 | 23.798962 |
| 0.280 | 23.800116 | 23.801270 | 23.802424 | 23.803579 | 23.804733 | 23.805887 | 23.807042 | 23.808197 | 23.809351 | 23.810506 |
| 0.290 | 23.811661 | 23.812816 | 23.813971 | 23.815126 | 23.816281 | 23.817436 | 23.818592 | 23.819747 | 23.820903 | 23.822058 |
| 0.300 | 23.823214 | 23.824370 | 23.825526 | 23.826681 | 23.827837 | 23.828994 | 23.830150 | 23.831306 | 23.832462 | 23.833619 |
| 0.310 | 23.834775 | 23.835932 | 23.837088 | 23.838245 | 23.839402 | 23.840559 | 23.841716 | 23.842873 | 23.844030 | 23.845187 |
| 0.320 | 23.846345 | 23.847502 | 23.848660 | 23.849817 | 23.850975 | 23.852132 | 23.853290 | 23.854448 | 23.855606 | 23.856764 |
| 0.330 | 23.857922 | 23.859081 | 23.860239 | 23.861397 | 23.862556 | 23.863714 | 23.864873 | 23.866032 | 23.867190 | 23.868349 |
| 0.340 | 23.869508 | 23.870667 | 23.871826 | 23.872986 | 23.874145 | 23.875304 | 23.876464 | 23.877623 | 23.878783 | 23.879943 |
| 0.350 | 23.881102 | 23.882262 | 23.883422 | 23.884582 | 23.885742 | 23.886903 | 23.888064 | 23.889225 | 23.890385 | 23.891544 |
| 0.360 | 23.892705 | 23.893866 | 23.895026 | 23.896187 | 23.897348 | 23.898509 | 23.899670 | 23.900831 | 23.901993 | 23.903154 |
| 0.370 | 23.904316 | 23.905477 | 23.906639 | 23.907800 | 23.908962 | 23.910124 | 23.911286 | 23.912448 | 23.913610 | 23.914772 |
| 0.380 | 23.915935 | 23.917097 | 23.918259 | 23.919422 | 23.920585 | 23.921747 | 23.922910 | 23.924073 | 23.925236 | 23.926399 |
| 0.390 | 23.927562 | 23.928725 | 23.929888 | 23.931052 | 23.932215 | 23.933379 | 23.934542 | 23.935706 | 23.936870 | 23.938034 |
| 0.400 | 23.939198 | 23.940362 | 23.941526 | 23.942690 | 23.943854 | 23.945019 | 23.946183 | 23.947348 | 23.948512 | 23.949677 |
| 0.410 | 23.950842 | 23.952007 | 23.953171 | 23.954336 | 23.955502 | 23.956667 | 23.957832 | 23.958997 | 23.960163 | 23.961328 |
| 0.420 | 23.962494 | 23.963660 | 23.964825 | 23.965991 | 23.967157 | 23.968323 | 23.969489 | 23.970656 | 23.971822 | 23.972988 |
| 0.430 | 23.974155 | 23.975321 | 23.976488 | 23.977654 | 23.978821 | 23.979988 | 23.981155 | 23.982322 | 23.983489 | 23.984656 |
| 0.440 | 23.985824 | 23.986991 | 23.988158 | 23.989326 | 23.990494 | 23.991661 | 23.992829 | 23.993997 | 23.995165 | 23.996333 |
| 0.450 | 23.997501 | 23.998669 | 23.999838 | 24.001006 | 24.002174 | 24.003343 | 24.004512 | 24.005680 | 24.006849 | 24.008018 |
| 0.460 | 24.009187 | 24.010356 | 24.011525 | 24.012694 | 24.013864 | 24.015033 | 24.016202 | 24.017372 | 24.018542 | 24.019711 |
| 0.470 | 24.020881 | 24.022051 | 24.023221 | 24.024391 | 24.025561 | 24.026731 | 24.027902 | 24.029072 | 24.030242 | 24.031413 |
| 0.480 | 24.032584 | 24.033754 | 24.034925 | 24.036096 | 24.037267 | 24.038438 | 24.039609 | 24.040781 | 24.041952 | 24.043123 |
| 0.490 | 24.044295 | 24.045466 | 24.046638 | 24.047810 | 24.048981 | 24.050153 | 24.051325 | 24.052497 | 24.053670 | 24.054842 |

ATTENUATION IN DECIBELS
THETA FROM 75.500 TO 75.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 24.056014 | 24.057187 | 24.058359 | 24.059532 | 24.060704 | 24.061877 | 24.063050 | 24.064223 | 24.065396 | 24.066569 |
| 0.510 | 24.067742 | 24.068915 | 24.070089 | 24.071262 | 24.072436 | 24.073609 | 24.074783 | 24.075957 | 24.077131 | 24.078305 |
| 0.520 | 24.079479 | 24.080652 | 24.081827 | 24.083001 | 24.084175 | 24.085349 | 24.086523 | 24.087697 | 24.088871 | 24.090045 |
| 0.530 | 24.091223 | 24.092398 | 24.093573 | 24.094748 | 24.095923 | 24.097099 | 24.098274 | 24.099450 | 24.100625 | 24.101801 |
| 0.540 | 24.102977 | 24.104152 | 24.105328 | 24.106504 | 24.107680 | 24.108856 | 24.110032 | 24.111209 | 24.112385 | 24.113562 |
| 0.550 | 24.114738 | 24.115913 | 24.117089 | 24.118265 | 24.119441 | 24.120617 | 24.121793 | 24.122969 | 24.124145 | 24.125321 |
| 0.560 | 24.126508 | 24.127684 | 24.128860 | 24.130036 | 24.131212 | 24.132388 | 24.133564 | 24.134740 | 24.135916 | 24.137092 |
| 0.570 | 24.138297 | 24.139473 | 24.140649 | 24.141825 | 24.143001 | 24.144177 | 24.145353 | 24.146529 | 24.147705 | 24.148881 |
| 0.580 | 24.150075 | 24.151251 | 24.152427 | 24.153603 | 24.154779 | 24.155955 | 24.157131 | 24.158307 | 24.159483 | 24.160659 |
| 0.590 | 24.161870 | 24.163051 | 24.164231 | 24.165411 | 24.166591 | 24.167772 | 24.168952 | 24.170133 | 24.171313 | 24.172494 |
| 0.600 | 24.173675 | 24.174856 | 24.176037 | 24.177218 | 24.178399 | 24.179580 | 24.180762 | 24.181943 | 24.183125 | 24.184306 |
| 0.610 | 24.185488 | 24.186670 | 24.187851 | 24.189033 | 24.190215 | 24.191397 | 24.192580 | 24.193762 | 24.194944 | 24.196127 |
| 0.620 | 24.197309 | 24.198492 | 24.199675 | 24.200857 | 24.202040 | 24.203223 | 24.204406 | 24.205590 | 24.206773 | 24.207956 |
| 0.630 | 24.209139 | 24.210323 | 24.211506 | 24.212690 | 24.213874 | 24.215058 | 24.216242 | 24.217426 | 24.218610 | 24.219794 |
| 0.640 | 24.220976 | 24.222162 | 24.223347 | 24.224531 | 24.225716 | 24.226901 | 24.228086 | 24.229270 | 24.230455 | 24.231640 |
| 0.650 | 24.232825 | 24.234010 | 24.235196 | 24.236381 | 24.237567 | 24.238752 | 24.239938 | 24.241124 | 24.242309 | 24.243495 |
| 0.660 | 24.244681 | 24.245867 | 24.247053 | 24.248240 | 24.249426 | 24.250612 | 24.251799 | 24.252985 | 24.254172 | 24.255359 |
| 0.670 | 24.256546 | 24.257733 | 24.258920 | 24.260107 | 24.261294 | 24.262481 | 24.263669 | 24.264856 | 24.266044 | 24.267231 |
| 0.680 | 24.268419 | 24.269607 | 24.270795 | 24.271982 | 24.273171 | 24.274359 | 24.275547 | 24.276735 | 24.277924 | 24.279112 |
| 0.690 | 24.280301 | 24.281489 | 24.282678 | 24.283867 | 24.285056 | 24.286245 | 24.287434 | 24.288623 | 24.289812 | 24.291002 |
| 0.700 | 24.292191 | 24.293381 | 24.294570 | 24.295760 | 24.296950 | 24.298140 | 24.299330 | 24.300520 | 24.301710 | 24.302900 |
| 0.710 | 24.304090 | 24.305281 | 24.306471 | 24.307662 | 24.308852 | 24.310043 | 24.311234 | 24.312425 | 24.313616 | 24.314807 |
| 0.720 | 24.315998 | 24.317189 | 24.318381 | 24.319572 | 24.320764 | 24.321957 | 24.323147 | 24.324339 | 24.325531 | 24.326723 |
| 0.730 | 24.327915 | 24.329107 | 24.330299 | 24.331491 | 24.332684 | 24.333877 | 24.335069 | 24.336262 | 24.337454 | 24.338647 |
| 0.740 | 24.339840 | 24.341033 | 24.342226 | 24.343419 | 24.344612 | 24.345806 | 24.346999 | 24.348193 | 24.349386 | 24.350580 |
| 0.750 | 24.351774 | 24.352968 | 24.354162 | 24.355356 | 24.356550 | 24.357744 | 24.358938 | 24.360133 | 24.361327 | 24.362522 |
| 0.760 | 24.363717 | 24.364911 | 24.366106 | 24.367301 | 24.368496 | 24.369691 | 24.370886 | 24.372081 | 24.373277 | 24.374472 |
| 0.770 | 24.375668 | 24.376864 | 24.378059 | 24.379255 | 24.380451 | 24.381647 | 24.382843 | 24.384039 | 24.385236 | 24.386432 |
| 0.780 | 24.387628 | 24.388825 | 24.390021 | 24.391218 | 24.392415 | 24.393612 | 24.394809 | 24.396006 | 24.397203 | 24.398400 |
| 0.790 | 24.399597 | 24.400795 | 24.401992 | 24.403190 | 24.404387 | 24.405585 | 24.406783 | 24.407981 | 24.409179 | 24.410377 |
| 0.800 | 24.411575 | 24.412773 | 24.413971 | 24.415170 | 24.416368 | 24.417567 | 24.418766 | 24.419965 | 24.421163 | 24.422362 |
| 0.810 | 24.423561 | 24.424761 | 24.425960 | 24.427159 | 24.428359 | 24.429558 | 24.430758 | 24.431957 | 24.433157 | 24.434357 |
| 0.820 | 24.435557 | 24.436757 | 24.437957 | 24.439157 | 24.440357 | 24.441558 | 24.442758 | 24.443959 | 24.445159 | 24.446360 |
| 0.830 | 24.447561 | 24.448762 | 24.449963 | 24.451164 | 24.452365 | 24.453566 | 24.454768 | 24.455969 | 24.457171 | 24.458372 |
| 0.840 | 24.459574 | 24.460776 | 24.461978 | 24.463180 | 24.464382 | 24.465584 | 24.466786 | 24.467988 | 24.469191 | 24.470393 |
| 0.850 | 24.471596 | 24.472798 | 24.474001 | 24.475204 | 24.476407 | 24.477610 | 24.478813 | 24.480016 | 24.481220 | 24.482423 |
| 0.860 | 24.483626 | 24.484830 | 24.486034 | 24.487237 | 24.488441 | 24.489645 | 24.490849 | 24.492053 | 24.493258 | 24.494462 |
| 0.870 | 24.495666 | 24.496871 | 24.498075 | 24.499280 | 24.500484 | 24.501689 | 24.502894 | 24.504099 | 24.505304 | 24.506509 |
| 0.880 | 24.507715 | 24.508920 | 24.510125 | 24.511331 | 24.512536 | 24.513742 | 24.514948 | 24.516154 | 24.517359 | 24.518566 |
| 0.890 | 24.519772 | 24.520978 | 24.522184 | 24.523391 | 24.524597 | 24.525804 | 24.527010 | 24.528217 | 24.529424 | 24.530631 |
| 0.900 | 24.531838 | 24.533045 | 24.534252 | 24.535460 | 24.536667 | 24.537874 | 24.539082 | 24.540290 | 24.541497 | 24.542705 |
| 0.910 | 24.543913 | 24.545121 | 24.546329 | 24.547538 | 24.548746 | 24.549954 | 24.551162 | 24.552371 | 24.553580 | 24.554788 |
| 0.920 | 24.555997 | 24.557206 | 24.558415 | 24.559624 | 24.560833 | 24.562043 | 24.563252 | 24.564461 | 24.565671 | 24.566880 |
| 0.930 | 24.568890 | 24.569300 | 24.570510 | 24.571720 | 24.572930 | 24.574140 | 24.575350 | 24.576561 | 24.577771 | 24.578982 |
| 0.940 | 24.580192 | 24.581403 | 24.582614 | 24.583825 | 24.585036 | 24.586246 | 24.587458 | 24.588669 | 24.589880 | 24.591092 |
| 0.950 | 24.592303 | 24.593515 | 24.594727 | 24.595938 | 24.597150 | 24.598362 | 24.599574 | 24.600786 | 24.601998 | 24.603211 |
| 0.960 | 24.604423 | 24.605636 | 24.606848 | 24.608061 | 24.609274 | 24.610487 | 24.611699 | 24.612912 | 24.614125 | 24.615339 |
| 0.970 | 24.616552 | 24.617765 | 24.618979 | 24.620193 | 24.621406 | 24.622620 | 24.623834 | 24.625048 | 24.626262 | 24.627476 |
| 0.980 | 24.628690 | 24.629904 | 24.631119 | 24.632333 | 24.633548 | 24.634762 | 24.635977 | 24.637192 | 24.638407 | 24.639622 |
| 0.990 | 24.640837 | 24.642052 | 24.643267 | 24.644483 | 24.645698 | 24.646914 | 24.648129 | 24.649345 | 24.650561 | 24.651777 |

ATTENUATION IN DECIBELS
THETA FROM 76.000 TO 76.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 24.652993 | 24.654209 | 24.655425 | 24.656641 | 24.657858 | 24.659074 | 24.660291 | 24.661507 | 24.662724 | 24.663941 |
| 0.010 | 24.665158 | 24.666375 | 24.667592 | 24.668809 | 24.670026 | 24.671244 | 24.672461 | 24.673679 | 24.674896 | 24.676114 |
| 0.020 | 24.677332 | 24.678550 | 24.679768 | 24.680986 | 24.682204 | 24.683422 | 24.684641 | 24.685859 | 24.687078 | 24.688296 |
| 0.030 | 24.689515 | 24.690734 | 24.691953 | 24.693172 | 24.694391 | 24.695610 | 24.696829 | 24.698049 | 24.699268 | 24.700488 |
| 0.040 | 24.701707 | 24.702927 | 24.704147 | 24.705367 | 24.706587 | 24.707807 | 24.709027 | 24.710247 | 24.711468 | 24.712688 |
| 0.050 | 24.713908 | 24.715129 | 24.716350 | 24.717571 | 24.718791 | 24.720012 | 24.721234 | 24.722455 | 24.723676 | 24.724897 |
| 0.060 | 24.726119 | 24.727340 | 24.728562 | 24.729784 | 24.731006 | 24.732228 | 24.733449 | 24.734672 | 24.735894 | 24.737116 |
| 0.070 | 24.738338 | 24.739561 | 24.740783 | 24.742006 | 24.743229 | 24.744452 | 24.745674 | 24.746897 | 24.748121 | 24.749344 |
| 0.080 | 24.750567 | 24.751791 | 24.753014 | 24.754237 | 24.755461 | 24.756685 | 24.757909 | 24.759133 | 24.760357 | 24.761581 |
| 0.090 | 24.762805 | 24.764029 | 24.765254 | 24.766478 | 24.767703 | 24.768927 | 24.770152 | 24.771377 | 24.772602 | 24.773827 |
| 0.100 | 24.775052 | 24.776277 | 24.777502 | 24.778728 | 24.779953 | 24.781179 | 24.782404 | 24.783630 | 24.784856 | 24.786082 |
| 0.110 | 24.787308 | 24.788534 | 24.789760 | 24.790987 | 24.792213 | 24.793439 | 24.794666 | 24.795893 | 24.797119 | 24.798346 |
| 0.120 | 24.799573 | 24.800800 | 24.802027 | 24.803255 | 24.804482 | 24.805709 | 24.806937 | 24.808164 | 24.809392 | 24.810620 |
| 0.130 | 24.811848 | 24.813076 | 24.814304 | 24.815532 | 24.816760 | 24.817988 | 24.819217 | 24.820445 | 24.821674 | 24.822903 |
| 0.140 | 24.824131 | 24.825360 | 24.826589 | 24.827818 | 24.829047 | 24.830277 | 24.831506 | 24.832736 | 24.833965 | 24.835195 |
| 0.150 | 24.836424 | 24.837654 | 24.838884 | 24.840114 | 24.841344 | 24.842574 | 24.843805 | 24.845035 | 24.846265 | 24.847496 |
| 0.160 | 24.848727 | 24.849957 | 24.851188 | 24.852419 | 24.853650 | 24.854881 | 24.856112 | 24.857343 | 24.858575 | 24.859806 |
| 0.170 | 24.861038 | 24.862270 | 24.863501 | 24.864733 | 24.865966 | 24.867197 | 24.868429 | 24.869661 | 24.870894 | 24.872126 |
| 0.180 | 24.873358 | 24.874591 | 24.875824 | 24.877057 | 24.878289 | 24.879522 | 24.880755 | 24.881989 | 24.883222 | 24.884455 |
| 0.190 | 24.885689 | 24.886922 | 24.888156 | 24.889389 | 24.890623 | 24.891857 | 24.893091 | 24.894325 | 24.895559 | 24.896793 |
| 0.200 | 24.898028 | 24.899262 | 24.900497 | 24.901731 | 24.902966 | 24.904201 | 24.905436 | 24.906671 | 24.907906 | 24.909141 |
| 0.210 | 24.910376 | 24.911612 | 24.912847 | 24.914083 | 24.915318 | 24.916554 | 24.917790 | 24.919026 | 24.920262 | 24.921498 |
| 0.220 | 24.922734 | 24.923970 | 24.925207 | 24.926443 | 24.927680 | 24.928916 | 24.930153 | 24.931390 | 24.932627 | 24.933864 |
| 0.230 | 24.935101 | 24.936338 | 24.937576 | 24.938813 | 24.940051 | 24.941288 | 24.942526 | 24.943764 | 24.945002 | 24.946240 |
| 0.240 | 24.947478 | 24.948716 | 24.949954 | 24.951193 | 24.952431 | 24.953670 | 24.954908 | 24.956147 | 24.957386 | 24.958625 |
| 0.250 | 24.959864 | 24.961103 | 24.962342 | 24.963581 | 24.964820 | 24.966060 | 24.967300 | 24.968539 | 24.969779 | 24.971019 |
| 0.260 | 24.972259 | 24.973499 | 24.974739 | 24.975979 | 24.977220 | 24.978460 | 24.979701 | 24.980941 | 24.982182 | 24.983423 |
| 0.270 | 24.984663 | 24.985904 | 24.987146 | 24.988387 | 24.989628 | 24.990869 | 24.992111 | 24.993352 | 24.994594 | 24.995836 |
| 0.280 | 24.997077 | 24.998314 | 24.999562 | 25.000803 | 25.002046 | 25.003288 | 25.004530 | 25.005773 | 25.007015 | 25.008258 |
| 0.290 | 25.009501 | 25.010744 | 25.011987 | 25.013230 | 25.014473 | 25.015716 | 25.016959 | 25.018203 | 25.019446 | 25.020690 |
| 0.300 | 25.021934 | 25.023178 | 25.024421 | 25.025666 | 25.026910 | 25.028154 | 25.029398 | 25.030642 | 25.031887 | 25.033131 |
| 0.310 | 25.034376 | 25.035621 | 25.036866 | 25.038110 | 25.039356 | 25.040601 | 25.041846 | 25.043091 | 25.044337 | 25.045582 |
| 0.320 | 25.046828 | 25.048074 | 25.049319 | 25.050565 | 25.051811 | 25.053057 | 25.054303 | 25.055550 | 25.056796 | 25.058042 |
| 0.330 | 25.059289 | 25.060536 | 25.061782 | 25.063029 | 25.064276 | 25.065523 | 25.066770 | 25.068017 | 25.069265 | 25.070512 |
| 0.340 | 25.071759 | 25.073007 | 25.074255 | 25.075503 | 25.076751 | 25.077998 | 25.079247 | 25.080495 | 25.081743 | 25.082991 |
| 0.350 | 25.084240 | 25.085488 | 25.086737 | 25.087986 | 25.089234 | 25.090483 | 25.091732 | 25.092982 | 25.094231 | 25.095480 |
| 0.360 | 25.096729 | 25.097979 | 25.099228 | 25.100478 | 25.101728 | 25.102978 | 25.104228 | 25.105478 | 25.106728 | 25.107978 |
| 0.370 | 25.109229 | 25.110479 | 25.111729 | 25.112980 | 25.114231 | 25.115482 | 25.116733 | 25.117984 | 25.119235 | 25.120486 |
| 0.380 | 25.121737 | 25.122989 | 25.124240 | 25.125492 | 25.126743 | 25.127995 | 25.129247 | 25.130499 | 25.131751 | 25.133003 |
| 0.390 | 25.134255 | 25.135508 | 25.136760 | 25.138013 | 25.139265 | 25.140518 | 25.141771 | 25.143024 | 25.144277 | 25.145530 |
| 0.400 | 25.146783 | 25.148036 | 25.149290 | 25.150543 | 25.151797 | 25.153051 | 25.154305 | 25.155558 | 25.156812 | 25.158067 |
| 0.410 | 25.159321 | 25.160575 | 25.161829 | 25.163084 | 25.164338 | 25.165593 | 25.166847 | 25.168102 | 25.169357 | 25.170612 |
| 0.420 | 25.171868 | 25.173123 | 25.174378 | 25.175633 | 25.176889 | 25.178145 | 25.179400 | 25.180656 | 25.181912 | 25.183168 |
| 0.430 | 25.184424 | 25.185680 | 25.186937 | 25.188193 | 25.189449 | 25.190706 | 25.191962 | 25.193219 | 25.194476 | 25.195733 |
| 0.440 | 25.196990 | 25.198247 | 25.199505 | 25.200762 | 25.202019 | 25.203277 | 25.204535 | 25.205792 | 25.207050 | 25.208308 |
| 0.450 | 25.209566 | 25.210824 | 25.212082 | 25.213341 | 25.214599 | 25.215858 | 25.217116 | 25.218375 | 25.219634 | 25.220892 |
| 0.460 | 25.222151 | 25.223410 | 25.224670 | 25.225929 | 25.227188 | 25.228448 | 25.229707 | 25.230967 | 25.232227 | 25.233486 |
| 0.470 | 25.234746 | 25.236006 | 25.237267 | 25.238527 | 25.239787 | 25.241048 | 25.242308 | 25.243569 | 25.244829 | 25.246090 |
| 0.480 | 25.247351 | 25.248612 | 25.249873 | 25.251135 | 25.252396 | 25.253657 | 25.254919 | 25.256180 | 25.257442 | 25.258704 |
| 0.490 | 25.259966 | 25.261228 | 25.262490 | 25.263752 | 25.265014 | 25.266276 | 25.267539 | 25.268801 | 25.270064 | 25.271327 |

ATTENUATION IN DECIBELS
THETA FROM 76.500 TO 76.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 25.272590 | 25.273853 | 25.275116 | 25.276379 | 25.277642 | 25.278905 | 25.280169 | 25.281432 | 25.282696 | 25.283960 |
| 0.510 | 25.285223 | 25.286488 | 25.287751 | 25.289016 | 25.290280 | 25.291544 | 25.292809 | 25.294073 | 25.295338 | 25.296602 |
| 0.520 | 25.297867 | 25.299132 | 25.300397 | 25.301662 | 25.302927 | 25.304193 | 25.305458 | 25.306723 | 25.307989 | 25.309255 |
| 0.530 | 25.310520 | 25.311786 | 25.313052 | 25.314318 | 25.315584 | 25.316851 | 25.318117 | 25.319384 | 25.320650 | 25.321917 |
| 0.540 | 25.323184 | 25.324450 | 25.325717 | 25.326984 | 25.328251 | 25.329519 | 25.330786 | 25.332053 | 25.333321 | 25.334589 |
| 0.550 | 25.335956 | 25.337124 | 25.338392 | 25.339660 | 25.340928 | 25.342196 | 25.343465 | 25.344733 | 25.346002 | 25.347270 |
| 0.560 | 25.348539 | 25.349808 | 25.351077 | 25.352345 | 25.353615 | 25.354884 | 25.356153 | 25.357423 | 25.358692 | 25.359962 |
| 0.570 | 25.361231 | 25.362501 | 25.363771 | 25.365041 | 25.366311 | 25.367581 | 25.368851 | 25.370122 | 25.371392 | 25.372663 |
| 0.580 | 25.373934 | 25.375204 | 25.376475 | 25.377746 | 25.379017 | 25.380288 | 25.381559 | 25.382831 | 25.384102 | 25.385374 |
| 0.590 | 25.386646 | 25.387917 | 25.389189 | 25.390461 | 25.391733 | 25.393005 | 25.394277 | 25.395550 | 25.396822 | 25.398095 |
| 0.600 | 25.399367 | 25.400640 | 25.401913 | 25.403186 | 25.404459 | 25.405732 | 25.407005 | 25.408278 | 25.409552 | 25.410825 |
| 0.610 | 25.412099 | 25.413373 | 25.414647 | 25.415920 | 25.417194 | 25.418468 | 25.419743 | 25.421017 | 25.422292 | 25.423566 |
| 0.620 | 25.424484 | 25.425759 | 25.427034 | 25.428309 | 25.429584 | 25.430859 | 25.432134 | 25.433409 | 25.434684 | 25.435959 |
| 0.630 | 25.437592 | 25.438868 | 25.440144 | 25.441419 | 25.442695 | 25.443972 | 25.445248 | 25.446524 | 25.447800 | 25.449077 |
| 0.640 | 25.450353 | 25.451630 | 25.452907 | 25.454184 | 25.455461 | 25.456738 | 25.458015 | 25.459292 | 25.460570 | 25.461847 |
| 0.650 | 25.463125 | 25.464402 | 25.465680 | 25.466958 | 25.468236 | 25.469514 | 25.470792 | 25.472070 | 25.473349 | 25.474627 |
| 0.660 | 25.475906 | 25.477185 | 25.478463 | 25.479742 | 25.481021 | 25.482300 | 25.483579 | 25.484859 | 25.486138 | 25.487417 |
| 0.670 | 25.488697 | 25.489977 | 25.491256 | 25.492536 | 25.493816 | 25.495096 | 25.496377 | 25.497657 | 25.498937 | 25.500218 |
| 0.680 | 25.501498 | 25.502779 | 25.504060 | 25.505340 | 25.506621 | 25.507902 | 25.509184 | 25.510465 | 25.511746 | 25.513028 |
| 0.690 | 25.514309 | 25.515591 | 25.516873 | 25.518154 | 25.519436 | 25.520718 | 25.522001 | 25.523283 | 25.524565 | 25.525848 |
| 0.700 | 25.527130 | 25.528413 | 25.529696 | 25.530978 | 25.532261 | 25.533545 | 25.534828 | 25.536111 | 25.537394 | 25.538678 |
| 0.710 | 25.539961 | 25.541245 | 25.542529 | 25.543813 | 25.545096 | 25.546381 | 25.547665 | 25.548949 | 25.550233 | 25.551518 |
| 0.720 | 25.552802 | 25.554087 | 25.555372 | 25.556657 | 25.557941 | 25.559227 | 25.560512 | 25.561797 | 25.563082 | 25.564368 |
| 0.730 | 25.565653 | 25.566939 | 25.568225 | 25.569511 | 25.570797 | 25.572083 | 25.573369 | 25.574655 | 25.575942 | 25.577228 |
| 0.740 | 25.578515 | 25.579801 | 25.581088 | 25.582375 | 25.583662 | 25.584949 | 25.586236 | 25.587523 | 25.588811 | 25.590099 |
| 0.750 | 25.591386 | 25.592673 | 25.593961 | 25.595249 | 25.596537 | 25.597825 | 25.599113 | 25.600402 | 25.601690 | 25.602978 |
| 0.760 | 25.604267 | 25.605556 | 25.606844 | 25.608133 | 25.609422 | 25.610711 | 25.612000 | 25.613290 | 25.614579 | 25.615869 |
| 0.770 | 25.617158 | 25.618448 | 25.619738 | 25.621028 | 25.622318 | 25.623608 | 25.624898 | 25.626188 | 25.627479 | 25.628769 |
| 0.780 | 25.630060 | 25.631351 | 25.632641 | 25.633932 | 25.635223 | 25.636514 | 25.637805 | 25.639097 | 25.640388 | 25.641680 |
| 0.790 | 25.642297 | 25.643588 | 25.644879 | 25.646170 | 25.647461 | 25.648753 | 25.650044 | 25.651335 | 25.652626 | 25.653918 |
| 0.800 | 25.655893 | 25.657186 | 25.658478 | 25.659771 | 25.661065 | 25.662358 | 25.663651 | 25.664944 | 25.666238 | 25.667531 |
| 0.810 | 25.668825 | 25.670119 | 25.671412 | 25.672706 | 25.674001 | 25.675295 | 25.676589 | 25.677883 | 25.679178 | 25.680472 |
| 0.820 | 25.681767 | 25.683062 | 25.684356 | 25.685652 | 25.686947 | 25.688242 | 25.689537 | 25.690832 | 25.692128 | 25.693424 |
| 0.830 | 25.694719 | 25.696015 | 25.697311 | 25.698607 | 25.699903 | 25.701199 | 25.702495 | 25.703792 | 25.705088 | 25.706385 |
| 0.840 | 25.707681 | 25.708978 | 25.710275 | 25.711572 | 25.712869 | 25.714166 | 25.715464 | 25.716761 | 25.718059 | 25.719356 |
| 0.850 | 25.720654 | 25.721952 | 25.723250 | 25.724548 | 25.725846 | 25.727144 | 25.728443 | 25.729741 | 25.731040 | 25.732338 |
| 0.860 | 25.733637 | 25.734936 | 25.736235 | 25.737534 | 25.738833 | 25.740132 | 25.741431 | 25.742731 | 25.744030 | 25.745330 |
| 0.870 | 25.746630 | 25.747930 | 25.749230 | 25.750530 | 25.751830 | 25.753130 | 25.754431 | 25.755731 | 25.757032 | 25.758332 |
| 0.880 | 25.759633 | 25.760934 | 25.762235 | 25.763536 | 25.764838 | 25.766139 | 25.767440 | 25.768742 | 25.770043 | 25.771345 |
| 0.890 | 25.772647 | 25.773949 | 25.775251 | 25.776553 | 25.777855 | 25.779157 | 25.780460 | 25.781763 | 25.783065 | 25.784368 |
| 0.900 | 25.785671 | 25.786974 | 25.788277 | 25.789580 | 25.790883 | 25.792186 | 25.793490 | 25.794794 | 25.796097 | 25.797401 |
| 0.910 | 25.798705 | 25.800009 | 25.801313 | 25.802617 | 25.803921 | 25.805226 | 25.806530 | 25.807835 | 25.809140 | 25.810445 |
| 0.920 | 25.811749 | 25.813054 | 25.814359 | 25.815665 | 25.816970 | 25.818275 | 25.819581 | 25.820887 | 25.822192 | 25.823498 |
| 0.930 | 25.824804 | 25.826110 | 25.827416 | 25.828723 | 25.830029 | 25.831336 | 25.832642 | 25.833949 | 25.835256 | 25.836562 |
| 0.940 | 25.837869 | 25.839176 | 25.840484 | 25.841791 | 25.843098 | 25.844406 | 25.845713 | 25.847021 | 25.848329 | 25.849637 |
| 0.950 | 25.850945 | 25.852253 | 25.853561 | 25.854870 | 25.856178 | 25.857486 | 25.858795 | 25.860104 | 25.861413 | 25.862722 |
| 0.960 | 25.864031 | 25.865340 | 25.866649 | 25.867959 | 25.869268 | 25.870578 | 25.871887 | 25.873197 | 25.874507 | 25.875817 |
| 0.970 | 25.877127 | 25.878437 | 25.879748 | 25.881058 | 25.882369 | 25.883679 | 25.884990 | 25.886301 | 25.887612 | 25.888923 |
| 0.980 | 25.890234 | 25.891545 | 25.892856 | 25.894168 | 25.895479 | 25.896791 | 25.898103 | 25.899415 | 25.900727 | 25.902039 |
| 0.990 | 25.903351 | 25.904663 | 25.905976 | 25.907288 | 25.908601 | 25.909914 | 25.911226 | 25.912539 | 25.913852 | 25.915165 |

ATTENUATION IN DECIBELS
THETA FROM 77.000 TO 77.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 25.916479 | 25.917792 | 25.919105 | 25.920419 | 25.921732 | 25.923046 | 25.924360 | 25.925674 | 25.926988 | 25.928302 |
| 0.010 | 25.929617 | 25.930931 | 25.932245 | 25.933560 | 25.934875 | 25.936190 | 25.937505 | 25.938819 | 25.940135 | 25.941450 |
| 0.020 | 25.942765 | 25.944081 | 25.945396 | 25.946712 | 25.948027 | 25.949343 | 25.950659 | 25.951975 | 25.953291 | 25.954608 |
| 0.030 | 25.955924 | 25.957241 | 25.958557 | 25.959874 | 25.961191 | 25.962507 | 25.963825 | 25.965142 | 25.966459 | 25.967776 |
| 0.040 | 25.969094 | 25.970411 | 25.971729 | 25.973047 | 25.974364 | 25.975682 | 25.976999 | 25.978318 | 25.979637 | 25.980955 |
| 0.050 | 25.982274 | 25.983592 | 25.984911 | 25.986230 | 25.987549 | 25.988868 | 25.990187 | 25.991506 | 25.992825 | 25.994145 |
| 0.060 | 25.995464 | 25.996784 | 25.998104 | 25.999424 | 26.000743 | 26.002064 | 26.003384 | 26.004704 | 26.006024 | 26.007345 |
| 0.070 | 26.008665 | 26.009986 | 26.011307 | 26.012628 | 26.013949 | 26.015270 | 26.016591 | 26.017912 | 26.019234 | 26.020555 |
| 0.080 | 26.021877 | 26.023199 | 26.024521 | 26.025843 | 26.027165 | 26.028487 | 26.029809 | 26.031132 | 26.032454 | 26.033777 |
| 0.090 | 26.035099 | 26.036422 | 26.037745 | 26.039068 | 26.040391 | 26.041714 | 26.043038 | 26.044361 | 26.045685 | 26.047008 |
| 0.100 | 26.048332 | 26.049656 | 26.050980 | 26.052304 | 26.053628 | 26.054953 | 26.056277 | 26.057601 | 26.058926 | 26.060250 |
| 0.110 | 26.061576 | 26.062901 | 26.064226 | 26.065551 | 26.066876 | 26.068201 | 26.069527 | 26.070853 | 26.072178 | 26.073504 |
| 0.120 | 26.074830 | 26.076156 | 26.077482 | 26.078808 | 26.080134 | 26.081460 | 26.082787 | 26.084114 | 26.085441 | 26.086768 |
| 0.130 | 26.088094 | 26.089422 | 26.090749 | 26.092076 | 26.093403 | 26.094731 | 26.096059 | 26.097386 | 26.098714 | 26.100042 |
| 0.140 | 26.101370 | 26.102698 | 26.104026 | 26.105355 | 26.106683 | 26.108012 | 26.109340 | 26.110669 | 26.111998 | 26.113327 |
| 0.150 | 26.114656 | 26.115985 | 26.117315 | 26.118644 | 26.119973 | 26.121303 | 26.122633 | 26.123963 | 26.125293 | 26.126623 |
| 0.160 | 26.127953 | 26.129283 | 26.130614 | 26.131944 | 26.133275 | 26.134605 | 26.135936 | 26.137267 | 26.138598 | 26.139929 |
| 0.170 | 26.141260 | 26.142592 | 26.143923 | 26.145255 | 26.146586 | 26.147918 | 26.149250 | 26.150582 | 26.151914 | 26.153246 |
| 0.180 | 26.154579 | 26.155911 | 26.157244 | 26.158576 | 26.159909 | 26.161242 | 26.162575 | 26.163908 | 26.165241 | 26.166574 |
| 0.190 | 26.167908 | 26.169241 | 26.170575 | 26.171909 | 26.173242 | 26.174576 | 26.175910 | 26.177244 | 26.178579 | 26.179913 |
| 0.200 | 26.181247 | 26.182582 | 26.183917 | 26.185251 | 26.186586 | 26.187922 | 26.189257 | 26.190592 | 26.191927 | 26.193263 |
| 0.210 | 26.194598 | 26.195934 | 26.197269 | 26.198605 | 26.199941 | 26.201277 | 26.202614 | 26.203950 | 26.205286 | 26.206623 |
| 0.220 | 26.207959 | 26.209296 | 26.210633 | 26.211970 | 26.213307 | 26.214644 | 26.215981 | 26.217319 | 26.218656 | 26.220000 |
| 0.230 | 26.221332 | 26.222669 | 26.224007 | 26.225345 | 26.226684 | 26.228022 | 26.229360 | 26.230699 | 26.232037 | 26.233376 |
| 0.240 | 26.234710 | 26.236053 | 26.237392 | 26.238732 | 26.240071 | 26.241410 | 26.242750 | 26.244089 | 26.245429 | 26.246768 |
| 0.250 | 26.248108 | 26.249449 | 26.250788 | 26.252129 | 26.253469 | 26.254809 | 26.256150 | 26.257491 | 26.258831 | 26.260172 |
| 0.260 | 26.261513 | 26.262854 | 26.264195 | 26.265537 | 26.266878 | 26.268220 | 26.269561 | 26.270903 | 26.272245 | 26.273587 |
| 0.270 | 26.274929 | 26.276271 | 26.277613 | 26.278955 | 26.280298 | 26.281641 | 26.282983 | 26.284326 | 26.285669 | 26.287012 |
| 0.280 | 26.288355 | 26.289699 | 26.291042 | 26.292385 | 26.293729 | 26.295073 | 26.296416 | 26.297760 | 26.299104 | 26.300448 |
| 0.290 | 26.301793 | 26.303137 | 26.304482 | 26.305826 | 26.307171 | 26.308516 | 26.309860 | 26.311205 | 26.312551 | 26.313896 |
| 0.300 | 26.315241 | 26.316586 | 26.317932 | 26.319278 | 26.320623 | 26.321969 | 26.323315 | 26.324661 | 26.326008 | 26.327354 |
| 0.310 | 26.328700 | 26.330047 | 26.331393 | 26.332740 | 26.334087 | 26.335434 | 26.336781 | 26.338128 | 26.339476 | 26.340823 |
| 0.320 | 26.342170 | 26.343518 | 26.344866 | 26.346214 | 26.347562 | 26.348910 | 26.350258 | 26.351606 | 26.352955 | 26.354303 |
| 0.330 | 26.355652 | 26.357001 | 26.358349 | 26.359698 | 26.361047 | 26.362396 | 26.363746 | 26.365095 | 26.366445 | 26.367794 |
| 0.340 | 26.369144 | 26.370494 | 26.371844 | 26.373194 | 26.374544 | 26.375894 | 26.377245 | 26.378595 | 26.379946 | 26.381296 |
| 0.350 | 26.382647 | 26.383998 | 26.385349 | 26.386700 | 26.388052 | 26.389403 | 26.390754 | 26.392106 | 26.393458 | 26.394810 |
| 0.360 | 26.396162 | 26.397514 | 26.398866 | 26.400218 | 26.401570 | 26.402923 | 26.404275 | 26.405628 | 26.406981 | 26.408334 |
| 0.370 | 26.409687 | 26.411040 | 26.412393 | 26.413747 | 26.415100 | 26.416454 | 26.417807 | 26.419161 | 26.420515 | 26.421869 |
| 0.380 | 26.423223 | 26.424577 | 26.425932 | 26.427286 | 26.428641 | 26.429996 | 26.431350 | 26.432705 | 26.434060 | 26.435416 |
| 0.390 | 26.436771 | 26.438126 | 26.439482 | 26.440837 | 26.442193 | 26.443549 | 26.444905 | 26.446261 | 26.447617 | 26.448973 |
| 0.400 | 26.450329 | 26.451686 | 26.453043 | 26.454400 | 26.455756 | 26.457113 | 26.458470 | 26.459827 | 26.461184 | 26.462542 |
| 0.410 | 26.463899 | 26.465257 | 26.466614 | 26.467972 | 26.469330 | 26.470688 | 26.472046 | 26.473405 | 26.474763 | 26.476121 |
| 0.420 | 26.477480 | 26.478839 | 26.480197 | 26.481556 | 26.482915 | 26.484275 | 26.485634 | 26.486993 | 26.488353 | 26.489712 |
| 0.430 | 26.491072 | 26.492432 | 26.493792 | 26.495152 | 26.496512 | 26.497872 | 26.499233 | 26.500593 | 26.501954 | 26.503314 |
| 0.440 | 26.504675 | 26.506036 | 26.507397 | 26.508758 | 26.510120 | 26.511481 | 26.512842 | 26.514204 | 26.515566 | 26.516927 |
| 0.450 | 26.518290 | 26.519652 | 26.521014 | 26.522376 | 26.523738 | 26.525099 | 26.526461 | 26.527823 | 26.529185 | 26.530547 |
| 0.460 | 26.531915 | 26.533278 | 26.534642 | 26.536005 | 26.537369 | 26.538732 | 26.540096 | 26.541460 | 26.542824 | 26.544188 |
| 0.470 | 26.545952 | 26.546916 | 26.548281 | 26.549645 | 26.551010 | 26.552375 | 26.553739 | 26.555104 | 26.556469 | 26.557835 |
| 0.480 | 26.559200 | 26.560565 | 26.561931 | 26.563297 | 26.564662 | 26.566028 | 26.567394 | 26.568760 | 26.570127 | 26.571493 |
| 0.490 | 26.572859 | 26.574226 | 26.575593 | 26.576959 | 26.578326 | 26.579693 | 26.581060 | 26.582428 | 26.583795 | 26.585162 |

ATTENUATION IN DECIBELS
THETA FROM 77.500 TO 77.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 26.586530 | 26.587898 | 26.589265 | 26.590633 | 26.592001 | 26.593369 | 26.594738 | 26.596106 | 26.597475 | 26.598843 |
| 0.510 | 26.600212 | 26.601581 | 26.602949 | 26.604319 | 26.605688 | 26.607057 | 26.608426 | 26.609796 | 26.611165 | 26.612533 |
| 0.520 | 26.613905 | 26.615275 | 26.616645 | 26.618015 | 26.619385 | 26.620756 | 26.622126 | 26.623497 | 26.624868 | 26.626239 |
| 0.530 | 26.627609 | 26.628981 | 26.630352 | 26.631723 | 26.633095 | 26.634466 | 26.635838 | 26.637209 | 26.638581 | 26.639953 |
| 0.540 | 26.641325 | 26.642698 | 26.644070 | 26.645442 | 26.646815 | 26.648188 | 26.649560 | 26.650933 | 26.652306 | 26.653679 |
| 0.550 | 26.650503 | 26.651876 | 26.653249 | 26.654621 | 26.655994 | 26.657367 | 26.658740 | 26.660113 | 26.661486 | 26.662859 |
| 0.560 | 26.668791 | 26.670166 | 26.671540 | 26.672915 | 26.674290 | 26.675665 | 26.677040 | 26.678415 | 26.679790 | 26.681166 |
| 0.570 | 26.682541 | 26.683917 | 26.685293 | 26.686668 | 26.688045 | 26.689420 | 26.690797 | 26.692173 | 26.693549 | 26.694926 |
| 0.580 | 26.696303 | 26.697680 | 26.699056 | 26.700433 | 26.701811 | 26.703188 | 26.704565 | 26.705943 | 26.707320 | 26.708698 |
| 0.590 | 26.710076 | 26.711453 | 26.712831 | 26.714210 | 26.715588 | 26.716966 | 26.718345 | 26.719723 | 26.721102 | 26.722481 |
| 0.600 | 26.723860 | 26.725239 | 26.726618 | 26.727998 | 26.729377 | 26.730757 | 26.732136 | 26.733516 | 26.734896 | 26.736276 |
| 0.610 | 26.737656 | 26.739036 | 26.740416 | 26.741797 | 26.743177 | 26.744558 | 26.745939 | 26.747320 | 26.748701 | 26.750082 |
| 0.620 | 26.751463 | 26.752845 | 26.754226 | 26.755608 | 26.756989 | 26.758371 | 26.759753 | 26.761135 | 26.762517 | 26.763900 |
| 0.630 | 26.765282 | 26.766665 | 26.768046 | 26.769430 | 26.770813 | 26.772196 | 26.773579 | 26.774962 | 26.776345 | 26.777729 |
| 0.640 | 26.779112 | 26.780496 | 26.781880 | 26.783264 | 26.784648 | 26.786032 | 26.787416 | 26.788800 | 26.790185 | 26.791569 |
| 0.650 | 26.792954 | 26.794339 | 26.795724 | 26.797109 | 26.798494 | 26.799880 | 26.801265 | 26.802650 | 26.804036 | 26.805422 |
| 0.660 | 26.806808 | 26.808194 | 26.809580 | 26.810966 | 26.812352 | 26.813739 | 26.815125 | 26.816512 | 26.817899 | 26.819286 |
| 0.670 | 26.820673 | 26.822060 | 26.823447 | 26.824835 | 26.826222 | 26.827610 | 26.828997 | 26.830385 | 26.831773 | 26.833161 |
| 0.680 | 26.834549 | 26.835938 | 26.837326 | 26.838715 | 26.840103 | 26.841492 | 26.842881 | 26.844270 | 26.845659 | 26.847048 |
| 0.690 | 26.848438 | 26.849827 | 26.851217 | 26.852607 | 26.853996 | 26.855386 | 26.856776 | 26.858166 | 26.859557 | 26.860947 |
| 0.700 | 26.862338 | 26.863728 | 26.865119 | 26.866510 | 26.867901 | 26.869292 | 26.870683 | 26.872075 | 26.873466 | 26.874858 |
| 0.710 | 26.876249 | 26.877641 | 26.879033 | 26.880425 | 26.881817 | 26.883209 | 26.884602 | 26.885994 | 26.887387 | 26.888780 |
| 0.720 | 26.890172 | 26.891566 | 26.892959 | 26.894352 | 26.895745 | 26.897139 | 26.898532 | 26.899926 | 26.901320 | 26.902714 |
| 0.730 | 26.904108 | 26.905502 | 26.906896 | 26.908290 | 26.909685 | 26.911079 | 26.912474 | 26.913869 | 26.915264 | 26.916659 |
| 0.740 | 26.918054 | 26.919450 | 26.920845 | 26.922240 | 26.923636 | 26.925032 | 26.926428 | 26.927824 | 26.929220 | 26.930616 |
| 0.750 | 26.932013 | 26.933409 | 26.934806 | 26.936203 | 26.937599 | 26.938996 | 26.940393 | 26.941791 | 26.943188 | 26.944585 |
| 0.760 | 26.945983 | 26.947381 | 26.948778 | 26.950176 | 26.951574 | 26.952972 | 26.954370 | 26.955769 | 26.957167 | 26.958566 |
| 0.770 | 26.959965 | 26.961364 | 26.962763 | 26.964162 | 26.965561 | 26.966960 | 26.968360 | 26.969759 | 26.971159 | 26.972559 |
| 0.780 | 26.973958 | 26.975358 | 26.976759 | 26.978159 | 26.979559 | 26.980960 | 26.982360 | 26.983761 | 26.985162 | 26.986563 |
| 0.790 | 26.987964 | 26.989365 | 26.990767 | 26.992168 | 26.993570 | 26.994971 | 26.996373 | 26.997775 | 26.999177 | 27.000579 |
| 0.800 | 27.001981 | 27.003384 | 27.004786 | 27.006189 | 27.007592 | 27.008995 | 27.010398 | 27.011801 | 27.013204 | 27.014607 |
| 0.810 | 27.016011 | 27.017414 | 27.018818 | 27.020222 | 27.021626 | 27.023030 | 27.024434 | 27.025838 | 27.027243 | 27.028647 |
| 0.820 | 27.030052 | 27.031457 | 27.032861 | 27.034266 | 27.035672 | 27.037077 | 27.038482 | 27.039888 | 27.041293 | 27.042699 |
| 0.830 | 27.044105 | 27.045511 | 27.046917 | 27.048323 | 27.049729 | 27.051136 | 27.052542 | 27.053949 | 27.055356 | 27.056763 |
| 0.840 | 27.058170 | 27.059577 | 27.060984 | 27.062392 | 27.063799 | 27.065207 | 27.066614 | 27.068022 | 27.069430 | 27.070838 |
| 0.850 | 27.072247 | 27.073655 | 27.075063 | 27.076472 | 27.077881 | 27.079289 | 27.080698 | 27.082108 | 27.083517 | 27.084926 |
| 0.860 | 27.086335 | 27.087745 | 27.089154 | 27.090564 | 27.091974 | 27.093384 | 27.094794 | 27.096205 | 27.097615 | 27.099025 |
| 0.870 | 27.100436 | 27.101847 | 27.103258 | 27.104669 | 27.106080 | 27.107491 | 27.108902 | 27.110314 | 27.111725 | 27.113137 |
| 0.880 | 27.114549 | 27.115961 | 27.117373 | 27.118785 | 27.120197 | 27.121610 | 27.123022 | 27.124435 | 27.125848 | 27.127260 |
| 0.890 | 27.128674 | 27.130087 | 27.131500 | 27.132913 | 27.134327 | 27.135741 | 27.137154 | 27.138568 | 27.139982 | 27.141396 |
| 0.900 | 27.142810 | 27.144225 | 27.145639 | 27.147054 | 27.148468 | 27.149883 | 27.151298 | 27.152713 | 27.154128 | 27.155544 |
| 0.910 | 27.159659 | 27.161075 | 27.162490 | 27.163906 | 27.165322 | 27.166738 | 27.168154 | 27.169570 | 27.170987 | 27.172403 |
| 0.920 | 27.171120 | 27.172537 | 27.173954 | 27.175371 | 27.176788 | 27.178205 | 27.179622 | 27.181040 | 27.182457 | 27.183875 |
| 0.930 | 27.185293 | 27.186711 | 27.188129 | 27.189547 | 27.190965 | 27.192384 | 27.193803 | 27.195221 | 27.196640 | 27.198059 |
| 0.940 | 27.199478 | 27.200897 | 27.202317 | 27.203736 | 27.205155 | 27.206575 | 27.207995 | 27.209415 | 27.210835 | 27.212255 |
| 0.950 | 27.213675 | 27.215096 | 27.216516 | 27.217937 | 27.219357 | 27.220778 | 27.222199 | 27.223620 | 27.225042 | 27.226463 |
| 0.960 | 27.227885 | 27.229306 | 27.230728 | 27.232150 | 27.233572 | 27.234994 | 27.236416 | 27.237838 | 27.239261 | 27.240683 |
| 0.970 | 27.242106 | 27.243529 | 27.244952 | 27.246375 | 27.247798 | 27.249221 | 27.250645 | 27.252068 | 27.253492 | 27.254916 |
| 0.980 | 27.256340 | 27.257764 | 27.259188 | 27.260612 | 27.262036 | 27.263461 | 27.264886 | 27.266310 | 27.267735 | 27.269160 |
| 0.990 | 27.270585 | 27.272011 | 27.273436 | 27.274862 | 27.276287 | 27.277713 | 27.279139 | 27.280565 | 27.281991 | 27.283417 |

ATTENUATION IN DECIBELS
THETA FROM 78.000 TO 78.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 27.284843 | 27.286270 | 27.287697 | 27.289123 | 27.290550 | 27.291977 | 27.293404 | 27.294832 | 27.296259 | 27.297686 |
| 0.010 | 27.299114 | 27.300541 | 27.301968 | 27.303397 | 27.304825 | 27.306253 | 27.307682 | 27.309110 | 27.310539 | 27.311968 |
| 0.020 | 27.313396 | 27.314825 | 27.316254 | 27.317683 | 27.319113 | 27.320542 | 27.321972 | 27.323401 | 27.324831 | 27.326261 |
| 0.030 | 27.327691 | 27.329121 | 27.330552 | 27.331982 | 27.333413 | 27.334843 | 27.336274 | 27.337705 | 27.339136 | 27.340567 |
| 0.040 | 27.341998 | 27.343430 | 27.344861 | 27.346293 | 27.347725 | 27.349157 | 27.350589 | 27.352021 | 27.353453 | 27.354885 |
| 0.050 | 27.356318 | 27.357750 | 27.359183 | 27.360616 | 27.362049 | 27.363481 | 27.364915 | 27.366349 | 27.367782 | 27.369216 |
| 0.060 | 27.370650 | 27.372084 | 27.373518 | 27.374952 | 27.376386 | 27.377820 | 27.379255 | 27.380689 | 27.382124 | 27.383559 |
| 0.070 | 27.384994 | 27.386429 | 27.387864 | 27.389300 | 27.390735 | 27.392171 | 27.393606 | 27.395042 | 27.396478 | 27.397914 |
| 0.080 | 27.399350 | 27.400787 | 27.402223 | 27.403660 | 27.405097 | 27.406533 | 27.407970 | 27.409407 | 27.410845 | 27.412282 |
| 0.090 | 27.413719 | 27.415157 | 27.416595 | 27.418033 | 27.419471 | 27.420909 | 27.422347 | 27.423785 | 27.425224 | 27.426662 |
| 0.100 | 27.428101 | 27.429540 | 27.430979 | 27.432418 | 27.433857 | 27.435296 | 27.436736 | 27.438175 | 27.439615 | 27.441055 |
| 0.110 | 27.442495 | 27.443935 | 27.445375 | 27.446815 | 27.448256 | 27.449696 | 27.451137 | 27.452578 | 27.454019 | 27.455460 |
| 0.120 | 27.456901 | 27.458342 | 27.459784 | 27.461225 | 27.462667 | 27.464109 | 27.465551 | 27.466993 | 27.468435 | 27.469877 |
| 0.130 | 27.471320 | 27.472762 | 27.474205 | 27.475648 | 27.477091 | 27.478534 | 27.479977 | 27.481421 | 27.482864 | 27.484308 |
| 0.140 | 27.485751 | 27.487195 | 27.488639 | 27.490083 | 27.491527 | 27.492971 | 27.494416 | 27.495861 | 27.497305 | 27.498750 |
| 0.150 | 27.500195 | 27.501640 | 27.503085 | 27.504530 | 27.505976 | 27.507421 | 27.508867 | 27.510313 | 27.511759 | 27.513205 |
| 0.160 | 27.514651 | 27.516098 | 27.517544 | 27.518991 | 27.520437 | 27.521884 | 27.523331 | 27.524778 | 27.526226 | 27.527673 |
| 0.170 | 27.529120 | 27.530568 | 27.532016 | 27.533463 | 27.534911 | 27.536360 | 27.537808 | 27.539256 | 27.540704 | 27.542153 |
| 0.180 | 27.543602 | 27.545051 | 27.546500 | 27.547949 | 27.549398 | 27.550847 | 27.552297 | 27.553746 | 27.555196 | 27.556646 |
| 0.190 | 27.558096 | 27.559546 | 27.560996 | 27.562447 | 27.563897 | 27.565348 | 27.566798 | 27.568249 | 27.569700 | 27.571151 |
| 0.200 | 27.572603 | 27.574054 | 27.575506 | 27.576957 | 27.578409 | 27.579861 | 27.581313 | 27.582765 | 27.584217 | 27.585670 |
| 0.210 | 27.587122 | 27.588575 | 27.590028 | 27.591480 | 27.592934 | 27.594387 | 27.595840 | 27.597293 | 27.598747 | 27.600201 |
| 0.220 | 27.601654 | 27.603108 | 27.604562 | 27.606016 | 27.607471 | 27.608925 | 27.610380 | 27.611834 | 27.613289 | 27.614744 |
| 0.230 | 27.616199 | 27.617654 | 27.619110 | 27.620565 | 27.622021 | 27.623476 | 27.624932 | 27.626388 | 27.627844 | 27.629300 |
| 0.240 | 27.630757 | 27.632213 | 27.633670 | 27.635126 | 27.636583 | 27.638040 | 27.639497 | 27.640954 | 27.642412 | 27.643869 |
| 0.250 | 27.645320 | 27.646785 | 27.648242 | 27.649701 | 27.651159 | 27.652617 | 27.654075 | 27.655534 | 27.656992 | 27.658451 |
| 0.260 | 27.659910 | 27.661369 | 27.662828 | 27.664287 | 27.665747 | 27.667206 | 27.668666 | 27.670125 | 27.671586 | 27.673046 |
| 0.270 | 27.674506 | 27.675966 | 27.677427 | 27.678887 | 27.680348 | 27.681808 | 27.683270 | 27.684731 | 27.686192 | 27.687653 |
| 0.280 | 27.689114 | 27.690576 | 27.692038 | 27.693500 | 27.694962 | 27.696424 | 27.697886 | 27.699348 | 27.700811 | 27.702273 |
| 0.290 | 27.703736 | 27.705199 | 27.706662 | 27.708125 | 27.709588 | 27.711051 | 27.712515 | 27.713979 | 27.715442 | 27.716906 |
| 0.300 | 27.718370 | 27.719834 | 27.721298 | 27.722763 | 27.724227 | 27.725692 | 27.727157 | 27.728622 | 27.730087 | 27.731552 |
| 0.310 | 27.733017 | 27.734483 | 27.735948 | 27.737414 | 27.738880 | 27.740346 | 27.741812 | 27.743278 | 27.744744 | 27.746211 |
| 0.320 | 27.747677 | 27.749144 | 27.750611 | 27.752078 | 27.753545 | 27.755012 | 27.756480 | 27.757947 | 27.759415 | 27.760882 |
| 0.330 | 27.762350 | 27.763818 | 27.765286 | 27.766755 | 27.768223 | 27.769692 | 27.771160 | 27.772629 | 27.774098 | 27.775567 |
| 0.340 | 27.777036 | 27.778506 | 27.779975 | 27.781445 | 27.782914 | 27.784384 | 27.785854 | 27.787324 | 27.788794 | 27.790265 |
| 0.350 | 27.791735 | 27.793206 | 27.794676 | 27.796147 | 27.797618 | 27.799089 | 27.800561 | 27.802032 | 27.803504 | 27.804975 |
| 0.360 | 27.806447 | 27.807919 | 27.809391 | 27.810863 | 27.812335 | 27.813808 | 27.815280 | 27.816753 | 27.818226 | 27.819699 |
| 0.370 | 27.821172 | 27.822645 | 27.824118 | 27.825592 | 27.827065 | 27.828539 | 27.830013 | 27.831487 | 27.832961 | 27.834435 |
| 0.380 | 27.835910 | 27.837384 | 27.838859 | 27.840333 | 27.841808 | 27.843283 | 27.844759 | 27.846234 | 27.847709 | 27.849185 |
| 0.390 | 27.850661 | 27.852136 | 27.853612 | 27.855088 | 27.856565 | 27.858041 | 27.859517 | 27.860994 | 27.862471 | 27.863947 |
| 0.400 | 27.865424 | 27.866902 | 27.868379 | 27.869856 | 27.871334 | 27.872811 | 27.874289 | 27.875767 | 27.877245 | 27.878723 |
| 0.410 | 27.880202 | 27.881680 | 27.883158 | 27.884637 | 27.886116 | 27.887595 | 27.889074 | 27.890553 | 27.892033 | 27.893512 |
| 0.420 | 27.894992 | 27.896471 | 27.897951 | 27.899431 | 27.900911 | 27.902392 | 27.903872 | 27.905353 | 27.906833 | 27.908314 |
| 0.430 | 27.909795 | 27.911276 | 27.912757 | 27.914238 | 27.915720 | 27.917202 | 27.918683 | 27.920165 | 27.921647 | 27.923129 |
| 0.440 | 27.924611 | 27.926094 | 27.927576 | 27.929059 | 27.930542 | 27.932024 | 27.933507 | 27.934991 | 27.936474 | 27.937958 |
| 0.450 | 27.939441 | 27.940925 | 27.942409 | 27.943892 | 27.945376 | 27.946861 | 27.948345 | 27.949830 | 27.951314 | 27.952799 |
| 0.460 | 27.954284 | 27.955769 | 27.957254 | 27.958739 | 27.960225 | 27.961710 | 27.963196 | 27.964682 | 27.966167 | 27.967654 |
| 0.470 | 27.969140 | 27.970626 | 27.972113 | 27.973599 | 27.975086 | 27.976573 | 27.978060 | 27.979547 | 27.981034 | 27.982522 |
| 0.480 | 27.984009 | 27.985497 | 27.986984 | 27.988472 | 27.989960 | 27.991454 | 27.992937 | 27.994426 | 27.995915 | 27.997403 |
| 0.490 | 27.998892 | 28.000381 | 28.001870 | 28.003359 | 28.004848 | 28.006338 | 28.007828 | 28.009317 | 28.010807 | 28.012297 |

ATTENUATION IN DECIBELS
THETA FROM 78.500 TO 78.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 28.013788 | 28.015278 | 28.016768 | 28.018259 | 28.019750 | 28.021240 | 28.022731 | 28.024223 | 28.025714 | 28.027205 |
| 0.510 | 28.028697 | 28.030188 | 28.031680 | 28.033172 | 28.034664 | 28.036156 | 28.037649 | 28.039141 | 28.040634 | 28.042126 |
| 0.520 | 28.043619 | 28.045112 | 28.046605 | 28.048099 | 28.049592 | 28.051085 | 28.052579 | 28.054073 | 28.055567 | 28.057061 |
| 0.530 | 28.058555 | 28.060049 | 28.061544 | 28.063038 | 28.064533 | 28.066028 | 28.067523 | 28.069018 | 28.070513 | 28.072009 |
| 0.540 | 28.073504 | 28.075000 | 28.076496 | 28.077992 | 28.079488 | 28.080984 | 28.082480 | 28.083977 | 28.085473 | 28.086970 |
| 0.550 | 28.088467 | 28.089964 | 28.091461 | 28.092958 | 28.094456 | 28.095953 | 28.097451 | 28.098949 | 28.100447 | 28.101945 |
| 0.560 | 28.103443 | 28.104941 | 28.106440 | 28.107938 | 28.109437 | 28.110936 | 28.112435 | 28.113934 | 28.115433 | 28.116933 |
| 0.570 | 28.118433 | 28.119932 | 28.121432 | 28.122932 | 28.124432 | 28.125932 | 28.127433 | 28.128933 | 28.130434 | 28.131935 |
| 0.580 | 28.133435 | 28.134937 | 28.136438 | 28.137939 | 28.139441 | 28.140942 | 28.142444 | 28.143946 | 28.145447 | 28.146950 |
| 0.590 | 28.148452 | 28.149954 | 28.151457 | 28.152960 | 28.154462 | 28.155965 | 28.157468 | 28.158972 | 28.160475 | 28.161978 |
| 0.600 | 28.163482 | 28.164986 | 28.166490 | 28.167994 | 28.169498 | 28.171002 | 28.172507 | 28.174011 | 28.175516 | 28.177021 |
| 0.610 | 28.178525 | 28.180031 | 28.181536 | 28.183041 | 28.184547 | 28.186052 | 28.187558 | 28.189064 | 28.190570 | 28.192076 |
| 0.620 | 28.193583 | 28.195089 | 28.196596 | 28.198102 | 28.199609 | 28.201116 | 28.202623 | 28.204131 | 28.205638 | 28.207146 |
| 0.630 | 28.203653 | 28.210161 | 28.211669 | 28.213177 | 28.214685 | 28.216194 | 28.217702 | 28.219211 | 28.220720 | 28.222229 |
| 0.640 | 28.223738 | 28.225247 | 28.226756 | 28.228266 | 28.229775 | 28.231285 | 28.232795 | 28.234305 | 28.235815 | 28.237325 |
| 0.650 | 28.238836 | 28.240346 | 28.241857 | 28.243368 | 28.244879 | 28.246390 | 28.247901 | 28.249413 | 28.250924 | 28.252436 |
| 0.660 | 28.253947 | 28.255459 | 28.256971 | 28.258483 | 28.259996 | 28.261508 | 28.263021 | 28.264534 | 28.266047 | 28.267560 |
| 0.670 | 28.269073 | 28.270586 | 28.272099 | 28.273613 | 28.275127 | 28.276640 | 28.278154 | 28.279669 | 28.281183 | 28.282697 |
| 0.680 | 28.284212 | 28.285726 | 28.287241 | 28.288756 | 28.290271 | 28.291786 | 28.293302 | 28.294817 | 28.296333 | 28.297848 |
| 0.690 | 28.299365 | 28.300880 | 28.302397 | 28.303913 | 28.305429 | 28.306946 | 28.308463 | 28.309980 | 28.311496 | 28.313014 |
| 0.700 | 28.314531 | 28.316048 | 28.317566 | 28.319084 | 28.320601 | 28.322119 | 28.323637 | 28.325156 | 28.326674 | 28.328193 |
| 0.710 | 28.329711 | 28.331230 | 28.332749 | 28.334268 | 28.335787 | 28.337307 | 28.338826 | 28.340346 | 28.341866 | 28.343385 |
| 0.720 | 28.344905 | 28.346426 | 28.347946 | 28.349466 | 28.350987 | 28.352508 | 28.354028 | 28.355550 | 28.357071 | 28.358592 |
| 0.730 | 28.360113 | 28.361635 | 28.363157 | 28.364678 | 28.366200 | 28.367723 | 28.369245 | 28.370767 | 28.372290 | 28.373812 |
| 0.740 | 28.375335 | 28.376858 | 28.378381 | 28.379905 | 28.381428 | 28.382951 | 28.384475 | 28.385999 | 28.387523 | 28.389047 |
| 0.750 | 28.390571 | 28.392095 | 28.393620 | 28.395144 | 28.396669 | 28.398194 | 28.399719 | 28.401244 | 28.402769 | 28.404295 |
| 0.760 | 28.405320 | 28.407346 | 28.408972 | 28.410398 | 28.411924 | 28.413450 | 28.414977 | 28.416503 | 28.418030 | 28.419557 |
| 0.770 | 28.421084 | 28.422611 | 28.424138 | 28.425666 | 28.427193 | 28.428721 | 28.430249 | 28.431777 | 28.433305 | 28.434833 |
| 0.780 | 28.436361 | 28.437890 | 28.439419 | 28.440947 | 28.442476 | 28.444005 | 28.445535 | 28.447064 | 28.448593 | 28.450123 |
| 0.790 | 28.451653 | 28.453183 | 28.454713 | 28.456243 | 28.457773 | 28.459304 | 28.460835 | 28.462365 | 28.463896 | 28.465427 |
| 0.800 | 28.466958 | 28.468490 | 28.470021 | 28.471553 | 28.473084 | 28.474616 | 28.476148 | 28.477680 | 28.479213 | 28.480745 |
| 0.810 | 28.482278 | 28.483810 | 28.485343 | 28.486876 | 28.488410 | 28.489943 | 28.491476 | 28.493010 | 28.494544 | 28.496077 |
| 0.820 | 28.497611 | 28.499146 | 28.500680 | 28.502214 | 28.503749 | 28.505283 | 28.506818 | 28.508353 | 28.509888 | 28.511424 |
| 0.830 | 28.512959 | 28.514494 | 28.516030 | 28.517566 | 28.519102 | 28.520638 | 28.522174 | 28.523710 | 28.525247 | 28.526784 |
| 0.840 | 28.528371 | 28.529858 | 28.531395 | 28.532932 | 28.534469 | 28.536007 | 28.537544 | 28.539082 | 28.540620 | 28.542158 |
| 0.850 | 28.543696 | 28.545235 | 28.546773 | 28.548312 | 28.549851 | 28.551390 | 28.552929 | 28.554468 | 28.556007 | 28.557547 |
| 0.860 | 28.559086 | 28.560626 | 28.562166 | 28.563706 | 28.565246 | 28.566787 | 28.568327 | 28.569868 | 28.571409 | 28.572949 |
| 0.870 | 28.574491 | 28.576032 | 28.577573 | 28.579115 | 28.580656 | 28.582198 | 28.583740 | 28.585282 | 28.586824 | 28.588367 |
| 0.880 | 28.589909 | 28.591451 | 28.592994 | 28.594537 | 28.596080 | 28.597623 | 28.599167 | 28.600710 | 28.602254 | 28.603798 |
| 0.890 | 28.605534 | 28.606885 | 28.608430 | 28.609974 | 28.611519 | 28.613063 | 28.614608 | 28.616153 | 28.617698 | 28.619243 |
| 0.900 | 28.620788 | 28.622334 | 28.623879 | 28.625425 | 28.626971 | 28.628517 | 28.630063 | 28.631610 | 28.633156 | 28.634703 |
| 0.910 | 28.636250 | 28.637796 | 28.639343 | 28.640891 | 28.642438 | 28.643985 | 28.645533 | 28.647081 | 28.648629 | 28.650177 |
| 0.920 | 28.651725 | 28.653273 | 28.654822 | 28.656370 | 28.657919 | 28.659468 | 28.661017 | 28.662566 | 28.664115 | 28.665665 |
| 0.930 | 28.667215 | 28.668764 | 28.670314 | 28.671864 | 28.673414 | 28.674965 | 28.676515 | 28.678066 | 28.679617 | 28.681168 |
| 0.940 | 28.682719 | 28.684270 | 28.685821 | 28.687373 | 28.688924 | 28.690476 | 28.692028 | 28.693580 | 28.695132 | 28.696685 |
| 0.950 | 28.698237 | 28.699790 | 28.701343 | 28.702895 | 28.704448 | 28.706002 | 28.707557 | 28.709110 | 28.710662 | 28.712216 |
| 0.960 | 28.713770 | 28.715324 | 28.716878 | 28.718433 | 28.719987 | 28.721542 | 28.723097 | 28.724652 | 28.726207 | 28.727762 |
| 0.970 | 28.729317 | 28.730873 | 28.732429 | 28.733984 | 28.735540 | 28.737096 | 28.738653 | 28.740209 | 28.741765 | 28.743322 |
| 0.980 | 28.744879 | 28.746436 | 28.747993 | 28.749550 | 28.751108 | 28.752665 | 28.754223 | 28.755781 | 28.757339 | 28.758897 |
| 0.990 | 28.760455 | 28.762014 | 28.763572 | 28.765131 | 28.766690 | 28.768249 | 28.769808 | 28.771367 | 28.772927 | 28.774486 |

ATTENUATION IN DECIBELS
THETA FROM 79.000 TO 79.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 28.776046 | 28.777606 | 28.779166 | 28.780726 | 28.782286 | 28.783847 | 28.785408 | 28.786968 | 28.788529 | 28.790090 |
| 0.010 | 28.791651 | 28.793213 | 28.794774 | 28.796336 | 28.797898 | 28.799459 | 28.801022 | 28.802584 | 28.804146 | 28.805709 |
| 0.020 | 28.807271 | 28.808834 | 28.810397 | 28.811960 | 28.813523 | 28.815087 | 28.816650 | 28.818214 | 28.819777 | 28.821342 |
| 0.030 | 28.822906 | 28.824470 | 28.826034 | 28.827599 | 28.829164 | 28.830728 | 28.832293 | 28.833858 | 28.835424 | 28.836989 |
| 0.040 | 28.838555 | 28.840120 | 28.841686 | 28.843252 | 28.844818 | 28.846385 | 28.847951 | 28.849518 | 28.851084 | 28.852651 |
| 0.050 | 28.854218 | 28.855786 | 28.857353 | 28.858920 | 28.860488 | 28.862056 | 28.863624 | 28.865192 | 28.866760 | 28.868328 |
| 0.060 | 28.869897 | 28.871465 | 28.873034 | 28.874603 | 28.876172 | 28.877741 | 28.879311 | 28.880880 | 28.882450 | 28.884020 |
| 0.070 | 28.885590 | 28.887160 | 28.888730 | 28.890301 | 28.891871 | 28.893442 | 28.895013 | 28.896584 | 28.898155 | 28.899726 |
| 0.080 | 28.901298 | 28.902869 | 28.904441 | 28.906013 | 28.907585 | 28.909157 | 28.910729 | 28.912302 | 28.913874 | 28.915447 |
| 0.090 | 28.917020 | 28.918593 | 28.920166 | 28.921740 | 28.923313 | 28.924887 | 28.926461 | 28.928035 | 28.929609 | 28.931183 |
| 0.100 | 28.932757 | 28.934332 | 28.935907 | 28.937481 | 28.939056 | 28.940632 | 28.942207 | 28.943782 | 28.945358 | 28.946934 |
| 0.110 | 28.948509 | 28.950085 | 28.951662 | 28.953238 | 28.954814 | 28.956391 | 28.957968 | 28.959545 | 28.961122 | 28.962699 |
| 0.120 | 28.964276 | 28.965854 | 28.967432 | 28.969009 | 28.970587 | 28.972165 | 28.973744 | 28.975322 | 28.976901 | 28.978479 |
| 0.130 | 28.980058 | 28.981637 | 28.983216 | 28.984796 | 28.986375 | 28.987955 | 28.989534 | 28.991114 | 28.992694 | 28.994274 |
| 0.140 | 28.995855 | 28.997435 | 28.999016 | 29.000597 | 29.002177 | 29.003759 | 29.005340 | 29.006921 | 29.008503 | 29.010084 |
| 0.150 | 29.011666 | 29.013248 | 29.014830 | 29.016413 | 29.017995 | 29.019578 | 29.021160 | 29.022743 | 29.024326 | 29.025909 |
| 0.160 | 29.027493 | 29.029076 | 29.030660 | 29.032244 | 29.033828 | 29.035412 | 29.036996 | 29.038580 | 29.040165 | 29.041749 |
| 0.170 | 29.043334 | 29.044919 | 29.046504 | 29.048090 | 29.049675 | 29.051260 | 29.052846 | 29.054432 | 29.056018 | 29.057604 |
| 0.180 | 29.059191 | 29.060777 | 29.062364 | 29.063951 | 29.065537 | 29.067125 | 29.068712 | 29.070299 | 29.071887 | 29.073474 |
| 0.190 | 29.075062 | 29.076650 | 29.078237 | 29.079827 | 29.081415 | 29.083004 | 29.084592 | 29.086181 | 29.087770 | 29.089359 |
| 0.200 | 29.090949 | 29.092538 | 29.094128 | 29.095717 | 29.097307 | 29.098897 | 29.100488 | 29.102078 | 29.103669 | 29.105259 |
| 0.210 | 29.106850 | 29.108441 | 29.110032 | 29.111624 | 29.113215 | 29.114807 | 29.116398 | 29.117990 | 29.119582 | 29.121175 |
| 0.220 | 29.122767 | 29.124359 | 29.125952 | 29.127545 | 29.129138 | 29.130731 | 29.132324 | 29.133918 | 29.135511 | 29.137105 |
| 0.230 | 29.138699 | 29.140293 | 29.141887 | 29.143481 | 29.145076 | 29.146670 | 29.148265 | 29.149860 | 29.151455 | 29.153050 |
| 0.240 | 29.154646 | 29.156241 | 29.157837 | 29.159433 | 29.161029 | 29.162625 | 29.164221 | 29.165817 | 29.167414 | 29.169011 |
| 0.250 | 29.170608 | 29.172205 | 29.173802 | 29.175399 | 29.176997 | 29.178595 | 29.180192 | 29.181790 | 29.183388 | 29.184987 |
| 0.260 | 29.186585 | 29.188184 | 29.189782 | 29.191381 | 29.192980 | 29.194579 | 29.196179 | 29.197778 | 29.199378 | 29.200978 |
| 0.270 | 29.202578 | 29.204178 | 29.205778 | 29.207378 | 29.208979 | 29.210580 | 29.212181 | 29.213782 | 29.215383 | 29.216984 |
| 0.280 | 29.218585 | 29.220187 | 29.221789 | 29.223391 | 29.224993 | 29.226595 | 29.228198 | 29.229800 | 29.231403 | 29.233006 |
| 0.290 | 29.234609 | 29.236212 | 29.237815 | 29.239419 | 29.241022 | 29.242626 | 29.244230 | 29.245834 | 29.247438 | 29.249043 |
| 0.300 | 29.250647 | 29.252252 | 29.253857 | 29.255462 | 29.257067 | 29.258672 | 29.260278 | 29.261883 | 29.263489 | 29.265095 |
| 0.310 | 29.266701 | 29.268307 | 29.269913 | 29.271520 | 29.273127 | 29.274734 | 29.276340 | 29.277948 | 29.279555 | 29.281163 |
| 0.320 | 29.282770 | 29.284378 | 29.285986 | 29.287594 | 29.289202 | 29.290810 | 29.292419 | 29.294028 | 29.295636 | 29.297246 |
| 0.330 | 29.298855 | 29.300464 | 29.302073 | 29.303683 | 29.305293 | 29.306903 | 29.308513 | 29.310123 | 29.311733 | 29.313344 |
| 0.340 | 29.314955 | 29.316566 | 29.318177 | 29.319788 | 29.321399 | 29.323010 | 29.324622 | 29.326234 | 29.327846 | 29.329458 |
| 0.350 | 29.331070 | 29.332683 | 29.334295 | 29.335908 | 29.337521 | 29.339134 | 29.340747 | 29.342360 | 29.343974 | 29.345587 |
| 0.360 | 29.347201 | 29.348815 | 29.350433 | 29.352043 | 29.353658 | 29.355273 | 29.356887 | 29.358502 | 29.360117 | 29.361732 |
| 0.370 | 29.363348 | 29.364963 | 29.366579 | 29.368195 | 29.369811 | 29.371427 | 29.373043 | 29.374660 | 29.376276 | 29.377893 |
| 0.380 | 29.379510 | 29.381127 | 29.382744 | 29.384362 | 29.385979 | 29.387597 | 29.389215 | 29.390832 | 29.392451 | 29.394069 |
| 0.390 | 29.395568 | 29.397186 | 29.398825 | 29.400544 | 29.402163 | 29.403782 | 29.405401 | 29.407021 | 29.408641 | 29.410261 |
| 0.400 | 29.411881 | 29.413501 | 29.415121 | 29.416742 | 29.418362 | 29.419983 | 29.421604 | 29.423225 | 29.424846 | 29.426468 |
| 0.410 | 29.428090 | 29.429711 | 29.431333 | 29.432955 | 29.434577 | 29.436200 | 29.437822 | 29.439445 | 29.441068 | 29.442691 |
| 0.420 | 29.444314 | 29.445937 | 29.447561 | 29.449184 | 29.450808 | 29.452432 | 29.454056 | 29.455681 | 29.457305 | 29.458930 |
| 0.430 | 29.460594 | 29.462179 | 29.463804 | 29.465430 | 29.467055 | 29.468680 | 29.470306 | 29.471932 | 29.473558 | 29.475184 |
| 0.440 | 29.476810 | 29.478437 | 29.480063 | 29.481690 | 29.483317 | 29.484944 | 29.486572 | 29.488199 | 29.489826 | 29.491454 |
| 0.450 | 29.493082 | 29.494710 | 29.496338 | 29.497967 | 29.499595 | 29.501224 | 29.502852 | 29.504482 | 29.506111 | 29.507740 |
| 0.460 | 29.509370 | 29.510999 | 29.512629 | 29.514259 | 29.515889 | 29.517519 | 29.519150 | 29.520780 | 29.522411 | 29.524042 |
| 0.470 | 29.525673 | 29.527304 | 29.528935 | 29.530567 | 29.532199 | 29.533831 | 29.535463 | 29.537095 | 29.538727 | 29.540359 |
| 0.480 | 29.541992 | 29.543625 | 29.545258 | 29.546891 | 29.548524 | 29.550158 | 29.551791 | 29.553425 | 29.555059 | 29.556693 |
| 0.490 | 29.558327 | 29.559962 | 29.561596 | 29.563231 | 29.564866 | 29.566501 | 29.568136 | 29.569771 | 29.571407 | 29.573042 |

ATTENUATION IN DECIBELS
THETA FROM 79.500 TO 79.999 DEG REES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 29.574678 | 29.576314 | 29.577950 | 29.579587 | 29.581223 | 29.582860 | 29.584496 | 29.586133 | 29.587770 | 29.589408 |
| 0.510 | 29.591045 | 29.592683 | 29.594320 | 29.595958 | 29.597596 | 29.599235 | 29.600873 | 29.602511 | 29.604150 | 29.605789 |
| 0.520 | 29.607478 | 29.609116 | 29.610754 | 29.612392 | 29.614030 | 29.615668 | 29.617306 | 29.618944 | 29.620582 | 29.622220 |
| 0.530 | 29.623872 | 29.625510 | 29.627148 | 29.628786 | 29.630424 | 29.632062 | 29.633700 | 29.635338 | 29.636976 | 29.638614 |
| 0.540 | 29.640242 | 29.641880 | 29.643518 | 29.645156 | 29.646794 | 29.648432 | 29.650070 | 29.651708 | 29.653346 | 29.654984 |
| 0.550 | 29.656672 | 29.658310 | 29.659948 | 29.661586 | 29.663224 | 29.664862 | 29.666500 | 29.668138 | 29.669776 | 29.671414 |
| 0.560 | 29.673120 | 29.674758 | 29.676396 | 29.678034 | 29.679672 | 29.681310 | 29.682948 | 29.684586 | 29.686224 | 29.687862 |
| 0.570 | 29.689583 | 29.691221 | 29.692859 | 29.694497 | 29.696135 | 29.697773 | 29.699411 | 29.701049 | 29.702687 | 29.704325 |
| 0.580 | 29.706062 | 29.707700 | 29.709338 | 29.710976 | 29.712614 | 29.714252 | 29.715890 | 29.717528 | 29.719166 | 29.720804 |
| 0.590 | 29.722558 | 29.724208 | 29.725858 | 29.727509 | 29.729160 | 29.730811 | 29.732463 | 29.734114 | 29.735765 | 29.737417 |
| 0.600 | 29.739069 | 29.740721 | 29.742373 | 29.744026 | 29.745678 | 29.747331 | 29.748984 | 29.750637 | 29.752290 | 29.753943 |
| 0.610 | 29.755597 | 29.757250 | 29.758903 | 29.760556 | 29.762210 | 29.763863 | 29.765516 | 29.767169 | 29.768822 | 29.770475 |
| 0.620 | 29.772141 | 29.773794 | 29.775447 | 29.777100 | 29.778753 | 29.780406 | 29.782059 | 29.783712 | 29.785365 | 29.787018 |
| 0.630 | 29.788702 | 29.790355 | 29.792008 | 29.793661 | 29.795314 | 29.796967 | 29.798620 | 29.800273 | 29.801926 | 29.803579 |
| 0.640 | 29.805279 | 29.806932 | 29.808585 | 29.810238 | 29.811891 | 29.813544 | 29.815197 | 29.816850 | 29.818503 | 29.820156 |
| 0.650 | 29.821872 | 29.823525 | 29.825178 | 29.826831 | 29.828484 | 29.830137 | 29.831790 | 29.833443 | 29.835096 | 29.836749 |
| 0.660 | 29.838461 | 29.840114 | 29.841767 | 29.843420 | 29.845073 | 29.846726 | 29.848379 | 29.850032 | 29.851685 | 29.853338 |
| 0.670 | 29.85107 | 29.852723 | 29.854376 | 29.856029 | 29.857682 | 29.859335 | 29.860988 | 29.862641 | 29.864294 | 29.865947 |
| 0.680 | 29.871750 | 29.873403 | 29.875056 | 29.876709 | 29.878362 | 29.880015 | 29.881668 | 29.883321 | 29.884974 | 29.886627 |
| 0.690 | 29.888409 | 29.890062 | 29.891715 | 29.893368 | 29.895021 | 29.896674 | 29.898327 | 29.900080 | 29.901733 | 29.903386 |
| 0.700 | 29.905084 | 29.906737 | 29.908390 | 29.910043 | 29.911696 | 29.913349 | 29.915002 | 29.916655 | 29.918308 | 29.920010 |
| 0.710 | 29.921776 | 29.923429 | 29.925082 | 29.926735 | 29.928388 | 29.930041 | 29.931694 | 29.933347 | 29.935000 | 29.936653 |
| 0.720 | 29.938465 | 29.940118 | 29.941771 | 29.943424 | 29.945077 | 29.946730 | 29.948383 | 29.950036 | 29.951689 | 29.953342 |
| 0.730 | 29.955210 | 29.956863 | 29.958516 | 29.960169 | 29.961822 | 29.963475 | 29.965128 | 29.966781 | 29.968434 | 29.970087 |
| 0.740 | 29.971952 | 29.973605 | 29.975258 | 29.976911 | 29.978564 | 29.980217 | 29.981870 | 29.983523 | 29.985176 | 29.986829 |
| 0.750 | 29.988710 | 29.990363 | 29.992016 | 29.993669 | 29.995322 | 29.996975 | 29.998628 | 30.000281 | 30.001934 | 30.003587 |
| 0.760 | 30.005486 | 30.007139 | 30.008792 | 30.010445 | 30.012098 | 30.013751 | 30.015404 | 30.017057 | 30.018710 | 30.020363 |
| 0.770 | 30.022278 | 30.023931 | 30.025584 | 30.027237 | 30.028890 | 30.030543 | 30.032196 | 30.033849 | 30.035502 | 30.037155 |
| 0.780 | 30.039086 | 30.040739 | 30.042392 | 30.044045 | 30.045698 | 30.047351 | 30.049004 | 30.050657 | 30.052310 | 30.053963 |
| 0.790 | 30.055912 | 30.057565 | 30.059218 | 30.060871 | 30.062524 | 30.064177 | 30.065830 | 30.067483 | 30.069136 | 30.070789 |
| 0.800 | 30.072754 | 30.074407 | 30.076060 | 30.077713 | 30.079366 | 30.081019 | 30.082672 | 30.084325 | 30.085978 | 30.087631 |
| 0.810 | 30.089614 | 30.091267 | 30.092920 | 30.094573 | 30.096226 | 30.097879 | 30.099532 | 30.101185 | 30.102838 | 30.104491 |
| 0.820 | 30.106490 | 30.108143 | 30.109796 | 30.111449 | 30.113102 | 30.114755 | 30.116408 | 30.118061 | 30.119714 | 30.121367 |
| 0.830 | 30.123383 | 30.125036 | 30.126689 | 30.128342 | 30.130000 | 30.131653 | 30.133306 | 30.134959 | 30.136612 | 30.138265 |
| 0.840 | 30.140293 | 30.141946 | 30.143599 | 30.145252 | 30.146905 | 30.148558 | 30.150211 | 30.151864 | 30.153517 | 30.155170 |
| 0.850 | 30.157220 | 30.158873 | 30.160526 | 30.162179 | 30.163832 | 30.165485 | 30.167138 | 30.168791 | 30.170444 | 30.172097 |
| 0.860 | 30.174164 | 30.175817 | 30.177470 | 30.179123 | 30.180776 | 30.182429 | 30.184082 | 30.185735 | 30.187388 | 30.189041 |
| 0.870 | 30.191126 | 30.192779 | 30.194432 | 30.196085 | 30.197738 | 30.199391 | 30.201044 | 30.202697 | 30.204350 | 30.206003 |
| 0.880 | 30.206104 | 30.207757 | 30.209410 | 30.211063 | 30.212716 | 30.214369 | 30.216022 | 30.217675 | 30.219328 | 30.220981 |
| 0.890 | 30.225100 | 30.226753 | 30.228406 | 30.230059 | 30.231712 | 30.233365 | 30.235018 | 30.236671 | 30.238324 | 30.240010 |
| 0.900 | 30.242112 | 30.243765 | 30.245418 | 30.247071 | 30.248724 | 30.250377 | 30.252030 | 30.253683 | 30.255336 | 30.257010 |
| 0.910 | 30.259142 | 30.260795 | 30.262448 | 30.264101 | 30.265754 | 30.267407 | 30.269060 | 30.270713 | 30.272366 | 30.274019 |
| 0.920 | 30.276189 | 30.277842 | 30.279495 | 30.281148 | 30.282801 | 30.284454 | 30.286107 | 30.287760 | 30.289413 | 30.291066 |
| 0.930 | 30.293253 | 30.294906 | 30.296559 | 30.298212 | 30.299865 | 30.301518 | 30.303171 | 30.304824 | 30.306477 | 30.308130 |
| 0.940 | 30.310335 | 30.311988 | 30.313641 | 30.315294 | 30.316947 | 30.318600 | 30.320253 | 30.321906 | 30.323559 | 30.325212 |
| 0.950 | 30.327434 | 30.329087 | 30.330740 | 30.332393 | 30.334046 | 30.335699 | 30.337352 | 30.339005 | 30.340658 | 30.342311 |
| 0.960 | 30.344551 | 30.346204 | 30.347857 | 30.349510 | 30.351163 | 30.352816 | 30.354469 | 30.356122 | 30.357775 | 30.359428 |
| 0.970 | 30.361684 | 30.363337 | 30.364990 | 30.366643 | 30.368296 | 30.369949 | 30.371602 | 30.373255 | 30.374908 | 30.376561 |
| 0.980 | 30.378836 | 30.380489 | 30.382142 | 30.383795 | 30.385448 | 30.387101 | 30.388754 | 30.390407 | 30.392060 | 30.393713 |
| 0.990 | 30.396804 | 30.398457 | 30.399990 | 30.401523 | 30.403056 | 30.404589 | 30.406122 | 30.407655 | 30.409188 | 30.410721 |

ATTENUATION IN DECIBELS
 THETA FROM 80.000 TO 80.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 30.413191 | 30.414910 | 30.416630 | 30.418350 | 30.420070 | 30.421790 | 30.423511 | 30.425231 | 30.426952 | 30.428673 |
| 0.010 | 30.430394 | 30.432116 | 30.433837 | 30.435559 | 30.437281 | 30.439003 | 30.440725 | 30.442448 | 30.444170 | 30.445893 |
| 0.020 | 30.447616 | 30.449339 | 30.451062 | 30.452786 | 30.454509 | 30.456233 | 30.457957 | 30.459681 | 30.461406 | 30.463130 |
| 0.030 | 30.464855 | 30.466580 | 30.468305 | 30.470030 | 30.471756 | 30.473481 | 30.475207 | 30.476933 | 30.478659 | 30.480385 |
| 0.040 | 30.482111 | 30.483838 | 30.485565 | 30.487292 | 30.489019 | 30.490746 | 30.492474 | 30.494202 | 30.495930 | 30.497658 |
| 0.050 | 30.499386 | 30.501114 | 30.502843 | 30.504572 | 30.506301 | 30.508030 | 30.509759 | 30.511488 | 30.513218 | 30.514948 |
| 0.060 | 30.516678 | 30.518408 | 30.520139 | 30.521869 | 30.523600 | 30.525331 | 30.527062 | 30.528793 | 30.530524 | 30.532256 |
| 0.070 | 30.533988 | 30.535720 | 30.537452 | 30.539184 | 30.540917 | 30.542650 | 30.544382 | 30.546115 | 30.547848 | 30.549582 |
| 0.080 | 30.551316 | 30.553049 | 30.554783 | 30.556517 | 30.558252 | 30.559986 | 30.561721 | 30.563455 | 30.565190 | 30.566926 |
| 0.090 | 30.568661 | 30.570396 | 30.572132 | 30.573868 | 30.575604 | 30.577340 | 30.579077 | 30.580813 | 30.582550 | 30.584287 |
| 0.100 | 30.586024 | 30.587762 | 30.589509 | 30.591257 | 30.593005 | 30.594753 | 30.596501 | 30.598249 | 30.599998 | 30.601746 |
| 0.110 | 30.603405 | 30.605145 | 30.606884 | 30.608623 | 30.610363 | 30.612103 | 30.613843 | 30.615583 | 30.617323 | 30.619064 |
| 0.120 | 30.620805 | 30.622545 | 30.624287 | 30.626028 | 30.627769 | 30.629511 | 30.631253 | 30.632995 | 30.634737 | 30.636479 |
| 0.130 | 30.638222 | 30.639965 | 30.641707 | 30.643450 | 30.645194 | 30.646937 | 30.648681 | 30.650424 | 30.652169 | 30.653913 |
| 0.140 | 30.655657 | 30.657402 | 30.659146 | 30.660891 | 30.662636 | 30.664381 | 30.666127 | 30.667872 | 30.669618 | 30.671364 |
| 0.150 | 30.673110 | 30.674856 | 30.676603 | 30.678350 | 30.680096 | 30.681844 | 30.683591 | 30.685338 | 30.687086 | 30.688833 |
| 0.160 | 30.690582 | 30.692330 | 30.694078 | 30.695826 | 30.697575 | 30.699324 | 30.701073 | 30.702822 | 30.704571 | 30.706321 |
| 0.170 | 30.708071 | 30.709821 | 30.711571 | 30.713321 | 30.715072 | 30.716822 | 30.718573 | 30.720324 | 30.722075 | 30.723827 |
| 0.180 | 30.725578 | 30.727330 | 30.729082 | 30.730834 | 30.732587 | 30.734339 | 30.736092 | 30.737844 | 30.739598 | 30.741351 |
| 0.190 | 30.743104 | 30.744858 | 30.746612 | 30.748365 | 30.750119 | 30.751874 | 30.753628 | 30.755383 | 30.757138 | 30.758893 |
| 0.200 | 30.760648 | 30.762403 | 30.764159 | 30.765915 | 30.767671 | 30.769427 | 30.771183 | 30.772940 | 30.774696 | 30.776453 |
| 0.210 | 30.778210 | 30.779968 | 30.781725 | 30.783483 | 30.785240 | 30.786998 | 30.788755 | 30.790513 | 30.792273 | 30.794032 |
| 0.220 | 30.795791 | 30.797550 | 30.799309 | 30.801069 | 30.802828 | 30.804588 | 30.806348 | 30.808108 | 30.809869 | 30.811629 |
| 0.230 | 30.813390 | 30.815151 | 30.816912 | 30.818673 | 30.820435 | 30.822196 | 30.823958 | 30.825720 | 30.827482 | 30.829245 |
| 0.240 | 30.831007 | 30.832770 | 30.834533 | 30.836296 | 30.838059 | 30.839823 | 30.841586 | 30.843350 | 30.845114 | 30.846878 |
| 0.250 | 30.848643 | 30.850407 | 30.852172 | 30.853937 | 30.855702 | 30.857467 | 30.859233 | 30.860999 | 30.862765 | 30.864531 |
| 0.260 | 30.866297 | 30.868063 | 30.869830 | 30.871597 | 30.873364 | 30.875131 | 30.876898 | 30.878666 | 30.880434 | 30.882201 |
| 0.270 | 30.883970 | 30.885738 | 30.887506 | 30.889275 | 30.891044 | 30.892813 | 30.894582 | 30.896351 | 30.898121 | 30.899891 |
| 0.280 | 30.901661 | 30.903431 | 30.905201 | 30.906972 | 30.908744 | 30.910513 | 30.912284 | 30.914055 | 30.915827 | 30.917598 |
| 0.290 | 30.919370 | 30.921142 | 30.922915 | 30.924687 | 30.926459 | 30.928232 | 30.930005 | 30.931778 | 30.933552 | 30.935325 |
| 0.300 | 30.937099 | 30.938873 | 30.940647 | 30.942421 | 30.944195 | 30.945970 | 30.947745 | 30.949520 | 30.951295 | 30.953070 |
| 0.310 | 30.954846 | 30.956621 | 30.958397 | 30.960173 | 30.961950 | 30.963726 | 30.965503 | 30.967280 | 30.969057 | 30.970834 |
| 0.320 | 30.972611 | 30.974389 | 30.976166 | 30.977945 | 30.979723 | 30.981501 | 30.983279 | 30.985058 | 30.986837 | 30.988616 |
| 0.330 | 30.990396 | 30.992175 | 30.993955 | 30.995734 | 30.997514 | 30.999295 | 31.001075 | 31.002856 | 31.004637 | 31.006418 |
| 0.340 | 31.008199 | 31.009980 | 31.011761 | 31.013543 | 31.015325 | 31.017107 | 31.018889 | 31.020672 | 31.022455 | 31.024238 |
| 0.350 | 31.026021 | 31.027804 | 31.029587 | 31.031371 | 31.033154 | 31.034939 | 31.036723 | 31.038507 | 31.040292 | 31.042076 |
| 0.360 | 31.043861 | 31.045646 | 31.047432 | 31.049217 | 31.051003 | 31.052789 | 31.054575 | 31.056361 | 31.058147 | 31.059934 |
| 0.370 | 31.061721 | 31.063508 | 31.065295 | 31.067082 | 31.068870 | 31.070658 | 31.072446 | 31.074234 | 31.076022 | 31.077811 |
| 0.380 | 31.079599 | 31.081388 | 31.083177 | 31.084967 | 31.086756 | 31.088546 | 31.090336 | 31.092126 | 31.093916 | 31.095706 |
| 0.390 | 31.097497 | 31.099288 | 31.101079 | 31.102870 | 31.104661 | 31.106454 | 31.108244 | 31.110036 | 31.111829 | 31.113621 |
| 0.400 | 31.115413 | 31.117206 | 31.118999 | 31.120792 | 31.122585 | 31.124379 | 31.126172 | 31.127966 | 31.129760 | 31.131554 |
| 0.410 | 31.133349 | 31.135143 | 31.136938 | 31.138733 | 31.140528 | 31.142324 | 31.144119 | 31.145915 | 31.147711 | 31.149507 |
| 0.420 | 31.151303 | 31.153100 | 31.154896 | 31.156693 | 31.158490 | 31.160288 | 31.162085 | 31.163883 | 31.165681 | 31.167479 |
| 0.430 | 31.169277 | 31.171075 | 31.172874 | 31.174673 | 31.176472 | 31.178271 | 31.180070 | 31.181870 | 31.183670 | 31.185470 |
| 0.440 | 31.187270 | 31.189070 | 31.190871 | 31.192671 | 31.194472 | 31.196273 | 31.198075 | 31.199876 | 31.201678 | 31.203480 |
| 0.450 | 31.205282 | 31.207084 | 31.208886 | 31.210689 | 31.212492 | 31.214295 | 31.216098 | 31.217901 | 31.219704 | 31.221509 |
| 0.460 | 31.223313 | 31.225117 | 31.226921 | 31.228726 | 31.230531 | 31.232336 | 31.234141 | 31.235946 | 31.237752 | 31.239558 |
| 0.470 | 31.241363 | 31.243170 | 31.244976 | 31.246782 | 31.248589 | 31.250396 | 31.252203 | 31.254010 | 31.255818 | 31.257625 |
| 0.480 | 31.259433 | 31.261241 | 31.263049 | 31.264858 | 31.266666 | 31.268475 | 31.270284 | 31.272094 | 31.273903 | 31.275712 |
| 0.490 | 31.277522 | 31.279332 | 31.281142 | 31.282953 | 31.284763 | 31.286574 | 31.288385 | 31.290196 | 31.292007 | 31.293819 |

ATTENUATION IN DECIBELS
 THETA FROM 80.500 TO 80.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 31.295631 | 31.297443 | 31.299255 | 31.301067 | 31.302880 | 31.304692 | 31.306505 | 31.308318 | 31.310132 | 31.311945 |
| 0.510 | 31.313759 | 31.315572 | 31.317387 | 31.319201 | 31.321015 | 31.322830 | 31.324645 | 31.326460 | 31.328275 | 31.330091 |
| 0.520 | 31.331906 | 31.333722 | 31.335538 | 31.337354 | 31.339170 | 31.340987 | 31.342804 | 31.344621 | 31.346438 | 31.348255 |
| 0.530 | 31.350073 | 31.351891 | 31.353709 | 31.355527 | 31.357345 | 31.359164 | 31.360982 | 31.362801 | 31.364620 | 31.366440 |
| 0.540 | 31.368259 | 31.370079 | 31.371899 | 31.373719 | 31.375540 | 31.377360 | 31.379181 | 31.381001 | 31.382823 | 31.384644 |
| 0.550 | 31.386465 | 31.388287 | 31.390109 | 31.391931 | 31.393753 | 31.395576 | 31.397398 | 31.399221 | 31.401044 | 31.402868 |
| 0.560 | 31.404691 | 31.406515 | 31.408339 | 31.410163 | 31.411987 | 31.413811 | 31.415635 | 31.417461 | 31.419286 | 31.421111 |
| 0.570 | 31.422936 | 31.424762 | 31.426588 | 31.428414 | 31.430240 | 31.432066 | 31.433893 | 31.435720 | 31.437547 | 31.439374 |
| 0.580 | 31.441201 | 31.443029 | 31.444857 | 31.446685 | 31.448513 | 31.450341 | 31.452170 | 31.453999 | 31.455828 | 31.457657 |
| 0.590 | 31.459486 | 31.461316 | 31.463145 | 31.464976 | 31.466806 | 31.468636 | 31.470467 | 31.472297 | 31.474128 | 31.475960 |
| 0.600 | 31.477791 | 31.479622 | 31.481454 | 31.483286 | 31.485118 | 31.486951 | 31.488783 | 31.490616 | 31.492449 | 31.494282 |
| 0.610 | 31.496115 | 31.497949 | 31.499783 | 31.501616 | 31.503451 | 31.505285 | 31.507119 | 31.508954 | 31.510789 | 31.512624 |
| 0.620 | 31.514460 | 31.516295 | 31.518131 | 31.519967 | 31.521803 | 31.523639 | 31.525476 | 31.527313 | 31.529149 | 31.530987 |
| 0.630 | 31.532824 | 31.534661 | 31.536499 | 31.538337 | 31.540175 | 31.542013 | 31.543852 | 31.545691 | 31.547530 | 31.549369 |
| 0.640 | 31.551208 | 31.553048 | 31.554887 | 31.556727 | 31.558567 | 31.560408 | 31.562248 | 31.564089 | 31.565930 | 31.567771 |
| 0.650 | 31.569612 | 31.571454 | 31.573296 | 31.575137 | 31.576980 | 31.578822 | 31.580664 | 31.582507 | 31.584350 | 31.586193 |
| 0.660 | 31.588037 | 31.589880 | 31.591724 | 31.593568 | 31.595412 | 31.597256 | 31.599101 | 31.600945 | 31.602790 | 31.604635 |
| 0.670 | 31.606481 | 31.608326 | 31.610172 | 31.612018 | 31.613864 | 31.615710 | 31.617557 | 31.619404 | 31.621251 | 31.623098 |
| 0.680 | 31.624945 | 31.626793 | 31.628641 | 31.630489 | 31.632337 | 31.634185 | 31.636034 | 31.637882 | 31.639731 | 31.641581 |
| 0.690 | 31.643430 | 31.645280 | 31.647129 | 31.648979 | 31.650830 | 31.652680 | 31.654531 | 31.656381 | 31.658232 | 31.660084 |
| 0.700 | 31.661935 | 31.663786 | 31.665638 | 31.667490 | 31.669343 | 31.671195 | 31.673048 | 31.674900 | 31.676753 | 31.678607 |
| 0.710 | 31.680460 | 31.682314 | 31.684167 | 31.686022 | 31.687876 | 31.689730 | 31.691585 | 31.693440 | 31.695295 | 31.697150 |
| 0.720 | 31.699005 | 31.700861 | 31.702717 | 31.704573 | 31.706429 | 31.708286 | 31.710142 | 31.711999 | 31.713856 | 31.715714 |
| 0.730 | 31.717571 | 31.719429 | 31.721287 | 31.723145 | 31.725003 | 31.726862 | 31.728720 | 31.730579 | 31.732439 | 31.734298 |
| 0.740 | 31.736157 | 31.738017 | 31.739877 | 31.741737 | 31.743598 | 31.745458 | 31.747319 | 31.749180 | 31.751041 | 31.752903 |
| 0.750 | 31.754764 | 31.756626 | 31.758488 | 31.760350 | 31.762213 | 31.764075 | 31.765938 | 31.767801 | 31.769664 | 31.771528 |
| 0.760 | 31.773391 | 31.775255 | 31.777119 | 31.778983 | 31.780848 | 31.782712 | 31.784577 | 31.786442 | 31.788308 | 31.790173 |
| 0.770 | 31.792039 | 31.793905 | 31.795771 | 31.797637 | 31.799504 | 31.801370 | 31.803237 | 31.805104 | 31.806972 | 31.808839 |
| 0.780 | 31.810707 | 31.812575 | 31.814443 | 31.816311 | 31.818180 | 31.820049 | 31.821918 | 31.823787 | 31.825656 | 31.827526 |
| 0.790 | 31.829396 | 31.831266 | 31.833136 | 31.835006 | 31.836877 | 31.838748 | 31.840619 | 31.842490 | 31.844362 | 31.846233 |
| 0.800 | 31.848105 | 31.849977 | 31.851850 | 31.853722 | 31.855595 | 31.857468 | 31.859341 | 31.861214 | 31.863088 | 31.864961 |
| 0.810 | 31.866835 | 31.868710 | 31.870584 | 31.872458 | 31.874333 | 31.876208 | 31.878083 | 31.879959 | 31.881835 | 31.883710 |
| 0.820 | 31.885586 | 31.887463 | 31.889339 | 31.891216 | 31.893093 | 31.894969 | 31.896847 | 31.898724 | 31.900602 | 31.902480 |
| 0.830 | 31.904358 | 31.906236 | 31.908115 | 31.909994 | 31.911873 | 31.913752 | 31.915631 | 31.917511 | 31.919390 | 31.921270 |
| 0.840 | 31.923151 | 31.925031 | 31.926912 | 31.928792 | 31.930673 | 31.932555 | 31.934436 | 31.936318 | 31.938200 | 31.940082 |
| 0.850 | 31.941964 | 31.943846 | 31.945729 | 31.947612 | 31.949495 | 31.951379 | 31.953262 | 31.955146 | 31.957030 | 31.958914 |
| 0.860 | 31.960798 | 31.962683 | 31.964568 | 31.966453 | 31.968338 | 31.970223 | 31.972109 | 31.973995 | 31.975881 | 31.977767 |
| 0.870 | 31.979654 | 31.981540 | 31.983427 | 31.985314 | 31.987202 | 31.989089 | 31.990977 | 31.992865 | 31.994753 | 31.996641 |
| 0.880 | 31.998530 | 32.000419 | 32.002308 | 32.004197 | 32.006086 | 32.007976 | 32.009866 | 32.011756 | 32.013646 | 32.015537 |
| 0.890 | 32.017427 | 32.019318 | 32.021209 | 32.023101 | 32.025000 | 32.026884 | 32.028776 | 32.030668 | 32.032560 | 32.034445 |
| 0.900 | 32.036346 | 32.038239 | 32.040132 | 32.042026 | 32.043919 | 32.045813 | 32.047707 | 32.049602 | 32.051496 | 32.053391 |
| 0.910 | 32.055285 | 32.057180 | 32.059076 | 32.060971 | 32.062867 | 32.064763 | 32.066659 | 32.068556 | 32.070453 | 32.072349 |
| 0.920 | 32.074246 | 32.076144 | 32.078041 | 32.079937 | 32.081837 | 32.083735 | 32.085633 | 32.087532 | 32.089430 | 32.091329 |
| 0.930 | 32.093228 | 32.095128 | 32.097027 | 32.098927 | 32.100827 | 32.102727 | 32.104628 | 32.106529 | 32.108429 | 32.110331 |
| 0.940 | 32.112322 | 32.114233 | 32.116133 | 32.118033 | 32.119933 | 32.121834 | 32.123734 | 32.125634 | 32.127534 | 32.129435 |
| 0.950 | 32.131257 | 32.133160 | 32.135064 | 32.136968 | 32.138873 | 32.140777 | 32.142682 | 32.144587 | 32.146492 | 32.148397 |
| 0.960 | 32.150303 | 32.152208 | 32.154115 | 32.156021 | 32.157927 | 32.159834 | 32.161741 | 32.163648 | 32.165555 | 32.167463 |
| 0.970 | 32.169370 | 32.171278 | 32.173186 | 32.175095 | 32.177003 | 32.178912 | 32.180821 | 32.182730 | 32.184640 | 32.186550 |
| 0.980 | 32.188459 | 32.190370 | 32.192280 | 32.194191 | 32.196101 | 32.198012 | 32.199923 | 32.201835 | 32.203746 | 32.205658 |
| 0.990 | 32.207570 | 32.209482 | 32.211395 | 32.213307 | 32.215220 | 32.217134 | 32.219047 | 32.220960 | 32.222874 | 32.224788 |

ATTENUATION IN DECIBELS
THETA FROM 81.000 TO 81.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 32.226702 | 32.228617 | 32.230531 | 32.232446 | 32.234361 | 32.236276 | 32.238192 | 32.240108 | 32.242023 | 32.243939 |
| 0.010 | 32.245856 | 32.247773 | 32.249689 | 32.251606 | 32.253523 | 32.255441 | 32.257359 | 32.259276 | 32.261195 | 32.263113 |
| 0.020 | 32.265031 | 32.266950 | 32.268869 | 32.270788 | 32.272707 | 32.274627 | 32.276547 | 32.278467 | 32.280387 | 32.282308 |
| 0.030 | 32.284228 | 32.286150 | 32.288071 | 32.289992 | 32.291914 | 32.293835 | 32.295757 | 32.297679 | 32.299602 | 32.301525 |
| 0.040 | 32.303447 | 32.305370 | 32.307294 | 32.309217 | 32.311141 | 32.313065 | 32.314989 | 32.316914 | 32.318838 | 32.320763 |
| 0.050 | 32.322688 | 32.324614 | 32.326539 | 32.328465 | 32.330390 | 32.332317 | 32.334243 | 32.336170 | 32.338097 | 32.340024 |
| 0.060 | 32.341951 | 32.343878 | 32.345806 | 32.347734 | 32.349662 | 32.351590 | 32.353519 | 32.355448 | 32.357377 | 32.359306 |
| 0.070 | 32.361235 | 32.363165 | 32.365095 | 32.367025 | 32.368955 | 32.370886 | 32.372817 | 32.374748 | 32.376679 | 32.378610 |
| 0.080 | 32.380542 | 32.382474 | 32.384406 | 32.386338 | 32.388271 | 32.390203 | 32.392136 | 32.394070 | 32.396003 | 32.397936 |
| 0.090 | 32.399870 | 32.401804 | 32.403738 | 32.405673 | 32.407608 | 32.409543 | 32.411478 | 32.413414 | 32.415349 | 32.417285 |
| 0.100 | 32.419271 | 32.421157 | 32.423094 | 32.425030 | 32.426967 | 32.428905 | 32.430842 | 32.432779 | 32.434717 | 32.436656 |
| 0.110 | 32.438593 | 32.440532 | 32.442471 | 32.444410 | 32.446349 | 32.448288 | 32.450228 | 32.452168 | 32.454108 | 32.456048 |
| 0.120 | 32.457988 | 32.459929 | 32.461870 | 32.463811 | 32.465753 | 32.467694 | 32.469636 | 32.471578 | 32.473520 | 32.475463 |
| 0.130 | 32.477406 | 32.479348 | 32.481292 | 32.483235 | 32.485178 | 32.487123 | 32.489067 | 32.491011 | 32.492955 | 32.494900 |
| 0.140 | 32.496845 | 32.498790 | 32.500735 | 32.502681 | 32.504627 | 32.506573 | 32.508519 | 32.510466 | 32.512412 | 32.514359 |
| 0.150 | 32.516306 | 32.518254 | 32.520201 | 32.522149 | 32.524097 | 32.526046 | 32.527994 | 32.529943 | 32.531892 | 32.533841 |
| 0.160 | 32.535790 | 32.537740 | 32.539690 | 32.541640 | 32.543590 | 32.545541 | 32.547492 | 32.549442 | 32.551394 | 32.553345 |
| 0.170 | 32.555297 | 32.557249 | 32.559201 | 32.561153 | 32.563106 | 32.565058 | 32.567011 | 32.568964 | 32.570918 | 32.572872 |
| 0.180 | 32.574826 | 32.576780 | 32.578734 | 32.580688 | 32.582644 | 32.584599 | 32.586554 | 32.588509 | 32.590465 | 32.592421 |
| 0.190 | 32.594377 | 32.596333 | 32.598290 | 32.599247 | 32.602204 | 32.604161 | 32.606119 | 32.608076 | 32.610034 | 32.611992 |
| 0.200 | 32.613951 | 32.615910 | 32.617868 | 32.619827 | 32.621787 | 32.623746 | 32.625706 | 32.627666 | 32.629626 | 32.631587 |
| 0.210 | 32.633547 | 32.635508 | 32.637469 | 32.639431 | 32.641392 | 32.643354 | 32.645316 | 32.647278 | 32.649241 | 32.651204 |
| 0.220 | 32.653166 | 32.655129 | 32.657093 | 32.659057 | 32.661020 | 32.662984 | 32.664949 | 32.666914 | 32.668878 | 32.670843 |
| 0.230 | 32.672808 | 32.674774 | 32.676739 | 32.678705 | 32.680671 | 32.682638 | 32.684604 | 32.686571 | 32.688538 | 32.690506 |
| 0.240 | 32.692473 | 32.694441 | 32.696409 | 32.698377 | 32.700345 | 32.702314 | 32.704283 | 32.706252 | 32.708221 | 32.710191 |
| 0.250 | 32.712161 | 32.714130 | 32.716101 | 32.718071 | 32.720042 | 32.722013 | 32.723984 | 32.725955 | 32.727927 | 32.729898 |
| 0.260 | 32.731871 | 32.733843 | 32.735816 | 32.737788 | 32.739761 | 32.741735 | 32.743708 | 32.745682 | 32.747655 | 32.749629 |
| 0.270 | 32.751604 | 32.753579 | 32.755553 | 32.757528 | 32.759504 | 32.761479 | 32.763455 | 32.765431 | 32.767407 | 32.769383 |
| 0.280 | 32.771360 | 32.773337 | 32.775314 | 32.777291 | 32.779269 | 32.781247 | 32.783225 | 32.785203 | 32.787182 | 32.789160 |
| 0.290 | 32.791140 | 32.793118 | 32.795098 | 32.797078 | 32.799057 | 32.801038 | 32.803018 | 32.804998 | 32.806979 | 32.808960 |
| 0.300 | 32.810942 | 32.812923 | 32.814905 | 32.816887 | 32.818869 | 32.820851 | 32.822834 | 32.824817 | 32.826800 | 32.828784 |
| 0.310 | 32.830767 | 32.832751 | 32.834735 | 32.836720 | 32.838704 | 32.840689 | 32.842674 | 32.844659 | 32.846644 | 32.848630 |
| 0.320 | 32.850616 | 32.852602 | 32.854589 | 32.856575 | 32.858562 | 32.860549 | 32.862536 | 32.864523 | 32.866511 | 32.868499 |
| 0.330 | 32.870488 | 32.872476 | 32.874465 | 32.876454 | 32.878443 | 32.880432 | 32.882422 | 32.884412 | 32.886402 | 32.888392 |
| 0.340 | 32.890383 | 32.892374 | 32.894365 | 32.896356 | 32.898347 | 32.900339 | 32.902331 | 32.904323 | 32.906316 | 32.908309 |
| 0.350 | 32.910301 | 32.912294 | 32.914288 | 32.916281 | 32.918275 | 32.920269 | 32.922264 | 32.924258 | 32.926253 | 32.928248 |
| 0.360 | 32.930243 | 32.932239 | 32.934234 | 32.936230 | 32.938226 | 32.940223 | 32.942220 | 32.944216 | 32.946214 | 32.948211 |
| 0.370 | 32.950209 | 32.952206 | 32.954205 | 32.956203 | 32.958201 | 32.960200 | 32.962199 | 32.964198 | 32.966197 | 32.968197 |
| 0.380 | 32.970197 | 32.972198 | 32.974198 | 32.976199 | 32.978199 | 32.980200 | 32.982202 | 32.984203 | 32.986205 | 32.988207 |
| 0.390 | 32.990210 | 32.992212 | 32.994215 | 32.996218 | 32.998221 | 33.000225 | 33.002228 | 33.004232 | 33.006237 | 33.008241 |
| 0.400 | 33.010246 | 33.012250 | 33.014256 | 33.016261 | 33.018267 | 33.020273 | 33.022279 | 33.024285 | 33.026291 | 33.028298 |
| 0.410 | 33.030305 | 33.032312 | 33.034320 | 33.036328 | 33.038336 | 33.040344 | 33.042353 | 33.044361 | 33.046370 | 33.048379 |
| 0.420 | 33.050389 | 33.052398 | 33.054408 | 33.056418 | 33.058429 | 33.060439 | 33.062450 | 33.064461 | 33.066473 | 33.068484 |
| 0.430 | 33.070496 | 33.072508 | 33.074520 | 33.076533 | 33.078546 | 33.080558 | 33.082572 | 33.084585 | 33.086599 | 33.088613 |
| 0.440 | 33.090627 | 33.092641 | 33.094656 | 33.096671 | 33.098686 | 33.100701 | 33.102717 | 33.104733 | 33.106749 | 33.108765 |
| 0.450 | 33.110782 | 33.112799 | 33.114816 | 33.116833 | 33.118850 | 33.120868 | 33.122886 | 33.124904 | 33.126923 | 33.128944 |
| 0.460 | 33.130960 | 33.132980 | 33.134999 | 33.137019 | 33.139039 | 33.141059 | 33.143079 | 33.145099 | 33.147121 | 33.149142 |
| 0.470 | 33.151163 | 33.153185 | 33.155207 | 33.157229 | 33.159251 | 33.161274 | 33.163297 | 33.165319 | 33.167343 | 33.169366 |
| 0.480 | 33.171390 | 33.173414 | 33.175438 | 33.177463 | 33.179488 | 33.181513 | 33.183538 | 33.185564 | 33.187589 | 33.189615 |
| 0.490 | 33.191641 | 33.193667 | 33.195694 | 33.197721 | 33.199749 | 33.201776 | 33.203804 | 33.205831 | 33.207860 | 33.209888 |

ATTENUATION IN DECIBELS
THETA FROM 81.500 TO 91.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 33.211916 | 33.213945 | 33.215974 | 33.218004 | 33.220033 | 33.222063 | 33.224093 | 33.226123 | 33.228154 | 33.230185 |
| 0.510 | 33.232216 | 33.234247 | 33.236279 | 33.238310 | 33.240342 | 33.242374 | 33.244407 | 33.246439 | 33.248473 | 33.250506 |
| 0.520 | 33.252539 | 33.254573 | 33.256607 | 33.258641 | 33.260675 | 33.262710 | 33.264745 | 33.266780 | 33.268816 | 33.270851 |
| 0.530 | 33.272887 | 33.274923 | 33.276960 | 33.278996 | 33.281035 | 33.283071 | 33.285108 | 33.287145 | 33.289183 | 33.291221 |
| 0.540 | 33.293260 | 33.295298 | 33.297337 | 33.299376 | 33.301415 | 33.303453 | 33.305495 | 33.307535 | 33.309575 | 33.311615 |
| 0.550 | 33.313656 | 33.315698 | 33.317739 | 33.319780 | 33.321822 | 33.323864 | 33.325906 | 33.327949 | 33.329991 | 33.332035 |
| 0.560 | 33.334078 | 33.336121 | 33.338165 | 33.340209 | 33.342253 | 33.344297 | 33.346342 | 33.348387 | 33.350433 | 33.352478 |
| 0.570 | 33.354524 | 33.356570 | 33.358616 | 33.360662 | 33.362709 | 33.364756 | 33.366803 | 33.368850 | 33.370898 | 33.372946 |
| 0.580 | 33.374994 | 33.377042 | 33.379091 | 33.381140 | 33.383189 | 33.385239 | 33.387288 | 33.389338 | 33.391388 | 33.393439 |
| 0.590 | 33.395489 | 33.397540 | 33.399591 | 33.401643 | 33.403694 | 33.405746 | 33.407798 | 33.409851 | 33.411903 | 33.413956 |
| 0.600 | 33.416009 | 33.418063 | 33.420116 | 33.422170 | 33.424224 | 33.426279 | 33.428333 | 33.430388 | 33.432443 | 33.434498 |
| 0.610 | 33.436554 | 33.438610 | 33.440666 | 33.442722 | 33.444779 | 33.446836 | 33.448893 | 33.450950 | 33.453008 | 33.455065 |
| 0.620 | 33.457123 | 33.459182 | 33.461240 | 33.463299 | 33.465358 | 33.467418 | 33.469477 | 33.471537 | 33.473597 | 33.475657 |
| 0.630 | 33.477718 | 33.479779 | 33.481840 | 33.483901 | 33.485963 | 33.488025 | 33.490087 | 33.492149 | 33.494212 | 33.496274 |
| 0.640 | 33.493337 | 33.500401 | 33.502464 | 33.504528 | 33.506592 | 33.508657 | 33.510721 | 33.512786 | 33.514851 | 33.516916 |
| 0.650 | 33.518982 | 33.521048 | 33.523114 | 33.525180 | 33.527247 | 33.529314 | 33.531381 | 33.533448 | 33.535516 | 33.537583 |
| 0.660 | 33.539651 | 33.541720 | 33.543788 | 33.545857 | 33.547926 | 33.549996 | 33.552065 | 33.554135 | 33.556205 | 33.558276 |
| 0.670 | 33.560346 | 33.562417 | 33.564488 | 33.566560 | 33.568631 | 33.570703 | 33.572775 | 33.574848 | 33.576920 | 33.578993 |
| 0.680 | 33.581066 | 33.583139 | 33.585213 | 33.587287 | 33.589361 | 33.591435 | 33.593510 | 33.595585 | 33.597661 | 33.599736 |
| 0.690 | 33.601811 | 33.603888 | 33.605964 | 33.608040 | 33.610116 | 33.612194 | 33.614271 | 33.616348 | 33.618426 | 33.620504 |
| 0.700 | 33.622582 | 33.624660 | 33.626739 | 33.628818 | 33.630898 | 33.632977 | 33.635056 | 33.637136 | 33.639217 | 33.641297 |
| 0.710 | 33.643378 | 33.645459 | 33.647540 | 33.649621 | 33.651703 | 33.653785 | 33.655868 | 33.657950 | 33.660033 | 33.662116 |
| 0.720 | 33.664199 | 33.666283 | 33.668367 | 33.670451 | 33.672535 | 33.674620 | 33.676704 | 33.678790 | 33.680875 | 33.682961 |
| 0.730 | 33.685046 | 33.687132 | 33.689219 | 33.691305 | 33.693392 | 33.695479 | 33.697567 | 33.699654 | 33.701742 | 33.703830 |
| 0.740 | 33.705919 | 33.708007 | 33.710096 | 33.712185 | 33.714275 | 33.716365 | 33.718454 | 33.720545 | 33.722635 | 33.724726 |
| 0.750 | 33.726817 | 33.728908 | 33.730999 | 33.733091 | 33.735183 | 33.737276 | 33.739368 | 33.741461 | 33.743554 | 33.745647 |
| 0.760 | 33.747741 | 33.749835 | 33.751929 | 33.754023 | 33.756117 | 33.758212 | 33.760307 | 33.762403 | 33.764499 | 33.766594 |
| 0.770 | 33.768690 | 33.770787 | 33.772883 | 33.774980 | 33.777077 | 33.779175 | 33.781272 | 33.783370 | 33.785469 | 33.787567 |
| 0.780 | 33.789666 | 33.791765 | 33.793864 | 33.795963 | 33.798063 | 33.800163 | 33.802263 | 33.804364 | 33.806465 | 33.808566 |
| 0.790 | 33.810667 | 33.812768 | 33.814870 | 33.816973 | 33.819075 | 33.821177 | 33.823280 | 33.825384 | 33.827487 | 33.829590 |
| 0.800 | 33.831694 | 33.833798 | 33.835903 | 33.838007 | 33.840113 | 33.842218 | 33.844323 | 33.846429 | 33.848535 | 33.850641 |
| 0.810 | 33.852747 | 33.854855 | 33.856961 | 33.859069 | 33.861176 | 33.863284 | 33.865392 | 33.867500 | 33.869609 | 33.871718 |
| 0.820 | 33.873827 | 33.875937 | 33.878046 | 33.880156 | 33.882266 | 33.884377 | 33.886487 | 33.888598 | 33.890709 | 33.892821 |
| 0.830 | 33.894932 | 33.897045 | 33.899157 | 33.901269 | 33.903382 | 33.905495 | 33.907609 | 33.909722 | 33.911836 | 33.913950 |
| 0.840 | 33.916064 | 33.918179 | 33.920294 | 33.922409 | 33.924524 | 33.926640 | 33.928756 | 33.930872 | 33.932989 | 33.935105 |
| 0.850 | 33.937222 | 33.939339 | 33.941457 | 33.943574 | 33.945693 | 33.947811 | 33.949930 | 33.952048 | 33.954167 | 33.956287 |
| 0.860 | 33.958406 | 33.960526 | 33.962646 | 33.964767 | 33.966887 | 33.969008 | 33.971129 | 33.973251 | 33.975373 | 33.977495 |
| 0.870 | 33.979617 | 33.981740 | 33.983862 | 33.985985 | 33.988109 | 33.990232 | 33.992356 | 33.994480 | 33.996604 | 33.998729 |
| 0.880 | 34.000854 | 34.002979 | 34.005105 | 34.007231 | 34.009356 | 34.011483 | 34.013609 | 34.015736 | 34.017863 | 34.019990 |
| 0.890 | 34.022118 | 34.024246 | 34.026374 | 34.028502 | 34.030631 | 34.032760 | 34.034889 | 34.037018 | 34.039148 | 34.041278 |
| 0.900 | 34.043408 | 34.045538 | 34.047669 | 34.049800 | 34.051932 | 34.054063 | 34.056195 | 34.058327 | 34.060460 | 34.062592 |
| 0.910 | 34.064725 | 34.066858 | 34.068992 | 34.071126 | 34.073259 | 34.075394 | 34.077528 | 34.079663 | 34.081798 | 34.083933 |
| 0.920 | 34.086069 | 34.088204 | 34.090341 | 34.092474 | 34.094614 | 34.096751 | 34.098888 | 34.101025 | 34.103163 | 34.105301 |
| 0.930 | 34.107439 | 34.109578 | 34.111716 | 34.113855 | 34.115995 | 34.118134 | 34.120274 | 34.122415 | 34.124555 | 34.126696 |
| 0.940 | 34.128836 | 34.130978 | 34.133119 | 34.135261 | 34.137403 | 34.139545 | 34.141688 | 34.143830 | 34.145974 | 34.148117 |
| 0.950 | 34.150260 | 34.152404 | 34.154549 | 34.156693 | 34.158838 | 34.160983 | 34.163128 | 34.165274 | 34.167419 | 34.169565 |
| 0.960 | 34.171712 | 34.173858 | 34.176005 | 34.178153 | 34.180300 | 34.182447 | 34.184594 | 34.186744 | 34.188892 | 34.191041 |
| 0.970 | 34.193190 | 34.195339 | 34.197489 | 34.199639 | 34.201789 | 34.203939 | 34.206090 | 34.208241 | 34.210392 | 34.212543 |
| 0.980 | 34.214695 | 34.216847 | 34.219000 | 34.221152 | 34.223305 | 34.225458 | 34.227612 | 34.229765 | 34.231919 | 34.234073 |
| 0.990 | 34.236228 | 34.238382 | 34.240538 | 34.242693 | 34.244848 | 34.247005 | 34.249160 | 34.251317 | 34.253473 | 34.255630 |

ATTENUATION IN DECIBELS
 THETA FROM 82.000 TO 82.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 34.257788 | 34.259945 | 34.262103 | 34.264261 | 34.266419 | 34.268578 | 34.270737 | 34.272896 | 34.275055 | 34.277215 |
| 0.010 | 34.279375 | 34.281535 | 34.283695 | 34.285856 | 34.288017 | 34.290178 | 34.292339 | 34.294502 | 34.296664 | 34.298827 |
| 0.020 | 34.300989 | 34.303152 | 34.305315 | 34.307479 | 34.309643 | 34.311807 | 34.313971 | 34.316136 | 34.318301 | 34.320466 |
| 0.030 | 34.322631 | 34.324797 | 34.326963 | 34.329129 | 34.331295 | 34.333462 | 34.335629 | 34.337797 | 34.339964 | 34.342133 |
| 0.040 | 34.344301 | 34.346469 | 34.348638 | 34.350807 | 34.352976 | 34.355145 | 34.357316 | 34.359486 | 34.361656 | 34.363827 |
| 0.050 | 34.365998 | 34.368169 | 34.370340 | 34.372512 | 34.374684 | 34.376856 | 34.379027 | 34.381202 | 34.383375 | 34.385549 |
| 0.060 | 34.387722 | 34.389896 | 34.392071 | 34.394245 | 34.396420 | 34.398595 | 34.400771 | 34.402946 | 34.405122 | 34.407299 |
| 0.070 | 34.409475 | 34.411652 | 34.413829 | 34.416006 | 34.418184 | 34.420362 | 34.422540 | 34.424718 | 34.426897 | 34.429076 |
| 0.080 | 34.431255 | 34.433434 | 34.435615 | 34.437795 | 34.439975 | 34.442156 | 34.444336 | 34.446518 | 34.448699 | 34.450881 |
| 0.090 | 34.453063 | 34.455245 | 34.457428 | 34.459611 | 34.461794 | 34.463978 | 34.466162 | 34.468346 | 34.470530 | 34.472714 |
| 0.100 | 34.474899 | 34.477085 | 34.479270 | 34.481456 | 34.483642 | 34.485828 | 34.488014 | 34.490201 | 34.492388 | 34.494576 |
| 0.110 | 34.496763 | 34.498951 | 34.501140 | 34.503328 | 34.505517 | 34.507706 | 34.509895 | 34.512085 | 34.514275 | 34.516465 |
| 0.120 | 34.518656 | 34.520846 | 34.523037 | 34.525229 | 34.527421 | 34.529612 | 34.531805 | 34.533997 | 34.536190 | 34.538383 |
| 0.130 | 34.540576 | 34.542769 | 34.544963 | 34.547157 | 34.549352 | 34.551547 | 34.553741 | 34.555937 | 34.558133 | 34.560328 |
| 0.140 | 34.562524 | 34.564721 | 34.566917 | 34.569115 | 34.571312 | 34.573509 | 34.575707 | 34.577905 | 34.580104 | 34.582302 |
| 0.150 | 34.584501 | 34.586700 | 34.588900 | 34.591103 | 34.593300 | 34.595500 | 34.597701 | 34.599902 | 34.602103 | 34.604305 |
| 0.160 | 34.606506 | 34.608708 | 34.610911 | 34.613113 | 34.615316 | 34.617520 | 34.619723 | 34.621927 | 34.624131 | 34.626336 |
| 0.170 | 34.628540 | 34.630745 | 34.632950 | 34.635156 | 34.637362 | 34.639568 | 34.641774 | 34.643981 | 34.646188 | 34.648395 |
| C.180 | 34.650602 | 34.652810 | 34.655018 | 34.657227 | 34.659435 | 34.661644 | 34.663853 | 34.666063 | 34.668272 | 34.670483 |
| 0.190 | 34.672693 | 34.674904 | 34.677114 | 34.679326 | 34.681537 | 34.683749 | 34.685961 | 34.688174 | 34.690386 | 34.692599 |
| 0.200 | 34.694812 | 34.697026 | 34.699240 | 34.701454 | 34.703668 | 34.705885 | 34.708098 | 34.710313 | 34.712529 | 34.714745 |
| 0.210 | 34.716960 | 34.719177 | 34.721394 | 34.723610 | 34.725828 | 34.728045 | 34.730261 | 34.732481 | 34.734698 | 34.736918 |
| 0.220 | 34.739138 | 34.741357 | 34.743577 | 34.745796 | 34.748016 | 34.750237 | 34.752458 | 34.754679 | 34.756900 | 34.759121 |
| 0.230 | 34.761343 | 34.763566 | 34.765788 | 34.768011 | 34.770234 | 34.772457 | 34.774681 | 34.776905 | 34.779129 | 34.781354 |
| 0.240 | 34.783578 | 34.785803 | 34.788029 | 34.790254 | 34.792480 | 34.794706 | 34.796933 | 34.799160 | 34.801387 | 34.803614 |
| 0.250 | 34.805842 | 34.808070 | 34.810298 | 34.812527 | 34.814755 | 34.816985 | 34.819214 | 34.821444 | 34.823674 | 34.825904 |
| 0.260 | 34.828135 | 34.830366 | 34.832597 | 34.834828 | 34.837060 | 34.839292 | 34.841525 | 34.843757 | 34.845990 | 34.848223 |
| 0.270 | 34.850457 | 34.852691 | 34.854925 | 34.857159 | 34.859394 | 34.861629 | 34.863864 | 34.866100 | 34.868336 | 34.870572 |
| 0.280 | 34.872808 | 34.875045 | 34.877282 | 34.879519 | 34.881757 | 34.883995 | 34.886233 | 34.888472 | 34.890710 | 34.892950 |
| 0.290 | 34.895189 | 34.897429 | 34.899669 | 34.901909 | 34.904149 | 34.906390 | 34.908631 | 34.910873 | 34.913115 | 34.915357 |
| 0.300 | 34.917599 | 34.919841 | 34.922084 | 34.924327 | 34.926571 | 34.928815 | 34.931059 | 34.933303 | 34.935548 | 34.937793 |
| 0.310 | 34.940038 | 34.942284 | 34.944530 | 34.946776 | 34.949022 | 34.951269 | 34.953516 | 34.955764 | 34.958011 | 34.960259 |
| 0.320 | 34.962507 | 34.964756 | 34.967005 | 34.969254 | 34.971503 | 34.973753 | 34.976003 | 34.978253 | 34.980504 | 34.982755 |
| 0.330 | 34.985006 | 34.987257 | 34.989510 | 34.991762 | 34.994014 | 34.996267 | 34.998519 | 35.000773 | 35.003026 | 35.005280 |
| 0.340 | 35.007535 | 35.009789 | 35.012044 | 35.014299 | 35.016554 | 35.018810 | 35.021066 | 35.023322 | 35.025578 | 35.027835 |
| 0.350 | 35.030093 | 35.032350 | 35.034608 | 35.036866 | 35.039124 | 35.041383 | 35.043642 | 35.045901 | 35.048161 | 35.050421 |
| 0.360 | 35.052681 | 35.054941 | 35.057202 | 35.059463 | 35.061724 | 35.063986 | 35.066248 | 35.068510 | 35.070773 | 35.073036 |
| 0.370 | 35.075299 | 35.077562 | 35.079826 | 35.082090 | 35.084354 | 35.086619 | 35.088884 | 35.091149 | 35.093415 | 35.095681 |
| 0.380 | 35.097947 | 35.100213 | 35.102480 | 35.104747 | 35.107014 | 35.109282 | 35.111550 | 35.113818 | 35.116087 | 35.118356 |
| 0.390 | 35.120625 | 35.122894 | 35.125164 | 35.127434 | 35.129704 | 35.131975 | 35.134246 | 35.136518 | 35.138789 | 35.141061 |
| 0.400 | 35.143333 | 35.145606 | 35.147879 | 35.150152 | 35.152425 | 35.154699 | 35.156972 | 35.159247 | 35.161521 | 35.163796 |
| 0.410 | 35.166072 | 35.168347 | 35.170623 | 35.172899 | 35.175176 | 35.177454 | 35.179729 | 35.182007 | 35.184284 | 35.186562 |
| 0.420 | 35.188840 | 35.191119 | 35.193398 | 35.195677 | 35.197957 | 35.200236 | 35.202517 | 35.204797 | 35.207078 | 35.209359 |
| 0.430 | 35.211640 | 35.213922 | 35.216203 | 35.218485 | 35.220768 | 35.223051 | 35.225334 | 35.227617 | 35.229901 | 35.232185 |
| 0.440 | 35.234469 | 35.236754 | 35.239039 | 35.241324 | 35.243610 | 35.245896 | 35.248182 | 35.250469 | 35.252756 | 35.255043 |
| 0.450 | 35.257330 | 35.259618 | 35.261906 | 35.264194 | 35.266483 | 35.268772 | 35.271061 | 35.273350 | 35.275640 | 35.277930 |
| 0.460 | 35.280221 | 35.282512 | 35.284803 | 35.287094 | 35.289386 | 35.291678 | 35.293970 | 35.296263 | 35.298556 | 35.300849 |
| 0.470 | 35.303143 | 35.305437 | 35.307731 | 35.310025 | 35.312320 | 35.314615 | 35.316910 | 35.319206 | 35.321502 | 35.323799 |
| 0.480 | 35.326095 | 35.328392 | 35.330689 | 35.332987 | 35.335285 | 35.337583 | 35.339881 | 35.342180 | 35.344480 | 35.346779 |
| 0.490 | 35.349079 | 35.351378 | 35.353679 | 35.355979 | 35.358281 | 35.360582 | 35.362884 | 35.365185 | 35.367487 | 35.369790 |

ATTENUATION IN DECIBELS
 THETA FROM 82.500 TO 82.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 35.372093 | 35.374396 | 35.376699 | 35.379004 | 35.381308 | 35.383612 | 35.385917 | 35.388222 | 35.390527 | 35.392833 |
| 0.510 | 35.395138 | 35.397445 | 35.399751 | 35.402058 | 35.404366 | 35.406673 | 35.408981 | 35.411289 | 35.413597 | 35.415906 |
| 0.520 | 35.418215 | 35.420525 | 35.422834 | 35.425144 | 35.427454 | 35.429765 | 35.432076 | 35.434387 | 35.436699 | 35.439011 |
| 0.530 | 35.441323 | 35.443635 | 35.445948 | 35.448261 | 35.450575 | 35.452888 | 35.455203 | 35.457517 | 35.459832 | 35.462147 |
| 0.540 | 35.466462 | 35.466778 | 35.469094 | 35.471410 | 35.473727 | 35.476043 | 35.478361 | 35.480678 | 35.482996 | 35.485314 |
| 0.550 | 35.487633 | 35.489952 | 35.492270 | 35.494590 | 35.496910 | 35.499230 | 35.501550 | 35.503871 | 35.506192 | 35.508513 |
| 0.560 | 35.510835 | 35.513156 | 35.515479 | 35.517801 | 35.520124 | 35.522448 | 35.524771 | 35.527095 | 35.529419 | 35.531744 |
| 0.570 | 35.534068 | 35.536393 | 35.538719 | 35.541044 | 35.543371 | 35.545697 | 35.548024 | 35.550351 | 35.552678 | 35.555006 |
| 0.580 | 35.557333 | 35.559662 | 35.561990 | 35.564319 | 35.566648 | 35.568978 | 35.571308 | 35.573637 | 35.575968 | 35.578299 |
| 0.590 | 35.580630 | 35.582962 | 35.585294 | 35.587626 | 35.589958 | 35.592291 | 35.594624 | 35.596957 | 35.599291 | 35.601625 |
| 0.600 | 35.603959 | 35.606294 | 35.608629 | 35.610964 | 35.613299 | 35.615635 | 35.617972 | 35.620308 | 35.622645 | 35.624982 |
| 0.610 | 35.627320 | 35.629658 | 35.631996 | 35.634334 | 35.636673 | 35.639012 | 35.641352 | 35.643692 | 35.646031 | 35.648372 |
| 0.620 | 35.650712 | 35.653053 | 35.655395 | 35.657736 | 35.660079 | 35.662421 | 35.664763 | 35.667107 | 35.669450 | 35.671793 |
| 0.630 | 35.674137 | 35.676481 | 35.678826 | 35.681171 | 35.683516 | 35.685862 | 35.688208 | 35.690554 | 35.692900 | 35.695247 |
| 0.640 | 35.697594 | 35.699942 | 35.702289 | 35.704638 | 35.706986 | 35.709335 | 35.711684 | 35.714033 | 35.716383 | 35.718733 |
| 0.650 | 35.721083 | 35.723434 | 35.725785 | 35.728136 | 35.730488 | 35.732840 | 35.735192 | 35.737545 | 35.739898 | 35.742251 |
| 0.660 | 35.744605 | 35.746959 | 35.749313 | 35.751667 | 35.754022 | 35.756378 | 35.758733 | 35.761089 | 35.763445 | 35.765802 |
| 0.670 | 35.768198 | 35.770516 | 35.772873 | 35.775231 | 35.777589 | 35.779948 | 35.782307 | 35.784666 | 35.787025 | 35.789385 |
| 0.680 | 35.791745 | 35.794106 | 35.796466 | 35.798827 | 35.801188 | 35.803550 | 35.805912 | 35.808275 | 35.810637 | 35.813001 |
| 0.690 | 35.815364 | 35.817728 | 35.820092 | 35.822456 | 35.824871 | 35.827286 | 35.829651 | 35.831917 | 35.834283 | 35.836649 |
| 0.700 | 35.839015 | 35.841383 | 35.843750 | 35.846117 | 35.848485 | 35.850854 | 35.853222 | 35.855591 | 35.857961 | 35.860330 |
| 0.710 | 35.862700 | 35.865070 | 35.867441 | 35.869812 | 35.872183 | 35.874555 | 35.876926 | 35.879299 | 35.881671 | 35.884044 |
| 0.720 | 35.886417 | 35.888791 | 35.891165 | 35.893539 | 35.895914 | 35.898288 | 35.900664 | 35.903039 | 35.905415 | 35.907791 |
| 0.730 | 35.910168 | 35.912545 | 35.914922 | 35.917299 | 35.919677 | 35.922055 | 35.924434 | 35.926813 | 35.929192 | 35.931571 |
| 0.740 | 35.933951 | 35.936331 | 35.938712 | 35.941092 | 35.943474 | 35.945855 | 35.948237 | 35.950619 | 35.953001 | 35.955384 |
| 0.750 | 35.957767 | 35.960151 | 35.962535 | 35.964919 | 35.967303 | 35.969688 | 35.972073 | 35.974459 | 35.976845 | 35.979231 |
| 0.760 | 35.981617 | 35.984004 | 35.986391 | 35.988779 | 35.991166 | 35.993555 | 35.995943 | 35.998332 | 36.000721 | 36.003110 |
| 0.770 | 36.005500 | 36.007890 | 36.010281 | 36.012671 | 36.015063 | 36.017454 | 36.019846 | 36.022238 | 36.024631 | 36.027023 |
| 0.780 | 36.029417 | 36.031810 | 36.034204 | 36.036598 | 36.038992 | 36.041388 | 36.043783 | 36.046178 | 36.048574 | 36.050970 |
| 0.790 | 36.053367 | 36.055763 | 36.058160 | 36.060558 | 36.062956 | 36.065354 | 36.067752 | 36.070151 | 36.072551 | 36.074950 |
| 0.800 | 36.077350 | 36.079750 | 36.082151 | 36.084552 | 36.086953 | 36.089359 | 36.091764 | 36.094169 | 36.096566 | 36.098964 |
| 0.810 | 36.103671 | 36.106174 | 36.108677 | 36.111179 | 36.113683 | 36.116186 | 36.118690 | 36.121193 | 36.123697 | 36.126201 |
| 0.820 | 36.125418 | 36.127875 | 36.130332 | 36.132789 | 36.135246 | 36.137704 | 36.140162 | 36.142620 | 36.145078 | 36.147536 |
| 0.830 | 36.149503 | 36.151913 | 36.154324 | 36.156735 | 36.159146 | 36.161558 | 36.163970 | 36.166383 | 36.168795 | 36.171208 |
| 0.840 | 36.173672 | 36.176035 | 36.178450 | 36.180864 | 36.183279 | 36.185694 | 36.188109 | 36.190525 | 36.192941 | 36.195358 |
| 0.850 | 36.197775 | 36.200192 | 36.202610 | 36.205027 | 36.207446 | 36.209864 | 36.212283 | 36.214702 | 36.217122 | 36.219541 |
| 0.860 | 36.221962 | 36.224382 | 36.226803 | 36.229225 | 36.231646 | 36.234068 | 36.236490 | 36.238913 | 36.241336 | 36.243759 |
| 0.870 | 36.246133 | 36.248607 | 36.251031 | 36.253456 | 36.255881 | 36.258307 | 36.260732 | 36.263158 | 36.265585 | 36.268012 |
| 0.880 | 36.270439 | 36.272866 | 36.275294 | 36.277722 | 36.280150 | 36.282579 | 36.285008 | 36.287438 | 36.289868 | 36.292298 |
| 0.890 | 36.294729 | 36.297160 | 36.299591 | 36.302022 | 36.304454 | 36.306887 | 36.309319 | 36.311752 | 36.314186 | 36.316619 |
| 0.900 | 36.319053 | 36.321488 | 36.323923 | 36.326357 | 36.328793 | 36.331229 | 36.333665 | 36.336101 | 36.338538 | 36.340975 |
| 0.910 | 36.343413 | 36.345850 | 36.348289 | 36.350727 | 36.353166 | 36.355605 | 36.358045 | 36.360485 | 36.362925 | 36.365366 |
| 0.920 | 36.367856 | 36.370248 | 36.372690 | 36.375132 | 36.377574 | 36.380017 | 36.382460 | 36.384903 | 36.387347 | 36.389791 |
| 0.930 | 36.392235 | 36.394681 | 36.397125 | 36.399571 | 36.402017 | 36.404463 | 36.406909 | 36.409357 | 36.411804 | 36.414251 |
| 0.940 | 36.416699 | 36.419147 | 36.421596 | 36.424045 | 36.426495 | 36.428944 | 36.431394 | 36.433844 | 36.436296 | 36.438747 |
| 0.950 | 36.441198 | 36.443650 | 36.446102 | 36.448555 | 36.451007 | 36.453461 | 36.455914 | 36.458368 | 36.460823 | 36.463277 |
| 0.960 | 36.465732 | 36.468187 | 36.470643 | 36.473099 | 36.475555 | 36.478012 | 36.480468 | 36.482927 | 36.485384 | 36.487843 |
| 0.970 | 36.490301 | 36.492760 | 36.495219 | 36.497679 | 36.500139 | 36.502599 | 36.505060 | 36.507521 | 36.509982 | 36.512444 |
| 0.980 | 36.514905 | 36.517368 | 36.519831 | 36.522294 | 36.524757 | 36.527221 | 36.529685 | 36.532150 | 36.534615 | 36.537080 |
| 0.990 | 36.539546 | 36.542011 | 36.544478 | 36.546944 | 36.549411 | 36.551879 | 36.554347 | 36.556815 | 36.559283 | 36.561752 |

ATTENUATION IN DECIBELS
THETA FROM 83.000 TO 83.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 36.564221 | 36.566690 | 36.569160 | 36.571630 | 36.574101 | 36.576572 | 36.579043 | 36.581515 | 36.583987 | 36.586459 |
| 0.010 | 36.588932 | 36.591405 | 36.593878 | 36.596352 | 36.598826 | 36.601301 | 36.603776 | 36.606251 | 36.608727 | 36.611202 |
| 0.020 | 36.613679 | 36.616156 | 36.618632 | 36.621110 | 36.623588 | 36.626066 | 36.628544 | 36.631023 | 36.633502 | 36.635982 |
| 0.030 | 36.638462 | 36.640942 | 36.643422 | 36.645903 | 36.648385 | 36.650866 | 36.653348 | 36.655830 | 36.658313 | 36.660797 |
| 0.040 | 36.663280 | 36.665764 | 36.668248 | 36.670732 | 36.673217 | 36.675703 | 36.678188 | 36.680675 | 36.683161 | 36.685647 |
| 0.050 | 36.688135 | 36.690622 | 36.693110 | 36.695598 | 36.698086 | 36.700575 | 36.703064 | 36.705554 | 36.708044 | 36.710535 |
| 0.060 | 36.713025 | 36.715517 | 36.718008 | 36.720500 | 36.722992 | 36.725484 | 36.727977 | 36.730470 | 36.732964 | 36.735458 |
| 0.070 | 36.737952 | 36.740447 | 36.742942 | 36.745438 | 36.747933 | 36.750430 | 36.752926 | 36.755423 | 36.757920 | 36.760417 |
| 0.080 | 36.762916 | 36.765414 | 36.767913 | 36.770411 | 36.772911 | 36.775411 | 36.777911 | 36.780412 | 36.782913 | 36.785414 |
| 0.090 | 36.787915 | 36.790417 | 36.792920 | 36.795423 | 36.797925 | 36.800429 | 36.802933 | 36.805437 | 36.807941 | 36.810446 |
| 0.100 | 36.812952 | 36.815457 | 36.817964 | 36.820470 | 36.822977 | 36.825484 | 36.827991 | 36.830499 | 36.833007 | 36.835516 |
| 0.110 | 36.838025 | 36.840534 | 36.843044 | 36.845554 | 36.848064 | 36.850578 | 36.853086 | 36.855598 | 36.858109 | 36.860622 |
| 0.120 | 36.863134 | 36.865648 | 36.868161 | 36.870675 | 36.873189 | 36.875703 | 36.878218 | 36.880733 | 36.883249 | 36.885765 |
| 0.130 | 36.888281 | 36.890798 | 36.893315 | 36.895833 | 36.898350 | 36.900868 | 36.903387 | 36.905906 | 36.908425 | 36.910945 |
| 0.140 | 36.913465 | 36.915985 | 36.918506 | 36.921027 | 36.923549 | 36.926071 | 36.928593 | 36.931116 | 36.933639 | 36.936162 |
| 0.150 | 36.938685 | 36.941210 | 36.943734 | 36.946259 | 36.948784 | 36.951310 | 36.953836 | 36.956362 | 36.958889 | 36.961416 |
| 0.160 | 36.963943 | 36.966471 | 36.968999 | 36.971528 | 36.974057 | 36.976586 | 36.979116 | 36.981646 | 36.984177 | 36.986708 |
| 0.170 | 36.989239 | 36.991770 | 36.994302 | 36.996835 | 36.999367 | 37.001900 | 37.004434 | 37.006968 | 37.009502 | 37.012036 |
| 0.180 | 37.014572 | 37.017107 | 37.019642 | 37.022179 | 37.024715 | 37.027252 | 37.029789 | 37.032327 | 37.034864 | 37.037403 |
| 0.190 | 37.039942 | 37.042481 | 37.045020 | 37.047560 | 37.050100 | 37.052641 | 37.055182 | 37.057723 | 37.060265 | 37.062807 |
| 0.200 | 37.065350 | 37.067892 | 37.070436 | 37.072979 | 37.075523 | 37.078067 | 37.080612 | 37.083158 | 37.085703 | 37.088249 |
| 0.210 | 37.090795 | 37.093342 | 37.095889 | 37.098436 | 37.100984 | 37.103532 | 37.106081 | 37.108629 | 37.111179 | 37.113729 |
| 0.220 | 37.116270 | 37.118829 | 37.121380 | 37.123931 | 37.126482 | 37.129035 | 37.131587 | 37.134140 | 37.136693 | 37.139246 |
| 0.230 | 37.141800 | 37.144354 | 37.146909 | 37.149464 | 37.152019 | 37.154573 | 37.157131 | 37.159688 | 37.162244 | 37.164802 |
| 0.240 | 37.167359 | 37.169917 | 37.172476 | 37.175035 | 37.177594 | 37.180153 | 37.182714 | 37.185274 | 37.187834 | 37.190395 |
| 0.250 | 37.192957 | 37.195519 | 37.198084 | 37.200644 | 37.203202 | 37.205767 | 37.208334 | 37.210898 | 37.213463 | 37.216028 |
| 0.260 | 37.218593 | 37.221159 | 37.223725 | 37.226291 | 37.228858 | 37.231425 | 37.233993 | 37.236561 | 37.239130 | 37.241698 |
| 0.270 | 37.244267 | 37.246837 | 37.249407 | 37.251977 | 37.254548 | 37.257119 | 37.259690 | 37.262262 | 37.264834 | 37.267407 |
| 0.280 | 37.269980 | 37.272553 | 37.275127 | 37.277702 | 37.280276 | 37.282851 | 37.285426 | 37.288002 | 37.290578 | 37.293155 |
| 0.290 | 37.295732 | 37.298309 | 37.300887 | 37.303465 | 37.306043 | 37.308622 | 37.311201 | 37.313781 | 37.316361 | 37.318941 |
| 0.300 | 37.321522 | 37.324103 | 37.326685 | 37.329267 | 37.331849 | 37.334432 | 37.337015 | 37.339599 | 37.342182 | 37.344767 |
| 0.310 | 37.347351 | 37.349936 | 37.352522 | 37.355108 | 37.357694 | 37.360281 | 37.362867 | 37.365455 | 37.368043 | 37.370631 |
| 0.320 | 37.373219 | 37.375808 | 37.378398 | 37.380988 | 37.383578 | 37.386168 | 37.388759 | 37.391350 | 37.393942 | 37.396534 |
| 0.330 | 37.399127 | 37.401720 | 37.404313 | 37.406907 | 37.409501 | 37.412095 | 37.414690 | 37.417285 | 37.419881 | 37.422477 |
| 0.340 | 37.425073 | 37.427670 | 37.430267 | 37.432865 | 37.435463 | 37.438061 | 37.440660 | 37.443259 | 37.445859 | 37.448459 |
| 0.350 | 37.451059 | 37.453650 | 37.456241 | 37.458833 | 37.461426 | 37.464017 | 37.466610 | 37.469203 | 37.471796 | 37.474390 |
| 0.360 | 37.477085 | 37.479689 | 37.482294 | 37.484900 | 37.487506 | 37.490112 | 37.492719 | 37.495326 | 37.497933 | 37.500541 |
| 0.370 | 37.503150 | 37.505758 | 37.508367 | 37.510977 | 37.513587 | 37.516197 | 37.518807 | 37.521419 | 37.524030 | 37.526642 |
| 0.380 | 37.529254 | 37.531867 | 37.534480 | 37.537093 | 37.539707 | 37.542321 | 37.544936 | 37.547551 | 37.550166 | 37.552782 |
| 0.390 | 37.555398 | 37.558015 | 37.560632 | 37.563250 | 37.565867 | 37.568486 | 37.571104 | 37.573723 | 37.576343 | 37.578962 |
| 0.400 | 37.581583 | 37.584203 | 37.586824 | 37.589446 | 37.592068 | 37.594690 | 37.597312 | 37.599936 | 37.602559 | 37.605183 |
| 0.410 | 37.607807 | 37.610432 | 37.613057 | 37.615682 | 37.618308 | 37.620934 | 37.623561 | 37.626188 | 37.628816 | 37.631444 |
| 0.420 | 37.634072 | 37.636700 | 37.639329 | 37.641959 | 37.644589 | 37.647219 | 37.649850 | 37.652481 | 37.655112 | 37.657744 |
| 0.430 | 37.660377 | 37.663009 | 37.665642 | 37.668276 | 37.670910 | 37.673544 | 37.676179 | 37.678814 | 37.681449 | 37.684085 |
| 0.440 | 37.686722 | 37.689355 | 37.691996 | 37.694633 | 37.697271 | 37.699910 | 37.702549 | 37.705188 | 37.707827 | 37.710467 |
| 0.450 | 37.713108 | 37.715749 | 37.718390 | 37.721032 | 37.723673 | 37.726316 | 37.728959 | 37.731602 | 37.734246 | 37.736890 |
| 0.460 | 37.739534 | 37.742179 | 37.744824 | 37.747470 | 37.750116 | 37.752763 | 37.755410 | 37.758057 | 37.760705 | 37.763353 |
| 0.470 | 37.766002 | 37.768651 | 37.771300 | 37.773950 | 37.776600 | 37.779251 | 37.781901 | 37.784553 | 37.787205 | 37.789857 |
| 0.480 | 37.792510 | 37.795163 | 37.797816 | 37.800470 | 37.803124 | 37.805779 | 37.808434 | 37.811090 | 37.813746 | 37.816402 |
| 0.490 | 37.819059 | 37.821716 | 37.824374 | 37.827032 | 37.829690 | 37.832349 | 37.835009 | 37.837668 | 37.840328 | 37.842988 |

ATTENUATION IN DECIBELS
THETA FROM 93.500 TO 93.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 37.845650 | 37.848311 | 37.850973 | 37.853635 | 37.856297 | 37.858960 | 37.861624 | 37.864287 | 37.866951 | 37.869616 | 37.872281 |
| 0.510 | 37.872281 | 37.874942 | 37.877603 | 37.880264 | 37.882926 | 37.885587 | 37.888248 | 37.890909 | 37.893570 | 37.896231 | 37.898892 |
| 0.520 | 37.898924 | 37.901585 | 37.904246 | 37.906907 | 37.909568 | 37.912229 | 37.914890 | 37.917551 | 37.920212 | 37.922873 | 37.925534 |
| 0.530 | 37.925569 | 37.928230 | 37.930891 | 37.933552 | 37.936213 | 37.938874 | 37.941535 | 37.944196 | 37.946857 | 37.949518 | 37.952179 |
| 0.540 | 37.952240 | 37.954901 | 37.957562 | 37.960223 | 37.962884 | 37.965545 | 37.968206 | 37.970867 | 37.973528 | 37.976189 | 37.978850 |
| 0.550 | 37.979224 | 37.981885 | 37.984546 | 37.987207 | 37.989868 | 37.992529 | 37.995190 | 37.997851 | 37.999512 | 38.002173 | 38.004834 |
| 0.560 | 38.006064 | 38.008725 | 38.011386 | 38.014047 | 38.016708 | 38.019369 | 38.022030 | 38.024691 | 38.027352 | 38.029913 | 38.032574 |
| 0.570 | 38.032946 | 38.035607 | 38.038268 | 38.040929 | 38.043590 | 38.046251 | 38.048912 | 38.051573 | 38.054234 | 38.056895 | 38.059556 |
| 0.580 | 38.059870 | 38.062531 | 38.065192 | 38.067853 | 38.070514 | 38.073175 | 38.075836 | 38.078497 | 38.081158 | 38.083819 | 38.086480 |
| 0.590 | 38.086837 | 38.089498 | 38.092159 | 38.094820 | 38.097481 | 38.100142 | 38.102803 | 38.105464 | 38.108125 | 38.110786 | 38.113447 |
| 0.600 | 38.113846 | 38.116507 | 38.119168 | 38.121829 | 38.124490 | 38.127151 | 38.129812 | 38.132473 | 38.135134 | 38.137795 | 38.140456 |
| 0.610 | 38.140898 | 38.143559 | 38.146220 | 38.148881 | 38.151542 | 38.154203 | 38.156864 | 38.159525 | 38.162186 | 38.164847 | 38.167508 |
| 0.620 | 38.167992 | 38.170653 | 38.173314 | 38.175975 | 38.178636 | 38.181297 | 38.183958 | 38.186619 | 38.189280 | 38.191941 | 38.194602 |
| 0.630 | 38.195130 | 38.197791 | 38.200452 | 38.203113 | 38.205774 | 38.208435 | 38.211096 | 38.213757 | 38.216418 | 38.219079 | 38.221740 |
| 0.640 | 38.222310 | 38.224971 | 38.227632 | 38.230293 | 38.232954 | 38.235615 | 38.238276 | 38.240937 | 38.243598 | 38.246259 | 38.248920 |
| 0.650 | 38.249533 | 38.252194 | 38.254855 | 38.257516 | 38.260177 | 38.262838 | 38.265499 | 38.268160 | 38.270821 | 38.273482 | 38.276143 |
| 0.660 | 38.276800 | 38.279461 | 38.282122 | 38.284783 | 38.287444 | 38.290105 | 38.292766 | 38.295427 | 38.298088 | 38.300749 | 38.303410 |
| 0.670 | 38.304110 | 38.306771 | 38.309432 | 38.312093 | 38.314754 | 38.317415 | 38.320076 | 38.322737 | 38.325398 | 38.328059 | 38.330720 |
| 0.680 | 38.331464 | 38.334125 | 38.336786 | 38.339447 | 38.342108 | 38.344769 | 38.347430 | 38.350091 | 38.352752 | 38.355413 | 38.358074 |
| 0.690 | 38.358861 | 38.361522 | 38.364183 | 38.366844 | 38.369505 | 38.372166 | 38.374827 | 38.377488 | 38.380149 | 38.382810 | 38.385471 |
| 0.700 | 38.386302 | 38.388963 | 38.391624 | 38.394285 | 38.396946 | 38.399607 | 38.402268 | 38.404929 | 38.407590 | 38.410251 | 38.412912 |
| 0.710 | 38.413787 | 38.416448 | 38.419109 | 38.421770 | 38.424431 | 38.427092 | 38.429753 | 38.432414 | 38.435075 | 38.437736 | 38.440397 |
| 0.720 | 38.441316 | 38.443977 | 38.446638 | 38.449299 | 38.451960 | 38.454621 | 38.457282 | 38.459943 | 38.462604 | 38.465265 | 38.467926 |
| 0.730 | 38.468890 | 38.471551 | 38.474212 | 38.476873 | 38.479534 | 38.482195 | 38.484856 | 38.487517 | 38.490178 | 38.492839 | 38.495500 |
| 0.740 | 38.496507 | 38.499168 | 38.501829 | 38.504490 | 38.507151 | 38.509812 | 38.512473 | 38.515134 | 38.517795 | 38.520456 | 38.523117 |
| 0.750 | 38.524169 | 38.526830 | 38.529491 | 38.532152 | 38.534813 | 38.537474 | 38.540135 | 38.542796 | 38.545457 | 38.548118 | 38.550779 |
| 0.760 | 38.551877 | 38.554538 | 38.557199 | 38.559860 | 38.562521 | 38.565182 | 38.567843 | 38.570504 | 38.573165 | 38.575826 | 38.578487 |
| 0.770 | 38.579628 | 38.582289 | 38.584950 | 38.587611 | 38.590272 | 38.592933 | 38.595594 | 38.598255 | 38.600916 | 38.603577 | 38.606238 |
| 0.780 | 38.607425 | 38.610086 | 38.612747 | 38.615408 | 38.618069 | 38.620730 | 38.623391 | 38.626052 | 38.628713 | 38.631374 | 38.634035 |
| 0.790 | 38.635266 | 38.637927 | 38.640588 | 38.643249 | 38.645910 | 38.648571 | 38.651232 | 38.653893 | 38.656554 | 38.659215 | 38.661876 |
| 0.800 | 38.663153 | 38.665814 | 38.668475 | 38.671136 | 38.673797 | 38.676458 | 38.679119 | 38.681780 | 38.684441 | 38.687102 | 38.689763 |
| 0.810 | 38.691085 | 38.693746 | 38.696407 | 38.699068 | 38.701729 | 38.704390 | 38.707051 | 38.709712 | 38.712373 | 38.715034 | 38.717695 |
| 0.820 | 38.719053 | 38.721714 | 38.724375 | 38.727036 | 38.729697 | 38.732358 | 38.735019 | 38.737680 | 38.740341 | 38.743002 | 38.745663 |
| 0.830 | 38.747087 | 38.749748 | 38.752409 | 38.755070 | 38.757731 | 38.760392 | 38.763053 | 38.765714 | 38.768375 | 38.771036 | 38.773697 |
| 0.840 | 38.775156 | 38.777817 | 38.780478 | 38.783139 | 38.785800 | 38.788461 | 38.791122 | 38.793783 | 38.796444 | 38.799105 | 38.801766 |
| 0.850 | 38.803271 | 38.805932 | 38.808593 | 38.811254 | 38.813915 | 38.816576 | 38.819237 | 38.821898 | 38.824559 | 38.827220 | 38.829881 |
| 0.860 | 38.831432 | 38.834093 | 38.836754 | 38.839415 | 38.842076 | 38.844737 | 38.847398 | 38.850059 | 38.852720 | 38.855381 | 38.858042 |
| 0.870 | 38.859684 | 38.862345 | 38.865006 | 38.867667 | 38.870328 | 38.872989 | 38.875650 | 38.878311 | 38.880972 | 38.883633 | 38.886294 |
| 0.880 | 38.887894 | 38.890555 | 38.893216 | 38.895877 | 38.898538 | 38.901199 | 38.903860 | 38.906521 | 38.909182 | 38.911843 | 38.914504 |
| 0.890 | 38.916194 | 38.918855 | 38.921516 | 38.924177 | 38.926838 | 38.929499 | 38.932160 | 38.934821 | 38.937482 | 38.940143 | 38.942804 |
| 0.900 | 38.944542 | 38.947203 | 38.949864 | 38.952525 | 38.955186 | 38.957847 | 38.960508 | 38.963169 | 38.965830 | 38.968491 | 38.971152 |
| 0.910 | 38.972936 | 38.975597 | 38.978258 | 38.980919 | 38.983580 | 38.986241 | 38.988902 | 38.991563 | 38.994224 | 38.996885 | 38.999546 |
| 0.920 | 39.001377 | 39.004038 | 39.006699 | 39.009360 | 39.012021 | 39.014682 | 39.017343 | 39.019904 | 39.022565 | 39.025226 | 39.027887 |
| 0.930 | 39.029865 | 39.032526 | 39.035187 | 39.037848 | 39.040509 | 39.043170 | 39.045831 | 39.048492 | 39.051153 | 39.053814 | 39.056475 |
| 0.940 | 39.058401 | 39.061062 | 39.063723 | 39.066384 | 39.069045 | 39.071706 | 39.074367 | 39.077028 | 39.079689 | 39.082350 | 39.085011 |
| 0.950 | 39.086984 | 39.089645 | 39.092306 | 39.094967 | 39.097628 | 39.099289 | 39.101950 | 39.104611 | 39.107272 | 39.109933 | 39.112594 |
| 0.960 | 39.115615 | 39.118276 | 39.120937 | 39.123598 | 39.126259 | 39.128920 | 39.131581 | 39.134242 | 39.136903 | 39.139564 | 39.142225 |
| 0.970 | 39.144293 | 39.146954 | 39.149615 | 39.152276 | 39.154937 | 39.157598 | 39.160259 | 39.162920 | 39.165581 | 39.168242 | 39.170903 |
| 0.980 | 39.173020 | 39.175681 | 39.178342 | 39.181003 | 39.183664 | 39.186325 | 39.188986 | 39.191647 | 39.194308 | 39.196969 | 39.199630 |
| 0.990 | 39.201794 | 39.204455 | 39.207116 | 39.209777 | 39.212438 | 39.215099 | 39.217760 | 39.220421 | 39.223082 | 39.225743 | 39.228404 |

ATTENUATION IN DECIBELS
 THETA FROM 84.000 TO 84.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 39.230617 | 39.233502 | 39.236388 | 39.239274 | 39.242160 | 39.245047 | 39.247934 | 39.250822 | 39.253710 | 39.256599 |
| 0.010 | 39.259489 | 39.262378 | 39.265268 | 39.268159 | 39.271050 | 39.273942 | 39.276834 | 39.279727 | 39.282620 | 39.285514 |
| 0.020 | 39.288468 | 39.291357 | 39.294248 | 39.297139 | 39.299990 | 39.302886 | 39.305784 | 39.308681 | 39.311579 | 39.314478 |
| 0.030 | 39.317377 | 39.320277 | 39.323176 | 39.326077 | 39.328978 | 39.331880 | 39.334782 | 39.337684 | 39.340587 | 39.343491 |
| 0.040 | 39.346395 | 39.349299 | 39.352204 | 39.355109 | 39.358015 | 39.360922 | 39.363829 | 39.366736 | 39.369644 | 39.372552 |
| 0.050 | 39.375461 | 39.378371 | 39.381280 | 39.384191 | 39.387102 | 39.390013 | 39.392925 | 39.395837 | 39.398750 | 39.401663 |
| 0.060 | 39.404577 | 39.407491 | 39.410406 | 39.413321 | 39.416237 | 39.419154 | 39.422071 | 39.424988 | 39.427906 | 39.430824 |
| 0.070 | 39.433743 | 39.436662 | 39.439581 | 39.442502 | 39.445422 | 39.448344 | 39.451265 | 39.454187 | 39.457110 | 39.460033 |
| 0.080 | 39.462957 | 39.465881 | 39.468806 | 39.471731 | 39.474657 | 39.477583 | 39.480510 | 39.483437 | 39.486365 | 39.489293 |
| 0.090 | 39.492222 | 39.495151 | 39.498081 | 39.501011 | 39.503942 | 39.506873 | 39.509805 | 39.512737 | 39.515669 | 39.518603 |
| 0.100 | 39.521536 | 39.524471 | 39.527405 | 39.530341 | 39.533276 | 39.536212 | 39.539149 | 39.542087 | 39.545024 | 39.547962 |
| 0.110 | 39.550901 | 39.553840 | 39.556780 | 39.559720 | 39.562661 | 39.565602 | 39.568544 | 39.571486 | 39.574429 | 39.577372 |
| 0.120 | 39.580316 | 39.583260 | 39.586205 | 39.589150 | 39.592096 | 39.595042 | 39.597989 | 39.600936 | 39.603884 | 39.606833 |
| 0.130 | 39.609781 | 39.612731 | 39.615680 | 39.618630 | 39.621582 | 39.624533 | 39.627485 | 39.630437 | 39.633390 | 39.636343 |
| 0.140 | 39.639297 | 39.642251 | 39.645206 | 39.648162 | 39.651118 | 39.654074 | 39.657031 | 39.660000 | 39.662954 | 39.665905 |
| 0.150 | 39.668864 | 39.671823 | 39.674783 | 39.677743 | 39.680705 | 39.683666 | 39.686628 | 39.689590 | 39.692554 | 39.695518 |
| 0.160 | 39.698481 | 39.701446 | 39.704411 | 39.707376 | 39.710342 | 39.713309 | 39.716276 | 39.719244 | 39.722212 | 39.725181 |
| 0.170 | 39.728150 | 39.731120 | 39.734090 | 39.737061 | 39.740032 | 39.743003 | 39.745976 | 39.748949 | 39.751922 | 39.754896 |
| 0.180 | 39.757870 | 39.760845 | 39.763820 | 39.766796 | 39.769773 | 39.772749 | 39.775727 | 39.778705 | 39.781683 | 39.784662 |
| 0.190 | 39.787642 | 39.790621 | 39.793602 | 39.796583 | 39.799564 | 39.802547 | 39.805529 | 39.808512 | 39.811496 | 39.814480 |
| 0.200 | 39.817464 | 39.820450 | 39.823435 | 39.826422 | 39.829408 | 39.832396 | 39.835383 | 39.838371 | 39.841360 | 39.844349 |
| 0.210 | 39.847340 | 39.850330 | 39.853321 | 39.856312 | 39.859304 | 39.862294 | 39.865289 | 39.868283 | 39.871277 | 39.874271 |
| 0.220 | 39.877266 | 39.880262 | 39.883258 | 39.886255 | 39.889252 | 39.892249 | 39.895247 | 39.898246 | 39.901246 | 39.904245 |
| 0.230 | 39.907245 | 39.910246 | 39.913248 | 39.916249 | 39.919251 | 39.922255 | 39.925258 | 39.928262 | 39.931266 | 39.934271 |
| 0.240 | 39.937277 | 39.940283 | 39.943289 | 39.946297 | 39.949304 | 39.952312 | 39.955321 | 39.958330 | 39.961340 | 39.964350 |
| 0.250 | 39.967361 | 39.970372 | 39.973384 | 39.976396 | 39.979409 | 39.982422 | 39.985436 | 39.988451 | 39.991466 | 39.994482 |
| 0.260 | 39.997498 | 40.000514 | 40.003531 | 40.006549 | 40.009567 | 40.012586 | 40.015605 | 40.018625 | 40.021645 | 40.024666 |
| 0.270 | 40.027687 | 40.030709 | 40.033731 | 40.036754 | 40.039778 | 40.042802 | 40.045826 | 40.048851 | 40.051877 | 40.054903 |
| 0.280 | 40.057930 | 40.060957 | 40.063985 | 40.067013 | 40.070042 | 40.073071 | 40.076101 | 40.079131 | 40.082162 | 40.085194 |
| 0.290 | 40.088226 | 40.091258 | 40.094291 | 40.097325 | 40.100359 | 40.103394 | 40.106429 | 40.109465 | 40.112501 | 40.115538 |
| 0.300 | 40.118575 | 40.121613 | 40.124651 | 40.127690 | 40.130730 | 40.133770 | 40.136810 | 40.139852 | 40.142893 | 40.145936 |
| 0.310 | 40.148978 | 40.152021 | 40.155065 | 40.158110 | 40.161154 | 40.164200 | 40.167246 | 40.170292 | 40.173339 | 40.176387 |
| 0.320 | 40.179435 | 40.182484 | 40.185533 | 40.188582 | 40.191633 | 40.194684 | 40.197735 | 40.200787 | 40.203839 | 40.206892 |
| 0.330 | 40.209946 | 40.213000 | 40.216054 | 40.219110 | 40.222166 | 40.225222 | 40.228279 | 40.231336 | 40.234394 | 40.237452 |
| 0.340 | 40.240511 | 40.243570 | 40.246631 | 40.249691 | 40.252752 | 40.255814 | 40.258878 | 40.261939 | 40.265002 | 40.268066 |
| 0.350 | 40.271131 | 40.274196 | 40.277261 | 40.280327 | 40.283394 | 40.286461 | 40.289528 | 40.292597 | 40.295665 | 40.298735 |
| 0.360 | 40.301805 | 40.304875 | 40.307946 | 40.311018 | 40.314090 | 40.317163 | 40.320235 | 40.323309 | 40.326384 | 40.329458 |
| 0.370 | 40.332533 | 40.335609 | 40.338686 | 40.341763 | 40.344841 | 40.347919 | 40.350997 | 40.354076 | 40.357156 | 40.360237 |
| 0.380 | 40.362317 | 40.366399 | 40.369481 | 40.372563 | 40.375647 | 40.378730 | 40.381814 | 40.384899 | 40.387984 | 40.391070 |
| 0.390 | 40.394156 | 40.397243 | 40.400331 | 40.403419 | 40.406507 | 40.409597 | 40.412686 | 40.415777 | 40.418868 | 40.421959 |
| 0.400 | 40.425051 | 40.428144 | 40.431237 | 40.434330 | 40.437424 | 40.440519 | 40.443614 | 40.446710 | 40.449807 | 40.452903 |
| 0.410 | 40.456601 | 40.459699 | 40.462798 | 40.465897 | 40.468997 | 40.472098 | 40.475198 | 40.478299 | 40.481399 | 40.484499 |
| 0.420 | 40.487007 | 40.490110 | 40.493215 | 40.496319 | 40.499425 | 40.502531 | 40.505637 | 40.508744 | 40.511852 | 40.514960 |
| 0.430 | 40.518068 | 40.521178 | 40.524288 | 40.527398 | 40.530509 | 40.533620 | 40.536733 | 40.539845 | 40.542958 | 40.546070 |
| 0.440 | 40.549186 | 40.552301 | 40.555417 | 40.558533 | 40.561649 | 40.564766 | 40.567884 | 40.571002 | 40.574121 | 40.577241 |
| 0.450 | 40.580361 | 40.583481 | 40.586602 | 40.589724 | 40.592846 | 40.595969 | 40.599092 | 40.602216 | 40.605341 | 40.608466 |
| 0.460 | 40.611592 | 40.614718 | 40.617845 | 40.620972 | 40.624100 | 40.627228 | 40.630357 | 40.633487 | 40.636617 | 40.639748 |
| 0.470 | 40.642879 | 40.646011 | 40.649144 | 40.652277 | 40.655410 | 40.658545 | 40.661679 | 40.664814 | 40.667950 | 40.671087 |
| 0.480 | 40.674224 | 40.677361 | 40.680500 | 40.683639 | 40.686778 | 40.689918 | 40.693058 | 40.696199 | 40.699341 | 40.702483 |
| 0.490 | 40.705626 | 40.708769 | 40.711913 | 40.715057 | 40.718203 | 40.721348 | 40.724494 | 40.727641 | 40.730788 | 40.733936 |

ATTENUATION IN DECIBELS
 THETA FROM 84.500 TO 84.999 DEGREES

| THETA IN DEGREES | 0.00° | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 40.737085 | 40.740234 | 40.743384 | 40.746534 | 40.749685 | 40.752836 | 40.755988 | 40.759140 | 40.762294 | 40.765448 |
| 0.510 | 40.768662 | 40.771757 | 40.774912 | 40.778068 | 40.781225 | 40.784382 | 40.787539 | 40.790698 | 40.793857 | 40.797016 |
| 0.520 | 40.800176 | 40.803337 | 40.806498 | 40.809660 | 40.812822 | 40.815985 | 40.819149 | 40.822313 | 40.825478 | 40.828643 |
| 0.530 | 40.831800 | 40.834975 | 40.838142 | 40.841310 | 40.844478 | 40.847647 | 40.850817 | 40.853986 | 40.857157 | 40.860328 |
| 0.540 | 40.863500 | 40.866672 | 40.869845 | 40.873019 | 40.876193 | 40.879367 | 40.882543 | 40.885718 | 40.888895 | 40.892071 |
| 0.550 | 40.895249 | 40.898477 | 40.901606 | 40.904786 | 40.907965 | 40.911146 | 40.914327 | 40.917509 | 40.920691 | 40.923874 |
| 0.560 | 40.927057 | 40.930241 | 40.933426 | 40.936611 | 40.939797 | 40.942983 | 40.946170 | 40.949358 | 40.952546 | 40.955735 |
| 0.570 | 40.958924 | 40.962114 | 40.965304 | 40.968496 | 40.971687 | 40.974880 | 40.978073 | 40.981266 | 40.984460 | 40.987655 |
| 0.580 | 40.990850 | 40.994046 | 40.997242 | 41.000440 | 41.003637 | 41.006835 | 41.010034 | 41.013234 | 41.016434 | 41.019634 |
| 0.590 | 41.022835 | 41.026037 | 41.029242 | 41.032443 | 41.035645 | 41.038850 | 41.042055 | 41.045260 | 41.048466 | 41.051673 |
| 0.600 | 41.054880 | 41.058088 | 41.061296 | 41.064505 | 41.067715 | 41.070925 | 41.074136 | 41.077347 | 41.080559 | 41.083772 |
| 0.610 | 41.086995 | 41.090199 | 41.093413 | 41.096628 | 41.099844 | 41.103059 | 41.106276 | 41.109494 | 41.112711 | 41.115930 |
| 0.620 | 41.119149 | 41.122369 | 41.125589 | 41.128810 | 41.132032 | 41.135254 | 41.138477 | 41.141700 | 41.144924 | 41.148149 |
| 0.630 | 41.151374 | 41.154600 | 41.157826 | 41.161053 | 41.164281 | 41.167509 | 41.170738 | 41.173967 | 41.177197 | 41.180428 |
| 0.640 | 41.183650 | 41.186891 | 41.190124 | 41.193357 | 41.196590 | 41.199824 | 41.203059 | 41.206295 | 41.209531 | 41.212768 |
| 0.650 | 41.216005 | 41.219243 | 41.222481 | 41.225720 | 41.228961 | 41.232201 | 41.235442 | 41.238683 | 41.241925 | 41.245168 |
| 0.660 | 41.248412 | 41.251656 | 41.254900 | 41.258145 | 41.261391 | 41.264638 | 41.267885 | 41.271132 | 41.274381 | 41.277630 |
| 0.670 | 41.280873 | 41.284130 | 41.287380 | 41.290632 | 41.293884 | 41.297136 | 41.300389 | 41.303643 | 41.306898 | 41.310153 |
| 0.680 | 41.313468 | 41.316665 | 41.319921 | 41.323179 | 41.326437 | 41.329696 | 41.332955 | 41.336215 | 41.339476 | 41.342737 |
| 0.690 | 41.345939 | 41.349262 | 41.352525 | 41.355788 | 41.359053 | 41.362318 | 41.365583 | 41.368849 | 41.372116 | 41.375382 |
| 0.700 | 41.378652 | 41.381920 | 41.385190 | 41.388459 | 41.391730 | 41.395001 | 41.398273 | 41.401545 | 41.404818 | 41.408092 |
| 0.710 | 41.411366 | 41.414641 | 41.417916 | 41.421193 | 41.424469 | 41.427747 | 41.431025 | 41.434303 | 41.437582 | 41.440862 |
| 0.720 | 41.444143 | 41.447424 | 41.450706 | 41.453988 | 41.457271 | 41.460555 | 41.463839 | 41.467124 | 41.470409 | 41.473695 |
| 0.730 | 41.476982 | 41.480269 | 41.483557 | 41.486846 | 41.490135 | 41.493425 | 41.496716 | 41.500007 | 41.503298 | 41.506591 |
| 0.740 | 41.509884 | 41.513177 | 41.516472 | 41.519767 | 41.523062 | 41.526358 | 41.529655 | 41.532953 | 41.536252 | 41.539549 |
| 0.750 | 41.542849 | 41.546149 | 41.549449 | 41.552751 | 41.556052 | 41.559355 | 41.562658 | 41.565963 | 41.569266 | 41.572571 |
| 0.760 | 41.575877 | 41.579183 | 41.582490 | 41.585798 | 41.589106 | 41.592414 | 41.595724 | 41.599034 | 41.602345 | 41.605656 |
| 0.770 | 41.608968 | 41.612281 | 41.615594 | 41.618908 | 41.622223 | 41.625538 | 41.628854 | 41.632170 | 41.635488 | 41.638805 |
| 0.780 | 41.642124 | 41.645442 | 41.648762 | 41.652082 | 41.655404 | 41.658725 | 41.662047 | 41.665370 | 41.668694 | 41.672018 |
| 0.790 | 41.675343 | 41.678668 | 41.681994 | 41.685321 | 41.688648 | 41.691976 | 41.695305 | 41.698634 | 41.701964 | 41.705295 |
| 0.800 | 41.708626 | 41.711958 | 41.715291 | 41.718624 | 41.721957 | 41.725292 | 41.728627 | 41.731963 | 41.735299 | 41.738636 |
| 0.810 | 41.741974 | 41.745312 | 41.748651 | 41.751991 | 41.755331 | 41.758672 | 41.762013 | 41.765356 | 41.768699 | 41.772042 |
| 0.820 | 41.775386 | 41.778731 | 41.782076 | 41.785422 | 41.788769 | 41.792117 | 41.795465 | 41.798813 | 41.802163 | 41.805513 |
| 0.830 | 41.808864 | 41.812215 | 41.815567 | 41.818919 | 41.822273 | 41.825626 | 41.828981 | 41.832336 | 41.835692 | 41.839047 |
| 0.840 | 41.842406 | 41.845766 | 41.849123 | 41.852481 | 41.855841 | 41.859202 | 41.862563 | 41.865925 | 41.869287 | 41.872650 |
| 0.850 | 41.876014 | 41.879378 | 41.882743 | 41.886109 | 41.889475 | 41.892842 | 41.896210 | 41.899579 | 41.902947 | 41.906317 |
| 0.860 | 41.909688 | 41.913058 | 41.916430 | 41.919803 | 41.923175 | 41.926549 | 41.929924 | 41.933299 | 41.936674 | 41.940050 |
| 0.870 | 41.943427 | 41.946805 | 41.950183 | 41.953562 | 41.956942 | 41.960321 | 41.963703 | 41.967084 | 41.970466 | 41.973847 |
| 0.880 | 41.977233 | 41.980617 | 41.984002 | 41.987388 | 41.990774 | 41.994161 | 41.997548 | 42.000937 | 42.004325 | 42.007715 |
| 0.890 | 42.011105 | 42.014496 | 42.017888 | 42.021280 | 42.024673 | 42.028066 | 42.031460 | 42.034855 | 42.038250 | 42.041647 |
| 0.900 | 42.045044 | 42.048441 | 42.051840 | 42.055239 | 42.058638 | 42.062038 | 42.065439 | 42.068841 | 42.072243 | 42.075646 |
| 0.910 | 42.079050 | 42.082454 | 42.085859 | 42.089264 | 42.092671 | 42.096078 | 42.099485 | 42.102894 | 42.106303 | 42.109712 |
| 0.920 | 42.113122 | 42.116534 | 42.119946 | 42.123358 | 42.126771 | 42.130185 | 42.133599 | 42.137014 | 42.140429 | 42.143846 |
| 0.930 | 42.147263 | 42.150681 | 42.154099 | 42.157517 | 42.160938 | 42.164359 | 42.167780 | 42.171202 | 42.174624 | 42.178048 |
| 0.940 | 42.181471 | 42.184896 | 42.188322 | 42.191747 | 42.195174 | 42.198601 | 42.202029 | 42.205458 | 42.208887 | 42.212317 |
| 0.950 | 42.215748 | 42.219179 | 42.222611 | 42.226044 | 42.229477 | 42.232912 | 42.236346 | 42.239782 | 42.243218 | 42.246655 |
| 0.960 | 42.250093 | 42.253531 | 42.256969 | 42.260409 | 42.263850 | 42.267291 | 42.270732 | 42.274175 | 42.277617 | 42.281061 |
| 0.970 | 42.284506 | 42.287951 | 42.291397 | 42.294843 | 42.298290 | 42.301738 | 42.305187 | 42.308636 | 42.312086 | 42.315536 |
| 0.980 | 42.318988 | 42.322440 | 42.325892 | 42.329346 | 42.332800 | 42.336255 | 42.339710 | 42.343166 | 42.346623 | 42.350080 |
| 0.990 | 42.353533 | 42.356998 | 42.360457 | 42.363918 | 42.367379 | 42.370841 | 42.374303 | 42.377766 | 42.381230 | 42.384694 |

ATTENUATION IN DECIBELS
 THETA FROM 85.000 TO 85.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 42.388159 | 42.391625 | 42.395092 | 42.398559 | 42.402027 | 42.405496 | 42.408965 | 42.412435 | 42.415906 | 42.419377 |
| 0.010 | 42.422850 | 42.426322 | 42.429796 | 42.433270 | 42.436745 | 42.440221 | 42.443697 | 42.447175 | 42.450652 | 42.454131 |
| 0.020 | 42.457610 | 42.461090 | 42.464570 | 42.468051 | 42.471533 | 42.475016 | 42.478499 | 42.481984 | 42.485468 | 42.488954 |
| 0.030 | 42.492440 | 42.495927 | 42.499414 | 42.502903 | 42.506392 | 42.509881 | 42.513372 | 42.516863 | 42.520355 | 42.523848 |
| 0.040 | 42.527341 | 42.530835 | 42.534330 | 42.537825 | 42.541321 | 42.544818 | 42.548316 | 42.551814 | 42.555313 | 42.558812 |
| 0.050 | 42.562313 | 42.565814 | 42.569315 | 42.572818 | 42.576321 | 42.579825 | 42.583330 | 42.586835 | 42.590341 | 42.593848 |
| 0.060 | 42.597355 | 42.600863 | 42.604373 | 42.607882 | 42.611392 | 42.614903 | 42.618415 | 42.621928 | 42.625441 | 42.628955 |
| 0.070 | 42.632470 | 42.635985 | 42.639501 | 42.643018 | 42.646535 | 42.650054 | 42.653572 | 42.657092 | 42.660612 | 42.664134 |
| 0.080 | 42.667655 | 42.671178 | 42.674701 | 42.678225 | 42.681750 | 42.685275 | 42.688801 | 42.692328 | 42.695856 | 42.699384 |
| 0.090 | 42.702913 | 42.706443 | 42.709973 | 42.713504 | 42.717036 | 42.720569 | 42.724102 | 42.727636 | 42.731171 | 42.734706 |
| 0.100 | 42.738243 | 42.741780 | 42.745317 | 42.748856 | 42.752395 | 42.755935 | 42.759476 | 42.763017 | 42.766559 | 42.770107 |
| 0.110 | 42.773645 | 42.777190 | 42.780735 | 42.784280 | 42.787827 | 42.791374 | 42.794922 | 42.798470 | 42.802020 | 42.805570 |
| 0.120 | 42.809121 | 42.812672 | 42.816225 | 42.819777 | 42.823331 | 42.826886 | 42.830441 | 42.833997 | 42.837554 | 42.841111 |
| 0.130 | 42.844669 | 42.848228 | 42.851788 | 42.855348 | 42.858909 | 42.862470 | 42.866033 | 42.869596 | 42.873160 | 42.876725 |
| 0.140 | 42.880291 | 42.883857 | 42.887424 | 42.890992 | 42.894560 | 42.898129 | 42.901699 | 42.905270 | 42.908841 | 42.912414 |
| 0.150 | 42.915987 | 42.919560 | 42.923134 | 42.926709 | 42.930285 | 42.933862 | 42.937439 | 42.941017 | 42.944596 | 42.948175 |
| 0.160 | 42.951756 | 42.955337 | 42.958919 | 42.962501 | 42.966084 | 42.969668 | 42.973253 | 42.976839 | 42.980425 | 42.984012 |
| 0.170 | 42.987600 | 42.991189 | 42.994778 | 42.998367 | 43.001958 | 43.005550 | 43.009142 | 43.012735 | 43.016329 | 43.019923 |
| 0.180 | 43.023519 | 43.027114 | 43.030711 | 43.034308 | 43.037907 | 43.041506 | 43.045105 | 43.048706 | 43.052307 | 43.055909 |
| 0.190 | 43.059512 | 43.063115 | 43.066720 | 43.070324 | 43.073930 | 43.077537 | 43.081144 | 43.084752 | 43.088361 | 43.091970 |
| 0.200 | 43.095581 | 43.099192 | 43.102803 | 43.106416 | 43.110029 | 43.113643 | 43.117258 | 43.120874 | 43.124490 | 43.128107 |
| 0.210 | 43.131725 | 43.135344 | 43.138963 | 43.142583 | 43.146204 | 43.149826 | 43.153448 | 43.157071 | 43.160695 | 43.164320 |
| 0.220 | 43.167945 | 43.171571 | 43.175199 | 43.178826 | 43.182455 | 43.186084 | 43.189714 | 43.193345 | 43.196976 | 43.200609 |
| 0.230 | 43.204242 | 43.207875 | 43.211510 | 43.215146 | 43.218781 | 43.222418 | 43.226056 | 43.229695 | 43.233334 | 43.236974 |
| 0.240 | 43.240614 | 43.244256 | 43.247899 | 43.251542 | 43.255185 | 43.258830 | 43.262475 | 43.266121 | 43.269768 | 43.273416 |
| 0.250 | 43.277064 | 43.280714 | 43.284364 | 43.288014 | 43.291666 | 43.295318 | 43.298971 | 43.302625 | 43.306280 | 43.309935 |
| 0.260 | 43.313591 | 43.317248 | 43.320906 | 43.324564 | 43.328224 | 43.331884 | 43.335545 | 43.339206 | 43.342869 | 43.346532 |
| 0.270 | 43.350196 | 43.353860 | 43.357526 | 43.361192 | 43.364860 | 43.368527 | 43.372196 | 43.375865 | 43.379536 | 43.383206 |
| 0.280 | 43.386878 | 43.390551 | 43.394224 | 43.397898 | 43.401573 | 43.405249 | 43.408925 | 43.412602 | 43.416280 | 43.419959 |
| 0.290 | 43.423639 | 43.427319 | 43.431000 | 43.434682 | 43.438365 | 43.442048 | 43.445733 | 43.449418 | 43.453104 | 43.456790 |
| 0.300 | 43.460477 | 43.464166 | 43.467855 | 43.471545 | 43.475235 | 43.478927 | 43.482619 | 43.486312 | 43.490005 | 43.493700 |
| 0.310 | 43.497396 | 43.501091 | 43.504788 | 43.508486 | 43.512185 | 43.515884 | 43.519584 | 43.523285 | 43.526987 | 43.530689 |
| 0.320 | 43.534392 | 43.538096 | 43.541801 | 43.545507 | 43.549213 | 43.552920 | 43.556629 | 43.560338 | 43.564047 | 43.567758 |
| 0.330 | 43.571469 | 43.575181 | 43.578894 | 43.582607 | 43.586321 | 43.590037 | 43.593753 | 43.597470 | 43.601187 | 43.604906 |
| 0.340 | 43.608625 | 43.612345 | 43.616066 | 43.619787 | 43.623510 | 43.627233 | 43.630957 | 43.634682 | 43.638408 | 43.642134 |
| 0.350 | 43.645861 | 43.649590 | 43.653318 | 43.657048 | 43.660779 | 43.664511 | 43.668242 | 43.671975 | 43.675708 | 43.679443 |
| 0.360 | 43.683178 | 43.686914 | 43.690651 | 43.694389 | 43.698128 | 43.701867 | 43.705606 | 43.709348 | 43.713090 | 43.716833 |
| 0.370 | 43.720576 | 43.724320 | 43.728065 | 43.731811 | 43.735558 | 43.739305 | 43.743053 | 43.746803 | 43.750553 | 43.754303 |
| 0.380 | 43.758055 | 43.761807 | 43.765561 | 43.769315 | 43.773069 | 43.776825 | 43.780581 | 43.784339 | 43.788097 | 43.791856 |
| 0.390 | 43.795616 | 43.799376 | 43.803137 | 43.806900 | 43.810663 | 43.814426 | 43.818191 | 43.821957 | 43.825723 | 43.829490 |
| 0.400 | 43.833258 | 43.837027 | 43.840796 | 43.844567 | 43.848338 | 43.852110 | 43.855883 | 43.859657 | 43.863431 | 43.867207 |
| 0.410 | 43.870983 | 43.874760 | 43.878538 | 43.882316 | 43.886096 | 43.889876 | 43.893657 | 43.897439 | 43.901222 | 43.905006 |
| 0.420 | 43.908790 | 43.912575 | 43.916362 | 43.920148 | 43.923936 | 43.927725 | 43.931514 | 43.935305 | 43.939096 | 43.942888 |
| 0.430 | 43.946681 | 43.950474 | 43.954268 | 43.958064 | 43.961860 | 43.965657 | 43.969455 | 43.973253 | 43.977053 | 43.980853 |
| 0.440 | 43.984654 | 43.988456 | 43.992259 | 43.996063 | 43.999867 | 44.003673 | 44.007479 | 44.011286 | 44.015093 | 44.018902 |
| 0.450 | 44.027112 | 44.026522 | 44.030334 | 44.034145 | 44.037958 | 44.041772 | 44.045587 | 44.049402 | 44.053218 | 44.057035 |
| 0.460 | 44.060853 | 44.064672 | 44.068492 | 44.072312 | 44.076134 | 44.079956 | 44.083779 | 44.087603 | 44.091427 | 44.095253 |
| 0.470 | 44.099079 | 44.102907 | 44.106735 | 44.110564 | 44.114393 | 44.118224 | 44.122056 | 44.125888 | 44.129721 | 44.133555 |
| 0.480 | 44.137390 | 44.141226 | 44.145062 | 44.148900 | 44.152738 | 44.156578 | 44.160418 | 44.164258 | 44.168100 | 44.171943 |
| 0.490 | 44.175786 | 44.179630 | 44.183475 | 44.187322 | 44.191169 | 44.195016 | 44.198865 | 44.202714 | 44.206564 | 44.210416 |

ATTENUATION IN DECIBELS
THETA FROM 85.500 TO 85.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 44.214268 | 44.218121 | 44.221974 | 44.225829 | 44.229684 | 44.233541 | 44.237398 | 44.241256 | 44.245115 | 44.248975 |
| 0.510 | 44.252835 | 44.256697 | 44.260559 | 44.264422 | 44.268287 | 44.272151 | 44.276017 | 44.279884 | 44.283751 | 44.287620 |
| 0.520 | 44.291489 | 44.295360 | 44.299231 | 44.303102 | 44.306975 | 44.310849 | 44.314723 | 44.318599 | 44.322475 | 44.326352 |
| 0.530 | 44.330230 | 44.334109 | 44.337988 | 44.341869 | 44.345751 | 44.349633 | 44.353516 | 44.357400 | 44.361285 | 44.365171 |
| 0.540 | 44.369058 | 44.372945 | 44.376834 | 44.380723 | 44.384614 | 44.388505 | 44.392396 | 44.396289 | 44.400183 | 44.404078 |
| 0.550 | 44.407973 | 44.411870 | 44.415767 | 44.419665 | 44.423564 | 44.427464 | 44.431365 | 44.435266 | 44.439168 | 44.443072 |
| 0.560 | 44.446976 | 44.450881 | 44.454788 | 44.458694 | 44.462602 | 44.466511 | 44.470420 | 44.474331 | 44.478242 | 44.482155 |
| 0.570 | 44.486068 | 44.489982 | 44.493897 | 44.497813 | 44.501729 | 44.505647 | 44.509565 | 44.513484 | 44.517405 | 44.521326 |
| 0.580 | 44.525248 | 44.529171 | 44.533095 | 44.537019 | 44.540945 | 44.544871 | 44.548799 | 44.552727 | 44.556656 | 44.560586 |
| 0.590 | 44.564517 | 44.568449 | 44.572382 | 44.576315 | 44.580250 | 44.584186 | 44.588122 | 44.592059 | 44.595997 | 44.599936 |
| 0.600 | 44.603876 | 44.607817 | 44.611759 | 44.615701 | 44.619645 | 44.623589 | 44.627534 | 44.631481 | 44.635428 | 44.639376 |
| 0.610 | 44.643325 | 44.647274 | 44.651225 | 44.655177 | 44.659130 | 44.663083 | 44.667037 | 44.670992 | 44.674949 | 44.678906 |
| 0.620 | 44.682864 | 44.686822 | 44.690783 | 44.694743 | 44.698703 | 44.702667 | 44.706631 | 44.710595 | 44.714561 | 44.718526 |
| 0.630 | 44.722494 | 44.726461 | 44.730431 | 44.734400 | 44.738371 | 44.742342 | 44.746315 | 44.750288 | 44.754263 | 44.758238 |
| 0.640 | 44.762214 | 44.766191 | 44.770170 | 44.774148 | 44.778128 | 44.782109 | 44.786091 | 44.790073 | 44.794057 | 44.798041 |
| 0.650 | 44.802027 | 44.806013 | 44.810000 | 44.813989 | 44.817977 | 44.821968 | 44.825958 | 44.829950 | 44.833943 | 44.837937 |
| 0.660 | 44.841931 | 44.845927 | 44.849923 | 44.853920 | 44.857919 | 44.861918 | 44.865918 | 44.869919 | 44.873921 | 44.877924 |
| 0.670 | 44.881928 | 44.885933 | 44.889938 | 44.893945 | 44.897953 | 44.901961 | 44.905971 | 44.909981 | 44.913992 | 44.918005 |
| 0.680 | 44.922013 | 44.926032 | 44.930047 | 44.934063 | 44.938080 | 44.942098 | 44.946116 | 44.950136 | 44.954156 | 44.958176 |
| 0.690 | 44.962201 | 44.966224 | 44.970249 | 44.974274 | 44.978300 | 44.982327 | 44.986355 | 44.990385 | 44.994414 | 44.998446 |
| 0.700 | 45.002477 | 45.006510 | 45.010544 | 45.014579 | 45.018614 | 45.022651 | 45.026689 | 45.030727 | 45.034766 | 45.038807 |
| 0.710 | 45.042848 | 45.046890 | 45.050933 | 45.054978 | 45.059023 | 45.063069 | 45.067116 | 45.071164 | 45.075212 | 45.079263 |
| 0.720 | 45.083313 | 45.087365 | 45.091418 | 45.095471 | 45.099526 | 45.103581 | 45.107638 | 45.111696 | 45.115754 | 45.119813 |
| 0.730 | 45.123874 | 45.127935 | 45.131997 | 45.136060 | 45.140124 | 45.144190 | 45.148256 | 45.152323 | 45.156391 | 45.160460 |
| 0.740 | 45.164529 | 45.168600 | 45.172672 | 45.176745 | 45.180819 | 45.184893 | 45.188969 | 45.193046 | 45.197123 | 45.201201 |
| 0.750 | 45.205281 | 45.209362 | 45.213443 | 45.217525 | 45.221609 | 45.225693 | 45.229778 | 45.233865 | 45.237952 | 45.242040 |
| 0.760 | 45.246129 | 45.250219 | 45.254311 | 45.258402 | 45.262496 | 45.266593 | 45.270684 | 45.274780 | 45.278877 | 45.282975 |
| 0.770 | 45.287074 | 45.291174 | 45.295275 | 45.299376 | 45.303479 | 45.307583 | 45.311687 | 45.315793 | 45.319900 | 45.324008 |
| 0.780 | 45.328116 | 45.332226 | 45.336336 | 45.340448 | 45.344560 | 45.348674 | 45.352788 | 45.356904 | 45.361020 | 45.365138 |
| 0.790 | 45.369256 | 45.373375 | 45.377496 | 45.381617 | 45.385739 | 45.389863 | 45.393987 | 45.398112 | 45.402238 | 45.406366 |
| 0.800 | 45.410494 | 45.414623 | 45.418754 | 45.422884 | 45.427017 | 45.431150 | 45.435284 | 45.439419 | 45.443555 | 45.447692 |
| 0.810 | 45.451831 | 45.455970 | 45.460110 | 45.464251 | 45.468393 | 45.472536 | 45.476680 | 45.480825 | 45.484972 | 45.489119 |
| 0.820 | 45.493267 | 45.497416 | 45.501565 | 45.505717 | 45.509869 | 45.514022 | 45.518176 | 45.522331 | 45.526487 | 45.530644 |
| 0.830 | 45.536480 | 45.538961 | 45.541442 | 45.543923 | 45.546404 | 45.548885 | 45.551366 | 45.553847 | 45.556328 | 45.558809 |
| 0.840 | 45.576437 | 45.580606 | 45.584776 | 45.588948 | 45.593120 | 45.597293 | 45.601467 | 45.605642 | 45.609818 | 45.613995 |
| 0.850 | 45.618174 | 45.622353 | 45.626533 | 45.630714 | 45.634896 | 45.639079 | 45.643263 | 45.647449 | 45.651635 | 45.655822 |
| 0.860 | 45.660010 | 45.664200 | 45.668390 | 45.672581 | 45.676774 | 45.680967 | 45.685162 | 45.689357 | 45.693553 | 45.697751 |
| 0.870 | 45.701949 | 45.706149 | 45.710349 | 45.714550 | 45.718753 | 45.722957 | 45.727161 | 45.731367 | 45.735573 | 45.739781 |
| 0.880 | 45.743989 | 45.748199 | 45.752410 | 45.756622 | 45.760835 | 45.765049 | 45.769263 | 45.773477 | 45.777696 | 45.781914 |
| 0.890 | 45.786133 | 45.790353 | 45.794574 | 45.798796 | 45.803019 | 45.807243 | 45.811468 | 45.815694 | 45.819921 | 45.824150 |
| 0.900 | 45.828379 | 45.832609 | 45.836841 | 45.841073 | 45.845306 | 45.849541 | 45.853776 | 45.858013 | 45.862250 | 45.866489 |
| 0.910 | 45.870728 | 45.874969 | 45.879211 | 45.883454 | 45.887698 | 45.891943 | 45.896188 | 45.900435 | 45.904683 | 45.908932 |
| 0.920 | 45.913182 | 45.917434 | 45.921686 | 45.925939 | 45.930193 | 45.934448 | 45.938705 | 45.942962 | 45.947221 | 45.951480 |
| 0.930 | 45.955741 | 45.960002 | 45.964265 | 45.968529 | 45.972794 | 45.977059 | 45.981326 | 45.985594 | 45.989863 | 45.994133 |
| 0.940 | 45.998404 | 46.002676 | 46.006949 | 46.011223 | 46.015499 | 46.019775 | 46.024052 | 46.028331 | 46.032610 | 46.036891 |
| 0.950 | 46.041173 | 46.045455 | 46.049739 | 46.054024 | 46.058310 | 46.062597 | 46.066885 | 46.071174 | 46.075464 | 46.079755 |
| 0.960 | 46.084048 | 46.088341 | 46.092636 | 46.096931 | 46.101228 | 46.105525 | 46.109824 | 46.114124 | 46.118424 | 46.122726 |
| 0.970 | 46.127029 | 46.131333 | 46.135639 | 46.139945 | 46.144252 | 46.148561 | 46.152870 | 46.157180 | 46.161492 | 46.165804 |
| 0.980 | 46.170118 | 46.174433 | 46.178749 | 46.183065 | 46.187384 | 46.191703 | 46.196023 | 46.200344 | 46.204667 | 46.208990 |
| 0.990 | 46.213315 | 46.217640 | 46.221967 | 46.226295 | 46.230623 | 46.234953 | 46.239284 | 46.243616 | 46.247950 | 46.252284 |

ATTENUATION IN DECIBELS
THETA FROM 86.000 TO 86.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 46.256619 | 46.260955 | 46.265293 | 46.269631 | 46.273971 | 46.278312 | 46.282654 | 46.286997 | 46.291341 | 46.295686 |
| 0.010 | 46.300032 | 46.304379 | 46.308728 | 46.313077 | 46.317428 | 46.321780 | 46.326133 | 46.330487 | 46.334842 | 46.339198 |
| 0.020 | 46.343555 | 46.347913 | 46.352273 | 46.356633 | 46.360995 | 46.365357 | 46.369720 | 46.374086 | 46.378452 | 46.382819 |
| 0.030 | 46.387187 | 46.391557 | 46.395927 | 46.400299 | 46.404671 | 46.409045 | 46.413420 | 46.417796 | 46.422173 | 46.426551 |
| 0.040 | 46.430930 | 46.435311 | 46.439692 | 46.444075 | 46.448459 | 46.452843 | 46.457229 | 46.461617 | 46.466004 | 46.470394 |
| 0.050 | 46.474784 | 46.479176 | 46.483568 | 46.487962 | 46.492357 | 46.496753 | 46.501150 | 46.505548 | 46.509947 | 46.514348 |
| 0.060 | 46.518750 | 46.523152 | 46.527556 | 46.531961 | 46.536367 | 46.540774 | 46.545183 | 46.549592 | 46.554002 | 46.558414 |
| 0.070 | 46.562827 | 46.567241 | 46.571656 | 46.576072 | 46.580490 | 46.584908 | 46.589327 | 46.593743 | 46.598170 | 46.602593 |
| 0.080 | 46.607017 | 46.611442 | 46.615869 | 46.620296 | 46.624725 | 46.629155 | 46.633585 | 46.638017 | 46.642450 | 46.646885 |
| 0.090 | 46.651320 | 46.655757 | 46.660194 | 46.664633 | 46.669074 | 46.673515 | 46.677957 | 46.682400 | 46.686845 | 46.691290 |
| 0.100 | 46.695757 | 46.700195 | 46.704635 | 46.709075 | 46.713516 | 46.717958 | 46.722403 | 46.726849 | 46.731293 | 46.735738 |
| 0.110 | 46.740269 | 46.744729 | 46.749189 | 46.753651 | 46.758114 | 46.762578 | 46.767043 | 46.771509 | 46.775977 | 46.780446 |
| 0.120 | 46.784915 | 46.789386 | 46.793859 | 46.798332 | 46.802806 | 46.807282 | 46.811759 | 46.816236 | 46.820716 | 46.825196 |
| 0.130 | 46.829678 | 46.834160 | 46.838644 | 46.843129 | 46.847615 | 46.852102 | 46.856590 | 46.861080 | 46.865571 | 46.870063 |
| 0.140 | 46.874556 | 46.879050 | 46.883545 | 46.888042 | 46.892540 | 46.897038 | 46.901539 | 46.906040 | 46.910542 | 46.915046 |
| 0.150 | 46.919551 | 46.924057 | 46.928564 | 46.933072 | 46.937582 | 46.942092 | 46.946604 | 46.951117 | 46.955631 | 46.960146 |
| 0.160 | 46.964663 | 46.969181 | 46.973700 | 46.978220 | 46.982741 | 46.987263 | 46.991787 | 46.996312 | 47.000838 | 47.005365 |
| 0.170 | 47.009893 | 47.014423 | 47.018954 | 47.023486 | 47.028018 | 47.032553 | 47.037088 | 47.041625 | 47.046163 | 47.050702 |
| 0.180 | 47.055243 | 47.059784 | 47.064326 | 47.068870 | 47.073415 | 47.077961 | 47.082509 | 47.087058 | 47.091607 | 47.096159 |
| 0.190 | 47.100710 | 47.105264 | 47.109818 | 47.114374 | 47.118931 | 47.123489 | 47.128049 | 47.132609 | 47.137171 | 47.141734 |
| 0.200 | 47.146298 | 47.150864 | 47.155431 | 47.159998 | 47.164567 | 47.169137 | 47.173709 | 47.178282 | 47.182856 | 47.187431 |
| 0.210 | 47.192007 | 47.196585 | 47.201163 | 47.205743 | 47.210324 | 47.214907 | 47.219490 | 47.224075 | 47.228661 | 47.233248 |
| 0.220 | 47.237837 | 47.242426 | 47.247017 | 47.251609 | 47.256203 | 47.260797 | 47.265393 | 47.269990 | 47.274588 | 47.279187 |
| 0.230 | 47.283788 | 47.288390 | 47.292993 | 47.297597 | 47.302203 | 47.306809 | 47.311418 | 47.316027 | 47.320637 | 47.325249 |
| 0.240 | 47.329862 | 47.334476 | 47.339091 | 47.343708 | 47.348326 | 47.352945 | 47.357565 | 47.362186 | 47.366809 | 47.371433 |
| 0.250 | 47.376059 | 47.380685 | 47.385313 | 47.389942 | 47.394574 | 47.399203 | 47.403836 | 47.408470 | 47.413105 | 47.417742 |
| 0.260 | 47.422379 | 47.427018 | 47.431658 | 47.436300 | 47.440942 | 47.445586 | 47.450231 | 47.454877 | 47.459525 | 47.464174 |
| 0.270 | 47.468824 | 47.473475 | 47.478128 | 47.482782 | 47.487437 | 47.492094 | 47.496751 | 47.501410 | 47.506070 | 47.510731 |
| 0.280 | 47.515394 | 47.520058 | 47.524723 | 47.529389 | 47.534057 | 47.538726 | 47.543396 | 47.548068 | 47.552741 | 47.557415 |
| 0.290 | 47.562090 | 47.566766 | 47.571444 | 47.576123 | 47.580803 | 47.585485 | 47.590168 | 47.594852 | 47.599537 | 47.604224 |
| 0.300 | 47.608912 | 47.613601 | 47.618291 | 47.622983 | 47.627676 | 47.632370 | 47.637066 | 47.641763 | 47.646461 | 47.651160 |
| 0.310 | 47.655861 | 47.660563 | 47.665266 | 47.669971 | 47.674676 | 47.679383 | 47.684092 | 47.688801 | 47.693512 | 47.698225 |
| 0.320 | 47.702938 | 47.707653 | 47.712368 | 47.717086 | 47.721805 | 47.726524 | 47.731246 | 47.735968 | 47.740692 | 47.745417 |
| 0.330 | 47.750143 | 47.754871 | 47.759600 | 47.764330 | 47.769062 | 47.773794 | 47.778528 | 47.783264 | 47.788000 | 47.792738 |
| 0.340 | 47.797478 | 47.802218 | 47.806960 | 47.811703 | 47.816448 | 47.821194 | 47.825941 | 47.830689 | 47.835437 | 47.840189 |
| 0.350 | 47.844942 | 47.849696 | 47.854451 | 47.859207 | 47.863964 | 47.868723 | 47.873483 | 47.878245 | 47.883008 | 47.887772 |
| 0.360 | 47.892537 | 47.897304 | 47.902071 | 47.906841 | 47.911612 | 47.916384 | 47.921157 | 47.925931 | 47.930707 | 47.935484 |
| 0.370 | 47.940263 | 47.945043 | 47.949824 | 47.954607 | 47.959391 | 47.964176 | 47.968962 | 47.973750 | 47.978539 | 47.983329 |
| 0.380 | 47.988122 | 47.992914 | 47.997709 | 48.002505 | 48.007302 | 48.012100 | 48.016900 | 48.021701 | 48.026504 | 48.031307 |
| 0.390 | 48.036112 | 48.040919 | 48.045726 | 48.050536 | 48.055346 | 48.060158 | 48.064971 | 48.069785 | 48.074601 | 48.079418 |
| 0.400 | 48.084237 | 48.089056 | 48.093878 | 48.098700 | 48.103524 | 48.108349 | 48.113176 | 48.118004 | 48.122833 | 48.127664 |
| 0.410 | 48.132495 | 48.137329 | 48.142163 | 48.146999 | 48.151836 | 48.156675 | 48.161515 | 48.166357 | 48.171199 | 48.176044 |
| 0.420 | 48.180889 | 48.185736 | 48.190584 | 48.195434 | 48.200284 | 48.205137 | 48.209990 | 48.214845 | 48.219702 | 48.224559 |
| 0.430 | 48.229418 | 48.234279 | 48.239141 | 48.244004 | 48.248868 | 48.253734 | 48.258601 | 48.263470 | 48.268340 | 48.273211 |
| 0.440 | 48.278084 | 48.282959 | 48.287834 | 48.292711 | 48.297589 | 48.302468 | 48.307350 | 48.312232 | 48.317116 | 48.322001 |
| 0.450 | 48.326887 | 48.331775 | 48.336664 | 48.341555 | 48.346447 | 48.351340 | 48.356236 | 48.361132 | 48.366029 | 48.370928 |
| 0.460 | 48.375828 | 48.380730 | 48.385633 | 48.390538 | 48.395443 | 48.400348 | 48.405260 | 48.410170 | 48.415081 | 48.419994 |
| 0.470 | 48.424908 | 48.429824 | 48.434741 | 48.439660 | 48.444579 | 48.449501 | 48.454423 | 48.459347 | 48.464272 | 48.469200 |
| 0.480 | 48.474128 | 48.479057 | 48.483988 | 48.488921 | 48.493855 | 48.498790 | 48.503727 | 48.508665 | 48.513604 | 48.518545 |
| 0.490 | 48.523488 | 48.528431 | 48.533377 | 48.538323 | 48.543271 | 48.548220 | 48.553171 | 48.558124 | 48.563077 | 48.568032 |

ATTENUATION IN DECIBELS
 THETA FROM 86.500 TO 86.999 DEGREES

| THETA IN DEGREES | C.000 | C.001 | C.002 | C.003 | C.004 | C.005 | C.006 | C.007 | C.008 | C.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 48.572987 | 49.577947 | 48.582906 | 48.587867 | 48.592829 | 48.597792 | 48.602757 | 48.607724 | 48.612691 | 48.617661 |
| 0.510 | 48.622632 | 48.627604 | 48.632577 | 49.637552 | 48.642529 | 48.647507 | 48.652486 | 48.657467 | 48.662449 | 48.667432 |
| 0.520 | 48.672418 | 48.677404 | 48.682397 | 48.687381 | 48.692372 | 48.697364 | 48.702358 | 48.707353 | 48.712349 | 48.717348 |
| 0.530 | 48.722347 | 48.727348 | 48.732350 | 48.737354 | 48.742359 | 48.747366 | 48.752374 | 48.757383 | 48.762394 | 48.767407 |
| 0.540 | 48.772421 | 48.777436 | 48.782453 | 48.787471 | 48.792491 | 48.797512 | 48.802535 | 48.807559 | 48.812584 | 48.817612 |
| 0.550 | 48.822640 | 48.827670 | 48.832701 | 48.837734 | 48.842769 | 48.847805 | 48.852842 | 48.857881 | 48.862921 | 48.867962 |
| 0.560 | 48.873005 | 48.878050 | 48.883096 | 48.888144 | 48.893193 | 48.898249 | 48.903295 | 48.908349 | 48.913404 | 48.918460 |
| 0.570 | 48.923515 | 48.928577 | 48.933638 | 48.938700 | 48.943764 | 48.948829 | 48.953896 | 48.958964 | 48.964034 | 48.969105 |
| 0.580 | 48.974178 | 48.979252 | 48.984328 | 48.989405 | 48.994483 | 48.999564 | 49.004645 | 49.009728 | 49.014813 | 49.019899 |
| 0.590 | 49.024987 | 49.030076 | 49.035166 | 49.040258 | 49.045352 | 49.050445 | 49.055539 | 49.060642 | 49.065742 | 49.070842 |
| 0.600 | 49.075945 | 49.081049 | 49.086155 | 49.091262 | 49.096370 | 49.101480 | 49.106592 | 49.111705 | 49.116820 | 49.121936 |
| 0.610 | 49.127054 | 49.132173 | 49.137294 | 49.142416 | 49.147540 | 49.152665 | 49.157792 | 49.162920 | 49.168050 | 49.173181 |
| 0.620 | 49.178314 | 49.183448 | 49.188584 | 49.193722 | 49.198861 | 49.204001 | 49.209143 | 49.214287 | 49.219432 | 49.224578 |
| 0.630 | 49.229726 | 49.234876 | 49.240027 | 49.245180 | 49.250334 | 49.255490 | 49.260647 | 49.265806 | 49.270967 | 49.276129 |
| 0.640 | 49.281292 | 49.286457 | 49.291624 | 49.296792 | 49.301961 | 49.307133 | 49.312305 | 49.317480 | 49.322655 | 49.327833 |
| 0.650 | 49.333012 | 49.338192 | 49.343374 | 49.348558 | 49.353743 | 49.358930 | 49.364118 | 49.369308 | 49.374499 | 49.379692 |
| 0.660 | 49.384886 | 49.390082 | 49.395280 | 49.400479 | 49.405680 | 49.410882 | 49.416086 | 49.421291 | 49.426498 | 49.431707 |
| 0.670 | 49.436917 | 49.442129 | 49.447341 | 49.452557 | 49.457773 | 49.462991 | 49.468210 | 49.473432 | 49.478654 | 49.483878 |
| 0.680 | 49.489104 | 49.494331 | 49.499560 | 49.504791 | 49.510023 | 49.515257 | 49.520492 | 49.525729 | 49.530968 | 49.536208 |
| 0.690 | 49.541449 | 49.546692 | 49.551937 | 49.557184 | 49.562432 | 49.567681 | 49.572932 | 49.578185 | 49.583439 | 49.588696 |
| 0.700 | 49.593953 | 49.599212 | 49.604473 | 49.609735 | 49.614999 | 49.620265 | 49.625532 | 49.630801 | 49.636071 | 49.641343 |
| 0.710 | 49.646616 | 49.651892 | 49.657168 | 49.662447 | 49.667727 | 49.673008 | 49.678292 | 49.683577 | 49.688863 | 49.694151 |
| 0.720 | 49.699441 | 49.704732 | 49.710025 | 49.715320 | 49.720616 | 49.725914 | 49.731213 | 49.736514 | 49.741817 | 49.747121 |
| 0.730 | 49.752427 | 49.757739 | 49.763043 | 49.768354 | 49.773666 | 49.778981 | 49.784296 | 49.789613 | 49.794932 | 49.800253 |
| 0.740 | 49.805575 | 49.810899 | 49.816225 | 49.821552 | 49.826880 | 49.832211 | 49.837543 | 49.842876 | 49.848212 | 49.853549 |
| 0.750 | 49.858887 | 49.864228 | 49.869569 | 49.874913 | 49.880258 | 49.885605 | 49.890954 | 49.896304 | 49.901656 | 49.907009 |
| 0.760 | 49.912364 | 49.917721 | 49.923079 | 49.928439 | 49.933801 | 49.939165 | 49.944530 | 49.949896 | 49.955265 | 49.960635 |
| 0.770 | 49.966007 | 49.971380 | 49.976755 | 49.982131 | 49.987510 | 49.992890 | 49.998272 | 50.003655 | 50.009040 | 50.014427 |
| 0.780 | 50.019815 | 50.025206 | 50.030598 | 50.035991 | 50.041386 | 50.046783 | 50.052182 | 50.057582 | 50.062984 | 50.068387 |
| 0.790 | 50.073792 | 50.079199 | 50.084608 | 50.090018 | 50.095430 | 50.100844 | 50.106259 | 50.111677 | 50.117095 | 50.122516 |
| 0.800 | 50.127938 | 50.133362 | 50.138788 | 50.144215 | 50.149644 | 50.155075 | 50.160507 | 50.165941 | 50.171377 | 50.176815 |
| 0.810 | 50.182250 | 50.187695 | 50.193137 | 50.198582 | 50.204028 | 50.209476 | 50.214925 | 50.220376 | 50.225829 | 50.231284 |
| 0.820 | 50.236740 | 50.242198 | 50.247658 | 50.253119 | 50.258583 | 50.264048 | 50.269514 | 50.274982 | 50.280453 | 50.285924 |
| 0.830 | 50.291398 | 50.296874 | 50.302351 | 50.307829 | 50.313310 | 50.318799 | 50.324276 | 50.329762 | 50.335249 | 50.340739 |
| 0.840 | 50.346230 | 50.351722 | 50.357217 | 50.362713 | 50.368211 | 50.373711 | 50.379212 | 50.384715 | 50.390220 | 50.395727 |
| 0.850 | 50.401235 | 50.406745 | 50.412257 | 50.417771 | 50.423286 | 50.428803 | 50.434322 | 50.439843 | 50.445365 | 50.450890 |
| 0.860 | 50.456416 | 50.461944 | 50.467473 | 50.473004 | 50.478538 | 50.484072 | 50.489609 | 50.495147 | 50.500687 | 50.506229 |
| 0.870 | 50.511773 | 50.517318 | 50.522866 | 50.528415 | 50.533966 | 50.539518 | 50.545072 | 50.550628 | 50.556186 | 50.561746 |
| 0.880 | 50.567307 | 50.572871 | 50.578436 | 50.584002 | 50.589571 | 50.595142 | 50.600714 | 50.606288 | 50.611864 | 50.617441 |
| 0.890 | 50.623021 | 50.628602 | 50.634185 | 50.639770 | 50.645356 | 50.650945 | 50.656535 | 50.662127 | 50.667721 | 50.673316 |
| 0.900 | 50.678914 | 50.684513 | 50.690114 | 50.695717 | 50.701322 | 50.706928 | 50.712536 | 50.718146 | 50.723758 | 50.729372 |
| 0.910 | 50.734988 | 50.740605 | 50.746224 | 50.751845 | 50.757468 | 50.763093 | 50.768720 | 50.774348 | 50.779978 | 50.785610 |
| 0.920 | 50.791244 | 50.796879 | 50.802517 | 50.808156 | 50.813797 | 50.819440 | 50.825085 | 50.830732 | 50.836380 | 50.842031 |
| 0.930 | 50.847683 | 50.853337 | 50.858993 | 50.864651 | 50.870311 | 50.875972 | 50.881635 | 50.887300 | 50.892968 | 50.898636 |
| 0.940 | 50.904307 | 50.909980 | 50.915654 | 50.921330 | 50.927009 | 50.932689 | 50.938371 | 50.944054 | 50.949740 | 50.955429 |
| 0.950 | 50.961117 | 50.966808 | 50.972501 | 50.978196 | 50.983893 | 50.989592 | 50.995292 | 51.000995 | 51.006699 | 51.012405 |
| 0.960 | 51.018113 | 51.023823 | 51.029535 | 51.035249 | 51.040965 | 51.046682 | 51.052402 | 51.058123 | 51.063846 | 51.069571 |
| 0.970 | 51.075298 | 51.081027 | 51.086758 | 51.092490 | 51.098225 | 51.103961 | 51.109699 | 51.115442 | 51.121182 | 51.126926 |
| 0.980 | 51.132672 | 51.138420 | 51.144169 | 51.149921 | 51.155675 | 51.161430 | 51.167188 | 51.172947 | 51.178709 | 51.184472 |
| 0.990 | 51.190237 | 51.196003 | 51.201773 | 51.207543 | 51.213316 | 51.219091 | 51.224867 | 51.230646 | 51.236426 | 51.242209 |

ATTENUATION IN DECIBELS
THETA FROM 87.000 TO 87.499 DEGREES

THETA IN
DEGREES

| 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 51.247993 | 51.253779 | 51.259568 | 51.265358 | 51.271150 | 51.276944 | 51.282740 | 51.288538 | 51.294338 | 51.300139 |
| 51.305943 | 51.311749 | 51.317556 | 51.323366 | 51.329177 | 51.334991 | 51.340806 | 51.346623 | 51.352443 | 51.358264 |
| 51.364087 | 51.369913 | 51.375740 | 51.381569 | 51.387400 | 51.393233 | 51.399068 | 51.404905 | 51.410744 | 51.416584 |
| 0.030 | 51.422428 | 51.428272 | 51.434119 | 51.440038 | 51.445918 | 51.451752 | 51.457592 | 51.463442 | 51.475102 |
| 0.040 | 51.480965 | 51.486829 | 51.492696 | 51.498564 | 51.504435 | 51.510308 | 51.516182 | 51.522058 | 51.527937 |
| 0.050 | 51.539701 | 51.545585 | 51.551471 | 51.557360 | 51.563251 | 51.569143 | 51.575037 | 51.580934 | 51.586833 |
| 0.060 | 51.598636 | 51.604540 | 51.610447 | 51.616355 | 51.622266 | 51.628179 | 51.634094 | 51.640010 | 51.645929 |
| 0.070 | 51.657773 | 51.663697 | 51.669624 | 51.675553 | 51.681484 | 51.687419 | 51.693352 | 51.699288 | 51.705227 |
| 0.080 | 51.717112 | 51.723057 | 51.729004 | 51.734953 | 51.740904 | 51.746858 | 51.752813 | 51.758770 | 51.764729 |
| 0.090 | 51.776655 | 51.782620 | 51.788588 | 51.794558 | 51.800529 | 51.806503 | 51.812479 | 51.818457 | 51.824437 |
| 0.100 | 51.836403 | 51.842389 | 51.848378 | 51.854368 | 51.860360 | 51.866354 | 51.872351 | 51.878350 | 51.884351 |
| 0.110 | 51.896358 | 51.902365 | 51.908374 | 51.914385 | 51.920398 | 51.926414 | 51.932431 | 51.938450 | 51.944472 |
| 0.120 | 51.956222 | 51.962249 | 51.968279 | 51.974311 | 51.980345 | 51.986381 | 51.992421 | 51.998460 | 52.004503 |
| 0.130 | 52.016894 | 52.022943 | 52.028994 | 52.035048 | 52.041102 | 52.047160 | 52.053219 | 52.059281 | 52.065345 |
| 0.140 | 52.077478 | 52.083549 | 52.089621 | 52.095695 | 52.101771 | 52.107850 | 52.113931 | 52.120014 | 52.126099 |
| 0.150 | 52.138275 | 52.144366 | 52.150460 | 52.156556 | 52.162653 | 52.168754 | 52.174856 | 52.180960 | 52.187066 |
| 0.160 | 52.199246 | 52.205399 | 52.211514 | 52.217631 | 52.223750 | 52.229872 | 52.235995 | 52.242121 | 52.248249 |
| 0.170 | 52.260512 | 52.266646 | 52.272783 | 52.278922 | 52.285063 | 52.291206 | 52.297351 | 52.303499 | 52.309649 |
| 0.180 | 52.321955 | 52.328111 | 52.334270 | 52.340431 | 52.346593 | 52.352758 | 52.358926 | 52.365095 | 52.371267 |
| 0.190 | 52.383617 | 52.389795 | 52.395976 | 52.402158 | 52.408343 | 52.414530 | 52.420720 | 52.426911 | 52.433105 |
| 0.200 | 52.445499 | 52.451699 | 52.457902 | 52.464107 | 52.470314 | 52.476523 | 52.482735 | 52.488948 | 52.495164 |
| 0.210 | 52.507603 | 52.513825 | 52.520050 | 52.526278 | 52.532506 | 52.538738 | 52.544972 | 52.551208 | 52.557446 |
| 0.220 | 52.569930 | 52.576175 | 52.582422 | 52.588672 | 52.594923 | 52.601178 | 52.607434 | 52.613693 | 52.619954 |
| 0.230 | 52.632482 | 52.638750 | 52.645020 | 52.651292 | 52.657566 | 52.663843 | 52.670122 | 52.676403 | 52.682687 |
| 0.240 | 52.695261 | 52.701551 | 52.707844 | 52.714139 | 52.720436 | 52.726736 | 52.733037 | 52.739341 | 52.745648 |
| 0.250 | 52.758267 | 52.764581 | 52.770896 | 52.777215 | 52.783535 | 52.789857 | 52.796182 | 52.802509 | 52.808838 |
| 0.260 | 52.821505 | 52.827841 | 52.834179 | 52.840520 | 52.846864 | 52.853209 | 52.859558 | 52.865908 | 52.872261 |
| 0.270 | 52.884973 | 52.891333 | 52.897695 | 52.904059 | 52.910425 | 52.916794 | 52.923166 | 52.929539 | 52.935915 |
| 0.280 | 52.948675 | 52.955058 | 52.961443 | 52.967831 | 52.974221 | 52.980613 | 52.987008 | 52.993405 | 52.999805 |
| 0.290 | 53.012611 | 53.019018 | 53.025427 | 53.031838 | 53.038252 | 53.044668 | 53.051086 | 53.057508 | 53.063931 |
| 0.300 | 53.076785 | 53.083215 | 53.089648 | 53.096083 | 53.102520 | 53.108961 | 53.115403 | 53.121848 | 53.128295 |
| 0.310 | 53.141196 | 53.147651 | 53.154108 | 53.160567 | 53.167028 | 53.173492 | 53.179958 | 53.186428 | 53.192899 |
| 0.320 | 53.205848 | 53.212327 | 53.218808 | 53.225291 | 53.231777 | 53.238265 | 53.244766 | 53.251249 | 53.257744 |
| 0.330 | 53.270742 | 53.277245 | 53.283751 | 53.290258 | 53.296768 | 53.303281 | 53.309796 | 53.316313 | 53.322833 |
| 0.340 | 53.335880 | 53.342408 | 53.348938 | 53.355470 | 53.362004 | 53.368541 | 53.375081 | 53.381623 | 53.388167 |
| 0.350 | 53.401264 | 53.407816 | 53.414371 | 53.420928 | 53.427487 | 53.434049 | 53.440613 | 53.447180 | 53.453749 |
| 0.360 | 53.466895 | 53.473472 | 53.480052 | 53.486633 | 53.493217 | 53.499804 | 53.506393 | 53.512985 | 53.519580 |
| 0.370 | 53.532776 | 53.539378 | 53.545982 | 53.552589 | 53.559198 | 53.565810 | 53.572425 | 53.579042 | 53.585661 |
| 0.380 | 53.598908 | 53.605535 | 53.612164 | 53.618797 | 53.625432 | 53.632069 | 53.638709 | 53.645351 | 53.651996 |
| 0.390 | 53.665293 | 53.671946 | 53.678601 | 53.685258 | 53.691919 | 53.698581 | 53.705246 | 53.711915 | 53.718585 |
| 0.400 | 53.731934 | 53.738612 | 53.745293 | 53.751976 | 53.758662 | 53.765350 | 53.772041 | 53.778735 | 53.785431 |
| 0.410 | 53.798831 | 53.805535 | 53.812242 | 53.818951 | 53.825663 | 53.832377 | 53.839094 | 53.845814 | 53.852536 |
| 0.420 | 53.865988 | 53.872718 | 53.879450 | 53.886186 | 53.892923 | 53.899664 | 53.906407 | 53.913153 | 53.919901 |
| 0.430 | 53.933406 | 53.940162 | 53.946921 | 53.953682 | 53.960446 | 53.967213 | 53.973983 | 53.980755 | 53.987529 |
| 0.440 | 54.001087 | 54.007870 | 54.014655 | 54.021443 | 54.028234 | 54.035027 | 54.041822 | 54.048621 | 54.055423 |
| 0.450 | 54.069033 | 54.075842 | 54.082654 | 54.089469 | 54.096286 | 54.103106 | 54.109929 | 54.116755 | 54.123582 |
| 0.460 | 54.137247 | 54.144083 | 54.150922 | 54.157763 | 54.164608 | 54.171454 | 54.178304 | 54.185156 | 54.192012 |
| 0.470 | 54.205730 | 54.212593 | 54.219459 | 54.226328 | 54.233199 | 54.240073 | 54.246950 | 54.253829 | 54.260712 |
| 0.480 | 54.274485 | 54.281375 | 54.288268 | 54.295164 | 54.302063 | 54.308964 | 54.315869 | 54.322775 | 54.329685 |
| 0.490 | 54.343513 | 54.350431 | 54.357352 | 54.364275 | 54.371202 | 54.378130 | 54.385062 | 54.391997 | 54.398934 |
| | | | | | | | | | 54.405874 |

ATTENUATION IN DECIBELS
THETA FROM 87.500 TO 87.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 54.412817 | 54.419763 | 54.426712 | 54.433663 | 54.440617 | 54.447574 | 54.454533 | 54.461496 | 54.468461 | 54.475429 |
| 0.510 | 54.482400 | 54.489373 | 54.496350 | 54.503329 | 54.510311 | 54.517296 | 54.524283 | 54.531274 | 54.538268 | 54.545264 |
| 0.520 | 54.552263 | 54.559264 | 54.566269 | 54.573277 | 54.580287 | 54.587300 | 54.594316 | 54.601335 | 54.608356 | 54.615381 |
| 0.530 | 54.622408 | 54.629438 | 54.636471 | 54.643507 | 54.650546 | 54.657588 | 54.664632 | 54.671679 | 54.678730 | 54.685782 |
| 0.540 | 54.692838 | 54.699897 | 54.706959 | 54.714024 | 54.721091 | 54.728161 | 54.735234 | 54.742311 | 54.749389 | 54.756471 |
| 0.550 | 54.763556 | 54.770644 | 54.777734 | 54.784828 | 54.791924 | 54.799023 | 54.806125 | 54.813231 | 54.820338 | 54.827440 |
| 0.560 | 54.834563 | 54.841680 | 54.848800 | 54.855922 | 54.863048 | 54.870176 | 54.877307 | 54.884442 | 54.891579 | 54.898719 |
| 0.570 | 54.905862 | 54.913008 | 54.920161 | 54.927310 | 54.934464 | 54.941622 | 54.948783 | 54.955947 | 54.963113 | 54.970283 |
| 0.580 | 54.977456 | 54.984632 | 54.991810 | 54.998991 | 55.006176 | 55.013364 | 55.020554 | 55.027748 | 55.034944 | 55.042144 |
| 0.590 | 55.049346 | 55.056551 | 55.063760 | 55.070971 | 55.078186 | 55.085403 | 55.092624 | 55.099847 | 55.107074 | 55.114303 |
| 0.600 | 55.121536 | 55.128771 | 55.136010 | 55.143251 | 55.150496 | 55.157743 | 55.164994 | 55.172248 | 55.179504 | 55.186764 |
| 0.610 | 55.194027 | 55.201293 | 55.208562 | 55.215834 | 55.223109 | 55.230387 | 55.237668 | 55.244952 | 55.252239 | 55.259530 |
| 0.620 | 55.266823 | 55.274119 | 55.281419 | 55.288721 | 55.296027 | 55.303336 | 55.310647 | 55.317962 | 55.325280 | 55.332601 |
| 0.630 | 55.339925 | 55.347252 | 55.354583 | 55.361917 | 55.369253 | 55.376593 | 55.383935 | 55.391281 | 55.398630 | 55.405982 |
| 0.640 | 55.413337 | 55.420696 | 55.428057 | 55.435422 | 55.442790 | 55.450160 | 55.457534 | 55.464911 | 55.472291 | 55.479675 |
| 0.650 | 55.487062 | 55.494451 | 55.501844 | 55.509240 | 55.516639 | 55.524041 | 55.531447 | 55.538856 | 55.546267 | 55.553682 |
| 0.660 | 55.561100 | 55.568521 | 55.575946 | 55.583374 | 55.590805 | 55.598238 | 55.605676 | 55.613116 | 55.620560 | 55.628006 |
| 0.670 | 55.635457 | 55.642910 | 55.650366 | 55.657826 | 55.665288 | 55.672752 | 55.680224 | 55.687696 | 55.695172 | 55.702651 |
| 0.680 | 55.710133 | 55.717618 | 55.725107 | 55.732599 | 55.740094 | 55.747592 | 55.755094 | 55.762599 | 55.770106 | 55.777618 |
| 0.690 | 55.785132 | 55.792650 | 55.800171 | 55.807695 | 55.815223 | 55.822754 | 55.830288 | 55.837825 | 55.845366 | 55.852910 |
| 0.700 | 55.860457 | 55.868008 | 55.875562 | 55.883119 | 55.890679 | 55.898243 | 55.905810 | 55.913380 | 55.920954 | 55.928531 |
| 0.710 | 55.936111 | 55.943695 | 55.951282 | 55.958872 | 55.966465 | 55.974067 | 55.981662 | 55.989266 | 55.996872 | 56.004483 |
| 0.720 | 56.012096 | 56.019713 | 56.027333 | 56.034957 | 56.042583 | 56.050214 | 56.057847 | 56.065485 | 56.073125 | 56.080769 |
| 0.730 | 56.088416 | 56.096066 | 56.103720 | 56.111377 | 56.119038 | 56.126702 | 56.134369 | 56.142040 | 56.149714 | 56.157392 |
| 0.740 | 56.165072 | 56.172757 | 56.180455 | 56.188156 | 56.195860 | 56.203578 | 56.211300 | 56.218935 | 56.226643 | 56.234354 |
| 0.750 | 56.242009 | 56.249788 | 56.257510 | 56.265235 | 56.272964 | 56.280696 | 56.288432 | 56.296172 | 56.303914 | 56.311660 |
| 0.760 | 56.319410 | 56.327193 | 56.334919 | 56.342680 | 56.350443 | 56.358211 | 56.365984 | 56.373754 | 56.381531 | 56.389312 |
| 0.770 | 56.397097 | 56.404884 | 56.412676 | 56.420471 | 56.428269 | 56.436071 | 56.443876 | 56.451685 | 56.459497 | 56.467313 |
| 0.780 | 56.475133 | 56.482956 | 56.490782 | 56.498612 | 56.506447 | 56.514283 | 56.522124 | 56.529968 | 56.537816 | 56.545667 |
| 0.790 | 56.553523 | 56.561380 | 56.569242 | 56.577108 | 56.584977 | 56.592850 | 56.600726 | 56.608606 | 56.616489 | 56.624376 |
| 0.800 | 56.632267 | 56.640161 | 56.648059 | 56.655960 | 56.663865 | 56.671773 | 56.679686 | 56.687602 | 56.695521 | 56.703444 |
| 0.810 | 56.711370 | 56.719301 | 56.727235 | 56.735172 | 56.743114 | 56.751058 | 56.759007 | 56.766959 | 56.774915 | 56.782874 |
| 0.820 | 56.790837 | 56.798804 | 56.806774 | 56.814748 | 56.822726 | 56.830707 | 56.838692 | 56.846681 | 56.854673 | 56.862669 |
| 0.830 | 56.870669 | 56.878673 | 56.886680 | 56.894691 | 56.902705 | 56.910723 | 56.918745 | 56.926771 | 56.934800 | 56.942833 |
| 0.840 | 56.950870 | 56.958910 | 56.966956 | 56.975003 | 56.983055 | 56.991110 | 56.999169 | 57.007232 | 57.015299 | 57.023369 |
| 0.850 | 57.031444 | 57.039522 | 57.047604 | 57.055689 | 57.063773 | 57.071871 | 57.079968 | 57.088069 | 57.096173 | 57.104281 |
| 0.860 | 57.112393 | 57.120509 | 57.128629 | 57.136752 | 57.144879 | 57.153010 | 57.161145 | 57.169284 | 57.177426 | 57.185572 |
| 0.870 | 57.193722 | 57.201876 | 57.210034 | 57.218196 | 57.226361 | 57.234530 | 57.242703 | 57.250881 | 57.259061 | 57.267246 |
| 0.880 | 57.275434 | 57.283627 | 57.291823 | 57.300024 | 57.308228 | 57.316435 | 57.324647 | 57.332863 | 57.341083 | 57.349306 |
| 0.890 | 57.357533 | 57.365765 | 57.374000 | 57.382239 | 57.390482 | 57.398729 | 57.406980 | 57.415235 | 57.423493 | 57.431756 |
| 0.900 | 57.444002 | 57.448293 | 57.456568 | 57.464846 | 57.473129 | 57.481415 | 57.489706 | 57.498000 | 57.506298 | 57.514600 |
| 0.910 | 57.522903 | 57.531217 | 57.539531 | 57.547849 | 57.556171 | 57.564497 | 57.572827 | 57.581161 | 57.589499 | 57.597841 |
| 0.920 | 57.606187 | 57.614538 | 57.622892 | 57.631250 | 57.639612 | 57.647979 | 57.656349 | 57.664723 | 57.673101 | 57.681484 |
| 0.930 | 57.689870 | 57.698261 | 57.706656 | 57.715055 | 57.723457 | 57.731864 | 57.740275 | 57.748690 | 57.757109 | 57.765532 |
| 0.940 | 57.773959 | 57.782391 | 57.790826 | 57.799265 | 57.807709 | 57.816157 | 57.824608 | 57.833065 | 57.841525 | 57.849989 |
| 0.950 | 57.858457 | 57.866930 | 57.875406 | 57.883887 | 57.892372 | 57.900861 | 57.909354 | 57.917852 | 57.926353 | 57.934859 |
| 0.960 | 57.943369 | 57.951883 | 57.960401 | 57.968924 | 57.977450 | 57.985981 | 57.994516 | 58.003055 | 58.011599 | 58.020146 |
| 0.970 | 58.028698 | 58.037254 | 58.045815 | 58.054379 | 58.062948 | 58.071521 | 58.080098 | 58.088677 | 58.097265 | 58.105859 |
| 0.980 | 58.114449 | 58.123048 | 58.131650 | 58.140257 | 58.148869 | 58.157484 | 58.166104 | 58.174728 | 58.183356 | 58.191989 |
| 0.990 | 58.200626 | 58.209268 | 58.217913 | 58.226563 | 58.235217 | 58.243876 | 58.252539 | 58.261206 | 58.269877 | 58.278553 |

ATTENUATION IN DECIBELS
 THETA FROM 88.000 TO 88.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.000 | 58.287233 | 58.295918 | 58.304606 | 58.313300 | 58.321998 | 58.330699 | 58.339406 | 58.348116 | 58.356832 | 58.365551 |
| 0.010 | 58.374275 | 58.383003 | 58.391736 | 58.400473 | 58.409214 | 58.417960 | 58.426710 | 58.435465 | 58.444224 | 58.452987 |
| 0.020 | 58.461755 | 58.470528 | 58.479304 | 58.488083 | 58.496871 | 58.505661 | 58.514456 | 58.523255 | 58.532059 | 58.540866 |
| 0.030 | 58.549679 | 58.558496 | 58.567317 | 58.576143 | 58.584973 | 58.593809 | 58.602648 | 58.611492 | 58.620340 | 58.629193 |
| 0.040 | 58.638051 | 58.646913 | 58.655779 | 58.664650 | 58.673525 | 58.682405 | 58.691290 | 58.700180 | 58.709073 | 58.717971 |
| 0.050 | 58.726874 | 58.735782 | 58.744694 | 58.753611 | 58.762532 | 58.771457 | 58.780388 | 58.789323 | 58.798262 | 58.807207 |
| 0.060 | 58.816155 | 58.825109 | 58.834067 | 58.843029 | 58.851997 | 58.860969 | 58.869945 | 58.878926 | 58.887912 | 58.896903 |
| 0.070 | 58.905898 | 58.914898 | 58.923903 | 58.932911 | 58.941926 | 58.950944 | 58.959967 | 58.968995 | 58.978028 | 58.987065 |
| 0.080 | 58.996107 | 59.005154 | 59.014205 | 59.023262 | 59.032333 | 59.041389 | 59.050458 | 59.059534 | 59.068614 | 59.077699 |
| 0.090 | 59.086768 | 59.095882 | 59.104981 | 59.114085 | 59.123193 | 59.132307 | 59.141425 | 59.150548 | 59.159675 | 59.168808 |
| 0.100 | 59.177945 | 59.187087 | 59.196234 | 59.205386 | 59.214542 | 59.223704 | 59.232870 | 59.242041 | 59.251217 | 59.260398 |
| 0.110 | 59.269583 | 59.278774 | 59.287970 | 59.297170 | 59.306375 | 59.315585 | 59.324800 | 59.334020 | 59.343244 | 59.352474 |
| 0.120 | 59.361708 | 59.370948 | 59.380192 | 59.389441 | 59.398696 | 59.407955 | 59.417219 | 59.426488 | 59.435762 | 59.445041 |
| 0.130 | 59.454325 | 59.463614 | 59.472908 | 59.482207 | 59.491510 | 59.500819 | 59.510133 | 59.519452 | 59.528776 | 59.538105 |
| 0.140 | 59.547439 | 59.556777 | 59.566122 | 59.575470 | 59.584825 | 59.594183 | 59.603548 | 59.612916 | 59.622291 | 59.631670 |
| 0.150 | 59.641055 | 59.650444 | 59.659839 | 59.669238 | 59.678643 | 59.688053 | 59.697467 | 59.706887 | 59.716312 | 59.725743 |
| 0.160 | 59.735178 | 59.744619 | 59.754065 | 59.763515 | 59.772971 | 59.782432 | 59.791898 | 59.801370 | 59.810846 | 59.820328 |
| 0.170 | 59.829815 | 59.839307 | 59.848804 | 59.858307 | 59.867815 | 59.877328 | 59.886846 | 59.896369 | 59.905898 | 59.915432 |
| 0.180 | 59.924971 | 59.934515 | 59.944065 | 59.953620 | 59.963180 | 59.972745 | 59.982316 | 59.991892 | 60.001473 | 60.011060 |
| 0.190 | 60.020651 | 60.030249 | 60.039851 | 60.049459 | 60.059072 | 60.068690 | 60.078314 | 60.087943 | 60.097578 | 60.107217 |
| 0.200 | 60.116862 | 60.126513 | 60.136169 | 60.145830 | 60.155497 | 60.165169 | 60.174846 | 60.184529 | 60.194217 | 60.203911 |
| 0.210 | 60.213610 | 60.223314 | 60.233024 | 60.242740 | 60.252460 | 60.262187 | 60.271918 | 60.281655 | 60.291398 | 60.301146 |
| 0.220 | 60.310899 | 60.320659 | 60.330423 | 60.340193 | 60.349968 | 60.359750 | 60.369536 | 60.379328 | 60.389126 | 60.398929 |
| 0.230 | 60.408738 | 60.418552 | 60.428371 | 60.438197 | 60.448024 | 60.457864 | 60.467705 | 60.477554 | 60.487407 | 60.497266 |
| 0.240 | 60.507131 | 60.517000 | 60.526876 | 60.536766 | 60.546664 | 60.556574 | 60.566435 | 60.576339 | 60.586248 | 60.596163 |
| 0.250 | 60.606084 | 60.616011 | 60.625943 | 60.635880 | 60.645824 | 60.655774 | 60.665729 | 60.675689 | 60.685656 | 60.695628 |
| 0.260 | 60.705606 | 60.715589 | 60.725578 | 60.735573 | 60.745574 | 60.755581 | 60.765593 | 60.775611 | 60.785635 | 60.795665 |
| 0.270 | 60.805761 | 60.815742 | 60.825739 | 60.835742 | 60.845761 | 60.855786 | 60.865836 | 60.876112 | 60.886195 | 60.896283 |
| 0.280 | 60.906376 | 60.916476 | 60.926582 | 60.936693 | 60.946811 | 60.956934 | 60.967063 | 60.977199 | 60.987339 | 60.997487 |
| 0.290 | 61.007640 | 61.017798 | 61.027963 | 61.038134 | 61.048311 | 61.058494 | 61.068682 | 61.078877 | 61.089078 | 61.099285 |
| 0.300 | 61.109497 | 61.119716 | 61.129941 | 61.140172 | 61.150408 | 61.160651 | 61.170900 | 61.181155 | 61.191416 | 61.201683 |
| 0.310 | 61.211956 | 61.222235 | 61.232521 | 61.242812 | 61.253109 | 61.263413 | 61.273723 | 61.284039 | 61.294361 | 61.304689 |
| 0.320 | 61.315023 | 61.325364 | 61.335710 | 61.346063 | 61.356422 | 61.366787 | 61.377159 | 61.387536 | 61.397920 | 61.408310 |
| 0.330 | 61.418706 | 61.429109 | 61.439517 | 61.449932 | 61.460353 | 61.470780 | 61.481215 | 61.491654 | 61.502100 | 61.512553 |
| 0.340 | 61.523012 | 61.533477 | 61.543949 | 61.554426 | 61.564910 | 61.575401 | 61.585898 | 61.596401 | 61.606910 | 61.617426 |
| 0.350 | 61.627948 | 61.638477 | 61.649012 | 61.659554 | 61.670101 | 61.680655 | 61.691216 | 61.701783 | 61.712357 | 61.722937 |
| 0.360 | 61.733573 | 61.744116 | 61.754615 | 61.765321 | 61.775934 | 61.786552 | 61.797178 | 61.807810 | 61.818448 | 61.829093 |
| 0.370 | 61.839744 | 61.850402 | 61.861067 | 61.871737 | 61.882415 | 61.893099 | 61.903790 | 61.914487 | 61.925191 | 61.935902 |
| 0.380 | 61.946619 | 61.957343 | 61.968073 | 61.978810 | 61.989554 | 62.000304 | 62.011061 | 62.021825 | 62.032596 | 62.043373 |
| 0.390 | 62.054156 | 62.064947 | 62.075744 | 62.086548 | 62.097358 | 62.108176 | 62.118999 | 62.129830 | 62.140668 | 62.151513 |
| 0.400 | 62.162364 | 62.173222 | 62.184086 | 62.194958 | 62.205836 | 62.216722 | 62.227613 | 62.238512 | 62.249418 | 62.260330 |
| 0.410 | 62.271250 | 62.282176 | 62.293109 | 62.304049 | 62.314996 | 62.325951 | 62.336911 | 62.347878 | 62.358853 | 62.369835 |
| 0.420 | 62.380823 | 62.391819 | 62.402822 | 62.413831 | 62.424847 | 62.435870 | 62.446901 | 62.457939 | 62.468983 | 62.480034 |
| 0.430 | 62.491093 | 62.502159 | 62.513231 | 62.524311 | 62.535398 | 62.546492 | 62.557592 | 62.568701 | 62.579816 | 62.590938 |
| 0.440 | 62.602067 | 62.613204 | 62.624348 | 62.635499 | 62.646657 | 62.657822 | 62.668994 | 62.680174 | 62.691361 | 62.702555 |
| 0.450 | 62.713756 | 62.724965 | 62.736180 | 62.747403 | 62.758634 | 62.769871 | 62.781116 | 62.792368 | 62.803627 | 62.814894 |
| 0.460 | 62.826168 | 62.837449 | 62.848738 | 62.860034 | 62.871337 | 62.882648 | 62.893966 | 62.905292 | 62.916625 | 62.927965 |
| 0.470 | 62.939312 | 62.950667 | 62.962030 | 62.973400 | 62.984777 | 62.996162 | 63.007555 | 63.018955 | 63.030362 | 63.041777 |
| 0.480 | 63.053199 | 63.064629 | 63.076066 | 63.087512 | 63.098964 | 63.110424 | 63.121891 | 63.133367 | 63.144850 | 63.156340 |
| 0.490 | 63.167838 | 63.179344 | 63.190857 | 63.202378 | 63.213907 | 63.225443 | 63.236987 | 63.248538 | 63.260098 | 63.271665 |

ATTENUATION IN DECIBELS
THETA FROM 88.500 TO 88.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 63.283239 | 63.294822 | 63.306412 | 63.318009 | 63.329615 | 63.341228 | 63.352850 | 63.364479 | 63.376115 | 63.387760 |
| 0.510 | 63.399413 | 63.411073 | 63.422740 | 63.434416 | 63.446102 | 63.457792 | 63.469491 | 63.481199 | 63.492914 | 63.504637 |
| 0.520 | 63.516368 | 63.528107 | 63.539855 | 63.551610 | 63.563372 | 63.575143 | 63.586922 | 63.598709 | 63.610504 | 63.622307 |
| 0.530 | 63.634118 | 63.645936 | 63.657763 | 63.669599 | 63.681442 | 63.693293 | 63.705153 | 63.717020 | 63.728895 | 63.740779 |
| 0.540 | 63.752671 | 63.764571 | 63.776479 | 63.788395 | 63.800320 | 63.812253 | 63.824193 | 63.836143 | 63.848100 | 63.860065 |
| 0.550 | 63.872039 | 63.884021 | 63.896012 | 63.908018 | 63.920038 | 63.932063 | 63.944093 | 63.956089 | 63.968129 | 63.980177 |
| 0.560 | 63.992234 | 64.004299 | 64.016374 | 64.028456 | 64.040546 | 64.052645 | 64.064753 | 64.076868 | 64.088993 | 64.101126 |
| 0.570 | 64.113267 | 64.125417 | 64.137575 | 64.149742 | 64.161918 | 64.174101 | 64.186294 | 64.198495 | 64.210705 | 64.222922 |
| 0.580 | 64.235149 | 64.247385 | 64.259629 | 64.271882 | 64.284143 | 64.296413 | 64.308692 | 64.320979 | 64.333276 | 64.345580 |
| 0.590 | 64.357894 | 64.370216 | 64.382547 | 64.394887 | 64.407235 | 64.419593 | 64.431959 | 64.444334 | 64.456717 | 64.469110 |
| 0.600 | 64.481512 | 64.493922 | 64.506342 | 64.518770 | 64.531207 | 64.543653 | 64.556108 | 64.568572 | 64.581044 | 64.593526 |
| 0.610 | 64.606017 | 64.618517 | 64.631025 | 64.643543 | 64.656070 | 64.668606 | 64.681150 | 64.693705 | 64.706267 | 64.718840 |
| 0.620 | 64.731421 | 64.744011 | 64.756611 | 64.769219 | 64.781837 | 64.794464 | 64.807100 | 64.819746 | 64.832400 | 64.845064 |
| 0.630 | 64.857738 | 64.870420 | 64.883111 | 64.895812 | 64.908523 | 64.921242 | 64.933970 | 64.946709 | 64.959456 | 64.972214 |
| 0.640 | 64.984980 | 64.997755 | 65.010541 | 65.023335 | 65.036139 | 65.048952 | 65.061775 | 65.074608 | 65.087449 | 65.100301 |
| 0.650 | 65.113161 | 65.126032 | 65.138912 | 65.151801 | 65.164701 | 65.177608 | 65.190527 | 65.203455 | 65.216393 | 65.229340 |
| 0.660 | 65.242296 | 65.255263 | 65.268239 | 65.281225 | 65.294221 | 65.307226 | 65.320241 | 65.333266 | 65.346301 | 65.359345 |
| 0.670 | 65.372399 | 65.385464 | 65.398538 | 65.411621 | 65.424715 | 65.437819 | 65.450932 | 65.464055 | 65.477188 | 65.490332 |
| 0.680 | 65.503485 | 65.516647 | 65.529820 | 65.543004 | 65.556197 | 65.569400 | 65.582613 | 65.595837 | 65.609070 | 65.622313 |
| 0.690 | 65.635567 | 65.648830 | 65.662104 | 65.675388 | 65.688682 | 65.701986 | 65.715301 | 65.728625 | 65.741961 | 65.755306 |
| 0.700 | 65.768661 | 65.782027 | 65.795403 | 65.808789 | 65.822186 | 65.835593 | 65.849010 | 65.862438 | 65.875876 | 65.889325 |
| 0.710 | 65.902784 | 65.916253 | 65.929733 | 65.943224 | 65.956725 | 65.970236 | 65.983758 | 65.997291 | 66.010834 | 66.024387 |
| 0.720 | 66.037951 | 66.051526 | 66.065111 | 66.078707 | 66.092314 | 66.105931 | 66.119559 | 66.133198 | 66.146848 | 66.160507 |
| 0.730 | 66.174718 | 66.187860 | 66.201552 | 66.215256 | 66.228971 | 66.242695 | 66.256431 | 66.270178 | 66.283936 | 66.297704 |
| 0.740 | 66.311483 | 66.325274 | 66.339087 | 66.352887 | 66.366711 | 66.380549 | 66.394400 | 66.408247 | 66.422114 | 66.435993 |
| 0.750 | 66.449883 | 66.463783 | 66.477695 | 66.491618 | 66.505552 | 66.519498 | 66.533455 | 66.547422 | 66.561401 | 66.575392 |
| 0.760 | 66.589394 | 66.603407 | 66.617431 | 66.631467 | 66.645514 | 66.659572 | 66.673641 | 66.687722 | 66.701816 | 66.715919 |
| 0.770 | 66.730035 | 66.744162 | 66.758300 | 66.772450 | 66.786612 | 66.800785 | 66.814969 | 66.829165 | 66.843373 | 66.857594 |
| 0.780 | 66.871824 | 66.886067 | 66.900322 | 66.914588 | 66.928866 | 66.943155 | 66.957458 | 66.971770 | 66.986095 | 67.000433 |
| 0.790 | 67.014781 | 67.029142 | 67.043514 | 67.057899 | 67.072295 | 67.086703 | 67.101124 | 67.115556 | 67.130000 | 67.144457 |
| 0.800 | 67.158925 | 67.173406 | 67.187898 | 67.202402 | 67.216919 | 67.231448 | 67.245989 | 67.260542 | 67.275107 | 67.289685 |
| 0.810 | 67.304276 | 67.318877 | 67.333492 | 67.348119 | 67.362758 | 67.377409 | 67.392073 | 67.406750 | 67.421438 | 67.436139 |
| 0.820 | 67.450852 | 67.465579 | 67.480317 | 67.495069 | 67.509831 | 67.524608 | 67.539396 | 67.554198 | 67.569012 | 67.583838 |
| 0.830 | 67.598678 | 67.613529 | 67.628394 | 67.643271 | 67.658162 | 67.673065 | 67.687981 | 67.702907 | 67.717851 | 67.732805 |
| 0.840 | 67.747772 | 67.762753 | 67.777745 | 67.792751 | 67.807770 | 67.822802 | 67.837847 | 67.852905 | 67.867976 | 67.883060 |
| 0.850 | 67.898158 | 67.913268 | 67.928391 | 67.943528 | 67.958678 | 67.973842 | 67.989018 | 68.004208 | 68.019411 | 68.034629 |
| 0.860 | 68.049857 | 68.065100 | 68.080357 | 68.095627 | 68.110909 | 68.126206 | 68.141517 | 68.156840 | 68.172178 | 68.187529 |
| 0.870 | 68.207290 | 68.218271 | 68.233663 | 68.249068 | 68.264487 | 68.279921 | 68.295366 | 68.310827 | 68.326301 | 68.341788 |
| 0.880 | 68.357299 | 68.372806 | 68.388335 | 68.403878 | 68.419436 | 68.435006 | 68.450592 | 68.466190 | 68.481804 | 68.497431 |
| 0.890 | 68.513072 | 68.528728 | 68.544397 | 68.560081 | 68.575779 | 68.591491 | 68.607217 | 68.622957 | 68.638712 | 68.654481 |
| 0.900 | 68.670264 | 68.686063 | 68.701875 | 68.717701 | 68.733542 | 68.749397 | 68.765267 | 68.781152 | 68.797051 | 68.812964 |
| 0.910 | 68.828893 | 68.844835 | 68.860793 | 68.876765 | 68.892752 | 68.908753 | 68.924770 | 68.940801 | 68.956847 | 68.972908 |
| 0.920 | 68.988983 | 69.005074 | 69.021179 | 69.037300 | 69.053435 | 69.069586 | 69.085751 | 69.101932 | 69.118127 | 69.134337 |
| 0.930 | 69.150563 | 69.166804 | 69.183061 | 69.199332 | 69.215619 | 69.231921 | 69.248239 | 69.264571 | 69.280919 | 69.297282 |
| 0.940 | 69.313662 | 69.330055 | 69.346465 | 69.362890 | 69.379332 | 69.395788 | 69.412260 | 69.428748 | 69.445251 | 69.461770 |
| 0.950 | 69.478305 | 69.494856 | 69.511422 | 69.528005 | 69.544602 | 69.561216 | 69.577847 | 69.594492 | 69.611154 | 69.627831 |
| 0.960 | 69.644526 | 69.661235 | 69.677961 | 69.694703 | 69.711461 | 69.728235 | 69.745027 | 69.761833 | 69.778656 | 69.795496 |
| 0.970 | 69.812351 | 69.829224 | 69.846112 | 69.863017 | 69.879939 | 69.896877 | 69.913832 | 69.930802 | 69.947790 | 69.964794 |
| 0.980 | 69.981815 | 69.998854 | 70.015907 | 70.032979 | 70.050067 | 70.067172 | 70.084293 | 70.101432 | 70.118587 | 70.135760 |
| 0.990 | 70.152949 | 70.170156 | 70.187380 | 70.204620 | 70.221878 | 70.239153 | 70.256445 | 70.273755 | 70.291081 | 70.308426 |

ATTENUATION IN DECIBELS
THETA FROM 89.000 TO 89.499 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.000 | 70.32579 | 70.34317 | 70.36056 | 70.37798 | 70.39541 | 70.41286 | 70.43032 | 70.44780 | 70.46531 | 70.48283 |
| 0.010 | 70.50036 | 70.51792 | 70.53549 | 70.55308 | 70.57069 | 70.58831 | 70.60596 | 70.62362 | 70.64130 | 70.65899 |
| 0.020 | 70.67671 | 70.69444 | 70.71219 | 70.72996 | 70.74775 | 70.76556 | 70.78338 | 70.80123 | 70.81909 | 70.83697 |
| 0.030 | 70.85487 | 70.87278 | 70.89072 | 70.90867 | 70.92664 | 70.94463 | 70.96264 | 70.98067 | 70.99872 | 71.01678 |
| 0.040 | 71.03487 | 71.05297 | 71.07109 | 71.08924 | 71.10740 | 71.12557 | 71.14377 | 71.16199 | 71.18023 | 71.19848 |
| 0.050 | 71.21676 | 71.23505 | 71.25336 | 71.27170 | 71.29005 | 71.30842 | 71.32681 | 71.34522 | 71.36365 | 71.38210 |
| 0.060 | 71.40057 | 71.41906 | 71.43757 | 71.45610 | 71.47464 | 71.49321 | 71.51180 | 71.53041 | 71.54903 | 71.56768 |
| 0.070 | 71.58635 | 71.60504 | 71.62374 | 71.64247 | 71.66122 | 71.67999 | 71.69878 | 71.71759 | 71.73642 | 71.75527 |
| 0.080 | 71.77414 | 71.79303 | 71.81194 | 71.83087 | 71.84983 | 71.86880 | 71.88779 | 71.90681 | 71.92585 | 71.94490 |
| 0.090 | 71.96398 | 71.98308 | 72.00220 | 72.02134 | 72.04050 | 72.05968 | 72.07889 | 72.09811 | 72.11736 | 72.13663 |
| 0.100 | 72.15592 | 72.17523 | 72.19456 | 72.21392 | 72.23329 | 72.25269 | 72.27211 | 72.29155 | 72.31101 | 72.33050 |
| 0.110 | 72.35000 | 72.36953 | 72.38908 | 72.40865 | 72.42825 | 72.44786 | 72.46750 | 72.48716 | 72.50685 | 72.52655 |
| 0.120 | 72.54628 | 72.56603 | 72.58580 | 72.60560 | 72.62542 | 72.64526 | 72.66512 | 72.68501 | 72.70492 | 72.72485 |
| 0.130 | 72.74490 | 72.76478 | 72.78478 | 72.80480 | 72.82485 | 72.84492 | 72.86501 | 72.88513 | 72.90527 | 72.92543 |
| 0.140 | 72.94562 | 72.96583 | 72.98606 | 73.00632 | 73.02660 | 73.04690 | 73.06723 | 73.08759 | 73.10796 | 73.12836 |
| 0.150 | 73.14878 | 73.16923 | 73.18970 | 73.21020 | 73.23072 | 73.25127 | 73.27184 | 73.29243 | 73.31305 | 73.33369 |
| 0.160 | 73.35436 | 73.37505 | 73.39576 | 73.41650 | 73.43727 | 73.45806 | 73.47888 | 73.49972 | 73.52058 | 73.54147 |
| 0.170 | 73.56239 | 73.58333 | 73.60430 | 73.62529 | 73.64631 | 73.66735 | 73.68842 | 73.70951 | 73.73063 | 73.75177 |
| 0.180 | 73.77294 | 73.79414 | 73.81536 | 73.83661 | 73.85789 | 73.87919 | 73.90051 | 73.92187 | 73.94324 | 73.96465 |
| 0.190 | 73.98608 | 74.00754 | 74.02903 | 74.05054 | 74.07208 | 74.09367 | 74.11523 | 74.13685 | 74.15850 | 74.18017 |
| 0.200 | 74.22360 | 74.24535 | 74.26713 | 74.28894 | 74.31078 | 74.33264 | 74.35453 | 74.37645 | 74.39840 | 74.42038 |
| 0.210 | 74.42037 | 74.44237 | 74.46440 | 74.48646 | 74.50855 | 74.53066 | 74.55280 | 74.57498 | 74.59717 | 74.61940 |
| 0.220 | 74.64166 | 74.66394 | 74.68625 | 74.70860 | 74.73097 | 74.75337 | 74.77579 | 74.79825 | 74.82074 | 74.84325 |
| 0.230 | 74.86580 | 74.88837 | 74.91098 | 74.93361 | 74.95627 | 74.97896 | 75.00167 | 75.02444 | 75.04722 | 75.07003 |
| 0.240 | 75.09287 | 75.11574 | 75.13864 | 75.16158 | 75.18454 | 75.20753 | 75.23055 | 75.25360 | 75.27669 | 75.29980 |
| 0.250 | 75.32295 | 75.34613 | 75.36933 | 75.39257 | 75.41584 | 75.43914 | 75.46248 | 75.48584 | 75.50923 | 75.53266 |
| 0.260 | 75.55612 | 75.57961 | 75.60313 | 75.62668 | 75.65027 | 75.67389 | 75.69754 | 75.72122 | 75.74493 | 75.76868 |
| 0.270 | 75.79246 | 75.81627 | 75.84012 | 75.86399 | 75.88791 | 75.91188 | 75.93588 | 75.95988 | 75.98388 | 76.00791 |
| 0.280 | 76.03206 | 76.05620 | 76.08038 | 76.10459 | 76.12884 | 76.15311 | 76.17743 | 76.20177 | 76.22615 | 76.25057 |
| 0.290 | 76.27502 | 76.29950 | 76.32402 | 76.34857 | 76.37316 | 76.39778 | 76.42244 | 76.44713 | 76.47186 | 76.49662 |
| 0.300 | 76.52142 | 76.54625 | 76.57112 | 76.59602 | 76.62096 | 76.64594 | 76.67095 | 76.69600 | 76.72108 | 76.74620 |
| 0.310 | 76.77136 | 76.79655 | 76.82178 | 76.84705 | 76.87236 | 76.89770 | 76.92307 | 76.94849 | 76.97394 | 76.99943 |
| 0.320 | 77.02496 | 77.04966 | 77.07436 | 77.10176 | 77.12744 | 77.15316 | 77.17891 | 77.20470 | 77.23053 | 77.25640 |
| 0.330 | 77.28231 | 77.30826 | 77.33424 | 77.36026 | 77.38633 | 77.41243 | 77.43857 | 77.46475 | 77.49097 | 77.51723 |
| 0.340 | 77.54353 | 77.56987 | 77.59625 | 77.62267 | 77.64913 | 77.67563 | 77.70217 | 77.72875 | 77.75538 | 77.78204 |
| 0.350 | 77.80874 | 77.83549 | 77.86228 | 77.88910 | 77.91597 | 77.94288 | 77.96984 | 77.99683 | 78.02387 | 78.05095 |
| 0.360 | 78.07807 | 78.10523 | 78.13244 | 78.15969 | 78.18698 | 78.21431 | 78.24169 | 78.26911 | 78.29657 | 78.32408 |
| 0.370 | 78.35163 | 78.37923 | 78.40687 | 78.43455 | 78.46228 | 78.49005 | 78.51786 | 78.54572 | 78.57363 | 78.60158 |
| 0.380 | 78.62958 | 78.65762 | 78.68570 | 78.71383 | 78.74200 | 78.77023 | 78.79850 | 78.82682 | 78.85518 | 78.88359 |
| 0.390 | 78.91204 | 78.94054 | 78.96909 | 78.99768 | 79.02632 | 79.05501 | 79.08375 | 79.11253 | 79.14137 | 79.17024 |
| 0.400 | 79.19917 | 79.22815 | 79.25717 | 79.28625 | 79.31537 | 79.34454 | 79.37376 | 79.40303 | 79.43235 | 79.46171 |
| 0.410 | 79.49113 | 79.52060 | 79.55012 | 79.57968 | 79.60930 | 79.63897 | 79.66869 | 79.69846 | 79.72828 | 79.75816 |
| 0.420 | 79.78808 | 79.81806 | 79.84809 | 79.87817 | 79.90830 | 79.93848 | 79.96872 | 79.99901 | 80.02935 | 80.05975 |
| 0.430 | 80.09020 | 80.12070 | 80.15126 | 80.18187 | 80.21253 | 80.24325 | 80.27402 | 80.30485 | 80.33573 | 80.36667 |
| 0.440 | 80.39766 | 80.42871 | 80.45981 | 80.49097 | 80.52219 | 80.55346 | 80.58478 | 80.61617 | 80.64761 | 80.67911 |
| 0.450 | 80.71066 | 80.74228 | 80.77395 | 80.80568 | 80.83746 | 80.86931 | 80.90121 | 80.93317 | 80.96519 | 80.99727 |
| 0.460 | 81.02941 | 81.06161 | 81.09387 | 81.12619 | 81.15857 | 81.19101 | 81.22351 | 81.25607 | 81.28869 | 81.32137 |
| 0.470 | 81.35412 | 81.38699 | 81.41979 | 81.45273 | 81.48572 | 81.51878 | 81.55190 | 81.58508 | 81.61833 | 81.65164 |
| 0.480 | 81.68501 | 81.71845 | 81.75195 | 81.78552 | 81.81915 | 81.85285 | 81.88661 | 81.92044 | 81.95434 | 81.98830 |
| 0.490 | 82.02233 | 82.05642 | 82.09058 | 82.12481 | 82.15911 | 82.19347 | 82.22791 | 82.26241 | 82.29698 | 82.33162 |

ATTENUATION IN DECIBELS
THETA FROM 89.500 TO 89.999 DEGREES

| THETA IN DEGREES | 0.000 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.500 | 82.36633 | 82.40110 | 82.43595 | 82.47087 | 82.50586 | 82.54091 | 82.57604 | 82.61124 | 82.64651 | 82.68186 |
| 0.510 | 82.71727 | 82.75276 | 82.78833 | 82.82396 | 82.85966 | 82.89544 | 82.93130 | 82.96723 | 83.00323 | 83.03931 |
| 0.520 | 83.07546 | 83.11169 | 83.14799 | 83.18437 | 83.22083 | 83.25736 | 83.29397 | 83.33066 | 83.36742 | 83.40426 |
| 0.530 | 83.44118 | 83.47818 | 83.51526 | 83.55242 | 83.58966 | 83.62698 | 83.66438 | 83.70185 | 83.73941 | 83.77705 |
| 0.540 | 83.81478 | 83.85258 | 83.89047 | 83.92844 | 83.96649 | 84.00463 | 84.04285 | 84.08116 | 84.11955 | 84.15802 |
| 0.550 | 84.19658 | 84.23523 | 84.27396 | 84.31278 | 84.35169 | 84.39068 | 84.42976 | 84.46893 | 84.50819 | 84.54756 |
| 0.560 | 84.58697 | 84.62649 | 84.66611 | 84.70582 | 84.74561 | 84.78550 | 84.82548 | 84.86555 | 84.90572 | 84.94598 |
| 0.570 | 84.98633 | 85.02678 | 85.06732 | 85.10795 | 85.14868 | 85.18951 | 85.23043 | 85.27145 | 85.31256 | 85.35378 |
| 0.580 | 85.39509 | 85.43650 | 85.47801 | 85.51962 | 85.56132 | 85.60313 | 85.64504 | 85.68705 | 85.72917 | 85.77138 |
| 0.590 | 85.81370 | 85.85612 | 85.89865 | 85.94127 | 85.98401 | 86.02685 | 86.06979 | 86.11285 | 86.15600 | 86.19927 |
| 0.600 | 86.24265 | 86.28613 | 86.32972 | 86.37342 | 86.41724 | 86.46116 | 86.50519 | 86.54934 | 86.59360 | 86.63797 |
| 0.610 | 86.68246 | 86.72705 | 86.77177 | 86.81660 | 86.86154 | 86.90661 | 86.95179 | 86.99708 | 87.04250 | 87.08803 |
| 0.620 | 87.13369 | 87.17946 | 87.22536 | 87.27138 | 87.31752 | 87.36378 | 87.41016 | 87.45667 | 87.50331 | 87.55007 |
| 0.630 | 87.59696 | 87.64397 | 87.69111 | 87.73838 | 87.78578 | 87.83331 | 87.88097 | 87.92876 | 87.97668 | 88.02473 |
| 0.640 | 88.07292 | 88.12124 | 88.16970 | 88.21829 | 88.26702 | 88.31588 | 88.36489 | 88.41403 | 88.46331 | 88.51273 |
| 0.650 | 88.56229 | 88.61199 | 88.66184 | 88.71183 | 88.76197 | 88.81225 | 88.86267 | 88.91324 | 88.96396 | 89.01483 |
| 0.660 | 89.06585 | 89.11702 | 89.16834 | 89.21981 | 89.27144 | 89.32321 | 89.37514 | 89.42723 | 89.47948 | 89.53188 |
| 0.670 | 89.58444 | 89.63716 | 89.69005 | 89.74309 | 89.79629 | 89.84966 | 89.90320 | 89.95690 | 90.01076 | 90.06479 |
| 0.680 | 90.11900 | 90.17337 | 90.22791 | 90.28262 | 90.33751 | 90.39259 | 90.44781 | 90.50322 | 90.55881 | 90.61457 |
| 0.690 | 90.67052 | 90.72665 | 90.78291 | 90.83945 | 90.89615 | 90.95299 | 91.01004 | 91.06728 | 91.12471 | 91.18233 |
| 0.700 | 91.24013 | 91.29814 | 91.35633 | 91.41472 | 91.47331 | 91.53210 | 91.59109 | 91.65028 | 91.70967 | 91.76926 |
| 0.710 | 91.82906 | 91.88906 | 91.94928 | 92.00970 | 92.07034 | 92.13113 | 92.19224 | 92.25352 | 92.31501 | 92.37671 |
| 0.720 | 92.43865 | 92.50080 | 92.56318 | 92.62578 | 92.68861 | 92.75166 | 92.81495 | 92.87846 | 92.94221 | 93.00620 |
| 0.730 | 93.07042 | 93.13488 | 93.19958 | 93.26452 | 93.32970 | 93.39513 | 93.46081 | 93.52674 | 93.59291 | 93.65934 |
| 0.740 | 93.72603 | 93.79297 | 93.86018 | 93.92764 | 93.99536 | 94.06336 | 94.13161 | 94.20014 | 94.26894 | 94.33801 |
| 0.750 | 94.40736 | 94.47699 | 94.54689 | 94.61708 | 94.68755 | 94.75831 | 94.82936 | 94.90071 | 94.97234 | 95.04427 |
| 0.760 | 95.11651 | 95.18904 | 95.26188 | 95.33502 | 95.40847 | 95.48224 | 95.55632 | 95.63072 | 95.70543 | 95.78047 |
| 0.770 | 95.85584 | 95.93153 | 96.00756 | 96.08392 | 96.16061 | 96.23765 | 96.31503 | 96.39275 | 96.47083 | 96.54926 |
| 0.780 | 96.62804 | 96.70718 | 96.78669 | 96.86656 | 96.94680 | 97.02741 | 97.10839 | 97.18976 | 97.27151 | 97.35365 |
| 0.790 | 97.43617 | 97.51909 | 97.60241 | 97.68613 | 97.77025 | 97.85479 | 97.93973 | 98.02510 | 98.11089 | 98.19710 |
| 0.800 | 98.28374 | 98.37082 | 98.45833 | 98.54629 | 98.63470 | 98.72355 | 98.81287 | 98.90265 | 98.99289 | 99.08360 |
| 0.810 | 99.17479 | 99.26646 | 99.35862 | 99.45127 | 99.54442 | 99.63807 | 99.73222 | 99.82689 | 99.92208 | 100.01779 |
| 0.820 | 100.11403 | 100.21081 | 100.30813 | 100.40600 | 100.50443 | 100.60341 | 100.70296 | 100.80309 | 100.90379 | 101.00509 |
| 0.830 | 101.10697 | 101.20946 | 101.31256 | 101.41627 | 101.52061 | 101.62557 | 101.73117 | 101.83742 | 101.94433 | 102.05189 |
| 0.840 | 102.16013 | 102.26904 | 102.37864 | 102.48894 | 102.59994 | 102.71166 | 102.82410 | 102.93727 | 103.05118 | 103.16585 |
| 0.850 | 103.28127 | 103.39747 | 103.51446 | 103.63223 | 103.75081 | 103.87020 | 103.99042 | 104.11148 | 104.23339 | 104.35616 |
| 0.860 | 104.47980 | 104.60433 | 104.72976 | 104.85610 | 104.98337 | 105.11157 | 105.24073 | 105.37085 | 105.50196 | 105.63407 |
| 0.870 | 105.76719 | 105.90133 | 106.03652 | 106.17277 | 106.31010 | 106.44852 | 106.58805 | 106.72871 | 106.87052 | 107.01350 |
| 0.880 | 107.15767 | 107.30304 | 107.44964 | 107.59748 | 107.74660 | 107.89700 | 108.04872 | 108.20178 | 108.35620 | 108.51206 |
| 0.890 | 108.66921 | 108.82786 | 108.98796 | 109.14956 | 109.31268 | 109.47734 | 109.64358 | 109.81143 | 109.98091 | 110.15206 |
| 0.900 | 110.32491 | 110.49951 | 110.67587 | 110.85404 | 111.03406 | 111.21597 | 111.39980 | 111.58559 | 111.77340 | 111.96326 |
| 0.910 | 112.15521 | 112.34931 | 112.54560 | 112.74414 | 112.94497 | 113.14815 | 113.35374 | 113.56179 | 113.77236 | 113.98551 |
| 0.920 | 114.20131 | 114.41983 | 114.64113 | 114.86528 | 115.09237 | 115.32246 | 115.55564 | 115.79200 | 116.03161 | 116.27458 |
| 0.930 | 116.52099 | 116.77095 | 117.02455 | 117.28192 | 117.54315 | 117.80837 | 118.07771 | 118.35129 | 118.62924 | 118.91171 |
| 0.940 | 119.19886 | 119.49083 | 119.78779 | 120.08991 | 120.39739 | 120.71040 | 121.02916 | 121.35387 | 121.68477 | 122.02210 |
| 0.950 | 122.36611 | 122.71706 | 123.07526 | 123.44099 | 123.81459 | 124.19641 | 124.58680 | 124.98617 | 125.39493 | 125.81355 |
| 0.960 | 126.24251 | 126.68232 | 127.13356 | 127.59684 | 128.07281 | 128.56218 | 129.06575 | 129.58435 | 130.11891 | 130.67044 |
| 0.970 | 131.24006 | 131.82899 | 132.43858 | 133.07035 | 133.72597 | 134.40730 | 135.11646 | 135.85579 | 136.62800 | 137.43613 |
| 0.980 | 138.28370 | 139.17476 | 140.11400 | 141.10695 | 142.16010 | 143.28125 | 144.47978 | 145.76717 | 147.15766 | 148.66920 |
| 0.990 | 150.32491 | 152.15520 | 154.20131 | 156.52098 | 159.19885 | 162.36611 | 166.24251 | 171.24006 | 178.25661 | 190.32491 |



U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20230

POSTAGE AND FEES PAID
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