

日射觀測成績簿

昭和五年
自四月至五月
中央氣象台發行

0 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5

始



14.6
299

日射觀測成績

第二號

昭和五年

四月・五月・六月

ACTINOMETRIC BULLETIN.

NO. 2

APRIL TO JUNE,

1930.

中央氣象臺

THE CENTRAL METEOROLOGICAL OBSERVATORY OF JAPAN,

TOKYO.

1930.

凡例

観測は東京市麹町区竹平町中央気象臺書庫屋上に於て行ひ、其の正確なる位置下の如し

φ=35° 41'N, λ=139° 46' E, h=15.5 m.

観測にはゴルテンスキー式自記日射計を用ひ、受光口には水晶製厚さ2mmの蓋を附せり。

基準観測にはオングストローム式日射計を用ひて、一日一回之れを行ひ、天空晴朗の際を撰びて成るべく正午近くに測定をなせり。

自記々象は逐次點像の間をペン先きの回轉弧と同半径の圓弧を以て連結し、自記器時計の遅れ進みに對する補正を施したる正時弧線との交點を求め、夜間記象線を零線として讀取りたり。第一表に掲ぐるは以上の讀取に準器への引直し係数を乘じ、且つスミノニアン基準へ引直したる數値にして、時刻は各表共總て本邦中央標準時を用ひたり。

第二表に掲ぐる積算量は零位線、正時弧線、記象線間の面積をプランメーターにて讀取り、之れにスミノニアン基準への引直し係数を乘じたるものなり。

第三表の大氣潤濁係數は天頂照射の場合を單位とせる通過空氣量が5以内(天頂距離78°以内)の場合に就き、リンク式 (Beiträge zur Physik der freien Atmosphäre, Bd. x, p. 91) に依りて算出せるものにして、日射記象線の顯著なる浮沈、定時氣象観測に於ける雲量の記録、日射量の異常過少、及び日照計の記象を参照して材料を淘汰し、太陽面に雲なきこと確かなる時刻のみを採録したるものなり。

観測時毎の通過空氣量は其値5以内の場合のみに就き5日毎に掲げ置きたり。

故障の爲観測の缺けたる所は横線にて充たし、前項の標準に據りて除外したるものは點線を引けり。

INTRODUCTION.

The observations are made on the top flat of the library building of the main office of the Central Meteorological Observatory at Tokyo; geographical position of the site is as follows:

φ = 35° 41'N, λ = 139° 46' E, h = 15.5 m.

The direct solar radiation is recorded by means of a self-registering actinometer of Moll-Gorczyński's pattern, having an opening-cover of quartz plate 2mm thick. The recording instrument is standardized by Ångström's Compensating Pyrheliometer once every day, so far as the atmospheric condition permits, observations being made about noon.

The readings of the record are taken in the following manner:- Every pair of consecutive dots left on a recording paper are connected by a circular arc of the radius equal to the distance of the recording pen from the center of rotation of its holder, and any reading is taken at the intersection of one of those connecting lines with any one of the hour arcs drawn on the paper with the suitable allowance for gain or loss in the clock movement of the recording drum.

The linear length of ordinate thus obtained is multiplied by the factor of reduction to the Ångström scale which is determined at times by the standardization cited above, and then reduced to the Smithsonian scale. The results are given in Table I.

Hours of observations are referred to the system of Central Japanese Standard Time, i. e. that of the meridian of 135°E, for all the tabulated elements.

The factor of turbidity in Table III is calculated according to Prof. F. Linke's system (Beiträge zur Physik der freien Atmosphäre, Bd. x, p. 91) and given only for the air mass not greater than 5.0 as expressed in terms of vertical transmission. They are also given only for those hours when no speck of clouds is perceived over the sun's disk by consulting with the hourly record of cloudiness and sun-shine in the current meteorological observations and to the steadiness in the trace of actinometric registration.

Air mass for the hours of observations is given for every five days, omitting the values greater than 5.0.

The blank spaces for missing observations are filled with dashes and those for omitted observations with dotted lines.

14.6 = -299

Table 1. Intensity of Solar Radiation. (gram cal. / cm² min.) TOKYO. April, 1930. Table 1. Intensity of Solar Radiation. (gram cal. / cm² min.) TOKYO. May, 1930.

東京 第一表 太陽輻射量 (瓦 カロリー/平方分) TOKYO. 昭和五年六月 Table 1. Intensity of Solar Radiation. (gram cal. / cm² min.) June, 1930.

Table with columns: 日 (Day), 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 記 (Remarks), 事 (Notes). Rows 1-30 showing solar radiation intensity.

東京 第二表 太陽輻射每時間積算量 (瓦 カロリー/平方時間) TOKYO. 昭和五年四月 Table 2. Hourly Integral of Solar Radiation. (gram cal. / cm² hour) April, 1930.

Table with columns: 日 (Day), 4-5, 5-6, 6-7, 7-8, 8-9, 9-10, 10-11, 11-12, 12-13, 13-14, 14-15, 15-16, 16-17, 17-18, 18-19, 平均 (Mean), 雲量 (Cloud Amount). Rows 1-30 showing hourly integral of solar radiation.

東京 第二表 太陽輻射每時間積算量 (瓦 カロリー/平方時間) TOKYO. 昭和五年五月 Table 2. Hourly Integral of Solar Radiation. (gram cal. / cm² hour) May, 1930.

Table with columns: 日 (Day), 4-5, 5-6, 6-7, 7-8, 8-9, 9-10, 10-11, 11-12, 12-13, 13-14, 14-15, 15-16, 16-17, 17-18, 18-19, 平均 (Mean), 雲量 (Cloud Amount). Rows 1-31 showing hourly integral of solar radiation.

東京 第二表 太陽輻射每時間積算量 (瓦 カロリー/平方時間) TOKYO. 昭和五年六月 Table 2. Hourly Integral of Solar Radiation. (gram cal. / cm² hour) June, 1930.

Table with columns: 日 (Day), 4-5, 5-6, 6-7, 7-8, 8-9, 9-10, 10-11, 11-12, 12-13, 13-14, 14-15, 15-16, 16-17, 17-18, 18-19, 平均 (Mean), 雲量 (Cloud Amount). Rows 1-30 showing hourly integral of solar radiation.

東京 第三表 濁濁係數 TOKYO. 昭和五年 Table 3. Coefficient of Turbidity. * 1930.

日 Day	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'						
四月 April.																		
3		...n	...n	...n	...nsk	...kesk,es	...k,esk	...k,esk,sk	...k,esk	3.76	ke,ck,k,sk	4.02	...sk					
5		4.37	ces,se	4.47	5.47	4.82	sk	...sk,k	...sk,k	3.35	ces,sk	3.62	ces,sk					
6		...sekan	...sk,se	...sk,n,s	...sk,n,s	...k,esk,k	4.80	k,ke	4.02	k	3.60	k	3.62	kn,k				
7		...k,se	...es	...ck,ke,ese	5.52	ck,es,ke,ese	4.02	ck,ke,ese	3.32	ck,es,ke,ese	3.35	e	3.47	esk,ck				
9		...sk,ke	...sk	...k	...	...	...	...k	...k	3.50	k	3.69	...	5.34				
16		3.79	ke,sk	3.97	ke	3.52	2.75	2.81	2.72	2.83	kn	2.67	k	2.31	k			
17		3.56	4.63	5.01	3.90	3.16	4.18	k,se	3.89	esk,ck	4.58	esk,k	...	sk,ck	...ck,esk			
18		2.84	2.72	3.07	3.30	3.63	3.98	k	3.51	3.36	3.95	4.26	4.23	...	...	
21		...n	...ns	...n	...n	...n	...sk,ke	...	...k	...	...k	...	...	2.52	kn,sk			
22		...	2.47	ke,se	2.85	es	4.40	es	3.18	esk	4.08	es	3.85	es	5.04	esk		
28		2.91	esk,se	2.65	esk	...	ke,ck,sk	...	...sk,ck	3.77	ck,ke,sk	3.91	esk,ck,sk	3.94	esk,ck,sk			
五月 May.																		
3	—	ke	—	—	3.49	3.51	2.99	es,sk	3.05	sk	...sk	3.49	esk	...	esk	4.01	esk,sk	
7	—	ke,k	2.12	ke	2.27	ke	2.44	2.46	2.48	—	—	3.44	3.42	—	—	—	—	
8	3.61	3.86	...	...	4.05	esk,ck	4.48	e	3.5e	sk	3.49	es	3.05	e	3.01	es	3.22	es
14	...sk,kes	...sk,kes	6.38	esk,sk	5.20	ke,ke	5.06	ks,sk	5.01	ks,sk	4.74	sk,sk	4.40	sk,sk	4.26	ks,sk	3.78	ck,sk
15	...sk,ese	...sk,ke	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	—	sk,ke	—	ke	4.77	k	4.48	k	4.57	k	4.38	k	4.28	k	4.27	4.47	4.53	es
18	5.87	es	3.15	es	3.37	ese	3.32	e	3.44	e	3.74	e	3.64	ese	3.96	4.08	3.86	e
20	...nsk	...n	...n	...sk,nsk	...	kes,ck	...kes,ck	...esk	...k	2.36	kes,ck	...kes,ck	3.04	ck,ck	...	...	...	...
23	...se	7.49	sk,es	6.87	6.89	8.24	s	11.80	s	10.50	s	8.44	s	7.43	kn,s	...	esk,ck	6.88
26	—	ck,n	—	ck	3.55	s	5.89	es,ck	5.50	ke,es	6.24	ke,ck	4.12	ck	5.13	esk,ck	7.01	es,ck
29	...sk,sk	...ks	6.69	ks	4.72	sk,k	5.50	k	5.11	k	5.06	k	4.97	k	4.81	k	4.97	ke,k
30	...sk,kn	...kes,sk	7.66	ke,ck	6.07	sk	5.83	ke,sk	5.36	ck,ck	4.46	ck,ck	...	sk,ck,sk	4.14	esk,sk	4.83	esk,ck
六月 June.																		
1	...se,sk	...ese	...kes,ck	...ese,ck	...ese	...ese	3.01	k	3.03	ke,se	3.15	es	3.36	es	...	...ese	...	esk,ck
3	...sk	...sk	...sk,k	...sk,ke	...sk,es	—	sk,ke,sk	—	sk	3.32	ck,ck,sk	3.94	sk,sk,ck	4.41	sk,ck	4.15	ck,ck	...
7	...sk,ck	...esk	...kes,se	4.51	ese,sk	4.87	ck,k	...ck,sk	...ck,sk	...	...sk	...sk	...	...sk	...	...sk,ck	...	...
11	...nsk	...sk,n	...sk,n	...sk,n	...sk,n	...sk,k	5.30	ck,ck,sk	4.46	ck,ck	...	...	4.28	ck,sk	5.38	ck	4.18	ck,ck
12	...ces	...ese	...es	...ese	...sk,ke	...sk,ke	4.98	esk,ck	4.28	esk,ck	3.72	es	4.83	es	4.86	es	4.58	es
13	...sk,s	...sk	...sk,sk	...sk	...kn,k	...kn,k	...kn,k	...kn,k	...kn,k	...kn,k	5.11	kn,k	4.80	kn,k	4.82	es	...	...
17	...sk,n	...sk	...sk,n	...nsk	...sk,ck	...sk,k	...k	...kn,sk	...kes,sk	...sk,ck	...sk,ck	...	...sk,ck	...	...sk,ck	...	...	2.76
18	...esk,ck	...ck,sk	...kes,sk	...esk,ck	...sk	...kes,sk	...kes,sk	...sk,ck	4.31	esk,ck	3.61	ck,sk	3.43	esk,ck	...	...	...	...
30	...es	...ese	...ese	...ese	—	—	3.54	sk,ck,sk	...	sk,ck,sk	4.82	sk,ck,sk	...	sk,ck,sk	...	...	...	...

* Trübungsfaktor.

東京 第四表 Sec Z. * TOKYO. 昭和五年 Table 4. 1930.

日 Day	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'
一月 January.												
1				3.00	2.27	1.99	1.94	2.09	2.55	3.80	...	...
6				2.98	2.24	1.96	1.91	2.05	2.48	3.64	...	...
11				2.94	2.21	1.93	1.87	2.00	2.41	3.46	...	...
16				2.88	2.18	1.89	1.83	1.95	2.33	3.28	...	...
21			4.94	2.81	2.13	1.84	1.79	1.89	2.25	3.11	...	...
26				4.64	2.72	2.07	1.79	1.74	1.83	2.16	2.94	...
31				4.41	2.61	2.00	1.74	1.67	1.77	2.07	2.79	...
二月 February.												
5				4.15	2.50	1.92	1.69	1.64	1.65	1.99	2.64	4.34
10				3.89	2.38	1.85	1.63	1.58	1.60	1.91	2.51	4.02
15				3.62	2.27	1.78	1.58	1.53	1.54	1.83	2.39	3.73
20				3.35	2.17	1.71	1.52	1.47	1.49	1.75	2.28	3.50
25				3.31	2.07	1.65	1.47	1.42	1.44	1.69	2.18	3.50
三月 March.												
2				2.90	1.97	1.59	1.42	1.37	1.40	1.63	2.10	3.29
7				2.71	1.88	1.53	1.38	1.33	1.36	1.58	2.02	3.11
12				2.54	1.79	1.48	1.34	1.30	1.33	1.54	1.95	2.95
17				2.38	1.72	1.43	1.30	1.26	1.30	1.50	1.89	2.81
22		3.98	2.25	1.66	1.38	1.26	1.23	1.27	1.46	1.83	2.69	...
27		3.59	2.13	1.60	1.34	1.23	1.21	1.24	1.43	1.78	2.59	...
四月 April.												
1		3.31	2.04	1.54	1.30	1.20	1.18	1.24	1.40	1.73	2.49	4.69
6		3.07	1.95	1.49	1.27	1.17	1.16	1.22	1.37	1.69	2.40	4.39
11		2.88	1.87	1.45	1.24	1.15	1.14	1.20	1.34	1.66	2.33	4.13
16		2.72	1.81	1.41	1.22	1.13	1.12	1.18	1.32	1.63	2.26	3.91
21		2.58	1.75	1.38	1.20	1.11	1.10	1.16	1.30	1.60	2.20	3.73
26		2.48	1.70	1.35	1.18	1.09	1.09	1.14	1.28	1.57	2.15	3.73
五月 May.												
1	4.50	2.37	1.66	1.32	1.16	1.08	1.08	1.13	1.26	1.54	2.10	3.58
6	4.20	2.30	1.62	1.30	1.14	1.07	1.07	1.12	1.25	1.52	2.05	3.42
11	3.95	2.22	1.59	1.29	1.13	1.07	1.06	1.11	1.24	1.50	2.01	3.29
16	3.78	2.17	1.57	1.27	1.12	1.06	1.05	1.10	1.23	1.48	1.98	3.17
21	3.65	2.14	1.55	1.26	1.11	1.05	1.04	1.10	1.22	1.46	1.95	3.09
26	3.55	2.11	1.53	1.26	1.11	1.04	1.04	1.09	1.21	1.45	1.92	2.99
31	3.48	2.09	1.53	1.26	1.11	1.04	1.03	1.08	1.20	1.44	1.89	2.92
六月 June.												
5	3.44	2.03	1.52	1.25	1.10	1.04	1.03	1.07	1.19	1.42	1.86	2.86
10	3.42	2.07	1.52	1.25	1.10	1.04	1.03	1.07	1.19	1.41	1.84	2.80
15	3.43	2.03	1.52	1.25	1.10	1.04	1.03	1.07	1.18	1.40	1.82	2.77
20	3.45	2.08	1.53	1.26	1.10	1.04	1.03	1.07	1.18	1.40	1.81	2.74
25	3.49	2.09	1.54	1.26	1.11	1.04	1.03	1.07	1.17	1.39	1.80	2.71
30	3.55	2.11	1.55	1.26	1.11	1.04	1.03	1.07	1.17	1.38	1.80	2.66

* Z: 太陽天頂距離
: Zenith Distance of Sun.

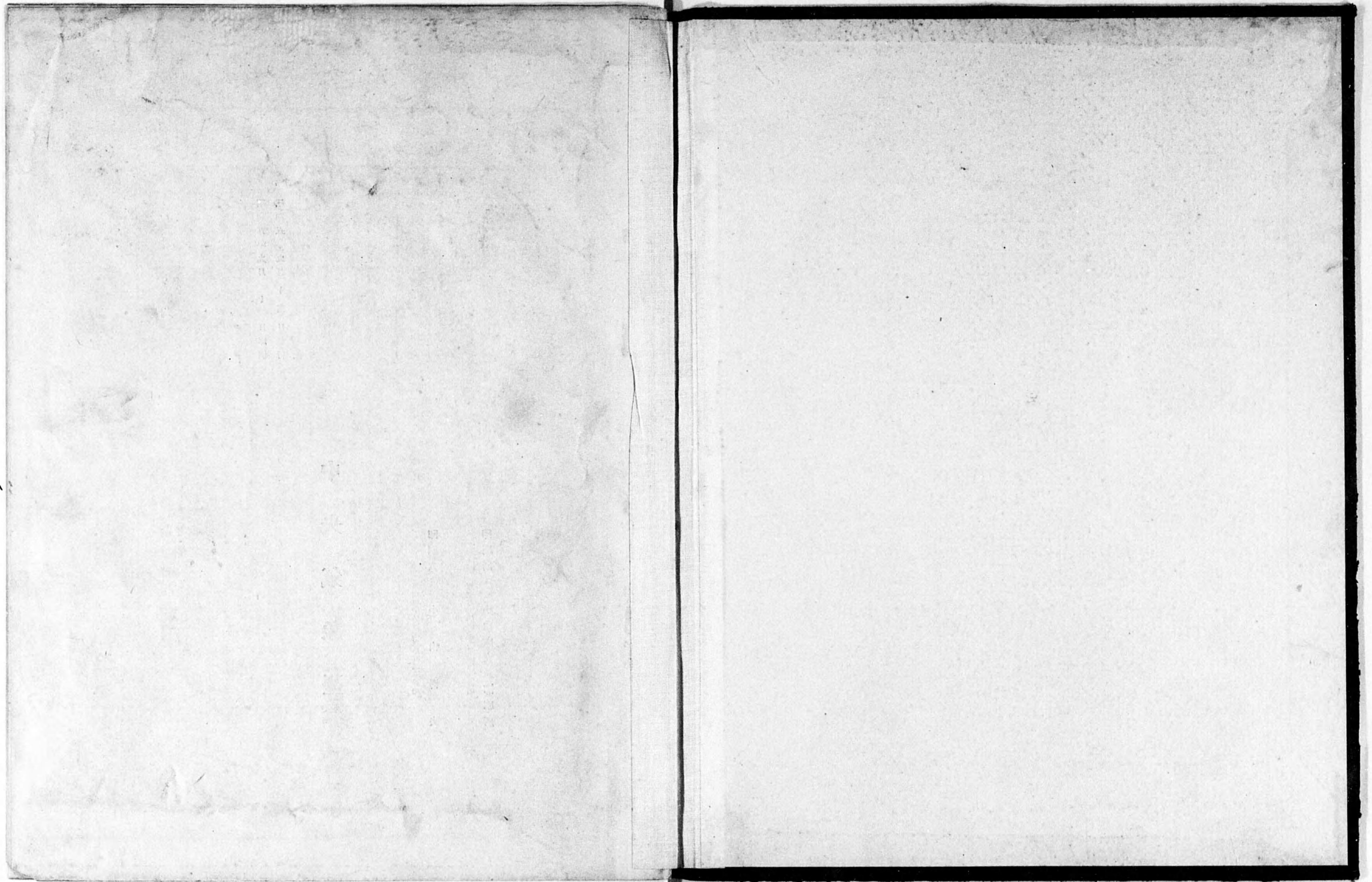
東京 昭和五年		第四表 Table 4.											TOKYO. 1930.
		Sec. Z.*											
H Day	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	
七 月 July.													
5	3.63	2.14	1.56	1.27	1.11	1.04	1.03	1.07	1.17	1.33	1.80	2.67	
10	3.72	2.17	1.57	1.28	1.12	1.04	1.03	1.07	1.18	1.39	1.80	2.69	
15	3.84	2.20	1.58	1.28	1.12	1.04	1.04	1.07	1.18	1.39	1.81	2.73	
20	3.98	2.25	1.60	1.29	1.13	1.05	1.04	1.08	1.19	1.40	1.82	2.76	
25	4.15	2.28	1.62	1.30	1.13	1.05	1.04	1.08	1.19	1.41	1.84	2.82	
30	4.34	2.33	1.64	1.31	1.14	1.05	1.05	1.09	1.20	1.43	1.86	2.89	
八 月 August.													
4	4.54	2.33	1.65	1.32	1.15	1.07	1.06	1.10	1.21	1.45	1.89	2.99	
9	4.76	2.44	1.69	1.34	1.16	1.08	1.07	1.11	1.23	1.48	1.93	3.12	
14		2.51	1.71	1.35	1.17	1.09	1.08	1.12	1.24	1.50	2.04	3.29	
19		2.58	1.75	1.37	1.19	1.10	1.09	1.14	2.26	1.53	2.08	3.50	
24		2.66	1.78	1.39	1.20	1.11	1.10	1.16	2.29	1.57	2.12	3.77	
29		2.75	1.82	1.42	1.22	1.13	1.12	1.18	1.32	1.62	2.21	4.10	
九 月 September.													
3		2.84	1.96	1.44	1.24	1.15	1.13	1.20	1.35	1.67	2.33	4.47	
8		2.94	1.90	1.47	1.26	1.17	1.15	1.22	1.38	1.73	2.47		
13		3.04	1.94	1.49	1.28	1.19	1.18	1.25	1.43	1.80	2.64		
18		3.17	1.99	1.53	1.31	1.21	1.21	1.28	1.48	1.87	2.85		
23		3.32	2.05	1.56	1.34	1.24	1.24	1.32	1.53	1.97	3.09		
28		3.49	2.11	1.60	1.37	1.27	1.27	1.35	1.58	2.08	3.32		
十 月 October.													
3		3.68	2.19	1.64	1.41	1.30	1.30	1.40	1.64	2.18	3.64		
8		3.90	2.27	1.69	1.45	1.34	1.34	1.45	1.71	2.29	4.38		
13		4.15	2.36	1.75	1.49	1.33	1.33	1.50	1.78	2.44	4.80		
18		4.43	2.47	1.81	1.54	1.42	1.43	1.56	1.86	2.60			
23			2.69	1.88	1.59	1.47	1.48	1.62	1.95	2.78			
28			2.72	1.96	1.64	1.53	1.54	1.68	2.05	2.96			
十 一 月 November.													
2			2.86	2.05	1.70	1.58	1.59	1.74	2.14	3.14			
7			3.04	2.14	1.76	1.63	1.64	1.80	2.23	3.32			
12			3.22	2.23	1.82	1.68	1.69	1.86	2.33	3.50			
17			3.43	2.32	1.89	1.74	1.75	1.93	2.42	3.76			
22			3.65	2.42	1.95	1.79	1.80	1.99	2.50	3.90			
27			3.89	2.52	2.02	1.84	1.84	2.04	2.57	4.02			
十 二 月 December.													
2			4.13	2.62	2.03	1.88	1.88	2.08	2.62	4.10			
7			4.33	2.72	2.14	1.92	1.92	2.11	2.65	4.17			
12			4.52	2.80	2.19	1.95	1.94	2.13	2.67	4.17			
17			4.87	2.88	2.23	1.98	1.95	2.15	2.67	4.16			
22				2.93	2.25	1.99	1.95	2.14	2.64	4.03			
27				2.98	2.27	1.99	1.95	2.12	2.60	3.96			

* Z: 太陽天頂距離
: Zenith Distance of Sun.

昭和五年九月十二日發行

中央氣象臺

印刷所 小山成交社印刷所
印刷人 小山壽夫
東京市牛込區津久戸町二三番地



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