KG
11365
928

KG 11365.928

E. S. King.

Book No 5.

November 24, 1920 —

KG 11365.92'8

HARVARD
UNIVERSITY
LIBRARY
JUL 17 1956

Wednesday Nov 24, 1920.

Measures for Color. Distance between diffraction images

MC 15240

Red Star	46.957	47.323	47.689	48.064	$48.\overset{8}{8}10$	49.179	49.538	49.921
+76° 734	46,880	47.241	47.605	$4\overset{7}{8}.979$	48.705	49.085	49.482	49,840
Mean	46,918	47.282	47.647	48.022	48.758	49.132	49.510	49.880
Diff								
Another Star	—	48.484	48.860	49.213	49.918	50.262	$50.6\overset{33}{82}$	—
VI		48.434	48,769	49,111	49.813	50,166	50.593	
Mean		48.459	48.814	49.162	49.866	50.214	50.613	
Diff.								
Star								
12/	42.572	42.888	43.217	$43.5\overset{8}{1}\overset{6}{8}$	44.313	44.647	$4\overset{5}{4}.010$	45.355
	42,444	42,794	43.141	43.493	44.200	44.573	44.922	45.284
Means	42.478	42.841	43.179	43.537	44.256	44,610	44.961	45.320
Diff.								

Friday Nov 26 1920

MC 15240 Measured again (on C.S.M. as before)

Star 2	23.165	23,548	23.879	24. 244	24, 951	25.319	25.668	26.035
	23,121	23.465	23819	24, 148	24, 872	25.236	25.595	$2\overset{5}{4}$,935
	23.143	23,506	23.849	24,196	24.912	$25,2\overset{7}{8}8$	25.632	25985
Red	32.077	32,475	32,861	33,237	33,962	34, 354	34, 726	35,098
,43	32,038	32,398	32,767	33,128	33,877	34,247	34, 630	34,994
	32.058	32.436	32,814	33.182	33.920	34,300	34.678	35.046
Star 1	—	32.770	$3\overset{3}{2}$.126	33.481	34, 180	34, 525	34, 890	—
,41	—	32,682	33,042	33387	34,087	34,433	34, 802	—
	—	32.726	33.084	33.434	34.134	34.479	34.846	—
Star 3	28,733	29,078	29, 425	29,773	30,476	30, 818	31,183	31.530
	28,666	28,991	29,334	29.679	30,376	30,722	31,070	31,462
,37	28.700	29.034	29.380	29.726	30.426	30.770	31.126	31.496

Tuesday, November 30, 1920.

Star	1	2	3	4	16	15	14	13
57	74.586	74.255	73.893	73.547	74.676	74.349	73.995	73.633
	8	7	6	5	9	10	11	12
	71.823	72.146	72.491	72.838	71.899	72.246	72.531	72.932
A3	2.763 2.777	2.109 2.103	1.402 1.464	0.709 0.701	2.777	2.103	1.464	0.701
~~Means~~ Means	2.770	2.106	1.433	0.705				
	1	2	3	4	16	15	14	13
125	56.947	56.583	56.217	55.841	57.043	55.679	56.316	55.951
	8	7	6	5	9	10	11	12
	54.071	54.431	54.790	55.131	54.145	54.523	54.879	55.238
Ma	2.876 2.898	2.152 2.156	1.427 1.437	0.710 0.713	2.898	2.156	1.437	0.713
Means	2.887	2.152	1.432	0.712				
	1	2	3	4	16	15	14	13
126	—	53.502	53.155	52.797	—	3.574 ~~51.843~~	241 53.579	52.898 ~~53.241~~
	8	7	6	5	9	10	11	12
	—	51.406	51.750	52.096	—	~~843~~ 51.488	543 52.197	197 52.898
F8		2.096 2.091	1.405 1.398	0.701 0.701		~~1.736~~ 2.091	~~78~~ 1.398	0.701
Means		2.094	1.402	0.701				
	1	2	3	4	16	15	14	13
129	42.724	42.364	42.027	41.663	42.796	42.433	42.096	41.744
	8	7	6	5	9	10	11	12
Ko	39.916	40.262	40.598	40.943	40.000	40.342	40.683	41.042
	2.808 2.796	2.102 2.091	1.429 1.413	0.720 0.702	2.796	2.091	1.413	0.702
Means	2.802	2.096	1.421	0.711				
	1	2	3	4	16	15	14	13
130	37.923	37.553	37.209	36.855	37.992	37.642	37.307	36.957
	8	7	6	5	9	10	11	12
F8	35.111	35.450	35.805	36.141	35.196	35.550	35.897	36.238
	2.812 2.796	2.103 2.092	1.404 1.410	0.714 0.719	2.796	2.092	1.410	0.719
Means	2.804	2.098	1.407	0.716				
	1	2	3	4	16	15	14	13
136	39.526	39.177	38.802	38.456	39.620	39.243	38.898	38.550
	8	7	6	5	9	10	11	12
Go	36.719	37.060	37.404	37.756	36.823	37.157	37.496	37.848
	2.807 2.797	2.117 2.086	1.398 1.402	0.700 0.702	2.797	2.086	1.402	0.702
Means	2.802	2.102	1.400	0.701				

Tuesday Nov. 30, 1920

	1	2	3	4	16	15	14	13
139	28.966	28.603	28.237	27.894	29.027	28.684	28.337	27.986
	8	7	6	5	9	10	11	12
	26.176	26.518	26.845	27.200	26.247	26.600	26.936	27.281
A0	2.790	2.085	1.392	0.694	2.780	2.084	1.401	0.705
	2.780	2.084	1.401	0.705				
Mean	2.785	2.084	1.396	0.700				
	1	2	3	4	16	15	14	13
143	32.095	31.748	31.374	30.993	32.176	31.830	31.463	31.085
	8	7	6	5	9	10	11	12
	29.161	29.527	29.893	30.255	29.228	29.605	29.978	30.353
N	2.934	2.221	1.481	0.738	2.948	2.225	1.485	0.732
	2.948	2.225	1.485	0.732				
Means	2.941	2.223	1.483	0.735				
	1	2	3	4	16	15	14	13
43	7~~8~~8.113	77.764	77.409	77.059	78.198	77.865	77.504	77.170
	8	7	6	5	9	10	11	12
A2	75.320	75.667	76.021	76.364	75.407	75.754	7~~5~~6.103	7~~5~~6.465
	2.793	2.097	1.388	0.695	2.791	2.111	1.401	0.705
	2.791	2.111	1.401	0.705				
Means	2.792	2.104	1.394	0.700				
	1	2	3	4	16	15	14	13
? 57	74.053	73.723	73.352	73.003	7~~3~~4.144	73.815	73.455	73.105
	71.266	71.610	71.953	72.291	71.358	71.698	72.057	72.396
	8	7	6	5	9	10	11	12
	2.787	2.113	1.399	0.712	2.786	2.117	1.398	0.709
	2.786	2.117	1.398	0.709				
Means	2.786	2.115	1.398	0.710				
	1	2	3	4	16	15	14	13
58	69.779	69.430	69.063	68.709	69.877	69.524	69.165	68.920
	8	7	6	5	9	10	11	12
	66.933	67.280	67.642	67.989	67.035	67.379	67.730	68.083
K5	2.846	2.150	1.421	0.720	2.842	2.145	1.435	0.737
	2.842	2.145	1.4~~45~~35	0.737				
Mean	2.844	2.148	1.428	0.728				
	1	2	3	4	16	15	14	13
57	74.047	73.723	73.354	7~~2~~3.001	74.150	73.804	73.449	73.107
	8	7	6	5	9	10	11	12
	71.272	71.616	71.958	72.297	71.351	71.698	71.054	72.398
	2.775	2.107	1.396	0.704	2.799	2.106	1.395	0.709
	2.799	2.106	1.395	0.709				
Means	2.78~~8~~7	2.106	1.396	0.706				

Tuesday Nov 30 1926

Stars

125

To check

	56.395	56.012	55.660	55.293
	53.518	53.868	54.230	54.568
	2.877	2.144	1.430	0.725
	56.458	56.108	55.765	55.391
	53.600	53.983	54.314	54.673
	2.858	2.125	1.451	0.718
	2.877	2.144	1.430	0.725
Mean	2.868	2.134	1.440	0.724

Monday July 31 1922

Measures with Dr. Stetson's Apparatus

2 18 Zero = 8.85 red.
Black off = 14.0 Black

T

I 4.000

Moon	Glass	Diff		Means		
5.2	8.3	3.1		Moon	5.27	
5.3	7.5	2.2		Glass	7.97	
5.2	8.1	2.9	7.97		2.70	1.61
8	23 9	3)8 2	8.8			
		2.7	16.77			

Sq. 30

4.2	9.3	5.1		Sq	3.80	
3.5	9.3	5.8		Glass	9.27	
3.7	9.2	5.5	9.27		5.47	3.02
11 4	8	3)1 14	8.8			
		5.5	18.07			

Sq 31

5.8	9.2	3.4		Sq	5.73	~~1.93~~
5.7	9.3	3.6		Glass	9.27	~~1.94~~
5.7	9.2	3.5	9.27		3.54	~~1.83~~
22	8		8.8			
		3.5	18.07			

Sq 32

7.3	9.2	1.9		Sq	7.43	~~1.77~~
7.4	9.2	1.8		Glass	9.20	0.58
7.6	9.2	1.6	9.20		1.77	
13			8.8			
		1.8	18.00			

2 29 Zero 8.75 Red
Black off 14.1 Black

Monday July 31 1922

I 41000 reflector ✓

2 39 Zero ~~8.8~~ 14.2

Mean

Moon 5.5 4.8 5.3 6.0 5.4 5.40

Glass 8.3 7.7 8.0 7.3 7.8 41 7.82 1.46

Zero = 8.7 7.82 8.7 16.52 2.42 ~~3.10~~

Mean

Sky 30 3.8 4.0 3.7 25 3.83

Glass 9.2 9.3 9.3 8 9.27 2 3.08

Zero = 8.6 9.27 8.7 17.97 5.44 ~~5.76~~

Sky 31 6.0 6.0 5.9 24 5.97 2.14

Glass 9.2 9.3 9.2 4 9.27 1.83

Zero = 8.7 9.27 8.7 17.97 3.30 ~~3.56~~ 6

Sky 32 7.2 7.3 7.5 10 7.33 8 1.37

Glass 9.2 9.2 9.2 9.20 1.07

9.2 8.7 17.9 1.93 ~~2.10~~

Sky 33 8.6 8.3 8.7 16 8.53

Glass 9.2 9.2 9.2 9.20 0.37

3 00 Zero 8.7 9.2 8.7 17.9 0.67 0.73

~~Struck off 13.6~~ 17.9

April 7. 1924

Moon 5.40 Glass on Sky 7.8~~4~~2

Filter (~~lens for zero~~) ~~1~~9.24 9.24

Filter (lens for zero) 17.94) 3.84 1.4~~0~~ ~~38~~ 42

2.1~~6~~4 ~~7.81~~

9.24 ~~0.78~~ ~~7~~

4. 0.79

Monday July 31 1927

Same app.

I 41088

3 19 Zero 8.8 R

✓

Means

Moon R. ~~2.1~~ R 2.1 1.9 1.9 2.1 2.0 — 2.00 R 4

Glass B ~~0.6~~ R 0.6 0.4 0.6 0.4 0.6 — 0.52 R 9

Zero 8.8 R

0.52 R
8.8 R
8.8 ✓
28

1.48 — 1.78

Sky 33 B 1.5 1.0 1.4 1.4 1.4 — 1.34

Glass B 6.3 6.1 6.1 6.2 6.0 — 6.14

Zero 8.8 R

6.1
8.8
14.9

4.80 — 3.22

Sky 34 B 3.2 3.1 3.4 — 3.23

Glass B 6.1 6.1 6.2 — 6.13

Zero 8.7 R.

6.1
8.8
14.9

2.90 — 1.94

Sky 35 B 4.9 4.9 4.7 — 4.83

Glass 5.9 5.9 6.0 — 5.93

3 37 Zero 8.7

5.9
8.8
14.7

1.10 — 0.75

April 7 1924

	Moon	Sky
	2.00 R	0.52 R
Film	6.07 B	6.07 B
Film (corr for zero) 14.87	8.07 ✓	6.59 ✓
	5.42	4.43

2.90
1.48
3.60) 1.42 (0.39
1.080
3400
3240
3

Monday July 31 1922

Same aft

I 41088 Repeated.

3 39 Zero 8.8 R.

✓

					Means	
Moon R.	1.7	2.0	2.0		1.90	8
Glass R	0.5	0.3	0.7	0.5 R 8.8 8.3	0.50 1.40	1.69
Sky 33	0.9	1.2	1.0		1.03	
Glass	6.0	6.1	6.0	6.0 8.8 14.8	6.03 5.00	3.38
Sky 34	3.1	3.4	3.3		3.27	
Glass	6.0	6.0	6.1	6.0 8.8 14.8	6.03 2.76	1.86
Sky 35	4.8	5.0	5.0		4.93	
Glass	5.9	6.0	6.0	6.0 8.8 14.8	5.97 1.04	0.70

4 02 Zero 8.7 R Blackoff 13.9.

April 7, 1924

	Moon	Sky
	1.90 R	0.50 R
Film	6.01 B	6.01 B
14.81	7.91	6.51
	5.34	4.39

Monday July 31 1922

4 13 Zero 8.8 R

I 40885

Means ✓

Moon Light R 2.8 2.8 3.0 R 2.~~93~~ 87

Glass yellow B 7.2 7.2 7.2 B 7.20 + 8.8 = 16.0

Moon Dark R 7.8 7.9 7.6 R 7.7~~4~~ 9

Diff 10.~~13~~ 07 6.34

9 ~~9.9~~

14.97 9.35

Means

Sq 3 8.6 R 8.6 R 8.60

Glass ~~8.6 R~~ 7.6 B 7.6 B 7.60

~~9~~ 7.6

8.8

16.4) 16.20

~~9.36~~ 9.87

Sq 4 R 8.0 8.0 R 8.00

Glass 7.6 7.6 B 7.60 9.52

16.4) 15.60

Sq 5 R 6.3 6.2 R 6.25

Glass 7.5 7.5 B 7.50 8.45

16.3) 13.75

Sq 6 R 4.0 3.6 R 3.80

Glass 7.5 7.4 B 7.45 6.92

16.25) 11.25

Sq 7 R 0.6 0.5 R. 0.55

Glass 7.5 7.4 B 7.45 4.92

4 32 Zero 8.8 16.25) 8.00

Block off 13.6

Wednesday Aug. 2 1922

Dr. Stetson apparatus

2 40 Zero = 9.45 R   Full 13.5 B

			Mean	
Shade C	1.45 R	1.4 R	1.4~~4~~25 R	3.13
2 frames	4.9 R	5.0 R	4.95 R	6.26
3 frames	6.5 R	6.5 B	6.50 R	9.37

~~Sextant~~ glass 9.3 B

Vol. 41-9 Shade Glass readings for Σ 6631 means

Dark R	7.2 R	7.3	7.35	7.28 R
Light R	2.1	2.1	2.0	2.07 R
Zero	9.3			

a9 5114

Sq 6	R 0.05	B 0.05	R 0.05		
Film	B 2.0	B 1.75	B 1.7		
Sq 7	R 2.1	2.0	1.9		
Film	B 2.1	1.9	2.6		
Sq 8	R 3.6	3.5	3.4		
Film	B 2.4	2.4	3.2		
Sq 9	R 5.3	5.4	5.2	5.2	
Film	B 2.8	2.6	3.7	3.2	
Sq 10	R 6.6	6.6	6.5	6.6	Rw ~~[illegible]~~ ~~4.4~~6.8
Film	B 3.1	2.9	4.0	2.9	2.8

Wednesday Aug 2 1922

AG 5114 (continued)

Dy 10 Rev 6.8 B
Dir. 6.6 R
Dir, Smok glass alone 7.2
" " + Wratten 7.6
Rev " " " 7.6
" " " alone 7.3
Smok. glass alone 8.2 B

3 43 Zero 9.25 R Full 13.85 B

I 41000

~~3 47~~ ~~Jupiter~~ 3 52 Zero ~~9.25~~ 9.0 R Full 13.9

Means

Moon 3.85 B 4.0 3.5 ~~2.75~~ 3.9 3.8 3.81 B
Filter 6.9 B 6.6 6.3 ~~6.6~~ 6.6 6.6 6.60 B
O = 9.1

6.60
9.0
15.6) 2.79 1.79 ~~1.82~~

means

30 2.65 B 2.2 2.5 2.44 B
Filter 8.0 8.0 7.9 7.97 B 3.21
7.97
9
16.97 5.53

31 4.6 B 4.4 4.5 4.5 B
Filter 8.0 8.0 8.0 8.0 B 2.06
17.0) 3.5

32 6.2 6.1 6.05 6.~~06~~ 12 B
Filter 7.9 7.9 7.9 7.96 B 1.05
16.9) 1.84

33 7.0 7.1 7.0 7.03 B
Filter 7.9 7.9 7.8 7.87 B 0.50
9
7.87
16.87) 0.84

412 O = 9.~~[illegible]~~ 1 R Full = 13.9

Wednesday Aug 2 1922
Sun left.
I 41088

4 16 0 = 9.1

						Means		
Moon	3.4 R	3.1	3.4	3.1	3.1	3.22	R	8
Film	1.1 R	1.4	1.9	1.4	1.4	1.44	R	
					9.1 1.44 ~~10.66~~	1.78		2.32

33	0.25 R	0.3 B	0.3 R	~~0.08~~ ~~0.28~~ 0.08	R	
Film	5.1 B	4.8 B	4.7 B	4.87	B	
			4.9 9.1 14.0	4.95		3.54

34	1.8 B	1.8	1.7	1.77	B	
Film	4.7	4.8	4.8	4.77	B	2.16
			4.8 9.1 13.9	3.00		

35	3.8	3.6	3.4	3.60	
Film	4.7	4.7	4.6	4.67	
			4.7 9.1 13.8	1.07	0.78

4 32 0 = 9.1

April 7, 1924

	Moon	Sky
	3.22 R	1.44 R
Sky	4.77 B	4.77 B
13.87	7.99	6.21
	5.76 ✓	4.47 ✓

I 41000

		Moon		Sky
April 7 1924		3.81		6.60
Film		7.94		7.94
Film (corr for zero)	16.94	4.13 ✓		1.34
		2.44		~~9.97~~ 0.79 ✓

Wednesday Aug. 2 1922

I 40485

~~4 37~~
5 35

0'' = ~~9.2~~ 8.5	R Full	~~13.8~~ 14.2	Mean		Diff	Red.^{c}
Moon	3.35 R	3.2	3.28 R		~~7~~ ~~10~~ 9.83	~~7.00~~ ~~7.11~~
	7.5 R	7.4	7.45 R	6.55 8.5 15.05	14.00	9.32
Filter	6.5 B	6.6	6.55 B			
Sq 3	8.3 R	8.3	8.3 R	8.5 7.25	15.55	9.87
	7.1	7.4	7.25 B	~~16~~ 15.75		
Sq 4	7.8 R	7.8	7.8 R	8.5 7.2 15.7	15.0	9.55
	7.3 B	7.1	7.2 B			
Sq 5	6.5 R	6.5	6.5 R	15 ~~7~~ 5	13.5	8.88
	7.0 B	7.0	7.0 B			
Sq 6	4.2 R	3.4	3.8 R	8.5 6.95 15.45	10.75 ~~2.15~~	6.97
	7.0	6.9	6.95 B			
Sq 7	0.8 R	0.7	0.75 R	8.5 6.85 15.35	7.60	4.95
	6.8 B	6.9	~~7~~ 6.85 B			
Sq 8	2.2 B	2.0	2.1 B	8.5 6.85 15.35	~~6~~ 4.75	3.10
	6.9	6.8	6.85 B			
Sq 9	4.3	4.5	4.4 B	8.5 6.8 15.3	2.4	1.57
	6.8	6.8	6.8 B			

5 55   0 = 8.5

I 41187 april 7 1924

	moon	star
	6.18 B	6.95 B
Film	6.87 B	6.87 B
	0.69	2

Monday Aug 7 1922

2 57 Cu-Stetson app.

0 = ~~13.15~~ 9.3 R. Full 13.15 B

Cover glass = 11.3

with cover glass beneath

AG 5714	Sq 9	4.3 R	4.7 R	4.8 R
	Film	2.3 B	1.0 B	12 B
	11.6)	6.6	10.3) 5.7	10.5) 6.0
		5.68	5.53	57.1

" " 0 = 9.4 R Full 13.1 B

~~0~~ I 41187

Accidentally reversed plates

				Means	Progression	
Moon U1 (near star)	6.0 B	6.2 B	6.15 B	6.18		
Film	6.9 B	6.9 B	7.0 B	6.95		0.47
		0.7		16.4) 0.77		
1st Sq. 24	3.2 B	3.4 B	3.3	3.35	↓	
Film	6.8 B	6.6 B	7.0	6.8	7	2.1~~2~~3
		3.2		16.2) 3.45		
2nd Sq. 25	4.7 B	5.0	4.9 B	4.95		
Film	6.8 B	6.9	6.85	6.88	8	1.18 ~~2.12~~
		1.9		16.3 / 1.93		
3rd 26	5.8 B	5.9	6.3	6.1		
	6.8	6.85	6.8	6.82	9	0.44
		.095		16.~~2~~3) 0.72		
4th Sq 27	6.6	6.6	6.6	6.6		
Film	6.7	6.8	6.75	6.78	10	0.11
		0.2		16.~~1~~2) 0.18		
Moon (2)		5.9 B	5.95	5.92		
		7.0	7.0	7.00		
				16.4) 1.08		0.66

Sept 9 1924
Film
6.8 .2
6.88 +6
6.82 0
6.78 .4
41) 6.82
9.42

Zero

3 26 "0" = 9.45 R Full 13.0

Monday Aug. 7 1922

april 7 1924

Moon (1)
3.92 R
5.10 B
(14.5) 9.02
(6.21)

Sky (1)
1.45 R
5.10 B
6.55
(4.52)

Moon (2)
3.75 R
5.10 B
(14.5) 8.85
(6.10)

Sky (2)
1.80 R
5.10 B
6.90
(4.73)

3 29 "O" = 9.4 R

3 41 "O" = 0.95 R

I 41347

Sum

Means

Moon (1) 3.95 R 3.9 R 3.92 R
Film 1.6 R 1.3 R 1.45 R 3.09
8.0) 2.47

Moon (2) 3.7 R 3.8 R 3.75 R
Film 1.7 R 1.9 R 1.8 R 2.~~66~~ 57
7.6) 1.95

Sky 1 22/ 5.9 R
4.75 B
Film ~~5.9 R~~ 10.65 / 14.2 7.50

Sky 2 23/ 5.0 R
Film 5.0 B 10.0 / 14.4 6.95

Sky 3 24/ 3.4 R
Film 5.1 B 8.5 / 14.5 5.86

Sky 4 25/ 1.2 R 1.5 R 1.35 R
Film 5.2 B 5.1 B 5.15 B
1~~3~~4.6) 6.50 4.44

Sky 5 26/ 0.1 B 0.1 B 0.1
Film 5.1 B 5.1 B 5.1 3.45
14.5) 5.0

Sky 6 27/ 2.4 B 2.4 B 2.4
Film 4.95 B 4.9 B 4.9 1.75
3.45 P.M. 14.3) 2.5

3 39 "O" - 6.45

Monday Aug 7 1922

4.37 "0" – 9.3 ✓

I 41000

Moon 3.7 B ~~3.55 B~~ 2.8 B 3.9 B 3.2 3.8

Film 6.2 B ~~6.5 B~~ 5.9 B 6.6 B 6.3 6.4

2.5 ~~2.95~~

24 3.48

6.28

6.28 2.80

9.3

15.6

30 2.4 B 2.2 2.3 1.80

Film 7.5 7.6 7.55

7.55

9.3

16.85) 5.25 $3.1X^2$

31 4.3 4.3 4.3

Film 7.5 7.6 7.55 1.93

16.85) 3.25

32 5.7 5.8 5.75

Film 7.5 7.1 7.5 1.04

16.8 1.75

0.89

2

1.78) .13

0.7

Thursday Aug 10 1923 ✓

Dr. Stetson affirms. {Dr Stetson has found abnormal drift to be due to another current on switch-board. J.S. Now cut out

P.M.
3 33 "0" = 8.6 Full = 16.9
"0" = 8.5 Full =

I 40885

					Diff	8
Moon mare	2.1 R	2.25	2.2 R	2.18^R	11.30	6.43
Film	9.2 B	9.15	9.0	9.12^B 17.62		
Moon Mts	7.6 R	7.6 R	7.4 R	7.53^R	16.65	9.44

"0" = 8.5 R Full 16.7 B

Image

3 8.3 R 8.3
Film 9.4 B 9.5

4 7.7 R 7.8
Film 9.5 B 9.2

5 6.2 R 6.2 R
Film 9.3 B 9.3 B

6 ~~1.7 R~~ 3.5 R 3.0 R 3.1
Film ~~9.2 B~~ 9.3 B 9.2 B 9.3

7 0.3 R 0.2 B 0.3 R
Film 9.2 B 9.2 B 9.2 B

8 3.2 B 3.7 B 3.9 B
Film 9.1 B 9.2 B 9.1 B

9 6.7 B 6.7 B
Film 9.1 B 9.0 B

	Means		Diff	δ
3	8.3^R	9.45^B 8.5 17.95)	17.75 ~~1.15~~	9.88
4	7.75^R	9.35^B 17.85)	17.10 ~~1.60~~	9.60
5	6.2^R	9.3^B 8.5 17.8)	15.5	8.70
6	3.2^R	9.27 8.5 17.77)	12.47	7.03
~~7 0.17~~ ^{R}				
7	$0.1\overset{2}{7}^R$	9.2^B 17.7	9.37	5.30
8	3.6^B	9.13^B 8.5 17.6)	5.53	8.14
9	6.7^B	9.05^B 8.5 17.55)	2.35	1.34

"0" = 8.5 Full 16.3

Thursday Aug 10 1922

AG 4847 Sq 8 1.5 R 1.4 1.4 1.35

"0" = 8.7 Film 5.2 B 5.5 5.6 5.6

Breathed heavily on sq to moisten it. Reading 1.45 1.5 R

Again " 1.5 8.7 5.5 B

5.5

14.2 7.0

Again " 1.5 4.93

" " 1.55

Wet sq = 1.8 R 1.9 ~~2.4~~ 1.8

Film 4.5 B 5.2 ~~4.8~~ 4.8

4.8

8.7

13.5 6.6 4.88

Tuesday Jan 30. 1923

Dr. Stetsons Apparatus

Full = 16.9 B (call +)
0 = 14.45 R (call −) again 14.4 R

	moon	sky
	+0.7	+3.7
Film 5.05 14.45 19.50	+ 5.05	+5.05
	4.35	1.35
	2.23	0.69

again 8 1924

2 54 I 41753

~~Phase~~ mag	Reading	Film				
Moon	+0.4	+3.8				
	+0.7	+3.5				
	+1.0 2)2.1 +0.7	+3.7 3)1.20 +3.7	+3.7 −14.4 18.1	+0.7 +3.7 +3.0	1.4771 1.2577 0.2194	1.6~~3~~ 6
Star Altair. Phot mag. = 1.12						
1 setting = 7	−2.2	+5.1				
	−2.3 −2.25	+5.1 +5.1	+5.1 −14.4 19.5)	+5.1 −2.25 7.35	1.8663 1.2900 0.5763	3.77
2 setting = 8	+0.4	+5.2				
	+0.5 +0.45	+5.1 +5.15	+5.15 −14.4 19.55)	+5.15 +0.45 4.70	1.6721 1.2911 0.3810	2.40
3 setting = 9	+2.7	+5.0				
	+3.0 +2.85	+4.9 +4.95	+4.95 −14.4 19.35)	4.95 2.85 2.10	1.3222 1.2867 0.0355	1.08
4 setting = 10	+4.2	+5.0				
	+4.2 +4.2	+5.0 +5.0	+5.0 −14.4 19.4	+5.0 +4.2) 0.8	0.9031 1.2878 9.6153	0.41

3 13 0 = −14.5

Tuesday June 30 1920

I 41946

3 19						
	Moon	+3.3	+3.6	3.5	3.5	
		+3.1	+3.5	-14.5	+3.2	
		+3.2	+3.4	18.0	+0.3	0.17 ✓
		+3.2	+3.5			
	4	+0.8	+4.4	+4.3	+4.3	
	setting 9	+1.2	+4.1	-14.5	+0.8	1.86 ✓
		+0.4	+4.3	18.8	+3.5	
		3)2.4				
		+0.8	+4.3			
	5	+3.1	+4.2	+4.1	+4.1	
	setting 10	+2.6	+4.0	-14.5	+2.7	
		+2.5	+4.2	18.6	+1.4	0.75 ✓
		+2.7	+4.1			
	6	+3.7	+4.0	+4.0	+4.0	
	setting 11	+3.7	+3.9	-14.5	+3.6	
		+3.5	+4.0	18.5	+0.4	0.22 ✓
3 29		+3.6	+4.0			

	Moon	Sky
	+3.2	+3.5
Fil	+4.1	+4.1
18.6)	0.9	0.6
	0.48 ✓	0.32 ✓

9/11
4.12

Zero
at 3 13 -14.5
at 5 35 -14.6
-14.55

Tuesday Jan 30 1923

I 4195-1 Reflection on account of effect of backing on film

+3 35

Full = +16.7
0 = -14.6

~~Moon -3~~

		Image	Mean	Film				
		Moon	-3.5	+1.4				
			-1.3	+1.5				
			-2.0	+1.0	+1.2	+1.2		
			-3.5	+1.0	-14.8	-2.5		2.31
			-2.0	+1.0	16.0	3.7		
			5 7 12 3 -2.5	+1.2				
B Orionis	7	1	-9.0	-4.8	-4.6	-9.0		
			-8.7	-4.0	-14.8	-4.6	1	4.31
					10.2	4.4		
			-9.2	-5.0				
	-4.97		21 26 9 -9.0	-4.6				
	8	2	-6.4	-3.3	-3.3	-3.3		
			-6.5	-3.5	-14.8	-6.5		
			-6.5	-3.0	11.5	3.2		2.79
			-6.5	-3.3				
		3	-5.7	-4.4	-4.3	-4.3		
			-5.8	-4.5	-14.8	-5.8		1.43
			-5.8	-4.1	10.5	1.5		
			-5.8	-4.3				.1
		4	-4.1	-3.6	-3.5	-3.5		
			-4.4	-3.4	-14.8	-4.4	0 = -15.0	
			-4.6	-3.6	11.3	0.9		
4	10		-4.4	-3.5				

Tuesday Jan 30 1923

I 41984

Marked Stars

B	
1	−2.2
2	−2.2
3	−2.2
4	−2.5
5	−2.2
6	−1.9
γ	
1	−2.8
2	−2.0
3	−2.4
4	−1.6
5	−1.9
6	−2.9

427 0 = −15.1

'1" – major [illegible] [illegible],

Wednesday Jan 31 1923

1 26	~~Dr~~ Stetson		App.			
	Full =	+16.4		0 =	−15.2	
		+16.2		=	−15.2	
		+16.2		=	−15.15	
	I 41000					
	~~Moon~~	Mean	Julie			
	Moon	+3.5	+7.2		—	
		+3.7	+7.2			
		+4.2	+7.6	Full =	+16.2	
	Full			0 =	−15.0	
		+2.9	+7.5			
		+3.3	+7.3	+7.4	+7.4	
		+3.4	+7.5	−15.0	+3.5	
	Mean	6 / 21 0 +3.5	0 / 23 +7.4	+22.4	+3.9	1.74
	30	+1.4	+8.8			
		+1.5	+9.0	+8.9	+8.9	
		+1.3	+8.9	−14.8	+1.4	
	Mean	+1.4	+8.9	+23.7	+7.5	3.16
	31	+4.1	+8.9			
		+4.0	+9.0	Full =	+16.3	
		+4.4	+9.0	0 =	−14.8	
	Means	+4.2	+9.0	+9.0 −14.8 +23.8	+9.0 +4.2 4.8	2.02
	32	+6.7	+8.8			
		+6.5	+8.9	+8.8 −14.8	+8.8 +6.5	
		+6.3	+8.7	0 =	−14.8	0.97
1 52	Mean	+6.5	+8.8	23.6	2.3	

Wednesday Jan 31 1923

Fil = +16.1
0 = -14.7

april 8, 1924

	Moon	Sky
	+0.8	+3.1
Fil	+4.5	4.5
18.9	3.7 ✓	1.4 ✓
	1.96 ✓	0.74 ✓

I 41755

Img	Screen	Film			
	+0.7	+3.3	+3.1 -14.6 17.7	+3.1 +0.8 +2.3	
	+0.6	+2.9			
	+1.1	+3.0	0 =	-14.6	
	+0.8	+3.1			1.30 ✓
1	-3.1 ~~+4.9~~	+4.6	+4.6 -14.5 19.1	+4.6 -2.9 7.5	
	-2.7	+4.6			
	-2.8	+4.7	0 =	-14.5	
	-2.9	+4.6			3.93
2	+0.3	+4.6	+4.5 -14.5 19.0	+4.5 +0.4 4.1	
	+0.5	+4.4			
	+0.4	+4.6	0 =	-14.5	
	+0.4	+4.5			1. 2.~~2~~6 ✓
3	+2.7	+4.4	+4.3 -14.5 18.8	4 +4.~~3~~ +2.5 1.89	
	+2.4	+4.3			
	+2.5	+4.4	0 =	-14.5	1.01 ✓ ~~0.96~~
	+2.5	+4.~~3~~4			
4	+3.5	+4.5	+4.4 -14.4 18.8	+4.4 +3.7 0.7	
	+3.7	+4.3			
	+3.8	+4.3	0 =	-14.45	0.37 ✓
	+3.7	+4.4			

2 17

aug 9	Moon	Sky	Fil
	+0.8	+3.1	+4.63
	14.53	14.53	+4.53
Zero	15.33	17.63	+4.38
14.7			+4.38
.6			4 / 19.2
.5			4.48
.5			14.53
.54			19.03

6 / 133 1433

Wednesday Jan 31 1923

	I 41000					
			0 = −14.45			
2 20						
				+7.3	+7.3	
	Moon	+4.4	+7.2	−14.4	+4.3	
		+4.3	+7.3	21.7	+3.0	
		+4.2	+7.4	0 = −14.4		
	Mean	+4.3	+7.3			1.38
				+8.9	+8.9	
	30	+1.0	+8.8	−14.4	+1.2	
		+1.2	+8.9	23.3	7.7	
		+1.3	+8.9	0 = −14.4		
		+1.2	+8.9			3.31
				+8.9	+8.9	
	31	+4.0	+9.0	−144	+3.9	
		+3.9	+8.9	23.3	5.0	
		+3.9	+8.7	0 = −14.4		~~3.31~~
		+3.9	+8.9			2.15
				+8.8	+8.6	
	32	+6.3	+8.8	−14.4	+6.3	
		+6.4	+8.8	23.2	2.5	
		+6.2	+8.8	0 = −14.4		
		+6.3	+8.8			1.08
				+7.2	+7.2	
	Moon	+3.7	+7.2	−14.4	+3.8	
		+3.9	+7.3	21.6	3.4	
		+3.8	+7.1	0 = −14.35		
2 40		+3.8	+7.2			1.57

Wednesday ~~Feb~~ 7 1923

Dr. Stetson apparatus

0 = −14.6 AG 5225

		Principal sq.	Sqs combined	Overlapping sq		Filter	Sq.	Sqs combined		
3 21	16	7 −11.4 11.4	7+4 −11.95 8.95	4 −3.0 −14.6 11.6	3.0	0.0 −14.6 14.6	2.0569 1.1644 0.8925	1.9523 1.0645 0.8878	7.81 4 = 2.06	7.72
	~~2~~ 17	6 −8.95 +0.42 9.37	6+4 −10.25 −2.46 7.79	4 −2.46 −14.61 12.15	2.88	+0.42 −14.61 15.03	1.9717 1.1770 0.7947	1.8921 1.0846 0.8075	6.23 4 = 1.~~88~~ 93	6.43
	~~3~~ 18	5 −6.5 +0.35 6.85	5+4 −8.25 −2.60 5.65	4 −2.60 −14.62 12.02	2.95	+0.35 −14.62 14.97	1.8357 1.1755 0.6602	1.7520 1.0799 0.6721	4.57 4 = 1.97	4.70
	19	4 −3.35 ~~+3.35~~ −0.30 3.05	4+4 −5.80 −2.80 3.00	4 −2.80 −14.63 11.83	2.50	−0.30 −14.63 14.33	1.4843 1.1562 0.3281	1.4771 1.0730 0.4041	2.13 4 = 1.74	2.54
3 36	20	3 −0.7 −0.5 0.2 0 =	3+4 −4.3 −2.9 1.4 −14.65	4 −2.9 −14.64 11.74	2.40	−0.5 −14.64 14.14	0.3010 1.1504 9.1506	1.1461 1.0697 0~~9~~7.0764	0.14 4 = 1.70	1.19 ~~0.12~~
	1	−11.1 −0.95 10.15	−11.4 −0.95 10.45	−0.95 −14.65 13.70		−0.95 −14.65 13.70	2.00~~27~~ 65 1.1367 0.8698	2.0191 1.1367 0.8824	7.41	7.63
	2	−9.2 ~~−10.95~~ −1.05 8.15	−9.45 −1.05 8.40	−1.05 −14.62 13.59		−1.05 −14.62 13.57	1.9058 1.1326 0.7732	1.9243 1.1326 0.7917	5.93	6.19
	3	−6.55 −1.15 5.40	−7.0 −1.1 5.9	−1.1 −14.59 13.49		−1.15 −14.59 13.44	1.7324 1.~~1300~~ 1284 0.6040	1.7709 1.1300 0.6409	4.02	4.38
	4	−3.0 −1.2 1.8	−3.5 −1.15 2.30	−1.15 −14.56 13.41		−1.2 −14.56 13.36	1.2553 1.1258 0.1295	1.3617 1.1274 0.2343	1.35	1.72
	5	−1.4 −1.3 0.1	−1.85 −1.15 0.70	−1.15 −14.53 13.38		−1.3 −14.53 13.23	9.0000 1.1623 8.8377	0.8451 1.1265 9.7186	0.07	0.52
3 45		0 =	−14.50							

Wednesday Feb 7 1923

Ag 5225 Cadmium

	Principal Sq	Sq's Central	overlap. Sq	Silver	z,			
6	-10.85 +0.15 11.00	-11.15 +0.45 11.60	+0.45 -14.50 14.95	+0.15 -14.50 14.65	2.0414 1.1658 0.8756	2.0645 1.1746 0.8899	7.68	7.76
7	-8.7 -0.35 8.35	-9.5 +0.1 9.6	+0.1 -14.49 14.59	-0.35 -14.49 14.14	1.~~4668~~ 9217 1.1504 ~~0.7159~~ 0.7713	1.9823 1.1641 0.8182	5.90 ~~5.20~~	6.58
8	-6.05 -0.20 5.85	-6.9 -0.1 6.8	-0.1 -14.48 14.38	-0.2 -14.48 14.28	1.7672 1.1547 0.6125	1.8325 1.1578 0.6747	4.10	4.73
9	-2.7 -0.45 2.25	-3.7 -0.2 3.5	-0.2 -14.47 14.27	-0.45 -14.47 14.02	1.3522 1.1467 0.2055	1.5441 1.1544 0.3897	1.61	2.45
10	-0.75 ~~-1.6~~ -0.6 0.15	-1.7 -0.3 1.4	-0.3 -14.46 14.16	-0.6 -14.46 13.86	0.1761 1.1418 9.0343	1.1461 1.1511 9.9950	0.11	0.99

3 56 O = -14.45

11	-11.0 0.0 11.0	-11.4 -0.7 10.7	-0.7 -14.45 13.75	-0.7 0.0 -14.45 14.45	2.0414 1.1599 0.8845	2.0294 1.1383 0.8911	7.61	7.78
12	-8.55 +0.15 8.70	-9.5 -0.35 9.15	-0.35 -14.44 14.09	0.50 +0.15 -14.44 14.59	1.9395 1.1641 0.7754	1.9614 1.1489 0.8125	5.96	6.49
13	-5.9 -0.1 5.8	-7.25 -0.30 6.95	-0.3 -14.43 14.13	0.2 -0.1 -14.43 14.33	1.7634 1.1562 0.6072	1.8420 1.1501 0.6919	4.05	4.92
14	-2.4 0.0 2.4	-4.3 -0.4 3.9	-0.4 -14.42 14.02	04 0.0 -14.42 14.42	1.3802 1.1590 0.2212	1.5911 1.1467 0.4444	1.66	2.78
15	-0.5 -0.3 0.2	-2.3 -0.4 1.9	-0.4 -14.40 14.00	01 -0.3 -14.40 14.10	0.3010 1.1584 9.1426	1.2788 1.1461 0.1327	0.14	1.36

4 04 O = -14.40

aG 5225

Overlapping Sq. 4

Means from page 27

Sq 16	17	18	19	20
0.0	−2.41 +0.42	−2.60	−2.80	−2.9
−3.0		+0.35	−0.30	−0.5
11.6 14.6 +3.0	12.75 15.03 2.88	12.02 14.97 2.95	11.83 14.33 2.50	14.14/2.4
1.4771	1.4594	1.4698	1.3979	1.3802
1.1644	1.1770	1.1752	1.1562	1.1504
0.3127	0.2824	0.2946	0.2417	0.2298
2.05	1.92	1.97	1.74	1.70

1.40
1.50

Wednesday Feb 7 1923

Same app.

aG 5226 Full +15.75

4 07 o = −14.40

1	1	−1.0 −10.78 ag −10.7 9.7	−0.9 −10.88 −10.8 9.9	−14.40 ~~−1.5~~ −0.9 13.5	−14.40 −1.1 −1.0 13.4	1.9868 1.1271 0.8597	1.9956 1.1303 0.8653	7.24 7.33
2	2	−8.85 ~~−1.~~ −0.7 8.15	−8.95 −0.7 ag 8.25	−14.40 ~~−1.7~~ −0.7 13.7	−14.40 −0.7 13.7	1.9112 1.1367 0.7745	1.9165 1.1367 0.7798	5.95 6.02
3	3	−5.6 −0.7 4.9	−5.8 −0.7 5.1	−14.40 −0.7 13.7	−14.40 −0.7 13.7	1.6902 1.1367 0.55335	1.7076 1.1367 0.5709	3.58 3.72
4	4	−2.7 −0.6 2.1	−3.1 −0.5 2.6	−14.4 −0.5 13.9	−14.4 −0.6 13.8	1.3222 1.1399 0.1823	1.4150 1.1430 0.2720	1.52 1.87
5	5	−0.85 −0.65 0.20	−1.2 −0.5 0.7	−14.4 −0.5 13.9	−14.40 −0.65 13.75	0.3010 1.1383 9.1627	0.8451 1.1430 9.7021	0.15 ~~1.45~~ 0.50
4 15		o = −14.40						
	6	−10.6 −0.5 10.1	−10.7 +0.1 10.6	−14.4 +0.1 14.5	−14.4 −0.5 13.9	2.0043 1.1430 1.8613	2.0253 1.1614 1.8639	7.27 7.31
	7	−8.65 −0.15 8.50	−8.8 +0.3 9.1	−14.4 +0.3 14.7	−14.40 −0.15 14.25	1.9294 1.1538 0.7756	1.9590 1.1673 0.7917	5.96 6.19
	8	−6.0 +0.1 6.1	−6.35 +0.1 6.45	−14.4 +0.1 14.5	−14.4 +0.1 14.5	1.7853 1.1614 0.6239	1.8096 1.1614 0.6482	4.21 4.45
	9	−2.6 −0.2 2.4	−3.3 −0.05 3.25	−14.40 −0.05 14.35	−14.4 −0.2 14.2	1.3802 1.1523 0.2279	1.5119 1.1569 0.3550	1.69 2.26
	10	−0.7 −0.4 0.3	−1.6 −0.3 1.3	−14.4 −0.3 14.1	−14.4 −0.4 14.0	0.4771 1.1461 9.3310	1.1139 1.1492 9.9647	0.21 ~~2.14~~ 0.92
4 26		o = −14.40						

Wednesday Feb 7 1923

Same plate

	11	−10.75 +0.1 10.85	−11.0 −0.75 10.25	−14.40 −0.75 13.65	−14.4 +0.1 14.5	2,0354 1.1614 0.8740	2,0107 1,1357 0.8756	7.48 7.57
	12	−8,6 +0.3 8.9	−9,0 −0.6 8.4	−14.4 −0.6 13.8	−14.4 +0.3 14.7	1,9494 1,1673 0.7821	1,9243 1,1399 0.7844	6.05 6.09
	13	−6.2 +0.2 6.4	−7.1 −0.85 6.25	−14.40 −0.85 13,55	−14.4 +0.2 14.6	1,8062 1,1644 0.6418	1,7959 1,1319 0.6640	4.38 4.61
	14	−3.1 −0.25 2.85	−4.3 −0.85 3.45	−14,40 −0.85 13.55	−14.40 −0.25 14.15	1.4548 1,1508 0.3040	1,5378 1,1319 0.4059	2.01 2.55
	15	−0.9 −0.5 0.4	−2,75 −0.85 1.90	−14.40 −0.85 13,55	−14.4 −0.5 13.9	0,6021 1,1430 9.4191	0.2788 1,1319 0.1469	0.26 1.40
4 36		0 = −14.40			Full + 15.6			
	16	−10.85 −0.3 10.55	−11.0 −2.8 8.2	−14.4 −2.8 11.6 2.5	−14.4 −0.3 14.1	2,0233 1492 1,~~0645~~ 0.8741	1,9138 1,0645 0.8493	7.48 7.07
	17	−8.5 +0.3 8.8	−9.3 −2.45 6.85	−14.40 −2,45 11.95 2.75	−14.4 +0.3 14.7	1.9445 1673 1.~~0774~~ 0.7772	1,8357 1,0774 0.7583	5.99 5.73 4 = 1.77
	18	−5.5 −0.1 5.4	−7.2 −2.85 4.35	−14.40 −2.85 11.55 2.75	−14.4 −0.1 14.3	1.7324 1,1553 0.5771	1,6385 1,0626 0,5759	3.78 3.77 4 = 1.92
	19	−3.2 −0.3 2.9	−5.8 −3.2 2.6	−14.4 −3.2 11.2 2.9	−14.4 −0.3 14.1	1.4624 1.1492 0.3132	1,4150 1,0492 0,3758	2.06 2.37 4 = 2.06
	20	−1.1 −0.3 0.8	−4.7 −2.8 1.9	−14.4 −2.8 11.6 2.5	−14.4 −0.3 14.1	0.9031 1.1492 9.7539	1.2788 1.0645 0.2143	0.57 1.64 4 = 1.77
4 46		0 = −14.34			Full = +15.6			

Saturday Feb 24 1923

Re-measures with Dr. Stetson App.

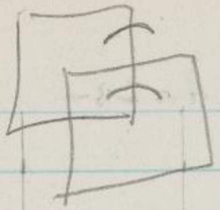
AM aG 5225

11 05 0 = −12.95

Sq 9

Sq.	Comb. Sq's	overlapping Sq	Julius	
+2,85	+1.0	+6.05	+5.65	~~st~~ at shorter dist.
+2,55	+1,1	+6.1	+5.85	+5.60 at greater distance
		+6.0 Julius from edge		

11 15 0 = −12.9



Saturday March 3, 1923

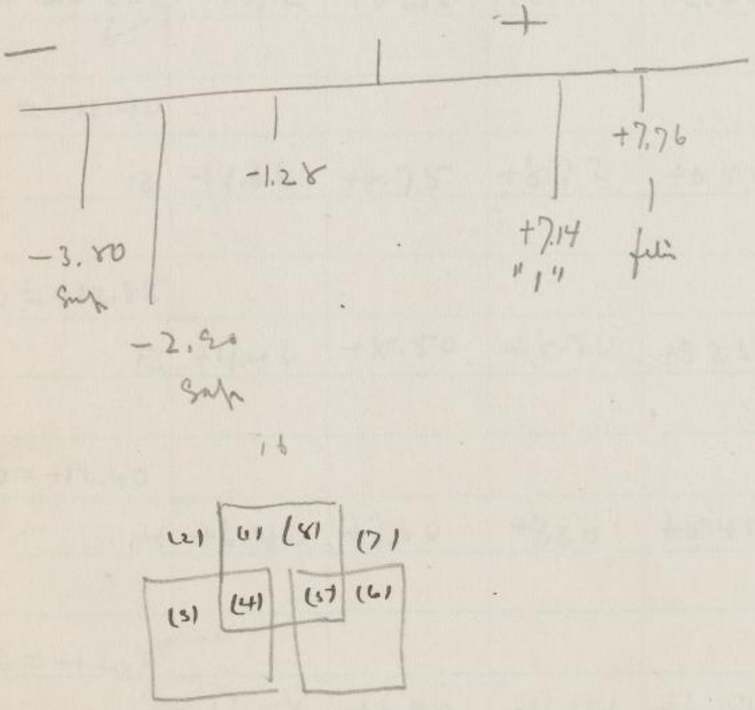
2 25 0 = -13.~~20~~22 aG 5247

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Sq	Sig. ~~Foam~~	Tilm	1	Sup	Supr	2	~~Fil~~	Sig
	16	-1.28	+7.76	+7.14	-3.80	-2.90	+7.40	+7.82	-1.22
0 =									
0 = -13.06									
	17	+1.10	+7.75	+6.52	-1.80	-0.80	+7.00	+8.14	+1.30
0 = -12.95									
	18	+3.90	+7.54	+5.74	+0.88	+1.05	+6.48	+8.06	+4.27
0 = -12.48									
	19	+5.90	+7.15	+5.62	+2.92	+3.25	+6.20	+7.48	+6.00
0 = -12.79									
	20	+6.~~57~~40	+6.~~71~~80	~~+6.00~~ 5.86	+4.72	+4.90	+6.00	+6.92	+6.62
2 55 pm.									
0 = -12.70									
	~~11~~ 20	+6.60	+6.74	+6.08	+4.95	+5.00	+7.00	+6.90	+6.38
0 = -12.64									
	11	-1.20	+8.35	+8.30	-2.42	-2.16	+8.30	+7.90	-1.00
0 = -12.60									
	12	+1.40	+8.70	+8.20	-0.44	+0.40	+8.30	+8.40	+1.76
0 = -12.54									

Saturday March 3 1920

	ag · 5247 (Continued)						Fili	
13	+4.09	+8.15	+7.61	+2.10	+2.30	+7.50	+8.18	+4.30
0 = −12.50	–							
14	+6.38	+7.50	+7.10	+4.72	+4.80	+7.12	+7.50	+6.51
					+6.00	+6.50	+7.02	+6.80
					−1.50	+8.08	+7.66	−0.84
					+0.76	+8.22	+8.10	+1.46
					+3.44	+8.12	+8.25	+4.40
					+5.46	+7.62	+7.74	+6.50
					+5.98	+6.50	+6.74	+6.50

ag 5247



Order of columns
& regions measured

Saturday March 3 1920

	ag. 5247 (Continued)						Feb	
13	+4.09	+8.15	+7.61	+2.10	+2.30	+7.50	+8.18	+4.30
0 = -12.50	-							
14	+6.34	+7.50	+7.10	+4.72	+4.80	+7.12	+7.50	+6.51
0 = -12.48	~~+6.72~~	~~+7.02~~	~~+6~~					
	+6.72	+7.02	+6.70	+5.88	+6.00	+6.50	+7.02	+6.80
0 = -12.45								
3 23 PM 6	-0.92	+8.35	+8.56	-2.00	-1.50	+8.08	+7.66	-0.84
-12.40								
12	+1.66	+8.75	+8.72	+0.50	+0.76	+8.22	+8.10	+1.46
	0	+8.50	+8.20	+3.25	+3.44	+8.12	+8.25	+4.40
		0	+7.20	+5.40	+5.46	+7.62	+7.74	+6.50
			4	+6.00	+5.98	+6.50	+6.74	+6.50

Saturday March 3 1923

ag 5247 (Concluded)

1	−0.56	+8.10	+8.30	−1.30	−1.35	+6.24	+6.28	−1.10
0 = −12.40								
2	+1.30	+8.25	+8.08	+0.40	+0.55	+6.60	+6.52	+0.75
0 = −12.40								
3	+4.18	+8.00	+7.80	+3.40	+3.28	+6.48	+6.70	+3.82
0 = −12.42								
4	+6.00	+7.42	+7.30	+5.60	+5.25	+6.60	+6.55	+5.35
0 = −12.42								
5	+6.40	+6.38	+6.60	+6.32	+6.00	+6.10	+6.28	+6.55
0 = −12.44								
16	−0.80	+7.80	+7.16	−3.40	−2.50	+7.80	+8.30	−0.80
0 = −12.45								
16 agn	−0.98	+7.84	+7.16	−3.38	−2.42	+7.95	+8.10	−0.88
0 = −12.46								

4 13 P.M

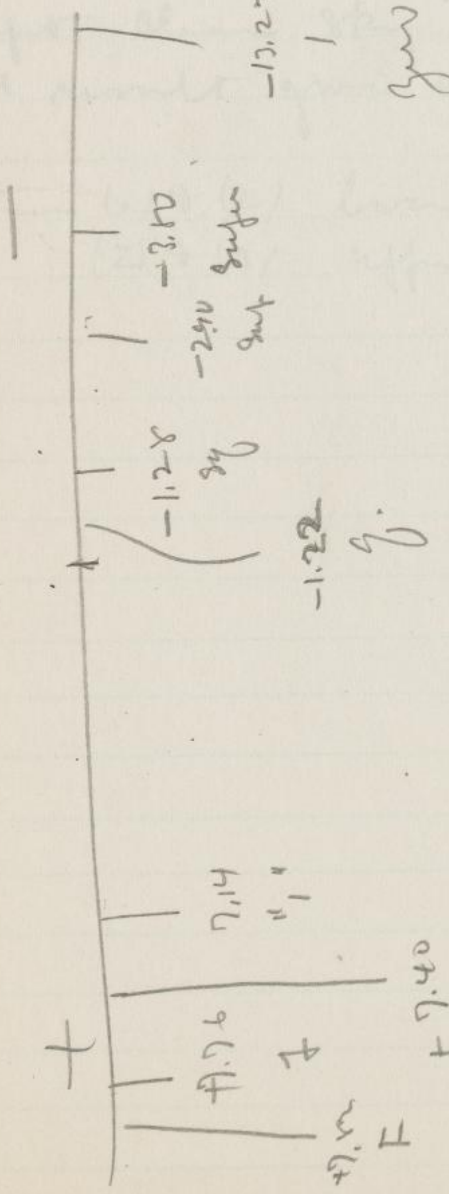
ag 5226

Friday Nov 2 1923

Tests with sharper Slit Spectroscope
& d.i prism for polarization effect.

Altitude of Sun about ~~36°~~ 22°
Az = about 43 west of South

of 36°



Friday Nov 2 1923

Tests with Shafer Slit Spectroscope & d. i prism for polarization effect.

Altitude of sun about ~~36°~~ 22°
Az = about 43 west of South

Equal points (1) 90° W of S.
(2) 20° W of S.
(3) 60 E of S.

Swept clear sky at altitude of 36°
with result given above.

Between (1) & (2) lower spectrum faint
" (2) & (3) upper " "

Wednesday Nov 28 1923

a G 5221

Measured with ~~Koch~~ moll Photo

areas of film & overlapping sq

of sq by

Squares	5.2
Film	5.0
No plates	6.56

Friday Nov 30 .923

Readings made with ~~Koch~~ Moll Photometer'

Time h m s		cm
	Scale zero, full light	8'72
	Light cut off	5·39
		5 31
11.27	Full light	8:70
11. 27	Light cut off	5 39
11.		5 31
11. 30	Full light	8 70
11. 30.30	Light cut off	5·39
30.45	—	5 39
31 0	—	5 39
31 30	—	5·33
32.0	—	5·37
11·33.0	Full light	8·61
33 30		8 62
34 0		8·67
34 30	Light cut off	5·40
34 50		5·40
35.0		5·39
35.15		5·38
35·30		5·38
	Full light	8·72

Full light		Light cut off	
8.70	0	5.31	−3
8.70	0	5.31	−3
8.67	−3	5.37	+3
8.72	+2	5.38	+4
4|279	—	4|17	4|13
~~8.6~~	±1	5.34	±3
8.70			

Friday Nov 30 1923

Readings made on AG 5225

	~~Dark~~ Principal square	Combined square	~~Light~~ overlapping Square	Film
	~~5·51~~	~~5·49~~	~~5·56~~	
Square 16	5·58	5·50	6·09	6·22
18	5·88	5·63	6·09	6·24
20	6·12	5·98	6·09	6·23

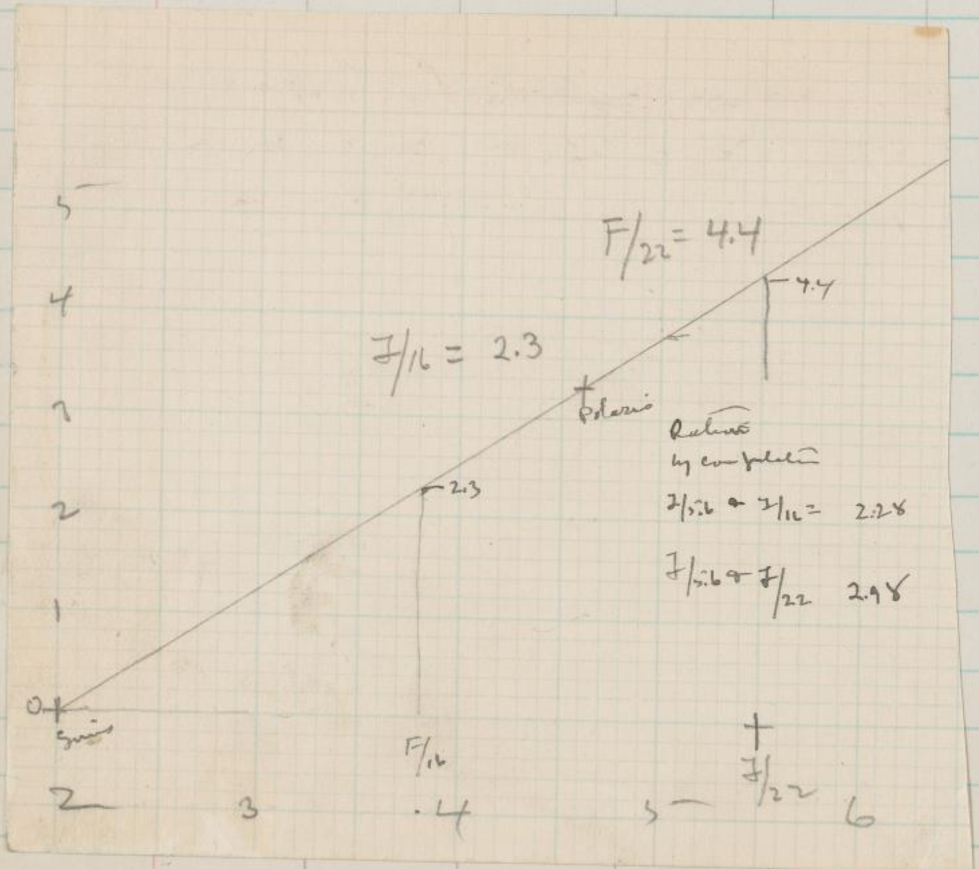
Zero reading ~~5~~ 8·72
Total darkness 5·38

Friday Jan 4 1924

AX 392   Measures with scale C 14816

Polaris 4.6

Sirius	F/5.6	2.0
"	F/16	3.8
"	F/22	5.5



Ratios by computation

F/5.6 & F/16 = 2.28

F/5.6 & F/22 2.98

Thursday Jan 10. 1924.

~~Koch~~ Moll Photometer.

Tests of uniform,

Slit 0.4   Filter of ~~AS~~ 5225

Full	Time for deflect	Zero	Time for deflect
~~0.1~~ 10.30 cm		0.95 cm	
10.25	12^s	0.97	12^s
10.20	12^s	0.98	12
10.22	12^s	0.95	10^s

Very slight change of amperage, produced by moving ~~[illegible]~~ rheostat through an inch, made a change in readings of about 0.2 cm

Thursday Jan 10, 1924

I 405	aG	5225		~~Koch~~ Moll	Photometer			
~~T20~~ 4.00	Principal sq	Sq's Combined	overlapping sq	Filter	11 h.. ~~Zero~~	Principal sq	Combined	
0.98 Zero. 16	2.92 11.05 8.13	2.68 8.76 6.08	8.76 1.08 7.68 ~~1~~2.29	11.05 1.08 9.97 = 2.30		1.9101 0.9987 0.9114	1.7839 0.8854 0.8985	8.15 7.92
17	4.48 11.30 6.82	3.~~98~~61 8.88 5.27	8.88 ~~3.61~~ 1.08 7.80 2.42	11.30 1.08 10.22 = 2.39		1.8338 1.0095 0.8243	1.7218 0.8921 0.8297	6.67 6.76
18	6.42 10.68 4.26	5.04 8.90 3.86	8.90 1.08 7.82 1.78	10.68 1.08 9.60 = 1.86		1.6294 0.9823 0.7471	1.5866 0.8932 0.6934	5.59 4.94
19 ~~20~~	8.78 9.78 1.00	6.42 8.32 1.90	8.32 1.08 7.24 1.46	9.78 1.08 8.70 1.68		1.0000 0.9395 0.0505	1.2788 0.8597 0.4191	1.12 2.67
20 Zero. 1.08c 4.00 4.41	9.88 9.94 0.06	7.52 8.58 1.06	8.58 1.08 7.50 1.36	9.94 1.08 8.86		9.7782 0.9474 8.8308	1.0253 0.8751 0.1502	0.07 1.41

Saturday Feb 9, 1924

~~Koch~~ Moll Photometer

Tests of Response

Slit 0.4 Film of Ag 5225

Full

10.25 15^s
10.25 15^s
10.25 10^s
10.25 9^s

Zero

0.85 15^s
0.85 10^s
0.85 10^s

10.20 10^s
10.25 30^s

After 10^s reading 10.20
In next 20^s " 10.25

10.25 10^s

Monday Feb 11, 1924

aG5225

3 ~~41~~ 56 Zero = 0.8$\overset{0}{5}$

Prim. Sq.	Comb. Sq.	overlap. Sq.	Film
2.~~85~~ 70	2.~~45~~ 25	8.45	

~~16~~

4 04 Zero 0.85

2.70	2.25	8.20	

~~17~~ 16

~~18~~ 17

~~Koch~~ Moll Photometer

Response

~~19~~ 18

~~1.05~~

Filter 7aG5225

Zero

1.05   9.70 oscillate chng.

about 0.1 cm

0.95 18^s

1.00 17^s 9.65 ,0^3

20

Zero =

Monday Feb 11 1924

~~Started~~

2 42 Zero 0.95

	Prin. Sq	Comb. Sq	Overlap.	Film	Principal Sq	Combined		
	2 30 ~~2.70~~	2.00 ~~2.15~~	6.50 ~~6.55~~ 0.95	7.85 ~~7.75~~ 0.95	1.7443	1.6532		
16	7.85	6.50			0,8388	0,7443		
	5.55	4.50	5.55	6.90	0.9055	0.9089	8¼	
Zero 0.95			1.35	= 1.96	8.04	8.11	1.68	1.69
	3,55	2,95	6.80 0.95	8.35 0.95	1,6812	1,5855		
17	8.35	6.80			0.8692	0,7672		
	4.80	3.85	5.85	7.40	0.8120	0.8183		
Zero 0,90			1.55	= 2.10	6.49	6.58	1.60	1.60
	4.70 0.90 8.45	4,15 0.90 6.95	6.95 0.90	8.45 0.90	1.5740	1,4472		
18					0, 8779	0,7818		
	3.75	2.80	6.05	7.55	0.6961	0.6654		
Zero 0,90			1.50	= 1.99	4.97	4.63	1.49	1.47
	6,65	5,10	6,55 0.90	8,05 0.90	1,1461	1,1614		
19	8.05	6.55			0.8543	0,7520		
	1.40	1.45	5.65	7.15	0.2918	0.4094		
Zero 0,90			1.50	2.10	1.96	2.57	1.18	1.26
	7,80 ~~5,95~~	6,00	6,55 0.90	7.95 0.90	0. 1761	0.7404		
20	7.95	6.55			0.8482	0.7520		
	0.15	0.55	5.65	7.05	9.3279	9.9884		
Zero 0.85			1.40	= 1.99	0.21	0.97	0.68 ~~0.77~~	0.99

Monday Feb 9, 1924

Zero 0.85

16	Prim. Sq.	Comb. Sq.	Overlap	Film	Prim.	combined
~~Zero 0.85~~	2.40	2.05	6.45	7.65		
	7.65	6.45	0.85	0.85		
	5.25	4.40	5.60	6.80	7.73	7.86
Zero 0.85	3.45	2.95	6.70	8.25		
17	8.25	6.70	0.85	0.85		
	4.80	3.75	5.85	7.40		
					6.49	6.41
Zero 0.85	4.95	4.05	7.00	8.50		
18	8.50	7.00	0.85	0.85		
	3.55	2.95	6.15	7.65	4.64 ~~4.38~~	4.79
Zero 0.85	6.50	5.25	6.70	8.15		
19	8.15	6.70	0.85	0.85		
	1.65	1.45	5.85	7.30	2.26	1.98
Zero 0.85	6.60	5.05	6.85	8.20		
20	8.20	6.85	0.85	0.85		
3h 06m	1.60	1.80	6.0[illegible]	7.35	2.18	3.00
Stopped	(0.6?0)	(0.80?)			(0.82)	(1.33)

Thursday March 6 1924

Ag 5325

	On	Off,	Zero 10.19	Zero at on	10.38 off	= 0.3
1	~~14.7~~	14.65	0.21	15.1	15.3	
2	13.1	15.1		13.5	15.4	
3	9.2	15.2		9.8	15.8	
4	6.7			7.1	15.6	
5	4.1	13.5				

6

7 Found Chain in contact with support to

8 galvanometer. Began again

9

10 10.50 Zero 0.3

11 ~~On~~

12 Sq. On Off.

13 1

14 ~~Notes~~

15 Galvanometer current apparently not constant

16 as indicated swings off for 5 to 10 div

17 of the scale ~~after~~ even after standing for a time

18

19

20

15.3
15.0
15.3

0.7
14.8

~~We~~ Thursday March 6 1924

ag 5-5-2 5

11 14 Zero = 0.3

Sq.	Sq.	Film
1	15.1	15.1
2	13.4	15.3
3	9.6	15.5

Thursday March 6 1924

Apparatus has been adjusted by Dr Stetson

p.m.		aG 5325				
2 47		Zero.	0.11			
			Film	~~Diff~~	Diff	
3 —	1	16.85	17.40	17.25 ~~0.55~~	0.55	0.32
4	2	15.38	17.60	17.45	2.22	1.27
5	3	10.90	17.98	17.83	7.08	3.97
6	4	8.00	18.45	18.30	10.45	5.71
7	5	4.76	16.95	16.80	12.19	7.24
Zero	=	0.19				
	6	12.50	17.85	17.65	5.35	3.03
	7	9.96	18.05	17.85	8.09	4.54 ~~3.99~~
	8	8.52	18.62	18.42	10.10	5.48
	9	6.00	18.35	18.15	12.35	6.81
	10	4.31	16.84	16.64	12.53	7.55
Zero	=	0.22				
	11	13.50	17.70	17.49	4.20	2.40
	12	10.68	18.16	17.95	7.48	4.16
	13	9.70	18.37	18.18	8.69	4.78
	14	6.92	17.40	17.19	10.48	6.10
	15	5.50	16.70	16.49	11.20	6.80
Zero		= 0.20			~~0.16~~	
	16	17.00	17.16	16.96	0.06	0.09
	17	15.70	16.78	16.58	1.08	0.65
	18	12.60	16.32	16.12	3.72	2.31
	19	6.54	16.25	16.05	9.71	6.05
3 24 p.m.	20	5.91	17.20	17.00	11.29	6.64
Zero	=	0.20				

Thursday March 6, 1924

		AS 5525		Remeasurement,		
3 35		Zero = 0.20				
		Sq.	Film			
	1	16.60	17.26	17.08	0.66	0.39
	2	15.14	17.44	17.26	2.30	1.33
	3	10.90	17.76	17.58	6.86	3.90
	4	8.01	18.20	18.02	10.19	5.66
	5	4.70	16.68	16.50	11.98	7.26
		Zero = 0.16				
	6	12.41	17.60	17.47	5.19	2.97
	7	9.80	17.88	17.75	8.08	4.56
	8	8.40	18.27	18.14	9.87	5.44
	9	5.90	18.00	17.87	12.10	6.76
	10	4.10	16.64	16.51	12.54	7.60
		Zero = 0.10				
	11	13.19	17.35	17.28	4.16	2.40
	12	10.48	17.89	17.82	7.41	4.16
	13	9.52	18.00	17.93	8.48	4.74
	14	6.76	16.94	16.87	10.18	6.04
	15	5.50	16.42	16.35	10.92	6.70
		Zero = 0.04				
	16	16.68	16.70	16.68	0.02	0.01
	17	15.45	16.36	16.34	0.91	0.56
	18	12.20	16.06	16.04	3.86	2.40
	19	6.29	15.94	15.92	9.65	6.05
	20	5.60	16.91	16.89	11.31	6.70
4.01 Pm		Zero = 0.00				

Tuesday March 11 1924

AG 53-28

10 08	Zero = 0.19							
	Sq.	Film		Difference		Mean of the before & after		
1	16.89	17.40	17.21	0.55	0.32	17.21	—	
2	16.48	18.00	17.81	1.52	0.85	17.51	0.87	
3	13.91	18.25	18.06	4.34	2,40	17.94	2.42	
4	10.15	18.57	18.38	8.42	4.59	18.22	4.63	min 18.34
5	6.40	17.26	17.07	10.86	~~6.86~~	17.72	6.12	5.92
	Zero = 0.19							
6	14.19	17.71	17.51	3.52	2.01			
7	15.10	18.00	17.80	2.90	1.63			
8	12.40	17.80	17.60	5.40	3.07			
9	13.41	18.09	17.89	4.68	2,~~86~~ 62			min 17.89
10	6.60	17.25	17.05	10.65	~~6.25~~			5.95
	Zero = 0.21							
11	10.35	17.68	17.47	7.33	4,19			
12	11.69	18.62	18.41	6.93	3.76			
13	8.76	18.58	18.37	9.82	5.35			
14	9.67	18.28	18.07	8.61	4.76			min 18.07
15	3.41	17.30	17.09	13.89	~~8.13~~	17.58	7.91	7.70
	Zero = 0.21							
16	16.61	16.94	16.71	0.33	0.20	16.71	–	
17	16.30	17.09	16.86	0.79	0.47	16.78	0.47	
18	14.10	17.15	16.92	3.15	1.86	16.89	1.87	
19	10.48	17.16	16.93	6.68	3.94	16.92	3.95	
20	6.91	16.58	16.35	9.67	~~5.92~~	16.64	5.81	5.71
10 36	Zero 0.25							

Tuesday March 11 1924

a G 5328 (Refractor

10 42 Zero = 0.26

	Sq	Film		Diff		
1	16.78	17.32	17.05	0.54	0.32	
2	16.58	17.95	17.68	1.37	0.78 ~~2.48~~	
3	13.85	18.28	18.01	4.43	2.46	
4	10.19	18.56	18.29	8.37	4.57	using 18.29
5	6.41	17.20	16.93	10.79	~~6.38~~	5.90
	Zero = 0.28					
6	14.09	17.61	17.33	3.52	2.07	
7	15.12	17.98	17.70	2.86	1.62	
8	12.38	17.84	17.56	5.46	3.10	
9	13.42	17.87	17.59	4.45	2.53	using 17.59
10	6.62	17.05	16.77	10.43	~~6.21~~	5.94
	Zero = 0.29					
11	10.29	17.73	17.43	7.44	4.27	
12	11.72	18.32	18.02	6.60	3.66	
13	8.70	18.50	18.20	9.80	5.38	
14	9.68	18.08	17.78	8.40	4.73	using 17.78
15	3.49	17.30	17.00	13.81	~~8.12~~	7.76
	Zero = 0.30					
16	16.52	16.95	16.65	0.43	0.26	
17	16.19	17.00	16.70	0.81	0.48	
18	14.21	17.15	16.85	2.94	1.74	
19	10.35	17.10	16.80	6.75	4.01	using 16.80
20	6.96	16.66	16.36	9.70	~~5.93~~	5.77

11 07 Zero = 0.30

Tuesday March 11 1924

AG 552 X

Film After Sanger

Bef

″

20.11 – 1.59 = 18.52

20.20 – 1.66

20.30 – 1.79

ag 5 20.40 – 1.82 . . 53 – 55

20.40 – 1.90

20.50 – 2.00 Jag 55

20.60 – 2.02

20.60 – 2.10

20.65 – 2.12 18.55

(~~3.10~~ 3.10 20.70 – 2.15

20.80 – 2.21

20.81 – 2.25 18.56

20.83 – 2.29 18.54

20.90 – 2.30 18.60

20.90 – 2.32 18.58

3 20) 20.90 18.60

20.90 – 2.30

20.91 – 2.35

3 25 20.92 – 2.35

Tuesday March 11 192

a .

J

Buf

''

a G 5

. 53-55

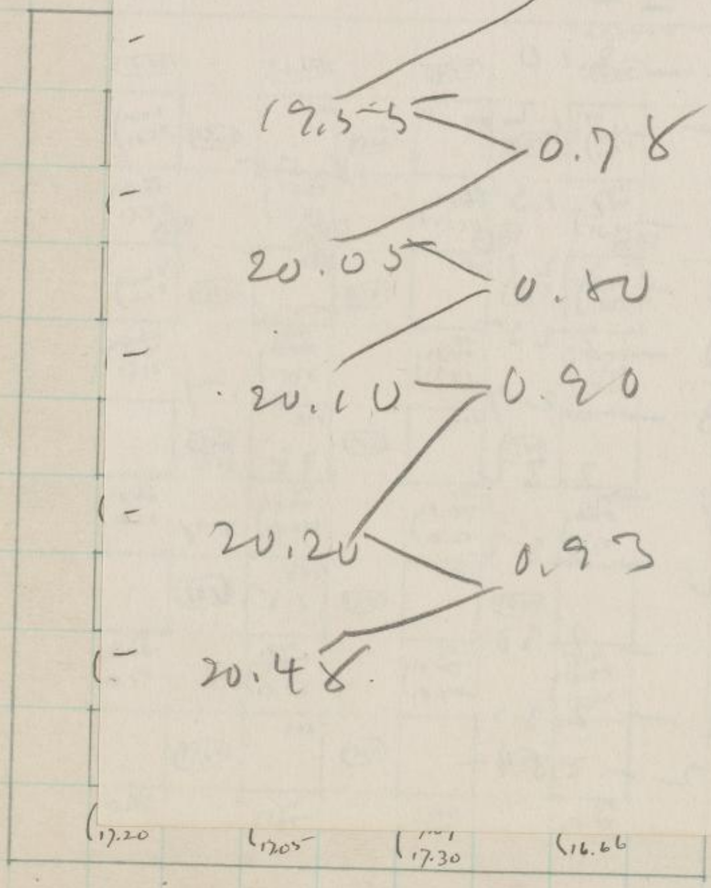
2.30

19.5	0.3
19.60	0.35
19.70	0.42
19.75	0.58
19.85	0.70
19.55	0.78
20.05	0.80
20.10	0.90
20.20	0.93
20.48	

19.60	1.18
1960	1.10
19.63	1.14
19.70	1.20
19.98	1.48

1842 page 55

1850

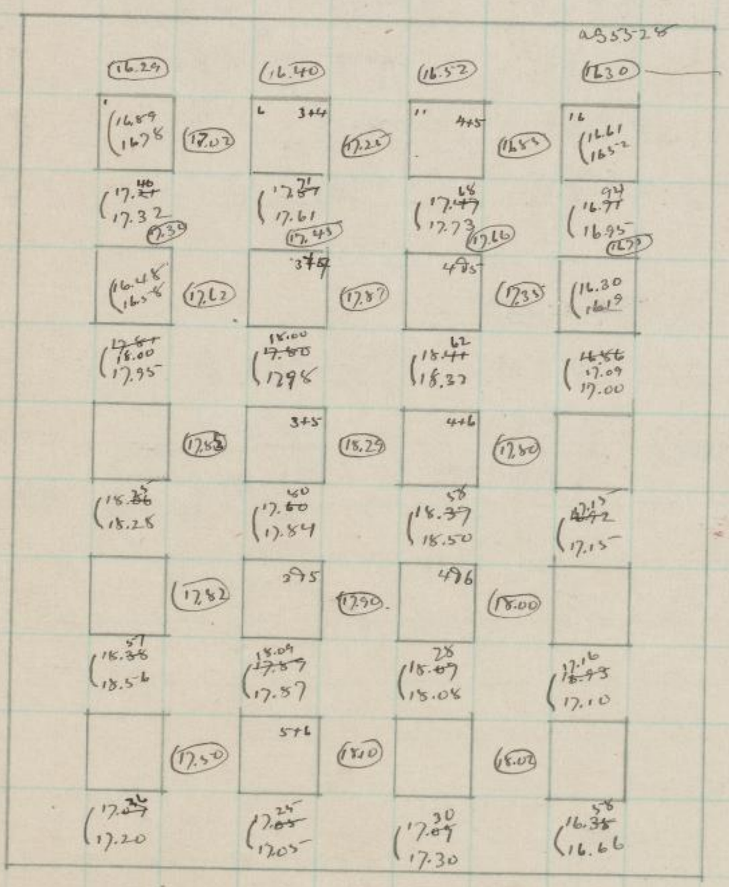


Tuesday March 11 1924

aG 5528

Film			After Sand
Before	1	16.29	17.30
"	6	16.40	17.45
"		16.52	17.66

aG 5528 Arrangement of measures Book 5 pp. 53-55



Those enclosed are for page 55

Tuesday March 11 1924

aG 552 Y

Film			After Sanding
Before	1	16.29	17.30
"	6	16.40	17.45
"	11	16.52	17.66
"	16	16.30	16.75

Before		Before		Before	
1&6	17.02	6&11	17.25	11&16	16.85
2&7	17.62	7&12	17.87	12&17	17.35
3&8	17.85	8&13	18.29	13&18	17.80
4&9	17.82	9&14	17.90	14&19	18.00
5&10	17.50	10&15	18.10	15&20	18.02

Glass on top.

Sq	13	8.65		4.98		4.60	4.48
Filter		18.50		9.90		9.82	9.60
18.20)		9.85	9.60	4.92	9.527	5.22	9.3 / 5.12
		5.41		5.13		5.48	5.51

Friday March 21 1924

Re. Stetson Photometer

~~10 57 Zero = 0.20~~

I ~~41000~~

~~Filter~~

	"33"	Filter
	20.62	21.72
	20.48	21.65
	20.52	21.62
mean	20.54	21.66

~~Moon. 23.39~~ off scale.
Re-adjusting

11 16 Zero = 0.20

I 41000

	Moon	Filter	"30"	Filter	"31"	Filter	"32"	Filter
	16.53	20.12	14.50	21.74	16.97	21.68	19.24	21.70
	16.00	20.00	16.33 Zero =	2.6				
	15.35	19.05	14.60	21.70	17.00	21.75	19.21	21.66
	17.00	19.50	14.49	21.79	17.01	21.74	19.16	21.72
	17.44	19.59	31.59	2122 3	2098	7	1	
	16.10	19.76	mean 14.53	21.74	16.99	21.72	19.20	21.69
	16.30	20.00						
	16.80	19.80						
	15.49	20.10						
	16.75	19.92						
	163.76	784						
Means	16.38	19.78						

mean = 21.70

Filter at interval between sky & moon

21.70 21.65 21.50 21.60 21.45 21.45 21.25

21.25 21.43 21.35 21.20 20.95 20.75

20.60 20.25 19.89

11.44 Zero 0.30

Saturday March 22 1924

Dr. Stetson photometer

53
10 ~~35~~
~~Moon~~

I 42049

Zero = 0.~~50~~48

	Moon (1)		Moon (2)		Filter (1)	Filter (2)	Adjoining Filter	
	(a) Light	(b) Dark	(a) Light	(b) Dark	20.11	21.08	21.30	
	16.05	14.50	17.50	13.90 /	—	—	—	
	15.90	13.40'	17.50	13.80	20.16	21.10	21.14	
	15.58	13.35	17.35	13.70	19.90	20.80	21.10	Zero = 0.50
	15.50	13.34	17.30	13.70	19.80	20.70	20.92	Zero = 0.46
	3.03	2.55	1.65	~~2~~80	3.97	3.68	46	
Means =	15.76	13.64	17.41	13.78	19.99	20.92	21.12	
	Sq.	Filter		Sq.	filter			
27	2.25	22.30		31	11.51	21.72	ended 12.02	
	2.50	22.06			11.10	21.68		
	2.20	21.80			11.60	21.50		
	95	16			121	190		
Mean	2.32	22.05			11.40	21.63		Zero
28	4.00	22.08		32	14.50	21.45		0.48 0.60
	3.65	22.04			14.20	21.38		0.60 0.50
	3.90	21.80			15.50	21.14		0.50 0.46
	255	292			220	97		6)3.14
Mean	3.85	21.97			14.73	21.32		0.52
29	5.60	22.02		33	17.80	21.34		
	5.91	21.90			17.42	21.20		
	5.55	21.65			17.60	21.10		
	206	257			182	64		
Mean	5.69	21.86			17.61	21.21		Zero
30	8.68	22.22		34	19.78	21.28		0.60
	8.15	22.22			19.66	21.30		0.60
	8.25	21.50			19.20	20.95		0.50
	108	294			164	53		
Mean	8.36	21.98			19.55	21.18	Filter 386	

2203
21.97
21.86
21.98
8)386
21.96

21.96
21.12
108
21.54

Saturday March 22 1924

I 42067

12 04 Zero = 0.46

moon (1)	Cl	Field 11	Field 12	Adj field
10.31	10.38	13.74	14.00	18.60
10.20	9.70	14.00	13.30	18.36
9.40	9.36	13.50	13.50	18.30
10.30	10.00	13.02	13.15	18.40
21	344	226	195	106
Means 10.05 ✓	9.86 ✓	13.56 ✓	13.~~55~~ 49 ✓	18.42 ✓

12.30
Zero = 0.36

	Sg	Field			Sg	Field
27	4.70	18.60		30	12.88	18.70
	4.40	18.82			13.00	18.70
	4.40	18.65			12.60	18.60
	150	227			248	200
Mean	4.50 ✓	18.76 ✓			12.83 ✓	18.67 ✓
28	6.84	19.16		31	15.00	18.50
	6.82	19.11			15.88	18.45
	6.68	19.00			15.30	18.40
	234	27			118 ✓	135
Mean	6.78 ✓	19.09 ✓			15.39	18.45 ✓
29	10.45	18.92		32	17.38	18.30
	9.90	19.00			16.62	18.20
	9.70	18.70			16.80	18.12
	305	262			280	62
Means	10.02 ✓	18.87 ✓			16.93 ✓	18.21 ✓

Zero
0.40
0.40
0.40
0.46
0.36
5)202
Zero = 0.40

Field 18.42
18.76
19.09
18.87
18.67
18.45
18.21
7)447
18.64

Thursday March 27 1924

I 41088

CO 01	Zero = 0.00		Means about 10.30	
	Moon	Film	Moon Near North Cusp	Film
	8.51	11.00	5.72	7.95
	8.50	11.08	6.20	7.80
	8.16	10.98	6.18	7.85
	3/11 7	06	10	260
Means	8.39	11.02	6.03	7.87

33	12.02	19.44			
	12.55	19.40	Film		
	12.96	19.42	19.42		
			19.~~25~~ 57		
	3/1 153	6	19.58		Film for [illegible] toward Moon
	12.51	19.42	19.46		19.46
			19.20		
			5 / 1~~89~~ 223		19.20
34	15.32	19.62	Mean 19.~~38~~ 45		19.16
	15.65	19.52			19.05
	16.00	19.56		Half-way	19.04
	1697	170			
	15.66	19.~~73~~ 57			18.78
			Zero		19.40
35	18.14	19.62	-0.02		19.08
	17.98	19.65	-0.06		18.25
	17.75	19.48	-0.05		16.10
	2387	175	0.00 at 10.01		13.85
			-0.02		
			5x/175		11.05
	17.96	19.58	-0.03		Zero = -0.02 accept

Thursday March 27 1924

I 41187

10 35 Zero -0.04

	Moon (1)	Filar	Moon (2)	Filar
	23.22	23.48	23.20	23.54
	23.35	23.40	23.00	23.45
	22.80	23.60	23.00	23.40
	47	148	20	139
Means	23.16	23.49	23.07	23.46
			Middle of moon	
2 ~~5~~ 4	18.40	23.30	(1)	(2)
	18.42	23.34	22.16	21.96
	18.30	23.30	22.25	21.90
	112			
Means	18.37	23.31	22.15	21.78
			56	64
			Mean 22.19	21.88
2 ~~6~~ 5	20.54	23.30	10 56 Zero = +0.04	
	20.60	23.30		-0.04 +0.04 +0.04
	20.38	23.36		
	152			
Means	20.51	23.32	Mean Zero = +0.01	
2 ~~7~~ 6	22.00	23.30		
	22.10	23.26		
	22.05	23.25		
Mean	22.05	23.27		

Zero = +0.04

31
32
27
23.30

Thursday March 27 1924

I 41347

10 59 Zero = +0.02

	Moon (1)		Filter		Moon (2)		~~Filter~~ Filter
	9.34		10.92		8.58		10.32
	9.10		10.82		8.60		10.20
	9.22		10.82		8.59		10.14
	66						
Mean	9.22		10.85		8.59		10.22
		Filter					
22	4.71	20.44		25	10.88	20.72 +9	
	4.68	20.40			11.25	20.50 −13	
	4.31	20.16			10.62	20.68 +5	
	170	100			275	190	
	4.57	20.33			10.92	20.63	
		4.57				10.92	
		15.76				9.71	
23	6.06	20.55		26	13.45	20.60	
	6.31	20.44			13.25	20.40	
	6.20	20.38			13.29	20.44	
	57	137			99	144	
	6.19	20.46			13.33	20.48	
		6.19				13.33	
		14.27				7.15	
							Zero
24	8.00	20.68 +3		27	16.50	20.40	0.00
	8.25	20.52 −3			16.16	20.35	−0.02
	7.92	20.46 −9			16.30	20.30	−0.02
	17	126			96	1065	+0.02 Zero above
						11.24	
	8.06	20.55				Mean	= −0.01
		8.06					
		12.49		Mean	16.32	20.35	
						16.32	
						4.03	

Filter
20.33 −14
−1
46 +8
53
63 +16
48 +1
33 −12
128 0
20.47
+25
−27
−2

Thursday March 27, 1924

~~I 4154~~

I 41946

11.36 Zero = -0.02

	Moon(1)	Film	adj Film.	Centre	Moon(2)	Film	adj Film	Centre
	17.70	17.88	17.85	16.80	17.85	18.02	17.95 +1	17.00
	17.68	17.70	17.86	16.75	17.84	17.90	18.00 +6	16.80
	17.68	17.66	17.80	16.80	17.76	17.86	17.86 -8	16.85
	206	224						
							ended 12.00	
Means	17.69	17.75	17.84	16.78	17.82	17.92	17.94	16.88
31	5.70	18.40		35	16.60	18.30		
	5.55	18.40			16.92	18.20		
mean	5.62	18.40			16.76	18.25		
		5.62						
		18.41)12.78						
32	8.08	18.35		36	17.92	18.12		
	7.90	18.20			17.85	18.04		
Means	7.99	18.28			17.88	18.08		
33	11.05	18.45						
	11.11	18.35			Zero		Zero	
Mean	11.08	18.40		37	-0.01		-0.02	
							-0.01	
34	14.18	18.30			-0.01		-0.01	
							3)4	
	14.13	18.20				Mean	-0.01	
Mean.	14.16	18.23						
				38				

Film 18.40
28
40
25
25
08
6)166
18.28

Thursday, March 27. 1924

I 4175

12 01 Zero = −0.02

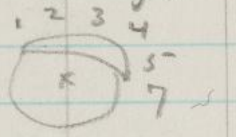
	Moon		~~Filter~~ 9th		adj Filter.		
	14.92^{+2}		17.35		19.20		
	14.64^{-26}		17.22		19.08		
	15.15^{+25}		17.38		19.32		
	27 1		9 5		6 0		
Means	14.90		17.32		19.20	Moon Centre	
						12.36	
31	11.26	19.16				11.84	
	11.50	19.12	19.10			11.85	
	11.35	19.01	11.37			12.36	
	11 1	29	19.10)7.73				
Mean	11.37	19.10		4.03	12.40	12.34	12.80
						5)7 575	
32	14.80	19.10			Mean	12.15	
	14.60	18.98	19.02		2nd decl		
	14.52	18.98	14.64	2.29	1217	Zero = −0.06	
	17 2		19.06)438				
Mean	14.64	19.02					
					Zero		
33	16.90^{+12}	19.10			−0.02		
	16.78^{0}	19.08	19.09		−0.06		
	16.66^{-12}	19.10	16.78	1.21	Mean = −0.04		
	23 4		19.13)2.31				
Means	16.78	19.09					
34	18.30	19.28					
	18.20	19.22					
	18.20	19.18	19.23				
		2 8	18.23				
Mean	18.23	19.23	19.27)1.00	0.52			

Thursday May 8, 1924

Tried Dr. Slater phot. in the morning, Lamp was loose. This & other difficulties need adjustments finally,

PM
2 10 Zero = 0.20

I 41000



Clear Filter	Moon Center	1	2	3	4	5	6	7
23.02	11.67	9.10	11.83	13.30	15.60	15.40	14.00	9.73
22.84	11.20	10.05	11.58	13.30	15.60	15.60	14.20	10.10 ~~12.86~~
86		19.15	147					1982
Mean 22.93	11.44	9.58	11.80	13.30	15.60	15.50	14.10	9.91

	Zero	
2 10	0.20	−9
2 22	0.30	+1
2 32	0.36	+7
Mean	0.29	

	Edge of Moon	adj. filter
	18.50	21.85
	18.56	21.62
		147
Mean	18.53	21.74

1

	Sky 30	31	32	33	Filter 30	31	32	33
	16.01	18.49	20.70	22.20	23.50	23.36	23.30	23.50
	15.96	18.60	20.91	22.15	23.40	23.35	23.30	23.29
	31.97							
Mean	15.98	18.54	20.86	22.18	23.45	23.36	23.30	23.40

45
35
30
40
4 | 150
2336
22
2302

1.32
16
6 | 1.36
23.23
29

Thursday May 8 1924

2 36 Zero = 0.38

I 41088

Moon (Centre)	Fog (equivalent)	Moon edge	Clear film
5.83	5.69	9.00	11.00
5.60	5.30	8.92	10.68
5.72	5.50	8.96	10.84

	Zero
2 36	0.38
2 43	0.40
2.50	0.42
	0.40

Sq 33	Film
12.50	19.10
12.88	18.98
12.69	19.04

Sq 34	Film
15.30	18.80
15.38	19.14
15.34	18.97

19.04 +7
18.97 0
18.91 -6
2|26.92
18.97

Sq 35	Film
17.51	18.99
17.46	18.83
17.48	18.91

Thursday ~~Wed~~ May 8 1924

3 01 Zero = 0.41

I 41187

(1) ~~Julia~~

	Moon C	Julia,	Moon 2.	Julia –
	21.86	21.20	22.60	22.82
	21.85	21.58	22.65	22.70
mean	21.86	21.39	22.62	22.76

Mea

(2)

Moon C	Julia	Moon 2	Julia
21.46	21.65	22.55	22.80
21.58	21.60	22.55	22.85
21.52	21.62	22.55	22.82

Sig 24	Julia
17.78	22.71
17.80	22.75
17.79	22.73

	Zero
301	0.41
310	0.45
319	0.49
mean	0.45

Sig 23	Julia
19.96	22.66
20.00	22.72
19.98	22.69

Sig 26	Julia
21.35	22.18
21.50	22.67
21.42	22.68

~~21.62~~

22.73
69
68
2.10
22.70
45
22.25

Transit of Mercury May 7, 1924

Comparison of Chronometers

May 6 1924 E.T.
1 16 48 = 0 21 0

watch
1 23 0 = 0 23 0

May 7 1924
Chron. clock
1 57 47 = 0 56 0
watch 1s fast

6 24 47 = 5 29 0

Clock B 103.

40 25

5 38 03
5 40 25

E.S.K. Obs.

Recd by Dr Bowie of time of transit by Chronometer No 3424 May 7 1924

1st Obs = 9h ~~44~~ 42m ~~38~~ 16s GMT
2nd Contact = 9h 44 38 "

Clock Comparison by Radio.

1924 May	5	Noon	1.0s slow
"	6	"	0.7 "
"	7	"	0.5 "
"	7	10 PM	0.4 "
"	8	Noon	0.3 "

(over)

2 Copies
Dr Shapley
May 9. 1924

Observation of Transit of Mercury

------

1. Station, Harvard College Observatory, Cambridge, Mass.

Latitude +42° 22′ 48″, Longitude $4^h\ 44^m\ 31^s$ W.

2. Date, May 7, 1924.

3. Instrument, 15-inch Equatorial, reduced in aperture to 9 1/2 inches. Focal length, 22 feet and 6 inches. Magnification, 132 times. Timepiece, Frodsham Chronometer.

4. Comparisons made with clock showing Eastern Standard Time.

	Chron.			Clock		
	h	m	s	h	m	s
May 7	1	51	47	0	56	0
	6	24	47	5	29	0

Radio signals from Arlington give error of clock as follows:

May 7 Noon 0.5 sec. slow

10 p.m. 0.4 sec slow

5. Planet was first seen at $5^h\ 38^m\ 3^s$ by chronometer.

Second contact observed at $5^h\ 40^m\ 25^s$ by chronometer.

6. Estimate that Mercury had encroached by about an eighth of its diameter on the sun when first seen. Probably the first contact came about 20 seconds earlier.

At second contact the limbs of sun and planet were seen joined by ligament; time was taken while still joined. Complete ~~severering~~ separation, shown by thin thread of light, came about five seconds later. Uncertainty of observation estimated at 5 seconds.

E. S.-K. Observer

I. B. Recorder.

Thursday May 22. 1924

Dr. Stetson Photometer

AG 5559

11 00 Zero = 0.35

	Sep.	Film	Diffo			Sp.	Film		
1.	6.56	11.10	4.54	4.24	25	5.53	11.85	6.33	5.52
2	5.57	10.99	5.48	5.23	26	5.60	11.93	6.33	5.49
3	5.18	11.21	6.03	5.58	27	5.89	12.18	6.29	5.30
4	5.70	11.40	5.70	5.18	28	6.24	12.64	6.40	5.22
5	5.35	11.55	6.20	5.56	29	6.26	12.90	6.64	5.32
6	5.70	11.92	6.22	5.40	30	6.35	12.95	6.60	5.26
7	5.71	11.48	5.77	5.22	31	6.23	12.55	6.32	5.20
8	5.64	11.45	5.81	5.25	32	6.20	12.36	6.16	5.15
9	5.51	11.57	6.06	5.42	33	5.64	11.75	6.11	5.38
10	5.57	11.70	6.13	5.42	34	5.70	11.90	6.20	5.40
11	5.55	11.58	6.03	5.40	35	5.78	11.90	6.12	5.32
12	5.66	11.98	6.32	5.45	36	6.05	12.60	6.55	5.37
13	6.00	12.55	6.55	5.39	37	6.28	12.65	6.37	5.20
14	6.12	12.37	6.25	5.22	38	6.34	12.72	6.38	5.17
15	6.32	12.18	5.86	4.97	39	6.05	12.65	6.60	5.39
16	6.17	12.60	6.43	5.26	40	6.21	12.57	6.36	5.23
17	5.70	12.01	6.31	5.38	41	5.70	11.80	6.10	5.35
18	5.80	12.49	6.69	5.54	42	5.60	11.90	6.30	5.48
19	5.86	12.30	6.44	5.40	43	5.85	12.18	6.33	5.37
20	6.46	12.89	6.43	5.15	44	6.42	12.89	6.47	5.17
21	6.35	12.65	6.30	5.14	45	6.53	12.16	5.63	4.79
22	6.42	12.95	6.53	5.20	46	6.60	12.35	5.75	4.82
23	6.42	12.80	6.38	5.14	47	6.56	13.02	6.46	5.12
24	6.25	12.60	6.35	5.20	48	6.70	13.21	6.51	5.08

Col Mean = 0.40

11 25 Zero = 0.48

11.52 Zero = 0.40

Thursday Feb 22 1923

aG 5139
11 54 Sq 1 reflected) 6.60 10.98

Film cut across for [illegible] glasses

1st Neon Sq 9 + glass plates 18.34 6.60

2nd Neon Sq 16 + glass plates 18.68 7.02

pt 18.40 6.46

2nd 18.39 7.08

12.07 Zero = 0.35

Friday June 13 1924

Dr. Stetson's Off.

10 32 Zero = −0.06

aG 5368 Uniformity of Seq

		Seq	Film		
	1	5.55	13.28	7.73	5.82
	~~3~~ 2	4.19	10.00		
	3	5.66	13.42		
	4	4.34	10.10		
	5	4.42	10.40		
	6	4.45	10.30		
	7	4.52	12.35		
	8	5.38	12.20		
	9	5.24	12.02		
Zero = 0.00	10	5.39	12.22	6.83	5.58
	11	5.12	12.20		
	12	5.29	12.06		
	13	5.65	12.54		
	14	5.80	12.51		
	15	6.10	13.08		
	16	6.05	12.95		
	17	5.96	13.00		
	18	6.00	13.20		
	19	6.20	13.25		
	20	6.40	13.28		
	Zero	+0.10			
		Readjustments			
	1	6.10	13.78		
	2	5.76	13.40		
	Zero	0.00			

Zero = 0.00

21	5.82	13.00		
22	5.90	12.92		
~~23~~				
30	6.58	13.68	7.10	5.19
40	3.85	13.90	10.05	7.56
50	3.80	13.80	10.00	7.25
60	6.90	13.70	6.80	4.96
45	6.35	13.40	7.05	5.26

ay 841

zero = 0.00

			again	
1	17.98	19.70	18.20	19.50
4	18.75−	19.52	18.80	19.50
3	19.15−	19.42	19.20	19.94
5	18.79	19.50	18.82	19.60
2	19.48	19.45	19.51	20.10

Thursday June 19, 1924

Re-Skeltons aff.

AG 5568

10 22 zero = 0.20

	Sq.	film
1	6.81	15.71
2	6.72	15.50
3	6.90	15.71
4	7.00	15.80
5	7.20	16.12
6	7.07	16.01
7	7.24	16.20
8	7.20	15.97
9	7.09	15.80
10	7.~~04~~16	15.78

zero = 0.25

10 35 zero = 0.30

11	6.80	15.24
12	6.79	15.10
13	7.22	15.50
14	7.18	15.38
15	7.58	15.84
16	7.50	15.80
17	7.40	15.80
18	7.32	15.88
19	7.40	15.26
20	7.50	15.50

zero = 0.33

10 45 zero = 0.36

10 45 zero = 0.36

	Sq.	film
21	6.89	14.75
2	7.00	14.72
3	7.18	15.00
4	7.36	14.95
5	7.78	15.60
6	7.65	15.60
7	7.58	15.62
8	7.64	15.50
9	7.50	15.20
30	7.72	15.55

zero = 0.38

10 55 zero = 0.40

31	7.22	15.10
2	7.10	14.50
3	7.19	14.57
4	7.20	14.51
5	7.70	15.40
6	7.70	15.45
7	7.70	15.42
8	7.58	15.70
9	7.70	15.40
40	4.50	15.85

zero = 0.41

11 05 zero 0.42

Thursday June 19 1924

ag 5328 (continued)

	11 05	Zero	= 0.42
	41	7.15	15.10
	2	7.10	14.75
	3	7.10	14.40
	4	7.20	14.70
= 0.42	5	7.36	14.95
	6	7.56	15.10
	7	7.68	15.24
	8	7.80	15.56
	9	7.60	15.25
	50	4.50	15.60
	11 14	Zero	0.42
	51	7.10	15.20
	2	7.06	14.70
	3	7.30	14.45
	4	7.16	14.25
0.41	5	7.28	14.42
	6	7.78	14.82
	7	7.70	15.02
	8	7.55	14.95
	9	7.65	14.98
	60	8.00	15.52
	11 22	Zero	= 0.40

	11 22	Zero	= 0.40
	61	7.38	15.18
	2	7.15	14.64
	3	7.18	14.25
	4	7.06	14.20
0.40	5	7.30	14.40
	6	7.42	14.38
	7	7.54	14.70
	8	7.30	14.40
	9	7.30	14.62
	70	7.76	15.10
	11 32	Zero	= 0.40
	71	7.12	14.30
	2	6.86	13.50
	3	6.95	13.62
	4	6.96	13.50
0.40	5	7.10	13.50
	6	7.10	13.55
	7	7.30	14.08
	8	7.25	14.25
	9	7.30	14.39
	80	7.82	14.76
	11 40	Zero	= 0.40
	10	7.02	15.45
	1	6.90	15.40

Thursday June 19 1924

AG 5368 (Continued)

11 45 Selin

Cell Mean Zero = 0.30

15.10	14.68	14.50	14.65 ← 12 09	14.70	14.70	14.45
15.15	14.69	14.20	14.30	14.40	14.42	13.76
15.38	15.30	14.50	14.10	13.80	14.00	13.76
15.40	14.94	14.42	14.12	13.98	14.00	13.60
15.58	15.48	15.02	14.70	14.50	14.00	13.55
15.72	15.62	15.10	14.75	15.40	14.40	13.90
15.78	15.50	15.06	14.92	14.60	14.38	14.20
15.60	15.50	15.00	15.30	15.00	14.15	14.~~30~~ 10
15.22	15.18	14.98	14.94	14.90	14.54	14.40

12 19 Zero = 0.22

Monday June 23, 1924

AG 5569 Measured on the Stetson Off.

~~Film~~

3 56 Zero = 0.10

~~3 5~~ Symm Fili.

Zero = 0.10

1 8.45 10.85
2 8.10 10.84
3 8.50 11.05
4 8.45 10.90
5 8.35 10.82
6 8.47 10.90
7 8.46 10.90
8 8.32 10.65
9 8.30 10.54
10 8.40 10.68

4 05 Zero 0.11

Zero = 0.13

11 8.68 11.01
12 8.50 11.15
13 8.66 11.25
14 8.78 11.25
15 8.66 11.20
16 8.48 10.95
17 8.45 10.90
18 8.60 10.96
19 8.50 10.74
20 8.51 10.75

4 14 Zero = 0.15

4 14 Zero = 0.15

Zero = 0.18

21 8.78 11.18
2 8.80 11.20
3 8.90 11.22
4 8.85 11.30
5 8.90 11.35
6 8.74 11.20
7 8.72 11.40
8 8.75 11.28
9 8.75 11.10
30 8.80 11.14

4 21 Zero = 0.20

Zero = 0.20

31 8.90 11.25
2 8.95 11.51
3 9.10 11.50
4 8.63 10.94
5 8.82 11.08
6 8.78 11.20
7 8.90 11.40
8 8.88 11.42
9 8.60 10.94
40 5.50 11.24

4 28 Zero. 0.20

Monday June 23 1924

aG 5569 (Continued)

4 26 Zero = 0.20

Zero = 0.20

41	8.50	10.75
2	8.30	10.65
3	8.62	10.87
4	8.75	10.90
5	8.70	11.00
6	8.80	11.20
7	8.85	11.40
8	8.95	11.48
9	8.61	11.01
50	5.46	11.05

4 36 Zero = 0.20

Zero = 0.20

51	8.70	10.79
	8.50	10.62
	8.65	10.90
	8.82	10.92
	8.70	11.00
	8.70	11.10
	8.98	11.48
	8.84	11.30
	8.54	11.06
	8.80	11.04

4 43 Zero = 0.20

443 Zero = 0.20

Zero = 0.20

61	8.67	10.76
2	8.52	10.60
3	8.70	10.93
4	9.00	11.05
5	8.82	11.04
6	8.80	11.10
7	8.91	10.38
8	8.70	11.12
9	8.60	11.06
70	8.70	11.05

4 51 Zero = 0.20

Zero = 0.20

71	8.58	10.50
2	8.57	10.69
3	8.65	10.80
4	8.70	10.80
5	8.60	10.72
6	8.60	10.80
7	8.80	11.10
8	8.52	10.82
9	8.76	11.10
80	8.92	11.31

4 58 Zero = 0.20

Monday July 14, 1924

2 12425 On Slotom apparatus

2 02 Zero = 0.10

	Midway H_γ + H_ϵ		Midway H_β + H_γ		Midw H_α + Ref	
3 b	+ 5.90	+ 13.90	+ 4.60	14.15	11.85	14.10
	6.12	14.06	4.82	14.20	11.90	14.20
	6.01	13.98^{12}	4.71	14.18^{02}	11.88^{72}	14.15$^{13.99}$
	(4.35)	13.82	(3.38)			
2 a	6.14	14.19	4.90	14.04	11.40	14.25
	6.25	14.08	4.91	14.10	11.80	14.30
	6.20	14.14$^{13.99}$	4.90^{94}	14.07$^{12.91}$	11.60^{44}	14.28^{12}
	(4.44)		(3.42)			
2 b	1.85	14.46	1.30	14.42	5.85	14.30
	1.80	14.50	1.28	14.48	5.82	14.40
	1.82	14.48^{32}	1.29	14.45^{29}	5.84^{68}	14.35^{19}
4 a	6.00	14.40	4.32	14.48	11.56	14.20
	6.20	14.35	4.65	14.38	11.70	14.25
	6.10 (4.25)	14.38^{22}	4.48 (3.1)	14.35^{19}	11.63^{47}	14.22^{06}
4 b	10.30	14.50	8.80	14.24	13.50	14.05
	10.28	14.50	9.20	14.10	13.58	14.00
	10.29	14.50^{34}	9.00	14.17^{01}	13.54^{38}	14.02$^{13.86}$
5 a	2.02	14.50	1.30	14.20	5.00 ~~13.82~~	13.82
	2.10	14.58	1.30	14.18	5.10	13.78
	2.06 (1.42)	14.54^{38}	1.30	14.19^{03}	5.05	13.80^{64}
5 b	4.65	14.15	3.08	13.90	9.45	13.60
	4.70	14.18	3.28	13.80	9.55	13.67
	4.68 (3.31)	14.16^{00}	3.18	13.85^{67}	9.50	13.64^{48}

2 49 Zero = 0.22

Monday July 14, 1924

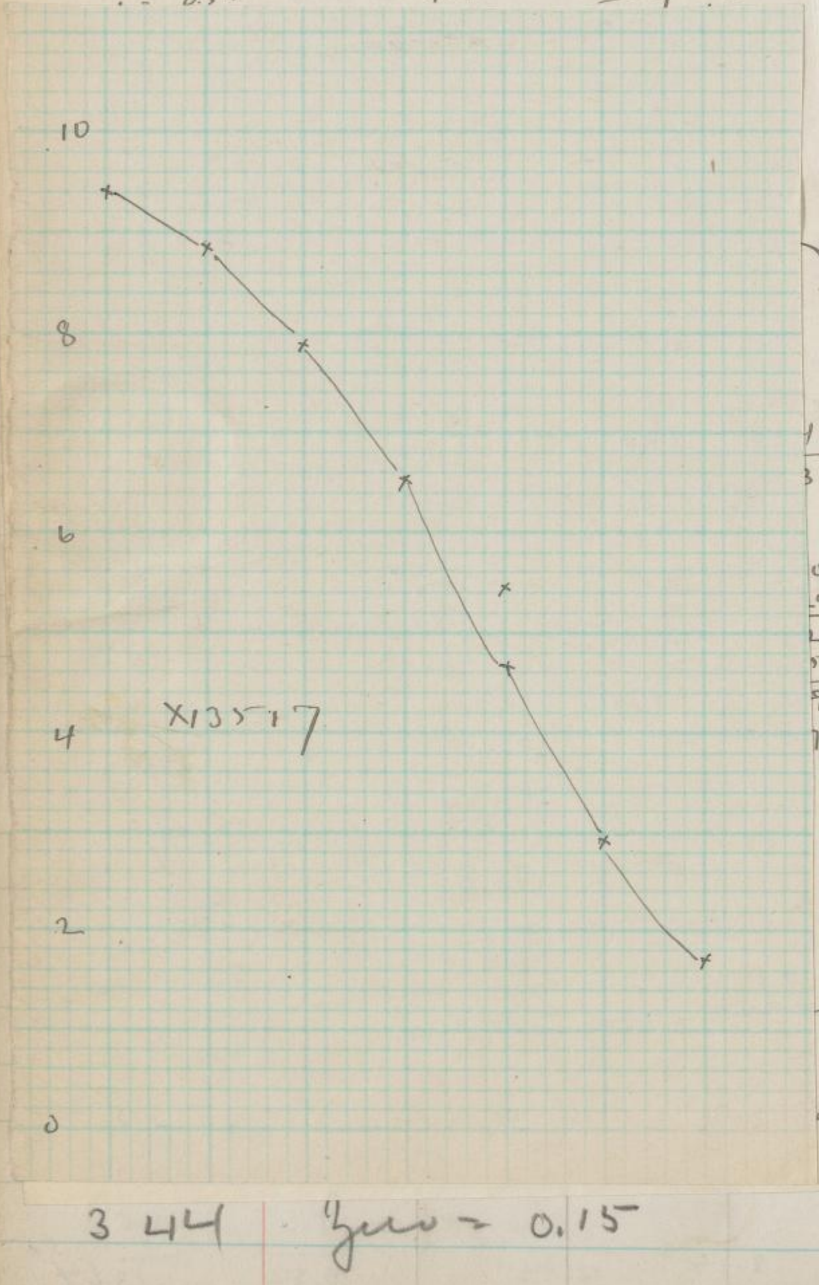
In Stetson app

3 15 Zero = 0.120 Thin piece of micro. cover glass over aperture but below paper.

x 13517 Moon plan

X 13517

	10 mm. Dark		5 mm
Call a = 0.00	9.55		7.55
.. 0.50	9.40	1.38	7.90



0.92	12.80	app	
0.90	12.85		9.40
0.91	12.82	12.70/ 11.91	
1.52	12.80		
1.55	12.80		
1.54	12.80	12.65/ 11.26	8.87
2.76	12.70		
2.80	12.70		
2.78	12.70	12.58/ 9.92	7.90
4.40	12.58		
4.50	12.52		
4.45	12.55	12.43/ 8.10	6.52
6.65	12.35		
6.70	12.39		
6.68	12.37	12.25/ 5 ~~6~~.69	4.64 ~~5.46~~
8.70	12.35		
agn. 8.75	12.25		
8.72	12.30	12.18/ 3.58	2.94
agn 0.16	12.35		
0.18	12.30		
10.17	12.32	12.20/ 2.15	1.74

3 44 Zero = 0.15

Monday July 14, 1924

Dr. Stetson app

3 15 Zero = 0.120 Thin piece of micro. cover glass over aperture best below paper.

X 13517 Moon Plane

0.92	12.80	Diff	
0.90	12.85		9.40
0.91	12.82	12.70) 11.91	
1.52	12.80		
1.55	12.80		
1.54	12.80	12.65) 11.26	8.87
2.76	12.70		
2.80	12.70		
2.78	12.70	12.58/9.92	7.90
4.40	12.58		
4.50	12.52		
4.45	12.55	12.43) 8.10	6.52
6.65	12.35		
6.70	12.39		
6.68	12.37	12.25/~~8~~5.69	4.64 ~~5.46~~
8.70	12.35		
8.75	12.25		
8.72	12.30	12.18/3.58	2.94
0.16	12.35		
0.18	12.30		
10.17	12.32	12.20/2.15	1.74

3 44 Zero = 0.15

X 13517

Call a = 0.00

0.50

10mm. Dark

9.53
9.40
1.00) 0.13

Value ~~0.0~~ −0.14

5mm

7.53
1.38 7.90
2.76) 35

1.00
12
1.12
1.50
−0.38

Light

10mm

97 8.50
8.87
1.94) 37

5mm

~~2.52 3.81 5.46 1.65 5.04~~

3.81
4.64
3.40) 0.83

0.50
19
0.69

~~2.00 33 2.33 1.50 0.83~~

2.00
24
2.24
1.50
~~3.74~~
0.74

Light

0.69
74
0.~~83~~
0.72 Diff = 0.98 ~~1.02~~ magn.

Dark & Light factor = 0.98 ~~1.02~~ magn.

Monday July 14, 1924

In Stetson app

3 15 Zero = 0.20 Thin piece of micro. cover glass over aperture best below paper.

x 13517 Moon plane

Moon 10m m

Dark

Lamps

0.62 10.60 a 0.92 12.80 diff

0.64 11.90 diff 0.90 12.85 9.40

0.63 11.25 11.13) 12.50 0.91 12.82 12.70) 11.91

10.62

9.55

Light 1 1.52 12.80

2.00 12.80 1.55 12.80

2.00 12.70 1.54 12.80 12.65/11.26 8.87

2.00 12.75 12.63) 10.75 2 2.76 12.70

8.50 2.80 12.70

2.78 12.70 12.58/9.92

Moon 5m m 7.90

Dark 3 4.40 12.58

3~~2~~.10 11.70 4.50 12.52

2.90 12.18 4.45 12.55 12.43) 8.10 6.52

3.00 11.94 11.83 8.94 4 6.65 12.35

Light 7.55 6.70 12.39

7.88 12.90 6.68 12.37 12.25/ ~~8~~5.69 4.64 ~~5.46~~

7.96 12.55 5 8.70 12.35

7.92 12.72 12.60/4.80 8.75 12.25

3.81 8.72 12.30 12.18/3.58 2.94

6 10.16 12.35

10.18 12.30

3 44 Zero = 0.15 10.17 12.32 12.20/2.15 1.74

Tuesday July 15, 1924

On Stetson app.

2 26 Zero = 0.08

E 12421

	2½ mm from Hγ toward Blue				17.5 from Hγ toward red.			
Image 7	~~15.30~~							
	0.60	15.30			1.30	14.70	~~14.7~~	
	0.60	15.25	15.16)	14.68	1.30	14.90	14.68)	13.50
	0.60	15.28		~~0.40~~	1.30	14.80		
				9.70				9.20
Image 8	3.97	14.92			8.90	14.60		
	4.10	14.88	14.78)	10.86	9.00	14.75	14.56)	5.73
	4.04	14.90		7.35	8.95	14.68		3.94

2 37 Zero = 0.16

E 12274

Image 1	0.62	15.65			2.82	15.70		
	0.68	15.90	15.60)	15.13	2.80	15.80	15.57)	12.94
	0.65	15.78			2.81	15.75		
				9.72				8.32
Image 3	3.74	15.76			11.08	16.08		
	3.95	15.75	15.58)	11.92	11.06	16.00	15.86)	4.97
	3.84	15.76		7.68	11.07	16.04		3.14

2 55 Zero = 0.20

Tuesday July ~~8~~ 15, 1924

E 12421

3 24 Zero = 0.10

Image 7 Between H & K

~~2.08 14.54~~
2.00 14.50
2.00 14.80
2.00 14.65

14.55 / 12.65
6.70

Image 8 ~~8.70 14.44~~
8.10 14.42
8.10 14.32
8.10 14.35

14.25 / 6.25
4.39

3 32 Zero = 0.10

Monday Sept 15 1924

Dr. Stetson's Photometer

I 41347

10 58 Zero = 0.20

Moon (1)	Sky	Moon (2)	Sky.
~~10.85~~ 9	~~14.15~~	~~9.90~~	~~13.30~~
9.89	13.22	9.40	13.20
10.60	13.40	9.40	13.10
10.64	13.40	9.58	13.10
11.00	13.60	10.60	12.84
11.10	13.48	10.80	12.90
11.00	13.42	10.20	12.55

6) 64.23 / 10.70 ✓

6) 80.52 / 13.42 ✓

6) 59.98 / 10.00 ✓

6) 77.69 / 12.95 ✓

	Sky	Film					
22	5.70	23.20		25	12.70 -57	23.92	
	5.60	23.55			13.52 +23	23.98	
	5.60	23.45			13.60 +33	24.06	
	170	120			182	296	
	5.63 ✓	23.40 ✓ 5.63	7.71		13.27 ✓ ~~13.61~~	13.~~27~~ 23.99 ✓	4.54 ~~4.38~~
	23.06	17.77			22.65	~~10.38~~ 10.72	
23	7.30	23.40		26	15.75	23.90	
	7.50	23.42			15.22	23.86	
	7.40	23.51			15.71	23.89	
	120	133			168	265	
	7.40 ✓	7.40 23.44 ✓	6.96		15.56 ✓	15.56 23.88	3.53
	23.10	16.04			23.54	8.32	
24	9.70	23.68		27	18.85	23.51	Zero
	9.90	23.71			19.02	23.74	
	9.72	23.65			19.35	23.70	
	3) 23 2	204			22 ✓	1~~8~~9 5	
	9.77 ✓	9.7~~7~~8 ✓ 23.6~~4~~			19.07	23.~~58~~ 65 19.07	
	23.34	13.91	5.97		23.31	4.58	1.96

Zero
0.20
0.30
0.38
0.40
0.41
5) 1.69
0.34

ended at 11 39

Monday Sept 15 1924

I 41347 (Reflectant)

2 28 Zero = 0.09

Moon (1)	Sky (1)	Moon (2)	Sky (2)
10.85	13.30	10.22	12.32
10.99	12.90	9.85	12.45
10.95	13.21	10.05	12.61
9	41	12	138
10.93	13.14	10.04	12.46

22 5.37 23.87
5.80 23.50
5.91 23.40
208 127
5.69 5.69
23.42
23.20 / 17.73 7.65

23 7.20 23.50
7.50 23.50
7.80 23.65
150 165
7.50 7.50
23.55
23.33 / 16.05 6.90

24 9.71 23.68
9.96 23.85
9.96 23.70
263 223
9.88 23.74
9.88
2 55 ended
23.52 / 13.86 5.90

25 13.06 23.80
13.09 23.80
13.00 23.80
157
13.052 23.80
13052
23.58 / 10.752 4.56

26 15.48 23.85
15.45 23.80
15.40 23.90
15.44 23.855
15.44
23.63 / 8.41 3.56

27 18.60 23.60
18.70 23.60
18.80 23.50
40 170
18.70 2.09
18.70 23.57
23.35 / 4.87

Zero
0.09
0.20
0.29
0.32
4 / 0.90
0.22

Monday Sept 15, 1924

I 42049

Moon 1 a	b	Sky ~~Film~~ 1	Moon 2 a	b	Sky ~~Film.~~		Film.
16.55	14.25	21.16	18.52	16.10	22.20		22.75
16.55	14.64	21.20	18.40	16.20	22.20		22.66
16.23	14.90	21.00	18.50	16.10	22.20		22.66
13 3	~~13~~12 9	37	14 2	40			20 7
16.44 ✓	14.~~53~~60 ✓	21.12 ✓	18.47 ✓	16.13 ✓	22.20 ✓		22.69 ✓

27	2.37	23.50		31	12.60	23.25			
	2.40	23.40			12.55	23.20			
	2.42	23.58			12.50	23.00	4.52		
	11 9	148							
	2.40 ✓	2.40 23.49 ✓			12.55 ✓	12.55 ✓ 23.15		h.m	Zero
	23.13	/ 21.09	9.13		22.79	/ 10.60		3 11	0.32
28	4.10	23.38		32	15.55	22.76			0.35
	3.90	23.50			15.51	22.70	3.22		0.39
	3.92	23.36			15.59	22.80		344	0.39
	11 9 2	12 4			11				71 25
	3.97 ✓	3.97 23.41 ✓	8.45		15.55 ✓	15.55 ✓ 22.75			
	23.05	/ 19.44			22.39	/ 7.20			Zero = 0.36
29	5.92	23.49		33	18.62	22.60			
	5.95	23.50			18.42	22.55			
	6.00	23.50			18.80	22.50	1.78		
					18 4				
	5.96 ✓	5.96 ✓ 23.50	7.59		18.61 ✓	18.61 ✓ 22.55			
	23.14	/ 17.54			22.19	/ 13.94			
30	8.75	23.50		34	20.70	22.50			
	8.90	23.38			20.80	22.40			
	9.02	23.30	6.29		20.90	22.50	0.72		
	26 6 7	11 8							
	8.89 ✓	8.89 ✓ 23.39			20.80 ✓	20.80 ✓ 22.47			
	23.03	/ 14.50			22.11	/ 11.67			

Monday Sept 15 1924

I 42067

Moon (1)	Sky (1)	Moon (2)	Sky (2)	Tube
11.09	15.81 rejected	10.30	14.58	20.00
11.50	14.60	10.48	14.65	20.00
11.10	13.90	11.20	14.15	19.90
11.30	13.80	10.90	13.60	19.85
11.30	13.50	11.15	13.80	19.68
129	20.81	403	578	443
11.26✓	14.16✓	10.8[illegible]✓	14.16✓	19.89✓

								Zero
27	5.00	20.40		30	14.15	20.40	347	0.36
	4.91	20.50			14.10	20.28		0.40
	5.10	20.38			14.40	20.05		0.40
	01	128	7.70		65	73	3.02	0.36
	5.00✓	5.00✓ 20.43			14.22✓	14.22✓ 20.24	4 15	0.30
	20.07	15.43			19.88	1602	.1	5 | 182
28	7.85	20.51		31	16.30	19.86		0.36
	8.00	20.50			16.60	20.02		
	7.70	20.60			16.75	19.95		
	23 55	161			165	283		
	7.85✓	7.85 4✓ 20.53	6.30		16.55✓	16.55✓ 19.94	1.73	
	20.18	12.69			19.58	3.39		
29	10.50	20.52		32	18.50	19.54		
	10.50	20.25			18.40	19.60		
	10.62	20.48			18.30	19.70		
	162	135			120	184	0.63	
	10.54✓	10.54 2✓ 20.42	4.93		18.40✓	18.40 1✓ 19.65		
	20.06	19.88			19.25	1.21		

Thursday Feb 26. 1925

Measures of AG 5757 A (Hi-Speed)

aperture	~~Zero~~	area	Film	Dr. Stetson	mean	Photometer		~~3 37~~	
	1 a	1.02	16.15	1.14	1.08 ✓	15.08 ~~14.81~~	9.4 ✓	Zero	Zero
9	b	2.95	16.16	3.00	2.98 ✓	13.18 ~~12.91~~	Began 8.30 ✓	3.31	0.20
	c	7.85	16.16 27 15.89	8.08	7.96 ✓	8.20 ~~7.93~~	only pt 5.16 ✓	3 43	0.30
	~~2 a~~						Ended	3 54	0.32 3)82 0.27
	2 a	2.20	16.25	2.22	2.21 ✓	14.01 ~~13.74~~	8.80 ✓		
6	b	6.85	16.20	6.90	6.88 ✓	34 9.07	5.86 ✓		
	c	13.98	16.22 27 15.95	14.06	14.02 ✓	2.20 ~~1.93~~	1.38 ✓		
	3 a	2.98	16.30	3.02	3.00 ✓	35 13.08	8.30 ✓		
~~6~~ 5	b	8.50	16.40	8.25	8.38 ✓	97 7.70	4.96 ✓ ~~5.46~~		
	c	15.10	16.35 27 16.08	15.08	15.09 ✓	1.26 0.99	0.78 ✓		
	4 a	3.53	16.12	3.60	3.58 ✓	58 12.31	7.92 ✓		
4	b	10.79	16.20	10.92	10.86 ✓	30 5.03	3.33 ✓		
	c	16.10	16.16 27 15.89	—	—				
	5 a	6.74	16.30	6.70	6.72 ✓	63 9.36	5.98 ✓		
2	b	14.55	16.40	14.70	14.62 ✓	73 1.46	1.06 ✓ ~~0.11~~		
~~3~~	c	—	16.33 27 16.08		—				
	6 a	8.89	16.22	8.90	8.90 ✓	38 7.~~11~~	61 4.56 ✓		
1	b	15.53	16.35	15.60	15.58 ✓	90 0.43	0.44 ✓		
	c	—	16.28 27 16.01		—				

Thursday Feb 26, 1925

C 1

			Arm	Film	Arm	Mean					Zero
Hefner 4s at 1M	1	a	0.90	14.95	0.90	0.90	14.08	9.58	Begun	3.38	0.30
		b	3.14	15.00	3.10	3.12	11.86	8.07	1st	4.07	0.30
		c	9.55	14.98 .30 14.68	9.25	9.40	5.58	3.80	Ended	4.14	0.30 0.30
Hefner 4s at 1.58M ~~½~~	2	a	1.90	14.10	1.84	1.87	12.43	8.89			
		b	6.63	14.50	6.75	6.69	7.69	5.43			
		c	12.90	14.30 30 14.00	13.10	13.00	1.30	0.93			
Corona 2s ½ at	3	a	2.60	14.92	2.52	2.56	12.40	8.46			
		b	8.58	15.00	8.55	8.56	6.40	4.36			
		c	—	14.96 30 14.66	—	–	–				
Corona 4s ½ at	4	a	1.40	14.90	1.65	1.52	13.26	9.16 ~~8.72~~			
		b	5.08	14.65	5.05	5.06	9.72	6.72			
		c	12.40	14.78 30 14.48	12.50	12.45	2.33	1.61			

C 2

			Arm	Film	Arm	Mean				Zero
Hefner 2^s at 1M	1	a	1.60	15.65	1.60	1.60	14.02	9.12	Begin 4 16	0.30
		b	5.80	15.60	5.78	5.79	9 83	6.39	Middle 4 23	0.30
		c	13.48	15.62	13.10	13.29	2 33	1.57	~~Delay~~	
				23						
				15.39					End 4.45	0.10
										70
										mean 0.23
Hefner 2^s at 1.58M	2	a	3.50	15.50	3.35	3.42	11.94	7.90 ~~7.76~~		
		b	10.25	15.22	10.20	10.22	5.14	3.40		
		c	—	15.36	—	-	-			
				23						
				15.13						
Crown 2^s full	3	a	2.05	15.65	1.90	1.98	13.58	8.86		
		b	7.10	15.46	6.95	7.02	8.54	5.57		
		c	13.68	15.56	13.20	13.44	2.12	1.38		
				23						
				15.33						
Crown 4^s full	4	a	1.30	15.50	1.10	1.20	14.25	9.35		
		b	4.90	15.40	4.68	4.79	10.66	7.00		
		c	12.40	15.45	12.10	12.25	3.20	2.10		
				23						
				15.22						

Physics of Dev. Image — Ross
Van Kleeland

C 3

					Mean				Gen
Before	1 a	1.15	16.20	1.15	1.15	15.20	9.38	Begin 449	0.12
24 5 at 1PM	b	4.25	16 50 16.35	4.20	4.22	12.13	7.45	Middle 456	0.15
	c	11.05	.14 16.21	10.90	10.98	5.37	3.31	End 502	0.15 42
								Mean	0.14

Before	2 a	2.60	15.50	2.62	2.61	12.88	8.37
24 5 at 1.58PM	b	8.25	15.48 15.49	8.65	8.45	7.04	4.59
	c	14.90	.14 15.35	15.25	15.08	0.41	0.27 ~~0.68~~

Corona	3 a	2.15	16.60	2.20	2.18	14.37	8.78 6
2 5	b	7.72	16.50 16.55	7.65	7.68	8.87	5.40
Full	c	16.05	14 16.41	16.10	16.08	0.47	0.29

Corona	4 a	1.30	16.10	1.30	1.30	14.90	9.27
4?	b	4.85	16.30 16.20	4.20	4.88	11.32	7.06
Full.	c	12.60	.14 16.06	12.70	12.65	3.55	2.21

C 4

											Zero
						Mean			[illegible]	5.03	0.15
	1	a	1.75	16.20	1.80	1.78	14.42	9.00	[illegible]	5.09	0.20
[illegible] 2^3 at 1M		b	6.48	16.20	6.35	6.42	9.78	6.1	[illegible]	5.14	0.20
		c	13.90	16.20 .18 16.02	14.14	14.02	2.18	1.36			Σ 1.55 Mean = 0.18
	2	a	3.75	15.84	3.80	3.78	12.15	7.71			
[illegible]		b	11.21	16.02	11.15	11.18	4.75	3.02			
~~5^s~~ 2^3 at 1.58M		c	—	15.93 18 15.75	—	–	–	–			
	3	a	2.90	16.50	2.90	2.90	13.54	8.34			
Corona		b	9.20	16.38	9.25	9.22	7.22	4.45			
2^s ½ at		c	—	16.44 18 16.26	—	–	–	–			
Corona	4	a	1.85	15.68	1.90	1.88	13.82	8.90			
4^s ½ at.		b	6.70	15.72	6.65	6.68	9.02	5.82			
		c	14.55	15.70 18 15.52	14.15	14.35	1.35	0.87			

Wednesday April 8, 1925

On Stetson Photometer

Plate ag 5765

150

~~1 a 1.30 Filter 13.95~~

~~b 3.32~~

~~c 9.06~~

~~Zero~~

Zero 0.44

1 ~~50~~ ~~0.40~~

	Mg	Filter	General
1a	1.34	8.25	13.65
1b	3.35	11.83	13.50
1c	8.70	13.45	13.30
2a	2.00	11.00	11.82
2b	5.02	11.82	11.80
2c	10.20	11.78	11.65

Zero 1.54	0.50
1C	0.56
2C	0.60

2 a b c

3 a b c

Evidently falling to low as needle falls off continuously

Alg 57) 65. (continued,

3a 2,35

3b

3c

Zero

~~Sq. Obj filt Main divide~~ Sq.

Sq a adj Filin Filin

Thursday April 9, 1925

Re-Silvered, Photometer

2.04 P.M. AG 5751 A (Remeasured) see page 85

Zero = 0.45		Sig	S ~~[illegible]~~	adj' Filter.	Green Filter	Sig.	Filter	Diff	
1	a	1.32	1.42	9.45	1st 18.10	1.52	9.10	16.50	9.52
	b	3.35	3.50	14.20	2nd 17.73	3.65	13.60	14.42	8.33
	c	8.90	8.92	17.65	17.92 ~~8.7~~ 57 17.35	8.95	17.64	9.00	5.18
Zero = 0.50					= 0.68				
2	a	2.75	2.80	16.90	18.20	2.85	17.00	15.35	8.75
	b	7.48	7.56	18.15	18.10	7.64	18.20	10.59	6.04
	c	15.85	15.88	18.40	+18.15 60 17.55	15.92	18.30	2.27	1.30
Zero = 0.58					= 0.66				
3	a	3.82	3.76	18.05	18.30	3.70	17.90	14.50	8.23
	b	9.55	9.58	18.40	18.21	9.60	18.20	8.68	4.93
	c	17.12	17.08	18.30	18.26 64 17.62	17.04	18.00	1.18	0.67
Zero = 0.60					= 0.70				
4	a	4.60	4.45	18.00	18.25	4.30	17.85	13.75	7.86
	b	12.27	12.26	18.30	18.15	12.25	18.20	5.94	3.39
	c	—		—	18.20 ~~0.74~~ 1754				
Zero = 0.64		~~7.95~~			= 0.70				
5	a	7.95	7.92	18.48	18.45	7.90	18.30	10.42	5.92
	b	16.75	16.72	18.40	18.22	16.68	18.18	1.62	0.92
	c	—		—	18.34 67 17.67				
Zero = 0.65					= 0.70				
6	a	10.30	10.24	18.35	18.24	10.18	18.25	7.93	4.54
	b	17.50	17.48	18.40	18.10	17.45	18.20	0.69	0.40
	c	—		—	18.17 68 17.49				
Zero = 0.66					= 0.72				

Ended 3.02 P.M.

Thursday April 9 1925

3.05 P.M		a9 5765				
Z = 0.70		Sq.	adj. Filter	Filter	Sq.	adj. Filter
1	a	1.80	10.75	17.80	1.85	10.40
	b	4.65	15.30	17.40	4.75	16.42
	c	12.10	18.05		11.90	18.00
Z = 0.70			=	0.80		
2	a	2.70	16.75	18.15	2.74	16.75
	b	7.75	18.30	18.00	7.72	18.10
	c	15.80	18.35		15.75	18.30
Z = 0.74			=	0.80		
3	a	3.50	17.80	18.10	3.50	17.75
	b	9.82	18.10	18.15	~~4~~9.90	18.15
	c	16.96	18.12		17.05	18.10
Z = 0.76			=	0.80		
4	a	2.60	14.75	18.10	2.60	14.60
	b	6.98	18.00	18.15	7.00	18.10
	c	15.02	18.48		14.95	18.40
Z = 0.76			=	0.80		
5	a	3.98	18.25	18.19	4.04	18.25
	b	11.15	18.40	18.15	11.20	18.45
	c	17.45	18.10		17.40	18.18
Z = 0.78			=	0.80		
6	a	5.48	18.50	18.12	5.35	18.50
	b	13.60	18.10	17.98	13.66	18.10
	c	~~17.40~~	~~17.85~~	—	—	
Z = 0.80			=	0.80		

3.25 P.M

Ended 3.43 P.M.

Friday April 10, 1925

Dr. Stetson P. [illegible]

~~Z=~~ 2.12 P.M. Alt 57 ~~54~~ 65

			Sky	adj Film	General Film 0.62	Sky	adj Film
Z = 0.48							
	1	a	1.60	10.94	17.95	1.70	10.40
		b	4.42	16.10	17.90	4.70	15.45
		c	12.05	17.95		12.25	18.10
Z = 0.50					= 0.62		
	2	a	2.48	16.65	18.22	2.60	15.90
		b	7.95	18.20	18.15	7.90	18.22
		c	15.96	18.26		16.20	18.40
Z = 0.52					= 0.64		
	3	a	3.30	17.80	18.12	3.40	17.80
		b	9.72	18.22	18.25	9.95	18.30
		c	17.05	18.14		17.20	18.16
Z = 0.58					= 0.64		
	4	a	2.40	15.00	18.25	2.48	1~~8~~4.50
		b	7.18	18.14	18.20	7.10	17.98
		c	15.25	18.45		15.26	18.30
Z = 0.60					= 0.66		
	5	a	3.85	18.01	18.20	3.86	18.15
		b	11.25	18.60	18.00	11.30	18.60
		c	17.60	18.15		17.42	18.20
Z = 0.60					= 0.66		
	6	a	5.28	18.45	17.95	5.22	18.15
		b	13.66	18.30	18.10	13.65	18.20
		c	—	—		—	—
Z = 0.62					= 0.68		

2.37 P.M. Sunset 3.05 P.M.

Wednesday May 27, 1925

Trial of C.S. M on double Star Σ 2190
on plate X1794

Set on Trail & also on [illegible] line of Stars &
found the two practically identical.

Thursday May 28, 1925

Have adjusted Repsold micrometer. Vertical setting for reading 0 is 265 at double wire. Main micrometer settings are

Horizontal 0.00
Vertical 7.70

Plate X 1794 Σ 2120

Horizont	R,	L
	178° 59'	359° ~~2~~'8
Star	294 57	114 48
	~~52~~	

Monday June 1 1925

Have adjusted microscopes to read ~~with the~~ progressively with the circle graduations

The vertical scale reading with micrometer at 0.85 shows graduation 265

Adjusting central microscope to obtain good [illegible] field

Readings for Centre { Horizontal = 8.~~70~~68
Vertical = 8.12

Plate 1794 Σ 2190

	R	L
Line of images	2° 18'	182° 17'
~~P.A. setting~~	~~23 40~~	~~204 01~~
	~~21 22~~	~~21 44~~
PA setting	23 50	203 51
	21 32	21 34
again	2° 20'	182 20
	27 55	207 56
	25 35	25 36
Reverse	206 22	26 22
− 180	26 22	206 22
	2 20	
	24 02	24 02
To left field	116 12	296 12
	90	90
	26 12	206 12
	2 20	182 20
	23 56	23 56

316

Rect	685	7.86
	633	7.35
	0.52	0.51

In micrometer scale

Tuesday June 2 1925

Repsold Micrometer

Revised readings for central micrometer
Horizontal 8.70 vertical 7.32
Other settings as previously.

	X 1794	Σ 2190
	R.	L
Zero	182° 26′	2° 26′
1st	205 4′	25° 4′
	186	
2nd	26 39	206 40
	181 35	181 36
3rd	248 35	118 35
4th	115 ~~38~~ 32	295 30

Wednesday June 3, 1925

X 1794 Σ 2140

~~time~~	R	L	again	R	L
time	2° 46'	182° 49		182 37	2 37
1st	30 53	210 54		297 15	117 15
2	120 24	300 25		26 12	206 13
3	207 27	27 27		116 48	296 49
4	9 2~~2~~6 19	116 19		208 03	28 03
				648 18	648 20

but 7.07
6.58
0.49

1mm = 2.07
15" = 1mm = 4.34

648.3
540
4 | 108.3
27.1
2.6
24.5

3rd set	R	L	4th set	R	L
time	183 03	3 03		182 48	2 49
1	208° 10'	28° 10'		207 09	27 09
2	296 39	1 ~~2~~16 38		298 11	118 10
3	28 58	208 59		26 29	206 30
4	117 22	29 ~~22~~7 23		117 22	297 24
	657 09	651 10		651 11	651 13

651.2
540
4 | 111.2
27.8
3.0
24.8

657.2
540
4 | 111.2
27.8
2.8
25.0

24.5
24.8
25.0

Wednesday June 3 1925

Same instrument

Image not so near center of pupil

	R	L
line	184°24	4
1st	244 50	1
2nd	28 18	2
3rd	118 21	2
4th	204 07	
	655 36	6

655.6
540
4)115.6
28.9
4.6
24.3

Σ 2190

r 97	~~23° 56'~~	23.9	-.4
r 99		24.8	+5
r100		24.3	0
101		24.2	-1
		4)1 2	+5
		24.3	-5
			4)10
			±.25

Wednesday June 3 1925

Same instrument

Image not so near center of pupil

	R	L
Line	184°24	4 24
1st	299 50	19 50
2d	28 18	208 20
3d	118 21	298 22
4th	209 07	29 07
	655 36	655 39

655.6
540
4) 115.6
28.9
4.6
24.3

Thursday June 4, 1925

Same instrument. X1794 Σ 2190

Settings central microscope (single wire

Hor. 7.64 vertical 6.~~30~~28

	R	L	again	R	L	again	R	L
Line	195° 57′	15° 57′		201 51	21 51		352 59	172 59
	195 56	15 55		201 53	21 53		352 57	172 51
1st	130 12	310 13		136 13	316 14		17 45	197 46
2d	220 36	40 36		225 04	45 02		108 07	288 08
3d	310 13	130 12		31~~3~~4 34	134 34		197 15	17 14
4th	39 41	219 42		48 10	228 10		284 41	104 41
	700 42	700 43		724 01	724 00		~~611 52~~ 597	~~697 52~~

700.7
540.0
4) 160.7
40.2
15.9
24.3

724.0
540.0
4) 184.0
46.0
21.9
24.1

~~697.87~~
~~540~~
~~4) 157.87~~
~~39.47~~
352.9
~~6.6~~

597.9
540
4) 57.9
14.5
352.9
21.6

697° 52
540
67 52
4) 67.87
16.97
352.91
24.06

24.°1

352°.91

Micrometer settings in comparator

~~Bright~~	Hor.	ver.
Bright	7.66	6.27
Faint	7.83	6.72
	0.17	0.45

Friday June 5, 1925
Same instrument
X 2176 Σ 2909

Time 279° 48′

R

1st	326 49	58 49	
2nd	64 31	64 31	
3rd	157 25	67 25	
4th	242 17	62 17	
		4|253 02 (62)	
		63.2 63°16	

243.2
279.8
323.4

vertical mic
6.21 6.21
dist 6.02 6.04
0.19 0.17
mean 0.18
1ᵐᵐ = 2.07 div 1ᵐ = 42″.4ˢ
Dist = 3″.2

R

again 280 44

245 12	65 12
333 09	63 9
64 20	64 20
154 20	64 20
	4| 17 01
	64°.25

180
244.25
280.73
323.52

Hor. mic
9.21
9.05
0.16

vertical
7.96
7.77
0.19

again 277 13

60 09	60 09	−24
150 14	60 14	−19
240 11	60 11	−22
331 38	61 38	+66
	4| 2.2 12	~~+2~~
	60.55	63
		4|130
		+35

180
240.53
277.22
323.33

4\|132
33 ~~6~~

323.4
323.5
323.3

Thursday June 25, 1925

On Stetson's apparatus.

used

AG 5777 Test of halation effect

11 08 Zero = 0.10

		Sg.	adj	(non-distant Film)		Sg.	adj.	non-distant Film
	1	1.20	10.09	11.90	11	1.55	12.83	12.19
11.75)		10.70	1.87		11.94)	10.54	−0.64	
		~~6.12~~ 9.10	1.54			8.84	−0.54	
	2	2.05	11.50	12.20	12	2.48	13.10	12.60
12.05)		10.15	0.70		12.35)	10.12	−0.50	
		8.41	0.58			8.21	−0.41	
	3	3.45	12.25	12.10	13	3.70	12.75	12.34
11.95)		8.65	−0.15		12.09)	8.64	−0.41	
		~~8.44~~ 7.23	−0.13			7.15	−0.34	
	4	4.86	12.36	12.00	14	5.14	12.48	11.90
11.85)		7.14	−0.36		11.65)	6.76	−0.58	
		6.03	−0.30			5.80	−0.50	
	5	6.50	11.86	11.80	15	7.10	11.95	11.80
11.65)		5.30	−0.06		11.55)	4.70	−0.15	
		4.55	−0.05			4.06	−0.13	
	6	8.70	12.20	12.30	16	9.10	12.45	12.28
12.15)		3.60	0.10		12.03)	3.18	−0.13	
		2.96	0.08			2.64	−0.11	
	7	10.31	12.30	12.22	17	10.86	12.40	12.20
12.07)		1.91	−0.08		11.95)	1.34	−0.20	
		1.58	−0.07			1.14	−0.17	
	8	11.45	12.10	12.11	18	11.58	12.10	12.00
11.96)		0.66	−0.01		11.75)	0.42	−0.10	
		0.55	−0.01			0.36	−0.09	

11 20 Zero = 0.20

mean = 0.15

11 31 Zero = 0.30

mean 0.25

Thursday June 25 1925
Same conditions

AG 5778				Seq	So.	adj. Fit	mean dust filter
1	0.92	7.92	13.00	11	0.92	10.60	13.10
12.67)	12.08	5.08		12.72)	12.18	2.50	
	9.54	4.02			9.57	1.96	
2	1.25	9.65	12.88	12	1.40	12.30	12.75
12.55)	11.63	3.23		12.37)	11.35	0.45	
	9.26	2.58			9.17	0.36	
3	1.95	11.35	12.64	13	2.20	12.30	12.56
12.31)	10.69	1.29		12.18)	10.36	0.26	
	8.66	1.05			8.51	0.21	
4	2.90	12.10	12.50	14	3.15	12.50	12.30
12.17)	9.60	0.40		11.92)	9.15	−0.20	
	7.89	0.33			7.64	−0.17	
5	4.20	12.20	12.20	15	4.35	12.40	12.12
11.87)	8.00	0.00		11.74)	7.77	−0.28	
	6.73	0.00			6.62	−0.24	
6	6.25	12.85	12.86	16	6.55	12.90	12.90
12.53)	6.61	0.01		12.52)	6.35	0.00	
	5.27	0.01			5.07	0.00	
7	8.30	12.90	12.81	17	8.68	12.70	12.62
12.48)	4.32	−0.28		12.24)	3.94	−0.08	
	3.47	−0.22			3.22	−0.07	
8	10.10	12.65	12.62	18	10.40	12.50	12.78
12.29)	2.52	−0.03		12.40)	2.38	0.28	
	2.05	−0.02			1.94	0.23	
9	11.75	12.60	12.60	19	11.40	12.10	12.00
12.27)	0.85	0.00		11.62)	0.60	−0.10	
	0.69	0.00			0.52	−0.09	

11 34 Zero at start = 0.30
11 46 " at end = 0.36 mean = 0.33

11 58 Zero = 0.40 Mean = 0.38

✓

Thursday June 25, 192

ac 5779 Same Conditions

1	0.60	4.05	12.86	11	0.61	7.70	12.85
12.46)	12.26	8.81		12.45)	12.24	5.15	
	9.85	7.04			9.84	4.14	
2	0.75	6.35	13.02	12	0.80	9.80	13.00
12.62)	12.27	6.67		12.60)	12.20	3.20	
	9.~~84~~71	5.28			9.66	2.54	
3	1.00	8.50	13.05	13	1.02	11.94	12.78
12.65)	12.05	4.53		12.38)	11.76	0.84	
	9.54	3.60			9.50	0.68	
4	1.42	10.62	12.50	14	1.60	12.75	12.46
12.10)	11.08	1.88		12.06)	10.86	−0.29	
	9.15	1.55			9.00	−0.24	
5	2.22	11.85	12.15	15	2.30	12.70	12.00
11.75)	9.93	0.30		11.60)	9.70	−0.70	
	8.45	0.26			8.35	−0.60	
6	3.40	13.10	13.10	16	3.70	13.20	12.80
12.70)	9.70	0.00		12.40)	~~8~~9.40	−0.10	
	7.64	0.00			7.58	−0.08	
7	5.08	13.25	13.00	17	5.40	13.00	12.70
12.60)	7.92	−0.25		12.30)	7.~~60~~30	−0.30	
	6.29	−0.20			5.94	−0.24	
8	7.20	13.15	12.90	18	7.45	12.78	12.42
12.50)	5.70	−0.25		12.02)	4.97	−0.36	
	4.56	−0.20			4.13	−0.30	
9	9.60	12.70	12.50	19	9.56	12.30	11.94
12.10)	2.70	−0.20		11.54)	2.38	−0.36	
	2.40	−0.17			2.06	−0.31	

11.59 Zero = 0.40

12.10 Zero = 0.40 mean 0.40

12.21 Zero = 0.40 mean 0.40

Monday July 6, 1925

	Ag 5751 A		Fil
1 a	1.00		15.45
b	2.88		
c	7.82		
2 a	2.10		15.40
b	8.60		
c	13.45		
3 a	2.90		
b	8.24		
c	14.25		
4 a			
b			
c			
5 a			
b			
6 a			
b			
	Zero		
11 24	0.28		

Galvanometer went wrong'
Found it not level.
Corrected

✓ Tuesday July 7. 1925

	AG 5751 A			Re-Section Apparatus				
		again	Film	1st 2nd Means	a	b	c	Film
1a	1.11	1.35	16.75					
b	3.15	3.30	17.22		1.23	3.22	8.36	16.98 .38
c	8.50	8.22			15.75	13.76	8.62	16.60
					9.48	8.29	5.19	
2a	2.48	2.67	17.00		2.58	6.99	14.68	17.05 40
b	6.78	7.20	17.10		14.47	10 06	2.37	16.65
c	14.65	14.72			8.70	6.05	1.42	
3 a	3.25	3.36	17.18		3.30	8.84	15.87	17.14 42
b	8.80	8.87	17.10		13.84	8.30	1.27	16.72
c	15.94	15.80			8.27	4.96	0.76	
4a	3.94	3.95	17.04		3.94	11.43	16.90	17.10 44
b	11.60	11.26	17.16		13.16	5.67	0.20	16.66
c	16.89	16.92			7.90	3.41	0.12	
5a	7.28	7.31	17.21		7.30	15.56	—	17.23 46
b	15.52	15.60	17.25		9.93	1.67		16.77
					5.93	0.99		
6 a	9.48	9.50	17.12		9.49	16.43	—	17.16 48
b	16.36	16.50	17.20		7.67	0.73		16.68
					4.60	0.44		

	Zero		Zero	Mean
Began 2 16	0.30	2 28	0.45	0.38
2 28	0.45	2 41	0.52	0.48

Started lamp at 2 P.M

Tuesday July 7. 1925

		AG 5783	again	Film		Means a	b	c	Film
dist	1 a	0.90	0.91	15.00	or 2nd	0.90	3.10	10.30	15.08
1.26 1.0	b	3.08	3.12	15.15		14.18	11.98	4.78	60
	c	10.30	10.30			9.80	8.28	3.31	14.48
1.58 1.26	2 a	1.16	1.20	15.40		1.18	5.08	12.02	15.55 60
	b	4.97	5.19	15.70		14.37	10.47	3.53	14.95
	c	11.98	12.05			9.62	7.00 ~~2.84~~	2.36	
~~2.0~~ 1.58	3 a	1.65	1.70	15.60		1.68	6.82	14.30	15.55 60
	b	6.84	6.80	15.50		13.87	8.73	1.25	14.95
	c	14.35	14.24			9.26	5.84	0.84	
					Means	9.31	5.82	0.74	
~~2.0~~ 1.58	4 a	1.51	1.52	15.30		1.52	6.82	14.46	15.40 60
	b	6.70	6.95	15.50		13.88	8.58	0.94	14.80
	c	14.42	14.50			9.36	5.80	0.64	
2.0	5 a	2.30	2.30	15.57		2.30	9.02	—	15.54 60
	b	9.00	9.05	15.50		13.24	6.52		14.94
	c	—	—			8.85	4.37		
2.5	6 a	3.35	3.38	15.15		3.36	11.18	—	15.20
	b	11.40	10.95	15.24		11.84	4.02		60
	c	—	—			8.12	2.75		14.60

		Zero		Zero
Shut	2 50	0.60	3 00	0.60
	3 00	0.60	3 10	0.60

✓ Tuesday July 7, 1925

			AG 5781		Bottom	Means	a	b	c	Film
2.51	1	a	2.90	2.98	~~14~~ 13.80		2.94	9.40	13.38	13.83
		b	9.40	9.40	13.86		10.89	4.43	0.45	61 13.22
		c	13.25	13.50			8.23	3.35	0.34	
2.0	2	a	2.00	2.00	14.42		2.00	7.23	13.37	14.42
		b	7.25	7.21	14.42		12.42	7.19	1.05	61 13.81
		c	13.34	13.40			9.00	5.20	0.76	
~~2.0~~ 1.58	3	a	1.40	1.55	14.10		1.48	5.25	12.16	14.20
		b	5.40	5.10	14.30		12.72	8.95	1.94	61 13.59
		c	12.16	12.15			9.36	6.59	1.43	
						Means	9.38	6.52	1.84	
1.58 ~~2.0~~	4	a	1.38	1.40	13.95		1.39	5.33	10.95	13.94
		b	5.26	5.40	13.94		12.55	8.61	2.99	61 13.33
		c	11.20	10.70			9.40	6.46	2.24	
1.26	5	a	1.10	1.10	14.50		1.10	3.71	7.66	14.49
		b	3.70	3.72	14.48		13.39	10.78	6.83	61 13.88
		c	7.63	7.70 *			9.65	7.76	4.92	
1.0	6	a	0.91	0.92	13.69		0.92	2.82	8.76	13.62
		b	2.85	2.80	13.54		12.70	10.80	4.86	61 13.01
		c	8.80	8.71			9.76	8.30	3.73	
Start			Zero		Zero					
3 14			0.61	3.28	0.61					
3 28			0.61	3.43	0.61					

* These readings give anomalous results. Probably fog from adjacent exposure is the cause.

Saturday July 11, 1925

at
1 25

		Standard Lamp.			Dr Stetson's apparatus				Δ
		Ag 5817 A amm	amm	Fil.	Means	a	b	c	Fil.
9	1a	0.86	1.00	13.50		0.96	5.06	12.94	13.56
	b	5.02	5.10	13.62		12.60	8.50	0.62	13.22
	c	12.98 ~~13.88~~	12.99			9.52	6.44	0.47	
5	2a	5.28	5.45	14.65		5.36	13.09	—	14.66
	b	12.98	13.20	14.66		9.30	1.57	—	14.32
	c	—	—			6.50	1.10	—	
6	3a	3.65	3.80	14.20		~~1~~3.72	11.57	—	14.28
	b	11.50	11.52	14.35		10.56	2.77	—	13.94
	c	—	—			2.57 ~~8.40~~	1.99	—	
8	4a	2.00	2.10	14.25		2.05	7.54	—	14.32
	b	7.64	7.45	14.40		12.27	6.78	—	13.98
						8.76	4.86	—	
4	5a	8.10	8.24	14.02		8.17	—	—	14.14
				14.25		5.97	—	—	13.80
						4.32	—	—	
3	6a	10.65	10.78	14.53		10.72	—	—	14.62
				14.70		3.90	—	—	14.28
						2.73	—	—	

		Zero		Zero	
1	43	0.25	1.56	0.35	
1	54	0.35	2.05	0.40	4)1.35

Mean = 0.34

Saturday July 11, 1925

AG 5817 B

		arm	arm	Fili	Means	a	b	c	Film
	1a	0.59	0.62	14.64		0.60	1.40	5.82	14.71
9	b	1.40	1.40	14.88		14.11	13.31	8.89	14.23
	c	5.85	5.80			9.93	9.36	6.31	
	2. a	1.40	1.45	15.02		1.42	6.48	—	15.06
5	b	6.52	6.45	15.10		13.64	8.58	—	14.58
	~~c~~	—	—			9.35	5.51	—	
	3 a	1.10	1.10	15.44		1.10	4.50	12.59	15.30
6	b	4.30	4.70	15.1~~0~~5		14.20	10.80	2.77	14.82
	c	12.48	12.70			9.56	7.30	1.82	
	4 a	0.72	0.78	14.30		0.75	1.92	8.28	14.31
8	b	1.95	1.90	14.32		13.56	12.39	6.03	13.83
	c	8.20	8.35			9.80	8.95	4.36	
4	5 a	2.05	2.10	15.10		2.08	9.39	—	15.15
	b	9.28	9.50	15.20		13.07	5.71	—	14.67
						8.90	3.93	—	
1	6 a	7.35	7.36	14.85		7.36	—	—	14.78
				14.70		7.42	—	—	14.30
						5.19			

	Zero		[illegible]	
2.06	0.40	2.18	0.50	
2.16	0.50	2.27	0.50	4)1.90
			Mean	0.48

✓ Saturday July 11, 1925

a S 5818 A ref = 2 mags. Phot G

		Ann	Ann	Julie	1st Ser
	1a	1.00	1.10	2.95	
9	b	2.25	2.30	2.98	
5	2a	2.50	2.40	3.05 3.00	
6	3a	2.30	2.22	4.05 4.00	
8	4a	2.65	2.78	5.40	
	b	4.00	4.05	5.70	
4	5a	4.08	4.00	4.75 4.70	
3	6a	—	—	—	

	June		Jan
2 31	0.50		
2 42	0.66		

Saturday July 11 1925

α Lyr 58,18 B 2nd Iso Plot. ? 2ap =

ap.		Ann	Ann	Lits
9	1a	—	—	2.90
	b	0.92	0.95	2.92
	c	1.80	1.80	
5	2a	1.10	1.10	3.20
	b	2.48	2.60	3.30
6	3a	0.90	0.95	4.20
	b	2.39	2.50	4.00
8	4a	0.70	0.70	5.00
	b	1.15	1.15	5.00
	c	2.80	2.85	
4	5a	1.25	1.50	3.90
	b	3.15	3.25	3.80
1	6a	2.75	2.70	3.50 3.55

	Jen
2.45	0.50
2.57	0.50

Saturday July 11, 1925

	C 1	~~400~~						
				Means	a	b	c	Filar
	Arcus	Arcus	Filar					
[illegible] 1 a	1.00	1.05	12.48		1.02	2.46	6.42	12.52
b	2.46	2.45	12.55		11.50	10.06	6.10	12.02
c	6.35	6.50			9.57	8.38	5.07	
2 a	1.67	1.65	12.00		1.66	5.72	10.62	12.02
b	5.75	5.70	12.05		10.36	630	1.40	11.52
c	10.63	10.60			9.00	5.47	1.21	
4 ~~4a~~	7.65	8.00	12.20		7.~~65~~72	—	—	12.15
			12.10		4.43			11.65
~~5 a~~	~~5.30~~				3.80			
3 ~~5a~~	5.30	5.20	12.10		5.25	—	—	12.10
			12.10		6.85			11.60
					5.90			

3 ~~4~~/ Repeated on Friday July 31, 1925
arcus 5.22 Filar 9.85 – distant 10.90 Zero = 0.15

	Zero
3 25	0.50
3 36	0.50

✓ Saturday July 11, 1925

	C 2	Zero.		Means	a	b	c	Films
1a	1.50	1.48	12.45		1.49	4.72	1034	12.48
b	4.80	4.65	12.50		10.99	7.76	2.14	11.98
c	10.32	10.35			9.19	6.48	1.79	
2a	2.95	2.90	12.50		2.92	9.25	—	12.45
b	9.35	9.15	12.40		9.53	3.20	—	11.95
					7.96	2.68	—	
4 ~~8~~ a	8.85	8.50	12.48		8.68	—	—	12.50
			12.52		3.82			12.00
					3.18			
3 ~~4~~ a	6.28	5.90	12.40		6.09	—	—	12.35
			12.30		6.26			11.85
					5.28			

Friday July 31, 1925

3/ Repeats

5.40 Film 11.40 Zero = 0.30

6.00 11.10

= 5.40

4/ 7.50 Film 11.40

11.10/ 3.90

= 3.52

	Zero
3 38	0.50
3 50	0.50

✓

Saturday July 11, 1925

	C 3	Iso.						
	Aver	Aver	Filter	Means	a	b	c	Filter
1 a	1.35	1.35	14.40		1.35	3.35	8.42	14.45
b	3.40	3.30	14.50		13.10	11.10	6.03	13.95
c	8.35	8.50			9.40	7.96	4.32	
2 a	2.25	2.25	14.42		2.25	7.99	12.96	14.36
b	7.88	8.10	14.30		12.11	6.37	1.40	13.86
c	13.15	12.78			8.75	4.60	1.01	
4 ~~3~~ a	10.80	11.00	14.55		10.~~80~~ 90	—	—	14.58
			14.61		3.68			14.08
					2.62			
3 4 a	7.15	7.04	14.49		7.10	—	—	14.52
			14.54		7.42			14.02
					5.30			

	Zero
3 52	0.50
4.03	0.50

✓ Saturday July 11, 1925

	C 4	Geo						
	arm	arm	Fil	Means	a	b	c	Fil
1 a	1,82	1.78	14,45		1.80	5.80	11.95	14.42
b	5.80	5.80	14.40		12.62	8.62	2.47	13.92
c	11.80	12,10			9.06	6,20	1.77	
2 a	3.70	3.80	14.45		3.75	11.46	13.92	14.37
b	11.37	11.55	14.29		10.62	2.91	0.45	13.87
c	13.95	13.90			7.66	2,10	0.36	
3 a	—	—	—		—	—	—	—
4 a	—	—	—		—	—	—	—

	Geo
4.04	0.57
4 12	0.50

Saturday July 11, 1925

AG 5757 B Do Photometer R (shades)

apertures.		area	area	Film	Mean	a	b	c	Film
	1a	1.60	1.60	15.08		1.60	3.48	7.58	15.09
9		3.42	3.55	15.10		13.49	11.61	7.51	14.59
		7.60	7.56			9.25	7.96	5.15	
	2a	2.62	2.66	14.90		2.64	8.18	13.45	14.81
	b	8.24	8.12	14.72		12.17	6.63	1.36	14.31
6	c	13.60	13.30			8.50	4.63	0.95	
	3a	3.30	3.50	14.55		3.40	10.12	—	14.48
5	b	10.15	10.10	14.41		11.08	4.36	—	13.98
						7.93	3.12	—	
	4a	4.35	4.60	14.30		4.48	11.75	—	14.36
4	b	11.70	11.80	14.42		9.88	2.61	—	13.86
						7.13	1.88	—	
	5a	8.10	8.75	14.52		8.42	—	—	14.47
2	~~b 11.15~~			14.42		6.05	—	—	13.97
						4.33	—	—	
1	6a	11.15	11.20	14.75		11.18	—	—	14.78
				14.82		3.60	—	—	14.28
						2.52	—	—	

Zero

3 03 0.50

3 19 0.50

✓ Monday July 13, 1925

Photometer B shades [illegible]

1 52 Started [illegible] of Dr. Stetson's Apparatus.

		a	b	c	Film	(6) a	b	c	Film
AG 5752A	1	0.43	1.61	4.70	15.55	7.95	—	—	15.94
9		0.52	1.96	5.00	15.65	(1) 8.02	—	—	15.98
		0.48	1.78	4.85	15.60	7.98	—	—	15.96
		15.12	13.82	10.75	15.31	7 98	—	—	15.67
		9.90	9.04	7.03		5.10			
6	2	1.15	5.00	10.90	15.80				
		1.25	5.35	10.80	15.84				
		1.20	5.18	10.85	15.82				
		14.62	10.64	4.97	15.53				
		9.25	6.73	3.21					
4	3	1.60	6.90	13.40	15.51				
		1.68	7.02	13.60	15.54				
		1.64	6.96	13.50	15.52				
		13.88	8.56	2.02	15.23				
		9.11	5.63	1.32					
4	4	2.36	10.11	—	15.16				
		2.50	9.90	—	15.25				
		2.43	10.00	—	15.20				
		12.77	5.20	—	14.91				
		8.57	3.49	—					
2	5	5.32	13.70	—	15.69				
		5.25	13.70	—	15.72				
		5.28	13.70	—	15.70				
		10.42	2.00	—	15.41				
		6.72	1.30	—					
		Zero (1)		Zero (2)					
2	12	0.20	2 26	0.30	4)115				
2	25	0.30	2 36	0.35	0.29				

✓ Monday July 13. 1925

AG 5752 B Iso Photometer B (shades)

Ap		a	b	c	Filter	②	a	b	c	Filter
9	1	0.64	1.40	3.40	11.45	5)	5.46	—	—	10.96
		0.68	1.58	3.72	11.45		5.50	—	—	10.96
		0.66	1.49	3.56	11.45		5.48	—	—	10.96
		10.79	9.96	7.89	11.07		5.48			10.58
		9.75	9.00 ~~9.29~~	7.13			5.18			
6	2	1.10	4.66	9.20	11.40	6)	8.01	—	—	11.20
		1.20	4.98	9.30	11.45		8.00	—	—	11.40
		1.15	4.82	9.25	11.42	①	8.00	—	—	11.30
		10.27	6.60	2.17	11.04		3.30			10.92
		9.29	5.96	1.96			3.02			
5	3	1.57	6.70	9.92	11.00					
		1.60	6.96	9.89	10.90					
		1.58	6.83	9.90	10.95					
		9.39	4.14	1.07	10.57					
		8.87	3.92	0.95						
4	4	2.40	8.88	—	10.72					
		2.57	8.74	—	10.74					
		2.46	8.81	—	10.73					
		8.27	1.92		10.35					
		7.98	1.15							

	Zero(1)		Zero(2)	
				4/150
2 39	0.35	2 50	0.40	~~4/155~~
2 49	0.40	2.59	0.40	~~0.49~~
				0.38

✓ Monday July 13, 1925

aG 5753 A Hi-Speed Photometer A (Shades)

wt	a	b	c	Fila	a	b	c	Fila
9	1)				5)			
	0.80	2.00	6.44	15.90	6.18	13.50	—	16.11
	0.80	1.91	6.50	15.88	6.21	13.50	—	16.12
	0.80	1.96	6.47	15.89	6.20	13.50	—	16.12
	15.09	13.93	9.42	15.49	9.92	2.62		15.72
	9.75	9.00	6.08		6.31	1.67		
6	2)				6)			
	1.78	4.90	11.95	16.32	8.90	—	—	16.04
	1.80	4.90	12.10	16.20	8.88	—	—	16.06
	1.79	4.90	12.02	16.26	8.89	—	—	16.05
	14.47	11.36 ~~13.36~~	4.24	15.86	7.16			15.65
	9.11	7.16 ~~8.43~~	2.68		4.57			
5	3)							
	2.30	6.98	13.90	16.05				
	2.30	6.85	13.92	15.78				
	2.30	6.92	13.91	15.92				
	13.62	9.00	2.01	15.52 ~~00~~				
	8.79	5.60	1.29					
4	4)							
	3.00	9.05	—	15.55				
	3.01	8.90	—	15.51				
	3.00	8.98	—	15.53				
	12.53	6 ~~8~~.53		15.13				
	8.30	4.21 ~~6.32~~						
	Zero (1)		Zero (2)					
3 00	0.40	3 10	0.40					
3 09	0.40	3 20	0.40					
				0.40				

Monday July 13, 1925

a G 5-7 513 B 820 Photometer A (shades)

1) ① a	b	c	Fili	5/ ② a	b	c	Fili
0.82	1.78	3.30	12.60	6.92	—	—	12.31
0.85	1.70	3.68	12.75	7.05	—	—	12.20
0.84	1.74	3.49	12.68	6.98	—	—	12.26
11.84	10.94	7.19	12.28 00	5.28			11.86
9.65	8.93	7.49		4.45			
2/ ⑥				6/ 10.00	—	—	12.80
1.50	5.27	9.28	12.8[illegible]	① 10.20	—	—	12.90
1.50	5.50	9.46	12.92				
1.50	5.38	9.37	12.86	10.10	—	—	12.85
11.36	7.48	3.49	12.46	2.75			12.45
9.11	6.00	2.80		2.21			
3/ ⑤ 1.95	7.38	10.35	12.20				
2.08	7.42	10.32	12.10				
2.02	7.40	10.34	12.15				
10.13	4.75	1.81	11.75				
8.62	4.04	1.54					
4) ④ 2.91	9.62	—	11.90				
2.88	9.61	—	11.94				
2.90	9.62	—	11.92				
9.02	2.30		11.52				
7.82	2.00						

	Zero (1)		Zero (2)	
3 24	0.40	—	—	
	—	3 42	0.39	
				0.40

✓ Monday July 13, 1925

AG 57.54 A Hi-Spread. Photometer D Shade.

	a	b	c	Total	a	b	c	Total
9	1)				5) ② 8.12	16.25	—	17.30
	1.01	3.01	8.25	17.05	7.91	16.15	—	17.30
	1.05	3.00	8.48	17.18				
	1.03	3.00	8.37	17.12	8.02	16.20	—	17.30
	16.09	14.12	8.75	16.74	9.28	1.10		16.92
	9.60	8.45	5.23		5.36	0.65		
6	2) 2.38	7.00	14.70	17.32	6) ①			
	2.39	6.96	14.62	17.31	10.30	—	—	17.30
	2.38	6.98	14.66	17.32	10.28	—	—	17.30
	14.94	10.34	2.66	16.94	10.29	—	—	17.30
	8.84	6.11	1.57		7.01			16.92
					4.14			
5	3) 3.15	9.01	16.12	17.12				
	3.20	9.10	16.00	17.14				
	3.18	9.06	16.06	17.13				
	13.95	8.07	1.07	16.75				
	8.35	4.82	0.60					
4	4)							
	4.12	11.38	—	17.00				
	4.11	11.45	—	16.94				
	4.12	11.42	—	16.97				
	12.85	5.55		16.59				
	7.75	3.34						

3 44 Zero at start = 0.39

4 00 " " Close = 0.36

0.38

✓ Monday July 13 1925

AG 5754 B Dzo Photometer D (Shades)

a	b	c	Film	a	b	c	Film
③ (1/				(5/②			
1.25	3.02	6.56	15.05	9.95	—	—	15.00
1.30	3.04	6.60	15.00	10.58	—	—	14.98
1.28	3.03	6.58	15.02	10.26	—	—	14.99
13.74	11.99	8.44	14.67	4.73			14.64
9.36	8.18	5.75		3.23			
⑥ (2/				(6/①			
2.60	8.05	13.20	15.20	12.37	—	—	15.25
2.58	8.00	13.20	15.15	12.55	—	—	15.30
2.59	8.02	13.20	15.18	12.46			15.28
12.59	7.16	1.98	14.83	2.82			14.93
8.50	4.83	1.33		1.88			
⑤ (3/							
3.20	10.00	13.82	14.90				
3.30	10.14	13.92	14.90				
3.25	10.07	13.87	14.90				
11.65	4.83	1.03	14.55				
8.01	3.32	0.69					
④ (4/							
5.62	13.11	—	14.50				
5.30	13.10	—	14.72				
5.46	13.10		14.61				
9.15	1.57		14.26				
6.42	1.06						

4.04 Zero at start 0.36

4.21 " " End 0.34

0.35

✓ Monday July 13, 1925 —

AG 5819 A + B — Shades of Photomes A

A) a	b	c	Filter	B) a	b	c	Filter
a) 0.50	1.12	4.70	13.60	7/ 0.85	2.46	9.10	14.00
0.50	1.12	4.60	13.50	0.81	2.32	8.92	13.80
0.50	1.12	4.65	13.55	0.83	2.39	9.01	13.90
13.05	12.43	8.90	13.23	13.07	11.51	4.89	13.58
9.86	9.55	6.73		9.62	8.50	3.60	
5 1.40	5.20	12.65	13.82	6/ 1.10	3.56	10.70	13.36
1.40	5.30	12.50	13.78	1.05	3.54	10.84	13.36
1.40	5.25	12.~~6~~58	13.80	1.08	3.55	10.77	13.36
12.40	8.55	1.22	13.48	12.28	9.81	2.59	13.04
9.21	6.35	0.90		9.40	7.53	1.99	
1) 6.85	12.95	—	14.00	3/ 2.88	9.06	—	13.25
6.84	12.85	—	13.96	2.85	9.22	—	13.20
6.84	12.90	—	13.98	2.86	9.14	—	13.22
7.14	1.08		13.66	10.36	4.08		12.90
5.23	0.79			8.04	3.16		
8/ 0.70	1.60	6.90	14.05	2) 4.25	11.15	—	13.48
0.70	1.63	6.80	13.94	4.20	11.10	—	13.51
0.70	1.62	6.85	14.00	4.22	11.12	—	13.50
13.30	12.38	7.15	13.68	9.28	2.38		13.18
9.73	9.08	5.23		7.05	1.81		
4/ 2.00	7.65	—	14.00				
2.00	8.05	~~13.30~~	14.10				
2.00	7.85	~~13.30~~	14.05				
12.05	6.20	—	13.73				
8.40	4.52						

Zero

4 24 Start 0.34

4 53 End 0.30

0.32

✓ Monday July 13. 1925

AG 5820 A + B   Shades of Plt. B

~~A~~	a	b	c	Filter	B	a	b	c	Filter
9/	0.60	1.94	5.40	15.40	7/	1.00	3.70	9.22	14.90
	0.60	2.00	5.32	15.40		1.00	3.62	9.20	14.80
	0.60	1.97	5.36	15.40		1.00	3.66	9.21	14.85
	14.80	13.43	10.04	15.11		13.85	11.19	5.64	14.56
	79 9.~~61~~	69 8.~~73~~	66 6.5~~4~~			9.52	7.70	3.88	
5/	1.70	7.25	13.55	15.10	6/	1.38	5.40	12.40	14.78
	1.75	7.10	13.60	14.94		1.35	5.25	12.20	14.95
	1.72	7.18	13.58	15.02		1.36	5.32	12.30	14.86
	13.30	7.84	1.44	14.73		13.50	9.54	2.56	14.57
	9.04 ~~8.85~~	31 5.~~22~~	8 0.96			9.26	6.55	1.76	
1)	7.50	14.18	—	14.72	3/	3.80	12.42	—	15.10
	7.40	14.10	—	14.72		3.75	12.20	—	15.10
	7.45	14.14	—	14.72		3.78	12.31	—	15.10
	7.27	0.58		14.43		11.32	2.79	—	14.81
	5.04 ~~4.91~~	0.40 ~~0.39~~				6 7.85	1.88		
8)	0.76	2.41	7.95	14.60	2/	5.36	13.50	—	14.90
	0.75	2.40	7.80	14.62		5.32	13.46	—	14.90
	0.76	2.40	7.88	14.61		5.34	13.48	—	14.90
	13.85	12.21	6.73	14.32		9.56	1.42		14.61
	66 9.~~46~~	52 8.~~35~~	4.70			6.54	0.92		
4	2.55	9.90	—	15.20					
	2.60	10.25	—	15.20					
	2.58	10.08	—	15.20					
	12.62	5.12	—	14.91					
	8.54	3.43							

4 56   Zero at Start = 0.30

5 25   " " 2nd " = 0.28

0.29

✓ Monday July 13. 1925

shade of Br. D

aG 5821 A+B

A	a	b	c	Fili	B	a	b	c	Fili
9)	0.60	1.45	5.30	14.42	7)	1.15	3.30	10.75	14.68
	0.60	1.42	5.55	14.42		1.12	3.50	10.95	14.65
	0.60	1.44	5.42	14.42		1.14	3.40	10.85	14.66
	13.82	12.98	9.00	14.15		13.52	11.26	3.51	14.39
	9.77	9.16	6.36			9.40	7.83	2.65	
5)	1.45	6.15	13.20	14.48	6)	1.21	4.60	12.50	14.32
	1.48	6.25	13.35	14.40		1.20	4.50	12.51	14.40
	1.46	6.20	13.28	14.44		1.20	4.55	12.50	14.36
	12.98	8.24	1.16	14.17		13.16	9.81	1.86	14.09
	9.15	5.82	0.82			9.35	6.96	1.32	
1)	7.40	13.70	—	14.35	3)	3.55	11.15	—	14.40
	7.40	13.65	—	14.30		3.44	11.10	—	14.44
	7.40	13.68	—	14.32		3.50	11.12	—	14.42
	6.92	0.64		14.05		10.92	3.30		14.15
	4.92	0.46				7.72	2.33		
8)	0.70	2.00	8.00	14.64	2)	5.28	13.05	—	14.55
	0.70	2.01	7.78	14.64		5.20	12.82	—	14.57
	0.70	2.00	7.89	14.64		5.24	12.94	—	14.53
	13.94	12.64	6.75	14.37		7.29	1.59		14.26
	9.70	8.80	4.70			6.51	1.11		
4)	2.14	8.60	—	14.30					
	2.10	8.80	—	14.40					
	2.12	8.70	—	14.35					
	12.23	5.65		14.08					
	8.70	4.01							

760

5 27 Zero at Start $0.\overset{2}{8}8$

5 55 " at End 0.26

0.27

✓ Friday July 17. 1925

On-Station apparatus

at 3 24

ag 5829
Plat A
Jao.

Lighted lamp.

a	b	c	Filter	a	b	c	Fil.
1) ⑨ 0.61	1.41	3.04	9.13	6) ① 0.99	3.30	6.80	9.60
0.75	1.61	3.28	9.21	1.10	3.50	7.10	9.63
0.68	1.51	3.16	9.17	1.04	3.40	6.95	9.62
8.49	7.66	6.01	8.73	8.58	6.22	2.67	9.18
9.74	8.~~70~~79	6.90		9.35	6.79	2.91	
2) ⑤ 1.71	6.60	8.80	9.32	7) ⑩ 1.33 ~~9.60~~	5.29 ~~1.33~~	8.68 ~~5.29~~	10.33
2.14	6.57	8.95	9.54	1.44	5.50	8.70	10.35
1.92	6.56	8.88	9.43	1.38	5.40	8.69	10.34
7.51	2.87	0.55	8.99	8.96 ~~9.16~~	4.94	1.65	9.90
8.35	3.19	0.61		9.06 ~~9.26~~	4.99	1.67	
3) ① 7.60	—	—	9.62	8) ⑦ 4.20	—	—	10.22
7.75	—	—	9.70	4.25	—	—	10.25
7.68	—	—	9.66	4.22	—	—	10.24
1.98	—	—	9.22	6.02	—	—	9.80
2.15	—	—		6.14			
4) ⑧ 0.80	2.16	5.00	9.80	9) ⑫ 6.20	—	—	9.89
0.88	2.40	5.10	9.80	6.14	—	—	10.00
0.84	2.28	5.05	9.80	6.17			9.94
8.96	7.52	4.75	9.36	3.77			9.50
9.59	8.04	5.08		3.97			
5) ④ 2.90	8.60	—	9.40				
3.00	8.70	—	9.50		I Zero		II Zero
2.95	8.65		9.45	3 46	0.36	4.05	0.40
6.50	0.80	—	9.01	3 59	0.45	4.18	0.50
7.21	0.89					mean	0.44

Re-adjusting reading telescope between the two series

✓ Friday July 17, 1925

AG 5830 Plat B: Zero

	a	b	c	Film	a	b	c	Film
⑨ 1)	0.73	1.75	4.44	10.20	6) ⑦ 9.10	4.20	9.11	11.91
	0.80	1.65	4.55	10.50	1.18	4.30	9.00	12.11
	0.76	1.70	4.50	10.35	1.14	4.25	9.06	12.01
	9.59	8.65	5.85	9.85	10.87	7.76	2.95	11.51
	9.75	8.79	5.94		9.44	6.75	2.56	
⑤ 2)	1.66	7.70	—	10.95	7) ⑥ 1.42	5.90	9.80	11.30
	1.70	8.05	—	10.95	1.42	6.05	9.86	11.30
	1.68	7.88	—	10.95	1.42	5.98	9.83	11.30
	9.27	3.07	—	10.45	9.88	5.32	1.47	10.80
	6.87	2.94	—		9.15	4.93	1.36	
① 3)	8.70	—	—	10.80	③ 4.10	—	—	11.00
	8.60	—	—	10.88	4.20	—	—	11.00
	8.65	—	—	10.84	4.15			11.00
	2.19	—	—	10.54	6.85			10.50
	2.08				6.52			
⑧ 4)	0.88	2.29	6.10	1080	② 7.10	—	—	11.95
	0.90	2.50	6.25	10.90	7.20	—	—	12.10
	0.89	2.40	6.18	10.85	7.15	—	—	12.02
	9.96	8.45	4.67	10.35	4.87			11.52
	9.66	8.15	4.51		4.23			
④ 5)	2.59	8.72	—	10.72				
	2.60	8.66	—	10.55		I Zero		II Zero
	2.60	8.69	—	1064	4 22	0.50	—	0.56
	8.04	1.95		10.14	4 36	0.56	4 50	0.51
	7.93	1.92				Mean =	0.50	

Friday July 17. 1925

AG 5831 Plot @ Zero

a	b	c	Fidu	a	b	c	Fidu
1) ⑨ 0.80	1.40	3.80	9.70	6) ⑦ 1.05	3.40	8.80	10.10
0.80	1.40	3.80	9.70	1.05	3.25	8.85	10.05
0.80	1.40	3.80	9.70	1.05	3.32	8.82	10.02
8.90	8.30	5.90	9.20	8.97	6.70	1.20	9.52
9.66	9.02	6.41		9.45	7.04	1.26	
2) ⑤ 1.58	6.18	9.10	9.95	7) ⑥ 1.30	5.10	10.50	11.30
1.55	6.00	9.10	10.06	1.30	5.02	10.50	11.40
1.56	6.09	9.10	10.00	1.30	5.06	10.50	11.35
8.44	3.91	0.90	9.50	10.05	6.29	0.85	10.85
8.89	4.11	0.95		9.26	5.80	0.78	
3) ① 7.35	—	—	10.40	8) ③ 4.00	—	—	11.30
7.60	—	—	10.35	3.92	—	—	11.30
7.48	—	—	10.38	3.96	—	—	11.30
2.90	—	—	9.88	7.34	—	—	10.80
2.94				6.79			
4) ⑧ 0.90	2.15	6.95	10.58	9) ② 6.00	—	—	10.52
0.90	2.20	7.11	10.55	6.48	—	—	10.60
0.90	2.18	7.03	10.56	6.24	—	—	10.56
9.66	8.38	3.53	10.06	4.32			10.06
9.60	8.33	3.51		4.29			
5) ④ 2.70	9.10	—	9.90		I		II
2.70	9.10	—	9.80		Zero		Zero
2.70	9.10	—	9.85	4.56	0.50	5.05	0.50
7.15	0.75		9.35	5.07	0.50	5.20	0.50
7.65	0.80				Mean 0.50		

✓

AG 5822		Plt D		Zero			
a	b	c	Fidu	a	b	c	Fidu
1) 0.70	1.20	3.20	9.40	6) 0.95	3.00	7.16	10.30
0.70	1.15	3.21	9.40	0.95	2.84	7.35	10.42
0.70	1.18	3.20	9.40	0.95	2.92	7.26	10.36
8.70	8.22	6.20	8.93	9.41	7.44	3.10	9.89
ⓐ 9.75	9.22	6.95		⑦ 9.51	7.52 ~~8.36~~	3.14 ~~3.49~~	
2) 1.34	5.75	9.45	9.78	7) 1.20	4.40	8.40	9.65
1.35	5.80	9.25	9.70	1.12	4.50	8.50	9.70
1.34	5.78	9.35	9.74	1.16	4.45	8.45	9.68
8.40	3.96	0.39	9.27	⑥ 8.52	5.23	1.23	9.21
⑤ 9.06	4.27	0.42		9.26	5.64	1.34	
3) 7.20	—	—	9.35	3.48	8.80	—	9.40
7.21	—	—	9.40	3.10	8.80	—	9.40
7.20	—	—	9.38	3.29	8.80	—	9.40
2.18	—	—	8.91	③ 6.11	0.60	—	8.93
① 2.45	—	—		6.85	0.67		
4) 0.75	1.54	4.30	9.35	5.80	—	—	10.60
0.75	1.60	4.40	9.60	5.60	—	—	10.70
0.75	1.57	4.35	9.48	5.70	—	—	10.65
8.73	7.91	5.13	9.01	② 4.95			10.18
⑧ 9.64	8.79	5.69		4.87			
5) 2.00	7.21	—	9.60		I		II
2.08	7.25	—	9.40		Zero		Zero
2.04	7.23	—	9.50	5 ~~4~~.22	0.50	—	—
7.46	2.27		9.03	—	—	5.46	0.44
④ 8.27	2.51				mean = 0.47		

Monday July 20, 1925

at 2 08 Turned on lamp. Battery nearly charged waited for current to settle down

Eclipse

a 1

	a	b	c	Film
1)	1.10	3.40	9.46	12.20
	1.15	3.71	9.21	12.99
	1.20	3.60	9.05	12.80
	1.15	3.57	9.24	
2)	2.02	6.45 +40	12.75	14.02
	2.10	7.35 +50	12.40	14.05
	2.20	6.74 -11	12.15	13.60
		254	130	
	2.11	6.85	12.43	
3)	4.26	10.68	11.60	13.09
	4.50	10.75	11.60	12.82
4)	6.40	8.14	5.38	11.70
	6.58	8.50	—	10.94

Film off a = 7.42
Mean a = 7.89
Clear a = 7.85
Off b = 10.15

Film off a = 12.90
" " b = 13.83
General film away from all fog = 13.80
= 14.10
13.95

Film off
a = 13.85
b = 13.65
c = 12.80

Film off b = 10.20
Off a Off c = 7.70
Film off
a = 11.05
b = 10.07

Second set of measures made on ~~lower~~ edge of Hefner squares Lower edge of plate

	Zero I		Zero II
2 50	0.24	3.06	0.30
3 05	0.33	3.28	0.45

Mean = 0.34

Monday July 20, 1925

a 2

	a	b	c	Juli
3 +)	1.20	3.90	11.70	17.45
	1.30	4.07	11.94	17.54
	1.25	3.98	11.82	17.50
	16.25	13.52	5.68	17.04
	9.52	7.95	3.33	
4 +)	1.85	6.34	14.04	16.81
	1.90	6.42	14.10	16.82
	1.88	6.38	14.07	16.82
	14.94	10.44	2.75	16.36
	9.14	6.40	1.68	
1 +)	1.90	6.29	14.40	17.36
	1.92	6.39	14.74	17.10
	1.91	6.34	14.57	17.23
	15.32	10.89	2.66	16.77
	9.17	6.50	1.58	
2 +)	3.55	10.35	17.48	17.70
	3.62	10.50	17.35	17.70
	3.58	10.42	17.42	17.70
	14.12	7.28	0.28	17.24
	8.19	4.22	0.16	

		Zero
3 30	Began	0.45
3 47	Ended	0.48

Mean 0.46

Monday July 20, 1925

a ~~3~~

a 3

	a	b	c	Fid
3	1.65	5.50	14.05	19.30
	1.70	5.20	14.16	18.99
	1.68	5.35	14.10	19.14
	17.46	13.79	5.04	18.68
	9.35	7.39	2.70	
4	2.40	7.88	16.70	19.20
	2.44	7.80	16.50	19.10
	2.42	7.84	16.60	19.15
	16.73	11.31	2.55	18.69
	8.96	6.06	1.36	
1	1.50	4.20	12.60	18.89
	1.50	4.20	12.30	18.85
	1.50	4.20	12.45	18.87
	17.37	14.17	6.42	18.41
	9.43	7.96	3.48	
2	2.90	8.55	17.45	18.50
	2.90	8.65	17.40	18.62
	2.90	8.60	17.42	18.56
	15.66	9.96	1.14	18.10
	8.65	5.50	0.63	

Zero

3 53 Began 0.46

4 06 Ended 0.46

Mean 0.46

Tuesday July 21, 1926

3 27	Starting Lamp.			
Sct	a	b	c	Filter
A 4	1) 2.00	6.38	15.30	17.68
Hi-Speed	2.05	6.51	15.24	17.65
	2.0~~4~~2	6.44	15.27	17.66
	15.64	11.22	2.39	17.41
	8.98	6.44	1.37	
	2) 3.90	11.10	—	17.56
	3.98	11.12	—	17.55
	3.94	11.11	—	17.56
	13.62	6.45	—	17.31
	7.87	3.73	—	
	3) 1.85	6.62	14.30	17.30
	1.90	6.35	14.20	17.40
	1.88	6.48	14.25	17.35
	15.47	10.87	3.10	17.10
	9.05	6.36	1.76	
	4) 3.12	9.75	—	17.85
	3.00	9.60	—	17.85
	3.06	9.68	—	17.85
	14.79	8.17	—	17.60
	8.38	4.65		

		Zero
3 57	Began	0.20
4 12	Ended	0.30

Mean = 0.25

Tuesday July 21, 1925

Sch C 1

a	b	c	Juli
1) 0.92	3.20	10.05	15.98
1.00	3.28	10.10	15.60
0.96	3.24	10.08	15.79
14.83	12.55	5.71	15.44
9.61	8.13	3.70	
2) 1.98	7.01	14.40	15.28
2.00	7.11	14.20	15.55
1.99	7.06	14.30	15.42
13.43	8.36	1.12	15.07
8.92	5.55	0.74	
3) 1.56	5.45	12.82	15.57
1.51	5.50	12.90	15.81
1.54	5.48	12.86	15.69
14.15	10.21	2.83	15.34
9.22	6.65	1.84	
4) 271	9.10	—	16.20
2.75	9.15		16.14
2.73	9.12	—	16.17
13.44	7.05	—	15.82
8.49	4.52	—	

Measured on darkest spots

		Zero
4 16	Began	0.30
4 30	Ended	0.40

Zero = 0.35

Tuesday July 21, 1925

Sch Q 2

a	b	c	Jule
1) 1.80	6.20	14.15	16.60
1.90	6.20	1430	16.52
1.85	6.20	14.22	16.56
14.71	10.36	2.34	16.14
9.12	6.42	1.45	
2) 3.86	11.40	—	16.80
3.90	11.24	—	16.68
3.88	11.32	—	16.74
12.86	5.42	—	16.32
7.88	3.32	—	
3) 1.50	~~4~~5.20	13.30	16.18
1.50	5.30	13.15	16.56
1.50	5.25	13.22	16.37
14.87	11.12	3.15	15.95
9.32	6.98	1.98	
4) 2.30	7.65	14.65	16.70
2.30	7.62	14.90	16.52
2.30	7.64	14.78	16.61
14.31	8.97	1.83	16.19
8.85	5.55	1.13	

		Jm
4 31	Began	0.40
4 16	Ended	0.45

Mean = 0.42

Tuesday July 21, 1925

Ecl C 3

a	b	c	Julin
1) 1.50	4.80	12.20	17.50
1.60	4.80	12.50	17.70
1.55	4.80	12.35	17.60
16.05	12.80	5.25	17.14
9.36	7.46	3.06	
2) 3.10	9.20	16.40	16.90
3.10	9.15	16.52	16.94
3.10	9.18	16.46	16.92
13.82	7.74	0.46	16.46
8.40	4.70	0.28	
3/ 1.60	5.46	13.80	17.40
1.70	5.65	13.75	17.38
1.65	5.56	13.78	17.39
15.74	11.83	3.59	16.93
9.30	6.99	2.12	
4) 2.80	8.50	17.30	17.90
2.70	8.48	17.55	17.98
2.75	8.49	17.42	17.94
15.19	9.45	0.52	17.48
8.69 ~~6.49~~	5.41	0.30	

Zero

4 17 Began 0.45

5 02 Ended 0.48

Mean = 0.46

Tuesday July 21, 1925

Ecl C4

a	b	e	Fili
1) 2.18	7.00	15.15	17.40
2.25	6.90	14.98	17.42
2.22	6.95	15.06	17.41
15.19	10.46	2.35	16.92
8.96	6.18	1.39	
2) 4.30	11.90	—	17.18
4.30	11.90	—	17.10
4.30	11.90	—	17.14
12.84	5.24	—	16.65
7.72	3.15	—	
2.30	7.30	15.25	16.98
2.30	7.30	15.20	16.92
2.30	7.30	15.22	16.95
14.65	9.65	1.73	16.46
8.90 ~~2.82~~	5.87	1.05	
3.40	10.25	—	17.52
3.46	10.30	—	17.40
3.43	10.28	—	17.46
14.03	7.19	—	16.97
8.27	4.24	—	

		Time
5 04	Began	0.48
5 16	Ending	0.50

Mean = 049

Tuesday July 28, 1925

A 1t		a	b	c	Filin	Filin	offsets		mean
Reflected	1)	0.97	2.96	8.20		a	6.89	7.00	6.94
		1.10	3.15	8.70		b	8.80	8.60	8.70
		1.04	3.06	8.45		c	10.76	10.80	10.78
	2)	1.75	5.65	11.00		a	11.55	11.74	11.64
		1.90	5.72	11.24		b	12.04	12.20	12.12
		1.82	5.68	11.12		c	12.05	12.45	12.25
Mean of distant focusing		1.30	3.85	6.96		a	11.92	12.20	12.09
		1.40	3.90	7.12		b	12.09	12.10	12.10
		1.35	3.88	7.04		c	11.30	11.20	11.25
									6 | 11.46
									11.91
		2.50	3.80	3.29	at side of c 2.50	a	9.95	10.10	
		2.60	4.00	3.45	2.30	b	8.85	9.02	
		2.55	3.90	3.37	2.40	c {Late	6.30	6.30	

General focus at distance = 12.10

		Zero
2:36	Began	0.21
3.06	Ended	0.41

Mean = 0.31

Tuesday July 28 1925

D1

	a	b	c	Film
1)	1.10	3.40	10.08	15.86
	1.20	3.50	10.05	16.00
	1.15	3.45	10.06	15.93
	14.78	12.48	15.87	15.48
	9.55	8.06	3.79	
2)	2.15	6.52	13.60	15.60
	2.20	6.75 ~~7.28~~	13.11	15.80
	2.18	6.64	13.36	15.70
	13.52	9.06	2.34	15.25
	8.86	5.95	1.54	
3)	2.30 ~~3.00~~	7.80	—	15.22
	2.30 ~~3.00~~	7.30	—	16.20
	2.30	7.55	—	15.71
	13.41	8.16	—	15.26
	8.80	5.35	—	
	4.70	10.80	—	16.15
	3.90	10.62	—	16.05
	4.30	10.71	—	16.10
	11.80	5.39		15.65
	7.55	3.44		

		Sun
3 10	Began	0.41
3 25	Ended	0.49

Mean = 0.45

Tuesday July 28, 1925

D2

	a	b	c	Fid
1)	2.00	6.19	13.34	16.44
	2.03	6.20	13.48	16.50
	2.02	6.20	13.41	16.47
	14.45	10.27	3.06	16.01
	9.02	6.42	1.91	
2)	3.60	9.90	15.50	15.68
	3.60	10.04	15.20	15.90
	3.60	9.97	15.35	15.79
	12.19	5.82	0.44	15.33
	7.94	3.80	0.29	
3)	2.60 ~~3.14~~	7.70 ~~8.15~~	15.10	16.02
	2.58	7.45	14.50	16.15
	2.59	7.58	14.80	16.08
	13.49	8.50	1.28	15.62
	8.63	5.44	0.82	
4)	4.00	10.15	—	16.50
	3.98	10.05	—	16.54
	3.99	10.10	—	16.52
	12.53	6.42		16.06
	7.81	4.00	—	

		Seeing
3 28	Began	0.45
3 45	Ended	0.47

Mean = 0.46

Tuesday July 28, 1925

D3

	a	b	c	Sun
1)	1.45	4.18	11.05	16.20
	1.50	4.30	10.98	16.15
	1.48	4.24	11.02	16.18
	14.70	11.94	5.16	15.74
	9.34	7.59	3.28	
2)	2.51	7.49	14.45	15.90
	2.50	7.42	14.40	16.08
	2.50	7.46	14.42	15.99
	13.49	8.53	1.57	15.55
	8.66	5.45	2.00	
3)	2.08	6.70	14.50	16.31
	2.05	6.78	14.40	16.25
	2.06	6.74	14.45	16.28
	14.22	9.54	1.83	15.84
	8.98	6.03	1.16	
4)	3.10	9.22	—	16.10
	3.05	9.26	—	16.20
	3.08	9.24	—	16.15
	13.07	6.91	—	15.71
	8.31	4.40		

3 46 Began 0.45
3.59 Ended 0.44

mean = 0.44

Tuesday July 28, 1925

D4	a	b	c	Zero
1/	2.32	6.80	14.23	16.90
	2.35	6.80	13.74	17.00
	2.3~~2~~4	6.80	13.98	16.95
	14.61	10.15	2.97	16.54
	8.85	6.14	1.80	
2/	4.10	10.85	16.06	16.75
	4.03	10.95	16.10	16.80
	4.06	10.90	16.08	16.78
	12.72	5.88	0.70	16.37
	7.77	3.59	0.43	
3/	2.80	8.36	14.24	16.90
	2.82	8.00	13.90	16.86
	2.81	8.18	14.07	16.88
	14.07	8.70	2.81	16.47
	8.55	5.28	1.70	
	4.00	10.50	—	17.00
	3.90	10.40	—	17.00
	3.95	10.45	—	17.00
	13.05	6.55		16.59
	7.86	3.95	—	

		Zero
4 02	Begin	0.42
4 17	End	0.40

Mean = 0.41

Tuesday July 28, 1925

A 2

	a	b	c	Julia
1)	1,60	5,30	12,80	15.28
	1,62	5.38	12.64	15.10
	1.61	5,34	12.72	15.19
	13,58	9.85	2.47:	14.79
	9.18	6.66	1.67	
2)	3.12	9.28	15.20	15.60
	3,15	9,15	15.20	15.65
	3,14	9,22	15.20	15.62
	12,48	6.40	0.42	15.22
	8.20	4.20	0,28	
3)	1,10	3.70	10.32	15.40
	1,10	3.80	10.28	15.40
	1.10	3.75	10.30	15.40
	14.30	11.65	5.10	15.00
	9.53	7.76	3.40	
4)	1.70	5.72	12.30	14.88
	1.70	5.76	12.20	14.84
	1.70	5.74	12.25	14.86
	13.16	9.12	2.61	14.46
	9.10	6.30	1.80	

		Zero
4 22	Begun	0.40
4 36	Ended	0.39

Mean = 0.40

Tuesday July 26 1921

A3	a	b	c	Fili
1/	a	b	c	Fili
	1.32	3.75	10.66	16.80
	1.30	3.75	10.70	16.72
	1.31	3.75	10.68	16.76
	15.45	13.01	6.08	16.39
	9.43	7.95	3.71	
2/	2.60	7.65	15.35	17.05
	2.60	7.50	15.48	16.86
	2.60	7.58	15.42	16.96
	14.36	9.38	1.54	16.59
	8.66	5.65	0.43	
3/	1.40	4.80	11.70	16.88
	1.45	4.60	11.54	17.00
	1.42	4.70	11.62	16.94
	15.52	12.24	5.32	16.57
	9.37	7.40	3.21	
4/	2.03	6.50	14.35	17.00
	2.04	6.80	14.30	17.00
	2.04	6.65	14.32	17.00
	14.96	10.35	2.68	16.63
	8.94	6.22	1.61	

		Jaw
4 38	Begun	0.39
4 52	Ended	0.35

Mean = 0.37

Tuesday July 28, 1925

A4

	a	b	c	Juli
1)	2.04	6.40	13.94	16.65
	2,10	6.31	14.00	16.50
	2,07	6,36	13.97	16.58
	14.57	10.22	2,61	16.23
	8.95	6.31	1.61	
2)	3,80	10,70	16.15	16.45
	3.82	10.70	16.10	16.30
	3.81	10.70	16.12	16.38
	12.5[illegible]	5.68	0.26	16.03
	7.84	3.54	0.16	
3)	1.80	6.10	13.50	16.20
	1.80	6.02	13.50	16.08
	1.80	6.06	13.50	16.14
	14.34	10.08	2.64	15.79
	9.09	6.38	1.67	
4)	2.85	9.00	15.70	16.68
	2.80	9.02	15.40	16.66
	2.82	9.01	15.55	16.67
	13.85	7.66	1.12	16.32
	8.49	4.70	0.69	

		Gun
4 53	Began	0.35
5 11	Ended	0.35

Tuesday July 28, 1925

B 1

	a	b	c	Film
1)	0.60	1.91	7.40	13.80
	13.20	11.89	6.40	27 13.53
	9.75	8.79	4.73	
2)	1.20	4.45	11.69	13.71
	12.51	9.26	2.02	27 13.44
	9.30	6.89	1.50	
3)	10.50	—	—	13.70
	3.20			27 13.43
	2.38	—	—	
4)	12.50	—	—	13.40
	0.90			27 13.13
	0.69			

		Zero	
5 27	Began	0.26	} Photo B 1, 2, 3 & 4
5.45	Ended	0.28	

Tuesday July 28 1925

	B2				B4			
	a	b	c	d	a	b	c	Fili
1)	1.00	3.60	11.10	13.70	1.12	3.70	10.70	14.22
	12.70	10.10	2.60	27 13.43	13.10	10.52	3.52	27 13.95
	9.45	7.53	1.94		9.40	7.55	2.52	
2)	2.15	7.60	13.50	14.12	2.30	8.20	13.95	14.50
	11.97	6.52	0.62	27 13.85	12.20	6.30	0.55	27 14.23
	8.65	4.72	0.45		56 8.~~15~~	4.43	0.39	
3)	5.20	12.80	—	14.30	9.80	—	—	14.50
	9.10	1.50	—	27 14.03	4.70			27 14.33
	6.48	1.07			3.28			
4)	8.00	—	—	14.00	11.90	—	—	14.68
	6.00	—	—	27 13.73	2.78	—	—	27 14.41
	4.37	—	—		1.93			

B3

	a	b	c	Fulm
3)	5.10	13.10	—	14.50
	9.40	1.40		
	6.48	0.97		

Friday July 31, 1925

	a	b	c	Mean Focus.	Best Focus
C1 3)	5.00 11.22 6.22 5.72	—	10.80 5.00 1045) 5.80 5.55	10.80	11.22 35 10.87
4)	7.52 11.38 3.88 3.52	—	— 10.65 7.50 1030) 3.15 3.06	10.65	11.38 35 11.03
C2 3)	5.20 10.80 5.60 5.35	—	— 9.60 5.20 9.25) 4.40 4.76	9.60	10.80 35 10.45
4)	7.65 11.40 385 3.84	—	— 10.80 7.65 10.45) 3.15 3.01	10.80	11.40 35 11.05

Zero = 0.35

✓

Friday July 31, 1925

No	a	b	c	Fid	a	b	c	Fid
					D4 a			
D3 a	1) 1.22	3.10	6.91	11.17 11.50	1) 1.65	4.80	9.40	11.50
	1.25	3.10	6.80	11.55	1.80	5.65	11.30	13.64
	1.30	3.55	8.05	13. 13.60	9.85	6.70	2.10	11.17
	10.28	8.40	4.59	11.17	11.84	7.99	2.34	13.31
mm 1/93	~~1.26~~	~~3.32~~	5.55	1327	8 9.82	6.00	1.88 ~~2.10~~	
	12.30	10.05			8.90 } 8.86	6.00 } 6.00	1.76 } 1.82	
	9.20 9.28 } 9.24	7.52 7.68 } 7.60	4.11 4.14 } 4.14					
	2) 1.72	6.00	10.15	11.55	2) 3.05	8.75	—	11.80
	1.95	5.75	10.10	11.15	3.40	10.15	—	13.64
	1.95	6.80	11.94	13.55			—	11.47
	9.83	5.55	1.40	11.22	8.75	3.05		13.31
	11.60	6.75	1.61 ~~3.45~~	13 22	10.24 ~~10.24~~	3.49		
	8.75 8.78 } 8.76	4.95 5.11 } 5.03	1.25 1.22 } 1.24		7.63 7.70 } 7.66	2.66 2.62 } 2.64		
	3/ 6.90	—	—	11.40	3/ 7.80 2.	—	—	11.45
	7.05	—	—	11.12	9.20	—	—	13.60
	8.70	—	—	13.70				11.12
	4.50			11.07	3.65			13.27
	5.00			13.37	4 40			
	4.06 3.74 } 3.90				3.28 3.32 } 3.30			
X →	9.15	—	—	11.90	4) —	—	—	—
	11.15	—	—	13.70	—	—	—	—
				11.57				
	2.75			13 37				
	2.55							
	2.37 1.91 } 2.14							

		Jm
3 47	Began	0.36
4 27	Ended	0.30

X Oscillation of index.
Dr. Stetsons re-adjusted lam

Tuesday Aug 4 1925

Dr. Stetson Apparatus

S 27 Moon & Jupiter. (Ordinary plate)

10.36

(1) Jupiter 1.71 2.16 / 0.55
Film. 2.26
Zero 0.08

2.5 -1

(2) Jupiter 1.97 2.20 / 0.33
Film 2.30
Zero 0.10

(1) Moon 1.14 (2) 1.23 (3) 0.90
Film 2.10
1.98 / 0.96 0.87 1.20
4.80 6.05

(4) Moon 0.93 (5) 1.25
2.10 2.10
1.17 0.85

Zero = 0.14

10 46

2/7 5/7 6/8 7/9 8/10
248
4/6
3/5
1/3 2/4

0.56
.12
13/12

7.60
0.57
9.6/9.07

Tuesday Aug. 4. 1925

A 1 a Foggy	a	b	c	Film	~~[illegible]~~ A3a a	b	c	Film
	1) 0.53	1.30	2.35	—	~~1.08~~ 0.88	2.80	6.40	12.80
	0.60	1.38	2.62	—	0.90	2.90	6.70	12.95
	0.56	1.34	2.48	—	0.99	2.85	6.55	12.88 28
	7.06	6.28	5.14		11.89	10.03	6.33	12.60
	9.54	8.48	6.95		~~9.23~~ 9.42	~~7.80~~ 7.97	~~4.92~~ 5.03	
	2) 1.10	3.64	6.12	7.68	1.70	7.10	11.48	12.80
	1.15	3.82	6.05	7.50	1.68	7.25	11.55	12.90
	1.12	3.73	6.08	7.59	1.69	7.18	11.52	12.85 28
	6.50	3.89	1.54		11.16	5.67	1.33	12.57
	8.79	5.26	2.08		~~8.68~~ 8.86	~~4.42~~ 4.52	1.09 ^{6}	
	3) 3.92	—	—	—	6.60	—	—	12.94
	3.88	6.48	~~6.48~~	7.60	6.80	—	—	12.85
	3.90	6.48		7.60	6.70	—	—	12.90 28
	3.72	1.14			6.20	—	—	12.62
	5.03	1.54			4.91			
	4) 3.15	—	—	—	9.20	—	—	12.87
	3.06	—	—	—	9.32	—	—	12.85
	3.10				9.26	—	—	12.86 28
	4.52				3.66	—	—	12.58
	6.10				2.86	—	—	

General Film 8.14
7.62 Mean of Squares

~~Call General mean Film~~ :

Zero   coll value = 7.62
22
7.40

11 14	0.18
11 26	0.26

mean = 0.22

11.29 Began
11.40 Ended   Zero = 0.30

mean 0.28

Tuesday Aug. 4. 1925

					A 4 a			
A 2 a	a	b	c	Fil	a	b	c	Fil
	1) 1.18	4.60	8.26	10.22	1.52	6.06	10.70	13.08
	1.25	4.50	8.40	10.20	1.50	5.80	10.62	13.10
	1.22	4.55	8.33	10.21 0.32	1.51	5.93	10.66	13.09 37
	8.99	5.66	1.88	9.89	11.58	7.16	2.43	12.72
	9.08	5.72	1.90		9.10	5.63	1.91	
	2/ 2.40	8.05	10.00	10.25	3.38	10.60	—	12.98
	2.38	8.00	—	10.26	3.34	10.65	—	13.04
	2.39	8.02	—	10.26 32	3.36	10.62	—	13.01 37
	7.87	2.24	—	9.94	9.65	2.39	—	12.64
	7.92	2.25	—		7.63	1.89		
	3/ 4.22	—	—	10.35	7.70	—	—	13.05
	4.15	—	—	10.22	7.60	—	—	12.74
	4.18	—	—	10.28 32	7.65	—	—	12.90 37
	6.10	—	—	9.96	5.25	—	—	12.53
	6.13	—	—		4.19			
	4) 6.66	—	—	10.24	10.25	—	—	13.00
	6.60	—	—	10.30	10.05	—	—	12.80
	6.63	—	—	10.27 32	10.15	—	—	12.90 37
	3.64	—	—	9.95	2.75	—	—	12.53
	3.66	—	—		2.20			

11.42 Begun Zero = 0.30   Begun 11.52

11 51 Ended Zero = 0.34   Ended 12.02 Zero = 0.40

Dr. Slater Phot,
Lamp put on at 9 30 am.

JJO

Thursday Aug 6 1925

Bigart

	a	b	c	Filter		a	b	c	Filter
B1a 1)	0.35	1.20	3.56	9.40	B3a 1)	~~0.43~~	~~0.90~~	~~3.10~~	~~11.61~~
	0.40	1.21	3.70	9.46		~~0.50~~	~~0.94~~	~~3.32~~	~~11.40~~
	0.38	1.20	3.63	9.43 19		~~0.46~~	~~0.92~~	~~3.21~~	~~11.50~~ ~~30~~
	9.05	8.23	5.80	9.24		~~11.04~~	~~10.58~~	~~8.29~~	~~11.20~~
	9.79	8.80	6.28			~~9.85~~ ~~8.97~~	~~9.49~~	~~7.40~~	
2)	0.70	4.05	7.84	9.62	2)	~~0.70~~	~~2.34~~	~~8.30~~	~~11.55~~
	0.75	3.98	7.70	9.72		~~0.75~~	~~2.42~~	~~8.40~~	~~11.50~~
	0.72	4.02	7.77	9.67 19		~~0.72~~	~~2.38~~	~~8.35~~	~~11.52~~
	8.95	5.65	1.90	9.48		~~10.80~~	~~9.14~~	~~3.17~~	~~11.22~~
	9.45	5.96	2.02			~~9.60~~	~~8.14~~	~~2.82~~	
	a	b	e	Filter	B4a	a	b	c	Filter
B2a 1)	0.60	2.80	6.22	9.65	1)	0.80	3.40	8.30	11.20
	0.64	2.75	6.30	9.85		0.85	3.42	8.04	11.30
	0.62	2.78	6.26	9.75 19		0.82	3.41	8.17	11.25 30
	9.13	6.97	3.49	9.56		10.43	7.84	3.08	10.95
	9.55	7.30	3.66			9.54	7.16	2.81	
2)	1.35	6.40	8.30	9.41		2.04	8.66	10.95	11.40
	1.40	6.38	8.30	9.42		2.10	8.90	10.92	11.38
	1.38	6.39	8.30	9.42 19		2.07	8.78	10.94	11.39
	8.04	3.03	1.12	9.23		9.32	2.61	0.45	11.09
	8.75	3.28	1.21			8.40	2.36	0.41	

		Zero				Zero	
9 42	Begun	0.11		9 57	Begun	0.25	25
9 49	Middle	0.20		10 05	Middle	030	60
9 56	Ended	0.25	11 40 25 4|76 0.19	10 13	Ended	0.34	34 4|119 0.30

Thursday Aug 6, 1925

Joo

	a	b	c	Zero	D^2a a	b	c	Zero
D1a	1) 0.95	2.95	7.50	13.60	1) 1.60	5.40	10.95	13.15
	1.00	3.00	7.60	13.50	1.66	5.40	11.10	13.11
	0.98	2.98	7.55	13.55 38	1.63	5.40	11.02	13.13 38
	12.57	10.57	6.00	13.17	11.50	7.73	2.11	12.75
	9.56	8.01	4.56		9.04	6.06	1.65	
	2) 2.10	6.62	11.60	13.30	2) 3.20	9.64	12.70	12.92
	1.95	6.60	11.70	13.40	3.20	9.55	12.70	13.10
	2.02	6.61	11.65	13.35 38	3.20	9.60	12.70	13.01 38
	11.33	6.74	1.70	12.97	9.81	3.41	0.31	12.63
	8.74	5.96	1.31		7.76	2.70	0.25	
Contact position	3) 8.25	—	—	13.25	3) 7.95	—	—	12.95
	8.30	—	—	13.45	7.98	—	—	13.00
	8.28	—	—	13.35 38	7.96	—	—	12.98 38
	5.07	—	—	12.97	5.02			12.60
	3.91				3.98			
	4) 11.10	—	—	13.42	4) 9.90	—	—	13.00
	11.[illegible]	—	—	13.40	9.80	—	—	13.00
	11.10	—	—	13.41 38	9.85	—	—	13.00 38
	2.31	—	—	13.03	3.15			1262
	1.77				2.49			

Both D1a & D2a

		Zero
10 19	Begin	0.34
10 35	Middle	0.40
10 58	Ending	0.40
		40
		4) 1.54
		−0.38

Jsv

Thursday Aug 6 1925

D3 a	a	b	c	Fita	D4a a	b	c	Fili
	1) 1.63	4.00	8.92	15.04	1) 2.10	6.20	12.68	14.88
	1.45	3.90	8.92	15.00	2.05	6.25	12.42	14.65
	1.54	3.95	8.92	15.02	2.08	6.22	12.55	14.76
				40				40
	13.48	11.07	6.10	14.62	12.68	8.54	2.21	14.36
	9.21	7.56	4.17		8.85	5.95	1.54	
	2) 2.40	7.70	13.20	14.75	2) 3.65	11.06	14.20	14.95
	2.35	7.60	13.21	15.00	3.85	11.10	14.22	15.00
	2.38	7.65	13.20	14.88	3.75	11.08	14.21	14.98
	12.50	7.23	1.68	14.48	11.23	3.90	0.77	14.58
	8.64	4.99	1.16		7.71	2.67	0.53	
	3) 8.70	—	—	15.06	3) 10.30	—	—	14.85
	8.80	—	—	14.85	9.90	—	—	14.90
	8.75	—	—	14.96	10.10	—	—	14.88
	6.21	—	—	14.56	4.78	—	—	14.48
	4.27	—	—		3.30	—	—	
	4) 11.80	—	—	14.90	4) —	—	—	—
	11.80	—	—	14.88	—	—	—	—
	11.80	—	—	14.89	—	—	—	—
	3.09			14.49				
	2.13							

		Zero
11 00	Begun	0.40
11 10	Middle	0.40
11 24	Ended	0.40

Thursday August 6 1925

Eclipse plates with Chapman-Jones Plates List

11 27 Begun Zero = 0.40

11	12	13	14	15	16	17	18
2.23	3.62	5.00	7.00	9.30	9.70	10.75	11.25
2.50	3.60	5.05	7.00	9.20	9.70	10.52	11.25
2.36	3.61	5.02	7.00	9.25	9.70	.27 10.64	11.25
17.04	15.79	14.38	12.40	10.15	9.70	8.76	8.15
~~8.79~~	~~8.14~~	~~7.41~~	~~6.39~~	~~5.23~~	5.10	4.62	4.25
8.96	8.31	7.56	6.53	5.35			

Filter		
	11 T 20	16.50
	12 T 19	17.20
	13 T 18	18.60
	14 T 17	19.00
	15 T 16	19.15
	20 T 21	19.58

19	20	21	22
12.20	13.22	15.20	16.60
12.28	12.92	15.20	16.50
12.24	13.07	15.20	16.55
7.16	6.33	4.20	2.85
3.77	3.33	2.21	1.50

General Filter
19.40
19.50
19.30
19.40
40
19.00

11 41 Ended Zero = 0.40

Thursday Aug 6, 1925

Comparison Plates used for zeroing

11 42 Began

Focussed screw 1

1	2	3	4	5	6	7	8
2.40	3.60	5.05	7.71	10.00	9.94	10.30	10.40
2.60	3.65	5.30	7.50	9.80	10.10	10.25	10.68
2.50	3.62	5.18	7.60	9.90	10.03	10.28	10.54
15.53	15.41	13.45	11.43	9.13	9.00	8.75	8.49
~~8.70~~	~~8.71~~	~~7.07~~	~~6.02~~	4.90	4.83	4.70	4.55
8.88	8.27	7.22	6.14				

9	10	11	12	13
10.70	9.80	11.75	14.62	16.60
10.72	9.85	11.65	14.35	16.55
10.71	9.82	11.70	$\overset{+7}{14.48}$	16.58
8.32	9.21	7.33	4.55	2.45
4.46	4.94	3.94	2.44	1.32

[illegible] [illegible]

19.00
19.15
18.92
5707

19.03
40

18.63

11 52 Ended Zero = 0.40

Saturday August 8, 1925

12 20 Slattery Lamp

12 28 Started Zero = 0.15

Σ 12679 ag 9

6	7	8	9	10	11	12	13
0.50	0.48	—	—	—	0.60	1.02	1.70
					0.70	1.11	1.90
					0.65	1.06	1.80
					14.07	13.66	12.92
				→	9.70	9.41	8.92

14	15	16	17	18	19	20	21
3.40	1.50	6.95	7.80	8.42	9.40	10.30	12.18
3.50	6.44	7.14	7.90	8.50	9.50	10.70	12.20
3.45	6.47	7.04	7.83	8.46	9.45	10.50	12.19
11.27	8.25	7.68	6.87	6.26	5.27	4.22	2.53
7.76	5.69	5.30	4.74	4.32	3.64	2.91	1.75

Filter

13.68	13.80	~~13 26~~ 27.48	
15.70	15.70	31.40 4/58.88 14.72	14.72 .22 14.50

12 36 Ended Zero = 0.21

Σ 12650 ag 1

1	2	3	4	5	6	Filter ~~7~~	~~8~~
0.84	1.60	3.10	6.66	10.75	11.05	13.48	14.80
0.90	1.65	3.12	6.80	10.60	10.98	13.50	14.90
0.87	1.62	3.11	6.73	10.68	11.02	26.98	
13.30	12.55	11.06	7.44	3.49	3.16	29.70	
~~9.40~~	~~6.88~~	~~7.62~~		2.50	2.26	4/56.68	
→ 9.53	9.00	7.93	5.33			14.17 22 13.95	

12 47 Ended Zero = 0.28

Mean Zero = 0.22

Saturday Aug 8, 1925

12 45 Begun Zero = 0.28

Σ 12682 a+9

~~6~~	7	8	9	10	11	12	13
~~0.95~~	~~1.44~~				0.95	1.44	2.50
					0.98	1.60	2.50
					0.96	1.52	2.50
					13.66	13.10	12.12
					9.56	9.16	8.50

14	15	16	17	18	19	Filar	
4.61	7.80	9.10	10.25	10.70	11.50	14.40	14.80
4.80	8.00	9.20	10.20	10.75	11.50	14.40	14.90
4.70	7.90	9.15	10.22	10.72	11.50	14.40	14.85
							1440
9.92	6.72	5.47	4.40	3.90	3.12		2|1125
							14.62
							32
6.94	4.70	3.83	3.06	2.73	2.18		14.30

Σ 1268! ar.

1	2	3	4	5	6	Filar	
1.00	1.76	3.02	6.80	10.80	10.95	13.56	14.70
1.05	1.74	3.14	6.80	10.20	10.85	13.60	14.60
1.02	1.75	3.08	6.80	10.50	10.90		
13.10	12.37	11.04	7.32	3.62	3.22	2716	
						2930	
9.49	8.95	7.39	5.32	2.63	2.34	4|5646	
						14.12	
						32	
						13.80	

12 58 Ended Zero = 0.36

Mean Zero = 0.32

Saturday Aug 8, 1925

12 59 Begins Zero = 0.36

~~12 59~~ Σ 126883 at 7'

11	12	13	14	15	16	17	18
0.95	1.47	2.08	3.96	7.05	7.90	9.11	9.70
0.98	1.45	2.16	3.82	6.80	7.84	9.00	9.60
0.96	1.46	2.12	3.89	6.92	7.87	9.06	9.65
14.23	13.73	13.07	11.30	8.27	7.32	6.13	5.54
9.61	9.26	8.80	7.62	5.59	4.95	4.14	374

19	20	Fila	
11.05	11.85	15.50	14.90
10.90	12.20	15.48	14.88
10.98	12.02		
4.21	3.17		
2.84	2.14		

5040
3036
4|6076
15.19
38
14.81

Σ 126884 at 1'

1	2	3	4	5	6	Fila	
1.00	1.50	3.70	7.40	11.60	11.85	14.60	14.84
0.94	1.55	3.50	7.44	11.80	11.90	14.60	14.70
0.97	1.52	3.60	7.42	11.70	11.88	29.20	29.54
13.72	13.17	11.09	7.27	2.99	2.81	29.54	
9.60	9.21	7.76	5.04	2.09	1.96	4|58.74	
						14.68	
						38	
						14.30	

1 14 Ended Zero 0.40

mean zero = 0.38

On Sketon Plot.

Monday Aug. 10. 1925

ag<83 3

a	b	c	Jta	a	b	c	Juli
1) 0.21	0.75	1.80	5.36	5) 0.60	3.18	4.91	5.50
0.30	0.90	1.90	5.40	0.70	3.30	4.92	5.80
0.26	0.82	1.85	5.38 16	0.65	3.24	4.92	5.65
5.12	4.56	3.53	5.22	5.00	2.41	0.73 1.33	5.49
9.84	8.75	6.77		9.11	4.39	~~0.13~~	
2) 0.28	1.26	3.30	5.65	6) 1.02	4.02	4.94	5.40
0.33	1.32	3.30	5.70	1.10	4.10	5.21	5.70
0.30	1.29	3.30	5.68	1.06	4.06	5.08	5.55
5.38	4.39	2.38	5.52	4.49	1.49	0.47	5.39
9.76	7.96	4.32		8.34	2.76	0.87	
3) 0.36	2.01	4.05	5.70				
0.50	2.10	4.30	5.70				
0.43	2.06	4.20	5.70				
5.27	5.$\overset{3}{6}$4	1.50	5.54				
9.57	6.56	2.71					
4) 0.40	2.28	4.20	5.68				
0.50	2.12	4.20	5.70				
0.45	2.20	4.20	5.69				
5.24	3.49	1.49	5.53				
9.48	6.31	2.69					

11 44 Begun Zero = 0.11
12 02 Ended Zero = 0.21

0.16

α Aq 5854

Monday Aug 10. 1925

a	b	c	Feli	a	b	c	Feli
1) 0.32	0.85	2.20	5.50	5) 0.66	3.00	4.65	5.86
0.46	0.90	2.22	5.50	0.68	3.00	4.76	5.92
0.39	0.88	2.21	5.50 27	0.67	3.00	4.70	5.89
5.11	4.62	3.29	5.23	5.22	2.89	1.19	5.62
9.76	8.84	6.28		9.30	5.15	2.12	
2) 0.40	1.55	3.48	5.80	~~5~~4) 0.50	2.23	4.14	5.75
0.45	1.56	3.50	5.85	0.60	2.26	4.35	5.80
0.42	1.56	3.49	5.82	0.55	2.24	4.24	5.78
5.40	4.26	2.33	5.55	5.23	3.54	1.54	5.~~62~~ 51
9.74	7.66	4.20		9.50	6.43	2.80	
3) 0.58	2.20	4.04	5.70				
0.56	2.30	4.10	5.80				
0.57	2.25	4.07	5.75				
5.18	3.50	1.68	5.48				
9.45	6.38	3.06					
6 7) 1.00	3.90	4.72	5.36				
1.10	4.06	4.73	5.46				
1.05	3.98	4.72	5.41				
4.36	1.43	0.69	5.14				
8.48	2.78	1.34					

12.04 Begin Zero = 0.23
12 22 Ended Zero = 0.31
0.27

Tuesday Sept 1, 1925

Repsold Micrometer

adjusted vertical scale
Reads 264 at 0.50 of microscope scale

Friday Sept 4. 1925
~~Wednesday~~ Thursday Sept 3, 1925

Repsold Micrometer
Filters for reading plates now in position

When Right (R) & Left (L) microscopes are set at 0 (middle of comb)

vertical scale at ~~264~~ 265 reads 0.60 for single wire.

Centered the readings of main microscopes are
vertical = ~~11.55~~ 11.55
Horizontal = 9.~~08~~ 10

Rack (horizontal) 11 at left } of mount
12 at right }

Thursday Sept 10 1925

For intermediate work with Micrometer, see loose sheets.
On account of wide variation of results, plate is now placed face up with bits of beeswax at corners to prevent slipping.

X 1744 Σ 2120 Middle magn.

Zero = 184 59 ~~185~~

	210	55	210	55
I	300	37	210	37
	28	39	208	39
	119	33	209	33
			4/39	44 224
			209	56
			184	59
			24°	57′
II	209	44	209	44
	298	07	208	07
	28	31	208	31
	119	18	209	18
			4/35	40 220
Zero =	185	01	208	55
			184	59
			23°	56′

45
12
33

Friday Sept 11, 1925

Measures of mm steel rule in Repsold Micrometer

Vertical wire   Interval of 1 mm

1.30	1.30
3.40	3.39
– 5.48	5.48
7.59	7.57
– 9.67	9.66
11.75	11.75
– 13.84	13.84
15.94	15.93
18.02	18.02

1 38

8 | 1672

2.09 div = 1 mm

13.84
5.48
8.36
2
1672
416
20.88

2.09 | 42".4 | 20.3
418
600

Hor. wire

~~0.30~~	
1.73	1.72
3.84	3.82
– 5.93	5.92
8.02	8.02
– 10.12	10.12
12.19	12.22
– 14.33	14.32
16.40	16.42
18.57	18.52

1 73

8 | 1678

2.10 div = 1 mm

14.33
5.93
8.40
~~2~~
~~25.20~~
~~4.17~~

16.80
4.17
20.97

2.10 | 42".4 | 20.2
420
400

Friday Sept 11. 1925

Trial mean of X1794 Σ2190

Its diam. stars displaced purposely for
Center of [illegible] -

Zero = 1 51 again 188 26

338 14
68 12
156 31
248 28

812 25
540
4/272
68 .06
.91 .51

23 45

164 19
256 40
344 46
74 52

840 37
540
4/300 37

75 09
20

165 09
188 26

23 27

Friday Dec 11, 1925

Test of accuracy of readings using single thread Repsold Micrometer

X1794
Image 2 Zero = 90° 01′

(a) ° ′	′	(b) ° ′		(c) ° ′		(d) ° ′	
64 27	−8	244 23	−96 ~~−96~~	334 15	−5	156 46	+33
64 25	−10	246 27	+27 ~~−32~~	334 55	+35	155 59	−14
64 18	−17	246 25	+26	333 59	−21	155 58	−15
65 4	+29	246 15	+16	334 2	−18	155 44	−29
64 39	+4	246 25	+26	334 30	+10	156 36	+23
5) 22 53 173	+33 −35	29 55 245	+95 −96	21 41 101	+45 −44	31 03 63	+56 −58
64° 35′	5) 68 ±14	24~~6~~5 59	5) 191 ±38	334 20	5) 89 ±15	156 13	5) 114 ±23

64 35	−42	64 35	64 20
65 59	+42	65 59	66 13
64 20	−57	34	2) 10 33
66 13	+56	~~66~~ 65 17	65 16
4) 21 7 67	4) 197 ±49′	90 01	90 01
65 17		~~23. 44~~	24 45
90 01		24 44	
24 44			

Secs

(1)	(2)	(3)	(4)	(5)
64 27	64 25	64 18	65 4	64 39
64 23	66 27	66 25	66 15	66 25
64 15	64 53	63 59	64 2	64 30
66 46	65 59	65 58	65 44	66 36
19 51 231	21 46	20 40	21 5	22 10 130
64 58	65 26	65 10	65 16	65 32
90 01				
25 3	24 35	24 51	24 45	24 29
+18	−10	+ [illegible]	0	−16

Mean = 24° 45′

+24
−26
±50

ed = ±10°

Saturday Dec 12, 1925

Test of perpendicularity of wire
using reticule. 1st 180° 45' – 2nd 20° 43'
again 1st 180 44' 2d 20° 41'
Satisfactory

Readings made of [illegible] comparison
at center of field.

X 1794 Image 2 Zero = 90° 16'

	(a)	on wire	(b)	(c)	(d)
	° '		° '	° ' 90 16'	° '
[illegible] Horizontal wire ①	65° 6'	−39	246 37	335 10	155 7
②	65 47	+2	246 19	335 2	156 12
[illegible] Vertical wire ③	65 35	−10	246 28	335 38	156 7
④	65 35	−10	246 47	335 45	156 37
⑤	66 42	+57	246 31	335 51	155 47
	3 45 225	+59 −57 118	2 42 162	~~2 26~~ 146	4 50 290
	65° 45'	±23	246 32	335 29	155° 58'

246 32
17

~~66~~
66° 8'

90 16
66 8
24 8

155 58
87

90 16
65 44
24 32

65 45	−11
66 32	+36
65 29	−27
65 58	+2
3 44	= 224
	+38 −38 176
65 56	±19'
90 16	
24 20	

Sets

①	②	③	④	⑤
65 6 $^{-24}$	65 47 $^{+2}$ $^{-3}$	65 35 $^{-27}$	65 35 $^{-36}$	66 42 $^{+29}$
66 37 $^{+67}$	66 19 $^{+54}$ $^{+29}$	66 28 $^{+31}$	66 47 $^{+36}$	66 31 $^{+18}$
65 10 $^{-20}$	65 2 ~~$^{-33}$~~ ^{48}	65 38 $^{-19}$	65 45 $^{-26}$	65 51 $^{-22}$
65 7 $^{-23}$	66 12 $^{+37}$ $^{+22}$	66 7 $^{+10}$	66 37 $^{+26}$	65 47 $^{-26}$
2 0	3 20 20~~4~~0	3 48 228	4 44	4 51
65° 30' ±34	65° ~~35~~ 50' ±26	65° 57' ±20	66° 11' ±30	66° 13' ±24
90 16	90 16	90 16	90 16	90 16
24 46'	24 26	24 19	24 5	24 3
* +26	+6	−1	−15	−17

Mean = 24° 20'
a.d. = ±13'

Saturday Dec 12 1925

Test of accuracy of readings. Same as on pp 170 & 171

X 1794 Image (2) position focusing same as for measures on p 171.

(a)	(b)	(c)	(d)
65 58	246 30	334 32	156 5
64 49	245 5	333 59	157 5
65 21	246 53	335 44	155 52
65 33	247 27	335 25	157 17
65 17	246 9	335 34	155 7
6 58 118	124	25 14	31 26 86
65° 24'	246° 25'	335° 3	156° 17'

66 25
65 3
66 17
3 09   179
65° 47 ~~36~~
90 16
~~24 38~~
24° 29'

~~65~~
65 24
66 25
65 54
90 16
24 22

65 3
66 17
20
65 40
90 16
~~24 36~~
24° 36'

Sets

①	②	③	④	⑤
65 58	64 49	65 21	65 33	65 17
66 30	65 5	66 53	67 27	66 9
64 32	63 59	65 44	65 25	65 34
66 5	67 5	65 52	67 17	65 7
23 5 185	20 58	23 50 230	23 42 102	22 7 127
65 46	65 14	65 58 ~~66 56~~	66 26	65 32
90 16	90 16	90 16	90 16	90 16
-1	-33	+11	+39	-15
24 30	25 2	24 18	23 50	

+50
-49
/149/ ± = ±20'
2444

Mean = 65° 47'
90 16
24 29

Saturday Dec 12 1925

Same as preceding:
Bright component of Cyg 61 at centre

Zen = 91° 19'

14	Cl.	Cl	Cd
64 48	248 51	336 0	158 11
65 29	248 41	336 11	158 8
67 3	247 45	336 16	158 58
197 20 140	71 37		23 17 137
65 47	248 12	336 9	157 46
68 12			
66 9			
67 46			
27 51 231			
66 58			
91 19			
24 21			

Monday Dec 14 1925

Test of Micrometer screw (vertical) of Repsold.
Double star Σ1645 a X1633 used as trial at calibration

	10.109	10.586		11.925	12.420	
	10.105	10.598		11.926	.423	
	10.107	10.593		.924	. 415	
	21	7				
Mean			dif			
Mean	10.107	10.597 10.107	0.490	11.925	12.419 11.925	0494
	10.572	11.067		12.384	12.874	
	.578	.066		12.390	.882	
	.571	.066		.391	881	
Mean =	10.574	11.067 10.574	0.493	12.388	12.879 12.388 0.491	0.491
	11.013	11.500		12.858	13.353	
	014	.509		.861	.350	
	014	.505		858	349	
Mean	11.014	11.505 014	0491	12.859	13.357 859	0492
	11.484	11.978		13.~~330~~ 320	13.~~820~~ 814	
	.481	.974		.316	.813	
	.479	974		.325	.814	
Mean	11.481	11.975 11.481	0494	13.320	13.814 320	0494

Monday Dec 14 1925

Same as on last page. Region over to farther back

9.010	9.504		10.943	11.440		Measured Sq of Reticule	
.015	.506		.947	.436		3.046	10.189 13.235
.012	.510		.941	440		4.636	10.177 14.813
9.013	9.507	0.494	10.944	11.439	0.495		
9.282	9.778		11.251	11.747		Rotated 90°	
.285	.777		.249	.740		3.759	10.191 13.950
.282	.773		.250	.739		5.441	10.196 15.637
9.283	9.776	0.493	11.250	11.742	0.492		
9.560	10.051		11.501	11.990			
.539	.053		.503	11.996			
.539	.050		499	996			
9.559	10.051	0.492	11.501	11.994	0.493		
9.845	10.342		11.771	12.266			
844	.339		.776	.266			
.851	340		766	265			
9.847	10.340	0.493	11.771	12.266	0.495		
10.107	10.600		12.046	12.537			
10.110	.601		.046	.537		Max = 0.495	
108	604		.045	.541		Min = 0.492	
10.108	10.601	0.493	12046	12.538	0.492		
10.394	10.891		12.305	12.797			
396	.890		.305	797			
400	890		.307	.801			
10.397	10.890	0.493	12.306	12.798	0.492		
10.685	11.178		12.590	13.086			
.682	.179		.589	.083			
.682	178		.594	.084			
10.683	11.178	0.495	12.591	13.084	0.493		

Tuesday ~~Monday~~ Dec ~~14~~ 15 1925

Test of [illegible] screw (Repeated)

X1633		Image 12				Repeated		
5.990	6.489		7.526	8.0~~4~~38		.543	.038	
.989	.480		.540	8.045		.535	.036	
.985	.487		.535	.036		.545	.042	
5.988	6.485	0.497	$\overset{10}{7.534}$	8.040	0.506	.541	.039	0.498
6.250	6.745		~~8~~7.783	8.275				
.245	6.743		.780	.270				
.247	6.743		.780	.280				
6.247	6.744	0.497	~~8~~7.781	8.275	0.494			
6.454	6.950		7.980	8.472				
.455	.951		.980	.477				
.455	.950		.985	.478				
6.455	6.950	0.495	7.982	8.476	0.494			
6.690	7.189		8.180	8.679				
.689	.185		.184	.680				
.690	.184		.185	.680				
6.690	7.186	0.496	8.183	8.680	0.497			
6.879	7.370		8.420	8.911				
.873	.372		.415	.911				
.879	374		.412	.915				
6.877	7.372	0.495	8.416	8.912	0.496			
7.082	7.575		8.619	9.111				
.083	.576		.622	.119				
.076	.571		.620	.124				
7.080	7.574	0.494	8.620	9.118	0.498			
7.311	7.807		8.820	9.318				
.318	.806		818	.314				
308	.803		.820	.319				
7.312	7.805	0.493	8.819	9.317	0.498			

Tuesday Dec 15 1925
Continued from preceding page

9.047	9.540				
.047	.543				
.046	.537				
9.047	9.540	0.493			
9.300	9.791				
300	.795				
.291	792				
9.297	9.793	0.496			
9.498	9.995				
.494	.993				
.491	.990				
9.494	9.993	0.499			
9.697	10.190				
.699	.192				
.696	.197				
9.697	10.193	0.496	Refocused		
9.980	10.467		9.975	10.471	
.981	.462		.975	.470	
.975	.462		.980	.465	
9.979	10.464	0.485	9.977	9.469	0.492
10.224	10.715				
.221	.718				
.216	.716				
10.220	10.716	0.496			
10.439	10.936				
.439	.935				
.440	.930				
10.439	10.934	0.495			

Tuesday Jan. 19, 1926

ag 5408 9

Light of moon Nov. 26th–29th

Sat = 4^3

	a	b	c	Filter	ag 5408 b a	b	c	Filter
1)	0.45	2.51	7.04	12.85	5/0.51	1.69	5.15	11.30
	0.46	2.48	7.00	12.72	0.50	1.80	5.00	11.10
	0.46	2.50	7.02	12.78	0.50	1.74	5.08	11.20
	12.32	10.28	5.76	12.68	10.70	9.46	6.12	11.10
moon 6°	9.73	8.10	4.55		# 1M 9.65	8.53	5.52	
2)	0.56	2.60	7.15	12.80	6/0.90	4.20	8.98	11.30
	0.50	2.60	7.00	12.65	0.88	4.45	8.90	11.15
	0.53	2.60	7.08	12.72	0.89	4.32	8.94	11.22
	12.19	10.12	5.64	12.62	10.33	6.90	2.28	11.12
moon 3°	9.65	8.03	4.47		# -1.58M 9.30	6.20	2.05	
3/	0.$\overset{9}{4}$4	4.22	9.80	12.90	7/ moon 6° 1.05	5.10	9.70	11.30
	0.92	4.20	9.80	12.85	1.00	4.95	9.60	11.20
	0.93	4.21	9.80	12.88	1.02	5.02	9.65	11.25
	11.95	8.67	3.08	12.78	10.23	6.23	1.60	11.15
# -1M	9.35	6.79	2.41		moon 60 9.20	5.58	1.43	
4/	2.00	7.60	12.00	12.75	8/ 3.16	5.60	9.80	11.32
	2.00	7.50	12.02	12.76	3.15	5.46	9.50	11.20
	2.00	7.55	12.01	12.76	3.16	5.53	9.65	11.26
	10.76	5.21	0.75	12.66	8.10	5.73	1.61	11.16
# -1.58M	8.50	4.11	0.59		moon 30 7.26	5.13	1.44	

		Zero	
4 27	Began	0.10	
4 39	Ended	0.10	+ small area
	~~Began~~		
4 51	Ended	0.10	

Tuesday Jan. 19, 1926

ag 5909a		a	b	c	Film	5909b	a	b	c	Film
moon	1)	0.85	4.40	9.85	12.50	5)	0.78	3.01	7.30	10.85
exp = 2^s		0.82	4.58	9.80	12.50		0.80	3.30	7.45	10.85
		0.84	4.49	9.82	12.50		0.79	3.16	7.38	10.85
		11.66	8.01	2.68	12.40		10.06	7.69	3.47	10.75
	moon 30	9.40	6.53	2.16		H-1M	9.35	7.15	3.23	
	2)	0.80	4.55	10.10	12.48	6)	1.74	640	—	10.80
		0.80	4.40	9.80	12.30		1.70	6.45	—	10.80
		0.80	4.48	9.95	12.39		1.72	6.42	—	10.80
		11.69	7.91	2.44	12.29		9.08	4.38	—	10.20
	moon 60	9.43	6.44	1.98		H-1.58M	8.49	4.09	—	
	3)	1.80	6.50	11.58	12.60	7)	1.88	7.98	—	10.98
		1.75	6.52	11.50	12.38		2.15	8.10	—	11.00
		1.78	6.51	11.54	12.49		2.02	8.04	—	10.99
		10.71	5.98	0.95	12.39		8.97	2.95		10.89
	H-1M	8.66	4.84	0.77		moon 30	8.25	2.71	—	
	4)	3.75	10.10	—	12.42	8)	1.86	7.80	—	10.90
		3.70	9.82	—	12.20		1.88	8.00	—	10.92
		3.72	9.96	—	12.31		1.87	7.90	—	10.91
		8.59	2.35	—	12.21		9.04	3.01	—	10.81
	H-1.58M	7.03	1.92	—		moon 60	8.35	2.78	—	

			Index
4	54	Began	0.10
5	05	Middle	0.10
5	16	Ending	0.10

	a	b	c	Film	a	b	c	Film
1)					5/			
2)					6/			
3/					7/			
4/					8/			

	a	b	c	Fehler	a	b	c	Fehler
1/					5/			
2/					6/			
3/					7/			
4/					8/			

Thursday ~~Aug~~ Jan 27. 1927

S113 on Dr. Stetson Photometer

	Mean	Film	~~Filter~~ Zero		Mean	Film	~~Filter~~ Zero
1 y	16.65	21.05	2.20	1 b	13.80		Reduced value
2 Persei	17.90	20.60	2.01		14.00	1 y =	1.86
	16.93	20.35	1.90		13.40	1 b =	3.72
	51 48	2 0 0	11		11 20		
	17.16	20.67	2.04		13.73		
	20.67	2.04			20.67		
	3.51	18 63			6.94		
2 ~~b~~ y	5.12	21.60	2.17	2 b	13.00		
α Tauri	4.70	21.20	2.02		12.30	2 y =	8.57
	4.52	21.20	1.90		12.90	2 b =	4.46
	14 34	100	9		8 20		
	4.78	21.33	2.03		12.73		
	21.33	2.03			21.33		
	16.55	19.30			8 60		
3 y	17.60	21.75	2.20	3 b	16.12		
β Arietis	17.50	21.70	2.05		17.18	3 y =	2.09
	17.50	21.38	1.90		15.~~28~~ 50	3 b =	2.56
		183	15		18 8 0		
	17.53	21.61	2.05		16.60		
	21.61	2.05			21.61		
	4.08	19.56			5.01		
4 y	9.75	21.89	2.18	4 b	11.65		
α Persei	10.25	21.70	2.02		11.11	4 y =	6.10
	9.05	21.30	1.90		11.00	4 b =	5.30
	21 29 0 5	189	10		76		
	9.68	21.63	2~~1~~.03		11.25		
	21.63	2.03			21.63		
	11 95	19.60			10.38		

	Zero		
Began 3 29	2.20	Ended	3 40
3 55	2.00	"	4 04
4 13	1.90		4 22

~~Zero~~ Zero

Began 2 33 pm

Thursday June 2~~6~~7. 1927

S 1139

3 40 Zero 2.11 2.00 1.85

Exp.	4	5	~~6~~ 11	12	13	14
	3.24	5.50	10.10	13.82	17.15	19.00
~~3~~ 4 05	3.10	5.15	10.10	13.85	17.05	19.60
4 22	3.00	5.30	9.60	13.70	16.50	19.40
mean	3.13	5.32	9.93	13.79	16 ~~14~~.20	19.33

(1) Filar	19.82	19.20 —	21.70 —	21.80 —	21.40 —	20.90
Zero	2.10	2.10	2.10	2.10	2.08	2.05 ~~2.10~~
(2) Filar	19.61	19.81 —	21.60 —	21.65 —	21.21 —	20.85
Zero =	2.00					1.95
(3)	19.40	19.60 —	21.20 —	21.25 —	21.05 —	20.70
Zero mean =	1.86					1.85

1st 3.54

2nd 4 12

3rd 4 26

Zero 2.10
2.05
2.00
1.95
1.86
1.85
~~11.81~~
1.97

~~Mean~~

Filar { Sums	187	231	150	~~0~~ 170	67	245
Means	19.62 1.97 17.65	19.77 1.97 17.80	21.50 1.97 19.53	21.57 1.97 19.60	21.22 1.97 19.25	20.82 1.97 18.85

19.62	19.77	21.50	21.57	21.22	20.82
3.13	5.32	9.93	13.79	16.90	19.33
16.49	14.45	11.57	7.78	4.32	1.49

	4	5	11	12	13	14
Reduced mean	9.34	8.12	5.92	3.97	2.25	0.79
Value	2.47 ~~0.00~~	3.31	3.89	4.40	4.91	5.78

HC 286.78

Tuesday July 19 1927

Schilt Photometer, short (may 9 also) 1/2 ap.

ag 5946 a			Again	Mean
Zero =	3.72		3.69	3.70
Filter =	11.70		11.60	11.65
1 a =	8.60		8.72	8.66
1 b =	4.88		4.85	4.86.
1 c =	3.90		3.90	3.90
Zero =	3.68	Zero 3.70	3.68	3.68
Filter =	11.22	3.68 3.70	10.50	10.86
2 a =	8.70	3.70 3.70	8.52	8.61
2 b =	4.82	3.70	4.85	4.84
2 c =	3.88		3.89	3.88
Filter =	11.60		9.80 or mean dist 11.58	11.59
		Filter		
Zero =	3.70	11.65	3.70	3.70
Filter =	11.76	10.86	11.55	11.66
4a =	11.68	11.59	11.62	11.65
4b =	8.60	11.66 11.72	8.30	8.45
4c =	4.39	11.82	4.40	4.40
Filter =	12.00	11.32 7)10.62	11.45	11.72
Zero =	3.70	11.52	3.70	3.70
Filter =	12.00		11.68	11.84
3 a =	10.02		9.75	9.88
3 b =	5.79		5.68	5.74
3 c =	3.91		3.92	3.92
Filter =	11.30		11.35	11.32
Zero =	3.70		370	3.70

Tuesday July 19, 1927

Schuler Photometer Same Conditions

AG 5997 b

Zero	3.72	Zero	3.70
Film	11.20	Film	11.02
6a	3.85	9a	10.42
6b	4.26	9b	7.94
6c	6.56	9c	4.10
Film	10.60	Film	10.80
Zero	3.70	Zero	3.72
Film	11.68	Film	10.60
7a	4.08	8a	9.85
7b	6.04	8b	7.35
7c	9.80	8c	4.08
Film	11.50	Film	10.90
Zero	3.72	Zero	3.70

Wednesday July 20. 1927

Shift Plot. Same adj as yesterday
except shunt (neg) is partially out]

ag 6048

Zero 3.80 again 3.28 mean

~~ap~~		Sq	Film	Sq	Film	Sq.	Film
9	1	4.50	15.65	4.38	14.82	4.44	15.24
8	2	5.50	15.95	5.48	15.70	5.49	15.82
7	3	6.92	16.10	6.85	15.80	6.88	15.95
6	4	8.72	16.15	8.60	15.98	8.66	16.06
5	5	10.88	16.15	10.68	16.14	10.70	16.14
4	6	13.01	16.05	12.92	15.85	12.96	15.95
3	7	14.65	16.08	14.55	15.91	14.60	16.00

Zero = 3.32 3.39 mean zero = 3.45

Zero 3.25 3.32

ap		Sq.	Film	Sq	Film		
ap? sq.	11	5.00	15.85	5.05	16.10	5.02	15.98
8	12	6.10	16.38	6.10	16.35	6.10	16.36
7	13	7.70	16.30	7.70	16.55	7.70	16.42
6	14	9.18	16.06	9.40	16.20	9.29	16.13
5	15	11.20	16.18	11.10	16.40	11.15	16.29
4	16	13.45	16.50	13.18	16.56	13.32	16.53
3	17	14.95	16.00	14.90	16.20	14.92	16.10

Zero 3.40 3.40

Mean zero 3.34

Wednesday July 20 1920

Reduction for preceding page.

	9	8	7	6	5	4	3
	15.24	15.82	15.95	16.06	16.14	15.95	16.00
	4.44	5.49	6.88	8.66	10.70	12.96	14.60
11.79	10.80	12.37/ 10.33	12.50/ 9.07	12.61/ 7.40	12.59/ 5.44	12.50/ 2.99	12.53/ 1.40
	9.16	8.35	7.25	5.86	4.33	2.39	1.13 ~~0.44~~

	9	8	7	6	5	4	3
	15.98	16.34	16.42	16.13	16.29	16.53	16.10
	5.02	6.10	7.70	9.29	11.15	13.32	14.92
12.64/	10.96	13.02/ 1024	13.08/ 8.72	12.79/ 6.84	12.95/ 5.14	13.19/ 3.21	12.74/ 1.18
	8.67	7.86	6.66	5.34	3.98	2.44	0.93

Thursday July 21, 1927

2 20 pm Schilt Phot. Same adj. as yesterday

Zero 3,55 ~~Film 18,80~~

BD 59979 Sq Film again at 2.39

			~~Means~~ Means
1	~~3.75~~	Zero 3.75	3.65
Film	19.12	18.80	18.96
1	17.60	16.80	17.20
	9 ~~10.50~~	9.52	9.51 ~~10.01~~
	4.70	4.58	4.64
Film	19.28	18.40	18.84
2	17.12	17.30	17.21
	9.30	9.48	9.39
	4.44	4.62	4.53
Film	19.00	19.00	19.00
Zero	= 3.75	3.80	3.78
Film	= 18.72	18.65	18.68
4B	16 40	—	~~—~~
	↙	16.18	16.29
	7.05	7.15	7.10
Film	19.05	19.10	19.08
3X	17.45	17.45	17.45
	11.15	10.50	10.82
	4.80	4.80	4.80
Film	= 18.40	18.00	18.20
2.38 Zero	3.82	2 49 pm 3.85	3.84

Zero	Film
3.65	18.96
3.78	18.84
3.82	19.00
3)1227	18.68
Mean 3.76	19.08
	18.20
	6)476
	18.79

Thursday July 21 1927
Schütt Phot. Same as last

2.56 pm	ag 5997 hr	alignment 309
Zero	= 3.79	3.82
Film	18.35	18.22
5	4.41	4.45
	7.93 ~~6.55~~	6.72
	14.20	13.05
Film	18.75	18.10
6	5.92	5.70
	12.90	12.90
	18.02	17.50
Film	18.20	18.35
Zero	3.80	3.80
Film	18.60	18.65
7	7.45	7.45
	16.40	16.25
	—	—
Film	18.90 ~~19.10~~	1880
8	7.25	7.95
	15.95	15.40
	—	—
Film	18.72	18.20
3.08 pm Zero	3.85	3.18 pm 3.84

Friday July 22, 1927

Re-adjustments Schultz Photo

~~Zero~~	~~Shade off~~	~~No shade~~
~~3.89~~	~~4.08~~	~~22.05~~
		~~20.85~~

Full	Zero
20.80	4.00
20.85	3.98
20.70	4.00
20.70	3.97
20.70	4.02

Friday July 22, 1927

AG 8996 a Both shunt in. 1/2 af. Re-ad.

Zero	4.30	4.~~40~~ 35
Film	16.75	16.85
1	4.60	4.70
	6.10	6.06
	12.39	12.06
Film	16.90	16.20
2	4.60	4.62
	6.00	6.10
	12.40 ~~16.30~~	11.99
Film	16.30	16.20
Zero	4.30	4.32
Film	15.50	17.71
	4.85	4.90
	7.49	7.56
	14.85	15.48
Film	16.90	17.54
	5.85	5.80
	12.00	12.01
	16.70	17.05
Film	16.85	16.90
Zero	4.34	4.35

4 15 h. m. No plate at Start	17.00	16.90
Middle	16.90	17.05
4 30 at End	16.75	17.05
		4.45

Saturday July 23. 1927

Various msf with Schilt. Photometer show that some kind of rheostat or resistance box in lamp circuit is desirable. After some re-adjustment proceeded with ½ of mag. of the Shunt.

	AG 5296a		Agent	Mean				
Zero	3.89		3.88	3.88				
Filter	14.95		15.05	15.00				
Moon 6° 1	4.32	~~Zero~~	4.35	4.34	10.72	9.60		
	6.21	Filter 15.00	6.28	6.24	8.82	7.87		
	11.49	15.12 13.06	11.30	11.40	3.66	3.27		
Filter	15.20	3.86 11.20	15.05	15.12				
Moon 3° 2	4.35	15.12	4.32	4.34	10.37	9.56		
	6.05	14.30 25.42	6.18	6.12	8.59	7.93		
	11.46	14.71 3.86 10.85	11.38	11.42	3.29	3.03		
Filter	14.20		14.39	14.30				
Zero	3.89		3.81	3.85				
Filter	15.05	15.08 14.94	15.10	15.08				
Hefner 1.0 3	4.39	15.01 3.86	4.35	4.37	10.64	9.56		
	6.72	11.15	6.90	6.81	8.20	7.35		
	13.12		13.02	13.07	1.94	1.74		
Filter	14.68		15.20	14.94				
Hefner 1.58 4	5.08	14.94 14.33	5.08	5.08	9.51	8.86	No plate	
	10.68	14.64 3.86 10.78	10.78	10.73	3.91	3.63	at 2 23	18.78
	14.48		14.75	14.62	–		233	18.55
Filter	14.60		14.06	14.33			240	18.52
Zero	3.84		3.89	3.86				
		Zero 3.88 3.85 3.86 Mean 3.86					at close 248	18.70

Friday Aug 5, 1927

Schilt Photometer is now in fair working order:
with mass current, shunt & usual amount of electrical shunt. No plates with largest aperture Zero = 2.6 & Reading 22.6

Plate AG 6106
2 12 Zero = 2.60   Full light = 22.50
2 26 2.80   22.85
2.70   22.68

1 4.02 18.40   6 3.28 15.80
4.00 18.05   6d 3.32 18.05
Comb. sky 4.01 18.22   3.30 16.92
13.82 9.15   14.53 9.60

2 10.00 18.30   Filter
2d 9.78 17.62   18.22
9.89 17.96   17.96
7.94 5.25   18.08
17.98

3 3.72 18.05   16.92
3d
4d 3.75 18.10   5)3916
3.74 18.08   17.83
(Sp 4 missing) 14.09 9.30   2.70
15.13

5 3.52 17.60
5d 3.65 18.35
3.58 17.98
14.25 9.42

Friday Aug 5 1927
Same as Tuesday

AG 6107

Plate	Zero	Full light
2 43	3.00	24.10
2 45	3.08	23.88
2 46	3.08	23.88

Zero 3.00 Full light 23.62
at 3.11

Mean Zero = 3.04

(1)
3.22 17.15
3.25 17.00
3.24 17.08
13.98 9.~~70~~ 85

(2)
3.34 17.25
3.35 17.22
3.34 17.22
13.88 9.79

(3)
3.20 17.82
3.25 17.24
3.22 17.53
14.00 9.86

(4)
3.35 17.50
3.30 17.60
3.32 17.55
13.90 98.0

(5)
8.48 16.90
8.54 16.70
2d
8.51 16.80
8.71 6.15

(6)
5.82 16.88
3d 5.80 17.05
5.81 16.96
11.41 8.05

(7)
4.40 17.20
4d 4.45 17.10
4.42 17.15
12.80 ~~11.98~~ 9.03

(8)
3.58 17.40
5d 3.64 17.69
3.61 17.54
13.61 9.60

(9)
3.94 16.95
3d 4.00 17.32
4min 3.97 17.14
13.25 9.35

(10)
5d 3.25 17.62
4min 3.32 16.68
3.28 17.~~85~~ 15
13.94 98.4

(11)
3.44 17.02
~~3.47~~ ~~16.95~~
4d 3.40 16.90
4m 3.40 16.96
13.82 97.5

(12)
5.20 17.10
3.25 17.62
2d
4m 5.00 17.50
5.10 17.30
12.12 8.55

(13)
3.32 17.~~02~~ 85
6d
2m 3.30 17.10
3.31 17.48
13.91 98.0

Film.
17.08
17.22
17.53
17.55
16.80
16.96
17.15
17.54
17.14
17.15
16.96
17.30
17.48

13 | 2.86
17.22

17.22
3.04
14.18

Friday Aug 5 1927

Same condition

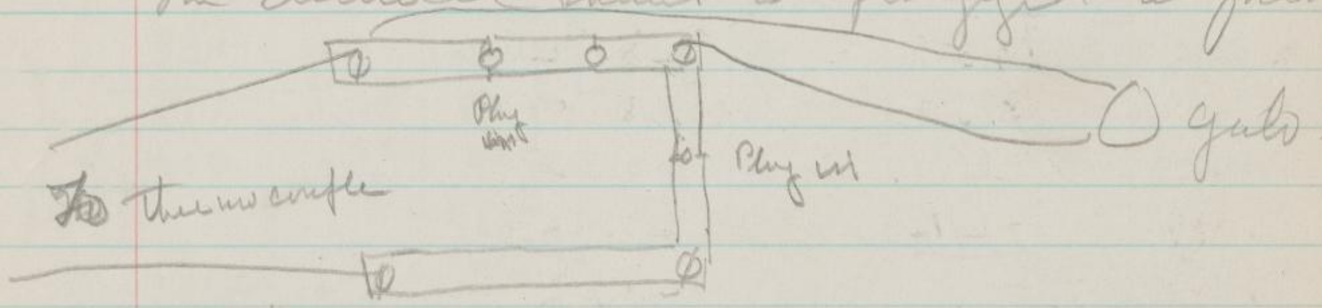
a 96107

Scraped film away at the corners — & measured

		Film	glass	Diff	
(next Brooks)	1	17.20	22.04	4.84	
		18.40	24.10	5.70	
		17.90	23.25	5.35	
				89	5.30
(next [illegible])	2	17.50	23.02	5.52	
		18.59	24.45	5.86	
		18.12	23.82	5.70	
				208	5.69
(diag. fr Brooks)	3	17.05	22.50	5.45	
		17.78	23.80	6.02	
				1147	5.74
	4	16.59	22.40	5.81	
		17.70	22.98	5.28	
		16.98	22.98	6.00	
				1709	5.70

Saturday August 6, 1927

The Schilt photometer, as used yesterday & is at the present time, has an infra-red filter, Eastman 89 A (dark signal red.
The galvanometer has shunt fully in.
The electrical shunt is plugged as follows:



Large aperture → ◎ used (the one which came from the makers)

2 04	Zero = 2.85	Full light = 23.20
2 07	3.10	= 22.98
2 08	3.02	22.80
2 09	3.00	21.40
2 10	3.02	21.80
2 11	3.00	21.72
2 12	3.00	21.78

2 13 Galvanometer oscillating!
Moves at times through 5 to 7 mm.
Clamped slider on resistance wire

2 24	3.20	22.52
2 26	3.25	22.52
2 27	3.25	22.50

Saturday. Aug 6. 1927

Clamping slider helped, but any agitation of pier affects galvanometer.
Have thus connected galvanometer to sprinkler pipe for ground.

	Zero	Full light
3 44	3.58	23.62
3 45	3.60	23.65
3 46	3.63	23.65
3 47	3.62	23.65
3 48	—	23.72
3 49	3.68	23.70
3 50	—	23.75
3 51	3.68	23.70
3 52	—	23.75
3 54	—	23.80
3 55	—	23.82
3 56	—	23.85
3 58	—	23.86
3 59	—	23.88
4 00	—	23.90
401	3.78	23.80
402	3.78	23.80
403	—	23.85
404	—	23.89
4 05	—	23.90
4 06	—	23.90
4 07	3.84	23.90
408	—	23.91
409	3.80	23.85

After these readings, disconnected galv. from ground.

Saturday Aug 6, 1927
Conditions as for previous work.
No grinding of gold.

29596(a)	a	b	c	Fil	ⓑ a	b	c	Fil
1)	4.60	7.10	$1\overset{5}{4}.90$	20.85	5) 4.38	5.80	11.25	19.50
6°	4.68	7.35	15.87	20.54	4.50	5.80	11.11	19.42
	4.64	7.22	15.88	20.70	4.44	5.80	11.18	19.46
	16.06	13.48	4.82	3.97 16.73	15.02	13.66	8.28	3.97 15.49
	9.60	8.05	2.88		9.70	8.82	5.35	
2)	4.58	6.90	16.20	20.84	6) 5.10	9.90	17.42	20.02
	4.54	7.15	16.45	20.60	5.10	9.80	17.30	20.10
8°	4.56	7.02	16.32	20.72	5.10	9.85	17.36	20.06
	~~15.56~~ 16.16	~~13.04~~ 13.70	~~3.74~~ 4.40	3.97 ~~24~~ ~~17.75~~ 16	14.96	10.21	2.70	3.97 16.09
	$9.\overset{63}{\cancel{11}}$	~~5.48~~ ~~7.72~~	$2.\overset{63}{\cancel{48}}$		9.30	6.35	1.68	
3)	4.78	8.82	18.44	21.30	7) 5.65	12.38	18.50	$18.\overset{98}{\cancel{60}}$
	4.90	8.32	18.10	21.85	5.84	12.60	18.70	19.95
	4.84	$8.5\overset{7}{\cancel{6}}$	18.27	21.58	$5.\overset{7}{\cancel{8}}4$	12.49	18.60	19.96
	16.74	13.01	3.31	3.97 17.61	14.22	7.47	1.36	3.97 15.99
	9.50	7.39	1.92		8.90	4.67	0.85	
4)	6.04	15.40	~~20.50~~	20.50	8) 5.60	12.10	18.11	19.28
	$6.\overset{14}{\cancel{10}}$	14.65	—	20.82	5.60	12.80	19.60	19.28
	6.07	15.02	–	20.66	5.60	12.45	18.86	19.28
	14.59	5.64	—	3.97 16.69	13.68	6.83	0.42	3.97 15.31
	8.75	3.38			8.94	4.46	0.27	

20.70
20.72
21.58
20.66

Zero

4 ~~2~~3	Began	4.00
4 37	Middle	3.92
4 50	Ending	3.98
		11.90
		3.97

Saturday Aug 6, 1927
Same Conditions as for last

ord. ag 9597(a)		a	b	c	Fit	9597b 820 (b)	a	b	c	Fil
2 sq. Moon 6°	①	4.89	10.45	18.40	21.00	⑤ Defun (1.0)	5.62	8.38	16.30	20.38
		5.00	10.80	18.90	20.48		5.15	8.25	14.88	20.10
		~~5~~ 4.94	10.62	18.65	20.74		5.08	8.32	15.~~91~~ 59 69	20.24
		~~15.80~~ ~~14.30~~ 14.80	~~9.62~~ 92 10.12	~~1.59~~ 2.09	3.94 16.80		15.16	11.92	4.65	3.94 16.30
		~~8.80~~ 9.40	6.03	1.24			9.30	7.32	2.74	
Moon 3°	②	4.95	10.82	18.90	20.85	⑥ Defun (1.1)	6.92	15.00	19.42	20.50
		5.00	10.80	18.48	20.30		6.90	14.95	19.52	20.52
		4.98	10.81	18.69	20.58		6.91	14.98	19.47	20.50
		15.60	9.77	1.89	3.94 16.64		13.59	5.52 ~~5.68~~	1.03	3.94 16.56
		9.36	5.86	1.14			8.20	3.33	0.62	
Defun 1.0	③	5.35	12.60	19.60	20.50	⑦ Moon 6°	8.06	18.70	20.00	20.10
		5.28	12.01	19.82	21.02		8.10	17.10	—	19.95
		5.32	12.30	19.71	20.76		8.08	17.90	—	20.02
		15.44	8.46	1.05	3.94 16.82		11.94	2.12		3.94 16.08
		9.16	5.06	~~6.24~~ 0.62			7.43	1.32		
Defun 1.5	④	8.10	18.10	—	21.44	⑧ Moon 3°	7.65	17.15	—	19.40
		8.30	18.38	—	21.55		7.60	16.85	—	19.25
		8.20	18.24	—	21.50		7.62	17.00	—	19.32
		13.30	3.26		3.94 17.56		11.70	2.32		3.94 15.38
		7.56	1.86				7.60	1.51		

		Zero
4 55	Begun	3.81
5.07	Middle	4.00
5 18	Ended	4.00
		3) 11 81
		3.94

Monday August 8, 1927

Schilt photometer is same as last used. Slider of rheostat is clamped
Zero = 3.71 / Full light = 28.10

	1 next plate no	2 Same side	3 diag. opp.	4 same end	5 Center
I I 46194	7.75	7.85	7.44	7.35	7.52

Re-adjusted position of lamp & condensing lens. ~~to~~ produce light uniform range as nearly as possible. As now adjusted any movement of Obs. Telescope (to either side) gives less deflection of galvanometer. This indicates improved setting of red light on thermocouple.

Returned to checking van Rhijn plates begun above by making readings at four corners & Center

	1	2	3	4	Center
I 46194	7.78	7.84	7.85	7.78	7.70

Galvanometer oscillates

Monday August 8, 1927

ag 6105.b

		a	b	c	Filter		a	b	c	Filter
Argand No 9	①	3.85	4.45	6.82	13.28 ~~10.00~~	⑤ ord. Argand 9	3.71	4.40	7.89	10.85
		3.81	4.30	6.69	12.50		3.70	4.39	7.88	10.78
		3.83	4.38	6.76	12.89 3.66		3.70	4.40	7.88	10.82 3.66
		9.06	8.51	6.13	9.23		7.12	6.42	2.94	7.16
		9.84	9.23	6.65			9.95	8.98	4.11	
Argand No 8	~~8~~	3.91	4.98	8.35	12.22	⑥ ord. Argand 8	3.76	5.18	9.00	10.69
		3.85	4.80	8.10	11.75		3.86	5.15	8.98	10.90
		3.88	4.89	8.24	11.98 3.66		3.81	5.16	8.99	10.80 3.66
		8.10	7.09	3.74	~~8~~ 8.32		6.99	5.64	1 81	7.14
		9.74	8.53	4.50			9.80	7.90	2.52	
Hefner (1.0)	③	3.80	4.32	6.42	12.31	⑦ ord. Hefner (1.0)	3.71	4.60	8.60	10.70
		3.78	4.20	6.25	11.90		3.70	4.72	8.65	10.50
		3.79	4.26	6.34	12.10 3.66		3.70	4.66	8.62	10.60 3.66
		8.31	7.84	5.76	8.44		6.90	5.94	1.98	6.94
		9.85	9.30	6.84			9.94	8.56	2.86	
Hefner (1.3)	④	3.89	5.40	9.80	12.90	⑧ ord. Hefner (1.3)	3.90	6.85	9.88	10.88
		3.90	5.40	9.70	12.20		3.90	6.56	10.10	10.70
		3.90	5.40	9.75	12.55 3.66		3.90	6.70	9.99	10.79 3.66
		8.65	7.15	2.80	8.89		6.89	4.09	0.80	7.13
		9.71	8.05	3.15			9.67	5.74	1.12	

		Jew
5 24	Began	3.70
5.38	Middle	3.67
5 48	ended	3.60
		10.97
		3.66

Tuesday Aug. 9. 1927

Galvanometer ~~of~~ Schilt photometer continues ~~to~~ oscillate, swinging at times through 5 or 6 mm.

Soldering connections of 6V lamp did not steady the swing.

Finally, a new lamp was adjusted to position. This did away with practically all oscillation. Switch of which lamp is turned off & on should be replaced by soldered connection

Wednesday Aug 10, 1927

Testing battery (new) under Schilt photometer. = 6.0 volts.

Tested zero of galvanometer. Thermocouple at greater sensitivity. With a solid brass plate (without aperture) the readings vary by about 1mm according as the light is off or on

Putting in light with large aperture (not full) tendency of deflection is increasing rather than diminishing as it did yesterday

Readings for density on ~~[illegible]~~ E 13101

7 5.90 22 = 6.28
8 6.10 23 = 6.25
9 6.12 24 = 6.20
10 5.85 25 = 6.00
× 11 5.75 26 = 6.15
12 5.75 27 = 5.75
× 13 5.72 Zero = 3.85
14 5.79
15 5.72 Shutters were
16 5.81 marked at about
17 5.82 10.7, 13.3, 19.1
18 5.90 & 7
× 19 6.00
20 6.10
21 6.14

Same for I 46184. range along center from numbered edge

	avge		avg
7 = 13.20	13.42	21 = 13.10	13.28
8 = 13.30	13.57	22 = 13.66	13.60
9 = 13.37	13.30	23 = 13.75	13.84
10 = 13.40	13.35	24 = 13.41	13.30
11 = 13.10	13.20	25 = 13.40	13.75
12 = 12.90	12.85	26 = 13.80	13.90
13 = 12.75	12.80	27 = 13.68	13.72
14 = 12.79	12.95	Zero = 4.10	4.15
15 = 13.00	12.95		
16 = 12.98	13.15		
17 = 12.95	12.96		
18 = 13.09	13.18		
19 = 13.05	13.00		
20 = 13.31	13.30		

The above readings were made in two series

Full light = 21.50

Wednesday August 10, 1927

After a fairly long time (20m?) ~~light~~ zero read at 4.00.

Light turned on. Full brightness = 18.92

I 46189, measured vertically as on preceding page

	Reversed			Mean			
7	10.98	11.20	11.08	11.09			
8	11.29	11.52	11.42	11.41	11.60	11.98	
9	11.50	11.59	11.80	11.63			
10	11.61	11.61	11.72	11.65			+.4
11	11.50	11.52	11.74	11.59			
12	11.67	11.71	11.80	11.73			
13	11.67	11.85	11.85	11.79	11.90		
14	11.78	11.85	11.90	11.84			
15	11.89	12.05	12.02	11.99			+.1
16	11.96	12.00	12.00	11.99			
17	12.10	12.20	12.10	12.13			
18	12.05	12.10	12.28	12.14	12.25		
19	12.05	12.10	12.10	12.08			
20	12.30	12.30	12.35	12.32			+3
21	12.04	12.20	12.20	12.15			
22	12.30	12.40	12.28	12.33			
23	12.30	12.40	12.41	12.37	12.18		
24	12.10	12.10	12.10	12.10			
25	11.90	11.95	12.10	11.98			+.2
26	12.00	12.08	12.25	12.11			
27	12.30	12.~~20~~30	12.40	12.33			
Zero	4.26	4.30 ~~12.30~~	4.34				

Curvature or possibly non-perpend

Galvanometer oscillates slightly, though about 1 mm

Wednesday August 10, 1927

Readings with full light

Large ap.	21.4	
Medium	15.8	5.6
Small	10.3	5.5
Zero	4.6	11.1
Ground glass	5.9	

21.4
4.6
16.8

16.8
3
11.1) 50.4 (4.54
444
600
555
450

Increased squareness of run up & down of detector no appreciable differ. Finer method must be used.

Aperture used differ approx 1.5 mags each
From large to small = 30 mags

Changed elect. shunt

Large	15.1	
Med.	11.6	3.5
Small	8.2	3.4
Zero	4.6	
G.G.	4.8	

15.1
4.6
10.5
3
69) 31.5 (4.57
27 6
3 90
3 40
500

another change

Large	28.6	
Med	21.1	~~7~~ 7.5
Small	13.6	7.5
Zero	6.0	

28.6
6
22.6
3
15) 67.8 (452
60
78
75
30

Usual form but with plate in

Large	15.0	
Med	11.7	3.3
Small	8.4	3.3
Zero	4.7	

15.0
4.7
10.3
3
6.6) 30.9 (4.~~76~~ 68
264
450
396
548
528

Mean = 4.58

Wednesday Aug 10, 1927

Work on preceding page continued:

Aperture	MC. 676 in instrument. Setting on film	
Full	20.08	
Large	14.62	3.21
Med	11.41	3.15
Small	8.26	6.36
Small + SG	4.90	
Zero	4.68	

14.62
4.68
9.94
3
636) 29.82 (4.69
25 44
4 380
3 816
5640
5724

14.62
4.90
9.72
3
636) 29.16 (4.58
25 44
3720
3180
5400
5088
312

No plate

Aperture		
Full	—	
Large	~~15.75~~	21.48
Med	~~11.40~~	15.86
Small	~~10.45~~	10.48
Small + SG	~~5.45~~	5.20
Zero	~~4.65~~	4.75

5.62
5.38
11.00

21.48
4.75
16.73
3
11) 50.19 (4.56
44
61
55
69

21.48
5.20
16.28
3
11) 48.84 (4.44
44
48
44
4

Friday August 12, 1927

Schilt Photometer

Battery (new) has been charging since yesterday to this forenoon. Reading now is 6.2 volts.

Had lamp switch made a solid contact by soldering. Knife-switch put elsewhere in the circuit.

On attempt to use galvanometer, found it off scale. This proved to be due to the ground contact. When ground was connected, the reading with full light was 15 against 20 when not so connected. [The oscillations are worse for grounded galv.]

With galvanometer grounded, hand placed on any part (base &c) of the photometer made reading markedly higher. The same is true to a limited extent when the galv. is not grounded.

Grounding the photometer instead of the galv. seems to eliminate the difficulty.

Tested perpendicularity of run of plate in guides by inserting a thin wedge of wood between microscope (observing) & surface of plate. Plate, I46213 on plate glass, was used. Apparently, the center of the plate bulges toward the obs. microscope. The use of a crude spherometer did not show such convexity. Perhaps the rods, which guide the movable frame, are bent.

When same plate was ~~pla~~ viewed with eyepiece from thermocouple end, the focus was perceptibly different at the center than at the edges. & in the sense as found above.

Saturday Aug 13, 1927

Shutt Photometer ~~Stan~~ Magn shunt & Elec. shunt as usual. (See page 196)
Photometer grounded
Partial grounding of galv. produces no effect

Comparison of Apertures No plate interposed

	Full	Large	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	0
	28.70	21.45	16.30 ~~10.70~~	10.70	4.58	4.00
	28.65	21.44	16.36	10.75	4.60	4.05
	28.60	21.40	16.30	10.75	4.60	4.08
Means	28.65	21.43	16.32	10.73	4.59	4.04
Diff		7.22	5.11	5.59	6.14	

Examined Plate AB176 with view of measuring
Large aperture seems best.
Star 74 Center 8.1 Above, Below, Right, Left } 12.1 Zero 4.0
Star 110 { Center 12.5
{ Outside 13.2, 13.7, 13.6, 13.5

Difficult to see outline of faint images. Perhaps ground glass (thin) ought to be used to give greater contrast for images in the field

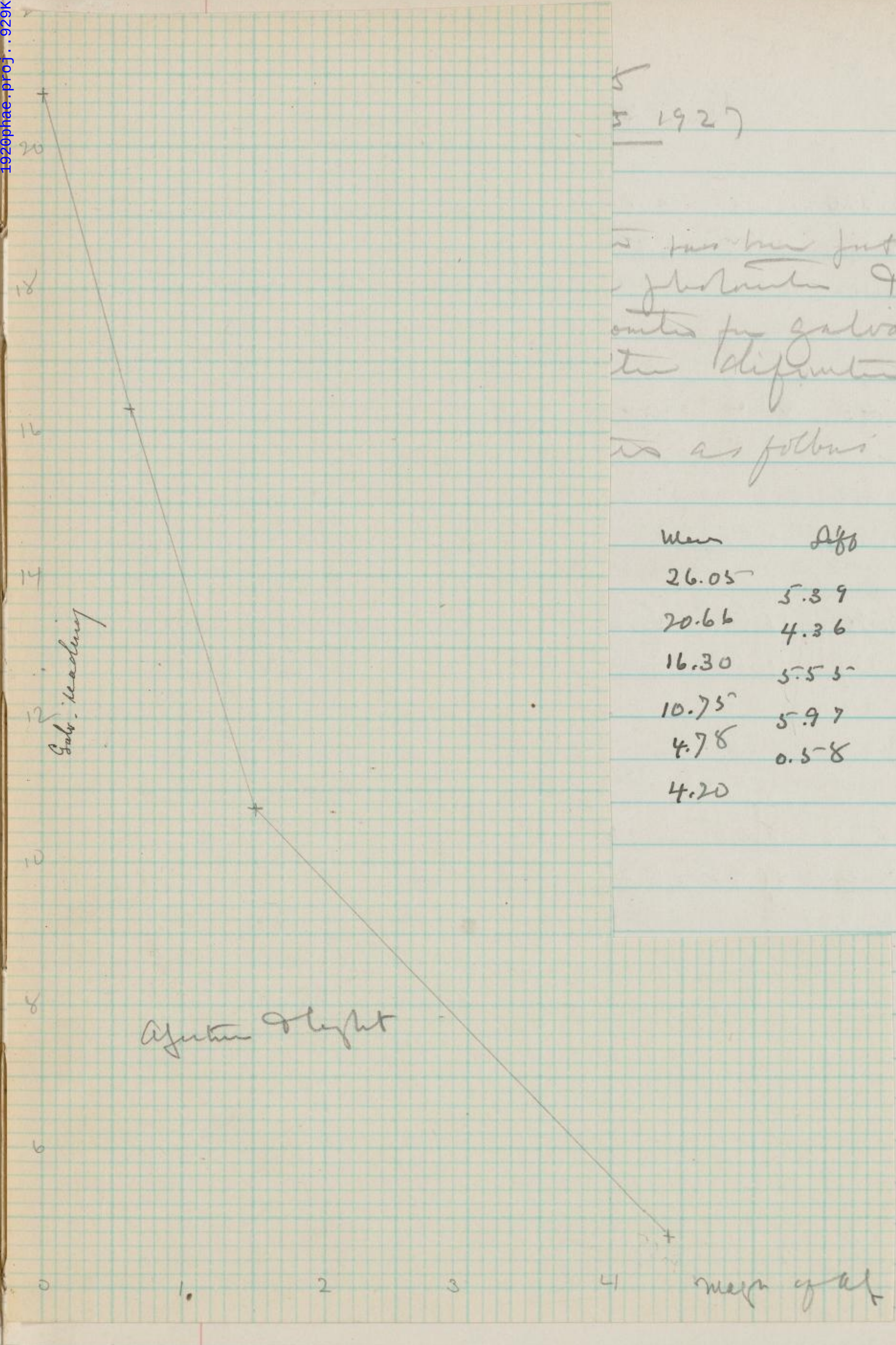
Tried ground glass screen & definition of images is much improved.

5

5 1927

... has been put in
... photometer & adjusted
...ometers for galvanometer
...tion differentiation of scale
...ts as follows

Mean	Diff
26.05	
	5.39
20.66	
	4.36
16.30	
	5.55
10.75	
	5.97
4.78	
	0.58
4.20	



Thursday ~~Saturday~~ Aug ~~13~~ 18 1927

After new partitions has been put in, remounted ~~plat~~ Shutter photometer & adjusted ~~the~~ distance of photometer from galvanometer so as ~~to~~ give better definition of scale

Measured apertures as follows

			Mean	Diff
Zero	4.18			
Full	26.00	26.10	26.05	5.39
Large	20.62	20.70	20.66	4.36
1/2	16.25	16.35	16.30	5.55
1/4	10.72	10.78	10.75	5.97
1/8	4.78	4.78	4.78	0.58
Zero	4.20	4.20	4.20	

		Diff (see page 217)
No 1	20.66	0.00
2	16.30	0.61
3	10.75	1.51
4	4.78	4.41

Schilt Photometer
Full aperture

Thursday, Aug. 18, 1927

aG 5739	a	b	c	Filt	a	b	c	Filt
1	a) 5.50	10.85	19.50	26.40	4) 5.63	9.72	16.76	20.41
	5.45	10.45	19.42	26.45	5) 5.60	9.70	16.81	20.15
	5.48	10.65	19.46	26.42	5.62	9.71	16.78	20.28
	20.94	15.77	6.96	22.12	14.66	10.57	3.50	15.98
	9.45	7.11	3.16		~~8.70~~ 9.11	6.~~27~~ 62	2.19	
2	5.50	10.62	19.35	26.40	6) 7.20	14.90	19.32	20.28
	5.44	10.57	19.25	26.01	7.16	14.90	19.00	19.98
	5.47	10.60	19.30	26.20	7.18	14.90	19.16	20.13
	20.73	15.60	6.90	21.90	12.95	5.23	0.97	15.83
	9.45	7.12	3.14		8.17	330	0.61	
3	6.18	1~~8~~ 2.50	22.90	26.00	7) 8.00	15.74	19.48	20.52
	6.27	12.61	2~~1.86~~ 2.52	26.32	7.88	15.32	19.48	20.40
	6.22	12.56	22.71	26.16	7.94	15.53	19.48	20.46
	19.94	13.60	~~2~~ 3.45	21.86	12.52	4.93	0.98	16.16
	9.15	6.22	1.38		7.76	3.05	0.61	
4	8.22	18.05	25.81	26.02	8) 8.09	15.74	19.09	20.12
	8.28	17.98	25.05	25.80	8.0~~8~~ 6	16.~~08~~ 15	19.~~66~~ 16	20.35
	8.25	18.02	25.43	25.91	8.08	15.94	19.12	20.24
	17.66	7.89	0.48	21.61	12.16	4.30	1.12	15.94
	8.15	3.64	0.22		7.24	2.70	0.67	

		Zero							
				22.12				15.98
3 26	Begin	4.30		21.90				15.83
3 42	Middle	4.35		21.86				16.16
3 57	End	4.24		21.61				15.94
		21 89						
	Mean	4.30						

Same as preceding

Thursday Aug 18. 192(7)

ag5§40	a	b	c	Filte		a	b	c	Filte
a) 1)	4.61	7.44	15.46	26.10	b)	5.15	7.68	13.35	20.25
	4.73	7.72	15.60	26.30	5/	5.32	7.74	13.31	20.38
	4.67	7.58	15.53	26.20		5.24	7.71	13.33	20.32
	21.53	18.62	10.~~77~~67	~~21.90~~ 22.00		15.08	12.61	6.99	16.~~0~~12
	9.8~~1~~0	8.~~52~~47	4.8~~7~~5			9.~~42~~35	7.8~~7~~3	4.3~~6~~3	
2/	4.68	7.30	14.90	25.80	6/	5.94	11.21	17.92	19.96
	4.7~~3~~0	7.~~71~~52	15.12	26.20		6.06	11.76	17.62	20.10
	4.69	7.41	15.01	26.00		6.00	11.48	17.7~~4~~7	20.03
	21.31	~~18.59~~	10.98	21.~~70~~80		14.03	8.55	2.26	15.~~9~~83
	9.~~82~~78	8.5~~6~~3	4.8~~4~~1			8.~~92~~86	5.4~~4~~0	1.4~~4~~3	
3/	5.12	8.61	17.58	26.21	7/	6.41	12.88	18.82	20.00
	5.20	9.05	17.27	26.40		6.35	12.81	19.06	20.36
	5.16	8.83	17.42	26.30		6.38	12.84	18.94	20.18
	21.14	17.47	8.88	22.~~00~~10		1~~4~~3.80	7.34	1.24	15.~~8~~98
	9.~~61~~55	7.9~~4~~0	4.0~~6~~2			8.~~70~~64	4.59	0.78	
4/	6.15	13.10	22.35	24.91	8/	6.20	12.65	19.41	20.29
	6.18	13.12	22.06	25.05		6.24	12.~~74~~56	18.~~20~~41	20.00
	6.16	13.11	22.~~3~~20	24.98		6.22	12.60	18.91	20.14
	18.82	11.87	2.78	20.~~8~~78		13.92	7.54	1.23	15.~~8~~94
	9.~~10~~08	5.7~~8~~2	1.34			8.~~80~~74	4.9~~5~~3	0.7~~8~~7	

		zero	Filte	Filte
			21.90	16.02
4.01	Byers	4.10	21.70	15.73
4.16	Miller	4.26	22.00	15.88
4.28	Sud.	4.25	20.68	15.88
		3/1 6 1		

Mean = 4.20

Same as preceding

Friday. Aug 19, 1927.

aG 6033	a	b	c	Fili		a	b	c	Fili
a)	4.42	6.10	16.11	24.69	b) 5	4.80	8.82	19.11	24.70
	4.50	6.24	16.75	24.90		4.90	8.90	18.80	24.85
1	4.46	6.17	16.43	24.80		4.85	8.86	18.46	24.78
	20.34	18.63	8.37	21.02 ~~20.50~~		19.93	15.93	6.32	21.00 ~~20.48~~
	9.~~48~~ 69	~~9.04~~ 8.85	3.97			9.~~92~~ 50	7.~~77~~ 68	3.01	
	4.48	6.50	17.25	24.90	6	6.75	16.00	23.05	24.44
	4.52	6.42	17.15	25.00		6.92	16.48	23.30	24.02
2	4.50	6.46	17.20	24.95		6.84	16.24	23.18	24.23
	20.45	18.49	7.85	21.17 ~~20.63~~		17.39	7.99	1.05	20.45 ~~19.93~~
	9.~~90~~ 68	8.~~75~~ 72	3.67			8.~~70~~ 52	~~3.01~~ 3.90	0.57	
	4.50	7.18	19.38	24.56	7	9.40	20.38	~~24.20~~	24.30
	4.52	7.06	20.00	24.80		9.70	20.55	—	24.50
3	4.51	7.12	19.69	24.68		9.55	20.46	—	24.40
	20.17	17.56	4.99	20.90 ~~20.38~~		14.85	3.94	—	20.62 ~~20.10~~
	9.~~90~~ 62	8.~~64~~ 40	2.38			7.~~48~~ 7.20	1.91	—	
	5.10	11.65	23.72	24.97	8	9.82	21.10	—	24.40
	5.24	11.90	23.80	24.98		9.95	21.05	-	24.05
4	5.17	11.78	23.76	24.98		9.88	21.08	—	24.23
	19.81	13.20	1.22	21.20 ~~20.68~~		14.34	3.14		20.44 ~~19.92~~
	9.~~60~~ 35	6.~~38~~ 22	0.59			7.~~20~~ 00	1.53		

am		fus							
				20.50					20.48
9 33	Began	3.70		20.65					19.93
				20.38					
9 50	Middle	3.78		20.68					20.10
10 07	End	3.85							19.92
		233							
	mean								
	mean =	3.78							

Same as preceding

Friday Aug 19, 1927

alg 6034	ⓐ a	b	c	Film	ⓑ a	b	c	Film
	5.05	9.08	22.92	25.50	5.38	9.20	18.95	24.50
	5.10	9.10	22.75	25.45	5.24	9.32	19.08	24.29
1	5.08	9.09	22.84	25.48 5	5.31	9.26	19.02	24.40
	20.40	16.39	2.64	21.58 ~~21.18~~	19.09	15.14	5.38	5 20.~~4~~0
	9.~~65~~ 45	7.~~75~~ 60	1.22		9.30	7.40	2.62	
	5.00	9.39	22.68	25.92	6.88	15.82	23.00	24.15
	5.05	9.44	22.80	25.62	6.98	16.10	22.61	24.27
2	5.02	9.42	22.74	25.77 6	6.93	15.96	22.80	24.18
	20.75	16.35	3.03	4 ~~21.87~~	17.25	8.22	1.38	~~19.22~~ ~~19.88~~
	50 9.~~65~~	46 7.~~64~~	1.38	21.87	8.50	4.05	0.68	20.28
	4.82	7.45	19.53	25.70	15.20	—	—	24.24
	4.90	7.50	20.15	25.85	14.52	—	—	24.16
3	4.86	7.48	19.84	25.78 7	14.86	—	—	24.20
	20.92	18.30	5.94	8 21.~~78~~	9.34			20.30 ~~19.90~~
	58 9.~~74~~	8.~~53~~ 35	2.71		4.60			
	5.40	12.05	24.40	25.82	14.50	—	—	24.30
4	5.51	11.84	24.40	25.60 8	14.71	—	—	24.10
	5.46	11.94	24.40	25.71	14.60	—	—	24.20
	20.25	13.77	1.31	8 21.41	9.60			20.30 ~~19.90~~
	9.~~43~~ 28	30 6.~~43~~	0.60		4.72			

a.m.		Zero	Film	Film
10 13	Begun	3.75	21.18	20.10
			21.47	19.88
—	Middle	—	21.48	19.90
10 43	End	4.04	21.41	19.90'
	Mean =	3.90		

Full light
at Start 25.22
at Middle 25.36
at Close 25.20

With 1st plate found repeatedly that film reading showed brighter than when plate was entirely removed

Wednesday August 24, 1927

a Cyg 6113

[illegible]

	Sky	Film	Sky	Film
1	Too faint	1	16 5.18 5.40 5.29 10.30 7.73	15.40 15.78 15.59 2.23 13.36
2	13.40 13.02 13.21 0.77 0.66	14.45 13.50 13.98 2.23 11.75	Sky 17 8.25 8.50 8.38 5.60 4.76	14.10 13.85 13.98 2.23 11.75
3	12.00 11.70 11.85 2.15 1.82	14.08 13.82 14.00 2.23 11.77	Sky 16 12.08 11.78 11.93 2.03 1.73	14.00 13.93 13.96 2.23 11.73
4	9.10 9.12 9.11 4.43 3.92	13.22 13.85 13.54 2.23 11.31		
5	6.85 6.65 6.75 7.14 6.12	13.88 13.90 13.89 2.22 11.67		

		Zero
1 54	Began	2.18
2.02	Middle	2.22
2 07	End	2.28

8

Mean = 2.23

Friday August 26. 1927

Measures of apertures of Schilt Photometer using C.S. Micrometer)

Large

45 — .877 − .054 = 0.823 = 4.177

57.448 − 52,678 = 4.770

57.507 − 52.718 = 4.789

2

61,726 − 58.083 = 3.643

61.758 − 58.158 = 3.600

3

53,792 − 51,436 = 2.356

53.793 − 51.436 = 2.357

4

53.925 − 53,304 = 0.621

53.917 − 53.294 = 0.623

Friday August 26. 1927

Measures of apertures (continued)
all of them have been cleaned out with pine stick

No 1

~~53.040~~	52,937	53.054	52.934
~~48,587~~	48.147	48.225	48.155
~~4.453~~	4.790	4.829	4.779

No 2

53.043	53.043	53,034
49,432	49,443	49,446
3.611	3.600	3.588

No 3

54,065	54,073	54.057
51,685	51.671	51.671
2.380	2.402	2.386

No 4

54,421	54.425	54.428
53.785	53.800	53.804
0.636	0.625	0.624

0.6) 4.8 2.4 2. 4.80 16

2.64

Friday August 26. 1927

Same as preceding"
Apertures measured with same screw, but transverse diameters used.

No 1
57,005
52,188
4.817

		Reset	another diameter
No 2	57,093	57,157	53,041
	53,410	53,509	49,374
	3.683	3.648	3.667

No 3
57.232
54,808
2.424

No 4
57367
56,734
0.633

	No 2	No 3	No 4
log(1)	0.6816	0.6816	0.6816
log	0.5603	0.3798	9.7993
2|	0.1213	0.3018	0.8823
	0.61	1.51	4.41

diff in magn.

	No 1	No 2	No 3	No 4
	4.790	3.611 $^{-22}$	2.380	0.636
	.829	.600 $^{-33}$	2.402	0.625
	.779	.588 $^{-45}$ 100	2.386	0.624
	.817	.683 $^{+50}$	2.424	~~0.633~~
	4 | 3215	.648 $^{+15}$	1592	118
		.667 $^{+34}$ 99		
		197		
Mean	4.804	3.633	2.398	0.630

See page 209

3.150

0.62 1.53 4.42

Saturday August 27.1927

Test of shutter scale by means of apertures

	No 1	No 3	diff
	25.11	11.49	
	25.09	11.45	
	25.05	11.48	
	25.13	11.50	
	25.04	11.50	
	42		
	25.08	11.48	13.60
Light dimmed by rheostat	16.20	8.25	
	16.21	8.30	
	16 23	8.31	
	16.23	8.30	
	1625	8.31	
	16.22	8.29	8.93
light dimmed less	21.53	10.20	
	21.50	10.21	
	21.50	10.21	
	21.50	10.23	
	21.50	10.20	
	21.51	10.21	11.30

Filter Test with green screen

	Green screen	None	dif
At 1	14.52	25.01	
	14.67	25.00	
	14.29	24.96	
	14.35	24.96	
	14.26	24.91	
	209	484	
	14.42	24.96	10.54 ~~56~~
At 2	11.48	18.82	
	11.68	18.80	
	11.67	18.80	
	11.45	18.81	
	11.75	18.80	
	20 3		
	11.60	18.81	7 21
At 3	7.99	11.32	
	7.98	11.30	
	7.85	11.30	
	7.90	11.30	
	7.88	11.30	
	7.92	11.30	338

For both experiments a clean glass plate was in instrument, ~~and also~~ left fixed in position throughout.

Zero = 4.20

Schilt.

8 Monday Aug 29 1927

	AG 5801	Film	aperture 2			
aperture 9	4.00	10.95	4	9.60	11.22	
	4.08	10.90		9.68	11.10	
	4.12	11.00		9.77	11.15	
	4.07	10.95		9.68	11.16	
8	4.72	10.95	3	10.32	11.11	
	4.80	11.16		10.52	11.20	
	4.78	11.14		10.30	11.25	
	4.77	11.08		10.38	11.19	
7	5.94	10.79	2	10.72	11.12	
	5.92	11.04		10.87	11.09	
	6.05	11.05		10.82	11.20	
	5.97	10.96		10.80	11.14	
6	7.03	11.00		—	—	10.95
	7.01	11.10				11.08
	7.10	11.00				10.96
	7.05	11.03				11.03
						11.08
5	8.42	11.02				11.16
	8.30	11.18				11.19
	8.52	11.05				11.14
	8.41	11.08				8) .59
					mean =	11.07

			Zero		Full light (no plate)	
10	50	Began	3.08		12.35	
10	57	Middle	3.20		12.44	
11	06	End	3.30	3.19	12.60	12.46

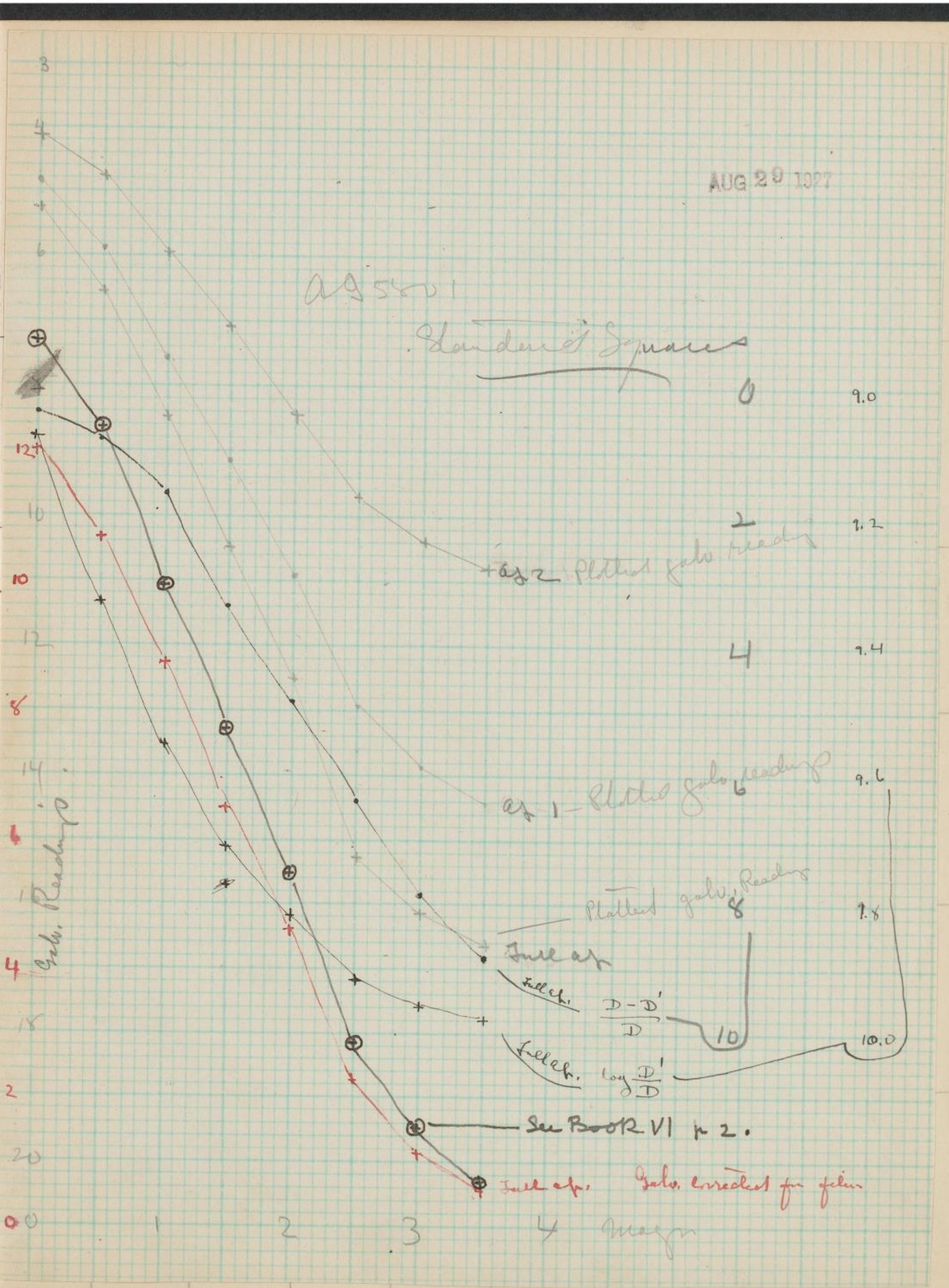
Monday Aug 29, 1927

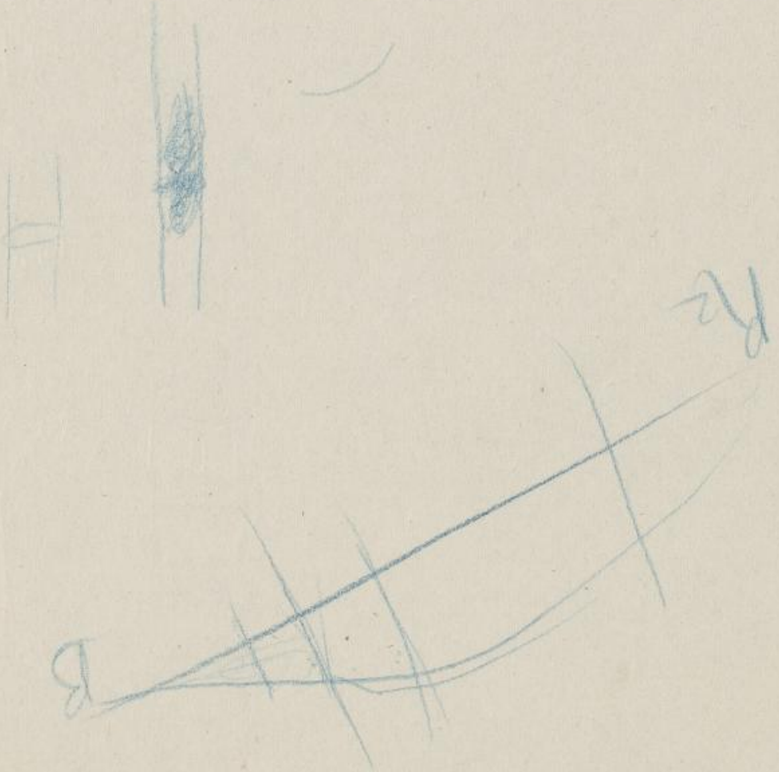
A G 5801 (Continued) Full aperture

	eff focal ap	Film					
9	5.20	17.18		4	15.25	17.18	
	5.25	17.40	~~1.0792~~ 0.2148		15.18	17.74	1.0648
	5.30	17.17	1.1348		15.26	17.49	1.1418
	5.25 (1.64)	17.25	9.0800		15.23 (11.61)	141 17.47	9.9230
	12.00	13.64	8.80		2.24	13.86	1.62
8	6.50	17.20		3	16.00	17.15	
	6.55	17.15	0.4698		16.40	17.40	1.0980
	6.62	17.15	1.1323		16.02	17.35	1.1364
	6.56 (2.95)	17.17	9.33705		16.14 (12.53)	17.30	9.9616
	10.61	13.56	7.83		.16	13 69	0.85
7	8.35	17.20		2	16.52	17.14	
	8.58	17.10	0.6893		16.85	17.15	1.1153
	8.56	17.30	1.1332		16.58	17.40	1.1342
	8.50 (4.89)	17.20	9.5561		16.65 (13.04)	17.23	9.9811
	8.70	13.59	6.40		0.58	13 62	0.43
6	10.56	16.85			Zero 3.60		
	10.37	16.80	0.8363		3.68		
	10.45	17.12	1.1255				
	10.47 (6.86)	16.96 3	9.7108				
	6.49	13.83	4.86				
5	12.40	17.10					
	12.65	17.05	0.9499				
	12.51	17.20	1.1307				
	12.52 (8.91)	17.12	9.8192				
	4.60	13.51	3.40				

	~~Begun~~	Zero	Full light (No aperture two plates)
1 32	Begun	3.58	22.~~64~~ 56
1 40	—	3.60	22.60
1 49	End	3.66	22.65
		4	
		3.61	

AUG 29 1927


AG 5801
Standard Squares
ap 2 Plotted galv reading
ap 1 – Plotted galv reading
Plotted galv. Reading
Full ap
Full ap.
$\frac{D-D'}{D}$
Full ap. $\log\frac{D'}{D}$
See Book VI p 2.
Full ap. Galv. corrected for film
0
2
4
6
8
10
9.0
9.2
9.4
9.6
9.8
10.0
3
4
6
10
12
14
18
20
12
10
8
6
4
2
0
Galv. Reading
0
1
2
3
4
Mags


R2
B

Monday Aug 29 1927

AG 5801 (Refractor with aperture)

4.92	14.66	4	13.02	14.75		
4.86	14.60		12.96	14.60		
4.90	14.69		12.89	14.88		
4.86			12.96			
592	14.70	3	13.78	14.80		
5.92	14.70		13.85	14.80		
5.95	14.80		14.02	14.95		
5.93			13.88			
7.60	14.72	2	14.52	14.90		
7.65	14.60		14.30	14.85		
7.55	14.80		14.49	15.00		
7.60			14.44			
9.05	14.65					
9.22	14.58		Zero			
9.25	14.92		3.70			
9.17			3.70			
10.72	14.65					
11.11	14.70					
11.01	14.70					
10.95						
52 Began Zero		3.72	Full light (cf		1 &	no plate)
64 Ended		3.70			17.08	
					17.08	