

May 25, 1911

Measurements of Spectrum Plates
B4177

	a.b.c.	R.A.	Dec.	magn.	
1 Az	28817	21 56.9	-59 19	7 1/4	59° 76'67" 20 57.9 - 57.4 25.2 7.4
2 Az or Lo	28947	21 1.7	-58 16	7 3/4	58° 78'12" 20 57.8 - 58.1 22.0 8.0
3 Ko	29009	21 4.2	-56 55	7 1	57° 98'07" 21 2.3 - 57.1 18.1 6.5
4 K	28844	20 57.9	-55 7	5 8	55° 95'59" 20 56.6 - 55.7 27.1 7.4
5 F5	28880	20 59.2	-55 21	8	55° 95'3" 20 57.3 - 55.1 42.8 6.9
6 Az	28916	21 0.5	-54 37	6 8	54° 98'03" 21 58.7 - 54.1 4.8 7.2
7 G	28984	21 3.1	-54 59	7 1/2	53° 95'50" 21 1.3 - 55.1 50.8 7.2
8 G?	29016	21 4.3	-52 45	7 1/4	52° 118'27" 21 2.5 - 52.1 1.5 7.2
9 F5?	29044	21 5.8	-51 55	7 1/4	52° 118'32" 21 4.0 - 52.1 30.0 7.7
10 K5	29056	21 6.2	-55 24	7 4	55° 95'40" 21 4.4 - 55.1 8.0 6.7
11 A5	29105	21 8.2	-58 3	6 6	58° 78'25" 21 6.3 - 58.1 24.8 7.8
12 A5	29223	21 13.2	-58 16	7 3/4	58° 78'35" 21 19.5 - 58.1 17.8 7.8
13 A5	29272	21 15.5	-58 12	7 1/4	58° 78'35" 21 13.5 - 58.1 18.7 7.0
14 F	29269	21 15.3	-56 13	7 1/4	56° 96'30" 21 13.5 - 56.1 4.2 7.4
15 F5	29284	21 16.4	-55 58	7 1/4	56° 96'36" 21 14.6 - 56.1 22.4 7.5
16 G?	29128	21 9.1	-55 16	7 1/2	55° 95'49" 21 7.3 - 55.1 5.0 7.7
17 A5	29205	21 12.4	-54 59	7 3/4	56° 95'59" 21 10.6 - 55.1 32.1 7.6
18 K	29159	21 10.2	-54 26	7 1/4	54° 98'35" 21 8.4 - 54.1 46.7 6.2
19 A0	29117	21 8.6	-53 41	6 0	53° 100'15" 21 6.2 - 53.1 58.3 4.3
20 A0	29211	21 12.7	-53 52	7 1/4	53° 100'37" 21 11.0 - 53.1 4.3
21 A5?	CPD-53° 100'45"				79 21 12 37.8 - 53 52.7 52 16 6.8
22 F8	29245	21 14.5	-52 11	6 6	52° 118'55" 21 12.7 - 52.1 24.1 6.8
23 A3	29262	21 15.1	-52 18	7 7	52° 118'59" 21 13.4 - 52.1 28.2 7.5
24 F or ft	29279	21 16.1	-52 22	7 1/2	52° 118'62" 21 14.3 - 52.1 39.1 7.4
25 F5?	29268	21 15.2	-51 33	7 5	51° 129'14" 21 13.5 - 51.1

May 25, 1911 (cont)

Plate No B 41757

Measure of Spectral Plates

A.G.C.

26

26 K?	29246	21	14.4	-50	22	6.4-50° 13325	21	12.7	-50	27.6	6.4
27 A3	29297	21	17.4	-57	41	7.0-52° 9846	21	15.5	-57	47.3	6.8
28 A5	29408	21	22.8	-56	43	8.4-56° 9656	21	21.0	-56	49.3	7.7
29 A0	29331	21	19.1	-55	6	6.3-55° 9586	21	17.3	-55	11.8	6.6
30 K0	29394	21	22.0	-54	9	6.6-54° 9872	21	20.2	-54	14.9	6.9
31 A?	29424	21	23.3	-53	36	8.4-53° 10081	21	21.5	-53	41.5	7.8
32 K2	29380	21	21.3	-52	45	7.2-52° 11877	21	19.5	-52	50.6	7.4
33 A2	29418	21	23.1	-52	35	7.4-52° 11886	21	21.4	-52	40.7	7.5
34 K5	29489	21	26.3	-53	11	6.5-53° 10092	21	24.6	-53	17.2	6.8
35 K? faint	29501	21	27.4	-52	26	7.4-52° 11894	21	25.7	-52	32.1	8.5
36 A	29515	21	28.1	-52	17	6.8-52° 11896	21	26.3	-52	22.6	7.4
37 A5	29555	21	29.8	-51	17	6.7-51° 12998	21	26.1	-51	23.7	7.3
38 A?	29482	21	22.4	-50	46	7.2-50° 13370	21	20.7	-50	51.7	7.4
39 A	CD M -50° 13373					7.6 21 21 11.2 -50 53.0					
40 A5?	29695	21	36.9	-57	47	6.4-57° 9940	21	35.1	-57	53.6	6.6
41 K2	29611	21	32.9	-57	53	7.2-57° 9845	21	31.1	-58	02.8	8.0
42 K0	29628	21	33.5	-56	11	6.5-56° 9700	21	31.7	-56	18.1	7.2
43 Ma	29705	21	37.3	-55	56	7.0-56° 9716	21	35.5	-56	2.6	7.5
44 K5? faint	29701	21	37.1	-55	31	7.2-55° 9671	21	35.3	-55	37.5	8.0
45 Ma	29700	21	37.0	-54	57	7.1-55° 9670	21	35.2	-55	4.1	7.8
46 A?	29699	21	36.9	-54	26	7.2-54° 9929	21	35.2	-54	32.8	7.7
47 A2	29622	21	33.1	-52	48	6.4-52° 11911	21	31.5	-52	55.3	7.0
48 A5	29616	21	32.9	-52	18	8-52° 11910	21	31.2	-52	8.0	7.8
49 A5	29621	21	33.1	-50	56	8-51° 13015	21	31.4	-51	3.1	7.7
50 A	29789	21	41.9	-56	44	6.6-58° 9743	21	40.2	-56	51.1	6.8
51 A	29866	21	45.1	-56	15	7.2-56° 9758	21	43.3	-56	21.7	7.8
52 K?	29837	21	43.7	-55	38	7.2-55° 9702	21	42.0	-55	44.7	8.2

May 25 1911 Plate No B 41757 (Cont)

A.G.C.

53 A2	29867	21	45.0	-55	7	7.2-55° 9704	21	43.2	-55	14.0	7.5
54 A	29768	21	41.1	-53	23	8.2-53° 10151	21	39.4	-53	30.1	7.9
55 A5? faint	29863	21	44.9	-53	12	8-53° 10175	21	43.2	-53	18.7	8.0
56 A2	29801	21	42.3	-51	50	7.4-51° 13070	21	40.6	-51	56.6	7.6
57 A? poor	29731	21	38.7	-49	57	6.6-50° 13463	21	37.0	-50	4.4	6.6
58 A	29955	21	49.2	-58	22	6.4-58° 9811	21	47.4	-58	29.4	6.8
59 K?	30105	21	55.5	-57	11	5.21-57° 10015	21	53.9	-57	18.4	6.7
60 A	30057	21	53.6	-56	22	6.3-56° 9784	21	51.9	-56	28.8	6.9
61 A?	29999	21	51.1	-55	28	4.8-55° 9733	21	49.4	-55	35.1	4.8
62 A	29990	21	49.8	-53	31	7.2-53° 10200	21	48.1	-53	38.3	7.6
63 K	29958	21	49.4	-52	56	6.5-53° 10196	21	47.7	-53	3.2	7.4
64 K	29972	21	49.9	-51	53	7.2-52° 11956	21	48.2	-52	0.1	7.6

Ident. by A.D.W.

checked April 3, 1912 J.C.M.

by comparison.

D.C. H.R.

Cards made on

May 30, 1911

B 41733 Class I $16^h 5^m - 4.5$
 Incl. 3. Def. poor.

B 41734 Class I $19^h 13^m - 4.5$
 Incl. 4. Sp. to mid. poor.

May 30, 1911

Plates of Long Dispersion f. mid tel.			
No.	R.A.	Dec. 2	B.
B 41735	16 5	-4.2	4 Fair.
41736	14 47	-54.2	4 "
41737	" "	" "	" "
41768	22 25	-14.6	3 Loophole
41821	19 7	-39.4	4 " "
41770	22 46	-14.6	3 " "
41769	20 44	-14.5	3i " "
41767	20 5	-14.5	3 " "
41739	19 47	-49.3	4 Rather good.
41740	21 28	-34.4	3 Good in center.
41741	15 37	-17.0	4 Poor.
41742	17 25	-14.3	3 Loophole.
41743	19 45	-14.5	3 " "
41744	22 6	-14.6	3 " "
41745	15 17	-44.2	5 Fair. No star toward edge.
41747	19 26	-39.2	4 Fair.
41748	20 48	-34.3	4 "
41749	23 7	-34.2	3 "
41750	15 8	-34.1	4 "
41756	19 26	-49.4	4 "
B 41765	16 4	-14.0	3i Loophole.
41634	19 26	-4.5	3 Faintly seen.
B 41660	20 24	-19.4	3 Fair.
B 41661	22 45	-4.5	3 " "
B 41686	21 21	-19.5	3 Loophole.
B 41235	10 8	-77.5	4 Fair.

May 30, 1911.

Plates of Long Dispersions (contd)

B41236 12 16 -7.0 3 Longport.

Revised Draper Catalogue

Monday, June 26, 1911

Plate B 10110

0^h 0^m -10.013^h 0^m

No. Class Int. R. H.R.

1	45	6 3	
2	45	4 2	
3	45 on 12	1	superficial on 2
4	mb	10 5	mb
5	45?	12 1	
6	45	2 1	
7	Ko	10 5	K
8	45	8 4	K
9	4?	4 2	
10	K?	4 2	
11	Ma	4 2	confirm
12	Co	6 3	
13	K?	6 3	focus very poor
14	4?	4 2	
15	K?	6 3	
16	4?	6 3	
17	4?	6 3	Overexposed spec. Int. up.
18	45	6 3	Pinus masson
19	mb	10 5	ma
20	4?	6 3	
21	45	8 4	a
22	K	5 4	Ben. at red end? K
23	Ma	2 1	
24	4?	5 4	
25	45	4 2	
26	4?	5 2	

-6°	6235	23 52	13.9	-6	41.8	7.0	✓
-6°	6341	23 53	36.5	-6	38.2	8.0	✓
-6°	6342	23 53	41.0	-6	40.6	8.0	✓
-6°	6345	23 54	30.6	-6	49.2	5.0	✓
-5°	6100	23 55	9.3	-5	59.8	8.5	✓
-4°	6013	23 55	53.2	-4	57.2	8.0	✓
-6°	6357	23 57	54.3	-6	30.9	5.2	✓
-6°	11	0 2	53.2	-6	3.4	6.8	✓
-6°	30	0 8	26.5	-6	24.3	7.6	✓
-6°	29	0 7	52.4	-6	56.7	8.0	✓
-6°	37	0 10	23.9	-6	57.1	8.4	✓
-5°	49	0 14	50.1	-5	57.9	7.0	✓
-7°	48	0 15	37.0	-7	15.9	7.6	✓
-8°	6222	23 52	10.4	-8	36.7	8.0	✓
-8°	6242	23 58	3.5	-8	28.2	6.7	✓
-8°	3	0 0	35.9	-8	21.0	8.0	✓
-8°	18	0 5	43.6	-8	29.6	7.8	✓
-8°	24	0 6	45.1	-8	6.0	8.0	✓
-8°	25	0 6	49.5	-8	0.0	9.3	✓
-8°	26	0 7	2.6	-8	35.1	5.8	✓
-8°	42	0 12	12.7	-8	1.2	7.3	✓
-8°	38	0 11	14.8	-8	51.2	6.5	✓
-9°	6277	23 45	22.9	-9	48.1	16.2	✓
-10°	6292	23 46	34.9	-10	5.8	7.8	✓
-10°	6398	23 47	36.8	-10	16.1	7.0	✓
-10°	6287	23 48	17.7	-10	51.8	8.0	✓
-10°	6206	23 50	2.4	-10	26.7	7.8	✓

Cards made out

June 26, 1911
Plate 13 10, 10

no	Int	H.R.
27 Fo	42	
28 Fo	63	
29 Ko	84	K
30 Fo	63	
31 Bg	105	Only hyd. seen A.
32 K	84	only near edge
33 Fi	84	For near edge
34 Ma?	105	K
35 Mc	42	
36 Q2	63	
37 Fi	42	
38 Q5	42	
39 Q0	42	
40 Q5?	42	
41 K?	84	Remains good.
42 K	84	
43 Ko	84	85
44 K	63	
45 Q0	42	
46 Q2	63	
47 Q3	63	
48 B	84	
49 K	63	
50 K	84	

12^h 12^m

32^h K 2
Focus very faint on edges of this plate

emb in 129.42

-11°	6175	23	52	56.7	-11	16.4	7.8	✓
-10°	6227	23	58	4.8	-10	25.4	7.5	✓
-9°	5	0	0	52.9	-9	37.7	16.5	✓
-9°	13	0	2	38.6	-9	47.1	7.3	✓
-10°	30	0	7	20.1	-10	22.5	6.5	✓
-9° 10'	6177	23	42	45.6	-10	44.7	6.5	✓
	30	2	6	53.2	-9	38.6	7.9	✓
-11	6146	23	42	38.8	-11	54.5	6.8	✓
-11°	6194	23	57	4.4	-11	18.8	5.5	✓
-11°	6199	23	58	51.0	-11	35.1	8.0	✓
-12°	6617	23	59	59.1	-12	25.3	7.6	✓
-12°	10	0	2	58.6	-12	35.3	8.3	✓
-12°	14	0	5	9.1	-12	29.9	8.3	✓
-12°	28	0	8	25.7	-12	47.9	8.1	✓
-11°	46	0	12	54.2	-11	58.5	8.3	✓
-13°	6455	23	48	18.7	-13	57.3	7.2	✓
-14°	6603	23	54	48.7	-14	13.2	6.5	✓
-13°	13	0	3	17.4	-13	23.2	6.0	✓
-14°	19	0	4	39.6	-14	37.3	6.8	✓
-14°	23	0	5	12.9	-14	25.0	7.8	✓
-14°	29	0	7	24.7	-14	58.8	7.0	✓
-14°	35	0	9	11.5	-14	12.0	7.0	✓
-14°	42	0	10	32.7	-14	15.6	6.5	✓
-13°	52	0	12	47.9	-13	52.2	6.8	✓
-13°	60	0	15	26.1	-13	0.6	6.5	✓
-9°	30	0	6	53.2	-9	38.6	7.9	✓

Ident. by A. M. B.
Checked by J. G. M.

Cards made out

June 27, 1911

B 17426

Southern Portion of Plate omitted

no	Lat	R
1 95	63	
2 93	63	
3 78	84	
4 K ¹ 8	63	Too poor
5 25 ²	42	Too poor
6 95 ²	63	
7 70	63	
8 90	84	
9 6 ²	63	
10 K ²	63	
11 95	63	
12 K ⁰	84	
13 K ⁰	84	
14 78	84	
15 90	84	
16 K ²	63	
17 K ⁵	63	
18 K ⁵	84	
19 78	105	Poor focus
20 K ²	84	Focus too poor
21 92	63	
22 Ma ²	63	
23 Ma ²	42	
24 25 ²	63	
25 9 ²	63	
26 Ma ²	42	
27 A	42	

0°	6.2	0 19	12.2	0 51.7	6.2
-1°	46	0 26	7.8	-1 26.3	7.5 ✓
-1°	68	0 28	8.8	-1 19.4	5.8 ✓
-1°	75	0 30	41.8	-1 18.7	6.8 ✓
-1°	14	0 7	25.5	-1 6.7	8.0 ✓
-2°	19	0 5	14.0	-2 2.5	7.0 ✓
-1°	52	0 22	29.8	-1 54.5	7.8 ✓
-2°	69	0 24	15.3	-2 35.4	7.3 ✓
-2°	31	0 10	22.8	-2 40.2	6.7 ✓
-2°	34	0 10	53.0	-2 49.3	7.3 ✓
-3°	36	0 12	25.8	-3 17.0	7.8 ✓
-3°	49	0 17	5.1	-3 1.6	6.0 ✓
-3°	38	0 13	29.3	-3 42.9	7.0 ✓
-4°	31	0 13	47.5	-4 7.0	8.0 ✓
-4°	40	0 16	35.0	-4 16.6	7.6 ✓
-3°	57	0 22	13.5	-3 38.5	7.1 ✓
-4°	51	0 22	5.7	-4 16.3	7.4 ✓
-4°	54	0 22	37.9	-4 45.2	5.5 ✓
-4°	62	0 27	47.6	-4 23.2	5.0 ✓
-5°	101	0 33	19.1	-5 8.9	6.3 ✓
-5°	83	0 27	5.5	-5 20.6	7.0 ✓
-5°	84	0 27	6.1	-5 20.6	9.3 ✓
-4°	30	0 2	31.1	-4 49.2	6.7 ✓
-4°	7	0 5	44.0	-4 7.5	6.8 ✓
-4°	11	0 5	29.8	-4 11.2	7.2 ✓
-4°	40	0 4	44.0	-4 7.5	6.8 ✓
-4°	14	0 4	8.9	-4 52.7	8.0 ✓
-4°	12	0 6	35.2	-4 42.5	7.8 ✓
-5°	58	0 17	7.8	-5 27.0	7.8 ✓
-5°	60	0 17	35.4	-5 19.1	8.5 ✓

Cards made out

June 27, 1911

B 17426

No	det	Remark
28 G	63	
29 Q2	63	
30 K	84	

Stars on edge omitted, Focus too poor.

-5°	64	0	19	41.4	-5	48.3	7.0	✓
-5"	49	0	14	50.1	-5	59.9	7.0	✓
-6"	11	0	2	53.2	-6	3.4	6.8	✓

Ident. by A.M.G.
 Ska. " J.C.M.

Cards made out.

June 27, 1911

B 10412 (Small Dispersion) 0.0-7.5

No.	Int.	Remarks
1 B ₀	84	
2 F ₅	63	
3 K ₀	42	
5 F ₂	63	
6 F ₁₂	63	
9 K	63	
10 K	63	
11 mos?	42	Too Poor
14 F ₂	42	
14a F ₀	63	
15 K ₂	63	
16 F ₅	63	
17 K	63	
18 F ₈	84	
22 K ₂	105	Too dense
23 K ₅	42	
24 F ₅	84	
25 F ₂	63	
26		Too Poor

-6°	6335	23	52	13.9	-6	41.8	7.0
-6°	6341	23	53	36.5	-6	38.2	8.0
-6°	6342	23	53	41.0	-6	40.6	8.0
-5°	6100	23	55	9.3	-5	57.8	8.5
-4°	6013	23	55	55.2	-4	57.2	8.0
-6°	30	0	8	26.5	-6	24.3	7.6
-6°	29	0	7	52.4	-6	56.7	8.0
-6°	37	0	10	23.9	-6	57.1	8.4
-8°	6222	23	52	10.4	-8	36.7	8.0
-9°	6296	23	57	41.7	-8	17.9	7.8
-8°	6242	23	58	3.8	-8	28.2	6.7
-8°	3	0	0	35.9	-8	21.0	8.0
-8°	18	0	5	43.6	-8	29.6	7.8
-8°	{ 24	0	6	45.1	-8	0.0	8.0
-8°	{ 25	0	6	49.5	-8	0.0	9.3
-9°	6277	23	45	22.9	-9	48.1	6.2
-10°	6292	23	46	34.9	-10	5.8	7.8
-10°	6298	23	47	36.8	-10	16.1	7.0
-10°	6287	23	48	17.7	-10	51.8	8.0

Ident. by U.M.B.
 checked J.C.M.

October 21, 1911

No. 2530

I 07257

22° 40' + 65.0

Ident. by J. C. Mackay
checked by A. D. Walker (in 1911)

No.	Sp.	Int.	Remarks
1	A	42	Partly submerged on No. 2.
2	A	63	North following
3	A	87	
4	A	21	Only hyd. line seen
5	A	42	Confirmed
6	A	42	only hyd. seen
7	Ko	63	
8	A	42	Only hyd. seen
9	A	42	
9a	Be	63	
10	A	63	
11	A	63	From focus
12	A	21	
13	A	42	
14	A	42	
15	A	21	only hyd. seen
16	A	63	
17	A	63	
18	Comp.	63	K band. too fr. confirmed
19	A	84	
20	A	42	From focus line 1649 appears to be correct
21	A	42	
22	A	63	
23	A	42	
24	A	42	
25	A	42	
26	A	105	Too dense

R	m	s	o	'	Magn.	
+69°	1224	22	4	55	+69	14.7 8.2 ✓
+69°	1225		5	0		16.2 8.2 ✓
+69°	1228		7	21		24.6 5.9 ✓
+69°	1237		13	17		11.1 8.0 ✓
+69°	1238		13	59		19.9 7.3 ✓
+69°	1245		18	3		32.2 7.8 ✓
+70°	1240		22	18	+70	1.7 6.0 ✓
+70°	1243		24	8		4.0 7.7 ✓
+69°	1256		25	33	+69	41.5 7.0 ✓
+69°	1257		26	2		25.8 7.3 ✓
+69°	1262		28	52		8.7 6.0 ✓
+69°	1263		29	12		37.2 6.2 ✓
+69°	1269		31	27		29.2 7.5 ✓
+69°	1288		50	29		31.1 7.0 ✓
+67°	1402		3	35	+67	35.6 7.5 ✓
+68°	1286		7	38	+68	8.4 8.0 ✓
+68°	1287		9	18		15.0 7.3 ✓
+68°	1303		22	13		17.6 7.7 ✓
+68°	1319		32	55		27.3 7.3 ✓
+67°	1468		44	7	+67	49.3 6.5 ✓
+67°	1469		45	27		36.6 8.6 (superficial on +67° 1470) ✓
+67°	1471		47	24		12.5 7.7 ✓
+67°	1475		47	35		12.5 7.3 ✓
+67°	1481		50	37		50.7 8.0 ✓
+67°	1482		50	47		28.5 7.5 ✓
+67°	1498		59	25		37.7 7.5 ✓
+67°	1514	23	12	43		19.4 5.2 ✓

Cards

made

that

October 2, 1911

L 37257 (Cont.)

m	Sp	Int	Remark
26 ^a	A	21	Only hyd seen
27	A5	42	
28	Comp.	63	Trans = No St = A
29	A3	42	
30	K2	42	
31	A	42	Only hyd. seen
32	F0	42	Bright of two stars
33	A6	21	
34	K3	42	
35	B9	42	
36	K0	105	Too dense
37	A2	42	
38	F5	21	
39	A	42	Only hyd. seen maybe B8
40	K0	105	
41	A0	105	
42	A	63	Only hyd. seen
43	A	42	Only hyd. seen
44	A0	63	
45	A0	63	
46	A	42	Only hyd. seen
47	A3	42	
48	A3	42	
49	A5	21	
50	B0	105	
51	B0	21	
52	K	21	

DM. No.	R	m	s	o	i	magn.	
+66° 1490	22	10	1	+66	12.2	8.2	✓
+66° 1501		16	44		14.0	7.5	✓
+65° 1759		17	28	+65	57.6	6.3	✓
+67° 1450	22	28	49	+67	45.1	7.3	✓
+66° 1522	22	27	51	+66	51.4	7.4	✓
+66° 1527		30	30		58.4	8.9	✓
+66° 1546		42	53		8.4	8.0	✓
+66° 1552		45	22		23.8	8.5	✓
+65° 1817		45	38	+65	58.2	7.3	✓
+65° 1813		44	31		45.9	7.0	✓
+65° 1814		44	32		25.9	3.8	✓
+65° 1826		47	40		50.6	8.0	✓
+66° 1865	22	51	33	+66	33.2	8.3	✓
+67° 1490	22	54	40	+67	11.5	8.5	✓
+66° 1575		58	4	+66	26.8	5.5	✓
+66° 1587	23	4	15	+66	27.6	6.7	✓
+65° 1712	21	58	58	+65	21.8	7.0	✓
+65° 1728	22	6	18	+65	35.4	7.9	✓
+64° 1634		6	19	+64	48.3	7.7	✓
+65° 1746	22	12	57	+65	24.0	7.0	✓
+65° 1754		15	32	+65	41.6	8.0	✓
+64° 1649		16	28	+64	34.7	7.8	✓
+64° 1661		21	26		46.5	8.0	✓
+64° 1662					42.5	8.8	✓
+64° 1665		22	27		44.1	8.5	✓
+64° 1664		22	26	+64	23.3	5.8	✓
+64° 1672		24	36		21.5	8.3	✓
+64° 1689		27	37		32.9	7.9	✓

Cand.

made.

but

October 2, 1911

T 37257 (Cont)

no	Sp	Int	Remark
53	A	42	Only hyd. seen
54	K ₀	42	
55	F ₂	42	
56	A ₀	63	
57	B ₅	42	
58	A ₀	42	
59	B ₂	63	
60	B ₅	21	
61	B ₃	63	H ₃ not seen distinctly, maybe right.
62	A ₂	63	
63	A ₀	21	
64	A	21	Only hyd. seen
65	B ₂	63	
66	F ₂	42	
67	B ₅	42	
68	A	21	Only hyd. seen
69	B ₂	42	
70	B ₂	42	
71	B ₅	42	
72	B ₅	63	
73	F ₀	42	
74	A ₀	42	
75	B ₀	84	2.0 7.0 2.0 2.0 1 15.0
76	B ₂	63	
77	B ₅	42	
78	F ₀	42	
79	A ₀	21	
80	F ₂	10 ⁵	too dense
81	A	4	

DM No.	h	m	s	o	i	magn.
+61° 1682	22	28	9	+64	28.0	7.2 ✓
+65° 1782	22	29	9	+65	5.5	7.2 ✓
+65° 1784	22	30	18		34.9	8.2 (superficial +65° 1783) ✓
+65° 1789		33	22		23.5	6.8 ✓
+65° 1796		35	57		45.1	7.1 ✓
+64° 1702		37	35	+64	55.3	7.3 ✓
+64° 1704		38	1		33.9	6.5 ✓
+64° 1713		40	53		31.9	7.3 ✓
+64° 1717		42	39		17.6	7.0 ✓
+64° 1758	23	1	57		50.0	6.9 ✓
+65° 1850	23	3	14	+65	17.2	7.8 ✓
+64° 1761		3	12	+64	24.5	8.8 ✓
+64° 1764		3	26		25.6	6.8 ✓
+64° 1779		8	56		38.6	6.5 ✓
+64° 1780		9	11		13.3	7.2 ✓
+64° 1781		9	56		1.1	8.2 ✓
+64° 1773	23	6	38	+64	0.3	7.0 ✓
+63° 1949		6	5	+63	55.9	7.0 ✓
+63° 1941	23	4	29	+63	44.8	6.8 ✓
+63° 1931	23	2	4	+63	25.3	6.3 ✓
+63° 1925	22	59	2	+63	18.7	6.8 ✓
+63° 1938	23	3	15	+63	13.3	7.8 ✓
+62° 2171		1	55	+62	50.7	6.2 ✓
+63° 1955	23	9	27	+63	29.1	7.0 ✓
+63° 1960		10	19	+63	19.7	7.0 ✓
+64° 1787	23	13	56	+64	2.2	7.3 ✓
+65° 1708	21	58	19	+65	8.3	8.1 ✓
+63° 1802	21	59	36	+63	54.9	4.5 ✓
+63° 1815	22	5	22	+63	24.8	7.2 ✓

Sands

made

out

October 2, 1911

I 37257 (Cont)

No.	Sp.	Int.	Remark
82	A	21	very poor.
83	F2	42	
84	Fo	42	
85	Ko	42	
86	Qo	21	
87	B3	21	
88	F8	42	
89	Bo	63	
90	Qo	42	only 25.5. seen
91	Bo	42	
92	B5	63	
93	B	42	
94	Qo	42	only hgd. seen
95	B6	42	
96	K2	42	
97	Ko	42	
98	B3	42	
99	Ko	63	
100	B5	42	
101	Ma	42	the north- preceding
102	Ma	63	
103	Ma	84	
104	Ma	42	
105	B3	42	focus very poor.
106	Qo	42	only hgd. seen.
107	Ma	63	
108	Qo	84	only hgd. seen

Dir. No.	h	m	s	o	l	magn.	
+63° 1818	22	6	7	+63	38.8	8.4	✓
+63° 1824		12	57		58.3	8.4	✓
+64° 1646	22	15	3	+64	3.6	8.0	✓
+64° 1687		31	47		30.2	7.5	✓
+63° 1868		30	54	+63	50.3	8.1	✓
+64° 1698		35	36	+64	30.9	8.5	✓
+64° 1701		37	11		8.0	6.8	✓
+63° 1882		38	54	+63	49.3	7.8	✓
+63° 1893		45	32		47.7	8.6	✓
+63° 1904	23	48	52	+63	20.6	8.2	✓
+62° 2146		52	59	+62	55.8	6.8	✓
+63° 1917	22	56	42	+63	26.0	7.5	✓
+63° 1920		57	10		27.2	8.9	✓
+62° 2147		53	1	+62	25.9	8.9	✓
+62° 2157		55	48		18.5	7.7	✓
+62° 2160		56	53		30.3	7.5	✓
+62° 2163		58	14		32.8	7.0	✓
+62° 2165		58	43		37.2	7.8	✓
+62° 2170	23	0	18		26.9	6.5	✓
+62° 2174		3	2		25.8	7.3	✓
+62° 2028	21	59	36	+62	8.3	6.6	✓
+62° 2029	22	0	37	+62	23.6	5.9	✓
+62° 2032			58	+62	3.4	6.0	✓
+62° 2047	22	6	31	+62	53.2	8.0	✓
+63° 1820	22	7	46	+63	46.7	7.8	✓
+62° 2048		7	51	+62	46.7	7.8	✓
+62° 2053		9	16	+62	46.7	7.8	✓

Cards
made
out.

October 2, 1911

T 37259 (Cont)

No Sp Int Remarks

109	85	42	
110	88	42	
111	K5	63	
112	A3	63	
113	A0	63	
114	A0	84	2.3 1.4
115	G	21	
116	mb	42	
117	A	42	
118	A0	63	
119	A3	42	
120	85	63	
121	85	42	
122	85	21	
123	85	21	
124	82	21	
125	85	63	
126	A0	105	
127	A0	21	
128	A3	21	
129	85	42	
130	85	63	
131	A0	42	
132	B12	21	
133	B12	21	
134	K5	42	
135	85	21	
136	A	21	Out of range

+62°	2056	22	11	59	+62	59.3	7.5	✓
+62°	2060		13	45	+	29.8	8.5	✓
+62°	2061			48		29.8	8.4	
+62°	2059		13	30		3.9	6.0	✓
+61°	2272		11	36	+61	35.7	7.1	✓
+62°	2070	22	17	6	+62	24.5	7.5	✓
+61°	2291		18	8	+61	41.1	6.5	✓
+62°	2074	22	19	54	+62	50.2	7.5	✓
+62°	2079		20	55		35.3	7.0	✓
+62°	2084		22	37		31.3	8.2	✓
+63°	1850	22	22	31	+63	12.6	7.8	✓
+63°	1851		23	5		12.1	8.3	✓
+63°	1852		23	31		20.3	6.5	✓
+63°	1857		26	24		4.4	7.5	✓
+63°	1863		28	6		9.3	7.8	✓
+63°	1866		29	29		4.2	8.2	✓
+62°	2100		31	52	+62	59.5	8.2	✓
+63°	1872		32	34	+63	0.1	6.7	✓
+62°	2102		33	31	+62	49.7	5.3	✓
+62°	2104		34	48		49.0	8.2	✓
+62°	2117		43	52	+62	57.1	8.5	✓
+62°	2336		38	4		54.7	8	
+62°	2121		45	59	+61	44.9	6.5	✓
+62°	2115		43	17	+62	10.2	6.0	✓
+62°	2121		45	59	+62	11.9	6.5	✓
+62°	2136		50	54	+62	4.9	7.5	✓
+61°	2373		51	9	+61	57.5	7.5	✓
+61°	2371		50	19	+61	40.2	7.5	✓
+61°	2384		56	16	+61	44.0	8.0	✓
+61°	2385		57	30	+61	51.7	7.8	✓

birds
made
out.

October 2, 1911

T 37257 (Cont)

No	Sp	Int	Remarks
137	A	21	Only hyd. seen
138	A	21	Only hyd. seen
139	A	21	Only hyd. seen
140	A	21	Only hyd. seen
141	F5	42	
142	K0	84	
143	A2	63	
144	F2	42	
145	B3	42	
146	K0	42	
147	F8	21	

148	G0	1
149	A0	2

150	1	As
151	2	K2

+61° 2388	22	59	29	+61	34.7	8.0	✓
+61° 2394	23	1	16	+61	53.1	8.5	✓
+60° 2491	23	3	18.9	+60	52.1	8.3	✓
+61° 2405	23	7	54	+61	25.4	8.3	✓
+60° 2479	23	0	28.6	+60	40.0	6.8	✓
+60° 2450	22	45	44.4	+60	55.6	6.0	✓
+61° 2314	22	28	43	+61	2.0	6.5	✓
+60° 2414	22	29	46.2	+60	4.3	8.0	✓
+60° 2403	22	25	26.6	+60	53.1	7.0	✓
+61° 2297	22	22	12	+61	11.1	7.0	✓
+67° 1493	22	56	16	+67	0.0	7.9	✓

Ident. by J.C.M.

Checked by A.D.H.

+66° 1569	22	53	7	+66	18.9	8.0	✓
+65° 1803	22	50	48	+65	57.6	8.0	✓

Last three stars ident. in vol. by M.A.H.

+62° 2091	22	26.3	+62	20	8.6	✓
+62° 2173	23	3.0	+62	2	7.0	✓

Card made out Mar. 8, 1918

Cards
made
out

in cards - G.M.C. Aug. 5 & 6, June 16, 1915

of m 138812
missing in vol. III

October 20, 1911

B41879

Time 9.45

No	Class	Set	Remarks
1	A	42	very poor focus
2	K5	63	
3	K	42	
4	35	42	very poor focus
5	35	42	"
6	35	42	"
7	K	42	
8	35	63	
9	K	63	
10	A	21	
11	K	63	
12	30	63	
13	Mu	63	
14	35	63	
15	K0	84	
16	4	42	
17	4	63	
18	K	21	
19	35	42	
20	K0	84	
21	4	21	
22	38	105	
23	35	42	
24	30	63	
25	30	42	
26	35	42	
27	35	42	

			mag.	
1	0 19.1-37 54	A.G.C. 310	0 19.1-37 58	7.4 ✓
2	0 17.8-37 58	" 292	0 17.8-37 58	6.9 ✓
3	0 8.2-38 20	" 118	0 8.2-38 23	7.0 ✓
4	0 4.9-37 46	" 61	0 4.7-37 53	8.4 ✓
5	0 4.2-37 12	" 43	0 3.7-37 18	8.2 ✓
6	0 3.1-38 26	" 10	0 2.1-38 29	8 ✓
7	0 1.0-38 38	" 32436	0 0.4-37 52	8 ✓
8	23 57.0-38 34	" 32384	23 56.9-38 28	6.9 ✓
9	23 57.2-37 50	" 32382	23 56.8-37 47	6.9 ✓
10	23 53.9-37 45	C.D.M. -37° 54' 48"	23 52.9-37 34.6	8.5 ✓
11	23 52.3-37 42	A.G.C. 32312	23 52.3-37 16	7.4 ✓
12	0 18.0-36 4	" 287	0 17.8-37 58	6.9 ✓
13	0 16.3-36 30	" 258	0 16.3-36 22	7.2 ✓
14	0 15.6-36 38	" 239	0 15.2-36 28	7.2 ✓
15	0 13.5-37 6	" 206	0 13.3-37 4	6.6 ✓
16	0 17.2-36 10	C.D.M. -36° 106"	8.3 0 15° 18.4 -36 28	✓
17	0 16.8-35 40	A.G.C. 251	0 16.0-35 30	7.3 ✓
18	0 10.0-36 45	" 150	0 10.0-36 43	7.4 ✓
19	0 9.4-36 30	" 129	0 9.2-36 22	7.4 ✓
20	0 10.2-35 28	" 149	0 10.0-35 28	6.4 ✓
21	0 10.3-35 12	C.D.M. -35° 67"	8.0 0 8° 54.5 -35 11.5	✓
22	0 7.1-35 40	A.G.C. 95	0 6.7-35 42	5.4 ✓
23	0 7.0-35 8	C.D.M. -35° 41"	7.5 0 5° 12.1 -35 9.3	✓
24	0 5.8-35 30	A.G.C. 82	0 5.7-35 25	7.4 ✓
25	0 3.9-35 38	" 49	0 4.0-35 39	7.4 ✓
26	0 3.7-35 22	" 42	0 3.7-35 21	7.4 ✓
27	0 1.4-36 40	" 5	0 1.6-36 39	7.4 ✓

October 20, 1911 Contd.
B 41879

No	Class	Int	Remark
28	H	63	
29	H	84	
30	H ⁵	42	
31	H	42	Con focus
32	H ⁵	42	
33	Ma	21	
34	H	42	
35	H ⁵	42	
36	H ²	42	
37	H	42	
38	H	42	
39	Ma	105	
40	H ²	63	
41	A	84	Only byds, seen
42	Mb	63	
43	H	63	
44	Ko	84	
45	Ko	63	
46	Ko	42	
47	H ⁵	42	
48	H ⁵	42	
49	H ²	21	
50	H ²	21	
51	Qo	63	
52	H	42	
53	H ⁵	105	
54	Ko	42	

26	O	39-36	34	A.H.C. 324°25' 23	59.9 - 36 35	8	✓
29	O	58.2-36	50	" 324°01' 23	58.8 - 36 49	6.8	✓
30	O	57.4-35	34	C.D.M. -35°47' 0	28.7 - 30 7	7.3	✓
31	O	58.2-35	6	C.D.M. -35°16'55		7.7	23 57 51.2 - 35 6.6 ✓
32	O	56.3-34	22	C.D.M. -34°16'29		8.3	23 55 5.7 - 34 29.0 ✓
33	O	22.4-34	36	A.H.C. 367° 0	22.3 - 34 26	8	✓
34	O	16.5-34	50	C.D.M. -34°10'4		8.0	0 15 16.6 - 34 51.4 ✓
35	O	14.4-34	26	C.D.M. -34° 9'3		8.5	0 12 58.7 - 34 35.9 ✓
36	O	13.6-34	42	C.D.M. -34° 8'1		8.3	0 12 1.4 - 34 52.3 ✓
37				C.D.M. -34° 8'8		8.5	0 12 37.2 - 34 1.1 ✓
38				C.D.M. -33° 9'5		8.1	0 14 0.7 - 33 27.9 ✓
39				A.H.C. 377° 0	22.9 - 33 24	5.2	✓
40				" 367° 0	22.5 - 32 23	7.6	✓
41				" 331° 0	20.1 - 31 75	8	✓
42				" 296° 0	18.3 - 31 36	6.6	✓
43				" 300° 0	18.4 - 30 24	6.8	✓
44				" 331° 0	20.1 - 31 15	8	✓
45				" 167° 0	11.1 - 32 0	5.9	✓
46				" 183° 0	11.7 - 33 15	6.5	✓
47				" 178° 0	11.5 - 33 19	7.5	✓
48				" 148° 0	9.9 - 32 43	7.4	✓
49				C.D.M. -33° 4'3		8.4	0 6 20.6 - 33 59.1 ✓
49				" -33° 8'7		8.6	0 5 27.3 - 33 55.6 ✓
50				" -33° 3'5		8.4	0 4 58.5 - 33 29.9 ✓
51				" -33° 3'6		8.2	0 4 59.0 - 33 6.5 ✓
52				" -34° 2'6		8.7	0 3 10.6 - 34 48.2 ✓
53				A.H.C. 30° 0	3.0 - 34 6	5.7	✓
54				" 36° 0	3.2 - 33 16	8	✓

October 20, 1911 (Cont.)

B 41879

No	Class	Dist	Remark
55	md-2	63	H β H γ H δ bright. $H\gamma = 10$ $H\delta = 3$, $H\beta = 4$
56	mb	21	
57	K5	84	
58	K0	63	
59	F?	84	Faint loop
60	K0	63	

Time 10.03

A.G.C. 32447	0	1.2	-33	23	8	✓
" 3	0	1.5	-33	9	8.4	✓
" 32480	0	1.5	-33	9	7.0	✓
" 32424	23	59.8	-32	34	8	✓
" 32316	23	52.5	-33	45	6.7	✓
" 76	0	5.6	-31	50	7	✓

Ident. by A.D.K.
Checked " J.C.M.Cards made
by

Nov. 6, 1911

Plate B10109

Time 2:49

No	Class	Int	Remark
1	A	63	near edge
2	K ₀	63	
3	F	42	
4	F	63	
5	K ₅	63	
6	K	42	
7	L	63	
8	F ₅	105	
9	F ₅	42	
10	K ₀	42	
11	Q ₃	63	
12	Q	21	
13	Ma	63	
14	K	63	
15	Ma?	21	
16	F ₅	63	
17	K	21	
18	K ₀	84	
19	K ₅	42	
20	Q ₀	105	
21	Q ₂	84	
22	F ₀	42	
23	Ma	63	
24	K ₅	84	
25	K	42	
26	B3	63	
27	F ₂	42	

ABC 32221 23 474 -14 49 6.2	Dm -15° 6506	23 42 59.0 -15 47.1 7.5 ✓
	Dm -15° 6515	23 45 3.5 -15 3.4 6.2 ✓
	Dm -14° 6579	23 48 20.4 -14 46.5 7.5 ✓
	Dm -14° 6588	23 51 7.5 -14 56.0 7.0 ✓
32325 23 522 -16 25 6.8	Dm -16° 6394	23 50 53.1 -16 38.8 6.2 ✓
	Dm -15° 6539	23 58 1.4 -15 13.7 7.3 ✓
	Dm -15° 7	0 0 52.9 -15 38.0 7.0 ✓
	Dm -16° 17	0 3 52.5 -16 15.7 5.3 ✓
137 0 9.4 -14 59 7.4	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
	Dm -16° 41	0 9 30.7 -16 31.6 8.3 ✓
88 0 6.2 -16 1 5.1	Dm -16° 58	0 15 42.6 -16 44.6 6.7 ✓
	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
143 0 9.6 -15 22 6.8	Dm -16° 58	0 15 42.6 -16 44.6 6.7 ✓
	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
144 0 9.7 -14 44 7	Dm -16° 58	0 15 42.6 -16 44.6 6.7 ✓
	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
293 0 18.0 -16 30 7.4	Dm -16° 58	0 15 42.6 -16 44.6 6.7 ✓
	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
82174 23 444 -16 25 6.8	Dm -16° 58	0 15 42.6 -16 44.6 6.7 ✓
	Dm -15° 30	0 7 5.1 -15 13.9 7.0 ✓
	Dm -15° 32	0 7 15.4 -15 36.7 6.7 ✓
	Dm -14° 29	0 7 24.7 -14 58.8 7.0 ✓
32413 23 59.2 -17 5 5.9	Dm -17° 6836	23 45 12.6 -17 10.5 7.3 ✓
	Dm -17° 6860	23 52 58.3 -17 29.9 7.3 ✓
	Dm -17° 6864	23 54 17.5 -17 19.8 7.5 ✓
	Dm -17° 6868	23 56 53.7 -17 19.7 6.2 ✓
32405 23 58.6 -17 54 4.3	Dm -17° 6870	23 57 27.9 -17 39.8 5.0 ✓
	Dm -18° 6417	23 56 18.0 -18 8.2 4.7 ✓
	Dm -18° 6428	23 59 53.2 -18 11.5 6.5 ✓
	Dm -18° 6426	23 58 58.9 -18 50.5 7.5 ✓
14 0 2.2 -17 57 6.3	Dm -18° 3	0 1 8.4 -18 23.1 6.2 ✓
	Dm -18° 14	0 4 46.1 -18 44.2 5.7 ✓
	Dm -17° 16	0 5 49.1 -17 52.2 5.9 ✓
	Dm -18° 25	0 6 32.7 -18 21.1 7.2 ✓
40 0 3.5 -18 8 6.2	Dm -17° 24	0 7 53.3 -17 33.4 7.5 ✓
	Dm -18° 3	0 1 8.4 -18 23.1 6.2 ✓
	Dm -18° 14	0 4 46.1 -18 44.2 5.7 ✓
	Dm -17° 16	0 5 49.1 -17 52.2 5.9 ✓
101 0 7.1 -18 30 5.4	Dm -18° 25	0 6 32.7 -18 21.1 7.2 ✓
	Dm -17° 24	0 7 53.3 -17 33.4 7.5 ✓
	Dm -18° 3	0 1 8.4 -18 23.1 6.2 ✓
	Dm -18° 14	0 4 46.1 -18 44.2 5.7 ✓

Cells made out

Nov. 6, 1911 (cont.)

B 10109

no class Int Remarks

28	45	42	
29	K ₀	63	
30	45	63	
31	K ₂	42	
32	45?	63	One edge
33	45	63	
34	45	63	
35	ma	63	
36	K ₅ ?	42	
37	R	105	Lines turned out. Some division of B
38	Q ₀	63	
39	45?	42	
40	45	42	
41	45	21	
42	K	42	
43	mb	42	
44	45	63	N. of line plus
45	45?	21	slight components
46	ma	105	
47	42	63	
48	45	21	
49	ma	84	
50	45	42	Focus poor
51	Q ₂	63	
52	4	63	near edge
53	Q ₂	42	
54	K	42	

DM-18° 39	0	12	7.1	-18	29.1	7.8	✓
DM-18° 41	0	12	42.0	-18	32.4	6.7	✓
DM-18° 49	0	16	38.6	-18	36.7	7.8	✓
DM-18° 51	0	18	3.0	-18	13.3	6.8	✓
DM-17° 61	0	20	18.7	-17	12.3	7.3	✓
DM-19° 48	0	16	4.4	-19	41.2	7.5	✓
DM-19° 53	0	17	29.9	-19	16.0	7.3	✓
DM-19° 58	0	19	2.6	-19	29.6	7.0	✓
DM-19° 6519	23	43	16.8	-19	5.7	7.3	✓
DM-19° 6522	23	43	51.7	-19	42.9	5.0	✓
DM-19° 6527	23	45	10.6	-19	21.9	7.5	✓
DM-19° 6533	23	46	17.5	-19	10.1	7.8	✓
DM-18° 6397	23	47	57.1	-18	38.1	7.5	✓
DM-19° 6570	23	59	37.2	-19	37.8	8.3	✓
DM-19° 2	0	0	34.6	-19	29.4	8.0	✓
DM-19° 7	0	3	34.1	-19	22.7	8.0	✓
DM-19° 11	0	4	11.2	-19	24.2	7.3	✓
DM-19° 10	0	4	5.3	-19	30.7	8.8	✓
DM-19° 21	0	7	16.2	-19	43.8	8.0	✓
DM-19° 30	0	10	11.2	-19	51.1	7.0	✓
DM-20° 48	0	13	31.9	-20	43.7	7.8	✓
DM-20° 50	0	14	23.4	-20	51.3	5.5	✓
DM-20° 59	0	18	18.3	-20	43.8	7.7	✓
DM-20° 67	0	20	18.7	-20	56.3	6.5	✓
DM-21° 57	0	21	3.9	-21	7.9	6.3	✓
DM-21 6486	23	43	3.7	-21	2.1	6.8	✓
DM-21° 6492	23	46	9.4	-21	19.1	7.2	✓

Cards made out

Nov. 6, 1911 (Cont.)

T3 10109

No	Class	Int.	Remarks
55	Jo?	21	
56	Ko	63	
57	Jo	84	
58	A	42	
59	Jo	21	
60	Ko	63	
61	Jo	42	
62	Jo	63	
63	Jo	63	
64	Jo	84	
65	Jo	84	
66	A	63	Focus point
67	K	42	
68	K	42	
69	K	21	
70	Ko	63	
71	Ma?	21	
72	Jo A	21	
73	Jo	84	
74	Ma	42	
75	Jo	105	
76	K	42	
77	Jo	42	
78	Ko	63	
79	K	42	
80	Ko	63	
81	Jo	42	
82	Jo	42	

ABC 32294 23 57.8 - 20 37 7

132 0 9.3 - 21 45 7.0

180 0 11.7 - 20 46 6.5

205 0 13.3 - 21 42 6.6

340 0 20.7 - 22 11 7 1/2

350 0 21.3 - 22 14 7 1/2

32170 23 44.3 - 22 11 7

32289 23 51.0 - 22 33 7

DM-20° 66.68 23 47 29.5 - 20 57.0 8.0

A9B 7 0 1.7 - 23 40 6.3 ✓

DM-20° 66.84 23 51 56.7 - 20 50.0 7.3 ✓

DM-20° 67.03 23 55 29.9 - 20 51.1 5.8 ✓

DM-22° 62.57 23 57 55.4 - 22 7.3 7.4 ✓

DM-22° 6 0 1 0.7 - 22 12.8 8.2 ✓

DM-22° 8 0 1 34.5 - 22 0.4 7.1 ✓

DM-22° 18 0 3 55.0 - 22 2.9 7.8 ✓

DM-21° 15 0 5 55.0 - 21 25.5 6.8 ✓

DM-21° 17 0 6 59.5 - 21 59.5 7.0 ✓

DM-21° 24 0 9 20.7 - 21 0.6 6.0 ✓

DM-21° 31 0 10 55.6 - 21 56.2 6.7 ✓

DM-22° 6.5 0 18 24.3 - 22 25.7 7.0 ✓

DM-22° 7.0 0 18 58.4 - 22 28.7 7.5 ✓

DM-22° 4.5 0 12 13.5 - 22 36.7 7.5 ✓

DM-22° 4.0 0 10 42.0 - 22 38.2 8.2 ✓

DM-22° 6.199 23 41 56.6 - 22 24.7 6.8 ✓

DM-22° 6.226 23 48 38.1 - 22 47.9 7.0 ✓

DM-22° 6.222 23 47 42.2 - 22 42.5 8.5 ✓

A9B 7 0 1.7 - 23 40 6.3 CDM-23° 4 ✓

A9B 46 0 3.8 - 22 45 7 1/2 DM-22° 7 ✓

A9B 27 0 2.7 - 23 4 5.9 CDM-23° 13 ✓

A9B 80 0 5.7 - 22 30 8 DM-22° 17 ✓

A9B 96 0 6.8 - 23 23 8 CDM-23° 37 ✓

A9B 114 0 8.0 - 23 2 6.9 CDM-23° 46 ✓

A9B 172 0 11.4 - 23 9 8 1/4 CDM-23° 74 ✓

A9B 123 0 8.7 - 23 46 7.0 CDM-23° 52 ✓

A9B 119 0 8.2 - 24 18 8 3/4 CDM-24° 51 ✓

A9B 92 0 6.8 - 24 13 8 1/2 CDM-24° 36 ✓

Nov. 6, 1911 (Cont.)

B. 10109

No	Class	Int	Remark
83	F ₂	1063	
Time 3.10 84			
72a	K ₀	42	
73a	G ₀	21	
74a	K ₀	84	

Cards made out

AGC 247	0	15.8	-24	14	7.0	CDM-24°	103 V
2 ⁶²²²	47	43.2	2	112	6.8		V
SDM-21° 6448	23	48	6.4	-21	75.4	78	
Ident. by	J. C. M.	checked by	A. D. N.				X
SDM-21° 6498	23	48	6.4	-21	45.4	79	V
SDM-21° 6500	23	49	42.0	-21	39.2	65	V

Nov. 7, 1911

I. 37284

Time 1:00

No	Obs	Int	Remark
.1	45	63	
.2	45	42	
.3	F	21	
.4	48	21	
.5	Ko	42	
.6	45	21	
.7	Ko	42	
.8	Q	42	
.9	38	105	Burned out
.10	F	21	
.11	Qo	42	
.12	45	42	
.13	K	42	on edge
.14	45	21	
.15	38	105	
.16	Q	21	on edge
.17	Qo	42	
.18	45	21	
.19	45	42	
.20	Q3	21	
.21	Q2	21	
.22	Qo	42	
.23	Qo	63	
.24	45	84	
.25	Q	21	
.26	45	21	
.27	45	42	

Dm	+14° 419	2	24	58.9	+14	24.0	6.5	✓
Dm	+13° 411	2	28	7.9	+13	8.0	7.5	✓
Dm	+13° 413	2	28	25.8	+13	3.1	8.3	✓
Dm	+13° 420	2	29	54.2	+13	31.0	8.0	✓
Dm	+14° 439	2	31	2.9	+14	10.8	7.5	✓
Dm	+13° 422	2	31	10.5	+13	52.9	8.2	+13° 423 superposed? ✓
Dm	+12° 370	2	32	32.7	+12	53.8	7.7	✓
Dm	+14° 448	2	34	30.5	+14	36.0	8.0	✓
Dm	+14° 457	2	36	34.8	+14	42.0	6.0	✓
Dm	+14° 456	2	36	9.9	+14	27.7	8.5	✓
Dm	+14° 462	2	38	17.9	+14	24.2	7.8	✓
Dm	+14° 467	2	39	38.3	+14	37.1	7.8	✓
Dm	+14° 469	2	39	59.5	+14	53.8	7.5	✓
Dm	+14° 471	2	40	48.1	+14	0.4	8.2	✓
Dm	+14° 480	2	40	30.5	+14	28.1	6.0	✓
Dm	+14° 485	2	45	52.7	+14	44.6	8.6	✓
Dm	+14° 492	2	47	40.6	+14	6.6	7.0	✓
Dm	+13° 466	2	45	59.1	+13	37.2	8.0	✓
Dm	+13° 484	2	50	47.9	+13	1.2	7.5	✓
Dm	+12° 406	2	46	42.8	+12	20.3	7.8	✓
Dm	+12° 346	2	24	20.3	+12	2.0	7.6	✓
Dm	+11° 354	2	26	12.0	+11	32.9	7.2	✓
Dm	+10° 358	2	26	36.9	+10	58.0	6.9	✓
Dm	+11° 360	2	28	44.1	+11	49.9	5.1	✓
Dm	+12° 359	2	29	12.5	+12	15.7	8.5	✓
Dm	+12° 354	2	27	28.8	+12	30.8	7.8	✓
Dm	+11° 365	2	29	55.0	+11	38.6	7.3	✓

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November 7, 1911 (Cont)

T. 372.84

No. Class Int. Remark

28	F ₅	21	
29	K	21	
30	F ₅	42	
31	A ₀	42	
32	K?	21	
33	A ₃	105	Lines burned out.
34	A ₀	42	
35	K?	21	
36	F	21	
37	F	21	
38	F?	21	
39	B	42	
40	A ₃	21	
41	F	42	
42	F ₅	42	
43	K	21	
44	F ₀	42	
45	F ₅	42	
46	K ₅	42	
47	F ₅	42	On edge
48	K ₀	63	
49	F	42	
50	B?	105	Some distance of B. Burned out
51	F ₂	42	
52	F	21	
53	G ₅	21	
54	K ₀	63	

DM +12° 377	2	34	25.3	+12	12.1	8.3	✓
DM +12° 381	2	35	50.5	+12	40.4	7.5	✓
DM +13° 442	2	37	6.2	+13	37.5	7.8	✓
DM +13° 446	2	37	29.5	+13	19.2	8.4	✓
DM +12° 386	2	37	13.5	+12	35.0	8.0	✓
DM +11° 377	2	37	3.4	+11	51.0	5.2	✓
DM +11° 385	2	39	0.6	+11	39.3	8.1	✓
DM +11° 387	2	39	7.4	+11	52.3	8.6	✓
DM +13° 456	2	42	15.9	+13	6.8	8.0	✓
DM +12° 392	2	41	59.8	+12	3.6	7.6	✓
DM +11° 398	2	42	27.4	+11	0.9	8.4	✓
DM +10° 379	2	44	6.3	+10	42.5	8.4	+10° 380 superposed ✓
DM +10° 388	2	46	30.3	+10	43.1	8.0	✓
DM +9° 373	2	47	35.2	+9	53.4	7.8	✓
DM +9° 379	2	49	13.6	+9	34.7	7.8	✓
DM +9° 382	2	50	35.6	+9	37.9	7.7	✓
DM +9° 383	2	51	29.2	+9	38.6	8.0	✓
DM +10° 399	2	52	14.2	+10	5.0	7.6	✓
DM +10° 401	2	52	53.1	+10	17.7	7.0	✓
DM +9° 323	2	19	42.0	+9	33.5	7.3	✓
DM +8° 385	2	21	48.7	+8	55.4	6.3	✓
DM +8° 386	2	21	51.8	+8	20.9	8.0	✓
DM +7° 388	2	20	27.7	+7	48.4	4.5	✓
DM +8° 396	2	26	29.7	+8	20.9	7.8	✓
DM +8° 399	2	28	46.7	+8	30.2	8.8	✓
DM +8° 402	2	29	39.6	+8	55.9	8.8	✓
DM +10° 352	2	31	15.8	+10	0.8	7.1	✓

Circumference

November 7, 1911 (Cont)

T 37284

No	Class	Set	Remarks
55	A	21	
56	Ko	63	
57	Qo	84	
58	F	105	Burned out
59	Ko	42	
60	Mt	42	
61	F8	63	
62	B5?	105	Burned out
63	Qo	42	
64	A	42	On edge
65	F	42	"
66	A	42	
67	F	42	
68	F	21	
69	F2	63	
70	Ko	42	
71	F5	21	
72	F5	63	
73	Qo	42	
74	Ko	63	
75	Ko	42	
76	Ko	63	
77	Q5	42	
78	B5	84	near edge
79	Qo	21	
29a	B5	21	

June 1, 20

Dm	+9° 353	2	32	58.5	+9	42.9	9.0	✓
Dm	+9° 353	2	34	13.4	+9	55.6	7.1	✓
Dm	+10° 360	2	34	40.1	+10	7.8	7.0	✓
Dm	+9° 357	2	37	6.0	+9	29.9	4.0	✓
Dm	+8° 424	2	39	37.9	+8	42.3	7.5	✓
Dm	+8° 443	2	45	59.6	+8	45.0	6.8	✓
Dm	+7° 450	2	48	30.7	+7	47.9	6.8	✓
Dm	+8° 455	2	51	57.1	+8	19.7	4.8	✓
Dm	+7° 443	2	46	39.9	+7	5.0	7.7	✓
Dm	+5° 406	2	45	2.0	+5	52.4	7.9	✓
Dm	+6° 460	2	51	44.0	+6	4.9	7.8	✓
Dm	+6° 428	2	40	44.1	+6	56.2	8.2	✓
Dm	+6° 413	2	36	29.7	+6	46.1	8.2	✓
Dm	+5° 344	2	32	38.6	+5	30.1	7.0	✓
Dm	+8° 441	2	45	7.0	+8	0.7	8.3	✓
Dm	+5° 374	2	32	38.6	+5	30.1	7.0	✓
Dm	+7° 412	2	33	40.6	+7	53.2	7.7	✓
Dm	+7° 411	2	33	12.5	+7	36.5	8.0	✓
Dm	+7° 405	2	30	20.7	+7	4.1	7.3	✓
Dm	+8° 407	2	31	16.0	+8	17.4	7.9	✓
Dm	+7° 402	2	28	55.7	+7	5.3	6.5	✓
Dm	+6° 392	2	27	26.5	+6	50.5	7.0	✓
Dm	+6° 398	2	28	10.8	+6	10.4	6.5	✓
Dm	+5° 366	2	28	24.1	+5	48.3	8.3	✓
Dm	+4° 418	2	28	17.5	+4	57.0	5.3	✓
Dm	+6° 384	2	25	20.5	+6	18.4	8.0	✓

Dm +11° 375 2 35 56.7 +11 25.3 8.0 ✓

Identified by A.M.E.

Cassiopeia

Nov. 8, 1911

I 9704

Time 12:38

No. class Dist Remark

1	30	53	
2	35	42	
3	K	42	On edge
4	30	84	
5	35	63	
6	Q	63	On edge
7	Ma	42	near edge
8	Q	63	
9	35	21	
10	K	63	
11	B8	105	
12	30	42	
13	Q5	21	
14	Q2	63	
15	Q	63	
16	Q	42	
17	Q3	105	
18	30	42	
19	F	42	near edge
20	K	42	
21	Q3	42	
22	K	84	
23	30	42	
24	B	42	
25	Q	42	
26	B5	42	Probably trail of a burned out star

Time 12:42

Dm +8° 19	0	7	31.7	+8	0.9	6.0	✓
Dm +7° 27	0	9	7.2	+7	26.0	6.2	✓
Dm +7° 36	0	13	8.7	+7	22.8	6.2	✓
Dm +7° 51.21	23	55	5.2	+7	40.8	6.3	✓
Dm +8° 51.64	23	54	59.6	+8	45.5	6.7	✓
Dm +7° 51.01	23	48	12.8	+7	25.0	7.0	✓
Dm +8° 51.27	23	43	57.7	+8	30.3	6.5	✓
Dm +10° 32	0	13	26.7	+10	10.9	7.2	✓
Dm +8° 17	0	5	52.3	+8	7.0	7.4	✓
Dm +10° 31	0	13	4.3	+10	7.5	7.5	✓
Dm +10° 25	0	10	51.0	+10	23.8	6.8	✓
Dm +10° 8	0	2	37.8	+10	20.8	5.8	✓
Dm +11° 50.92	23	56	35.7	+11	20.0	7.0	✓
Dm +11° 50.90	23	56	5.2	+11	31.3	7.0	✓
Dm +10° 50.17	23	52	25.3	+10	28.0	7.0	✓
Dm +10° 50.13	23	50	22.8	+10	39.6	7.0	✓
Dm +9° 53.00	23	48	56.3	+9	13.4	7.5	✓
Dm +10° 50.04	23	45	16.0	+10	7.8	6.0	✓
Dm +11° 50.68	23	45	37.7	+11	6.8	7.3	✓
Dm +11° 44	0	13	31.1	+11	57.6	7.2	✓
Dm +11° 34	0	10	28.8	+11	58.0	6.5	✓
Dm +13° 27	0	9	17.8	+13	6.6	7.5	✓
Dm +12° 51.63	23	58	16.9	+12	35.4	5.5	✓
Dm +13° 52.01	23	56	28.0	+13	34.6	7.0	✓
Dm +14° 50.94	23	57	16.4	+14	9.0	7.3	✓
Dm +15° 49.25	23	55	7.5	+15	27.5	7.0	✓

Circus made 10/8

Ident. by A.D.M. checked by A.M.E.

Nov. 8, 1911

B 42162

Time 3:23

No	Obs	Set	Remarks
1	B8	84	near edge
2	B8?	63	"
3	K5	42	
4	A	42	
5	A0	63	
6	F8	42	
7	B8?	21	near edge
8	A	21	"
9	B5	84	" Focus poor
10	B5?	84	"
11	B9	42	
12	A0	21	
13	B8	42	
14	B8	84	
15	K0	63	
16	B8	42	
17	B5	63	
18	B5	105	Somewhat blurred out.
19	B8?	105	"
20	B9	42	
21	B8	21	
22	B8	21	
23	B9	42	
24	B9	21	
25	K0	63	Aberration during about 4227
26	B9	13	

D.M.	h	m	s	o	magn.	A.G.C.	h	m	s	o	magn.	
1					✓	9244	7	11.9	-48	6	5.0	
2					✓	9243	7	11.9	-46	41	6.2	
3					✓	9283	7	18.4	-46	36	6.1	
4					✓	9448 9449	7	18.6	-48	29	7 1/4	
5					✓	9863	7	35.9	-48	36	6.1	
6					✓	9917	7	35.5	-48	22	6.0	
7					✓	9949	7	36.5	-48	49	7 1/4	
8					✓	10181	7	43.6	-49	0	7.4	
9	-49° 3137	7	49	32.4	-49	✓ 17.3 5.0	✓ 10390	7	50.2	-49	21	5.0
10					✓	10534	7	55.3	-48	58	5.0	
11					✓	10122	7	41.6	-46	46	7.0	
12					✓	10189	7	43.8	-46	34	8	
13					✓	10219	7	44.5	-46	46	7 3/4	
14					✓	10211	7	44.5	-46	22	5.9	
15					✓	10249	7	45.3	-46	50	5.1	
16					✓	10331 10268	7	48.2	-46	58	4.3	
17					✓	10269	7	46.3	-46	37	6.5	
18					✓	10268	7	46.2	-46	8	4.3	
19					✓	10392	7	50.3	-47	51	4.5	
20					✓	10570	7	54.3	-47	37	6.7	
21					✓	10514	7	54.6	-46	19	7 1/2	
22					✓	10509	7	54.4	-46	3	7 1/4	
23					✓	10461	7	52.8	-45	43	7 1/4	
24					✓	10431	7	51.7	-45	24	7 1/2	
25					✓	10516	7	54.7	-45	18	5.6	
26					✓	10547	7	55.9	-44	57	6.6	

Carde made out

November 8, 1911 (Cont.)
B 42162

No	Days	Dist	Remark
27	A	21	
28	K	21	
29	A	42	
30	B8?	21	
31	B8?	42	
32	K2	21 X	
33	K0	105	
34	K0	21	
35	A	42	
36	B5	21	
37	B9	63	
38	B5	84	
39	K0	42	
40	K0	42	
41	B8	42	
42	A	21	
43	B8	63	
44	B8	84	
45	B8	84	
46	M0	21 X	
47	A0	21	
48	A0	21	
49	A0	21	
50	A	21	
51	B8	63	
52	A	21	
52 ² 52	A	21	

	A.S.C.	Re. 1911	Dec.	Magn.
27	✓ 10583	7	56.9 -44 45	8
28	✓ 10649	7	58.6 -44 19	7.4
29	✓ 10666	7	59.2 -44 23	7.0
30	✓ 10748	8	2.5 -44 53	7.4
31	✓ 10741	8	2.3 -46 41	6.7
32	✓ 10769	8	3.5 -44 58	5.8
33	✓ 9652	7	26.1 -43 6	3.5
34	✓ 9747	7	30.0 -42 52	7
35	✓ 9797	7	31.7 -44 4	7.0
36	✓ 9851	7	32.6 -44 45	7.5
37	✓ 9996	7	38.2 -44 23	6.9
38	✓ 10042	7	39.9 -44 55	5.6
39	✓ 10273	7	46.3 -44 30	6.9
40	✓ 10310	7	47.5 -44 20	6.9
41	✓ 10425 } 10426 }	7	51.5 -44 7	7.4
42	✓ 10460	7	52.7 -44 21	8
43	✓ 10454	7	52.5 -43 35	6.7
44	✓ 10472 }	7	53.3 -43 14	7.4
45	✓ 10496	7	54.1 -43 50	5.7
46	✓ 10485	7	53.6 -42 8	6.8
47	✓ 9945	7	36.5 -43 3	7.4
48	✓ 9980	7	37.7 -42 57	7.4
49	✓ 9994	7	38.2 -43 24	7
50	✓ 10029	7	39.4 -42 20	7.4
51	✓ 10133	7	42.1 -43 31	6.5
52	✓ 10190	7	43.9 -43 6	7.4
52	✓ 10194	7	43.9 -43 9	8

Comets made out

~45° 37.5

Nov. 8, 1911 (Cont)

B 42162

No	Class	Int	Remark
53	B ₃	42	
54	B ₅	63	
55	B ₅	63	
56	A	42	Near edge
57	A	21	
58	K ₅	63	

June 3:39 ~~7~~

cards made out

	abc	^g	^h	^m	^o	ⁱ	mag.
✓	10258	7	45.6	-43	4		6.3
✓	10324	7	48.0	-42	51		6.8
✓	10334	7	48.4	-42	38		6.6
✓	9742	7	29.9	-39	58	⁴⁹	6.6
✓	9893	7	35.0	-39	45		7.0
	10060	7	40.2	-40	42		5.8

Transfied by R.D.W.

Checked by J.C.M.

Nov. 12, 1911

Plate I 37007

Time 10:15

No	Class	Int	Remark
1	A2	4 2	
2	A	8 4	Lines blurred near edge
3	B8	4 2	
4	A2	6 3	
5	A3	4 2	
6	A2	8 4	
7	B	6 3	near edge
8	B5	4 2	"
9	B5	4 2	"
10	A5	4 2	"
11	F0	8 4	
12	K0	2 1	
13	K0	6 3	
14	A3	6 3	
15	A0	6 3	near edge
16	Chrt	6 3	No bright lines
17	B7	4 2	near edge
18	K0	4 2	
19	A	8 4	near edge
20	A	2 1	
21	F	2 1	
22	B5?	2 1	Conv. focus
23	F0	4 2	
24	K0	4 2	
25	A3	4 2	
26	K2	6 3	
27	K0	4 2	

DM +41° 49'16	23	53	1.8	+41	20.6	7.8	✓
DM +41° 49'20	23	54	20.6	+41	32.8	6.5	✓
DM +42° 48'17	23	55	17.7	+42	6.8	7.3	✓
DM +41° 49'25	23	55	43.3	+41	58.6	6.8	✓
DM +41° 49'28	23	56	19.2	+41	18.9	7.7	✓
DM +41° 49'33	23	57	12.2	+41	18.1	6.0	✓
DM +39° 52'19	23	58	38.3	+39	36.5	6.7	✓
DM +40° 52'33	23	58	53.5	+40	6.0	6.8	✓
DM +40° 7' 0	1	34.0	+40	2.4	7.0	✓	
DM +39° 22' 0	4	41.6	+39	5.4	7.7	✓	
DM +40° 29' 0	5	59.4	+40	14.1	5.7	✓	
DM +40° 34' 0	6	59.4	+40	13.3	6.7	✓	
DM +39° 56' 0	12	5.8	+39	55.4	6.6	✓	
DM +40° 104' 0	23	8.0	+40	42.9	7.3	✓	
DM +39° 138' 0	29	39.1	+39	32.1	6.5	✓	
DM +40° 148' 0	34	49.7	+40	28.4	6.6	✓	
DM +39° 158' 0	34	9.5	+39	53.6	7.0	✓	
DM +43° 46'05	23	54	4.9	+43	52.1	6.6	✓
DM +44° 45'38	23	53	21.2	+44	26.6	6.0	✓
DM +43° 46'16	23	56	18.5	+43	28.5	8.5	✓
DM +43° 46'24	23	57	25.4	+43	9.6	8.1	✓
DM +42° 48'31	23	58	10.4	+42	35.4	8.5	✓
DM +42° 8' 0	2	0.9	+42	14.8	8.1	✓	
DM +42° 30' 0	6	5.4	+42	8.9	6.8	✓	
DM +43° 16' 0	4	18.2	+43	58.3	8.5	✓	
DM +43° 20' 0	5	6.5	+43	54.7	6.5	✓	
DM +43° 22' 0	5	2.6	+43	31.2	7.0	✓	

Cards made out

Nov. 13, 1911 Cont

I 37007

No	Obs	Int	Remark
27a	K ₂	1	Looked up on I 32258. <u>Supposed on 26</u>
28	F ₅	2	
29	F ₅	2	
30	B ₈	8	
31	Q ₀	10	
32	K	2	
33	B ₈	10	
34	Q ₂	4	
35	F ₂	2	
36	F ₅	4	
37	Q ₂	4	Maybe B ₈
38	Q ₀	4	
39	Q ₀	6	
40	B ₈	6	
41	Q	2	
42	K	2	
43	F ₅	4	
44	Q ₃	2	
45	B ₅	4	Near edge
46	Q ₀	4	
47	K ₅	8	
48	B ₈	6	
49	F ₅	4	Same pair
50	Q ₀	8	
51	Q ₃	4	
52	Q ₂	2	
53	K	2	
54	Q	6	

Dm + 43° 31	0	5	1.6	+ 43	47.8	7.3	
Dm + 43° 28	0	6	28.1	+ 43	42.0	8.2	✓
Dm + 43° 31	0	6	52.6	+ 43	2.4	8.0	✓
Dm + 43° 33	0	7	43.0	+ 43	23.3	6.7	✓
Dm + 42° 41	0	8	46.8	+ 42	47.5	6.0	✓
Dm + 43° 44	0	10	8.3	+ 43	12.0	8.1	✓
Dm + 42° 48	0	11	5.7	+ 42	57.6	5.9	✓
Dm + 42° 57	0	12	53.0	+ 42	53.5	8.0	✓
Dm + 42° 55	0	12	15.3	+ 42	4.5	8.2	✓
Dm + 41° 50	0	15	59.4	+ 41	16.3	17.4	7.9
Dm + 41° 69	0	21	1.6	+ 41	35.2	8.4	✓
Dm + 41° 74	0	23	39.0	+ 41	44.1	7.5	✓
Dm + 42° 99	0	24	39.2	+ 42	41.9	6.5	✓
Dm + 43° 97	0	23	24.5	+ 43	9.2	6.7	✓
Dm + 43° 99	0	24	37.2	+ 43	3.0	8.3	✓
Dm + 42° 103	0	26	0.8	+ 42	53.6	8.1	✓
Dm + 41° 96	0	29	52.6	+ 41	44.8	8.0	✓
Dm + 42° 137	0	32	8.0	+ 42	1.5	8.4	✓
Dm + 43° 135	0	34	25.7	+ 43	8.2	7.0	✓
Dm + 43° 124	0	31	3.8	+ 43	52.3	7.9	✓
Dm + 43° 113	0	28	54.1	+ 43	41.4	5.4	✓
Dm + 43° 110	0	28	28.6	+ 43	5.1	7.0	✓
Dm + 44° 45.49	23	57	33.6	+ 44	52.5	7.2	✓
Dm + 44° 45.50	23	57	44.6	+ 44	25.2	6.3	✓
Dm + 43° 46.29	23	58	32.0	+ 43	56.1	7.3	✓
Dm + 43° 46.27	23	58	14.4	+ 43	39.9	8.0	✓
Dm + 45° 4	0	0	45.9	+ 45	54.1	7.5	✓
Dm + 45° 11	0	1	58.4	+ 45	34.9	7.0	✓

Cards made out

Nov. 18, 1911 cont

I 37007

No Obs Int

55 Q3 4 2

56 f 10 5

lines burned out

57 f2 6 3

58 f0 2 1

59 A 2 1

60 A 2 1

61 Q2 6 3

62 f5 4 2

63 K 2 1

64 Q2 8 4

65 f5 6 3

66 K 4 2

67 Q2 6 3

68 f5 4 2

69 f2 6 3

70 Q2 2 1

71 Q0 10 5

72 Q 2 1

73 f 2 1

74 f 2 1

75 f5 4 2

76 f5 2 1

77 Q2 2 1

78 B8? 6 3

Near edge

79 Q2 4 2

80 Q2 2 1

81 f 2 1

82 f5 4 2

Dm +45° 16 0 2 34.3 +45 34.6 7.7 ✓

Dm +45° 17 0 2 48.8 +45 11.3 5.2 ✓

Dm +45° 26 0 5 14.1 +45 17.9 7.0 ✓

Dm +43° 16.29 23 58 22.0 +43 56.1 7.0 ✓

Dm +44° 50 0 8 8.7 +44 42.3 8.0 ✓

Dm +44° 51 0 8 32.4 +44 37.6 8.5 ✓

Dm +43° 32 0 7 9.7 +43 57.8 8.4 ✓

Dm +43° 43 0 10 2.1 +43 55.9 7.0 ✓

Dm +43° 45 0 10 16.3 +43 45.5 7.0 ✓

Dm +43° 47 0 10 44.2 +43 45.9 6.5 ✓

Dm +43° 49 0 11 3.8 +43 50.6 6.8 ✓

Dm +44° 62 0 12 52.3 +44 42.3 7.5 ✓

Dm +44° 64 0 13 30.5 +44 7.9 8.0 ✓

Dm +43° 67 0 15 22.8 +43 43.3 7.0 ✓

Dm +44° 76 0 16 0.9 +44 16.2 7.7 ✓

Dm +44° 76 0 16 0.9 +44 16.2 7.7 ✓

Dm +43° 72 0 16 24.1 +43 27.8 6.5 ✓

Dm +43° 74 0 17 41.0 +43 31.0 8.6 ✓

Dm +43° 92 0 20 27.1 +43 36.6 5.5 ✓

Dm +44° 94 0 20 16.5 +44 56.0 8.2 ✓

Dm +44° 97 0 20 54.0 +44 58.7 8.5 ✓

Dm +45° 119 0 22 22.2 +45 9.1 8.5 ✓

Dm +45° 124 0 23 57.3 +45 7.3 7.6 ✓

Dm +44° 114 0 25 42.5 +44 20.1 8.3 ✓

Dm +44° 118 0 26 29.7 +44 16.3 8.9 ✓

Dm +45° 4381 23 51 27.5 +45 37.0 6.5 ✓

Dm +46° 4231 23 52 47.5 +46 7.8 7.0 ✓

Dm +45° 4393 23 53 57.2 +45 55.5 8.2 ✓

Dm +46° 4239 23 54 48.5 +46 47.0 7.8 ✓

Dm +46° 4241 23 55 52.2 +46 36.4 7.2 ✓

Cards made out

Nov. 12, 1911 (Cont)

I 37007

No	Class	Int	Remark
83	A2	21	
84	A	21	
85	A2	23	
86	B5	42	
87	F0	21	
88	A5	21	
89	A	21	
90	F	21	
91	A	21	very poor focus
92	A5	42	
93	A	21	
94	K0	42	
95	K	21	25 mm scale = 1 mm
96	A2	42	
97	B5	42	
98	K0	42	
99	B8?	84	lines burned out
100	B8?	42	
101	A0	21	
102	F0	42	
103	A2	42	
104	B?	42	Focus poor
105	A2	42	
106	F5	42	
107	A	42	
108	B	42	
109	A0	21	
110	B5	42	

DM +46° 42.44	23	5.5	27.0 + 46	27.1	8.0	✓
DM +46° 42.54	23	5.8	20.5 + 46	16.8	8.4	✓
DM +47° 43.73	23	5.6	17.4 + 47	37.9	6.4	✓
DM +49° 43.69	23	5.3	57.5 + 49	10.3	6.5	✓
DM +48° 42.41	23	5.7	55.6 + 48	58.4	7.4	✓
DM +48° 42.44	23	5.8	28.7 + 48	49.3	7.2	✓
DM +49° 3	0	0	53.9 + 49	26.5	8.0	✓
DM +49° 7	0	1	27.8 + 49	3.1	7.7	✓
DM +48° 19	0	2	27.7 + 48	49.4	8.2	✓
DM +48° 30	0	3	36.8 + 48	44.6	7.2	+48° 28 superposed? ✓
DM +48° 25	0	3	14.5 + 48	12.6	7.2	✓
DM +47° 21	0	4	25.2 + 47	20.8	5.6	✓
DM +47° 23	0	4	35.3 + 47	22.8	7.0	✓
DM +46° 20	0	4	34.0 + 46	42.6	7.3	✓
DM +46° 26	0	6	2.7 + 46	23.2	8.0	✓
DM +45° 48	0	9	16.1 + 45	49.1	7.5	✓
DM +45° 52	0	10	30.7 + 45	24.1	7.0	✓
DM +47° 50	0	9	31.7 + 47	8.0	6.0	✓
DM +45° 64	0	13	15.9 + 45	40.8	8.2	✓
DM +45° 69	0	13	52.1 + 45	30.9	8.3	✓
DM +45° 83	0	16	31.7 + 45	4.8	7.9	✓
DM +46° 101	0	24	19.9 + 46	19.5	7.5	✓
DM +46° 95	0	22	55.7 + 46	44.1	7.4	✓
DM +47° 124	0	24	2.6 + 47	51.4	7.6	✓
DM +48° 17.7	0	27	53.4 + 48	13.5	6.7	✓
DM +47° 145	0	28	19.7 + 47	45.4	6.8	✓
DM +47° 138	0	26	30.7 + 47	6.8	7.4	+47° 139 superposed ✓
DM +46° 107	0	25	33.8 + 46	51.4	7.9	✓
DM +46° 125	0	29	59.9 + 46	36.5	7.2	✓

Cards made out

Nov. 12, 1911 (Cont)

I 37007

No class Int Remark

111 K	42	
112 A2	105	
113 K	21	
114 J5	42	
115 A	84	Near edge
116 A	105	"
117 K2	63	
118 A	42	
119 B8	21	
120 Q0	21	
121 K	21	
122 Q2	21	
123 A	21	
124 J8	42	
125 Ma	21	
126 K?	21	
127 A	21	
128 B0	63	
129 Q0	63	
130 A3	21	on northern edge of 128
131 B8	21	
132 J	21	
133 Ma	21	
134 A	21	
135 Q0	63	
136 Q2	63	

June 11, 12

DM + 46° 129	0	30	47.4	+ 46	7.5	7.0	✓
DM + 46° 146	0	35	28.6	+ 46	14.7	4.5	✓
DM + 45° 181	0	34	57.2	+ 45	7.9	7.0	✓
DM + 45° 187	0	36	9.0	+ 45	26.6	7.20	✓
DM + 47° 181	0	26	24.1	+ 47	4.2	5.8	✓
DM + 47° 183	0	36	42.0	+ 47	29.4	4.8	✓
DM + 48° 192	0	31	10.4	+ 48	38.4	6.0	✓
DM + 49° 191	0	19	24.8	+ 49	11.2	7.1	✓
DM + 48° 121	0	18	3.2	+ 48	51.2	8.0	✓
DM + 48° 125	0	18	25.0	+ 48	34.7	7.9	✓
DM + 48° 126	0	18	34.9	+ 48	14.5	7.3	✓
DM + 48° 112	0	16	53.1	+ 48	42.9	8.20	✓
DM + 48° 106	0	16	13.0	+ 48	23.9	8.20	✓
DM + 47° 88	0	17	18.9	+ 47	14.4	7.20	✓
DM + 47° 113	0	21	8.4	+ 47	36.4	6.8	✓
DM + 46° 88	0	20	44.1	+ 46	54.4	8.0	✓
DM + 48° 100	0	15	39.6	+ 48	58.2	8.8	✓
DM + 48° 84	0	12	49.0	+ 48	10.8	6.6	✓
DM + 48° 79	0	12	25.0	+ 48	3.4	6.4	✓
DM + 48° 83	0	12	49.0	+ 48	22.9	8.3	✓
DM + 48° 80	0	12	32.0	+ 48	57.7	8.2	✓
DM + 48° 67	0	10	42.8	+ 48	41.7	7.7	✓
DM + 48° 60	0	9	16.5	+ 48	39.5	6.5	✓
DM + 48° 53	0	8	8.9	+ 48	31.4	8.0	✓
DM + 48° 40	0	5	45.0	+ 48	55.3	7.0	✓
DM + 47° 30	0	5	28.5	+ 47	7.3	6.7	✓

Circle made out

Sent by A. D. W., checked by J. C. M.

Nov. 20, 1911

Time 10:52

T 37.55

No. Class Int. Remark

1	F	21	
2	F	21	
3	Ko	63	
4	F	21	
5	F	42	
6	Q5	63	
6a	Q2		
7	Q3	63	Lines #128-312, 4077 well seen
8	Q5	21	
9	F	21	
10	F	21	
11	Q5	21	
12	F	21	
13	Q5	21	
14	Ko	42	
15	Ko	63	
16	Qo	42	
17	Ko	105	
18	K	21	
19	B8	63	
20	F	21	
21	K	42	
22	Q5	63	
23	Q5	42	
24	Q5	42	
25	Qo	84	
26	Ko	42	
27	Q5	21	

+24° 90	0	31	18.8	+24	33.0	8.3	✓	1
+24° 91	0	31	41.8	+24	56.0	9.0	✓	2
+25° 92	0	31	19.8	+25	31.8	6.5	✓	3
+25° 93	0	31	48.7	+25	58.6	8.6	✓	4
+25° 96	0	32	37.0	+25	52.6	7.8	✓	5
+27° 103	0	33	42.8	+27	14.7	8.2	✓	6
+26° 103	0	34	2.6	+26	23.3	8.0	✓	6a
+26° 108	0	34	46.6	+26	50.8	7.2	✓	7
+26° 112	0	35	36.6	+26	33.5	8.4	✓	8
+25° 102	0	34	7.1	+25	58.0	8.3	✓	9
+25° 101	0	34	4.1	+25	1.3	9.2	✓	10
+24° 104	0	35	59.8	+24	5.8	7.9	✓	11
+25° 110	0	36	54.4	+25	57.8	8.4	✓	12
+27° 117	0	37	35.8	+27	10.0	8.3	✓	13
+25° 112	0	38	4.5	+25	22.9	7.0	✓	14
+25° 118	0	40	0.9	+25	29.1	7.0	✓	15
+24° 115	0	39	57.7	+24	44.5	8.3	✓	16
+23° 106	0	39	41.1	+23	28.3	3.9	✓	17
+23° 103	0	38	37.8	+23	30.7	5.7	✓	18
+22° 113	0	37	33.6	+22	48.2	7.0	✓	19
+23° 110	0	40	35.2	+23	3.0	8.6	✓	20
+23° 117	0	42	53.9	+23	25.5	8.0	✓	21
+24° 123	0	42	54.8	+24	47.4	7.4	✓	22
+25° 123	0	41	31.9	+25	34.0	8.8	✓	23
+26° 126	0	40	0.8	+26	19.3	7.6	✓	24
+26° 131	0	42	7.6	+26	55.8	5.3	✓	25
+27° 132	0	42	29.0	+27	34.7	7.6	✓	26
+26° 138	0	43	7.7	+26	58.4	8.2	✓	27

Nov. 20, 1911 (cont.)

I 37355

No.	Class	Int.	Remarks
28	Ko	42	
29	Fo	42	
30	Ko	63	
31	Qo	63	
32	Fo	42	
33	Fo	21	
34	Me	42	
35	Qo	84	
36	Qo	42	
37	Ko	42	
38	Ko	63	
39	Fo	63	On edge
40	Fo	42	
41	Fo	63	
42	B	63	On edge

June 1905

+24° 128	0	44	37.5	+24	59.4	7.5	✓	28
+24° 129	0	45	53.2	+24	8.3	8.0	✓	29
+24° 133	0	46	15.2	+24	41.9	7.0	✓	30
+24° 135	0	46	33.1	+24	34.6	8.0	✓	31
+24° 136	0	46	38.8	+24	56.0	8.0	✓	32
+25° 135	0	47	46.1	+25	35.9	8.5	✓	33
+25° 136	0	48	56.9	+25	33.3	8.0	✓	34
+26° 151	0	48	12.1	+26	25.1	6.0	✓	35
+26° 155	0	49	27.9	+26	13.1	7.8	✓	36
+26° 161	0	50	40.3	+26	0.1	7.5	✓	37
+26° 163	0	51	13.5	+26	52.7	7.2	✓	38
+26° 169	0	54	44.1	+26	57.9	6.5	✓	39
+24° 149	0	49	30.3	+24	30.5	8.5	✓	40
+24° 134	0	50	43.3	+24	43.9	8.0	✓	41
+24° 163	0	53	54.8	+24	31.2	6.5	✓	42

Ident. by J.C.M.
checked by A.D.R. 12-11

937316 16.0 +50

Superfused on

Nov. 20, 1911

I 373 ²⁶/₅₈

June 10/15

No	Class	Int	Remarks
1	A	63	Pore focus near edge
2	K	21	
3	B5-	10.5	
4	B	42	
5	B0	63	
6	B5-	63	
7	F	21	
8	B5-	42	
9	F5	42	
10	B	42	
11	K	42	
12	F5	42.8	
13	B8?	84K	Near edge
14	F5	21	
15	K0	42X	
16	A5	21	
17	F5	21	
18	B8?	10.5	Lines burned out.
19	A2	21	
20	Mb	63	
21	K0	42	
22	B	42	
23	B	63	
24	B8	42	
25	A5	21	
26	B5	42	
27	B5	42	

1	+34° 26.4	1	23 53.5 +34 3.6 6.6V
2	+45° 23.94	16	16 8.3 +45 54.5 7.0V
3	+46° 21.69	16	15 25.3 +46 41.7 3.5V
4	+33° 25.2	1	24 43.7 +33 7.2 7.8V
5	+32° 27.2	1	26 44.8 +32 22.9 7.2V
6	+33° 28.9	1	27 36.4 +33 6.1 6.5V
7	+32° 28.1	1	28 37.0 +32 55.0 8.2V
8	+47° 23.23	16	10 53.2 +47 24.2 7.3V
9	+47° 23.21	16	10 27.4 +47 14.6 8.5V
10	+47° 23.17	16	9 23.1 +47 0.4 8.2V
11	+46° 21.56	16	8 17.3 +46 16.3 7.8V
12	+46° 21.55	16	7 52.8 +46 34.3 7.5V
13	+34° 29.7	1	33 42.5 +34 30.3 6.0V
14	+45° 23.76	16	4 10.2 +45 19.7 5.8V
15	+39° 30.4	1	36 37.1 +34 59.1 7.2V
16	+30° 25.7	1	30 39.1 +30 54.2 7.8V
17	+45° 23.70	16	1 23.2 +45 5.6 7.8V
18	+46° 21.42	15	58 17.0 +46 26.5 4.1V
19	+47° 23.92	15	58 26.6 +47 8.0 8.1V
20	+47° 23.91	15	58 19.8 +47 38.2 var. V
21	+47° 22.88	15	57 8.8 +47 32.9 7.0V
22	+47° 22.82	15	53 59.6 +47 32.0 8.0V
23	+46° 21.24	15	48 34.3 +46 28.2 6.8V
24	+33° 32.8	1	49 25.4 +33 6.6 7.6V
25	+32° 35.7	1	58 9.4 +32 51.8 8.1V
26	+32° 36.0	1	50 38.8 +32 30.6 7.0V
27	+47° 22.67	15	42 24.7 +47 26.3 6.8V

Casts made and

Nov. 20, 1911 (cont)

I 37326

No. class	Int.	Remark
28 K	63	
29 Qo	105	
30 K5	42	
31 J5	84	Near edge
32 F2	21	
33 F0	21	
34 B5	21	
35 K4	21	
36 J5	42	
37 B5	42	
38 K	21	
39 Qo	63	
40 Q5	63	
41 B5	63	
42 Q3	42	
43 K	21	
44 B0	63	
45 K	21	
46 B5	21	
47 B	21	
48 F	42	
49 mb	21	
50 F	42	
51 mb	42	
52 J5	42	
53 Q5	42	
54 Q5	63	

(Please note change in
numbering of 53-54 on opp. page.)

28 +46° 2110	15 43 7.5	+46 10.8 6.51
29 +32° 369	1 54 31.4	+32 36.1 5.51
30 +47° 2255	15 34 24.0	+47 24.3 6.71
31 +47° 2253	15 33 38.9	+47 17.3 5.51
32 +48° 2317	15 35 53.5	+48 32.1 7.51
33 +48° 2378	16 10 26.8	+48 14.4 8.01
34 +47° 2319	16 9 40.3	+47 57.8 8.01
35 +48° 2370	16 7 16.3	+48 7.9 8.01
36 +47° 2313	16 6 54.8	+47 56.0 8.11
37 +48° 2369	16 6 16.8	+48 10.9 7.01
38 +32° 299	1 34 7.0	+32 13.7 7.61
39 +47° 2300	15 2 42.0	+47 53.3 6.71
40 +31° 303	1 36 5.1	+31 47.2 7.21
41 +31° 301	1 35 35.7	+31 29.2 6.51
42 +59° 2461	15 3 1.2	+59 28.9 7.21
43 +48° 2355	15 58 31.4	+48 45.4 7.81
44 +31° 316	1 40 24.8	+31 57.5 6.21
45 +48° 2352	15 56 58.6	+48 58.7 8.21
46 +49° 2446	15 56 6.4	+49 31.1 8.51
47 +30° 286	1 41 57.9	+30 40.2 8.51
48 +31° 329	1 45 10.8	+31 13.7 8.01
49 +48° 2334	15 46 27.1	+48 55.4 7.51
50 +48° 2330	15 43 18.1	+48 21.1 8.01
51 +30° 310	1 49 44.1	+30 26.0 7.01
52 +30° 303	1 48 42.1	+30 18.8 7.81
53 +30° 324	1 47 30.6	+29 39.0 7.51
54 +29° 329	1 48 10.6	+29 44.2 8.01

Cable made out

Nov 20, 1911 (Cont.)

I 37326

No	class	Int.	Remark
55	K	21	
56	F	42	
57	G5	84	
58	F8	21	
59	K	63	
60	F	42	
61	G3	63	
62	G	42	Near edge
63	G	42	
64	K0	63	
65	F0	21	
66	K	42	
67	G5	42	
68	G	21	
69	F8	42	
70	G5	42	
71	G5	63	
72	K0	84	
73	G5	21	
74	G0	63	
75	F5	42	
76	F5	42	
77	G0	42	
78	K	21	
79	F0	84	Line sharp
80	F0	42	

Corda made out

55	+50° 2218	15	43	55.6	+50	27.4	7.61	
56	+29° 355	1	55	39.0	+29	12.3	7.91	
57	+50° 2206	15	34	21.0	+50	53.4	6.01	
58	+50° 2204	15	33	40.8	+50	33.9	7.31	
59	+50° 2194	15	30	54.9	+50	29.3	6.71	
60	+29° 361	1	59	15.3	+29	4.0	7.81	
61	+28° 359	1	58	29.9	+28	34.7	6.71	
62	+47° 2334	16	18	58.3	+47	57.5	7.31	
63	+49° 2493	16	16	16.5	+49	24.2	8.01	
64	+49° 2491	16	15	8.8	+49	23.0	6.01	
65	+30° 246	1	27	18.2	+30	33.6	8.41	
66	+30° 257	1	30	39.4	+30	54.2	7.81	
67	+49° 2476	16	8	30.3	+49	49.9	8.41	
68	+50° 2260	16	7	44.1	+50	20.8	8.61	
69	+49° 2471	16	6	51.9	+49	26.5	7.81	
70	+31° 2469	16	6	7.7	+49	0.2	7.0	ground line +48° 2469
70	+31° 2469	1	33	45.8	+31	17.8	8.0	
71	+50° 2257	16	5	12.0	+50	32.6	7.21	
71	+51° 2061	16	5	11.2	+51	7.1	8.01	
72	+29° 286	1	33	27.0	+29	19.3	6.01	
73	+29° 288	1	33	56.3	+29	21.0	8.31	
74	+28° 282	1	33	55.0	+28	47.2	7.51	
75	+51° 2061	16	5	11.2	+51	7.1	8.01	
76	+51° 2050	15	56	36.6	+51	14.1	8.01	
77	+51° 2050	15	56	56.3	+51	12.1	8.1	
77	+51° 2050	15	56	36.6	+51	14.1	8.01	
78	+51° 2046	15	55	5.2	+51	4.1	7.81	
79	+50° 2239	15	54	59.2	+50	19.1	6.01	
80	+50° 2244	15	55	58.2	+50	19.6	8.31	

Nov. 20, 1911 (cont.)

T 37926 2 Exposures

No. class	Int.	Remarks
81 J	21	
82 J8	105	
83 Q2	21	
84 Q	21	
85 Q	21	
86 K2	42	
87 J5	42 8.15	
88 J0	63	
89 K0	42	
90 B8?	105	Burned, pit
91 K	21	
92 Q0	42	
93 K	21	
94 J5	21	
95 J5	21	
96 Q	21	
97 Q0	63	
98 Mar	63	
99 J5	21	
100 J	21	
101 J2	42	
102 K5	42	
103 B8	63	
104 Q	21	
105 J	21	
106 J	21	
107 J	21	

81	+50°	2233	15	50	52.0	+50	16.7	8.3 ✓
82	+28°	312	1	44	49.8	+28	52.5	8.9 ✓
83	+29°	326	1	47	39.1	+29	0.1	8.3 ✓
84	+51°	2036	15	47	12.0	+51	16.2	8.2 ✓
85	+51°	2034	15	46	10.5	+51	19.2	8.0 ✓
86	+28°	333	1	50	25.9	+28	41.0	8.2 ✓
87	+28°	338	1	52	41.4	+28	31.8	7.7 ✓
88	+52°	1886	15	32	0.4	+52	32.8	6.0 ✓
89	+27°	320	1	53	51.3	+27	42.7	6.5 ✓
90	+52°	1898	15	38	53.5	+52	50.2	5.0 ✓
91	+53°	1805	15	40	14.8	+53	22.4	7.5 ✓
92	+53°	1806	15	40	84.7	+53	25.8	7.0 ✓
93	+53°	1807	15	41	23.8	+53	8.6	7.7 ✓
94	+52°	1903	15	42	27.6	+52	36.4	7.5 ✓
95	+52°	1905	15	42	58.5	+52	26.0	7.8 ✓
96	+52°	1907	15	43	20.7	+52	31.4	8.3 ✓
97	+27°	311	1	49	46.8	+27	49.1	7.7 ✓
98	+27°	310	1	49	30.6	+27	4.9	6.5 ✓
99	+52°	1910	15	46	30.8	+52	12.2	8.0 ✓
100	+52°	1912	15	47	49.1	+52	1.6	8.6 ✓
101	+28°	319	1	46	53.4	+28	4.9	7.5 ✓
102	+28°	313	1	44	57.0	+28	6.3	7.0 ✓
103	+53°	1816	15	47	22.6	+53	21.3	6.5 ✓
104	+26°	322	1	46	53.0	+26	51.1	7.8 ✓
105	+52°	1913	15	48	9.1	+52	59.9	8.6 ✓
106	+27°	300	1	46	43.2	+27	7.2	7.5 ✓
107	+26°	303	1	41	49.2	+26	44.8	8.0 ✓

Work made out

Nov. 20, 1911. (Cont)

I 3782262 Exposures

No.	Class	Int	Remarks
108	Ks	21	
109	Ke	63	
110	F	42	
111	As	21	
112	As	21	
113	As	42	
114	G	42	
115	K	21	
116	As	21	
117	As	21	
118	B	42	
119	K	42	
120	As	63	
121	As	21	
122	As	42	
123	As	84	
124	B	21	
125	As	63	near edge
126	F	42	"
127	As	42	"
128	As	21	"
129	B	63	"
130	As	21	"

June 19145

108	+53° 1831 ²	15	55	57.3	+53	83.3	8.0	V
109	+53° 1834	15	58	25.0	+53	19.0	6.0	V
110	+52° 1929	15	57	33.0	+52	81.5	8.3	V
111	+53° 1839	15 ⁶	0	49.8	+53	76	8.9	V
112	+52° 1941	16	2	35.5	+52	43.3	9.0	V
113	+27° 277	1	36	42.6	+27	44.1	7.5	V
114	+51° 2051	15	57	54.7	+51	45.4	8.3	V
115	+53° 1848	16	5	43.7	+53	17.4	8.0	V
116	+52° 1948	16	7	1.7	+52	31.0	8.5	V
117	+28° 281	1	33	43.9	+28	20.6	8.4	V
118	+27° 262	1	31	24.1	+27	22.5	7.8	V
119	+27° 261	1	31	7.2	+27	1.4	7.2	V
120	+53° 1856	16	12	16.3	+53	36.3	7.0	V
121	+53° 1850	16	6	55.5	+53	24.9	7.5	V
122	+27° 248	1	27	31.4	+27	32.0	7.3	V
123	+52° 1960	16	16	44.5	+52	23.1	6.8	V
124	+51° 2076	16	15	57.7	+51	38.1	8.4	V
125	+52° 1964	16	20	50.0	+52	37.4	6.5	V
126	+52° 1965	16	21	20.2	+52	3.6	6.9	V
127	+51° 2097	16	21	49.6	+51	28.1	7.0	V
128	+50° 2287	16	21	9.9	+50	47.0	7.6	V
129	+50° 2282	16	19	14.5	+50	40.9	7.5	V
130	+29° 260	1	25	30.1	+29	37.6	8.0	V

Cards made out

Int. by J. C. D. Dec. 28 '11.
 Checked by A. D. H. Feb. 8, '12.

Nov 21, 1911

I 10316

Time 11:40

No	days	Int	Remark
1	A	63	near edge
2	A	21	from focus
3	B	42	
4	A	21	
5	A	42	
6	B	105	
7	B	42	
8	B	42	
9	B	63	
10	A	63	
11	A	42	
12	K	42	on edge
13	A	42	
14	K	63	
15	A	42	
16	K	42	
17	A	42	
18	A	42	
19	A	21	
20	M	21	
21	A	42	
22	K	63	
23	A	63	
24	A	42	
25	A	42	
26	A	21	
27	A	42	

+32° 369	i 54 31.4 +32 36.1	5.5 ✓	1
+33° 328	i 49 25.4 +33 6.6	7.6 ✓	2
+35° 350	i 42 25.5 +35 7.6	7.3 ✓	3
+35° 349	i 42 17.6 +35 20.4	7.5 ✓	4
+34° 304	i 36 57.1 +34 59.1	7.3 ✓	5
+34° 297	i 33 42.5 +34 30.3	6.0 ✓	6
+33° 259	i 27 36.4 +33 6.1	6.5 ✓	7
+32° 272	i 26 44.8 +32 22.9	7.2 ✓	8
+34° 265	i 23 53.5 +34 3.6	6.6 ✓	9
+38° 234	i 18 52.4 +33 36.4	6.6 ✓	10
+33° 228	i 17 54.0 +33 49.7	6.5 ✓	11
+33° 220	i 15 25.2 +33 28.7	6.3 ✓	12
+35° 382	i 56 12.3 +35 54.0	7.0 ✓	13
+36° 355	i 47 34.1 +36 32.6	5.8 ✓	14
+36° 354	i 47 21.0 +36 34.0	5.8 ✓	15
+36° 346	i 46 25.9 +36 24.4	6.4 ✓	16
+36° 338	i 44 40.3 +36 36.2	7.2 ✓	17
+36° 332	i 43 51.8 +36 42.9	6.8 ✓	18
+37° 389	i 43 13.4 +37 27.8	8.4 ✓	19
+37° 387	i 42 37.8 +37 18.2	6.9 ✓	20
+37° 382	i 41 57.0 +37 34.9	7.0 ✓	21
+37° 372	i 40 6.8 +37 13.8	6.0 ✓	22
+36° 305	i 35 55.9 +36 56.3	6.5 ✓	23
+36° 306	i 36 12.0 +36 13.4	6.8 ✓	24
+35° 314	i 30 45.6 +35 48.3	7.0 ✓	25
+35° 308	i 29 8.8 +35 58.9	8.0 ✓	26
+35° 303	i 27 47.6 +35 47.6	7.8 ✓	27

H.R. 21 A m H.P.

Nov. 21, 1911 (Cont.)
I 10.3, 6

No	Class	Int	Remark
28	Q ₂	42	
29	K ₀	42	
30	K ₅	21	
31	K ₀	21	
32	K	21	
33	A	42	Focus very poor
34	A	105	Only high, seen
35	A ₂	42	
36	A ₂	21	
37	K	21	
38	A ₀	42	
39	A ₅	42	
40	K	42	
41	F ₀	42	
42	X B ₅	63	Only high, seen
43	B ₈ ?	42	
44			
45			Plate very poor.

June 11, 53

+35° 296	i 25 52.1	+35 26.4	8.2	✓	28
+35° 292	i 24 30.3	+35 6.3	6.5	✓	29
+34° 270	i 25 36.0	+34 51.5	7.2	✓	30
+34° 273	i 26 20.7	+34 23.0	7.0	✓	31
+35° 282	i 20 55.6	+35 52.6	7.4	✓	32
+36° 259	i 20 8.3	+36 19.7	7.3	✓	33
+36° 277	i 25 55.1	+36 39.7	6.2	✓	34
+37° 382	i 41 57.0	+37 34.7	7.0	✓	35
+37° 452	i 51 39.8	+37 53.5	7.4	✓	36
+36° 378	i 50 15.5	+36 58.9	8.0	✓	37
+36° 370	i 49 7.5	+36 57.7	8.1	✓	38
+38° 365	i 42 43.8	+38 6.6	7.3	✓	39
+38° 349	i 38 19.2	+38 1.1	7.1	✓	40
+37° 351	i 34 12.9	+37 46.8	8.1	✓	41
+38° 316	i 31 37.1	+38 13.0	7.5	✓	42
+38° 278	i 23 4.8	+38 1.1	6.6	✓ ✓	43
+38° 275	i 22 39.8	+38 44.7	7.3	✓ ✓	

Ident. by J. C. M.
checked by A. D. M. 12-1-11

Nov. 21, 1911

I 37365

Time 11.54

No.	Class	Int.	Remark
1	A	42	Near edge
2	K5	42	
3	A	84	Near edge
4	A	84	"
5	B	105	Lines burned out
6	A	42	Near edge
7	F5	63	
8	F5	63	
9	A	42	Partly - superposed on 10
10	G?	42	on 9
11	F8	42	
12	F	21	
13	A	21	
14	K0	63	
15	F5	42	
16	F5	84	
17	B1	63	very hazy
18	A2	21	
19	A2	105	
20	K0	105	
21	K0	63	
22	B5	84	
23	K0	63	
24	A	21	
25	F	21	
26	B5	42	
27	G5	42	

Corrected intensities entered in Printer's Copy.

1	+32° 1037	5 25 45.4	+32 38.4 8.7 ✓
2	+32° 1030	5 24 14.4	+32 38.3 7.0 ✓
3	+32° 1028	5 23 58.4	+32 41.7 6.7 ✓
4	+32° 1027	5 23 48.4	+32 11.3 6.7 ✓
5	+32° 1024	5 23 18.4	+32 4.8 4.8 ✓ ✓
6	+31° 989	5 20 56.5	+31 40.8 7.7 ✓
7	+32° 1003	5 19 52.8	+32 4.8 7.4 ✓
8	+33° 1065	5 20 13.5	+33 13.2 7.7 ✓
9	+33° 1062	5 20 3.5	+33 10.1 8.8 ✓
10	+33° 1064	5 20 6.5	+33 21.0 9.0 ✓
11	+32° 995	5 19 5.4	+32 44.7 8.5 ✓
12	+32° 993	5 18 42.7	+32 24.1 8.6 ✓
13	+32° 988	5 18 0.6	+32 59.3 9.1 ✓
14	+33° 1045	5 17 20.2	+33 7.6 6.5 ✓
15	+33° 1052	5 18 18.7	+33 20.2 8.7 ✓
16	+33° 1053	5 18 26.9	+33 38.3 6.8 ✓
17	+33° 1049	5 18 12.2	+33 49.0 7.1 ✓ ✓
18	+33° 1041	5 16 45.0	+33 44.7 8.9 ✓
19	+34° 1040	5 17 12.4	+34 15.4 6.6 ✓
20	+34° 1048	5 18 2.8	+34 21.1 6.0 ✓
21	+34° 1057	5 18 48.4	+34 34.2 6.7 ✓
22	+35° 1137	5 20 1.6	+35 15.3 6.6 ✓ ✓
23	+34° 1064	5 20 3.4	+34 59.5 7.1 ✓
24	+34° 1063	5 19 59.2	+34 43.1 8.7 ✓
25	+34° 1066	5 20 28.0	+34 33.8 8.8 ✓
26	+34° 1065	5 20 4.9	+34 9.8 8.4 ✓
27	+34° 1069	5 20 48.4	+34 5.1 7.8 ✓

Corrected

Nov 21, 1911 (Cont)

I 37365-

No	Class	Int	Remark
55	Ko	105	
56	A2	63	Isauritis etc. superposed? Yes.
57	A3	63	
58	B8	42	
59	B8	84	
60	B3	105	Revised out
61	A5	63	
62	A5	105	
63	A	21	
64	K	21	
65	A	21	
66	B8	42	
67	A2	21	
68	B3	63	
69	B8	21	
70	Fo	42	
71			Chute or not. No bright lines
72	A	21	
73	B8	21	
74	B8	84	
75	A5	21	
76	Ao	63	
77	B9	42	
78	F	42	Isauritis fully superposed:-
79	A5	42	
80	K	21	
81	F8	63	
82	A5	21	Corrected intensities entered in Printer's Copy

55	+33° 1000	5 8 39.8	+33 13.1 5.1 ✓
56	+33° 994	5 8 2.1	+33 2.5 8.0 +32° 907 superposed ✓
57	+33° 991	5 7 36.2	+33 9.8 7.6 ✓
58	+33° 995	5 8 5.5	+33 25.4 8.2 ✓ ✓
59	+33° 1002	5 8 46.9	+33 36.4 6.5 ✓ ✓
60	+33° 1008	5 9 27.6	+33 35.4 6.2 ✓ ✓
61	+33° 1010	5 9 49.8	+33 49.7 7.2 ✓
62	+33° 1013	5 10 28.7	+33 48.1 5.9 ✓
63	+34° 1002	5 10 47.7	+34 16.5 9.0 ✓
64	+34° 1004	5 11 15.3	+34 6.7 7.9 ✓
65	+33° 1015	5 11 17.9	+33 19.2 8.9 ✓
66	+33° 1017	5 11 50.6	+33 13.5 8.7 ✓
67	+33° 1018	5 12 24.8	+33 13.5 9.2 ✓
68	+33° 1020	5 12 45.5	+33 38.8 8.8 ✓ ✓
69	+34° 1014	5 12 48.1	+34 2.4 9.1 ✓ ✓
70	+34° 1023	5 13 40.6	+34 0.0 8.7 ✓
71	+33° 1026	5 13 15.3	+33 16.1 9.3 ✓
72	+34° 1019	5 12 48.1	+34 2.4 9.1 ✓
73	+34° {1017	5 12 45.2	+34 25.6 9.3 ✓
74	+34° 994	5 9 36.5	+34 43.9 7.8 ✓ ✓
75	+34° 998	5 9 38.4	+34 54.7 8.7 ✓
76	+35° 1038	5 8 14.4	+35 2.1 8.1 ✓
77	+35° 1031	5 7 26.5	+35 9.4 8.9 ✓ ✓
78	+35° 1027	5 6 42.5	+35 9.5 8.3 +35° 1026 superposed ✓
79	+35° 1022	5 5 20.3	+35 11.1 8.2 ✓
80	+34° 977	5 6 51.0	+34 24.9 8.6 ✓
81	+34° 978	5 6 18.6	+34 15.3 7.8 ✓
82	+34° 979	5 6 24.9	+34 7.9 9.0 ✓

Nov. 21, 1911 (cont.)

I 37365

No. Class Int. Remark

83	B ₀	105	
84	A ₀	42	
85	A	21	
86	A ₃	105	
87	A	21	
88	B ₂	21	
89	F	21	
90	F ₅	42	
91	K ₀	42	
92	A ₅	42	
93	F	21	
94	B ₅	21	
95	K ₀	21	
96	F ₅	21	
97	A ₃	21	
98	B ₃	63	
99	F ₀	42	
June 12:54	100 F ₅	42	
June 1:05	101 M ₂	42	
102	A ₅	42	
103	B ₀	42	
104	A ₀	21	
105	A	42	
106	F?	42	
107	A	42	near edge
108	A ₃	84	
109	F	63	

Corrected intensities entered in Printer's Copy.

83	+34° 9 80	5	6	43.9	+34	9.0	6.7	✓
84	+33° 9 84	5	7	15.8	+33	34.5	8.6	✓
85	+32° 9 31	5	7	0.6	+32	59.8	8.8	✓
86	+32° 9 22	5	5	57.5	+32	30.9	5.5	✓
87	+32° 9 14	5	4	51.4	+32	54.7	8.8	✓
88	+33° 9 77	5	3	41.8	+33	8.4	8.1	✓
89	+32° 9 07	5	3	17.4	+32	52.5	8.9	✓
90	+32° 9 05	5	2	41.9	+32	42.9	7.5	✓
91	+31° 8 81	5	1	37.4	+31	51.0	7.7	✓
	87.12			37.8		51.1	8.5	
92	+31° 8 67	5	0	43.3	+31	45.0	7.8	✓
93	+32° 8 98	5	0	2.4	+32	14.4	8.4	✓
94	+32° 8 96	4	59	16.4	+32	30.5	8.0	✓
95	+32° 8 92	4	58	11.5	+32	33.4	7.5	✓
96	+33° 9 61	4	59	40.4	+33	3.5	8.5	✓
97	+33° 9 56	4	57	31.8	+33	12.9	8.3	✓
98	+33° 9 53	4	56	37.0	+33	42.8	7.0	✓
99	+34° 9 42	4	55	48.4	+34	4.0	8.5	✓
100	+34° 9 48	4	57	13.5	+34	20.0	7.8	✓
101	+34° 9 46	4	56	51.6	+34	39.3	8.1	✓
102	+34° 9 43	4	55	51.0	+34	39.8	8.5	✓
103	+34° 9 39	4	54	44.9	+34	26.0	8.5	✓
104	+33° 9 46	4	54	26.4	+33	40.7	7.3	✓
105	+33° 9 49	4	54	48.0	+33	24.0	8.5	✓
106	+33° 9 48	4	54	41.5	+33	3.1	8.5	✓
107	+32° 8 76	4	54	31.0	+32	10.0	8.3	✓
108	+32° 8 79	4	55	13.6	+32	6.8	6.6	✓
109	+34° 9 32	4	49	8.0	+34	9.7	8.0	✓

check plates - does not show the star

2)
Nov 2X 1911 (Cont)

T 37365

No. Class Sect. Remark

110 S 42

111 S 42

112 K 105+

113 K 42

June 1:07 114 A 63 nearly

June 3:00 115 B 42 focus feed

116 A 84

117 S 42

118 S 42

119 A 42

120 Q 21

121 K 42

122 A 21

123 B 42

124 S 42

125 K 84

126 B 42

127 42 X 1/2 high Sect. 1 for nearly cont.

128 K 63

129 S 63

130 B 42

131 A 42

132 K 42

133 A 21

134 B 42

135 Ma 42

136 B 42

137 B 63

Corrected intensities put in in Pinter's Copy

110	+34° 927	4	48	21.3	+33° 2.5	8.0	✓
111	+33° 926	4	47	21.3	+33	48.2	8.0 ✓
112	+32° 885	4	47	32.8	+32	56.2	3.0 ✓
113	+32° 883	4	46	6.1	+32	33.0	7.5 ✓
114	+31° 845	4	52	25.6	+31	34.1	7.0 ✓
115	+36° 1177	5	28	54.9	+36	21.6	7.7 ✓
116	+36° 1174	5	23	6.2	+36	12.7	7.0 ✓
117	+35° 1156	5	22	25.4	+35	53.1	8.5 ✓
118	+35° 1158	5	22	34.9	+35	31.1	8.2 ✓
119	+35° 1151	5	22	0.1	+35	22.7	8.0 ✓
120	+36° 1168	5	22	6.3	+36	39.1	8.9 ✓
121	+36° 1167	5	21	36.4	+36	39.9	7.8 ✓
122	+35° 1140	5	20	16.8	+35	34.7	9.1 ✓
123	+35° 1139	5	20	13.9	+35	49.8	8.6 ✓
124	+35° 1133	5	19	39.7	+35	45.8	8.5 ✓
125	+35° 1102	5	17	12.7	+35	20.0	6.5 ✓
126	+34° 1041	5	17	23.5	+34	38.4	8.4 ✓
127	+35° 1095	5	16	2.9	+35	30.5	8.3 ✓
128	+36° 1122	5	14	59.4	+36	3.6	6.8 ✓
129	+36° 1113	5	14	5.7	+36	15.1	6.8 ✓
130	+35° 1083	5	13	27.0	+35	34.1	8.6 ✓
131	+35° 1081	5	13	18.9	+35	31.8	8.5 ✓
132	+36° 1100	5	12	27.4	+36	3.3	7.7 ✓
133	+35° 1075	5	12	7.9	+35	29.3	9.2 ✓
134	+35° 1072	5	11	50.5	+35	9.3	9.0 ✓
135	+35° 1054	5	10	26.0	+35	37.5	7.5 ✓
136	+36° 1044	5	9	14.8	+35	42.3	8.2 ✓
137	+36° 1078	5	9	12.5	+36	2.5	7.9 ✓

Nov. 24th 1911

T 37365

No. Class Sex Remark

138	B5	84	
139	Qo	42	
140	Qo	84	
141	Jo	42	
142	Q	21	Partly superseded on 143
143	Q	63	" " on 142
144	B8	42	
145	Jo	21	
146	Jo	42	
147	Q	42	
148	Q	21	
149	Q	21	
150	Q	21	
151	Q	21	
152	Q	42	
153	Jo	63	
154	K2o	63	
155	Jo	21	
156	B9	21	
157	B9	42	
158	Q	21	
159	Q	21	
160	Jo	21	
161	Jo	21	
162	Q	21	
163	Q	401	small-fellow
164	Q	42	

Unlisted intensities entered in Porter's Copy

138	+36° 10'7.3	5	8	35.1	+36	28.2	7.3	✓
139	+36° 10'6.7	5	7	3.8	+36	16.9	8.7	✓
140	+35° 10'2.8	5	6	46.4	+35	54.6	7.2	✓
141	+35° 10'2.1	5	4	59.7	+35	56.8	8.7	✓
142	+35° 10'1.4	5	3	54.9	+35	31.3	8.5	✓
143	+35° 10'1.2	5	3	50.9	+35	28.3	8.0	✓
144	+34° 9'6.3	5	3	8.4	+34	38.4	8.2	✓
145	+34° 9'6.7	5	3	46.4	+34	33.5	8.7	✓
146	+34° 9'6.6	5	3	36.5	+34	6.8	8.5	✓
147	+33° 9'7.3	5	3	10.5	+33	54.4	8.4	✓
148	+33° 9'7.0	5	1	54.6	+33	55.1	9.3	✓
149	+33° 9'6.0	4	59	21.7	+33	54.6	9.0	✓
150	+34° 9'5.6	4	59	37.5	+34	28.1	8.6	✓
151	+34° 9'5.8	4	59	57.4	+34	40.6	9.0	✓
152	+35° 9'8.2	4	58	8.1	+35	2.9	8.6	✓
153	+35° 10'0.3	5	1	31.5	+35	10.3	7.6	✓
154	+35° 10'0.4	5	1	52.2	+35	46.1	7.2	✓
155	+36° 10'2.7	5	0	51.9	+36	34.9	8.4	✓
156	+36° 10'2.6	5	0	46.2	+36	39.6	8.5	✓
157	+36° 10'2.5	5	0	24.8	+36	20.2	8.2	✓
158	+36° 10'2.3	5	0	11.0	+36	6.3	9.0	✓
159	+35° 9'9.2	4	59	6.3	+35	52.3	8.9	✓
160	+35° 9'9.1	4	58	35.5	+35	57.2	9.1	✓
161	+35° 9'8.7	4	58	23.4	+35	56.5	8.8	✓
162	+35° 9'8.1	4	57	30.9	+35	33.3	9.0	✓
163	+35° 9'7.7	4	56	52.6	+35	18.5	8.1	✓
164	+35° 9'7.6	4	55	50.9	+35	21.9	7.9	✓

Cards made out.

Nov. 28², 1911 (cont)

I 37365

No.	class	Int.	Remark
165	Q3	84	
166	Q2	63	
167	Q0	42	
168	B8	63	
169	F5	42	
170	Q0	21	
171	Q0	63	
172	A	21	
173	A	21	
174	A	21	
175	Q0	84	
176	F0	84	
177	Q0	105	
178	B2	84	Focus very poor. H ₃ not seen distinctly.
179	B5	42	
180	B5	63	
181	Q0	42	
182	Q5	63	
183	Q2	63	
184	Q3	63	
185	B5	42	
186	Q2	21	
187	K5	42	
188	Q2	42	
189	B7	21	Focus very poor.
190	F5	21	
191	B5	21	
192	B5	42	

Corrected intensities entered in Printer's Copy.

Cards made out

165	+35° 973	4	56	19.7	+35° 44.1	6.5 V
166	+35° 972	4	56	8.1	+36° 38.7	7.8 V
167	+36° 1000	4	56	35.1	+36° 19.7	8.5 V
168	+37° 1031	4	53	50.9	+37° 3.3	7.3 V
169	+37° 1027	4	53	21.3	+37° 1.3	8.4 V
170	+37° 1020	4	52	24.7	+37° 10.5	9.0 V
171	+37° 1014	4	51	51.3	+37° 11.3	8.1 V
172	+37° 1026	4	53	0.9	+37° 27.2	8.8 V
173	+37° 1019	4	52	24.2	+37° 32.1	9.3 V
174	+37° 1011	4	51	32.9	+37° 10.5	9.1 V
175	+36° 975	4	50	49.4	+36° 24.6	7.5 V
176	+36° 1002	4	48	42.0	+36° 6.1	7.0 V
177	+37° 1005	4	49	25.2	+37° 40.2	5.7 V
178	+35° 980	4	46	39.7	+35° 55.9	6.5 V
179	+36° 958	4	44	13.3	+36° 32.0	7.5 V
180	+36° 957	4	43	50.6	+36° 24.7	6.5 V
181	+35° 980	4	48	43.1	+36° 54.0	8.0 V
182	+37° 1242	5	25	32.9	+37° 47.9	7.3 V
183	+37° 1244	5	25	37.9	+37° 55.3	7.8 V
184	+37° 1222	5	22	37.6	+37° 55.5	8.0 V
185	+37° 1219	5	22	15.2	+37° 58.0	8.0 V
186	+37° 1226	5	23	38.6	+37° 25.7	9.0 V
187	+38° 1193	5	21	29.8	+38° 12.4	7.6 V
188	+37° 1214	5	20	54.8	+37° 41.8	8.5 V
189	+36° 1161	5	20	25.9	+36° 58.8	8.8 V
190	+37° 1210	5	20	19.3	+37° 12.8	8.6 V
191	+37° 1208	5	20	15.0	+37° 31.4	8.3 V
192	+37° 1205	5	19	50.2	+37° 48.6	8.3 V

193	$+37^{\circ} 120.2$	5	19	7.0	$+37$	38.9	8.3 ✓
194	$+38^{\circ} 116.5$	5	18	23.8	$+38$	10.4	8.3 ✓
195	$+37^{\circ} 119.9$	5	18	12.1	$+37$	58.1	8.5 ✓
196	$+37^{\circ} 120.0$	5	18	23.5	$+37$	6.2	8.5 ✓
197	$+36^{\circ} 114.0$	5	17	21.9	$+36$	22.6	8.5 ✓
198	$+36^{\circ} 114.9$	5	18	41.3	$+36$	38.2	8.8 ✓
199	$+37^{\circ} 118.4$	5	15	58.1	$+37$	49.6	8.8 ✓
200	$+37^{\circ} 118.2$	5	15	43.4	$+37$	54.8	7.8 ✓
201	$+37^{\circ} 117.8$	5	15	7.2	$+37$	7.5	8.4 ✓
202	$+37^{\circ} 117.9$	5	15	6.1	$+37$	22.1	8.0 ✓
203	$+37^{\circ} 117.5$	5	14	48.0	$+37$	14.7	5.3 ✓
204	$+37^{\circ} 116.9$	5	13	52.6	$+37$	3.1	8.1 ✓
205	$+36^{\circ} 111.2$	5	13	55.3	$+36$	37.9	8.7 ✓
206	$+37^{\circ} 116.3$	5	12	59.9	$+37$	0.3	9.2 ✓
207	$+37^{\circ} 116.1$	5	12	54.2	$+37$	14.3	8.6 ✓
208	$+37^{\circ} 116.0$	5	12	42.0	$+37$	31.8	7.2 ✓
209	$+37^{\circ} 115.0$	5	11	11.3	$+37$	19.9	8.8 ✓
210	$+37^{\circ} 114.6$	5	10	52.3	$+37$	17.3	7.2 ✓
211	$+36^{\circ} 109.0$	5	10	45.8	$+36$	29.4	8.2 ✓
212	$+36^{\circ} 108.6$	5	10	24.1	$+36$	31.0	7.5 ✓
213	$+36^{\circ} 108.2$	5	9	54.5	$+36$	47.1	8.4 ✓
214	$+37^{\circ} 114.4$	5	10	14.1	$+37$	15.3	8.4 ✓
215	$+37^{\circ} 113.9$	5	9	23.9	$+37$	8.1	9.2 ✓
216	$+37^{\circ} 113.6$	5	9	15.5	$+37$	9.6	8.9 ✓
217	$+37^{\circ} 113.4$	5	9	6.4	$+37$	1.9	9.0 ✓
218	$+36^{\circ} 107.2$	5	8	6.8	$+36$	56.7	8.9 ✓
219	$+37^{\circ} 112.8$	5	8	18.4	$+37$	29.5	8.0 ✓
220	$+37^{\circ} 111.7$	4.5	7	17.0	$+37$	37.0	8.8 ✓

Nov 22, 1911 (Cont)

Time-10.27

I 37365

No. Class Int. Remark

221	A	42	
222	A	42	
223	A	42	
224	A	21	
225	A	21	
226	B8	63	
227	A0	84	
228	F8	84	
229	G5	42	
230	K0	42	
231	B8	42	
232	B21	84	
233	A	21	
234	B2	63	He not met sun. Maybe Right Altitude Error.
235	G3	42	
236	G5	42	
237	A2	42	
238	A5	42	
239	F8	42	
240	G	42	Abrightly sp. superposed. Sp. p. in 240
241	H	42	
242	A	42	
243	M2	21	
244	G5	63	
245	A2	42	
246	B3	63	
247	G9	63	

Corrected intensities entered in Punit's Copy.

221	+36° 1066	5	6	49.7	+36	54.9	8.8 ✓
222	+36° 1062	5	6	22.5	+36	47.6	9.0 ✓
223	+36° 1060	5	6	5.7	+36	33.0	8.8 ✓
224	+37° 1111	5	6	8.9	+37	0.5	9.0 ✓
225	+37° 1109	5	5	59.9	+37	12.8	9.0 ✓
226	+36° 1049	5	4	16.5	+36	44.6	7.7 ✓
227	+36° 1047	5	4	1.6	+36	51.3	7.0 ✓
228	+37° 1091	5	8	30.4	+37	10.0	6.9 ✓
229	+37° 1084	5	3	2.2	+37	33.8	8.0 ✓
230	+37° 1076	5	1	44.5	+37	7.1	7.8 ✓
231	+37° 1074	5	1	20.2	+37	6.9	8.6 ✓
232	+37° 1067	5	0	30.2	+37	7.0	6.4 ✓
233	+37° 1065	5	0	21.3	+37	10.5	8.5 ✓
234	+36° 1021	5	0	9.1	+36	48.8	7.8 ✓
235	+36° 1004	4	57	38.4	+36	40.1	8.8 ✓
236	+37° 1040	4	56	36.8	+37	0.2	8.5 ✓
237	+37° 1046	4	57	47.2	+37	26.1	8.2 ✓
238	+37° 1051	4	58	14.9	+37	47.6	8.8 ✓
239	+37° 1053	4	58	37.2	+37	42.8	8.2 ✓
240	+37° 1060	4	59	53.1	+37	29.6	8.3 ✓
241	+37° 1077	4	1	47.9	+37	37.2	8.5 ✓
242	+38° 1048	5	0	27.2	+38	9.9	8.9 ✓
243	+38° 1045	5	0	8.8	+38	10.6	8.4 ✓
244	+38° 1041	4	59	40.6	+38	29.5	7.1 ✓
245	+38° 1033	4	58	23.3	+38	26.7	8.4 ✓
246	+38° 1020	4	56	39.3	+38	19.2	7.2 ✓
247	+38° 1012	4	54	8.6	+38	29.4	8.2 ✓

Coudé made out

Nov. 22, 1911 (cont.)

T 37565

No.	Class	Int.
248	Ko	63
249	B5	21
250	A	21
251	F	42
252	F	42
253	A2	42
254	G	63
255	F5	42
256	A	42
257	A	42 focus poor
258	F5	63
259	A	63 focus poor
260	A	21
261	F	21
262	F ²	42
263	K	63
264	A	21
265	K	42
266	Ao	63
267	B8	63
268	A	42
269	F	42
270	B5	63
271	A	42
272	A	21
273	A5	42
274	A	42
275	B5	42

Corrected intensities entered in Printer's Copy.

248	+38° 100.4	4	51	48.4	+38° 33.8	7.8 ✓
249	+38° 100.5	4	51	55.3	+38° 6.7	8.7 ✓✓
250	+38° 100.3	4	51	45.3	+39° 5.4	8.2 ✓
251	+38° 99.8	4	51	16.3	+38° 6.7	9.1 ✓
252	+38° 99.7	4	51	9.8	+39° 11.4	8.7 ✓
253	+39° 98.5	4	48	27.3	+39° 29.6	8.3 ✓
254	+39° 11.7	4	47	50.9	+39° 24.5	8.0 ✓
255	+39° 11.6	4	47	43.4	+39° 14.9	8.4 ✓
256	+39° 11.4	4	47	11.3	+39° 1.4	8.5 ✓
257	+39° 11.2	4	46	46.3	+39° 3.3	8.5 ✓
258	+39° 11.2	4	48	10.8	+39° 50.0	7.3 ✓
259	+38° 120.4	5	23	26.8	+38° 40.3	8.0 ✓
260	+38° 119.0	5	21	8.4	+38° 26.2	8.8 ✓
261	+38° 118.7	5	20	53.8	+38° 34.2	9.2 ✓
262	+38° 118.9	5	21	6.3	+38° 47.1	8.7 ✓
263	+39° 132.2	5	20	40.5	+39° 42.6	6.5 ✓
264	+39° 131.6	5	19	51.5	+39° 31.4	8.6 ✓
265	+39° 132.1	5	20	34.7	+39° 42.6	7.7 ✓
266	+38° 115.9	5	16	45.5	+38° 49.3	8.2 ✓
267	+39° 129.9	5	16	22.3	+39° 30.4	8.3 ✓✓
268	+38° 115.5	5	15	51.3	+38° 25.0	8.7 ✓
269	+38° 115.0	5	14	58.9	+38° 14.4	8.5 ✓
270	+38° 114.4	5	14	11.8	+38° 25.4	8.3 ✓✓
271	+38° 114.2	5	13	57.3	+38° 14.8	8.9 ✓
272	+39° 129.1	5	14	19.0	+39° 11.7	8.8 ✓
273	+39° 129.0	5	14	16.3	+39° 30.0	8.6 ✓
274	+38° 113.1	5	12	11.9	+38° 51.2	9.0 ✓
275	+39° 127.4	5	12	4.8	+39° 21.8	8.7 ✓✓

Cards made out

Nov. 22, 1911 (Cont)

I 37365-

no.	class	det.	Remark
276	Q2	63	
277	g	42	
278	A	42	
279	Q0	63	
280	Ks-	42	
281	Q0	63	
282	A	42	
283	Ks-	42	
284	F8	42	
285	K	42	
286	B1	42	
287	Q0	42	
288	F5	63	
289	Q5	21	
290	K0	63	
291	Q2	42X	
292	A	21	
293	B5	63	
294	F0	42	
295	A	21	
296	Q0	21	
297	B5	21	
298	F	21	
299	B6	21	
300	Q2	105	
301	F0	42	
302	Q	21	
303	g?	21	emitted intensities entered in Porter's Cfg.

276	+39° 1272	5 11 53.5	+39 25.3 7.5 V
277	+39° 1271	5 11 44.3	+39 32.7 8.4 V
278	+39° 1267	5 11 14.7	+39 31.9 8.6 V
279	+39° 1262	5 10 59.3	+39 28.0 8.0 V
280	+39° 1257	5 10 5.4	+39 11.1 7.6 V
281	+39° 1255	5 10 1.3	+39 38.0 7.3 V
282	+39° 1254	5 9 54.5	+39 13.4 9.0 V
283	+39° 1251	5 9 10.4	+39 25.0 8.2 V
284	+38° 1113	5 9 10.8	+38 55.8 8.4 V
285	+38° 1112	5 9 5.4	+38 44.0 8.7 V
286	+38° 1108	5 8 42.2	+38 32.9 8.5 V
287	+38° 1105	5 8 18.2	+38 49.6 8.8 V
288	+39° 1245	5 8 33.2	+39 11.2 8.2 V
289	+39° 1238 ⁴³	5 7 17.8	+39 10.7 9.2 V
290	+39° 1236	5 7 11.3	+39 18.0 7.0 V
291	+38° 1087	5 6 41.3	+38 52.6 8.5 V
292	+38° 1088	5 6 47.4	+38 27.0 9.1 V
293	+37° 1141	5 9 35.8	+37 59.1 8.4 V V
294	+37° 1151	5 11 16.6	+37 58.7 8.5 V
295	+38° 1080	5 5 43.5	+38 11.1 9.0 V
296	+38° 1072	5 4 46.4	+38 4.2 8.9 V
297	+38° 1071	5 4 39.3	+38 3.2 8.6 V V
298	+37° 1094	5 3 52.2	+37 43.6 9.0 V
299	+37° 1093	5 3 38.6	+37 55.4 8.8 V V
300	+38° 1063	5 3 31.3	+38 18.3 8.2 V
301	+38° 1064 ⁵	5 3 46.7	+38 50.2 8.5 V
302	+39° 1218	5 4 18.9	+39 8.0 8.9 V
303	+39° 1218 ⁹	5 4 24.3	+39 11.5 8.0 V

Cards made out

Nov. 22, 1911 (Cont)

T 37365

No.	Class	Int.	Remark
304	Ma	21	
305	Ko	63	
306	f	21	
307	B3	84	
308	B8	84	
309	A	42	
310	Q5	42	
311	B8	42	
312	B5	42	
313	B5	63	
314	f	42	
315	K	42	
316	Qo	63	
317	B8	63	
318	Q2	42	
319	Qo	63	
320	Qo	42	
321	Q	42	
322	K2	42	
323	B9	63	
324	B8	63	
325	B8	63	
326	Jo	63	
327	Qo	42	
328	Q5	63	
329	K5	63	
330	Jo	63	

Corrected intensities entered in Printer's Copy.

John G. Walbank Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

304	+39°	1225	5	5	6.3	+39	57.4	8.8	V
305	+40°	1215	5	4	7.3	+40	3.9	7.6	V
306	+39°	1215	5	3	51.6	+39	47.2	9.1	V
307	+40°	1213	5	3	9.1	+40	0.9	7.6	V
308	+39°	1205	5	2	11.4	+39	55.1	7.1	V
309	+39°	1201	5	1	50.1	+39	45.3	8.4	V
310	+39°	1198	5	1	3.9	+39	5.5	8.2	V
311	+38°	1040	4	59	32.9	+38	49.4	8.5	V
312	+39°	1192	4	59	41.5	+39	23.8	8.1	V
313	+39°	1191	4	58	54.3	+39	17.6	8.0	V
314	+38	1024 1025	4	57	29.7 31.0	+38	37.9 32.1	9.0	V
315	+39°	1180	4	58	17.5	+39	31.9	8.0	V
316	+39°	1183	4	58	27.3	+39	40.3	8.0	V
317	+39°	1176	4	57	51.3	+39	39.3	8.0	V
318	+39°	1174	4	57	32.3	+39	57.4	9.0	V
319	+39°	1169	4	56	24.3	+39	50.0	7.8	V
320	+39°	1167	4	55	59.8	+39	22.8	8.6	V
321	+39°	1163	4	55	9.3	+39	4.3	8.5	V
322	+39°	1159	4	54	40.8	+39	36.4	8.2	V
323	+39°	1157	4	54	35.6	+39	45.8	8.3	V
324	+39°	1152	4	53	26.2	+39	51.8	8.5	V
325	+40°	1154	4	53	48.3	+40	28.4	8.0	V
326	+40°	1150	4	53	3.1	+40	20.2	7.8	V
327	+40°	1141	4	52	16.2	+40	8.0	8.8	V
328	+39°	1138	4	51	22.0	+39	44.8	7.5	V
329	+40°	1128	4	50	39.3	+40	0.9	7.4	V
330	+40°	1125	4	50	17.0	+40	7.0	7.9	V

Cards made out

Nov. 22, 1911 (Cont)

I 37:65-

No.	Class	Int	Remark
331	K ⁵	388	
332	F ⁵	84	
333	B ⁸	63	
334	K ⁵	84	
335	A ₁	63	Focus poor
336	A ₁	42	"
337	A ₂	63	"
338	A ₂	105	
339	A ₁	63	
340	A ₂	105	
341	A ₃	42	
342	A ₁	42	
343	K ⁵	63	
344	B ⁵	105	
345	A ₂	21	
346	K ⁵	63	
347	A ₁	42	
348	B ₃	63	
349	A ₁	63	
350	A ₂	42	
351	B ₃	63	
352	F ⁵	63	
353	F ⁵	42	
354	F ⁵	42	
355	B ₆	105+	
356	A ₁	84	
357	Comp.	105	Rev = K F = A

Corrected intensities entered in Printer's Copy. encl. 132, 130

331	+39° 113.4	4 50 23.5	+39 26.0 6.8 ✓
332	+39° 113.3	4 50 20.4	+39 10.4 6.4 ✓
333	+39° 110.9	4 46 29.5	+39 56.1 8.0 ✓
334	+41° 120.6	5 20 34.4	+41 20.2 6.7 ✓
335	+41° 120.5	5 19 59.6	+41 10.0 7.6 ✓
336	+40° 129.6 129.7	5 17 55.7 58.0	+40 13.8 8.5 ✓ 12.8 8.5 ✓
337	+40° 129.1	5 17 26.6	+40 31.1 7.7 ✓
338	+40° 126.8	5 12 38.9	+40 52.7 6.0 ✓
339	+40° 125.5	5 10 44.7	+40 43.7 7.8 ✓
340	+40° 125.3	5 10 3.8	+40 56.0 5.8 ✓
341	+41° 115.2	5 9 30.6	+41 3.2 8.1 ✓
342	+40° 124.7	5 9 20.6	+40 53.1 8.5 ✓
343	+40 124.0	5 8 45.7	+40 56.2 7.3 ✓
344	+39° 124.8	5 5 56.3	+38 58.8 4.9 ✓
345	+40° 124.4	5 8 44.6	+40 15.0 8.7 ✓
346	+40° 124.0	5 8 32.7	+40 18.0 6.7 ✓
347	+40° 123.1	5 7 10.6	+40 37.9 8.9 ✓
348	+41° 110.6	5 2 3.5	+41 2.2 8.0 ✓
349	+41° 110.2	5 1 44.1	+41 19.3 8.0 ✓
350	+41° 111.7	5 3 30.0	+41 27.4 8.2 ✓
351	+40° 119.6	5 0 38.7	+40 48.7 8.1 ✓
352	+40° 119.4	5 0 27.0	+40 38.8 7.8 ✓
353	+40° 117.1	4 56 24.7	+40 24.9 8.0 ✓
354	+40° 116.4	4 55 14.3	+40 21.2 8.7 ✓
355	+41° 105.8	4 56 21.2	+41 2.4 3.4 ✓
356	+41° 104.4	4 53 8.5	+41 13.8 6.5 ✓
357	+40° 114.2	4 52 22.0	+40 51.9 8.6 ✓

Cards made out

Index by J. C. M. checked by A. D. H. 11-29-11

Intensities on scale
 0.10 from limit
 end of scale

December 5, 1911

June 2, 46

I 37386

No.	Class	Int.	Remark
1	F	4	near edge
2	Q2	5	
3	K	2	
4	K ₀	6	
5	F ₅	7	
6	K	2	
7	K	3	
8	K	3	
9	K	3	
10	F ₅	3	
11	Q ₀	4	
12	F ₅	3	
13	K ₀	7	
14	F ₅	3	
15	K ₂	3	
16	Q	2	
17	F ₈	5	
18	K ₅	2	
19	Q	2	
20	Q ₂	4	on edge
21	Q	6	"
22	K ₂	2	
23	Q	2	near edge
24	B ₈	3	"
25	F ₅	4	
26	Ma	2	
27	F ₅	4	

2. 2. 2.

1	+32° 49.0	2	33 57.6	+32	17.3 7.4 ✓
2	+31° 46.3	2	31 45.7	+31	40.7 7.3 ✓
3	+32° 48.4	2	31 7.9	+32	11.2 7.1 ✓
4	+30° 41.8	2	28 5.6	+30	58.2 6.1 ✓
5	+32° 47.3	2	28 24.9	+32	15.3 6.5 ✓
6	+32° 47.1	2	27 18.2	+32	25.8 8.4 ✓
7	+32° 46.8	2	26 34.9	+32	12.6 7.8 ✓
8	+31° 45.2	2	25 27.1	+31	48.7 7.5 ✓
9	+30° 41.1	2	25 23.2	+30	46.0 7.6 ✓
10	+30° 41.0	2	25 18.6	+30	57.8 7.5 ✓
11	+31° 44.4	2	23 40.1	+31	27.5 7.5 ✓
12	+30° 40.4	2	23 0.2	+30	51.9 8.2 ✓
13	+31° 42.7	2	18 53.7	+31	8.5 5.7 ✓
14	+30° 39.6	2	18 27.3	+30	37.8 8.0 ✓
15	+31° 41.8	2	16 52.9	+31	45.1 7.8 ✓
16	+32° 43.2	2	14 51.2	+32	1.9 8.0 ✓
17	+30° 37.2	2	11 21.5	+30	40.8 7.3 ✓
18	+31° 40.3	2	11 30.7	+31	38.9 8.0 ✓
19	+31° 40.1	2	11 9.4	+31	26.8 7.3 ✓
20	+30° 36.0	2	7 53.8	+30	22.2 7.4 ✓
21	+30° 34.7	2	2 59.1	+30	50.3 6.5 ✓
22	+31° 37.0	2	1 12.4	+31	38.6 7.7 ✓
23	+33° 49.3	2	33 48.4	+33	8.7 8.2 ✓
24	+33° 49.4	2	34 32.5	+33	32.6 8.1 ✓
25	+33° 49.1	2	33 29.3	+33	40.8 7.1 ✓
26	+33° 49.0	2	32 42.8	+33	53.6 8.4 ✓
27	+33° 48.5	2	31 29.1	+33	57.7 8.0 ✓

cards made out.

Dec, 5, 1911 (Cont)

I 37.386

No.	Class	Det.	Remark
28	E	4	Partly superposed on 29
29	F ₂	3	" " m 28
30	K	3	
31	F ₀	3	
32	K ₀	4	
33	F ₅	4	
34	md	4	p.d. δ γ $H\delta=10, H\gamma=7, S=2, \eta=1$
35	Q ₂	2	
36	Q ₅	7	
37	mb	6	
38	Q ₂	2	
39	F ₀	4	
40	F ₀	5	
41	F ₅	3	
42	K ₀	5	
43	F ₀	3	
44	F ₀	2	
45	Q ₅	2	
46	K	2	
47	Q ₅	4	
48	K ₀	3	
48a	K ₀	3	
49	mb	4	
50a	Q ₀	3	
51	Q ₀	4	
52	K ₀	3	
53	B ₉	4	
54	Q ₀	2	
55	Q ₅	3	

28	+33°	481	2	31	4.8	+33	19.8	7.5	✓
29	+33°	482	2	31	6.2	+33	26.2	8.0	✓
30	+32°	483	2	31	3.9	+32	51.6	7.8	✓
31	+32°	481	2	30	48.9	+32	53.0	8.2	✓
32	+32°	478	2	30	2.0	+32	47.2	6.9	✓
33	+33°	476	2	29	46.9	+33	44.2	8.0	✓
34	+33°	470	2	28	15.9	+33	37.8	var	✓
35	+34°	472	2	27	26.9	+34	6.3	9.0	✓
36	+34°	471	2	27	4.1	+34	5.0	7.3	✓
37	+34°	469	2	27	0.2	+34	3.0	5.6	✓
38	+34°	467	2	26	44.2	+34	6.9	9.1	✓
39	+33°	465	2	26	18.1	+33	32.2	8.1	✓
40	+33°	463	2	25	59.2	+33	26.7	7.6	✓
41	+33°	462	2	25	49.2	+33	15.9	8.2	✓
42	+33°	461	2	25	31.4	+33	8.1	6.8	✓
43	+32°	459	2	23	9.0	+32	54.5	8.2	✓
44	+32°	457	2	22	48.9	+32	46.6	8.4	✓
45	+32°	454	2	21	49.4	+32	38.6	8.3	✓
46	+32°	453	2	21	34.9	+32	51.1	8.0	✓
47	+32°	452	2	21	27.4	+32	44.9	8.0	✓
48	+33°	436	2	19	32.1	+33	32.5	7.2	✓
48a	+33°	445	2	21	35.7	+33	11.3	6.5	✓
49	+33°	433	2	18	21.4	+33	16.5	7.7	✓
50	+33°	425	2	16	31.1	+33	12.9	7.2	✓
50a	+32°	441	2	18	30.9	+32	14.3	8.3	✓
51	+32°	433	2	15	16.9	+32	50.7	8.0	✓
52	+33°	422	2	15	14.3	+33	12.0	7.5	✓
53	+33°	417	2	14	8.1	+33	2.4	7.8	✓
54	+32°	419	2	11	2.0	+32	33.8	8.9	✓
55	+32°	417	2	10	43.9	+32	55.7	8.1	✓

Lands made by

Dec. 5, 1911 (Cont.)

I 37386

No.	Class	Int.	Remarks
56	G5	3	
57	F8	4	
58	A	10	Burned out
59	B0	8	"
60	A0	8	
61	A3	3	
62	F0	3	
63	A2	4	
64	A	2	Near edge
65	G5	3	
66	A	3	
67	F2	5	
68	A2	5	
69	B5	7	
70	F5	4	
71	F2	4	
72	B5	3	
73	K0	7	
74	A3	3	
75	A0	2	
76	F0	6	
77	B5	5	
78	B5	3	
79	F5	2	
80	B5	5	
81	F5	2	
82	B5	2	
83	B	2 1/2	

56	+33° 406	2	10	40.1	+33	22.1	8.0	1
57	+33° 405	2	10	0.3	+33	49.7	7.8	✓
58	+33° 397	2	8	43.4	+33	11.1	4.1	✓
59	+33° 395	2	8	14.4	+33	34.6	5.0	✓
60	+32° 409	2	7	22.5	+32	42.4	5.2	✓
61	+33° 385	2	5	46.6	+33	46.3	8.2	✓
62	+32° 401	2	4	56.8	+32	55.7	8.4	✓
63	+32° 390	2	1	45.4	+32	39.6	7.0	✓
64	+34° 487	2	31	3.4	+34	48.0	8.6	✓
65	+34° 476	2	29	1.7	+34	31.9	7.5	✓
66	+34° 473	2	27	30.7	+34	32.7	8.1	✓
67	+34° 462	2	25	30.5	+34	30.3	7.0	✓
68	+33° 458	2	24	58.0	+33	42.7	7.5	✓
69	+33° 454	2	24	8.5	+33	54.2	6.4	✓
70	+34° 454	2	23	21.4	+34	2.1	7.8	✓
71	+34° 448	2	22	22.8	+34	16.8	8.0	✓
72	+35° 498	2	23	25.6	+35	5.0	8.0	✓
73	+35° 497	2	23	16.3	+35	31.1	5.6	✓
74	+35° 490	2	21	52.4	+35	28.0	7.5	✓
75	+34° 442	2	19	45.0	+34	39.2	8.3	✓
76	+34° 437	2	18	3.1	+34	57.0	6.9	✓
77	+34° 432	2	16	43.7	+34	22.0	7.2	✓
78	+33° 429	2	17	26.5	+33	48.8	7.8	✓
79	+34° 435	2	17	26.6	+34	11.8	8.6	✓
80	+34° 425	2	14	46.1	+34	47.0	7.0	✓
81	+35° 470	2	16	37.9	+35	18.7	8.3	✓
82	+35° 465	2	14	48.1	+35	10.2	8.4	✓
83	+30° 541	2	33	54.8	+36	34.4	7.8	✓
83	+34° 407	2	9	31.9	+34	38.9	8.5	✓

Wide mark

out

Dec 5, 1911 (Cont)

T 37 386

No.	Class	Int.	Remark
84	Q5	3	
85	Q	2	
86	Q	3	
87	Q	10	Scarfing from trail
88	Q5	2	
89	Q	3	
90	Q5	3	
91	K	2	
92	Q3	4	
93	Q5	3	
94	Q	2	
95	ma?	2	near edge
96	Q5	4	
97	K	6	
98	Q	5	
99	Q	4	
100	Q5	6	
101	Q	2	
102	Q	1	
103	mb	3	
104	K5	2	
105	ma	3	
106	F	2	
107	B9	6	
108	Q5	4	metallic lines well seen for this class.
109	Q	2	
110	F8	3	
111	Q5	3	

84	+35°	44.3	2	8	22.5	+35	15.3	7.5 ✓
85	+35°	44.0	2	8	2.8	+35	1.5	8.6 ✓
86	+34°	40.4	2	7	51.9	+34	46.7	8.2 ✓
87	+34°	38.1	2	0	57.2	+34	18.0	3.0 ✓
88	+34°	37.9	2	0	24.7	+34	59.5	8.3 ✓
89	+34°	37.6	1	59	17.5	+34	51.4	7.3 ✓
90	+34°	36.3	1	55	13.5	+34	54.2	7.8 ✓
91	+35°	39.6	1	54	35.1	+35	25.0	8.0 ✓
92	+36°	54.1	2	33	54.8	+36	34.4	7.8 ✓
93	+35°	52.3	2	29	45.8	+35	40.5	7.9 ✓
94	+35°	52.1	2	29	38.3	+35	44.2	8.6 ✓
95	+35°	53.1	2	31	39.1	+35	23.8	8.1 ✓
96	+36°	52.1	2	27	1.1	+36	26.9	7.0 ✓
97	+36°	51.9	2	26	43.4	+36	41.1	6.0 ✓
98	+36°	51.2	2	24	1.0	+36	41.4	7.2 ✓
99	+36°	50.6	2	22	34.6	+36	49.2	7.5 ✓
100	+36°	49.9	2	20	15.6	+36	41.7	6.5 ✓
101	+36°	49.8	2	19	56.8	+36	23.6	8.5 ✓
102	+36°	49.5	2	19	36.5	+36	17.7	8.3 ✓
103	+36°	49.1	2	18	25.6	+36	18.2	7.7 ✓
104	+36°	49.0	2	18	0.2	+36	18.1	8.1 ✓
105	+36°	48.2	2	17	0.6	+36	20.8	7.5 ✓
106	+36°	48.1	2	16	40.3	+36	7.7	8.5 ✓
107	+36°	47.8	2	16	26.3	+36	27.5	7.2 ✓
108	+36°	48.9	2	17	59.5	+36	53.4	7.8 ✓
109	+36°	47.3	2	14	52.9	+36	27.8	8.5 ✓
110	+36°	47.0	2	14	29.3	+36	53.7	8.4 ✓
111	+37°	53.8	2	13	33.4	+37	2.1	7.9 ✓

Circles made out

December 5, 1911 (cont)

T 37386

No.	Class	Int.	Remarks
112	Q3	3	
113	F0	4	
114	K2	2	
115	F8	2	
116	Q5	4	
117	F8	2	
118	Q2	3	
119	Q0	3	
120	B8	5	
121	Q0	4	
122	A	3	
123	F5	3	
124	Q2	2	
125	Cont.	2	Chatter?
126	F5	6	
127	Q0	7	
128	A	4	Pro focus
129	Q2	4	
130	F5?	7	
131	K0	4	
132	K0	3	
133	Q2	2	
134	Q3	5	
135	Q2	4	
136	K0	4	
137	F0	5	
138	F0	4	
139	Q0	6	

112	+36°	465	2	12	25.4	+36	44.5	8.0	✓
113	+36°	464	2	12	14.0	+36	23.9	7.2	✓
114	+36°	458	2	9	51.1	+36	24.0	7.5	✓
115	+36°	453	2	8	25.4	+36	49.1	8.2	✓
116	+36°	446	2	7	11.2	+36	57	7.8	✓
117	+36°	440	2	5	10.6	+36	56.5	8.6	✓
118	+36°	435	2	4	8.5	+36	41.1	8.4	✓
		434	2	3	56.1	+36	58.5	8.8	✓
119	+36°	433	2	3	33.6	+36	41.8	8.2	✓
120	+36°	427	2	2	44.3	+36	41.0	7.8	✓
121	+36°	420	2	0	56.1	+36	25.6	7.7	✓
122	+36°	428	2	3	12.1	+36	17.0	8.5	✓
123	+36°	400	1	56	41.9	+36	0.8	8.3	✓
124	+37°	478	1	57	7.6	+37	17.7	8.8	✓
125	+36°	410	1	58	11.7	+36	55.8	8.8	✓
126	+37°	588	2	29	20.7	+37	6.9	6.5	✓
127	+37°	591	2	29	28.1	+37	28.5	6.5	✓
128	+38°	527	2	29	48.9	+38	31.0	7.8	✓
129	+38°	523	2	28	53.9	+38	19.0	7.8	✓
130	+38°	515	2	27	54.6	+38	6.0	6.2	✓
131	+38°	506	2	25	9.2	+38	57	7.0	✓
132	+37°	572	2	22	53.1	+37	28.6	7.0	✓
133	+37°	565	2	21	23.1	+37	29.9	8.5	✓
134	+37°	560	2	20	22.1	+37	35.1	7.2	✓
135	+38°	493	2	21	15.3	+38	18.2	7.5	✓
136	+38°	491	2	20	58.2	+38	29.5	7.0	✓
137	+38°	484	2	19	13.9	+38	11.1	7.2	✓
138	+37°	555	2	17	31.6	+37	35.7	8.0	✓
139	+37°	544	2	14	26.6	+37	36.0	7.0	✓

Cards made out

December 5, 1911 (Cont.)
T 37386

No.	Class	Int	Remark
140	A	1	
141	A3	4	
142	K0	3	
143	A	2	
144	K0	4	
145	A0	9	
146	A3	9	Burned out.

June 3, 20 - 147

Several victims - The northern part of this plate can
be used if we have nothing better

Feb. 24, 1916	147	2	As
	148	1	F0
	149	1	G5
	150	4	As
	151	4	G5
	152	2	K0

encl in 131, 8

Cards made out

140	+37°	537	2	13	33.1	+37	48.4	9.0
141	+37°	536	2	12	54.1	+37	50.8	7.3v
142	+37°	533	2	11	49.2	+37	42.1	7.5v
143	+37°	516	2	8	30.7	+37	9.6	8.8v
144	+38°	442	2	6	31.6	+38	28.3	8.0v
145	+38°	425	2	2	7.5	+38	20.7	6.1v
146	+37°	486	1	59	45.2	+37	10.8	5.0v

Ident. by J. C. M. Dec. 16, '11.
checked by A. M. C.

✓	147	+38°	478	2	16.8	+38	37	9.0	47 m 137577)
✓	148	+39°	533	2	13.7	+39	10 9.7	8.7	51 " "
✓	149	+38°	465	2	12.8	+38	43	8.7	52 " "
✓	150	+39°	526	2	11.7	+39	49	8.5	82 " "
✓	151	+37°	512	2	6.7	+37	43	8.7	58 " "
✓	152	+39°	495	2	3.8	+39	34	8.0	90 " "

Dec. 7, 1911

Time 1:17

I 37383

No.	Class	Int.	Remarks
1	F ₅	7	
2	M ₅	6	
3	F ₀	5	
4	F ₂	7	
5	Q ₀	10	
6	F ₀	2	
7	Q ₅	1	Partly superposed on 5
8	Q ₃	5	
9	Q ₅	3	
10	Q ₅	2	
11	F ₈	3	
12	F ₀	3	
13	K ₀	5	
14	K ₀	5	
15	K	1	
16	F	2	
17	K	2	
18	F	2	
19	K ₅	2	
20	F ₈	6	
21	Q ₅	3	
22	K ₀	6	
23	K ₅	1	
24	Q ₅	3	
25	Q ₀	6	
26	Q ₃	4	
27	Q ₀	1.5	

Second image of

Trail of

1	+17° 458	2	48.2	+17	26.4	6.5	✓✓
3	+17° 457	2	47.7	+17	44.4	6.0	✓✓
3	+19° 440	2	50.9	+19	23.1	8.0	✓✓
4	+20° 480	2	49.8	+20	4.0	6.0	✓✓
5	+20° 484	2	50.9	+20	46.1	4.2	✓✓
6	+20° 485	2	51.3	+20	56.8	8.7	✓✓
7	Position on chart						✓
8	+21° 397	2	50.6	+21	1.5	7.0	✓✓
9	+21° 396	2	50.5	+21	26.0	8.0	✓✓
10	+20° 477	2	48.5	+20	50.2	8.8	✓✓
11	+21° 390	2	46.8	+21	0.2	8.5	✓✓
12	+20° 475	2	46.8	+20	12.4	8.6	✓✓
13	+19° 433	2	46.6	+19	46.3	7.0	✓✓
14	+19° 432	2	46.1	+19	58.0	6.8	✓✓
15	+19° 430	2	44.6	+19	31.1	8.8	✓✓
16	+18° 376	2	47.7	+18	33.0	8.8	✓✓
17	+18° 383	2	50.7	+18	59.9	8.5	✓✓
18	+18° 366	2	44.2	+18	7.1	8.9	✓✓
19	+18° 365	2	43.5	+18	41.9	8.5	✓✓
20	+18° 359	2	42.5	+18	33.2	7.2	✓✓
21	+18° 355	2	41.1	+18	7.3	8.1	✓✓
22	+17° 442	2	40.4	+17	41.4	6.0	✓✓
23	+17° 438	2	39.5	+17	56.2	8.8	✓✓
24	+18° 344	2	38.2	+18	12.6	8.3	✓✓
25	+18° 347	2	39.3	+18	46.7	6.8	✓✓
26	+19° 424	2	40.2	+19	24.5	8.3	✓✓
27	+20° 458	2	37.6	+20	4.0	7.5	✓✓

made by

Dec. 7, 1911 (Cont)

T 37383

No.	Class	Int.	Remark
28	K	2	
29	Qo	5	Lines 4128-31+40.77 well marked.
30	Qo	3	
31	Qo	10	Burned out
32	Qo	2	
33	K2	2	
34	Q	5	Near edge
35	Fo	2	
36	F	2	
37	Q5	2	
38	K2	3	
39	Q2	3	
40	Fo	3	
41	Q5	4	
42	Q5	3	
43	K	2	
44	G	2	
45	F5	2	
46	K	2	
47	Q3	5	Near edge
48	F	7	"
49	Q5	2	
50	Q5	4	Near edge
51	Ko	4	Near edge
52	F5	3	A faint sp. superposed?
53	Q	3	
54	F5	3	
55	Q5	2	

28	+19°	409	2	36.3	+19	57.1	8.8	✓✓	
29	+20°	452	2	35.5	+20	31.5	7.2	✓✓	
30	+19°	405	2	34.8	+19	36.1	8.0	✓✓	
31	+19°	403	2	34.2	+19	22.9	5.8	✓✓	
32	+19°	415	2	37.6	+19	9.6	8.8	✓✓	
33	+18°	339	2	35.1	+18	48.0	8.5	✓✓	
34	+18°	337	2	33.0	+18	11.1	7.0	✓✓	
35	+17°	414	2	32.5	+17	58.4	7.8	✓✓	
36	+19°	399	2	32.6	+19	22.5	8.8	✓✓	
37	+19°	398	2	32.5	+19	33.4	8.6	✓✓	very sat. many stars
38	+19°	394	2	30.5	+19	6.1	7.5	✓✓	
39	+19°	392	2	30.2	+19	37.7	8.5	✓✓	
40	+19°	391	2	29.8	+19	25.6	8.5	✓✓	
41	+19°	389	2	29.4	+19	56.9	7.6	✓✓	
42	+20°	433	2	28.6	+20	4.0	8.3	✓✓	
43	+19°	374	2	26.3	+19	21.4	8.3	✓✓	
44	+19°	373	2	26.2	+19	42.7	8.7	✓✓	
45	+20°	426	2	26.2	+20	1.5	9.0	✓✓	
46	+19°	371	2	25.3	+19	48.3	8.3	✓✓	
47	+18°	325	2	25.5	+18	15.6	7.0	✓✓	
48	+19°	365	2	22.5	+19	12.7	6.4	✓✓	
49	+19°	363	2	22.4	+19	39.7	8.5	✓✓	
50	+22°	416	2	52.2	+22	15.4	7.0	✓✓	
51	+23°	392	2	50.2	+23	34.0	6.8	✓✓	
52	+23°	379	2	46.1	+23	16.3	8.9	✓✓	23 385 2 4 23 12.22 mag. 8.1 superposed
53	+22°	401	2	43.6	+22	32.6	8.4	✓✓	
54	+21°	380	2	42.3	+21	29.9	8.3	✓✓	
55	+20°	467	2	40.9	+20	39.1	8.9	✓✓	

Dec. 7, 1911 (cont.)

I 37383

No.	Class	Int.	Remark
56	Q5	4	Intense line 1/2 of way from S to X. Look up.
57	F5	2	
58	F	1	
59	Q5	4	
60	Ko	3	
61	Q5	3	
62	Ma	2	
63	Q5	10	Hydrogen lines narrow, other lines burned out.
64	Q	2	
65	F5	3	
66	F2	4	
67	Q5	4	
68	Ko	4	
69	F5	4	
70	Ko	2	
71	F5	4	
72	Ma	2	
73	Qo	4	
74	Fo	6	
75	Fo	5	
76	Ko	4	
77	Q5	4	
78	K	1	
79	F5	5	
80	Ko	4	
81	Q5	2	
82	Fo	2	

56	+20°	462	2	39.2	+20	44.0	8.2	✓✓
57	+21°	372	2	37.4	+21	5.3	8.8	✓✓
58	+20°	456	2	36.9	+20	46.0	9.0	✓✓
59	+20°	455	2	36.6	+20	57.3	7.7	✓✓
60	+21°	366	2	33.2	+21	37.4	8.2	✓✓
61	+20°	444	2	32.5	+20	35.9	7.8	✓✓
62	+20°	443	2	32.3	+20	33.6	7.7	✓✓
63	+21°	362	2	30.6	+21	20.7	5.8	✓✓
64	+21°	361	2	29.9	+21	22.3	5.0	✓✓
65	+21°	353	2	26.4	+21	3.2	8.5	✓✓
66	+20°	418	2	24.2	+20	49.1	8.1	✓✓
67	+20°	416	2	24.1	+20	28.7	7.7	✓✓
68	+20°	414	2	23.6	+20	43.7	7.3	✓✓
69	+20°	409	2	22.6	+20	23.6	7.8	✓✓
70	+20°	405	2	21.2	+20	11.6	8.1	✓✓
71	+20°	404	2	21.1	+20	57.0	7.5	✓✓
72	+21°	344	2	22.5	+21	49.2	8.5	✓✓
73	+21°	346	2	23.2	+21	26.8	8.0	✓✓
74	+21°	348	2	24.0	+21	21.5	7.5	✓✓
75	+21°	349	2	24.2	+21	39.9	8.0	✓✓
76	+23°	375	2	42.5	+23	8.9	7.8	✓✓
77	+23°	372	2	42.1	+23	4.1	8.2	✓✓
78	+22°	398	2	40.7	+22	52.9	9.0	✓✓
79	+23°	369	2	39.2	+23	2.2	6.8	✓✓
80	+22°	392	2	39.0	+22	21.2	6.5	✓✓
81	+21°	374	2	38.8	+21	58.4	8.0	✓✓
82	+21°	377	2	40.0	+21	35.8	8.8	✓✓

Candor

made

up

Dec. 7, 1911 (Cont)

T 37383

No.	Class	Dist.	Remark
83	H	2	
84	Fo	2	
85	Fo	2	
86	Q5	3	
87	Fo	3	
88	Fo	4	
89	Q5	4	
90	Qo	3	
91	B	2	
92	K5	2	
93	B5	2	
94	F	2	
95	Q5	4	
96	Q2	3	
97	K	2	Focus very good
98	H	3	" "
99	Q2	2	
100	Q3	6	
101	F	4	New edge
102	F	3	" "
103	Q	3	" "
104	H	2	
105	Fo	2	
106	B	2	
107	Fo	4	
108	B5	3	no much. perpendicular on 109, but 128733 (phot)
109	Qo	7	Chrom. blue

83	+22°	390	2	36.6	+22	45.6	8.0	✓	
84	+22°	389	2	34.6	+22	14.7	8.5	✓	
85	+22°	383	2	32.0	+22	19.0	9.2	✓	
86	+22°	378	2	30.7	+22	54.9	8.9	✓	
87	+22°	375	2	29.5	+22	30.3	8.3	✓	
88	+22°	372	2	28.4	+22	25.9	7.6	✓	
89	+22°	368	2	26.4	+22	19.4	8.1	✓	
90	+22°	367	2	26.2	+22	51.9	8.2	✓	
91	+22°	364	2	24.8	+22	34.5	9.1	✓	
92	+22°	361	2	24.3	+22	29.1	8.6	✓	
93	+23°	335	2	22.9	+23	4.7	8.8	✓	
94	+22°	356	2	22.1	+22	38.3	9.1	✓	
95	+22°	355 ⁴	2	21.0	+22	49.6	6.0	✓	
96	+23°	330	2	20.6	+23	13.2	8.6	✓	
97	+23°	329	2	20.4	+23	51.4	9.4	✓	
98	+23°	326	2	20.0	+23	59.0	8.6	✓	
99	+23°	323	2	18.7	+23	45.4	8.8	✓	
100	+24°	347	2	17.6	+24	29.9	7.3	✓	
101	+24°	423	2	53.0	+24	34.1	8.2	✓	
102	+24°	419	2	51.7	+24	39.7	8.7	✓	
103	+24°	418	2	50.8	+24	53.1	8.8	✓	
104	+24°	408	2	46.1	+24	2.5	8.8	✓	
105	+23°	378	2	45.4	+23	56.8	9.1	✓	
106	+24°	405	2	43.8	+24	36.6	8.9	✓	
107	+24°	400	2	41.8	+24	44.2	8.1	✓	
108	+24°	395	2	40.4	+24	28.3	8.2	✓	
109	+24°	396	2	40.4	+24	35.7	6.0	✓	

condens made by

calculated from
 128733 (phot)
 128733 (phot)
 128733 (phot)

Dec. 7, 1911 (cont)

I 37383

No.	Class	Set	Remark
110	K	2	
111	Go	2	
112	Ko	4	
113	Jo	3	
114	G	1	
115	Jo	4	
116	Ko	3	
117	G	1	
118	Jo	2	
119	G	2	
120	G	2	
121	Jo	3	
122	Q2	3	
123	Go	2	
124	Qo	2	
125	Jo	6	
126	Jo	3	
127	Jo	3	
128	Ks	1	
129	Qo	3	
130	G	2	
131	Jo	2	
132	Jo	6	
133	G	5	mirage focus poor
134	K2	6	"
135	G	5	"
136	Q	7	"
137	Jo	5	"

110	+24°	394	2	40.1	+24	41.7	8.5	✓	✓
111	+24°	393	2	39.4	+24	4.5	8.9	✓	✓
112	+25°	449	2	37.8	+25	3.3	8.0	✓	✓
113	+24°	391	2	37.4	+24	16.8	8.9	✓	✓
114	+23°	368	2	37.1	+23	51.3	9.0	✓	✓
115	+23°	366	2	36.4	+23	34.4	7.6	✓	✓
116	+23°	362	2	35.3	+23	27.4	7.3	✓	✓
117	+24°	382	2	32.8	+24	5.9	8.1	✓	✓
118	+23°	354	2	32.8	+23	57.6	8.9	✓	✓
119	+23°	353	2	32.6	+23	44.1	9.0	✓	✓
120	+23°	352	2	31.9	+23	40.0	9.2	✓	✓
121	+23°	350	2	31.2	+23	50.2	8.8	✓	✓
122	+23°	349	2	30.9	+23	41.6	8.6	✓	✓
123	+23°	347	2	30.7	+23	25.8	9.3	✓	✓
124	+23°	346	2	28.9	+23	35.0	9.2	✓	✓
125	+24°	346	2	28.7	+24	1.1	7.0	✓	✓
126	+24°	345	2	28.6	+24	1.3	7.5	✓	✓
127	+24°	369	2	26.3	+24	15.1	8.2	✓	✓
128	+24°	368	2	26.2	+24	24.1	8.5	✓	✓
129	+23	339	2	25.4	+23	50.6	8.7	✓	✓
130	+24°	366	2	25.4	+24	37.6	9.1	✓	✓
131	+24°	364	2	24.2	+24	50.4	8.9	✓	✓
132	+24°	358	2	22.2	+24	34.9	6.2	✓	✓
133	+25°	398	2	18.6	+25	23.6	7.5	✓	✓
134	+26°	409	2	18.7	+26	21.4	6.5	✓	✓
135	+26°	503	2	53.8	+26	2.9	7.2	✓	✓
136	+25°	477	2	53.4	+25	54.0	5.8	✓	✓
137	+26°	495	2	51.3	+26	43.7	8.6	✓	✓

Dec 7, 1911 (Cont)

T 37883

No.	Class	Int.	Remarks
138	K	3	Near edge
139	Q ₅	3	
140	Q ₅	4	
141	Q ₅	2	
142	F ₀	4	
143	F ₀	2	
144	Q ₅	3	
145	Q ₀	4	
146	B ₈	3	
147	B ₈	10	classified from trail
148	Q	2	
149	K ₀	4	
150	K ₀	3	
151	F ₀	2	
152	F ₅	2	
153	Q ₂₀	3	
154	B ₃	10	lines burned out.
155	Q ₀	3	
156	F ₀	3	
159	Q ₂₀	7	
158	F ₅	2	
159	Q ₀	3	
160	Q	4	
161	F ₅	5	
162	Q ₂₀	8	
163	F ₀	3	
164	M ₆	2	
165	K	2	

138	+26°	493	2	50.3	+26	11.1	8.3	✓	✓
139	+25°	465	2	47.6	+25	30.2	8.2	✓	✓
140	+26°	484	2	47.1	+26	16.9	7.7	✓	✓
141	+26°	482	2	46.8	+26	21.4	8.0	✓	✓
142	+26°	480	2	45.5	+26	10.0	7.3	✓	✓
143	+25°	456	2	44.7	+25	19.0	8.8	✓	✓
144	+26°	476	2	43.6	+26	29.6	8.5	✓	✓
145	+26°	475	2	43.3	+26	41.0	8.0	✓	✓
146	+26°	474	2	43.2	+26	1.1	8.3	✓	✓
147	+26°	471	2	41.5	+26	40.3	3.7	✓	✓
148	+26°	468	2	41.2	+26	8.0	9.0	✓	✓
149	+26°	465	2	39.6	+26	28.3	8.1	✓	✓
150	+26°	462	2	38.8	+26	8.3	9.5	✓	✓
151	+26°	458	2	37.9	+26	26.2	8.5	✓	✓
152	+26°	454	2	37.0 35.6	+26	26.0	8.7	✓	✓
153	+27°	428	2	36.0	+27	23.2	7.8	✓	✓
154	+27°	424	2	35.0	+27	5.9	5.0	✓	✓
155	+26°	451	2	34.6	+26	22.2	7.6	✓	✓
156	+25°	438	2	34.0	+25	53.2	8.7	✓	✓
157	+25°	441	2	35.4	+25	1.8	6.7	✓	✓
158	+25°	437	2	33.6	+25	14.1	8.5	✓	✓
159	+24°	381	2	32.8	+24	59.3	8.3	✓	✓
160	+26°	447	2	33.2	+26	19.3	8.0	✓	✓
161	+25°	436	2	32.3	+25	59.9	8.0	✓	✓
162	+26°	443	2	32.2	+26	26.2	5.5	✓	✓
163	+25°	433	2	31.0	+25	14.7	8.7	✓	✓
164	+26°	438	2	30.0	+26	53.7	8.0	✓	✓
165	+26°	437	2	28.8	+26	28.9	8.7	✓	✓

card

made

Dec. 7, 1911 (Cont)

I 37383

No		
166	45	3
167	45	2
168	43	2
169	42	5

Time 2:00 to

171

172

166	+26°	433	2	27.8	+26	49.3	8.0	✓
167	+26°	432	2	27.7	+26	33.1	7.8	✓
168	+26°	425	2	25.3	+26	43.9	8.4	✓
169	+26°	424	2	23.1	+26	55.1	7.3	✓

Ident. by J. C. M. Dec. 23 '11.

Checked by F. D. M.

Candor made up

Dec 7, 1911

Time 2:02

I 37308

No.	class	Dist.	Remark
1	F5-	6	New edge
2	A	5	"
3	F5-	3	
4	G	4	
5	A	10	Burned out
6	B8	2	
7	A	2	
8	F8	4	
9	K	2	
10	K5-	3	
11	A0	2	
12	A2	6	
13	A2	10	
14	M2	2	
15	F0	4	
16	A	10	Burned out
17	K	2	
18	F8	5	
19	A	1	
20	A0	2	
21	A	2	
22	A0	2	
23	A	2	
24	A	2	
25	F5-	5	
26	B5-	3	
27	A	5	New edge

\pm				
1	+69° 10.2	i	20.5	+69 31.3 6.1v
2	+69° 10.3	i	21.9	+69 17.0 7.0v
3	+69° 10.7	i	25.4	+69 31.3 8.2v
4	+69° 11.3	i	31.6	+69 26.1 8.3v
5	+69° 11.4	i	31.8	+69 52.2 5.2v
6	+70° 12.4	i	33.0	+70 10.5 8.6v
7	+70° 12.7	i	33.8	+70 18.9 8.5v
8	+70° 13.7	i	40.8	+70 11.5 7.2v
9	+69° 12.2	i	43.9	+69 46.1 8.0v
10	+69° 12.3	i	45.0	+69 29.9 8.0v
11	+70° 14.6	i	46.2	+70 7.8 8.8v
12	+71° 11.1	i	45.3	+71 0.2 7.4v
13	+70° 15.3	i	50.1	+70 10.7 4.6v
14	+70° 15.5	i	50.7	+70 35.6 7.5v
15	+70° 15.7	i	52.3	+70 30.2 7.3v
16	+71° 11.7	i	51.2	+71 41.8 4.0v
17	+71° 11.9	i	55.8	+71 8.4 8.0v
18	+70° 16.3	i	56.7	+70 51.6 7.2v
19	+70° 16.1	i	54.5	+70 28.7 8.9v
20	+70° 16.0	i	54.2	+70 9.4 8.8v
21	+69° 13.2	i	55.0	+69 53.3 8.9v
22	+69° 13.4	i	55.6	+69 57.8 8.8v
23	+69° 13.8	i	56.9	+69 49.7 8.9v
24	+69° 13.9	2	4.2	+69 48.8 8.5v
25	+69° 14.4	2	10.6	+69 38.9 8.0v
26	+69° 14.5	2	11.1	+69 14.5 8.6v
27	+71° 14.0	2	14.8	+71 28.5 7.7v

Cards made out

Dec. 7, 1911 (Cont)

I 37308

No.	Class	Int.	Remark
28	K	2	
29	Ko	7	
30	A	2	
31	Ko	5	
32	A	2	Another star superposed?
33	B3	5	H β not seen distinctly.
34	Fo	4	
35	K	2	
36	Fo	3	
37	Ko	3	
38	A	3	
39	Ko	4	A faint star of class A superposed
40	Qo	2	
41	Q2	2	
42	Fo	3	
43	B5	3	
44	F2	2	
45	A	3	Near edge
46	A	2	"
47	A	2	"
48	B5	3	"
49	Qo	3	
50	Fo	3	
51	A	4	Near edge. Focus poor
52	B	5	"
53	A	1	
54	F5	3	
55	B5	3	

28	+71° 146	2	17.4	+71	33.9	8.5V
29	+72° 140	2	24.4	+72	9.8	8.0V
30	+70° 181	2	19.4	+70	57.9	8.4V
31	+70° 183	2	20.9	+70	39.2	6.5V
32	+70° 186	2	21.5	+70	52.5	8.5V
33	+70° 182	2	20.5	+70	17.8	8.0V
34	+70° 189	2	22.2	+70	0.5	8.2V
35	+70° 190	2	22.7	+70	17.3	8.0V
36	+70° 194	2	26.3	+70	15.5	8.3V
37	+70° 197	2	26.6	+70	35.7	8.0V
38	+70° 195	2	26.4	+70	19.8	8.6V
39	+70° 198	2	28.5	+70	68.9	7.0V
40	+70° 199	2	29.1	+70	57.4	8.0V
41	+71° 163	2	32.6	+71	21.0	8.4V
42	+71° 165	2	33.5	+71	6.3	8.0V
43	+71° 167	2	34.7	+71	46.4	7.5V
44	+71° 171	2	36.0	+71	9.2	7.7V
45	+71° 179	2	44.0	+71	33.5	7.9V
46	+71° 180	2	48.2	+71	26.1	8.3V
47	+70° 225	2	52.6	+70	56.9	8.3V
48	+70° 220	2	52.0	+70	26.6	8.2V
49	+70° 219	2	50.0	+70	4.7	8.1V
50	+69° 196	2	53.9	+69	39.7	7.8V
51	+69° 199	2	55.8	+69	12.6	8.0V
52	+68° 113	1	24.2	+68	11.2	6.2V
53	+68° 121	1	29.6	+68	8.3	9.0V
54	+68° 122	1	31.3	+68	20.0	8.0V
55	+68° 126	1	34.1	+68	45.7	7.3V

Code made out

Dec. 7, 1911 (cont.)

T 37308

No. Class Set Remark

56	Qo	2	
57	Q5	4	
58	Qo	3	
59	Qo	5	
60	B8i	8	Burned out.
61	Q2	2	
62	Ma	3	
63	Jo	2	
64	Q2	3	
65	K2	3	
66	Jo	2	
67	Jo	18	
68	Q5	5	
69	Qo p	5	line 4128-31 strong like 59 Cudane
70	Q2	5	
71	Qo	3	
72	Jo	2	
73	Jo	3	Another star, purposed
74	Q5	2	
75	Jo	2	
76	Qo	5	
77	Jo	4	
78	Jo	2	
79	Ko	5	
80	K5	4	
81	Jo	3	
82	Qo	2	

56	+67° 15.5	1	36.4	+67	51.7	8.8V
57	+67° 16.4	1	40.6	+67	38.3	8.0V
58	+67° 16.5	1	42.1	+67	28.0	8.5V
59	+67° 16.8	1	43.5	+67	26.0	7.4V
60	+67° 16.9	1	44.8	+67	58.0	5.2V
61	+67° 17.0	1	44.9	+67	39.3	9.0V
62	+68° 13.4	1	43.1	+68	27.6	8.0V
63	+68° 13.7	1	46.8	+68	43.8	9.0V
64	+68° 14.0	1	47.8	+68	56.5	9.0V
65	+67° 17.3	1	47.0	+67	49.6	8.5V
66	+67° 17.6	1	48.4	+67	31.1	9.2V
67	+67° 17.4	1	47.2	+67	34.5	9.2V
68	+68° 14.5	1	52.2	+68	14.6	8.1V
69	+68° 14.4	1	51.9	+68	52.6	8.0V
70	+67° 18.1	1	53.9	+67	54.5	8.4V
71	+67° 18.5	1	57.9	+67	35.0	9.0V
72	+69° 13.3	1	58.2	+69	15.2	8.5V
73	+69° 12.9	1	52.0	+69	30.0	8.8V
74	+69° 13.6	1	56.4	+69	11.3	9.0V
75	+68° 15.1	2	0.1	+68	48.2	8.9V
76	+68° 15.3	2	1.5	+68	40.9	7.6V
77	+67° 18.9	2	2.8	+67	26.1	8.0V
78	+67° 19.0	2	3.6	+67	13.3	9.0V
79	+67° 19.1	2	3.9	+67	0.2	7.8V
80	+66° 19.8	2	5.2	+66	36.5	7.4V
81	+67° 19.2	2	5.9	+67	9.3	8.8V
82	+67° 19.6	2	9.8	+67	53.7	8.8V

Small made out

Dec. 7, 1911 (cont)

T 37308

No.	Class	Int	Remarks
83	B5	5	
84	A	2	maybe A5
85	A3	2	
86	F8	13	
87	F5	5	
88	F0	4	
89	G	2	
90	A0	3	
91	F0	3	
92	B5	3	
93	K0	4	
94	A0	4	
95	B8	5	
96	A	2	
97	A	2	
98	G	2	
99	A	2	
100	A5	2	
101	A0	2	
102	F8	28	
103	K0	2	
104	A	2	
105	A0	7	
106	F5	6	
107	A0	2	
108	B8	4	
109	F0	4	

83	+68° 166	2	10.8	+68	6.5	7.5 ✓
84	+67° 199	2	10.6	+67	44.9	9.0 ✓
85	+70° 176	2	16.4	+70	18.1	8.7 ✓
86	+69° 155	2	19.5	+69	37.7	8.1 ✓
87	+69° 157	2	19.7	+69	28.8	8.0 ✓
88	+69° 158	2	20.5	+69	34.0	8.0 ✓
89	+68° 171	2	19.0	+68	39.5	8.7 ✓
90	+69° 160	2	21.8	+69	11.5	9.1 ✓
91	+68° 173	2	21.9	+68	35.0	8.4 ✓
92	+68° 174	2	22.6	+68	19.9	8.2 ✓
93	+68° 176	2	25.0	+68	25.8	7.5 ✓
94	+68° 177	2	26.2	+68	40.3	8.0 ✓
95	+69° 171	2	28.8	+69	3.9	8.0 ✓
96	+69° 168	2	25.5	+69	17.2	9.1 ✓
97	+69° 166	2	24.9	+69	27.0	9.0 ✓
98	+69° 162	2	23.0	+69	13.0	9.1 ✓
99	+68° 179	2	27.4	+68	25.4	8.8 ✓
100	+68° 184	2	30.8	+68	57.0	8.8 ✓
101	+69° 175	2	33.1	+69	37.6	8.7 ✓
102	+69° 180	2	36.0	+69	52.4	8.1 ✓
103	+69° 182	2	37.1	+69	53.1	8.0 ✓
104	+70° 208	2	37.1	+70	21.5	8.6 ✓
105	+69° 179	2	35.9	+69	0.8	6.5 ✓
106	+68° 200	2	39.1	+68	16.6	6.5 ✓
107	+68° 206	2	43.0	+68	23.5	8.5 ✓
108	+68° 208	2	43.8	+68	14.5	8.6 ✓
109	+68° 209	2	45.0	+68	36.4	7.8 ✓

Data made out

Dec. 7, 1911 (Cont.)
T 37308

No. Class Int. Remark

110	Q5	4	
111	Q0	5	
112	F5	3	
113	K	2	
114	F8	3	
115	Q0	7	Burned out.
116	Q5	3	
117	F0	3	
118	F5	3	
Time 2:30	119	F5	3
Time 11:00	120	F8	2
	121	F0	2
	122	Q0	2
	123	Q5	2
	124	F5	2
	125	Q0	5
	126	Q2	3
	127	Q3	6
	128	K0	1
	129	Q	1
	130	F5	4 3
	131	Q5	3
	132	Q2	2
	133	Q5	1
	134	K0	3
	135	F5	7
	136	F5	5

Two spectra prepared.

110	+68° 21.2	2	47.0	+68	53.9	7.9 ⁹ ✓
111	+66° 13.4	1	26.0	+66	52.1	7.3 ✓
112	+67° 14.6	1	25.9	+67	12.1	8.8 ⁷ ✓
113	+66° 13.9	1	27.3	+66	51.5	8.0 ✓
114	+67° 14.6	1	28.5	+67	4.2	8.8 ✓
115	+67° 14.9	1	31.7	+67	18.3	6.1 ✓
116	+66° 15.2	1	33.6	+66	50.1	8.1 ✓
117	+66° 15.6	1	37.8	+66	28.8	8.5 ✓
118	+67° 15.7	1	36.7	+67	0.7	8.4 ✓
119	+66° 16.1	1	38.9	+66	56.7	8.4 ✓
120	+66° 16.6	1	41.6	+66	20.6	8.7 ✓
121	+66° 16.7	1	41.8	+66	1.0	9.1 ✓
122	+65° 20.9	1	41.4	+65	43.3	8.8 ✓
123	+65° 21.0	1	43.4	+65	28.5	8.5 ✓
124	+65° 21.6	1	47.0	+65	44.5	8.6 ✓
125	+66° 17.1	1	47.6	+66	51.7	8.3 ✓
126	+66° 17.8	1	47.9	+66	31.0	8.6 ✓
127	+66° 17.5	1	48.2	+66	20.3	7.2 ✓
128	+66° 17.6	1	49.1	+66	40.5	8.0 ✓
129	+66° 17.8	1	57.4	+66	25.2	9.3 ✓
130	+66° 18.2	1	54.1	+66	50.8	8.6 ✓
131	+66° 18.3	1	55.7	+66	59.4	9.1 ✓
132	+66° 18.5	1	56.8	+66	56.5	8.9 ✓
133	+65° 23.4	2	0.5	+65	17.3	8.8 ✓
134	+66° 19.1	2	2.9	+66	49.5	8.2 ✓
135	+65° 23.9	2	3.2	+65	2.7	7.7 ✓
136	+65° 24.2	2	3.6	+65	50.0	6.0 ✓
				+66	39.1	6.8 ✓

made

made

not

Check pl. above them
first 4 days, if present
equal in intensity
check diff. above them
with one 4 or near 4.
Orbit.

← Certainly companion
several above main R ft.

Dec. 7, 1911 (cont)

T 37308

No.	class	Int.	Remark
137	K	2	
138	Q	2	
139	B5	3	
140	Q0	3	
141	K	2	
142	Q2	10	
143	Q0	3	
144	F5	2	
145	Q	2	
146	Q	2	
147	B0	2	
148	B5	5	
149	F2	6	
150	Q0	5	
151	F2	5	
152	F0	4	
153	B8	3	
154	K2	4	
155	Q3	4	
156	Q2	10	
157	Q2	2	
158	Q5	2	
159	F5	2	
160	N. Q0	3	
161	B5	3	
162	F	3	Near edge
163	B5	3	"
164	K	4	"

137	+65° 24.7	2	8.0	+65	35.5	8.2	✓
138	+66° 20.1	2	8.0	+66	43.8	9.0	✓
139	+66° 20.8	2	11.3	+66	10.6	9.0	✓
140	+66° 20.8	2	11.3	+66	10.7	8.1	✓
141	+65° 20.1	2	14.8	+65	43.5	8.8	✓
142	+66° 21.3	2	17.2	+66	44.6	4.7	✓
143	+66° 21.4	2	17.7	+66	46.3	8.8	✓
144	+66° 21.5	2	18.3	+66	45.3	9.0	✓
145	+66° 21.6	2	18.6	+66	55.3	8.9	✓
146	+68° 16.8	2	16.1	+68	0.0	8.5	✓
147	+67° 21.0	2	21.3	+67	12.6	8.8	✓
148	+67° 21.2	2	22.5	+67	5.5	7.8	✓
149	+67° 21.3	2	23.4	+67	43.4	7.5	✓
150	+66° 21.9	2	22.2	+66	46.8	8.1	✓
151	+66° 22.3	2	24.2	+66	50.2	7.0	✓
152	+67° 21.7	2	26.1	+67	26.1	7.7	✓
153	+67° 22.1	2	29.4	+67	50.6	8.0	✓
154	+67° 22.2	2	30.0	+67	26.5	7.8	✓
155	+68° 18.9	2	31.9	+68	1.5	8.5	✓
156	+67° 22.4	2	32.4	+67	12.4	6.6	✓
157	+67° 22.6	2	33.6	+67	10.7	8.9	✓
158	+68° 19.0	2	33.0	+68	0.1	8.7	✓
159	+66° 23.2	2	36.4	+66	45.1	8.8	✓
160	+67° 23.0	2	39.0	+67	12.8	8.5	✓
161	+67° 23.4	2	44.1	+67	35.8	7.7	✓
162	+65° 19.3	1	31.0	+65	44.0	7.0	✓
163	+66° 14.5	2	30.9	+66	10.9	7.4	✓
164	+66° 14.9	1	31.7	+66	3.4	6.8	✓

center middle end

Dec. 7, 1911 (Cont.)
I 37308

No.	Class	Int.	Remark
165	G	2	
166	F	2	
167	K ₀	7	
168	G	3	
169	K	3	
170	B3	3	
171	A ₀	9	
172	A ₀	3	
173	A ₂	1	
174	F ₀	20	
175	A ₀	8	
176	A ₀	7	
177	A ₁	2	Auricular stars superposed
178	B3	8	Hydrogen lines very narrow.
179	K ₁	1	
180	B3	5	
181	Oe 5	3	in 4200 seems to be present. Image hazy.
182	A ₀	4	
183	B3	5	
184	A ₂	6	
184a	95	1	
185	F8	2	
186	B ₀	3	
187	F8	4	
188	F8	4	
189	B9	4	
190	F8	5	
191	A	3	

165	+65° 20.2	1	38.9 36.7	+65 17.0 8.8 v
166	+65° 20.7	1	39.0	+65 32.7 8.8 v
167	+64° 23.8	1	37.3	+64 3.1 6.1 v
168	+64° 24.0	1	38.9	+64 7.3 8.5 v
169	+64° 24.3	1	40.8	+64 7.9 6.6 v
170	+64° 26.8	1	46.9	+64 41.6 7.8 v
171	+64° 26.5	1	49.0	+63 55.0 5.5 v
172	+64° 27.8	1	50.2	+64 0.9 8.7 v
173	+64° 28.1	1	51.2	+64 6.4 8.6 v
174	+63° 27.3	1	51.6	+63 56.0 8.5 v
175	+64° 28.2	1	52.2	+64 11.5 6.0 v
176	+64° 28.5	1	53.8	+64 24.1 6.5 v
177	+64° 29.1	1	56.6	+64 47.2 8.2 v
178	+63° 27.4	1	52.3	+63 41.5 6.0 v
179	+63° 27.7	1	53.2	+63 32.7 7.8 v
180	+63° 28.1	1	54.3	+63 40.8 8.0 v
181	+63° 28.7	1	54.8	+63 35.9 8.7 v
182	+63° 29.0	1	55.6	+63 53.2 8.5 v
183	+64° 29.5	1	57.8	+64 20.3 7.3 v
184	+64° 30.7	2	2.8	+64 10.2 7.0 v
185a	+64° 30.0	1	59.1	+64 38.9 8.2 v
186	+64° 30.9	2	3.9	+64 20.0 7.5 v
187	+64° 31.2	2	5.8	+64 17.0 7.5 v
188	+64° 31.3	2	6.3	+64 34.8 7.0 v
189	+64° 31.4	2	7.0	+64 54.9 7.2 v
190	+65° 24.8	2	9.6	+65 6.8 8.3 v
	+64° 32.4	2	11.1	+64 34.1 7.0 v
190	+65° 25.6	2	12.8	+65 32.9 9.1 v
191	+64° 32.7	2	16.5	+64 49.0 8.5 v

Combs made by

Dec. 7, 1911 (Cont.)

T 37308

No.	Class	Int.	Remark
192	A	2	
193	F	2	
194	Ko	5	
195	F	2	
196	F5	3	
197	Ko	6	
198	B8	2	
199	F8	3	
200	B8	3	
201	A2	6	
202	A	2	
203	F8	2	
204	A	4	
205	A2	3	
206	G5	6	
207	K2	5	
208	F5	4	
209	B8	5	
210	F8	4	
211	A5	3	
212	F5	4	
213	K	4	
214	A2	4	
215	A	4	Near edge
216	K	3	
217	B5	3	
217a	A2	3	
218	Ko	3	

192	+64° 32.8	2	17.2	+64	50.9	8.5	✓
193	+65° 25.6	2	12.8	+65	30.9	9.1	✓
194	+65° 27.2	2	23.3	+65	23.6	7.0	✓
195	+65° 27.8	2	25.7	+65	52.7	9.1	✓
196	+66° 22.7	2	^{23.9} 30.0	+66	37.0	8.4	✓
197	+65° 28.0	2	25.8	+65	7.0	6.1	✓
198	+64° 33.7	2	26.0	+64	42.3	8.2	✓
199	+64° 33.8	2	26.2	+64	41.1	7.6	✓
200	+65° 28.9	2	34.0	+65	6.9	8.4	✓
201	+65° 30.0	2	40.0	+65	1.4	7.0	✓
202	+65° 30.4	2	41.9	+65	35.8	8.9	✓
203	+65° 30.5	2	43.1	+65	46.5	8.5	✓
204	+65° 30.6	2	43.8	+65	12.6	7.0	✓
205	+64° 35.6	2	45.9	+64	28.9	8.7	✓
206	+63° 37.0	2	46.0	+63	50.2	6.5	✓
207	+63° 36.9	2	44.5	+63	44.0	6.5	✓
208	+64° 35.4	2	41.1	+64	3.8	7.4	✓
209	+64° 35.1	2	38.2	+64	2.0	7.2	✓
210	+63° 34.3	2	26.0	+63	27.7	7.2	✓
211	+62° 42.3	2	24.6	+62	59.9	8.0	✓
212	+62° 42.1	2	24.4	+62	59.9	7.4	✓
213	+62° 42.0	2	^{24.3} 24.8	+62	36.0	6.7	✓
214	+62° 39.9	2	^{17.5} 16.8	+62	^{32.1} 15.9	^{2.1} 7.8	✓
215	+62° 38.8	2	13.3	+62	23.2	7.3	✓
216	+62° 38.7	2	13.2	+62	52.9	7.4	✓
217	+62° 38.5	2	12.2	+62	56.3	7.4	✓
217a	+63° 33.0	2	14.0	+63	54.4	8.2	✓
218	+63° 32.2	2	9.6	+63	12.2	7.8	✓

Crown

made

up

Dec 7, 1911 (cont)
T 37308

No	Class	Int.	Remark
219	A ₀	7	
220	A ₃	4	
221	B ₅	4	Hyd lines narrow. Kline as strong as in class A ₀
222	B ₅	3	Resembles 221
223	A	2	
224	A	3	

Time 11:32 ~~PM~~

225 $\frac{9}{10}$ 1

219	+63° 32.0	2	9.1	+63	40.5	7.0 ✓
220	+63° 31.6	2	7.9	+63	16.1	7.0 ✓
221	+63° 31.5	2	7.7	+63	44.5	7.0 ✓
222	+63° 31.0	2	4.3	+63	20.6	8.0 ✓
223	+63° 30.1	2	0.5	+63	27.7	9.0 ✓
224	+62° 35.7	1	59.9	+62	53.9	8.5 ✓

Ident. by J. C. M. Jan. 8, '12
checked by A. D. K. Feb. 13, '12.

✓ 225 +69° 161 2 22.6 +69 2 8.6

circles made by

January 12, 1912 (Cont.)

T 37335

No.	Class	Int.	Remarks
28	F	2	Baily superposed
29	G	3	" "
30	G ₀	3	
31	G ₅	3	
32	F ₀	3	
33	G ₅	10	Burned out
B4	A	4	E
Time 1:09	35	F	4 E

28	+ 23°	308	2	9	2.7	+ 23	12.6	7.8	✓
29	+ 23°	307	2	9	0.5	+ 23	6.1	6.8	✓
30	+ 23°	303	2	7	7.6	+ 23	37.4	6.5	✓
31	+ 23°	297	2	4	26.8	+ 23	29.9	6.7	✓
32	+ 23°	293	2	2	45.5	+ 23	7.0	8.0	✓
33	+ 22°	306	1	59	2.6	+ 22	47.2	2.0	✓
34	+ 21°	279	1	58	27.0	+ 21	57.5	6.0	✓
35	+ 20°	348	2	4	41.7	+ 20	31.8	5.5	✓
36									

under made
8

Identified by A.D.H. Feb. 7, 1912.
Checked by A.M.C. Feb. 20, 1912

January 15, 1912

Time 10.45

I 37474

No.	Class	Out.	Remark
1	A	7	E
2	F ₅	4	E
3	G ₅	6	E
4	K ₀	5	E
5	A ₂	3	E
6	K ₀	6	E
7	ma	4	
8	K ₀	4	
9	F ₈	3	
10	K ₂	3	
11	G ₅	4	
12	G	3	
13	A ₀	9	
14	K ₀	4	E
15	G ₅	5	
16	A ₃	6	
17	A	3	
18	F ₂₀	2	
19	F ₇	3	
20	F ₅	7	
21	mb	3	
22	G	2	
23	G ₅	3	
24	G ₀	4	
25	A ₀	5	
26	F ₅	5	
27	F ₈	2	

1 +34°	265	1	23	53.5	+34	3.6	6.6	^	✓	
2 +33°	252	1	24	43.7	+32	7.2	7.8	^	✓	
3 +32°	272	1	26	44.8	+32	22.9	7.2	^	✓	271 43.8 2.6 126 +32 9.2 subparsec
4 +33°	257	1	27	36.4	+33	6.1	6.5	^	✓	
5 +32°	281	1	28	37.0	+32	55.0	8.2	^	✓	
6 +35°	292	1	24	30.9	+35	6.3	6.5	^	✓	
7 +34°	270	1	20.5	36.0	+34	51.5	7.2	^	✓	
8 +34°	272	1	26	20.7	+34	23.0	7.0	^	✓	
9 +34°	280	1	28	21.4	+34	53.1	8.1	^	✓	
10 +34°	284	1	29	49.8	+34	36.6	7.8	^	✓	
11 +34°	278	1	28	9.5	+34	22.4	7.9	^	✓	
12 +33°	273	1	32	7.4	+33	27.3	7.7	^	✓	
13 +34°	277	1	33	42.5	+34	30.3	6.0	^	✓	
14 +32°	299	1	34	7.0	+32	13.7	7.6	^	✓	
15 +31°	301	1	35	35.7	+31	29.2	6.5	^	✓	
16 +31°	303	1	36	5.1	+31	47.2	7.2	^	✓	
17 +33°	294	1	37	25.7	+33	7.4	8.1	^	✓	
18 +33°	295	1	37	52.9	+33	1.9	8.2	^	✓	
19 +32°	318	1	38	24.4	+32	26.8	8.0	^	✓	
20 +31°	316	1	40	24.8	+31	57.5	6.2	^	✓	
21 +33°	302	1	40	28.4	+33	25.2	8.0	^	✓	
22 +33°	305	1	40	47.8	+33	20.5	8.3	^	✓	
23 +34°	311	1	40	48.2	+34	11.1	7.8	^	✓	
24 +34°	312	1	40	49.7	+34	43.2	7.8	^	✓	
25 +35°	349	1	42	17.6	+35	20.4	7.5	^	✓	
26 +35°	350	1	42	25.5	+35	7.6	7.3	^	✓	
27 +35°	353	1	42	56.0	+35	4.1	8.7	^	✓	

January 15, 1912 (Cont.)
I 37474

No.	Class	Int.	Remarks
28	B5	4	
29	B5	3	
30	B5	3	
31	B8	2	
32	B	2	
33	B5	3	
34	B5	3	
35	B2	4	
36	K0	3	
37	B9	5	
38	B2	4	
39	B0	4	
40	B5	3	
41	B0	4	
42	B8	4	
43	B2	10	
44	B2	3	
45	B5	2	
46	B5	4	
47	B8	2	
90	B5	4	
41	K0	3	
123	B0	4	
51	B	2	
146	B2	10	
121	B9	3	
120	B0	4	E

28	+34°	320	1	42	57.7	+34	44.2	8.0	✓
29	+34°	321	1	43	12.1	+34	56.6	7.9	✓
30	+34°	325	1	44	42.7	+34	35.0	8.4	✓
31	+34°	326	1	44	54.6	+34	5.2	8.6	✓
32	+34°	327	1	45	14.9	+34	22.1	8.5	✓
33	+33°	313	1	45	16.4	+33	47.2	8.4	✓
34	+33°	318	1	46	30.7	+33	1.9	8.5	✓
35	+32°	344	1	47	39.0	+32	52.6	8.6	✓
36	+33°	327	1	49	138	+33	25.7	8.2	✓
37	+33°	328	1	49	25.4	+33	6.6	7.6	✓
38	+32°	357	1	50	9.4	+32	57.8	8.1	✓
39	+32°	360	1	50	38.8	+32	30.6	7.0	✓
40	+33°	330	1	50	33.0	+33	37.9	7.4	✓
41	+32°	365	1	53	46.8	+32	42.4	8.0	✓
42	+33°	347	1	54	11.0	+33	4.3	8.1	✓
43	+32°	369	1	54	31.4	+32	36.1	5.5	✓
44	+32°	371	1	55	21.4	+32	59.9	7.7	✓
45	+33°	337	1	52	27.4	+33	35.4	7.9	✓
46	+34°	354	1	52	32.4	+34	35.7	7.8	✓
47	+33°	348	1	54	14.9	+33	57.4	8.4	✓
48	+34°	363	1	55	13.5	+34	54.2	7.8	✓
49	+35°	396	1	54	35.1	+35	25.0	8.0	✓
50	+36°	400	1	56	41.9	+36	0.8	8.3	✓
51	+36°	412	1	58	28.0	+36	20.0	8.5	✓
52	+37°	486	1	59	45.2	+37	10.8	5.1	✓
53	+36°	420	2	0	56.1	+36	25.6	7.7	✓
54	+36°	427	2	2	44.3	+36	41.0	7.8	✓

January 15, 1912 (Cont.)
I 37474

	No.	Class	Int.	Remarks
119	55	A	3	E
118	56	A	3	E
89	57	Fo	5	
88	58	B	2	
87	59	Fo	12+	
63	60	A	5	E
	61	Bq	8	
	62	Bq	2	
	63	A2	4	
	64	A5	5	
	65	A5	4	
	66	K2	2	
	67	A0	3	
	68	B	3	
	69	A	2	
	70	G	2	
	71	B	2	
	72	A0	6	
	73	B	2	Partly superposed
	74	B	2	" "
	75	A0	7	
	76	A2	6	
	77	Fo	5	
	78	A	3	
	79	B5	7	
	80	Fo	3	
	81	Fo	4	

55	+36°	433	2	3	43.6	+36	41.8	8.2	1✓
56	+36°	435	2	4	2.5	+36	41.1	8.4	1✓
57	+34°	376	1	59	17.5	+34	57.4	7.3	1✓
58	+34°	379	2	0	24.7	+34	59.5	8.0	1✓
59	+34°	381	2	0	57.2	+34	18.0	3.0	1✓
60	+32°	390	2	1	45.4	+32	39.6	7.0	1✓
61	+36°	277	1	25	55.1	+36	29.7	6.2	1✓
62	+36°	275	1	25	15.1	+36	7.4	9.0	1✓
63	+35°	296	1	25	52.1	+35	26.4	8.2	1✓
64	+35°	303	1	27	47.6	+35	47.6	7.8	1✓
	+35°	308	1	27	8.8	+35	58.9	8.0	1✓
65	+36°	285	1	27	47.8	+36	52.5	8.0	1✓
66	+36°	285	1	27	47.8	+36	52.5	8.0	1✓
67	+36°	286	1	28	5.2	+36	42.0	8.5	1✓
68	+37°	327	1	29	26.8	+37	16.7	7.8	1✓
69	+37°	329	1	29	47.8	+37	16.0	9.0	1✓
70	+36°	291	1	29	47.2	+36	29.4	9.1	1✓
71	+36°	296	1	30	48.4	+36	4.1	8.5	1✓
72	+35°	314	1	30	45.6	+35	48.3	7.0	1✓
73	+35°	324	1	33	14.4	+35	49.1	8.2	1✓
74	+35°	325	1	33	17.9	+35	50.5	8.6	1✓
75	+36°	305	1	35	55.9	+36	56.3	6.5	1✓
76	+36°	306	1	36	12.0	+36	13.4	6.8	1✓
77	+34°	304	1	36	57.1	+34	59.1	7.3	1✓
78	+36°	313	1	39	22.9	+36	52.0	8.9	1✓
79	+37°	372	1	40	6.8	+37	43.8	6.0	1✓
80	+37°	379	1	41	32.4	+37	50.6	8.0	1✓
81	+37°	382	1	41	57.0	+37	34.9	7.0	1✓

31.5° 20' 50" 52.1
+ 35° 5' 5" superposed

January 15, 1912 (Cont.)
I 37474

No.	Class	Set.	Remark
82	45	2	
83	80	3	
84	Mb	3	
85	Qo	4	
86	Fo	4	
87	Fo	6	
88	Ko	3	
89	Fo	6	
90	Ko	6	
91	Ko	6	
92	45	7	
93	Fo	4	
94	4	21	
95	Q5	21	
96	Fo	3	
97	45	3	
98	Q21	6	
99	F21	3	
100	4	3	
101	Ko	6	
102	Q21	4	
103	Q5	3	
104	Fo	3	
105	45	21	
106	4	31	
107	Qo	3	
108	Qo	6	

82 + 37°	383	1	42	4.0	+ 37	5.2	8.2	1 ✓
83 + 37°	385	1	42	11.3	+ 37	14.4	8.7	1 ✓
84 + 37°	387	1	42	27.8	+ 37	18.2	6.9	1 ✓
85 + 37°	389	1	43	13.4	+ 37	27.8	8.4	1 ✓
86 + 37°	395	1	43	57.8	+ 37	16.0	7.8	1 ✓
87 + 36°	392	1	43	51.8	+ 36	42.9	6.8	1 ✓
88 + 36°	326	1	42	30.7	+ 36	50.6	7.8	1 ✓
89 + 36°	338	1	44	40.3	+ 36	36.2	7.2	1 ✓
90 + 36°	346	1	46	25.7	+ 36	24.4	6.4	1 ✓
91 + 36°	354	1	47	21.0	+ 36	34.0	5.8	1 ✓
92 + 36°	355	1	47	34.1	+ 36	32.6	5.8	1 ✓
93 + 35°	372	1	46	45.1	+ 35	17.3	8.2	1 ✓
94 + 35°	374	1	47	11.0	+ 35	37.9	8.5	1 ✓
95 + 35°	377	1	47	39.3	+ 35	20.7	8.5	1 ✓
96 + 36°	369	1	49	5.4	+ 36	3.5	8.1	1 ✓
97 + 35°	381	1	49	58.9	+ 35	32.3	7.8	1 ✓
98 + 35°	382	1	50	12.3	+ 35	54.0	7.0	1 ✓
99 + 36°	383	1	51	23.0	+ 36	1.9	8.1	1 ✓
100 + 36°	380	1	50	21.4	+ 36	26.7	8.5	1 ✓
101 + 36°	370 368	1	49	7.5 2.0	+ 36	57.1	9.1	1 ✓
102 + 36°	378	1	50	15.5	+ 36	58.9	8.0	1 ✓
103 + 36°	384	1	51	38.5	+ 36	56.0	8.0	1 ✓
104 + 36°	394	1	53	52.6	+ 36	48.0	8.0	1 ✓
105 + 36°	391	1	53	35.7	+ 36	1.5	7.9	1 ✓
106 + 36°	401	1	56	50.1	+ 36	20.3	8.5	1 ✓
107 + 37°	478	1	57	7.6	+ 37	17.7	8.8	1 ✓
108 + 38°	365	1	42	43.8	+ 38	6.6	7.3	1 ✓

Copy
1
to
C
9

January 15, 1912 (Cont.)
T 37474

No.	Class	Int.	Remark
109	F ₀	4	
110	G ₅	3	
111	G	3	
112	G ₅	3	
113	A ₀	6	
114	K	2	
115	A ₀	3	
116	G ₅	2	
117	A ₅	2	
118	F ₅ 2	2	
119	F ₅	4	
120	F ₀	6	
121	A ₀	5	
122	A ₀	5	
123	A	3	
124	A	7	Burned out.
125	A	6	e
126	A	6	e
127	G ₅	4	e
128	F ₅	3	e
129	F	3	e
130	A ₃	3	
131	A	3	
132	G ₅	2	Pore form.
133	A	3	
134	K	2	
135	G ₅	3	

109	+37°	405	1	46	5.8	+37	18.8	8.4	N x 37° 404	46 N 10	+37 2.5	superfused
110	+37°	415	1	47	19.9	+37	9.2	8.1	^	^	^	^
111	+37°	422	1	48	13.7	+37	13.1	8.9	^	^	^	Two stars
112	+37°	437	1	49	11.2	+37	44.2	8.0	^	^	^	superfused
113	+37°	452	1	51	39.8	+37	53.5	7.4	^	^	^	Two stars
114	+37°	455	1	52	16.8	+37	58.4	7.9	^	^	^	superfused
115	+37°	464	1	53	38.8	+37	55.2	8.6	^	^	^	Two stars
116	+37°	465	1	53	57.1	+37	52.5	8.1	^	^	^	superfused
117	+37°	468	1	54	24.9	+37	56.8	8.7	^	^	^	Two stars
118	+38°	401	1	55	37.5	+38	42.1	8.5	^	^	^	superfused
119	+38°	402	1	56	2.8	+38	44.6	8.0	^	^	^	Two stars
120	+39°	464	1	57	5.2	+39	4.3	7.8	^	^	^	superfused
121	+38°	408	1	57	41.8	+38	12.1	8.2	^	^	^	Two stars
122	+38°	416	2	0	8.6	+38	40.1	7.3	^	^	^	superfused
123	+38°	424	2	2	2.6	+38	45.1	8.8	^	^	^	Two stars
124	+38°	425	2	2	7.6	+38	20.7	6.1	^	^	^	superfused
125	+38°	275	1	22	39.8	+38	44.7	7.3	^	^	^	Two stars
126	+38°	278	1	23	4.8	+38	1.1	6.6	^	^	^	superfused
127	+37°	303	1	23	54.0	+37	31.2	7.0	^	^	^	Two stars
128	+37°	307	1	24	29.7	+37	22.3	7.8	^	^	^	superfused
129	+37°	310	1	24	42.8	+37	50.1	8.4	^	^	^	Two stars
130	+38°	291	1	25	59.6	+38	5.9	7.9	^	^	^	superfused
131	+39°	357	1	27	17.1	+39	4.7	8.5	^	^	^	Two stars
132	+39°	358	1	27	29.7	+39	7.8	7.5	^	^	^	superfused
133	+38°	305	1	29	51.4	+38	36.9	8.4	^	^	^	Two stars
134	+37°	321	1	28	25.9	+37	42.4	7.8	^	^	^	superfused
135	+37°	325	1	29	6.9	+37	46.1	8.2	^	^	^	Two stars

January 15, 1912 (Cont.)

I 37474

No.	Class	Int.	Remarks
136	B5	4	
137	B	3	
138	F5	5	
139	B	2	
140	B5	1	
141	A0	3	
142	B5	5	
143	B5	3	
144	B	2	
145	F0	5	
146	F5	5	
147	K	1	
148	F5	2	
149	A5	4	
150	B5	2	
151	F	3	
152	A0	3	
153	A5	4	
154	K0	3	
155	F0	3	
156	F8	4	
157	B5	4	
158	F0	3	
159	H2	3	
160	B	2	
161	K2	5	
162	A2	2	

136	+ 37°	335	1	80	20.8	+37	54.5	7.7	^	✓
137	+ 38°	314	1	31	17	+38	6.6	8.1	^	✓
138	+ 38°	316	1	31	37.1	+38	13.0	7.5	^	✓
139	+ 37°	342	1	32	22.8	+37	49.8	8.3	^	✓
140	+ 37°	344	1	32	33.1	+37	31.7	7.5	^	✓
141	+ 37°	348	1	33	16.9	+37	28.3	8.4	^	✓
142	+ 37°	351	1	34	12.9	+37	46.8	8.1	^	✓
143	+ 37°	356	1	35	40.9	+37	47.1	7.8	^	✓
144	+ 38°	347	1	38	12.9	+38	12.2	8.3	^	✓
145	+ 38°	349	1	38	19.2	+38	11	7.1	^	✓
146	+ 39°	393	1	35	57.2	+39	13.9	8.0	^	✓
147	+ 38°	342	1	37	34.4	+38	53.1	8.0	^	✓
148	+ 38°	343	1	37	39.5	+38	54.3	8.7	^	✓
149	+ 39°	404	1	39	22.0	+39	24.3	8.5	^	✓
150	+ 38°	355	1	40	45.3	+38	44.5	8.6	^	✓
151	+ 37°	371	1	40	5.8	+37	53.3	8.5	^	✓
152	+ 39°	416	1	42	11.1	+39	40.3	8.7	^	✓
153	+ 40°	420	1	43	39.7	+39	55.2	8.2	^	✓
154	+ 40°	394	1	44	38.0	+40	1.7	6.0	^	✓
155	+ 39°	424	1	44	36.5	+39	26.9	8.0	^	✓
156	+ 39°	427	1	44	57.1	+39	9.9	7.8	^	✓
157	+ 39°	438	1	46	4.0	+39	13.6	7.0	^	✓
158	+ 39°	432	1	45	58.7	+39	34.3	8.0	^	✓
159	+ 39°	431	1	45	56.1	+39	55.6	7.3	^	✓
160	+ 40°	400	1	45	48.1	+40	10.7	8.7	^	✓
161	+ 39°	434	1	46	11.6	+39	58.8	6.8	^	✓
162	+ 39°	436	1	46	50.1	+39	44.6	8.5	^	✓

January 15, 1912 (Cont.)
T 37474

No. Class Int. Remarks

163	A	3	
164	F5	6	
165	A	5	Partly superposed on 164
166	B	2	
167	F8	2	
168	A	7	E
169	A	7	E
170	A	7	E
171	B	4	Row four
172	B	4	
173	B5	2	
174	K0	4	
175	B	4	E
176	B5	3	
177	A8	3	
178	F8	4	
179	A2	3	
180	B5	2	
181	K0	6	
182	F5	10+	
183	A2	3	
184	F	3	
185	A0	5	
186	B5	4	
187	B2	10	Burned out
188	K0	4	
189	F4.5	2	very poor

163	+40°	406	1	48	33.1 + 40	3.4 8.5	^	✓
164	+40°	408	1	49	10.5 + 40	3.4 6.9	^	✓
165	+40°	409	1	49	12.6 + 40	15.2 8.4	^	✓
166	+40°	412	1	49	39.2 + 40	12.4 8.2	^	✓
167	+39°	447	1	49	39.4 + 39	50.0 8.8	✓	+
168	+41°	374	1	47	46.2 + 41	10.6 7.0	^	✓
169	+41°	377	1	48	28.2 + 41	4.0 8.0	^	✓
170	+40°	407	1	49	10.3 + 40	59.3 6.9	^	✓
171	+40°	411	1	49	20.1 + 40	41.1 7.3	^	✓
172	+40°	415	1	50	57.1 + 40	39.1 7.0	^	✓
173	+40°	421	1	51	57.9 + 40	40.1 7.6	^	✓
174	+40°	423	1	52	26.4 + 40	31.1 7.0	^	✓
175	+39°	454	1	53	3.4 + 39	57.9 8.4	^	✓
176	+39°	450	1	51	46.9 + 39	15.7 7.9	^	✓
177	+38°	389	1	51	41.8 + 38	49.9 8.2	^	✓
178	+38°	392	1	52	7.0 + 38	54.7 7.8	^	✓
179	+38°	381	1	49	3.9 + 38	31.1 8.8	^	✓
180	+38°	383	1	49	41.0 + 38	57.5 8.6	^	✓
181	+40°	328	1	27	21.7 + 40	20.5 6.8	^	✓
182	+40°	332	1	28	23.1 + 40	40.9 4.0	^	✓
183	+40°	336	1	29	47.5 + 40	10.3 8.0	^	✓
184	+40°	337	1	30	16.5 + 40	1.3 8.2	^	✓
185	+40°	341	1	30	35.0 + 40	24.8 7.3	^	✓
186	+39°	376	1	31	35.0 + 39	56.3 6.7	^	✓
187	+39°	378	1	32	3.1 + 39	51.2 5.4	^	✓
188	+39°	384	1	34	6.0 + 39	38.6 7.0	^	✓
189	+39°	385	1	34	19.6 + 39	24.5 8.5	^	✓

410
49 12.0 7.4
+40 7.4
9.0 superposed
on 164
" 164
" 164

416
49 34.7
+39 57.2
6.8 superposed
on 167

392
52 7.0 54.7
+38 7.8

January 25, 1912
T 27 372

No.	Class	Int.	Remark.
1	F5	2	
2	F2	2	
3	B5	9	
4	F8	2	
5	Ma	2	
6	G5	2	
7	A0	3	
8	F0	2	
9	A0	4	
10	K	1	
11	F0	2	
12	G5	5	
13	F8	5	
14	F2	3	
15	G	100	A planet
16	G5	3	
17	G5	6	
18	G	1	
19	G5	3	
20	B9	9	
21	A05	3	E.
22	F5	5	
23	F5	5	
24	Ma	2	
25	F5	4	
26	A0	3	
27	F	2	
28	G5	6	

1	+13°	456	2	42.3+13	6.8	8.0 ✓
2	+12°	392	2	42.0+12	3.6	7.6 ✓
3	+14°	480	2	43.5+14	28.1	6.0 ✓
4	+14°	482	2	44.4+14	5.4	8.5 ✓
5	+14°	484	2	45.7+14	4.3	7.6 ✓
6	+13°	466	2	46.0+13	37.2	8.0 ✓
7	+14°	485	2	45.9+14	49.6	8.6 ✓
8	+14°	487	2	46.3+14	54.0	8.9 ✓
9	+14°	492	2	47.7+14	6.6	7.0 ✓
10	+12°	404	2	46.3+12	46.2	8.3 ✓
11	+12°	406	2	46.7+12	20.3	7.8 ✓
12	+13°	484	2	50.8+13	1.2	7.5 ✓
13	+14°	502	2	52.9+14	27.4	7.5 ✓
14	+14°	503	2	53.3+14	24.9	8.0 ✓
15	Saturn					✓
16	+13°	496	2	56.9+13	13.9	7.5 ✓
17	+12°	436	2	58.4+12	37.8	5.2 ✓
18	+12°	441	3	0.2+12	36.6	8.0 ✓
19	+12°	445	3	1.1+12	18.5	6.8 ✓
20	+11°	445	3	2.7+11	19.8	6.5 ✓
21	+9°	382	2	51.5+9	38.6	7.7 ✓
22	+9°	399	2	52.2+9	5.0	7.6 ✓
23	+10°	401	2	52.9+10	17.7	7.0 ✓
24	+11°	434	2	58.4+11	6.0	7.5 ✓
25	+10°	418	3	0.6+10	14.2	7.3 ✓
26	+10°	425	3	5.0+10	35.8	7.8 ✓
27	+10°	427	3	5.2+10	43.8	8.0 ✓
28	+12°	452	3	3.4+12	29.9	6.3 ✓

January 25, 1912

I 37372

No Class Int. Remarks

29	A2	2	
30	A2	3	
31	K	1	
32	G0	3	
33	A5	4	
34	A0	5	
35	K5	2	
36	A2	5	
37	F5	2	Another star superposed?
38	A0	6	
39	G	2	Poor focus
40	F8	3	
41	A0	5	
42	B8	4	
43	F8	4	E.
44	F5	4	E.
45	G	4	E.
46	F5	4	
47	A2	2	
48	A	3	Partly superposed on 47
49	B9	10	
50	F5	4	
51	K	1	
52	F2	5	E.
53	A3	5	
54	M	5	
55	F6	7	
56	A2	2	

29	+12°	450	3	3.0 + 12	58.4	8.5 ✓	
30	+13°	514	3	1.8 + 13	14.8	8.3 ✓	
31	+14°	513	2	59.2 + 14	38.1	8.0 ✓	
32	+14°	518	3	0.7 + 14	47.8	7.8 ✓	
33	+15°	442	3	2.4 + 15	26.3	8.0 ✓	
34	+16°	398	3	2.2 + 16	14.8	8.0 ✓	
35	+15°	446	3	3.8 + 15	35.4	7.6 ✓	
36	+15°	447	3	4.3 + 15	57.4	7.0 ✓	
37	+14°	524 ⁶	3	7.9 + 14	48.8 ^{8.7}	9.2 ✓	
38	+15°	450	3	6.1 + 15	2.5	7.3 ✓	
39	+15°	453	3	7.0 + 15	42.0	8.5 ✓ + 15° 452	Superposed
40	+13°	529	3	7.3 + 13	46.0	8.3 ✓	
41	+13°	535	3	9.9 + 13	18.9	7.0 ✓	
42	+12°	460	3	10.3 + 12	17.6	7.0 ✓	
43	+12°	467	3	11.9 + 12	51.0	7.3 ✓	
44	+11°	462	3	12.6 + 11	49.3	7.5 ✓	
45	+14°	550	3	10.4 + 14	32.9	7.3 ✓	
46	+14°	469	2	40.0 + 14	53.8	7.5 ✓	
47	+16°	345	2	39.3 + 16	41.2	8.6 ✓	
48	+16°	346	2	39.3 + 16	35.7	8.7 ✓	
49	+16°	353	2	41.2 + 16	51.5	5.7 ✓	
50	+17°	442	2	40.4 + 17	41.4	6.0 ✓	
51	+18°	353	2	41.1 + 18	7.3	8.1 ✓	
52	+18°	359	2	42.5 + 18	33.2	7.2 ✓	
53	+17°	454	2	46.8 + 17	8.8	7.0 ✓	
54	+17°	457	2	47.7 + 17	44.4	6.0 ✓	
55	+17°	458	2	48.2 + 17	26.4	6.5 ✓	
56	+16°	373	2	48.9 + 16	38.4	8.8 ✓	

January 25, 1912

I 37 372

No	Class	Int.	Remark
57	Ko	4	
58	Qo	3	
59	Fo	6	
60	Go	2	
61	Go	3	
62	Go	3	
63	F	1	
64	Qo	7	
65	Fo	2	
66	Ko	5	
67	Qo	2	
68	Fo	1	
69	B3	2	
70	F	5	Another star superposed at red end.
71	G?	4	Too much superposed on 70.
72	Ko	2	
73	Qo	2	
74	Fo	1	
75	Qo	2	
76	G	1	
77	Ko	4	
78	Qo	5	E.
79	Go	2	E.
80	K	2	
81	Ko	4	
82	R0	2	

57	+17°	461	2	49.8+17	13.6	7.3 ✓
58	+17°	463	2	50.5+17	5.4	8.7 ✓
59	+15°	400	2	45.1+15	53.5	6.5 ✓
60	+15°	401	2	45.9+15	24.8	8.2 ✓
61	+15°	407	2	47.2+15	42.8	7.8 ✓
62	+15°	414	2	49.4+15	41.6	7.3 ✓
63	+15°	417	2	51.0+15	48.3	9.0 ✓
64	+17°	471	2	52.4+17	25.4	6.8 ✓
65	+15°	425	2	53.7+15	56.4	8.3 ✓
66	+15°	430	2	56.6+15	17.5	6.5 ✓
67	+17°	489	2	57.6+17	36.5	8.8 ✓
68	+16°	389	2	58.6+16	54.4	8.8 ✓
69	+17°	493	2	59.3+17	18.6	6.7 ✓
70	+16°	393	3	0.0+16	28.3	8.0 ✓
71	+16°	392	2	59.9+16	21.7	8.3 ✓
72	+16°	396	3	1.5+16	41.8	7.8 ✓
73	+17°	504	3	1.5+17	6.3	8.6 ✓
74	+16°	399	3	2.9+16	44.9	8.8 ✓
75	+16°	402	3	4.1+16	45.2	8.5 ✓
76	+16°	403	3	4.8+16	34.5	8.7 ✓
77	+18°	414	3	0.1+18	15.2	6.5 ✓
78	+18°	418	3	1.3+18	49.1	7.0 ✓
79	+19°	477	3	3.3+19	10.7	4.2 ✓
80	+18°	424	3	2.5+18	11.1	8.0 ✓
81	+18°	432	3	5.7+18	26.2	7.0 ✓
82	+15°	415	2	50.2+15	2.4	6.2 ✓

Ident. by A.M.C. Feb. 28, 1912

Checked by J. L. M. March 7, 1912

33 on 12818

January 25, 1912

I 37338

No.	Class	Int.	Remark
1	G5	5	E.
2	B8	10	Poor focus
3	A	3	"
4	G5	3	
5	A8	2	
6	A8	5	
7	H0	5	
8	G5	6	
9	B8	9	
10	A8	5	
11	G5	5	
12	G	2	
13	A5	3	
14	B9	5	
15	A	2	
16	H0	4	
17	G5	3	
18	H0	3	
19	G5	2	
20	H0	2	
21	F0	6	
22	B9	9	Burned out
23	F	4	near edge
24	A	3	E.
25	G	2	
26	H8	3	
27	A	6	E
28	G5	4	Poor focus

1 - 7°	606	3	22.5 - 7	18.3	6.21
2 - 5°	674	3	23.4 - 5	34.4	5.01
3 - 4°	609	3	23.4 - 4	46.6	7.81
4 - 4°	613	3	24.4 - 4	0.0	7.31
5 - 3°	570	3	25.2 - 3	48.3	8.21
6 - 3°	576	3	27.6 - 3	53.8	7.41
7 - 5°	696	3	28.8 - 5	36.5	6.51
8 - 6°	713	3	31.9 - 6	5.9	5.81
9 - 5°	715	3	33.5 - 5	40.8	5.51
10 - 7°	654	3	32.7 - 7	15.1	7.01
11 - 7°	647	3	31.4 - 7	57.6	6.01
12 - 5°	718	3	34.0 - 5	43.5	8.51
13 - 5°	721	3	34.6 - 5	42.5	8.61
14 - 5°	724	3	35.5 - 5	3.9	7.71
15 - 4°	655	3	36.7 - 4	44.2	8.51
16 - 5°	749	3	40.6 - 5	17.3	7.51
17 - 4°	670	3	41.4 - 4	52.0	7.31
18 - 4°	674	3	43.1 - 4	19.7	7.51
19 - 5°	762	3	43.5 - 5	3.1	8.01
20 - 5°	758	3	43.2 - 5	31.1	8.21
21 - 5°	768	3	45.3 - 5	29.5	7.01
22 - 5°	769	3	45.5 - 5	47.8	5.71
23 - 4°	684	3	45.8 - 4	48.0	7.51
24 - 7°	681	3	40.7 - 7	28.5	8.01
25 - 7°	684	3	41.6 - 7	15.8	8.01
26 - 7°	685	3	42.0 - 7	27.5	7.01
27 - 7°	695	3	46.0 - 7	3.7	6.61
28 - 2°	652	3	25.9 - 2	21.1	7.51

January 25, 1912.

= 37.338

No.	Class	Int.	Remarks
29	A	1	
30	A ₂	3	
31	A ₂	3	
32	F ₀	6	
33	G ₅	3	
34	G ₅	7	
35	K	1	
36	G ₅	3	
37	G ₅	4	
38	G ₅	6	
39	F ₈	5	
40	G	2	
41	F ₅	2	
42	G ₅	4	
43	K ₅	2	
44	B ₀	10	
45	K ₀	6	
46	K	2	
47	G	2	
48	K ₀	6	
49	A	2	
50	G ₅	4	
51	F ₂	5	
52	B ₉	6	
53	F ₀	6	
54	F ₅	3	
55	A ₂	6	

29 - 2°	675	3	20.9 - 2	13.1	8.71
30 - 2°	677	3	21.1 - 2	12.7	8.71
31 - 2°	679	3	21.2 - 2	23.7	7.81
32 - 2°	681	3	21.6 - 2	0.0	7.71
33 - 2°	683	3	22.4 - 2	4.0	7.81
34 - 1°	519	3	22.6 - 1	36.0	6.71
35 - 2°	684	3	22.5 - 2	23.4	8.31
36 - 2°	686	3	22.8 - 2	22.1	8.01
37 - 2°	690	3	23.4 - 2	47.9	7.51
38 - 3°	591	3	22.4 - 3	52.0	6.31
39 - 3°	592	3	23.0 - 3	41.3	7.21
40 - 3°	597	3	24.4 - 3	18.7	8.01
41 - 4°	647	3	23.5 - 4	37.2	8.31
42 - 2°	702	3	26.0 - 2	31.8	7.51
43 - 2°	703	3	26.3 - 2	32.2	7.81
44 - 1°	526	3	27.2 - 1	26.8	5.81
45 - 0°	593	3	27.5 - 0	45.9	6.21
46 - 0°	594	3	28.5 - 0	14.4	7.81
47 + 0°	641	3	28.3 + 0	9.8	8.41
48 - 0°	602	3	41.2 - 0	13.4	6.51
49 - 0°	605	3	42.1 - 0	48.6	8.21
50 - 1°	539	3	42.0 - 1	53.2	7.51
51 - 1°	544	3	42.9 - 1	58.1	7.01
52 - 1°	548	3	44.8 - 1	24.3	7.01
53 - 1°	549	3	44.9 - 1	5.0	7.31
54 - 2°	614	3	40.5 - 2	1.3	8.21
55 - 3°	616	3	40.7 - 3	18.7	7.21

Cous

Mars

24

January 25, 1912

I 3732P

No.	Class	Int.	Remark	T
56	G5	2		
57	G0	5		
58	G0	3		
59	G5	3		
60	G2	2	E.	
61	Comp.	9	Br. = G. $\frac{35}{37} = \text{av. } K = 0.474$	
62	G0	6		
63	G0	4		
64	G0	8		
65	G	3		
66	G0	3		
47				

56	-2°	723	3	41.4 - 2	52.7	7.8 ✓	
57	-2°	726	3	42.3 - 2	46.5	7.3 ✓	
58	-2°	747	3	45.9 - 2	25.8	8.0 ✓	
59	-4°	682	3	44.9 - 4	2.2	7.8 ✓	
60	-3°	629	3	46.0 - 3	43.5	8.3 ✓	
61	-3°	631	3	47.0 - 3	23.3	5.0 ✓	
62	-0°	560	3	23.7 - 0	58.4	7.0 ✓	
Note change in numbering	63	-0°	572	3	29.5 - 0	3.7	4.2 ✓
	64	+0°	616	3	29.4 + 0	6.9	6.9 ✓
	65	-0°	577	3	30.4 - 0	20.6	8.0 ✓
66	-0°	584	3	34.0 - 0	41.6	8.3 ✓	

Ident. by A. M. C. March 1, 1912

Checked by J. C. M. March 8, 1912

January 25, 1912

June 11.07

Q 41775

No. class	Int.	Remarks
1 B5	6	
2 B	4	E
3 B5	3	
4 B5	3	E
5 B	2	
6 B	5	Some poor
7 Md	2	H ₂ O h = 4
8		Plate rejected
9		
10		
11		
12		
13		
14		
15		

Dm.

1 -13° 6485 2.3 48.3-13 57.3 7.2

2 -13° 6487 2.3 48.6-13 17.3 7.8

3 -13° 6490 2.3 49.6-13 46.1 8.3

4 -12° 6592 2.3 50.8-12 15.9 7.8

5 -12° 6593 2.3 51.2-12 29.7 8.6

6 -12° 6594 2.3 51.6-12 44.6 8.0

7 -15° 6534 2.3 54.7-15 29.5 8.4

Ident. by A.M.C.

Checked by J.C.M. March 8, 1912

January 25, 1912

B. 14.157

Time 11.10

M. class	Int.	Remark
1 70	5	
2 85	7	
3 75	2	
4 80	2	
5 70	3	
6 70	4	
7 85	3	
8 70	3	
9 75	2	
10 78	10	
11 80	2	
12 8	1	
13 75	2	
14 70	2	
15 75	4	
16 70	7	
17 8	3	
18 80	8	
19 70	2	
20 80	3	
21 70	3	
22 85	6	
23 70	5	
24 70	9	
24 75	8	
25 70	4	
26 75	2	
27 75	7	

1	-13°	6487	23	48	34.1	-13	17.3	7.8 J
2	-13°	6485	23	48	18.7	-13	57.3	7.2 J
3	-14°	6581	23	48	48.6	-14	19.2	8.3 J
4	-14°	6577	23	48	2.1	-14	33.0	8.4 J
5	-13°	6490	23	49	39.0	-13	46.1	8.3 J
6	-13°	6475	23	51	7.5	-13	16.2	8.3 J
7	-13°	6476	23	51	26.9	-13	35.4	8.7 J
8	-14°	6572	23	51	58.9	-14	7.1	8.8 J
9	-14°	6577	23	52	54.1	-14	11.9	8.6 J
10	-14°	6603	23	54	48.7	-14	13.2	6.5 J
11	-13°	6504	23	53	25.6	-13	38.0	8.7 J
12	-14°	6611	23	52	27.0	-14	29.5	8.8 J
13	-15°	6532	23	55	22.3	-15	50.8	8.3 J
14	-16°	6415	23	58	18.8	-16	10.4	8.2 J
15	-16°	6419	23	59	42.8	-16	39.0	8.0 J
16	-15°	6539	23	58	1.4	-15	13.7	7.3 J
17	-15°	3	0	0	34.1	-15	1.8	8.3 J
18	-15°	7	0	0	52.9	-15	38.0	7.0 J
19	-14°	7	0	2	11.1	-14	58.9	8.5 J
20	-14°	11	0	2	58.0	-14	47.7	8.5 J
21	-14°	16	0	3	30.1	-14	42.4	7.9 J
22	-14°	19	0	4	39.6	-14	37.3	6.8 J
23	-14°	23	0	5	12.9	-14	25.0	7.8 J
24	-14°	29	0	7	24.7	-14	58.8	7.8 J
24	-15°	18	0	3	1.2	-15	15.0	8.0 J
25	-15°	30	0	7	5.1	-15	13.9	7.0 J
26	-15°	28	0	6	53.7	-15	16.0	8.5 J
27	-15°	32	0	7	15.7	-15	36.7	6.7 J

January 30, 1912 (Cont.)
1314157

No.	Class	Set	Remark
28	F5	10+	Burned out
29	K	1	
30	F	2	
31	G5	1	
32	G5	2	
33	F8	4	
34	G5	4	
35	K0	2	
36	K	1	
37	B8	3	
38	G3	7	
39	G0	8	
40	G5	5	
41	G5	2	
42	F5	4	
43	F5	5	
44	G0	10	
45	F2	5	
46	F8	3	
47	mb	5	E
48	G0	8	E
49	F5	3	E
50	F8	4	E
51	K	2	E
52	K0	3	
53	Ma	6	
54	Ma	4	

28	-16°	17	0	3	52.5	-16	15.7	5.2	✓
29	-15°	22	0	4	50.8	-15	57.9	8.6	✓
30	-16°	37	0	7	37.7	-16	52.8	8.3	✓
31	-15°	34	0	8	10.0	-15	1.9	9.0	✓
32	-14°	32	0	8	41.5	-14	57.9	8.7	✓
33	-15°	38	0	8	55.5	-15	17.0	8.3	✓
34	-15°	41	0	9	30.7	-15	31.6	8.3	✓
35	-15°	44	0	9	51.8	-15	48.1	8.9	✓
36	-15°	42	0	9	40.6	-15	9.3	8.8	✓
37	-14°	38	0	9	50.5	-14	54.8	9.1	✓
38	-14°	35	0	9	11.5	-14	12.0	7.0	✓
39	-14°	42	0	10	32.7	-14	15.6	6.5	✓
40	-13°	52	0	12	44.9	-13	52.2	6.8	✓
41	-14°	49	0	13	25.3	-14	26.4	8.5	✓
42	-14°	55	0	14	49.9	-14	15.7	8.5	✓
43	-13°	63	0	15	51.6	-13	58.1	8.0	✓
44	-13°	60	0	15	26.1	-13	0.6	6.5	✓
45	-12°	57	0	17	28.7	-12	30.9	7.8	✓
46	-12°	63	0	18	46.5	-12	11.0	8.5	✓
47	-12°	70	0	20	39.1	-12	27.2	6.7	✓
48	-12°	75	0	21	10.7	-12	2.4	6.7	✓
49	-13°	69	0	18	45.0	-13	52.7	8.5	✓
50	-14°	67	0	19	16.8	-14	49.7	8.0	✓
51	-15°	70	0	19	54.5	-15	3.4	8.2	✓
52	-16°	63	0	17	32.6	-16	50.1	8.2	✓
53	-16°	58	0	15	42.6	-16	44.6	6.7	✓
54	-12°	65.79	23	45	20.1	-12	49.3	7.3	✓

January 25, 1912 (cont.)
1314157

No.	Class	Int.	Remark
55	Ko	4	
56	As	3	
57	K	2	
58	As	4	
59	As	3	
60	As	5	
61	As	5	
62	As	4	
63	As	4	
64	Ko	4	
65	As	2	
66	As	1	
67	As	4	
68	As	6	
69	As	4	
70	As	10	
71	As	5	
72	As	4	
73	Ko	4	
74	As	5	
75	As	5	
76	As	5	
77	As	4	
78	As	5	
79	As	5	
80	As	2	
81	Ko	3	

55	-11°	6154	23	45	448	-11	47.5	7.8 ✓
56	-11°	6161	23	48	11.0	-11	35.9	8.3 ✓
57	-11°	6164	23	48	29.1	-11	40.5	8.7 ✓
58	-12°	6592	23	50	49.6	-12	15.9	7.8 ✓
59	-12°	6593	23	51	14.4	-12	29.7	8.6 ✓
60	-12°	6594	23	51	35.7	-12	44.6	8.0 ✓
61	-12°	6598	23	53	29.7	-12	37.9	8.2 ✓
62	-12°	6599	23	53	45.8	-12	46.4	8.7 ✓
63	-12°	6600	23	54	48.3	-12	46.4	8.7 ✓
64	-12°	6602	23	55	55.6	-12	44.8	8.3 ✓
65	-11°	6193	23	57	2.2	-11	59.9	8.8 ✓
66	-12°	6609	23	58	2.4	-12	39.0	8.7 ✓
67	-12°	6611	23	58	54.4	-12	54.4	8.5 ✓
68	-12°	6617	23	59	59.1	-12	25.3	7.6 ✓
69	-12°	10	0	2	58.6	-12	25.3	8.3 ✓
70	-13°	13	0	3	17.4	-13	23.2	6.0 ✓
71	-12°	14	0	5	9.1	-12	29.9	8.3 ✓
72	-12°	20	0	6	38.0	-12	6.8	8.3 ✓
73	-13°	31	0	7	17.8	-13	33.3	7.3 ✓
74	-13°	35	0	8	1.7	-13	51.5	8.3 ✓
75	-12°	28	0	8	25.7	-12	47.9	8.1 ✓
76	-12°	34	0	9	43.4	-12	51.2	8.3 ✓
77	-12°	40	0	11	33.3	-12	23.6	8.3 ✓
78	-11°	44	0	11	24.9	-11	45.2	8.0 ✓
79	-11°	46	0	12	54.2	-11	58.5	8.3 ✓
80	-11°	52	0	13	58.6	-11	27.1	8.5 ✓
81	-13°	51	0	12	25.3	-13	9.7	8.0 ✓

Combs made out

January 25, 1912 (Cont.)
B 14157

No.	Class	Int.	Remark
82	Ko	2	
83	fs	2	
84	fs	5	
85	fs	7	
86	Ks	4	
87	f	9	E
88	fs	5	
89	fs	3	
90	fs	4	
91	fs	5	
92	Ko	10	Burned out
93	fs	4	
94	fs	1	
95	fs	2	
96	fs	2	Difficult
97	fs	2	
98	fs	2	
99	Ko	2	
100	Ko	2	
101	Ko	3	
102	fs	4	
103	Ko	2	
104	fs	2	
105	fs	2	
106	fs	10	Burned out
107	fs	1	
108	fs	4	

82	-12°	50	0	14	37.7	-12	49.1	8.5 ✓
83	-10°	56	0	14	34.5	-10	42.7	8.6 ✓
84	-10°	57	0	15	19.7	-10	25.5	8.0 ✓
85	-10°	76	0	19	45.5	-10	40.8	7.2 ✓
86	-10°	6192	23	46	34.9	-10	57.8	7.8 ✓
87	-10°	6198	23	47	36.8	-10	16.1	7.0 ✓
88	-9°	6287	23	48	17.7	-9	57.8	8.0 ✓
89	-10°	6203	23	48	56.8	-10	18.3	8.3 ✓
90	-10°	6206	23	50	2.4	-10	26.7	7.8 ✓
91	-11°	6175	23	52	56.7	-11	16.4	7.8 ✓
92	-11°	6194	23	57	4.4	-11	18.8	5.5 ✓
93	-11°	6199	23	58	57.0	-11	35.1	8.0 ✓
94	-11°	6205	23	59	58.2	-11	50.1	8.7 ✓
95	-11°	2	0	0	23.7	-11	56.2	8.5 ✓
96	-11°	6	0	1	28.8	-11	55.6	9.0 ✓
97	-11°	15	0	3	4.6	-11	47.5	9.0 ✓
98	-11°	21	0	4	28.6	-11	58.3	8.6 ✓
99	-11°	33	0	8	16.2	-11	50.5	8.8 ✓
100	-12°	35	0	10	18.1	-12	0.9	8.5 ✓
101	-10°	9	0	2	5.5	-10	59.6	8.0 ✓
102	-10°	16	0	4	15.6	-10	30.0	8.0 ✓
103	-10°	25	0	6	31.9	-10	33.3	8.6 ✓
104	-10°	213	0	6	30.7	-10	42.4	9.0 ✓
105	-10°	29	0	7	18.3	-10	44.4	9.0 ✓
106	-10°	30	0	7	30.1	-10	22.5	6.5 ✓
107	-10°	27	0	7	16.0	-10	13.0	8.8 ✓
108	-10°	34	0	8	35.8	-10	16.9	8.1 ✓

Good made out

January 25, 1912 (Cmt)

B.14.157

No.	Class	Set	Remark
109	Y	2	
110	Ko	4	
111	Ma	10	
112	Ko	4	
113	Fr	6	
114	Bo	7	
115	Fr	5	
116	Y	10+	Burned out.
117	Y	2	
118	Y5	3	
119	Y	2	
120	Y5	4	
121	Y	3	
122	Y	2	
123	K	2	
124	Y	2	
125	Y5	2	
126	Ko	5	
127	Fr	8	
128	Fr	1	
129	Y5	10	
130	Fr	10	
131	K	2	
132	Y5	2	
133	Y5	3	
134	Fr	6	
135	Y5	2	

109	-9°	32	0	8	27.5	-9	41.0	8.3	✓
110	-9°	30	0	6	53.2	-9	38.6	7.9	✓
111	-8°	26	0	7	2.6	-8	35.1	5.8	✓
112	-8°	18	0	5	43.6	-8	27.6	7.8	✓
113	-8°	24	0	6	45.1	-8	0.0	8.0	✓
114	-8°	38	0	11	14.8	-8	51.2	6.5	✓
115	-8°	42	0	12	12.7	-8	1.2	7.3	✓
116	-9°	48	0	12	3.1	-9	37.6	3.9	✓
117	-9°	51	0	12	51.2	-9	42.4	8.7	✓
118	-9°	53	0	13	39.3	-9	54.8	8.6	✓
119	-9°	62.95	23	51	21.5	-9	38.1	8.5	✓
120	-9°	62.96	23	51	41.7	-9	17.9	7.8	✓
121	-8°	62.22	23	52	10.4	-8	36.7	8.0	✓
122	-10°	62.12	23	54	6.6	-10	14.5	8.5	✓
123	-9°	63.09	23	54	51.9	-9	59.3	8.0	✓
124	-9°	63.10	23	55	13.7	-9	17.5	8.5	✓
125	-8°	62.31	23	55	38.0	-8	37.7	8.1	✓
126	-8°	62.42	23	58	3.5	-8	28.2	6.7	✓
127	-10°	62.27	23	58	4.8	-10	25.4	7.5	✓
128	-10°	62.27	23	58	11.0	-10	14.2	8.8	✓
129	-9°	5	0	0	52.9	-9	37.7	6.5	✓
130	-9°	13	0	2	38.6	-9	47.1	7.3	✓
131	-10°	11	0	3	4.2	-10	6.3	8.5	✓
132	-9°	23	0	4	58.0	-9	31.3	8.5	✓
133	-8°	2	0	0	15.2	-8	43.7	8.2	✓
134	-8°	3	0	0	35.9	-8	21.0	8.0	✓
135	-8°	5	0	0	24.4	-8	42.2	8.5	✓

Congo made by

January 25, 1912 (Cont.)
B. 4157

Time	No	Class	Set	Remarks
11.40	136	No	3	

186 - 9° 6

0 1 37.5 - 9 1.2 8.5 ✓

Identified by A. D. R. Feb. 7, 1912.
Checked by A. M. C. Feb. 29, 1912.

January 25, 1912

Time 11:42

I 37411

No.	Class	Set	Remark
1	78	5	E
2	K2	3	
3	72	8	
4	K0	2	
5	78	3	
6	75	3	Focus poor
7	75	2	
8	Bq	5	Focus poor
9	4	3	Partly superseded
10	78	4	
11	70	5	
12	70	4	
13	70	5	
14	75	7	
15	K2	3	
16	Q2	2	
17	Q3	8	
18	75	2	
19	75	3	
20	K0	3	
21	75	6	
22	K0	7	
23	75	7	
24	75	4	
25	70	7	
26	78	4	
27	Q0	4	

1	-17°	61	0	20.3-17	12.3	7.3 ✓
2	-15°	78	0	21.9-15	52.1	8.0 ✓
3	-13°	84	0	22.5-15	39.8	6.2 ✓
4	-13°	86	0	23.1-15	55.2	8.1 ✓
5	-16°	81	0	23.1-16	43.0	8.0 ✓
6	-14°	71	0	21.9-14	21.4	8.5 ✓
7	-14°	75	0	23.2-14	31.0	8.5 ✓
8	-14°	83	0	25.4-14	17.2	8.0 ✓
9	-14°	84	0	25.5-14	3.1	8.3 ✓
10	-13°	89	0	24.8-13	5.8	8.2 ✓
11	-12°	83	0	24.0-12	1.5	8.0 ✓
12	-12°	84	0	24.2-12	4.4	8.4 ✓
13	-12°	72	0	20.7-12	27.2	6.7 ✓
14	-12°	75	0	21.2-12	2.4	6.7 ✓
15	-12°	77	0	21.8-12	24.0	7.5 ✓
16	-11°	78	0	21.9-11	54.5	9.0 ✓
17	-10°	89	0	23.6-10	52.7	7.2 ✓
18	-10°	99	0	25.8-10	47.3	8.3 ✓
19	-11°	105	0	29.5-11	55.3	7.5 ✓
20	-11°	109	0	31.2-11	29.3	7.8 ✓
21	-11°	113	0	32.4-11	56.6	6.9 ✓
22	-12°	121	0	34.9-12	35.9	7.0 ✓
23	-12°	126	0	36.5-12	48.0	6.0 ✓
24	-12°	128	0	37.7-12	56.5	7.8 ✓
25	-13°	128	0	38.2-13	39.9	6.3 ✓
26	-14°	134	0	37.2-14	12.4	7.3 ✓
27	-15°	105	0	28.3-15	31.8	8.3 ✓

-10° 90 superseded

January 25, 1912 (cont.)
I 3741

No.	Class	Int.	Remark
28	Ko	6	
29	Ko	3	
30	Ko	5	
31	Qs-	3	
32	F2V	4	
33	Qs-	2	
34	Qs	2	
35	F5	1	
36	Mu	4	
37	Fo	3	
38	F	2	
39	Qs-	2	
40	Qs	3	
41	Qs-	4	
42	F8	5	
43	Q	6	E focus point
44	F8	6	
45	Qs-	10	
46	F8	3	
47	Qs	3	
48	Qs	3	

Jan 11.54

28	-15°	109	0	28.8-15	46.1	6.8 V
29	-14°	110	0	32.8-14	40.9	8.0 V
30	-9°	70	0	18.5-9	9.3	8.7 V
31	-8°	65	0	19.8-8	40.7	8.1 V
32	-9°	79	0	20.0-9	27.3	8.0 V
33	-10°	82	0	21.3-10	12.6	8.3 V
34	-10	85	0	22.8-10	2.2	8.7 V
35	-10	86	0	23.2-10	28.8	8.9 V
36	-10°	88	0	23.3-10	12.6	7.7 V
37	-9°	106	0	27.3-9	5.7	8.3 V
38	-9°	111	0	28.4-9	0.5	8.5 V
39	-8°	93	0	28.4-8	42.0	8.1 V
40	-9°	117	0	30.3-9	52.2	8.0 V
41	-8°	110	0	32.4-8	48.1	7.9 V
42	-8°	114	0	33.0-8	26.8	7.7 V
43	-8°	117	0	33.4-8	1.3	7.0 V
44	-10°	140	0	35.5-10	43.0	7.0 V
45	-11°	128	0	36.9-11	24.6	8.0 V
46	-11°	135	0	38.3-11	52.8	8.3 V
47	-12°	132	0	38.9-12	14.2	7.3 V
48	-11°	139	0	39.7-11	57.2	8.0 V

Ident by A.M.C. Mar. 1, 12
checked by J.E.M. March 8, 1912

Feb. 18, 1912

Lines 22 down 15 mm.

I 37552

no.	Class	Int.	Remark
1	F2	6	E.
2	G5	5	E.
3	G5	5	
4	G5	4	
5	G5	4	
6	F5	6	
7	G5	5	Focus poor
8	G5	3	
9	G5	3	
10	G5	3	
11	G5	3	
12	G0	5	
13	G0	6	
14	G5	3	
15	F2	4	
16	G0	6	
17	G5	2	
18	F8	6	
19	G0	6	
20	G5	6	
21	G5	3	E.
22	F0	5	E.
23	B9	6	E.
24	A2	5	E.
25	F5	4	
26	A2	6	
27	H0	3	

1	+75°	247	5	45.2+75	34.2	6.2✓
2	+76°	226	5	54.1+76	30.7	7.5✓
3	+77°	229	5	51.2+77	17.9	7.5✓
4	+78°	209	5	46.4+78	0.5	8.5✓
5	+77°	221	5	43.0+77	33.3	8.5✓
6	+76°	211	5	33.9+76	48.9	8.1✓
7	+77°	217	5	33.2+77	52.1	8.5✓
8	+77°	215	5	31.6+77	6.2	9.0✓
9	+77°	209	5	25.1+77	1.2	8.8✓
10	+76°	207	5	23.9+76	52.8	8.3✓
11	+77°	207	5	24.7+77	31.3	8.7✓
12	+78°	197	5	23.4+78	9.9	8.2✓
13	+77°	201	5	19.6+77	26.2	8.3✓
14	+77°	205	5	21.1+77	1.6	8.2✓
15	+76°	203	5	19.1+76	39.7	7.8✓
16	+76°	206	5	21.3+76	21.9	8.3✓
17	+76°	204	5	19.4+76	15.1	8.3✓
18	+75°	236	5	30.4+75	39.6	7.5✓
19	+74°	257	5	27.4+74	32.1	7.2✓
20	+74°	252	5	20.4+74	57.0	6.5✓
21	+74°	250	5	18.5+74	34.7	7.5✓
22	+74°	249	5	18.2+74	11.5	7.0✓
23	+74°	242	5	9.8+74	10.1	7.7✓
24	+74°	241	5	8.8+74	23.8	7.1✓
25	+75°	220	5	2.8+75	0.5	7.5✓
26	+74°	258	4	53.8+74	20.9	7.2✓
27	+75°	217	4	58.6+75	46.0	7.6✓

Cable

Cable

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Feb. 18, 1912

I 37558

No.	Class	Int.	Remark
28	A ₃	3	
29	F ₅	2	
30	B ₉	10	
31	A ₂	8	
32	G ₅	3	Partly superposed on 31
33	A ₀	3	
34	K	2	
35	F ₀	4	
36	F ₅	4	
37	A ₉	2	
38	G ₅	5	
39	F ₀	8	
40	F ₅	7	
41	F ₈	4	
42	A ₂	3	
43	K ₀	3	The northern of two stars.
44	B ₈	7	E.
45	G ₅	4	
46	G ₅	5A	
47	K	2	
48	K ₀	5	
49	B ₉	6	
50	F ₀	3	
51	G ₅	4	
52	A ₃	4	Focus 1000
53	A ₅	3	" "
54	M ₁	7	

28	+75°	213	4	56.8 + 75	25.0	8.3 ✓
29	+75°	212	4	55.4 + 75	32.4	8.3 ✓
30	+76°	190	4	54.3 + 76	16.7	6.2 ✓
31	+75°	208	4	50.5 + 75	29.0	7.3 ✓
32	+75°	207	4	50.5 + 75	16.7	8.0 ✓
33	+75°	203	4	49.0 + 75	40.7	8.3 ✓
34	+76°	189	4	49.2 + 76	24.0	8.2 ✓
35	+76°	188	4	47.6 + 76	25.4	8.1 ✓
36	+76°	187	4	45.6 + 76	36.8	8.0 ✓
37	+76°	186	4	40.4 + 76	15.1	8.8 ✓
38	+75°	193	4	33.6 + 75	27.1	7.0 ✓
39	+75°	189	4	29.4 + 75	39.8	6.0 ✓
40	+76°	174	4	26.0 + 76	19.3	6.3 ✓
41	+76°	169	4	20.7 + 76	14.3	8.0 ✓
42	+76°	167	4	19.5 + 76	38.4	8.6 ✓
43	+76°	165	4	18.9 + 76	89.5	8.0 ✓
44	+75°	173	4	2.4 + 75	44.7	6.8 ✓
45	+77°	162	4	11.5 + 77	17.7	7.8 ✓
46	+77°	150	3	59.3 + 77	41.8	7.0 ✓
47	+77°	145	3	53.4 + 77	58.6	8.4 ✓
48	+78°	146	3	50.6 + 78	38.3	7.2 ✓
49	+78°	142	3	47.8 + 78	32.3	8.0 ✓
50	+78°	143	3	48.6 + 78	1.5	8.5 ✓
51	+77°	138	3	43.0 + 77	46.4	7.0 ✓
52	+79°	121	3	37.9 + 79	4.9	9.7 ✓
53	+79°	117	3	36.3 + 79	14.8	8.9 ✓
54	+79°	110	3	27.1 + 79	51.2	7.8 ✓

B9

F0

F5

Feb. 18, 1912

I 37558

No.	Class	Int.	Remark
55	A	4	
56	A ₀	3	
57	A ₀	7	
58	F ₈	3	
59	G	2	
60	G	3	
61	F ₈	4	
62	G ₅	5	E.
63	G ₀	4	
64	G ₅	3	
65	G ₅	3	
66	A ₀	5	
67	G ₅	2	
68	G ₅	3	
69	G ₅	8	
70	A	3	
71	F ₈	2	
72	K	2	
73	A ₂	7	
74	G ₅	4	
75	G ₅	4	
76	G ₅	3	
77	F ₈	4	
78	K ₀	2	
79	K ₂	2	
80	A ₀	6	
81	A ₅	8	

55	+79°	120	3	37.3+79	46.2	8.6✓
56	+79°	124	3	43.5+79	45	8.9✓
57	+79°	125	3	43.7+79	21.7	8.3✓
58	+79°	128	3	46.8+79	33.7	9.0✓
59	+79°	131	3	50.4+79	26.6	8.8✓
60	+79°	130	3	48.4+79	0.3	8.7✓
61	+79°	126	3	45.7+79	13.3	8.3✓
62	+79°	202	6	9.2+79	3.5	7.0✓
63	+79°	201	6	8.2+79	33.5	7.5✓
64	+78°	220	6	2.5+78	50.5	8.1✓
65	+79°	198	5	56.4+79	48.6	7.5✓
66	+79°	196	5	53.0+79	20.7	7.8✓
67	+78°	211	5	49.9+78	32.7	8.5✓
68	+80°	204	5	56.8+80	10.3	8.1✓
69	+80°	202	5	54.0+80	23.6	7.8✓
70	+80°	190	5	44.0+80	0.9	8.7✓
71	+79°	188	5	34.5+79	58.4	9.0✓
72	+80°	183	5	28.6+80	12.2	8.8✓
73	+80°	181	5	25.4+80	32.0	7.9✓
74	+80°	177	5	20.0+80	18.1	8.2✓
75	+79°	183	5	21.1+79	31.5	7.7✓
76	+79°	182	5	18.0+79	13.8	8.7✓
77	+78°	193	5	16.1+78	15.1	7.7✓
78	+77°	199	5	13.8+77	49.2	8.5✓
79	+77°	198	5	12.1+77	5.2	8.0✓
80	+78°	190	5	11.4+78	41.7	7.7✓
81	+77°	195	5	7.2+77	56.2	7.0✓

Judds

Mabel

Ed

Feb. 18, 1912

± 37.55P

No.	Class	Int.	Remark
82	Fo	8	
83	g5	7	
84	Fo	6	
85	A	3	
86	K2	4	Another star superposed toward south P
87	H	1	
88	F5	10	
89	A0	7	
90	F	2	
91	A3	5	
92	F5	3	
93	F8	6	
94	A	2	
95	A5	3	
96	A0	7	
97	A	2	
98	A3	4	North of number 40
99	F8	3	
100	Fo	6	
101	F8	5	
102	F8	2	
103	A2	3	
104	A0	5	
105	A	3	Another star superposed?
106	g5	3	
107	g5	8	
108	F5	10	Burned

82 + 78°	18.7	5	6.1 + 78	7.8	7.0 ✓	
83 + 78°	18.3	5	3.4 + 78	16.2	6.8 ✓	
84 + 78°	18.0	4	58.2 + 78	11.3	8.0 ✓	
85 + 77°	18.7	4	57.6 + 77	53.6	8.5 ✓	
86 + 78°	18.4	5	4.2 + 78	41.7	9.0 ✓	+ 78° 18.5 superposed
87 + 79°	17.1	4	4.3 + 79	2.8	8.5 ✓	
88 + 79°	16.9	4	58.8 + 79	3.2	5.2 ✓	
89 + 79°	17.3	5	9.0 + 79	43.3	7.7 ✓	
90 + 79°	16.5	4	57.5 + 79	32.9	8.9 ✓	
91 + 79°	16.3	4	46.9 + 79	16.8	8.8 ✓	
92 + 77°	17.9	4	45.0 + 77	46.4	8.3 ✓	
93 + 77°	17.8	4	39.4 + 77	31.4	7.5 ✓	
94 + 77°	17.5	4	38.0 + 77	11.7	8.7 ✓	
95 + 77°	17.3	4	35.5 + 77	20.7	8.3 ✓	
96 + 77°	17.2	4	32.7 + 77	18.5	7.8 ✓	
97 + 76°	17.6	4	30.6 + 76	56.5	8.8 ✓	
98 + 76°	17.3	4	25.2 + 76	44.5	8.9 ✓	
99 + 78°	16.2	4	24.2 + 78	3.4	8.4 ✓	
100 + 78°	15.7	4	15.5 + 78	40.8	7.5 ✓	
101 + 79°	14.3	4	5.6 + 79	20.7	8.0 ✓	
102 + 79°	14.2	4	5.2 + 79	17.5	7.9 ✓	
103 + 79°	13.7	3.4	0.0 + 79	1.0	9.8 ✓	
104 + 78°	15.1	4	0.2 + 78	38.3	8.2 ✓	
105 + 79°	13.6	3	57.9 + 79	0.4	8.8 ✓	
106 + 80°	12.9	3	57.0 + 80	1.4	8.3 ✓	
107 + 80°	12.7	3	53.8 + 80	9.3	6.8 ✓	
108 + 80°	12.6	3	46.0 + 80	18.2	4.9 ✓	

done
made
on

Feb. 18, 1912

I 3755P

No.	Class	Int.	Remark
109	Ao	4	
110	F	2	
111	F5	5	
112	Ko	5	
113	G5	3	
114	Ma	6	E.
115	G5	7	E.
116	G5	5	
117	G5	3	
118	Ao	8	
119	G5	3	
120	Ao	3	
121	F	2	
122	F8	6	
123	F2	3	Focus prob
124	Ko	4	
125	G	3	
126	Ao	2	
127	G5	3	
128	F	3	
129	A	2	
130	Fo	4	
131	A	4	
132	G5	4	
133	Ko	10	
134	Fo	5	
135	A	2	

109	+80°	123	3	43.3+80	33.3	8.3✓
110	+80°	121	9	38.9+80	47.8	7.8✓
111	+81°	135	3	35.2+81	8.8	7.8✓
112	+81°	134	3	37.6+81	26.8	7.8✓
113	+81°	135	3	28.8+81	5.3	7.9✓
114	+81°	107	2	59.3+81	36.5	7.4✓
115	+82°	76	2	46.8+82	19.9	8.3✓
116	+80°	210	6	8.6+80	39.2	7.2✓
117	+80°	206	6	0.4+80	55.0	8.1✓
118	+82°	177	6	13.8+82	13.2	6.7✓
119	+81°	194	5	29.6+81	18.5	8.0✓
120	+81°	192	5	25.8+81	43.2	8.5✓
121	+82°	155	5	37.0+82	26.0	8.7✓
122	+82°	152	5	30.2+82	42.2	7.6✓
123	+81°	187	5	11.7+81	16.5	8.6✓
124	+80°	168	5	4.5+80	54.8	8.4✓
125	+81°	183	5	5.5+81	33.9	8.6✓
126	+81°	180	5	0.3+81	12.6	9.1✓
127	+81°	178	4	52.0+81	2.3	8.7✓
128	+81°	177	4	50.2+81	44.9	9.2✓
129	+81°	174	4	46.9+81	45.5	9.4✓
130	+80°	159	4	40.4+80	23.0	8.6✓
131	+80°	156	4	38.7+80	32.7	9.1✓
132	+81°	170	4	35.8+81	1.7	8.4✓
133	+80°	155	4	33.4+80	56.4	5.5✓
134	+81°	168	4	31.0+81	22.6	8.5✓
135	+81°	162	4	26.1+81	12.8	9.2✓

Feb. 18, 1912

I 37 558

No.	Class	Int.	Remark
136	G5	3	
137	F0	3	
138	G5	4	
139	G5	2	
140	G	2	
141	F8	3	
142	A0	9	
143	F2	3	
144	F5	3	
145	K	2	
146	F0	7	
147	G5	2	
148	A2	9	
149	G5	10	
150	A0	7	
151	A0	6	
152	A3	5	
153	F5	3	
154	F0	5	
155	B9	8	E.
156	A2	5	E.
157	K0	4	
158	F2	2	
159	K	2	
160	K2	3	
161	B9	6	
162	F5	4	

136 + 80°	149	4	23.8 + 80	22.5	8.1 v
137 + 80°	147	4	21.0 + 80	13.2	7.9 ✓
138 + 80°	146	4	19.5 + 80	31.6	8.0 ✓
139 + 80°	143	4	15.3 + 80	51.0	8.8 v
140 + 79°	159	4	40.1 + 79	41.3	8.7 v
141 + 79°	155	4	30.5 + 79	23.7	8.4 v
142 + 79°	150	4	21.7 + 79	20.7	7.0 v
143 + 79°	149	4	20.1 + 79	28.0	8.5 ✓
144 + 78°	161	4	23.4 + 78	51.6	8.1 v
145 + 79°	145	4	12.2 + 79	56.5	8.5 v
146 + 80°	140	4	11.4 + 80	33.2	7.4 ✓
147 + 80°	138	4	8.7 + 80	27.7	8.7 ✓
148 + 80°	134	4	4.2 + 80	34.8	7.4 ✓
149 + 80°	133	4	2.0 + 80	28.4	5.7 ✓
150 + 81°	147	3	53.8 + 81	35.8	7.5 ✓
151 + 81°	150	3	55.7 + 81	15.4	7.9 ✓
152 + 81°	149	3	55.2 + 81	3.1	8.3 ✓
153 + 82°	105	3	37.9 + 82	26.4	9.0 ✓
154 + 82°	101	3	30.5 + 82	17.0	8.4 v
155 + 83°	91	3	24.8 + 83	4.9	7.3 ✓
156 + 82°	90	3	14.9 + 82	52.0	8.6 v
157 + 82°	82	2	59.9 + 82	59.6	7.5 ✓
158 + 82°	133	4	40.3 + 82	20.7	9.0 ✓
159 + 82°	132	4	38.5 + 82	17.1	8.6 ✓
160 + 83°	126	4	32.2 + 83	13.9	8.5 ✓
161 + 82°	125	4	27.1 + 82	55.8	8.5 ✓
162 + 83°	121	4	24.2 + 83	1.6	8.5 ✓

C
A
SM
A
SA
E

Feb. 18, 1912

I 97 558

No. Class Int.

163 K0 4

164 B5 10

165 G5 8

166 A 8 E.

167 A2 5 E.

Time 23 hrs. 4 mins

 $\sqrt{163 + 83^\circ} \ 114 \ 3 \ 11.0 + 83 \ 43.0 \ 7.4$ $\sqrt{164 + 83^\circ} \ 104 \ 3 \ 55.1 + 83 \ 26.4 \ 5.8$ $\sqrt{165 + 82^\circ} \ 113 \ 3 \ 58.5 + 82 \ 58.6$ $\sqrt{166 + 83^\circ} \ 141 \ 50.6 + 83 \ 43.1 \ 7.1$ $\sqrt{167 + 84^\circ} \ 88 \ 4 \ 21.2 + 84 \ 36.0 \ 7.7$

Ident Mar. 5, 1912 by A.M.C.

Checked by J.B.M. Mar. 9, '12
Cards made out $\sqrt{168 K0} \ 1 \ +79^\circ 107 \ 3 \ 20.5 \ +79 \ 3 \ 8.3 \ 34 \ on \ I37309$

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