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Amt. of Fog. due to moon and clouds. 6.2

Amt. of Fog. due to chemicals. 7.1

Hard to measure. (Jan. 26, '88)

May 24, 1886.

2 20 Plate. 298

V.	H.	Type	No Lines	K	Focus	Other Lines.	V	H	V	H
22.9	16.4	I	4	?	1	—	11.4	32.8	39.0	74.9
22.4	10.2	III	2	K=H	1	—	11.2	20.4	39.2	87.3
22.0	11.3	I	8	N	3	—	11.0	22.6	39.4	85.1
21.9	17.4	I	8	N	2	—	11.0	34.8	39.4	72.9
21.7	18.2	I	5	N	1	—	10.8	36.4	39.6	71.3
21.8	8.6	I	7	N	1	F?	10.9	17.2	39.5	90.5
21.4	24.0	I H	7	N K=H	2	—	10.7	48.0	39.7	59.7
21.1	11.1	I b 1568	9	N	5	F seen	10.6	22.2	39.8	85.5
20.9	17.7	II a 1569	6	K=H	3	F. seen	10.4	35.4	40.0	72.3
20.6	14.8	I	6	N	2	—	10.3	29.6	40.1	78.1
20.0	24.1	I	4	N	2	—	10.0	48.2	40.4	59.5
20.0	9.8	I	6	K=.8 H?	2	—	10.0	19.6	40.4	88.1
20.0	11.9	I	5	N	2	—	10.0	23.8	40.4	83.9
18.7	10.0	I	9	N	5	F	9.4	20.0	41.0	87.7
18.9	15.9	I	7	N	3	—	9.4	31.8	41.0	75.9
19.0	16.3	I	8	K=.5 H	3	—	9.5	32.6	40.9	75.1
19.0	17.2	I	9	K=.2 H	3	F	9.5	34.4	40.9	73.3
18.2	9.0	I b 1570	4	N	2	seen	9.1	18.0	41.3	89.7
18.0	23.7	I?	3	N	1	—	9.0	47.4	41.4	60.3
18.5	20.5	I	6	N	3	F?	9.2	41.0	41.2	66.7
18.5	22.4	I	8	N	5	F	9.2	44.8	41.2	62.9
18.9	24.0	III	2	K=H	2	—	9.4	48.0	41.0	59.7
change in Cat. 17.6	24.0	I H	3	N	2	—	8.8	48.0	41.6	59.7
17.5	9.2	I	1	N	1	—	8.8	18.4	41.6	89.3
17.6	16.6	I b 1571	7	N	3	seen	8.8	33.2	41.6	74.5
17.4	14.7	I b 1572	9	N	4	seen	8.7	29.4	41.7	78.3
17.0	18.6	III	2	K=H	2	—	8.5	37.2	41.9	70.5
17.0	12.3	I	2	K=.5H	1	seen	8.5	24.6	41.9	83.1
16.6	12.2	I	6	N	1	—	8.3	24.4	42.1	83.3
16.9	12.4	II a 1573	2	K=.5H	4	seen	8.4	24.8	42.0	82.9
16.7	20.4	I	6	N	2	—	8.4	40.8	42.0	66.9
16.0	19.7	I	8	K=.4H	4	—	8.0	39.4	42.4	68.3

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Mean 6

No.	R.A.	Dec.	Mag.	H.	V.	H′	Red. of Dm. Stars to 1900	Bv.	Br.
788	5 14.2	+ 28 48	7.0	47.0	40.2		5 17.0 +28 51		
956	5 13.6	+ 29 27	5.6	46.4	40.6	46.8			
017	5 28.2	+ 9 24	4.4	48.6	20.6		5 29.3 +9 26		
Dm. 041	5 27 45.1	+ 20 17.8	8.7	48.2	40.4	47.0	5 30.7 +20 15		
1030	5 30.3	+ 19 13	4.4	52.9	20.2		5 32.8 +9 18		
1017	5 28.2	+ 9 24	4.4						
1381	5 27 47.7	+ 49 18.9	6.8	50.4	60.3	49.9	5 31.3 +49 20		
956	5 13.6	+ 29 27	5.6	48.4	40.4	49.0	5 14.9 +29 28		
1706	5 12.5 66	+ 9 34.7	7.0	49.4	20.4		5 15.4 +9 38		
DM 560	5 9 34.6	+ 29 33.3	8.7	46.0	40.4				
1205	5 10 1.3	+ 39 38.0	7.3	46.4	50.4	49.9	5 31.1 +39 41		
DM 953	5 32 5.9	+ 29 24.5	7.0	49.3	40.3	47.7	5 33.8 +29 26		
1340	5 31 1.4	+ 39 33.1	7.9	48.2	50.5				
1301	5 27.7	+ 9 40	5.3	50.7	20.4		5 32.2 +9 44		
1301	4 55 4.3	+ 49 46.3	7.8	103.1	60.5	109.3	4 58.5 +49 60		
1019	5 28.5	+ 9 51	3.5	50.7	20.4		5 29.6 +9 52		
1220									
944	5 10.7	+ 40 0	5.0	46.1	50.4	47.2	5 12.1 +40 2		
983	5 19.5	+ 30 7	5.8	49.1	40.4	49.1	5 20.8 +30 7		
903	5 0.7	+ 20 15	5.4	48.9	30.2	50.1	5 1.9 +20 17		
1033	5 30.9	+ 30 25	5.6	50.5	40.4	49.0	5 32.2 +30 26		
Dm. 989	5 25.6	+ 20 22	6.3	48.8	30.4		5 27.1 +20 24		
DM 977	5 23 46.6	+ 20 38.8	8.7	47.1	30.6	46.6	5 30.0 +20 41		
1310	5 20 11.6	+ 40 28	7.2	44.0	50.4				
1037	5 30.5	+ 21 4	3.0	50.5	30.5	49.8	5 31.7 +21 5		
9681	16.9	+ 31 7					18.2 +31 8		
969	5 16.9	+ 31 2	5.9	48.7	40.4	48.9	5 18.2 +31 3		
958	5 14.0	+ 40 54	5.5	48.6	50.4	50.2	5 15.8 +40 56		
947	5 11.8	+ 40 58	5.3	46.2	50.5	47.7	5 13.3 +40 59		
DM 1094	5 26 53.9	+ 51 20.7	7.9	44.9	60.4				
Dm. 1048	5 31 12.7	+ 31 16.4	6.4	49.2	40.4	47.4	5 34.1 +31 18		
1044	4 53.1	+ 41 14	6.5	100.5	50.2		4 56.2 +41 18		
991	4 57.3	+ 51 26	4.9	104.7	60.4	111.2			
Dm. 1102	5 1 44.1	+ 41 19.3	8.0	42.7	50.5	45.5	5 4.9 +41 23		
766	4 59 15.3	+ 21 30.6	6.3	100.2	30.7	101.0	5 2.0 +21 34		
940	5 9.4	+ 11 12	5.6	50.4	20.4	50.7	5 10.5 +11 14		
896	4 58.1	+ 41 4	3.3	102.9	50.3	106.2	4 59.5 +41 7		
879	4 54.1	+ 40 54	4.0	102.1	50.3	106.5	4 55.5 +40 56		
1015	5 0.8	+ 21 33	5.8						
1884	4 59.9	+ 21 25	4.7	103.9	30.2	105.2	4 59.1 +21 27		
1256	5 32 56.1	+ 41 37.5	7.0	51.3	50.4	48.1	5 33.1 +41 40		
Dm. 918	5 30 45.1	+ 21 40.4	7.0	49.2	30.5	48.4	5 32.3 +21 42		
954	5 13.4	+ 41 41	5.1	46.6	50.5	47.5	5 14.7 +41 43		
987	5 20.4	+ 21 50	4.8	49.8	30.5	49.8	5 21.6 +21 51		
956	5 12.1	+ 21 59	5.2	49.3	30.5				
DM. 864	5 6 45.0	+ 22 7.4	6.8	44.0	30.6	44.6	5 13.3 +22 10		
1443	5 8 6.4	+ 41 5.0	8.0	45.8	50.5	49.2	5 11.3 +42 0		
Dm. 1001	5 23 20.4	+ 31 55.0	9.6	47.9	40.4	47.1			
1218	5 23 10.2	+ 41 59.9	0.8	47.8	50.5	46.4	5 20.4 +42 2		
1028	5 24.0	+ 32 42	6.7	48.4	41.0		5 26.9 +32 44		
1024	5 23 18.4	+ 32 48	4.8	47.9	40.4	46.8	5 26.2 +32 47		
Dm. 1027	5 23.8	+ 32 11	9.5	48.2	40.5		5 26.7 +32 13		
1091	5 24.6	+ 32 6	5.0	49.4	40.4	48.6	5 26.2 +32.8		
Dm. 864	5 6.8	+ 22 7	6.8	147.6	30.5		5 9.5 +22 10		
DM. 841	5 1 37.4	+ 31 51.2	7.9	46.4	40.5	48.0	5 4.5 +31 55		
1101	5 1 27.4	+ 41 53.2	8.1	42.7	50.4	48.0	5 4.7 +42 2		
930	5 7.6	+ 32 33	5.2	47.0	40.6	47.5	5 8.8 +32 35		

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May 24, 1886.

Plate 298.

V	H.	Type	No. Lines.	K	Focus	Other Lines.	V	H	V	H
	15.6	12.1	I	5	N	11	—	7.8	24.2	42.6	83.5
	14.5	7.5	I	4	N	1	—	7.2	15.0	43.2	92.7
	14.5	8.1	I?	4	N	1	—	7.2	16.2	43.2	91.5
	14.5	14.5	I	4	N	2	—	7.2	29.0	43.2	78.7
III? 5.8, 6.1.	14.5	18.5	III 1574	2	K=H	3	Fe seen	7.2	37.0	43.2	70.7
	14.7	22.1	I?	3	N	1	—	7.4	44.2	43.0	63.5
	14.5	19.0	I	5	N	1	—	7.2	38.0	43.2	69.7
Recorded above	~~14.5~~	~~14.5~~	~~I~~	~~4~~	~~N~~	~~2~~	~~—~~	~~7.2~~	~~29.0~~	~~43.2~~	~~78.7~~
	~~14.5~~	~~7.5~~	~~I~~	~~3~~	~~N~~	~~1~~	~~—~~	~~7.2~~	~~15.0~~	~~43.2~~	~~92.7~~
	~~14.4~~	~~8.1~~	~~I~~	~~3~~	~~N~~	~~1~~	~~—~~	~~7.2~~	~~16.2~~	~~43.2~~	~~91.5~~
	13.9	14.4	I	4	N	2	—	7.0	28.8	43.4	78.9
	13.9	18.2	I	8	N	4	Fe	7.0	36.4	43.4	71.3
	13.7	18.5	I	7	N	2	Fe	6.8	37.0	43.6	70.7
	13.4	17.8	I	7	K=5H	4	Fe	6.7	35.6	43.7	72.1
	13.3	18.0	I	5	K=H	2	—	6.6	36.0	43.8	71.7
	13.5	23.8	II 1575	2	K=H	5	seen	6.8	47.6	43.6	60.1
	13.3	12.1	I	4	K=H	1	—	6.6	24.2	43.8	83.5
	13.1	11.2	I 1576	6	N	3	seen	6.6	22.4	43.8	85.3
	12.7	11.8	I 1577	6	N	3	seen	6.4	23.6	44.0	84.1
III? 6.5, 6.8.	12.5	14.6	III 1578	2	K=H	2	—	6.2	29.2	44.2	78.5
	12.6	14.9	I	6	N?	3	—	6.3	29.8	44.1	77.9
	12.7	19.3	I 1579	5	N	3	—	6.4	38.6	44.0	69.1
	12.7	23.7	I?	4	N	3	Fe	6.4	47.4	44.0	60.3
	11.9	12.0	I	4	N	1	—	6.0	24.0	44.4	83.7
	11.9	12.1	I	6	K=5H	2	—	6.0	24.2	44.4	83.5
	11.4	12.9	II	2	K=H	1	—	5.7	25.8	44.7	81.9
	11.5	18.0	I	4	N	1	—	5.6	36.0	44.6	71.7
	11.0	14.0	I	7	K=1H?	3	—	5.5	28.0	44.9	79.7

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Mean 6

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M stars to 1900	Cor. Br.	Br.	Cor.
Dm.965	5 21 53.9	+ 52	22.4	4.9	46.1	60.3	43.8			
1030	5 24 14.4	+ 32	38.3	7.0	48.4	40.4	47.6	5 27.1 +32.40		
1049	5 36.0	+ 23	9	6.0	51.0	30.4	49.8	5 37.2 +23 10		
Dm. 1004	5 33.1	+ 23	14	6.8	49.3	30.4	48.2	5 35.9 +23 16		
Dm. [illegible]	[illegible]									
986	5 20.2	+ 53	19	6.9	36.4	60.5	30.9			
Dm. 1272	5 17.2	+ 43	14	6.8	46.2	50.4		5 20.4 +43 17		
985	5 20.2	+ 53	19	6.9	49.2	60.5	48.5			
942	5 10.3	+ 33	15	5.0	47.3	40.4	48.4	5 11.6 +33 17		
Dm. 1140	4 56.5	+ 42	58	6.8	100.7	50.3		4 59.7 +43 3		
Dm. 1182	4 59 15.1	+ 42	57.4	8.8	103.5	50.4	104.3			
863	4 59 54.5	+ 53	1.3	7.9	104.1	60.4	104.9	5 3.5 +58.6		
Dm. 991	5 7 36.2	+ 33	9.8	7.6	45.6	40.3	46.9	5 10.6 +33 13		
1234	5 6 41.1	+ 43	15.3	8.8	44.7	50.5	46.7			
Dm. 903	5 20.4	+ 13	34	6.5	49.2	20.6		5 22.9 +13 37		
985	5 20.2	+ 53	19	6.9	49.0	60.3	48.5			
946	5 11.1	+ 33	37	5.3	48.5	40.6		5 12.4 +33 39		
Dm. 942	5 10.3	+ 33	15	5.0	47.3	40.4	48.2	5 11.6 +33 17		
1000	5 8 39.8	+ 33	13.1	5.1	45.1	40.2	46.1	5 11.7 +33 15		
Dm. 1002	5 8.8	+ 33	36	6.5	45.8	40.4		5 11.8 +33 39		
946	5 11.1	+ 33	37	5.3	48.1	40.4	49.2	5 12.4 +33 39		
949	5 12.1	+ 33	50	5.1	47.7	40.5	48.7	5 13.4 +33 52		
Dm. 888	5 8 42.9	+ 23	57.1	6.8	44.4	30.5	45.3	5 14.4 +23 55		
Dm. 1010	5 9 49.8	+ 33	49.7	7.2	45.8	40.4	46.8	5 12.8 +33 53		
877	4 53.4	+ 43	39	3.2	101.0	50.4	105.8	4 54.8 +43 41		
1087	5 26 39.0	+ 33	51.3	8.3	49.8	40.5	48.9			
Dm. 1301	5 23 38.0	+ 43	49.6	7.2	47.8	50.4	46.2	5 26.8 +43 52		
Dm. 954	5 26 35.8	+ 23	56.5	5.9	49.0	30.5	48.3	5 29.3 +23 58		
Dm. 974	5 24.7	+ 54	18	6.6	48.3	60.1	48.8	5 26.4 +54 20		
[illegible]	[illegible]									
1012	5 27.1	+ 14	13	5.7	50.7	20.6	50.5	5 28.2 +14 15		
984	5 19.7	+ 34	23	5.3	48.9	40.6	48.9	5 21.0 +34 24		
Dm. 1040	5 17.2	+ 84	15	6.6				5 20.2 +84 18		
Dm. 1048	5 18 27.8	+ 34	21.1	6.0	47.8	40.7	47.8	5 21.0 +34 24		
1008	5 17 16.1	+ 44	2.3	7.8	47.1	50.3	50.3			
Dm. 882	5 9 30.2	+ 54	6.0	6.3	48.1	60.5	51.6	5 13.2 +54 9		
Dm. 980	5 6 43.9	+ 34	9.0	6.7	45.3	40.5	45.8	5 9.7 +34 12		
Dm. 755	4 59.3	+ 24	5	5.8	106.7	30.5	108.3	5 6.0 +24 9		
842	4 50.8	+ 24	52	5.7	98.2	31.3	99.8			
904	5 0.8	+ 24	7	5.5	48.2	30.6	49.9	5 2.0 +24 8		
Dm. 1034	5 24.6	+ 24	31	7.0	48.6	30.5		5 27.4 +24 33		
1252	5 26 54.5	+ 44	29.6	7.1	50.9	50.6	49.2	5 30.2 +44 32		
Dm. 1083	5 24.0	+ 34	37	6.9	48.2	40.6		5 27.0 +34 39		
1004	5 26.9	+ 54	20	6.0	50.9	60.3	48.4			
Dm. 934	5 23.3	+ 14	49	7.0	49.1	20.5		5 25.9 +14 51		
Dm. 977	5 22 6.6	+ 34	45.9	8.9	47.9	40.5	44.2			
1232	5 23 7.9	+ 44	40.9	7.8	48.9	50.4	47.6	5 28.1 +44 43		
Dm. 999	5 9 36.5	+ 34	43.7	7.8	45.6	40.5	46.5	5 12.6 +34 47		
1167	5 8 39.4	+ 44	29.8	8.5	44.4	50.3	46.5			
Dm. 839	5 20.8	+ 24	2	5.5	49.2	30.6	48.1	5 23.1 +25 5		
[illegible]	[illegible]									
992	5 21.9	+ 25	3	5.4	49.9	30.5	49.7	5 23.1 +25 4		

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May 24. 1886.

Plate 298.

V	76	Type	Nro. Lines	K	Focus	Other Lines	V	H	V	H
10.9	15.0	I	7	K=.5H	2	fH?	5.4	30.0	45.0	77.7
11.1	16.4	I? I	5	K=H?	1	— —	5.6	32.8	44.8	74.9
10.6	13.5	I	7	K=.2H?	3	fH	5.3	27.0	45.1	80.7
10.6	13.7	I? I?	4 5	K=H	K=H 1	— —	5.3	27.4	45.1	80.3
10.0	8.7	I I	4	N	N 1	— —	5.0	17.4	45.4	90.3
9.6	14.8	I	6	N	3	fH?	4.8	29.6	45.6	78.1
10.0	23.5	I	7	K=H	3	fH	5.0	47.0	45.4	60.7
9.4	9.3	I	7	N	4	—	4.7	18.6	45.7	89.1
9.5	18.3	I b 1580	9	N	5	fH?	4.8	36.6	45.6	71.1
9.4	22.7	I?	3	N	1	—	4.7	45.4	45.7	62.3
9.3	23.4	I I? I	5	N	N 1	— —	4.6	46.8	45.8	60.9
8.2	8.3	I	8	N	4	fH	4.1	16.6	46.3	91.1
8.0	15.6	I	7	N	2	—	4.0	31.2	46.4	76.5
8.0	16.8	I	6	N	2	—	4.0	33.6	46.4	74.1
7.5	10.5	I	8	N	3	—	3.8	21.0	46.6	86.7
7.2	10.2	I	7	K=H	2	—	3.6	20.6	46.8	87.1
7.3	12.7	I	9	K=.1H	3	fH	3.6	25.4	46.8	82.3
7.5	16.9	I?	4	K=H	1	—	3.8	33.8	46.6	73.9
7.4	20.1	I	5	N	2	—	3.7	40.2	46.7	67.5
7.5	20.3	I	6	K=H	3	—	3.8	40.6	46.6	67.1
6.7	15.8	III b? 1581	2	K=H	2	green	3.4	31.6	47.0	76.1
6.7	16.4	II? 1582	3	K=H	3	fH green	3.4	32.8	47.0	74.9
6.6	17.4	II?	2	K=H	2	—	3.3	34.8	47.1	72.9
6.7	21.5	I	3	N	1	—	3.4	43.0	47.0	64.7
5.9	11.6	I	6	K=H	2	—	3.0	23.2	47.4	84.5
5.5	15.1	I	9	N	3	—	2.8	30.2	47.6	77.5
5.6	17.7	I	8	K=.5H?	2	—	2.8	35.4	47.6	72.3
5.3	22.7	I	5	N	1	—	2.6	45.4	47.8	62.3

III 6.5, 6.8

* On first reading of plate 298 H.P. +15°.8 H was measured by mistake instead of D.M. -4

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mean 6

No.	R.A.	Dec	Mag	H	V	H'	Red. of DM. stars to 1900	cor. B-V	Br.	Br.	
Dm. 822	5 18.9	+ 15	8	6.5	48.9	20.5	5 21.3 +15 11				
Dm. 1102	5 17 [illegible]	+ 35	200	6.5	47.2	40.7	44.2	5 20.2 +35 25			
1006	5 17 20.6	+ 4	479	6.8	47.4	50.2	47.4				
1182	5 18 .86	+ 44	56	7.14				5 [illegible] +04 39			
Dm. 818	5 11 15.2	+ 24	52.7	8.4	44.0	30.5	44.2	5 14.1 +24 50			
894	5 16 51.7	+ 54	49.1	8.5	49.7	60.4	51.0	5 20.6 +54 50			
Dm. 837	5 22.1	+ 15	15	6.5	49.1	20.5		5 24.7 +15 17			
995	5 21.9	+ 25	3	5.4	48.9	30.3	48.6	5 [illegible]			
Dm. 1064	5 20.1	+ 34	60	7.1	47.5	35.3		5 23.1 +35 3			
Dm. 830	5 17 46.1	+ 25	9.4	8.5	45.2	30.5	44.9	5 20.6 +25 12			
1134	5 22 36.6	+ 45	7.0	8.2	50.0	50.4	49.2	5 25.9 +45 9			
Dm. 907	5 32 14.0	+ 35	32.7	6.8	49.6	40.5	47.2	5 35.2 +35 35			
918	5 32 41.1	+ 25	25.9	8.4	50.1	30.4	48.8				
Dm. 826	5 19.4	+ 15	45	6.0	49.0	20.6	49.0	5 28.0 +15 48			
437	5 20.0	+ 55	10	6.5	49.6	60.0	49.3	5 28.0 +55 18			
990	5 20.9	+ 15	47	5.5	50.5	20.6	50.5	5 22.0 +15 48			
894	4 57.7	+ 15	14	4.7	104.7	20.2	105.7	4 58.8 +15 16			
1037	5 32.3	+ 25	50	4.9	50.9	30.5	49.8	5 33.5 +25 50			
932	5 7.8	+ 45	52	6.2	44.4	50.7	46.0	5 10.4 +45 55			
1044	5 5.86	+ 45	50.6	1.0	44.6	50.6	44.5	5 9.3 +45 54			
Dm. 1032	4 53.7	+ 45	34	6.8	99.1	50.3		4 57.0 +45 39			
Dm. 773	4 56 19.7	+ 35	44.1	6.5	101.7	40.4	104.7	4 54.3 +35 42			
1024	4 50 46.5	+ 45	41.6	7.0	96.2	50.4	100.7				
1024	4 50.8	+ 45	42	7.0	99.9	50.3	102.5	4 54.1 +45 41			
Dm. 953	4 57.2	+ 35	47.8	8.5	99.9	40.3	102.5	4 55.4 +35 47			
Dm. 1024	4 50.8	+ 45	42	7.0	99.9	50.3		4 54.1 +45 46			
961	4 56 35.1	+ 55	54.2	8.0	103.6	60.8	110.5	5 0.3 +55 58			
958	5 34.8	+ 56	2	6.1	50.7	60.1	44.9	5 38.1 +56 4			
841	5 32.9	+ 16	28	8.6	49.5	20.6	48.8	5 36.5 +16 20			
1044	5 34.4	+ 16	29	4.9	51.0	20.6	50.3	5 35.5 +16 29			
Dm. 775	5 17.7	+ 16	33	7.0	48.9	20.6		5 20.3 +16 36			
1113	5 14 5.4	+ 36	15.1	6.8	45.3	40.3	45.5	5 17.1 +36 18			
Dm. 762	5 5.3			6.8							
Dm. 998	5 9.8	+ 46	49	7.0	48.9	20.6		5 17.9 +16 36			
1086	5 10 24.1	+ 36	31.0	7.5	44.0	40.5	44.6	5 13.4 +36 31			
Dm. 870	5 28.1	+ 26	50	6.7	49.1	30.6		5 30.9 +26 52			
1050											
1028	5 30 45.8	+ 56	30.6	6.5	51.8	60.3	47.8	5 [illegible] +56 33			
Dm. 1028	5 30.1	+ 16	58	5.4	50.7	20.6		5 31.3 +16 59			
870	5 28 6.2	+ 26	49.6	6.7	48.7	30.4	47.7	5 30.1 +26 52			
1204	5 27 42.4	+ 36	59.7	7.7	48.3	40.6	46.4				
Dm. 1033	5 22.3	+ 46	46	7.3	47.1	30.4	46.2	5 25.7 +46 48			
774	5 23.9	+ 16	56	6.1	49.3	20.3	49.0	5 26.5 +16 58			
1044	5 25.2	+ 16	58	5.3	50.6	20.6	50.4	5 26.4 +16 59			
Dm. 998	5 3.8	+ 46	49	7.0	43.6	50.6		5 [illegible] +46 52			
1090	5 18 45.8	+ 36	29.4	8.2	44.6	40.3	45.3	5 13.8 +36 32			
999	5 11 3.8	+ 46	33.4	8.4	44.9	50.4	46.1				
Dm. 1047	5 4.0	+ 36	51	7.0	44.2	40.5		5 7.0 +36 55			
908	5 1.8	+ 46	49	5.6	42.0	50.5	45.1				
Dm.											
970	4 59 56.6	+ 46	46.6	6.0	100.5	50.6	103.7	5 3.2 +46 50			
H.P. Dm. 965	5 16.5	+ 37	16	6.2	48.1	40.7		5 17.9 +37 18			
1145	5 11 48.0	+ 37	14.7	5.3	46.4	40.6	46.7	5 14.8 +37 18			
889	5 20 11.4	+ 57	6.7	6.6	50.8	60.6	51.6				
Dm. 970	5 17.4	+ 17	17	5.2	50.2	20.7	50.3	5 18.9 +17 17			
1145	5 11 48.0	+ 37	14.7	5.3	47.6	40.6	48.1	5 17.6 +37 18			
879	5 11 3.9	+ 57	24.1	5.3	43.9	60.3	44.9	5 14.8 +57 27			
Dm.											
1146	5 10 52.9	+ 37	17.3	7.2	45.7	40.6	46.6	5 14.0 +37 20			
Dm. 1024	5 0 9.1	+ 36	48.8	7.8	45.4	40.2	46.8				
1067	5 0 30.2	+ 37	7.0	6.4	43.5	40.5	46.2	5 3.5 +37 11			
1101	5 0 11.0	+ 46	53.5	8.0	43.2	50.3	44.2				
1013	5 27.2	+ 47	40	6.1	50.4	50.4	48.2	5 28.7 +47 40			
986	5 20.2	+ 17	52	5.4	50.4	20.7		5 21.3 +17 53			
1145	5 16.5	+ 37	16	5.2	46.1	40.1	46.4				
Dm. 758	5 11.9	+ 27	48	6.5	47.3	30.6		5 14.7 +27 51			
1146	5 10 52.3	+ 37	17.3	7.2	46.3	40.1	47.3	5 14.0 +37 20			
Dm. 918	5 2.2	+ 27	53	6.0	47.6	30.5		5 3.5 +27 55			
1063	4 58 37.2	+ 37	42.8	8.2	104.0	40.3	107.2	5 1.0 +37 47			

Dm. +45° 1024 First reading to be rejected.

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May 24. 1886.

Plate 298.

V.	H.	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H
4.6	14.1	I	4	N	1	—	2.3	28.2	48.1	79.5
4.3	12.1	I?	5	N	2	—	2.2	24.2	48.2	83.5
4.3	15.4	I	12	N	5	F.	2.2	30.8	48.2	76.9
4.5	20.2	I	3	K=3H ~~K=2H~~	4	—	2.2	40.4	48.2	67.3
3.6	16.6	I	6	N	2	—	1.8	33.2	48.6	74.5
3.0	13.8	II	2	K=H	1	—	1.5	27.6	48.9	80.1
3.0	20.6	I?	5	K=H	1	—	1.5	41.2	48.9	66.5
2.2	8.7	I	3	N	1	—	1.1	17.4	49.3	90.3
2.3	17.6	I	5	N	2	—	1.2	35.2	49.2	72.5
2.2	18.3	I	4	K=H	1	—	1.1	36.6	49.3	71.1

4 12

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Mean 6

No	R.A.	Dec.	Mag.	H	V	H′	Rad. of D.M. start to 1900
DM. 862	5 20.8	+ 18 15	7.0	49.0	20.6		5 23.4 +18 18
1165	5 18 23.8	+ 38 10.4	8.3	46.6	40.5	46.2	5 21.5 +38 13
1008	5 26.5	+ 18 28	3.3	50.7	20.7	50.4	5 27.6 +18 29
978	5 18.7	+ 28 30	1.9	49.5	30.7	49.5	5 20.0 +28 32
922	5 5.7	+ 38 20	4.9	45.6	40.5	47.9	5 6.6 +38 22
788	5 14.2	+ 28 48	7.0	47.4	30.6		5 17.0 +28 51
833	5 11 1.7	+ 58 47.5	7.5	44.2	60.6	45.4	5 14.9 +58 51
DM. 909	5 20.5	+ 29 4	7.0	48.1	30.6		5 23.4 +29 7
1226	4 58.0	+ 48 56	4.0	99.2	50.4		4 59.4 +49 6
1226	4 58	2.7 + 48	65.5	7.0	99.2	50.4	103.2
956	5 13.6	+ 29 27	5.6	48.8	30.6		5 14.9 +29 28
DM. 898	5 11.8	+ 19 27	6.5	48.4	20.5		5 14.4 +19 30
1245	5 8 33.2	+ 39 11.2	8.2	45.2	40.3	46.7	5 11.7 +39 14

Br.	Bv.	
6.3	6.9	6.7
5.5	6.1	6.2
B.	B.	B.
5.6		
6.8	6.7	
6.6	6.5	
6.8	6.7	
6.9	6.7	

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Ant. of Fog. due to moon & clouds. 6.3

Ant. of Fog. due to chemicals 6.5

June 19. 1886.

Plate 277.

9 15	V	Hg.	Type	No. Lines	K	Focus	Other Lines	V	H	V	H
	22.4	19.3	I	9	N	1	—	11.2	38.6	16.9 34.6	34.0 33.7
	21.5	11.9	I	11	K=H	5	F	10.8	23.8	17.3 35.0	48.8 48.5
	21.5	23.6	II	12	K=H	1	—	10.8	47.2	17.3 35.0	25.4 25.1
	20.3	13.7	I	7	N	1	F?	10.2	27.4	17.9 35.6	35.2 44.9
	17.1	11.4	I	12	N	5	F	8.6	22.8	19.5 37.2	49.8 49.5
	16.7	19.0	I	5	N	1	F?	8.4	38.0	19.7 37.4	34.6 34.3
	16.0	12.8	I	5	N	1	—	8.0	25.6	20.1 37.8	47.0 46.7
	15.7	11.7	I	5	N	1	—	7.8	23.4	20.3 38.0	49.2 48.9
	15.0	13.0	II a? 1583	12	K=H	1	Neon	7.5	26.0	20.6 38.3	46.6 46.3
	14.8	20.1	I	4	N?	1	—	7.4	40.2	20.7 38.4	32.4 32.1
	13.9	15.9	I	6	N	1	F	7.0	31.8	21.1 38.8	40.8 40.5
	13.5	14.7	III b? 1584	12	K=H	1	Neon	6.8	29.4	21.3 39.0	43.2 42.9
	13.5	15.6	III b? 1585	12	K=H	1	Neon	6.8	31.2	21.3 39.0	41.4 41.1
	13.5	20.9	I	11	N	5	F?	6.8	41.8	21.3 39.0	30.8 30.5
	13.0	19.2	I	5	N	1	—	6.5	38.4	21.6 39.3	34.2 33.9
	12.5	14.3	I	4	K=H	1	—	6.2	28.6	21.9 39.6	44.0 43.7
	12.3	13.1	I	6	K=H	1	—	6.2	26.2	21.9 39.6	46.4 46.1
	12.0	16.7	I	6	N	2	—	6.0	33.4	22.1 39.8	39.2 38.9
	12.1	20.1	I	4	N	1	—	6.0	40.2	22.1 39.8	32.4 32.1
	11.3	22.6	I	4	N	3	—	5.6	45.2	22.5 40.2	27.4 27.1
	11.0	22.3	I	4	N	1	—	5.5	44.6	22.6 40.3	28.0 27.7
	10.9	16.9	I I	4 H	K=H	1 1	—	5.4	33.8	22.7 40.4	38.8 38.5
	10.0	22.2	I	3	N	1	—	5.0	44.4	23.1 40.8	28.2 27.9
	9.4	18.2	I I	7 6	N N	1 2	—	4.7	36.4	23.4 41.1	36.2 35.9
	9.0	18.9	I I	4 5	N N	1 1	—	4.5	37.8	23.6 41.3	34.8 34.5
	8.1	13.5	I	5	N	1	—	4.0	27.0	24.1 41.8	45.6 45.3
	7.8	21.9	I	6	N	2	—	3.9	43.8	24.2 41.9	28.8 28.5
	7.5	21.5	I	4	K=H	1	—	3.8	43.0	24.3 42.0	29.6 29.3

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Mean 10

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of DM. Star to 1900
1100	5 50.7	+ 44 56	2.1	74.5	55.7	72.7	5 52.2 + 44 57
1004	5 25.2	+ 16 58	5.5	72.4	27.8		5 26.4 + 16 59
992	5 21.9	+ 25 3	5.4	69.1	38.8	70.8	
1084	5 45.8	+ 27 36	4.5	73.2	37.8		5 47.0 + 27 35
1074	5 44.8	+ 55 41	5.0	72.2	65.9	71.0	
1104	5 51.5	+ 37 12	2.7	74.3	45.8	72.9	5 52.9 + 37 13
DM. 953	5 32.1	+ 29 24	7.0 7.5	70.1	37.8		5 33.0 + 29 26
DM. +2862	5 30.9	+ 37 25	7.8	68.9	46.6	70.5	5 34.0 + 37 17
+1189	5 32.9	+ 47 28	7.1	70.9	56.0	73.4	5 36.3 + 47 10
1081	5 45.3	+ 19 50	6.1	70.9	27.8		5 46.5 + 19 50
1084	5 45.8	+ 27 36	4.5	71.4	35.6	70.9	
1106	5 51.9	+ 47 52	5.5	75.3	55.7	73.2	5 53.4 + 47 54
DM. 1089	5 47.3	+ 20 16	4.6	73.3	27.8		5 48.5 + 20 16
+3335	5 47.0	+ 38 15	7.3	73.0	45.1	72.2	5 50.1 + 38 16
DM. +248	5 31.0	+ 38 26	7.7	71.2	45.8	73.4	5 34.1 + 38 28
+2971	5 32.7	+ 48 22	7.0	70.9	55.8	74.3	5 32.2 + 48 27
1033	5 30.9	+ 30 25	5.6	71.1	37.8		5 33.2 + 30 26
DM. 863	5 29.6	+ 48 54	6.5	71.4	55.9	72.0	5 33.0 + 48 30
+3083	5 29.4	+ 38 41	7.0	71.2	45.7	71.6	
DM. 1003	5 40.5	+ 21 5	7.9	72.3	28.1		5 42.2 + 21 6
1073	5 43.2	+ 39 7	4.2	72.6	45.9	72.4	5 44.6 + 39 7
1063	5 40.9	+ 39 8	4.6	72.1	45.9	72.3	5 42.3 + 39 9
1063	5 40.9	+ 39 8	4.6	72.1	45.9	72.3	
1032	5 30.5	+ 21 4	3.0	72.3	27.9		5 31.7 + 21 5
949							
[illegible]	5 30.1	+ 29 8	6.2	71.9	35.9	73.4	5 33.0 + 29 10
DM. 1048	5 31.2	+ 31 16	6.4	69.6	37.7		5 34.1 + 31 18
953	5 32.1	+ 29 24	7.0	70.5	35.9	71.6	5 35.0 + 29 26
DM. 1435	5 42.6	+ 39 32	7.3	71.2	45.7		5 45.7 + 39 33
1048	5 44.2	+ 56 52	5.2	72.8	66.1	72.1	5 48.5 + 31 47
DM. 1126	5 46.6	+ 19 44	6.3	72.8	45.7	72.4	5 49.1 + 19 45
DM. 1037	5 46.1	+ 29 56	7.2	72.3	36.1	71.8	5 49.0 + 29 57
1044	5 50.1	+ 49 55	6.0	76.3	56.1	75.0	
1052	5 36.6	+ 49 46	5.4	70.0	55.8	71.2	5 38.2 + 49 47
DM. 918	5 30.8	+ 21 40	7.0	71.0	27.7		5 33.5 + 21 42
1374	5 30.4	+ 39 46	7.7	70.6	46.8	73.0	5 33.5 + 39 47
H.P. 1009	5 24.6	+ 32 6	5.0	69.8	37.7		5 26.2 + 32 8
DM. 961	5 20.4	+ 20 19	7.0	68.6	25.7	66.6	5 23.3 + 20 22
+310	5 20.2	+ 40 24	7.2	65.4	46.0	69.0	5 23.3 + 40 27
DM. 1027	5 23.8	+ 32 11	9.5 ?	68.4	37.7		5 26.7 + 32 13
DM. 969	5 24.6	+ 20 26	7.5	66.2	25.9	67.1	5 26.3 + 20 29
DM. 1083	5 37.0	+ 32 35	7.8	76.8	38.10		5 39.9 + 32 37
DM. +1093	5 38.2	+ 20 7	7.3	72.0			
1403	5 35.7	+ 40 26	6.6	69.5	46.8	70.3	5 37.0 + 40 28
DM. 1028	5 24.0	+ 32 42	6.7	68.4	37.7		5 26.9 + 32 44
DM. 944	5 20.8	+ 00 49	5.8	70.2	35.5	72.2	
1484	5 [illegible]	+ 50 54	6.8	64.9	56.9	70.2	5 [illegible] + 50 57
1049	5 36.0	+ 23 9	6.8	72.4	27.9		5 37.4 + 23 10
DM. 1127	5 33.4	+ 33 14	7.1	69.8	57.9	71.0	5 36.4 + 33 16
1032	5 30.5	+ 21 4	3.0	68.9	28.8	69.1	
DM. 1007	5 33.7	+ 23 14	6.8	71.5	27.7		5 36.4 + 23 16
DM. [illegible]	5 28.9	+ 41 16	7.0	66.1	45.8	68.6	
1048	5 31.2	+ 31 16	6.4	67.0	35.8	70.1	5 34.1 + 31 18
DM. 1128	5 44.7	+ 51 45	7.0	71.7	55.8		5 48.3 + 51 46
DM. [illegible]	5 49.1	+ 41 54	8.5	76.1	45.9	76.4	
1139	5 45.6	+ 31 40	6.2	72.6	35.7	72.2	5 48.5 + 31 41
1016	5 28.1	+ 23 58	5.4	71.9	27.9		5 29.3 + 23 58
1001	5 24.6	+ 32 6	5.0	68.4	36.0	70.5	
DM. 902	5 27.7	+ 21 54	7.4	70.7	25.7	71.6	5 30.1 + 21 56
1020	5 27.0	+ 31 54	7.1	70.0	35.7	68.1	
DM. 1218	5 23.2	+ 41 60	6.8	66.2	45.8		5 26.4 + 42 2

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Plate 277.

ν	Hr.	Type	Lines	K	Focus	Other Lines	V	H	V	H
6.8	15.7	III b	1586	2	K=H	1	Reen.	3.4	31.4	24.7 42.4	41.2 40.9
6.3	22.1	I		4	N	1	—	3.2	44.2	24.9 42.6	28.4 28.1
4.0	19.9	I b	1587	6	N	2	Reen	2.0	39.8	26.1 43.8	32.8 32.5
3.8	11.7	I		8	N	2	—	1.9	23.4	26.2 43.9	49.2 48.9
III? 5.6, 6.0. 3.1	12.7	III b.c.	1588	2	K=1.2H K=H	2	Bright Reen	1.6	25.4	26.5 44.2	47.2 46.9
2.1	17.3	I		4	N	1	—	1.0	34.6	27.1 44.8	38.0 37.7
2.0	12.0	I ?		2	N	—	Fl	1.0	24.0	27.1 44.8	48.6 48.3
2.0	21.1	I ?		2	N	1	—	1.0	42.2	27.1 44.8	30.4 30.1

Amt of Fog due to num'l clouds. 6.7 Amt of Fog. due to chemicals 7.7

Plate 310.

21.9	15.5	I		8	K=.2H N	2	—	11.0	31.0	9.6	55.0
21.5	14.9	I		7	N	2	—	10.8	29.8	9.8	56.2
21.3	10.8	I		6	N	1	—	10.6	21.6	10.0	64.4
21.0	8.2	I		5	N	1	—	10.5	16.4	10.1	69.6
20.7	14.6	I ?	1589	3	N	1	—	10.4	29.2	10.2	56.8
20.5	19.1	II a	1590	2	K=H	1	Reen	10.2	38.2	10.4	47.8
19.2	15.7	I		4	N	1	—	9.6	31.4	11.0	54.6
19.1	21.9	I		4	N	1	—	9.6	43.8	11.0	42.2
17.8	15.0	I		6	N	1	—	8.9	30.0	11.7	56.0
17.9	18.3	I		4	N	1	—	9.0	36.6	11.6	49.4
16.7	8.4	I ?		4	K=H	1	—	8.4	16.8	12.2	69.2
16.0	8.7	I		5	N	1	—	8.0	17.4	12.6	68.6
III 5.7, 6.0, 6.9. 16.0	9.4	III b.c.?	1591	3	K=H	2	F. Reen	8.0	18.8	12.6	67.2
16.0	15.4	I		4	N	1	—	8.0	30.8	12.6	55.2
∫ x 16.0	16.3	I I		4 5	N N	1 1	—	8.0	32.6	12.6	53.4
15.8	13.9	I		4	K=H	1	—	7.9	27.8	12.7	58.2
16.0	14.8	II ?		2	K=H	1	—	8.0	29.6	12.6	56.4
16.0	21.6	I		6	N	2	—	8.0	43.2	12.6	42.8

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Mean 10

No.	R.A.		Dec.		Mag.	H	V	H'	Red of DM Stars a 1900	
1067	5	41.7	+ 24	33	5.1	73.1	28.0			
~~DM. 4009~~	~~5~~	~~42.2~~	~~+ 24~~	~~28~~	~~8.4~~	~~73.6~~	~~25.9~~	~~78.7~~	~~5 44 8 + 24 34~~	
1109	5	42.0	+ 32	5	6.6	73.4	35.5	78.6	5 44 8 + 30 67	
DM. 1083	5	24.0	+ 34	37	6.9	68.2	37.8	78.5	5 26 + 34 39	
DM. 1028	5	24.0	+ 32	42	6.7	68.2	35.9	70.5	5 26 + 32 41	
~~1030~~	~~5~~	~~24.2~~	~~+ 32~~	~~98~~	~~4.9~~	~~68.4~~	~~25.4~~	~~70.6~~		
~~DM. 1037~~	~~5~~	~~32.3~~	~~+ 23~~	~~58~~	~~4.8~~	~~77.1~~	~~28.6~~	~~92~~	~~5 28.6 + 28 50~~	
~~DM. 994~~	~~5~~	~~26.6~~	~~+ 23~~	~~58~~	~~6.7~~	~~68.4~~	~~25.7~~	~~69.5~~	~~5 26.6 + 23 50~~	
~~1023~~	~~5~~	~~28.a~~	~~+ 00~~	~~28~~	~~6.8~~	~~68.8~~	~~35.6~~	~~69.5~~	~~5 28.2 + 33 30~~	
DM. 1016	5	28.1	+ 23	58	5.4	67.9	26.0	66.7	5 28.1 + 23 0	
~~1150~~	~~5~~	~~52.6~~	~~+ 23~~	~~41~~	~~4.6~~	~~76.0~~	~~25.6~~	~~75.4~~	~~5 52.6 + 23 44~~	
~~DM. 1033~~	~~5~~	~~48.1~~	~~+ 24~~	~~13~~	~~6.0~~	~~71.6~~	~~26.1~~	~~70.9~~	~~5 48.1 + 24 14~~	
~~1402~~	~~5~~	~~62.2~~	~~+ 43~~	~~58~~	~~7.9~~	~~72.6~~	~~45.9~~	~~70.5~~	~~5 534 + 25 57~~	
1099	5	56.6	+ 25	56	5.1	74.0	27.8		5 53.3 + 54 17	
1093	5	49.6	+ 54	16	3.8	75.0	55.9			
~~1124~~	~~5~~	~~42.6~~	~~+ 24~~	~~14~~	~~6.0~~	~~75.0~~	~~26.8~~	~~74.6~~	~~5 42.6 + 24 14~~	
DM. 932	5	32.0	+ 54	46	7.0	66.6	55.8		5 35.7 + 54 48	
~~DM. 940~~	~~5~~	~~35.7~~	~~+ 24~~	~~57~~	~~7.9~~	~~70.3~~	~~25.9~~	~~70.7~~		
~~1278~~	~~5~~	~~35.6~~	~~+ 41~~	~~43~~	~~7.3~~	~~70.2~~	~~45.9~~	~~71.5~~	~~5 389 + 44 45~~	
1100	5	50.7	+ 44	56	2.1	74.7	45.9	73.0	5 52.2 + 44 57	
DM. 870	5	28.1	+ 26	50	6.7	70.3	27.8		5 30.9 + 26 52	
~~1009~~	~~5~~	~~26.9~~	~~+ 54~~	~~20~~	~~6.0~~	~~68.9~~	~~55.3~~	~~74.0~~		

76/8 = 9.5 ; 87/9 = 9.7 ; 18 − 2.0 ; 13 − 1.7 / 8

Mean 8

1116	5	55.8	+ 9	39	4.3	86.8	20.6	86.8	5 56.8 + 9 39	13 + 5
1119	5	56.4	+ 19	42	5.1	86.2	30.5	86.2	5 57.6 + 19 41	10 + 20
1150	6	4.9	+ 19	49	5.6	96.5	30.4	85.9	6 6.1 + 19 49	9 + 1
1198	6	10.5	+ 9	59	5.2	96.9	20.5	86.9	6 11.6 + 9 58	12 + 4
1122	5	56.8	+ 20	9	4.8	86.0	30.6	86.0	5 58.0 + 20 8	
1089	5	47.3	+ 20	16	4.6	85.5	30.5	86.1	5 48.5 + 20 16	
DM. 1164	5	51.8	+ 31	1	6.5	83.2	40.6		5 54.7 + 31 2	
~~1174~~	~~5~~	~~48 28.5~~	~~+ 41~~	~~10~~	~~8.5~~	~~79.9~~	~~20.6~~			
1174	5	53 45.3	+ 31	2.0	8.8	85.2	40.6	85.4	5 ~~60.7 + 10~~ 2	
DM. 1105	5	39.7	+ 20	49	7.3	83.5	30.4		5 42.4 + 20 50	
~~1067~~	~~6~~	~~40.4~~	~~+ 1~~	~~8~~	~~6.3~~	~~84.2~~	~~10.7~~	~~84.2~~		
1120	5	56.7	+ 11	41	5.9	86.7	20.6	86.7	5 57.8 + 11 41	
DM. 1139	5	45.6	+ 31	40	6.2	82.2	40.7		5 48.5 + 31 41	
~~1098~~	~~5~~	~~50.1~~	~~+ 11~~	~~30~~	~~6.1~~	~~86.7~~	~~20.5~~	~~86.9~~		
1174	6	9.7	+ 12	19	5.1	96.5	20.7	86.0	6 10.8 + 12 18	
1169	6	9.0	+ 12	35	5.4	96.4	20.6	85.9	6 10.1 + 12 35	
1160	6	7.6	+ 22	32	3.5	96.4	30.5	85.5	6 8.8 + 22 32	
DM. 1140	5	52.9	+ 22	24	6.7	83.7	30.4		5 55.6 + 22 24	
~~DM. 1166~~	~~5~~	~~53 23.9~~	~~+ 32~~	~~38.3~~	~~6.5~~	~~84.2~~	~~40.6~~	~~84.3~~	~~5 56.1 + 32 28~~	
~~980~~	~~5~~	~~52 8.9~~	~~+ 12~~	~~56.6~~	~~7.5~~	~~82.9~~	~~20.6~~	~~82.9~~		
DM. 1130	5	50.9	+ 22	27	7.5	83.5	30.4		5 53.6 + 22 28	
~~1107~~	~~5~~	~~52.2~~	~~+ 12~~	~~47~~	~~5.4~~	~~84.8~~	~~20.8~~	~~84.8~~		
~~DM. 1477~~	~~5~~	~~54.6~~	~~+ 42~~	~~57~~	~~6.8~~	~~82.4~~	~~50.9~~		5 57.8 + 42 59	
~~1000~~	~~5~~	~~55 6.5~~	~~+ 12~~	~~34.3~~	~~8.0~~	~~82.9~~	~~20.5~~	~~82.9~~	~~5 57.4 + 12 37~~	
DM. 1165	5	53.4	+ 32	38	6.5	83.6	40.6		5 56.3 + 32 38	
~~994~~	~~5~~	~~54 29.6~~	~~+ 12~~	~~40.4~~	~~8.2~~	~~84.1~~	~~20.7~~	~~84.1~~	~~5 57.0 + 12 40~~	
1071	5	42.8	+ 12	37	4.8	86.0	20.6	86.8	5 43.9 + 12 37	1 + 15

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Plate 310.

	v	he.	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H
III 6.2, 6.5.	15.7	5.6	III b2 1592	3	K=H	1	H	7.8	11.2	12.8	74.8
	~~15.7~~	~~6.4~~	~~I ?~~	~~4~~	~~K=2.0H~~	~~5~~	—	7.8	12.8	12.8	73.2
	14.9	11.4	I I	4 5	N N	1 1	— —	7.4	22.8	13.2	63.2
	14.5	14.3	III b 1593	2	K=H	2	H Green	7.2	28.6	13.4	57.4
	14.0	13.7	I	5	N	1	—	7.0	27.4	13.6	58.6
	14.0	10.9	I	5	N	1	—	7.0	21.8	13.6	64.2
	13.5	9.1	I 1594	5	N	1	—	6.8	18.2	13.8	67.8
	13.4	22.5	I	6	N	2	—	6.7	45.0	13.9	41.0
	13.0	7.9	I	4	N	1	—	6.5	15.8	14.1	70.2
	13.0	10.7	I b 1595	8	N	3	—	6.5	21.4	14.1	64.6
	12.9	20.2	I	7	N	2	—	6.4	40.4	14.2	45.6
	12.4	7.7	I	4	N	1	—	6.2	15.4	14.4	70.6
	12.0	15.9	I	13	K=1H	5	H	6.0	31.8	14.6	54.2
	12.4	22.7	I	5	N	1	—	6.2	45.4	14.4	40.6
	11.8	12.9	I b 1596	8	N	3	Green	5.9	25.8	14.7	60.2
III	10.6	15.9	I I	4 4	N N	1 1	— —	5.3	31.8	15.3	54.2
III? 6.5, 6.8.	10.0	15.5	III b2 1597 III	2 2	K=H K=H	1 2	H H	5.0	31.6	15.6	54.4
	9.1	17.2	I b 1598	7	N	3	—	4.6	34.4	16.0	51.6
	9.0	10.7	I	6	N	2	—	4.5	21.4	16.1	64.6
	9.0	9.7	I II?	2	K=H	1	—	4.5	19.4	16.1	66.6
	9.0	9.1	I	6	N	2	—	4.5	18.2	16.1	67.8
	7.0	16.1	I	13	N	5	H	3.5	32.2	17.1	53.8
	6.5	6.3	I	4	N	1	—	3.2	12.6	17.4	73.4
	6.5	7.4	I	4	N	1	—	3.2	14.8	17.4	71.2
	6.0	15.4	I	7	N	1	—	3.0	30.8	17.6	55.2
	6.0	19.2	I	8	N	2	—	3.0	38.4	17.6	47.6
	5.9	22.5	I	5	N	1	—	3.0	45.0	17.6	41.0
	4.4	11.9	I	5	N	1	—	2.2	23.8	18.4	62.2
	6.9	10.7	II?	II 1598a 2	H=H	K=H 1 1	—	3.4	21.4	17.2	64.6

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Mean 8

Saturn.

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Cor.	Br.	Br.	Br.
Dm. 1194	6 15.7	+ 22 34	3.7	36.9	30.4		6 16.9 + 22 34				
~~1119~~	~~6 13 35.3 + 12~~	~~55.8~~	~~8.0~~	~~24.8~~	~~20.7~~	~~84.2~~	~~6 16.1 + 12 55~~				
1194	6 15.7	+ 22 34	3.7	28.5	30.4	89.2	6 4.4 + 23 7				
Dm. 1232	6 14.7	+ 23 1	7.4	24.5	30.4	83.2	6 3.7 + 23 8				
~~Dm. 1236~~	~~6 0 59.3 +~~	~~23 7.5~~	~~6.5~~	~~23.8~~	~~30.6~~	~~83.2~~	~~6 3.7 + 23 8~~				
~~1036~~	~~6 1 5.0 +~~	~~12 59.4~~	~~8.5~~	~~23.9~~	~~20.7~~	~~83.7~~	~~6 3.6 + 12 59~~				
1121	5 56.8 +	23 16 4.3		85.4	30.5	85.3	5 58.0 + 23 16				
Dm. 1236	5 55 59.7 +	33 35.6	6.3	83.4	40.6	83.0	5 59.0 + 33 36				
~~1172~~	~~5 57 58.4 +~~	~~23 38.5~~	~~7.2~~	~~23.4~~	~~30.6~~	~~83.2~~	~~6 0.1 + 23 38~~				
~~1094~~	~~5 55 54.9 +~~	~~13 34.0~~	~~8.8~~	~~83.3~~	~~20.6~~	~~82.3~~	~~5 59.1 + 13 34~~				
0.0 6.3	1149	6 4.7 + 13 40	5.7	26.5	20.7	86.2	6 5.8 + 13 40				
0.0 6.0	1163	6 8.3 + 13 53	5.7	26.5	20.7	86.0	6 9.4 + 13 53				
0.0 5.8	1064	5 40.9 + 13 52	5.2	85.9	20.6	86.5	5 42.0 + 13 52				
	Dm. 1233	6 9 19.3 + 14	6.2	7.0	25.1	20.6	84.5	6 11.9 + 14 5			
0.0 5.3	1153	6 5.1 + 14	14	4.2	26.5	20.7	86.2	6 6.2 + 14 14			
	1082	~~6~~ 5 45.5 + 14	8	5.6				5 46.7 + 14 9			
0.0 6.0	~~1075~~	~~5 43.6 + 14~~	~~16~~	~~5.7~~	~~84.0~~	~~20.8~~	~~84.5~~	~~5 44.7 + 14 16~~			
0.0 6.3	1180	6 11.3 + 14	26	6.0	26.7	20.6	86.2	6 12.4 + 14 25			
	1100	5 50.7 + 44	56	2.1	82.5	50.9	83.0	5 52.2 + 44 57			
0.0 6.4	1061	5 40.4 + 14	27	5.7	85.8	20.6	86.4	5 41.5 + 14 28			
0.0 5.3	1132	6 0.7 + 14	47	4.4	26.5	20.7	86.4	6 1.9 + 14 47			
	~~Dm. 1304~~	~~5 50.8 +~~	~~35 18~~	~~7.3~~	~~82.6~~	~~38.6~~		~~5 53.8 + 35 19~~			
	~~Dm. 1316~~	~~5 51.7 35.8 +~~	~~35~~	~~19.6~~	~~8.5~~	~~84.4~~	~~46.6~~	~~84.6~~	~~5 55.0 + 35 20~~		
5 48.7+45.6	~~1246~~	~~5 46.7 +~~	~~45~~	~~36~~	~~11.4~~	~~8.8~~	~~82.2~~	~~20.3~~	~~85.5~~	~~5 52.0 + 45 37~~	
	~~1030~~	~~5 53 44.7 +~~	~~15~~	~~11.4~~	~~8.8~~	~~85.5~~	~~20.5~~	~~85.5~~	~~5 56.3 + 15 11~~		
	~~1102~~	~~5 51.0 +~~	~~45~~	~~56~~	~~4.5~~	~~82.5~~	~~50.2~~	~~83.7~~	~~5 56.3 + 35 50~~		
5 49.4+45.9	~~Dm. 1322~~	~~5 53 50.3 +~~	~~35~~	~~49.6~~	~~8.8~~	~~85.4~~	~~40.8~~	~~85.6~~			
	~~1099~~	~~5 53 33.6 +~~	~~15~~	~~36.4~~	~~9.1~~	~~85.3~~	~~20.6~~	~~85.2~~			
	1102	5 51.0	+ 45 56	4.5	82.6	50.9		5 52.5 + 45 56			
0.1 5.6	1099	5 50.6 +	25 56	5.1	85.0	30.4	85.5	5 51.8 + 25 57			
0.0 5.8	1152	6 5.1 +	16 9	5.0	26.5	20.7	86.1	6 6.3 + 16 10			
	Dm. 1166	6 8.6 +	46 28	6.4	18.0	51.0		6 10.7 + 46 28			
	~~1052~~	~~6 6 22.5 +~~	~~16~~	~~4.2~~	~~7.0~~	~~25.8~~	~~20.6~~	~~85.3~~	~~6 9.0 + 16 4~~		
0.0 6.0	1164	6 8.5 +	16 10	5.4	26.7	20.7	86.2	6 9.7 + 16 11			
	1104	5 51.5 +	37 12	2.7	83.7	40.7	84.2	5 52.9 + 37 13			
	Dm. 1299	6 17.0 +	47 29	7.0	29.6	50.6		6 20.4 + 47 28			
	~~Dm. 1203~~	~~6 10 36.3 +~~	~~17 22.5~~	~~6.5~~	~~23.6~~	~~20.6~~	~~82.8~~	~~6 13.2 + 17 23~~			
	Dm. 1293	6 10.6 +	17 22	6.5	25.4	20.6		6 13.2 + 17 21			
	~~Dm. 1066~~	~~6 10 58.2 +~~	~~27 26.5~~	~~8.3~~	~~25.8~~	~~30.6~~	~~84.0~~	~~6 13.0 + 27 28~~			
	~~1211~~	~~6 12 23.9 +~~	~~14 24.9~~	~~8.8~~	~~24.2~~	~~20.6~~	~~86.4~~				
	1106	5 51.9 +	47 52.1	5.5	82.7	50.6		5 53.4 + 47 54			
0.2 6.4	~~Dm. 966~~	~~5 54 58.9 +~~	~~27 34.2~~	~~7.8~~	~~85.8~~	~~30.6~~	~~85.9~~	~~5 57.7 + 27 34~~			
	~~1101~~	~~5 54 29.8 +~~	~~14 39.5~~	~~8.3~~	~~85.3~~	~~20.7~~	~~85.3~~				
0.1 5.7	1084	5 45.8 +	27 36	4.5	84.2	30.6	85.2	5 47.0 + 27 35			
0.0 6.6	1060	5 40.4 +	17 41	5.6	85.4	20.7	86.2	5 46.6 + 17 42			
	1139	6 2.4 +	48 45	5.6	26.2	51.0		6 7.2 + 48 44			
0.2 6.5	~~Dm. 1028~~	~~6 0 33.6 +~~	~~28 24.9~~	~~8.3~~	~~24.4~~	~~30.6~~	~~83.6~~	~~6 3.7 + 28 25~~			
	~~1180~~	~~5 59 27.3 +~~	~~18 25.0~~	~~8.3~~	~~83.3~~	~~20.6~~	~~82.9~~				
	1154	6 5.4	+37 11	6.6	26.8	40.6		6 6.6 + 37 11			

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Plate 310.

T	Ho.	Type	No Lines	K	Focus	Other Lines.	V	H	V	H
	4.5	13.4	I	K=.5H		—	2.2	26.8	18.4	59.2
III: 6.2, 6.5	3.0	19.3	III 1599	K=H	1	H	1.5	38.6	19.1	47.4
	2.3	20.3	I	N	1	—	1.2	40.6	19.4	45.4
	2.0	14.8	I	N	1	—	1.0	29.6	19.6	56.4

Amt of Fog. due to moon & clouds. 7.3 Amt of Fog. due to chemicals 7.5

Plate 300.

	22.0	22.6	I?	K=H	2	H	11.0	45.2	24.5	4.5
	20.8	24.7	I	K=H	2	H	10.4	49.4	25.1	0.3
	20.3	24.6	I	N	5	H	10.2	49.2	25.3	0.5
III 5.5, 5.8	20.1	7.4	III 1612	K=2H	3	H Bro	10.0	14.8	25.5	34.9
	18.8	13.0	I I?	H N	(K=H) 1	—	9.4	26.0	26.1	23.7
	18.5	20.8	I	N	2	H	9.2	41.6	26.3	8.1
	18.5	22.5	I	N	3	H	9.2	45.0	26.3	4.7
	18.1	8.0	I	N	1	—	9.0	16.0	26.5	33.7
	17.7	8.3	I	N	1	—	8.8	16.6	26.7	33.1
	17.9	10.1	I	N	5	H	9.0	20.2	26.5	29.5
	17.5	12.7	I I	H N?	N 11	—	8.8	25.4	26.7	24.3
	16.0	19.0	I	N	1	H	8.0	38.0	27.5	11.7
Recorded below.	~~15.5~~	~~17.2~~	I	N	1	—	~~7.8~~	~~34.4~~	~~27.7~~	~~15.3~~
	15.8	14.5	I	K=.5H	1	H?	7.9	29.0	27.6	20.7
	15.7	17.2	I I?	N N	11	—	7.8	34.4	27.7	15.3
	15.4	7.9	I	N	2	H	7.7	15.8	27.8	33.9
	15.1	12.7	II a 1613	K=H	1	H Bro	7.6	25.4	27.9	24.3
	14.7	11.5	I	K=.1H	3	—	7.4	23.0	28.1	26.7
	14.0	9.5	I	N	2	—	7.0	19.0	28.5	30.7
	14.1	13.6	I I	N N	11	—	7.0	27.2	28.5	22.5
	14.9	21.2	I	K=H	1	—	7.4	42.4	28.1	7.3
	14.5	23.6	I	K=H	2	—	7.2	47.2	28.3	2.5

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mean 8

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars 1900
1123	5	58.4 + 38	30	53	85.2	40.7	5 59.6 + 38 29
Dm. 1391	5	59 35.5 + 38	19.0	7.5	86.4	40.5	85.7
1091	5	54 54.8 + 18	33.3	8.4	84.8	20.8	84.6
1073	5	43.2 + 39	7	4.2	81.8	40.6	83.7 5 44.6 + 39.7
1052	5	36.6 + 49	46	5.4	77.2	51.0	5 38.2 + 49 47
Dm. 1382	5	43 27.5 + 29	36.7	7.7	84.1	30.8	85.4
1106	5	43 18.7 + 19	28.6	6.8	83.9	20.7	84.6 5 46.0 + 19 30
1119	5	56.4 + 19	42	5.1	86.0	20.7	86.0 5 57.6 + 19 41

mean 4

1153	6	5.1 + 14	14	4.2	50.3	25.2	6 6.2 + 14	14
1138	6	1.8 + 24	15	cum.	47.0	35.2	48.4 6 1.9 + 14	47
1132	6	0.7 + 14	47	4.4	50.1	25.2	
Dm. 1341	5	58 47.9 + 35	8.3	8.0	108.2	45.8	111.8 6 1.8 + 35 8
1105	5	55 45.4 + 25	10.9	8.5	105.0	35.6	107.1 5 58.0 + 25 11
1100	5	50.7 + 44	56	2.1	99.9	55.1	5 52.2 + 44 57
1263	6	36.5 + 25	15	3.2	51.9	25.4	49.8 6 37.8 + 25 13
Dm. 1159	6	24.1 + 16	20	6.5	46.1	25.7	6 25.7 + 16 19
Dw 1262	6	23.3 14.7 + 26	17.2	8.2	49.2	35.7	48.7 6 26.0 + 26 15
1127	6	23.5 + 16	20	6.6	49.3	25.4	48.8 6 25.4 + 15 58
1314	6	27 41.2 + 25	58.5	8.5	47.7	35.4	47.8 6 20.0 + 16.4
1164	6	8.5 + 16	10	5.4	50.1	25.4	6 9.7 + 16 11
1152	6	5.1 + 16	9	5.0	46.7	25.4	47.2 6 6.3 + 16 10
Dm. 1388	6	5 53.8 + 36	45	6.6	100.9	45.4	103.9 6 6.3 + 16 10
Dw 1152	6	5.1 + 16	20	6.5	46.1	25.4	6 6.3 + 16 10
Dw 1035	6	3 41.9 + 16	9.3	5.8	48.7	25.4	49.4 6 6.3 + 16 9
Dw 1494	6	34.5 + 36	14	6.7	50.5	45.2	6 37.5 + 36 12
Dm. 1190	6	33 33.0 + 36	38.2	8.5	49.5	45.5	46.3
1242	6	33 0.4 + 16	31.8	7.3	49.0	25.5	48.3 6 35.2 + 16 30
Dw 1242	6	33.0 + 16	32	7.3	49.6	25.3	6 35.6 + 16 30
1251	6	34 3.0 + 16	48.6	9.0	50.6	25.6	49.9
Dm. 1317	6	32 0.2 + 26	48.5	8.2	48.6	35.6	47.2 6 31.8 + 26 46
1249	6	30.8 + 16	30	2.0	51.0	25.5	50.5 6 31.9 + 16 29
Dw 1151	6	22.4 + 46	35	7.0	47.8	55.4	6 25.8 + 46 34
Dm. 1452	6	22 13.9 + 36	42.3	7.8	47.6	45.6	46.7 6 25.2 + 36 41
1254	6	21 48.7 + 26	44.1	8.0	47.2	35.5	46.9
Dm. 1203	6	10 26.3 + 17	22.5	6.5	48.6	25.4	49.1 6 13.2 + 17 21
1054	6	9 16.3 + 27	15.3	7.1	47.8	35.3	48.2
Dm. 1090	6	13 58.3 + 29	47.7	7.8	48.4	35.6	48.9
1214	6	12 58.2 + 17	43.9	6.5	47.4	25.6	47.7 6 15.2 + 17 49
Dw 1299	6	17.0 + 47	29	7.0	46.0	55.4	6 20.4 + 47 28
Dm. 1119	6	19 25.3 + 27	43.0	7.7	48.4	35.6	48.3 6 22.2 + 27 42
1247	6	18 29.4 + 17	31.4	8.2	47.5	25.4	47.5
Dm. 1224	6	14 22.6 + 17	38.2	7.0	48.8	25.4	49.1 6 17.0 + 17 37
1260	6	35.4 + 17	46	5.0	51.2	25.5	50.4 6 36.6 + 17 45
Dw 1289	6	23.9 + 17	53	6.5	49.3	25.5	6 26.5 + 17 51
Dm. 1286	6	20 51.2 + 17	52.9	6.8	49.3	26.5	49.0
1141	6	23 54.9 + 27	55.6	7.5	49.2	35.6	48.8
1239	6	27.7 + 28	7	4.9	50.7	35.5	49.9 6 29.0 + 28 6
1252	6	32.0 + 28	22	5.7	51.0	35.4	49.7 6 33.3 + 28 21
Dw 1138	6	21.2 + 28	18	6.8	48.4	35.3	6 24.0 + 28 17
Dm. 1228	6	19 48.3 + 18	33.3	7.8	47.0	25.6	46.9 6 32.4 + 18 32
1142	6	22 32.6 + 28	28.6	8.0	49.4	35.5	49.4 6 25.4 + 28 23
Dw 1182	6	6.0 + 17	5.7	6.5	48.4	25.4	6 8.6 + 17 57
Dm. 1112	6	21 32.6 + 18	9.4	6.8	49.9	25.6	45.6 6 5.1 + 18 19
1052	6	5 14.7 + 28	3.8	8.4	47.6	35.6	49.1 6 8.8 + 28 4
1106	5	51.9 + 47	52	5.5	99.1	55.1	5 53.4 + 47 54
1123	5	58.4 + 38	30	5.3	105.6	45.7	109.7

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Plate (3) 20 v.

V.	H.	Type	No. Lines	K	Focus	Class Lines	V	H	V	H
13.5	22.9	I d?	7	K=H?	2	H	6.8	45.8	28.7	3.9
13.1	21.6	I	5	K=H	1	—	6.6	43.2	28.9	6.5
13.1	19.9	I	7	K=.3H	2	H	6.6	39.8	28.9	9.9
12.7	10.1	I	6	N	2	—	6.4	20.2	29.1	29.5
12.5	21.0	II a 1614	2	K=H	2	H? diffuse	6.2	42.0	29.3	4.7
11.9	11.6	I I?	4 5	K=H K=H	1 1	— —	6.0	23.2	29.5	26.5
11.8	20.1	III b? 1615	2	K=1.2H	2	diffuse	5.9	40.2	29.6	9.5
11.7	17.6	I	6	N	2	H?	5.8	35.2	29.7	14.5
11.4	16.0	I	8	K=.5H	1	H?	5.7	32.0	29.8	17.7
11.3	13.4	I	5	N	1	H?	5.6	26.8	29.9	22.9
11.0	10.4	I b 1616	9	N	3	H diffuse	5.5	20.8	30.0	28.9
11.1	15.7	I b I 1617	5 4	N N	1 1	— —	5.6	31.4	29.9	12.3
11.0	22.3	I	7	N	2	H?	5.5	44.6	30.0	5.1
10.7	17.2	I I	5 5	N N	1 1	— —	5.4	34.4	30.1	15.3
10.5	22.6	I	7	N	1	H	5.2	45.2	30.3	4.5
10.5	19.7	I	5	N	1	—	5.2	39.4	30.3	10.3
10.5	14.3	I	10	N	4	H?	5.2	28.6	30.3	21.1
9.8	14.7	I	6	K=2H?	1	—	4.9	29.4	30.6	20.3
9.0	10.3	I I?	4 4	N N	1 1	— —	4.5	20.6	31.0	29.1
8.0	13.6	I	—	N	1	—	4.0	27.2	31.5	22.5
7.6	10.5	I I	6 5	N N	1	—	3.8	21.0	31.7	28.7
7.5	21.8	I ?	5	N	1	—	3.8	43.6	31.7	6.1
6.5	13.1	I I	5 5	N N	1 1	— —	3.2	26.2	32.3	23.5
6.0	12.7	I	7	K=.3H	1	—	3.0	25.4	32.5	24.3
III? 6.5, 6.8	5.9	10.3	III b 1618	2	N	1	—	3.0	20.6	32.5	29.1
III 5.4, 5.6, 6.7	6.0	17.0	III b.a 1619	3	K=H	3	H	3.0	34.0	32.5	15.7
	6.0	17.6	III b.a 1620	3	K=H	5	H diffuse	3.0	35.2	32.5	14.5
III 5.7, 6.0, 7.0	5.9	20.8	III b.a 1621	3	K=H	2	H diffuse	3.0	41.6	32.5	8.1

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mean 4

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. Stars to 1900
1123	5 58.4	+ 38 30	5.3	104.2	45.3		5 59.6 + 38 29
1129	5 59.4	+ 38 54	5.3	105.2	65.8	112.8	
Dm 1129	6 5.0	+ 18 43	6.5	48.2	25.3		6 7.6+18 43
1139	6 2.4	+ 48 45	5.6	45.7	55.4	50.2	
Dm 1157	6 8.6	+ 18 58	7.5	48.4	28.6	49.0	6 11.2 +18 57
Dm 1062	6 7.2	+ 28 54	7.5	47.0	25.7	48.2	6 10.1 +28 54
1168	6 9.0	+ 59 3	4.3	48.8	65.6	53.5	
1139	6 2.4	+ 48 45	5.6	42.2	55.4		6 3.9+48 44
1248	6 30.8	+ 29 5	5.5	51.0	35.5	49.8	6 32.1+29 4
1162	6 7.8	+ 19 12	5.1	49.8	25.4	50.5	6 8.9+19 12
Dm 1391	6 26.1	+ 19 32	7.2	49.3	25.5		6 28.8+19 30
1244	6 30.3	+ 39 30	5.9	53.5	45.5	52.0	
1161	6 7.7	+ 29 32	4.5	47.9	35.4	49.2	6 9.0+29 33
1184	6 13.5	+ 29 36	6.0	48.7	35.4	49.4	6 14.8+29 35
Dm 1335	6 16 46	+ 19	46.4	8.8	48.1	25.5	49.0
1213	6 15 36.9	+ 29	47.4	6.8	47.6	35.5	47.8 6 18.5 +29 46
Dm 1649	6 20.9	+ 39 51	7.0	47.7	45.4		6 24.0+39 50
1248	6 21 29.6	+ 29	55.3	8.3	48.3	35.5	47.9 6 27.4 +29 51
1245	6 30.5	+ 40 0	5.1	51.3	45.5	49.2	6 31.9 + 39 59
Dm 1170	6 9.3	+ 29 50	7.0	46.7	35.4		6 12.2+29 49
Dm 1589	6 9 29.4	+ 39	52.5	8.1	46.9	45.5	48.6 6 12.6 +39 52
1142	6 9 58.7	+ 29	58.6	8.8	47.3	35.6	49.3
1150	6 4.9	+ 19 49	5.6	49.5	25.3	50.4	6 6.1+19 49
Dm 1211	6 12.8	+ 30 2	7.0	47.2	35.4	47.7	6 15.7 +30 1
1178	6 10.5	+ 9	59	6.7	44.9	15.4	45.1
1112	5 53.5	+ 49 53	6.0	48.7	55.1		5 55.0+49 55
Dm 1134	6 1.0	+ 30	27	8.3	46.2	35.6	48.3 6 3.9 +30 27
1122	6 56.8	+ 20 0	4.8	10 7.0	25.4	103.0	
1172	6 7.1	+ 30 0	7.0	46.5	35.4		6 10.0 +30 0
Dm 1455	6 5 31.5	+ 40	14.3	8.5	47.9	45.4	50.0 5
1196	6 10 56.3	+ 30	25.6	7.8	50.3	35.6	51.6 6 13.8 +30 25
1216	6 21.8	+ 20 17	4.0	50.4	25.5	50.3	6 23.1+20 17
1428	6 19.3	+ 20 35	6.8	48.7	25.5		6 22.0+20 34
1241	6 20.9	+ 30 34	5.2	50.3	35.5	50.3	
Dm							
1361	6 28 43.3	+ 31 0	7.0	49.3	35.5	48.0	6 34.6 +30 58
Dm 1842	6 25.6	+ 41 33	7.0	3 26.8	25.6	51.4	6 28.5 +31 31
1451	6 20.2	+ 41 29	7.0	47.4	35.4		6 23.4+41 28
1224	6 25.1	+ 11 38	4.9	32.3	15.6	52.2	
Dm 1480	6 28.4	+ 41 42	7.0	49.4	45.5		6 31.6+41 40
Dm 1482	6 28 44.6	+ 41 37	7.5	49.7	46.4	47.1	48.9 6 31.9 +41 35
1358	6 24 51.0	+ 31 49	3	48.9	35.6	47.6	
1146	5 53.0	+ 51 35	6.3	9 6.6	55.4		5 56.6+51 35
1148	6 3 8.2	+ 21 54	7.3	48.7	25.7	46.7	5 58.2 +21 54
1392	6 3 25.0	+ 41 43	7.3	47.0	45.5	50.5	6 6.6 +41 44
1223	6 24.6	+ 32 32	6.0	50.8	35.7		6 26.0+32 31
Dm 1364	6 23 44.0	+ 20	16.8	7.2	49.4	25.3	49.2
Dm 1320	6 22 10.3	+ 32	15.4	6.8	48.4	35.5	47.9 6 25.1 +32 14
1223	6 24.6	+ 32 32	6.0	50.0	35.5	49.3	6 26.0+32 31
1247	6 30.8	+ 42 36	5.2	51.4	45.6	48.9	6 32.2+42 35
1194	6 15.7	+ 22 34	3.2	49.7	25.6	50.0	6 16.9+22 34
Saturn							
1160	6 7.6	+ 22 32	3.5	49.2	25.5	50.1	6 8.8+22 32

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Plate 300

V	H.	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H
4.7	12.2	I ✓	~~4~~ 5 ✓	N ✓	1	—	2.4	24.4	33.1	25.3
4.3	15.8	I ✓	6 ✓	N ✓	1	—	2.2	31.6	33.3	18.1
1.7	22.9	III ✓	4 ✓ 16221	N ✓	1	—	0.8	45.8	34.7	3.9

Plate 264.

22.7	22.8	I	5	N	2	—	11.4	45.6	
22.5	22.4	I	3	N	1	—	11.2	44.8	
20.3	21.8	I	3	N	1	—	10.2	43.6	
19.7	12.3	I	5	N	1	—	9.8	24.6	
18.7	20.6	I	3	N	1	—	9.4	41.8	
17.6	15.2	I	8	K=H	3	—	8.8	30.4	
17.4	17.8	I	3	N	1	—	8.7	35.6	
17.0	15.8	III	4	N	1	—	8.5	31.6	
16.9	10.6	I	5	N	1	—	8.4	21.2	
15.8	12.1	I	8	K=.2 H	4	—	7.9	24.2	
15.8	14.6	I?	3	N?	1	—	7.9	29.2	
13.2	15.8	III	8	K=H	3	rem	6.6	31.6	
12.8	10.7	I	6	N	2	—	6.4	21.4	
11.5	15.6	I	4	N	1	—	5.8	31.2	
11.5	8.8	I	3	N	1	—	5.8	17.6	
11.0	13.0	I	5	N	2	—	5.5	26.0	
10.8	18.8	I	9	N	5	—	5.4	37.6	
10.5	17.1	I	4	N	2	—	5.2	34.2	
11.0	13.0	I	4	N	1	—	5.5	26.0	
8.2	16.6	I	5	N	1	—	4.1	33.2	
7.5	19.7	I	5	N	1	—	3.8	39.4	
7.0	14.2	I	4	N	1	—	3.5	28.4	
7.0	17.8	I	4	N	1	—	3.5	35.6	

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Mean 4

No.	R.A.	Dec.	Mag.	H	V	H'	Red. to D.M. Stars to 1900	cor. B1	Br.	Bc.
Dm. 6										
1353	6 24 12.8	+ 33	7.9	6.5	48.6	35.5	47.7	6 27.2 +33	6.3	6.7
1347	6 16.7	+ 23	24	6.8	48.3	25.6		6 19.4 +23	6.6	.2 6.6
Dm.										.1 6.2
~~1318~~	~~6 16 1.8 + 33~~		~~19.0~~	~~8.4~~	~~44.6~~	~~35.5~~	~~47.8~~	~~6 11.1 +33 18~~	5.7	6.1 6.1 6 6.8 +23
1093	5 49.6	+ 54	16	3.8	95.4	55.1		5 51.3 +54 17		
~~Dm. 1272~~	~~5 59 22.8 + 34~~		~~54.8~~	~~7.4~~	~~105.2~~	~~35.7~~	~~108.1~~	~~6 2.3 +34 55~~		
~~1396~~	~~6 3 17.5 + 44~~		~~44.0~~	~~7.5~~	~~49.0~~	~~45.6~~	~~53.5~~	~~6 6.5 +44 47~~		

547.6 547.3 +543

73
1.3

10 - 15
13

Plate 264 reread on page 122, July 30 as the (June 19) day was very dark, and some faint stars were overlooked.

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Plate 264

V	H.	Type	Lines	K	Focus	Other Lines	V	H	V	H
6.7	11.8	I	4	N	1	—	3.4	23.6		
5.5	18.2	I	4	N	1	—	2.8	36.4		
4.0	17.7	I	5	N	1	—	2.0	35.4		
3.0	23.0	I	4	N	2	—	1.5	46.0		

Amt. of Fog due to moon & clouds. 6.9 Amt. of Fog due to chemicals 7.0

Plate 332.

22.0	7.8	I	7	N K=5H?	2	—	11.0	15.6	17.0	70.7
16.6	7.7	I d?	6	N K=5H?	2	—	8.3	15.4	19.7	70.9
16.2	10.5	I	6	N?	1	H	8.1	21.0	19.9	65.3
14.5	14.7	III b	1623	2 K=1.2H	2	H. lines	7.2	29.4	20.8	56.9
12.1	20.6	I	6	N K=H	1	—	6.0	41.2	22.0	45.1
11.4	7.3	I	7	N K=H	2	H	5.7	14.6	22.3	71.7
10.3	14.2	I d	4	N	1	—	5.2	28.4	22.8	57.9
9.9	14.7	I	5	N?	1	—	5.0	29.4	23.0	56.9
7.8	19.7	I	9	N	3	—	3.9	39.4	24.1	46.9
5.6	17.5	I	6	N	1	—	2.8	35.0	26.2	51.3
4.7	10.0	I	6	N	1	—	2.4	20.0	25.6	66.3

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½ cos δ

No. R.A. Dec. Mag. H V H' Red. of D.M. stars to 1900

Mean 11

Margin	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900		cov. Br.	Br.			Br.
	~~1373~~	~~7 11.2~~	~~+16 45~~	~~3.6~~	~~26.8~~	~~27.8~~	~~26.1~~	7 12.4 +16 43		4.4	5.5	5.4	0	5.4
	Dm. 1392	7 17.7	+49 37	4.6	33.1	57.7		7 19.2 +49 25						
	~~1623~~	~~7 17.8~~	~~+49 36~~	~~4.5~~	~~37.2~~	~~57.8~~	~~25.1~~	~~7 19.2 +49 25~~		4.6	5.7	5.6	.5	6.1
												~~H.P. 1392~~		
	~~1367~~	~~7 9.4~~	~~+49 41~~	~~4.8~~	~~24.8~~	~~58.0~~	~~19.7~~							
	Dm. 1367	7 9.4	+49 41	4.8	30.4	57.8		7 10.9 +49 38						
	~~1612~~	~~7 7.5~~	~~+49 42~~	~~5.3~~	~~28.5~~	~~57.8~~	~~25.3~~	~~7 10.9 +49 38~~		4.7	5.8	5.7	.5	6.2
	~~1356~~	~~7 5.4~~	~~+59 51~~	~~5.3~~	~~26.4~~	~~67.9~~	~~22.0~~					H.P. 1367		
	1334	6 57.0	+20 45	4.0	86.4	28.0	86.4	6 58.2 +20 43		4.6 / 4.7	5.7 / 5.8	5.8 / 6.0	.1	5.9 / 6.1
	1293	6 44.4	+21 55	5.2	85.6	27.9	86.4	6 45.6 +21 53		5.0	6.1	6.2	.1	6.3
	1377	7 13.0	+22 12	3.6	27.6	27.9	26.4	7 14.2 +22 10		4.2	5.3	5.5	.1	3.6
0.0 6.5	1338	6 58.1	+22 49	5.8	86.5	28.0	86.4	6 59.3 +22 47	8 - 5	5.4	6.5	6.5	.1	6.6
	Dm. 1165	6 54.1	+52 57	6.7	83.5	58.0		6 57.7 +52 53						
	~~Dm. 1473~~	~~6 57 20.9~~	~~+33 1.1~~	~~8.1~~	~~88.7~~	~~38.0~~	~~86.7~~							
	~~1666~~	~~6 56 35.7~~	~~+22 52.2~~	~~7.1~~	~~86.0~~	~~27.9~~	~~86.0~~	~~6 59.3 +22 48~~		5.5	6.6	6.4	.6	7.0 ~~6 54.2 +52~~
0.1 5.3	1295	6 44.9	+34 6	3.7	84.3	38.0	85.9	6 46.2 +34 5	17 + 4	4.0	5.1	5.2	.2	5.4
0.2 5.8	Dm. 1310	6 48.9	+45 17	4.7	83.9	48.1		6 50.4 +45 14	13 0	4.7	5.8	5.6	.4	6.0 ~~6 47.0 +45.4~~
	~~1517~~	~~6 49 15.4~~	~~+25 9.6~~	~~7.8~~	~~84.2~~	~~28.0~~	~~84.7~~	~~6 52.1 +25 7~~						
0.3 6.3	1378	7 13.1	+55 30	5.2	33.1	57.9		7 14.7 +55 28	~~7 11.0~~ 14 + 1	4.7	5.8	6.0	.6	6.6
	~~Dm. 1578~~	~~7 4 30.1~~	~~+35 27.6~~	~~7.5~~	~~24.5~~	~~38.3~~	~~22.7~~	~~7 7.5 +35 44~~				~~7 11.0 + 55.3~~		
	~~1408~~	~~7 5 4.6~~	~~+45 38.9~~	~~7.9~~	~~25.1~~	~~48.0~~	~~22.1~~	~~7 8.4 +45 35~~						

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Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals
5.9 June 24, 1886. 6.1

Plate 203

B	10	V.	H.	Type	No. Lines	K	Focus	other Lines	V	H	V	H
		20.8	17.2	I	11	N	5	F. —	10.4	34.4	27.5	38.1
		20.6	7.1	I	5	N	1	—	10.3	14.2	27.6	58.3
		20.5	8.6	I b 1624	6	N	2	Green	10.2	16.6	27.7	55.9
		20.5	12.8	I	6	N	1	—	10.2	25.6	27.7	46.9
		21.0	18.2	I	6	K=.8H	1	—	10.5	16.4	27.4	56.1
		20.1	20.9	I?	6	K=H	1	—	10.0	41.8	27.9	30.7
		20.0	19.4	I b 1625	8	N	3	F.? Green	10.0	38.8	27.9	33.7
		17.9	7.1	II a 1626	2	K=H	1	Green	9.0	14.2	28.9	58.3
		18.3	22.1	I	8	N	2	F	9.2	44.2	28.7	28.3
		17.5	21.6	I b? 1627	7	N	3	F?	8.8	43.2	29.1	29.3
		17.0	18.1	I	5	N	1	—	8.5	36.2	30.4	36.3
		16.5	11.7	I?	10	N	5	F —	8.2	23.4	29.7	49.1
		16.7	21.1	I	4	N	1	—	8.4	42.2	29.5	30.3
		16.5	21.8	I	6	N	1	—	8.2	43.6	29.7	28.9
		16.5	23.2	II a? 1628	?	K=2.H	5	F	8.2	46.4	29.7	26.1
		15.5	9.7	I	10	N	3	F	7.8	19.4	30.1	53.1
		15.1	5.9	I	1	K=.2H?	2	—	7.6	11.8	30.3	60.7
		15.0	12.9	II a 1629	3	K=H	1	F. Green	7.5	25.8	30.4	46.7
		15.0	15.5	I	6	N	1	—	7.5	31.0	30.4	41.5
		14.5	17.1	I	7	N	1	—	7.2	34.2	30.7	38.3
		14.0	13.7	I	6	N	1	—	7.0	27.4	30.9	45.1
Peculiar spectrum?		12.6	12.9	I c? 1630	12	N	5	Green	6.3	25.8	31.6	46.7
		12.0	7.7	III b 1631	2	K=H	1	—	6.0	15.4	31.9	57.1
		12.0	14.6	I	6	N	1	—	6.0	29.2	31.9	43.3
		11.9	17.1	I b 1632	11	N	5	Green	6.0	34.2	31.9	38.3
Peculiar spectrum?		11.5	16.6	II a.c. 1633	3	K=H	4	F	5.8	33.2	32.1	39.3
		11.5	11.4	I	6	K=H	1	—	5.8	22.8	32.1	49.7
		11.5	19.2	I?	6	N?	1	—	5.8	38.4	32.1	34.1
		11.0	19.8	I	5	N	1	—	5.5	39.6	32.4	32.9

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Mean 7

½cosδ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of B.M. stars to 1900	cor. By	Br.	Yr.	
	591	3 34.4	+ 47 24	3.2	68.8	57.8	70.0	3 35.8 + 47 28	B	B.	B.	B
0.7 6 3	677	3 59.2	+ 27 18	5.4	73.4	37.6		40.5 +27 21	9	10	5.6	6.3 6.2
	686	4 0.6	+ 37 44	5.7	14.8	48.0	71.5					
	678	3 57.8	+ 37 47	6.9	76.5	47.7	74.4	4 09 +37 49				
0.2 5.2	682	4 6.6	+ 47 23	5.3	76.5	47.7	74.4		11	+2	4.5	5.2 5.0
	655	3 53.9	+ 47 32	5.9	70.5	28.1	69.8	41.4 +47 26				
0.2 6.2	642	3 47.3	+ 47 32	5.4	72.9	57.7	71.4	3 48.8 + 47 35	10	+1	5.4	6.1 6.0 6.4
	588	3 33.4	+ 37 12	5.9	49.8	47.7		33 4.6 + 37 16				
	644	3 59.2	+ 27 18	5.4	75.6	28.8	74.1				5.9	6.6 6.5
Dm	847	3 21.9	+ 47 31	6.5	63.7	57.5		3 25.0 +47 41				
Dm	584	3 28 46.4	+ 17 52.4	8.0	70.6	27.9	71.2	3 31.4 +18 1			5.5	6.2 6.1
	600	3 28 12.9	+ 37 56.9	8.2	70.0	47.9	72.5					
0.2 5.6	578	3 28.0	+ 47 48	4.2	66.8	57.8		3 29.4 + 47 51	16	+7	4.5	5.2 5.4
	591	3 34.4	+ 47 24	3.2	43.2	56.4	76.1					
	680	3 59.6	+ 28 41	5.2	73.8	37.9	71.9	4 0.8 + 28 43			5.8	6.5 6.5 6.6
	552	3 19.6	+ 48 39	5.0	63.8	57.8		3 20.9 + 48 43	9	0		
Dm	863	3 28 34	+ 48 46	7.0	72.3	37.7	73.1				4.8	5.5 5.5
	548	3 27 49.0	+ 28 41	6.8	72.0	37.9	73.7	3 30.5 +28 54				
0.2 5.7	555	3 20.8	+ 49 7	4.8	64.0	57.9		3 22.2 + 47 10	11	+2	4.6	5.3 5.4
0.2 5.6	573	3 25.7	+ 39 30	5.8	68.9	48.3	74.0					
	595	3 35.4	+ 19 19	5.4	71.6	28.8		3 36.6 + 19 23	9	0	5.5	6.2 6.2 6.3
0.0 6.2	828	3 35 48	+ 40 28.5	7.8	71.3	48.0	72.8	3 38.1 +40 38				
	649	3 49.8	+ 39 40	3.0	72.3	47.9	70.9	3 51.1 + 39 43	B	B.	B.	B.
	573	3 25.7	+ 39 30	5.8	67.9	47.9		3 26.8 + 39 34	3 24.0 +39 25			
0.1 6.6	824	3 27 48.6	+ 39 36.4	7.0	70.8	48.3	72.2	3 30.8 +39 45	10	+1	5.6	6.3 6.5 6.8
	679	3 24 17.3	+ 29 30.8	7.4	69.5	37.9	71.0					
Dm	944	3 18.5	+ 49 21	6.5	62.1	37.6		3 21.7 + 49 31			5.4	6.1 6.3 6.8
	829	3 27 48.6	+ 39 36.4	7.0	71.4	47.8	74.6	3 30.8 +39 45				
	541	3 15.8	+ 49 26	1.9	62.2	37.6		3 17.1 + 49 30				
	551	3 19.4	+ 59 31	4.2	66.8	67.7	73.8					
0.2 5.2	671	3 57.7	+ 50 1	4.5	77.1	57.8	73.3	3 59.1 + 50 5	10	+1	4.3	5.0 5.0 5.5
0.2 5.8	719	4 9.2	+ 50 0	4.6	21.0	57.6		4 10.7 + 50 3	13	+6	4.8	5.5 5.6 6.1
	704	4 6.7	+ 40 11	4.9	18.5	47.8	74.2					
	643	3 47.7	+ 50 21	5.5	73.5	57.9	72.0	3 49.2 + 50 24			5.5	6.2 6.3 6.8
0.2 6.7	617	3 39.5	+ 50 21	5.7	71.5	57.9	71.9	3 41.0 +50 26	13	+4	5.3	6.5 6.5 7.0
0.0 6.2	603	3 37.4	+ 20 33	5.8	71.6	27.8	71.9	3 38.6 +20 37			5.4	6.4 6.2 6.3
Dm	582	3 43.0	+ 30 44	6.5	70.4	37.7		3 45.8 +30 52				
	641	3 46.9	+ 60 46	6.1	74.3	67.8	72.9				5.9	6.6 6.6 6.8
	638	3 46.6	+ 31 32	3.1	72.4	37.8	71.8	3 47.8 + 31 35	B	B.	B.	B.
	670	3 57.6	+ 21 45	4.4	73.0	27.8	72.0	3 58.7 +21 49			5.3	6.0 6.0 6.1
											5.7	6.4 6.3 6.4
0.0 6.2	628	3 42.9	+ 21 53	6.0	72.1	27.9	72.1	3 44.0 +21 57			5.5	6.2 6.2 6.3
0.1 4.5	600	3 36.8	+ 31 54	4.0	71.0	37.9	72.6	3 38.0 + 31 59	3	−3	3.7	4.4 4.4 4.6
	602	3 37.0	+ 42 12	4.0	70.2	48.0	71.0	3 38.4 + 42 16			4.0	4.7 4.7 5.0
	648	3 49.7	+ 22 8	5.7	72.5	27.9	72.0	3 50.9 + 22 12			5.6	6.3 6.3 6.4
	603	3 37.6	+ 42 12	4.0	76.4	48.10						6.8
Dm	597	3 30 11.0	+ 32 11.0	6.8	68.6	38.0	68.4	3 [illegible]				
Dm	595	3 28.2	+ 42 10	6.7	69.6	47.9	69.8	3 31.2 + 42 15			5.7	6.4 6.5
	603	3 29 12.5	+ 42 4.0	7.2	69.6	47.9	69.8	3 32.9 +42 13				
Dm	523	3 30.2	+ 22 11	6.8	69.8	27.7		3 32.8 +22 20				
	659	3 38 20.5	+ 32 28.8	6.8	74.9	38.0	74.4	3 35.1 +32 38			5.9	6.6 6.6 6.7

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June 24, 1886.

Plate 203.

τ	Th.	Type	No Lines	K	Focus	Other Lines	V	H	V	H
10.3	14.9	I	10	K=.1H	2	F	5.2	29.8	32.7	42.7
10.0	11.3	I	6	N	1	—	5.0	22.6	32.9	49.9
10.1	16.5	I	5	N	1	—	5.0	33.0	32.9	39.5
9.7	15.3	I	9	N	2	F	4.8	30.6	33.1	41.9
9.0	14.7	I	5	N	1	—	4.5	29.4	33.4	43.1
9.3	15.6	I?	5	K=H	1	—	4.6	31.2	33.3	41.3
8.9	15.1	I?	6	N	1	—	4.4	30.2	33.5	42.3
8.8	7.1	I	8	N	2	F	4.4	14.2	33.5	58.3
8.8	16.3	I	11	N	4	—	4.4	32.6	33.5	39.9
8.7	17.8	I b 1634	7	N	3	neb	4.4	35.6	33.5	36.9
8.5	15.0	I	14	N	5	—	4.2	30.0	33.7	42.5
8.5	15.7	I	12	N	5	F	4.2	31.4	33.7	41.1
8.5	16.9	I	11	N	5	F	4.2	33.8	33.7	38.7
8.0	16.5	I	11	N	5	F2	4.0	33.0	33.9	39.5
7.8	17.0	I	7	N	1	—	3.9	34.0	34.0	38.5
7.8	16.8	I	9	N	4	—	3.9	33.6	34.0	38.9
7.9	13.9	I	6	N	1	—	4.0	27.8	33.9	44.7
7.9	14.9	I	4	K=H	1	—	4.0	29.8	33.9	42.7
7.5	16.0	I	4	N	1	—	3.8	32.0	34.1	40.5
7.5	16.4	I	5	N	1	—	3.8	32.8	34.1	39.7
7.4	16.5	I	5	N	1	—	3.7	33.0	34.2	39.5
7.0	16.8	I	8	N	2	—	3.5	33.6	34.4	38.9
8.8	23.7	I	6	K=H	1	—	4.4	[illegible]4	33.5	25.1
7.7	21.7	I	5	N	1	—	3.8	43.4	34.1	29.1
6.7	19.8	I	4	N	1	—	3.4	39.6	34.5	32.9
6.4	12.1	I b 1635	7	N	2	F	3.2	24.2	34.7	48.3
6.0	18.8	I	3	N	1	—	3.0	37.6	34.9	34.9
5.6	20.8	I	7	N	2	—	2.8	41.6	35.1	30.9

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mean 7

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Rcd. of D.M. Stars to 1900	Cor. Br.	Cor. Br.	Be.
0.1 5.5	626	3 42.1	+ 32 43	5.2	71.9	37.9	71.8	3 43.4 +32 48	4	5.3	5.4 2 5.6
	Dm. 607	3 48 29.7	+ 22 45.8	7.0	71.1	27.8	70.5	3 51.2 +22 54			
	~~866~~	~~3 51 5.4~~	~~+ 43 2.8~~	~~8.1~~	~~73.4~~	~~48.0~~	~~71.5~~				
	Dm 545	3 37.3	+ 22 42	8.0	70.3	27.7		3 39.9 +22 51		6.4	6.3 .1 6.4
	~~Dm. 714~~	~~3 38 42.2~~	~~+ 33 9.0~~	~~7.0~~	71.7	38.1	~~72.2~~	~~3 41.5 +33 18~~			
	~~666~~	~~3 38 16.0~~	~~+ 22 51.9~~	~~7.0~~	~~44.3~~	~~37.9~~	~~71.8~~				
	Dm 563	3 39.8	+ 22 59	6.9	70.4	27.8		3 42.5 +23 8		6.2 6.9	6.6 .1 6.9
	~~Dm. 544~~	~~3 39 0.5~~	~~+ 23 8.8~~	~~8.2~~	~~69.6~~	~~24.9~~	~~69.6~~				
	717	3 38 42.2	+ 33 9.0	7.0	69.3	38.0	69.4	3 41.5 +33 18		5.0 5.7	5.7 .1 5.8
	Dm. 563	3 41 7.9	+ 23 16.0	7.2	70.5	27.8	70.4	3 43.2 +23 25		5.4 6.1	6.1 .1 6.2
	Dm 717	3 38.7	+ 33 9	7.0	69.9	38.8		3 41.3 +33 39			
	~~Dm. 620~~	~~3 40.8~~	~~+ 43 35~~	~~6.0~~	~~72.0~~	~~48.2~~					
	~~535~~	~~3 38 47.5~~	~~+ 23 15.7~~	~~7.9~~	69.9	27.9	70.0	3 41.4 +23 25			
	Dm. 620	3 40.8	+ 43 35	6.0	71.0	48.0		3 42.3 +43 39		6.7	6.5
	~~556~~	~~3 40 20.6~~	~~+ 23 24.6~~	~~7.0~~	~~70.5~~	~~27.8~~	~~70.5~~	~~3 43.0 +23 34~~			
	Dm. 711	4 7.4	+ 53 18	5.2	21.6	57.7		4 8.9 +53 2.2		5.7 6.4	6.4 .1 6.3
0.3 5.9	~~624~~	~~4 0 11.7~~	~~+ 23 31.7~~	~~7.2~~	~~14.4~~	~~27.9~~	~~13.3~~	~~4 8.9 +23 40~~			
0.0 5.1	615	3 39.2	+ 23 34	4.2	71.8	28.0	72.0	3 40.4 +23 39		4.9 5.1	5.1 .1 5.2
0.1 5.6	594	3 34.8	+ 33 34	5.0	70.4	38.0	71.3	3 36.6 +33 39		5.3 5.5	5.5 .2 5.7
0.0 4.1	625	3 42.0	+ 23 41	3.8	72.0	27.9	72.0	3 43.3 +23 45		4.3 4.1	4.1 .1 4.2
0.0 4.0	618	3 40.4	+ 23 44	3.0	71.8	27.9	71.9	3 41.6 +23 48		4.0	4.0 .1 4.1
0.0 4.3	608	3 37.8	+ 23 44	3.8	71.6	27.9	71.9	3 39.0 +23 48		4.4	4.3 .1 4.4
0.0 4.9	613	3 38.7	+ 24 0	4.0	71.7	28.0	72.0	3 39.9 +24 4		4.9	4.9 .1 5.0
	Dm 505	3 36.2	+ 23 50	6.5	70.2	27.7		3 38.9 +23 59			6.0
	~~Dm. 495~~	~~3 35 6.5~~	~~+ 23 54.9~~	~~8.2~~	~~69.1~~	~~27.8~~	~~69.5~~				
	~~540~~	~~3 35 24.6~~	~~+ 24 5.8~~	~~8.0~~	~~69.3~~	~~28.0~~	~~69.7~~	~~3 36.1 +24 15~~		6.1	5.9 .1
0.0 5.3	~~610~~	~~3 38.1~~	~~+ 24 5~~	~~4.4~~	~~71.7~~	~~28.0~~	~~72.0~~	~~3 39.3 +24 10~~		5.1	5.3 .1 5.4
0.1 6.1	632	3 44.3	+ 34 0	5.7	72.1	38.0	71.7	3 45.5 +34 3		5.9	6.0 .2 6.2
	Dm 553	3 39.9	+ 23 54	7.8	69.7	24.9		3 42.6 +24 3			
	~~Dm. 561~~	~~3 40 44.7~~	~~+ 23 56.1~~	~~7.5~~	~~70.3~~	~~27.9~~	~~70.5~~				
	~~428~~	~~3 42 38.2~~	~~+ 33 55.1~~	~~6.5~~	~~72.4~~	~~37.9~~	~~72.3~~	~~3 45.5 +34 3~~		6.1 6.8	6.9 .1 7.0
	~~733~~	~~3 39 0.4~~	~~+ 34 8.1~~	~~8.5~~	~~71.0~~	~~37.9~~	~~71.3~~				
	Dm. 562	3 38 21.5	+ 24 4.2	7.5	70.4	27.9	70.6	3 41.1 +24 13		6.4 7.1	7.1 .1 7.2
	Dm. 556	3 37 25.1	+ 24 4.0	7.0	70.2	27.9	70.4	3 40.1 +24 13		6.0 6.7	6.8 .1 6.9
	Dm. 553	3 37 16.1	+ 24 5.5	7.0	70.3	27.8	70.5	3 40.0 +24 13		5.5 6.2	6.3 .1 6.4
	Dm. 546	3 36 31.8	+ 24 22.8	6.3	70.1	27.9	70.4	3 39.2 +24 02		5.2 5.9	5.9 .1 6.0
	556	3 20.8	+ 33 23	5.5	68.2	37.8	71.2	3 22.0 +33 28		6.0	6.2 .2 6.4
0.0 6.3	577	3 27.4	+ 24 3	5.9	70.8	27.8	72.0	3 28.5 +24 7		6.4	6.3 .1 6.4
	569	3 24.5	+ 24 33	5.17	64.1	56.0		3 26.0 +54 38			
	~~Dm. 646~~	~~3 28 40.7~~	~~+ 34 29.1~~	~~8.2~~	~~68.3~~	~~37.9~~	~~70.0~~				
0.3 6.5	~~583~~	~~3 32 40.8~~	~~+ 24 32.5~~	~~8.2~~	~~72.3~~	~~27.9~~	~~73.2~~				
	~~770~~	~~3 30 58.5~~	~~+ 44 24.0~~	~~8.0~~	~~70.6~~	~~47.8~~	~~73.3~~	~~3 34.1 +44 36~~		6.2	6.2 .6 6.8
0.1 5.9	647	3 48.7	+ 34 44	5.5	72.9	37.9	71.9	3 50.0 +34 47		6.7	6.8 .2 6.9
	Dm. 711	3 32 8.7	+ 34 53.1	9.0	69.7	37.9	71.0				
	529	3 32 8.6	+ 24 51.0	6.7	69.7	27.8	70.5	3 34.6 +25 0		6.3	6.5 .1 6.6
0.3 5.8	557	3 20.9	+ 55 2	5.0	62.5	57.8		3 22.4 +55.7		5.4	5.5 .6 6.1
	~~572~~	~~3 25.0~~	~~+ 35 3~~	~~5.7~~	~~66.6~~	~~34.8~~	~~68.7~~				

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Plate 203.

V.	16.	Type	Lines	K	Focus	Other Lines.	V	H	V	H
5.5	16.3	I	6	N	2	—	2.8	32.6	35.1	39.9
5.5	14.5	I	b2 1636	7	N	2	—	2.8	29.0	35.1	43.5
4.9	11.1	I	7	N	4	—	2.4	22.2	35.5	50.3
4.8	15.8	I	5	N	1	—	2.4	31.6	35.5	40.9
4.7	21.0	I	4	N	1	—	2.4	42.0	35.5	30.5
3.7	17.0	I	6	N	1	F2	1.8	34.0	36.1	38.5

Amt. of Fog. due to moonbeams. Amt. of Fog due to chemicals

6.3 Plate 201 6.5

22.1	22.1	I	8	K=.2H	4	F2	11.0	44.2	24.7	65.1
20.6	22.9	I	4	K=H	1	—	10.3	45.8	25.4	63.5
18.4	8.9	I	6	N	1	F2	9.2	17.8	26.5	92.5
17.0	7.7	I	b 1637 7	N	2	—	8.5	15.4	27.2	93.9
16.5	22.3	I	9	K=.2H	2	—	8.2	44.6	27.5	64.7
16.0	10.4	I	5	N	1	—	8.0	20.8	27.7	88.5
15.5	18.5	I	7	N	2	—	7.8	37.0	27.9	72.3
15.4	5.7	III a2 1638	2	K=H	2	Reen F1	7.7	11.4	28.0	97.9
15.4	14.4	I	10	N	4	—	7.7	28.8	28.0	80.5
14.5	21.9	III	2	K=H	1	F	7.2	43.8	28.5	65.5
14.1	21.2	I	5	N	1	—	7.0	42.4	28.7	66.9
13.5	14.5	I	8	K=.8H	2	—	6.8	29.0	28.9	80.3
13.0	11.7	I	6	N	1	—	6.5	23.4	29.2	85.9
12.7	13.3	I	6	K=.8H	1	—	6.4	26.6	29.3	82.7
12.8	17.8	I	6	N	1	F	6.4	35.6	29.3	73.7
12.6	19.2	I	7	N	2	—	6.3	38.4	29.4	70.9
12.1	7.7	I	6	N	1	—	6.0	15.4	29.7	93.9
11.8	6.2	III a2 1639	2	K=H	2	F2 Reen	5.9	12.4	29.8	96.9
11.0	16.0	I	9	N	3	F	5.5	32.0	30.2	77.3
9.7	16.5	I	6	K=H	1	F2	4.8	33.0	30.9	76.3

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mean 7

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Stars to 1900	cov. Br.	Br.	Br.
0.2 6.2	606	3 37.6	+45 18	5.6	70.2	48.0	70.9	3 39.0+45 22	8 − 1	5.1 5.8	6.0 .4 6.4
0.1 6.2	629	3 43.1	+25 14	5.5	72.1	28.0	72.0	3 44.3+25 17	7 − 2	5.1 5.8	6.1 .1 6.2
0.1 5.0	652	3 51.2	+35 27	4.1	73.4	34.8	72.0	3 52.4+35 30	10 +1	4.2 4.9	4.9 .2 5.1
Dm.	824	3 36.2	+55 28	6.5	67.8	57.9		3 39.4+55 37			
Dm.	744	3 35 15.7	+35 27	7.5	66.9	37.8	67.2	3 38.2 +35 33			
	617	3 37 17.5	+25 31.3	8.5	68.9	27.9	69.1	3 40.0 +25 40	4 4	5.7 6.4	6.4 .6 7.0
	566	3 24.2	+45 39	5.4	66.2	48.0		3 23.5+45			
0.2 6.6	795	3 30 35.6	+45 32.2	4.6	72.6	47.9	76.1	3 33.7 +45 41	14 +5	5.6 6.3	6.4 .4 6.8
	560	3 28 27.5	+25 01.2	5.0	70.5	27.9	71.7	3 31.2 +25 40			
0.1 6.1	559	3 36.8	+36 5	5.6	70.8	37.9	71.5	3 38.1+36 9	6 − 3	5.3	6.0 6.0 .2 6.2
									291		40 − 46
								mean 8	33	cov.	33
0.1 4.8	336	2 2.4	+34 25	3.1	46.6	45.4		2 3.5+34 31	1.8 +	Br.	
	358	2 8.9	+24 30	5.6	53.1	35.5	54.4			4.7 4.7	4.7 .2 4.9
	337	2 2.6	+25 23	5.1	48.4	35.7	50.0	2 3.7+25 28		5.7 6.5	6.6 .1 6.7
0.1 6.1	419	2 33.7	+26 33	5.4	51.5	35.8	50.2	2 34.8+26 38	7 +	5.3 6.1	6.0 .1 6.1
	432	2 36.4	+27 12	4.7	51.8	35.7		2 36.1+27 17	8 +10 +1	4.5 5.3	5.4 .1 5.5
0.1 5.5	424	2 35.0	+27 8	5.0	50.4	35.6	48.8	2 31.0			H.D. 482
	423	2 36.5	+67 19	5.9	49.0	46.8					
	334	2 1.3	+37 18	4.8	45.9	45.5		2 2.5+37 23	12 +		6.0
0.1 5.7	580	2 3 40	+64 33.8	8.2	47.7	55.8	52.3	2 6.0		4.9 5.7	5.6 .2 1.59.7+37.3
Dm.	591	2 29.5	+37 28	6.5	50.3	45.5		2 32.3+37 40			
	410	2 29 18.3	+27 42.2	8.5	50.1	35.7	49.1	2 31.9 +37 54		5.8 6.6	6.5 .3 6.8
0.1 5.9	367	2 12.0	+28 5	5.3	49.0	35.9	49.3	2 13.2+28 11	6 − 3	4.9 5.7	5.8 .1 5.9
	446	2 43.0	+37 49	4.4	54.4	45.5	50.5	2 44.2+37 55		4.7 5.5	5.5 .3 5.8
0.0 5.0	389	2 21.8	+7 55	4.4	50.6	15.6		2 22.8 +8 1	6 − 3	5.2 5.0	5.0 .0 5.0
Dm.	352	2 6.6	+8 17	4.4	50.4	15.5		2 7.7 +8 22		4.9 5.7	6.0 .0 6.0
	369	2 4 21	+28 30.5	8.0	47.8	35.7	49.5	2 6.6 +28 44		5.2 6.0	6.2 .2 6.4
0.1 6.3	340	2 3.6	+38 29	5.6	46.0	45.5		2 4.8+38 34	9 +3		6.5 .3 6.8
	627	2 4 36.2	+48 41.8	8.4	47.0	55.7	49.5	2 4.8 +48 55		5.2 6.0	6.2 .2 6.4
	388	2 21.2	+29 8	5.5	50.2	35.9	50.1	2 22.3+29 14		5.0 5.8	6.0 .1 6.1
Dm.	573	2 26.4	+39 3	7.0	49.8	45.5		2 29.2+39 15			
	434	2 24 38.1	+29 19.8	9.4	48.0	25.8	49.2	2 27.2 +28 31		5.3 6.1	6.3 .3 6.6
	392	2 23.9	+14 19	6.1	50.5	25.7		2 25.6+19 25			2 26.4+39.1
Dm.	505	2 32 45.8	+39 15.0	7.7	49.4	45.7	48.7			5.6 6.4	6.4 .1 6.5
	423	2 20 22.8	+29 16.9	9.5	47.0	35.7	46.6	2 23.0 +29 28			2 23.2+19.3
Dm.	521	2 10.7	+39 10	6.8	46.3	45.6		2 13.4+39 23		5.7 6.5	6.5 .3 6.8
	287	2 9 41.6	+29 10.9	9.5	46.3	35.6	46.0	2 12.3 +29 [illegible]			2 10.6+29.2
0.0 5.9	365	2 11.5	+19 21	5.6	49.9	25.7		2 12.6+19 26	4 − 3	4.9 5.7	5.9 .1 6.0
	328	2 13.1	+49 36	5.6	51.3	55.9	54.5				2 10.0+19.4
Dm.	428	2 35.6	+19 29	5.8	51.6	25.4	50.1	2 36.7+19 35			
	420	2 34.2	+19 21	5.8	51.6	25.4	50.1	2 36.1 +19 37	3 − 2	5.2 6.0	6.2 .1 6.3
	370	2 33.1	+39 34	4.7	48.3	45.6	48.1	2 36.1 +39 46			2 34.2+19.4
	427	2 34.8	+39 41	4.9	50.2	45.4	46.6				
	437	2 38.5	+9 36	4.4	50.9	15.5		2 39.5 +9 42		4.6 5.4	5.5 .1 5.6
Dm.	473	2 39 36.6	+29 44.5	8.3	52.0	35.6	49.7				2 37.2+19.5
	541	2 36 4.5	+69 57.0	6.2	48.5	65.8	49.7	2 39.5 +60 8			
Dm.	382	2 18.4	+10 5	5.4	50.4	15.6		2 19.5+10 10	3 − 6	4.8 5.6	5.7 .0 5.7
	393	2 17 38.0	+30 16.1	9.8	49.5	35.8	49.7	2 [illegible] +30 17			2 17.0+9.9
	394	2 15.4	+40 51	6.0	48.4	45.6	49.1	2 16.6+40 57		5.2 6.0	6.1 .3 6.4

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Plate 201.

V.	H.	Type	No Lines	K	Focus	Other Lines.	V	H	V	H
9.5	21.6	I	5	N	1	—	4.8	43.2	30.9	66.1
9.1	14.8	III	2	K=H	1	—	4.6	29.6	31.1	79.7
9.0	11.3	I	5	N	1	—	4.5	22.6	31.2	86.7
8.5	9.5	I	8	K=.5 H	2	—	4.2	19.0	31.5	90.3
7.7	23.5	III b c? 1640	2	K=1.2H	3	F? seen	3.8	47.0	31.9	62.3
7.3	6.2	I	6	K=H	2	—	3.6	12.4	32.1	96.9
6.0	19.6	I	7	N	2	—	3.0	39.2	32.7	70.1
5.6	14.0	I	4	K=H		—	2.8	28.0	32.9	81.3
5.5	24.1	III b 1641	3	K=3.0H	3	F	2.8	48.2	32.9	61.1
5.1	19.0	I	8	N	3	—	2.6	38.0	33.1	71.3
2.7	22.2	I	5	N	4	F?	1.4	44.4	33.3	64.9

Amt. of Fog due to moon & clouds. 7.0 Amt. of Fog due to chemicals 7.7

Plate 175.

19.5	7.7	I	5	N	2	—	9.8	15.4	38.3	66.1
19.1	10.2	I	11	N		—	9.6	20.4	38.5	61.1
16.8	21.8	I d?		N	2	—	8.4	43.6	39.7	37.9
15.0	9.4	I d	4	N	1	—	7.5	18.8	40.6	62.7
~~11.4~~	~~12.8~~	~~I~~	~~4~~	~~N~~	~~1~~	~~—~~	~~5.7~~	~~25.6~~	~~42.4~~	~~55.9~~
13.9	6.0	I?	4	N	1	—	6.9	12.0	41.2	69.5
12.9	13.9	I	6	N	1	—	6.4	27.8	41.7	53.7
10.8	7.8	I	5	N	1	—	5.4	15.6	42.7	65.9
10.9	8.2	I	4	N	1	—	5.4	16.4	42.7	65.1
11.1	22.6	I	8	N	3	F	5.6	45.2	42.5	36.3
10.0	8.7	I	5	N	1	—	5.0	17.4	43.1	64.1
9.5	7.9	I	6	N	1	—	4.8	15.8	43.3	65.7
9.0	21.7	I	6	N	3	—	4.5	43.4	43.6	38.1
7.6	6.2	I	6	N	2	—	3.8	12.4	44.3	69.1
7.0	13.0	I	5	N	1	—	3.5	26.0	44.6	55.5
7.1	14.5	I?	5	N	1	—	3.6	29.0	44.5	52.5

Not found on plate.

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Mean 8 cor.

Mean 7

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900
350	2 6.1	+ 20 39	5.4	49.3	25.4		2 7.2+20 44
Dm. 468	2 3 37.5	+ 40 48.8	8.0	46.8	45.6	50+	
348	2 2 59.1	+ 30 50.3	6.5	46.0	35.6	47.9	8 +18 +31 3
387	2 20.4	+31 15	5.7	50.0	35.8	49.9	2 21.5+31 22
Dm. 340	2 26.6	+ 10 58	6.9	49.2	15.5		2 29.0+11 10
353	2 26 22.0	+ 21 3.2	8.5	49.0	25.6	48.4	2 [illegible] +21 45
417	2 32.0	+ 21 26	5.4	51.0	25.6	50.8	2 33.1 +21 32
446	2 27 51.5	+ 41 25.9	7.3	46.9	45.6	48.1	2 30.7 +41 38
+ 615	2 32 2.9	+ 51 31.6	8.7	51.0	55.7	46.9	2 35.1 +51 44
Dm. 279	1 58.4	+ 21 58	6.0	105.4	25.8	106.7	2 09 +22 11
339	1 59.8	+ 22 05	5.2	101.0	25.9	102.3	
3246	1 56.5	+ 41 45	2.1	108.9	45.4	113.1	1 57.7+41 51
435	2 38.4	+ 11 57	5.2	50.8	15.6		2 39.5 +12 2
426	2 34.8	+ 42 11	cum.	47.2	45.8	48.7	
356	2 8.8	+32 49	5.2	48.0	35.8	49.4	2 10.0+32 54
390	2 22.4	+ 22 56	6.1	50.4	25.7	50.3	2 23.5+22 2
334	2 0.4	+ 22 54	2.0	48.6	25.7	50.1	2 2.5 +22 0
361	2 10.2	+ 33 17	4.2	48.2	35.9	49.5	2 11.3 +33 23
336	2 2.4	+ 34 25	3.1	46.8	36.8		2 3.5 +34 31
335	2 2.1	+ 53 17	6.4	46.5	55.7	52.2	
40	0 10.8	+ 38 1	4.3	26.2	47.8		0 11.9+38 8
Dm. 30	0 11.6	+ 58 20	7.3	27.0	68.1	20.1	0 14.0 +58 35
5	0 2.2	+ 28 26	2.1	17.6	38.2	15.9	
5	0 2.2	+ 28 26	2.1	22.6	38.0		0 3.2+28 33
9	0 2.8	+ 58 29	2.4	23.2	68.1	18.7	
4177	23 33.3	+ 49 48	5.3	76.9	58.2		23 34.3+49 55
Dm. 4197	23 33.3	+ 39 48	5.3	76.9	48.2	80.1	23 35.1 +40 3
25	0 7.3	+ 40 22	5.8	26.1	47.9		0 8.3 +40 29
26	0 7.6	+ 30 48	6.5	26.4	38.2	24.9	0 8.3 +30 59
25	0 7.5	+ 20 43	7.2	26.2	28.2	25.0	0 8.0 +20 53
4243	23 55.5	+ 60 33	5.7	74.3	68.1	68.7	
4950	23 57 27.0	+ 22 27.9	7.6	83.0	28.2	82.6	
Dm. 3597	23 58 8.1	+ 52 24.6	7.0	83.7	58.1	82.0	0 0.3 +52 37
Dm. 44	0 12.5	+ 30 52	5.8	24.5	37.8		0 13.4+30 58
35	0 10 56.1	+ 41 10.4	8.3	22.9	48.1	18.4	0 13.3 +41 25
4244	23 55.6	+ 41 42	6.1	83.4	48.1		23 56.6+41 49
4236	23 52.8	+ 31 41	6.3	80.6	38.1	80.4	
57	0 18.6	+ 52 23	5.8	34.2	57.8		0 19.7+52 30
Dm. 36	0 9 43.1	+ 22 47.2	8.0	25.3	28.2	24.2	
41	0 8 46.8	+ 42 47.5	6.0	24.4	48.2	20.6	0 11.1 +43 2
Dm. 27	0 7.8	+ 32 32	6.0	24.2	37.9		0 8.8+32 39
30	0 7 34.3	+ 52 46.2	7.3	24.0	58.2	18.7	0 9.9 +53 1
4176	23 32.3	+ 42 36	4.3	77.5	48.2	81.5	23 33.2+43 43
36	0 10.1	+ 42 56	6.0	27.5	47.9		0 11.1 +43 3
Dm. 80	0 8 45.8	+ 53 8.3	7.0	26.2	58.1	21.2	0 11.2 +53 38
31	0 6 30.6	+ 43 24	8.0	24.2	48.0	20.8	
43	0 12.4	+ 43 8	5.9	25.2	47.9		0 13.4+43 14
Dm. 27	0 7 23.5	+ 53 16.4	7.1	23.2	58.1	17.5	
33	0 7 43.0	+ 43 23.3	8.7	23.5	48.2	19.7	0 10.0 +43 38
4183	23 34.5	+ 43 40	4.4	77.9	48.2	81.5	23 35.4+43 47
69	0 25.1	+ 53 50	4.8	27.5	57.6		0 26.2+53 59
Dm. 54	0 17 51.4	+ 53 41.9	7.0	30.8	58.0	23.1	0 20.3 +54 27
46	0 16 0.9	+ 44 16.2	7.7	28.4	48.1	23.4	
Dm. 4250	23 57.7	+ 44 25	6.3	83.7	47.9		0 0.0 +44 40
4242	23 54.6	+ 44 35	6.1	80.6	48.1	79.5	
4242	23 54.6	+ 44 35	6.1				23 55.7+44 42
4233	23 51.6	+ 24 38	4.6	80.6	28.1	80.5	23 52.6+24 35

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Plate 175.

V.	H.	Type	No Lines	K	Focus	Other Lines.	V	H	V	H
6.3	15.8	I?	6	?	2	—	3.2	31.6	44.9	49.9
5.4	11.2	II as 1440	2	K=H	2	seen	2.7	22.4	45.4	59.1
3.6	6.9	I	7	?	2	—	1.8	13.8	46.3	67.7

Plate 170. Amt. of Fog. due to moon & clouds 7.4 Amt. of Fog due to Chemicals 7.8

16.0	13.4	I	8	N	4	—	8.0	26.8	34.9	7.5
13.6	11.9	I	7	N	2	—	6.8	23.8	36.1	10.5
12.5	12.8	I	5	N	1	—	6.2	25.6	36.7	8.7
11.1	10.9	II as 1441	3	K=H	1	—	5.6	21.8	37.3	12.5
10.0	12.4	I	7	N	1	—	5.0	24.8	37.9	9.5
9.0	15.8	I	10	N	5	—	4.5	31.6	38.4	2.7

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Mean 7

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	cor. Bv	Bv	Bv
~~Dm. 4237~~	23 53.0	+ 55 5	5.7	84.6	58.3		23 53.9 + 55 12	7	0.6	6.2 5.2
~~3076~~	~~23 49 52.5 + 54 54.6~~		~~6.0~~	~~84.5~~	~~58.2~~	~~82.2~~	~~23 52.3 + 55 10~~	4.4	5.6	0 51.8 + 54 8
~~Dm. 5164~~	~~23 57 45.6 + 35 29.8~~		~~7.9~~	~~80.2~~	~~38.2~~	~~78.8~~				
1827	0 2 48.8 + 45 16.3		5.2	25.2	48.0	229	0 5.1 + 45 31	5.2	5.9	6.0 0.4 6.4 5.4
42	0 12.0 + 36 7		4.6	25.8	37.9		0 13.1 + 36 14	4.9	5.6	5.7 0.2 5.9 4.9
~~Dm. 51~~	~~0 16 16.7 + 56 17.6~~		~~7.7~~	~~30.1~~	~~58.1~~	~~229~~				
~~32~~	~~0 17 11.4 + 36 9.4~~		~~7.3~~	~~26.0~~	~~38.0~~	~~228~~	~~0 14.5 + 36 21~~			
				10.3 / 10	12.3 / 11			20 / 17	16	14 − 11 / 10

Mean 17

½ cos δ.												cor. Bv	Bv	Bv
0 4.8	23	0	7.1	+ 14	31	3.0	33.9	22.5		0 8.1 + 14 39		18 0	4.8	4.8 0.0 4.8 3.0
0.1 6.1	~~42~~	~~0 12.0 + 36~~				~~4.6~~	~~35.8~~	~~42.9~~	~~34.6~~	0 13.1 + 36 14		16 − 2	5.8	6.0 0.2 6.2 4.4
0.1 6.9	~~34~~	~~0 9.0 + 26~~				~~5.9~~	~~34.6~~	~~32.8~~		0 10.8 + 22 43		10 − 8		
	~~Dm. 13~~	~~0 2 22.6 + 38 28.8~~				~~7.9~~	~~34.1~~	~~42.8~~	~~30.3~~	~~0 7.8 + 30 37~~		5.2	6.9	6.8 0.1 6.9 5.1
	~~37~~	~~0 10 40.0 + 56 39.9~~				~~8.5~~	~~36.3~~	~~62.9~~	~~34.3~~					0 7.8 + 26.5
	49	0	14.9	+ 37	18	5.3	36.7	42.9		0 15.8 + 37 25				
	39	0	10.8	+ 47	16	5.8	32.6	52.9	30.0			5.0	6.7	6.6 0.2 6.8 5.0
0.1 6.1	40	0	10.8	+ 38	1	4.3	35.6	43.0	34.5	0 11.9 + 38 8		20 + 2 / 4.3	6.0	6.0 0.3 6.3 4.5
0.1 2.3	5	0	2.2	+ 28	26	2.1	33.8	32.9	34.0	0 3.2 + 28 33		24 + 6 / 2.6	4.3	4.4 0.1 4.5 2.7
												88 / 5	8 / 3	10

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Ant. of Fog. due to moon & clouds. 6.0

Ant. of Fog. due to chemicals. 6-9

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Plate 315.

		V.	H.	Type	Pro Lines	K	Focus	Other Lines.	V	H	V	H
9	0	22.9	19.3	I	7	N	2	—	11.4	38.6	33.4	11.1
		20.5	22.5	I	8	K=.2H	3	—	10.2	45.0	34.6	4.7
		17.9	18.2	I I	6 7	N K=H	1 2	— —	9.0	36.4	35.8	13.3
		16.2	8.0	I	6	N	1	—	8.1	16.0	36.7	33.7
		16.0	17.7	I	7	N	1	—	8.0	35.4	36.8	14.3
		16.0	18.2	I	8	K=.1H	2	—	8.0	36.4	36.8	13.3
		15.0	6.8	I	8	N	2	Fr?	7.5	13.6	37.3	36.1
		14.5	10.8	I	7	N	1	—	7.2	21.6	37.6	28.1
		15.0	22.7	I	7	N	2	—	7.5	45.4	37.3	4.3
		13.6	6.1	II?	6	K=H	2	—	6.8	12.2	38.0	37.5
		13.2	11.5	II	2	K=H	1	—	6.6	23.0	38.2	26.7
		13.5	17.7	I	7	N	2	—	6.8	35.4	38.0	14.3
		12.8	21.7	I	6	N	2	—	6.4	43.4	38.4	6.3
		12.1	10.0	I? IIa 1642	2	K=1.2H	3	Fr? Reen	6.0	20.0	38.8	29.7
		11.5	11.3	I	6	K=H	1	—	5.8	22.6	39.0	27.1
		11.4	12.2	I	5	N	1	—	5.7	24.4	39.1	25.3
		11.4	13.7	I	6	N	2	—	5.7	27.4	39.1	22.3
		11.0	11.4	I	5	N	1	—	5.5	22.8	39.3	26.9
		11.0	12.2	I?	6	K=H	1	—	5.5	24.4	39.3	25.3
		10.8	16.4	III b2 1643	2	K=H	2	Reen	5.4	32.8	39.4	16.9
		11.1	18.2	I	6	N	1	—	5.6	36.4	39.2	13.3
		10.9	18.1	I	8	N	2	Fr? —	5.4	36.2	39.4	13.5
		10.5	17.6	I	8	N	3	—	5.2	35.2	39.6	14.5
		10.3	16.1	III b 1644	2	K=H	1	Reen	5.2	32.2	39.6	17.5
		10.5	6.7	I	7	K=H	1	—	5.2	13.4	39.6	36.3
		10.5	13.2	I	5	N	1	—	5.2	26.4	39.6	23.3
		10.1	13.4	I	6	K=H?	1	—	5.0	26.8	39.8	22.9
		10.2	9.6	III	2	K=1.2H	2	—	5.1	19.2	39.7	30.5

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Mean 6

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Cor. Br.	Br.
361	2	10.2	+ 33 17	4.2	48.8	44.7 50.2	2 11.3 +33 23		
336	2	2.4	+ 34 25	3.1	47.4	44.6 50.1	2 3.5 +34 31	18 +12	4.7
DM. 589	2	9 9	+ 45 48	6.3			2 12.8 + 46		
Dm. 600	2	12 11.0	+ 45	44.6	7.8	48.6	54.7 50.5	2 15.1 +45 58	
609	2	14 31.6	+ 35	46.4	8.8	50.9	64.8 53.7		
419	2	33.7	+ 26 33	5.4	49.7	34.7 48.2	2 34.8 +26 38	2	6.1 5.5 .1 3.6
Dm. 364	2	11.5	+ 46 49	5.7	47.9	54.9	2 12.8 + 46		
557	2	11.3	+ 48	38	6.5	46.7	46.6	2 14.2 + 46 51	
408	2	17 25.4	+ 36	44.5	8.0	47.8	44.7 48.8	2 15.1 +36 56	
364	2	11.5	+ 46 49	5.2	47.9	54.9 49.9	2 12.8 +46 55	8 +12	5.6 5.6 .1 6.0
432	2	36.4	+ 27 12	4.7	50.0	34.7 51.9	2 37.6 +27 17	6	5.5 5.2 .1 3.8
423	2	34.5	+ 67 19	5.9	48.1	44.8			
Dm. 591	2	29 28.1	+ 37 28.5	6.5	51.1	44.7 49.4	2 32.3 +37 40		5.2 5.8 5.9 .3 6.1
334	2	1.3	+ 37 18	4.8	46.7	44.8 49.9	2 2.5 +37 23	4	5.4 5.0 .2 3.2
Dm. 446	2	43.0	+ 37 49	4.4	55.2	44.6	2 44.2 +37 55	8	
483	2	42 48.0	+ 48 12.8	7.2	55.0	45.0 49.1	2 45.8 + 48 24		4.7 5.3 5.0 .2 3.3
Dm. 515	2	27 54.6	+ 38 6.0	6.2	50.9	44.7 49.4	2 30.7 +38 18		5.4 6.0 6.0 .3 6.3
367	2	12.0	+ 28 5	5.3	47.4	34.9 48.0	2 13.2 +28 11	2	4.5 5.5 5.4 .1 3.3
340	2	3.6	+ 38 29	5.6	47.0	44.9 50.0	2 4.8 +38 34	2	4.6 5.5 .3 3.8
Dm. 429	2	36.0	+ 48 43	4.2	56.0	54.7	2 37.3 +48 48		
721	2	30 36.5	+ 48 55.1	6.7	50.6	54.9 47.2	2 33.6 +48 8		5.0 5.1 .3 3.6
573	2	26 26.5	+ 39 2.6	7.0	49.0	44.8 49.3	2 29.2 +39 15		
Dm. 530	2	30 28.1	+ 59 5.7	8.2	53.1	64.9 49.5			
510	2	26 46.8	+ 38 54.2	8.0	49.4	44.7 47.8			5.9 6.5 6.3 .3 6.8
Dm. 722	2	30.6	+ 48 56	6.7	53.2	54.7	2 33.6 +49 8		
392	2	23.9	+ 49 49	6.1	48.3	23.6			
581	2	28 17.8	+ 39 14.8	6.8	52.7	44.9 51.5	2 31.1 +39 27		5.3 5.9 5.6 .3 3.9
Dm. 573	2	26.4	+ 39 3	7.0	50.8	44.7	2 29.2 +39 15		
388	2	21.2	+ 29 8	5.5	48.6	34.8 48.3	2 22.3 +29 14		5.2 5.8 5.7 .1 3.8
Dm. 582	2	28.3	+ 39 15	6.8	51.1	44.7	2 31.1 +39 27		
440	2	27 48.2	+ 29 18.5	6.5	50.6	34.8 49.7	2 39.4 +29 30		5.4 6.8 5.9 .3 3.9
Dm. 365	2	22.5	+ 19 13	6.4	46.9	24.7	2 25.0 +19 25		
Dm. 519	2	26 7.0	+ 59 13.4	6.8	50.5	64.7 47.9	2 29.1 +59 25		
434	2	24 38.1	+ 29 19.3	4.7	49.0	34.8 48.3			5.3 5.9 6.3 .1 3.3
378	2	16.5	+ 49 27	5.5	49.3	54.8 50.3	2 17.8 +49 33		5.5 6.1 6.0 .3 6.2
Dm. 521	2	10.7	+ 39 10	6.8	44.1	44.8	2 13.4 +39 23		5.9 6.5 6.3 .3 6.8
Dm. 563	2	18 41.7	+ 39 10.1	8.7	50.1	44.8 51.6			
384	2	9 41.6	+ 29 10.9	4.5	46.1	34.8 46.9	2 12.3 +29 24		5.2 5.8 6.0 .3 3.9
365	2	11.5	+ 19 21	5.6	47.7	24.8	2 12.6 +19 26		
Dm. 649	2	14 48.2	+ 49 20.5	5.8	50.0	54.7 52.2	2 17.7 +49 34		
524	2	10 42.8	+ 39 10.2	6.8	46.9	44.6 48.3	2 13.5 +39 28		5.3 5.8 5.9 .1 3.3
Dm.	2	11.4	+ 49 29	6.2	47.2	54.5 49.3	2 13.9 +49 19		
369	2	13.1	+ 49 36	5.6	48.3	54.8 50.1	2 14.4 +49 42	4	4.9 5.5 5.5 .3 6.0
381	2	17.7	+ 49 44	4.9	49.9	54.9 50.7	2 18.9 +49 50		5.3 6.4 6.0 .3 6.3
428	2	35.6	+ 19 29	5.8	49.0	24.7	2 36.7 +19 35		6.2 6.8 6.5 .3 7.1
427	2	34.8	+ 39 41	4.9	48.2	44.9 49.4			
685	2	27 28.5	+ 49 31.9	7.0	49.8	54.7	47.5		
Dm. 559	2	28 21.8	+ 39 26.3	7.3	49.6	44.8 49.0			
560	2	23 22.8	+ 39 36.9	6.8	49.8	44.8 49.0	2 23.3 +39 48		5.7 6.1 5.9 .3 6.1
Dm. 696	2	25.0	+ 49 28	7.0	51.4	54.6	2 28.0 + 49 38		
Dm. 560	2	23 22.8	+ 39 36.9	6.8	50.2	44.6 49.5	2 23.2 +39 49		5.5 5.5 5.5 .3 5.8
513	2	23 55.9	+ 59 54.2	8.2	50.7	64.9 49.1			5.6 5.7 5.6 .3 6.0
Dm. 610	2	33 7.5	+ 39 34.0	4.9	52.3	44.7 49.8	2 33.9 +39 46		

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Plate 315.

V.	H.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
9.6	15.4	IIa 1645	2	K=H	1	seen	4.8	30.8	40.0	18.9
8.7	19.9	III	2	K=H	1	—	4.4	39.8	40.4	9.9
8.1	17.0	I	6	K=H	2	—	4.0	34.0	40.8	15.7
6.6	8.5	I	6	N ?	1	Fz ?	3.3	17.0	41.5	32.7
6.8	16.8	I	5	K=H	1	—	3.4	33.6	41.4	16.1
6.1	13.8	I	6	K=H ?	1	—	3.0	27.6	41.8	22.1
6.0	11.9	I	5	N	1	—	3.0	23.8	41.8	25.9
6.1	24.1	III 1646	2	K=H	3	seen	3.0	48.2	41.8	1.5
5.5	23.5	I	6	K=H ?	3	—	2.8	47.0	42.0	2.7
4.8	7.4	III ?	3	K=H	2	F	2.4	14.8	42.4	34.9
4.1	19.0	I	7	K=.5H	1	—	2.0	38.0	42.8	11.7
3.8	18.0	I	4	N	1	—	1.9	36.0	42.9	23.7
4.0	23.2	III 1647	3	K=1.5H ?	3	F seen	2.0	46.4	42.8	3.3
3.2	18.4	I	9	K=.1H ?	2	—	1.6	36.8	43.2	12.9
2.5	18.6	II ?	2	N	1	—	1.2	37.2	43.6	12.5

Amt. of Fog. due to moon & clouds. 5.7 Amt. of Fog. due to chemicals. 6.0

Plate 286.

21.9	18.7	I	7	N	2	Fz	11.0	37.4	39.2	31.1
21.8	9.7	I	9	K=.2H	4	F	10.9	19.4	39.3	49.1
21.9	22.6	I ?	6	K=H	2	—	11.0	45.2	39.2	23.3
21.3	17.9	I	6	N	2	—	10.6	35.8	39.6	32.7
21.2	15.8	I	9	K=.5H	4	—	10.6	31.6	39.6	36.9
20.8	16.1	IIa 1648	2	K=H	3	Fz seen	10.4	32.2	39.8	36.3
20.8	16.8	I	9	N	3	F	10.4	33.6	39.8	34.9
20.7	18.4	I	4	K=H	1	—	10.4	36.8	39.8	31.7
20.0	17.0	I	6	N	2	—	10.0	34.0	40.2	34.5
19.5	9.4	IIa 1649	3	K=H	2	F seen	9.8	18.8	40.4	49.7
19.1	6.2	II	10	N	5	F	9.6	12.4	40.6	56.1

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Means

Br.

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.	cor. Br.
Dm. 406	2 16 21.0	+ 29 59.7	8.4	47.1	34.8	47.2			
666	2 18 10.6	+ 49 55.0	6.8	49.0	54.7	49.3	2 21.2 +50 7	5.7	6.3 6.1
348	2 5.6	+ 50 30	5.4	45.4	54.6	48.9	2 6.9 +50 38	5.6	6.2 6.1
								5.9	6.5 6.4
374	2 15.4	+ 40 51	6.0	49.4	44.8	50.4	2 16.6 +40 57	5.1	5.7 5.7
417	2 32.0	+ 21 26	5.4	49.0	24.7		2 33.1 +21 31		
Dm. 366	2 33 14.8	+ 21 34.4	8.2	50.2	24.9	49.3	2 33.7 +21 49		
508	2 35 49.6	+ 41 33.9	8.5	52.8	44.9	49.5			
Dm. 556	2 13.6	+ 51 25	6.5	47.2	54.8		2 16.6 +51 38	6.0	6.6 6.4
453	2 14 57.7	+ 41 26.4	6.9	48.6	44.8	49.3	2 17.0 +41 39		
Dm. 474	2 22 15.5	+ 41 54.9	7.7	49.9	44.9	49.3	2 25.1 +42 7	6.0	6.6 6.2
Dm. 495	2 27 25.0	+ 41 48.8	7.3	51.2	44.8	49.6	2 30.2 +41 58	5.5	6.1 6.0
325								3.8	4.4 4.2
3245	1 56.5	+ 41 45	2.1	104.7	44.8	109.2	1 57.7 +41 51	4.2	4.8 4.8
332	1 59.8	+ 22 0	5.2	106.8	24.8		2 23.8 +22 11		
Dm. 279	1 58 29.0	+ 21 57.5	6.0	105.4	24.8	106.7	2 0.9 +22 10	5.4	6.0 5.8
454	2 45.8	+ 52 16	3.4	60.6	54.7		2 47.2 +52 22	4.6	5.2 5.3
426	2 34.8	+ 42 11	cum.	49.6	44.6	49.6		4.8	5.4 5.5
356	2 8.8	+ 32 49	5.2	46.8	34.8	48.1	2 10.0 +32 54	5.3	5.9 5.7
390	2 22.4	+ 22 56	6.1	48.4	24.8	49.9	2 23.5 +23 2	5.6	6.7 6.3
Dm. 333	2 0.4	+ 22 54	2.0	46.8	24.9		2 1.5 +23 0	4.6	4.6
306	2 59 26.6	+ 22 47.2	2.0	105.4	24.8	106.7	3 1.6 +22 58	4.5	5.1 5.0
361	2 10.2	+ 33 17	4.2	47.0	34.9	48.1	2 11.3 +33 23	4.5	5.1 4.9
360	2 9.9	+ 33 42	5.0	47.1	34.9	48.3	2 10.8 +33 46		
								51	89
								11	18

Means

Dm. 573	2 26.4	+ 39 3	7.0	63.8	50.0		2 29.2 +39 15	6.1	6.2
Dm. 438	2 27 29.6	+ 29 14.3	7.9	64.9	40.2	65.8			
582	2 28 17.8	+ 39 14.8	6.8	65.7	50.2	67.4	2 31.1 +39 27		
465	2 51.1	+ 39 11	4.7	60.5	50.1	58.1	2 52.4 +39 18	5.2	5.2
388	2 21.2	+ 29 8	5.5	66.4	40.1	68.3	2 22.3 +29 14	5.6	5.7
Dm. 582	2 28 17.8	+ 39 14.8	6.8	64.1	49.8	65.4	2 31.1 +39 27		
577	2 27 15.8	+ 39 34.0	7.1	63.1	50.2	64.4			
Dm. 437	2 38.5	+ 9 36	4.4	70.1	20.2		2 39.5 +9 42	6.2	6.3
429	2 33 4.6	+ 39 34.0	4.9	64.7	50.2	65.0	2 35.9 +39 46	5.1	5.2
427	2 34.8	+ 39 41	4.9	67.0	50.1	67.5	2 35.9 +39 46	5.9	5.8
423	2 35.6	+ 19 28	5.8	69.2	29.9	69.4	2 36.7 +19 35		
Dm. 444	2 28 35.6	+ 29 46.6	7.8	62.2	40.2	62.0	2 31.2 +29 54		
541	2 36 4.5	+ 59 50.0	6.2	69.1	70.3	71.4	2 39.5 +59 49	5.4	5.5
Dm. 517	2 9.8	+ 39 36	6.5	46.6	50.0		2 44.5 +39 49		
Dm. 422	2 28 23.9	+ 49 51.2	6.6	65.2	60.3	67.1	2 31.4 +50 3		
444	2 28 35.6	+ 29 46.6	7.8	66.4	40.2	66.8			
430	2 36.0	+ 10 14	6.3	70.0	20.2		2 37.1 +10 19	6.8	6.9
Dm. 424	2 29 57.2	+ 30 12.8	7.3	64.0	40.2	64.5			
433	2 33 21.9	+ 30 19.1	6.9	67.4	40.3	69.9	2 36.1 +30 31	6.2	6.0
Dm. 466	2 51.2	+ 20 10	5.9	70.0	30.0		2 52.3 +20 16	5.7	5.7
639	2 50 19.0	+ 40 26.7	6.5	69.1	50.2	66.4	2 53.2 +40 38		
496	3 0.4	+ 40 30	2.3	12.8	50.1	68.5	31.6 +40 34	13	13

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Plate 286.

V.	H.	Type	Lines	K	Focus	Other Lines.	V	H	V	H
18.4	15.5	I	4	K=H		—	9.2	31.0	41.0	37.5
18.2	8.9	I	10	K=.2H	4	—	9.1	17.8	41.1	50.7
18.3	21.0	I	5		1	—	9.2	42.0	41.0	26.5
18.4	23.3	I	5	K=H	2	—	9.2	46.6	41.0	21.9
17.6	9.1	I	6		1	—	8.8	18.2	41.4	50.3
17.5	10.0	I	10		4	F	8.8	20.0	41.4	48.5
17.5	12.9	I	7		1	—	8.8	25.8	41.4	42.7
17.0	14.2	I	5		1	—	8.5	28.4	41.7	40.1
17.0	14.9	I? I?	3 4	K=H	1 1	—	8.5	29.8	41.7	38.7
17.0	18.4	I	9	K=.5H	3	F	8.5	36.8	41.7	31.7
16.7	15.8	I	9	K=.5H	3	F?	8.4	31.6	41.8	36.9
16.5	18.1	I	6		1	—	8.2	36.2	42.0	32.2
15.0	9.4	I I	4 H	K=H K=H	1 1	—	7.5	18.8	42.7	49.7
14.5	15.5	I	5		1	—	7.2	31.0	43.0	37.5
14.1	13.7	I	5		1	—	7.0	27.4	43.2	41.1
13.6	13.4	I	5	K=H	1	—	6.8	26.8	43.4	41.7
14.0	22.8	I	6		2	F?	7.0	45.6	43.2	22.9
13.2	16.5	I?	3		1	—	6.6	33.0	43.6	35.5
13.0	13.9	I	3		1	—	6.5	27.8	43.7	40.7
13.0	15.3	III	2	K=H	2	—	6.5	30.6	43.7	37.9
12.0	19.0	I	7	K=.5H		—	6.0	38.0	44.2	30.5
III? 6.3, 6.8. 12.1	19.1	III III	2 2	K=H K=H	1 1	—				
11.7	19.1	I?	5		1	—	5.8	38.2	44.4	30.3
11.5	6.2	III l.c. 1650	3	K=3.0H?	3	F. seems	5.8	12.2	44.4	56.3
11.4	12.5	III 1651	2	K=H	2	—	5.7	25.0	44.5	43.5
11.5	12.6	I	7		3	—	5.8	25.2	44.4	43.3
11.3	15.5	I	5		1	—	5.6	31.0	44.6	37.5
11.0	15.9	I	8		3	F	5.5	31.8	44.7	36.7
11.1	19.6	I	5		1	—	5.6	39.2	44.6	29.3
11.1	9.4	III	3	K=H	2	F	5.6	18.8	44.6	49.7

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Means

No.	R.A.	Decl.	Mag.	H	V	H'	Rcd. of D.M. Star to 1900	Cor. Bu	Bre.
Dm 577	2 34.5	+ 40 53	7.0	65.5	50.1	5	2 37.3 + 41 5		
Dm 613	2 33 34.5	+ 50 55.1	8.4	64.6	60.1	65.0	2 36.7 +51 7		
469	2 34 48.4	+ 31 9.5	8.7	65.8	40.4	65.9			
Dm 472	2 52.4	+ 20 52	4.6	70.2	36.0		2 53.4 +20 56		
557	2 54 1.5	+ 40 59.3	7.6	71.8	50.1	68.8			
548	2 48 30.8	+ 31 20.3	4.8	66.8	40.4	64.5	2 51.0 +31 31		
Dm 340	2 26.6	+ 10 58	6.9	68.6	20.2		2 29.0 +11 10		
Dm 480	2 24 20.0	+ 41 11.3	7.5	66.0	50.4	69.0	2 26.8 +41 23		
404	2 23 0.2	+ 30 51.9	8.2	65.0	40.1	66.7	2		
374	2 15.4	+ 40 51	6.0	62.0	50.0		2 16.6 +40 57		
Dm 427	2 18 53.7	+ 31 8.5	5.7	66.6	40.3	68.0	2 21.5 +31 20		
574	2 16 44.4	+ 51 29.9	8.4	63.3	60.2	69.4			
Dm 397	2 50.6	+ 21 21	7.0	68.8	29.8		2 33.2 +21 13		
Dm 593	2 52 47.8	+ 41 23.4	8.3	71.0	50.2	68.0	2 55.7 +41 34		
531	2 56 29.7	+ 31 22.1	8.0	73.7	40.2	72.0	2 59.8 +31 33		
461	2 50.0	+ 31 26	5.2	70.0	40.2	68.6	2 51.2 +31 32	5.3	5.4
Dm 490	2 41 42.8	+ 31 22.4	6.5	67.5	40.2	66.9	2 44.4 +31 33		
556	2 43 7.8	+ 41 25.4	7.2	68.8	50.2	67.8			
Dm 472	2 35 19.7	+ 31 45.2	7.5	68.7	40.3	68.5	2 38.0 +31 57		
538	2 37 49.8	+ 41 33.8	7.5	66.2	50.1	65.8	2 40.1 +41 46		
636	2 40 23.8	+ 51 40.0	7.6	68.8	60.2	68.2	2 43.5 +51 59		
Dm 385	2 39.0	+ 11 39	8.1	68.8	20.1		2 41.4 +11 51		
Dm 538	2 39 49.8	+ 41 33.8	7.5	67.6	50.1	67.5	2 40.1 +41 46		
629	2 37 41.5	+ 51 42.6	8.5	64.5	60.2	67.4			
417	2 32.0	+ 21 26	5.4	65.8	29.7		2 33.1 +21 32		
Dm 452	2 25 29.1	+ 31 48.4	7.6	62.1	40.3	63.1			
495	2 27 25.0	+ 41 45.8	7.3	64.2	50.3	65.9	2 30.2 +41 38		
435	2 38.4	+ 11 57	5.2	70.0	20.4		2 32.5 +11 42		
Dm 485	2 31 46.4	+ 31 40.7	7.3	63.4	40.1	63.6	2 34.6 +31 33		
521	2 33 17.6	+ 41 58.2	7.7	64.9	50.4	65.3	2 36.7 +42 10		
Dm 443	2 27.4	+ 41 46	7.3	63.6	50.0		2 30.2 +41 38		
Dm 586	2 32 29.8	+ 41 8.8	8.2	68.4	50.3	70.3			
514	2 32 13.9	+ 41 58.1	8.0	68.4	50.2	70.0	2 35.0 + 42 10		
Dm 646	2 50.7	+ 42 36	7.5	69.5	50.1	66.5	2 38.6 +42 47		
683	2 52 19.8	+ 42 43.2	8.8	71.1	50.2	68.1	2 39.7 +42 54		
Dm 614	2 34.2	+ 42 53	6.8	65.2	50.1		2 37.1 +43		
574	2 37 9.1	+ 43 9.1	7.6	68.1	50.4	68.4	2 39.0 +43 21		
579	2 38 49.3	+ 43 1.4	7.2	69.8	50.2	70.1	2 41.7 +43 13		
Dm 519	2 38.8	+ 43 1	7.2	66.2	50.0		2 41.7 +43 13		
Dm 524	2 41 11.9	+ 33 12.8	6.6	68.6	40.2	68.2	2 43.1 +33 34		
583	2 40 31.2	+ 43 14.4	8.7	69.9	50.2	67.2			
Dm 532	2 40.6	+ 33 20	7.1	67.4	40.1		2 43.3 +33 31		
Dm 587	2 43 19.1	+ 33 11.8	7.8	70.1	60.0	68.8	2 46.5 +33 23		
596	2 43 42.7	+ 43 13.5	8.3	70.5	50.0	69.7			
390	2 22.4	+ 22 56	6.1	68.0	29.9		2 23.5 + 23 2		
Dm 445	2 21 35.6	+ 33 11.3	6.5	67.2	40.2	69.9	2 24.3 +33 23		
425	2 16 31.1	+ 33 12.9	7.2	67.1	40.2	68.8			
Dm 551	2 31 13.9	+ 43 28.0	7.0	64.2	50.1	65.0	2 34.1 +43 40		
491	2 33 29.3	+ 33 40.8	7.1	66.5	40.3	67.0			
Dm 563	2 36 58.1	+ 33 49.4	7.8	64.8	40.3	66.5			
Dm. 577	2 38 28.7	+ 43 35.4	7.5	66.3	50.1	65.7	2 41.4 +43 47		
431	2 36.4	+ 43 47	5.6	67.0	50.2	67.2	2 37.5 + 43 52		
Dm 471	2 27.1	+ 34 5	7.3				2 29.8 + 34 17		
403	2 28.6	+ 34 10	5.6	66.6	40.2	67.9	2 29.7 + 34 15		
Dm 470	2 27 3.4	+ 34 27.0	7.0	65.3	40.3	66.7			
368	2 26 14.8	+ 24 24.1	8.6	64.4	30.2	65.1	2 28.3 +24 36		
Dm 375	2 28.6	+ 24 1	7.5	66.8	29.8		2 31.2 + 24 3		
Dm 376	2 28.7	+ 24 1	7.0	66.9			2 31.3 + 24 13		
498	3 1.4	+ 44 24	4.0	13.6	50.2	8.6	3 2.7 + 44 29		
449	2 42.2	+ 34 34	4.8	67.2	40.3	66.4	2 45.4 + 34 39		
573	2 44.1	+ 44 17.4	6.8	67.5	50.4	66.4			
432	2 44.4	+ 24 34	5.4	68.6	29.8		2 45.9 + 24 41		
527	2 43 36.1	+ 34 27.7	4.2	68.8	40.3	68.0	2 48.7 +34 39		
Dm. 2054	2 35 20.9	+ 34 30.5	7.3	66.3	40.1	66.5	2 38.0 +34 42		
Dm 434	2 37.9	+ 24 49	5.8	67.7	30.3		2 40.0 + 24 53		
593	2 39 45.0	+ 34 29.7	6.0	64.5	60.0	65.2	2		
596	2 40 24.1	+ 24 35.7	6.0	72.2	30.1	72.4	2 43.0 +24 48		
535	2 26 15.3	+ 44 33.5	5.9	65.5	50.2	63.1			
462	2 25 30.5	+ 34 30.3	7.0	64.7	40.1	66.3	2 28.2 +34 42		
468	2 51.7	+ 34 42	5.0	70.5	40.3	67.9	2 52.9 + 34 47		

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Plate 286.

τ	H.	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
10.7	13.8	I	6	N	3	F	5.4	27.6	44.8	40.9
10.5	6.2	I	7	N	3	F	5.2	12.4	45.0	56.1
10.5	14.3	I?	6	K=H?	1	—	5.2	28.6	45.0	39.9
10.5	22.0	III a' ?	16522	K=H	1	F? seen.	5.2	44.0	45.0	24.5
9.9	16.0	I	7	N?	2	F?	5.0	32.0	45.2	36.5
8.7	11.8	III a'	16533	K=H	1	seen. F?	4.4	23.6	45.8	44.9
8.0	7.9	I	8	N	3	—	4.0	15.8	46.2	52.7
8.3	19.4	I	4	N	1	—	4.2	3 38.8	46.0	2 49.7
7.7	6.9	I	6	N	1	—	3.8	13.8	46.4	54.7
8.1	23.8	I	6	N	1	F?	4.0	47.6	46.2	20.9
7.9	12.6	III	2	K=H	1	F?	4.0	25.2	46.2	43.3
7.2	11.8	I	6	N	1	—	3.6	23.6	46.6	44.9
7.1	17.4	I	10	K=.3H	3	F	3.6	34.8	46.6	33.7
6.6	7.1	I	6	N	1	—	3.3	14.2	46.9	54.3
6.7	13.2	I	10	N	5	F	3.4	26.4	46.8	42.1
6.8	13.7	I	9	N	3	F	3.4	27.4	46.8	41.1
6.8	21.5	I	4	N	1	—	3.4	43.0	46.8	25.5
6.5	23.1	I	6	N	1	F	3.2	46.2	47.0	22.3
6.5	23.6	I	6	N	2	F?	3.2	47.2	47.0	21.3
5.5	8.3	I	7	K=H	1	—	2.8	16.6	47.4	51.9
5.6	10.8	I	7	N	1	—	2.8	21.6	47.4	46.9
5.1	9.2	I	7	N	1	—	2.6	18.4	47.6	50.1
5.5	17.7	I	7	N	1	F	2.8	35.4	47.4	33.1
5.0	11.7	I?	8	K=H	2	F?	2.5	23.4	47.7	45.1
5.0	13.0	I?	11	K=H	4	F?	2.5	26.0	47.7	42.5
3.7	8.5	I	4	K=H	1	—	1.8	17.0	48.4	51.5
3.9	12.3	I	6	N	1	—	2.0	24.6	48.2	43.9
4.1	17.5	I	5	N?	1	—	2.0	35.0	48.2	33.5

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Means

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Bu	Bc
440	2 41.8	+ 24 42	6.0	69.4	30.1	69.1	2 43.0 +24 47	5.3	5.5
431	2 56 58.9	+ 24 41.2	6.0	69.4	29.9	69.7	2 59.6 +24 52	5.1	5.4
685	2 59 42.7	+ 34 53.3	8.0	72.1	40.1	68.9			
513	2 38 10.2	+ 34 56.6	6.5	66.8	40.1	66.5	2 40.9 +35 9	6.2	6.0
449	2 37 46.5	+ 25 3.3	8.0	66.4	30.3	66.2			
351	2 19 9.6	+ 24 59.5	9.0	63.1	30.2	64.1	2 21.7 +25 12		
506	2 19 45.2	+ 44 52.9	8.4	63.8	50.1	67.8	2 22.7 +45 5		
561	2 20 38.2	+ 54 54.0	6.5	64.6	60.1	70.5	2 23.7 +55 8		
358	2 22.2	+ 24 35	6.2	66.2	29.8	67.5	2 24.8 +24 47	5.7	5.7
441	2 35 26.4	+ 25 1.8	6.7	67.4	30.0	67.6	2 38.0 +25 14	5.8	5.8
400	2 45.1	+ 13 54	6.5	68.7	20.3		2 47.6 +16 5	6.6	6.6
582	2 43 45.3	+ 35 52.2	8.2	67.4	40.3	66.2	2 46.6 +36 2		
481	2 54.8	+ 26 0	5.9	70.6	30.0		2 56.0 +26 4	5.5	5.6
484	2 56.5	+ 56 14	5.0	72.3	60.2	66.0	2 25.3 +46 9	6.9	6.7
620	2 22.4	+ 45 57	7.2	61.2	50.2				
602	2 51.3	+ 35 48	8.0	70.1	40.0	67.9	2 54.1 +35 59	6.2	6.0
481	2 54.8	+ 26 0	5.9	73.6	30.2	72.5			
628	2 56.5	+ 36 13	6.5	70.3	40.0		2 59.3 +36 24	6.1	6.2
502	3 3.3	+ 26 26	5.8	17.1	30.2	15.4			
589	2 9.9	+ 45 48	6.3	57.5	49.8		2 12.8 +46 1	6.3	6.2
379	2 16.8	+ 56 4	6.2	64.4	60.1	72.1		6.4	6.2
447	2 43.7	+ 46 21	5.8	68.9	50.4	67.5	2 45.0 +46 25	6.2	6.3
457	2 48.5	+ 46 40	5.8	72.1	50.3	70.1	2 49.8 +46 45	6.2	6.3
419	2 33.7	+ 26 33	5.4	68.5	30.2	69.0	2 34.8 +26 38	5.1	5.4
692	2 57 53.7	+ 46 44.5	6.4	72.1	50.0	67.2	3 0.9 +46 35	6.2	6.0
445	2 42.9	+ 26 46	3.8	69.3	30.2	68.9	2 44.1 +26 51	4.0	4.0
444	2 42.6	+ 16 58	5.6	70.0	20.4		2 43.7 +17 3	5.6	5.5
566	2 40 25.8	+ 36 42.5	6.5	67.8	40.1	69.3	2 43.2 +36 54		
499	2 20 15.6	+ 36 41.7	6.5	63.3	40.1	65.9	2 23.0 +36 54	6.7	6.7
644	2 21 25.8	+ 56 52.9	7.0	64.4	60.3	70.2			
557	2 11.3	+ 46 38	6.5	57.5	49.8		2 14.2 +46 58	5.9	6.0
373	2 16 16.9	+ 27 0.9	8.0	62.5	30.2	64.3			
568	2 16 25.1	+ 57 1.8	7.0	62.6	60.2	69.9	2 19.6 +57 14		
392	2 13 46.3	+ 24 56.9	8.0	61.0	30.1	62.9	2 16.4 +27 10		
364	2 11.5	+ 46 49	5.2	58.7	50.0		2 12.8 +46 55	5.5	5.6
668	2 16 25.1	+ 57 1.8	7.0	63.6	60.2	71.3	2 19.6 +57 14		
471	2 52.4	+ 17 25	6.8	69.0	20.2		2 54.9 +17 30		
696	2 54 58.6	+ 37 31.8	7.0	71.6	40.3	68.8	2 57.8 +37 43	6.5	6.3
745	2 55 29.8	+ 47 26.2	8.5	72.1	50.2	67.8			
455	2 46.8	+ 27 8	7.2	68.4	29.9		2 49.4 +27 19	6.0	6.0
668	2 48 22.1	+ 37 23.4	7.5	70.0	40.2	68.3	2 51.2 +37 34	5.7	5.6
750	2 50 43.6	+ 47 30.5	7.2	72.3	50.3	69.6	2 53.7 +47 42		
471	2 52.4	+ 37 40	5.9	70.8	40.3	68.4	2 53.8 +37 45	6.1	5.8
411	2 29 30.9	+ 29 24.9	8.6	64.9	30.2	65.5			
591	2 29 28.1	+ 37 28.5	6.5	64.9	40.3	66.0	2 32.3 +37 40	5.7	5.6
455	2 46.2	+ 37 52	5.4	69.6	40.4	68.3	2 47.4 +37 56	4.9	4.7
446	2 43.0	+ 37 49	4.4	69.0	40.3	68.2	2 44.2 +37 55	6.8	6.5
617	2 52.7	+ 38 20	6.8	69.7	40.1		2 55.5 +38 31		
489	2 57.5	+ 38 22	2.7	74.5	40.2	71.6			
783	2 42.8	+ 48 13	7.2	67.4	50.2		2 45.8 +48 24	6.8	6.5
444	2 45 10.2	+ 28 19.5	8.7	69.8	30.3	69.2			
795	2 45 26.7	+ 48 19.2	8.6	70.0	50.3	68.2	2 45.5 +48 30		
448	2 30 34.3	+ 28 15.4	8.1	65.6	30.3	66.2	2 33.2 +28 27		
737	2 32 58.3	+ 38 19.5	8.5	67.1	40.3	68.1	2 34.9 +38 37	6.6	6.4
508	2 32 22.0	+ 58 13.8	7.5	67.4	60.2	69.8	2 35.7 +58 26		
337	2 33.3	+ 18 11	7.0	68.0	20.2		2 35.5 +18 23		

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Plate 286.

V.	H.	Type	No Lines	K	Focus	other Lines	V	H	V	H
4.1	18.3	I-II[a]	1654	2 K=H	K=H	2	Seen	Seen	2.0	36.6	48.2	31.9
3.7	7.2	III	1655	3	K=2.0H	2	F		1.8	14.4	48.4	54.1
3.1	15.1	II[a.b.c.]	1656	3	K=1.2H K=H K=2.0H	4	F		1.6	30.2	48.6	38.3
2.7	14.2	III[b.c.] ?	1657	2 ?	K	2	—		1.4	28.4	48.8	40.1
2.1	9.8	I	1658	8	N	4	F		1.0	19.6	49.2	48.9
2.0	7.1	II[a] ?	1658	2	K=3.0H	4	F. seen		1.0	14.2	49.2	54.3
2.5	16.4	I	1658	6	N	1	—		1.2	32.8	49.0	35.7
2.3	18.8	I	1659	2	N	1	Seen		1.2	37.6	49.0	30.9
2.4	19.3	I	1659	5	N	1	—		1.2	38.6	49.0	29.9
1.6	16.9	I	2		N	2	—		0.8	33.8	49.4	34.7
1.5	18.1	I	3		N	1	—		0.8	36.2	49.4	32.3
1.7	22.8	I	1		N	2	—		0.8	45.6	49.4	22.9
1.7	22.5	I	3		N	1	—		0.8	45.0	49.4	23.5

III ? 5.2, 5.5

Peculiar spectrum

III ? 5.6. 5.9.

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Mean o

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Bz	Yz.
Dm 515	2 27.9	+ 38 6	6.62	64.5	40.1		2 30.7 +38 18	6.3	6.3 5.9 6.2
~~Dm 441~~	~~2 28 25.6~~	~~+ 28 18.5~~	~~9.1~~	~~65.0~~	~~30.3~~	~~65.7~~		5.3	5.3 5.2
~~523~~	~~2 28 53.9~~	~~+ 38 19.0~~	~~7.8~~	~~65.5~~	~~40.3~~	~~66.8~~	2 31.7 +38 31	5.6	5.6 5.6
489	2 57.5	+ 38 22	3.7	71.9	40.2	68.5	2 58.8 +38 27	5.2	5.2 5.0
429	2 36.0	+ 48 43	4.2	66.2	50.3	66.3	2 37.3 +48 48	5.7	5.7 5.5
439	2 40.8	+ 28 45	4.6	69.2	30.2	68.2	2 41.9 +28 50	5.9	5.9 5.8
465	2 51.1	+ 39 11	4.7	70.7	40.2	68.3	2 52.4 +39 16		
495	3 0.4	+49 9	4.1	14.6	50.2	69.2	3 1.8 +49 14		
Dm 722	2 30.6	+ 48 36	6.7	63.4	60.1		2 33.6 +49 8		
~~Dm 539~~	~~2 32 36.0~~	~~+ 38 55.6~~	~~8.7~~	~~65.4~~	~~40.1~~	~~66.0~~	~~2 35.4 +39 8~~		
~~754~~	~~2 34 32.2~~	~~+ 49 2.5~~	~~9.5~~	~~67.3~~	~~50.2~~	~~68.1~~			
~~Dm 660~~	~~2 26 46.8~~	~~+ 38 54.2~~	~~8.0~~	~~64.4~~	~~40.1~~	~~66.1~~	~~2 29.6 +39 6~~		
Dm 573	2 26 26.5	+ 39 2.6	7.0	64.0	40.2	65.7	2 29.2 +39 15		
Dm 438	2 27.6	+ 28 46	7.0	66.2	30.0		2 30.2 +28 58		
~~Dm 507~~	~~2 25 16.1~~	~~+ 38 54.8~~	~~8.8~~	~~63.9~~	~~40.1~~	~~65.7~~	~~2 29.1 +39 7~~		
~~428~~	~~2 35.6~~	~~+ 19 29~~	~~5.8~~	~~69.14~~	~~20.3~~		~~2 36.7 +19 35~~		
~~Dm 578~~	~~2 31 32.8~~	~~+ 39 29.1~~	~~8.7~~	~~65.3~~	~~40.3~~	~~66.0~~	~~2 34.3 +39 41~~		
~~751~~	~~2 33 10.0~~	~~+ 49 26.0~~	~~9.0~~	~~67.0~~	~~50.2~~	~~68.3~~			
Dm 582	2 28.3	+ 39 15	6.8	64.5	40.0		2 31.1 +39 27		
~~Dm 588~~	~~2 29 36.7~~	~~+ 39 21.3~~	~~8.5~~	~~65.8~~	~~40.2~~	~~67.2~~	~~2 32.1 +39 33~~		
~~723~~	~~2 28 8.8~~	~~+ 49 24.1~~	~~9.0~~	~~64.3~~	~~50.2~~	~~66.5~~			
392	2 23.9	+ 19 19	6.1	69.5	20.1		2 25.0 +19 25		
378	2 16.5	+ 49 29	5.5	~~62.1~~	~~50.2~~	~~69.5~~			
~~388~~	~~2 21.2~~	~~+ 29~~							
~~Dm 410~~	~~2 17 5.4~~	~~+ 29 14.0~~	~~7.8~~	~~62.1~~	~~30.0~~	~~64.0~~	~~2 19.7 +29 26~~		
~~543~~	~~2 16 54.2~~	~~+ 39 26.5~~	~~9.0~~	~~67.9~~	~~40.2~~	~~65.3~~	~~2 19.9 +39 38~~		
388	2 21.2	+ 29 8	5.5	66.2	29.9		2 22.3 +29 14		

67-12

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1886phae.proj..830F

Amt. of Fog. due to moon & clouds. 7.0 Amt. of Fog. due to chemicals. 7.5

June 28. 1886.

Plate 208.

9	0													
		V.	H.	Type	No. Lines	K	Focus	Other Lines	V	H	V	H
		20.6	14.2	I	8	N	1	—	10.3	28.4	36.9	62.3
		19.4	15.1	I	6	N	1	—	9.7	30.2	37.5	60.5
		19.0	18.4	I	6	N	1	—	9.5	36.8	37.7	53.9
		18.7	6.7	I	6	N	1	—	9.4	13.4	37.8	77.3
		19.0	7.2	I	4	N	1	—	9.5	14.4	37.7	76.3
		18.6	22.2	II a? 2110	3	K=1.5 H	2	F scen.	9.3	44.4	37.9	46.3
		20.5	24.1	I	7	N	2	F —	10.2	48.2	37.0	42.5
III	5.5, 5.8, 6.8	17.7	16.4	III b 2111	3	K=H	2	F. bright scen.	8.8	32.8	38.4	57.9
		17.7	17.7	II a? 2112	3	K=2.6	1	F scen	8.8	35.4	38.4	55.3
		17.1	15.3	I	6	N	2	—	8.6	30.6	38.6	60.1
		17.1	10.6	III b 2113	2	K=2.6	1	F? scen	8.6	21.2	38.6	69.5
		17.5	6.8	I	5	N	1	—	8.8	13.6	38.4	77.1
		17.0	8.2	I	8	N	2	F? —	8.5	16.4	38.7	74.3
		16.9	8.9	I b 2114	8	N	1	F scen	8.4	17.8	38.8	72.9
		16.7	9.8	I	8	N	2	—	8.4	19.6	38.8	71.1
		16.8	11.5	I	7	K=2.6	1	—	8.4	23.0	38.8	67.7
		16.7	22.6	II a 2115	3	K=1.5 H	2	F scen	8.4	45.2	38.8	45.5
		16.3	14.0	III b 2116	3	K=H	1	F scen.	8.2	28.0	39.0	62.7
		16.1	14.5	II ac? 2117	3	K=1.5 H	2	F bright scen.	8.0	29.0	39.2	61.7
		16.0	15.2	III bc? 2118	3	K=H	2	F bright scen.	8.0	30.4	39.2	60.3
		16.0	18.9	I	8	N?	3	F —	8.0	37.8	39.2	52.9
		16.0	7.8	I	8	N	3	F —	8.0	15.6	39.2	75.1
		15.9	8.4	I?	7	N	1	—	8.0	16.8	39.2	73.9
		15.5	9.5	II ac? 2119	3	K=H	5	F bright scen.	7.8	19.0	39.4	71.7
		15.4	8.0	I	6	N	1	—	7.7	16.0	39.5	74.7
		15.1	11.2	I	8	N	2	F —	7.6	22.4	39.6	68.3
		14.9	11.4	I	8	N	2	—	7.4	22.8	39.8	67.9
		15.0	13.0	I	6	N	1	—	7.5	26.0	39.7	64.7

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1886phae.proj..8305

Mean 7

½cosδ

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. to Standard 1900
507	3 5.1	+26 48	5.5	33.5	37.1		3 6.3+26 53
Dm. 639	2 59 47.5	+ 36 51.6	8.6	88.2	47.2	87.9	
Dm. 689	3 0 21.0	+ 46 58.2	8.3	28.4	57.3	28.2	3 34 +47 9
484	3 1.5	+ 27 16	6.3	31.7	37.0		3 4.2+27 27
Dm. 776	3 1 39.8	+ 47 30.6	8.7	31.9	57.2	32.0	
703	3 0 40.5	+ 54 34.6	8.4	30.9	67.3	31.1	3 4.1 +57 42
Dm. 696	2 55.0	+ 37 32	7.0	91.8	47.2		2 57.8+37 43
471	2 52.4	+ 37 40	5.9	89.2	47.2	90.6	
Dm. 493	3 11 27.7	+ 27 47.5	7.0	24.7	37.2	23.0	3 14.2 +27 58
Dm. 759	3 13 22.8	+ 37 53.3	8.1	26.8	47.3	23.3	3 16.3 +38 43
Dm. 847	3 21.9	+ 47 31	6.5	35.3	56.9	30.0	3 25.0 +47 41
560	3 21.1	+ 47 35	4.4	35.5	57.1	30.5	3 23.5+47 39
446	2 43.0	+ 37 49	4.4	87.4	47.2	90.5	2 44.2+37 55
445	2 42.9	+ 26 46	3.8	91.1	37.0		2 46.1 +26 51
Dm. 632	2 38 6.1	+ 37 64	8.3	86.3	47.3	90.3	2 46.1 +37 18
702	2 39 19.3	+ 47 1.5	8.0	87.5	57.2	93.3	2 42.8 +47 14
489	2 57.5	+ 38 22	3.7	90.3	47.2	90.8	2 58.8+38 27
Dm. 481	2 52 32.9	+ 28 26.7	9.5	87.9	37.2	88.5	
617	2 52 39.8	+ 38 19.8	6.8	88.1	47.1	89.3	2 55.5 +38 31
500	2 2.4	+ 28 37	5.5	33.0	37.0		2 33.6 +28 42
Dm. 847	2 56 14.4	+ 48 41.7	7.8	86.8	57.3	87.0	
493	2 58 35.2	+ 28 33.9	7.5	89.2	37.2	89.3	2 [illegible]
528	3 19.1	+ 28 37	4.7	34.3	37.2		3 14.5 +28 41
Dm. 823	3 9 56.7	+ 38 31.2	7.8	31.1	47.1	28.2	3 12.3 +38 41
Dm. 872	3 11 26.1	+ 48 36.6	9.3	32.6	57.2	29.6	
593	3 11 30.0	+ 58 33.9	9.5	32.4	67.2	28.5	
541	3 21.4	+ 48 24	7.8	35.0	57.2	29.5	3 24.9 +48 37
537	3 21.3	+ 38 36	7.0	35.3	47.4	31.7	3 21.6 +38 49
553	3 20.3	+ 58 28	4.8	33.9	67.2	26.1	
Dm. 943	3 21.6	+ 48 14	7.0	35.2	57.1		3 24.8+48 24
552	3 19.6	+ 48 39	5.0	36.0	57.1	31.5	3 20.9 +48 43
Dm. 913	3 13.7	+ 48 35	4.3	33.5	57.0	30.7	3 18.9 +48 45
Dm. 822	3 14 26.8	+ 28 32.1	7.0	32.2	47.3	30.7	
Dm. 909	3 15 31.4	+ 48 48.5	8.1	32.9	57.2	28.5	
602	3 15 52.9	+ 58 40.9	7.8	33.7	67.1	27.7	3 19.5 +58 51
537	3 14.7	+ 48 47	5.2	34.3	57.2		3 16.1 +48 51
549	3 17.8	+ 48 42	5.9	37.4	57.2	33.9	
Dm. 671	3 8.4	+ 38 46	6.5	31.4	47.2		3 11.3 +38 51
Dm. 507	3 4 54.9	+ 28 40.8	8.5	27.9	37.1	27.1	H 7.6 +28 51
582	3 6 44.4	+ 58 45.9	9.1	29.1	67.2	25.3	
429	2 36.0	+ 48 43	4.2	81.2	57.1		2 37.3 +48 48
439	2 40.8	+ 28 45	4.6	86.0	37.2	87.9	
Dm. 503	3 3.6	+ 39 9	4.7	31.6	47.4		3 4.8 +39 14
876	3 3 40.5	+ 49 1.6	7.4	31.7	57.2	31.0	3 6.8 +49 12
495	3 0.4	+ 49 9	4.1	29.4	57.2		3 1.8 +49 14
503	3 3.6	+ 39 9	4.7	32.6	47.2	32.4	
505	3 4.8	+ 19 16	4.5	35.2	27.3		3 5.9 +19 21
495	3 0.4	+ 49 9	4.1	30.8	57.2	31.0	
465	2 51.1	+ 39 11	4.7	88.9	47.2	90.6	2 52.4+39 16
555	3 20.8	+ 49 7	4.8	36.4	57.2	31.4	3 22.2 +49 10
Dm. 936	3 17.3	+ 49 16	7.7	34.1	57.1		3 20.5+49 16
Dm. 776	3 15 41.3	+ 39 9.9	9.3	32.0	47.2	29.0	
929	3 15 45.8	+ 49 14.3	7.3	33.6	57.2	28.1	3 19.0 +49 24
541	3 15.8	+ 49 26	1.9	34.8	57.2	31.1	3 17.1+49 30
Dm. 944	3 18.5	+ 49 21	6.5	34.5	57.1		3 21.7+49 31
551	3 19.4	+ 59 31	4.7	35.4	67.2	28.6	
522	3 10.7	+ 49 40	5.0	33.1	57.3	30.4	3 12.0+49 43
521	3 10.1	+ 49 47	5.3	32.9	57.2	30.4	3 11.5+49 51
Dm. 736	3 4 39.3	+ 39 40.4	8.5	30.7	47.2	29.8	
737	3 4 43.2	+ 39 33.7	7.5	30.7	47.1	29.8	3 7.6 +39 44

Rc	Dc.
576.4	3 3.8 +26 7
606.7	3 1.6 +27 3
586.5	2 55.0 +37 5
525.9	3 22.6 +47
566.3	
495.6	
55.2	2 41.8 +26.7
5.4 5.8	
616.8	
553	
536.0	
473.4	3 13.0 + 48 7
525.9	3 8.3 + 38.7
463.3	3 4.2 + 48.6
5.8 6.0	3 2.0 + 39.1
435.0	2 58.8 + 49.1
505.7 6.0	3 3.0 + 19.7
505.7	
455.2	
515.8	3 17 + 49 1
3.3 4.0	
483.5	2 [illegible] + 49.4
495.6	
515.8	
606.7	

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1886phae.proj..830F

June 28, 1886.

Plate 208.

V.	H.	Type	Nr. Lines	K	Focus	Other Lines.	V	H	V	H
14.5	11.8	I	~~5~~	N	1	—	7.2	23.6	40.0	67.1
14.2	12.9	I	~~7~~	N	2	—	7.1	25.8	40.1	64.9
13.6	9.2	I	~~6~~	N	1	F	6.8	18.4	40.4	72.3
13.5	12.2	III	~~3~~	K=H	1	F	6.8	24.4	40.4	66.3
13.5	12.3	I	~~7~~	K=.5 H?	1	—	6.8	24.6	40.4	66.1
13.7	15.3	I	~~9~~	N	5	F	6.8	30.6	40.4	60.1
13.3	13.7	I	~~8~~	N	2	F	6.6	27.4	40.6	63.3
13.0	10.7	I	~~8~~	N	2	F	6.5	21.4	40.7	69.3
13.0	12.0	II?	~~2~~	K=H	1	—	6.5	24.0	40.7	66.7
12.8	8.9	I	~~6~~	N	1	—	6.4	17.8	40.8	72.9
12.7	21.0	I	~~7~~	N	2	F?	6.4	42.0	40.8	48.7
11.5	20.6	I	~~7~~	N	2	—	5.8	41.2	41.4	49.5
11.1	13.7	I	~~4~~	N	1	—	5.6	27.4	41.6	63.3
11.1	14.8	I b 2120	~~6~~	N	1	—	5.6	29.6	41.6	61.1
10.8	17.0	I	~~9~~	N	2	F	5.4	34.0	41.8	56.7
10.7	13.8	I b 2121	~~6~~	N	1	ecen	5.4	27.6	41.8	63.1
10.0	19.0	II a? 2122	~~3~~	K=H	2	F cen	5.0	38.0	42.2	52.7
9.6	12.7	I?	~~5~~	K=H	1	—	4.8	25.4	42.4	65.3
9.5	19.4	I	~~6~~	N	1	—	4.8	38.8	42.4	51.9
8.8	10.4	I	~~9~~	K=.2 H	2	F	4.4	20.8	42.8	69.9
8.6	15.8	II a? 2123	~~3~~	K=.5 H	3	F cen.	4.3	31.6	42.9	59.1
8.2	9.1	I	~~7~~	N	1	F	4.1	18.2	43.1	72.5
~~8.6~~ 7	7.5	I	~~6~~	N	1	—	~~4.3~~ 3.8	15.0	~~42.9~~ 43.4	75.7
7.5	11.8	I	~~7~~	N	2	F?	3.8	23.6	43.4	67.1
7.0	11.6	III	2	K=H	1	—	3.5	23.2	43.7	67.5
6.0	12.7	I	~~6~~	K=H	1	—	3.0	25.4	44.2	65.3
6.0	14.8	III b 2124	~~3~~	K=1.2 H	2	F bright cen	3.0	29.6	44.2	61.1
5.0	7.4	I	~~5~~	N	1	—	2.5	14.8	44.7	75.9

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Mean 7

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Co	Bu	Br.	
	DM. 736	3 8 40	+ 50	1.2	8.0	31.7	57.2 29.4					
	743	3 7 44.5	+ 39	57.2	6.8	31.3	47.2 29.8	3 10.6 +40 7				
0.1 5.8	514	3 8.0	+ 30	7	55	33.8	37.8 38.3	3 9.2 + 30 11		5.7	6.4	37.8+39.9
	547	3 17.5	+ 20	23	5.6	35.9	27.2	3 18.7 +20 27				
0.0 6.2	535	3 14.3	+ 20	43	5.2	32.7	27.5 31.9			5.6	6.2	
	547	3 17.5	+ 20	23	5.6	35.9	27.2 35.2			5.7	6.4	
	DM. 513	3 7.6	+ 50	29	5.2	32.0	57.3	3 9.0 +50 35		6.0	6.7	36.0+50.4
	511	3 6 7.8	+ 30	12.8	8.5	30.3	37.0 29.6	3 8.8 +30 23				
	701	3 7 22.8	+ 40	24.8	9.1	31.8	47.2 30.5			5.8	6.5	
	DM. 12[illegible]	3 5.5	+ 50	25	6.7	30.1	57.2	38.7 +50 35				
	434	3 5.5	+ 50	26	9.5			38.7 +50 36				
	694	6 29.6	+ 40	27.0	9.0	31.1	47.2 29.8	3 9.4 +40 37				
0.1 5.6	496	3 0.4	+ 40	30	2.3	31.0	47.3 31.2	3 1.6 +40 34				
	515	3 8.0	+ 20	36	4.9	35.4	27.2	3 9.2 +20 40				
0.0 5.3	DM. 516	3 1 54.5	+ 20	42.7	7.8	29.3	27.3 29.1	3 4.5 +20 54		4.6	5.3	36.3+20.5
	684	3 1 59.2	+ 40	37.2	7.8	29.4	47.2 28.8					
	535	3 14.3	+ 20	43	5.2	35.7	27.2	3 15.5 +20 47				
0.0 5.9	DM. 578	3 5 41.7	+ 40	37.1	9.0	27.1	47.1 25.0	3 8.6 +40 47		5.2	5.9	313.0+20.6
	731	3 6 26.2	+ 50	40.5	7.6	27.8	37.1 24.6	3 9.6 +50 50				
	DM. 520	3 8.9	+ 30	36	6.5	30.3	37.1 29.1	3 11.6 +30 46				
	DM. 520	3 8.48	+ 30	36	2.3	32.9	37.1	3 11.6 +30 46				
	513	3 7.6	+ 50	29	5.2	31.6	57.0 29.4			6.3	7.0	39.0+30.6
	DM. 756	3 15 32.7	+ 50	53.6	7.6	33.3	57.3 28.8					
	736	3 15 34.0	+ 40	44.3	6.5	33.4	47.1 30.4	3 18.6 +40 54		6.0	6.7	
{472	2 52.4	+ 30	32	4.8	34.4	37.3	2 53.4 +30 46					
473	DM. 654	2 44.3	+ 50	34	6.3	66.3	57.0 90.7	2 47.4 +50 45				
0.0 5.4	456	2 46.4	+ 61	2	5.6	88.4	67.4 94.6	2 51.2 +31 32		4.7	5.4	250.8+20.8
	461	2 50.0	+ 31	26	5.2	91.2	37.2					
0.1 5.6	DM. 505	2 47 30.3	+ 31	23.4	9.0	88.7	37.2 29.7					
	556	2 43 2.8	+ 41	25.4	7.2	84.2	47.2 87.0	2 45.9 +41 36		4.8	5.5	248.6+31.4
	DM. 689	3 1.3	+ 51	38	7.3	28.7	57.2	3 4.5 +51 49				
	DM. 682	3 21 [illegible]	+ 41	37.3	9.1	30.1	47.2 29.5	3 0.9.1				
	DM. 691	3 54.9	+ 51	38	6.8							
	556	3 2 50.3	+ 31	34.2	8.4	30.2	37.2 29.9	3 5.2 +31 45		6.0	6.7	314+51.7
	DM. 671	2 57.7	+ 51	59	6.8			3 0.6 +31 50				
	DM. 682	3 [illegible]	+ 51	40.4	7.0	31.6	37.3 31.5	3 4.7 +31 51				
	DM. 689	3 1 18.5	+ 51	37.6	7.3	31.1	57.2 30.9					
	624	3 0 18.1	+ 41	42.1	8.2	30.1	47.3 29.9			5.5	6.2	32.0+31.7
	470	2 52.4	+ 51	54	5.1	86.4	57.3	2 53.7 +51 57				
0.3 5.8	DM. 526	2 52 39.8	+ 31	50.0	6.5	86.6	37.2 87.2	2 55.4 +32 1				
	598	2 54 11.9	+ 41	50.2	7.8	88.2	47.2 89.2			4.5	5.2	250.7+51.7
	DM. 553	3 1 58.9	+ 31	40.4	7.0	29.6	37.1 29.3					
	DM. 631	3 2 36.0	+ 41	49.5	6.5	30.2	47.2 29.7	3 5.5 +42 8		5.2	5.9	
	454	2 45.8	+ 52	16	4.0	83.8	57.3	2 47.2 +52 22				
	DM. 416	2 52 14.8	+ 32	15.4	7.0	90.2	27.3 90.9	2 [illegible] +22 26				
	DM. 535	2 48 46.9	+ 32	8.6	8.3	86.8	37.1 88.0			4.5	5.2	244.0+52.2
	DM. 591	3 6.8	+ 32	19	6.5	32.2	37.1	3 9.6 +32 29				
	DM. 582	3 4 5.8	+ 32	21.1	8.0	29.5	37.2 28.8	3 6.9 +32 31				
	DM. 725	3 4 3.4	+ 42	24.9	8.2	29.5	47.2 28.3	8		6.2	6.9	36.9+32.3
	DM. 640	2 42.6	+ 52	24	7.0	84.4	57.2	2 45.7 +52 35				
	DM. 532	2 48 46.1	+ 32	28.6	8.9	87.1	37.3 88.4					
	665	2 48 59.7	+ 42	22.2	8.9	84.8	47.2 90.1	2 51.9 +42 33		5.7	6.4	242.5+52.4
0.2 5.6	532	3 13.5	+ 42	54	4.8	34.3	47.3 31.8	3 14.7 +42 58		4.6	5.3	
	483	2 56.1	+ 53	2	3.1	87.7	57.3 88.3	2 57.6 +53 7		3.7	4.4	
0.1 6.3	544	3 17.0	+ 33	6	5.6	35.2	37.2 33.3	3 18.2 +33 11		5.5	6.2	315.4+36.2
	556	3 20.8	+ 33	23	5.5	35.8	37.2	3 22.0 +33 28				319.2+33.8
0.1 6.4	DM. 698	3 19 21.4	+ 52	54.9	8.8	34.4	57.2 29.5	3 22.7 +53 5		5.6	6.3	319.3+33.3
	517	3 9.7	+ 43	35	5.4	33.3	47.4	3 11.0 +43 39				
0.2 6.7	DM. 674	3 8 37	+ 43	29.5	6.0	31.2	47.3 30.0	3 11.0 +43 40		4.8	5.5	
	524	3 11.3	+ 33	46	4.8	34.5	37.3	3 12.5 +33 51		6.0	6.7	
	517	3 9.7	+ 43	35	5.4	32.9	47.1 31.1			6.4	7.1	310.0+33.7
	DM. 610	3 7.0	+ 34	9	6.5	32.4	37.2	3 9.8 +34 19				
	DM. 658	3 6 30.6	+ 54	10.6	9.1	31.9	57.2 30.0			6.0	6.7	37.6+34.2
	606	3 5 36.7	+ 34	15.2	8.3	31.2	37.3 30.3	3 9.1 +34 25				
	498	3 1.4	+ 44	24	4.0	31.0	47.4 30.9	3 2.7 +44 29		4.6	5.3	
	DM. 689	3 21 27.7	+ 34	46.8	8.3	33.8	37.3 31.0			4.9	5.6	
0.3 6.8	DM. 689	3 21 38.6	+ 54	41.0	8.7	31.4	57.2 30.1					
	714	3 19 18.8	+ 44	32.2	7.3	34.1	47.0 29.8	3 22.3 +44 42		5.8	6.5	320.1+54.5
	569	3 24.5	+ 54	33	5.7	39.3	57.1	3 26.0 +54 38				322.6+54.8

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Plate 205.

V	76.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
4.4	8.6	I	7	N	1	—	2.2	17.2	45.0	73.5
3.7	19.7	III b 2125	x 3	K=H	1	F diff	1.8	39.4	45.4	51.3
2.5	19.6	I	5	N	1	—	1.2	39.2	46.0	51.5

Amt. of Fog. due to moon & clouds. 7.5 Amt. of Fog. due to chemicals. 7.6

Plate 151.

22.0	21.9	I	7	N	3	—	11.0	43.8	36.9	44.4
21.8	12.0	I	6	N	1	—	10.9	24.0	37.0	64.2
20.5	17.3	I	5	N	1	—	10.2	34.6	37.7	53.6
20.2	21.1	II a? 2126	3	K=H	2	F diff	10.1	42.2	37.8	46.0
III 6.2, 6.5, 7.3. 19.1	15.4	III b? 2127	3	K=H	1	F bright diff.	9.6	30.8	38.3	57.4
18.9	17.5	I	7	N	1	—	9.4	35.0	38.5	53.2
18.5	13.2	I	5	N	1	—	9.2	26.4	38.7	61.8
18.0	10.5	I	6	N	1	—	9.0	21.0	38.9	67.2
III 6.6, 6.9 17.6	13.0	III b 2128	3	K=H	1	F diff	8.8	26.0	39.1	62.2
17.3	11.9	III b 2129	3	K=H	1	F diff.	8.6	23.8	39.3	64.4
17.6	17.9	I	9 3	K=½H	2	—	8.8	35.8	39.1	52.4
15.6	10.9	I	5	N	1	—	7.8	21.8	40.1	66.4
15.5	10.8	I	5	N	1	—	7.8	21.6	40.1	66.6
15.0	14.3	I	12	N	5	—	7.5	28.6	40.4	59.6
14.6	10.5	I	6	N	2	—	7.3	21.0	40.6	67.2
14.4	7.5	I	5	N	1	—	7.2	15.0	40.7	73.2
14.3	17.8	I	10	K=.2H	2	—	7.2	35.6	40.7	52.6
13.0	12.2	I	5	N	1	—	6.5	24.4	41.4	63.8
13.0	18.6	I	7	N	2	—	6.5	37.2	41.4	51.0
12.9	21.5	I	5	N	1	—	6.4	43.0	41.5	45.2
12.1	12.9	I b? 2130	6	N	1	diff	6.0	25.8	41.9	62.4
10.0	9.6	I	9	K=.2H	2	F —	5.0	19.2	42.9	69.0
9.3	7.2	I	5	N	1	—	4.6	14.4	43.3	73.8

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Mean 7

½ cos δ	No.	R.A.	Dec.	Mag.	H - V	H'	Red of D.M. Stars to 1900	cor Br.	Br.	
0.3 6.0	557	3 20.9	+ 55	2 5.0	38.1	57.2	32.7	3 22.4 +55 7	6.0	5.7
	443	2 42.0	+ 55	24 3.9	81.4	57.2		2 43.4 +55 29	5.1	5.8
Dm.	681	2 47	34.1 + 45	25.8 8.0	87.0	47.2	39.8	2 50.3 +45 37	5.6	6.3
Dm	503	2 53.8	+ 26	3 7.2	93.0	27.2		2 [illegible] +26 14		
Dm	587	2 46	2.0 + 35	59.7 9.5	85.2	34.2	36.9	36.4		
	663	2 48	10.1 + 46	3.4 4.8	87.4	44.3	40.2	2 51.2 +46 14		

Mean 7

0.1 4.9	445	2 42.9	+ 26	46 3.8	86.7	37.8	88.2	2 44.1 +26 51	14.1	4.8	
Dm.	507	3 5.1	+ 26	48 5.5	29.1	37.7		3 6.3 +26 53	6.0	6.7	3 39 +26.7
0.1 6.8	431	3 4 47.9	+ 34	7.1 8.3	28.8	48.0	27.6	3 7.6 +34 17	5.9	6.6	
0.1 6.7	471	2 52.4	+ 37	40 5.9	87.0	47.9	87.9	2 53.8 +37 45			2 51.0 +34 [illegible]
	446	2 43.0	+ 37	49 4.4	85.2	47.9	87.8	2 44.2 +37 55	4.9	5.6	
	489	2 57.5	+ 38	22 3.7	88.3	48.0	88.4	2 58.8 +38 27	5.1	5.8	
	477	2 53.3	+ 8	26 4.6	88.3	17.8		2 54.4 +8 30	5.6	6.3	
0.0 5.5	544	2 50	3.5 + 58	29.1 8.2	86.1	47.9	87.5				
Dm.	611	2 51	37.0 + 38	41.1 8.0	86.6	48.1	87.8	2 54.1 +38 52	4.8	5.5	2 52.0 +8.3
	606	2 50	51.5 + 38	36.6 8.8	86.9	48.0	86.9				
0.1 6.8	500	3 2.4	+ 28	37 5.5	28.8	37.8	28.4	3 3.6 +28 42	6.0	6.7	
Dm.	690	3 8 22.8	+ 38	45.5 6.5	29.4	47.8	27.4	3 11.3 +38 56	5.9	6.6	
	503	3 3.6	+ 39	9 4.7	29.6	48.0	28.7	3 4.8 +39 14	5.7	6.4	
	505	3 4.8		19 4.6	28.6	27.9	28.2	3 5.9 +19 21	6.0	6.7	
Dm.	888	3 5 38.1	+ 49	19.6 8.3	29.4	54.4	27.2	3 8.8 +49 30	5.6	6.3	
	738	3 5 18.2	+ 39	24.9 8.3	29.1	48.0	27.7	3 3.2 +39 32	5.8	6.5	
0.1 5.3	465	2 51.1	+ 39	11 4.7	86.9	48.0	88.3	2 52.4 +39 16	4.5	5.2	
Dm	743	3 7.7	+ 39	57 6.8	29.5	47.8		3 10.6 +40 7	5.9	6.6	
	514	3 8.0	+ 30	7 5.5	29.8	37.9	28.7	3 9.2 +30 11			3 6.5+30 [illegible] 8.0+39.9
	514	3 8.0	+ 30	7 5.5	29.6	37.9		3 9.2 +30 11			
0.1 6.1	512	3 6 31.6	+ 30	1.0 6.8	28.1	37.8	27.0	3 9.1 +30 11	5.3	6.0	
Dm.	436	3 8 40	+ 50	1.2 8.0	29.7	64.8	26.6				
0.1 4.1	496	3 0.4	+ 40	30 2.3	29.0	48.0	28.7	3 1.6 +40 34	3.3	4.0	
	515	3 8.0	+ 20	36 4.9	29.0	27.9		3 9.2 +20 40			
0.0 5.4	520	3 8.8	+ 30	36 6.5	29.8	37.9	28.6		4.7	5.4	3.6 +20.5
	513	3 7.6	+ 50	29 5.2	28.6	57.8	25.3				
Dm.	535	3 14.3	+ 20	43 5.2	29.3	27.9		3 15.5 +20 47	5.3	6.0	
0.0 6.0	731	3 15 34.0	+ 40	44.3 6.5	30.6	47.9	27.0	3 18.6 +40 54			3 13.0 +20.6
0.0 5.0	472	2 52.4	+ 20	52 4.6	88.0	28.1		2 53.4 +20 56			
Dm.	473								4.3	5.0	
	665	2 46	43.0 + 50	40.3 6.5	82.3	47.9	84.3	2 49.5 +50 51			2 50.9 +20.8
Dm	445	3 2.7	+ 11	20 6.5	27.1	14.8		3 5.1 +11 31			
Dm.	416	3 2	19.6 + 21	20.6 7.7	26.7	27.8	26.2	3 4.9 +21 32	5.6	6.3	3 2.6 +11.3
	641	3 6	36.5 + 41	18.1 8.3	31.0	47.8	29.6				
0.1 5.6	461	2 50.0	+ 31	26 5.2	87.2	38.1	88.2	2 51.2 +31 32	4.8	5.6	
Dm	490	2 41.7	+ 31	22 6.5	84.7	37.8		2 44.4 +31 33			
Dm.	640	2 41	52.2 + 51	36.8 8.3	84.9	58.0	99.3	2 45.1 +51 48			
	483	2 40	27.8 + 31	29.8 8.6	83.6	37.9	85.4	2 43.0 +31 42	6.0	6.7	2 +1.9 +31.4
Dm.	448	3 2	50.8 + 21	52.5 8.5	28.6	27.9	28.2				
	631	3 2	36.0 + 41	49.5 6.5	28.4	47.8	27.3	3 5.5 +42 1	5.2	5.9	
0.2 5.5	608	3 11.9	+ 32	42 7.8	31.1	37.7	30.5	3 14.7 +32 52			
	550	3 11.8	+ 42	48 6.4	31.0	47.8	28.1	3 14.8 +42 58	4.6	5.3	
	532	3 13.5	+ 42	54 4.8	32.7	47.9	29.8	3 14.7 +42 58			
0.1 6.1	720	3 17	7.9 + 43	8.5 7.6	31.5	47.7	27.8	3 20.1 +43 18			
Dm.	640	3 16	23.4 + 33	19.2 8.5	30.8	37.9	28.1		5.3	6.0	3 15.0 +33.1
	544	3 17.0	+ 33	6 5.6	31.4	37.7		3 18.2 +33 11			3 15.4 +33.1

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Plate 151

V.	Ha.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
8.8	11.0	I	8	N	1	F	4.4	22.0	43.5	66.2
8.2	9.7	III	2	K=½H	1	—	4.1	19.4	43.8	68.8
7.4	14.0	IIIc 2131	3	K=1.2H	3	F bright Lines	3.7	28.0	44.2	60.2
7.4	10.9	I	4	N	1	—	3.7	21.8	44.2	66.4
6.6	15.0	I	7	N	1	—	3.3	30.0	44.6	58.2
III ? 6.4, 6.7	6.6	17.9	IIIb 2132	3	K=H	1	F Lines	3.3	35.8	44.6	52.4
III ?6.5, 6.8.	6.9	21.0	III	2	K=½H	1	—	3.4	42.0	44.5	46.2
6.8	21.6	I	6	N	1	F?	3.4	43.2	44.5	45.0
6.6	22.6	I	6	N	1	F?	3.3	45.2	44.6	43.0
4.1	16.7	I	6	K=H?	1	—	2.0	33.4	45.9	54.8
4.3	6.1	IIa 2133	3	K=H	1	F Lines	2.2	12.2	45.7	76.0
2.5	12.1	I	6	N	1	—	1.2	24.2	46.7	64.0
2.5	14.8	I	5	N	1	—	1.2	29.6	46.7	58.6
2.5	22.0	I	7	N	3	F	1.2	44.0	46.7	44.2

Amt. of Fog. due to nuns & clouds. 8.5 Amt. of Fog. due to chemicals 8.6

Plate 163

21.0	18.3	I	8	N	1	—	10.5	36.6	17.5	36.2
20.5	9.6	I	5	N	1	—	10.2	19.2	17.8	53.6
17.0	24.2	IIa 2134	2	K=H?	1	F Lines	8.5	48.4	19.5	24.4
16.6	12.6	I	11	N	3	—	8.3	25.2	19.7	47.6
15.6	10.6	I	8	N	2	—	7.8	21.2	20.2	51.6
15.2	6.9	I	6	N	2	—	7.6	13.8	20.4	59.0
15.0	13.8	I?	4	K=H	1	—	7.5	27.6	20.5	45.2
12.7	13.6	Ib? 2135	11	N	3	F? Lines	6.4	27.2	21.6	45.6
12.0	17.8	I	6	N	2	—	6.0	35.6	22.0	37.2
11.6	17.5	IIa 2136	2	K=H	2	Lines	5.8	35.0	22.2	37.8
10.4	15.6	I	5	N	1	—	5.2	31.2	22.8	41.6
9.6	15.8	I	4	N	1	—	4.8	31.6	23.2	41.2

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Mean 7

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to 1900	Cor. Br.	Br.	
0.2 5.7	517	3	9.7	+ 43 35	5.4	31.7	48.0	29.6	3 11.0	+43 39	4.8 5.5
	524	3	11.3	+ 33 46	4.8	30.7	37.9	28.9	3 12.5	+33 51	6.2 6.9
											6.5 7.2
	498	3	1.4	+ 44 24	4.0	29.4	48.1	28.9	3 2.7	+44 29	4.4 5.1
Dm.	610	3	7.0	+ 34 9	6.5	28.8	37.9		3 9.8	+34 19	4.7 5.4
	~~656~~	~~3~~	~~8 44.6~~	~~+ 44 10.9~~	~~7.7~~	~~30.6~~	~~47.9~~	~~28.2~~	~~3 11.1~~	~~+44 21~~	6.1 6.8
0.1 5.8	~~490~~	~~2~~	~~58.4~~	~~+ 24 47~~	~~5.3~~	~~88.4~~	~~28.1~~		~~2 59.6~~	~~+24 52~~	
	~~664~~	~~3~~	~~28.6~~	~~+ 44 27.9~~	~~7.5~~	~~31.5~~	~~47.8~~	~~31.6~~	~~3 45~~	~~+44 39~~	
	578	2	57 50.9	+ 34 33.1	8.3	87.8	37.9	87.8	3 0.6	+34 44	5.0 5.7
											5.8 6.5
	468	2	51.7	+ 34 42	5.0	87.5	38.0	88.2	2 52.9	+34 47	6.1 6.8
											5.9 6.6
	449	2	44.2	+ 34 34	4.8	86.2	38.0	88.3	2 45.4	+34 39	6.4 7.1
Dm.	452	2	44.9	+ 14 34	5.5	88.1	18.0		2 45.9	+14 41	
0.0 6.0	~~591~~	~~2~~	~~47 10.6~~	~~+ 44 27.2~~	~~7.8~~	~~85.4~~	~~47.9~~	~~89.2~~	~~2 45.1~~	~~+44 38~~	5.3 6.0
	440	2	41.8	+ 24 42	6.0	87.0	28.0		2 43.0	+24 47	
Dm.	580	2	39 45.7	+ 44 39.0	8.0	85.0	47.9	89.3	2 42.7	+44 51	5.6 6.3
0.1 6.4	~~488~~	~~2~~	~~55.8~~	~~+ 26~~	~~0~~	~~5.9~~	~~88.2~~	~~28.0~~			
	~~683~~	~~2~~	~~57 10.1~~	~~+ 46~~	~~1.0~~	~~8.2~~	~~88.6~~	~~48.0~~	~~89.7~~		
Dm.	616	2	54 28.5	+ 35 52.2	4.1	87.9	37.9	88.6	2 57.3	+36 3	5.8 6.5
	~~778~~	~~3~~	~~22.4~~	~~+ 45~~	~~3.4~~	~~6.0~~	~~36.6~~	~~47.8~~	~~49.3~~	~~3 25.5 +45 44~~	
	~~554~~	~~3~~	~~20.3~~	~~+ 25~~	~~4.8~~	~~7.9~~	~~39.5~~	~~28.0~~	~~30.7~~	~~3 13.0 +25 58~~	
	566	3	24.2	+ 45 39	5.4	36.4	47.8	31.1	3 25.5	+45 44	5.4 6.1
	507	3	5.1	+ 26 48	5.5	29.3	28.0	28.6	3 6.3	+26 53	
Dm.	692	2	57 53.7	+ 46 44.5	6.4	87.5	47.9	87.3	3 09	+46 56	
	445	2	42.9	+ 26 46	3.8	86.9	28.0	88.4	2 44.1	+26 51	

Mean 16

											Cor. Br.	Br.	
0.2 6.0	591	3	34.4	+ 47 24	3.2	71.0	57.9	73.0	3 35.8	+47 28	4.2	5.8	
0.2 6.0	682	3	0.0	+ 47 23	4.3	19.2	57.6		4 1.4	+47 26	4.2	5.8	
	~~655~~	~~3~~	~~53.9~~	~~+ 17 52~~	~~5.7~~	~~73.1~~	~~28.1~~	~~72.4~~					
Dm.	~~668~~	~~3~~	~~21.4~~	~~+ 29 32~~	~~7.5~~	~~69.8~~	~~38.0~~	~~72.3~~	~~3 24.1 +29 42~~				
	~~571~~	~~3~~	~~23.3~~	~~+ 29 30~~	~~9.8~~	~~71.7~~	~~38.0~~	~~72.2~~	~~3 26.0 +29 40~~				
	573	3	25.7	+ 29 30	6.8	74.1	48.0	72.3			4.1	5.7	
	541	3	15.8	+ 49 26	1.9	64.2	57.9		3 17.1	+49 30			
0.1 4.6	649	3	49.8	+ 39 40	3.0	75.0	48.0	73.9	3 51.1	+39 43	2.9	4.5	
	~~816~~	~~3~~	~~52.1~~	~~+ 40~~	~~9~~	~~8.0~~	~~73.3~~	~~48.0~~	~~75.3~~	~~3 55.1 +40 47~~			
Dm.	~~701~~	~~3~~	~~35.8~~	~~+ 49~~	~~59~~	~~4.2~~	~~77.0~~	~~57.8~~	~~73.9~~	~~3 39.1 +50 5~~			
0.2 5.7	671	3	57.7	+ 50 1	4.5	78.9	57.8	75.8	3 59.1	+50.5	3.9	5.3	
	719	4	9.2	+ 50 0	4.6	23.0	57.6		4 1.1	+50 3			
Dm.	~~903~~	~~4~~	~~1.6~~	~~+ 40 32~~	~~7.0~~	~~15.4~~	~~48.1~~	~~11.5~~	~~4 48~~	~~+40 39~~			
0.2 6.2	707	4	6.7	+ 40 11	4.9	20.5	47.8	46.6			4.4	6.0	
	~~591~~	~~3~~	~~46.3~~	~~+ 30~~	~~28~~	~~6.5~~	~~73.9~~	~~39.1~~	~~73.6~~	~~3 49.1 +30 46~~			
Dm.	~~660~~	~~3~~	~~45.9~~	~~+ 50~~	~~16~~	~~5.2~~	~~73.5~~	~~57.8~~	~~72.6~~	~~3 47.5 +50 14~~			
	643	3	47.7	+ 50 21	5.5	75.3	57.9	74.4	3 49.2	+50 24	5.3	6.9	
0.1 5.1	638	3	46.6	+ 31 32	3.1	73.8	37.9	73.5	3 47.8	+31 35	3.4	5.0	
0.1 5.9	600	3	36.8	+ 31 54	4.0	72.4	37.9	73.2	3 38.0	+31 59	4.2	5.8	
	602	3	37.0	+ 42 12	4.0	72.0	48.0	73.2	3 38.4	+42 16	4.4	6.0	
0.1 6.7	626	3	42.1	+ 32 43	5.2	73.3	37.9	73.5	3 43.4	+32 48	5.0	6.6	
Dm.	~~539~~	~~3~~	~~38 52.0~~	~~+ 29 44.8~~	~~8.0~~	~~70.5~~	~~28.0~~	~~70.6~~	~~3 41.6~~	~~+28 24~~			
	563	3	39.8	+ 22 59	6.9	71.4	27.8		3 42.5	+23 8	5.2	6.8	

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June 28. 1886.

Plate 163.

r	ib.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
8.9	8.1	I	6	N	1	—	4.4	16.2	23.6	56.6
8.7	16.8	I	7	N	1	—	4.4	33.6	23.6	39.2
8.5	15.5	I	9	N	2	—	4.2	31.0	23.8	41.8
8.5	16.3	I	11	N	3	—	4.2	32.6	23.8	40.2
8.4	17.5	I	8	N	2	—	4.2	35.0	23.8	37.8
7.9	17.0	I	9	N	2	—	4.0	34.0	24.0	38.8
7.7	17.3	I	6	N	1	—	3.8	34.6	24.2	38.2
6.3	12.8	I	4	N	1	—	3.2	23.6	24.8	49.2
5.4	15.1	I	4	N	1	—	2.7	30.2	25.3	42.6
5.0	11.9	I	7	N	2	—	2.5	23.8	25.5	49.0

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Mean 16

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Star Cat. 1900	Cor.	
									Br.	Br.
03 6.3	~~Dm. 796 3 58.8 + 33 43 8.0 75.0 38.1 73.6 4 1.7 +33 51~~									
	667	3 57.3	+ 53 41	6.5	73.5	58.1	68.0			
	~~666 3 57.2 + 23 47 5.6 73.4 28.2 72.3~~									
0.0 3.9	615	3 39.2	+ 23 34	4.2	72.8	28.0	73.1	3 40.4 +23 39	4.3	5.9
0.0 5.2	625	3 42.0	+ 23 41	3.8	73.0	27.9	73.1	3 43.3 +23 45	3.6	5.2
0.0 4.9	618	3 40.4	+ 23 44	3.0	73.0	27.9	73.2	3 41.6 +23 48	3.3	4.9
0.0 5.7	608	3 37.8	+ 23 44	3.8	72.8	27.9	73.2	3 39.0 +23 48	4.1	5.7
0.0 5.8	613	3 38.7	+ 24 0	4.0	72.7	28.0	73.0	3 39.9 +24 4	4.2	5.8
0.0 6.0	610	3 38.1	+ 24 5	4.4	72.7	27.9	73.1	3 39.3 +24 10	4.4	6.0
	~~Dm. 602 3 50.5 + 24 48 8.3 74.1 28.0 73.5 3 53.2 +24 56~~									
0.1 6.7	~~734 3 53.2 + 54 49 7.0 76.8 37.7 74.1 3 56.7 +34 48~~ 647	3 48.7	+ 34 44	5.5	72.3	37.9	71.2	3 50.0 +34 47	5.0	6.6
0.1 6.8	629	3 43.1	+ 25 14	5.5	73.3	27.9	73.3	3 44.3 +25 17	5.1	6.7
0.1 5.2	652	3 51.2	+ 35 27	4.1	75.0	28.0	73.9	3 52.4 +35 30	3.5	5.1

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Amt. of Fog. due to mum & clouds. 6.3 Amt. of Fog. due to chemicals 6.6

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Plate 295

10. 10

T.	Ht.	Type	Lines	K	Focus	Other Lines.	V	H	V	H
23.4	12.3	I?	16	N	3	–	11.7	24.6	14.1	41.1
23.4	13.1	I?	18	N	3	–	11.7	26.2	14.1	39.5
23.3	13.9	I	17	N	3	–	11.6	27.8	14.2	37.9
23.0	14.1	I	18	N	3	–	11.5	28.2	14.3	37.5
23.4	14.3	I?	5	N	3	–	11.7	28.6	14.1	37.1
23.0	14.3	I	15-7	N	1	–	11.5	28.6	14.3	37.1
23.1	11.1	I	5	N	1	–	11.6	22.2	14.2	43.5
23.0	19.0	I	5	K=26	1	–	11.5	38.0	14.3	27.7
22.4	14.1	I	5	N	2	–	11.2	28.2	14.6	37.5
22.5	16.9	I	5?	K=26	1	–	11.2	33.8	14.6	31.9
21.8	9.2	I	5	N	2	F?	10.9	18.4	14.9	47.3
21.6	11.3	I	5	N	1	–	10.8	22.6	15.0	43.1
21.5	16.1	I	5	N	2	–	10.8	32.2	15.0	33.5
21.3	17.9	I	4	N	1	–	10.6	35.8	15.2	29.9
20.9	11.8	I	16	N	2	–	10.4	23.6	15.4	42.1
20.6	10.3	I	5	N	1	–	10.3	20.6	15.5	45.1
20.5	8.3	I?	16	N	3	F	10.2	16.6	15.6	49.1
20.5	13.5	I	5	N	2	–	10.2	27.0	15.6	38.7
19.7	13.9	I	15	N	1	–	9.8	27.8	16.0	37.9
19.9	18.2	IIa 2137	12	K=26	2	F? Sem.	10.0	36.4	15.8	29.3
19.3	14.1	I	17	N	2	–	9.6	28.2	16.2	37.5
17.9	7.4	I	12	N	2	–	9.0	14.8	16.8	50.9
17.6	10.5	IIa 2138	3	K=26	2	F sem	8.8	21.0	17.0	44.7
17.8	16.9	I	16	N	1	–	8.9	33.8	16.9	31.9
17.1	15.5	I	17	N	2	–	8.6	31.0	17.2	34.7
17.0	20.2	I	16	N	2	–	8.5	40.4	17.3	25.3
16.5	11.9	I	15	K=26	1	–	8.2	23.8	17.6	41.9
16.2	5.8	I	16	N	2	F?	8.1	11.6	17.7	54.1

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Mean 1

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Br. Br.
625	3 42.0	+ 23 41	3.8	66.6	35.4	66.1	3 43.3 +23 45	
618	3 40.4	+ 23 44	3.0	66.6	35.4	66.3	3 41.6 +23 48	
613	3 38.7	+ 24 0	4.0	66.5	35.6	66.3	3 39.9 +24 4	
610	3 38.1	+ 24 5	4.4	66.3	35.6		3 39.3 +24 10	
Dm. 601	3 40 0.8	+ 24 30.3	5.8	68.2	36.0	67.7	3 41.1 +24 39	
546	3 36 31.8	+ 24 22.8	6.3	64.9	35.9	64.6	3 39.2 +24 32	
608	3 37.8	+ 23 44	3.8	66.4	35.4		3 39.0 +23 48	
610	3 38.1	+ 24 5	4.4	66.7	35.8	66.6	3 39.3 +24 10	
Dm. 505	3 36.2	+ 23 50	6.5	64.8	35.3		3 38.9 +23 59	
Dm. 553	3 37 16.1	+ 24 55.0	7.0	65.9	35.6	65.8		
546	3 36 31.8	+ 24 22.8	6.3	65.1	35.9	64.9	3 39.2 +24 32	
Dm. 730	3 43.1	+ 23 45	7.5	65.3	45.4		3 46.0 +23 53	
632	3 43.3	+ 24 0	5.7	65.5	45.6	64.2	3 45.5 +24 3	
577	3 27.4	+ 24 3	5.9	65.4	35.5		3 28.5 +24 7	
568	3 24.4	+ 44 26	6.0	62.4	55.9	64.6		
Dm. 571	3 39.4	+ 24 32	7.0	63.6	35.7	63.4	3 42.1 +24 41	
601	3 40.0	+ 44 30	5.8	68.2	55.7	67.7	3 43.1 +44 39	
624	3 41.8	+ 44 35	5.9	70.0	55.8	69.5	3 44.9 +44 44	
Dm. 546	3 36.5	+ 24 23	6.1	64.7	35.6	64.5	3 39.2 +24 32	
Dm. 693	3 29 41.6	+ 34 34.1	7.4	61.6	46.8	62.2	3 30.5 +34 43	
585	3 29 15.1	+ 14 37.0	8.3	63.1	25.8	63.2	3 31.2 +14 16	
527	3 30.5	+ 24 14	7.7	64.3	35.4		3 33.2 +24 23	
647	3 48.7	+ 34 44	5.5	67.1	45.6	65.1	3 50.0 +34 47	
Dm. 583	3 42.7	+ 24 24	7.7	65.4	35.5		3 45.2 +24 32	
Dm. 641	3 44 50.8	+ 25 14.6	6.6	67.4	36.0	66.7	3 47.5 +25 23	
534	3 40 30.6	+ 15 3.2	8.2	63.1	25.9	62.8	3 43.0 +15 12	
Dm. 476	3 32 10.9	+ 44 59.7	8.1	64.4	35.8	65.1		
529	3 32 8.6	+ 24 51.0	6.7	64.3	35.6	64.5	3 34.8 +25 0	
Dm. 586	3 29.7	+ 14 56	6.5	65.4	25.5	65.6	3 32.7 +15 5	
Dm. 720	3 29.5	+ 25 0	8.5	62.8	45.6	63.3	3 29.3 +35 9	
686	3 26 13.2	+ 34 59.1	8.0	67.0	45.6	63.9		
629	3 43.1	+ 25 14	5.5	66.7	35.6	66.0	3 44.3 +25 17	
Dm. 641	3 44.8	+ 25 15	6.6				3 47.5 +25 23	
639	3 44 45.4	+ 25 29.8	8.3	65.4	25.8	64.5	3 45.5 +25 38	
652	3 37.2	+ 35 27	6.1	67.8	45.6	65.3	3 52.4 +35 30	
606	3 37.6	+ 45 18	5.6	64.6	55.5		3 39.6 +45 22	
Dm. 644	3 35 15.7	+ 35 23.7	7.5	67.3	45.6	67.8	3 46.9 +35 30	
611	3 34 14.1	+ 25 34.2	8.4	64.3	35.9	64.0	3 40.9 +25 40	
Dm. 597	3 36.2	+ 45 44	6.6	65.0	55.5		3 37.7 +45 48	
524	3 35 10.0	+ 15 56.4	7.9	63.0	25.7	62.9	3 37.2 +16 5	
566	3 24.2	+ 45 39	6.14	64.6	55.6		3 25.5 +45 44	
Dm. 507	3 27 56.8	+ 15 59.6	7.9	64.3	26.0	64.6	3 30.4 +16 9	
803	3 28 26.8	+ 55 54.2	7.0	64.8	65.9	67.6	3 31.9 +56 8	
599	3 36.8	+ 36 5	5.6	65.0	45.7	64.7	3 38.1 +36 9	
Dm. 810	3 31.8	+ 36 36	7.5	66.6	45.6		3 54.7 +36 44	
Dm. 655	3 30 17.4	+ 26 46.8	8.8	65.1	35.8	63.0	3 53.0 +26 55	
544	3 52 20.2	+ 16 52.2	6.5	67.1	25.9	66.3	3 54.9 +17 0	
Dm.								
523	3 44 53.0	+ 16 54.1	6.1	65.9	25.7	65.4	3 47.5 +17 2	
Dm. 731	3 28 34.9	+ 36 57.0	7.0	62.4	45.8	63.1	3 31.5 +37 6	
595	3 30 12.5	+ 16 7.5	8.3	64.0	26.0	64.2		
Dm. 743	3 25.8	+ 46 37	7.1	59.6	55.5		3 28.9 +46 46	
588	3 33.4	+ 37 12	5.9	64.4	45.8		3 34.6 +37 16	
591	3 34.4	+ 47 24	3.2	65.4	56.0	65.7		
565	3 24.1	+ 27 9	5.8	64.5	35.7	65.6	3 25.3 +27 14	
Dm. 833	3 40.6	+ 47 26	6.5	64.4	55.6		3 42.0 +47 35	
Dm. 637	3 44.0	+ 57 36	5.8	67.8	65.6	64.9	3 43.5 +57 45	
822	3 59.0	+ 37 40	6.5	76.6	45.8	69.7	4 2.0 +37 46	
Dm. 878	3 57.9	+ 37 41	6.9	69.5	45.8	65.8	4 0.9 +37 47	
686	4 0.6	+ 37 44	5.9	72.2	45.8	68.3	4 1.9 +37 47	
682	4 0.0	+ 47 23	4.3	71.6	55.5		4 1.4 +47 26	

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Plate 295

V.	H.	Type	No. lines	K	Focus	Other lines.	V	H	V	H
16.1	10.1	I	7	N	2	—	8.0	20.2	17.8	45.5
16.5	14.5	I	11	N	4	F	8.2	29.0	17.6	36.7
15.8	16.6	I	8	N	2	—	7.9	33.2	17.9	32.5
16.0	18.1	I	7	N	2	—	8.0	36.2	17.8	29.5
16.1	18.3	I	4	N	1	—	8.0	36.6	17.8	29.1
16.0	18.6	I?	2?	N	2	—	8.0	37.2	17.8	28.5
14.9	14.0	I	4	N	1	—	7.4	28.0	18.4	37.7
14.9	15.8	I	5	N	1	—	7.4	31.6	18.4	34.1
14.7	16.1	I	5	N	1	—	7.4	32.2	18.4	33.5
14.5	18.1	I	6	N	1	—	7.2	36.2	18.6	29.5
14.5	8.2	I	5	N	1	F?	7.2	16.4	18.6	49.3
13.8	16.0	I	5	K=H	1	—	6.9	32.0	18.9	33.7
13.8	17.8	I	6	K=H	1	—	6.9	35.6	18.9	30.1
13.5	18.2	I	6	N	1	—	6.8	36.4	19.0	29.3
13.7	19.3	I	7	N	2	—	6.8	38.6	19.0	27.1
13.6	20.0	I	6	N	1	—	6.8	40.0	19.0	25.7
13.4	20.9	I	7	N	2	—	6.7	41.8	19.1	23.9
12.9	15.0	I? I?	5	H K=H	K=H 1	1 —	6.4	30.0	19.4	35.7
13.0	15.6	I	8	N	2	F?	6.5	31.2	19.3	34.5
13.0	18.9	I	8	N	3	F	6.5	37.8	19.3	27.9
12.7	19.4	I	4	N	1	—	6.4	38.8	19.4	26.9
12.7	18.3	I	7?	N	2	—	6.4	36.6	19.4	29.1
12.1	16.8	I	15	N	1	—	6.0	33.6	19.8	32.1
12.4	19.0	I	6	N	2	—	6.2	38.0	19.6	27.7
12.2	20.5	II	3	K=H	5	F seen	6.1	41.0	19.7	24.7
12.2	9.0	II?	3?	N?	5	—	6.1	18.0	19.7	47.7
11.0	6.9	I	8	N	2	F —	5.5	13.8	20.3	51.9
11.5	22.1	I?	8	K=H	2	F seen	5.8	44.2	20.0	21.5
10.6	10.1	Ia	3	K=H	2	F seen	5.3	20.2	20.5	45.5
11.8	6.8	III III	2 2	K=H	K=H 1	1 —	5.9	13.4	19.9	52.1

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Mean 1

½ cos δ.	No.	R. A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Bx.	Cor. By.
0.2 5.3	642	3 47.3	+ 47 32	5.4	67.5	55.5	64.4	3 48.8 +47 35	5.0	5.1
	~~Dm. 876~~	~~3 32.6~~	~~+ 47 20~~	~~3.5~~	~~61.6~~	~~55.5~~	~~61.3~~	~~3 35.8 +47 29~~		
	591	3 34.4	+ 47 24	3.2	63.4	55.6	63.1	3 35.8 +47 28	B	B.
0.2 4.7	578	3 28.0	+ 47 48	4.2	61.2	55.7		3 29.4 +47 51		
	Dm.									
	984	3 33 44.0	+ 48 3.8	6.5	66.9	56.0	68.0	3 ~~36.9~~ +48 13	4.4	4.6
	Dm. 847	3 21.9	+ 47 31	6.5	58.1	55.5		3 25.0 +47 41		
	578	3 28.0	+ 47 48	4.2	64.2	55.8	66.0		5.1	5.2
	Dm. 786	3 24.3	+ 47 32	7.0	60.9	45.5		3 27.2 +37 41		
	Dm. 575	3 27 34.6	+ 38 6.0	6.2	64.5	46.1	65.9	3 30.8 +38 15	6.0	6.1
	587	3 28 46.4	+ 47 52.4	8.0	65.4	55.9	65.8			
	540	3 22.1	+ 47 35	4.4	59.3	55.6		3 23.5 +47 39		
	~~Dm. 847~~	~~3 21 55.6~~	~~+ 47 30.6~~	~~6.5~~	~~59.2~~	~~55.5~~	~~61.5~~	~~3 58.7 +47 41~~		
	~~503~~	~~3 23 34.2~~	~~+ 17 45.4~~	~~8.3~~	~~60.6~~	~~25.8~~	~~61.1~~	~~3 35.2 +17 54~~		
	Dm. 575	3 36.6	+ 28 12	7.9	64.6	35.6		3 39.3 +28 21		
	~~Dm. 800~~	~~3 36 58.8~~	~~+ 38 12.4~~	~~6.5~~	~~64.1~~	~~45.6~~	~~63.7~~	~~3 39.0 +38 22~~		
	680	3 37 16.5	+ 28 25.1	8.4	65.3	36.8	65.1		6.5	6.6
	Dm.									
	564	3 32 27.5	+ 28 13.8	7.0	64.1	35.6	64.2	3 35.2 +28 23	5.9	6.0
	~~Dm. 788~~	~~3 32 30.1~~	~~+ 38 20.8~~	~~8.0~~	~~64.7~~	~~45.8~~	~~65.2~~			
	562	3 31 47.5	+ 28 17.6	7.0	64.0	35.7	64.2	3 34.5 +28 27	6.0	6.1
	Dm. 943	3 21.6	+ 48 14	7.0	57.8	55.4		3 24.8 +48 24		
	~~Dm. 507~~	~~3 29 0.8~~	~~+ 18 25.7~~	~~7.0~~	~~63.2~~	~~25.6~~	~~63.6~~			
	548	3 27 49.0	+ 28 44.7	6.8	64.0	35.9	64.7	3 30.5 +28 54	5.7	5.8
	Dm. 829	3 50.1	+ 38 23.1	6.8	66.5	45.6		3 53.1 +38 31		
	~~Dm. 562~~	~~3 48 40.8~~	~~+ 18 25.0~~	~~8.5~~	~~65.1~~	~~25.6~~	~~64.3~~	~~3 51.3 +18 33~~		
	827	3 48 57.4	+ 38 24.6	6.5	66.3	46.6	67.3	3 51.9 +38 33	5.9	6.0
	Dm. 963	3 28.1	+ 48 45	7.0	60.1	55.7		3 31.3 +48 54		
	~~Dm. 790~~	~~3 32 47.4~~	~~+ 38 58.0~~	~~8.8~~	~~64.8~~	~~45.9~~	~~65.2~~			
	521	3 33 6.1	+ 18 54.8	7.8	65.1	25.8	65.2	3 35.7 +19 41	6.1	6.2
	Dm. 548	3 27.8	+ 28 45	6.8	63.4	35.7		3 30.5 +28 54		
	~~Dm. 772~~	~~3 27 34.8~~	~~+ 38 53.9~~	~~8.8~~	~~65.2~~	~~45.8~~	~~66.1~~			
	517	3 29 50.8	+ 18 52.3	7.3	65.4	25.8	66.1	3 32.4 +19 1	5.8	5.9
	Dm. 938	3 21.1	+ 48 41	6.5	57.5	55.5		3 24.3 +48 51		
	~~Dm. 517~~	~~3 29 50.8~~	~~+ 18 52.3~~	~~7.3~~	~~66.2~~	~~25.7~~	~~66.6~~	~~3 32.4 +19 1~~		
	561	3 28 1.4	+ 19 4.5	8.0	64.4	25.9	64.8	3 30.6 +19 14	5.4	5.5
	548	3 27 49.0	+ 28 44.7	6.8	66.4	35.5	67.4	3 30.5 +28 54		
	~~822~~	~~3 26 55.8~~	~~+ 38 6.1~~	~~8.7~~	~~65.0~~	~~45.9~~	~~66.9~~	~~3 37.3 +38 15~~		
0.2 5.3	~~Dm. 503~~	~~3 24 49.4~~	~~+ 18 53.4~~	~~8.2~~	~~63.4~~	~~25.7~~	~~63.9~~	~~3 32.4 +18 3~~	5.0	5.1
	~~Dm. 552~~	~~3 19.6~~	~~+ 48 39~~	~~5.0~~	~~58.2~~	~~55.4~~	~~3 18.9 +48 45~~			
	549	3 17.8	+ 48 42	5.9	57.8	55.5		3 15.7 +48 35		
0.2 5.7	~~Dm. 640~~	~~3 23 8.2~~	~~+ 18 51.9~~	~~3.9~~	~~60.1~~	~~25.9~~	~~60.7~~	~~3 32.4 +19 12~~		
	542	3 23 40.6	+ 29 1.9	8.3	63.3	35.8	64.5	3 ~~26.0~~ +29 12	5.4	5.5
	537	3 14.7	+ 48 47	5.2	56.5	55.5		3 16.1 +48 51		
0.2 5.4	555	3 20.8	+ 49 7	4.8	58.6	55.6		3 22.2 +49 10	5.1	5.2
	555	3 20.8	+ 49 7	4.8	58.6	55.6		3 22.2 +49 10		
	601	3 36.8	+ 19 17	6.4	66.8	25.7		3 38.0 +19 21	6.4	6.5
0.0 6.3	595	3 35.4	+ 19 19	5.4	66.6	25.8	66.7	3 36.6 +19 23	5.2	5.3
	555	3 20.8	+ 49 7	4.8	58.6	55.6		3 22.2 +49 10		
0.2 4.9	573	3 25.7	+ 39 30	5.8	63.5	46.0	65.3		4.6	4.7
	Dm. 936	3 17.3	+ 49 6	7.7	56.1	55.5		3 20.3 +49 16		
	~~Dm. 571~~	~~3 23 16.3~~	~~+ 29 30.1~~	~~7.8~~	~~62.1~~	~~35.9~~	~~63.2~~	~~3 25.0 +29 34~~		
	~~549~~	~~3 22 53.3~~	~~+ 19 15.5~~	~~8.0~~	~~61.7~~	~~25.7~~	~~62.3~~			
	573	3 25.7	+ 39 30	5.8	62.3	45.9		3 26.9 +39 34	6.4	6.5
0.1 5.5	~~Dm. 579~~	~~3 27 17.3~~	~~+ 29 30.8~~	~~7.4~~	~~63.9~~	~~35.9~~	~~64.7~~	~~3 30.1 +29 40~~		
	~~554~~	~~3 26 4.5~~	~~+ 19 17.9~~	~~8.2~~	~~62.7~~	~~25.7~~	~~63.1~~			
	Dm. 827	3 27.8	+ 39 36	7.0	61.4	45.6		3 30.8 +39 45	5.3	5.4
	~~Dm. 562~~	~~3 28 2.0~~	~~+ 19 34.8~~	~~7.0~~	~~61.6~~	~~25.6~~	~~61.8~~	~~3 30.6 +19 44~~		
	1001	3 32 22.6	+ 49 44.0	8.6	66.0	45.7	67.2	3 35.4 +49 53	6.1	6.2
	Dm. 944	3 18.5	+ 49 21	6.5	56.5	55.6		3 21.7 +49 31		
	~~829~~	~~3 27 48.6~~	~~+ 39 36.4~~	~~7.0~~	~~65.8~~	~~45.8~~	~~66.6~~	~~3 30.5 +39 45~~	5.2	5.3
	541	3 15.8	+ 49 26	1.9	56.8	55.5		3 17.1 +49 30		
	551	3 19.4	+ 59 31	4.2	60.4	65.6	68.8		B	B.
	644	3 49.8	+ 39 40	3.0	67.8	45.8	65.0	3 51.1 +39 43	3.9	4.0
	671	3 37.7	+ 50 1	4.5	71.5	55.5		3 39.1 +50 5		
0.2 5.0	~~Dm. 876~~	~~3 32.7~~	~~+ 40 8.8~~	~~8.0~~	~~65.9~~	~~45.6~~	~~69.0~~	~~3 35.1 +40 17~~		
	~~830~~	~~3 31 3.0~~	~~+ 50 13.5~~	~~8.0~~	~~64.8~~	~~55.7~~	~~68.9~~	~~3 34.3 +50 22~~		
	521	3 10.1	+ 49 47	6.3	54.3	55.6		3 11.5 +49 51	4.7	4.8
	~~Dm. 852~~	~~3 20 39.4~~	~~+ 49 58.8~~	~~7.0~~	~~64.9~~	~~55.8~~	~~69.9~~			
	534	3 19 40.3	+ 19 57.2	7.0	63.9	25.8	64.8	3 22.3 +20 7	5.0	5.1
	643	3 47.7	+ 50 21	5.5	67.9	55.7	64.4	3 49.2 +50 24	6.5	6.6
	658	3 54.1	+ 19 51	6.6	67.7	25.7		3 55.3 +19 55	6.3	6.9

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Plate 295

V.	H.	Type	No. Lines	K.	Focus.	Other Lines.	V	H	V	H
10.6	12.7	I	6	N	2	–	5.3	25.4	20.5	40.3
10.5	14.6	I	7	N	2	F	5.2	29.2	20.6	36.5
10.5	17.2	I	6	N	1	–	5.2	34.4	20.6	31.3
10.7	19.0	I	5	K=H	1	F?	5.4	38.0	20.4	27.7
10.5	18.7	I	6	N	1	–	5.2	37.4	20.6	28.3
9.9	11.1	I	5	N	2	–	5.0	22.2	20.8	43.5
10.5	24.0	I	5	N	2	F?	5.2	48.0	20.6	17.7
9.5	21.4	III	6	K=H	1	F	4.8	42.8	21.0	22.9
9.6	22.8	III	3	K=H	2	F	4.8	45.6	21.0	20.1
9.6	22.9	I?	5	–	1	–	4.8	45.8	21.0	19.9
8.6	17.0	I	5	N	1	– –	4.3	34.0	21.5	31.7
8.5	9.3	I	6	K=H	1	– –	4.2	18.6	21.6	47.1
8.2	11.3	III	2	K-H K=H'	1	– –	4.1	22.6	21.7	43.1
8.5	10.2	I	9?	N	5	–	4.2	20.4	21.6	45.3
8.3	13.7	I	6	N	1	–	4.2	27.4	21.6	38.3
7.9	12.0	I	7	N	2	–	4.0	24.0	21.8	41.7
7.8	13.4	I	6	N	1	–	3.9	26.8	21.9	38.9
7.8	14.4	I	10	N	4	Fcen	3.9	28.8	21.9	36.9
7.4	8.8	I	5	K=H	1	–	3.7	17.6	22.1	48.1
7.4	12.2	I	5	N	1	–	3.7	24.4	22.1	41.3
7.3	13.8	IIa 2142	3	K=H	4	Fcen	3.6	27.6	22.2	38.1
7.1	16.5	I	7	N	1	F	3.6	33.0	22.2	32.7
7.0	17.2	I	6	N	1	–	3.5	34.4	22.3	31.3
6.7	18.6	I	4	N	1	–	3.4	37.2	22.4	28.5
5.0	6.6	III	2	K=H K=H'	1	– –	2.5	13.2	23.3	52.5
6.1	12.2	I	8	N	3	–	3.0	24.4	22.8	41.3
6.0	8.8	I	6	K=H	1	–	3.0	17.6	22.8	48.1
6.0	14.0	I	5	N	1	–	3.0	28.0	22.8	37.7
5.6	12.8	I	9	N	2	–	2.8	25.6	23.0	40.1
6.0	18.0	I	6	N	1	F	3.0	36.0	22.8	29.7
5.4	22.5	I	6	N	2	F	2.7	45.0	23.1	20.7

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Mean 1

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cov.	Par.	Par.
617	3 39.5	+ 50	21	5.7	64.9	55.7	3 41.6 +56 26	3 37.7 +50 17	5.5	5.6
Dm. 849	8 42 14.0	+ 50	36.6	4.4	67.6	55.9	66.0			
847	3 42 21.5	+ 40	21.5	4.7	67.8	45.7	66.7	3 45.4 +40 30		
603	3 37.4	+ 20	33	5.8	66.6	25.8	66.6	3 38.6 +20 37	5.3	5.4
									5.6	5.7
584	3 32.0	+ 20	31	6.2	66.4	25.7	66.7	3 33.2 +20 35		3 30.6 +20 26
Dm. 772	3 21.9	+ 40	16	6.5	59.9	45.6		3 24.9 +40 26		
596	3 26 32.6	+ 20	31.5	8.3	64.5	25.9	65.0	3 29.1 +20 40	5.9	6.0
Dm. 776	3 22.7	+ 40	26	7.2	60.1	45.6		3 25.7 +40 36		
556	3 20 28.2	+ 20	35.5	8.3	63.0	25.8	66.0	3 30.4 +20 44	6.0	6.1
Dm. 582	3 43.0	+ 30	44	6.5	62.2	35.7		3 43.8 +30 52		
Dm. 591	3 46.3	+ 30	38	6.5	62.5	35.6	65.5	3 47.1 +30 46		
641	3 46.9	+ 40	45	5.1	64.1	45.8	63.2	3 18.7 +20 27	5.7	5.8
556	3 16.1	+ 20	17	5.8	64.1	25.5	65.2	3 18.9 +20 27		
Dm. 736	3 15.6	+ 40	44	6.5	63.8	45.8	65.0	3 19.0 +40 54		
535	3 14.3	+ 20	43	5.2	62.3	25.7	63.5		5.6	5.7
Dm. 772	3 21.9	+ 40	16	6.5	64.7	45.6		3 25.6 +40 36		
Dm. 792	3 20 34.1	+ 40	44	6.8	63.3	45.8	66.5			
Dm. 776	3 15.6	+ 40	44	6.5	62.9	45.5	65.0	3 19.6 +40 54	5.9	6.0
548	3 20 28.4	+ 30	33.1	7.0	62.3	35.7	65.0	3 29.4 +30 35	5.1	5.8
Dm. 725	3 3.5	+ 30	25.8	7.0	62.3	35.2		3 4.3 +30 23		
597	3 16 27.9	+ 30	12.8	7.0	62.3	36.0	64.6		5.7	5.8
Dm. 544	3 16 46.7	+ 30	53.8	8.5	64.6	35.7	66.8			
446	3 14 48.0	+ 20	26	9.0	60.6	25.8	61.6	39.0 +50 35		
533	3 7.6	+ 50	29	5.2	53.2	55.3				
Dm. 722	3 31 54.4	+ 41	22.1	7.8	65.1	45.7	66.1			
492	3 30 46.1	+ 21	23.2	7.2	64.8	25.7	65.0	3 33.4 +21 32	6.1	6.2
Dm. 565	3 47.4	+ 21	21	8.0	66.0	25.6		3 50.9 +21 39		
Dm. 779	3 47 24.3	+ 41	27.0	7.0	66.0	45.6	63.1	3 50.4 +41 35		
550	3 45 31.6	+ 21	30.3	7.5	64.1	25.7	63.2			
633	3 44.5	+ 21	41	5.7	67.1	25.8		3 45.7 +21 44		
638	3 46.6	+ 31	32	3.1	67.0	35.7	66.6	3 47.8 +31 35		
650	3 38 13.4	+ 31	44.6	6.5	66.1	35.6	65.8	3 41.5 +31 54		
Dm. 749	3 37 58.8	+ 51	30.7	8.2	65.4	55.7	64.4			
514	3 36 29.2	+ 21	24.0	9.0	63.9	25.6	63.7		6.0	6.1
Dm. 742	3 35.7	+ 41	34	7.5	63.1	45.8		3 38.7 +41 43		
628	3 42.9	+ 21	53	6.0	66.9	25.9	66.4	3 44.0 +21 57	5.4	5.5
649	3 37 36.8	+ 31	50.7	6.8	64.4	35.7	63.9	3 40.4 +32 8		
Dm. 515	3 36 37.0	+ 21	57.2	9.0	63.4	25.8	63.2		6.0	6.1
526	3 39 46.8	+ 21	55.6	8.1	66.6	25.8	66.4			
600	3 36.8	+ 31	54	4.0	65.6	35.8	65.4	3 38.0 +31 59	4.1	4.3
648	3 40.7	+ 22	08	5.7	67.3	25.8	66.3	3 50.9 +22 12		
Dm. 775	3 42.5	+ 22	10	7.8	65.9	25.9		3 44.1 +22 19	5.7	5.8
Dm. 635	3 42.7	+ 41	31							
Dm. 572	3 41.1	+ 22	6	7.3				3 43.7 +22 13		
631	3 40 33.8	+ 42	9.0	8.0	63.0	45.8	63.6	3 43.4 +42 18		
Dm. 714	3 38.5	+ 52	12	6.5	66.1	55.8	65.1	3 41.9 +52 22		
602	3 37.0	+ 42	12	4.0	64.6	45.8	63.9	3 38.4 +42 16	6.2	6.3
Dm. 763	3 38.1	+ 42	48	4.5	7.0	64.6		3 31.3 +42 54		
Dm. 595	3 37 35.9	+ 42	26	5.7	64.6	45.8	60.0			
583	3 38.2	+ 42	27	6.7	64.6	25.8	63.4	3 31.2 +42 15	4.5	4.6
523	3 30 11.0	+ 42	11.0	6.8	63.2	25.8	63.4	3 32.8 +42 20		
Dm. 801	3 30.2	+ 22	11	6.8	64.6	25.7				
519	3 29 2.3	+ 42	4.8	7.0	63.4	45.7	64.5		5.7	5.8
Dm. 716	3 28 28.6	+ 22	9.8	8.5	62.9	25.7	63.2	3 31.1 +22 19		
Dm. 787	3 22.4	+ 42	15	7.8	59.6	25.7	63.2	3 23.4 +42 25	5.8	5.9
610	3 26 5.0	+ 42	24.2	6.3	63.3	45.8	65.2	3 29.1 +42 32		
679	3 25 58.9	+ 22	16.6	8.5	63.2	25.7	63.9			
	3 59.4	+ 53	2	6.5	72.6	55.5		3 41.0 +53 6	6.6	6.7
676	3 42.1	+ 32	43	5.2	66.5	35.7	65.6	3 43.4 +32 48	7.0	7.2
Dm. 607	3 48.5	+ 42	46	6.1	65.8	45.8		3 51.1 +22 54		
636	3 48 16.5	+ 42	47.0	6.4	65.9	45.7	66.6		5.2	5.3
Dm. 683	3 47 14.8	+ 32	43.9	8.3	64.8	35.3	62.8	3 50.0 +32 52		
741	3 45 25.2	+ 22	49.6	8.8	63.0	25.8	62.0		5.9	6.0
Dm. 545	3 37.3	+ 22	42	8.0	65.3	25.7		3 39.9 +22 51		
743	3 35 13.1	+ 22	40.6	8.0	63.2	25.7	63.1	3 39.6 +22 50	6.2	6.3
Dm. 563	3 39 46.8	+ 22	58.8	6.9	65.4	25.8	65.0	3 42.5 +23 8		
714	3 38 42.2	+ 33	9.0	7.0	64.3	35.9	63.6		5.1	5.2
Dm. 518	3 28.4	+ 22	45	7.0	64.4	25.8		3 31.0 +22 54		
Dm. 715	3 26 36.7	+ 22	44.5	8.4	62.6	25.7	63.1	3 29.8 +22 51	6.1	6.2
532	3 13.5	+ 42	54	4.8	48.5	45.6		3 14.7 +42 58		
544	3 17.0	+ 33	6	5.6	62.0	35.8	64.5		5.0	6.1
* Dm. 725	3 3.5	+ 50	25	6.7						

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Plate 295.

V.	H.	Type.	No. Lines.	K.	Focus.	Other Lines.	V	H	V	H
5.0	12.1	I	6	N.	1	—	2.5	24.2	23.3	41.5
5.0	12.9	I	5	N	1	—	2.5	25.8	23.3	39.9
4.5	13.7	I b 2143	9	N	3	F? seen	2.2	27.4	23.6	38.3
4.3	12.4	I	10	N	4	— F	2.2	24.8	23.6	40.9
4.1	13.2	I	12	N	4	— F	2.0	26.4	23.8	39.3
4.2	14.4	I	10	N	3	— F	2.1	28.8	23.7	36.9
4.4	15.2	I b 2144	7	N	2	F? seen	2.2	30.4	23.6	35.3
4.6	21.0	I	6	N	2	—	2.3	42.0	23.5	23.7
3.6	13.9	I	11	N	3	— F	1.8	27.8	24.0	37.9
3.5	14.2	I	9	N	3	— F	1.8	28.4	24.0	37.3
3.5	19.1	I	5	N	1	—	1.8	38.2	24.0	27.5
3.9	23.7	I ?	6	N K=H	1	—	2.0	47.4	23.8	18.3
2.6	14.2	I	5	N	1	—	1.3	28.4	24.5	37.3

Amt. of Fog. due to moon & clouds. 5.9 Amt. of Fog. due to chemicals. 7.0

Plate 291.

21.9	8.2	I	5	N	1	—	11.0	16.4	29.4	69.5
23.0	19.8	I	5	N	1	—	11.5	39.6	28.9	46.3
20.2	19.2	~~II?~~ I	7	N	3	—	10.1	38.4	30.3	47.5
20.3	23.1	IIa 2145 2		K=H	1	seen	10.2	46.2	30.2	39.7
17.5	17.0	I	4	N	1	—	8.8	34.0	31.6	51.9
17.4	14.2	III fc 2146	2	K=5H?	3	F? bright seen	8.7	28.4	31.7	57.5
16.7	13.6	I	6	N	2	—	8.4	27.2	32.0	58.7
15.4	9.4	I	7	N	2	—	7.7	18.8	32.7	67.1
15.5	14.8	I	5	N	1		7.8	29.6	32.6	56.3
15.1	13.3	III fc 2147 3		K=H	3	F bright. seen	7.6	26.6	32.8	59.3
14.9	17.5	I?	6	N	2	—	7.4	35.0	33.0	50.9
14.4	8.9	I	8	N	2	F —	7.2	17.8	33.2	68.1
13.6	9.1	III ?	3	K=H	1	H —	6.8	18.2	33.6	67.7

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Mean 1

½ cos δ	No.	R. A.	Dec.	Mag.	H	V	H'	Red. of D.M. Star to 1900	Cor.	
	Dm 563	3 41.1	+ 23 16	7.2	65.3	25.8		3 43.8 +23 25		
	~~556~~	~~3 40 20.6~~	~~+ 23~~	~~24.6~~	~~7.0~~	~~64.5~~	~~26.9~~	~~64.0~~	~~3 43.0 +23 24~~	
	Dm 717	3 38.7	+ 33 9	7.0	64.5	35.7		3 41.5 +33 18		
	~~Dm 538~~	~~3 38 48.2~~	~~+ 23~~	~~27.8~~	~~7.5~~	~~64.6~~	~~26.0~~	~~64.2~~	~~3 41.5 +23 37~~	
	~~535~~	~~3 38 42.5~~	~~+ 23~~	~~15.7~~	~~7.9~~	~~64.5~~	~~25.8~~	~~64.1~~		
									Bu Br.	
									5.7 5.8	34+1 +23.3
									6.2 6.3	3 38.8+ 33.7
0.0 4.8	615	3 39.2	+ 23 34	4.2	66.6	25.8	66.4	3 40.4 +23 39	4.7	4.8
0.0 4.1	625	3 42.0	+ 23 41	3.8	66.8	25.9	66.3	3 43.3 +23 45	4.0	4.1
	618	3 40.4	+ 23 44	3.0	66.8	25.7	66.5	3 41.6 +23 48	B B.	
0.0 4.8	608	3 37.8	+ 23 44	3.8	66.6	25.8	66.5	3 39.0 +23 48	4.7	4.8
0.1 5.2	594	3 34.8	+ 33 34	5.0	65.2	35.8	65.3	3 36.0 +33 39	5.0	5.1
0.1 5.7	556	3 20.8	+ 33 23	5.5	62.8	35.7	64.8	3 22.0 + 33 28	5.5	5.6
									3 19.2+33 18	
0.0 4.3	613	3 38.7	+ 24 0	4.0	66.5	25.8	66.3	3 39.9 +24 4	4.2	4.3
0.0 4.7	610	3 38.1	+ 24 5	4.4	66.5	25.9	66.3	3 39.3 +24 10	4.6	4.7
	Dm. 473	3 25 53.2	+ 23 59.2	6.7	64.1	25.8	64.8	3 25.5 +24 8	5.9	6.0
	~~Dm 635~~	~~3 15.4~~	~~+ 23~~	~~46~~	~~7.8~~	~~62.8~~	~~35.8~~	~~63.9~~	~~3 16.2 +33 36~~	6.
	524	3 11.3	+ 33 46	4.8	58.7	35.8	61.8		5.7	5.8
	Dm 546	3 36.5	+ 24 23	6.3	64.9	25.7		3 39.2+24 32	5.3	5.4
	~~Dm. 537~~	~~3 35 37.7~~	~~+ 24~~	~~36.5~~	~~7.3~~	~~63.5~~	~~25.9~~	~~64.4~~	~~3 37.1 +24 46~~	
										38.0+43.5
										33.7 +24.4

Mean 8

	~~Dm 340~~	~~2 10.1~~	~~+ 19~~	~~14~~	~~6.0~~	~~26.5~~	~~30.2~~	~~85.4~~	~~2 12.6 +19 27~~					
	~~339~~	~~2 11.6~~	~~+ 19~~	~~32~~	~~6.5~~	~~28.0~~	~~40.5~~	~~26.2~~	~~2 11.2 +19 45~~					
0.0 6.6	365	2 11.5	+ 19 21	5.6	27.9	30.4	27.1	2 12.2 +1926						
	392	1 46.9	+ 1.8 42	4.3	86.5	30.2		1 48.0 + 18 48						
	~~Dm. 353~~	~~1 44 22.0~~	~~+ 48~~	~~43.3~~	~~7.2~~	~~84.0~~	~~60.2~~	~~87.2~~	48.0 + 18 49					
	~~312~~	~~1 44 49.8~~	~~+ 28~~	~~52.5~~	~~3.9~~	~~84.4~~	~~40.4~~	~~85.5~~	~~1 47.3 +29 6~~					
														1455+18.6
	~~Dm 306~~	~~1 46.6~~	~~+ 20~~	~~6~~	~~2.5~~	~~85.0~~	~~30.2~~	~~85.5~~	~~1 49.1 +20 19~~					
0.0 5.4	295	1 48.0	+ 20 13	2.8	86.4	30.3	87.0	1 49.1 +20 19						
	Dm. 241	1 39.5	+ 10 8	6.8	85.7	20.3		1 41.9 +10 22						
	Dm. 362	1 34 43.0 +	40	15.6	7.5	83.9	50.5	87.8	1 40.3 +40 30					
	~~268~~	~~1 35 50.6~~	~~+ 30~~	~~13.0~~	~~9.1~~	~~82.0~~	~~40.4~~	~~84.2~~	~~1 39.3 +30 21~~					
	~~Dm 158~~	~~1 34.9 +~~	~~39~~	~~54~~	~~4.0~~	~~84.1~~	~~50.1~~	~~84.0~~	~~1 37.5 +40 8~~					
0.0 6.8	~~Dm. 261~~	~~1 51 40.8 +~~	~~11~~	~~36.1~~	~~6.2~~	~~85.7~~	~~20.4~~	~~85.0~~	~~1 54.1 +11 49~~					
	~~243~~	~~1 42 9.2 +~~	~~21~~	~~32.8~~	~~6.0~~	~~76.2~~	~~30.3~~	~~76.5~~						
	305	1 53.0	+ 11 43	6.2	87.0	20.5		1 54.1 +11 49						
	324	1 56.5	+ 41 45	2.1	84.9	50.5	84.5	1 57.7 +41 51						
	325													
0.0 6.4	332	1 59.8	+ 22 05	5.2	87.0	30.5	86.8	2 1.0 +22 11						
0.1 6.1	356	2 8.8	+ 32 49	5.2	27.6	40.6	25.8	2 10.0 +32 54						
0.1 6.4	323	1 56.1	+ 32 43	5.4	85.7	40.5	85.7	1 57.1 +32 49						
	~~Dm. 306~~	~~1 54.0~~	~~+ 23~~	~~47~~	~~2.0~~	~~85.6~~	~~30.4~~	~~85.3~~	~~1 55 +23~~					
	333	2 0.4	+ 22 54	2.0	27.0	30.5	27.3	2 1.5+ 23 0						
	303	1 51.3	+ 23 1	4.9	86.3	30.4	86.7	1 52.4 +23 7						
0.1 5.6	361	2 10.2	+ 33 17	4.2	28.0	40.5	26.0	2 11.3 +33 23						
	360	2 9.9	+ 33 42	5.0	28.1	40.5	26.1	2 10.8 +33 46						

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Plate 291

V.	H.	Type.	No. Lines.	K.	Focus.	Other Lines.	V	H	V	H
12.4	12.1	I	11	K=.2H	3	F	6.2	24.2	34.2	61.7
11.9	9.4	IIa? 2148	2	K=2H	1	seen.	6.0	18.8	34.4	67.1
10.7	13.4	I	5	N	1	F?	5.3	26.8	35.1	59.1
10.3	12.3	IIa 2149	3	K=.5H	2	F seen	5.2	24.6	35.2	61.3
10.3	14.8	IIa 2150	3	K=2H	1	F seen	5.2	29.6	35.2	56.3
9.0	8.9	I	4	N	1	–	4.5	17.8	35.9	68.1
8.3	22.3	I	6	N	1	F –	4.2	44.6	36.2	41.3
7.2	8.9	I	7	N	1	F –	3.6	17.8	36.8	68.1
6.6	12.6	I	9	K=2H	2	F –	3.3	25.2	37.1	60.7
6.6	17.8	III?	3	K=H	1	F –	3.3	25.6	37.1	60.3
6.2	19.0	I	5	N	1	–	3.1	38.0	37.3	47.9
4.8	8.1	I	6	N	2	–	2.4	16.2	38.0	69.7
III 6.3, 6.6.	4.5	22.7	IIIb 2151	3	K=2H	2	F seen	2.2	45.4	38.2	40.5
4.1	11.7	I	6	N	1	–	2.0	23.4	38.4	61.5
3.7	19.6	I	8	N	2	F –	1.8	39.2	38.6	46.7
3.0	19.4	IIa 2152	3	K=H	3	F seen	1.5	38.8	38.9	47.1
2.4	8.0	I	4	N	1	–	1.2	16.0	39.2	69.9

Amt. of Fog. due to many clouds. 7.1 Amt. of Fog. due to chemicals. 6.3

Plate 254.

22.9	6.3	I	7	N	4	–	11.4	12.6	14.7	59.7
19.5	15.2	I	6	K=2H	1	–	9.8	30.4	16.3	41.9
19.0	20.7	I	4	N	1	–	9.5	41.4	16.6	30.9
17.5	7.1	I	8	K=2H	3	–	8.8	14.2	17.3	58.1
III 5.8, 6.2,	16.5	18.6	IIIc 2153	3	K=H	2	F bright seen F	8.2	37.2	17.9	35.1
14.9	12.7	I	9	N	5			7.4	25.4	18.7	46.9
14.9	6.4	I	5	N	2			7.4	12.8	18.7	59.5
14.4	13.1	IIa 2154	3	K=1.2H	5	F seen		7.2	26.2	18.9	46.1
13.0	17.9	I?	3	N	1	–		6.5	35.8	19.6	36.5

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Mean 8

½ cos δ.	No.		R.A.		Dec.		Mag.	H	V	H′	Red. of D.M. Stars to 1900			Cor. Bv	Cor. Bp
0.1 5.3	336	2	2.4	+	34	25	3.1	26.6	40.6	25.6	2	3.5	+34 31	4.4	5.2
	358	2	8.9	+	24	30	5.6	27.7	30.5	26.7	2	10.0	+24 35	5.8	6.6
	~~Dm. 348~~	~~1~~	~~58~~	~~31.3~~	~~+~~	~~25~~	~~8.6~~	~~7.4~~	~~85.3~~	~~30.4~~	~~85.0~~				
	349	1	58	38.0	+	25	0.3	6.5	85.4	30.3	85.1	2	1.1	+25 13	5.7	6.5
	337	2	2.6	+	25	23	5.1	27.2	30.6	26.6	2	3.7	+25 28	5.4	6.2
	326	1	56.8	+	25	21	5.8	86.4	30.6	86.4	1	58.0	+25 28	5.8	6.6
	Dm. 589	2	9	53.7	+	45	48.2	6.3	27.7	50.3	24.1	2	12.8	+46 1	6.0	6.8
	~~449~~	~~2~~	~~9~~	~~28.1~~	~~+~~	~~35~~	~~54.4~~	~~7.0~~	~~27.3~~	~~40.4~~	~~25.0~~				
0.0 6.0	274	1	41.7		+	16	22	5.6	86.3	20.6		1	42.8	+16 27	5.2	6.0
	~~Dm. 291~~	~~1~~	~~37~~	~~28.9~~	~~+~~	~~26~~	~~13.7~~	~~8.9~~	~~82.1~~	~~30.4~~	~~83.6~~				
	306	1	36	12.0	+	36	13.4	6.8	80.8	40.4	83.4	1	38.8	+36 27		
0.2 6.0	364	2	11.5	+	46	49	5.2	29.3	50.4	26.5	2	12.8	+46 55	5.0	5.8
0.1 5.7	334	2	1.3	+	37	18	4.8	26.5	40.6	25.5	2	2.5	+37 23	4.8	5.6
	Dm. 299	1	50.8	+	17	14	5.2	76.4	20.5		1	51.9	+17 20	5.5	6.3
	~~336~~	~~2~~	~~0~~	~~49.6~~	~~+~~	~~27~~	~~8.1~~	~~9.0~~	~~26.4~~	~~30.4~~	~~25.9~~	~~2~~	~~3.4~~	~~+27 21~~	5.6	6.4
	~~299~~	~~1~~	~~42.0~~	~~+~~	~~17~~	~~18~~	~~6.0~~	~~86.6~~	~~20.4~~	~~83.6~~	~~1~~	~~42.8~~	~~+17 24~~		
0.0 6.6	~~395~~	~~1~~	~~43~~	~~57.8~~	~~+~~	~~37~~	~~16.0~~	~~4.8~~	~~82.0~~	~~40.4~~	~~83.6~~	~~1~~	~~46.0~~	~~+37 29~~		
	~~Dm. 405~~	~~1~~	~~46~~	~~5.8~~	~~+~~	~~37~~	~~18.8~~	~~8.4~~	~~84.1~~	~~40.4~~	~~80.6~~					
	~~296~~	~~1~~	~~44~~	~~59.4~~	~~+~~	~~27~~	~~17.7~~	~~8.3~~	~~83.0~~	~~30.4~~	~~83.9~~				5.8	6.6
0.1 6.1	369	2	12.0	+	28	5	5.3	28.2	30.5	26.5	2	13.2	+28 11	5.2	6.0
	291	1	30.6		+	48	1	3.7	76.0	50.3		1	31.8	+48 7	5.0	5.8
	~~Dm. 347~~	~~1~~	~~38~~	~~12.9~~	~~+~~	~~38~~	~~12.2~~	~~8.3~~	~~83.6~~	~~40.4~~	~~87.0~~					
	~~291~~	~~1~~	~~36~~	~~55.5~~	~~+~~	~~28~~	~~0.9~~	~~7.8~~	~~82.8~~	~~30.2~~	~~84.1~~	~~1~~	~~39.1~~	~~+28 15~~	5.4	6.2
0.1 6.3	340	2	3.6	+	38	29	5.6	27.0	40.5	26.6	2	4.8	+38 34	5.4	6.2
	292										1	48.0	+18 49		
0.0 4.8	291.2	1	46.9	+	18	42	4.3	86.1	20.5	86.6	1	48.0	+18 48	4.0	4.8
	289	1	46.2	+	29	0	3.6	85.1	30.5		1	47.3	+29 6		
	Dm. 312	1	44.8	+	28	52	3.9	83.6	30.4	84.6	1	43.5	+52 17	4.5	5.3
	365	2	11.5	+	19	21	5.6	27.5	20.6		2	12.6	+19 26		
	~~Dm. 387~~	~~2~~	~~9~~	~~41.6~~	~~+~~	~~29~~	~~10.9~~	~~7.5~~	~~25.7~~	~~30.4~~	~~23.9~~				
	~~521~~	~~2~~	~~10~~	~~42.8~~	~~+~~	~~39~~	~~10.2~~	~~6.8~~	~~26.7~~	~~40.4~~	~~23.5~~	2	13.4	+39 23		6.2

Mean 6

															Cor. By	Cor. Bp
	336	2	2.4	+	34	25	3.1	15.0	45.8	11.8	2	3.5	+34 31			
0.0 6.2	277	1	41.7	+	16	22	5.6	72.1	26.2	72.1	1	42.8	+16 27		5.6	6.2
	~~Dm. 397~~	~~1~~	~~27.6~~	~~+~~	~~46~~	~~34~~	~~7.1~~	~~69.0~~	~~56.1~~	~~72.5~~	~~1~~	~~38.8~~	~~+46 18~~			
0.1 6.7	243	1	27.3	+	36	37	5.9	68.7	46.1	70.9	1	28.5	+36 44		6.0	6.6
0.1 5.3	334	2	1.3	+	37	18	4.8	15.5	46.1	12.3	2	2.5	+37 23		4.6	5.2
	251	1	30.6		+	48	1	3.7	67.8	56.3		1	31.8	+48 7	4.9	5.5
	~~Dm. 485~~	~~1~~	~~34~~	~~16.0~~	~~+~~	~~47~~	~~47.1~~	~~7.3~~	~~71.5~~	~~56.0~~	~~73.8~~	~~1~~	~~37.1~~	~~+48 1~~		
	240	1	33	41.9	+	17	55.2	8.2	70.9	26.1	74.3	1	36.1	+18 9	5.4	6.0
	292										1	48.0	+18 47			
0.0 4.1	291.2	1	46.9	+	18	42	4.3	77.3	26.5	72.0	1	48.0	+18 48		3.5	4.1
	340	2	3.6	+	38	29	5.6	16.4	46.9	26.2	2	4.8	+38 34			
	~~Dm. 277~~	~~2~~	~~2.6~~	~~+~~	~~28~~	~~49~~	~~6.0~~	~~15.4~~	~~26.2~~	~~14.5~~	~~2~~	~~5.1~~	~~+19 2~~			
0.1 5.9	~~321~~	~~2~~	~~3.7~~	~~+~~	~~48~~	~~42~~	~~7.5~~	~~16.5~~	~~56.1~~	~~10.7~~	~~2~~	~~6.6~~	~~+48 55~~			
	~~341~~	~~2~~	~~4.0~~	~~+~~	~~18~~	~~56~~	~~5.9~~	~~16.8~~	~~26.3~~	~~15.6~~					5.2	5.8
	289	1	46.2		+	29	0	3.6	72.4	36.2		1	47.3	+29 6		
	~~Dm. 312~~	~~1~~	~~44~~	~~49.8~~	~~+~~	~~28~~	~~52.5~~	~~3.9~~	~~73.0~~	~~36.1~~	~~72.5~~	~~1~~	~~47.3~~	~~+29 6~~		
	263	1	34.8	+	29	27	6.1	70.6	35.9		1	36.0	+29 32			
	~~268~~	~~1~~	~~36.0~~	~~+~~	~~19~~	~~42~~	~~5.4~~	~~71.8~~	~~26.2~~	~~72.2~~					6.1	6.7

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Plate 254

V.	H.	Type.	No Lines.	K.	Focus.	Other Lines.	V	H	V	H
12.5	18.1	I	8	N	3	—	6.2	36.2	19.9	36.1
12.4	16.7	Ib 2155	9	N	4	seen	6.2	33.4	19.9	38.9
12.0	14.0	I	5	N	2	—	6.0	28.0	20.1	44.3
12.0	12.2	I	14	K=.226	5	—	6.0	24.4	20.1	47.9
10.8	19.5	IIa 2156	3	K=.12	3	F seen	5.4	39.0	20.7	33.3
10.7	13.8	I	5	K=.226	1	—	5.4	27.6	20.7	44.7
9.9	14.4	I	4	K=.226	1	—	5.0	28.8	21.1	43.5
9.5	10.3	I	4	N K=H	1	— —	4.8	20.6	21.3	51.7
9.6	12.1	I	4	N	1	—	4.8	24.2	21.3	48.1
8.9	9.4	III bc 2157	3	K=.3H	5	F bright seen	4.4	18.8	21.7	53.5
8.5	17.6	IIa? 2158	2	K=H	1	seen	4.2	35.2	21.9	37.1
8.0	6.7	I	6	N	2	F—	4.0	13.4	22.1	58.9
7.1	18.0	I	6	K=.226	1	—	3.6	36.0	22.5	36.3
6.9	9.0	I	7	K=.226	2	—	3.4	18.0	22.7	54.3
6.5	6.5	III bc 2159	3	K=.226?	5	F bright seen	3.2	13.0	22.9	59.3
6.4	10.8	I	7	K=H	2	—	3.2	21.6	22.9	50.7
4.6	11.2	I	7	N	2	—	2.3	22.4	23.8	49.9
3.5	14.3	I	5	N	1	—	1.8	28.6	24.3	43.7
3.0	17.8	I	6	N	1	—	1.5	35.6	24.6	36.7
3.3	6.5	I	8	N	5	—	1.6	13.0	24.5	58.7

Amt. of Fog. due to moon & clouds. 7.4 Amt. of Fog. due to chemicals. 7.3

Plate 287.

22.0	14.2	I	5	N	2	—	11.0	31.2	19.4	18.8
19.6	22.0	I	8	N	5	F?	9.8	44.0	20.6	6.0
19.4	21.4	I?	5	K=.226	1	—	9.7	42.4	20.7	4.6
18.9	15.4	I	4	N	1	—	9.4	28.0	21.0	22.0
16.9	22.0	IIa 2160	3	K=.226	3	F seen	8.4	15.8	22.0	34.2
16.1	21.6	IIa 2161	3	K=.226	3	F seen	8.0	16.4	22.4	33.6

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Mean 6

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. star to 1900	Cor.	B	Br.
259	1	33.6	+39 58	4.9	69.8	46.2	1 34.6 +40 4			
266	1	35.3	+39 57	5.5	71.6	66.2	73.0		4.7	5.3
269	1	36.1	+50 5	4.2	69.5	56.3	1 37.4 +50 11			
Dm. 378	1	30.1	+39 57	5.4	65.5	46.0	66.2			
268	1	36.0	+19 42	5.4	69.0	25.9	69.2		4.1	4.7
284	1	44.5	+50 12	5.4	72.5	56.2	71.8 1 45.7 +50 18		5.1	5.7
295	1	48.0	+20 13	2.8	72.4	26.2	72.0 1 49.1 +20 19		B	B.
248	1	29.7	+40 48	4.2	68.7	46.2	70.9 1 30.9 +40 54		4.7	5.8
Dm. 381	1	43.6	+50 46	6.6	71.2	56.2	1 46.4 +50 0			
Dm. 390	1	44	5.5 +40	44.9	8.0	71.7	56.1	71.1 1 46.6 +40 59		
295	1	42	40.5 +20	37.4	8.8	70.3	26.0	70.1	5.9	6.5
Dm. 416	1	41.7	+51 13	6.3	70.5	56.2	1 44.5 +51 27			
Dm. 287	1	40	6.9 +20	55.6	8.4	68.9	25.9	68.8		
316	1	44	3.0 +41	7.7	8.0	72.8	46.1	72.6 1 46.7 +41 22		
Dm. 483	1	54	+51	16	6.7	73.8	56.1	1 57.7 +51 29		
Dm. 350	1	51	53.1 +21	11.2	8.3	72.5	36.0	71.1		
264	1	51	21.0 +21	9.7	8.1	71.9	26.0	71.2 1 53.9 +21 22		
Dm. 374	1	47	46.2 +41	10.6	7.0	72.0	46.0	70.5 1 50.5 +41 24		
260	1	45	7.9 +21	18.0	8.3	69.3	26.1	68.8	6.4	7.0
324	1	56.5	+41 45	2.1	75.3	46.2	72.4 1 57.7 +41 51		3.6	4.2
325									3.9	4.5
261	1	34.5	+42 1	5.2	69.7	46.2	71.1 1 35.7 +42 7		5.7	6.3
332	1	59.8	+22 5	5.2	73.2	26.1	72.0 2 1.0 +22 21		4.8	5.4
258	1	33.5	+42 41	5.6	69.5	46.3	1 34.7 +42 47			
Dm. 360	1	35	25.2 +42	30.4	4.7	74.1	46.1	72.9 1 38.1 +42 44		
254	1	33	9.7 +22	17.9	7.0	69.2	26.9	69.7 1 35.7 +22 32	5.8	6.4
323	1	56.1	+32 43	5.4	74.1	36.1	72.2 1 57.1 +32 49		5.1	5.7
333	2	0.4	+22 54	2.0	13.4	26.1	12.1 2 1.5 +23 0		3.8	4.4
303	1	51.3	+23 1	4.9	72.9	26.2	1 52.4 +23 7		4.1	4.7
Dm. 288	1	49.9	+22 63	5.0	71.3	26.1	70.8 1 50.1 +22 8			
298	1	49.2	+22 59	5.9	70.8	26.2	70.1		4.7	5.3
314	1	54.4	+53 55	4.9	76.8	56.2	73.6 1 55.6 +54 1		4.7	5.3
283	1	44.1	+54 33	5.5	72.7	56.4	72.1 1 45.4 +54 39		5.3	5.9
264	1	35.1	+34 38	5.4	70.7	36.1	71.7 1 36.3 +34 44		5.8	6.4
336	2	2.4	+34 25	3.1	15.4	36.0	12.3 2 3.5 +34 31		3.6	4.2

Mean 9

										Cor.	B	Br.
554	3	20.7	+ 9	19	3.8	51.9	20.3	51.9	3 21.7 +9 23		4.9	5.8
551	3	19.4	+59	31	4.2	50.6	70.5	51.2				
Dm. 527	3	6.6	+20	30	4.5	50.6	40.3	51.5	3 9.2 +20 40			
496	3	0.4	+40	30	21.3	44.4	50.3	47.8	3 1.6 +40 34		3.8	4.7
Dm. 505	3	4.3	+30	32	7.2	46.7	40.2	48.4				
527	3	6.6	+20	30	4.5	49.0	30.2	49.5				
513	3	7.6	+50	29	5.2	50.0	60.2	51.5				
515	3	18.0	+ 20	361	4.7	50.4	30.3	51.2	3 9.2 +20 40		5.8	6.7
529	3	20	39.1 +41	29	8.8	48.7	50.4	48.2				
Dm. 548	3	20	23.8 +30	53.1	neb.	48.4	40.3	48.1	3 23.2 +21 2			
563	3	23.8	+ 10	56	5.1	51.8	20.3	51.3	3 24.9 +11 0		5.9	6.8
600	3	36.8	+31	54	4.0	52.6	40.3	50.5	3 38.0 +31 59		4.4	5.8
602	3	37.0	+42	12	4.0	53.4	50.2	49.9	3 38.4 +42 16		4.8	6.7

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Plate 287

V.	H.	Type.	No Lines.	K.	Focus.	Other Lines.	V	H	V	H
15.0	~~12.9~~ ~~16.9~~	I ✓	4 ✓	N ✓	1	–	7.5	33.8	22.9	16.2
14.1	~~15.2~~ ~~14.8~~ ~~11.8~~	I? ✓	14 ✓	K=H ✓	1	–	7.0	29.2	23.4	20.8
13.5	~~18.2~~ ~~21.0~~	I? ✓	24 ✓	K=H	1	–	6.8	36.4	23.6	13.6
13.6	~~6.8~~ ~~23.2~~	IIa? 2162 ✓	3 ✓	K=H	2	F very	6.8	17.6	23.6	32.4
13.5	~~6.0~~ ~~23.7~~	I? ✓	16? ✓	N ✓	2	–	6.8	13.2	23.6	36.8
13.2	~~21.5~~	I ✓	18 ✓	? ✓	3	F –	6.6	12.2	23.8	37.8
13.2	~~7.3~~ ~~24.5~~	I ✓	18 ✓	N ✓	3	–	6.6	14.6	23.8	35.4
13.1	~~5.3~~ ~~23.0~~	I	16 ✓	N	2	F? – ✓	6.6	10.6	23.8	39.4
12.7	~~6.8~~ ~~22.7~~	I ✓	18 ✓	N	3	F? –	6.4	13.6	24.0	36.4
12.5	~~6.4~~	I ✓	17 ✓	K=H ✓	2	–	6.2	14.2	24.2	35.8
12.0	~~21.2~~ ~~22.6~~	III ✓	3 ✓	K=H ✓	1	F –	6.0	42.4	24.4	7.6
11.6	~~9.2~~ ~~19.7~~	I ✓	15 ✓	K=H ✓	1	F –	5.8	14.4	24.6	35.6
12.8	~~12.1~~ ~~20.6~~	I ✓	14 ✓	N ✓	1	–	6.4	24.2	24.0	25.8
10.9	~~9.2~~ ~~16.9~~	I ✓	35 ✓	K=H ✓	1	F?	5.4	18.4	25.0	31.6
10.8	~~19.0~~ ~~21.8~~	I? ✓	12 ✓	K=H ✓	1	–	5.4	26.8	25.0	24.2
10.0	~~8.4~~ ~~21.1~~	I	15 ✓	K=H ✓	1	F – ✓	5.0	16.4	25.4	33.6
9.2	~~6.5~~ ~~21.7~~	III? ✓	2 ✓	K=H ✓	1	F? – ✓	4.6	17.4	25.8	32.6
8.6	~~8.1~~ ~~20.3~~	I ✓	15 ✓	N ✓	1	–	4.3	16.2	26.1	33.8
6.5	~~8.0~~ ~~20.7~~	I? ✓	14 ✓	K=H ✓	1	–	3.2	19.2	27.2	30.8
6.0	~~16.4~~	I ✓	10 ✓	N ✓	4	–	3.0	19.0	27.4	31.0
5.6	~~16.2~~	I? ✓	15 ✓	N ✓	1	–	2.8	26.4	27.6	23.6
5.8	~~16.1~~	I? ✓	15 ✓	N ✓	1	–	2.9	27.4	27.5	22.6
5.3	~~15.3~~	I ✓	17 ✓	N	2	F – ✓	2.6	23.4	27.8	26.6
3.6	~~13.4~~	I ✓	5 ✓	N ✓	1	–	1.8	29.0	28.6	21.0
3.3	~~15.7~~	I ✓	3 ✓	N ✓	1	–	1.6	32.2	28.8	17.8
2.8	~~14.1~~ ~~14.4~~	I ✓	16 ✓	N ✓	1	–	1.4	28.2	29.0	21.8
2.0	~~15.6~~ ~~9.0~~	IIa 2163 ✓	13 ✓	K=H ✓	5	F very	1.0	31.6	29.4	18.4
2.3	~~21.8~~	IIa 2164 ✓	2 ✓	K=H ✓	1	very	1.2	41.6	29.2	8.4

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Mean 9

No.	R.A.		Dec.		Mag.	H	V	H'	Red. of D.M. stars to 1900		Cor. Bn.	Cor. Br.	
~~Dm.636~~	~~3~~	~~15.4~~	~~+~~	~~33~~	~~1~~	~~5.6~~	~~49.2~~	~~40.5~~	~~49.7~~	~~3 18.2 +33 11~~			
~~623~~	~~3~~	~~14.4~~	~~+~~	~~32~~	~~48~~	~~7.3~~	~~48.7~~	~~40.3~~	~~49.7~~	~~3 17.2 +32 58~~			
532	3	13.5	+	42	54	4.8	47.3	50.4	48.3	3 14.7 +42 58		5.8	6.7
556	3	20.8	+	33	23	5.5	50.0	40.4	49.9	3 22.0 +33 28	~~3 19.2+33 18~~	5.9	6.8
524	3	11.3	+	33	46	4.8	47.7	40.6	48.7	3 12.5+33 51		5.9	6.8
594	3	34.8	+	33	34	5.0	52.4	40.4	50.3	3 36.0+33 39		5.0	5.9
615	3	39.2	+	23	34	4.2	52.4	30.4	51.0	3 40.4+23 39		4.5	5.4
618	3	40.4	+	23	44	3.0	52.6	30.3	51.1	3 41.6+23 48		4.0	4.9
608	3	37.8	+	23	44	3.8	52.4	30.3	51.1	3 39.0+23 48		4.2	5.1
625	3	42.0	+	23	41	3.8	52.6	30.3	50.9	3 43.3+23 45		4.7	5.6
613	3	38.7	+	24	0	4.0	52.3	30.4	50.8	3 39.9+24 4		4.3	5.2
610	3	38.1	+	24	5	4.4	52.3	30.3	50.9	3 39.3+24 10		4.4	5.3
~~Dm.626~~	~~3~~	~~5.6~~	~~+~~	~~34~~	~~15~~	~~8.3~~	~~48.0~~	~~40.2~~	~~50.2~~	~~3 8.4 +34 25~~		~~5.5~~	~~6.4~~
~~611~~	~~3~~	~~7.0~~	~~+~~	~~34~~	~~30~~	~~7.5~~	~~49.4~~	~~40.5~~	~~51.6~~	~~3 9.8 +34 40~~			
498	3	1.4	+	44	24	4.0	43.8	50.4	47.3	3 2.7 + 44 29		5.8	6.7
~~Dm.501~~	~~3~~	~~40.0~~	~~+~~	~~44~~	~~30~~	~~5.8~~	~~54.4~~	~~50.3~~	~~49.9~~	~~3 43.1 +44 39~~			
~~546~~	~~3~~	~~36.5~~	~~+~~	~~24~~	~~23~~	~~6.3~~	~~50.9~~	~~30.2~~	~~49.5~~	~~3 39.2 +24 34~~			
~~624~~	~~3~~	~~41.8~~	~~+~~	~~44~~	~~35~~	~~5.9~~	~~52.2~~	~~50.4~~	~~51.8~~			5.6	6.5
577	3	27.4	+	24	3	5.9	51.6	30.4	51.1	3 28.5+24 7		5.9	6.8
~~Dm.524~~	~~3~~	~~30 1.3~~	~~+~~	~~24~~	~~58.6~~	~~9.0~~	~~48.4~~	~~30.4~~	~~47.4~~				
529	3	32 8.6	+	24	51.0	6.7	50.5	30.2	49.5	3 34.8 +25 0		5.8	6.7
572	3	25.0	+	35	3	5.7	50.8	40.4	50.1	3 26.3+35 6	~~3 23.5+34 57~~	5.8	6.7
606	3	37.6	+	45	18	5.6	54.0	50.3	50.0	3 39.0+45 22		5.3	6.2
597	3	36.2	+	45	44	6.1	53.6	50.3	49.8	3 37.7 +45 48	~~3 34.6+45 39~~	5.9	6.8
599	3	36.8	+	36	5	5.6	53.0	40.4	50.3	3 38.1 +36 9	~~3 35.2+36 0~~	5.4	6.3
588	3	33.4	+	37	12	5.9	52.6	40.4	50.4	3 34.6 +37 16		5.4	6.3
591	3	34.4	+	47	24	3.2	53.4	50.4	49.9	3 35.8 +47 28		3.8	4.7
~~Dm.486~~	~~3~~	~~24 15.5~~	~~+~~	~~37~~	~~32.0~~	~~7.0~~	~~50.7~~	~~40.3~~	~~50.0~~				
~~483~~	~~3~~	~~22 51.8~~	~~+~~	~~37~~	~~34.4~~	~~6.8~~	~~49.4~~	~~40.4~~	~~48.7~~	~~3 25.9 +37 11~~		5.5	6.4
~~Dm.447~~	~~3~~	~~21.9~~	~~+~~	~~47~~	~~31~~	~~6.5~~	~~48.3~~	~~50.3~~	~~47.1~~	~~3 15.0 +47 41~~			
560	3	22.1	+	47	35	4.4	49.5	50.5	48.6	3 23.5+47 39		5.7	6.6
578	3	28.0	+	47	48	4.2	51.4	50.4	49.3	3 29.4 +47 51		4.7	5.6
~~Dm.738~~	~~3~~	~~21.1~~	~~+~~	~~48~~	~~41~~	~~6.5~~	~~50.1~~	~~50.5~~	~~49.7~~	~~3 24.3 +48 51~~			
~~737~~	~~3~~	~~21.7~~	~~+~~	~~38~~	~~39~~	~~7.0~~	~~50.7~~	~~40.5~~	~~50.5~~	~~3 24.6 +38 19~~			
552	3	19.6	+	48	39	5.0	48.6	50.4	48.2	3 20.9 + 48 43		5.1	6.0
537	3	14.7	+	48	47	5.2	46.9	50.4	47.7	3 16.1 +48 51		5.6	6.0
549	3	17.8	+	48	42	5.9	50.0	50.3	50.8				
~~Dm.570~~	~~3~~	~~22.1~~	~~+~~	~~29~~	~~7~~	~~8.5~~	~~50.3~~	~~30.5~~	~~50.1~~	~~3 24.8 +29 17~~			
~~542~~	~~3~~	~~21.5~~	~~+~~	~~48~~	~~54~~	~~7.0~~	~~49.7~~	~~50.2~~	~~49.1~~	~~3 24.1 +49 4~~			
555	3	20.8	+	49	7	4.8	49.0	50.3	48.4	3 22.2 + 49 10		5.1	6.0
~~Dm.544~~	~~3~~	~~18.5~~	~~+~~	~~49~~	~~21~~	~~6.5~~	~~50.1~~	~~50.4~~	~~50.7~~	~~3 20.1 +49 31~~			
541	3	15.8	+	49	26	1.9	47.4	50.4	47.8	3 17.1 + 49 30		~~4.7~~	~~5.6~~
~~Dm.876~~	~~3~~	~~3.7~~	~~+~~	~~49~~	~~2~~	~~7.1~~	~~45.3~~	~~50.2~~	~~49.2~~	~~3 1.8 +49 12~~			
503	3	3.6	+	39	9	4.7	45.2	40.4	47.9			~~6.4~~	
495	3	0.4	+	49	7	4.1	42.0	50.4	46.0	3 1.8+49 14			

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Aust. of Fog. due to moon & clouds. 7.9 Aust. of Fog. due to chemicals. 8.0

July 3rd ~ 1886

Plate 172.

	V.	H.	Type.	No. lines.	K.	Focus.	Other lines.	V	H	V	H
	16.0	13.0	I	45	N	1	—	8.0	26.0	34.8	28.7
III? 5.8, 6.2.	16.0	14.5	III bc?	3	K=2.0 H?	2	F bright Calm	8.0	29.0	34.8	25.7
	16.3	16.9	II a 2166	3	K = H	2	F Clear	8.2	33.8	34.6	20.9
	15.7	10.6	I 2166a	6	N	1	—	7.8	21.2	35.0	33.5
	15.4	23.9	III b?	3	K=H	2	F Clear	7.7	47.8	35.1	6.9
	14.4	22.9	I ?	4	K=2H	1	—	7.2	45.8	35.6	8.9
	13.1	16.0	III b 2167	3	K=H	1	Clear	6.6	32.0	36.2	22.7
	12.6	6.5	I	5	K=H	1	—	6.3	13.0	36.5	41.7
	12.4	20.1	I	7	K=2H	3	F —	6.2	40.2	36.6	14.5
	12.5	23.0	I	8	N	3	—	6.2	46.0	36.6	8.7
	12.0	13.8	I	7	N	1	—	6.0	27.6	36.8	27.1
	11.9	12.4	I	4	K=2H	1	—	6.0	24.8	36.8	29.9
	11.0	9.6	I	6	K=H	1	—	5.5	19.2	37.3	35.5
	11.0	18.0	I	5	N	1	—	5.5	36.0	37.3	18.7
	10.9	23.0	I	4	K=H	1	—	5.4	46.0	37.4	8.7
	10.8	20.6	I ?	4	K=H ?	1	—	5.4	41.2	37.4	13.5
	10.0	15.3	I	5	N	1	—	5.0	30.6	37.8	24.1
III? 5.6, 5.9.	10.0	13.4	III bc 2168	3	K=4	2	F bright Clear	5.0	26.8	37.8	27.9
	8.5	17.0	II d? 2169	3	K=H	1	F Clear	4.2	34.0	38.6	20.7
	6.5	23.4	III?	2	K=H?	1	—	3.2	46.8	39.6	7.9
	5.7	11.7	I ?	8	N	3	F —	2.8	23.4	40.0	31.3
	5.3	11.5	I	8	K=H	2	—	2.6	23.0	40.2	31.4
	5.1	9.0	I	5	N	1	—	2.6	18.0	40.2	36.7
	3.7	13.0	II a 2170	3	K = H	2	Clear	1.8	26.0	41.0	28.7

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Meang

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cov.	Br.
Dup 341	1 29.8	+ 44 40	7.0	55.8	52.7		1 32.5 +44 54		
~~Dm 344~~	~~1 30 37.3 + 54~~	~~53.7 8.3~~		~~56.6~~	~~62.9~~	~~54.9~~			
~~280~~	~~1 28 24.4 + 34~~	~~53.1 8.1~~		~~54.4~~	~~42.9~~	~~53.7~~	~~1 31.0 +35 7~~		
239	1 25.1 + 14	44 3.7		54.1	22.7	54.1	1 26.2 + 14 50	5.9	6.8
228	1 20.5 + 44	47 4.8		54.3	53.0	55.4	1 21.6 + 44 54	5.1	6.0
264	1 35.1 + 34	38 5.4		56.3	42.4		1 36.3 + 34 44	5.3	6.2
~~262~~	~~1 34.6 + 25~~	~~8 6.1~~		~~55.8~~	~~32.9~~	~~55.0~~		4.9	5.8
185	1 3.0 + 34	59 2.2		50.8	42.7	54.1	1 4.1 + 35 5	5.5	6.4
202	1 7.8 + 15	30 5.9		53.6	22.7	54.3	1 8.8 + 15 36	4.3	5.2
234	1 22.9 + 46	23 5.2		54.9	53.0		1 24.1 + 46 30	4.7	5.6
~~Dm 370~~	~~1 21 26.6 + 46~~	~~15 5.8~~		~~53.4~~	~~52.9~~	~~54.0~~	~~1 21.1 +46 30~~	5.7	6.6
~~259~~	~~1 20 8.3 + 36~~	~~19.1 9.3~~		~~54.1~~	~~42.9~~	~~52.5~~		5.9	6.8
271	1 41.7 + 16	32 5.6		54.7	22.7		1 42.8 +16 27	5.7	6.6
~~Dm 338~~	~~1 44.7 + 36~~	~~36 7.2~~		~~57.7~~	~~42.9~~	~~54.2~~	~~1 47.3 +36 49~~		
~~294~~	~~1 49.0 + 36~~	~~40 5.7~~		~~62.0~~	~~43.0~~	~~58.6~~			
209	1 12.9 + 26	38 4.4		53.1	32.8	54.1	1 13.9 + 26 45	4.7	5.6
182	1 2.5 + 46	36 4.3		48.5	52.8	53.4	1 3.7 + 46 42	4.3	5.2
243	1 27.3 + 36	37 5.9		54.9	42.6	54.4	1 28.5 + 36 44	5.9	6.8
247	1 29.4 + 16	49 5.9		54.2	22.8	53.9	1 30.5 + 16 55	5.8	6.7
279	1 42.6 + 47	18 6.6		61.2	52.8		1 43.5 + 47 24		
~~Dm 302~~	~~1 39.0 + 47~~	~~28 8.3~~		~~58.2~~	~~53.0~~	~~54.7~~	~~1 41.8 +47 42~~		
276	1 41.6 + 37	21 6.1		60.8	42.9	58.6		5.5	6.4
216	1 16.8 + 37	6 5.5		52.8	42.6	54.0	1 17.9 + 37 12	5.3	6.2
193	1 4.4 + 37	5 5.8		50.4	42.5	53.7	1 5.5 + 37 12	5.5	6.4
~~Dm 375~~	~~1 11.4 + 47~~	~~24 7.9~~		~~52.6~~	~~52.8~~	~~54.2~~	~~1 14.0 +47 36~~		
~~Dm 189~~	~~1 12.6 + 17~~	~~21 8.2~~		~~53.8~~	~~22.8~~	~~54.4~~	~~1 15.0 +17 35~~	5.9	6.8
208	1 12.6 + 37	36 6.2		53.8	63.0	59.0			
~~Dm 184~~	~~1 11.7 + 17~~	~~22 9.3~~		~~58.6~~	~~22.8~~	~~59.4~~	~~1 14.1 +17 36~~		
Dm 357	1 4.9 + 47	19 6.5		49.1	52.7	49.4	1 10.5 + 47 33		
235	1 23.4 + 17	44 6.0		54.0	22.7	54.0	1 24.5 + 17 51	5.6	6.5
467	1 22 8.4 + 47	53.5 36		55.9	52.9	54.9	1 31.8 +47 27	4.5	5.4
~~Dm 294~~	~~1 21 0.5 + 17~~	~~42.8 6.3~~		~~53.8~~	~~22.7~~	~~53.6~~		4.9	5.8
~~324~~	~~1 28 25.9 + 37~~	~~42.4 7.8~~		~~55.2~~	~~42.7~~	~~54.6~~			
226	1 19.8 + 18	33 5.2		53.8	22.8	54.0	1 20.9 + 18 39	5.6	6.5
197	1 5.1 + 29	27 4.7		51.9	32.6		1 6.1 + 29 33	5.9	6.8
~~Dm 242~~	~~1 4 41.4 + 19~~	~~39.0 6.6~~		~~54.5~~	~~22.8~~	~~55.5~~	~~1 10.1 +19 53~~	6.1	7.0
~~Dm 444~~	~~1 0 48.6 + 47~~	~~5.8 4.1~~		~~55.0~~	~~52.8~~	~~55.6~~	~~1 37.4 +50 12~~		
~~278~~	~~1 32.1 + 33~~	~~51 5.4~~		~~55.5~~	~~42.6~~	~~54.0~~	~~1 34.7 +40 5~~		
209	1 36.1 + 30	5 4.2		59.5	52.9	57.1	1 37.4 + 50 12	3.9	4.8
259	1 35.6 + 39	58 4.9		56.6	42.6		1 34.6 + 40 4		
~~Dm 376~~	~~1 31 35.0 + 39~~	~~56.3 6.7~~		~~55.6~~	~~42.5~~	~~54.0~~	~~1 34.2 +40 10~~	4.7	5.6
~~353~~	~~1 34 50.1 + 40~~	~~14.6 8.6~~		~~57.8~~	~~42.8~~	~~56.2~~			
~~Dm 278~~	~~1 38.4 + 30~~	~~5 8.3~~		~~56.4~~	~~32.7~~	~~54.3~~	~~1 40.9 +30 19~~		
284	1 44.5 + 50	12 5.4		62.5	52.8	58.2	1 45.7 + 50 18	5.3	6.2
248	1 29.7 + 40	48 4.2		55.7	42.6	54.7	1 30.9 + 40 54	4.7	5.6

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Ant. of Fog. due to moon & clouds. 7.0 Ant. of Fog. due to chemicals. 7.0

Hard to measure.

July 3rd 1886.

Plate 198.

V	H	Type	No. Lines	K	Focus	Other lines.	V	H	V	H
21.5	10.8	I	10	K=.2 H6	3	F?	10.8	21.6	37.8	49.3
20.0	11.4	I	5	N	1	—	10.0	22.8	38.6	48.1
19.8	18.5	II a 2171	3	K=H	1	Focus	9.9	37.0	38.7	33.9
18.8	22.1	I	5	K=H6	1	—	9.4	44.2	39.2	26.7
III? 5.5, 5.8.	16.8	18.1	III b 2172	3	K=H?	2	F bright.	8.4	36.2	40.2	34.7
	16.4	13.5	IV b 2173	10	N	3	F? Focus	8.2	27.0	40.4	43.9
	15.6	8.5	I	5	N	1	—	7.8	17.0	40.8	53.9
	15.7	9.6	II a? 2174	2	K=H6	1	Focus	7.8	19.2	40.8	51.7
	15.5	6.2	I	5	N	2	—	7.8	12.4	40.8	58.5
	14.7	8.0	I	6	N	2	F?	7.4	16.0	41.2	54.9
	11.8	10.2	III b? 2175	3	K=H	2	F Focus	5.9	20.4	42.7	50.5
	11.5	19.8	I	5	N	1	—	5.8	39.6	42.8	31.3
	11.1	18.9	I b? 2176	11	N	3	Focus	5.6	37.8	43.0	33.1
	10.5	6.9	I	6	N	2	—	5.2	13.8	43.4	57.1
	10.1	14.7	III b 2177	2	K=1.2 H	2	Focus	5.0	29.4	43.6	41.5
	10.5	20.2	I?	4	K=H6	1	—	5.2	40.4	43.4	30.5
	9.7	21.2	I	7	N	2	—	4.8	42.4	43.8	28.5
	9.5	17.3	I	4	N	1	—	4.8	34.6	43.8	36.3
	9.0	14.8	I	6	N	2	—	4.5	29.6	44.1	41.3
	8.7	13.3	I	5	N	2	F?	4.4	26.6	44.2	443
	9.1	9.8	I	7	N	2	—	4.6	19.6	44.0	51.3
	8.1	20.0	I	5	N	1	—	4.0	40.0	44.6	30.9
	4.7	14.1	I?	5	K=H6	1	—	2.4	28.2	46.2	42.7
	4.6	15.6	I	8	K=.5 H6?	2	F	2.3	31.2	46.3	39.7
	3.9	6.8	I	9	N	2	F	2.0	13.6	46.6	57.3
	4.2	10.8	I	3	N	1	—	2.1	21.6	46.5	49.3
	3.4	13.6	I?	4	K=H6	1	—	1.7	27.2	46.9	43.7
	3.0	15.3	I b 2178	6	N	1	—	1.5	30.6	47.1	40.3
	2.2	15.2	I b	4	N	2	Focus	1.1	30.4	47.5	40.5

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Mean 6

½cosδ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Rv	Bv.
0.1 5.0	148	0 50.1	+ 37 51	3.9	71.7	48.6	70.0	0 51.1 + 37 57	4.3	4.9
	140	0 48.2	+ 18 32	5.8	66.1	28.5	69.2	0 49.3 + 18 38		
Dm.	122	0 46.4	+ 18 24	5.8	66.1	28.4	69.2	0 49.3 + 18 34		
	149	0 50.1	+ 38 42	6.8	72.9	48.7	71.4	0 52.6 + 38 57		
0.0 6.8	143	0 49.5	+ 38 31	4.9	72.3	48.5	68.9		6.2	6.8
	80	0 33.3	+ 38 39	3.5	70.3	48.5	71.6	0 35.7 + 38 51		
Dm.	122	0 31.2	+ 48 33	6.9	68.2	48.5	70.6	0 33.7 + 48 48		
	96	0 34.6	+ 38 48	5.6	71.6	48.7	73.1		5.8	6.2
	90	0 32.2	+ 28 40	4.6	69.2	38.6		0 33.2 + 28 47		
	65	0 23.8	+ 29 5	5.3	68.0	38.5	69.8	0 24.8 + 29 12	5.6	6.2
									4.7	6.3
	92	0 32.9	+ 30 12	3.4	69.1	38.6	69.9	0 33.9 + 30 19	5.1	5.7
0.1 5.0	127	0 43.2	+ 40 26	4.4	70.2	48.6	69.5	0 44.3 + 40 32	4.3	4.9
0.2 6.9	160	0 56.2	+ 40 41	5.9	73.2	48.7	70.0	0 57.3 + 40 48	5.9	6.5
	129	0 49 45.1	+ 20		69.0	28.5	68.2			
Dm.	81	0 50 36.4	+ 20	6.5	69.8	28.4	69.0	0 53.0 + 20 52	6.3	6.9
	201	0 51 34.5	+ 40	8.9	76.8	48.6	68.1			
0.0 5.6	169-70	0 59.3	+ 20 {5.0 / 4.9}	5.0	71.7	28.6	70.6	0 0.4 + 20 56	5.0	5.6
0.1 5.8	161	0 56.2	+ 31 10	5.6	72.2	38.6	70.2	0 57.3 + 31 16	5.1	5.7
								51.9 + 23 52	5.4	6.0
	150	0 50.8	+ 22 47	4.6	71.2	28.7	70.5	0 51.9 + 23 52	5.7	6.3
Dm.	97	0 24.4	+ 42 42	6.5	64.3	48.5	70.0	0 27.1 + 42 57		
Dm.	115	0 27.6	+ 52 41	7.5	67.2	58.8	71.4	0 30.1 + 52 50		
	70	0 25.1	+ 32 56	6.2	64.7	38.7	66.2		6.1	6.7
0.1 5.8	83	0 30.5	+ 33 4	4.4	68.3	38.7	69.5	0 31.5 + 33 11	4.1	4.7
0.2 6.0	176	1 1.1	+ 43 18	5.3	14.9	48.5	10.2	1 2.2 + 43 24	5.2	5.8
									5.0	5.6
	119	0 41.0	+ 23 37	4.4	70.0	28.6	70.0	0 42.0 + 23 43	5.4	6.0
Dm.	98	0 26.2	+ 53 16	7.3	66.6	58.5	70.8	0 28.7 + 53 31		
	100	0 27.5	+ 53 24	7.1	67.9	58.6	72.1	0 30.0 + 53 39		
	117	0 28.6	+ 53 30	5.0	69.9	58.7	74.0		6.1	6.7
Dm.	97	0 23.4	+ 43 9	6.7	63.8	48.4		0 25.8 + 43 24		
	59	0 21.8	+ 43 44	5.2	64.2	48.5		0 22.9 + 43 51		
0.2 5.8	69	0 25.1	+ 53 50	4.8	67.5	58.6	72.6		5.0	5.6
0.0 6.5	99	0 35.3	+ 23 59	6.0	69.9	28.8	70.3	0 36.3 + 24 5	5.9	6.5
									5.4	6.0
0.2 6.2	113	0 39.6	+ 44 11	5.9	69.2	48.7	69.0	0 40.7 + 44 18	5.5	6.1
0.2 6.3	133	0 43.6	+ 44 20	5.9	70.2	48.7	69.2	0 44.7 + 44 27	5.3	5.9
0.2 6.1	159	0 53.4	+ 44 3	5.7	73.0	48.6	70.0	0 54.4 + 44 10		
	84	0 30.6	+ 14 34	5.8	70.6	18.6		0 31.6 + 14 41		
0.0 6.0	87	0 31.0	+ 34 44	5.6	71.0	38.7	72.7		5.4	6.0
	126	0 42.7	+ 16 18	5.3	70.9	18.7		0 43.7 + 16 24		
Dm.	110	0 43 28.2	+ 26 14.2	4.9	71.6	38.6	38.3			
	189	0 44 48.2	+ 46 19.5	7.9	73.0	48.7	72.5	0 47.3 + 46 34	5.7	6.3
Dm.	146	0 40.0	+ 26 19	7.6	71.2	28.6	71.3	0 42.4 + 26 34		
	165	0 38.6	+ 46 7	5.0	69.8	48.4	70.2	0 41.1 + 46 22		
0.2 5.8	102	0 36.8	+ 46 22	5.0	68.0	48.7	68.3	0 37.9 + 46 29	5.0	5.6
0.2 5.5	18	1 2.5	+ 46 36	4.3	16.1	48.6	11.0	1 3.7 + 46 42	4.7	5.3
0.1 6.9	144	0 49.5	+ 26 33	6.0	71.1	28.7	70.2	0 50.6 + 26 40	6.2	6.8
	176	0 41 32.1	+ 46 58.3	6.5	68.7	48.7	67.8	0 44.0 + 47 13		
Dm.	163	0 43 54.4	+ 46 49.0	8.5	71.1	48.5	76.3			
	138	0 44 24.4	+ 26 58.4	5.2	71.3	28.7	71.0		5.7	6.3
	105	0 37 8	+ 47 12	5.5				0 38.8 + 47 19		
Dm.	114	0 34 35.8	+ 27 10.0	8.3	68.2	28.7	68.2			
	201	0 39 14.6	+ 47 1.0	7.9	69.8	48.5	70.0	0 41.6 + 47 16	5.7	6.3
0.2 5.6	102	0 38.0	+ 47 38	4.6	68.4	48.7	68.6	0 39.2 + 47 24	4.7	5.3

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Dark Plate. Very hard & measll

Anct. of Fog. due to moon & clouds. 5.2 Anct. of Fog. due to chemicals. 7.1

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Plate 312.

V	H.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
22.7	19.2	I	25	N	2	—	11.4	38.4	24.3	47.9
20.5	16.8	I	25	N	1	—	10.2	33.6	25.5	52.7
18.2	16.9	I	11	K=.26	3	F	9.1	33.8	26.6	52.5
17.5	8.1	I	16	N	2	F	8.8	16.2	26.9	70.1
12.0	7.2	I	25	N	2	—	6.0	14.4	29.7	71.9
11.7	9.9	I	14	N	1	—	5.8	19.8	29.9	66.5
10.5	21.0	I	16	K=.26	1	F?	5.2	42.0	30.5	44.3
9.9	14.8	III?	12	K=.26	2	F?	5.0	29.6	30.7	56.7
6.9	7.3	II a? 2179	13	K=.26	2	F. cem	3.4	14.6	32.3	71.7
3.0	19.4	I	17	K=.526	2	—	1.5	38.8	34.2	47.5

III ? 6.6, 6.8.

Anct. of Fog. due to moon & clouds. 7.3 Anct. of Fog. due to chemicals. 7.6 7.1

Plate 343

21.3	12.5	I	17	K=H	2	—	10.6	25.0	22.2	20.9
21.5	13.9	I	4	N	1	—	10.8	27.8	22.0	18.1
21.1	16.3	I?	9	K=H	3	—	10.6	32.6	22.2	13.3
21.0	10.2	I	11	N?	5	F	10.5	20.4	22.3	25.5
19.0	14.8	I	14	N	1	—	9.5	29.6	23.3	16.3
16.4	7.6	I 2180	8	N	1.1	—	8.2	15.2	24.6	30.7
15.6	8.5	II a?	13	K=.26	2	F. cem	7.8	17.0	25.0	28.9
15.0	14.8	III?	13	K=.26	1	F	7.5	29.6	25.3	16.3
14.8	12.1	I?	14	N	1.1	—	7.4	24.2	25.4	21.7
14.5	15.9	I?	14	K=.26	1	—	7.2	31.8	25.6	14.1
14.0	14.2	I	14	N	1	—	7.0	28.4	25.8	17.5
13.4	9.9	I	15	N	1	—	6.7	19.8	26.1	26.1
12.2	17.3	I	11	K=.126	3	F	6.1	34.6	26.7	11.8
11.5	20.3	I	15	N	1	—	5.8	40.6	27.0	5.3
11.3	9.3	III b 2181	13	K=.26	1	F. cem	5.6	18.6	27.2	27.3
10.6	19.8	II a 2182	2	K=K	1	F? cem	5.3	35.6	27.5	10.3
12.5	10.7	III	2	N=H	1	—	6.3	21.4	26.6	24.5

III 6.1, 6.4, 7.2.

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Mean 20

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	cor.	Bu	By
1295	6 44.9	+ 34 6	3.7	83.3	45.5		6 46.2 + 34 5			
1310	6 48.9	+ 45 17	4.7	82.5	55.5					
1328	6 55.4	+ 15 30	5.9	89.0	25.4					
1249	6 30.8	+ 16 30	2.5	83.7	35.4					
1203	6 45 49.2	+ 46 27.9	6.3	79.6	56.6	80.2				
1373	7 11.2	+ 16 45	3.6	27.4	25.6		7 12.4 + 16 43			
1382	7 14.0	+ 36 59	5.3	30.2	35.8					
1392	7 17.7	+ 49 27	4.6	32.1	55.4	26.6	7 19.2 + 49 25			
1367	7 9.4	+ 49 41	4.8	29.2	55.5	25.6	7 10.9 + 49 38			
1216	6 21.8	+ 20 17	4.0	83.8	25.5		6 23.1 + 20 17			
1334	6 57.0	+ 20 45	4.0	86.6	25.8	86.6	6 58.2 + 20 43			
1377	7 13.0	+ 22 12	3.6	27.6	25.6	26.4	7 14.2 + 22 10			
1295	6 44.9	+ 34 6	3.7	83.7	35.6	85.2	6 46.2 + 34 5			

Mean 9

1405	7 21.4	+ 32 1	4.2	46.4	42.6	45.7	7 22.7 + 31 59			
1402	7 20.6	+ 21 41	5.3	48.4	32.5	46.4				
1393	7 18.2	+ 11 54	5.4	46.0	22.7		7 19.4 + 11 53			
1377	7 13.0	+ 22 12	3.6	45.6	32.8	45.8	7 14.2 + 22 10			
1423-4 1424	7 26.9	+ 32 9	1.6	47.3	42.7	45.9	7 28.2 + 32 7			
1388	7 16.3	+ 23 11	6.1	45.9	32.7	45.9	7 17.5 + 23 9			
1451	7 33.2	+ 14 29	5.9	48.7	22.6	46.0	7 36.4 + 14 26			
1436	7 31.3	+ 34 52	4.7	48.3	42.7	46.0	7 32.7 + 34 49			
1387	7 16.2	+ 25 17	5.0	45.8	32.8	45.8	7 17.4 + 25 15			
1579	7 20 34.4	+ 15 24.6	7.0	44.8	22.8	44.5				
1376	7 12.6	+ 45 27	5.6	44.4	52.6		7 14.1 + 45 24			
1378	7 13.1	+ 55 30	5.2	44.9	62.9	45.9				
1564	7 16 13.4	+ 15 47.6	7.0		22.8	44.5	7 15.8 + 15 43			
1421	7 26.8	+ 16 5	5.0	46.6	22.8	46.1	7 27.9 + 16 3			
1373	7 11.2	+ 16 45	3.6	45.8	22.9	46.0	7 12.4 + 16 43			
1351	7 3.9	+ 27 4	5.5	44.5	32.9	45.7	7 5.2 + 27 2			
1430	7 28.5	+ 27 10	4.2	47.1	32.8	45.8	7 29.8 + 27 7			
1363	7 7.0	+ 47 28	5.6	43.6	52.8	45.4	7 8.4 + 47 25			
1427	7 27.9	+ 46 27	5.8	48.3	52.6		7 29.3 + 46 24			

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Plate 343.

V	16	Type	Lines	K	Faint Lines.		V	H	V	H
10.0	14.4	I	5	K=26	1	—	5.0	28.8	27.8	17.1
9.7	13.9	III b? 2183	3	K=1.5H	2	F 2cm	4.8	27.8	28.0	18.1
9.4	12.1	III	2	K=26	1	F?	4.7	24.2	28.1	21.7
9.0	12.3	I 2184	6	K=2.0H6?	2	F	4.5	24.6	28.3	21.3
8.9	5.2	II a?	3	K	5	F 2cm	4.4	10.4	28.4	35.5
8.7	13.4	I	6	N	2	—	4.4	26.8	28.4	19.1
7.4	10.5	I	5	N	1	—	3.7	21.0	29.1	24.9
7.3	11.8	I	5	K=26	1	—	3.6	23.6	29.2	22.3
7.1	6.2	III	2	K=26	1	—	3.6	12.4	29.2	33.5
6.7	14.2	I	9	N	3	FN	3.4	28.4	29.4	17.5
6.2	16.9	I	6	N	2	F?	3.1	33.8	29.7	12.1
3.9	8.7	I	6	K=26	1	—	2.0	17.4	30.8	28.5
3.5	17.2	I	4	K=26	1	—	1.8	34.4	31.0	11.5
3.5	17.3	I	4	N	1	—	1.8	34.6	31.0	11.3
2.3	12.9	I ?	3	N	1	—	1.2	25.8	31.6	20.1

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals.

7.6 Plate 415 7.2

22.5	20.3	I	4	K=26	1	—	11.2	40.6	26.4	27.3
20.6	11.3	I	6	N	2	—	10.3	22.6	27.3	45.3
20.6	19.2	III	2	K=26	1	—	10.3	38.4	27.3	29.5
18.8	23.7	III b 2185	3	K=26	1	F 2cm	9.4	47.4	28.2	40.5
18.4	15.0	III b? 2186	3	K=1.5H	5	F bright Letra	9.2	30.0	28.4	37.9
18.1	22.1	I	5	K=.5H6	2	—	9.0	44.2	28.6	23.7
18.0	21.0	I	6?	K=26	2	—	9.0	42.0	28.6	25.9
17.8	13.0	I	3	N	1	—	8.9	26.0	28.7	41.9
17.0	18.0	I	5	K=26	1	—	8.5	36.0	29.1	31.9
16.6	16.0	III b? 2187	3	K=H	2	F 2cm	8.3	32.0	29.3	35.9
16.0	21.7	I	8	N	3	F	8.0	43.4	29.6	24.5
15.1	20.6	II a? 2188	3	K=26	1	F 2cm	7.6	41.2	30.0	26.7
18.4	7.0	III ?	2	K=H	1	—	9.2	14.0	28.4	53.9

III 2 5.5, 5.8

III 2 6.6, 6.8.

III 2 6.2, 6.4

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Mean 9

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor.	Br.	Br.
~~Dm. 1561~~	~~7 15 43.2 + 17 41.3 7.4~~			~~44.5 22.7 44.5~~						
1374	7 15 31.5 + 27 55.0 6.9			44.3	32.9	44.1	7 18.3+27 50		5.6	6.5
1394	7 18.3 + 28 2 4.0			46.1	32.8	45.8	7 19.5+28 0		4.6	5.5
1412	7 22.4 + 28 10 5.1			46.6	32.9	45.9	7 23.6+28 7		5.6	6.5
1409	7 21.9 + 28 23 5.1			46.5	32.9	45.9	7 23.1+28 19		5.6	6.5
1459	7 38.0 + 28 19 1.1			48.4	32.7	46.0	7 39.2+28 16		3.5	4.4
1401	7 20.0 + 48 26 5.5			46.8	52.8	45.7	7 21.5+48 24		4.9	5.8
~~1949~~	~~7 27 59.0+ 39 11.2 7.3~~			~~49.0 42.9 47.0~~			~~7 31.1+39 5~~			
Dm. 1653	7 27.1 + 49 5 6.4			48.1	52.8	44.9	7 30.5+48 59		5.6	6.5
~~Dm. 1648~~	~~7 21 58.1+ 29 4.6 8.5~~			~~43.6 32.7 44.8~~						
1958	7 22 5.4+ 39 11.0 7.0			45.7	42.8	44.3	7 25.2+39 6		5.9	6.8
1453	7 35.8 + 29 10 4.1			48.2	32.8	45.9	7 37.6+29 7		5.3	6.4
1392	7 17.7 + 49 27 4.6			46.1	52.8	45.6	7 19.2+49 25		4.0	4.9
1367	7 9.4 + 49 41 4.8			43.2	52.8	44.5	7 10.9+49 38		4.4	5.3
~~Dm. 1460~~	~~7 33.1 + 50 46 5.8~~			~~50.5 52.8 46.9~~			~~7 36.6+50 40~~			
1448	7 35.0 + 50 42 5.2			52.4	52.7	47.9	7 36.5+50 40		4.8	5.7
1371	7 10.4 + 31 11 5.9			44.4	33.0	45.0	7 11.7+31 9		5.7	6.6
1369	7 9.7 + 41 6 5.8			44.3	42.9	45.4	7 11.1+41 4		5.8	6.7
1402	7 20.6 + 21 41 5.3			46.4	22.9	46.0	7 21.8+21 39			6.6

Mean 8

~~Dm. 1286~~	~~7 26.0 + 46 30 6.0~~			~~66.6 59.7 69.9~~			~~7 29.3+46 24~~			
~~1282~~	~~7 23.6 + 46 28 7.3~~			~~64.2 57.7 67.5~~			~~7 26.9+46 23~~			
~~1427~~	~~7 27.9 + 46 27 5.8~~			~~68.5 57.6 71.7~~						
1424	7 26.8 + 16 5 5.0			67.4	27.3		7 27.9+16 3			
1481	7 46.2 + 27 5 4.9			68.8	37.4	68.0	7 47.4+27 2		5.0	6.8
1430	7 28.5 + 27 10 4.2			66.9	37.5	69.8	7 29.8+27 7		6.3	7.1
~~1429~~	~~7 44 10.8 + 49 36.3 5.5~~			~~71.6 54.3 70.7~~			~~7 47.5+47 49~~		5.2	6.0
~~Dm. 1449~~	~~7 39 53.8 + 39 59.5 8.2~~			~~64.3 47.4 68.6~~						
~~1441~~	~~7 39 10.8 + 18 14.8 9.0~~			~~66.6 27.6 66.4~~					5.6	6.4
1394	7 18.3 + 28 2 4.0			65.7	37.4		7 19.5+28 0		3.2	4.0
1459	7 38.0 + 28 19 1.1			68.0	37.5	68.0	7 39.2+28 16		3.4	4.2
1409	7 21.9 + 28 23 5.1			66.1	37.4		7 23.1+28 19			
1401	7 20.0 + 48 26 5.5			64.2	57.4	68.9			5.6	6.4
~~1773~~	~~7 20.4 + 38 29 6.8~~			~~62.4 47.5 65.0~~			~~7 23.5+38 24~~			
~~Dm. 1461~~	~~7 28.0 + 48 26 5.5~~			~~62.8 57.4 67.9~~			~~7 27.3+48 15~~			
1409	7 21.9 + 28 23 5.1			63.9	37.4	68.4	7 21.5+48 24		5.2	6.0
~~1733~~	~~7 37 44.5 + 18 51.9 5.1~~			~~63.7 27.8 63.5~~			~~7 40.3+18 46~~			
~~Dm. 1672~~	~~7 41 39.2 + 58 34.8 7.5~~			~~67.7 64.6 69.8~~			~~7 45.5+58 29~~			
1482	7 40 57.5 + 28 33.1 7.3			67.0	37.5	66.5	7 43.8+28 27		6.2	7.0
Dm. 1653	7 27.1 + 49 5 6.4			63.1	57.6	65.1	7 30.5+48 59			
~~1441~~	~~7 32.8 + 58 59 4.9~~			~~68.8 67.5 71.7~~					5.4	6.2
1453	7 35.8 + 29 10 4.1			67.8	37.5	68.0	7 37.6+29 7		5.2	6.0
~~Dm. 1544~~	~~7 22.2 + 29 31 8.2~~			~~65.6 37.5 67.3~~			~~7 25.0+29 26~~		5.7	6.5
1392	7 17.7 + 49 27 4.6			61.1	57.4	65.8	7 19.2+49 25		4.4	5.2
1404	7 20.9 + 49 55 5.4			62.1	57.6	66.0	7 22.3+49 53		5.2	6.0

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Plate 415.

V.	h.	Type	Lines	K	Focus	Other Lines	V	H	V	H
15.1	24.3	I	X5	N	3	F	7.6	48.6	30.0	19.3
14.4	10.1	I	X6	N	2		7.2	20.2	30.4	47.7
17.3	14.5	III	2	K=H	1	F?	8.6	29.0	29.0	38.9
13.6	16.1	I	X7	N	3	F	6.8	32.2	30.8	35.7
12.6	19.6	III	2	K=26	1	—	6.3	39.2	31.3	28.7
12.2	17.4	I	X4	K=26	1	—	6.1	34.8	31.5	33.1
11.1	8.5	I	X9	N	3	F	5.6	17.0	32.0	50.9
11.0	22.1	I	X6	K=26	3	F	5.5	44.2	32.1	23.7
10.9	19.8	I	X12	N	5	—	5.4	39.6	32.2	28.3
8.0	12.9	I	X5	N	1	—	4.0	25.8	33.6	42.1
7.6	7.5	I	X4?	N	1	—	3.8	15.0	33.8	52.9
6.9	17.6	I!	X4	K=26	1	—	3.4	35.2	34.2	32.7
6.4	14.1	II	X2	K=26	1	—	3.2	28.2	34.4	39.7
6.0	17.9	I	X4	N	1	—	3.0	35.8	34.6	32.1
III? 6.6, 6.9	5.7	15.5	III bc? 2189	X8	K=H?	2	F slight seen	2.8	31.0	34.8	36.9
	5.5	17.8	II a 2190	X3	K=H	2	F seen	2.8	35.6	34.8	32.3
	4.1	13.7	I	X5	N	1	—	2.0	27.4	35.6	40.5
	4.0	22.2	I	X5	N	2	—	2.0	44.4	35.6	23.5

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.2 Plate 424. 7.0

21.2	9.7	I	X5	N	2	—	10.6	19.4	16.9	24.9
20.4	12.6	I	X6	N	2	—	10.2	25.2	17.3	19.1
20.0	12.8	II a? 2191	X2	K=26	1 seen	—	10.0	25.6	17.5	18.7
19.9	10.7	I ~~II a?~~ 2191 I	~~X2~~ X5	~~K=26~~ K=2H	2 seen	—	10.0	21.4	17.5	22.9
19.7	11.2	I	X6	N	2	—	9.8	22.4	17.7	21.9
20.0	15.6	II a 2192	X3	K=H	2	F seen	10.0	31.2	17.5	13.1
19.2	22.0	I	X5	K=26	1	—	9.6	44.0	17.9	0.3
19.0	19.4	II a 2193	X2	K=H	3	F? seen	9.5	38.8	18.0	5.5
18.9	18.4	I	X4	K=26	1	—	9.4	36.8	18.1	7.5
18.0	10.2	III	2	K=H	1	F?	9.0	20.4	18.5	23.9

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1886phae.proj...030F

Mean 8

No.	R. A.	Dec.	Mag.	H	V	H'	Red. of D.M. to 1900	Cor. Bu	Br.
1367	7 9.4	+49 41	4.8	58.0	57.3		7 10.9 +49 38		
1379	7 13.1	+50 22	6.6	61.7	58.0	684		49	5.7
1486	7 48.7	+20 13	5.3	68.9	27.4	682	7 49.8 +20 9	48	5.6
1463	7 39.2	+18 48	5.1	68.2	27.4		7 40.3 +18 45	6.3 6.7	7.1 7.5
1448	7 35.0	+50 42	5.2	67.2	57.5	680	7 36.5 +50 40	46	5.4
1426	7 27.5	+31 13	5.4	66.7	47.5	680	7 28.8 +31 11	6.9 6.3	6.8 7.1
Dm. 1635	7 29	9.9 +31	38.8 8.1	64.0	37.7	647			
1699	7 30	12.6 +41	29.5 6.6	65.0	47.5	66.2	7 33.3 +41 24	6.2	7.0
Dm. 1771	7	51.6 + 41	48 7.0	68.6	47.5	66.2	7 54.7 +41 44		
1509	7 59.4	+51 51	4.8	76.4	67.4	71.5	8 1.0 +51 48	44	5.0
1405	7 21.4	+32 1	4.2	65.6	37.5	66.2	7 22.7 +31 59	46	5.4
1424									
1423-4	7 26.9	+32 9	1.6	66.5	37.6	67.0	7 28.2 +32 7	B	B
Dm. 1601	7 41.7	+33 36	6.5	67.5	37.6	66.8	7 44.6 +33 30		
1466	7 39.8	+33 43	5.4	65.6	37.7	649		5.9	6.7
Dm. 1770	7 57	7.4 +43	41.0 6.3	71.1	47.5	67.0	8 0.2 +43 34		
1466	7 52	24.1 +23	59.8 6.5	67.4	27.8	66.1		6.1	6.9
Dm. 1671	7 27.7	+54 13	7.0	62.9	57.6		7 31.3 +54 7		
Dm. 1725	7 29	+23.3 +24	9.4 8.2	64.4	27.6	64.9			
1446	7 29	5.8 +34	1.9 7.9	64.3	37.4	65.2	7 32.0 +33 56	5.7	6.5
Dm. 1177	7 39	40.3 +54	28.7 6.3	67.9	57.7	67.2	7 43.3 +54 23	5.7	6.5
1828	7 40	48.2 +34	14.6 7.3	69.0	37.4	66.7			
Dm. 1730	7 30	26.6 +24	34.2 7.0	66.2	27.6	66.7	7 33.1 +24 28	5.9	6.7
1724	7 29	27.6 +24	44.7 7.0	65.3	27.7	66.8			
1457	7 37.2	+24 41	3.6	68.2	27.5	68.3	7 38.4 +24 38	48	5.2 5.6
1436	7 31.3	+34 52	4.7	66.9	37.7	67.8	7 32.7 +34 49	48	5.6
Dm. 1446	7 40	11.6 +45	41.8 8.0	67.6	47.7	66.9			
1228	7 41	0.5 +55	34.7 6.5	68.4	57.6	67.2	7 44.6 +55 29	5.6	6.4
Dm. 1624	7	20.0 + 35	28 7.2	64.4	37.5	67.1	7 23.0 +35 23		
1378	7 13.1	+55 30	5.2	57.5	57.5	63.7	7 14.7 +55 28	4.7	5.5

Mean 0

1576	8 27.1	+36 50	5.7	46.5	47.4	444	8 28.3 +36 46	5.8	5.8
1551	8 19.5	+27 20	5.5	44.7	37.5	442	8 20.7 +27 16	5.7	5.7
1548	8 19.0	+17 27	6.2	44.6	27.4	444	8 20.1 +17 23	6.9	6.9
Dm. 92									
1554	8 24	18.5 +47	37.4 6.2	45.7	57.6	42.9	8 25.7 +47 23	6.5	6.5 6.4
Dm. 1870	8 21	56.7 +34	45.3 6.5	44.3	47.6	42.9	8 24.8 +37 36		
1592	8 24	18.5 +47	37.4 6.2	46.7	57.7	44.2	8 27.5 +47 23	6.2	6.2
1536	8 12.8	+27 37	5.1	44.0	37.6	44.2	8 14.0 +27 33	5.9	5.9
Dm. 536	7 56.8	+27 56	7.5	100.8	37.5		7 59.4 +27 49		
Dm. 1744	8 0.0	+27 55	7.0	44.0	37.5	45.6	8 2.8 +27 47		
1499	7 53.9	+17 39	6.0	44.9	27.2	98.7			
Dm. 200	7 58.1	+17 42	7.5	102.4	27.3	102.9	8 0.7 +17 35		
1521-3	8 5.3	+18 1	4.7	44.1	27.5	44.6	8 6.5 +17 57	6.7	6.6
Dm. 1992	8 7.4	+18 1	8.0	44.2	27.4	44.6	8 8.6 +17 56		
1521-3	8 5.3	+18 1	4.7	42.1	27.4	44.5			
D.M. 1882	8 5.9	+18 1	6	44.4	27.5	43.1	8 8.5 +17 58	6.8	6.8

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1886phae.proj..830F

July 12, 1886.

Plate 424

V	H	Type	No Lines	K	Focus	other Lines.	V	H	V	H
18.0	17.8	I	5	N	1	—	9.0	35.6	18.5	8.7
17.6	14.0	I	6	N	2	—	8.8	28.0	18.7	16.3
17.1	10.7	I	5	K=26	1	—	8.6	21.4	18.9	22.9
16.6	22.9	I	5	N	1	—	8.3	45.8	19.2	58.5
15.0	18.7	I	7	N	3	H	7.5	37.4	20.0	6.9
14.9	6.0	I	3	N	1	—	7.4	12.0	20.1	32.3
14.0	6.1	I	4	N	1	—	7.0	12.2	20.5	32.1
14.1	11.4	I	5	N	1	—	7.0	22.8	20.5	21.5
III? 6.6, 7.0.	13.3	9.7	III	2	K=26	1	—	6.6	19.4	20.9	24.9
11.5	19.2	I	10	K=126	4	H —	5.8	38.4	21.7	5.9
11.2	21.4	IIa 2194	2	K=26	1	H? Sem	5.6	42.8	21.9	1.5
9.0	11.8	I	4	N	1	—	4.5	23.6	23.0	20.7
8.5	17.6	I	6	K=26	1	—	4.2	35.2	23.3	9.1
III? 5.6, 5.9, 6.8.	8.2	14.7	IIIc 2195	2	N	2	H Sem	4.1	29.4	23.4	14.9
8.2	14.5	I	7	K=24	2	—	4.1	29.0	23.4	15.3
8.0	18.6	I?	4	K=26	1	—	4.0	37.2	23.5	7.1
7.9	20.4	I	5	N	2	—	4.0	40.8	23.5	3.5
7.4	15.5	I	4	K=26	1	—	3.7	31.0	23.8	13.3
III? 6.6, 6.9.	7.6	10.1	III	3	K=26	1	H —	3.8	20.2	23.7	24.1
6.5	15.4	I	7	N	2	H —	3.2	30.8	24.3	13.5
6.3	12.5	I	5	N	1	—	3.2	25.0	24.3	19.3
6.1	11.7	I?	5	K=26	1	—	3.0	23.4	24.5	20.9
6.2	10.4	I	4	K=26	2	—	3.1	20.8	24.4	23.5
5.5	16.1	I	4	N	1	—	2.8	32.2	24.7	12.1
3.7	23.5	I	4	K=26	1	—	1.8	47.0	25.7	57.3
∫ A 6.2	9.8	III?	III?	2	2	12 = H K=H	1	—	3.1	19.6	24.4	24.7

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Mean 0

No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Cor Br.	Br.	
Dm. 1900	5	8.6	+ 18	32	8.6	44.2	27.5	44.5	8 11.2 +18 24			
1669	8	6 47.4	+ 16	30.9	4.5	42.4	25.5	42.9				
Dm. 1621	8	3.0	+ 48	45	6.5	31.0	57.7		8 6.3 +48 35			
1544	8	16.5	+ 18	43	5.9	44.5	27.5	44.4	8 17.7 +18 40			
Dm. 1743	8	24.6	+ 49	2	6.5	46.0	57.6		8 27.8 +48 53			
1569	8	24.7	+ 18	30	6.8	46.1	27.1	45.6				
Dm. 1911	7	56 24.4	+ 19	14.5	7.0	102.2	27.5	103.1	7 59.0 +19 8			
1526	8	57	+ 30	1	56	45.1	32.5	46.1	8 6.8 +29 57			
1592	8	33.6	+ 19	58	cum.	45.6	27.4		8 34.7 +19 54			
Dm. 2150	8	31 30.8	+ 20	2.9	7.2	43.5	27.4	42.4				
Dm. 2149	8	31.4	+ 20	18	7.0	43.6	27.3		8 34.0 +20 9			
1603	8	38.2	+ 10	31	5.5	50.4	17.5	49.9				
Dm. 2065	8	21.3	+ 40	32	7.2	44.4	47.5	42.1				
2066	8	21.6	+ 40	42	6.8				8 21.6 +40 33			
1572	8	25.8	+ 20	51	5.5	45.2	27.4	44.5	8 26.9 +20 47			
1509	7	59.4	+ 51	51	4.8	97.8	57.6	101.0	8 1.0 +51 48			
1511	8	0.7	+ 21	56	5.2	43.5	27.5	44.1	8 1.8 +21 53			
Dm. 1703	8	20.1	+ 33	11	6.7	43.7	37.7		8 22.9 +33 2			
1557	8	20.1	+ 13	3	5.6	43.7	17.5	43.8				
1866	8	6 17.0	+ 13	30.0	7.2	41.5	17.7	41.8	8 8.8 +13 22			
Dm. 1946	8	6 21.9	+ 53	21.8	8.4	41.6	57.6	43.7				
1925	8	8 25.0	+ 23	11.9	8.3	43.6	27.4	44.1				
Dm. 1783	8	4.8	+ 43	28	7.2	40.0	47.7		8 7.9 +43 20			
1539	8	14.6	+ 43	35	4.4	44.0	47.7	43.8	8 15.9 +43 31			
1540	8	14.7	+ 53	36	5.8	43.7	57.7	43.3	8 16.2 +53 33			
Dm. 1913	8	5 7.2	+ 23	35.2	6.5	42.3	27.6	43.0	8 7.8 +23 27			
1770	7	57.1	+ 43	41	6.3	97.9	47.7	100.9	8 0.2 +43 34			
1507	7	58.4	+ 13	28	5.1	99.2	17.5	99.7				
Dm. 1217	8	9.4	+ 54	1	6.9	40.4	57.7		8 12.9 +53 53			
1675	8	9 30.9	+ 33	46.9	7.4	40.5	37.5	40.7				
Dm. 1268	8	27.5	+ 53	53	6.8	47.7	57.7		8 30.9 +53 44			
1710	8	24 2.3	+ 33	54.5	7.3	44.2	37.7	42.6	8 26.8 +33 46			
1537	8	13.4	+ 24	24	5.7	44.2	27.6	44.3	8 14.6 +24 20			
1920	8	16 19.4	+ 24	24.7	7.0	41.3	27.6	40.8	8 19.0 +24 17			
Dm. 1828	8	17 50.5	+ 54	20.5	7.3	42.8	57.5	40.8	8 21.3 +54 12			
1833	8	18 55.0	+ 34	17.0	8.4	43.4	37.4	43.1	8 21.9 +34 3			
Dm. 1231	8	19.6	+ 54	36	7.2	44.6	57.8		8 23.1 +54 27			
1561	8	21.5	+ 24	33	5.9	44.9	27.6	44.3	8 22.7 +24 28			
1567	8	24.4	+ 24	29	5.8	45.2	27.6	44.8	8 25.6 +24 25			
Dm. 1265	8	7.2	+ 55	1	6.7	39.4	57.8		8 10.7 +54 53			
1804	8	12 6.8	+ 34	46.9	8.3	44.3	37.6	44.7				
1903	8	10 31.2	+ 24	34.4	7.5	42.7	27.4	42.9	8 13.2 +24 29			
1731	7	52.5	+ 25	48	6.5	99.5	37.6	102.8	7 55.1 +25 11			
1497	7	58.6	+ 25	43	5.9	100.6	27.5	102.3				
Dm. 1228	7	41.0	+ 55	35	6.5	88.0	57.4		7 44.6 +55 29			
1573	8	25.9	+ 24	30	6.4	45.5	27.6		8 27.1 +24 25			

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1886phae.proj..830F

Ant. of Fog. due to moon & clouds. 6.7 Ant. of Fog. due to chemicals. 6.7

Poor Plate, hard & mean.

July 13. 1886.

Plate # 45.

T	h.	Type	↓ Lines	K	↓ Focus	other Lines	V	H	V	H
19.4	15.1	III?	2	K=H	1	—	9.7	30.2	13.1	58.9
19.4	17.7	I	H	~~K~~	/	—	9.7	35.4	13.1	53.7
18.7	16.1	I b 2196	4	K=H?	/	sem	9.4	32.2	13.4	56.9
18.6	15.6	I	7	K=2?6?	3	— F	9.3	31.2	13.5	57.9
18.1	14.9	I	6	K=.5%	/	—	9.0	29.8	13.8	59.3
18.1	21.6	I	4	N	/	—	9.0	43.2	13.8	45.9
Recorded above: 18.1	14.9	I	5	N	/	—	9.0	29.8	13.8	59.3
18.5	12.1	I	6	K=H	/	—	9.2	24.2	13.6	64.9
18.4	11.7	II a? 2197	2	K=H	/	sem	9.2	23.4	13.6	65.7
III ? 5.8, 6.2. 18.0	9.2	III b? 2198	3	K=H	/	F sem	9.0	18.4	13.8	70.7
17.5	19.8	I?	5	K=H	/	—	8.8	39.6	14.0	49.5
16.7	12.1	I	7	K=H	/	F	8.4	24.2	14.4	64.9
16.5	8.6	I	7	N	2	F?	8.2	17.2	14.6	71.9
15.5	12.8	I	7	N	2	—	7.8	25.6	15.0	63.5
14.6	17.2	I	5	N	2	—	7.3	34.4	15.5	54.7
14.0	17.6	III?	2	K=H	/	—	7.0	35.2	15.8	53.9
13.9	19.5	I	5	K=H	/	F	7.0	39.0	15.8	50.1
13.2	9.3	I?	4	N	/	—	6.6	18.6	16.2	70.5
12.9	20.2	I	6	K=H	/	—	6.4	40.4	16.4	48.7
12.5	8.9	I?	4	K=H	/	—	6.2	17.8	16.6	71.3
~~12.2~~	16.5	I	3	N K=H	1	—	6.1	33.0	16.7	56.1
12.0	17.4	I	6	N	2	F	6.0	34.8	16.8	54.3
11.7	9.9	I	4	N	/	—	5.8	19.8	17.0	69.3
11.5	20.9	I	9	K=2H	3	F	5.8	41.8	17.0	47.3
10.6	6.0	I	7	K=H	2	F	5.3	12.0	17.5	77.1
10.2	9.0	II a 2199	3	K=1.2H	2	F sem	5.1	18.0	17.7	71.1
9.8	15.5	I	6	N	2	F	4.9	31.0	17.9	58.1
9.5	12.3	II a? 2200	3	K=H?	3	F sem	4.8	24.6	18.0	64.5
9.4	11.3	I?	5	K=H	/	F	4.7	22.6	18.1	66.5

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1886phae..proj...830F

Mean 4

No.	R.A.	Dec.	mag.	H	V	H'	Red. of D.M. to 1900	Br.	Br.
1508	7 59.2	+ 22 59	6.2	89.4	32.7		8 6.4 + 22 56	6.3	7.2
Dm. 1867	7 52.8	+ 13	7.4	88.2	22.8		7 55.9 +12 57		6.7
Dm. 1636	7 54 53.5	+ 33 26.3	6.8	87.1	42.8	87.5	7 57.8 +33 19		6.7
1507	7 58.4	+ 13 28	5.1	89.6	22.8	89.6	7 59.5 +13 25	4.8	5.2
Dm. 1770	7 57.1	+ 43 41	6.3	86.9	52.7		8 0.2 +43 34		
Dm. 1601	7 41.7	+ 33 36	6.5				7 44.6 +33 30	5.9	6.3
1466	7 39.8	+ 33 43	5.4	83.0	42.7	85.2		6.1	6.5
Dm. 1783	8 4.8	+ 43 28	7.2	29.0	52.7		8 7.9 +43 20		
Dm. 1913	8 5.1	+ 23 35	6.5	28.1	32.8		8 7.7 +23 27	6.3	6.7
Dm. 1868	8 6 17.0	+ 13 30.0	7.2	29.7	22.7	29.4			
1783	8 4 30.6	+ 43 28.5	7.2	27.9	52.7	28.1			
1539	8 14.6	+ 43 35	4.4	33.0	52.6	29.8	8 15.9 +43 31	6.1	6.5
Dm. 1806	7 47 26.5	+ 24	6.7	87.0	32.8	87.8	7 50.1 +24 54	6.3	6.7
1490	7 46 4.8	+ 13 57.5	8.3	85.7	22.8	86.1			
Dm. 1782	8 5 12.8	+ 34 23.5	7.4	29.4	42.8	28.4			
1850	8 4 15.3	+ 14 26.7	6.8	28.5	22.8	28.3	8 6.8 +14 19	6.2	6.6
1537	8 13.4	+ 24 24	5.7	32.6	32.6	31.5	8 14.6 +24 20	5.6	6.0
Dm. 1775	8 2 50.3	+ 15 3.6	6.3	28.4	22.9	28.2	8 5.3 +14 56	5.8	6.2
Dm. 1734	7 52.0	+ 16 21	6.8	28.9	22.7	29.1	8 1.0 +15 4		
1497	7 53.6	+ 25 43	5.9	88.0	33.6	88.4	7 54.8 +25 40	5.8	6.2
1497	7 53.6	+ 25 43	5.9	88.8	32.7	89.3	7 57.8 +25 40	6.3	6.7
1765	7 46 13.6	+ 35 47.8	6.5	85.3	42.8	87.0	7 49.2 +35 41	6.5	7.0
Dm. 1509	7 46 35.1	+ 45 49.8	8.1	85.6	52.8	88.3			
1490	7 46 28.9	+ 16 47.6	8.5	85.5	22.8	85.9			
Dm. 1794	8 11 26.5	+ 36 13.9	7.3	30.0	42.8	27.8			
1679	8 10 3.2	+ 16 7.1	6.5	28.7	22.7	28.2	8 12.8 +15 59	6.3	6.7
Dm. 1323	7 41.6	+ 46 18	6.8	82.0	52.7		7 44.9 +46 12		
Dm. 1580	7 45 42.0	+ 16 24.8	7.0	88.1	22.8	88.6	7 48.3 +16 18	6.0	6.4
Dm. 1687	8 10 56.1	+ 16 34.4	7.5	28.7	22.8	28.1	8 13.5 +16 26	6.4	6.8
Dm. 1340	7 52.8	+ 46 37	7.6	85.8	52.7		7 56.0 +46 30		
Dm. 1701	7 54.5	+ 26 40	7.5	89.5	32.8	87.6	7 51.2 +26 33	6.6	7.0
1612	7 53 14.7	+ 16 50.2	6.4	86.2	22.9	86.4			
Dm. 1612	7 53 14.7	+ 16 50.2	6.4	88.0	22.8	88.3	7 55.8 +16 43	5.4	5.8
1491	7 51.7	+ 16 49	6.3	86.5	22.8	86.7			
Dm. 1612	7 53.2	+ 16 50	6.4						
Dm. 1760	8 9 23.0	+ 26 52.6	7.0	29.2	32.7	28.1	8 12.1 +26 45	6.7	7.1
1481	7 46.2	+ 27 5	4.9	88.0	32.9	89.3	7 47.4 +27 2	4.9	5.3
1551	8 19.5	+ 27 20	5.5	31.5	32.6		8 20.7 +27 16		
1548	8 19.0	+ 17 27	6.2	31.0	22.7	30.1		5.5	5.9
1536	8 12.8	+ 27 37	5.1	30.8	32.7	29.4	8 14.0 +27 33	5.3	5.7
Dm. 1839	7 57.1	+ 18 2	8.0	88.1	22.9	88.1	7 59.7 +17 55		
1490	7 53.9	+ 17 39	6.0	84.9	22.5	84.9		5.6	6.0
Dm. 1536	7 56.8	+ 27 36	7.5	87.9	32.8	84.9	7 59.4 +27 49		
1521.3	8 5.3	+ 18 1	4.7	29.9	22.8	29.6	8 6.5 +17 57	5.1	5.5
Dm. 1882	8 5.9	+ 18 6	7.4	28.5	22.8		8 8.4 +17 58		
Dm. 1675	8 5 0.9	+ 28 12.5	7.6	27.6	32.9	26.7	8 3.6 +28 4		
1880	8 5 43.9	+ 18 10.2	9.0	28.8	22.9	29.9		6.4	6.8

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Plate 445

V.	H.	Type	Nr. Lines	K	Focus	Other Lines.	V	H	V	H
III? 6.2, 6.5										
9.2	16.4	III b	2201 X3	K=H	1	— F seen	4.6	32.8	18.2	56.3
8.5	22.4	II a?	2202 X1	K=H	1	— F seen	4.2	44.8	18.6	44.3
8.8	24.4	II?	2203 3	K=H	5	— F seen.	4.4	48.8	18.4	40.3
8.2	12.9	I	6	K=H	1	—	4.1	25.8	18.7	63.3
8.0	7.0	I	5	K=H	1	— F	4.0	14.0	18.8	75.1
7.3	15.9	I	2204 7	N	2	— F	3.6	31.8	19.2	57.3
7.1	17.9	II a?	2	K=H	1	— seen	3.6	35.8	19.2	53.3
5.6	12.2	I	9	N	2	—	2.8	24.4	20.0	64.7
5.1	20.2	I	8	N	2	—	2.6	40.4	20.2	48.7
3.9	22.4	I	7	N	2	— F	2.0	44.8	20.8	44.3
1.9	14.6	I?	1	N	2	—	1.0	29.2	21.8	59.9

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals.

7.2 Plate 456 7.2

21.5	17.3	I	9	K=.2H	2	—	10.8	34.6	41.8	37.9
20.8	10.6	II a	2205 3	K=H	3	F seen	10.4	21.2	42.2	51.3
20.6	9.9	I	8	K=.2H	2	F	10.3	19.8	42.3	52.7
20.5	18.5	I?	2	N	1	—	10.2	37.0	42.4	35.5
20.2	15.6	I	10	N	1	—	10.1	31.2	42.5	41.3
19.8	9.6	I	6	K=.5H?	1	—	9.9	19.2	42.7	53.3
19.6	10.2	III?	3	K=H	1	F	9.8	20.8	42.8	51.7
19.5	13.3	I	6	N	1	F	9.8	26.6	42.8	45.9
19.1	17.4	I	6	K=H	1	—	9.6	34.8	43.0	37.7
18.7	11.5	I	8	K=.5H	2	F	9.4	23.0	43.2	49.5
17.6	6.0	I	2206 8	N	2	F	8.8	12.0	43.8	60.5
17.1	14.0	III b	3	K=H	1	F seen	8.6	28.0	44.0	44.5
16.5	6.6	II?	2	K=H	1	—	8.2	13.2	44.4	59.3
16.3	22.8	I	5	K=H	1	F	8.2	45.6	44.4	26.9
15.4	8.5	I	8	N	2	F	7.7	17.0	44.9	55.5

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Mean 4

½ cos δ.	No	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Cor. Bz	Bz.
	1505	7 56.1	+ 28 8	5.0	88.9	32.7	89.2	7 57.4 +28 5	5.4	5.8
	DM. 1482	7 41.0	+ 28 33	7.3	85.8	32.8	87.6	7 43.8 +28 27	5.9	6.3
	1463	7 39.2	+ 18 48	5.1	84.0	23.0	84.8		6.4	6.8
	1459	7 38.0	+ 28 19	1.1	86.8	32.7	89.1	7 39.2 +28 16	B	B.
	~~Dm. 1569~~	~~8 4 38.1 + 28 43.4 8.3~~			~~30.4~~	~~32.8~~	~~29.9~~			
	1621	8 2 58.0 + 48	43.2	6.5	28.2	52.8	26.8	8 6.3 +48 35	6.1	6.5
	1544	8 16.5	+ 18 43	59	30.5	22.7	28.6	8 17.7 +18 40	6.0	6.4
	~~Dm. 2066~~	~~8 1 44.7 + 39 7.8 6.5~~			~~33.6~~	~~42.8~~	~~33.8~~			
	1911	7 56 24.4 + 19	14.5	7.0	88.2	22.8	88.3	7 59.0 +19 8	5.6	6.0
	Dm. 1896	7 52 8.8 + 19	14.0	7.0	87.9	22.8	88.2	7 54.7 +19 7	6.5	6.9
0.1 5.6	1526	8 5.7	+ 30 1	5.6	30.1	32.8	29.4	8 6.9 +29 57	5.1	5.5
0.0 5.4	1486	7 48.7	+ 20 13	5.3	89.1	22.8	89.8	7 49.8 +20 9	5.0	5.4
	~~1893~~	~~7 36 49.0 + 20 39.3 6.5~~			~~81.4~~	~~22.7~~	~~82.4~~	~~7 39.2 +20 33~~		
0.2 5.6	1922	7 42 26.1 + 20	47.4	8.5	87.2	22.8	88.2	7 43.0 +20 41		
	Dm. 1601	7 45 39.4 + 30	44.5	7.5	90.5	32.7	92.6	7 45.3 +30 38	5.0	5.4
	~~Dm. 1581~~	~~7 41.9 + 30 27 7.6~~			~~86.7~~	~~32.6~~	~~88.7~~	~~7 44.7 +30 31~~		
	1448	7 35.0 + 30	42	5.2	~~47.8~~ 47.2	32.7		7 36.5 +30 40		
	1511	8 0.7	+ 21 56	5.2	29.9	22.9	29.9	8 1.8 +21 53		

Mean 7

									Cor. Bz	Bz.
0.0 5.5	1597	8 36.3	+ 21 55	4.8	70.9	32.7	71.3	8 37.5 +21 50	4.8	5.5
	1641	8 52.8	+ 42 15	4.2	74.0	52.7	71.7	8 54.2 +42 11	4.3	5.0
0.0 5.6	1639	8 51.9	+ 12 19	4.3	71.7	22.6	71.3	8 53.0 +12 15	4.9	5.6
	Dm. 1776	8 31 20.2	+ 32 27.9	6.5	68.3	42.7	69.4	8 34.1 +32 19	6.3	7.0
0.0 6.8	1607	8 40.4	+ 12 33	5.8	71.6	22.7	71.6	8 41.5 +12 28	6.1	6.8
	~~Dm. 1741~~	~~8 54 28.4 + 22 49.5 7.4~~			~~73.7~~	~~32.7~~	~~72.9~~			
	1829	8 57.2 30.8 + 32	48.9	6.3	71.7	42.7	70.0	8 65.8 +32 39	5.7	6.4
	1640	8 52.2	+ 32 53	5.7	73.0	42.7	71.6	8 53.4 +32 49	5.9 6.5	6.6 6.9
0.1 6.4	1619	8 45.2	+ 32 56	5.7	71.8	42.7	71.3	8 46.4 +32 51	5.6	6.3
	1598	8 36.6	+ 13 7	5.6	71.4	22.7	71.6	8 37.7 +13 3	5.7	6.4
0.1 6.1	1631	8 49.6	+ 33 22	5.5	72.6	42.8	71.4	8 50.8 +33 18	5.3	6.0
0.2 5.9	1641	9 6.0	+ 43 43	5.2	18.0	52.5	73.1	9 7.3 +43 38	5.0	5.7
	1616	8 43.9	+ 44 11	5.2	71.9	52.8	73.8	8 45.3 +44 6	5.5 5.8	6.2 6.5
	Dm. 1949	8 59 56.2	+ 34 29.0	6.5	73.1	42.7	70.1	9 2.7 +34 18	6.0	6.7
	~~1845~~	~~9 4 11.1 + 44 24.7 8.6~~			~~19.4~~	~~52.6~~	~~72.0~~			
	1567	8 24.4	+ 24 29	5.8	70.0	32.7	71.4	8 25.6 +24 25	5.9	6.6
0.1 5.9	1646	8 55.8	+ 24 56	5.6	72.8	32.6	71.6	8 56.9 +24 51	5.1	5.8

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Plate 456.

V.	H.	Type	Lines	K	Focus	Other Lines.	V	H	V	H
14.0	10.7	I	7	K=.5H	2	F.	7.0	21.4	45.6	51.1
13.6	12.9	Ib 2207	7	K=.2H	1	F seen	6.8	25.8	45.8	46.7
13.4	10.5	I	6	K=.1H	1	—	6.7	21.0	45.9	51.5
13.0	11.1	I	5	K	1	—	6.5	22.2	46.1	50.3
13.0	11.4	I	6	K=.5H	1	—	6.5	22.8	46.1	49.7
13.0	17.9	III	3	K=H	1	F	6.5	35.8	46.1	36.7
11.7	20.7	I	6	K=.2H	1	—	5.8	41.4	46.8	31.1
10.2	20.0	I	5	K=H	1	—	5.1	40.0	47.5	32.5
10.1	22.0	I	7	K=.5H	1	—	5.0	44.0	47.6	28.5
10.1	10.1	I	11	K=.2H	3	—	5.0	20.2	47.6	52.3
8.6	8.1	I	3	K	1	—	4.3	16.2	48.3	56.3
8.7	9.1	I	5	K=H	1	—	4.4	18.2	48.2	54.3
8.6	11.7	I? 2208	13	K=.5H	5	—	4.3	23.4	48.3	49.1
8.5	16.7	III fc?	3	K=H	1	F high Seen	4.2	33.4	48.4	39.1
7.6	19.6.	I	3	K	1	—	3.8	39.6	48.8	32.9
III? 6.3, 6.6. 7.6	8.1	III b 2209	3	K=H	1	F seen	3.8	16.2	48.8	56.3
7.5	9.7	I a 2210	3	K=H	1	F seen	3.8	19.4	48.8	53.1
7.0	13.9	I	5	K	1	—	3.5	27.8	49.1	44.7
7.3	15.8	III bc 2211	3	K=H	2	F bright Seen	3.6	31.6	49.0	40.9
4.3	12.1	I?	4	K=H	1	—	2.2	24.2	50.4	48.3

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.
7.2 6.4

Plate 402

20.4	7.9	I	7	K=.5H	2	F	10.2	15.8	47.3	68.6
20.2	9.4	I?	8	K	1	—	10.1	18.8	47.4	65.6
20.0	14.2	I	12	K=.2H	3	F	10.0	28.4	47.5	56.0
18.2	14.7	I	3	K	1	—	9.1	29.4	48.4	55.0
18.2	15.7	I?	12	K=.5H	4	F	9.1	31.4	48.4	53.0
18.0	22.8	III	3	K=H	1	F	9.0	45.6	48.5	38.8

Continued on page 126. III? 6.3, 6.6.

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Mean 7

½ cos δ.

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Star for 1900	Cor. Bu	Br.
	1634	8 50.6	+ 15 47	5.2	72.0	22.8		8 51.7 +15 43		
	~~1653~~	~~8 54.8~~	~~+ 15 43~~	~~8.5~~	~~72.2~~	~~22.7~~	72.7	8 54.3 +15 33		
	1654	8 59.4	+ 5 35	5.6	71.1	12.6				
Dm.	1883	8 44.8	+ 36 6	6.1	70.6	42.9		8 47.7 +35 56		
	1634	8 50.6	+ 15 44	5.7	72.4	22.6	72.2			
	1635	8 50.9	+ 16 2	5.6	71.9	22.7		8 52.0 +15 58		
	~~1999~~	~~8 53 28.0~~	~~+ 35 56.5~~	~~8.9~~	~~74.5~~	~~42.6~~	72.8			
	~~2018~~	~~8 50 14.7~~	~~+ 25 57.8~~	~~7.5~~	~~71.3~~	~~32.7~~	70.4	8 53.0 +25 48		
Dm.	1889	8 49.3	+ 36 22	6.7	71.5	42.9		8 52.1 +36 12		
	1635	8 50.9	+ 16 2	5.6	~~73.1~~	~~22.5~~	72.7			
Dm.	1463	8 49.16	+ 46 19	7.2	71.4	52.8		8 52.7 +46 9		
	~~2018~~	~~8 50.3~~	~~+ 25 58~~	~~7.5~~	~~73.1~~	~~32.5~~	72.4	8 53.0 +25 48		
	1628	8 48.8	+ 46 6	5.9	71.6	52.6	69.2			
	~~1624~~	~~8 54.0~~	~~+ 45 59~~	~~8.1~~	~~69.8~~	~~52.5~~	71.5	8 57.0 +45 50		
	1591	8 32.8	+ 46 16	5.6	68.6	52.8	70.3	8 34.1 +46 11		
	~~1616~~	~~8 41.2~~	~~+ 46 29~~	~~7.3~~	~~72.8~~	~~32.8~~	73.7	8 39.5 +46 30		
	~~1677~~	~~8 56 36.0~~	~~+ 46 44.8~~	~~8.6~~	~~78.0~~	~~52.6~~	75.3	8 59.7 +46 34		
	1605	8 56 28.3	+ 36 45.5	6.8	~~74.9~~	~~42.6~~	76.3	8 59.3 +36 36		
Dm.	1592	8 24.3	+47 37	6.2	64.3	52.7		8 27.5 +47 28		
	1606	8 32 54.8	+ 47 24	8.5	72.9	52.5	76.1	8 36.1 +47 16		
Dm.	1578	8 17.9	+ 47 46	8.0	61.9	52.8		8 21.1 +47 37		
Dm.	~~1870~~	~~8 21.19~~	~~+ 317 45~~	~~6.5~~				~~8 24.8 +47 27~~		
	~~1592~~	~~8 24.4 18.5~~	~~+ 47 37.4~~	~~6.2~~	~~68.3~~	~~52.6~~	72.8	8 27.5 +47 28		
	1645	8 55.4	+ 47 38	3.7	75.6	52.6	72.5	8 56.9 +47 34	3.3	4.0
	~~1696~~	~~8 59 28.4~~	~~+ 28 8.6~~	~~7.8~~	~~75.7~~	~~32.4~~	74.4			
	1683	8 55 31.4	+ 28 27.8	6.5	71.7	32.8	70.0	8 58.2 +28 18	6.3	7.0
	1643	8 54.7	+ 28 22	5.8	72.9	32.8	71.5	8 55.9 +28 18	6.1	6.8
	1636	8 51.0	+ 48 31	3.2	74.4	52.8	72.2	8 52.4 +48 27	3.3	4.0
	1602	8 37.9	+ 18 36	4.3	84.3	27.8	71.5	8 39.1 +18 31	5.2	6.9
Dm.	~~1618~~	~~8 43.4~~	~~+ 28 2.8~~	~~7.8~~	~~68.2~~	~~32.6~~	69.4	8 31.3 +28 39	5.6	6.3
Dm.	~~1940~~	~~8 31.8~~	~~+ 38 41~~	~~7.7~~	~~70.9~~	~~42.5~~	73.0	8 34.2 +38 32		
	~~1547~~	~~8 27.8~~	~~+ 8 51~~	~~5.8~~	~~64.1~~	~~12.6~~				
	1653	8 58.9	+ 38 56	4.7	75.1	42.7	72.0	8 0.2 +38 51	6.3	7.0
Dm.	1801	8 53.4	+ 49 6	6.5	74.8	52.9		8 58.6 +48 56	5.4	6.1
	~~1999~~	~~8 57 36.0~~	~~+ 38 51.2~~	~~7.2~~	~~74.0~~	~~42.7~~	74.6	9 0.5 +38 40	5.8	6.5
Dm.	1770	8 42.5	+ 19 23	6.5	70.3	22.9		8 45.1 +19 13	5.5	6.2
	~~1785~~	~~8 47 12.3~~	~~+ 49 2.1~~	~~8.0~~	~~75.0~~	~~52.5~~	74.3			
	1650	8 43 57.8	+ 28 52.8	6.0	71.8	32.4	71.5	8 46.7 +28 43	6.0	6.7
	1605	8 39.4	+ 29 17	4.2	71.0	32.8	71.2	8 40.6 +29 7	4.7	5.4
	1627	8 48.4	+ 40 40	5.8	72.9	42.9	71.5	8 50.1 +40 35	5.1	5.8
	1628	8 48.8	+ 46 6	5.9	71.6	52.6	69.2		6.0	6.7

Mean 9

	1681	9 11.4	+ 37 19	3.8	27.2	47.5	24.2	9 12.6 +37 14	4.1	5.0	
	1678	9 9.4	+ 47 19	5.5	28.2	57.4	24.7	9 10.8 +47 14	5.7	6.6	
	1645	8 55.4	+ 47 38	3.7	83.8	57.6	83.3	8 56.9 +47 34	3.2	4.1	
	1643	8 54.7	+ 28 22	5.8	84.1	37.5	84.0	8 55.9 +28 18	6.0	6.9	
	1636	8 51.0	+ 48 31	3.2	82.4	57.6	82.9	8 52.4 +48 27	3.1	4.0	
	~~1675~~	~~8 32 42.5~~	~~+ 48 42.6~~	~~7.6~~	~~78.3~~	~~57.7~~	80.5	8 35.9 +48 34	5.3	6.2	
	~~1958~~	~~8 37 28.8~~	~~+ 38 34.3~~	~~7.1~~	~~83.1~~	~~47.6~~	86.6	8 40.7 +38 24	5.6	6.5	
	1602	8 37.9	+ 18 36	4.3	83.5	27.6		8 39.1 +18 31			

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Ant. of Fog. due to mom't clouds. Ant. of Fog. due to chemicals.

7.6 July 20. 1886. 7.3

Plate 475.

V	H.	Type	Lines	K	Focus	other Lines.	V	H	V	H
20.0	13.8	I	10	N	5	—	10.0	27.6	12.6	1.8
19.1	18.8	I?	6	K=H	1	—	9.6	37.6	13.0	51.8
18.1	10.9	I	10	K=2H	3	F—	9.0	21.8	13.6	7.6
17.2	10.1	IIa? 2218	3	K=H	3	F seen	8.6	20.2	14.0	9.2
16.1	6.7	I	6	K=H	1	—	8.0	13.4	14.6	16.0
15.4	21.5	I	4	N	1	—	7.7	43.0	14.9	46.4
13.6	14.4	I	6	K=2H	2	—	6.8	28.8	15.8	0.6
12.3	21.0	III	3	K=H	1	F—	6.2	42.0	16.4	47.4
12.0	21.1	II a 2219	3	K=H	1	F— seen	6.0	42.2	16.6	47.2
10.3	6.2	III:	3	K=H	1	F—	5.2	12.4	17.4	17.0
10.6	14.4	I	9	N	3	—	5.3	28.8	17.3	0.6
4.6	18.4	I	6	K=.5H	1	F—	2.3	36.8	20.3	52.6
III? 5.5, 5.9, 6.8	4.4	8.5	III bc 2220	K=1.5H 6	3	F bright seen	2.2	17.0	20.4	12.4
5.5	10.6	I	5	N	1	—	2.8	21.2	19.8	8.2

Ant. of Fog. due to mom't clouds. Ant. of Fog. due to chemicals.

7.5 Plate 494. 6.8

21.5	8.6	I	4	K=H	1	—	10.8	17.2	16.9	31.8
III? 6.5, 6.9	20.8	14.0	III	3	K=H	1	F	10.4	28.0	17.3	21.0
20.8	23.8	I	7	K=H	3	F—	10.4	47.6	17.3	1.4
16.5	13.1	I	5	K=H	1	F	8.2	26.2	19.5	22.8
15.7	19.0	I	6	N	1	F—	7.8	38.0	19.9	11.0
15.5	17.7	IIa 2221	3	K=H	1	F seen	7.8	35.4	19.9	13.6
14.8	17.6	III bc 2222	3	K=1.2H	4	F bright. seen	7.4	35.2	20.3	13.8
13.5	12.0	I	7	K=.8H	3	F—	6.8	24.0	20.9	25.0
12.6	6.2	I	6	N	1	—	6.3	12.4	21.4	36.6
III? 5.6, 5.9, 6.7	12.0	16.2	IIa 2223	3	K=H	1	F seen	6.0	12.4	21.7	36.6
11.5	16.1	III bc 2224	3	K=H	2	F bright, seen	5.8	32.2	21.9	16.8
11.2	14.2	I	5	K=H	1	F—	5.6	28.4	22.1	20.6
10.8	16.6	I	4	N	1	F—	5.4	33.2	22.3	15.8

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Means

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Bv	Br.
0D 4.2	1797	10 2.0	+ 12 33	1.4	29.6	22.6	29.5	10 3.1 +12 28	2.7	4.2
	1775	9 51.8	+ 13 0	5.3	89.4	22.6	89.7	9 52.9 +12 56	5.4	6.9
0.2 5.3	1810	10 9.9	+ 43 31	3.6	31.7	52.5	29.4	10 11.0 +43 25	3.8	5.3
	1812	10 10.0	+ 24 1	3.6	30.2	32.6	29.3	10 11.1 +23 55	4.2	5.7
	~~1834~~	~~10 19.0~~	~~+ 34 25~~	~~5.1~~	~~32.4~~	~~42.4~~		10 20.2 +34 18		
	~~Dm. 2128~~	~~10 17.6~~	~~+ 34 32~~	~~4.5~~	~~31.6~~	~~42.5~~	~~28.0~~	~~10 20.2 +34 18~~		
	~~1830~~	~~10 16.2~~	~~+ 34 31~~	~~5.9~~	~~29.6~~	~~42.5~~	~~26.6~~		3.0	6.5
0.1 7.1	1757	9 45.1	+ 24 58	5.3	88.1	32.7	89.3	9 46.3 +24 53	5.5	7.0
0.1 6.1	1792	10 0.4	+ 35 50	4.6	29.2	42.6	29.0	10 1.6 +35 44	4.5	6.0
	1760	9 45.9	+ 26 34	4.1	87.9	32.8	9 47.1 +26 29		5.0	6.5
	~~Dm. 1864~~	~~9 44 10.1~~	~~+ 46 22.3~~	~~5.5~~	~~86.2~~	~~52.6~~	~~89.9~~			
	2024	9 45 20.4	+ 26 20.2	4.2	84.3	32.5	88.6	9 47.4 +26 7	5.4	6.9
	~~2007~~	~~9 41.6~~	~~+ 39 33~~	~~6.8~~	~~83.8~~	~~42.6~~	~~9 44.3 +36 21~~			
	~~1760~~	~~9 40.8~~	~~+ 46 35~~	~~5.3~~			9 42.1 +46 29			
	1760	9 45.9	+ 26 34	4.1	88.1	32.6	89.1		5.3	6.8
	1840	10 20.9	+ 37 19	4.4	33.3	42.5	29.6	10 22.1 +37 13	5.1	6.6
									5.3	6.8
0D 5.2	1793	10 0.8	+ 17 21	3.6	29.6	22.7	29.5	10 1.9 +17 16	3.7	5.2
	1765	9 47.9	+ 50 24				9 49.2 +50 17			
0.1 6.7	~~1774~~	~~9 52.7~~	~~+ 30 13~~	~~5.9~~	~~89.5~~	~~32.6~~	~~90.4~~	~~9 53.9 +30 8~~	5.1	6.6
	1823	10 13.4	+ 20 27	2.2	30.4	22.6	29.6	10 14.4 +20 21	3.8	5.3
	1824								4.1	5.6
0.1 6.9	1808	10 9.4	+ 29 54	5.4	30.6	32.7	29.4	10 10.6 +29 48	5.3	6.8

Means

									Cor. Bv	
	1874	10 32.5	+ 16 45	6.5	49.7	27.6	49.0	10 33.6 +16 39	5.3	6.4
	~~1893~~	~~10 18 52.5~~	~~+ 27 28.7~~	~~8.1~~	~~46.7~~	~~27.8~~	~~46.7~~		5.4	6.5
	2080	10 19 28.9	+ 37 26.4	4.0	47.5	47.8	47.1	10 22.1 +37 12	5.6	6.7
	1793	10 0.8	+ 17 21	3.6	48.4	27.8	49.3	10 1.9 +17 16	4.3	5.4
	1845	10 23.1	+ 39 34	5.8	49.3	47.8	48.5	10 24.2 +39 26	5.4	6.5
0.1 6.4	1808	10 9.4	+ 29 54	5.4	47.4	37.7	48.4	10 10.6 +29 48	5.2	6.3
	1821	10 13.3	+ 20 5	5.0	48.7	27.9	49.1	10 14.3 +19 59	5.3	6.4
	1823	10 13.4	+ 20 27	2.2	48.7	27.8	49.1	10 14.4 +20 21	3.8	4.9
	1824								4.2	5.3
	1857	10 26.2	+ 41 3	5.1	50.2	47.8	48.7	10 27.5 +40 57	4.5	5.6
0.1 6.4	1886	10 39.2	+ 31 19	5.4	51.6	37.6	49.0	10 40.3 +31 12	5.2	6.3
	~~Dm. 2076~~	~~10 13.6~~	~~+ 41 57~~	~~6.5~~	~~46.0~~	~~48.0~~	10 16.3 +41 44			
	~~2123~~	~~10 39 42.9~~	~~+ 41 51.3~~	~~4.0~~	~~52.1~~	~~47.9~~	~~47.6~~	~~10 42.3 +41 37~~	5.7	6.8
	1827	10 15.2	+ 42 6	3.1	47.4	47.9	48.0	10 16.4 +42 0	4.4	5.5
									5.0	6.1
	~~Dm. 2123~~	~~10 18 52.9~~	~~+ 42 20.3~~	~~7.0~~	~~47.3~~	~~47.9~~	~~46.9~~	10 21.6 +42 6		
	~~2093~~	~~10 19 9.8~~	~~+ 41 56.9~~	~~7.5~~	~~47.6~~	~~47.5~~	~~47.2~~		5.4	6.5
	~~Dm. 2021~~	~~10 14 3.5~~	~~+ 32 16.2~~	~~8.6~~	~~47.3~~	~~37.9~~	~~47.3~~			
	2116	10 12 23.6	+ 42 34.5	6.7	45.6	48.0	46.4	10 15.1 +42 21	5.9	7.0

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Plate 494.

V	H	Type	Pro Lines	K	Focus	other Lines	V	H	V	H
10.2	9.4	III?	3	K=H	1	F —	5.1	18.8	22.6	30.2
9.5	12.3	I?	4	K=H	1	F?	4.8	24.6	22.9	24.4
9.5	21.1	I	4	N	1	—	4.8	42.2	22.9	6.8
8.7	18.0	I	11	K=2H	4	F —	4.4	36.0	23.3	13.0
7.9	6.8	I	6	K=H	1	F —	4.0	13.6	23.7	35.4
7.7	19.1	II a 2225	3	K=H	3	F faint	3.8	38.2	23.9	10.8
6.9	14.8	I	7	K=H	2	F —	3.4	29.6	24.3	19.4
6.6	16.0	I	4	K=H	1	—	3.3	32.0	24.4	17.0
6.5	21.1	I	2	N	1	—	3.2	42.2	24.5	6.8
4.4	11.7	I	6	K=H	1	—	2.2	23.4	25.5	25.6
3.9	22.4	I d?	5	K=H	1	F —	2.0	44.8	25.7	4.2

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.6 Plate 460 6.7

22.6	11.9	I	7	N	3	—	11.3	23.8	16.3	67.6
13.6	17.6	I	8	N	2	F —	6.8	35.2	20.8	56.2
13.0	12.1	I	11	K=5H	5	F —	6.5	24.2	21.1	67.2
10.9	10.6	II a 2226	3	K=H	1	F faint	5.4	21.2	22.2	70.2
7.9	10.5	III	9	K=H	1	F —	4.0	21.0	23.6	70.4
7.8	20.0	I	7	N	1	F —	3.9	40.0	23.7	51.4
5.2	14.3	III	3	K=H	1	F —	2.6	28.6	25.0	62.8
4.9	14.6	I	7	K=H	1	F —	2.4	29.2	25.2	62.2
4.6	20.6	I	7	N	2	F —	2.3	41.2	25.3	51.2

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.5 Plate 589 7.2

20.5	11.0	I	12	K=2H	5	F —	10.2	22.0	12.8	28.8
19.5	18.3	I?	5	N	1	—	9.8	36.6	13.2	14.2
17.0	20.8	I?	4	K=H	1	—	8.5	41.6	14.5	9.2
16.7	17.3	I	4	K=H	1	—	8.4	34.6	14.6	16.2

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Mean 11

No.	R.A.	Decr.	Mag.	H	V	H'	Red. of D.M. stars to 1900		cor. Bv	(Bv.)
1872	10 32.0	+ 32 36	4.8	50.8	37.7	49.1	10	33.1 + 32 30	5.2	6.3
									5.3	6.4
1852	10 25.0	+ 33 0	5.7	49.6	37.8	48.7	10	26.2 + 32 54	5.5	6.6
~~1463~~	~~10 57.7 + 53 6 7.2~~			~~96.6~~	~~57.9~~					
~~1384~~	9 55.6 + 53 3 6.5			97.8	57.18		9	58.6 + 52 50	5.7	6.8
~~1990~~	~~10 2 59.7 + 32 55.0 4.8~~			~~45.2~~	~~37.7~~	~~47.2~~	~~10~~	~~5.6 + 32 48~~	~~5.8~~	~~5.1~~
1810	10 9.9	+ 43 31	3.6	45.9	47.9	47.5	10	11.0 + 43 25	3.4	4.5
1884	10 36.9	+ 23 49	5.1	50.5	27.8	49.0	10	38.0 + 23 42	5.1	6.2
1811	10 9.9	+ 24 6	3.6					11.0 + 24 0		
1812	10 10.0	+ 24 1	3.6	48.2	27.8	48.9	10	11.1 + 23 55	1.1	3.2
~~1813~~	~~10 10.0 + 25 59~~									
1834	10 19.0	+ 34 25	5.1	48.6	37.8	48.5	10	20.2 + 34 18	4.7	5.8
1830	10 16.2	+ 34 31	5.9	48.2	37.8		10	17.4 + 34 25		
~~1832~~	~~10 17.2 + 34 19 5.9~~			~~49.2~~	~~37.6~~	~~49.5~~				
~~Dm.~~	~~2 28 10 8 53.7 + 14 27.9 5.4~~			~~51.1~~	~~17.7~~	~~51.6~~	~~10~~	~~11.3 + 14 15~~		
~~2198~~	~~10 3 46.1 + 24 28.4 8.3~~			~~46.0~~	~~27.7~~	~~47.1~~				
~~2189~~	~~10 2 29.8 + 24 36.0 7.8~~			~~44.9~~	~~27.8~~	~~45.8~~				
1785	9 56.6	+ 54 28	5.7	98.8	57.7		9	58.0 + 54 23	5.7	6.8
1860	10 26.7	+ 35 36	5.5	50.1	37.8	48.9	10	27.8 + 35 31	5.4	6.5
1792	10 0.4	+ 35 50	4.6	45.2	37.8	48.0	10	1.6 + 35 44	4.7	5.8

Mean 13

									cor. Bv	
1951	11 7.9	+ 16 5	3.5	31.7	27.4	31.4	11	9.0 + 15 59		
1925	10 55.9	+ 20 49	4.5	91.1	27.6	91.5	10	57.0 + 20 43	4.1	5.4
1949	11 7.7	+ 21 11	2.8	31.9	27.7	31.5	11	8.8 + 21 5	3.0	4.8
1959	11 11.8	+ 32 12	3.8	33.0	37.6	31.7	11	12.9 + 32 6	4.8	6.1
1960									5.2	6.5
1961	11 12.0	+ 33 45	3.8	33.0	37.8	31.5	11	13.1 + 33 39	5.6	6.9
~~2408~~	~~11 49.9 + 2.3 47 8.3~~			~~87.9~~	~~27.7~~	~~90.7~~	~~11~~	~~52.2 + 22 32~~		
~~2165~~	~~11 46.1 + 4.3 44 7.5~~			~~86.1~~	~~27.6~~	~~86.8~~	~~11~~	~~48.5 + 22 22~~		
1903	10 47.1	+ 43 50	4.9	87.1	47.7	89.8	10	48.2 + 43 43	5.1	6.4
									4.9	6.2
1941	11 2.9	+ 45 9	3.1	31.5	47.8	31.1	11	4.0 + 45 3	5.3	6.6
1938	11 2.4	+ 25 20	5.6	31.6	27.7	31.5	11	3.5 + 25 12	5.1	6.4
1908	10 49.1	+ 25 23	4.3	90.3	27.7	91.4	10	50.2 + 25 17	4.2	6.5

Mean 13

									cor. Bv	
2944	17 29.4	+ 12 39	2.2	51.4	22.8	51.0	17	30.3 + 12 38	3.0	4.3
2890	17 12.9	+ 33 14	4.9	49.5	43.0	50.5	17	13.6 + 33 13	5.0	6.3
2879	17 9.2	+ 14 32	3.2	50.8	23.1	51.3	17	10.1 + 14 30	5.0	6.3
2904	17 16.0	+ 24 36	5.3	50.6	33.0	51.0	17	16.8 + 24 36	5.2	6.5

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Plate 589

V	H	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H
16.0	19.9	I	8	K=2H	4	—	8.0	39.8	15.0	11.0
13.8	9.4	I b 2227	8	N	4	F seen	6.9	18.8	16.1	32.0
12.1	18.8	III bc 2228	2	K=H	1	F' seen highly	6.0	37.6	17.0	13.2
11.5	15.4	I	9	K=1H	3	—	5.8	30.8	17.2	20.0
11.2	17.7	I	7	K=2H	2	F'	5.6	35.4	17.4	15.4
10.3	5.7	III b? 2229	3	K=H	2	F' seen	5.2	11.4	17.8	39.4
9.0	12.2	I	4	K=H	1	—	4.5	24.4	18.5	26.4
9.3	13.8	I	3	N	1	—	4.6	27.6	18.4	23.2
5.7	14.7	I ?	4	K=1H	1	—	2.8	29.4	20.2	21.4
4.0	6.6	I	4	N	1	—	2.0	13.2	21.0	37.6

Amt. of Fog due to moon & clouds. Amt. of Fog. due to chemicals.

7.7 Plate 567. 6.5

22.9	7.6	I	8	K=H	3	—	11.4	15.2	16.7	53.4
22.6	15.3	I	9	K=1H	4	—	11.3	30.6	16.8	38.0
22.0	16.3	I b 2230	9	N	3	— seen	11.0	32.6	17.1	36.0
21.8	18.9	I	10	N	5	F'	10.9	37.8	17.2	30.8
21.5	8.7	III b 2231	3	K=H	1	F'	10.8	17.4	17.3	51.2
20.8	14.7	I ?	4	K=H	1	—	10.4	29.4	17.7	39.2
20.7	19.3	I	4	K=H	1	—	10.4	38.6	17.7	30.0
20.5	22.2	II a? 2232	3	K=H	3	F seen	10.2	44.4	17.9	24.2
19.5	9.7	I ?	8	K=H	1	F'	9.8	19.4	18.3	49.2
19.1	12.7	III III 2 3	2	K=H	1 1	F' F' H	9.6	25.4	18.5	43.2
410,3; 434,3: R canal	19.1	12.7	II a² π²	1 1	N N	1	--	9.6	25.4	18.5	43.2
	18.5	16.0	I	4	N	1	—	9.2	32.0	18.9	36.6
	18.1	9.3	I	4	N	1	—	9.0	18.6	19.1	50.0
	17.2	21.8	I	10	K=.5H	4	F'	8.6	43.6	19.5	25.0
	16.0	16.1	I	9	K=.2H	3	F'	8.0	32.2	20.1	36.4
	15.6	7.1	I	7	N	2	—	7.8	14.2	20.3	54.4
	15.5	9.2	II a? 2233	3	K=H	1	F' seen	7.8	18.4	20.3	50.2

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Mean 13

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Br	Br.
0.1 4.9	2880	17 10.1	+ 24 59	3.3	49.9	33.0	50.8	17 11.0 +24 57	3.5	4.8
0.2 5.1	2959	17 36.1	+ 46 4	3.9	54.9	53.0	51.4	17 36.6 +46 3	3.6	4.9
	2885	17 10.9	+ 36 57	3.4	48.5	43.0	50.0	17 11.5 +36 55	4.9 / 5.4	6.2 / 6.7
0.1 5.2	2914 / 2915	17 19.6	+ 37 16	4.1	50.4	43.1	50.5	17 20.2 +37 14	3.8	5.1
0.1 5.9	2893	17 13.5	+ 37 25	4.9	48.9	43.0	50.0	17 14.2 +37 24	4.5	5.8
	2976	17 41.8	+ 27 48	3.5	53.2	33.0	51.0	17 42.6 +27 48	4.6 / 4.7	5.9 / 6.0
	2936	17 27.1	+ 28 29	5.6	51.5	33.0	50.8	17 27.9 +28 29	5.5	6.8
0.2 7.2	2976	17 23.6	+ 48 22	5.8	51.2	53.0	50.3	17 24.1 +48 20	5.7	7.0
	2922	17 21.6	+ 20 12	5.4	51.0	23.0	51.0	17 22.5 +20 10	5.6	6.9
0.2 6.9	~~3015~~	~~17 34 27.9~~	~~+ 31 17.1~~	~~6.5~~	~~47.7~~	~~33.3~~	~~45.2~~	~~17 38.2 +31 15~~	5.4	6.7
	~~2887~~	~~17 37 20.4~~	~~+ 41 5.5~~	~~7.5~~	~~50.5~~	~~43.1~~	~~46.3~~	~~17 38.7 +41 4~~		
	~~3087~~	~~17 39.4~~	~~+ 31 12~~	~~7.5~~	~~52.6~~			~~17 41.1 +31 11~~		
	2989	17 46.2	+ 50 50	5.2	59.4	52.8		17 46.7 +50 48		

~~17 45.6 + 50.8~~

Mean 5

	2694	15 59.1	+ 46 22	4.7	74.3	54.8	70.1	15 59.6 +46 19		
	~~2625~~	~~15 37.7~~	~~+ 26 41~~	~~4.2~~	~~68.3~~	~~38.0~~		~~15 38.5 +26 36~~		
	~~2722~~	~~15 36.7~~	~~+ 26 46~~	~~4.0~~	~~67.3~~	~~38.1~~	~~67.4~~	~~15 38.6 +26 37~~		
	~~2627~~	~~15 38.4~~	~~+ 6 48~~	~~2.7~~	~~69.0~~	~~18.1~~				H.P
0.1 5.5	2614 / 2615	15 34.9	+ 37 2	4.8	67.5	48.0	68.0	15 35.6 +36 58	4.9	5.4
0.1 4.1	2594	15 29.6	+ 27 7	2.4	67.4	38.0	68.2	15 30.4 +27 3	3.5	4.0
	2673	15 52.6	+ 27 14	4.1	70.0	38.0	68.6	15 53.5 +27 10	5.7 / 6.1	6.2 / 6.6
	2629	15 39.3	+ 17 38	5.7	68.7	28.0	68.7	15 40.2 +17 34	6.1	6.6
	~~2236~~	~~15 26.4~~	~~+ 47 60~~	~~8.8~~	~~65.0~~	~~53.2~~	~~67.8~~	~~15 27.0 +47 44~~	5.9	6.4
	2574	15 24.9	+ 47 38	5.9	63.5	58.0	66.3	15 25.6 +47 35	~~15 24.1 +47 44~~	
	2561	15 20.0	+ 37 48	4.4	64.4	48.0	67.5	15 20.7 +37 43	4.8	5.8
	2667	15 51.4	+ 38 18	5.6	70.8	48.1	68.5	15 52.1 +38 14	5.5	6.0
	2636	15 43.3	+ 18 31	4.2				~~15 44.2 +18 27~~	5.7	6.2
	2639	15 43.6	+ 28 31	var.	69.0	38.1	68.4	15 44.5 +28 28	6.3	6.8
									6.5	7.0
0.0 6.4	2622	15 36.5	+ 18 52	5.8	68.5	28.1	68.6	15 37.4 +18 47	5.9	6.4
0.0 6.5	2664	15 50.2	+ 18 58	6.4	68.8	28.0	68.1	15 51.2 +18 55	6.0	6.5
									~~15 49.2 +19 5~~	
0.1 5.10	2572	15 22.9	+ 29 31	3.8	66.5	38.1	68.3	15 23.7 +29 27	4.4	4.9
0.0 5.3	2621	15 36.2	+ 20 3	4.6	68.4	28.0	68.6	15 37.1 +19 59	4.8	5.3
0.1 5.5	2686	15 56.7	+ 30 11	5.1	70.9	38.0	68.7	15 57.4 +30 7	4.9	5.4
	2682	15 55.7	+ 50 14	5.9	74.1	58.0	69.9	15 56.2 +50 10	6.0	6.5

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Plate 567.

V	H	Type	3rd Lines	K	Focus	other Lines	V	H	V	H
14.6	15.8	III	3	K=H	1	— F'	7.3	31.6	20.8	37.0
14.7	16.7	III ?	3	K=H	1	— F'	7.4	33.4	20.7	35.2
14.5	23.7	II a 2234	2	K=H	1	— seen	7.2	47.4	20.9	21.2
13.5	11.5	III	3	K=H	1	— F	6.8	23.0	21.3	45.6
13.5	19.0	I	9	K=½H	2	— F	6.8	38.0	21.3	30.6
12.6	19.3	I b 2235	10	N	3	—	6.3	38.6	21.8	30.0
11.2	21.3	I	6	K=H	2	— F'	5.6	42.6	22.5	26.0
10.8	14.3	I	8	N	2	— F'	5.4	28.6	22.7	40.0
10.7	11.1	II a 2236	3	K=H	3	— F' seen	5.4	22.2	22.7	46.4
10.14	10.0	I	8	N	1	— F'	5.2 4.7	20.0	22.9 23.4	48.6
9.8	6.4	I	7	N	2	— F'	4.9	12.8	23.2	55.8
9.6	11.8	I	4	N	1	—	4.8	23.6	23.3	45.0
9.1	23.9	I	7	K=H	2	—	4.6	47.8	23.5	20.0
8.7	7.4	II a 2237	3	K=H	1	— F' seen	4.4	14.8	23.7	53.8
7.3	19.0	I	6	N	1	— F'	3.6	38.0	24.5	30.6
6.2	16.2	I	8	K=.2H	2	— F	3.1	32.4	25.0	36.2
6.0	9.9	I	8	K=⅛H	2	— F'	3.0	19.8	25.1	48.8
5.5	5.4	I	6	N	3	— F	2.8	10.8	25.3	57.8
5.0	18.2	I	5	K=H	1	—	2.5	36.4	25.6	32.2
4.8	12.8	I	6	K=.5H	1	—	2.4	25.6	25.7	43.0
4.2	11.5	III b 2238	3	K=H	1	— F' seen	2.1	23.0	26.0	45.6
3.4	7.6	I	9	N	3	— F'	1.7	15.2	26.4	53.4
3.5	12.2	III	3	K=H	1	— F'	1.8	24.4	26.3	44.2
3.0	15.3	I	11	K=.2H	3	— F'	1.5	30.6	26.6	38.0
2.2	16.3	I	5	N	2	— F'	1.1	32.6	27.0	36.0
2.0	18.9	I ?	2	N	4	— F'	1.0	37.8	27.1	30.8

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Mean 5

cor.

½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	By	Br.
	2617	15 35.0	+ 50 48	6.0	66.6	58.1	67.1	15 35.7 + 50 45	6.0	6.5
	2611	15 33.5	+ 40 45	5.4	66.9	48.2	67.6	15 34.2 + 40 41	6.1	6.6
	2559 / 2560	15 18.2	+ 30 43	5.0	65.6	37.9	68.1	15 19.1 + 30 39	5.8	6.3
	2649	15 46.0	+ 21 20	4.8	69.0	28.1	68.5	15 46.9 + 21 17	6.0	6.5
02 5.7	2584	15 27.5	+ 41 18	5.0	65.5	48.1	67.5	15 28.2 + 41 15	5.7	6.2
0.1 5.1	2588	15 28.1	+ 31 46	4.3	66.7	38.1	68.0	15 28.9 + 31 42	6.1	6.6
	2552	15 16.5	+ 52 25	5.6	59.1	58.0	15 17.2 + 52 17		6.6	7.1
	~~Dm 1869~~	~~15 15 48.7~~	~~+ 52 30.5~~	~~5.5~~	~~58.4~~	~~58.1~~	~~632~~			
	1876	15 22 17.9	+ 52 33.6	7.0	64.9	58.2	678	15 23.6 + 52 24	5.1	5.6
03 5.7	2630	15 39.6	+ 52 45	5.6	68.2	58.2	67.6	15 40.2 + 52 40	4.9	5.4
	2658	15 48.6	+ 42 47	4.5	70.8	48.2	68.3	15 49.2 + 42 43	4.8	5.3
02 5.7	4.8 2669	15 51.5	+ 42 54	5.7	71.5	48.1	15 52.2 + 42 51		5.0	5.5
	~~2665~~	~~15 50.7~~	~~+ 43 30~~	~~5.5~~	~~70.7~~	~~48.2~~	~~68.0~~	~~15 51.3 + 43 26~~		
00 5.3	2687	15 57.1	+ 23 8	5.0	69.9	28.0	68.4	15 57.9 + 23 4	4.8	5.3
	Dm 1816	15 47 22.6	+ 53 21.3	6.5	71.0	58.2	68.4	15 48.6 + 53 13	6.1	6.6
	~~2681~~	~~15 44 33.9~~	~~+ 43 19.3~~	~~8.5~~	~~68.2~~	~~48.1~~	~~66.5~~			
	2554	15 17.0	+ 33 21	5.3	64.8	38.0	67.9	15 17.8 + 33 17	5.2	5.7
	2685	15 56.5	+ 33 40	5.2	71.3	38.1	68.7	15 57.2 + 33 37	6.0	6.5
	~~Dm 1756~~	~~15 31 25.4~~	~~+ 54 24.9~~	~~6.0~~	~~69.4~~	~~58.0~~	~~72.7~~	~~15 32.6 + 54 16~~		
	~~2484~~	~~15 29 55.1~~	~~+ 44 33.8~~	~~7.5~~	~~67.9~~	~~48.2~~	~~70.2~~	~~15 31.4 + 44 25~~	5.9	6.4
03 5.9	Dm 1747	15 22.6	+ 54 31	6.5	66.6	58.1	41.3	15 23.8 + 54 21	5.1	5.6
	2608	15 32.9	+ 55 1	5.8	65.3	58.1	66.3	15 33.4 + 54 57	5.5	6.0
	2680	15 54.9	+ 55 5	5.0	74.7	58.1	70.3	15 55.4 + 55 1	4.8	5.3
02 5.0	2713	16 5.0	+ 45 15	4.2	75.8	48.0	70.1	16 5.6 + 45 12	4.3	4.8
	Dm 1756	15 25.2	+ 55 42	6.5	61.6	58.2	15 26.4 + 55 33		6.0	6.5
	~~2599~~	~~15 30.9~~	~~+ 15 30~~	~~6.9~~	~~67.3~~	~~18.0~~	~~676~~			
03 6.5	2642	15 44.6	+ 55 44	6.0	70.2	58.1	68.2	15 45.2 + 55 41	5.7	6.2
	2652	15 46.7	+ 36 2	4.7	69.7	38.1	68.5	15 47.5 + 35 59	6.2	6.7
02 5.3	2694	15 59.1	+ 46 22	4.7	74.3	48.1	69.8	16 59.6 + 46 19	4.6	5.1
	~~Dm 1833~~	~~15 45.9~~	~~+ 56 41~~	~~7.1~~	~~70.3~~	~~58.5~~	~~15 46.9 + 56 33~~			
	2643	15 44.6	+ 26 26	4.6	69.0	28.2	68.4	15 45.4 + 26 23	5.7	6.2
0.1 5.0	2625	15 37.7	+ 26 41	4.2	68.3	28.2	68.4	15 38.5 + 26 36	4.4	4.9
	2614 / 2615	15 34.9	+ 37 2	4.8	67.5	38.1	68.0	15 35.6 + 36 58		
	2594	15 29.6	+ 27 7	2.4	67.4	28.1	68.2	15 30.4 + 27 3		

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Aunt of Fog. due to moon & clouds. 7.0

Aunt. of Fog. due to chemicals. 6.5

July 20, 1886.

Plates 5-12.

V	H	Type	Arc Lines	K	Spectr	Other Lines	V	H	V	H
22.7	12.2	I	X 5	N	3	—	11.4	24.4	21.6	26.2
22.1	11.7	I	9	N	3	— F1	11.0	23.4	22.0	27.2
19.7	17.1	I b 2239	4	K=H	1	— F seen	9.8	34.2	23.2	26.4
19.9	17.4	II a 2240	2	K=H	1	— Seen	10.0	34.8	23.0	15.8
19.2	7.6	I	6	N	3	—	9.6	15.2	23.4	35.4
19.0	16.4	I	5	N	3	— F1	9.5	32.8	23.5	17.8
19.0	20.7	I	6	K=H	1	— F	9.5	41.4	23.5	9.2
18.6	18.7	I	3 2244	N	1	—	9.3	37.4	23.7	13.2
18.2	19.0	III b c	3	K=H	3	F bright V. Seen	9.1	38.0	23.9	12.6
16.5	16.9	I ?	3	N	1	—	8.2	33.8	24.8	16.8
16.1	16.2	I ?	X 5	K=H	2	— F1	8.0	32.4	25.0	18.2
16.0	12.6	I	X 5	N	1	—	8.0	25.2	25.0	25.4
16.0	6.6	I	3	N	1	—	8.0	13.2	25.0	37.4
14.9	14.3	III ? III	2 2	K K=H K=H	1 1	— —	7.4	28.6	25.6	22.0
15.1	10.1	I I	4 4	K=H	1 1	— —	7.6	20.2	25.4	30.4
15.0	23.4	II a 2242	X 3	K=H	2	F seen	7.5	46.8	25.5	3.8
13.0	12.3	I	5	N	1	F —	6.5	24.6	26.5	26.0
12.9	10.2	II a 2243	X 3	K=H	1	F seen	6.4	20.4	26.6	30.2
12.5	7.3	I	X 10	N	4	F2	6.2	14.6	26.8	36.0
11.7	9.2	I	X 10	N	3	F1	5.8	18.4	27.2	32.2
11.8	11.0	I	X 14	K=1H	5	F line	5.9	22.0	27.1	28.6
11.8	12.4	II a! 2244	3	K=H	1	F seen	5.9	24.8	27.1	25.8
11.5	10.0	X I ?	X 8	K=H	1	F —	5.8	20.0	27.2	30.6
13.8	19.5	I ?	4	K=H	1	—	6.9	39.0	26.1	11.6
11.5	18.3	I I	2 2	N N	1 1	— —	5.8	36.6	27.2	14.0
11.0	8.7	I ?	3	N	1	—	5.5	17.4	27.5	33.2
10.8	11.4	I	3	N	1	—	5.4	22.8	27.6	27.8
10.5	6.3	I	X 7	N	1	F —	5.2	12.6	27.8	38.0
10.7	13.3	I	9	K=.5H	1	F —	5.4	26.6	27.6	24.0
11.5	13.8	III ?	2 2	K=H K=H	1 1	— —	5.8	25.6	27.2	25.0

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Mean 5

	No.	R. A.	Decr.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor.	Br.	Br.	
	2584	15 27.5	+41 18	5.0				15 28.2 +41 15				
Dm.	2846	15 25.8	+ 11 28	7.2	50.2	22.9		15 27.9 + 11 19				
Dm.	2611	15 26 36.6	+ 41 24.6	4.8	51.0	52.8	49.6	15 28.2 +44 16				
	2742	15 24 33.0	+ 31 44.5	7.0	48.9	43.2	48.1					
0.1	2588	15 28.1	+ 31 46	4.3	51.5	42.8	50.5	15 28.9 +31 42	✓	4.5	5.0	✓
	2928	15 15.5	+ 13	6.4	49.7	22.9	49.8	15 17.6 +12 56				
Dm.	2500	15 22 38.9	+ 43 22.8	7.3	56.8	53.2	58.0					
	2823	15 25 40.7	+ 23 4.5	7.3	59.9	32.9	60.2					
Dm.	2811	15 11 3.9	+ 22 49.6	7.0	45.9	38.8	46.2					
	2574	15 13 38.5	+ 33 3.5	6.8	48.4	43.1	49.1	15 15.4 +32 54	✓	6.2	6.7	✓
0.1	2620	15 36.1	+ 13 14	5.1	51.3	42.8	50.7	15 37.0 +13 10	✓	5.4	5.9	✓
0.1	2554	15 17.0	+ 33 21	5.3	49.8	42.9	50.2	15 17.8 +33 17	✓	5.3	5.8	✓
	2533	15 8.2	+ 23 26	6.3	49.6	32.9	50.6	15 9.1 +23 22	✓	6.1	6.6	✓
Dm.	2475	15 8.8	+ 43 36	7.0	46.2	52.7		15 10.4 +43 26	✓	6.4	6.9	✓
	2298	15 12 56.4	+ 23 46.2	8.6	50.3	33.1	51.0	15 14.9 +23 36				
	2541	15 10.7	+ 33 46	3.5	48.7	42.9	50.0	15 11.5 +33 42	✓	5.0	5.5	✓
Dm.	2850	15 15 18.1	+ 24 51.7	7.0	49.1	33.1	49.5	15 17.3 +24 42	✓	6.5	7.0	✓
Dm.	2453	15 15 43.2	+ 44 58.3	6.3	48.1	53.0	48.8	15 17.3 +44 48	✓	5.9	6.4	✓
Dm.	2889	15 24 53.9	+ 14 44.4	4.8	50.1	22.8	49.9					
	2655	15 25 6.4	+ 34 58.3	7.2	50.1	43.0	49.3	15 26.9 +34 49	✓	6.1	6.6	✓
Dm.	2914	15 37.9	+ 24 55	7.3	51.1	32.9		15 38.8 +24 46	✓	6.4	6.9	✓
Dm.	2760	15 28 46.4	+ 25 9.7	7.6	52.0	33.2	50.3					
	2384	15 42 37.4	+ 45 1.8	6.9	55.8	53.0	50.9	15 44.1 +44 64				
	2570	15 22.5	+25 31	6.3	51.1	32.9		15 23.3 +25 26	✓	7.2	7.8	✓
	2599	15 30.9	+ 15 30	6.9	51.1	23.1	50.6	15 31.8 +15 26	✓	6.4	6.9	✓
Dm.	2816	15 21.3	+ 25 40	6.3	49.1	33.2	50.8	15 32 +25 27				
	2673	15 0.9	+ 25 27	4.2	47.7	32.9	49.4	15 28 +25 36				
	2513	14 56.9	+ 25 29	4.9	103.7	33.0	105.4	14 57.7 +25 24	✓	5.4	5.9	
0.0	2581	15 26.6	+ 16 28	6.2	51.2	23.0	50.9	15 27.6 +16 24	✓	5.7	6.2	✓
	2600	15 31.0	+ 16 31	5.7	51.4	22.9	50.9	15 31.9 +16 27	✓	5.8	6.3	✓
Dm.	2625	15 37.7	+ 26 41	4.2	52.3	32.7		15 38.5 +26 37				
	2722	15 36.7	+ 26 46	4.0	51.3	33.0	49.6	15 38.8 +26 37	✓	4.0	4.5	✓
0.1	2627	15 38.4	+ 6 48	2.7	53.0	13.0						
	2614	15 34.9	+ 37 2	4.8	53.3	42.8		15 35.6 +36 58	✓	4.6	5.1	✓
0.1	2615											
	2613	15 34.5	+ 47 12	5.7	52.9	53.0	49.2					
0.1	2594	15 29.6	+ 27 7	2.4	51.6	33.0	50.7	15 30.4 +27 3	✓	3.5	4.0	✓
	2579	15 26.8	+ 37 1	6.2	51.6	42.9	50.6	15 27.6 +36 57	✓	6.1	6.6	✓
	2613	15 34.5	+ 47 12	5.7	54.5	53.0	51.3	15 35.1 +47 8	✓	5.6	6.1	✓
Dm.	2654	15 9 28.5	+ 16 46	6.0	48.4	33.0	48.9					
	2640	15 9 26.8	+ 26 11.0	6.8	48.4	33.1	49.3	15 11.3 +26 1	✓	6.3	6.8	✓
	2543	15 13.2	+ 27 17		49.8	23.1	50.5	15 14.1 +27 12	✓	6.6	7.1	✓
Dm.	2666	15 35.1	+ 37 3.0	7.0	52.5	43.2		15 36.8 +37 21	✓	6.4	6.9	✓
Dm.	2655	15 34 24.0	+ 47 24.3	6.7	51.8	52.9	47.8	15 35.6 +47 15				
	2666	15 35 5.8	+ 37 29.7	7.0	52.5	43.0	49.9	15 36.8 +37 21				
Dm.	2880	15 27 16.0	+ 17 37.6	6.7	50.0	23.0	49.6	15 29.3 +17 29	✓	6.3	6.8	✓
0.0	2629	15 39.3	+ 17 38	5.7	51.9	22.8	51.9	15 40.2 +17 34	✓	5.7	6.2	✓
0.2	2574	15 24.9	+ 47 38	5.9	51.5	53.0	50.3	15 25.6 +47 35	✓	5.5	6.0	✓
	2678	15 25.9	+ 37 12	6.6	51.5	43.0		15 26.7 +37 9	✓	6.3	7.3	✓

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Plate 572.

V	H	Type	No.	Lines	K	Focus	other Lines	V	H	V	H
10.5	15.1	II a	2245 3		K=H	3	— F! seen	5.2	30.2	27.8	20.4
9.6	13.0	I	4		N	1	—	4.8	26.0	28.2	24.6
10.0	22.8	I	5		N	1	—	5.0	45.6	28.0	5.0
9.5	21.7	II ?	3		K=H	2	— F	4.8	43.4	28.2	7.2
8.5	21.1	I	7		N	2	— F	4.2	42.2	28.8	8.4
8.1	7.6	I	5		N	1	—	4.0	15.2	29.0	35.4
8.0	24.1	I	4		N	1	—	4.0	48.2	29.0	2.4
7.0	14.0	I b?	2246 8	II	K=.8H	4	— F bright seen	3.5	28.0	29.5	22.6
6.9	19.8	I	7		N	2	— F	3.4	39.6	29.6	11.0
6.0	17.3	III ?	2		K=H		—	3.0	34.6	30.0	16.0
9.8	10.7	III	III ? 2	2	K=H	K=H 1	— F	4.9	21.4	28.1	29.2
5.7	7.9	I	7		N	3	— F	2.8	15.8	30.2	34.8
III ? 6.2, 6.5	4.7	16.4	I a?	2247 4	K=H	2	—	2.4	32.0	30.6	18.6
4.2	10.1	III	3		K=H	1	— F	2.1	20.2	30.9	30.4
4.0	23.7	III b?	2248 3		K=.2H	2	— F?	2.0	47.4	31.0	3.2
3.4	12.3	I	8		K=.2H	2	—	1.7	24.6	31.3	26.0
2.6	11.8	I	9	N		3	— F	1.3	23.6	31.7	27.0

Aut. of Fog. due to moon & clouds. Aut. of Fog. due to chemicals

7.6 Plate 586. 7.3

20.4	18.8	I a?	2244 3		K=H	1	F seen	10.2	37.6	42.8	51.7
19.3	16.1	I	6		K=.2H	1	—	9.6	32.2	43.4	57.1
17.5	10.4	I ?	4		K=H	1	—	8.8	20.8	44.2	68.5
15.5	12.8	I	8	N		3	—	7.8	25.6	45.2	63.7
13.8	19.2	II a	2250 2		K=H	2	— seen	6.9	38.4	46.1	50.9
13.8	20.0	II	2		K=H	1	—	6.9	40.0	46.1	49.3
13.3	14.9	I	7	N		3	— F	6.6	29.8	46.4	59.5
12.7	9.0	III b	2251 9		K=H	4	— F	6.4	18.0	46.6	71.3
III ? 6.7, 7.0.	12.4	12.8	III	2	K=H	1	—	6.2	25.6	46.8	63.7
	12.8	21.7	III ?	3	K=H	1	— F	6.4	43.4	46.6	45.9

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Means

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Cor. Br.	Br.	
	2561	15 20.0	+ 37 48	4.4	50.2	43.0	50.2	15 20.7 +37 43		4.3	4.8
	~~Dm. 2439~~	~~15 24 16.2~~	~~+ 38 9.2~~	~~8.2~~	~~50.3~~	~~33.0~~	~~49.8~~				
	2300	15 24 47.3	+ 48 13.6	6.7	50.8	53.0	49.5	15 26.2 +48 5		6.1	6.6
02 6.5	2511	~~15~~ 14 56.5	+ 47 45	6.2	102.1	52.8		~~15~~ 57.2 +47 40			
	~~Dm. 2620~~	~~15 4 33.4~~	~~+ 38 14.7~~	~~7.9~~	~~50.2~~	~~43.2~~	~~50.6~~	14			
	2461	15 4 11.5	+ 27 58.4	8.0	49.8	33.0	51.7	15 6.1 +27 46		5.8	6.3
	~~Dm. 2620~~	~~15 4.6~~	~~+ 38 15~~	~~7.9~~	~~48.0~~	~~43.0~~	~~51.0~~	15 6.2 +38 5			
	2521	14 59.8	+ 48 7	4.9	103.2	53.7	107.6	15 0.7 +48 2		5.1	5.6
02 5.8	~~Dm. 2639~~	~~15 8.1~~	~~+ 38 48~~	~~6.0~~	~~50.3~~	~~43.0~~	~~53.1~~	15 9.8 +38 38			
	2625	15 1.8	+ 18 55	5.9	44.0	23.1	44.7			5.1	5.6
	2523	15 1.5	+ 48 38	5.6	43.7	42.8	47.9	15 2.2 +48 32		5.8	6.3
00 6.3	2622	15 36.5	+ 18 52	5.8	51.7	22.9	50.8	15 37.4 +18 47			
	2625	15 1.8	+ 18 55	5.9	50.0	22.9		15 2.8 +18 50		5.0.7 +19.1	
00 6.6	~~Dm. 2891~~	~~14 56 50.7~~	~~+ 28 52.7~~	~~7.0~~	~~106.0~~	~~32.8~~	~~109.2~~				
	~~2832~~	~~14 59 10.8~~	~~+ 39 10.9~~	~~7.0~~	~~107.4~~	~~43.2~~	~~111.5~~	15 0.9 +40 0		6.1	6.6
	2572	15 22.9	+ 29 31	3.8	50.9	33.0	50.6	15 23.7 +29 27		4.2	4.7
01 5.9	2537	15 9.5	+ 29 37	5.3	49.1	33.0	50.3	15 ~~23~~ 10.3 +29 32		5.3	5.8
	2549	15 15.3	+ 30 2	5.7	49.9	33.0	50.4	15 16.0 +29 59		6.4	6.9
	2596	15 30.1	+ 18 3	6.1	51.5	22.9		15 31.0 +18 0	6.5 6.7	7.0 7.2	7.3
00 5.3	2621	15 36.2	+ 20 3	4.6	52.0	22.8	51.1	15 37.1 +19 59		4.8	5.3
	2560										
	2559	15 18.2	+ 30 43	5.0	50.2	33.1	50.5	15 19.1 +30 39		5.3	5.8
	2611	15 33.5	+ 40 45	5.4	53.7	42.9		15 34.2 +40 41		5.5	6.0
	~~Dm. 2904~~	~~15 32 34.1~~	~~+ 40 50.3~~	~~5.0~~	~~52.8~~	~~42.9~~	~~50.4~~	15 34.2 +40 41		5.9	6.4
	2515	14 57.4	+ 40 52	3.6	104.8	42.9	109.1	14 58.2 +40 47		4.7	5.2
										5.0	5.5
02 5.5	2584	15 27.5	+ 41 18	5.0	52.1	43.0	50.7	15 28.2 +41 15		4.8	5.3
01 4.8	2588	15 28.1	+ 31 46	4.3	51.7	33.1	50.8	15 28.9 +31 42		4.2	4.7

Means

	2658	15 48.6	+ 42 47	4.5	86.2	53.0	88.2	15 49.2 +42 43		5.7	6.8
	2687	15 57.1	+ 23 8	5.0	89.3	32.7		15 57.7 +23 4			
00 6.4	~~Dm. 1834~~	~~15 58 26.0~~	~~+ 53 19.0~~	~~6.0~~	~~90.6~~	~~62.9~~	~~91.6~~	15 59.0 +53 11		5.3	6.4
	~~2846~~	~~15 58 46.2~~	~~+ 23 26.6~~	~~4.3~~	~~86.0~~	~~33.0~~	~~86.2~~				
	2730	16 10.2	+ 34 10	5.3	31.0	43.0	29.4	16 11.0 +34 6		6.0	7.1
02 5.1	2713	16 5.0	+ 45 15	4.2	30.6	53.1	29.3	16 5.6 +45 12		3.8	4.9
	2666	15 50.9	+ 16 3	4.0	89.3	22.9		15 51.8 +16 0		4.8	5.9
	~~2661~~	~~15 49.5~~	~~+ 56 11~~	~~5.9~~	~~87.9~~	~~63.1~~	~~91.6~~				
	2652	15 46.7	+ 36 2	4.7	86.7	42.9	88.6	15 47.5 +35 59		5.7	6.8
										6.0	7.1
02 5.5	2694	15 59.1	+ 46 22	4.7	88.9	53.0	88.8	15 59.6 +46 19		4.2	5.3
02 4.7	2745	16 16.1	+ 46 36	3.9	34.1	53.0	30.4	16 16.7 +46 33		3.4	4.5
											6.7
	2710	16 4.6	+ 36 47	5.2	30.2	43.0	29.3	16 5.3 +36 45		5.6	6.7
										5.9	7.0
	2643	15 44.6	+ 26 26	4.6	88.0	32.8	89.4	15 45.4 +26 23		5.5	6.6
										5.6	6.7

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July 20, 1886.

Plate 686.

V	H	Type	Pro Lines	K	Focus	other Lines		V	H	V	H
11.4	18.0	III	3	K=H	1	—	f1	5.7	36.0	47.3	53.3
11.1	13.5	I	3	K=H	1	—	f1	5.6	27.0	47.4	62.3
10.9	13.2	I	2	N	1	—		5.4	26.4	47.6	62.9
10.3	6.2	I	2	N	1	—		5.2	12.4	47.8	76.9
9.3	18.0	I ?	5	K=H	1	—	f1	4.6	36.0	48.4	53.3
7.0	7.0	I	8	K=H	2	—		3.5	14.0	49.5	75.3
5.5	16.2	I	6	N	1	—	f1 ?	2.6	32.4	50.4	56.9
5.8	8.5	I ?	2	N	1	—		2.9	17.0	50.1	72.3

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Mean 11

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor Pr. Br.	Br.
–	2673	15 52.6	+ 27 14	4.1	88.6	32.9	89.3	15 53.5 +27 10	5.4	6.5
–	2707								5.7	6.8
–	2706	16 2.7	+ 17 22	4.8	29.7	23.0	29.5	16 3.6 +17 20	5.7	6.8
								16 3.6 +17 19	6.0	7.1
Dm.	~~2691~~	~~16 3 24.0 + 27 45.7~~		~~7.5~~	~~29.5~~	~~33.2~~	~~29.4~~			
	2967	16 2 14.7 + 17 36.6		6.5	28.6	23.0	28.4	16 16.7 +17 30	6.0	7.1
0.7.1	2760	16 21.1	+ 37 40	5.5	33.5	42.9	29.8	16 21.9 +37 37	5.9	7.0
–										
	2667	15 51.4	+ 38 18	5.6	87.4	42.9	88.7	15 52.1 +38 14	5.4	6.5
–	2747	16 16.6	+ 19 26	3.8	31.0	22.9		16 17.5 +19 24		
Dm.	~~3086~~	~~16 15.5 + 19 30~~		~~3.0~~	~~29.5~~	~~23.0~~	28.5	16 17.5 +19 23		
	~~2765~~	~~16 22.2 + 69 24~~		~~5.4~~	~~36.2~~	~~72.9~~			4.6	5.7
	2686	15 56.7	+ 30 11	5.1	89.1	32.8		15 57.4 +30 7		
0.16.1	2682	15 55.7	+ 50 14	5.9	88.1	52.8	88.9		4.9	6.0
Dm.	~~3244~~	~~16 13.4 + 20 10~~		~~7.9~~	~~30.6~~	~~23.1~~	29.6	16 16.4 +20 3		
	3005	16 15.0	+ 40 2	5.5	32.0	42.9	25.8	16 16.5 +39 55		
	~~2741~~	~~16 15.3 + 60 4~~		~~5.4~~	~~32.3~~	~~63.0~~	~~25.9~~		6.1	7.2

15 55.7 +30. 4

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Aut. of Fog. due to moon + clouds. Aut. of Fog. due to chemicals.
7.4 6.3

Dark Plate.

Hard to measure. July 22, 1886.

Plate 565.

V	H	Type	No Lines	K	Focus	Other Lines	V	H	V	H
21.1	21.4	I ? I ?	4 4	K=H K=H ?	1	—	10.6	42.8	12.3	27.4
20.8	10.2	I	5		1	—	10.0	20.4	12.9	49.8
18.0	19.5	I I	2 4	K=H	1	—	9.0	39.0	13.9	31.2
17.5	17.4	I	10	K=.1H ?	5	—	8.8	34.8	14.1	35.4
17.0	12.8	II	2	K=H	1	—	8.5	25.6	14.4	44.6
16.2	16.7	I	7		3	—	8.1	33.4	14.8	36.8
16.1	13.6	II ?	2	K=H	1	—	8.0	27.2	14.9	43.0
16.0	10.0	I	8		1	F1 —	8.0	20.0	14.9	50.2
15.7	8.0	III ?	2	K=H	1	—	7.8	16.0	15.1	54.2
15.5	12.9	I	4		1	—	7.8	25.8	15.1	44.4
14.8	7.4	III	3	K=H	1	F1 —	7.4	14.8	15.5	55.4
14.4	7.4	III	3	K=H	1	F —	7.2	14.8	15.7	55.4
12.9	12.9	II a 2252	2	K=H	2	Seen	6.4	25.8	16.5	44.4
11.8	6.0	I ?	2		1	—	5.9	12.0	17.0	58.2
12.1	17.5	I b ? 2253	10	K=.1H ?	4	Seen ?	6.0	35.0	16.9	35.2
12.2	24.4	I	6	N	4		6.1	48.8	16.7	21.4
11.5	18.2	I	6	N	1	F —	5.8	36.4	17.1	33.8
11.5	20.8	I	5	K=H	1	F —	5.8	41.6	17.1	28.6
11.1	15.3	III b ? 2254	3	K=H	2	F Seen	5.6	30.6	17.3	39.6
11.0	15.1	III b 2255	3	K=H	5	F Slight Seen	5.5	30.2	17.4	40.0
11.0	6.4	III	3	K=H	1	F1 —	5.5	12.8	17.4	57.4
10.5	9.1	I	7	N	1	F1 —	5.2	18.2	17.7	52.0
9.7	8.0	III ?	3	K=H	2	F1 —	4.8	16.0	18.1	54.2
8.7	7.5	I	7	N	2	F —	4.4	15.0	18.5	55.2
8.4	19.8	I	12	K=.2H	5	F1 —	4.2	39.6	18.7	30.6
1 or 2 stars ? 7.8	12.8	I	5	N	2	—	3.9	25.6	19.0	44.6
6.9	12.3	III b 2256	3	K=H	2	F Seen	3.4	24.6	19.5	45.6
6.5	9.0	II ?	3	K=H	1	F —	3.2	18.0	19.7	52.2

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Mean 6

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Br.	Br.	
½ cos δ	~~2508~~	~~14 23.9~~	~~+ 42 27~~	~~6.8~~	~~66.7~~	~~53.0~~	~~70.1~~	~~14 25.8 +42 16~~			
Dm.	~~2482~~	~~14 23.2~~	~~+ 32 26~~	~~6.5~~	~~66.8~~	~~42.0~~	~~68.0~~	~~14 23.1 +32 14~~			
	2438	14 27.1	+ 22 47	5.9	69.9	33.4	70.9		✓ ✓	6.2 6.8	6.7 14 23.7 + 32.4
Dm.	2531	14 49 59.3	+ 32 53.6	6.3	70.4	42.9	68.9	14 51.9 +32 43	✓ ✓	6.9 6.5 ✓	
	~~2566~~	~~14 48 36.5~~	~~+ 13 10~~	~~6.5~~	~~69.0~~	~~23.0~~	~~68.6~~				
Dm.	2710	14 29 33.5	+ 23 53.2	6.3	68.6	32.9	69.4	14 31.6 +23 41	✓ ✓	6.4 7.0 6.9	
	~~2814~~	~~14 28 44~~	~~+ 13 46.2~~	~~7.0~~	~~69.1~~	~~22.8~~	~~67.5~~				
DD. 4.8	2452	14 35.4	+ 14 15	3.8	70.2	23.2	70.4	14 36.4 +14 9	✓ ✓	4.2 4.8 ✓	
	2453									6.0 6.6	
	2484	14 44.9	+ 24 25	5.8	70.5	32.9	70.1	14 45.8 +24 20	✓ ✓	6.1 6.7 ✓	
										~~14 43.8 +24 31~~	
02. 5.9	2448	14 34.4	+ 44 55	5.3	67.8	53.0	68.8	14 35.2 +44 50	✓ ✓	5.1 5.7 ✓	
	2476	14 43.1	+ 24 52	6.1	70.3	32.9	70.1	14 44.0 +24 47	✓ ✓	6.2 6.8 ✓	
										~~14 42.0 +24 58~~	
DD. 6.2	2498	14 50.6	+ 14 56	5.7	70.6	22.9	70.2	14 51.5 +14 51	✓ ✓	5.6 6.2 ✓	
	2519	14 58.9	+ 45 7	6.3	74.9	52.9	70.9	14 59.6 +45 2	✓ ✓	6.2 6.8 ✓	
										6.3 6.9	
	~~2225~~	~~14 46 9.3~~	~~+ 45 14~~	~~7.3~~	~~72.0~~	~~63.0~~	~~70.7~~				
Dm.	~~2625~~	~~14 48 37.5~~	~~+ 35 63~~	~~7.3~~	~~74.4~~	~~42.8~~	~~73.7~~				
	2841	14 43 31.5	+ 25 20.0	7.0	69.3	33.1	68.9	14 45.5 +25 9	✓ ✓	6.2 6.8 ✓	
	2513	14 56.9	+ 25 29	4.9	71.7	32.9	70.2	14 57.7 +25 24	✓ ✓	5.9 6.5	
										6.4 7.0 ✓	
	2517	14 58.3	+ 35 41	5.6	73.1	42.9	70.1	14 59.1 +35 36	✓ ✓	6.0 6.6	
										6.3 6.9 ✓	
	2485	14 45.1	+ 46 37	5.6	70.9	53.0	69.6	14 45.8 +46 32	✓ ✓	5.6 6.2 ✓	
	2526	15 1.9	+ 36 55	6.3	13.9	42.8	103	15 2.8 +36 50	✓ ✓	6.4 7.0 ✓	
										~~15 0.9 +37.1~~	
DD. 5.0	2449	14 35.1	+ 16 56	4.6	70.1	22.9	70.3	14 36.0 +16 51	✓ ✓	4.4 5.0 ✓	
	2453										
02. 5.1	~~2403~~	~~14 11.8~~	~~+ 46 38~~	~~4.3~~	~~60.6~~	~~52.8~~	14	12.6 +46 33	✓ ✓	4.3 4.9	14 10.8 +46.8
	~~2415~~	~~14 15.3~~	~~+ 26 36~~	~~6.8~~	~~64.1~~	~~32.8~~	~~66.1~~				
Dm.	2158	14 28.8	+ 47 25	6.2	65.2	53.2	14	30.4 +13	✓ ✓	5.9 6.5 ✓	
	~~2445~~	~~14 31.9~~	~~+ 27 15~~	~~var.~~	~~68.3~~	~~33.0~~	~~69.0~~				14 28.7 + 47.4
	2434	14 27.0	+ 27 13	5.9	68.6	33.0	69.9	14 27.9 +27 8	✓ ✓	6.1 6.7 ✓	
	2486	14 39.7	+ 17 29	4.8	70.3	23.0	70.3	14 40.5 +17 23	✓ ✓	5.4 6.0	
										5.8 6.4 ✓	
	2467	14 39.8	+ 27 35	2.6	70.0	33.1	70.0	14 40.6 +27 30	✓ ✓	3.8 4.4	
										4.2 4.8 ✓	
	2520	14 59.3	+ 27 25	4.5	72.1	32.9	70.1	14 0.2 +27 20	✓ ✓	5.4 6.0	
										5.8 6.4 ✓	
02. 6.2	2511	14 56.5	+ 47 45	6.2	74.7	53.0	70.9	14 57.2 +47 40	✓ ✓	5.4 6.0 ✓	
	2521	14 59.8	+ 48 7	4.9	75.8	52.9	71.3	15 0.7 +48 2	✓ ✓	4.8 5.4	
										4.9 5.5 ✓	
M.P. 2523	~~2262~~	~~15 0.6~~	~~+ 48 44~~	~~5.5~~	~~75.6~~	~~53.1~~	~~70.6~~	~~15 1.5 +48 33~~			
02. 5.9	~~2272~~	~~15 56.6~~	~~+ 18 33~~	~~7.2~~	~~74.6~~	~~23.0~~	~~70.7~~	~~14 58.7 +18 22~~			
	~~2285~~	~~15 1.8~~	~~+ 18 56~~	~~5.9~~	~~76.8~~	~~23.3~~	~~73.7~~				
01. 4.1	2436	14 27.2	+ 38 50	3.1	66.8	43.0	68.9	14 28.0 +38 45	✓ ✓	3.4 4.0 ✓	
01. 6.4	2482	14 44.8	+ 29 6	5.7	70.4	33.0	69.8	14 45.7 +29 1	✓ ✓	5.7 6.3 ✓	
	2489	14 45.9	+ 19 36	4.6	70.5	23.0	70.1	14 46.8 +19 31	✓ ✓	5.1 6.7	
										5.3 5.9 ✓	
	2508	14 55.1	+ 39 45	5.4	73.1	43.0	70.3	14 55.8 +39 40	✓ ✓	5.6 6.2 ✓	

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July 22, 1886.

Plate 565.

T	H	Type	Lines	K	Focus	Other Lines		V	H	V	H
6.0	13.2	I	3	N	1	—		3.0	26.4	19.9	43.8
6.4	24.1	I	4	K=H	1	—		3.2	48.2	19.7	22.0
5.5	19.5	IIa	3	K=8H	2	—	F seen	2.8	39.0	20.1	31.2
III? 5.3, 5.7.	4.2	8.2	IIIv	3	K=H	3	—	F bright F seen	2.1	16.4	20.8	53.8
III? 5.8, 6.2.	4.1	20.7	IIIb	3	K=H	2	—	F seen	2.0	41.4	20.9	28.8
	2.0	23.3	I?	1	N	2	—		1.0	46.6	21.9	23.6

Amt. of Fog. due to moon + clouds. 7.5 Amt. of Fog. due to chemicals. 6.7

Plate 554.

18.8	18.2	I?	4	K=H	1	—		9.4	36.4	13.6	13.5
17.4	7.5	I	7	N	2	—	F	8.7	15.0	14.3	34.9
16.0	9.6	I	6	N	1	—	F	8.0	19.2	15.0	30.7
12.8	14.5	I	7	N	3	—	F	6.4	35.0	16.6	14.9
12.0	7.8	I	6	N	2	—	F	6.0	15.6	17.0	34.3
10.7	6.1	III	3	K=H	2	—	F	5.4	12.2	17.6	37.7
8.5	12.0	I	9	K=.5H	4	—	F	4.2	24.0	18.8	25.9
6.7	19.6	IIIv?	3	K=? H?		—	F bright F seen	3.4	39.2	19.6	10.7
5.6	10.8	IIa?	3	K=H	1	—	F seen	2.8	21.6	20.2	28.3
6.6	14.6	I	4	K=H	1	—		3.3	29.2	19.7	20.7
2.4	17.2	I	6	K=H	1	—		1.2	34.4	21.8	15.5

Amt. of Fog. due to moon + clouds. 7.3 Amt. of Fog. due to chemicals. 6.3

Dark Plate

Plate 549.

21.5	18.1	I	5	N	1	—		10.8	36.2	12.3	53.5
18.8	8.4	II	3	K=H	1	F		9.4	16.8	13.7	72.9
19.0	11.0	III?	3	K=H	1	F		9.5	22.0	13.6	67.7
14.8	12.6	III?	3	K=H	2	F		7.4	25.2	15.7	64.5
III? 6.5, 6.8.	13.9	9.5	III?	3	K=H	1	F		7.0	19.0	16.1	70.7
	13.0	10.6	I	9	N	3	—		6.5	21.2	16.6	68.5
	12.5	8.2	III	2	K=H?	1	—		6.2	16.4	16.9	73.3
	10.0	23.7	II?	2	K=H	1	—		5.0	47.4	18.1	42.3

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Mean 6

½ cos δ.	No.	R.A.	Dec.	Mag	H	V	H'	Rad. of D.M stars to 1900	cor Br	Br.	
	~~Dm. 2817~~	~~14 43 54.7~~	~~+ 40~~	~~4.4 7.9~~	~~70.4~~	~~43.1~~	~~69.6~~				
	3026	14 42 50.0	+ 20	7.2 6.9	69.2	23.1	69.0	14 44.9 +19 56	✓	6.4 7.0	✓
—	2425	14 20.9	+ 19 46	5.4	69.1	28.0	70.1	14 21.8 +19 40	✓	5.9 6.5	✓
—	2442	14 29.5	+ 30 16	4.5	68.5	33.1	69.7	14 30.3 +30 11	✓	4.9 5.5	✓
—	2515	14 57.4	+ 40 52	3.6	73.8	43.0	70.5	14 58.2 +40 47	✓	4.4 5.0 / 4.8 5.4	✓
—	2433	14 26.7	+ 30 54	3.6	68.1	32.9	69.8	14 25.6 +30 49	✓	5.1 5.7 / 5.6 6.2	✓
	2404	14 11.9	+ 51 55	4.8	58.5	52.9		14 12.7 +51 50			
	~~Dm. 2697~~	~~14 18 8.6~~	~~+ 22 14~~	~~7.1~~	~~64.7~~	~~23.0~~	~~65.9~~	~~14 20.3 +21 59~~			
	~~3643~~	~~14 17 3.8~~	~~+ 11 54.5~~	~~7.0~~	~~63.7~~	~~12.9~~	~~64.3~~	~~14 18.1 +11 42~~	✓	.	✓
	~~Dm. 2496~~	~~14 18.3~~	~~+ 41 42~~	~~7.5~~	~~64.9~~	~~42.7~~	~~69.1~~	~~14 20.1 +41 30~~			

~~14 11.0 +52.0~~

Mean 16 cor Br

	2411	14 13.5	+ 13 34	5.2	49.9	23.0	50.1	14 14.4 +13 28	✓	5.3 6.9	✓
00 5.5	2452 / 2453	14 35.4	+ 14 15	3.8	50.4	22.9	49.9	14 36.4 +14 9 / 14 36.4 +14 9	✓	3.9 5.3	✓
02 6.8	2448	14 34.4	+ 44 55	5.3	53.6	22.9	50.5	14 35.2 +44 50	✓	5.0 6.6	✓
02 5.6	2403	14 11.8	+ 46 38	4.3	46.8	53.0	48.3	14 12.6 +46 33	✓	3.8 5.4	✓
00 6.4	H.P. 21.58 Dm. 2768	14 33.9	+ 17 3	3.8	49.5	33.0	48.8	14 36.0 +16 51	✓	1.8 6.4	✓
	~~2459~~	~~14 38.2~~	~~+ 24 3~~	~~4.9~~	~~53.8~~	~~33.0~~	~~52.2~~				
—	2467	14 39.8	+ 27 35	2.6	52.0	33.0	50.0	14 40.6 +27 30	✓	3.8 5.4 / 4.2 5.8	✓
01 4.7	2436	14 27.2	+ 38 50	3.1	51.2	43.0	49.9	14 28.0 +38 45	✓	3.0 4.6	✓
—	2400	14 10.2	+ 19 48	0.0	49.4	23.2	50.0	14 14.1 +19 44	✓	2.4 4.0 / 2.7 4.3	✓
—	2442	14 29.5	+ 30 16	4.5	51.1	33.1	50.0	14 30.3 +30 11	✓	1.8 6.4	✓
—	2425	14 20.9	+ 19 46	5.4	50.1	23.1	50.1	14 21.8 +19 40	✓	5.0 6.6	✓
—	~~Dm. 2638~~	~~14 11.7~~	~~+ 21 58~~	~~7.2~~	~~46.1~~	~~28.2~~	~~46.5~~	~~14 13.8 +21 45~~			
	2404	14 11.9	+ 51 55	4.8	46.3	53.1	48.0	14 12.7 +51 50	✓	.	✓

00 6.5	2368	13 53.0	+ 22 17	5.3	89.0	33.1	89.5	13 53.9 +22 11	✓	6.5	✓
—	2411	14 13.5	+ 13 34	5.2	30.3	23.0	29.8	14 14.4 +13 28	✓	6.6	✓
—	2392	14 8.3	+ 13 31	5.5	30.3	23.1	30.0	14 9.3 +13 26	✓	6.7 / 6.8	✓
—	2385	14 4.9	+ 25 40	4.8	30.1	33.1	29.6	14 5.9 +25 34	✓	6.1 / 6.3	✓
—	2409	14 13.0	+ 36 4	4.8	32.0	43.1	29.9	14 13.8 +35 58	✓	6.3 / 6.7	✓
02 5.0	2403	14 11.8	+ 46 38	4.3	33.0	53.1	30.2	14 12.6 +46 33	✓	4.8	✓
—	2413	14 14.1	+ 16 51	4.9	30.5	23.0	29.8	14 15.1 +16 46	✓	6.7 / 7.0	✓
—	2333	13 41.6	+ 18 3	4.5	89.0	23.0	89.9	13 42.5 +17 57	✓	6.1	✓

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Plate 549.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
8.4	20.1	II a? 2262	3	K=1.2H	3	— F seen	4.2	40.2	18.9	49.5
7.5	8.9	I	5	K=H	1	—	3.8	17.8	19.3	71.9
7.4	9.9	I?	2	N	1	—	3.7	19.8	19.4	69.9
6.8	10.1	II 2263	3	K=1.5H	5	F seen	3.4	20.2	19.7	69.5
6.6	20.1	I	10	N	5	—	3.3	40.2	19.8	49.5
3.4	15.0	I	4	N	1	—	1.7	30.0	21.4	59.7
2.6	10.5	I	3	N	1	—	1.3	21.0	21.8	68.7
2.6	10.8	I	7	K=H	2	F—	1.3	21.6	21.8	68.1

Amt. of Fog. due to snow & clouds. 6.6 Amt. of Fog. due to chemicals. 6.4

Plate 5-5-8.

22.1	18.0	I	6	K=H	1	—	11.0	36.0	17.0	34.2
21.5	13.1	I?	3	N	1	—	10.8	26.2	17.2	44.0
20.5	19.1	II a 2264	2	K=H	1	F? seen	10.2	38.2	17.8	32.0
20.0	14.4	II a 2265	3	K=H?	2	F seen	10.0	28.8	18.0	41.4
18.0	10.9	II a c 2266	3	K=1.5H	5	F slight seen	9.0	21.8	19.0	48.4
17.5	11.6	I	5	N	1	F—	8.8	23.2	19.2	47.0
17.5	13.1	I?	2	N	1	—	8.8	26.2	19.2	44.0
17.4	10.4	I	6	K=H	1	F—	8.7	20.8	19.3	49.4
16.8	18.1	I	9	K=1.2H	3	F—	8.4	36.2	19.6	34.0
16.4	13.8	I	12	N	5	F—	8.2	27.6	19.8	42.6
15.0	17.5	I	6	N	2	F—	7.5	35.0	20.5	35.2
15.1	23.3	I	6	N	2	F—	7.6	46.6	20.4	23.6
12.8	14.4	I	5	K=H	1	—	6.4	28.8	21.6	41.4
12.8	9.0	I	7	K=2H	1	F	6.4	18.0	21.6	52.2
12.6	13.6	III	3	K=H	1	F—	6.3	27.2	21.7	43.0
12.5	13.3	III b 2267	3	K=H	1	F seen	6.2	26.6	21.8	43.6
11.5	9.1	I	8	N	2	F—	5.8	18.2	22.2	52.0
11.0	5.8	I	9	K=.5H	3	F—	5.5	11.6	22.5	58.6

Peculiar Spectrum

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No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	B-V
2414	14 14.9	+ 39 22	5.9					
2360	13 49.0	+ 19 0	2.9	89.2	43.2	89.8	13 49.9 + 18 54	4.8
2414	14 14.9	+ 39 22	5.9	32.7	43.2			
Dm. 2299	14 12 58.4	+ 39 25.2	6.8	30.6	43.2	28.0	14 15.7 + 39 15	
2290	14 13 30.4	+ 49 15.7	6.5	31.3	53.1	27.1	14 15.2 + 49 3	7.0
Dm. 2299	14 9.3	+ 39 36	6.7	29.1	43.2	28.5	14 11.4 + 39 23	
2290	14 13.5	+ 49 16	6.5	33.3	53.0	29.8	14 15.2 + 49 3	
2414	14 14.9	+ 39 22	5.9	34.4	43.1	32.3		6.9
2400	14 10.2	+ 19 48	0.0	30.4	23.2	29.8	14 11.1 + 19 44	B.
Dm. 2027	13 41.8	+ 60 3	2.0	82.0	53.3	88.6	13 45.6 + 49 49	
2338	13 42.8	+ 49 55	2.0	83.0	53.2	88.6	13 43.6 + 49 49	B.
2377	13 58.6	+ 51 34	6.2	88.6	53.3	88.6	13 59.3 + 51 27	6.7
Dm. 1908	14 12.2	+ 51 59	6.8	33.2	53.3		14 13.8 + 51 46	
Dm. 2632	14 9 27.9	+ 21 55.8	7.5	36.5	23.2	29.8		
2695	14 7 25.1	+ 31 53.0	7.2	28.4	33.2	27.1	14 9.4 + 31 40	6.8
2404	14 11.9	+ 51 55	4.8	33.5	53.2	30.3	14 12.7 + 51 50	5.7

Mean 3

2304	13 32.1	+ 36 54	5.0	68.1	47.9	69.3	13 33.0 + 36 49	5.1 5.4
Dm. 2457	13 43 25.9	+ 37 20.3	6.5	69.6	48.1	68.9	13 45.4 + 37 6	6.5 6.8
2297	13 29.4	+ 37 48	5.0	67.6	48.0	69.3	13 30.3 + 37 42	5.7 6.0
2333	13 41.6	+ 18 3	4.5	70.4	28.0	70.3	13 42.5 + 17 57	5.3 5.6
2360	13 49.0	+ 19 0	2.9	70.8	28.0	70.3	13 49.9 + 18 54	4.0 4.3
2355	13 47.7	+ 29 14	5.8	70.9	38.0	70.1	13 48.7 + 29 8	5.7 6.0
Dm. 2719	13 43.2	+ 19 21	7.2	69.4	28.2		13 45.4 + 19 7	
2350	13 46.4	+ 59 8	6.3	72.6	67.9	70.7		6.7 7.0
Dm. 2719	13 43.2	+ 19 21	7.2					
2443	13 49 30.5	+ 29 23.1	7.0	70.3	38.1	69.1	13 51.5 + 29 10	
Dm. 2721	13 48 23.4	+ 19 24.3	7.9	69.2	28.1	66.6		6.3 6.6
2299	13 29.6	+ 49 38	4.8	65.8	58.0	68.0	13 30.4 + 49 32	4.9 5.2
2338	13 42.8	+ 49 55	2.0	70.4	58.1	69.6	13 43.6 + 49 49	B. B.
2310	13 34.9	+ 20 34	5.7	69.9	28.1	70.3	13 35.9 + 20 28	5.5 5.8
Dm. 2837	13 21.9	+ 29 33	7.8	68.5	28.2	69.6	13 24.1 + 29 19	
2444	13 42.1	+ 50 24	5.0	58.7	58.0	64.8	14 + 50 18	
2245	13 10.7	+ 20 25	6.3	57.6	28.0	58.3		6.0 5.5
2253	13 13.1	+ 50 19	5.2	59.7	57.9		13 14.0 + 50 12	
2331	13 41.2	+ 41 41	5.8	70.0	48.1	69.7	13 42.0 + 41 36	5.7 6.0
Dm. 2546	13 54.6	+ 31 23	7.6	72.6	37.8	70.3	13 56.6 + 31 10	
1889	13 57.6	+ 51 41	6.0	76.6	58.1	71.1	13 59.3 + 51 28	
2377	13 58.6	+ 51 34	6.2	76.6	58.0	72.2	13 59.3 + 51 27	6.1 6.4
2340	13 43.3	+ 31 47	5.8	70.5	38.1	70.1	13 44.2 + 31 41	6.4 6.7
Dm. 2578	13 42.9	+ 21 59	5.1	69.5	28.2	69.2	13 45.0 + 21 45	
2580	13 53.6	+ 22 6.0	7.4	70.7	28.2	69.9	13 55.7 + 22 32	6.0 6.3
2344	13 44.0	+ 21 52	5.0	70.6	28.1	70.3	13 45.0 + 21 46	6.4 6.7
2368	13 53.0	+ 22 17	5.3	71.2	28.1	70.3	13 53.9 + 22 11	5.3 5.6
Dm. 1982	14 8.3	+ 52 29	4.5	19.9	57.7	12.1	14 9.9 + 52 14	
2395	14 9.2	+ 52 21	4.4	20.8	57.9	13.5	14 9.9 + 52 16	4.6 4.9

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July 22, 1886.

Plate 558.

V	H	Type	No. Lines	K	Focus	Other Lines		V	H	V	H
10.8	14.9	I	7		1	—		5.4	29.8	22.6	40.4
10.5	11.8	I	4	K=H	1	—	—	5.2	23.6	22.8	46.6
10.0	17.3	III	3	K=H		—	F	5.0	34.6	23.0	35.6
9.7	6.9	I?	3		1	—		4.8	13.8	23.2	56.4
9.1	16.2	I	7	K=.2H	2	—	F	4.6	32.4	23.4	37.8
9.3	19.7	I	5	K=H	1	—		4.6	39.4	23.4	30.8
8.6	10.4	I	4	K=H	1	—		4.3	20.8	23.7	49.4
7.6	12.0	I	7	K=.1H	2	—		3.8	24.0	24.2	46.2
7.0	23.2	I?	4	K=H	1	—		3.5	46.4	24.5	23.8
6.2	14.1	I	7		2	—	F	3.1	28.2	24.9	42.0
III? 6.3, 6.5. 6.1	12.3	III	3	K=H	1	—	F	3.0	24.6	25.0	45.6
5.4	12.7	I	4	K=H	1	—		2.7	25.4	25.3	44.6
4.9	20.3	I	10	K=.5H?	3	—	F	2.4	40.6	25.6	29.6
5.0	20.7	I	12		5	—	F	2.5	41.4	25.5	28.8
4.3	17.7	I	7		1	—	F	2.2	35.4	25.8	34.8
3.6	14.6	IIa? 2268	2	K=H	1	—	Lun	1.8	29.2	26.2	41.0
2.5	18.2	I	7	K=H	1	—	F	1.2	36.4	26.8	33.8
56	126	III?	2	K=H	1	—		28	252	25.2	44.8

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Mean 3

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	cor. Br.	Br.	
03 6.0	2325	13 39.3	+ 53 38	5.9	69.1	58.0	69.0	13 40.1 +52 32	5.4	5.7	1356.3+52.46
	~~Dm. 2449~~	~~13 47.8~~	~~+ 42~~	~~6.7~~	~~70.9~~	~~48.1~~		13 49.2 +42 29			
	~~Dm. 2441~~	~~13 49.8~~	~~+ 32~~	~~44 6.5~~	~~73.4~~	~~37.9~~	~~72.4~~	~~13 51.6 +32 31~~			
	2449	13 47.3	+ 42	54 6.7	70.9	48.1	69.2	13 49.2 +42 4	6.1	6.4	1347.5+42.8
	2362	13 50.4	+ 37	37 6.4	44.0	34.8	73.0		6.3	6.6	
	2313	13 35.4	+ 23	9 5.8	70.0	28.2		13 36.3 +23 1	6.7	7.0	1334.2+23.3
	~~Dm. 2616~~	~~13 33 29.3~~	~~+ 22~~	~~58.1 8.0~~	~~68.1~~	~~28.0~~	~~68.5~~	~~13 35.6 +22 44~~			
	2591	13 31 9.9	+ 23	15.6 6.5	65.8	28.3	66.2	13 33.3 +23 2			
	~~Dm. 2494~~	~~13 21.4~~	~~+ 42~~	~~56 7.5~~	~~66.2~~	~~47.9~~	~~67.2~~	~~13 33.8 +42 42~~			
	2644	13 56 36.3	+ 23	11.9 6.5	70.4	28.1	69.0	13 58.7 +22 59	6.8	7.1	
	~~Dm. 2606~~	~~13 36.9~~	~~+ 23~~	~~26 6.3~~	~~69.3~~	~~28.0~~	~~69.5~~	~~13 39.0 +23 12~~			
03 5.6	2309	13 34.9	+ 53	31 5.3	67.3	58.1	68.3	13 35.7 +53 26	5.0	5.3	
	~~Dm. 1622~~	~~13 22.2~~	~~+ 53~~	~~30 6.3~~	~~61.6~~	~~58.1~~		13 24.0 +53 16			
	~~Dm. 2687~~	~~13 28 31.5~~	~~+ 23~~	~~33.0 7.5~~	~~64.9~~	~~28.2~~	~~68.7~~				
	2586	13 28 21.9	+ 23	14.6 6.5	67.8	27.8	68.6	13 30.8 +23 1	6.1	6.4	1342.2+23.5
	~~Dm. 2631~~	~~13 49 2.8~~	~~+ 23~~	~~24.3 7.3~~	~~69.8~~	~~27.7~~	~~69.0~~	~~13 51.1 +23 11~~			
	1676	13 53 36.5	+ 53	48.1 7.3	74.4	58.1	70.7	13 55.3 +53 35	6.2	6.5	
03 5.5	2362	13 49.5	+ 54	19 5.5	73.5	58.1	71.0	13 50.1 +54 13	4.9	5.2	
	~~Dm. 2578~~	~~13 18.2~~	~~+ 24~~	~~36 5.5~~	~~64.6~~	~~28.1~~	~~66.1~~	~~13 20.4 +24 22~~			
	~~Dm. 2269~~	~~13 13.7~~	~~+ 44~~	~~40 6.4~~	~~62.1~~	~~48.2~~	~~66.8~~	~~13 17.7 +44 26~~			
	2266	13 19.4	+ 24	28 5.9	65.8	28.0	67.3		6.3	6.6	1316.1+44.7
03 5.5	2337	13 42.1	+ 55	2 5.6	70.3	58.1	69.5	13 42.9 +54 56	4.9	5.2	
	2352	13 46.5	+ 35	2 4.9	71.1	38.0	70.1	13 47.4 +34 57	5.9	6.2	
									6.4	6.7	
	2347	13 45.8	+ 35	22 6.8	71.3	38.0	70.5	13 46.7 +35 16	6.3	6.6	
	~~1601~~	~~13 19.4~~	~~+ 55~~	~~44 5.0~~	~~60.0~~	~~58.1~~	~~64.5~~	~~13 21.3 +56 30~~			
	~~Dm. 2462~~	~~13 26.3~~	~~+ 36~~	~~39 6.7~~	~~66.9~~	~~38.0~~	~~68.8~~	~~13 28.3 +35 26~~			
03 5.2	2267	13 20.4	+ 55	37 4.2	61.0	58.0	65.5	13 21.2 +55 30	4.6	4.9	
	~~Dm. 1598~~	~~13 18.1~~	~~+ 55~~	~~44 5.0~~	~~59.5~~	~~58.2~~	~~64.4~~	~~13 19.7 +55 27~~			
	2264	13 19.1	+ 55	33 2.4	61.5	58.1	66.4	13 19.9 +55 27	B	B.	
	~~Dm. 1667~~	~~13 28.5~~	~~+ 56~~	~~6 6.0~~	~~63.9~~	~~58.3~~	~~66.4~~	~~13 30.5 +56 52~~			
03 5.7	2298	13 29.6	+ 55	58 5.5	65.0	58.2	67.5	13 30.3 +55 52	5.1	5.4	
	2332	13 41.2	+ 26	18 5.8	70.4	28.1	70.3	13 42.1 +26 12	6.1	6.4	
	2304	13 32.1	+ 36	54 5.0	68.5	38.1	69.8	13 33.0 +36 49			
	2346	13 45.8	+ 35	17 6.0	71.1	38.1		13 46.7 +35 10	6.7 7.1	7.0 7.4	

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Ant. of Fog. due to num't clouds. 7.5 Ant. of Fog. due to chemicals. 7.5

July 26. 1886.

Plate 530.

V	H	Type	Lines	K	Focus	other Lines.	V	H	V	H
22.3	22.4	I	2269 4	K=H		—	11.2	44.8	21.7	24.5
22.2	7.0	III c.	3	K=1.2 H	2	F bright lines	11.1	14.0	21.8	55.3
21.6	11.4	III ?	2	K=H	1	—	10.8	22.8	22.1	46.5
21.5	19.1	IIa	2270 3	K=1.4	2	F faint	10.8	38.2	22.1	31.1
20.4	14.4	I	5	K=H	1	—	10.2	28.8	22.7	40.5
19.0	20.0	I	7	K=H	2	F?	9.5	40.0	23.4	29.3
18.9	22.7	I?	4	K=H	1	—	9.4	45.4	23.5	23.9
17.4	11.2	I	5	K=H	1	—	8.7	22.4	24.2	46.9
17.3	13.9	I?	5	K=H	1	—	8.6	27.8	24.3	41.5
16.0	13.6	I	6	K=.5H	2	—	8.0	27.2	24.9	42.1
16.1	15.0	I?	3	K=H	1	—	8.0	30.0	24.9	39.3
16.0	22.4	IIa?	2271 3	K=H	1	F faint	8.0	44.8	24.9	24.5
15.6	20.5	I	4	K=H	1	—	7.8	41.0	25.1	28.3
15.6	15.2	I?	4	K=H	1	—	7.8	30.4	25.1	38.9
15.1	21.6	I	6	K=H	2	—	7.6	43.2	25.3	26.1
12.7	6.6	I	7	K=H	2	—	6.4	13.2	26.5	56.1
12.5	17.3	I	5	K=H	1	—	6.2	34.6	26.7	34.7
12.5	22.5	I	8	K=H	2	F	6.2	45.0	26.7	24.3
11.8	22.6	I	4	K=H	1	—	5.9	45.2	27.0	24.1
10.6	23.3	I	6	K=H	2	—	5.3	46.6	27.6	22.7
9.6	23.5	I?	7	K=H	2	F	4.8	47.0	28.1	22.3
9.4	12.2	II?	3	K=H	2	F	4.7	24.4	28.2	44.9
9.5	12.9	I	6	K=.5H	2	—	4.8	25.8	28.1	43.5
9.3	13.3	I	8	K=.2H	2	F	4.6	26.6	28.3	42.7
8.0	10.6	I	12	K=H	5	—	4.0	21.2	28.9	48.1
7.7	20.1	III	3	K=H	1	F	3.8	40.2	29.1	29.1
7.8	23.2	III b	2272 3	K=H	1	F faint	3.9	46.4	29.0	22.9
7.5	13.5	I	7	K=H	1	F	3.8	27.0	29.1	42.3
9.9	11.4	III? III	2 2	K=H	K=H 1	—	4.0	22.8	27.9	46.5

III 6.2, 6.5.

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Mean 3

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. start to 1900	Cor. Br.	Br.
Z119	12 23.7	+ 21 34.	5.7	68.5	32.8	69.5	12 24.7+21 27	6.2	6.5
2298	12 36.2	+ 41 36	5.2	70.2	32.8	69.5	12 35.0+41 30	4.8	5.1
Dm. 2344	12 53.4	+ 31 36	5.2	64.4	32.8	62.0	12 55.0+31 19	5.1	5.4
2355	12 59.6	+ 41 42	7.0	73.6	52.8	69.6	13 1.7+41 27		
2245	13 0.5	+ 21 48	6.1	14.6	32.9	7.3			
2204	12 54.5	+ 31 26	5.1	68.5	42.5	66.1		6.1	6.4
Z184	12 47.4	+ 21 54	5.1	70.2	32.9	69.7	12 48.4+21 48	6.5	6.8
Z133	12 28.0	+ 42 1	4.3	66.2	52.9	68.3	12 29.0+41 53	5.1	5.4
Z168	12 41.2	+ 12 36	5.9	70.0	22.8	70.0	12 42.2+12 31	6.5	6.8
Z136	12 28.9	+ 23 17	4.9	68.9	32.8	69.7	12 29.9+23 10	4.9	5.2
Dm. 2281	12 17.9	+ 43 140	7.0	63.3	53.1	67.5	12 20.1+43 25		
2218	12 16.7	+ 43 21	6.3	62.1	52.8	66.3	12 18.9+43 6		
Z101	12 17.9	+ 43 12	5.9	63.3	52.6	67.5	12 18.9+43 5	6.4	6.7
Z190	12 48.5	+ 34 11	6.4	70.9	42.9	69.6	12 49.5+34 5	6.4	6.7
Dm. 2546	12 40 58.8	+ 14 21.1	6.5	68.8	23.0	68.8	12 43.3+14 6	6.8	6.6
Z174	12 42.9	+ 14 47	5.7	70.1	22.8	70.0	12 43.9+14 41	5.7	6.0
Z162	12 38.9	+ 44 45	6.4	68.9	52.8	68.9	12 39.8+44 39	6.4	6.7
Z118	12 23.5	+ 24 46	5.5	68.3	32.8	69.7	12 24.4+24 39	5.8	6.1
Dm. 2523	12 26 21.2	+ 25 4.9	6.3	67.4	32.9	68.4	12 28.6+25 50	6.2	6.5
2221	12 37 37.6	+ 44 53.9	6.1	68.0	52.7	68.1	12 39.7+44 39		
Dm. 2545	12 25 53.5	+ 25 61	8.0	66.3	32.9	66.3			
2493	12 39 25.9	+ 24 66.5	6.5	69.8	32.9	69.8			
Stw 2504	12 38.2	+ 15 10	8.0	68.6	23.0		12 40.5+14 55	6.7	7.0
Z125	12 25.0	+ 25 14	5.5	68.2	32.8	69.5	12 26.0+25 7	5.4	5.7
Z213	13 0.1	+ 36 26	5.3	13.3	42.8	70.0	13 1.0+36 20	5.2	5.5
Z153	12 33.4	+ 36 38	6.3	68.0	42.8	68.8	12 34.4+36 31	6.0	6.3
Z116	12 22.8	+ 26 34	5.2	64.8	32.8	69.4	12 23.8+26 24	5.2	5.5
Z117	12 22.8	+ 26 35	5.2	64.8	32.8	69.4	12 23.8+26 24		
Dm. 2138	12 21 24.3	+ 27 21	6.5	66.6	32.9	68.3	12 28.7+26 47	6.4	6.7
Z111	12 21.0	+ 27 29	5.1	67.6	32.8	69.5	12 22.0+27 22	5.3	5.6
Z109	12 20.4	+ 27 56	5.1	67.4	32.7	69.4	12 21.4+27 49	5.4	5.7
Z181	12 45.9	+ 28 12	5.0	70.3	32.9	69.7	12 46.8+28 6	5.5	5.8
Z179	12 44.4	+ 38 11	5.9	70.2	43.0	69.3	12 45.4+38 4	5.6	5.9
Z178	12 43.5	+ 28 12	6.0	70.1	32.8	69.7	12 44.4+28 6	5.6	5.9
Z195	12 50.4	+ 38 58	3.0	71.6	43.0	69.6	12 51.4+38 52	5.9	6.2
Z137	12 29.1	+ 19 2	5.0	69.3	22.8	69.9	12 30.1+18 55	6.3	6.6
Z110	12 21.0	+ 28 56	4.7	67.4	32.8	69.4	12 22.0+28 49	5.6	5.9
Z176	12 43.2	+ 49 [illegible]	6.2	70.2	52.9	69.2	12 44.1+49 1	6.0	6.3
2193	12 49.5	+ 47 51	6.1	71.3	52.8	12	50.4+47 45	6.1	6.4

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Plate 530.

V	H	Type	Prv. Lines	K	Focus	Other Lines		V	H	V	H
6.3	22.4	III	3	K=H		—	F	3.2	44.8	29.7	24.5
2.5	22.5	I	5	K=H		—		1.2	45.0	31.7	24.3
2.9	8.5	III	2	K=H		—		1.4	17.0	31.5	52.3

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

8.5 Page 528 8.5

22.7	10.7	I	6	K=H		—		11.4	21.4	16.4	48.2
21.0	11.8	I	4	N		—		10.5	23.6	17.3	46.0
20.5	20.8	I	4	K=H		—		10.2	41.6	17.6	28.0
18.7	14.8	III	2273 bc 3	K=12H	2	F	bright lines	9.4	29.6	18.4	40.0
18.5	19.5	I	4	K=H		—		9.2	39.0	18.6	30.6
16.8	15.7	I	3	N		—		8.4	31.4	19.4	38.2
16.5	14.0	I?	4	K=H		—		8.2	28.0	19.6	41.6
15.5	21.6	I	6	N	2	F		7.8	43.2	20.0	26.4
14.6	14.2	I	5	K=H		F		7.3	28.4	20.5	41.2
13.8	14.4	IIa	2274 3	K=8H?	2	F	lines	6.9	28.8	20.9	40.8
13.5	10.7	I?	4	K=H		—		6.8	21.4	21.0	48.2
11.2	6.8	I	5	K=H		—		5.6	13.6	22.2	56.0
10.8	17.0	IIa	2275 3	K=H		F	lines	5.4	34.0	22.4	35.6
9.6	10.0	IIa	2276 2	K=H			lines	4.8	20.0	23.0	49.6
8.2	9.0	I	8	K=.5H	2	F		4.1	18.0	23.7	51.6
7.6	13.0	I?	4	K=H		—		3.8	26.0	24.0	43.6
7.1	12.5	I	13	?		?		3.6	25.0	24.2	44.6
7.1	17.7	I	17	K=H		F		3.6	35.4	24.2	34.2
6.0	9.3	I	3	N		—		3.0	18.6	24.8	51.0
6.0	17.2	IIa?	2277 2	K=H			lines	3.0	34.4	24.8	35.2
4.9	17.9	I?	4	K=H		—		2.4	35.8	25.4	33.8

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Mean 3

½ cos δ.	No.	R. A.	Dec.	Mag.	H	V	H′	Red. of D.M. Stars to 1900	Cor. Br.	Br.
	2108	12 19.9	+ 39 41	5.3	64.7	42.9	68.1	12 21.0 +39 34	5.7 6.0	6.0 6.3
	Dm. 2324	12 22 25.5	+ 21 42.0	5.8	67.4	22.9	68.4	12 24.7 +21 27		
	2204	12 54.5	+ 31 26	5.1	71.5	32.8	69.6	12 55.5 +31 20	6.2 6.6	6.5 6.9
	2041	11 49.5	+ 16 20	5.4	70.9	27.7	70.4	11 50.6 +16 12		
027.2	* 2039	11 48.9	+ 47 9	5.8	72.5	57.7	70.5	11 49.9 +47 2		7.0
	1998	11 28.5	+ 17 27	5.7	70.1	27.6		11 29.5 +17 21		
	~~1981~~	~~11 23.0~~	~~+ 57 24~~	~~5.9~~	~~64.6~~	~~67.6~~	70.0			6.9
	2018	11 39.4	+ 48 27	3.9	69.3	57.8	69.1	11 40.8 +48 20		5.4 5.7
	2001	11 30.0	+ 28 26	5.8	69.0	37.6	70.0	11 31.0 +28 20		6.8
	~~2014~~	~~11 40~~	~~83.3 + 27~~	~~13.6~~	~~6.8~~	~~72.3~~	~~37.6~~	~~12.5~~		
	Dm. ~~1986~~	~~11 36~~	~~14.2 + 19~~	~~17.7~~	~~7.5~~	~~67.6~~	~~57.8~~	~~68.1~~		
	2206	11 37 9.8	+ 29 27.9	7.0		68.6	37.9	68.8 11 39.8 +29 13		7.1
	Dm. 2216	11 41 3.8	+ 29 36.4	6.8		69.1	37.8	68.9 11 43.5 +29 21		7.0
0.1 5.9	1980	11 22.6	+ 40 0	5.2		65.8	47.8	69.0 11 23.7 +39 54		5.8
	Dm. 1862	11 40 10.3	+ 50 38.1	7.0		68.6	57.9	68.1 11 42.6 +50 23		6.9
	2022	11 41.8	+ 20 53	4.6		70.6	27.8	70.5 11 42.8 +20 46		5.6
	2046	11 51.0	+ 41 2	6.4		72.4	47.8	70.3 11 52.1 +40 55		7.0
	~~Dm. 2037~~	~~11 56.8~~	~~+ 22 18~~	~~6.0~~		~~70.4~~	~~27.8~~	~~69.1 11 54.1 +22 0~~		11 49.8 +41 10
	2055	11 58.6	+ 22 7	5.7		72.2	27.7	71.0 11 59.2 +22 1		6.5
	2013	11 35.4	+ 32 25	5.7		69.4	37.8	70.0 11 36.4 +32 18		6.3
	~~Dm. 2042~~	~~11 49~~	~~16.2 + 23~~	~~0.6~~	~~8.0~~	~~69.3~~	~~37.8~~	~~67.~~		
	2174	11 50 39.4	+ 33 4.6	6.7		70.6	37.9	69.0 11 53.0 +32 50		7.0
02 62	2054	11 56.0	+ 43 43	5.1		74.0	47.8	70.7 11 57.1 +43 36		6.0
	2031	11 44.9	+ 34 3	6.1		70.9	37.8	70.2 11 46.0 +33 56		6.9
	2036	11 44.5	+ 54 22	2.6		72.5	58.0	70.4 11 48.6 +54 15		B.
	2005	11 32.0	+ 44 17	5.5		67.4	47.9	68.9 11 33.0 +44 10		6.4
	Dm. 2279	11 52 30.6	+ 34 51.0	6.6		71.1	37.8	69.1 11 54.8 +34 36		7.1
	2011	11 34.8	+ 34 53	5.8		69.2	37.9	69.9 11 35.7 +34 46		6.6
	~~Dm. 1973~~	~~11 27.1~~	~~+ 55 35~~	~~6.0~~		~~62.9~~	~~58.10~~	~~65.4 11 29.6 +55 20~~		
	~~1993~~	~~11 29.8~~	~~+ 55 22~~	~~6.5~~		~~65.6~~	~~47.7~~	~~69.3 11 32.2 +55 12~~		
	1997	11 28.5	+ 55 27	5.8		64.3	57.8	66.8 11 29.6 +55 20		6.5

* Spectra of two stars superposed on plate. Meas. of br. combined light of both.

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Anit. of Fog. due to moon & clouds. 6.5

Anit. of Fog. due to chemicals. 6.4

July 26, 1886.

Plate 443.

V	H	Type	Pro Lines	K	Focus	after Lines	V	H	V	H
22.5	18.5	I	6	N	1	—	11.2	37.0	31.2	29.2
22.3	12.2	I	5	N	1	—	11.2	24.4	31.2	41.8
22.0	13.8	I	6	K=.2H	1	—	11.0	27.6	31.4	38.6
21.8	9.6	II ? 2278	3	K=1.5H	5	F eccn	10.9	19.2	31.5	47.0
20.5	22.6	III b ? 2277	3	K=H	1	F eccn	10.2	45.2	32.2	21.0
20.4	20.7	I	3	N	1	—	10.2	41.4	32.2	24.8
19.7	16.8	II	3	K=H	1	F	9.8	33.6	32.6	32.6
18.8	19.8	I	5	K=H	1	—	9.4	39.6	33.0	26.6
17.4	10.9	I	9	N	3	F	8.7	21.8	33.7	44.4
17.3	15.0	I	7	K=.2H	2	F	8.6	30.0	33.8	36.2
17.6	24.3	I	9	N	4	—	8.8	48.6	33.6	17.6
15.1	10.8	III b c 2280	3	K=H	2	F bright eccn	7.6	21.6	34.8	44.6
15.9	22.2	I	6	K=.5H	2	—	8.0	44.4	34.4	21.8
14.1	9.4	I	9	N	3	F	7.0	18.8	35.4	47.4
13.6	18.9	I	5	N	1	—	6.8	37.8	35.6	28.4
11.5	14.6	I	8	K=H	1	F	5.8	29.2	36.6	37.0
11.0	15.1	I	5	K=.5H	1	—	5.5	30.2	36.9	36.0
10.2	21.1	III b 2281	3	K=H	2	F eccn	5.1	42.2	37.3	24.0
7.9	12.1	I	4	K=H	1	—	4.0	24.2	38.4	42.0
6.0	20.0	I	6	N	1	—	3.0	40.0	39.4	26.2
5.2	8.0	I	6	K=H	1	F	2.6	16.0	39.8	50.2
4.3	14.7	I ?	4	N	1	—	2.2	29.4	40.2	36.8
3.2	6.2	I	7	N	2	F	1.6	12.2	40.8	54.0
2.5	13.9	I	6	N	1	—	1.2	27.8	41.2	38.4
3.0	18.7	I	8	K=.8H	2	F	1.5	37.4	40.9	28.8

III. 2 5.6, 5.9.

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Mean 8

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. B	Cor. Br.
	1857	10 26.2	+41 3	5.1	63.2	52.2	64.9	10 27.5 +40 57		
0.2 6.7	1892	10 42.9	+11 11	5.3	67.3	22.4	67.1	10 44.0 +11 4	5.9	6.7
0.1 6.4	1886	10 39.2	+31 19	5.4	66.8	42.3	66.5	10 40.3 +31 12	5.5	6.3
Mars									B	Br
	~~Dm. 2 1 23~~	~~10 13.7 + 42 14 3.1~~			~~58.9~~	~~52.4~~	~~62.9~~	~~10 13.4 +42 1~~		
	~~2123~~	~~10 18.9 + 42 20 7.0~~			~~64.1~~	~~52.3~~	~~68.1~~	~~10 21.5 +42 2~~		
	1827	10 15.2 + 42 6 3.1			60.4	52.3	64.4	10 16.4 +42 0	5.2	6.0
	Dm. 2 1 23	10 18 52.9 + 42 20.3 7.0			60.3	52.5	63.3	10 21.6 +42 6	6.0	6.8
	~~2211~~	~~10 19 31.4 + 42 3.0 7.2~~			60.9	22.2	61.2		6.2	7.0
	1872	10 32.0 + 32 36 4.8			65.6	42.4	66.1	10 33.1 +32 30	5.7	6.5
	1852	10 25.0 + 33 0 5.7			64.0	42.4	65.5	10 26.2 +32 54	5.8	6.6
0.2 5.4	1903	10 47.1 + 43 50 4.9			68.9	52.5	66.6	10 48.2 +43 43	4.4	5.2
0.0 5.7	1884	10 36.9 + 23 49 5.1			66.9	32.4	66.9	10 38.0 +23 42	4.9	5.7
	~~Dm. 2005~~	~~10 8.3 + 43 40 3.5~~			~~56.9~~	~~52.5~~	~~62.1~~	~~10 11.1 +43 27~~		
0.2 5.0	1810	10 9.9 + 43 31 3.6			58.5	52.3	63.6	10 11.6 +43 25	4.0	4.8
	1902	10 46.6 + 34 52 3.9			68.8	42.5	67.3	10 47.7 +34 45	4.8	5.6
0.1 5.8	1834	10 19.0 + 34 25 5.1			63.4	42.4	65.9	10 20.2 +34 18	5.2	6.0
0.1 4.9	1908	10 49.1 + 25 23 4.3			67.9	32.4	66.8	10 50.2 +25 17	4.9	5.7
0.1 6.2	1860	10 26.7 + 35 36 5.5			64.5	42.4	65.9	10 27.8 +35 31	4.0	4.8
	1882	10 36.5 + 46 56 5.3			65.7	52.7	65.5	10 37.7 +46 44	5.3	6.1
0.1 6.1	~~1883~~	~~10 36.5 + 26 58 5.6~~			~~66.7~~	~~32.5~~	~~66.7~~	~~10 37.6 +26 57~~	4.9	5.7
	1840	10 20.9 + 37 19 4.4			63.1	42.4	65.6	10 22.1 +37 13	5.2	6.0
	Dm. ~~1877~~	~~10 45 24.9 + 48 27.0 7.3~~			~~69.6~~	~~52.4~~	~~67.7~~		5.0	5.8
	1931	10 41 55.9 + 28 44.9 6.3			66.1	32.7	65.4	10 44.4 +28 31	5.4	6.2
									6.3	7.1
0.1 6.5	1845	10 23.1 + 39 34 5.8			63.1	42.6	65.4	10 24.2 +39 26	5.6	6.4
	1919	10 54.1 + 39 51 5.4			70.1	42.4	66.8	10 55.2 +39 45	5.5	6.3
	Dm. ~~2016~~	~~10 35 8.7 + 30 8.3 7.5~~			~~64.3~~	~~52.3~~	~~64.2~~			
	2514	10 36 26.3 + 20 30.8 6.8			65.8	22.7	65.8	10 38.8 +20 17	6.4	7.2
0.0 5.8	1925	10 55.9 + 20 49 4.5			68.1	22.4	66.9	10 57.0 +20 43	5.0	5.8
	1886	10 39.2 + 31 19 5.4			67.0	32.5	66.7	10 40.3 +31 12		
	Dm. ~~1857~~	10 26.2 + 41 3 5.1			63.6	42.5		10 27.5 +40 57		
	~~2101~~	~~10 24 47.3 + 41 9.4 5.2~~			~~62.2~~	~~42.7~~	~~64.0~~	~~10 27.5 +40 55~~	4.8	5.6

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Ant. of Fry. due to moon & clouds. 8.5

Ant. of Fry. due to chemicals. 8.5

July 26, 1886

Plate 4W.

V	H	Type	Lines	K	Focus	Lines.	V	H	V	H
			pro.			other				
21.4	18.1	III	2	K=H	1	—	10.7	36.2	46.4	30.0
20.9	13.4	IIa 2282	3	K=H	1	— F' eccn	10.4	26.8	46.7	39.4
III ? 6.2, 6.6. 20.7	10.5	III b? 2283	3	K=H	1	— F eccn	10.4	21.0	46.7	45.2
20.2	18.7	III b 2284	3	K=H	2	— F eccn	10.1	37.4	47.0	28.8
18.1	20.2	I	4H	N	1	—	9.0	40.4	48.1	25.8
16.3	15.5	I	4	K=.2H	1	— F	8.2	31.0	48.9	35.2
16.2	19.3	I	4	K=H	1	—	8.1	38.6	49.0	27.6
14.1	18.7	I	4	K=H	1	—	7.0	37.4	50.1	28.8
13.9	18.3	III	3	K=H	2	— F	7.0	36.6	50.1	29.6
13.7	22.1	I?	4	K=H	1	—	6.8	44.2	50.3	22.0
13.5	15.6	III	3	N	1	—	6.8	31.2	50.3	35.0
13.3	11.3	I	8	K=.2H	2	— F	6.6	22.6	50.5	43.6
13.0	14.8	I	6	K=.2H	1	—	6.5	29.6	50.6	36.6
13.1	18.2	I?	3	N	1	—	6.6	36.4	50.5	29.8
12.7	17.0	I	8	K=.18H	2	—	6.4	34.0	50.7	32.2
12.6	10.4	I	5	N	1	—	6.3	20.8	50.8	45.4
10.8	9.7	IIa 2285	2	K=H	2	eccn	5.4	19.4	51.7	46.8
10.6	11.7	I	4	K=H	1	—	5.3	23.4	51.8	42.8
10.4	22.5	IIa 2286	3	K=H	1	F eccn	5.2	45.0	51.9	21.2
9.8	18.6	IIa 2287	3	K=H	5	F eccn	4.9	37.2	52.2	29.0
9.1	18.0	I	12	K=.2H	4	F	4.6	36.0	52.5	30.2
9.0	14.9	I?	3	N	1	—	4.5	29.8	52.6	36.4
8.7	5.7	I	5	K=H	1	—	4.4	11.4	52.7	54.8
8.7	7.4	III?	3	K=H	1	—	4.4	14.8	52.7	51.4
8.0	8.7	I I	5 6	K=H K=H	11	—	4.0	17.4	53.1	48.8
7.2	20.1	III	3	K=H	N	F	3.6	40.2	53.5	26.0
5.5	13.7	III b? 2288	3	K=.2H	3	F bright eccn	2.8	27.4	54.3	38.8
5.0	12.9	I	11	K=.2H	3	F	2.5	25.8	54.6	40.4
10.8	17.8	III III	2	K=H K=H		—	5.4	35.6	51.7	30.6

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Mean 5

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Bu	Br.
	1722	9 28.5	+ 36 22	5.5	64.7	47.1	65.9	9 29.7 + 36 16	6.4	6.9
									6.6	7.1
	1751	9 40.8	+ 46 35	5.3	67.6	57.0	66.6	9 42.1 + 46 29	5.8	6.3
	1760	9 45.9	+ 26 34	4.1	66.9	37.0	65.9	9 47.1 + 26 29	5.5	6.0
									6.0	6.5
	1717	9 26.9	+ 36 56	4.9	64.3	47.0	65.7	9 28.1 + 36 51	5.5	6.0
									5.8	6.3
	Dm. 1768	9 22 49.5	+ 28 1.9	6.7	63.2	37.0	64.4	9 25.4 + 27 50	6.6	7.1
	Dm. 1868	9 33 9.2	+ 49 4.8	6.5	64.2	57.3	64.5	9 26.2 + 48 53	5.6	6.1
	Dm. 1913	9 24 49.0	+ 29 0.6	7.0	63.4	37.1	64.4	9 27.4 + 28 49	6.3	6.8
	~~1850~~	~~9 26 11.9~~	~~+ 49~~	~~7.8~~	~~7.0~~	~~64.8~~	~~57.2~~	~~67.8 9 29.2 + 48 50~~		
	~~Dm. 2224~~	~~9 26 0~~	~~+ 40~~	~~16~~	~~4.7~~	~~63.4~~	~~47.3~~	~~65.1 9 25.2 + 40 4~~		
	~~Dm. 1651~~	~~9 23.4~~	~~+ 50~~	~~5.0~~	~~5.8~~	~~60.8~~	~~57.1~~	~~63.4 9 25.5 + 49 53~~	6.0	6.5
	1712	9 25.3	+ 10 15	5.4	62.9	17.2	63.1			
									5.3	6.8
	1719	9 27.7	+ 40 9	5.0	64.3	47.2	65.8	9 28.8 + 40 4	5.5	6.0
	Dm. 1633	9 12.6	+ 50 8	6.8	56.8	56.9		9 15.7 + 49 57	6.2	6.7
	~~2318~~	~~9 16 34.9~~	~~+ 20~~	~~25.0~~	~~6.3~~	~~60.8~~	~~27.2~~	~~61.7 9 27.4 + 20 14~~	6.6	6.6
									6.4	6.9
	1738	9 34.6	+ 40 18	5.5	65.8	47.1	66.1	9 35.8 + 40 13		
02 5.5	1765	9 47.9	+ 50 24	5.3	70.5	57.0	67.8	9 49.2 + 50 17	4.8	5.3
01 5.9	1742	9 36.5	+ 30 32	5.9	66.1	37.0	66.1	9 37.6 + 30 27	5.3	5.8
	~~1719~~	~~9 27.7~~	~~+ 40~~	~~9~~	~~5.0~~	~~64.1~~	~~46.6~~	~~46.8 9 28.8 + 40 4~~		
	~~Dm. 2224~~	~~9 26 28~~	~~+ 40~~	~~15.6~~	~~4.7~~	~~62.4~~	~~47.9~~	~~63.9 9 28.5 + 40 4~~		
	~~Dm. 2226~~	~~9 26 20.3~~	~~+ 40~~	~~36.3~~	~~6.8~~	~~62.9~~	~~47.2~~	~~64.2 9 29.1 + 40 24~~	6.3	6.8
	1727	9 31.0	+ 40 47	5.3	65.0	47.2	65.9	9 32.1 + 40 42	4.9	5.4
	Dm. 1702	9 49 18.0	+ 50 49.9	7.0	70.1	57.1	66.7	9 52.3 + 50 47	6.1	6.6
	1741	9 50.3	+ 41 38	5.2	69.7	47.0	67.0	9 51.6 + 41 32	5.1	5.6
	1755	9 43.3	+ 21 44	6.0	66.7	27.0	66.2	9 44.2 + 21 39	6.2	6.7
	~~Dm. 1495~~	9 10.6	+ 51 53	6.5	55.6	57.1		9 13.8 + 51 42	5.9	6.4
	~~1389~~	~~9 14 52.3~~	~~+ 52~~	~~12.0~~	~~6.7~~	~~59.9~~	~~57.2~~	~~65.7 9 18.1 + 52 1~~		
	1709	9 24.8	+ 52 13	3.2	62.0	57.1	64.8	9 26.3 + 52 8	3.8	4.3
03 5.3	1715	9 26.6	+ 52 36	4.6	62.6	57.2	65.0	9 28.0 + 52 30	4.5	5.0
	Dm. 2041	9 35 0.7	+ 42 42.9	6.9	64.8	47.2	64.7	9 37.8 + 42 31	6.6	7.1
	1784	9 56.1	+ 22 33	5.6	67.5	27.0	66.0	9 57.2 + 22 26	5.8	6.3
									6.0	6.5
	1783	9 54.1	+ 32 31	6.0	68.9	36.9	66.4	9 55.3 + 32 26	6.1	6.6
	~~Dm. 1384~~	~~9 55.6~~	~~+ 58~~	~~6.5~~						
	~~Dm. 1980~~	~~9 51.1~~	~~+ 43~~	~~3.1~~	~~7.0~~	~~68.5~~	~~47.0~~	~~65.0 9 53.9 + 42 48~~		
	1775	9 51.8	+ 13 0	5.3	69.2	17.0	65.7	9 58.6 + 52 50	5.9	6.4
									6.0	6.6
	1710	9 24.9	+ 23 30	4.4	65.1	27.1	65.9	9 26.1 + 23 25	6.7	7.2
	1747	9 39.0	+ 24 20	3.1	66.4	27.1	66.2	9 40.2 + 24 14	4.4	4.9
	~~Dm. 2035~~	~~9 140.4~~	~~+ 34~~	~~4.7~~	~~6.3~~	~~66.2~~	~~37.3~~	~~65.5 9 43.1 + 34 35~~	4.5	5.0
	~~1731~~	~~9 42.2~~	~~+ 54~~	~~4.5~~	~~6.6~~	~~68.9~~	~~57.8~~	~~69.3 9 45.3 + 54 33~~		
03 4.9	1756	9 44.0	+ 54 38	4.4	69.8	57.1	68.1	9 45.4 + 54 32	4.1	4.6
	1734	9 29.6	+ 31 42	5.7	65.3	37.1		9 30.8 + 31 37	6.7	7.2
									6.9	7.4

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July 26. 1886

Plate 411.

V	H	Type	Dro. Lines	K	Focus	Other Lines		V	H	V	H
5.0	9.2	II a	2289 2	K=H		—	lem	2.5	18.4	54.6	47.8
4.5	15.5	I	4	K=H		—		2.2	31.0	54.9	35.2
4.9	23.4	I	7	K=H		—		2.4	46.8	54.9	19.4
4.0	10.9	I	6	K=H		—	F	2.0	21.8	55.1	44.4

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Mean 5

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Bv	Br.
~~D.M. +1348~~	~~9 54.9~~	~~+54~~	~~25~~	~~6.2~~	~~73.3~~	~~57.1~~	~~685 9 57.9 +54 22~~		
1785	9 56.6	+54	28	5.7	75.0	57.0	p.2 9 58.0 +54 23	6.1	6.6
D.M.									
1345	9 33 43	+ 55	1.8	6.7	64.1	57.2	646 9 36.3 +54 50	6.1	6.6
~~D.M. +1285~~	~~9 5.8~~	~~+54~~	~~38~~	~~5.7~~	~~52.6~~	~~57.0~~	~~39.5 9 9.1 +54 27~~		
~~1731~~	~~9 19.6~~	~~+54~~	~~36~~	~~7.2~~	~~66.1~~	~~57.0~~	~~13.3 9 22.8 +54 24~~		
1785	9	7.6 + 54	31	4.9	54.4	56.9	614 9 9.0 +54 26	4.8	5.3
1757	9 45.1	+ 24	58	5.3	66.9	27.10	9 46.3 +24 53	5.7	6.2
~~D.M. +1278~~	~~9 46 53.5~~	~~+25~~	~~19.7~~	~~7.6~~	~~68.1~~	~~27.3~~	~~69.7~~		
1337	9 46 37.3	+ 54	56.6	7.0	68.4	56.9	649 9 49.7 +54 44		

0.1 6.3

~~943.6+25.1~~

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Aust. of Fog. due to moon & clouds. 7.8 Aust. of Fig. due to chemicals. 7.5

July 30, 1886.

Plate 419.

V.	H.	Type	No Lines	K	Focus	other Lines.	V	H	V	H
22.8	8.8	I	4	K=H	/	—	11.4	17.6	41.0	85.3
22.3	21.7	I?	5	K=H	/	—	11.2	43.4	41.2	59.5
20.5	16.7	I?	3	N	/	—	10.2	33.4	42.2	69.5
20.1	23.1	IIa 2290	3	2	2	F seen	10.0	46.2	42.4	56.7
17.6	10.4	III b 2290a	2	K=H	/	—	8.8	20.8	43.6	82.1
17.4	18.2	I 2291	9	N	2	F bright.	8.7	36.4	43.7	66.5
15.1	15.4	III c	3	K=H	2	F seen.	7.6	30.8	44.8	72.1
14.7	8.0	I	4	K=H	/	—	7.4	16.0	45.0	86.9
14.8	23.7	I	8	N	/	F —	7.4	47.4	45.0	55.5
13.2	16.5	I	9	K=H	/	F —	6.6	33.0	45.8	69.9
13.0	15.2	I?	3	N	/	—	6.5	30.4	45.9	72.5
12.6	12.9	III	3	K=H	/	F	6.3	25.8	46.1	77.1
12.0	9.5	III?	3	K=H	/	F —	6.0	19.0	46.4	83.9
11.4	13.8	III	3	K=H	/	F —	5.7	27.6	46.7	75.3
12.2	23.1	I? 2292	4	K=H	/	—	6.1	46.2	46.3	56.7
11.2	6.0	IIa	3	K=H	/	F seen	5.6	12.0	46.8	90.9
10.9	10.2	III b 2293	3	K=H	/	F seen	5.4	20.4	47.0	82.5
10.6	14.2	I	3	N	/	—	5.3	28.4	47.1	74.6
10.4	16.4	I	12	K=2H	4	F —	5.2	32.8	47.2	70.1
10.4	16.8	I	7	N	2	F —	5.2	33.6	47.2	69.3
10.0	16.2	I	5	N	/	—	5.0	32.4	47.4	70.5
9.6	21.5	I	10	N	4	—	4.8	43.0	47.6	59.9
8.8	10.9	I	6	K=H	/	—	4.4	21.8	48.0	81.1
7.8	22.9	I	11	K=1.5H	4	F —	3.9	45.8	48.5	57.1
7.6	15.6	I?	4	K=H	/	—	3.8	31.2	48.6	71.7
6.9	20.8	IIa 2294	3	K=H	/	F seen	3.4	41.6	49.0	61.3
6.6	8.4	I	5	N	/	—	3.3	16.8	49.1	86.1
6.8	10.0	I	4	N	/	—	3.4	20.0	49.0	82.9

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Mean 8

½cosδ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Bu	Cor. Br.	
	Dm. 2232	9 29.3	+ 40	54	5.5	46.9	52.3	43.8	9 30.1 +40 42		
	2331	9 23.4	+ 20	54	7.2	41.0	32.3	40.2	9 25.9 +20 42		
	1727	9 31.0	+ 40	47	5.3	48.6	52.2	45.5	9 32.1 +40 42		
	1659	9 1.3	+ 11	9	5.0	44.7	22.4		9 2.3 +11 4		
	Dm. 1478	8 55 5.1	+ 51	23.9	6.8	98.5	62.6	103.5	8 58.3 +51 14	5.7	6.5
	Dm. 2009	9 10.0	+ 12	6	7.0	43.4	22.3		9 12.5 +11 55		
	Dm. 1495	9 10 38.4	+ 51	53.3	6.5	44.0	62.1	45.3	9 13.8 +51 42	6.3	7.1
	2193	9 5 11.1	+ 22	9.2	7.8	38.6	32.4	38.9	9 7.8 +21 58		
	Dm. 1961	9 8.4	+ 31	53	7.8	42.1	42.1	42.6	9 11.4 +31 42		
	1641	8 52.8	+ 42	15	4.2	99.0	52.3	100.2	8 54.2 +42 11	4.5	5.3
	1710	9 24.9	+ 23	30	4.4	45.7	32.3	44.9	9 26.1 +23 25	5.8 6.3	6.6 7.1
02 5.4	1671	9 6.0	+ 43	43	5.2	42.4	52.4	44.2	9 7.3 +43 38	4.4	5.2
	1685	9 13.7	+ 34	54	3.4	44.5	42.5	44.7	9 15.0 +34 49	4.4 4.9	5.2 5.7
	Dm. 2077	9 28.6	+ 15	1	6.8	44.0	22.4		9 30.5 +14 49	6.0	6.8
	Dm. 1345	9 33 4.3	+ 55	1.8	6.7	49.1	62.4	48.1	9 36.3 +54 50		
0.1 6.0	1646	8 55.8	+ 24	56	5.6	103.2	32.3	104.9	8 56.9 +24 51	5.1	5.9
	Dm. 1971	9 9 29.0	+ 35	57.8	6.7 8.5	42.4	42.6	42.9	9 12.3 +35 47	5.4	6.2
	Dm. 1708	9 11 48.0	+ 45	58.5	6.8	42.2	52.5	42.4	9 14.8 +45 48	6.1	6.9
	Dm. 2088	9 15.1	+ 25	49	6.5	40.9	32.1	40.4	9 17.7 +25 38	5.4	6.2
	1509	9 19.2	+ 46	14	5.8	45.0	52.5	43.7	9 22.5 +46 8	5.7	6.5
	1696	9 20.9	+ 46	8	5.6	46.7	52.4	45.4	9 22.1 +46 2		
	Dm. 1979	9 27.0	+ 36	29	5.5	46.0	42.5	43.8	9 29.8 +36 17	5.6	6.4
	1722	9 28.5	+ 36	22	5.5	47.5	42.4	45.4	9 29.7 +36 16	5.7	6.5
	1692	9 17.7	+ 26	42	4.6	48.3	32.4	45.0	9 18.8 +26 37	5.4	6.2
	Dm. 1859	8 55.0	+ 26	26	7.0	100.2	82.5	101.9	8 56.9 +26 16	5.8	6.6
	1468	8 49.6	+ 46	19	7.2	95.8	52.4	100.8	8 52.7 +46 9		
	1628	8 48.8	+ 46	6	5.9	95.0	52.2	97.9	8 52.7 +46 9	5.8	6.6
	Dm. 1463	8 49.6	+ 46	19	7.2	95.8	52.4	97.9	8 52.7 +46 9		
	Dm. 1751	9 40.8	+ 46	35	5.3	45.3 52.8	52.2	43.3	9 42.1 +46 29	5.2	6.0
	1991	9 33 17.6	+ 26	34.0	6.5	34.3	52.2	32.3	9 35.9 +26 22	5.0	5.8
	Dm. 1948	9 24.6	+ 37	8	6.8	45.0	42.5	43.1	9 27.4 +36 56		
	2024	9 25.8	+ 37	3	4.8	45.7	42.4	43.8	9 28.1 +36 51	5.3	6.1
	1717	9 26.9	+ 36	56	4.7	47.3	42.3	45.5	9 28.1 +36 51		
	Dm. 1778	9 13.4	+ 37	13	7.0	43.8	42.5	43.5	9 18.2 +37 2		
	1683	9 17.9	+ 5	13	6.0	41.3	62.5	40.5		6.2	7.0
0.1 4.8	1681	9 11.4	+ 39	19	3.8	44.2	42.5	44.7	9 12.6 +39 14	3.9	4.7
	1678	9 9.4	+ 47	19 3.8	3.7 5.5	43.0	52.8		9 10.8 +47 14		
02 6.0	1674	9 6.9	+ 59	13	56	40.5	62.4	42.1		5.0	5.8
	Dm. 1660	9 9.5	+ 47	34	7.2	41.9	52.6		9 12.5 +47 23		
	1678	9 9.4	+ 47	19	5.5	41.8	52.3	42.5		5.6	6.4
02 4.6	1645	8 55.4	+ 47	38	3.7	98.4	52.4	102.6	8 56.9 +47 34	3.6	4.4
	Dm. 1768	9 22 49.5	+ 28	1.9	6.7	44.6	32.4	43.6	9 25.4 +27 50	6.1	6.9
02 4.5	1636	8 51.0	+ 48	31	3.2	96.8	52.4	102.1	8 52.4 +48 37	3.5	4.3
	Dm. 1751	9 9 58.6	+ 48	42.3	8.3	41.2	52.5	41.7			
	2025	9 11 54.9	+ 38	48.2	6.7	43.0	42.6	43.2	9 14.7 +38 37	5.9	6.7
	1649	8 57.1	+ 49	0	5.7				9 58.5 +48 55		
	1653	8 58.9	+ 38	56	4.7	100.5	42.5	103.0	8 0.2 +38 51	5.2	6.0
	Dm. 1953	9 30 24.0	+ 59	13.8	7.7	41.2	62.5	40.7	9 33.7 +59 2		
	1868	9 33 9.2	+ 49	4.8	6.5	50.0	52.4	45.5	9 36.2 +48 33	5.6	6.4
	Dm. 1913	9 24 49.8	+ 29	0.6	7.0	44.8	32.4	43.6	9 27.5 +28 49		
	1850	9 26 11.9	+ 49	7.8	7.0	46.2	52.5	42.8	9 29.2 +48 56	6.1	6.9

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Plate 41.

V	H	Type	No Lines	K	Focus	other Lines.	V	H	V	H
5.0	11.7	I	3	N	1	—	2.5	23.4	49.9	79.5
3.2	9.0	I	~~4~~ 5	N	1	—	1.6	18.0	50.8	84.9
3.0	18.6	I	4	~~N~~ K=H	1	—	1.5	37.2	50.9	65.7

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

8.2 Plate 264. 8.0

22.4	22.8	I	~~4~~ 6	~~N~~?	3	—	11.4	~~45~~.6	10.4	23.1
22.4	22.4	II a	2295 ~~3~~	~~N~~ K=H	1	F rem	11.2	44.8	10.6	23.9
22.0	23.2	I?	3	N	1	—	11.0	46.4	10.8	22.3
21.8	6.3	II?	2	~~N~~ K=H	1	—	10.9	12.6	10.9	56.1
20.5	22.0	II	2	~~N~~ K=H	1	—	10.2	44.0	11.6	24.7
~~20.2~~	21.7	I I	~~5~~ 5	~~N~~ K=H K=H	1 1	— —	10.1	43.4	11.7	25.3
19.6	12.2	I	5	N?	2	—	9.8	24.4	12.0	44.3
18.5	20.5	I	~~4~~ 4	N	1	—	9.2	41.0	12.6	27.7
17.5	15.1	II a	2296 ~~3~~	K=H	3	F rem	8.8	30.2	13.0	38.5
~~17.4~~	17.8	I II	~~5~~ 6	~~N~~ K=.5H K=.5H	1 +	— —	8.7	35.6	13.1	33.1
17.5	20.0	I	~~4~~ 4	N	1	—	8.8	40.0	13.0	28.7
16.8	15.8	III	22 ~~3~~ 97	~~N~~ K=H	1	F —	8.4	31.6	13.4	37.1
16.9	10.6	I	~~8~~ 8	K=.8H	2	F —	8.4	21.2	13.4	47.5
16.0	14.5	II	~~2~~ 2	K=H	1	—	8.0	29.0	13.8	39.7
15.7	12.1	I	~~8~~ 10	K=.2H	4	F	7.8	24.2	14.0	44.5
15.1	11.4	I	3	N	1	—	7.6	22.8	14.2	45.9
13.2	15.8	III	2298 ~~5~~ 6	~~3~~ K=H	2	F bright rem	6.6	31.6	15.2	37.1
~~13.2~~	12.3	~~I~~ E? II a?	2298a ~~3~~ 2	N K=H	1 1	— rem	6.6	24.6	15.2	44.1
12.8	10.7	I	~~8~~ 8	N	2	—	6.4	21.4	15.4	47.3
11.5	15.6	I	~~5~~ 5	N	1	—	5.8	31.2	16.0	37.5
11.5	8.8	I	4	N	1	—	5.8	17.6	16.0	51.1
11.1	9.1	I?	2	N	1	—	5.6	18.2	16.2	50.5
16.0	13.0	I	~~7~~ 7	N	1	F —	5.5	26.0	16.3	42.7

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Mean 8.

	Cl.	R.A.		Dec.		Mag.	H	V	H'	Red. of D.Tm. Start to 1900		Cor. Bg.	Br.	
Dm. 1623	9	23.4	+ 50	5	6.8	43.9	52.6	41.4	9	26.5	+49 53			
Dm. 1657	9	23.4	+ 50	5	6.8	46.8	52.6	44.4	9	26.5	+49 53			
1702	9	22.0	+ 9	35	5.6	45.4	12.1							
Dm. 1478	9	26.3	+ 60	51	6.5	44.8	62.5	38.6	9	29.8	+60 39			
2226	9	26.3	+ 40	36	6.8	44.3	42.2	41.3	9	29.1	+49 24			
1727	9	31.0	+ 40	42	5.2	49.0	42.4	46.0	9	32.1	+40 42	5.4	6.2	9223.0+50.1
Dm. 2168	9	2	26 + 40	53.9	7.5	39.2	42.4							
1488	9	1	48.7 + 51	2.8	6.5	39.0	52.5	41.6	9	5.0	+30 52	6.1	6.9	9273+40.8

Mean 9

1216	6	21.8	+ 20	17	4.0	67.4	31.7	68.4	6	23.1	+20 17				
1211	6	20.9	+ 30	34	5.2	65.7	41.8	67.7	6	22.1	+30 34	5.0	5.9		
Dm. 1427	6	19	7.6 + 20	50.7	7.0	65.6	31.9	66.6							
1428	6	19	19.5 + 20	35.0	6.8	65.7	31.6	65.7	6	22.0	+20 34				
1232	6	18	20.3 + 30	43.6	7.1	64.7	41.7	64.1				6.0	6.9		
1334	6	59.9	+ 20	45	4.0	70.5	31.7	69.3	6	58.2	+20 43	5.8	6.7		
Dm. 1204	6	23.1	+ 11	21	6.8				6	25.6	+ 11 19	5.9	6.8		
1224	6	25.1	+ 11	38	4.9	69.1	21.8	69.5	6	26.2	+11 36	6	23.7	+11 38	
Dm. 1224	6	25.1	+ 11	38	4.9				6	26.2	+11 36				
1213	6	24	17.9 + 11	46.7	7.0	67.7	21.9	68.1	6	26.8	+11 48	5.7	6.6	6.6	
1293	6	44.4	+ 21	55	5.2	68.8	31.7	68.4	6	45.6	+21 53	5.1	6.0		
1223	6	24.6	+ 32	32	6.0	65.6	41.7	67.3	6	26.0	+32 31	5.5	6.4		
1272	6	38.6	+ 13	1	3.4	68.8	21.8	68.8	6	39.7	+13 0	4.0	4.9		
Dm. 1377	6	29.4	+ 33	9	7.4	65.0	41.9		6	32.4	+33.7				
Dm. 1313	6	31	17.7 + 33	4.9	7.4	66.9	41.9	67.2							
1356	6	31	40.5 + 13	6.6	7.0	67.3	21.8	67.5	6	34.3	+13 5	5.7	6.6	6.7	6 29.5+33.3
Dm. 1356	6	24	12.8 + 33	7.9	6.5	64.2	41.9	65.8	6	27.2	+33 6	6.1	7.0		
1266	6	37.2	+ 13	21	4.6	68.8	21.8	68.8	6	38.3	+13 20	5.6	6.5		
1305	6	47.9	+ 13	20	4.8	69.1	21.7	68.8	6	49.0	+13 19	6.0	6.9		
1269	6	38.1	+ 43	42	5.4	67.1	51.7	66.8	6	39.5	+43 40	4.9	5.8		
1295	6	44.9	+ 34	6	3.7	69.1	41.9	68.1	6	46.2	+34 5	5.8	6.7		
Dm. 1551	6	44	45.7 + 44	4.7	6.5	67.6	51.7	65.5	6	48.0	+44 2	3.6	4.5		
1263	6	36.5	+ 26	15	3.2	68.1	31.8	68.3	6	37.8	+25 13	6.0	6.9		
Dm. 1347	6	42	57.4 + 15	14.6	7.3	67.6	21.8	67.4	6	45.6	+15 12	4.8	5.7		
1310	6	48.9	+ 45	17	4.7	70.3	51.7	67.8	6	50.4	+45 14	5.2	6.1		
Dm. 1494	6	34	28.9 + 36	14.4	6.7	65.7	42.0	65.9	6	37.5	+36 12	6.2	7.1	6.8	
Dm. 1411	6	50	31.4 + 26	5.8	6.5	68.1	31.9	66.8	6	53.3	+26 3	4.9	5.8		
1405	6	49.8	+ 26	16	6.5	68.0	31.9	69.2	6	52.6	+26 13	5.4	6.3		
Dm. 1554	6	51.9	+ 16	16	6.0	70.1	21.9	70.6	6	54.5	+16 13				
1323	6	53.4	+ 16	14	5.9	71.6	21.8	71.1				5.7	6.6		
1290	6	42.9	+ 16	20	5.4	68.9	21.8	68.7	6	44.1	+16 19	6.4	7.3		

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Plate 264.

V	H.	Type	No Lines	K	Focus	Other Lines	V	H	V	H
10.7	18.8	I	14	K=.2H	5	F —	5.4	37.6	16.4	31.1
10.5	17.0	I	5 N		1	—	5.2	34.0	16.6	34.7
10.5	11.2	I	6 N		1	—	5.2	22.4	16.6	46.3
8.2	16.6	I	7	K=.2H	2	—	4.1	33.2	17.7	35.5
7.5	19.7	I	7 N		2	—	3.8	39.4	18.0	29.3
7.0	14.2	I	4 N		1	—	3.5	28.4	18.3	40.3
7.0	17.7	I	6 N		1	—	3.5	35.4	18.3	33.3
6.9	12.1	I	4	K=8	1	—	3.4	24.2	18.4	44.5
6.7	11.8	I	7 N		1	—	3.4	23.8	18.4	44.9
7.2	8.4	I	4 N		1	—	3.6	16.8	18.2	51.9
5.5	18.2	I	7 N		1	—	2.8	36.4	19.0	32.3
4.0	17.7	I	8 N		2	F —	2.0	35.4	19.8	33.3
3.1	23.0	I	9 N		3	F —	1.6	46.0	20.2	22.7

Anit. of Fog. due to moon & clouds. Anit. of Fog. due to chemicals.

6.8 6.5

Plate 497.

∫∫	22.3	16.0	I	5 N	1	—	H: 2	32.0	46.6	60.8
	19.1	14.2	II a 2299	2 K=H	2	com	9.6	28.4	48.2	64.4
	18.4	13.4	II a 2300	3 K=H	2	F com	9.2	26.8	48.6	66.0
	17.5	19.8	I	10 N	5	F —	8.8	39.6	49.0	53.2
	17.0	14.3	I ?	3 N	1	—	8.5	28.6	49.3	64.2
	15.7	6.4	I	7 K=H	2	F —	7.8	12.8	50.0	80.0
	14.7	11.8	I	7 N	2	F —	7.4	23.6	50.4	69.2
	13.8	12.9	II ? 2	K=H	1	—	6.9	25.8	50.9	67.0
	13.0	11.5	I	6 K=H	2	F —	6.5	23.0	51.3	69.8
	12.5	12.2	II a ? 2301	2 K=H	1	com —	6.2	24.4	51.6	68.4
	11.7	22.0	II ?	2 K=H	1	—	5.8	44.0	52.0	48.8
	6.4	7.3	I	3 N	1	—	3.2	14.6	54.6	78.2
	6.1	18.5	I	5 K=H	1	—	3.0	37.0	54.8	55.8

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Mean 9

½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red of D.M. stars to 1900	Cor Br	Br..
0.0 4.0	1249	6 30.8	+ 16 30	7.0	68.4	71.9	68.8	6 31.9 + 16 29	3.1	4.0
	Dm. 1242	6 33 0.4	+ 16 31.8	7.3	67.0	71.7	67.2	6 35.6 + 16 30	5.7	6.6
0.2 6.7	1304	6 47.7	+ 46 26	5.9	70.1	51.6	67.8	6 49.1 + 46 25	5.6	6.5
0.0 6.0	1260	6 35.4	+ 17 46	5.0	68.6	71.9	68.8	6 36.6 + 17 45	5.1	6.0
0.1 6.4	1239	6 27.7	+ 28 7	4.9	67.1	31.9	68.2	6 29.0 + 28 6	5.4	6.3
	Dm. 1349	6 38.9	+ 18 21	6.5	67.3	21.9	67.2	6 41.5 + 18 18	5.7	6.6
	~~1280~~	~~6 40.8~~	~~+ 8 10~~	~~5.0~~	~~69.2~~	~~11.7~~				
0.1 6.6	1252	6 32.0	+ 28 22	5.7	67.4	31.9	68.0	6 33.3 + 28 21	5.6	6.5
	1298	6 45.0	+ 38 35	6.3	69.2	42.0	67.9	6 46.3 + 38 34	5.9	6.8
0.1 6.4	1299	6 45.8	+ 38 39	6.1	69.6	42.0	68.3	6 47.1 + 38 38	5.4	6.3
	Dm. 1391	6 54.3	+ 47 58	6.8	71.1	51.6	66.7	6 57.7 + 47 54	5.9	6.8
	~~1327~~	~~6 55.4~~	~~+ 17 55~~	~~6.2~~	~~72.2~~	~~21.5~~	~~71.5~~			
0.1 6.7	1248	6 30.8	+ 29 5	5.5	67.2	31.9	68.0	6 32.1 + 29 4	5.7	6.6
	~~Dm. 1307~~	~~6 32.1~~	~~+ 27 51~~	~~7.2~~	~~67.5~~	~~31.8~~	~~68.2~~	~~6 35.0 + 29 49~~		
	~~1665~~	~~6 28.7~~	~~+ 40 1~~	~~6.1~~	~~64.1~~	~~42.0~~	~~66.4~~	~~6 31.8 + 39 59~~		
0.1 5.7	1244	6 30.3	+ 39 30	5.7	65.7	41.5	66.0		5.7	5.6
	1245	6 30.5	+ 40 0	5.1	65.9	42.0		6 31.9 + 39 59		
0.0 5.2	1216	6 21.8	+ 20 17	4.0	67.8	21.9	68.8	6 23.1 + 20 17	4.3	5.2

6 28.6 + 40.0

Mean 12

									Cor Br	Br.	
	Dm. 2337	12 59 1.0	+ 36 34.4	5.5	91.0	47.8	91.3	13 1.0 + 36 19	5.3	6.2	6.5
	~~2225~~	~~13 4.1~~	~~+ 38 5~~	~~6.2~~	~~32.5~~	~~47.7~~		~~13 5.0 + 37 57~~			
	~~2226~~	~~13 4.2~~	~~+ 18 10~~	~~4.4~~	~~32.6~~	~~27.8~~	32.5	13 5.1 + 18 4	5.0	6.1	6.2
	2232	13 6.3	+ 28 29	4.4	33.1	37.7	32.7	13 7.3 + 28 22	4.9	6.2	6.1
0.1 4.3	2195	12 50.4	+ 38 58	3.0	90.0	47.8	92.2	12 51.4 + 38 52	3.0	4.0	4.2
	2196										
	2228	13 4.2	+ 39 10	6.3	32.8	47.7	32.5	13 5.1 + 39 4	5.8	6.1	7.0
	~~Dm. 2680~~	~~13 23 2.0~~	~~+ 19 48.4~~	~~7.2~~	~~35.8~~	~~27.6~~	~~34.6~~	~~13 25.0 + 19 34~~			
	~~2224~~	~~13 28 32.5~~	~~+ 49 45.8~~	~~4.8~~	~~41.3~~	~~57.6~~	~~35.2~~	~~13 30.5 + 49 32~~			
	2229	13 29.6	+ 49 38	4.8	42.4	57.4	36.4	13 30.4 + 49 31	4.8	6.0	6.1
0.2 6.2	~~2243~~	~~13 10.7~~	~~+ 20 25~~	~~6.3~~	~~34.3~~	~~27.8~~	~~33.9~~				
	2253	13 13.1	+ 50 19	5.2	36.7	57.7		13 14.0 + 50 12	5.8	6.6	7.0
	2237	13 8.3	+ 40 47	5.0	34.1	47.7	33.1	13 9.2 + 40 41	5.6	6.5	7.8
	2248	13 12.2	+ 41 12	4.7	35.2	47.7	33.5	13 13.1 + 41 6	4.9	6.8	6.1
	2241	13 10.2	+ 41 30	5.7	34.6	47.7	33.2	13 11.1 + 41 23	5.6	6.9	6.8
	2184	12 47.4	+ 21 54	5.1	91.4	27.7	92.4	12 48.4 + 21 48	5.7	6.9	6.9
0.1 7.0	2266	13 19.4	+ 24 28	5.9	34.0	27.7	32.6	13 20.4 + 24 22	5.7	6.9	7.4
	2198	12 51.0	+ 54 45	5.7	88.0	57.8	91.0	12 51.9 + 54 39	3.5	4.2	4.4

13 12.0 + 50.4

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Plate 497.

V	H.	Type	No Lines	K	Focus	Other Lines		V	H	V	H
4.5	10.5	I	11	K=.2H	5	—	F	2.2	21.0	55.6	71.8
4.2	10.2	I	8	K=½H	2	—	F	2.1	20.4	55.7	72.4
1	7.7	I	3	N	1	—	—	1.6	15.4	56.2	77.4
2.8	10.0	I	5	N	1	—		1.4	32.0	56.4	60.8
2.5	19.0	I	12	N	5	—		1.2	38.0	56.6	54.8

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

Plate 402. Continued from page 86.

17.5	12.9	III	2212	3	K=H	1	F sem	8.8	25.8	48.7	58.6
17.1	13.7	II a?	2213 2		K=H	1	sem	8.6	27.4	48.9	57.0
16.7	21.4	IIa	22143		K=H	2	F sem	8.4	42.8	49.1	41.6
14.5	14.5	I	4		K=H	1	—	7.2	29.0	50.3	55.4
14.0	16.8	I	4	N		1	—	7.0	33.6	50.5	50.8
13.8	16.4	II?	2		K=H	1	—	6.9	32.8	50.6	51.6
13.4	11.7	I	4	N		1	—	6.7	23.4	50.8	61.0
11.8	9.1	I	3	N		1	—	5.9	18.2	51.6	66.2
11.5	23.3	I	7		K=H	2	—	5.8	46.6	51.7	37.8
11.1	12.7	I	2215 10	K=.2H		3	—	5.6	25.4	51.9	59.0
10.9	15.3	II a	2216 3		K=H	3	F sem	5.4	30.6	52.1	53.8
10.4	5.2	IIa?	3	K=2.0H		5	F sem	5.2	10.4	52.3	74.0
9.9	14.9	I	5	K=H		1	—	5.0	29.8	52.5	54.6
9.5	13.4	II?	2	K=H		1	—	4.8	26.8	52.7	57.6
9.5	15.7	III?	3	K=H		1	F	4.8	31.4	52.7	53.0
9.4	18.6	I	4	N		2	F	4.7	37.2	52.8	47.2
8.5	16.8	I	7	K=.5H		2	F	4.2	33.6	53.3	50.8
8.0	10.5	I	7	N		2	F	4.0	21.0	53.5	63.4
6.2	10.7	I	6	N		2	F	3.1	21.4	54.4	63.0
5.9	14.2	I	5	N		1		3.0	28.4	54.5	56.0
5.3	5.8	II	2217	K=H		1	F	2.6	13.6	54.9	70.8

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Mean 12

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of II.7m stars to 1900	Cov By	Cov Br.	
	~~2264~~	~~13 13.6 + 35 46 6.9~~			~~34.6~~	~~38.0~~	~~32.9~~				
	2264	13 19.1 + 55 33 7.4			40.1	57.8	46.0	13 19 9 +55 27			13 18.0 +55.7
	~~Dm. 2435~~	~~13 12.4 + 36 54 6.9~~			~~32.8~~	~~38.0~~	~~31.0~~	~~13 14.5 +36 40~~			
	2267	13 20.4 + 55 39 4.2			40.8	57.7	46.6	13 21.2 + 55 30			2267 H.P. 6
	~~Dm. 2455~~	~~13 16.9 + 26 18 7.1~~			~~32.3~~	~~27.9~~	~~30.8~~	~~13 19.0 +26 4~~			
	~~1667~~	~~13 28 33.0 + 56 55 6.0~~			~~44.0~~	~~57.7~~	~~47.5~~	13 30.3 + 55 52			
0.166	2213	13 0.1 + 36 26 5.3			32.1	37.8	32.5	13 1.0 +36 20	5.3	6.5	
	2191	12 48.7 + 56 37 1.8			86.7	57.8	90.2	12 47.6 +56 30			

Mean 9

	1653	8 58.9 + 38 56 4.7			84.7	47.7		8 0.2 +38 51	5.4	6.3	
	~~Dm. 2138~~	~~9 3 48.6 + 18 38.0 6.8~~			~~29.6~~	~~27.4~~	~~29.4~~		5.6	6.5	
	~~1641~~	~~8 58 45.4 + 28 42.9 8.5~~			~~84.6~~	~~37.5~~	~~84.1~~	~~9 1.5 +28 32~~			8 57.5 +39.1
	1649	8 57.1 + 49 0 5.7			84.5	57.6		8 58.5 +48 55			
	~~1653~~	~~8 58.9 + 38 56 4.7~~			~~86.3~~	~~47.5~~	~~85.3~~		5.4	6.8	8 55.3 +49.2
	1605	8 39.4 + 29 17 4.2			82.2	37.6	83.9	8 40.6 +29 7	4.6	5.5	
	Dm. 1601	8 52.9 + 50 32 7.2			81.9	57.7		8 56.1 + 50 22			
	~~Dm. 1238~~	~~8 54 19.0 + 40 16.4 6.5~~			~~81.3~~	~~47.5~~	~~84.1~~	~~8 55.5 +40 6~~	5.9	6.8	
	~~1608~~	~~8 56 15.8 + 50 12.0 7.5~~			~~85.3~~	~~57.4~~	~~84.9~~				8 57.9 +50.4
	1627	8 48.7 + 40 40 5.8			82.3	47.7		8 50.1 +40 35			
0.269	~~Dm. 2243~~	~~8 48 24.6 + 20 23.5 Dm.~~			~~82.0~~	~~27.4~~	~~82.2~~	~~8 31.0 +20 14~~	5.8	6.7	8 47.0 +40.7
	~~1601~~	~~8 52 52.9 + 50 31.9 7.2~~			~~86.5~~	~~57.5~~	~~87.8~~				
	Dm. 1795	8 49.2 + 30 48 6.5			82.0	37.7		8 51.9 +30 38			8 49.0 +30.8
	~~1627~~	~~8 48.7 + 40 40 5.8~~			~~81.5~~	~~47.6~~	~~82.1~~		6.3	7.2	
	Dm. 1488	9 1.8 + 51 3 6.5			25.2	57.7		9 5.0 +50 52			9 2.0 +51.0
	~~Dm. 1829~~	~~9 3 37.8 + 30 53.7 8.3~~			~~27.0~~	~~37.6~~	~~26.1~~				
	~~2168~~	~~9 2 2.6 + 40 53.3 7.5~~			~~25.4~~	~~47.6~~	~~23.9~~	~~9 4.9 +40 42~~	5.7	6.6	
	~~Dm. 2009~~	~~9 10 21.8 + 21 25.1 8.4~~			~~28.6~~	~~27.3~~	~~27.8~~				
	1495	9 10 38.4 + 51 53.3 6.5			28.8	57.8	24.3	9 13.8 +51 42	6.2	7.1	
	1597	8 36.3 + 21 55 4.8			82.9	27.7	84.1	8 37.5 +21 50	4.7	5.6	
D 3 5.5	1656	9 0.4 + 52 5 4.4			25.8	57.7	24.1	9 1.9 +52 0	4.3	5.2	
	1641	8 52.8 + 42 15 4.2			83.4	47.6		8 54.2 +42 11			
	~~1639~~	~~8 51.9 + 42 19 4.3~~			~~82.5~~	~~17.7~~	~~82.5~~		4.5	5.4	8 51.6 +42.4
	1709	9 24.8 + 52 13 3.2			35.2	57.5	27.8	9 26.3 +52 8	4.0	4.9	
	~~Dm. 1956~~	~~8 51 13.6 + 42 21.3 4.1~~			~~81.0~~	~~47.4~~	~~80.9~~	~~8 54.2 +42 11~~			
	1829	8 52 30.8 + 32 48.9 6.3			82.3	37.8	82.2	8 55.3 +32 39	5.5	6.4	
	Dm. 1837	8 56.0 + 32 57 6.8			82.8	37.8	82.3	8 58.8 +32 47			
	~~1661~~	~~9 2.5 + 22 31 5.2~~			~~29.3~~	~~27.3~~	~~29.0~~		6.3	7.2	
	~~1640~~	~~8 52.2 + 32 53 5.4~~			~~83.6~~	~~37.7~~	~~83.8~~	~~8 53.4 +32 49~~	5.7	6.6	
	~~Dm. 2014~~	~~8 45.1 + 22 46 4.6~~			~~83.1~~	~~27.5~~	~~83.7~~	~~8 45.5 +22 36~~	5.9	6.8	
	~~1241~~	~~8 42.6 + 52 5.4 6.8~~			~~29.8~~	~~57.6~~	~~82.4~~	~~8 45.1 +51 55~~			
D 1 6.5	~~1607~~	~~8 40.4 + 12 33 5.8~~			~~44.6~~	~~17.3~~	~~17.9~~		5.5	6.4	8 38 +33.0
	1619	8 45.2 + 32 56 5.7			82.4	37.6		8 46.4 +32 51			
0.162	1631	8 49.6 + 33 22 5.5			83.2	37.6	83.7	8 50.8 +33 18	5.2	6.1	
D 2 5.6	1671	9 6.0 + 43 43 5.2			27.0	47.7	24.5	9 7.3 +43 38	4.5	5.4	
0 3 5.6	1675	9 7.6 + 54 31 4.9			29.0	57.6	25.5	9 9.0 +54 26	4.4	5.3	
0 3 6.6	1644	8 55.2 + 54 45 5.6			83.6	57.8	82.9	8 56.7 +54 41	5.4	6.3	
	1685	9 13.7 + 34 54 3.4			27.3	37.5	24.2	9 15.8 +34 49	5.1	6.0	

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Aust. of Fog. due to moon & clouds. 7.9 Aust. of Fog. due to chemicals. 7.9

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Plate 598.

V	H	Type	Pro Lines	K	Focus	other Lines	V	H	V	H
3.7	9.0	I	6	N	1	—	1.8	18.0	31.2	53.8
2.5	17.2	II ?	3	K=H	1	— F	1.2	34.4	31.8	37.4

Aust. of Fog. due to moon & clouds. 8.0 Aust. of Fog. due to chemicals.

Plate 599

7.9

22.5	17.1	IIa. 2302	3	K=H	2	F cen	11.2	34.2	31.8	36.5
20.6	19.1	I	6	N	2	F —	10.3	38.2	32.7	32.5
14.4	19.6	I	4	N	1	—	7.2	39.2	35.8	31.5
13.8	13.5	I	5	N	2	—	6.9	27.0	36.1	43.7
12.6	23.7	I	7	N	2	F —	6.3	47.4	36.7	23.3
8.2	16.1	III b? 2303	3	K=H	2	F cen	4.1	32.2	38.9	38.5

Aust. of Fog. due to moon & clouds. 7.9 Aust. of Fog. due to chemicals.

Plate 626.

7.5

18.5	17.3	I	4	N	1	—	9.2	34.6	18.9	17.4
18.6	23.3	I	6	N	2	—	9.3	46.6	18.8	5.4
15.3	12.1	I	5	N	1	—	7.6	24.2	20.5	27.8
14.5	23.6	I ?	6	N	2	—	7.2	47.2	20.9	4.8
13.0	16.5	III bc? 2304	3	K=H	2	F right cen	6.5	33.0	21.6	19.0
9.5	10.5	I	5	N	1	—	4.8	21.0	23.3	31.0
8.6	13.7	I ?	3	N	1	—	4.3	27.4	23.8	24.6

Aust. of Fog. due to moon & clouds. 8.0 Aust. of Fog. due to chemicals.

Plate 627

7.9

20.7	7.3	I	4	K=H	1	—	10.4	14.6	37.5	37.4
18.7	10.5	I ?	12	N	5	F —	9.4	21.0	38.5	31.0
17.1	15.4	I	6	K=2H	1	F —	8.6	30.8	39.3	21.2
? 16.8	7.6	I		K=H	2	—	8.4	15.2	39.5	36.8
12.7	23.4	III bc 2305	3	K=H	2	F Right cen	6.4	46.8	41.5	5.2
11.9	18.5	I	4	N	1	—	6.0	37.0	41.9	15.0
11.6	10.0	I	4	N	1	—	5.8	20.0	42.6	32.0

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½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.	
	2844	16 55.7	+ 31 6	4.0	73.7	32.9	72.0	16 56.5 +31 4	6.0	
	2807	16 36.8	+ 31 49	3.1	71.2	33.0	71.8	16 37.5 +31 47		
					Mean 14				cor. Br.	
	2807	16 36.8	+ 31 49	3.1	71.0	43.0	71.6	16 37.5 +31 47	~~5.6~~	
0.2 6.0	2787	16 30.2	+ 42 42	4.2	68.4	53.0	70.6	16 30.9 +42 39	4.4 5.8	
0.2 7.2	2782	16 28.3	+ 45 53	5.3	67.5	53.1	70.3	16 28.8 +45 50	5.6 7.0	
0.2 6.5	2826	16 45.7	+ 46 12	5.0	72.7	53.1	71.8	16 46.3 +46 10	4.9 6.3	
0.2 5.4	2745	16 16.1	+ 46 36	3.9	63.5	52.9	68.9	16 16.7 +46 33	3.8 5.2	
	2810	16 38.8	+ 39 9	3.7	71.0	~~53.8~~ 43.2	~~68.5~~ 71.5	16 39.5 +39 7	4.4 5.8 4.7 6.1	
					Mean 14				cor. Br.	
0.1 6.6	3097	18 16.3	+ 28 49	5.0	50.9	38.0	51.5	18 17.1 +28 49	6.5 5.1	
0.1 5.5	3048	18 2.9	+ 28 45	4.0	49.5	38.1	51.5	18 3.6 +28 45	5.4 4.0	
0.1 6.5	3132	18 28.3	+ 30 28	5.4	52.5	38.1	51.7	18 29.0 +30 29	6.4 5.0	
	3051	18 3.7	+ 20 49	4.5	50.9	28.0	52.1	18 4.4 +20 48	5.5 4.1	
	3107	18 18.6	+ 21 43	3.9	51.6	28.2	51.8	18 19.4 +21 43	6.4 5.0 6.8 5.4	
0.1 6.5	3146	18 32.2	+ 33 22	5.3	53.2	38.2	51.7	18 32.6 +33 23	6.4 5.0	
	3125	18 24.6	+ 23 47	5.7	52.0	28.1	51.8	18 25.5 +23 48	7.0 5.6	
					Mean 13				cor. Br.	
	3172	18 40.6	+ 37 29	4.3						
	3173	18 40.6	+ 37 29	5.9	55.2	47.9	51.9	18 41.3 +37 30	6.3 5.0	
	3147	18 32.9	+ 38 40	0.2	53.9	48.1	51.9	18 33.6 +38 41	B. B	
0.1 6.5	3110	18 20.3	+ 39 27	4.9	51.1	48.1	51.3	18 20.9 +39 27	6.4 5.1	
	3164	18 40.4	+ 39 33	4.6	55.6	48.0	52.2	18 41.0 +39 34	6.4 5.1	
	~~2960~~	~~18 2.5~~	~~+ 21 58~~	~~6.3~~	~~47.3~~	~~48.3~~	~~51.6~~	~~18 1.9 +21 60~~		
	~~3032~~	~~17 58.9~~	~~+ 51 26~~	~~7.9~~	~~105.9~~	~~58.0~~	~~112.1~~	~~18 5.9 +51 30~~	5.2 3.9	
	~~3026~~	~~17 56.4~~	~~+ 21 24~~	~~4.6~~	~~103.2~~	~~28.0~~	~~104.4~~	17 54.3 +51 31	5.7 4.4	
0.2 6.7	3009	17 53.8	+ 51 30	2.4	100.6	57.9				
	3079	18 11.9	+ 42 8	5.8	48.9	48.1		18 12.6 +42 8		
	~~3091~~	~~18 15.2~~	~~+ 21 55~~	~~4.8~~	~~50.2~~	~~27.9~~	~~52.9~~		6.5 5.2	
	~~3494~~	~~18 30.5~~	~~+ 21 59~~	~~6.9~~	~~60.5~~	~~27.3~~	~~49.8~~	~~18 32.4 +22 1~~		
0.3 7.0	3141	18 31.2	+ 52 15	5.4	51.2	58.0	47.4		6.7 5.4	
	3155	18 37.2	+ 52 5	5.8	57.2	57.9		18 37.5 +52 6		

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Plate 627

V	H	Type	Nro. Lines	K	Focus	other Lines	V	H	V	H
10.0	8.0	I d	3	N	1	—	5.0	16.0	42.9	36.0
5.1	9.4	I	45	W	2	—	2.6	18.8	45.3	33.2

Amt. of Fog. due to moon + clouds. Amt. of Fog. due to chemicals.
8.1 7.9

Plate 618

18.5	5.4	I	6	N	3	— Fw	9.2	10.8	13.8	59.4
16.2	8.2	III	3	K=H	1	— F	8.1	16.4	14.9	53.8
10.1	14.2	I	6	N	2	—	5.0	28.4	18.0	41.8
9.9	19.8	I?	2	N	1	—	5.0	39.6	18.0	30.6
5.5	14.8	I?	4	K=H	1	—	2.8	29.6	20.2	40.6
5.2	20.0	I	3	N	1	—	2.6	40.0	20.4	30.2

Amt. of Fog. due to moon + clouds. Amt. of Fog. due to chemicals.
8.0 7.7

Plate 619

21.0	12.4	I	3	N	1	—	10.5	24.8	32.6	44.4
20.8	8.6	I	8	N	3	— F	10.4	17.2	32.7	52.0
? 19.6	12.3	IIa? (2306)	3	K=H	2	— Fccw	9.8	24.6	33.3	44.6
19.1	18.0	IIa? (2307)	2	K=H	1	— scm	9.6	36.0	33.5	33.2
18.5	10.4	I ?	3	N	1	—	9.2	20.8	33.9	48.4
17.2	18.5	I	3	N	1	—	8.6	37.0	34.5	32.2
16.8	15.6	I ?	2	N	1	—	8.4	31.2	34.7	38.0
13.2	11.7	I ?	3	N	1	—	6.6	23.4	36.5	45.8
12.6	8.3	I	5	K=H	1	—	6.3	16.6	36.8	52.6
12.5	10.8	I	4	K=H	1	—	6.2	21.6	36.9	47.6
11.2	14.4	I	6	K=.5H	2	F	5.6	28.8	37.5	40.4
9.7	9.2	I?	3	N	1	—	4.8	18.4	38.3	50.8
9.0	12.8	I	4	K=H		—	4.5	25.6	38.6	43.6
9.0	17.4	I	15	N	5	line	4.5	34.8	38.6	34.4
? 7.2	14.5	I	5	K=H?	2	—	3.6	29.0	39.5	40.2
7.0	22.3	I	5	K=H	1	—	3.5	44.6	39.6	24.6

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Mean 13

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Rdd. of D.M. stars to 1900	Br.	cor. Br
	Dm 3463	18 37.3	+ 22 58	7.9	53.9	28.0	52.2	18 39.2 + 28 0		
0.3 7.2	3187	18 44.0	+ 52 54	5.8	60.0	54.9	54.5	18 44.3 + 52 53	6.9	5.6
	Dm 3590	18 32.5	+ 25 8	7.4	54.3	27.7	50.2	18 34.3 + 25 10		
0.3 6.3	3193	18 45.6	+ 33 13	3.6	64.4	36.8	62.6			
	3166	18 40.3	+ 55 25	5.2	59.1	58.0		18 40.7 + 55 26	6.0	4.7

0.0 5.0	3259	18 59.9	+ 13 41	3.1	70.7	22.9	70.0	19 0.8 + 13 43		5.0	
	3231	18 54.2	+ 14 54	4.1	70.6	23.0	70.1	18 55.1 + 14 56		6.8 7.2	
0.0 5.7	3178	18 41.7	+ 18 3	4.5	70.1	23.0	70.0	18 42.6 + 18 4		5.7	
	3135	18 29.9	+ 18 1	5.6	69.5	23.0	70.0	18 30.8 + 18 7		7.2	
	3171	18 40.5	+ 20 26	4.2	70.1	23.2	70.1	18 41.4 + 20 27		6.3	
	Dm 3847	18 28.1	+ 20 21	6.5	68.1	23.0		18 30.0 + 20 23		7.1	
	3132	18 28.3	+ 30 28	5.4	68.3	35.1	69.7				

Mean 14

	3192	18 45.4	+ 32 25	5.1	70.2	42.9		18 46.2 + 32 26			
0.1 6.8	3191	18 45.3	+ 32 41	5.6	70.1	43.2	69.3			6.7	
0.1 5.2	3232	18 54.5	+ 32 32	3.3	71.7	42.9	69.7	18 55.2 + 32 33		5.1	
	3193	18 45.6	+ 33 13	3.6	70.2	43.0	69.3	18 46.3 + 33 15		5.3	
	3146	18 32.2	+ 33 22	5.3	68.2	43.0	69.2	18 32.9 + 33 23		6.7	
	3214	18 50.5	+ 33 49	6.0	71.3	43.0	69.8	18 51.2 + 33 51		7.1	
0.1 7.4	3140	18 30.9	+ 34 21	5.9	67.9	43.0	69.1	18 31.6 + 34 22		7.3	
	Dm 3285	18 36.9	+ 34 36	7.0	68.1	43.0		18 38.5 + 34 38			
	Dm 2973	18 38 40.4	+ 44 47.1	6.8	69.9	53.2	70.3	18 40.0 + 44 50			
	2285	18 36 54.6	+ 34 36.0	7.0	68.1	43.0	69.3			6.0 7.4	
	Dm 3295	18 46.5	+ 36 22	6.3	69.9	43.0	68.7	18 48.1 + 36 25			
	3210	18 50.0	+ 36 45	4.5	73.4	43.4	72.1			5.7 7.1	
	3254	18 58.0	+ 46 48	5.0	74.6	53.1	70.4	18 58.6 + 46 47		4.9 6.3	
	3209	18 49.6	+ 36 49	5.3	71.2	43.0	69.6	18 50.2 + 36 51		5.0 6.4	
	3173	18 40.7	+ 37 29	4.3				18 41.3 + 37 30			
0.1 5.4	3174	18 40.6	+ 37 29	5.9	69.4	43.0	69.2	18 41.3 + 37 30		5.3	
	3230	18 53.9	+ 38 6	5.9	72.3	42.9	69.8	18 54.6 + 38 7		7.0	
	3190	18 45.1	+ 48 37	6.0	70.7	53.1	69.2	18 45.6 + 48 39		7.1	
	3147	18 32.9	+ 38 40	0.2	67.7	43.2	68.7	18 33.6 + 38 41		B B	
	3168										
	3167	18 40.4	+ 39 33	4.6	69.4	43.2	69.2	18 41.1 + 39 34		4.8 6.2	
	3110	18 20.3	+ 39 27	4.9	64.9	42.9		18 20.9 + 39 27		6.1 6.5	
	3113	18 21.4	+ 39 46	5.8	66.0	43.3	69.9				

*Spectra superimposed on plate. Meas of br. component light of both.

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Plate 619.

V	H	Type	Lines	K	Focus	after lines.	V	H	V	H
5.5	9.0	I	X5	N	1	—	2.8	18.0	40.3	51.2

Amt. of Fog. due to moon & clouds. 6.9 Amt. of Fog. due to chemicals. 7.0

Plate 608.

III? 5.7, 6.2.	20.6	13.9	II a? 2308	X3	K=12	4? 2	Focus	10.3	27.8	27.7	41.8
	19.1	20.4	I	X5	K=H	1	—	9.6	40.8	28.4	28.8
	18.2	13.7	I	4	K=H	1	—	9.1	27.4	28.9	42.2
	17.5	13.1	I 2309	4	N	1	—	8.8	26.2	29.2	43.4
III? 6.0, 6.4.	17.5	8.9	III b	3	K=H	2	Focus	8.8	17.8	29.2	51.8
	17.0	7.5	I	3	N	1	—	8.5	15.0	29.5	54.6
	16.7	6.2	I	3	N	1	—	8.4	12.4	29.6	57.2
	16.0	11.9	I	3	N	1	—	8.0	23.8	30.0	45.8
	15.7	8.6	II a 2310	X3	K=H	2	Focus	7.8	17.2	30.2	52.4
	15.0	13.2	I?	X2	N	1	—	7.5	26.4	30.5	43.2
	14.5	18.1	I	X5	K=H	1	—	7.2	36.2	30.8	33.4
	15.6	23.4	I	4	N	1	—	7.8	46.8	30.2	22.8
	14.0	19.0	I	4	N	1	—	7.0	38.0	31.0	31.6
	14.3	6.7	I	X5	N	2	F —	7.2	13.4	30.8	56.2
	13.1	14.2	I	4	N	1	F —	6.6	28.4	31.4	41.2
	12.9	7.1	I	7	K=H	2	—	6.4	14.2	31.6	55.4
	11.5	12.1	I	4	K=H	1	—	5.8	24.2	32.2	45.4
	10.1	6.7	I	5	N	1	—	5.0	13.4	33.0	56.2
	9.6	14.7	I	X3	N	1	—	4.8	29.4	33.2	40.2
	8.6	16.2	I?	3	N	1	—	4.3	32.4	33.7	39.2
	7.6	18.2	I	5	N	1	—	3.8	36.4	34.2	33.2
	7.6	13.2	I	X4	N	1	—	3.8	26.4	34.2	43.2
	6.6	24.9	I	X5	K=H	1	—	3.3	43.8	34.7	25.6
	5.6	12.3	I	3	N	1	—	2.8	24.6	35.2	45.0

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½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.Pl. stand. to 1900	Cor. By	Br.
								Mean 14		
0.1 6.7	3235	18 54.8	+ 40 31	6.1	72.8	43.3	69.8	18 55.5 + 40 33	5.2	6.6
								Mean 8		
	2976	17 41.8	+ 27 48	3.5	69.6	38.1	69.4	17 42.6 + 27 48	4.6	5.4
	2936	17 27.1	+ 28 29	5.6	67.9	38.1	69.2	17 27.9 + 28 29	5.7	6.5
Dm	3464	17 41.2	+ 18 57	6.5	68.6	28.1		17 43.2 + 18 56	6.3	7.1
	~~2978~~	~~17 41.9~~	~~+ 38 56~~	~~6.2~~	69.3	38.0	68.8			
0.0 6.7	2982	17 43.6	+ 19 17	6.0	69.8	28.1		17 44.5 + 19 17	5.9	6.7
	~~2984~~	~~17 45.4~~	~~+ 29 22~~	~~5.7~~	71.9	38.2	71.4			
	3004	17 53.1	+ 29 16	3.9	70.9	38.1	69.3	17 53.8 + 29 15	5.1	5.9
Dm	3494	17 54.2	+ 19 31	6.5	69.2	28.0		17 56.2 + 19 31	5.5	6.3
Dm.	3165	17 55 6.5	+ 29 34.0	7.5	70.1	38.1	68.1	17 56.8 + 29 34	6.4	7.2
Dm	3508	17 57.0	+ 19 35	6.5	69.4	28.0		17 58.9 + 19 35	6.5	7.3
Dm.	3310	17 59 21.2	+ 39 28.4	7.0	71.8	47.9	69.7	18 00 + 39 29		
	~~3069~~	~~17 43.4~~	~~+ 30~~	~~2~~	~~7.2~~	69.2	38.0	68.4	17 [illegible] + 30	
	~~3225~~	~~17 46.5~~	~~+ 40~~	~~6~~	~~6.7~~	70.3	48.1	68.9	17 [illegible] + 40	5
	2994	17 49.5	+ 40 21	5.3	73.3	48.0	71.9		6.5	7.3
Dm	3069	17 45.4	+ 30 2	7.2	69.2	38.0		17 47.2 + 30 1		
	3010	17 53.9	+ 30 12	4.6	71.1	38.0	69.4	17 54.7 + 30 11	5.0	5.8
	2981	17 43.3	+ 20 36	5.9	69.7	28.1	69.5	17 44.1 + 20 36	6.4	7.2
	2950	17 32.0	+ 30 52	5.7	68.2	38.1	69.0	17 32.8 + 30 51	6.0	6.8
0.0 6.5	2922	17 21.6	+ 20 12	5.4	68.4	28.0	69.4	17 22.5 + 20 10	5.7	6.5
0.0 6.7	2948	17 30.9	+ 21 5	5.8	68.9	28.1	69.5	17 31.7 + 21 4	5.9	6.7
0.0 6.1	3033	17 57.3	+ 20 50	5.1	70.7	28.0	69.6	17 58.1 + 20 50	5.3	6.1
0.1 6.7	2974	17 41.1	+ 31 33	6.5	69.5	38.2	69.3	17 41.9 + 31 33	5.8	6.6
0.0 6.7	3026	17 56.4	+ 21 37	4.6	70.6	28.0	69.5	17 57.2 + 21 36	5.9	6.7
	3027								6.0	6.8
	2988	17 45.8	+ 22 20	5.9	70.0	28.1	69.6	17 46.6 + 22 20		
Dm.	~~3260~~	~~17 56.4~~	~~+ 22 56~~	~~6.7~~	~~69.8~~	~~28.0~~	~~69.4~~	17 58.3 + 22 56	6.0	6.8
	3024	17 56.2	+ 33 13	6.1	69.6	38.2	69.5			
Dm.	2944	17 38 58.9	+ 33 17.5	6.5	68.4	38.1	68.3	17 [illegible] + 33 18	6.2	7.0
Dm.	3160	17 35.9	+ 23 50	7.7	68.3	28.1		17 37.8 + 23 48	6.5	7.3
	~~2781~~	~~17 36 16.5~~	~~+ 43 33.2~~	~~6.5~~	~~68.7~~	~~47.9~~	~~69.3~~	~~17 37.7 + 43 31~~		
0.1 6.7	2952	17 32.6	+ 24 23	5.8	69.0	28.2	69.6	17 33.4 + 24 22	5.8	6.6
Dm.	~~2772~~	~~17 [illegible]~~	~~+ 44~~	~~8.7~~	~~7.2~~	~~70.2~~	~~47.9~~	~~69.2~~	~~17 [illegible] + 44 8~~	
	3050	17 42 38.3	+ 34 19.9	6.5	69.0	38.1	68.4	17 44.2 + 34 19	5.9	6.7
	2923	17 22.4	+ 34 49	6.0	66.2	38.1	68.7	17 23.2 + 34 47	5.9	6.7
Dm.	3357	17 44 21.6	+ 25 20.1	7.0	69.0	28.1	68.5	17 46.2 + 25 19	6.3	7.1

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Aurt. of Fog. due to moon + clouds. 7.1 Aurt. of Fog. due to chemicals. 7.4

Aug. 12, 1886.

Plate 609

V	H	Type	No. Lines	K	Focus	Other Lines	V	H	V	H
21.5	22.6	I	6	N	2	F	10.8	45.2	47.3	22.6
21.5	9.6	III	2	K=H	1	—	10.8	19.2	47.3	48.6
20.9	12.9	I	3	N	1	—	10.4	25.8	47.7	42.0
19.3	19.7	I	4	N	1	—	9.6	39.4	48.5	28.4
19.2	12.0	I	3	N	1	—	9.6	24.0	48.5	43.8
19.0	7.6	I	5	K=H	1	—	9.5	15.2	48.6	52.6
16.5	15.3	I	4	K=H	1	—	8.2	30.6	49.9	37.2
16.2	10.6	III	2	K=H	1	—	8.1	21.6	50.0	46.2
15.9	22.9	I ?	2	N	1	—	8.0	45.8	50.1	22.0
14.6	12.3	I	9	K=.2H	2	F	7.3	24.6	50.8	43.2
13.6	18.4	III	2	N	1	F	6.8	36.8	51.3	31.0
III ? 5.6, 5.8, 6.2.	13.1	9.9	III be 2311	3 K=H 1.2	3	F bright seen	6.6	19.8	51.5	48.0
	11.5	18.0	III be 2312	3 K=1.2H	3	F bright seen	5.8	36.0	52.3	31.8
	9.4	9.2	I	4 N	1	—	4.7	18.4	53.4	49.4
	8.7	13.8	I	6 K=.5H	2	—	4.4	24.6	53.7	40.2
	8.0	12.3	I	3 N	1	—	4.0	24.6	54.1	43.2
	8.2	15.8	I	3 N	1	—	4.1	31.6	54.0	36.2
	7.5	17.4	I	3 N	1	—	3.8	34.8	54.3	33.0
	6.2	14.2	I	5 N	1	—	3.1	28.4	55.0	39.4
?	5.9	17.1	I	5 N	2	—	3.0	34.2	55.1	33.6
	5.3	9.0	I	3 N	1	—	2.6	18.0	55.5	49.8
	4.2	10.5	I	4 K=H	1	—	2.1	21.0	56.0	46.8
?	4.5	15.7	I b 2313	9 N	3	F seen	2.2	31.4	55.9	36.4
	2.5	11.1	III b 2314	3 K=H	1	F seen	1.2	22.2	56.9	45.6

Aurt. of Fog. due to moon + clouds. 6.0 Aurt. of Fog. due to chemicals. 7.4

Plate 610

21.1	10.1	I	4	N	1	—	10.6	20.2	17.5	30.0
22.0	21.6	I	3	N	1	—	11.0	43.2	17.1	7.0

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Mean 11

½ cos δ.	No.	R. A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Br.	Br.
0.1 5.7	2914	17 19.6	+ 37 16	4.1	64.8	48.1	68.0	17 20.2 + 37 14	4.5	5.6
	2915								5.4	6.5
	3004	17 52.1	+ 37 16	4.0	71.3	48.1	69.1	17 52.8 + 37 15	5.8	6.9
0.2 5.4	2983	17 43.9	+ 47 39	6.3	69.7	58.0	68.3	17 44.4 + 47 39	6.1	7.2
0.2 6.8	2926	17 23.6	+ 48 22	5.8	63.0	58.0	66.2	17 24.1 + 48 20	5.5	6.6
	2991	17 46.9	+ 48 25	6.4	70.9	58.0	68.9	17 47.4 + 48 25	5.9	7.0
	3041	18 1.0	+ 48 28	R.	16.2	58.0		18 0.5 + 48 28		
	Dm. 2624	17 54 17.2	+ 48 29	6.8	72.5	58.0	67.6	17 58.5 + 48 29	5.7	6.8
	Dm. 2678	17 36 11.1	+ 49 51	6.5	66.8	58.1	67.1	17 37.3 + 49 50	5.7	6.8
	2997	17 49.5	+ 40 21	5.3	71.1	48.1	69.1	17 50.0 + 40 1	5.6	6.7
									6.0	7.1
	2907	17 17.9	+ 40 5	5.8	63.7	48.1	67.4	17 18.4 + 40 5	5.9	7.0
0.2 5.9	2989	17 46.2	+ 50 50	5.2	70.8	58.1	68.8	17 46.7 + 50 48	4.6	5.7
	2943	17 29.3	+ 41 20	5.9	66.1	48.1	67.7	17 30.0 + 41 19	5.9	7.0
									6.3	7.4
	3009	17 53.8	+ 51 30	2.4	73.6	58.1	69.8	17 54.3 + 51 31	3.9	5.0
									4.3	5.5
	2934	17 27.7	+ 52 23	3.0	63.7	58.2	66.1	17 28.1 + 52 23	4.1	5.2
									4.3	5.4
	Dm. 2851	17 53.6	+ 43 26	7.2	72.0	48.1		17 55.0 + 43 26		
	~~Dm. 2995~~	~~17 52.1~~	~~+ 33 26~~	~~6.3~~	~~72.5~~	~~38.1~~	~~68.6~~	~~17 53.7 + 33 25~~		
	~~3021~~	~~17 56.2~~	~~+ 33 13~~	~~6.1~~	~~74.6~~	~~37.9~~	~~70.7~~			
	2975	17 41.6	+ 53 50	5.8	69.2	58.2	68.2	17 41.9 + 53 50	6.1	7.2
									5.4	6.5
	~~Dm. 2772~~	~~17 43 45.7~~	~~+ 44 8.7~~	~~7.2~~	~~68.4~~	~~48.1~~	~~66.9~~			
	1911	17 46 5.2	+ 54 14.0	6.5	70.7	58.2	68.4	17 47.0 + 54 13	5.7	6.8
	Dm. 2745	17 35 14.0	+ 44 5.9	6.8	66.8	48.2	67.2	17 36.5 + 44 4	5.9	7.0
	Dm. 1889	17 28.5	+ 54 28	7.5	63.3	58.3		17 29.4 + 54 26		
	~~2952~~	~~17 32.6~~	~~+ 24 23~~	~~5.8~~	~~64.4~~	~~48.2~~	~~67.9~~		6.1	7.2
	Dm. 2588	17 39 53.8	+ 45 5.8	7.2	68.3	48.2	67.8	17 41.2 + 48 5	5.7	6.8
0.3 6.0	2945	17 29.8	+ 55 16	4.9	64.0	58.3		17 30.2 + 55 15		
*	2946	17 29.9	+ 55 15	4.8	64.1	58.2	66.9	17 30.3 + 55 15	4.6	5.7
0.2 7.3	3020	17 55.4	+ 45 28	6.1	73.4	48.0	69.9	17 56.0 + 45 28	6.0	7.1
	~~Dm. 2028~~	~~17 49.8~~	~~+ 56 9~~	~~7.7~~	~~70.8~~	~~58.3~~	~~66.9~~	~~17 50.6 + 56 8~~		
	~~3000~~	~~17 50.6~~	~~+ 26 1~~	~~5.6~~	~~71.6~~	~~28.0~~	~~70.9~~			
	Dm. 1995	17 52.8	+ 55 60	6.5	73.8	58.1		17 53.6 + 56 0		
0.2 4.9	2959	17 36.1	+ 46 4	3.9	67.5	48.3	68.0	17 36.6 + 46 3	3.6	4.7
	~~Dm. 2024~~	~~17 47.1~~	~~+ 56 52~~	~~7.5~~	~~69.3~~	~~58.1~~	~~65.8~~	~~17 47.9 + 56 51~~		
	~~2956~~	~~17 45.5~~	~~+ 36 58~~	~~7.0~~	~~67.7~~	~~38.1~~	~~66.2~~	~~17 47.1 + 36 52~~		
	3003	17 51.5	+ 56 54	3.9	73.4	58.1	70.2	17 54.8 + 56 55		

* Spectra of two stars superimposed on plate. Means 8
Measure of brightness, combined light of both.

									Br.	
0.0 6.8	2785	16 30.0	+ 17 18	6.1	50.2	27.9	49.7	16 30.9 + 17 15	6.0	6.8
0.0 6.8	2718	16 6.1	+ 16 59	5.9	49.3	28.0	50.0	16 7.0 + 16 56	6.0	6.8

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Plate 610.

V	H	Type	Lines	K	Focus	other lines	V	H	V	H
17.4	16.6	I?	8	K=H	3	F—	8.7	33.2	19.4	17.0
17.3	18.3	I	5	N	1	—	8.6	36.6	19.5	13.6
14.7	12.5	III	3	K=H	1	F—	7.4	25.0	20.7	25.2
13.8	15.9	I?	3	N	1	F—	6.9	31.8	21.2	18.4
13.5	17.4	III?	2	K=H		—	6.8	34.8	21.3	15.4
12.8	12.6	III	3	K=H	3	F— light	6.4	25.2	21.7	25.0
12.5	7.7	III	3	K=H	3	F—	6.2	15.4	21.9	34.8
11.0	15.5	I	3	N	1	—	5.5	31.0	22.6	19.2
8.0	18.9	II?	2	N	1	—	4.0	37.8	24.1	12.4

Amt. of Fog. due to moon & clouds. 8.4 Amt. of Fog, due to chemicals. 8.4

Plate 611

22.9	15.9	I	6	N	2	—	11.4	31.8	36.8	76.5
23.0	21.8	I?	4	N	1	—	11.5	43.6	36.7	64.7
20.7	14.3	I	3	N	1	—	10.4	28.6	37.8	79.7
17.6	7.4	III	3	K=H	1	F—	8.8	14.8	39.4	93.5
16.1	16.3	IIa?	2	K=H	1	recm	8.0	32.6	40.2	75.7
11.0	10.9	I	8	N	2	F—	5.5	21.8	42.7	86.5
? 9.9	10.5	I	5	N	2	recm	5.0	21.0	43.2	87.3
5.8	20.0	I	8	N	2	F—	2.9	40.0	45.3	68.3
5.8	21.7	I	4	K=H	1	—	2.9	43.4	45.3	64.9
5.3	14.0	I	5	N	1	—	2.6	28.0	45.6	80.3
4.5	11.8	I	4	N	1	—	2.2	23.6	46.0	84.9
3.4	21.9	I	5	N	1	—	1.7	43.8	46.5	64.5
3.1	16.0	I	9	N	2	F recm	1.6	32.0	46.6	76.3

Amt. of Fog. due to moon & clouds. 8.0 Amt. of Fog. due to chemicals. 7.9

Plate 612

13.8	16.1	I	6	N	2	—	6.9	32.2	31.1	55.9
9.4	8.8	I	6	K=H	1	—	4.7	17.6	33.3	70.5

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Mean 8

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. start to 1900	Col Lr	Br.
	2747	16 16.6	+ 19 26	3.8	49.8	28.0	50.0	16 17.5 +19 24	11.6	5.4
0.16.7	2733	16 11.9	+ 29 27	5.8	48.5	38.0	49.3	16 12.7 +29 23	5.8	6.6
	2776	16 25.4	+ 20 45	4.7	50.4	28.2	50.1	16 26.2 +20 42	6.3	7.1
	2750	16 17.4	+ 31 10	4.5	49.2	38.1	49.4	16 18.3 +31 8	5.6	6.4
	2740	16 14.9	+ 21 25	6.3	49.7	28.2	50.0	16 15.8 +21 23	6.6	7.4
	2774	16 25.1	+ 21 45	2.8	50.3	28.2	50.0	16 26.0 +21 42	4.7	5.5
	2807	16 36.8	+ 31 49	3.1	52.2	38.0	50.0	16 37.5 +31 47	4.6	5.4
0.16.9	2753	16 18.3	+ 32 37	6.1	49.3	38.1	49.5	16 19.1 +32 34	6.0	6.8
	2730	16 10.2	+ 34 10	5.3	48.0	38.2	49.3	16 11.0 +34 6	5.8	6.6

Mean 15

Dm.	2169	16 15.4	+ 46 42	3.5	47.2	58.1	47.7	16 16.8 +46 35			
	~~2423~~	~~16 17.4~~	~~+ 36 44~~	~~5.1~~	~~39.2~~	~~48.1~~	~~39.6~~				~~5.6~~
Dm.	~~2687~~	~~16 05~~	~~+ 36 55~~	~~7.8~~	~~44.1~~	~~47.4~~	~~46.8~~	~~16 22 +36 48~~			
	~~2442~~	~~16 58.3~~	~~+ 46 26~~	~~4.1~~	~~101.9~~	~~57.7~~	~~105.0~~	~~15 59.7 +46 18~~			
	~~2410~~	~~16 4.6~~	~~+ 36 47~~	~~5.2~~	~~48.2~~	~~48.0~~	~~50.9~~				~~15 58.0+46.5~~
	2694	15 59.1	+ 46 22	4.7	102.7	57.9		15 59.6 +46 19			
0.17.2	2760	16 21.1	+ 34 40	5.5	49.7	48.1	49.4	16 21.9 +34 37	5.6	7.1	
	2810	16 38.8	+ 39 9	3.7	51.6	48.0		16 39.8 +39 7	4.7	6.2	
Dm.	~~2864~~	~~16 38.4~~	~~+ 29 30~~	~~7.3~~	~~48.5~~	~~38.5~~	~~46.5~~	~~16 39.5 +29 24~~			
	2802	16 35.5	+ 49 10	5.2	50.3	58.0	48.0	16 36.1 +49 7	4.9	6.45	~~16 38.0+39.3~~
	2742	16 15.7	+ 39 58	5.5	48.3	48.0		16 16.5 +39 57			
	~~2741~~	~~16 15.3~~	~~+ 60 4~~	~~5.4~~	~~47.9~~	~~68.1~~	~~49.2~~		5.3	6.8	
0.25.7	2787	16 30.2	+ 42 42	4.2	52.0	48.2	49.5	16 30.9 +42 39	4.0	5.5	
Dm.	~~2871~~	~~16 28.6~~	~~+ 53 18~~	~~8.0~~	~~49.5~~	~~58.3~~	~~46.0~~	~~16 29.0 +53 12~~			
0.36.0 *	2794	16 33.4	+ 53 10	5.2	54.4	58.2	50.9	16 33.9 +53 8	4.2	5.7	
	2796	16 33.1	+ 53 8	5.6							
0.25.8	2713	16 5.0	+ 45 15	4.7	45.0	48.1	48.0	16 5.6 +45 12	4.1	5.6	
	2680	15 54.9	+ 55 5	5.0	98.3	58.0		15 55.4 +55 1			
Dm.	~~2772~~	~~16 0.4~~	~~+ 35 26~~	~~8.3~~	~~48.3~~	~~38.3~~	~~46.3~~	~~16 2.4 +35 17~~			
	~~2376~~	~~16 4 10.2~~	~~+ 45 19.4~~	~~3.8~~	~~47.6~~	~~48.2~~	~~51.5~~		5.2	6.7	~~15 54.3+55.2~~
0.37.0	2763	16 21.8	+ 55 29	5.4	49.8	58.1	48.9	16 22.2 +55 26	5.2	6.7	
0.27.1	2782	16 28.3	+ 45 53	5.3	51.9	48.1	50.0	16 28.8 +45 50	5.4	6.9	~~16 27.4+45.56~~
0.26.5	2694	15 59.1	+ 46 22	4.7	102.9	48.1	107.1	15 59.6 +46 19	4.8	6.3	
0.25.4	2745	16 16.1	+ 46 36	3.9	48.1	48.2	48.7	16 16.7 +46 33	3.7	5.2	

* Spectra of two stars superimposed on Plate.
Measure of brightness, combined light of both.

0.15.7	2844	16 55.7	+ 31 6	4.0	87.9	38.0	38.2	16 56.5 +31 4		6.6	
	2890	17 12.9	+ 33 14	4.9	30.5	37.9	28.5	17 13.6 +33 3		6.6	

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Plate 612

V	H	Type	No. Lines	K	Focus	other lines		V	H	V	H
8.5	15.4	I	4	N	1	—		4.2	30.8	33.8	57.3
6.1	9.8	I	87 (2320)	N	3	—	F	3.0	19.6	35.0	68.5
12.1	24.2	II a?	2	K=H	2	—	Deem	6.0	48.4	32.0	39.7

Amt. of Fog. due to moon & clouds. 8.2 Amt of Fog. due to chemicals. 8.1

Plate 613

21.2	6.5	I	5	K=H	1	—		10.6	13.0	37.4	15.4
21.0	8.9	I	4	N	1	—		10.5	14.8	37.5	10.6
17.6	22.6	III?	2	K=H?	1	—		8.8	45.2	39.2	43.2
11.0	5.7	III	3	K=H	2	—	F	5.5	11.4	42.5	17.0
9.5	22.2	I	5	N	1	—		4.8	44.4	43.2	44.0
7.0	13.4	I?	4	K=H	1	—		3.5	26.8	44.5	1.6
3.9	19.2	I	3	N	1	—		2.0	38.4	46.0	50.0
5.2	5.6	I	4	K=H	1	—		2.6	11.2	45.4	17.2

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals. 7.5

Plate 55 2 7.8

20.5	16.3	I	4	K=H	1	—		10.2	32.6	27.9	58.5
20.5	6.7	I	4	N	1	—		10.2	13.4	27.9	77.7
20.2	7.4	I	7	K=H	2	F		10.1	14.8	28.0	76.3
20.0	15.2	II a (2321)	3	K=H	2	F seem		10.0	30.4	28.1	60.7
19.0	14.6	I	6	N	2	F		9.5	29.2	28.6	61.9
18.2	14.7	I	4	N	1	—		9.1	29.4	29.0	61.7
17.6	19.8	II a? (2322)	2	K=H	1	F? seem		8.8	39.6	29.3	51.5
17.0	22.3	I	3	N	1	—		8.5	44.6	29.6	46.5
16.7	5.4	I	8	K=H	2	F		8.4	10.8	29.7	80.3
16.8	11.3	I	6	N	1	F		8.4	22.6	29.7	68.5
16.6	17.2	II a? (2323)	2	K=H	1	seem		8.3	34.4	29.8	56.7
16.0	17.5	II a? (2324)	2	K=H	1	seem		8.0	35.0	30.1	56.1
14.5	16.2	III fc (2325)	3	K=12H	3	F bright. seem		7.2	32.4	30.9	58.7

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½cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900		Br.	
0.7.2	2847	16 57.2	+ 33 45	5.3	88.0	38.0	88.2	16 57.9	+33 42	7.1	
0.5.3	2880	17 10.1	+ 24 59	3.3	29.7	28.0	28.7	17 11.0	+24 57	3.2	
—	2807	16 36.8	+ 31 49	3.1	85.2	37.8	88.0	16 37.5	+31 47	5.4	
—	2914	17 19.6	+ 37 16	4.1	32.6	47.9	29.1	17 20.2	+37 14	6.5	
	2915										
0.6.8	2893	17 13.5	+ 37 25	4.9	31.3	47.9	28.8	17 14.2	+37 24	6.7	
—	2810	16 38.8	+ 39 9	3.7	84.0	48.0	87.5	16 39.5	+39 7	6.4 6.6	
—	~~Dm. 2848~~	~~17 22.7~~	~~+ 42 21~~	~~7.5~~	~~34.1~~	~~47.9~~	~~29.3~~	~~17 24.4~~	~~+42 19~~	5.8	
	2937	17 24.7	+ 52 23	3.0	39.1	57.9	31.9	17 28.1	+52 23	6.0	
0.3.6.3	~~2794~~	~~16 33.4~~	~~+ 53 10~~	~~5.2~~	~~74.8~~	~~58.0~~		16 33.9	+53 8		
	~~2795~~										
	~~2876~~	~~16 41.4~~	~~+ 43 26~~	~~5.9~~	~~85.8~~	~~48.2~~	~~89.7~~			6.0	16 33.0 +53.3
—	2865	17 2.8	+ 54 38	5.2	29.6	58.1	28.2	17 3.2	+54 36	6.9	
	2866										
0.2.6.9	2826	16 45.7	+ 46 12	5.0	84.1	48.2	86.7	16 46.3	+46 10	6.7	
—	~~Dm. 2521~~	~~17 15 40.0~~	~~+ 45 26.8~~	~~6.5~~	~~26.9~~	~~48.0~~	~~21.3~~	~~17 19.0~~	~~+45 23~~	6.7	
	~~1944~~	~~17 29 19.6~~	~~+ 55 17.1~~	~~5.2~~	~~40.5~~	~~57.9~~	~~32.5~~	~~17 30.2~~	~~+55 15~~		
	2945	17 29.8	+ 55 16	4.8	41.0	57.9	32.9	17 30.2	+55 15		
	2946	17 29.9	+ 55 15	4.9	41.1	57.8		17 30.3	+55 15		

Mean 8

										Br.	cor.
—	2511	14 56.5	+ 47 45	6.2	89.1	58.0	89.9	14 57.2	+47 40	6.8	6.0
	~~Dm. 2574~~	~~15 24.9~~	~~+ 47 38~~	~~5.9~~	~~38.3~~	~~57.8~~		~~15 25.6~~	~~+47 35~~		15 24.1 +47.4
0.2.7.2	~~2634~~	~~15 19 2.4~~	~~+ 37 50.8~~	~~7.0~~	~~32.4~~	~~48.0~~	~~28.9~~	~~15 20.7~~	~~+37 41~~	7.0	15 24.0 +47.7
—	2561	15 20.0	+ 37 48	4.4	34.8	47.9	31.5	15 20.7	+37 43	5.2	4.4
—	2521	14 59.8	+ 48 7	4.9	90.3	58.1	90.8	14 59.7	+48 2	6.0	5.2
0.2.6.0	2523	15 1.5	+ 48 38	5.6	30.4	58.1	30.4	15 2.2	+48 32	5.8	5.0
0.0.6.8	2525	15 1.8	+ 18 55	5.9	31.2	28.0	31.2	15 2.8	+18 50	6.8	6.0
	~~Dm. 2328~~	~~14 47.5~~	~~+ 49 16~~	~~7.3~~	~~87.1~~	~~58.1~~	~~90.5~~	~~14 47.0~~	~~+49 6~~		14 47.0 +19.1
—	2487	14 45.6	+ 49 13	5.5	85.2	58.0	88.5	14 46.3	+49 7	6.5	5.7
0.0.6.8	2489	14 45.9	+ 19 36	4.6	90.5	28.1	91.4	14 46.8	+19 31	6.8	6.0
—	2572	15 22.9	+ 29 31	3.8	33.7	37.9	31.2	15 23.7	+29 27	4.9	4.1
0.1.6.0	2537	15 9.5	+ 29 37	5.3	32.1	38.0	31.2	15 10.3	+29 32	5.9	5.1
—	2508	14 55.1	+ 39 45	5.4	89.5	48.1	90.5	14 55.8	+39 40	6.4	5.6
—	2504	14 52.4	+ 50 6	5.6	87.4	58.1	89.2	14 53.0	+50 3	6.8	5.5
—	2515	14 57.4	+ 40 52	3.6	89.8	48.1	90.3	14 58.2	+40 47	5.0 5.4	4.2 4.6

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Ant. of Fog. due to moon & clouds. 7.8

Ant. of Fog. due to chemicals 7.5

Aug. 12, 1886.

Plate 552.

V	H	Type	No. Lines	K	Focus	other Lines		V	H	V	H
12.0	19.4	I	54	N	1	—		6.0	38.8	32.1	52.3
11.3	10.0	I	57	K=.5H	2	—	F	5.6	20.0	32.5	41.1
10.6	19.2	I	I 54	K=H	1	—		5.3	38.4	32.8	52.7
10.2	9.3	I	54	K=H	1	—		5.1	18.6	33.0	42.5
9.3	8.3	I	56	N	2	—	F	4.6	16.6	33.5	44.5
9.2	11.8	I	54	N	1	—		4.6	23.6	33.5	67.5
8.7	11.0	III	2.226 bc 3	K=H	3	—	F might be seen	4.4	22.0	33.7	69.1
7.1	8.3	I	I 54	K=H	1	—		3.6	16.6	34.5	[illegible]
7.0	22.5	I	55	K=H	1	—		3.5	45.0	34.6	46.1
6.4	9.4	I	3	N	1	—		3.2	18.8	34.9	42.3
5.6	14.6	I	47	K=H	1	—	F	2.8	29.2	35.3	61.9
6.0	24.3	I	46	K=H	1	—		3.0	48.6	35.1	42.5
5.7	5.6	I	4	N	1	—		2.8	11.2	35.3	79.9
~~24.4~~ 26.7	~~20.7~~ 24.4	II?	43	K=H	2	—	F	~~12.2~~ 10.4	~~41.4~~ 48.8	~~25.9~~ 27.7	~~49.7~~ 42.3

Hand to measure.

Ant. Fog due to moon & clouds 6.5

Ant. of Fog. due to chemicals 7.0

Plate 177.

21.5	11.9	I	5	N	1	—		10.8	23.8	27.5	34.2
20.7	11.9	I	5	N	2	—		10.4	23.8	27.9	34.2
20.2	21.9	I	7	K=.5H	2	—		10.1	43.8	28.2	14.2
20.0	6.4	I	6	K=H	3	—		10.0	12.8	28.3	45.2
19.0	13.2	III	3	K=H	2	—	F	9.5	26.4	28.8	31.6
18.3	9.6	I?	3	N	1	—		9.2	19.2	29.1	38.8
18.2	16.8	I	6	N	2	—		9.1	33.6	29.2	24.4
17.5	19.5	I	4	N	1	—		8.8	39.0	29.5	19.0
16.8	14.0	I	4	K=H	1	—		8.4	28.0	29.9	30.0
16.4	13.0	I	6	N	3	—		8.2	26.0	30.1	32.0
15.9	12.9	III	bc 1442 2	K=H	3	—	seen	8.0	25.8	30.3	32.2
15.7	21.0	I	6	K=.5H	1	—		7.8	42.0	30.5	16.0

III & 5.2, 5.6.

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Mean 8

½cos δ.	No.	R.A.	Dec.	Mag.	H	V	H	Red. of D.M. stars to 1900	Br.
	Dm. 2764	14 50 32.7	+ 22	8.3	6.2	89.3	28.1	90.0 14 52.5 +23 57	
	2544	14 42 56.9	+ 31	34.7	6.5	81.7	37.9	82.0	
	Dm 1957	14 44.8	+ 61	5.9	6.3	83.6	58.0	14 46.3 + 51.8	6.3 7.1 14 45.0 + 51.9
0.3 6.3	25522	15 16.5	+ 52	25	5.6	36.5	58.0	32.7 15 17.2 + 52 17	7.2 6.0
	Dm. 2531	14 49 53.9	+ 32	53.6	6.3	88.3	38.2	89.6 14 51.8 +32 43	5.9 6.7 6.7
	Dm. 2574	15 13 38.5	+ 33	3.5	6.8	32.2	38.2	30.4 15 15.4 +32 54	6.2 7.0
0.1 5.9	25554	15 17.0	+ 33	21	5.3	33.6	38.0	31.4 15 17.8 +33 17	5.0 5.8
	Dm 2475	15 8.8	+ 43	36	7.0	32.4	48.2	15 10.4 +43 26	6.0 6.8
	2533	15 8.2	+ 23	26	6.3	31.8	28.0	31.2	5.9 + 3.6
	2541	15 10.7	+ 33	46	3.5	32.7	38.2	31.4 15 11.5 +33 42	4.6 5.4 4.9 5.7
	Dm. 2634	15 16 50.2	+ 34	44.4	7.3	33.4	38.3	31.0 15 18.6 +34 34	5.9 6.7 6.8
	2447	14 34.4	+ 54	32	5.6	79.4	58.0	14 35.1 +54 27	
	2484	14 44.9	+ 24	25	5.8	89.9	27.9	91.3	5.5 6.3 14 34.0 + 54.7
	Dm. 2453	15 15.7	+ 44	58	6.3	34.5	48.2	31.2 15 17.3 +44 48	5.9 6.7
	2568	15 21.7	+ 34	45	6.3	40.5	38.0	38.5	
	25224	15 2.0	+ 25	20	5.0	31.2	28.1	31.1 15 2.9 +25 15	5.5 6.3
	Dm. 2559	14 37.2	+ 34	59	7.7	87.8	38.0	91.3 14 41.1 +34 49	5.4 6.2
	2448	14 34.4	+ 44	55	5.3	83.0	47.9	88.3 14 35.2 + 44 50	
	2608	15 32.9	+ 55	1	5.8	44.1	57.8	15 33.4 + 55 57	5.8 32.2 + 55.6
	Dm. 2511	15 19.0	+ 35	19	7.3	30.2	28.1	28.3 15 20.9 +28 9	
0.3 6.7	25704	15 22.5	+ 25	31	6.3	33.4	28.3	34.8	5.6 6.4 15 32.0 + 55.2
	2467	14 39.8	+ 27	35	2.5	88.6	38.0	14 40.6 +27 30	4.4 5.2 14 38.8 + 27.7
	Dm 2129	14 46.2	+ 45	32	7.2	87.6	57.7	91.1	

Mean 8

½cos δ.																			
	105	0	37.8	+	47	12	5.5	61.6	58.0	59.6	0	38.8	+47	19	14 +5	5.7	6.5	6.5	0.4 6.9 60
0.2 6.7																			
0.2 5.7	107	0	38.0	+	47	38	4.6	61.8	58.0	59.8	0	39.2	+47	44	13 +4	4.6	5.4	5.5	0.4 5.9 50
0.1 5.7	40	0	10.8	+	38	1	4.3	54.6	48.1	57.6	0	11.9	+38	8	16 +7	4.7	5.5	5.6	0.3 5.9 50
	148	0	50.1	+	37	51	3.9	62.9	47.8		0	51.1	+37	57		4.5	5.8		
	Dm. 1221	0	46.9	+	18	24	6.0	59.7	28.4	58.7	0	49.3	+18	39				5.3	0.3 5.6 47
	143	0	40.8	+	58	31	4.9	67.3	68.5	54.0									
	90	0	37.2	+	28	40	4.6	58.6	38.1	58.2	0	33.2	+28	47		5.2	6.0	6.1	0.1 6.4 62
	118	0	40.9	+	18	55	6.0	60.1	28.1	59.5	0	41.9	+19	1		5.4	6.2	6.3	0.1 6.4 59
0.1 6.2	65	0	23.8	+	29	5	5.3	57.4	38.2	57.8	0	24.8	+29	12		5.2	6.0	6.1	0.1 6.2 53
	91	0	19	24.8	+	49	11.2	7.1	58.4	58.0	61.5								
	Dm. 64	0	17	41.2	+	29	19.5	8.6	56.7	38.1	57.9								
	64	0	18	31.0	+	19	21.6	6.5	57.5	28.2	58.1	0	28.8	+19	37				
	Dm. 138	0	29.7	+	39	32	6.5	57.7	47.9		0	32.9	+39	47		5.3	6.1	6.9	0.1 7.0 61
	128	0	30	0.7	+	40	4.6	8.1	58.6	48.8	59.5	0	32.2	+40	30				
	Dm. 90	0	33	21.4	+	20	14.4	7.0	61.4	28.6	61.2	0	35.8	+20	29				
0.2 5.1	100	0	35.5	+	49	51	4.8	61.5	58.0		0	36.5	+49	58	6 −3	4.3	5.1	4.9	0.5 5.4 45
	Dm. 91	0	31	34.7	+	30	3.9	3.3	57.6	38.3	57.1	0	34.0	+30	19				
	92	0	32.9	+	30	12	3.4	58.7	38.2	58.1	0	33.9	+30	19		5.0	5.8	5.9	0.2 6.1 52
0.1 6.3	46	0	14.2	+	30	16	5.6	56.2	38.1	57.8	0	15.2	+30	23	8 −1	5.5	6.3	6.2	0.2 6.4 55

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Aug. 12, 1886.

Plate 177

V	H	Type	Lines	K	Focus	other Lines	V	H	V	H
15.2	9.4	I	7	N	3	—	7.6	18.8	30.7	39.2
15.5	10.9	I	7	N	2	—	7.8	21.8	30.5	36.2
15.4	23.1	IIa ? 1443	2	K=H	1	—	7.7	46.2	30.6	11.8
14.8	19.2	I	5	K=H	1	—	7.4	38.4	30.9	19.6
14.5	20.7	II	2	K=H	1	—	7.2	41.4	31.1	16.6
14.5	21.8	I	5	N	1	—	7.2	43.6	31.1	14.4
14.7	6.6	I	4	N	1	—	7.4	13.2	30.9	34.8
14.4	11.2	I	3	N	1	—	7.2	22.4	31.1	35.6
14.2	10.3	IIa 1444	6	K=H	1	—	7.1	20.6	31.2	37.4
14.0	10.1	I	5	N	1	faint ?	7.0	20.2	31.3	37.8
13.5	18.6	I	7	N	2	—	6.8	37.2	31.5	20.8
12.7	17.5	III	2	K=H	1	—	6.4	35.0	31.9	23.0
13.1	13.3	I	4	N	1	—	6.6	26.6	31.7	31.4
11.8	9.6	I ?	5	K=H	1	—	5.9	19.2	32.4	38.8
11.9	16.3	III	26	K=H	1	?	6.0	32.6	32.3	25.4
11.5	18.3	I	5	N	2	—	5.8	36.6	32.5	21.4
10.7	16.0	I	5	N	1	—	5.4	32.0	32.9	26.0
10.4	14.0	I	9	N	3	?	5.2	28.0	33.1	30.0
9.9	14.7	I	10	N	5	—	5.0	29.4	33.3	28.6
9.7	16.4	I ?	4	K=H	1	—	4.8	32.8	33.5	25.2
10.5	21.8	I	4	N	1	—	5.2	43.6	33.1	14.4
10.0	20.9	I	5	N	1	—	5.0	41.8	33.3	16.2
9.2	15.0	I	8	N	2	—	4.6	30.0	33.7	28.0
9.0	17.5	I	6	N	2	—	4.5	35.0	33.8	23.0
8.6	16.3	I	8	N	3	—	4.3	32.6	34.0	25.4
9.1	9.8	III	2	K=H ?	1	—	4.6	19.6	33.7	38.4
7.9	11.4	I	5	N	1	—	4.0	22.2	34.3	35.8
7.7	6.1	I	5	K=H	1	—	3.8	12.2	34.5	45.8
7.5	9.7	I	5	K=H ?	1	—	3.8	19.4	34.5	38.6

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Mean 8

½cosδ.	No	R.A.	Dec.	Mag.	H	V	H′	Red. of H. stars to 1900	Cor	Br.	Br.
01 5.3	127	0	43.2	+ 40	26	4.4	62.0	48.0	59.5	0 44.3+40 32			
02 5.6	121	0	42.0	+ 50	19	5.0	63.8	58.1		0 43.2+50 25			
	~~101~~	~~0~~	~~36.2~~	~~+ 40~~	~~34~~	~~neb.~~	~~58.0~~	~~48.4~~	~~56.0~~				
	25	0	41.3	+ 40	22	5.8	53.5	48.1	56.7	0 8.3+40 29			
	~~55~~	~~0~~	~~17 3.5~~	~~+ 30~~	~~34.3~~	~~6.8~~	~~55.5~~	~~38.0~~	~~56.7~~	~~0 19.3+30 49~~			
	~~Dm. 78~~	~~0~~	~~18 20.5~~	~~+ 40~~	~~44.0~~	~~8.6~~	~~56.7~~	~~48.1~~	~~58.7~~				
	~~49~~	~~0~~	~~14 50~~	~~+ 61~~	~~1.5~~	~~6.1~~	~~55.2~~	~~68.4~~	~~59.6~~				
	Dm 46	0	10.1	+ 50	38	6.5	51.5	57.8		0 12.5+50 53			
	~~Dm. 40~~	~~0~~	~~11.2~~	~~+ 51~~	~~22~~	~~7.5~~	~~52.6~~	~~58.6~~	~~56.8~~	~~0 13.5+51 37~~			
	~~44~~	~~0~~	~~12.6~~	~~+ 30~~	~~52~~	~~5.8~~	~~53.9~~	~~38.1~~	~~55.5~~				
	44	0	12.5	+ 30	52	5.8	56.1	38.1		0 13.4+30 58			
0.1 6.5	~~Dm. 35~~	~~0~~	~~10 56.1~~	~~+ 41~~	~~10.4~~	~~8.3~~	~~54.5~~	~~48.4~~	~~57.1~~	~~0 13.3+41 35~~			
	~~43~~	~~0~~	~~12 52~~	~~+ 61~~	~~4.6~~	~~7.3~~	~~56.6~~	~~68.3~~	~~63.4~~	~~0 15.8+61 30~~			
	Dm 202	0	53.9	+ 50	15	6.9	67.1	57.7		0 56.5+50 30			
	~~Dm. 88~~	~~0~~	~~35.3~~	~~+ 21~~	~~0~~	~~8.7~~	~~42.5~~	~~28.4~~	~~47.3~~	~~0 5.7+21 15~~			
	~~148~~	~~0~~	~~39 48.7~~	~~+ 50~~	~~39.2~~	~~7.5~~	~~58.0~~	~~58.1~~	~~47.0~~				
	Dm 143	0	39.8	+ 50	39	7.5	62.2	57.8		0 42.3+50 54			
	~~Dm. 135~~	~~0~~	~~34.8~~	~~+ 51~~	~~7~~	~~8.4~~	~~59.2~~	~~55.3~~	~~54.5~~	~~0 38.3+51 22~~			
	~~Dm. 148~~	~~0~~	~~42 39~~	~~+ 61~~	~~0.9~~	~~6.2~~	~~66.0~~	~~68.2~~	~~61.3~~				
	~~Dm. 143~~	~~0~~	~~39.8~~	~~+ 50~~									
	~~Dm. 130~~	~~0~~	~~39.1~~	~~+ 41~~	~~10~~	~~8.6~~	~~59.7~~	~~48.3~~	~~58.4~~	~~0 41.6+41 25~~			
	~~147~~	~~0~~	~~40.7~~	~~+ 11~~	~~20~~	~~5.7~~	~~61.3~~	~~18.4~~	~~61.0~~				
	Dm 161	0	42.7	+ 50	43	6.7	63.3	57.8		0 45.2+50 58			
	~~Dm.~~												
	153	0	40 28.6	+ 51	18.5	7.0	60.7	58.3	57.1	0 43.0+51 34			
	Dm 164	0	43.3	+ 50	47	6.7	63.5	57.8		0 45.8+51 2			
0.3 5.9	55	0	17.8	+ 51	21	5.4	55.0	58.2	57.8	0 18.9+51 28			
	~~Dm 90~~	~~0~~	~~23 46.9~~	~~+ 52~~	~~2.4~~	~~6.2~~	~~58.8~~	~~58.4~~	~~60.7~~	~~0 21.3+52 17~~			
	59	0	20 50.5	+ 31	38.2	6.7	55.8	38.0	56.5	0 23.2+31 53			
	~~Dm. 165~~ 6	~~0~~	~~36 33~~	~~+ 61~~	~~44.1~~	~~6.8~~	~~63.1~~	~~68.3~~	~~61.5~~	~~0 39.1+61 59~~			
	126	0	33 7.9	+ 51	24.2	7.0	59.7	58.0	58.4	0 35.6+51 39			
	Dm 179	0	45.5	+ 51	54	6.3	64.7	57.8		0 48.1+52 9			
	~~Dm. 136~~	~~0~~	~~40 34.0~~	~~+ 32~~	~~21.0~~	~~8.4~~	~~59.8~~	~~38.2~~	~~58.2~~				
	138	0	41 6.0	+ 32	8.2	7.5	60.3	38.0	58.7	0 13.5+32 23			
0.3 6.1	Dm 92	0	23.8	+ 52	2	6.2	56.4	58.0		0 26.2+52 17			
	57	0	18.6	+ 52	23	5.8	55.2	58.2	57.6	0 19.7+52 30			
0.1 6.9	70	0	25.1	+ 32	56	6.2	59.1	38.3	57.4	0 26.1+33 2			
0.1 5.2	83	0	30.5	+ 33	4	4.4	58.5	38.3	58.2	0 31.5+33 11			
	82	0	30.3	+ 53	14	3.7	59.7	58.2	59.4	0 31.3+53 21			
	Dm 97	0	23.4	+ 43	9	6.7	56.2	48.0		0 25.8+43 24			
	~~Dm. 82~~	~~0~~	~~23 48.8~~	~~+ 53~~	~~43.3~~	~~5.2~~	~~56.6~~	~~58.5~~	~~57.6~~	~~0 32.2+55 56~~			
	~~58~~	~~0~~	~~23 19.4~~	~~+ 33~~	~~18.4~~	~~7.8~~	~~56.1~~	~~38.1~~	~~56.5~~				
0.2 6.8	36	0	10.1	+ 42	56	6.0	53.7	48.1		0 11.1+43 3			
	43	0	12.4	+ 43	8	5.9	56.0	48.3	59.6				
0.2 6.6	~~Dm. 43~~	0	12.4	+ 43	8	5.9	54.2	48.1		0 13.4+43 14			
	54	0	12 29.0	+ 43	8.1	7.8	54.3	48.1	57.5	0 14.9+43 23			
0.3 5.7	77	0	29.5	+ 53	30	5.0	59.5	58.1	59.5	0 30.5+53 38			
0.2 5.9	59	0	21.8	+ 43	44	5.2	56.8	48.2	58.2	0 22.9+43 51			
0.3 5.5	69	0	25.1	+ 53	50	4.8	57.7	58.1	58.7	0 26.2+53 59			
	119	0	41.0	+ 23	37	4.4	60.6	28.2	59.8	0 42.0+23 43			
0.2 6.3	113	0	39.6	+ 44	11	5.9	61.8	48.2	59.7	0 40.7+44 18			
	Dm. 159	0	53.4	+ 44	3	5.7	65.6	47.8		0 54.4+44 10			
	~~141~~	~~0~~	~~48 18.3~~	~~+ 34~~	~~26.2~~	~~7.0~~	~~60.5~~	~~38.2~~	~~57.3~~	~~0 50.7+34 44~~			
	~~Dm. 69~~	~~0~~	~~40.5~~	~~+ 44~~	~~11~~	~~8.1~~	~~59.9~~	~~48.0~~	~~59.9~~	~~0 43.0+44 24~~			
	NO	0	38.4	+ 54	34	5.4	57.8	58.4	58.3				
	133	0	43.6	+ 44	20	5.9	63.0	48.1		0 46.1+44 08			

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Aug. 12, 1886.

Plate 177.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
7.0	12.4	I	~~1~~ 6	N	2	—	3.5	24.8	34.8	33.2
6.9	12.2	I	~~1~~ 4	N	1	—	3.4	24.4	34.9	33.6
? 6.1	5.1	I ?	~~1~~ 3	N ?	2	—	3.0	10.2	35.3	47.8
4.5	13.9	III f.c.? 1445	~~1~~ 2	K=2.04	5	seen	2.2	27.8	36.1	30.2
4.2	21.6	I d?	5	N ?	2	—	2.1	43.2	36.2	14.8
3.6	12.3	I	~~4~~ 5	N	2	—	1.8	24.6	36.5	33.4
1.7	11.8	II ?	1	N	3	—	1.4	23.6	36.9	34.4

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Mean 8

½ cos δ

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stary to 1900	Br.	Br.
~~Dm.~~ 110	0 38.4	+ 54	36	5.1	63.2	58.1	0 39.6 +54 40		
~~86~~	~~0 29 36.6 + 34~~	~~36.2~~	~~5.8~~	~~54.4~~	~~38.1~~	~~53.5~~	~~0 [illegible] +34 51~~		
Dm. 148	0 38.0	+ 54	31	7.3	62.4	57.9	0 40.5 +54 46	4.8 5.6	5.7 06
~~Dm.~~								5.9 6.7	6.9 0.6 7.5
~~181~~	~~0 34 54.2 + 45~~	~~7.9~~	~~7.0~~	~~59.3~~	~~48.5~~	~~54.7~~	~~0 [illegible] +45 23~~		0 38.0 +54.6
~~Dm.~~ 189	0 3.8	+ 54	31	4.4	14.0	57.5	1 5.0 +54 37		
~~234~~	~~0 49 28.5 + 45~~	~~34~~	~~6.1~~	~~59.4~~	~~48.1~~	~~53.9~~	~~0 [illegible] +45 18~~		
94	0 33.7	+ 55	53	2.2	61.5	58.1	60.5 0 34.8 +56 0	3.4 4.2	4.2
								3.7 4.5	4.8 5.4 0.6
42	0 12.0	+ 36	7	4.6	55.2	38.2	57.7 0 13.1 +36 14	4.7 5.5	5.7 0.2 5.9 5.0
102	0 36.8	+ 46	22	5.0	61.4	48.2	59.8 0 37.9 +46 29	5.1 5.9	5.6 0.4 6.2 5.3
120	0 41.8	+ 57	11	3.6	65.4	58.6	0 43.0 +57 17		
~~105~~	~~0 39.8 + 49~~		~~12~~	~~5.5~~	~~61.4~~	~~48.6~~	~~59.4~~		0 40.0 +57.0

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Anct. of Fog. due to moon & clouds. 6.6 Anct. of Fog. due to chemicals. 7.4

November 1, 1886.

Plate 666

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
22.8	11.3	I?	4	N	1	—	11.4	22.6	11.6	44.0
18.2	8.3	I	5	K=H	1	— F	9.1	16.6	13.9	53.0
18.2	11.6	I	7	N	1	— F	9.1	23.2	13.9	46.4
16.0	12.9	IIa? 2327	3	K=H	1	— Fcen	9.0	25.8	14.0	43.8
16.0	7.9	III b 2328	3	K=H	2	— Fcen	8.0	15.8	15.0	53.8
16.0	12.7	I	I 5	H N	K=H 1 1	— —	8.0	25.4	15.0	44.2
16.4	16.1	I	I 3	4 N	K=H 1 1	— —	8.2	32.2	14.8	37.4
16.0	18.1	I	I 6	H N	1 1	— —	8.0	36.2	15.0	33.4
15.8	16.2	I	I 5	H N	N 1 1	— —	7.9	32.4	15.1	37.2
15.5	13.4	I	I½ 5	4	K=H K=H 1 1	— —	7.8	26.8	15.2	42.8
14.7	14.7	IIa 2329	IIa? 3	2	K=H K=H 1 1	Fcen Fcen	7.4	29.4	15.6	40.2
13.5	7.3	I	6	N	2	—	6.8	14.6	16.2	55.0
13.5	12.4	II?	IIa? 2329a 2	2	K=H K=H 1 1	— Fcen	6.8	24.8	16.2	44.8
13.0	14.1	III b 2330	3	K=H	2	F Fcen	6.5	28.2	16.5	41.4
13.0	22.9	I?	4	K=H	1	—	6.5	45.8	16.5	23.8
12.5	13.9	IIa? 2331	IIa? 3	2	K=H K=H 1 1	F Fcen	6.2	27.8	16.8	41.8
12.2	8.0	I	5	N	1	—	6.1	16.0	16.9	53.6
12.3	19.3	II	2	K=H	1	—	6.2	38.6	16.8	31.0
12.3	21.7	I	8	N	2	F —	6.2	43.4	16.8	26.2
10.2	9.7	I	5	N	1	F —	5.1	19.4	17.9	50.2
10.0	14.0	I	10	K=2 H	4	F —	5.0	28.0	18.0	41.6
9.9	19.6	I	7	N	1	—	5.0	39.2	18.0	30.4
10.0	22.4	I?	4	N	1	—	5.0	44.8	18.0	24.8
11.3	23.5	I	5	K=H	1	—	5.6	47.0	17.4	22.6
9.2	14.4	I	4	N	1	—	4.6	28.8	18.4	40.8
9.0	17.7	I	I 4	4 N	K=H 1 1	—	4.5	35.4	18.5	34.2
7.8	13.1	I	8	N	2	F —	3.9	26.2	19.1	43.4
7.4	15.8	I	4	N	1	—	3.7	31.6	19.3	38.0

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Mean 6

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of II.7H. stars to 1900	Br.	Cor.
	3197	18 47.1	+ 21 17	5.5	69.7	32.7		18 48,0 +21 18		
	~~3582~~	~~18 46.1~~	~~+ 21 16~~	~~5.6~~	~~68.7~~	~~32.7~~	~~69.2~~	~~18 48.0 +21 19~~		
	~~Dm. 3283~~	~~18 54.4~~	~~+ 13 54~~	~~7.7~~	~~71.0~~	~~43.0~~	~~68.7~~	~~18 36.1 +13 58~~		
	3229	18 53.6	+ 13 28	5.2	70.2	22.6	69.7	18 54.5 +13 30		
00 6.7	3194	18 46.5	+ 13 50	6.0	69.7	22.9	69.5	18 47.5 +13 51	6.7 6.1	
	Dm 3465	18 42.9	+ 23 54	6.9	68.7	32.9		18 44.8 +23 57		
	~~Dm. 3334~~	~~18 45.6~~	~~+ 24 13~~	~~7.3~~	~~71.8~~	~~43.2~~	~~70.9~~			
	~~3477~~	~~18 44.4~~	~~+ 23 56~~	~~7.1~~	~~70.2~~	~~32.9~~	~~69.8~~	~~18 44.3 +23 59~~	6.6 6.0	18 43.0 +23.9
									6.3 5.7	
	3231	18 54.2	+ 14 54	4.1	70.0	22.9	69.4	18 55.1 +14 56	6.5 5.9	
00 6.8	3188	18 44.3	+ 24 54	6.6	69.7	32.9	69.3	18 45.1 +24 56	6.8 6.7 6.1	
	Dm. 3615	18 36.2	+ 14 43	6.9	68.4	22.9	68.5	18 38.2 +14 46	7.0 6.8 6.2	
	Dm. 3603	18 32.0	+ 14 58	6.5	68.2	23.0	68.4	18 34.0 +15 0	6.8 6.7 6.1	
	Dm. 3537	18 36.1	+ 15 4	6.3	68.5	23.0	68.6	18 38.1 +15 6	6.8 6.6 6.0	
	Dm. 3573	18 41.8	+ 15 14	6.9	68.6	23.0	68.5	18 43.8 +15 17	6.9 6.7 6.1	
	Dm. 3546	18 39.1	+ 15 34	6.5	68.5	23.0	68.5	18 41.1 +15 37	6.8 6.6 6.0	
00 6.1	3246	18 56.4	+ 26 7	5.5	71.0	32.9	69.4	18 57.2 +26 9	6.0 5.4	18 55.4 +26 5
	Dm. 3368	18 44.1	+ 26 16	6.7	68.9	33.0	68.4	18 45.9 +26 19	7.0 6.8 6.2	
	3177	18 41.2	+ 26 32	4.9	69.4	33.0	69.2	18 42.0 +26 34	6.2 5.6	18 40.2 +26 31
	3115	18 21.9	+ 26 23	6.2	67.7	32.9	69.4	18 22.7 +26 23	6.5 5.9	18 20.9 +26 22
	Dm. 3613	18 40.9	+ 16 45	7.0	68.7	23.0	68.6	18 42.8 +16 48	6.7 6.1	
	Dm. 3421	18 54.1	+ 26 46	7.5	70.1	32.9	68.6	18 55.9 +26 50	6.8 6.6 6.0	
	Dm. 3560	18 29.4	+ 16 52	6.3	68.0	23.1	68.4	18 31.4 +16 54	6.6 6.0	
00 6.3	3127	18 25.7	+ 16 51	5.7	69.1	23.0	69.7	18 26.6 +16 52	6.3 5.7	18 24.6 +16 50
00 6.5	3220	18 50.8	+ 17 58	5.8	70.2	23.1	69.6	18 51.7 +17 59	6.5 5.9	18 49.7 +17 56
00 5.3	3178	18 41.7	+ 18 3	4.5	69.7	23.0	69.6	18 42.6 +18 4	6.3 4.7	
00 6.2	3135	18 29.9	+ 18 6	5.6	69.1	23.1	69.6	18 30.8 +18 7	6.2 5.6	18 28.8 +18 5
	Dm. 3595	18 23.0	+ 17 53	6.5	67.8	22.9	68.6	18 25.0 +17 55	6.9 6.3	
	Dm. 3016	18 19.2	+ 27 19	6.5	66.2	32.9	68.1	18 21.0 +27 20	6.7 6.1	
	~~Dm. 3817~~	~~18 40.3~~	~~+ 18 33~~	~~6.4~~	~~69.1~~	~~23.2~~	~~69.0~~	~~18 42.3 +18 36~~		
	~~Dm. 3814~~	~~18 39.4~~	~~+ 18 20~~	~~6.9~~	~~68.5~~	~~22.9~~	~~68.1~~	~~18 41.7 +18 23~~	6.8 6.2	18 38.4 +18
	~~Dm. 3767~~	~~18 32.7~~	~~+ 18 34~~	~~8.1~~	~~71.0~~	~~68.1~~	~~23.1~~	~~18 34.7 +18 36~~		
	~~3149~~	~~18 32.9~~	~~+ 38 40~~	~~0.2~~	~~68.3~~	~~43.2~~	~~69.5~~	~~84.1 +28 32~~	6.7 6.6 6.0	18 32.9 +18.6
00 6.2	3185	18 43.6	+ 19 12	5.9	69.8	23.1	69.6	18 44.6 +19 13	6.2 5.6	18 42.6 +19 10
	Dm. 3762	18 36.9	+ 19 20	7.2	68.5	23.0	68.6	18 38.9 +19 22	6.8 6.2	

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November 1, 1886.

Plate 666.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
6.5	8.4	I?	34	K=H	1	—	3.2	16.8	19.8	52.8
5.3	14.6	IIa 2332	X3	K=1.2H	3	— Fenn	2.6	29.2	20.4	40.4
5.1	19.8	I	37	N	2	—	2.6	39.6	20.4	30.0
5.3	19.9	I	34	K=H	1	—	2.6	39.8	20.4	29.8
4.5	19.5	I	34	K=H	1	—	2.2	39.0	20.8	30.6
3.5	11.5	I	37	N	2	—	1.8	23.0	21.2	46.6
3.0	12.5	I	35	N	1	—	1.5	25.0	21.5	44.6
2.9	13.3	I	36	N	1	—	1.4	26.6	21.6	43.0
3.0	15.9	I	36	N	1	—	1.5	31.8	21.5	37.8
2.5	15.0	IIa? 2333	X3	K=H	1	F Fenn	1.2	30.0	21.8	39.6
2.4	14.6	I	34	N	1	—	1.2	29.2	21.8	40.4

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

6.8 Plate 659. 7.2

22.4	13.1	I	35	K=H	1	—	11.2	26.2	26.9	20.6
21.5	15.6	I	33	N	1	—	10.8	31.2	27.3	20.6
20.0	11.1	I	37	N		— F	10.0	22.2	28.1	29.6
18.7	17.3	I	X7	K=.5H	2	— F	9.4	34.6	28.7	17.2
18.7	23.2	I	38	N	3	—	9.4	46.4	28.7	5.4
16.9	15.1	I	36	K=.5H	1	—	8.4	30.2	29.7	21.6
16.7	17.2	I	X5	N	1	—	8.4	34.4	29.7	17.4
15.5	11.5	I	35	N	1	—	7.8	23.0	30.4	28.8
15.4	12.1	I	X8	N	2	— F	7.7	24.2	30.4	27.6
16.1	23.5	I?	35	K=H	1	— F	8.0	47.0	30.1	4.8
15.0	23.2	IIa? 2334	X3	K=H	1	— Fenn	7.5	46.4	30.6	5.4
14.6	23.5	I	X8	N	2	— F	7.3	47.0	30.8	4.8
15.3	6.1	IIa 2335	X3	K=H	2	F Fenn	7.6	12.2	30.5	39.6
13.1	8.3	I	34	N	1		6.6	16.6	31.5	35.2
13.0	16.5	III F 2336	X3	K=2.0H	2	F Fenn	6.5	33.0	31.5	18.8

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Means

½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.	cor. Br.	
	3228	18 53.5	+ 19 38	6.2	70.3	22.8	69.5	18 54.5 +19 39	6.7	6.1	
	3171	18 40.5	+ 20 26	4.2	69.7	23.0	69.7	18 41.4 +20 27	5.7	5.1	
0.16.1	3132	18 28.3	+ 30 28	5.4	67.9	33.1	69.2	18 29.0 +30 29	6.0	5.4	
	Dm. 3847	18 28.1	+ 20 21	6.5	67.9	23.0	68.5	18 30.0 +20 23	7.1	6.5	
	Dm. 3227	18 27.9	+ 30 47	7.5	66.9	33.0	68.1	18 29.6 +30 49	6.5	5.9	
0.06.1	3197	18 47.1	+ 21 17	5.5	70.1	23.1	69.6	18 48.0 +21 18	6.1	5.5	
	Dm. 3373	18 44.3	+ 31 28	7.0	69.3	33.0	68.6	18 46.0 +31 31	7.0	6.4	
0.16.7	3184	18 43.5	+ 31 38	5.8	70.1	33.0	69.6	18 44.2 +31 39	6.6	6.9	
	Dm. 3332	18 36.2	+ 31 29	6.5	68.0	33.0	68.2	18 37.9 +31 31	6.6	6.0	
	3160	18 39.4	+ 31 49	5.5	69.4	33.0	69.4	18 40.1 +31 50	6.5	5.9	
	Dm. 3550	18 39.4	+ 21 50	6.9	68.6	23.0	68.6	18 41.3 +21 53			

Means 11

										cor. Br.	
	3127	18 25.7	+ 16 51	5.7	51.9	28.0	51.7	18 26.6 +16 52	6.8	5.7	
	Dm. 3016	18 19.2	+ 27 19	6.5	50.4	38.2	50.6	18 21.0 +27 20	7.0	5.9	
0.16.5	3135	18 29.9	+ 18 6	5.6	52.1	28.1	51.6	18 30.8 +18 7	6.6	5.4	
0.16.6	3097	18 16.3	+ 28 49	5.0	50.9	38.2	51.1	18 17.1 +28 49	6.5	5.4	
0.15.6	3048	18 2.9	+ 28 45	4.0	49.3	38.2	51.3	18 3.6 +28 45	5.5	4.4	
0.16.6	3113	18 21.4	+ 29 46	5.8	51.6	38.2	51.6	18 22.1 +29 46	6.5	5.4	
0.16.7	3096	18 16.3	+ 29 48	5.6	50.7	38.2	51.2	18 17.1 +29 48	6.6	5.5	
	Dm. 3847	18 28.1	+ 20 21	6.5	51.1	28.2	50.6	18 30.0 +20 23	6.8	5.7	
0.16.5	3132	18 28.3	+ 30 28	5.4	52.5	38.2	51.7	18 29.0 +30 29	6.4	5.3	
	3053	18 3.7	+ 20 3	5.2	50.7	28.0	51.4	18 4.6 +20 1	6.5	5.4	
	3047	18 2.5	+ 30 33	5.4	48.9	38.1	51.3	18 3.2 +30 33	6.7	5.6	
0.05.5	3056	18 3.6	+ 20 49	4.5	50.6	28.1	51.7	18 4.4 +20 48	5.5	4.4	
	3171	18 40.5	+ 20 26	4.2	52.7	28.0	51.6	18 41.4 +20 27	5.9	4.8	
	Dm. 3332	18 36.2	+ 31 29	6.5	52.8	38.1	50.8	18 37.9 +31 31	6.7	5.6	
	3107	18 18.6	+ 21 43	3.9	51.6	28.2	51.8	18 19.4 +21 43	5.9 6.3	4.8 5.2	

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November 1, 1886.

Plate 659.

V	H	Type	Lines	K	Focus	Other Lines.	V	H	V	H
12.1	10.4	I	14	K=H	1	—	6.0	20.8	32.1	31.0
11.0	15.6	I	14	N	1	— F	5.5	31.2	32.6	20.6
10.9	14.8	I	15	N	1	— F	5.4	35.6	32.7	16.2
9.6	10.5	I	16	N	2	— F	4.8	21.0	33.3	30.8
8.9	13.6	I?	18	K=H	2	— F	4.4	27.2	33.7	24.6
9.4	20.9	I	16	K=.5H	1	—	4.7	41.8	33.4	10.0
7.6	11.1	I	15	N	1	—	3.8	22.2	34.3	29.6
7.0	14.5	I	13	N	1	—	3.5	29.0	34.6	22.8
7.0	8.2	I?	13	N	1	—	3.5	16.4	34.6	35.4
6.5	17.3	IIa	2337 3	K=H	1	— F acem	3.2	34.6	34.9	17.2
4.5	17.3	III	2338 3	K=H	1	— F acem	2.2	34.6	35.9	17.2
4.0	23.4	I	15	N	1	—	2.0	46.8	36.1	5.0

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals.

6.5 Plate 660 6.8

21.0	7.1	I	17	K=H?	3	— F	10.5	14.2	37.5	36.8
19.5	9.0	I	13	N	1	—	9.8	18.0	38.2	33.0
19.6	15.5	I I	14 5	K=H	K=H 1 1	— —	9.8	31.0	38.2	20.0
19.1	21.8	I? I	15 5	K=H	K=H 1 2	— F —	9.6	43.6	38.4	7.4
18.6	19.6	I	15	N	1	—	9.3	39.2	38.7	11.8
19.0	10.3	I	10	?	5	—	9.5	20.6	38.5	30.4
18.5	6.8	I?	14	N	1	—	9.2	13.6	38.8	34.4
17.9	7.0	IIa?	2339 IIa? 2 2	K=H	K=H 1 1	— acem acem	9.0	14.0	39.0	37.0
17.5	15.2	I	19	K=.2H	3	— F	8.8	30.4	39.2	20.6
16.7	20.3	I	15	N	1	—	8.4	40.6	39.6	10.4
17.0	7.5	I	15	N	3	—	8.5	15.0	39.5	36.0
14.9	8.5	I	14	K=H	1	—	7.4	17.0	40.6	34.0
14.5	9.4	I	16	K=H	2	—	7.2	18.8	40.8	32.2
13.8	10.7	I I	14 4	N N	1 1	— —	6.9	21.4	41.1	29.6

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Mean 11

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.	Cor. Br.
	Dm. 3494	18 30.5	+ 21 59	6.9	51.3	28.0	50.6	18 32.4 +22 1	7.1	6.0
	Dm. 3358	18 19.4	+ 22 38	7.5	50.6	28.1	50.7	18 21.3 +22 39	6.8	5.7
	Dm. 3337	18 14.6	+ 22 44	7.2	50.2	28.1	50.7	18 16.5 +22 45	6.8	5.7
0.16.4	3146	18 32.2	+ 33 22	5.3	53.2	38.2	51.7	18 32.9 +33 23	6.3	5.2
	3125	18 24.6	+ 23 47	5.7	51.8	28.2	51.6	18 25.5 +23 48	6.4	5.3
0.16.7	3064	18 7.4	+ 33 26	5.9	49.2	38.1	51.1	18 8.1 +33 26	6.6	5.8
0.16.8	3140	18 30.9	+ 34 21	5.9	53.1	38.2	51.8	18 31.6 +34 22	6.7	5.6
	Dm. 3425	18 21.8	+ 24 36	6.8	50.8	28.1	50.7	18 22.6 +24 37	7.2	6.1
	Dm. 3285	18 36.9	+ 34 36	7.0	53.3	38.1	50.9	18 38.5 +34 38	7.0	5.9
	Dm. 3395	18 15.5	+ ~~25 0~~ 24 60	7.5	50.1	28.2	50.6	18 17.3 +25 1	6.8	5.7
	3093	18 15.7	+ 36 1	4.4	50.3	38.2	51.1	18 16.4 +36 1	6.4 6.8	5.3 5.7
0.16.6	3049 / 3050	18 3.0	+ 26 5	5.2	49.8	28.1	51.6	18 3.8 +26 5	6.5	5.4

Mean 6

*	3172	18 40.6	+ 37 29	4.3 5.9				18 41.3 +37 30		
	3171	18 40.6	+ 37 29	~~4.3~~	54.8	48.0	51.5	18 41.3 +37 30	5.4	4.8
	Dm. 32154	18 35.3	+ 38 14	7.2	53.3	48.0	50.7	18 36.8 +38 15	6.9	6.3
	Dm. ~~2683~~	~~18 18.3~~	~~+ 48 16~~	~~7.9~~	~~49.3~~	~~58.1~~		~~18 19.5 +48 17~~		
	Dm. ~~3159~~	~~18 18.9~~	~~+ 38 17~~	~~7.0~~	~~49.9~~	~~48.1~~	~~50.1~~	~~18 20.4 +38 18~~	6.8 6.8	6.2
	Dm. ~~2825~~	~~18 0.3~~	~~+ 48 40~~	~~7.5~~	~~43.8~~	~~58.3~~		~~18 1.4 +48 40~~		
	Dm. ~~3095~~	~~18 4.9~~	~~+ 38 28~~	~~6.7~~	~~48.5~~	~~48.1~~	~~51.5~~	~~18 6.4 +38 28~~	~~6.5~~ 6.5	5.9
	3041	18 1.6	+ 48 28	R				18 0.5 +48 28		
0.16.5	3073	18 9.1	+ 38 46	5.9	48.3	48.1	50.3	18 9.8 +38 45	6.4	5.8
	3147 ~~3144~~	18 32.9	+ 38 40	0.2	53.5	48.2	51.4	18 33.6 +38 41	B.	B.
	Dm. 3190	18 45.1	+ 48 37	6.0	58.7	57.8		18 45.6 +48 39		
	Dm. ~~3278~~	~~18 39.7~~	~~+ 38 55~~	~~7.7~~	~~53.3~~	~~48.1~~	~~49.7~~	~~18 41.1 +38 58~~	6.6	6.0
	Dm. 2871	18 43.8	+ 49 16	7.0	57.8	58.3		18 45.0 +49 19		
	~~3505~~	~~18 38.4~~	~~+ 39 10~~	~~6.5~~	~~53.4~~	~~48.2~~	~~48.8~~	~~18 39.9 +39 13~~	6.9 6.8	6.2
0.15.6	3110	18 20.3	+ 39 27	4.9	50.7	48.2	50.8	18 20.9 +39 27	5.5	4.9
	Dm. ~~3359~~	~~18 8.4~~	~~+ 39 26~~	~~8.5~~	~~49.0~~	~~47.8~~	~~51.5~~	~~18 9.1 +39 27~~		
	Dm. ~~2732~~	~~18 3.5~~	~~+ 49 42~~	~~6.5~~	~~44.1~~	~~58.1~~	~~47.7~~	18 4.6 +49 42	6.6	6.0
0.15.3	* 3167 3168 3169	18 40.4	+ 39 {33 29}	4.6	55.4	48.0	51.9	18 41.1 +39 30	5.2	4.6
	~~3170~~									
	3459	18 37.0	+ 40 35	6.8	54.0	48.0	~~44.8~~ 50.8	18 38.5 +40 37	6.8	6.2
	Dm. 3446	18 34.9	+ 40 48	6.2	53.7	48.0	51.0	18 36.3 +40 50	6.5	5.9
	Dm. ~~3100~~	~~18 31.6~~	~~+ 41 10~~	~~6.8~~	~~53.0~~	~~48.1~~	~~50.9~~	~~18 33.0 +41 12~~		
	~~2618~~	~~18 30.9~~	~~+ 50 6~~	~~7.4~~	~~52.3~~	~~57.9~~	~~49.1~~		6.8 6.7	6.1

* Spectra of 2 stars superimposed on Plate. Meaning of brightness, continued light of both.

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Plate 660.

Y	H	Type	Nr. Lines	K	Focus	other Lines.	V	H	V	H
13.5	6.9	I	5	N	2	—	6.8	13.8	41.2	37.2
13.4	15.3	I	4	N	1	—	6.7	30.6	41.3	20.4
13.0	23.2	III e 2340	3	K=1.5H		F1 bright cen.	6.5	46.4	41.5	4.6
12.2	12.2	I	5	N	1	—	6.1	24.4	41.9	26.6
12.0	9.8	I	8	N	2	— F	6.0	19.6	42.0	31.4
12.1	18.3	I	8	N	2	— F	6.0	36.6	42.0	14.4
12.2	22.3	I?	4	K=H	1	—	6.1	44.6	41.9	6.4
11.5	15.1	I	6	K=H	1	—	5.8	30.2	42.2	20.8
10.0	10.5	I I?	5 5	K=H K=H	1 1	— —	5.0	21.0	43.0	30.0
10.0	14.7	I	5	N	1	—	5.0	29.4	43.0	21.6
9.3	21.1	III	3	K=H	2	— F	4.6	42.2	43.4	8.8
8.6	8.8	I	6	K=H	1	— F	4.3	17.6	43.7	33.4
5.5	9.2	I	8	N	2	— F	2.8	18.4	45.2	32.6
4.0	11.6	I	4	N	1	—	2.0	23.2	46.0	27.8
5.0	23.9	IIa? 2341	2	K=H	1	— cen	2.5	47.8	45.5	3.2
2.5	12.1	IIa 2342	3	K=H	1	F cen	1.2	24.2	46.8	26.8

Amt. of Fog. due to moon + clouds. Amt. of Fog. due to chemicals.

6.6 Plate 655 7.0

22.8	17.6	IIa? 2343	2	K=H	2	— cen	11.4	35.2	21.6	56.6
21.8	7.7	II?	2	K=H		—	10.9	15.4	22.1	76.4
19.9	9.7	I	4	N	1	—	10.0	19.4	23.0	72.4
20.0	17.1	II?	2	K=H	1	—	10.0	34.2	23.0	57.6
19.7	14.9	I?	4	K=H	1	—	9.8	29.8	23.2	62.0
18.5	9.9	I	7	K=H	1	—	9.2	19.8	23.8	72.0
18.0	16.0	I	4	N	1	—	9.0	3 12.0	24.0	5 19.8
17.5	14.5	IIa 12344	2	K=H	1	cen	8.8	29.0	24.2	6 22.8
16.6	7.3	I	4	K=H	1	—	8.3	14.6	24.7	77.2
16.8	14.0	I	5	N	1	F—	8.0	28.0	25.0	63.8

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Mean 6

No.	R.A.	Dec.	Mag.	H	V	H'	Rcd. of D.M. stars to 1900	Cor. Br.	Br.
3179	18 42.3	+ 41 19	5.7	56.1	48.1	50.5	18 43.0 +41 20		6.3 5.7
Dm. 2365	18 18.8	+ 51 28	6.8	49.4	58.2		18 19.8 +51 29		
~~2361~~	~~18 18.1~~	~~+ 51 13~~	~~6.8~~	~~48.9~~	~~59.9~~	~~49.0~~	~~18 19.2 +51 14~~		6.4 5.8 ~~18 18.8 +51 5~~
3009	17 53.8	+ 51 30	2.4	100.2	58.6		17 54.3 +51 31		4.7 4.1
Dm. ~~2464~~	~~18 53.6~~	~~+ 51 32~~	~~7.3~~				~~18 54.7 +51 35~~		5.2 4.6
~~2968~~	~~18 0.6~~	~~+ 41 56~~	~~6.3~~	~~46.9~~	~~48.4~~	~~51.1~~	~~18 1.9 +41 58~~		~~17 53.4 +51 9~~
Dm. 2232	18 28.9	+ 52 1	6.5	53.3	58.1		18 29.9 +52 3		
~~2392~~	~~18 28.4~~	~~+ 51 51~~	~~7.6~~	~~49.8~~	~~57.9~~	~~47.7~~	~~18 28.4 +51 53~~		6.3 5.7 ~~18 29.0 +52.0~~
Dm. 3155	18 37.2	+ 52 5	5.8	56.8	58.1		18 37.5 +52 6		
~~2238~~	~~18 30.9~~	~~+ 52 15~~	~~6.5~~	~~50.3~~	~~55.3~~	~~45.3~~	~~18 31.7 +52 17~~		5.7 5.1 ~~18 36.7 +52.1~~
3079	18 11.9	+ 42 8	5.3	48.5	48.1	50.1	18 12.6 +42 8		5.6 5.0
Dm. 2968	18 0.5	+ 41 56	6.3	45.1	48.0		18 1.9 +41 56		
~~2308~~	~~18 21.2~~	~~+ 61 56~~	~~6.7~~	~~46.8~~	~~58.0~~	~~52.3~~	~~18 3.2 +61 56~~		6.9 6.3 ~~18 0.8 +41.9~~
Dm.									
3074	18 19.8	+ 42 24	6.7	50.0	48.2	50.1	18 21.2 +42 25		6.5 5.9
Dm. 2108	18 34.3	+ 53 3	8.2	55.3	58.0		18 35.3 +53 5		
~~3148~~	~~18 33.1~~	~~+ 43 8~~	~~6.2~~	~~54.1~~	~~48.1~~	~~51.6~~	~~18 33.7 +43 8~~		6.6 6.0 ~~18 34.2 +53.1~~
Dm.									
2079	18 20.7	+ 53 14	6.5	50.1	58.2	49.8	18 21.7 +53 15		6.2 5.6
3055	18 4.0	+ 43 27	5.1	46.2	48.0	49.6	18 4.5 +43 27		6.3 5.7
~~3064~~	~~18 7.4~~	~~+ 33 26~~	~~5.9~~	~~49.6~~	~~48.0~~	~~51.6~~			6.6 6.0
Dm. 3175	18 40.9	+ 53 45	6.1	58.5	58.1		18 41.4 +53 47		~~18 40.4 +53 44~~
~~3141~~	~~18 35.3~~	~~+ 33 33~~	~~7.3~~	~~52.9~~	~~37.9~~	~~50.9~~	~~18 36.9 +33 35~~		6.3 5.7 ~~18 40.2 +53.8~~
Dm. 3166	18 40.3	+ 55 25	5.2	58.7	58.2		18 40.7 +55 26		
~~2099~~	~~18 35.7~~	~~+ 55 4~~	~~7.2~~	~~54.1~~	~~57.9~~	~~49.2~~	~~18 36.6 +55 9~~		5.5 4.9 ~~18 40.0 +55.4~~
Dm. 2508	18 29.7	+ 46 6	6.5	52.9	48.1		18 30.4 +46 8		
~~2738~~	~~18 28.6~~	~~+ 45 59~~	~~6.5~~	~~51.9~~	~~48.0~~	~~49.7~~	~~18 29.9 +46 1~~		7.1 6.5 ~~18 30.0 +46.2~~
3020	17 55.4	+ 45 28	6.1				17 56.0 +45 28		
~~3031~~	~~18 36.6~~	~~+ 45 31~~	~~5.9~~	~~104.4~~	~~48.0~~	~~109.7~~	~~18 37.1 +45 31~~		6.9 6.3
Dm. 3136	18 30.5	+ 56 57	4.8	54.7	58.2		18 30.9 +56 58		
~~2792~~	~~18 29.6~~	~~+ 45 53~~	~~6.8~~	~~51.8~~	~~48.1~~	~~50.1~~	~~18 29.9 +45 55~~		~~18 30.0 +56.9~~

Mean 5

No.	R.A.	Dec.	Mag.	H	V	H'	Rcd. of D.M. stars to 1900	Cor. Br.	Br.
3027									
3026	17 56.4	+ 21 37	4.6	91.6	33.0	92.0	17 57.2 +21 36		
Dm. 3099	18 17.0	+ 11 59	5.9	32.4	22.9		18 17.9 +11 59		~~18 15.8 +11 58~~
~~3109~~	~~18 16.4~~	~~+ 32 13~~	~~7.5~~	~~31.8~~	~~43.1~~	~~29.5~~	~~18 18.1 +32 14~~		6.7 6.2 ~~18 18. +12.0~~
Dm. ~~3461~~	~~18 11.7~~	~~+ 12 56~~	~~6.7~~	~~32.1~~	~~22.9~~	~~31.7~~	~~18 13.8 +12 57~~		
~~3299~~	~~18 12.1~~	~~+ 23 14~~	~~7.0~~	~~31.5~~	~~33.2~~	~~30.7~~	~~18 14.0 +23 15~~		6.8 6.3 ~~18 11.9 +12.9~~
Dm. ~~3260~~	~~17 56.4~~	~~+ 22 56~~	~~6.7~~	~~90.6~~	~~32.9~~		~~17 57.3 +22 56~~		
~~3006~~	~~17 55.3~~	~~+ 33 14~~	~~5.5~~	~~89.5~~	~~43.2~~	~~90.2~~	~~17 56.9 +33 14~~		6.5 6.0 ~~17 56.4 +22.9~~
~~3032~~	~~17 57.2~~	~~+ 33 20~~	~~6.4~~	~~91.4~~	~~43.3~~	~~92.1~~			
~~3129~~	~~18 1.1~~	~~+ 13 4~~	~~6.7~~	~~30.9~~	~~22.9~~	~~30.9~~	~~18 1.9 +13 4~~		
Dm. ~~3265~~	~~18 1.0~~	~~+ 23 23~~	~~7.5~~	~~30.8~~	~~33.2~~	~~30.6~~	~~18 1.9 +23 23~~		
~~3044~~	~~17 59.6~~	~~+ 33 16~~	~~7.2~~	~~89.4~~	~~43.1~~	~~89.4~~	~~18 +33 16~~		6.7 6.2 ~~18 1.5 +23.4~~
Dm. 3593	18 11.4	+ 13 44	6.1	31.2	22.9	30.8	18 13.5 +13 45		
~~3062~~	~~18 11.8~~	~~+ 33 29~~	~~7.2~~	~~31.6~~	~~43.7~~	~~29.9~~	~~18 13.4 +33 30~~		6.5 6.0
~~3544~~	~~18 12.~~	~~+ 14~~	~~7.5~~	~~32.~~	~~22.1~~	~~29.8~~	~~18 12.4 +14 5~~		
Dm. ~~3232~~	~~18 20.2~~	~~+ 34~~	~~8.4~~	~~32.2~~	~~43.2~~	~~29.0~~	~~18 21.8 +34 10~~		
~~3227~~	~~18 14.8~~	~~+ 23 36~~	~~7.7~~	~~29.8~~	~~32.6~~	~~28.3~~	~~18 15.7 +23 37~~		6.6 6.1 ~~17 58.7 +23.9~~
Dm. 3254	18 58.7	+ 23 56	7.1	90.7	32.9		18 0.6 +23 56		
Dm. 3427	18 2.0	+ 14 16	6.5	31.0	23.1		18 4.0 +14 16		
~~3342~~	~~18 2.8~~	~~+ 24 48~~	~~6.0~~	~~32.6~~	~~32.6~~	~~30.3~~	~~18 4.0 +24 48~~		6.5 6.0 ~~18 2.0 +14.3~~
Dm. 3511	18 16.7	+ 14 38	6.3	31.3	22.9	30.7	18 18.7 +14 39		
~~3191~~	~~18 19.0~~	~~+ 24 26~~	~~7.1~~	~~33.6~~	~~32.1~~	~~32.7~~	~~18 20.8 +24 27~~		6.7 6.2
Dm.									
3342	18 3.0	+ 24 56	7.4	31.0	32.9	30.8	18 4.8 +24 56		6.5 6.0

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Plate 651.

V	H	Type	Lines	K	Focus	Other Lines.	V	H	V	H
15.9	6.0	I? I?	5 6	K=H	1	— F	8.0	12.0	26.0	79.8
15.8	8.3	I?	5	N	1	—	7.9	12.6	25.1	79.2
15.1	22.5	I	5 6	K=H	1	— F F?	7.6	45.0	25.4	46.8
14.5	23.1	III	X3	K=H	1	— F	7.2	46.2	25.8	45.6
13.9	14.5	I	X8	K=.2H	3	— F	7.0	29.0	26.0	62.8
13.8	20.1	II	3	K=1.2H	2	— F	6.9	40.2	26.1	51.6
13.0	13.7	IIa? 2348	2	K=H	1	— acm	6.5	27.4	26.6	64.4
12.5	18.5	III	3	K=H	2	— F	6.2	37.0	26.8	54.8
11.2	6.8	I	X6	K=H	1	— F	5.6	13.6	27.4	78.2
10.4	23.9	III	X3	K=1.2H?	3	— F	5.2	47.8	27.8	44.0
9.8	9.8	I	X7	N	1	— F	4.9	19.6	28.1	72.2
9.2	20.1	I? I?	4	K=H	1	— —	4.6	40.2	28.4	51.6
9.0	13.3	I I	4 3	N N	1	— —	4.5	26.6	28.5	65.2
8.7	14.5	I	X12	K=.2H	4	— F	4.4	29.0	28.6	62.8
8.4	8.6	I	X8	K=.5H	1	— F	4.2	17.2	28.8	74.6
8.1	8.8	I	2346 4	K=H	1	—	4.0	17.6	29.0	74.2
7.6	18.8	III bc?	3	K=.5H	2	— F bright acm	3.8	37.6	29.2	54.2
7.4	23.7	I	5	N	1	— F	3.7	47.4	29.3	44.4
7.0	18.1	I	X5	N	1	—	3.5	36.2	29.5	55.6
6.9	16.8	I	X6	N	1	— F	3.4	33.6	29.6	58.2
6.4	6.4	I	X4	N	1	—	3.2	12.8	29.8	79.0
6.4	8.6	I	5	N	1	—	3.2	17.2	29.8	74.6
6.0	14.1	I	X8	K=.3H	2	— F	3.0	28.2	30.0	63.6
5.8	18.4	IIa 2347	X3	K=H	2	F acm	2.9	36.8	30.1	55.0
6.0	21.7	I	3	N	1	—	3.0	43.4	30.0	48.4
5.0	14.7	IIa 2348	X2	K=H	2	F acm	2.5	29.4	30.5	62.4
4.5	14.2	Ib 2349	X9	N	4	F F acm	2.2	28.4	30.8	63.4
4.5	17.2	Ib 2350	X9	N	2	F acm	2.2	34.4	30.8	57.4

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Means

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor. Br.	Br.
	Dm. 3533	18 19.4	+ 14 54	6.5	31.4	22.9	30.7	18 21.4 +14 55		
	~~32100~~	~~18 19.8~~	~~+ 34 57~~	~~8.2~~	~~31.8~~	~~43.0~~	~~23.4~~	~~18 21.1 +34 56~~	6.4	6.6 6.1
	Dm. 3395	18 15.5	+ 24 60	7.5	32.1	32.9		18 17.3 +25 1		
	~~32400~~	~~18 20.6~~	~~+ 35 16~~	~~7.2~~	~~33.2~~	~~43.2~~	~~29.8~~	~~18 22.2 +35 17~~	6.6	6.6 6.1 ~~18 15.6 +25.0~~
	Dm. 3292	17 45.4	+ 15 23	6.5	90.4	23.0		17 47.4 +15 22		
	~~32600~~	~~17 44.4~~	~~+ 25 20~~	~~7.0~~	~~89.4~~	~~32.9~~	~~90.9~~	~~17 46.2 +25 14~~	6.5	6.3 5.8 ~~17 45.7 +15.4~~
	2984	17 44.0	+ 25 40	5.4	90.2	32.9	91.9	17 44.7 +25 40		6.0 5.5 6.4 5.9
0.1 5.4	3049	18 3.0	+ 26 5	5.2	32.0	33.1	31.9	18 3.8 +26 5		5.3 4.8
	3050									
	3000	17 50.6	+ 26 5	5.6	90.8	33.0	91.8	17 51.4 +26 4		5.8 5.3
	3060	18 4.8	+ 16 27	6.2	32.2	22.9		18 5.7 +16 27	~~18 3.7 +16 27~~	
	~~3061~~	~~18 5.8~~	~~+ 36 26~~	~~5.9~~	~~33.2~~	~~43.1~~	~~32.7~~			6.3 4.0 ~~18 3.8 +16.5~~
	Dm. 3335	17 53.6	+ 16 47	4.9	90.6	23.0	91.0	17 55.6 +16 47		6.0 5.5 6.4 5.9
	~~29850~~	~~17 53.4~~	~~+ 36 53~~	~~7.0~~	~~90.4~~	~~43.1~~	~~91.7~~	~~17 56.0 +36 53~~		
	Dm. 3016	18 19.2	+ 27 19	6.5	32.8	32.9	30.9	18 21.0 +27 20		6.6 6.1
	2976	17 41.8	+ 27 48	3.5	89.6	33.0	91.7	17 42.6 +27 48		4.5 4.0 4.8 4.3
	Dm. 3623	18 11.8	+ 18 5	6.4	31.4	23.0	30.8	18 13.3 +18 6		6.3 5.8
	Dm. 3502	17 50.3	+ 18 39	6.5	90.5	23.2	91.1	17 52.3 +18 38		
	~~35000~~	~~17 50.1~~	~~+ 18 22~~	~~6.8~~	~~90.3~~	~~23.0~~	~~90.9~~	~~17 52.1 +18 21~~	6.6	6.9 6.4
	Dm. 3582	18 4.4	+ 18 28	7.2	31.0	23.0	30.8	18 6.4 +18 28		7.1 7.2 6.7
0.1 4.3	3048	18 2.9	+ 28 45	4.0	31.9	33.2	31.8	18 3.6 +28 45		4.2 3.7
0.1 5.7	3097	18 16.3	+ 28 49	5.0	33.5	33.0	32.0	18 17.1 +28 49		5.6 5.1
	Dm. 2980	18 14.8	+ 28 55	7.0	32.4	32.9	30.9	18 16.6 +28 56		6.8 6.3
	3007	17 53.1	+ 29 16	3.9	90.7	33.1	91.6	17 53.8 +29 15		5.0 4.5 5.3 4.8
	Dm. 3435	17 42.5	+ 19 18	6.0	89.9	23.0	90.9	17 44.5 +19 17		
	~~29800~~	~~17 42.0~~	~~+ 39 22~~	~~6.5~~	~~89.4~~	~~43.1~~	~~90.4~~			6.4 5.9
	Dm. 35 3494	17 54.2	+ 19 31	6.5	90.4	23.0	90.8	17 56.1 +19 31		6.5 6.0
	Dm. ~~3509~~	~~17 57.1~~	~~+ 19 33~~	~~7.0~~	~~90.7~~	~~23.0~~	~~90.9~~	~~17 59.0 +19 33~~		
	3508	17 57.0	+ 19 35	6.5	90.6	23.0	90.8	17 58.9 +19 35		6.4 5.9
0.1 6.4	3113	18 21.4	+ 29 46	5.8	34.2	33.0	31.9	18 22.1 +29 46	~~18 20.4 +29 45~~	6.3 5.8
0.1 6.3	3096	18 16.3	+ 29 48	5.6	33.5	33.0	31.0	18 17.1 +29 48		6.2 5.7
0.0 5.4	3053	18 3.7	+ 20 3	5.2	31.9	23.0	31.8	18 4.6 +20 1		5.4 4.9
	3010	17 53.9	+ 30 12	4.6	90.7	33.1	91.6	17 54.7 +30 11		5.0 4.5
	Dm. 3069	17 45.4	+ 30 2	7.2	88.8	33.0	90.6	17 47.1 +30 1		6.9 6.4
	3047	18 2.5	+ 30 33	5.4	31.9	33.1	31.8	18 3.2 +30 33		5.7 5.2
0.0 4.8	3051	18 3.6	+ 20 49	4.5	32.0	23.0	31.9	18 4.4 +20 48		4.8 4.3
0.0 5.6	3033	17 57.3	+ 20 50	5.1	91.7	23.0	92.0	17 57.1 +20 50		5.6 5.1

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Plate 65 1.

T	H	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H
2.5	7.1	III	x3	K=H	1	—	F		1.2	14.2	31.8	77.6
2.9	17.5	I	y	K=H	2	—			1.4	35.0	31.6	56.8

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals.

7.5 Plate 65 2. 7.3

	19.3	12.7	I	6	N	2	—		9.6	25.4	33.5	6.5
III? 5.9, 6.3.	14.1	9.4	III	2351 fc 2	K=1.5H?	2	—	F? bright 2 cen	7.0	18.8	36.1	13.1
	13.5	13.4	III?	x3	K=H	1	—	F	6.8	26.8	36.3	5.1
	13.5	14.2	III	x2	K=H	1	—		6.8	28.4	36.3	3.5
III? 5.6, 6.0.	11.8	18.9	III	2352 fc 3	K=1.5H	2	F bright 2 cen.		5.9	37.8	37.2	54.1
	8.9	12.2	I	6	N	2	—		4.4	24.4	38.7	7.5
	9.5	7.9	I	4	N	1	—		4.8	15.8	38.3	16.1
	9.1	7.3	II?	2	K=H	1	—		4.6	14.6	38.5	17.3
	8.0	12.9	I	7	N	1	—	F	4.0	25.8	39.1	6.1
	7.3	7.8	I	7	N	2	—	F	3.6	15.6	39.5	16.3
	7.5	15.6	I	3	N	11	—	—	3.8	31.2	39.3	0.7
	6.3	19.8	III?	3	K=H	1	—	F	3.2	39.6	39.9	52.3
	5.7	10.3	I?	2	N	1	—		2.8	20.6	40.3	11.3

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals

7.0 Plate 65 8. 7.3

III 5.6, 6.0.	20.5	14.3	III	2353 fc 3	K=1.2H	3	F cen		10.2	28.6	27.8	42.1
	19.1	20.8	I	5	N	1	—		9.6	41.6	28.4	29.1
	17.7	9.3	III	2354 fc 3	K=H	3	F cen		8.8	18.6	29.2	52.1
	18.2	14.1	I	3	N	1	—		9.1	28.2	28.9	42.5
	17.6	13.5	I	5	N	1	—		8.8	27.0	29.2	43.7
	17.0	8.0	I	3	N	1	—		8.5	16.0	29.5	54.7
	16.0	12.3	I	4	N	1	—		8.0	24.6	30.0	46.1
	15.8	9.0	II a	2355 x3	K=H	3	F cen		7.9	18.0	30.1	52.7
	14.5	7.1	I	6	N	1	—		7.2	14.2	30.8	56.5

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Means

½cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900		Br.	cov. Br.
	3107	18 18.6	+ 21 43	3.9	32.8	22.9	31.7	18	19.4 + 21 43	5.9 / 6.6	
0.0 5.3	3026 / 3027	17 56.4	+ 21 37	4.6	91.4	23.0	91.8	17	57.2 + 21 36	5.3	4.8
0.1 6.4	3064	18 7.4	+ 33 26	5.9	32.8	43.0	32.1	18	8.1 + 33 26	6.3	
	3093	18 15.7	+ 36 1	4.4	34.5	43.0	32.3	18	16.4 + 36 1	5.7 / 6.1	
	3061	18 5.8	+ 36 26	5.9	32.6	43.2	32.0	18	6.5 + 36 26	6.4 / 6.9	
	3054	18 3.9	+ 36 23	5.6	32.3	43.2	32.0	18	4.6 + 36 23	6.3 / 6.9	
	3004	17 52.1	+ 37 16	4.0	89.9	43.2	91.4	17	52.8 + 37 15	5.6 / 6.2	
0.1 5.9	3073	18 9.1	+ 38 46	5.9	33.5	43.2	32.2	18	9.8 + 38 45	5.8	
	Dm. 3159	18 18.9	+ 38 17	7.0	34.7	43.1	31.5	18	20.4 + 38 18	6.9	
	Dm. 3166	18 20.5	+ 38 22	7.5	35.1	43.0	18		22.0 + 38 23		
	~~Dm. 3160 18 19.1 + 38 41 6.5 33.7 43.3 30.2 18 20.3 + 38 42~~										
	~~2692 18 21.5 + 38 41 7.0 36.1 53.3 30.8 18 22.7 + 38 42~~									7.2	
	Dm. 3343	18 6.4	+ 39 4	6.9	32.2	43.1	31.3	18	7.9 + 39 4	7.0	
0.1 5.4	3110	18 20.3	+ 39 27	4.9	35.9	43.0	32.5	18	20.9 + 39 27	5.3	
	Dm. 3310	17 59.4	+ 39 29	7.0	90.6	43.3	90.8	18	26 + 39 29 36	7.3	
	2997	17 49.5	+ 40 2	5.3	89.1	43.2	91.4	17	50.0 + 40 1	6.6 / 6.9	
	~~Dm. 3166 18 20.3 + 38 24 4.1 30.9 33.1 29.6 18 18.0 + 38 23~~										
	~~2551 18 17.5 + 38 29 4.8 33.1 53.3 29.6 18 15.6 + 38 30~~									7.4	
	Dm. 3334	18 13.1	+ 40 16	7.2	33.7	43.1		18	14.6 + 40 17		

Means

											cov. Br.
	2976	17 41.8	+ 27 48	3.5	70.4	38.0	70.2	17	42.6 + 27 48	5.4 / 5.6 / 4.5 / 4.7	
0.1 6.7	2936	17 27.1	+ 28 29	5.6	68.7	38.1	70.1	17	27.9 + 28 29	6.6 / 5.7	
	3007	17 53.1	+ 29 16	3.9	71.7	38.1	70.2	17	53.8 + 29 15	5.7 / 5.9 / 4.8 / 5.0	
	Dm. 3464	17 41.2	+ 18 57	6.5	69.4	28.1		17	43.2 + 18 56	7.1	6.3
	~~2978 17 41.9 + 38 56 6.2 70.1 48.0 723~~										
0.0 6.6	2982	17 43.6	+ 19 17	6.0	70.6	28.1	70.4	17	44.5 + 19 17	6.6	5.7
	~~2987 17 45.7 + 29 22 5.7 72.9 38.2 723~~										
	~~Dm. 3166 17 55.1 + 29 34 7.5 71.1 38.1 69.3 17 56.8 + 29 34~~										
	3494	17 54.2	+ 19 31	6.5	70.2	28.0	69.4	17	56.1 + 19 31	7.1	6.2
	Dm. 3069	17 45.4	+ 30 2	7.2	70.0	38.0		17	47.1 + 30 1	7.0	6.1
	~~2997 17 49.5 + 40 2 5.3 71.1 48.0 729~~										
	3010	17 53.9	+ 30 12	4.6	71.9	38.1	70.3	17	54.7 + 30 11	5.7	4.8
0.0 6.2	3033	17 57.3	+ 20 50	5.1	71.5	28.0	70.5	17	58 + 20 50	6.2	5.3

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Plate 658.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
14.5	18.5	I	15	K=H	1	—	7.2	37.0	30.8	33.7
14.0	19.5	I	3	N	1	—	7.0	39.0	31.0	31.7
13.2	14.6	II	2	K=H	1	—	6.6	29.2	31.4	41.5
13.0	7.5	IIa? (2356)	3	K=H?	2	F cen	6.5	15.0	31.5	55.7
11.5	12.5	I	4	N	1	—	5.8	25.0	32.2	45.7
9.7	15.1	II?	3	N	1	—	4.8	30.2	33.2	40.5
7.7	13.6	IIa? (2357)	2	K=H	1	— cen	3.8	27.2	34.2	43.5
7.6	18.6	I	6	K=H?	1	—	3.8	37.2	34.2	33.5
6.6	22.3	I	5	N	1	—	3.3	44.6	34.7	26.1

Aurt. of Fog. due to moon & clouds. Aurt. of Fog. due to chemicals.

8.2 Plate 714. 8.1

18.4	22.9	I	16	N	2	—	9.2	45.8	28.8	5.1
15.8	23.2	I?	14	K=H	1	—	7.9	46.4	30.1	4.5
14.3	23.2	I	18	N	2	— F	7.2	46.4	30.8	4.5
15.0	11.8	I	4	N	1	—	7.5	23.6	30.5	27.3
12.7	16.1	III	13	K=H	2	— F	6.4	32.2	31.6	18.7
9.1	10.2	I	4	N	1	—	4.6	20.4	33.4	30.5
8.5	13.3	I	13	N	1	—	4.2	26.6	33.8	24.3

Aurt. of Fog. due to moon & clouds. Aurt. of Fog. due to chemicals.

7.6 Plate 706. 7.0

19.9	23.4	I	4	N	1	—	10.0	46.8	28.1	42.2
19.0	13.7	I	2	N	1	—	9.5	27.4	28.6	61.6
17.0	6.0	I	14	N	1	—	8.5	12.0	29.6	77.0
13.7	9.5	I	15	N	2	— F	6.8	19.0	31.3	70.0
13.8	11.4	I	14	K=H	1	—	6.9	22.8	31.2	66.2
13.5	20.6	I	4	N	1	—	6.8	41.2	31.3	47.8
15.0	23.8	IIa (2358)	13	K=H	2	F cen	7.5	47.6	30.6	41.4
11.5	13.3	I	14	K=H	1	—	5.8	26.6	32.3	62.4

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Means

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	B-V.	cor. Bv
	2950	17 32.0	+ 30 52	5.7	69.0	38.1	70.0	17 32.8 +30 51	6.6	5.6
00 6.8	2948	17 30.9	+ 21 5	5.8	69.9	28.1	70.5	17 31.7 +21 4	6.8	5.9
	2974	17 41.1	+ 31 33	6.5	70.3	38.2	70.2	17 41.9 +31 33	6.5	5.6
	3026 / 3027	17 56.4	+ 21 37	4.6	71.4	28.1	70.7	17 57.2 +21 36	5.8	4.8
00 6.9	2988	17 45.8	+ 22 20	5.9	70.8	28.1	70.4	17 46.6 +22 20	6.9	6.0
Dm.	2944	17 39.0	+ 33 18	6.5	69.2	38.1	69.2	17 40.6 +33 17	7.2	6.3
Dm.	3050	17 42.6	+ 34 20	6.5	69.8	38.1	69.4	17 42 +34 19	6.8	5.9
	2952	17 32.6	+ 24 24	5.8	69.8	28.2	70.4	17 33.4 +24 22	6.7	5.8
0.1 6.6	2923	17 22.4	+ 34 49	6.0	67.0	38.1	69.6	17 23.2 +34 47	6.5	5.6

Mean 13

										cor. Bv
0.1 5.4	3048	18 2.9	+ 28 45	4.0	48.7	38.0	50.7	18 3.6 +28 45	5.3	4.0
	3053	18 3.7	+ 20 3	5.2	50.1	27.9	51.1	18 4.6 +20 1	7.2	5.9
00 5.5	3051	18 3.6	+ 20 49	4.5	50.0	28.0	51.1	18 4.4 +20 48	6.5	4.2
0.1 6.7	3132	18 28.3	+ 30 28	5.4	51.9	38.0	51.0	18 29.0 +30 29	6.6	5.3
	3107	18 18.6	+ 21 43	3.9	50.8	28.1	51.0	18 19.4 +21 43	6.5 / 7.0	5.2 / 5.7
0.1 6.8	3146	18 32.2	+ 33 22	5.3	52.6	38.0	51.1	18 32.9 +33 23	6.7	5.4
00 7.0	3125	18 24.6	+ 23 47	5.7	51.2	28.0	50.9	18 25.5 +23 48	7.0	5.7

Mean 14

										cor. Bv
00 6.2	3178	18 41.7	+ 18 3	4.5	88.5	28.0	89.4	18 42.6 +18 4	6.2	4.8
0.1 7.1	3267	19 1.9	+ 28 26	5.5	29.3	37.9	29.0	19 2.7 +28 28	7.0	5.6
0.1 6.3	3342	19 19.4	+ 29 23	4.9	31.4	37.9	29.0	19 20.2 +29 26	6.2	4.8
00 5.8	3300	19 11.1	+ 21 11	4.7	30.1	28.0	29.4	19 11.9 +21 13	5.8	4.4
	3282	19 7.2	+ 31 5	5.7	30.0	38.0	29.0	19 7.9 +31 7	7.2	5.8
00 6.5	3197	18 47.1	+ 21 17	5.5	88.3	28.1	89.0	18 48.0 +21 18	6.6	5.1
	3171	18 40.6	+ 29 26	4.2	88.1	27.9	89.2	18 41.4 +29 27	6.0	4.6
	3271	19 2.9	+ 32 18	4.9	29.5	38.1	29.0	19 3.7 +32 20	6.7	5.3

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Plate 706.

V	H	Type	No. Lines	K	Focus	other Lines.		V	H	V	H
11.2	16.8	I	11	K=.1H		—	F	5.6	33.6	32.5	55.4
11.2	20.7	I	5	N	1	—		5.6	41.4	32.5	47.6
10.5	20.7	I	3	N	1	—		5.2	41.4	32.9	47.6
10.5	8.8	II?	2	K=H		—		5.2	17.6	32.9	71.4
9.6	20.5	IIa 2359	3	K=.5H	4	—	F faint	4.8	41.0	33.3	48.0
8.0	13.8	I	3	N	1	—		4.0	27.6	34.1	61.4
4.5	13.2	I	6	K=.5H	1	—		2.2	26.4	35.9	62.6
4.0	16.2	I	3	N	1	—		2.0	32.4	36.1	56.6
3.9	6.4	I	3	N	1	—		2.0	12.8	36.1	76.2
3.7	5.5	I	4	N	1	—		1.8	11.0	36.3	78.0

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.1 Plate 705. 7.0

22.8	19.5	I	5	N	1	—		11.4	39.0	21.6	12.2
22.8	21.3	I?	3	N	1	—		11.4	42.6	21.6	8.6
22.7	18.4	III	2	K=H	1	—		11.4	36.8	21.6	14.4
21.9	17.5	I	4	N	1	—		11.0	35.0	22.0	16.2
21.5	18.6	I	7	N	1	—		10.8	37.2	22.2	14.0
21.1	10.4	I	5	N	1	—	F	10.6	20.8	22.4	30.4
20.3	15.2	II 2359a 2360	3	K=H K=H	11	—	F F faint	10.2	30.4	22.8	20.8
20.4	18.9	IIa?	3	K=H	2	—	F faint	10.2	37.8	22.8	13.4

Reading of this plate continued in Vol. 6 Page 44

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Mean 14.

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. start to 1900	Br.	cor. Br.	
0.14.3	3232	18 54.5	+ 32 32	3.3	88.1	38.1	88.6	18 55.2 + 32 33	4.2	2.8	
0.166	3192	18 45.4	+ 32 25	5.1	86.8	38.0	88.6	18 46.2 + 32 26	6.5	5.1	
0.171	3191	18 45.3	+ 32 41	5.6	86.7	37.9	88.5	18 46.1 + 32 42	7.0	5.6	
—	3308	19 12.7	+ 22 48	5.6	30.3	28.0	29.3	19 13.5 + 22 51	7.0	5.6	
—	3193	18 45.6	+ 33 13	3.6	86.6	38.0	88.4	18 46.3 + 33 15	4.7	3.3	
0.07.3	3265	18 9 1.6	+ 24 4	5.6	29.2	28.1	29.0	18 9 1.9 + 24 6	7.3	5.9	
0.165	3272	19 3.0	+ 35 55	5.2	29.4	38.1	28.8	19 3.7 + 35 56	6.4	5.0	
0.173	3246	18 56.4	+ 26 7	5.5	88.8	28.1	89.0	18 57.2 + 26 9	7.2	5.8	~~18 55.4 + 26 5~~
0.168	3329	19 17.9	+ 26 2	5.0	30.7	28.0	29.9	19 18.7 + 26 4	6.7	5.3	
0.167	3352	19 21.8	+ 36 5	5.1	32.8	37.9	29.1	19 22.6 + 36 7	6.6	5.2	

Mean 3

	~~3300~~	~~19 11.1~~	~~+ 21 11~~	~~4.7~~	~~50.1~~	~~32.6~~	~~50.7~~				
	~~3305~~	~~19 12.2~~	~~+ 11 23~~	~~5.1~~	~~51.2~~	~~22.8~~	~~51.5~~	~~19 13.1 + 11 25~~			~~1911.0+11.3~~
	3283	19 7.5	+ 21 21	5.8	50.1	32.8	51.0	19 8.3 + 21 23			
Dm.	3802	19 13.1	+ 11 16	6.2	49.9	22.7		19 13.2 + 11 21			
Dm.	~~3719~~	~~19 11.3~~	~~+ 21 33~~	~~7.3~~	~~48.1~~	~~33.0~~	~~48.6~~	~~19 13.2 + 21 38~~			
	~~3544~~	~~19 13.9~~	~~+ 31 42~~	~~7.1~~	~~50.7~~	~~43.1~~	~~51.6~~	~~19 15.5 + 31 47~~			~~19 13.0 + 11.3~~
Dm.	3740	19 14.7	+ 21 56	6.7	49.7	32.9	50.1	19 16.5 + 22 1	6.6	6.3	
	3314	19 14.0	+ 12 9	5.4	51.0	23.0	51.3	19 15.0 + 12 11	5.8	5.5	
Dm.	3741	19 29.9	+ 22 16	6.5	50.7	32.9	50.0	19 31.8 + 22 22	6.8	5.7	
	3349	19 20.8	+ 12 48	5.8	51.2	23.0	51.2	19 21.8 + 12 50	6.3 6.1	5.7	~~19 19.7 + 12 45~~
	3308	19 12.7	+ 22 48	5.6	50.5	33.0	51.1	19 13.5 + 22 51	5.5	5.2	

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Aust. of Fog. due to moon & clouds. 7.1 Aust. of Fog. due to chemicals. 7.4

November 19. 1886

Plate 656.

V	H	Type	No. lines	K	Focus	other Lines	V	H	V	H
23.0	20.2	IIa? 2361	2	K=H	1	— eeu	11.5	40.4	46.6	50.2
22.5	15.6	I	8	K=.5H	2	— F	11.2	31.2	46.9	59.4
22.7	17.3	I	4	K=H	1	—	11.4	34.6	46.7	56.0
22.4	19.4	I	6	N.	2	— F	11.2	38.8	46.9	51.8
21.7	9.1	IIa III? IIa 2361a	2	K=H K=H	1	— eeu	10.8	18.2	47.3	72.4
21.5	9.2	I	7	N.	1	— eeu	10.8	18.4	47.3	72.2
20.2	5.8	II	2	K=H	1	—	10.1	11.6	48.0	79.0
20.3	10.3	III? 2362	3	K=H?	1	— F	10.2	20.6	47.9	70.0
21.1	22.9	I	9	K=.5H	3	— F	10.6	45.8	47.5	44.8
20.0	17.5	I	6	N.	2	—	10.0	35.0	48.1	55.6
19.5	12.6	I I	4 5	N. K=H	1 1	— —	9.8	25.2	48.3	65.4
19.0	11.2	II? IIa? 2362a	2 2	K=H K=H	1 1	— eeu	9.5	22.4	48.6	68.2
18.5	11.4	I 2363	10	N	5	F eeu	9.2	22.8	48.9	67.8
18.7	14.8	II a 2364	3	K=H	1	F eeu	9.4	35.6	48.7	55.0
18.7	19.9	I	7	K=H	1	—	9.4	39.8	48.7	50.8
17.7	12.0	I I	8 4.5	N N	1 1	— —	8.8	24.0	49.3	66.6
17.8	16.3	I I	1.3 3	N N	1 1	— —	8.9	32.6	49.2	58.0
18.1	17.0	I	5	N	2	—	9.0	34.0	49.1	56.6
18.1	20.1	I	5	K=.5H	1	—	9.0	40.2	49.1	50.4
16.9	12.0	III?	3	K=H	2	— F	8.4	24.0	49.7	66.6
17.3	17.3	I I?	4 5	N N	1 1	— —	8.6	34.6	49.5	56.0
16.9	16.5	II IIa? 2364a	3 2	K=H K=H	1 1	— F eeu	8.4	33.0	49.7	57.6
17.0	22.7	I	9	N	4	— F?	8.5	45.4	49.6	45.2
15.9	8.4	I	6	N	2	— F	8.0	16.8	50.1	73.8
15.8	9.4	I I	5 5	N N	1 1	— —	7.9	18.8	50.2	71.8
15.4	12.3	I	5	N	2	—	7.8	24.6	50.3	66.0
15.9	13.2	I	5	N	1	—	8.0	26.4	50.1	64.2
16.2	18.4	I	5 5	K=.5H K=.8H	1 1	—	8.1	36.8	50.0	53.8
15.5	15.9	I 2365	9	N	3	F eeu	7.8	31.8	50.3	58.8

III? 6.0, 6.3, 7.1.

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Mean 0

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Start to 1900	Br.	Pe
	Dm. 3295	18 46.5	+ 36 22	6.3	86.5	47.9	88.5	18 48.1 + 36 25		
	3254	18 58.0	+ 46 47	5.0	89.2	58.0	89.6	18 58.6 + 46 47		
	Dm. 2585	18 52.4	+ 46 34	7.0	87.0	58.0	88.4	18 53.7 + 46 37		
0.1 5.9	3207	18 49.6	+ 36 49	5.3	88.4	48.0		18 50.2 + 36 51		
	~~3210~~	~~18 50.0~~	~~+ 36 45~~	~~4.5~~	~~88.8~~	~~48.0~~	~~90.1~~	~~18 51.2 + 36 47~~	5.8	5.8
	3323	19 15.4	+ 37 7	6.4	33.6	47.9		19 16.0 + 37 9	7.2	7.0
0.1 6.4	3320	19 14.8	+ 37 14	6.1				19 15.3 + 37 16	7.0	
	Dm. 3318	19 14.4	+ 37 26	6.6	33.1	48.2	30.1	19 15.0 + 37 24	6.3	6.3
	Dm. 3465	19 21.5	+ 37 39	6.4	34.1	47.7		19 22.1 + 37 44		
	~~Dm. 2838~~	~~19 2.38~~	~~+ 47 52~~	~~7.7~~	~~35.4~~	~~58.6~~	~~29.3~~	~~19 3.1 + 47 59~~		
	1999	19 23.2	+ 57 44	6.5	34.8	67.8	26.3	19 24.0 + 57 49	6.5	6.5
									5.9	5.9
	3304	19 12.2	+ 37 55	4.3	32.8	48.1	30.8	19 12.9 + 37 57	6.8	6.3
*	3172	18 40.4	+ 37 29	4.3				18 41.3 + 37 30		
0.1 5.3	3177	18 40.6	+ 37 27	~~4.2~~ 5.9	86.4	48.1	89.7	18 41.3 + 37 30	5.2	5.2
									5.8	5.8
0.1 5.9	3230	18 53.9	+ 38 6	5.9	88.9	48.1	89.9	18 54.6 + 38 7		
	Dm. 2844	19 6.5	+ 48 12	7.0	31.7	58.0		19 7.7 + 48 16	6.8	7.0
	~~1873~~	~~19 7.3~~	~~+ 58 14~~	~~6.9~~	~~32.5~~	~~68.0~~	~~30.2~~	~~19 8.1 + 58 18~~		
	Dm. 2858	19 10.5	+ 48 27	7.0	32.9	57.9	30.4	19 11.7 + 48 32		
	~~3493~~	~~19 9.0~~	~~+ 38 44~~	~~7.7~~	~~31.4~~	~~48.2~~	~~29.8~~	~~19 10.5 + 38 48~~	6.9	7.0
									7.0	7.0
0.1 4.7	3291	19 9.7	+ 38 56	4.5	32.6	48.1	31.1	19 10.4 + 38 58	4.6	4.6
	Dm. 3223	18 51.7	+ 48 43	5.9	87.3	58.1		18 52.7 + 48 44		
	2793	18 51.0	+ 48 41	6.6	86.6	58.1	89.1	18 52.3 + 48 44	6.2	6.2
	~~Dm. 3190~~	18 45.1	+ 48 37	6.0	84.9	58.0		18 45.6 + 48 39		
	~~2770~~	~~18 44.4~~	~~+ 48 36~~	~~6.0~~	~~84.2~~	~~58.0~~	~~87.5~~	~~18 45.6 + 48 39~~	6.2	6.2
									~~6.4~~	
	Dm. 3677	19 7.1	+ 39 11	7.1	31.1	48.0	29.8	19 8.6 + 39 15	7.1	7.1
	Dm. 2906	18 55.2	+ 49 8	7.8	87.8	58.0	88.6	18 56.4 + 49 12	7.0	7.0
0.1 6.2	3239	18 55.2	+ 39 3	6.2	89.2	48.0	90.1	18 55.9 + 39 5	7.0	7.0
	Dm. 2767	18 43.9	+ 48 55	6.3	84.1	57.9		18 45.1 + 48 58	6.1	6.1
	~~3653~~	~~18 46.6~~	~~+ 39 9~~	~~6.7~~	~~86.6~~	~~48.2~~	~~89.1~~	~~18 48.1 + 39 12~~	6.4	6.4
									6.1	6.1
	3288	19 9.0	+ 49 37	5.8	33.0	58.0	30.9	19 9.5 + 49 39	6.3	6.3
	Dm. 3595	18 53.6	+ 39 35	6.7	88.2	48.2	89.2	18 55.1 + 39 38	7.0	6.8
	Dm. ~~3606~~	~~18 55.7~~	~~+ 39 39~~	~~7.0~~	~~88.7~~	~~48.0~~	~~89.3~~	~~18 57.2 + 39 42~~		
	3607	18 55.8	+ 39 40	7.0	88.8	48.1	89.4	18 57.3 + 39 44	6.9	6.9
0.1 4.8	3167	18 40.4	+ 39 33	4.6	85.8	48.1	89.3	18 41.1 + 39 34	4.7	4.7
*	~~3169~~	~~18 40.4~~	~~+ 39 29~~	~~4.6~~	~~85.8~~	~~48.0~~	~~89.3~~			
	Dm. 2994	19 19.6	+ 49 60	6.6	36.4	58.0		19 20.8 + 50 5	6.2	6.2
	~~2784~~	~~19 16.7~~	~~+ 50 4~~	~~7.1~~	~~33.5~~	~~58.1~~	~~28.8~~	~~19 17.9 + 50 4~~		
	~~Dm. 2784~~	~~19 16.7~~	~~+ 50 4~~	~~7.1~~	~~33.5~~	~~58.0~~		~~19 17.9 + 50 9~~	6.6	6.5
	~~3665~~	~~19 14.1~~	~~+ 40 6~~	~~6.6~~	~~32.9~~	~~48.0~~	~~30.2~~	~~19 15.0 + 40 11~~		
	Dm. 3620	19 6.6	+ 40 12	6.3	31.2	48.0	29.9	19 8.1 + 40 16	6.0	6.0
	~~Dm. 2734~~	~~19 4.9~~	~~+ 50 8~~	~~7.4~~	~~31.3~~	~~58.1~~	~~30.1~~	~~19 6.3 + 50 12~~		
	~~1949~~	~~19 3.9~~	~~+ 57 52~~	~~7.3~~	~~30.3~~	~~67.9~~	~~28.5~~	~~19 4.5 + 58 56~~	6.6	6.6
	Dm. 3580	18 50.7	+ ~~39~~ 40 ~~60~~ 2	6.7	87.5	48.1	89.0	18 51.2 + 40 3	6.0	6.7
0.2 5.2	3249	18 57.2	+ 50 22	5.4	87.0	58.2	89.6	18 57.7 + 50 24		
	~~2708~~	~~18 56.6~~	~~+ 50 20~~	~~4.8~~	~~88.4~~	~~58.1~~			5.0	5.0

* Spectra of two double stars superimposed on Plate.

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Plate 656

V	H	Type	pro. Lines	K	Focus	other Lines.	V	H	V	H
14.9	16.3	I?	$I^?$ 3 3	N N	1 1	=	7.4	32.6	50.7	58.0
15.4	17.1	I	8	N	2	—	7.7	34.2	50.4	56.4
15.1	18.0	III	3	K=H	2	— F1	7.6	36.0	50.5	54.6
14.5	13.8	I	I 4 5	N N	1 1	— —	7.2	27.6	50.9	63.0
13.9	14.2	I	6	N	2	—	7.0	28.4	51.1	62.2
13.7	16.2	I	$I^?$ 2 3	N N	1 1	— —	6.8	32.4	51.3	58.2
13.6	19.6	I	6	N	2	—	6.8	39.2	51.3	51.4
III? 6.5, 6.8.	13.5	18.5	III	3	K=H 2	— F	6.8	37.0	51.3	53.6
13.5	21.8	I?	7	N	2	— F	6.8	43.6	51.3	47.0
14.7	23.6	I?	4	K=H	1	—	7.4	47.2	50.7	43.4
14.0	24.4	I	I 4 5	N	1 1	— —	7.0	48.8	51.1	41.8
13.0	6.6	I	10	K=H	5	— F	6.5	13.2	51.6	77.4
12.6	12.6	I	I 4 4	N N	1 1	— —	6.3	25.2	51.8	65.4
12.2	16.2	I	$I^?$ 2	H N	K=H 1	— —	6.1	32.4	52.0	58.2
11.8	13.2	—	2366 III? 3	2 K=H	K=H 1	— F dem	5.9	26.4	52.2	64.2
11.9	6.3	I	$I^?$ 3 3	N N	1 1	— —	6.0	13.6	52.1	77.0
11.7	7.4	I	8	N	2	—	5.8	14.8	52.3	75.8
11.8	9.2	I	$I^?$ 4	H K=H	K=H 1	— —	5.9	18.4	52.2	72.2
11.5	12.7	I	I 3	H N	N 1 1	— —	5.8	25.4	52.3	65.2
11.9	12.0	I	7	N	2	—	6.0	24.0	52.1	66.6
10.6	8.1	I	5	K=H	1	—	5.3	16.2	52.8	74.4
10.6	16.7	I	I 7	N	K=H 1 1	— —	5.3	33.4	52.8	57.2
10.6	18.3	—	2366 3	K=H 2		— F dem	5.3	36.6	52.8	54.0
10.5	19.8	I	8	N	2	— F	5.2	39.6	52.9	51.0
10.0	16.5	I	I 3 4	N	K=H 1 1	— —	5.0	33.0	53.1	57.6
10.0	14.3	I	4	N	3	—	5.0	28.6	53.1	62.0
9.7	7.8	I?	II? 3	2	K=H 1 1	— F dem	4.8	15.6	53.3	75.0
9.2	16.8	I	5	K=H	1	—	4.6	33.6	53.5	57.0
9.0	14.9	I	5	N	1	— F	4.5	29.8	53.6	60.8
10.0	10.7	III	2.68 6 8	K=H	3	F bright	5.0	21.4	53.1	68.2

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Mean 0

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of II.TH. Stars to 1900	Br.	Br.
	Dm 2705	18 55.4	+ 50 37	6.6	88.0	58.0		18 56.5 + 50 41	7.0	7.1
0.15.9	3235	18 54.8	+ 40 31	6.1	89.0	48.2	90.0	18 55.5 + 40 33	5.8	5.8
	~~Dm.~~ 3214	18 50.3	+ 50 34	4.9	86.3	58.2	88.5	18 50.7 + 50 35	5.7	5.7
	~~2468~~	~~18 49.6~~	~~+ 50 32~~	~~6.2~~	~~86.6~~	~~58.1~~			6.0	6.0
	Dm. 3596	19 2.6	+ 40 50	6.8	30.2	48.0	29.7	19 4.1 + 40 54	6.7	6.7
02 6.3	3269	18 2.4	+ 41 14	6.0	30.8	48.2	30.4	19 3.0 + 41 16	6.1	6.1
	Dm. 3210	18 57.0	+ 41 17	7.2	89.4	48.1	89.9	18 58.4 + 41 21	7.1	7.4
02 6.0	3201	18 48.3	+ 41 15	6.1	87.5	48.0	89.8	18 48.8 + 41 16	5.8	5.8
	3221	18 51.0	+ 41 27	5.4	88.0	48.2	89.7	18 51.7 + 41 29	6.4	6.4
	3179	18 42.3	+ 41 19	5.7	85.9	48.1	89.3	18 43.0 + 41 20	6.7	6.7
	Dm. 3459	18 37.0	+ 40 34	6.8	84.2	48.0	88.4	18 38.0 + 40 38	5.7	5.7
	~~+840~~	~~18 36.6~~	~~+ 60 34~~	~~6.6~~	~~83.8~~	~~68.0~~	~~92.4~~	18 37.2 + 60 36	6.9	6.9
	Dm. 3446	18 34.9	+ 40 48	6.2	83.7	47.8		18 36.4 + 40 50	6.8	6.1
	~~3117~~	~~18 36.9~~	~~+ 41 16~~	~~7.8~~	~~85.7~~	~~48.3~~	~~99.3~~	~~18 36.3 + 41 18~~		
03 4.3	3365	19 26.7	+ 51 28	3.9	39.9	58.0	33.3	19 27.2 + 51 31	4.0	4.0
	Dm. 2527	19 7.7	+ 51 47	7.3	32.9	58.1		19 8.8 + 51 51	6.8	6.8
	~~3253~~	~~19 5.9~~	~~+ 41 46~~	~~7.2~~	~~31.1~~	~~48.1~~	~~29.9~~	~~19 7.3 + 41 50~~		
	Dm. 3219	18 56.2	+ 42 3	6.6	88.6	48.1	89.2	18 57.0 + 42 7	6.9	7.2
	Dm. 2350	19 5.0	+ 52 12	6.2	31.4	58.1	30.1	19 6.1 + 52 16	6.6	6.7
	Dm. 3352	19 22.7	+ 41 56	7.5	36.3	47.9	32.1	19 24.2 + 42 1	6.8	7.0
	~~3361~~	~~19 24.5~~	~~+ 52 5~~	~~5.7~~	~~36.1~~	~~58.1~~	~~31.7~~			
03 5.7	~~Dm.~~ 3361	19 24.5	+ 52 5	5.7	39.3	57.9	33.5	19 25.0 + 52 7	7.2	7.2
	~~3316~~	~~19 16.4~~	~~+ 42 25~~	~~6.5~~	~~31.2~~	~~48.2~~	~~27.2~~	~~19 17.8 + 42 30~~	5.4	5.4
	Dm. 2400	19 18.1	+ 52 6	7.1	36.5	58.0		19 19.2 + 52 11	6.7	6.6
	~~2552~~	~~19 15.2~~	~~+ 51 59~~	~~8.0~~	~~33.6~~	~~57.9~~	~~29.1~~	~~19 16.3 + 52 4~~		
	Dm. 2348	19 5.9	+ 42 23	7.0	31.3	48.2	30.1	19 7.3 + 42 27	6.7	6.8
	3155	18 37.2	+ 52 5	5.8	81.2	58.1		18 37.5 + 52 6		
03 5.8	~~Dm. 2527~~	~~19 7.7~~	~~+ 51 47~~	~~7.3~~	~~31.7~~	~~57.8~~	~~29.5~~	~~19 8.8 + 51 51~~	5.5	5.5
	~~2350~~	~~19 5.0~~	~~+ 52 12~~	~~6.2~~	~~29.0~~	~~58.2~~	~~26.7~~	~~19 6.1 + 52 16~~		
	Dm. 3325	19 18.4	+ 42 41	6.5	34.6	48.0	31.0	19 19.8 + 42 46	6.6	6.6
	~~2409~~	~~19 19.1~~	~~+ 52 46~~	~~7.5~~	~~35.3~~	~~58.1~~	~~29.9~~	~~19 20.2 + 52 51~~		
	Dm. 3212	18 54.9	+ 42 48	7.6	88.3	48.1	89.2	18 56.3 + 42 52	6.8	6.8
	~~Dm.~~ 3205	18 48.9	+ 52 49	5.6	85.5	58.1		18 49.2 + 52 50	5.9	6.2
	~~3267~~	~~18 51.6~~	~~+ 32 43~~	~~6.7~~	~~88.2~~	~~38.0~~	~~89.2~~	~~18 53.3 + 32 46~~	6.3	6.3
03 6.0	3187	18 44.0	+ 52 52	5.8	83.6	58.1		18 44.5 + 52 53	5.7	5.7
	~~3205~~	~~18 48.9~~	~~+ 52 49~~	~~5.6~~	~~88.5~~	~~58.0~~	~~92.1~~			
	Dm. 3138	18 55.5	+ 43 3	6.9	88.5	48.0	89.3	18 56.9 + 43 7	6.9	7.0
03 5.3	3268	19 2.2	+ 53 14	5.4	30.8	58.2	30.3	19 2.6 + 53 14	5.0	5.0
	3346	19 20.2	+ 43 9	6.0	35.8	48.0	31.9	19 20.8 + 43 12	6.7	6.6
	Dm. 3132	18 54.7	+ 43 31	7.0	88.3	48.1		18 56.1 + 43 35	6.4	6.4
	~~3287~~	~~18 55.6~~	~~+ 33 36~~	~~6.8~~	~~89.2~~	~~38.2~~	~~89.7~~	~~18 57.3 + 33 40~~		
	Dm. 3148	18 59.8	+ 43 39	6.8	89.6	48.1	89.5	19 1.2 + 43 43	6.7	6.7

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Plate 656.

	V.	H	Type	Lines	K	Focus	pro. Lines.	other Lines.	V	H	V	H
III	?5.8, 6.2, 7.0.	8.9	18.1	III	2369 Fe?	X3 2369	K=H	2	F	Weak Fem	4.4	36.2	53.7	54.4
		8.6	20.6	I		X9	K=2.2H		—	F	4.3	41.2	53.8	49.4
		8.2	14.9	I	I	X6 4	K=H	K=H 1	—	F	4.1	35.8	54.0	54.8
		8.0	15.9	I	I	X4 4	K=H	N 1 1	—	—	4.0	31.8	54.1	58.8
		7.9	18.5	I?		X4	K=H	1	—		4.0	37.0	54.1	53.6
		7.9	10.0	I		X6	N	2	—		4.0	20.0	54.1	70.6
		6.4	19.4	I	I	X5 6	N	N 1 1	—	—	3.2	38.8	54.9	57.8
		6.0	20.4	I	I	X2 3	N	N 1 1	—	—	3.0	40.8	55.1	49.8
		6.0	10.9	I	I	3 4	N	N 1 1	—	—	3.0	21.8	55.1	68.8
		5.5	15.4	III		X3	K=H 2	1	—	F	2.8	30.8	55.3	59.8
		5.0	14.8	I	I	X5 5	N	N 1 1	—	—	2.6	29.6	55.6	61.0
		5.0	17.4	I	I	X4 5	N	N 1 1	—	—	2.5	34.8	55.6	55.8
		5.5	20.5	I		X9	N	3	—	F	2.8	41.0	55.3	49.6
		4.0	7.0	I		X4	N	1	—		2.0	14.0	56.1	76.6
		3.0	12.3	III	2370 b	X3	K=H	1	—	F Fem	1.5	24.6	56.6	66.0
		3.0	15.8	I		X8	K=H 8	2	—	F	1.5	31.6	56.6	59.0
		3.0	17.5	I?		X4	N	1	—		1.5	35.0	56.6	55.6
		3.9	20.8	I		X6	K=H	1	—	F	2.0	41.6	56.1	49.0
		2.6	10.5	II?			K=H	1	—		1.3	21.0	56.8	69.6

Ant. of Fog. due to moon & clouds. Ant. of Fog. due to chemicals.

6.7 Plate 655. 7.0

	22.0	6.3	I?	X3	N	1	—		11.0	12.6	26.9	78.2
	22.4	12.1	I	X5	N	1	—		11.2	24.2	26.7	66.6
	22.1	17.6	I	X5	N	1	—		11.0	35.2	26.9	55.6
	21.5	18.9	IIa?	2371 X3	K=H	1	—	Fem	10.8	37.8	27.1	53.0
	20.6	7.5	I	X4	N	1	—		10.3	15.0	27.6	75.8
	20.1	10.9	II?	X2	K=H	1	—		10.0	21.8	27.9	69.0
	19.0	14.4	IIa?	2372 IIa? 2	K=H	1	—	Fem	9.5	28.8	28.4	62.0

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Mean 0

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of DHL stars to 1900	Cor. Br.	Br.
	32224	18 51.7	+ 43 48	4.4	87.9	48.2	89.6	18 52.3 +43 49	5.6	5.6
0363	Dm. 3175	18 40.9	+ 53 45	6.1	82.1	58.1		18 44.4 +53 47	6.0	6.0
	~~3085~~	~~18 44.9~~	~~+ 43 34~~	~~6.5~~	~~86.1~~	~~47.9~~	~~89.2~~	~~18 46.3 +43 37~~		
	Dm. 3017	18 51.6	+ 44 2	7.1	87.4	48.1	88.9	18 53.0 +44 5	6.6	6.5
	Dm. 3042	18 57.0	+ 44 10	7.2	88.8	48.2	89.3	18 58.4 +44 14	6.9	6.9
	~~Dm. 2042~~	18 47.3	+ 54 9	7.5	84.3	58.2		18 48.2 +54 12	6.8	6.8
	~~3112~~	~~18 49.1~~	~~+ 43 57~~	~~7.6~~	~~86.1~~	~~48.0~~	~~88.0~~	~~18 50.5 +44 0~~		
	Dm. 2123	19 16.4	+ 54 7	6.4	36.4	58.1	32.4	19 17.4 +54 12	5.9	5.9
	Dm. 3003	18 47.2	+ 44 57	7.2	86.0	48.2	88.5	18 48.6 +45 0	6.8	6.8
	Dm. 2777	18 44.4	+ 45 6	6.6	85.2	48.1	88.4	18 45.7 +45 9	7.0	7.1
	~~Dm. 2118~~	~~19 14.1~~	~~+ 54 2~~	~~8.0~~	~~35.9~~	~~57.0~~		~~19 15.1 +54 7~~		
	~~2886~~	~~19 11.1~~	~~+ 45 4~~	~~6.9~~	~~32.9~~	~~48.1~~	~~30.5~~	~~19 12.4 +45 9~~	7.0	7.2
	32[illegible]5	18 58.4	+ 55 29	5.7	89.2	58.3	89.5	18 58.8 +55 31	6.1	6.1
	Dm. 2825	19 0.3	+ 45 41	6.8	29.9	48.2	29.8	19 1.6 +45 45	6.4	6.4
	Dm. 2799	18 52.8	+ 45 40	7.0	87.6	48.2	89.0	18 54.0 +45 43	6.8	6.9
									6.9	7.1
0350	3166	18 40.3	+ 55 25	5.2	81.3	58.2		18 40.7 +55 26	4.7	4.7
	~~Dm. 2213~~	~~19 27.5~~	~~+ 55 50~~	~~6.3~~	~~41.5~~	~~57.8~~		~~19 28.5 +55 56~~		
	~~2539~~	~~19 18.9~~	~~+ 36 10~~	~~6.7~~	~~32.9~~	~~38.2~~	~~29.7~~	~~19 20.5 +36 15~~	6.8	6.8
	Dm. 3289	19 9.4	+ 56 39	5.2	34.0	58.1		19 9.7 +56 41	6.4	6.4
	~~2209~~	~~19 8.9~~	~~+ 56 38~~	~~5.5~~	~~33.5~~	~~58.1~~	~~31.0~~	~~19 9.8 +56 42~~	6.7	6.7
	32254	18 58.0	+ 46 47	5.0	89.6	48.3	90.1	18 58.6 +46 47	5.3	5.3
	Dm. 21585	18 52.4	+ 46 34	7.0	87.4	48.1	88.9	18 53.7 +46 37	7.2	7.2
	~~Dm. 3295~~	~~18 46.5~~	~~+ 36 20~~	~~6.3~~	~~88.1~~	~~38.4~~	~~90.3~~	~~18 48.1 +36 25~~	6.6	6.5
	Dm. 2551	18 42.9	+ 46 9	6.1	84.5	48.2	88.0	18 44.2 +46 12	6.9	6.9
	3311	19 13.4	+ 46 47	6.1	34.4	48.1	31.6	19 14.0 +46 49		

Mean 2

									Cor. Br.	Br.
	3337	19 19.0	+ 16 43	6.0	31.6	27.7	~~30.9~~	19 19.8 +16 45	6.8	6.6
	~~Dm. 3474~~	~~19 5.6~~	~~+ 26 30~~	~~7.4~~	~~29.8~~	~~37.7~~	~~29.3~~	~~19 7.4 +26 34~~		
	3775	19 6.1	+ 16 36	7.0	30.3	27.8	30.1	19 6.1 +16 40	6.7	6.5
	Dm. 3421	18 54.1	+ 26 46	7.5	89.3	37.8		18 55.9 +26 50	6.5	6.3
	~~2985~~	~~18 53.4~~	~~+ 36 53~~	~~7.0~~	~~88.6~~	~~47.9~~	~~89.6~~			
	32227	18 52.9	+ 17 12	6.2	90.7	28.0	91.1	18 53.8 +17 13	6.5	6.3
	~~Dm. 3432~~	~~19 17.6~~	~~+ 37 18~~	~~6.7~~	~~32.6~~	~~47.6~~	~~29.4~~	~~19 19.2 +37 23~~		
	~~3243~~	~~19 15.6~~	~~+ 17 29~~	~~7.0~~	~~30.6~~	~~27.8~~	~~29.8~~	~~19 17.8 +17 34~~	6.9	6.7
	~~Dm. 3398~~	~~19 11.4~~	~~+ 37 53~~	~~4.6~~	~~33.2~~	~~47.9~~	~~31.5~~	~~19 13.0 +37 58~~		
	Dm. 3307	19 9.2	+ 27 42	7.2	31.0	37.7		19 11.0 +27 46	6.6	6.4
	Dm. 3958	19 1.2	+ 18 19	7.5	30.0	27.8	30.0	19 3.2 +18 23	7.1	7.0

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Plate 655.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
19.0	14.6	I?	7	K=H	2	— F	9.5	29.2	28.4	61.6
17.8	11.8	I	5	K=H	1	—	8.9	23.6	29.0	67.2
17.0	6.9	I	8	N	2	— F	8.5	13.8	29.4	77.0
17.0	9.1	IIa 2373	2	K=H	1	— seen	8.5	18.2	29.4	72.6
16.7	18.6	I	5	N	1	—	8.4	36.2	29.5	54.6
17.5	23.3	I	7	K=.5H	2	— F	8.8	46.6	29.1	44.2
17.1	16.9	I	4	K=H	1	—	8.6	33.8	29.3	57.0
16.5	5.9	III?	3	K=H	1	— F	8.2	11.8	29.7	79.0
16.0	5.6	I	7	N	2	— F	8.0	11.2	29.9	79.6
15.6	6.0	I	5	N	1	—	7.8	12.0	30.1	78.8
15.6	6.8	IIa? 2374	2	K=H	1	— seen	7.8	13.6	30.1	77.2
15.1	13.3	I?	5	K=H		— F	7.6	26.6	30.3	64.2
15.3	10.8	III?	3	K=H		7 —	7.6	21.6	30.3	69.2
15.0	18.6	I	6	N	1	— —	7.5	37.2	30.4	53.6
15.0	20.5	IIa? 2375	2	K=H	1	— seen	seen 7.5	41.0	30.4	49.8
14.6	17.3	II	3	K=H	1	— F	7.3	34.6	30.6	56.2
14.1	9.6	I	6	K=H	1	—	7.0	19.2	30.9	71.6
13.9	10.8	I	7	K=.2H	2	—	7.0	21.6	30.9	69.2
13.9	10.5	II 2375a	3	K=H	1	— F seen	7.0	21.0	30.9	69.8
13.5	10.4	I	9	N	3	—	6.8	20.8	31.1	70.0
13.8	12.3	I	7	N	2	—	6.9	24.6	31.0	66.2
13.2	12.0	I 2376	6	N	2	—	6.6	24.0	31.3	66.8
13.8	16.2	IIa?	2	K=H	1	— seen	6.9	32.4	31.0	58.4
13.0	14.2	II	3	K=H	1	— F	6.5	28.4	31.4	62.4
13.4	21.5	I	7	N	2	—	6.7	43.0	31.2	47.8
13.7	23.2	II	3	N	1	— —	6.8	46.4	31.1	44.4
12.8	21.7	I	5	K=H	1	—	6.4	43.4	31.5	47.4
12.5	22.4	II?	3	K=H	2	— F	6.2	44.8	31.7	46.0
11.9	8.2	I	7	N		— F	6.0	16.4	31.9	74.4
12.0	24.2	III	3	K=H		— F	6.0	48.4	31.9	42.4

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Mean 2

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.	Br. cor.
	3267	19 1.9	+ 28 26	5.5	31.1	37.9	31.0	19 2.7 +28 28	5.8	5.6
	Dm. 3240	19 7.2	+ 28 59	7.0	30.8	37.9	30.0	19 9.0 +29 3	6.6	6.4
0.1 5.1	3342	19 19.4	+ 29 23	4.9	32.2	37.9	30.1	19 20.2 +29 26	5.0	4.8
	Dm. 3975	19 12.5	+ 19 21	6.8	30.7	27.9	30.0	19 14.5 +19 25	6.3	6.1
0.0 6.3	3228	18 53.5	+ 19 38	6.2	89.7	28.0	90.1	18 54.5 +19 39	6.3	6.1
0.0 6.0	3185	18 43.6	+ 19 12	5.9	90.2	28.0	91.2	18 44.6 +19 13	6.0	5.8
	Dm. 3444	18 55.7	+ 29 19	6.8	89.5	37.9	90.0	18 57.5 +29 23	6.3	6.1
	3347	19 20.2	+ 19 34	5.2	32.0	27.8	31.0	19 21.1 +19 37	6.0	5.8
0.0 5.8	33+6 51	19 21.0	+ 19 52	5.4	32.2	27.9	31.2	19 21.9 +19 54	6.1	5.9
	Dm. 4009	19 19.1	+ 19 20 0	6.6	31.1	27.8	30.0	19 21.1 +20 5	5.8	5.6
	Dm. 4008	19 17.4	+ 19 59	6.5	31.0	27.8	30.0	19 19.5 20 4	6.2	6.0
	Dm. 3442	19 3.8	+ 30 20	7.0	30.4	37.9	30.0	19 5.5 +30 24	6.2	6.0
	Dm. 3297	19 10.8	+ 30 19	6.2	32.4	37.9		19 11.5 +30 21	6.9 7.2 7.5	7.1 7.3 7.5
	4007	18 52.4	+ 20 25	6.8	89.6	27.9	90.1	18 54.3 +20 28	6.6	6.3
	Dm 3982	18 48.2	+ 20 11	6.8	89.2	27.7		18 50.1 +20 14		
	~~Dm. 3333 18 47.4 + 30 16 6.5 86.4 37.8 89.9 18 49.1 +30 19~~									
	~~3447 18 46.1 + 40 04 7.7 86.1 48.1 88.8 18 46.6 +40 37~~								6.7 6.6	6.4 ~~18 48.1 +20.2~~
	3245	18 56.2	+ 20 40	6.4	90.8	28.0	91.1	18 57.0 +20 42	6.5	6.3
	Dm. 3502	19 12.4	+ 30 45	6.9	31.6	37.8	30.1	19 14.1 +30 50	6.3	6.1
0.0 5.8	3294	19 10.1	+ 21 1	5.8	31.7	28.0	31.2	19 11.0 +21 3	5.8	5.6
	Dm. 3494	19 10.4	+ 30 59	6.9				19 12.1 +31 4		
	~~3495 19 10.4 + 30 47 6.8 31.4 37.8 30.2 19 12.1 +30 52~~								6.6	6.4
0.0 5.0	3300	19 11.1	+ 21 11	4.7	31.9	28.0	31.3	19 11.9 +21 13	5.0	4.8
0.1 6.1	3282	19 7.2	+ 31 5	5.7	31.8	38.0	31.1	19 7.9 +31 7	6.0	5.8
0.0 6.1	3283	19 7.5	+ 21 21	5.8	31.5	28.0	31.1	19 8.3 +21 23	6.1	5.9
	Dm. 3648	18 57.4	+ 21 3	6.7	89.8	27.9	90.0	18 59.3 +21 7	6.5	6.3
	3273	19 3.0	+ 21 30	6.2	31.4	28.0		19 3.7 +21 32	6.4	6.2
	~~3269 19 2.4 + 41 14 6.0 30.8 47.7 30.4~~									~~19 2.0 +21.5~~
0.0 5.6	3197	18 47.1	+ 21 17	5.5	90.1	28.0	91.0	18 48.0 +21 18	5.6	5.4
	Dm 3560	18 42.7	+ 21 6	7.1	89.1	27.8		18 44.6 +21 3	6.9	6.7
	~~3179 18 42.3 + 41 19 6.7 88.9 48.1 92.8~~									~~18 43.0 +21.0~~
	Dm. 3373	18 44.3	+ 31 28	7.0	87.7	37.9	89.7	18 46.0 +31 31	6.4	6.2
	3184	18 43.5	+ 31 38	5.8	88.3	37.8	90.5	18 44.2 +31 39	5.9	5.7
	Dm. 3740	19 14.7	+ 21 56	6.7	31.1	27.9	30.1	19 16.6 +22 1	6.4	6.2
	3266	18 [illegible]						18 49.7 +3 50		

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Plate 655.

V	H	Type	No. Lines	K	Focus	Other Lines		V	H	V	H
11.5	9.7	III?	3	K=H	1	—	F	5.8	19.4	32.1	71.4
11.5	14.1	IIa?	3	K=H	2	—	F eem	5.8	28.2	32.1	62.6
11.1	14.6	II	3	N	1	—	—	5.6	29.2	32.3	61.6
11.8	17.0	I	5	K=H	2	—		5.9	34.0	32.0	56.8
12.0	17.3	III	3	K=H	1	—	F	6.0	34.6	31.9	56.2
11.0	17.7	I	13	N	5	—		5.5	35.4	32.4	55.4
11.0	20.3	II?	3	K=H	2	—	F	5.5	40.6	32.4	50.2
11.0	21.5	I	7	N	2	—	F	5.5	43.0	32.4	47.8
10.5	18.5	Ia 2378	3	K=H	2	—	F eem	5.2	37.0	32.7	53.8
10.3	9.7	I?	6	N	2	—		5.2	19.4	32.7	71.4
10.0	17.6	II	4	K=H	1	—	—	5.0	35.2	32.9	55.6
9.6	15.7	II? IIa 2378a	2	K=H	1	—	eem	4.8	31.4	33.1	59.4
9.5	9.2	I?	4	N	1	—		4.8	18.4	33.1	72.4
9.0	16.4	I	8	N	1	—	F	4.5	32.8	33.4	58.0
9.5	21.4	II? 2379	3	K=H	5	—	F	4.8	42.8	33.1	48.0
8.0	14.8	I	8	K=2H	2	—	F	4.0	29.6	33.9	61.2
8.4	19.3	I?	4	K=H	1	—		4.2	38.6	33.7	52.2
6.9	13.5	II	7	N	2	—	—	3.4	27.0	34.5	63.8
7.0	14.1	I?	5	N	1	—	F	3.5	28.2	34.4	62.6
6.4	11.2	I	3	N	1	—		3.2	22.4	34.7	68.4
6.0	8.7	I	6	N	1	—		3.0	17.4	34.9	73.4
4.7	16.2	I? I?	3 H	N	1	—	—	2.4	32.4	35.5	58.4
4.2	14.1	I b 2380	8	N	2	—	F eem	2.1	28.2	35.8	62.6
4.0	12.0	I	5	N	1	—		2.0	24.0	35.9	66.8
3.5	11.5	II? IIa? 2380a	2	K=H	1	—	eem F	1.8	23.0	36.1	67.8
3.8	7.4	I	7	N	2	—		1.9	14.8	36.0	76.0
3.6	6.5	I	6	K=H	2	—		1.8	13.0	36.1	77.8
3.9	17.1	I	6	N	2	—		2.0	34.2	35.9	56.6
3.1	20.4	I	6	N	1	—		1.6	40.8	36.3	50.0
			7	K=.5H							

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Mean 2

½cosδ	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to D.M. start to 1900	Br.	Bv	cov.
	Dm. 3647	19 11.5	+ 22 11	7.5	30.9	28.0	30.2	19 13.4 +22 16	6.5 6.7	6.3 6.5	
	3271	19 2.9	+ 32 18	4.9	31.1	38.1	30.9	19 3.7 +32 20	5.4	5.2	
	Dm. 3594	19 1.0	+ 22 21	7.0	30.2	28.0	30.2	19 2.9 +22 25	7.1 7.2	7.0	
	D.M. 3561	18 55.7	+ 22 4	6.5	89.7	28.0	90.0	18 57.6 +22 8	6.4	6.2	
	~~3241~~	~~18 55.5~~	~~+ 31 59~~	~~5.1~~	~~89.5~~	~~37.9~~	~~90.1~~		6.2	6.0	
	3241	18 55.5	+ 31 59	5.1	90.1	38.0	~~90.1~~	18 56.3 +32 0	6.6	6.4	
	3232	18 54.5	+ 32 32	3.3	89.9	38.0	90.1	18 55.2 +32 33	B.	B	
	3209	18 49.7	+ 22 32	4.6	90.3	38.0	90.9	18 50.5 +22 32	5.5	5.3	
0.1 5.4	3192	18 45.4	+ 32 26	5.1	88.4	37.9	90.4	18 46.2 +32 26	5.3	5.1	
	3225	18 52.5	+ 32 47	5.3	89.5	38.0	90.6	18 53.3 +32 47	5.7	5.5	
	3308	~~18~~ 19	12.7	+ 22 48	5.6	32.1	28.0	31.3	19 13.5 +22 51	5.6	5.4
	Dm. 3287	18 53.6	+ 32 56	7.4	88.8	37.9	89.6	18 55.3 +32 59	6.6 6.7	6.5	
	Dm. 3549	18 58.6	+ 23 7	6.9	90.0	27.9	90.1	19 0.5 +23 11	6.8 6.8	6.6	
	Dm. 3409	19 13.6	+ 33 8	6.8	32.0	37.9	30.1	19 15.3 +33 13	6.2	6.0	
0.1 6.0	3250	18 57.4	+ 33 27	6.1	90.2	37.9	90.6	18 ~~56.8~~ 57.2 +33 ~~37~~ 29	5.9	5.7	
	3193	18 45.6	+ 33 13	3.6	88.4	38.0	90.5	18 46.3 +33 15	4.0	3.8	
0.0 5.8	3265	19 1.6	+ 24 4	5.6	31.2	28.1	31.2	19 1.9 +24 6	5.8	5.6	
	~~Dm.~~ 3217	18 50.5	+ 33 49	6.0	89.1	38.0		18 51.2 +33 51	6.3	6.1	
	~~3404~~	~~19 13.1~~	~~+ 33 41~~	~~7.7~~	~~31.7~~	~~37.9~~	~~49.8~~	~~19 14.8 +33 46~~			
0.1 6.4	3275	19 4.4	+34 33	6.6				19 5.1 +34 35	6.4 6.3	6.1	
	3276	19 4.7	+ 34 23	6.6	31.7	37.8	31.2	19 5.4 +34 26		3.8 +34 22	
	Dm. 3650	19 2.0	+ 24 30	6.5	30.2	28.0	30.1	19 3.9 +24 34	6.2	6.0	
	Dm. 3687	19 8.3	+ 24 46	7.4	30.7	28.0	30.1	19 10.2 +24 50	6.8	6.6	
0.1 6.1	3324	19 16.2	+ 34 58	6.1	33.6	38.0	31.3	19 16.9 +34 50	6.0	5.8	
	Dm. 3710	18 57.4	+ 25 37	7.3	89.8	28.0	90.0	18 59.2 +25 41	6.8 7.0	6.8	
0.1 5.4	3272	19 3.0	+ 35 55	5.2	31.2	38.0	30.9	19 3.7 +35 56	5.3	5.1	
	Dm. 3523	19 7.2	+ 35 56	6.8	31.2	37.9	30.1	19 8.8 +36 0	6.7	6.5	
	3290	19 9.6	+ 36 13	6.9	32.6	38.0		19 10.3 +36 14	6.8 7.2	7.0	
0.1 5.6	3329	19 17.9	+ 26 2	5.0	32.7	27.9	31.1	19 18.7 +26 4	5.5	5.3	
	~~Dm. 3539~~	~~19 18.9~~	~~+ 36 10~~	~~6.7~~	~~31.9~~	~~38.0~~	~~28.6~~	~~19 20.5 +36 15~~			
	3557	19 20.9	+ 36 2	5.0	33.9	37.8	30.6	19 22.6 +36 7	5.3	5.1	
	~~3429~~	~~18 55.4~~	~~+ 26 5~~	~~6.2~~	~~89.6~~	~~28.1~~					
0.1 6.1	~~3236~~	~~18 54.9~~	~~+ 26 4~~	~~5.3~~	~~89.1~~	~~28.1~~	~~89.5~~		6.0	5.8	
	3246	18 56.4	+ 26 7	5.5	90.6	28.1		18 57.2 +26 9			
	Dm. 3295	18 46.5	+ 36 22	6.3	87.3	38.0	89.4	18 48.1 +36 25	6.3	6.1	
	3207	18 43.6	+ 36 49	5.3				18 44.2 +36 51			

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Anct. of Fog. due to moon & clouds. 8.4 Anct. of Fog. due to chemicals. 8.3.

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Plate 690.

V	H.	Type	Iro. Lines	K	Focus	other Lines	V	H	V	H
17.2	13.2	III	2	K=H	1	—	8.6	26.4	24.4	23.4
17.3	19.4	I?	X5	K=H	1	—	8.6	38.8	24.4	11.0
14.0.	15.8	I	X6	N	1	— F	7.0	31.6	26.0	18.2
12.5	15.5	I	X4	K=H	1	—	6.4	31.0	26.6	18.8
10.8	12.3	III	Iro 2381 X3	K=H	2	— F bright lines seen	5.4	24.6	27.6	25.2
10.5	7.9	I?	X4	K=H	1	—	5.2	15.8	27.8	34.0
7.5	15.2	I	X6	N	1	— F	3.8	30.4	29.2	19.4
7.0	10.6	I	X5	N	1	—	3.5	21.2	29.5	28.6
6.5	14.5	I	X	N	1	—	3.2	29.0	29.8	20.8
3.8	19.1	I	5	N	1	—	1.9	38.2	31.2	11.6

Anct. of Fog. due to moon & clouds. 8.3. Anct. of Fog. due to chemicals. 8.2

Plate 695.

20.0	13.8	I?	X5	K=H	1	—	10.0	27.6	38.1	23.3	
23.3	18.5	I	X4	N	1	—	11.6	37.0	36.5	13.9	
23.0	19.0	I	X3	N	1	—	11.5	38.0	36.6	12.9	
22.7	21.1	I	X3	N	1	—	11.4	42.2	36.7	8.7	
19.2	12.8	I	X7	N	2	— F	9.6	25.6	38.5	25.3	
18.3	13.7	I?	3	N	1	—	9.2	27.4	38.9	23.5	
18.1	16.6	I?	X3	N	1	—	9.0	33.2	39.1	17.7	
16.7	15.8	IIro? 2382	X3	K=1.5 H	4	F Bright lines seen	8.4	31.6	39.9	19.3	Peculiar spectrum.
16.2	8.9	I	X5	N	1	—	8.1	17.8	40.0	33.1	
15.9	9.2	I	X4	N	1	—	8.0	18.4	40.1	32.5	
13.5	8.4	I	X5	N	1	F —	6.8	16.8	41.8	34.1	
11.7	23.2	I	4	N	1	—	5.8	46.4	42.3	4.5	
10.5	19.9	I I	X3 3	N N	1 1	— —	5.2	39.8	42.9	11.1	
10.0	14.4	I?	3	N	1	—	5.0	28.8	43.1	22.1	
6.7	8.8	Iro? 2383	X16	K=.2H	5	F	3.4	17.6	44.7	33.3	
6.3	16.0	I?	X5	K=H	1	—	3.2	32.0	44.9	18.9	

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Mean 13

½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.	Br. cor.
	3357	19 23.7	+ 24 25	4.7	50.1	33.0	49.3	19 24.6	+24 28	6.8 7.2	5.5 5.9
	Dm. 3852	19 9.8	+ 14 17	5.9	48.6	22.9	46.9	19 11.9	+14 22	6.8	5.5
0162.	3329	19 17.9	+ 26 .2	5.0	49.5	33.0	49.7	19 18.7	+26 4	6.1	4.8
	3337	19 19.0	+ 16 43	6.0	50.0	23.1	50.0	19 19.8	+16 45	7.1	5.8
	3362	19 25.9	+ 27 43	3.0	50.5	33.1	49.9	19 26.7	+27 45	5.0 5.8	3.7 4.0
	3399	19 34.7	+ 17 44	4.3	50.5	22.9	49.8	19 35.6	+17 47	6.7	5.4
0160	3342	19 19.4	+ 29 23	4.9	49.8	33.2	49.8	19 20.2	+29 26	5.9	4.6
0063	3372	19 29.3	+ 19 31	5.0	50.5	23.0	50.0	19 30.2	+19 33	6.3	5.0
0067	3351	19 21.0	+ 19 52	5.4	50.0	23.1	50.0	19 21.9	+19 54	6.7	5.4
0062	3300	19 11.1	+ 21 11	4.7	49.3	23.1	49.9	19 11.9	+21 13	6.2	4.9

Mean 15

											Br. cor.
	3578	20 23.1	+ 38 3	5.5	50.7	48.0	50.2	20 23.9	+38 7	6.8	5.3
Dm.	3528	20 9.9	+ 46 23	3.8	46.9	58.0		20 10.5	+46 26		
	~~3978~~	~~20 11.1~~	~~+ 36 37~~	~~6.6~~	~~48.7~~	~~48.2~~	~~49.4~~	~~20 12.3~~	~~+36 45~~		
	3529	20 10.1	+ 36 27	5.0	48.1	47.9		20 10.8	+36 30		
	~~3528~~	~~20 9.9~~	~~+ 46 23~~	~~3.5~~	~~49.9~~	~~57.9~~	~~50.1~~				
	3513	20 5.0	+ 36 29	4.8	47.2	47.9	49.7	20 5.8	+36 33		
0262	3587	20 26.3	+ 48 38	5.0	51.9	58.2	50.4	20 26.9	+48 37	6.0	4.5
	3579	20 23.3	+ 48 59	5.6	50.7	58.2	49.8	20 24.0	+49 3	7.0	5.5
	Dm. 4021	20 15.0	+ 38 57	6.8	48.2	48.0	48.9	20 16.6	+39 5	7.4	5.9
	3564	20 17.9	+ 39 52	2.3	49.5	48.3	49.8	20 18.6	+39 56	4.2	2.7
H.P. .8636	~~Dm. 3272~~	~~20 37.2~~	~~+ 59 60~~	~~6.2~~	~~55.0~~	~~68.1~~	~~49.8~~	~~20 38.2~~	~~+60 10~~		
0288	3353	20 37.7	+ 49 49	5.7	56.5	57.9	51.3	20 39.1	+49 51	6.6	5.1
0170	3625	20 35.2	+ 40 9	6.1	53.6	48.2	50.8	20 35.9	+40 13	6.9	5.4
0270	3632	20 37.6	+ 41 17	6.5	54.4	48.1	51.1	20 38.3	+41 22	6.8	5.3
	3463	19 52.5	+ 52 7	4.8	98.9	57.9		19 53.1	+52 11		
0366	~~Dm. 3707~~	~~20 1.2~~	~~+ 32 11~~	~~8.2~~	~~47.6~~	~~38.0~~	~~45.0~~				
	3715	20 2.3	+ 32 10	7.7	48.4	38.0	51.3	20 4.1	+32 13	6.3	4.8
D426 23 ←	~~Dm. 3641~~	~~20 6.0~~	~~+ 52 39~~	~~7.3~~	~~5.9~~	~~48.8~~	~~47.8~~	~~20 7.5~~	~~+52 47~~	3.6	2.5
	~~Dm. 3644~~	~~20 8.8~~	~~+ 42 6~~	~~6.4~~	~~48.6~~	~~48.1~~	~~51.2~~	~~20 10.3~~	~~+43 4~~		
	3636	20 7.5	+ 42 40	8.1	47.3	47.9	49.9			7.1	5.2
	Dm. 2397	20 20.6	+ 53 5	6.2	49.4	58.1		20 21.8	+53 14	7.2	5.7
	~~3914~~	~~20 22.4~~	~~+ 33 24~~	~~7.2~~	~~51.2~~	~~38.4~~	~~50.9~~				
	3631	20 37.3	+ 44 51	1.5	54.9	48.2	51.4	20 38.0	+44 56	B	B
	3556	20 15.5	+ 55 1	5.7	43.5	58.2		20 15.9	+55 5		
	~~Dm. 4076~~	~~20 17.0~~	~~+ 35 2~~	~~8.4~~	~~47.0~~	~~38.2~~	~~49.4~~				
	~~4080~~	~~20 17.6~~	~~+ 35 13~~	~~8.2~~	~~49.6~~	~~38.4~~	~~50.3~~	~~20 19.3~~	~~+35 22~~	6.9	5.4

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Plate 695

x	H	Type	No. Lines	K	Focus	other Lines.		V	H	V	H
5.0	12.9	I	I 4	4N	N	1	1	—	—	2.5	25.8	45.6	25.1
4.0	14.4	I	7	K=.2H		2		—	F	2.0	34.8	46.1	16.1
3.5	18.5	I	6		K=.5H	1		—		1.8	37.0	46.3	13.9
3.6	11.4	I	3	N		1		—		1.8	22.8	46.3	28.1

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.8 Plate 694. 7.0

16.0	13.3	IIa 2384	3	K=H		3		—	Fcen	8.0	26.6	20.0	24.2
14.5	9.2	I	6	N		2		—		7.2	18.4	20.8	32.4
14.7	11.2	I? I?	2 3	N	N	1	1	—	—	7.4	22.4	20.6	28.4
13.5	9.8	I	4	N		1		—		6.8	19.6	21.2	31.2
12.5	15.6	III	3	K=H		1		—	F	6.4	31.2	21.6	19.6
8.9	6.3	III fe 2385 = 3	K=	=1.5H		2		—	F bright cen	4.4	12.6	23.6	38.2
8.7	9.2	I	5	N		1		—		4.4	18.4	23.6	32.4
8.0	16.8	IIa? 2386	2	K=H		1		—	cen	4.0	33.6	24.0	17.2
6.9	14.6	I?	2	N		1		—		3.4	35.2	24.6	15.6
5.6	19.8	I	6	N		2		—		2.8	39.6	25.2	11.2
3.6	5.9	I	5	N		1		—		1.8	11.8	26.2	39.0
3.0	19.2	I	5	N		1		—		1.5	38.4	26.5	12.4
9.1	23.8	I	5	N		1		—		4.6	47.6	23.4	3.2

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

~~8.0~~ 8.5 Plate 719 ~~7.5~~ 8.4

19.1	14.3	III fe 2387	3	K=1.5H		3		F	bright. cen	9.6	28.6	43.4	41.1
19.0	12.6	I	5		K=.5H	1		—		9.5	25.2	43.5	44.5
18.3	11.5	I h? 2388	6	N		2				9.2	23.0	43.8	46.7
16.7	15.7	Ib? 2389	16		K=.2H			F	cen	8.4	31.4	44.6	38.3
14.6	8.8	IIa 2390	2		K=H	1			cen	7.3	17.6	45.7	52.1
14.0	13.7	I	7	N		3			F	7.0	27.4	46.0	42.3
13.5	18.1	I	4	N		1		—		6.8	36.2	46.2	33.5

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Mean 15

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900		Br.	Bv
	Dm.										
	3196	20 25.2	+ 45 27	6.6	51.0	47.9	49.7	20 26.7	+45 36	6.9	5.4
0.3 6.0	~~3532~~	~~20 10.6~~	~~+ 56 12~~	~~4.4~~	~~45.4~~	~~58.2~~		20 12.1	+56 16		
	~~3139~~	~~20 14.2~~	~~+ 45 57~~	~~6.6~~	~~49.0~~	~~47.9~~	~~60.4~~	20		5.7	4.2
	3527	20 9.5	+ 46 27	4.9	46.5	48.2		20 10.2	+46 31		
0.2 6.5	~~3528~~	20 9.9	+ 46 23	3.8	46.9	48.2		20 10.5	+46 36		
	~~3532~~	~~20 10.6~~	~~+ 56 12~~	~~4.4~~	~~47.6~~	~~58.0~~	~~50.7~~			6.3	4.8
0.2 7.3	3601	20 30.3	+ 46 17	5.6	53.1	48.1	50.9	20 30.6	+46 21	7.1	5.6

Mean 12

	3583	20 24.5	+ 29 58	4.1	51.1	38.0	50.7	20 25.3	+30 2	5.4	4.2
0.0 6.0	3616	20 33.2	+ 20 47	4.8	51.6	28.0	50.9	20 34.0	+20 51	6.0	4.8
	Dm. 4629	20 27.7	+ 20 29	6.2	60.1	27.9	49.6	20 29.7	+20 38	7.1	5.9
0.1 7.0	3610	20 32.6	+ 31 9	6.3	52.2	38.0	50.7	20 33.4	+31 13	6.9	5.7
	3611	20 32.7	+ 31 6	6.4	52.3	37.9		20 33.5	+31 10	6.6	5.4
	3569	20 19.1	+ 31 48	4.6	50.3	38.2	50.5	20 19.9	+31 52	7.2	6.0
	3648	20 41.4	+ 33 31	2.7	54.0	37.9	51.0	20 42.1	+33 36	5.3 5.5	4.1 4.3
0.0 6.5	3619	20 33.3	+ 23 42	5.1	51.7	28.1	50.7	20 34.2	+23 46	6.5	5.3
	3560	20 16.9	+ 24 4	5.4	50.5	28.1	50.8	20 17.7	+24 7	6.7	5.5
	3551	20 14.0	+ 34 37	5.2	49.2	38.0	50.1	20 14.8	+34 40	7.3	6.1
0.1 6.3	3530	20 10.2	+ 25 14	4.8	49.8	28.0	50.7	20 11.0	+25 17	6.2	5.0
0.1 6.1	3655	20 42.7	+ 36 3	4.6	54.5	37.8	50.9	20 43.5	+36 8	6.0	4.8
	3529	20 10.1	+ 36 27	5.0	48.5	37.9		20 10.8	+36 30		
0.1 6.6	~~3528~~	~~20 9.9~~	~~+ 46 23~~	~~3.8~~	~~48.3~~	~~47.7~~	~~50.9~~			6.5	5.3
0.0 6.0	3500	20 1.7	+ 23 16	5.3	49.3	27.9	50.8	20 2.5	+23 19	6.0	4.8

Mean 14

	3648	20 41.4	+ 33 31	2.7	70.0	33.1	69.8	20 20 42.1	+33 36	5.2 5.5	3.8 4.1
0.2 6.8	3665	20 ~~43.6~~ 45.9	+ 43 36	5.0	68.8	43.1	67.5	20 46.6	+43 41	6.6	5.2
0.2 6.4	3673	20 49.0	+ 43 56	4.6	72.0	53.1	70.2	20 49.7	+44 0	6.2	4.8
	3631	20 37.3	+ 44 51	1.5	68.7	53.2	69.1	20 38.0	+44 56	B.	B
	3705	20 57.0	+ 45 41	5.2	74.6	53.0	70.9	20 57.6	+45 46	6.5	5.1
0.1 5.7	3655	20 42.7	+ 36 3	4.6	70.1	43.0	69.7	20 43.5	+36 8	5.6	4.2
0.2 7.0	3601	20 30.3	+ 46 17	5.6	66.5	53.1	68.3	20 30.6	+46 21	6.8	5.4

* Spectra superposed on plate. Meas. of brightness combined light of both.

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Plate 719.

V	H	Type	No. Lines	K	Focus	other Lines.		V	H	V	H
12.0	9.3	I	~~2~~ 5	~~K=H~~	1	—		6.0	18.6	47.0	51.1
19.0	19.2	I	2390a ~~I~~ 6	N	2 2	— —		4.5	38.4	48.5	31.3
6.5	15.1	I	~~4~~ 5	N	1	—		3.2	30.2	49.8	39.5
6.1	9.9	I	3	N	1	—		3.0	19.8	50.0	49.9
6.4	23.2	2391 ~~I~~ III b?	2 3	~~K=H~~ K=2H	4	—	F	3.2	46.4	49.8	23.3
4.8	9.9	I	~~8~~ 8	~~K=H~~ K=2H	3	—		2.4	19.8	50.6	49.9

Peculiar spectrum.

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

8.0 Plate 718. 7.5

18.7	18.2	I	6	N	2	—		9.4	36.4	13.5	33.9
17.6	19.1	2392 II a	~~X~~ 3	K=H	3	—	F scum	8.8	38.2	14.1	32.1
17.4	20.2	I	~~X~~ 5	N	2	—		8.7	40.4	14.2	29.9
16.6	16.2	I	6	~~K=H~~	2	—	F	8.3	32.4	14.6	37.9
15.0	18.0	I	8	~~N~~	3	—		7.5	36.0	15.4	34.3
14.5	14.6	III	3	~~K=H~~	1	—	F	7.2	29.2	15.7	41.1
14.0	18.6	I	~~3~~ 4	N	1	—		7.0	37.2	15.9	33.1
5.8	14.6	III	~~X~~ 3	~~K=H~~	1	—	F	2.9	29.2	20.0	41.1
6.1	21.7	2393 II a	~~4~~ 2	K=H	2	—	scum	3.0	43.4	19.9	26.9
4.5	18.3	I	~~1~~ 7	~~K=H~~ K=2H	2	—		2.2	36.6	20.7	33.7

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Mean 14

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to 1900	Br.	cor. Br.	
	3701	20 55.7	+ 47 3	4.6	74.3	53.0	70.7	20 56.4 +47 8	6.4	5.0	✓
02 6.4	3587	20 26.3	+ 48 33	5.0				20 26.9 +48 37			
	~~3595~~	~~20 27.6~~	~~+ 48 49~~	~~5.6~~	~~66.0~~	~~53.3~~	~~68.8~~	~~20 28.2 + 48 53~~	6.2	4.8	✓
02 6.7	3636	20 38.5	+ 49 55	5.4	68.7	53.1	68.8	20 39.1 + 49 59	6.5	5.1	✓
02 7.1	3698	20 54.6	+ 50 0	5.5	73.4	53.0		20 55.3 + 50 4	6.9	5.5	✓
	~~3686~~	~~20 52.6~~	~~+ 50 16~~	~~5.9~~	~~72.4~~	~~53.3~~	~~68.7~~			~~20 54.0 + 49.8~~	
	3564	20 17.9	+ 39 52	2.3	64.3	43.1	68.1	20 18.6 +39 56	4.8	3.4	✓
02 5.5	3687	20 52.7	+ 40 42	4.1	72.5	43.1	70.0	20 53.5 +40 47	5.3	4.9	✓

Mean 12

00 6.5	3619	20 33.3	+ 23 42	5.1	69.7	33.1	70.2	20 34.2 +23 46	6.5	5.3	✓
	3605	20 31.9	+ 14 11	3.7	70.1	23.0	70.4	20 32.8 +14 15	5.8	4.6	✓
00 6.3	3600	20 29.7	+ 14 16	4.7	70.1	23.0	70.4	20 30.6 +14 20	6.3	5.1	✓
	3635	20 37.9	+ 14 39	4.6	70.3	22.9	70.3	20 38.8 +14 43	5.9	4.7	✓
00 4.7	3624	20 34.1	+ 15 29	4.0	70.1	23.0	70.4	20 35.0 +15 33	4.7	3.5	✓
	3645	20 41.1	+ 15 42	4.2	70.3	22.9	70.3	20 42.0 +15 46	6.3	5.1	✓
	3646								6.5	5.3	
01 7.0	3606	20 32.0	+ 26 3	5.6	69.2	33.0	69.9	20 32.8 +26 7	6.9	5.7	✓
	3643	20 40.7	+ 30 17	4.3	69.9	33.2		20 41.6 +30 21	6.8	5.6	✓
	~~4467~~	~~20 39.8~~	~~+ 30 11~~	~~4.3~~	~~69.0~~	~~33.1~~	~~69.9~~	~~20 41.7 30 21~~	7.2	6.0	✓
	3583	20 24.5	+ 29 58	4.1	67.9	33.0	69.7	20 25.3 +30 2	5.9	4.7	✓
00 6.0	3616	20 33.2	+ 20 47	4.8	69.8	23.0	70.2	20 34.0 +20 51	6.0	4.8	✓

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Anct. of Fog. due to moon & clouds. 6.5 Anct. of Fog. due to chemicals. 6.7

Pos Plate. Hand & measure.

November 22, 1886.

Plate #5.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.
III 5.7, 6.2.	16.8	11.5	IIIc	2394 3	K=H	2	F bright rem	8.4	23.0	29.6	66.7
	16.6	13.4	IIa?	2395 2	K=H		— rem	8.3	26.8	29.7	62.9
III? 5.4, 5.8.	9.0	22.7	IIIc?	2395a 3	K=2.H	2	— F. bright rem	4.5	45.4	33.5	44.3
	4.0	21.8	I	5	N	2	— F	2.0	43.6	36.0	46.1

Anct. of Fog. due to moon & clouds. 7.7 Anct. of Fog. due to chemicals. 7.3

Plate #6.

	21.3	10.9	IIa?	2396 3	K=H	2	F rem	10.6	21.8	37.6	66.9
	18.6	9.9	I	6	N	2	F	9.3	19.8	38.9	68.9
	16.5	16.4	IIa	2397 2	K=H	1	rem	8.2	32.8	40.0	55.9
	16.5	21.7	IIa?	2398 2	N	1	rem	8.2	43.4	40.0	45.3
	15.2	17.6	I	9	K=2H	3	F	7.6	35.2	40.6	53.5
	13.5	17.0	III?	2	K=H	1	—	6.8	34.0	41.4	54.7
	12.0	10.0	I	2	N	1	—	6.0	20.0	42.2	68.7
	10.5	12.7	IIa?	2399 2	K=H	1	rem	5.2	25.4	43.0	63.3
III? 6.6, 6.9.	9.8	14.6	III	3	K=H	1	F	4.9	29.2	43.3	59.5
	9.6	9.7	I	2	K=H	1	—	4.8	19.4	43.4	69.3
	9.3	19.9	I?	6	K=5H	1	—	4.6	39.8	43.6	48.9
	8.8	18.8	I	5	N	2	—	4.4	37.6	43.8	51.1 48.1
	4.8	17.5	I	13	N	1	—	3.9	35.0	44.3	53.7
	6.8	22.8	I?	12	K=5H	5	F rem	8.4	45.6	44.8	43.1
	5.3	15.8	I	5	N	1	—	2.6	31.6	45.6	57.1
	2.5	16.2	I?	3	N	1	—	1.2	32.4	47.0	56.3

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½ cosδ.

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.
3732	21 7.8	+29 44	3.5	30.8	38.1	29.9	21 8.7 +29 49	5.5 5.9
3724	21 3.6	+29 43	5.5	30.4	38.0	29.9	21 4.4 +29 48	6.8
3648	20 41.4	+33 31	2.7	86.8	38.0	89.5	20 42.1 +33 36	5.0 5.4
3655	20 42.7	+36 3	4.6	86.3	38.0	88.9	20 43.5 +38 8	5.6

Mean 14

cor. Br.

3741	21 10.0	+37 32	3.9	31.6	48.1	30.2	21 10.8 +37 36	5.7	4.3	
3745	21 12.7	+38 53	4.3	32.5	48.2	30.2	21 13.5 +38 58	5.6	4.2	
3698	20 56.6	+50 0	6.5	87.4	58.2	88.4	20 55.2 +50 4	6.5	5.1	
~~Dm.~~ 3636	20 38.5	+49 55	5.4	81.9	58.1	20 39.1 +49 59				
~~4185~~	20 42.6	+30 15	7.5	86.0	38.4	87.8	20 44.5 +30 25			
3641	20 40.1	+60 10	6.2	83.5	68.4	90.2		6.5	5.1	20 38.0 +49.8
3687	20 52.7	+40 42	4.1	87.9	48.3	89.2	20 53.5 +40 47	6.1	3.7	
Dm. 3949	20 53.2	+41 23	6.9	87.2	48.2	88.2	20 54.9 +41 33	6.9 7.3	5.5 5.9	
~~Dm. 2847~~	~~21 9.4~~	~~+52 7~~	~~7.1~~	~~29.4~~	~~58.1~~	~~25.5~~				
3746	21 12.8	+42 11	6.0	32.8	48.2	30.3	21 13.6 +42 16	7.3	5.9	
3730	21 6.5	+53 4	5.7	31.9	58.3	30.3	21 7.1 +53 9	6.6	5.2	
3716	21 0.6	+43 27	3.7	29.8	48.3	29.6	21 1.3 +43 32	6.7 7.2	5.3 5.8	
3750	21 14.1	+43 26	5.0	33.5	48.2		21 14.8 +43 31			
~~3748~~	~~21 13.3~~	~~+53 30~~	~~6.0~~	~~32.9~~	~~58.3~~	~~28.4~~		6.3	4.9	21 13.4 +43.4
3665	20 45.9	+43 36	5.0	85.7	48.2	88.4	20 46.6 +43 41	6.1	4.7	
3673	20 49.0	+43 56	4.6	88.6	48.3	88.8	20 49.7 +44 0	5.7	4.3	
Dm. 3639	20 51.5	+44 23	6.7	86.5	48.3	87.8	20 53.1 +44 33			
~~3694~~	~~20 54.0~~	~~+44 0~~	~~5.9~~	~~89.0~~	~~47.9~~	~~90.4~~		7.1	5.7	
3631	20 37.3	+44 57	1.5	82.9	48.3	87.4	20 38.0 +44 56	B.	1.3	
3705	20 57.0	+45 41	5.2	88.6	48.3	89.1	20 57.6 +45 46	6.5	5.1	
3701	20 55.7	+47 3	4.6	88.1	48.2	88.9	20 56.4 +47 8			

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Amt. of Fog due to moon & clouds 7.6

Amt. of Fog due to chemicals 7.8

December 21. 1886.

Plate 905.

T	T4	Type	No. Lines	K	Focus	other lines		V	H	V	H
19.9	9.4	I	4	N	1	—		10.0	18.8	38.0	51.6
18.7	21.1	III	2	K=H	1	—		9.4	42.2	38.6	28.1
19.3	9.9	I	5	N	1	—		9.6	19.8	38.4	50.5
18.1	16.8	I	7	K=H	1	—		9.0	33.6	39.0	36.7
17.0	6.4	I	4	N	1	—		8.5	12.8	39.5	57.5
16.9	13.4	I?	4	K=H	1	—		8.4	26.8	39.6	43.5
16.8	19.8	I	7	N	2	—		8.4	39.6	39.6	30.7
16.4	18.7	I	I 5 6	N N	1 1	—	—	8.2	37.4	39.8	32.9
16.0	14.5	I	8	N	2	—		8.0	35.0	40.0	35.3
15.9	10.1	I	? I ? 4 5	K=H	1 1	—	—	8.0	20.2	40.0	50.1
15.6	13.2	I	I 3 4	N N	1 1	—	—	7.8	26.4	40.2	43.9
15.4	11.0	I	5	N	1	—		7.7	22.0	40.3	48.3
14.6	15.0	I	5	N	1	—		7.3	30.0	40.7	40.3
15.1	16.2	I	? I ? 4 3	K=H N	1 1	—	—	7.6	32.4	40.4	37.9
14.3	16.4	I	I 5 5	N K=H	1 1	—	—	7.2	32.8	40.8	37.5
13.9	14.0	IIa	1446 2	K=H	1	seen		7.0	28.0	41.0	42.3
13.0	8.5	I	7	N	1	—		6.5	17.0	41.5	53.3
13.0	8.8	II	II 2 2	K=H K=H	1 1	—	—	6.5	17.6	41.5	52.7
13.0	13.4	I	3	N	1	—		6.5	26.8	41.5	43.5
13.3	16.2	III	2	K=H	1	—		6.6	32.4	41.4	37.9
12.5	9.6	I	6	N	1	—		6.2	19.2	41.8	51.1
12.2	7.9	II	2	K=H	1	—		6.1	15.8	41.9	54.5
12.1	7.8	I	I 2 3	N N	1 1	—	—	6.0	15.6	42.0	54.7
11.5	9.1	I	6	N	1	—		5.8	18.2	42.2	52.1
11.9	11.4	II?	2	K=H	1	—		6.0	22.8	42.0	47.5
12.3	18.3	I	5	N	1	—		6.2	36.6	41.8	33.7
11.7	18.8	I	I 3 3	N N	1 1	—	—	5.8	37.6	42.2	32.7
11.5	13.3	III	III ? 2 2	K=H K=H	1 1	—	—	5.8	26.6	42.2	43.7

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Mean 5

½ cos δ.

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Cor Br	Br	Bv
Dm 4373	23 56.3	+ 47 38	6.4	75.1	57.6		23 58.6 +47 53			
~~6108~~	~~23 52.6~~	~~+ 38 3~~	~~6.5~~	~~71.4~~	~~48.0~~	68.9	23 54.9 +38 18			
4164	23 26.5	+ 38 36	5.3	67.7	48.0	70.4	23 26.3 +38 42	6.2	6.7	6.7 0.4 7.1 6.5
Dm 5108	23 52.6	+ 38 3	6.5	72.4	47.6		23 54.9 +38 18	6.4	6.9	7.0 0.3 7.3 6.7
~~5104~~	~~23 51.6~~	~~+ 38 19~~	~~7.0~~	~~71.4~~	~~47.9~~	69.1	23 53.9 +38 34	6.2	6.7	6.6 0.3 6.9 6.3
Dm. 4127	23 34.4	+ 48 43	6.5	68.0	57.7	69.3	23 36.6 +48 58	5.8	6.3	6.4 0.5 6.9 6.3
Dm 30	0 5.5	+ 49 7	6.7	18.3	57.6		0 7.8 +49 22	6.5	7.0	7.0 0.5 7.5 6.9
~~Dm.~~ ~~2~~	~~0 0.2~~	~~+ 39 20~~	~~6.7~~	~~18.0~~	~~47.8~~	9.0	0 2.5 +39 35			
Dm. 5174	23 44.0	+ 39 24	6.8	70.8	47.8	70.1	23 46.2 +39 39	6.3	6.8	6.8 0.3 7.1 6.5
4165	23 28.8	+ 39 34	6.5	68.4	48.0	70.6	23 29.7 +39 42	5.7	6.2	5.9 0.3 6.2 5.6
Dm 4165	23 28.4	+ 49 31	7.2	65.8	57.7	68.3	23 30.1 +49 46	6.3	6.8	6.8 0.5 7.3 6.7
4177	23 33.3	+ 49 48	~~7.0~~ 5.3	68.3	57.8	70.0	23 34.3 +49 55	5.1	5.6	5.6 0.5 6.0 5.4
Dm 4314	23 55.0	+ 49 41	7.0	75.2	57.7		23 57.3 +49 56	6.3	6.8	7.0 0.5 7.5 6.9
~~4208~~	~~23 52.2~~	~~+ 50 2~~	~~7.2~~	~~74.4~~	~~68.0~~	68.9	~~23 54.5 +50 17~~			~~23 54.9 +49 7~~
Dm 5179	23 44.6	+ 39 56	7.3	71.0	47.7		23 46.8 +40 11	6.4	6.9	7.0 0.3 7.3 6.7
~~5161~~	~~23 43.9~~	~~+ 40 22~~	~~7.8~~	~~70.1~~	~~48.2~~	69.3	~~23 45.9 +40 34~~			~~23 44.5 +39.9~~
Dm 4208	23 52.2	+ 50 2	7.2	74.2	57.7		23 54.5 +50 17	6.2	6.7	6.6 0.5 7.1 6.5
~~6053~~	~~23 48.7~~	~~+ 30 16~~	~~7.0~~	~~70.7~~	~~38.0~~	69.6	~~23 51.0 +30 31~~			~~23 52.0 +50.~~
Dm. 4147	23 39.8	+ 50 26	7.4	69.8	57.7	69.8	23 42.0 +50 41	6.2	6.7	6.7 0.5 7.2 6.6
Dm. 4130	23 36.3	+ 50 6	7.6	68.7	57.7	69.7	23 38.5 +50 21	6.7	7.2	7.2 0.5 7.7 7.1
Dm. 4124	23 35.6	+ 50 38	7.3	68.4	57.8	69.4	23 37.8 +50 53	6.1	6.6	6.7 0.5 7.2 6.6
Dm 4165	23 43.2	+ 50 49	6.8	71.2	57.8		23 45.4 +51 4	5.9	6.4	6.5 0.5 7.0 6.4
~~5028~~	~~23 41.5~~	~~+ 30 54~~	~~7.7~~	~~69.6~~	~~37.9~~	69.1	~~23 43.8 +31 9~~			~~23 45.2 +50.~~
~~Dm.~~ 4257	23 58.5	+ 41 26	5.9	75.5	47.9		23 59.5 + 41 33	5.8	6.3	6.2 0.3 6.5 5.9
~~4920~~	~~23 54.0~~	~~+ 41 33~~	~~6.5~~	~~74.3~~	~~48.1~~	67.9	~~23 56.1 +41 48~~			~~23 57.3 +41.3~~
Dm 4928	23 56.3	+ 41 14	7.7	73.9	47.7		23 58.6 + 41 29	6.7	7.2	7.1 0.3 7.4 6.8
~~4946~~	~~23 55.6~~	~~+ 41 42~~	~~6.1~~	~~73.2~~	~~48.2~~	69.9				~~23 56.2 +41.3~~
Dm. 4881	23 44.3	+ 41 16	6.7	71.1	47.8	70.3	23 46.5 +41 31	6.4	6.9	6.9 0.3 7.2 6.6
Dm. 3692	23 36.0	+ 51 8	6.5	68.4	57.7		23 38.2 +51 23	6.4	6.9	6.6 0.5 7.1 6.5
~~3694~~	~~23 36.2~~	~~+ 51 26~~	~~7.6~~	~~68.6~~	~~68.0~~	69.6	~~23 38.4 +51 41~~	6.6	7.1	6.9 0.5 7.4 6.8
~~4244~~	~~23 38.6~~	~~+ 41 42~~	~~6.4~~	~~72.5~~	~~47.9~~					~~23 54.8 +51.2~~
~~Dm~~ 4420	23 54.3	+ 41 33	6.5	73.3	47.8		23 56.6 + 41 48	5.5	6.0	6.0 0.3 6.3 5.7
~~4250~~	~~23 50.8~~	~~+ 31 41~~	~~6.3~~	~~69.9~~	~~37.9~~	68.3				~~23 52.0 +41.5~~
Dm 12	0 2.7	+ 51 27	7.1	18.5	57.5		0 5.0 +51 42	6.1	6.6	6.7 0.5 7.2 6.6
~~4259~~	~~23 58.5~~	~~+ 41 26~~	~~6.9~~	~~74.3~~	~~47.5~~	70.4	0 5.3 + 51 46			~~0 2.8 + 51.4~~
Dm. 14	0 3.0	+ 51 31	7.9	18.6	57.5			6.6	7.1	7.0 0.5 7.7 7.1
~~2~~	~~0 0.1~~	~~+ 51 58~~	~~7.6~~	~~16.7~~	~~68.0~~	10.2	0 2.4 +52 13			~~0 3.0 + 51.5~~
Dm. 4925	23 55.7	+ 41 56	6.8	73.9	47.7		23 58.0 +42 11	6.0	6.5	6.5 0.3 6.8 6.2
~~4811~~	~~23 55.3~~	~~+ 42 7~~	~~7.3~~	~~73.5~~	~~47.9~~	70.4	23 57.6 +42 22			~~23 55.6 +41.9~~
4231	23 51.0	+ 41 59	6.0	73.8	48.0	72.1	23 52.0 +42 6	6.0	6.6	6.5 0.3 6.8 6.2
Dm. 4826	23 31.3	+ 41 42	7.0	67.9	47.9	69.4	23 33.5 +41 57	6.1	6.6	6.5 0.3 6.8 6.2
Dm 3647	23 27.9	+ 51 48	7.9	65.5	57.8		23 30.0 +52 3	6.6	7.1	7.1 0.5 7.5 6.9
~~4171~~	~~23 28.5~~	~~+ 52 14~~	~~6.5~~	~~68.1~~	~~38.0~~	69.2				~~23 28.0 +51.3~~
Dm. 4780	23 44.6	+ 42 6	7.0	71.2	47.9	70.3	23 46.8 +42 21	6.6	7.1	7.0 0.3 7.3 6.7
								6.9	7.4	7.3 0.3 7.6 7.0

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December 21. 1886

Plate 905

V	H	Type	Lines	K	Focus	other Lines		V	H	V.	H
11.4	22.4	I	6	N	2	—		57	448	423	255
10.9	18.3	I	11	N	4	—		54	366	426	337
10.8	16.2	I	7	N	2	—		54	324	426	379
9.9	15.9	I	5	N	1	—		50	318	430	385
10.0	18.0	I	I 4	H N	1 1	— —		50	360	430	343
9.5	19.8	I	5	N	1	—		48	396	432	307
10.4	13.8	I	I 3	3 N	1 1	— —		52	276	428	427
10.0	11.4	I	I 5	N	1	— —		50	228	430	475
9.4	7.6	I	4	N	1	—		47	152	433	651
8.8	14.0	I ?	4 ?	K=H N	1	—		44	280	436	423
8.8	17.4	I	11	N	3	—		44	348	436	365
8.5	18.5	I	7	N	2	—		42	370	438	333
8.8	21.9	I	4	N	1	—		44	438	436	265
8.0	16.8	I	4	N	1	—		40	336	440	367
7.5	15.1	I	4	N	1	—		38	302	442	401
6.7	8.7	I	5	N	1	—		34	174	446	529
6.8	10.2	I	6	N	2	—		34	204	446	499
6.9	16.9	I	I 4	H N	1 1	— —		34	338	446	365
5.7	11.7	I	9	N	3	—		28	234	452	469
5.8	12.2	IIIa	1447 2	K=H	2	seen		29	244	451	459
4.9	7.0	I ?	5	K=H	1	—		24	140	456	563
4.5	11.0	I	I 4	H N	1 1	— —		22	220	458	483
4.6	12.1	I	4	N	1	—		23	242	457	461
4.6	15.4	IIIb	1448 2	K=H	1	seen		23	306	457	395
4.5	18.4	III	b 2 1449	2	K=2H K=H	seen		22	368	458	335
3.8	14.9	I	5	K=H ?	1	—		19	298	461	405

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Mean 5

½ cos δ.

	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. Stars to 1900		cor. Br	Br	Br.			
0.2. 6.4	4147	23 21.3	+ 42 15	5.8	66.1	47.9	69.7	23 22.3 +42 21	7 +1	5.5	6.0	6.2	0.3	6.5	5.9
0.2 5.1	4176	23 32.3	+ 42 36	4.3	68.9	48.0	70.5	23 33.2 +42 43	9 + X 3	4.5	5.0	4.9	0.3	5.2	4.6
	Dm. 3603	23 36.1	+ 52 21	6.5	68.5	57.8	69.5	23 38.3 +52 36		5.6	6.1	6.3	0.5	6.8	6.2
	Dm. 4747	23 37.6	+ 42 56	6.6	69.4	47.9	69.9	23 39.3 +43 11		6.0	6.5	6.5	0.3	6.8	6.2
	Dm. 3486	23 30.2	+ 52 39	7.5	66.2	57.6		23 32.3 +52 54		6.7	7.2	7.0 (7.2)	0.5	7.5	6.9
	~~4524~~	~~23 32.8~~	~~+ 43 0~~	~~8.2~~	~~68.8~~	~~48.0~~	~~70.3~~	~~23 35.0 +43 15~~				~~23 30.0 +52.7~~			
	Dm. 4489	23 26.9	+ 43 6	6.9	66.5	47.9		23 29.1 +43 21		6.1	6.6	6.6	0.3	6.9	6.0
	~~4497~~	~~23 28.3~~	~~+ 43 20~~	~~7.3~~	~~67.9~~	~~48.1~~	~~70.5~~	~~23 30.5 +43 35~~				~~23 27.0 +43.2~~			
	Dm. 4776	23 43.3	+ 42 37	7.5	70.9	47.8	70.3	23 45.5 +42 52		6.7	7.2	7.0 (7.4)	0.3	7.3	6.7
	Dm. 3575 / ~~3570~~	23 51.9 / ~~51.4~~	+ 52 36 / ~~35~~	7.3 / ~~7.5~~	71.7 / ~~71.5~~	57.8 / ~~57.6~~		23 54.2 +53 51 / ~~23 53.7 +52 50~~		6.1	6.6	6.5 (6.6)	0.3	7.0	6.4
	~~3563~~	~~23 49.2~~	~~+ 52 54~~	~~7.5~~	~~72.0~~	~~57.9~~	~~69.1~~	~~23 51.4 +53 9~~				~~23 51.4 +52.8~~			
	Dm. 19	0 4.5	+ 52 49	6.5	19.7	57.5		0 6.8 +53 4		6.2	6.7	6.6	0.5	7.1	6.5
	~~Dm. 4831~~	~~23 58.7~~	~~+ 46 16~~	~~7.4~~	~~73.9~~	~~47.9~~	~~69.9~~					~~0 4.5 +52.8~~			
	~~4847~~	~~23 57.2~~	~~+ 33 27~~	~~7.0~~	~~72.4~~	~~38.2~~	~~69.9~~	~~23 59.5 +33 42~~							
	Dm. 3238	23 43.4	+ 53 24	6.7	71.4	57.8		23 45.6 +53 39		6.4	6.9	6.8	0.6	7.4	6.8
	~~4553~~	~~23 41.6~~	~~+ 23 36~~	~~7.8~~	~~69.6~~	~~28.0~~	~~64.6~~	~~23 43.9 +23 50~~				~~23 43.8 +53.4~~			
0.2 4.9	4183	23 34.5	+ 43 40	4.4	69.3	48.1	70.4	23 35.4 +43 47	7 +1	4.2	4.7	4.7	0.4	5.1	4.5
	Dm. 4608	23 30.5	+ 43 37	6.3	67.5	47.8	69.4	23 32.7 +43 52		5.5	6.0	6.0	0.4	6.4	5.8
	Dm. 3151	23 17.0	+ 53 14	7.0	60.8	57.6		23 19.1 +53 29		6.3	6.8	6.7	0.6	7.3	6.7
	~~4759~~	~~23 24.5~~	~~+ 23 19~~	~~7.7~~	~~68.3~~	~~27.7~~	~~69.5~~	~~23 26.7 +23 34~~				~~23 17.0 +53.3~~			
	Dm. 4530	23 35.1	+ 43 58	6.8	68.7	48.0	69.7	23 37.3 +44 13		6.4	6.9	6.8	0.4	7.2	6.6
	~~Dm. 4630~~	~~23 35.1~~	~~+ 43 58~~	~~6.8~~	~~68.7~~	~~48.0~~	~~69.7~~					~~Dm. 45 30 + 43~~			
	~~4473~~	~~23 35.1~~	~~+ 44 11~~	~~6.5~~	~~68.7~~	~~48.2~~	~~69.4~~	~~23 37.3 +44 26~~							
	Dm. 3044	23 39.8	+ 54 4	7.3	70.0	57.9	70.1	23 42.0 +54 19		6.5	7.0	6.7	0.6	7.3	6.7
	Dm. 4550	23 57.7	+ 44 25	6.3	75.1	47.8	68.5	0 0.0 +44 40		6.2	6.7	6.6	0.4	7.0	6.4
	~~4242~~	~~23 54.6~~	~~+ 43 35~~	~~6.1~~	~~72.0~~	~~48.0~~						~~23 57.0 + 44.4~~			
	4242	23 54.6	+ 44 35	6.1	75.0	48.0		23 55.7 +44 42	23 53 +44 27 / 6 −2 0	5.8	6.3	6.3	0.4	6.7	6.1
	~~4233~~	~~23 51.6~~	~~+ 24 28~~	~~4.6~~	~~72.0~~	~~27.9~~	~~71.1~~					~~23 53.5 + 44.5~~			
	Dm. 3025	23 33.8	+ 54 20	7.9	67.6	57.7	69.1	23 35.9 +54 35		6.6	7.1	7.0 (7.0)	0.6	7.6	7.0
0.3 5.6	4237	23 53.0	+ 55 5	5.0	76.4	57.9	74.1	23 53.9 +55 12	9 + X 3	4.8	5.3	5.3	0.6	5.9	5.3
	4232	23 51.2	+ 55 3	5.5	75.6	57.9	73.3	23 52.1 +55 9		5.5	6.0	6.2	0.6	6.8	6.2
	Dm. 13	0 3.4.1	+ 45 24	4.9	18.1	47.8		0 5.1 +45 31		5.7	6.2	6.3	0.4	6.7	6.1
	~~5164~~	~~23 57.8~~	~~+ 35 20~~	~~7.9~~	~~71.8~~	~~37.9~~	~~68.7~~	~~24 0.1 +35 35~~							
	Dm. 4381 (~~4376~~)	23 51.5 (~~51.1~~)	+ 45 37 (~~27~~)	6.5 (~~8.2~~)	73.1	47.7		23 53.4 +45 52		6.3	6.8	6.8 (6.6)	0.4	7.2	6.6
	~~2855~~	~~23 51.0~~	~~+ 55 43~~	~~7.5~~	~~73.0~~	~~57.9~~	~~69.5~~	~~23 53.2 +55 58~~				~~23 51.4 + 45.6~~			
	Dm. 4363	23 48.3	+ 45 33	6.7	72.5	47.9		23 50.6 +45 48		6.5	7.0	7.0	0.4	7.4	6.8
	~~2831~~	~~23 46.6~~	~~+ 55 45~~	~~7.7~~	~~70.8~~	~~58.1~~	~~68.3~~	~~23 48.8 +56 0~~				~~23 48.1 + 45.6~~			
	4197	23 40.1	+ 45 45	6.0	70.9	48.1	71.2	23 41.1 +45 52		6.1 / 6.4	6.6 / 6.9	6.5 / 6.8	0.4	(6.9) 7.2	6.3 / 6.6
	4174	23 31.7	+ 45 48	4.0	68.5	48.0	70.5	23 32.6 +45 56		5.0 / 5.3	5.5 / 5.8	5.6 / 5.9	0.4	(6.0) 6.3	5.4 / 5.7
	Dm. 4169	23 40.4	+ 46 1	6.5	70.2	47.9	70.1	23 42.6 +46 16		6.1	6.6	6.6	0.4	7.0	6.4

~~7 2/6~~ ~~35/8~~ ~~9 − 5 / 8~~

59/9 10 − 5/9

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Amt. of Fog. due to moon & clouds. 7.4

Amt. of Fog. due to chemicals. 7.6

December 21, 1886.

Plate 904.

V	H	Type	No. Lines	K	Focus	other Lines		V	H	V	H
20.5	19.5	I	5	N	1	—		10.2	39.0	27.7	32.4
19.5	13.9	I	4	N	1	—		9.8	27.8	28.1	43.6
18.8	5.7	I	[illegible]	N	5	—		9.4	11.4	28.6	60.0
18.2	11.6	I	[illegible]	K=H	1	—		9.1	23.2	28.8	48.2
18.5	16.4	III?	2	K=H	1	—		9.2	32.8	28.7	38.6
15.0	11.0	I	3	N	1	—		7.5	22.0	30.4	49.4
12.5	10.0	I	5	N	1	—		6.2	20.0	31.7	51.4
10.0	9.8	IIIa 1450	[illegible]	K=H	1	Rem		5.0	19.6	32.9	51.8

Amt. of Fog: due to moon & clouds. 8.0 Amt. of Fog. due to chemicals. 8.2

Plate 902.

III 5.8, 6.2.

V	H	Type	No. Lines	K	Focus	other Lines		V	H	V	H
21.0	16.8	III 2400 c?	3	K=H	2	F bright Rem		10.5	33.6	17.4	69.0
15.0	15.4	I	3	N	1	—		7.5	30.8	20.4	61.8
13.5	9.0	I	5	N	2	—		6.8	18.0	21.1	74.6
12.2	7.8	I	5	N	1	—		6.1	15.6	21.8	77.0
11.5	15.2	I	4	N	1	—		5.8	30.4	22.1	62.2
10.4	7.1	Ia 2401	2	K=H	1	Rem		5.2	14.2	22.7	78.4
9.7	9.3	I	6	?	2	—		4.8	18.6	23.1	74.0
8.0	23.4	IIa 2402	3	K=H	2	Rem		4.0	46.8	23.9	45.8
14.5	19.9	I	5	K=H	1	—		2.2	39.8	25.7	62.8

Amt. of Fog. due to moon & clouds. 8.0 Amt. of Fog. due to chemicals. 7.7

Plate 828.

V	H	Type	No. Lines	K	Focus	other Lines		V	H	V	H
18.5	13.9	I b 2403	8	N	3	Rem		9.2	27.8	38.9	41.3
19.1	20.5	I?	3	N	1	—		9.6	41.0	38.5	28.1
17.2	18.4	I 2404	[illegible]	K=H	1	—		8.6	36.8	39.5	32.3
17.8	22.8	Ia?	2	K=H	1	—		8.9	45.6	39.2	23.5
16.5	17.8	I	4	N	1	—		8.2	35.6	39.9	33.5
15.0	15.4	I	3	N	1	—		7.5	31.4	40.6	37.7
14.9	15.4	I b 2405	6	N	3	Rem		7.4	30.8	40.7	38.3

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Mean 13

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. Stars to 1900	Cor. Bn	Br.	Bre.			
0.0 6.5	4175	23 31.9	+ 17 46 5.4	70.9	28.0	70.5	23 32.9	+17 51	12	0 5.4	6.7	6.5	0.1	6.6
0.1 6.9	4209	23 43.6	+ 28 10 6.9	70.4	38.0	70.0	23 44.6	+28 17	10	−2 5.6	6.9	6.8	0.1	6.9
0.1 4.1	G	0 2.2	+ 28 26 2.1	13.6	37.9	11.2	0 3.2	+28 33	20	+8 2.9	4.2	4.0	0.1	4.1
	Dm. 4666	23 47.6	+ 28 41 7.2	70.8	37.8	70.0	23 49.9	+28 56		5.9	7.2	7.0	0.1	7.1
	4194	23 38.0	+ 28 42 4.9	70.8	37.9	71.2	23 39.0	+28 49		5.4	6.7	6.6	0.1	6.7
	Dm. 5396	23 48.6	+ 20 22 7.0	70.6	27.9	70.1	23 50.9	+20 37		5.6	6.9	6.8	0.1	6.9
	~~4234~~	~~23 52.4~~	~~+ 60 43 var.~~	~~74.4~~	~~68.2~~	~~71.4~~				5.8	7.1	7.1	0.1	7.2
0.1 6.7	4236	23 52.8	+ 31 41 6.3	72.8	37.9	71.3	23 53.7	+31 48		5.6	6.9	~~23 51.4 +31 33~~ 6.6	0.2	6.8
	4239	23 53.4	+ 33 4 5.8	73.0	38.1	71.3	23 54.4	+33 11		5.6	6.9	~~23 52.1 +32~~ 6.7	0.2	6.9
	4240	53.4	+33 4 5.8	73.0	38.1	71.3								

Mean 14

										Cor. Bn	Br.				
0.2 5.6	3856	21 42.4	+ 48 45 4.4	70.2	58.0	69.4	21 43.1	+48 51		8.4	4.0				
	3786	21 22.6	+ 48 19 6.3	63.6	57.9	67.3	21 23.3	+48 24		7.1	5.7	~~21 21.7 +48 12~~			
	3804	21 28.7	+ 49 25 5.7	65.5	58.0	67.9	21 29.4	+49 30		7.0	5.6	~~21 27.8 +49 18~~			
	~~Dm. 5420~~	~~21 19.9~~	~~+ 39 24 6.8~~	~~63.5~~	~~48.3~~	~~67.1~~	~~21 19.7 +39 35~~								
	~~3860~~	~~21 17.5~~	~~+ 48 52 7.0~~	~~63.1~~	~~57.6~~	~~68.3~~				6.8	5.4	~~21 14.3 +48 8~~			
	3754	21 15.4	+ 49 0 5.4	61.0	57.9		21 16.0	+49 6							
0.1 6.8	3814	21 32.1	+ 39 52 6.1	67.7	48.1	69.0	21 32.9	+39 57		6.7	5.3				
0.1 7.2	3832	21 37.5	+ 40 32 6.3	68.9	48.0	69.3	21 38.4	+40 38		7.1	5.7				
0.1 5.8	~~3833~~	~~21 37.8~~	~~+ 60 38 4.9~~	~~68.6~~	~~58.0~~	~~68.9~~	~~21 38.6~~	~~+5~~		~~8.9~~ 5.7	4.3	~~H.P. 3835~~			
	3835	21 38.3	+ 40 32 5.8	69.4	47.9	69.8	21 39.1	+40 38							

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December 21. 1886.

Plate 828.

V	H	Type	No. lines	K	Focus	other Lines	V	H	V	H
13.6	17.7	III?	2	K=H	1	—	6.8	35.4	41.3	33.7
11.3	9.3	II	2	K=H	1	—	5.6	18.6	42.5	50.5
11.2	18.8	I	4	K=H	1	—	5.6	37.6	42.6	31.5
11.3	19.9	I?	5	K=H	1	—	5.6	39.8	42.6	29.3
8.9	22.6	I I	3 3	N N	1 1	— —	4.4	45.2	43.7	23.9
7.9	8.2	I	3	N	1	—	4.0	16.4	44.1	52.7
6.2	18.5	III? 2406	3	K=H	1	F— eem	3.1	37.0	45.0	32.1
5.8	12.4	I	6	N	1	—	2.9	24.8	45.2	44.3
2.3	16.0	I? I?	3? 4	4 N	K=H 1	— —	1.1	32.0	47.0	37.1

Aust. of Fog. due to moon & clouds. Aust. of Fog. due to chemicals.

7.8 Plate 823 7.4

17.5	15.9	IIa 2407	2	K=H	2	—eem	8.8	31.8	34.4	13.2
16.0	9.7	III?	2	K=H	1	—	8.0	19.4	35.2	25.6
13.1	12.0	I	6	K=H	1	—	6.6	24.0	36.6	21.0
12.0	21.4	IIa? 2408	3	K=H	2	—Feem	6.0	42.8	37.2	2.2
11.4	17.0	IIa 2409	3	K=H	3	Feem	5.7	34.0	37.5	11.0
9.8	12.2	I	4	K=H	1	—	4.9	24.4	38.3	20.6
8.6	15.9	I?	6	N	2	Fline?	4.3	31.8	38.9	13.2
6.5	8.4	I	3	N	1	—	3.2	16.8	40.0	28.2
6.0	21.4	IIa? 2410	2	K=H	1	eem	3.0	42.8	40.2	2.2
4.8	4.6	I	6	N	1	—	2.4	15.2	40.8	29.8
4.7	23.5	I	8	K=H	2	F—	2.4	47.0	40.8	58.0

Aust. of Fog. due to moon & clouds. Aust. of Fog. due to chemicals.

8.2 Plate 822 7.9

15.0	13.6	I?	4	N	1	—	7.5	27.2	25.7	18.9
12.1	12.2	I	5	N	2	F—	6.0	24.4	27.2	21.7
7.9	14.9	III	3	K=H	1	F—	4.0	29.8	29.2	16.3
7.0	18.6	III	3	K=12H	2	F—	3.5	37.2	29.7	8.9

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Mean 14

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red of D.M. stars to 1900	Bv	Br.
	Dm. 3091	21 29.5	+ 51 3	6.4	64.9	57.8		21 31.6	+ 51 15	5.8 7.2
	~~4245~~	~~21 30.4~~	~~+ 44 19~~	~~7.6~~	~~65.8~~	~~48.1~~	~~67.3~~	~~21 32.2~~	~~+ 44 29~~	6.13 7.5 ~~21 29.8 + 51.1~~
	3890	21 57.4	+ 52 18	5.6	76.0	57.9		21 58.2	+ 52 24	
	Dm. ~~4260~~	~~21 62.3~~	~~+ 42 33~~	~~7.0~~	~~70.9~~	~~48.2~~	~~67.8~~	~~21 54.1~~	~~+ 42 46~~	5.4 6.8 ~~21 56.7 + 52.3~~
	3797	21 26.3	+ 52 24	6.9	63.9	58.0	66.9	21 27.0	+ 52 31	5.7 7.1
	Dm. 3787	21 22.8	+ 52 22	5.7	62.6	58.0		21 23.4	+ 52 28	5.4 6.8
	~~2963~~	~~21 26.1~~	~~+ 52 18~~	~~7.2~~	~~64.9~~	~~57.9~~	~~68.2~~	~~21 26.8~~	~~+ 52 30~~	~~2122.0 + 52.3~~
	Dm. 2593	21 13.9	+ 53 34	7.4	59.1	58.0		21 15.3	+ 53 45	
	~~Dm. 2606~~	~~21 15.1~~	~~+ 53 34~~	~~7.8~~	~~60.9~~	~~58.0~~	~~64.1~~			
	~~3901~~	~~21 18.0~~	~~+ 43 54~~	~~7.0~~	~~63.2~~	~~48.3~~	~~67.5~~	~~21 19.7~~	~~+ 44 5~~	5.7 7.1 ~~14.0 + 53.6~~
0273	3895	21 68.2	+ 44 4	6.6	74.6	48.1	70.8	21 58.9	+ 44 10	5.7 7.1
	3807	21 29.6	+ 45 4	4.2	66.5	48.2	68.5	21 30.2	+ 45 9	5.0 6.4 5.3 6.7
0366	Dm. 3870	21 48.1	+ 55 14	5.5	72.9	58.1		21 48.8	+ 55 20	
	~~2639~~	~~21 47.1~~	~~+ 55 7~~	~~6.0~~	~~71.9~~	~~68.0~~	~~69.7~~	~~21 48.0~~	~~+ 55 20~~	4.7 6.3
	Dm. 3407	21 35.8	+ 46 53	7.0	67.8	48.0		21 37.5	+ 47 5	
	~~3821~~	~~21 35.2~~	~~+ 46 59~~	~~6.4~~	~~67.2~~	~~48.0~~	~~68.1~~			6.8 6.7 ~~21 35.9 + 46.8~~
	3747	21 13.0	+ 34 24	4.4	44.8	43.2	45.1	21 13.8	+ 34 28	6.0
	3807	21 29.6	+ 45 4	4.2	48.9	53.1	45.7	21 30.2	+ 45 9	6.7 6.9
	3784	21 22.4	+ 36 36	6.1	46.4	43.2	45.2	21 23.2	+ 36 41	6.7
	3701	20 65.7	+ 47 3	4.6	98.5	53.0	102.5	20 56.4	+ 47 8	6.4
	3741	21 10.0	+ 37 32	3.9	44.0	43.2	44.8	21 10.8	+ 37 36	5.7
	3786	21 22.6	+ 48 19	6.3	47.0	53.2	45.2	21 23.3	+ 48 24	6.7 ~~21 21.7 + 48 + 2~~
	3745	21 12.7	+ 38 53	4.3	44.5	43.2	45.0	21 13.5	+ 38 58	5.9
0172	3814	21 32.1	+ 39 52	6.1	48.9	43.1	45.7	21 32.9	+ 39 57	7.1
	3698	20 64.6	+ 60 0	6.5	97.4	53.0	101.9	20 55.3	+ 50 4	6.8
0266	3833	21 37.8	+ 50 38	4.9	53.0	53.0	47.6	21 38.6	+ 50 44	6.4
	3687	20 62.7	+ 40 42	4.1	99.7	43.1	103.8	20 53.5	+ 40 47	5.6
	3778	21 19.3	+ 25 41	6.8	46.6	33.2	46.2	21 20.1	+ 25 45	6.9
	3785	21 22.4	+ 27 6	6.4	46.8	33.1	46.2	21 23.3	+ 27 11	5.9
	3761	21 16.5	+ 19 17	4.3	46.3	23.3	46.3	21 17.5	+ 19 23	6.2 6.7
	3732	21 7.8	+ 29 44	3.5	45.0	33.2	45.9	21 8.7	+ 29 49	5.5 5.9

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This plate found to be numbered wrongly. It should be 839 G instead of 840 F.

Aut. of Fog. due to moon & clouds. December 21. 1886. Aut. of Fog. due to chemicals.

6.4 Plate ~~840~~ 839 7.1

V	H	Type	Lines	K	Focus	other Lines	V	H	V	H
22.8	9.1	I	55	K=H	1	—	11.4	18.2	1.8	3.12
20.5	8.4	IIa 2411	X3	K=H	1	F even	10.2	16.8	3.0	3.26
18.5	12.1	III bc? 2412	X3	K=H 1.2	3	F slight elm	9.2	24.2	4.0	5.2
16.8	19.7	I?	6	K=.2H	2	F	8.4	39.4	4.8	10.0
16.4	18.8	I	5	N	1	—	8.2	37.6	5.0	11.8
15.7	8.3	IIa 2413	2	K=H	1	elm	7.8	16.6	5.4	3.2.8
16.0	10.8	I I	3 3	N N	1 1	— —	8.0	21.6	5.2	27.8
14.0	8.7	I	5	N	1	—	7.0	17.4	6.2	3.2.0
13.8	16.1	I	7	K=.2H	2	F	6.9	32.2	6.8	17.2
14.0	15.4	I? I?	3 3	N N	1 1	— —	7.0	30.8	6.2	18.6
13.1	15.9	II?	3	K=H	1	F	6.6	31.8	6.6	17.6
III? 6.4, 6.7. 12.0	14.9	III	3	K=H	2	F	6.0	29.8	7.2	19.6
III? 6.7, 6.9. 11.0	13.9	III?	3	K=H	1	F	6.5	27.8	7.7	21.6
9.5	23.3	I	5	N	1	—	4.8	46.6	8.4	2.8
10.0	23.1	III?	3	K=H N	1	F	5.0	46.2	8.2	3.2
8.2	9.0	I	4	N	1	—	4.1	18.0	9.1	31.4
7.7	5.5	III b 2414	2	K=H	3	Reen	3.8	11.0	9.4	38.4
7.5	11.0	III?	2	K=H	1	—	3.8	22.0	9.4	27.4
7.5	20.2	IIa 2415	3	K=H	2	F even	3.8	40.4	9.4	9.0
7.1	22.2	I	6	N	1	F	3.6	44.4	9.6	5.0
6.9	15.4	I? I	4 3	N N	1 1	— —	3.4	30.8	9.8	18.6
6.4	14.9	I I?	5 3	N N	1 1	— —	3.2	29.8	10.0	19.6
6.3	9.9	I	6	N	1	—	3.2	19.8	10.0	29.6
5.7	6.3	I	4	K=H	1	—	2.8	12.6	10.4	36.8
3.1	9.1	I	5	K=H	1	—	1.6	18.2	11.6	31.2
3.1	12.0	I	5	N	1	—	1.6	24.0	11.6	25.4
3.4	19.0	I	3	N	1	—	1.7	38.0	11.5	11.4

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Means

½ cos δ	No.	R.A.	Dec.	Mag.	HC	V	Red. of D.M. stars to 1900	Br.	Cor. Br.	
–	3811	21 31.4	– 8 24	4.8	49.6	12.8	21 32.5 – 8 18	.	.	
–	3818	21 33.4	– 17 12	3.8	60.2	13.0	21 34.6 – 17 7	6.2	5.3	
–	3795	21 26.2	– 6 6	3.1	49.4	13.1	21 26.3 – 6 1	5.5 / 5.8	4.6 / 4.9	
	3739	21 9.8	+ 4 45	4.1	49.2	13.2	21 10.8 + 4 50	6.0	5.1	
0.0 6.6	3744	21 11.9	– 5 2	6.8	49.5	13.2	21 12.9 – 4 57	6.6	5.7	
–	3815	21 32.5	+ 5 14	6.4	49.1	13.0	21 33.5 + 5 19	6.8	5.9	
Aquarius	77 W.A.	21 27.6	– 4 55	6.7	49.2	13.1	21 28.9 – 4 52	7.1 / 7.1	6.2	
0.0 6.7	3812	21 31.7	+ 6 5	5.9	49.1	13.1	21 32.8 + 6 10	6.7	5.8	
0.0 6.2	3765	21 16.9	+ 6 18	4.9	49.1	13.2	21 17.9 + 6 23	6.2	5.3	
	3777	21 19.0	– 4 4	5.8	49.8	12.9	21 20.1 – 3 59	7.1 / 7.1	6.2	
–	3770	21 17.6	– 13 23	6.4	49.4	13.2	21 18.7 – 13 18	6.8	5.9	
–	3779	21 19.8	– 22 66	3.8	49.6	13.1	21 21.0 – 22 50	6.2 / 6.5	5.3 / 5.6	
–	3783	21 21.9	– 22 20	4.5	49.7	13.2	21 23.1 – 22 14	6.5 / 6.7	5.6 / 5.8	
0.0 6.5	~~Dm.-5538 21 1.7 – 11 0 8 5.2 48.3 12.8 21 1.2 – 11 47~~ 3720	21 1.7	– 21 40	5.3	48.3	13.1	21 2.9 – 21 36	6.5	5.6	
–	3723	21 3.1	– 11 51	4.6	49.3	13.1	21 4.1 – 11 47	6.6 / 6.8	5.7 / 5.9	
0.0 6.8	3810	21 31.4	– 0 56	6.2	49.4	13.2	21 32.5 – 0 51	6.8	5.9	
–	3836	21 38.3	+ 9 20	2.4	49.3	13.1	21 39.3 + 9 25	5.8 / 6.3 / 6.9	4.9 / 5.4 / 6.0	
–	3802	21 28.3	– 20 37	5.9	60.3	13.2	21 29.2 – 20 32	7.2	6.3	
–	3735	21 8.7	+ 9 31	4.6	49.1	13.3	21 9.6 + 9 36	6.0	5.1	
0.0 6.2	3726	21 4.5	+ 9 39	4.8	48.9	13.2	21 5.4 + 9 44	6.2	5.3	
	3776	21 18.7	– 10 15	5.7	49.7	13.2	21 19.9 – 10 10	7 / 6.0 7.0	6.1	
Aquarius	½ W.A.	21 19.5	– 0 0	6.4	49.3	3.2	21 20.8 – 0 3	7.1 / 7.1	6.2	
0.0 5.9	3809	21 30.4	– 20 0	4.5	60.2	3.2	21 31.5 – 19 55	5.9	5.0	
–	3830	21 36.7	+ 10 16	6.0	49.3	13.1	21 37.6 + 10 21	7.0	6.1	
–	3811	21 31.4	– 8 24	4.8	49.6	3.2	21 32.5 – 8 18	6.2	5.3	
0.0 6.7	3794	21 25.3	+ 11 37	6.9	49.3	13.2	21 26.3 + 11 43	6.7	5.8	21 24 III 31
0.0 6.5	3743	21 11.2	– 18 29	5.4	49.2	3.2	21 12.8 – 18 25	6.5	5.6	

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Amt. of Fog. due to moon & clouds. 8.3 Amt. of Fog. due to chemicals. 8.2.

December 21. 1886.

Plate 801.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
19.8	15.2	~~III~~ I ?	~~8~~ 3	K=H	1	F	9.9	30.4	23.1	40.7
III 5.8, 6.2. 18.0	13.6	III	b 2416 3	K=H	2	F. Green	9.0	27.2	24.0	43.9
16.8	6.5	I	9	N	5	F	8.4	13.0	24.6	58.1
III 5.7, 6.0, 6.9. 11.0	7.5	III	b.c 2417 3	K=H	2	F Green Bright	5.5	15.0	12.5	56.1
8.5	17.1	I	7	K=1.3H	1		4.2	34.2	28.8	36.9
6.8	16.6	III	b.c 2418 3	K=H	2	F. B. Green.	3.4	33.2	29.6	37.9

Amt. of Fog. due to moon and clouds. 8.2 Amt. of Fog. due to chemicals. 8.2

Plate 802.

21.9	15.8	I	5	K=H	1	—	11.0	31.6	37.1	56.8
21.0	10.5	I ?	7	K=H	2	F	10.5	21.0	37.6	67.4
19.0	6.8	I	5	K=H	1	—	9.5	13.6	38.6	74.7
18.4	9.4	I	7	N	2	F	9.2	18.8	38.9	69.6
17.9	9.3	I	5	K=H	1	—	9.0	18.6	39.1	69.8
16.1	16.1	I	6	N	1	—	8.0	32.2	40.1	56.2
16.1	21.3	I	5	N	1	Filine?	8.0	42.6	40.1	46.8
15.7	16.7	I ?	3	N	1	—	7.8	33.4	40.3	55.0
14.9	17.2	I	10	K=.2H	3	F	7.4	34.4	40.7	54.0
13.1	19.0	I	4	N	1	—	6.6	38.0	41.5	50.4
13.4	22.9	I	4	K=H	1	—	6.7	45.8	41.4	42.6
11.8	9.7	I	4	N	1	—	5.9	19.4	42.2	69.0
11.2	7.4	I	5	K=H	1	—	5.6	14.8	42.6	73.6
10.1	12.4	I	6	N	1	F	5.0	24.8	43.1	63.6
III ? 6.5, 6.8. 9.5	14.2	III	b.c 2419 2	K=H	2	B. Green	4.8	28.4	43.3	60.0
9.4	9.4	I	5	N	2	—	4.7	18.8	43.4	69.6
9.1	10.4	II a 2420 2		K=H	1	Green	4.6	20.8	43.5	67.6
9.0	19.6	I	6	K=.5H	2	—	4.5	39.2	43.6	49.2
8.5	18.4	I	7	N	2	F	4.2	36.8	43.9	51.6
7.5	17.2	I	3	N	1	—	3.8	34.4	44.3	54.0

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½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.
	4026	22 40.6	+22 56	4.2	71.2	32.8	71.3	22 41.7 +23 3	6.7 7.0
	4034	22 44.2	+23 58	3.7	71.4	33.0	71.1	22 45.2 +24 5	5.7 6.0
0.163	4080	22 58.8	+14 34	2.6	71.8	23.0	71.1	22 59.8 +14 40	4.9
	~~4055~~	~~23 1.2~~	~~+24 49~~	~~4.9~~	~~14.3~~	~~33.2~~	~~12.7~~		
	78								
	4041	22 58.0	+27 26	2.6	73.0	32.9	71.3	22 58.9 +27 32	~~22 56.7+27 18~~
0.163	4015	22 36.1	+28 40	4.9	70.3	32.9	70.9	22 37.0 +28 48	6.2
	4020	22 37.4	+29 36	3.1	70.6	33.0	71.1	22 38.3 +29 42	5.5 5.75

Mean 12

											Br.	cor. Br
	3701	20	55.7	+47	3	4.6	87.3	68.0	87.8	20 56.4 +47 8	6.6	5.3
	3741	21	10.0	+37	32	3.9	31.0	48.0	29.2	21 10.8 +37 36	5.8	4.6
	3786	21	22.6	+48	19	5.3	36.2	57.8		21 23.3 +48 24	~~21 21.7+48 12~~	
	~~3791~~	~~21~~	~~17.9~~	~~+48~~	~~62~~	~~5.8~~	~~31.5~~	~~68.4~~	~~26.0~~		6.7	~~3122.0+48.3~~
0.159	3745	21	12.7	+38	63	4.3	31.5	48.1	29.0	21 13.5 +38 58	5.8	4.6
	3754	21	15.4	+49	0	5.4	34.0	58.0	30.1	21 16.0 +49 6	6.7	5.5
0.265	3698	20	54.6	+60	0	6.0	86.8	68.0	87.5	20 55.3 +60 4	6.3	5.1
	3636	20	38.5	+49	55	5.4	81.1	57.9		20 39.1 +49 59	6.3	5.1
0.265	~~3641~~	~~20~~	~~40.1~~	~~+60~~	~~10~~	~~6.2~~	~~82.7~~	~~68.2~~	~~89.0~~		~~20 38.0+49.8~~	
	3686	20	52.6	+60	16	5.7	86.0	68.1	87.3	20 53.3 +60 20	7.2	6.0
0.256	3687	20	52.7	+40	42	4.1	87.1	48.1	88.2	20 53.5 +40 47	5.4	4.2
0.372	3663	20	45.1	+51	28	6.4	83.1	68.1	86.2	20 45.7 +51 32	6.9	5.7
	3632	20	37.6	+41	17	5.5	83.4	48.0	87.3	20 38.3 +41 22	6.6	5.4
0.271	3746	21	12.8	+42	11	6.0	32.2	48.1	30.5	21 13.6 +42 16	6.9	5.7
	~~Dm 274~~											
	~~4069~~	~~21~~	~~16.3~~	~~+42~~	~~60~~	~~7.8~~	~~37.1~~	~~48.1~~	~~24.1~~	~~21 18.0+42 42~~	6.8	~~5.6~~
	3787	21	22.8	+52	22	5.7	37.6	58.0		21 23.4 +52 28	~~21 22.0+52.3~~	
0.366	3730	21	6.5	+63	4	6.7	31.3	68.1	29.3	21 7.1 +63 9	6.3	5.1
	3716	21	0.6	+43	27	3.7	29.0	48.2	28.6	21 1.3 +43 32	6.5 7.0	5.3 5.85
0.265	3760	21	14.1	+43	26	6.0	32.9	48.1	29.7	21 14.8 +43 31	6.3	5.1
	3748	21	13.3	+63	30	6.0	34.1	68.1	30.3	21 13.9 +63 34	6.2	5.6
0.267	3666	20	46.9	+43	36	6.0	85.1	48.1	87.6	20 46.6 +43 41	6.5	5.3
0.260	3673	20	49.0	+43	56	4.6	85.8	48.1	87.6	20 49.7 +44 0	5.8	4.6
	Dm 3639	20	51.5	+44	23	6.7	85.9	48.2		20 53.1 +44 33	5.7	
	~~3901~~	~~21~~	~~17.9~~	~~+43~~	~~64~~	~~7.0~~	~~32.3~~	~~47.7~~	~~27.9~~	21 19.6 +44 5	7.1	~~20 51.6+44.4~~

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December 21. 1886

Plate 802.

V	H	Type	No. Lines	K	Focus	other lines	V	H	V	H
6.7	22.5	I	d? 11	N	5	F	34	45.0	44.7	43.4
5.0	15.5	I?	6	K=H	1	—	2.5	31.0	46.6	67.4
5.0	19.8	I	4	N	1	—	2.5	39.6	45.6	48.8
4.0	14.7	I	5	K=.5H	1	—	2.0	29.4	46.1	59.0
2.5	16.0	I	5	N	1	—	1.2	32.0	46.9	66.4

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Means 12

½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to 1900.		Br.	Br. cor.	
	3631	20 37.3	+ 44 61	15	82.3	48.2	86.7	20 38.0	+ 44 56	✓	7.3 ✓	✓
	3706	20 57.0	+ 45 41	6.2	88.0	48.2	88.4	20 57.6	+ 45 46	✓	6.4 ✓	✓
0.269	3662	20 44.9	+ 45 40	6.0	84.6	48.2	87.4	20 45.5	+ 45 45	✓	6.7 5.5 ✓	✓
0.370	3711	20 58.9	+ 66 11	6.9	88.3	68.2	88.0	20 59.4	+ 56 16	✓	6.7 ✓5.5 ~~20 58.4 56 5~~ ✓	✓
	3701	20 65.7	+ 47 3	4.6	87.7	48.2	88.3	20 56.4	+ 47 8	✓	✓	✓

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Ant. of Fog. due to moon & clouds. 7.8 Ant. of Fog. due to chemicals. 7.3

December 23. 1886.

Plate 825.

V	H	Type	Lines No.	K	Focus	other Lines.	V	H	V	H
14.8	17.3	I?	3	N	2	—	7.4	34.6	36.1	56.2
14.8	18.2	I	6	N	3	F	7.4	36.4	38.1	63.4
13.5	13.1	I	9	K=.8H	3	F	6.8	26.2	38.7	64.6
13.5	14.6	I	5	N	2	F	6.8	29.2	38.7	61.6
13.5	18.5	I	4	N	2	—	6.8	37.0	38.7	63.8
13.2	13.8	I?	3	N	1	—	6.6	27.6	38.9	63.2
12.0	15.8	III b 2421	3	K=H	2	F. Allen	6.0	31.6	39.5	59.2
11.9	20.2	I	4	N	1	—	6.0	40.4	39.5	60.4
11.4	19.4	I	5	N	1	—	5.7	38.8	39.8	62.0
11.0	12.6	I	5	N	1	F	6.5	25.2	40.0	66.6
9.1	18.9	I	5	N	2	—	4.6	37.8	40.9	63.0
8.7	10.6	I	4	N	1	—	4.4	21.2	41.1	69.6
8.4	21.1	I?	4	N	1	—	4.2	42.2	41.3	48.6
8.8	24.1	I	5	N	2	F	4.4	48.2	41.1	42.6
8.0	16.8	I b 2422	11	N	4	F Allen	4.0	33.6	41.5	67.2
6.9	16.5	I	7	K=.5H ~~K=.2H~~	2	F	3.4	33.0	42.1	67.8
6.5	7.5	I	3	N	1	—	3.2	15.0	42.3	70.8
4.1	9.9	I?	3	N	1	—	2.0	19.8	43.5	71.0

Ant. of Fog. due to moon & clouds. 8.4 Ant. of Fog. due to chemicals. 8.4

Plate 824.

7.1	15.0	III b 2423	3	K=H	2	F	3.6	36.0	29.7	8.6

Ant. of Fog. due to moon & clouds. 8.4 Ant. of Fog. due to chemicals. 8.4

Plate 900.

20.5	18.2	I	6	N	2	F	10.2	36.4	27.8	16.6
18.3	9.3	I	7	N	2	F	9.2	18.6	28.8	34.4
16.5	8.8	II? 2424	3	K=H	3	F. Allen	8.2	17.6	29.8	35.4
12.1	14.4	I	7	N	2	F	6.0	28.8	32.0	24.2
10.0	6.9	III b 2425	3	K=H	2	F	6.0	13.8	33.0	39.2

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Means

½cosδ	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.	Br. cor.
	Dm.									
	4744	22 54.2	+ 37 6.6	6.7	88.8	45.3	89.7	22 56.3 +38 10	6.8	5.9
07 5.6	4060	22 61.8	+ 48 21	6.1	88.2	65.4	90.3	22 52.7 +48 9	5.4	4.5
	4104	23 7.1	+ 48 45	4.7	33.3	55.6	31.9	23 8.0 +48 51	5.2	4.3
02 6.5	4091	23 2.3	+ 48 39	5.9	31.5	55.4		23 3.2 +48 45	6.3	5.4
	~~4081~~	~~23 18~~	~~+ 58 47~~	~~6.0~~	~~30.7~~	~~66.6~~	~~30.3~~			~~23 17 +48.5~~
0.1 6.3	4061	22 62.1	+ 38 42	6.1	89.1	45.5	90.6	22 53.1 +38 48	6.2	5.3
	Dm. 3950	23 ~~22~~.8	+ 48	52 7.4	30.4	55.5		23 4.8 +49 7	7.2	6.3
	~~4099~~	~~23 4.6~~	~~+ 58 41~~	~~5.4~~	~~32.2~~	~~66.3~~	~~31.0~~			~~23 3.0 +48.8~~
	4079	22 68.8	+ 49 24	4.9	90.4	65.4	90.9	22 59.7 +49 30	6.2	5.3
	Dm. 4957	22 46.6	+ 39 23	6.7	87.0	45.4		22 48.6 +39 37	6.6	5.6
	~~4049~~	~~22 48.6~~	~~+ 39 44~~	~~6.1~~	~~89.0~~	~~65.7~~	~~91.5~~		6.7	5.8
	Dm. 3962	22 46.6	+ 49 39	6.7	85.4	55.3		22 48.5 +49 51		~~22 46.2 +39.4~~
	~~4059~~	~~22 51.6~~	~~+ 20 8~~	~~5.6~~	~~90.4~~	~~25.8~~	~~91.0~~		6.8	5.9
	Dm.									~~22 46.9 +49.7~~
	4071	23 7.6	+ 49 50	6.5	32.8	65.3	31.2	23 9.6 +50 5	6.5	5.6
02 6.2	4065	22 60.9	+ 40 58	6.6	88.7	45.6	90.6	22 51.9 +41 4	6.0	5.1
02 7.2	4123	23 12.7	+ 41 7	6.0	33.9	45.5	31.8	23 13.7 +41 13	7.8	6.1
	4036	22 44.9	+ 41 19	6.8	87.1	45.5	90.3	22 45.8 +41 26	6.8	5.9
	4001	22 32.5	+ 50 56	4.8	80.7	55.3		22 33.2 +51 1	5.7	4.8
03 6.0	~~4023~~	~~22 38.7~~	~~+ 41 11~~	~~6.1~~	~~86.9~~	~~45.6~~	~~91.4~~			~~22 31.7 +50.8~~
02 4.9	4073	22 64	+ 41 41	6.8	90.0	45.7	90.8	22 57.3 +41 47	4.7	3.8
02 6.1	4076	22 67.1	+ 42 7	6.1	90.1	45.5	90.8	22 58.0 +42 13	5.9	5.0
02 7.3	4147	23 21.3	+ 42 15	6.8	36.3	45.5	32.4	23 22.3 +42 21	7.1	6.2
	Dm.									
	4440	23 18.9	+ 43 20	6.3	33.7	45.3	30.8	23 16.0 +43 35	7.3	6.4
	3732	21 7.8	+ 29 44	8.5	43.8	33.3	44.6	21 8.7 +29 49	6.2	6.6
01 6.3	3952	22 65.8	+ 27 44	4.9	52.2	37.9	52.9	22 16.7 +27 50	6.2	
01 6.0	4015	22 66.1	+ 28 40	4.9	54.7	37.9	53.2	22 37.0 +28 48	5.9	
	4020	22 37.4	+ 29 36	3.1	56.0	37.8	53.4	22 38.3 +29 42	6.3	
01 6.5	3979	22 24.5	+ 31 57	6.5	53.3	38.0	53.0	22 25.5 +32 8	6.4	
	4026	22 40.8	+ 22 56	4.2	54.6	27.9	53.2	22 41.7 +23 3	6.5	6.8

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December 23, 1886.

Plate 900.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
10.5	27.9	IV	6	K=H	2	—	5.2	45.8	32.8	7.2
7.7	15.4	I	3	N	1	—	3.8	30.8	34.2	22.2
5.9	14.6	I	4	N	1	—	3.0	29.2	36.0	23.8
2.5	15.6	I	~~4~~ 3	N	1	—	1.2	31.2	36.8	21.8
8.0	5.3	II?	~~4~~ 3	K=H	2	F	4.0	10.6	34.0	42.4

Amt. of Fog. due to moon & clouds. 8.4 Amt. of Fog. due to chemicals. 8.4

Plate 901.

18.7	10.8	I?	~~5~~	N	2	—	9.4	21.6		
17.6	12.1	I	5	N	2	—	8.8	24.2		
18.1	16.1	I	~~7~~	N	2	—	9.0	32.2		
17.5	13.4	I	3	N	1	—	8.8	26.8		
17.1	15.4	I?	~~3~~	N	1	—	8.6	30.8		
16.5	10.0	I?	~~6~~	N	2	F ~~Lines~~	8.2	20.0		
16.5	13.9	I	~~11~~	K=.2H	4	F —	8.2	27.8		
15.3	20.3	I	~~5~~	N	1	—	7.6	40.6		
13.9	12.0	I	~~8~~	K=.5H	3	—	7.0	24.0		
12.5	16.3	II?	~~2~~	K=H	2	—	6.2	32.6		
12.8	17.4	~~I~~ II	~~2~~	K=H	1	—	6.4	34.8		
11.0	14.2	I	~~11~~	N	3	—	5.5	28.4		
11.1	20.0	I	~~5~~	N	1	—	5.6	40.0		
10.9	27.9	I?	~~4~~	N	1	—	5.4	45.8		
8.0	8.9	I	4	~~K=H~~	1	—	4.0	17.8		
8.5	10.6	~~I~~ III	~~2~~	~~K=H~~	1	—	4.2	21.2		
6.1	20.1	I	5	N	1	—	3.0	40.2		
4.0	17.6	I	~~9~~	N	2	F	2.0	35.2		
3.0	18.6	I	~~4~~	K=.5H	2	—	1.5	37.2		
3.5	19.5	~~I~~ II?	~~2~~	~~K=H~~	1	—	1.8	39.0		

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	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Stars to 1900		Br.	
	3917	22 4.7	+32 36	4.4	606	37.8	53.0	22 5.5	+32 42		
	DM. 4594	22 21.4	+24 4	6.8	62.2	27.9	52.3	22 23.5	+24 18		7.4
	DM 4700	22 23.2	+34 59	6.6	62.4	38.0	52.2	22 25.2	+35 13		7.2
	DM 4836	22 20.4	+36 43	6.5	61.6	37.9	51.9	22 22.4	+36 57		
	4034	22 44.2	+23 58	3.7	54.8	28.0		22 45.2	+24 5		6.2
	~~4046~~	~~22 48.3~~	~~+44 7~~	~~6.7~~	~~68.9~~	~~48.1~~	~~53.4~~				

* Plate broken. Part containing this star missing.

Mean 13

22 32.9+38.3	4005	22 33.9	+38 26	5.0	55.5	47.8	22	34.7	+38 32		6.2	4.9
01 6.3 22 29.9+38.9	3997	22 30.6	+39 1	5.3	54.8	47.8	22	31.4	+39 7		6.2	4.9
07 6.0 22 18.6+48.7	3962	22 19.7	+48 52	4.6	51.9	57.9	22	20.4	+48 58		5.8	4.5
01 7.3 22 26.0+39.0	3989	22 27.1	+39 10	5.6	53.9	48.0	22	28.0	+39 16		7.2	5.9
22 21.0+39.1	3966	22 22.2	+39 12	6.1	53.0	47.8	22	23.1	+39 19		7.1	5.8
~~22 21.1+39.5~~												
22 35.0+39.5	4014	22 36.1	+39 37	5.1	56.1	47.8	22	37.0	+39 43		6.2	4.9
07 5.5 22 25.7+49.5	3987	22 26.3	+49 40	3.9	54.1	57.9	22	27.1	+49 46		5.3	4.0
07 6.5 22 5.8+50.1	3922	22 6.5	+50 14	5.4	47.1	57.8	22	7.2	+50 20		6.3	5.0
03 6.6 22 31.4+50.8	4001	22 32.5	+50 56	4.8	56.5	57.9	22	33.2	+51 1		6.3	5.0
22 18.0+51.5	3959	22 18.8	+51 38	4.5	51.4	57.8	22	19.7	+51 44		6.4	5.1
22 15.9+41.4	Nw 4469	22 15.7	+41 22	6.5	50.5	47.8	22	17.6	+41 36		7.2	5.9
07 5.6 22 24.1+42.4	3985	22 25.3	+42 30	4.6	53.7	48.0	22	26.1	+42 36		5.4	4.1
07 6.8 22 8.7+42.3	3937	22 9.7	+42 21	5.7	49.7	48.0	22	10.5	+42 27		6.6	5.3
21 56.5+52.3	3890	21 57.4	+52 18	5.6	103.2	57.7	21	58.2	+52 24		6.6	5.3
22 42.9+53.6	4032	22 43.8	+53 47	6.0	61.6	57.8	22	44.7	+53 58	3	6.8	5.5
~~22 42.8+53 39~~												
22 34.0+43.5	4011	22 35.3	+43 39	4.7	56.5	47.8	22	36.1	+43 46		6.9 7.3	5.6 6.0
07 6.8 22 8.0+44.8	3936	22 8.8	+44 51	5.8	49.0	47.8	22	9.8	+44 57		6.6	5.3
~~22 7.9+44 44~~												
07 5.7 22 15.0+45.8	3953	22 16.1	+45 56	4.8	51.3	47.9	22	16.9	+46 2		5.5	4.2
03 6.0 22 10.0+56.3	3942	22 10.6	+56 27	4.2	47.8	57.9	22	11.3	+56 33		5.7	4.4
22 7.0+56.1	3926	22 7.5	+56 15	5.4	46.5	58.0	22	8.2	+56 21		7.0	5.7

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1886phae.proj..830F

Aust. of Fog. due to moon & clouds. 8.2 Aust. of Fog. due to chemicals. 8.1

December 23. 1886.

Plate 874.

V	H	Type	No. lines	K	Focus	other lines		V	H	V	H
20.0	15.1	III?	2	K=H	1	—		10.0	30.2		
19.4	17.3	I	6	K=H	2	F.		9.7	34.6		
16.5	14.1	I	4	K=H	1	—		8.2	28.2		
17.0	17.4	I	3	N	1	—		8.5	34.8		
10.0	16.6	I?	I? 2	N	1	—		5.0	33.2		
6.1	11.3	I	4	N	1	—		3.0	22.6		
3.5	16.5	I	3	N	1	—		1.8	33.0		
1.7	23.5	I?	2	N	2	—		0.8	47.0		

Aust. of Fog. due to moon & clouds. 8.0 Aust. of Fog. due to chemicals. 17.8

Plate 861

III? 6.1, 6.4.

20.9	15.1	III	3	K=H	2	F.		10.4	30.2	17.5	58.4
15.5	18.2	II?	2	K=H	1	—		7.8	36.4	20.1	52.2
16.5	24.1	II^a? 2426	1	K=H	2	F. Aeen		8.2	48.2	19.7	40.4
15.1	6.4	I	3	N	1	—		7.6	12.8	20.3	75.6
14.8	16.4	II	3	N	1	—		7.4	32.8	20.5	65.8
14.9	13.5	I	3	N	1	—		7.4	27.0	20.5	61.6
13.4	7.3	I	6	N	2	F.		6.7	14.6	21.2	74.0
12.0	6.1	I?	5	N	1	—		6.0	12.2	21.9	76.4
11.5	13.4	I	4	K=H	1	—		5.8	26.8	22.1	61.8
9.9	23.2	III? 2427	3	K=H	1	F. Aeen		5.0	46.4	22.9	42.2
10.2	5.3	II^a? 2428	3	K=H	1	F. Aeen.		5.1	10.6	22.8	78.0
9.6	4.5	I	7	K=5H	2	F.		4.8	15.0	23.1	73.6
8.0	21.5	III b.c.? 2429	3	K=1.2H	2	F. B. Aeen		4.0	43.0	23.9	46.6
4.5	18.2	I?	4	N	1	—		2.2	36.4	25.7	52.2

Aust. of Fog. due to moon & clouds. 8.4 Aust. of Fog. due to chemicals. 8.0

Plate 862.

19.7	16.8	II^{a2} 2430	3	K=5H	2	F. Aeen		9.8	33.6	38.3	54.3
18.4	11.7	I	6	K=H	2	—		9.2	23.4	38.9	64.5

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	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900	Br.
23 18.0+22.6	4143	23 19.4	+22 45	4.6	49.6	32.8		23 20.4+22 51	6.8 / 7.0
23 13.8+22.9	4132	23 14.7	+23 5	4.7	49.3	42.8		23 15.7+23 11	6.3
23 20.5+24.4	4148	23 21.7	+24 31	6.0	49.9	52.7		23 22.7+24 37	6.8
23 12.4+34.0 Dm	4899	23 12.4	+34 0	6.4	47.2	42.5		23 14.6+34 15	7.4
23 15.0+27.8 Dm	4538	23 15.0	+27 54	6.6	48.2	32.9		23 17.2+28 9	7.5 / 7.5
0.17.3 23 27.5+39.4	4165	23 28.8	+39 34	5.5	51.4	42.6		23 29.7+39 42	7.2
0.17.2 23 15.0+31.1	4136	23 16.1	+31 9	5.4	49.1	33.0		23 17.0+31 16	7.1
22 55.0+41.6	4073	22 56.4	+41 41	3.8	1034	42.5		22 57.3+41 47	

Mean 10 — cor. Br

	4078	22 58.0	+27 26	2.6	88.2	37.8	88.3	22 58.9+27 32	6.2 / 6.6	6.2 / 5.6
	4069	22 51.6	+20 8	5.6	88.0	27.9	88.5	22 52.5+20 14	7.1	6.1
	4020	22 37.4	+29 36	3.1	85.6	37.8	88.1	22 38.3+29 42	5.5	4.5
0.0 7.1	4138	23 16.7	+20 10	6.1	29.5	27.8	28.4	23 17.7+20 16	7.1	6.1
0.1 7.5	4069	22 55.0	+30 27	6.5	87.6	37.8	88.2	22 55.9+30 33 ~~7.3 22 53.8+30 19~~	7.3 / 7.4	6.4
0.0 6.8	4087	23 1.5	+20 30	6.9	28.5	27.9	28.3	23 ~~17~~ 2.6+20 37 ~~23 0.4+20 22~~	6.8	5.8
0.1 6.3	4136	23 16.1	+31 9	5.4	30.7	37.9	28.4	23 17.0+31 16	6.2	5.2
	4142	23 19.0	+31 43	6.5	31.2	37.7	28.5	23 19.9+31 50	6.5	5.5
	~~Dm. 4781~~	~~23 1.2~~	~~+22 18~~	~~7.8~~	~~28.0~~	~~28.0~~	~~27.4~~			
	4587	23 0.5	+32 3	6.3	27.3	37.8	26.8	23 2.6+32 18	6.7	5.7
	4026	22 40.8	+22 66	4.2	87.2	27.9	88.5	22 41.7+23 3	6.5 / 6.7	5.5 / 5.7
	4143	23 19.4	+22 45	4.6	30.0	27.9	28.6	23 20.4+22 51	6.5	5.5
0.0 6.1	4132	23 14.7	+23 5	4.7	29.7	27.9	28.4	23 15.7+23 11	6.1	5.1
	4034	22 44.2	+23 68	3.7	87.2	28.0	88.4	22 45.2+24 5	5.8 / 6.1	4.8 / 5.1
	4054	22 60.2	+35 44	5.6	86.6	37.9	87.9	22 51.1+35 50 ~~22 49.0+35 36~~	7.0	6.0

Mean 12 — cor. Br

	4060	22 51.8	+48 2	6.1	85.4	57.8	86.7	22 52.7+48 9	6.0	4.8
	4104	23 7.1	+48 46	4.7	30.5	68.0	28.5	23 8.0+48 51	6.3	5.1

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December 23, 1886

Plate 862.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
18.5	13.2	I	3	N	1	—	9.2	26.4	38.9	61.5
18.5	17.2	I?	4	K=H	1	—	9.2	34.4	38.9	53.5
17.7	12.7	~~III~~ I	2	K=H	1	—	8.8	25.4	39.3	62.5
III ? 6.5, 6.7.	17.1	14.4	III	b 2431	3	K=H	1	F. seen	8.6	28.8	39.5	59.1
	16.1	18.0	I?	4	K=H	1	—	8.0	36.0	40.1	51.9
	16.4	23.4	II?	2	K=H	1	—	8.2	46.8	39.9	41.1
	15.8	11.2	I	5	K=H	1	—	7.9	22.4	40.2	65.5
	14.0	17.6	I	6	N	2	—	7.0	35.2	41.1	52.7
	13.7	22.8	I	7	K=.5H	2	F.	6.8	45.6	41.3	42.3
	13.0	19.8	I?	4	K=H	1	—	6.5	39.6	41.6	48.3
	13.5	9.3	I	4	K=H	1	—	6.8	18.6	41.3	69.3
	12.7	15.5	I	b 2432	11	N	4	F.	6.4	31.0	41.7	56.9
	12.5	15.9	I?	2	N	1	—	6.2	31.8	41.9	56.1
	11.8	15.2	I	7	K=.2H	2	F.	5.9	30.4	42.2	57.5
	11.0	6.2	I	3	N	1	—	5.5	12.4	42.6	75.5
	10.8	10.6	I?	4	K=H	1	—	5.4	21.2	42.7	66.7
	10.0	12.3	I	3	N	1	—	5.0	24.6	43.1	63.3
	9.1	15.1	I	4	K=H	1	—	4.6	30.2	43.5	57.7
	9.0	8.6	I?	3	N	1	—	4.6	17.2	43.6	70.7
	8.4	18.9	I?	6	K=H	1	F.	4.2	37.8	43.9	50.1
	8.0	21.0	~~II~~ I	2	K=H	1	—	4.0	42.0	44.1	45.9
	7.8	18.4	I	4	N	1	—	3.9	36.8	44.2	51.1
	6.8	14.8	I?	4	K=H	1	—	3.4	29.6	44.7	58.3
	3.5	15.5	I	3	N	1	—	1.8	31.0	46.3	56.9

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Mean 12

½ cos δ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.	Cor. Br.
027.1	4091	23 2.3	+ 48 39	5.9	28.7	67.8	27.5	23 3.2 +48 85	6.9	5.7
	4061	22 52.1	+ 38 42	6.1	86.5	47.9	87.2	22 53.1 +38 48	6.7	5.5
	Dm. 3950	23 2.8	+ 48 52	7.4	28.2	57.7		23 4.8 +48 7	7.1	5.9
	~~4069~~	~~23 6.5~~	~~+ 49 12~~	~~9.2~~	~~28.9~~	~~68.0~~	~~27.4~~	~~23 6.5 +49~~ 27	7.45	6.2
	4079	22 58.8	+ 49 24	4.9	87.6	68.0	87.1	22 59.7 +49 30	6.3	5.1
	Dm 3962	22 46.6	+ 49 39	6.7	82.6	57.6		22 48.5 +49 53	6.5	5.3
	~~4069~~	~~22 51.6~~	~~+ 20 8~~	~~6.6~~	~~87.6~~	~~28.1~~	~~88.0~~		6.7	5.5
	~~Dm 3905~~	~~22 29.9~~	~~+ 49 19~~	~~6.3~~	~~76.7~~	~~57.5~~		~~22 31.8 +49 33~~		
	~~4014~~	~~22 36.1~~	~~+ 39 37~~	~~6.4~~	~~82.9~~	~~47.8~~	~~86.7~~	~~22 37.0 +39 43~~	6.2	5.0
	~~Dm 6023~~	~~23 7.1~~	~~+ 40 1~~	~~8.0~~	~~29.5~~	~~47.9~~	~~27.9~~	~~23 9.2 +40 16~~		
	Dm 4071	23 7.6	+ 49 50	6.5	30.0	57.7	27.5	23 9.6 +50 5	6.6	5.4
026.2	4058	22 50.9	+ 40 58	6.6	86.1	48.0	87.4	22 51.9 +41 4	6.0	4.8
	4001	22 32.5	+ 50 56	4.8	78.1	57.7		22 33.2 +51 1		
036.2	~~4042~~	~~22 38.7~~	~~+ 41 11~~	~~6.1~~	~~84.3~~	~~48.0~~	~~88.1~~		5.9	4.7
	4036	22 44.9	+ 41 19	5.8	84.5	47.8	86.9	22 45.8 +41 26	6.5	5.3
	4123	23 12.7	+ 41 7	6.0	31.3	47.9	30.9	23 13.7 +41 13	6.7	5.5
024.9	4073	22 56.4	+ 41 41	3.8	87.4	48.1	87.7	22 57.3 +41 47	4.7	3.5
	Dm 3575	22 52.9	+ 51 33	7.0	84.7	57.8		22 54.8 +51 47	7.4	6.2
	~~4826~~	~~22 54.7~~	~~+ 31 50~~	~~9.1~~	~~86.5~~	~~38.0~~	~~86.8~~	~~22 56.8 +32 4~~		
026.1	4076	22 57.1	+ 42 7	6.1	87.5	48.0	87.7	22 58.0 +42 13	5.9	4.7
027.0	4147	23 21.3	+ 42 15	6.8	33.7	47.7	29.2	23 22.3 +42 21	6.8	5.6
	4116	23 11.0	+ 52 34	6.6	32.2	68.0	28.7	23 12.1 +52 40	6.7	5.5
027.2	4101	23 4.9	+ 42 65	6.9	29.5	47.9	28.0	23 5.8 +43 0	7.0	5.8
	Dm. 4378	22 56.2	+ 43 17	6.1	86.4	47.9	86.6	22 58.2 +43 31	7.0	5.8
	Dm. 4440	23 13.9	+ 43 20	6.3	31.1	47.8	28.6	23 16.0 +43 35	7.1	5.9
	Dm. 4032	22 43.8	+ 53 47	6.0	81.6	58.0		22 44.7 +53 53		
	~~4331~~	~~22 47.2~~	~~+ 43 69~~	~~6.0~~	~~85.0~~	~~48.2~~	~~87.2~~	~~22 49.2 +44 13~~	6.5	5.3
	Dm. 4025	22 40.8	+ 43 55	5.7	82.8	47.9		22 41.7 +44 1		
	~~2856~~	~~22 46.6~~	~~+ 64 7~~	~~7.1~~	~~82.6~~	~~68.1~~	~~87.5~~	~~22 47.4 +54 21~~	7.2	6.0
027.3	4046	22 48.3	+ 44 7	5.7	86.1	48.0	86.9	22 49.2 +44 13	7.1	5.9
	Dm. 2900	22 56.5	+ 64 28	6.6	86.1	67.9	85.8	22 58.4 +54 42	6.9	5.7
037.5	4070	22 55.1	+ 56 18	5.6	86.1	58.1		22 55.9 +56 24		
	~~4072~~	~~22 56.4~~	~~+ 56 28~~	~~6.6~~	~~87.4~~	~~68.3~~	~~87.9~~		7.2	6.0

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Aust. of Fog. due to moon & clouds. 7.3 Aust. of Fog. due to chemicals. 6.6

December 27. 1886.

Plate 841.

	V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
2 15	21.5	11.4	I	5	N	1		10.8	22.8	42.3	68.6
	21.0	13.2	IIa 12433	3?	K=H	2	F. Nebs	10.5	26.4	42.6	65.0
	20.7	5.6	IIa ?2434	3	K=H	2	F. Nebs	10.4	11.2	42.7	80.2
	18.6	15.3	I	I. 3 4	N	K=H 1	— —	9.3	30.6	43.8	60.8
	18.0	15.7	I	6	K=H	2	F. line?	9.0	31.4	44.1	60.0
Double?	17.5	13.5	I	4	K=H	1	—	8.8	27.0	44.3	64.4
	17.5	13.5	I	4	K=H	1	—	8.8	27.0	44.3	64.4
	17.0	14.7	I	4	N	1	—	8.5	29.4	44.6	62.0
	16.8	14.5	I	4	N	1	—	8.4	29.0	44.7	62.4
	16.5	11.8	I	6	N	2	—	8.2	23.6	44.9	67.8
	14.4	9.4	I	10	N	3	F.	7.2	18.8	45.9	72.6
	13.2	12.5	I	4	K=H	1	—	6.6	25.0	46.5	66.4
	13.3	21.9	I? I? 3	3	N	1 1	— —	6.6	43.8	46.5	47.6
	12.0	10.8	III b 2435	3	K=H	1	F. Nebs	6.0	21.6	47.1	69.8
	11.5	13.6	I?	4	K=H	1	—	5.8	27.2	47.3	64.2
	11.0	14.5	I?	5	K=H	1	—	5.5	29.0	47.6	62.4
	11.9	9.6	I	4	K=H		—	6.0	19.2	47.1	72.2
	12.4	6.5	II?	2	K=H		—	6.2	13.0	46.9	78.4
	11.7	6.6	III?	3	K=H	1	F. —	5.8	13.2	47.3	78.2
	10.5	23.6	I	5	K=H	2	—	5.2	47.2	47.9	44.2
	10.0	21.6	I	5	N	1	F.	5.0	43.2	48.1	48.2
	10.0	17.5	II?	2	K=H	1	—	5.0	35.0	48.1	56.4
	10.0	12.8	I ?	6	K=H	1	—	5.0	25.6	48.1	65.8
	8.6	20.6	I b 2436	9	N	3	F. line? Neb.	4.3	41.6	48.5	49.8
	8.2	20.5	I	4	N	1	—	4.1	41.0	49.0	50.4
	8.1	11.4	III b 2437	3	K=H	1	F. —	4.0	23.4	49.1	68.0
	8.5	8.4	I	9	N	3	—	4.2	16.8	48.9	74.6
	7.7	6.4	I?	3	N	1	—	3.8	12.6	49.3	78.6

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Mean 12

½ cos δ	No.	R.A.	Dec.	Mag.	x	y	H′	Red. of D.M. stars to 1900	Cor. Br.	Cor. Rv
0.7.1	3937	22 9.7	+ 42 21	6.7	32.7	60.2	30.9	22 10.5 + 42 27	6.9	5.7
	3917	22 4.7	+ 32 35	4.4	31.1	43.1		22 5.5 + 32 42		
	~~Dm 4315 22 6.0 + 42 19 6.7 31.4 50.8 30.5 22 6.4 + 42 32~~								6.2	5.0
	~~4552 22 3.6 + 32 28 3.6 90.0 43.0 85.5~~									223.8+32.4
	3986	22 26.3	+ 42 30	4.6	36.6	52.9	31.6	22 26.1 + 42 36	5.9	4.7
	Dm 4121	22 58.0	+ 43 54	7.6	88.6	53.2		23 0.1 + 44 8		
	~~Dm 4126 22 0.0 + 43 36 7.2 30.6 52.9 30.8 22 1.8 + 43 49~~								7.3 7.2	6.0
	3896	21 58.2	+ 44 4	6.6	89.6	63.1	90.0	21 58.9 + 44 10	6.4	5.2
	Dm. 4058	22 3.2	+ 44 9	6.9	30.2	52.9	29.4	22 5.0 + 44 22	6.8	5.6
	Dm. 4059	22 3.3	+ 44 8	6.9	30.3	52.9	29.4	22 5.1 + 44 21	6.9	5.7
	Dm 4041	22 0.0	+ 44 24	7.0				22 1.8 + 44 37		
0.7.1	~~3905 22 1.2 + 44 26 6.3 30.6 52.9 30.4 22 1.9 + 44 31~~								6.9	5.7
	Dm 4041	22 6.0	+ 44 24	7.0	29.0	52.8		22 1.8 + 44 37		
	~~3904 22 1.4 + 44 46 4.0 30.4 60.2 30.3~~								6.7	5.5
	Dm 4044	22 0.4	+ 44 33	6.3				22 2.4 + 44 46		22 0.0 + 44 5
0.6.6	3936	22 8.8	+ 44 6.1	6.8	32.4	63.0	30.6	22 9.8 + 44 57	6.9	5.2
								~~22 7.8 + 44 44~~	6.4	
0.7.5.8	3963	22 16.1	+ 46 6	4.8	34.9	53.1	31.4	22 16.9 + 46 2	5.6	4.4
	Dm. 3612	22 6.2	+ 46 23	7.2	31.2	53.0	30.7	22 8.0 + 46 36	7.1	5.9
	~~Dm 3422 21 38.9 + 46 12 6.5 82.7 52.8~~							21 40.6 + 46 24		
	~~3448 21 43.4 + 46 14 7.8 87.2 52.8 91.4 21 45.1 + 46 26~~								7.2 7.3	6.1
										21 38.8 + 46.3
	3944	22 10.7	+ 37 9	4.1	32.3	43.2	30.6	22 11.6 + 37 15	6.5 6.9	5.3 5.7
	Dm. 3706	22 3.0	+ 47 14	6.9	30.2	53.0	29.3	22 4.8 + 47 27	7.3	6.1
	Dm. 3692	22 0.2	+ 47 32	6.6	29.2	53.0	28.9	22 2.0 + 47 45	6.6	5.4
	Dm. 4537	22 12.6	+ 37 2	6.6	31.8	43.0	29.5	22 14.6 + 37 15	7.1	5.9
	Dm 4835	22 20.4	+ 36 43	6.5	33.4	42.9		22 22.4 + 36 57	5.9	
	~~3980 22 24.6 + 47 6 4.6 32.6 53.3 32.1~~								7.1	22 20.4 + 36.8
	3986	22 24.6	+ 47 6	4.6	31.8	52.9		22 25.4 + 47 12	7.0	5.8
	~~Dm. 3418 21 22.3 + 47 10 7.9 35.6 53.0 31.1 21 23.9 + 47 22~~								7.4	3980 H.P 22236+47.0
	3837	21 38.6	+ 37 44	6.6	85.7	42.9	89.4	21 39.3 + 37 50	6.5	5.3
0.1.6.7	3858	21 43.6	+ 38 6	6.8	86.7	43.1	89.6	21 44.4 + 38 11	6.6	5.4
	Dm 3618	21 51.5	+ 47 59	6.5	86.5	53.0		21 53.2 + 48 12		21 42.5 + 37 59
	~~2566 21 54.4 + 48 26 7.3 89.1 63.4 90.7 21 55.8 + 48 39~~								6.8	5.6
	Dm 3722	22 5.3	+ 47 58	6.8	30.9	53.0		22 7.0 + 48 11		21 51.6 + 47.9
	~~Dm. 2403 22 7.0 + 68 21 6.3 32.6 63.4 30.4 22 8.4 + 68 34~~								6.8	5.6
	~~4280 22 7.0 + 27 54 6.4 32.6 62.9 32.0~~									22 5.0 + 47.9
0.7.5.4	3856	21 42.4	+ 48 46	4.4	84.0	63.1	87.9	21 43.1 + 48 51	5.2	4.0
	~~Dm. 3624 21 46.2 + 48 46 7.6 86.2 64.9 89.1~~								6.8	5.6
	4621	21 46.1	+ 38 52	6.5	86.1	43.0	88.5	21 47.0 + 39 5		
	3936	22 8.7	+ 39 7	4.6	32.1	43.1	30.7	22 9.5 + 39 13	6.6 7.0	5.4 5.8
0.7.6.7	3962	22 19.7	+ 48 52	4.6	36.6	63.1	32.0	22 20.4 + 48 58	5.8	4.6
	Dm. 3966	22 22.2	+ 39 12	6.1	35.0	43.0		22 23.4 + 39 19		22 21.1 + 39 5
	~~4841 22 21.1 + 39 6 6.0 36.9 42.9 30.0 22 23.1 + 39 19~~								6.9	5.7 H.P

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Plate 841.

V	H	Type	Lines	K	Focus	other lines.	V	H	V	H
6.7	6.3	I	7	N	4	F	34	12.6	49.7	78.8
6.0	12.8	I	6	N	2	F	3.0	25.6	60.1	65.8
4.7	21.9	I	7	N	3	—	2.4	43.8	60.7	47.6

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.5 Plate 840. 7.7

22.5	7.5	I	4	N	1	—	11.2	15.0	22.0	76.2
20.9	17.5	I?	3	N	1	—	10.4	35.0	22.8	65.2
16.8	14.4	II[a] 2438	3	K=H	3	Faint	8.4	28.8	24.8	61.4
16.4	13.8	I	4	N	1	—	8.2	27.6	25.0	62.6
15.9	7.3	I I	3 3	N N	1 1	— —	8.0	14.6	25.2	70.6
15.5	20.7	I	7	N	2	F. —	7.8	41.4	25.4	48.8
15.1	16.7	I?	3	N	1	—	7.6	33.4	25.6	66.8
12.6	22.7	II[a] 2439	3	K=H	2	F —	6.3	45.4	26.9	44.8
12.1	14.0	I?	3	N	1	—	6.0	28.0	27.2	62.2
10.8	8.0	I	8	N	2	F —	5.4	16.0	27.8	74.2
9.5	15.0	I	5	N	1	—	4.8	30.0	28.4	60.2
9.7	20.7	II?	2	K=H	1	—	4.8	41.4	28.4	48.8
8.5	14.3	I	5	K=H	1	—	4.2	28.6	29.0	61.6
8.0	20.9	I	5	N	1	—	4.0	41.8	29.2	48.4
7.6	21.8	I?	2	N	1	—	3.8	43.6	29.4	46.6
7.0	21.8	I	5	N	1	—	3.5	43.6	29.7	46.6
6.5	12.7	I?	3	N	1	—	3.2	25.4	30.0	64.6
5.5	12.9	I	4	K=H	1	—	2.8	25.8	30.4	64.4
4.0	14.1	I	6	N	1	—	2.0	28.2	31.2	62.0

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

7.8 Plate 832. 7.8

20.5	17.7	I	5	N	1	—	10.2	35.4	27.8	16.2
18.5	8.7	I	5	N	1	—	9.2	17.4	28.8	34.2

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Mean 12

½ cos δ.	No.	R.A.	Dec.	Mag.	M	V	M	Red. of D.M. stars to 1900		Br.	cor Br.
0.2 5.2	3987	21 21 16.3	+ 49 40	3.9	38.9	63.1	32.7	22 27.1	+49 46	5.0	3.8
0.2 6.6	39221	22 6.5	+ 60 14	6.4	32.1	63.2	30.6	22 7.2	+50 20	6.4	5.2
	3833	21 37.8	+ 50 38	4.9	81.6	53.0		21 38.6	+ 50 44	4.2	
0.2 5.6	~~3866~~	~~21 42.0~~	~~+ 60 34~~	~~4.6~~	~~85.8~~	~~63.0~~	~~92.7~~			5.4	21 37.0 +50.5

Mean 11

	3951	22 15.6	+ 11 36	6.1	30.6	22.8	30.2	22 16.6	+11 42		
	3886	21 56.2	+ 12 33	6.6	90.2	23.0	90.4	21 56.2	+12 38	7.1	6.0
	3907	22 1.4	+ 24 46	4.0	30.2	33.2	30.0	22 2.3	+24 51	5.5	4.4
Dm.	4540	22 1.6	+ 24 60	7.0	29.2	33.0	28.4	22 3.7	+25 3	7.2	6.1
Dm.	4786	22 18.1	+ 14 55	7.0	29.7	22.9	29.0	22 18.3	+15 8	7.3	6.3
0.1 6.3	3867	21 47.6	+ 26 22	6.0	89.0	33.2	90.2	21 48.5	+25 27	6.2	5.1
Dm.	4648	21 55.7	+ 15 18	6.8	89.1	22.9	89.3	21 57.9	+15 31	7.3	6.2
	3860	21 44.4	+ 16 46	6.3	89.8	23.1	90.6	21 45.4	+16 49	6.6	5.5
Dm.	4673	22 1.2	+ 16 51	7.3	29.2	22.8		22 3.4	+ 17 4	7.4	6.2
	~~4693~~	~~22 0.6~~	~~+ 17 19~~	~~6.6~~	~~28.6~~	~~23.6~~	~~28.5~~	~~22 2.8~~	~~+17 32~~		~~22 1.5 +16.8~~
0.1 6.0	3962	22 16.8	+ 27 44	4.9	31.8	63.1	30.2	22 16.7	+27 50	5.9	4.8
0.1 6.7	3902	22 0.2	+ 28 23	6.5	30.2	63.2	30.2	22 1.1	+28 28	6.6	5.5
	3866	21 47.2	+ 28 14	6.6	88.6	63.0	90.0	21 48.0	+28 20	6.8	5.7
Dm.	4930	22 0.6	+ 18 46	6.1	29.2	23.0	29.1	22 2.7	+18 59	6.7	5.6 H.P.
0.0 6.6	3869	21 48.0	+ 19 6	5.7	89.8	23.1	90.5	21 48.9	+19 13	6.6	5.5
	3863	21 45.9	+ 19 16	6.6	89.5	23.1	90.3	21 46.9	+19 22	6.8	5.7
0.1 6.3	3861	21 44.5	+ 29 37	6.0	88.1	63.1	89.9	21 45.4	+29 43	6.2	5.1
Dm	4604	22 4.3	+ 29 51	6.5	29.7	33.0		22 6.3	+30 4	7.3	6.2
	~~3902~~	~~22 6.5~~	~~+ 60 14~~	~~6.4~~	~~31.9~~	~~63.4~~	~~30.4~~				~~22 4.2 +29.8~~
	3919	22 4.9	+ 20 23	6.4	30.7	23.2	30.3	22 5.8	+20 30	7.2	6.1
0.0 6.6	3910	22 2.2	+ 21 7	6.7	30.4	23.1	30.3	22 3.1	+21 13	6.6	5.5

0.1 6.7	3962	22 16.8	+ 27 44	4.9	51.2	63.9	51.8	22 16.7	+27 58	6.6	
0.1 6.2	4016	22 36.1	+ 28 40	4.9	63.6	69.9	52.0	22 37.0	+28 48	6.5	

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Plate 832.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
16.8	8.2	II?	3	~~K=1.2H~~ K=H	3	F.	8.4	16.4	29.6	35.2
12.4	13.8	I	~~6~~ N		1	F.	6.2	27.6	31.8	24.0
10.9	22.2	II[a] 2440	~~3~~ K=H		2	F. Allen	5.4	44.4	32.6	7.2
10.2	6.3	I?	3 N		2	—	5.1	12.6	32.9	39.0
7.9	14.7	I?	3 N		1	—	4.0	29.4	34.0	21.2
2.0	19.4	I?	~~1~~ N		1	—	1.0	38.8	37.0	12.8

mt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals. 7.6

Plate 833. 7.6

19.4	10.0	I	N		1	—	9.7	20.0	38.5	31.2
18.2	11.4	~~II~~	~~2~~	~~K=H~~	1	—	9.1	22.8	39.1	28.4
18.5	15.4	I	~~8~~ N		2	—	9.2	30.8	39.0	20.4
18.0	12.7	I	3 N		1	—	9.0	25.4	39.2	25.8
17.8	14.7	I?	3 N		1	—	8.9	29.4	39.3	21.8
17.0	9.2	I?	~~6~~ N		1	F.	8.5	18.4	39.7	32.8
17.0	13.2	I	~~11~~	K=½ H	4	Fline	8.5	26.4	39.7	24.8
15.7	19.6	I	~~5~~	~~K=H~~	2	—	7.8	39.2	40.4	12.0
14.5	11.3	I	~~8~~	K=.5H	2	F.	7.2	22.6	41.0	28.6
13.1	15.6	III?	~~3~~	K=½H	2	F.	6.6	31.2	41.6	20.0
13.3	16.7	I	4 N		1	—	6.6	33.4	41.6	17.8
11.5	13.4	I K 2441	~~6~~ N		3	F. Allen	5.8	26.8	42.4	24.4
11.5	19.2	I	5 N		1	—	5.8	38.4	42.4	12.8
11.4	22.1	~~II~~[a2] 2442	~~3~~	K=H	1	F Allen	5.7	44.2	42.5	7.0
9.0	9.8	III?	2	K=H	1	—	4.6	19.6	43.7	31.6
8.5	8.1	~~I III~~	4	~~K=H~~	1	—	4.2	16.2	44.0	36.0
7.8	23.3	I	~~5~~	K=H	1	—	3.9	46.6	44.3	4.6
6.6	19.3	I	5	K=.5H	1	Fline?	3.3	38.6	44.9	12.6
5.5	11.9	I?	~~3~~ N		1	—	2.8	23.8	45.4	27.4
4.6	16.7	I	~~9~~ N		2	F.	2.3	33.4	45.9	17.8

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½cosδ.	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.	
	40210	22 37.4	+ 29 36	3.1	53.8	38.0	52.0	22 38.3 + 29 42	6.0	
	~~Dm.~~ 3979	22 24.5	+ 31 57	5.5	52.1	38.2		22 25.5 + 32 4	6.6	
0.1 6.7	~~4908~~	~~22 23.4~~	~~+ 31 60~~	~~6.0~~	~~51.0~~	~~38.0~~	~~50.6~~	~~22 25.4 + 32~~		H.P.
	3917	22 4.7	+ 32 38	4.4	49.1	38.0	51.5	22 5.5 + 32 42	6.2	
	40216	22 40.8	+ 22 66	4.2	53.4	28.0	51.9	22 41.7 + 23 3	6.8	
	Dm. 4694	22 21.4	+ 24 4	6.8	50.8	28.1	50.4	22 23.5 + 24 18	7.4	
	3944	22 10.7	+ 37 9	4.1	49.5	38.2	51.3	22 11.6 + 37 15		

Mean 13

0.1 6.5	40066	22 33.9	+ 38 26	6.0	53.9	48.1	51.7	22 34.7	+ 38 32	6.4	5.1
	3997	22 30.6	+ 39 1	6.3	53.4	48.1	51.9	22 31.4	+ 39 7	6.6	5.3
0.2 6.4	3962	22 19.7	+ 48 62	4.6	50.6	68.1	50.9	22 20.4	+ 48 58	6.2	4.9
0.1 7.5	3989	22 27.1	+ 39 10	6.6	52.5	48.2	51.5	22 28.0	+ 39 16	7.4	6.1
	3966	22 22.2	+ 39 12	6.1	51.6	48.1	51.4	22 23.1	+ 39 19	7.3	6.0
	40114	22 36.1	+ 39 37	6.1	54.5	48.1	51.9	22 37.0	+ 39 43	6.5	5.2
0.2 5.3	3987	22 26.3	+ 49 40	3.9	52.7	68.2	51.4	22 27.1	+ 49 46	5.1	3.8
	~~Dm. 23358~~	~~22 7.0~~	~~+ 60 2~~	~~5.4~~	~~46.8~~	~~67.8~~	~~51.0~~	~~22 38.+60 15~~			
	3921 2	22 6.5	+ 50 14	5.4	45.7	58.0		22 7.2 + 50 20			
	~~4769~~	~~22 9.3~~	~~+ 40 8~~	~~7.3~~	~~48.5~~	~~47.9~~	~~50.7~~		6.6	5.3	22 5.8 + 50.2
0.3 6.3	40011	22 32.5	+ 60 66	4.8	56.1	68.1	52.4	22 33.2	+ 51 1	6.0	4.7
	3959	22 18.8	+ 61 38	4.5	50.0	68.2	50.5	22 19.7	+ 51 44	6.4 6.6	5.1 5.3
	Dm. 4469	22 15.7	+ 41 22	6.5	49.1	48.0	49.9	22 17.6	+ 41 36	7.2	5.9
0.2 5.5	3986	22 26.3	+ 42 30	4.6	52.1	48.3	51.2	22 26.1	+ 42 36	5.3	4.0
0.2 6.9	3937	22 9.7	+ 42 21	6.7	48.1	48.2	50.4	22 10.5	+ 42 27	6.7	5.4
	3890	21 57.4	+ 52 18	5.6	101.6	58.0		21 58.2	+ 52 24	6.7	5.4
	~~3941~~	~~22 4.1~~	~~+ 32 66~~	~~4.4~~	~~48.9~~	~~58.9~~	~~51.3~~				21 56.4 + 52.3
	40111	22 36.3	+ 43 69	4.7	54.9	48.1	51.9	22 36.1	+ 43 46	6.8 7.2	5.5 5.9
	40225	22 40.8	+ 43 65	6.7	57.0	48.1	53.2	22 41.7	+ 44 1	6.9	5.6
	3896	21 58.2	+ 44 4	6.6	104.8	48.0	109.4	21 58.9	+ 44 10	6.9	5.6
0.2 6.6	3936	22 8.8	+ 44 61	5.8	47.4	48.1	51.3	22 9.8	+ 44 57	6.4	5.1
	~~Dm. 3981~~	~~22 27.2~~	~~+ 45 24~~	~~7.9~~	~~51.0~~	~~48.2~~	~~49.2~~				22 7.9 + 44 44
	2779	22 30.2	+ 65 19	6.8	54.0	68.1	51.3	22 32.0	+ 55 33	7.1	5.8
0.2 6.0	3963	22 16.1	+ 46 66	4.8	49.5	48.2	50.5	22 16.9	+ 46 2	5.8	4.5

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Plate 833.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H
14.5	20.2	I	I? 3	N	K=H	1 1	—	2.2	40.4	46.0	10.8
3.8	18.6	I?	4	K=H		1	—	1.9	37.2	46.3	14.0
3.5	17.7	I	9	K=.8H		2	F	1.8	35.4	46.4	15.8
3.0	15.5	I	4	N		1	—	1.5	31.0	46.7	20.2
2.4	13.7	I?	3	N		1	—	1.2	27.4	47.0	23.8

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

Poor Plate. April 1, 88. Hard to Measure 7.5

Plate 845.

7.1

15.9	6.2	I II?	3	K=H		1	F	8.0	12.4	25.1	37.4
14.9	15.3	I?	3	N		1	—	7.4	30.6	25.7	19.2
12.0	13.8	I	7	K=.5H		2	F	6.0	27.6,	27.1	22.2
9.6	6.5	I	5	K=H		1	F	4.8	13.0	28.3	36.6
18.5	14.5	II? IIa? 3	2442a 2	K=H	K=H	1 1	Clear	4.2	29.0	28.9	20.8
8.6	9.2	I	4	K=H		1	—	4.3	18.4	28.8	31.4
7.6	16.6	III	b. 2443 3	K=H		2	F	3.8	33.2	29.3	16.6
6.7	20.1	III	b. 2444 3	K=.5H	K=H	3	F	3.4	40.2	29.7	9.6
6.6	22.0	I?	5	K=H		1	—	3.3	44.0	29.8	6.6

Amt. of Fog. due to moon & clouds. Amt. of Fog. due to chemicals.

0.5

Plate 903.

8.5

20.5	9.8	I?	3	N		1	—	10.2	19.6	37.8	71.9
19.8	17.8	I	I? 3 4	N	K=H	1 1	—	9.9	35.6	38.1	55.9
19.8	18.5	I	8	N		3	F	9.9	37.0	38.1	54.5
18.5	13.4	I	8	K=.8H		3	F	9.2	26.8	38.8	64.7
18.5	14.9	II?	2	K=H		1	—	9.2	29.8	38.8	61.7
18.5	18.9	I	4	N		1	—	9.2	37.8	38.8	53.7
17.6	14.4	III?	2	K=H		1	—	8.8	28.8	39.2	62.7
17.1	16.0	III	b. 2445 2	K=H		1	Clear	8.6	32.0	39.4	59.5
16.7	20.6	I	5	N		1	—	8.4	41.2	39.6	50.3
16.3	19.6	I	5	N		1	—	8.2	39.2	39.8	52.3

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Mean 13

1/2 cos D.

No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. stars to 1900		Br.	Br. cor.
Dm 2679	22 1.1	+ 55 38	6.8	41.5	57.8		22 2.7	+55 51		
~~Dm 4788~~	~~22 8.0~~	~~+ 36 7~~	~~7.2~~	~~48.4~~	~~38.3~~	~~50.4~~				
~~2727~~	~~22 6.6~~	~~+ 56 7~~	~~6.0~~	~~47.0~~	~~58.3~~	~~51.5~~	~~22 8.2~~	~~+56 20~~	7.1 7.3	6.0
3926	22 7.5	+ 56 15	5.4	44.7	58.1		22 8.2	+ 56 21		
~~3942~~	~~22 10.6~~	~~+ 56 29~~	~~4.2~~	~~47.8~~	~~58.3~~	~~51.1~~				
3942	22 10.6	+ 56 27	4.2	46.0	58.2		22 11.3	+ 56 33	7.0	5.7
~~Dm 2746~~	~~22 11.2~~	~~+ 56 30~~	~~6.5~~	~~46.6~~	~~58.3~~	~~49.1~~	~~22 12.0~~	~~+56 45~~	5.6	4.3
~~4811~~	~~22 14.1~~	~~+ 36 35~~	~~6.9~~	~~49.5~~	~~38.4~~	~~50.5~~				
~~3945~~										
~~Dm 2765~~	22 17.7	+ 56 33	6.7	48.7	58.1		22 19.3	+ 56 47	7.0	5.7
~~4836~~	~~22 20.4~~	~~+ 36 43~~	~~6.6~~	~~51.4~~	~~38.2~~	~~51.6~~	~~22 21.1~~	~~+36 57~~		
3980	22 24.6	+ 47 6	4.6	52.0	48.3	51.2	22 25.4	+ 47 12		

3843	21 39.2	+ 26 6	4.2	51.6	33.1	50.9	21 40.3	+ 25 11	6.7	
3778	21 19.3	+ 26 41	6.8	49.9	33.1	50.1	21 20.1	+ 25 45	6.8	
3786	21 22.4	+ 27 6	6.4	50.0	33.1	49.7	21 23.3	+ 27 11	6.4	
3840	21 38.8	+ 28 12	4.4	51.8	33.0	49.7	21 39.6	+ 28 18	6.3	
Dm. 3841										
4085	21 19.0	+ 28 60	7.3	48.0	33.0	47.8	21 20.9	+ 29 1	7.1 7.1	
3813	21 32.1	+ 18 47	6.2	50.6	33.1	49.8	21 33.0	+ 18 52	7.0	
3716 61	21 16.6	+ 19 17	4.3	49.7	33.1	49.9	21 17.5	+ 19 23	6.5 6.9	
3732	21 7.8	+ 29 44	3.5	48.0	33.1	49.4	21 8.7	+ 29 49	5.6 5.9	
3724	21 3.6	+ 29 43	6.5	47.6	33.0	49.5	21 4.4	+ 29 48	6.7	

Mean 6

4131	23 14.7	+ 37 31	6.8	34.3	47.7	32.0	23 16.1	+ 37 38	7.2	6.6
Dm. 4744	23 54.2	+ 37 56	6.7	89.8	47.8	91.0	23 56.5	+ 38 11	7.1	6.5
4066	22 51.8	+ 48 2	6.1	88.8	67.9	91.1	22 52.7	+ 48 9	5.5	4.9
4104	23 7.1	+ 48 46	4.7	33.9	68.0	32.7	23 8.0	+ 48 51	5.3	4.7
4091	23 2.3	+ 48 39	6.9	32.1	67.8	32.0	23 3.2	+ 48 45	6.7	6.1
4061	22 52.1	+ 38 42	6.1	89.9	47.9	91.1	22 53.1	+ 38 48	6.6	6.0
~~4087~~	~~22 57.2~~	~~+ 49 6~~	~~6.2~~	~~88.9~~	~~68.3~~	~~91.7~~	~~23 4.8~~	~~+49 7~~		
Dm 3950	23 2.8	+ 48 52	7.4	31.6	67.7	29.4	23 3.0	+ 49 3	7.0 7.2	6.4 6.6
~~Dm 2546~~	~~23 1.1~~	~~+ 68 68~~	~~6.4~~	~~29.9~~	~~67.8~~	~~29.4~~				
~~5008~~	~~23 1.0~~	~~+ 39 0~~	~~7.5~~	~~29.8~~	~~47.8~~	~~29.5~~				
4079	22 58.8	+ 49 24	4.9	90.8	68.0	91.5	22 59.7	+ 49 30	6.4 6.6	5.8 6.0
Dm 4957	22 46.6	+ 39 23	6.7	87.8	47.8		22 48.6	+ 39 37	6.6	6.0
~~4960~~	~~22 48.6~~	~~+ 39 44~~	~~6.1~~	~~89.8~~	~~48.1~~	~~92.3~~				
Dm 3962	22 46.6	+ 49 39	6.7	85.8	67.8	89.1	22 48.5	+ 49 53	6.5	5.9

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Plate 903.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
16.0	12.8	I	5	N	2	—	8.0	25.6	40.0	65.9
14.4	21.0	I ?	3	N	1	—	7.2	42.0	40.8	49.5
14.0	19.2	I b 2446		K=,2H	3	Seen	7.0	38.4	41.0	63.1
13.5	11.0	I	5	K=H	2	F.	6.8	22.0	41.2	69.5
13.2	21.4	I	5	N	1	—	6.6	42.8	41.4	48.7
12.5	17.5	II	4 3	K=H N	1 1	— —	6.2	35.0	41.8	56.5
12.6	17.1	I b 2447	12	N	5	F. Seen.	6.3	34.2	41.7	57.3
11.8	16.8	I	9	K=,2H K=3H	3	F.	5.9	33.6	42.1	57.9
11.2	7.8	I	5	N	2	—	5.6	15.6	42.4	75.9
10.7	12.2	II a 2448	3	K=H	2	Seen. Filine?	5.4	24.4	42.6	67.1
10.1	13.9	II a? 2449	3	K=H	1	F. Seen	5.0	27.8	43.0	63.7
10.5	20.4	III ?	2	K=H	1	—	5.2	41.4	42.8	50.1
10.6	20.9	I ?	4	K=H	1	—	5.0	41.8	43.0	49.7
9.5	18.2	I ?	I 4	4 K=H	1 1	— —	4.8	36.4	43.2	55.1
9.0	16.7	I	5	N	1	—	4.5	33.4	43.5	58.1
9.0	10.1	I	4	N	1	—	4.5	20.2	43.5	71.3
9.0	10.2	I	5	N	1	—	4.5	20.4	43.5	71.1
8.3	20.3	I	4	N	2	Filine?	4.2	40.6	43.8	50.9
7.6	19.9	I	5	N	2	F.	3.8	39.8	44.2	51.7
7.9	22.6	I ?	4	K=H	1	—	4.0	45.2	44.0	46.3
7.2	20.9	I I	4 ? 5	N K=H	1 1	— —	3.6	41.8	44.4	49.7
6.5	17.4	I	4	K=H	1	—	3.2	34.8	44.8	56.7
6.8	16.2	I	6	N	1	F.	3.4	32.4	44.6	59.1
8.2	14.8	I	5	K=H	1	—	4.1	29.6	43.9	61.9
7.0	10.9	I	4	K=,5H ?	1	—	3.5	21.8	44.5	69.7
6.3	11.3	I I	5 5	N N	1 1	— —	3.2	22.6	44.8	68.9
5.2	15.1	I	5	K=H	1	—	2.6	30.2	45.4	61.3
4.0	20.1	I I	4 3	N N	1 1	— —	2.0	40.2	46.0	51.3
3.9	15.5	I	4				2.0	31.0	46.0	60.5

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Mean 6

½ cos δ.

No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900	Br.	Br.
Dm.									cov.
4071	23 7.6	+ 49 50	6.5	33.2	67.8	31.7	23 9.5 + 49 5	6.4	5.8
Dm 4426	22 45.3	+ 40 33	7.0	87.3	47.8	90.3	22 47.3 + 40 47		
Dm. 4826	22 45.3	+ 40 33	7.0	87.3	47.8	90.3		7.2	6.6
4845	22 47.9	+ 30 42	6.6	89.9	37.9	91.4	22 50.0 + 30 56		22 45.6 + 40.6
4065	22 60.9	+ 40 58	6.6	89.3	48.0	91.3	22 51.9 + 41 4	6.0	5.4
4123	23 12.7	+ 41 7	6.0	84.7	47.9	31.7	23 13.7 + 41 13	6.4	5.8
4036	22 44.9	+ 41 19	6.8	87.7	47.9	91.0	22 45.8 + 41 26	6.3	5.7
4065	22 54.0	+ 52 0	6.4	89.0	58.2		22 54.8 + 52 6		
Dm. 4826	22 64.7	+ 31 50	7.4	88.7	38.0	89.5		7.0	7.0
3614	22 62.9	+ 51 52	6.0	87.9	68.1	89.4	22 [illegible] + 52 6		22 52.9 + 51.8
4073	22 66.4	+ 41 41	3.6	90.6	48.0	91.7	22 57.3 + 41 47	4.3	3.9
4076	22 67.1	+ 42 7	6.1	90.7	48.0	91.6	22 58.0 + 42 13	5.6	5.0
4147	23 21.6	+ 42 16	6.8	86.9	47.8	33.1	23 22.3 + 42 21	6.3	5.7
4116	23 11.0	+ 52 34	6.6	86.4	68.0	33.4	23 12.7 + 52 40	6.3	5.7
4101	23 4.9	+ 42 55	6.9	32.7	47.9	32.2	23 5.8 + 43 0	6.5	5.9
4042	22 46.7	+ 42 39	6.1	88.1	47.8	91.1	22 47.5 + 42 47	6.9	6.3
Dm 3295	22 41.3	+ 52 37	7.0	83.1	57.6		22 42.2 + 52 51	6.5	6.7
Dm. 4826	22 46.2	+ 43	8.0	88.0	48.0	91.5			
4607	22 47.3	+ 33 26	7.0	89.1	38.4	91.1	22 48.4 + 33 40	7.2	6.6
Dm.									22 41.4 + 52.6
4355	22 62.2	+ 43 4	7.0	88.6	47.9	90.3	22 54.2 + 43 18	7.1	6.9
Dm.									
4378	22 66.2	+ 43 17	6.7	89.6	47.8	90.6	22 58.2 + 43 31	6.5	5.9
Dm 4445	23 14.6	+ 43 16	7.3	34.8	47.8		23 16.7 + 43 31		
Dm. 4440	23 13.9	+ 43 20	6.3	34.1	47.8	31.4	23 16.0 + 43 35	6.9	6.3
4440	23 13.9	+ 43 20	6.3	34.3	47.8	31.4	23 16.0 + 43 35		23 14.6 + 43.3
4439	23 13.9	+ 43 47	7.7	34.3	48.3	31.7		6.6	6.0
4682	23 19.9	+ 33 16	6.8	31.1	37.8	29.6	23 12.9 + 33 31		23 14.0 + 43.3
Dm. 4032	22 43.8	+ 53 47	6.0	84.4	58.0		22 44.6 + 53 53		
4604	22 47.2	+ 33 26	7.0	87.9	37.6	89.6	22 48.4 + 33 40	6.0	5.4
									22 44.8 + 53.8
4046	22 48.3	+ 44 7	6.7	88.1	47.9	90.9	22 49.2 + 44 13	6.3	5.7
4026	22 40.8	+ 43 55	6.7	86.0	47.9	90.3	22 41.7 + 44 1	6.9	6.3
Dm 4251	22 44.4	+ 44 10	8.0	86.2	47.8		22 46.4 + 44 24		
Dm. 4781	22 45.8	+ 34 34	7.2	87.6	38.2	89.6	22 47.9 + 34 48	6.9	7.1
									6.5
4302	22 54.0	+ 44 36	6.5	88.8	47.8	90.2	22 56.0 + 44 50	7.1	6.5
Dm 2900	22 56.5	+ 54 28	6.5	88.9	57.9		22 58.4 + 54 42		
Dm. 4847	23 0.2	+ 34 51	6.5	32.6	38.2	33.1		6.6	6.6
4836	22 58.9	+ 34 29	7.8	91.9	37.9	91.8	23 1.0 + 34 41		22 56.3 + 54.5
Dm.									
4399	23 1.5	+ 43 46	6.5	31.1	47.9	31.0	23 3.6 + 44 1	6.6	6.0
Dm 4378	23 12.2	+ 44 21	6.8	34.0	47.9		23 14.3 + 44 36		
4118	23 11.6	+ 44 31	6.5	34.2	47.7		23 12.5 + 44 37	6.8	6.2
Dm.									23 12.0 + 44.4
4883	23 9.0	+ 34 39	6.6	31.6	37.8	30.3	23 11.1 + 34 52	6.7	6.6
Dm. 4747	23 2.4	+ 45 18	6.5	32.7	47.9	31.0	23 4.7 + 45 33		6.0
4740	23 1.0	+ 45 36	6.5	31.2	48.2	31.4	23 3.0 + 45 51	6.8	6.2
Dm 4074	22 45.5	+ 45 58	7.0	85.7	48.0		22 47.5 + 46 12		23 10.4 + 44.8
4463	22 45.5	+ 36 27	6.0	89.7	28.4	91.4	22 47.5 + 36 41	6.9	7.0
Dm 2889	22 58.7	+ 55 55	6.6	89.1	57.9		23 0.6 + 56 10		23 0.8 + 45.4
Dm. 4603	22 54.4	+ 36 0	6.5	92.4	38.0	90.6	23 1.5 + 36 15	6.9	6.4
4877	22 65.1	+ 56 18	6.6	88.9	58.1	90.5	22 55.9 + 56 24		22 45.7 + 45.9
									22 56.7 + 55.9
									22 54.0 + 56 10

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Anit. of Fog. due to moon & clouds. 8.2 Anit. of Fog. due to chemicals. 8.2

December 31, 1886.

Plate 685.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
16.5	17.8	III b.c. 2450	3	K=H	1	F	8.2	36.6	34.8	53.0
16.2	21.0	I	10	N	5	F	8.1	42.0	34.9	46.6
15.1	15.9	I	4	N	1	—	7.6	31.8	36.4	56.8
14.0	17.6	I ?	4	N	1	—	7.0	35.2	36.0	53.4
15.1	22.4	I ?	3	N	1	—	7.6	44.8	36.4	43.8
14.0	9.1	I	4	N	1	—	7.0	18.2	36.0	70.4
13.1	10.4	I	7	N	2	F	6.6	20.8	36.4	67.8
13.4	10.9	III	3	K=H	2	F	6.7	21.8	36.3	66.8
13.2	11.0	I	8	K=5H	2	F	6.6	22.0	36.4	66.6
13.1	12.4	I	7	N	2	F	6.6	24.8	36.4	63.8
12.8	8.8	I	5	N	1	—	6.4	17.6	36.6	71.0
12.6	16.2	I	7	N	2	F	6.3	32.4	36.7	56.2
12.6	18.3	III	3	K=H	2	F	6.3	36.6	36.7	52.0
11.5	10.3	III	3	K=H	1	F	5.8	20.6	37.2	68.0
10.4	14.0	I	4	K=H	1	—	5.2	28.0	37.8	60.6
9.7	17.7	I	7	N	2	F	4.8	35.4	38.2	53.2
9.5	21.0	I	4	K=H	1	—	4.8	42.0	38.2	46.6
6.3	7.5	II ? b.c. 2451	3	K=1.5H	4	F B. seen.	3.2	16.0	39.8	73.6
6.0	17.0	I	5	K=H	1	—	3.0	34.0	40.0	54.6
5.8	22.9	I ?	4	N	1	—	2.9	46.8	40.2	42.8

Peculiar spectrum

Anit. of Fog. due to moon & clouds. 8.3 Anit. of Fog. due to chemicals. 8.2

Plate 691.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
21.4	10.7	I	4	N	1	—	10.7	21.4	32.4	28.2
20.5	8.9	I	5	N	1	—	10.2	17.8	32.9	31.8
17.5	11.8	I	10	N	2	F	8.8	23.6	34.3	26.0
16.0	7.1	I	11	N	5	—	8.0	14.2	36.1	36.4
15.3	8.6	II a. 2452	2	K=H	1	seen	7.6	17.2	36.6	32.4
14.0	21.7	I	5	N	1	—	7.0	43.4	36.1	6.2

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Mean 13

½cos δ	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.m. start to 1900	Br.	Cor. Br.
	3460	19 51.6	+ 34 46	4.0	87.4	43.0	88.4	19 52.6 + 34 49	6.5	5.2
0.2 4.9	3419	19 41.2	+ 44 60	3.0	83.2	62.9	86.7	19 41.9 + 44 53	6.9	5.6
0.2 7.2	3478	19 56.6	+ 46 29	6.7	87.3	63.0	87.8	19 56.2 + 45 30	4.7	3.4
	3878	19 51.4	+ 36 52	6.4	86.6	42.9	87.6	19 53.1 + 35 59	7.0	5.7
	3407	19 37.2	+ 46 14	6.1	82.0	62.8	86.4	19 37.7 + 45 17	7.1	5.8
	3139	20 14.2	+ 45 52	6.6	32.4	52.9		20 15.6 + 46 0	7.2	5.9
	~~4044~~	~~20 11.1~~	~~+ 36 60~~	~~7.6~~	~~29.3~~	~~42.8~~	~~27.1~~	~~20 12.8 + 35 58~~	7.3	6.0
0.1 6.0	3529	20 10.1	+ 36 27	5.0	30.9	43.0		20 10.8 + 36 30	5.9	4.6
	~~3532~~	~~20 10.6~~	~~+ 46 12~~	~~4.4~~	~~31.4~~	~~62.6~~	~~27.3~~		5.9	4.6
	3528	20 9.9	+ 46 23	38	31.7	63.1	28.0	20 10.5 + 46 26	6.3	5.0
0.2 6.1	3527	20 9.5	+ 46 27	4.9	31.5	63.0	29.0	20 10.2 + 46 31	5.9	4.6
0.1 5.9	3513	20 6.0	+ 36 29	4.8	29.8	43.1	28.8	20 5.8 + 36 33	5.8	4.5
0.1 6.6	3550	20 14.0	+ 36 37	6.6	31.6	43.0	29.1	20 14.8 + 36 41	6.5	5.2
0.1 6.2	3479	19 56.5	+ 36 43	6.2	87.9	43.0	88.4	19 56.2 + 36 46	6.1	4.8
	3442	19 48.4	+ 46 43	5.6	85.0	53.0		19 49.0 + 46 47	6.5	5.2
	~~3452~~	~~19 50.4~~	~~+ 36 47~~	~~6.9~~	~~87.0~~	~~43.0~~	~~88.3~~		6.7	5.4
	3541	20 11.8	+ 47 21	4.1	32.4	53.2		20 12.3 + 47 24	7.1	5.8
	~~3054~~	~~20 10.3~~	~~+ 49 0~~	~~7.8~~	~~30.9~~	~~62.6~~	~~27.9~~	~~20 11.7 + 47 8~~	7.0	5.7
	3499	20 0.9	+ 47 63	6.0	28.9	63.1	28.3	20 1.6 + 47 58	6.0	4.7
0.1 6.1	3468	19 51.6	+ 38 10	4.7	87.0	43.0	88.8	19 52.3 + 38 13	7.0	5.7
	3758	19 42.3	+ 38 3	6.1	84.3	42.8	86.8	19 43.9 + 38 9	5.1	3.8
	3564	20 17.9	+ 39 52	2.3	32.9	43.1	29.4	20 18.6 + 39 56	6.8	5.5
	3464	19 53.1	+ 40 3	6.6	87.1	43.0	88.0	19 53.7 + 40 6		
	~~3395~~	~~19 33.2~~	~~+ 49 58~~	~~Var.~~	~~79.4~~	~~52.8~~		~~19 33.8 + 49 59~~	6.6	5.3
	~~3410~~	~~19 38.7~~	~~+ 50 16~~	~~6.5~~	~~84.5~~	~~66.1~~	~~90.1~~			
	3393	19 33.2	+ 49 57	4.6	79.0	52.9		19 33.7 + 50 01		

Mean 13

0.2 6.9	3382	19 30.8	+ 42 8	6.2	62.2	62.8	50.1	19 31.4 + 42 11	6.7	5.4
0.2 6.8	3401	19 36.6	+ 42 32	5.3	63.4	62.7	50.0	19 36.2 + 42 35	6.6	5.3
0.1 5.7	3366	19 27.4	+ 34 12	4.8	51.0	43.0	49.9	19 28.1 + 34 14	5.6	4.3
	~~3257~~	~~19 23.7~~	~~+ 24 26~~	~~4.7~~	~~47.3~~	~~33.2~~	~~46.7~~			
0.2 4.4	3419	19 41.2	+ 44 60	3.0	66.4	62.8	50.9	19 41.9 + 44 53	4.2	2.9
	3407	19 37.2	+ 46 14	6.1	64.4	62.8	50.6	19 37.7 + 45 17	6.6	5.3
0.1 6.4	3272	19 3.0	+ 35 55	6.2	46.4	42.9	49.0	19 3.7 + 35 56	6.3	5.0

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December 31, 1886.

Plate 691.

V	H	Type	Lines	K	Focus	other Lines.	V	H	V	H
14.0	12.2	I?	3	N	1	—	7.0	24.4	36.1	26.2
13.8	14.1	I	7	N	2	F	6.9	28.2	36.2	21.4
12.1	22.3	I	6	K=H	2	—	6.0	44.6	37.1	6.0
11.5	16.9	I?	3	N	1	—	5.8	33.8	37.3	15.8
10.0	17.9	III?	3	K=H	1	F	5.0	35.8	38.1	13.8
8.2	18.9	I b 2453	8	N	3	F. Allen.	4.1	37.8	39.0	11.8
6.2	10.4	II a 2454	2	K=H	2	Allen	3.0	20.8	40.1	28.8
3.1	12.6	I	8	K=.5H	3	—	1.6	26.2	41.5	24.4

Ant. of Fog. due to moon & clouds. 8.4 Ant. of Fog. due to chemicals. 8.4

Plate 778.

16.1	13.2	II a 2455	3	K=H	3	F Allen	8.0	26.4	20.0	24.2
14.5	9.2	I	6	N	2	—	7.2	18.4	20.8	32.2
12.5	15.6	III	2	K=H	1	—	6.2	31.2	21.8	19.4
9.0	6.2	III b.c 2456	3	K=1.2H	3	F. seen Bright.	4.5	12.4	26.5	38.2
8.6	9.2	I	5	N	1	—	4.3	18.4	26.7	32.2
8.0	16.7	I	4	N	1	—	4.0	33.4	24.0	17.2
5.8	19.7	I	6	N	2	—	2.9	39.4	26.1	11.2
3.7	5.9	I	6	K=H	1	—	1.8	11.8	26.2	38.8
3.3	19.2	I	5	N	1	—	1.6	38.4	26.4	12.4
3.0	21.2	I?	5	K=H	1	—	1.5	42.4	26.5	8.2

Ant. of Fog. due to moon & clouds. 8.4 Ant. of Fog. due to chemicals. 8.4

Plate 779.

	18.9	12.8		5	N	1	—	9.4	25.6	38.8	24.4
Peculiar spectrum.	16.5	15.8	II b.c 2457	3	K=2.0H	4	F. seen Bright.	8.2	31.6	40.0	18.4
	13.4	8.3	I?	3	N	1	—	6.7	16.6	41.5	33.4
	6.6	8.7	I?	12	N	5	F. Bright.	3.3	17.4	44.9	32.6
	3.9	17.3	I	7	K=.5H	2	F.	2.0	34.6	46.2	16.4
	3.2	18.5	I	5	K=.5H?	1	—	1.6	37.0	46.6	13.0
	11.5	23.3	I	5	K=H	1	—	5.8	46.6	42.4	3.4

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Mean 13

½ cos δ	No.	R.A.	Dec.	Mag.	H	V	H′	Red. of D.M. stars to 1900		Br.	cov. Br.	
	3664	19 26.4	+ 36 59	5.8	60.8	43.0	49.8	19 27.1	+ 36 1	7.1	5.8	✓
0.1 6.1	3652	19 21.8	+ 36 6	6.1	60.0	43.0	49.8	19 22.6	+ 36 7	6.0	4.7	✓
	3264	18 58.0	+ 46 47	6.0	102.6	62.8	104.1	18 59.6	+ 46 47	6.2	4.9	✓
	3620	19 14.8	+ 37 14	6.1	48.6	46.0	49.4	19 15.5	+ 37 16	7.0	5.7	✓
	3604	19 12.2	+ 37 56	4.3	48.0	42.9	49.2	19 12.9	+ 37 57	6.8	5.5	✓
0.1 5.5	3291	19 9.7	+ 38 56	4.6	47.6	46.0	49.2	19 10.4	+ 38 58	7.3	6.0	✓
	3696	19 33.2	+ 49 57	4.6	54.0	53.0	50.7	19 33.7	+ 50 0	5.4	4.1	✓
0.3 5.5	3665	19 26.7	+ 51 28	3.9	51.9	53.1	50.2	19 27.2	+ 51 31	6.2	4.9	✓
										5.2	3.9	✓

Mean 14

											cov. Br.	
	3683	20 24.6	+ 29 58	4.1	60.9	38.0	50.4	20 25.3	+ 30 2	5.7	4.3	✓
0.0 6.2	3616	20 26.2	+ 20 49	4.8	61.6	28.0	50.8	20 34.0	+ 20 51	6.2	4.8	✓
	3569	20 19.1	+ 31 48	4.6	60.3	38.0	50.5	20 19.9	+ 31 52	7.0	5.6	✓
	3648	20 41.4	+ 33 31	2.9	63.6	38.0	50.8	20 42.1	+ 33 36	7.4	6.0	✓
										5.4	4.0	
										5.7	4.3	✓
0.0 6.5	3619	20 26.3	+ 26 42	6.1	61.7	28.0	50.8	20 34.2	+ 23 46	6.5	5.1	✓
0.0 6.8	3560	20 16.9	+ 24 4	6.4	60.3	28.1	50.7	20 17.7	+ 24 7	6.8	5.4	✓
0.1 6.1	3600	20 10.2	+ 26 14	4.8	49.6	28.1	50.5	20 11.0	+ 25 17	6.0	4.6	✓
	3655	20 42.7	+ 36 3	4.6	54.6	37.8	50.0	20 43.5	+ 36 8	5.8	4.4	✓
0.1 6.6	3529	20 10.1	+ 36 27	5.0	48.5	38.0		20 10.8	+ 36 30	6.5	5.1	✓
	~~3628~~	~~20 9.9~~	~~+ 46 26~~	~~3.8~~	~~48.3~~	~~48.0~~	~~50.8~~					
	3513	20 5.0	+ 36 29	4.8	47.4	38.0		20 5.8	+ 36 33	4.7		✓
	~~3619~~	~~20 6.8~~	~~+ 26 27~~	~~5.8~~	~~49.2~~	~~27.9~~	~~50.5~~			6.1		

Mean 20

											cov. Br.	
0.2 6.7	3587	20 26.6	+ 48 56	6.0	61.9	58.0	50.4	20 26.9	+ 48 37	6.5	4.5	✓
	3564	20 17.9	+ 39 52	2.3	49.5	48.1	49.8	20 18.6	+ 39 56	4.8	2.8	✓
	3632	20 37.6	+ 41 17	6.6	54.2	48.0	50.7	20 38.3	+ 41 2	7.2	5.2	✓
	3631	20 37.3	+ 44 51	1.6	54.7	48.1	50.8	20 38.0	+ 44 56	B.	B.	✓
0.3 6.4	3532	20 10.6	+ 56 12	4.4	45.2	58.4		20 11.1	+ 56 16			✓
	~~3655~~	~~20 14.0~~	~~+ 26 37~~	~~5.6~~	~~48.6~~	~~38.6~~	~~49.4~~			6.1	4.1	
0.2 6.6	~~3478~~	~~20 11.1~~	~~+ 36 37~~	~~6.6~~	~~48.1~~	~~38.2~~	~~49.5~~	~~20 12.8~~	~~+ 36 45~~			
	3527	20 9.5	+ 46 51	4.4	46.5	48.8		20 10.2	+ 46 31	6.4	4.4	✓
	~~3497~~	~~20 5.9~~	~~+ 31 59~~	~~5.5~~	~~106.5~~	~~37.7~~	~~109.0~~					
	3463	19 52.5	+ 52 7	4.8	99.1	57.9		19 53.1	+ 52 11	6.5	4.5	✓
0.7 7.4	~~3466~~	~~20 2.3~~	~~+ 46 56~~	~~6.2~~	~~53.4~~	~~38.1~~	~~58.6~~					

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