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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm	Magn. Dm.	Spectrum.	No Plate	No. Lines
m 0									
0 3.3+73 41	0 +73 26	0 3.3+73 41	2	7.0	I	928,834,929,843,950		6,3,6,5,7,	
0 3.8+58 36	.5 +58 21	0 3.8+58 36	3	2.2	II a	186, 186, (829) (843) (950) (835) 875, 879 (12), 3, 3, 3, 3, 9, 3 9			10
0 3.9+79 10	.5 +78 55	0 3.8+79 10	1	6.5	I	196, 795, 787, 928, 834, 929, 829, 843, 950, 835, 875, 879, 884, 886, 914		10, 10, 6.6, 5, 3, 8, 5, 5, 7, 12, 10, 8,	5
0 3.9+64 32	.6 +64 17	0 4.1+64 32	3	7.0	I²	843,		2	
0 4.2+83 36	.8 +83 21	0 4.2+83 36	1	8.5	I	929,		4,	
0 5.2+57 56	6.9+57 41	0 5.2+57 56	16	8.1	II	950,		1	
0 5.2+56 36	6.9+56 21	0 5.2+56 36	11	6.7	I	186, 843, 950,		6, 7, 7	4
0 5.3+59 3	0+58 51	0 5.3+59 6	11	7.3	I²	186, (186 I²) (929 I) (843 I b) (950 I) 835		2, 6, 7, 3, 4, 2,	
0 6.6+65 34	.2+65 19	0 6.6+65 34	13	7.0	I	186,		3	
0 6.3+57 39	.0+57 24	0 6.3+57 39	28	7.5	I²	843 (950 II)		1, 1, 2	2
0 6.4+55 24	.1+55 9	0 6.4+55 24	15	7.4	II a	950,		2	10
0 6.9+53 4	.6+52 49	0 6.9+53 4	19	6.5	I	843 950,		3, 3,	

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K Line	F Line	Brightness	Corr. Brightness	Mean. Residuals	No Remarks
...10..	...88	6.6, 7.1, 6.7, 6.8, 6.9	~~6.6, 6.3, 7.0, 6.3, 7.0~~		
10, 10, 10, 10, 10, 12, 10, 15	8, 8, 888888	4.2, 5.7, 4.4, 4.9, 4.0, 4.8	~~3.3, 4.8, 3.2, 3.7, 3.4, 3.8~~		24, 35, 448 .489
5, 5, 10, 10, 10, 5, 8, 3, 10, 3, 8, 10, 8	8...8...888888	6.4, 5.9, 6.5, 5.8, 6.7, 5.3, 6.5	6.3, 6.4, 6.3, 6.6, 6.3, 6.5, 5.8 ~~6.5, 6.4, 6.2, 6.2, 6.3, 6.0, 5.7~~		~~6.2, 6.1, 6.5, 6.5, 6.2, 6.2, 6.5, 6.1~~
. .	. .	7.3	6.3		
. .	. .	7.0	8.2		
. .	. .	7.2,	~~6.6,~~		
4, . .	. 88	6.5, 6.7, 6.4	~~5.5, 5.4, 5.7~~		. . .
. 5 . . . 10,	. . . 888	7.0, 6.5, 6.6, 6.7, 6.5, 6.9	~~6.1, 5.6, 6.2, 5.5, 5.9, 5.9~~		. . . 466 . .
.	. .	7.3	~~6.6~~		.
. 2	. 8	7.0 ~~6.6, 6.8~~	~~6.2, 6.3~~		. .
10	.	7.2	~~6.5~~		475,
. .	. .	7.1, 7.0	~~5.7, 6.2~~		. .

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m s	m	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.	
		7.9+61 29	.5+61 14	0 7.9	+61 29	16	6.7	I	186, 929, 843, 950, (835 I²)	4, 5, 3, 4, 3	10, 1
		8.4+75 28	.0+75 13	0 8.4	+75 28	4	7.1	I	843, 950,	7, 6,	
		9.5+62 17	.1+62 2	0 9.5	+62 17	29	7.4	I	835,	3,	
		11.6+84 24	.8+84 9	0 10.6	+84 24	3	8.0	I	428, 929, 1019, 1564,	4, 7, 7, 3,	10, 5
		10.6+76 24	.1+76 9	0 10.6	+76 24	5	6.5	I	875 879 848 914 / 196, 284, 186, 928, 834, 834, 929, 929, 843, 950, 835	7, 9 / 6, 6, 6, 5, 5, 10, 3, 8, 9, 10, 7, 2	
		10.6+60 27	.2+60 12	0 10.6	+60 27	16	6.9	II	929,	2,	10,
		11.6+60 58	.2+60 43	0 11.6	+60 59	21	6.0	II	929, (843 III) (835 III) (875 III)	2, 3, 3, 1,	10, 1
		11.8+56 21	.4+56 6	0 11.8	+56 21	31	7.2	I	186 ~~179~~	3,	
		12.1+82 49	.4+82 34	0 12.1	+82 49	5	8.6	III	1019	1	

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals	to Remarks.
10,10, 10,10	S	6.7, 6.8 6.9, 6.9 6.0	5.9, 6.5, 5.8, 6.4, 5.1		
	S.	6.9, 7.0	6.5, 7.2		
	S.	7.3	6.4		
10, 5, 5,	S.	6.6, 6.5, 6.3, 6.5	7.7, 7.9, 7.4, 7.5		
10, 7, 2	S. S S	6.5, 6.3, 6.4, 6.2, 6.9, 5.9 6.1 6.3	5.5 6.4, 6.8, 5 7.0, 6.4 6.2 / 6.4, 6.6, 6.4, 6.4, 6.3, 6.4, 6.6, 6.0, 5.8	6.3 6.5, 6.4, 6.1 6.3	
10,		6.9	6.6		
10, 10, 10,	S S S	6.5 {6.7 6.9} {6.7 6.9} {6.8 7.0}	6.2 {5.6 5.8} {5.8 6.0} {6.0 6.2}		
		7.8,	6.8,		
	S	6.9 7.1	7.7 7.9		

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	Magn Dm.	Spectrum	No. Plate	No. Lines
0 12.5+58 30	.1	+58 15	0	12.5+58 30	24	7.8	I	843,	
0 12.7+75 43	.2	+75 28	0	12.7+75 43	7	7.4	II	186,284,186,928,929,829,843,953,4,5,38,10,23,	
0 12.7+72 23	.2	+72 8	0	12.7+72 23	15	7.0	I	928,(929),843,950,835,	4,2,2,3,6
0 12.5+50 53	.1	+50 38	0	12.5+50 53	46	6.5	I^2	950	2
~~0 13.7+72 33~~	~~.2~~	~~+72 18~~	~~0~~	~~13.7+72 33~~	~~17~~	~~7.2~~	~~II~~	~~928,~~	~~2~~
0 14.0+58 35	.6	+58 20	0	14.0+58 35	30	7.3	I	950,	6,
0 14.4+76 1	.9	+75 46	0	14.4+76 1.	10	7.8	II	929(929,)	9,8
0 15.8+66 27	.4	+66 12	0	15.9+66 27	20	7.0	I	186,929,829,	4,6,3
0 16.2+67 16	.7	+67 1	0	16.2+67 16	27	6.5	I	929,(843)(950)	5,2,3

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K Line	L Line	Brightness	Cor. Brightness	Mean. Residuals	No Remarks.
		7.3	6.1		
10	SS	7.0, 6.4, 6.8 — 7.0, 6.8, 6.4, 6.8 (6.6)	6.8, 6.6, 6.7 — 6.6, 6.4, 6.6, 6.6 (5.9)		
10, 10, 10 · 10	SS	6.9, 6.9 (6.9 / 7.2) 7.0 7.2	6.8, 7.1 (6.3 / 6.6) 7.0, 6.8		433
10		6.5	6.4		
	S	6.9	6.3		
2		6.2	6.6		399
	S	7.4, 6.9, 6.6	6.8, 6.8, 5.7		
10, 10	S	7.1 (6.8 / 7.1) 7.1	7.0 (5.9 / 6.2) 6.8		

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	1855 R.A.	1855 Dec	1900 R.A.	1900 Dec	No. Dm.	mag. Dm.	Spectrum	No. Plate.	No. Lines.
	m.	m							
	15	3							
0 17.8+61 45									
.4	.4	+61 30	0 17.8	+61 45	52	8.0	I^2	929	2
0 18.4+60 23									
16.0	.0	+60 8	0 18.4	+60 23	45	7.5	II^a	$929,(843^{II^2}(835^{III}$	2,1,2, 10.
0 18.7+59 53									
.3	.3	+59 38	0 18.7	+59 53	51	7.7	I	929,	7,
0 18.8+51 28									
4	.4	+51 13	0 18.9	+51 28	62	6.0	I	~~829~~ 843, 950,	~~4~~ 4,9
0 19.2+61 17									
.8	.8	+61 2	0 19.3	+61 17	69	6.1	I	186, 186 2, 929, 829, 843, 950, 835, 875, 879,	6,6,11,7,6,8,10,8,6, .?
17. 32									
0 19.7+52 30									
.3	.3	+52 15	0 19.7	+52 30	61 ~~102~~	6.0 ~~4.5~~	I	186, 829, 843, 950,	5,8,7,8 .?
0 20.0+71 15									
.5	.5	+71 0	0 20.0	+71 15	16	6.6	I	$196,928,929,(843^{I^2}(950^{II^2}(835^{III}1564,$	4,6,10,3,2,3,3
0 20.7+79 29									
No. 35 9	.9	+79 14	0 20.7	+79 30	10	7.0	I	876 914 844 1019 / $196,(186\ 1^{L}),928,834,929,829,843,950,835,848,$	7 3 7 5 7 / 6,5,8,4,11,7,8,8,
18. 33									
0 21.2+56 5									
.8	.8	+55 50	0 21.2	+56 5	74	6.5	I	186, 929, 843, 950,	4, 5, 6, 6,
19 34									
0 22.1+58.0									
.7	.7	+57 45	0 22.1	+58 0 5	85	7.3	I^2	$929,(843^{III},(950^{I},$	6,1,3 10,

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K Line.	F Line.	Brightness.	Corr Brightness	Mean. Residuals	No Remarks
		7.2	6.9		
10.10		6.6, 7.0 6.9 7.0	6.3, 5.9 6.0 6.1	422	
		7.3	6.9		
	8	6.2	5.4		
8,6, .?..5	8 8 8. 8 8 8	5.8, 6.4, 5.5, 6.7, 6.4, 5.8, 6.0 6.2	5.0, 5.6, 5.2, 5.4, 5.0 5.6, 5.5, 5.3, 5.1		
.2..	8 8	6.5, 6.9, 6.5, 6.2	5.4, 5.5, 5.1, 5.4		
3 ..2.10,10.	..8..8.	7.3, 6.6, 6.4, 6.8, 6.8, 6.8, 6.7	6.8, 7.4, 6.5, 6.1, 6.7, 6.3, 6.4		
8,98, ..10..10.	8 8 8 8 8 8 8 8	6.4, 6.6, 5.9, 6.0, 5.9 6.5, 6.8, 5.9, 6.7, 5.3, 6.5, 6.4, 6.0 6.5	6.3, 6.6, 6.2, 6.0, 6.3 6.6, 7.0, 6.3, 6.3, 7.0, 6.4, 6.3, 6.5 6.6	37	
..8.	.. 8.	6.4, 6.7, 6.7, 6.6	5.4, 6.2, 5.4, 5.9		
10, ..	...	7.2 7.3 7.0 7.0 6.9	6.8 6.1 5.8 6.4		

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dim.	Mag. Dim.	Spectrum	No. Plate	No. Lines
m. 20 ~~40~~									
21. ~~41~~ 0 24.1 + 80 49 .2.	2	+80 43 (34)	0 24.1	+80 49	10	7.9	I	928,924,1019,1564,	4,7,4,4,
0 24.4 + 76 28 7.	7	+76 13	0 24.4	+76 29 (8)	10	6.5	III	284(929 I),843 IIIb,(950) Ib 835,914,..	3,4,36,2,3
0 24.6 + 64 12 22.1 ~~42~~	.1	+63 57	0 24.6	+64 12	53	7.0	I	186(950) I2	6,6
0 24.8 + 59 25 .3	3	+59 10	0 24.8	+59 25	68	6.0	I	186,186,929,(829) II2,843,950,835,875,	6,5,8,2,4,8,8,7
0 26.1 + 85 46 .5.	5	+85 31	0 26.2	+85 46	9	8.3	III	1564,	1,
0 25.2 + 69 14 .6	6	+68 59	0 25.2	+69 14	29	7.2	II	929,	2,
0 25.1 + 61 48 .6	6	+61 33	0 25.1	+61 48	101	7.5	I	929(835) IIa	7,2,
23. ~~43~~ 0 25.7 + 65 58 .2	2	+65 43	0 25.7	+65 58	6.7	6.5	I	186,929,829,843,950,835,875 ((1) Ib 929 (2))	6,5,6,11,9,8,6 (9 8)
0 26.2 + 53 58 .8	8	+53 43	0 26.2	+53 59	82	5.2	I	186,829,843,950	8,9,11,14,
24. ~~44~~									
0 26.8 + 57 47 .3	3	+57 32	0 26.8	+57 47	98	7.1	II a2	929(950) III,	2,2,
0 27.9 + 83 5 .6	6	+82 50	0 27.9	+83 5	14	8.3	I	928,929,1019,1564, (844)	5,7,5,3 (4)
0 27.4 + 70 25 .8	8	+70 10	0 27.3	+70 26	24	6.2	I	284,186,186,929,829,843,835,875,848,914 (914)	5,7,5,9,5,10,11,7,5,6
0 27.3 + 62 23 8	8	+62 8	0 27.3	+62 23	102	45	I b	186,186,(929),(829),843,950,835,875,(879)	6,9,8,3,9,6,10,8

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K Line.	F Line.	Brightness	Corr. Brightness.	Mean. Residuals.	No. Rem.
45					
46					
.2.10,	....	6.9, 6.9, 6.7, 6.7	7.5, 7.8, 7.3, 7.2	...	
10, 10, 10, 10, 10, 10	8.88.8	6.4 6.6 6.6 6.3 6.8 6.3 / 6.7 6.7 6.3 6.5 7.0 6.5	6.7 6.3 6.7 6.4 / 7.0 7.1 6.4 6.6 6.9 6.6	..459,482,..	
.10	47 .8²	7.1, 6.9	6.4, 6.5	..	
.8.10,..2,2	...8².8.82	6.5, 6.7, 6.1, 6.9, 6.4, 6.5, 6.7 (6.7)	5.6, 5.8, 5.7, 5.7, 5.5, 5.8, 5.5, 5.8	...449....	
.	.	7.0 7.2	8.3 8.5	.	
10,	.	7.4,	7.4,	.	
2⁸10	..	6.7, 7.0	6.4, 6.1	.496	
48					
2 .5....	..8888	6.1, 6.2, 6.6, 6.8, 6.3, 6.0, 6.4, 6.6	5.5, 5.5, 5.9, 5.4, 5.7, 5.7, 6.0	.....	
....	.888	5.6, 6.2, 6.3, 5.5	4.6, 4.9, 5.0, 5.7	....	
49					
10,10	..	6.9 7.1 7.1	6.7 6.3 6.5	408.	
5,2,10,.	.8.	6.5, 6.3, 6.4, 6.1 (6.9)	7.4, 7.5, 7.3, 6.9	....	
10,1.2.2,2,5..	.1..8888.8	6.4 6.2 6.3, 5.1, 6.8, 6.2, 6.8, 6.5, 6.5, 6.6, 6.5	6.1 5.9 6.2, 4.3, 6.4, 6.3, 6.1, 5.8, 6.0, 6.2, 5.8	.....	
.8.10²2..	8..8888	5.8, 4.7, 5.6, 5.6, 5.1, 5.6, 5.4, 5.5 (5.1)	5.0, 4.4, 4.5, 4.5, 4.6, 4.7, 4.6, 4.1 (4.3)	588. 21,430, .473,497	

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Diff.	Spectrum.	No. Plate.	No. Lines.	
mv. 23		mv. 5								
0 29.1 +8525										
	.4	.4 +8510	0 29.2+8525		11	8.8	I	1019, 1564,	5,2,	10,
0 27.9 +60 0										
	.4	.4+5945	0 27.9+60 0		76	7.8	I	929(843)$^{III a}$	8,3	. 1
0 28.6+66 12										
26	.0	3 .0+6557	0 28.6+66 12		70	6.5	I	186, 929, 929 829, 843 950, 835, 875	4,7,8,3,5,9,8,6	..
0 28.8 +66 58										
	.2	.2+6643	0 28.8+66 58		39	7.5	II^{a2}	843(950)	3,3,	..
0 29.8 +84 8										
	.3	.3+8353	0 29.8+84 8		9	7.8	II^{a}	928, 929, (835)(844) 1019, 1521, 1864,	2,2,3,3,3,1,2,	10,
0 29.4+62 26										
	.9	.9+62 11	0 29.4 + 62 26		109	7.4	II^{a}	929,	6	10
24	2									
0 30.6										
0 29.6 +53 37										
28.1	.1	.1+5322	0 30.6+53 37		102	5.8	I	186, 829, (843)^{Id}, 950,	7,7,7,7	.
0 30.6 +56 45	.1	.1+5630	0 30.6+56 45		91	7.4	I	186	4	10,
0 30.8 +59 46	.3	.3+5931	0 30.8+59 47		84	6.0	I	186, 186, 929, 843, 835 (876)^{IIa}	5,4,11,6,10,2,	10
0 31.4+53 21										
	.9	.9+5336	0 31.4+53 21		105	4.1	I	186 (829)^{Ib}, 843, 950,	7,10,7,9	2
0 31.5 +72 21										
	.8	.8+7226	0 31.5+72 21		35	6.7	I	284 (929)^{Ib} (843)^{IIIa2} 950 (835)^{IIb2} (875)^{II} 914,	5,7,2,3,3,3,6	.
0 32.3 +81 57										
No 39 29.0 34	.0	+8142	0 32.2 +81 56		13	6.5	I^{d}	196, (928 II^{a}) (929)^{IIa} (843)^{III} (835)^{IIIb} (875)^{IIa} (879)$^{Ix^2}$ (844)^{IIIb2} 1019^{IIa}	4,3,3,3,3,3,2,3,3,	.
0 31.7 +25 28										
	.2	.2+5713	0 31.7+57 28		113	7.0	I	929	3	15

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No Remarks.
10, 10,	..	6.7, 6.7	8.0, 7.9		..
.10	.8	7.3, 6.4, 6.6	6.9, 5.2, 5.4		.448
.....	..... 88 8	6.5, 6.5, 6.4, 6.9, 6.5, 6.4, 6.5 6.8	5.9, 6.4, 6.3, 6.0, 5.6, 6.1, 5.8 5.8		.....
..	..	7.0, 7.1	6.1, 6.8		461.
10, 10, 10 .10 .10,	.8 8 .8 ..	6.3, 6.4, 6.9, 6.5, 6.2 7.0, 6.4 (6.8)	7.3, 7.7, 7.6, 7.1, 7.2 8.0 7.3 (7.8)		347, 439, .. 590 ..
.10	.	7.1	6.8		432
..10 2	.8 2 8 8	5.9, 6.2, 6.2, 5.8	4.9, 4.9, 4.9, 5.1		....
10,	.	6.9	5.9		.
10, 7, 3 .5, 10	... 8 8 8	6.5 6.7, 6.2, 6.6, 6.5, 6.8	5.6, 5.8, 5.8, 5.4 5.5, 5.9		.....
2 .. 2	.8 2 8 8	4.7, 5.4, 5.4, 4.8	3.7, 4.1, 4.1, 4.1		.444 ..
.. 10, 10, 10, 10	... 8 8 8	6.4, 6.3, 6.8, 6.7, 6.9 6.5	6.4, 6.5, 6.2, 6.3, 6.6, 6.3, (6.9)		.429, 450 ....
2, 33 .10, 10, 10 10 10 10 10 10	.8 8 8 8 8 8 8 8 8 8	7.2, 5.9, 5.8, 6.6, 6.9 6.5 6.6 6.6, 6.9 6.6 6.5 (5.8)	7.6, 6.5, 7.8 6.8, 6.9 7.0 7.1, 6.8 6.9 5 (6.5) (6.5)	* See below	.343, 425, 495 (585) (507, 556) (496)
15,	8	7.0	6.6	No Item	

* No Remarks

.343, 425, .495, 507, .556, 585

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1887phae.proj..847F

X h O

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
m. 30.	m								
0 32.9+56 58									
.4	.4	+5643	0 32.9	+56 58	101	7.6	I	929,	7
0 33.1+59 16									
.6	.6	+591	0 33.1	+59 16	92	6.5	I	186,929,843,950,835,	5,7,4,2,6
0 33.4+76 20									
.5	.5	+765	0 33.4	+76 20	14	7.0	III	843,950,(875),1564,	2,1,6,1
31.									
0 34.3+70 10									
.6	.6	+6955	0 34.3	+70 10	32	7.0	I	186,929,843,835,	4,5,4,7,
32.									
0 34.8+56 0									
.3	.3	+5545	0 34.8	+56 0	139	Var	III bc	186,929,829,950,	2,2,2,3
0 35.6+65 19									
33.	.0	+65 4	0 35.6	+65 19	81	7.0	III	929,835,	2,2
0 36.1+65 35									
.5	.5	+65 20	0 36.1	+65 36	83	6.0	III	929,843,950,835,(914) III 2	2,3,3,3,3,
0 36.4+70 50									
.7	7	+70 35	0 36.4	+70 50	39	7.0	I	929,914 1,914 2	8,5,4,
0 36.3+59 23									
.7	.7	+598	0 36.3	+59 23	100	7.2	I	929,	5,
0 36.4+73 31									
.6	.6	+7316	0 36.4	+73 31	30	8.0	III	835	3,
34.									
0 36.8+58 13									
.2	.2	+5758	0 36.8	+58 13	132	6.5	I	186,186 2,929,829,950,835,875,	3,5,9,6,9,6,2,
0 37.0+62 13									
.4	.4	+6158	0 37.0	+62 13	152	7.8	II a	929,	2,

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1887phae.proj..847r

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean Residuals	No. Rem.
.	.	6.9	6.5	.	
.....	. S .. S	6.8, 6.5, 7.0, 6.8, 6.7	5.9, 6.1, 5.8, 6.2, 5.7	.....	
10, ...	S² SS.	6.8 6.9 6.9 / 7.0 7.2 6.8 7.2	6.4 7.1 6.9 / 6.6 7.4 6.7 7.2	....	
.. ....	.. SS	7.2, 6.5, 6.9, 6.9	6.8, 6.6, 6.2, 6.4	....	
15, 20, 12, 30	. S 2 . S	4.8 5.5 5.0 / 5.3 . 5.9 5.4	3.8 4.2 4.3 / 4.3 . 4.6 4.7		25, 398, 445, 481
10, 10,	..	6.9 7.0 / 7.0 7.2	6.7 6.2 / 6.8 6.4	..	
10, 10, 10, 10, 10	S S S S S	6.6 6.8 6.8 6.8 6.4 / 6.9 7.0 7.0 7.0 6.6	6.4 5.8 6.4 6.0 5.8 / 6.7 6.0 6.6 6.2 6.0	.....	
...	. S S	6.6, . 6.6	6.7, . 6.3	...	
2	.	7.2	6.8	.	
10	S	6.8 / 7.0	6.5 / 6.7	.	
... 2, 10 ..	... S² S S.	7.0 6.4, 6.3 7.0 6.5, 6.5 7.0	6.1, 5.5, 5.9, 5.8, 5.9, 5.5, 6.1	.....	
10,	.	7.0	6.7		426,

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1887phae.proj..847F

X h O

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	Mag. Dm.		Spectrum	No. Plate	No. Lines
0 37.8+70 17										
37.1 X	.1+702		0 37.8+70 17		43	7.8	III	929,	2,	10,
0 38.1+75 23	.2+758		038.1+75 23		36	7.9	III	843	3	10
0 39.1+74 27										
36.2 X	.2+7412		039.0+74 26		27	5.5	I	284, 186, 929, 829, 843, 950, 835, 875, 879, 848 (876, 914,)	7,7,8 6,6,10,10,9,10,11,9,8	2,5
0 38.7+66 37										
.0	.0+6622		038.7+66 37		58	6.8	III	843, 914,	2,3	10,
0 39.5+54 41										
37.0. X	.0+5426		0 39.5+54 41 (6 0)		143	5.8	I	186, 829,	6,7	
0 40.3+68 47										
.6	.6+6832		040.3+6847		49	6.4	I[d]	284, (929 II[a]) (843 II) (950 I) (835 III[2]) (848 III) (914 II[a])	4,4,2,3,3,3,5 (3)	10,
0 41.1+74 19										
38.2 X	2+744		041+7418		29	5.8	I	284, 186, (876, 914) 429, 829, 843, 950, 835, 875, 879, 848	6,9 6,7,9,10,10,10,12,8,7,11	2
0 40.5+54 46										
.0	.0+5431		040.5+54 46		148	7.3	I	186,	6[2]	
0 41.5+77 56										
.4	.4+7741		041.5+77 56		25	7.0	III	929, 843, 950, 914, (1019 III[c]) 1564,	2,3,3,3,2,1,	10,
0 42.0+81 25										
.5	.5+8110		042.0+8125		18	7.6	III	929, 1019	2,2	10,
0 41.6+72 8										
.8	.8+7153		041.6+72 8		37	6.5	III[b]	429, (843 III) (950 III) (835 III) (875 III) (914 III) 284 III	2,2,3,3,2,3 2	10,

39 X

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K Line.	m	H Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Rem.
10,	X	.	6.8 7.1	6.9 7.2	/	.
10		S	6.8 7.0	5.6 5.8		.
2,5.		S	5.9,6.2,6.4,5.5,5.7	5.7,5.4,5.9,5.1,5.6		. . .
. 1,2,2,2,2,2,2	X	. . S S S S S S S S	5.8,6.4,5.5,6.4,6.3,5.8,6.0	5.9,6.2,5.8,5.9,5.8,5.9,5.7	/	. . . . .
. 10,10		. S	6.9 7.1 6.7 6.9	6.0 6.2 6.2 6.4		. .
. .	X	. S	5.9, 6.5	4.9, 5.2		. .
10,10,10.10,10,10		. . S S S S S	. 6.5, 6.5, 6.6 6.8 6.7 7.0 6.8 6.5	. 6.5, 5.7, 6.4 6.2 6.1 6.0 6.2 6.1		. 414, ... 541
. . . . . ?	X	. . . S . S S S S S S S	5.7, 6.4, 4.9, 6.0, 6.2, 5.6, 5.9, 5.5 5.8 6.3, 5.6, 5.6	5.8, 6.2, 5.2, 5.5, 5.7, 5.7, 5.6, 5.3 5.0, 5.8, 5.2, 5.5		. . . . .
.		.	7.0,	6.0,		.
10,10,10,10,10.		. S S S . .	6.9 7.2 6.8 7.0 6.9 7.1 6.8 7.0 6.8 6.9 6.9 7.1	7.5 7.8 6.6 6.8 7.3 7.5 7.0 7.2 6.1 6.2 7.1 7.3		. . . . .
10,10		. .	6.9 7.1 6.8 7.0	7.8 8.0 7.4 7.6		. .
10,10,10,10,10,10 10		. . S S S S .	6.3 6.6 6.8 7.0 6.9 7.1 6.6 6.9 6.9 7.2 6.3 6.5 6.5 6.8	6.5 6.8 6.2 6.4 6.9 7.1 6.2 6.5 6.6 6.9 6.1 6.3 5.9 6.2		427 . . . . .
	X					

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X h 0

m	1855 RA	1855 Dec.	1900 RA	1900 Dec.	No. Obs.	Mag.		Spectrum.	No. Plate.	No. Lines	
40.3											
0 45.2+84 55											
.9	.9	+84 40	0 45.3	+84 55	15	8.2	I	929, 1019, 898, 1564,	4, 3, 3, 3,		10
0 43.0+57 17											
.4	.4	+57 2	0 43.0	+57 17	150	3.8	II a	186, 186, 929, 829, 835, 885, 879,	2, 2, 3, 3, 3, 3, 3		12
0 43.6+77 25											
No. 34 .5	.5	+77 10	0 43.6	+77 25	27	6.7	I	196, 284, 186, 928, 929, (843) 848, 914, (844)	3, 6, 5, 6, 7, 3, 5, 6, 3		5
0 43.5+70 38											
.7	.7	+70 23	0 43.5	+70 38	53	7.3	I	929, (835)	6, 2		
0 43.6+70 14											
.8	.8	+69 59	0 43.6	+70 14	46	7.0	I	929, (843) 835, (848) 914,	9, 3, 4, 4, 5		10
0 44.4+78 4											
41. 2	.2	+77 49	0 44.4	+78 4	29	8.2	III	843,	2,		10
0 45.5+83 10											
No. 41 .6	.6	+82 55	0 45.5	+83 10	20	6.5	I	1019, 884, (848) 1521, 196, 173, 258, 928, 834, 929, 835, 875, 879, (844)	10, 6, 6, 4, 7, 4, 9, 7, 10, 12, 10, 7, 9		2 10
0 44.9+79 17											
.6	.6	+79 2	0 44.9	+79 17	19	7.7	I a	928, (929 I), (843) I, (914) I, (844) I 1019, 1564	5, 6, 7, 6, 3, 6, 4,		
0 45.3+82 15											
.6	.6	+81 60	0 44.3	+82 15	20	9.0	I	1019, 876 II	3		10
0 44.7+63 42											
42.0	.0	+63 27	0 44.7	+63 42	99	5.8	I b	186, 186 II a, (929) I, (829) I, (835) II a, (875) I, (879) I, (848) II 2	4, 2, 10, 4, 5, 7, 5, 3, 3		10
0 45.4+63 14											
.7	.7	+62 59	0 45.3	+63 14	160	7.0	II	929, 835, I	2, 3,		10
~~0 45.8+71 6~~											
~~.9~~	~~.9~~	~~+70 51~~	~~0 45.8~~	~~+71 6~~	~~57~~	~~7.3~~	~~II 2~~	~~914~~	~~3,~~		~~10~~
43. 2											
0 46.4+68 20											
.6	.6	+68 5	0 46.4	+68 20	57	7.4	I	186, 929, (835) I 2	4, 7, 2		10
44. 2											
0 47.2+60 34											
.5	.5	+60 19	0 47.1	+60 34	124	5.0	II	876, (914) II a, (914) II a, 284, (186 I), (929) II a, (829) III, (835) II a, (875) II a, (879) II a, (848) III b,	4, 3, 3, 4, 3, 3, 3, 5, 2, 3,		(15, 10) 10
0 47.2+56 41											
.6	.6	+56 26	0 47.2	+56 41	143	7.4	I	929	6,		10
0 47.4+60 8											
.8	.8	+59 53	0 47.4	+60 8	134	7.5	I	929	5,		

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K Line.	I Line.	Brightness.	Corr Brightness.	Mean Residuals.	No. Rem.
10 . . .	. . . .	7.0, 6.7, 7.0, 6.7	8.5, 7.9, 8.4, 7.8	. . . .	
12, 15, 15, 12, 12, 10, 10	.. SSSSS	5.7, 5.2, 5.2, 5.7 5.8 } 5.8, 5.7, 5.7	4.8, 4.3, 4.8, 4.5 4.6 }, 4.8, 4.8, 4.2		581, 512 22, 30, 403, 447, 490
5 . 8, 10, 10, 8, 10, 10, 10, 10	. . . . SSSSS	6.6 6.5 7.0, 6.4, 6.9, 6.5, 6.5, 6.6, 6.7, 6.3	6.7 6.9, 6.7, 6.9, 6.7, 7.0, 6.2, 6.4, 6.4, 6.4	. . . . 464 . .	
. 10	. .	6.9 6.9 7.1 }	7.0 6.4 6.6 }	. .	
. 10, 10, 10, 5	. SSS .	6.4, 6.9, 6.8, 6.8, 6.5	6.5, 6.2, 6.3, 6.1, 6.2	. 469 . .	
10	.	7.3 7.5 }	7.1 7.3 }	.	
2 ? ? 10, 5, 10, 2, 2, 2, 2, 2, 2, 5	§ . . . . SSSSSSSS	5.3, 5.7, 5.0, 5.8, 4.8, 5.3 5.7, . 48, 6.1, 47, 5.6, 5.0	5.4, 6.2, 5.9, 5.7, 5.9, 6.2 ., 5.8, . 5.7, 62, 5.9, 6.2, 5.6	. . . . .	
. . . . . ? .	. . S² SSS .	6.8, 6.5, 7.0, 6.6, 6.9, 6.7, 6.6	7.2, 7.2, 6.9, 6.9, 6.9, 7.1, 6.9	. . . . .	
. 10		7.0 6.6 6.4	7.7 5.6 5.5		
. 10, 2, 10, 5, 5, 10, 10	. . 8 . SSSSS	6.9, 6.4, 5.9, 6.5, 6.3, 6.6, 6.9	6.2, 5.7, 5.7, 5.5, 5.5, 5.9, 5.6	23, 36, . . 498	
10, .	. .	6.8, 7.1	7.6, 6.3	. .	
10	8	6.0	5.7	.	
10, 5 .	. . .	7.5, 6.8, 7.1	7.0, 6.8, 6.5	. . .	
15, 10 10, 10, 12, 10, 10, 10, 10, 10, 10	8 . SSSSSSSS	6.1 5.8, 5.8 5.6, 6.7, 5.7, 6.5 67 } 6.0, 6.3, 6.1 6.6 6.2 }	5.1 5.1 5.1 5.1, 5.9, 5.4 5.4 5.6 } 5.1, 5.5, 5.2 5.0 5.1 }	527, 545 . . 421 . 492, 506, 514, . .	
10,	.	7.1,	6.6,	.	
.	.	7.5,	7.1,	.	

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate	No. Lines.	
0 47.9+65 54										
45.1 X	.1	+65 39	0 47.9+6554		106	7.0	I	914	5	10
0 49.9+82 34										
46. X	.0	+82 19	0 499+8234		23	8.4	II	929, (1019) $^{m^2}$ 1564,	2,3,1,	10,1
0 49.0+58 26										
.4	.4	+58 11	0 49.0+58 26		134	5.0	III^{b}	929, (829) (835) (848) (914)	2,1,3,3,3,	10,
0 49.9+76 56										
.7	.7	+76 41	0 499+76 56		28	8.0	II^{2}	843, 1019,	2,2	10,
47. X										
0 50.2+60 43										
.5	.5	+60 28	0 50.2+6043		135	7.9	I^{2}	929,	4,	
0 50.4+68 15										
.6	.6	+67 60	0 50.4+6815		81	6.7	II^{a}	186 (929 I) (835) (848) (914)	2,8,3,3,7	10,
0 50.8+74 57										
.7	7	+74 42	0 50.8+7457		41	8.0	I	284, 929, 950, 835, 914, (1019) ^{d}	5,5,5,6,6,3,	
0 50.7+60 11										
0 [illegible]	0	+59 56	0 50.7+60.10		144	2.3	I?	284, 186, (186 ?) (929 ^{2}), 829 835 875 879 848 876 914	?,6,3,0,?,2,8,?,?,8,?	?
0 48.1+59 35	.1	+59 35	0 50.8+5949		146	6.3	I	284, 929, 829 835, 875, 879, 848, 876, 944	4, 8, 7, 7, 8, 4, 6, 5, 6	
no. 1 0 50.8+58 38	.8	+58 23	0 50.7+58 38		138	5.0	III	284, 829 (929), (835) 875, 879, 848, (876)	2,2,6,3,3,3,3,3,	10,
0 50.8+59 30	.1	+59 15	0 50.8+5930		147	8.1	I	929,	3,	
0 52.8+84 4								884 (898) $^{d^2}$ 1521,		
no. 43 .4	.4	+83 49	0 52.8+844		20	7.0	I	173, (928 I^{2}), 834, 929, 835, 875, 879, 844, 1019,	6,7,4 9,10,7,7,5,9,4,6	10,1
0 52.1+80 1										10,10
no. 37 .6	.6	+79 46	0 52.1+801		24	6.6	I	928 (929), (843) (835) (875) (848) (914) (844) (1019) 439	7,4,4,3,4,3,3,6,3,4	
0 51.6+69 58										
.7	7	+69 43	0 51.6+6958		55	6.8	I	284, 929, 835, (875) 848,	5,9,5,3,4,	
0 51.8+54 26	.8	+54 10	0 51.4+5425		187	7.2	I	914,	4	
0 51.3+60 53	.6	+60 38	0 51.3+6053		157	7.0	III	929,	3,	10,
49. X										
0 52.2+65 48								914,		
4	.4	+65 33	0 52.2+65 49		115	6.0	I	284, 186, 929, 929, 829, 835, 875, 879, 848, 876,	7,5,9,9,7,9,6,4,7,7	
0 53.3+81 27										
no. 38 .6	.6	+81.6	0533+8121		25	7.5	I	196, 928, 834, 929, 829, 843, 835, 875, 914,	3,6,4,12,4,5,6,8,5,	
0 54.9+85 44										
no. 34 .7	.7	+8529	0549+8543		19	5.0	III^{be}	173, 753, (774), 928, (834), 929, (929) 835, 875, 879	2,2,2,2,4,3,3,3,3,3	

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K Line	F Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Remarks
10	8	6.7	6.2		
10,10.	.8.	6.8 6.7 6.6	7.9 7.4 7.5 7.3		...
10, .10,10,10	.8888	6.3 6.6 6.5 6.6 6.2 / 6.6 6.9 6.8 6.9 6.5	5.9 5.4 5.5 5.4 5.4 / 6.2 5.7 5.8 5.7 5.7		412, ...
10, 10	..	7.1, 7.0	6.8, 7.2		..
		7.3	7.4		
10,10,10,10,10	.8888	7.0, 6.5 6.8 6.7 6.9 6.5	6.5, 6.5 6.2 6.4 5.9 6.1 6.1		33 ....
.22 10,10.	..888.	6.8, 6.9 6.9, 7.0, 6.6, 6.8	6.9, 7.2, 7.0, 6.7, 6.5, 6.8		....
?.?.?2222?	8.88888888	6.0, 4.4, 4.8 B 4.0, 4.0, 4.0	3.4, 3.6, 4.0, B 2.9, 3.1, 3.2		
..10..	..888.888	5.6, 5.9, 6.7, 6.2, 6.6, 6.8, 6.4, 6.3	5.0, 5.5, 5.5, 5.2, 5.7, 5.3, 5.2, 5.2		
10,10,10,15 10,10,10,10,	...88888	6.1 6.4 6.0 6.3 6.8 6.9 6.5 / 6.4 7.2 6.1 6.5 7.0 7.1 6.7	5.5 5.7 5.6 5.3 5.9 5.4 5.3 5.2 / 5.8 6.0 5.7 5.7 6.1 5.6 5.5 5.5		413 ....
.10.	..	7.4	7.0		
10,10, 5,10,8,10,10,5	..888	6.2, 5.8 6.9, 5.7, 6.4	6.8, 6.8, 6.9, 6.9, 5.4		....
10,10	.	6.7 5.8, 6.8, 5.4, 6.4, 6.1, 6.8	6.9 6.8, 7.0, 6.7, 7.1, 6.9, 7.0		545
10,10,10,10,10,10,10,10	.88888888	6.4 6.2 6.3 / 6.1, 5.9 6.4 6.7 6.8 6.9 6.8 6.2	6.5 6.7 7.0 / 6.6, 6.7, 6.6 6.4 6.9 7.0 7.2, 6.8 6.6		577 548 .419 .. .543
...10.	..888	6.6, 6.5, 6.6, 7.1, 6.9	7.5, 6.6, 6.1, 6.7, 6.2		....
10,	8 / 8	6.8 / 7.0	5.9 / 6.5 / 6.7		
		7.1, 6.5, 6.5, 6.2	5.9, 5.6, 5.7, 6.4		
.....222..10..	8.8.8.8888	5.4, 6.7) - 6.1, 6.7 6.7 6.4 6.9	5.1, 6.0 - 6.0, 5.8 6.8 5.7 6.2		
		6.3.	6.7.		
..10,2 2 2.10	...8²..88.	7.1, 5.8, 6.7, 6.5, 6.7, 6.6, 6.7	7.4, 6.4, 6.5, 6.4, 6.8, 6.7, 7.0		
(10) 8 10,10	88	5.9 6.0 6.5 / 6.5 6.1 5.3	6.7 6.7 6.7 / 6.7 7.0 6.7 6.7 6.7 6.9		511 515, 562 595 619 640
10.3.12,10,15 10,10,10 2	...8.8.88888	6.1 6.3 6.7 / 5.9 6.5 5.6 6.6	7.7 7.1 7.3 / 7.1 7.3 8.3 7.3		46, 284 293 350 374 442

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1887phae.proj..847F

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines
m. s.	° ′							
0 53.7	+70 28							
.8		8 +7013	0 53.7	+70 28	65	6.5	I	284, 186, 929, 829, 875, 848, 876, 914,	5, 4, 8, 3, 7, 6, 4, 7
0 54.4	+78 52							
.0		.0 +7837	0 54.4	+78 52	28	8.1	I	929, 1019,	4, 3
0 54.6	+57 50							
.9		9 +57 35	0 54.6	+57 50	179	7.0	I	929, (835) III 914	8, 3, 5,
54.9	+68 49							
.0		0 +6834	0 54.9	+68 49	6.4	7.0	I	284, 186, 929, 829, 835, (848) II ω 876, 914,	6, 5, 8, 5, 7, 3, 7, 7,
0 56.3	+81 26							
.5		.5 +81 11	0 56.3	+81 26	30	8.3	III	173, (928 I), (929) I, (843) I, (1019) I, 1564, I ?	1, 5, 8, 4, 7, 5,
0 58.8	+86 37							
.8		.8 +8622	0 58.6	+86 37	17	7.5	III	835, 875, (844) III 929	3, 1, 3, 1
0 55.8	+57 17							
3.1		1 +572	0 55.8	+57 17	180	6.8	I	284, 929, (848) II, 914,	4, 3, 4,
0 56.5	+69 48							
.5		.5 +6933	0 56.5	+69 48	63	7.5	I	929,	5
0 56.5	+62 5							
.8		8 +6150	0 56.5	+62 5	196	7.8	III	284	2
0 56.8	+52 19							
4.2		.2 +524	0 56.8	+52 19	240	7.3	I	914	6
0 57.0	+51 16							
.4		4 +511	0 57.0	+51 16	216	7.1	I	914,	4,
0 57.7	+73 51							(844, 1019
.5		5 +7336	0 57.6	+73 50	51	6.8	I	284, 186, 929, 829, 843, 954, (835) I ? (875) III 914,	5, 4, 9, 5, 4, 8, 5, 2, 8, 5, 7
0 57.4	+60 33							
.7		7 +6018	0 57.4	+60 32	157	6.5	I	284 (929) I ? (835) III a ? 848, (914) II ω	5, 10, 3, 5, 3

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K Line	F Line.	Brightness.	Corr Brightness	Mean Residuals.	No. Rem.
~~m~~ ~~75~~					
..2.10,10.5	..8.88.8	6.4,7.1,6.2,6.7,6.8,6.7,6.8,6.4	6.3,6.7,6.3,6.0,4.4,6.0,6.2,6.1	.....	
.. ~~76~~	..	7.5,6.9	8.2,7.3	.1	
5,10,5	.88	7.0 $\frac{7.0}{7.2}$ 6.8	6.6, $\frac{6.0}{6.2}$ 6.0	...	
.....5.. ~~71~~	8888	5.8,7.0,6.4,7.0,6.7,6.8,6.9,6.5	5.6,6.5,6.4,6.2,6.1,6.0,6.2,6.1	.....520..	
..2...10,	..8.8.	$\frac{7.3}{7.1}$ 6.9,6.5,6.9,6.6,6.3	$\frac{7.1}{7.5}$ 7.5,7.4,7.0,7.2,6.8	.....	
10...	888.	6.8 $\}$ 6.7 $\}$ 6.6 7.0 $\}$ 7.0 $\}$ 6.9	8.1 $\}$ 8.1 $\}$ 5.6 8.3 $\}$ 8.4 $\}$ 5.7	...	
.10,10. ~~72~~	..88	6.9,7.0,6.9,6.6	6.3,6.6,5.7,5.8	....	
.	.	7.1	7.1	.	
10	.		6.5 $\}$ 6.8 $\}$	.	
5 ~~74~~	8	6.9	5.9	.	
.	8	6.7	5.7	.	
5,7 ..2 2 10,5.10,5.10	8 8888888	6.5,6.2 6.2,6.8,6.2,6.9,6.7,6.6,6.7 $\frac{6.9}{7.1}$ 6.4	6.1,6.2 6.3,6.6,6.5,6.4,6.2,6.7,6.4 $\frac{6.7}{6.9}$ 6.3	.....	
.10,10,10,10	..888	6.7,6.5 $\frac{6.5}{6.6}$ 6.6,6.5	6.2,6.2 $\frac{5.6}{5.7}$ 5.5,5.8	..4923.544	

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	Mag.	Spectrum.	No. Plate.	No. Lines.
	m. s.	° ′							
0 58.1+61 4									
	.4	.4+60 49	0 58.1+61 4		158	6.0	II[a]	929,835,(848),(914) 914 (2) II	6,2,3,3 3
0 58.2+5158									
	.6	.6+51 43	0 58.2+5158		220	6.0	III	914	3
0 58.4+5727									
	.7	.7+57 12	0 58.4+5727		188	7.6	I	284	3
0 58.4+5340									
	.8	.8+53 25	0 58.4+5340		211	7.0	III	914	3
	56. 57								
0 59.4+6526									
	.6	.6+65 11	0 59.4+6526		129	6.9	II	929,	2
1 1.2+8256									
	.9	.9+82 41	1 1.2+82 56		30	9.0	I	929	4
1 0.0+70 24									
	57. 0 52	0 +709	1 0.0+70 24		78	6.7	I	284,929,835,(875),848,876,914,	5,8,7,3,6, 3,7
1 0.8+7929									
No. 36	.1	.1+79 14	1 0.8+79 29		29	6.4	III[b]	929,(843),(835),(875),(914),(844),(1019)	2,3,3,3,3,3,3
0.0+5714									
	.3	.3+56 59	1 0.0+57 14		191	7.0	II[a]	929,(848)	2,3,
1 0.3+6258									
	.5	.5+61 53	1 0.3+62 8		208	8.0	I[d]	284	6
1 0.3+6214									
	.3	.3+61 59	1 0.3+62 14		206	6.5	I	929,835,914, 284 I d	8,5,9, 6
1 0.6+779									
	.2	.2+76 54	1 0.6+779		33	8.1	II[2]	1019,	2
1 0.7+5920									
	58. 0 53	.0+595	1 0.7+5920		181	7.2	I	929, 835, 848, 914,	8,8,7,6
1 1.2+5551									
	.5	.5+5536	1 1.2+5551		243	7.5	I	914	3
1 1.4+5427									
	.7	.7+5412	1 1.4+5427		223	5.7	II	28 4,(848)[2],(876)[2]914	2,3,3,3
1.8+7010									
	.8	.8+6955	1 1.8+7010		70	7.7	I	929,	6
	59. 54								
1 2.4+6910									
	.4	.4+6855	1 2.4+6910		74	7.9	II	929,(835),(914) I II[a]	2,3,3
1 2.4+5342									
	.7	.7+5327	1 2.4+5342		229	6.8	I	28 4,914,	6,7
1 2.4+5744									
	.7	.7+5729	1 2.4+5744		200	6.5	I	28 4,929,835,848,876,914,	8,7,7,7,8,9

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K Line.	L Line.	Brightness.	Corr. Brightness.	Mean. Residuals	No Remarks.
10,10,10,10 10	8 8 8 8 8	6.5, 6.6 6.6 6.8 } 6.4 6.0	6.2, 5.7 5.5 5.7 } 5.7 5.1	✓	423, 494
10,	8	6.9 7.1 }	5.9 6.1 }	✓	
		7.0	6.4	✓	
10	8	6.6 6.9 }	5.7 6.0 }	✓	
10		6.9	6.7		
		7.0	8.1		
2,5,10,	8 8 8 8	6.4, 6.3, 6.7 6.7 6.9 } 6.8, 6.8, 6.3	6.3, 6.4, 6.2, 6.3 6.5 } 6.1, 6.2, 6.0	✓	
10,10,10,10,10,10,10	8 8 8 8 8 8 8	6.3 6.5 } 6.6 6.9 } 6.8 7.0 } 6.9 7.1 } 6.2 6.5 } 6.4 6.6 } 6.4	7.0 7.2 } 6.5 6.8 } 6.9 7.1 } 7.1 7.3 } 6.5 6.8 } 6.4 6.6 } 6.8	✓	417
10,10	8	7.0, 7.0	6.6, 5.8		404
10	?	5.9	5.4	✓	
2,10,10, 10	8 8 ?	6.4, 6.7, 6.4 5.9	6.1, 5.8, 5.7 5.3	✓	
10		7.2	7.4	✓	
2,10,	8 8 8	6.6, 6.7 6.9, 6.6	6.2, 5.7, 5.7, 5.8	✓	
		6.9	6.0	✓	
10 10,10,10	8 8 8	6.0, 6.5 6.7 6.8 } 6.2	5.3, 5.2 5.5 5.6 } 5.3	✓	
		6.7	6.8	✓	
10,2,10	8 8	6.7, 6.8, 6.5	6.7, 6.2, 6.1	✓	540
10,	8	6.8 6.8, 6.7	6.1, 5.8	✓	
5,2	8 8 8 8	6.0, 6.2, 6.5, 6.5, 6.5, 6.0	5.4, 5.8, 5.5, 5.3, 5.4, 5.2	✓	

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1887phae.proj..847f

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
	13.7	+79 90	.0	+78 54	1.3.6	+79 8	34	5.6	I	d 161 196, 284 I, 186 I, 173 I, 928 I, 929 I, 829 I, 843 I, 950 I, 835 I, 5?	5, 7, 6, 6, 11, 9, 10, 10?
	13.5	+56 50	.8	+56 35	13.5	+56 48	207	6.7	II²	929, 914, II	2, 3
No. 6	13.9	+68 15	.9	+68 0	13.9	+68 15	77	6.0	I	284, 186, 929, 829, 835, 875, 879, 848, 876,	7, 6, 10, 8, 8, 9, 8, 8, 7,
	14.0	+67 15	.1	+67 0	14.0	+67 15	98	6.8	I	929 (914) II²	I 843 2, 3
No. 2			.0	+78 54	13.6	+79 8	34	5.6	I	d 196 (284) I, (186) I, (173) I, (928) I, (929) I, 829 I, (950) I, (835) I, 5?	6, 11, 9, 10, 9,
	14.0	+63 39	.2	+63 24	14.1	+63 39	147	7.8	I	914,	4,
	13.9	+54 13	.2	+53 58	13.9	+54 13	236	7.0	I	914,	10,
	14.6	+57 10	.9	+56 56	14.6	+57 10	211	8.5	II	1019	2
	14.9	+56 14	.2	+55 60	14.9	+56 14	255	8.0	I	284, 914,	5, 6
	15.0	+63 40	.1	+63 26	15.0	+63 40	149	6.0	I	284, 929, 835, 879, 848, 876, 914,	7, 11, 8, 6, 10, 8, 9,
	15.0	+54 38	.3	+54 23	15.0	+54 37	236	4.8	I	284, 848, 876,	9, 11, 7,
	15.3	+64 27	.4	+64 13	15.1	+64 29	127	5.9	I	284, 929, 835, 879, 848, 876, 914,	8, 8, 8, 8, 6, 8, 8
	16.1	+64 5	.2	+63 51	16.1	+64 5	156	7.8	I	848,	8,
	16.2	+64 28	.3	+64 14	16.2	+64 28	129	7.4	I	914	4,
No. 19	17.7	+79 22	.9	+79 8	17.8	+79 23	36	6.5	I	284, (929) II² (835) II (875) (848) II (914) II² (844) I² (1019) II² 877 II² 843 I²	2, 3, 3, 5, 3, 5, 3, 4, 3
	16.8	+61 10	.0	+60 56	16.8	+61 10	186	6.6	I	284, 929, 835, 848, 876 914, 914	6, 9, 6, 5, 3 6, 7
	17.7	+60 21	.9	+60 7	17.7	+60 21	188	7.2	I	929 (835) II	4, 2

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1992phao..proj..047F

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Rem.
..2.?1,2,...	....S?S.S.	6.4,5.6,6.3,6.3,5.3,4.3,6.0,6.1,5.6,6.1	5.1		.....
10,10	.S	7.2,6.7	6.7,5.8		..
.....2...	...SSSSSS	5.1,6.3,5.5,6.2,6.2,5.9,6.4,6.0,5.7	4.9,5.8,5.5,5.4,5.6,5.4,5.3,5.2,5.0		.....
10,10,	.S	6.8,6.6	6.7,6.1		.536
..2.?1,2,...	....S?S.S.	6.4,5.6,6.3,5.3,4.3,6.0,5.6,6.1	6.5,6.1,6.5,5.9,5.7,5.0,5.9,6.1,6.2		.....
.	S	6.9	6.3		.
.	S	5.6	4.7		.
.	S	6.6	5.9		.
10.	.S	6.6,6.7	5.9,5.8		..
...10..?	S?.SSSSS	5.5,5.7,6.2,6.5,6.5,6.4,5.8	5.1,5.5,5.4,5.2,5.5,5.5,5.2		.....
2,2,2	.SS	5.4,6.2,5.5	4.7,4.9,4.3		...
....?..	..SSSS	5.3,5.7,6.2,6.6,6.3,6.2,5.7	4.9,5.5,5.4,5.3,5.3,5.3,5.1		.....
..	S	6.3	5.3		.
—	S	6.9	6.3		.
10,10,10,10,10,10.10	SSSSSSSSS	6.4 .58,6.6,6.7,6.6,6.1,6.2,6.6,6.6	.6.5,6.7,6.9,6.5,6.4,6.2,6.4,6.6 52	468 .416...539.575.	
?.....	?...S.SS	6.8,6.5,6.7,6.6,6.5,6.1	6.3,6.2,5.8,5.5,5.8,5.4		.....
10,10	..	7.0,7.0	6.7,6.1		..

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1887phae.proj..847F

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
1 8.4+60 24									
.6	6+60 10		18.4+60 24		193	7.5	I	914	5,
1 9.6+80 20									
.6	6+80 6		19.6+80 20		35	7.3	I	879, 848, (914)$^{I^2}$, 844, 1019$^{I^2}$	6, 8, 5, 5, 5,
1 9.1+71 14									
.9	9+70 60		19.0+71 13		90	7.5	I^{d}	829, (914)^{I}	5, 6
1 9.1+73 28									
.8	8+73 14		19.1+73 28		61	7.0	I	284, (929)$^{I^{a2}}$, (829)^{I}, (914)^{II}, (844)$^{II^{1}}$, 1019,	5, 6, 3, 3, 3, 6
19.1+78 7326	8+73 12		19.1+73 26		6.0	8.5			
6									
1 10.2+80 22									
.2	2+80 8		10.2+80 22		36	6.7	I$^{p^a}$	186, 173, 161, 928, 834, 929, 829, (843)$^{II^a}$, 835, 875,	2, 4, 5, 3, 5, 3, 8, 5, 8, 10, 7
1 9.6+61 22									
.8	8+61 8		1 9.6+61 22		233	7.5	I	929,	5,
1 11.1+72 52									
.8	8+72 38		1 11.1+72 52		67	8.5	I	929, 914, ~~839~~	3, 5,
1 11.2+72 20									
.0	0+72 6		1 11.3+72 21		68	6.7	III	914, 1019,	3, 3,
1 11.4+71 52									
.2	2+71 38		1 11.4+71 52		64	6.8	III	914, 1019,	3, 2,
1 12.0+77 2									
.4	4+76 48		1 12.0+77 2		40	6.4	II^{a}	929, (843)^{III}, 950^{III}, 876^{III}, (914)^{III}, (1019)^{II}	2, 2, 3, 3, 3, 3
1 11.5+67 17									
.5	5+67 3		1 11.5+67 17		108	6.8	I	284, 929, 835, 848, 876, 914, 844, 1019$^{d^2}$	6, 8, 5, 8, 4, 7, 5, 6,
1 11.5+56 6									
.8	8+55 52		1 11.5+56 6		281	7.2	III	914,	3,
1 11.7+54 54									
.0	0+54 40		1 11.7+54 54		258	7.5	I^{b}	284, (914)^{II}	3, 3
1 12.0+57 16									
.2	2+57 2		1 12.0+57 16		237	7.0	II	929, 848,	2, 3,
1 13.2+79 36									
.2	2+79 22		1 13.2+79 36		39	8.0	I	929, (843)$^{II^2}$, 844, 1019, 939,	8, 3, 3, 5, 3

* 1 56+806 } Spectra of both stars superimposed on plate. Estimate of brightness given
1 62+808 } is of the combined light of both. Stars are found on plate 196.

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1887phae.proj..847F

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals	No. Rem.
.	8	6.7	6.0		.
5,10,10,10,10	8 8 8 8	6.7,6.6,6.6,6.9,6.5	6.4,6.6,7.0,7.0,7.0		. . . . .
10 ?	. 8	6.4 .	5.7 .		. .
. . 10,10,10, .	. . 8 8 8	6.4,6.2,6.8,6.4,6.4,6.2	6.4,6.4,6.2,6.2,5.9,6.1		. . . . .
10, . . ? ? . . . 10,10 .	. . . . . 8 8 8	6.7,6.8,6.8,6.8, 5.4,6.7, 5.6,6.5,6.3,6.6,6.3	7.1,6.5,6.9, 5.9,6.4,6.4,6.5,6.3,6.8,6.6 (5.8)		8. 47
?	-	7.1	6.9		.
. ? ?	. 8	7.2,6.7	7.4,6.5		. .
10,10,	8 8	6.7 } 6.8 / 7.0 } 7.0	6.5 } 6.7 / 6.8 } 6.9		. .
10,10	8.	6.9 } 6.8 / 7.1 } 6.9	6.7 } 6.7 / 6.9 } 6.8		. .
10,10,10,10,10,10	. 8 8 8	6.6 } 6.7 } 6.9 } 6.3 / 6.8 6.9 } 7.2 } 6.5 } 6.5	7.3 6.3 } 6.7 } 6.4 / 6.6 } 7.0 } 6.6 } 6.7		402 . . . . .
. . . 10	. . . 8 8 8 8 ?	5.8,6.5,7.0,6.7,6.9,6.4,6.7,6.5	5.5,6.4,6.3,5.8,6.1,5.9,5.9,6.1		. . . . .
10	8	6.8 } 7.1 }	5.9 } 6.2 }		.
. 10	. 8	6.6,6.7	5.9,5.8		1.5.
10,10,	. 8	6.9,7.0	6.5,5.8		. .
2,10 . . .	. 8 8 ? .	6.7,6.9,6.8,6.6,6.5	7.4,6.8,6.8,7.0,7.1		. . . . .

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1887phae.proj..847F

	1855 RA	1855 Dec.	1900 RA	1900 Dec.	No. Dm.	Mag. Dm.	Spectrum.	No. Plate.	No. Lines.
	m.	ss							
	10.	22							
	13.8+75 42								
No. 3	.3	.3	.3+7528	13.8+75 43	59	6.2	I	284, 173, 929, 929, 829, 950, (835) (848)	7, 4, 8, 7, 3, 7, 7, 3,
	13.8+74 03								
	.4	.4	.4+7349	13.8+74 3	66	6.8	I	284, 929, (835), 844, 1019,	5, 5, 3, 3, 3
	13.9+76 12								
	.3		.3+7558	13.9+76 12	58	7.1	I^2	1019,	3
	13.8+57 42								
	11.0	22	.0+5728	13.8+57 42	260	6.1	II^a	284, 929, (835) 848, (876) 914,	2, 2, 3, 3, 4, 3
	15.0+78 12								
No. 5	.2	.2	2+7758	15.0+78 12	49	6.0	II^a	186, (929) (829) (843) (950) (835) (875) (848)	2, 10, 2, 3, 2, 3, 3, 2,
	14.5+64 7								
	.5	.5	.5+6353	14.4+64 8	176	6.6	I	284, 929, 835, 848, 876,	5, 7, 8, 4, 3,
	14.4+60 25								
	.6	.6	.6+6011	14.4+60 25	209	7.3	I	929, 914,	5, 6,
	12.	22							
	14.9+54 6								
	.2	.2	.2+5352	14.9+54 6	281	7.3	I	284,	5
	13	23							
	16.6+72 19								
	.3	.3	.3+725	16+72 19	69	6.7	II^a	929, (835) (914) (1019)	2, 2, 7, 5,
	17.8+77 9								
	14.	24	.1+7655	17.8+77 9	42	8.0	II^a	1019	2,
	17.6+73 36								
	.2	.2	.2+7322	17.6+73 36	71	7.8	I	284, 914, 1019,	4, 4, 5,
	17.0+57 37								
	.2	.2	.2+5723	17.0+57 37	274	7.0	II^a	284, 929, (848)	2, 2, 3,

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~~2~~ h /

K Line	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
~~m~~ ~~25~~						
5,10, 5, 5 - 10, 8, 10	.... SSSS	5.8, 6.9 - 6.2, 6.8 6.7, 6.6 6.5	6.0, 6.2 - 6.6, 6.4, 6.9 6.4, 6.1		✓	 516
10 - 10, 10, 10,	.. S, SS	6.5, 7.0 $\overset{6.8}{6.9}\}$ 6.9, 6.5	6.6, 7.3 $\overset{6.5}{6.6}\}$ 6.5, 6.5		✓	.....
-	-	7.1	7.2			.
10, 10, 10, 10, 10, 10 ~~26~~	.. SSSS	5.8, 6.4 $\overset{6.4}{6.6}\}$ 6.4, 6.4, 5.9	5.2, 6.0, $\overset{5.7}{5.9}\}$ 5.2, 5.3, 6.1		✓	19, 410, . 537 . 538
10, 2, . 10, 10, 10, 10 .	.. SSS²SSS	6.7, 5.8, $\overset{6.6}{6.9}\}$ 6.3, 6.0, 6.8 6.7 6.5	6.8, 6.4 $\overset{6.4}{6.7}\}$ 6.1, 6.4, 6.8, 6.8, 6.3		✓	34 .....
.. 2 ..	S¹. SS²S	5.7, 6.4, 6.6, 6.9, 6.8	5.3, 6.2, 5.8, 5.9, 5.9		✓	.....
..	. S	6.9 6.9	6.6, 6.2		✓	..
~~27~~						
.	-	6.8	6.1		✓	.
~~28~~						
10, 10, 8.	.. S8	6.9 $\overset{6.9}{7.2}\}$ 6.7, 6.7	7.1 $\overset{6.5}{6.8}\}$ 6.5, 6.6		✓	431 ...
10, ~~29~~	-	6.9	7.1		✓	568
..	. S.	6.8, 6.8, 6.9	6.9, 6.7, 6.9		✓	...
10, 10, 10	.. S	6.6, 6.9 6.9	6.0, 6.5, 5.7		✓	18, 409, ..

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	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No. Dim.	Mag. Dim.	Spectrum	No. Plate.	No. Lines.
	h. m	″							
	15. 3								
	118.4+7027								
No. 15	.2	.2+7013	118.4+7027		102	6.1	I	284,929,835,879,848,876,914,844,	6,8,8,6,4,7,8,8
	118.9+6736								
No. 10	.8	.8+6722	118.8+6736		123	5.2	III b	284,929,(835),(848),876,(914)	2,2,3,3,3,3,
	118.8+5743								
	16. 0	.0+5729	118.8+5743		280	8.5	I d²	1019,	3,
	119.3+5943								
	.4	.4+5929	119.3+5944		248	3.0	I	284,929,879,848,876,914, 284 I?	10,9,8,13,14,12, ?
	17								
	121.0+7341								
	.5	.5+7327	121.0+7341		75	7.5	III	914,	3
	18								
	121.8+6014								
	.9	.9+6000	121.8+6014		487	8.1	I	1019,	6,
	19								

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K Line.	J Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Remarks.
10,10,2,8	SSSSS	6.3, 6.0, 6.6, 7.0, 6.5, 6.7, 6.3 / 6.2, 6.1, 6.1, 6.0, 5.8, 6.1, 6.0, 5.8			
10,15,10,10,10,10	SSSS	5.4 6.2 6.4 6.4 6.2 5.9 / 5.1 6.1 5.7 5.5 5.4 5.4 6.0 6.5 6.6 6.7 6.5 6.2 / 5.7 6.4 5.9 5.8 5.7 5.7			1, 407, 526, 537
		7.0	6.3		
?5,2,2,2 ?	SSSSS ?	4.3, 4.7, 4.7, 4.3, 4.0, 4.1 / 3.7, 4.3, 3.2, 3.7, 2.9, 3.3			!
10	S	6.7 6.9	6.6 6.8		
	S	6.6	6.0		

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum	No. Plate.	No. Lines.
m.									
20.									
	123.5+63 21								
	.5	.5+637	123.5+63 21	193	8.0	I	914,	3,	
	123.8+69 45								
	.5	.5+6931	123.8+69 45	102	6.1	II	284, (929)$^{II^a}$ (835)^{III} 848, (876)^{I} (914)$^{II^a}$ (844,)$^{II^a}$ 1019$^{II^a}$	2,2,3,5,5,3,3 3	10,
	123.9+65 35								
No. 13	.8	.8+6521	123.9+65 35	175	6.0	I	284, 929, (929)$^{I^2}$ (835)$^{I^d}$ 848, 876, 914,	7,6,7,7,9,6,7,	
21									
	125.2+69 31								
	.9	.9+6917	125.2+69 30	103	7.0	I	284, 929, (835)$^{III^2}$ (848)$^{I^2}$ 914, 844, 1019,	4,6,3,3,6,6,7,	
22									
	125.4+67 27								
	.2	.2+6713	125.4+67 27	134	8.2	I	1019,	3,	
	126.9+78 39								
	.8	.8+7825	126.9+78 39	49	8.5	I	929, 1019,	3,5,	2
23									
	126.5+59 56								
	.6	.6+5942	126.5+59 56	269	7.5	I^2	1019	4	
	127.0+57 49								
24	.1	.1+5735	127.0+57 49	320	6.5	III	914, 1019^{III}	3,2,	10,
	127.4+68 26								
	.2	.2+6812	127.4+68 26	113	6.8	II^a	929, (848)$^{III^2}$ (914)^{III} (844)$^{III^b}$ (1019)^{II}	2,3,3,3,3	10,
	127.4+58 43								
	.5	.5+5829	127.4+58 44	260	6.0	III^b	284, 848, (876)^{III} (914)^{III} 844, 1019$^{III^2}$	2,3,3,3,3,3,	10,
	127.8+71 54								
	.4	.4+7140	127.8+71 54	87	7.8	II	929, (914)$^{II^2}$ (844)^{III} (1019)$^{II^a}$	2,3,3,3,	10,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Remarks.
		6.9	6.3	✓	
10,10,10,10,10,10,10,10	SSSSSS	6.5,6.3,6.4/6.5,6.7,6.8,6.1,6.5	6.3,6.3,5.8/5.9,5.9,6.1,5.7,5.8,5.3	✓	420 542, 553, 578
5,2,5,2	SSS	5.5,6.6,6.4,6.7,6.5,6.6,6.2	5.1,6.3,6.2,5.9,5.5,5.7,5.6	✓	
?10..10.	SSSSS	6.7,6.7,6.6/6.7,6.9,6.5,6.6,6.5	6.5,6.7,6.0/6.1,6.0,6.1,5.9,6.2	✓	
		6.8	6.4	✓	
2		7.3,6.9	7.9,7.2	✓	
		7.1	6.4	✓	
10,10	S	6.8/7.0/6.9/7.1	6.0/6.2/6.2/6.4	✓	
10,10,10,10,10	SSSS	6.9,7.0,(6.6),6.8/6.8,7.0,6.7	6.9,6.0,6.2,6.4,6.1,6.3,6.4	✓	415 550
10,10,10,12,10,15	SSSSS	6.0,6.4,6.4,6.6/6.7,6.1,6.3,6.5,6.2,6.3	5.4,5.2,5.3/5.8,5.4,5.6,5.3,5.5,5.2,5.4,5.5,5.6	✓	2,519 551
10,10,10,10,	SSS	6.9,6.5,6.8,7.0,6.6	7.1,6.3,6.3,6.5	✓	583

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
No. 21	25 0	-5	.0	+80 41	29.6 / 24.5	+80 55	50	7.4	I	929, (843)$^{II a}$ (835)^{II} 875, 914, (844)$^{I^2}$ 1019, (877)$^{II^2}$	8, 3, 2, 6, 7, 9, 3
	29.2+73 47										
	.6		.6	+73 33	29.2+73 47		81	6.5	I	284, 173, 929, 835, 914, 844, 1019,	5, 6, 7, 4, 8, 8, 8
	28.6+62 34										
	.6		.6	+62 20	28.6+62 34		274	6.5	III	1019	2,
	~~29.1+65 43~~										
	~~.0~~		~~.0~~	~~+65 29~~	29.1+65 43		182	~~7.8~~	~~I~~	~~284,~~	~~6,~~
	29.0+55 32										
	.2		.2	+55 18	29.0+55 32		360	7.2	III$^{a^2}$	914, 284 I	3 6
	29.1+52 50										
	.3		.3	+52 36	29.1+52 50		382	6.6	I	284, (914)$^{II a}$	5 6,
	29.2+67 6										
	.0		.0	+66 52	29.2+67 6		134	7.3	I	284, (929)^{II} 848, 914, 844, 1019	5, 2, 4, 5, 3, 6
	30.1+76 13										
	.3		.3	+75 59	30.1+76 13		69	8.1	I	~~844, 939,~~ 1019	~~3, 4, 3~~
	29.9+62 53										
	.9		.9	+62 39	29.9+62 53		277	7.2	I	284, (914)$^{I^2}$ (1019)^{II}	5^2, 5, 2,
	30.5+72 31										
	~~2.0~~		~~.0~~	~~+72 17~~	30.5+72 32		86	5.2	III^b	284, (173)^{III} 929 (835)^{III} 914, (844)^{III} 1019	2, 2, 3, 3, 3, 3, 3
	~~30.3+59 7~~		~~.3~~	~~+58 53~~	30.2+59 7		268	7.2	I$^{I^2}$	1019, 914,	4, 5,
	30.1+53 11		.3	+53 57	30.1+54 11		339	7.0	I	914,	4,
	31.0+74 2		.4	+73 48	31.0+74 2		84	8.3	I	844, 1019,	3, 3
	~~33.6+58 43~~		~~.5~~	~~+84 29~~	33.9 84 43		29	8.0	I	929, 898,	4, 3
	31.6+77 28										
No. 14	.6		.6	+77 14	31.6+77 28		58	6.5	I	284, 186, 161, 929, 829 (848)$^{I^2}$ 914, 844, 876$^{II a}$	6, 5, 4, 8, 5, 5, 8, 6.2
	30.8+64 14										
	.7		.7	+64 0	30.8+64 14		202	6.8	I	284	4
	28. 53										
	31.4+61 51										
	.4		.4	+61 37	31.4+61 51		304	6.5	I	284, 848, 914, 844, 1019,	7 6, 7, 6,
	31.6+57 28										
	.7		.7	+57 14	31.6+57 28		349	6.0	III.	284, 848, (876)$^{II a}$ 914, 1019,	2, 3, 2, 3, 3,
	34.0+81 59										
	.9		.9	+81 45	34.0+81 59		51	8.7	I	1019,	3
	29. 54										
	32.4+60 34										
	.4		.4	+60 20	32.4+60 34		296	7.2	I	173,	4,

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K Line.	J Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
..10,....10	.SSS.	5.8 6.8 6.5 6.7 6.2 6.3 6.2 6.8	6.7 6.9 6.8 7.1 6.7 6.5 6.8 7.0		✓	.471.....
...10...	...SSS	6.1 6.5 6.1 6.7 6.2 6.4 6.0	6.2 5.7 6.4 6.4 6.1 6.9 6.0		✓	.....
10,	.	6.9 7.1	6.3 6.5		✓	.
.	.	6.5,	6.2,		✓	.
10 .	S .	6.5 6.6 } 6.5	5.6 5.7 } 5.9		✓	533 .
..	.S	6.7 6.6	5.9 5.6		✓	.529
.10....	..SS..	6.2 6.9 7.0 6.5 6.8 6.6	5.9 6.8 6.1 6.0 6.0 6.2		✓	.....
10 .	...	6.0, 7.0	6.3 6.3		✓	...
.10,10,	.S.	6.6 6.8 6.8	6.1 6.1 6.2		✓	...
10,10,15²10,10,10,10	..S²SSS	6.2 6.5 } 6.2 6.4 6.0 6.0 6.5 6.7 } 6.5 6.7 6.2 6.3 6.1	6.2 5.6 6.4 6.0 5.7 5.5 5.1 6.5 5.8 6.7 6.3 5.9 5.8 5.4		✓	12 .434 .528 .584
10, .	.	7.0 6.9	6.3 6.3		✓	..
..	.S	6.7	5.8		✓	.
..	..	7.0 6.8	6.6 6.8		✓	..
..	.S	7.0 6.8	8.4 8.1		✓	..
...?...10.10	..... SSS.	5.9 6.5 6.9 6.1 6.7 6.5 6.3 6.5	6.5 6.2 6.5 6.7 6.6 6.4 6.2 6.4 6.3	5.2	✓	 525
.	.	6.7	6.3		✓	.
10 2 2 10 .	.SS.	6.0 6.8 6.5 6.6 6.1	5.5 5.7 5.8 5.6 5.5		✓	.....
10,10,10.10	.S.S	6.7 6.9 } 6.6 } 6.9 7.1 6.5 7.0 7.2	6.1 5.7 5.8 } 6.2 5.9 5.4 6.2 6.3 6.5		✓	.525..
.	9	6.8	7.5		✓	.
.	.	7.0	5.6		✓	.

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3h 1

	1855 RA.	1855 Dec.	1900 Ra.	1900 Dec.	No. Dun.	Mag. Dun.	Spectrum.	No. Plate	No. Lines	
1 32.9+54 6	30.1	.1+53 52	1 32.9	+54 6	354	7.5	I	284,914,	5,5	
1 33.3+55 17	.4	.4+55 3	1 33.3	+55 17	375	7.5	I	284	3	
1 34.1+66 25	.9	.9+66 11	1 34.1	+66 25	145	7.4	I	173	3	10,
1 33.9+58 33	.9	.9+58 19	1 33.8	+58 33	273	7.2	I	284,848,914,(844) II a? 1019,	5,5,5,6,7	
1 33.8+53 57	31.0	.0+53 43	1 33.8	+53 57	362	7.8	II	284,914,	2,3	10,
1 35.3+74 6	.6	.6+73 52	1 35.3	+74 6	92	6.8	III	914,844,1019,(939) I	3,2,3,4	10,1
1 35.0+67 32	.7	.7+67 18	1 34.9	+67 32	149	6.1	I	284,173,848,876,844,1019,914	8,5,8,7,10,11,8	
1 35.2+70 6	.8	.8+69 52	1 35.2	+70 7	114	5.2	I	284,173,929,879,876,914,844,1019, 848	8,6,10,6,8,11,8,9 8.	
1 35.9+75 22	32.1	.1+75 8	1 35.9	+75 22	72	7.0	I	284,914,(844) III 1019,(939) II	4,7,3,5,3,	10,1
1 35.3+60 32	.3	.3+60 18	1 35.3	+60 32	308	6.5	I	914,1019,	6,7,	.2
	~~.8~~	~~.8+69 52~~	~~1 36.2~~	~~+70 6~~	~~114~~	~~5.2~~	~~I~~	~~848,~~	~~8,~~	
1 35.6+58 8	.7	.7+57 54	1 35.6	+58 8	370	6.8	I	284,848,(876) I² 914 1019, 844 I?	5,6,4,7 8, 5	
1 35.9+60 3	.9	.9+59 49	1 35.9	+60 3	306	7.0	II a	173,	2	
1 36.1+60 55	33.1	.1+60 41	1 36.1	+60 55	312	6.3	II a	284,(173) I,(848) I d²,(914) I,(914) 2 I,844,(1019) I	2,3,4,5,7,3,6,	10
1 39.2+83 50	.2	.2+83 36	1 39.2	+83 50	38	8.7	I	898,	4,	
1 36.6+60 3	.6	.6+59 49	1 36.6	+60 3	307	6.0	I b	284,(173) I,(848) I,(876) I,(914) I,(844) I,(1019) I	7,5,7,5,8,7,8	
1 36.7+58 8	~~.7~~	~~.7+57 54~~	~~1 36.7~~	~~+58 8~~	~~370~~	~~6.8~~	~~I~~	~~914,(844) I²~~	~~7,5,~~	2.
1 36.7+59 8	.7	.7+58 54	1 36.7	+59 8	282	6.5	II a²	1019,	3	2
1 38.8+80 24	34.1	.1+80 10	1 38.8	+80 24	55	7.5	I	173,929,829,(843) I²,835,875,879,(848) I²	4,8,4,5,4,5,4,5,	
1 37.5+69 0		.1+68 46	1 37.5	+69 0	125	7.3	III	1019	I	10
1 37.3+55 23		.4+55 9	1 37.3	+55 23	391	7.1	I	284,(914) II a	4,3,	.10
1 37.1+59 56		.1+59 42	1 37.1	+59 56	309	8.0	I	1019	3	
1 37.3+52 23	.5	.5+52 9	1 37.3	+52 23	420	7.0	I	284,914,	4,5,	10,10
1 37.4+50 12	.6	.6+49 58	1 37.5	+50 11	444	4.1	I b	284	7	
1 37.7+57 2	.8	.8+56 48	1 37.7	+57 2	330	6.4	I	284,848,876,914,(844) I d²? 1019,	6,6,2,6,5,9	
1 39.7+80 53	.9	.9+80 39	1 39.7	+80 53	57	7.5	I	173,929,(835) III,914,(844) I²,1019,939,898	4,8,3,6,6,7,3,6	10,2
1 37.8+54 23	.9	.9+54 9	1 37.8	+54 23	368	7.5	III	914	3,	10

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Remarks.
.10	m . S	6.8,6.7	6.1,5.8	✓	..
. .	.	6.5	5.8	✓	.
10,	S	.	.	✓	.
.10 .10.	. SSSS	6.4,6.9,6.4,6.8,6.7	5.8,5.7,5.6,5.7,6.0	✓	.. .549.
10,10	. S	6.8,6.9	6.1,6.0	✓	..
10,10,10,.	S . SS	6.5 6.8 6.6 / 6.8 7.0 6.9 6.8	6.4 6.4 6.6 / 6.7 6.6 6.9 7.0	✓	....
. . . 1 2 . .	S . S S S S S	5.4,6.8,6.3,6.0,6.0,5.8 5.6	5.1,5.6,5.4,5.2,5.2,5.4 4.7 5.8	✓	. . . 1 . . .
. . 2	. . . S S S S S	6.3,5.8,6.7,6.1,5.6,5.4,5.8,5.5	6.2,4.8,6.8,5.1,5.0,5.1,5.2,4.9 4.3	✓	. . . . .
10,10,10,10,10,	X . S,S,S,S	6.9,6.5 6.7 6.9 6.6,6.8	7.1,6.5 6.4 6.6 6.7,7.1	✓	. . . . .
.2	S,S	6.7,6.4	6.0,5.8	✓	..
.	S	5.8	5.1	✓	.
. . . 2 5 .	. L S,S,S	6.4,6.8,7.0,6.3 6.2 6.5	5.8,5.6,5.9,5.6 5.5	✓	. . . . .
.	.	6.9	5.4	✓	41
10 . . . . 10 .	X . . S S S S,S ?	6.1,6.9,6.7,.6.5,6.5,6.2	5.6,5.5,5.6 . 5.8,5.6,5.6	✓	11 554
. .	.	6.9	8.1	✓	.
. . . . .	. . S . SS .	5.8,6.8,6.4,6.5,5.9,6.4,6.0	5.2,5.3,5.2,5.4,5.1,5.3,5.3	✓	9 . . . . .
2 .	SS	6.2,6.5	5.4,5.4	✓	..
2	S	7.0	6.3	✓	574
. . . 10,10 . 10,10	X . . . . S S . S	6.9,5.9,6.7,6.7,6.9,6.6,7.2,6.8	6.6,6.7,5.7,6.7,7.1,6.9,5.9,6.8	✓	. . . . .
10 .10	. S	6.8,6.7	6.1,5.8	✓	. 532
. 10,10	. S	6.7,6.7	5.9,5.7	✓	..
. .	.	5.0	4.9	✓	10
. . 10 . . .	. S . S S S	6.3,6.8,7.0,6.4,6.5,6.4	5.7,5.6,5.9,5.6,5.4,5.7	✓	. . . . .
10,2,10.5,2 . .	. S S S S S . S	7.2,6.2,6.9 7.2 / 6.4,6.5,6.5,6.5,6.5	7.0,7.1 7.2 7.5 / 6.9,6.7,7.1,7.3,7.3	✓	. . . . .
10	S	6.8 7.0	5.9 6.1	✓	.

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum	No. Plate	No. Lines.
35	137.9+52 42								
	138.2+56 36								
	.1	+52 28	139	+52 42	424	8.5	I	914,	4,
	.3	+56 22	138	+56 36	334	6.5	I	284 848, 876, 914, 844, 1019,	5 7, 5, 7, 5, 8
36									
	140.1+63 9								
37	.0	+62 55	140	+63 9	305	8.0	I	1019,	3.
	140.4+63 22								
	.3	+63 8	140	+63 22	238	6.1	II a	284, 173, II b (914) (1019) III 844	2, 2, 3, 3, 3,
38									
	141.9+57 58								
	.9	+57 44	141	+57 58	399	8.2	I	1019,	3
	143.5+81 28								
	.4	+81 14	143	+81 28	61	6.8	III	929,	1
	141.3+53 31								
	.4	+53 17	141	+53 31	386	7.2	I	284	4
	142.2+67 11								
	.9	+66 57	142	+67 11	161	8.4	I	1019,	3,
	142.7+75 6								
	.8	+74 52	142	+75 6	84	6.8	III	914, II 844, V I (1019) V I (939)	V 3 2 7, 5,
39	145.6+84 16								
	.2	+84 2	145	+84 16	34	8.1	III	1564,	2,
	144.5+80 25								
	.7	+80 11	144	+80 25	58	6.8	III	929,	3

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No Remarks
			6.0		
		6 6.7, 6.7, 6.3, 6.5	5.4 5.4, 5.5, 5.4, 5.7		
		7.1	6.6		
10, 10, 10, 10, 10,		5.9, 6.9, 6.2 6.1 6.3 6.4 6.6	5.5, 5.6, 5.5 5.6 5.8 5.5 5.7		13, 44, 531, 586,
		7.0	6.3		
		6.8 / 7.1	7.7 / 8.0		
		6.8	6.1		
		7.0	6.6		
10, 10, 10, 10,		6.4 / 6.6 6.7, 6.6, 6.6	6.4 / 6.6 6.4, 6.7, 6.9		
10,		6.9 / 7.2	7.9 / 8.2		
10		6.9 / 7.2	7.7 / 8.0		

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1887phae.proj..847F

No.	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum.	No. Plate.	No. Lines.
40									
144.7+77 42									
.4	.4+77 28	144.7	+77 42	65	6.5	I	914, 1019, 877, 939,		8, 3, 2, 2
144.0+67 52									
.6	.6+67 38	144.0	+67 52	164	8.0	I	914, 1019,		4, 3
144.3+70 16									
.8	.8+70 2	144.3	+70 16	137	7.2	I	1019		4
41.									
144.6+51 27									
.7	.7+51 13	144.6	+51 27	416	6.3	I	284, 914,		5, 4,
146.2+75 44									
42.2	.2+75 30	146.2	+75 44	76	6.8	I	284, 173, (929) (848) (914) (844), 1019, (877) (939)		4, 4, 3, 3, 7, 5, 5, 2, 4
145.4+54 40									
.5	.5+54 26	145.4	+54 39	396	5.7	Ib	284, (848) 876, (914)		6, 5, 3, 8
145.8+50 19									
43.0	.0+50 5	145.8	+50 18	379	6.1	I	284		6
148.5+79 14									
.8	.8+78 60	148.5	+79 14	62	8.3	I	1019,		7,
146.9+67 40									
.5	.5+67 26	146.9	+67 40	168	7.4	IIIa	848, (914) 1019		3, 6, 7
146.4+51 0									
.6	.6+50 46	146.4	+51 0	381	6.6	I	914		6
147.7+70 0									
.9	.9+69 46	147.4	+70 0	122	8.0	Id	161		5
147.3+63 11									
44.1	.1+62 57	147.2	+63 11	320	3.3	I2	284, (173) (848) (876) 914, (844) 1019		9, 10, 9, 9, 11, 14, 11,
147.1+55 7									
.2	.2+54 53	147.1	+55 7	408	6.6	I	284, 848, 914,		6, 6, 6,
148.8+74 50									
.8	.8+74 37	148.8	+74 50	87	6.5	III	914, 844, 1019, 939,		3, 1, 3, 3,
148.2+68 11									
.8	.8+67 58	148.2	+68 12	169	5.2	I	284, 173, 848, 876, 914, 844, 1019, 877,		6, 8, 9, 8, 10, 11, 11, 8,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No.	Remarks.
10, 10, 10,	S.	5.6 6.6 6.9 6.5 6.7 7.1 6.7	5.8 6.9 6.8 7.0 7.0 7.0 7.2			
	S.	6.8, 6.9	6.3, 6.5			
10		6.9	6.7			
10, 10		6.8, 6.6	6.0, 6.6			
10, 10, 10, 10, 10,	S S S S S S	6.4, 7.1, 7.1, 7.0, 6.5, 6.7, 6.6, 6.7, 6.2	6.6, 6.4, 7.5, 6.6, 6.5, 6.4, 6.7, 6.4, 6.5			535, 561
10, 10, 10	S S S	5.8, 6.4, 6.3, 6.0	6.1, 5.1, 5.1, 5.1			14. 523
		6.2	5.4			
		6.8	7.2			
10	S S S	7.0 7.1 } 6.6, 6.6	6.1 6.2 } 6.1, 6.2			518
	S					
10		6.5	5.9			
	S S S S S S	4.6, 4.8, 5.5, 4.9, 4.1, 4.7, 4.1	4.3, 3.5, 4.5, 4.0, 3.5, 3.5, 3.6			
	S S	6.2, 6.9, 6.5	5.5, 5.6, 5.6			
10, 10, 10	S S S	6.5 6.7 } 6.7 6.6 6.8 6.9 } 6.9 6.8	6.4 6.3 } 6.7 6.8 6.7 6.5 } 6.9 7.0			
	S S S S S S	4.8, 5.8, 5.9, 5.5, 5.5, 5.5, 5.6, 5.0, 5.5	4.6, 4.7, 5.1, 4.8, 5.5, 4.9, 4.7, 4.8			

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		1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
		m 45	s 34							
148.9+71 13	.3	3	+71 0	148.9	+71 13	111	7.4	I	.284,173,(848)IIa,914,914,844,1019,	5,4,3,5,5,5,8,
148.3+56 5	.3	3	+55 52	148.3	+56 5	437	7.0	I	914,	4
148.8+61 53	.7	7	+61 40	148.8	+61 53	352	7.8	Ia	844,(1019)Ib	5,4,
148.6+56 36	.6	6	+56 23	148.6	+56 36	386	7.4	II	914,1019a,	3,3
148.8+58 47	.8	8	+58 34	148.8	+58 47	331	7.5	IIa	844,(1019)I2 914II	3,3,2
		m 46	s 31							
149.4+60 47	3.	3	+60 34	149.4	+60 43	383	7.3	II	844	3
150.3+72 40	.6	.6	+72 27	150.4	+72 40	112	7.2	III	914,844,1019,	3,3,2
151.9+80 30	.9	9	+80 17	151.9 152.0	+80 30	61	8.6	I	1019,	5
		m 47	s 32							
150.1+52 48	.2	2	+52 35	150.1	+52 48	468	7.5	IIa	914,	3
150.6+60 41	.5	5	+60 28	150.6	+60 41	135	7.9	I	1019,	6
152.1+78 24	.6	.6	+78 11	152.1	+78 24	66	8.1	I	929,1019 2	3,3
151.0+67 5	.6	.6	+66 52	151.0	+67 5	171	8.3	I	914,1019,	4,7
151.6+66 33	4 8.2	3	2 +66 20	151.6	+66 33	175	7.2	Ib	284(914)I1019,I1019,	5,4,5,3,
151.4+61 12	.3	3	+60 59	151.4	+61 12	398	6.6	I	284,173,848,(1) 914,(2) 914,844,1019	7,5,5,7,5,10,8
151.4+59 8	.3	3	+58 55	151.4	+59 8	341	7.0	I	284,2 284,173,848,1019,914	7,3,4,4,6 6
151.5+61 3	.4	4	+60 50	151.5	+61 3	400	7.5	I	284,173,	6,5
151.5+57 22	5	5	+57 9	151.5	+57 22	435	8.1	I	1019	3
152.9+77 25	.5	.5	+77 12	152.9	+77 25	73	6.3	IIIb	284(929)IIIa(848)914,844,1019,877,939b	2,2,3,3,3,3,2,3
152.5+75 0	.8	.8	+74 47	152.9	+75 0	91	6.5	I	284,173,161,929,(848)III876,914,844,	6,6,4,5,2,4,6,7
no. 16 152.3+64 8	4 9.0	3	4 +63 55	152.2	+64 8	26.5	5.5	I	284,173,876,914,844,1019,	8,8,8,9,10,9

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks
7, 10, 10, 10, 2	S S S S S	7.1, 7.1, 7.1, 6.5, 6.7, 6.5	7.0, 6.1, 6.4, 6.2, 6.1, 6.3			522
	S	6.6	5.7			
2	S	7.1, 7.0	6.1, 6.4			582
10, 10,	S S	6.8, 7.0	5.9, 6.2			565
10, 10,	S S S	6.7, 6.8, 6.7	5.6, 6.1, 5.8			548
10	S	7.0	6.0			
10, 10,	S S S	6.8 } 6.9 } 6.8 7.0 } 7.2 } 6.9	6.6 } 6.4 } 6.7 6.8 } 6.7 } 6.8			
		7.0	7.5			
10	S	6.8	5.7 6.6			530
		6.8	6.2			
	S S	7.1, 6.9	7.1, 7.2			
2	S	6.9, 6.9	6.4, 6.5			
10	S S	6.3, 6.7, 6.9, 6.9	6.0, 6.2, 6.5, 6.5			16
10	S S S S S	5.7, 6.3, 6.5, 6.4, 6.4, 5.9	5.2, 4.9, 5.4, 5.7, 5.4, 5.3			
10	S S S	6.4, 7.3, 6.9, 6.3, 6.6	5.8, 5.8, 5.7, 5.6, 5.7			
	S S	6.5, 6.8	6.0, 5.4 6.2			
10, 10, 10, 10, 10, 10, 10	S S S S S S S	6.5 } 6.6 } 6.7 } 6.4 } 6.6 } 6.4 } 6.7 } 6.3 6.8 } 6.9 } 7.0 } 6.6 } 6.9 } 6.6 } 7.0 } 6.5	6.8 } 7.1 } 6.4 } 6.5 } 6.4 } 6.6 } 6.5 } 6.7 7.1 } 7.4 } 6.7 } 6.7 } 6.7 } 6.8 } 6.8 } 6.9			411, 567, 611
2, 4, 7	S S S S	6.0, 6.4, 6.8, 6.3, 6.6, 6.5, 6.3, 6.3	6.2, 5.7, 6.5, 6.7, 6.2, 6.2, 6.3, 6.6			
1	S S S S	5.3, 5.7, 6.3, 5.8, 5.8, 5.5	4.9, 4.4, 5.4, 5.2, 4.9, 5.0			

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3.h /

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dur.	Mag. Dur.	Spectrum	No. Plate	No. Lines
153.7+70 24 m									
No. 17	50.1	+70 2	153.8	+70 25	153	4.6	I	284, 173, (161), 848, 876, 914, 844, 1019	8, 8, 5, 11, 8, 9, 11, 12
155.7+80 11	.7	+79 58	155.7	+80 11	61	7.5	I	929, (848) 914, 844, 1019, 877, 939, 898,	7, 5, 6, 7, 8, 3, 5, 6
157.8+85 15	.8	+85 2	158.8	+85 15	41	7.7	I^d	~~928~~ (III 924) (835) (1019) (898) 1564,	5, 3, 4, 2, 1, 2,
154.4+73 21 No. 18	.5	+73 8	154.4	+73 21	108 ~~80~~	6.2	I	284, 173, 848 (876) 914, 844, 1019, 877,	6, 6, 5, 2, 8, 10, 9, 5,
153.8+59 28	.7	+59 15	153.8	+59 28	376	7.0	I	284, 173, (929) 914, 844, 1019,	5, 3, 5, 5, 7
155.1+76 48 No. 4	.8	+76 35	155.0	+76 48	63	5.3	I	~~284~~, ~~284~~, 173, 173, 161, (929) 835, 879, 848,	6, 6, 6, 6, 9, 4, 3, 7
5-1. 155.0+71 55 No. 11	.2	+71 42	154.9	+71 56	117	4.0	I	284, 173, 161, 161, 848, 848, 876, 914, (876 (1))	8, 10, 7, 1, 8, 7, 8, 11,
154.6+59 29	.5	+59 16	154.6	+59 29	382	7.9	I	844, 1019,	4, 4
155.5+69 6	.9	+68 53	155.3 (4)	+69 6	144	8.0	I	914,	3
156.0+75 38 No. 12	.8	+75 25	155.9	+75 38	86	5.0	III	284, 173, 161, (929) 848, 876, (914)	2, 2, 2, 2, 3, 3, 3
157.0+80 49 No. 9	.8	+80 36	157.1	+80 49	64	6.1	II^a	186, (173), (258), (929) (835) (875) (879) (848) 161	4, 6, 4, 9, 9, 7, 6, 6, 6
155.7+68 28	5-2. 2	+68 15	155.7	+68 28	145	8.1	I	1019	4
155.5+64 25	.2	+64 12	155.4	+64 25	282	6.0	I	284, 173, 848, (876) 914, 844, 1019,	6, 5, 9, 5, 7, 10, 9
155.6+63 55	.3	+63 42	155.6	+63 54	274	6.0	I	173, (848) (876), 914, 844, 1019,	5, 3, 3, 8, 3, 9,
157.8+80 59 No. 20	.6	+80 46	157.9	+80 59	65	6.7	I	173, 161, (835) 875, (848), 914, 844, 1019, 877,	5, 6, 3, 6, 4, 5, 5, 7, 6
156.0+70 43	.3	+70 30	156.0	+70 43	157	7.3	II^a	1019, 939,	2, 3,
156.9+74 5	.9	+73 52	156.9	+74 5	112	7.3	I	284, 914, 844, (1019) 939,	7, 6, 5, 5, 4,
156.1+60 13	5-3. 0	+60 0	156.1	+60 13	423	7.7	I	844, 1019	4, 6
158.0+78 51	.2	+78 38	158.0	+78 51	69	7.3	II^a	929, (914) (844) 1019, 877, 939, 898	7, 6, 5, 7, 5, 3, 6,
157.8+74 23	.8	+74 10	157.9 (8)	+74 23	95	7.5	I	173 (844) 1019, 939,	4, 3, 7, 5,
157.1+64 37	.8	+64 24	157.1	+64 37	285	6.5	I^d	284, (173) (848) (876) (914) (844) (1019) (939)	5, 6, 6, 4, 6, 8, 6, 6,
157.4+68 7	.9	+67 54	157.4	+68 7	181	8.4	II^a	1019,	6,
157.2+59 45	5-4. 1	+59 32	157.2	+59 45	397	7.2	II	1019	2
157.6+63 54	.3	+63 41	157.6	+63 54	281	8.8	II^2	844	3,
158.0+59 52	.9	+59 39	158.0	+59 52	401	7.2	II	1019	3,

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
1,2,8,5,2,2,2,5	...SSSSS	5.4,5.3,5.6,5.8,5.4,5.3,5.4,4.9	5.3,4.3,5.0,5.1,4.8,5.9,4.8,4.7			
2,2,10,2,..10	.S.S.S.S..S	6.4,6.9,6.6,6.6,6.4,7.0,6.1,6.4	7.2,6.9,7.0,6.7,6.9,7.1,6.8,7.1			
10,10,10,	S..S.	6.6 6.9 6.7,6.3,6.6 6.7	7.9 8.3 8.5 7.9,7.6,8.1 7.9 8.1			
3,5,10,10,2,5,2,	..S.SSS	6.0,6.2,6.7,6.7,6.2,6.1,5.8,6.6	6.0,5.3,6.1,6.2,6.0,5.6,5.7,6.1			
10,X..2,2	..S.S	6.7,X,7.4,6.7,6.7,6.4	6.1,6.0,5.9,5.9,5.6,5.7			
10,8,10,8,10,10..10	....SSSS	6.5,7.7,6.7.5.7,5.7,6.4,6.5,6.0	6.2,6.0,6.1.5.5,6.2,6.3,5.9,5.7			
46						
.2...2,2.	SS.S.SSSS	4.8,4.9,5.2.5.8,5.4,5.2,4.6	4.8,4.0,4.7.5.4,4.8,4.7,4.4			
..	..	6.9,6.9	5.8,6.2			
.	.	6.9	6.5			
12,10,10,10,10,10,10	....SSS	5.9 6.2 {6.4 6.6}{6.5 6.8}6.4,6.7{6.4 6.6}{6.4 6.3}5.9	6.1 6.4 {5.7 5.9}{6.2 6.5}6.9{6.0 6.3}{6.1 6.3}5.9 6.3			401..534
10,1,..10..10.	...SSSSS.	.6.4,6.9,5.2,6.3,5.9,6.0 60 61	.6.2,7.1,6.1,6.6,6.3,5.8,6.1 6.3			39.....
. 1 47 .	6.9	6.2				
.1,...2,2,	..SSSSS	5.5,6.0,6.6,6.6,6.2,6.3,7.0	5.1,4.7,5.6,5.7,5.6,5.4,6.5			
.10,10,.10,5	.SSSSS	6.4,6.4 6.6 6.8}6.1,6.1,5.9	5.1,5.4 5.7 5.9}5.5,5.2,5.4			
4,.10,10,10,2..5,10	.SS..SSS	6.9,6.1 6.7 6.9}6.7,6.7,5.9,6.4,6.3,6.7	6.7,6.3 7.0 7.2}7.1,6.8,6.4,6.6,6.9,6.9			
10,20	.S	6.9,6.5	6.7,6.5			579.
.2...	.SSS.	6.8,6.8,6.6,6.7,6.8	6.9,6.7,6.2,6.7,7.0			.6.. 5.88
.. 45	.S	7.0,6.9	6.0,6.3			..
10 5,10,5,10,10 10	.SSSSSS	6.4,6.5,6.7,6.6,6.8,6.1,6.4	7.1,6.8,6.8,7.0,6.8,6.7,7.0			418....613.
10,..10	.SSS.	6.8,6.8,6.8,6.7	6.0,6.4,6.8,6.9			.557..
10....2..	..S.S.S.S	5.6,6.4,6.8,6.9,6.5,6.5,6.2,6.3	6.2,5.1,5.8,6.0,5.9,5.6,5.7,6.0			
5	S	7.0	6.7			570
10, 49 .		6.9	6.2			.
10,	S	7.0	6.1			.
10	S	7.0	6.3			.

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	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
2 1.2+83 5m									
No. 42 5-5	.1	5-2	.1+82 52	21.4+83 5-	51	7.0	III	173, (929) 835, 875, 844, 1019, 884, 898	2, 3, 3, 3, 3, 3, 3,
2 1.1+79 13									
5-6.2	.2		.2+78 60	21.1+79 13	71	7.3	IIa	848, (914) (844) (1019)	3, 5, 4,
1 59.7+66 30	.3		.3+66 17	1597+66 30	185	8.8	I	939,	3,
2 1.5+79 13									
No. 22 .6	.6		.6+79 0	21.5+79 13	63	6.7	I	284, 173, 929, 835, 914, 844, 877, 939, 884,	3, 5, 6, 8, 8, 8, 3
2 0.4+71 5	.7		.7+70 52	20.4+71 5	163	7.2	III	284, (173), (914) (844) (1019)	2, 4, 3, 3, 2,
5-7 5-2									
6-8 5-3									
2 1.7+57 57									
.6	.6		.6+57 44	2 1.7+57 57	494	6.5	III	844, (1019)	3, 4,
2 1.9+59 43									
.7	.7		.7+59 30	2 1.9+59 43	415	7.8	I	1019,	5,
5-9. 5-4									
2 2.5+59 9									
.4	.4		.4+58 56	2 2.5+59 9	384	8.5	I	1019,	4
2 4.7+78 42									
.9	.9		.9+78 29	24.3+78 42	73	7.3	I	173, 929, 914, 877, 939, 898, 161, 844, 835, 1019	4, 7, 8, 6, 6, 6, 3, 5, 3, 7

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks
10, 10, 10, 10, 10, 10, 10, 10.	S S S S S S S S	7.0 6.0 6.8 6.7 6.4 5.9 6.9 6.1 7.3 6.3 7.0 6.9 6.7 6.0 7.2 6.4	7.0 7.2 7.4 7.4 6.9 6.8 6.8 7.2 7.3 7.5 7.6 7.6 7.2 6.9 7.1 7.5			436	633
10 . . 2	S . . .	6.5, 6.6, 6.6, 6.6, 6.0	6.4, 6.9 6.5, 6.4			325	. . . .
.	.	6.3	6.1				
. 5, 2 . 2, 5, 2, 5, . . .	S S S S S S S S	. 6.9, 5.9, 7.0 6.0, 6.1, 6.4, 5.5 6.9	. 6.5, 5.9, 7.1, 6.3, 6.1, 6.4, 6.1, 6.3				. . . . .
10, . 20, 10, 10,	. . S S .	6.7 7.1 7.0, 6.4, 6.5, 6.5	7.9 8.3 6.0, 6.1, 5.9, 6.3				. . . . .
10, 10	S, S	6.4 6.5 6.2	5.3 5.4 5.5				. .
5	.	6.9	6.2				.
.	.	6.4	5.7				.
. . . 2, 2, ...	. . S S S, S S S	7.3, 6.4, 6.4, 6.6, 5.8, 6.3 6.8, 6.5, 6.9, 6.2	6.8, 7.0, 6.6, 6.5, 6.3, 6.8				. . . . .

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate	No. Lines
2 3.3+59 3m								
1+59 18	2 3.3+59 31		422	6.8	IIa	173, 844, 1019,	2, 3,	10,
2 4.1+73 33								
1+73 20	2 4.1+73 34		121	6.5	III	173, 914, 844, 1019, 939,	2, 3, 3, 2, 2,	10,
2 4.9+78 42								
0+78 29	2 4.9+78 42		73	7.3	I	161, 844, 1019,	3, 5, 7	
2 5.4+68 54								
5+68 41	2 5.1 +68 54		153	7.6	I	914,	6,	
2 4.6+57 11								
5+56 58	2 4.6 +57 11		438	6.5	III	844,	3,	10,
2 6.2+64 33								
8+64 10	2 6.2 +64 23		307	7.0	I	844, 1019, 939,	4, 6, 4,	
2 6.9+73 09								
9+72 56	2 6.9 +73 9		120	8.5	II	844	3,	10
2 9.6+83 13								
3 1+83 0	2 9.6 +83 13		54	8.9	I	929, 844, 1019, 898,	5, 5, 6, 3,	10,
2 6.7+66 3								
2+65 50	2 6.6 +66 3		239	6.0	I	173, 844, 1019, 1019, 939,	4, 2, 7, 7, 6,	10
2 8.6+80 16								
3+80 3	2 8.6 +80 16		70	7.7	I	929, 914, 844, 1019, 877, 939, 898,	5, 4, 4, 8, 3, 6,	
2 6.6+58 6								
5+57 53	2 6.6 +58 6		519	6.6	III	844, 1019,	3, 3,	10, 10
2 7.1+65 52								
6+65 39	2 7.1 +65 52		242	6.8	III	844, 1019,	1, 3,	10
2 8.5+72 52								
5+72 39	2 8.5 +72 52		121	8.0	I,	914, 1019,	7, 4	10, 5
2 7.9+58 1								
8+57 48	2 7.9 +58 1		522	7.5	I	1019,	1	

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks
10,10,5	.S.	7.5,6.6,6.4	6.0,5.5,5.7			40
10,10,10,10.	.SS.S	6.9 6.4 6.5 6.3 6.5 7.1 6.6 6.8 6.5 6.6	6.1 6.3 6.1 6.3 6.7 6.3 6.5 6.4 6.5 6.8			584
....	.S.S	6.8,6.5,6.2	6.7,6.4,6.5			....
.	S	6.6	6.2			.
10,	S	6.6 6.9	5.5 5.8			.
...	SS.	6.9,6.8,6.8	6.0,6.3,6.5			...
10	S	7.0	6.5			.
.10,5,.	.SS.	6.8,6.7,6.4,6.6	8.0,7.2,7.3,7.7			....
10.10,5.	.S..S	7.0,6.5.6.5,6.2	5.8,5.7.6.1,6.0			.56056.
...3.5,	..SS..S	6.4,6.6,6.8,6.5,7.0,6.5	7.2,7.0,6.9,7.0,7.1,7.2			.....
10,10,	SS	6.7 7.0 6.8	5.6 5.9 6.1			..
.10,	SS	6.9 7.0 7.0	6.1 6.2,6.6			.593,
10,5	S.	6.8,6.8	6.6,6.7			..
.	.	7.0	6.3			.

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	no. Hrs	mag. Hrs	Spectrum.	No. Plate.	No. Lines.
2 9.7+64 48								
.3	.3+64 35	2 9.7	+64 48	313	7.0	I	844,	3,
2 9.9+56 36								
5 .8	.8+56 23	2 9.9+56 36		471	6.6	II	1019, 939,	3, 3,
2 11.5+75 55								
2 .1+75 42		2 11.5+75 55		90	8.7	I	173,	4,
2 10.5+65 8	.0+64 55	2 10.5+65 8		314	7.2	IIa	1019,	2,
2 12.3+79 19	.2+79 6	2 12.3+79 19		68	7.7	I	914, 1019, 939,	3, 5, 4,
2 10.5+57 34								
4	.4+57 21	2 10.5+57 34		533	8.0	I	1019,	4,
2 10.9+57 26								
8	.8+57 13	2 10.9+57 26		535	6.2	III	844, 1019, 939	1, 3, 3
2 11.1+63 57								
.7	.7+63 44	2 11.1+63 58		315	7.0	I	161, 844, 1019,	4, 2, 1,
2 11.6+57 4	.9+56 51	2 11.6+57 4		486	6.5	III	939,	3,
2 11.3+63 29	.9+63 16	2 11.3+63 29		316	7.0	I	173, 844, 1019,	4, 3, 7,
2 12.5+63 53								
9.1	.1+63 40	2 12.5+63 52		320	7.0	I	173, 161, 844, 1019, 939,	5, 3, 8, 7, 7
2 12.4+59 35	.3+59 20	422	2 12.4+59 35		4647	6.7	I	844, 1019, 939,	7, 8, 3,

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K Line.	J Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
		7.2	6.3			
10, 10,		6.5, 6.6	5.7, 6.0			
		7.1	6.4			
10, 10,		6.9 6.9 6.9	6.4 7.2, 7.3, 7.5			5-91
10		7.0	6.3			
10 10		6.7 6.7 6.7 7.0 6.9 7.0	5.6 6.0 6.1 5.9 6.2 6.4			
10		6.9 7.1, 7.0	6.0, 6.2, 6.5			
10 5		6.7 7.0 7.9 7.1, 6.8	6.2 6.5 6.1, 6.2, 6.3			
		6.6, 7.0, 6.5, 6.1, 6.5	5.3, 6.1, 5.6, 5.6, 6.2			
2		6.6, 6.5, 6.7	5.5, 5.8, 6.2			

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2

	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines
2 15.3+80 10									
10.0	0+7957	2	15.4	+80 10	69	8.3	I	929, 1019, 898,	4, 7, 3,
2 14.6+75 40									
.2	2+7527	2	14.6	+75 40	94	7.5	I	1019, 939, 914	5, 6, 4
2 14.4+69 52									
.6	6+6939	2	14.4	+69 52	144	8.0	I	1019,	3,
2 14.6+64 47									
11.1	1+6434	2	14.6	+64 47	321	7.0	III b	844, 1019,	3, 3,
2 15.3+73 3									
.2	2+7250	2	15.3	+73 3	128	7.5	I	1019,	5,
2 14.8+56 47									
.7	7+5634	2	14.8	+56 47	568	6.7	II	939,	3,
12									
2 15.3+55 24									
.3	3+5511	2	15.3	+55 23	598	5.7	I	161, 877, 939,	4, 5, 3,
2 15.9+56 56									
.8	8+5643	2	15.9	+56 56	593	7.0	II	1019,	2,
13									
2 16.7+62 36									
.3	3+6223	2	16.7	+62 36	388	7.3	I	1019,	4,
2 +83 24									
.3	3+8311	2	20.4	+83 24	56	8.0	III b	844, 929, 1019, 898,	1, 1, 3, 3,
2 16.6+51 38									
.6	6+5125	2	16.6	+51 38	556	6.5	I	939,	3,
2 20.0+82 34									
.6	6+8221	2	20.0	+82 34	55	8.7	II	1019,	3,
2 16.9+54 55									
.8	8+5442	2	16.9	+54 55	535	6.4	II	939,	3,
14									
2 18.4+73 16									
.2	2+733	2	18.4	+73 16	139	6.9	I	173, 914, 844, 1019, 939,	3, 4, 3, 7, 4,
2 +85 23									
.2	2+8510	2	23.4+	+85 23	45	8.6	I	173, 844, 1019, 1057,	3, 7, 7, 4
2 18.2+61 5									
.9	9+6052	2	18.2	+61 5	472	6.6	I	1019,	5
2 18.0+59 33									
.8	8+5920	2	18.0	+59 33	484	7.2	I	1019,	3,
2 18.8+71 41									
.8	8+7128	2	18.8	+71 41	440	7.7	I	914, 1019,	5, 4

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~~4~~ h 2

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
5,	5	7.0, 6.9, 7.0	7.9, 7.4, 7.7			
	5	6.5, 6.5 6.6	6.6, 6.8 5.7			
		7.1	6.8			
10.	5.	6.9 7.1 6.9	6.0 6.2 6.4			559.
	5	6.7	6.6			
10,	5	6.3	5.7			
10,	555	6.5, 6.5, 5.6	5.3, 5.3, 5.0			606,
10		6.7	6.0			
		6.7	6.1			
10, 10	5.55	6.6 6.7 6.3 6.5 7.0 7.0 6.5 6.8	7.1 7.9 7.2 7.6 7.5 8.2 7.4 7.9			438.
		7.0	6.3			
10,	5	6.7	7.5			
10,	5	6.8	6.2			
10, 5, 10,	5555	7.0, 6.7, 6.9, 6.4, 6.9	6.1, 6.5, 6.4, 6.3, 7.0			
5, 2, 10	555.	7.1, 6.7, 6.7	7.6, 7.6, 6.4, 8.2			
		6.7	6.1			
		6.9	6.2			
		6.8, 6.8	6.5, 6.6			

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h 2

	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines	
2 18.2+56 9										
15 .1	.1+55 56		2 18.2+56 10		6 12	6.3	I?	1019, 939,	4 1	2
2 18.3+57 44										
1	.1+57 31		2 18.3+57 44		5 6	8.1	I	939,	5,	10,
16	3									
2 20.8+66 57										
17.2	.2+66 45		2 20.8+66 57		213	4.7	I	173, 173, 161, 844, 844, 1019, 877, 939,	3, 3, 8, 10, 11, 11, 9, 10,	2
2 20.9+62 44										
5	.5+62 32		2 20.9+62 44		402	7.2	III?	844, 1019,	3, 5,	10,
2 22.6+77 13										
7	.7+77 1		2 22.5+77 13		8 4	7.5	III	914,	3,	10,
18	3									
2 23.8+79 17										
.4	.4+79 5		2 23.8+79 17		7 5	7.5	III	1019, 939, I?	.3, 1	10,
19	34									
2 22.3+55 58 5										
.2	.2+54 53		2 22.3+55 5		557	6.5	I	161, 877, 939, II?	3, 2, 7,	10,

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~~4~~ h 2

K Line.	F Line.	Brightness	Corr. Brightness	Mean.	Residuals.	No. Remarks.
2	~~34~~	6.3	5.7			
10,	8	7.1	6.6			
	36					
2 3,2,2,2,5,2,	37	5.8,5.5,5.2,5.5,5.2,5.4,5.8	4.6,4.3,4.4,4.7,4.8,4.6,5.6			
10,	88	7.0 7.2 6.9	6.0 6.2 6.3			
10,	8	6.9 7.1	7.0 7.2			
	38					
10,	8	6.8 7.0 6.1	7.2 7.4 6.7			
	39					
10,10,	8	7.4,7.1,6.4	7.0,5.9,5.8			

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h 2

	1855 RA.	1855 Dec.	1900 RA.	1900 Dec.	No.	Mag.	Spectrum.	No. Plates	No. Lines.
m.	m.								
20	~~20~~								
2	23.7	+55 6							
.6	.6	+54 54	2 23.7	+55 6	561	6.5	II?	939,	3,
2	24.4	+70 30							
.5	.5	+70 18	2 24.4	+70 30	182	8.0	II?	1019,	3,
2	27.8	+83 11							
.8	.8	+82 59	2 28.0	+83 11	56	9.0	II	1019,	2,
2	24.9	+70 52							
.9	.9	+70 40	2 24.9	+70 52	183	6.5	III	844, 1019,	3, 1,
21	~~21~~								
2	25.1	+61 17							
7	.7	+61 5	2 25.1	+61 17	424	7.0	II	1019,	2,
2	25.1	+55 1							
22	~~.2~~								
.0	.0	+54 49	2 25.1	+55 1	567	6.5	I	939,	3,
2	26.1	+70 12							
.2	.2	+70 0	2 26.1	+70 12	189	8.2	II a2	1019,	2,
2	25.8	+59 33							
.5	.5	+59 21	2 25.8	+59 33	505	7.5	I	1019, 939,	5, 4,
2	25.8	+58 0							
.6	.6	+57 48	2 25.8	+58 0	585	7.5	I	1019,	4,
2	25.9	+66 59							
.2	.2	+66 47	2 25.9	+66 59	219	8.1	I	939,	3,
23	~~23~~								
2	27.7	+75 6							
.2	.2	+74 54	2 27.7	+75 6	111	7.5	I	1019,	3,
2	27.2	+67 55							
.4	.4	+67 43	2 27.2	+67 55	215	7.5	I?	844, 1019, II? 847, I 939, II a	3, 5, 3, 4,
2	30.5	+83 27							
.6	.6	+83 15	2 31.1	+83 27	60	9.0	I?	1019,	3,
2	26.4	+51 52							
.4	.4	+51 40	2 26.4	+51 52	588	6.5	I	939,	4,
24	~~24~~								
2	27.9	+67 2							
.2	.2	+66 50	2 27.9	+67 2	223	7.0	II a?	1019, 939, II?	3, 1
2	28.6	+72 22							
.4	.4	+72 10	2 28.5	+72 23	140	5.0	III b	173, (161), III 2 844, 1019, III 847, III 939, III 884, III 898, II?	2, 2, 3, 3, 2, 3, 3, 3,

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~~H~~ h 2

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
	~~45~~					
10,	S	6.9	6.3			
10,	S	6.7	6.5			
10,	•	6.7	7.6			
10, •	S S	6.1 6.7 7.1 6.9	6.1 6.5 6.5 6.7			
	~~46~~					
10,	•	7.0	6.4			
•	~~47~~ •	6.7	6.1			
10,	•	7.1	6.9			576
5.	• •	6.9, 6.9	6.2, 6.4			• •
•	•	7.1	6.4			•
•	•	7.0	6.8			•
	~~48~~					
•	•	6.8	6.9			•
15 10, • 10,	S S • S	6.7, 6.5, 7.0, 6.3	6.0, 5.8, 6.3, 6.2			• 569 • 610
•	•	6.7	7.6			•
•	•	6.8	6.1			•
	~~49~~	~~7~~				
10 •	S S	7.0 6.9	6.6, 6.7			546 •
10, 10, 10, 10, 10, 10, 10, 20,	• • S S • S S S	6.4 7.0 6.0 5.7 6.6 5.9 6.5 6.6 7.2 6.3 5.8 6.7 6.2 6.8 6.0	5.5 6.5 5.5 5.6 6.1 6.0 5.4 5.7 6.7 5.8 5.7 6.2 6.3 5.7 6.1			43 • 555, • • 602, • •

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2

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m 28	~~m 28~~							
2 29.4+65 19								
8	.8	+65 7	2 29.4+65 19	280	6.1	III	939,	1,
2 29.4+59 25								
26.1	~~5~~	.1	+5913	2 29.4+59 25	519	6.8	I	173,	5
2 29.9+67 38								
.1	+67 26	2 29.9+67 38	217	7.7	I	1019, 939,		3, 2,
2 30.1+68 52								
.2	+68 40	2 30.1+68 52	177	8.0	I	1019, 939,		3, 3,
2 29.9+59 39								
.6	.6	+59 27	2 29.9+59 39	521	6.7	I	844,	5,
2 32.2+78 46								
.8	.8	+78 34	2 32.2+78 46	95	8.0	I	1019,	4,
27	~~27~~							
2 33.3+81 2								
.2	.2	+80 50	2 33.3+812	86	5.9	III	929, 914, 844, 1019, 877, 939, 884, 898,	3, 3, 3, 3, 3, 3, 3, 3,
2 31.1+62 9								
.7	.7	+61 57	2 31.1+62 9	444	6.5	I	844, 1019, 939,	6, 6, 6,
28	~~3~~							
2 32.7+69 16								
.8	.8	+69 4	2 32.7+69 16	171	8.0	I	844, 1019, 939,	6, 3, 4,
2 32.3+62 10								
.8	.8	+61 58	2 32.3+62 10	448	7.0	I	173, 161, 1019, 939,	4, 3, 3, 4,
2 34.2+77 51								
29.0	~~34~~ .0	+7739	2 34.2+77 51	133	7.2	I	161,	4,

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	K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks
~~35~~							
	.	S	6.7 7.0	6.4 6.7		✓	.
~~36~~	.	.	7.0	5.5		✓	.
	. 10,	. .	6.9, 7.0	6.5, 6.8		✓	. 609,
	. .	. .	6.9, 6.9	6.6, 6.8		✓	. .
	.	S	7.0	5.9			.
						✓	
	10,	.	7.0	7.4		✓	.
~~37~~	10, 10, 10, 10, 10, 10, 10, . 10,	S S S S S S S S S	5.9 6.8 ~~6.0~~ 6.1 6.7 6.0 6.7 6.3 6.3 7.4 . ~~6.5~~ 6.4 7.0 6.3 7.2 6.6	6.8 7.1 ~~6.2~~ 6.7 6.9 6.8 6.3 7.1 7.2 7.4 . ~~6.4~~ 7.0 7.2 7.1 6.8 7.4		✓	. 628 435 546, . 580 . .
	5 . .	S S S	6.5, 6.2, 6.5	5.5, 5.6, 6.1		✓	. . .
~~38~~							
	10, . .	S . .	6.9, 6.8, 6.5,	6.2, 6.5, 6.4		✓	. . .
	. . . .	. . . .	6.8, 7.3, 6.8, 7.0	5.4, 6.3, 6.2, 6.6		✓	. . . .
~~39~~	.	.	7.0	6.7		✓	.

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R.A. 1855	Dec. 1855	R.A. 1900	Dec. 1900	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
2 39.2	+85 28							
.9	+85 16	2 41.0	+85 28	50	8.8	I	1019,	4,
2 34.7	+61 56							
2 36.0	+74 58							
2	+61 44	2 34.7	+61 56	462	7.0	I	1019,	3,
.4	+74 46	2 36.0	+74 58	117	7.2	I	173, 844, 1019, 939, 898,	7, 6, 6, 6, 3,
2 34.8	+61 10							
.4	+60 58	2 34.8	+61 10	548	7.1	II	1019, 939, 939,	2, 3, 2,
2 35.7	+58 26							
2 36.2	+67 24							
.4	+58 14	2 35.7	+58 26	508	7.5	I	939,	5,
2 35.9	+53 6							
.4	+67 12	2 36.2	+67 24	224	6.6	I	173, 161, 844, 1019, 877, 939,	4, 6, 7, 8, 8, 9,
2 39.6	+81 59							
.8	+52 54	2 35.9	+53 6	616	6.0	III	939,	1,
2 36.0	+57 42							
.9	+81 47	2 39.7	+81 59	95	8.6	II	1019,	2,
.8	+54 30	2 35.8	+54 41	598	6.0	I	161, 877, 939,	6, 6, 8,
2 38.9	+71 57							
.7	+71 45	2 38.9	+71 57	167	7.5	III	1019,	2,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No.	Remarks.
		6.8	8.1			
		6.9	6.3			
10, 10, 10, 10,	SS	6.9, 6.7, 6.5, 6.4, 6.7	6.2, 6.4, 6.6, 6.7, 7.0			
10, 10		6.8, 6.9, 7.0	6.2, 6.5, 6.5, 6.6			
5,		6.9	6.4			
10, 2, 10, 2, 2, 2,	SSSS	7.0, 6.0, 6.4, 6.2, 6.5, 5.8,	5.8, 5.2, 5.6, 5.8, 5.7, 5.6			
		6.8	6.1			
	S	7.1	6.4			
10,		6.9	7.6			
	SS	6.4, 6.6, 5.9	5.2, 5.4, 5.3			
		6.9	6.8			
		7.2	7.1			

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2

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate.	No. Lines.
m. 35	m								
9.9	9	+69 1	2	39.9	+69	13	179	6.5	I	161, 844, 877, 939, 898,	5, 7, 6, 7, 5,	2, 5
36.1	1	+79 29	2	41.9	+79	41	86	7.0	I	173, 914, 844, 1019, 939, 898, 954, 877	3, 5, 3, 7, 8, 7, 6, 4	.. ..
.0	0	+72 18	2	40.3	+72	30	145	7.5	II	1019,	2,	10,
.1	1	+59 57	2	39.5	+60	9	541	6.2	II[a]	939,	2,	10,
.7	.7	+84 2	2	45.3	+84	14	48	9.2	I	1019,	3,	. .
37												
.5	.5	+54 59	2	40.7	+55	11	606	7.3	I	939,	6,	2,
6	.6	+74 8	2	42.2	+74	20	120	7.3	I	1019, 939,	5, 4,	..
.8	.8	+80 28	2	~~44.0~~ 43.9	+80	40	89	8.0	III	1019,	2,	10
38												
.2	.2	+64 2	2	41.8	+64	14	351	7.2	III	939,	2,	.
.9	.9	+56 28	2	42.2	+56	40	718	6.5	II	939,	3,	10,
.9	.9	+73 10	2	43.4	+73	22	158	8.2	I	258,	4,	.
39.1	.1	+68 17	2	43.0	+68	28	200	6.5	I	173, (161), 844, 877, 939, 898,	2, 2, 3, 3, 3, 5,	.10

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~~5-h~~ 2

K Line.	H Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Remarks
2, 5, 5, 2, ?	S S S S	6.6, 6.5, 6.7, 5.8, 6.3	5.9, 5.8, 6.0, 5.7, 6.2		. . . . .
. . 5, . 2, 2, 5,	S S S S S S .	7.2, 6.4, 6.5, 6.3, 6.0, 6.4, 6.2, 6.8, 6.7, 6.5, 6.7, 6.6, 6.7, 7.0, 7.0	6.7 5.4		. . 552 . . . .
10,	.	6.8	6.7		.
10,	.	6.6	6.2		614
.	.	6.9	8.0		.
2,	.	6.7	6.1		.
. .	S S	6.7, 6.8	6.7, 7.0		. .
10	.	6.8 7.0	7.4 7.6		.
.	S	7.0 7.2	6.7 6.9		.
10,	S	6.6	6.0		.
.	.	6.8	6.3		.
. 10, 10, 10, 10, 10,	. . S S S	7.2, 6.8, 6.7, 6.8, 6.8, 6.0, 6.7	6.1, 6.1, 6.0, 6.2, 6.1, 5.9, 6.6		. 51, . . 612 .

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines
2 43.7+65 13	.0	+65 1	2 43.7	+65 13	300	7.0	I	939,	5,
2 43.4+55 30	.2	+55 18	2 43.4	+55 29	714	3.5	III be	161,877,939,	2,1,3,
2 43.4+60 1	.0	+59 49	2 43.4	+60 1	552	6.9	II	939,	2,
2 45.3+75 14	.5	+75 3	2 45.3	+75 14	113	8.6	I	939,	5,
2 44.2+57 53	.9	+57 42	2 44.2	+57 53	651	6.2	I	161,877,939,	5,4,8,
2 44.7+64 15	.1	+64 4	2 44.7	+64 15	354	7.4	III	939,	3,
2 45.2+60 3	.8	+59 52	2 45.2	+60 3	559	7.6	I	939,	3,
2 47.3+76 40	.2	+76 29	2 47.3	+76 40	101	6.8	III	1019,877,939,954,	3,3,3,3,
~~2 45.7+52 35~~	.6	+52 24	2 45.8	+52 35	640	7.0	I	939,	5,
2 47.5+65 24	.8	+65 13	2 47.5	+65 24	306	7.0	I	939,	6,
2 47.2+52 20	.0	+52 9	2 47.2	+52 22	641	4.2	II a	161,877,939,	2,3,5,
2 48.4+72 16	.0	+72 5	2 48.4	+72 16	153	7.0	I	-16.1	4
2 48.0+61 7	.5	+60 56	2 48.0	+61 7	581	5.9	II a	161,877,939,939,884,898,	2,5,3,3,5,2,

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~~5~~ h 2

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Remarks.
.	~~24~~ S	6.6	6.3		.
10 . 10	. SS	6.4 6.5 5.9 6.7 6.9 6.2	5.2 5.3 5.3 5.5 5.7 5.6		49, 599, 605,
10,	.	6.8	6.3		.
10,	.	6.9	7.2		.
2 . .	. SS	6.5, 6.8 6.2 7.0 7.3	5.4, 5.7 5.7 6.7 7.0		. . .
10,	~~24~~ S				.
.	.	6.9	6.4		.
~~24~~					
10, 10, 10, 10,	SSSS	6.7 6.9 6.4 6.4 6.9 7.2 6.6 6.6	6.9 6.7 6.8 7.0 7.1 7.0 7.0 7.2		. . . .
.	S	6.8	6.1		.
~~24~~					
.	.	6.8	6.5		.
10, 10, 10,	~~24~~ . SS	6.0 6.4 6.3 5.5	47 47 5.0 4.8		47, 597, 601
10	.	7.3	6.8		.
10, 10, 10, 10, 10, 10,	. SSSS .	6.5, 6.8 . 5.9, 7.0, 6.5	5.5, 5.8 . 5.5, 5.4, 6.1		53 . 600, 616, . 629

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~~h~~ 2

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
~~45~~	~~m~~	~~s~~							
2 49.7+64 1									
46.0 ~~s~~	.0	+63 50	2 49.7	+64 1	370	6.5	III	939,	3,
2 49.8+60 43									
.3	.3	+60 32	2 49.8	+60 43	597	7.8	I	939,	4,
2 53.1+80 1									
.9	.9	+79 50	2 53.1	+80 1	90	8.8	I	1019,	3,
2 54.0+82 31									
.8	.8	+82 20	2 54.2	+82 31	76	8.0	II	929, 844, 1019, 898,	2, 4, 3, 3,
2 52.9+79 2									
47.1 ~~s~~	.1	+78 51	2 52.8	+79 1	103	5.6	III	914, 844, 1019, 877, 939, 898, 954,	3, 2, 3, 3, 3, 3, 3,
~~48~~ ~~s~~									
2 51.7+59 11									
.3	.3	+58 60	2 51.7	+59 11	540	7.2	I	939,	4,
2 51.9+60 53									
.4	.4	+60 42	2 51.9	+60 53	608	7.2	I	939, 898,	3, 4,
2 53.4+74 45									
.6	.6	+74 34	2 53.4	+74 45	131	7.2	I	173, 844, 1019, 877, 939, 898, 954,	4, 4, 6, 4, 8, 7, 5,
~~49~~ ~~s~~									
2 55.7+79 55									
.5	.5	+79 44	2 55.6	+79 55	91	8.3	I	939, 898,	4, 4,
2 52.8+54 48									
.5	.5	+54 37	2 52.8	+54 48	629	8.0	I	939,	6,
2 56.2+81 5									
.6	.6	+80 54	2 56.2	+81 5	97	5.5	I	173, 161, 258, 275, 848, 876, 844, 1019, 877,	6, 6, 6, 4, 5, 3, 7, 1, 7,
2 53.1+59 17									
.7	.7	+59 6	2 53.1	+59 17	582	7.0	I	939,	5,

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~~h~~ 2

K Line.	L Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
~~35~~							
10,	~~36~~ 5	6.9 7.1	6.6 6.8				
	~~37~~	7.1 6.7	6.7				
		6.8	7.3				
10. 10, 10,		6.9 6.9 6.3 6.5 6.4 6.6	8.0, 6.3 7.1 7.3 7.4 7.6				
10, 10, 10, 10, 10, 10, 10,	~~37~~	6.2 6.3 6.2 6.7 6.0 6.0 5.8 6.5 6.6 6.5 7.0 6.4 6.6 6.3	6.5 6.3 6.6 6.7 6.6 6.6 6.6 6.8 6.6 6.9 7.0 7.0 7.2 7.1			5/3	
	~~38~~						
		7.0	6.5				
	5	6.8, 6.8	6.4, 6.4				
10.	8. 5 5 5	7.2, 6.8, 6.5, 6.9, 6.4, 6.4, 6.3	6.4, 6.4, 6.5, 6.5, 6.6, 6.6 6.7				
	~~39~~						
		6.7 6.7	7.4, 7.4				
10,		6.9	6.3			~~5~~	
5, 5, 5. 10 2, 2, 2	5 5 5	6.0, 6.2, 6.5, 6.4, 6.5, 6.9, 5 7.5	5.8, 6.4, 6.7, 6.5, 6.6, 7.1, 5.9, 6.0, 6.0				
2,		6.6	6.1				

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δ h 2

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Mag.	Spectrum	No. Plate	No. Lines
nn.								
5-0.	~~nn~~							
	2 54.8+73 33							
	.2+7322	2 54.8	+73 33	165	7.4	I	844, 1019, 939, 898,	5, 6, 4, 4,
	2 53.8+51 58							
	.6	.6+5147	2 53.7	+51 57	665	5.7	I	161, 877, 939,	5, 6, 9
5-1	~~nn~~							
5-2	~~nn~~							
5-3	~~nn~~							
	2 58.5+75 41							
	.5	.5+7530	2 58.5	+75 41	127	8.3	I	939, .6, 5,
	2 57.5+66 3							
	.7	.7+6452	2 57.5	+65 3	367	7.7	I	939, 4,
	~~2 57.9+67 1~~							
	~~54.0~~	~~54.0~~ +6650	2 58.0	+67 1	242	7.8	III	939, 3,
	2 58.7+72 10							
	.2	.2+7159	2 58.7	+72 10	187	8.0	I	1019, 4,
	2 57.6+53 7							
	.3	.3+5256	2 57.6	+53 7	654	3.2	IIa	161, 877, 939, Pole 2, 5, 3,
	2 58.2+55 41							
	.9	.9+5530	2 58.2	+55 41	738	6.3	III,	939, 2,
	2 58.0+56 19							
	.7	.7+568	2 58.0	+56 19	767	5.0	III b	161, 877, 939, 898, 2, 3, 3, 2,

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2

K Line	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks
10, 5, ..	SS. .	6.8, 6.8, 6.9, 6.7	6.4 6.8, 7.1, 6.9			....	
...	. . S	6.2, 6.4, 5.6	4.9, 5.1, 4.9			...	
5,	.	6.7	7.0			.	
.	.	7.0	6.7			.	
10,	S	6.7 7.0	6.5 6.8			.	
.	.	7.0	6.9			.	
10, 5, 10,	. SS	5.2, 5.4, 4.1	3.9, 4.1, 3.4			48, 598, 604,	
10,	.	6.8 7.0	6.2 6.4			.	
10, 10, 10, 10	. SS .	6.6 6.4 6.1 6.9 6.7 6.3 .	5.4 5.2 5.5 5.7 5.5 5.7 .			50 . 607, .	

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	1855 R.A. Hee.	1855 R.A. Hee.	1900 Dec.	1900 Dec.	No. Mag.	Spectrum.	No. Plate.	No. Lines.
2 58.9+63 41 m								
5-5 .2	.2+63 30	2 58.9+63 41	390	6.0	I	877, 939, 884, 898,	161	6, 7, 6, 9, 5
3 1.6+79 47								
.4	.4+79 36	3 1.6+79 47	94	7.3	III?	844, 1019, 939, 898, 954,		3, 3, 2, 3, 3,
3 1.1+74 1								
No. 24. .3	.3+73 50	3 1.0+74 1	168	5.2	I	173, 161, 258, 217, 844, 1019, 887, 939,		6, 8, 7, 5, 6, 7, 9, 9,
3 0.7+62 0								
5-7 .1	.1+61 49	3 0.7+62 0	625	6.5	II?	939, 898,		3, 3,
3 0.8+56 38								
.4	.4+56 27	3 0.8+56 38	778	7.0	II?	939,		3,
3 0.9+51 50								
.7	.7+51 39	3 0.9+51 50	681	6.8	I	939,		16,
3 4.2+78 30								
5-8 .3	.3+78 19	3 4.1+78 30	109	7.0	I	161, 258, 844, 1019, 877, 939, 898, 954,		6, 4, 3, 7, 6, 9, 7, 9,
3 3.5+73 51								
3 2.5+64 31	.7+73 40	3 3.4+73 51	171	7.0	III,	954,		1
3 [illegible] .7	.7+64 20	3 2.5+64 31	375	7.0	I	939, 898,		7, 5,
.8	.8+84 23	3 8.4+84 34	59	6.0	III b	173, 275, 929, 875, 844, 1019, 884, 898, 1057,		2, 2, 2, 3, 3, 4, 3, 3, 3,
5-9								
3 6.8+81 47								
3 3.3+81 36	3.3+81 36	3 6.5+81 48	107	7.4	III	844, 1019,		3, 3,
3 [illegible]	.7+73 19	3 4.4+73 30	142	6.8	III	954,		1,
3 3.5+64 43								
8.1 3 .7	.7+64 32	3 3.5+64 43	376	8.0	I?	939,		3,
3 [illegible]								
8.1 .9	.9+82 60	3 [illegible] 83 11	82	7.5	III	1019,		1

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~~K~~ h 2.

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No Remarks.
12	5	6.6, 6.1, 6.8, 5.9, 6.5	5.7, 5.8, 5.3, 5.6	5.1	✓	
10, 10, 10, 10, 10,		6.8 6.4 6.4 6.5 6.6	6.9 6.9 7.1 7.2 7.5		✓	
		7.1 6.5 6.6 6.8 6.8	7.2 7.0 7.3 7.5 7.7			
12, 1		5.5, 5.2, 5.9, 6.1, 5.5, 5.0, 5.3, 4.7, 4.7, 4.8, 5.5, 5.5, 5.5, 5.1, 5.0, 4.9, 4.9			✓	
10,		6.8, 6.4	6.4, 6.0		✓	
10,		6.8	6.2		✓	
		6.6	5.9		✓	
10, 10, 5, 10, 5, 8, 5,		7.0, 7.3, 6.5, 6.0, 6.4, 5.9, 6.4, 5.7,	6.9, 7.2, 6.4, 6.3, 6.2, 6.4, 6.9, 6.4		✓	
		6.8	7.2			
		7.0	7.4		✓	
2		6.5, 6.3	6.2, 6.0		✓	
10, 10, 10, 10, 20, 12, 10, 12,		6.6 6.8 6.0 6.5 5.9 5.5 6.1 4.9 5.4	6.9 7.4 7.4 7.4 6.6 6.6 5.2 6.2 6.7		✓	45 589 635
		6.9 7.0 6.2 6.8 6.3 5.8 6.4 5.3 4.8	7.2 7.6 7.6 7.7 7.0 6.9 5.5 6.6 7.1			
10, 10,		6.8 6.8	7.1 7.5			
		7.0 7.0	7.3 7.7		✓	
		6.7	7.1			
		7.0	7.4		✓	
		6.9	6.6		✓	
		6.8	7.7			
		7.1	8.0		✓	

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~~0~~ 3

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No Plate	No. Lines
m									
o									
	1+83 30		38.8	+83 41	79	8.2	I	1019,	2,
	3+51 38		34.5	+51 49	689	7.3	I	939,	3,
	2+77 11		37.6	+77 22	115	6.2	I	173, 161, 217, 258, 844 1019, 877, 939,	6, 7, 7, 8, 9, 10,
	8+69 26		37.0	+69 37	263	7.7	I	939, 898,	6, 4,
	9+60 35		37.5	+60 45	651	8.0	I	898,	3,
	5+76 31		38.9	+76 41	120	8.2	II	939, 454, III	2, 2,
	6+74 ~~74~~ +1		36	+74 52	144	7.4	I	161, 939, 898, 954, b	3, 5, 6, 4,
	.6+65 50		37.5	+66 0	335	7.0	I	161 877, 939, 898,	4 5, 8, 5,
	.8+68 54		38.0	+69 4	230	8.0	I	939,	5,
	8+65 6	3	8.8	+65 17	338	6.5	I	161, 877, 939, 898,	4, 5, 6, 6
	.8+56 35	3	8.2	+56 45	798	6.0	IIa	939, 898,	3, 3,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Rem.
10,	·	6.7	7.7			
·	·	6.9	6.2			
10, 5, 5, 5, 5, 5, 5, 5,	... SSS	6.7, 5.5, 6.7, 6.6, 5.4, 5.8, 4.8	6.1, 5.3, 6.3, 6.3, 6.0, 5.6, 5.6, 5.2			
..	..	6.6 6.7	6.5 6.6			
·	·	7.0	6.6			
10 10	..	6.9 6.7 7.0	7.3 7.3 7.6			
.....	..SS	7.1, 6.6, 6.5, 6.5	6.7, 6.8, 6.7 6.9			-648
...2	...S	7.1 6.7, 6.3, 6.7	5.7 5.9, 6.1, 6.4			....
10,	·	7.0	6.9			
.....	.S.S	7.0, 7.0, 6.4, 6.5	6.1, 6.1, 6.1, 6.2			....
..	SS	6.3, 6.6	5.7, 6.0			608, 620

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.
5	m							
3 8.7+56.64								
.3	3+5644	3 8.7+56 54	8.00	8.9	II?	161,		1,
~~3 10.2+73.20~~								
.5	5+7310	~~3 10.2+73 20~~	~~1.79~~	7.4	I	161,		5,
6								
3 10.6+69.22								
.3	3+6912	3 10.5+69 22	2.05	6.5	I	161, 258, 877, 939, 898, 954,		4, 5, 5, 7, 8, 5,
3 11.~~8~~2+65 ~~16~~7								
7								
.2	2+656	3 11.~~3~~2+65 17	3.40	4.5	I	161, 258, b 258, b 877, 439, 884, 898, b		8, 6, 7, 8, 7, 9, 12,
3 12.9+73.48								
~~8~~.1	.1+7338	3 12.9+73 48	1.80	6.9	I	877, 939, II 898, 954, II a		3, 2, 5, 3,
3 ~~12.9~~13.0+70.55								
.5	.5+7045	3 13.0+70 55	2.41	7.5	I	939,		3,
3 14.7+78.8								
.9	.9+7758	3 ~~15.1~~14.7+78 8	1.19	7.5	II a	1419, 939, 954,		3, 2, 3,
9								
3 13.1+61.38								
.4	.4+6128	3 13.1+61 38	5.59	6.5	I	258, 939, 898,		4, 3, 6

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~~6~~ h 3

K Line.	J Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
		6.9	5.8			
		6.5	6.0			
		6.6 6.8, 6.8, 6.1, 6.3, 5.9	5.9 6.1, 6.1, 6.0, 6.2, 6.0			
		5.5, 6.1, 5.9, 5.7, 5.0 5.9, 5.0	4.6, 5.2, 5.0, 4.8, 4.7, 4.4, 4.7			638
10, 10, 10,		7.0, 6.6, 6.8, 6.4	6.6, 6.8, 7.9 6.8			644
		6.9	6.9			
10, 10,		6.2, 6.9, 6.8	6.5, 7.4, 7.5			672
		7.1, 6.7, 6.6	6.1, 6.3 6.2.			

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	Mm.	Mag.	Spectrum.	No. Plate.	No. Lines.	
3 18.7+62 23										
10 .0 ~~20~~	.0	+62 13	3 13.7	+62 23	549	7.5	IIIa	939,	2,	10,
3 15.2+71 20										
	.7	+71 10	3 15.2	+71 20	197	7.6	I	939, 898,	4, 6,	10,
11 ~~21~~										
3 15.1+60 56										
3 16.3+71 51	.5	+60 46	3 15.1	+60 56	671	8.0	I	898,	3,	
	.7	+71 41	3 16.3	+71 51	198	7.2	II?	939, 898, I 954,	2, 5, 4,	10,
12 ~~22~~										
3 16.1+64 14	.2	+64 4	3 16.0	+64 14	391	6.0	III	939,	1,	
3 18.5+77 40										
	.8	+77 30	3 18.5	+77 40	123	7.1	III	1019,	3,	10,
13 ~~23~~										
3 18.5+74 54										
	.4	+74 44	3 18.4	+74 54	151	7.9	I	939, 954,	4, 4,	10, 10
14 ~~24~~										
3 20.1+76 16										
	.7	+76	3 20.1	+76 16	125	8.6	I	939, 954,	2, 4	
	.9	+82 52	3 23.4	+83 2	90	8.2	I	1019, 898, 1057,	6, 3, 3,	10,

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6h 3

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Remarks.
10,		7.0	6.6		603
10,	S	6.9	6.9		..
		7.0	6.6		.
10, 10, 10,	S.	6.8, 6.5, 6.5	6.9, 6.6, 6.8		...
	S	6.8 7.1	6.5 6.8		.
10,	S	7.0 7.2	7.3 7.5		.
10, 10	..	7.0, 6.7	7.2, 7.1		..
..	..	6.9, 6.7	7.2, 7.2		..
10, ..	S.	6.5, 6.5, 6.5	7.3, 7.6, 7.6		...

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1855 R.A.	1855 Dec.	19m	1900 R.A.	1900 Dec.	No. Dm.	Mag. Dm.	Spectrum.	No. Plate.	No. Lines.
		15	~~20~~ m						
3 19.7+69 7									
.4	.4+68 57	3 19.7+69 7		250	7.3	I	898,	3,	
3 20.0+71 31									
.4	.4+71 21	3 19.9+71 31		201	6.5	I	898,	3,	
		16	~~31~~						
3 20.8+68 6	5+71 21	3 21.1+71 31		204	8.4	I	898	3	
.6	.6+67 56	3 20.8+68 6		270	8.4	I	954, 939	3, 3	
3 20.2+59 54									
.6	.6+59 44	3 20.2+59 54		657	6.7	I	258, 898,	5, 6,	
~~3 20.9+68 12~~									
.7	.7+68 2	3 20.9+68 12		252	8.8	I	939,	3,	
		17	~~32~~						
3 21.0+59 36									
.4	.4+59 26	3 21.0+59 36		660	4.5	I	258, 939, 884, 898,	7, 8, 6, 12,	8, 10
		18	~~33~~						
3 24.4+78 6									
.5	5+77 56	3 24.4+78 6		126	8.5	I	939,	3,	
3 22.0+58 32									
.4	.4+58 22	3 21.9+58 32		667	5.0	I	258, 884, 898,	5, 6, 11,	10, 5
3 22.2+59 2									
6	.6+58 52	3 22.2+59 2		608	6.6	I	258, 898,	5, 8,	2,
3 22.7+67 14									
.6	.6+67 4	3 22.7+67 14		273	7.5	III N	939,	3,	10,
3 22.4+55 7									
19 0	~~34~~ .0+54 57	3 22.4+55 7		684	4.8	I	258,	4,	1
3 23.0+65 ~~34~~									
0	.0+65 48	3 23.0+65 58		347	8.0	I	954,	5,	
3 24.2+73 0									
No. 29 .4	.4+72 50	3 24.2+73 0		178	6.7	I	161, 258, 217, 877, 939, 884, 898,	3, 4, 5, 1, 6, 3, 7,	
.5	5+86 11	3 33.~~5~~ +86 ~~16~~ 21		51	6.0	I	173, 275, 844, 884, 898, 1057,	7, 4, 8, 7, 3, 2,	10, 1

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Remarks.
		7.1	7.0		
		6.8	6.8		
		6.8	6.8		
		6.7 6.9	6.8 6.3		
		6.7, 6.4,	5.6, 5.9		
		6.9	6.8		
8, 10 . 5,	. S S S	5.8, 4.8 6.3, 5.2	4.7, 4.3, 4.6, 4.7		. . . .
		6.9	7.4		
. 10, 5,	. S S	5.9, 6.6, 5.8	4.8, 5.9 5.3		. . 622
. 2,	. S	6.5, 6.5	5.4, 6.0		. .
10,	S	6.8 6.9	6.6 6.7		
		6.6	6.6		
. . . . .	. . . S S S	7.2, 6.9, 6.9 6.6 6.9 6.3 6.9 6.0 6.7 6.4, 6.2 6.1 6.4 6.4, 5.8, 6.1			. . . . .
10, 10, 10, 10, 10, 10	. . S S S S	6.4 . 6.1 6.7 6.5 6.4 5.4 .	7.1 . 7.2 7.1 7.2 7.1 .		5 6 3 . 6 1 8 6 3 9 6 8 1

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~~6~~ h 3

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	Mag. Dm.	Spectrum.	No. Plate	No. Lines.
	m								
20	~~20~~								
3 24.5+65 12									
.5	5	+65 2	3 24.5	+65 12	348	7.0	I	939, 898, 954,	4, 4, 6,
3 25.3+69 44									
21.1	~~21~~	.1 +69 34	3 25.5	+69 44	1332	6.2	I	795,	4,
3 25.5+58 26									
.9	9	+58 16	3 25.5	+58 26	619	7.0	I	258, 898,	5, 8,
3 27.4+75 24									
22.1	~~22~~	.1 +75 14	3 27.4	+75 24	143	6.5	III n	939, 898, 954,	2, 3, 3,
3 25.7+57 32									
.2	2	+57 22	3 25.7	+57 32	730	7.0	II a	898,	3,
23 ~~24~~ 3									
3 26.8+59 43									
.2	2	+59 33	3 26.8	+59 43	675	7.0	II	258, 898,	2, 6,
3 29.6+76 50									
2~~1~~.0	~~41~~	.0 +76 41	3 29.6	+76 50	128	7.5	I	939, 898, 954,	7, 4, 6,
.8	8	+83 5	3 33.7	+83 14	91	7.3	I	173, 844, 1019, 898, 1057,	3, 5, 6, 6, 7,

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~~6~~ h 3

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Remarks.
10	5	6.6, 6.9, 6.5	6.3, 6.6, 6.4	✓	...
		6.0	5.8	✓	
2, 2,		6.7, 6.5	5.6, 6.0	✓	..
10, 10, 10	5 5 5	6.4 6.5 6.2 6.5 6.8 6.5	6.7 6.8 6.7 6.8 7.1 7.0	✓	...
10,	5	6.9	6.4		621
10, 10,	5	6.9, 6.6	5.8, 6.1	✓	..
10. 5,	5	6.7, 7.0, 6.6	7.1, 7.4, 7.2	✓	...
10 ...	5 5 5 5	7.3, 6.8, 6.2, 6.3, 6.0	7.4, 7.3, 7.1, 7.4, 7.1	✓	...

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h 3

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
25-	m 50							
		3 30.0+65 19						
26.0	51.0	+65 10	3 30.0+65 19	353	8.0	I	954,	4,
		3 29.9+56 23						
4	.4	+56 14	3 29.9+56 23	824	6.6	II?	954,	3,
		3 30.5+56 37						
27.0	32.0	+56 28	3 30.5+56 37	826	6.5	I	258, 898, 954,	5, 7, 7,
		3 31.2+63 33						
3	.3	+63 24	3 31.1+63 33	437	7.0	II	954,	3,
		3 33.9+80 0						
1	.1	+79 51	3 33.9+78 0	110	7.8	II	1057,	2,
28.1	33.1	+84 13	3 38.5+84 22	69	8.8	I	1019,	4,
		3 32.6+69 32						
2	.2	+69 23	3 32.6+69 32	222	7.2	I	258, 939, 898, 954,	4, 6, 6, 3,
		3 31.9+56 3						
4	.4	+55 54	3 31.9+56 3	803	7.0	I	258, 954,	4, 7,
		3 33.5+74 13						
4	.4	+74 4	3 33.5+74 13	168	6.8	III	939, 954,	2, 3,
		3 35.0+77 48						
No 350 2 9.0	34.0	+77 39	3 35.0+77 48	133	7.2	I	217, 258, 877, 939, 898, 954,	4, 5, 6, 6, 8, 8,
		3 33.1+58 31						
5	.5	+58 22	3 33.1+58 31	637	6.5	I	898, 954,	5, 1,
		3 33.5+62 55						
6	.6	+62 46	3 33.5+62 55	597	5.0	III	898, 954,	1, 1,

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K Line	F Line	Brightness	Corr. Brightness	Mean	Residuals	No. Remarks
	35					
.	36 .	6.8	6.7		✓	.
20?	S	6.6	6.2		✓	.
...	37 ..S	6.8, 6.5, 6.1	5.6, 5.9, 5.7		✓	...
10,	S	6.6	6.5		✓	.
10, .	.	6.8	7.5		✓	.
.	38 .	6.8	7.9		✓	.
10, ...	.SS.	7.0, 6.9, 6.6, 6.6	6.3, 6.8, 6.5, 6.7		✓	....
.10,	.S	7.2, 6.5	6.0, 6.1		✓	..
10, 10,	.S	6.8 6.4 6.9 6.7	7.0 6.8 7.1 7.1		✓	..
.....2	39 ..S.SS	7.1, 7.2, 6.6, 6.0, 6.4, 5.9	6.8, 7.1, 6.5, 6.5, 6.9, 6.3		✓	......
5.	.S	6.9 6.6 6.9	6.4 6.3 6.6		✓	.
..	SS	6.8 6.6 7.0 6.9	6.4 6.4 6.6 6.7		✓	630.

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate.	No. Lines.
30									
	.5	5+8217	338.8+8226	101	8.4	I	898, 1057,	2,2	
3 36.8+78 0	.7	.7+7751	3368+780	134	8.0	I	939, 898, 954, 1057,	2,3,3,3,	
3 34.5+59 39	.8	8+5930	334.5+5939	699	6.0	III	954,	1	
31									
32									
3 36.5+66 54	.3	3+6645	3 36.5+66 53	284	6.2	I	217, 258, 898, 898, 954,	5,6,7,7,8,	
33									
3 37.3+63 2	.4	4+6253	3 373+63 2	604	5.3	II a	258, 884, 898, 954,	2,3,3,4,	
3 38.8+70 34	.2	2+7025	3 38.8+70 34	257	5.7	I	258, 939, 884, 898, 954, 217	8,7,7,9,10,6	
3 38.1+54 45	.7	7+5436	3 38.1+54 45	707	6.5	I	954,	3,	

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No. Remarks.
10, 10	..	6.9, 6.7	7.9, 7.7		..
10,	... 8	6.9, 7.0, 6.7, 6.8	7.4, 7.5, 7.4, 7.3		....
.	8	6.9 7.2	6.6 6.9		.
10, 10, 10, 10, 10	.. 8 8 8	6.8, 6.4, 6.4 . 5.4	5.8 5.6, 6.2 - 5.4		. . . 650
10, 10, 5, 10,	. 8 8 8	6.4 5.6 6.3 6.6 6.0 5.7	4.9 5.5 5.4 5.1 5.7 5.6		56 . 63, 643
2 2, 2, 2, .	. 8 8 8 .	5.5 5.8, 5.4, 6.3 6.2 4.9 6.7	5.0 5.2, 5.4, 5.1 6.3 5.1 5.4		. . . 62
.	.	6.6	6.2		.

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
3 39.8+7[illegible]									
35	.1	+70 52	3 39.8	+71 2	259	4.3	I	258, 217, 939, 884, 898, 954 (1) 954 (2)	9, 8, 2, 9, 12, 10, 11,
36									
3 39.7+55 37									
	.2	+55 28	3 39.7	+55 37	824	6.5	I	258, 217, 954,	4, 5, 7,
3 40.3+65 11									
	.3	+65 2	3 40.4	+65 13	369	4.5	III	217, 898, 954, b be	1, 1, 3,
3 42.0+74 23									
	.8	+74 14	3 42.0	+74 23	174	7.2	III	954,	1,
3 41.4+70 13									
	.8	+70 4	3 41.4	+70 13	262	7.4	I	898,	4, 10,
3 40.8+63 0									
	.9	+62 51	3 40.7	+63 0	612	6.5	I	258, 217, 884, 898, 954,	6, 5, 4, 8, 7,
37									
	.6	+81 27	3 45.5	+81 36	134	7.8	III	1019, 898, 1057,	1, 1, 2,
3 41.8+68 12									
	.5	+68 3	3 41.8	+68 12	286	6.5	I	217, 258, 884, 898, 954,	6, 5, 2, 8, 8,
3 41.4+56 49									
	.8	+56 40	3 41.4	+56 49	846	7.0	I	217, 258, 898, 954,	5, 5, 7, 8,
38									
	.2	+81 9	3 46.8	+81 18	135	7.8	III	844, 1019, 898, 1057, VI? IIa II	4, 4, 3, 3, 10,
3 41.9+52 21									
	.5	+52 12	3 41.7	+52 21	714	6.5	IIa	954,	2, 10,
3 43.0+67 16									
	.7	+67 7	3 43.0	+67 16	296	8.0	I	954,	3,
	.9	+80 48	3 46.4	+80 57	121	7.8	III	1057,	1
39									
3 42.8+52 11									
	.5	+52 2	3 42.9	+52 11	715	6.6	III?	954,	2, 10,
3 43.7+62 2									
	.8	+61 53	3 43.6	+62 2	644	7.0	I	258, 898, 954,	4, 6, 3, 2,
3 44.9+73 47									
	.8	+73 38	3 44.9	+73 47	204	6.5	III	954,	1

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1^h 3

K Line	F Line	Brightness	Corr. Brightness	Mean	Residuals	No.	Remarks
2, 2, · 2, 2, 2,	· · S S S S	5.6, 6.0, · 5.4, 4.4, 4.4	5.0, 5.2, · 4.2, 4.4, 4.6		✓	· · · · · · ·	
· · ·	· · S	6.9, 6.8, 6.0	5.7, 5.4, 5.6		✓	· · ·	
· · 10,	· S S	6.8 6.3 6.0 / 7.0 7.0 6.5	5.7 6.0 6.4 / 5.9 6.7 6.9		✓	· 636647	
·	S	6.9 / 7.2	7.3 / 7.6		✓	·	
10,	·	7.0	7.0		✓	·	
5, 2, · 2, 2,	· · S S S	6.4, 6.5, 6.8, 6.2, 5.8	5.5, 5.4, 5.3, 5.9, 5.7		✓	· · · · ·	
· · ·	S S S	6.6 6.8 6.8 / 6.8 7.0 7.1	7.3 7.7 7.7 / 7.5 7.9 8.0		✓	· · ·	
5 · 10, · 2	· · · S S	6.9, 6.5, 7.0, 6.3, 5.5	6.0, 5.8, 5.7, 6.2, 5.6		✓	· · · · ·	
· · 2 ·	· · S S	6.8, 6.7, 6.7, 6.1	5.5, 5.6, 6.2, 5.8		✓	· · · ·	
· 10, 10, 10	S · S S	7.0 / 7.1, 6.4, 6.8, 6.6	7.2 / 7.3, 7.0, 7.6, 7.4		✓	· · 627 ·	
10,	·	6.9	6.4		✓	641	
·	·	6.8	6.8		✓	·	
·	·	6.9 / 7.1	7.7 / 7.9		✓	·	
10,	·	6.9 / 7.0	6.4 / 6.5		✓	·	
· 2, ·	· S ·	7.0, 6.4, 6.6	6.0, 6.0, 6.4		✓	· · ·	
·	S	6.8 / 7.1	7.2 / 7.5		✓		

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~~X~~ h 3

40 m ~~21~~

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	mag. Dm.	Spectrum	No. Plate	No. Lines
3 45.8+71 31	41.0 ~~2~~	.0+71 22	3 45.8	+71 31	222	6.5	I	258, 217, 884, 954, 898	4, 3, 3, 6, 8
3 45.6+57 40	42.0 ~~2~~	.0+57 31	3 45.6	+57 40	752	6.0	I	217, 258, 898, 954,	5, 5, 7, 9,
~~3 46.4+60 52~~	~~.1 .6~~	~~+60 44~~	~~3 46.4~~	~~+60 52~~	~~762~~	~~7.8~~	~~I~~	~~217,~~	~~6,~~
3 49.2+77 54	43.0 ~~2~~	0+77 46	3 49.8 (2)	+77 54	138	7.0	III	939, 954, 1057,	1, 3, 3,
	3	+80 33	3 50.1	+80 41	123	8.3	I	1019, 898, 1057,	5, 5, 6,
3 50.5+79 30		.7+79 22	3 50.5	+79 30	125	8.3	I	939, 898, 954, 1057, 1069,	3, 5, 4, 6, 3,
3 48.1+52 21	44 ~~24~~	.7+52 13	3 48.1	+52 21	726	6.5	I?	954,	3,
3 47.8+56 37	2	2+56 29	3 47.8	+56 37	857	7.0	I	217, 954,	4, 5,
3 47.9+59 20	.2	.2+59 12	3 47.9	+59 20	736	7.0	III b	898, 954,	3, 3,
3 ~~47.9~~ 48.0+51 55	.7	.7+51 47	3 48.0	+51 55	803	6.5	II?	954,	2,
3 48.6+62 46	.7	7+62 38	3 48.6	+62 47	628	5.2	I	258, 217, 884, 898, 954,	7, 7, 7, 11, 9,
3 48.6+60 48	.8	8+60 40	3 48.6	+60 49	768	5.8	III	258, 898, ~~954~~, 954,	1, 3, ~~X~~, 3

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h 3

K Line.	m	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No.	Remarks.
10, 10, 10, 5	26	S S S	6.9 7.0 6.9 6.1	6.2	6.3 6.2 5.7 6.3	5.7	✓
2	27	S S	6.7 6.5 6.5 6.0		5.4 5.4 6.0 5.7		✓
			6.7		6.5		✓
10, 10,	28	S S	7.7 6.5 6.6 7.9 6.7 6.9		8.2 7.2 7.1 8.4 7.4 7.4		✓
2, 5,		S S	6.6 6.8 6.6		7.2 7.7 7.4		✓
10,		S S	6.8 6.6 6.6 6.6 6.8		7.4 7.2 7.4 7.2 7.4		✓ 6 5 5
	29		6.9 7		6.4		✓
10,		S	7.1 6.6		5.7 6.2		✓
10, 10,		S S	6.9 6.7 7.0 6.9		6.4 6.4 6.5 6.6		✓ 6 2 3
10,			6.9		6.4		✓
		S S S	5.8 6.0 6.1 5.3 4.8		4.8 4.8 4.5 4.9 4.6		✓
10 X 10		S X S	6.7 6.5 6.5 7.0 6.8 X 6.9		5.7 6.1 6.3 6.0 6.4 X 6.7		✓

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. mag.	Spectrum.	No. Plate	No. Lines.
45	3						
		3 49.0	+50 24				
		3 49.2	+50 24	8.6	5.7	IIa	217,
		3 53.3	+80 26	12.5	4.9	IIa	173, 161, 217, 258, 275, 1019, 877,
		3 50.7	+57 9	7.6	7.0	I	217, 954,
		3 53.1	+76 8	16	7.5	II?	954,
		3 50.9	+53 42	7.8	6.8	I	217, 954,
		3 54.4	+78 40	14.2	8.0	I	939, 898, 954, 1057, 1069,
		3 55.0	+78 10	14.3	8.5	I	1057,
		3 55.0	+74 55	18.4	7.8	IIa	954,
		3 55.2	+74 22	18.6	6.4	III	954
		3 53.5	+55 45	8.39	7.5	I	217, 954,

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4h 3

K Line	I Line	Brightness	Corr. Brightness	Mean Residuals	No Remarks
10		6.9	5.4		61
10,10,10,10,10,5	...SS	6.3,5.9,5.9,6.0,5.3,5.7	6.1,6.0,6.0,6.0,5.8,5.8		42,52,72,64
		6.9,6.7	5.6,6.4		
10,		6.7	7.2		
10,10,		7.0,6.7	5.6,6.3		
5,10,	...88	6.6,6.7,6.4,6.5,6.5	7.2,7.3,7.3,7.1,7.1		694
10,		7.0	7.5		
10,		6.5	7.0		645
10,		6.5 6.7	6.9 7.1		
10,		7.0,6.8	5.6,6.4		

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	1855 R.A. Dec.	1855	1900 R.A. Dec.	1900	No. Dm.	Mag. Dm.	Spectrum.	No. Plate.	No. Lines.	
3 55.3+73 42										
0-0.1, 2-0	.1	+73 34	3 55.3	+73 42	210	6.4	III 954, 1057,	5,1,		10,-
3 54.1+62 9	.2	+62 1	3 54.0	+62 9	643	7.5	I 954,	3,		-
3 57.2+78 46	.6	+78 38	3 57.2	+78 46	146	7.2	III 898, 954, 1057, 1069,	3,3,3,3,		10,10,
3 54.5+58 40	.8	+58 32	3 54.5	+58 40	685	8.0	II[a] 954,	3,		10,
0-1 2-1										
3 55.9+68 24	.5	+68 16	3 55.9	+68 24	303	6.0	III 898, 954,	1,3,		-10
0-2 2-2										
3 56.1+										
3 56.1+58 53	.4	+85 10	4 51+	85 17	63	6.5	I[2] 173, 844, 1019, 884, 898, 1057,	3,3,3,3,3,3,		10,10
3 57.7+73 18	.4	+58 45	3 56.1	+58 53	690	5.0	I[2] 217, 258, 898, 954,	7,2,7,3,		10,10
	.6	+73 10	3 57.7	+73 18	212	6.5	II 898, 954, 1057,	3,3,2,		10,10,
3 57.3+65 14										
0-3 .1 2-3	.1	+65 6	3 57.3	+65 14	391	6.6	I 258, 258, 217, 898, 954,	5,4,4,4,5,		10,-
3 56.7+54 48	.2	+54 40	3 56.7	+54 48	734	7.0	II[a] 954,	3,		10,
3 58.2+71 5	.4	+70 57	3 58.2	+71 5	276	7.5	I 898, 954,	4,5,		-
3 57.4+61 48	.5	+61 40	3 57.4	+61 48	669	7.0	II 898, 954,	3,2,		10,10,
4 1.1+80 17	.8	+80 9	4 1.0	+80 17	127	6.8	I 877, 939, 898, 954, 1057, 1069,	3,1,3,3,3,3,		-
	.8	+81 36	4 2.0	+81 44	147	7.5	I 844, 1019, 898, 1057, 1035[d],	4,6,8,7,6,		-2
0-4 2-4										

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K Line.	J Line.	Brightness.	Corr. Brightness.	Mean	Residuals.	No. Remarks.
10, .	S S	6.4 6.6 6.7 6.9	6.8 6.8 7.1 7.1			. .
.	.	6.9	6.7			.
10, 10, 10, 10,	S S S S	6.8 6.7 6.6 6.6 7.0 6.9 6.9 7.0	7.4 7.4 7.2 7.2 7.6 7.7 7.5 7.6			. — .
10,	S	6.8	6.5			653
. 10	S S	6.9 6.6 7.2 7.0	6.8 6.9 7.1 7.1			. .
10, 10, 10, 10, 10, 10	S S S S S S	7.0 6.5 6.8 5.8 6.9 7.0 5.7 5.8	7.4 7.2 7.5 7.7 7.1 7.3 7.2 7.3			. . 592 . 637 680
10, 10, 10, 10, 10,	. . S S	6.4, 6.4, 6.2, 5.4	6.1, 5.3, 5.7, 5.1			. 55 — 652
10, 10, 10,	S S .	6.7, 6.4, 6.6	6.8, 6.7, 7.2			. 642 .
10, . 5, . 2,	. . . S S	7.0, . 6.8, 6.4, 6.0	6.1, . 5.7, 6.1, 5.9			. . . . .
10,	S	6.6	6.2			646
. .	. .	7.0 .	7.0 —			. .
10, 10,	S .	6.4, 6.7	6.3, 6.5			. .
. 10, 10, 10, 10	. S S S S S	6.9 6.4 6.2 5.9 5.9 6.5 6.6 6.5 6.2 6.2 6.7	7.0 7.1 6.9 6.8 6.6 7.2 7.3 7.2 7.1 7.0 7.4			. . . . .
. . 2, . .	S S S S S	6.5, 6.0, 6.2, 6.2, 6.4	6.8, 6.7, 7.1, 7.1, 7.0			. . . .

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1855 1855 1900 1900 No. Mag.
R.A. Dec. R.A. Dec. Dm. Dm. Spectrum. No. Plate. No. Lines.

No. 28	3 5 .1	3 4	.1+83 26	4 5.0+83 34	104	5.0	I	173, 258, 275, 185, 165, 844, 1019, 884,	7, 6, 6, 7, 7, 9,
		.2	.2+81 3	4 3.0+81 11	149	8.3	I	1019, 1057, 1035,	4, 4, 4,
	3 59.1+62 4								
		.2	.2+61 56	3 59.1+62 4	676	6.5	I	898, 954, II	5, 3,
	3 58.8+53 45								
		.3	.3+53 37	3 58.8+53 45	732	6.0	III	954,	3,
	4 0.0+68 7	.6	.6+67 59	4 0.0+68 7	310	7.4	I?	954,	3,
		.7	.7+81 15	4 3.6+81 23	150	7.9	I	1019, 898, 954, 1057, 1035,	5, 6, 5, 6, 5,
	3 59.1+50 5								
		.8	.8+49 57	3 59.1+50 5	1101	4.2	I	217,	6,
	3 59.8+60 37								
	3 56.0	3 4	.0+60 29	3 59.8+60 37	780	7.8	II	898,	2,
	4 4.3+80 9								
	3 7.0	3 2	.0+80 1	4 4.3+80 9	129	8.3	III	1057,	2,
	4 2.6+71 52								
		.7	.7+71 44	4 2.6+71 52	239	6.3	III	898, 954, 1057,	3, 3, 3,
	4 1.5+54 34								
	3 8.0	3 3	.0+54 26	4 1.5+54 8	740	6.0	II a	217, 954, II	2, 3,
	4 2.8+68 16								
		.3	.3+68 8	4 2.8+68 16	310	6.5	III	954,	3,
No. 27		.5	.5+82 59	4 8.0+83 6	113	5.0	II?	173, 258, 275, 185, 844, 1019, 884, 1035 III	2, 2, 2, 2, 3, 3, 3, 3
	4 3.8+70 58								
	3 9.0	3 4	.0+70 50	4 3.8+70 58	281	7.0	I	898, 954, II a	2, 2,
	4 5.6+77 50								
		.3	.3+77 42	4 5.6+77 50	150	7.0	III	939, 954, 1057, 1069,	3, 3, 2, 3,

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h 3

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean	Residuals.	No. Remarks.
		5.7 6.1, 5.8, 5.9 5.9 5.5 5.4 5.8, 5.0 | 5.9, 6.7, 6.3 5.9, 6.1, 5.8, 5.0				
10,		6.8, 6.5, 6.8	7.4, 7.3, 7.3			
10, 10,		6.6 6.6	6.2, 6.4			
10,		6.7 7.0	6.3 6.6			
2		6.6 6.5, 6.4 · 6.3, 6.6	6.7 7.1, 7.2 · 7.1, 7.1			
10,		7.0	6.6			
		6.9 7.1	7.6 7.8			
10, 10, 10,		6.4 6.5 6.3 6.6 6.7 6.6	6.5 6.8 6.4 6.7 7.0 6.7			
10, 10,		6.5, 6.4	5.4, 6.0			58
10,		6.6 6.9	6.7 7.0			
10, 10, 10, 10, 10, 10, 10, 10, 10?	7	6.6 7.0 6.8 6.8 6.2 5.8 6.2 | 6.7 | 7.5 7.2 6.7 6.4 6.7 6.1				
10, 10		6.9, 6.7	6.9, 6.9			.65
10, 10, 10, 10,		6.8 6.5 6.6 6.6 7.0 6.8 6.9 6.8	7.3 7.2 7.1 7.1 7.5 7.5 7.4 7.3			

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8h 4

	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No.	mag	Spectrum.	No. Plate.	No. Lines
	m	°							
4 7.0+78 46									
	2+78 38		4 6.9+78 46		151	8.2	I	954, 1057,	3, 4,
4 7.1+74 22									
	7+74 15		4 7.1+74 22		195	8.0	I	898, 954,	2, 5,
4 9.8+80 35									
No. 73	0+80 28		4 9.6+80 35		133	5.7	III	258, 275, 341, 939, 884, 898, 954, 1057,	2, 1, 2, 3, 1, 3, 3, 3,
4 8.1+75 52									
	4+75 45		4 8.2+75 52		173	6.8	I	217, 275, 341, 898, 954, 1057, 1057, 1069,	5, 4, 3, 4, 8, 5, 7, 7,
4 6.5+54 15									
	0+54 8		4 6.5+54 15		749	7.0	I	217, 954,	3, 4,
4 6.9+57 13									
	2+57 6		4 6.9+57 13		785	6.5	I	217, 954,	5, 7,
4 8.1+66 51									
	7+66 44		4 8.1+66 51		316	7.4	I	217, 954, 1057,	5, 6, 5,
4 11.8+80 42									
	2+80 35		4 11.9+80 39		134	7.4	I	258, 939, 884, 898, 954, 1057, 1069, 1035,	4, 5, 2, 7, 6, 6, 5, 6,
4 8.1+61 36									
	2+61 29		4 8.1+61 36		687	5.5	I	217, 275, 954, 954,	6, 4, 7, 1,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean. Residuals.	No Remarks
		6.6, 6.6	7.4, 7.2		
		6.9, 6.5	7.1, 6.9		
		6.8 6.7 6.0 6.2 6.5 5.8 5.5 5.8 7.0 6.8 6.5 7.0 6.1 6.5 6.6			
		7.1 7.0 6.4 6.5 6.9 5.5 5.9 6.1 7.3 7.1 6.9 7.3 6.5 6.3 6.9 6.9			658
		6.8, 6.8, 6.7, 6.3, 5.6, 6.5, 6.0	6.3, 6.4, 6.7, 6.6, 6.1, 6.8, 6.3		
		7.2, 6.8	5.8, 6.4		
		6.9, 6.5	5.6, 6.2		
		6.8, 6.2, 6.6	5.8, 6.2, 6.4		
		7.0, 7.0, 6.3, 6.2, 6.1, 6.3 6.2	7.2, 6.6, 7.1, 7.2, 6.9, 7.1, 6.7		
		6.6, 6.8, 5.6,	5.4, 4.9, 6.1		

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
	h m	° ′	h m	° ′					
	1.2	+57 29	4 8.9	+57 37	787	6.0	III	217, 344, 954,	2, 4, 3,
	6.4	+53 14	4 8.9	+53 22	750	5.0	I	217, 954,	8, 8,
	5.5	+56 49	4 9.2	+56 56	899	7.3	I	217, 954,	5, 7,
	6.6	+79 21	4 12.7	+79 28	143	8.0	II?	898, 954, 1057,	3, 2, 2,
	8.8	+58 25	4 9.6	+58 32	727	7.1	I[d]	217, 954,	4, 5,
	1.1	+64 47	4 11.2	+64 54	433	6.0	III,	217, 275, 954, 1057,	2, 4, 3, 3,
4	4.4	+49 56	4 10.7	+50 3	1150	4.8	I	217,	5,
	6.6	+67 23	4 12.0	+67 30	321	7.8	III?	954,	3,
	.2	+50 34	4 12.6	+50 41	973	6.1	II?	217,	1,
	2.2	+60 24	4 13.1	+60 30	800	5.7	I	344, 954,	5, 1,
	4.5	+55 82	4 13.0	+55 18	869	8.0	I	954,	4,

1887phae.proj..847F

K Line	I Line	Brightness	Corr. Brightness	Mean. Residuals	No Remarks
10, 10, 10,	• • S	6.8 6.3 7.0 6.8 6.6	5.5 6.0 5.7 6.0 6.3	✓	• • •
2, •	• S	6.1, 5.7	4.7, 5.3	✓	• •
• •	• S	6.8, 6.4	5.5, 6.1	✓	• •
10, 10, 10,	S • •	6.9, 6.7, 6.6	7.5, 7.5, 7.2	✓	• • •
10, •	• S	7.1, 6.6	6.8, 6.3	✓	• •
10, 10, 10, 10,	• • S S	6.5 5.5 6.7 6.8 5.7 6.2	5.4 5.4 5.6 5.8 5.6 5.9	✓	• • • •
•	•	•	•	✓	•
10,	S	6.8 6.9	6.8 6.9	✓	•
•	•	6.5	5.0	✓	•
10 •	• S	6.6 6.9	5.3 6.4 6.7	✓	• •
•	S	6.6	6.2	✓	•

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8 h 4

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate.	No. Lines.
4 13.7+56 16 m									
10 .1 2.0	.1	+56 9	4 13.7	+56 16	905	6.3	I	217, 954,	6, 8,
4 14.4+59 23									
6	.6	+59 16	4 14.4	+59 23	793	6.5	I	217, 954,	5, 9,
4 15.8+71 32									
9	.9	+71 25	4 15.8	+71 32	250	7.5	I	898, 954, 1057,	5, 3, 3,
11 .0 2.1	.0	+83 43	4 21.6	+83 50	114	7.4	III	1019, 898,	1, 3,
4 15.3+61 48									
.3	.3	+61 41	4 15.3	+61 48	767	6.7	II	954,	2,
4 19.0+80 40									
.4	.4	+80 33	4 19.2	+80 40	140	7.4	I	898, 954, 1057, 1069, 1035,	7, 6, 8, 4, 6,
4 16.4+67 49									
.9	.9	+67 42	4 16.4	+67 49	327	8.1	II	1057,	2,
12 2.2									
4 16.3+53 17									
.8	.8	+53 10	4 16.3	+53 17	764	7.0	II	954,	3,
4 16.5+51 42									
13 2.3	.1	+51 35	4 16.5	+51 42	919	6.6	I	954,	5,
14 2.4									
4 19.4+69 9									
.7	.7	+69 2	4 19.4	+69 9	258	7.0	I	275,	3,

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8h 4

K Line.	I Line.	Brightness	Corr. Brightness.	Mean.	Residuals.	No Remarks.
3, 2,	m 24 . S	6.5, 5.9	5.1, 5.5	✓		..
5, 2, .	. S	6.8, 6.0	5.5, 5.7	✓		..
...	S ..	6.6, 6.7, 6.8	6.6, 6.9, 6.8	✓		...
. 10,	26 S S	6.5 6.7 6.7 6.9	7.5 7.9 7.7 8.1	✓		..
10,	.	6.7	6.5	✓		.
5, 5, 10, 10, .	S S S . S	6.5, 6.4, 6.2, 6.6 6.3	7.3, 7.4, 7.0, 7.4, 6.8	✓		.....
10,	.	7.1	7.0	✓		.
27						
10,	S	6.9	6.5	✓		.
10,	28 .	6.6	6.1	✓		.
29						
.	.	7.2	6.4	✓		.

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8h 4

1855 R.A.	Dec.	1900 R.A.	Dec.	No. Obs.	Mag.	Obs.	Spectrum	No. Plate	No. Lines	
		4 18.7+57 22								
18.0	34	.0+57 15	4 18.7+57 22	800	6.9	I	217, 954,	5, 7,		
		4 20.2+73 2								
		.0+72 55	4 20.2+73 2	224	8.4	I[d]	341,	5,		
		4 22.4+78 48								
		.5+78 41	4 22.4+78 48	157	7.5	I	898, 954, 1057, 1069,	5, 7, 6, 5,		10,
16	31									
		4 21.0+62 29								
.9	.9	+62 22	4 21.0+62 29	683	7.9	III	1057,	3,		10,
		4 21.9+72 20								
.8	.8	+72 13	4 21.9+72 20	227	6.0	I[d]	217, 275, 341, 898, 954, 1057,	5, 5, 4, 6, 8, 7,		2, 5,
17	32									
18	33									
		4 23.1+67 25								
.6	.6	+67 19	4 23.1+67 25	334	7.3	I	217, 954, 1057,	4, 8, 5,		10,
		4 23.8+70 8								
19.0	34	.0+70 2	4 23.8+70 8	305	7.8	I	1057,	4,		
		4 27.3+80 38								
.5	.5	+80 32	4 27.3+80 38	146	8.0	III	1057,	2,		

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8 h 4

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
..	.5	6.8, 6.2,	5.5, 5.9			..
.	.	7.4	7.2			.
10, 5, 10, 10,	5 5 5 5	6.7, 6.4, 6.5, 6.5	7.3, 6.9, 7.1, 7.1			....
	36					
10,	5	7.0 7.2	6.6 6.8			.
2, 5, 10, .5, 5,	...5 5 5	7.0, 6.5, 6.7, 6.0, 5.9, 5.6,	6.3, 5.9, 6.5, 6.1, 6.2, 5.7			.....
	37					
	38					
.10, 10,	.5.	7.0, 6.3, 6.5	6.0, 6.3, 6.3			...
.	39 .	6.9	6.9			.
.	5	6.9 7.2	7.7 8.0			.

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8h 4

	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No.	mag	Spectrum	No. Plate	No. Lines	
4 27.4+79 34 2m										
20 .1	.1+79 28		4 27.4+79 34	149		8.5	II	1057,	2,	10,
4 24.4+53 42										
.6	.6+53 36		4 24.1+53 42	779		6.0	II	217, 954, I?	2, 8,	10, 10
4 26.8+76 20										
.7	.7+76 14		4 26.8+76 20	169		8.0	II	954, 1069, II?	2, 3,	10,
21 21										
.2	.2+84 36		4 33.4+84 47 36, 88			7.7	I	1019 a 898, 1057,	5, 6, 7,	5
4 26.3+71 41										
.3	.3+71 35		4 26.3+71 41	263		8.2	I	954, 1057,	4, 5,	5
4 28.9+79 27										
.7	.7+79 21		4 28.6+79 27	150		7.0	I	258, 275, 341, 884, 954, 1057, 1069, 1035,	5, 5, 5, 6, 10, 9, 8, 7,	
4 26.8+71 16										
.9	.9+71 10		4 26.8+71 16	265		8.0	I	1057,	5,	
22 22										
4 27.1+68 5										
.5	.5+67 59		4 27.1+68 5	339		7.5	I	954, 1057, II a	5, 3,	10
4 27.1+64 3										
.9	.9+63 57		4 27.1+64 3	515		6.3	I	217, 275, 954, 1057,	6, 7, 8, 7,	2 2,
4 26.7+57 13										
23 .0 23	.0+57 7		4 26.7+57 13	817		6.8	II a	217, 954, I	2, 4,	10
4 27.2+59 12										
.3	.3+59 6		4 27.2+59 12	812		7.2	I	954, 1057,	5, 6,	
4 30.4+78 58										
.4	.4+78 52		4 30.4+78 58	161		8.1	II	1057,	2,	10,
4 31.5+80 28										
.8	.8+80 22		4 31.6+80 28	149		8.1	III	1057,	1,	
24 24										
.2	.2+83 2		4 34.1+83 8	121		8.5	I	185, 1057, II a?	3, 2,	1
4 27.9+55 18										
.3	.3+55 12		4 27.9+55 18	901		7.4	II	954,	1,	
4 29.0+67 1										
.6	.6+66 55		4 29.0+67 1	335		8.0	II a	1057,	2,	10,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10,	.	7.1	7.7				
10, 10, ?	. S	6.4, 5.9	5.0, 5.5			..	
10, 10,	. S	6.8, 6.9,	7.4, 7.3			..	
.. 5,	S S S	6.4 6.3, 6.2,	7.6, 7.7, 7.6			...	
. 5,	..	6.8, 6.9	7.1, 7.0			..	
... 10, 2, .. 2,	... S S S S S	6.6, 6.8, 6.1, 6.8, 5.4, 5.9, 6.0, 5.9	6.6, 6.7, 6.4, 6.2, 6.2, 6.5, 6.6, 6.2			.....	
.	.	6.6	6.6			.	
. 10,	S S	6.7, 6.8	6.8, 6.7			. 665,	
2 2, ..	.. S S	6.5, 6.4, 5.7, 5.8	5.4, 5.4, 5.6, 5.5			....	
. 10,	..	7.0, 6.6	5.7, 6.3,			59, .	
..	S S	6.5, 6.6,	6.2, 6.1			..	
10,	.	7.0	7.6			.	
.	S	7.0 7.3	7.7 8.0			.	
. 15,	..	6.9, 6.7	4.8, 7.8			. 676	
.	.	6.9	6.5			.	
10,	.	7.0	6.8			663	

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8 h 4

	1855 R.A. Obs.	1855 R.A. Obs.	1900 Pos.	1900 Pos.	No. Mag.	Mag.	Spectrum	No. Plate	No. Lines	
4 28.9+59 53m										
25	24	.0	+59 47	428.9+59 53	816	7.5	II a	954, 1057,	1, 6,	
4 32.1+76 25										
26.0	24	.0	+76 19	432.1+76 25	174	6.3	I	341, 954, II a, 1057, 1069, II a	4, 3, 2, 3,	10
430.3+63 1										
.2		.2	+62 55	430.3+631	695	8.0	II a	1057,	2,	15
	27.1	32	.1	+82 56	437.0	+83 2	125	8.5	I	1019, 898, 1057, 1635, 1229,
28	23									
4 33.4+67 57										
		.8	+67 51	433.4+67 57	343	8.0	I	1057,	3,	
432.0+52 53										
		.5	+52 47	432.0+52 53	865	5.4	II?	217, 954, III	2, 3,	10, 10
432.0+53 16										
		.5	+53 10	432.0+53 17	794	5.4	I	217, 954,	6, 7,	10, 1
432.5+57 41										
		.7	+57 35	432.5+57 41	828	7.3	I	1057,	3,	
29	24									
4 35.4+75 46										
.4		.4	+75 40	435.4+75 46	189	6.0	I	217, 275, 341, 898, 954, 1057, 1069,	5, 5, 5, 4, 9, 8, 9	8, 9

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8h 4

K Line	I Line	Brightness	Corr. Brightness	Mean Residuals	No Remarks
10	5	6.9, 6.7	6.6, 6.2,	V	656, 670
10, 10, 10,	10, 5, 5, 5	6.7, 6.0, 6.4, 6.2	6.8, 6.6, 6.8, 6.6	V	.649, .686
15		6.9	6.6		677
	4 5 5 5 5	6.4, 6.3, 6.0, 6.5, 6.5	7.3, 7.4, 7.1, 7.3, 7.3	V	
	8				
		6.9	6.8	V	
10, 10,	5	6.8 6.4 6.7	5.3 5.9 6.2	V	
10, 10,	5	6.5, 6.0	5.1, 5.6	V	
		6.9	6.4	V	
	9				
8, 9, 10, 5, 5, 2,	5 5 5 5 5	6.6, 6.6, 6.4, 5.3, 6.0, 5.8	6.1, 6.2, 6.4, 5.8, 6.3, 6.1	V	

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	1855 RA	1855 Dec.	1900 RA	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines	
30										
	.2	+86 4	4 46.3	+86 10	66	8.0	I	898, 1057,	4, 6,	..
4 37.8 +79 30	.5	+79 24	4 37.8	+79 30	155	8.4	III	1069,	3,	10,
4 34.7 +59 20	.8	+59 14	4 34.7	+59 20	826	6.9	I	275, 954, 1057,	4, 4, 7,	10, 1
31	.0	+81 23	4 39.5	+81 29	168	8.5	I	898, 1035,	3, 3,	.
32										
4 39.2 +77 24	.7	+77 18	4 39.2	+77 24	172	7.8	I	954, 1069,	5, 4,	10,
33										
4 39.5 +75 33	.4	+80 56	4 41.6	+81 2	155	5.5	III	258, 275, 341, 165, 185, 834, 898, 954, 1057,	2, 4, 2, 3, 2, 1, 3, 3, 3,	10, 10
1	.6	+75 27	4 39.5	+75 33	193	7.0	III	954, 1069?	3, 3.	10,
4 38.8 +67 35	.5	+67 29	4 38.1	+67 35	347	7.5	I	954, 1057, 1069,	5, 5 5,	10,
34										
4 39.4 +70 45	.4	+70 40	4 39.4	+70 46	322	6.3	I	217, 275, 341, 954, 954, 1057, 1069, 1069,	5, 4, 5, 7, 5, 8, 6, 6,	..

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K Line	H Line	Brightness	Corr. Brightness	Mean. Residuals	Remarks
..	.S	6.8, 6.7	8.5, 8.4	✓	..
10,	S	6.9 7.1	7.5 7.7	✓	.
10, 10, 10,	.. S	7.0, 6.5, 6.4	5.8, 6.2, 5.9	✓	...
..	..	6.7, 6.8	7.6, 7.4	✓	..
10, .	..	6.6, 6.8,	7.2, 7.2,	✓	..
10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	... S. S S S S	6.5 6.6 6.8 6.8 6.4 6.4 5.4 5.4 5.6 6.7 6.7 6.3 6.5 6.0 6.0 6.2 6.4 6.4 6.8 6.9 6.3 7.1 6.7 6.8 5.8 5.8 5.7 6.0 7.0 7.0 6.8 6.8 6.3 6.4 6.6 6.9 6.8	✓	660 673, . . .75, . . 626
10, 10,	S S	6.5 6.7 6.7 6.9	7.0 7.0 7.2 7.2	✓	..
10, 10, 10,	.. S	6.4, 6.6, 6.6	6.4, 6.4, 6.4	✓	...
.. 10,	.. S. S S.	7.0, 6.4, 6.5, 6.0, 5.9. 6.3	6.2, 5.7, 6.2 . 6.2, 5.9 . 6.3	✓	.....

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4h 4

	1855 R.A. Dec.	1855 R.A. Dec.	1900 Dec.	1900 Dec.	No. Lim.	Mag. Lim.	Spectrum	No. Plate	No. Lines
3.5	m								
4 39.7+56 35									
36.0	.0	+56 30	4 39.7	+56 35	9	7.3	5.8 I	275, 1057,	4, 8,
4 40.8+63 27									
.6	.6	+63 22	4 40.8	+63 27	5	3.6	7.0 I	217, 954, 1057, 275	4, 4, 7, 5
37									
38									
4 42.8+63 20									
.6	.6	+63 15	4 42.7	+63 20	5	4.3	8.8 I	275, 954, III 1057, III	3, 1, 1,
4 43.6+67 20									
39.1	.1	+67 15	4 43.7	+67 20	3	5.4	8.0 II?	1057,	2,
4 46.0+77 36									
.4	.4	+77 31	4 46.0	+77 36	1	7.8	7.5 II	954, 1057, II? 1069, 1035,	2, 2, 3, 3,
4 44.0+66 9									
.	.6	+66 4	4 44.1	+66 10	3	5.8	5.0 II?	217, 275, I 275, I 341, 954, I 1057, I 1057, I 1069, I?	6, 5, 8, 4, 3, 3, 4, 11, 9,

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K Line	H Line	Brightness	Corr. Brightness	Mean	Residuals	No.	Remarks
2, 5,	.. 5	6.6, 6.0	5.3, 5.4				
....	.. 5	6.9, 6.4, 6.5, 6.8	5.8, 6.3, 6.2 5.6				
....	... 5 5	6.8 7.0 7.0	5.8 6.9 6.7 6.6 6.4				
10,	..	6.9	6.7			6 6 2,	
10, 10, 10, 10,	... 5 5	6.7, 6.8, 6.7, 7.1	7.4, 7.3, 7.4, 7.3				
.. 2. 10, 7, ..	... 5 5 5 5	5.8, 5.5, 5.5, 5.4, 4.2. 4.8, 4.6	4.8, 4.6, 4.6, 4.9, 4.2. 4.6, 4.4				

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1855 RA Lac	1855 RA Lac	1900 Dm.	1900 Dm.	No.	Intens.	Spectrum	No. Plate	No. Lines	
4 44.6+61 19									
40 .6	40 .6+61 14	44 7.6+61 19		739	6.9	I	275, 1057,	4, 6,	2
44 5.2+67 23									
6	.6+67 18	44 5.2+67 23		356	7.5	I	1057,	4,	
41 .6	40 .0+85 45	45 6 3+85 80		74	6.0	I	173, 275, 1165, 1185, 1353, 1884, 1898, 1057, 1119, 1229,	5, 2, 4, 4, 5, 3, 8, 8, 1, 2,	22
44 6.1+71 27									
	.0+71 22	44 6 1+71 27		222	6.5	I	898,	8,	5
42	42								
44 7.3+67 38									
44 8.0	.7+67 33	44 7 3+67 38		357	7.0	I	1057, 1069, 954	3, 6, 3	
44 7 9+71 28									
	.8+71 23	44 8.0+71 28		282	8.0	I	1057, 1069,	5, 4,	10,
43	43								
4 49.7+74 8									
44 9.0	44 .0+74 3	44 9 6+74 7		229	6.1	I	165, 954, III 1057, III 1069, III	4, 1, 1, 1,	
44 9 2+69 47									
	.3+69 42	44 9 2+69 47		288	7.8	I	1057,	5,	10,

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~~9h~~ 4

K Line.	F Line.	Brightness.	Cor. Brightness	Mean.	Residuals.	No. Remarks
2.	~~25~~ m .5	6.8, 6.5,	5.7, 6.1			..
.	-	6.6	6.4			.

222 ... 5, 10, ... ~~25~~ ..... $$$$ .5 .7.0 6.8, 6.9 .6.9, 6.6, 5.9 .. .6.9, 7.3, 7.3 .7.3, 7.6, 7.5 ..

5 5 6.4 7.2

~~24~~

... .5. 6.6, 6.6 6.7 6.4, 6.4 6.3 ...

10, 10, 5. 6.7, 7.1 6.7, 7.1 ..

~~24~~

... ~~29~~ .5 5 5 6.7 6.6 6.6 ~~6.6~~ 7.0 7.0 7.0 ~~5.4~~ 7.1 6.8 6.8 7.4 7.2 7.2 ....

10, . 6.9 6.8

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	1855 RA	1855 Dec	1900 RA	1900 Dec	No. Mag.	Spectrum	No. Plate	No. Lines	
45									
	4 50.8+72 16								
.5	.5	+72 11	4 50.8	+72 16	248	8.4	II 1057,	3,	10,
	4 52.0+76 42								
.6	.6	+76 37	4 52.0	+76 42	187	8.0	II 1057,	2,	10,
	4 49.3+53 35								
.7	.7	+53 30	4 49.3	+53 35	829	5.0	I d 341,	6,	4,
46									
	4 51.8+73 38								
.2	.2	+73 33	4 51.8	+73 37	264	6.3	III 954, 1069,	1, 1,	
	4 52.0+73 54								
.4	.4	+73 49	4 52.0	+73 55	265	6.3	I 217, 275, 341, 954, 1057, 1069, 165	5, 6, 5, 8, 9, 8, 4	
	4 51.3+69 2								
.5	.5	+68 57	4 51.3	+69 2	357	7.0	I? 1057,	5,	10,
	4 54.2+79 22								
.9	.9	+79 17	4 54.2	+79 22	163	8.8	I? 1057,	4,	10,
47									
			4 56.7	+82 9	137	9.4			
	5+6	+82 24	3 44 56.8	+82 8	138	9.2	II 1035,	3,	10,
48									
	4 52.7+66 42								
.2	.2	+66 37	4 52.7	+66 41	370	7.0	II a 341, 1069,	2, 3,	
	4 52.6+60 56								
.6	.6	+60 51	4 52.6	+60 56	853	7.0	II b 275, 1057, a 1069, 1069, I?	2, 3, 4, 3,	10,
49									

*Spectra superposed on plate Mean of brightness combined light of both

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~~9~~ 4h

K Line.	F Line.	Brightness.	Corr. Brightness	Mean.	Residuals.	No. Remarks.
35						
10,	S	6.6	6.7	V	.	
10,	.	6.5	6.9	V	.	
4,	S	5.9	5.0	V	.	
36						
..	SS	6.8 6.9 7.1 7.2	7.2 7.1 7.5 7.4	V	..	
.....	...SSS.	6.6, 6.3, 6.3, 5.5, 5.7, 5.9	66	6.0, 5.8, 6.2, 5.9, 5.9, 6.1	5.7	...1...
10,	S	6.8	6.7	V	.	
10,	.	7.0	7.6	V	.	
37						
10,	S	~~7.0~~	7.7 7.6		.	
38						
.10,	.S	6.9, 6.3,	6.4, 6.1	V	68, 687,	
10, 10, 10, .	.S..	6.4, 6.2, .6.7	5.3, 5.8. 6.3,	✓	65, 672, ..	
39						

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum	No. Plate	No. Lines
4 54.2+62 57									
5-0	.0	+62 52	4 54 2+62 57		722 723	8.5	III	1057,	3,
4 56.5+75 33									
	.5	+75 29	4 56.6+75 33		208	7.3	I	217, 275, 341, 954, 1057, 1069, 1035,	3, 4, 4, 5, 5, 8, 6,
4 55.4+68 50	.6	+68 46	4 55.4+68 50		361	6.5	I	275, 954, 1057, 1069,	4, 2, 6, 5,
4 54.6+60 17	.6	+60 13	4 54.5+60 18		856	5.0	III	275, 341, 1057, 1069,	5, 2, 3, 3,
5-1									
5-2									
5-3									
4 57.5+61 2									
4 58.3+69 43	.4	+60 58	4 57.5+612		857	6.7	III	1057,	3,
	.4	+69 39	4 58.3+69 43		301	8.5	I	1057,	4,
4 57.6+58 49	.6	+58 45	4 57.5+58 50		53	6.0	I	275, 341, 1057, 1069,	6, 6, 8, 9,
4 58.7+69 30	.8	+69 26	4 58.7+69 30		302	6.5	III	1057,	3,
5-4									
4 59.8+73 49									
5 0.6+76 21	.2	+73 45	4 59.7+73 49		274	5.5	I	217, 275, 165, 954, 1057, 1069, 1035,	6, 7, 6, 8, 10, 9, 8,
No 1	.3	+76 17	5 0.5+76 21		190	6.7	I	217, 275, 341, 165, 954, 1057, 1057, 1069,	5, 6, 6, 3, 8, 6, 7, 8,

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

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~~4~~ 4h 4

K Line	J Line	Brightness	Corr Brightness	Mean Residuals	No Remarks
10,	~~A5~~ 5	6.7 6.9	6.4 6.6	V	.
..... 2, 10,	..... 5. 5.	7.9, 7.2, 6.9, 6.3, 6.6, 6.3, .	7.4, 6.8, 6.9, 6.8, 6.9, 6.6 .	V	.....
10, 10, 10, 10,	.. 5 5	7.2, 6.3, 6.6, 6.6	6.4, 6.4, 6.5, 6.5,	V	....
10, 12, 15, 15,	.. 5 5	5.8 5.5 5.3 5.9 6.0 5.6 5.6	4.7 5.1 4.9 4.8 5.3 5.2 5.2	V	63, . 669, 695,
~~A6~~					
~~A4~~					
~~A8~~					
10,	5	6.7 7.0	6.3 66	V	.
-	-	6.9	6.8	V	.
.....	... 5	5.8, 6.0, 5.5, 5.6	4.6, 5.2, 5.0, 5.1	V	.. 667.
10,	5	6.7 6.9	6.6 6.8		.
~~A9~~					
..... 10,	.. 5 5 5 5	6.2, 5.8, 6.0, 5.1, 4.7, 5.4, 6.0	5.6, 5.3, 5.1, 5.5, 4.9, 5.6, 5.9	V	.....
.....	..... 5 5 5	6.9 .6.0, 6.7, 5.6, 6.2, .5.6	6.5 . 6.1, 6.0, 6.2, 6.6 . 6.0	V	.....

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	1855 RA	1855 Dec	1900 RA	1900 Dec	No.	Mag	Spectrum	No. Plate	No. Lines
No. 74	5 5.1	5	1+85 32	6 9.9	+85 3	6 78	7.0	I	173, 275, 165, 185, 353, 844, 884, 898, 1035	5, 5, 6, 5, 6, 4, 3, 8, 4
	5 0.4	+72 37								
	.0	.0	+72 33	50.4	+72 37	258	7.9	I	275, 954, III 1057, 1069,	4, 2, 6, 5,
	5 0.1	+64 47								
	.7	.7	+64 43	50.1	+64 47	500	6.9	I[d]	275, 341, I 1057, II[a] 1069, II[a]	4, 3, 3, 3,
	5 6	5								
	5 0.5	+62 21								
	.3	.3	+62 17	50.5	+62 21	730	7.0	I	275, 1057, 1069,	4, 7, 6,
	5 1.3	+63 27								
	5 7.0	5	.0+63 23	51.3	+63 27	566	7.0	I	275, 1057, 1069,	1, 5, 6,
	5 2.1	+67 33								
	.4	.4	+67 29	52.1	+67 33	367	6.9	I	1057,	4,
	5 4.4	+77 58								
	.6	.6	+77 54	54.5	+77 58	187	8.5	I	1057,	3,
	5 8	5 3								
	5 5.1	+78 15								
	.2	.2	+78 11	55.1	+78 15	180	8.0	III?	954, I? 1057, I 1069,	3, 3, 4,
	5 4.8	+75 50								
	.6	.6	+75 46	54.8	+75 50	217	7.6	I?	1069,	3,
	5 2.1	+53 35								
	.5	.5	+53 31	52.1	+53 35	858	8.1	I	1069,	3,
	5 4.6	+74 25								
	.8	.8	+74 21	54.6	+74 25	238	7.2	I	954, 1057, 1069,	5, 4, 6.
	5 6.1	+79 7								
No. 72	.8	.8	+79 3	56.1	+79 7	169	5.2	II[a]	27, 275, 341, 165, 185, 898, I 954, III[a] 1057, 1069, (1) 1035,	2, 2, 2, 2, 2, 6, 3, 3, 3, 3,
	5 8.7	+67 21								
	5 9.1	5	.1+67 17	53.8	+67 21	371	7.0	I	341, 1057, 1069,	3, 5, 7,
	5 3.2	+61 20								
		.1	+61 16	53.2	+61 20	763	8.8	I	1057,	2,
	5 4.4	+67 15								
	.8	.8	+67 11	54.4	+67 15	373	7.5	II[a]	1057	2,
	5 3.9	+61 44								
	.8	.8	+61 40	53.9	+61 44	766	6.7	I	275, 1 341, b 2 341, 1057, 1069,	7, 5, 4, 7, 7,

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9h 4

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
2,	S	6.8, 6.6, 6.8, 6.3	6.7, 5.6	7.7, 7.4, 7.2, 7.1	7.1, 7.2	5.7
2,	S	6.9, 6.7, 6.4, 6.7	6.3, 7.0, 6.5, 6.8			
10, 10, 10,	SS	7.1, 7.1, 6.4, 6.6	6.1, 6.5, 6.1, 6.3,			679, 684,
10, 10, 10,	SS	6.7, 6.4, 6.8	5.6, 6.0, 6.4			
2,	SS	7.0, 6.7, 6.7	6.0, 6.4, 6.4			
10,		6.9	6.7			
		7.0	7.5			
10, 10,	S	6.8, 6.9, 6.8	7.5, 7.6, 7.4, 7.3			
		7.1	7.4			
		7.1	6.5			
?	S	6.5, 6.7, 6.6	6.9, 6.9, 6.8			
12, 15, 10, 10, 12, 10, 12, 10, 10, 10	SSSSSS	6.7, 5.8, 6.5, 6.5, 6.0, 4.8, 4.7, 4.8, 5.3, 5.3,	5.3 6.5, 5.7, 5.8, 6.0, 5.4, 5.4 5.5 5.6 5.9, 5.9, 5.6			668, 691, 704, 606, 627, 703, 738, 826, 654
	S	7.1, 6.8, 6.6	6.6, 6.6, 6.4			
10,		7.0	6.6			
10,		7.0	6.8			661,
5	S	6.3, 6.7, 5.9, 6.5	5.2, 6.0, 5.5, 6.1			67

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	1855 RA	1855 Dec	1900 RA	1900 Dec	No.	Mag.	Spectrum	No. Plate	No. Lines
5 4.3+62 34									
0	1+62 30		5 4.2+62 34	734	6.7	I	275, 1057, 1069,		4, 8, 7,
5 5.7+73 10									
	4+73 6		5 5.9+73 9	280	5.8	I	275, 341, 165, 954, 1057, 1069, 1035,		5, 6, 6, 7, 3, 8, 7,
No. 96	6+83 43		5 11.8+83 47	141	7.1	I	275, 165, 185, 353, 884, 898, 1057, 1035, 1119,		4, 6, 5, 5, 4, 6, 7, 7, 5.
5 5.2+62 59									
	0+62 55		55.8+62 59	735	7.5	?	275, 1057, 1069,		2, 2, 5,
5 6.4+59 16									
	5+59 12		56.4+59 16	857	6.5	III	1057, 1069,		3, 1,
5 8.8+75 4									
	8+75 0		58.8+754	220	7.5	II?	1069,		2,
5 6.7+53 6									
3	1+532		56.7+536	872	6.5	I	341, 1069,		4, 7,
5 10.4+78 20									
	4+78 16		5 10.4+78 19	183	6.8	III	954, 1057, 1069, 1035, 1071,		3, 3, 3, 1, 2,
5 9.1+71 37									
	8+71 33		59.1+71 37	299	6.8	III	275, 1057?, 1035?		1, ?, 3,
4									
5 11.5+78 53									
	3+78 49		5 11.5+78 53	185	8.9	II	1057,		3,
5 9.2+67 53									
	5+67 49		59.2+67 53	379	7.5	I	1057, 1069,		3, 4,
5 8.6+60 4									
	6+60 0		58.6+60 4	870	8.2	II	1057,		2,

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K Line	I Line	Brightness	Corr Brightness	Mean	Residuals	No.	Remarks
10, 2 10,	.	6.6 6.3 6.6,	5.4, 5.9, 6.2,		✓	...	
.....	....	6.5.9, 6.1, 6.3 5.5, 5.3, 5.8, 6.1	5.9, 6.1, 5.9, 5.3 5.8, 5.4 5.9, 5.9		✓	.....	
.5, .. 5, ... ? 10,	.....	7.0, 6.9, 6.7, 6.0, 6.9, 5.7, 5.8, 6.0, 6.2	7.5, 7.0, 6.7, 6.4, 6.9, 6.9, 7.0, 6.9, 7.0		✓	.....	
10, 10, 10,	. .	6.8, 6.5, 6.9	5.8, 6.2, 6.6		✓	.675,	
10, .		6.7 6.9 6.9 7.2	6.2 6.4 6.4 6.7		✓	..	
10,	.	7.0	7.3		✓	.	
..	.	6.9, 6.6	6.0, 6.0		✓	..	
10, 10, 10, . 10,	.....	6.6 6.6 6.4 6.7 6.8 6.9 6.8 6.7 7.0 7.0	7.3 7.1 6.9 6.9 7.4 7.6 7.3 7.2 7.2 7.6		✓	....	.735
. ? 10,	.	6.8 6.7 7.1 6.5 6.9	6.1 6.4 6.4 6.5 6.6		✓	...	
10,	.	6.9	7.5		✓	.	
..	..	6.9, 6.9,	6.8, 6.8		✓	..	
10,	.	6.8	6.4		✓	.	

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
5								
	.5	+81 34	5 14.4	+81 38	183	8.0	III	1057,
5 11.2								
	.8	+72 8	5 11.2	+72 12	265	8.5	II?	1057,
5 10.5								
	.9	+66 34	5 10.5	+66 38	385	6.8	III	1069,
6 13.1								
6.1	.1	+78 8	5 13.1	+78 13	187	7.0	I	275, 341, 954, 1057, 1069, 1035, 1071,
5 11.0								
	.8	+62 30	5 11.0	+62 33	742	6.0	III	1057, 1069,
5 12.5								
	.8	+73 33	5 12.5	+73 36	285	6.5	III	1035,
5 10.9								
7.0	.0	+57 57	5 10.9	+58 1	874	6.5	I?	275, 341, 1057, 1069,
5 14.1								
	.2	+77 50	5 14.0	+77 53	195	7.0	I	275, 341, 954, 1057, 1069, 1035, 1071,
5 12.5								
	.8	+67 24	5 12.5	+67 27	380	8.4	I	1057,
5 11.8								
	.9	+58 11	5 11.8	+58 14	828	8.3	I	1057,
8								
5 14.6								
	.8	+74 24	5 14.7	+74 27	241	7.1	I	341, 165, 1057,
5 16.6								
7.0	.0	+79 43	5 17.6	+79 46	173	7.7	I	275, 341, 185, 954, 1057, 1069, 1071,
5 13.4								
	.5	+59 8	5 13.4	+59 11	870	7.0	III	1057,
5 15.6								
	.8	+74 10	5 15.6	+74 13	242	7.1	I	275, 341, 165, 185, 1057,

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~~4~~ 5

K Line.	L Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
.	.	6.9 7.1	7.8 8.0			.	
10,	.	7.2	7.3			.	
10,	.	6.5 6.6	6.3 6.4			.	
.10, 10, 10, 10, 10, 10,	. . . . .	7.1, 6.6, 5.9, 6.3, 6.4, 6.3, 6.4	6.9, 6.8, 6.6, 6.8, 6.9, 6.5, 7.0			.69, .651, .690	7.32
10, .	. .	6.8 6.9 7.0 7.2	6.4 6.5 6.6 6.8			..	
10,	.	5.9 6.1	5.8 6.0			.	
10, 5, .	. . .	6.6, 6.5, 6.2, 6.4,	5.4, 5.7, 5.7, 6.9			....	
10, 5, 2, 5, 5, 2, 10,	. . . . .	6.9, 6.2, 5.5, 6.0, 5.9, 6.0, 6.0	6.7, 6.4, 6.2, 6.5, 6.4, 6.2, 6.6			.....	
.	.	6.7	6.5			.	
.	.	7.1	6.6			.	
10, 2 5,	. . .	6.9, 7.3, 6.5	6.8, 6.4, 6.7			...	
10, 5, .20, .2, 0	. . . . .	6.9, 6.3, 6.9, 5.9, 6.2, 6.4, 6.5	6.9, 6.7, 6.4, 6.8, 6.9, 7.1, 7.3			.....	
10,	.	6.9 7.0	6.4 6.5			.	
. . . . .	. . . . .	6.8, 6.9, 6.8, 7.0, 6.2,	6.3, 6.8, 5.9, 6.0, 6.4,			....	

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5-h

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	No. Mag.	Spectrum	No. Plate	No. Lines
m								
10								
5 15.7+70 9								
6	+70 6	5 15.7	+70 9	351	6.7	I	275, 341, 1057, 1069, 1035,	5, 3, 6, 7, 6,
5 14.9+57 27								
11	1 +57 24	5 14.9	+57 27	879	5.3	I	275, 341, 1057, 1069,	2, 6, 8, 9,
5 15.3+63 17								
	0 +63 14	5 15.3	+63 17	579	7.0	II	1057,	2,
5 18.4+78 16								
	4 +78 12	5 18.4	+78 15	190	7.7	I	954, 1057, 1069, 1035, 1071, d	4, 5, 6, 6, 3,
Overlaid	7 +81 16	5 20.4	+81 19	187	8.6	II	1057	3
12								
13								
14								
5 18.3+57 22								
	4 +57 19	5 18.2	+57 22	882	8.3	I	954,	3,

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K Line	I Line	Brightness.	Corr. Brightness	Mean.	Residuals.	No Remarks.
10, 8, 5,	8, 8,	7.1, 6.8, 6.1, 6.5, 6.7	6.4, 6.5, 6.1, 6.5, 6.4	✓	.....	
.....	8, 8,	6.5, 5.9, 5.9, 5.6,	5.3, 5.1, 5.4, 5.1	✓	....	
10, ✓	8 ✓	7.0 / 5.3	6.6 / 5.4	✓	.	
.....	8, 8,	6.7, 6.6, 6.5, 6.6, 6.7	7.4, 7.1, 7.0, 6.8, 7.3	✓	.....	
10	8	6.9	6.5		.	
✓	✓	✓	6.4			

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5-h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum.	No. Plate.	No. Lines.
5-22.1+78.4									
15	1+78 15	522.1	+78 18	19³	7.7	I^d	1057,	1069, II^a	1035, II 1071, II?
									3, 2, 2, 2,
5-19.3+53 31									
	.7+53 28	519.3	+53 31	906	8.1	I	1069,		4,
16	.0+856	529.9	+85 9	80	6.0	III	898,	1057,	1, 3,
5-20.7+62 59									
	.5+62 56	520.7	+62 59	759	6.0	III	1069,		1,
5-20.9+60 11									
	.9+60 8	520.9	+60 11	884	7.0	I^d	1057,	1069, I	4, 5,
14									
5-22.6+67 56									
	.8+67 53	522.6	+67 56	390	7.0	II^a	1057,	1069, I	1035, 2, 3, 3,
5-25.7+79 17									
18	.0+79 14	525.4	+79 17	182	8.7	III?	1057,		1,
5-24.0+74 15									
	.2+74 12	524.0	+74 15	249	7.0	I	275,	1057, II^a?	1069, 4, 3, 7,
5-24.4+74 38									
	.5+74 35	524.4	+74 38	250	7.5	II	1069,		2,
5-22.6+53 5									
19	.0+53 2	522.6	+53 5	915	7.7	I	1069,		5,
5-25.6+76 43									
	1+76 40	525.6	+76 43	203	7.8	II	1069,		3,
5-26.3+77 29									
	.6+77 26	526.3	+77 29	201	8.3	I	954,	1069, 1035,	1071, d 3, 5, 5, 4,

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K Line.	H Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
9 10, 10, 10,		6.7, 6.8, 6.9, 6.9	7.2, 7.3, 7.1, 7.5			.689, ..
.	.	7.0	6.4			.
. 10,		6.5 6.3 7.0 6.7	8.0 7.8 8.5 8.2			..
.		6.8 7.2	6.5 6.9			.
15, .	.	6.5, 6.6,	6.1, 6.2			..
10, 5, 10,	.	6.5, 6.6, 6.8	6.4, 6.5, 6.5			.664 .761,
.	.	7.0 7.2	7.6 7.8			.
10, .8,	.	6.9, 6.5, 6.5	6.4, 6.7, 6.7			.678.
10,		7.0	7.2			.
.		7.0	6.4			.
10,		7.0	7.4			.
....	.	6.7, 6.8, 6.8, 6.7	7.4, 7.2, 7.0, 7.3			....

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5h

	1855 R.A.	1855 Decl.	1900 R.A.	1900 Decl.	No.	Mag.	Diam.	Spectrum.	Nebulæ	No. Plate	No. Lines
20	5 28.1	+80 21 m									
	0	+80 18	5 28.1	+80 21	177		8.2	III	1057,	2,	
	5 24.0	+57 10									
	2	+57 7	5 24.0	+57 10	889		6.6	I	1057, 1069, II?	3, 3,	
	4	+85 14	5 34.7	+85 17	81		8.0	III	1057,	1,	
	5 25.0	+64 59									
	6	+64 56	5 25.0	+64 59	534		7.7	I	341, 165, 1057, 1069,	4, 2, 3, 3,	
	5 26.4	+75 0									
	4	+74 57	5 26.4	+74 59	252		6.5	II?	1069,	3,	
	5 26.1	+71 36									
	8	+71 33	5 26.1	+71 36	313		6.8	III?	1057, 1035,	2, 3,	
21											
	5 27.7	+76 25									
	3	+76 22	5 27.7	+76 25	206		8.3	I	1069, 1071,	0, 3,	
	5 25.9	+56 11									
22	1	+56 9	5 25.9	+56 11	1035		8.0	I	1069,	5,	
	5 26.5	+63 25									
	2	+63 23	5 26.5	+63 25	592		8.0	I	1069,	3,	
	5 27.0	+66 38									
	4	+66 36	5 27.0	+66 38	401		7.0	I	341, 165, 1057, 1069, 1035,	6, 4, 6, 8, 6,	
	5 27.5	+70 18									
	4	+70 16	5 27.5	+70 18	362		7.0	I	341, 185, II? 1057, d? 1069, 1035,	4, 2, 7, 8, 6,	
	5 27.9	+72 8									
	5	+72 6	5 27.9	+72 8	281		8.2	II?	1057, 1035,	2, 4,	
23											
	5 27.6	+64 5									
	2	+64 3	5 27.6	+64 6	536		6.7	I	165, 1057, d 1069, 1035,	5, 5, 8, 6,	
	5 27.6	+65 3									
	2	+65 1	5 27.6	+65 3	482		8.0	I	1069,	3,	
	5 29.0	+69 56									
24	0	+69 53	5 29.0	+69 55	339		7.1	III	1035,	1,	
	5 ~~29.6~~ 30.2	+73 56									
	4	+73 54	5 30.2	+73 56	298		6.8	I	275, 165, 185, 1057, I? 1069, II? 1035,	4, 3, 4, 4, 6, 2,	
	5 28.4	+54 20									
	7	+54 18	5 28.4	+54 20	914		8.0	III	1069,	1,	

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K Line	I Line	Brightness	Corr. Brightness	Mean Residuals	No.	Remarks
.	.	6.9 7.0	7.6 7.7	✓	.	
.10,	.3	6.9, 6.5,	6.4, 6.3	✓	..	
.	3	6.7 6.9	8.2 8.4	✓	.	
.10, .10,	...3	7.0, 7.3, 6.8, 7.0 6.6	6.4, 5.9, 6.5 6.3 6.7	✓	.79 . .	
10,	3	6.5	6.8	✓	68 3	
10, 10,	.3	6.5 6.8 6.8 6.9	6.5 6.5 6.8 6.6	✓	..	
5, .	..	6.8, 7.0	7.2, 7.5	✓	..	
.	.	6.9	6.3	✓	.	
.	.	7.1	6.7	✓	.	
..10, 2, 10,	...3.	6.6 . 6.4, 6.0, 6.4,	6.1 . 6.2, 5.8, 5.9	✓	....	
.10, 5, ..	.3333	6.9, 6.9, 6.5, 6.4, 6.3,	6.6, 5.7, 6.5 6.4, 6.0	✓	.84 . . .	
10, .	..	6.9, 6.9,	7.0, 6.7	✓	..	
.?..	.333	6.5, 6.0, 5.9, 6.6	5.1, 5.7, 5.6 6.0	✓	....	
.	.	7.0	6.7	✓	.	
.	3	6.9 7.1	6.6 6.8	✓	.	
10, .10, 10, 10, 10,	....5.	6.8, 7.0, 6.9, 6.3, 6.6, 6.9	6.3, 6.1, 5.9, 6.5, 6.8, 6.8	✓	.... .714	
.	3	7.0 7.3	6.4 6.7	✓	.	

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5h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Mag.	Spectrum	No. Plate	No. Lines	K
5 30.3+71 35m									
25	.0	+71 33	5 30.3	+71 35	3|4 8.0	II	1035,	2,	10,
	.4	+80 32	5 33.7	+80 34	1 8.1	I	1057, 1035, 1071, I?	6, 4, 2,	5
26	.8	+81 43	5 36.0	+81 45	1 9.2	I	1035,	3,	
5 30.7+56 18									
5 31.3+61 54	.9	+56 16	5 30.7	+56 18	1044 6.9	II a	1069,	3,	10,
27	.1	+61 52	5 31.2	+61 53	806 6.8	I	165, 1069, 1035,	2, 5, 7,	10, 10
5 33.3+74 34	.4	+74 32	5 33.3	+74 34	257 7.2	II?	1069,	3,	10,
5 32.5+65 40									
28	.0	+65 38	5 32.4	+65 38	485 6.0	III	341, 1069,	1, 3,	10,
5 32.6+60 34	.5	+60 32	5 32.6	+60 34	894 7.0	I	1069, 1035, II a	5, 2,	8,
5 34.3+71 53	.9	+71 51	5 34.3	+71 53	319 8.0	III?	1035,	2,	10,
5 33.7+66 35									
29	.1	+66 33	5 33.7	+66 35	406 7.8	III	1069,	2,	
5 34.4+67 55	.6	+81 19	5 38.4	+81 20	194 8.0	III	1035,	3,	10,
5 34.3+67 15	.6	+67 53	5 34.4	+67 55	396 8.5	II?	1057,	2,	10,
	.6	+67 13	5 34.3	+67 15	397 8.5	II	1069,	2,	10,

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K Line	F Line	Brightness	Corr. Brightness	Mean Residuals	No Remarks
10,	.	7.0	6.7	✓	.
5. 10,	8. .	6.7, 6.6, 7.0	7.5, 7.5, 7.9	✓	. . .
.	.	6.8	7.4	✓	.
10,	8	6.9	6.3	✓	6.85,
10, 10, 10,	. . 8	7.4, 6.9, 6.7	5.9, 6.5, 6.0	✓	. . .
10,	8	6.9 7.2	7.1 7.4	✓	.
.10,	. 8	7.0 6.5 7.4 6.8	6.5 6.3 6.9 6.6	✓	. .
8, 10,	. .	6.9, 6.8,	6.5, 6.1		7.08,
10, .	. 8	7.6 7.1 6.9 7.2	6.8 6.9 6.7 7.0	✓ ✓	. .
10,	8	6.8 7.0	7.4 7.6	✓	.
10,	.	7.1	7.0	✓	.
10,	.	7.1	6.9	✓	.

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5-h

	1855 R.A. Elec	1855 R.A. Elec	Prop Dec	No. Mag	Mag	Spectrum	No. Plate	No. Lines	
m									
30									
5 36.6+75 42	2+82 42	5 44.3	+82 42	152	7.6	II^a	898, 1057, 1035, 1119, 1229,	2, 3, 3, 2, 2,	10,
5 35.0+61 25	4+75 40	5 36.6	+75 42	236	7.5	II	1069, 1071,	2, 2,	10,
5 36.0+70 47	9+61 23	5 34.9	+61 26	816	6.5	III	1035,	3,	10,
5 34.6+56 33	8+70 45	5 36.0	+70 47	368	8.0	I	1035,	3,	
	8+56 31	5 34.6	+56 33	1050	6.5	III	1069, 1035,	3, 1,	10,
31									
5 35.4+52 25									
5 36.4+63 15	8+52 23	5 35.4	+52 25	989	7.0	I^d?	341,	4,	2
32	1+63 13	5 36.4	+63 15	602	7.3	III	1069,	1,	
5 35.7+54 48	0+54 46	5 35.7	+54 48	932	7.0	I	1069,	6,	
33									
5 37.9+63 34									
	6+63 32	5 37.9	+63 34	604	7.4	III?	1069,	2,	
5 40.4+76 51	9+76 49	5 40.5	+76 51	211	8.1	II	1057, 1069, II? 1071,	2, 1, 2,	10,
34									
5 38.1+56 4									
5 38.4+58 46	3+56 2	5 38.1	+56 5	1058	6.1	I	341, 1069, 1035 I^d?	5, 8, 5,	10, 2,
5 38.4+56 53	5+58 44	5 38.4	+58 46	856	7.3	I	1057,	4,	10,
	6+56 51	5 38.4	+56 53	1059	6.6	I	341, 1069, 1035,	4, 7, 4,	5,

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K Line	I Line	Brightness	Corr. Brightness	Mean	Residuals	No Remarks
10, 10, 10, 10, 10,	. 8 8 . .	6.6, 6.5, 6.7, 6.9, 6.8	7.6, 7.5, 7.4, 7.5, 7.5		✓	634 . . . .
10, 10,	. .	6.8 6.9 7.0	7.1 7.3 7.4		✓	. .
10,	8	6.9 7.0	6.2 6.3		✓	.
.	.	6.9	6.6		✓	.
10, .	8 8	6.6 6.9 6.9 7.1	6.0 6.0 6.3 6.2		✓	. .
2	.	6.8	5.8		✓	.
.	8	6.9 7.1	6.6 6.8		✓	.
.	8	6.6	6.0		✓	.
.	8	6.9 7.1	6.6 6.8		✓	.
10, . 10,	. 8 .	6.9, 6.9, 7.1,	7.3 7.3, 7.6		✓	. . .
10, 2, 5,	. 8 .	6.5, 6.3, 6.6	5.6, 5.7, 5.7		✓	. . .
10,	.	7.0	6.5		✓	.
. 5, .	. 8 .	7.0, 6.6, 6.8	6.2, 6.1, 6.0		✓	. . .

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5h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m									
35									
	5 40.7	+ 71 17							
	5 39.6	+ 62 46							
	5 40.7	+ 71 15	5 40.7	+ 71 17	324	6.7	I	165, 1057, 1069 (1), 1069 (2), 1035,	5, 5, 6, 5, 8,
	5 39.6	+ 62 44	5 39.6	+ 62 46	784	6.5	I	165, 185, 1069, 1035,	6, 6, 8, 7,
	5 39.4	+ 54 26							
	5 39.7	+ 54 24	5 39.4	+ 54 26	942	6.5	III	1069,	3,
36									
	5 41.0	+ 65 44							
	5 41.5	+ 65 42	5 41.0	+ 65 44	497	7.0	II	1069,	3,
37									
	5 42.2	+ 68 26							
	5 42.4	+ 68 25	5 42.2	+ 68 26	412	6.2	III	1069, 1035,	3, 3,
	5 42.3	+ 65 7							
	5 42.8	+ 65 6	5 42.3	+ 65 7	499	7.6	I	341,	2,
38									
	5 42.0	+ 56 53							
	5 42.2	+ 56 52	5 42.0	+ 56 53	1065	6.6	I	1069, 1035, 341	6, 5, 4
39									
	5 43.5	+ 58 55							
	5 43.6	+ 58 54	5 43.5	+ 58 55	863	6.5	I	165, 185, 1069, 1035, 341 d	5, 4, 8, 8, 5

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5-h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	Ins	Remarks.
5, 2,		7.4, 6.5, 6.7, 6.5	6.3, 6.5, 6.7, 6.2				
10, 2,		6.5, 6.5, 6.3, 6.3	5.0, 4.9, 5.9, 5.6				
10,		7.0 7.3	6.4 6.7				
10		6.6	6.4				
10, 10,		6.6 6.5 6.8 6.6	6.5 6.1 6.7 6.2				
10,		7.2	6.6				
10		6.5, 6.6 6.8	6.0, 5.8 5.8				
10		6.9, 6.8, 6.3, 6.3, 6.5	5.3, 5.1, 5.8, 5.5 5.5				

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5^h

m	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dur.	mag. Dur.	Spectrum	No. Plate	No. Lines
40									
41									
5 46.0 +59 51									
42	.0	+59 50	5 46.0	+59 52	920	5.7	I	165, 185, 1069, 1035, 341 [Ia]	6, 6, 8, 8, 5
5 47.0 +69 35	.0	+69 34	5 47.0	+69 35	350	7.3	II	1057, 1069, 1035, [IIa]	2, 3, 5,
5 46.5 +55 41	.7	+55 40	5 46.5	+55 41	1027	5.0	I [d?]	341, 1069,	6, 8,
5 47.5 +66 5	.9	+66 4	5 47.5	+66 5	413	6.7	III	1069,	3,
43									
44									
5 48.3 +51 46	.7	~~+51~~ 45	5 48.3	+51 46	1122	7.0	I	1069,	4,

1887phae.proj..847F

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K Line.	T Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
12, ., ., 10	., ., ., ., .	6.1, 5.9, 5.7, 5.5, 6.0	4.5, 4.2, 5.2, 4.7, 5.0				
10, 10, .	., ., .	6.8, 6.9, 6.6	6.7, 6.8, 6.2				693, .
., .	., .	6.2, 5.7	5.3, 5.1				. .
10,	.	6.8, 7.1	6.6, 6.9				.
.	.	7.0	6.3				.

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5h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	Mag.	Spectrum	No. Plate	No. Lines
m 45									
5 51.4+75 35									
.2+7534	5	51.8	+75 35	247	6.2	I	1069, 1035, 1071,		4, 3, 4, 2,
5 49.3+55 39									
.5+5538	5	49.3	+55 39	1032	7.1	I?	1069,		4
5 49.8+60 22									
.7+6021	5	49.8	+60 22	915	7.1	IIa	1035,		3,
5 50.5+67 1									
.8+6660	5	50.4	+67 0	419	7.0	Id	341, 1069, 1035,		4, 7, 4,
46									
5 52.4+74 1									
.6+7360	5	52.4	+74 1	311	7.3	II?	1069, 1071, IIa?		2, 2,
5 51.3+65 31									
.8+6530	5	51.3	+65 31	507	7.0	IIa	165, 1069, I		2, 7,
47									
5 51.3+54 16									
.6+5415	5	51.3	+54 17	970	4.0	III	1069,		5,
5 52.2+65 3									
.7+652	5	52.2	+65 3	509	7.3	II	1069,		3,
5 51.5+55 19									
.7+5518	5	51.5	+55 19	1036	6.5	Ia?	1069,		5,
48									
5 54.5+72 38									
.49 .0+72 37	5	54.5	+72 38	299	8.0	I?	1069, 1035,		4, 3,

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1887phae.proj..847F

K Line	J Line	Brightness	Corr. Brightness	Mean	Residuals	No. Remarks
10,	8	6.6 6.9 6.7 6.5 7.1	6.9 7.2 7.1 6.8 7.5			
?	5	7.0	6.4			
10,	5	6.9	6.2			7.07
10, 2,	3	6.9, 6.5, 6.7	6.4, 6.3, 6.2			
10, 10,	2 ?	7.0, 6.9,	7.2, 7.2			7.18,
10, 2,	3	6.9, 6.6	5.6, 6.4			8.0
20,	5	5.6 5.8 7.0	5.0 5.2 7.2			
10,	3	7.0	6.7			
?	5	6.7	6.1			
10,	2	7.1, 7.0	7.2, 6.8			

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5-h

m	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
5-0									
5-1									
5-2	5 56.3	+59 24							
		.3	+59 23	5 55	6.3	+59 24	37	6.7	III 1035,
	5 57.1	+63 27							
		.8	+63 27	5 57	.1	+63 27	630	6.5	III 1035,
	6 0.4	+79 21							
5-3		.0	+79 21	6 0	.4	+79 21	196	7.8	I? 1057, 1069, 1035, 1071, 1119,
	6 2.1	+80 24							
				6 2	.3	+80 24			
5-4		.0	+80 24	6 ~~32.2~~		~~+80 24~~	202	7.8	II 1057, 1069, I? 1035, 1071, a 1119, II? 1229, III?
	6 0.5	+76 31							
		.1	+76 31	6 0	.4	+76 31	226	7.5	III 1069,
	5 59.3	+70 15							
		.2	+70 15	5 59	.3	+70 15	390	8.3	II? 1229,

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1887phae.proj..847F

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10,	S	6.8 7.1	6.0 6.3				
	S	7.0 7.2	6.4 6.6				
10, 10, 10,	S S S S	6.7, 6.8, 6.9, 6.9, 7.0	7.3, 7.4, 7.7, 7.6, 7.2				
10, 10, 10, 10, 10, 10,	S S S	6.8, 6.7, 6.6, 6.9, 7.1, 7.0, 6.9	7.5, 7.4, 7.0, 7.7, 7.4, 7.4, 7.3			738	
	S	6.9 7.0	7.3 7.4				
10,	S	7.1	6.8				

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5h

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m	°							
5 5								
5 6								
5 7								
6	1.2+58 55							
		2+5855	6	1.2	+58 57	897	6.0	III 1035,
5 8								
6	2.8+65 43							
6	4.9+76 52							
		3+65 43	6	2.8	+65 44	517	5.7	III 1069, 1071,
		4+76 52	6	5.0	+76 52	234	7.5	III 1069,
5 9								

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1907phae.proj..847F

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10_1	5	6.4 6.6	5.6 5.8				
$10_1 10_1$	5 5	6.5 6.4 6.8 6.6	6.3 6.3 6.6 6.5				
10_1		6.9 7.1	7.3 7.5				

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1887phae.proj..847F

6h

m o	1855 RA.	1855 Dec.	R. A.	1900 Dec.	No. Obs.	mag.	Spectrum.	No Plate.	No. Lines
	6 5.37	+66 11							
	6 6.9	+69 30							
	.9	+66 11	6 55	+66 11	435	8.0	I	1069, 1035, 1071,	3, 2, 2,
1	.0	+69 30	6 60	+69 30	368	7.0	I	1035,	5,
2									
	6 7.5	+68 21							
	6 6.7	+60 2							
	6 7.8	+69 22							
	.7	+68 21	6 7.5	+68 21	435	8.1	I	1035,	3,
	.7	+60 2	6 6.7	+60 2	938	5.8	III	185, 1035,	1, 3,
	.8	+69 22	6 7.8	+69 21	341	4.7	I d?	341, 165, I 185, 166, 1069, 1035, 1071,	5, 8, 7, 5, 8, 10, 9,
	6 ~~7.2~~	~~+59 15~~							3
	6 8.6	+72 12							
	6 8.5	+69 36							
	.2	+59 15	6 7.2	+59 15	953	6.5	III	1035,	3,
	.2	+72 12	6 86	+72 12	311	0.3	II a	1071,	2,
	.5	+69 36	6 8.5	+69 36	373	6.8	I	165, 185, 1035, 1071,	4, 4, 7, 5,
	6 8.8	+68 43							
4	.9	+68 43	6 8.8	+68 43	436	7.2	II?	1035, III 1071,	3, 2,
	6 8.8	+61 32							
	6 8.7	+58 52							
	.6	+61 32	6 8.7	+61 33	869	5.5	III	1035,	3,
	.8	+58 52	6 8.7	+58 52	912	7.8	I	1035,	4,

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6 h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks
10, 10,		7.0, 6.8, 6.8		6.8, 6.4, 6.7			
5,		6.9		6.5			
		7.0		6.6			
10,		6.7 6.4 7.0 6.7		5.1 5.7 5.4 6.0			
10, 1,		5.9, 5.6, 5.4, 5.9, 4.8, 4.7, 4.7		5.5, 4.4, 4.1, 4.9, 4.7, 4.3 4.7			
		6.5 6.8		5.7 6.0			
10,		7.0		7.2			7.6
10, 10, 10, 10,		7.3, 6.9, 6.7, 6.7		6.1, 5.6, 6.3 6.7			
10, 10,		6.7 7.0 7.2		6.3 7.0 7.2			
10		6.6 7.0		5.9 6.3			
		7.0		6.2			

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1887phae.proj..847f

6 h

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	mag	Spectrum	No. Plate	No. Lines
m s								
		6 13.3	+77 58					
6 13.4	+77 58	6 13.3	+77 58	237	7.7	III	1229,	2,
		6 10.8	+59 3					
6 10.8	+59 3	6 10.8	+59 3	959	5.0	I	165, 185, 166, 1035, 1071,	6, 7, 6, 10, 8,
		6 15.8	+79 33					
6 15.2	+79 34	6 15.8	+79 33	201	7.5	II	1057, 1035,	2, 2,
		6 12.9	+61 48					
6 12.7	+61 49	6 12.9	+61 48	878	6.9	III	1035,	5
		6 16.7	+80 38					
6 16.6	+80 39	6 16.9	+80 38	210	7.2	III	1057, 1038, 1229,	2, 3, 3,
		6 13.0	+60 49					
6 12.9	+60 50	6 13.0	+60 49	951	7.0	I	1035,	3,
		6 13.2	+59 24					
6 13.2	+59 25	6 13.2	+59 24	964	7.0	I	165, 185, 1035, 1071,	5, 4, 6, 5,
		6 16.5	+79 3					
6 12.4	+79 4	6 16.5	+79 3	202	7.0	III	1057, 1069, 1071, 1119, 1229, 1035	3, 3, 1, 2, 3

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1887phae.proj..047F

H Line	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
10,	.	7.0 7.3	7.2 7.5			
1, 2, ..	..	5.6, 5.5, 5.3 5.1, 4.7	4.0, 3.8, 4.5, 4.3, 4.3			.....
10, 10,	..	6.8, 7.0	7.5, 7.4			..
		7.0 7.2	6.3 6.5			
10, 10, 10,	.	6.9 6.9 6.5 7.2 7.2 7.0	7.7 7.4 7.0 8.0 7.7 7.5			...
		7.0	6.3			
	..	7.1 6.4, 6.4, 6.5	5.5, 4.7 5.6 6.1			....
10, 10 10, 10	..	6.7 6.8 6.8 7.0 6.9 6.5 6.9 7.0 7.1 7.3 7.3 6.8	7.3 7.4 7.5 7.2 7.2 5.7 7.5 7.6 7.8 7.5 7.6 6.6			.....

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6 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
6 13.7+53 29	.0	+53 30	6 13.7	+53 30	1008	5.8	IIa	1071,	3,
6 14.1+56 2	.3	+56 3	6 14.1	+56 2	1115	7.8	II?	1071,	2,
6 17.4+78 16	.5	+78 17	6 17.4	+78 16	226	7.5	I	185, 341, 166, 353, 1057, 1069, 1035, 1071, 1229,	5, 4, 4, 4, 8, 7, 7, 6, 4,
No. 95.									
6 14.6+57 1	.8	+57 2	6 14.6	+57 1	963	6.9	III?	1071,	2,
6 17.8+76 11	.5	+76 12	6 17.8	+76 11	243	8.5	I	1071,	3,
6 15.6+59 46	.6	+59 47	6 15.6	+59 46	968	7.5	II	1035, 1071,	2, 2,
6 16.9+70 37	.7	+70 38	6 16.9	+70 37	401	6.0	I	165, 185, 166, 1069, 1069, 1035, 1071,	6, 7, 5, 7, 6, 9, 8,
6 17.8+72 5	.4	+72 6	6 17.8	+72 5	317	8.2	I	1035,	4,
6 16.9+58 29	.0	+58 30	6 16.9	+58 29	922	7.6	II	1035,	1,
6 17.2+58 39	.3	+58 40	6 17.2	+58 39	923	8.0	IIa	1071,	2,
6 17.7+58 47	.8	+58 48	6 17.7	+58 47	924	8.0	IIa	1035,	2,
6 18.0+56 19	.8	+82 13	6 23.4	+82 12	177	6.7	I	275, 165, 185, 353, 1057, 1035, 1119, 1229,	4, 4, 8, 6, 8, 9, 7, 6,
6 21.1+77 59	.2	+56 20	6 18.0	+56 20	1125	6.2	Id	166, 1035, 1071,	3, 7, 5,
6 18.1+58 29	.2	+77 60	6 21.0	+77 59	247	7.5	IIa	1057, 1069, 1035, 1071, 1229,	6, 6, 7, 4, 3,
	.2	+58 30	6 18.1	+58 28	927	6.0	III	1035, 1071,	3 3

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10,	8	6.3	5.8			717,	
10,	.	7.0	6.5			.	
?.?..8,....	.--.SSS--.	7.1, 6.4, 7.0, 6.7, 6.2, 6.3, 6.2, 6.2, 6.6	6.4, 6.6, 6.6, 6.4, 6.7, 6.8, 6.5, 6.8, 6.7				.....
	.						
10?	. .	7.0 7.1	6.8 6.7			.	
		?					
.	.	7.0	7.5			.	
10, 10,	..	7.0, 7.1	6.2, 6.7			..	
4, 2, 10, 5, 10, 2, 2,	...SSSSS	6.6, 6.2, 6.9, 6.3, 6.0, 6.0	5.5, 5.0, 6.0, 6.3, 5.7, 6.1				.....
.	.	7.1	6.9			.	
.	.	7.1	6.3			.	
10,	.	7.0	6.6			731,	
10,	.	6.8	6.0			703,	
.4, 5, .2, 2, 5, 2	....SSSS	6.5, 6.7, 6.6, 5.7, 5.5, 5.9, 6.4, 5.8	6.8, 6.6, 6.4, 5.9, 6.5, 6.6, 7.0, 6.5				.....
..	.SS.	7.4, 6.4, 5.8	5.9, 5.5, 5.3				...
..2, ..	SSS..	6.2, 6.5, 6.5, 6.6, 6.7	6.7, 7.0, 6.7, 7.2, 6.9			666,	....
18, 10,	SS	6.5 6.8 6.9 7.0	5.7 6.7 6.1 6.6				..

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6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m 15									
No. 93	6 23.1	+79 40							
	.4	+79 41	6	23.1	+79 40	208	6.3	I	275, 341d, 165, 185, 166, 353, 446, 1057, 1089d,
	6 23.1	+79 13							5, 5, 4, 6, 5, 5, 5, 6, 6,
	.8	+79 14	6	23.1	+79 13	209	8.0	II	1057, 1069, I 1035, II? 1112,
16									2, 4, 4, 2,
17									
	6 21.4	+60 13							
	.4	+60 14	6	24	+60 13	971	7.2	I	185, 1035, 1071, d?
									5, 7, 5,
	6 24.9	+78 6							
18	.0	+78 7	6	24.9	+78 4	227	6.0	I	353, III 1057, III 1069, III 1035, III b 1071, III b 1119, III b 1229,
	6 22.1	+58 15							3, 2, 3, 3, 3, 1, 2,
	.2	+58 16	6	22.1	+58 15	932	6.3	III	1035, 1071, b
									3, 3,
	6 24.9	+75 48							
	.7	+75 49	6	24.9	+75 48	258	7.0	II?	1069,
									2,
19									
	6 25.3	+73 46							
	.6	+73 47	6	25.3	+73 46	340	6.0	IIa	165, 185, 1069, 1035, I? 1071, II? 1097, I 1119, II 1229,
									2, 2, 7, 3, 8, 2, 6, 2,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
9, 10, 10, 10,	ssss	7.0, 6.3, 6.9, 6.6, 6.8, 5.8, 6.0, 6.0, 6.6	7.0, 6.7, 6.5, 6.4, 6.6, 6.5, 6.7, 6.9, 6.8, 6.7			
10, 10, 10, 10,	ss	6.8, 6.9, 7.0, 7.0	7.4, 7.5, 7.3, 7.6			
	s s	6.8, 6.5, 6.6	5.2, 5.8, 6.3			
10, 10, 10, 10, 10, 10	ssss	6.5 6.4 6.3 6.3 6.8 6.5 6.9 6.9 6.8 6.7 6.7 7.2 7.0	7.0 6.9 6.5 6.9 6.9 6.7 6.6 7.4 7.3 6.9 7.3 7.3 7.2			7.0, 7.2, 7.50
10, 10,	ss	6.5 6.8 6.6 6.9	6.7 6.4 6.8 6.5			7.28
10,	s	7.0	7.3			
10, 10, 10, 10, 10, 10, 10, 10, 10,	ssssss	6.9, 6.6, 6.5, 6.5, 6.2, 6.8, 6.6, 6.6, 6.1	5.6, 6.7, 6.4, 6.5, ?, 7.4, 6.4			7.8, 8.6, 6.8, 7.2, 7.3, ...

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6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines	
m 20										
	6 25.5	+70 35								
	.4	+70 36	6	25.5 +70 35	406	7.2	I?	185, 1035,	4, 4,	10,
	6 29.4	+80 21								
	.9	+84 48	6	34.1 +84 47	135	8.2	III	1057, 1229,	2, 1,	10,
	.9	+80 22	6	29.0 +80 21	217	7.3	III	1057, 1035, 1071, 1229,	2, 3, 1, 2,	10,
21										
	6 29.1	+79 41								
No. 92	.4	+79 42	6	29.2 +79 41	212	5.5	IIa	275, 341, 165, 185, 166, 353, 446, 1057,	2, 2, 2, 2, 6, 2, 2, 3,	10,
22										
	6 26.0	+52 33								
	.4	+52 34	6	26.0 +52 33	1097	7.0	I	1071,	3,	
	6 29.1	+75 49								
	.9	+75 51	6	29.1 +75 49	263	8.5	I?	1069,	4,	
	6 27.6	+58 11								
23	.7	+58 13	6	27.6 +58 11	943	6.8	II	1071,	2,	10,
	6 30.0	+75 9								
	.9	+75 11	6	30.0 +75 9	264	8.0	I?	1071,	2,	10,
	6 28.8	+71 50								
	.4	+71 52	6	28.8 +71 50	359	6.0	III	165, 185, 1035, 1071, 1119, 1229,	1, 2, 3, 3, 3, 3,	10
	6 27.5	+59 44								
	.5	+59 46	6	27.5 +59 44	996	7.0	I	185, 1035, 1071,	4, 6, 5,	
	6 30.1	+76 41								
	.6	+76 43	6	30.1 +76 41	249	7.5	III	1069, 1071,	3, 2,	10,
	6 27.6	+56 27								
	.8	+56 29	6	27.6 +56 27	1134	6.8	IIa	1035, 1071,	2, 2,	10,
	6 28.6	+64 49								
24	.1	+64 51	6	28.5 +64 49	593	7.9	II?	1071,	2,	10,
	6 28.6	+61 34								
	.5	+61 36	6	28.6 +61 34	893	6.1	I?	185, 1035, 1071,	2, 3, 2,	? 10,
	6 29.4	+66 15								
	.8	+66 17	6	29.4 +66 15	455	7.5	II	1071,	2,	10,

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6h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10, 10,	..	7.4, 6.9	6.2, 6.6		✓	..	
10, .	..	6.5 6.8 7.0	7.9 8.2 8.1		✓	..	
10, 10, 10,	..	6.9 6.7 6.9 7.0 7.1 7.0 7.1 7.3	7.6 7.1 7.7 7.4 7.8 7.4 7.9 7.7		✓	..	
10, 10, 10, 10, 10, 10, 10,	..	6.6, 5.6, 6.5, 6.2, 5.8, 5.2, 5.6, 5.6	6.6, 5.7, 6.4, 5.7, 5.6, 5.1, 7.5, 6.3		✓	66, 71, 74, 83, 89, 1036	
.	.	7.0	6.4		✓	.	
.	.	7.0	7.3		✓	.	
10,	.	6.9	6.5		✓	.	
10,	.	7.0	7.4		✓	.	
10, 10, 10, 10, 10,	..	7.1 6.9 6.5 6.7 6.5 6.6 7.4 7.1 6.7 6.9 6.9 7.0	6.1 5.8 6.3 6.9 6.2 6.4 6.4 6.0 6.5 7.1 6.6 6.8		✓	...715...	
..5,	..	6.9, 6.7, 6.8	5.2, 5.9, 7.4		✓	...	
10, 10,	..	6.9 6.9 7.0 7.0	7.3 7.4 7.4 7.5		✓	..	
10, 10,	..	6.8 6.6	5.9 6.1		✓	698, 722,	
10,	.	7.2	7.0		✓	.	
? 10, 10,	..	6.9 6.6 7 6.8	5.3 5.9 6.0 6.5		✓	...	
10,	.	7.2	7.1		✓	.	

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6 h

	1855 RA.	1855 Dec.	1900 RA.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines	
6 29.8+67 24										
25.	.1	+67 26	6 29.8	+67 24	441	7.9	I 1035,		3,	
6 29.1+56 57										
	.3	+56 59	6 29.1	+56 56	1136	6.2	I 185, 166, 1035, 1071,		5, 5, 6, 7,	
6 29.5+61 34										
	.4	+61 36	6 29.4	+61 34	896	7.3	I 185, 1035, II[a] 1071,		4, 5, 4,	10,
6 29.4+55 26										
	.6	+55 28	6 29.4	+55 26	1097	7.0	I 1071,		4,	10,
6 29.8+57 16										
26.	.0	+57 18	6 29.8	+57 16	988	6.7	II 1071,		2,	10,
27.										
6 31.4+62 2										
	.2	+62 4	6 31.3	+62 1	867	7.2	I 185, 1035, 1071,		4, 4, 5,	
6 32.4+66 17										
	.8	+66 19	6 32.4	+66 17	460	7.0	II? 1071,		2,	10,
28.										
6 32.2+56 58										
	.4	+56 60	6 32.2	+56 58	1139	8.0	I 1071,		4,	
6 32.6+56 10										
	.8	+56 12	6 32.6	+56 10	1140	7.5	I 1035,		5,	
29.										

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6h

K Line.	L Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks
.	.	7.0	6.6		✓	.	
...	...	7.0, 6.8, 6.5, 5.8	5.3, 5.4, 5.7, 5.4		✓	....	
10, 10, .	...	7.0, 6.7, 7.0	5.4, 6.0, 6.7		✓	.10.	
10,	.	7.0	6.5		✓	.	
10,	.	7.0	6.8		✓	.	
.. ...	...	6.8, 6.6, 6.5	5.2, 5.9, 6.2		✓	...	
10,	.	6.9	6.8		✓	.	
.	.	6.9	6.5		✓	.	
. .	.	6.8	5.9		✓	.	

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6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m									
30									
6 37.1+78 12									
	2	+78 14	6 37.1	+78 12	233	7.8	II 1035,	2,	
6 34.4+56 47									
	6	+56 49	6 34.4	+56 47	1143	8.0	I 1071,	5,	
6 37.4+77 20									
	8	+77 22	6 37.4	+77 20	259	7.8	I 1009, 1035, 1071, II^a 1229, I? 1072, 1122, II 1064,	5, 5, 6, 2, 3, 3, 2,	
31									
6 36.4+69 44									
	4	+69 46	6 36.4	+69 44	389	7.7	I? 1035,	3,	
6 38.7+78 8									
	8	+78 10	6 38.7	+78 8	234	7.3	II^a 1071, II 1229, III 1112, III? 1064,	2, 2, 2, 2,	
32									
6 36.2+53 24									
	5	+53 26	6 36.1	+53 24	1050	6.5	III 1071,	2,	
33									
6 37.4+59 32									
	4	+59 34	6 37.4	+59 33	1015	5.0	I 185, 166, 1035, 1071,	5, 6, 8, 11,	
	6	+84 47	6		168	7.8	1065,	5,	
	3	+80 34	6		2420	7.3	I 1112,	5,	
6 37.2+57 17									
	4	+57 19	6 38.2	+57 17	1004	6.1	III 1071,	2,	

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K Line	F Line	Brightness	Corr. Brightness	Mean Residuals	No.	Remarks
10,	.	6.8	7.0			
.	.	7.0	6.6			
...10, ..10,	5.5.....	6.8, 6.7, 6.6, 7.0, 6.9, 6.8, 6.8	7.2, 6.9, 7.2, 7.2, 7.3, 7.3, 7.1			...749...
.	.	7.0	5.7			
10, 10, 10, 10,	....	7.0 7.1, 7.3 7.0 7.1	7.6, 7.3 7.5 7.8 7.3 7.4			725, ...
10,	.	7.0 7.2	6.5 6.7			
7..5, 2,	.. 5 5	5.8, 5.8, 5.8 5.2	4.1, 4.4, 5.0, 4.8			....
		6.0	7.5			
		6.4	7.3			
10,	.	6.3 6.5	5.9 6.1			

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6 h

	1855 R.A. Dec.	1855 R.A. Dec.	1900 R.A. Dec.	1900 R.A. Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate.	No. Lines.	
m 35										
	6 40.5+67 42									
	8+67 44	6 40.5+67 41			454	5.2	I	165, 185, 166, 353, 1035, 1071, 1097, 1119, 1229,	6, 6, 7, 6, 7, 11, 6, 7, 7,	10,
	6 39.9+55 49									
36	.1+55 51	6 39.9+55 49			1122	6.0	II[a]	166, 1071,	2, 4,	10,
37										
	6 42.9+69 1									
38	.0+69 3	6 42.9+69 0			394	5.2	I	165, 166, 353, 1071, 1097, 1119, 1229, 1355,	6, 8, 6, 12, 8, 8, 8, 9,	9,
	6 45.3+77 6									
No. 97	8+77 9	6 45.5+77 6			266	4.7	III[b]	185, 166, 353, 446, 1069, 1035, 1071, 1119, 1229,	2, 6, 2, 2, 3, 3, 3, 2, 3,	10,
	6 45.1+75 19									
39	.0+75 22	6 45.1+75 19			273	7.5	II[a]	1071,	2,	10,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals	No	Remarks
10, . . 10, . . 2, 2, .	. . . . S . S S S	6.4, 5.9, 5.9, 5.7, 5.2, 4.4, 5.7, 5.8, 5.2	5.2, 4.6, 4.9, 4.8, 4.8, 4.4, ?, 5.3, 4.8		✓	✱ 724	
10, 10,	. .	7.3, 6.0	5.8, 5.5,			8 / 721	
?	. . . S S S S S	6.0, 5.8, 5.4, 4.8, 5.8, 5.7, 5.1, 4.9	4.8, 4.8, 4.5, 4.8, ?, 5.2, 4.7, 4.4		✓	. . . .	
10, ?, 10, 10, 20, 10, 10, 10,	. . . . S S S . S	6.8 6.5 6.0 5.7 5.8 5.8 5.5 6.3 5.7 / 7.0 6.8 6.5 6.0 6.2 6.3 6.0 6.8 6.2	6.0 6.0 5.6 6.3 6.2 5.9 6.0 6.3 5.8 / 6.2 6.3 5.1 6.6 6.6 6.4 6.5 6.8 6.3		✓	723, 741, 748 / 81, 88, . 100, 688, 699	
10,	.	7.0	7.4		✓	720	

1887phae.proj..847f

6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lin.	Mag. Lin.	Spectrum	No. Plate	No. Lines
40									
	6 44.3	+59 34							
	.3	+59 37	6 44.3	+59 34	1028	6.0	I	166, 1071, 1229,	5, 4, 4,
41									
	6 46.3	+70 13							
	.2	+70 16	6 46.3	+70 13	427	8.0	I	1035,	3,
	~~.6~~	~~+84 38~~	~~6~~		~~169~~	~~6.0~~	~~I~~	~~185,~~	~~6,~~
42									
43									
44	6 50.8	+75 33							
	6 50.8	+75 23							
	.7	+75 36	6 50.8	+75 33	280	7.0	III	1112, 1064,	2, 2,
	.7	+75 26	6 50.8	+75 23	281	6.8	II a	1071, 1119, 1229, 1072, 1112, 1064,	3, 2, 2, 2, 3, 3,
	6 48.6	+58 34							
	.8	+80 45	6 53.1	+80 42	227	8.6	I	1035, 1071, 1229, 1112, 1064,	5, 4, 1, 2, 2,
	6 50.0	+70 57							
	.7	+58 37	6 48.6	+58 34	982	5.0	III	166, 353, 1071, 1097, 1119, 1229,	2, 2, 3, 2, 3, 3,
	.9	+70 60	6 50.0	+70 57	430	6.0	III	1035, 1071, 1097, 1119,	3, 2, 1, 2,

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K Line	I Line	Brightness	Corr. Brightness	Mean	Residuals	No Remarks
10, 2, 10,	? ?	6.6, 6.4, 6.4	5.2, 6.0, 5.6	✓	7.33	
		7.0	6.7			
		6.6	6.7			
10, 10,		7.0 7.3, 7.0	7.3 7.6 7.1	✓		
10, 10, 10, 10, 10, 10,	?	6.5, 7.2, 7.0, 6.8, 6.8 6.6 6.5	6.9, 7.1, 7.0, 7.0, 7.1 6.6 6.7	✓	7.19	
10, 10,		6.7 6.9 7.0 7.0 6.8 7.2 7.4	7.2, 7.8, 7.5 7.8 7.4 8.0 7.7	✓		
12, 10, 10, 20, 10, 10,	? ? ?	6.3 5.8 5.9 5.8 6.5 5.8 5.8 6.0, 6.1 6.0	4.9 5.2 5.1 4.5 5.4 ? 5.2 5.2 5.1	✓	7.27, 7.42,	
20, 10, 10	?	6.7 6.8 6.8 6.5 6.2 7.1 7.0 7.0	5.8 6.9 ? 6.1 5.9 7.2 ? 6.6	✓		

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1887phae.proj..847F

6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate	No. Lines.
45									
6 50.1+67 27	.4	+67 30	6 50.1	+67 27	466	7.0	III	1071,	2,
6 50.8+69 47	.8	+69 50	6 50.8	+69 47	398	6.8	III	1035, 1071,	3, 2,
46									
6 51.9+71 54	.6	+71 57	6 51.9	+71 54	378	7.7	III	185, 1035, 1071, 1119, 1229,	2, 2, 2, 1, 2,
47									
6 52.2+65 54	.7	+65 57	6 52.2	+65 54	553	7.5	I	1071,	4,
48									
49									
6 53.1+54 59	.4	+55 2	6 53.1	+54 59	1155	7.0	I	1071,	5,
6 54.6+70 54	.5	+70 57	6 54.6	+70 54	432	6.5	III	1071,	2,

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K Line.	J Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10,	.	6.9 7.0	6.8 6.9			.	
10, 10,	8	6.9 6.9 7.1 7.1	6.6 7.0 6.8 7.2			..	
10, 10, .. 10,	.....	7.1 7.3 6.9, 7.0 7.0, 7.0	6.6 6.2 6.7, 7.2, 6.7, 6.8			.....	
.	.	6.9	6.8			.	
.	8	6.5	6.0			.	
10,	.	6.8 7.0	6.9			.	

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1887phae.proj..847F

6 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum.	No. Plate.	No. Lines.
5-0									
	6 57.8+78 56								
No. 94	7+7859	6 57.8+78 56	240	6.7	I	185, 166, 353, 446, 1069, 1035, 1071, 1119,		5, 3, 5, 4, 5, 8, 7, 4,	
	6 54.5+53 31								
	9+5334	6 54.5+53 31	1094	7.4	II	1071,		2,	
5-1									
5-2									
5-3									
	6 57.7+52 53								
5-4	1+5257	6 57.7+52 53	1185	8.7	I	1071,		6,	

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10,	10,	6.9,	7.0,	6.5			
10,	10,	6.4,					
10,	10,	6.4,					
8,	8,	6.5,					
10,	10,	6.3,					
		6.4,					
		6.7,					
		6.3,					
		6.7,					
		6.2,					
		7.2,					
		7.1,					
		6.6,					
		7.1,					
		6.9					
12,	5.7	6.5	6.0				

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1887phae.proj..847F

6h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Im.	Mag Diff.	Spectrum	No. Plate.	No. Lines.
7 0.5+72 49									
55	1+72 53		70.6+72 49		350	7.5	III 1229, 1064, I		2, 3,
56									
7 2.4+71 59									
57	1+72 3		72.4+71 59		352	6.4	III 1071, 1119, 1229, 1064,		3, 3, 2, 2,
	4+80 52		7 5.7+80 48		230	7.4	III 1035, 1119, 1229, 1112, 1064,		3, 1, 2, 1, 3,
	.6+81 30		76.4+8124		242	6.3	I 165, 185, 353, 446, 1057, 1035, 1071, 1119, 1229, 166		5, 6, 8, 3, 7, 10, 5, 7, 7, 5
7 4.0+75 22									
~~58~~	~~.0+75 26~~		~~7 4.0+75 22~~		~~291~~	~~8.3~~	~~I 1229,~~		~~4,~~
7 3.8+73 29									
	2+73 33		7 3.8+73 29		366	7.5	III 1071, 1064,		2, 2,
7 3.3+62 26									
59	1+62 30		7 3.3+62 26		913	7.8	I 1071, 1119,		2, 2,

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1997phas.proj..847F

6h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks.
10,		7.1, 6.8	6.9, 6.7			
10,		6.9 6.9 6.9 6.8 7.1 7.4 7.2 7.0	7.1 6.6 6.7 6.7 7.3 7.1 7.0 6.9			
10, 10, 10,		6.8 7.0 6.9 6.9 6.7 6.9 7.3 7.0 7.2 7.0	7.3 7.4 7.4 7.7 7.3 7.4 7.7 7.5 8.0 7.6			
10, 2		6.2, 6.1, 5.1, 5.3, 5.5, 5.8, 5.3, 6.0, 5.8, 5.2, 6.2, 6.1, 6.3, 5.9				
		6.6	6.6			
10, 10,		7.0 7.6 7.2 7.3	7.3 7.0 7.5 7.3			
10,		7.0, 7.2	6.7, 6.4			

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1887phae.proj..847F

7h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	mag.	Spectrum	No. Plate	No. Lines
No. 120	3+82 40	7 10.0	+82 36	201	5.5	III b	165, 185, ab 166, I 353, III 458, be 1057, III 1035, be 1119, be 1229, be		1, 2, 5, 1, 3, 3, 3, 3, 3,
	7 7.7	+78 6							
	9+78 10	7 7.7	+78 6	246	7.0	II a	1035, II 1071, II 1119, II? 1112, III 1064, IV		3, 2, 2, 2, 2,
	7 5.1	+54 38							
	4+54 42	7 5.1	+54 38	1119	6.8	I	1071,		4,
	7 8.8	+75 16							
	8+75 20	7 8.8	+75 16	296	7.0	I	446, 1035, 1071, 1097, I? 1119, 1072, 1112, 1064, 1229		5, 5, 5, 4, 5, 5, 6, 6, 4
	7 10.1	+78 27							
	2+78 31	7 10.1	+78 27	250	6.5	I d? 446,	1035, III 1071, III		5, 1, 3,
	7 7.2	+59 48							
	2+59 52	7 7.2	+59 49	1085	5.0	III b	1071, 1097, III 1119, IV 1229,		2, 3, 3, 3,
	7 11.0	+78 15							
No. 115	4.2+78 19	7 11.0	+78 15	251	7.0	I	166, 353, 1035, 1071, 1119, 1229, 1072, 1112, 446		4, 5, 6, 6, 4, 4, 4, 6, 5
	7 8.3	+57 28							
	5+57 32	7 8.3	+57 28	1128	7.8	III	1112,		2,

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K Line.	F Line.	Brightness.	Corr. Brightness.	Mean	Residuals.	No. Remarks.
. 10, . 10, 10, 10, 10, 10,	. . . . . § § § § §	6.6 6.5 5.4 6.0 5.7 6.0 6.6 5.7 7.0 6.8 . 5.8 6.4 6.0 6.4 6.5 6.2	6.5 6.3 5.6 6.5 6.7 6.7 6.6 6.4 6.9 6.6 . 6.0 6.9 7.0 7.1 7.1 6.9	✓		747, 755 76, 85, . . 113, . 712
10, 10, 10, 10, 10,	§	6.9, 6.9, 7.1 6.9 7.2, 6.9,	7.1, 7.5, 7.2 7.4 7.7, 7.2	✓.		702 . . . .
.	.	6.8	6.3	✓		.
. . . 10, 2, ...	. . . .	6.3 . 6.3, 6.9, 6.7, 6.4, 6.4, 6.1 6.6	6.8 . 6.7, ? 6.6, 6.6, 6.7, 6.2 5.9	✓		. . . .
. . 10,	. § §	~~6.6~~ 6.9 7.6 7.2 7.2	~~7.4~~ 7.2 7.7 7.5 7.9	✓		. . .
10, 10, 10, 10,	. § § §	6.6 6.6 6.5 6.5 6.9 6.9 6.8 6.9	6.2 ? 5.6 5.7 6.5 - 5.9 6.1	✓		736, 740, . .
10, 10, . 2, 10, . . .	. . § . . . . § .	7.4, 6.7, 6.5, 6.5, 6.9, 6.8, 6.5, 6.4	6.6 7.0, 6.4, 6.7, 7.1, 7.0, 7.0, 6.9, 6.9 7.4	✓		. . . .
10,	.	7.[illegible]	6.5 6.8	✓		.

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lin.	Mag. Lin.	Spectrum	No. Plate	No. Lines
m									
5									
6									
7									
	7 13.7+75 48								
	.6+75 52	7	13.7	+75 48	300	7.7	I	446, 1071, 1072, 1112, 1064,	5, 6, 5, 5, 5, ...
	7 13.6+74 3								
	.9+74 7	7	13.6	+74 3	322	7.5	I	446, 1071, 1119, 1229, 1072, 1112, 1064,	5, 6, 3, 3, 4, 5, 6, ...
8	.0+81 11	7	16.2	+81 6	252	7.0	III	1035, 1071, 1119, 1229, 1112, 1064,	3, 2, 3, 3, 2, 2, 10,
	7 13.2+67 26								
	.6+67 30	7	13.2	+67 26	485	7.9	II?	1064,	2, 10,
	7 14.5+73 16								
9	.0+73 20	7	14.8	+73 16	375	7.2	I	1071, 1097, 1119, 1229, 1072, 1112, 1064,	6, 2, 4, 2, 3, 5, 3, 10,
	7 14.7+73 16				385	7.8			
	.2+73 20	7	14.2	+73 16	365	7.8			
	7 18.6+60 4								
	.6+60 9	7	13.5	+60 5	1048	6.5	I	353, 1071, 1097, 1119, 1229,	4, 5, 5, 6, 5, 10,

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γ h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No Remarks.
.....	.?...	6.5, 6.5, 6.7, 6.5, 6.5,	7.0, 7.0, 6.9, 6.8, 6.6,	✓	.....	
.....10,	....?.?	6.8 6.6, 7.0, 7.0, 6.9, 6.7, 6.8	7.2, 6.9, 6.8, 6.9, 7.0, 6.9, 6.8	✓	.....	
10, 10, 10, 10, 10, 10,	?.??..	6.4 6.4 6.5-6.5 6.5 6.6 6.9 6.8 ..	6.9 7.3 6.9 7.0 7.0 7.5 7.3 7.3 ..	6	.....	
10,	.	6.9	6.5	✓	.	
10, 10, 10, 10, . 10, 10,	?--.??	6.5, 7.1, 6.8, 6.9, 6.8, 6.6, 6.5 | 6.8 ? 6.6, 6.8, 6.9, 6.8, 6.5		✓	.....	
10, 2, 5, 10,	.?...?	6.5, 6.7, 6.7, 6.7, 6.6	5.3 6.4, ?, 5.9, 5.9		....	

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1887phae.proj..847F

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dim.	Mag. Dim.	Spectrum.	No. Plate.	No. Lines.
7 14.8+66 0 m									
10	.4	+66 5	7 14.9	+66 0	498	7.3	I 1071		3.
7 14.7+64 19									
	.4	+64 24	7 14.7	+64 19	630	7.5	I 1071,		3,
7 17.4+78 55									
	.4	+78 60	7 17.4	+78 55	254	6.8	II a 1035, 1071, 1229, II? 1112, III 1064, III		3,2,2,2,2,
7 17.1+77 9									
	.6	+77 14	7 17.1	+77 9	286	7.4	III 1071, 1112, 1064,		2,2,2,
7 16.4+74 21									
	.7	+74 26	7 16.4	+74 21	324	7.8	I 1071, 1112, 1064,		5,4,2,
7 14.7+55 28									
11	.0	+55 33	7 14.7	+55 28	1192	5.5	I 166, 1071,		4,7,
7 17.9+75 0									
12	.0	+75 5	7 17.9	+75 0	304	7.6	II 1064,		2,
7 18.9+75 31									
	.9	+75 36	7 18.9	+75 31	305	8.0	I 1071, 1112,		4,3,
7 17.5+66 32									
No. 111 13	.0	+66 37	7 17.5	+66 32	502	6.2	I 166, 353, 446, 1071, 1097, 2 1097, (1) 1114, (1) 1229, (2) 1119		4,4,6,7,5,4,5,4,4
7 18.1+66 42									
	.6	+66 47	7 18.1	+66 42	503	7.3	I 1119,		4,

14

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K Line.	H Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Remarks
.	.	6.9	6.5			.
.	.	6.9	6.7		✓	.
10, 10, 10, 10, 10,	9 - . . .	6.9, 6.9, 6.9 6.7 6.8 6.9	7.2, 7.6, 7.2 7.3 7.5 7.3		✓	7.05, 7.30, . . .
10, 10, 10,	. . .	6.9 7.0 6.9 7.1 7.3 7.0	7.4 7.4 7.1 7.6 7.7 7.2		✓	. . .
10, 10, 10,	. . .	6.8, 6.9, 6.8	7.1, 7.1, 6.8		✓	. . .
. .	. .	6.8, 6.6	5.3, 6.1		✓	. .
10,	.	7.0	7.1		✓	.
. .	. .	6.9, 7.0,	7.3, 7.3,		✓	. .
4 . . 9 . . . 10, ...	. . . 9 7	7.5, 6.7, 6.0, 6.2, 6.9 6.7 6.5 6.4, 5.7 6.0, 6.1, ? - 6.1, 6.0 .			✓	. . . . .
.	8	.	.		✓	.

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1887phae.proj..847f

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	Mag Dm.	Spectrum	No. Plate	No. Lines
7 19.4+643m									
15	.1+648	7	19.4	+643	633	7.7	I 446, 1064,	4,6,	10,
7 20.5+6841									
	8+6846	7	20.5	+68 40	480	5.5	III b 1071, III 1097, III 1119, III 1229, III 1072, III 1113, III 1064,	3,3,2,3,2,2,3,	10,
16									
17									
7 22.9+71 48									
	.7+71 53	7	22.9	+71 48	405	7.4	I 1112, II 1064,	3,2,	
18									
7 22.6+6243									
	.4+6248	7	22.6	+6243	933	7.0	I 1071, 1097, 1119, 1229, 1064,	4,3,4,5,4,	10,
	8+820	7	27.7	+81 55	213	7.5	I 185, 353, 458, 1035, 1119, 1229, 1065,	3,4,3,5,3,4,2,	
7 23.1+6158									
19	.0+623	7	23.1	+61 58	934	7.0	III 1229,	2,	
7 25.9+761									
	.8+766	7	25.9	+761	284	7.3	III 1071, 1112, II a 1064,	2,2,2,	10,

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No Rows.
10, 10,	· ?	6.8, 6.6,	6.7, 6.1		✓	· ·
10, 10, 10, 10, 10, 10, 20,	? ? · ? · · ?	6.3 6.8 6.7 6.6 6.6 6.5 6.4 6.3 6.6 6.9 7.0 7.0 6.9 6.8 6.6	6.3 ? 6.2 6.2 6.3 6.3 6.0 6.6 · 6.5 6.6 6.7 6.7 6.3		✓	729 · · · · · ·
· 10,	· ·	7.0, 7.0,	7.1, 6.9		✓	—
10, · 10, 5, 10,	· · · · ·	6.9, 6.9, 6.9, 6.9, 6.9,	6.6, ? 6.1, 6.2, 6.3		✓	· · · · ·
· · · · · · 10,	· · · ? · · ·	7.1, 6.3, 7.0, 6.6, 6.9, 6.7, 6.4	6.8, 6.4, 7.4, 7.2, 7.4, 7.3 7.4		✓	· · · · · · ·
10,	·	7.0 7.3	6.3 6.6		✓	·
10, 10, 10,	· · ·	7.0 6.9 7.1 7.1 6.9	7.4 7.2 7.5 7.4 7.0		✓	· · 803

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m	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Obs.	Spectrum.	No. Plate	No. Lines
20									
	7 26.4+73 49								
	.9+73 54	7	26.4+73 49		381	7.5	II	1071, 1112, 1064, a	2, 3, 2,
21									
22									
	7 26.2+58 59								
	.3+59 4	7	26.2+58 59		1176	7.0	I	1112,	5,
	7 27.0+65 18								
	.7+65 23	7	27.1+6518		579	6.8	III	1064,	2,
	7 29.3+77 0								
	.9+77 5	7	29.3+770		293	8.2	II?	1112, 1064,	2, 2,
	7 29.3+75 48								
23	.2+75 53	7	29.3+7548		312	7.7	II	1112, 1064,	2, 3,
24									
	7 28.8+60 45								
	.8+60 50	7	28.8+60 45		1069	6.7	I	1097, 1119, 1229, 1112, 1064,	4, 3, 4, 4, 4,

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1887phae.proj..847c

K Line.	I Line	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
10, 10, 10,	.8.	6.9 7.1, 6.9	7.2 7.3, 6.9			.796	
		6.5	6.0				
10,	.	7.0 7.3	6.6 6.9			.	
10, 10,	..	6.9 7.0 7.2	7.3 7.2 7.4			..	
10, 10,	.8	7.0, 6.3,	7.3, 6.4,			..	
10, .. 10, 10,	.....	6.8, 7.0, 6.9, 6.9, 6.8	?, 6.2, 6.2, 6.5, 6.2			.....	

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1887phae.proj..847f

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Mag.	Spectrum	No. Plate	No. Lines
m 25								
26								
27	7 31.2	+60 20						
	7 31.4	+59 46						
	.3	+60 20	7 31.2	+60 20	1148	6.8 I	1112,	5,
	.5	+59 52	7 31.4	+59 46	1099	7.2 II?	1112 1064, I?	2, 10, 10,
28	7 34.6	+77 14						
	.2	+77 20	7 34.6	+77 14	297	8.0 III	1112,	2, 10,
	7 32.6	+57 18						
	7 33.4	+65 31						
	.8	+57 24	7 32.6	+57 18	1093	6.3 III	1064,	2, 10,
	29.0	+65 37	7 33.4	+65 31	586	8.2 I	1064,	3,

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1887phae.proj..847

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks.
		6.5	6.1				
10,		7.0 6.9,	6.5 6.2,				
10,		7.0 7.4	7.4 7.8				
10,		6.9 7.2	6.2 6.5				
		7.4	7.0				

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1887phae.proj..847F

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Dm.	Mag. Dm.	Spectrum	No. Plate	No. Lines
7 33.8+55 1m								
30 .2+55 7	7	33.6+55 1		1214	6.7	III 1112,		1,
7 34.4+62 45								
.3+62 51	7	34.4+62 45		950	8.2	I d 353,		3,
7 37.1+78 29								
.3+78 35	7	37.2+78 29		270	8.0	III? 1112,		2,
.4+81 43	7	38.9+81 36		257	7.2	III 1065,		1,
7 34.5+58 56								
No. 114 .7+59 2	7	34.5+58 57		1103	5.0	I 353, 167, 446, 1097, 1119, 1229, 1072,		6, 6, 7, 8, 8, 6, 7,
31								
7 36.6+69 24								
.9+69 30	7	36.6+69 24		438	7.2	II 1229, 1112, 1064 I		2, 6, 3,
7 36.8+70 27								
.9+70 33	7	36.8+70 27		474	0.8	II? 1119, 1112, 1064, III III		2, 2, 2,
No. 117 .1+80 37	7	39.9+80 31		238	6.5	I 353, 167, 1071, 1119, 1229, 1072, 1112, II III a a II? III b		2, 2, 2, 3, 3, 2, 3,
32 7 36.4+65 24								
.1+65 30	7	36.4+65 24		592	7.3	II 1112, 1064, III?		2, 2,
7 37.2+65 42								
.8+65 48	7	37.1+65 42		593	6.2	III 1072, 1112, 1064, b b b		2, 2, 3,
7 36.6+50 40								
33 .1+50 46	7	36.5+50 40		1460	5.8	I 1072, 1112, b		5, 5,
7 37.4+63 4								
.3+63 10	7	37.4+63 4		733	7.0	I 167, 446, 1097, 1119, 1229, 1072, 1112, 1064, d?		4, 4, 3, 5, 3, 4, 7, 5,
7 37.7+64 18								
.5+64 23	7	37.7+64 17		649	7.1	I 167, 446, 1097, 1119, 1229, 1072, 1112, 1064 d?		3, 5, 3, 3, 2, 5, 6, 5,
.6+84 47	7	45.8+84 41		168	7.8	I 458, 495, 1057, 1119, 1229, 1074, 1065		3, 4, 5, 4, 5 5 3,
34 7 38.0+55 54							V	
.3+55 60	7	38.0+55 54		1218	7.3	I? 1112, 1064, III I		4, 3,

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K Line	I Line	Brightness	Corr. Brightness	Mean Residuals	No. Rem.
.	,	7.0 7.3	6.4 6.7	✓	-
.	.	6.7	5.6	✓	.
10,	.	7.0 7.1	7.6 7.7	✓	.
.	.	6.7 6.9	7.7 7.9	✓	.
5, 2, . 2, . .	. . ? - ? ? ?	5.6, 6.2, 5.4, 5.4, 5.9, 5.5, 5.6, 4.3, 4.7, 5.1, ?, 5.0, 4.7, 5.0		✓	. . . . .
10, 10, .	. . —	7.0, 6.8 6.5,	6.6, 6.7, 6.2,	✓	. . .
10, 10, 10,	. . -	7.2 7.0 6.7 7.2 6.9	6.8 7.0 6.5 7.2 6.7	✓	. . .
10, 10, 10, 10, 10, 10,	. . - ? ? . ?	6.3, 7.2, 6.4, 6.5 6.7, 6.6, 6.6, 6.2 6.5	6.2, 7.0 7.3 6.9 7.1, 7.1, 7.4 7.0 7.3	✓	. . . 745, 753, . 791
10, .	. .	6.8 6.7 6.9	6.6 6.3 6.5	✓	. .
10, 10, 10,	. . ?	6.9 6.5 6.6 7.1 6.8 6.9	6.6 6.3 6.2 6.8 6.6 6.5	✓	. 782, 80.0
. .	. .	. .	. .	✓	. 774,
. 10, . 10, . 10, 10, 10, ?	. . . ? . . . ? ?	7.2, 6.5, 6.8, 6.7, 6.7, 6.7, 6.6, 6.6, 5.9, 6.4, ?, 6.0, 6.1, 6.3, 6.3, 6.0		✓	. . . . .
. . . . 10, . 10, .	. . . . .	7.3, 6.5, 6.9, 6.9, 6.9, 6.7, 6.4, 6.5 6.0, 6.4, ?, 6.2, 6.3, 6.3, 6.1		✓	. . . . .
. . . . 5, . .	. . ?	6.8, 6.5, 6.5, 6.5, 6.5, 6.6 6.6	7.7, 7.6, 7.9, 7.5, 7.6 7.5 7.9,	✓	. . . . .
10, 10,	. ?	7.0 7.0 7.2	6.4 6.2 6.4		. .

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag. Glob.	Spectrum	No. Plate	No. Lines
m									
35									
7396+64 37									
	4	+64 43	7396	+6437	65	7.8	II? 1064	2	10
7393+60 33									
	4	+60 39	7393	+6033	1082	7.0	III 1112, ~~1064~~ II?	2, ~~2~~	10,
7433+80 8									
	8	+80 14	7	43.3+80 7	240	6.5	III 1035, 1071, 1112, 1064, 1113,	1, 1, 1, 2, 2,	...
36									
7436+7750									
No. 113	37	.0	+77	56	7	43.6+77 50	303	7.0	I 166, 353, 446, ~~441~~ a, 441, 1071, 1119, 1229, 1072,	6 . 3, 5, ~~2~~, 3, 9, 3, 4, 6,	.
		.2	+86	6	7	52.5+86 0.	113	7.2	I 1065,	3,	.
7411.5+6034									
		.6	+60	40	7	46.5+60 34	1084	6.7	I 446, 1097, 1119, 1229, 1072, 1112, 1064, 167	5, 3, 4, 4, 2, 6, 3, 3.	
38									
7434+7121									
		.4	+71	27	7	43.4+71 21	429	0.8	I 1119, 1229, 1112, 1112, 1064, 1064 II a?	4, 3, 5, 4, 4, 4,	.
39									
7460+7755									
		4	+78	1	7	46.0+77 55	273	7.7	II 1112, 1064, a	2, 3,	
7433+5428									
7434+550		.7	+54	29	7	43.3+54 23	1177	6.3	II a 446, 1072, 1112, ~~1064~~ I, ~~1064~~ II	2, 2, 2, ~~2~~ 3,	.
		.8	+55	6	7	43.4+55 0	1226	7.1	II 1064,	2,	

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K Line.	F Line	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Rem.
10		7.0	6.5	✓	.	
10, 10	..	7.6 7.2 7.0	6.6 6.8 6.5	✓	.	
... 10, 10,	8 . 8 ..	6.9 6.9 6.7 6.8 7.0 7.1 7.2 7.2 7.1 7.3	7.3 7.7 7.6 7.3 7.7 7.5 8.0 7.9 7.6 8.0	✓	. . . . .	
. 10, 10, . 5, . 10, 5	. . . . 8 . . .	7.2, 6.5, 6.5 6.0 6.6, 6.4, 6.9, 6.6, 6.3 6.8,	6.2, 7.5, 6.6, 7.0, 7.0, 6.8, 6.7	✓	. . 11	
10, . . 10, ...	. . . . . 8 . .	6.9, 6.8, 6.8, 6.8, 6.8, 6.7, 6.7 7.2 6.7, ?,	6.0, 6.1, 6.3, 6.3, 6.1 7.0	✓	. . . . .	
10, . 2 ; . . 10,	. . . . .	6.9, 6.8, 6.8 . 6.9, .	6.5 6.5 6.8, . 6.7 .	✓	 814	
10, 10,	. 8	7.0, 6.9,	7.5, 7.1	✓	806,	
10, 10, 10, 1 1 1	. . . 1 8	6.5, 6.7, 6.4, 6.5 6.5,	6.1, 6.0, 5.8, 8 7, 5.7		95 763, 781, 1 .	
10,	.	7.0	6.2		.	

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	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	Mag.	Spectrum	No. Plate	No. Lines
7 45.4+72 7									
40	.3+72 13	7 45.4	+72 7		385	7.0	II?	1112, 1064,	2, 2,
7 44.6+55 29									
41	.0+55 35	7 44.6	+55 29		1228	6.5	I	446, 1072, 1112, ~~1064,~~	4, 5, 5, 7,
7 46.1+71 57									
	.0+72 3	7 46.1	+71 57		380	7.3	I	1119, 1112, 1064,	3, 3, 4,
7 46.5+58 29									
	.7+58 35	7 45.5	+58 29		1072	7.5	II	1112, 1064,	2, 4,
No. 122	.6+84 28	7 53.1	+84 21		169	6.0	I	165, 185, 353, 458, 495, 435, 1057, 1119, 1229, 1065, 275	6, 8, 6, 5, 6, 7, 8, 6, 4
~~7 47.3+74 12~~	~~.8+74 18~~	~~7 47.3~~	~~+74 12~~		~~338~~	~~5.2~~	~~III~~	~~1097, 1119,~~	~~3, 3,~~
7 49.2+79 46									
No. 102, 112	.9+79 52	7 49.1	+79 45		265	5.8	I	165, 185, 166, 353, 446, 458, 441, 1035,	6, 6, 7, 7, 8, 8, 5, 9,
42									
7 48.3+74 11									
X	.8+74 18	7 48.5	+74 11		338	5.2	III	446, 1097, 1119, 1071, 1229, 1072, 1112, 1064,	2, 3, 2, 2, 2, 3,
43									
44									
7 48.4+56 46									
	.7+56 53	7 48.4	+56 46		1253	7.0	I	446, 1097, 1229, 1072, 1112, 1064,	5, 3, 2, 4, 3, 6,

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y h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No.	Remarks.
10, 10,		7.1, 7.0,	7.2, 6.9			
5, 2, 2, 2, 2, 2, 2,		6.1, 6.6, 6.4, 6.5 6.8, 6.6, 5.3, 5.8, 5.8, 5.8, 5.5, 5.3, 5.2	5.7, 5.9, 5.8 5.7 6.0, 6.7, 5.8, 6.6, 6.8, 6.3 7.1, 6.1, 6.3, 6.6			799 2a
		7.1, 6.9, 6.9,	6.8, 7.0, 6.8			
10, 10?		7.1, 6.9,	6.6, 6.2		789	
10,		6.9 6.7 7.2 7.1	? 6.5 6.9			
? 2,		5.9, 5.6, 6.0, 4.8, 4.6, 5.7, 5.6, 5.3	5.5, 5.1, 5.8, 4.7, 5.5, 5.9, 5.8, 5.7			
10, 10, 10, 10, 10, 10,		? 6.7 7.1 6.3 6.4 6.5 6.6 6.2 6.3 6.6 6.7 7.1 7.0 6.6 6.6	? 6.5 6.9 6.7 6.7 6.4 6.7 6.4 6.3 7.0 7.0 7.0 7.1 6.8 6.6			778,
10,		6.5, 7.0, 7.0, 6.7, 6.6, 6.6,	6.2, ? 6.2, 7.1, 6.1, 5.9			

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m	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines.	
45										
46										
		.4	+82 10	7 55.2	+82 3	231	8.3	II 1065,	2,	10,
	7 51.1	+65 2								
		.9	+65 9	7 51.1	+65 2	606	7.1	IIa? 446, 1072, 1112, II 1064, IIa	2, 2, 2, 1,	10,
47										
48										
	7 53.0	+59 20								
No. 116	49	.2	+59 27	7 53.0	+59 20	1130	6.0	IIa 167, 446, I 1097, 1119, 1229, IIa? 1072, IIa 1112,	2, 5, 3, 2, 2, 3, 4,	10
	7 53.2	+60 35								
No. 118		.3	+60 42	7 53.2	+60 36	1105	6.1	I 167, 446, 1097, 1119, 1229, 1072, 1112,	4, 6, 3, 4, 6, 4, 7,	
	7 53.6	+61 16								
		.7	+61 23	7 53.6	+61 12	1021,	6.5,	II 1112, III 1112, 1064, I? 1064,	2, 2, 2, 3,	10,
	7 53.9	+65 25	.6	+65 32	7 53.9	+65 25	607	7.0	III 1064,	2,	10,
	7 53.7	+63 21	.6	+63 28	7 53.7	+63 21	749	8.0	III 1097, 1119, 1229, IIa 1072, II 1112, 1064,	2, 3, 2, 2, 2, 3,	10,
	7 54.3	+67 57								
		.8	+68 4	7 54.3	+67 57	517	7.5	I 446,	3,	
	7 53.4	+54 43								
		.8	+54 50	7 53.3	+54 43	1188	6.7	I 446, 1112, IIa 1064,	5, 4, 3,	10,

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1887phae.proj..847f

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No. Rem.
10,	.	6.8	7.9	.	
10, 10, 10, .	...	6.5, 6.9, 6.9, 6.7	6.4, 6.5, 6.6, 6.2	96, 764 . 798,	
10, 10, 10, 10, 10, 10, 10, 10,	.. . . . .	7.1, 6.2, 6.5, 6.8, 6.3, 6.5, 6.3,	5.6, 5.9, ? 5.9, 5.5, 5.9, 5.8,	790 92, 739, 743, 751, 770	
.. 5, . 10, ..	.. . . .	6.8, 6.4, 6.4, 6.5, 6.4, 6.5, 6.3,	6.4, 6.2, ? 5.7, 5.7, 6.0, 5.9	. . . . .	
10, 10, 10, .	....	7.2 . 6.9 .	6.8 . 6.3 .	. . . .	
10, 10, 10, 10, 10, 10, 10,	. . . . .	6.7, 6.6, 6.6, 6.9, 6.9, 6.9, 6.8, 6.5, 6.5, 6.8	5.9, 6.0, ? 6.2, 6.3, 6.4, 6.2, 6.3, 6.1	. . . 760 . .	
.	.	6.9	7.0	.	
10, . 10,	..	6.7, 6.8, 6.7	6.3, 6.2, 5.9,	.. 797	

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1887phae.proj..847F

1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum	No. Plate	No. Lines
m s	° ′							
7 57.2+77 55								
7 54.5+57 33								
7 54.9+54 25								
7 58.X+75 14								
7 59.4+74 40								
7 56.8+55 2								
7 57.1+58 4								
7 56.8+53 57								
7 57.7+59 33								
8 1.3+79 49								
		.7+78 2	7 57.2	+77 55	278	7.5	I?	1112, 1113 II?		2, 2,
		.8+57 40	7 54.5	+57 33	1118	6.5	IIa	1072, 1112 II?, 1064 II, 446		2, 3, 3, 2
		.4+54 32	7 54.9	+54 25	1190	7.3	I	1112, 1064 II?		3, 2,
		.8+75 21	7 58.5	+75 14	335	8.8	III	1064,		2,
		.9+74 47	7 59.4	+74 40	348	8.2	II	1112, 1064 II?,		2, 2,
		.2+55 9	7 56.8	+55 2	1242	7.5	I	446, 1112, 1064 II,		3, 4, 2,
		.4+58 11	7 57.1	+58 4	1093	7.5	III	1072, 1112 II?,		2, 2,
		.3+54 4	7 56.8	+53 57	1195	7.0	II	1112, 1064 II?,		3, 3,
		.7+83 32	8 3.6	+83 25	207	8.2	III	1229, 1065 II?, 1233, 1074,		2, 2, 2, 2,
		.9+59 40	7 57.7	+59 33	1136	7.0	I	446, 1097, 1072, 1112, 1064,		4, 4, 4, 5, 5,
		.0+79 58	8 1.2	+79 49	269	7.8	II?	1229, 1112, 1064, 1065 I?, 1113,		2, 2, 2, 2, 3,

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1 h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No Rem.
10, 10,	4	7.0, 6.9,	7.5, 7.4,	✓	..	
10, 10, 10, 10	3 3	7.0, 6.7, 6.7 6.8	6.4, 6.2, 6.0 6.2	✓	7 6 7 .. 99	
10,	..	7.0, 7.0,	6.4, 6.2	✓	..	
10,	.	7.2	7.3	✓	.	
10, 10,	..	7.2, 7.0,	7.5, 7.1	✓	..	
10, 10,	...	6.9, 7.0, 6.9,	6.5, 6.4, 6.1	✓	...	
10, 10,	..	7.0 7.3, 7.1	6.4 6.7, 6.6	✓	..	
10, 10,	3 3	6.9, 6.9	6.3, 6.1,	✓	..	
10, 10, 10, 10,	....	7.0, 6.5, 7.0, 6.8,	7.9, 7.8, 8.1, 7.9	✓	....	
10, 10, 10, 5, 8,	.....	6.7, 6.8, 6.8, 6.6, 6.5	6.4, ? 6.2, 6.1, 5.8	✓	.....	
10, 10, 10, ?	....	7.0, 7.0, 6.8 6.7 6.8	7.4, 7.6 7.7 7.3 7.5	✓	....	

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Im.	Mag.	Spectrum.	No. Plate	No. Lines.
m								
55 1+76 16		8 1.0	+76 9	307	7.8	II 1071,		2,
7 59.9+70 1								
2+70 8		7 59.9	+70 0	4 397	6.5	III 1119, 1229, 1072, 1112, 1064,		2, 2, 2, 3, 2,
8 1.8+76 9								
9+76 16		8 1.8	+76 9	307	7.8	II 1071, 1112,		2, 4,
7 59.3+54 24								
8+54 31		7 59.3	+54 24	1200	8.0	II 1112,		2,
No 119 56.0+82 52		8 5.2	+82 44	235	6.5	I 165, 185, 353, 167, 458, 495, 435, 1035, 1229,		5, 5, 8, 4, 6, 5, 5, 7, 8
~~57.0+82 52~~				~~335~~	~~6.5~~	~~I 1229,~~		~~8,~~
8 8.0+51 48								
6+51 55		8 1.0	+51 48	1391	5.1	I 446, 1072, 1112, 1064,		7, 7, 7, 6,
8 1.6+55 34								
58.0+55 41		8 1.6	+55 34	1254	7.0	I 446, 1072, 1112, 1064,		5, 2, 4, 3,
8 2.8+68 47								
3+68 54		82.9	+68 46	524	4.8	III 446, 1097, 1119, 1229, 1072, 1112, 1064,		2, 2, 3, 3, 3, 3, 3,
8 4.3+76 3								
5+76 10		8 4.4	+76 3	308	7.5	II 1112, 1064,		2, 2,
8 2.3+56 6								
7+56 13		8 2.3	+56 6	1269	7.9	II 1112,		2,
8 1.9+58 34								
2+58 41		8 1.9	+58 33	1102	6.2	III 1112,		2,
8 4.9+76 32								
59.0+76 39		8 4.9	+76 32	369	8.3	III 1112,		2,
8 34+54 50								
9+54 58		8 34	+54 50	1208	6.7	III 1112, 1064,		3, 3,

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1887phae.proj..0437

y h

K Line.	F Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Rem.
10,	.	6.9	7.4		.	
10, 10, 10, 10, 10,	. . . 8 .	6.9 7.2 6.9, 6.9, 6.6 6.7 6.7	6.5 6.8 6.8 6.8 6.6 6.7 6.5	✓	. . . . .	
10, 10,	. .	6.9, 7.2	7.4, 7.6	✓	. .	
10,	.	7.1	6.5	✓	.	
. . 1 . . . . 10, 2?	. . . . . 9 5?	6.3, 6.3, 5.3, 6.5, 5.7, 5.9, 5.4, 6.0 5.3 6.3 6.2, 5.6, 6.6, 6.3, 6.9, 6.1, 6.7, 6.1		✓	. . . . .	
2?	8?	5.3	6.1		.	
1 . . .	. . 8 8	5.7, 5.9 5.5 5.9,	5.2, 5.1, 4.8, 5.0	✓	. . . .	
10, 10, 10,	. . . 8	6.7 6.9, 6.7, 6.8	6.3 6.2, 6, 6.0	✓	.765, .799	
10, 10, 10, 10, 10, 10, 10,	. . 8 8 8 8 8	6.0 6.2 6.5 6.1 6.4 6.1 6.2 6.3 6.8 6.8 6.5 6.7 6.5 6.5	6.1 ? 6.0 5.7 6.2 6.0 5.9 6.4 ? 6.3 6.1 6.5 6.4 6.2	✓	101 785	
10, 10,	. .	7.1, 7.0	7.5 7.2	✓	. .	
10,	.	7.2	6.6	✓	783,	
10,	.	6.8 7.2	6.3 6.7	✓	.	
10,	.	7.4 7.4 .	7.5 7.8	✓	.	
10, 10,	8 8	6.9 6.7 7.2 7.0	6.3 5.9 6.6 6.2	✓	. .	

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8 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lin.	Mag. Lin.	Spectrum.	No. Plate.	No. Lines
8 3.5+53 32m									
0	0	+53 40	8	3.5+53 32	1221	7.0	II	1112, 1064,	2, 2,
8 7.0+76 3									
1	2	+76 11	8	7.0 +76 4	310	6.0	III	446, 458, 1097, 1119, 1119, 1229, 1072, 1112, 1064, 1113,	2, 2, 2, 3, 3, 2, 2, 5, 3,
8 5.4+56 50									
8 6.3+66 29	8	+56 58	8	5.4+56 50	1278	6.8	II?	1072, 1112, 1064,	2, 2, 2,
8 5.8+56 45	2	+66 37	8	6.3+66 29	541	6.5	I	446, 1112, 1064,	2, 3, 4,
	2	+56 53	8	5.8+56 46	1278	5.7	III	446, 1072, 1112, 1064,	2, 2, 2, 2,
3									
8 7.5+64 1									
8 7.4+60 42	4	+64 9	8	7.5+64 1	674	8.1	III?	1112, 1064,	2, 2,
	6	+60 50	8	7.4+60 41	1119	6.8	I	167, 446, 1072, 1112, 1064,	4, 5, 5, 7, 4,
	8	+84 55	8	15.5+84 44	179	8.3	II?	1065,	2,
8 10.9+78 15									
8 10.1+75 9	4	+78 23	8	10.9+78 15	284	7.5	I	1112, 1113,	3, 4,
8 9.7+72 43	6	+75 17	8	10.1+75 9	334	0.5	III	1119, 1072, 1112, 1064, 1113,	2, 2, 3, 3, 3,
	6	+72 51	8	9.6+72 43	409	6.2	III	1119, 1112, 1064,	3, 1, 2,

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8 h

K Line	F Line	Brightness	Corr. Brightness	Mean. Residuals	No	Remarks
10, 10,	..	6.9 7.0 7.2	6.3 6.2 6.4	✓	..	
10, 10, 10, 10, 10, 10, 10, 10, 10	...	6.0 6.5 6.7 6.4 6.0 5.9 5.8	6.6 6.4 6.7 6.5 6.3 6.3 6.2		802	
		6.2 6.8 . 6.9 . 6.7 6.3 6.0	6.1 6.8 6.7 . 6.9 . 6.8 6.6 6.4 6.3 6.5	✓	98 766	
10, 10,	...	7.0, 7.0, 7.0,	6.4, 6.5, 6.3,	✓	...	
10,	...	6.9, 6.8, 6.9	6.9, 6.6, 6.5,	✓	...	
10, 10, 10, 10,	....	6.5 6.8 6.6 6.8 7.1 7.0 6.9	6.2 6.2 6.1 6.5 6.5 6.5 6.2	✓	....	
10,	..	7.6 7.1 7.3 7.4	6.7 6.6 7.0 6.9	✓	..	
10, 10, 5, 5, 10,	.....	7.1, 6.5, 6.7, 6.5, 6.5	5.7, 6.3, 6.2, 6.1, 5.9	✓	.....	
10,	.	7.0	8.5	✓	.	
10,	..	7.0 6.8	7.5 7.3	✓	..	
10, 10, 10, 10, 10,	.....	7.0 6.8 6.7 6.6 6.4 7.2 7.0 6.9 6.9 6.7 6.9 6.7 6.8	6.9 7.0 7.0 6.7 6.7 7.1 7.2 7.2 7.0 7.0 6.6 6.8 6.7	✓	.....	
10, 10,	...	7.2 7.1 7.0	6.9 7.2 6.9	✓	...	

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8 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No.	Mag.	Spectrum	No. Plate	No. Lines
m s									
			8 11.8+77 17						
	.7+7725		8 11.8	+77 17	327	7.0	III 1112, 1113,	2,3	
			8 9.6+59 53						
	.8+600		8 9.4	+59 53	1124	6.0	I 167, 446, 458, 1072, 1112, 1064,	5, 6, 7, 9,	
			8 10.6+6249						
	.6+6257		8 10.6	+62 49	991	6.0	III 1072, II a 1112, 1064, III b	2, 3, 3,	
			8 10.7+54 53						
	.2+5551		8 10.7	+54 53	1265	6.7	I 446, 1072, II a? 1112, 1064,	4, 4, 5, 6,	
8									
			8 12.4+58 3						
	.7+5811		8 12.4	+58 3	1112	6.2	I 446, II a 458, II a 1072, 1112, II a 1064,	0, 2, 3, 5, 5,	
9									
			8 12.9+53 53						
	.4+5541		8 12.9	+53 53	1217	6.9	II a? 1072, I b 1112, I 1064,	2, 4, 3,	
			8 14.0+69 14						
	.5+6922		8 14.0	+69 14	464	7.2	III? 1072, I? 1112, II a 1064,	1, 4, 2,	

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1887phae.proj..847E

K Line	I Line.	Brightness	Corr. Brightness	Mean Residuals	No Rem.
10, 10,	. 3	6.8 6.8 7.1 7.2	7.3 7.3 7.6 7.7		. .
2, 3, . 2, 2, 2,	. . 3 . . 3	6.5, 6.2, 6.4, 6.2, 6.1, 6.2	5.1, 6.0, 5.5, 5.7, 5.7, 5.6,		. . . . .
10, 10, 10,	. 3 3	6.9 6.7 7.1 6.5 6.8	6.5 6.2 6.7 6.2 6.3		. 775, 795
. 10, 10, 10,	. . 3 3	6.6, 6.8, 6.6, 6.8	6.2, 6.1, 6.0, 6.0		. . 780 .
10, 10, 10, 10, 10,	. . 3 . 3	6.3, 6.9, 6.5, 6.2, 6.3	6.0, 5.9, 5.9, 5.7, 5.5		. 106, 769, . 805
10, 10, .	. . 3 .	6.9, 6.6, 6.6	6.2, 6.0, 5.8		762, 777 .
. 10, 10,	. 3 .	7.0 7.2 6.7, 6.9	6.8 7.0 6.6, 6.6,		— 809

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8 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Fm.	mag Dnb.	Spectrum	No. Plate	No. Lines
m 10									
8 16.4+77 24									
	3+77 32	8 16.4	+77 24	336	7.7	II	1072, 1112?, 1113,	2, 4,	10,
8 17.1+78 33									
	.6+78 41	8 17.1	+78 33	287	6.8	III	1229, 1072, 1112, 1064, 1065?, 1113?,	2, 2, 2, 3, 2, 2,	10
11									
8 15.5+62 37									
	.6+62 45	8 15.5	+62 37	996	7.8	II	1112, 1064?,	2, 4,	10,
12									
8 16.2+53 32									
	.7+85 33	8 25.6	+85 25	128	7.5	I	353, 1119, 1229?, 1065, 1233, 1074,	3, 2, 2, 2, 2, 2,	
	.8+53 40	8 16.2	+53 33	1246	6.0	I	446, 1072, 1112, 1064,	7, 7, 7, 6,	3,
13									
8 17.5+54 15									
	.4+54 23	8 17.8	+54 15	1223	7.5	II	1112, 1064?,	2, 3,	10,

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8h

K Line.	F Line.	Brightness	Corr. Brightness.	Mean.	Residuals	No.	Remarks
10, 10,	...	7.0, 6.9, 6.8,		7.4, 7.4, 7.3,	✓	...	
10, 10, 10, 12, 10, 10,	... 88.	6.8 7.0 6.7 6.7 6.7 6.7 7.1 7.3 7.0 6.9 6.9 6.7		7.1 7.5 7.3 7.1 7.4 7.4 7.8 7.6 7.3 7.6 7.3	✓	.....	
10, 10,	..	7.0, 6.9,		6.6, 6.3,	✓	..	
10, 10, 10, 10, 10,	.....	6.5, 7.0, 6.8, 6.5, 6.8, 6.9		7.3, 8.2, 8.1, 8.2, 8.3 8.4,	✓	.....	
3, 2, 2,	...	6.0, 6.4, 5.9, 6.2,		5.6, 5.7, 5.3, 5.4,	✓	...	
10, 10,	..	7.0, 7.0,		6.4, 6.2,	✓	..	

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8 h

	1855 R.A. Sec.	1855 R.D. Sec.	1900 Ten.	1900 Ten.	Mag	Spectrum	No. Plate	No. Lines	
	m								
15									
8 20.3+67 38									
	16.0+67 46	8 20.4+67 38	545	6.0	III	1072, 1112, 1064,		3, 3, 2,	10, 10
8 21.1+68 52									
	.6+69 0	8 21.2+68 52	470	6.7	I	446, 458, 1112, 1064, 1072		4, 4, 5, 6, 4	
17									
8 21.2+54 11									
No.	.8+54 20	8 21.3+54 11	1228	7.3	II	1112, 1064,		2, 3,	10, 10
8 22.0+61 2									
No. 127	18.2+61 11	8 22.0+61 3	1054	3.3	III b	167, 446, 446, 458, 1072, 1072, 1112, 1112, 1064	be? be be be	2, 2, 2, 2, 3, 3, 3, 5, 3	25 12
8 23.0+69 40									
	.5+69 49	8 23.0+69 39	472	6.5	III	1112, 1064,		2, 2,	10,
8 24.4+77 21									
	.4+77 30	8 24.4+77 21	337	7.2	III?	1229, 1072, 1112, 1113,	II II II	2, 1, 3, 3,	10,
8 23.7+73 47									
	.6+73 56	8 23.7+73 47	420	7.3	I	446, 1112,	III	4, 2,	10, 10
8 23.7+67 38									
	.4+67 47	8 23.7+67 38	549	7.8	III	1112,		2,	10,
8 23.0+54 27									
	.6+54 36	8 23.1+54 27	1231	7.2	I	446, 1072, 1112, 1064,		5, 4, 5, 5,	
No. 123									
8 25.2+75 4	.7+82 44	8 28.4+82 36	253	7.0	I	165 185, 353, 458, 495, 435, 1119,		4, 4, 6, 6, 5, 6, 7,	10?
No. 124	.8+75 13	8 25.2+75 4	342	6.4	I	446, 458, 441, 1097, 1119, 1229, 1072,	II	6, 4, 4, 3, 5, 3, 7	

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8 h

K Line.	I Line.	Brightness.	Corr Brightness.	Mean.	Residuals.	No.	Remarks
10, 10, 10,	5 5 5.	6.6 6.3 6.6 6.9 6.4 6.8	6.4 6.2 6.3 6.7 6.3 6.5		✓	. . .	
. . . . .	. . . . .	6.7, 7.0, 6.6, 6.5, 6.6	6.8, 6.4, 6.5, 6.2, 5.8		✓	. . . . .	
10, 10,	. 5	7.0, 6.9,	6.4, 6.1,		✓	. .	
25 12, 20, 12, 12, 12, 12, 15, 6	. . 5 5 5 5 5 5	5.7 4.9 5.3 5.4 ✓ 4.6 5.9 . 5.3 5.6 5.5 . . 5.0 .	4.3 4.7 4.4 4.9 4.2 4.5 . 5.1 4.7 5.0 . . 4.6 .				773, 793, 794 93, 94, 102, 109, 759, 772
10, 10,	. .	7.0 6.9 7.4 7.2	7.0 6.7 7.4 7.0		✓	. .	
10, . 10, 10,	. . 5 5	7.0 7.2 7.0, 6.7, 6.6	7.2 7.4 7.4, 7.2, 7.1		✓	. . . .	
10, 10,	. .	7.0 6.8 7.3	6.7 7.2 7.0		✓	. .	
10,	.	7.1 7.4	7.0 7.3		✓	.	
. . . .	. . 5 5 ?	6.7, 6.6, 6.6, 6.6, 6.6,	6.3, 5.9, 6.0, 5.8		✓	. . . .	
. 10 . . 4 . . ?	 5	6.8, 6.9, 5.6, 5.9, 6.0, 5.5, 6.4	6.8, 6.7, 5.8, 6.4, 6.7, 6.1, 7.0		✓	. . . . .	
. . . . 10, . 5,	 5	5.9, 6.5, 6.5, 7.0, 6.4, 6.7, 6.2	6.4, 6.3, 6.3, 6.7, 6.3, 6.7, 6.4		✓	. . . . .	

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8 h

	1855 R.A.	1855 Dec	1900 R.A.	1900 Dec	No. Obs.	Mag. Obs.	Spectrum	No. Plate	No. Lines	
8 23.5+55 16m										
20.	0+55 25	8 23.5	+55 16	1283	7.5	II	1064,	2,	10,	
21										
8 25.7+65 29										
	6+65 38	8 25.6	+65 29	638	5.8	I	446, 458, 1072, 1112, 1064,	6, 6, 6, 7, 7,		
8 25.1+53 26										
	7+53 35	8 25.1	+53 26	1259	6.4	III	1112, 1064 II?,	2, 1,	10,	
22										
8 26.0+58 55										
	3+59 4	8 26.0	+58 55	1176	7.0	I	446, 458, 1072, 1064 II a, 1112	4, 4, 4, 2, 5		
23										
8 28.7+73 59										
	5+74 8	8 28.6	+73 59	370	6.4	I	441, 1072 III, 1112 III, 1064 II III, 1113 III,	2, 2, 3, 3, 3,	10	
24										

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1887phae..proj..847F

8h

K Line.	I Line.	Brightness.	Corr. Brightness	Mean.	Residuals.	No Rem.
10,	.	7.2	6.4		.	
1, ...	... 8 8	5.4, 6.4, 6.0, 5.6, 5.9,	5.4, 5.7, 5.7, 5.4, 5.5,		✓	.....
10, .	..	6.9 7.1 7.0	6.3 6.5 6.2		✓	.
.. .. 10, .	 7	6.9, 7.0, 6.9, 6.7 6.5	6.8, 6.0, 6.3, 6.0, 6.0		✓	... 8 0 8 6.0
10, 10, 12, 10,	.. 8 8 8	6.9 6.4 6.5 6.9 7.1 6.7 6.5 6.7	6.6 7.0 6.6 6.7 7.2 6.9 6.5 6.9		✓	.....

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1887phae.proj..847F

	1855 R.A. Dec	1855 R.A. Dec	1900	1900	Hi Lim	Mag Lim	Spectrum	No. Plate	No. Lines	
	m s									
	25 .1 +84 25	8 35.4 +84 16	186	8.0	II	1119, 1065, 1233, 1074, 1255,		2, 2, 2, 2, 2,		10,
	8 30.4 +65 22	26								
	.3 +65 31	8 30.3 +65 22	643	5.8	I	167, 446, 458, 1072, 1112, 1064,		5, 2, 3, 2, 3, 3,		
	.5 +81 0	8 33.8 +80 51	270	8.0	II?	1229, 1065,		2, 2,		10,
	8 32.0 +73 31									
	27 .0 +73 40	8 32.0 +73 31	428	6.5	I	458, 441, 1072, 1112, 1064, 1113,		5, 4, 5, 6, 7, 8,		?
	8 31.0 +60 17									
	.3 +60 26	8 31.0 +60 18	1148	6.8	I	446, 458, 1072, 1064, 1112,		4, 4, 5, 3, 5		? 1,
	8 31.5 +64 40									
	.5 +64 49	8 31.5 +64 47	698	4.7	III	446, 458, 1072, 1112, 1064,		3, 2, 2, 3, 3,		10,
	8 30.9 +53 44									
	.5 +53 53	8 30.9 +53 45	1268	6.8	I?	1072, 1112, 1064,		2, 2, 2,		10,
	8 31.6 +53 16	25								
	.2 +53 25	8 31.6 +53 16	1269	6.6	III	1112, 1064,		2, 1,		10,
	8 31.9 +53 4									
	.5 +53 13	8 31.9 +53 4	1272	6.4	III	1112,		2,		10,
	8 35.1 +78 3									
	29 .0 +78 12	8 35.1 +78 3	291	7.0	I	446, 1072, 1112, 1064, 1065, 1113, 1233,		3, 3, 2, 2, 4, 4, 2,		

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K Line	J Line	Brightness	Corr. Brightness	Mean Residuals	No Rem.
10, 10, 10, 10, 10,		7.1, 6.4, 6.9, 6.7, 6.3	8.0, 7.8, 8.1, 7.9, 7.4	✓	991
10, 10, 10, 10, 10, 2		6.7, 6.0, 6.7, 6.4, 6.0, 6.2,	5.5, 6.0, 6.0, 6.1, 5.8, 5.8	✓	97
10, 10,		7.2, 7.0,	7.7, 7.9	✓	
? 10, ?		6.6, 6.9, 6.6, 6.4, 6.5, 6.4,	6.3, 6.6, 6.7, 6.6, 6.5, 6.6	✓	
?		6.9, 6.5, 6.7, 6.4, 6.5	6.7, 5.6, 6.2, 5.8, 6.8	✓	
10, 10, 10, 10, 12,		5.7 6.1 6.3 5.8 6.0 6.0 6.5 6.6 6.1 6.2	5.6 5.3 5.9 5.5 5.5 5.9 5.7 6.2 5.8 5.7	✓	115, 762, 779
10, 10, 10,		6.8 6.7 6.9 7.0 6.8	6.2 5.9 6.2 6.4 6.0	✓	776
10,		6.9 7.1 7.0	6.3 6.5 6.2	✓	
10,		7.0 7.1	6.4 6.5	✓	
10, 10, 10, 10, 10, 2		7.0, 7.1, 6.9, 6.8, 6.6, 6.6, 7.0	7.7, 7.5, 7.4, 7.4, 7.2, 7.1, 7.4	✓	786

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8h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	Mag	Spectrum	No Plate	No. Lines	
8 35.1+73 39n										
No. 130										
30.	1+73 48	8	35.1	+73 39	430	7.0	I	446, 458, 441, 1072, 1112, 1064, 1065, I?		4, 4, 3, 5, 6, 3, 4,
31.										
8 37.7+78 33										
	4+78 42	8	37.7	+78 33	293	6.5	II a	441, ~~1072~~ I, 1112, III, 1064, III		2, 4, 2, 2,
8 36.7+72 46										
	8+72 55	8	36.7	+72 46	427	6.8	II	1112, 1064, 1113, II?		2, 2, 3,
32.										
	0+83 15	8	44.8	+83 6	232	7.0	III	1065, 1074, 1255,		2, 2, 2,
No. 126	0+80 34	8	40.9	+80 22	272	7.3	I	446, 458, 441, 495, 435, 1119, 1229, 1072, 1112, 353		4, 4, 3, 5, 4, 5, 4, 3, 5, 6,
34.										

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8 h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	Rem.
...5,...	.....	6.8, 7.0, 7.1, 6.8, 6.6, 6.8, 6.5, 7.2, 6.7, 6.8, 6.9, 6.8, 6.8, 6.8,		✓	.....
10, 10, 10,	...	7.0, 6.6, 7.6 7.0, 7.3 7.3	7.6 7.4 7.1, 7.1, 7.9 7.7	✓	126...
10, 10, 10,	..5	7.0, 6.9, 6.9,	7.1, 6.8, 7.0	✓	...
10, 10, 10,	...	6.7 6.5 6.5 7.0 6.8 6.9	7.9 7.5 7.4 8.2 7.8 7.8	✓	....
...10, 5, 10, ..10	.....	6.6, 6.8, 6.8, 6.7, 6.3, 6.7, 6.5, 6.4 6.3 7.1, 6.7, 7.1, 7.1, 7.2, 6.7, 7.1, 7.0, 7.4 7.2 5.5		✓	.....

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8h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Lines	Mag.	Spectrum	No. Plate	No. Lines
35	8 42.2	+8 1 49	8 42.8	+8 1 40	273	7.6	II?	1119, 1229, 1065, 1233, 1074,	2, 2, 5, 2, 2,
	8 39.7	+67 4							
	.6	+67 13	8 39.8	+67 5	560	8.0	I	446, 458, 441, 1072, 1112, 1064, 1113,	6, 5, 6, 6, 6, 8,
	.8	+83 17	8 44.5	+83 8	233	7.0	I	458, 1119, 1229, 1065, 1233, 1074, 1255, 1162,	3, 2, 2, 2, 2, 3, 3, 3,
36									
	.9	+85 15	8 48.2	+85 5	132	8.2	II	1065, 1074,	2, 2,
37									
38									
39									
No. 131	8 45.5	+78 32							
	.4	+78 42	8 45.5	+78 32	297	6.9	IIa	441, 1119, 1229, 1072, 1112, 1064, 1065, 1113,	2, 3, 4, 3, 3, 2, 3, 2,

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1887phae.proj..847f

8 h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean Residuals.	No Remarks.
10, 10, 10, 10, 10,	.....	7.1, 6.9, 6.5, 7.0 6.4	7.6, 7.5, 7.5 7.8 7.2	✓	....
.....	.....	5.8, 6.5, 6.4, 6.6, 5.8, 6.2, 5.7	5.8, 5.8, 5.7, 5.7, 5.6, 5.8, 5.5	✓	.....
10, 10, 10, 10, 10, 10,	.....	6.5, 6.4, 6.3, 6.0, 6.4, 6.0, 5.7, 6.4	6.8, 7.1, 7.1, 7.2, 7.4, 7.0, 6.6, 7.4	✓	985. .757, .983.
10, 10,	..	6.8, 7.0	8.4, 8.4	✓	..
10, ... 10, 10, 10, 10,	.....	6.8, 7.1, 6.7, 6.7, 6.6, 6.5, 6.5, 6.4	6.9, 7.3, 7.0, 7.2, 7.2, 6.9, 7.2, 7.0	✓	834, 125, .. 787, 857, 858

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1887phae.proj..847F

8 h

	1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate	No. Lines	
m										
40										
41										
	8 45.1	+62 20								
	8 45.2	+59 26								
	4	+62 30	8 45.2	+62 20	1027	5.7	I	458, 441, 1113,	7, 5, 6,	18,
	6	+59 36	8 45.2	+59 26	1198	6.5	IIa	458, 441,	2, 2,	10,
42										
43										
	8 48.0	+64 59								
44	1	+65 9	8 48.1	+64 59	673	6.0	III	458, 441, 1072, 1112, 1113,	3, 2, 2, 3, 3,	10
No. 129	3	+84 45	8 54.5	+84 35	196	6.0	I	165, 185, 353, 458, 495, 435, 1119, 1229, 1116	4, 3, 2, 7, 2, 2, 7, 6, 6	10

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8 h

K Line	I Line	Brightness	Corr. Brightness	Mean. Residuals	No.	Remarks
18, 10, 5,	...	6.3, 6.8, 6.1,	5.4, 5.9, 5.7		...	
10, 10,	..	6.7, 6.9,	5.7, 5.9,		107, 127,	
10, 10, 10, 10, 10,	5.5, 5.5	6.5 6.8 6.9 7.0 6.7, 6.4 6.0 6.2	5.7 6.0 6.1 6.2 6.3 6.1 5.7 5.9		....	
10, 10, 10, 10, 10, 10, 10, 10,	..... 5.5	6.8, 6.8, 6.0, 6.0, 5.7, 5.4, 6.0, 5.4	6.7 1, 7.0, 6.6, 6.9, 6.8, 6.4, 7.0, 6.5,		.. 91, .. 139, 151, ..	

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8 h

	1855 RA Elec	1855 RA Elec	1900 Elec	1900 Elec	No. Mag. Dim	Dim	Spectrum	No Plate	No Lines
	m								
	45								
	8 51.8 +79 45								
No 132	.4 +79 55	8 ~~52.0~~ 51.8	+79 45	294	7.0	I	441, 495, 435, 1119, 1229, 1112, 1064, 1065, 1113,	3, 4, 4, 2, 2, 5, 3, 5, 5,	
	.4 +81 36	8 ~~50.8~~ 52.6	+81 26	278	7.9	II	1229, 1065, 1113, 1074,	2, 2, 2, 2,	
	8 50.0 +66 23								
	46 .0 +66 33	8 50.0	+66 23	589	7.0	I	1112, 1113,	3, 4,	
	8 49.7 +58 36								
	.2 +58 40	8 49.7	+58 36	1159	7.0	I	458, 441, 1113,	5, 4, 6,	
	8 51.7 +76 48								
	.2 +76 58	8 51.7	+76 48	1335	7.5	III	1113,	2,	
	8 50.7 +63 44								
	.9 +63 54	8 50.7	+63 44	812	7.2	I	458, 1113,	5, 6,	
	47								
	.2 +84 13	8 56.6	+84 3	199	8.6	IIa	1065, 1255,	2, 4,	
	8 52.7 +76 5								
	.4 +76 15	8 52.7	+76 5	336	8.3	III?	1112,	2,	
	48 .0 +83 55	8 57.0	+83 45	239	9.0	II	1074,	2,	
No 125	49 .2 +81 24	8 56.3	+81 14	282	6.7	IIa	353, 446, 458, 441, 495, 1119, 1229, 1072,	2, 2, 7, 4, 2, 5, 3, 2,	
	8 53.5 +68 1								
	.4 +68 11	8 53.5	+68 1	551	5.1	III bc	458, 441, 1065, 1113,	2, 2, 3, 3,	
	8 54.0 +71 42								
	.5 +71 52	8 54.0	+71 42	486	6.7	I	458, 1072, 1065, 1113,	4, 2, 4, 4,	

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8 h

K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No. Rem.
10, 10, 5, 2,	8	6.9, 6.7, 6.7, 7.1, 6.8, 6.7, 6.6, 6.7, 6.6	7.1, 6.1, 7.0, 7.4, 7.2, 7.4, 7.1, 7.5, 7.3			
10, 10, 10, 10,		6.9, 6.8, 6.6	7.5, 7.8, 7.4			
	8	6.9, 6.6,	6.7, 6.4,			
5, 10,	8	7.1, 6.9, 6.5	6.1, 5.9, 6.0			
10,		6.9 7.0	7.3 7.4			
10,	8	6.9, 6.6,	6.4, 6.3,			
10,		6.8, 6.5	8.2, 7.6		87.0	
10,		7.0 7.2	7.4 7.6			
10,		7.1	8.2			
10, 10, 10, 10, 10, 10, 2	8	5.8, 6.2, 6.1, 6.1, 6.0	5.9, 6.6, 6.7, 6.6, 6.6		90. 133. 154.	
		6.6 6.4 6.1 6.1	6.0 5.8 6.1 6.0			
10, 10, 20, 10,	8	7.0 6.9 6.4 6.5	6.4 6.3 6.4 6.4		105. 84.5 83.2,	
10, 10, 10, 10,		7.2, 7.1, 6.6, 6.8,	6.8, 7.1, 6.8, 6.9			

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1855 R.A.	1855 Dec.	1900 R.A.	1900 Dec.	No. Obs.	Mag.	Spectrum.	No. Plate.	No. Lines.

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K Line.	I Line.	Brightness.	Corr. Brightness.	Mean.	Residuals.	No.	Remarks

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