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Occultations of Stars by the Moon

observed at the Royal Observatory, Cape of Good Hope, in the years 1881 to 1898.

(Communicated by *David Gill*, C. B., F. R. S.).

The following series of occultations observed here during the years 1881 to 1898 is forwarded for publication at the request of Monsieur Ch. André of the Lyons Observatory.

The observers are denoted as follows:

A. P. = Mr. <i>J. A. Pead</i>	H. = Mr. <i>S. S. Hough</i>	P. = Mr. <i>R. T. Pett</i>
C. = Mr. <i>W. H. Cox</i>	I. = Mr. <i>R. T. A. Innes</i>	de S. = Mr. <i>W. de Sitter</i>
E. = Dr. <i>W. L. Elkin</i>	J. P. = Mr. <i>J. Power</i>	V. L. = Mr. <i>V. Löwinger</i>
F. = Mr. <i>W. H. Finlay</i>	L. = Mr. <i>J. Lunt</i>	W. M. = Colonel <i>W. G. Morris</i>
G. = Dr. <i>D. Gill</i>	M. = Mr. <i>G. W. H. Maclear</i>	W. = Mr. <i>R. Woodgate</i>

The geographical position of the Transit Circle is

Lat. = $33^{\circ}56'3''5$ S; Long. = $1^h13^m54^s76$ E.

The positions of the various instruments relative to the Transit Circle are:

			Height above mean sea level
18 inch Equatoreal (Mc Clean)	$3^{\circ}40$ S ;	0^s028 W	40 feet
10 inch Equatoreal (Astrographic)	4.40 S ;	0.099 E	40 "
7 inch Equatoreal	2.00 N ;	0.115 W	35 "
7 inch and 4 inch Heliometers	2.01 N ;	0.047 E	40 "
6 inch Equatoreal	3.64 S ;	0.044 E	50 "
5 inch Equatoreal	3.97 S ;	0.059 E	35 "
3 inch (Indian Theodolite)	0.00 ;	0.218 W	20 "
3 inch and $2\frac{1}{2}$ inch telescopes	0.47 S ;	0.047 W	35 "

The Cape Sidereal Time given is that of the meridian of the Transit Circle.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1881								
1	Febr. 3	6.1	75 Piscium	D. D.	7 inch	F.	$5^h33^m44^s2$	Moon low. Definition very bad
2	Mar. 8	4.3	1 Geminorum	"	"	"	$9\ 32\ 58.5$	Sudden. Note
3	18	5.3	BAC. 4700	R. D.	"	"	$10\ 7\ 3\ 1$	
4	Oct. 3	5.7	19 Aquarii	D. D.	4 in. Heliom.	P.	$19\ 47\ 2.8$	
5	25	6.8	AOe ₂ 15466	"	7 inch	G.	$21\ 33\ 46.1$	
6	31	6.3	BAC. 7744	"	"	"	$3\ 6\ 35.2$	Observer not stated; probably G.
7	Nov. 1	6.5	3 Piscium	"	"	"	$0\ 25\ 7.2$	" " " " "
8	Dec. 24	4.8	ξ Aquarii	"	"	E.	$3\ 15\ 22.6$	
9	25	6.3	BD. — 3°5460	"	2 inch	G.	$2\ 33\ 6.3$	
10	27	7.5	Lal. 268	"	7 inch	F.	$3\ 5\ 57.4$	
11	27	5.6	d Piscium	"	"	"	$4\ 43\ 39.4$	
1882								
12	Jan. 11	5.0	ψ Virginis	R. D.	7 inch	P.	$8\ 45\ 31.6$	
13	Febr. 7	4.7	χ Virginis	"	"	"	$9\ 20\ 35.5$	
14	11	4.6	ω ³ Scorpil	"	"	"	$12\ 29\ 0.5$	

2. Near pole of moon. Moon advanced till star was close to some mountain tops and could scarcely be distinguished from them at the last.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1882								
15	Febr. 12	6.6	BAC. 5758	R. D.	7 inch	M.	12 ^h 52 ^m 16 ^s .4	Note
16	Mar. 7	6.5	50 Virginis	»	»	P.	7 39 8.8	
17	8	6.5	BAC. 4679	»	»	»	12 49 23.2	
18	April 20	5.7	BAC. 1373	D. D.	»	F.	8 53 57.0	
19	May 6	6.2	16 Sagittarii	R. D.	»	P.	19 8 12.8	
20	29	6.5	BAC. 4679	D. D.	»	F.	15 10 12.9	
21	June 4	5.0	g Sagittarii	R. D.	»	»	22 46 0.6	
22	July 2	3.4	β Capricorni	D. B.	»	G.	14 58 20.7	
23	21	4.7	χ Virginis	D. D.	»	F.	16 57 59.0	
24	21	..	»	»	4 in. Heliom.	G.	16 57 58.9	
25	Aug. 18	6.5	50 Virginis	»	7 inch	F.	17 22 51.7	Observer not stated
26	27	5.7	19 Aquarii	»	6 inch	»	17 11 9.0	
27	27	4.8	ξ Aquarii	D. B.	7 inch	»	1 17 50.2	
28	Sept. 7	6.4	5 Cancri	R. D.	»	»	4 2 51.6	
29	Oct. 15	8.2	Lal. 29130	D. D.	»	..	20 42 49.8	
30	17	7.5	Lal. 32585	»	»	F.	21 26 9.3	
31	17	8.0	Pi. 17 ^h 25 ⁱ	»	»	»	21 30 24.0	
32	17	8	BD. — 19° 47' 33	»	»	»	22 17 14.7	
33	Nov. 14	8.2	Lal. 34401	»	»	G.	0 11 38.7	
34	15	8	BD. — 17° 56' 50	»	»	»	23 47 46.9	
35	16	7	BD. — 13° 56' 61	»	»	»	23 12 23.0	
36	16	7.5	BD. — 14° 57' 38	»	»	»	23 44 32.4	
37	16	7.5	»	»	6 inch	E.	23 44 32.7	
38	16	8.9	BD. — 13° 56' 67	»	»	»	23 46 8.6	
39	16	7.5	BD. — 14° 57' 42	»	7 inch	G.	0 7 45.6	
40	16	7	»	»	6 inch	E.	0 7 45.7	
41	16	8.5	Lal. 39303	»	7 inch	G.	0 53 40.9	
42	18	6	BAC. 7744	»	»	»	23 36 50.8	
43	18	6	»	»	6 inch	E.	23 36 50.9	
44	18	8	BD. — 5° 57' 39	»	»	»	0 12 5.3	
45	18	8.9	BD. — 5° 57' 35	»	»	»	0 18 40.8	
46	18	6.7	BAC. 7752	»	»	»	0 49 17.3	
47	Dec. 5	1.2	α Virginis	D. B.	»	G.	8 22 36.5	
48	5	..	»	»	4 in. Heliom.	E.	8 22 36.5	
49	5	..	»	R. D.	6 inch	G.	9 5 14.5	
50	5	..	»	»	4 in. Heliom.	E.	9 5 14.2	
1883								
51	Febr. 14	6.6	BAC. 1242	D. D.	7 inch	F.	6 0 3.8	Definition good. Note
52	April 28	5.5	e ¹ Sagittarii	R. D.	»	»	14 47 8.1	
53	May 13	5.4	h Leonis	D. D.	»	P.	11 59 59.5	Star not very bright. Note
54	July 19	5.0	e ² Sagittarii	D. B.	»	F.	15 43 31.9	
55	Sept. 7	6.2	ζ^1 Librae	D. D.	»	»	19 9 11.2	
56	20	7.0	BAC. 1096	R. D.	»	»	23 17 50.7	
57	Nov. 13	6.5	29 Arietis	D. D.	»	»	23 11 1.1	
1884								
58	Jan. 2	5.9	44 Aquarii	D. D.	7 inch	F.	3 27 34.9	Exact
59	7	5.8	o Arietis	»	»	»	3 6 54.3	»
60	Mar. 8	7.0	Pi. 8 ^h 263	»	»	»	12 45 21.8	Very faint; fair
61	9	6.4	BAC. 3407	»	»	»	10 22 20.4	Good
62	9	5.0	π Leonis	»	»	»	11 56 47.8	Good. Took 0 ^s .3 $\pm$ to attain full brilli-
63	15	5.4	μ Librae	R. D.	»	»	12 33 7.5	[ancy]
64	24	5.5	κ Aquarii	»	6 inch	»	17 14 36.9	Def. extremely bad; moon very low. Note
65	29	5.5	σ Arietis	D. D.	»	P.	17 18 8.2	

16. Vapour passing. Not good. Moon just clear of trees. — 52. A very conspicuous mountain at moon's edge, just below point of disappearance. — 54. Moon's limb seemed broken at the point of contact, yet star moved steadily up to and was last seen touching an illuminated part. — 65. Star scarcely brighter than dark limb; may be 0^s.5 out.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1884								
66	May 1	5.9	29 Cancri	D. D.	7 inch	F.	8 ^h 16 ^m 16 ^s .9	Very faint; cloudy. Fair; cannot be 1 ^s out
67	30	6.4	BAC. 3407	"	"	"	10 13 57.6	Good. Star often lost in cloud
68	June 5	5.4	μ Librae	"	"	"	12 33 34.6	Exact
69	Aug. 6	4.6	ν Aquarii	D. B.	"	"	20 31 7.6	Star faint; could not follow right up to limb
70	Sept. 11	5.1	m Tauri	R. D.	"	"	1 4 9.5	Very good
71	Oct. 3	6.1	21 Piscium	D. D.	"	"	19 28 18.8	Perhaps 0 ^s .5 early; def. extr. bad and star faint
72	28	5.2	c ¹ Capricorni	"	"	"	21 56 31.8	Exact
73	28	"	"	R. B.	"	"	22 37 47.8	Fair. Definition good
74	Nov. 29	5.8	54 Ceti	D. D.	6 inch	"	4 4 35.5	Good; not quite instant.; light diminish. 0 ^s .2 earlier
75	29	"	"	"	7 inch	M.	4 4 35.8	Good
76	Dec. 1	6.0	BAC. 1206	"	"	"	4 16 13.5	Fair
77	2	5.1	i Tauri	D. B.	6 inch	F.	1 4 34.2	Fair; bad definition. Note
78	2	"	"	R. B.	"	"	2 10 28.9	V. faint; star a little dist. from slightly broken edge
79	2	"	"	"	7 inch	M.	2 11 7.3	Good. No error in reductions
1885								
80	Jan. 4	5.2	48 Leonis	R. D.	6 inch	F.	7 5 51.3	Very fair
81	4	"	"	"	7 inch	M.	7 5 51.0	Good
82	Mar. 4	4.3	α Virginis	"	"	F.	14 22 44.2	Very good
83	April 2	4.0	γ Librae	D. B.	"	"	16 2 18.8	Pretty good
84	2	"	"	R. D.	"	"	17 16 38.6	Excellent; exact
85	4	6.2	BAC. 5771	"	"	"	11 20 36.0	Good
86	18	5.1	m Tauri	D. D.	"	"	10 8 6.2	Good. Moon very low; star faint at times
87	May 5	3.4	β Capricorni	D. B.	"	"	19 3 47.2	Good. Followed right up to moon's limb
88	5	6.7	BAC. 6992	R. D.	"	"	19 53 42.9	Very good; exact
89	5	3.4	β Capricorni	"	"	"	20 1 30.2	V. good; exact. Faint speck of light seen 0 ^s .1 earl.
90	22	5.0	τ Leonis	D. D.	"	"	9 3 11.2	Very good; daylight
91	24	4.4	θ Virginis	"	"	"	10 16 30.7	Very faint; cloudy. Cannot be 0 ^s .5 in error
92	June 23	4.0	γ Librae	"	"	"	18 54 5.8	Exact
93	25	6.2	BAC. 5771	"	"	"	13 8 52.8	Very good; definition very poor
94	25	6.0	BAC. 5839	"	"	"	21 26 18.1	Good; became very faint on nearing the moon
95	28	5.5	e ¹ Sagittarii	R. D.	"	"	15 40 39.9	Fair; bad def.; moon v. unstead. & star faint. Note
96	July 1	4.3	θ Aquarii	"	"	"	0 35 34.6	Good
97	26	3.4	β Capricorni	D. B.	"	"	19 52 49.7	Good. Note
98	26	"	"	R. B.	"	"	21 3 36.8	Very good. Bright speck right on moon's limb
1886								
99	Jan. 14	5.2	38 Arietis	D. D.	7 inch	G.	6 14 53.1	Good; instantaneous
100	Febr. 9	6.9	Pi. 1 ^h 123	"	"	F.	6 19 58.8	Note
101	12	7.3	Pi. 3 ^h 261	"	"	"	5 10 29.9	Very good
102	13	5.1	m Tauri	"	"	"	4 49 22.9	"
103	14	5.1	γ 1 Orionis	"	"	"	8 34 57.2	"
104	Mar. 20	7.7	Lal. 23732	R. D.	"	"	9 13 27.9	Note
105	April 29	"	Venus S cusp	D. D.	3 inch	G.	18 57 30.1	Good; the difference in colour enabling observer to follow the last trace of Venus on to moon's limb
106	29	"	"	D. B.	7 inch	F.	18 56 25.8	
107	29	"	" N cusp	"	"	"	18 56 30.8	
108	29	"	" br. limb	"	"	"	18 57 5.2	Sharp
109	29	"	" S cusp	R. D.	3 inch	G.	20 15 40.2	
110	29	"	" N cusp	"	7 inch	F.	20 15 38.7	
111	29	"	" S cusp	"	"	"	20 15 54.8	Good
112	29	"	" 2 ^d limb	"	"	"	20 16 21.4	
113	May 14	6.1	46 Virginis	D. D.	"	"	15 45 31.7	
114	16	5.8	ξ ² Librae	"	"	"	19 45 23.2	"

77. Star became invisible to M. at 7 inch 6^s.3 earlier. — 95. Near illuminated part. — 97. Star followed till within apparent edge. Star's light was white compared to the moon's and was seen apparently on the moon. — 100. Good; definition poor; moon's dark edge plainly visible. Star became gradually fainter from about 0^s.5 before disappearance. — 104. Faint; definition very bad. Looking at exact place; observation good. Evidently 1^m in error.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1886								
115	May 20	5.2	BAC. 6294	R. D.	7 inch	F.	21 ^h 38 ^m 6 ^s .2	Note
116	21	3.9	ρ^1 Sagittarii	D. B.	»	»	18 35 19.7	Good. Note
117	21	..	»	R. D.	»	»	19 7 31.5	Very good
118	24	5.4	λ Capricorni	»	»	G.	17 7 41.3	Not particularly good; eye not on spot
119	June 6	5.2	ϕ^1 Cancr	D. D.	»	F.	10 56 47.0	Exact
120	9	..	Jupiter 2 ^d limb	»	»	»	17 23 8.2	Poor; cloudy
121	10	3.6	γ Virginis N star	»	»	»	12 55 48.3	Very good
122	10	3.6	» S star	»	»	»	12 55 59.6	»
123	10	3.6	» N star	R. B.	»	»	14 17 49.6	Good; high power used. Looking at spot
124	10	3.6	» S star	»	»	»	14 18 0.4	»
125	10	7.7	Lal. 23732	D. D.	»	»	14 15 39.4	Good
126	15	6.2	BAC. 5771	»	»	»	13 43 34.4	Very good
127	July 5	4.0	ρ Leonis	R. B.	»	»	13 10 2.9	Lb. boiling excessively; caught in midst of boiling
128	8	6.1	65 Virginis	D. D.	»	»	16 8 4.7	Exact
129	8	5.8	66 Virginis	»	»	»	17 6 46.0	»
130	Aug. 10	8.1	BAC. 6293	»	»	»	21 33 52.8	Very good
131	24	5.1	γ^1 Orionis	R. D.	»	»	4 4 46.5	»
132	Sept. 5	6.0	BAC. 5839	D. D.	»	»	20 28 41.2	Exact
133	Oct. 7	5.4	18 Aquarii	»	»	»	1 42 14.4	Good
134	Nov. 1	3.9	ρ^1 Sagittarii	»	»	»	23 41 47.3	Exact
135	12	4.7	δ^2 Tauri	R. D.	»	»	6 27 25.7	Good; def. poor; seemed graduall.; look. at spot
136	14	5.6	68 Orionis	»	»	»	2 57 50.5	Good
137	Dec. 6	5.2	μ Piscium	D. D.	»	»	5 34 45.0	Exact
138	11	5.9	χ^2 Orionis	R. D.	»	»	6 37 12.5	Very doubtful. Def. very bad; star very faint
139	15	5.3	ν Leonis	»	»	»	10 32 31.2	Very uncertain; extremely faint
1887								
140	Jan. 11	6.8	γ Leonis	R. D.	7 inch	F.	10 36 9.8	Very good
141	19	6.2	BAC. 5695	»	6 inch	»	10 53 7.7	»
142	31	7.6	BAC. 744	D. D.	7 inch	»	5 44 19.5	»
143	Febr. 1	6.3	BAC. 987	»	»	»	4 8 1.6	»
144	4	5.9	χ^2 Orionis	»	»	»	5 13 1.7	»
145	10	5.2	b Virginis	R. D.	»	»	8 45 53.2	»
146	18	7.0	Lal. 36688	»	»	»	14 46 6.0	»
147	Mar. 14	4.4	ϕ Ophiuchi	D. B.	»	»	17 2 58.5	Not very good; drifting vapour; star faint
148	14	..	»	R. D.	»	»	17 49 45.5	Good. Daylight
149	31	5.6	68 Orionis	D. D.	»	»	9 43 55.2	»
150	April 4	1.4	α Leonis	»	»	»	13 8 54.0	Exact
151	4	..	»	R. B.	»	»	14 9 51.1	Exact; looking at spot. High power
152	6	5.2	b Virginis	D. D.	»	»	9 51 22.0	Exact
153	9	6.2	18 Librae	R. D.	»	»	13 33 52.9	Very good; looking exactly at spot
154	15	6.2	BAC. 7097	»	6 inch	»	14 13 55.1	Good
155	15	6.0	BAC. 7145	»	»	»	16 57 10.9	»
156	May 1	5.7	ψ Leonis	D. D.	7 inch	»	11 36 31.1	Exact
157	June 3	6.2	18 Librae	»	»	»	11 33 45.8	»
158	6	6.5	BAC. 6060	R. D.	»	»	13 43 35.0	Fair. Extremely faint when first seen; foggy
159	9	6.0	BAC. 7263	»	»	»	22 49 48.5	Exact
160	13	6.4	4 Ceti	»	»	»	21 32 4.6	»
161	13	6.3	5 Ceti	»	»	»	22 5 20.9	»
162	16	7.6	BAC. 741	»	6 inch	»	22 6 29.6	»
163	July 29	4.4	ϕ Ophiuchi	D. D.	7 inch	»	22 12 23.7	Exact
164	Aug. 1	5.5	BAC. 6536	»	»	»	14 51 16.4	»
165	1	4.9	d Sagittarii	»	»	»	20 58 10.2	»
166	5	6.9	64 Aquarii	R. D.	»	»	18 13 56.7	Good; faint
167	14	4.8	χ^4 Orionis	»	6 inch	»	2 40 2.9	Very good

115. Moon completely hidden in cloud for 2^m before this. Uncertain if real reappearance. — 116. High power used and star followed easily up to limb. Disappeared at edge of a hollow.

No.	Date	Mag	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1887							
168	Sept. 3	5.0	27 Piscium	R. D.	7 inch	F.	20 ^h 28 ^m 12 ^s .9	Exact
169	3	5.1	29 Piscium	»	»	»	23 18 23.4	»
170	13	5.8	♂ Cancrī	»	6 inch	»	3 48 56.5	Very good
171	Nov. 7	4.3	♂ Cancrī	»	7 inch	»	5 7 13.2	»
172	21	5.3	42 Capricorni	D. D.	»	G.	23 40 10.4	»
173	22	4.8	♂ Aquarii	»	7 in. Heliom.	»	23 40 21.7	»
174	22	6.8	58 Aquarii	»	»	»	0 5 8.5	»
175	24	6.4	4 Ceti	»	7 inch	F.	2 57 48.0	Exact
176	24	6.3	5 Ceti	»	»	»	3 19 59.9	Good; did not seen quite instantaneous
177	24	..	»	»	7 in. Heliom.	G.	3 20 0.2	Very good
178	24	7.4	Pi. 23 ^h 282	»	»	»	3 54 12.4	Fair
179	27	7.6	BAC. 741	»	»	»	4 10 35.9	Good
180	Dec. 17	5.0	♀ Capricorni	»	} Probably	W. M.	2 0 42.7	
181	17	7.3	Bradley 2627	»			2 4 23.0	
	1888							
182	Jan. 15	5.2	μ Capricorni	D. D.	7 inch	F.	3 32 25.0	Uncertain
183	27	5.3	85 Geminorum	»	»	»	10 51 51.1	
184	28	—	127	D.	»	»	8 14 36.8	
185	28	—	»	»	5 inch	M.	8 14 35.6	
186	28	—	121	»	»	»	8 15 55.6?	
187	28	—	»	»	7 inch	F.	8 16 1.2	
188	28	—	76	R.	»	»	8 24 40.9	
189	28	—	146	D.	7 in. Heliom.	G.	8 28 28.2	
190	28	—	»	»	7 inch	F.	8 28 26.4	
191	28	—	»	»	5 inch	M.	8 28 26.7	
192	28	—	143	»	7 in. Heliom.	G.	8 29 5.3	Uncertain
193	28	—	»	»	7 inch	F.	8 29 4.8	
194	28	—	147	»	5 inch	M.	8 31 41.2?	189°
195	28	—	122?	R.	7 in. Heliom.	G.	8 31 40.8	
196	28	—	88	»	7 inch	F.	8 31 44.4	Doubtful. Note
197	28	—	95	»	7 in. Heliom.	G.	8 44 20.0	
198	28	—	»	»	5 inch	M.	8 44 53.4?	Good
199	28	—	158	D.	7 inch	F.	8 56 30.3	
200	28	—	159	»	7 in. Heliom.	G.	8 58 45.3	
201	28	—	»	»	7 inch	F.	8 58 45.4	
202	28	—	»	»	5 inch	M.	8 58 45.6	
203	28	—	111	R.	7 inch	F.	9 0 50.9	
204	28	—	107?	»	5 inch	M.	9 0 59.0?	
205	28	—	107?	»	»	»	9 1 25.1?	
206	28	—	121	»	7 inch	F.	9 2 54.9	
207	28	—	»	»	5 inch	M.	9 3 9.4?	
208	28	—	113	»	7 inch	F.	9 5 57.8	Perhaps a little late; very faint
209	28	—	»	»	5 inch	M.	9 6 29.4?	
210	28	—	127	»	7 in. Heliom.	G.	9 21 10.7	Very good
211	28	—	»	»	5 inch	M.	9 21 14.3?	
212	28	—	173	D.	7 inch	F.	9 23 29.8	Very good; seen within moon's limb
213	28	—	132	R.	5 inch	M.	9 27 46.4?	
214	28	—	191	D.	7 in. Heliom.	G.	9 28 6.8	Good
215	28	—	»	»	6 inch	C.	9 28 6.7	
216	28	—	189	»	7 in. Heliom.	G.	9 43 17.0	
217	28	—	»	»	7 inch	F.	9 43 15.9	
218	28	—	»	»	5 inch	M.	9 43 9.9?	
219	28	—	179	»	7 in. Heliom.	G.	9 50 39.1	
220	28	—	»	»	7 inch	F.	9 50 39.1	

184–220. Observed during Lunar eclipse. — 186, 194, 198, 204, 205, 207, 209, 211, 213, 218. Probably not true occultation. — 197. F. noted »some way from limb at 8^h 44^m 29^s.₄.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1888							
221	Jan. 28	—	179	D.	5 inch	M.	9 ^h 50 ^m 38 ^s .9	Very good
222	28	—	146	R.	7 inch	F.	9 53 59.9	Good
223	Mar. 9	5.8	44 Capricorni	R. D.	7 in. Heliom.	G.	15 39 25.2	Excellent
224	9	5.8	45 Capricorni	»	»	»	15 47 50.8	
225	18	4.0	δ ¹ Tauri	D. D.	7 inch	F.	7 58 55.5	Exact
226	18	..	δ ² Tauri	»	7 in. Heliom.	G.	7 58 55.8	Good
227	25	5.3	1 Leonis	»	7 inch	F.	12 40 44.7	
228	April 16	7.3	Pi. 5 ^h 222	»	»	»	9 22 39.3	
229	16	8.5	Lal. 10955	»	»	»	9 23 40.9	
230	23	7.3	Pi. 12 ^h 6	»	»	»	10 56 12.8	
231	July 17	5.8	ξ ² Librae	»	7 in. Heliom.	G.	18 31 5.4	
232	17	5.8	»	»	2 1/2 inch	W. M.	18 31 5.2	
233	17	6.2	18 Librae	»	7 in. Heliom.	G.	19 32 37.5	
234	17	6.2	»	»	7 inch	W. M.	19 32 37.6	
235	20	6.5	BAC. 6081	»	7 in. Heliom.	G.	20 53 48.5	
236	20	..	»	»	7 inch	W. M.	20 53 48.7	
237	21	5.0	ξ ¹ Sagittarii	»	»	M.	18 21 11.0	
238	21	3.5	ξ ² Sagittarii	»	»	»	18 36 4.1	
239	21	..	»	R. B.	»	»	19 22 39.0	
240	23	6.0	19 Capricorni	R. D.	7 in. Heliom.	G.	17 36 51.6	
241	23	..	»	»	7 inch	W. M.	17 36 50.3	
242	23	6.3	21 Capricorni	»	»	»	21 21 31.6	
243	23	4.3	δ Capricorni	»	7 in. Heliom.	G.	0 33 43.3	
244	23	..	»	»	7 inch	W. M.	0 33 43.8	
245	25	6.3	70 Aquarii	»	»	»	20 37 20.7	Minute uncertain, 37 or 36
246	28	6.8	35 Ceti	»	7 in. Heliom.	G.	21 24 31.5	
247	Aug. 17	6.0	BAC. 6347	D. D.	7 inch	F.	21 22 33.2	Exact
248	Sept. 13	5.6	15 Sagittarii	»	7 in. Heliom.	G.	18 2 38.3	
249	13	..	»	»	7 inch	W. M.	18 2 38.1	
250	13	4.9	21 Sagittarii	»	»	F.	23 41 47.4	Fair
251	Oct. 9	6.5	29 Ophiuchi	»	7 in. Heliom.	G.	22 3 7.2	
252	9	6.5	»	»	3 inch	W. M.	22 3 6.8	
253	15	6.3	70 Aquarii	»	7 in. Heliom.	G.	1 13 33.8	
254	Nov. 15	4.7	ν Piscium	»	7 inch	F.	1 20 52.1	Exact
255	Dec. 20	5.3	μ ² Cancri	R. D.	»	»	8 29 53.6	Very good
	1889							
256	Jan. 8	6.8	35 Ceti	D. D.	7 inch	F.	3 48 13.3	Exact
257	14	6.7	141 Tauri	»	7 in. Heliom.	»	5 47 42.0	
258	Febr. 5	4.7	ν Piscium	»	7 inch	»	5 43 0.1	Exact
259	Mar. 10	var.	η Geminorum	»	»	»	8 7 24.1	»
260	10	..	»	»	7 in. Heliom.	G.	8 7 23.8	
261	11	5.9	44 Geminorum	»	7 inch	F.	7 5 21.5	Good
262	23	5.9	14 Sagittarii	R. D.	»	»	16 36 59.0	Exact
263	24	7.0	Pi. 19 ^h 4	»	»	»	14 55 29.2	Very good
264	April 20	6.1	30 Sagittarii	»	»	»	13 53 26.8	»
265	20	6.8	31 Sagittarii	»	»	»	14 20 17.4	»
266	May 11	6.1	BAC. 4254	D. D.	»	»	17 48 37.3	Very fair; def. poor; very unsteady; barely
267	June 5	7.2	Pi. 10 ^h 3	»	»	»	12 1 44.2	Exact [visible]
268	5	5.7	1 Leonis	»	»	»	14 16 18.8	»
269	10	5.9	ξ ¹ Librae	»	»	»	18 22 33.0	Very good
270	14	7.2	Pi. 18 ^h 294	R. D.	»	»	18 34 29.7	Very good. Faint
271	22	7.6	BAC. 741	»	»	»	23 35 23.8	Very good
272	July 19	5.7	64 Ceti	»	»	»	2 10 46.3	»
273	Aug. 8	6.5	BAC. 6485	D. D.	»	»	15 18 27.7	Exact
274	8	7.2	BAC. 6524	»	7 in. Heliom.	G.	17 44 35.2	

221, 222. Observed during Lunar eclipse.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1889								
275	Sept. 4	5.2	ν^2 Sagittarii	D. D.	7 in. Heliom.	F.	$0^h 46^m 3^s.3$	Good
276	30	6.5	BAC. 5866	»	7 inch	»	19 53 29.1	»
277	Oct. 10	5.2	38 Arietis	R. D.	»	»	2 18 12.6	Extremely faint; telegraph pole in way
278	Nov. 6	7.0	Bradley 341	D. D.	»	»	1 52 35.6	Note
279	29	5.8	74 Aquarii	»	»	»	0 56 50.4	Exact
280	Dec. 1	6.9	15 Ceti	»	»	M.	4 36 1.0	Good
281	29	6.3	33 Ceti	»	»	»	3 39 24.5	V. faint; through cirro-strat. Disap. gradually
282	31	5.2	38 Arietis	»	»	C.	3 16 58.6	Very good
1890								
283	Febr. 12	4.3	θ Librae	R. D.	7 inch	F.	12 37 40.5	Exact
284	Mar. 14	5.8	BAC. 6343	»	»	»	15 44 55.2	»
285	April 7	6.3	0^2 Librae	»	»	»	15 19 16.3	Very good
286	15	5.1	ψ^3 Aquarii	»	7 in. Heliom.	»	17 50 59.8	»
287	28	3.6	η Leonis	D. D.	7 inch	»	12 44 45.2	Exact
288	May 9	6.0	BAC. 6864	R. D.	7 in. Heliom.	»	13 59 34.3	Very good
289	30	6.4	BAC. 4572	D. D.	7 inch	»	13 23 48.8	Exact
290	June 4	5.9	24 Sagittarii	R. D.	»	»	14 41 30.9	Very good
291	5	6.2	53 Sagittarii	»	»	»	14 56 1.1	»
292	5	6.2	BAC. 6727	»	»	»	15 3 22.2	»
293	6	5.8	17 Capricorni	»	»	»	16 14 13.8	»
294	July 21	5.5	ω Virginis	D. D.	»	»	16 18 19.7	»
295	Aug. 26	6.4	BAC. 6576	»	»	»	17 49 53.7	»
296	Sept. 1	5.1	f Piscium	R. D.	»	»	22 7 9.9	Good
297	30	5.6	31 Arietis	»	»	»	22 31 55.9	Very good
298	Oct. 2	5.7	BAC. 1373	D. D.	»	»	0 37 41.8	Good. Note
299	2	..	»	R. D.	»	»	0 54 35.4	Very good
300	24	6.5	BAC. 8214	D. D.	7 in. Heliom.	»	0 1 29.4	»
301	Nov. 17	6.5	BAC. 7049	»	7 inch	»	0 59 30.7	Very good
302	20	5.1	ψ^3 Aquarii	»	»	»	0 13 14.0	Exact
303	Dec. 1	6.5	79 Cancr	R. D.	»	»	5 4 56.5	Good
304	23	5.5	53 Tauri	D. D.	»	»	5 41 48.6	Very good
1891								
305	Febr. 20	5.7	λ Cancr	D. D.	7 in. Heliom.	F.	8 54 39.3	»
306	21	6.5	BAC. 3138	»	7 inch	»	10 33 29.1	Very good
307	Mar. 15	5.4	56 Tauri	»	»	»	6 48 16.6	Exact
308	19	5.9	ω^1 Cancr	»	»	»	7 7 39.9	»
309	19	7.0	ω^2 Cancr	»	»	»	7 14 49.4	Very good
310	May 4	6.0	BAC. 81	R. D.	»	»	20 6 1.7	Good. Cloudy till a few seconds before reapp.
311	14	5.2	ξ Cancr	D. D.	»	»	10 21 39.9	Exact
312	14	6.5	79 Cancr	»	»	»	11 1 44.4	»
313	28	5.5	ϕ Capricorni	R. D.	»	»	16 11 44.4	»
314	July 18	7.0	Bradley 2182	D. D.	»	»	14 3 23.5	Exact
315	18	7.0	Pi. 17 ^h 31	»	»	»	14 21 51.5	»
316	18	6.0	39 Ophiuchi	»	»	»	14 22 23.4	»
317	22	4.5	ε Capricorni	R. D.	»	»	19 38 22.2	Exact
318	Aug. 14	7.2	22 Ophiuchi	D. D.	»	»	16 25 21.5	»
319	18	5.3	χ Capricorni	»	»	»	20 1 25.4	»
320	20	4.5	ψ^1 Aquarii	R. D.	»	»	2 24 17.4	»
321	20	4.5	ψ^2 Aquarii	»	»	»	3 13 39.2	»
322	24	5.5	σ Arietis	»	»	»	0 16 59.3	Note
323	Oct. 12	5.5	ϕ Capricorni	D. D.	»	»	23 18 17.9	Good
324	14	4.5	ψ^1 Aquarii	»	»	»	3 1 5.9	Exact
325	14	4.5	ψ^2 Aquarii	»	»	»	3 41 20.0	»

278. Close to illuminated limb; very difficult to see. Uncertain 1^s. — 298. Disappeared just beyond the fully illuminated limb; crossed in front of a dark crater and disappeared just before reaching the illuminated corner of the crater. — 322. Very good. May 0^s2 in error; not looking exactly at spot.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
326	1891 Nov. 6	2.3	σ Sagittarii	D. D.	10 inch	G.	21 ^h 37 ^m 12 ^s 3	Exact
327	6	..	»	»	6 inch	P.	21 37 12.4	Good
328	6	..	»	R. B.	10 inch	G.	22 50 24.8	
329	6	..	»	»	7 inch	M.	22 50 24.5	Good
330	19	4.2	ν Geminorum	R. D.	»	F.	7 51 54.9	Very good; looking at spot
331	1892 Jan. 4	4.5	ψ^1 Aquarii	D. D.	7 inch	F.	4 33 30.3	Exact
332	Febr. 23	2.3	σ Sagittarii	R. D.	7 in. Heliom.	»	12 20 47.9	Exact; looking at spot
333	May 13	6.1	26 Ophiuchi	»	7 inch	»	12 8 26.8	Very good
334	July 4	3.0	α Librae	D. D.	»	»	18 2 33.3	Exact
335	6	7.0	Cord. GC. 22239	»	»	»	14 57 56.4	
336	6	6.3	ρ Ophiuchi N star	»	»	»	15 1 38.1	
337	6	5.3	» S star	»	»	»	15 1 44.9	
338	7	6.2	BAC. 5909	»	»	»	22 41 53.9	Note
339	11	5.3	χ Capricorni	R. D.	6 inch	»	15 5 48.9	Very good
340	Aug. 3	6.3	BAC. 5709	D. D.	7 inch	C.	17 54 20.7	
341	Sept. 6	4.5	ψ^1 Aquarii	D. B.	»	F.	19 58 22.6	Note
342	11	6.6	33 Tauri	R. D.	»	»	1 15 54.2	Very good
343	Oct. 25	9.0	Cord. ZC. 17 ^h 2867	D. D.	6 inch	»	9 18 34.7	
344	25	7.0	BAC. 6024	»	»	»	9 21 23.6	Very good; gradual, extended over 0 ^s 2
345	Dec. 12	6.1	46 Virginis	R. D.	»	»	8 42 18.4	Very good
346	1893 Jan. 8	2.8	γ Virginis (mass)	R. D.	6 inch	F.	7 48 8.2	Def. v. bad; moon low. Seen as one mass
347	Mar. 25	4.0	ι Geminorum	D. D.	»	»	10 10 10.6	Very good
348	April 23	6.5	79 Cancer	»	7 inch	»	13 20 0.5	»
349	May 8	4.5	ε Capricorni	R. D.	»	»	17 57 56.2	»
350	28	4.9	ι^1 Librae	D. D.	»	P.	17 10 45.9	Definition poor; cloudy
351	June 24	6.7	Bradley 1895	»	»	F.	13 2 57.3	Exact
352	July 1	5.3	χ Capricorni	R. D.	»	»	21 54 12.8	Very good
353	6	4.2	ζ^1 Piscium	»	»	»	23 57 3.3	Good. Is star double? Note
354	Aug. 2	7.0	BAC. 274	»	»	»	1 30 7.5	Very good
355	21	var.	3 Sagittarii	D. D.	»	P.	20 42 58.0	Good
356	Sept. 3	1.9	β Tauri	D. B.	7 in. Heliom.	G.	1 21 15.4	Instantaneous
357	3	..	»	»	7 inch	W.	1 21 13.4	Limb very diffused
358	23	6.3	70 Aquarii	D. D.	»	P.	2 1 44.2	
359	Oct. 20	6.0	50 Aquarii	»	»	»	1 23 28.2	Good
360	26	4.2	23 Tauri	R. D.	7 in. Heliom.	F.	6 18 45.6	
361	26	..	»	»	7 inch	P.	6 18 45.4	Good
362	26	4.0	20 Tauri	»	7 in. Heliom.	F.	6 28 29.5	
363	26	4.0	»	»	7 inch	P.	6 28 29.6	Good
364	26	3.0	η Tauri	»	»	»	7 10 48.7	
365	Nov. 19	5.8	44 Piscium	D. D.	»	F.	1 5 3.3	Very good
366	24	1.9	β Tauri	D. B.	10 inch	G.	5 51 20.2	
367	24	..	»	»	7 in. Heliom.	F.	5 51 20.3	Note
368	24	1.9	»	»	7 inch	C.	5 51 19.7	
369	24	..	»	R. D.	10 inch	G.	7 8 11.6	
370	24	..	»	»	7 inch	C.	7 8 12.0	
371	Dec. 20	7.0	9 Tauri	D. D.	»	»	2 33 30.2	
372	20	3.8	17 Tauri	»	7 in. Heliom.	F.	7 2 5.5	Very good
373	20	..	»	»	7 inch	C.	7 2 5.5	
374	20	6.5	16 Tauri	»	10 inch	G.	7 12 18.5	
375	20	..	»	»	7 in. Heliom.	F.	7 12 18.9	Poor; def. very bad; star very faint
376	20	..	»	»	7 inch	C.	7 12 18.8	Very faint and diffused

338. Very doubtful if real occultation seen. Close to illuminated part; star very faint and difficult to follow. — 341. Fair. Moon's limb apparently fully illuminated. High power. — 353. Became suddenly much brighter about 0^s 2 after first seen. — 367. Very good. Star right inside limb at time given.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1893								
377	Dec. 20	4.0	20 Tauri	D. D.	7 in. Heliom.	F.	7 ^h 45 ^m 19 ^s .0	Good
378	20	..	»	»	7 inch	C.	7 45 18.5	Very bad definition
379	20	4.2	23 Tauri	»	7 in. Heliom.	F.	7 53 42.1	Poor; definition dreadful; star scarcely visible
380	20	..	»	»	7 inch	C.	7 53 41.4	
1894								
381	Jan. 14	1.9	β Tauri	D. D.	7 inch	F.	8 41 50.3	Very good
382	Febr. 28	5.8	BAC. 6063	R. D.	»	P.	13 19 34.3	
383	Mar. 14	6.2	BAC. 1772	D. D.	»	F.	6 47 38.0	Very good
384	16	4.9	ϕ Geminorum	»	»	»	9 29 36.8	»
385	31	5.3	χ Capricorni	R. D.	»	»	15 26 2.6	Good
386	April 24	8.0	Pi. 17 ^h 35 ⁱ	»	»	»	13 43 40.5	Good. Did not attain full brightness for
387	24	4.7	BAC. 6127	»	»	»	14 25 9.7	Very good [0 ^s .2
388	25	3.5	τ Sagittarii	»	»	»	17 22 47.7	»
389	29	6.0	50 Aquarii	»	6 inch	»	16 27 22.4	»
390	29	6.4	Bradley 2961	»	7 inch	»	19 53 40.3	»
391	May 2	5.7	BAC. 221	»	6 inch	»	19 50 56.2	Good
392	21	5.8	BAC. 6063	»	7 inch	»	20 40 30.3	Pretty good; star faint
393	July 15	8.0	BAC. 6120	D. D.	»	P.	14 19 5.4	Difficult; moon nearly full; star faint
394	15	4.7	BAC. 6127	»	»	»	15 11 1.5	
395	Aug. 4	3.7	β Virginis	»	»	A. P.	14 51 46.3	
396	Sept. 21	6.2	BAC. 1772	R. D.	»	F.	4 7 24.1	Exact
397	Dec. 2	5.2	η Capricorni	D. D.	»	»	1 56 32.6	»
1895								
398	Jan. 1	6.8	82 Aquarii	D. D.	7 inch	F.	2 40 42.7	Very good
399	20	1.1	α Scorpii	D. B.	»	»	10 48 35.7	
400	20	1.1	»	»	10 inch	P.	10 48 35.6	
401	20	1.1	»	»	7 in. Heliom.	A. P.	10 48 35.3	
402	20	1.1	»	R. D.	7 inch	F.	11 37 7.8	
403	20	1.1	»	»	10 inch	P.	11 37 7.7	
404	Febr. 6	5.5	53 Aurigae	D. D.	7 inch	A. P.	5 38 10.6	
405	6	5.4	28 Geminorum	»	»	P.	9 4 2.6	Good
406	13	1.2	α Virginis	D. B.	10 inch	F.	7 21 55.6	Very uncertain; definition extremely bad
407	13	..	»	R. D.	»	»	7 49 19.8	Good
408	13	..	»	»	6 inch	A. P.	7 49 19.6	
409	18	8.0	BAC. 6120	»	7 inch	F.	14 4 2.7	Very good
410	18	4.7	BAC. 6127	»	»	»	14 48 36.5	»
411	April 3	5.9	ω^1 Cancri	D. D.	»	»	10 17 45.1	Exact
412	May 6	5.9	BAC. 4394	»	»	»	11 31 32.5	Good
413	July 30	5.4	BAC. 5314	»	»	»	20 2 52.0	Very good
414	Nov. 5	6.2	BAC. 1772	R. D.	»	»	5 51 51.3	Hazy; star faint. May be late
1896								
415	Jan. 7	5.5	i Virginis	R. D.	7 inch	F.	10 41 37.7	Very good
416	31	4.0	ρ Leonis	»	»	»	12 44 55.4	»
417	Mar. 8	4.6	h ² Sagittarii	»	»	»	14 8 11.7	Exact
418	30	5.5	BAC. 4722	»	»	»	15 9 42.9	Good. Did not attain full brightness at
419	30	6.5	BD. —17°40'53	»	»	»	16 21 17.1	Very good [once
420	30	6.2	BAC. 4739	»	»	»	17 14 42.3	»
421	April 7	5.2	μ Capricorni	»	»	»	17 10 16.4	Good
422	16	5.1	ϕ Tauri	D. D.	»	»	8 15 23.0	Good. Seemed quite within moon's disc
423	19	6.5	BAC. 2383	»	»	»	10 45 35.5	Good
424	20	6.5	BD. +23°19'13	»	10 inch	»	10 43 11.0	»
425	20	6.5	»	»	7 inch	I.	10 43 10.7	Definition bad; sudden
426	22	1.4	α Leonis	»	6 inch	F.	14 2 25.3	Very good
427	22	1.4	»	»	10 inch	P.	14 2 24.9	
428	22	1.4	»	»	3 in. Theod.	J. P.	14 2 25.4	Instantaneous
429	25	5.0	ψ Virginis	»	7 inch	F.	17 50 17.8	Good

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1896							
430	April 28	4.7	2 Scorpii	R. D.	7 inch	F.	19 ^h 19 ^m 51 ^s .3	Doubtful whether real reapp.
431	May 1	2-3	σ Sagittarii	D. B.	7 in. Heliom.	»	14 7 32.1	Good
432	1	2-3	»	»	10 inch	P.	14 7 31.7	Clouds passing but quite distinct
433	1	2-3	»	»	7 inch	I.	14 7 32.0	Through thin haze. Note
434	1	2-3	»	R. D.	7 in. Heliom.	F.	14 48 24.9	Very good
435	1	2-3	»	»	10 inch	P.	14 48 25.1	
436	1	2-3	»	»	7 inch	I.	14 48 25.2	Through thin cloud; instantaneous
437	17	8.2	Lal. 15401	D. D.	»	»	9 56 3.7	
438	17	8.3	Lal. 15372	»	»	»	9 56 37.3	
439	17	8.9	BD. +24°1803	»	»	»	10 5 17.8	Difficult
440	17	8.6	Lal. 15412	»	»	»	10 13 14.6	
441	18	8.7	W ₂ 8 ^h 1064	»	»	»	10 2 31.4	Good definition
442	18	7.2	Lal. 17514	»	»	»	11 59 14.4	
443	20	4.0	ρ Leonis	»	»	»	7 43 44.2	Full sunshine. Steady; instantaneous
444	24	5.5	BAC. 4722	»	»	F.	14 18 58.2	Good. Not instantaneous
445	24	..	»	»	10 inch	C.	14 18 57.6	Good
446	24	6.5	BD. — 17°4053	»	7 inch	F.	15 34 11.6	»
447	24	..	»	»	10 inch	C.	15 34 11.5	»
448	26	1.1	α Scorpii	D. B.	»	P.	20 8 43.4	»
449	26	1.1	»	»	7 inch	I.	20 8 43.8	Note
450	26	1.1	»	R. D.	6 inch	F.	21 1 43.9	
451	26	1.1	»	»	10 inch	P.	21 1 43.4	Good
452	26	1.1	»	»	7 inch	I.	21 1 43.6	Instantaneous; no comes seen
453	28	4.7	BAC. 6194	»	6 inch	F.	11 36 34.4	Good; star rather faint at first
454	28	..	»	»	7 in. Heliom.	I.	11 36 34.3	
455	June 19	5.0	ψ Virginis	D. D.	7 inch	»	11 2 54.2	Daylight; good
456	22	4.7	A Scorpii	»	»	»	15 35 33.3	Good; instantaneous. Drifting clouds. Note
457	July 16	8.7	Lal. 23696	»	»	»	14 18 30.3	
458	31	5.2	ε Arietis	R. D.	»	»	0 3 13.0	Good; sudden
459	Aug. 12	8.5	Lal. 23370	D. D.	»	»	17 12 18.8	Very good
460	12	9.0	Lal. 23372	»	»	»	17 17 32.8	
461	15	8.7	AOe ₂ 14441	»	»	»	18 18 23.4	Very good. Probably AOe ₂ 14441
462	20	6.0	4 Capricorni	»	»	»	19 19 41.9	Good
463	Sept. 5	1.4	α Leonis	D.	10 inch	F.	10 45 2.3	Correct to 1 ^s ; faint
464	6	1.4	»	R.	»	»	11 12 9.3	Correct to 1 ^s ; faint. Sudden
465	10	9.3	BD. — 16°3770	D. D.	7 inch	I.	17 54 31.3	Note
466	10	9.0	AOe ₂ 13274	»	»	»	18 4 31.0	Note
467	10	10	BD. — 16°3776	»	»	»	18 47 13.1	Definition superb
468	10	9.3	BD. — 16°3778	»	»	»	19 1 57.3	»
469	10	9.5	BD. — 16°3780	»	»	»	19 7 12.3	»
470	11	7.5	Lal. 27229	»	»	»	18 47 1.0	Instantaneous
471	12	5.8	BAC. 5314	»	»	»	20 16 21.4	Sudden
472	15	7.5	Lal. 8003	»	»	»	20 59 27.6	Good; sudden
473	15	9.2	Cord. ZC. 19 ^h 19	»	»	»	21 11 12.9	Note
474	18	5.3	42 Capricorni	»	10 inch	F.	19 8 31.7	Good
475	18	5.3	»	»	7 inch	I.	19 8 31.5	»
476	18	6.5	BAC. 7599	»	10 inch	F.	1 52 59.5	Note
477	Oct. 9	9.0	AOe ₂ 14696	»	7 inch	I.	20 26 44.7	High S wind; definition bad. Observer considers these three = 1 good observation
478	9	8.9	AOe ₂ 14700	»	»	»	20 34 50.6	
479	9	8.5	AOe ₂ 14706	»	»	»	20 50 49.9	
480	9	7.9	AOe ₂ 14715	»	»	»	21 19 40.9	Good; near S point

433. Star appeared to glide its own diameter into moon's limb and then disappear suddenly. — 449. Glided into limb and then disappeared instantaneously. Definition bad; comes not seen. — 456. Coarse double; comes 8^m 5" 280°. — 465. Quite certain to 0^s.5; near S limb. Definition perfect. — 466. Very good; instantaneous; close to S limb; definition perfect. — 473. Fair; star appeared about 8 mag., so well seen. — 476. Definition extremely bad; scarcely visible; may be 1^s early.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1896								
481	Oct. 10	1.1	α Scorpii	D. D.	10 inch	C.	14 ^h 6 ^m 32 ^s .8	Daylight
482	10	1.1	"	"	7 inch	I.	14 6 32.6	Daylight. Good; instantaneous
483	10	1.1	"	R. B.	10 inch	F.	15 12 21.8	Daylight
484	10	1.1	"	"	7 inch	I.	15 12 21.9	Daylight. Very steady
485	10	6.9	Lac. 6957	D. D.	"	"	21 39 17.6	Very good
486	12	9.2	Cord. ZC. 18 ^h 2254	"	"	"	20 37 39.9	Good
487	12	9.1	AOe ₂ 18652	"	"	"	20 40 39.2	"
488	12	9.1	Cord. ZC. 18 ^h 2287	"	"	"	21 36 56.7	Very good. Note
489	12	8.7	Cord. ZC. 18 ^h 2330	"	"	"	21 42 42.1	Good; gradual
490	12	8.6	Cord. ZC. 18 ^h 2343	"	"	"	21 57 39.0	Good. Almost tangential to S limb. Note
491	12	9.5	Cord. DM. — 26°135 ⁰⁰	"	"	"	22 4 15.1	Good; glided out
492	12	8.8	Cord. ZC. 18 ^h 2384	"	"	"	22 18 31.3	Good
493	12	8.8	Cord. ZC. 18 ^h 2438	"	"	"	22 45 57.7	Very good
494	13	9.1	Cord. ZC. 19 ^h 1636	"	"	"	21 17 54.8	Good
495	13	8.8	AOe ₂ 19947	"	"	"	21 58 14.5	Good; sudden
496	13	8.4	AOe ₂ 19971-2	"	"	"	22 54 40.7	Good
497	24	6.5	BD. +27°661	R. D.	"	"	3 8 24.1	Good; not instantaneous
498	Nov. 8	8.9	Yar ₃ 7928	D. D.	"	"	22 45 27.5	Good; glided
499	8	7.8	AOe ₂ 18151	"	"	"	22 47 8.0	" "
500	8	8.6	Lal. 33855	"	"	"	22 57 19.9	Not instantaneous
501	8	9.1	C. P. D. — 26°6453	"	"	"	23 59 10.9	Definition bad; good to 1 ^s
502	9	7.8	χ^2 Sagittarii	"	"	"	22 53 3.5	Through cloud
503	9	5.4	χ^1 Sagittarii	"	6 inch	F.	22 58 57.8	Very good
504	9	5.4	"	"	7 inch	I.	22 58 57.2	Good
505	9	5.4	"	R. B.	"	"	23 22 58.8	Good; certainly within 0.5. Note
506	9	5.6	χ^3 Sagittarii	D. D.	6 inch	F.	23 27 18.7	Very good
507	9	5.6	"	"	7 inch	I.	23 27 19.0	" "
508	9	8.3	Lal. 36618	"	6 inch	F.	23 44 20.2	Good; glided. A ruddy star
509	9	8.3	"	"	7 inch	I.	23 44 20.1	
510	10	8.5	AOe ₂ 20461	"	"	"	23 59 28.1	
511	Dec. 7	—	Venus 1 st contact	D.	"	"	19 36 23.2	Definition very bad
512	7	—	" N horn	"	"	"	19 36 46.2	" " "
513	7	—	" S horn,	"	10 inch	F.	19 37 36.7	Definition very bad. Fair
514	7	—	(last contact)	"	7 inch	I.	19 37 40.2	" " "
515	7	—	" 1 st contact	R.	"	"	20 20 28.2	Definition very bad. Fair. Note
516	7	—	" last contact	"	"	"	20 21 50.2	Definition very bad. Fair
517	10	6.5	Lal. 43974	D. D.	"	"	2 23 6.0	Good. Almost at extreme N point
518	10	7.4	Lal. 44019	"	"	"	2 53 30.9	Good; not quite instantaneous
519	12	7.8	Lal. 47005	"	"	"	1 58 53.0	Good
520	21	6.8	Lal. 14990	R. D.	"	"	8 9 13.5	Very good
1897								
521	Jan. 8	7.9	Lal. 46406	D. D.	7 inch	I.	2 56 23.1	Fair
522	14	6.5	BD. +27°661	"	6 inch	F.	5 34 54.3	Pretty good
523	14	6.5	"	"	7 inch	I.	5 34 54.5	Fair
524	17	5.0	A Geminorum	"	"	F.	8 33 34.5	Fair; v. faint; very close to broken edge
525	23	4.7	χ Virginis	R. D.	"	"	10 8 6.1	Good
526	27	1.1	α Scorpii	D. B.	10 inch	G.	10 52 55.6	
527	27	1.1	"	"	6 inch	F.	10 52 55.9	Very good
528	27	1.1	"	"	7 inch	I.	10 52 54.9	Perfect; comes disappeared 3 ^s .8 earlier
529	27	1.1	"	R. D.	10 inch	G.	11 26 56.8	
530	27	1.1	"	"	6 inch	F.	11 26 57.0	Very good
531	27	1.1	"	"	7 inch	I.	11 26 57.1	Note

488. Near N point. A very pretty observation. — 490. Reappearance at dark limb near terminator missed by a few seconds at 22^h15^m. — 505. Reappeared in the hollow of a large crater near S point just within the bright limb. — 515. F. at 10 inch noted 'utterly impossible to judge when the limb was round at reappearance'. — 531. Very good; comes not seen before reappeared Antares.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
532	1897 Febr. 9	8.1	BD. +23°423	D. D.	7 inch	I.	5 ^h 33 ^m 45 ^s 3	Fair; about 90°; identity a little uncertain
533	13	6.5	39 Geminorum	»	6 inch	F.	9 45 56.1	Fair
534	13	6.5	»	»	7 inch	I.	9 45 55.6	Good
535	18	5.5	79 Leonis	R. D.	»	»	8 5 24.7	Fair
536	22	6.5	Lal. 27453	»	6 inch	F.	9 40 16.6	Very good
537	22	6.5	»	»	7 inch	I.	9 40 16.8	»
538	22	7.6	Yar ₃ 6306	»	»	»	9 48 17.5	Fair; gradual
539	23	1.1	α Scorpii	»	6 inch	F.	21 26 0.5	Uncertain; star faint and high in field
540	23	1.1	»	»	7 inch	I.	21 26 1.0	Fair
541	Mar. 9	9.5	BD. +25°610	D. D.	»	»	6 27 59.1	Good
542	9	8.5	W ₂ 3 ^h 836	»	»	»	6 42 20.6	Good; not sudden
543	9	8.5	W ₂ 3 ^h 850	»	»	»	6 53 39.3	Very good
544	9	8.4	W ₂ 3 ^h 832	—	»	»	7 16 30±	Note
545	9	8.9	Lal. 6940	D. D.	»	»	7 23 30.2	Good
546	April 8	9.1	BD. +27°1000	»	»	»	7 30 33.8	Fair; twilight
547	8	9.5	BD. +27°1002	»	»	»	7 36 40.5	Difficult; twilight
548	8	9.7	BD. +27°1000 + 1'	»	»	»	7 37 54.5	Note
549	8	9.0	W ₂ 6 ^h 94.5	»	»	»	9 53 4.3	Very near S point. Note
550	8	8.5	Lal. 11757	»	»	»	10 6 11.8	Fair
551	11	6.5	BAC. 2991	»	6 inch	F.	8 3 55.2	Good
552	11	6.5	»	»	»	I.	8 3 55.2	Very good; dark limb just visible
553	14	5.5	79 Leonis	»	7 inch	»	7 29 27.3	Very good; daylight
554	18	5.8	BAC. 5023	R. D.	6 inch	F.	9 56 54.4	Good
555	18	5.8	»	»	7 inch	I.	9 56 53.8	»
556	19	3.0	σ Scorpii	»	6 inch	F.	10 5 38.8	»
557	May 5	9.1	BB. VI +27°897	D. D.	»	»	9 5 49.8	Uncertain; bright limb brighter than star
558	5	9.1	»	»	7 inch	I.	9 5 50.4	Difficult
559	5	4.5	136 Tauri	»	6 inch	F.	9 11 3.5	Very good
560	5	4.5	»	»	7 inch	I.	9 11 3.4	»
561	5	9.0	W ₂ 5 ^h 1472	»	6 inch	F.	9 19 46.8	Not sure; bright limb brighter than star
562	7	8.6	BD. +23°1795	»	7 inch	I.	10 58 16.1	Medium
563	7	7.7	BD. +23°1801	»	»	»	11 42 26.5	Good
564	9	8.2	W ₂ 9 ^h 399	»	»	»	12 3 17.7	Good; not instantaneous, 0 ^s 1
565	10	8.5	Lal. 19909	»	»	»	11 23 29.6	Very good
566	19	6.4	BAC. 6576	R. D.	6 inch	F.	14 12 57.0	Probably late; some way off wire & moon
567	19	6.4	»	»	7 inch	I.	14 12 55.6	Good; not instantaneous, 0 ^s 2
568	June 3	8.3	BD. +24°1659	D. D.	»	»	11 15 35.3	Good
569	5	9.0	W ₂ 8 ^h 1499	»	»	»	10 46 9.2	»
570	6	7.3	Lal. 19515	»	»	»	11 32 58.5	Very good
571	8	9.0	BD. -0°2460	»	»	»	12 19 35.6	»
572	8	8.3	Lal. 22052	»	»	»	12 48 59.0	»
573	8	8.5	W ₁ 11 ^h 520	»	»	»	13 2 14.1	Good; not instantaneous, 0 ^s 2
574	8	8.2	W ₁ 11 ^h 531	»	»	»	13 29 26.4	Very good
575	9	8.0	Lal. 23259	»	»	»	11 26 49.4	Good
576	11	6.5	AOe ₂ 13507	»	7 in. Heliom.	F.	11 8 10.3	»
577	11	6.5	»	»	7 inch	I.	11 8 9.5	»
578	11	8.7	AOe ₂ 13514	»	»	»	11 17 9.9	Fair
579	11	6.2	Lal. 26150	»	»	»	12 0 24.0	Good
580	15	5.7	BAC. 6369	R. D.	»	»	14 42 48.4	Note
581	July 2	6.5	Pi. 8 ^h 206	D. D.	7 in. Heliom.	F.	12 26 56.2	Very good. Red star
582	2	6.5	»	»	7 inch	I.	12 26 55.7	» » » »
583	2	9.4	BD. +17°1975	»	»	»	12 41 15.3	Fair; moon's limb brighter than star
584	2	6.8	Pi. 8 ^h 27	»	»	»	13 15 59.4	Very good

544. No occultation; star passed within 3" of N limb; for about 10^s star was very faint as though semi-occulted. — 548. Twilight; a doubt if seconds were correctly counted. — 549. A very good observation. Disappeared and reappeared twice in about 5^s; finally occulted at time noted. — 580. Good; close to terminator; minutes might be 1 or 2 in error.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1897							
585	July 3	6.1	18 Leonis	D. D.	7 in. Helium.	F.	13 ^h 50 ^m 29 ^s .9	Very good
586	3	6.1	»	»	7 inch	I.	13 50 29.6	»
587	3	9.2	W ₁ 9 ^h 846	»	7 in. Helium.	F.	13 53 1.9	Fair
588	3	9.2	»	»	7 inch	I.	13 53 0.7	Indifferent
589	4	9.0	Lal. 20454	»	»	»	12 43 47.6	Good
590	5	9.1	BB. VI + 1°2557	»	»	»	13 43 45.9	Very good; glided
591	5	10.0	Anon.	»	»	»	13 47 46.4	Indifferent; 1 ^s ±
592	5	6.2	BAC. 3873	»	»	»	13 53 46.0	Very good
593	6	8.0	Lal. 22861	»	»	»	13 15 12.8	Very good; glided
594	10	5.4	BAC. 5286	»	»	»	12 53 14.9	Very good
595	12	3.1	λ Sagittarii	»	»	F.	22 9 49.1	»
596	Aug. 2	8.6	W ₁ 11 ^h 910	»	»	I.	15 43 14.4	Very good; glided
597	2	9.4	BD. — 3°3220	»	»	»	15 45 27.6	Good
598	2	9.0	M ₁ 7493	»	»	»	15 57 51.1	Very good
599	4	8.6	BD. — 15°3728	»	»	»	15 16 34.8	Very good; seemed inside limb
600	4	5.8	83 Virginis	»	»	»	15 43 25.7	Sudden; heavy clouds passing. Note
601	5	6.4	BAC. 4867	»	»	»	18 37 49.0	Very good
602	5	9.5	BD. — 20°4089	»	»	»	18 45 1.5	Good; very difficult
603	5	9.0	BD. — 20°4088	»	»	»	18 47 18.6	Very good
604	5	6.3	BAC. 4879	»	»	»	19 4 23.5	»
605	7	7.1	Lal. 30426	»	»	»	16 1 57.8	»
606	7	7.3	Lal. 30556	»	»	»	18 34 22.4	Clouds passing
607	7	8.2	AOe ₂ 16050	»	»	»	20 5 2.1	Note
608	8	8.2	AOe ₂ 17283	»	»	»	17 1 21.8	Near S point; glided. Note
609	12	5.4	λ Capricorni	R. D.	»	»	18 15 36.7	Note
610	Sept. 2	9.6	Cord. DM. — 23°12320	D. D.	»	»	18 49 51.7	Very good
611	2	9.2	Cord. DM. — 23°12321	»	»	»	18 57 13.3	Good
612	2	9.3	Cord. DM. — 23°12317	»	»	»	19 9 1.5	Fair; near S point
613	2	8.0	Lal. 28187	»	»	»	19 31 9.3	Very good
614	2	9.5	Cord. DM. — 23°12326	»	»	»	19 38 32.5	»
615	2	9.5	Cord. DM. — 23°12334	»	»	»	19 39 31.5	Good
616	2	7.3	Lal. 28222	»	»	»	20 2 23.9	Very good
617	2	7.2	Lac. 6414	»	»	»	20 22 47.3	»
618	2	8.7	Lal. 28259	»	»	»	20 31 32.5	»
619	3	8.1	AOe ₂ 15701	»	»	»	19 4 28.5	»
620	5	5.7	BAC. 6369	»	6 inch	F.	22 24 31.6	»
621	5	5.7	»	»	7 inch	I.	22 24 31.3	»
622	8	8.6	Lal. 41705	»	»	»	18 0 3.9	Good
623	8	8.2	Lal. 41709	»	»	»	18 15 14.2	»
624	9	5.4	ρ Aquarii	»	6 inch	F.	19 53 47.3	Very good
625	9	5.4	»	»	7 inch	I.	19 53 46.3	»
626	9	6.1	BAC. 7804	»	6 inch	F.	22 38 23.9	»
627	9	6.1	»	»	7 inch	I.	22 38 23.0	»
628	13	3.7	η Piscium	D. B.	»	»	23 41 37.8	Very good; well within 0 ^s 5
629	13	3.7	»	R. D.	6 inch	F.	0 29 31.6	Very good
630	13	3.7	»	»	7 inch	I.	0 29 32.1	»
631	14	5.6	θ Arietis	»	6 inch	F.	0 20 7.7	Note
632	14	5.6	»	»	7 inch	I.	0 20 7.1	Very good
633	18	4.5	136 Tauri	»	»	F.	5 9 50.7	Good
634	29	9.2	BD. — 22°3902	D. D.	»	I.	19 15 24.6	Fair
635	29	9.0	AOe ₂ 14272	»	»	»	19 30 18.4	Very good
636	29	9.1	AOe ₂ 14294	D. B.	»	»	19 53 50.4	Good for so faint a star. Note

600. Thought disappearance caught. — 607. Very good; glided; dark limb seen; age 9.2 days; elongation 117°. — 608. Coarse double; comes 10 mag. s. p. — 609. Fair; trying, moon only few hours past full. Looking at exact spot. — 631. Not sure; looking some distance from spot. — 636. Disappeared at a little peak 30"± within bright cusp, length of normal through bright limb about 6" or 10"; observation made easy by presence of a star 1½ a mag. brighter closely n. f.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
637	1897 Sept. 29	8.3	BD. — 22°3908	D. D.	7 inch	I.	20 ^h 7 ^m 16 ^s .7	Note
638	30	8.0	Cord. ZC. 16 ^h 260	»	»	»	19 12 22.5	Very good
639	30	9.2	Cord. ZC. 16 ^h 333	»	»	»	19 24 48.1	Good
640	30	9.5	Cord. ZC. 16 ^h 509	»	»	»	20 39 58.7	»
641	30	6.4	BAC. 5403	»	»	»	20 47 15.5	Very good
642	30	9.8	Cord. ZC. 16 ^h 526	»	»	»	20 47 36.3	Fair
643	Oct. 1	5.3	A Ophiuchi N star	»	»	»	18 43 17.1	Good; daylight
644	1	5.6	A Ophiuchi S star	»	»	»	18 43 17.5	»
645	2	8.7	Cord. ZC. 18 ^h 885	»	»	»	20 24 36.4	Very good
646	2	9.6	Cord. DM. — 25°13107	»	»	»	22 12 50.9	Good; glided
647	2	10.0	Cord. DM. — 25°13098	»	»	»	22 20 48.9	Fair
648	2	9.7	Cord. DM. — 25°13109	»	»	»	22 35 32.9	Difficult
649	2	9.4	Cord. DM. — 25°13125	»	»	»	22 38 43.5	Very good
650	2	9.7	Cord. DM. — 25°13128	»	»	»	22 42 48.6	»
651	3	9.4	Cord. DM. — 23°15349	»	»	»	19 59 54.4	Good
652	3	8.5	AOe ₂ 19477	»	»	»	20 52 27.7	Very good; glided
653	3	8.8	Yar ₃ 8458	»	»	»	21 2 11.8	Very good
654	3	8.0	Yar ₃ 8465	»	»	»	21 24 31.0	»
655	3	9.0	Yar ₃ 8472	»	»	»	21 42 49.3	Difficult
656	5	8.3	Lal. 41138	»	»	»	20 19 8.1	Good
657	8	5.6	16 Piscium	»	6 inch	F.	19 57 10.1	Note
658	8	5.6	»	»	7 inch	I.	19 57 9.3	Very good
659	28	7.6	Lal. 30789	»	»	»	22 55 42.9	Very good; reddish
660	31	8.5	M ₁ 22939	»	»	»	22 49 2.9	»
661	31	9.3	BD. — 20°5812	»	»	»	22 57 7.9	Indifferent; ± 1 ^s
662	Nov. 1	8.5	Lal. 40724	»	»	»	0 52 51.8	Note
663	4	9.2	BD. +0°4996	»	»	»	23 29 55.2	Unexpected
664	4	5.0	α Piscium	»	10 inch	F.	23 44 36.5	Good
665	4	5.0	»	»	7 inch	I.	23 44 36.8	Very good; instantaneous
666	4	7.2	9 Piscium	»	»	»	23 53 37.1	Very good; glided; orange coloured
667	26	9.1	Cord. DM. — 24°14579	»	»	»	23 58 39.6	Good
668	26	9.2	AOe ₂ 18524	»	»	»	0 3 43.3	Fair
669	26	9.5	Cord. ZC. 18 ^h 1972	»	»	»	0 11 38.1	»
670	26	9.5	Cord. DM. — 24°14589	»	»	»	0 15 33.1	Note
671	26	8.1	Lal. 34586	»	»	»	0 17 25.9	Very good
672	26	9.1	AOe ₂ 18573	»	»	»	0 47 4.1	Very poor; only retained as S of set
673	26	7.8	Lal. 34627	»	»	»	0 53 0.1	Very good
674	28	9.5	BD. — 17°6062	»	»	»	0 37 29.0	Fair
675	28	9.3	BD. — 17°6065	»	»	L.	0 48 23.0	Difficult
676	28	9.2	AOe ₂ 20783	»	»	»	1 4 11.5	Good
677	28	9.5	BD. — 17°6068	»	»	I.	1 11 7.0	Difficult
678	28	9.0	AOe ₂ 20804	»	»	»	1 40 0.0	Fair
679	29	8.4	Lal. 42005	»	»	»	0 5 39.7	Very good
680	29	9.5	BD. — 12°6040	»	»	»	0 57 50.8	Very difficult
681	29	9.1	W ₁ 21 ^h 686	»	»	»	1 3 21.6	Good
682	29	7.7	Lal. 42073	»	»	»	1 13 44.4	Very good; orange-yellow
683	29	8.6	M ₁ 28972	»	»	»	1 52 18.9	Good; glided
684	30	8.0	Lal. 43844	»	»	»	0 47 11.2	Very good; about 50° ±
685	Dec. 1	7.7	Lal. 45420	»	»	»	0 58 20.8	Very good; yellow
686	2	7.6	Lal. 47048	»	»	»	2 14 32.7	Very good
687	4	8.2	W ₁ 1 ^h 405	»	»	»	1 59 50.5	»
688	4	8.2	»	»	10 inch	L.	1 59 50.9	Good
689	5	5.6	θ Arietis	»	7 in. Heliom.	F.	0 56 47.3	»

637. Glided; took 0^s.5; mean given. Double β 809. — 657. Not good; definition very bad; scarcely visible near limb. — 662. Indifferent; very bad definition; near N terminator; may be several seconds early. — 670. Indifferent; perhaps — 1^s; southern of a coarse pair.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1897								
690	Dec. 5	5.6	θ Arietis	D. D.	10 inch	L.	0 ^h 56 ^m 46 ^s .5	Good
691	5	5.6	»	»	7 inch	I.	0 56 46.7	Very good
692	13	5.6	π^2 Cancr	R. D.	»	F.	7 36 38.0	Good
693	19	6.5	BD. — 17°40'53	»	7 in. Heliom.	»	9 56 30.1	Very good
694	19	8.7	AOe ₂ 13514	»	»	»	10 1 3.7	Good
695	26	8.6	BD. — 14°59'70	D. D.	7 inch	I.	2 6 47.5	Very good
696	26	6.5	Lal. 41246	»	10 inch	F.	3 5 37.6	»
697	26	6.5	»	»	7 inch	I.	3 5 37.4	Fair
698	26	9.0	W ₁ 21 ^h 157	»	»	»	3 5 49.2	Good
699	28	9.1	M ₁ 31799	»	»	»	2 57 43.6	Fair
700	28	6.8	Lal. 44904	»	»	»	3 57 22.1	Very good
701	30	8.8	W ₁ 0 ^h 351	»	»	»	2 41 34.4	{ Bad definit.; near N pole of limb; seemed to hang for some time. Note
702	30	8.0	Lal. 661	»	»	»	3 1 57.6	
1898								
703	Jan. 3	8.2	Lal. 6915	D. D.	7 inch	I.	4 39 37.9	Very good
704	10	6.1	18 Leonis	R. D.	7 in. Heliom.	F.	6 24 37.8	Good
705	10	6.1	»	»	10 inch	L.	6 24 38.0	Good
706	10	6.1	»	»	7 inch	I.	6 24 37.5	
707	10	7.0	Lal. 19193	»	10 inch	L.	7 17 55.0	Fair
708	10	7.0	»	»	7 inch	I.	7 17 54.5	
709	12	6.2	BAC. 3873	»	»	F.	9 1 42.1	Very good
710	16	7.6	BAC. 4923 (1 st star)	»	»	»	12 13 29.5	»
711	16	6.1	BAC. 4923 (2 ^d star)	»	»	»	12 14 3.4	»
712	28	6.5	3 Arietis	D. D.	»	I.	4 3 56.8	Note
713	31	7.8	W ₂ 4 ^h 243	»	»	»	5 9 31.4	Very difficult
714	Febr. 8	5.7	p ³ Leonis	R. D.	»	»	8 2 49.4	Very good definition. Note
715	13	8.6	AOe ₂ 14728	»	»	»	13 26 7.0	Perhaps 1 ^s in error
716	13	8.8	AOe ₂ 14738	»	»	»	13 32 45.0	Very good
717	13	8.4	AOe ₂ 14736	»	»	»	13 36 43.5	Very good; white star
718	13	5.2	42 Librae	»	»	»	13 57 20.0	Good; yellow
719	13	9.4	C. P. D. — 23°6'24.2	»	»	»	13 58 15.0	Fair
720	13	9.1	AOe ₂ 14754	»	»	»	14 12 2.0	»
721	25	5.6	θ Arietis	D. D.	»	»	6 37 59.0	Very good
722	25	5.6	»	»	3 ¹ / ₄ inch	V. L.	6 37 58.9	Hurried. Finder of Heliometer used
723	28	7.3	W ₂ 4 ^h 986	»	7 inch	I.	6 31 45.1	Very good; yellow
724	28	8.9	BD. +26°76.2	»	»	»	7 36 45.4	Very good
725	Mar. 1	9.0	W ₂ 5 ^h 1202	»	»	»	6 0 10.4	Fair
726	1	9.1	BD. +26°95.0	»	»	»	7 26 52.5	Fair; almost tangential; N point
727	1	8.7	BD. +26°95.5	»	»	»	7 43 24.0	Good
728	2	8.0	Lal. 12766	»	»	»	7 58 29.6	Very good
729	2	7.8	Lal. 12816	»	»	»	8 43 15.3	Very good; glided
730	2	3.2	ϵ Geminorum	»	»	»	9 53 35.8	Very good; yellow
731	2	3.2	»	»	10 inch	L.	9 53 35.8	Finder of Heliometer used
732	2	3.2	»	»	3 ¹ / ₄ inch	V. L.	9 53 35.8	
733	3	9.5	BD. +23°17'41	»	7 inch	»	7 21 42.0	Doubtful; near S pole & bright limb
734	3	6.0	BD. +23°17'44	»	10 inch	L.	7 55 58.5	Doubtful
735	3	6.0	»	»	7 inch	I.	7 55 58.8	Good
736	3	8.5	BD. +23°17'45	»	»	»	7 56 25.7	»
737	4	8.0	Lal. 16283	»	»	»	6 46 42.1	Note
738	5	5.6	π^2 Cancr	»	10 inch	L.	9 31 2.4	Very good; white
739	11	5.5	BAC. 4722	R. D.	7 inch	I.	9 36 2.6	
740	11	5.5	»	»	7 in. Heliom.	V. L.	9 36 2.6	Good. Time recorded diminish. 10 ^s
741	11	6.2	BD. — 17°40'35	»	7 inch	I.	10 26 7.3	Very good; yellow

701. Indifferent. — 702. Good. — 712. Fair; glided; through light cloud; daylight. — 714. 3^m after predicted time; eye tired and perhaps reappearance missed by some seconds but this is not probable. — 737. Good; glided; duration 0^s.3; final disappearance recorded.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1898							
742	Mar. 11	8.7	AOe ₂ 13514	R. D.	7 inch	I.	10 ^h 38 ^m 17 ^s .1	Very good; glided
743	11	6.2	BAC. 4739	»	»	»	11 22 18.0	Very good; white
744	11	6.2	»	»	7 in. Heliom.	V. L.	11 22 17.6	
745	12	5.8	BAC. 5023	»	7 inch	I.	10 56 24.5	Very good; yellow
746	12	5.8	»	»	7 in. Heliom.	V. L.	10 56 24.0	Very good
747	14	6.5	BAC. 5878	»	7 inch	F.	13 37 37.1	Good
748	17	5.0	ρ Capricorni	»	10 inch	I.	14 11 27.8	»
749	17	7.3	Bradley 2627	»	»	»	14 17 20.3	»
750	17	8.2	Lal. 39450	»	»	»	14 58 43.8	Note
751	26	9.5	*	D. D.	7 inch	»	7 28 55.4	Difficult; very near S terminator
752	27	9.5	BD. +26°7'26	»	»	»	7 12 1.1	Difficult
753	April 24	6.5	BAC. 1562	»	»	»	8 10 4.2	Very good; glided; o ₂ ; twilight
754	24	8.6	W ₂ 4 ^h 1315	»	»	»	8 38 43.8	Indifferent; ± 2 ^s
755	25	5.1	139 Tauri	»	»	»	7 44 6.2	} Daylight; very good: dark limb not seen
756	25	5.1	»	»	10 inch	L.	7 44 6.5	
757	25	8.5	W ₂ 5 ^h 1685	»	7 inch	I.	9 9 42.5	Good
758	26	9.4	BD. +24°14'23	»	»	»	8 38 57.7	Indifferent
759	26	8.8	BD. +24°14'27	»	»	»	8 45 24.7	Very good
760	26	6.8	Lal. 13279	»	»	»	10 39 57.8	»
761	28	5.8	θ Cancri	»	»	»	9 16 40.5	Note
762	28	5.8	»	»	7 in. Heliom.	V. L.	9 16 40.7	
763	29	9.2	BD. +14°20'73	»	7 inch	I.	9 15 5.1	Indifferent
764	30	8.8	W ₁ 9 ^h 1271	»	»	»	9 25 28.3	Very good
765	30	9.0	W ₁ 9 ^h 1311	»	»	»	10 41 12.7	»
766	May 2	7.3	W ₁ 11 ^h 680	»	»	»	12 6 44.8	Good. Note
767	16	9.1	BD. +12°13'1	R. D.	»	»	20 41 11.5	Note
768	16	6.1	75 Piscium	»	»	»	21 31 3.6	Good
769	26	9.3	W ₁ 8 ^h 1390	D. D.	10 inch	L.	11 40 35.6	Good. Note
770	26	9.3	»	»	7 inch	I.	11 40 35.9	Indifferent
771	26	9.1	BD. +15°19'75	»	»	»	12 15 44.1	Fair; glid.; took quite 1 ^s to disap. Note
772	29	8.2	BB. VI +0°27'77	»	»	»	10 26 47.1	Very good
773	June 2	7.6	Pi. 14 ^h 212	»	»	»	11 33 35.3	Fair
774	2	7.6	»	»	7 in. Heliom.	V. L.	11 33 35.2	»
775	2	6.1	Pi. 14 ^h 214	»	7 inch	I.	11 34 8.2	Very good
776	2	6.1	»	»	7 in. Heliom.	V. L.	11 34 7.4	»
777	2	8.5	BD. — 21°40'29	»	7 inch	I.	16 22 1.5	Indifferent
778	2	6.5	Lal. 27453	»	»	»	16 24 46.0	Very good
779	2	6.5	»	»	7 in. Heliom.	V. L.	16 24 45.7	»
780	2	5.8	BAC. 5023	»	7 inch	F.	21 7 58.4	Good
781	6	5.5	50 Sagittarii	R. D.	7 in. Heliom.	V. L.	14 27 33.6	Very good
782	6	5.5	»	»	7 inch	I.	14 27 34.3	»
783	6	6.5	BAC. 6671	»	»	»	16 40 7.0	»
784	7	6.0	BAC. 7145	»	»	F.	22 17 46.3	Note
785	8	9.2	BD. — 11°56'35	»	»	I.	23 39 20.0	Fair; daylight
786	8	9.0	Rü. 9298	»	»	»	23 41 42.0	»
787	8	6.3	Lal. 42160	»	»	»	23 51 44.3	»
788	13	6.1	105 Piscium	»	»	V. L.	21 31 26.2	Good
789	13	6.1	»	»	7 in. Heliom.	de S.	21 31 25.5	Fair
790	21	7.5	Lal. 15646	D. D.	7 inch	I.	12 30 34.4	»
791	21	7.5	»	»	7 in. Heliom.	V. L.	12 30 34.6	»
792	22	8.9	W ₂ 8 ^h 1065	»	»	»	13 57 41.5	Poor

750. Doubtful; eye removed from telescope; perhaps some seconds late; 190°. — 761. Disappearance in two stages o₂ apart, as though double; not »glided«. Orange yellow. — 766. Seemed to disappear in two portions but almost instantaneously so. — 767. Very faint; may be late; prec. and brighter component. — 769, 771. Whilst the magnitude of the former was estimated 9.0 at occultation the latter was 8.0. — 784. Not looking at spot; may be some seconds late.

No.	Date	Mag.	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
	1898							
793	June 22	8.9	W ₂ 8 ^h 1065	D. D.	7 inch	I.	13 ^h 57 ^m 40 ^s 0	Fair
794	22	8.0	Lal. 17421	»	»	»	13 59 20.6	Very good
795	22	8.0	»	»	7 in. Heliom.	V. L.	13 59 20.3	Fair
796	23	8.0	BD. + 12°2067	»	7 inch	I.	12 33 47.3	Very good
797	23	8.0	»	»	7 in. Heliom.	V. L.	12 33 47.3	
798	25	7.4	Lal. 21262	»	7 inch	I.	12 26 28.4	Good
799	25	8.3	Lal. 21441	»	»	»	16 14 21.6	Very good
800	25	8.2	Lal. 21446	»	»	»	16 22 28.3	Good; glided
801	30	8.2	Lal. 28282	»	»	»	13 53 54.5	»
802	30	8.8	AOe ₂ 14738	»	»	»	17 18 6.0	Fair
803	30	8.4	AOe ₂ 14736	»	»	»	17 22 58.7	Good
804	30	5.2	42 Librae	»	»	»	17 44 34.9	Very good; orange
805	30	5.2	»	»	7 in. Heliom.	V. L.	17 44 34.5	
806	July 24	6.3	BAC. 4201	»	7 inch	I.	14 30 39.8	Very good
807	24	9.0	Schj. 4491	»	»	»	14 34 43.5	»
808	25	9.0	M ₁ 9060	»	»	»	15 1 5.7	Good; glided
809	25	6.5	BD. — 13°3692	»	»	»	17 35 12.6	Very good; yellow
810	25	6.5	»	»	7 in. Heliom.	V. L.	17 35 12.3	Good
811	25	6.5	»	»	10 inch	L.	17 35 12.8	»
812	Aug. 6	6.1	75 Piscium	R. D.	7 inch	I.	22 53 3.4	»
813	21	9.0	W ₁ 12 ^h 997	D. D.	»	»	16 12 23.8	»
814	23	8.9	AOe ₂ 14054	»	»	»	17 36 21.3	Indifferent
815	23	7.6	Pi. 14 ^h 212	»	»	»	18 45 40.8	Good; glided
816	23	6.1	Pi. 14 ^h 214	»	»	»	18 46 17.6	Very good
817	24	5.4	BAC. 5254	»	»	»	17 15 18.2	»
818	25	9.3	Cord. ZC. 16 ^h 3733	»	»	»	19 18 29.0	Indifferent
819	25	6.3	BAC. 5709	»	»	»	19 27 14.9	Very good; yellow
820	25	6.1	26 Ophiuchi	»	»	»	19 49 11.3	Very good
821	25	8.1	AOe ₂ 16211	»	»	»	20 7 2.5	»
822	26	8.1	AOe ₂ 17571	»	»	»	19 56 27.1	»
823	26	9.3	Cord. ZC. 17 ^h 3857	»	»	»	20 16 12.4	Fair
824	26	6.5	BAC. 6111	»	»	»	20 40 35.1	Note
825	27	6.5	BAC. 6485	»	»	»	16 14 36.8	Daylight; very good
826	Sept. 3	3.7	η Piscium	»	»	»	21 56 59.1	Very good
827	17	8.7	W ₁ 12 ^h 777	»	»	»	18 22 55.9	Good; glided
828	19	7.3	Lal. 26719	»	»	»	19 22 15.4	Very good
829	20	6.0	Lal. 28414	»	»	»	18 12 59.2	»
830	20	7.7	Lal. 28446	»	»	»	18 45 58.9	»
831	20	7.0	Lal. 28466	»	»	»	19 3 15.1	»
832	21	8.6	AOe ₂ 15803	»	»	»	18 42 13.3	»
833	23	8.0	Lal. 35053	»	»	»	23 2 50.0	»
834	23	5.0	ν ¹ Sagittarii	»	»	»	23 33 40.0	»
835	23	8.5	Lal. 35103	»	»	»	23 34 42.5	»
836	23	8.5	Yar ₃ 8169	»	»	»	23 35 2.8	»
837	23	5.2	ν ² Sagittarii	»	»	»	23 58 25.9	»
838	25	6.7	UA. 46 Capricorni	»	»	»	19 31 46.8	»
839	25	8.5	M ₁ 25824	»	»	»	19 33 21.9	»
840	26	6.3	Lal. 42160	»	»	»	18 56 59.2	»
841	30	6.1	75 Piscium	R. D.	»	»	21 18 31.6	Note
842	Oct. 20	7.3	23 Sagittarii	D. D.	»	»	21 14 14.1	Very good
843	20	7.3	»	»	»	V. L.	21 14 13.1	»
844	20	7.6	Lal. 34164	»	»	I.	21 28 3.8	»
845	20	9.6	Cord. DM. — 23°14441	»	»	»	21 28 14.4	Good
846	22	9.0	BD. — 16°5621	»	»	V. L.	22 2 14.3	»

824. Indifferent; $\pm 1^s$; at N point within $1'$ of illuminated disc. — 841. Definition very bad; star very faint; doubtful. Looking at exact spot which was about $1'$ from bright limb.

No.	Date	Mag	Star	Phase	Instr.	Obs.	Cape S. T.	Remarks
1898								
847	Oct. 22	8.6	Lal. 39528	D. D.	7 inch	V. L.	23 ^h 26 ^m 21 ^s .9	Very good
848	24	8.2	W ₁ 22 ^h 203	»	»	I.	22 4 29.6	»
849	24	5.8	51 Aquarii	»	»	»	2 12 55.2	»
850	Nov. 16	5.3	1 Sagittarii	»	»	C.	23 6 22.4	Good
851	19	9.1	BD. — 12° 59' 25	»	»	I.	23 22 51.3	»
852	30	6.5	BAC. 2238	R. D.	»	»	8 25 19.0	»
853	Dec. 18	8.5	BD. — 3° 54' 87	D. D.	»	»	1 54 1.5	} First class conditions; took 2 ^s to disappear. β 709
							3.5	
854	18	8.9	W ₁ 22 ^h 744	»	»	»	3 5 40.5	V. good; almost exactly at N point
855	18	8.9	»	»	7 in. Heliom.	H.	3 5 40.3	
856	19	9.0	W ₁ 22 ^h 517	»	7 inch	I.	3 22 47.1	Note
857	20	8.6	Lal. 436	»	»	»	3 30 2.2	Fair; glided
858	21	8.5	W ₁ 1 ^h 45	»	»	»	2 7 24.0	Very good
859	22	8.9	W ₂ 2 ^h 1326	»	»	»	3 6 24.7	Note
860	23	7.0	Lal. 3790	»	»	»	3 29 36.4	Very good; glided
861	27	9.7	Star 30 ^s f. BD. +24° 1298	D.	18 inch	L.	6 23 46.2	
862	27	9.4	BD. +24° 1300	»	»	»	6 33 8.7	
863	27	9.4	»	»	7 inch	I.	6 33 8.7	Very good
864	27	9.4	»	»	10 inch	V. L.	6 33 8.7	Faint
865	27	9.4	BD. +24° 1296	R.	18 inch	L.	7 0 15.9	
866	27	9.4	»	»	10 inch	V. L.	7 0 16.2	Good
867	27	9.1	BB. VI +24° 1303	D.	18 inch	L.	7 1 47.7	
868	27	9.1	»	»	7 inch	I.	7 1 47.7	Very good
869	27	9.1	»	»	10 inch	V. L.	(7 2 48.9)	Uncertain
870	27	9.2	BD. +24° 1306	»	18 inch	L.	7 10 41.7	
871	27	9.2	»	»	7 inch	I.	7 10 41.2	Good
872	27	9.2	»	»	10 inch	V. L.	7 10 40.9	Very fair
873	27	9.5	Star 13 ^s f. No. 869	»	7 inch	I.	7 10 49.7	Fair
874	27	9.2	BD. +24° 1305	»	7 in. Heliom.	H.	7 16 36.0	Good
875	27	9.2	»	»	18 inch	L.	7 16 36.9	
876	27	9.2	»	»	7 inch	I.	7 16 37.3	Very good
877	27	9.2	»	»	10 inch	V. L.	7 16 36.9	Good
878	27	9.4	BD. +24° 1311	»	18 inch	L.	7 25 55.7	Definition bad
879	27	9.2	BB. VI +24° 1310	»	»	»	7 26 53.2	
880	27	9.0	BD. +24° 1309	»	7 in. Heliom.	H.	7 30 35.5	Very good
881	27	9.0	»	»	18 inch	L.	7 30 35.4	
882	27	9.0	»	»	7 inch	I.	7 30 35.4	Very good
883	17	9.0	»	»	10 inch	V. L.	7 30 35.5	Good
884	27	9.3	BD. +24° 1308	»	7 inch	I.	7 31 57.7	Worthless
885	27	9.3	»	»	10 inch	V. L.	7 31 58.7	Fair; faint
886	27	9.2	BD. +24° 1313	»	18 inch	L.	7 53 40.7	
887	27	9.2	»	»	7 inch	I.	7 53 41.7	Worthless
888	27	9.2	»	»	10 inch	V. L.	7 53 41.2	Bad
889	28	3.7	δ Geminorum	R. D.	7 in. Heliom.	H.	5 1 55.1	Doubtful
890	28	3.7	»	»	7 inch	I.	5 1 58.1	»
891	28	3.7	»	»	10 inch	V. L.	5 1 57.9	»
892	30	5.2	α^1 Cancr	»	7 in. Heliom.	H.	5 17 12.7	Very good
893	30	5.2	»	»	7 inch	I.	5 17 12.8	»

856. Cloudy; at N point; may be 1^s or 2^s early. — 859. Very good; glided, taking 0^s.5; mean of times given — 861–888. Observed during Lunar eclipse.

Royal Observatory, Cape of Good Hope, 1899 July 28.

David Gill.