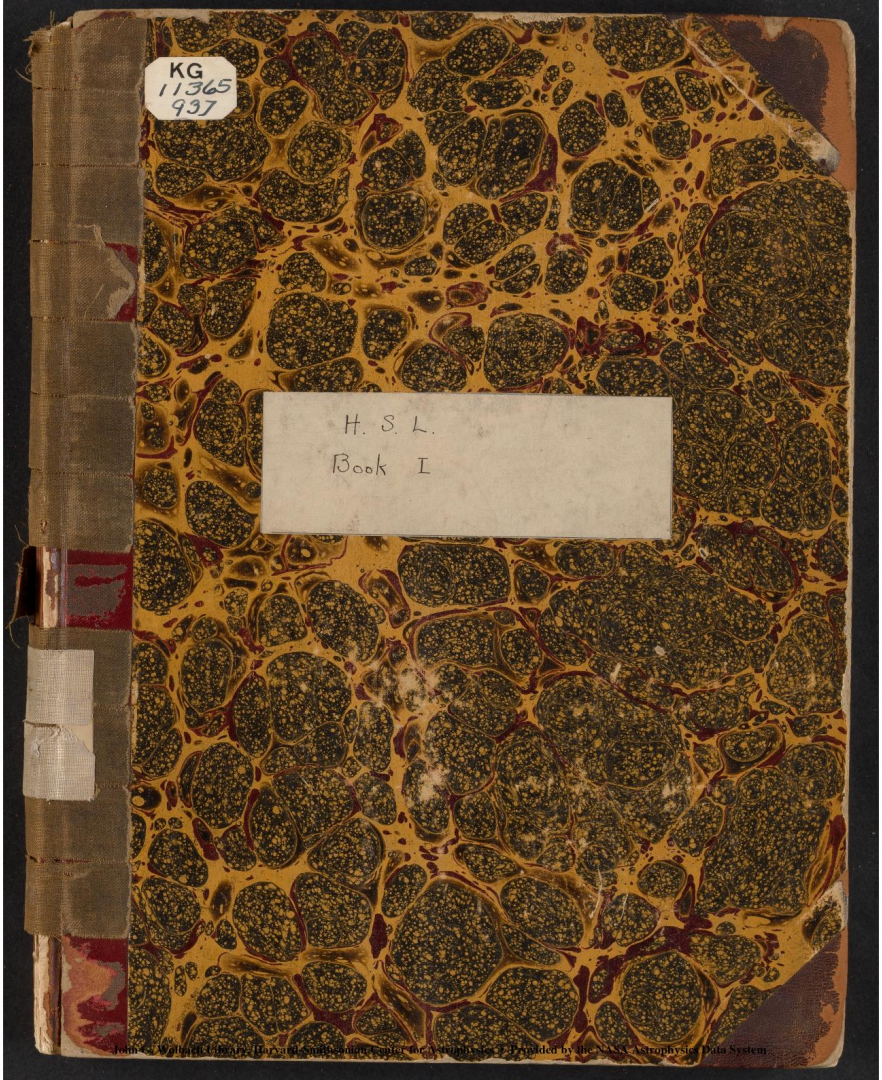


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Contents of Book I H.S.L.

Object	Page
S Cephei (Suspected Variable near)	4-13
Comparison Stars measured	123-144
Estimates of Brightness	144-153, 155
Estimates of brightness of Comp. Stars	49-51
T Cassiopeiae	
Comparison stars measured	52-78
Estimates of brightness	30-48, 79-94, 156
R Cassiopeiae	
Comparison Stars measured	95-113
Estimates of brightness	14-27, 114-122, 154
S Cassiopeiae	
Comparison stars measured	199-215
Estimates of brightness	216-220
T Cephei	
Comparison Stars measured	157-171
Estimates of brightness	172-178
Measures of comparison stars g, h', k, l, to see if there is variation	179-193
Estimates of brightness of h'	194, 195, 197, 198
Estimates of brightness of g	196
Plates marked with Comparison stars	221
Index to Circumpolar Variables	3

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Index to Circumpolar Variables

Superseded by Index at the front of Book VI

	Variable	Mean of Comp. Stars	Estimates of Brightness
Chart I 45	T Cassiopeiæ	~~I 68–89~~, III 157–164 V 119,120,121	I 34-48, 79-94, 156, III 27, 29; IV 37
" II 22	S Cassiopeiæ	~~I 89–95~~, II ~~15–21~~ 18-22, III 127–130 V 195, 196	I 216–220; II 4–12, III 28; IV 37, V 4–28 79, 99
Chart II 49	T Persei	~~II 46–61~~, III 131–134 49-53	II 77–92; III 26, IV 32
	S Persei	II ~~46–61~~, III 131–134 49-53	II 62–76; III 25, IV 30
Chart I 97	R Aurigæ	~~II 97–98, 114, III 147, 149, 213–216~~ IV 20, 202 IV 16, 19, 20, 196	II 105–116; III 21, 22; IV, 38
	R Lyncis	~~II 129–141~~, III 62–69	II 132–142; III 19, 20; IV 39
	R Ursæ Majoris	~~II 142–145~~, III 70–78, 61; ~~III 205~~ IV 207, 208	II 146–157; III 60 IV 40
	T Ursæ Majoris	~~II 142–146~~, III 78–87 VI 5, 9	II 177–184; III 58; IV, 85
	S Ursæ Majoris	~~II 140–142, III~~ 88–95	II 194–205; III 59; IV, 86
Chart	S Bootis	~~II 206–207~~, III 96–103 IV 22 V 242	II 210–226; III 4, 165; IV, 88
	R Canum Venaticorum	~~III 50~~, 104–112 V 213, 217	III 7–18, 113; IV, 89
	R Ursæ Minoris	III 44–46, 141–144 IV 20	III 47–67; IV, 90
Chart	R Draconis	~~III 30–33~~, 114–121	III 34–43; IV, 91
	S Cygni	III 158–161, III 122–126 IV 4	II 162–172; IV 92
Chart I 158	T Cephei	I ~~145–146~~, III 145–148, IV 23 157, 160	I 172–178; III 24, 136
Chart I 4	S Cephei	I ~~122–124~~, III 149–152, 28, 29 IV 31, 32 126, 127	I 145–153, 156 IV 30; III 136
" I 113	R Cassiopeiæ	I ~~95–113~~, III 153–156, 166, 167 V 30, 32 110	II 4–27, 114–122, 154; III 23 IV 41, 99

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October 4, 1895

Examination of plates for suspected variable near S Cephei.

Comparison star for S Cephei 21h 36.5m +70° 16'
marked on Plates C 6365 and I 9463

Copied from Chart of Professor Pickering.

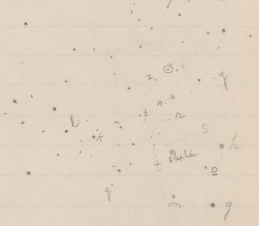


Plate I 1552 taken Aug. 1, 1890
p. 1 v
v = .2

Plate I 1590 taken
v = .2
p = .2

Plate I 1927 taken Oct. 1, 1890
p. 1 v
v = .2

Plate I 1930 taken Oct. 1, 1890
v n.s
p n.s

October 4, 1895

Plate I 4031 taken [illegible] 1891

Chart L. Bk. I; +

Plate I 6909 taken Sept. 7, 1892
p = .2
v n.s.

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October 4, 1895

Examination of plates for suspected variable near S Cephei.

Comparison star for S Cephei 21h 36.5m +70° 16'
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Copied from Chart of Professor Pickering

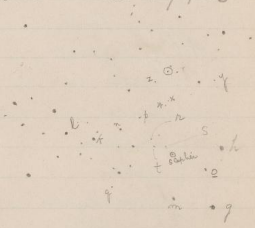


Plate I 1552 taken Aug. 1, 1890
p, v
v = .2

Plate I 1590 taken
v = .2
p = .2

Plate I 1927 taken Oct. 1, 1890
p, v
v = .2

Plate I 1930 taken Oct. 1, 1890
v n.s
p n.s

October 4, 1895

Plate I 4031, taken [illegible] 15 1891

Chart L. Pk. I; +

Plate I 6909 taken Sept. 7, 1892
p = .2
v n.s.

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October 4, 1895

Examination of plates for suspected variable near S Cephei.

Comparison star for S Cephei 21h 36m.5 +70° 16'
marked on Plates C 6365 and I 9463

Copied from Chart of Professor Pickering



Plate I 1552 taken Aug. 1, 1890
p 1 r
r = .2

Plate I 1590 taken
r = .2
p = .2

Plate I 1927 taken Oct. 1, 1890
p 1 r
r = .2

Plate I 1930 taken Oct. 1, 1890
r n.s
p n.s

October 4, 1895

Plate I 4031, taken Aug. 15, 1891
p 1 r
r = .2
x = .2 ?

~~Plate C 3907 taken~~
Plate C 3994 taken Sept. 24, 1891
r n.s
p n.s

Plate C 4056 taken Oct. 15, 1891
r = .2
p = .2
q 1 r

Plate C 4070 taken Oct 17, 1891
p 2 r
r 1 ? z

Plate C 4139 taken Nov. 3, 1891
p 2 r
r 2 z
r o y

Plate I 6909 taken Sept. 7, 1892
p = .2
r n.s.

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October 4, 1895

Plate I 7464 taken Nov. 5, 1892
p = .2
v n.s.

Plate C 5406 taken Feb. 28, 1893
p 2 r
r 1 z
z 0 y

Plate C 5407 taken Feb. 28, 1893
p 2 r
r 1 y
y 1 z

Plate C 5720 taken July 16, 1893
p 2 r
r = .2
y n.s
z n.s.

Plate I 8935 taken July 24, 1893
p 1 r
r 0 z
z = .2

Plate I 9093 taken Aug. 7, 1893
p = .2
r = .2

October 4, 1895

Plate I 9167 taken Aug. 10, 1893
Nothing comes out in this region on the plate

Plate I 9204 taken Aug. 13, 1893
p 2 r
r 1 z
z 0 y

Plate I 9227 taken Aug. 14, 1893
Region does not come out on plate.

Plate I 9228 taken Aug. 14, 1893.
Region does not come out on plate.

Plate I 9256 taken Aug. 15, 1893
r n.s
p = .2

Plate C 5933 taken Sept. 2, 1893
r n.s.
p = .1

Plate C 5934 taken Sept. 2, 1893
p 1 r
r 0 y
y = .2

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October 4, 1895

Plate I 9463 taken Sept. 12, 1893
p 3 r
r 2 z
z 1 y

Plate C 6094 taken Oct. 16, 1893
p 3 r
r 2 y
z n. s.

Plate I 10,098 taken Nov. 30, 1893
r n. s.
p n. s.

Plate C 6365 taken Dec. 20, 1893
p 3 r
r 1 y
y 1 z

Plate C 6483 taken Jan. 17, 1894
p 3 r
r 1 y
y 1 z

Plate C 6598 taken Feb. 16, 1894
p 3 r
r 1 y
z n. s.

October 4, 1895

Plate C 6599 taken Feb. 16, 1894.
p 2 r
r 1 y
z n. s.

Plate C 6720 taken Apr. 25, 1894
p 3 r
r 0 y
r = .2

Plate C 6903 taken July 17, 1894
p = .2
r n. s.

Plate C 6981 taken Aug. 11, 1894
p 1 r
r = .1

Plate I 11462 taken Sept. 20, 1894
p = .2
r n. s.

Plate C 7065 taken Sept 29, 1894
p = 2 r
r = .1

Plate C 7110 taken Oct. 14, 1894
p 1 r
r 1 y
z [illegible]

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October 4, 1895

Plate I 11695 taken Oct. 17, 1894
p 3 r
r 1 y
y = .2

Plate I 11696 taken Oct. 17, 1894
p 2 r
r = .1
y n.s.

Plate I 11877 taken Nov. 12, 1894
p .2 r
r = .1
y n.s.

Plate C 7233 taken Nov. 16, 1894
r n.s.
p n.s.
y n.s.

Plate C 7375 taken Dec. 22, 1895
p 2 r
r = .1
y n.s.

Plate C 7408 taken Jan. 1, 1895
p = .2
r n.s.
y n.s.

Plate C 7518 taken Feb. 14, 1895
p = .1
r n.s.

October 4, 1895

Plate C 7519 taken Feb. 14, 1895
p not seen
r not seen
y not seen

Plate C 7569 taken Feb. 22, 1895
p 2 r
r 2 y
y = 3
z n.s.

Plate C 7607 taken March 5, 1895
p not seen
r not seen

Plate C 7694 taken April 16, 1895
p not seen
r not seen

Plate C 7737 taken April 19, 1895
p o r
r 1 y
y o z

Plate C 7768 taken May 1, 1895.
p not seen
r not seen

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October 4, 1895

Plate I 12775 taken May 2, 1895
p 1 r
r 1 y
y 0 z

Plate C 7840 taken May 9, 1895
p 1 r
r = .1

Plate I 13104 taken July 26, 1895
p = .1
r not seen

Plate I 13137 taken July 30, 1895
p not seen
r not seen

Plate C 7972 taken

Plate C 8091 taken Aug. 2, 1895
p = .2
r not seen

Plate C 8140 taken Aug. 16, 1895
r not seen
p not seen

October 4, 1895

Plate C 8141, taken Aug. 16, 1895
p = .1
r not seen

Plate C 8156 taken Aug. 19, 1895
p 1 r
r 1 y
y = .1

Plate C 8163 taken Aug. 21, 1895
p not seen
r = .1 ?

Plate C 8164 taken Aug. 21, 1895
~~p not seen~~ p = .1
r not seen

Plate C 8196 taken Aug 30, 1895
p not seen
r not seen

Plate C 82213 taken Sept. 3, 1895
p not seen
r not seen

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Superseded

October 29, 1895.

Estimate of brightness of R Cassiopeiæ.

ℓ h f g k k.l m n o g r s p t u w y x z α

Comparison stars of O.C. Wendell arranged in order of photographic brightness.

Plate B 1952 taken

5.69 n 3 v 8.99 9.86 = 9.42 .43 44

9.86 v 20 10.06

Plate B 1975 taken Dec. 1, 1887

5.69 n 4 v 9.09 9.96 = 9.52 .43 44

9.96 v 1 0 10.06

Image of v circular & very much elongated. d not on this plate

Superseded

October 30, 1895

Plate I 115 taken Nov. 14, 1889

v l ε

c s r

Plate I 1423 taken Jan. 3, 1890

v o g 7.07 r = 7.07

Plate I 1529 taken July 7, 1890

v o q 10.16 r = 10.16

ℓ = .1

p n.s.

Plate I 1588 taken Aug. 4, 1890

10.06 0 1 v 10.16 10.06 = 10.11 .05 .05

10.06 v 1 q 10.16

Plate I 1670 taken Aug. 24, 1890

~~10.16 q 4 v 10.56~~ r = 10.28

v o r 10.28

s n.s.

Plate I 1805 taken Sept. 5, 1890

r n.s r < ~~10.80~~ 11.00

10.90 s = .1

t n.s.

Plate I 1911 taken Sept. 30, 1890

10.85 p 1 r 10.95 10.78 = 10.86 .09 .08

10.78 r 4 t 11.18

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Superseded

October 30, 1895

Plate I 1952 taken Oct. 5, 1890
v m.s r < 8.35
8.25 h = .1
m m.s.

Plate I 1987 taken Oct. 14, 1890
v m.s. r — 10.38
10.28 r = .1
s m.s

Query whether object seen once v or h.

Plate I 2053 taken Oct. 22, 1890
v o h 10.28 r = 10.28
h = .2
s m.s.
v l t

t comes out on this plate through neither s nor p are seen

Plate I 2122 taken Oct. 31, 1890
8.69 n 4 8 9.09 9.96 = 9.52 .43 .44
9.96 v l o 10.06

Plate I 2354 taken Nov. 26, 1890
7.62 K 2 v 7.52 8.05 = 7.94 .12 .11
8.05 v 2 h 8.25

Plate I 2559 taken Dec. 22, 1890
7.07 g l v 7.17 7.52 = 7.35 .18 .17
7.52 v l K 7.62

Superseded

October 30, 1895

Plate I 2637 taken Dec. 29, 1890
6.46 v 2 h 6.36 r = 6.46
e not on plate

Plate I 2688 taken Dec. 31, 1890
v o h 6.36 r = 6.36

Plate I 2900 taken Jan. 24, 1891
v o h 6.36 r = 6.36

Plate I 2914 taken Jan. 24, 1891
v o h 6.36 r = 6.36

Plate I 2977 taken Feb. 4, 1891
e 4 v r = 6.36
6.26 v l h 6.36

Plate I 3224 taken March 2, 1891.
7.07 g 4 v 7.47 7.52 = 7.50 .03 .02
7.52 v l K 7.62

Plate I 3885 taken July 21, 1891.
10.95 p o v r = 10.95

Plate C 3998 taken Sept. 25, 1891
10.06 o l v 10.16 10.06 = 10.11 .05 .05
10.06 v l o 10.16

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October 30, 1895

Plate I 4366 taken Sept. 26, 1891
v n.s. v < 8.19
7.69 n = .5
0 n.s

Plate I 4477 taken Oct. 8, 1891
v n.s
v' = .1
s n.s.

Plate I 4478 taken Oct. 8, 1891.
v n.s. v < 11.88
11.18 t = .1
u n.s.

Plate I 4495 taken Oct. 9, 1891
v n.s
v' = 1
s n.s.

Plate C 4057 taken Oct. 15, 1891.
v n.s. v < ~~9.96~~ 10.16
10.06 0 = .1
q n.s.

Plate I 4536 taken Oct. 16/891
v 0 t 11.18 v = 11.15
t = .1
u n.s

October 30, 1895
Plate I 4605 taken Oct. 21, 1891
v n.s.
v' = .1
s n.s.

Plate C 4140 taken Nov. 3, 1891
10.86 p 2 v 11.05 11.08 = 11.06 .01 .02
11.08 v 1 t 11.18

Plate I 4719 taken Nov. 4, 1891
10.86 p 2 v 11.05 11.08 = 11.06 .01 .02
11.08 v 1 t 11.18

Plate I 4795 taken Nov. 19, 1891
10.86 p 1 v 10.95 10.88 - 10.92 .03 .04
10.88 v 3 t 11.18

Plate I 5002 taken Dec. 8, 1891
v 4 v
v 1 v'

Plate I 5258 taken Dec. 19, 1891
v 2 v
v 2 v'

Plate I 5279 taken Dec. 28 1891
v' 2 v This v' is not the one adopted in the
v 2 0 second series of observations

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October 30, 1895

Plate C 4348 taken Jan. 7, 1892
v 0 n'

Plate C 4349 taken Jan. 7, 1892.
v 0 n'

very edge of plate — Plate I 6890 taken Sept. 6, 1892
n' 2 v
v 2 0

Plate I 6893 taken Sept. 6, 1892
n 2 v
v 2 n'

Plate I 6894 taken Sept. 6, 1892
n 3 v
v 2 n'

very edge of plate — Plate I 6908 taken Sept. 7, 1892.
v 0 n'

very edge of plate — Plate I 7410 taken Oct. 23, 1892
v 0 q 10.16

Plate C 5291 taken Jan. 7, 1893
11.51 v 2 v 11.71 11.78 = 11.74 .03 .04
11.78 v 1 n 11.88
n = .1

October 31, 1895.

Plate C 5292 taken Jan. 7, 1893
v n.s. r < 10.75
10.28 r = .2
s n.s. r' n.s.

long trails — Plate C 5472 taken March 29, 1893
v 0 n 8.69

Plate C 5698 taken July 11, 1893
7.07 q 2 v 7.27 7.42 = 7.34 .07 .08
7.42 v 2 k 7.62

Plate C 5731 taken July 11, 1893
7.07 q 3 v 7.37 7.52 = 7.44 .07 .08
7.52 v 1 k 7.62

Plate C 5732 taken July 11, 1893
7.07 q 4 v 7.47 7.42 = 7.44 .02 .03
7.42 v 1 k 7.52

near edge of plate — Plate I 6888 taken July 21, 1893
7.62 k 3 v 7.92 7.82 = 7.87 .05 .05
7.82 v 2 m 8.02

Plate I 9015 taken Aug. 1, 1893
8.21 s l 1 v 8.35 8.39 = 8.37 .02 .02
8.39 v 3 n 8.69

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October 31, 1895

new edge of plate

Plate I 9074, taken Aug. 3, 1893
8.02 m 3 V 8.32 7.95 = 8.14 .18 .14
7.95 V 3 h 8.25

Plate I 9121 taken Aug. 8, 1893
8.02 m 3 V 8.32 8.05 = 8.18 .14 .13
8.05 V 2 h 8.25

Plate C 6868 taken Aug. 13, 1893
8.02 m 2 V 8.22½
h not on plate

Edge of plate.

Plate I 9389 taken Sept 4, 1893
8.25 h 4 V 8.65 8.59 = 8.62 .03 .03
8.59 V 1 m 8.69

Plate I 9737 taken Oct. 21, 1893
n' 1 V V = 9.66½
9.66 V 4 O 10.06

Plate I 9772 taken Oct. 25, 1893
n' 2 V V = 9.76½
9.76 V 3 O 10.06

Plate I 9937 taken Nov. 18, 1893
10.28 r 1 V 10.38½
V s s'

October 31, 1895

Plate C 6366 taken Dec. 20, 1893
11.18 t 1 V 11.28 11.11 = 11.20 .08 .09
11.11 V 4 u 11.51

Plate C 6441 taken Jan. 7, 1894
11.51 u 2 V 11.71 11.48 = 11.60 .11 .12
11.48 V 4 W 11.88

Plate C 6442 taken Jan. 7, 1894
11.51 u 2 V 11.71½
W n. s.

Plate C 6484 taken Jan. 19, 1895
11.51 u 3 V 11.81 11.58 = 11.70 .11 .12
11.58 V 3 W 11.88

Plate C 6721 taken April 25, 1894
r' 1 V V = 10.50½
10.50 V 4 S 10.90

Plate C 6942 taken Aug. 1, 1894
V o h 6.36

Plate C 6943 taken Aug 1, 1894
V o L 6.36

Plate I 11439 taken Sept. 11, 1894
7.62 K 1 V 7.72 7.82 = 7.67 .05 .05
7.62 V 4 m 8.02

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October 31, 1895

Plate C 7066 taken Sept. 29, 1894
6.36 h 5 V 6.86?
g, K, L, not on plate.

Plate I 11570 taken Oct. 10, 1894
7.62 K 1 V 7.72 7.72 = 7.72 .00 .00
7.72 V 3 m 8.02

Plate C 7114 taken Oct. 16, 1894
V 3 m 8.02 V = 7.72?
k not on plate

K on edge of plate — Plate I 11719 taken Oct. 15, 1894
~~V 3 m 8.02~~ 7.62?
7.62 K 0 V

Plate C 7234 taken Nov. 16, 1894
8.02 m 2 V 8.22?
L not on plate

Plate I 12071 taken Dec. 13, 1894
8.69 m 1 V 8.79?
V 4 n'

Difference between n and n' just on this plate — Plate C 7376 taken Dec. 22, 1894
8.69 n 4 V 9.09?
V 4 n'

Oct. 31, 1895

Plate C 7404 taken Jan. 1, 1895
8.69 n 4 V 9.09?
V 3 n'

Plate C 7405 taken Jan. 1, 1895
8.69 n 4 V 9.09?
V 4 n'

Plate C 7570 taken Feb. 22, 1895
n' 3 V V = 10.70?
10.70 V 2 S 10.90

Plate C 7695 taken April 16, 1895
V n. S
n' = .7
S n. s.

Plate C 7736 taken April 19, 1895
11.51 U 4 V 11.91 11.78 = 11.84 .07 .06
11.78 V 1 W 11.58

Plate C 7867 taken May 16, 1895
11.41 V 1 W 11.61 V = 11.41?
t not on plate

Plate C 7973 taken July 11, 1895
n' 3 V V = ~~11.41~~ 10.70?
10.70 V 2 S 10.90

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Superseded

November 1, 1895.

Plate C 8045 taken July 25, 1895

images poor

r 2 v

10.70 v 2 r S 10.90 v = 10.70?

Plate C 8046 taken July 28, 1895

r 2 v

10.60 v 3 S 10.90 v = 10.60?

Plate C 8083 taken Aug. 2, 1895

10.28 r 2 v 10.48?

v 2 r

Plate I 13 $\frac{09}{71}$ taken Aug. 26, 1895

v 0 m 8.69

Image of l very different from those of m and v

Plate C 8197 taken Aug. 30, 1895

8.02 m 4 v 8.42 815 = 8.28 .14 .13

8.15 v 1 l 8.25

Plate I 13 $\frac{72}{364}$ taken Sept. 2, 1895

near edge of plate

~~Star of region not on plate~~

7.62 K 1 v 7.72 7.62 = 7.67 .05 .05

7.62 v 4 m 8.02

Plate C 8224 taken Sept. 3, 1895

7.62 K 1 v 7.72 7.62 = 7.67 .05 .05

7.62 v 4 m 8.02

Superseded

November 1, 1895

Plate C 8279 taken Sept. 13, 1895

6.36 k 4 v 6.76 6.97 = 6.86 .10 11

6.97 v 1 g 7.07

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Superseded see p. 79

November 4, 1895.

Estimate of brightness of T Cassiopeiae

a b c ε d f h³ g⁵ K m n² l (double on C plates)

Comparison stars of D.C. Kendall arranged in order of photographic magnitude.

Plate B 6 5 taken Oct. 16, 1885

Edge of plate — ~~8.66~~ 8.86

v 0 g

Plate B 7 6 taken Oct. 24, 1885

~~9.24~~ 9.35 v 4 K ~~9.64~~ 9.75 v = g ~~24~~ ? 9.35

Edge of plate — g not on plate

Plate B 1952 taken Dec. 1, 1887

~~8.66~~ 8.86 ~~9.05~~ 9.26 ~~9.65~~ 9.44 ~~24~~

~~8.66~~ 8.86 g 4 v ~~9.05~~ ~~9.08~~ = ~~9.01~~ ~~.27~~ ~~.28~~ 9.46 .20 19

~~9.66~~ 9.67 ~~9.64~~ 9.67

~~9.66~~ 9.66 v 1 K ~~9.70~~ 9.76

Edge of plate — Plate B 1976 taken Dec. 1, 1887

~~8.66~~ 8.86 9.26 9.36 9.31 .05 .05

~~8.66~~ 8.86 g 4 v ~~9.05~~ 9.26 ~~9.06~~ = ~~9.16~~ ~~.11~~ .10

~~9.26~~ 9.36 9.76

~~9.26~~ 9.36 v 4 m ~~9.66~~ 9.76

Edge of plate magnitudes not in order found in others — Plate B 2690 taken June 8, 1888

~~8.66~~ 8.83 h 4 v ~~9.06~~ 9.23 ~~9.46~~ 9.56 ~~9.26~~ 9.40 ~~.20~~ .17 ~~.20~~ .16

~~9.46~~ 9.56 v 2 m ~~9.66~~ 9.76

Plate B 2707 taken June 12, 1888

~~8.66~~ 8.83 h 1 v ~~8.76~~ 8.93 ~~8.53~~ 8.76 ~~8.66~~ 8.85 ~~.10~~ .08 ~~.29~~ .09

~~8.55~~ 8.76 ~~8.66~~ 8.86 ~~.29~~ .11

~~8.55~~ 8.76 v 1 g ~~8.66~~ 8.86

November 5, 1895.

a b ε f h g ~~K~~ n l' o

Here I have substituted K for h, because h is double on the C plates - g has been substituted for K and n, because it divides the interval more evenly. o & p added because there are no comparison stars in faint region

Plate I 81 taken Nov. 5, 1889

o 2 v

v 3 p

Plate I 423 taken Jan. 3, 1890

Edge of plate regions not destitute enough for measurement.

Plate I 424 taken Jan. 3, 1890

Obtained a chart from Professor Kendall for faint comparison stars; see next page

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Superseded – see p. 79ff

November 6, 1895

a b g e f h g g' m Ω ν ⊙ = g r s t u N

Plate I 81 taken Nov. 5, 1889

10.24 ~~10.04~~ n' 1 V 10.14 9.90 = 10.02 .12 .12

9.90 V 5 0' 10.40

Plate I 424 taken Jan. 3, 1890

10.40 0' 4 V 10.80 10.82 = 10.81 .11 .01

10.82 V 1 0 10.92

Plate I 1377

Missing

Plate I 1529 taken July 27, 1890

~~8.86~~ ~~8.65~~ g 7 V 9.56 9.35 9.46 9.12 = 9.24 .16 .11 .12 .05 .05

9.46 ~~9.12~~ V 1 g' 9.56 ~~9.22~~

Plate I 1588 taken Aug. 4, 1890

~~8.86~~ ~~8.65~~ g 7 V 9.56 ~~9.35~~ 9.46 9.12 = 9.24 .11 .12 .05 .05

9.46 ~~9.12~~ V 1 g 9.56 ~~9.22~~

Plate I 1670 taken Aug. 24, 1890

V 0 g 8.86 ~~8.65~~

Plate I ~~1785~~ 1805 taken Sept. 5, 1890

7.84 ~~7.86~~ f 5 V 8.34 ~~8.36~~ 8.73 ~~8.56~~ = 8.54 ~~8.46~~ .20 .10 .19 .10

8.73 ~~8.56~~ V 1 h 8.83 ~~8.66~~

November 7, 1895

Plate I 1911 taken Sept. 30, 1890

7.84 ~~7.86~~ f 3 V 8.14 ~~8.16~~ 8.53 ~~8.36~~ = 8.34 ~~8.26~~ .20 .10 .19 .10

8.53 ~~8.36~~ V 3 h 8.83 ~~8.66~~

Plate I 1952 taken Oct. 8, 1890

V n. s. V < ~~7.66~~ 8.06

very dark plate

7.84 ~~7.86~~ f = .2

Plate I 1987 taken Oct. 14, 1890

7.84 ~~7.86~~ f 3 V 8.14 ~~8.16~~ 8.53 ~~8.36~~ = 8.34 ~~8.26~~ .20 .10 .19 .10

8.53 ~~8.36~~ V 3 h 8.83 ~~8.66~~

Plate I 2053 taken Oct. 22, 1890

7.84 ~~7.86~~ f 4 V 8.24 ~~8.06~~ 8.73 ~~8.56~~ = 8.48 ~~8.31~~ .24 .25 .25 .25

8.73 ~~8.56~~ V 1 h 8.83 ~~8.66~~

Plate I 2122 taken Oct. 31, 1890

7.84 ~~7.86~~ f 4 V 8.24 ~~8.06~~ 8.73 ~~8.56~~ = 8.48 ~~8.31~~ .24 .25 .25 .25

8.73 ~~8.56~~ V 1 h 8.83 ~~8.66~~

Plate I 2354 taken Nov. 26, 1890

~~8.86~~ ~~8.65~~ g 4 V 9.26 ~~9.05~~ 9.26 ~~9.02~~ = 9.26 ~~8.98~~ .06 .07 .06 .06

9.26 ~~9.02~~ V 3 g 9.56 ~~9.32~~

Plate 2358 taken Nov. 27, 1890

~~6 3 V~~

~~V 3 g~~

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Superseded

November 7, 1895

Plate I 25-59 taken Dec. 22, 1898

9.56 9.96 9.68 9.82 .14 .14
9.22 9 4 V 9.62 9.56 = 9.59 .03 .03
9.68 10.24
9.56 V 1 m 9.66 9.78

Plate I 2589 taken Dec. 24, 1890

9.56 9.96 9.68 9.82 .14 .14
9.22 9 4 V 9.62 9.56 = 9.59 .03 .03
9.68 9.78
9.56 V 1 m 9.66

Plate I 25-97 taken Dec. 25, 1890

Images double and not 9 fronts.

V 0 m 9.78 9.66

Plate I 25-98 taken Dec. 25 1890

9.78 9.88 9.84 9.86 .02 .02
9.66 m 1 V 9.76 9.66 = 9.71 .05 .03
9.84 10.24
9.66 V 4 ḿ 10.04

Plate I 2688 taken Dec. 31, 1890

9.78 9.98 9.94 9.96 .02 .02
9.66 m 2 V 9.86 9.74 = 9.80 .06 .06
9.94 10.24
9.74 V 3 ḿ 10.04

Plate I 2736 taken Jan. 8, 1891

9.78 9.98 9.94 9.96 .02 .02
9.66 m 2 V 9.86 9.74 = 9.80 .06 .06
9.94 10.24
9.74 V 3 ḿ 10.04

Plate I 2847 taken Jan. 16, 1891

10.24
10.04 ḿ 1 V 10.14 10.00 = 10.07 .07 .07
10.00 V 4 0́ 10.40

Superseded

November 7, 1895

Plate C 3331 taken Jan. 16, 1895

10.24
10.04 ḿ 1 V 10.14 10.00 = 10.07 .07 .07
10.00 V 4 0́ 10.40

Plate I 2910 taken Jan. 24, 1891

10.24
10.04 ḿ 3 V 10.34 10.20 = 10.27 .07 .07
10.20 V 2 0́ 10.40

Plate I 2914 taken Jan. 24, 1891

V 0 0́ 10.40
0́ = .1

Plate C 3357 taken Jan. 30, 1891

10.40 0́ 1 V 10.50 10.38 = 10.44 .06 .06
10.38 V 3 9 10.92
10.58

Images double diff fronts & estimate

Plate C 3358 taken Jan. 30, 1891

10.40 0́ 3 V 10.70 10.58 = 10.64 .06 .06
10.58 V 3 9 10.92
10.58

Plate C 3391 taken Feb. 4, 1891

10.40 0́ 2 V 10.60 10.48 = 10.54 .06 .06
10.48 V 4 9 10.92
10.58

Plate C 3392 taken Feb. 4, 1891

10.40 0́ 2 V 10.68 10.48 = 10.54 .06 .06
10.48 V 4 9 10.92
10.58

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Suspended

November
January 7, 1895.

Plate I 2797 taken Feb. 4, 1891
10.40 O´ 1 V 10.50 10.48 = 10.49 .01 .01
10.48 V 4 g 10.92 10.88

Plate C 3416 taken Feb. 6, 1891
10.40 O´ 2 V 10.60 10.58 = 10.59 .01 .01
10.58 V 3 g 10.92 10.88

trails. Differences very distinct.

Plate C 3417 taken Feb. 6, 1891
10.40 O´ 3 4 V 10.80 10.48 = 10.64 .16 .16
10.48 V 4 g 10.92 10.88

Plate C 3422 taken Feb. 10, 1891
10.40 O´ 4 V 10.80 10.58 = 10.69 .11 .11
10.58 V 3 g 10.92 10.88

Plate C 3423 taken Feb. 10, 1891
10.40 O´ 5 V 10.90 10.48 = 10.69 .21 .31
10.48 V 4 g 10.92 10.88

g may be misjudged by a defect in the plate. Dark plate

Plate I 3224 taken March 2, 1891
V = .1
g n.s.

Plate C 3543 taken March 7, 1891
V 0 g 10.92 10.88

Suspended

November 7, 1895

Plate I 3885 taken July 21, 1891
8.86 9.26 9.16 9.21 .05 .05
8.65 g 4 V 9.05 8.82 = 8.94 .11 .12
9.16 9.56
8.82 V 4 g´ 9.22

Images double

Plate C 3929 taken Sept. 3, 1891
8.86 9.36 9.16 9.26 .10 .10
8.65 g 5 V 9.15 8.82 = 8.98 .17 .16
9.16 9.56
8.82 V 4 g´ 9.22

Images poor

Plate C 3935 taken Sept. 9, 1891
8.86 8.96 8.96 8.96 .00 .00
8.65 g 1 V 8.75 8.62 = 8.68 .07 .06
8.96 9.56
8.62 V 6 g´ 9.22

images poor

Plate C 3960 taken Sept. 10, 1891
8.86 9.06 9.06 9.06 .03 .00
8.65 g 2 V 8.85 8.72 = 8.78 .07 .06
9.06 9.56
8.72 V 5 g´ 9.22

Images double

Plate C 3966 taken Sept. 14, 1891
8.86 8.96 9.26 9.11 .15 .15
8.65 g 1 V 8.75 8.92 = 8.84 .09 .08
9.26 9.56
8.92 V 3 g´ 9.22

Corner of Plate

Plate I 4366 taken Sept. 26, 1891
8.86 1
8.65 g 1 V 8.75 8.96
V = .2
g´ n.s.

Plate I 4478 taken Oct. 5, 1891
8.86 8.96 8.96 8.96 .00 .00
8.65 g 1 V 8.75 8.62 = 8.68 .07 .06
8.96 9.56
8.62 V 6 g´ 9.22

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Superseded

November 7, 1895

Plate C 4063 Oct. 16, 1891
8.86 9.06 9.06 9.06 .00 .00
7.65 g 2 V 8.85 8.92 = 8.78 .07 .06
9.06
8.72 V 5 g 9.56
8.22

Plate I 4604 taken Oct. 21, 1891
8.83 8.93 8.66 8.80 .13 .14
7.66 h 1 V 8.76 8.45 = 8.60 .16 .15
8.66 8.86
8.45 V 2 g 8.65

Plate I 4605 taken October 21, 1891
8.83
V 0 h 8.66

Plate C 4098 taken Oct. 25, 1891
8.83
V 0 h 8.66

Images double
Plate C 4121 taken Oct. 29, 1895
8.83 8.93 8.76 8.84 .09 .08
8.66 h 1 V 8.76 8.55 = 8.66 .10 .11
8.76 8.86
8.55 V 1 g 8.65

Images double, with trails
Plate C 4162 taken Nov. 7, 1891
8.83 8.93 8.76 8.84 .09 .08
8.66 h 1 V 8.76 8.55 = 8.66 .10 .11
8.76 8.86
8.55 V 1 g 8.65

Plate I 4795 taken Nov. 19, 1891
8.86
V 0 g 8.65

Plate I 5092 taken Dec. 7, 1891
8.83 8.83 8.03 8.66 8.84 .19 .18
8.66 h 2 V 8.86 8.45 = 8.66 .20 .21
8.66 8.86
8.45 V 2 g 8.65

Superseded

November 7, 1895

Plate I 5070 taken Dec. 11, 1891
8.83
V 0 g h 8.66

Plate I 5071 taken Dec. 11, 1891
7.84 8.24 8.73 8.48 .24 .24
7.86 f 4 V 8.26 8.56 = 8.41 .15 .15
8.73 8.83
8.56 V 1 h 8.66

Plate I 5258 taken Dec. 19, 1891
7.84 8.24 8.66 8.45 .21 .21
7.86 f 4 V 8.26 8.45 = 8.36 .10 .09
8.66 8.86
8.45 V 2 g 8.65

Plate I 5279 taken Dec. 28, 1891
7.84 8.24 8.56 8.40 .16 .16
7.86 f 4 V 8.26 8.55 = 8.30 .04 .05
8.56 8.86
8.35 V 3 g 8.65

Near edge of plate
Plate I 5360 taken Jan. 8, 1892
7.84 8.34 8.76 8.55 .21 .21
7.86 f 5 V 8.36 8.55 = 8.46 .10 .09
8.76 8.86
8.55 V 1 g 8.65

Plate C 4381 taken Jan. 25, 1892
7.84 8.34 8.76 8.55 .21 .21
7.86 f 5 V 8.36 8.55 = 8.46 .10 .09
8.76 8.86
8.55 V 1 g 8.65

Plate C 4382 taken Jan. 25, 1892
7.84 8.34 8.76 8.55 .21 .21
7.86 f 5 V 8.36 8.55 = 8.46 .10 .09
8.76 8.86
8.55 V 1 g 8.65

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Superseded

November 7, 1895

* For plate I 7183 see next page

Image very poor

Plate C 5-177 taken ~~Dec. 29~~ Nov. 21 1892

9.56 9.66 9.58 .04 .04
9.82 g 1 V 9.82 9.62 = 9.49 .07 .04
9.58 9.78
9.46 V 2 R 9.66

Plate C 5-264 taken Dec. 28, 1892

9.06 9.06 9.16 9.11 .05 .05
8.86 8.65 g 2 V 8.85 8.80 = 8.84 .01 .02
9.16 9.56
8.82 V 4 g 9.82

Plate I 7769 taken Dec. 29, 1892

8.86 9.16 9.16 9.16 .00 .00
8.65 g 3 V 8.95 8.82 = 8.88 .07 .06
9.16 9.56
8.82 V 4 g 9.22

Plate C 5-280 taken Jan. 2, 1893

8.86 9.06 9.16 9.11 .05 .05
8.65 g 2 V 8.85 8.82 = 8.84 .01 .02
9.16 9.56
8.82 V 4 g 9.22

Plate C 5-310 taken Jan 17, 1893

8.86
V O g 8.65

Plate C 5-311 taken Jan 17, 1893

8.83 8.93 8.76 8.84 .07 .08
8.06 h 1 V 8.76 8.55 = 8.66 .10 .11
8.76 8.86
8.55 V 1 g 8.65

Plate C 5-428 taken March 7, 1893

Images much closer

8.86
V O g 8.65

Plate C 5-457 taken April 4, 1893

8.86 9.26 9.16 9.21 .05 .05
8.65 g 4 V 9.05 8.82 = 8.94 .11 .12
9.16 9.56
8.82 V 4 g 9.22 g' = .1

November 7, 1895

Plate C 5-785 July 27, 1893

10.40 0 6 V 11.50 10.78 = 10.89 .11 .11
10.78 V 1 g 10.92
10.68

Plate C 5-786 taken July 27, 1893

10.92 11.12 10.70 10.91 .21 .21
10.68 g 2 V 11.08 10.72 = 10.90 .18 .18
10.70 11.00
10.72 V 3 R 11.02

* Plate I 7453 taken Nov. 6, 1892

9.56 9.66 9.38 .14 .14
9.82 g 1 V 9.82 9.52 9.26 = 9.29 .03 .03
9.38 9.78
9.26 V 4 R 9.66

very edge of plate

Plate I 9177 taken Aug. 10, 1893

V N.S. V < 10.82 11.02 11.6
10.48
10.92 O = .1

Plate C 5-869 taken Aug. 13, 1893

Waiting

edge of plate

Plate I 9353 taken Aug. 31, 1893

V O g 10.92
10.68
g = .2

very edge of plate

Plate I 9379 taken Sept 2, 1893

V O g 10.92 10.96
10.68 V = 10.96 .04 .04
11.00
V O R 11.62
R = .2

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Superseded

November 7, 1895

Plate C 6009 taken Sept. 22, 1893

11.00 / 11.02 R 1 V 11.10 / 11.02 11.60 / 11.00 = 11.35 / 11.06 .25 / .06 .25 / .06

11.60 / 11.00 V 4 S 12.00 / 11.40

Plate C 6100 taken Oct. 16, 1893

10.24 / 10.04 n' 3 V 10.34 10.20 = 10.27 .07 .07

10.20 V 2 0' 10.40

very edge of plate — Plate I 9733 taken Oct. 21, 1893

10.04 n' 1 V 10.14 10.00 = 10.07 .07 .07

10.00 V 4 0' 10.40

edge of plate — Plate I 9737 taken Oct. 21, 1893

10.04 n' 1 V 10.14 10.00 = 10.07 .07 .07

10.00 V 4 0' 10.40

edge of plate — Plate I 9772 taken Oct. 25, 1893

9.78 / 10.04 n 4 V 10.18 / 10.04 10.14 / 10.00 10.16 / 10.00 = 10.07 .02 / .04 .02 / .04

10.14 / 10.00 V 1 n' 10.24 / 10.40

Plate I 9780 taken Oct. 25, 1893

9.78 / 10.04 n 3 V 10.08 / 10.37 10.14 / 10.30 10.11 / 10.32 .03 / .06 .03 / .06

10.14 / 10.30 V 1 n' 10.24 / 10.40

Plate I 9983 taken Nov. 22, 1893

9.56 / 9.22 9 4 V 9.96 / 9.62 9.68 / 9.06 = 9.82 / 9.54 .14 / .03 .14 / .03

9.68 / 9.06 V 1 n 9.78 / 9.66

Superseded

November 7, 1895

Plate C 6242 Nov. 22, 1893

9.86 / 9.22 9 4 V 9.96 / 9.62 9.68 / 9.06 = 9.82 / 9.54 .14 / .03 .14 / .03

9.68 / 9.06 V 1 n 9.78 / 9.66

extreme edge of plate — Plate I 10201 taken Dec. 18, 1893

9.68 / 9.06 V 1 n 9.78 / 9.66 [illegible] 9.68

9' not on plate

Plate I 10218 taken Dec. 20, 1893

8.86 / 8.65 9 4 V 9.26 / 9.05 9.36 / 9.02 = 9.31 / 9.04 .01 / .01 .05 / .02

9.36 / 9.02 V 2 9' 9.56 / 9.22

Plate C I 6367 taken Dec. 20, 1893

8.65 9 5 V V = 9.22

V 0 9' 9.56 / 9.22

Plate C 6454 taken Jan. 8, 1894

8.86 / 8.65 9 4 V 9.26 / 9.05 9.36 / 9.02 = 9.31 / 9.04 .05 / .01 .05 / .02

9.36 / 9.02 V 2 9' 9.56 / 9.22

Plate 6502 Jan. 22, 1894

8.86 / 8.65 9 3 V 9.16 / 8.95 9.36 / 8.92 = 9.26 / 8.94 .10 / .01 .10 / .02

9.36 / 8.92 V 2 9' 9.56 / 9.22

Plate 6503 taken Jan. 22, 1894

8.86 / 8.65 9 3 V 9.36 / 9.15 9.16 / 8.82 = 9.26 / 8.98 .10 / .17 .10 / .16

9.16 / 8.82 V 4 9' 9.56 / 9.22

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Suspended

November 7, 1895

Plate I 10538 taken Jan. 22, 1894

~~8.86~~ 9.26 9.16 9.21 .05 .05
~~8.65~~ q 4 r ~~9.05~~ 8.82 = 8.94 .11 .12
9.16 9.56
~~8.82~~ r 4 q ~~9.22~~

Plate C 6609
Nothing on plate

* Plate C 6998 taken Aug. 15, 1894

Plate C ~~6881~~ taken ~~July 3, 1894~~

10.24
~~10.04~~ n' 2 Q r 10.24 10.00 = 10.12 .12 .12
10.00 r 4 0' 10.40

Plate C 6981 taken July 3, 1894

9.16 9.26 9.20 .05 .05
~~8.84~~ ~~8.65~~ q 4 r ~~9.05~~ 8.82 = ~~8.94~~ .11 .12
9.16 9.56
~~8.82~~ r 4 q ~~9.22~~

Plate C 6951 taken Aug. 5, 1894

9.56
r 0 q ~~9.22~~

Plate C 6952 taken Aug. 5 1894

9.56 ~~8.86~~ ~~9.02~~ 9.76 9.68 9.72 .04 .04
q 2 r ~~9.42~~ 9.56 = 9.49 .07 .07
9.68 9.78
~~9.56~~ r 1 n ~~9.66~~

* Plate 6998 see above

long trails extreme edge of plate 7 to 9 pm

Plate I ~~11466 taken Sept. 20, 1894~~

r ~~n.s~~ r < 10.98

10.88 q = .1

November 7, 1895

extreme edge of plate

Plate I 11467 taken Sept. 20, 1894

10.80 11.00
10.82 V 2 r ~~11.02~~ ~~r = 10.82~~ ? 10.80
r = .1
q not on plate

Plate C 7067 taken Sept. 29, 1894

~~10.40~~ 0' 5' V 10.90 10.78 = 10.84 .06 .06
10.78 V 1 q 10.88

extreme edge of plate

Plate I 11570 taken Oct. 10, 1894

10.40 0' 5' V 10.90 10.78 = 10.84 .06 .06
10.78 V 1 q 10.88

Plate I 11597 taken Oct. 11, 1894

10.40 0' 6 V 10.00 10.78 = 10.89 .11 .11
10.78 V 1 q 10.88

Plate C 7142 taken Oct. 20, 1894

V n.s. r < 10 9.90
q n.s.
10.40 5' = .5

Plate C 7143 taken Oct. 20, 1894

V 0 r 11.00 ~~11.02~~
s n.s.

Plate I 11839 taken Nov. 11, 1894

11.00
~~11.02~~ r 1 V 11.12
V = .1

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Superseded

November 9, 1895.

Remeasured

Plate C 7221 taken Nov. 12, 1894

~~11.50~~ ~~11.02~~ r 3 v 11.32 11.10 = 11.21 .11 .11

11.10 v 3 s 11.40 ~~12.00~~ ~~11.40~~

Remeasured

Plate C 7259 taken Nov. 22, 1894

11.02 r 4 v 11.42 11.10 = 11.21 .11 .11

11.10 v 3 s 11.40

edge of plate Remeasured

Plate I 12071 taken Dec. 13, 1894

11.02 r 2 v 11.22 11.10 = 11.16 .06 .06

11.10 v 3 s 11.42

Remeasured

Plate C 7377 taken Dec. 22, 1894

~~10.92~~ ~~10.88~~ g 4 v 11.28 10.82 = 11.05 .23 .23

10.82 v 2 r ~~11.03~~ ~~11.02~~

Plate C 7429 taken Jan. 17, 1895

v 0 n ~~10.24~~ ~~10.04~~

Plate C 7430 taken Jan. 17, 1895

v 0 n' ~~10.24~~ ~~10.24~~

Plate C 7450 taken Jan. 23, 1895

~~9.78~~ ~~9.66~~ n 4 v ~~10.18~~ ~~10.06~~ ~~10.07~~ 9.84 = ~~10.11~~ ~~9.95~~ ~~.07~~ .11 ~~.07~~ .11

~~9.84~~ 9.84 v 2 n' ~~10.24~~ ~~10.24~~

Images elongated

Plate C 7499 taken Feb. 11, 1895

v 0 g' ~~9.66~~ 9.56

Superseded

November 9, 1895

Plate C 7714 taken April 17, 1895

~~8.86~~ ~~8.65~~ g 4 v ~~9.26~~ ~~9.05~~ ~~9.36~~ 9.12 = ~~9.36~~ ~~9.08~~ ~~.10~~ .03 ~~.10~~ .04

~~9.46~~ ~~9.12~~ v 1 g' ~~9.56~~ ~~9.22~~

Images double

Plate C 7789 taken May 2, 1895

~~8.86~~ ~~8.65~~ g 4 v ~~9.26~~ ~~9.05~~ ~~9.36~~ 9.02 = ~~9.31~~ ~~9.04~~ ~~.05~~ .01 ~~.05~~ .02

~~9.36~~ ~~9.02~~ v 2 g' ~~9.56~~ ~~9.22~~

edge of plate The place for g' is in the corner where nothing shows

Plate C 7888 May 23, 1895

~~8.86~~ ~~8.65~~ g 6 v ~~9.25~~ 9.26

g' n. s.

Plate C 7974 taken July 11, 1895

~~8.83~~ ~~8.56~~ h 0 v 8.66

Remeasured

v 2 g

Plate C 8019 taken July 23, 1895

~~h~~ 0 v

v 2 g

Plate C 8020

~~7.84~~ ~~7.86~~ f 4 g v ~~8.24~~ ~~8.26~~ 8.56 ~~8.56~~ = ~~8.40~~ ~~8.30~~ .16 ~~.04~~ .16 .05

~~8.56~~ ~~8.56~~ g 3 v g ~~8.86~~ ~~8.65~~

Plate 8070 taken July 31, 1891

~~7.84~~ ~~7.86~~ f 4 v ~~8.24~~ ~~8.06~~ ~~8.66~~ ~~8.45~~ = ~~8.45~~ ~~8.46~~ .21 .20 .21 .19

~~8.66~~ ~~8.45~~ v 2 g ~~8.86~~ ~~8.66~~

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Supersided

November
January 9, 1895.

Plate C 8084 taken Aug. 2, 1895

7.84 8.24 8.66 8.45 .21 .21
7.86 f 4 V 8.26 8.45 = 8.36 .10 .09
8.66 8.86
8.145 V 2 g 8.65

Plate C 8192 taken Aug. 31, 1895

7.84 8.34 8.76 8.55 .21 .21
7.86 f 5 V 8.36 8.55 = 8.446 .10 .09
8.76 8.86
8.55 V 1 g 8.65

Plate I 13380 taken Sept. 2, 1895

Plate C 8225 taken Sept. 5, 1895

8.86 8.96 9.06 9.01 .05 .05
8.65 g 1 V 8.75 8.72 = 8.74 .01 .02
9.06 9.06
8.72 V 5 g 9.22

Plate C 8257 taken Sept. 5, 1895

8.86 8.96 9.06 9.01 .05 .05
8.65 g 1 V 8.75 8.72 = 8.74 .01 .02
9.06 9.56
8.72 V 5 g 9.22

Plate C 8281 taken Sept. 15, 1895

8.86 9.16 9.26 9.21 .05 .05
8.65 g 3 V 8.95 8.92 = 8.94 .01 .02
9.26 9.56
8.92 V 3 g 9.22

November 13, 1895.

Estimate of brightness of C. C. Wendell's comparison stars to S Cephei

Plate I 9204 taken Aug. 13, 1893

image of o
imperfect

a 3 d d 3 b b 1 e ε 2 c ε 1 f
ε 4 ε' ε' 5 g g 1 h h 5 k k 5 l
l 3 m m 8 n n 5 o o 1 p p 4 q

Plate I 9463. taken Sept. 12, 1893

a 2 d d 3 b b 1 e ε 2 c c of
f 4 g g' 4 g g 0 2 h 5 k k 4 l l 3 m
m 4 n n 5 p p 10 o 1 q 2 n. s.

C 6365
Plate I 11877 taken Dec. 20, 1893

ε 1 c c of f 5 g h 1 g h 4 k k 4 l
p double l 4 m m 4 m m* 5 p p' 3 q q 10
q 5 r r 0 s r 0 t

Plate C 4070 taken Oct. 17, 1891

ε 2 c c of (c 6 g) ~~h 1 g q 4 k~~
f 3 g g' 4 g h 1 g q 4 k k 4 l
f l 3 m m 4 m n 5 p' p' 4 0 o 1 g
q 5 r r 0 s s 1 t

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November 14, 1895

Plate C 6406

b not on plate

ε 3c c 1ε′ (ε1f) ε′ 5-g g 0k g 5-k
k 4l l 1m m 4n n 5-p′ p′ 3q 0 1q
r n.s.

In following plates, c, f, h, q, are omitted

Plate C 5-407

ε 5-ε′
ε′ 6g h 1g
g 3k
k 5l
l 3m
m 3n
n 5-p′
p′ 3q
q 0 0
r n.s.
V n.s.

Plate C 5-934 taken Sept. 2, 1893

ε 6ε′
ε′ 6g
g 4k
k 5l
l 4n
m 4n
n 6p′
p′ 5-q
q 1 0
0 -.1
V n.s.

November 14, 1895

Plate C 6094 taken Oct. 16, 1893

ε 6ε′
ε′ 6g
g 4k
k 5l
l 3m
m 4n
n 7p′
p′ 4q
q 0 0
ε n.s.
V n.s.

Plate 6-99 taken Feb. 16, 1894

ε 6ε′
ε′ 5-h
h p 3q
q 4k
k 5l
l 2m
m 4n
n 5-p′
p′ 5-q
q 1 0
r n.s.
V n.s.

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November 15, 1895

Measures of the photographic brightness of C.C. Trudell's comparison stars to T Cassiopeiae Superseded *

Plate I 84 taken Nov. 5, 1889

a	3.0	somewhat elongated - measurement uncertain
b	4.3	
c	5.9	
d	6.2 4	
e	5.8	
f	6.1	
g	7.4	
h	7.4 3	
k	8.1	
l	8.0	
m	8.0	The 8th mag. image on scale is slightly elongated
n	8.1	
o	9.1 3	10th mag. image found - measure in mgs
		~~the 10th mag. image on plate. This is an estimate merely~~
q	9.2	
r	9.5 4	
s	9.7	
t	n.s.	
u	n.s.	
w	n.s.	
q	7.7	
V	8.3	

* These and all following measures of comparison stars for T Cassiopeiae are superseded by measures of 3 Jy 137 Aug

November 15, 1895

Plate I 2 to 53 taken Oct. 22, 1890

a	For near edge of plate to measure
b	Image imperfect Superseded
c	" "
d	6.6
e	6.2
f	6.3
g	7.7
h	7.5
k	8.6
l	8.1 7.1 wrong star observed at first
m	8.4
n	8.3
o	9.7
q	10.0
r	10.0
s	n.s.
t	n.s.
u	n.s.
w	n.s.
V	7.6

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Suspended

November 15, 1895

T Cas.

Plate I 5279 taken Dec. 28, 1891

a not on plate
b Images too poor to measure
c " " " "
d 6.3
e 6.0
f 6.3
g 7.1
h 7.0
k 7.8
l 8.0
m 7.8
n 7.8
o 10.1
q 9.3
r 9.8
s m.s.
V 7.7

Suspended

November 18, 1895

Plate I 115-~~97~~ taken Oct. 11, 1894

a not on plate
b 3.8
c 4.5
d 6.0 Uncertain because of elongated image in scale
e 5.4
f 5.8
g 6.7
h 6.7
k 7.6
l 7.8
m 7.8
n 7.9
o 8.7
q 8.6 9 Marg star observed at first.
r 9.0
s 9.3
t 9.7
u 10.1
w 10.2 Barely seen
V 8.9

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Superseded

November 18, 1895

T Cass.

Plate C 4381 taken Jan. 25, 1892

d 6.1 5.6
e 5.6 upper scale 5.1
f 6.0 (upper scale) ~~5.6 (lower scale)~~ 5th mag. image blurred
g ~~6.8 (upper~~ ~~6.3 (lower~~
~~h 6.3 (lower scale)~~ ~~6.8 (upper scale~~
h 6.8 (upper) 6.3 (lower)
k 7.6 lower
l double as this and all C plates
l' 7.9 lower
m 7.6 "
n 7.6 "
o 8.8 "
q 9.1 "
r 9.1 "
s 9.5 ? no 10th mag. image on scale
t n.s.
u n.s.
v n.s.
V 6.8 (upper) 6.2 (lower)

q' 7.1 (lower
n' 8.2
o' 8.5

Superseded

November 17, 1895

Plate C 4382 taken Jan. 25, 1892

d 5.9 (u) 5.4 (l) ? Imperfect 5th mag. image in scale
e 5.5 5.2 " " " "
f 5.9 5.4
g 6.7 6.2
h 6.7 6.2
k 7.9 image of k poor - near edge of plate
l 8.0 " "
m 8.0 " "
n image too poor to measure
o near 9 image elongated
q image elongated
r " "
s n.s
t n.s.
u n.s.
v n.s.
V f.8 6.3

q' 7.6
n' image poor
o' image poor

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Suspended

November 17, 1895

T Cass.

Plate C 5785 taken July 27, 1893

Images very slightly elongated

d	5.7	5.2	
e	5.1	4.6	
f	5.7	5.2	
g	6.5	6.0	
h	6.5	6.0	
k	7.1	6.8 / 7.0	wrong star first named
l	(7.5		image of l too elongated to measure exactly
m		6.9	good image
n		7.0	image elongated
o		8.7	
q		8.7	
r		8.8	
s		9.5	
v		8.6	
q'		6.7	
n'		7.8	
o'		8.2	

Suspended

November 17, 1895

Plate C 6009

d	8.0	5.5	image slightly elongated
e	5.2	4.7 / 5.5	
f	6.0		image elongated
g	6.7	6.2	
h	6.7	6.2	
k		7.4	image elongated
l		7.5	
m		7.3	
n		7.2	
o		8.7	
q		8.7	
r		8.8	
s		9.2	
t	n.s.		
v		8.8	
q'		6.9	
n'		7.9	
o'		8.2	

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Suspended

November 17, 1895

T Cass.

Plate C 6242, taken Nov. 22, 1893

d	6.0	5.5
e	5.6	5.1
f	5.9	5.4
g	6.6	6.0
h	6.5	6.0
k		6.8
l		7.1
m		7.0
n		7.1
o		8.2
q		8.1
r		8.3
s		8.7
t		9.2
u		9.5
w	n.s.	
V		7.2
q'		6.8
n'		7.8
o'		8.0

Suspended

November 20, 1895

Plate C 6367 taken Dec. 20 1893

d	5.9 21	4.7	
e	4.4	3.9	Confusion circles marked on this plate
f	5.1	4.6	
g	6.1	5.7 6	
h	5.7 2.1	5.7 6	
k	6.8	6.3	
l	6.9	6.4	image elongated
m	6.9	6.4	
n	6.8	6.3	
o	X	7.6	
q		7.6	
r		7.7	
s		8.3	
t		8.8	
u		9.1	
w		9.5?	just seen
V	6.4	5.9	
q'	6.5	6.0	
n'		6.8	
o'			

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Separated

November 20, 1891

T Cass.

Plate C 6502 taken Jan. 22, 1894

d	6.1	5.6
e	5.9	5.4
f	6.1	5.6
g	6.9	6.4
h	6.9	6.4
k		7.1
l	too elongated to measure	
m		7.1
n		7.2 elongated
o		8.2
q		8.2
r		8.5
s		8.9
t		9.1
u		9.3
w		n.s.
V		6.8
q'		6.9

Separated

November 20, 1891

Plate C 6581 taken July 3, 1894

d	6.9	5.4	Images somewhat elongated
e	5.1	4.6	
f	5.7	5.2	
g	6.3	5.8	
h	6.3	5.8	
k		7.1	
l		7.0	much elongated
m		7.1	" "
n		7.1	" "
o		8.8	" "
q		8.8	" "
r		9.1	
s		9.5	
t		n.s.	
u		n.s.	
w		n.s.	
V	6.8	6.2	
q'	6.9	6.4	much elongated
h'	7.5	7.0	" "

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Superseded

November 20, 1895

F Cass,

Plate C 695-2 taken Aug. 5, 1894

d	~~6.0~~ 5.5	~~5.8~~ Wrong star observed at first
e	5.2	4.7
f	5.8	5.3
g	6.6	6.1
h	6.5	6.0
k		7.2
l		7.3
m		7.2
n		7.1
o		8.6
q		8.6
r		8.7
s		9.3
t		n.s.
u		n.s.
w		n.s.
V		7.1
g'		6.7
n'		7.7
o'		8.2

Superseded

November 20, 1895

Plate C 699 8 taken Aug. 18, 1894

d	6.5	6.0
e	6.0	5.5
f	6.5	6.0
g	7.3	6.8
h	7.3	6.8
k	~~8.0~~	8.0
l		8.2
m		8.0
n		8.0
o		9.1
q		9.1
r		9.3
s		9.7
t		n.s.
V		8.3
g'		7.6
n'		8.3
o'		8.7

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Deposited

Nov. 20, 1895

D Cass.

Plate C 7067 taken Sept. 29, 1894

d	6.4	5.8
e	5.9	6.4
f	6.1	5.6
g	7.1	6.6
h	7.1	6.6
k		7.9
l		8.1
m		7.9
n		7.9
o		9.1
q		9.1
r		9.2
s		just seen
V		8.4
g'		7.4
n'		8.4
o'		8.7

Deposited

November 20, 1895

Plate C 7377 taken Dec. 22, 1894

d	5.9	5.4
e	5.1	4.6
f	5.7	5.2
g	6.6	6.1
h	6.6	6.1
k		7.1
l		7.2
m		7.1
n		7.1
o		8.6
q		8.6
r		9.0
s		9.4
t		n.s.
V		8.9
g'	7.0	6.5
n'		7.6
o'		8.1

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Superseded

November 20, 1895

T Cass.

Plate C 7974 taken July 14, 1895

d	5.2	4.7	6.2 5.7	6.0 5.5	taken independently
e	4.6	4.1	5.5 5.0	5.6 5.1	Jan. 4 '96
f	5.0	4.5	6.0 5.5	6.0 5.5	
g	6.8	6.2	Means taken Jan. 2, '96		
h	6.5	6.3			
k		6.9			
l		7.3			
m		7.1			
n		7.2			
o		8.4			
q		8.4			
r		8.6			
s		8.9			
t		9.3			
u		9.7			
w		n.s.			
v	6.6	6.1			
q'		7.8			
n'		7.6			
o'		8.0			

Superseded

November 20, 1895

Plate C 8019 taken July 23, 1895

d	6.3	5.9
e	5.6	5.1
f	6.3	5.8
g	7.0	6.5
h	6.9	6.4
k		7.8
l		8.0
m		7.9
n		7.9
o		9.1
q		9.1
r		9.3
s		9.6
t		n.s.
v	6.8	6.2
q'		7.4
n'		8.2
o'		8.7

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Superseded

November 22, 1895

9 Obs.

Plate C 8070 taken July 31, 1895

d	6.4	5.9	
e	6.1	5.5	nearer edge of plate than d
f	6.3	5.8	
g	6.9	6.4	
h	7.0	6.5	
k		7.7	
l		7.6	
m		7.6	
n		7.6	
o		8.9	
q		8.9	
r		9.0	
s		just ovm	
t		on S.	
V	6.9	6.4	
q'		6.9	
n'		8.1	
o'		8.5	

The images on this plate are especially round and clear.

Superseded

November 22, 1895

Plate C 8084 taken Aug. 2, 1895

d	6.#1		Images on this plate somewhat elongated
e	5.4		
f	5.9		
g	6.9	6.3	
h	6.9	6.3	
k		7.5	
l		7.8	
m		7.5	
n		7.5	
o		8.9	image too much elongated to measure well
q		8.9	" " " " " " "
r		8.9	" " " " " " "
s		9.4	
t		n.s.	
V	6.5	6.0	
q'		7.1	
n'		7.9	
o'		8.3	

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Superseded

November 22, 1895

T Cass.

Plate C 819 2 taken Aug. 30 1895

d	5.9	5.4	Images elongated
e	5.5 4.0	4.5	
f	5.6	5.1	
g	6.4	5.9	
h	6.3	5.8	
k		6.8	
l		~~6.8~~ 7.0	wrong star first found
m		6.8	
n		6.8	
o		8.2	
p		8.2	
r		8.4	
s		8.9	
t		n.s.	
V	6.2	5.8	
g'		6.6	
n'		7.2	
o'		7.9	

Superseded

November 22, 1895

Plate C 8281 taken Sept. 15, 1895.

d	5.7		Images elongated
e	5.0		
f	5.4		
g	6.4 5.5	~~5.9~~ 6.1	wrong star at first
h	6.4	5.9	
k		6.9	
l		7.1	
m		6.9	
n		6.9	
o		8.2	
p		8.2	
r		8.4	
s		8.9	
t		just seen	
u		~~n.s.~~ "	
V	6.5	5.9	
g'	6.9	6.5	
n'	7.4	7.4	
o'		7.7	

There is a defect in plate near u, but by attention counting u itself may be distinguished in its proper place

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Superseded

November 22, 1895

T Cass.

Plate I 81 taken Nov. 6, 1889

a	3.6	3.9
b	4.7	5.0
c	5.9	6.2
d	6.8	7.1
e	~~6.7~~ 5.7	~~6.1~~ 6.1
f	6.6	6.9
g		7.9
h		7.9
k		8.8
l'		8.8
m		8.7
n		8.8
o		9.3
q		9.3
r		9.4
s		9.7
t		m.s.
Dec. 2, '95 V		8.8
"		
" q'		8.0
" n'		8.7
" o'		9.0

Comparison stars marked on this plate

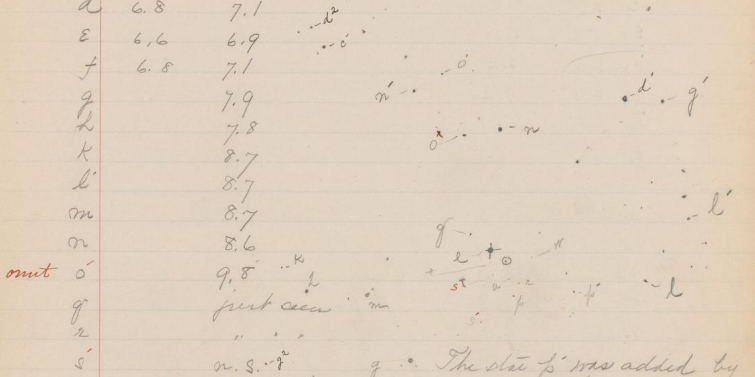
Superseded

December 2, 1895.

Plate I 2053 taken Oct. 22, 1890

a, b, c, too imperfect to measure

d	6.8	7.1
e	6.6	6.9
f	6.8	7.1
g		7.9
h		7.8
k		8.7
l'		8.7
m		8.7
n		8.6
omit o'		9.8
q		just seen
r		" "
s'		n. s.
V		7.7
		8.2
g'		7.7
n'		9.0
o'		9.3



g. The date l' was added by Mr. Hendell Jan. 15, 1896. Date l' takes place of his date l, which is double. Stars g' n' o' were added by myself.

Note May 9, 1896

Comparison stars for T Cassiopeiae are marked on plates I 81 and C 6367

I 16523

Remark Oct. 21, 1918. Star n as marked above is in the same position marked on identification charts, but the position does not agree with that published in Ha. 37 and repeated Ha. 84 No. 1. Above chart assumed to have been copied from Mr. Hendell's original chart.

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Suspended

Dec. 3, 1895

9 Cass.

Plate I 5279 taken Dec. 28, 1891

a	not on plate	
b, c	images too poor to measure	
d	6.0	6.3
e	5.6	6.1
f	6.0	6.3
g	6.9	7.2
h	6.8	7.1
k		8.0
l		8.1
m		8.0
n		7.9
o		10.0
p		9.8
r		9.9
s	n.s.	
V		6.6
q'		7.6
n'		8.4
o'		8.8

Images near edge of plate

Suspended

December 3, 1895

Plate I 7483 taken Nov. 6, 1892

a	not on plate	
b	4.1	4.4
c	4.3	4.6
d	4.9	5.2
e	4.7	5.0
f	5.0	5.2
g	5.6	5.8
h	5.5	5.8
k		
l	Further images too poor to measure	
m		
n		
o		
q		

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December 3, 1895

T Cass.

Plate I 1159 7 taken October 11, 1894

too near edge of plate to measure

Superseded

a	4.0	4.3
b	5.1	5.4
c	6.0	6.3
d	5.6	5.9
f	6.0	6.2
g	6.7	6.9
h	6.7	7.0
k		7.8
l'		8.0
m		8.0
n		8.0
o		8.9
q		8.8
r		9.0
s		9.3
t		9.8
x		10.3
w		9.5
v		7.9
q'		7.8
m'		8.2
o'		8.4

These and all preceding measures of comparison stars for V Cassiopeiae are superseded by measures in Vol 8 pp 157, 164

Images poor, especially brighter stars

December 3, 1895

Estimates of brightness of V Cassiopeiae a b c ε f g g' m n' o' q r s t x w

Comparison stars in order of photographic magnitude. All save those with accent originally selected by Mr. C. C. Wendell

For chart see p. 75

Plate B 65 taken Oct. 16, 1895

Dec. 4 — V o g — 8.86 9.37 — V = 9.37

Edge of Plate

Dec. 4 — Plate B 75 taken Oct. 24, 1895

g not on plate — 8.72 V 5 g 9.22 — 9.56 10.22 — V = 8.72 : — V = 9.06 : — V = 9.72 :

Dec. 4 — Plate B 1952 taken Dec. 1, 1887

V o g' — 10.22 — 9.22 9.56 — V = 10.22

edge of plate — Plate B 1975 taken Dec. 1, 1887

9.56 10.22 9.66 10.07 9.36 — 9.51 .15 .15

9.22 g' 1 V 9.32 9.26 = 9.29 .03 .03

9.36 10.07 10.47 9.76

9.26 V 4 m 9.66 — V = 10.20 12 13

edge of plate — Plate B 2690 taken June 8, 1888

8.34 4 8.77 4 7.17 66 — 55 .11 .11

7.56 f 6 V 8.46 8.73 = 8.46 .10 .01

7.17 66 7.37 86

8.73 V 2 g 8.65 — V = 9.06 12 11

edge of plate — Plate B 2707 taken June 12, 1888

62 2.2 98 .24 .24

7.40 8 6 V 8.10 7.76 = 7.74 .12 .12

84

7.76 V 1 f 7.86

Yet V is certainly brighter than f!

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Reduced June 21, 1915
E.F.M.

December 3, 1895

9 Obs.

Plate I 81 taken Nov. 5, 1889

11.05 2.4 10.64 m' 1 V 11.15 34 10.74 10.92 08 10.00 V 4 Q' 11.52 48 10.40 = 10.87 21 .07 13 .07 V = 11.04 11 12

Plate I 424 taken Jan. 3, 1890

11.32 48 10.40 Q' 6 V 11.92 28 11.70 11.87 82 10.78 = 11.05 10.89 .23 .23 .11 11 V = 11.70 22 21

11.89 82 10.78 V 1 q' 11.39 92 10.88

Plate I 1377

Plate I 15-29 taken July 27, 1890

10.22 56 V 0 q 9.22 V = 10.22

Plate I 15-88 taken Aug. 4, 1890

10.22 56 V 0 q 9.22 V = 10.22

Plate I 1670 taken Aug. 24, 1890

9.37 86 V 0 q 8.65 V = 9.37

Plate I 1805 taken Sept. 5, 1890

8.34 7.56 f 6 V 8.94 4 8.46 9.27 76 8.75 = 8.50 60 .16 .16 .04 .05 V = 9.11 17 16

9.37 5.65 V 1 q 9.37 86 8.65

Plate I 1911 taken Sept. 30, 1890

8.34 7.56 f 5 V 8.94 4 5.36 8.97 46 8.25 = 8.30 40 .06 .06 .06 .05 V = 8.70 06 07

9.37 8.25 V 4 q 9.37 86 8.65

Reduced June 21, 1915
E.F.M.

December 3, 4, 1895

Plate I 1952 taken Oct. 8, 1890

8.34 84 7.86 f 2 V 8.54 7.94 8.06 8.04?

V = .1 V = 8.54?

g n. e.

Plate I 1987 taken Oct. 17, 1890

8.34 84 7.86 f 6 V 8.94 4 8.46 8.97 46 8.25 = 8.46 40 .06 .06 .10 .09 .01 01

8.97 46 8.25 V 4 q 9.37 86 8.65 V = 8.46 02 01

Plate I 2055 taken Oct. 22, 1890

8.34 84 7.86 f 7 V 9.04 8.54 9.17 66 8.75 = 8.50 60 .06 .06 .06 .05

9.17 66 8.45 V 2 q 9.37 86 8.65 V = 9.10 06 07

Plate 2122 taken Oct. 31, 1890

8.34 84 7.86 f 4 V 8.74 8.24 9.27 76 8.75 = 8.90 60 .26 .26 .16 .15

9.27 76 8.75 V 1 q 9.37 86 8.65 V = 9.00 26 27

Plate I 2354 taken Nov. 26, 1890

9.37 86 8.65 q 4 V 9.17 26 9.05 916 8.82 = 9.21 8.94 .05 .05 .11 .12

9.82 9.16 8.82 V 4 q 10.22 56 9.22 V = 9.80 03 02

Plate I 2358 taken Nov. 27, 1890

Plate I 2559 taken Dec. 22, 1890

10.41 V 0 m' 9.66 V = 10.41

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December 4, 1895

9 Cars.

Plate I 2589 taken December 24, 1890

Plate I 2597 taken December 25, 1890

Five images of each star. Identification difficult

Plate I 2598 taken December 25, 1890

Plate I 2600 taken

Plate I 2688 taken Dec. 31, 1890

Plate I 2736 taken Jan. 8, 1891

Plate I 2847 taken Jan. 16, 1891

Plate C 3385 taken Jan. 16, 1891

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December 4, 1895

Images poor

Plate I 2900 taken Jan. 24, 1891

Images very faint

Plate I 2914 taken Jan. 24, 1891

Images double

Plate C 3357 taken Jan. 30, 1891

Images double

Plate C 3358 taken Jan. 30, 1891

Plate C 3391 taken Feb. 4, 1891

Plate C 3392 taken Feb. 4, 1891

Plate I 2977 taken Feb. 4, 1891

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December 4, 1895

T Coss.

Plate C 3416 taken Feb. 6, 1891

10.48 g 5 V
10.40
10.62 10.98 10.80 .18 .18
10.58 10.90 10.58 = 10.77 .16 .16
10.62 10.92
10.58 V 3 g 10.88
V = 11.76 .16 .17

Plate C 3417 taken Feb. 6, 1891

10.48 g 6 V
10.40
10.52 11.08 10.80 .28 .28
10.48 11.00 10.77 .26 .26
10.52 10.92
10.48 V 4 g 10.88
V = 11.76 .16 .17

Plate C 3422 taken Feb. 10, 1891

10.48 g 5 V
10.40
10.72 10.98 10.85 .13 .13
10.68 10.90 10.79 .11 .11
10.72 10.92
10.68 V 2 g 10.88
V = 11.80 .12 .11

Plate C 3423 taken Feb. 10, 1891

10.48 g 5 V
10.40
10.72 10.98 10.85 .13 .13
10.68 10.90 10.79 .11 .11
10.72 10.92
10.68 V 2 g 10.88
V = 11.80 .12 .11

Plate I 3224 taken March 2, 1891

Remember

V just seen V < 10.88

10.88 g n.s. V < 10.40

g' = 10.40

Right plate Too prov

Plate C 3543 taken March 7, 1891

Plate I 3885 taken July 21, 1891

8.86
7.65 g 3 V 9.16 9.16 9.16 .00 .00
7.95 8.82 = 8.88 .07 .06
9.16 9.16
8.82 V 4 g 9.56
V = 7.74 .07 .08

December 4, 1895

Images double

Plate C 3929 taken Sept. 3, 1891

8.86
7.65 g 7 V 9.56 9.06 9.31 .25 .25
8.95 8.72 = 8.84 .14 .15
9.06 9.56
7.72 V 5 g 9.70
V = 9.70 .15 .17

Plate C 3955 taken Sept. 9, 1891

8.86
7.65 g 3 V 9.16 9.16 9.16 .00 .00
7.95 7.82 = 7.88 .07 .06
9.16 9.56
7.82 V 4 g 9.70
V = 9.74 .07 .08

Plate C 3960 taken Sept. 10, 1891

8.86
7.65 g 4 V 9.26 9.16 9.21 .05 .05
9.05 8.82 = 8.94 .11 .12
9.16 9.56
8.82 V 4 g 9.70
V = 9.80 .03 .02

Images double

Plate C 3966 taken Sept. 14, 1891

8.86
7.65 g 3 V 9.16 9.26 9.21 .05 .05
7.95 8.92 = 8.94 .01 .02
9.26 9.56
8.92 V 8 g 9.70
V = 9.80 .13 .12

Images double & much distorted

Plate I 4366 taken Sept. 21, 1891

8.86
8.65 g 3 V 9.16
7.95 ?
V = 9.67 ?
g' n.s.

Plate I 4475 taken Oct. 8, 1891

8.86
8.65 g 1 V 8.96 9.06 9.01 .01 .02 .05 .05
8.75 8.72 = 8.74
9.06 9.56
8.72 V 5 g 9.60
V = 9.60 .13 .12

Images very poor

Plate C 4063 taken Oct. 16, 1891

8.86
8.65 g 3 V 9.16 9.06 9.11 .05 .05
8.95 8.72 = 8.84 .11 .12
9.06 9.56
8.72 V 5 g 9.70
V = 9.70 .03 .02

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H.F.M.

December 4, 1895

F Cass.

Plate I 4604 taken Oct. 21, 1891
V 0 g 9.37 8.65 v = 9.37

Plate I 4605 taken Oct. 21, 1891
V 0 g 9.37 8.65 v = 9.37

Plate C 4098 taken Oct. 25, 1891
V 0 g 9.37 8.65 v = 9.37

Images much elongated

Plate C 4121 taken Oct. 29, 1891
V 0 g 9.37 8.65 v = 9.37

Plate C 4162 taken Nov. 7, 1891.
V 0 g 9.37 8.65 v = 9.37

near edge of plate. Images poor.

Plate I 4796 taken Nov. 19, 1891
7.84 8.34 8.44 8.66 8.55 .11 .11
7.86 f 6 r 8.46 8.45 = 8.46 .00 .01
8.66 8.45 V 2 g 8.86 8.65 v = 9.06 12 11

Images very poor. Edge of plate

Plate I 5102 taken Dec. 8, 1891
V 0 f 8.21 7.56 v = 8.34

Plate I 5070 taken Dec. 11, 1891
7.84 8.34 8.34 8.76 8.55 .21 .21
7.56 f 5 r 8.36 8.55 = 8.46 .10 .11
8.76 8.55 V 1 g 9.37 8.86 8.65 v = 9.06 22 21

Plate I 5071 taken Dec. 11, 1891
7.84 8.34 8.44 8.66 8.55 .11 .11
7.86 f 6 r 8.46 8.45 = 8.46 .00 .01
8.66 8.45 V 2 g 8.86 8.65 v = 9.06 12 11

.66

Reduced June 21, 1915
H.F.M.

December 4, 1895

near edge of plate. Images very poor

Plate I 5258 taken Dec. 19, 1891
7.84 8.34 8.44 8.56 8.50 .06 .06
7.86 f 6 r 8.46 8.35 = 8.40 .06 .05
8.56 8.35 V 3 g 8.86 8.65 v = 9.00 06 07

Plate I 5279 taken Dec. 25, 1891
7.84 8.34 8.44 8.66 8.55 .00 .01 .11 .11
7.86 f 6 r 8.46 8.45 = 8.46 .00 .02
8.66 8.45 V 2 g 8.86 8.65 v = 9.06 12 11

Images poor

Plate I 5360 taken Jan. 8, 1892
7.84 8.34 8.54 8.76 8.65 .11 .11
7.56 f 7 r 8.56 8.55 = 8.56 .00 .01
8.76 8.55 V 1 g 8.86 8.65 v = 9.16 12 11

Plate C 4381 taken Jan. 25, 1892
7.84 8.34 8.64 8.76 8.65 .11 .11
7.86 f 7 r 8.56 8.55 = 8.56 .00 .01
8.76 8.55 V 1 g 8.84 8.65 v = 9.16 12 11

Plate C 4382 taken Jan. 25, 1892
V 0 g 9.37 8.65 v = 9.37

Plate I 7453 taken Nov. 6, 1892
0.22 9.56 10.44 9.76 10.28 9.56 9.66 .10 .10
9.22 g 2 r 9.46 9.46 = 9.47 .02 .02
10.22 9.56 10.47 9.76
9.46 V 2 m 9.66 v = 10.34 08 07

Images much elongated & poor

Plate C 5177 taken Nov. 21, 1892
V 0 m 10.47 9.66 v = 10.47

Images much elongated

Plate C 5264 taken Dec. 28, 1893
8.86 9.26 9.26 .00 .00
8.66 g 4 r 9.06 8.92 = 8.98 .07 .06
9.26 9.06 V 3 g 9.56 9.26 v = 9.84 07 08
8.92

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December 5, 1895.

9 Cass.

Images elongated

Plate I 7760 taken Dec. 29, 1892

8.86 9.36 9.16 9.26 .10 .10
8.65 9.13 8.82 = 8.98 .17 .16
9.16 9.56
8.82 V 4 9 9.62 v = 9.24 03 02

* Fr. 7770 on next page

Images elongated

Plate C 5280 taken Jan. 2, 1893

8.86 9.16 9.16 9.16 .00 .00
8.60 8.95 8.82 = 8.88 .07 .06
9.16 9.56
8.82 V 4 9 9.66 v = 9.24 07 06

Plate C 5310 taken Jan. 17, 1893

7.84 8.54 8.66 8.60 .06 .06
7.86 8.36 8.45 = 8.50 .06 .05
8.66 8.86
8.45 V 2 9 8.65 v = 9.10 06 07

Plate C 5311 taken Jan. 17, 1893

7.84 8.64 8.46 8.55 .09 .09
7.86 8.66 8.25 = 8.46 .20 .20
8.46 8.86
8.25 V 4 9 8.65 v = 9.06 08 09

Plate C 5420 taken March 7, 1893

7.84 8.54 8.56 8.55 .01 .01
7.86 8.56 8.35 = 8.46 .10 .11
8.56 8.86
8.35 V 3 9 8.65 v = 9.06 02 01

Plate C 5487 taken April 4, 1893

8.86 9.36
8.65 9 5 V 9.15 v = 9.87?
9 ns.

Plate C 5785 taken July 27, 1892

10.48 0 11.18 10.72 10.95 .23 .23
10.40 9 7 V 11.10 10.68 = 10.89 .21 .21
10.72 10.92
10.68 V 2 9 10.88 v = 11.90 12 11

Reduced June 22, 1915 S.F.Tm.

December 5, 1895

Plate C 5786 taken July 27, 1895

V 0 9 11.99 10.88 v = 11.99

* Should follow I 7769, preceding page

edge of plate

Plate I 7770 taken Dec. 29, 1892

9.26 9.76 9.26
9.16 V 3 m 9.66 V = 9.46?
9 not on plate v = 9.97?

Plate I 9177 taken Aug. 10, 1893

V 0 8 11.32 12.40 v = 11.32
0' = .1 9 m. s.

Plate C 5869 taken Aug. 13, 1893

decreasing

edge of plate

Plate I 9853 taken Aug. 31, 1893

11.00 11.20 11.22
11.02 r 2 V 11.02 11.20 = 11.21 .01 .01 .01 01
11.22 11.42
11.00 V 2 8 11.40 v = 12.56 12 12

Plate C 6009 taken Sept. 22, 1893

11.00 11.20 11.12
11.02 r 2 V 11.22 11.10 = 11.16 .04 .04
11.12 11.42
11.12 V 3 8 11.40 v = 12.52 04 08

* Assumed to be C 6242. S.F.Tm. June 23, 1915

Plate C 6242 taken Nov. 22, 1893

10.47
V 0 m 9.66 v = 10.47

Plate C 6100 taken Oct. 16, 1893

10.78 10.28 10.54 10.38 10.46
10.04 n 3 V 10.34 10.30 = 10.32 .02 .02 .08 08
10.38 10.48
10.30 V 1 8 10.40 v = 14.28 07 05

11.05
10.24
11.22

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December 5, 1895

9 Cass.

Edge of plate — Plate I 9733 taken Oct. 21, 1893

10.24 10.04 n' 2 v 10.44 10.18 10.31 = 10.10 10.17 .06 .07 .07 .13 .13

10.18 10.10 v 3 g 10.48 10.42

v = 11,14 11 12

Edge of plate — Plate I 9737 taken Oct 27, 1893

10.24 10.04 n' 2 v 10.44 10.18 10.31 = 10.10 10.17 .07 .07 .13 .13

10.18 10.10 v 3 g 10.48 10.42

v = 11,14 11 12

Plate I 9772 taken Oct. 25. 1893

10.28 10.20 v 2 g 10.48 10.40 v = 10.28 10.20? v = 11,12.?

n' two new edge of plate Q

Plate I 9770 taken Oct. 25, 1893

10.28 10.04 n' 2 v 10.48 10.24 10.18 10.10 = 10.31 10.17 .07 .07 .13 .13

10.18 10.10 v 3 g 10.48 10.40

v = 11,14 11 12

dark plate image poor — Plate I 9983 taken Nov. 22, 1893

9.56 9.46 g 2 v 9.76 9.66 9.56 9.46 = 9.66 9.54 .02 .02 .10 .10

9.56 9.46 v 2 m 9.76 9.66

v = 10,34 03 01

Plate C 6242 taken Nov. 22, 1893

9.76 9.66 m 1 v 9.86 9.76 9.74 9.64 = 9.80 9.65 .11 .11 .06 .06

9.74 9.64 v 5 m 10.24 10.04

v = 10,56 01 01

Plate I 10201 taken Dec. 13, 1893

Too near edge to estimate

Images double and elongated — Plate I 10225 taken Dec. 20, 1893

8.86 8.65 g 5 v 9.36 9.15 9.36 9.12 = 9.36 9.05 .07 .06 .09 .07

9.36 9.02 v 2 g 9.56 9.22

v = 9.14 07 08

Reduced June 22, 1915 R.F.M.

December 5, 1895

Plate C 6367 taken Dec. 20, 1893

Plate C 6454 taken Jan. 8, 1894

8.86 8.65 g 7 v 9.56 9.35 9.46 9.12 9.51 9.24 .11 .12 .05 .05

9.46 9.12 v 1 g 9.56 9.22

v = 10,10 03 02

Plate C 6502 taken Jan. 22, 1894

8.86 8.65 g 7 v 9.56 9.35 9.46 9.12 = 9.51 9.24 .11 .12 .05 .05

9.46 9.12 v 1 g 9.56 9.22

v = 10,10 03 02

Images much elongated — Plate C 6503 taken Jan. 22, 1894

v 0 g 10.24 9.22 v = 10.22

Plate I 10538

8.86 8.65 g 5 v 9.36 9.15 9.06 8.72 9.21 8.94 .21 .22 .15 .15

9.06 8.72 v 5 g 9.56 9.22

v = 7.80 07 08

Plate C 6881 taken July 3, 1894

8.86 8.65 g 4 v 9.26 9.05 9.06 8.72 = 9.16 8.88 .17 .16 .10 .10

9.06 8.72 v 5 g 9.56 9.22

v = 9.74 03 02

Plate C 6951 taken Aug. 5, 1894

v 0 m 10.41 9.66 v = 10.47

Plate C 6952 taken Aug. 5, 1894

v 0 m 10.41 9.66 v = 10.47

Plate C 6998 taken Aug. 15, 1894.

9.76 9.66 m 4 v 10.16 10.06 10.04 9.84 = 10.10 9.95 .11 .11 .06 .06

10.04 9.84 v 2 n 10.24 10.04

v = 10.86 01 01

very edge of plate — Plate I 11466

12.23

v 0 r 11.02

v = 12.23

r = .1

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G.F.M.

December 10, 1895.

T Cass.

extreme edge of plate

Plate I 11467 taken Sept. 29, 1894
12.10 8.92 V 1 n 12.52 11.02 V = 10.92?
s.n.s. V = 12.13?

Plate C 7067 taken Sept. 29, 1894
11.32a 8 4 V 11.72 11.69 10.80 10.58 = 10.69 .11 .11
11.69 10.58 V 3 9f 11.99 10.88 V = 11.70 02 01

edge of plate images very poor

Plate I 11570 taken Oct. 10, 1894.
11.32a 10.40 8f 5- V 11.42 11.89 10.90 10.78 = 10.84 .16 .06
11.89 10.78 V 1 9f 11.99 10.88 V = 11.86 04 03

images very clear

Plate I 11597 taken Oct. 11, 1894.
V 0 9f 11.99 10.88 V = 11.77

Plate C 7142 taken Oct. 20, 1894
V n.s. V < 10.62 11.22
9f. n. s. V = 11.62

11.33a 10.92 0 = .3 22, 11, 14
Plate C 7143 taken Oct. 20, 1894
12.23 11.02 R 1 V 12.33 11.12 11.00 = 11.06 .06 .06
12.50 11.00 V 4 S 12.90 11.40 V = 12.42 09 08

extreme edge of plate. images poor.

Plate I 11839 taken Nov. 11, 1894
12.23a 11.02 R 1 V 12.33 11.12? V = 12.33?
V = .1

Plate C 7221 taken Nov. 12, 1894
images elongated
12.28 11.02 R 1 V 12.33 11.12 12.60 11.10 = 11.11 .01 .01
12.60 11.10 V 3 S 12.90 11.40 V = 12.46 13 14

Plate C 7259 taken Nov. 22, 1894
V 0 S 12.90 11.40 V = 12.90

Reduced June 22, 1915
G.F.M.

December 10, 1895

extreme edge of plate.

Plate I 12971 taken Dec. 18, 1894
12.23 11.02 R 3 V 12.83 11.82 12.80 11.30 = 11.31 .01 .01
12.80 11.30 V 1 S 12.90 11.40 S = .1 V = 12.66 13 14

Plate C 7877 taken Dec. 22, 1894
11.99 10.88 9f 8 V 12.28 11.18 12.13 10.92 = 11.045 .13 .13
12.13 10.92 V 1 2- 12.23 11.02 V = 12.31 08 08

Plate C 7429 taken Jan. 17, 1895
11.05 10.04 n' 2 V 11.28 10.10 = 10.17 .07 .07
11.02a 10.12 V 3 0 11.32a 10.40 V = 11.14 11 12

images elongated

Plate C 7430 taken Jan. 17, 1895
V 0 n' 11.03 10.04 V = 11.03

images elongated

Plate C 7460 taken Jan. 23, 1895
10.44 9.66 m 4 V 10.86 9.84 = 9.95 .11 .11
10.83 9.54 V 2 n 11.03 10.04 V = 10.86 01 01

images elongated

Plate C 7499 taken Feb. 11, 1895
10.22 9.22 9' 2 V 10.42 9.42 10.27 9.46 = 9.44 .02 .02
10.27 9.46 V 2 m 10.42 9.66 V = 10.34 08 07

Plate C 7714 taken April 17, 1895
9.37 8.65 9 3 V 9.67 8.95 10.02 9.02 = 8.98 .03 .04
10.02 9.02 V 2 9' 10.22 9.22 V = 9.84 17 18

Plate C 7789 taken May 2, 1895
9.37 8.65 9 4 V 9.77 8.85 10.02 9.02 = 9.04 .01 .02
10.02 9.02 V 2 9' 10.22 9.22 V = 9.90 13 12

Near edge of plate

Plate C 7888 taken May 23, 1895
9.37 8.65 9 5- V 9.87 8.95 ?
V = .3 V = 9.87?
9' n. s.

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Reduced June 22, 1915
8.7m.

December 10, 1895

7 Cass.

Plate C 7974 taken July 11, 1895

f − v dist. too great to estimate

9.31 8.55 − v 19 9.37 8.65 − v = 9.31 ? v = 8.63 ?

Plate C 8019 taken July 23, 1895

f − v dist. too great to estimate

8.97 8.25 − v 49 9.37 8.65 − v = 8.97 ? v = 8.25 ?

Images elongated

Plate C 8020 taken July 23, 1895

f − v dist. too great

8.97 8.25 − v 49 9.37 8.65 − v = 8.97 ? v = 8.25 ?

Plate C 8070 taken July 31, 1895

f − v dist. too great

9.07 8.35 − v 39 9.37 8.65 − v = 9.07 ? v = 8.35 ?

Plate C 8084 taken Aug. 2, 1895

f − v dist. too great

8.97 8.25 − v 49 9.37 8.65 − v = 8.97 ? v = 8.25 ?

Plate C 8192 taken Aug. 30, 1895

f − v dist. too great

9.27 8.55 − v 19 9.37 8.65 − v = 9.27 ? v = 8.65 ?

Plate I 13380 taken Sept. 2, 1895

needles

Plate C 8257 taken Sept. 5, 1895

v 09 9.37 8.65 − v = 9.31

Plate C 8225 taken Sept. 3, 1895

v 09 9.37 8.65 − v = 9.37

Plate C 8281 taken Sept. 15, 1895

9.31 8.65 g 1 v 9.41 8.75 f 66 = 8.88 .03 .14

9.22 8.82 v 49 g 9.22 v = 9.10 13 9.23

Continued page 156

December 10, 1895

Measures of the photographic brightness of O.C. Wendell's comparison stars to R Cassiopeiae.

For n' and o' see chart p. 113

Plate B 1975

e	2.7	3.0 image much elongated
f	4.6	4.9
g	4.3	4.6
h	3.6	3.9
k	4.9	5.2
l	5.4	5.7
m	4.1	4.4
n	5.0	5.3
o	6.7	7.0
p		8.1
q	6.7	7.0
r		7.8 2 so near R that measurement is difficult
s		7.9 2 image very poor
t		8.3 2 image poor
u		8.8 " "
w		9.2 " "
x		10.0 2 " "
y		just seen
z		just seen
α		n. s.
V	6.4	6.7
n'	5.7	6.0
o'	6.1	6.4

Stars a, b, c, d, e appear on only a few plates. They vary in distance from the variable from 6°.6 7°

Some images much nearer edge of plate than others.

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December 10, 1895

R Cass.

Plate I 118 R near edge

ε	image on edge of plate - too poor to measure	
f	3.8	4.1
g	3.8	4.1
h	3.0	3.3
k	4.6	4.9
l	5.3	5.6
m	5.0	5.3
n	6.3	6.6
o		8.0
p		8.9
q		8.0
r		8.4? too near R to measure accurately
s		8.9
t		9.0
u		9.3
w		9.8
x		n.s.
V	3.1	
ń	6.7	7.0
ó		7.5

Images one side of centre

December 10, 1895

Plate I 423 taken Jan. 3, 1890

ε	too near edge of plate to measure	
f	5.0	5.3
g	5.0	5.3
h	4.2	4.7
k	5.7	6.0
l	6.6	6.9
m	6.1	6.4
n	6.8	7.1
o		8.3
p		8.7
q		8.2
r		8.5
s		8.9
t		9.1
u		9.3
w		9.6
x		
V	5.8	6.1
ń		7.7
ó		8.0

Position same as plate I 118

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December 11, 1895

R Cassiop

Plate I 9121 taken Aug. 5, 1893

e	3.8 2.	very poor image near edge of plate
f	4.8 5.0	5.1
g	~~4.8~~	5.3 Duplicated - See page 110
h	4.3	4.6
k	5.6	5.9
l	6.2	6.5
m	6.0	6.3
n	6.7	7.0
o		8.2
p		8.89
q		8.3
r		8.7
s		8.9
t		9.2
u		9.4
w		10.0
x		just seen
y		9.2.
γ	6.3	6.6
n'		7.5
o'		8.0

Good plate - images near centre of field

Remeasured page 108 110

December 11, 1895

Plate I 9937 taken Nov. 18, 1895.

e	not on plate
f	5.1
g	4.9
h	4.5 image blurred
k	5.4 5.8
l	6.0 6.3
m	image much elongated - near edge of plate
n	5.5 6.1
o	
p	
q	Images too near edge of plate to be measured satisfactorily
r	
s	
t	
u	

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December 11, 1895

R Cassiop.

Plate I 11439 taken Sept. 11, 1894

e	image poor	
f	5.4?	image elongated
g	5.7	6.0
h	5.1	5.4
k	6.0	6.3
l	6.3	6.6
m	6.7	7.0
n	7.0	7.3
o		8.0
p		8.8
q		8.1
r		8.6
s		8.8
t		9.0
u		9.6
w		10.0
x	just seen	
y	"	"
z	n.s.	
v	6.0	6.3
n'		7.5
o'		8.0

Images one side and below center of plate

December 11, 1895

Plate C 4349 taken Jan. 7, 1892

Squeezed. Scale too fine

f	not on plate	
g	5.9	6.4
h	5.0	4.6
k	6.0	5.6
l	6.7	6.2
m	6.5	6.0
n	7.1	6.6
o		8.0
p		8.9
q		8.2
r		8.2
s		8.9
t		9.3
u		just seen
w		n.s.
v		8.1
n'		7.0
o'		7.7

Images somewhat elongated

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December 11, 1895

R Cassiop

Plate C 5698 Superseded

g	4.9		Image elongated
h	4.1		" "
k	5.3		" "
l	6.0		" "
m	5.9	5.4	" "
n	6.2	5.7	" "
o		7.6	
p		8.6	
q		7.6	
½		7.6	
s		7.9	
t		9.1	
u		9.5	
w		n.s.	
v	5.3		
ń	6.6	6.1	
ó		6.7	

Not a good plate - images poor

December 11, 1895

Plate C 5732 taken July 19, 1893

g	5.0	4.5	
h	4.2	3.7	Superseded
k	5.5	5.0	
l	6.0	5.5	
m	6.1	5.6	
n	6.6	6.1	
o		7.6	image elongated
p		8.0	" "
q		7.7	
½		7.7	
s		8.3	
t		8.7	
u		8.9	
w		9.2	
x		n.s.	
v	6.0		
ń	6.9	6.4	image elongated
ó		7.1	" "

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December 12, 1895

R Cassiop.

Plate C 6441 taken Jan. 7, 1894.

g	not on plate		
h	4.8		Superseded
k	not on plate		
l	"	"	"
m	6.1	5.6	Image somewhat elongated
n	6.6[5]	6.0	
o		7.2	
p		8.2	
q		7.2	
r		7.3	
s		8.2	
t		8.5	
u		8.9	
w		9.5[2]	
x		n.s.	
v		9.2	
ó	6.7	~~7.2~~ 6.2	
ó	7.2	6.7	

Image somewhat elongated

December 12, 1895

Plate C 6721 taken April 25, 1894

g	~~4.8~~ 5		
h	5.0		Superseded
k	6.2		
l	6.5	6.3	
m	6.6	6.1	
n	7.0	6.5	
o	8.	8.0	
p			Image blurred
q		8.1	
r		"	"
s		"	"
t		"	"
u		"	"
v		"	"

Rather a dark plate. Images of bright stars good. Faint ones blurred

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December 12, 1895

R Cassiop.

Plate C 7066 taken Sept. 29, 1894

g	not on plate		
h	4.8		Superseded
k	not on plate		
l	not on plate		
m	6.9[2]		
n	6.9	6.4	
o		8.0[2]	image elongated
p		8.9	
q		8.2	
r		8.2	
s		8.9	
t		9.2	
u		just seen	
v	[5]4.4		
n'		6.8	
o'		7.7	

Clouded plate - values of magnitudes probably not correct

December 12, 1895

Plate C 8279 taken Sept. 13, 1895

g	5.3	4.8	
h	4.3	3.8	Superseded
k	5.8	5.3	
l	6.3	5.8	
m	6.1	5.6	
n	6.3	5.8	
o		7.4	
p		8.7	
q		7.7	
r		7.8	
s		8.7	
t		9.0	
u		9.4	
w		just seen	
v		5.2	
n'	6.7	6.2	
o'		7.1	

Slight trails on each plate, but otherwise the images are well shaped. This is probably the best of the C plates for measuring on the scale. There is not one first class C plate for this star.

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December 12, 1895

R Cassop.

Remeasured Plate I 9121, taken Aug. 8, 1893

e too near edge of plate to measure

f	5.4	5.2
g	5.1	5.4
h	4.5	5.0
k	5.5	5.8
l	6.2	6.5
m	6.0	6.3
n	6.8	7.1
o		8.2
p		9.0
q		8.3
r		8.5
s		9.0
t		9.2
u		9.8
w		10.0
x		just seen
y		n.s.
γ	6.4	6.7
ν́		7.6
ó		7.9

* Defunded - See page 110

Measurements poor

December 12, 1895

Remeasured Plate C 8279

g	4.2	4.7
h	4.4	3.9
k	5.7	6.2
l	6.4	5.9
m	6.1	6.6
n	6.5	6.0
o		7.5
p		8.5
q		7.7
r		8.0
s		8.5
t		9.0
u		9.4
w		just seen
γ		5.2
ν́	6.6	6.1
ó		7.2

Defunded

blurred image

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December 17, 1895

R Cassiop.

Plate I 9121 taken Aug. 8, 1893

Remeasured			
	e	image poor	
	f	4.9	5.2 This plate included in final Ledger
	g	5.0	5.3 Dec. 31, 1902
	h	4.5	4.8
	k	5.7	6.0
	l	6.2	6.5
	m	6.0	6.3
	n	6.7	7.0
	o		8.2
	p		8.9
	q		8.3
	r		8.3
	s		8.9
	t		9.2
	u		9.8
	w		10.0
	x	barely seen	
	y	n.s.	
	z		
	V	6.2	6.5
	ν		7.6
	o		8.0

Good plate. Field near center of plate.

see p. 98

December 17, 1895

Plate C 4379 taken Jan. 7, 1892

Remeasured			
	g	5.9	5.4
	h	5.0	4.5 Suspended
	k	6.0	5.5
	l	6.6	6.1
	m	6.4	5.9
	n	7.1	6.6
	o		8.1
	p		8.8
	q		8.3
	r		8.3
	w		8.8
	t		9.2
	x		n.s.
	V		8.1
	ν		6.9
	o		7.7

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December 17, 1895

R Cassiop

Remeasured Plate C 5732 taken July 19, 1893

g	5.0	4.5
h	4.3	3.8
k	5.5	5.0
l	6.1	5.6
m	6.1	5.6
n	6.6	6.1
o		7.6
p		8.3
q		7.6
r		7.6
s		8.3
t		8.7
u		8.9
w		9.3
x		just seen
y		n.s.
v	5.9	
n'	7.0	6.5
o'		7.0

Suspended

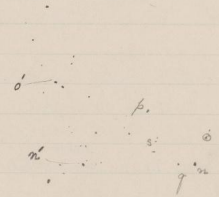
December 17, 1895

R Cassiop.

Remeasured Plate C 5279 taken Sept. 13, 1895

g	5.2	4.7
h	4.3	3.8
k	5.8	5.3
l	6.2[3]	5.8
m	6.0	5.5
n	6.5	6.0
o		7.5
p		8.8
q		7.8
r		8.0
s		8.8
t		9.1
u		9.4
w		just seen
x		n.s.
v	5.2	
n'		6.4
o'		7.1

Suspended



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December 17, 1895

Estimates of photographic brightness of R Cassiopeiae.

e h g k l n n' o o q s t u w x y z

Comparison stars of O.C. Rundell arranged in order of photographic magnitude.

Edge of plate — Plate B 1952 taken

10.37
V O O r = 9.71 v = 10.32

Plate B 1975 taken Dec. 1, 1887

9.64 10.04 10.22 v = 10.13 .09 .09
9.13 n' 4 V 9.53 .961 = 9.57 .04 .04
10.32
10.22 9.61 V 1 o' 9.71

Plate I 118 taken Nov. 14 1889

6.94 7.36 6.88 v = 7.12 .24 .24
6.36 h 4 V 6.76 .667 = 6.72 .04 .05
6.88 9.28
6.67 V 49 7.07

Plate I 4223 taken Jan. 3, 1890

7.97
V O K 7.62 v = 7.97

Plate I 1529 taken July 27, 1890

V n. s. v < 11.00
10.90
11.16 q = .1 v < 10.86
r n. s.

v may be in-visible simply because of proximity of br.

Plate I 1588 taken Aug. 4, 1890

V n. s. v < 11.61
12.99
11.51 u = .1 v < 12.89

Plate I 1670 taken Aug. 24, 1890

near edge of plate — 11.00 V n. s. (probably)
10.28 r = .1 v < 10.38
q = .1 v < 11.10

Reduced Oct 3, '16 SR

December 17, 1895

Nearly edge of plate — Plate I 1805 taken Sept. 5, 1890

12.09
11.18 t = .1 V n. s. v < 11.28 v < 12.19

corner of plate — Plate I 1911 taken Sept. 30, 1890

11.85 12.02 11.69 v = 11.87 .18 .18
10.90 s 2 V 11.10 10.78 = 10.94 .16 .16
12.09
11.69 10.78 V 4 t 11.18

Dark plate. Image near edge — Plate I 1952 taken Oct. 8, 1890

8.88
8.15 l = .1 V n. s. v < 8.98 v < 8.95

Plate I 1987 taken Oct. 14, 1890

11.00
10.28 r = .1 V n. s. v < 10.38 v < 11.10

edge of plate — Plate I 2053 taken Oct. 22, 1890

11.00
V O k 10.28 v = 11.00

Plate I 2122 taken Oct. 31, 1890

10.22 10.82 9.41 v = 10.62 20 21
10.41 9.71 O' 5 V 10.21 9.96 = 10.08 .13 .12
10.51
9.96 V 10 10.06

edge of plate. Image very poor — Plate I 2354 taken Nov. 26, 1890

8.88 7.08 8.84 9.96 12 13
8.25 l 2 V 8.45 8.19 = 8.32 .13 .13
8.84 9.34
8.19 V 5 n 8.69

edge of plate — Plate I 2559 taken Dec. 22, 1890

7.97 7
V O K 7.62 v = 7.97

edge of plate. Image very poor — Plate I 2637 taken Dec. 29, 1890

6.96
V O k 6.36 v = 6.96

Image round distorted — Edge of plate — Plate I 2688 taken Dec. 31, 1896

6.96
V O k 6.36 v = 6.96

Images very poor. Edge of plate — Plate I 2900 taken Jan. 24, 1891

6.96
V O k 6.36 v = 6.96

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December 17, 1895.

R Cassiop

Very from images evident of plate — Plate I 2914 taken Jan. 24, 1891
V 0 R 6.96 6.36 r=6.96

Very poor plate — Plate I 2977 taken Feb. 4, 1891
7.52 7.91 r=7.71
~~7.50~~ = V I R 7.62 r = ~~7.62~~ 7.52²

dark plate — Plate I 3224 taken March 2, 1894
7.28 7.78 7.81 7.82 04 03
7.07 g 5 V 7.57 7.52 = 7.54 .03 .02
7.81 7.52 V I R 7.91 7.62

Edge of plate — Plate I 3885 taken July 21, 1891
11.00 11.40 r=11.40²
10.28 R 4 V 10.68 r=10.68²
S m.s.

Plate C 3998 taken Sept. 25, 1891
V m.s. r < 11.28
12.09 11.18 t = .1 r < 12.19

Images elongated — Plate I 4366 taken Sept. 26, 1891
V m.s. r < 9.78
10.32 9.71 0' = .1 r < 10.42

Corner of plate — Plate I 4477 taken Oct. 8, 1891
11.71 V m.s. r < 10.95
10.85 S = .1 r < 11.81

" " " — Plate I 4478 taken Oct. 8, 1891
11.85 V m.s. r < ~~10.80~~ 11.00
10.90 S = .1 r < 11.95

Edge of plate — Plate I 4495 taken Oct. 9, 1891
11.00 V m.s. r < 10.98
10.28 R = .1 r < 11.10

Poor plate — Plate C 4057 taken Oct. 15, 1891
11.00 r = 11.00
V 0 R r = 10.28
R = .1

Reduced Oct 3, '16 S.R.

December 17, 1895

Plate I 4536 taken Oct. 16, 1891
12.09 12.19 12.69 12.49 25 25
11.18 t 1 V 11.28 11.41 = 11.34 .06 .07
12.69 12.79
11.41 V 1 R 11.51

Edge of plate — Plate I 4605 taken Oct. 25, 1891
11.00 11.20 r=11.20²
10.28 R 2 V 10.48 r=10.48²
r = .1
S m.s.

Plate C 4140 taken Nov. 3, 1890
12.09 12.27 12.49 12.39 19 10
11.18 t 2 V 11.38 11.21 = 11.30 .08 .09
12.49 12.29
11.21 V 3 R 11.51

Plate I 4719 taken Nov. 14, 1891
11.85 12.05 11.69 11.87 18 16
10.90 S 2 V 11.10 10.78 10.94 .16 .16
11.69 12.09
10.78 V 4 t 11.18

Plate I 4795 taken Nov. 19, 1891
11.85 11.95 11.69 11.82 13 13
10.90 S 1 V 11.60 10.78 10.89 .11 .11
11.67 12.09
10.78 V 4 t 11.18

Plate I 5002 taken Dec. 8, 1891
11.00 11.30 11.50 11.42 12 13
10.28 R 3 V 10.58 10.60 = 10.59 .01 .01
11.55 10.66 11.85
V 3 S 10.90

Plate I 5258 taken Dec. 19, 1891
11.00 11.30 11.45 11.38 05 07
10.28 R 3 V 10.58 10.50 = 10.54 .04 .04
11.45 11.85
10.50 V 4 S 10.90

Plate I 5279 taken Dec. 28, 1891
11.00
V 0 R 10.28 r=11.00

Images elongated — Plate C 4348 taken Jan. 7, 1892
10.32 10.52 10.21 10.36 16 15
9.71 0' 2 V 9.91 976 = ~~9.84~~ 11 08
10.21 10.51
9.76 V 3 0 10.06

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December 17, 1895

R Cassiop

Plate C 4349 taken Jan. 7, 1892.
V O O' 10.36 9.71 r=10.32

Extreme edge of plate — Plate I 6890 taken Sept. 6, 1892
V O O 10.51 10.06 r=10.51

Plate I 6893 taken Sept. 6, 1892
10.32 10.42 10.11 10.26 16 15
9.71 O' 1 V 9.81 9.66 = 9.74 .07 .08
10.11 10.51
9.66 V 4 O 10.06

Edge of plate — Plate I 6894 taken Sept. 6, 1892
10.32 10.42 10.31 10.36 06 05
9.71 O' 1 V 9.81 9.86 = 9.84 .03 .02
10.31 10.51
9.86 V 2 O 10.06

Extreme edge of plate. Images double. — Plate I 6908 taken Sept. 7, 1892
V O O 10.51 10.06 r=10.51

Extreme edge of plate — Plate I 7410 taken Oct 23 1892
10.51 10.81 10.80 10.80 01 01
10.06 O 3 V 10.36 10.06 = 10.21 .15 .15
10.80 10.90
10.06 V 1 Q 10.16

Images much elongated — Plate C 5291 taken Jan. 7, 1893
V O Q 10.90 10.16 r=10.90

Plate C 5292 taken Jan. 7, 1893
V O Q 10.90 10.16 r=10.90
q=.1

long trails — Plate C 5478 taken March 29, 1893
V O N' 9.64 9.13 r=9.64

Plate C 5698 taken July 19, 1893
7.28 7.58 7.87 7.72 14 15
7.07 Q 3 V 7.37 7.52 = 7.44 .07 .08
7.87 7.99
7.52 V 1 K 7.62

Plate C 5731 taken July 19, 1893
7.28 7.58 7.87 7.72 14 15
7.07 Q 3 V 7.37 7.52 = 7.44 .17 .18
7.87 7.99
7.52 V 1 K 7.62

Reduced Oct 3, 1916 S.R.

December 17, 1895

Plate C 5-732 taken July 19, 1893
V O K 7.62 7.99 r=7.97

Extreme edge of plate — Plate I 8888 taken July 21, 1893
V O K 7.62 7.99 r=7.99

Plate I 9015 taken Aug. 1, 1893
V O K 7.62 7.99 r=7.99

Edge of plate. Images very poor. — Plate I 9074 taken Aug. 3, 1892
V O K 7.62 7.99 r=7.99

Plate I 9121 taken Aug. 8, 1893
V O L 8.25 8.88 r=8.88

Plate C 5868 taken Aug 13, 1893
8.72 8.92 9.04 8.98 06 06
8.02 m 2 V 8.22 8.39 = 8.30 .18 .09
9.04 9.34
8.39 V 3 m 8.69

Extreme edge of plate — Plate I 9389 taken Sept. 4, 1893
V O m 9.34 8.69 r=9.34

Sun edge — Plate Ⓟ 9737 taken Oct. 21, 1893
10.32
V O O' 9.71 r=10.32

Plate I 9772 taken Oct. 25 1893
10.32 10.82 10.90 10.86 04 04
9.71 O' 5 V 10.21 10.18 = 10.20 .01 .02
10.90 11.00
10.18 V 1 R 10.28 Nov. 18

Plate I 9937 taken ~~Oct 24~~ 1893
10.32 10.82 10.90 10.86 04 04
9.71 O' 5 V 10.21 10.18 = 10.20 .01 .02
10.90 11.00
10.18 V 1 R 10.28

Plate C 6366 taken Dec. 20, 1893
12.09 12.17 12.37 12.39 20 20
11.28 t 1 V 11.28 11.31 = 11.30 .02 .01
12.37 12.79
11.31 V 2 U 11.37

Plate C 6441 taken Jan. 7-8 1894
12.79 13.01 13.05 13.04 04 04
11.57 U 3 V 11.21 11.58 = 11.40 .21 .19 .18
13.01 13.31
11.58 V 3 W 11.88

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December 17, 1895.

R Cassiop.

Plate C 6442 taken Jan. 7, 1894

12.79
V O E u 11.51

u = 1 r = 12.99

Plate C 6484 taken Jan. 19, 1894

12.79 13.09 13.21 13.15 .06 .02
11.51 u 3 V 11.81 11.78 = 11.80 .01 .02
13.01 13.31
11.78 V 1 W 11.88

Plate C 6721 taken April 25, 1894

11.00 11.50 11.73 11.62 12 13
10.28 r 5 V 10.78 10.80 = 10.79 .01 .01
11.75 11.85
10.80 V 1 S 10.90

Plate C 6942 taken Aug. 1, 1894

6.96 7.06 6.98 7.02 .04 .04
6.36 r 1 V 6.46 6.77 = 6.62 .16 .15
6.98 7.28
6.77 V 3 q 7.07

Near edge of plate — Plate C 6943 taken Aug. 1, 1894

r = 6.26? 6.96 r = 6.56? r 1 h 6.36 Its brighter star on plate

Plate I 11439 taken Sept. 11, 1894

7.97
7.62 V O K 7.62 r = 7.97

Plate C 7066 taken Sept. 29, 1894

6.96 7.26
6.36 h 3 V 6.66? r = 7.26?

q + k not on plate

Near edge of plate — Plate I 11573 taken Oct. 10, 1894

6.96 7.26 7.87 7.56 30 31
6.36 h 3 V 6.66 7.52 = 7.59 .07 .07
7.87 7.97
7.52 V 1 K 7.62

Plate C 7114 taken Oct. 16, 1894

8.22 8.12
7.52 V 5 m 8.02 r = 7.52? r = 8.22?

K + L not on plate

Reduced Oct 3, '16 S.R.

December 18, 1895.

Extreme edge of plate Images very poor

Plate I 11719 taken Oct. 18, 1894

7.97 8.07 8.48 8.24 21 20
7.62 K 1 V 7.72 7.86 = 7.78 .06 .07
8.48 8.88
7.85 V 4 L 8.25

Plate C 7234 taken Nov. 16, 1894

8.72
8.02 m 2 V 8.22? r = 8.92?

L not on plate

Plate I 12071 taken Dec. 13, 1894

9.34 9.64 9.24 r = 9.44 20 20
8.69 n 3 V 8.99 8.73 = 8.86 .13 .13
9.64
8.73 V 4 n 9.13

Images very poor — Plate C 7376 taken Dec. 22, 1894

9.34 9.84 9.54 9.69 15 15
8.69 n 5 V 9.19 9.03 = 9.11 .08 .08
9.54 9.64
9.03 V 1 n 9.13

Images double — Plate C 7404 taken Jan. 1, 1895

9.64
V O n 9.13 r = 9.64

Plate C 7405 taken Jan. 1, 1895

9.64
V O n 9.13 r = 9.64

trails — Plate C 7570 taken Feb. 22, 1895

11.00 11.50 11.95 11.72 22 23
10.28 r 5 V 10.78 10.80 = 10.79 .01 01
11.95 11.85
10.80 V 1 S 10.90

Plate C 7695 taken April 16, 1895

r m.s.

11.00 s m.s. r < ~~9.95~~ 10.58
10.28 r = .3 r < 11.30

Plate C 7736 taken April 19, 1895

12.79 12.99 13.21 13.10 11 11
11.51 u 2 V 11.71 11.78 = 11.74 .03 .04
13.21 13.31
11.78 V 1 W 11.88

edge of plate — Plate C 7867 taken May 16, 1895

12.79
11.51 u 1 V 11.64? r = 12.89?

W not on plate

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December 18, 1895

R. Cassiop

Plate C 7973 taken July 11, 1895
11.85
V O S 10.90 V = 11.85

Plate C 8046 taken July 28, 1895
11.00 11.10 11.35 11.22 12 13
11.25 R I V 10.38 10.40 = 10.39 .01 .01
11.35 11.85
10.40 V 5 S 10.90

trails Plate C 8076 taken July 28, 1895
11.00 11.30 11.45 11.38 07 07
10.28 R 3 V 10.58 10.50 = 10.54 .04 .04
11.45 11.85
10.50 V 4 S 10.90

Plate C 8083 taken Aug. 2, 1895
11.00
V O R 10.28 V = 11.00

Plate I 13291 taken Aug. 26, 1895
9.34
V O R 8.69 V = 9.34

Plate C 8197 taken Aug. 30, 1895
8.88 8.98 8.94 8.96 02 02
8.25 L I V 8.35 8.29 = 8.32 .03 .03
8.34 8.34
8.29 V 4 R 8.69

edge of plate Plate I 13312 taken Sept. 2, 1895
7.99 8.07 8.38 8.22 15 16
7.62 K I V 7.72 7.75 = 7.74 .02 .01
8.38 8.88
7.75 V 5 L 8.25

Plate C 8224 taken Sept. 3, 1895
7.99 8.07 8.38 8.22 15 16
7.62 K I V 7.72 7.75 = 7.74 .02 .01
8.38 8.88
7.75 V 5 L 8.25

Plate C 8279 taken Sept. 13, 1895
7.28
V O G 7.07 V = 7.28

Plate C 8367 taken

Image much elongated Plate C 8442 taken Oct. 30, 1895.
V 6.72
g and h not on plate 5 M 8.02 V = 7.52 V = 8.22 ?

[Continued page 154

December 19, 1895

Measures of the photographic brightness of Q. C. Rudell's comparison stars to S. Cephei.

Plate I 9204 taken Aug. 13, 1893

a	5.9	6.2	
b	7.7	7.10	Suspended - Sept. 12
c	7.0	7.3	
d	6.2	6.5	
e	6.7	7.0	
f	6.7	7.0	
g		8.1	
h		8.1	
k		8.5	
l		8.8	
m		8.9	
n		9.0	
o		9.9	
p		9.9	double on C plates
q		10.0	
r		n. s.	
V		n. s.	

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December 19, 1895

S Cephei

Plate I 9463 taken Sept. 12, 1895

a	6.5 7	7.0
b	6.3	6.6
c	6.7	7.0
d	5.9	6.2
e	6.3	6.6
f	6.6	6.9
g		7.8
h		7.8
k		8.2
l		8.7
m		8.9 8
n		8.9
o		9.1
p		9.4
q		9.4
r		n.s.
s		n.s
V		n.s.

Superseded. See p. 127

December 19, 1895.

Plate I 11695 taken Oct. 17, 1894.

a	5.8	6.1
b	5.9	6.2 close to edge of plate
c	6.7 5.7	7.0
d	~~6.8~~	~~6.8~~ 6.2 close to edge of plate
e	6.6	6.8
f	6.8	7.1
g		7.8
h		7.8
k		8.2
l		8.7
m		8.7
n		9.0
o		9.9
p		9.6
q		9.6
r		10.0 ?
s		n.s.
V		I fancy I can see a star in the region of V but have no means of identifying it

Images near edge of plate

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December 19, 1895

S Cephei

Remeasured Plate I 9 204 taken Aug. 13, 1893

a	5.9	6.2
b	6.7	7.0
c	7.0	7.3
d	6.3	6.6
e	6.7	7.0
f	6.8	7.1
g		8.1
h		8.1
k		8.5
l		8.8
m		8.9
n		9.1
o		9.8
p'		9.8
q		10.0
r		n.s
V		n.s.

~~Suspected~~

This plate and three on opposite page are included in final ledger

December 19, 1895

Remeasured Plate I 9463 taken Sept. 12, 1893

a	5.8	6.1	
b	6.5	6.8	
c	6.9	7.2	
d	5.9	6.2	
e	6.4	6.7	
f	6.7	7.0	
g		8.1	7.9
h		8.0	7.8
k		8.3	8.3
l		8.5	8.5
m		8.7	
n		8.8	
o		9.1	
p'		9.0	
q		9.1	
r		n.s.	
V			

~~Suspected~~

Remeasured independently on account of discrepancy with first measurement Dec. 20

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December 20, 1895

N. Ceph

Plate C 5406 taken Feb. 28, 1893

a	5.8	6.3	Superseded
b	not on plate		
c	6.3	5.8	
d	not on plate		
e	6.1	5.6	
f	6.3	5.8	
g		7.0	
h		6.9	
k		7.2	
l		7.8	
m		8.0	
n		8.3	
o		8.4	
p		8.7	
q		8.8	
r		n.s.	
v		n.s.	

f'

December 20, 1895

Plate C 5407 taken Feb. 28, 1893

a	6.2		Superseded
b	~~6.9~~	~~6.4~~ not on plate	
c	6.9	6.4	
d		not on plate	
e	6.5	6.0	
f	6.9	6.4	
g		~~8.2~~ 7.6	
h		7.5	
k		8.0	
l		8.3	
m		8.5	
n		8.8	
o		9.7 ?	hardly seen
p'		9.3 ?	
q		9.4 ?	
r		n.s	
v		n.s,	

Images on this plate poor

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December 20, 1895

N. Ceplus

Plate C 5934 taken Sept. 2, 1893

a	6.0		
b	not on plate		Suspended
c	6.9	6.4	
d	not on plate		
e	6.5	6.0	
f	6.9	6.4	
g		7.7	
h		7.7	
k		8.0	
l		8.5	
m		8.7	
n		8.8	
o		n.s.	
p'		n.s.	
q		n.s.	
r		n.s.	
V		n.s.	

An excellent plate. Images clear and round.

December 20, 1895

Plate C 6094 taken Oct. 16, 1893

a		not on plate	
b		not on plate	Suspended
c	7.2	6.7	
d		not on plate	
e	6.5	6.0	
f	6.9	6.4	
g		7.7	
h		7.8	
k		8.2	
l		8.5	
m		8.8	
n		8.9	
o		9.3?	
p'		9.3?	
q		9.5	
r		n.s.	
V		n.s.	

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December 20, 1895

N Cephei

Plate C 7375 taken Dec. 22, 1894

Image elongated

a	5.8		
b	not on plate		
c	6.8		Superseded
d	not on plate		
e	6.3		
f	6.5	6.2	
g		7.7	
h		7.7	
k		8.0	
l		8.3	
m		8.5	
n		8.8	
o		9.7 ?	
p		9.5 ?	
q		9.5 ?	
r		n.s.	
v		n.s.	

Image elongated

December 20, 1895

Plate C 7569 taken Feb. 22, 1895

a	5.9		
b	not on plate		Superseded
c	6.9	6.4	
d	not on plate		
e	6.6	6.1	
f	6.5	6.0	poor image - near edge
g		7.3	
h		7.3	
k		7.9	
l		8.1	
m		8.4	
n		8.5	
o		9.1	
p		9.1	
q		9.0	
r		n.s.	
v		n.s.	

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December 20, 1895

N. Cephei

Plate C 7607 taken March 5, 1895

a	6.3		
b		not on plate	Suspended
c		6.9	
d		not on plate	
e	7.0	6.5	
f	7.1	6.6	
g		8.2	
h		8.2	
k		8.5	
l		8.7	
m		8.9	
n		9.1	
o		n.s.	
p		n.s.	
q		n.s.	
r		n.s.	

December 20, 1895.

Plate C 7737 taken April 19, 1895

a	6.0	6.5	Image elongated - near edge of plate
b		not on plate	
c	7.0	6.5	Suspended
d		not on plate	
e	6.5	6.3	
f	7.0	6.5	
g		7.9	
h		7.9	
k		8.2	
l		8.4	
m		8.4	
n		8.7	
o		9.3 ?	
p		9.2 ?	
q		9.2 ?	
r		n.s.	
v		n.s.	

Expellent images

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December 20, 1895

Plate C 8091

δ Cephei

Plate C 8091 taken Aug. 2, 1895

Superseded

a	6.5	6.0
b		not on plate
c		7.0
d		not on plate
e	6.9	6.4
f		6.9
g		8.0
h		7.9
i		8.5
l		8.7
m		8.8
n		9.0
o		9.9 2
p		9.7 2
q		9.8 1
r		m.s.

good images

December 20, 1895

Superseded

Plate C 8156 taken Aug. 19, 1895.

a	6.3	5.8
b		not on plate
c	7.0	6.5
d		not on plate
e	6.8	6.3
f	7.0	6.5
g		8.6
h		7.9
i		8.3
l		8.7
m		8.9
n		9.0
o		9.8 2
p		9.5 2
q		9.6 2
r		m.s.
V		m.s.

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December 20, 1895

2 Cephei

Plate C 8163 taken Aug. 21, 1895

a	6.0	5.5	
b		not on plate	Superseded
c	7.9	7.4	
d		not on plate	
e	6.4	5.9	
f	6.5	6.0	
g		7.2	7.3
h		7.2	7.3
k		8.0	8.0
l		8.4	Repeated independently on account of discrepancy with other plates –
m		8.7	
n		8.9	
o		9.1 8 ?	
p		9.6 2	
q		9.7 2	
r		n.s.	
v		n.s.	

December 21, 1895

Remeasured Plate C 5406 taken Feb. 28, 1893

a	5.7	6.2	
b		not on plate	Superseded
c	6.4	5.9	
d		not on plate	
e	6.1	5.6	
f	6.4	5.9	
g	c	8.1	
h		8.0	
k		7.4	
l		8.0	
m		8.0	
n		8.2	
o		9.1 2	Image blurred
p		9.0 ?	" "
q		9.0	
r		n.s.	
v		n.s.	

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December 21, 1895.

δ Cephei

Remeasured Plate C 6094 taken Oct. 16, 1893

a			not on plate (suspended)
b			not on plate
c		6.8	
d			not on plate
e	6.6	6.1	
f	7.0	6.5	
g		7.9	
h		7.9	
k		8.2	
l		8.6	
m		8.7	
n		8.8	
o		9.6?	
p		9.6?	
q		9.6?	
r		n.s.	
V		n.s.	

December 21, 1895

Remeasured Plate C 7569 taken Feb. 22, 1895 (suspended)

a	6.0		image elongated
b			not on plate
c	6.7	6.2	
d			not on plate
e	6.4	5.9	
f	6.5	6.0	
g		7.4	
h		7.3	
k		7.8	
l		8.1	
m		8.2	
n		8.5	
o		9.2?	
p		9.2?	
q		9.0	
r			just seen
V	n.s.		

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December 31, 1895

Remeasured Plate C 7737 taken April 19, 1895 ν Ophiuchi
Superseded

a	6.3?	5.8	image elongated
b			not on plate
c	7.0	6.5	
d	~~7.0~~		not on plate
e	6.9	6.4	
f	7.0	6.5	
g		7.9	
h		7.9	
k		8.3	
l		8.5	
m		8.7	
n		8.9	
o		9.7?	
p		9.6?	
q		9.6?	
r		just seen	
v		n.s.	

December 31, 1895

Remeasured Plate C 8091 taken Aug. 2, 1895
Superseded

a	6.4	5.9	
b			not on plate
c		7.0	
d			not on plate
e	6.9	6.4	
f	7.4	6.9	
g		8.2	
h		8.1	
k		8.6	
l		9.0	
m		9.0	
n		~~10.0?~~ 9.2	
o		10.0?	(just seen
p		9.9?	
q		9.9?	
r		n.s.	
v		n.s.	

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December 21, 1895

S Cephei

Annexed Plate C 1756 taken Aug. 19, 1895 Superseded

a	6.2	5.7
b		not on plate
c	7.1	6.6
d		not on plate
e	6.7	6.2
f	6.9	6.4
g		8.0
h		8.0
k		8.3
l		8.8
m		8.8
n		9.0
o		10.0 ?
p		9.8 ?
q		9.9 ?
r		n.s.
v		n.s.

December 21, 1895

Estimates of brightness of S Cephei

Plate I 1552 taken Aug. 1, 1890

v n.s.

o n.s. $v < 11.7_4$

11.64 q = .1

Plate I 1570 taken Aug. 4, 1890

Effected edge of plate

v n.s. $v < 11.7_0$

11.60 o = .1 r n.s

Plate I 1927 taken Oct. 1, 1890

v n.s.

11.60 o = .2 $v < 11.6_0$

r n.s

Plate I 1930 taken Oct. 1, 1890

v n.s.

o n.s. $v < 10.60$

10.80 m = .2

Plate I 4031 taken Aug. 18, 1891

v n.s.

11.60 o = .1 $v < 11.7_0$

r n.s

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December 21, 1895

N Cephei

Plate C 3994 taken Sept. 24, 1891
V n.s.
R n.s. V < ~~10.60~~ 11.00
10.80 m = .2

Plate C 4056 taken Oct. 15, 1891
V suspected R not present - see p 155
O n.s. V < ~~10.76~~ 11.16
10.96 m = .2

Plate C 4070 taken Oct. 17, 1891
V suspected R not present
not measured t = .1 V < 11.60

Plate C 4139 taken Nov. 3, 1891
V n.s.
R n.s. V < ~~11.60~~ 12.00
11.60 O = .4

Extreme edge of plate — Plate I 6909 taken Sept. 7, 1893
V suspected see page 155
O = .1
R n.s.

Extreme edge of plate — Plate I 7464 taken Nov. 5, 1892
V n.s. V < 11.80
11.60 O = .1

Plate C 5406 taken Feb. 28, 1893
V n.s.
R n.s. V < ~~11.20~~ 12.00
11.60 O = .4

Plate C 5407 taken Feb. 28, 1893
V suspected R not present
11.60 O = .2 < 11.80

December 21, 1895

Plate C 5720 taken July 16, 1893
V n.s.
R n.s. V < 11.80
11.60 O = .2

Plate I 8933 taken July 24, 1893
V n.s.
R n.s. V < 11.80
11.60 O = .2

Plate I 9093 taken Aug. 7, 1893
V n.s.
10.34 R = .1 V < 10.44
L n.s.

Extreme edge of plate — Plate I 9167 taken Aug. 10, 1893
Writing comes out in region
Plate I 9204 taken Aug. 13, 1893
V n.s.
11.60 O = .4 V < ~~11.20~~ 12.00
R n.s.

Plate I 9256 taken Aug. 15, 1895
V n.s. V < 11.80
11.60 O = .1

Plate C 5933 taken Sept. 2, 1893
V n.s. V < 11.70
11.60 O = .1

Plate C 5934 taken Sept. 2, 1893
V n.s.
11.60 O = .1 V < 11.90
R n.s.

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December 21, 1895

N Cephei

Plate I 9463 taken Sept. 12, 1893
V suspected not present - see P. 155
11.60 0 = .5 V < ~~11.10~~ 12.10

R n.s.

Plate C 6094 taken Oct. 16, 1893
V n.s.
11.60 0 = .5 V < ~~11.10~~ 12.10

R n.s.

Plate I 10,098 taken Nov. 30, 1893
V n.s.
11.60 0 n.s V < 11.50

R n = .2

Plate C 6365 taken Dec. 20, 1893
V n.s. V < 11.60
not measured = .1

Plate C 6483 taken Jan. 17, 1894
V n.s.
11.60 0 = .4 V < ~~11.20~~ 12.00

R n.s.

Plate C 6598 taken Feb. 16, 1894
V n.s.
11.60 0 = .3 V < 11.90

R n.s.

Plate C 6599 taken Feb. 16, 1894
V n.s.
11.60 0 = .3 V < 11.90

R n.s.

December 21, 1895

Plate C 6720 taken April 25, 1894
V suspected not present - see P. 155
11.60 0 = .1 V < 11.70

R n.s.

Plate C 6903 taken July 17, 1894
V n.s.
11.60 0 = .2 V < 11.80

R n.s.

Plate C 6981 taken Aug. 11, 1894
V n.s.
0 n.s. V < ~~10.66~~ 11.26
10.96 n = .3

Plate I 11462 taken Sept. 20, 1894
V n.s.
11.60 0 = .2 V < 11.80

R n.s.

Plate C 7065 taken Sept. 29, 1894
V n.s.
11.60 0 = .2 V < 11.80

R n.s.

Plate C 7110 taken Oct. 14, 1894
V n.s. V < 11.60
not measured r = .1 v = 11.60

Plate I 11695 taken Oct. 17, 1894
V suspected not present
not meas. s = .1 V < 11.60

Plate I 11696 taken Oct. 17, 1894
V n.s. v = 11.60
10.96 n = .1 V < ~~10.86~~ 11.06

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December 21, 1895

S Cephei

Plate I 11877 taken Nov. 12, 1894
v suspected not present
11.60 o = .2 v < 11.70
2 n.s.

Plate C 7233 taken Nov. 16, 1894
useless plate

Plate C 7675 taken Dec. 22, 1894
v n.s.
11.60 o = .1 v < 11.70
2 n.s.

Plate C 7408 taken Jan. 1, 1895
v n.s.
11.60 o = .2 v < 11.80
2 n.s.

Plate C 7518 taken Feb. 14, 1895
v n.s.
o n.s. v < 11.16
10.96 n = .2

Plate C 7519 taken Feb. 14, 1895
v n.s.
11.60 o = .1 v < 11.70
2 n.s.

Plate C 7669 taken Feb. 22, 1895
v n.s.
not meas. n = .1 v < 11.60
5 n.s. v = 11.60

Plate C 7607 taken March 5, 1895
v n.s.
10.96 n = .4 v < 11.36
o n.s.

December 23, 1895

Plate C 7694 taken April 16, 1895
v suspected not present
o n.s. v < 11.06
10.96 n = .1

Plate C 7737 taken April 19, 1895
v n.s.
not meas. n = .1 v < 11.60
t n.s. v = 11.60

ring from plate

Plate C 7768 taken May 1, 1895
v n.s.
9.96 n = .1 v < 10.06

Plate I 12775 taken May 2, 1895
v suspected = see P. 185
11.60 o = 3 ~~v < 11.90~~
2 n.s.

Plate C 7840 taken May 9, 1895
v suspected = not present
o n.s.
10.96 n = .4 v < 11.36

Plate C 7997 taken July 11, 1895
v n.s.
2 n.s. v < 12.00
11.60 o = .4

edge of plate

Plate I 13104 taken July 26, 1895
v suspected see P. 185
o = .1
2 n.s.

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December 23, 1895

δ Cephei

edge of plate Plate I 13,137 taken July 30, 1895
v n.s.
11.60 o=.1 v < 11.70

n n.s.
Plate C 8091 taken Aug. 2, 1895
v n.s.
11.60 o=.2 v < 11.80

n n.s.
Plate C 8140 taken Aug. 16, 1895
v n.s.
10.96 n=.4 v < 11.36

clouded plate
o n.s.
Plate C 8141 taken Aug. 16, 1895
v n.s.
p'=.1 >12.60
11.60 o=.4

Plate C 8156 taken Aug. 19, 1895
v n.s.
n n.s. v < 11.80
11.60 o=.2

Plate C 8163 taken Aug. 21, 1895
v n.s.
11.60 o=.2 v < 11.80
n n.s.

Plate C 8164 taken Aug. 21, 1895
v n.s.
11.60 o=.1 v < 11.70
n n.s.

December 23, 1895

Plate C 8196 taken Aug. 30, 1895
v n.s.
10.80 n=.1 v < 10.90

n n.s.
Plate C 8223 taken Sept. 3, 1895
v suspected not present
11.64 q=.1 v < 11.74
o n.s.

Plate C 8278 taken Sept. 13, 1895
v n.s.
q=.2

Plate C 8360 taken
v n.s.
q=.1

Plate C 8439 taken Oct. 30, 1895
v n.s.
extremes s=.1 v < 11.60
t n.s.

Plate C 8482 taken Nov. 15, 1895
v n.s.
10.80 n=.1 v < 10.90
n n.s.

Plate C 8583 taken Nov. 29, 1895
v n.s.
q < .3

Cont. p. 155

Continued next vol. p. 90

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December 23, 1895

Continuation of measures of R. Cassiopeae from page 122

Plate C 8483 taken Nov 15, 1895

6.96 7.22 7.77 7.52 26 23
6.36 L 3 V 6.66 7.42 = 7.04 .38 .38
7.77
7.42 V 2 K 7.62

Plate C 8961 taken Oct 10 1895

6.96 7.46 6.98 24 34
6.32 L 5 V 6.82 6.77 V = 6.80 .02 .03
6.98 7.28
6.77 V 3 K 7.07

Plate C 8532 taken Nov 9, 1895

7.28 7.68 7.77 7.72 04 06
7.07 9 4 V 7.47 7.43 V = 7.45 .02 .02
7.77
7.43 V 2 K 7.63

Continued Vol III p 23

December 23, 1895

Reexamination of plates on which the image of S Cephei is suspected

Suspected spots on plates C 4070, C 6720, ~~C 7~~ are not stars.

On plates C 4056, C 4071, C 7694 C 7840, C 8223, no two suspected images coincide in position. They are so extremely faint as to be discovered only by the most careful scrutiny.

On Plate I 9463 and I 11695 the suspected image seem not to be stars

On plates I 6909, I 12,775, I 13104 the suspected images coincide in position. This makes it likely that the variable is found, especially as on plate I 12775 the image is clearly and unmistakably a genuine star image.

Plate I 12775 taken March 2, 1895

11.60 0 2 V 11.80?
V = .1
2 m s.

edge of plate Plate I 6909 taken Sept. 7, 1892

V 0 0
11.60 0 = .1 V = 11.60

Edge of plate - Star age very faint Plate I 13104 taken June 26, 1895

10 9 6 m 2 V 11.16?
V 1 P

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Reduced June 22, 1915
H. F. H.

December 24, 1894

Continuation from page 94 of estimates of brightness of Cassiopeiae.

very long trails

Plate C 8444 taken Nov. 3, 1895

10.47 10.57
9.66 m 1 V 9.76? 10.70 v = 10.64 ∂ .06
10.70 V 1 l' 10.80

Plate C 8464 taken Nov. 6, 1895

10.47 10.57
9.66 m 1 V 9.76? 10.70 v = 10.64 ∂ .06
10.70 V 1 l' 10.80

Images double * Plate C 8468 taken Nov. 11, 1895

10.50
V o K 9.86? v = 10.80?

Plate C 8592 taken Dec. 16, 1895

11.83
V 00 10.40 v = 11.83

Continued on III page 27

* See note p. 220 of BK V

January 13, 1896

Measurement of photographic magnitudes of Q. C. Hindell's companion stars to γ Cephei.

Plate I 9200 taken Aug. 13, 1893

a	Image too poor to measure			4.0²	4.3
b	3.1?	3.7	Image much elongated	3.2?	3.5
c	6.7	7.0	Star edge - poor image	6.8	7.0
d	3.9	4.2		4.0	4.3
e	4.2	4.5		4.5	4.8
f	5.5	5.8	difficult to measure because of poor comparison	5.7	6.0
g	5.4	5.7		5.3	5.6
h	~~5.2~~	5.5		5.2	5.5
k	6.3	6.6		6.2	6.5
l	7.1	7.4		7.0	7.3
m	~~7.3~~ 7.2	7.6			7.6
g' n		8.9			8.9
o		8.1			8.2
p		9.3	h' 6.0 6.3		9.3
q		9.0	o' 8.6		9.3
r		9.3	r' 9.6?		9.2
s		9.8			10.0
t		10.1	For chart see next page		10.1?
V	4.0				4.0

Images not very good

Remeasured January 14 (independently) because it was growing dark when I measured last night & I found it might have affected my measures. Right hand meas. used

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January 14, 1896

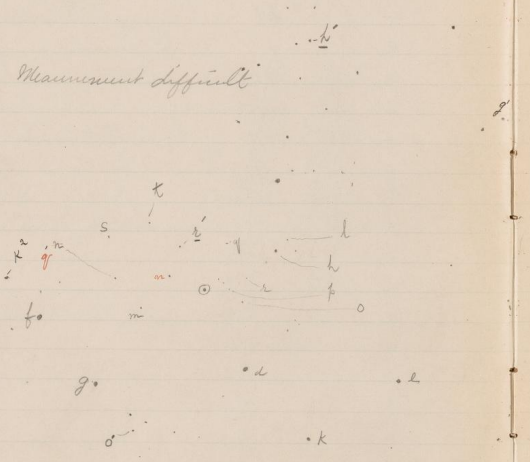
γ Cephei

Plate I 9332 taken Aug. 29, 1893

a	3.2	3.5
b	3.3	3.6
c	5.9	6.2
d	3.9	4.2
e	4.5	4.8
f	5.7	6.0
g	5.7	6.0
h	5.2	5.5
k	6.1	6.4
l	6.8	7.1
m		7.5
g'		8.7
o		7.7
p		8.9
q		8.8
r		9.0
s		9.7
t		9.7
γ	4.2	
h'	6.0	6.3
o'		8.0
r'		9.3

Very poor image - edge of plate

Measurement Difficult



January 14, 1896

Plate I 11552 taken Oct. 7, 1894.

a	3.9	4.1
b	3.5	3.8
c	6.2	6.5
d	4.1	4.4
e	4.6	4.9
f	6.1	6.4
g	6.0	6.3
h	5.4	5.7
k	6.9	7.2
l		7.4
m		7.5
g'		8.8
o		7.9
p		8.8
q		8.9
r		8.9
s		9.8
t		9.9
γ	4.7	
h'	6.2	6.5
o'		8.1
r'		9.4

Edge of plate poor image

image elongated

Star next north of and preceding f double

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January 14, 1896

T Cephei

Plate I 13405 taken Sept. 5, 1895

a	3.9?	4.2	Image very poor. edge of plate
b	4.7	5.0	
c	5.8?	6.1	Image much elongated
d	5.4	5.7	
e	5.8	6.1	
f	6.4:	6.7?	
g	6.5	6.8	
h	6.1	6.4	
k	6.8	7.1	
l	6.8?	7.1?	
m		7.5	
n		8.8	
o		7.8	
p		8.8	
q		8.7	
r		8.7	
s		just seen	
t		just seen	
V	6.0	6.3	
k'	6.1	6.4	
o'		8.6	
e'		9.3?	

Some star near to double

January 14, 1896

Plate C 5898 taken Aug. 22, 1893

Superseded by measures on C plates
See Vol. III pp 145-148

a	not on plate		
b	not on plate		
c	not on plate		
d	4.8	~~5.1~~ 4.3	
e	5.5	~~5.8~~ 5.0	
f	6.1	5.6	
g	6.4	5.9	
h	6.0	~~6.3~~ 5.5	
k	6.9	6.4	
l		7.0	
m		7.0	
n		8.7	
o		7.7	
p		9.0	
q		8.9	
r		8.9	
s		9.8?	
t		10.0?	
V	4.9	5.2	
k'	6.6	6.1	
o'		8.3	
e'		9.4?	

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January 14, 1895

Plate C 6077 taken Oct. 14, 1893

d	4.6	~~4.4~~	Superseded
e	5.6	5.1	near edge of plate
f	6.1	5.6	
g	6.2	5.7	
h	6.0	5.5	
k		not on plate	
l	7.1	6.6	
m		7.0	
~~n~~		7.7	
o		7.8	
p		8.9	
q		8.9	
r		8.9	
s		9.7:	
t		n.s.	
v	6.0	5.5	

k' Low scale
6.2 ~~5.7~~
o' not on plate
r' 9.5:

January 14, 1895

Plate C 6364 Dec. 20, 1893

d	4.9	4.4	Superseded
e	5.7	5.2	
f	6.0	5.5	
g	6.0	5.5	
h	5.9	5.4	
k	6.5	6.0	
l	7.0	6.5	
m	7.1	6.6	
~~n~~		7.9	
o		7.4	
p		8.2	
q		8.2	
r		8.4	
s		8.9	
t		9.0	
v	7.2	6.7	

k' 6.2 5.7:
o' ~~7.8:~~ 7.8: Very bad image near edge
r' 8.7

Comparison stars marked on this plate

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January 14, 1895 T Aphei

Plate C 645-3 taken Jun. 8, 1894

d	4.8	4.3	Superseded
e	5.4	4.9	
f	5.9	5.4	
g	6.0	5.5	
h	6.0	5.5	
k	6.5	6.0	
l	7.0	6.5	
m	7.0	6.5	
g'	1	8.1	
o		7.2	
p		8.5	
q		8.5	
r		8.5	
s		9.2?	
t		9.5?	
V	6.9	7.4	
b'	6.3	5.8	
o'		7.6?	Poor image
r'		8.8	

January 14, 1895

Plate C 6894 taken July 9, 1894

d	4.7	3.6	Superseded
e	4.6	4.0	
f	5.4	4.9	
g	5.6	5.1	
h	5.5	5.0	
k	6.3	5.8	
l	6.8	6.3	
m	6.8	6.3	
g'		8.0	
o		6.8	
p		8.2	
q		8.3	
r		8.5	
s		9.4?	
t		9.3?	
V	5.4	4.9	
b'	not on plate		
o'		7.8	
r'		8.9	

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January 14, 1896.

T Cephei

Plate C 7407 taken Jan. 1, 1895

d	4.8	4.3
e	5.4	4.9
f	6.0	5.5
g	6.1	5.6
h	5.9	5.4
k	6.7	6.2
l		6.8
m		6.9
n		8.4
o		7.3
p		8.7
q		8.8
r		8.8
s		9.8
t		10.0
v	7.0	6.5
h'	6.2	5.7
o'		8.0
r'		9.3

Suspended

January 14, 1896

Plate C 7426 taken Jan. 17, 1895

d	4.7	4.2
e	5.4	4.9
f	5.9	5.4
g	6.1	5.6
h	6.9	6.4
k	6.7	6.2
l		6.8
m		6.9
n		8.3
o		7.4
p		8.8
q		8.8
r		8.7
s		9.6
t		9.6
v		7.0
h'	6.3	5.8
o'		7.9
r'		9.0

Suspended

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January 14, 1896

T Cephei

Plate C 7606 taken March 5, 1895

d	~~4.9~~	4.4	Superseded
e	5.6	5.1	
f	6.1	5.6	
g	6.3	5.8	
h	6.3	5.8	
k	6.9	6.4	
l		7.1	
m		7.1	
n		8.6	
o		7.7	
p		8.8	
q		8.9	
r		8.9	
s		9.8 z	
t		10.0 z	
v		8.4	
h'	6.5	6.0	
o'		8.1	
r'		9.1	

January 14, 1896

Plate C 7971 taken July 11, 1895

d	5.1	4.6	Superseded
e		not on plate	
f	6.2	5.7	
g	6.2	5.7	
h	6.1	5.6	
k		not on plate	
l		6.9	
m		7.0	
n		8.5	
o		7.6	
p		8.7	
q		8.7	
r		8.7	
s		9.5 z	
t		9.7 z	
v	6.4	5.9	
h'	6.6	6.1	
o'		7.9	
r'		9.0	

Images slightly elongated

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January 14, 1896

T Cepheï

Plate C 8018 taken July 23, 1895

d	4.7	4.2	
e			image distorted and faint-Edge of plate
f	6.0	5.5	
g	6.1	5.6	Suspended
h	5.9	5.4	
k	6.7	6.2	
l	7.2	6.7	
m		6.7	
n		8.5	
o		7.3	
p		8.8	
q		8.8	
r		8.8	
s		9.7½	
t		9.9½	
v	6.0		
h'	6.4	5.9	
o'		7.9	
r'		9.1	

January 14, 1896

Plate C 8065 taken July 30, 1895

d	5.0	4.5	
e	5.5	5.0	
f	6.1	5.6	Suspended
g	6.2	5.7	
h	6.2	5.7	
k	6.7	6.2	image elongated
l		6.9	
m		6.8	
n		8.4	
o		7.3	
p		8.7	
q		8.7	
r		8.7	
s		9.7½	
t		9.8½	
v	6.4	5.9	
h'	6.4	5.9	
o'		7.8	
r'		9.0	

Image slightly elongated

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January 15, 1896 Reduced July 2, 1916 GR

Estimates of the brightness of
ν Cephei
b d e g k' k m o o₂ p r' s t
Comparison stars arranged in order of
photographic brightness

Plate I 2304 taken Nov. 20, 1890

Extreme edge of plate

ν o o 9.70 ν = 9.70 0 V = 10.48

Plate I 2332 taken Nov. 22, 1890

Images poor

9.23 m 5 ν 9.73 9.60 = 9.66 .07 .06
9.60 ν 1 o 9.70

Plate I 2858 taken Jan. 20, 1891

9.23 m 1 ν 9.33 9.20 = 9.26 .07 .06
9.20 ν 5 o 9.70 V = 10.01 03 03

Plate C 3650 taken April 24, 1891

multiplied images + tracks & the edge of plate

7.09 ε 4 ν 7.49 7.78 = 7.64 .13 .14
7.78 ν 2 g 7.98 V = 8.07 15 16

Plate I 4024 taken Aug. 18, 1891

Images of ε too much blended for comparison

6.54 d 4 ν 6.94 7.58 = 7.26 .32 .32
7.58 ν 4 g 7.98 V = 7.59 44 44

Plate I 4025 taken Aug. 18, 1891

7.09 ε 4 ν 7.49 7.58 = 7.54 .05 .04
7.58 ν 4 g 7.98 V = 7.97 05 06

Plate I 4029 taken Aug. 18, 1891

7.09 ε 4 ν 7.49 7.58 = 7.54 .05 .04
7.58 ν 4 g 7.98 V = 7.97 05 06

January 15, 1896 Reduced July 3, 1916 GR

multiplied images and tracks

Plate C 3975 taken Sept. 10, 1891

7.98 g 3 ν 8.28 7.98 = 8.13 .15 .15
7.98 ν 2 k' 8.18 V = 8.66 07 03

Plate C 3992 taken Sept. 24, 1891

7.98 g 2 ν 8.18 0
k' not on plate

Plate C 4148 taken Nov. 4, 1891

9.23 m 1 ν 9.13 9.10 = 9.12 .01 .02
9.10 ν 6 o 9.70 V = 9.96 08 05

Images elongated in change of July 2, 1916

Plate C 4369 taken Jan. 20, 1892

~~o 6 ν~ 10.66 ν 4 ν ~~10.26~~ 11.06 10.68 = 10.87 .19 .19
~~ν 2 o~~ 10.68 ν 2 p 10.88 V = 11.70 09 09

Plate C 4370 taken Jan. 20, 1892

10.66 m 2 ν 10.86 10.68 = 10.77 .09 .09
10.68 ν 2 p 10.88 V = 11.60 01 01

Plate C 5300 taken Jan. 13, 1893

10.66 m 2 ν 10.86 10.58 = 10.72 .14 .14
10.58 ν 3 p 10.88 V = 11.55 04 04

Plate C 5301 taken Jan. 13, 1893

10.66 m 2 ν 10.86 10.58 = 10.72 .14 .14
10.58 ν 3 p 10.88 V = 11.55 04 04

Very long tracks and many images of each star

Plate C 5721 taken July 16, 1893

6.54 d 3 ν 6.84 6.89 = 6.86 .02 .03
6.89 ν 2 ε 7.09 V = 7.18 13 13

Plate C 5773 taken July 24, 1893

6.54 d 3 ν 6.84 6.69 = 6.76 .08 .07
6.69 ν 4 ε 7.09 V = 7.08 03 03

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January 15, 1896

Reduced July 3, 1916 S.R.

Plate C 5774 taken July 24, 1893

6.75 6.54 d 3 V 6.84 6.79 = 6.82 .02 .03

7.21 6.79 V 3 E 7.09 V = 7.13 05 05

Plate I 9200 taken Aug. 13, 1893

6.75 V o d 6.54 V = 6.54 0 V = 6.75

Plate I 9250 taken Aug. 15, 1893

6.75 V o d 6.54 V = 6.54 0 V = 6.75

Plate C 5898 taken Aug. 22, 1893

6.75 V o d 6.54 V = 6.54 0 V = 6.75

Plate I 9332 taken Aug. 29, 1893

6.75 6.54 d 1 V 6.64 6.59 = 6.62 .02 .03

7.21 6.59 V 6 E 7.09 V = 6.98 05 05

Plate C 6077 taken Oct. 14, 1893

7.51 7.09 E 3 V 7.39 7.68 = 7.54 .15 .14

8.43 7.68 V 3 9 7.98 V = 7.97 16 16

Plate I 9411 taken Oct. 20, 1893

7.51 7.09 E 5 V 7.59 7.78 = 7.68 .09 .10

8.43 7.78 V 2 9 7.98 V = 8.12 11 11

Plate C 6364 taken Dec. 20, 1893

10.14 9.23 m 2 V 9.73 9.20 = 9.32 .11 .12

10.48 9.20 V 5 0 9.70 V = 10.06 05 05

Plate C 6452 taken Jan. 8, 1894

10.48 9.70 0 2 V 9.90 9.91 9.90 0 .01

10.68 11.02 9.91 V 3 0 10.21 V = 10.70 02 02

Plate C 6453 taken Jan. 8, 1894

10.48 9.70 0 2 V 9.90 9.91 = 9.90 0 .01

10.68 11.02 9.91 V 3 0 10.21 V = 10.70 02 02

Plate C 6482 taken Jan. 19, 1894

10.48 9.70 0 4 V 10.10 10.11 = 10.10 0 01

10.68 10.11 V 1 0 10.21 V = 10.80 02

January 16, 1895

Reduced July 3, 1916 S.R.

Plate C 6719 taken April 25, 1894

8.43 7.98 9 6 V 8.58 8.48 = 8.53 .05 .05

9.14 8.98 V 1 K 8.58 V = 9.08 05 06

k not on plate

Plate C 6894 taken July 9, 1894

7.51 7.09 E 7 V 7.79 7.78 = 7.78 .01 0

8.43 7.78 V 2 9 7.98 V = 8.22 01 01

Plate C 6949 taken Aug. 9, 1894

6.75 6.54 d 3 V 6.84 6.89 = 6.86 .02 .03

7.31 6.89 V 2 E 7.09 V = 7.18 13 13

Plate C 6950 taken Aug. 9, 1894

6.75 6.54 d 5 V 7.04 6.99 = 7.02 .02 .03

7.41 6.99 V 1 E 7.09 V = 7.33 08 08

Plate I 11459 taken Sept. 20, 1894

6.75 V o d 6.54 V = 6.54 0 V = 6.75

Plate C 7064 taken Sept. 29, 1894

6.75 6.54 d 3 V 6.84 6.69 = 6.76 .08 .07

7.05 6.69 V 4 E 7.09 V = 7.08 03 03

Plate I 11552 taken Oct. 7, 1894

Image 7 E blurred badly

7.51 V O E 7.09 V = 7.51

Plate C 7109 taken Oct. 14, 1894

6.75 7.26 6.54 d 5 V 7.04 6.79 = 6.92 .12 .13

7.21 6.79 V 3 E 7.09 V = 7.23 02 02

Plate I 11693 taken Oct. 17, 1894

Very poor un-spec. edge 5/8 on

7.51 7.81 7.09 E 3 V 7.39 7.28 = 7.34 .05 .06

8.43 7.28 V 7 9 7.98 V = 7.77 04 04

Same position on plate. Poor images

7.51 7.81 7.09 E 4 V 7.49 7.35 = 7.44 .05 .06

7.73 7.35 V 6 9 7.98 V = 7.87 04 04

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January 16, 1895 Reduced July 3, 1916 SJE

9 Cephei

Plate I 11841 taken Nov. 11, 1894

V 0 g 7.98 V = 8.43

very poor plate

Plate C 7232 taken Nov. 16, 1894

7.98 g 5 V 8.48 7.78 = 8.13 .35 .35

7.78 V 4 k 8.18

Plate C 7374 taken December 22, 1894

8.58 k 2 V 8.78 8.73 = 8.76 .12 .03

8.73 V 5 m 9.23

Plate C 7407 taken Jan. 1, 1895

8.58 k 3 V 8.85 9.03 = 8.96 .08 .07

9.03 V 3 m 9.23

Plate C 7425 taken Jan. 17, 1895

9.23 m 4 V 9.63 9.40 = 9.52 .11 .12

9.40 V 3 0 9.70

Plate C 7568 taken Jan. 17, 1895

9.23 m 3 V 9.53 9.30 = 9.42 .11 .12

9.30 V 4 0 9.70

Plate C 7568 taken Feb. 22, 1895

10.21 0 5 V 10.71 10.56 = 10.64 .07 .08

10.56 V 1 g 10.66

g substituted for m July 2, 1916.

Plate C 7606 taken March 5, 1895

10.21 0 5 V 10.71 10.56 = 10.64 .07 .08

10.56 V 1 g 10.66

Plate C 7693 taken April 16, 1895

10.21 0 5 V 10.71 10.56 = 10.64 .07 .18

10.56 V 1 g 10.66

Plate C 7767 taken May 1, 1895

10.21 0 3 V 10.57 ? V = 11.32

m not seen

January 16, 1895 Reduced July 3, 1916 SJE

Plate C 7839 taken May 9, 1895

9.76 0 5 V 10.20 10.11 = 10.16 .04 .05

10.11 V 1 0 10.21

Plate C 7935 taken June 16, 1895

8.48 V 1 k 8.58 V = 8.45?

k not on plate

Plate C 7971 taken July 11, 1895

7.98 g 2 V 8.18 8.08 = 8.13 .05 .05

8.08 V 1 k 8.18

Plate C 8017 taken July 29 1895

6.54 d 34 V 6.94 7.68 = 7.31 .37 .37

E not on plate

7.68 V 3 g 7.98

Plate C 8018 taken July 23, 1895

6.54 d 8 V 7.34 7.68 = 7.51 .17 .17

E not on plate

7.68 V 3 g 7.98

Plate C 8064 taken July 30, 1895

V 0 g 7.98

Plate C 8065 taken July 30, 1895

V 0 k 8.18

Plate C 8092 taken Aug. 2, 1895

7.09 E 5 V 7.59 7.68 = 7.64 .05 .04

7.68 V 3 g 7.98

Plate C 8222 taken Sept. 3, 1895

6.54 d g V 7.44 6.99 7.22 .22 .23

6.99 V 1 E 7.09

Plate I 13469 taken Sept. 5, 1895

7.19 E 1 V 7.19 7.38 = 7.28 .09 .10

7.38 V 6 g 7.98

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January 16, 1895 Reduced July 3, 1916 SR

γ Cephei

Plate C 7438 taken Oct. 30, 1895

6.70 7.25
6.54 d 5 V 7.04 6.89 = 6.96 .08 .07
7.31 7.31
6.89 V 2 E 7.09 V = 7.28 03 03

Plate C 8481 taken Nov. 15, 1895.

Very poor plate.

7.51
V 0 E 7.09 V = 7.51

Plate C 8534 taken Nov. 29, 1895

7.51 7.97
7.09 E 4 V 7.49 7.58 V = 7.54 .05 .04
8.03 8.43
7.58 V 4 g 7.98 V = 7.97 06 06

Plate C 8668 taken Dec. 22, 1895

8.18 8.78 7.15
8.18 L 4 V 8.58 8.28 V = 8.43 .10 .15
8.34 8.94
8.28 V 3 K 8.58 V = 9.06 12 19

Continued III page 24

January 16, 1895

Measures of companions stars g, h, k, l for γ Cephei, to ascertain if there is variation. Very poor plates omitted.

Plate I 2332 taken Nov. 22, 1890

5.0 5.3
g
h ~~5.8~~ too elongated to measure
k No comparison can be made on this
l plate. Image too near corner.

Plate C 3650 taken April 24, 1891

6.3 5.8
g ~~6.3~~ ~~6.8~~
h 6.6 6.1
k 6.5? 6.0? image elongated
l 7.0? " "

Plate I 4024 taken Aug. 18, 1891

g 5.8 6.1
h 6.0 6.3 Images poor
k 7.0 near edge of plate
l 7.3

Plate I 4025 taken Aug. 18, 1891

g 6.1 6.4
h 6.1? 6.4? Image much elongated
k 6.3? 6.6? " " "
l 6.8? 7.1? " " "

Near opposite edge of plate from 4024

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January 16, 1895

Plate I 40 29 taken Aug. 17, 1891

g	7.0	7.3	
h		7.5	Images near center of
k		7.9	plate, but poor.
l		8.3	

Plate C 4148 taken Nov. 4, 1891

g	5.8	5.3	
h	6.1	5.6	Images lengthened
k	6.3	5.8	" "
l	6.7	6.2	" "

Plate C 4369 taken Jan. 20, 1892

g 3 h
h 5 k
k 2 l

Plate C 4370 taken Jan. 20, 1892

g	6.2	5.7	
h	6.3	5.8	
k	7.0	6.5	Image elongated
l		6.9	

Plate C 5300 taken Jan. 13, 1893

g	6.3	5.8	
h	6.3	5.8	Images somewhat elongated
k	7.0	6.5	
l		7.0	

January 16, 1895

Plate C 5301 taken Jan. 13, 1893

g	6.4	5.9	
h	6.3	5.8	
k	6.9	6.4	
l		7.0	

Plate C 5773 taken Jan. 24, 1893

g	6.2	5.7	
h	6.3	5.8	
k	6.9	6.4	
l		6.9	

Plate C 5774 taken Jan. 24, 1893

g	6.2		Image elongated
h	6.5	6.0	" "
k	6.5	6.0	
l		6.8	

Plate I 9200 taken Aug. 13, 1893
measured above C 5798
Plate I 9332 measured above
Plate C 6077 taken Oct. 14, 1893
measured above

Plate I 9711 taken Oct. 20, 1893

g	5.7	6.0	
h	6.1	6.4	Images elongated
k	6.7	7.0	
l		7.5	

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January 16, 1895

Plate C 6364 taken Dec. 20, 1893
Measured above.

Plate C 6452 taken Jan. 8, 1894

g 1 2
r 4 4
i 3 3
z

Plate C 6453 taken Jan. 8, 1894
Measured above

Plate C 6482 taken Jan. 19, 1894

g	6.0	5.5
r	6.3	5.8
i	6.5	6.0
z	7.1	6.6

Plate C 6950 taken Aug. 5, 1894

g	6.4	5.9
r	6.8	6.3
i	7.0	6.5
z		7.0

Plate C 7064 taken Sept. 29, 1894

g	6.5	6.0
r	6.8	6.3
i		6.7
z		7.3

January 16, 1895

Plate I 11552 Oct. 7, 1894
measured above

Plate C 7109 taken Oct. 14, 1894

g	6.5	6.0
r	6.5	6.0
i	6.9	6.4
z		6.9

Plate I 11841 taken Nov. 11, 1894

g	6.7	7.0
r	6.9	7.2
i		7.7
z		8.0

Plate C 7374 taken Dec. 22, 1894

g	5.5	
r	5.6	Images elongated
i	6.0	
z	6.5	

Plate C 7407 taken Jan. 1, 1895
Measured above

Plate C 7426 taken Jan. 17, 1895
Measured above.

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January 16, 1896

T Ceph

Plate C 7568 taken Feb. 24, 1895

g 5.5
r 5.5 Images elongated
i 5.8
l 6.4

Plate C 7606 taken March 5, 1895
Measured above.

Plate C 7693 taken April 16, 1895

g 6.1
r 6.5 6.0
i 6.9 6.4
l 7.0

Plate C 7767 taken May 1, 1895

g 7.0 6.5
r 6.9
i 7.7
l 8.2

Plate C 7971 taken July 11, 1895

r Measured above

Plate C 8017 taken July 23, 1895

g 6.1
r 6.5 6.0
i 6.5 6.0
l 6.9

January 16, 1896

Plate C 8018 taken July 23, 1895
Measured above

Plate C 8065 taken July 30, 1895
Measured above

Plate C 8092 taken Aug. 2, 1895

g 5.9
r 6.3
i 6.7
l 6.9

Plate C 8222 taken Sept. 3, 1895

g 6.9 6.4
r 6.9 6.4
i 7.0
l 7.8

January 18, 1896

Plate C 7773 remeasured

g 6.1 6.6
r 6.2 6.7
i 6.9 6.3
l 7.0

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January 18, 1896

7 Cephei

Remeasurement of certain plates stars e, f, g, h', k, l.

Plate I 9200 taken Aug. 13, 1893

e	4.3
f	5.6½
g	5.4
h'	6.0
k	6.2
l	7.0

Plate I 9332 taken Aug. 29, 1893

e	4.6
f	5.6½
g	5.7
h'	6.0
k	6.2
l	6.9

Plate C 5774 taken July 24, 1893

e	5.8	
f	6.1½	Image very poor - edge of plate
g	6.1½	Edge of plate
h'	6.5	6.0
k	6.7	6.1
l	7.0½	7.0½ Image elongated

January 18, 1896

Plate C 6900 taken Aug. 15, 1894

e	5.6	
f	6.1	
g	6.4	
h'	6.6	6.1
k	6.9	6.4
l	7.2	7.0

Plate C 7109 taken Oct. 14, 1894

e	6.0	6.5
f	6.3	5.8
g	6.5	6.0
h'	6.5	6.0
k		6.4
l	7.2	7.0

Plate C 8017 taken July 23, 1895

e	Image too poor to measure	
f	6.0	Images elongated
g	6.3	
h'	6.5	6.0
k	6.7	6.2
l		7.0

Plate C 8222 taken Sept. 3, 1895

e	6.3	6.8 Images poor
f	6.7	6.2
g	6.8	6.3
h'	6.5	6.3 Image near edge of plate
k		7.0
l		8.0

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January 20, 1896

F Cleftin

Plate C 4370 taken Jan 20, 1892

g	6.3	5.8
h'	6.5	6.0
K	7.0	6.5
l	~~7.9~~	6.9
l	5.9	

Images somewhat elongated

Plate C 5301 taken Jan. 13, 1893

e	6.0	5.5
f		
g	6.3	5.8
h'	6.4	5.9
K	6.9	6.4
l		7.9

~~h" 6.9 6.4~~

Another h" is now marked on the plate

Plate C 5773 taken July 24, 1893

e	5.6	5.1
g	6.1	5.6
h'	6.4	5.9
K	6.9	6.4
l		7.0

~~h" 6.7 6.2~~

Plate C 5898 taken Aug. 22, 1893

e	5.4	4.9
g	6.4	5.9
h'	6.8	6.3
K	6.9	6.4
l		7.0
~~h"~~	~~7.1~~	~~6.6~~

January 20, 1896

Plate I 9382 taken Aug. 29, 1893

e	4.5	4.8
g	~~5.7~~ 6.0	~~6.0~~
h'	6.0	6.3
K	6.3	6.6
l	7.0	7.2

~~h" 6.6 6.9~~

Plate C 6077 taken Oct. 14, 1893

e	5.3	4.8
g	6.1	5.6
h'	6.3	5.8
K	not on plate	
l		6.8
~~h"~~	~~6.7~~	~~6.2~~

Plate C 6364 taken Dec. 20, 1893

e	5.6	5.1
g	6.0	5.5
h'	6.3	5.8
K	6.7	6.1
l	7.0	6.5
~~h'~~	~~6.8~~	~~6.0~~

Plate C 6453 taken Jan 8, 1894

e	5.5	5.0
g	5.9	5.4
h'	6.3	5.5 6.0
K	6.5	~~6.7~~
l		6.7

~~h" 6.8 6.3~~

image elongated

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January 20, 1896

T Cephei

Plate C 6483 taken Jan. 19, 1894

c	5.8	
g	6.1	
L'	~~6.4~~ 6.7	5.9 ~~6.2~~
K	6.5	6.0
l	7.1	6.6
L''	6.7	6.2

Images double

Images of L' and following are easily measured

Plate C 6950 taken Aug. 5, 1894

c	6.0	image blurred
g	6.4	5.9
L'	6.5	6.3 image elongated
K	6.9	6.4 7.0
l	~~6.9~~	~~6.7~~
L''		6.9 image elongated

Plate I 1155-2 taken Oct. 7, 1894

c	4.9	image blurred
g	6.0	6.7
L'	6.5	6.8
K	6.8	7.0
l		7.5
L''	7.0	7.2

Plate C 7109 taken Oct. 14, 1894

c	6.0	
g	6.5	6.0
L'	6.5	6.0
K	7.0	6.5
l		7.0

L'' 7.1 6.6

January 20, 1896

Plate I 1184 taken Nov. 11, 1895

c	~~6.9~~ 5.9	~~6.6~~ 6.1 image blurred
g	6.7	7.0
L'	6.9	7.2
K		7.6
l		8.0
L''		7.7

Plate C 7407 taken Jan. 1, 1895

c	5.7	
g	~~6.6~~ 6.1	~~6.1~~
L'	6.3	5.8
K	6.6	6.1
l		6.7
L''	6.7	6.2

Plate C 7426 taken Jan. 19, 1895

c	5.3	
g	6.1	
L'	6.3	5.8
K	6.7	6.2
l		6.8
L''	6.7	6.2

Plate C 7606 taken March 5, 1895

c	5.9	near edge blurred
g	6.4	5.9
L'	6.5	6.0
K	6.9	6.4
l		7.0

L'' 7.0 6.5

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January 20, 1896

T Lepine

Plate C 7693 taken April 16, 1895

e	not on plate	
g	6.3	
h	6.5	6.0
k	6.9	6.4
l		7.0
h'		6.7

Plate C 8017 taken July 23, 1895

e	image poor		
g	6.3		
h	6.5	6.0	
k	6.7?	6.2	image elongated
l		7.0?	" "
h'	7.0?	6.5?	" elongated

Plate C 8018 taken July 23, 1895

e	image poor		
g	6.0	5.5	
h	6.5	6.0	
k	6.8	6.3	image poor
l	7.1	6.6	
h'	6.8	6.3	

January 20, 1896

Plate C 8065 taken July 30, 1895

e	5.7		
g	6.3	5.8	Images elongated
h	6.5	6.0	
k	6.7	6.2	
l		6.9	
h'	6.8	6.3	

Plate I 1345 taken Sept. 5, 1895

e	5.9	6.2
g	6.3	6.6
h	6.2	6.5
k	6.8	7.1
l	6.9	7.2
h'	6.5	6.8

The images on this plate are circular, and hence very difficult to measure with the scale, which has its images elongated.

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January 21, 1896

Estimates of the brightness of h (companion star to P Cephei)
g h k order of brightness

Plate I 2304 taken Nov. 20, 1890
Extreme edge of plate — g 10 v
v 1 h

Plate I 2332 taken Nov. 23, 1890
Corner of plate Images very poor — h 1 k
v 2 k

Plate I 2558 taken Jan. 20, 1891
k v 0 h

Plate I 4024 taken Aug. 15, 1891
Side of plate — v 0 h

Plate I 4025 taken Aug. 15, 1891
v 0 h

Plate I 4029 taken Aug. 15, 1891
v 0 h

Plate I 9200
g 7 v
v 1 h

January 21, 1896.

Plate I 9332 taken Aug. 29, 1893
v 0 h

Plate I 9250 taken Aug. 15, 1893
v 0 h

Plate I 9711 taken Oct. 20, 1893
v 0 h

Plate I 11552 taken Oct. 7, 1894
v 0 h

Plate I 11633 taken Oct. 14, 1894
v 0 h

Plate I 11698 taken Oct. 17, 1894
edge of plate — h 1 v
v 2 k

Plate I 11841 taken Nov. 11, 1894
v 0 h

Plate I 13459
v 0 h

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January 21, 1876

Estimates of brightness of g Comparison star to Tephet

g' g'' order of brightness

Corner of plate - Images very poor

Plate I 3332

g 0 g'' ?

Plate I 3858.

Edge of plate

g 4 g'' ?

Image of g' too much distorted for comparison

Edge of plate - Images distorted

Plate I 4024

g 2 g'' ?

Plate I 4025

Edge of plate

g 4 g''

Image of g' too much distorted to compare

January 22, 1876

Observations of brightness of h continued from page 195

Plate C 5773 taken July 24, 1893

V 0 h''

Plate C 5774 taken July 24, 1893

h'' 2 V

g' and k'' not on plate

Plate C 6077 taken Oct. 14, 1893

V 2 h''

Image of h'' distorted - near edge of field

Plate C 6364 taken Dec. 20, 1893

V 0 h''

Plate C 645-2 taken Jan. 5, 1894

h'' 3 V

Image of h'' near edge of field

Plate C 645-3 taken Jan. 5, 1894

h'' 3 V ?

Image of h'' much elongated. V round

Plate C 6482 taken Jan. 19, 1894

h'' 2 V

h'' near edge of field

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January 22, 1896
Continuation of preceding page

Plate C 7971 taken July 11, 1895

L" 2 r 7

Image of L" near edge of film and distorted.

These plates have not g' and k' upon them -

January 27, 1896.

Measures of photographic brightness of O.C. Rundell's comparison stars to S Cassiopeiae

All measures in this volume suspended

Plate C 3410

a		not on plate
a	5.4	4.9
b	6.1	5.6
c	6.1	5.6
d		not on plate
e		image from - edge of plate
f	not on plate	
g	6.4	5.9
h		not on plate
k		7.2
l		7.5
m		7.3
n		8.9
o		8.4
p		8.9
q		9.0
r		9.1
s		9.4
t		n.s.
u		n.s.
v		n.s.
r		n.s.
L'		7.0

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Expanded

January 27, 1896

S Cassiop.

Plate C 6368 taken Dec. 20, 1893

a		not on plate	
α	4.7	4.2	
b	5.4	4.9	
c	5.5	5.0	
d		not on plate	
e	6.3?	5.8	image from edge of plate
f	6.0?	5.5	" " " "
g	5.8	5.3	
h	~~6.8~~		not on plate
k	6.8	6.3	
l	7.0	6.5	
m	6.9	6.4	
n		8.1	
o		7.2	
p		8.0	
q		8.6?	
r		8.4	
s		8.5	
t		9.3?	
u		9.0	
w		9.5?	
x		9.8?	
y		10.2?	just visible
z		10.0?	
h'	6.5	~~6.5~~ 6.0	

Expanded

January 27, 1896.

Plate C 6455 taken January 5, 1894.

α	5.2	4.7	
b	6.0	5.5	
c	6.0	5.5	
e	6.7?	6.2?	extreme edge of plate
f			not on plate
g	6.2	6.7	
k		7.1	
l		7.2	
m		7.0	
n		8.8	
o		8.0	
p		8.9?	
q		9.0?	
r		9.2?	
s		9.4?	
t	not seen		
u	not seen		
w	not seen		
y	not seen		
z	just seen?		
h'	7.0	6.5	

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Separated

January 27, 1896

S Cassiop.

Plate C 6698 taken April 9, 1894

a	4.5	
b	6.0	
c	6.0	
e		not on plate
f		not on plate
g	6.1	
k	7.8	
l	8.0	
m	7.8	
n		
o		
p		
q		
r		
s		
t		
u		
w		
y		
V	Not seen	

Images somewhat elongated
Measurements not to be trusted

Separated

January 27, 1896

Plate C 7144 taken Oct. 20, 1894

a	5.1	4.6	
b	5.9	5.4	
c	5.8	5.3	
e	6.5	6.0	
f			not on plate
g	6.0	6.5	
h		7.2	not on plate
k		7.0	"
l		7.2	
m		6.5	
n		8.7	
o		8.0	
p		8.4	
q		8.9	2
r		8.9	2
s		9.2	2
t		not seen	
u		"	"
w		"	"
V		8.0	
k	6.8	6.3	

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Suspended

January 27, 1896

S. Cassiop

Plate C 7260 taken Nov. 22, 1894

a		
b	6.5	6.0
c	6.6	6.1
d		not on plate
e		not on plate
f		
g	6.7	6.7²
h		8.0
k		8.2
l		8.0
m		9.0
n		8.7
o		9.0
p		9.4:
q		9.5²:
r		10.0²:
s		not seen
t		" "
u		" "
v		" "
x		" "
y		" "
V		7.3
L	7.7	7.2 6

The images on this plate are exceedingly round and clear, and on that very account the fainter stars (below 9 mag) are exceedingly difficult to measure because of difference of scale magde

Suspended

January 27, 1896

Plate C 7451 taken Jan. 23, 1895

a	6.0	5.5
b	6.5	6.0
c	6.5	6.0
d	7.1²	6.6 edge of plate; much elongated
e		not on plate
f		
g	6.6	6.1
h		8.0
k		8.0
l		8.0
m		7.8
n		9.0²
o		8.7²
p		9.1²:
q		9.2²:
r		9.3²:
s		9.4²:
t		not seen
u		" "
v		" "
x		" "
y		" "
V		7.9
L		7.0

Small stars difficult to measure, because of intensity of these images

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Superseded

January 27, 1896

2 Cassiop

Plate C 816 1 taken Aug. 21, 1895

a	5.2	4.7
b	6.0	5.5
c	6.0	5.5
d	6.8	6.3
f	6.4	5.9
g	6.0	5.5
k		7.0
l		7.2
m		6.8
n		7.7
o		8.0
p		8.6
q		9.0
r		9.0
s		9.5?
t		not seen
v		not seen
h	6.8	6.3

Superseded

January 27, 1896

Plate C 816 2 Aug. 21, 1895.

a	5.5		
b	6.2	5.7	
c	6.3	5.8	
d	6.9	6.4	
f	6.5	6.0	
g	6.4	5.9	
k		7.7	
l		7.7	
m		7.4	
n		9.0	
o		8.3	
p		8.9	
q		9.5?	
r		9.4?	
s		9.8?	
t		not seen	
v		not seen	
h'	6.9?	6.4?	Near edge; elongated

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Superseded

January 27, 1896

Plate C 8272 taken Sept. 13, 1895 2d Cusp

a	4.6	4.1	
b	5.5	5.0	
c	5.5	5.0	
e	6.4	5.89	
f	6.1?	5.6?	near edge of plate
g	5.4	4.9	
k	7.0	6.5	
l	7.2	6.7	
m	6.8	6.3	
n		8.1	
o		7.4	
p		8.1	
q		8.7	
r		8.7	
s		8.9	
t		not seen	
u		10.0?	
w		not seen	
v		not seen	
h	6.4	5.9	

Superseded

January 27, 1896

Plate C 8339, taken Oct. 6, 1895

a	5.2	4.8
b	6.1	5.6
c	6.2	5.7
e	6.6	6.1
f		not on plate
g	6.2	5.7
k		7.1
l		7.2
m		7.0
n		8.4
o		7.8
p		8.35
q		8.92
r		8.92
s		9.02
t		9.82
u		9.82
w		9.62
x		9.92
v		not seen
y		not seen
h	7.0	6.5

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Superseded

January 27, 1896

N Cassiop

Plate C 5593 taken Dec. 16, 1893

a	5.4	4.9
b	6.3	5.8
c	6.1	5.6
e		not on plate
f		not on plate
g	6.2	5.7
h		not on plate
k		7.0
l		7.1
m		6.9
n		8.8
o		8.0
p		8.7
q		8.8
r		8.8
s		9.0
t		not seen
u		" "
v		" "
L'	7.0	6.5

Superseded

January 27, 1896

Plate C 8694 taken Dec. 31, 1895

a	6.0	5.5
b	6.6	6.1
c	6.7	6.2
e	6.9¾	6.4½ Edge of plate - round elongated
f		not on plate
g	6.9	6.4
h		not on plate
k		7.9
l		8.0
m		7.8
n		9.0
o		8.5
p		8.8
q		9.0
r		9.0
s		9.1
t		not seen
u		not seen
v		not seen
L'		7.2

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Superseded

January 27, 1896.

Plate I 3309 taken March 25, 1891 N Cassiop

a	4.5	4.8	
b	5.0	5.3	
c	5.0	5.3	
d	4.4	4.6 4.7	much elongated
e	6.2	6.5	" "
f	5.3	5.6	slightly "
g		7.5	much "
h		7.5	" "
l		7.8	" "
m		7.8	
n		9.2	
o		8.8	
p		9.1	
q		9.2	
r		9.5 2	
s		9.7 2	
t		not seen	
u		" "	
v		"	
h	6.8	6.8 7.1	

a and d lost h

Images elongated, especially those near the edge of plate.

Superseded

January 25, 1896

Plate I 3075 taken December 11, 1891

a	5.4	5.7	
b	5.9	6.2	
c	5.9	6.2	
e	6.9	7.1	
f	6.4	6.7	
g	6.5	7.0	6.8
k		8.0	
l		8.2	
m		8.0	
n		9.4	
o		8.7	
p		9.1	
q		9.5	
r		9.9 2	
s		10.0 2	
t		n.s.	
u		n.s.	
v		10.0 2	
h		7.7	

Images excellent

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Superseded

January 25, 1896

S Canis

Plate I 9779 taken October 25, 1893

a	5.6	5.9
b	6.0	6.3
c	5.9	6.2
d		7.4
e	6.8	7.1
f	6.4	6.7
g	6.6	6.9
h		8.4
k		8.0
l		8.2
m		7.9
n		9.2 2
o		7.8
p		9.1 2
q		9.7 2
r		9.7 2
s		10.0 2
t		not seen
u		" "
v		not seen
h		7.7
a	5.1	

Superseded

January 25, 1896

Plate I 13586 taken Oct. 1, 1895

a	5.6	6.9
b	5.9 6.1	6.2
c	~~6.7~~	6.4
d		8.1
e	6.5	6.8
f	6.2	6.5
g	6.3	6.6
h		8.0
k		~~7.5~~ 8.0
l		8.0
m		7.8
n		~~8.0~~
o		8.3
p		8.9 2
q		9.0
r		9.1 2
s		9.6 2
t		not seen
u		" "
v		" "
x		" "
y		" "
V		not seen
a	5.5	
h	6.9	7.2

Images good. Intensity after l decreases more rapidly than usual

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Reduced March 1, 1916
J.F.M.

January 29, 1896.

Observations on photographic brightness of δ Cassiopeiae

α b g h m l o p q s u t

Plate I 144 taken Nov. 16, 1889

10.21 9.22 m 2 r 10.41 9.44 10.28 9.22 = 19.84 9.33 .07 .11 .06 .11

10.28 9.22 r 2 l 10.48 9.44

Plate I 1731 taken Aug. 28, 1890

r n.s. r < 11.38

12.74 11.18 s = .2 r < 12.9

Edge of plate Plate I 1806 taken Sept. 5, 1890

r n.s.

12.30 11.84 q = .1 r < 12.4 r < 10.94

t n.s.

Edge of plate Plate I 3957 taken Nov. 27, 1890

r n.s. r < 11.28

12.74 11.18 s = .1 r < 12.8

t n.s.

Plate I 3361 taken Nov. 27, 1890

r n.s. r < 12.2 r < 10.78

11.98 10.58 p = .2

q n.s.

Corner of plate Plate I 3847 taken Jan. 16, 1891

r n.s. r < 12.12 r < 10.78

11.98 10.58 p = .2 q n.s.

Reduced March 1, 1916.
J.F.M.

January 29, 1896

Plate I 3849 taken Jan. 16, 1891

r n.s. r < 12.12 r < 10.78

11.98 10.58 p = .2

q n.s.

Plate C 3360 taken Jan. 30, 1891

14.55 12.37 t 1 r 14.65 – ? 12.47 ? r = 14.65 ?

w n.s.

Plate C 3361 taken Jan. 30, 1891

r n.s. r < 13.1 r < 11.08

12.74 11.18 s = .4

t + w n.s.

Plate C 3409 taken Feb. 5, 1891

r n.s. r < 14.7 r < 12.66

14.54 12.46 x = .2

y n.s.

Plate C 3410 taken Feb. 5, 1891

r n.s. r < 13.0 r < 11.48

12.74 11.18 s = .3

t n.s.

Plate C 3442 taken Feb. 11, 1891

14.54 12.46 x 3 r 14.84 12.76 14.80

14.60 12.37 w 2 r 14.80 12.57 r = 14.82 12.66 .02 .10 .02 .09

y n.s.

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Reduced. March 1, 1916
9.7 m.

January 29, 1896

Class ?

Plate C 3443 taken Feb. 11, 1891

r n. s. v < 13.1
t n. s. v < 11.58
12.74
11.18 s = .4

edge of plate

Plate I 3263 taken March 10, 1891

r n. s.
12.30
10.84 q = .1 v < 12.4 v < 10.94
s n. s.

explains edge of plate

Plate I 3273 taken March 11, 1891

r n. s.
11.98 v < 12.8
10.68 p = .1 v < 10.68
q n. s.

Comparison stars + v explains by faint

Plate C 3555 taken March 14, 1891

14.60 14.70 14.74
12.37 W 1 V 12.47 v = 14.72 .02 .02
14.54 14.74
12.46 X 2 V 12.66 v = 12.56 .09 .10
Y n. s.

Plate I 3309 taken March 25, 1891

r n. s.
12.74 v < 13.0
11.18 s = .3 v < 11.48
t n. s.

Plate I 3344 taken March 26, 1891

r n. s.
12.74 v < 12.9
11.18 s = .2 v < 11.38
t n. s.

Reduced March 1, 1916
9.7 m

January 29, 1896

Plate C 3596 taken March 30, 1891

14.10 r n. s. v <
12.07 u = ≤ 1 v < 12.87
14.55
12.37 t = ≤ 1 Adopt magn. < 14.0
v n. s.

Plate C 3618 taken April 9, 1891

14.60
v o w = 12.37 ? o v = 14.60 ?

stars too much faint

Plate C 3686 taken May 3, 1893

12.74 r n. s. v < 13.0
11.18 s = .3 v < 11.48
t n. s.

Plate C 3918 taken Sept. 1, 1891

10.21 10.91 10.94 10.92 .01 .02
9.22 m 7 v 9.92 9.72 = 9.82 .10 .10
10.94 11.24
9.72 r 3 o 10.02

Plate I 4118 taken Sept. 1, 1891

10.21 11.01 10.84 10.92 .09 .08
9.22 m 8 v 10.02 9.62 = 9.82 .20 .20
10.84 11.24
9.62 r 4 o 10.02

Plate C 3962 taken Sept. 10, 1891

v o o 11.24 10.02 o v = 11.24

Plate C 4001 taken Sept. 25, 1891

11.24 11.64 11.60 11.62 .02 .02
10.02 o 4 v 10.42 10.14 = 10.28 .14 .14
11.60 12.30
10.14 v 7 9 10.84

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Reduced March 1, 1916
J.F.M.

January 29, 1896

S Cassiop

Plate C 4064 taken Oct. 16, 1891

r m.s.
11.24
10.02 0 = .2 $v < 11.4$ $r < 10.22$
q m.s.

Plate I 5016 taken Dec. 10, 1891

r m.s.
12.30
10.84 q = .1 $v < 12.4$ $r < 10.94$
c m.s.

Plate I 5075 taken Dec. 11, 1891

images exceedingly faint

r o s (½) 12.74 11.18 : 0 $v = 12.74$?
t m.s.

Plate I 7601 taken Dec. 2, 1892

images very faint

r o s 0 12.74 2
1 11.18 : 0 $v = 12.74$?
t m.s.

Plate C 6260 taken Dec. 26, 1892

12.74 13.44 14.15 13.80 .56 .33
11.18 S 7 r 11.75 11.97 = 11.88 .10 .09
14.15 14.53
11.97 r 4 t 12.37

Ephemeris corner of plate

Plate I 7776 taken Dec. 29, 1892

r m.s.
12.30
10.84 q = .2 $v < 12.5$ $r < 11.04$
c m.s.

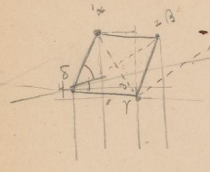
edge of plate?

Plate I 7777 taken Dec. 29, 1892

r m.s.
12.74
11.18 S = .2 t m.s. $v < 12.9$ $r < 11.35$

Comparison stars	marked		
S Cephei	I 9204	I 11695	C 8278
T Cephei	~~C 6344~~	C 5898	I 9332
R Cassiopeiæ	I 118	C 6366	
S Cassiopeiæ	I 13586	C 6368	
T Cassiopeiæ	I 81	C 6367	
S Cygni	I 141	C 6097	
S Persei / T Persei	I 67	C 4474	
R Aurigæ	I 2924	C 16017	C 5245
R Lyncis	I 597	I 10897	C 7768 C 6245
R Ursæ Majoris	I 3170	C 5377	
S Ursæ Majoris	I 5723	C 3504	
T Ursæ Majoris	I 5723	C 3502	
S Bootis	I 6098	C 3611	
R Canum Venaticorum	I 2303	C 8326	
R Ursæ Minoris	I 13568	C 3594	
R Draconis	I 8141	C 5633	

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$$\frac{\mathcal{H}\,3-1}{\mathcal{V}\,3-1} = \tan\lambda \qquad \frac{\mathcal{V}\,4-2}{\mathcal{H}\,4-2} = \tan\lambda$$

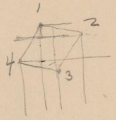
$$\tan^{-1}\frac{\mathcal{V}\,3-2}{\mathcal{H}\,3-2} - \lambda = \frac{1}{2}\beta$$

$$\tan\delta - \delta' = \frac{\tan\delta - \tan\delta'}{1 - \tan\delta\tan\delta'}$$

$$\tan\frac{1}{2}\beta = \frac{\frac{\mathcal{V}\,3-2}{\mathcal{K}\,3-2} - \frac{\mathcal{H}\,3-1}{\mathcal{V}\,3-1}}{1 - \frac{\mathcal{V}\,3-2}{\mathcal{K}\,3-2}\cdot\frac{\mathcal{H}\,3-1}{\mathcal{V}\,3-1}}$$

$$\frac{153}{912} = \frac{100}{300}$$

$$\frac{306}{61} \qquad \frac{204}{96}$$



$$\tan\alpha = \frac{\mathcal{H}\,4-1}{\mathcal{V}\,4-1}$$

$$\tan\alpha' = \frac{\mathcal{H}\,2-1}{\mathcal{V}\,2-1}$$

$$\tan\beta = \frac{\mathcal{V}\,2-1}{\mathcal{H}\,2-1}$$

$$\tan\beta' = \frac{\mathcal{V}\,2-3}{\mathcal{H}\,2-3}$$

$$\tan\gamma = \frac{\mathcal{H}\,2-3}{\mathcal{V}\,2-3}$$

$$\tan\gamma' = \frac{\mathcal{H}\,4-3}{\mathcal{V}\,4-3}$$

$$\tan\delta = \frac{\mathcal{V}\,4-3}{\mathcal{H}\,4-3}$$

$$\tan\delta' = \frac{\mathcal{V}\,4-1}{\mathcal{H}\,4-1}$$

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Iceland Spar Rules

Krinnglat Differences F

Diff	1+2	3+4
	7.64	
a	~~7.74~~	7.91
b	7.52	7.87
l	7.69	7.75
g	7.69	

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