

KG
11365
401

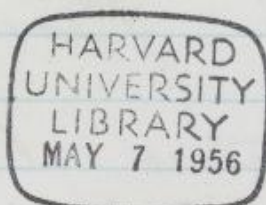
11365
11
11365

KG 11365.401

Record . 156-11365.399
of
C. S. Peirce's
Photometric Observations
Duplicate
Vol. ~~X~~ 12

11

KG 11365, 401



1873phae.proj..462P

1873 March 9th

Clear Moonlight night
Moderate S.E. wind,

Groups XXII & XXI

ψ

Cap 2

Pinhole 5

+45.4

0.84

~~0.85~~

39 H

Cap 0

Pinhole 5

+25.2

2.11

~~1.89~~

37 H

+27.5

1.91

~~1.81~~

Close companion of 37 H

+11.5

3.98

~~3.7~~

149 B South

+16.4

3.12

~~2.8~~

149 North

+13.5

3.59

~~3.2~~

D. M. 49 1490

+21.5

2.48

~~2.2~~

Wind increasing seeing bad
Stopped on account of wind.

1873 March 10th Monday
 Bright moonlight, Clear pretty windy.
 Groups XXI & XXII

+ ψ

Cap 2

Pinhole 5

+44.1

0.89

~~0.80~~

39 H

Cap 0

Pinhole 5

+34.3

1.41

~~1.47~~

37 H

alt.

53

+38.5

1.17

~~1.15~~

1873phase.proj..402P

✓

* 149 B South

+ 18.4

2.84

~~2.45~~

149 B North

+ 16.0

3.18

~~2.85~~

D.M. 49 1940

+ 22.5

2.37

~~2.2~~

1873phad.proj..402P

15

210 B North

+20.7

2.56

~~2.90~~

210 B South

+15.8

3.21

~~2.98~~

* Between this observation
& the last, lamp went out.

+ ψ is supposed to be variable
because it was brighter than
 μ last night & fainter to night
& the time before.

The seeing is bad; stars vary
in brightness.

Group III and V

~ Persei

	Cap 2		Pinhole 3
alt.			
40	+39.3	4.13	~~1.81~~
	+36.9	<u>1.26</u>	
		1.19	

* Lalande 299 31 South

	Cap 0		Pinhole 5
alt.			
39	-31.7	1.59	~~1.42~~

* L. 299 31 North

+31.8	1.58	~~1.42~~
-------	------	-----------------

1873phad.proj..402P

17

+ 128 B

+30.9

1.64

~~1.17~~

Southp

+28.7

1.81

~~1.12~~

P 353

+31.5

1.60

~~1.14~~

I 34

+32.7

1.52

~~1.16~~

North of the last

alt.

38

+22.0

2.35

~~2.11~~

Cap R ^S

39

+38.3

1.18

~~1.06~~

F 89

Cap O

Pinholes

40

+25.0

2.12

~~1.91~~

North of F 89

+23.0

2.32

~~2.18~~ λ

alt.

Capo

Pinhole 3-

42

+43.7

0.91

~~0.82~~

A

41

+28.0

1.86

~~1.67~~

* The northern one of these Stars is $\frac{1}{10}$ of a mag. fainter than the other.

T 128 B is the south following of 2

219 B is brighter than either of the L Stars

↑ Seeing very bad, light clouds close to place of obs.

1873 March 17th Monday
Clear moonless night.

Groups XXI & XXIII

⊗
ψ

Cap 2
alt.

+41.1
57 +139.4
-129.1
-54.2

1.03
1.06
0.63
0.52

0.81

Pinhole's

~~0.91
0.85
0.86
0.46
0.72~~

39 H

Cap 0

+24.6
+125.4
-152.1
-29.5

2.16
2.16
1.87
1.75

1.98

Pinhole's

~~1.94
1.84
1.68
1.72
1.78~~

37 H

+29.3	1.76	~~1.58~~
+152.5	1.91	~~1.71~~
-148.3	1.59	~~1.42~~
-34.6	1.40	~~1.25~~
	<u>1.66</u>	~~1.48~~

Companion of 37 H

+11.8	3.91	~~3.51~~
+170.4	4.42	~~3.96~~
-171.4	4.59	~~4.21~~
-11.7	3.94	~~3.53~~
	<u>4.24</u>	~~3.80~~

149 B South

+17.4	2.98	~~2.61~~
+162.5	~~2.86~~	~~2.86~~
-165.4	3.40	~~3.45~~
-15.4	3.27	~~2.73~~
	<u>3.15</u>	~~2.83~~

149 B North

+13.8	3.53	~~3.17~~
+166.6	3.61	~~3.63~~
-166.8	3.64	~~3.27~~
-15.0	3.33	~~2.89~~
	<u>3.53</u>	~~3.16~~

D.M. 49 1490

+21.3	2.50	~~2.24~~
+161.3	2.81	~~2.52~~
-159.0	2.53	~~2.27~~
-21.3	2.50	~~2.24~~
	2.58	~~2.32~~

X

Cap 2
alt.

Pinhole 5

47	+29.7	1.73	~~1.54~~
	+159.0	2.53	~~2.27~~
	+157.0	2.32	~~2.18~~
	+153.5	1.99	~~1.79~~
	-147.8	1.55	~~1.39~~
	-36.1	1.30	~~1.17~~
		1.90	~~1.71~~
		1.72	

* Anon.

Cap 0

Pinhole 5

$$\begin{array}{r}
 +16.5- \\
 +165.0 \\
 +162.1 \\
 -161.0 \\
 -22.1 \\
 \hline
 2.90 \\
 2.85
 \end{array}$$

$$\begin{array}{r}
 2.77 \\
 2.89 \\
 2.81 \\
 2.48 \\
 2.16 \\
 2.61
 \end{array}$$

+ 65- Preceding

$$\begin{array}{r}
 +14.6 \\
 +167.3 \\
 +168.0 \\
 -167.1 \\
 -14.1 \\
 \hline
 3.48 \\
 3.64 \\
 3.60
 \end{array}$$

$$\begin{array}{r}
 3.05 \\
 3.85 \\
 3.48 \\
 2.32 \\
 3.13 \\
 3.27
 \end{array}$$

283B

Cap 0

Pinhole 5-

+18.4	2.84	~~2.55~~
+163.1	3.05	~~2.73~~
+160.8	2.74	~~2.46~~
-162.5	2.96	~~2.66~~
-22.2	2.40	~~2.18~~
	<u>2.80</u>	~~2.57~~
	2.77	

r

Cap 2

+55.6	47	0.47	~~0.49~~
+133.5		0.79	~~0.71~~
+135.0		0.85	~~0.77~~
+126.9	73	0.55	~~0.49~~
-113.4		0.25	~~0.23~~
-122.0	24	0.41	~~0.36~~
-102.0		0.05	~~0.05~~
-74.5	9	0.09	~~0.08~~
	<u>0.38</u>	<u>0.43</u>	~~0.37~~

3

Capo
alt.

$45^- + 29.5^-$
 $+ 159.0$
 $+ 158.3$
 $- 149.6$
 $- 33.7$

Pinhole 5-
 1.75
 2.53
 2.45
 1.68
 1.45

 1.97 1874

~~1.87~~
~~2.27~~
~~2.20~~
~~1.51~~
~~1.30~~
~~1.77~~

Anon. Preceding

$+ 165.5^-$ 3.42

~~3.47~~

North

$+ 165.9$ 3.48

~~3.13~~

Notes on Groups XXI & XXIII
 & Believed to have been growing brighter during measures.
 * This star is marked six mag.
 on his but is not in Arg.

+ 65 is seen to be double.

The last observations from
 X on the 2nd time round must
 have been affected by clouds
 or something. They were ^{therefore} repeated
 Moon rose during the third time round.

1873. March 22, Saturday
 Clear moonless night. Moderate N. wind.
 Groups XXIV & XXVI

349 B South

Cap 0

+10.6	4.18	~~3.25~~
+166.3	3.55	~~3.19~~
-168.2	3.91	~~3.51~~
-14.2	3.47	~~3.11~~
	<u>3.78</u>	~~3.38~~

349 B North

$$\begin{array}{r}
 +12.9 \\
 +166.1 \\
 -162.5 \\
 -16.7 \\
 \hline
 3.70 \\
 3.52 \\
 2.96 \\
 3.08 \\
 \hline
 3.31
 \end{array}$$

~~$$\begin{array}{r}
 3.32 \\
 3.16 \\
 2.86 \\
 3.76 \\
 \hline
 2.97
 \end{array}$$~~

67

alt.

$$\begin{array}{r}
 52 \quad +26.8 \\
 \quad +156.8 \\
 \quad -150.5 \\
 \quad -30.0 \\
 \hline
 1.96 \\
 2.30 \\
 1.75 \\
 1.71 \\
 \hline
 1.92
 \end{array}$$

~~$$\begin{array}{r}
 1.16 \\
 2.06 \\
 1.57 \\
 1.58 \\
 \hline
 1.70
 \end{array}$$~~

*.2

19

+24.2	2.20	~~1.91~~
+156.3	2.25	~~2.12~~
-153.7	2.01	~~1.80~~
-30.1	<u>1.70</u>	~~1.53~~
	2.04	~~1.83~~

29 B

+14.2	3.47	~~3.11~~
+161.3	2.81	~~2.52~~
-160.6	2.72	~~2.44~~
-17.3	<u>2.99</u>	~~2.88~~
	3.50	~~2.69~~

2 B

+20.2	2.52	~~2.35~~
+158.5	2.48	~~2.42~~
-160.1	2.66	~~2.39~~
-22.1	2.41	~~2.16~~
	2.54	~~2.28~~

8

alt.

46	+40.7	1.05	~~8.95~~
	+143.0	1.25	~~1.12~~
	-132.5	0.75	~~1.67~~
	-65.8	0.23	~~0.20~~
		0.82	~~0.78~~

6

+31.0	1.64	~~1.40~~
+151.2	1.80	~~1.02~~
-147.0	1.48	~~1.34~~
-35.0	1.37	~~1.23~~
	1.57	~~1.51~~

~~100~~

2.54
2.41
2.66
2.48
2.62

2.54
2.41
2.66
2.48
2.62

~~100~~

0.83
0.88
0.72
1.32
1.02

0.83
0.88
0.72
1.32
1.02

~~100~~

1.02
1.32
1.48
1.62
1.82

1.02
1.32
1.48
1.62
1.82

9

+ 17.0	3.03	~~2.72~~
+ 162.0	2.90	~~2.60~~
- 162.8	3.00	~~2.70~~
- 17.9	<u>2.91</u>	~~<u>2.61</u>~~
	2.96	~~2.66~~

10

+ 18.8	2.79	~~2.41~~
+ 169.6	3.12	~~2.50~~
- 156.9	2.31	~~2.27~~
- 22.9	<u>2.33</u>	~~<u>2.09</u>~~
	2.54	~~2.37~~

~~11/11~~ 11/11
11/11 11/11
11/11 11/11
11/11 11/11
11/11 11/11
11/11 11/11

~~11/11~~ 11/11
11/11 11/11
11/11 11/11
11/11 11/11
11/11 11/11
11/11 11/11

C H

+ 21.1	2.52	~~2.26~~
+ 163.3	3.08	~~2.76~~
- 161.4	2.82	~~2.77~~
- 22.2	2.40	~~2.15~~
	2.70	~~2.48~~

12

Cap 2

+ 36.5	1.28	~~1.15~~
+ 144.0	1.31	~~1.18~~
- 131.7	0.72	~~0.65~~
- 87.3	0.61	~~0.55~~
	0.88	~~0.88~~

27.2
3.08
2.82
2.40
2.7.2

1.11
1.11
1.11
1.11

1.08
1.31
0.75
0.50
0.28

1.11
1.11
1.11
1.11

+ 87 B

+12.5

3.77

~~3.31~~

+167.1

3.70

~~3.32~~

-163.1

3.05

~~2.73~~

-12.5

3.77

 3.57

~~3.34~~

 3.21

Notes on Groups XXIV XXXVI

* 2 is the preceding of two
 Seeing Bad; Stars varying.
 + 87B is the southernmost
 of two; not sure of the star.
 This set rather hastily observed.

1873 pha. proj. 402P

1873 pha. proj. 402P

May 18th 1873 Sunday -

After much difficulty the instrument has finally had the new prisms adjusted. The photometer star is bright and the field black.

Experiments on the point of extinction.

- 0.9	+ 1.3	+ 179.2	- 179.4
- 1.1	+ 0.8	+ 178.2	- 179.4

The above were taken with pinhole 1.

The following with the concave lens taken off.

Darkest point

- 0.2	+ 179.7
- 0.1	+ 179.6
- 0.2	+ 179.6
- 0.2	+ 179.6

On the moderately dark ground of the sky the star disappears at about 169°

~~color circle at~~ Pinhole 4

Photometer

Color circle

-132.4 1.90 30

-141.6 1.17 60

Pinhole 3

-127.2 0.56 neutral color at 66

Pinhole 4

~~color circle 90~~

Color circle

-127.7 0.58 ~~120~~ 90

-160.1 2.66 ~~150~~ 120

-164.6 3.27 ~~180~~ 150

-169.6 3.43 180

1873 May 26th Monday
 Night still. Moonless. Clear
 Groups XXXIV & XXXVI

X Herculis

Cap 0

Pinhole 5

+48.3

0.72

+135.5

0.88

 0.80

~~0.65
 0.89
 0.72~~

4 Herculis

Cap 0.

Pinhole 5

+16.0

3.18

+158.6

2.49

 2.83

~~2.85
 2.63
 2.54~~

2 Herculis

Cap 0

Pinhole 5-

$$\begin{array}{r} +23.5 \\ +156.7 \end{array}$$

$$\begin{array}{r} 2.27 \\ 2.29 \\ \hline 2.23 \end{array}$$

~~$$\begin{array}{r} 2.44 \\ 2.05 \\ \hline 2.04 \end{array}$$~~

γ Herculis

Cap 0

Pinhole 5-

$$\begin{array}{r} +34.5 \\ +144.7 \end{array}$$

$$\begin{array}{r} 1.40 \\ 1.35 \\ \hline 1.37 \end{array}$$

~~$$\begin{array}{r} 1.26 \\ 1.21 \\ \hline 1.23 \end{array}$$~~

149 B Herculis

Cap 0

Pinhole 5

$$\begin{array}{r} +21.7 \\ +154.0 \end{array}$$

$$\begin{array}{r} 2.45 \\ 2.03 \\ \hline 2.24 \end{array}$$

~~$$\begin{array}{r} 2.20 \\ 1.82 \\ \hline 2.01 \end{array}$$~~

ϕ Bootes

Capo

Pinhole 5

+31.5

1.60

+153.3

1.97
2.78

~~1.44~~
~~1.27~~
~~1.60~~

* ψ Herculis following

+33.4

1.47

+107.8

1.85
1.66

~~1.22~~
~~1.66~~
~~1.49~~

* ψ Herculis preceding

+34.4

1.41

+143.9

1.30
1.35

~~1.26~~
~~1.47~~
~~1.21~~

408 B Bootae

+ 24.8	2.14	~~1.92~~
+ 154.1	<u>2.04</u>	~~1.83~~
	2.09	~~1.87~~

 μ Bootae

+ 58.5	0.39	~~0.31~~
+ 132.8	<u>0.76</u>	~~0.28~~
	0.57	~~0.21~~

Companion to μ

+ 17.4	2.98	~~2.67~~
+ 163.8	<u>3.15</u>	~~2.23~~
	3.06	~~2.75~~

B Bootae

Cap 2

Pinhole 5-

+ 29.3	1.76	~~1.58~~
+ 149.0	<u>1.64</u>	~~1.47~~
	1.70	~~1.32~~

Notes on Groups XXXIV & XXXVI

* The preceding star of γ herculis is $\frac{2}{10}$ of a mag the brighter.

1873 May 31st Saturday
Night clear. Light W. wind. Moon about 3 days old.
Groups XXXVII & XXXVIII

γ Herculis

Capo

Pinhole 5

+ 58.7

+ 127.7

- 128.9

0.47

0.58

0.62

0.56

~~0.42~~

~~0.52~~

~~0.55~~

~~0.58~~

η Herculis

Cap 2

Pinhole 5-

+ 25.2

2.11

~~1.89~~

+ 156.7

2.29

~~2.15~~

- 153.6

2.00

~~1.80~~

2.13

~~1.91~~

271B Herculis

Cap 0

Pinhole 5-

+ 22.9

2.33

~~2.09~~

+ 155.0

2.12

~~1.91~~

- 156.0*

2.22

~~1.89~~

2.22

~~2.00~~

228 B Herculis

+34.3

+149.2

$$\begin{array}{r} 1.41 \\ 1.65 \\ \hline 1.53 \end{array}$$

$$\begin{array}{r} 1.47 \\ 1.48 \\ \hline 1.37 \end{array}$$

Groombridge

+17.2

+161.4

$$\begin{array}{r} 3.00 \\ 2.82 \\ \hline 2.91 \end{array}$$

$$\begin{array}{r} 2.70 \\ 2.53 \\ \hline 2.61 \end{array}$$

52 Herculis

+34.7

+149.0

$$\begin{array}{r} 1.39 \\ 1.64 \\ \hline 1.51 \end{array}$$

$$\begin{array}{r} 1.25 \\ 1.47 \\ \hline 1.36 \end{array}$$

D.M. 46° 2144

+22.7

+166.5

$$\begin{array}{r} 2.35 \\ 2.71 \\ \hline 2.53 \end{array}$$

$$\begin{array}{r} 2.11 \\ 2.43 \\ \hline 2.17 \end{array}$$

5-2063

+22.7
+157.5

2.35
2.37
2.36

~~2.11~~
~~2.12~~
~~2.11~~

42 Herculis

+41.1
+143.8

1.03
1.30
1.16

~~0.93~~
~~1.17~~
~~1.05~~

Companion of 42

+18.3
+162.8

2.83
3.00
2.91

~~2.56~~
~~2.20~~
~~2.63~~

* Sudden gust of wind.

1873 June 1st Sunday
 Night clear. Pretty strong S. wind moon about 5¹/₂ days old
 Groups 22 XXII & XXIV

u Ursae Majoris

+ 87.7	1.21	~~1.09~~
+ 138.5	1.02	~~0.81~~
- 141.8	1.19	~~1.06~~
- 41.0	1.04	~~0.93~~
	1.11	~~1.08~~

210 B North

+ 19.9	2.66	~~2.89~~
+ 161.3	2.81	~~2.52~~
- 138.5	2.48	~~2.22~~
- 23.6	2.26	~~2.03~~
	2.55	~~2.29~~

210 B South

$$\begin{array}{r}
 +13.0 \\
 +166.3 \\
 -164.5 \\
 -15.5 \\
 \hline
 3.68 \\
 3.55 \\
 3.25 \\
 3.25 \\
 \hline
 3.43
 \end{array}$$

$$\begin{array}{r}
 3.37 \\
 3.19 \\
 2.82 \\
 2.92 \\
 \hline
 3.08
 \end{array}$$

47 Ursae Majoris

$$\begin{array}{r}
 +30.7 \\
 +157.9 \\
 -146.9 \\
 -34.5 \\
 \hline
 1.66 \\
 1.86 \\
 1.49 \\
 1.40 \\
 \hline
 1.60
 \end{array}$$

$$\begin{array}{r}
 1.49 \\
 1.67 \\
 1.34 \\
 1.36 \\
 \hline
 1.44
 \end{array}$$

Between w and 47

$$\begin{array}{r}
 +20.9 \\
 +160.4 \\
 -158.7 \\
 -20.3 \\
 \hline
 2.54 \\
 2.69 \\
 2.50 \\
 2.61 \\
 \hline
 2.58
 \end{array}$$

$$\begin{array}{r}
 2.28 \\
 2.42 \\
 2.24 \\
 2.34 \\
 \hline
 2.32
 \end{array}$$

49 Ursa Majoris

+ 32.3	1.55	~~1.39~~
+ 157.0	1.79	~~1.60~~
- 147.8	1.53	~~1.39~~
- 34.4	1.41	~~1.26~~
	1.57	~~1.41~~

*

57 Ursa Majoris

+ 25.3	2.10	~~1.88~~
+ 156.1	2.23	~~2.00~~
- 151.6	1.83	~~1.64~~
- 28.5	1.82	~~1.64~~
	2.02	~~1.79~~

55 Ursa Majoris

+ 33.5	1.47	~~1.32~~
+ 145.6	1.41	~~1.26~~
- 143.4	1.28	~~1.14~~
- 38.1	1.19	~~1.07~~
	1.34	~~1.20~~

^T 58 Ursae Majoris

+20.7	2.56	~~2.30~~
+159.4	2.58	~~2.21~~
-161.6	2.84	~~2.85~~
-24.6	<u>2.16</u>	~~1.94~~
	2.53	~~2.27~~

59 Ursae Majoris

+28.7	1.81	~~1.62~~
+152.4	1.98	~~1.88~~
-156.1	2.23	~~2.00~~
-28.1	<u>1.86</u>	~~1.67~~
	1.97	~~1.77~~

67 Ursae Majoris

+29.3	1.76	~~1.58~~
+157.3	1.81	~~1.62~~
-149.4	1.67	~~1.49~~
-33.2	<u>1.49</u>	~~1.33~~
	1.68	~~1.58~~

companion of 67

+14.6	3.40	~~3.03~~
+164.5	3.25	~~2.92~~
-164.6	3.27	~~2.93~~
-16.2	3.15	~~2.83~~
	<u>3.27</u>	~~2.68~~

6 Canem Venaticorum

+33.6	1.46	~~1.31~~
+147.3	1.52	~~1.36~~
-147.0	1.50	~~1.34~~
-43.5	0.92	~~0.83~~
	<u>1.35</u>	~~1.21~~

29B Can. Ven.
~~Canes Venatici~~

+17.3	2.99	~~2.68~~
+164.1	3.19	~~2.87~~
-163.9	3.16	~~2.84~~
-17.4	2.98	~~2.67~~
	<u>3.08</u>	~~2.76~~

Can. Ven.
 $\uparrow$ 4 B Canes Venaticorum

+22.1	2.41	~~2.14~~
+159.5	2.59	~~2.32~~
-160.4	2.69	~~2.42~~
-22.1	2.41	~~2.14~~
	<u>2.53</u>	~~2.26~~

Can. Ven.
 2 Canes Venatici

+25.8	2.05	~~1.84~~
+153.7	2.01	~~1.80~~
-151.7	1.84	~~1.65~~
-26.2	2.02	~~1.81~~
	<u>1.98</u>	~~1.77~~

Notes on Groups XXII & XXIV

* 57 has a faint star preceding upon which the following obs. was

Taken { -169.2 4.13
 -12.7 3.74
 3.43

T 58 is the southernmost of two
 F 29 B. Can. Venat. is the pole of two.
 $\uparrow$ 4 B " " the southernmost
 of three.

w Ursae Majoris

Cap 0

+40.3

+139.8

-138.8

$$\begin{array}{r} 1.07 \\ 1.08 \\ \hline 1.03 \\ \hline 1.06 \end{array}$$

~~$$\begin{array}{r} 0.96 \\ 0.97 \\ \hline 0.92 \\ \hline 0.95 \end{array}$$~~

w

Cap 1

+30.7

+150.4

-152.0

$$\begin{array}{r} 1.66 \\ 1.74 \\ \hline 1.86 \\ \hline 1.75 \end{array}$$

~~$$\begin{array}{r} 1.44 \\ 1.46 \\ \hline 1.67 \\ \hline 1.57 \end{array}$$~~

47

Cap 1

+24.9	2113	~~191~~
+154.9	<u>2112</u>	~~190~~
	2112	~~180~~

47

Cap 2

+13.0	3.68	~~3.30~~
+166.5	<u>3.59</u>	~~3.22~~
	3.63	~~3.26~~

w

Cap 2

+12.7	3.22	~~2.99~~
+163.6	3.43	~~3.08~~
-163.8	<u>3.15</u>	~~2.83~~
	3.27	~~2.93~~

47

Cap 0

$$+38.9$$

$$+147.9$$

$$\begin{array}{r} 1.15 \\ 1.56 \\ \hline 1.35 \end{array}$$

$$\begin{array}{r} 1.03 \\ 1.40 \\ \hline 1.21 \end{array}$$

49

Cap 0

$$+32.0$$

$$+141.9$$

$$\begin{array}{r} 1.57 \\ 1.19 \\ \hline 1.38 \end{array}$$

$$\begin{array}{r} 1.41 \\ 1.17 \\ \hline 1.24 \end{array}$$

49

Cap 1

$$+25.7$$

$$+126.7$$

$$\begin{array}{r} 2.06 \\ 2.29 \\ \hline 2.17 \end{array}$$

$$\begin{array}{r} 1.85 \\ 2.15 \\ \hline 1.95 \end{array}$$

1873 June 7th Saturday
 Clear calm moonlight night.
 Groups XXVIII & XXX

15 Canum Venaticorum

+18.9

2.78

~~2.49~~

* 17 Canum Venaticorum

+22.0

2.42

~~2.47~~

11 H Canum Venaticorum

+35.0

1.37

~~1.23~~

+₁₉ Canum Venaticorum

+20.4 2.60 ~~2.33~~

+₂₀ Canum Venaticorum

+35.0 1.37 ~~1.43~~

+₂₃ Canum Venaticorum

+24.3 2.19 ~~1.97~~

150 B Canum Venaticorum

+17.3 2.99 ~~2.68~~



Can. Ven.
170 ~~Canes Venaticorum~~

+16.4

3.12

~~2.20~~

⊕ 21 H Canum Venaticorum

+21.7

2.45

~~2.20~~

⊕ Following 21 H

+24.1

2.21

~~1.88~~

20 H Canum Venaticorum

+20.3

2.51

~~2.54~~

Companion of 20 H

+ 8.1

4.83

~~4.34~~

②

174 B Cassiopeiae

Notes on Groups XXVIII & XXX

* 17 is a little brighter than 15.

+ 19 is about as bright as 17

+ 20 is a little brighter than 11 H.

Notes on Groups XXVIII & XXX

↑ 23 is a little brighter than 19.

⊕ 21 H Canna Venaticorum is the preceding of two, the star which follows it is brighter than it.

Δ Clouds are beginning to appear.

⊙ This star hidden by clouds.

1873pnae.proj...402P

1873phae.proj..402P