

1672p15a-p16j-1409p

KG  
11365  
399

1872 Aug. 9<sup>th</sup>  
9  
11 Sept. 1874

RQ 11365.399









Record  
of  
C. S. Peirce's

Photometric Observations

Duplicate

vol 9

9

KG 11365.399



(Continued)

1872 August 9<sup>th</sup> Friday

Groups LIII and LIV

57

|        |            |                 |
|--------|------------|-----------------|
| +63.6  | 0.27       | <del>8.24</del> |
| +68.7  | 0.17       | <del>0.16</del> |
| +116.3 | 0.27       | <del>0.24</del> |
| -105.8 | 0.09       | <del>1.89</del> |
|        | <hr/> 0.20 |                 |

239 B

|        |            |                 |
|--------|------------|-----------------|
| +49.0  | 0.69       | <del>0.62</del> |
| +49.7  | 0.67       | <del>0.60</del> |
| +129.7 | 0.65       | <del>0.58</del> |
| -145.8 | 1.42       | <del>1.28</del> |
|        | <hr/> 0.86 |                 |



Following 57

|        |             |                 |
|--------|-------------|-----------------|
| +51.0  | 0.62        | <del>0.56</del> |
| +45.9  | 0.82        | <del>0.73</del> |
| +134.4 | 0.83        | <del>0.74</del> |
| -144.1 | <u>1.32</u> | <del>1.18</del> |
|        | 0.90        |                 |

Between the two last

|         |             |                 |
|---------|-------------|-----------------|
| + 33.1  | 1.49        | <del>1.34</del> |
| + 33.4  | 1.47        | <del>1.32</del> |
| + 145.0 | 1.37        | <del>1.13</del> |
| -150.1  | <u>1.72</u> | <del>1.54</del> |
|         | 1.51        |                 |

V

Cap 2

Pinhole 6

|         |             |                 |
|---------|-------------|-----------------|
| +37.5   | 1.22        | <del>1.10</del> |
| +38.6   | 1.16        | <del>1.04</del> |
| +142.1  | 1.20        | <del>1.08</del> |
| -160.6* | <u>2.72</u> | <del>2.44</del> |
|         | 1.57        |                 |



Σ

Capz 2

Pinhole 6

|        |             |                 |
|--------|-------------|-----------------|
| +49.4  | 0.68        | <del>0.61</del> |
| +139.9 | <u>1.08</u> | <del>0.97</del> |
|        | 0.88        |                 |

58

|        |             |                 |
|--------|-------------|-----------------|
| +59.0  | 0.38        | <del>0.34</del> |
| +129.9 | <u>0.65</u> | <del>0.59</del> |
|        | 0.51        |                 |

A

|        |             |                 |
|--------|-------------|-----------------|
| +32.7  | 1.52        | <del>1.26</del> |
| +150.5 | <u>1.75</u> | <del>1.57</del> |
|        | 1.63        |                 |



(4)

Between A and  $\sigma$

|                     |             |                 |
|---------------------|-------------|-----------------|
| +31.6               | 1.59        | <del>1.43</del> |
| +149.2 <sub>1</sub> | <u>1.67</u> | <del>1.44</del> |
|                     | 1.63        |                 |

$\sigma$

| Cape 2 |             | Pinhole 6       |
|--------|-------------|-----------------|
| +32.6  | 1.53        | <del>1.47</del> |
| +148.6 | <u>1.61</u> | <del>1.44</del> |
|        | 1.57        |                 |

$\tau$

|         |             |                 |
|---------|-------------|-----------------|
| +42.7   | 0.96        | <del>0.86</del> |
| +140.4. | <u>1.11</u> | <del>1.08</del> |
|         | 1.03        |                 |

Wind blows lamp badly.  
\* Cloud



1872 Aug. 17<sup>th</sup> Saturday

Clear, Nearly Calm Wind East  
Moon nearly full.

Groups LIII & LIV

2 Cygni

Cap 2

Pinhole 3

Color 47

Set at 50

alt.  
59

+43.5

0.92

~~0.83~~

65 Cygni

Cap 0

Pinhole 6

Color 53

Set at 50

+57.3

0.43

~~0.38~~

236 B

Cap 0

Pinhole 6

+19.6

2.69

~~2.42~~

3

North following 236 B.

+41.3    - 1.02    ~~0.92~~

217 B

+331    <sup>149</sup>  
~~1163~~    ~~1.94~~

W 1

+32.2    1.55    ~~1.89~~

W 2

Cap 0  
Color 4.6

Pinhole 6  
Set at 50

+47.8    0.74    ~~0.66~~



W 3

Color 61

Set at 60

+37.2

1.24

~~1.11~~

51

Cap 0

Pin hole 6

Set at 50

+38.9

1.15

~~1.03~~

ξ cygni

Cap 2

Pinhole 6

Color 48

Set at 50

alt.

61

+34.4

1.41

~~1.26~~



68 Cygni

Cap 0  
color 53Pinhole 6  
Set at 50

+51.8

0.59

~~0.53~~

A Cygni

+28.3\*

1.84

~~1.55~~

The sky is so illuminated by the moon the fainter stars  
\* Interrupted here by clouds -

1872 Aug. 18<sup>th</sup> Sunday

Groups LIII &amp; LIV

2 Cygni

Alt. Cap 2

Pinhole 3

53 +58.8

0.39

~~0.55~~

+128.3

0.60

~~0.54~~

-120.6

0.37

~~0.33~~0.45

49



55 Cygni

Cap 0

P in hole 6

+64.3

0.25

~~0.23~~

+125.3

0.50  
0.37

~~0.45~~

North following 237B

+39.6

1.11

~~1.00~~

+138.1

1.00  
1.05

~~0.89~~

217B

+31.8

1.58

~~1.42~~

+145.0

1.37  
1.47

~~1.23~~



w 1

$$\begin{array}{r}
 + 40.3 \\
 + 140.7 \\
 \hline
 181.0
 \end{array}
 \quad
 \begin{array}{r}
 1.07 \\
 1.13 \\
 \hline
 2.20
 \end{array}
 \quad
 \begin{array}{r}
 0.96 \\
 1.01 \\
 \hline
 1.97
 \end{array}$$

w 2

$$\begin{array}{r}
 + 52.1 \\
 + 123.0 \\
 \hline
 175.1
 \end{array}
 \quad
 \begin{array}{r}
 0.58 \\
 0.43 \\
 \hline
 1.01
 \end{array}
 \quad
 \begin{array}{r}
 0.53 \\
 0.39 \\
 \hline
 0.92
 \end{array}$$

w 3

$$\begin{array}{r}
 + 29.0 \\
 + 128.8 \\
 \hline
 157.8
 \end{array}
 \quad
 \begin{array}{r}
 1.14 \\
 0.61 \\
 \hline
 1.75
 \end{array}
 \quad
 \begin{array}{r}
 1.12 \\
 0.55 \\
 \hline
 1.67
 \end{array}$$



51

$$\begin{array}{r} + 39.7 \\ + 138.2 \\ \hline \end{array}$$

$$\begin{array}{r} 1.11 \\ - 1.01 \\ \hline 1.106 \end{array}$$

$$\begin{array}{r} 0.99 \\ 0.99 \\ \hline \end{array}$$

5

Cap 2

$$\begin{array}{r} + 48.8 \\ + 132.5 \\ \hline \end{array}$$

$$\begin{array}{r} 0.70 \\ 0.75 \\ \hline 0.72 \end{array}$$

$$\begin{array}{r} 0.63 \\ 0.63 \\ \hline \end{array}$$

68

$$\begin{array}{r} + 48.1 \\ + 126.5 \\ \hline \end{array}$$

$$\begin{array}{r} 0.73 \\ 0.54 \\ \hline 0.63 \end{array}$$

$$\begin{array}{r} 0.65 \\ 0.68 \\ \hline \end{array}$$



A

+ 31.2

+ 146.3

$$\begin{array}{r}
 1.62 \quad 1.46 \\
 1.45 \quad 1.30 \\
 \hline
 1.53
 \end{array}$$

Between A and 5

+ 29.0

+ 144.7

$$\begin{array}{r}
 1.79 \quad 1.66 \\
 1.35 \quad 1.31 \\
 \hline
 1.57
 \end{array}$$

5

Cap 2

+ 40.0

+ 140.0

$$\begin{array}{r}
 1.09 \quad 0.98 \\
 1.09 \quad 0.88 \\
 \hline
 1.09
 \end{array}$$



T

Cap 2

|        |             |                 |
|--------|-------------|-----------------|
| +54.8  | 0.50        | <del>0.45</del> |
| +137.3 | <u>0.96</u> | <del>0.86</del> |
|        | 0.73        |                 |

Owing to the heat it seems impossible to preserve the focus of the eye.  
 Shut up on account of the instrument being out of order.

1872 September 7 Saturday  
 Moderately clear, very hazy. No moon.  
 Groups LVI and LVII

S Cygni

Cap 2

Pin hole 6

Set at 50

|        |             |                 |
|--------|-------------|-----------------|
| +44.0  | 0.90        | <del>0.81</del> |
| +136.7 | 0.93        | <del>0.83</del> |
| -118.1 | <u>0.31</u> | <del>0.28</del> |
|        | 0.74        |                 |



1872phae.proj...400P

(14)

g Cygni

Cap 1  
Color 58

Set at 50

|        |       |                 |
|--------|-------|-----------------|
| +44.5  | 0.88  | <del>0.79</del> |
| +137.0 | 0.94  | <del>0.85</del> |
| -123.4 | 0.45  | <del>0.40</del> |
|        | <hr/> |                 |
|        | 0.76  |                 |

North of Cluster

Cap 0

Pinhole 6

|        |       |                 |
|--------|-------|-----------------|
| +36.3  | 1.29  | <del>1.46</del> |
| +144.0 | 1.31  | <del>1.18</del> |
| -126.9 | 0.55  | <del>0.42</del> |
|        | <hr/> |                 |
|        | 1.05  |                 |



$\pi^2$

Cape 2

Pinhole 6

|        |             |                 |
|--------|-------------|-----------------|
| +37.9  | .120        | <del>x.08</del> |
| +138.8 | 1.03        | <del>0.82</del> |
| -131.6 | 0.72        | <del>0.64</del> |
|        | <u>0.98</u> |                 |

Preceding g

Cape 0

Pinhole 6

|        |             |                 |
|--------|-------------|-----------------|
| +43.4  | 0.93        | <del>0.83</del> |
| +134.9 | 0.85        | <del>0.76</del> |
| +131.1 | 0.70        | <del>0.63</del> |
|        | <u>0.83</u> |                 |



## Lalande

Cap 0

Pinhole 6

|         |            |                 |
|---------|------------|-----------------|
| + 54.8  | .0.50      | <del>0.45</del> |
| + 126.6 | .0.54      | <del>0.49</del> |
| - 108.5 | .0.13      | <del>0.12</del> |
|         | <hr/> 0.39 |                 |

## 75 Cygni

Cap 1

Pinhole 6

Color 60

Set at 50

6

|         |            |                 |
|---------|------------|-----------------|
| + 53.3  | 0.54       | <del>0.49</del> |
| + 130.2 | 0.66       | <del>0.60</del> |
| - 111.5 | 0.18       | <del>0.18</del> |
|         | <hr/> 0.46 |                 |



11

F 24 North

Cap 0  
Color 58

Pinhole 6  
Set at 50

+53.7

0.53

~~0.48~~

+131.1

0.70

~~0.63~~

-113.6

0.22

~~0.49~~

0.48

F 24 Middle

Cap 0

Pinhole 6

+43.0

0.94

~~0.85~~

+143.6

1.29

~~1.15~~

-121.3

0.39

~~0.35~~

0.87



<sup>24</sup>  
F<sub>A</sub> South

|        |             |                 |
|--------|-------------|-----------------|
| + 38.6 | .116        | <del>1.14</del> |
| +144.7 | 1.35        | <del>1.21</del> |
| -139.7 | <u>1.07</u> | <del>0.86</del> |
|        | 1.79        |                 |

74 Cygni

Cap 1

Pinhole 6

|        |             |                 |
|--------|-------------|-----------------|
| +53.8  | .053        | <del>0.47</del> |
| +127.5 | 0.57        | <del>0.51</del> |
| -117.0 | <u>0.28</u> | <del>0.26</del> |
|        | 0.46        |                 |

Stopped on account of stars  
being too near the zenith.



September 14<sup>th</sup> Saturday  
 Clear. moderate north wind. Moon about 11 days old  
 Groups LIX and LX

# 7 Lacertae

Cape L

Pinhole 6  
 Set at 50

|          |                 |                 |
|----------|-----------------|-----------------|
| +42.1    | 0.99            | <del>0.88</del> |
| +150.4 * | 1.74            | <del>1.56</del> |
| +141.0   | 1.14            | <del>1.02</del> |
| -134.6   | 0.84            | <del>0.75</del> |
| -55.0    | <del>2.42</del> | <del>0.44</del> |
|          | <del>7.85</del> |                 |

246  
87



# 4 Lacertae

120

Cap 2

Pinhole 6

|          |             |                 |
|----------|-------------|-----------------|
| +26.6    | 1.98        | <del>1.78</del> |
| +163.0 * | 3.03        | <del>2.72</del> |
| +151.5   | 1.82        | <del>1.64</del> |
| -146.8   | 1.49        | <del>1.33</del> |
| -31.3    | 1.62        | <del>1.45</del> |
|          | <u>1.98</u> |                 |
|          | 1.73        |                 |

## F 64

Cap 0  
Color 60

Pinhole 6  
Set. at 60

|        |             |                 |
|--------|-------------|-----------------|
| +56.5  | 0.45        | <del>4.46</del> |
| +132.4 | 0.92        | <del>0.67</del> |
| -120.5 | 0.37        | <del>0.23</del> |
| -66.3  | 0.22        | <del>0.28</del> |
|        | <u>0.49</u> |                 |



F 65

21

Cap 0

Pinhole 6  
Set at 50

|        |            |                 |
|--------|------------|-----------------|
| +41.4  | 1.02       | <del>0.91</del> |
| +129.4 | 0.64       | <del>0.57</del> |
| -116.8 | 0.28       | <del>0.25</del> |
| -66.4  | 0.22       | <del>0.19</del> |
|        | <hr/> 0.54 |                 |

5 Lacertae

Cap 2

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +33.2  | 1.49       | <del>1.33</del> |
| +148.7 | 1.62       | <del>1.45</del> |
| -145.9 | 1.43       | <del>1.28</del> |
| -33.7  | 1.45       | <del>1.30</del> |
|        | <hr/> 1.50 |                 |



## 2 Lacertae

Cap 2

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +25.5  | 2.08       | <del>1.87</del> |
| +153.0 | 1.95       | <del>1.85</del> |
| -148.6 | 1.61       | <del>1.44</del> |
| -32.8  | 1.51       | <del>1.36</del> |
|        | <hr/> 1.79 |                 |

## Groombridge

Cap 0

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +39.9  | 1.10       | <del>0.98</del> |
| +140.0 | 1.09       | <del>0.98</del> |
| -140.9 | 1.14       | <del>1.02</del> |
| -47.9  | 0.74       | <del>0.66</del> |
|        | <hr/> 1.02 |                 |



## 15 Lacertae

| Cap 1     | Pinhole 6       |
|-----------|-----------------|
| Color 50. | Set at 60       |
| +45.4     | 0.84            |
| +137.9    | 0.99            |
| -142.5    | 1.22            |
| -47.2     | 0.76            |
|           | <hr/> 0.95      |
|           | <del>0.75</del> |
|           | <del>0.88</del> |
|           | <del>1.10</del> |
|           | <del>0.68</del> |

## 14 Lacertae

| Cap 0  | Pinhole 6       |
|--------|-----------------|
|        | Set at 50       |
| +39.3  | 1.13            |
| +138.1 | 1.00            |
| -135.8 | 0.89            |
| -40.5  | 1.06            |
|        | <hr/> 1.02      |
|        | <del>1.01</del> |
|        | <del>0.89</del> |
|        | <del>0.80</del> |
|        | <del>0.95</del> |



## 16 Lacertae

Cap 0

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +38.7  | 1.16       | <del>1.04</del> |
| +128.6 | 1.02       | <del>0.91</del> |
| -133.3 | 0.78       | <del>0.70</del> |
| -44.7  | 0.87       | <del>0.78</del> |
|        | <hr/> 0.95 |                 |

## 0 Andromedae

Cap 2

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +43.9  | 0.90       | <del>0.81</del> |
| +131.0 | 0.69       | <del>0.62</del> |
| -126.5 | 0.54       | <del>0.48</del> |
| -50.2  | 0.65       | <del>0.58</del> |
|        | <hr/> 0.69 |                 |



## 2 Andromedae

Cap 0

Pinhole 6

|        |             |                 |
|--------|-------------|-----------------|
| +46.6  | 0.79        | <del>0.71</del> |
| +128.0 | 0.59        | <del>0.53</del> |
| -124.5 | 0.48        | <del>0.43</del> |
| -60.8  | 0.34        | <del>0.30</del> |
|        | <u>0.56</u> |                 |

\* Wroughton.

1872 September 16<sup>th</sup> Monday  
 Clear, calm full moon -  
 Groups LVI & LVIII

74 Cygni

|          |                |                 |
|----------|----------------|-----------------|
| +58.3    | 0.40           | <del>0.36</del> |
| +121.3   | 0.39           | <del>0.35</del> |
| -121.3 * | 0.39 -7        | <del>0.35</del> |
| -58.2 *  | 0.40 -6        | <del>0.36</del> |
|          | <u>0.39</u> 55 |                 |
|          | 17             |                 |

\* Observed with cap i

*[Faint, illegible handwriting at the top of the page]*

|       |      |      |
|-------|------|------|
| 1/10  | 0.75 | 1.00 |
| 2/10  | 0.75 | 1.00 |
| 3/10  | 0.75 | 1.00 |
| 4/10  | 0.75 | 1.00 |
| 5/10  | 0.75 | 1.00 |
| 6/10  | 0.75 | 1.00 |
| 7/10  | 0.75 | 1.00 |
| 8/10  | 0.75 | 1.00 |
| 9/10  | 0.75 | 1.00 |
| 10/10 | 0.75 | 1.00 |

*[Faint, illegible handwriting in the middle section]*

|       |      |      |
|-------|------|------|
| 1/10  | 0.75 | 1.00 |
| 2/10  | 0.75 | 1.00 |
| 3/10  | 0.75 | 1.00 |
| 4/10  | 0.75 | 1.00 |
| 5/10  | 0.75 | 1.00 |
| 6/10  | 0.75 | 1.00 |
| 7/10  | 0.75 | 1.00 |
| 8/10  | 0.75 | 1.00 |
| 9/10  | 0.75 | 1.00 |
| 10/10 | 0.75 | 1.00 |

## F 24 South

|        |            |                 |
|--------|------------|-----------------|
| +38.7  | 1.16       | <del>1.04</del> |
| +137.7 | 0.98       | <del>0.88</del> |
| -139.6 | 1.07       | <del>0.96</del> |
| -39.5  | 1.12       | <del>1.02</del> |
|        | <hr/> 1.08 |                 |

## F 24 Middle

|        |            |                 |
|--------|------------|-----------------|
| +41.7  | 1.00       | <del>0.96</del> |
| +148.7 | 1.62       | <del>1.45</del> |
| -130.9 | 0.59       | <del>0.62</del> |
| -42.6  | 0.96       | <del>0.86</del> |
|        | <hr/> 1.07 |                 |

## F 24 North

|        |            |                 |
|--------|------------|-----------------|
| +53.2  | 0.49       | <del>0.44</del> |
| +136.2 | 0.91       | <del>0.81</del> |
| -121.6 | 0.40       | <del>0.64</del> |
| -58.7  | 0.39       | <del>0.35</del> |
|        | <hr/> 0.55 |                 |



75 Czgni

Case 1

|        |            |                 |
|--------|------------|-----------------|
| +54.3  | .0.51      | <del>0.46</del> |
| +129.0 | 0.62       | <del>0.56</del> |
| -125.1 | 0.49       | <del>0.44</del> |
| -58.4  | 0.40       | <del>0.36</del> |
|        | <hr/> 0.50 |                 |

Anonymous

|        |             |                 |
|--------|-------------|-----------------|
| +28.3  | . 1.84      | <del>1.65</del> |
| +153.6 | 2.00        | <del>1.80</del> |
| -151.2 | 1.80        | <del>1.62</del> |
| -30.8  | <u>1.69</u> | <del>1.51</del> |
|        | 1.83        |                 |



## 4 B Lacertae

|         |             |                 |
|---------|-------------|-----------------|
| + 46.8  | .0.78       | <del>2.20</del> |
| + 144.3 | 1.33        | <del>1.19</del> |
| - 136.8 | 0.93        | <del>0.84</del> |
| - 52.5  | <u>0.57</u> | <del>0.51</del> |
|         | 0.90        |                 |

## 10 B Lacertae

|         |                 |                 |
|---------|-----------------|-----------------|
| + 63.6  | .0.27           | <del>0.24</del> |
| + 128.5 | .0.60           | <del>0.54</del> |
| - 106.1 | 0.10            | <del>0.09</del> |
| - 61.4  | <u>0.32</u>     | <del>0.28</del> |
|         | <del>0.32</del> | <del>0.21</del> |

## 22 B Lacertae

|         |             |                 |
|---------|-------------|-----------------|
| + 48.5  | .0.71       | <del>0.64</del> |
| + 145.2 | 1.38        | <del>1.24</del> |
| - 124.6 | 0.48        | <del>0.43</del> |
| - 56.2  | <u>0.46</u> | <del>0.41</del> |
|         | 0.75        |                 |

~~11/11/12~~

~~11/11/12~~

## 6 Lacertae

Cap 1

|          |                    |                 |
|----------|--------------------|-----------------|
| + 73.8   | 0.10               | <del>0.49</del> |
| + 132.7  | 0.76               | <del>0.68</del> |
| - 101.8  | 0.05               | <del>0.04</del> |
| - 37.3 + | 1.24 - 9           | <del>1.1</del>  |
|          | <del>0.15</del> 21 |                 |

~~3.77~~  
~~2~~

## 11 Lacertae

Cap 1

|          |                    |                 |
|----------|--------------------|-----------------|
| + 66.3   | 0.22               | <del>0.26</del> |
| + 124.9  | 0.49               | <del>0.44</del> |
| - 102.6  | 0.06               | <del>0.05</del> |
| - 40.7 + | 1.05 - 28          | <del>0.85</del> |
|          | <del>0.15</del> 12 |                 |

✓

+ Observed with Cap 2

Table 1

|     |      |       |
|-----|------|-------|
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |

Table 2

|     |      |       |
|-----|------|-------|
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |
| 9.5 | 0.10 | + 2.5 |

13 Lacertae

|         |            |                 |
|---------|------------|-----------------|
| + 65.3  | 0.24       | <del>0.21</del> |
| + 134.2 | 0.82       | <del>0.74</del> |
| - 111.8 | 0.18       | <del>0.16</del> |
| - 74.0  | 0.10       | <del>0.09</del> |
|         | <hr/> 0.33 |                 |

F24 middle, appears about  
a tenth of magnitude brighter  
than F24 South.

4 B Lacertae is the N. fr. of two,  
10 B " " Southernmost  
of three.

13 Lacertae is the N. foll. of two.

≠ Observed with cap 1.

|         |            |                 |
|---------|------------|-----------------|
| + 136.0 | 0.90       | <del>0.81</del> |
| - 124.2 | 0.47       | <del>0.42</del> |
| - 57.0  | 0.43       | <del>0.39</del> |
|         | <hr/> 0.67 |                 |

10 0

1872 Thursday Sept 19<sup>th</sup>  
 Clear, moon abt. 17 days old. Strong W. wind.  
 Groups LIX and LXI

7 Lacertae

Cape 2

Pinhole 6

|        |            |                 |
|--------|------------|-----------------|
| +44.2  | 0.89       | <del>0.86</del> |
| +136.0 | 0.90       | <del>0.81</del> |
| -124.2 | 0.47       | <del>0.42</del> |
| -57.0  | 0.43       | <del>0.39</del> |
|        | <hr/> 0.67 |                 |



4 Lacertae

Cape 1

Pinhole 6

+ 68.9

0.17

~~0.15~~

+ 119.5

0.34

~~0.31~~

- 100.6

0.04

~~0.04~~

- 33.9\*

1.44

11

~~129~~

~~0.74~~

66

15

5 Lacertae

Cape 2

Pinhole 6

+ 35.6

1.33

~~1.26~~

+ 140.8

1.13

~~1.12~~

- 134.2

0.82

~~0.74~~

- 45.4

0.84

~~0.75~~

1.03



## 2 Lacertae

Cap 1

Pinhole 6

+68.0

0.19

~~0.47~~

+122.2

0.41

~~0.37~~

-90.7

0.00

~~0.20~~

-36.4 +

1.29 - 4 1.15 -

~~0.47~~

14

F 65-

Cap 0

Pinhole 6

+56.8

0.44

~~0.39~~

+129.7

0.65

~~0.58~~

-119.8 } +

0.35 - 11 0.32

-64.5 }

0.25 - 21 0.23

~~0.47~~

19



F 64

|           |                 |                 |
|-----------|-----------------|-----------------|
| + 06.6    | 0.21            | <del>0.19</del> |
| + 115.5   | 0.25            | <del>0.23</del> |
| - 145.5 * | 1.40 - 39       | <del>1.26</del> |
| - 67.4 #  | 0.20 - 26       | <del>0.18</del> |
|           | <del>0.25</del> | <del>0.18</del> |
|           | -05             |                 |

✓

3 Andromedae

Cap 1

Pinhole 6

|             |                 |                 |
|-------------|-----------------|-----------------|
| + 69.0      | 0.17            | <del>0.15</del> |
| + 124.8     | 0.49            | <del>0.44</del> |
| - 141.3 } * | 1.16 - 17       | <del>1.04</del> |
| - 37.1 } *  | 1.25 - 8        | <del>1.12</del> |
|             | <del>1.16</del> | <del>1.12</del> |
|             | .80             |                 |



## 7 Andromedae

Cap 1

Pinhole 6

|        |                 |         |
|--------|-----------------|---------|
| +61.3  | 0.32            | 0.2/9   |
| +119.4 | 0.34            | 0.31    |
| -143.4 | 1.28            | -5 1.14 |
| -37.0  | 1.25            | -8 1.12 |
|        | <del>2.76</del> | .13     |

## 8 Andromedae

Cap 1

Pinhole 6

|        |                 |         |
|--------|-----------------|---------|
| +58.9  | 0.38            | 0.34    |
| +123.9 | 0.52            | 0.47    |
| -147.1 | 1.51            | 18 1.35 |
| -30.6  | 1.57            | 34 1.49 |
|        | <del>1.02</del> | 35      |



## 11 Andromeda South

Cap - 0

Pin hole 6

|         |            |                  |
|---------|------------|------------------|
| + 31.7  | 1.59       | <del>1.4/2</del> |
| + 141.2 | 1.15       | <del>1.03</del>  |
| - 138.8 | 1.03       | <del>0.92</del>  |
| - 42.1  | 0.99       | <del>0.88</del>  |
|         | <hr/> 1.19 |                  |

## 11 Andromeda North

|          |                       |                 |
|----------|-----------------------|-----------------|
| + 43.3   | 0.93                  | <del>2.43</del> |
| + 135.2  | 0.86                  | <del>0.77</del> |
| - 129.1# | 0.63                  | <del>1.56</del> |
| - 70.0   | 0.15                  | <del>9.14</del> |
|          | <hr/> <del>0.64</del> |                 |

53



## 4 Andromedae

|        |             |                 |
|--------|-------------|-----------------|
| +64.2  | 0.26        | <del>0.23</del> |
| +131.6 | 0.72        | <del>0.64</del> |
| -119.2 | 0.34        | <del>0.30</del> |
| -58.3  | 0.40        | <del>0.36</del> |
|        | <u>0.43</u> | <del>20</del>   |

## Between 3 and 7 but South

|        |             |                 |
|--------|-------------|-----------------|
| +47.0  | 0.77        | <del>0.69</del> |
| +140.6 | 1.12        | <del>1.40</del> |
| +20.6  | 0.37        | <del>0.33</del> |
| -45.8  | 0.82        | <del>0.74</del> |
|        | <u>0.77</u> | <del>36</del>   |
|        |             | <del>65</del>   |



Between 4 & 2 Andromeda but following.

|         |             |             |
|---------|-------------|-------------|
| +40.5   | 1.06        | 0.95        |
| +142.4  | 1.22        | 1.09        |
| -130.9  | 0.69        | 0.62        |
| -36.1 # | 1.30        | 1.18        |
|         | <u>1.06</u> | <u>0.95</u> |

\* Observed with cap 2

|   |   |   |   |   |
|---|---|---|---|---|
| + | " | " | " | " |
| + | " | " | " | " |

4 Androm. is the Northernmost  
of two.

$$\begin{array}{r} 87 \\ 46 \\ \hline 41 \end{array}$$

+30

$$\begin{array}{r} 84 \\ 46 \\ \hline 38 \end{array}$$

+18

1872

Oct. 15<sup>th</sup> Tuesday.

Full moon; very windy  
South Wind.

Groups LXI & LXIII

4 Anchors.  
Cap & Pin hole 5

+36.5

1.28

+141.5

1.17

1.22

3 Anchors.  
Cap & Pin hole 5

+52.6

0.57

+141.7

1.18

0.87

7 Anchors.  
Cap & Pin hole 5

+49.8

0.66

+138.5

1.02

0.84

$$\begin{array}{r} 1.09 \\ 46 \\ \hline 63 \end{array}$$

0

+28

$$\begin{array}{r} 1.23 \\ 1.79 \\ \hline -0.56 \\ 76 \\ \hline -1.32 \end{array}$$

$$\begin{array}{r} 1.23 \\ 1.79 \\ \hline 3.02 \\ 0.56 \end{array}$$

+7

+23

8 Androm.  
Cap 1 Pinhole 5

$$\begin{array}{r} +40.0 \\ +140.0 \\ \hline 1.09 \\ 1.09 \\ \hline 1.09 \end{array}$$

11 Androm.  
Cap 0 Pinhole 5

$$\begin{array}{r} +45.4 \\ +145.4 \\ \hline -0.84 \\ 1.40 \\ \hline 1.12 \end{array}$$

2 Androm.  
Cap 2 Pinhole 5

$$\begin{array}{r} +38.7 \\ +143.9 \\ \hline 1.16 \\ 1.30 \\ \hline 1.23 \end{array}$$

18 Androm.  
Cap 0 Pinhole 5

$$\begin{array}{r} +42.6 \\ +145.8 \\ \hline 0.96 \\ 1.42 \\ \hline 1.19 \end{array}$$

+32

+16

Σ Androm.  
Cap o Pinhole 5

+58.5  
+136.3

0.39  
0.91  

---

0.65

22 Androm.  
Cap o Pinhole 5

+50.0

0.66

182













