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Genevieve F. Mathews
Book 8

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Record Book no. 8

Circumpolar Variables
(Estimates of magnitude)

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N.B. A small "c" in ink in a page corner below the page number, and between the red lines, indicates that the magnitudes from that page have been copied into the ledger, with the exception of the "yellows" or isochromatic plates. If there are no magnitudes recorded on a page, the "c" indicates that it has been recorded in some way (in the ledger) that these plates could not be measured.

N.B. "Comp." in the remarks, in this book (and others of mt. which variable stars are measured) indicates "Variable does not compare well with images of comparison stars"

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Tuesday. November 10, 1914

Circumpolar Variables

10.00 Measures of Distances for Comparison Stars

Ursae Majoris

T' Plates I

| Star | Dist. mm. | I | I pr. | * mc' | mc' pr. |
|---|---|---|---|---|---|
| b | 30 | D | . | D | . |
| c | 81 | D | . | D | D |
| d | 46 | D | . | D | . |
| e | 70 | D | . | D | D |
| f | 45 | D | . | D | . |
| k | 29 | D | . | D | . |
| l | 24 | D | . | . | . |
| m | 21 | D | . | . | . |

* (not in reg. seq.)

Series Plates

| Star | Dist. | mc' | mc' pr. |
|---|---|---|---|
| b | 61 | D | . |
| c | off plate | D | D |
| d | 77 | D | D |
| e | off plate | D | D |
| f | 75 | D | D |
| g | 33 | D | . |
| k | 57 | D | . |
| l | 46 | D | . |
| m | 38 | D | . |
| o | 27 | D | . |
| o' | 28 | D | . |

* See p. 5

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Tuesday, November 10, 1914

Measures of Distance for Comparison Stars.

R Ursae Majoris (cont.)

| Series Plates (cont.) | Star | Dist. | m c (curved) | m cpr. (curved |
|---|---|---|---|---|
| *See p. 4 | *b | 117 | D | |
| | *c | off plate | D | D |
| | *e | " " | D | D |
| | *o | " " | D | D |
| | f | 108 | D | |
| | g | 112 | D | |
| | m | | D | |

| Series Plates | Star | Dist | m D | m D pr. |
|---|---|---|---|---|
| | *c | 53 | D | |

| T' Plates m c' | Star | Dist. | m c' | m c' pr. |
|---|---|---|---|---|
| | b | 53 | D | |
| | c | off plate | D | D |
| | d | 80 | D | D |
| | e | off plate | D | D |
| | f | 78 | D | D |
| | g | 34 | D | |
| | k | 50 | D | |
| | l | 42 | D | |
| 11.10 | l' | 30 | D | |
| | m | 36 | D | |

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Friday, November 13, 1914

10.05 Measures of Distances of Comparison Stars

η Ursae Majoris

T' Plates

| Star | Dist. | I | I pr. | Star | Dist. | m D | m D pr. |
|---|---|---|---|---|---|---|---|
| a | 24 | D | . | ~~a~~ | | | |
| b | 32 | D | . | | | | |
| c | 34 | D | . | | | | |
| d | 44 | D | . | | | | |
| g' | 34 | D | . | | | | |
| g2 | 43 | D | . | | | | |
| g | | | | | | | |

Two stars too far from variable on m D T' Plates.

Series Plates m D - Two stars too far from centre on Series m D Plates.

Series Plates m C'

| Star | Dist. | m C' | m C' pr. |
|---|---|---|---|
| a | 40 | D | . |
| b | 54 | D | . |
| c | 59 | D | . |
| d | 78 | D | D |
| g' | 58 | D | . |
| g2 | 78 | D | D |
| g | | | |

m C (curved)

| Star | Dist. | m C | m C pr. |
|---|---|---|---|
| a | 71 | D | . |

11.05

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Thursday, November 26, 1914

1.00 Measures of Distances of Comparison Stars

R Lyncis.

T' Plates I

| Star | Dist. mm. |
|---|---|
| f | 33 |
| c | 26 |

mc'

| Star | Dist. |
|---|---|
| f | 57 |
| c | 45 |
| d | 27 |

mD Star Dist

No star too far from variable on mD T' plates.

Series Plates mD Star Dist

No stars too far from centre on mD Series plates

mc'

| Star | Dist |
|---|---|
| f | 67 |
| c | 52 |
| d | 34 |
| f2 | 27 |

mc (curved) Star Dist

No stars too far from centre on mc curved Series plates.

1.27

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Tuesday. December 15, 1914

9.45 Measures of Distance of Comparison Stars
R Camel

| mD | Star | Dist. | mc 5536 | Star | Dist | mc | mc pr. |
|---|---|---|---|---|---|---|---|
| No stars too far from centre on mD plates | | | (curved) | α | off plate | D | D |
| | | | | γ | 120 | D | |

| mc 5539 (curved) | Star | Dist | mc | mc pr. |
|---|---|---|---|---|
| | α | 120 | D | |
| | β | 101 | D | |
| | γ | 121 | D | D Practically off plate. |

For mc' 2964 see W 4:77

| mc' 2830 | Star | Dist. | mc' | mc' pr. |
|---|---|---|---|---|
| | α | 6.2 | D | |
| | β | 6.9 | D | D |
| | γ | 56 | D | |
| | a | 38 | D | |

10.08 For mc 7915 and mc 8148 (curved plates) D.O.P.
G.F.M. May 8, 1915.

| For I plates | | I | I pr. |
|---|---|---|---|
| α | ~~35~~ 40 | D | |
| β | 36 | D | |
| γ | 35 | D | |

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Friday, December 18, 1914

1.42

Measures of Distance of Comparison Stars

RS Ursæ Majoris.

T'mD

Star Dist. mD2099 - pr. Series Star Dist.
No stars too far from mD No stars too far from
variable on T'mD plates. centre on Series mD plates

Series mc'

| Star | Dist. | mc' | mc'pr. | Series | Star | Dist. |
|---|---|---|---|---|---|---|
| a' | 31 | 9 | . | mc | No stars too far from | |
| f' | 33 | 9 | . | curved | centre on mc curved plates. | |

mc 5186, 5771, 5476, 7855. measured.

1.20

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Saturday, January 23, 1915.

4.20 (?)

Measures of Distance of Comparison Stars

γ Cassiop.

| T' I | Star | Dist | I | I pr. | T' mD | Star | Dist. | mD | mD pr. |
|---|---|---|---|---|---|---|---|---|---|
| | a | 69 | D | . | | a | 60 | D | ' |
| | f | 21 | D | . | | | | | |
| | c | 23 | D | . | | | | | |

| T' mc' | Star | Dist | mc' | mc' pr. |
|---|---|---|---|---|
| | a | Off plate | D | D |
| | f | 37 | D | . |
| | c | 41 | D | . |

| Series mD | Star | Dist. | mD | mD pr. |
|---|---|---|---|---|
| | a | 58 | D | . |

Series mc (Curved)

Star Dist. mc mc pr.

No stars too far from centre on any mc curved plate

4.45 (?).

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Monday, February 15, 1915

3.40

Measures of Distances of comparison ~~Stars~~
R Aurigae

T' I

| Star | Dist. | I | Ipr. |
|---|---|---|---|
| c | 41 | D | . |

T'mD Star Dist. m.D mDpr.
No stars too far from centre on mD T' Plates

Series mD

Star Dist. mD mDpr.
No stars too far from centre on mD Series plates.

Series mC Star Dist.
(curved) No star too far from centre on mC Series Plates

mC 5155
mC 7035 } measured.

3.55

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Tuesday, February 16, 1915

4.50

Measures of Distance of Comparison Stars

S Cassiop.

| I T' Plates | Star | Dist. | I | I fr. |
|---|---|---|---|---|
| | a | 52 | D | |
| | d | 50 | D | |
| | f | 22 | D | |
| | h | 31 | D | |

| mD Series | Star | Dist | mD | mD fr. |
|---|---|---|---|---|
| | a | 68 | D | |
| | d | 63 | D | |
| | h | 47 | D | |

| mC Series (curved) | Star | Dist |
|---|---|---|
| | a | Off plate |
| mC 6297 | d | 123 |

| mC Series (curved) | Star | Dist |
|---|---|---|
| | a | Off plate |
| mC 6704 | d | 121 |

5:06

mC 8977 - No stars too far from centre. Meas. Mt. Jan. 15, 1916.

mC 9512 - No stars too far from centre. Meas. Mt. Feb. 3, 1916.

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Wednesday, March 31, 1915

9.43 Measures of Distance of Comparison Stars

P Draco

IT Plates

| Star | Dist. |
|---|---|
| b | 27 |
| d | 36 |

mA Series

| Star | Dist |
|---|---|
| No stars too far from centre measured | |
| mA 3339 | |

mC Series (curved plate)

| Star | Dist |
|---|---|
| No stars too far from centre measured | |
| mC 5537 | |
| mC 5584 | |

10.00

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Saturday, May 8, 1915

4.30

Measures of Distance of Comparison Stars.

7 Cephei

| IT' Plates | Star | Dist. | I | Ifr. | mD T' | Star | Dist. | mD | mD fr. | I |
|---|---|---|---|---|---|---|---|---|---|---|
| | a | 87 | D | . | | a | 74 | D | | |
| | f | 68 | D | . | | f | 58 | D | | |
| | c | 61 | D | . | | c | 56 | D | | |
| | x | . | . | . | | | | | | |
| | g' | 27 | D | . | | | | | | |
| | K' | 28 | D | . | | | | | | |

| mD Series | Star | Dist | mD | mD fr. | mD Series | Star | Dist | mD | mD fr. | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3654 | a | 66 | D | . | 3809 | a | 66 | D | . | |
| | f | 65 | D | . | | f | 65 | D | . | |
| | ~~c~~ | ~~44~~ | ~~D~~ | | | | | | | |

| mC Series | Star | Dist | mC | mC fr. | mC Series | Star | Dist | mC | mC fr. |
|---|---|---|---|---|---|---|---|---|---|
| Curved | a | Off plate | D | D | Curved | a | Off plate | D | D |
| 5867 | c | " " | D | D | 5882 | c | " " | D | D |

| mC Series | Star | Dist | mC | mC fr. | mC Series | Star | Dist | mC | mC fr. |
|---|---|---|---|---|---|---|---|---|---|
| Curved | a | Off plate | D | D | Curved | a | Off plate | D | D |
| ~~5883~~ | c | " " | D | D | 6866 | c | " " | D | D |
| 6848 | | | | | | | | | |

5.00

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Monday, January 31, 1916

11.40 Measures of Distance of Comparison Stars

S Bootis

| IT Plates | Star | Dist | I | Ipr |
|---|---|---|---|---|
| | α | 26 | 8 | . |
| | $a^2$ | 23 | 8 | . |
| | $b'$ | 21 | 8 | . |
| | d | 24 | 8 | . |

| mθ Series | Star | Dist | mθ | mθpr. |
|---|---|---|---|---|

No stars too far from centre on any mθ series plate
mθ 3049, mθ 3167, measured

| mc Series | Star | Dist | mc | mcpr | mc 3167, mc 5352, mc 8549 |
|---|---|---|---|---|---|
| mc 5332 | $a^2$ | 101 | 8 | . | No stars too far from centre |
| | d | 101 | 8 | . | Also mc 8667. |

12.15

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# Circumpolar Variables

## Estimates of Brightness

## P Lyncis

3.45

Saturday December 5, 1914

| Plate No. | | |
|---|---|---|
| ac 8025 | 9.0 | |
| ac 8082 | 9.4 | |
| ac 9099 | 10.2 | |
| ac 7197 | 11.7 | ? Plate scratched |
| ac 7399 | m.s. >11.8 | |

4.10

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Monday, December 7, 1914

10.50

R Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ac 8881 | m.s. > 11.7 | |
| ac 8993 | 10.9 | |
| ac 8298 | m.s. > 10.6 | |
| ac 8387 | m.s. > 11.7 | |
| ac 8912 | m.s > 11.1 | |
| ac 8836 | m.s. > 12.3 | |
| ac 8289 | 11.2 ? | Poor plate |
| ac 10389 | m.s. > 11.7 | |
| ac 10435 | m.s > 11.2 | |
| ac 10348 | m.s. > 11.7 | |
| ac 10329 | m.s. > 11.7 | T' Plate |
| ac 10358 | m.s. > 11.7 | T' Plate |
| ac 10015 | 10.4 | |
| ac 9903 | 11.0 | |
| ac 8137 | 10.6 | |
| ac 10233 | 12.0 | |

11.45

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Tuesday, December 8, 1914

9.45 R Lyncis.

| Plate No. | Magn. | |
|---|---|---|
| ac 9201 | Fogged Too fast. | |
| ac 9206 | n.s. > 11.7 | |
| ac 9279 | n.s. > 11.7 | |
| ac 7261 | n.s.? > 11.7 ? | Poor plate. Defect in pos. of variable. |
| ac 7406 | n.s. > 12.3 | |
| ~~ac 10205~~ | n.s > 10.6 | |
| ac 7470 | n.s. > 11.7 | |
| ac 9863 | 11.2? | Poor plate |
| ac 9711 | n.s > 11.1 | " " |
| ac 7959 | 9.2 | |
| ac 9126 | 10.9 | |
| ac 9120 | 10.9 | |
| ac 7946 | 9.4 | |
| ac 8458 | n.s. > 10.2 | |
| ac 7941 | 9.2 | |
| ac 9926 | . | Trailed plate |
| ac 8377 | n.s. > 11.1 | Plate fogged |
| ac 7269 | n.s. > 11.7 | |
| ac 9111 | off plate | |
| ac 9160 | 11.0 | |
| ac 8821 | n.s. > 12.3 | p' diem? |
| ac 9333 | n.s. > 11.7 | |
| ac 8213 | n.s. > 11.7 | |
| ac 8089 | 9.2 | |
| ac 10119 | 10.2 | |
| ac 8195 | n.s. > 10.6 | |
| ac 10174 | 11.1 | |
| ac 8176 (?) | 11.2 | |

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Tuesday December 8, 1914

R Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ae 7511 | . | Trailed plate |
| ae 7494 | m.s. > 10.6 | |
| ae 7562 | . | Too poor |
| ae 7892 | . | Cut in dec. Off plate |
| ae 7323 | m.s. > 12.3 | |
| ae 9188 | m.s. > 11.1 | |
| ae 8262 | 12.0 ? | Plate poor. Im. indistinct |
| ae 7926 | . | Too poor |
| ae 7747 | . | Too poor. Fogged badly |
| ae 7557 | . | Too poor to be identified |

11.00

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Wednesday December 9, 1914

9.40 R Lyncis

| | Plate No. | Magn. | | |
|---|---|---|---|---|
| | ac 12082 | m.s. > 11.1 | | |
| | ac 11161 | . | Trailed plate | |
| | ac 11184 | ~~8.9~~ 10.0 | | |
| | ac 11236 | 9.7 | Defect near V. | |
| | ac 11318 | 9.9 | | |
| 10.10 | ac 11091 | 12.0 | Poor plate | |
| 12.35 | ac 11026 | m.s. > 11.2 | | |
| | ac 10882 | m.s. > 11.1 | | |
| 12.41 | ac 10779 | m.s. > 11.2 | | |
| 3.35 | ac 13385 | m.s. > 11.7 | | |
| | ac 13663 | . | Too faint | |
| | ac 13018 | 11.2 | | |
| | ac 13753 | 10.1 | | |
| | ac 13395 | m.s. > 10.2 | | |
| | ac 13041 | 11.3 ? | Blurred | |
| | ac 14332 | m.s. > 11.1 | | |
| | ac 12318 | 10.0 | | |
| | ac 13092 | m.s.? > 11.7 | | |
| | ac 14477 | m.s. > 11.1 | | |
| | ac 13106 | m.s. > 11.7 | | |
| | ac 12339 | 10.3 | | |
| | ac 12826 | 9.5 | | |
| | ac 14921 | 9.6 | | |
| | ac 12348 | 10.8 | | |
| | ac 14590 | m.s. > 11.7 | | |
| | ac 14802 | 10.6 | V does not compare well. Im. large + hazy. | |
| | ac 12820 | 10.0 | " " " " " " | |
| | ac 14780 | 9.9 | ac 14780 10.0 | Remeasured Dec. 18, 1914 9.7m |

4.05

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Thursday, December 10, 1914

10.55

R Lyncis

v

| Plate No. | Magn. | |
|---|---|---|
| ac 7864 | 10.8 | |
| ac 12263 | 10.7 | |
| ac 12291 | 10.0 | |
| * ac 14837 | 9.7 | |
| ac 13866 | 10.8 ? | Plate very poor |
| ac 13878 | 10.9 ? | Plate poor |
| ac 13483 | . | Trailed plate |
| ac 13561 | 12.1 ? | Im. of v very poor: large and hazy |
| ac 13592 | m.s. > 10.2 | |
| ac 13599 | m.s. > 9.8 | Isochromatic |
| ac 13630 | 10.4 ? | Im. of v large and hazy |
| ac 7531 | Too poor | |
| ac 7505 | m.s. > 10.2 | |
| ac 7206 | 11.9 | |
| ac 7222 | 11.5 | |
| ac 7288 | m.s.? > 12.4 | |
| ac 7350 | m.s. > 11.7 | |
| ac ~~7458~~ 9318 | m.s. > 12.9 | |
| ac 7338 | m.s. > 12.9 | |
| ac 7458 | m.s.? > 10.6 | |
| ac 9314 | m.s. > 12.9 | |
| ac 10786 | m.s. > 10.6 | 7' Plate |
| ac 10417 | m.s.? > 11.7 | 7' Plate |
| ac 12242 | 11.0 ? | Edge |
| ac 10934 | m.s. > 12.2 ? | |
| ac 9711 | m.s. > 11.1 | |
| ac 8257 | 12.3 ? | Near limit of visibility |
| ac 12736 | 12.5 ? | of m.s. v-Very faint |
| ac 14798 | m.s. > 12.6 | |

* Assumed to be 14831 as 14837 does not cover; and 14831 is not well marked, - might be read 14837

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Thursday, December 10, 1914

R Lyncis

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 12146 | 12.2 ? | v faint |
| | ac 12691 | 12.8 | |
| | ac 14635 | m.s. > 12.9 | |
| | ac 13408 | m.s. > 12.2 | |
| | ac 14349 | m.s. > 12.9 | |
| 11.45 | | | |
| 1.20 | ac 10960 | . | Too poor E. |
| | ac 10980 | m.s. > 10.2 | |
| | ac 11622 | m.s. > 11.2 ? | Poor E. |
| | ac 11394 | 11.1? | E |
| | ac 10754 | . | Too poor. Few stars |
| | ac 8911 | . | " " " " |
| | ac 10470 | . | " " E |
| | ac 8867 | . | " " E |
| | ac 12209 | 11.3? . | Extreme E. |
| | ac 10419 | . | Trailed Plate T' |
| | ac 8803 | m.s > 10.2 | E |
| | ac 12220 | m.s > 9.4 | E. Poor |
| 1.40 | ac 9285 | m.s. > 11.7 | E. |
| | | n | |
| 1.45 | ac 10378 | m.s. > 11.2 | E. |
| | ac 12125 | . | Too poor. E. |
| | ac 10220 | m.s > 9.4 | E. |
| | ac 9377 | . | Too poor. E. |
| | ac 12145 | m.s. > 11.1 | E, |
| | ac 10398 | m.s. ≥ 10.2 | E. |
| | ac 9355 | m.s. > 11.7 | E. |
| | ac 12031 | . | Too poor. Few stars |
| | ac 9839 | m.s > 10.2 | |

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Thursday December 10, 1914

R Lyncis.

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 11322 | 10.0 ? | E. V faint. |
| | ac 11659 | m.s. > 9.8 | E. |
| | ac 9277 | m.s. > 11.1 ? | E. T' Plate |
| | ac 9289 | . | Extreme edge T' |
| | ac 11133 | m.s. > 10.6 | E. |
| 2.10 | ac 9090 | m.s. > 10.6 ? | E. T' |
| 3.05 | ac 12210 | 11.3 | Plate fogged, and covered with defects. Impossible to measure |
| | ac 9321 | . | |
| | ac 12719 | 12.3 ? | Fairly faint |
| | ac 8224 | . | Plate broken; thrown away, See cover. |
| | ac 11160 | 10.1 ? | E. Near limit of vis. |
| | ac 9048 | m.s. > 10.2 | E. In Plate |
| | ac 10881 | . | Too faint E. |
| | ac 11171 | 10.5 ? | E. |
| | ac 10770 | . | Too faint E. |
| | ac 11185 | 10.7 ? | E. Poor |
| | ac 11485 | m.s. > 11.1 | E. Poor |
| | ac 11514 | m.s. > 11.7 | E. Plate fogged |
| | ac 11411 | 11.1 ? | E. Plate fogged |
| 3.23 | | | |

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Friday, December 11, 1914

3.00 P Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ac 8473 | m.s. > 8.7 | E. |
| ac 8376 | m.s. > 10.2 | E. |
| ac 8060 | . | Too poor E. Fogged |
| ac 8138 | . | Too poor E. |
| ac 9017 | 10.1 ? | E. |
| ac 9158 | . | Too poor. E. |
| ac 10914 | . | Too poor E. |
| ac 12453 | . | Extreme E. T'Plate |
| ac 9964 (?) | . | Too poor. E. |
| ac 10206 | . | Too poor E. Fogged |
| ac 7762 | . | Too poor. E. |
| ac 8795 | . | Too poor E. Fogged |
| ac 7914 | 10.4 ? | E. Images poor |
| ac 7944 | . | Too poor E. Fogged |
| ac 8120 | 10.0 ? | E. Images poor |
| ac 10016 | . | E. Images hazy |
| ac 7564 | . | Too poor. E. |
| ac 7299 | . | Too poor. E. |
| ac 11495 | m.s. ? > 11.7 | E. |
| ac 7331 | m.s. > 12.2 | E. |
| ac 8880 | . | Too poor. E. |
| ac 7552 | . | Too poor. E. |
| ac 7093 | m.s. > 11.7 | |
| ac 7816 | m.s. > 10.6 | |
| ac 10175 | 11.0 ? | E. Poor |
| ac 8101 | 9.9 ? | E. |
| ac 8053 | 9.3 ? | E. |
| ac 9207 | 12.0 ? | E. Very faint |
| ac 9033 | m.s. ? > 11.2 ? | E. |

3.35

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Friday, December 11, 1914

4.00

P Lyncis.

| Plate No. | Magn. | |
|---|---|---|
| mΘ 5072 | 9.2 | |
| mΘ 2975 | 10.0 | |
| mΘ 5108 | 9.2 | |
| mΘ 2827 | 9.9 | |
| * | | |
| mΘ 2025 | ~~12.0~~ ? | Very faint 0² n.s. T' Plate. |
| ~~m~~I 3437 | 9.3 ? | Bright. |

4.15

* Reject. Too uncertain. Defect or image from solar exposure!

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Saturday, December 12, 1914

11.40 P Lyncis

| Plate No. | Magn. | |
|---|---|---|
| mC' 2025 | n.s. > 14.1 | |
| mc 5108 | 9.2 | Image of v sharp |
| I 36014 | n.s. > 10.9 | |
| mc 5143 | 9.2 | Image of v sharp |
| mc 2827 | 9.7 ? | " " " " |
| mc 2975 | 10.3 | |
| mc 4442 | 13.2 | |
| mc 5072 | 9.4 | Image of v sharp. |
| mc 5241 | d = V<br>V 2 E | Yellow |
| mc 5010 | f 6 V<br>V 1 d | Yellow |

12.18

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Wednesday, December 15, 1914

2.37 R Lyncis.

| Plate No. | Magn. | |
|---|---|---|
| ac 11070 | . | Too poor |
| ac 9411 | n.s. > 12.2 | |
| ac 10096 | 10.0 | |
| ac 12635 | * 11.7 | |
| ac 10086 | 9.9 | |
| ac 12626 | n.s. > 11.1 | |
| ac 10034 | . | Too poor |
| ac 12748 | n.s. > 11.7 | |
| ac 13611 | 11.9 ? | Im. hazy |
| ac 9902 | 11.1 ? | |
| ac 13583 | 11.7 | Im. hazy |
| ac 13570 | . | Trailed Plate |
| ac 9424 | . | Too poor. Poor focus |
| ac 9405 | n.s. > 12.9 | |
| ac 13623 | 10.9 | 4' Plate |
| ac 10291 | n.s. > 11.7 | |
| ac 10254 | n.s. > 12.2 | |
| ac 9983 | 10.0 | |
| ac 10007 | . | Too poor. Fogged |
| ac 9416 | n.s. > 11.7 | |

2.58

3.00

| | | |
|---|---|---|
| ac 9104 | . | Too poor. Ei. |
| ac 10246 | 12.1 | |
| ac 14903 | 9.6 | Im. hazy |
| ac 9860 | 12.0 | |
| ac 13396 | . | Too poor. Focus poor |
| ac 9419 | n.s. > 12.2 | |

* Reject See p. 53

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Wednesday December 16, 1914

R Lyncis

| Plate no. | Magn. | |
|---|---|---|
| ac 13672 | d 3 v | Iso. |
| | v 4 c | |
| ac 14858 | | Iso. |
| | d 5 v | |
| | v 1 c | |
| | | Iso. |
| ac 15694 | n.s. > k | |
| ac 15589 | n.s. > h' | |
| ac 13907 | n.s. > f' | |
| ac 14364 | n.s. > f' | |

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Wednesday, December 16, 1914

P Lyncis

c

| Plate No. | Magn. | |
|---|---|---|
| ac 10287 | n.s. > 11.1 ? | |
| ac 12788 | 11.5 ? | Im. fee. |
| ac 12840 | 9.0 | |
| ac 12889 | 9.0 | |
| ac 12920 | 9.3 | |
| ac 10259 | n.s. > 11.2 | E. |
| ac 11304 | 10.3 | E. |
| ac 11503 | . | Too poor E. |
| ac 7204 | 11.8 | |
| ac 9882 | . | Too poor |
| ac 10166 | 10.9 | |
| ac 12692 | n.s. > 11.7 | |
| ac 13263 | n.s. > 10.6 | |
| ac 7413 | n.s. > 12.4 | |
| ac 13079 | 12.3 | |
| ac 13040 | 11.6 | |
| ac 13030 | 11.2 ? | Poor plate |
| ac 12978 | 10.8 | |
| ac 10236 | 12.0 | |
| ac 10337 | n.s. > 12.4 | |
| ac 7346 | n.s. > 10.6 | |
| ac 12709 | 12.9 ? | q. n.s |
| ac 12588 | n.s. > 11.7 | |
| ac 13682 | 10.0 | Im. hazy |
| ac 13728 | 10.0 | |

3.41

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Wednesday, December 16, 1914

3.43

P Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ac 11615 | m.s. > 12.2 | |
| ac 13860 | 10.9 ? | Im. very large + hazy |
| ac 10436 | m.s. > 11.2 | |
| ac 13907 | - See page 37 - Too. | |
| ac 11952 | m.s. > 11.2 | |
| ac 14400 | m.s. > 11.2 | |
| ac 10482 | * 11.2 ? | V faint |
| ac 14364 | - See page 37 | Too faint for Too. |
| ac 10787 | m.s. > 11.2 | T' Plate |
| ac 12054 | m.s > 11.2 | |
| ac 14406 | m.s. > 12.9 | |
| ac 10793 | m.s. > 10.6 | T' Plate |
| ac 12117 | m.s. > 11.7 | |
| ac 14441 | m.s. > 11.1 | |
| ac 10823 | m.s. > 10.2 | |
| ac 11250 | 10.1 | |
| ac 14573 | m.s > 12.4 | |
| ac 10915 | m.s. > 11.2 | |
| ac 12332 | 10.4 | |
| ac 11015 | m.s. > 12.2 | |
| ac 14606 | m.s. > 12.9 | |
| ac 14647 | m.s. > 10.6 | |
| ac 11027 | m.s > 11.1 | |
| ac 11132 | 11.0 | |
| ac 14717 | m.s. > 12.9 | |

4.17

*Remeasured Mt. Dec 14, 1915
11.2? Too faint for any certainty
Reject

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Thursday December 17, 1914

10.35 P Lupnis.

| Plate No. | Magn. | |
|---|---|---|
| AC 14514 | . | Too near edge |
| AC 15752 | m.s. > 12.2 | |
| AC 15576 | m.s. > 11.2 | |
| AC 15495 | m.s. > 10.2 | |
| AC 11457 | m.s. > 10.2 | |
| AC 12269 | 10.1 | Plate slightly trailed |
| AC 15018 | 9.3 | |
| AC 11443 | m.s. > 9.1 | |
| AC 12185 | 11.2 | |
| AC 11376 | 10.9 | |
| AC 15117 | 10.9 | |
| AC 11289 | 9.8 ? | Def? Poor plate |
| AC 12175 | 11.9 | |
| AC 14832 | 9.6 | |
| AC 11260 | 9.9 | |
| AC 14801 | 10.5 ? | Dm. def v large and hazy |
| AC 15098 | 10.8 | |
| AC 15487 | m.s. > 11.7 | |
| AC 15743 | m.s. > 12.4 | |

11.10

11.19

| | | |
|---|---|---|
| AC 13463 | m.s. > 12.4 | |
| AC 11159 | 10.1 ? | Trailed plate |

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Thursday December 17, 1914

R Lyncis

| Plate No | Magn. | |
|---|---|---|
| ac 15524 | n.s. > h' | Iso. |
| ac 15051 | d 5 V<br>V I E | |
| ac 15048 | d 4 V<br>V I E | |
| ac 15680 | n.s. > ~~h'~~ | |

11.28

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Friday, December 18, 1914

3.52 R Leporis

| Plate No. | Magn. | |
|---|---|---|
| ac 5948 | m.s. > 12.6 | |
| ac 6837 | 11.1 | |
| ac 4169 | . | Too faint. Fogged |
| ac 3321 | m.s. > 12.9 | |
| ac 4161 | 9.3 | |
| ac 3286 | m.s. > 10.6 | |
| ac 5908 | m.s > 12.9 | |
| ac 3233 | m.s. > 12.4 | |
| ac 4121 | 9.1 | |
| ac. 4055 | 9.0 | |
| ac 6833 | 11.1 | |
| ac 6813 | m.s. > 10.6 | |
| ac 5865 | m.s. > 10.6 | |
| ac 3203 | m.s. > 12.2 | |
| ac 6777 | m.s. > 11.2 | |
| ac 3130 | 12.8 ? | Very faint |
| ac 5752 | 11.1 ? | Poor plate & faint |
| ac 3071 | 11.9 | |
| ac 5697 | 11.0 | |
| ac 3429 | . | Too faint. Fogged |
| ac 6220 | m.s. > 11.7 | |
| ac 6183 | m.s. > 11.7 | |
| ac 7131 | . | Too faint E. |
| ac 4252 | 10.6 | |
| ac 4240 | 10.5 | |
| ac 6165 | . | Trailed |
| ac 3371 | m.s > 11.2 | |
| ac 4220 | 10.4 | |

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Friday, December 18, 1914

R Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ac 6112 | n.s. > 12.4 | |
| ac 3888 | 10.5 | |
| ac 3338 | n.s. > 12.9 | |
| ac 3882 | . | Too faint. |
| ac 4614 | n.s. > 11.7 | |
| ac 6002 | n.s. > 11.7 | |

4.18

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Saturday December 19, 1914

11·20 R Lyncis

c

| Plate No. | Magn. | |
|---|---|---|
| ac 5506 | 10.3 | |
| ac 4444 | 12.0 ? | Faint |
| ac 6742 | m.s. > 11.2 | |
| ac 3497 | m.s. > 11.7 | |
| ac 6690 | m.s. > 11.1 | |
| ac 3432 | m.s. > 11.7 | |
| ac 6289 | m.s. > 11.1 | |
| ac 4345 | 11.6 ? | Trailed plate |
| ac 6264 | m.s. > 12.9 | |
| ac 4369 | 11.5 | |
| ac 4706 | m.s. > 12.7 | |
| ac 4772 | m.s. > 11.7 | |
| ac 4786 | m.s. > 11.7 | |
| ac 4829 | m.s. > 12.9 | |
| ac 4879 | m.s. > 11.7 | |
| ac 5275 | 11.0 | |
| ac 5342 | 9.8 | |
| ac 5424 | 10.0 | |
| ac 5431 | 10.0 | |
| ac 5550 | 10.4 | |
| ac 5574 | 10.6 | |
| ac 5654 | 10.7 | |
| ac 3876 | . | Too poor |
| ac 6037 | . | Too poor: fogged. |
| ac 3897 | . | Too poor fogged |
| ac 3414 | m.s. > 10.6 | |
| ac ~~3897~~ 4302 | m.s. > 10.2 | |
| ac 4206 | 10.0 | |

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Saturday, December 19, 1914

P Lyncis

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 3993 | 9.2 ? | Poor plate |
| | ac 4659 | m.s. > 11.7 | |
| | ac 4019 | 8.9 | |
| | ac 3565 | m.s. > 11.2 | |
| | ac 4556 | m.s. > 12.6 | |
| | ac 3527 | m.s. > 11.2 | |
| | ac 7138 | 10.8 | |
| 12.01 | ac 4528 | 13.0 ? | Very faint |
| 12.31 | ac 3227 | . | Too faint E. |
| | ac 4017 | 9.0 ? | E. |
| | ac 4005 | 9.0 ? | E. |
| | ac 3949 | . | Too faint E. |
| | ac 3379 | m.s. > 11.2 | E |
| | ac 4589 | . | Too faint; fogged E. |
| | ac 3927 | . | Too faint E. |
| | ac 4689 | m.s.? > 10.2 | |
| | ac 4671 | . | Too faint; fogged E. |
| | ac 3408 | . | Too faint; fogged E. |
| | ac 4638 | m.s. > 11.2 | |
| | ac 4308 | . | Too faint; fogged E. |
| | ac 3415 | . | Too faint; fogged E. |
| | ac 4978 | . | Too faint E. |
| | ac 4815 | . | Too faint E. |
| | ac 3920 | . | Too faint E. |
| | ac 5187 | . | Too faint E. |
| | ac 3463 | . | Too faint; fogged E. |
| | ac 5274 | 11.1 ? | Poor E. |
| | ac 4325 | m.s. ? > 10.2 | E |
| | ac 4553 | m.s. > 11.7 | E |

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Saturday, December 19, 1914

R Lyncis

| | Plate No. | Images | |
|---|---|---|---|
| | ac 3062 | 12.2? | Faint. Σ. |
| | ac 4115 | 9.3? | Poor. Σ. |
| | ac 4054 | 9.1? | Poor Σ. |
| | ac 4288 | 11.2? | Poor Σ |
| | ac 4026 | 9.1 | Poor Σ. |
| | ac 4583 | . | Too poor Σ. |
| | ac 4231 | 10.3 ? | Poor. Σ. |
| | ac 4181 | 9.9 ? | Poor Σ. |
| | ac 3340 | n.s. > 11.2 | Σ |
| | ac 3329 | n.s. > 11.2 | Σ. |
| | ac 4479 | . | Too poor Σ. |
| | ac 4443 | n.s. > 11.7 | Σ. |
| | ac 4381 | 11.1? | Σ |
| | ac 3287 | . | Too poor Σ. Fogged |
| | ac 3232 | n.s. > 10.2 | Σ. |
| | ac 4162 | 9.3 ? | Poor Σ. |
| 1.00 | | | |
| | | | |
| 1.25 | ac 5287 | . | Defective |
| | ac 4840 | n.s. > 12.9 | |
| | ac 4771 | n.s. > 12.9 | |
| | ac 4707 | n.s. > 12.9 | |
| | ac 5355 | 9.3 | |
| | ac 4498 | n.s. > 11.7 | |
| | ac 3186 | n.s. > 12.9 | |
| | ac 4613 | . | Too poor. No stars |
| | ac 4458 | 12.5 ? | ~~Images~~ Images of faint stars irregular in brightness |
| | ac 3246 | n.s. > 12.9 | |

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Saturday, December 19, 1914

R Lyncis

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 3288 | n.s. > 9.1 | Poor plate |
| | ac 3063 | 11.9 | |
| | ac 2892 | 9.7 | |
| | ac 5414 | 9.7 | |
| | ac 5378 | 9.6 | |
| | ac 4553 | n.s. > 12.2 | |
| | ac 3330 | n.s. > 12.4 | |
| | ac 5580 | 10.5 ? | Very poor; faint |
| | ac 5683 | 10.9 | Im. of v. large & hazy |
| | ac 3382 | n.s. > 12.2 | |
| | ac 5746 | 11.2 | |
| | ac 2983 | 10.7 | |
| | ac 3855 | 11.0 | |
| | ac 3926 | · | Too poor |
| | ac 4872 | n.s. > 11.7 | |
| | ac 4056 | · | Does not identify at 8h+60 See cover |
| | ac 3914 | · | Too poor |
| | ac 3919 | 9.6 | |
| | ac 4376 | 11.4 | |
| | ac 3904 | 9.8 | |
| | ac 4574 | n.s. > 11.2 | |
| | ac 5917 | n.s. ? > 12.9 | Scratch over position of V |
| | ac 4681 | n.s. > 11.2 | |
| 2.12 | | | |
| 2.50 | ac 4588 | n.s. > 10.6 | |
| | ac 6203 | n.s. > 11.2 | E. |
| | ac 6696 | · | Too poor; trailed E. |

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Saturday, December 19, 1914

R Leporis

| Plate No. | Magn. | |
|---|---|---|
| ac 6389 | . | Too faint Edge |
| ac 6078 | . | Too faint E |
| ac 6102 | n.s. > 11.7 | E. |
| ac 6860 | 10.7 | E. |
| ac 6039 | . | Too faint E |
| ac 6240 | n.s. > 10.6 | E. |
| ac 6035 | . | Too faint; fogged E. |
| ac 5991 | n.s. > 11.2 | E. |
| ac 6296 | . | Too faint E. |
| ac 5927 | n.s. > 11.2 | E. |
| ac 6214 | n.s. > 11.1 | E |
| ac 5916 | . | Too faint E |
| ac 5726 | 11.2 ? | E. |
| ac 6976 | 9.7 ? | E. |
| ac 5696 | 11.1 ? | E. |
| ac 6957 | 9.9 ? | E. |
| ac 5452 | 9.4 ? | Very doubtful E. |
| ac 3407 | n.s. > 10.6 | |
| ac 5710 | 11.1 | |
| ac 5841 | 12.2 ? | V and comp. stars faint |
| ac 3460 | n.s. > 12.6 | Trailed plate |
| ac 5341 | 9.6 | |
| ac 4428 | 12.3 ? | Very faint. 0° n.s.? |
| ac 5909 | 12.9 ? | Faint. |
| ac 3121 | n.s. > 12.9 | |
| ac 3479 | n.s. > 11.7 | |
| ac 5632 | 10.5 | Im. large & hazy |
| ac 4279 | 10.8 | |

3.11

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Monday, December 21, 1914.

9.45 P Lyncis

| Plate No. | Magn. | |
|---|---|---|
| ae 6003 | n.s. > 11.7 | |
| ae 6066 | n.s. > 12.9 | |
| ae 6082 | . | Too poor. |
| ae 6113 | n.s. > 11.2 | |
| ae 6192 | n.s. > 11.7 | |
| ae 6235 | n.s > 12.2 | |
| ae 6302 | n.s. > 11.7 | |
| ae 6316 | n.s. > 10.2 | |
| ae 6619 | . | Too low Fogged |
| ae 6638 | n.s. > 11.7 | |
| ae 6684 | n.s. > 9.1 | |
| ae 6688 | n.s. > 11.7 | |
| ae 6778 | n.s. > 12.2 | |
| ae 6811 | 11.3 | |
| ae 6741 | n.s. > 11.7 | |
| ae 7117 | 10.5 | |
| ae 6756 | n.s > 11.2 | |
| ae 6786 | 11.3 | |
| ae 6793 | 11.7 | |
| ae 6801 | 11.2 | |
| ae 6721 | n.s. > 11.7 | |
| ae 6844 | 11.2 ? | Very poor. |
| ae 6918 | 10.1 | |
| ae 6956 | 10.0 | |
| ae 7077 | 10.1 | |
| ae 6769 | 11.7 ? | |

10.18

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Monday, December 21, 1914

11.25 R Lyncis (Remeasure)

J

| Plate No. | Mag. | |
|---|---|---|
| ac 14802 | 10.8 | Im. large + hazy |
| ac 14780 | 10.1 | Defect? |
| ac 14801 | 10.8 | Im. large + hazy |

11.32

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Monday December 21, 1914

11.34 R Lyncis (

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 3268 | . | Too poor; fogged Σ |
| | ac 3602 | m.s. > 10.2? | Poor plate |
| | ac 7141 | . | Too poor; Σ |
| | ac 4080 | 9.0 | |
| | ac 5308 | . | Broken - plate missing. |
| | ac 5198 | . | Plate too poor; fogged - can not find |
| | ac 3002 | 11.0 ? | Poor plate |
| | ac 3939 | 9.6 | |
| | ac 3277 | m.s. > 10.6 | Poor plate |
| | ac 3591 | . | Does not cover region |
| | ac 5714 | 11.2 | |
| | ac 5958 | 13.0 | Very faint |
| | ac 3615 | m.s. > 10.6 | |
| | ac 3933 | 9.7 | |
| | ac 5177 | m.s. > 10.6 | |
| | ac 5513 | 10.1 | Irr. large + hazy |
| | ac 3534 | m.s. > 12.2 | |
| | ac 4099 | 9.2 ? | Poor plate |
| | ac 3498 | m.s. > 11.1 | |

11.58

| | | | |
|---|---|---|---|
| 12.12 | * a 7610 | 11.7 | |
| | a 7180 | 12.3 ? | Extreme edge; nearly all faint c.s. off plate |
| | a 7162 | off plate | |
| | a 7062 | . | Extreme Edge No comp. stars near enough on plate |
| | a 7599 | off plate | |
| | a 7596 | off plate | |
| | a | | |

12.45

*a 7610 magn. 11.7 Remeasured G.F.M. Dec 23, 1914

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Monday, December 21, 1914

12.58 P Lyncis

| Plate No. | Magn. | |
|---|---|---|
| I 32660 | 13.4 | |
| I 32704 | Off plate | |
| 1.03 | | |
| 3.00 | | |
| ac 4197 | 9.9 ? | E. poor. |
| ac 4538 | . | Trailed plate E. |
| ac 3614 | n.s. > 10.2 | E |
| ac 5217 | . | Too poor E. |
| ac 4836 | n.s. > 11.2 | E |
| ac 3372 | n.s. > 11.2? | E. poor. |
| ac 5403 | 9.6 ? | E. poor. |
| ac 5567 | 10.5 ? | E. poor |
| ac 6895 | . | Too much trailed E. |
| ac 3572 | n.s. > 10.2 | E. |
| ac 5846 | n.s. > 11.1 | E |
| ac 4413 | n.s. ? > 11.2 | E. |
| ac 5388 | 9.9 ? | E |
| ac 4417 | 12.0 | Dm. hazy |
| 3.10 | | |

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Wednesday, December 1, 1915

| | | | |
|---|---|---|---|
| | P Lyncis | Remeasure | |
| | | | c |
| ac 12635 | | m.s. < 11.7 | Poor plate. Object south of v but close to its position, possibly measured originally. Defect? |

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Tuesday January 5, 1914

12.30 P Lyncis Remeasures of Early Plates

| Plate No. | Magn. | |
|---|---|---|
| A 198 | n.s. > 13.0 | Extreme edge |
| A 259 | n.s. > 13.0 | Extreme edge |
| C 3448 | 13.1 | |
| C 3449 | 12.9 | |
| C 7601 | 12.9 ? | Very faint and poor |
| C 3571 | 12.4 | Trailed plate |
| C 3520 | 12.7 | |
| C ~~4018~~ 3519 | 12.6 ? | Poor plate |
| C 5449 | 12.5 | |
| C 4018 | n.s. ? > 13.0 ? | Poor plate. E. |
| C 3535 | 12.7 | |
| C 7341 | n.s. > ~~13.9~~ 13.0 | |
| C 7549 | n.s. > 13.4 | |
| C 5451 | 12.7 | |
| C 7100 | n.s. > 13.4 | |
| C 5452 | 12.5 ? | Poor plate |
| C 6244 | n.s. ? > 13.0 | |
| C 7023 | 12.5 | |
| 1.02 C 8989 | 12.8 | |
| 1.45 I 22258 | n.s. > 13.0 | |
| I 16596 | n.s. > 13.0 | |
| I 17343 | n.s. > 11.7 | E. |
| I 3090 | 12.9 | |
| I 22261 | n.s. > 13.0 | |
| I 27886 | 10.9 | |
| I 22475 | n.s. > 12.9 | |
| I 19539 | n.s. > 13.0 | |

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Tuesday, January 5, 1914

| Plate No. | Measures Magn. | |
|---|---|---|
| I 12302 | n.s. > 12.9 | |
| I 16117 | 13.1 ? | Does not compare well |
| I 16859 | n.s. > 12.4 | |
| I 14727 | 12.8 | |
| I 18117 | 11.0 | |
| I 16847 | 13.5 | Faint |
| I 19491 | n.s. > 13.0 | |
| I 14754 | 13.1 ? | q' n.s.? |
| I 16860 | n.s. > 12.9 | |
| I 9802 | n.s > 12.9 | |
| I 597 | 13.1 | |
| I 5649 | 13.2 ? | Poor |
| I 5740 | n.s.? > 13.0 | |
| 2.16 | | |
| 2.28 ae 2159 | n.s. > 13.0 | |
| ae 1192 | | Too poor. E. |
| ae 1873 | 10.4 | E. |
| ae 2579 | n.s. > 13.0 | |
| ae 1218 | n.s. > 13.0 | |
| ae 634 | n.s. > 11.7 | |
| ae 1085 | n.s. > 12.9 | |
| ae 2158 | n.s. > 13.0 | |
| ae 275 | n.s. > 12.2 | |
| ae 1227 | n.s > 12.4 | |
| ae 2330 | n.s. > 13.0 | |
| 2.37 | | |

For additional (omitted at first measuring), and later measures,
see p. 12:15

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Saturday, Nov. 27, 1915

| | | | |
|---|---|---|---|
| 10.10 | R Lyncis | | |
| ✓ | Plate No. | Magn. | |
| | a 1347 | | Off edge. |
| | 9 1974 | n.s. < 1311 | |
| 10.15 | ac 85 | | Too poor - dark. |

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Monday, December 20, 1915

P Lyncis.

| 12.34 | Plate No. | Magn. | |
|---|---|---|---|
| | ∂ 5502 | . | Off Edge |
| (Wrong mags) | ∂ 7614 | m.s. < ~~12.7~~ 13.0 | |
| | ∂ 8479 | 11.1 | E, |
| | ∂ 15972 | 12.3 | Comp. |
| | ∂ 16392 | 13.9 : | Im. fea. in shape |
| | ∂ 16557 | m.s. < 13.7 | |
| 1.00 | | | |
| 2.31 | | | |
| | ∂ 17450 | 14.7 | ~~Faint~~ |
| | ∂ 18394 | . | Too foor. |
| | ∂ 23574 | . | Too near E |
| | ∂ 24972 | m.s. < 14.5 | |
| | ∂ 26349 | 13.3 | |
| | ∂ 8477 | . | Hot region |
| | ∂ 7840 | m.s. < 13.0 | E, |
| | ∂ 8058 | m.s. < 12.9 | |
| | ∂ 7613 | . | Off E. |
| 2.49 | | | |

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Saturday, April 17, 1915

R Ursae Majoris

c

| Plate No. | Magn. |
|---|---|
| I 16752 | 11.1 |

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# Circumpolar Variables

## Estimates of Brightness
## P Ursae Majoris.

12.10 Monday January 18, 1915

| | Plate No | Magn. | |
|---|---|---|---|
| | ac 2313 | 9.3 | Images long. |
| | ac 4800 | n.s. > 11.9 | |
| | ac 8161 | 8.7 | Plate reversed in taking. |
| | ac 7579 | n.s. > 10.4 | |
| | ac 3436 | n.s. > 11.2 | |
| | ac 4182 | 10.8 | |
| | ac 8184 | 8.5 | |
| | ac 8383 | n.s > 10.3 | |
| | ac 8316 | 10.4? | Very faint; image poor. |
| | ac 248 | n.s. > 11.2 | |
| | ac 8390 | n.s. > 11.2 | |
| | ac 448 | n.s. > 8.7 | E. Very poor |
| | ac 8434 | n.s. > 10.9 | |
| 1.00 | ac 6276 | 8.0 ? | E. |
| 1.25 | ac 6093 | 12.2 | |
| | ac 5825 | n.s. > 11.5 | |
| | ac 8459 | n.s. > 10.4 | |
| | ac 7324 | 8.4 | |
| | ac 1173 | n.s. > 10.3 | Two exposures? Trailed plate |
| | ac 8501 | n.s. > 9.2 | |
| | ac 9072 | 10.2 ? | Plate fogged |
| | ac 9128 | 10.5 | |
| | ac 9175 | 10.7 ? | Poor |
| | ac 554 | n.s. > 10.9 | E. |
| | ac 9218 | 11.7 | |
| | ac 1413 | Not meas. | Trailed. |
| | ac 550 | n.s. > 9.4 | |
| | ac 608 | n.s. > 10.3 | |

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Monday, January 18, 1915

R Ass. Maj.

| | Plate No. | Magn. | |
|---|---|---|---|
| ✓ | ac 1789 | n.s. > 10.3 | |
| | ac 645 | n.s. > 12.2 | |
| | ac 1096 | . | Trailed |
| | ac 707 | . | Trailed |
| | ac 785 | n.s. > 8.3 | Poor plate |
| | ac 1433 | 9.5 ? | Poor. |
| | ac 820 | . | Plate too poor - no stars seen |
| | ac 1334 | 8.5 | |
| | ac 1898 | n.s. > 10.9 | |
| | ac 1370 | 8.6 | |
| | ac 1953 | n.s. > 12.6 | |
| | ac 1386 | 8.6 | |
| | ac 1874 | n.s. > 10.3 | |
| | ac 2245 | * ~~9.7~~ ? | E. |
| | ac 2329 | 9.3 ? | E. Fogged badly |
| | ac 1410 | n.s. > 7.0 | Poor plate |
| P. 59 | ac 6276 | 8.0 ? | |
| | ac 2284 | 9.0 | |
| | ac 2385 | 9.7 ? | Poor |
| | ac 2408 | 10.3 | |
| | ac 2461 | n.s. > 8.7 | |
| | ac 2503 | n.s. > 10.3 | |
| | ac 2562 | n.s. > 8.7 | Poor. |
| | ac 3625 | n.s. > 10.9 | |
| | ac 4122 | 10.2 | |
| | ac 3632 | n.s. > 10.4 | |
| (5m ent) 2.50. | ac 3653 | n.s. > 10.9 | |
| | ac 2083 | 9.3 | |

* Reject. Spoils the [illegible] See p. 105

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Monday, January 16, 1915

2.55

P Tau. Majoris.

| Plate No. | Magn. | |
|---|---|---|
| ae 3714 | m.s. > 11.2 | |
| ae 3688 | m.s. > 10.3 | |
| ae 4163 | 10.3 ? | Poor |
| ae 4198 | 11.3 | |
| ae 4647 | m.s. > 11.8 | |
| ae 4360 | m.s. > 8.7 | |
| ae 5628 | m.s. > 11.8 | |
| ae 4400 | 11.9 ? | ± m.s. |
| ae 4708 | m.s. > 11.0 | |
| ae 4722 | m.s. > 11.8 | |
| ae 4430 | m.s. > 11.2 | |
| ae 4792 | m.s. > 11.8 | |
| ae 4576 | m.s. > 12.6 ? | |
| ae 4830 | m.s. > 11.8 | |
| ae 7502 | m.s. > 11.8 | |
| ae 7947 | m.s. > 10.2 | |
| ae 7616 | m.s. > 10.4 | |

3.20

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Tuesday, January 19, 1915

9.40

R Ursae Majoris

| Plate No. | Magn. | Remarks |
|---|---|---|
| ac 5985 | 12.3 | |
| ac 4170 | n.s. > 8.7 | Plate dark |
| ac 5727 | n.s. > 12.7 | |
| ac 8796 | 8.7 | |
| ac 5667 | 13.1 ? | Very faint |
| ac 5740 | * ~~12.1~~ ? | ≤ n.s. |
| ac 5808 | n.s. > 11.8 | |
| ac 6038 | n.s. > 9.9 | |
| ac 8046 | 10.1 | |
| ac 6194 | 10.4 | |
| ac 8122 | * ~~7.5~~ ? | Near limit of visibility: Poor plate |
| ac 6298 | 7.9 | |
| ac 7553 | 11.0 | Near limit of vis. |
| ac 6376 | | Too poor Plate not dent. |
| ac 7216 | n.s. > 10.3 | |
| ac 6872 | n.s. > 8.7 | Plate dark |
| ac 7367 | 8.6 | |
| ac 6387 | 8.4 | |
| ac 7407 | 8.5 | |
| ac 5471 | n.s. > 10.9 | |
| ac 4780 | n.s. > 10.9 | |
| ac 7480 | 10.0 | |
| ac 4326 | n.s. > 10.9 | |
| ac 4508 | n.s. > 10.3 | |
| ac 4926 | n.s. > 9.9 | |
| ac 5372 | 11.5 ? | Near limit of vis. |
| ac 4952 | 8.5 | |
| ac 5390 | 11.5 ? | Near limit of vis. |

* Put ? after brightness estimates.

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1914phae.proj.1043M



Tuesday January 19, 1915

R Ursae Majoris

| | Plate No. | Magn. | Remarks |
|---|---|---|---|
| | ac 5501 | 11.7? | near limit of vis. |
| | ac 5575 | m.s. > 10.9 | |
| | ac 5589 | m.s. > 10.9 | |
| | ac 9532 | m.s. > 10.4 | |
| 10.30 | ac 4584 | m.s. > 10.4 | |
| 11.20 | ac 9270 | m.s. > 11.8 | |
| | ac 9340 | m.s. > 11.5 | Plate badly fogged Two eyp.? or defects? |
| | ac 12922 | * ~~11.1~~ | |
| | ac 11515 | 8.7 | |
| | ac 12949 | 11.1? | near lim. of vis. |
| | ac 12958 | m.s. > 11.5 | |
| | ac 12805 | 8.6 | |
| | ac 11251 | m.s. > 11.9 | |
| | ac 9492 | m.s > 9.4 | |
| | ac 11432 | 10.0 | |
| | ac 11203 | m.s. ? > 12.9 | |
| | ac 9511 | m.s. > 10.3 | |
| | ac 11147 | m.s. > 11.5 | |
| | ac 9527 | m.s. > 10.3 | T' plate 1st eyp. meas. |
| | ac 11326 | m.s. > 11.8 | |
| | ac 9532 | m.s. > 10.9 | T' plate 1st eyp. meas. |
| | ac 10301 | m.s. > 12.9 | |
| | ac 11377 | 12.0 | |
| | ac 12873 | 10.3? | near limit of vis |
| | ac 9542 | m.s. > 11.5 | |
| | ac 10180 | m.s. > 10.9 | |
| | ac 11417 | 10.2 | |
| | ac 18223 | ‡ 12.4? | ≤ m.s. |

† Prot. 8 1918

* Reject Prot. possible variable on this plate. See p. 106

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Tuesday January 19, 1915

R Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| ✓ | ac 10317 | m.s. > 11.5? | T' Plate 1st rfp. meas. |
| | ac 10379 | m.s. ? > 12.0 | |
| | ac 12931 | 10.9 | |
| | ac 10427 | m.s. > 11.5? | Poor plate |
| | ac 10549 | 8.0 | |
| | ac 11057 | m.s. ? > 11.8 | |
| | ac 11121 | m.s. > 10.4 | |
| | ac 12834 | 9.3 | |
| | ac 11572 | 8.6 | |
| | ac 12852 | 9.6 | |
| | ac 12221 | m.s. > 9.4 | |
| | ac 12684 | 8.6 | |
| | ac 12232 | 11.0 | |
| | ac 12765 | 8.1 | |
| | ac 12244 | 10.3 | |
| | ac 12697 | 8.2 | |
| | ac 12308 | 8.9 | |
| | ac 9111 | 10.3 | |
| 12.10 | | | |
| 1.30 | ac 12981 | 12.2 ? | Near lim. of vis. & m.s.? |
| | ac 13920 | . | Trailed. |
| | ac 13071 | 12.2? | Near lim. of vis. & m.s. |
| | ac 13862 | m.s. > 10.3 | |
| | ac 13692 | m.s. > 12.0 | |
| | ac 13787 | m.s. > 9.4 | |
| | ac 13811 | m.s. > 11.8 | |
| | ac 14734 | . | Trailed. |
| | ac 13987 | m.s. > 10.9 | |

Rejected Series 3

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Tuesday, January 19, 1915

P. Ursae Majoris

C

| Plate No. | Magn. | |
|---|---|---|
| ac 13120 | n.s. > 10.4 | |
| ac 14781 | n.s. > 10.4 | |
| ac 13962 | n.s. > 7.5 | |
| ac 13094 | n.s. > 11.5 | |
| ac 13673 | n.s. > 9.4 | Poor plate |
| ac 13591 | n.s. > 11.8 | |
| ac 14768 | n.s. > 10.3 | Poor plate |
| ac 14653 | n.s. > 10.3 | |
| ac 13538 | 11.0 | |
| ac 14650 | n.s. > 12.0 | |
| ac 13507 | 10.5 | |
| ac 14885 | n.s. > 11.8 | |
| ac 13397 | 10.0 | |
| ac 13994 | n.s. > 10.4 | |
| ac 14038 | n.s. > 10.4 | |
| ac 14849 | n.s. > 10.4 | |
| ac 13146 | n.s. > 10.4 | |
| ac 14828 | n.s. > 10.9 | |
| ac 13899 | n.s. > 10.4 | |

2120

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Wednesday January 20, 1915

9.30

R Tursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 15817 | n.s. > 11.2 | |
| ac 15889 | 12.2 ? | 3 n.s. |
| ac 15879 | . | Does not cover |
| ac 15878 | . | " " " |
| ac 4392 | 12.0 ? | 3 n.s. |
| ac 4272 | 11.4 | Trailed |
| ac 4318 | n.s. > 10.4 | |
| ac 4174 | 10.2 | |
| ac 4207 | n.s. > 9.2 | |
| ac 3752 | n.s. > 11.8 | |
| ac 3448 | n.s. > 10.3 | |
| ac 3704 | n.s. > 12.6 | |
| ac 2474 | 12.2 ? | Im. of v def.? |
| ac 3587 | n.s. > 12.6 | |
| ac 2421 | 11.0 ? | Im. hazy |
| ac 3522 | ~~n.s. > 11.8~~ | Inochromatic See g. |
| ac 3416 | n.s. > 9.2 | Poor plate |
| ac 2412 | 10.4 | Trailed |
| ac 3514 | n.s. > 11.8 | |
| ac 2247 | 8.6 | |
| ac 3490 | n.s. > 10.9 | |
| ac 2168 | 8.5 | |
| ac 3123 | 9.5 | |
| ac 3423 | n.s. > 10.3 | |
| ac 3464 | n.s. > 12.0 | |
| ac ~~196~~ 289 | n.s. > 11.5 | |
| ac 196 | . | Trailed |
| ac 102 | 9.2 ? | Poor plate. g and l' used |

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Wednesday, January 20, 1915

R Ursae Majoris.

| Plate No. | Magn. | |
|---|---|---|
| ac 813 | 9.4 | |
| ac 237 | . | Trailed plate too difficult. |
| ac 1067 | n.s. > 11.8 | |
| ac 277 | n.s. > 12.6 | |
| ac 1467 | 10,2 | Trailed |
| ac 305 | . | Too poor |
| ac 1164 | n.s.? > 11.5 | Scratch over pos. of v |
| ac 1241 | 10,2 | |
| ac 2701 | . | Too poor |
| ac 583 | 12,8 ? | Near limit of vis. |
| ac 190 | . | Trailed plate |
| ac 2628 | n.s. > 11.8 | |
| ac 3203 | 10,8 | Does not comp. well. |
| ac 1543 | 10.6 ? | v not seen |
| ac 3280 | n.s. > 10.9 | |
| ac 1360 | 8.3 | |

(10 = out)
11.00

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Thursday January 21, 1915

9.30 P Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 1407 | 9.0 | |
| | ac 160 | . | Too poor. No stars seen. |
| | ac 2685 | m.s. > 10.3 | Poor plate |
| | ac 161 | . | Too poor. No stars seen |
| | ac 2570 | m.s. > 11.8 | |
| | ac 1564 | m.s > 11.5 ? | Plate fogged |
| | ac 3294 | 11.1 ? | Does not compare well |
| | ac 3308 | 11.4 | |
| | ac 1808 | m.s. ? > 10.9 | Plate scratched and marked in foc. surr. |
| | ac 3357 | 11.8 | |
| | ac 3258 | 10.9 | |
| | ac 2536 | m.s. > ~~11.0~~ 10.9 | |
| | ac 4242 | 11.0 | Plate scratched |
| | ac 2870 | 10.1 | |
| | ac 3290 | 11.7 | |
| 10.12 | ac 4123 | 10.2 | |
| 11.00 | ac 8102 | 8.2 | |
| | ac 3428 | m.s. > 10.9 | |
| | ac 8047 | 10.1 | |
| | ac 2035 | 11.7 | |
| | ac 7498 | 10.3 | |
| | ac 4108 | 10.3 | |
| 11.15 | ac 3434 | m.s. > 10.4 | |
| | | | |
| 11.35 | ac 6378 | 8.3 | |
| | ac 7751 | * ~~10.0~~ ? | Near lim. of vis. m.m.s. Poor plate. |
| | ac 6528 | m.s. > 9.4 | |
| | ac 6406 | 8.6 | |

* Reject. Too uncertain. Probably about Sept. 1915

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Thursday, January 21, 1915

P Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 6891 | n.s. > 8.7 | Poor plate |
| | ac 6958 | n.s. > 11.2 | " " |
| | ac 7201 | 10.9 | |
| | ac 4469 | n.s. > 8.7 | |
| | ac 4605 | n.s. > 10.9 | |
| | ac 4641 | n.s. > 10.9 | |
| | ac 4774 | n.s. > 10.9 | |
| | ac 5057 | 8.5 | |
| | ac 4928 | 10.3 | |
| | ac 5023 | 8.6 | |
| 12.20 | | | |
| 4.05 | ac 5577 | n.s. > 11.8 | |
| | ac 5629 | n.s. > 10.4 | |
| | ac 5624 | n.s. > 9.4 | |
| | ac 5758 | n.s. ? > 10.9 | Film scratched in foc. of v. |
| | ac 5826 | n.s. > 14.0 | |
| | ac 5886 | n.s. > 11.4 | |
| | ac 8135 | 8.1 | |
| | ac 6147 | 11.3 | |
| | ac 6304 | 7.7 | |
| | ac 6205 | 9.4 | |
| | ac 8198 | 8.6 | |
| | ac 6307 | 7.9 | |
| | ac 8204 | 8.9 | |
| | ac 8329 | 10.3 | |
| | ac 8259 | 9.5 | |
| 4.20 | ac 8465 | n.s. > 10.4 | |

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Measures from this plate, using revised mags. for 9 and the additional stars r', r², r³

Friday, January 22, 1915

Phrasa Majoris

| | Plate No | Magn. | |
|---|---|---|---|
| 12.45 | ac 5559 | 13.1 ? | near lim. of vis. Very faint |
| | ac 4883 | n.s. > 12.1? | |
| | ac 4683 | n.s. > 12.6 | |
| | ac 5440 | 11.8 ? | Very faint and blurred |
| | ac 6083 | 12.5 | |
| | ac 4615 | n.s. > 11.2 | |
| | ac 8409 | 11.8 | |
| | ac 4843 | n.s. > 12.9 | |
| | ac 7247 | 9.4 | |
| | ac 4436 | n.s. > 9.4 | |
| | ac 8372 | 10.9 | |
| | ac 4402 | 12.2 | |
| | ac 3365 | 11.9 ? | r and r² used r' > r ? on this plate |
| | ac 4611 | n.s. > 12.6 | |
| | ac 1915 | n.s. > 11.8 | |
| 1.00 | ac 4577 | n.s. > 13.4 | r' seen? |
| 1.35 | ac 2563 | n.s. > 12.9 | |
| | ac 4823 | n.s. > 12.4? | |
| | ac 3247 | 11.0 | |
| | ac 6277 | 8.2 | |
| | ac 2020 | n.s. > 11.8 | |
| | ac 4338 | 11.9 | near limit of vis. |
| | ac 4530 | n.s.? > 12.6 | |
| * | ac 2525 | * ~~11.9~~ ? | |
| | ac 4900 | n.s. > 11.4 | |
| | ac 7611 | n.s. > 11.8? | |
| | ac 4361 | n.s.? > 12.4 | |

* Reject. See 12:46

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Friday, January 22, 1915

R Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 4500 | n.s. > 11.8 | |
| | ac 4445 | 12.1 | |
| | ac 7351 | 8.4 | |
| | ac 4567 | n.s. > 11.8 | |
| | ac 5993 | 12.5 ? | Faint |
| 2.28 | ac 6056 | n.s. > 12.9 | |
| 3.15 | ac 11597 | . | Off plate |
| | ac 757 | n.s. > 9.2 | E. |
| | ac 11424 | . | Off plate |
| | ac 11548 | 8.7 ? | E. |
| | ac 751 | n.s. > 10.4 | E. |
| | ac 790 | . | Too poor E. |
| | ac 771 | n.s. > 10.4 | E. |
| | ac 621 | . | Too poor Extreme E. |
| | ac 620 | n.s. > 9.4 | E. |
| (5m out) | ac 516 | n.s. > 9.4 | E. |
| 3 4.35 | ac | | |
| 3.50 | ac 2513 | . | Too poor E. |
| | ac 2496 | n.s. > 10.3 | E. |
| | ac 2483 | . | Too poor E. |
| | ac 2470 | . | " " E. |
| | ac 2453 | n.s. > 10.9 | E. |
| | ac 2451 | . | Too poor. E. |
| | ac 2449 | n.s. ? > 10.4 | E. |
| | ac 2345 | 9.4 ? | E. |
| | ac 1988 | . | Off plate |

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Friday January 22, 1915

R Wrae Trapezium

| Plate No. | Magn. | |
|---|---|---|
| ac 2444 | m.s. > 9.4 | E. |
| ac 2286 | 9.0 ? | E. |
| ac 2422 | . | Too poor E. |
| ac 2392 | 10.3 ? | Very doubtful. E. |
| ac 2767 | . | Off plate |
| ac 2757 | m.s. > 10.3 | E. |
| ac 2654 | m.s. > 10.3 | E. |
| ac 2093 | . | Too poor E. |
| ac 1995 | m.s. > 10.4 | E |
| ac 1923 | m.s. > 10.3 | E. |
| ac 1876 | . | Too poor E. |
| ac 1856 | m.s. > 9.4 ? | E. |
| ac 1812 | . | Off plate |
| ac 1782 | . | Too poor E |
| ac 1811 | . | Off plate |
| ac 1764 | . | Too poor E. |
| ac 1731 | m.s. > 9.4 | |
| ac 1666 | . | Too poor E. |
| ac 1702 | . | Too poor E. |
| ac 1507 | . | Too poor E. |
| ac 1179 | m.s. > 10.9 | |
| ac 1026 | . | Too poor |
| ac 997 | . | Too poor |
| ac 956 | . | Too poor |
| ac 915 | . | Too poor E. |
| ac 889 | . | Off plate |
| ac 484 | . | Too poor E. |
| ac 853 | 8.1 ? | E. |
| ac 716 | . | Too poor E. |

4.30

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Monday, January 25, 1915

10.10 P Tauri Majoris.

| Plate No. | Magn. | |
|---|---|---|
| ac 3654 | . | Too poor Σ. |
| ac 3671 | n.s >10.4 | Σ. |
| ac 3764 | . | Too poor Σ, |
| ac 4307 | . | " " Σ. |
| ac 3925 | . | " " Σ. |
| ac 3059 | 8.8 ? | Plate No. marked over V. Extreme Σ. |
| ac 3633 | n.s.> 10.3 | Σ. |
| ac 3010 | 8.3 ? | Σ. |
| ac 3634 | n.s.> 9.2 | Σ. |
| ac 4304 | n.s.> 8.7 | Poor Plate |
| ac 2986 | . | Too poor Σ, |
| ac 4020 | . | " " Σ. |
| ac 2991 | 8.2 ? | Σ. |
| ac 3001 | 8.4 ? | Σ. |
| ac 3798 | n.s.> 8.7 | Poor plate Σ. |
| ac 4278 | n.s.> 10.4 | Σ |
| ac 3635 | n.s.> 8.7 | |
| ac 4050 | n.s.> 8.7 | |
| ac 2970 | 8.3 ? | Σ, |
| ac 3639 | n.s.> 8.7 | |
| ac 4079 | n.s.> 8.7 | |
| ac 2956 | . | off plate |
| ac 3013 | 8.3 ? | Σ. |
| ac 4114 | . | off plate |
| ac 2917 | . | c. stars off plate Σ. |
| ac 4249 | n.s.> 9.4 | Σ. |
| ac 4185 | n.s.> 9.4 | |
| ac 2873 | . | Too poor Σ. |

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Monday, January 25, 1915

R Ursae Majoris.

| Plate No. | Magn. | |
|---|---|---|
| ac 4666 | n.s. > 10.9 | E. |
| ac 2819 | n.s. > 8.7 | E. |
| ac 3748 | n.s. > 10.4 | E. |
| ac 3744 | n.s. > 8.7 | E, : |
| ac 3679 | n.s. > 10.3 | |
| ac 3069 | 8.7 ? | E, |
| ac 4004 | . | Off plate |
| ac 3981 | 9.2 ? | E. |
| ac 3968 | . | Too poor E. |
| ac 3938 | 8.8 ? | E. l off plate |
| ac 3921 | 9.3 ? | E. |
| ac 3907 | 8.9 ? | E. |
| ac 3834 | . | Too poor E. |
| ac 3626 | n.s. > 10.4 | |
| ac 3619 | n.s. > 10.4 | |
| ac 3146 | - | Too poor E. |
| ac 3843 | . | " " E. |
| ac 3802 | . | " " E. |
| ac 3806 | n.s.? > 8.7 | E. |
| ac 3890 | n.s. > 8.3 | E. |
| ac 3824 | n.s.? > 8.7 | |
| ac 3126 | 9.4 ? | E. |
| ac 3103 | 9.3 ? | E. l off plate |
| ac 3085 | n.s.? > 8.7 | |
| ac 4665 | n.s. > 9.4 | |

11.25

11.42 ac 6934 n.s. > 10.4

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Monday, January 25, 1915

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 6963 | n.s. > 10.4 | E. |
| ac 6981 | n.s. > 9.4 | E. |
| ac 6554 | n.s. > 8.7 | E. |
| ac 6993 | . | Fogged. E. |
| ac 6473 | . | Too faint E. |
| ac 7004 | . | Fogged E. |
| ac 7010 | . | Fogged E. |
| ac 6218 | 9.0 ? | & n.s. E. |
| ac 6024 | n.s. > 10.3 | E. |
| ac 5761 | n.s. ? > 8.7 | E. |
| ac 6052 | n.s. > 10.9 | E. |
| ac 5779 | n.s. > 10.4 | E. |
| ac 7020 | n.s. > 10.4 | E. |
| ac 7039 | n.s. > 10.4 | E. |
| ac 5891 | n.s. > 10.9 | E. |
| ac 7052 | n.s. > 10.9 | E. |
| ac 6923 | n.s. > 10.9 | E. |
| ac 6824 | n.s. > 10.4 | E. |
| ac 5544 | n.s. > 10.9 | |
| ac 5478 | . | Too faint E. |
| ac 6781 | n.s. > 8.7 | E. |
| ac 5465 | n.s > 10.3 | |
| ac 6727 | n.s. > 9.4 | |
| ac 5462 | n.s > 10.4 | |
| ac 6655 | . | Too faint E. |
| ac 5449 | n.s. > 8.7 | |
| ac 6627 | n.s > 9.4 | |
| ac 5445 | n.s. > 10.3 | |

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Monday, January 25, 1915

P Ursae Majoris

J

| Plate No. | Magn. | |
|---|---|---|
| ac 5304 | . | Too poor Σ. |
| ac 5264 | . | " " Σ, |
| ac 5166 | n.s. ? > 9.4 | Σ. |
| ac 5441 | n.s. > 8.7 | Σ. : Fogged |
| ac 6573 | n.s. > 10.4 | Σ. |
| ac 1585 | . | Too poor Σ. |
| ac 5075 | . | Off plate |
| ac 4664 | . | Trailed plate |
| ac 4662 | . | Too poor. |
| ac 4936 | . | Off plate |

12.30

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Tuesday, January 26, 1915

10.10 R Ursae Majoris

| Plate No. | Magn. | | c |
|---|---|---|---|
| ac 8710 | . | Too poor Σ. | |
| ac 8119 | 8.2? | Σ. | |
| ac 8064 | . | Too poor. | 4 exps. |
| ac 8063 | . | Difficult | 4 exps. |
| ac 7973 | . | Too poor Σ | |
| ac 7972 | . | Too poor Σ. | |
| ac 8734 | . | Too poor Σ. | |
| ac 8759 | . | Difficult Several exps. Poor plate | |
| ac 8546 | m.s. > 8.7 | Σ. | |
| ac 8588 | m.s. > 8.7 | Σ. | |
| ac 7967 | . | Too poor. | |
| ac 7956 | . | Too poor | |
| ac 7936 | m.s. > 8.7 | Σ | |
| ac 8636 | m.s. > 8.7 | Σ. | |
| ac 8641 | . | Too poor Σ. | |
| ac 7935 | m.s. > 9.4 | Σ. | |
| ac 8132 | 8.2? | Σ. | |
| ac 7927 | . | Too poor Σ. | |
| ac 8142 | 8.2? | Σ. | |
| ac 8168 | 8.4? | Σ. | |
| ac 7899 | . | Too poor Σ. | |
| ac 7897 | . | Too poor Σ. | |
| ac 7896 | . | Too poor Σ. | |
| ac 7894 | . | Too poor Σ. | |
| ac 8174 | 8.5? | Σ. | |
| ac 8203 | 8.7? | Σ. | |
| ac 7890 | m.s.? > 10.4 | Position of v covered by Plate No.? | |
| ac 8246 | 9.2? | Extreme edge & nearly off plate | |

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Tuesday, January 26, 1915

R Tvsar Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7859 | . | Too poor. Trailed. |
| ac 7806 | . | Too poor E. |
| ac 7803 | n.s. > 8.7 | E. |
| ac 7774 | n.s. > 9.4 | E. |
| ac 8322 | 10.3 ? | E. |
| ac 8467 | n.s. > 8.7 | E. |
| ac 8471 | n.s. > 10.4 | |
| ac 8124 | 8.2 ? | E. |
| ac 8123 | 8.2 ? | E. |
| ac 7704 | * ~~9.0~~ ? | * See note, p. 105 (star image) E n.s. Reject. Object differs in shape from others |
| ac 7693 | . | Too poor, E. |
| ac 8461 | . | Too poor E. |
| ac 7675 | n.s. > 8.7 | |
| ac 7639 | . | Too dark fogged |
| ac 7694 | . | Too poor E. |
| ac 8442 | n.s. > 10.9 | |
| ac 7461 | 9.3 ? | E. |
| ac 7635 | n.s. > 9.4 | |
| ac 8438 | . | Too poor. |
| ac 7430 | . | Trailed. |
| ac 7404 | 8.7 ? | E. |
| ac 7325 | 8.5? | E. Trailed |
| ac 7308 | 8.6? | E |
| ac 4701 | . | Off plate |
| ac 7150 | n.s. > 10.3 | E. |
| ac 4765 | n.s. > 10.3 | |
| ac 7193 | . | Too poor E. |
| ac 4768 | . | " " E |

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Tuesday, January 26, 1915

R Crucis Region

| Plate No. | Magn. | |
|---|---|---|
| ac 7198 | . | Off plate |
| ac 4861 | . | Trailed |
| ac 7268 | 8.7? | E. |
| ac 6554 | . | Too poor E. |
| ac 7280 | 8.6? | E. |
| ac 4915 | . | Too poor E. |
| ac 8272 | 9.9? | E. |
| ac 4931 | m.s.?>8.7 | E. |
| 11.25 | | |
| 11.40 ac 8787 | . | Too poor. |
| ac 8819 | . | Too poor. |
| ac 8802 | 9.4? | E. |
| ac 8762 | . | E. Too poor. |
| ac 8782 | . | Too poor. |
| ac 8764 | . | Too poor. |
| ac 8767 | . | Too poor E. |
| ac 9027 | . | Too difficult + cyps, |
| ac 9786 | . | Too poor, |
| ac 9028 | . | Too poor E. |
| ac 8756 | . | Too difficult + cyps. |
| ac 9787 | . | Too poor |
| ac 9029 | . | Too poor. |
| ac 9832 | . | Too poor. |
| ac 9030 | . | Too poor. |
| ac 9917 | m.s.>8.7 | E. |
| ac ~~4931~~ 8784 | . | extreme edge |
| ac 10043 | . | Off plate |
| ac 9921 | . | Too poor |

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Tuesday, January 26, 1915

R Ursae Majoris

J

| Plate No. | Magn. | |
|---|---|---|
| ac 8818 | 9,2 ? | E |
| ac 8768 | . | Too poor. E. |
| ac 10044 | . | E. v under Plate No. |
| ac 8820 | . | off plate |
| ac 10133 | m.s. > 10.4 | E, |
| ac 9581 | . | Too poor. |
| ac 8935 | . | Too poor. |
| ac 8793 | . | Too poor. |
| ac 10145 | m.s. > 10.3 | |
| ac 9023 | . | Too poor. |
| ac 9642 | . | Too near edge. |
| ac 8786 | m.s. > 9.4 | E. |
| ac 8766 | . | Too poor |
| ac 9071 | 10.1? | E. 4 ruffs. |
| ac 7289 | 8.7? | Trailed. E. |
| ac 8765 | . | Too poor. |
| ac 7384 | 8.7? | E. |
| ac 8424 | m.s. > 8.7 | E. |
| ac 1322 | . | Too near Edge. |
| ac 7306 | 8.5? | E. |
| ac 4769 | m.s. > 8.7 | E. |
| ac 4766 | m.s. > 9.4 | E. |
| ac 4709 | m.s. > 10.4 | |

12.32

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Wednesday, January 27, 1915

9.52

Pursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 9675 | . | off plate |
| ac 12086 | . | Too faint E. |
| ac 12078 | . | Too faint E. |
| ac 12057 | . | Too faint E. |
| ac 12077 | . | Too faint E. |
| ac 15056 | . | Too difficult - Wire gauge. |
| ac 11766 | . | Too faint E. |
| ac 12025 | . | " " E. |
| ac 1513 | n.s. > 10,4 | E. |
| ac 12018 | n.s. > 8,7 | E. |
| ac 1471 | 10,3 ? | E. |
| ac 11950 | . | Too faint E. |
| ac 11872 | . | Too faint E. |
| ac 12024 | . | " " E. |
| ac 1451 | 9,4 ? | E. |
| ac 12037 | n.s. > 8,7 | E. |
| ac 1408 | . | Too near edge. Comp. star off plate. |
| ac 12047 | n.s. > 8,7 | E |
| ac 1347 | . | off plate |
| ac 11738 | . | " " |
| ac 11941 | . | Too faint E. |
| ac 11496 | . | off plate |
| ac 11599 | . | Too faint E. |
| ac 11608 | . | " " E. |
| ac 11616 | . | " " E. |
| ac 11617 | . | " " E. |

10.37

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Wednesday, January 27, 1915

10.45 R Ursae Majoris

e

| Plate No. | Magn. | |
|---|---|---|
| ac 11632 | . | Too poor. |
| ac 11633 | . | " " |
| ac 11479 | . | off plate. |
| ac 11387 | . | " " |
| ac 11430 | 9.7? | E. |
| ac 9505 | . | Too poor. E. |
| ac 9519 | . | " " E. |
| ac 9579 | . | off plate |
| ac 8775(?) | . | Too poor |
| ac 8776 | . | " " |
| ac 9502 | . | " " |
| ac 8777 | . | " " |
| ac 9500 | m.s. > 8.7 | E. |
| ac 9485 | . | Too poor |
| ac 9478 | m.s. > 8.7 | E. |
| ac 8794 | . | Too poor. |
| ac 9200 | . | off plate |
| ac 9470 | . | Too poor E. |
| ac 7666 | . | Too difficult |
| ac 4737 | * ~~10.9~~? | E. |
| ac 4659 | m.s. > 10.9 | E |
| ac 4658 | m.s > 8.7 | E |
| ac 4496 | m.s. > 10.3 | E. |
| ac 11270 | m.s? > 11.8 | |
| ac 10656 | 8.9 | |
| ac 232 | . | Too poor. |
| ac 298 | . | off plate |
| ac 229 | . | Too poor E |

*Repeat E in the morning. Vars. Sculp. 105

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Wednesday, January 27, 1915

R Trifidae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ae 327 | . | Too poor. |
| | ae 180 | . | " " |
| | ae 247 | n.s. > 10.3 | E. |
| | ae 307 | . | Too poor |
| | ae 210 | . | off plate |
| | ae 274 | . | Too poor. |
| | ae 308 | . | Too difficult. - focus plate |
| | ae 446 | . | Too poor. |
| | ae 8197 | . | " " |
| | ae 451 | . | " " |
| | ae 181 | n.s. > 8.7 | " " E. |
| | ae 230 | . | off plate |
| | ae 175 | . | Too difficult Focus plate? |
| | ae 445 | n.s.? > 8.7 | E. |
| | ae 231 | . | off plate |
| | ae 68 | . | Too poor. |
| | ae 440 | 9.6? | m. n.s E. |
| 11.55 | | | |
| 12.13 | ae 14503 | . | off plate |
| | ae 14623 | n.s. > 10.3 | E. |
| | ae 14553 | . | Too poor |
| | ae 14555 | n.s. > 8.7 | E. |
| | ae 14695 | . | off plate |
| | ae 14729 | n.s. > 10.3 | E. |
| | ae 14770 | . | off plate |
| | ae 14901 | . | " " |
| | ae 14915 | n.s. > 11.4 | E. |
| | ae 14472 | . | off plate |

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Wednesday, January 27, 1915

R Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 14413 | n.s. > 8.7 | E. |
| | ac 12573 | . | Off plate |
| | ac 14475 | . | Too faint. |
| | ac 14482 | . | Off plate |
| | ac 14325 | . | Too faint. |
| | ac 13241 | . | " " E. |
| | ac 14467 | n.s. > 8.7 | E. |
| | ac 13262 | 8.8 ? | E. |
| | ac 13147 | n.s. > 8.7 | |
| | ac 13278 | 8.8 ? | E. |
| | ac 14338 | n.s. > 8.7 | E |
| | ac 12612 | . | Off plate |
| | ac 12664 | 8.6 ? | Just off plate E. |
| 12.48 | | | |
| 3.11 | ac 12433 | . | Off plate |
| | ac 12475 | . | Too faint Edge |
| | ac 12481 | . | Off plate |
| | ac 14314 | . | Too faint |
| | ac 12522 | . | Too near edge |
| | ac 12287 | 9.3 ? | E. |
| | ac 12365 | . | Too near edge. |
| | ac 14250 | . | Off plate |
| | ac 12374 | . | Too faint |
| | ac 14251 | . | " " |
| | ac 12258 | . | Too near edge |
| | ac 14260 | . | Too faint |
| | ac 12227 | . | " " E |

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Wednesday. January 27, 1915

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ae 12136 | * 8.8 ? | E. |
| ae 12094 | . | Too faint |
| ae 12135 | . | Off plate |
| ae 12121 | . | " " |
| ae 14131 | ~~n.s. > 8.~~ . | Too faint |
| ae 12127 | . | Off plate |
| ae 12113 | . | Too near Edge |
| ae 12110 | . | Too difficult - wire gauge |
| ae 14134 | . | Too faint. |
| ae 13803 | . | " " |
| ae 14169 | 8.3 ? | E. |
| ae 14077 | . | Too faint. |
| ae 13806 | n.s. > 8.7 | E. |
| ae 14089 | . | Off plate |
| ae 13807 | n.s. > 9.4 | |
| ae 14095 | . | Too faint. |
| ae 13948 | . | " " |
| ae 14040 | . | Off plate |
| ae 13708 | n.s. > 10.3 | E. |
| ae 13843 | n.s. > 10.4 | E. |
| ae 13782 | n.s. ? > 10.4 | V under plate no ? |
| ae 13853 | n.s. > 9.4 | E. |
| ae 13469 | n.s. > 8.7 | E. |
| ae 13854 | . | Off plate |
| ae 13863 | . | " " |
| ae 13646 | n.s. > 10.4 | E. |
| ae 15566 | . | Off plate |
| ae 13552 | . | Too faint |

* Reject. G.F.M. Dec. 1, 1915 See note 12:46

4.01

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Thursday, January 28, 1915

9.50

R Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| ✓ | ac 13498 | n.s. > 8.7 | E. |
| | ac 13525 | n.s > 8.7 | E. |
| | ac 13454 | n.s. > 8.7 | E |
| | ac 13514 | . | Off plate |
| | ac 13546 | n.s. > 10.3 | E. |
| | ac 13382 | 9.3 ? | E. |
| | ac 13398 | 9.4 ? | E. |
| | ac 13347 | 9.3 ? | E. |
| 10.07 | | | |
| 10.30 | | | |
| | ac 11393 | 11.0 | |
| | ac 9412 | n.s. > 12.9 | |
| | ac 13161 | n.s. > 10.3 | |
| | ac 10399 | n.s.? > 10.4? | Extreme E. |
| | ac 13138 | n.s. > 10.9 | |
| | ac 10380 | 12.7 ? | Very faint |
| | ac 8563 | * ~~9.4~~ ? | " " |
| | ac 13174 | n.s. > 11.8 | |
| | ac 10181 | n.s. > 12.4 | |
| | ac 8586 | n.s. > 8.7 | |
| | ac 10303 | 13.2 ? | Very faint |
| | ac 8602 | n.s. > 8.7 | |
| | ac 10219 | n.s. > 10.4 | E. |
| | ac 13184 | n.s. > 10.3 | |
| See p. 88 | ac 9344 | n.s. > 11.0 | |
| | ac 9268 | . | Too faint |
| | ac 10227 | ‡ 12.1 ? | Faint |
| | ac 8720 | n.s. > 9.4 | |

‡ Reject. See 12:48

* Reject. D plate measured. See p. 104

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Thursday, January 28, 1915

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 10294 | m.s. > 10.9 | |
| ac 9299 | . | Off plate |
| ac 10296 | . | " " |
| ac 13201 | m.s. > 9.4 | |
| ac 8943 | 8.6 | |
| ac 10403 | 12.2 | Very faint |
| ac 9301 | m.s. > 11.0 | |
| ac 13229 | m.s. > 9.4 | |
| ac 10422 | m.s. > 11.0 | Trailed |
| ac 14015 | m.s. > 8.7 | |
| ac 10587 | 8.0 ? | E. |
| ac 14036 | m.s. > 11.0 | |
| ac 10593 | . | Too near edge |
| ac 13977 | m.s. > 10.9 | |
| ac 10353 | m.s. > 11.0 | |
| ac 10606 | 8.0 ? | E. |
| ac 13869 | m.s. > 10.3 | |
| ac 10634 | . | Too near edge |
| ac 10611 | . | " " " |
| ac 13781 | . | Trailed. Class C. |
| ac 14873 | m.s. > 11.2 | |
| ac 10667 | . | Too near edge |
| ac 14890 | m.s. > 10.9 | |
| ac 10687 | . | Too near edge |
| ac 14914 | . | Trailed Class C |
| ac 10705 | . | Too near edge |

11.37

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Thursday, January 28, 1915

11.46 R Ursae Majoris.

| | Plate No. | Magn. | |
|---|---|---|---|
| See p. 86 | ac 9344 | n.s. > 11.2 | |
| | ac 10356 | . | Off plate |
| | ac 10824 | n.s.? > 10.4 | Def. in foc. of v.? |
| | ac 9467 | n.s. > 11.8 | E. |
| | ac 11024 | n.s. > 10.9 | |
| | ac 11149 | n.s. > 11.4 | |
| | ac 9019 | 9.3 | |
| 12.05? | ac 13524 | 11.0 ? | Does not compare well |
| ~~+5~~ | | | |
| 12.17 | | | |
| | ac 10466 | 10.3 ? | E. |
| | ac 9112 | n.s. > 10.4 | Plate dark |
| | ac 10480 | 9.3 ? | E. |
| | ac 9346 | n.s. > 10.4 | |
| | ac 10484 | 9.3 | |
| | ac 9422 | . | Too dark |
| | ac 9161 | 11.0 | |
| | ac 9267 | n.s. > 10.4 | |
| | ac 8656 | . | Too foor E. |
| | ac 14136 | 8.6 | E. |
| | ac 9444 | . | Too near edge |
| | ac 10540 | 8.1 | |
| | ac 10574 | 8.1 | |
| 12.27 | | | |
| 12.30 | ac 12316 | 9.0 | |
| | ac 11194 | . | Off plate |
| | ac 11589 | 8.9 | |

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Thursday, January 29, 1915

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 11332 | . | Off plate |
| ac 11418 | ~~9.7~~ 10.2 | (Wrong comp. stars used) |
| ac 11433 | 10.1 | |
| ac 12205 | 10.3 | |
| ac 12030 | n.s. > 11.8 | |
| ac 12105 | n.s. > 11.8 | |
| ac 11511 | 8.6? | E. |
| ac 12236 | 10.6 | |
| ac 11525 | 8.6 | |
| ac 12213 | 11.9? | Does not compare well |
| 12.42 | | |
| 3.40 | ac 13027 | 12.3 |
| | ac 12524 | n.s. > 11.2 |
| | ac 12357 | 9.0 |
| | ac 13116 | n.s. > 12.4 |
| | ac 13060 | n.s. > 11.2 |
| | ac 13972 | n.s. > 10.9 |
| | ac 12189 | 12.2 |
| | ac 13864 | . Trailed. |
| | ac 11668 | 10.2 |
| | ac 11672 | 10.1 |
| | ac 13815 | n.s. > 12.6 |
| | ac 12409 | n.s. > 10.4 |
| | ac 11539 | . Too near edge |
| | ac 13857 | 13.1? Faint |
| | ac 11569 | . Too near edge |
| | ac 13904 | n.s. > 10.3 |

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Thursday January 28, 1915

P Ursae Majoris

U

| Plate No | Magn. | |
|---|---|---|
| ac 12833 | 9.3 | |
| ac 13927 | . | Trailed |
| ac 11526 | . | Too near edge |
| ac 12896 | 10.3 | |
| ac 13149 | . | Too dark |
| ac 13606 | m.s.? > 11.8 | |
| ac 13996 | m.s. > 10.3 | |
| ac 13084 | 13.1 | |
| ac 13748 | m.s. > 12.9 | |
| ac 12132 | m.s. > 11.2 | |
| ac 13705 | . | Too faint. |
| ac 12319 | 9.2 | |
| ac 12436 | m.s. > 10.9 | |
| ac 13225 | . | Too faint t > s ? |
| ac 12590 | m.s.? > 11.8 | |
| ac 13664 | m.s. > 10.3 | |
| ac 13044 | m.s. > 11.2 | |
| ac 13579 | 11.3 | |
| ac 13518 | m.s. > 10.4 | |

4.04

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Friday, January 29, 1915

12:00 R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 13519 | 11.3 | |
| ac 11357 | n.s. > 11.2 | |
| ac 11537 | 8.6 | |
| ac 11560 | 8.7 | |
| ac 12408 | n.s. > 9.4 | |
| ac 12905 | ‡ ~~11.6~~ | |
| ac 12963 | 11.7 | Does not compare well |
| ac 11667 | 9.6 | |
| ac 13045 | n.s. > 10.9 | |
| ac 13049 | n.s. > 10.9 | |
| ac 13075 | 12.8 | |
| ac 14059 | 10.3 | |
| ac 13129 | n.s. > 10.9 | |
| ac 14880 | n.s. > 11.4 | |
| ac 13097 | n.s. > 12.4 | |
| ac 13115 | n.s. > 10.9 | |
| ac 14820 | n.s. > 11.4 | |
| ac 13182 | n.s. > 11.2 | |
| 12:23 | | |
| 12:30 ac 10586 | 7.9 | |
| ac 7459 | 9.3 | |
| ac 10223 | n.s. > 10.3 | |
| ac 10503 | 8.7 | |
| ac 13641 | 12.5 | |
| ac 8371 | * ~~11.8~~ ? | Scratched |
| ac 7217 | 9.4 ? | Fogged unevenly |
| ac 8598 | n.s. > 10.3 | |
| ac 9446 | n.s. > 10.9 | |

‡ Reject. This measure could not possibly be correct. Mistake of unit in recording? See p. 106.

* See p. 105 Reject V evidently combined with η Ursæ is scratched & definitive

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Friday, January 29, 1915

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7273 | 8.9 | |
| ac 9539 | n.s. > 10.9 | |
| ac 6862 | . | Too poor. Fogged |
| ac 10531 | 7.9 | |
| ac 10276 | n.s. > 12.9 | t > 8? |
| ac 6525 | n.s. > 9.4 | |
| ac 10538 | 7.8 | |
| ac 10460 | 10.5 | |
| ac 10545 | 7.9 | |
| ac 13989 | n.s. > 11.4 | |
| ac 10293 | n.s. > 12.1 | |
| ac 10373 | 12.5? | 3 n.s. |
| ac 8554 | n.s. > 10.4 | |
| ac 8571 | n.s. > 9.4 | |
| ac 10405 | 12.5 | |
| ac 8640 | n.s. > 10.4 | |
| ac 6949 | n.s. > 11.8 | |
| ac 7381 | 8.9 | |
| ac 9345 | n.s. > 10.9 | |
| ac 10664 | 9.1 | Does not compare well - hazy |
| ac 8646 | n.s. > 9.4 | |
| ac 10488 | 9.3? | Poor plate |
| ac 8690 | n.s. > 10.4 | |
| ac 7344 | 8.6 | |
| ac 11195 | n.s. > 11.8 | |
| ac 8713 | n.s. > 8.7 | |
| ac 9176 | 10.9 | |

1.05.

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Friday, January 29, 1915

1.45 R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7376 | 8.9 | |
| ac 9229 | 11.8 ? | Does not comfare well |
| ac 11269 | n.s.? > 10.9 | |
| ac 9281 | n.s. > 10.9 | |
| ac 11313 | 12.5 | |
| ac 7392 | 9.0 | |
| ac 14925 | n.s. > 11.4 | |
| ac 7403 | 8.9 | |
| ac 7444 | 9.0 | |
| ac 9587 | n.s. > 10.3 | |
| ac 6457 | 9.6 | |
| ac 7452 | 9.1 | |
| ac 10190 | n.s. > 12.1 | |

2.07

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Friday, January 29, 1915

3.0 20

R Ursae Majoris

| Plate No. | Magn. | Yellow Plates |
|---|---|---|
| ac 13819 | . | Too poor |
| ac 13941 | . | " " |
| ac 13931 | . | off plate |
| ac 13926 | . | Too poor |
| ac 14139 | . | " " |
| ac 14181 | . | " " |
| ac 14193 | . | " " |
| ac 14272 | . | " " |
| ac 14265 | . | " " |
| ac 14397 | . | " " |
| ac 14468 | . | " " |
| ac 14474 | . | " " |
| ac 14473 | . | " " |
| ac 14469 | . | " " |
| ac 9147 | . | " " |
| ac 9236 | . | " " |
| ac 2818 | | |
| | V m,s. | |
| | # 2' 2N | |
| ac 2469 | . | Too poor |
| ac 9508 | . | " " |
| ac 2000 | . | " " |
| ac 9596 35-22 | . | " " |
| ac 13601 | . | " " |
| ac 3522 | V m.s | |
| | p 1 N | |
| ac 15839 | . | ~~Too~~ off plate |
| ac 9232 | . | Too poor |

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1914phae.proj.1043w



Friday, January 29, 1915

R Russae Trajoris

| Plate no. | Magn. | Yellow Plates |
|---|---|---|
| ac 13900 | | |
| | V n.s. | |
| | o 1 N. | |
| ac 13799 | | |
| | V n.s. | |
| | m 1 N ? | |
| ac 13916 | | |
| | V n.s. | |
| | m 1 N ? | |
| ac 8395 | | |
| | V n.s. | |
| | l' ½ N | |
| ac 13894 | . | Too faint. |
| ac 13674 | | |
| | V n.s. | |
| | l' 2 N | |
| ac 13956 | | |
| | V n.s. | |
| | l' 1 N | |
| ac 13789 | | |
| | V n.s | |
| | l' 1 N | |
| ac 13360 | . | Too faint. |
| ac 13893 | . | " " |
| ac 13379 | . | " " E. |
| ac 13950 | | |
| | V n.s. | |
| | n o N | |
| ac 13488 | | Too faint E. |

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Friday, January 29, 1915

R Ursae Majoris

Plate no. Magn.

| | | | |
|---|---|---|---|
| | ac 8130 | 8.3 ? | E. |
| | ac 11598 | 8.7 ? | E. Trailed 2 e/ps. |
| | ac 7968 | . | Too faint. |
| | ac 159 | . | " " |
| | ac 766 | n.s. > 10.4 | . |
| | ac 10419 | . | Trailed 2 e/ps. |
| (8m out) | ac 15884 | . | off plate |
| | ac 309 | n.s. > 8.7 | |
| | ac 13623 | . | off plate |
| | ac 10317 | . | Too difficult 2 e/ps. |
| | ac 9532 | n.s. > 10.3 ? | 2 e/ps. |
| | ac 9527 | n.s. > 10.3 ? | " |
| | ac 7418 | 8.9 | |
| | ac 13675 | n.s. > 8.7 | |
| (14m out) | ac 3604 | n.s. > 10.4 | |
| | ac 2319 | . | Trailed |
| | ac 765 | n.s. > 10.3 | |
| | ac 170 | n.s. > 10.9 | |
| | ac 8225 | 9.3 | |
| | ac 1159 | n.s. ? > 12.9 | Two defects(?) near for. of V t > s ? |
| | ac 5847 | n.s. > 11.4 | |

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Friday, January 29, 1915

ρ Ursae Majoris

| Plate No. | Magn. | Yellow |
|---|---|---|
| ac 13892 | | |
| | V m.s | |
| | l 2 N | |
| ac 13797 | | |
| | V m.s. | |
| | n l N ? | |

(Total 22 m out)

4.32

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Saturday, January 30, 1915

11.18 R Ursae Majoris

e

| Plate No. | Magn. | |
|---|---|---|
| mB 3107 | n.s., > 12.4 | |
| mB 3153 | n.s., > 11.8 | |
| mB 3236 | n.s., > 11.8 | |
| mB 3020 | n.s., > 12.1 | |
| mB 2828 | n.s., > 11.4 | |
| | | |
| mC 2030 | ~~9.3~~ ?? | Dm. of 9 diff. to compare P.C.'s used |
| mC 5349 | 9.3 : | P.C.'s compared |
| mC 5325 | 9.3 : | P.C.'s compared |
| mC 3107 | n.s., > 14.0 | |
| mC 2828 | 14.2 | |
| mC 3153 | 14.3 : | y n.s. |
| mC 3020 | | Yellow Plate |
| | $r^2$ 1 V | |
| | V 2 $r^3$ | |
| mC 5312 | | " " |
| | $l'$ 3 V | |
| | V 2 N | |
| mC 5219 | | " " |
| | $l$ 4 V | |
| | V 3 K | |
| mC 4955 | | " " |
| | $r'$ 2 V | |
| | V 1 $r^2$ | |
| mC 3236 | | " " |
| | V n. s. | |
| | q 1 N | |

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Saturday, January 30, 1915

R Ursae Majoris

| Plate No | Magn. | |
|---|---|---|
| ac 3537 | n.s. > 11.8 | |
| ac 13695 | n.s.? > 12.9 | t > n.s.? |
| ac 8485 | n.s. > 12.9 | Plate streaked |
| ac 11120 | n.s. > 11.8 | |
| ac 11471 | 9.4 | |
| ac 3481 | n.s. > 12.1 | |
| ac 3400 | 12.0 | |
| ac 4191 | 10.4 | |
| ac 12884 | 10.4 | |
| ac 10755 | 10.1? | Very doubtful on n.s.? |
| ac 11058 | n.s. > 11.4 | |
| ac 2159 | 8.6? | E. |
| ac 1218 | 10.4? | E. |
| ac 2579 | n.s. > 11.2 | |

12.18

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Tuesday ~~Monday~~, February 2, 1915

2.07

P Wrae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ae 9477 | m.s. > 11.2 | |
| ae 9495 | m.s. > ~~9.7~~ 10.9 | T' plate ☆. |
| ae 9499 | m.s. > 9.9 | |
| ae 9522 | . | Too faint E. |
| ae 10001 | . | off plate |
| ae 9~~6~~56 5~~5~~0 | m.s. > 10.4 | |
| ae 9565 | m.s. > 10.4 | |
| ae 9874 | 11.0 ? | T' plate Defect? |
| ae 9506 | m.s. > 10.9 | |
| ae 10000 | m.s. > 11.0 | |
| ae 9533 | . | Too near edge |
| ae 9624 | . | " " " |
| ae 9837 | 10.4 ? | E. |
| ae 9842 | . | Too faint E. |
| ae 10008 | m.s. > 10.4 | |
| ae 9918 | . | ~~Extreme~~ E. |
| ae 9708 | . | " " |

2.42

Wron

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1914phae.proj.1043w



Saturday, February 6, 1915

4.00 P Ursae Majoris

| Plate no. | Magn. | |
|---|---|---|
| ac 14080 | 10.0 | |
| ac 15188 | 9.0 | |
| ac 15139 | . | Does not cover. |
| ac 15016 | . | " " " |
| ac 15577 | . | " " " |
| ac 15848 | n.s. > 11.2 | |
| ac 15020 | 11.8 ? | Very faint |
| ac 14087 | 10.0 | |
| ac 15811 | 13.0 ? | Faint, ⊔ n.s. |
| ac 15193 | . | Does not cover |
| ac 15159 | . | " " " |
| ac 14972 | 11.9 ? | Faint ⊓² n.s.? |
| ac 15792 | . | Does not cover. |
| ac 15791 | . | " " " |
| ac 15160 | . | " " " |
| ac 15141 | 8.9 | |
| ac 15125 | 9.0 | |
| ac 15756 | . | Too near ♀. |
| ac 15578 | . | Does not cover |
| ac 15147 | . | " " " |
| ac 15556 | n.s. > 8.7 | ♀. |
| ac 15747 | n.s. > 10.9 | ♀ |
| ac 15579 | . | Does not cover |
| ac 14929 | . | " " " |
| ac 15735 | . | " " " |
| ac 15446 | n.s. > 10.4 | ♀. |
| ac 15125 | . | Das not cover. |
| ac 14931 | . | Trailed. Too difficult. |

Wrong number?

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Saturday, February 6, 1915

R Coronae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 14973 | 12.2 ? | Very faint |
| ac 15153 | 8.9 | |
| ac 15551 | . | Does not cover. |
| ac 15421 | n.s. > 8.7 | E. |
| ac 14992 | . | Does not cover. |
| ac 15292 | . | " " " |
| ac 15784 | . | " " " |
| ac 15497 | n.s. > 9.4 | |
| ac 15013 | . | Does not cover. |
| ac 15192 | 8.7 ? | E. |
| ac 14934 | n.s. > 10.9 | |
| ac 14452 | n.s. > 10.9 | |
| ac 15207 | 9.0 | |
| ac 14756 | n.s. > 10.9 | |
| ac 14787 | n.s. > 11.4 | |
| ac 14942 | . | Too poor. |
| ac 15208 | 9.0 | |
| ac 14933 | n.s. > 8.7 | |
| ac 14324 | . | Too difficult 3 exps. |
| ac 15012 | n.s. > 11.2 | |
| ac 14935 | n.s. > 10.4 | |
| ac 14696 | 12.6 ? | Very faint Measure doubtful |
| ac 15111 | 9.1 | |

4:57

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Monday, February 8, 1915

2.35 Pleiades Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 15546 | m.s. > 9.4 | Yellow Plates |
| ac 14947 | √ m.s. p l N | |
| ac 15063 | l' 2 V √ 3 K | |
| ac 14683 | √ m.s. K l N | |
| ac 15071 | . | Does not cover. |
| ac 15045 | . | " " " |
| ac 15087 | l 1 V √ 5 K | |
| ac 15077 | . | Trailed |
| ac 14961 | . | Does not cover. |
| ac 15049 | K 1 V √ 3 m | |
| ac 15165 | l 1 V √ 3 l' | |
| ac 15019 | l' 2 V | |

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Monday. February 6, 1915

Ursae Majoris

| Plate No. | Magn. | Yellow Plates |
|---|---|---|
| ac 15053 | | |
| | l 3 √ | |
| | √ 1 k | |
| ac 15073 | | |
| | V. l | |
| ac 15059 | | |
| | k 2 √ | |
| | √ 3 m | |
| ac 14958 | | Does not cover. |

3.06

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Wednesday, February 10, 1915

12.25 Ursae Majoris (Remeasures)

| Plate No. | Magn. | |
|---|---|---|
| ac 7751 | n.s.? > 9.4 | |
| ac 13071 | 12.0 ? | Blurred. Def.? |
| ac 5667 | 13.0 ? | Very faint u n.s. |
| ac 7704 | ~~8.4?~~ * | Very poor Edge. |
| ac 4737 | n.s.? > 11.8 | E. |
| ac 5740 | n.s.? > 12.4 | E. |
| ac 2245 | 8.8 ? | E. |
| ac 8122 | | Too poor. |
| ac 13857 | 13.6 ? | u' n.s. V very faint |
| ac 8563 | n.s. > 10.3 | Def. in pos. of V |
| ac 13398 | 9.3 ? | Very poor E. |
| ac 8371 | ‡ 11.9 ? | Very poor u² n.s. |
| ac 8571 | n.s. > 9.4 | |
| ac 9874 | 10.9 ? | T' plate, but image of V not from the other exposure. Image sharp like def. but superposes exactly on image of V on other plates. |

12.54

** Reject, since probably defective.

* Reject. Object, though in position of variable, must be a defect. Differs greatly in shape and character from images of stars, upon examination with high power eye-piece.

‡ Reject plate. V, if seen, is mere shadow on plate. Too uncertain. There is a scratch over the region, and the object evidently taken for it is probably a defect. V probably > 11.0.

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Thursday, February 11, 1915

10.17

P Ursae Majoris (Remeasures)

| Plate No. | Magn. | |
|---|---|---|
| ac 12931 | 10.9 | |
| ac 11668 | 10.0 | |
| ac 12922 | 10.8 | |
| ac 13075 | 13.0? | faint |
| ac 12896 | 10.4? | Does not compare well |
| ac 11667 | 9.6 | |
| ac 12905 | 10.4 | |

10.25

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Friday, April 9, 19 15

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| C. 3429 | 14.2? | X m.s. |

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Friday April 16. 1915

10.55

R Virginis Majoris

| Plate | Mag. | Magn. | |
|---|---|---|---|
| I | 28161 | 8.4 | |
| I | ac 18101 | 13.3? | Faint. |
| I | ac 17345 | 9.6? | Poor |
| I | ac 18203 | n.s. < 11.4 | |
| I | ac 18413 | n.s. < 11.5 | |
| I | ac 17526 | 10.8 | |
| I | ac 18604 | 14.0? | Faint |
| I | ac 19784 | 8.9? | Poor |
| I | ac 20442 | 12.0 | |
| I | 20411 | 12.2 | |
| I | 16914 | 8.5 | |
| I | 16249 | n.s. < 13.4 | |
| I | 28160 | 8.7 | |
| I | 28343 | 8.5 | |
| I | 16437 | 14.3 | |
| I | 28530 | 9.5? | E |
| I | 16119 | 14.0? | Faint |
| I | 16508 | 13.6? | n'n.s. |
| I | 16617 | 13.2 | |
| I | 12786 | 8.5 | |
| I | 15987 | n.s. < 13.4 | |
| I | 23624 | 10.4 | |
| I | 25151 | 9.2? | |
| I | 21847 | 10.3 | |
| I | 22710 | n.s. < 12.9 | |
| I | 22755 | n.s. < 12.4 | |
| I | 22929 | n.s. < 12.9 | |
| I | 16916 | 8.4 | |
| I | 17832 | 11.7 | |
| I | 17058 | 8.4 | |

For additional measures, omitted in first measuring, and late plates, see Int. 12: 29.

12.20

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# Circumpolar Variables

## Estimates of Brightness

## & Irregular Maxima

12.25 Wednesday ~~Tuesday~~, February 17, 1915

| | Plate No. | Magn. | |
|---|---|---|---|
| | AC 13174 | 12.1 | |
| | AC 3466 | 11.3 | |
| | AC 3500 | n.s. ? < 11.8 | |
| | AC 2475 | 8.5 | |
| | AC 3680 | n.s. < 11.8 | |
| | AC 2140 | n.s. < 12.6 | |
| | AC 3542 | n.s. < 11.8 | |
| | AC 4340 | 10.9 | |
| | AC 3900 | 9.5 ? | Difficult comp. stars distant |
| | AC 4176 | n.s. < 9.4 | |
| | AC 4516 | 12.1 ? | Very faint |
| | AC 4591 | n.s. < 10.6 | |
| | AC 4634 | n.s. < 12.6 | |
| | AC 2559 | 8.8 | |
| | AC 4460 | 11.7 ? | Faint |
| | AC 2259 | n.s. ? < 12.6 | |
| | AC 2508 | 8.1 | Comp. stars distant |
| | AC 2566 | 8.4 | " " " |
| | AC 2263 | n.s. < 12.4 | |
| | AC 2689 | 10.3 ? | Near lim. of vis. |
| | AC 3640 | n.s. < 9.7 | |
| | AC 4199 | 9.6 ? | Near lim. of vis. |
| 1.10 | | | |
| 2.15 | AC 3351 | 9.7 | |
| | AC 13781 | | Trailed |
| | AC 10611 | 9.6 | |
| | AC 14890 | n.s. < 11.8 | |
| | AC 13869 | n.s. < 10.6 | |

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Wednesday, February 17, 1915

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 10667 | n.s.? < 8.6 | |
| ac 9467 | n.s. < 12.4 | |
| ac 10687 | n.s.? < 10.6 | |
| ac 3317 | 9.6 | |
| ~~ac 13950~~ | ~~n.s. < 10.6~~ | ~~Too. See f.~~ |
| ac 10634 | n.s. < 9.6 | |
| ac 3303 | 9.3 | Comp. stars dist. |
| ac 10606 | 9.8 | Faint |
| ac 3114 | 8.5 | |
| ac 14914 | . | Trailed |
| ac 3097 | 8.5 | |
| ac 13789 | n.s. < 9.7 | |
| ac 10353 | n.s. < 11.0 | |
| ac 2932 | n.s. < 11.8 | |
| ac 13977 | n.s. < 11.0 | |
| ac 2915 | n.s. < 11.8 | |
| ac 6256 | 8.8 ? | E. |
| ac 2694 | 9.9 | |
| ac 10593 | 9.6 ? | Very faint + hazy |
| ac 2693 | 10.8 | |
| ac 2431 | 9.7 | |
| ~~ac 13916~~ | * 11.8 | |
| ac 13201 | n.s. < 11.0 | |
| ac 2336 | n.s. < 12.6 | |
| ac 13184 | n.s. < 11.3 | |

3.05

* Reject. Yellow plate, too faint to measure. See f. 147 Was this observation recorded for the wrong plate? 9.7 m May 8 1915

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Thursday, February 18, 1915

12.15 Ursae Majoris

| Plate No | Magn. | |
|---|---|---|
| ac 13904 | m.s. V 9.7 | |
| ac 6402 | m.s. V 11.0 | |
| ac 3187 | 8.8 | |
| ac 13161 | m.s. V 11.0 | |
| ac 13229 | m.s. V 11.3 | |
| ac 13138 | 10.6 | |
| ac 14015 | m.s.? V 9.7 | Def.? - in loc. of V almost |
| ac 13524 | 9.5 | |
| ac 14036 | m.s.? V 12.4 | |
| ac 2442 | | Plate missing. See note on cover. |
| ac 5976 | 8.5. | |
| ac 5673 | m.s. V 12.6 | |
| ac 4690 | m.s. V 10.1 | |
| ac 5571 | m.s. V 12.4 | |
| ac 4695 | m.s. V 10.1 | |
| ac 5874 | 11.1? | Very doubtful. Near line. ? vis. |
| ac 5584 | m.s. V 11.0 | |
| ac 5602 | m.s.? V 12.4 | |
| ac 5897 | 10.0 | |
| ac 4702 | m.s. V 12.4 | |
| ac 5621 | m.s. V 12.4 | |
| ac 4782 | m.s. V 9.7 | |
| ac 6029 | 8.4 | ? + e used |
| ac 4789 | m.s.? V 11.8 | |
| ac 5719 | m.s. V 12.4 | |
| ac 4884 | 10.3 | |
| ac 5560 | m.s.? V 12.4 | Defect? in position of V |
| ac 6105 | 8.3 | ? + e used. |
| ac 4898 | 9.7 ? | e, g2 too near star |

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Thursday, February 18, 1915

Ursae Majoris

| | Plate No | Magn. | |
|---|---|---|---|
| | ac 4979 | 8.9 | |
| | ac 5792 | n.s. < 11.3 | |
| | ac 5080 | 9.5 | |
| 1.11 | | | |
| 2.15 | ac 11351 | 8.3 | t + c used |
| | ac 12408 | 8.5 | |
| | ac 11565 | 10.0 | |
| | ac 11537 | 9.6 | |
| | ac 6457 | n.s. < 11.0 | |
| | ac 13519 | 9.1 | |
| | ac 9587 | n.s. < 11.3 | |
| | ac 7444 | n.s. < 12.6 | |
| | ac 7403 | n.s. < 12.6 | |
| | ac 14925 | 11.5 | |
| | ac 7392 | n.s. < 12.4 | |
| | ac 11313 | 8.6 ? | |
| | ac 9281 | 10.1 | |
| | ac 11269 | 9.1 | |
| | ac 9229 | 9.4 | |
| | ac 7276 | n.s. < 12.6 | |
| | ac 7217 | 11.1 | |
| | ac 13641 | $g^2$ v<br>v $g^3$ | |
| | ac 10503 | 9.5 | |
| | ac 10223 | n.s. < 9.7 | |
| | ac 7459 | n.s. < 10.6 | |
| | ac 10586 | 9.6 | |
| | ac 13132 | 10.8 | |
| | ac 14820 | n.s. < 12.4 | |

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Thursday, February 18, 1915

Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 13115 | 9.6 | |
| ac 13097 | 9.5 | |
| ac 14880 | n.s. $\lesssim$ 12.4 | |
| ac 13129 | 10.3 | |
| ac 14059 | n.s. $\lesssim$ 11.3 | |
| ac 13049 | 8.9 | |
| ac 13045 | 8.6 ? | Difficult |
| ac 74521 | n.s. $\lesssim$ 11.8 | |
| ac 10190 | n.s. $\lesssim$ 12.6 | |
| ac 6050 | 8.3 ? | Difficult & to be used |
| ac 5178 | n.s. $\lesssim$ 9.7 | |
| ac 5415 | n.s. $\lesssim$ 11.0 | |
| ac 3616 | n.s. $\lesssim$ 10.1 | |
| ac 7418 | n.s. < 12.4 | |
| 3.18 | | |
| 3.41 ac 8646 | n.s. < 10.1 | |
| ac 10664 | 10.9 ? | Very doubtful. Faint |
| ac 9345 | 11.2 ? | Faint |
| ac 7381 | n.s. $\lesssim$ 12.6 | |
| ac 6949 | 9.3 | |
| ac 8640 | n.s. < 11.3 | |
| ac 10405 | 12.7 | Very faint |
| ac 8554 | 10.3 | |
| ac 10373 | n.s. $\lesssim$ 12.6 | |
| ac 10293 | n.s. $\lesssim$ 11.8 | |
| ac 13989 | n.s. < 12.6 | |
| ac 10545 | 9.2 | |
| ac 10460 | 10.0 | |

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Thursday February 18, 1915

7 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 10538 | 9.5 | |
| ac 6525 | m.s. < 10.6 | |
| ac 10270 | m.s. < 12.6 | |
| ac 10531 | 9.5 | |
| ac 9539 | m.s. < 11.0 | |
| ac 7273 | m.s. < 11.8 | |
| ac 9446 | m.s. < 11.8 | |
| ac 8598 | 11.5 ? | Very faint. |
| ac 8690 | m.s. < 11.8 | |
| ac 7344 | m.s. < 11.0 | |
| ac 11195 | 11.1 | |
| ac 8713 | m.s. > 9.7 | |
| ac 9176 | 9.1 | |
| ac 3474 | 11.1 ? | m. m.s. E. |
| ac 2845 | . | Too poor. E. |
| ac 2864 | m.s. < 9.7 | E. |
| ac 31321 | 8.5 | E |
| ac 3296 | 9.4 | E |
| ac 3309 | 9.5 | E |
| ac 3444 | 10.8 ? | E |
| ac 3486 | m.s. < 9.7 | E |
| ac 3493 | m.s. < 9.7 | |
| ac 3501 | m.s. < 10.6 | |
| ac 3561 | m.s. < 11.3 | |
| ac 3598 | m.s. < 9.7 | |
| ac 3656 | . | Too poor |
| ac 3700 | m.s. < 11.0 | |
| ac 3718 | . | Too poor. |

4.30

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Thursday. February 18, 1915

4.42s

γ Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 6166 | . | Multiple image plate |
| | ac 6167 | . | " " " |
| | ac 6176 | . | Too poor. |
| | ac 6178 | 8.5 | Difficult |
| | ac 6229 | 9.1 | |
| See page | ac 6029 | 8.4 | e + d used |
| | ac 6105 | 8.5 | e + d used |
| | ac 11351 | 8.5 | e + d used |
| | ac 10488 | 9.6 ? | Very doubtful g³ n.s. |
| | ac 3454 | . | Too poor. |
| | ac 6862 | . | " " Fogged |
| | ac 10705 | n.s. < 9.7 | |
| | ac 2558 | 8.3 ? | e + d used ε. |
| | ac 3621 | . | Too poor. Multiple image. |
| | ac 2484 | 8.4 ? | e + d used ε |
| | ac 2248 | n.s. < 10.1 | ε. |
| | ac 2301 | n.s.? < 11.3 | |
| | ac 2564 | 8.3 ? | e + d used ε. |
| | ac 2629 | 9.3 | ε. |
| | ac 2661 | 9.6 | ε, |
| | ac 2726 | n.s. < 10.1 | |
| | ac 2484 | 8.3 ? | e + d used ε, |
| | ac 2799 | . | Too poor. |
| | ac 2821 | n.s. < 10.6 | |
| See above | ac 2564 | 8.3 ? | b + c used ε. |
| " " (2 meas) | ac 2484 | 8.3 ? | b + c " ε. |
| " " | ac 2558 | 8.4 ? | b + c " ε |

5.04

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Friday, February 19, 1915

Trusae majoris

| | Plate No. | Magn. Date | |
|---|---|---|---|
| 10.30 | ac 8586 | n.s. $\leq$ 9.7 | E |
| | ac 8602 | . | Too poor E |
| | ac 8563 | . | Does not cover. |
| | ac 8656 | . | Too poor C. |
| | ac 9477 | . | Does not cover. |
| | ac 9346 | 11.2 ? | Doubtful m n.s. E. |
| | ac 8720 | n.s. < 10.1 | |
| | ac 9918 | 10.8 ? | E. |
| | ac 9268 | . | Too poor. |
| | ac 9842 | 9.7 ? | E. |
| | ac 9533 | n.s < 10.1 | |
| | ac 9837 | 9.9 ? | E. |
| | ac 9301 | . | Too difficult m. plate |
| 11.02 | | | |
| 11.04 | ac 9422 | . | Too poor. Dark |
| | ac 9444 | n.s. ? < 10.1 | |
| | ac 9624 | . | Too poor Scratched E. |
| | ac 9708 | 8.8 ? | E. |
| | ac 8054 | n.s. < 11.0 | E. |
| | ac 7640 | 9.2 ? | E. g' almost covered by mark. |
| | ac 7659 | 8.7 ? | c & f used E. Fogged. |
| | ac 14136 | $g^2$ IV / V I $g^3$ | |
| | ac 8371 | 9.7 | |
| 11.12 | | | |
| 11.25 | ac 6275 | 9.5 | |
| | ac 6292 | 9.5 | |
| | ac 3756 | n.s < 11.0 | |

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1914phae.proj.1043M



Friday February 19, 1915

Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 6414 | n.s. < 11.8 | |
| ac 7066 | 9.2 | Difficult |
| ac 3832 | . | Too poor E. |
| ac 3850 | 10.8 ? | Near lim. of vis. |
| ac 3872 | n.s. ? < 9.1 | |
| ac 3972 | . | Too poor |
| ac 4266 | 9.9 | E |
| ac 4385 | 11.1 | E. |
| ac 7751 | 9.0 | |
| ac 13075 | 8.9 | |
| ac 12896 | 10.4 ? | E. |
| ac 11667 | 11.1 | |
| ac 12905 | 10.8 | |
| ac 13857 | 12.0 ? | Faint E. |
| * ac 8571 | 10.9 ? | Faint |
| ac 8240 | n.s. < 10.6 | |
| ac 8346 | 10.3 ? | E. |
| ac 8351 | n.s. < 9.7 | |

* Assumed to be intended for ac 8571 as 8517 does not cover region, and 8571 agrees in magn. with this obs. Plate No on 8571 badly marked so it appears to be "8517"

11.50

12.07

| | | |
|---|---|---|
| ac 8422 | 8.5 ? | E. |
| ac 8508 | . | Too poor. Fogged |
| ac 8532 | 9.9 ? | E. |
| ac 9086 | . | Off plate |
| ac 9087 | . | Too poor E |
| ac 9152 | 8.4 ? | E. Ftc used d.o.d |
| ac 7481 | n.s. < 10.1 | E. |
| ac 8163 | n.s. ? < 11.0 | E. |

12.14

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Friday, February 19, 1915

8.30

Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | AC 10587 | . | Too poor E. |
| See p. 121 | AC 12409 | 8.4 ? | E. B, c, d used |
| | AC 14073 | m.s. < 9.7 | E. |
| | AC 10466 | 9.9 | E. |
| | AC 12833 | m.s < 11.8 | E |
| | AC 10399 | m.s. < 11.8 | E. |
| | AC 10574 | . | Off plate |
| | AC 10480 | 9.6 ? | E. |
| | AC 13664 | m.s. < 9.6 | |
| | AC 13060 | 8.6 | E. |
| | AC 14891 | m.s. < 11.3 | |
| | AC 13656 | 9.61 g² V | V = 9.67 06 06 |
| | AC | V 1g³ 9.7³ | |
| | AC 10380 | . | Off plate |
| | AC 13513 | 9.1 ? | Image of f ref.? E. |
| See p. 121 | AC 12436 | 8.3 | f and c used E. |
| | AC 10294 | m.s. < 11.3 | E. |
| | AC 14924 | m.s. < 11.0 | E. |
| | AC 16028 | 8.8 | E. |
| | AC 10219 | m.s. < 11.3 | E. |
| | AC 13225 | . | Too poor |
| | AC ~~10184~~ 13156 | 9.5 | E. |
| | AC 10008 | . | Too poor. |
| | AC 13084 | 8.8 | E. |
| | AC 13149 | m.s. < 9.7 | E. |
| | AC 12524 | 9.5 | E |
| | AC 13748 | 10.9 | E |
| | AC 11194 | 10.9 | E |

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1914phae.proj.1043N



Friday, February 19, 1915

Ursae Majoris

| | Plate no. | | |
|---|---|---|---|
| | ac 13996 | n.s. < 9.7 | |
| | ac 13027 | 8.8 | E. |
| | ac 11120 | . | off plate |
| | ac 14029 | n.s. < 11.0 | E. |
| | ac 12357 | n.s. < 9.7 | E. |
| | ac 11024 | n.s. < 11.0 | E. |
| | ac 12884 | 11.1 | E. |
| | ac 10755 | . | off plate |
| 2.14 | | | |
| 2.19 | ac 6548 | . | too near edge |
| | ac 6520 | . | " " " |
| | ac 6349 | . | " " " |
| | ac 6391 | 11.4 | faint |
| | ac 6348 | 10.7 | . |
| 2.24 | | | |
| 2.41 | ac 11107 | . | off plate |
| | ac 6585 | . | " " |
| | ac 7736 | . | " " |
| | ac 7809 | . | too near edge |
| | ac 6536 | n.s. < 9.7 | |
| | ac 8207 | n.s. < 11.8 | |
| | ac 6395 | n.s. < 11.8 | |
| | ac 8370 | . | off plate |
| | ac 8388 | 9.1 | |
| | ac 6560 | . | too poor |
| | ac 8492 | . | off plate |
| | ac 9447 | . | " " |

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Friday, February 19, 1915

Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ✓ | | |
| ac 8583 | . | off Plate |
| ac 3893 | . | " " |
| ac 9504 | . | " " |
| ac 3641 | . | " " |
| ac 10579 | . | " " |
| ac 4233 | 9.6? | E. |
| ac 6297 | 9.5? | Very doubtful Image? or defect? E |
| ac 4673 | m.s. < 11.8 | |
| ac 7620 | . | Fogged in region of V |
| ac 3492 | m.s. < 9.7 | E. |
| ac 6347 | . | Trailed |
| ac 4648 | m.s. < 11.8 | E |
| ac 6374 | m.s. < 9.7 | E |
| ac 3515 | m.s. < 11.0 | E |
| ac 6401 | m.s. < 9.7 | E |
| ac 3664 | m.s. < 9.7 | E |
| ac 6435 | m.s. < 9.1 | E. |
| ac 4420 | 11.2 ? | Very faint. E. |
| ac 6912 | . | Too faint Fogged |
| ac 3553 | m.s.? < 10.6 | E. |
| ac 7139 | . | Too faint E. |
| ac 4586 | m.s. < 9.7 | E. |
| ac 7210 | 10.8 | E. |
| ac 3581 | m.s. < 11.0 | E |
| ac 7352 | . | Too faint. Fogged |
| ac 4531 | m.s. < 11.8 | |
| ac 7500 | m.s.? < 11.3 | |
| ac 3715 | m.s. < 11.0 | |

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1914phae.proj.1043w



Friday, February 19, 1915

| | Plate No. | Magn. | |
|---|---|---|---|
| | Ursae Majoris | | |
| | ac 7565 | n.s. < 10.6 | |
| | ac 4393 | · | Too poor. Trailed |
| | ac 4192 | 9.5 ? | E. |
| | ac 7573 | n.s. < 10.6 | |
| | ac 4362 | 11.0 | Faint E. |
| | ac 7602 | n.s. < 9.7 | |
| | ac 4175 | 9.3 ? | Faint. E. |
| | ac 4265 | n.s.? < 9.7 | Fogged. E. |
| | ac 4311 | n.s. < 9.7 | |
| See p. 118 | ac 12436 | 8.4 | a and d used E. |
| See p. 118 | ac 12409 | 8.3 | a and d used E. |
| 3.24 | | | |

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Saturday, February 20, 1915.

9.20

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 5876 | 11.1? | E. |
| ac 7895 | . | Too faint T' |
| ac 8436 | 8.8 | E. |
| ac 4656 | m.s.< 11.3 | E. |
| ac 5852 | 11.2 | E |
| ac 4627 | . | Too faint Trailed |
| ac 7362 | m.s.< 9.7 | E. |
| ac 5827 | . | Off plate |
| ac 4599 | m.s.< 9.7 | E. |
| ac 8472 | . | Too faint |
| ac 7274 | . | Too dark |
| ac 5662 | m.s.< 11.8 | E. |
| ac 4570 | m.s.< 11.8 | E. |
| ac 5360 | . | Too faint E. |
| ac 4523 | m.s.? < 11.8 | Dif. in fos. of V |
| ac 6960 | . | Too faint |
| ac 7609 | m.s.< 9.7 | E |
| ac 8485 | . | Off plate |
| ac 4491 | m.s. < 11.0 | E |
| ~~ac 8485~~ | | |
| ac 8531 | m.s.< 9.7 | E |
| ac 4451 | 11.6? | E Faint |
| ~~ac~~ | ~~11.2?~~ | |
| ac 4432 | 11.1? | E. |
| ac 6914 | $g^{\frac{1}{2}+}$ 1 V<br>V 1 $g^{\frac{3}{2}}$ | |
| ac 5257 | . | Off plate |
| ac 4300 | 9.6 | E |

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1914phae.proj.10430



Saturday, February 20, 1915

γ Ursae Majoris

| | Plate No | Magn. | |
|---|---|---|---|
| | ac 5233 | . | Off plate |
| | ac 5049 | 9.0 | E. |
| | ac 7633 | . | Too poor |
| | ac 4287 | * g 1 IV<br>V 1 g 3 | |
| | ac 5009 | 8.8 | E. |
| | ac 6208 | 8.8 | E. |
| | ac 4924 | 8.7 | E. |
| | ac 6171 | . | Too poor. |
| | ac 4863 | . | Too poor, trailed. |
| See p. 128 | ac 6135 | 8.3 | E. b + c used |
| | ac 4803 | n.s. < 11.3 | E. |
| See p. 128 | ac 6073 | 8.3 | E. b + c used |
| | ac 4783 | n.s. < 9.7 | E. |
| See p. 128 | ac 6042 | 8.2 | E. b + c used |
| See p. 128 | ac 5963 | 8.4 | E. b + c used |
| | ac 4776 | n.s. < 9.7 | |
| | ac 8410 | 8.8 | |
| | ac 4747 | n.s. < 11.8 | |
| 10.21 | ac 5930 | 9.3 | E. |
| 10.28 | ac 7683 | 10.1 | E. |
| | ac 4691 | n.s. < 9.7 | E. |
| | ac 7716 | . | Too poor E. |
| | ac 7395 | n.s. < 11.8 | E. |
| | ac 7968 | . | Too poor, E. |
| | ac 8330 | 11.0 ? | E. Very doubtful. Faint |
| | ac 7623 | . | Too poor |

* Could not have intended to write "g 1 V, V 1 g² " V too faint

Est. necessary between g² and g³ not between g¹ and g² G.F.M. March 1915

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Saturday, February 20, 1915

Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| v | ac 8373 | 9.5 | ε. |
| | ac 7778 | 8.9 ? | faint ε. |
| | ac 8314 | 9.9 ? | faint ε. |
| | ac 7332 | 12.5? | Very doubtful ε faint |
| | ac 7509 | . | Too poor ε |
| | ac 8199 | n.s. < 9.7 | ε. |
| | ac 6470 | n.s. < 9.7 | ε. |
| | ac 7440 | n.s. < 9.7 | ε. |
| | ac 6458 | . | Too poor. |
| | ac 8136 | n.s. < 11.3 | ε. |
| | ac 6409 | n.s. < 9.7 | ε. |
| | ac 5334 | n.s. < 11.0 | |
| | ac 6383 | n.s.? < 9.7 | |
| | ac ~~6332~~ 6314 | g² \| v<br>v \| g³ | |
| | ac 5327 | . | off plate |
| | ac 7644 | 9.5 ? | Doubtful ε. |
| 10.56 | | | |
| 1.47 | ac 4625 | n.s. < 12.6 | ε |
| | ac 2681 | ~~m~~ 10.6 | ε. |
| | ac 5960 | 8.5 | ε. |
| | ac 7439 | n.s. < 11.0 | ε |
| | ac 4273 | 9.9 | ε. |
| | ac 5887 | 10.0 ? | ε. faint |
| | ac 3758 | n.s. < 10.1 | ε |
| | ac 5819 | 12.1 | ε. |
| | ac 4811 | n.s. < 11.8 | ε. |

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1914phae.proj.10433



Saturday, February 20, 1915

7 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 5169 | n.s. < 10.6 | E. |
| ac 3726 | n.s.? < 11.8 | E |
| ac 5756 | n.s. < 11.8 | E |
| ac 4790 | n.s. < 11.0 | E. |
| ac 3706 | n.s < 12.4 | E |
| ac 5669 | n.s. < 12.4 | E. |
| ac 7471 | n.s. < 9.7 | E, |
| ac 3691 | n.s. < 9.7 | E. |
| ac 5603 | n.s. < 12.4 | E; |
| ac 7499 | n.s. < 12.4 | E |
| ac 5092 | 9.6 | E. |
| ac 5188 | n.s. < 10.6 | E |
| ac 4717 | n.s. < 11.8 | E |
| ac 5031 | 8.9 | E |
| ac 6460 | n.s. < 9.1 | E |
| ac 8025 | 12.1 | E |
| ac 6429 | n.s. < 9.1 | E |
| ac 3681 | n.s. < 11.3 | E |
| ac 6405 | n.s. < 9.7 | E |
| ac 4920 | 8.8 | E, |
| ac 6367 | 10.8? | Faint E. |
| ac 3588 | n.s. < 11.3 | E. |
| ac 6361 | 10.7 | E. |
| ac 6491 | n.s < 10.1 | |
| ac 4692 | | Too faint. |
| ac 6320 | 9.7 | E. |
| ac 6542 | n.s. < 9.7 | |
| ac 6273 | 9.3 | |

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Saturday, February 20, 1915

4 Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| v | ac 7467 | m.s. < 12.4 | E |
| | ac 6207 | 8.8 | E |
| | ac 2820 | m.s. < 10.1 | E |
| | ac 6158 | 8.5 | E |
| | ac 4677 | m.s. < 11.8 | E |
| | ac 6094 | 8.5 | E |
| | ac 3553 | m.s. < 10.1 | E |
| | ac 5994 | 8.5 | E |
| | ac 6058 | 8.5 | E |
| 2.49 | | | |
| 3.14 | ac 13133 | 10.7 ? | h and k used K def. E. |
| | ac 13109 | 9.2 ? | E. |
| | ac 13194 | m.s. < 11.3 | E |
| | ac 12247 | 11.0 | E |
| | ac 15981 | 8.5 ? | Difficult E. |
| | ac 12962 | 9.1 | E. |
| | ac 12925 | 10.2 ? | Does not compare well. E. |
| | ac 13508 | 9.1 | E. |
| | ac 12933 | 9.8 | E |
| | ac 12874 | m.s. < 11.0 | E |
| | ac 12883 | 11.1 | E. |
| | ac 15769 | 10.3 | E |
| | ac 12980 | 9.2 | E |
| | ac 12223 | 10.1 ? | Very doubtful. Near lim. of vis. E |
| | ac 12865 | m.s. < 12.4 | |
| | ac 11729 | m.s. < 9.7 | ? E. |
| | ac 12861 | m.s. ? < 12.4 | |

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Saturday, February 20, 1915

7 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 15735 | 12.1? | Faint ε. |
| ac 12847 | n.s. < 12.4 | ε |
| ac 12853 | 12.8? | Very doubtful. Faint ε. |
| ac 15292 | 10.8? | ε n.s. ε. |
| ac 12729 | n.s. < 11.3 | ε. |
| ac 13058 | . | Too poor. |
| ac 15193 | . | " " |
| ac 12894 | 10.9 | ε. |
| ac 13096 | 9.2? | Difficult ε. Dark |
| ac 12400 | 8.5? | ε. Difficult. |
| ac 11671 | n.s.? < 9.7 | ε. |
| ac 15147 | 8.9 | ε. |
| ac 12395 | 8.8? | d scratched ε |
| ac 14039 | n.s. < 9.7 | ε. |
| ac 15124 | 9.0? | difficult ε. |
| ac 11524 | 8.5? | Very doubtful ε. |
| ac 13123 | g² \| V<br>V \| g³ | |
| See p. 128 ac 13055 | 8.3 | b + c used |
| See p. 128 ac 16015 | 8.4 | b + c " |
| ~~See p. 128~~ ac 13026 | 8.8? | ε. |
| ac 15991 | 8.5 | ε. |
| ac 12995 | 8.8 | ε |
| ac 14001 | n.s. < 9.7 | |
| ac 15094 | 9.0 | ε. |
| ac 15013 | 9.5 | ε |
| ac 11489 | 9.2 | ε. |
| ac 13932 | n.s. < 11.3 | |

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Saturday, February 20, 1915

ψ Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 11506 | 9.2 ? | ε. |
| | ac 11464 | 8.5 ? | ε. |
| | ac 10590 | 9.4 ? | ε. |
| | ac 11148 | . | Too faint |
| | ac 14941 | 10.8 ? | Near lim. of vis. l n.s. |
| | ac 10578 | 9.3 ? | Very faint. ε. |
| | ac 13976 | * 10.9 ? | ε. Faint |
| | ac 14918 | n.s. < 10.1 | ε |
| | ac 10537 | 9.3 | ε. |
| | ac 14900 | n.s. < 12.4 | ε |
| | ac 10449 | n.s. < 9.7 | ε |
| | ac 13934 | n.s. < 12.4 | ε |
| | ac 12073 | 9.1 ? | ε. |
| | ac 10420 | n.s.? < 11.3 | |
| 4.15 | | | |
| 4.23 Seep. 123 | ac 6135 | 8.4 | ε |
| Seep. 123 | ac 6073 | 8.4 | ε |
| Seep. 123 | ac 10015 | 8.8 ? | d + f used |
| Seep. 123 | ac 5963 | 8.8 ? | ε |
| Seep. 123 | ac 6042 | 8.5 | ε |
| 4.29 Seep. 127 | ac 13055 | 8.5 | ε |

*Reject. Too uncertain See note p. 147

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Monday, February 2-2, 1915

9.15 γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7516 | n.s. < 11.0 | |
| ac 4532 | n.s. < 11.8 | |
| ac 4548 | n.s. < 10.6 | |
| ac 7393 | n.s. < 11.8 | |
| ac 3403 | g² I V | |
| ~~ac~~ | V I g³ | |
| ac 2615 | 8.8 | E. |
| ac 7342 | n.s.? < 11.8 | |
| ac 7523 | n.s. < 12.4 | |
| ac 4501 | n.s. < 11.0 | |
| See p. 136 ac 2574 | 8.3 | E. f + c used |
| ac 4933 | 8.5 | E. |
| ac 4940 | . | Too poor |
| ac 7530 | n.s. < 11.8 | |
| ac 7535 | . | Too poor. |
| ac 4470 | n.s. < 11.8 | |
| See p. 136 ac 2497 | 8.3 | E. f + c used |
| ac 4538 | n.s. < 11.8 | |
| ac 4447 | 11.0 | E. |
| ac 7549 | n.s.? < 10.6 | |
| ac 4992 | 8.5 | E. |
| ac 7554 | n.s. < 11.3 | |
| ac 4379 | 11.1 | E. |
| ac 2457 | . | Too poor |
| ac 7566 | n.s. < 11.3 | |
| ac 7284 | n.s.? < 11.3 | |
| ac 2363 | n.s. < 11.8 | |
| ac 7218 | 10.3? | Very faint. E. |

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Monday, February 22, 1915

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 6985 | 9.5? | Faint E. |
| ac 2331 | 12.4? | Very doubtful. Trailed. E. |
| ac 6967 | $g^2$ \| V<br>V \| $g^3$ | |
| ac 3054 | 10.9 | E. |
| ac 3174 | 8.8? | E. Fogged. |
| ac 3272 | 9.2 | E. |
| ac 3367 | $g^2$ \| V<br>V \| $g^3$ | |
| ac 2266 | n.s. < 11.0 | |
| ac 2237 | n.s. < 11.8 | |
| ac 4352 | 11.1 | E. |
| ac 3238 | 8.9 | E. |
| ac 2207 | 13.0? | Very doubtful $\underline{5}$ n.s. E. Faint. |
| ac 4327 | 10.1 | E. |
| 10.00 | | |
| 10.10 | | |
| ac 10406 | n.s. < 11.3 | |
| ac 13912 | n.s.? < 9.7 | |
| ac 10474 | 9.5? | E. |
| ac 10508 | 9.3? | E. |
| ac 13856 | 12.1? | Doubtful $\underline{0}$ n.s. |
| ac 10344 | n.s. < 11.0 | |
| ac 14857 | n.s. < 11.0 | |
| ac 14786 | n.s. < 12.4 | |
| ac 10226 | n.s. < 11.8 | |
| ac 14771 | n.s. < 10.1 | |
| ac 10217 | n.s. < 11.3 | |

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Monday, February 22, 1915

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 14710 | m.s. < 11.3 | |
| ac 10189 | m.s. < 12.4 | |
| ac 12259 | 10.9 | E. |
| ac 12283 | m.s. < 11.0 | |
| ac 13814 | 12.1 | E. |
| ac 10128 | m.s. < 9.7 | |
| ac 9952 | · | Too poor. |
| ac 12369 | m.s. < 11.3 | |
| ac 10432 | · | Too poor. |
| ac 14098 | 12.1? | Very doubtful. Near lim. of vis. |
| ac 9240 | 9.5 | E. |
| ac 9352 | · | Too poor. Black. |
| ac 14103 | m.s. < 11.3 | |
| ac 9391 | m.s. < 11.3 | |
| ac 14490 | m.s. < 9.7 | |

10.39

11.38

| | | |
|---|---|---|
| ac 9437 | m.s. < 12.6 | |
| ac 8429 | 8.8? | Does not compare well |
| ac 7649 | · | Too poor. |
| ac 10469 | 9.8 | |
| ac 8352 | · | Too poor |
| ac 9430 | m.s. < 12.4 | |
| ac 10413 | 13.0? | Very doubtful. Near lim. of vis. |
| ac 7643 | 9.5? | |
| ac 11106 | m.s. < 12.4 | |
| ac 9367 | 11.8? | Faint. |

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Monday, February 22, 1915

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 8347 | $g^2$ \| V | |
| ~~ac~~ | V \| $g^3$ | |
| ac 7636 | $g^2$ \| V | |
| | V \| $g^3$ | |
| ac 9329 | 11.2? | |
| ac 10364 | n.s. < 11.3 | |
| ac 7628 | . | Too faint. Fogged |
| ac 8296 | n.s.? < 11.8 | |
| ac 9592 | n.s. < 10.6 | |
| ac 9286 | 10.0 | |
| ac 8295 | n.s. < 11.3 | |
| ac 10375 | n.s.? < 11.8 | |
| ac 8725 | n.s.? < 9.7 | |
| ac 7580 | n.s.? < 11.3 | |
| ac 8164 | n.s. < 11.3 | |
| ac 7585 | n.s. < 9.7 | |
| ac 9153 | 8.5? | |
| ac 8179 | n.s. < 11.0 | |
| ac 7591 | n.s. < 9.7 | |
| ac 8241 | n.s. < 11.8 | |
| ac 9250 | $g^2$ \| V | |
| | V \| $g^3$ | |
| ac 3508 | n.s. < 10.1 | |
| ac 4590 | n.s. < 9.7 | |
| ac 4606 | n.s. < 11.8 | |
| ac 7409 | n.s. < 12.4 | |
| ac 2666 | . | Region hidden by fireworks |
| ac 7507 | n.s. < 11.0 | |

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Monday, February 22, 1915

Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 4554 | n.s. < 9.7 | |
| | ac 3473 | 11.5 ? | Difficult |
| | ac 2646 | . | Too poor. |
| | ac 9408 | n.s. < 11.0 | |
| | ac 12337 | n.s. ? < 11.8 | |
| | ac 14526 | n.s. < 9.7 | |
| | ac 12347 | n.s. < 11.8 | |
| 12.13 | | | |
| 1.48 | ac 4743 | n.s. < 11.8 | |
| | ac 5702 | n.s. < 11.0 | |
| | ac 2394 | n.s. < 11.8 | |
| | ac 4794 | n.s. < 11.3 | |
| | ac 4837 | n.s. < 11.8 | |
| | ac 3383 | $g^2$ V ? $g^3$ | $g^2$ almost covered by Plate No. E. |
| | ac 2388 | n.s. < 11.0 | |
| | ac 3316 | 9.5 ? | E. |
| | ac 5659 | n.s < 11.8 | |
| | ac 4862 | . | Trailed |
| | ac 2340 | n.s. < 11.8 | |
| | ac 3295 | 9.2 | E |
| | ac 4873 | n.s. < 11.0 | |
| | ac 4971 | 8.5 ? | E. |
| | ac 5635 | n.s. < 11.8 | |
| | ac 2190 | n.s. ? < 11.8 | |
| | ac 3259 | 9.2 ? | E. |
| | ac 4997 | 8.5 ? | E. |

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Monday, February 22, 1915

Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 2215 | n.s. < 12.4 | |
| ac 5417 | n.s. < 9.7 | |
| ac 3165 | n.s. < 9.1 | |
| ac 5459 | n.s. < 10.6 | |
| ac 5508 | n.s. < 11.0 | |
| ac 2297 | n.s. < 10.1 | |
| ac 5590 | n.s. < 9.7 | |
| ac 5619 | n.s. < 11.0 | |
| ac 2446 | 9.6 ? | E. |
| ac 3047 | 11.1 | E. |
| ac 2619 | 8.5? | E. |
| ac 5729 | n.s. < 11.8 | |
| ac 5834 | 11.5 | E |
| ac 2456 | 9.3? | E. |
| ac 5848 | 11.1 | E. |
| ac 2680 | 10.8? | E. Near lim. of vis. |
| ac 5858 | n.s. < 9.7 | |
| ac 2540 | 8.0 ? | E. Fogged |
| ac 2657 | 9.5 ? | E. Near lim. of vis. |

2.32

2.42

| | | |
|---|---|---|
| ac 11507 | 9.2 | E |
| ac 11516 | 9.2 | E. |
| ac 13625 | $g^2$ V | |
| | V $g^3$ | |
| ac 8615 | n.s. < 9.7 | |
| ac 11591 | 10.7 | |
| ac 11644 | n.s. < 9.7 | |

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Monday, February 22, 1915

4 Ursae Majoris

| | Plate No | Magn. | |
|---|---|---|---|
| | ac 10630 | 9.6 | E. |
| | ac 11307 | 8.8 ? | Very doubtful & fogged E. |
| | ac 7773 | 8.9 ? | E. |
| | ac 10604 | 9.6 ? | E |
| | ac 11650 | . | Too poor. |
| | ac 12143 | . | Too poor. |
| | ac 7765 | 8.9 ? | Dark E. |
| | ac 11281 | 9.2 ? | E, |
| | ac 7729 | 8.8 ? | Poor. |
| | ac 12373 | n.s. < 9.7 | |
| | ac 11555 | g² V<br>V g³ | |
| | ac 7713 | 9.4 | E |
| | ac 13043 | 8.4 ? | E |
| | ac 13520 | 9.2 | E |
| | ac 10576 | . | Too poor |
| | ac 10567 | 9.3 | |
| 3.15 | ac 11566 | . | Too poor, |
| 3.45 | ac 8670 | . | Too poor |
| | ac 7699 | 8.8 ? | Poor E, |
| | ac 10209 | n.s. < 11.0 | |
| | ac 13532 | 9.4 | |
| | ac 11404 | 8.5 ? | Difficult Edge. |
| | ac 7687 | 8.7 ? | E. |
| | ac 8578 | n.s. < 9.7 | |
| | ac 13696 | 10.7 | Does not compare well |
| | ac 9553 | n.s. < 11.8 | |

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Monday, February 22, 1915

7 Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| c | ac 7685 | 8.8 ? | Poor E. |
| | ac 11437 | 8.5 ? | Difficult |
| | ac 11466 | 8.9 ? | E |
| | ac 11825 | m.s. < 9.7 | |
| | ac 13728 | 10.8 | E. |
| | ac 9544 | m.s. < 11.8 | |
| | ac 8540 | 9.7 ? | Poor E. |
| | ac 7683 | 8.9 ? | |
| 4h 09m 12s | ac 2497 | 8.3 | e + d used |
| See p. 129 → | ac 2574 | 8.4 | e + d used |
| See p. 129 → | | | |

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1914phae.proj.1040w



Tuesday. February 23, 1915

9.45 γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 11866 | m.s.? < 9.7 | E. |
| ac 13705 | . | Too faint. |
| ac 12155 | . | off plate |
| ac 12236 | . | off plate |
| ac 12590 | 11.2 ? | Very doubtful m n.s. E. |
| ac 11332 | 8.5? | Poor E. |
| ac 12319 | m.s. < 11.0 | E. |
| ac 12316 | m.s. < 11.8 | E. |
| ac 13884 | . | E. Trailed |
| ac 11733 | m.s. < 9.7 | |
| ac 13815 | 11.2 ? | E |
| ac 13765 | . | Trailed |
| ac 9538 | m.s. < 9.7 | |
| ac 14757 | m.s.? < 11.8 | |
| ac 11353 | . | Trailed |
| ac 9487 | m.s. < 11.8 | |
| ac 8502 | 8.8? | E. |
| ac 8533 | g² \| V<br>g V \| g³ | E. |
| ac 7694 | 8.9? | Faint E. |
| ac 9449 | m.s. < 11.0 | E. |
| ac 7699 | 8.9? | E. |
| ac 10655 | 10.7? | E. |
| ac 8466 | 8.5? | E. |
| ac 8486 | 8.9? | E. |
| ac 7664 | 8.8? | E. |
| ac 10281 | m.s. < 11.0 | |
| ac 10479 | 9.5? | E. |

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Tuesday, February 23, 1915

Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| J | ac 7653 | 8.8? | E. |
| | ac 11471 | . | off plate |
| | ac 11776 | m.s. < 9.7 | |
| | ac 11539 | g² \| V<br>V \| g³ | |
| | ac 13927 | . | Trailed |
| | ac 11526 | 9.5? | E. |
| | ac 11624 | m.s.? < 9.7 | |
| | ac 11569 | 10.0? | E. |
| | ac 13926 | m.s. < 10.6 | |
| | ac 13044 | 8.2? | f and s used |
| | ac 11511 | 9.2? | E. |
| | ac 11619 | m.s.? < 10.1 | E. |
| | ac 11486 | 9.2 | E. |
| 10.30 | | | |
| 11.41 | | | |
| | ac 11893 | . | T' Too faint |
| | ac 9575 | . | T' " " |
| | ac 10297 | . | T' " " |
| | ac 10362 | m.s. < 11.0 | T' |
| | ac 10296 | m.s.? < 9.7 | T' |
| | ac 10000 | m.s. < 10.1 | T' |
| | ac 9874 | . | T' Too faint |
| | ac 9522 | m.s. < 9.7 | T' |
| | ac 9565 | . | T' Too faint |
| | ac 9560 | m.s. < 10.6 | T' |
| | ac 10356 | m.s. < 11.0 | T' |

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Tuesday February 23, 1915

7 Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 6328 | 9.9 | |
| | ac 2524 | 8.0? | E. |
| | ac 4703 | 9.4? | E. poor |
| | ac 5920 | 9.4? | E. |
| | ac 5931 | . | Too poor, - dark E. |
| | ac 6041 | 8.4? | E. |
| | ac 6126 | 8.2? | b + c used E. |
| | ac 11008 | m.s.? < 9.7 | E. |
| | ac 11297 | 8.6? | Very doubtful E. |
| | ac 11573 | m.s.? < 9.7 | E. |
| | ac 14847 | m.s. < 11.3 | E. |
| | ac 11583 | 10.1? | E. Poor. |
| | ac 15160 | 8.9? | E. |
| 12.25 | ac 15879 | 8.5? | E. |
| 12.35 | ac 1159 | 9.7? | $g^3$ def. |
| | ac 9241 | . | Too poor. Dark |
| | ac 9421 | m.s.? < 9.7 | Scratched E. |
| | ac 3029 | 11.6? | E. |
| | ac 170 | . | off plate |
| 12.38 | | | |

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Tuesday, February 23, 1915

3.07

T Trapezii Majoris

e

| Plate No. | Magn. | |
|---|---|---|
| Mc 3260 | m.s. < 13.8 | |
| Mc 5771 | 10.2 | |
| Mc 5186 | ~~8.9~~ 9.2? | Difficult P.C's. |
| Mc 5476 | 8.9? | " " P.C's. |
| Mc 3085 | 13.9 | |
| Mc 3162 | 13.9 | |
| Mc 6960 | 11.6 | |
| Mc 4928 | 11.6 | |
| Mc 6211 | 14.1 | |
| Mc 5166 | 9.4 | P.C's |
| Mc 6745 | 13.0 | |
| Mc 7570 | 8.8 | P.C's. |
| | | |
| MA 3085 | m.s.? < 11.8 | |
| MB 3212 | m.s. < 13.2 | |
| MA 4928 | 11.6 | |
| MB 6235 | m.s. < 11.8 | |
| MB 6511 | m.s. < 11.8 | |
| Mc 7855 | 9.7 | |
| MB 2099 | g² \| v | |
| | v \| g³ | |
| Mc 1922 | | Too faint. |
| MB 3262 | m.s. < 11.3 | |
| MA 3162 | m.s. < 12.4 | |
| MB 5624 | 9.8 | |
| | | |
| Mc 6777 | o \| v | Yellow |
| | v \| f | |

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1014phae.proj.1043w



Tuesday February 23, 1915

Ursae Majoris

| Plate No. | Magn. | Yellow Plates |
|---|---|---|
| mc 5026 | g 1 V<br>V 2 g' | |
| mc 5091 | f 3 V.<br>V 1 g | |
| mc 5123 | f 2 V<br>V 3 g | |
| mc 6511 | m.s. < 0<br>0 0 N | |
| mc 6235 | m.s. < 0<br>0 0 N | |
| mc 5624 | f 2 V<br>V 3 g | |
| mc 7010 | h 4 V<br>V 1 K | |
| mc 3212 | n.s.? < n<br>n 0 N | |
| mc 3240 | n.s. < m<br>m 1 N | |
| mc 5314 | a 3 V<br>V 2 D | |

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Tuesday, February 23, 1915

Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| I 34766 | 11.5 | T' |
| I 34711 | 10.0 | T' |
| I 34532 | 12.7 | T' |
| I 35345 | 13.0 | T' |
| I 35956 | 11.9 ? | Poor |
| I 35995 | 9.9 | |
| I 37958 | m.s. < 12.8 | |
| I 37953 | m.s. ? < 12.4 | |
| I 37996 | m.s. < 12.4 | |
| I 37129 | 13.9 ? | Faint |
| I 38012 | m.s. ? < 12.4 | |
| I 32542 | 10.8 | Dark plate |
| I 37914 | m.s. < 13.2 | |
| I 33946 | 14.1 | |
| I 34027 | 14.2 ? | Very doubtful. Faint |
| I 33977 | 14.0 | |
| I 35996 | 9.8 ? | Difficult |
| I 34037 | m.s. ? < 12.6 | Poor plate. Def. Plan |
| I 34533 | 12.2 ? | T' |
| I 34649 | 9.2 ? | Poor |
| I 34718 | 10.0 | T' |
| I 34740 | 11.1 ? | T' |

4.54

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Wednesday, February 24, 1915

10.05 Ursae Majoris

| Plate No. | Magn. | Fellows Plates | |
|---|---|---|---|
| ac 0777 | | | |
| | g 2 v | | |
| | v 1 h | | |
| ac 8395 | | | |
| | e 3 r | | |
| | v 2 f | | |
| ac .. | | | |
| ac 15963 | | | |
| | g 2 v | | |
| | v 10 | | |
| ac 5929 | | | |
| | g 1 v | | |
| | v 2 g' | | |

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Wednesday, February 24, 1915

10.05 Ursae Majoris

| Plate No. | Magn. | Yellows Plates |
|---|---|---|

Pasadena, California.

My

2.
g
p
e

ac 15963

g 2 v
v 1 c

ac 5929

g 1 v
v 2 c

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Wednesday. February 24, 1915

10.05 Ursae Majoris

| Plate No. | Magn. | Yellow Plates |
|---|---|---|
| ac 8395 | e 3 V | |
| | V 2 f | |
| ac 15071 | | |
| | e 4 V | |
| | V 1 f | |
| ac 13900 | | |
| | n.s. < h | |
| | h 1 N | |
| ac 13676 | | |
| | n.s. < f | |
| | f 2 N | |
| ac 13788 | f. | 700 foc. |
| ac 14861 | n.s. < f | |
| | f 2 N | |
| ac 13952 | | |
| | n.s. < g³ | |
| | g³ 1 N | |
| ac 13966 | | |
| | n.s. < g³ | |
| | g³ 0 N | |
| ac 14958 | | |
| | h 1 V | |
| | V 2 h | |
| ac 15963 | | |
| | f 2 V | |
| | V 1 c | |
| ac 5929 | | |
| | f 1 V | |
| | V 2 a' | |

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Wednesday, February 24, 1915

γ Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 15045 | | |
| | f 1 V | |
| | V 3 g' | |
| ac 15079 | | |
| | e 5 V | |
| | V 1 f | |
| ac 15087 | | |
| | V 0 f | |
| ac 15053 | | |
| | f 1 V | |
| | V 3 g' | |
| ac 16081 | | |
| | f 1 V | |
| | V 2 g' | |
| ac 13675 | | |
| | h 2 V | |
| | V 1 N | |
| ac 13916 | . | Too poor Σ. |
| ac 13799 | n.s. < f | Σ. |
| | f 2 N | |
| ac 13894 | . | Too poor Σ. |
| ac 13674 | . | Too poor Σ. |
| ac 13893 | . | Too poor Faint |
| ac 13950 | n.s. < k | |
| | k 1 N | |
| ac 14878 | | |
| | n.s.? < l | |
| | l 1 N | |

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Wednesday, February 24, 1915

7 Ursae Majoris

c

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 13956 | n.s. < k<br>k 1 N | Yellow |
| | ac 3523 | n.s. < n<br>n 1 N | Yellow |
| | ac 3417 | . | Too poor; fogged. Yellow |
| 10.45 | | | |
| 11.03 | I 34706 | g² 1 V<br>V 1 g³ | |
| | I 34529 | . | Does not cover? Do not find V region |
| | I 33947 | . | Does not cover. |
| | I 33914 | . | Does not cover. |
| | I 31813 | . | Does not cover |
| | I 37915 | . | Does not cover |
| 11.13 | | | |
| 11.17 | ac 13695 | 10.3? | E. |
| | ac 13044 | 8.3? | E. ± + c used |
| | ac 8509 | 9.5 | |
| | ac 8391 | 9.0 | |
| | ac 14934 | 10.8 | |
| | ac 8205 | n.s. < 11.0 | |
| | ac 8510 | . | Off plate |
| | ac 8048 | n.s.? < 11.0 | |
| | ac 15153 | 8.9 | |
| | ac 7594 | n.s. < 11.0 | |
| | ac 8462 | . | Off plate |

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Wednesday, February 24, 1915

Ursae Majoris.

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 4545 | n.s. < 11.8 | |
| | ac 14972 | 10.3 | |
| | ac 8443 | 8.5 ? | Difficult |
| | ac 7475 | n.s.? < 12.8 | |
| | ac 7436 | n.s.? < 12.6 | |
| | ac 8476 | 9.2 | |
| | ac 7415 | n.s.? < 12.8 | |
| | ac 15811 | 9.8 | |
| | ac 8504 | 9.4? | Difficult |
| | ac 8197 | n.s.? < 9.7 | Dark. |
| | ac 15125 | 8.9 | |
| | ac 8460 | 8.8 ? | Poor |
| | ac 7837 | | Off plate |
| | ac 8469 | 8.4? | Difficult |
| | ac 15012 | 9.5 | |
| | ac 7462 | n.s. < 11.3 | |
| | ac 7385 | n.s. < 11.8 | |
| 11.47 Sun's 145° | ac 13044 | 8.4 | e and d used |
| 11.55 | ac 10312 | n.s. < 11.8 ? | T' plate |
| | ac 4611 | n.s. < 11.0 | E. |
| | ac 3436 | n.s.? < 9.1 | |
| | ac 3438 | n.s. < 10.1 | |
| 11.59 | | | |

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Monday, March 8, 1915

11,45 Trivsae Majoris (Remeasures of Discordances)

| Plate no. | Magn. | |
|---|---|---|
| ac 7713 | 9.2? | Very doubtful. Poor plate. Difficult |
| ac 13532 | 9.3? | |
| ac 8476 | 9.0 | |
| ac 8314 | 9.8? | Very doubtful. Faint h. n.s. |
| ac 13916 | . | Yellow plate. Too poor. |
| ac 2694 | 10.1 | Trailed plate. |
| ac 13976 | * 10.8? | Very doubtful Poor plate Faint |
| ac 2693 | 10.9 | |
| ac 13524 | 9.2 | |
| ac 2559 | 8.7? | |

11,52

*Reject. Too uncertain. V n.s.? Object meas. must be defect

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Friday, March 12, 1915

10.05 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7432 | m.s. < 12.6 | |
| ac 13897 | m.s. < 9.7 | |
| ac 13901 | m.s. < 9.7 | |
| ac 800 | 8.8? | |
| ac 2534 | 8.2 | |
| ac 3937 | m.s. < 12.4 | |
| ac 7427 | m.s.? < 12.6 | |
| ac 13109 | 9.5 | |
| ac 11673 | 12.2? | Faint |
| ac 11465 | 8.6? | |
| ac 11591 | 10.5? | Does not compare well |
| ac 11667 | m.s. < 11.8 | |
| ac 11524 | 9.2? | E. |
| ac 11464 | 8.5? | Poor E. |
| ac 2694 | 10.6 | |
| ac 8330 | 10.8? | Very doubtful. Faint and hazy |
| 10.31 ac 8346 | 10.6? | Faint and hazy |

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Tuesday April 20, 1915

7 Ursae Majoris Remeasure

| Plate No. | Magn. | | |
|---|---|---|---|
| I 1149 | 8.60 V | o d 8.60 | v = 8.60 |

e

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1914phae.proj.1043M



Saturday, April 24, 1915

3
12.26

7 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| a 1489 | 9.7[b] | f and $g^3$ used. $g'+g^2$ off plate |
| a 1560 | n.s. < 11.3 | |
| a 498 | . | Too poor. Trailed |
| a 463 | 12.9 | |
| a 497 | n.s.? < 11.3 | |
| a 1305 | 12.7 | |
| a 1406 | 9.1 | |
| c 3321 | 9.6 | E. f and $g^3$ used $g'+g^2$ off plate. |
| c 3646 | 11.5 | |
| c 9252 | n.s. < 13.2 | |
| c 9251 | n.s. < 13.2 | |
| c 9663 | 10.0 | |
| c 9709 | 11.1 | |
| c 9721 | * 18.6 | |
| c 9771 | n.s.? < 11.3 | |
| c 9662 | 10.6 | |
| c 9722 | 11.5 | |
| c 9710 | 10.9 | |
| c 9770 | n.s. < 11.0 | |
| c 9780 | 12.3 | |
| c 9779 | 12.0 | |
| I 16251 | 9.1 | |

(8 mont)
4.27

* Examined for discordance, Jan. 7, 1916 W.H.M. Evidently wrong unit recorded.

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# Circumpolar Variables

Estimates of Brightness

Friday, February 26, 1915

10.40 R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 4798 | 9.3? | Difficult. g too close. |
| ac 2428 | m.s.< 11.3 | |
| ac 5610 | m.s.? < 12.6 | |
| ac 4740 | 9.1? | Difficult. |
| ac 5526 | m.s. < 12.6 | |
| ac 2380 | m.s.< 12.1 | |
| ac 4597 | 10.4 | |
| ac 5937 | 11.1? | Diff. |
| ac 2343 | m.s.< 11.9 | |
| ac 5804 | 11.7 | |
| ac 2 3222 1 | 12.9? | p. m.s. |
| ac 5389 | m.s.< 12.6 | |
| ac 5783 | 12.6? | Faint |
| ac 2292 | 12.4 | |
| ac 5370 | m.s.? < 11.9 | Extreme E. |
| ac 4478 | 10.4? | Very doubtful Dark plate |
| ac 4688 | 9.0? | Diff |
| ac 2903 | 11.7 | |
| ac 5325 | m.s.< 12.1 | |
| ac 5689 | m.s.< 12.6 | |
| ac 4543 | 10.7 | |
| ac 4213 | 11.4 | |
| ac 5 2504 1 | m.s.?< 10.8 | |
| ac 4153 | 11.6? | Diff |
| ac 4336 | 11.0 | |
| ac 2251 | 12.1? | Very doubtful. Trailed |
| ac 4408 | 10.7? | Poor. |
| ac 4527 | 10.6 | |

7,1916

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Friday, February 26, 1915

R Aurigae

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 4632 | 9.6 | |
| | ac 5970 | 10.6 | |
| | ac 6153 | 9.7 | |
| | ac 2164 | 10.9 | |
| | ac 6091 | 10.4 | |
| | ac 5832 | 11.4 | |
| | ac 6116 | 10.0? | Diff. |
| | ac 6247 | 10.4 | |
| | ac 4131 | n.s.? | If seen, cannot be separated from g |
| | ac 4816 | 9.4 | |
| | ac 5748 | n.s.? < 11.9 | |
| | ac 4582 | n.s.? | If seen, too close to g Dark. |
| | ac 4106 | n.s.? < 12.6 | Plate stained |
| | ac 5469 | n.s. < 12.6 | |
| 12.00 | | | |
| 2.45 | ac 5170 | n.s. < 12.6 | |
| | ac 4563 | . | Too poor. |
| | ac 4012 | n.s. < 11.6 | |
| | ac 2878 | n.s.? < 10.6 | |
| | ac 2958 | 11.1? | Does not compare well |
| | ac 3892 | . | Too poor. |
| | ac 14815 | 9.5 | |
| | ac 3425 | n.s.? < 10.7 | |
| | ac 1248 | . | Too dark. |
| | ac 3420 | . | Hazy. Cannot be separated from g. |
| | ac 14740 | . | Trailed " " " " |
| | ac 12338 | . | Cannot be separated from g. |

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Friday, February 26, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 3406 | . | Too poor. |
| ac 14714 | 10.3 | |
| ac 12331 | . | Cannot be separated from g |
| ac 14689 | 10.4 | |
| ac 3361 | . | Too poor |
| ac 12267 | n.s.? < 12.6 | |
| ac 3267 | 9.5 ? | Poor. |
| ac 12261 | n.s. < 12.1 | |
| ac 14614 | 11.0 ? | |
| ac 3252 | . | Too poor. |
| ac 14895 | 9.6 | |
| ac 3229 | 9.5 | |
| ac 12240 | n.s. < 12.1 | |
| ac 14604 | 10.7 ? | Diff. |
| ac 12228 | n.s.? < 12.1 | |
| ac 3218 | 9.5 | |
| ac 12194 | n.s. < 12.1 | |
| ac 14523 | 10.6 ? | Diff. |
| ac 3138 | 9.3 | |
| ac 14515 | 11.0 | |
| ac 3024 | 10.6 | |
| 3.24 | | |
| 4.38 ac 15873 | . | Does not cover |
| ac 15743 | 11.8 ? | Diff. |
| ac 5710 | n.s.? < 12.6 | |
| ac 5580 | . | Too poor. |
| ac 5714 | 12.4 ? | |

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Friday, February 26, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 5746 | m.s.? < 11.6 | |
| ac 15495 | m.s. < 11.3 | |
| ac 5513 | m.s. < 12.6 | |
| 4.48 | | |
| 4.52 | | |
| ac 15970 | 10.4 ? | Difficult |
| ac 15098 | 10.6 ? | " |
| ac 5414 | m.s.? < 12.1 | |
| ac 15987 | 10.6 ? | |
| ac 15925 | 11.0 ? | |
| ac 14839 | 9.5 | |
| ac 5958 | 10.7 | |
| ac 5341 | m.s. < 12.6 | |
| ac 5355 | m.s. < 12.1 | |
| ac 5683 | m.s.? < 12.6 | |
| ac 5378 | m.s. < 11.6 | |
| ac 5917 | 10.8 ? | |
| ac 5632 | m.s.? < 12.6 | |
| ac 14802 | 9.6 | |
| ac 14921 | 9.7 | |
| 5.10 | | |

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Saturday, February 27, 1915

10.00 P Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 12003 | m.s. < 10.3 | |
| ac 12011 | . | Too poor. |
| ac 11295 | 10.9 | |
| ac 13376 | 9.6 | |
| ac 11286 | 11.2 | |
| ac 13291 | 9.6 | |
| ac 7151 | m.s.? < 11.3 | |
| ac 11220 | m.s.? < 11.3 | |
| ac 6984 | m.s.? < 10.7 | |
| ac 11072 | m.s.? < 10.7 | |
| ac 6964 | 12.4 ? | Diff. |
| ac 10932 | m.s. < 12.6 | |
| ac 6935 | * m.s.? < 12.1 | |
| ac 13295 | . | Too poor. |
| ac 10898 | m.s. < 10.8 | |
| ac 6825 | . | Too dark. |
| ac 13460 | 9.6 | |
| ac 6819 | m.s.? < 10.3 | |
| ac 10774 | m.s. < 11.6 | |
| ac 6792 | 12.0 ? | Very doubtful |
| ac 11131 | 12.1 ? | |
| ac 6788 | 11.7? | Very doubtful m. m.s. |
| ac 11551 | 9.6 | |
| ac 6768 | 11.4 ? | |
| ac 12098 | m.s.? < 12.6 | |
| ac 6755 | 11.7 | |
| ac 12081 | m.s. < 11.6 | |
| ac 6747 | 11.5 | |

*Remeasured March 25, 1915 m.s.? < 12.1
Said to be omitted" < "sign

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Saturday, February 27, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 11502 | 10.1? | Difficult |
| ac 6719 | 11.4 | |
| ac 12173 | n.s. < 12.6 | |
| ac 6712 | 11.7? | Very ~~doubtful~~ faint m n.s. |
| ac 11522 | 9.6 | |
| ac 6670 | . | Too difficult |
| ac 11944 | n.s.? < 10.8 | |
| ac 6601 | 10.4? | |

10.52

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Monday, March 1, 1915

R Quirgac

| | | | |
|---|---|---|---|
| 10.07 | Plate No. | Magn. | |
| | ac 7764 | 9.5 | |
| | ac 8024 | 10.6 ? | Doubtful |
| | ac 7903 | . | Too foggy. |
| | ac 7960 | . | V defective |
| | ac 12173 | m.s. ? < 12.6 | |
| | ac 6719 | 11.4 | |
| | ac +27912 | 9.7 | |
| | ac 9971 | 10.6 | |
| | ac 7466 | 11.3 ? | Doubtful |
| | ac 10047 | 10.5? | |
| | ac 7452 | m.s. < 10.7 | |
| | ac 8081 | 11.5? | Very doubtful. Faint |
| | ac 10061 | 10.3? | |
| | ac 7431 | 11.1? | Very doubtful |
| | ac 10083 | 10.6 | |
| | ac 7417 | 11.5 | |
| | ac 10103 | 10.4 | |
| | ac 7380 | 11.9? | |
| | ac 10127 | 9.6 | |
| | ac 7375 | 12.4? | Faint |
| | ac 10242 | 9.3 | |
| | ac 7372 | m.s. < 12.1 | |
| | ac 10244 | 9.3 | |
| | ac 7357 | 12.0 ? | Very doubtful |
| | ac 10252 | 9.5 | |
| | ac 7305 | m.s. < 12.6 | |
| | ac 10286 | 9.5 | |
| | ac 7413 | 11.6? | |

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Monday, March 1, 1915

R Aurigae

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 4443 | . | off plate |
| | ac 4381 | . | " " |
| 10.57 | | | |
| 1.47 | ac 3926 | . | Too poor. |
| | ac 4024 | m.s. < 11.3 | |
| | ac 6956 | m.s.? < 12.6 | |
| | ac 6844 | m.s.? < 11.6 | |
| | ac 10389 | 10.4? | |
| | ac 6811 | m.s.? < 11.3 | |
| | ac 10348 | 9.53 f \| V<br>V \| g 9.64 | V = 9.58 05 06 |
| | ac 6801 | m.s. < 11.6 | |
| | ac 6793 | 11.8? | |
| | ac 10232 | f \| V<br>V \| g | V = 9.58 |
| | ac 6786 | m.s. < 11.6 | |
| | ac 10205 | f \| V<br>V \| g | V = 9.58 |
| | ac 3095 | f \| V<br>V \| g | V = 9.58 |
| | ac 7747 | . | Too poor. |
| | ac 10174 | 9.6 | |
| | ac 6778 | 12.0? | Very doubtful |
| | ac 9926 | . | Failed |
| | ac 10015 | . | Too poor. |
| | ac 6769 | 12.0? | Very doubtful. Faint E. |
| | ac 9716 | . | |
| | ac 6756 | m.s.? < 11.9 | |

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Monday, March 1, 1915

R Aurigae

| | Plate No. | Magn. | |
|---|---|---|---|
| | ac 9711 | · | Too faint V m.s.? |
| | ac 3751 | m.s.? < 10.7 | |
| | ac 9333 | 11.8? | Very faint |
| | ac 3746 | · | off Plate |
| | ac 3385 | · | Cannot be separated from g |
| | ac 9160 | 9.9? | |
| | ac 6918 | m.s.? < 11.6 | |
| | ac 3256 | · | Cannot be separated from g |
| | ac 8993 | 9.7 | |
| | ac 3243 | · | Cannot be separated from g |
| 2.30 | | | |
| 4.45 | | | |
| | ac 12898 | m.s.? < 12.1 | |
| | ac 7137 | m.s.? < 12.1 | |
| | ac 9054 | · | Cannot be separated from g |
| | ac 9171 | 10.6? | Hazy |
| | ac 9278 | 11.3? | |
| | ac 13406 | 9.6 | |
| | ac 13644 | 11.3? | Very faint |
| | ac 13647 | · | Cannot be separated from g |
| | ac 13670 | m.s. < 10.3 | |
| | ac 9104 | 10.6? | Faint |
| | ac 10083 | 10.6 | |
| | ac 9331 | 10.8? | |
| | ac 7437 | 11.1? | Faint |
| 5.01 | | | |
| 5.05 | ac 3882 | m.s. < 10.3 | |
| | ac 6193 | 9.6? | |

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Monday, March 1, 1915

R Aurigae

| Plate No. | Magn | |
|---|---|---|
| ac 3888 | m.s.? < 11.6 | |
| ac 3897 | . | Too poor. |
| ac 4588 | . | Cannot be separated from "g" |
| ac 6113 | 9.6 | |
| ac 3904 | m.s.? < 11.9 | |
| ac 4872 | . | *Sup. |
| ac 6082 | . | Too poor |
| ac 4707 | 9.1? | |
| ac 3914 | . | Too poor. |
| ac 6066 | 10.1 | |
| ac 4574 | . | E. Sup. |
| ac 3919 | m.s. < 11.9 | |
| ac 5198 | . | Too poor |
| ac 4771 | 9.2? | |
| ac 7557 | . | Too dark. |
| ac 2781 | m.s.? < 11.6 | |
| ac 8387 | m.s.? < 11.9 | |
| ac 6741 | 11.6? | Faint |
| ac 2850 | . | Too poor |
| ac 6721 | 11.4? | Faint |
| ac 8861 | 10.3? | |
| ac 4428 | 10.6 | |
| ac 6688 | m.s.? < 11.3 | |
| ac 2899 | . | Sup |
| ac 3112 | 9.4 | |
| ac 6684 | . | Too poor |
| ac 3151 | 9.4? | Dark |
| ac 3184 | 9.5? | Difficult |

* Hereafter "Sup" will be employed to mean "cannot be separated from star"

5.26

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1914phae.proj.1043N



Tuesday, March 2, 1915

Ramigae

9.55

| Plate No. | Magn. | |
|---|---|---|
| ac 4063 | m.s.? < 11.6 | |
| ac 13630 | 11.4? | |
| ac 7305 | m.s. < 11.6 | |
| ac 8089 | 11.1? | |
| ac 7399 | . | Too foor. 2. |
| ac 7959 | 10.58 g 3 1 V | V = 10.63 05 05 |
| | V 1 k 10.68 | |
| ac 2273 | 12.1? | Faint |
| ac 2200 | . | Sup. |
| ac 12318 | . | Sup. |
| ac 7413 | 11.8? | Faint |
| ac 12263 | m.s.? < 11.3 | |
| ac 2163 | 11.0? | |
| ac 14728 | 10.3? | |
| ac 12146 | . | Too faint |
| ac 7864 | 9.8? | |
| ac 14635 | 10.6? | |
| ac 3937 | . | Not region |
| ac 12082 | m.s.? < 10.8 | |
| ac 14590 | 10.58 g 3 1 V | V = 10.63 05 05 |
| | V 1 k 10.68 | |
| ac 11318 | 11.4? | Does not compare well |
| ac 7505 | . | Too foor. Dark |
| ac 11236 | 11.4 | |
| ac 7926 | . | Too foor |
| ac 6628 | . | Sup. |
| ac 3251 | . | Sup. |
| ac 6619 | . | Too foor. Dark. |

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Tuesday March 2, 1915

P Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 5287 | m.s.? < 11.3 | |
| ac 3413 | . | Too faint. Dark |
| ac 6316 | . | Too faint. |
| ac 3747 | . | Hot region |
| ac 6302 | . | Sup. |
| ac 3773 | m.s.? < 10.8 | |
| ac 4458 | 10.6? | |
| ac 6230 | . | Sup. |
| ac 5177 | m.s.? < 11.3 | |
| ac 3876 | m.s.? < 10.3 | |
| ac 9337 | m.s.? < 11.3 | |
| ac 9325 | 11.7? | Faint |
| ac 9348 | 11.8? | " |
| ac 9912 | 10.1 | |
| ac 9382 | . | Sup. |
| ac 9701 | 11.9? | Faint |
| ac 9860 | 10.4 | |
| ac 9392 | m.s.? < 12.1 | Trailed |
| ac 9943 | 10.6 | |
| ac 8924 | . | Sup. |
| ac 7417 | 11.6? | |
| ac 8927 | . | Sup. |
| ac 8903 | . | Too faint. |

11.00
11.08

| | | |
|---|---|---|
| ac 28921 | 11.0? | ~~Sup.~~ |
| ac 6974 | . | Sup. |
| ac 4279 | . | Sup. |

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Tuesday, March 2, 1915

R Aurigae

| Plate No | Magn. | |
|---|---|---|
| ac 8912 | . | Suf. |
| ac 7077 | m.s.? < 10.3 | |
| ac 3193 | 9.6 ? | |
| ac 13408 | 9.6 ? | |
| ac 7206 | . | Suf.? |
| ac 3163 | . | Too poor. |
| ac 7222 | m.s.? < 11.6 | |
| ac 4099 | m.s.? < 10.3 | |
| ac 2952 | 10.6? | Doubtful |
| ac 7267 | . | Suf.? |
| ac 2499 | . | Suf? |
| ac 13393 | . | Too poor. |
| ac 7288 | m.s.? < 12.6? | |
| ac 8238 | . | Hot region |
| ac 4613 | . | Too poor |
| ac 4148 | . | Suf. |
| ac 12820 | . | Suf.? |
| ac 8336 | m.s.? < 11.9 | |
| ac 12736 | 11.4 | |
| ac 12719 | . | Suf. E. |
| ac 2334 | m.s.? < 12.1 | |
| ac 13483 | . | Trailed |
| ac 4426 | 10.6 | |
| ac 13018 | m.s.? < 12.1 | |
| ac 7531 | . | Too poor Dark. |
| ac 13041 | . | Suf. |
| ac 13092 | m.s.? < 12.1 | |
| ac 8137 | . | Too poor. |

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Tuesday March 25, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 13592 | . | Too poor. |
| ac 3933 | m.s.? < 12.1 | . |
| ac 13663 | . | Too poor. |
| ac 12348 | 11.4? | . |
| ac 14477 | . | Sup. |
| ac 3939 | m.s.? < 10.8 | |
| ac 11161 | . | Sup. Trailed plate |
| ac 14349 | 11.0? | Does not compare well. |
| ac 11091 | . | Sup. |
| ac 14333 | . | Sup. |
| ac 11026 | m.s.? < 11.3 | |
| ac 13876 | m.s.? < 11.6 | |
| ac 10934 | m.s. < 11.6 | |
| ac 13866 | . | Sup.? |
| ac 10882 | . | Too poor. Sup? |
| ac 13753 | 11.7? | Faint |
| ac 10779 | m.s.? < 12.1 | |
| ac 7458 | . | Too poor. |
| ac 7946 | 10.5? | |
| ac 2221 | . | Too poor. Dark. |
| ac 13106 | . | Sup.? |
| ac 2384 | . | Too poor |

1151

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Wednesday March 3, 1915

9.55 R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 15550 | m.s. < 12.1 | |
| ac 12552 | . | Sup. |
| ac 10103 | 10.5 ? | Multiple image plate |
| ac 7380 | 12.0 ? | Faint |
| ac 8232 | m.s.? < 10.8 | |
| ac 12886 | m.s.? < 12.1 | |
| ac 10177 | 9.5- | |
| ac 15960 | 10.6 ? | |
| ac 10244 | 9.4 | |
| ac 10242 | 9.4 | |
| ac 15943 | 10.58 g 3 1 V | V = 10.63 05 05 |
| | V 1 y 10.68 | |
| ac 7375 | 12.4 | |
| ac 15935 | 11.0 ? | Difficult |
| ac 7357 | . | Too faint |
| ac 15874 | 10.7 ? | |
| ac 10252 | 9.5- | |
| ac 15897 | 11.0 ? | Does not compare well |
| ac 12838 | m.s.? < 11.9 | |
| ac 7305 | m.s.? < 12.6 | |
| ac 15795 | . | Sup. |
| ac 10286 | 9.53 g f 1 V | V = 9.58 05 06 |
| | V 1 g 9.64 | |
| ac 15776 | . | Sup. |
| ac 12522 | . | Too faint |
| ac 12607 | . | Sup. |
| ac 15722 | . | Sup? |
| ac 7862 | 9.6 | |

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Wednesday, March 3, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 13707 | . | Too poor. |
| ac 12613 | . | Sup. |
| ac 6114 | 9.6? | |
| ac 13539 | 10.6? | |
| ac 15435 | . | Too poor. Dark. |
| ac 6944 | m.s.? < 11.6 | |
| ac 3276 | . | Too poor. Dark. |
| ac 13477 | . | Mailed |
| ac 9094 | . | 7 plate |
| ac 6976 | . | Too poor. E. |
| ac 12665 | . | Sup. |
| ac 7854 | . | Off plate |
| ac 12824 | m.s.? < 10.6 | |
| ac 2805 | . | Off plate |

10.34

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Wednesday March 10; 1915

4.15 R Aurigae

| Plate No. | Magn. | Yellow Plates |
|---|---|---|
| ac 13599 | . | Too poor, |
| ac 14864 | . | " " |
| ac 15652 | . | Sup. |
| ac 15631 | . | Too poor |
| ac 15851 | . | Sup. |
| ac 16059 | v = g ? | Poor |
| ac 16076 | . | Does not cover? |
| ac 13793 | m.s? < l | |
| ac 13802 | . | Too poor. |
| ac 14674 | | |
| | g / v ? | |
| | v 5 g² ? | |
| ac 14776 | . | Sup? |
| ac 15048 | . | |
| | v = g² ? | |
| ac 15680 | . | Sup? |
| ac 14372 | . | Sup? |

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Wednesday March 10, 1915

R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 10763 | . | Surf. T' |
| ac 10888 | . | Too poor T' |
| ac 9093 | . | Too poor T, plate |
| ac 9354 | . | " " T' |
| ac 10786 | m.s.? < 10.8 | T' |
| ac 10327 9 | 9.6 | T' |
| ac 10419 | 10.4? | T' |
| ac 14733 | 10.4? | ~~Doubtful~~ C plate |
| ac 13365 | . | Surf. 1 |
| ac 13236 | . | Too poor T' |
| ac 13295 | . | Surf. |
| | | |
| ac 3911 | . | Too poor |
| ac 3954 | . | Surf. |
| ac 3985 | m.s.? < 10.8 | |
| ac 5903 | . | Surf? |
| ac 14203 | . | Too poor |
| ac 14427 | . | " " |
| ac 12974 | m.s.? < 11.3 | |
| ac 13817 | m.s.? < 11.6 | |
| ac 14488 | 10.58 g 3 V<br>r 1 K 10.68 | V = 10.63 ~~0.5~~ ~~0.5~~ |
| ac 14750 | . | Surf. |
| 5.24 | | |
| 5.30 ac 8224 | . | Broken. Thrown away |
| ac 4043 | . | Plate broken. Film cracked off region |
| ac 7897 | . | Too poor T' |
| ac 7897 | . | " " T' |
| 5.34 ac 12088 | . | Surf. |

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Tuesday, March 16, 1915

2.35 R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| mc 2044 | 9.8 ? | T' Plate |
| mc 2022 | 9.6 | T' Plate |
| mc 5213 | | Yellow |
| | ~~g~~ 2 V | |
| | V 3 g | |
| mc 5294 | | Yellow |
| | g 4 V | |
| | V 1 g | |
| I 36131 | 13.0 ? | T' Very doubtful; faint and indistinct |
| I 34992 | 10.4 ? | T' Poor plate |
| I 35251 | 12.6 | |
| mc 2022 | 9.6 | T' Plate |
| mc 2044 | 9.6 | T' Plate |
| mc 5155 | 10.68 k 1 V | V = 10.72 04 04 |
| | V 1 k 10.76 | |
| mc 7035 | 11.9 | |
| mc 7147 | 10.68 k 1 V | V = 10.72 04 04 |
| | V 1 k 10.76 | |
| mc 5155 | 10.1 | |

3.09

3.11

| | | |
|---|---|---|
| ac 6777 | . | Surf. |
| ac 12992 | . | Off plate |
| ac 12993 | . | " " |
| ac 12996 | . | " " |
| ac 13015 | . | " " |

3.15

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Monday, October 25, 1915

P Aurigae

c 3.25

| Plate No. | Magn. | |
|---|---|---|
| ac 13461 | . | sup. |
| ac 13446 | 9.7 ? | Does not compare well |
| ac 12785 | . | sup. |
| ac 12776 | n.s.? | sup. |
| ac 16237 | . | sup. |
| ac 16396 | . | off plate. |
| ac 16397 | 9.5 | |
| ac 16688 | . | off plate |
| ac 16750 | . | sup |
| ac 16740 | . | Too poor. |
| ac 12291 | n.s.? | sup? |
| ac 12339 | 11.7 ? | Difficult |
| ac 12691 | 11.1 | |
| ac 12826 | n.s? | sup? |
| ac 13018 | ns? | sup? |
| ac 13385 | . | sup. |
| ac 13561 | 11.1? | Difficult |
| ac 16256 | . | sup? |
| ac 5480 | . | off plate |
| ac 5841 | 11.3 | |
| ac 5909 | 11.1 ? | |
| ac 4840 | . | sup |
| ac 4553 | 10.3 ? | Difficult. |
| ac 4498 | . | sup. |
| ac 4417 | 10.7 ? | Difficult |
| ac 12746 | . | sup. |
| ac 1252 | n.s. < 12.6 | |
| 4.25 ac 9159 | . | sup. |

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Tuesday, October 26, 1915

3.47 R Aurigae

| Plate No. | Magn. | |
|---|---|---|
| ac 13736 | . | Too difficult trailed |
| ac 9170 | . | sup. |
| ac 11368 | 10.9 ? | Difficult |
| ac 9103 | . | sup. |
| ac 9117 | . | sup. |
| ac 9125 | 10.6 ? | Difficult |
| ac 9132 | 10.4 ? | " |
| ac 5320 | n.s.< 11.0 | |
| ac 7205 | n.s.< 12.6 | |
| ac 7224 | . | sup? |
| ac 5262 | n.s.< 11.3 | |
| ac 5282 | . | sup? |
| ac 5297 | . | Too poor. |
| ac 16111 | 11.1 | |
| ac 6003 | 10.3 ? | Does not compare well |
| ac 7117 | . | sup. |
| ac 7531 | . | Too poor. |
| ac 7300 | n.s.< 11.6 | |
| ac 7941 | 10.5 ? | Difficult |
| ac 8289 | n.s.< 11.0 | |
| ac 8298 | n.s.< 11.0 | |
| ac 9863 | 10.3 ? | Difficult |
| ac 9903 | 10.4 | |
| ac 10119 | 10.3 | Does not compare well. |
| ac 11184 | 11.6 ? | Difficult |
| ac 12124 | . | sup. |

4.33

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1914phaec.proj.1043N



# Circumpolar Variables
## Estimates of Brightness
## R S Ursae Majoris

11.15 Friday, April 3, 1914

| Plate No. | Magn. | |
|---|---|---|
| ac 2611 | 10.3 | |
| ac 3351 | 11.5 | |
| ac 6178 | 11.5 | |
| ac 11269 | * ~~12.3~~ ? | Near limit of visibility |
| ac 11313 | m.s. < 14.2 | |
| ac 14786 | 12.3? | Near limit of vis. |
| ac 11539 | 10.3 | d and c used e defective |
| ac 11565 | 10.2 | |
| ac 12905 | m.s. < 13.5 | |
| ac 12963 | 13.6? | Limit of vis. |
| ac 13075 | 12.5 | |
| ac 13161 | 10.2 | |
| ac 13097 | 11.4 | |

* Reject. See page 219

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Friday. April 2, 1915

RS Ursae Majoris

List of Plates on which variable is not seen.

ac 11195
ac 14039
ac 14490
ac 14526
ac 14710
ac 14971
ac 3688
ac 6167
ac 7385
ac 11357
ac 12408
ac 14078
ac 13045
ac 13049
ac 14847
ac 14851
ac 14900
ac 14941
ac 15013

18.33

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Saturday April 3. 1915

10.23 R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 13115 | 10.3 | |
| ac 1403 | " | Trailed |
| ac 13184 | 10.6 ? | Poor |
| ac 10611 | 9.5 | |
| ac 1980 | 11.9 ? | Very doubtful. Limit of visibility |
| ac 13138 | 9.7 | |
| ac 13132 | 9.7 | |
| ac 13129 | 10.1 | |

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Saturday April 3, 1915

R S Ursae Majoris

List of Plates on which variable is not seen

AC 10894
AC 2540
AC 2524
AC 2456
AC 2446
AC 2394
AC 2388
AC 2340
AC 2297
AC 2215
AC 2190
AC 2128
AC 3088
AC 1981
AC 10667
AC 1529
AC 1503
AC 13201
AC 1493
AC 1465
AC 1410
AC 15094
AC 14918

10.59

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Saturday April 3, 1915

11.33 RS Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 3383 | 11.8 ? | h² n.s. ∨ limit of vis. |
| ac 3515 | n.s. ? < 11.5 | E. |
| ac 4233 | 9.6 ? | E. |
| ac 3316 | n.s. ? < 11.5 | E. |
| ac 2619 | 10.9 ? | Poor. E. |
| ac 2657 | n.s. ? | E. |
| ac 2680 | 10.2 ? | E. |
| ac 2207 | n.s. < 13.0 | |
| ac 3259 | n.s. < 12.3 | |
| ac 2237 | n.s. < 11.5 | |
| ac 2331 | n.s. < 12.3 | |
| ac 4265 | 9.4 ? | Very doubtful; fogged E. |
| ac 4311 | 9.9 ? | " " E. |
| ac 4175 | 9.9 ? | " " E. |
| ac 4192 | 9.8 ? | E. |

12.0 ?
12.15

| | | |
|---|---|---|
| ac 2666 | | Fireworks on plate interfere with meas. |
| ac 2681 | d ∨ | |
| | ∨ e | |
| ac 3025 | n.s. < 13.5 | |
| ac 2457 | | Too poor |
| ac 2615 | 10.3 | |
| ac 2646 | 10.3 ? | Very doubtful. Lim. of vis. |
| ac 4362 | d ∨ | |
| | ∨ e | |
| ac 4420 | 11.0 ? | E. |
| ac 4531 | 12.3 ? | E. D. [illegible] |

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Saturday, April 3, 1915

J

List of Plates on which variable is not seen

ac 4393
ac 2574
ac 2497
ac 10480
ac 10466
ac 10399
ac 3054
ac 3025
ac 2820
ac 3715
ac 3664
ac 3581
ac 4337
ac 3174
ac 2266
ac 3295
ac 3165
ac 3047
ac 10353
ac 1604
ac 1562
ac 2383
ac 3553
ac 3492

12.33

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Thursday. April 8, 1915

11.25 RS Tauri Majoris

| | Plate No. | Magn. | | |
|---|---|---|---|---|
| | ac 13109 | 10.5 | | |
| | ac 4273 | 9.9 | | |
| | ac 3588 | 12.2? | Near lim. of vis. | $h^2$ and $h'$ used |
| | ac 4329 | 10.2 | | |
| | ac 4352 | 10.1 | | |
| | ac 13123 | 10.1 | | |
| | ac 3367 | 12.0? | Faint | |
| | ac 13133 | 9.9 | | |
| | ac 3403 | 11.5? | Faint | |
| | ac 3473 | 11.5? | Irr. peculiar shape. | |
| | ac 13814 | 11.1 | | |
| | ac 13856 | 11.1 | | |
| | ac 13934 | 11.9? | Very doubtful. $h^2$ not seen | |
| | ac 10593 | 10.1? | Doubtful d m.s. | E. |
| | ac 10606 | 9.5? | E. faint | |
| | ac 10687 | 10.0? | Lim. of vis. | E. |

12.10

12.33

| | | | |
|---|---|---|---|
| ac 6275 | 9.9 | | |
| ac 6229 | d 2 V | | |
| | V l e | | |
| ac 6414 | 11.5 | | |
| ac 5571 | 12.5? | Very doubtful. Lim. of vis | |
| ac 6395 | 10.4 | | |
| ac 13869 | 11.0 | | |
| ac 5178 | 10.2? | Faint | |
| ac 6391 | 10.9 | | |

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Thursday, April 8, 1915

R S Ursae Majoris

List of Plates on which variable is not seen.

| | |
|---|---|
| ac 3681 | ac 10587 |
| ac 3691 | ac 14001 |
| ac 5792 | ac 13985 |
| ac 6457 | ac 13596 |
| ac 5719 | ac 3555 |
| ac 14890 | ac 13588 |
| ac 14036 | ac 3508 |
| ac 13524 | ac 13191 |
| ac 5584 | ac 3238 |
| ac 4782 | ac 3272 |
| ac 5602 | ac 13055 |
| ac 5621 | ac 13058 |
| ac 5673 | ac 3758 |
| ac 5415 | ac 3720 |
| ac 14059 | ac 3706 |
| ac 5560 | |
| ac 14136 | |
| ac 5897 | |
| ac 14820 | |
| ac 5874 | |
| ac 5976 | |
| ac 13989 | |
| ac 14015 | |
| ac 13229 | |
| ac 4979 | |
| ac 11024 | |
| ac 10705 | |
| ac 10634 | |

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Thursday, April 8, 1915

R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 13781 | . | C Plate |
| ac 6348 | 10.1 | |
| ac 5080 | 10.9 ? | Very doubtful. faint |
| ac 6328 | 9.9 | |
| ac 6292 | 10.0 | |

1.07

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Friday, April 9, 1915

12.17

R 8 Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 9874 | . | Too near edge. 7' |
| ac 9565 | . | " " " 7' |
| ac 4451 | 11.2 | E, |
| ac 4432 | 10.5? | faint: E, |
| ac 14931 | . | c Plate |
| ac 9346 | 10.2 | |
| ac 9299 | : | Too near E. |
| ac 4385 | 10.3 | Does not compare well |
| ac 9301 | 9.9? | 7' Plate |
| ac 9268 | . | Too poor. |
| ac 14452 | m.s.? <9.9 | |
| ac 14496 | 12.2? | Doubtful. Lim. of vis. |
| ac 12316 | 11.4 | E. |
| ~~d + v~~ | | |
| ~~v + e~~ | | |

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Friday, April 9, 1915.

R S Ursae Majoris

Plates on which variables is not seen

ac 12319
ac 4783
ac 14942
ac 14935
ac 9467
ac 9444
ac 9422
ac 14924
ac 14891
ac 9560
ac 14848
ac 4491
ac 14787
ac 9533
ac 8602
ac 16028
ac 9842
ac 4523
ac 11866
ac 4803
ac 11776
ac 10008
ac 11733
1.00 ac 11893
2.43 ac 11539
ac 4656
ac 11624
ac 9837
ac 9708

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Friday, April 9, 1915

R S Ursae Majoris

| Plate No. | Magn | |
|---|---|---|
| ac 13748 | 10.4 | E. |
| ac 8531 | 9.9? | Limit of vis. E. |
| ac 11486 | 10.7? | ~~Doubtful~~ Does not compare |
| ac 4611 | m.s.? | Object in pos. of r defect? |
| ac 9918 | 11.0 | E. |
| ac 10000 | 12.2? | Very doubtful E. Faint h'ns. T'plate |
| ac 13705 | . | Too poor. |
| ac 14863 | . | Trailed plate |
| ac 12524 | 9.8? | Does not compare well. E. |
| ac 12590 | d \| V<br>V \| e | ? Poor plate |
| ac 11511 | 10.7 | E. |
| ac 13695 | 10.3 ? | E. |
| ac 13149 | 10.0 ? | d m.s. faint E. |
| ac 13656 | 11.0 ? | E. |
| ac 13116 | 10.9 ? | E. |
| ac 6042 | m.s.? | |
| ac 13084 | 12.3? | faint 'k m.s. h' seen. |
| ~~ac 8575~~ | | |
| ac 11619 | 10.7? | faint E. |
| ac 4640 | 12.2? | Lim. of vis. E, |
| ac 15208 | 12.2? | " " " E |
| ac 13815 | 10.4 | |
| ac 11526 | 10.9 ? | E. |
| ac 13857 | 11.2 | E. |
| ac 4627 | . | Trailed |
| ac 11569 | d \| V<br>V \| e | |
| ac 13884 | . | "C" plate |

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Friday, April 9, 1915

R S Ursae Majoris

List of Plates on which variable is not seen

| | |
|---|---|
| ac 11332 | ac 10219 |
| ac 15188 | ac 12436 |
| ac 4691 | ac 12409 |
| ac 8472 | ac 4924 |
| ac 8199 | ac 8720 |
| ac 13044 | ac 14973 |
| ac 6056 | ac 4599 |
| ac 8314 | ac 11194 |
| ac 6073 | ac 8586 |
| ac 8373 | ac 4747 |
| ac 13060 | ac 9624 |
| ac 13513 | ac 15141 |
| ac 8436 | ac 5360 |
| ac 13519 | ac 12896 |
| ac 8410 | ac 4776 |
| ac 5930 | ac 8656 |
| ac 5852 | |
| ac 5963 | |
| ac 12884 | |
| ac 5334 | |
| ac 13664 | |
| ac 5662 | |
| ac 12833 | |
| ac 5876 | |
| ac 13225 | |
| ac 5009 | |
| ac 12357 | |
| ac 5049 | |
| ac 13027 | |

3,48

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Saturday, April 10, 1915

2.15

R Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 6383 | 10.5 ? | E. |
| ac 13927 | . | "C" plate |
| ac 7332 | 12.2 | E. $h^2 + k$ used |
| ac 6287 | 10.0 | E. |
| ac 7395 | m.s.? <11.5 | |
| ac 7778 | . | Image too hazy. E. |
| ac 6314 | 9.8 ? | E |
| ac 16303 | 10.9 | |
| ac 6300 | 9.8 ? | E. |
| ac 6135 | 11.5 | E. |
| ac 16225 | 11.5? | E. |
| ac 6208 | 10.3 ? | Very doubtful; faint, E. |
| ac 6171 | . | Too poor. |

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Saturday, April 10, 1915

R S Ursae Majoris

List of plates on which variable is not seen.

ac 14080
ac 6960
ac 14324
ac 6560
ac 14756
ac 6458
ac 14073
ac 6470
ac 7362
ac 7609
ac 6409
ac 7509
ac 6914
ac 7440
ac 7716
ac 7644
ac 7633
ac 7623
ac 8136
ac 7968
ac 14029
ac 13904
ac 7630
ac 13994
ac 13972
ac 6536
ac 7274
ac 14087

250

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Saturday, april 10, 1915

3.03 RS Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 1228 | 9.8 | E. |
| ac 10578 | 9.7? | faint E. |
| ac 132 | . | Too difficult Defective film. |
| ac 814 | 11.2? | faint E. |
| ac 12995 | m.s.? < 11.5 | |
| ac 13026 | 12.8? | Does not confirm well |
| ac 833 | d 1 V | |
| | V 1 e | |
| ac 874 | 10.4 ? | |
| ac 13696 | f 1 V | |
| | V 1 g | |
| ac 15292 | 9.9 | |
| ac 11583 | 10.2 ? | E. |
| ac 11506 | 10.2 ? | E. |
| ac 11573 | 10.9? | E. |
| ac 11489 | 10.3 | |
| ac 10596 | 10.0 ? | Poor E. |
| ac 4862 | . | Too faint. Trailed |
| ac 12925 | m.s. < 12.8 | |
| ac 12894 | m.s. < 12.8 | |
| ac 16216 | 11.3 | |
| ac 16266 | 11.0 | |

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Saturday, April 10, 1915

RS Ursae Majoris

List of Plates on which variable is not seen

| | |
|---|---|
| ac 700 | ac 11650 |
| ac 12874 | ac 10537 |
| ac 12883 | ac 12890 |
| ac 4903 | ac 11644 |
| ac 4873 | ac 12962 |
| ac 12933 | ac 1354 |
| ac 4794 | ac 12073 |
| ac 11008 | ac 11729 |
| ac 11148 | |
| ac 4743 | |
| ac 11297 | |
| ac 873 | |
| ac 4673 | |
| ac 4648 | |
| ac 4586 | |
| ac 11651 | |
| ac 13043 | |
| ac 12373 | |
| ac 15879 | |
| ac 15769 | |
| ac 15730 | |
| ac 896 | |
| ac 15193 | |
| ac 10508 | |
| ac 15160 | |
| ac 15147 | |
| ac. 15124 | |
| ac 11825 | |

3.44

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Monday, April 12, 1915

1.50

c

R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 10604 | 9.8 ? | E. |
| ac 6256 | 9.8 ? | E. |
| ac 10567 | 10.1 ? | E. |
| ac 8054 | n.s.? < 11.0 | E. |
| ac 11555 | d \| V<br>V \| e | E |
| ac 11466 | 10.5 | E. |
| ac 11437 | 11.3 | E |
| ac 7210 | 10.4 ? | E |
| ac 11507 | 10.3 | E. |
| ac 7622 | - | Fogged in var. region |
| ac 12223 | d \| V ?<br>V \| e | E. |
| ac 12257 | d 10.2 | E |
| ac 12247 | d \| V<br>V \| e | E |
| ac 1087 | 10.9 ? | E. |
| ac 12283 | 10.4 ? | E. |
| ac 12237 * | 12.2 ? | Faint E. |
| ac 13532 | n.s. < 13.0 | |
| ac 13625 | 11.1 | E. |
| ac 244 | n.s.? < 9.9 | |
| ac 1229 | 9.7 | E. |

* Assumed intended for 12337 as 12237 does not cover this region.

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Monday, April 12, 1915

P.S. Ursae Majoris

List of Plates on which variable is not seen.

ac 14757
ac 13976
ac 299
ac 15981
ac 278
ac 1090
ac 13520
ac 241
ac 212
ac 901
ac 7549
ac 5-887
ac 45-48
ac 7602
ac 8240
ac 4933
ac 7409
ac 5459
ac 7393
ac 5508
ac 7467
ac 4717
ac 7499
ac 7471
ac 4692
ac 5590
ac 7507

233

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Monday, April 12, 1915.

2.42

RS Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 7538 | n.s.? < 11.5 | |
| ac 6058 | n.s.? < 12.1 | |
| ac 7218 | 10.9? | Very doubtful. E. |
| ac 6094 | n.s.? < 12.3 | |
| ac 7284 | 11.4? | Very faint & n.s.? |
| ac 6273 | 10.1 | E. |
| ac 7342 | 12.2? | faint E. |
| ac 6158 | 11.5? | faint E. |
| ac 7439 | n.s.? < 11.0 | E |
| ac 6209 | 10.4? | E. |
| ac 6297 | 9.8? | faint E. |
| ac 6374 | 9.9? | " E. |
| ac 11307 | n.s. < 12.3 | |
| ac 6401 | n.s.? < 9.9 | |
| ac 10630 | 9.9? | E. |
| ac 10655 | d \| V | |
| | V \| e | |
| ac 11516 | d \| V | |
| | V \| e | |
| ac 1248 | 10.0 | |
| ac 576 | n.s.? < 11.5 | |
| ac 16157 | n.s.? < 12.3 | |
| ac 16233 | 11.1 | E. |
| ac 16290 | 10.4? | E. |
| ac 3517 | . | Too near E. |
| ac 7589 | . | Too poor. Not identified |

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Monday, April 12, 1915

R S Ursae Majoris

Plates on which Variable is not seen

| | | |
|---|---|---|
| | ac 4697 | ac 8163 |
| | ac 5619 | ac 10420 |
| (Wrong no.) | ~~ac 7619~~ | ac 10432 |
| | ac 7516 | ac 732 |
| | ac 5635 | ac 1534 |
| | ac 4625 | ac 1520 |
| | ac 6967 | ac 628 |
| | ac 7523 | ac 1440 |
| | ac 4606 | ac 16127 |
| | ac 5659 | ac 10474 |
| | ac 7535 | ac 1381 |
| | ac 7530 | ac 10449 |
| | ac 5994 | ac 16108 |
| | ac 4590 | ac 16040 |
| | ac 5702 | ac 16015 |
| | ac 5960 | ac 15991 |
| | ac 5729 | ac 7139 |
| | ac 4554 | ac 10413 |
| | ac 11106 | ac 6912 |
| | ac 7573 | ac 10467 |
| | ac 7500 | ac 6435 |
| | ac 11281 | ac 7640 |
| | ac 7565 | ac 11566 |
| | ac 11353 | ac 10479 |
| | ac 7481 | ac 10516 |
| | ac 7352 | ac 6347 |
| | ac 11404 | ac 7659 |
| | ac 6136 | |

3.25

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Tuesday April 13, 1915

11.40 R Scorpii Majoris

c

| Plate No. | Magn. | |
|---|---|---|
| ac 9250 | 10.0 | |
| ac 9286 | 9.8 | |
| ac 9329 | 9.9 | |
| ac 7765 | n.s.? < 9.2 | |
| ac 8508 | . | Fogged in region of var. |
| ac 7773 | 9.9? | |
| ac 9367 | 10.3 | |
| ac 9430 | 12.2? | Faint |
| ac 8532 | d 1 V | |
| | V 1 e | |
| ac 9434 | 12.2? | |
| ac 16138 | 12.3? | Near lim. of vis. |
| ac 9544 | n.s.? < 10.9 | |
| ac 9498 | 11.4? | Lim. of vis. E. |
| ac 9240 | 9.9? | E |
| ac 8486 | 10.3? | E |
| ac 6320 | 9.9 | |
| ac 4379 | d 2 V ? | |
| | V 1 e | |
| ac 4447 | 11.3 | |
| ac 5093 | d 1 V ? | |
| | V 1 e | |
| ac 9391 | 11.3? | E |
| ac 8502 | 10.1? | Very faint |
| ac 8533 | 10.0? | |
| ac 8540 | 10.3? | |
| ac 8578 | n.s.? < 9.2 | |
| ac 6405 | 11.0 | |

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Tuesday, April 13, 1915

R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 6367 | 9.8? | |
| ac 6361 | 10.0 | |
| ac 5188 | 10.9? | |
| ac 4470 | 11.3? | |
| ac 4501 | 11.9? | Lim. of vis. |
| ac 5819 | m.s. < 12.3 | |
| ac 4532 | 12.2? | |
| ac 13641 | 11.0 | |

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Tuesday. April 13, 1915

P Ursae majoris.

Plates on which variable is not seen

| | | | |
|---|---|---|---|
| ac 9152 | ac 206 | ac 4940 | ac 6041 |
| ac 9087 | ac 12861 | ac 7653 | ac 5931 |
| ac 10364 | ac 12853 | ac 6466 | ac 7687 |
| ac 10281 | ac 171 | ac 6429 | ac 4898 |
| ac 8466 | ac 12865 | ac 7649 | ac 7554 |
| ac 10209 | ac 9487 | ac 9153 | ac 7566 |
| ac 8429 | ac 8296 | ac 10226 | ac 5769 |
| ac 9592 | ac 10344 | ac 10217 | ac 5834 |
| ac 8352 | ac 8295 | ac 8725 | ac 5756 |
| ac 9553 | ac 9449 | ac 10189 | ac 7580 |
| ac 10297 | ac 8241 | ac 8670 | ac 5669 |
| ac 8347 | ac 8179 | ac 10128 | ac 7585 |
| ac 9538 | ac 8164 | ac 8615 | ac 4790 |
| ac 10362 | ac 7729 | ac 9952 | ac 7591 |
| ac 819 | ac 8422 | ac 9575 | ac 4811 |
| ac 12347 | ac 8301 | ac 9574 | ac 5848 |
| ac 762 | ac 7713 | ac 9587 | ac 5603 |
| ac 741 | ac 7636 | ac 10406 | |
| ac 12369 | ac 4992 | ac 9532 | |
| ac 626 | ac 7681 | ac 7628 | |
| ac 12395 | ac 7683 | ac 5858 | |
| ac 592 | ac 5417 | ac 7643 | |
| ac 12400 | ac 4997 | ac 5031 | |
| ac 581 | ac 6491 | ac 6542 | |
| ac 293 | ac 7679 | ac 4920 | |
| ac 12847 | ac 7694 | ac 5920 | |
| ac 12729 | ac 7664 | ac 6985 | |
| ac 234 | ac 4971 | ac 7699 | |

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Wednesday. April 14, 1915

11.30 R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 3317 | 12.3 | |
| ac 16148 | 12.3 | l > k |
| ac 9176 | 11.4 | |
| ac 15811 | n.s. < 12.8 | |
| ac 7751 | 10.1? | Poor |
| ac 8690 | n.s? < 11.5 | |
| ac 3097 | n.s. < 12.8 | |
| ac 15125 | n.s. < 12.8 | |
| ac 2689 | 10.1? | Poor |
| ac 2693 | d \| v ?<br>v \| e ! | |
| ac 9345 | 10.0 | |
| ac 9281 | 9.9 | |
| ac 8443 | 12.1 ? | |
| ac 4884 | n.s. < 12.3 | |
| ac 3500 | n.s? < 11.0 | |
| ac 8388 | n.s. < 12.3 | |
| ac 3476 | . | Too poor. |
| ac 16226 | 11.3 | |
| ac 9229 | 10.1 | |
| ac 16224 | 11.4? | Very doubtful extreme edge |
| ac 8554 | 9.8 | |
| ac 4199 | 9.9? | Poor |
| ac 10312 | . | Too difficult, near bright star. T' |
| ac 8509 | 10.1 | |
| ac 8504 | 10.0 | |
| ac 3621 | . | Too poor. & flat |
| ac 8476 | 11.4 ? | Scratched |

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Wednesday April 14, 1915

P Struve Majoris

v

Plates on which variable is not seen.

| | |
|---|---|
| ac 3417 | ac 10503 |
| ac 8391 | ac 4591 |
| ac 6105 | ac 10531 |
| ac 3542 | ac 14925 |
| ac 8460 | ac 4654 |
| ac 3610 | ac 4690 |
| ac 8469 | ac 10545 |
| ac 9446 | ac 4702 |
| ac 13977 | ac 9539 |
| ac 9520 | ac 9587 |
| ac 2915 | ac 10190 |
| ac 14972 | ac 4789 |
| ac 14934 | ac 10223 |
| ac 8646 | ac 3640 |
| ac 15812 | ac 10270 |
| ac 2932 | ac 3900 |
| ac 7545 | ac 10293 |
| ac 7594 | ac 4176 |
| ac 15153 | ac 10356 |
| ac 8713 | ac 10393 |
| ac 8048 | ac 6029 |
| ac 3114 | ac 10405 |
| ac 8197 | ac |
| ac 3303 | |
| ac 8205 | |
| ac 8207 | |
| ac 10488 | |
| ac 6050 | |

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Wednesday, April 14, 1915

R Sirsae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 4695 | n.s. ? < 10.3 | |
| ac 10586 | 9.7 | |
| ac 10664 | d V ? | |
| | V l c | |
| ac 10538 | 12.2? | |
| ac 4516 | 12.2? | |
| ac 4460 | 11.1 | |
| ac 14914 | . | Too difficult "c" plate |
| ac 10460 | n.s. < 12.8 | |
| ac 8640 | . | Too uncertain; faint and blurred |
| ac 8598 | 11.0 ? | |
| ac 4340 | 10.2 | |
| ac 8597 | 10.2 | |

12.52

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Thursday, April 15, 1915

11.21

P S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 8571 | 10.2? | |
| ac 4340 | 10.2? | |
| ac 8598 | 11.0? | |
| ac 8640 | 11.9? | Limit of vis. |
| ac 10460 | n.s. < 12.8 | |
| ac 14914 | . | Too difficult "c" plate |
| ac 4460 | 11.0? | |
| ac 4516 | 11.4? | |
| ac 10538 | 12.2? | |
| ac 10586 | 9.8 | |
| ac 10664 | d V ? | |
| | V 12 | |
| ac 8476 | 11.3 | Scratched. |
| ac 8504 | 9.7 | |
| ac 8509 | 10.0 | |
| ac 4199 | 99? | |
| ac 8554 | 99 | |
| ac 12922 | 10.4 | |
| ac 7273 | 11.0? | |
| ac 1137 | 9.6 | |
| ac 7217 | 10.8 | |
| ac 6862 | . | Too poor not identified. |
| ac 1123 | 10.0 | |
| ac 1991 | 12.2 | |
| ac 1111 | 10.2? | |
| ac 7436 | n.s. < 12.8 | |
| ac 7415 | n.s. < 12.8 | |
| ac 2265 | n.s < 12.8 | |

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Thursday, April 15, 1915

RS Ursae Majoris

Plates on which variable is not seen.

| | | | |
|---|---|---|---|
| ac | 7344 | ac | 2559 |
| ac | 558 | ac | 6949 |
| ac | 7381 | ac | 517 |
| ac | 610 | | |
| ac | 7403 | | |
| ac | 726 | | |
| ac | 7418 | | |
| ac | 1434 | | |
| ac | 2336 | | |
| ac | 7444 | | |
| ac | 753 | | |
| ac | 7452 | | |
| ac | 7459 | | |
| ac | 1414 | | |
| ac | 1598 | | |
| ac | 259 | | |
| ac | 1561 | | |
| ac | 1669 | | |
| ac | 1485 | | |
| ac | 270 | | |
| ac | 287 | | |
| ac | 1558 | | |
| ac | 2068 | | |
| ac | 319 | | |
| ac | 2116 | | |
| ac | 6525 | | |
| ac | 2566 | | |
| ac | 333 | | |

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Thursday. April 15, 1915

R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| QC 7392 | m.s. < 12.8 | |
| QC 2259 | m.s. < 12.3 | |
| QC 1341 | 12.0 | |
| QC 7376 | 13.0 ? | Lim. of vis. |
| QC 2140 | m.s. < 12.5 | |

12.19

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Monday April 19. 1915

11.37 R.S. Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| I 1149 | 12.8 | |
| I 1329 | 10.0 | |
| I 1429 | 10.1 | |
| I 944 | . | Does not cover. |
| I 1498 | 10.2 | |
| I 1643 | 11.4 | |
| I 1840 | n.s.? < 12.3 | |
| I 964 | . | Too near edge. |
| I 995 | 13.8? | Very faint. Measure extremely doubtful |
| I 1667 | . | Marked "useless" |
| I 1084 | n.s.? < 13.5 | |
| I 1099 | 13.7? | Line of ⅈs. of n.s.? |
| I 744 | . | Does not cover. |
| I 925 | n.s. < 13.0 | Σ. |
| I 711 | n.s.? < ~~12.5~~ 11.5 | Σ. |
| I 712 | n.s.? < 11.5 | Σ. |
| I 6410 | n.s.? < 13.5 | |
| I 3446 | n.s.? < 10.5 | |
| I 5925 | n.s. < 13.5 | |
| I 5835 | n.s. < 14.2 | |
| I 4441 | . | Too poor |
| I 5529 | 12.8 | |
| I 3339 | d, ✓ | Σ. |
| | ✓ 1e | |
| I 3673 | n.s. < 10.3 | |
| I 3332 | 10.2? | Very poor plate; streaked |
| I 3437 | 11.2 | |
| I 3492 | 11.5 | |
| I 3553 | 12.2 | |

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Monday, April 19, 1915

R S Ursae Majoris

c

| Plate No. | Magn. | |
|---|---|---|
| I 1133 | m.s. < 11.5 | E. |
| I 2444 | m.s.?, < 12.3 | |
| I 3331 | d IV | |
| | V e | |
| I 1115 | m.s. < 12.3 | E. |
| I 6414 | . | Does not cover. |
| I 3438 | . | " " " |
| I 3333 | . | " " " |
| I 6065 | . | " " " |
| I 1165 | 12.3? | E. faint |

12.48
3.45

| | | |
|---|---|---|
| I 13477 | m.s. < 11.5 | |
| I 13437 | m.s. < 12.8 | |
| I 13438 | . | Does not cover. |
| I 6426 | m.s. < 10.9 | |
| I 6427 | . | Does not cover. |
| I 15510 | m.s. < 12.3 | |
| I 15522 | m.s. < 12.8 | |
| I 9183 | m.s. < 12.3 | |
| I 8578 | . | Marked "useless" No stars seen. |
| I 17536 | m.s. 513.5 | |
| I 15624 | . | Too faint. |
| I 17537 | m.s. < 13.5 | |
| I 16993 | 11.3 | |
| I 8470 | 10.1 | |
| I 8577 | 11.0 | |
| I 16954 | 11.4 | |
| I 15087 | m.s. < 11.5 | |

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Monday, April 19, 1915

R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| I 17395 | n.s. < 14.4 | |
| I 8469 | 9.9 | E. |
| I 17346 | . | Too faint E. |
| I 8428 | 9.8 | |
| I 17070 | 12.7 ? | Faint E. |
| I 15177 | n.s. < 13.5 | |
| I 17027 | . | Spectrum plate. |
| I 16786 | 11.4 | |
| I 15179 | n.s. < 12.8 | |
| I 743 | n.s. < 12.1 | |
| I 16781 | 11.4 | |
| I 15278 | n.s. < 13.5 | |
| I 9184 | . | Does not cover. |
| I 16251 | d 1 v | |
| | v 1e | |
| I 15697 | n.s. < 13.5 | |
| I 15864 | . | Does not cover |
| I 15278 | . | no stars found. Marked "useless" |
| I 16712 | 11.2 | |
| I 15865 | . | Does not cover. |
| I 15993 | 12.3 ? | |
| I 15300 | n.s. < 14.2 | |
| I 16120 | 11.1 | |
| I 16250 | d 1 v | |
| | v 1e | |
| I 15356 | n.s. < 14.2 | |
| I 16121 | 11.1 | |
| I 15537 | d 2 v | |
| | v 1e | |

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Monday April 19, 1915

R S Ursae Majoris

V

| Plate no. | Magn. | |
|---|---|---|
| I 17811 | n.s, < 15.3 | |
| I 15357 | n.s. < 14.2 | |
| I 16716 | . | Does not cover |
| I 16544 | d, V | |
| | V1e | |
| I 15309 | n.s, < 12.8 | |
| I 15433 | n.s, < 11.5 | |
| I 15496 | n.s, < 13.5 | |
| I 16438 | d, V | |
| | V2e | |

4.46

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Tuesday April 20, 1915

11.30 R S Ursae Majoris

| Plate No. | | Magn. | |
|---|---|---|---|
| a | 463 | m.s. < 12.3 | E |
| a | 497 | m.s. < 10.9 | E |
| a | 1489 | 9.4 | |
| a | 1406 | 12.3 | E. |
| a | 1305 | m.s. < 12.1 | |
| a | 1560 | m.s. < 12.3 | |
| | | | |
| I | 23176 | 11.5 | |
| I | 31813 | . | Does not cover |
| I | 32542 | m.s. < 12.3 | |
| I | 28889 | . | Does not cover |
| I | 28890 | . | " " " |
| I | 28907 | . | Too poor. |
| I | 28797 | 12.5 | |
| I | 28818 | 11.3 | |
| I | 28848 | 11.2 ? | h almost covered by defect. |
| I | 27311 | . | Does not cover |
| I | 27312 | . | " " " |
| I | 25441 | . | " " " |
| I | 25407 | 10.4 | |
| I | 25314 | 9.8 | |
| I | 24005 | m.s. < 11.0 | |
| I | 25342 | 9.9 | |
| I | 23367 | 9.6 | |
| I | 23364 | . | Does not cover |
| I | 23780 | 11.8 ? | Faint |
| I | 23329 | . | Does not cover |
| I | 22927 | m.s. < 12.3 | |
| I | 23487 | 11.7 | |

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Tuesday. April 20, 1915

R S Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | I 22946 | m.s. < 14.3 | |
| | I 20375 | 9.6 | |
| | I 10814 | . | Does not cover. |
| | I 17820 | m.s. < 15.5 | " |
| 12.36 | | | |
| 3.33 | I 33914 | . | Does not cover |
| | I 33976 | 14.1 | |
| | I 33947 | . | Does not cover. |
| | I 20170 | 12.4? | Faint. E. |
| | I 33977 | 13.7 | |
| | I 34057 | m.s. < 13.0 | |
| | I 34532 | m.s. < 15.3 | |
| | I 34027 | m.s. < 14.2 | |
| | I 34533 | m.s. < 14.2 | |
| | I 34649 | 12.6 | |
| | I 20171 | . | Does not cover. |
| | I 19734 | . | " " |
| | I 19686 | . | Too poor. |
| | I 19733 | m.s. < 14.2 | |
| | I 19544 | . | Does not cover. |
| | I 19545 | m.s. < 12.3 | |
| | I 18367 | 11.2 | |
| | I 18415 | 11.0 | |
| | I 18316 | 12.1 | |
| | I 18204 | 12.8 | |
| | I 16205 | 13.3? | Faint |
| | I 6170 | . | Too poor. |
| 4.05 | I 9422 | . | " " |

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Wednesday April 21, 1915

4.00 ρ S Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| | Mc 7855 | 12.5 | |
| | Mc 5186 | 15.2 | |
| | Mc 5451 | 13.4? | Very doubtful Lim. of vis. |
| | Mc 5771 | 9.6 | |
| | Mc 6211 | 12.5 | |
| 4.08 | | | |
| 4.16 | Mc 6745 | 14.5 | |
| | Mc 6960 | t 1 V | |
| | | V 2 u | |
| | Mc 7570 | 15.4 | |
| | Mc 4928 | 15.1 | |
| | Mc 3162 | 12.3 | |
| | Mc 3262 | 14.1? | Difficult. faint |
| | I 35956 | m.s. < 12.3 | |
| | I 30995 | m.s. < 13.5 | |
| | I 38012 | m.s. < 12.3 | |
| | I 35996 | m.s. < 12.3 | |
| | I 37129 | p 1 V | |
| | | V 19 | |
| | I 37914 | 13.1? | Very faint |
| | I 37915 | . | Does not cover |
| | I 37953 | m.s. < 12.3 | |
| | I 37998 | m.s. < 12.3 | |
| | I 5723 | 13.9 | |
| | Mc 122 | 16? | y n.s? Lim. of vis. |
| | Mc 5476 | 13.7 | |
| | I 37996 | m.s. < 12.3 | |
| | Mc 4928 | m.s. < 12.3 | |

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Wednesday, April 21, 1915

R S Ursae Majoris

| | Plate No. | Magn. | |
|---|---|---|---|
| v | mD 5624 | f 1 v<br>v 1.9 | Does not compare well |
| | mD 6235 | n.s. < 11.5 | |
| | mD 6511 | n.s. < 11.5 | |
| | mC 3264 | n.s.? < 12.1 | E. |
| | mC 3286 | 12.5? | m n.s.? E. |
| | mC 3085 | 12.2 | |
| | mC 2955 | 11.1 | |
| | mC 1990 | | Too poor E. Def. in pos. of v? |
| | mD 3085 | 11.8 ? | Poor. |
| | mD 3264 | n.s. < 11.0 | |
| | mD 3286 | n.s. < 11.5 | |
| | mD 2955 | 11.2 | |
| | mD 3162 | 12.3? | faint. |

5.09

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Thursday April 22, 1915

11.45 R S Ursae Majoris

| Plate No. | Magn. | Yellow Hates |
|---|---|---|
| Mc 3244 | n.s. h 0 N | |
| Mc 3241 | | Too poor. |
| Mc 5026 | n.s. h 1 N | |
| Mc 3212 | n.s. h 1 N? | |
| Mc 3240 | n.s. h 0 N | |
| Mc 5123 | n.s. h' 1 N | Def. almost in position of var |
| Mc 7547 | n.s.? h' 0 N | |
| Mc 5091 | n.s.? h 0 N | |
| Mc 6777 | n.s. h' 1 N | |
| Mc 7010 | n.s. h' 0 N? | |
| Mc 6511 | h 2 V ? | Very faint |
| | V 1 h' | |
| Mc 6235 | g 5 V | |
| | V 1 h | |
| Mc 5624 | d 4 V | |
| | V 1 f | |
| Mc 5314 | n.s.? o' 1 N? | |
| Ac 16351 | c 3 V ? | E. |
| | V 1 d | |
| Ac 648 | ns. h 1 N | Yellow? Marked ~~Traced~~ "Boochi." But does not appear so. |
| Ac 16182 | n.s g 1 N | |
| Ac 15165 | f 1 V ? | Very poor. |
| | V 1 N | |
| Ac 13912 | n.s? f 1 N | Defect in pos. of var? |

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Thursday April 22, 1915

RS Tirsae Majoris

v

Plates on which Variable is not seen. Yellow

ac 14861 ac 16205
ac 14958
ac 13988
ac 13966
ac 13952
ac 15071
ac 15045
ac 1481
ac 13789
ac 13675
ac 13950
ac 13893
ac 14873
ac 13956
ac 16100
ac 16207
ac 14947
ac 15073
ac 15063
ac 13894
ac 13799
ac 14683
ac 13674
ac 13900
ac 13916
ac 15963
ac 13676
ac 5929
ac 16093

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Thursday April 22, 1915

R S Tauri Trapezii

| Plate No. | Magn. | |
|---|---|---|
| ac 1380 | 12.3? | Doubtful. Defects on film E |
| ac 1243 | 9.8 | E. |
| ac 1164 | 9.5 | |
| ac 878 | 10.4? | E. Line of vis. |
| ac 877 | 10.9? | 9 m.s? |
| ac 3474 | 11.2? | Faint E. |
| ac 3464 | 11.5? | Faint E. |
| ac 3454 | | Too poor. |
| ac 3444 | 11.2? | Faint E. |
| ac 3309 | 12.3? | Very doubtful Line of vis. E. |
| ac 3132 | m.s. < 12.8 | |
| ac 2726 | 10.7? | Very doubtful Line of vis. E. |

1.00
100

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Thursday April 22, 1915

R S Ursae Majoris

J

Plates on which variable is not seen.

ac 2821
ac 2999
ac 3296
ac 815
ac 832
ac 909
ac 1438
ac 1425
ac 1495
ac 1743
ac 1698
ac 1676
ac 1607
ac 1939
ac 1918
ac 2121

1.00

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Friday, April 23, 1915

10.20 P S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| Mc 3213 | . | Too poor. Yellow plate. E. |
| ac 1159 | 9.3 | |
| I 18100 | n.s. < 14.2 | |
| I 34706 | 9.8 | |
| I 18414 | 10.9 | |
| I 15695 | n.s. < 14.2 | |
| I 4900 | 9.5 | |
| I 17293 | n.s. < 14.4 | |
| I 25551 | l 3 V | |
| | h' 2 V | |
| | V 1 k | |
| I 28159 | n.s. < 12.3 | |
| ac 3029 | n.s. < 12.3 | |
| ac 8439 | . | Does not cover. |
| ac 9439 | . | Plate missing |
| ac 16398 | 10.7 | |
| ac 2629 | 10.3 | E. |
| ac 2661 | n.s. < 9.9 | |
| ac 4266 | 9.5 | E. |
| ac 16391 | 11.1 | |
| ac 3031 | 11.0 ? | E. Lim. of vis. |
| ac 306 | . | Trailed plate |
| ac 161 | . | Too poor. |
| ac 160 | . | " " |
| ac 159 | . | " " |
| I 34718 | 9.5 | |
| I 34768 | 11.0 | |
| ac 16374 | 10.8 | |

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Friday, April 23, 1915

R S Ursae Majoris

List of plates on which variable is not seen

| | | |
|---|---|---|
| ac 968 | ac 2247 | mE 1929 |
| ac 9443 | ac 2484 | mD 1920 |
| ac 3438 | ac 2864 | mD 3262 |
| ac 766 | ac 2845 | ac 3436 |
| ac 730 | ac 9421 | |
| ac 2558 | ac 9241 | |
| ac 2564 | ac 2099 | |
| ac 1515 | ac 1524 | |
| ac 75 | | |
| ac 190 | | |
| ac 215 | | |
| ac 237 | | |
| ac 291 | | |
| ac 586 | | |
| ac 3486 | | |
| ac 3493 | | |
| ac 3561 | | |
| ac 3598 | | |
| ac 3656 | | |
| ac 3700 | | |
| ac 3718 | | |
| ac 3756 | | |
| ac 3832 | | |
| ac 3850 | | |
| ac 3872 | | |
| ac 3972 | | |
| ac 2301 | | |
| ac 2241 | | |

(26 more out)
12.03

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Friday, April 23, 1915

2.25

RS Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 16372 | 10.4? | Faint E. |
| * ac 16351 | * ~~10.1?~~ | " E. |
| mc 1922 | . | Too poor E. faint T' |
| mC 2099 | n.s. < 14.3 | |
| mD 2099 | n.s. < 12.8 | |
| mD 3212 | 12.5? | |
| mD 3241 | n.s. < 12.8 | |
| mD 3213 | n.s. < 12.8 | |
| I 34711 | 9.5 | |
| * ~~I~~ ac I 16367 | f \| v | |
| | v \| g | |
| I 37311 | g | Does not cover |
| I 34740 | 10.7 | T' plate |

2.58

* Assumed to be ac 16367, as I 16367 does not cover region. Also var. on ac 16367 appears to be between f and g. H.S.F.M. April 24, 1915

* ac 16351 Reject measure. Yellow plate, evidently measured by mistake with blue magns. Yellow magns. have not yet been determined. H.S.F.M. Condition of plate agrees with remarks above. June 12, 1915

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1914phae.proj.1043M



Wednesday May 5, 1915

J 5.36 R S Ursae Majoris

| Plate No. | Magn. | |
|---|---|---|
| ac 11464 | 10.9 ? | E. |
| ac 11524 | 11.0 ? | E. faint |
| ac 11667 | 11.9 ? | Very doubtful $h^2$ not seen? |
| ac 11591 | 10.2 | |
| ac 11463 | 10.8 | |
| ac 11673 | 12.3 | |
| ac 13107 | 10.4 | |
| ac 2534 | m.s.? < 13.5? | Defects in film. |
| ac 13901 | m.s.? < 10.9 | |
| ac 7432 | 13.2? | Very faint. |
| ac 12143 | . | Too foggy. |
| ac 8571 | 10.2 | |
| ac 10571 | . | Broken + thrown away |
| ac 3523 | h 1 v | Yellow d > c! |
| | v 1N | |
| ac 16324 | | Yellow |
| | e 3 v | |
| | v 2 f | |
| ac 16206 | . | Too near edge. Yellow |
| ac 8395 | . | Not to be used unless necessary Yellow |
| ac 7427 | 13.3? | m, n, o used. n > m; Lim. of vis. |
| ac 2694 | d 1 v | |
| | v 1e | |

Plates on which variable is not seen.

| | | | |
|---|---|---|---|
| ac 15053 | Poss. Yellow | ac 9459 | ac 8330 |
| ac 15079 | " | ac 13897 | ac 8346 |
| ac 15087 | " | ac 800 | ac 10296 |
| ac 16081 | " | ac 3737 | |

6.14

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1914phae.proj.10430



Tuesday, December 21, 1915

R S Ursae Majoris.

| Plate No. | Magn. | |
|---|---|---|
| ac 11269 | m.s? | Too poor to measure, and too faint. If seen, about 12.3, but object in pos. of V is not shape of star image. Upon superposition on a plate showing variable distinctly, this object was found to be not exactly in pos. of V, and must therefore be a defect in film. |

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