

7w²
4
LMC

4

V. ABG AD94
war
wade

HARVARD UNIVERSITY
LABORATORY NOTEBOOK

Physics 1

NAME Clouds

SECTION Infra-red

INSTRUCTOR ag

Harvard Coöperative Society

THIS BOOK BELONGS TO

CLASS OF _____

HARVARD COOPERATIVE SOCIETY
CAMBRIDGE, MASS.

Index

Infra red search around 50 Dor.
V.M.K.N. Feb. 1953

P
4

no good
2nd search for very, very red
stars. Nov. 1954 V.M.K.N. 27

ADH plates
118

addition measures on "Bar" LMC on ADH 12/57 117

measures in two colors blue & red of 49 stars in
SMC of R series II - 25. June 1953 V.M.K.N. 123

Blue & red magnitudes in nebulous regions
SMC. May-June 1953. V.M.K.N. 137

Infra-red plates in L.M.C.

Feb. 1953 VMKN.

no good

| 4 | ③ | ⑤ | ⑪ | ⑫ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ | ㉑ | ㉒ | ㉓ | ㉔ | ㉕ | ㉖ | ㉗ | ㉘ | ㉙ | ㉚ | ㉛ | ㉜ | ㉝ | ㉞ | ㉟ | ㊱ | ㊲ | ㊳ |
|-------|------|-------|------|------|------|-------|------|------|-------|------|-------|------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2172 | 16.0 | 16.8 | 15.0 | 16.0 | 14.8 | 16.8 | 15.2 | 15.7 | 16.8 | 16.2 | 16.0 | 15.5 | 16.2 | 15.2 | 16.9 | 16.4 | 16.3 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 7123 | 15.9 | 16.8 | 15.2 | 15.8 | 14.9 | 16.4 | 15.2 | 15.7 | 16.8 | 16.1 | 16.0 | 15.5 | 16.2 | 15.2 | 16.6 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| 13607 | 15.8 | Σ16.4 | 15.4 | 15.6 | 15.0 | Σ16.4 | 15.2 | 15.7 | Σ16.4 | 16.0 | 16.0 | 15.0 | 16.2 | 15.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 |
| 1312 | 15.8 | Σ16.6 | 15.2 | 15.7 | 15.0 | Σ16.6 | 15.2 | 15.6 | Σ16.6 | 16.0 | 16.2 | 14.8 | 16.2 | 15.0 | Σ16.6 | 16.0 | 16.1 | Σ16.6 | Σ16.6 | 16.0 | 16.1 | Σ16.6 | Σ16.6 | 16.0 | 16.1 | Σ16.6 | Σ16.6 | 16.0 |
| 15207 | 15.9 | 16.7 | 15.2 | 15.8 | 15.1 | 16.7 | 15.2 | 15.7 | Σ16.6 | 16.1 | 16.2 | 15.1 | 16.2 | 14.8 | Σ16.6 | 16.3 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 |
| 16230 | 15.7 | 16.7 | 15.2 | 15.8 | 15.1 | 16.8 | 14.9 | 15.8 | 16.8 | 16.0 | 16.4 | 15.1 | 16.2 | 14.8 | 16.8 | 17.0 | 16.2 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 16688 | 15.9 | 16.8 | 15.0 | 15.7 | 15.0 | 14.9 | 15.1 | 15.9 | 16.8 | 16.3 | 16.5 | 15.0 | 16.1 | 15.2 | 16.8 | Σ17.0 | 16.4 | 17.0 | 16.4 | 17.0 | 16.4 | 17.0 | 16.4 | 17.0 | 16.4 | 17.0 | 16.4 | 17.0 |
| 16702 | 15.9 | 16.5 | 15.2 | 15.6 | 15.1 | 16.8 | 15.1 | 15.7 | 16.8 | 16.2 | 16.5 | 15.0 | 16.1 | 15.1 | 16.8 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 |
| 17304 | 16.0 | Σ16.4 | 15.1 | 15.6 | 14.8 | Σ16.4 | 15.2 | 15.4 | Σ16.4 | 16.4 | Σ16.4 | 15.0 | 16.2 | 15.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 | 16.2 | Σ16.4 | Σ16.4 |
| 20574 | 16.0 | 16.8 | 14.8 | 15.7 | 15.1 | 16.9 | 14.8 | 15.3 | 16.8 | 16.3 | 16.6 | 14.9 | 16.1 | 14.9 | 16.9 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 |
| 22225 | 16.0 | 16.8 | 15.3 | 15.8 | 15.0 | 16.9 | 15.2 | 15.6 | 16.8 | 16.1 | 16.3 | 15.6 | 16.2 | 15.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 | 16.2 | Σ17.0 | Σ17.0 |
| 22995 | 16.0 | 16.7 | 15.2 | 15.8 | 14.8 | 16.9 | 15.7 | 15.7 | 16.7 | 16.2 | 16.4 | 14.9 | 16.2 | 15.2 | 16.8 | 16.2 | 16.3 | 17.0 | 16.3 | 17.0 | 16.3 | 17.0 | 16.3 | 17.0 | 16.3 | 17.0 | 16.3 | 17.0 |
| 23411 | 16.0 | 16.8 | 14.6 | 16.0 | 14.8 | 16.8 | 14.8 | 15.8 | 16.8 | 16.2 | 16.5 | 15.0 | 16.2 | 15.2 | Σ16.8 | Σ17.0 | 16.3 | Σ17.0 | Σ17.0 | 16.3 | Σ17.0 | Σ17.0 | 16.3 | Σ17.0 | Σ17.0 | 16.3 | Σ17.0 | Σ17.0 |
| 23904 | 16.1 | Σ16.4 | 14.6 | 15.9 | 14.8 | Σ16.4 | 14.9 | 15.8 | Σ16.4 | 16.2 | Σ16.4 | 14.9 | Σ16.4 | 14.9 | Σ16.4 | Σ16.4 | 16.0 | Σ16.4 | Σ16.4 | 16.0 | Σ16.4 | Σ16.4 | 16.0 | Σ16.4 | Σ16.4 | 16.0 | Σ16.4 | Σ16.4 |
| 23987 | 16.0 | Σ16.0 | 14.8 | 16.0 | 15.0 | Σ16.0 | 15.0 | 15.9 | Σ16.0 | 16.2 | Σ16.0 | 14.9 | Σ16.0 | 15.0 | Σ16.0 | Σ16.0 | 16.0 | Σ16.0 | Σ16.0 | 16.0 | Σ16.0 | Σ16.0 | 16.0 | Σ16.0 | Σ16.0 | 16.0 | Σ16.0 | Σ16.0 |
| 24959 | 16.1 | 16.8 | 15.0 | 15.9 | 14.8 | 16.8 | 15.3 | 15.8 | 16.8 | 16.2 | 16.2 | 15.0 | 16.3 | 15.0 | 16.9 | 16.9 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 25484 | 15.5 | 16.9 | 15.3 | 15.8 | 15.2 | 16.9 | 15.2 | 15.9 | 16.8 | 16.2 | 16.2 | 15.0 | 16.3 | 15.0 | 16.7 | 16.9 | 15.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 |
| 26060 | 16.0 | 16.8 | 14.9 | 15.9 | 14.8 | 16.8 | 15.3 | 15.8 | 16.8 | 16.3 | 16.3 | 15.0 | 16.5 | 15.1 | 16.9 | 16.9 | 16.3 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 26648 | 16.6 | 16.8 | 14.4 | 15.9 | 15.4 | 16.7 | 15.4 | 15.7 | 14.6 | 16.4 | 16.4 | 15.1 | 16.2 | 15.2 | 16.8 | 16.9 | 16.2 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 26651 | 16.5 | 16.6 | 15.2 | 16.0 | 15.2 | 16.7 | 15.3 | 15.4 | 16.6 | 16.2 | 16.4 | 15.2 | 16.5 | 15.2 | 16.7 | 16.5 | 16.4 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 26961 | 16.2 | 16.7 | 15.4 | 16.1 | 15.5 | 16.6 | 14.8 | 15.4 | 16.6 | 16.2 | 16.4 | 15.1 | 16.5 | 15.2 | 16.8 | 16.1 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 26966 | 16.3 | Σ16.6 | 15.3 | 16.4 | 15.3 | Σ16.6 | 15.4 | 15.6 | 16.4 | 16.4 | 16.5 | 15.0 | 16.4 | 15.5 | Σ16.8 | 16.1 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 | 16.2 | Σ16.6 | Σ16.6 |
| NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV | NV |

FWW Read book 4 LMC

Received from CPG 9/73

1953phae.proj. 2458N

(90) (92) (94) (117)

16.3: 16.3: 17.0 16.5

16.4: 16.6 17.0 16.3

16.2: 16.4 16.4 16.1

16.1: 16.6 16.6 16.2

16.2: 16.6 16.6 16.2

16.2: 16.8 17.0: 16.5

16.4: 17.0: 17.0 16.4

16.2: 17.0 17.0 16.2

16.2: 16.4 16.4 16.4:

16.2: 16.9: 17.0 16.2

16.2: 17.0 17.0 16.3

16.3: 17.0: 17.0: 16.3:

16.3: 17.0: 17.0: 16.3

16.0: 16.4 16.4 16.4

16.0: 16.0 16.0 16.0

16.0: 16.9 17.0: 16.4

16.9: 16.9: 16.9 16.2

16.3: 16.9 17.0: 16.4

16.2: 16.8 16.7 16.4

16.4: 16.8 16.7 16.6

16.3: 16.8 17.0: 16.5

16.2: 16.4 16.4 16.4

NV NV NV NV

1953phae:proj:2458X

| | | | |
|-----|-------|-------|-------|
| | 92 | 94 | 117 |
| 3 | 16.3 | 17.0 | 16.5 |
| 4 | Σ16.6 | 17.0 | 16.3 |
| 2 | Σ16.4 | Σ16.4 | 16.1 |
| 1 | Σ16.6 | Σ16.6 | 16.2 |
| 2 | Σ16.6 | Σ16.6 | 16.2 |
| 2 | 16.8 | 17.0 | 16.5 |
| 4 | 17.0 | Σ17.0 | 16.4 |
| 2 | Σ17.0 | Σ17.0 | 16.2 |
| 2 | Σ16.4 | Σ16.4 | 16.4 |
| 2 | 16.9 | Σ17.0 | 16.2 |
| 2 | Σ17.0 | Σ17.0 | 16.3 |
| 3 | 17.0 | 17.0 | 16.3 |
| 23 | 17.0 | 17.0 | 16.3 |
| 6.0 | Σ16.4 | Σ16.4 | Σ16.4 |
| 1.0 | Σ16.0 | Σ16.0 | Σ16.0 |
| 6.0 | 16.9 | 17.0 | 16.4 |
| 7.9 | 16.9 | 16.9 | 16.2 |
| 2 | 16.9 | 17.0 | 16.4 |
| 2 | 16.8 | 16.7 | 16.4 |
| 4 | 16.8 | 16.7 | 16.6 |
| 5 | 16.8 | 17.0 | 16.5 |
| 2 | Σ16.4 | Σ16.4 | 16.4 |
| V | NV | NV | NV |

| 6 IR ADH 220, 2433715, 279; Red FDH 662433635, 499; Blue ADH 59 2433635, 478 | | | | | | | | | | |
|--|------|--------|------|-----|----|------|--------|------|-----|---|
| Refine around 30 = Day. = | | | | | IR | R | B | JRCI | | |
| IR | R | B | JRCI | | 25 | 12.8 | 13.9 | 16.5 | 3.7 | 5 |
| 1 | 14.1 | [14.0] | 17.2 | 3.0 | | | | | | |
| 2 | 13.6 | [14.0] | 17.2 | 3.6 | 26 | 10.5 | 11.6 | 14.8 | 4.3 | 5 |
| 3 | 11.8 | 13.3 | 16.5 | 4.7 | 27 | 12.5 | [14.0] | 16.6 | 4.1 | 5 |
| 4 | 12.6 | 13.3 | 16.5 | 3.9 | 28 | 12.3 | 13.9 | 15.9 | 3.6 | 5 |
| 5 | 12.2 | [14.0] | 16.5 | 4.3 | 29 | 14.0 | [14.0] | 16.8 | 2.8 | 5 |
| 6 | 13.3 | 13.4 | 16.3 | 3.0 | 30 | 11.4 | 13.0 | 15.6 | 4.2 | 5 |
| 7 | 13.1 | 13.7 | 15.4 | 2.3 | 31 | 11.2 | 12.4 | 15.1 | 3.9 | 5 |
| 8 | 13.8 | [14.0] | 16.8 | 3.0 | 32 | 10.9 | 12.5 | 14.8 | 3.9 | 5 |
| 9 | 13.8 | [14.0] | 16.9 | 3.1 | 33 | 13.5 | [14.0] | 17.3 | 3.8 | 5 |
| 10 | 12.0 | 13.5 | 16.2 | 4.2 | 34 | 11.9 | 12.7 | 15.0 | 3.1 | 5 |
| 11 | 11.9 | 13.0 | 16.4 | 4.5 | 35 | 13.0 | 13.9 | 15.6 | 2.6 | 6 |
| 12 | 11.5 | 13.7 | 16.2 | 4.7 | 36 | 14.0 | [14.0] | 17.3 | 3.3 | 6 |
| 13 | 12.9 | 14.0 | 16.7 | 3.8 | 37 | 13.5 | [14.0] | 16.8 | 3.3 | 6 |
| 14 | 12.0 | 13.4 | 15.9 | 3.9 | 38 | 14.0 | [14.0] | 17.5 | 3.5 | 6 |
| 15 | 11.7 | 13.9 | 15.7 | 4.0 | 39 | 12.6 | [14.0] | 17.3 | 4.7 | 6 |
| 16 | 12.0 | 13.8 | 16.5 | 4.5 | 40 | 14.0 | [14.0] | 16.4 | 2.4 | 6 |
| 17 | 12.1 | 13.3 | 15.5 | 3.4 | 41 | 14.1 | [14.0] | 16.5 | 2.4 | 6 |
| 18 | 13.6 | 14.0 | 16.8 | 3.2 | 42 | 14.0 | [14.0] | 17.2 | 3.2 | 6 |
| 19 | 11.8 | 13.6 | 15.9 | 4.8 | 43 | 14.1 | [14.0] | 17.3 | 3.2 | 6 |
| 20 | 11.9 | 13.0 | 15.0 | 4.0 | 44 | 14.1 | [14.0] | 17.1 | 3.0 | 6 |
| 21 | 12.0 | 14.0 | 16.5 | 4.5 | 45 | 14.1 | [14.0] | 17.5 | 3.4 | 7 |
| 22 | 13.4 | [14.0] | 16.6 | 3.2 | 46 | 13.6 | [14.0] | 16.5 | 2.9 | 7 |
| 23 | 12.0 | 13.7 | 16.5 | 4.5 | 47 | 13.6 | 13.7 | 14.0 | 0.4 | 7 |
| 24 | 11.8 | 13.8 | 15.9 | 4.1 | 48 | 13.0 | [14.0] | 17.1 | 3.6 | 7 |

| | | | | | | | | | | |
|----|----|------------|------------|------------------|---------------|----|------------|-----------|-------------|----------------|
| 47 | 49 | IR 13.9 | R Σ14.0 | B 16.9 | IR-C.I 3.0 | 74 | IR 12.1 | R 13.3 | B 15.0 | IR-C.I 2.97 |
| CI | 50 | 14.1 | Σ14.0 | 17.5 | 3.4 | 75 | 13.7 | Σ14.0 | 16.8 | 3.1 |
| 7 | 51 | 14.0 | Σ14.0 | 17.5 | 3.5 | 76 | 13.8 | Σ14.0 | 17.4 | 3.6 |
| 3 | 52 | 13.7 | Σ14.0 | 16.7 | 2.0 | 77 | 13.3 | Σ14.0 | 17.4 | 4.1 |
| 1 | 53 | 13.7 | Σ14.0 | 17.4 | 3.7 | 78 | 13.2 | Σ14.0 | 16.7 | 3.3 |
| 6 | 54 | 12.8 | Σ14.0 | 16.8 | 4.0 | 79 | 13.3 | 14.0 | 16.4 | 3.1 |
| 5 | 55 | 14.1 | Σ14.0 | 17.0 | 2.9 | 80 | 13.7 | Σ14.0 | 17.5 | 3.8 |
| 2 | 56 | 13.6 | Σ14.0 | 15.7 | 2.1 | 81 | 13.2 | Σ14.0 | 16.7 | 3.5 |
| 9 | 57 | 13.0 | Σ14.0 | 16.7 | 3.7 | 82 | 14.1 | Σ14.0 | 17.4 | 3.3 |
| 4 | 58 | 14.1 | Σ14.0 | 17.5 | 3.4 | 83 | 13.5 | Σ14.0 | 17.4 | 3.9 |
| 8 | 59 | 12.9 | 13.3 | 14.8 | 1.9 | 84 | 11.6 | 12.4 | 14.8 | 3.2 |
| 1 | 60 | 13.0 | 13.5 | 15.5 | 2.5 | 85 | 13.6 | Σ14.0 | 16.8 | 3.2 |
| 6 | 61 | 13.5 | Σ14.0 | 16.9 | 3.4 | 86 | 14.0 | Σ14.0 | 17.1 | 3.1 |
| 3 | 62 | 13.6 | Σ14.0 | 16.9 | 3.3 | 87 | 14.1 | Σ14.0 | 16.8 | 2.7 |
| 0 | 63 | 13.0 | 13.8 | 16.6 | 3.6 | 88 | 13.8 | Σ14.0 | 17.5 m.s | 3.7 |
| 5 | 64 | 12.0 | 12.2 | 14.2 | 2.2 | 89 | 13.6 | Σ14.0 | 16.7 | 3.1 |
| 4 | 65 | 12.1 | 12.5 | 15.4 | 3.3 | 90 | 12.6 | 13.7 | 15.7 | 2.9 |
| 7 | 66 | 12.0 | 12.4 | 15.3 | 2.3 | 91 | 13.8 | Σ14.0 | 17.4 | 3.6 |
| 1 | 67 | 11.8 | 12.3 | 15.6 | 3.8 | 92 | 13.0 | Σ14.0 | 17.1 | 4.1 |
| 3 | 68 | 12.7 | Σ14.0 | 16.0-2.0 17.5 | 4.8 | 93 | 14.1 | Σ14.0 | 17.5 | 3.4 |
| 2 | 69 | 12.0 | 13.4 | 15.0 | 3.0 | 94 | 12.2 | Σ14.0 | 16.4 | 4.2 |
| 0 | 70 | 12.4 | 13.3 | 16.4 | 4.0 | 95 | 13.7 | Σ14.0 | 17.5 | 3.8 |
| 4 | 71 | 12.9 | 13.9 | 16.3 | 3.4 | 96 | 14.0 | Σ14.0 | 17.0 | 3.0 |
| 2 | 72 | 11.8 | 12.8 | 14.9 | 3.1 | 97 | 13.7 | 13.8 | 14.0 | 3 |
| 4 | 73 | 12.9 | Σ14.0 | 16.2 | 3.3 | 98 | 13.9 | Σ14.0 | 16.5 | 2.6 |

| 8 | I R | R | B | ERC I | I R | R | B | I-R-C I | HDH |
|-----|-------|-------|----------------------|-------|---------|-------|------|------------|-----|
| 99 | 13.9 | 14.0; | 15.4 | 1.5 | 124 | 14.1; | 14.0 | 17.3; 3.2; | 13 |
| 100 | 12.9 | 14.0 | 16.4; | 3.5 | 125 | 14.7 | 12.3 | 14.3 3.6; | 13 |
| 101 | 13.9; | 14.0 | 16.6 | 2.7; | 126 | 13.9 | 14.0 | 17.4; 3.5; | 13 |
| 102 | 14.1; | 14.0 | 17.0 | 2.9; | 127 | 13.6 | 14.0 | 14.8 3.2 | 13 |
| 103 | 14.1; | 14.0 | $\Sigma 17.5$ m.5 | 3.4; | 128 | 14.0; | 14.0 | 16.2 2.2; | 13 |
| 104 | 13.8 | 14.0 | $\Sigma 17.5$ m.5 | 3.7; | 129 | 13.7 | 13.9 | 16.1 2.4 | 13 |
| 105 | 13.8; | 14.0 | 16.5 | 2.7; | 130 | 13.6 | 14.0 | 15.7 2.1 | 13 |
| 106 | 13.4 | 14.0 | 16.6 | 3.2 | Imag? | 11.7 | 12.9 | 15.1 3.4 | 138 |
| 107 | 12.0 | 12.8 | 13.5 | 1.5 | HV 2728 | 11.4 | 11.9 | 14.8 3.4 | 138 |
| 108 | 14.1; | 14.0 | 17.4; | 3.3; | Imag | 11.3 | 12.3 | 15.1 3.8 | 140 |
| 109 | 13.8 | 14.0 | 16.7; | 2.9 | HV 2677 | 11.5 | 12.5 | 15.9 4.4 | 141 |
| 110 | 13.3 | 14.0 | 16.7 | 3.4 | 2674 | 11.3 | 13.1 | 15.9 4.6 | 142 |
| 111 | 14.0; | 14.0 | 17.4; | 3.4; | Imag | 11.2 | 11.9 | 14.9 3.7 | 143 |
| 112 | 13.8; | 14.0 | 16.7 | 2.9; | 2681 | 11.3 | 12.8 | 14.6 1.2 | 144 |
| 113 | 13.6 | 14.0 | 17.3; | 3.7; | Imag | 10.9 | 11.7 | 14.8 3.9 | 145 |
| 114 | 13.5 | 14.0 | 17.5; | 4.0; | Imag? | 11.1 | 12.4 | 14.9 3.8 | 146 |
| 115 | 14.1; | 14.0 | 16.7 | 2.6; | 2730 | 10.8 | 12.3 | 14.8 4.0 | 147 |
| 116 | 12.0 | 12.8 | 15.7 | 3.7 | P=4002 | 13.0 | 13.5 | 15.7 2.7 | 148 |
| 117 | 12.6 | 14.0; | 16.8 | 4.2 | Imag? | 11.7 | 13.9 | 16.2 4.5 | 149 |
| 118 | 14.1; | 14.0 | 17.5; | 3.4; | Imag | 11.4 | 13.3 | 16.3 4.9 | 150 |
| 119 | 14.1; | 14.0 | 17.2; | 3.1; | Imag? | 13.6 | 14.0 | 16.0 | 151 |
| 120 | 13.6 | 14.0 | 17.5; | 3.9; | Imag | 11.2 | 13.0 | 16.0 4.8 | 152 |
| 121 | 13.8 | 14.0 | 17.4 | 3.6 | Imag | 10.9 | 11.9 | 14.6 3.7 | 153 |
| 122 | 13.9 | 14.0 | 17.5; | 3.6; | Imag | 13.6 | 14.0 | 15.9 | 154 |
| 123 | 13.7 | 14.0 | 16.6 | 2.9 | Imag | 11.6 | 13.4 | 16.0 4.2 | 155 |

| IR | R | B | I-R-CI | IR | R | B | I-R-CI |
|-------------------|-----------------------|--|--------|---------------------|---------------|---|-------------------|
| 131 14.0: | $\Sigma 13.8$ | 18.8: | .8: | 156 13.5 | $\Sigma 13.8$ | 16.1 | 2, C ⁹ |
| 132 13.2 | 13.6 | 16.8 | 3.6 | 157 12.6 | 12.8 | 14.9 | 2.3 |
| 133 13.6 | prudent $\Sigma 13.8$ | 19.0: | | 158 11.3 | 13.5 | 15.0 | 3.7 |
| 134 $\Sigma 13.8$ | $\Sigma 13.8$ | $\Sigma 18.0$ | | 159 12.6 | $\Sigma 13.8$ | 15.8 | 5.2 |
| 135 $\Sigma 13.8$ | $\Sigma 13.8$ | 18.8: | | 160 12.0 | 12.1 | 12.0 | 0.0 |
| 136 14.1: | $\Sigma 13.8$ | $\left\{ \begin{array}{l} ms \Sigma 17.5 \\ 19.0: \end{array} \right.$ | 4.9: | 160 a $\Sigma 13.8$ | $\Sigma 13.8$ | 17.2 | 3.3 |
| 137 13.9 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} ms \Sigma 17.5 \\ 18.0: \end{array} \right.$ | 5.1: | 161 13.9 | $\Sigma 13.8$ | 17.2 | 3.3 |
| 138 14.0 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} ms \Sigma 17.5 \\ 18.5: \end{array} \right.$ | 4.5: | 162 12.7 | 13.7 | 15.9 | 3.2 |
| 139 $\Sigma 13.8$ | $\Sigma 13.8$ | ms $\Sigma 17.5$ | | 163 11.5 | 13.7 | 15.1 | 3.6 |
| 140 13.0 | 13.7 | 15.4 | 2.4 | 164 11.8 | 13.3 | 14.6 | 2.8 |
| 141 13.2 | 14.2: | 15.8 | 2.6 | 165 13.5 | $\Sigma 13.8$ | 15.0 | 1.5 |
| 142 $\Sigma 13.8$ | $\Sigma 13.8$ | 17.2 | | 166 $\Sigma 13.8$ | $\Sigma 13.8$ | ms $\Sigma 17.5$ | |
| 143 13.5 | $\Sigma 13.8$ | 17.1 | 3.6 | 167 13.0 | $\Sigma 13.8$ | 16.3 | 3.3 |
| 144 13.6 | $\Sigma 13.8$ | 16.5 | 2.9 | 168 12.0 | 13.6 | 16.1 | 4.1 |
| 145 13.9 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} ms \Sigma 17.5 \\ 18.5: \end{array} \right.$ | 4.6: | 169 13.3 | 14.0: | 16.0 | 2.7 |
| 146 $\Sigma 13.8$ | $\Sigma 13.8$ | 17.0 | | 170 13.6 | $\Sigma 13.8$ | 16.1 | 2.5 |
| 147 13.9 | 13.9 | 16.1 | 2.2 | 171 12.2 | 12.5 | 16.0: | 3.8: |
| 148 $\Sigma 13.8$ | $\Sigma 13.8$ | 16.5 | | 172 12.7 | $\Sigma 13.8$ | 14.0 | 1.3 |
| 149 12.4 | 14.1: | 16.4 | 4.0 | 173 12.0 | 13.8 | 15.0 | 3.0 |
| 150 12.3 | 14.0 | 16.5 | 4.2 | 174 13.5 | $\Sigma 13.8$ | 15.4 | 1.9 |
| 151 13.4 | 13.9 | 17.3 | 3.9 | 175 13.1 | $\Sigma 13.8$ | 16.5 | 3.4 |
| 152 $\Sigma 13.8$ | $\Sigma 13.8$ | 17.2 | | 176 12.0 | 13.4 | 14.8 | 2.8 |
| 153 11.7 | 13.6 | 16.4 | 4.5 | 176 a 12.8 | 13.5 | 14.4 | 1.6 |
| 154 13.2 | $\Sigma 13.8$ | 16.4 | 3.2 | 177 13.4 | $\Sigma 13.8$ | 14.0 | 0.6 |
| 155 13.6 | $\Sigma 13.8$ | 17.2 | 3.6 | 178 13.7 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 18.0: \\ 17.5: \\ ms \end{array} \right.$ | 4.3: |
| | | $\left\{ \begin{array}{l} 17.2 \\ 16.4: \\ 18.0: \end{array} \right.$ | | 179 12.9 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 17.2 \\ 16.4: \\ 18.0: \end{array} \right.$ | 3.5: |
| | | | | 180 $\Sigma 13.8$ | $\Sigma 13.8$ | 17.0 | 3.1: |

| 10 | I | R | R | B | IR-CI | I-R | R | B | IR-CI | |
|-----|---------------|---------------|---|------|-------|-------------------|---------------|---|-------|-----|
| 181 | 13.6 | $\Sigma 13.8$ | | 17.1 | 3.5 | 206 13.5 | 13.8 | 16.1 | 2.6 | 231 |
| 182 | 12.2 | 13.5 | | 13.8 | 1.6 | 207 13.0 | $\Sigma 13.8$ | 16.3 | 3.3 | 232 |
| 183 | 14.0: | $\Sigma 13.8$ | $\begin{cases} 18.7: \\ ms \Sigma 17.2 \\ in redshifted \\ 19.0: \end{cases}$ | | 4.3 | 208 13.9: | 14.0: | 16.5 | 2.6: | 233 |
| 184 | 13.0 | $\Sigma 13.8$ | $\begin{cases} ms \Sigma 17.2 \end{cases}$ | | 6.0 | 209 $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 234 |
| 185 | 13.1 | 14.0: | $\begin{cases} 18.0 \\ ms \Sigma 17.2 \end{cases}$ | | 4.9 | 210 $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 235 |
| 186 | $\Sigma 13.8$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | | 211 13.1 | 13.9 | $\begin{cases} ms 18.5: \\ \Sigma 17.2 \end{cases}$ | 5.4: | 236 |
| 187 | 13.4 | 14.0: | 15.7 | | 2.3 | 212 $\Sigma 13.6$ | $\Sigma 13.8$ | 17.0 | | 237 |
| 188 | 11.9 | 13.4 | 15.4 | | 3.5 | 213 13.4 | $\Sigma 13.8$ | 16.3 | 2.9 | 238 |
| 189 | $\Sigma 13.6$ | $\Sigma 13.8$ | $\Sigma 17.2$ | | | 214 13.2 | 13.8 | 16.3 | 3.1 | 239 |
| 190 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | | 215 13.5 | $\Sigma 13.8$ | 16.5 | 3.0 | 240 |
| 191 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.5: | | | 216 12.0 | 13.9 | 16.2 | 4.2 | 241 |
| 192 | 13.6 | $\Sigma 13.8$ | 16.7 | | 2.9 | 217 13.7 | $\Sigma 13.8$ | 16.1 | 2.4 | 242 |
| 193 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.1 | | | 218 13.8 | $\Sigma 13.8$ | $\begin{cases} 19.2: \\ ms \Sigma 17.2 \end{cases}$ | 5.4: | 243 |
| 194 | 14.0: | $\Sigma 13.8$ | 17.1: | | 3.1: | 219 $\Sigma 13.8$ | $\Sigma 13.8$ | 16.3 | | 244 |
| 195 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | | 220 13.5 | $\Sigma 13.8$ | 16.4 | 2.9 | 245 |
| 196 | 13.3 | 14.0: | 16.0 | | 2.7 | 221 11.5 | $\Sigma 13.8$ | $\begin{cases} 15.4 \\ \overline{ms \Sigma 17.2} \end{cases}$ | 3.9 | 246 |
| 197 | 13.6 | $\Sigma 13.8$ | $\begin{cases} 19.0 \\ ms \Sigma 17.2 \end{cases}$ | | 5.2 | 222 13.0 | $\Sigma 13.8$ | 17.2 | 4.2 | 247 |
| 198 | $\Sigma 13.6$ | $\Sigma 13.8$ | $\begin{cases} ms 19.0 \\ \Sigma 17.2 \end{cases}$ | | | 223 $\Sigma 13.6$ | $\Sigma 13.8$ | 16.7 | | 248 |
| 199 | 13.6 | $\Sigma 13.8$ | 17.1 | | 3.5 | 224 13.0 | 13.9 | 15.8 | 2.8 | 249 |
| 200 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.1 | | | 225 $\Sigma 13.8$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 250 |
| 201 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | | 226 13.0 | 14.0: | 16.0 | 2.5 | 251 |
| 202 | 13.8 | $\Sigma 13.8$ | 16.7 | | 2.9 | 227 $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 252 |
| 203 | 14.0: | $\Sigma 13.8$ | $\begin{cases} 18.2: \\ ms \Sigma 17.2 \end{cases}$ | | 4.2: | 228 13.0 | $\Sigma 13.8$ | 15.9 | 2.9 | 253 |
| 204 | $\Sigma 13.8$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | | 229 $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 254 |
| 205 | $\Sigma 13.8$ | 13.9 | 17.1 | | | 230 $\Sigma 13.6$ | $\Sigma 13.8$ | 17.2 | | 255 |

| C-I | I | R | R | B | I-R-C-I | I-R | R | B | I-R-C-I |
|------------|---------------|---------------|--|------------|---------------|---------------|--|--|-----------|
| 231 | [13.6 | $\Sigma 13.8$ | 16.5 | 2.56 | 13.3 | [13.8 | 16.1 | 2.8 | 11 |
| 232 | 13.9; | $\Sigma 13.8$ | 17.2 | 3.3; | 257 | 13.1 | $\Sigma 13.8$ | 16.4 | 3.3 |
| 233 | 13.8; | $\Sigma 13.8$ | 16.1 | 2.3; | 258 | 13.2 | 14.0; | 16.5 | 3.3 |
| 234 | [13.6 | $\Sigma 13.8$ | 16.4 | 259 | $\Sigma 13.6$ | $\Sigma 13.8$ | 16.4 | | |
| 235 | [13.6 | $\Sigma 13.8$ | 16.3 | <u>260</u> | 14.0; | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 15.0; \\ 17.2 \end{array} \right.$ | 4.0; | |
| 236 | 13.6 | $\Sigma 13.8$ | 17.2 | 3.6 | 261 | 13.5 | $\Sigma 13.8$ | 17.2 | 3.7 |
| 237 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.0 | 261a | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.2; | | |
| 238 | [13.6 | $\Sigma 13.8$ | 17.2 | 262 | 13.4 | $\Sigma 13.8$ | 17.3; | 3.9 | |
| 239 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.2 | 262a | 11.2 | 12.7 | 14.3 | 3.1 | |
| <u>240</u> | 13.7 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 19.0; \\ 17.2 \end{array} \right.$ | 5.3; | <u>263</u> | 13.6 | $\Sigma 13.8$ | 17.1 | 3.5 |
| 241 | 13.0 | 14.0; | 16.5 | 3.5 | <u>264</u> | 13.8 | $\Sigma 13.8$ | 17.0 | 3.2 |
| 242 | 12.3 | 14.0; | 17.0; | 4.7; | 265 | 14.0; | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 17.5; \\ 17.2 \end{array} \right.$ | 3.5; |
| 243 | [13.6 | $\Sigma 13.8$ | 17.2; | | <u>266</u> | 13.8 | $\Sigma 13.8$ | $\left\{ \begin{array}{l} 18.0; \\ 17.2 \end{array} \right.$ | 4.2; |
| 244 | [13.6 | $\Sigma 13.8$ | 17.3; | | 267 | 13.3 | $\Sigma 13.8$ | 15.2 | 1.9 |
| 245 | 11.8 | 12.4 | 15.8 | 4.0 | 268 | 12.9 | pseudo image 14.0; \leftarrow | pseudo image 14.8; | 1.9; |
| 246 | 14.0; | $\Sigma 13.8$ | 17.3; | 3.3; | 269 | 12.9 | $\Sigma 13.8$ | 16.4 | 3.3 |
| 247 | [13.6 | $\Sigma 13.8$ | ns[17.2 | | 270 | 13.7 | $\Sigma 13.8$ | 16.8 | 3.1 |
| 248 | [13.6 | $\Sigma 13.8$ | ns[17.2 | | <u>271</u> | 13.8 | $\Sigma 13.8$ | 18.0; | 4.2; |
| 249 | [13.6 | $\Sigma 13.8$ | ns[17.2 | | 272 | $\Sigma 13.4$ | $\Sigma 13.8$ | 18.0; | |
| 250 | 13.8; | 14.2; | 16.6 | 2.8; | 273 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.5; | |
| 251 | 12.6 | 13.5 | 15.1 | 2.5 | <u>274</u> | 13.6 | $\Sigma 13.8$ | 18.0; | 4.4; |
| 252 | 12.1 | 13.3 | 16.0 | 3.9 | <u>275</u> | 13.5 | $\Sigma 13.8$ | 18.0; | 4.5; |
| 253 | 13.0 | $\Sigma 13.8$ | 16.4 | 3.4 | <u>276</u> | 13.0 | $\Sigma 13.8$ | 18.0; | 5.0; |
| 254 | [13.6 | $\Sigma 13.8$ | ns[17.2 | | <u>277</u> | 13.6 | $\Sigma 13.8$ | 18.0; | 4.4; |
| 255 | 11.6 | 13.1 | 16.5 | 4.9 | <u>278</u> | 13.5 | $\Sigma 13.8$ | 17.8; | 4.3; |
| | | | | | 279 | 14.0; | $\Sigma 13.8$ | 17.8 | 3.8; |
| | | | | | <u>280</u> | 13.3 | $\Sigma 13.8$ | 18.0; | 4.5; |

12

IR

R

B

IR-CI

IR

R

B

IR-CI

| | | | | | | | | | | |
|-----|-------|---------------------------------|-------|------|-----|-------|---------------------------------|--|------|-----|
| 281 | 13.5 | [13.8 | 18.5: | 5.0: | 305 | 13.5 | [13.8 | 17.0 | 3.5 | 331 |
| 282 | 13.8 | [13.8 | 18.0: | 4.2: | 306 | 13.2 | [13.8 | 17.5: | 4.3: | 332 |
| 283 | 13.9: | [13.8 | 17.5: | 3.6: | 307 | 12.9 | [13.8 | 18.0: | 5.1: | 333 |
| 284 | 13.3 | [13.8 | 17.5: | 4.2: | 308 | 13.6 | [13.8 | 18.0: | 4.4: | 334 |
| 285 | 14.0: | ^{plate limit} [13.8 | 17.5: | 3.5: | 309 | 14.0: | [13.8 | 18.0: | 4.0: | 335 |
| 286 | 13.6 | [13.8 | 17.5: | 3.9: | 310 | 13.4 | [13.8 | 17.5: | 4.1: | 336 |
| 287 | 13.3 | [13.8 | 18.0: | 4.7: | 311 | 13.4 | [13.8 | 17.5: | 4.1: | 337 |
| 288 | [13.6 | [13.8 | 17.4: | | 312 | 13.4 | [13.8 | 17.5: | 4.1: | 338 |
| 289 | [13.6 | [13.8 | 18.0: | | 313 | 13.5 | [13.8 | 17.2: | 3.7: | 339 |
| 290 | [13.6 | [13.8 | 18.5: | | 314 | 13.3 | [13.8 | ^{18.0} ⁵ [17.2 | 4.7: | 340 |
| 291 | [13.6 | [13.8 | 17.6: | | 315 | 13.5 | [13.8 | ^{18.7} ^{no} [17.2 | 5.2: | 341 |
| 292 | 13.4 | ^{plate limit} [13.8 | 18.3: | 4.9: | 316 | 13.7 | ^{plate limit} [13.8 | ^{18.0} ^{no} [17.2 | 4.3 | 342 |
| 293 | [13.6 | [13.8 | 18.3: | | 317 | [13.6 | [13.8 | ^{no} [17.2 | | 343 |
| 294 | [13.6 | [13.8 | 18.0: | | 318 | 13.8 | 13.8 | 16.4 | 2.6 | 344 |
| 295 | [13.6 | [13.8 | 18.5: | | 319 | 13.7 | 14.2: | 16.1 | 2.4 | 345 |
| 296 | [13.6 | [13.8 | 18.0: | | 320 | 13.5 | [13.8 | ^{18.7;} ⁵ [17.2 | 5.2: | 346 |
| 297 | 13.1 | [13.8 | 16.2 | 3.1: | 321 | 13.8 | ^{plate limit} [13.8 | ^{19.0;} ^{no} [17.2 | 5.2: | 347 |
| 298 | [13.6 | [13.8 | 18.0: | | 322 | 13.3 | ^{plate limit} [13.8 | 18.0: | 4.7: | 348 |
| 299 | 13.8 | [13.8 | 18.0: | 4.2: | 323 | 13.6 | [13.8 | 18.0 | 4.7: | 349 |
| 300 | [13.6 | [13.8 | 18.0: | | 324 | 13.5 | [13.8 | 17.5: | 4.0: | 350 |
| 301 | [13.6 | [13.8 | 18.0: | | 325 | [13.6 | [13.8 | 18.0 | | 351 |
| 302 | [13.6 | [13.8 | 18.0: | | 326 | [13.6 | [13.8 | 18.0: | | 352 |
| 303 | [13.6 | [13.8 | 18.5: | | 327 | [13.6 | [13.8 | 18.5: | | 353 |
| 304 | 13.6 | [13.8 | 18.5: | 4.9: | 328 | [13.6 | [13.8 | 18.5: | | 354 |
| | | | | | 329 | [13.4 | [13.8 | 17.5: | | |

| | I R | R | B | I-R-CI | | I-R | R | B | I-R-CI |
|-----|---------------|---------------|--|--------|-----|---------------|---------------|--|---------------|
| 330 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.5 | | 355 | 13.4 | $\Sigma 13.8$ | $\begin{cases} 18.5 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 5.1 13 |
| 331 | 14.0; | $\Sigma 13.8$ | 18.0; | 4.0; | 356 | 12.7 | 13.8 | 15.5 | 2.8 |
| 332 | $\Sigma 13.6$ | $\Sigma 13.8$ | 18.5; | | 357 | 13.5 | 14.0; | 16.0 | 2.5 |
| 333 | 14.0; | $\Sigma 13.8$ | 17.2; | 3.2 | 358 | 13.3 | $\Sigma 13.8$ | 17.2 | 3.9 |
| 334 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.0; | | 359 | 13.4 | $\Sigma 13.8$ | 17.2 | 3.8 |
| 335 | 14.0; | $\Sigma 13.8$ | 17.5; | 3.5; | 360 | 13.6 | $\Sigma 13.8$ | $\begin{cases} 18.5 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.9 |
| 336 | 12.6 | 13.6 | 16.2 | 3.6 | 361 | 13.5 | $\Sigma 13.8$ | 17.0; | 3.5; |
| 337 | 13.3 | $\Sigma 13.8$ | 16.5 | 3.2 | 362 | 13.3 | 14.0; | 15.7 | 2.4 |
| 338 | 13.5 | $\Sigma 13.8$ | $\begin{cases} 18.2 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.5 | 363 | 13.5 | $\Sigma 13.8$ | 17.3; | 3.8; |
| 339 | 13.2 | $\Sigma 13.8$ | $\begin{cases} 19.0 \text{ (avg?) } \\ \text{ns } \Sigma 17.2 \end{cases}$ | 5.8 | 364 | 13.6 | $\Sigma 13.8$ | $\begin{cases} 18.5 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.9 |
| 340 | $\Sigma 13.6$ | $\Sigma 13.6$ | ns $\Sigma 17.2$ | | 365 | 13.4 | $\Sigma 13.8$ | 17.3; | 3.9; |
| 341 | 13.1 | 13.5 | 15.9 | 2.8 | 366 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 342 | 13.8 | $\Sigma 13.8$ | $\begin{cases} 18.5 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.7 | 367 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 343 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | | 368 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 344 | 13.3 | 14.0; | 16.2 | 2.9 | 369 | 13.6 | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 345 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | | 370 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 346 | 14.0; | $\Sigma 13.8$ | 18.0; | 4.0; | 371 | 13.5 | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 347 | 13.1 | 13.9; | 17.1; | 4.0; | 372 | 13.3 | $\Sigma 13.8$ | $\begin{cases} 18.0 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.7 |
| 348 | 13.7 | $\Sigma 13.8$ | 18.0; | 4.3; | 373 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | |
| 349 | 13.4 | $\Sigma 13.8$ | $\begin{cases} 19.0 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.6 | 374 | 13.9; | $\Sigma 13.8$ | 16.2 | 2.3; |
| 350 | 13.0 | $\Sigma 13.8$ | 17.1; | 4.1; | 375 | 13.4 | $\Sigma 13.8$ | $\begin{cases} 18.5 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 5.1 |
| 351 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.2; | | 376 | 12.7 | 13.9 | 16.2 | 3.5 |
| 352 | $\Sigma 13.6$ | $\Sigma 13.8$ | ns $\Sigma 17.2$ | | 377 | 13.7 | $\Sigma 13.8$ | 17.1 | 3.4 |
| 353 | 13.4 | 13.6 | 16.0; | 2.6 | 378 | 13.1 | 14.0; | 16.6 | 3.5 |
| 354 | 13.0 | 14.1; | 17.0 | 4.0 | 379 | 13.7 | $\Sigma 13.8$ | $\begin{cases} 18.2 \\ \text{ns } \Sigma 17.2 \end{cases}$ | 4.5 |

| 14 ^{IR} | R | B | I-R-CI | I-R | R | B | I-R-CI | |
|------------------|-------|--------------------|--------|-----------|----------------------------|--------------------|--------|----|
| 380 13.8 | [13.8 | 17.0 | 3.2 | 404 13.0 | 14.0; | 16.1 | 3.1 | 42 |
| 381 13.3 | [13.8 | 17.0 | | 405 13.2 | 14.0; | 16.0 | 2.8 | 43 |
| 382 13.5 | [13.8 | 17.1 | 3.6 | 406 13.7 | [13.8 { ^{ms} 17.2 | | 5.5 | 43 |
| 383 13.1 | [13.8 | 17.1 | 4.0 | 407 13.8; | [13.8 | 17.2; | 3.4 | 43 |
| 384 13.3 | 14.0; | 16.5 | 3.2 | 408 13.6 | [13.8 | 16.2 | 2.6 | 43 |
| 385 13.4 | [13.8 | 17.1 | 3.7 | 409 13.5 | [13.8 | 17.2; | 3.7 | 43 |
| 386 13.0 | 14.0; | 17.0 | 3.5 | 410 [13.6 | [13.8 | 17.2 | | 43 |
| 387 [13.6 | [13.8 | ^{ms} 17.2 | | 411 13.4 | [13.8 | 17.2 | 3.8 | 43 |
| 388 12.9 | [13.8 | 16.9 | 4.0 | 412 13.7 | [13.8 | 17.0 | 3.3 | 43 |
| 389 12.7 | 14.0; | 16.5 | 3.8 | 413 8.4 | 11.8 | 14.2 | 5.8 | 43 |
| 390 13.4 | [13.8 | 17.0 | 3.6 | 414 [13.6 | [13.8 ^{ms} 17.2 | | | 43 |
| 391 13.1 | 13.7 | 15.8 | 2.7 | 415 [13.6 | [13.8 | 16.2 | | 44 |
| 392 12.5 | [13.8 | 16.5 | 4.0 | 416 13.8 | [13.8 | 16.0 | 2.2 | 44 |
| 393 [13.6 | [13.8 | ^{ms} 17.2 | | 417 13.5 | [13.8 | 17.0 | 3.5 | 44 |
| 394 12.4 | [13.8 | 16.4 | 4.0 | 418 [13.6 | [13.8 | 16.5 | | 44 |
| 395 13.4 | [13.8 | 16.6 | 3.2 | 419 [13.6 | [13.8 ^{ms} 17.2 | | | 44 |
| 396 13.7 | [13.8 | 16.5 | 2.8 | 420 [13.6 | [13.8 | 17.0; | | 44 |
| 397 13.4 | [13.8 | ^{ms} 17.2 | 5.1 | 421 [13.6 | [13.8 | ^{ms} 17.2 | | 44 |
| 398 13.6 | [13.8 | 16.4 | 2.8 | 422 [13.6 | [13.8 | ^{ms} 17.2 | | 44 |
| 399 13.2 | [13.8 | 15.4 | 2.4 | 423 13.5 | [13.8 | 17.0; | 3.5; | 44 |
| 400 14.0; | [13.8 | 17.3; | 4.3; | 424 [13.6 | [13.8 | 17.2 | | 44 |
| 401 13.4 | [13.8 | 16.4 | 3.0 | 425 [13.6 | [13.8 | 17.2 | | 44 |
| 402 [13.6 | [13.8 | 16.6 | | 426 13.5 | [13.8 { ^{ms} 17.2 | | 5.5 | 44 |
| 403 [13.6 | [13.8 | 17.3 | | 427 12.7 | 14.1; | 17.0 | 4.3 | 44 |
| | | | | 428 13.6 | [13.8 | 16.9 | 3.3 | 44 |

| | I-R | R | B | IR-CI | | I-R | R | B | IR-CT |
|-------------|---------------|---------------|----------------------------------|-------|--------------------------------|------|-------|------|----------------|
| 429 | $\Sigma 13.6$ | 13.8 | ms $\Sigma 17.2$ | | 44 | 11.6 | 12.0 | 14.7 | 3.1 15. |
| 430 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.31 | | 55 | 12.0 | 12.3 | 14.5 | 2.5 |
| 431 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 58 | 11.6 | 11.1 | 13.0 | 1.4 M_2 |
| 432 | 13.8 | $\Sigma 13.8$ | 17.2 | 3.4 | 61 | 11.6 | 12.8 | 15.5 | 3.9 |
| 433 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.31 | | 65 | 12.8 | 13.1 | 15.3 | 2.5 |
| 434 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.21 | | 67 | 12.3 | 12.9 | 16.0 | 3.7 |
| 435 | 13.91 | $\Sigma 13.8$ | 17.0 | 3.11 | <u>71a</u> | 11.6 | 12.5 | 15.7 | 4.1 |
| 436 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.21 | | 77 | 11.4 | 11.6 | 13.8 | 2.4 |
| 437 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.2 | | 78 | 13.6 | 14.01 | 16.0 | 2.4 |
| 438 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 80 | 12.7 | 13.0 | 15.4 | 2.7 |
| 439 | $\Sigma 13.6$ | $\Sigma 13.8$ | ms $\Sigma 17.2$ | | 88 | 13.8 | 14.11 | 16.4 | 2.6 |
| 440 | 13.3 | $\Sigma 13.8$ | 16.5 19.2 ms $\Sigma 17.2$ | 3.2 | 90 | 13.6 | 14.0 | 16.3 | 2.4 |
| 441 | 14.01 | $\Sigma 13.8$ | | | 91 | 12.4 | 12.7 | 15.1 | 2.7 |
| 442 | $\Sigma 13.6$ | $\Sigma 13.8$ | $\Sigma 17.2$ | | 104 | 13.3 | 13.4 | 16.1 | 2.8 |
| 443 | 13.5 | $\Sigma 13.8$ | 17.31 | 3.81 | 106 | 12.9 | 11.8 | 13.8 | 1.9 |
| 444 | 13.4 | 14.11 | 17.0 | 3.6 | 107 | 13.1 | 12.2 | 14.7 | 1.6 |
| 445 | $\Sigma 13.6$ | $\Sigma 13.8$ | 17.0 | | Region <u>II</u> <u>111</u> | | | | |
| 446 | 13.4 | $\Sigma 13.8$ | 16.9 | 3.5 | <u>2</u> | 11.5 | 12.1 | 15.5 | 4.0 |
| Region I-II | | | | | 4 | 11.6 | 12.4 | 15.6 | 3.4 |
| 5 | 12.8 | 13.1 | 15.5 | 2.7 | 12 | 12.3 | 12.8 | 15.5 | 3.2 |
| 12 | 10.7 | 10.7 | 12.7 | 2.7 | 19 | 13.4 | 14.1 | 16.2 | 2.8 |
| 17-214 | 13.2 | 13.8 | 16.3 16.4 | 3.1 | 59a | 12.8 | 13.8 | 16.1 | 3.3 |
| 24 | 12.7 | 14.0 | 16.6 | 3.9 | 65 | 13.6 | 14.01 | 16.3 | 2.7 |
| 29 | 12.7 | 14.01 | 16.2 | 3.5 | 68 | 12.5 | 13.3 | 16.3 | 3.8 |
| 40 | 12.3 | 12.9 | 15.0 | 2.7 | 69 | 13.8 | 14.11 | 16.3 | 2.5 |

16

IR R B IR-CI

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 1 | 13.7 | 13.7 | 16.3 | 2.6 |
| 7 | 13.2 | 13.9 | 16.6 | 3.4 |
| 10 | 11.9 | 13.0 | 15.0 | 3.1 |

"III"

Region II - X - VI

| | IR | R | B | IR-CI |
|---|------|------|------|-------|
| 3 | 13.3 | 13.7 | 16.0 | 2.7 |

| | IR | R | B | IR-CI |
|-------------|------|------|------|-------|
| 15 = HV 953 | 12.3 | 11.7 | 13.6 | |

| | IR | R | B | IR-CI |
|----|--------|------|------|-------|
| 19 | [13.6] | 13.8 | 16.1 | |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 23 | 13.6 | 13.9 | 15.9 | 2.3 |

| | IR | R | B | IR-CI |
|-----------|------|------|------|-------|
| 23a = 232 | 13.9 | 14.0 | 16.0 | 2.1 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 30 | 13.6 | 13.6 | 16.0 | |

| | IR | R | B | IR-CI |
|-------------|--------|------|------|-------|
| 52 = HV 955 | [13.8] | 13.6 | 14.4 | |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 64 | 12.3 | 12.0 | 16.0 | |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 90 | 10.7 | 11.2 | 14.1 | 3.4 |

| | IR | R | B | IR-CI |
|------|------|------|------|-------|
| 112a | 11.6 | 13.3 | 15.8 | 4.2 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 162 | 12.9 | 13.0 | 15.1 | 2.2 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 163 | 11.2 | 12.2 | 14.9 | 3.7 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 165 | 13.3 | 13.6 | 15.9 | 2.6 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 174 | 12.8 | 13.7 | 16.1 | 3.4 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 175 | 12.3 | 12.6 | 15.2 | 2.9 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 204 | 12.3 | 12.7 | 15.0 | 2.7 |

| | IR | R | B | IR-CI |
|--------------|------|------|------|-------|
| 205 = HV 587 | 13.5 | 13.1 | 13.9 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 207 | 12.1 | 12.4 | 14.8 | 2.7 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 231 | 11.4 | 11.7 | 15.0 | 3.1 |

| | IR | R | B | IR-CI |
|------|------|------|------|-------|
| 241A | 11.9 | 12.3 | 15.2 | 3.3 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 249 | 12.0 | 11.8 | 13.6 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 258 | 12.4 | 12.6 | 15.4 | 3.0 |

| | IR | R | B | IR-CI |
|-----------|------|------|------|-------|
| 261 = 228 | 13.0 | 14.0 | 16.3 | 3.3 |

| | IR | R | B | IR-CI |
|-----------|------|------|------|-------|
| 267 = 228 | 13.5 | 13.9 | 16.2 | 2.7 |

| | IR | R | B | IR-CI |
|---|------|-----|------|-------|
| 6 | 10.4 | 9.7 | 11.9 | |

| | IR | R | B | IR-CI |
|-----|----|---|---|-------|
| 112 | | | | |

| | IR | R | B | IR-CI |
|------------|------|---|---|-------|
| 28a = 2316 | 13.6 | | | |

| | IR | R | B | IR-CI |
|------------|------|------|------|-------|
| 7 = HV 916 | 10.8 | 11.6 | 14.8 | 4.0 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 30 | 12.7 | 13.8 | 15.9 | 3.2 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 67 | 11.6 | 11.8 | 14.5 | 2.9 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 72 | 12.3 | 12.7 | 15.7 | 3.4 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 89a | 12.3 | 13.6 | 16.2 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 99a | 12.3 | 12.4 | 14.9 | 2.6 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 109 | 12.7 | 13.0 | 15.7 | 3.0 |

| | IR | R | B | IR-CI |
|---------------|------|------|------|-------|
| 110 = HV 2369 | 12.7 | 12.2 | 14.1 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 126 | 11.6 | 11.2 | 13.3 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 128 | 11.5 | 11.5 | 14.0 | 2.5 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 146 | 13.3 | 13.2 | 16.2 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 150 | 12.5 | 12.3 | 14.6 | |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 150 | 12.0 | 12.7 | 14.9 | 2.9 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 157 | 12.0 | 12.9 | 15.8 | 3.8 |

| | IR | R | B | IR-CI |
|---------------|------|------|------|-------|
| 158 = HV 2360 | 11.2 | 11.7 | 14.3 | 3.1 |

| | IR | R | B | IR-CI |
|---------------|------|------|------|-------|
| 165 = HV 5657 | 12.0 | 12.3 | 14.7 | 2.7 |

| | IR | R | B | IR-CI |
|----------------|------|------|------|-------|
| 169a = HV 5654 | 11.0 | 11.5 | 14.6 | 3.6 |

| | IR | R | B | IR-CI |
|---|------|------|------|-------|
| 3 | 11.7 | 12.0 | 14.2 | 2.5 |

| | IR | R | B | IR-CI |
|---|------|------|------|-------|
| 4 | 13.0 | 14.0 | 16.2 | |

| | IR | R | B | IR-CI |
|---|------|------|------|-------|
| 6 | 12.1 | 13.9 | 16.0 | 3.9 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 6a | 13.6 | 13.0 | 16.5 | |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 7a | 12.5 | 13.8 | 15.9 | 2.4 |

| | IR | R | B | IR-CI |
|----|------|------|------|-------|
| 10 | 11.4 | 12.8 | 14.9 | 3.5 |

| | IR | R | B | IR-CI |
|-----|------|------|------|-------|
| 10a | 11.2 | 12.5 | 14.8 | 3.6 |

| | IR | R | B | IR-CI |
|------------|------|------|------|-------|
| 28a = 2316 | 13.6 | 13.9 | 16.0 | 2.2 |

| | IR | R | B | IR-C.I | | IR | R | B | IR-C.I |
|-----------------------|-------|-------|------|--------|-----------|-----------------|-------|-----------------|--------|
| 35 = HV933 = 319 13.7 | | Σ14.0 | 15.1 | 1.4 | 460 | 13.0 | 13.4 | 18.3 | 5.3 |
| 75 = 9D02 9.8 | | 9.7 | | | 461 | 13.8 | | 17.8 | 4.0 |
| 80a | 12.4 | 13.9 | 14.0 | 3.6 | 462 | 13.9 | | 17.5 | 3.6 |
| 84a | 13.1 | 14.0 | 16.2 | 3.1 | 463 | 13.9 | | 17.5 | 3.6 |
| 96a | 13.6 | 13.7 | 16.3 | 2.7 | 464 | — defect — | | | |
| 100a | 13.6 | 14.1 | 16.4 | 2.8 | 465 | 13.8 | | 17.8 | 4.0 |
| 101a | 12.0 | 13.0 | 15.6 | 3.6 | 466 | 13.9 | | 17.6 | 3.7 |
| 117a | 13.4 | 13.9 | 16.1 | 2.7 | 467 | 13.5 | Σ13.8 | 16.5 | 3.0 |
| 118a | 13.1 | 14.1 | 16.1 | 3.0 | 467a | 12.2 | | 17.5 | 5.3 |
| | | | | | 468 = 469 | | | | |
| <u>125</u> | 12.4 | 14.1 | 16.1 | 4.0 | 469 | 13.1 | 13.6 | 15.8 | 2.7 |
| <u>134</u> | 12.2 | 13.4 | 16.2 | 4.0 | 469a | 13.2 | | 16.9 | 3.7 |
| Total cloud extras | | | | | 470 | 13.8 | | 16.8 | 3.0 |
| | | | | | 471 | 14.0 Σ13.8 | Σ13.8 | { 17.5 Σ17.2 | — |
| 447 | 13.3 | 14.1 | 16.5 | 3.2 | 472 = 416 | | | | |
| 448 | Σ13.6 | Σ13.8 | 19.0 | | 473 = 419 | | | | |
| <u>449</u> | 12.0 | 13.9 | 16.2 | 4.2 | 474 = 432 | | | | |
| <u>450</u> | 13.1 | 13.9 | 17.5 | 4.4 | 475 | Σ14.0 Σ13.8 | Σ13.8 | 17.5 | — |
| <u>451</u> | 11.0 | 12.1 | 16.5 | 5.5 | 476 = 476 | | | | |
| 452 | 12.4 | 13.4 | 15.8 | 3.4 | 477 = 443 | | | | |
| 453 | 11.2 | 12.3 | 14.8 | 3.6 | 478 = 441 | | | | |
| 454 | 13.3 | 14.0 | 17.4 | 4.1 | 479 | Σ14.0 Σ13.8 | Σ13.8 | 18.2 Σ17.2 | — |
| <u>455</u> | 13.3 | 13.7 | 17.5 | 4.2 | 480 = 445 | | | | |
| 456 | 12.3 | 13.5 | 15.8 | 3.5 | 481 | Σ14.0 Σ13.8 | Σ13.8 | 18.2 Σ17.2 | — |
| 457 | Σ13.8 | Σ13.8 | 18.5 | | 482 | { 14.0 Σ13.8 | Σ13.8 | 16.5 Σ17.2 | — |
| <u>458</u> | 13.5 | Σ13.8 | 19.0 | 5.5 | 483 | { 14.0 Σ13.8 | Σ13.8 | 16.8 Σ17.2 | — |
| <u>459</u> | 13.4 | Σ13.8 | 18.3 | 4.9 | 484 = 204 | | | | |

18

| | IR | R | B | IRCT | | IR | R | B | IRCT | |
|-----------|---|---------------------------------|-----------------------------|------|-----------|--|---|--|------|----|
| 489 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | { 18.3 ; 17.2 | — | 514 | { $\Sigma 14.0$ $\Sigma 13.8$ 14.0 ; $\Sigma 13.8$ $\Sigma 14.0$ | $\Sigma 13.8$ $\Sigma 13.8$ $\Sigma 13.8$ | { 17.3 ; 18.3 ; 17.2 18.3 ; | — | 53 |
| 490 ~ 195 | | | | | 515 | | | | 4.3 | 54 |
| 490a | 12.6 | | 14.9 | 2.3 | 516 = 202 | | | | | 54 |
| 491 | 13.8; { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | 16.7 | 2.9 | 517 | defect | | | | 54 |
| 492 | | $\Sigma 13.8$ | 17.5 | — | 518 | $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | { 18.5 ; $\Sigma 17.2$ | — | 54 |
| 493 | 13.7 | 14.0 | 17.2 | 3.5 | 519 | 13.9 | $\Sigma 13.8$ | { 18.3 ; $\Sigma 17.2$ | 4.4 | 54 |
| 494 | 14.0 | | 17.3 | 3.3 | 520 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | 16.2 | — | 54 |
| 494a | 13.4 | | 15.9 | 2.5 | 521 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | 17.5 | — | 54 |
| 495 | 14.0 | | 17.5 | 3.5 | 522 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | 17.5 | — | 54 |
| 495a | 12.0 | | 14.8 | 2.8 | 522a | 13.1 | | 15.7 | 2.6 | 54 |
| 496 | 13.9 | | 17.2 | 4.4 | 523 | 13.4 | 13.5 | 16.2 | 2.8 | 54 |
| 496a | 12.4 | | 16.2 | 3.8 | 523a | | | 15.9 | 2.6 | 54 |
| 497 | 13.8 | | 17.5 | 3.6 | 524 | { 13.3 14.0 ; $\Sigma 13.8$ | $\Sigma 13.8$ | $\Sigma 17.2$ | 4.3 | 54 |
| 497a | 12.0 | | 14.6 | 2.6 | 525 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | 17.5 | — | 55 |
| 498 | 13.7 | | 17.2 | 3.5 | 526 | { $\Sigma 14.0$; $\Sigma 13.8$ | $\Sigma 13.8$ | 18.5 | 4.5 | 55 |
| 498a | 13.8 | | 16.9 | 3.1 | 527 | { 14.0 ; $\Sigma 13.8$ | $\Sigma 13.8$ | 17.3 | 3.3 | 55 |
| 499 | 13.8 | | 17.2 | 3.4 | 527a | 12.8 | | 17.8 | 5.0 | 55 |
| 500 | 14.0 | | { 18.0 $\Sigma 17.2$ | 4.0 | 528 | 14.0 | $\Sigma 13.8$ | 16.8 | 3.8 | 55 |
| 501 | 14.0 | | 17.0 | 3.0 | 529 | { $\Sigma 13.9$; $\Sigma 13.8$ | $\Sigma 13.8$ | 17.8 | 3.4 | 55 |
| 502 | 14.0 | | 17.2 | 3.2 | 530 | { $\Sigma 14.0$; $\Sigma 13.8$ | $\Sigma 13.8$ | 18.5 | 4.5 | 55 |
| 503 | 14.0 | | 17.3 | 3.3 | 531 | 14.0 | $\Sigma 13.8$ | 17.3 | 3.3 | 55 |
| 504 | 13.5 | | 17.0 | 3.5 | 532 | 14.0 | $\Sigma 13.8$ | 17.4 | 3.4 | 55 |
| 505 | 13.9 | | 17.0 | 3.1 | 533 = 415 | | | | | 55 |
| 505a | 13.6 | | 14.7 | 3.1 | 534 | 13.6 | | 17.3 | 3.7 | 55 |
| 506 | 13.9 | | 15.5 | 3.6 | 535 | 14.0 | | 17.5 | 3.5 | 56 |
| 507 | 13.8 | $\Sigma 13.8$ | { 17.0 ; 17.0 ; | 3.2 | 535a | 13.8 | | 18.9 | 3.1 | 56 |
| 507a | 14.0 | | 18.5 | 4.5 | 536 | 13.8 | | 18.3 | 4.5 | 56 |
| 508 | { $\Sigma 13.9$; $\Sigma 13.8$ | $\Sigma 13.8$ | 17.4 | 3.5 | 537 | | | 17.3 | 3.5 | 56 |
| 509 | { $\Sigma 14.0$; $\Sigma 13.8$ | $\Sigma 13.8$ | 17.0 | 3.0 | 538 | 13.9 | | | 3.2 | 56 |
| 510 | { $\Sigma 13.9$; $\Sigma 13.8$ | $\Sigma 13.8$ | 17.0 | 3.1 | | | | | | |
| 511 | 14.0 | $\Sigma 13.8$ | 17.0 | 3.0 | | | | | | |
| 512 | { $\Sigma 14.0$ $\Sigma 13.8$ | $\Sigma 13.8$ | { 18.5 ; $\Sigma 17.2$ | — | | | | | | |
| 513 | 14.0 | ($\Sigma 13.8$ Rounding error) | 16.5 | 2.5 | | | | | | |

| | I R | R | B | IR-CI | I R | R | B | IR-CI |
|------|------|---|---------------|-------|------|--------|---------------|-------|
| | | | 18.0; 17.2 | | | | | 19 |
| 539 | 13.9 | | | 4.1 | 564 | 14.0 | 17.5 | 3.8 |
| 540 | 13.7 | | 17.0 | 3.3 | 565 | 13.1 | 17.5 | 4.1 |
| | | | 18.0; 17.2 | | 565a | 13.5 | 17.0 | 3.5 |
| 541 | 14.0 | | | 4.6 | 566 | 13.8 | 17.5; 17.2 | 4.7 |
| | | | | | 566a | 12.4 | 14.5 | 2.1 |
| 542 | 13.8 | | 17.1 | 3.3 | 567 | 13.8 | 17.5 | 3.7 |
| | | | | | 567a | 13.7 | 16.2 | 2.5 |
| 543 | 14.0 | | 17.3 | 3.3 | 568 | 13.9 | 17.5 | 3.6 |
| | | | 18.2; 17.2 | | 568a | 13.8 | 16.9 | 3.1 |
| 544 | 13.8 | | | 4.4 | 569 | 14.0 | 18.5 | 4.5 |
| | | | | | 569a | 13.6 | 15.3 | 1.7 |
| 545 | 13.5 | | 17.0 | 3.5 | 570 | 14.0 | 17.8 | 3.8 |
| | | | | | | | | |
| 546 | 14.0 | | 17.0 | 3.0 | 571 | 13.6 | 17.8 | 4.2 |
| | | | | | 571a | 13.7 | 16.8 | 3.1 |
| 547 | 13.9 | | 17.0 | 3.1 | 572 | 14.0 | 17.8 | 3.8 |
| | | | 18.6; 17.2 | | 572a | 13.6 | 17.0 | 3.4 |
| 548 | 14.0 | | | 4.6 | 573 | 14.0 | 16.8 | 2.8 |
| | | | | | 573a | 12.9 | 16.0 | 3.1 |
| 549 | 13.8 | | 17.1 | 3.3 | 574 | 14.0 | 17.8 | 3.8 |
| | | | | | 574a | 12.8 | 15.2 | 2.4 |
| 550 | 13.9 | | 17.5 | 3.6 | 575 | 13.6 | 16.6 | 3.0 |
| | | | | | 575a | 14.0 | 17.5 | 3.8 |
| 551 | 14.0 | | 17.3 | 3.3 | 576 | 13.6 | 15.8 | 2.2 |
| 551a | 12.7 | | 14.9 | 2.2 | 576a | 13.6 | 17.0 | 3.4 |
| 552 | 13.7 | | 17.4 | 3.7 | 577 | 14.0 | 18.0 | 4.0 |
| 552a | 13.6 | | 17.3 | 3.7 | | | | |
| 553 | 13.9 | | 18.2; 17.2 | 4.3 | 578 | 13.8 | 18.0 | 4.2 |
| | | | | | | | | |
| 554 | 13.7 | | 16.9 | 3.2 | 579 | 13.9 | 18.0 | 4.1 |
| | | | | | | | | |
| 555 | 13.8 | | 17.5 | 3.7 | 580 | 13.9 | 18.0 | 4.1 |
| | | | | | | | | |
| 556 | 13.9 | | 17.5 | 3.6 | 581 | defect | | |
| | | | | | 581a | 13.9 | 17.2 | 3.3 |
| 557 | 13.9 | | 17.5 | 3.6 | 582 | 14.0 | 18.0 | 4.0 |
| | | | | | | | | |
| 558 | 13.9 | | 17.5 | 3.6 | 583 | 13.9 | 17.3 | 3.4 |
| 558a | 13.6 | | 17.0 | 3.4 | 583a | 14.0 | 18.1 | 4.1 |
| 559 | 13.7 | | 17.3 | 3.6 | 584 | 14.0 | 18.3 | 4.3 |
| | | | | | | | | |
| 560 | 13.7 | | 18.0; 17.2 | 4.3 | 585 | 13.8 | 18.0 | 4.2 |
| | | | | | 585a | 13.9 | 16.5 | 2.6 |
| 561 | 14.0 | | 17.5 | 3.5 | 586 | 14.0 | 18.5 | 4.5 |
| | | | | | 586a | 14.0 | 18.0 | 4.0 |
| 562 | 13.7 | | 17.5 | 3.8 | 587 | 13.9 | 17.8 | 3.9 |
| | | | | | 588a | 13.4 | 16.3 | 2.9 |
| 563 | 12.4 | | 16.7 | 4.3 | 588 | 13.4 | 16.5 | 3.1 |

20

I R

R

B

I R

R

B

| | | | | | | | | |
|---------------|------|-------|------|-------------|------|-------|------|------------|
| 59 | 13.9 | 17.8; | 3.9; | <u>614</u> | 11.9 | 16.4 | 4.5 | <u>63</u> |
| 590 | 13.8 | 17.5; | 3.7; | 615 | 13.9 | 16.8 | 2.9 | 640 |
| 590a | 14.0 | 17.5; | 3.5; | 616 | 12.7 | 15.6 | 2.9 | 641 |
| 591 | 13.2 | 15.9 | 2.7 | <u>616a</u> | 12.0 | 16.1 | 4.1 | 641 |
| 591a | 11.9 | 13.8 | 1.9 | 617 | 13.4 | 15.5 | 2.1 | 642 |
| 592 | 13.8 | 16.1 | 2.3 | 618 | 14.0 | 17.3; | 3.3; | <u>643</u> |
| 592a | 12.6 | 14.9 | 2.3 | 619 | 13.6 | 17.0; | 3.4; | 644 |
| <u>593</u> | 11.8 | 15.9 | 4.1 | 619a | 14.0 | 17.0 | 3.0 | 645 |
| 593a | 13.6 | 16.0 | 2.4 | 620 | 13.9 | 17.0 | 3.1 | 645 |
| 594 | 13.6 | 16.9 | 3.3 | 621 | 13.8 | 17.1; | 3.3; | 646 |
| <u>VN 191</u> | 12.0 | 16.4 | 4.4 | 622 | 13.5 | 16.3 | 2.8 | <u>647</u> |
| 595 | 13.9 | 17.6 | 3.1 | 622a | 13.7 | 16.5 | 3.1 | 647 |
| 596 | 13.7 | 17.0 | 3.3 | 623 | 14.0 | 16.0 | 2.0 | <u>648</u> |
| 597 | 13.9 | 17.0 | 3.1 | 624 | 14.0 | 17.1; | 3.8; | 648 |
| 597a | 12.8 | 14.2 | 1.4 | 624a | 13.7 | 16.1 | 3.4 | 649 |
| 598 | 13.9 | 16.5 | 2.6 | 625 | 14.0 | 16.4 | 2.4 | 650 |
| 599 | 13.8 | 17.5; | 3.7; | 626 | 13.8 | 17.3; | 3.5; | <u>651</u> |
| 600 | 13.6 | 17.4; | 3.8; | 626a | 13.6 | 16.7 | 3.1 | 651 |
| 601 | 13.8 | 17.4; | 3.6; | 627 | 13.8 | 17.5; | 3.7; | <u>652</u> |
| 601a | 12.2 | 14.4 | 2.2 | 628 | 13.8 | 16.4 | 2.8 | 653 |
| 602 | 13.6 | 16.7 | 3.1 | 628a | 13.8 | 16.7 | 2.9 | 653 |
| 602a | 11.7 | 14.6 | 2.9 | 629 | 13.5 | 17.0 | 3.5 | 654 |
| 603 | 13.5 | 16.4 | 2.9 | 630 | 12.7 | 16.5 | 3.8 | <u>655</u> |
| 604 | 14.0 | 17.5; | 3.5; | 631 | 13.7 | 16.3 | 2.6 | 656 |
| 605 | 13.6 | 16.8 | 3.2 | 632 | 13.6 | 16.9 | 3.3 | <u>657</u> |
| 606 | 13.7 | 17.4; | 3.7; | 633 | 14.0 | 17.4; | 3.4; | <u>658</u> |
| 607 | 13.7 | 16.8 | 3.1 | 634 | 13.6 | 16.8 | 3.2 | 659 |
| 608 | 13.8 | 16.7 | 2.9 | 635 | 14.0 | 17.0 | 3.0 | 660 |
| 609 | 13.1 | 17.0; | 3.9; | 636 | 14.0 | 17.2; | 3.2; | 661 |
| 610 | 12.8 | 16.2 | 3.4 | 637 | 13.5 | 16.7 | 3.2 | 662 |
| 610a | 12.7 | 16.2 | 3.5 | 638 | 14.0 | 17.5 | 3.3 | 663 |
| 611 | 13.6 | 17.0; | 3.4; | 639 | 14.0 | 17.5 | 3.3 | 663 |
| 611a | 12.0 | 15.8 | 3.8 | 640 | 14.0 | 17.5 | 3.3 | 663 |
| 612 | 13.7 | 16.3 | 2.6 | 641 | 14.0 | 17.5 | 3.3 | 663 |
| 612a | 13.7 | 17.0; | 3.3; | 642 | 14.0 | 17.5 | 3.3 | 663 |
| 613 | 13.8 | 16.4 | 2.6 | 643 | 14.0 | 17.5 | 3.3 | 663 |

| IR R B | | | | IR R B | | | |
|--------|--------|--|------|--------|--------|--|---------------|
| 639 | 13.9 | $\begin{cases} 18.3; \\ \Sigma 17.2 \end{cases}$ | 4.4; | 664 | 13.9 | 16.5 | 2.6 21 |
| 640 | 13.8 | 17.3; | 3.5; | 665 | 14.0 | 17.9; | 3.9; |
| 641 | 13.7 | 16.3 | 2.6 | 666 | 14.0 | 18.1; | 4.1; |
| 641a | 13.7 | 17.5; | 3.8; | 667 | 14.0; | 18.0; | 4.0; |
| 642 | 14.0 | 16.7 | 2.7 | 668 | 14.0 | 18.3; | 4.3; |
| 642a | 13.3 | 15.9 | 2.6 | 669 | 14.0 | 18.1; | 4.1; |
| 643 | 12.7 | 17.1 | 4.4 | 670 | 14.0 | 15.9 | 7.9; |
| 644 | 13.9 | $\begin{cases} 17.8; \\ \Sigma 17.2 \end{cases}$ | 3.9; | 670a | 14.0 | 17.4; | 3.4; |
| 645 | 13.8 | $\begin{cases} 18.0; \\ \Sigma 17.2 \end{cases}$ | 4.2; | 671 | 14.0 | 18.5; | 4.5 |
| 645a | 13.8 | 17.1 | 3.3 | 672 | 14.0 | 18.5; | 4.5; |
| 646 | 14.0 | $\begin{cases} 18.0; \\ \Sigma 17.2 \end{cases}$ | 4.0; | 673 | 13.7 | 18.5; | 4.8; |
| 646a | 8.0; | 13.5 | 5.5; | 674 | 13.9 | 17.4; | 3.5; |
| 647 | 13.8 | $\begin{cases} 18.4; \\ \Sigma 17.2 \end{cases}$ | 4.6; | 675 | 14.0 | 17.4; | 3.4; |
| 647a | 13.3 | 15.9 | 2.6 | 676 | 14.0 | $\begin{cases} 17.5; \\ \Sigma 17.2 \end{cases}$ | 3.5; |
| 648 | 14.0 | $\begin{cases} 18.4; \\ \Sigma 17.2 \end{cases}$ | 4.4; | 677 | 14.0 | $\begin{cases} 18.3; \\ \Sigma 17.2 \end{cases}$ | 4.3; |
| 648a | 11.2 | 14.0 | 2.8 | 678 | 14.0 | 18.8; | 4.8; |
| 649 | 14.0 | 17.4 | 3.4 | 679 | 14.0 | $\begin{cases} 18.5; \\ \Sigma 17.2 \end{cases}$ | 4.5; |
| 650 | 13.7 | 17.5; | 3.8; | 680 | 13.9 | 17.4; | 3.5; |
| 650a | 11.0 | 14.3 | 3.3 | 681 | 14.0 | 17.5; | 3.5; |
| 651 | 13.4 | 17.4; | 4.0; | 682 | 14.0 | 18.5; | 4.5; |
| 652 | 13.8 | $\begin{cases} 18.0; \\ \Sigma 17.2 \end{cases}$ | 4.2; | 683 | 13.9 | 18.1; | 4.2; |
| 653 | 13.8 | $\begin{cases} 18.6; \\ \Sigma 17.2 \end{cases}$ | 4.8; | 683a | 13.5 | 16.0 | 2.5 |
| 653a | 11.0 | 14.8 | 3.8 | 684 | 14.0 | 18.2; | 4.2; |
| 654 | 13.8 | 17.5; | 3.7; | 685 | 14.0 | 18.5; | 4.5; |
| 655 | 13.9 | $\begin{cases} 18.2; \\ \Sigma 17.2 \end{cases}$ | 4.3; | 686 | 14.0 | 18.5; | 4.5; |
| 656 | 13.9 | 17.5; | 3.6; | 687 | defect | | |
| 657 | 14.0 | 18.3; | 4.3; | | | | |
| 658 | 14.0 | 18.5; | 4.5; | | | | |
| 659 | 14.0 | 18.4; | 4.4; | | | | |
| 660 | 13.8 | 16.0 | 2.2 | | | | |
| 661 | 14.0 | 17.8; | 3.8; | | | | |
| 662 | defect | | | | | | |
| 663a | 14.0 | 17.9; | 3.9; | | | | |
| 663 | 14.0 | 17.0 | 3.0 | | | | |

22

| | I-R | R | B | IRCI | | I-R | R | B | IRCI | |
|-------------|-------------------|---|--------|------|-------------|-------|-------|--------|------|----|
| <u>59</u> | | | | 714 | | | | | | |
| | 13.7 | | 17.9; | 4.2; | <u>714a</u> | 14.0 | | 16.0 | 2.0 | 73 |
| <u>90</u> | 14.0 | | 18.4; | 4.4; | <u>715</u> | 14.0 | | 18.2; | 4.2; | 73 |
| <u>91</u> | 14.0 | | [18.5; | — | <u>716</u> | 14.0 | | 18.5; | 4.5; | 73 |
| <u>692</u> | 14.0 | | 18.5; | 4.5; | <u>717</u> | 13.5 | | 17.9; | 4.4; | 73 |
| <u>693</u> | 14.0 | | 18.1; | 4.1; | <u>718</u> | 14.0 | | 18.2; | 4.2; | 73 |
| <u>694</u> | 13.9 | | 18.2; | 4.3; | <u>719</u> | 13.9 | | [18.5 | — | 73 |
| <u>695</u> | 13.7 | | 17.2 | 3.5 | <u>720</u> | 14.0 | | 18.2; | 4.3; | 74 |
| <u>696</u> | 13.9 | | {18.5; | 4.6; | <u>720a</u> | 14.0 | | 18.1; | 4.1; | 74 |
| <u>696a</u> | 14.0 | | {17.2; | 4.5; | <u>721</u> | 13.9 | | 18.4; | 4.4; | 74 |
| <u>697</u> | 13.9 | | {17.2; | 4.6; | <u>722</u> | 12.5 | | 18.3; | 4.4; | 74 |
| <u>698</u> | 13.1 | | 17.2 | 4.1 | <u>723</u> | 14.0 | | 15.0 | 2.5 | 74 |
| <u>698a</u> | 14.0 | | 17.5; | 3.5; | <u>724</u> | 14.0 | | 18.4; | 4.4; | 74 |
| <u>699</u> | 13.9 | | 18.1; | 4.2; | <u>725</u> | 14.0 | | 17.5 | 3.5 | 74 |
| <u>700</u> | 14.0 | | 18.5; | 4.5; | <u>726</u> | 14.0 | | 18.3; | 4.3; | 74 |
| <u>701</u> | (peculiar images) | | 18.1; | 4.1; | <u>727</u> | 14.0 | | 18.3; | 4.3; | 74 |
| <u>702</u> | 14.0 | | 18.2; | 4.2; | <u>728</u> | 13.9 | | 18.4; | 4.4; | 74 |
| <u>703</u> | 13.6 | | {18.5; | 4.9; | <u>728a</u> | 13.2 | | 17.5; | 3.6; | 74 |
| <u>704</u> | 14.0 | | {17.2; | 4.5; | <u>729</u> | 13.5 | | 17.8 | 3.3 | 75 |
| <u>705</u> | 14.0 | | {18.6; | 4.6; | <u>729a</u> | 13.9 | | 17.1 | 3.2 | 75 |
| <u>706</u> | 13.0 | | {17.2; | 4.5; | <u>730</u> | 14.0 | | 17.3; | 3.3; | 75 |
| <u>707</u> | 14.0 | | 17.4; | 3.4; | <u>730a</u> | 13.6 | | 17.0 | 3.4 | 75 |
| <u>707a</u> | 14.0 | | 17.1 | 3.1 | <u>731</u> | 14.0 | | {18.4; | 4.4; | 75 |
| <u>708</u> | 14.0 | | 17.8 | 2.8 | <u>732</u> | 13.6 | | {17.2; | 4.4; | 75 |
| <u>708a</u> | 14.0 | | {17.2; | 4.3; | <u>733</u> | 14.0 | | 17.5; | 4.9; | 75 |
| <u>709</u> | 14.0 | | 17.4; | 3.4; | <u>734</u> | 14.0 | | 17.0 | 3.0 | 75 |
| <u>709a</u> | 12.9 | | 16.4 | 3.5 | 485 = 204 | | | 17.5; | 3.5; | 75 |
| <u>710</u> | 14.0 | | 17.4 | 3.4 | 486 = 203 | | | | | 75 |
| <u>710a</u> | 14.0 | | 17.5; | 3.5; | 487 = 197 | | | | | 75 |
| <u>711</u> | 14.0 | | 18.4; | 4.4; | 488 | 13.9; | [13.8 | 15.9 | 2.9; | 75 |
| <u>712</u> | 14.0 | | 17.8; | 3.8; | | | | | | |
| <u>713</u> | 13.9 | | 18.0; | 4.1; | | | | | | |

| | I-R | R | B | IR-CI | | I-R | R | B | IR-CI |
|----|------|--------|---|-------|--|------|----------|-------|-------|
| | 735 | 13.4 | | 15.0 | | 760 | 14.0; | 17.9; | 23 |
| 2: | 736 | [13.6 | | 17.5; | | 761 | 13.3 | 16.5; | |
| 5: | 736a | 12.8 | | 15.7 | | 762 | 14.0; | 16.9; | |
| 4: | 737 | 11.5 | | 15.0 | | 763 | 13.7 | 15.8 | |
| 2: | 737a | 13.0 | | 17.5; | | 764 | 13.4 | | |
| | 738 | 11.7 | | 14.8 | | 765 | 13.2 | | |
| | 738a | 13.0 | | 15.1 | | 766 | [13.6 | | |
| | 739 | [13.6 | | 17.8; | | 767 | [13.6 | | |
| 3: | 740 | 13.8; | | 17.8; | | 768 | [13.6 | | |
| 1: | 741 | [13.6 | | 17.7; | | 769 | 13.8; | | |
| 4: | 742 | 13.4 | | 15.6 | | 770 | 13.7; | | |
| 5: | 743 | 11.0 | | 14.7 | | 771 | 13.4 | | |
| 4: | 744 | 13.5 | | 17.9; | | 772 | 13.7 | | |
| 5: | 745 | [13.6 | | 15.0; | | 773 | — defect | | |
| 3: | 746 | 12.8 | | 17.8; | | 774 | 13.7; | | |
| 3: | 747 | [13.6 | | 17.8; | | 775 | 12.7 | | |
| 4: | 748 | 13.8; | | 18.0; | | 776 | 14.0; | | |
| 6: | 749 | 13.9; | | 17.8; | | 777 | 14.0; | | |
| 3: | 750 | 14.0; | | 17.8; | | 778 | 13.5 | | |
| 2: | 750a | | | | | 779 | 13.4 | | |
| 3: | 751 | 13.4 | | 18.0; | | 780 | 13.4 | | |
| 4: | 752 | 13.0 | | 16.8 | | 781 | 11.8 | | |
| 9: | 753 | [13.6 | | 17.9; | | 781a | 13.2 | | |
| 0: | 754 | 14.0; | | 16.7 | | 782 | [13.8 | | |
| 5: | 755 | 12.7 | | 15.8 | | 782a | 14.0; | | |
| | 756 | [13.9; | | 18.0; | | 783 | 10.9 | | |
| | 757 | 14.0; | | 18.0; | | 783a | [13.6 | | |
| | 758 | 13.9; | | 17.8; | | 784 | [13.8 | | |
| 9: | 759 | 13.9; | | 17.8; | | 784a | 13.0 | | |

| IR | R | B | IR-CI | IR | R | B | IR-CI |
|----------|---|---|-------|----------|---|---|-------|
| 24 13.8 | | | | 810 13.8 | | | 835 |
| 550 13.8 | | | | 811 13.8 | | | 836 |
| 560 13.5 | | | | 812 13.8 | | | 837 |
| 560 14.0 | | | | 813 13.9 | | | 838 |
| 570 14.0 | | | | 814 13.8 | | | 839 |
| 570 13.6 | | | | 815 13.8 | | | 840 |
| 580 13.7 | | | | 816 13.8 | | | 841 |
| 580 14.0 | | | | 817 13.8 | | | 842 |
| 589 13.8 | | | | 818 13.8 | | | 843 |
| 589 14.0 | | | | 819 13.8 | | | 844 |
| 590 13.9 | | | | 820 13.8 | | | 845 |
| 791 13.4 | | | | 821 13.8 | | | 846 |
| 792 13.6 | | | | 822 13.8 | | | 847 |
| 793 12.1 | | | | 823 13.8 | | | 848 |
| 794 12.7 | | | | 824 13.8 | | | 849 |
| 795 13.6 | | | | 825 13.8 | | | 850 |
| 796 13.4 | | | | 826 13.7 | | | 851 |
| 797 13.5 | | | | 827 14.0 | | | 852 |
| 798 14.0 | | | | 828 13.6 | | | 853 |
| 799 13.8 | | | | 829 12.7 | | | 854 |
| 800 13.2 | | | | 830 13.6 | | | 855 |
| 801 13.8 | | | | 831 13.6 | | | 856 |
| 802 13.8 | | | | 832 13.1 | | | 857 |
| 803 13.6 | | | | 833 13.6 | | | 858 |
| 804 13.6 | | | | 834 13.6 | | | 859 |
| 805 12.0 | | | | | | | |
| 806 13.8 | | | | | | | |
| 807 11.9 | | | | | | | |
| 808 13.0 | | | | | | | |
| 809 13.8 | | | | | | | |

100
FEB 46

| I | I-R | R | B | IR-CI | I-R | R | B | IR-CI |
|-----|---------------|---|---|-------|------|---------------|-------------|--------|
| 835 | 13.5 | | | | 860 | $\Sigma 13.8$ | | 25 |
| 836 | $\Sigma 13.8$ | | | | 861 | $\Sigma 13.8$ | | |
| 837 | 13.5 | | | | 862 | 14.0; | | |
| 838 | 13.1 | | | | 863 | $\Sigma 13.8$ | | |
| 839 | 13.0 | | | | 864 | $\Sigma 13.8$ | | |
| 840 | $\Sigma 13.8$ | | | | 865 | 14.0; | green image | |
| 841 | $\Sigma 13.8$ | | | | 865a | 13.0; | green image | galaxy |
| 842 | 13.5 | | | | 866 | 12.4 | | |
| 843 | 13.6 | | | | 867 | $\Sigma 13.8$ | | |
| 844 | 13.2 | | | | 868 | 13.2 | | |
| 845 | 13.8; | | | | 869 | 13.5 | | |
| 846 | 13.9; | | | | 870 | 13.4 | | |
| 847 | $\Sigma 13.6$ | | | | 871 | 13.1 | | |
| 848 | 13.8; | | | | 872 | 13.9; | | |
| 849 | 13.8; | | | | 873 | $\Sigma 13.8$ | | |
| 850 | $\Sigma 13.8$ | | | | 874 | 14.0; | | |
| 851 | $\Sigma 13.8$ | | | | 875 | 11.7 | | |
| 852 | $\Sigma 13.8$ | | | | 876 | $\Sigma 13.8$ | | |
| 853 | 13.2 | | | | 877 | 13.1 | | |
| 854 | 12.4 | | | | 878 | 13.4 | | |
| 855 | 12.7 | | | | 879 | $\Sigma 13.8$ | | |
| 856 | 13.3 | | | | 880 | $\Sigma 13.8$ | | |
| 857 | $\Sigma 13.8$ | | | | 881 | $\Sigma 13.8$ | | |
| 858 | 13.6 | | | | 882 | 13.0 | | |
| 859 | $\Sigma 13.8$ | | | | 883 | $\Sigma 13.8$ | | |
| | | | | | 884 | $\Sigma 13.8$ | | |

| 26 | I R | R | B | IR-CI | | I R | R | B | IR-CI |
|-----|-------|---|---|-------|-----|-------|---|---|-------|
| | [13.8 | | | | 910 | 14.0; | | | |
| 886 | 14.0; | | | | 911 | [13.8 | | | |
| 887 | [13.8 | | | | 912 | [13.8 | | | |
| 888 | [13.8 | | | | 913 | 13.7 | | | |
| 889 | 13.7 | | | | 914 | 12.1 | | | |
| 890 | [13.8 | | | | 915 | 13.2 | | | |
| 891 | [13.8 | | | | 916 | [13.8 | | | |
| 892 | [13.8 | | | | 917 | 12.7 | | | |
| 893 | [13.8 | | | | | | | | |
| 894 | 13.8; | | | | | | | | |
| 895 | 13.6 | | | | | | | | |
| 896 | [13.8 | | | | | | | | |
| 897 | [13.8 | | | | | | | | |
| 898 | 13.7; | | | | | | | | |
| 899 | 14.0; | | | | | | | | |
| 900 | [13.8 | | | | | | | | |
| 901 | 13.8; | | | | | | | | |
| 902 | 12.6 | | | | | | | | |
| 903 | 12.0 | | | | | | | | |
| 904 | [13.8 | | | | | | | | |
| 905 | [13.8 | | | | | | | | |
| 906 | 11.0 | | | | | | | | |
| 907 | 13.6 | | | | | | | | |
| 908 | 11.6 | | | | | | | | |
| 909 | 12.3 | | | | | | | | |

← peculiar image

Second search for
very very red
stars

Fall 1954 (Nov) VN

28

I Red

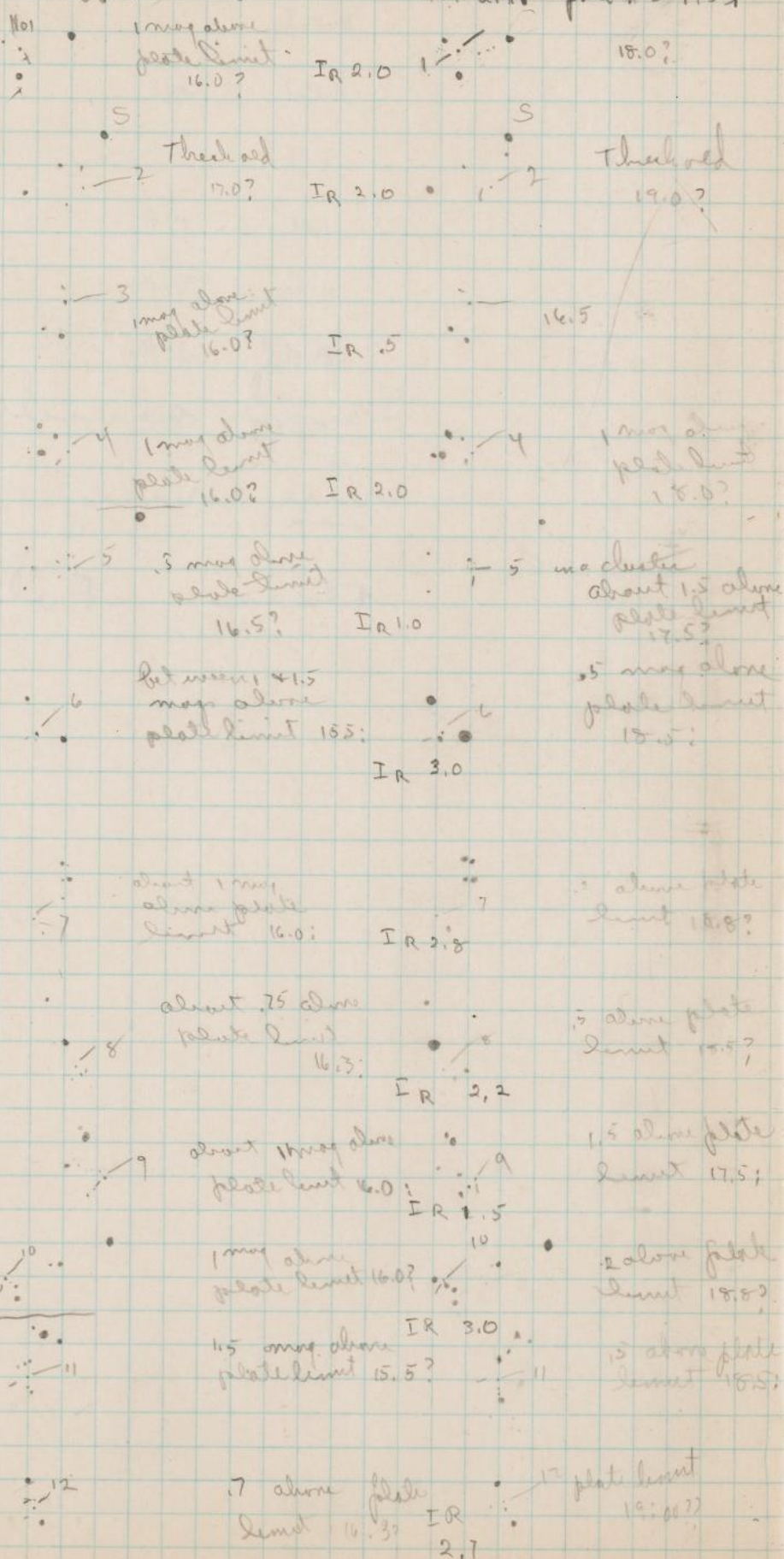
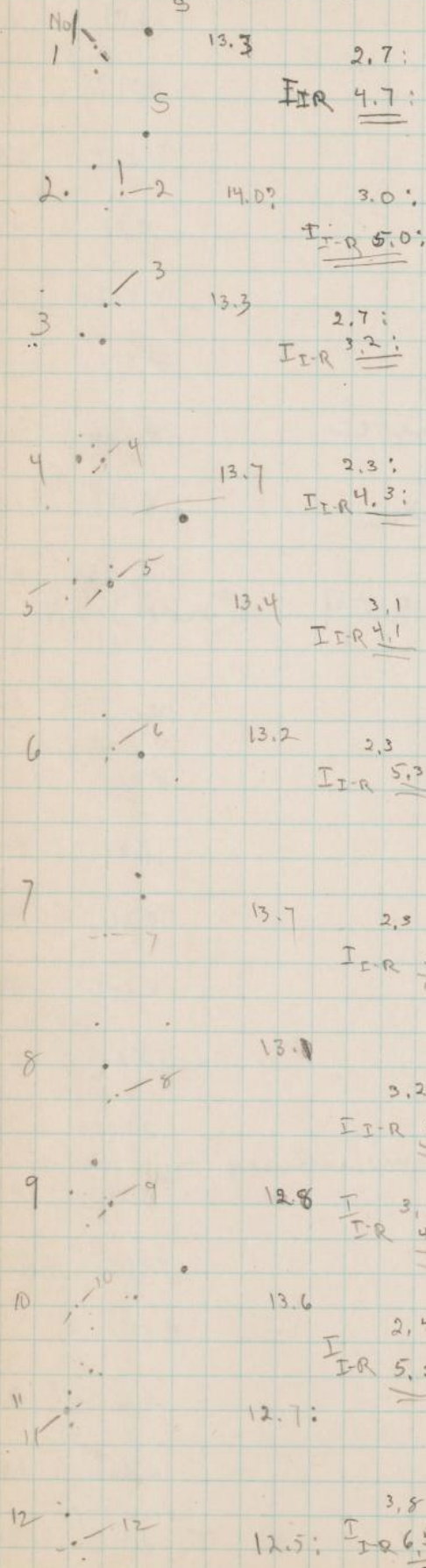
2171 Dec 25 '53

Red

ADH 66 Dec 19 '50

Blue

ADH 2198 Jan 4-5 1954

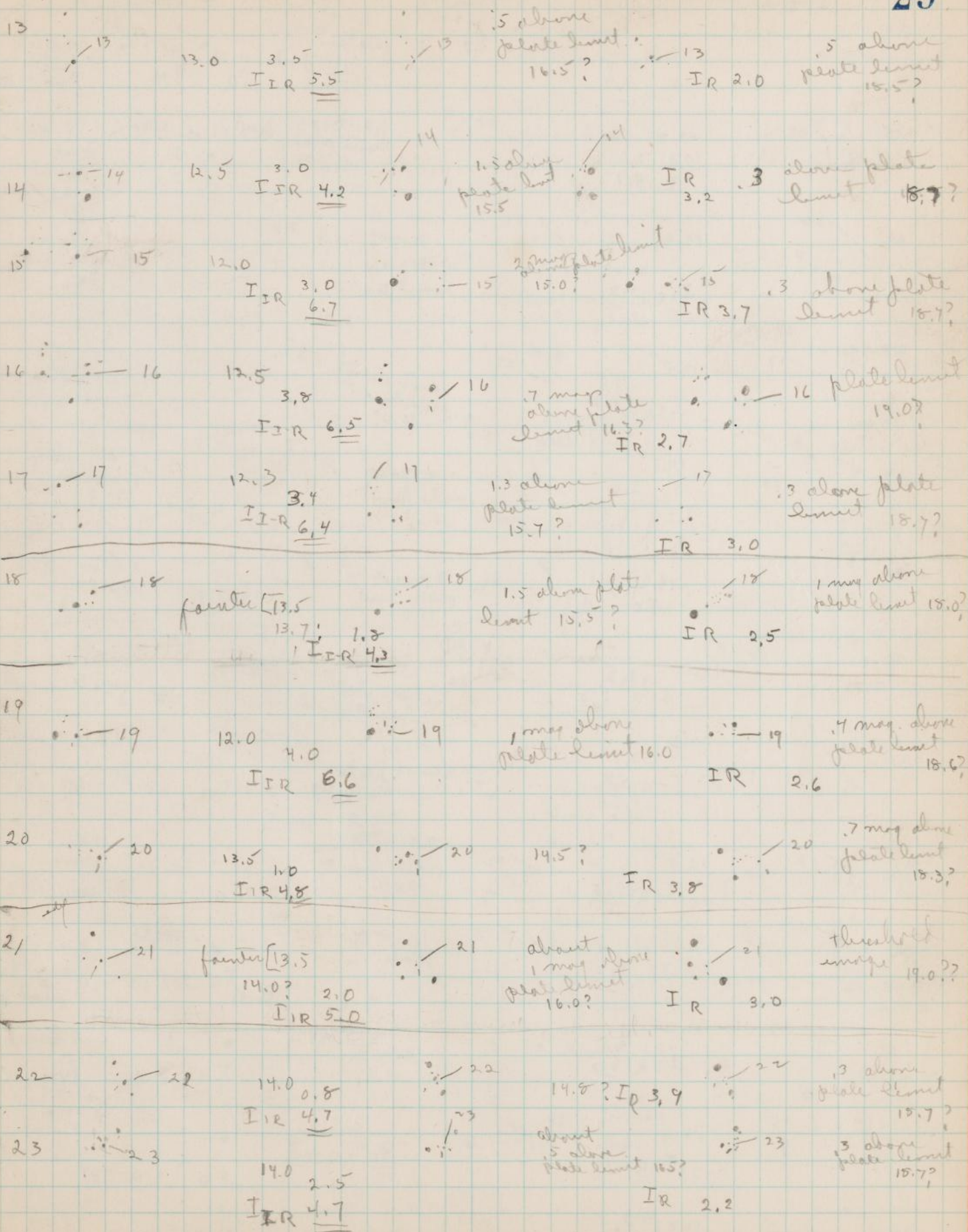


I Red

Red

Blue

29

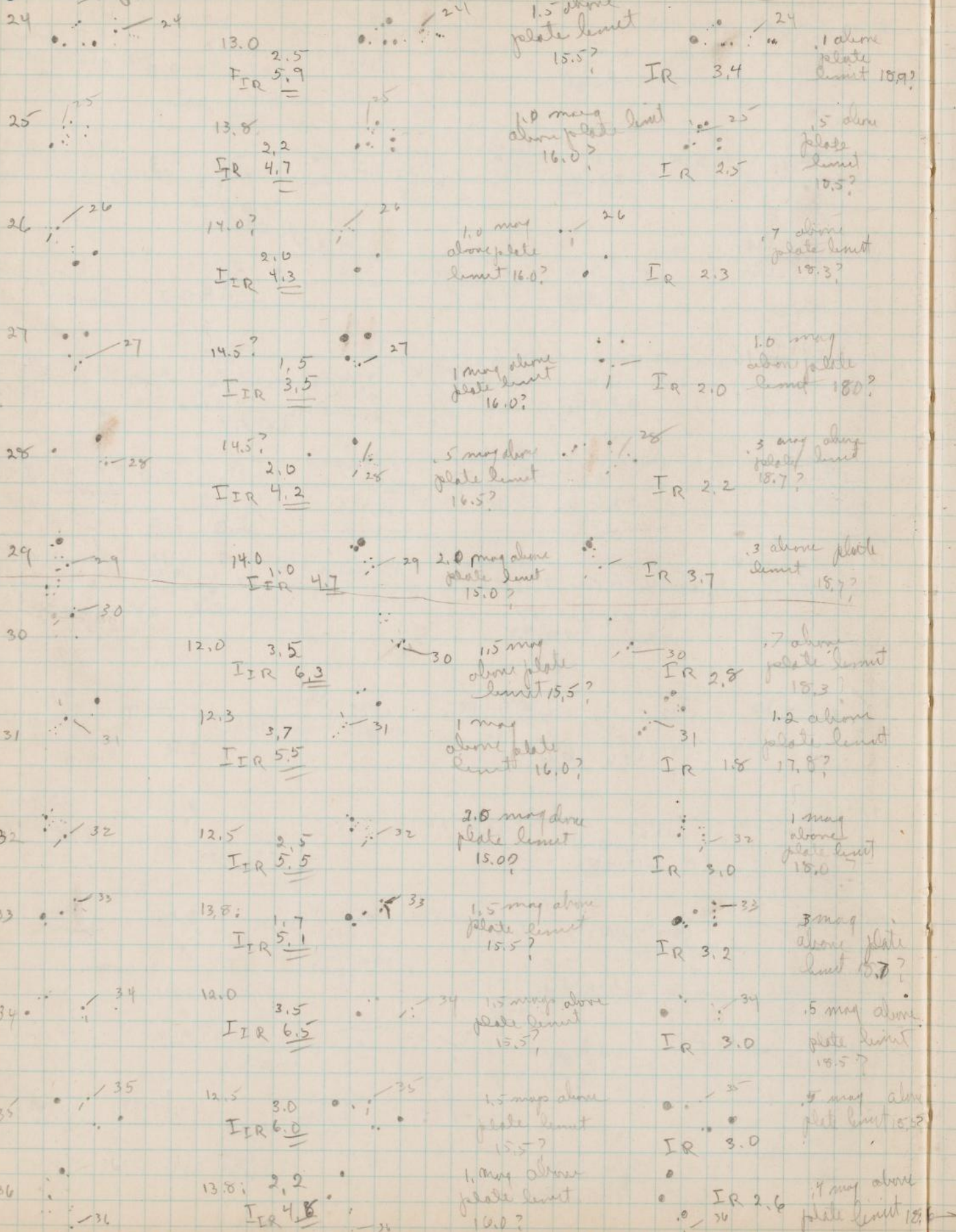


30

Infra Red

Red

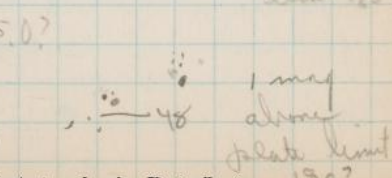
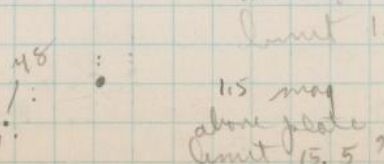
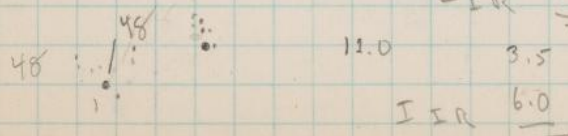
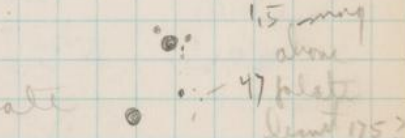
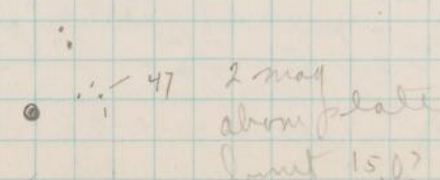
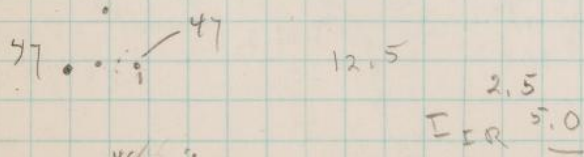
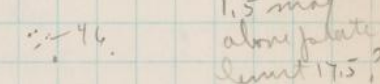
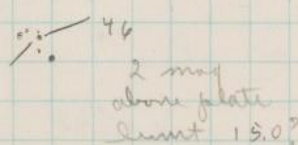
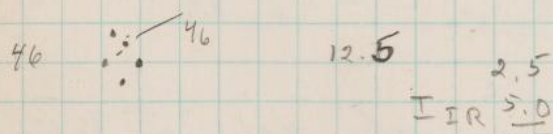
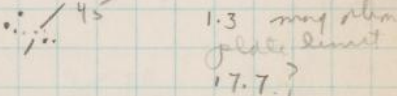
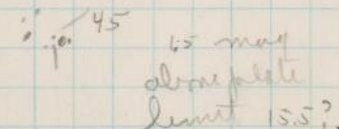
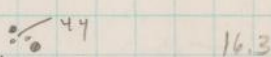
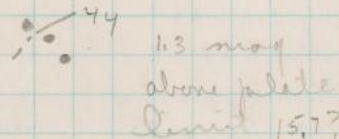
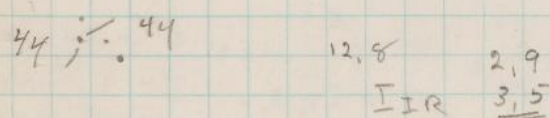
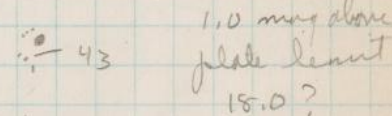
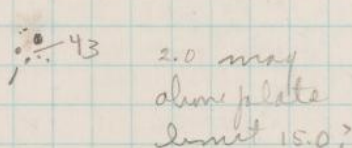
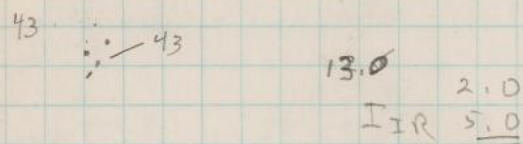
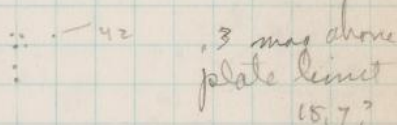
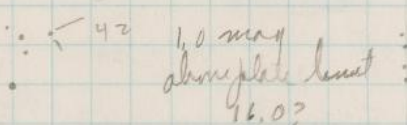
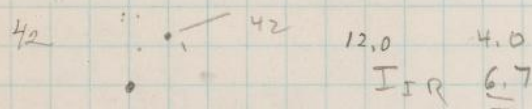
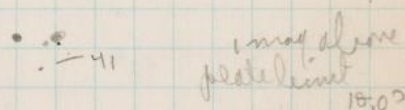
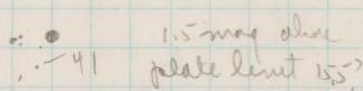
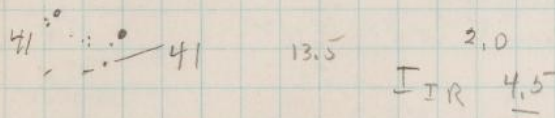
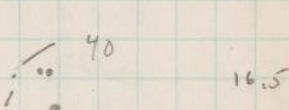
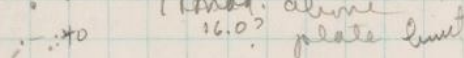
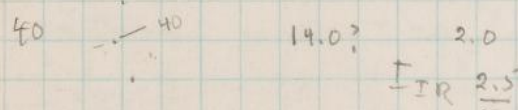
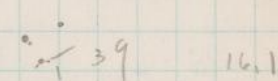
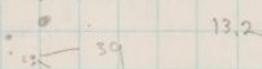
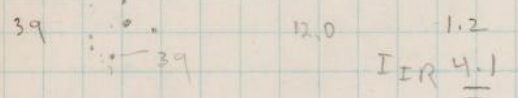
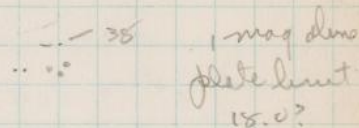
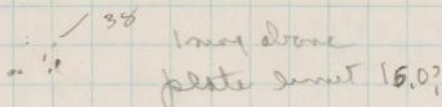
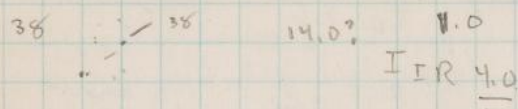
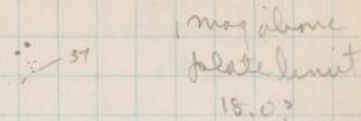
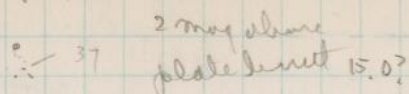
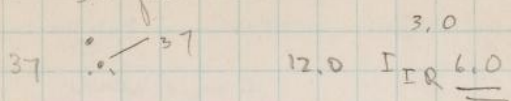
Blue



Infrared

Red

Blue

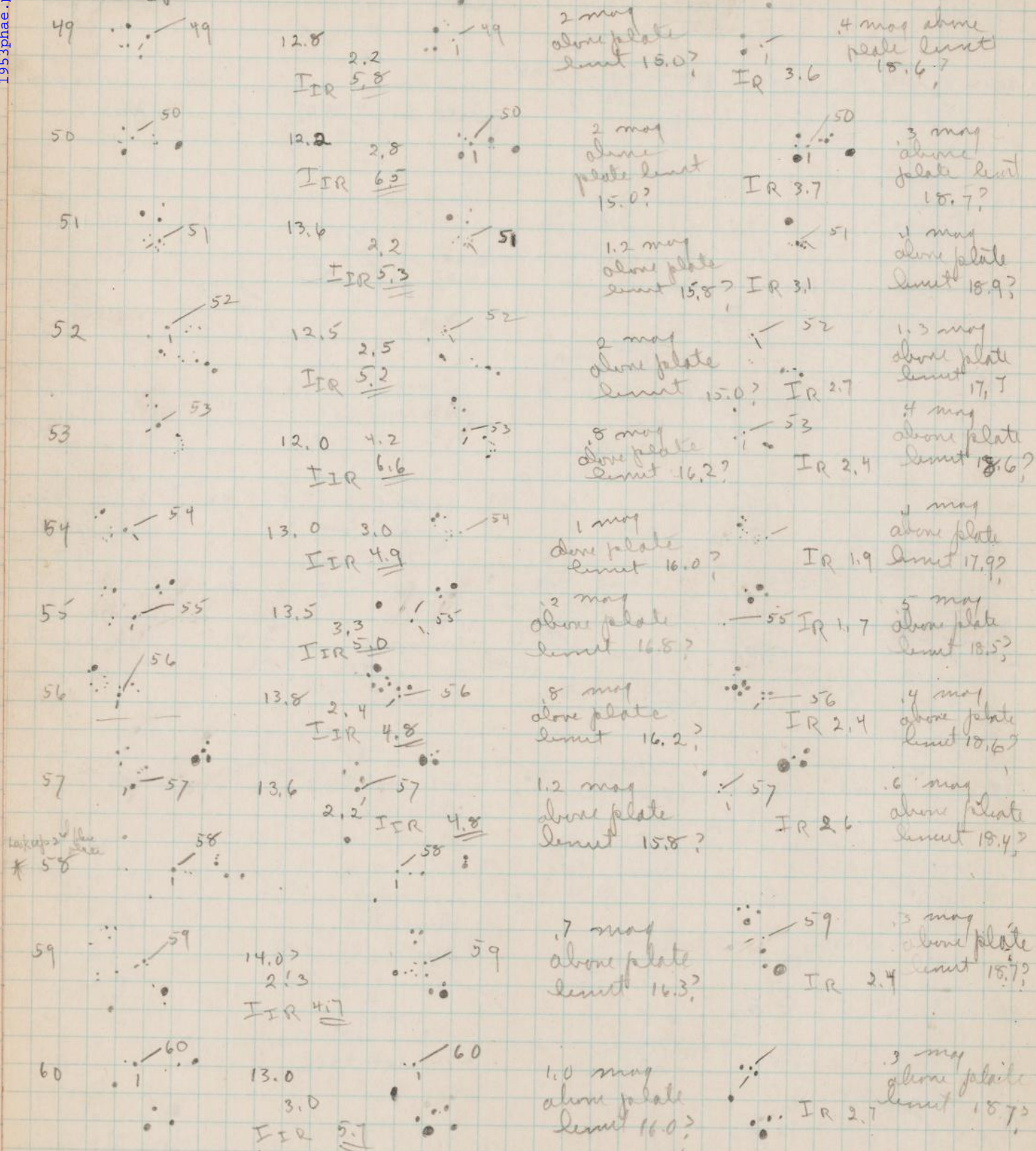


32

Infra Red

Red

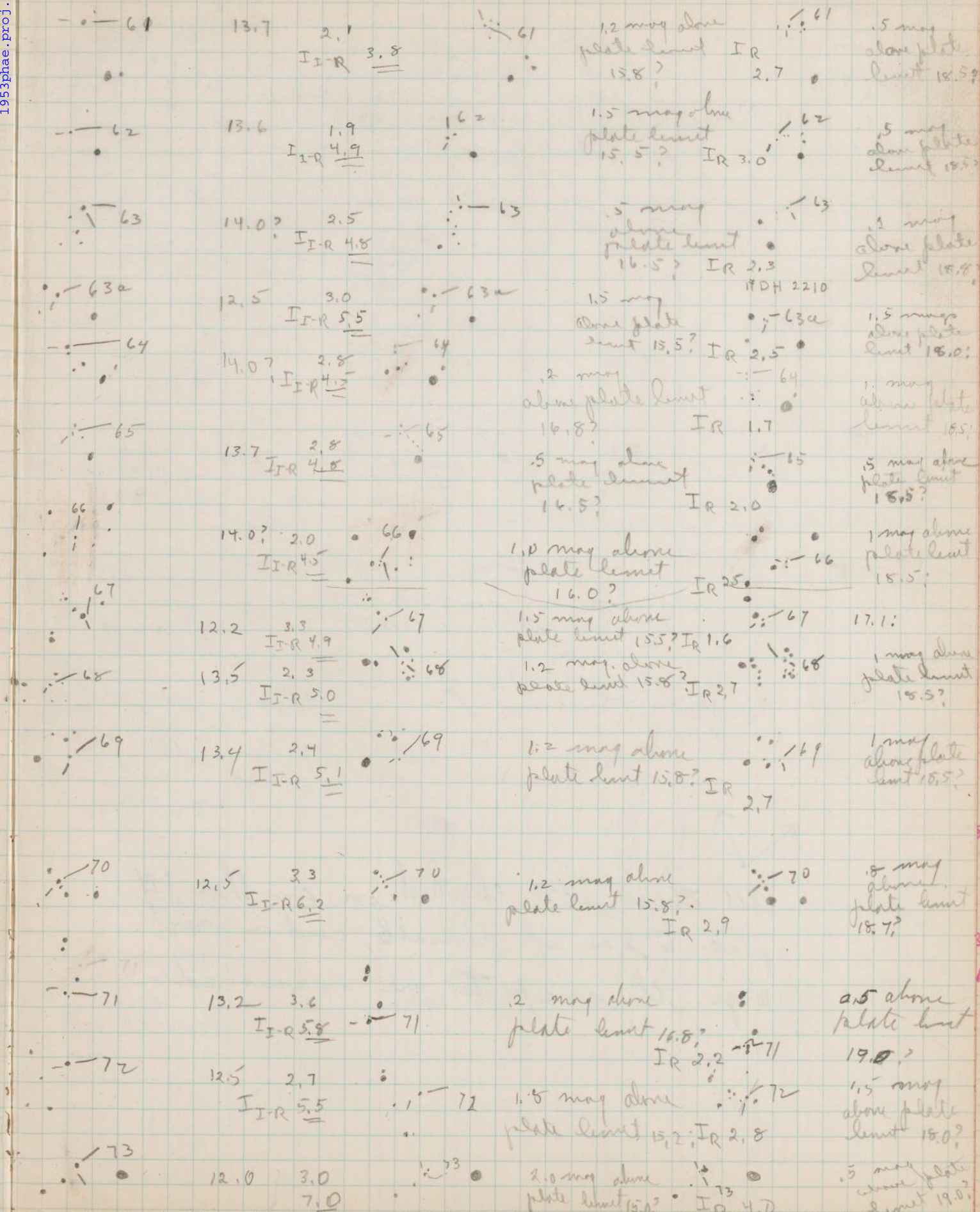
Blue



Infra-Red

Red

Blue 33



34

Infrared
ADH 2171Red
ADH 66Blue
ADH 2191

74 omitted not red star

74

14.0:

1.5
 $I_{IR} 4.7$ 1.5 mag above
plate limit15.5?
3.275
1.5 mag above
plate limit
15.7

ADH 2191

76

13.1

2.4
 $I_{IR} 5.8$

76

1.5 mag
above
plate limit
15.5?

3.4

76
1.5 mag above
plate limit
15.9

77

13.1

1.9
 $I_{IR} 3.9$

77

15.0?

2.0

77

17.0

ADH 2210

78

13.2

2.6
 $I_{IR} 5.8$

78

1.2 mag
above plate
limit
15.8?

3.2

78

1.5 mag above
plate limit
19.0?

79

13.6

1.4
 $I_{IR} 4.9$

79

2 mag above
plate limit
15.0?

79

1 mag above
plate limit
15.2?

ADH 2191

80

80

13.3

2.7
 $I_{IR} 5.5$
2.4
 $I_{IR} 4.9$

80

10 mag
above
plate
limit
16.0?
1.5 mag above
plate limit
16.0?81
1.5 mag above
plate limit
18.5?
18.5?
18.5?

IR 2.5 (81)



All these were checked on another 1N
plate to see if variable, and on next
page the suspects are examined.

vanilla? HDH 179
 179 5 04.1-66.5
 149 Feb 7-8 1951
 189
 Mar 1-2, 1951

| α | δ | ϵ | ζ | η | θ | ι | κ | λ | μ | 35 |
|----------|----------|------------|---------|--------|----------|---------|----------|-----------|--------|----|
| | 17.3 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.2 | | | |
| [13.5] | 13.0 | [13.5] | 13.0 | 12.2 | [13.5] | [13.5] | [13.5] | 13.8 | [13.5] | |

202

| | | | | | | | | | | |
|----|------|-------|------|------|--------|--------|------|------|--------|--|
| ms | 12.5 | 14.0? | 13.0 | 12.1 | [13.5] | [13.5] | 13.8 | 13.3 | [13.5] | |
|----|------|-------|------|------|--------|--------|------|------|--------|--|

211

220 5 49.5-70.1

223 5 49.5-70.1

843 5 04.1-66.5

844 5 50-70.1

846

| | | | | | | | | | | |
|--------------|------|-----|--------|------|------|--------|--------|--------|------|--|
| ms [13.5] | 13.6 | def | [13.5] | 12.0 | 12.0 | [13.5] | [13.5] | [13.5] | 11.0 | |
|--------------|------|-----|--------|------|------|--------|--------|--------|------|--|

847

850

| | | | | | | | | | | |
|--------|------|-----------|------|------|------|--------------|--------|--------------|------|--|
| [13.5] | 13.3 | ms [13.5] | 13.5 | 12.5 | 12.1 | [13.5] ms | [13.5] | ms [13.5] | 12.0 | |
|--------|------|-----------|------|------|------|--------------|--------|--------------|------|--|

1407

| | | | | | | | | | | |
|-----------|------|------|------|------|------|-----------|--------|------|--------------|--|
| ms [13.5] | 12.0 | 13.3 | 12.2 | 13.2 | 13.4 | [13.5] ms | [13.5] | 12.5 | ms [13.5] | |
|-----------|------|------|------|------|------|-----------|--------|------|--------------|--|

1565 Dec 4-5 '52

| | | | | | | | | | | |
|--------|------|------|--------|--------|--------|--------|--------|------|--------|--|
| [13.5] | 12.5 | 12.0 | [13.5] | [13.5] | [13.5] | [13.5] | [13.5] | 13.9 | [13.5] | |
|--------|------|------|--------|--------|--------|--------|--------|------|--------|--|

Blue 1756 Mar 21-22 '53

| | | | | | | | | | | |
|------------------------------|------|--------|--------|------|--|------------------|--|------|------|--|
| def in middle of image | 17.2 | [17.2] | [17.2] | 17.2 | | not seen 17.3 | | 17.5 | 17.0 | |
|------------------------------|------|--------|--------|------|--|------------------|--|------|------|--|

2171

Dec 25-26 1953

| | | | | | | | | | | |
|------|------|------|------|------|----------------|------|------|------|------|--|
| 13.2 | 12.5 | 12.8 | 12.1 | 13.4 | defect 11.8 | 13.7 | 12.2 | 11.5 | 17.5 | |
|------|------|------|------|------|----------------|------|------|------|------|--|

not
 not seen
 180m

SMH-271 HSL
 829

HV 5597

not
 HSL
 220

HV 2439

CW 2

HV 11964

15.2-17.2

4.9-3.2
 16.2
 16.9

SMH
 439

HSL
 764

HV 2578

Iny

15.4 < 17.3

HB 921

Blue 2178

Dec 31, 1953 - Jan 1, 1954

| | | | | | | |
|------|------|------|------|------|------|------|
| 15.8 | 17.5 | 16.5 | 18.0 | 18.0 | 17.5 | 17.5 |
|------|------|------|------|------|------|------|

36

| 29 | | | | | | | | |
|-----------|-------|-------------|-------|-------|-------|-------------|-------------|-------|
| 149 blue | | | | | | | | |
| 59 | 12.3 | [13.5 | 13.8; | 13.4 | 13.2 | [13.5 | 16.5 | 16.5 |
| 202 | [13.5 | — | 13.8; | 12.5 | 13.0 | 14.0; | — | — |
| 211 | | | | | | | | |
| 220 | | | | | | | ms | |
| 223 | | | | | | | | |
| 843 | | | | | | | | |
| 844 | | | | | | | | |
| 846 | [13.5 | ms [13.5 | [13.5 | 13.6 | 14.0; | [13.5 | ms [13.5 | 14.0; |
| 847 | | | | | | | ms | — |
| 850 | — | — | [13.5 | 13.8; | 13.8; | ms [13.8 | — | — |
| 1407 | — | — | 13.0 | 13.2 | 13.2 | ms [13.5 | — | — |
| 1565 | 13.5 | [13.5 | 12.3 | 13.8; | 13.0 | 13.8; | [13.5 | 12.5 |
| 1756 blue | | | | | | | | 15.8 |
| 2171 | 12.8 | 13.2 | 13.0 | 12.8 | 13.5 | 13.3 | 14.0; | 12.2 |

SML
20HSL
563

AV 2681

Riny

14.6-15.2

AB 306
15.9

2175 blue

Results: Infrared plates very uncertain
only luminous variables could be picked variable
from 3 blue plates

Blue

37

q, f, b, d, g, h, i, k, l, m, n, o, p

blue

~~color dust extinction~~

Search for very red stars

10 stars

IR T

① position X-Y

② Pg mag

③ red mag

④ infra red

Index Red, infra red
note
variability

check upon known Long +
irregular



Stebbins colors of red stars
20± ago table

{ printing committee
completed
mess
Foulsome



$$\begin{array}{r}
 7 \\
 60 \overline{) 420} \quad 45 \\
 \underline{315}
 \end{array}$$

Additional measures on
"Bar" LMC. FDH plates
Dec 1954 UMN.

118

DH JD

1953phae.proj.2458a

18

a b c d e f g h i 263

DH JD

| | | | | | | | | | | | | |
|------|-----------|------|------|------|------|------|------|-------|---------|--------|------|----|
| 178 | 34743.298 | 16.2 | 16.8 | 16.4 | 16.2 | 17.0 | 15.8 | 16.8 | 18.0 | [18.5 | 16.5 | 16 |
| 2179 | 34743.347 | 16.5 | 16.7 | 16.4 | 16.2 | 16.8 | 16.2 | 16.7 | 18.0 | [18.5 | 16.6 | 1 |
| 2180 | 34743.397 | 16.3 | 16.6 | 16.4 | 16.1 | 17.1 | 15.7 | 16.6 | 18.0 | [18.5 | 16.5 | 1 |
| 2181 | 34743.445 | 16.1 | 16.6 | 16.3 | 16.3 | 17.2 | 16.0 | 16.7 | 18.0 | [18.5 | 16.4 | 1 |
| 2182 | 34743.494 | 16.0 | 16.7 | 16.9 | 16.2 | 16.7 | 15.8 | 16.6 | 18.0 | [18.5 | 16.2 | |
| 2184 | 34744.306 | 16.1 | 16.7 | 16.6 | 16.6 | 17.0 | 16.3 | 16.7 | 18.0 | 18.5 | 16.6 | 1 |
| 2185 | 34746.291 | 16.3 | 16.9 | 16.6 | 16.7 | 17.6 | 16.7 | 16.9 | 18.0 | 18.5 | 16.1 | 1 |
| 2186 | 34746.339 | 16.1 | 16.8 | 16.7 | 16.7 | 17.5 | 16.7 | 16.8 | 18.0 | 18.5 | 16.1 | 1 |
| 2187 | 34746.388 | 16.0 | 16.6 | 16.0 | 16.7 | 17.0 | 16.6 | 16.8 | 17.5 | [18.5? | 16.1 | 16 |
| 2188 | 34746.425 | 16.0 | 16.6 | 16.2 | 16.9 | 17.1 | 16.6 | 16.9 | ms 18.0 | [18.5 | 16.2 | 1 |
| 2189 | 34747.294 | 16.6 | 16.9 | 17.2 | 16.3 | 17.0 | 15.9 | 16.9 | [18.5 | 18.5 | 16.5 | 1 |
| 2190 | 34747.345 | 16.8 | 16.7 | 17.0 | 16.3 | 17.0 | 16.0 | 16.7 | 18.3 | [18.5 | 16.8 | 1 |
| 2191 | 34747.398 | 16.7 | 16.7 | 17.1 | 16.2 | 17.0 | 16.0 | 16.7 | 18.3 | [18.5 | 16.7 | 16 |
| 2192 | 34747.440 | | | | | | | | | | | |
| 2193 | 34747.488 | 16.2 | 16.7 | 16.7 | 16.2 | 17.4 | 15.9 | 16.7 | 18.5 | [18.5 | 16.7 | 16 |
| 2194 | 34748.292 | 16.1 | 16.6 | 16.2 | 16.7 | 17.1 | 15.9 | 16.2 | 16.5 | 16.7 | 16.2 | 16 |
| 2195 | 34748.337 | 16.2 | 16.5 | 16.7 | 16.5 | 17.0 | 16.3 | 16.5 | 18.0? | [18.5 | 16.3 | 16 |
| 2196 | 34748.392 | 16.1 | 16.6 | 16.7 | 16.5 | 17.3 | 16.1 | 16.4 | 18.1? | — | 16.4 | ✓6 |
| 2197 | 34748.455 | | | | | | | | | | | |
| 2198 | 34748.499 | | | | | | | | | | | |
| 2201 | 34754.291 | | | | | | | | | | | |
| 2202 | 34754.335 | | | | | | | | | | | |
| 2210 | 34781.326 | 16.1 | 17.1 | 17.0 | 17.2 | 16.3 | 16.5 | 18.0? | — | 16.9 | 1 | |

HV12324

HV12323

HV12325

HV12322

HV12324

HV12323

HV12325

HV12322

No. 100

not
found

defect

defect

| | MD | MD |
|------|------|------|
| 63 | 15 | 13 |
| 16.3 | 16.8 | 16.9 |
| 16.6 | 16.9 | 16.9 |
| 16.5 | 16.8 | 16.8 |
| 16.4 | 16.8 | 16.7 |
| 16.2 | 16.9 | 16.8 |
| 16.6 | 17.0 | 17.1 |
| 16.1 | 17.0 | 17.1 |
| 16.1 | 17.0 | 16.8 |
| 16.1 | 16.8 | 17.0 |
| 16.2 | 16.9 | 16.9 |
| 16.5 | 16.8 | 16.8 |
| 16.8 | 16.8 | 16.8 |
| 16.7 | 16.9 | 16.9 |
| 16.7 | 16.9 | 16.9 |
| 16.2 | 16.9 | 16.9 |
| 16.3 | 16.9 | 16.9 |
| 16.4 | 16.9 | 16.9 |
| 16.9 | 16.9 | 16.9 |

Measurements on 49 stars in SMC in HR Series II-25

June 1953 U.M.K.K.

In red & blue for colors of
Cepheids see paper Knott & Paschynne
Publ. A.S. Pac. 1953

| | 6 | 10.0 | 291 | 742 | 60 | 71 | 120 | 748 | 391 | 111 | 288 | 13 | 74 | 401 | 10 | 277 | 102 |
|--------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| HV | 517 | 1400 | 1425 | 446 | 827 | 1492 | 1610 | 1513 | 1460 | 1505 | 1426 | 823 | 1351 | 1365 | 818 | 1342 | 1331 |
| 639 Aug 12-13 ¹⁹⁵¹ | 13.5 | 15.6 | 15.8 | Σ15.9 | 14.0 | 15.7 | 13.8 | Σ15.9 | 15.8 | 15.8 | 14.4 | 13.8 | 14.2 | 14.9 | 14.1 | 14.0 | 14.1 |
| 60 ^m 34287.555 | | | | | | | | | | | | | | | | | |
| 458 Sep 26-27 ¹⁹⁵¹ | 14.0 | 14.4 | Σ15.3 | Σ15.3 | 14.5 | 15.0 | 14.9 | Σ15.3 | Σ15.3 | Σ15.3 | 14.0 | 13.6 | 14.4 | 14.3 | 14.0 | 13.7 | 14.0 |
| 10 ^m 34282.449 | | | | | | | | | | | | | | | | | |
| 1459 Sep 26-27 ¹⁹⁵¹ | 13.9 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | 13.7 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 | Σ13.8 |
| 10 ^m 34282.459 | | | | | | | | | | | | | | | | | |
| 1485 Oct 1-2 ¹⁹⁵² | 13.6 | 15.3 | 15.6 | Σ15.7 | 14.7 | 15.3 | 15.3 | Σ15.7 | Σ15.7 | Σ15.7 | 15.1 | 14.0 | 14.6 | 14.6 | 15.1 | 14.6 | 15.1 |
| 10 ^m 34287.447 | | | | | | | | | | | | | | | | | |
| 1486 Oct 1-2 ¹⁹⁵² | 14.0 | 15.4 | 15.4 | Σ15.7 | 14.7 | 15.5 | 15.2 | Σ15.8 | Σ15.7 | Σ15.7 | 15.1 | 13.7 | 14.7 | 15.0 | 15.3 | 14.1 | 15.1 |
| 10 ^m 34287.405 | | | | | | | | | | | | | | | | | |
| 1492 Oct 1-2 ¹⁹⁵² | 14.0 | 15.5 | 15.5 | Σ15.7 | 14.6 | 15.6 | 15.1 | Σ15.7 | Σ15.7 | Σ15.7 | 15.2 | 13.9 | 14.8 | 15.0 | 15.4 | 14.4 | 15.1 |
| 10 ^m 34287.487 | | | | | | | | | | | | | | | | | |
| 1493 Oct 1-2 ¹⁹⁵² | 13.9 | 15.6 | 15.7 | Σ15.7 | 14.8 | 15.4 | 15.1 | Σ15.7 | Σ15.7 | Σ15.7 | 15.1 | 14.0 | 14.6 | 15.0 | diff | 14.2 | 15.1 |
| 10 ^m 34287.496 | | | | | | | | | | | | | | | | | |
| 1494 Oct 1-2 ¹⁹⁵² | 13.7 | 15.4 | 15.8 | Σ15.7 | 14.9 | 15.6 | 15.0 | Σ15.7 | Σ15.7 | Σ15.7 | 15.0 | 13.7 | 14.6 | 14.9 | 15.5 | 14.2 | 15.1 |
| 15 ^m 34287.517 | | | | | | | | | | | | | | | | | |
| 1497 Oct 1-2 ¹⁹⁵² | 13.9 | 15.5 | 15.8 | Σ15.7 | 15.0 | 15.6 | 15.0 | Σ15.8 | Σ15.7 | Σ15.7 | 15.0 | 13.7 | 14.8 | 14.9 | 15.3 | 14.2 | 15.1 |
| 15 ^m 34287.544 | | | | | | | | | | | | | | | | | |
| 1501 Oct 1-2 ¹⁹⁵² | 13.9 | Σ15.3 | Σ15.3 | Σ15.3 | 15.0 | Σ15.3 | 15.1 | Σ15.3 | Σ15.3 | Σ15.3 | 15.0 | 13.9 | 14.5 | 15.0 | Σ15.3 | 14.4 | 15.1 |
| 5 ^m 34287.591 | | | | | | | | | | | | | | | | | |
| 1507 Oct 5-6 ¹⁹⁵² | 13.9 | 15.2 | 15.7 | Σ15.9 | 14.0 | 15.3 | 14.4 | Σ15.9 | Σ15.9 | Σ15.9 | 15.6 | 15.0 | 13.6 | 14.6 | 15.0 | 15.7 | 14.2 |
| 15 ^m 34291.347 | | | | | | | | | | | | | | | | | |
| 1508 Oct 5-6 ¹⁹⁵² | 14.2 | 15.3 | 15.8 | Σ15.9 | 14.2 | 15.3 | 14.4 | Σ15.9 | Σ15.9 | Σ15.9 | 15.6 | 15.2 | 13.9 | 14.9 | 15.1 | 15.7 | 13.9 |
| 30 ^m 34291.372 | | | | | | | | | | | | | | | | | |
| 1511 Oct 6-7 ¹⁹⁵² | 13.8 | 15.1 | 15.9 | Σ15.9 | 13.6 | 15.7 | 14.8 | Σ15.9 | Σ15.9 | Σ15.9 | 15.8 | 15.0 | 13.8 | 14.7 | 15.0 | 14.6 | 14.2 |
| 30 ^m 34292.298 | | | | | | | | | | | | | | | | | |
| 1512 Oct 6-7 ¹⁹⁵² | 13.9 | 15.1 | 15.8 | Σ15.9 | 13.6 | 15.7 | 14.8 | Σ15.9 | Σ15.9 | Σ15.9 | 15.8 | 15.0 | 14.0 | 14.4 | 15.1 | 14.5 | 14.0 |
| 30 ^m 34292.322 | | | | | | | | | | | | | | | | | |
| 1513 Oct 6-7 ¹⁹⁵² | 14.1 | 14.9 | 15.9 | Σ15.8 | 13.4 | 15.2 | 14.3 | Σ15.8 | Σ15.9 | Σ15.9 | 15.8 | 14.9 | 14.0 | 14.5 | 15.0 | 14.2 | 14.0 |
| 37 ^m 34292.359 | | | | | | | | | | | | | | | | | |
| 1515 Oct 7-8 ¹⁹⁵² | 14.0 | 15.1 | 15.9 | Σ15.8 | 14.2 | 15.8 | 14.9 | Σ15.8 | Σ15.8 | Σ15.8 | 15.7 | 14.2 | 14.2 | 14.6 | 15.0 | 14.0 | 14.0 |
| 60 ^m 34292.303 | | | | | | | | | | | | | | | | | |
| 1537 Nov 7-8 ¹⁹⁵² | 13.7 | 14.7 | Σ15.8 | Σ15.8 | 14.7 | 15.8 | 14.6 | Σ15.8 | Σ15.8 | Σ15.8 | 15.9 | 15.0 | 14.2 | 14.8 | 14.5 | 14.3 | 14.1 |
| 90 ^m 34324.281 | | | | | | | | | | | | | | | | | |
| (no filter) | | | | | | | | | | | | | | | | | |

Red !!

| | | | | | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 77 | 102 | 83 | 631 | 69 | 85 | 8 | 9 | 163 | 196 | 46 | 592 | 41 | 818 | 262 | 371 | 106 | 361 | 1083 | 596 |
| 34 | 1338 | 1334 | 1328 | 1333 | 1335 | 815 | 816 | 1790 | 1818 | 855 | 2052 | 851 | 208 | 2031 | 2060 | 11206 | 2017 | 1083 | 596 |
| 1.0 | 14.8 | 14.2 | 14.1 | 14.0 | 14.1 | 15.8 | 15.2 | 14.3 | 15.8 | 13.9 | 13.4 | 15.8 | 15.8 | 15.7 | 14.0 | 15.8 | 14.8 | — | 15.4 |
| 1.7 | 14.8 | 14.4 | 14.1 | 14.3 | 15.4 | 15.4 | 15.2 | 15.0 | 15.3 | — | — | 15.3 | — | 15.3 | — | — | 14.9 | 15.3 | 15.3 |
| 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 |
| 1.6 | 15.2 | 14.8 | 14.5 | 15.1 | 14.8 | 15.5 | 15.3 | 15.0 | 15.7 | — | — | 15.7 | — | 15.6 | — | — | 15.1 | 15.3 | 15.4 |
| 1.1 | 15.0 | 14.9 | 14.5 | 15.1 | 15.1 | 15.4 | 15.2 | 15.0 | 15.7 | — | — | 15.7 | — | 15.5 | — | — | 15.0 | 15.5 | 15.5 |
| 1.4 | 15.1 | 15.0 | 14.4 | 15.2 | 14.8 | 15.5 | 15.4 | 15.0 | 15.7 | — | — | 15.7 | — | 15.7 | — | — | 15.0 | 15.7 | 15.7 |
| 1.2 | 15.0 | 15.0 | 14.5 | 15.1 | 15.0 | 15.4 | 15.3 | 15.0 | 15.7 | — | — | 15.7 | — | 15.5 | — | — | 14.9 | 15.5 | 15.6 |
| 1.2 | 15.2 | 14.6 | 14.6 | 15.3 | def | def | def | 15.1 | 15.8 | — | — | 15.9 | — | 15.8 | — | 15.8 | 15.0 | 15.8 | 15.8 |
| 1.2 | 15.2 | 14.6 | 14.5 | 15.3 | 15.0 | 15.7 | 15.7 | 14.8 | def | — | — | 15.8 | — | 15.6 | — | 15.8 | 15.0 | 15.8 | 15.5 |
| 1.4 | 15.4 | 14.4 | def | 15.3 | 15.0 | 15.3 | 15.3 | 15.3 | 15.8 | — | — | 15.3 | — | 15.3 | — | 15.3 | 15.0 | 15.3 | 15.3 |
| 1.2 | 15.7 | 15.2 | 14.0 | 14.8 | 14.2 | 15.8 | 15.3 | 15.1 | 15.8 | — | — | 15.8 | — | 15.6 | — | 15.8 | 15.1 | 15.8 | 15.4 |
| 1.9 | 15.9 | 15.5 | 13.8 | 15.0 | 15.8 | 15.9 | 14.6 | 15.4 | 15.8 | — | — | 15.8 | — | 15.7 | — | 15.8 | 15.5 | 15.8 | 15.6 |
| 1.2 | 15.3 | 15.6 | 13.6 | 15.0 | 14.8 | 15.9 | 15.5 | 14.9 | 15.8 | 13.8 | 14.1 | 15.8 | 15.8 | 15.7 | 13.8 | 15.8 | 15.0 | 15.8 | 15.6 |
| 1.0 | 15.4 | 15.3 | 13.4 | 14.4 | 14.4 | 15.9 | 15.4 | 15.2 | 15.8 | 13.7 | 14.0 | 15.8 | 15.8 | 15.4 | 15.8 | 15.8 | 15.2 | 15.8 | 15.6 |
| 1.0 | 15.0 | 15.5 | 13.4 | 15.1 | 14.4 | 15.9 | 15.6 | 15.0 | 15.9 | 14.0 | 14.1 | 15.8 | 15.8 | 15.0 | 13.6 | 15.8 | 15.1 | 15.8 | 15.7 |
| 1.0 | 14.6 | 15.1 | 14.2 | 14.4 | 14.6 | 15.6 | 15.5 | 15.0 | 15.9 | 13.9 | 14.0 | 15.9 | 15.8 | 15.5 | 14.2 | 15.8 | 14.6 | 15.8 | 15.6 |
| 1.1 | 15.6 | 14.6 | 13.9 | 15.0 | 15.1 | 15.6 | 15.5 | 14.0 | 15.8 | 14.0 | 14.1 | 15.9 | 15.8 | 15.8 | 14.8 | 15.8 | 15.6 | 15.8 | 15.5 |

26

| | | |
|------|-------|-------|
| 5.21 | 5.47 | 2.7 |
| 6.4 | 16.19 | 8.36 |
| 1.2 | 15.8 | — |
| 5.3 | Σ15.3 | 15.3 |
| 13.8 | Σ13.8 | Σ13.8 |
| 14.9 | 15.6 | 14.6 |
| 15.0 | 15.7 | 14.9 |
| 15.0 | 15.7 | 14.5 |
| 15.1 | 15.8 | 14.3 |
| 14.8 | 15.8 | 14.7 |
| 14.8 | 15.5 | 14.8 |
| 15.0 | Σ15.3 | 15.1 |
| 15.2 | 15.8 | 15.5 |
| 15.1 | 15.7 | 15.5 |
| 19.0 | 15.8 | 15.2 |
| 14.9 | 15.7 | 14.9 |
| 14.9 | 15.7 | 15.0 |
| 14.9 | 15.9 | 14.9 |
| 15.3 | 15.7 | 15.0 |

6
55
0
3
7
7
7
0
0
1
2
-
5
4

30

| | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| HSL 6 | 100 | 291 | 742 | 60 | 71 | 120 | 748 | 391 | 111 | 288 | 13 | 94 | 401 | 10 | 277 | 70 |
| HV 817 | 1400 | 1425 | 1446 | 827 | 1492 | 1610 | 1513 | 1460 | 1505 | 1426 | 823 | 1351 | 1365 | 818 | 1342 | 133 |
| 40 Aug 12-13 1951 | 14.0 | 15.8 | 15.5 | 17.0 | 14.9 | 16.7 | 14.5 | 16.5 | 16.1 | 17.0 | 15.0 | 15.0 | 14.9 | 15.7 | 15.2 | 14.6 |
| 60m 33871.612 | | | | | | | | | | | | | | | | |
| 420 Sept 11-12 1952 | 13.8 | 15.9 | 16.2 | 16.7 | 14.9 | 16.4 | 14.5 | 16.4 | 16.0 | 16.7 | 15.8 | 15.3 | 15.5 | 15.7 | 15.9 | 14.5 |
| 3m 34267.398 | | | | | | | | | | | | | | | | |
| 421 Sept 11-12 1952 | 13.8 | 16.0 | 16.0 | 16.4 | 14.8 | 16.4 | 14.6 | 16.5 | 16.0 | 16.4 | 15.7 | 15.2 | 15.6 | 16.1 | 15.7 | 14.6 |
| 3m 34267.402 | | | | | | | | | | | | | | | | |
| 422 Sept 11-12 1952 | 14.0 | 16.0 | 16.1 | 14.8 | 15.0 | 16.4 | 14.7 | 16.4 | 15.9 | 16.9 | 15.9 | 15.0 | 15.8 | 16.1 | 15.7 | 14.6 |
| 10m 34267.408 | | | | | | | | | | | | | | | | |
| 423 Sept 11-12 1952 | 14.0 | 15.8 | 16.2 | 17.2 | 14.8 | 16.2 | 14.2 | 16.4 | 15.8 | 16.9 | 16.1 | 14.8 | 15.5 | 15.9 | 15.6 | 14.5 |
| 10m 34267.417 | | | | | | | | | | | | | | | | |
| 466 Sept 26-27 1952 | 14.6 | 16.8 | 16.4 | 16.4 | 15.1 | 15.0 | 15.6 | 16.4 | 16.2 | 16.4 | 16.2 | 14.9 | 16.3 | 16.0 | 14.4 | 14.9 |
| 3m 34282.483 | | | | | | | | | | | | | | | | |
| 467 Sept 26-27 1952 | 14.6 | 16.3 | 16.4 | 16.4 | 15.3 | 14.9 | 15.7 | 16.5 | 16.3 | 16.4 | 16.1 | 15.0 | 15.9 | 16.2 | 14.7 | 14.5 |
| 3m 34282.487 | | | | | | | | | | | | | | | | |
| 468 Sept 26-27 1952 | 14.4 | 15.9 | 16.3 | 17.3 | 15.2 | 15.3 | 15.6 | 16.5 | 16.3 | 16.7 | 16.1 | 14.9 | 16.2 | 15.9 | 14.5 | 14.4 |
| 10m 34282.496 | | | | | | | | | | | | | | | | |
| 469 Sept 26-27 1952 | 14.4 | 16.2 | 16.4 | 17.2 | 15.3 | 15.2 | 15.5 | 16.6 | 16.4 | 16.7 | 15.9 | 14.6 | 15.6 | 15.7 | 14.9 | 14.4 |
| 10m 34282.504 | | | | | | | | | | | | | | | | |
| 524 Oct 13-14 1952 | 14.7 | 15.6 | 15.8 | 17.3 | 15.5 | 16.3 | 15.2 | 16.4 | 15.5 | 16.3 | 15.7 | 14.6 | 15.5 | 14.8 | 16.1 | 14.5 |
| 30m 34299.275 | | | | | | | | | | | | | | | | |
| 525 Oct 13-14 1952 | 14.6 | 15.8 | 15.9 | 17.3 | 15.7 | 16.4 | 15.3 | 16.7 | 15.6 | 16.3 | 15.6 | 14.6 | 15.9 | 14.9 | 15.7 | 14.3 |
| 30m 34299.298 | | | | | | | | | | | | | | | | |
| 527 Oct 14-15 1952 | 15.2 | 15.9 | 16.4 | 17.4 | 15.3 | 16.3 | 15.5 | 16.5 | 16.3 | 16.3 | 15.5 | 14.2 | 15.8 | 15.2 | 15.7 | 14.2 |
| 30m 34300.282 | | | | | | | | | | | | | | | | |
| 528 Oct 14-15 1952 | 15.0 | 15.7 | 16.4 | 17.4 | 15.5 | 16.2 | 15.4 | 16.7 | 16.4 | 16.3 | 15.8 | 14.0 | 15.8 | 15.5 | 15.8 | 14.3 |
| 30m 34300.306 | | | | | | | | | | | | | | | | |
| 529 Oct 14-15 1952 | 15.0 | 15.9 | 16.2 | 17.4 | 15.6 | 16.3 | 15.5 | 16.4 | 16.5 | 16.4 | 15.9 | 13.9 | 15.7 | 15.3 | 16.0 | 14.4 |
| 60m 34300.353 | | | | | | | | | | | | | | | | |

Blue

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

| | | | | | | | | | | | | | | | | | | | |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 277 | 702 | 83 | 631 | 69 | 85 | 8 | 9 | 16.3 | 19.6 | 4.6 | 59.2 | 41 | 818 | 262 | 371 | 106 | 361 | 1083 | 59.6 |
| 342 | 1338 | 1334 | 1328 | 1333 | 1335 | 815 | 816 | 1790 | 1818 | 855 | 2052 | 851 | 2081 | 2031 | 2060 | 11206 | 2017 | 1864 | 1855 |
| 146 | 15.5 | 15.3 | 15.4 | 14.9 | 15.0 | 16.0 | 16.1 | 14.9 | 16.4 | 14.0 | 13.5 | 16.2 | 15.4 | 16.3 | 14.6 | 14.5 | 15.2 | 16.7 | 16.0 |
| 4.5 | 15.5 | 15.3 | 15.2 | 15.6 | 15.7 | 16.3 | 16.0 | 16.2 | 16.4 | 14.9 | 15.5 | 16.4 | 16.3 | 16.4 | 15.9 | 16.4 | 16.2 | 16.4 | 16.3 |
| 4.6 | 15.7 | 15.3 | 15.2 | 15.6 | 16.1 | 16.3 | 16.1 | 16.4 | 16.4 | 15.3 | 15.2 | 16.4 | 16.2 | 16.4 | 16.2 | 16.4 | 16.2 | 16.4 | 16.4 |
| 4.6 | 15.5 | 15.0 | 14.9 | 15.5 | 16.2 | 16.2 | 16.1 | 16.2 | 17.3 | 15.0 | 15.3 | 16.7 | 16.1 | 16.4 | 16.0 | 17.0 | 16.5 | 17.0 | 16.4 |
| 1.5 | 15.3 | 14.9 | 14.8 | 15.7 | 15.9 | 16.0 | 15.8 | 16.2 | 17.3 | 14.7 | 15.0 | 17.0 | 16.0 | 16.5 | 16.0 | 16.5 | 16.5 | 16.7 | 16.4 |
| 4.9 | 16.4 | 15.9 | 15.0 | 15.4 | 16.1 | 16.5 | 16.1 | 15.7 | 16.4 | — | — | 15.9 | — | 16.2 | — | 16.4 | 15.3 | 16.4 | 15.7 |
| 1.5 | 16.3 | 16.2 | 14.9 | 15.3 | 16.2 | 16.4 | 16.2 | 15.7 | 16.4 | — | — | 15.5 | — | 16.5 | — | — | 15.3 | 16.4 | 16.0 |
| 4.4 | 16.2 | 16.3 | 14.7 | 15.0 | 16.1 | 16.7 | 16.1 | 16.0 | 16.7 | — | — | 15.4 | — | 16.5 | — | 16.7 | 15.2 | 16.7 | 16.0 |
| 1.4 | 16.0 | 16.0 | 14.5 | 15.2 | 16.0 | 16.1 | 15.7 | 15.8 | 16.7 | — | — | 15.7 | — | 16.5 | — | 16.6 | 15.5 | 16.8 | 16.1 |
| 4.5 | 16.0 | 15.5 | 14.9 | 15.0 | 15.5 | 16.3 | 15.3 | 15.7 | 17.0 | 14.8 | 14.2 | 16.6 | 15.5 | 16.6 | 15.2 | 16.3 | 15.4 | 16.8 | 16.2 |
| 4.3 | 16.0 | 15.5 | 14.9 | 15.0 | 15.3 | 16.7 | 15.5 | 15.6 | 16.9 | 14.7 | 14.0 | 16.7 | 15.3 | 16.5 | 15.1 | 16.3 | 15.4 | 16.7 | 16.4 |
| 4.2 | 16.0 | 16.2 | 14.9 | 15.0 | 15.2 | 16.4 | 15.8 | 15.6 | 16.0 | 15.0 | 14.2 | 16.8 | 15.6 | 15.8 | 15.0 | 16.3 | 15.6 | 16.7 | 16.2 |
| 4.3 | 16.2 | 15.9 | 15.2 | 15.3 | 15.4 | 16.1 | 15.8 | 16.0 | 17.3 | 14.6 | 14.3 | 16.9 | 15.3 | 15.0 | 15.0 | 16.4 | 15.8 | 16.4 | 16.5 |
| 4.4 | 16.1 | 15.8 | 15.0 | 15.4 | 15.4 | 16.0 | 15.9 | 16.0 | 17.2 | 14.7 | 14.4 | 17.0 | 15.3 | 14.4 | 14.6 | 16.4 | 15.8 | 16.4 | 16.4 |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| | | | | | |
|------|------|------|------|----------|---------|
| 132 | 547 | 27 | 18 | 0.500576 | 2.01334 |
| 16.8 | 16.9 | 17.0 | 17.0 | 316 | 071 |
| 15.5 | 15.2 | 14.6 | 17.0 | 437 | 923 |
| 15.5 | 16.7 | 14.9 | 16.0 | 439 | 931 |
| 15.3 | 16.4 | 15.1 | 16.0 | 442 | 943 |
| 15.5 | 16.7 | 15.0 | 17.2 | 446 | 961 |
| 15.5 | 16.5 | 14.9 | 17.0 | 988 | 294 |
| 15.5 | 16.4 | 16.2 | 16.4 | 990 | 302 |
| 16.0 | 16.0 | 16.4 | 16.7 | 995 | 320 |
| 16.4 | 15.6 | 15.6 | 16.5 | 999 | 337 |
| 16.4 | 15.5 | 15.7 | 16.7 | 394 | 102 |
| 16.2 | 16.4 | 15.5 | 17.2 | 405 | 148 |
| 16.0 | 16.4 | 15.6 | 17.1 | 897 | 130 |
| 15.9 | 15.9 | 15.4 | 16.4 | 910 | 179 |
| 16.3 | 15.6 | 15.5 | 16.4 | 933 | 273 |
| 16.2 | 15.5 | 15.6 | 16.5 | | |

✓ ✓ ✓

Blue & Red Magnitudes in
nebulous regions SMC

May-June 1953 U.K.N.

38

blue red
FDH 64 DADKWO mean FDH 1537 Mean CI

| | | | | | | | | | |
|------|------|------|-------|-------|-------|-------|-------|---|------------|
| 150 | 14.4 | 14.8 | 14.60 | 13.6 | 13.8 | 13.70 | +0.90 | ✓ | |
| 151 | 15.2 | 15.4 | 15.30 | 15.6 | 15.8 | 15.70 | -0.40 | ✓ | |
| 152 | 15.9 | 16.0 | 15.95 | 15.7 | 15.8 | 15.75 | +1.20 | ✓ | |
| 153 | 16.0 | 16.2 | 16.10 | Σ15.8 | Σ15.8 | Σ15.8 | — | ✓ | |
| 154 | 16.5 | 16.6 | 16.55 | Σ15.8 | Σ15.8 | Σ15.8 | — | ✓ | |
| 155 | 13.3 | 13.7 | 13.50 | 13.50 | — | — | — | ✓ | sharp line |
| 155a | 13.3 | 13.7 | 13.50 | 13.50 | — | — | — | ✓ | sharp line |
| 156 | 14.9 | 14.5 | 14.70 | 14.0 | 14.0 | 14.0 | +1.30 | ✓ | sharp line |
| 157 | 15.0 | 14.9 | 14.95 | 14.6 | 15.0 | 14.80 | +1.15 | ✓ | sharp line |
| 157a | 15.9 | 15.7 | 15.80 | 15.7 | 15.6 | 15.65 | +1.15 | ✓ | sharp line |
| 158 | 15.0 | 14.8 | 14.90 | 15.7 | 15.8 | 15.75 | -0.85 | ✓ | sharp line |
| 158a | 12.6 | 12.5 | 12.55 | 12.0 | 12.8 | 12.9 | -3.5 | ✓ | sharp line |
| 159 | 14.0 | 13.6 | 13.80 | 12.8 | 12.8 | 12.80 | +1.00 | ✓ | sharp line |
| 159a | 14.4 | 14.2 | 14.30 | 13.2 | 13.3 | 13.25 | +1.05 | ✓ | sharp line |
| 160 | 14.8 | 15.1 | 14.95 | 15.6 | 15.7 | 15.65 | -0.70 | ✓ | sharp line |
| 160a | 16.0 | 16.2 | 16.1 | 15.5 | 15.7 | 15.6 | +0.50 | ✓ | sharp line |
| 161 | 15.4 | 15.5 | 15.45 | 14.2 | 13.8 | 14.0 | +1.45 | ✓ | sharp line |
| 162 | 15.8 | 16.2 | 16.00 | 15.4 | 15.6 | 15.50 | +0.10 | ✓ | sharp line |
| 163 | 15.7 | 16.0 | 15.85 | 15.0 | 15.0 | 15.00 | +0.85 | ✓ | sharp line |
| 164 | 15.9 | 15.8 | 15.85 | 15.7 | 15.4 | 15.65 | +0.20 | ✓ | sharp line |
| 165 | 15.6 | 15.6 | 15.60 | 14.6 | 14.8 | 14.70 | +0.90 | ✓ | sharp line |
| 166 | 14.8 | 15.0 | 14.90 | 15.5 | 15.8 | 15.65 | -1.75 | ✓ | sharp line |
| 167 | 14.7 | 14.9 | 14.80 | 15.2 | 15.5 | 15.35 | -0.50 | ✓ | sharp line |
| 168 | 16.0 | 16.0 | 16.00 | 15.0 | 15.8 | 15.75 | +0.25 | ✓ | sharp line |
| 169 | 15.9 | 15.7 | 15.80 | Σ15.8 | 15.9 | 15.9 | -0.10 | ✓ | sharp line |
| 169a | 16.5 | 16.3 | 16.40 | Σ15.8 | Σ15.8 | Σ15.8 | — | ✓ | sharp line |
| 170 | 10.0 | 10.0 | 10.0 | 10.3 | 10.3 | 10.30 | -0.30 | ✓ | sharp line |
| 171 | 9.8 | 9.6 | 9.8 | 10.5 | 10.5 | 10.50 | -0.70 | ✓ | sharp line |
| 172 | 15.6 | 16.0 | 15.8 | 15.7 | 15.6 | 15.65 | +0.15 | ✓ | sharp line |

| | 1422 | 1423 | 1468 | 1469 | 1420 | 1421 | 1460 | 1467 | mean |
|-------------|------|------|------|------|------------------|------|------|------|-------|
| 40 | | | | | | | | | |
| stella 122 | 13.6 | 13.6 | 14.0 | 14.0 | | | | | 13.80 |
| fuzzy 123 | 15.2 | 15.1 | 15.4 | 15.3 | in nebula | | | | 15.25 |
| fuzzy 124 | 14.9 | 15.2 | 15.4 | 15.1 | | | | | 15.15 |
| fuzzy 125 | 15.1 | 14.9 | 14.9 | 14.8 | | | | | 14.92 |
| stella 126 | 14.0 | 13.6 | 13.8 | 14.0 | in nebula | | | | 13.85 |
| fuzzy 127 | 14.1 | 13.7 | 13.9 | 14.1 | | | | | 13.95 |
| stella 128 | 15.0 | 15.0 | 15.1 | 15.0 | ✓ | | | | 15.02 |
| stella 129 | 15.0 | 15.0 | 15.1 | 15.0 | stella | | | | 15.03 |
| stella 130 | 15.9 | 15.8 | 16.0 | 16.0 | in nebula | | | | 15.87 |
| fuzzy 130a | 16.5 | 16.6 | 16.5 | 16.5 | in nebula | | | | 16.52 |
| stella 131 | 15.5 | 15.2 | 15.3 | 15.2 | in small cluster | | | | 15.30 |
| fuzzy 131a | 16.5 | 16.4 | 16.5 | 16.5 | | | | | 16.47 |
| stella 132 | 15.4 | 15.2 | — | — | | | | | 15.30 |
| stella 133 | 16.0 | 16.3 | — | — | in nebula | | | | 16.15 |
| stella 133a | 15.2 | 15.0 | — | — | | | | | 15.10 |
| fuzzy 134 | 15.6 | 15.3 | 15.7 | 15.7 | | | | | 15.57 |
| stella 134a | 16.0 | 15.9 | 15.9 | 16.0 | | | | | 15.95 |
| fuzzy 135 | 15.7 | 15.4 | 15.6 | 15.5 | | | | | 15.55 |
| stella 136 | 15.9 | 15.5 | 15.7 | 15.8 | | | | | 15.72 |
| stella 137a | 15.3 | 15.2 | — | — | | | | | 15.25 |
| fuzzy 137 | 16.0 | 15.8 | — | — | | | | | 15.90 |
| fuzzy 138 | 15.3 | 15.5 | — | — | | | | | 15.40 |
| stella 139 | 16.6 | 16.6 | 16.6 | 16.7 | | | | | 16.63 |
| fuzzy 140 | 16.0 | 16.2 | 16.2 | 16.2 | | | | | 16.15 |
| stella 141 | 15.9 | 15.9 | 16.0 | 16.2 | | | | | 16.00 |
| fuzzy 142 | 16.1 | 16.1 | 16.0 | 16.0 | | | | | 16.05 |
| stella 142a | 16.3 | 16.3 | 16.3 | 16.2 | | | | | 16.27 |
| fuzzy 143 | 16.4 | 16.2 | 16.3 | 16.3 | | | | | 16.30 |
| fuzzy 143a | 16.7 | 16.3 | 16.5 | — | | | | | 16.50 |
| stella 144 | 15.0 | 14.7 | 15.0 | 14.9 | | | | | 14.90 |
| fuzzy 145 | 15.6 | 15.2 | 15.3 | 15.5 | | | | | 15.40 |
| stella 145a | 14.0 | 14.0 | 14.0 | 13.8 | | | | | 13.95 |

| | 1508 | 1511 | 1512 | 1513 | 1515 | mean | Σ |
|----|---------------|---------------|---------------|---------------|---------------|---------------|----------|
| 50 | 13.4 | 13.4 | 13.8 | 13.4 | 13.8 | 13.56 | + .24 - |
| 25 | 15.8 | 15.4 | 15.6 | 15.5 | 15.6 | 15.58 | - .33 ✓ |
| 15 | 15.9 | 15.7 | 15.6 | 15.7 | 15.7 | 15.68 | - .53 ✓ |
| 92 | 15.3 | 15.5 | 15.1 | 15.5 | 15.1 | 15.30 | - 0.38 ✓ |
| 85 | 15.0 | 14.6 | 14.6 | 14.6 | 14.6 | 14.68 | - .83 ✓ |
| 15 | 14.0 | 13.7 | 14.0 | 14.0 | 13.9 | 13.92 | + 0.03 ✓ |
| 02 | 15.4 | 15.6 | 15.6 | 15.7 | 15.7 | 15.60 | - .58 ✓ |
| 03 | 15.7 | 15.8 | 15.7 | 15.8 | 15.9 | 15.78 | - .75 ✓ |
| 87 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | - - |
| 52 | 15.9 | 15.9 | 15.9 | 15.9 | 15.8 | 15.88 | + 0.64 ✓ |
| 30 | 14.4 | 15.0 | 14.4 | 14.6 | 14.5 | 14.58 | + 0.72 - |
| 47 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | - - |
| 30 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | blue ✓ |
| 15 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | — | $\Sigma 15.8$ | $\Sigma 15.8$ | - - |
| 10 | 15.9 | 15.8 | 15.9 | — | $\Sigma 15.8$ | $\Sigma 15.8$ | blue ✓ |
| 57 | 15.7 | 15.9 | 16.0 | $\Sigma 15.8$ | 15.9 | $\Sigma 15.8$ | blue ✓ |
| 95 | 15.6 | 15.8 | 15.9 | $\Sigma 15.8$ | 15.9 | 15.76 | + .19 - |
| 55 | 15.4 | 15.5 | 15.5 | 15.6 | 15.5 | 15.50 | + .05 ✓ |
| 72 | 15.0 | 15.4 | 15.1 | 15.4 | 15.4 | 15.26 | + .46 - |
| 25 | 15.3 | 15.6 | 15.4 | — | 15.5 | 15.45 | - 0.20 ✓ |
| 90 | 15.5 | 15.7 | 15.6 | — | 15.6 | 15.60 | + 0.30 ✓ |
| 40 | 15.7 | 15.7 | 15.8 | $\Sigma 15.8$ | 15.9 | 15.76 | - .36 ✓ |
| 63 | 15.4 | 15.6 | 15.7 | 15.7 | 15.7 | 15.62 | + 1.01 ✓ |
| 15 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | - ✓ |
| 00 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | - - |
| 05 | 15.9 | 15.8 | 15.9 | 15.9 | 15.8 | 15.85 | + .20 ✓ |
| 27 | 15.8 | 15.9 | 15.8 | 15.9 | 15.8 | 15.83 | + .44 - |
| 30 | 15.9 | 15.9 | 15.9 | 15.9 | 15.7 | 15.83 | + .47 ✓ |
| 50 | 15.8 | 16.0 | 15.9 | — | $\Sigma 15.8$ | $\Sigma 15.8$ | - ✓ |
| 90 | 15.0 | 14.6 | 15.0 | 15.0 | 14.6 | 14.84 | + 0.6 ✓ |
| 40 | 15.7 | 15.8 | 15.7 | 15.6 | 15.7 | 15.70 | - .30 |
| 95 | 14.1 | 14.0 | 14.3 | 14.4 | 14.3 | 14.22 | - .27 |

42

| | 1422 | 1423 | 1468 | 1469 | 1420 | 1421 | 1466 | 1467 | mean |
|-------------------------------------|------|------|------|------|--------------------------|------|------|------|-------|
| stella 98 | 16.1 | 16.2 | 16.2 | 16.0 | | | | | 16.12 |
| stella 99 | 16.0 | 16.0 | 15.6 | 15.6 | | | | | 15.80 |
| stella 100 | 9.8 | 10.0 | 9.6 | 9.6 | 9.6 | 9.5 | 9.5 | 9.4 | 9.65 |
| of plate shows side of ap; no lines | | | | | | | | | |
| fuzzy 101 | 15.1 | 14.9 | 14.9 | 14.8 | | | | | 14.93 |
| stella 101a | 14.1 | 14.1 | 14.0 | 14.1 | | | | | 14.07 |
| stella 102 | 13.6 | 13.8 | 13.7 | 13.9 | 13.8 | 14.0 | 13.7 | 13.7 | 13.77 |
| fuzzy 103 | 16.2 | 15.9 | 16.0 | 16.0 | | | | | 16.02 |
| stella 103a | 16.2 | 16.0 | 16.0 | 16.0 | | | | | 16.05 |
| fuzzy 104 | 16.1 | 16.0 | — | — | | | | | 16.05 |
| stella 104a | 16.0 | 15.8 | — | — | | | | | 15.90 |
| stella 105 | 14.5 | 14.6 | 14.5 | 14.5 | | | | | 14.53 |
| stella 105a | 16.2 | 16.6 | 16.3 | 16.4 | | | | | 16.38 |
| stella 106 | 16.6 | 16.5 | 16.5 | 16.7 | | | | | 16.57 |
| stella 107 | 15.8 | 15.6 | 15.7 | 15.6 | | | | | 15.68 |
| fuzzy 108 | 16.0 | 16.2 | 16.1 | 16.0 | | | | | 16.07 |
| stella 109 | 16.4 | 16.3 | 16.3 | 16.2 | | | | | 16.32 |
| stella 110 | 16.8 | 16.5 | 16.9 | 16.7 | | | | | 16.73 |
| stella 111 | 15.0 | 15.0 | 15.3 | 15.2 | | | | | 15.12 |
| stella 112 | 16.4 | 16.2 | 16.4 | 16.4 | | | | | 16.35 |
| fuzzy 112a | 16.0 | 15.8 | 16.0 | 15.9 | | | | | 15.93 |
| stella 113 | 12.5 | 12.1 | 12.2 | 12.3 | 12.2 | 12.0 | 12.4 | 12.2 | 12.24 |
| stella 113a | 16.0 | 15.9 | 16.0 | 16.2 | | | | | 16.02 |
| stella 114 | 16.2 | 16.1 | 16.2 | 16.0 | | | | | 16.13 |
| fuzzy 115 | 16.3 | 16.2 | 16.4 | 16.2 | in array of multiplicity | | | | 16.28 |
| fuzzy 115a | 16.9 | 16.7 | 17.0 | 16.8 | | | | | 16.85 |
| fuzzy 116 | 16.3 | 16.2 | 16.3 | 16.4 | | | | | 16.30 |
| fuzzy 116a | 16.0 | 16.0 | 15.9 | 15.9 | | | | | 15.95 |
| fuzzy 117 | 16.5 | 16.3 | 16.5 | 16.7 | | | | | 16.5 |
| fuzzy 118 | 16.5 | 16.3 | 16.5 | 16.7 | | | | | 16.50 |
| stella 119 | 13.4 | 13.3 | 13.2 | 13.1 | | | | | 13.25 |
| stella 120 | 16.0 | 16.2 | 16.2 | 16.0 | | | | | 16.10 |
| fuzzy 121 | 13.7 | 13.6 | 13.6 | 13.6 | | | | | 13.78 |

1953phae.proj. 2458N

| | 1508 | 1511 | 1512 | 1513 | 1515 | mean | red C.I. |
|----|-------|-------|-------|-------|-------|-------|-------------|
| 12 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 80 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | blue |
| 65 | 10.3 | 10.3 | 10.7 | 10.4 | 10.3 | 10.40 | -0.75 |
| 93 | 15.7 | 15.7 | 15.5 | 15.8 | 15.6 | 15.66 | -0.73 ✓ |
| 07 | 14.0 | 13.6 | 13.8 | 13.8 | 13.9 | 13.82 | +2.5 |
| 77 | 13.8 | 14.2 | 14.0 | 14.2 | 14.2 | 14.08 | -0.31 ✓ |
| 02 | Σ15.8 | Σ15.8 | Σ15.7 | Σ15.7 | Σ15.7 | Σ15.8 | — ✓ |
| 05 | 15.0 | 15.1 | 15.4 | 15.3 | 15.0 | 15.16 | +8.9 |
| 05 | Σ15.8 | Σ15.8 | Σ15.8 | — | Σ15.8 | Σ15.8 | — ✓ |
| 90 | 15.7 | 15.91 | 15.8; | — | 15.6 | 15.72 | +1.8 ✓ |
| 53 | 15.8 | 15.6 | 15.5 | 15.5 | 15.5 | 15.58 | -1.05 ✓ |
| 38 | 15.91 | 15.8 | 15.91 | 15.7; | 15.5 | 15.73 | +6.5 |
| 57 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 68 | 15.5 | 15.21 | 15.5; | 15.5 | 15.3 | 15.41 | +2.7 |
| 07 | 15.91 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 32 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 73 | Σ15.8 | Σ15.8 | Σ15.8 | 15.91 | 15.8; | Σ15.8 | — |
| 12 | 14.4 | 14.2 | 14.4 | 14.4 | 14.0 | 14.28 | +0.74 |
| 35 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 93 | 15.3 | 15.3 | 15.6 | 15.4 | 15.6 | 15.44 | +4.9 ✓ |
| 24 | 13.9 | 13.6 | 14.0 | 14.0 | 14.0 | 13.90 | -1.66 ✓ |
| 02 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 13 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 28 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 85 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 30 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 95 | 15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 15 | 15.81 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 50 | 15.81 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 25 | 12.8 | 12.8 | 12.8 | 12.4 | 12.4 | 12.64 | +6.1 |
| 10 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — |
| 78 | 12.6 | 13.0 | 13.0 | 12.8 | 12.8 | 12.88 | +4.0 |

of compact about F (H5) ^{multiplied by current period}

| | 144 | 1422 | 1423 | 1468 | 1469 | 1420 | 1421 | 1466 | 1467 | mean |
|-------------|------|------|------|------|------------------------------------|------|------|------|------|-------|
| stiller 74 | 15.0 | 14.9 | 14.9 | 15.0 | } in irregularity | | | | | 14.95 |
| stiller 75 | 15.2 | 15.0 | 15.0 | 15.2 | | | | | | 15.10 |
| stiller 75a | 12.9 | 12.8 | 12.9 | 12.9 | | | | | | 12.87 |
| stiller 76 | 15.3 | 15.3 | 15.3 | 15.3 | | | | | | 15.30 |
| stiller 76a | 12.7 | 12.7 | 12.7 | 12.7 | } sp a round blue | | | | | 12.63 |
| stiller 77 | 13.3 | 13.7 | 13.3 | 13.3 | | | | | | 13.41 |
| stiller 77a | 11.0 | 11.1 | 11.2 | 11.0 | | | | | | 11.02 |
| stiller 78 | 14.7 | 14.8 | 14.9 | 14.8 | | | | | | 14.80 |
| stiller 79 | 15.2 | 15.3 | 15.2 | 15.3 | } sp round fuzzy blue | | | | | 15.25 |
| stiller 79a | 15.8 | 15.7 | 15.6 | 15.9 | | | | | | 15.75 |
| stiller 80 | 14.5 | 14.4 | 14.7 | 14.8 | | | | | | 14.60 |
| stiller 81 | 14.8 | 14.6 | 14.7 | 14.9 | | | | | | 14.75 |
| stiller 81a | 15.2 | 15.1 | 15.1 | 15.2 | } sp round fuzzy blue | | | | | 15.15 |
| stiller 82 | 14.8 | 14.8 | 14.6 | 14.5 | | | | | | 14.67 |
| stiller 82a | 14.7 | 14.7 | 14.8 | 14.6 | | | | | | 14.70 |
| stiller 83 | 15.3 | 15.3 | 15.5 | 15.6 | | | | | | 15.42 |
| stiller 84 | 13.0 | 13.0 | 13.2 | 13.0 | } sp round fuzzy blue | | | | | 13.06 |
| stiller 85 | 15.9 | 15.5 | 15.8 | 15.9 | | | | | | 15.78 |
| stiller 86 | 15.0 | 14.9 | 14.8 | 14.6 | | | | | | 14.83 |
| stiller 87 | 16.0 | 16.0 | 16.0 | 16.2 | | | | | | 16.05 |
| stiller 88 | 10.2 | 10.0 | — | — | } sp round fuzzy blue | | | | | 10.35 |
| stiller 89a | 10.4 | 10.2 | — | — | | | | | | 10.30 |
| stiller 89 | 10.6 | 10.5 | 10.6 | 10.6 | | | | | | 10.72 |
| stiller 90 | 10.6 | 10.7 | 10.8 | 10.8 | | | | | | 10.94 |
| stiller 91 | 10.3 | 10.2 | 10.0 | 10.0 | } sp round fuzzy blue | | | | | 10.26 |
| stiller 91a | 12.5 | 12.5 | 12.6 | 12.6 | | | | | | 12.77 |
| stiller 92 | 10.4 | 10.4 | 10.2 | 10.2 | | | | | | 10.45 |
| stiller 93 | 17.0 | 17.0 | 16.8 | 17.0 | | | | | | 16.95 |
| stiller 93a | 16.2 | 16.3 | 16.4 | 16.6 | } point round blue in irregularity | | | | | 16.38 |
| stiller 94 | 15.2 | 14.9 | 15.0 | 15.0 | | | | | | 15.03 |
| stiller 94a | 15.1 | 14.7 | 14.8 | 14.8 | | | | | | 14.85 |
| stiller 95 | 15.0 | 14.8 | 15.2 | 15.2 | | | | | | 15.05 |
| stiller 96 | 15.2 | 15.1 | 15.3 | 15.5 | | | | | | 15.27 |
| stiller 97 | 15.4 | 15.8 | 15.8 | 15.7 | | | | | | 15.68 |
| stiller 98 | 15.1 | 15.5 | 15.5 | 15.3 | | | | | | 15.35 |

| | 1508 | 1511 | 1512 | 1513 | 1515 | mean Red CI | |
|-----|------|------|------|------|------|----------------|---------|
| 195 | 15.8 | 15.9 | 15.8 | 15.9 | 15.9 | 15.84 | -.89 ✓ |
| 112 | 15.8 | 15.7 | 15.8 | 15.7 | 15.8 | 15.76 | -.66 ✓ |
| 87 | 14.2 | 13.8 | 14.2 | 14.0 | 14.0 | 14.04 | -1.17 ✓ |
| 130 | 14.0 | 14.0 | 14.4 | 14.0 | 14.0 | 14.08 | +1.22 ✓ |
| 263 | 12.8 | 12.5 | 12.8 | 12.8 | 12.8 | 12.74 | -0.11 ✓ |
| 341 | 13.5 | 13.5 | 13.1 | 13.1 | 13.5 | 13.34 | +.06 ✓ |
| 02 | 11.1 | 11.1 | 11.5 | 11.5 | 11.1 | 11.26 | -.24 ✓ |
| 80 | 15.8 | 15.7 | 15.4 | 15.4 | 15.4 | 15.54 | -0.74 ✓ |
| 25 | 15.8 | 15.7 | 15.5 | 15.5 | 15.5 | 15.58 | -.33 ✓ |
| 75 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | — ✓ |
| 60 | 15.2 | 15.0 | 15.0 | 15.3 | 15.0 | 15.10 | -.50 ✓ |
| 75 | 15.7 | 15.7 | 15.7 | 15.5 | 15.6 | 15.64 | -.89 ✓ |
| 15 | 15.0 | 15.0 | 15.0 | 14.6 | 14.6 | 14.84 | +.31 ✓ |
| 67 | 15.5 | 15.6 | 15.7 | 15.3 | 15.3 | 15.48 | -.81 ✓ |
| 70 | 15.6 | 15.9 | 15.8 | 15.5 | 15.5 | 15.63 | -.93 ✓ |
| 42 | 14.4 | 14.8 | 14.4 | 14.4 | 14.4 | 14.48 | +.94 ✓ |
| 3.8 | 13.5 | 13.8 | 13.6 | 13.8 | 14.0 | 13.74 | -.70 ✓ |
| 78 | 15.7 | 15.8 | 15.8 | 15.8 | 15.7 | 15.76 | +0.02 ✓ |
| 83 | 15.6 | 15.6 | 15.7 | 15.8 | 15.7 | 15.68 | -.85 ✓ |
| 05 | 15.2 | 14.6 | 15.0 | 15.0 | 15.2 | 15.04 | +1.01 ✓ |
| 35 | 10.5 | 10.9 | 10.5 | 10.5 | 10.5 | 10.58 | -.25 ✓ |
| 30 | — | 11.6 | 11.2 | 11.2 | 11.2 | 11.30 | -1.00 ✓ |
| 72 | 10.7 | 10.9 | 10.8 | 10.1 | 11.1 | 10.92 | -.20 ✓ |
| 94 | 10.9 | 10.9 | 11.3 | 11.3 | 11.3 | 11.18 | -.24 ✓ |
| 26 | 10.7 | 10.8 | 11.1 | 10.9 | 10.9 | 10.88 | -0.62 ✓ |
| 77 | 13.6 | 13.9 | 13.5 | 13.9 | 13.9 | 13.76 | -.99 ✓ |
| 45 | 10.7 | 10.8 | 11.1 | 10.9 | 10.9 | 10.88 | -.43 ✓ |
| 75 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | — — |
| 38 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | — — |
| 03 | 15.8 | 15.6 | 15.6 | 15.6 | 15.7 | 15.70 | -.57 ✓ |
| 85 | 15.3 | 15.6 | 15.3 | 15.4 | 15.5 | 15.42 | -.57 ✓ |
| 05 | 14.0 | 13.7 | 13.8 | 14.0 | 13.9 | 13.88 | +1.17 ✓ |
| 27 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | — ✓ |
| 68 | 15.8 | 15.8 | 15.8 | 15.7 | 15.7 | 15.72 | -.04 ✓ |
| 35 | 15.9 | 15.8 | 15.8 | 15.9 | 15.8 | 15.82 | -0.50 ✓ |

46

| | 1422 | 1423 | 1468 | 1464 | 1470 | 1421 | 1466 | 1467 | mean |
|-----------------------|------|------|------|------|------|------|------|------|-------|
| light line 50 | 13.5 | 13.3 | 13.6 | 13.4 | 13.3 | 13.6 | 13.6 | 13.5 | 13.47 |
| light line 51 | 15.8 | 15.8 | 16.1 | 16.2 | | | | | 15.98 |
| light line 52 | 16.0 | 16.2 | 16.2 | 16.2 | | | | | 16.15 |
| stellar 53 | 14.8 | 14.6 | 14.9 | 15.0 | | | | | 14.83 |
| stellar 53a | 14.9 | 14.8 | 14.9 | 15.0 | | | | | 14.90 |
| stellar 54 | 15.2 | 15.2 | 15.3 | 15.3 | | | | | 15.25 |
| stellar 54a | 13.3 | 13.3 | 13.3 | 13.2 | 13.4 | 13.5 | 13.5 | 13.6 | 13.39 |
| stellar 55 | 13.5 | 13.5 | 13.3 | 13.3 | 13.5 | 13.7 | 13.7 | 13.5 | 13.50 |
| stellar 56 | 15.0 | 14.8 | 15.2 | 15.2 | | | | | 15.05 |
| stellar 57 | 15.5 | 15.9 | 15.8 | 15.7 | | | | | 15.72 |
| Hopkins light line 58 | 14.4 | 14.2 | 14.3 | 14.4 | | | | | 14.33 |
| stellar 58a | 14.7 | 14.5 | 14.4 | 14.7 | | | | | 14.58 |
| stellar 59 | 15.1 | 14.7 | 15.1 | 14.7 | | | | | 14.90 |
| light line 59a | 15.9 | 15.9 | 16.0 | 16.0 | | | | | 15.95 |
| stellar 60 | 15.2 | 15.0 | 15.2 | 15.0 | | | | | 15.10 |
| light line 60a | 14.5 | 14.5 | 14.1 | 14.1 | | | | | 14.30 |
| light line 61 | 15.7 | 15.3 | 15.7 | 15.7 | | | | | 15.60 |
| light line 61a | 15.3 | 15.0 | 15.3 | 15.2 | | | | | 15.20 |
| stellar 62 | 14.3 | 14.5 | 14.7 | 14.3 | | | | | 14.45 |
| stellar 62a | 15.0 | 15.3 | 15.1 | 15.0 | | | | | 15.10 |
| light line 63 | 15.2 | 15.0 | 15.1 | 15.2 | | | | | 15.12 |
| stellar 64 | 15.0 | 14.8 | 14.9 | 15.0 | | | | | 14.93 |
| stellar 65 | 15.8 | 15.7 | 15.8 | 15.9 | | | | | 15.80 |
| stellar 66 | 14.8 | 14.7 | 15.0 | 15.1 | | | | | 14.90 |
| light line 67 | 11.1 | 11.2 | — | — | 11.4 | 11.4 | — | — | 11.37 |
| light line 68 | 13.8 | 13.8 | 13.8 | 14.0 | 13.5 | 13.5 | 13.5 | 13.8 | 13.71 |
| light line 69 | 14.9 | 14.8 | 14.9 | 15.1 | | | | | 14.92 |
| light line 69a | 15.9 | 15.8 | 15.7 | 16.0 | | | | | 15.85 |
| light line 70 | 14.5 | 14.5 | 14.5 | 14.5 | | | | | 14.50 |
| stellar 71 | 15.2 | 15.0 | 15.4 | 15.4 | | | | | 15.25 |
| stellar 72 | 14.7 | 14.8 | 15.0 | 14.7 | | | | | 14.80 |
| light line 72a | 16.2 | 16.1 | 16.0 | 16.1 | | | | | 16.10 |
| stellar 73 | 15.0 | 15.0 | 15.3 | 15.1 | | | | | 15.15 |

| | Red | | | | Red | | |
|----|-------|------|-------|-------|-------|-------|---------|
| | 1508 | 1511 | 1512 | 1513 | 1515 | mean | CI |
| 47 | 10.5 | 10.1 | 10.5 | 10.5 | 10.5 | 10.42 | +3.05 |
| 98 | 15.7 | 15.8 | 15.8 | 15.7 | 15.8 | 15.76 | +2.2 ✓ |
| 15 | 15.7 | 15.7 | 15.8 | 15.7 | 15.6 | 15.70 | +4.5 ✓ |
| 83 | 15.8 | 15.7 | 15.7 | 15.7 | 15.6 | 15.70 | -.87 ✓ |
| 90 | 15.9 | 15.8 | 15.8 | 15.8 | 15.7 | 15.80 | -.90 ✓ |
| 25 | 15.9 | 15.9 | 15.9 | 15.9 | Σ15.8 | Σ15.8 | blue ✓ |
| 39 | 14.3 | 14.2 | 14.2 | 14.0 | 14.0 | 14.14 | -.75 ✓ |
| 50 | 13.9 | 13.7 | 14.0 | 13.9 | 14.1 | 13.92 | -.42 ✓ |
| 05 | 15.9 | 16.0 | 15.9 | 15.9 | 15.9 | 15.92 | -.87 ✓ |
| 72 | 15.4 | 15.7 | 15.7 | 15.3 | 15.3 | 15.52 | +2.0 ✓ |
| 33 | 14.0 | 13.4 | 14.0 | 14.0 | 13.9 | 13.90 | +4.3 ✓ |
| 58 | 15.0 | 14.7 | 15.1 | 15.0 | 15.3 | 15.06 | -.48 ✓ |
| 90 | 14.4 | 14.8 | 14.8 | 14.4 | 14.4 | 14.56 | +3.4 ✓ |
| 95 | 15.9 | 16.0 | 15.9 | 15.8 | 15.9 | 15.88 | +0.7 ✓ |
| 10 | 14.9 | 14.7 | 14.7 | 14.7 | 14.7 | 14.74 | +3.6 ✓ |
| 30 | 14.3 | 14.7 | 14.7 | 14.3 | 14.3 | 14.40 | -0.10 ✓ |
| 60 | 15.9 | 15.8 | 15.7 | 15.8 | 15.8 | 15.79 | -0.19 ✓ |
| 20 | 15.7 | 15.5 | 15.9 | 15.7 | 15.8 | 15.66 | -.46 ✓ |
| 45 | 15.1 | 15.2 | 15.2 | 15.5 | 15.2 | 15.24 | -.79 ✓ |
| 10 | 15.4 | 15.3 | 15.7 | 15.6 | 15.4 | 15.46 | -.36 ✓ |
| 12 | 13.6 | 14.0 | 13.6 | 14.0 | 13.9 | 13.82 | +1.30 ✓ |
| 93 | 15.2 | 14.8 | 15.0 | 15.0 | 15.0 | 15.00 | -.07 ✓ |
| 80 | 15.9 | 16.0 | 15.9 | 16.0 | Σ15.8 | 15.95 | -.15 ✓ |
| 90 | 15.7 | 15.7 | 15.7 | 15.7 | 15.7 | 15.70 | -.80 ✓ |
| 37 | — | 10.0 | 10.0 | 10.0 | 10.0 | 10.00 | +1.35 ✓ |
| 11 | 14.4 | 14.8 | 14.6 | 14.8 | 14.5 | 14.62 | -.91 ✓ |
| 92 | 15.6 | 15.7 | 15.3 | 15.7 | 15.7 | 15.60 | -.68 ✓ |
| 85 | Σ15.8 | 16.0 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | — ✓ |
| 50 | 14.2 | 14.5 | 14.5 | 14.3 | 14.3 | 14.38 | +1.2 ✓ |
| 25 | 15.9 | 16.0 | 15.9 | 16.0 | 15.9 | 15.94 | -.69 ✓ |
| 80 | 15.3 | 15.7 | 15.6 | 15.7 | 15.7 | 15.60 | -.80 ✓ |
| 10 | 14.5 | 14.8 | 14.9 | 14.5 | 14.5 | 14.64 | +1.46 ✓ |
| 15 | 15.8 | 15.8 | 15.9 | 15.8 | 15.8 | 15.81 | -.66 ✓ |

omitted late M up

48

Blue

mean

| | 1422 | 1423 | 1468 | 1469 | 1420 | 1421 | 1466 | 1467 | mean |
|----------------|------|------|------|------|--|------|------|------|-------|
| stellar 25 | 14.9 | 14.9 | 14.9 | 14.8 | in submerity sp a round of blue image sp light sharp line on edge submerity | | | | 14.88 |
| stellar 35a | 14.9 | 14.9 | 14.9 | 14.9 | | | | | 14.90 |
| stellar 26 | 14.5 | 14.5 | 14.5 | 14.3 | | | | | 14.45 |
| stellar 26a | 14.8 | 14.7 | 14.7 | 14.4 | | | | | 14.65 |
| stellar 27 | 13.7 | 13.9 | 13.8 | 13.9 | 13.7 | 14.0 | 13.8 | 13.7 | 13.81 |
| light line 27a | 14.9 | 14.7 | 14.8 | 14.9 | | | | | 14.8 |
| double 28 | 14.9 | 14.8 | 15.0 | 14.8 | | | | | 14.88 |
| stellar 29 | 16.0 | 15.9 | 15.9 | 16.0 | | | | | 15.95 |
| light line 30 | 13.3 | 13.3 | 13.2 | 13.3 | 13.1 | 13.0 | 13.1 | 12.9 | 13.15 |
| stellar 31 | 15.3 | 15.3 | 15.2 | 15.2 | | | | | 15.25 |
| fuzzy 32 | 15.2 | 15.0 | 14.8 | 14.8 | | | | | 14.95 |
| stellar 33 | 14.6 | 14.8 | 14.6 | 14.6 | | | | | 14.65 |
| fuzzy 34 | 15.0 | 15.1 | 15.0 | 14.9 | | | | | 15.00 |
| fuzzy 35 | 15.6 | 15.4 | 15.8 | 15.9 | | | | | 15.67 |
| double 36 | 15.2 | 15.2 | 15.3 | 15.3 | | | | | 15.25 |
| stellar 37 | 13.9 | 13.8 | 14.0 | 14.1 | | | | | 13.95 |
| stellar 37a | 14.4 | 14.5 | 14.7 | 14.9 | | | | | 14.62 |
| stellar 38 | 14.9 | 15.1 | 15.0 | 15.1 | | | | | 15.03 |
| light line 38a | 12.2 | 12.1 | 12.2 | 12.2 | 12.3 | 12.0 | 12.3 | 12.4 | 12.21 |
| double 39 | 15.2 | 15.0 | 14.8 | 15.2 | | | | | 15.05 |
| light line 39a | 14.5 | 14.2 | 14.3 | 14.5 | | | | | 14.37 |
| stellar 40 | 16.1 | 16.2 | 16.2 | 16.2 | | | | | 16.17 |
| stellar 41 | 15.2 | 15.2 | 15.3 | 15.3 | | | | | 15.25 |
| stellar 41a | 13.4 | 13.5 | 13.1 | 13.5 | 13.4 | 13.2 | 13.2 | 13.4 | 13.34 |
| light line 42 | 14.5 | 14.2 | 14.5 | 14.4 | | | | | 14.40 |
| stellar 42a | 14.2 | 14.0 | 14.1 | 14.2 | | | | | 14.12 |
| stellar 43 | 15.0 | 15.9 | 15.8 | 15.8 | | | | | 15.88 |
| light line 43a | 15.5 | 15.2 | 15.3 | 15.2 | | | | | 15.30 |
| stellar 44 | 15.9 | 16.0 | 16.0 | 16.0 | | | | | 15.97 |
| stellar 45 | 14.1 | 14.0 | 14.0 | 14.4 | | | | | 14.13 |
| fuzzy 46 | 13.3 | 13.3 | 13.5 | 13.4 | 13.7 | 13.8 | 13.8 | 13.8 | 13.58 |
| fuzzy 47 | 14.9 | 14.6 | 15.0 | 14.9 | | | | | 14.85 |
| stellar 48 | 14.5 | 14.2 | 14.6 | 14.6 | | | | | 14.48 |
| light line 48a | 10.8 | 10.4 | 10.5 | 10.6 | 10.8 | 10.7 | 10.5 | 10.8 | 10.84 |
| stellar 49 | 13.9 | 13.8 | 13.8 | 13.7 | 13.9 | 13.8 | 13.6 | 13.7 | 13.84 |

| | | | | | mean | std CI | |
|-------|-------|-------|-------|-------|-------|--------------|---|
| 15 08 | 15 11 | 15 12 | 15 13 | 15 15 | | | |
| 1.8 | 15.5 | 15.7 | 15.4 | 15.7 | 15.4 | 15.54 - .66 | ✓ |
| 1.9 | 14.8 | 14.8 | 14.8 | 14.6 | 14.8 | 14.76 + .14 | — |
| 4.5 | 14.6 | 14.5 | 14.3 | 14.6 | 14.4 | 14.48 - .03 | |
| 1.6 | 15.3 | 14.9 | 14.9 | 14.8 | 14.9 | 14.90 - .31 | |
| 3.8 | 14.6 | 14.3 | 14.2 | 14.6 | 14.4 | 14.46 - .65 | ✓ |
| 4.8 | 13.6 | 13.5 | 13.5 | 13.2 | 13.6 | 13.42 + 1.41 | ✓ |
| 4.8 | 14.0 | 13.8 | 13.6 | 13.6 | 14.0 | 13.80 + 1.08 | — |
| 9.5 | Σ15.8 | Σ15.8 | Σ15.8 | Σ15.8 | 15.9 | Σ15.8 | — |
| 3.15 | 11.6 | 11.7 | 11.8 | 11.6 | 11.6 | 11.66 + 1.49 | ✓ |
| 5.25 | 15.3 | 15.7 | 15.7 | 15.9 | 15.8 | 15.65 - .40 | ✓ |
| 1.95 | 14.0 | 14.4 | 14.4 | 14.4 | 14.2 | 14.28 + .67 | ✓ |
| 1.65 | 14.0 | 14.4 | 14.4 | 14.4 | 14.4 | 14.32 + .33 | — |
| 5.0 | 15.0 | 15.0 | 14.6 | 14.8 | 15.0 | 14.88 + .12 | ✓ |
| 5.6 | 15.7 | 15.7 | 15.3 | 15.3 | 15.4 | 15.48 + .19 | ✓ |
| 5.25 | 15.3 | 15.5 | 15.5 | 15.7 | 15.7 | 15.54 - .29 | ✓ |
| 3.95 | 14.0 | 14.4 | 14.3 | 14.4 | 14.4 | 14.30 - .35 | ✓ |
| 2.62 | 14.6 | 14.4 | 14.7 | 14.5 | 14.5 | 14.54 + .08 | — |
| 7.03 | Σ15.8 | Σ15.8 | 15.9 | 15.9 | Σ15.8 | Σ15.8 blue | ✓ |
| 1.21 | 11.4 | 11.4 | 11.0 | 11.0 | 11.0 | 11.16 + 1.05 | — |
| 1.05 | 15.7 | 15.7 | 15.7 | 15.8 | 15.6 | 15.69 - .64 | ✓ |
| 1.37 | 13.5 | 13.3 | 13.4 | 13.3 | 13.3 | 13.36 + .99 | ✓ |
| 2.17 | 15.8 | 15.7 | 15.7 | 15.6 | 15.7 | 15.69 + .48 | — |
| 25 | 15.7 | 15.8 | 15.8 | 15.6 | 15.7 | 15.72 - .47 | ✓ |
| 34 | 13.4 | 13.4 | 13.6 | 13.7 | 13.6 | 13.54 - .20 | ✓ |
| 40 | 13.0 | 13.4 | 13.4 | 13.2 | 13.4 | 13.28 + 1.12 | ✓ |
| 1.2 | 14.0 | 14.0 | 14.0 | 13.6 | 13.6 | 13.84 + .28 | — |
| 1.88 | 15.5 | 15.8 | 15.9 | 15.9 | 15.8 | 15.74 + .14 | — |
| 1.30 | 14.9 | 14.8 | 14.5 | 14.7 | 14.4 | 14.66 + .64 | ✓ |
| 9.7 | 15.7 | 15.8 | 15.8 | 15.7 | 15.7 | 15.74 + .23 | — |
| 13 | 15.7 | 15.7 | 15.7 | 15.7 | 15.5 | 15.66 - 1.53 | ✓ |
| 5.8 | 13.5 | 13.9 | 13.5 | 13.7 | 13.8 | 13.68 - .10 | ✓ |
| 8.5 | 14.3 | 14.4 | 14.6 | 14.3 | 14.4 | 14.40 + .45 | ✓ |
| 4.8 | 14.7 | 14.5 | 15.0 | 15.0 | 14.8 | 14.80 - .32 | ✓ |
| 8.4 | 10.3 | 10.5 | 10.7 | 10.8 | 10.9 | 10.68 - .04 | ✓ |
| 8.4 | 13.0 | 13.6 | 14.0 | 14.8 | 14.0 | 13.80 + .04 | ✓ |

50

B line

| No | 1422 | 1423 | 1468 | 1469 | 1420 | 1421 | 1466 | 1467 | Mean |
|------------------------------------|------|------|------|------|------|------|------|------|-------|
| N 220 | | | | | | | | | |
| stellar 1 ✓ | 15.8 | 15.8 | 15.9 | 16.0 | | | | | 15.87 |
| N 222 | | | | | | | | | |
| stellar 2 ✓ | 16.2 | 16.1 | 16.2 | 16.0 | | | | | 16.13 |
| stellar 3 ✓ | 16.0 | 15.9 | 16.1 | 16.1 | | | | | 16.02 |
| N 231 | | | | | | | | | |
| stellar 4 ✓ | 15.7 | 15.6 | 16.0 | 15.6 | | | | | 15.73 |
| No or bright lines fuzzy 5 ✓ | 13.4 | 13.2 | 13.3 | 13.2 | 13.5 | 13.8 | 13.7 | 13.5 | 13.45 |
| N 249 | | | | | | | | | |
| stellar 6 ✓ | 15.6 | 15.0 | 15.0 | 15.2 | | | | | 15.20 |
| stellar 7 ✓ | 16.3 | 16.2 | 16.3 | 16.3 | | | | | 16.27 |
| stellar 8 ✓ | 15.0 | 14.8 | 14.8 | 14.8 | | | | | 14.85 |
| double 9 ✓ | 15.3 | 15.2 | 15.3 | 15.2 | | | | | 15.25 |
| N 261 | | | | | | | | | |
| double 10 | 15.0 | 15.0 | 15.2 | 15.1 | | | | | 15.08 |
| double 11 | 14.8 | 14.9 | 14.9 | 15.0 | | | | | 14.90 |
| stellar 12 | 15.1 | 15.0 | 15.3 | 15.1 | | | | | 15.13 |
| N 241 | | | | | | | | | |
| double 13 | 14.9 | 14.9 | 15.0 | 14.9 | | | | | 14.92 |
| N 242 | | | | | | | | | |
| bright lines fuzzy 14 | 13.6 | 13.8 | 13.4 | 13.4 | 13.4 | 13.6 | 13.6 | 13.7 | 13.59 |
| N 248 | | | | | | | | | |
| double 15 | 15.0 | 15.0 | 15.0 | 15.0 | | | | | 15.00 |
| double 16 | 15.3 | 15.3 | 15.4 | 15.4 | | | | | 15.35 |
| double 17 | 14.8 | 14.6 | 14.7 | 14.7 | | | | | 14.70 |
| stellar 18 | 15.5 | 15.3 | 15.3 | 15.3 | | | | | 15.35 |
| bright lines fuzzy 19 | 14.0 | 14.0 | 14.1 | 14.0 | | | | | 14.03 |
| double 20 | 13.8 | 13.5 | 13.6 | 13.8 | 14.0 | 14.1 | 14.0 | 14.1 | 13.89 |
| double 21 | 15.0 | 14.6 | 15.1 | 14.9 | | | | | 14.90 |
| double 22 | 14.6 | 14.5 | 14.5 | 14.6 | | | | | 14.95 |
| double 23 | 15.0 | 14.9 | 15.0 | 15.1 | | | | | 14.55 |
| double 24 | 15.6 | 15.5 | 15.5 | 15.3 | | | | | 15.00 |
| double 25 | 15.4 | 15.3 | 15.3 | 15.1 | | | | | 15.47 |
| double 26 | 15.4 | 15.3 | 15.3 | 15.1 | | | | | 15.27 |

| | | | Red | | mean | σ | |
|----|---------------|---------------|---------------|---------------|---------------|---------------|---------|
| | 1511 | 1506 | 1512 | 1513 | 1515 | | |
| 87 | $\Sigma 15.8$ | 15.9; | $\Sigma 15.8$ | $\Sigma 15.8$ | 16.0; | $\Sigma 15.8$ | — |
| 13 | 15.8 | 15.9; | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | — |
| 02 | $\Sigma 15.8$ | 15.9; | $\Sigma 15.8$ | 15.9 | 15.9 | $\Sigma 15.8$ | — |
| 73 | $\Sigma 15.8$ | 16.0; | 15.8 | 15.9; | 15.9; | $\Sigma 15.8$ | blue ✓ |
| 45 | 12.6 | 13.0 | 13.0 | 13.0 | 12.6 | 12.84 | +0.61 ✓ |
| 20 | 15.8 | 15.8 | 15.7 | 15.9; | 16.0; | 15.81 | -0.61 ✓ |
| 7 | $\Sigma 15.8$ | $\Sigma 15.8$ | 15.8; | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | — |
| 85 | 15.8 | 15.6 | 15.7 | 15.6 | 15.5 | 15.64 | -0.79 ✓ |
| 25 | 15.9; | 15.8 | 15.8 | 16.0; | 15.9; | 15.85 | -0.60 ✓ |
| 08 | 15.8 | 15.8 | 15.9; | 16.0; | 15.7 | 15.81 | -0.73 ✓ |
| 90 | 15.7 | 15.6 | 15.4 | 15.8 | 15.7 | 15.68 | -0.78 ✓ |
| 3 | 15.8 | 15.9; | 15.9; | 15.7 | 15.7 | 15.78 | -0.65 ✓ |
| 72 | 15.8 | 15.0 | 15.0 | 15.2 | 14.8 | 15.00 | -0.08 ✓ |
| 9 | 12.6 | 13.0 | 12.6 | 12.7 | 12.8 | 12.74 | +0.85 ✓ |
| 10 | 15.9; | 15.7 | 15.7 | 15.8 | 15.8 | 15.77 | -0.77 ✓ |
| 35 | $\Sigma 15.9$ | 15.9 | $\Sigma 15.8$ | 15.9; | $\Sigma 15.8$ | $\Sigma 15.8$ | blue ✓ |
| 70 | 15.7 | 15.5 | 15.4 | 15.4 | 15.6 | 15.56 | -0.86 ✓ |
| 5 | 15.9; | 15.8 | 15.9; | 16.0; | 15.8 | 15.85 | -0.50 ✓ |
| 03 | 13.7 | 13.7 | 13.6 | 13.6 | 13.5 | 13.62 | +0.41 ✓ |
| 59 | 14.2 | 14.6 | 14.2 | 14.3 | 14.2 | 14.30 | -0.41 ✓ |
| 90 | 14.2 | 14.6 | 14.4 | 14.4 | 14.3 | 14.38 | +0.52 ✓ |
| 95 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | blue ✓ |
| 55 | 15.3 | 15.3 | 15.2 | 15.4 | 15.2 | 15.28 | -0.73 ✓ |
| 00 | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | $\Sigma 15.8$ | blue ✓ |
| 7 | 15.9 | 15.7 | 15.7 | 15.7 | 15.8 | 15.76 | -0.29 ✓ |
| 7 | 15.7 | 15.4 | 15.5 | 15.4 | 15.4 | 15.52 | -0.25 ✓ |

Small Magellanic Cloud.

ADH 640

ADH 1537

| | | | |
|---|------|------|-----|
| A | 13.3 | 11.3 | 2.0 |
| B | 14.3 | 11.7 | 2.6 |
| C | 14.3 | 11.0 | 3.3 |
| D | 12.0 | 10.4 | 1.6 |
| E | | | |

1953phase.proj, 24580