INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:              INT
DATE:                   1998 NOV 16/17
INT TAPE NR:            INTD3853-INTD3854-INTD3855
OBSERVER:               Paul Groot, Paul Vreeswyk, Steve Howell, Mark Everret, Don Davis
PROGRAMME:              Wide Field Camera Survey
PATT/CAT:               WFS10
TELESCOPE OPERATOR:     Jose Norberto
SUPPORT ASTRONOMER:     Chris Packham

FOCUS:                  PRIME
INSTRUMENT:             WFC
FILTER WHEEL (PF):      Z,V,U,R
CAMERA (IDS):           -
COLLIMATOR (IDS):       -
COLL. FOCUS (IDS):      -
GRATING (IDS):          -
DETECTOR:               4 EEV 2kx4k
PIXELS:                 2148x4200
PIXEL SIZE (microns):   13.5
WINDOW:                 Xstart=0, Xsize=2048, Ystart=0, Ysize=4200
BINNING:                in X=1, in Y=1

WEATHER:                Good
OUTSIDE TEMP (deg C):   6.1             (FIRST HALF)
OUTSIDE TEMP (deg C):   4.7             (SECOND HALF)
HUMIDITY (%):           83              (FIRST HALF)
HUMIDITY (%):           80              (SECOND HALF)
CLOUD COVER (%):        00              (FIRST HALF)
CLOUD COVER (%):        00              (SECOND HALF)
DUST (0 - 2):            0              (FIRST HALF)
DUST (0 - 2):            0              (SECOND HALF)
SEEING (arcsec):         1.4            (FIRST HALF)
SEEING (arcsec):         1.7            (SECOND HALF)
AV. SEEING (arcsec):    0
NO. SEEING MEASURES:    0
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| UTC | TELESCOPE | | | | CASELLA OUT | | CASELLA IN | | SEEING | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AZ | EL | Focus | TubeTemp | Temp | Humid | Temp | Humid | Det./TV | Comments |
| 23:00 | 277 | 52 | 46.01 | -0.06 | 06.1 | 83 | 06.7 | 79 | 1.4 | filter V |
| 03:30 | 123 | 76 | 46.00 | -0.01 | 04.4 | 90 | 04.9 | 89 | 1.5 | filter V |
| 05:30 | 168 | 81 | 46.01 | -0.03 | 05.0 | 53 | 05.2 | 54 | 2.0 | filter V |

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DARK HOURS:             10:35
DOME OPEN (UTC):        18:00
MOON PHASE (D/G/B):         D
DK HRS LOST (WEATHER):00:30
DK HRS LOST (TELESC): 00:15
DK HRS LOST (DOME):   00:00
DK HRS LOST (INSTR.): 00:00
DK HRS LOST (DET.):   00:00
DK HRS LOST (COMPS.): 00:00
DK HRS LOST (A&G):    00:00
DK HRS LOST (OTHER):  00:00

COMMENTS:
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| RUN NR | OBJECT NAME | RA | DEC | EQUINOX | AIR MASS | PA | PARL ANGL | START UTC | EXPO TIME | GUIDE GDX | PROBE GDY | SLIT WIDT | GRAT ANGL | CEN WAVE | FILTERS BN BC AN AC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Run no. | Object name | RA | Dec. | Equinox | AM | PA | UT | Exp. T. | Filter | Psys Channel | Binning | Comments | | | |
| 132922 | Unspecified object | 0:00:00.00 | +00:00:00.0 | A | 4.729 | 180.0 | 14:37:42.3 | 15.1 | U | RGO 1 | 1 x 1 | sa mistake | | | |
| 132923 | Unspecified object | 0:00:00.00 | +00:00:00.0 | A | 4.729 | 180.0 | 14:37:42.3 | 15.1 | U | RGO 5 | 1 x 1 | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 132924 | Unspecified object | 0:00:00.00 | +00:00:00.0 | A | 4.729 | 180.0 | 14:37:42.3 | 15.1 | U | RGO | 3 | 1 x 1 |
| 132925 | Unspecified object | 0:00:00.00 | +00:00:00.0 | A | 4.729 | 180.0 | 14:37:42.3 | 15.1 | U | RGO | 4 | 1 x 1 |
| 132926 | Unspecified object | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 16:08:47.5 | 70.1 | B | Harris | 1 | 1 x 1 |
| 132927 | Unspecified object | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 16:08:47.5 | 70.1 | B | Harris | 5 | 1 x 1 |
| 132928 | Unspecified object | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 16:08:47.5 | 70.1 | B | Harris | 3 | 1 x 1 |
| 132929 | Unspecified object | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 16:08:47.5 | 70.1 | B | Harris | 4 | 1 x 1 |
| 132930 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:06:33.2 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132931 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:06:33.2 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132932 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:06:33.2 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132933 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:06:33.2 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132934 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:09:09.3 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132935 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:09:09.3 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132936 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:09:09.3 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132937 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:09:09.3 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132938 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:11:45.8 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132939 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:11:45.8 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132940 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:11:45.8 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132941 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:11:45.8 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132942 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:14:25.7 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132943 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:14:25.7 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132944 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:14:25.7 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132945 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:14:25.7 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132946 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:17:02.0 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132947 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:17:02.0 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132948 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:17:02.0 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132949 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:17:02.0 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132950 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:19:38.8 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132951 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:19:38.8 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132952 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:19:38.8 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132953 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:19:38.8 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132954 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:22:15.6 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132955 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:22:15.6 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132956 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:22:15.6 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132957 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:22:15.6 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132958 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:24:52.3 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132959 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:24:52.3 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132960 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:24:52.3 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132961 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:24:52.3 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132962 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:27:32.3 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132963 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:27:32.3 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132964 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:27:32.3 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132965 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:27:32.3 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132966 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:30:12.4 | 0.0 | V | Harris | 1 | 1 x 1 |
| 132967 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:30:12.4 | 0.0 | V | Harris | 5 | 1 x 1 |
| 132968 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:30:12.4 | 0.0 | V | Harris | 3 | 1 x 1 |
| 132969 | Bias frame | 0:00:00.00 | +00:00:00.0 | J2000.00 | 4.648 | 179.9 | 17:30:12.4 | 0.0 | V | Harris | 4 | 1 x 1 |
| 132970 | Skyflat V 4s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.167 | 179.9 | 18:44:04.4 | 4.1 | V | Harris | 1 | 1 x 1 |
| 132971 | Skyflat V 4s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.167 | 179.9 | 18:44:04.4 | 4.1 | V | Harris | 5 | 1 x 1 |
| 132972 | Skyflat V 4s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.167 | 179.9 | 18:44:04.4 | 4.1 | V | Harris | 3 | 1 x 1 |
| 132973 | Skyflat V 4s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.167 | 179.9 | 18:44:04.4 | 4.1 | V | Harris | 4 | 1 x 1 |
| 132974 | Skyflat V 15s | 19:19:09.00 | +12:22:04.9 | B1950.00 | 1.179 | 179.9 | 18:48:42.3 | 15.1 | V | Harris | 1 | 1 x 1 |
| 132975 | Skyflat V 15s | 19:19:09.00 | +12:22:04.9 | B1950.00 | 1.179 | 179.9 | 18:48:42.3 | 15.1 | V | Harris | 5 | 1 x 1 |
| 132976 | Skyflat V 15s | 19:19:09.00 | +12:22:04.9 | B1950.00 | 1.179 | 179.9 | 18:48:42.3 | 15.1 | V | Harris | 3 | 1 x 1 |
| 132977 | Skyflat V 15s | 19:19:09.00 | +12:22:04.9 | B1950.00 | 1.179 | 179.9 | 18:48:42.3 | 15.1 | V | Harris | 4 | 1 x 1 |
| 132978 | Skyflat V 30s | 19:19:08.99 | +12:22:05.0 | B1950.00 | 1.189 | 179.9 | 18:52:26.1 | 30.1 | V | Harris | 1 | 1 x 1 |
| 132979 | Skyflat V 30s | 19:19:08.99 | +12:22:05.0 | B1950.00 | 1.189 | 179.9 | 18:52:26.1 | 30.1 | V | Harris | 5 | 1 x 1 |
| 132980 | Skyflat V 30s | 19:19:08.99 | +12:22:05.0 | B1950.00 | 1.189 | 179.9 | 18:52:26.1 | 30.1 | V | Harris | 3 | 1 x 1 |
| 132981 | Skyflat V 30s | 19:19:08.99 | +12:22:05.0 | B1950.00 | 1.189 | 179.9 | 18:52:26.1 | 30.1 | V | Harris | 4 | 1 x 1 |
| 132982 | skyflat V 60s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.200 | 179.9 | 18:56:04.7 | 60.0 | V | Harris | 1 | 1 x 1 |
| 132983 | skyflat V 60s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.200 | 179.9 | 18:56:04.7 | 60.0 | V | Harris | 5 | 1 x 1 |
| 132984 | skyflat V 60s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.200 | 179.9 | 18:56:04.7 | 60.0 | V | Harris | 3 | 1 x 1 |
| 132985 | skyflat V 60s | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.200 | 179.9 | 18:56:04.7 | 60.0 | V | Harris | 4 | 1 x 1 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 132986 | Focus run | 19:19:09.00 | +12:23:50.0 | B1950.00 | 1.219 | 179.9 | 19:04:19.7 | 5.1 | V | Harris | 1 | 1 x 1 |
| 132987 | Focus run | 19:19:09.00 | +12:23:50.0 | B1950.00 | 1.219 | 179.9 | 19:04:19.7 | 5.1 | V | Harris | 5 | 1 x 1 |
| 132988 | Focus run | 19:19:09.00 | +12:23:50.0 | B1950.00 | 1.219 | 179.9 | 19:04:19.7 | 5.1 | V | Harris | 3 | 1 x 1 |
| 132989 | Focus run | 19:19:09.00 | +12:23:50.0 | B1950.00 | 1.219 | 179.9 | 19:04:19.7 | 5.1 | V | Harris | 4 | 1 x 1 |
| 132998 | Bias frame | 23:41:59.99 | +27:00:00.0 | J2000.00 | 1.051 | 179.9 | 19:50:13.7 | 0.0 | U | RGO | 1 | 1 x 1 |
| 132999 | Bias frame | 23:41:59.99 | +27:00:00.0 | J2000.00 | 1.051 | 179.9 | 19:50:13.7 | 0.0 | U | RGO | 5 | 1 x 1 |
| 133000 | Bias frame | 23:41:59.99 | +27:00:00.0 | J2000.00 | 1.051 | 179.9 | 19:50:13.7 | 0.0 | U | RGO | 3 | 1 x 1 |
| 133001 | Bias frame | 23:41:59.99 | +27:00:00.0 | J2000.00 | 1.051 | 179.9 | 19:50:13.7 | 0.0 | U | RGO | 4 | 1 x 1 |
| 133002 | F_01 60s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.044 | 179.9 | 19:54:47.8 | 60.0 | V | Harris | 1 | 1 x 1 |
| 133003 | F_01 60s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.044 | 179.9 | 19:54:47.8 | 60.0 | V | Harris | 5 | 1 x 1 |
| 133004 | F_01 60s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.044 | 179.9 | 19:54:47.8 | 60.0 | V | Harris | 3 | 1 x 1 |
| 133005 | F_01 60s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.044 | 179.9 | 19:54:47.8 | 60.0 | V | Harris | 4 | 1 x 1 |
| 133006 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.033 | 179.9 | 20:00:45.1 | 599.0 | V | Harris | 1 | 1 x 1 |
| 133007 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.033 | 179.9 | 20:00:45.1 | 599.0 | V | Harris | 5 | 1 x 1 |
| 133008 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.033 | 179.9 | 20:00:45.1 | 599.0 | V | Harris | 3 | 1 x 1 |
| 133009 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.033 | 179.9 | 20:00:45.1 | 599.0 | V | Harris | 4 | 1 x 1 |
| 133010 | F_02 60s V | 23:44:00.00 | +27:00:00.1 | J2000.00 | 1.026 | 179.9 | 20:14:41.9 | 60.1 | V | Harris | 1 | 1 x 1 99% not good |
| 133011 | F_02 60s V | 23:44:00.00 | +27:00:00.1 | J2000.00 | 1.026 | 179.9 | 20:14:41.9 | 60.1 | V | Harris | 5 | 1 x 1 |
| 133012 | F_02 60s V | 23:44:00.00 | +27:00:00.1 | J2000.00 | 1.026 | 179.9 | 20:14:41.9 | 60.1 | V | Harris | 3 | 1 x 1 |
| 133013 | F_02 60s V | 23:44:00.00 | +27:00:00.1 | J2000.00 | 1.026 | 179.9 | 20:14:41.9 | 60.1 | V | Harris | 4 | 1 x 1 |
| 133014 | F_02 60s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.014 | 179.9 | 20:29:51.0 | 60.1 | V | Harris | 1 | 1 x 1 |
| 133015 | F_02 60s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.014 | 179.9 | 20:29:51.0 | 60.1 | V | Harris | 5 | 1 x 1 |
| 133016 | F_02 60s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.014 | 179.9 | 20:29:51.0 | 60.1 | V | Harris | 3 | 1 x 1 |
| 133017 | F_02 60s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.014 | 179.9 | 20:29:51.0 | 60.1 | V | Harris | 4 | 1 x 1 |
| 133018 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.009 | 179.9 | 20:34:42.7 | 599.0 | V | Harris | 1 | 1 x 1 |
| 133019 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.009 | 179.9 | 20:34:42.7 | 599.0 | V | Harris | 5 | 1 x 1 |
| 133020 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.009 | 179.9 | 20:34:42.7 | 599.0 | V | Harris | 3 | 1 x 1 |
| 133021 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.009 | 179.9 | 20:34:42.7 | 599.0 | V | Harris | 4 | 1 x 1 |
| 133022 | F_03 60s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.005 | 179.9 | 20:50:40.2 | 60.1 | V | Harris | 1 | 1 x 1 |
| 133023 | F_03 60s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.005 | 179.9 | 20:50:40.2 | 60.1 | V | Harris | 5 | 1 x 1 |
| 133024 | F_03 60s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.005 | 179.9 | 20:50:40.2 | 60.1 | V | Harris | 3 | 1 x 1 |
| 133025 | F_03 60s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.005 | 179.9 | 20:50:40.2 | 60.1 | V | Harris | 4 | 1 x 1 |
| 133026 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.002 | 179.9 | 20:54:59.8 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133027 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.002 | 179.9 | 20:54:59.8 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133028 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.002 | 179.9 | 20:54:59.8 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133029 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.002 | 179.9 | 20:54:59.8 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133030 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.001 | 179.9 | 21:10:06.5 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133031 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.001 | 179.9 | 21:10:06.5 | 599.4 | V | Harris | 5 | 1 x 1 |
| 133032 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.001 | 179.9 | 21:10:06.5 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133033 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.001 | 179.9 | 21:10:06.5 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133034 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.003 | 179.9 | 21:24:26.5 | 599.5 | V | Harris | 1 | 1 x 1 possible move. |
| 133035 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.003 | 179.9 | 21:24:26.5 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133036 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.003 | 179.9 | 21:24:26.5 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133037 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.003 | 179.9 | 21:24:26.5 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133038 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.010 | 179.9 | 21:44:08.1 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133039 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.010 | 179.9 | 21:44:08.1 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133040 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.010 | 179.9 | 21:44:08.1 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133041 | F_03 600s V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.010 | 179.9 | 21:44:08.1 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133042 | F_01 600s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.022 | 179.9 | 21:58:54.0 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133043 | F_01 600s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.022 | 179.9 | 21:58:54.0 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133044 | F_01 600s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.022 | 179.9 | 21:58:54.0 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133045 | F_01 600s V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.022 | 179.9 | 21:58:54.0 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133046 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.034 | 179.9 | 22:13:10.3 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133047 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.034 | 179.9 | 22:13:10.3 | 599.4 | V | Harris | 5 | 1 x 1 |
| 133048 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.034 | 179.9 | 22:13:10.3 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133049 | F_02 600s V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.034 | 179.9 | 22:13:10.3 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133050 | F_03 600s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.047 | 179.9 | 22:26:57.1 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133051 | F_03 600s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.047 | 179.9 | 22:26:57.1 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133052 | F_03 600s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.047 | 179.9 | 22:26:57.1 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133053 | F_03 600s V | 23:45:59.99 | +26:59:59.9 | J2000.00 | 1.047 | 179.9 | 22:26:57.1 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133054 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.073 | 179.9 | 22:41:20.0 | 599.6 | V | Harris | 1 | 1 x 1 |
| 133055 | F_01 600s V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.073 | 179.9 | 22:41:20.0 | 599.6 | V | Harris | 5 | 1 x 1 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 133056 | F_01 | 600s | V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.073 | 179.9 | 22:41:20.0 | 599.6 | V | Harris | 3 | 1 x 1 |
| 133057 | F_01 | 600s | V | 23:42:00.00 | +27:00:00.0 | J2000.00 | 1.073 | 179.9 | 22:41:20.0 | 599.6 | V | Harris | 4 | 1 x 1 |
| 133058 | F_02 | 600s | V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.095 | 179.9 | 22:55:54.9 | 599.3 | V | Harris | 1 | 1 x 1 |
| 133059 | F_02 | 600s | V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.095 | 179.9 | 22:55:54.9 | 599.3 | V | Harris | 5 | 1 x 1 |
| 133060 | F_02 | 600s | V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.095 | 179.9 | 22:55:54.9 | 599.3 | V | Harris | 3 | 1 x 1 |
| 133061 | F_02 | 600s | V | 23:44:00.00 | +27:00:00.0 | J2000.00 | 1.095 | 179.9 | 22:55:54.9 | 599.3 | V | Harris | 4 | 1 x 1 |
| 133062 | F_03 | 600s | V | 23:46:00.00 | +26:59:59.9 | J2000.00 | 1.118 | 179.9 | 23:09:42.7 | 598.9 | V | Harris | 1 | 1 x 1 |
| 133063 | F_03 | 600s | V | 23:46:00.00 | +26:59:59.9 | J2000.00 | 1.118 | 179.9 | 23:09:42.7 | 598.9 | V | Harris | 5 | 1 x 1 |
| 133064 | F_03 | 600s | V | 23:46:00.00 | +26:59:59.9 | J2000.00 | 1.118 | 179.9 | 23:09:42.7 | 598.9 | V | Harris | 3 | 1 x 1 |
| 133065 | F_03 | 600s | V | 23:46:00.00 | +26:59:59.9 | J2000.00 | 1.118 | 179.9 | 23:09:42.7 | 598.9 | V | Harris | 4 | 1 x 1 |
| 133066 | F_01 | 600s | V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.164 | 179.9 | 23:24:44.3 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133067 | F_01 | 600s | V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.164 | 179.9 | 23:24:44.3 | 599.4 | V | Harris | 5 | 1 x 1 |
| 133068 | F_01 | 600s | V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.164 | 179.9 | 23:24:44.3 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133069 | F_01 | 600s | V | 23:42:00.00 | +26:59:59.9 | J2000.00 | 1.164 | 179.9 | 23:24:44.3 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133070 | F_02 | 600s | V | 23:44:00.00 | +26:59:59.9 | J2000.00 | 1.199 | 179.9 | 23:39:07.6 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133071 | F_02 | 600s | V | 23:44:00.00 | +26:59:59.9 | J2000.00 | 1.199 | 179.9 | 23:39:07.6 | 599.4 | V | Harris | 5 | 1 x 1 |
| 133072 | F_02 | 600s | V | 23:44:00.00 | +26:59:59.9 | J2000.00 | 1.199 | 179.9 | 23:39:07.6 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133073 | F_02 | 600s | V | 23:44:00.00 | +26:59:59.9 | J2000.00 | 1.199 | 179.9 | 23:39:07.6 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133074 | F_03 | 600s | V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.238 | 179.9 | 23:53:13.9 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133075 | F_03 | 600s | V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.238 | 179.9 | 23:53:13.9 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133076 | F_03 | 600s | V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.238 | 179.9 | 23:53:13.9 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133077 | F_03 | 600s | V | 23:46:00.00 | +27:00:00.0 | J2000.00 | 1.238 | 179.9 | 23:53:13.9 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133078 | F_07 | 60s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.033 | 179.9 | 00:08:57.5 | 60.0 | V | Harris | 1 | 1 x 1 |
| 133079 | F_07 | 60s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.033 | 179.9 | 00:08:57.5 | 60.0 | V | Harris | 5 | 1 x 1 |
| 133080 | F_07 | 60s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.033 | 179.9 | 00:08:57.5 | 60.0 | V | Harris | 3 | 1 x 1 |
| 133081 | F_07 | 60s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.033 | 179.9 | 00:08:57.5 | 60.0 | V | Harris | 4 | 1 x 1 |
| 133082 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.038 | 179.9 | 00:16:14.5 | 599.3 | V | Harris | 1 | 1 x 1 |
| 133083 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.038 | 179.9 | 00:16:14.5 | 599.3 | V | Harris | 5 | 1 x 1 |
| 133084 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.038 | 179.9 | 00:16:14.5 | 599.3 | V | Harris | 3 | 1 x 1 |
| 133085 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.038 | 179.9 | 00:16:14.5 | 599.3 | V | Harris | 4 | 1 x 1 |
| 133086 | F_08 | 60s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.043 | 179.9 | 00:33:38.2 | 59.6 | V | Harris | 1 | 1 x 1 |
| 133087 | F_08 | 60s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.043 | 179.9 | 00:33:38.2 | 59.6 | V | Harris | 5 | 1 x 1 |
| 133088 | F_08 | 60s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.043 | 179.9 | 00:33:38.2 | 59.6 | V | Harris | 3 | 1 x 1 |
| 133089 | F_08 | 60s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.043 | 179.9 | 00:33:38.2 | 59.6 | V | Harris | 4 | 1 x 1 |
| 133090 | F_08 | 600s | V | 2:28:59.99 | +14:44:59.9 | J2000.00 | 1.050 | 179.9 | 00:39:28.6 | 599.1 | V | Harris | 1 | 1 x 1 |
| 133091 | F_08 | 600s | V | 2:28:59.99 | +14:44:59.9 | J2000.00 | 1.050 | 179.9 | 00:39:28.6 | 599.1 | V | Harris | 5 | 1 x 1 |
| 133092 | F_08 | 600s | V | 2:28:59.99 | +14:44:59.9 | J2000.00 | 1.050 | 179.9 | 00:39:28.6 | 599.1 | V | Harris | 3 | 1 x 1 |
| 133093 | F_08 | 600s | V | 2:28:59.99 | +14:44:59.9 | J2000.00 | 1.050 | 179.9 | 00:39:28.6 | 599.1 | V | Harris | 4 | 1 x 1 |
| 133094 | F_09 | 60s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.057 | 179.9 | 00:53:51.6 | 59.6 | V | Harris | 1 | 1 x 1 |
| 133095 | F_09 | 60s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.057 | 179.9 | 00:53:51.6 | 59.6 | V | Harris | 5 | 1 x 1 |
| 133096 | F_09 | 60s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.057 | 179.9 | 00:53:51.6 | 59.6 | V | Harris | 3 | 1 x 1 |
| 133097 | F_09 | 60s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.057 | 179.9 | 00:53:51.6 | 59.6 | V | Harris | 4 | 1 x 1 |
| 133098 | F_09 | 600s | V | 2:30:59.99 | +14:52:00.0 | J2000.00 | 1.067 | 179.9 | 00:58:20.0 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133099 | F_09 | 600s | V | 2:30:59.99 | +14:52:00.0 | J2000.00 | 1.067 | 179.9 | 00:58:20.0 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133100 | F_09 | 600s | V | 2:30:59.99 | +14:52:00.0 | J2000.00 | 1.067 | 179.9 | 00:58:20.0 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133101 | F_09 | 600s | V | 2:30:59.99 | +14:52:00.0 | J2000.00 | 1.067 | 179.9 | 00:58:20.0 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133102 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.105 | 179.9 | 01:19:45.3 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133103 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.105 | 179.9 | 01:19:45.3 | 599.4 | V | Harris | 5 | 1 x 1 |
| 133104 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.105 | 179.9 | 01:19:45.3 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133105 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.105 | 179.9 | 01:19:45.3 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133106 | F_08 | 600s | V | 2:29:00.00 | +14:44:59.9 | J2000.00 | 1.129 | 179.9 | 01:35:16.3 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133107 | F_08 | 600s | V | 2:29:00.00 | +14:44:59.9 | J2000.00 | 1.129 | 179.9 | 01:35:16.3 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133108 | F_08 | 600s | V | 2:29:00.00 | +14:44:59.9 | J2000.00 | 1.129 | 179.9 | 01:35:16.3 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133109 | F_08 | 600s | V | 2:29:00.00 | +14:44:59.9 | J2000.00 | 1.129 | 179.9 | 01:35:16.3 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133110 | F_09 | 600s | V | 2:31:00.00 | +14:51:59.9 | J2000.00 | 1.156 | 179.9 | 01:49:38.6 | 599.0 | V | Harris | 1 | 1 x 1 |
| 133111 | F_09 | 600s | V | 2:31:00.00 | +14:51:59.9 | J2000.00 | 1.156 | 179.9 | 01:49:38.6 | 599.0 | V | Harris | 5 | 1 x 1 |
| 133112 | F_09 | 600s | V | 2:31:00.00 | +14:51:59.9 | J2000.00 | 1.156 | 179.9 | 01:49:38.6 | 599.0 | V | Harris | 3 | 1 x 1 |
| 133113 | F_09 | 600s | V | 2:31:00.00 | +14:51:59.9 | J2000.00 | 1.156 | 179.9 | 01:49:38.6 | 599.0 | V | Harris | 4 | 1 x 1 |
| 133114 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.210 | 179.9 | 02:04:44.1 | 599.1 | V | Harris | 1 | 1 x 1 |
| 133115 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.210 | 179.9 | 02:04:44.1 | 599.1 | V | Harris | 5 | 1 x 1 |
| 133116 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.210 | 179.9 | 02:04:44.1 | 599.1 | V | Harris | 3 | 1 x 1 |
| 133117 | F_07 | 600s | V | 2:27:00.00 | +14:32:59.9 | J2000.00 | 1.210 | 179.9 | 02:04:44.1 | 599.1 | V | Harris | 4 | 1 x 1 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 133118 | F_08 | 600s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.248 | 179.9 | 02:19:08.3 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133119 | F_08 | 600s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.248 | 179.9 | 02:19:08.3 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133120 | F_08 | 600s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.248 | 179.9 | 02:19:08.3 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133121 | F_08 | 600s | V | 2:29:00.00 | +14:45:00.0 | J2000.00 | 1.248 | 179.9 | 02:19:08.3 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133122 | F_09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.297 | 179.9 | 02:34:20.6 | 598.1 | V | Harris | 1 | 1 x 1 |
| 133123 | F_09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.297 | 179.9 | 02:34:20.6 | 598.1 | V | Harris | 5 | 1 x 1 |
| 133124 | F_09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.297 | 179.9 | 02:34:20.6 | 598.1 | V | Harris | 3 | 1 x 1 |
| 133125 | F_09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.297 | 179.9 | 02:34:20.6 | 598.1 | V | Harris | 4 | 1 x 1 |
| 133126 | F_07 | 600s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.412 | 179.9 | 02:54:32.8 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133127 | F_07 | 600s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.412 | 179.9 | 02:54:32.8 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133128 | F_07 | 600s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.412 | 179.9 | 02:54:32.8 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133129 | F_07 | 600s | V | 2:27:00.00 | +14:33:00.0 | J2000.00 | 1.412 | 179.9 | 02:54:32.8 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133130 | F_08 | 600s | V | 2:28:59.99 | +14:45:00.0 | J2000.00 | 1.480 | 179.9 | 03:08:54.8 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133131 | F_08 | 600s | V | 2:28:59.99 | +14:45:00.0 | J2000.00 | 1.480 | 179.9 | 03:08:54.8 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133132 | F_08 | 600s | V | 2:28:59.99 | +14:45:00.0 | J2000.00 | 1.480 | 179.9 | 03:08:54.8 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133133 | F_08 | 600s | V | 2:28:59.99 | +14:45:00.0 | J2000.00 | 1.480 | 179.9 | 03:08:54.8 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133134 | F-09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.561 | 179.9 | 03:23:15.5 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133135 | F-09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.561 | 179.9 | 03:23:15.5 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133136 | F-09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.561 | 179.9 | 03:23:15.5 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133137 | F-09 | 600s | V | 2:31:00.00 | +14:52:00.0 | J2000.00 | 1.561 | 179.9 | 03:23:15.5 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133138 | F_13 | 60s | V | 7:47:59.99 | +20:53:00.0 | J2000.00 | 1.085 | 179.9 | 03:40:12.0 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133139 | F_13 | 60s | V | 7:47:59.99 | +20:53:00.0 | J2000.00 | 1.085 | 179.9 | 03:40:12.0 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133140 | F_13 | 60s | V | 7:47:59.99 | +20:53:00.0 | J2000.00 | 1.085 | 179.9 | 03:40:12.0 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133141 | F_13 | 60s | V | 7:47:59.99 | +20:53:00.0 | J2000.00 | 1.085 | 179.9 | 03:40:12.0 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133142 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.069 | 179.9 | 03:45:40.6 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133143 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.069 | 179.9 | 03:45:40.6 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133144 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.069 | 179.9 | 03:45:40.6 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133145 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.069 | 179.9 | 03:45:40.6 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133146 | F_14 | 60s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 04:21:35.5 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133147 | F_14 | 60s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 04:21:35.5 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133148 | F_14 | 60s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 04:21:35.5 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133149 | F_14 | 60s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 04:21:35.5 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133150 | F_14 | 600s | V | 7:49:59.99 | +20:48:00.0 | J2000.00 | 1.028 | 179.9 | 04:25:21.4 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133151 | F_14 | 600s | V | 7:49:59.99 | +20:48:00.0 | J2000.00 | 1.028 | 179.9 | 04:25:21.4 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133152 | F_14 | 600s | V | 7:49:59.99 | +20:48:00.0 | J2000.00 | 1.028 | 179.9 | 04:25:21.4 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133153 | F_14 | 600s | V | 7:49:59.99 | +20:48:00.0 | J2000.00 | 1.028 | 179.9 | 04:25:21.4 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133154 | F_18 | 60s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.026 | 179.9 | 04:39:20.0 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133155 | F_18 | 60s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.026 | 179.9 | 04:39:20.0 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133156 | F_18 | 60s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.026 | 179.9 | 04:39:20.0 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133157 | F_18 | 60s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.026 | 179.9 | 04:39:20.0 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133158 | F_18 | 600s | V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.021 | 179.9 | 04:43:05.6 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133159 | F_18 | 600s | V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.021 | 179.9 | 04:43:05.6 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133160 | F_18 | 600s | V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.021 | 179.9 | 04:43:05.6 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133161 | F_18 | 600s | V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.021 | 179.9 | 04:43:05.6 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133162 | F_13 | 600s | V | 7:48:00.00 | +20:53:00.1 | J2000.00 | 1.011 | 179.9 | 04:57:57.9 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133163 | F_13 | 600s | V | 7:48:00.00 | +20:53:00.1 | J2000.00 | 1.011 | 179.9 | 04:57:57.9 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133164 | F_13 | 600s | V | 7:48:00.00 | +20:53:00.1 | J2000.00 | 1.011 | 179.9 | 04:57:57.9 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133165 | F_13 | 600s | V | 7:48:00.00 | +20:53:00.1 | J2000.00 | 1.011 | 179.9 | 04:57:57.9 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133166 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.010 | 179.9 | 05:11:51.5 | 0.0 | V | Harris | 1 | 1 x 1 |
| 133167 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.010 | 179.9 | 05:11:51.5 | 0.0 | V | Harris | 5 | 1 x 1 |
| 133168 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.010 | 179.9 | 05:11:51.5 | 0.0 | V | Harris | 3 | 1 x 1 |
| 133169 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.010 | 179.9 | 05:11:51.5 | 0.0 | V | Harris | 4 | 1 x 1 |
| 133170 | F_18 | 600s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.011 | 179.9 | 05:34:24.4 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133171 | F_18 | 600s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.011 | 179.9 | 05:34:24.4 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133172 | F_18 | 600s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.011 | 179.9 | 05:34:24.4 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133173 | F_18 | 600s | V | 7:58:19.99 | +20:59:00.0 | J2000.00 | 1.011 | 179.9 | 05:34:24.4 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133174 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.022 | 179.9 | 05:49:50.8 | 599.6 | V | Harris | 1 | 1 x 1 |
| 133175 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.022 | 179.9 | 05:49:50.8 | 599.6 | V | Harris | 5 | 1 x 1 |
| 133176 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.022 | 179.9 | 05:49:50.8 | 599.6 | V | Harris | 3 | 1 x 1 |
| 133177 | F_13 | 600s | V | 7:48:00.00 | +20:52:59.9 | J2000.00 | 1.022 | 179.9 | 05:49:50.8 | 599.6 | V | Harris | 4 | 1 x 1 |
| 133178 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 06:06:18.8 | 599.4 | V | Harris | 1 | 1 x 1 |
| 133179 | F_14 | 600s | V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 06:06:18.8 | 599.4 | V | Harris | 5 | 1 x 1 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 133180 | F_14 600s V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 06:06:18.8 | 599.4 | V | Harris | 3 | 1 x 1 |
| 133181 | F_14 600s V | 7:50:00.00 | +20:48:00.0 | J2000.00 | 1.034 | 179.9 | 06:06:18.8 | 599.4 | V | Harris | 4 | 1 x 1 |
| 133182 | F_18 600s V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.038 | 179.9 | 06:19:57.1 | 599.5 | V | Harris | 1 | 1 x 1 |
| 133183 | F_18 600s V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.038 | 179.9 | 06:19:57.1 | 599.5 | V | Harris | 5 | 1 x 1 |
| 133184 | F_18 600s V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.038 | 179.9 | 06:19:57.1 | 599.5 | V | Harris | 3 | 1 x 1 |
| 133185 | F_18 600s V | 7:58:19.99 | +20:58:59.9 | J2000.00 | 1.038 | 179.9 | 06:19:57.1 | 599.5 | V | Harris | 4 | 1 x 1 |
| 133186 | Skyflat V | 13:04:33.00 | +29:50:48.9 | B1950.00 | 1.587 | 179.9 | 06:36:41.5 | 100.0 | V | Harris | 1 | 1 x 1 |
| 133187 | Skyflat V | 13:04:33.00 | +29:50:48.9 | B1950.00 | 1.587 | 179.9 | 06:36:41.5 | 100.0 | V | Harris | 5 | 1 x 1 |
| 133188 | Skyflat V | 13:04:33.00 | +29:50:48.9 | B1950.00 | 1.587 | 179.9 | 06:36:41.5 | 100.0 | V | Harris | 3 | 1 x 1 |
| 133189 | Skyflat V | 13:04:33.00 | +29:50:48.9 | B1950.00 | 1.587 | 179.9 | 06:36:41.5 | 100.0 | V | Harris | 4 | 1 x 1 |
| 133190 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.545 | 179.9 | 06:42:43.7 | 100.1 | V | Harris | 1 | 1 x 1 |
| 133191 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.545 | 179.9 | 06:42:43.7 | 100.1 | V | Harris | 5 | 1 x 1 |
| 133192 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.545 | 179.9 | 06:42:43.7 | 100.1 | V | Harris | 3 | 1 x 1 |
| 133193 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.545 | 179.9 | 06:42:43.7 | 100.1 | V | Harris | 4 | 1 x 1 |
| 133194 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.512 | 179.9 | 06:47:44.5 | 100.0 | V | Harris | 1 | 1 x 1 |
| 133195 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.512 | 179.9 | 06:47:44.5 | 100.0 | V | Harris | 5 | 1 x 1 |
| 133196 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.512 | 179.9 | 06:47:44.5 | 100.0 | V | Harris | 3 | 1 x 1 |
| 133197 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.512 | 179.9 | 06:47:44.5 | 100.0 | V | Harris | 4 | 1 x 1 |
| 133198 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.482 | 179.9 | 06:53:18.4 | 30.1 | V | Harris | 1 | 1 x 1 |
| 133199 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.482 | 179.9 | 06:53:18.4 | 30.1 | V | Harris | 5 | 1 x 1 |
| 133200 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.482 | 179.9 | 06:53:18.4 | 30.1 | V | Harris | 3 | 1 x 1 |
| 133201 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.482 | 179.9 | 06:53:18.4 | 30.1 | V | Harris | 4 | 1 x 1 |
| 133202 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.460 | 179.9 | 06:57:10.2 | 10.1 | V | Harris | 1 | 1 x 1 |
| 133203 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.460 | 179.9 | 06:57:10.2 | 10.1 | V | Harris | 5 | 1 x 1 |
| 133204 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.460 | 179.9 | 06:57:10.2 | 10.1 | V | Harris | 3 | 1 x 1 |
| 133205 | Skyflat V | 13:04:32.99 | +29:50:49.0 | B1950.00 | 1.460 | 179.9 | 06:57:10.2 | 10.1 | V | Harris | 4 | 1 x 1 |
| 133206 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.438 | 179.9 | 07:01:02.6 | 9.1 | V | Harris | 1 | 1 x 1 |
| 133207 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.438 | 179.9 | 07:01:02.6 | 9.1 | V | Harris | 5 | 1 x 1 |
| 133208 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.438 | 179.9 | 07:01:02.6 | 9.1 | V | Harris | 3 | 1 x 1 |
| 133209 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.438 | 179.9 | 07:01:02.6 | 9.1 | V | Harris | 4 | 1 x 1 |
| 133210 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.418 | 179.9 | 07:04:53.8 | 8.1 | V | Harris | 1 | 1 x 1 |
| 133211 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.418 | 179.9 | 07:04:53.8 | 8.1 | V | Harris | 5 | 1 x 1 |
| 133212 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.418 | 179.9 | 07:04:53.8 | 8.1 | V | Harris | 3 | 1 x 1 |
| 133213 | Skyflat V | 13:04:33.00 | +29:50:49.0 | B1950.00 | 1.418 | 179.9 | 07:04:53.8 | 8.1 | V | Harris | 4 | 1 x 1 |
| 133214 | Unspecified object | 13:04:32.99 | +29:50:48.9 | B1950.00 | 1.398 | 179.9 | 07:08:41.2 | 3.1 | V | Harris | 1 | 1 x 1 |
| 133215 | Unspecified object | 13:04:32.99 | +29:50:48.9 | B1950.00 | 1.398 | 179.9 | 07:08:41.2 | 3.1 | V | Harris | 5 | 1 x 1 |
| 133216 | Unspecified object | 13:04:32.99 | +29:50:48.9 | B1950.00 | 1.398 | 179.9 | 07:08:41.2 | 3.1 | V | Harris | 3 | 1 x 1 |
| 133217 | Unspecified object | 13:04:32.99 | +29:50:48.9 | B1950.00 | 1.398 | 179.9 | 07:08:41.2 | 3.1 | V | Harris | 4 | 1 x 1 |
| 133218 | Skyflat V | 13:04:33.00 | +29:50:48.8 | B1950.00 | 1.381 | 179.9 | 07:12:05.2 | 1.1 | V | Harris | 1 | 1 x 1 |
| 133219 | Skyflat V | 13:04:33.00 | +29:50:48.8 | B1950.00 | 1.381 | 179.9 | 07:12:05.2 | 1.1 | V | Harris | 5 | 1 x 1 |
| 133220 | Skyflat V | 13:04:33.00 | +29:50:48.8 | B1950.00 | 1.381 | 179.9 | 07:12:05.2 | 1.1 | V | Harris | 3 | 1 x 1 |
| 133221 | Skyflat V | 13:04:33.00 | +29:50:48.8 | B1950.00 | 1.381 | 179.9 | 07:12:05.2 | 1.1 | V | Harris | 4 | 1 x 1 |