INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

TELESCOPE: INT
DATE: 20000914
TAPE NR: INTD4501
OBSERVER: David James, David Mitchell, Kevin Pearson
PROGRAMME: Planet Transits in NGC7789
PATT/CAT REF.: P30+M31
TELESCOPE OPERATOR: -
SUPPORT ASTRONOMER: -

TELESCOPE FOCUS: not specified
CALIBRATE RESULTS: not specified

INSTRUMENT: WFC

WFC FILTER WHEEL: g,V,r,i,z,Ha

WEATHER: (1st half)
(2nd half)
CLOUD COVER (%): (1st half)
(2nd half)
DUST (0-2): (1st half)
(2nd half)
SEEING (arcsec): (1st half)
(2nd half)

DOME OPENED (UT): 18:55

METEOROLOGICAL PARAMETERS

| UT | AirT | Hum% | Wspd | Gust | Wdir | Press | LocT | IntT | Mirr | LocRH | IntRH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20:00 | 14.8 | 21 | 25.1 | 30.5 | 184 | 771.9 | 15.4 | 18.5 | 18.1 | 22 | 19 |
| 21:00 | 15.0 | 12 | 30.1 | 34.9 | 182 | 772.0 | 15.5 | 16.5 | 17.8 | 12 | 10 |
| 22:00 | 14.5 | 11 | 26.0 | 28.0 | 214 | 772.7 | 15.0 | 16.0 | 17.8 | 10 | 13 |
| 23:00 | 15.7 | 16 | 19.3 | 22.6 | 216 | 773.1 | 16.0 | 16.3 | 17.8 | 16 | 15 |
| 00:00 | 16.3 | 12 | 35.1 | 39.0 | 204 | 773.0 | 16.8 | 17.1 | 17.8 | 12 | 12 |
| 01:00 | 15.7 | 12 | 33.1 | 42.6 | 203 | 772.7 | 16.4 | 16.9 | 17.8 | 10 | 13 |
| 02:00 | 14.3 | 26 | 20.5 | 24.4 | 146 | 772.9 | 14.8 | 16.0 | 17.6 | 25 | 21 |
| 03:00 | 13.6 | 25 | 27.8 | 33.3 | 148 | 772.3 | 14.1 | 15.3 | 17.4 | 21 | 23 |
| 04:00 | 13.1 | 22 | 24.5 | 27.5 | 145 | 771.8 | 13.9 | 14.8 | 17.2 | 18 | 19 |
| 05:00 | 13.5 | 22 | 24.3 | 30.1 | 141 | 771.8 | 14.2 | 14.9 | 17.0 | 19 | 19 |
| 06:00 | 14.1 | 18 | 25.6 | 33.0 | 158 | 771.9 | 14.8 | 15.2 | 17.0 | 15 | 17 |

SUNSET(UT) 19:26
EVENING TWILIGHT(UT) 20:38
MORNING TWILIGHT(UT) 05:37
SUNRISE(UT) 06:49
MOON'S QUARTER (1-4) 3
DISK % OF ILLUM. 97
DARK TIME 08:59
TWILIGHT TIME 02:24
MOONRISE(UT) 19:58
MOONSET(UT) No moonset within sunset-sunrise

TIME LOST(WEATHER): 00:00
TIME LOST(TECHNICAL): 00:00
TIME LOST(OTHER): 00:00

| Run no. | Object name | RA | Dec. | Equinox | AM | PA | UT | Exp. T. | Filter | Psys | Channel | Binning | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 229602 | Bias | 0:00:00.00 | +00:00:00.0 | B1950.00 | 1.001 | 180.0 | 13:09:51.0 | 0.0 | g | Sloan | | 1 x 1 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 229603 | Clive’s test | 0:00:00.00 | +00:00:00.0 | B1950.00 | 1.001 | 180.0 | 13:13:39.7 | 2.1 | g | Sloan | 1 x 1 |
| 229604 | another test | 0:00:00.00 | +00:00:00.0 | B1950.00 | 1.001 | 180.0 | 13:23:39.3 | 6.1 | V | Harris | 1 x 1 |
| 229605 | FLAT | 19:19:09.00 | +12:22:04.9 | B1950.00 | 1.110 | 180.0 | 19:31:09.7 | 2.2 | r | Sloan | 1 x 1 |
| 229606 | BIAS | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.105 | 180.0 | 19:34:00.6 | 0.0 | r | Sloan | 1 x 1 |
| 229607 | BIAS | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.104 | 180.0 | 19:34:59.8 | 0.0 | r | Sloan | 1 x 1 |
| 229608 | BIAS | 19:19:08.99 | +12:22:04.9 | B1950.00 | 1.102 | 180.0 | 19:35:58.1 | 0.0 | r | Sloan | 1 x 1 |
| 229609 | FLAT | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.099 | 180.0 | 19:38:11.3 | 1.1 | r | Sloan | 1 x 1 |
| 229610 | FLAT | 19:19:09.00 | +12:22:05.0 | B1950.00 | 1.096 | 180.0 | 19:39:55.3 | 2.1 | r | Sloan | 1 x 1 |
| 229611 | FLAT | 19:19:08.99 | +12:22:04.9 | B1950.00 | 1.093 | 180.0 | 19:41:37.2 | 4.1 | r | Sloan | 1 x 1 |
| 229612 | FLAT | 19:19:09.68 | +12:22:14.9 | B1950.00 | 1.091 | 180.0 | 19:43:25.5 | 7.1 | r | Sloan | 1 x 1 |
| 229613 | FLAT | 19:19:10.36 | +12:22:24.9 | B1950.00 | 1.088 | 180.0 | 19:45:12.6 | 12.1 | r | Sloan | 1 x 1 |
| 229614 | FLAT | 19:19:11.04 | +12:22:34.9 | B1950.00 | 1.085 | 180.0 | 19:47:17.2 | 20.1 | r | Sloan | 1 x 1 |
| 229615 | FLAT | 19:19:11.72 | +12:22:45.0 | B1950.00 | 1.081 | 180.0 | 19:50:34.4 | 40.1 | r | Sloan | 1 x 1 |
| 229616 | Focus run | 18:42:45.00 | +00:11:19.1 | J2000.00 | 1.140 | 180.0 | 20:05:41.2 | 10.1 | r | Sloan | 1 x 1 |
| 229617 | BIAS | 18:42:45.00 | +00:14:34.0 | J2000.00 | 1.138 | 180.0 | 20:12:23.8 | 0.0 | r | Sloan | 1 x 1 |
| 229618 | BIAS | 18:42:44.99 | +00:14:33.9 | J2000.00 | 1.138 | 180.0 | 20:13:22.1 | 0.0 | r | Sloan | 1 x 1 |
| 229619 | BIAS | 18:42:45.00 | +00:14:33.9 | J2000.00 | 1.138 | 180.0 | 20:14:19.9 | 0.0 | r | Sloan | 1 x 1 |
| 229620 | BIAS | 18:42:45.00 | +00:14:33.9 | J2000.00 | 1.138 | 180.0 | 20:15:18.1 | 0.0 | r | Sloan | 1 x 1 |
| 229621 | BIAS | 18:42:45.00 | +00:14:34.0 | J2000.00 | 1.138 | 180.0 | 20:16:15.9 | 0.0 | r | Sloan | 1 x 1 |
| 229622 | BIAS | 18:42:44.99 | +00:14:33.9 | J2000.00 | 1.138 | 180.0 | 20:17:13.7 | 0.0 | r | Sloan | 1 x 1 |
| 229623 | BIAS | 18:42:44.99 | +00:14:34.0 | J2000.00 | 1.138 | 180.0 | 20:18:13.0 | 0.0 | r | Sloan | 1 x 1 |
| 229624 | BIAS | 18:42:45.00 | +00:14:33.9 | J2000.00 | 1.138 | 180.0 | 20:19:10.7 | 0.0 | r | Sloan | 1 x 1 |
| 229625 | TEST IM | 23:57:30.81 | +56:43:41.8 | J2000.00 | 1.943 | 180.0 | 20:25:48.0 | 10.1 | r | Sloan | 1 x 1 |
| 229626 | TEST IM | 23:57:30.81 | +56:43:41.8 | J2000.00 | 1.771 | 180.0 | 20:50:43.9 | 10.1 | r | Sloan | 1 x 1 |
| 229627 | TEST IM | 11:58:45.40 | +28:18:14.4 | J2000.00 | 1.721 | 180.0 | 20:59:06.8 | 10.1 | r | Sloan | 1 x 1 |
| 229628 | TEST IM | 23:56:38.19 | +56:43:41.1 | J2000.00 | 1.696 | 180.0 | 21:02:36.6 | 9.6 | r | Sloan | 1 x 1 |
| 229629 | TEST IM | 23:58:23.42 | +56:43:41.2 | J2000.00 | 1.677 | 180.0 | 21:07:49.1 | 10.1 | r | Sloan | 1 x 1 |
| 229630 | TEST IM | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.659 | 180.0 | 21:11:11.4 | 10.1 | r | Sloan | 1 x 1 |
| 229631 | TEST IM | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.637 | 180.0 | 21:15:33.5 | 9.6 | r | Sloan | 1 x 1 |
| 229632 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.604 | 180.0 | 21:19:44.5 | 299.9 | r | Sloan | 1 x 1 |
| 229634 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.564 | 180.0 | 21:28:27.7 | 299.7 | r | Sloan | 1 x 1 |
| 229635 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.535 | 180.0 | 21:35:08.9 | 299.8 | r | Sloan | 1 x 1 |
| 229636 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.507 | 180.0 | 21:41:50.4 | 299.8 | r | Sloan | 1 x 1 |
| 229637 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.481 | 180.0 | 21:48:31.2 | 299.8 | r | Sloan | 1 x 1 |
| 229638 | NGC 7789 | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.457 | 180.0 | 21:55:11.7 | 299.9 | r | Sloan | 1 x 1 |
| 229639 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.433 | 180.0 | 22:01:51.7 | 299.8 | r | Sloan | 1 x 1 |
| 229640 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.411 | 180.0 | 22:08:32.2 | 299.8 | r | Sloan | 1 x 1 |
| 229641 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.390 | 180.0 | 22:15:12.3 | 299.8 | r | Sloan | 1 x 1 |
| 229642 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.370 | 180.0 | 22:21:54.0 | 299.8 | r | Sloan | 1 x 1 |
| 229643 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.352 | 180.0 | 22:28:33.9 | 299.8 | r | Sloan | 1 x 1 |
| 229644 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.341 | 180.0 | 22:35:11.2 | 0.0 | r | Sloan | 1 x 1 |
| 229645 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.329 | 180.0 | 22:37:00.6 | 299.3 | r | Sloan | 1 x 1 |
| 229646 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.313 | 180.0 | 22:43:41.3 | 299.9 | r | Sloan | 1 x 1 |
| 229647 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.297 | 180.0 | 22:50:20.6 | 299.3 | r | Sloan | 1 x 1 |
| 229648 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.283 | 180.0 | 22:57:00.5 | 299.9 | r | Sloan | 1 x 1 |
| 229649 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.269 | 180.0 | 23:03:41.7 | 299.8 | r | Sloan | 1 x 1 |
| 229650 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.256 | 180.0 | 23:10:20.6 | 299.3 | r | Sloan | 1 x 1 |
| 229651 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.243 | 180.0 | 23:17:02.6 | 299.7 | r | Sloan | 1 x 1 |
| 229652 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.232 | 180.0 | 23:23:42.4 | 299.8 | r | Sloan | 1 x 1 |
| 229653 | NGC 7789 | 23:58:23.43 | +56:43:56.0 | J2000.00 | 1.221 | 180.0 | 23:30:23.6 | 299.8 | r | Sloan | 1 x 1 |
| 229654 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.211 | 180.0 | 23:37:04.6 | 299.8 | r | Sloan | 1 x 1 |
| 229655 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.201 | 180.0 | 23:43:46.9 | 299.7 | r | Sloan | 1 x 1 |
| 229656 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.193 | 180.0 | 23:50:28.0 | 299.9 | r | Sloan | 1 x 1 |
| 229657 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.187 | 180.0 | 23:57:09.1 | 0.0 | r | Sloan | 1 x 1 |
| 229658 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.182 | 180.0 | 23:58:54.5 | 299.3 | r | Sloan | 1 x 1 |
| 229659 | NGC 7789 | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.175 | 180.0 | 00:05:36.3 | 299.8 | r | Sloan | 1 x 1 |
| 229660 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.168 | 180.0 | 00:12:16.5 | 299.9 | r | Sloan | 1 x 1 |
| 229661 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.162 | 180.0 | 00:18:57.7 | 299.9 | r | Sloan | 1 x 1 |
| 229662 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.157 | 180.0 | 00:25:39.3 | 299.8 | r | Sloan | 1 x 1 |
| 229663 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.152 | 180.0 | 00:32:20.5 | 299.8 | r | Sloan | 1 x 1 |
| 229664 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.148 | 180.0 | 00:39:01.2 | 299.8 | r | Sloan | 1 x 1 |
| 229665 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.144 | 180.0 | 00:45:42.6 | 299.8 | r | Sloan | 1 x 1 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 229666 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.140 | 180.0 | 00:52:24.4 | 299.8 | r | Sloan | 1 x 1 |
| 229667 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.138 | 180.0 | 00:59:06.0 | 299.9 | r | Sloan | 1 x 1 |
| 229668 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.136 | 180.0 | 01:05:46.3 | 0.0 | r | Sloan | 1 x 1 |
| 229669 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.135 | 180.0 | 01:07:39.3 | 299.8 | r | Sloan | 1 x 1 |
| 229670 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.133 | 180.0 | 01:14:19.9 | 299.8 | r | Sloan | 1 x 1 |
| 229671 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.132 | 180.0 | 01:21:00.2 | 299.8 | r | Sloan | 1 x 1 |
| 229672 | NGC 7789 | 23:58:23.44 | +56:43:56.2 | J2000.00 | 1.132 | 180.0 | 01:27:40.4 | 299.7 | r | Sloan | 1 x 1 |
| 229673 | NGC 7789 | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.132 | 180.0 | 01:34:21.9 | 299.8 | r | Sloan | 1 x 1 |
| 229674 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.133 | 180.0 | 01:41:03.6 | 299.8 | r | Sloan | 1 x 1 |
| 229675 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.134 | 180.0 | 01:47:43.9 | 299.8 | r | Sloan | 1 x 1 |
| 229676 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.135 | 180.0 | 01:54:26.4 | 299.7 | r | Sloan | 1 x 1 |
| 229677 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.138 | 180.0 | 02:01:07.9 | 299.7 | r | Sloan | 1 x 1 |
| 229678 | NGC 7789 | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.140 | 180.0 | 02:07:51.0 | 299.8 | r | Sloan | 1 x 1 |
| 229679 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.142 | 180.0 | 02:14:19.2 | 0.0 | r | Sloan | 1 x 1 |
| 229680 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.145 | 180.0 | 02:16:17.8 | 299.7 | r | Sloan | 1 x 1 |
| 229681 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.149 | 180.0 | 02:22:58.6 | 299.8 | r | Sloan | 1 x 1 |
| 229682 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.153 | 180.0 | 02:29:39.1 | 299.8 | r | Sloan | 1 x 1 |
| 229683 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.158 | 180.0 | 02:36:20.4 | 299.7 | r | Sloan | 1 x 1 |
| 229684 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.164 | 180.0 | 02:43:02.9 | 299.8 | r | Sloan | 1 x 1 |
| 229685 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.170 | 180.0 | 02:49:43.6 | 299.4 | r | Sloan | 1 x 1 |
| 229686 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.177 | 180.0 | 02:56:29.6 | 299.8 | r | Sloan | 1 x 1 |
| 229687 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.184 | 180.0 | 03:03:10.6 | 299.8 | r | Sloan | 1 x 1 |
| 229688 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.193 | 180.0 | 03:09:52.6 | 299.8 | r | Sloan | 1 x 1 |
| 229689 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.201 | 180.0 | 03:16:35.0 | 299.9 | r | Sloan | 1 x 1 |
| 229690 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.208 | 180.0 | 03:24:10.0 | 0.0 | r | Sloan | 1 x 1 |
| 229691 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.215 | 180.0 | 03:25:49.5 | 299.8 | r | Sloan | 1 x 1 |
| 229692 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.225 | 180.0 | 03:32:31.8 | 299.7 | r | Sloan | 1 x 1 |
| 229693 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.236 | 180.0 | 03:39:13.4 | 299.8 | r | Sloan | 1 x 1 |
| 229694 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.248 | 180.0 | 03:45:57.0 | 299.7 | r | Sloan | 1 x 1 |
| 229695 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.261 | 180.0 | 03:52:39.9 | 299.8 | r | Sloan | 1 x 1 |
| 229696 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.274 | 180.0 | 03:59:22.5 | 299.8 | r | Sloan | 1 x 1 |
| 229697 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.288 | 180.0 | 04:06:03.5 | 299.3 | r | Sloan | 1 x 1 |
| 229698 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.304 | 180.0 | 04:12:46.2 | 299.8 | r | Sloan | 1 x 1 |
| 229699 | NGC 7789 | 23:58:23.44 | +56:43:56.1 | J2000.00 | 1.320 | 180.0 | 04:19:28.3 | 299.7 | r | Sloan | 1 x 1 |
| 229700 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.337 | 180.0 | 04:26:09.8 | 299.8 | r | Sloan | 1 x 1 |
| 229701 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.358 | 180.0 | 04:36:37.7 | 0.0 | r | Sloan | 1 x 1 |
| 229702 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.372 | 180.0 | 04:38:52.7 | 299.4 | r | Sloan | 1 x 1 |
| 229703 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.392 | 180.0 | 04:45:34.6 | 299.9 | r | Sloan | 1 x 1 |
| 229704 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.413 | 180.0 | 04:52:16.0 | 299.8 | r | Sloan | 1 x 1 |
| 229705 | NGC 7789 | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.435 | 180.0 | 04:58:57.3 | 299.8 | r | Sloan | 1 x 1 |
| 229706 | NGC 7789 | 23:58:23.43 | +56:43:56.2 | J2000.00 | 1.458 | 180.0 | 05:05:38.6 | 299.8 | r | Sloan | 1 x 1 |
| 229707 | BIAS | 23:58:23.43 | +56:43:56.1 | J2000.00 | 1.491 | 180.0 | 05:16:58.4 | 0.0 | r | Sloan | 1 x 1 |
| 229708 | M31-microfld1 | 0:44:00.00 | +41:33:59.9 | J2000.00 | 1.295 | 180.0 | 05:20:29.1 | 319.8 | r | Sloan | 1 x 1 |
| 229709 | M31-microfld1 | 0:44:00.00 | +41:34:00.0 | J2000.00 | 1.320 | 180.0 | 05:27:32.3 | 319.8 | r | Sloan | 1 x 1 |
| 229710 | M31-microfld1 | 0:44:00.00 | +41:33:59.9 | J2000.00 | 1.347 | 180.0 | 05:34:34.4 | 319.8 | i | Sloan | 1 x 1 |
| 229711 | M31-microfld1 | 0:44:00.00 | +41:34:00.0 | J2000.00 | 1.376 | 180.0 | 05:41:36.3 | 319.7 | i | Sloan | 1 x 1 |
| 229712 | M31-microfld2 | 0:21:35.00 | +20:29:07.4 | J2000.00 | 1.416 | 180.0 | 05:49:43.6 | 319.2 | r | Sloan | 1 x 1 |
| 229713 | M31-microfld2 | 0:43:09.99 | +40:58:15.0 | J2000.00 | 1.450 | 180.0 | 05:56:43.8 | 319.8 | r | Sloan | 1 x 1 |
| 229714 | M31-microfld2 | 0:43:10.00 | +40:58:14.9 | J2000.00 | 1.487 | 180.0 | 06:03:43.6 | 319.8 | i | Sloan | 1 x 1 |
| 229715 | M31-microfld2 | 0:43:10.00 | +40:58:15.0 | J2000.00 | 1.526 | 180.0 | 06:10:47.4 | 319.8 | i | Sloan | 1 x 1 |
| 229716 | Flat - R | 4:25:45.99 | +54:09:02.9 | B1950.00 | 1.110 | 180.0 | 06:20:54.3 | 35.1 | r | Sloan | 1 x 1 |
| 229717 | Flat - R | 4:25:47.13 | +54:09:12.8 | B1950.00 | 1.110 | 180.0 | 06:23:21.6 | 15.1 | r | Sloan | 1 x 1 |
| 229718 | Flat - R | 4:25:48.27 | +54:09:22.9 | B1950.00 | 1.111 | 180.0 | 06:25:26.9 | 10.2 | r | Sloan | 1 x 1 |
| 229719 | Flat - R | 4:25:49.41 | +54:09:33.0 | B1950.00 | 1.111 | 180.0 | 06:27:11.3 | 5.1 | r | Sloan | 1 x 1 |
| 229720 | Flat - R | 4:25:50.55 | +54:09:42.9 | B1950.00 | 1.112 | 180.0 | 06:28:48.5 | 4.1 | r | Sloan | 1 x 1 |
| 229721 | Flat - R | 4:25:51.69 | +54:09:52.9 | B1950.00 | 1.112 | 180.0 | 06:30:26.8 | 3.1 | r | Sloan | 1 x 1 |
| 229722 | Flat - R | 4:25:52.83 | +54:10:02.9 | B1950.00 | 1.113 | 180.0 | 06:31:57.7 | 3.1 | r | Sloan | 1 x 1 |
| 229723 | Flat - R | 4:25:53.97 | +54:10:12.8 | B1950.00 | 1.113 | 180.0 | 06:33:29.6 | 2.1 | r | Sloan | 1 x 1 |
| 229724 | Flat - R | 4:25:55.11 | +54:10:23.0 | B1950.00 | 1.114 | 180.0 | 06:35:05.8 | 1.1 | r | Sloan | 1 x 1 |