

UT Date 2012-12-12 Observers IrwinColl. Focus 1350 Grating/Grism 300

| File           | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program        | Bin | Comments                            |
|----------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|-------------------------------------|
| 0001-0005.DARK | 900      | 23:26    | 09:48:56.1 | +13:44:39 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                                     |
| 0006.COMP      | 5        | 23:46    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   | test                                |
| 0007.COMP      | 5        | 23:48    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   | test                                |
| 0008.COMP      | 5        | 23:50    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   | test                                |
| 0009.BIAS      | 0        | 23:50    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   | 600 tilt 445, 1.5sec, binby4, Brown |
| 0010-0023.BIAS | 0        | 23:52    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   |                                     |
| 0024-0043.FLAT | 12       | 00:00    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 4   |                                     |
| 0044-0058.BIAS | 0        | 00:06    | 09:48:56.1 | +13:44:39 | 600 | 89   | 1.5  | 0 Calibration  | 2   |                                     |
| 0059.Feige110  | 540      | 01:07    | 23:19:58.4 | -05:09:56 | 600 | -4   | 1.5  | #56 Spectropho | 4   |                                     |
| 0060.COMP      | 10       | 01:17    | 23:19:58.4 | -05:09:56 | 600 | -4   | 1.5  | 0 Calibration  | 4   |                                     |
| 0061.lmwd480   | 730      | 01:24    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0062.COMP      | 10       | 01:37    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | 0 Calibration  | 4   |                                     |
| 0063.lmwd480   | 730      | 01:39    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0064.lmwd480   | 730      | 01:51    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0065.COMP      | 10       | 02:03    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | 0 Calibration  | 4   |                                     |
| 0066.lmwd480   | 730      | 02:05    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0067.lmwd480   | 730      | 02:17    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0068.COMP      | 10       | 02:30    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | 0 Calibration  | 4   |                                     |
| 0069.lmwd480   | 730      | 02:31    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |
| 0070.lmwd480   | 730      | 02:44    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                                     |

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|-----------------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|----------------|
| 0071.COMP             | 10       | 02:56    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | 0 Calibration  | 4   |                |
| 0072.lmwd480          | 730      | 02:57    | 21:39:07.4 | +22:27:09 | 600 | 60   | 1.5  | #178 Low Mass  | 4   |                |
| 0073.lmwd480          | 730      | 03:10    | 21:39:07.4 | +22:27:09 | 600 | 59   | 1.5  | #178 Low Mass  | 4   |                |
| 0074.COMP             | 10       | 03:22    | 21:39:07.4 | +22:27:09 | 600 | 59   | 1.5  | 0 Calibration  | 4   |                |
| 0075.lmwd480          | 730      | 03:23    | 21:39:07.4 | +22:27:09 | 600 | 59   | 1.5  | #178 Low Mass  | 4   |                |
| 0076.COMP             | 5        | 03:41    | 21:39:07.4 | +22:27:09 | 300 | 89   | 3.0  | 0 Calibration  | 2   | test           |
| 0077.COMP             | 5        | 03:43    | 21:39:07.4 | +22:27:09 | 300 | 89   | 3.0  | 0 Calibration  | 2   | test           |
| 0078.FLAT             | 7        | 03:44    | 21:39:07.4 | +22:27:09 | 300 | 89   | 3.0  | 0 Calibration  | 2   | standard setup |
| 0079-0097.FLAT        | 7        | 03:50    | 21:39:07.4 | +22:27:09 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                |
| 0098.M31              | 90       | 03:53    | 00:42:44.3 | +41:16:09 | 300 | 89   | 3.0  | #57 Velocity S | 2   |                |
| 0099.COMP             | 10       | 03:55    | 00:42:44.3 | +41:16:09 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                |
| 0100.03522387+3918229 | 904      | 03:58    | 03:52:23.9 | +39:18:23 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                |
| 0101.COMP             | 10       | 04:14    | 03:52:23.9 | +39:18:23 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                |
| 0102.04092011+2910543 | 1424     | 04:15    | 04:09:20.1 | +29:10:54 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                |
| 0103.COMP             | 10       | 04:39    | 04:09:20.1 | +29:10:54 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                |
| 0104.HD19445          | 10       | 04:42    | 03:08:25.6 | +26:19:51 | 300 | 89   | 3.0  | #56 Spectropho | 2   |                |
| 0105.COMP             | 10       | 04:42    | 03:08:25.6 | +26:19:51 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                |
| 0106.HD19445          | 10       | 04:43    | 03:08:25.6 | +26:19:51 | 300 | 89   | 3.0  | #56 Spectropho | 2   |                |
| 0107.HD19445          | 10       | 04:43    | 03:08:25.6 | +26:19:51 | 300 | 89   | 3.0  | #56 Spectropho | 2   |                |
| 0108.04305711+2550144 | 1800     | 04:45    | 04:30:57.1 | +25:50:14 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                |

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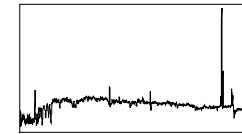
| File                  | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program        | Bin | Comments             |
|-----------------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|----------------------|
| 0109.COMP             | 10       | 05:15    | 04:30:57.1 | +25:50:14 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                      |
| 0110.04390688+2727226 | 1237     | 05:17    | 04:39:06.9 | +27:27:23 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                      |
| 0111.COMP             | 10       | 05:38    | 04:39:06.9 | +27:27:23 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                      |
| 0112.04142733+2709494 | 592      | 05:39    | 04:14:27.3 | +27:09:49 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                      |
| 0113.COMP             | 10       | 05:49    | 04:14:27.3 | +27:09:49 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                      |
| 0114.03535276+6649192 | 1226     | 05:52    | 03:53:52.8 | +66:49:19 | 300 | 89   | 3.0  | #141 2Mass Red | 2   | excellent conditions |
| 0115.COMP             | 10       | 06:13    | 03:53:52.8 | +66:49:19 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                      |
| 0116.04023805+6702293 | 723      | 06:14    | 04:02:38.0 | +67:02:29 | 300 | 89   | 3.0  | #141 2Mass Red | 2   |                      |
| 0117.COMP             | 10       | 06:26    | 04:02:38.0 | +67:02:29 | 300 | 89   | 3.0  | 0 Calibration  | 2   |                      |
| 0118.04050782+6623546 | 1200     | 06:28    | 04:05:07.8 | +66:23:55 | 300 | 109  | 3.0  | #141 2Mass Red | 2   |                      |
| 0119.COMP             | 10       | 06:48    | 04:05:07.8 | +66:23:55 | 300 | 109  | 3.0  | 0 Calibration  | 2   |                      |
| 0120.ls12fuk          | 1800     | 06:52    | 04:58:15.9 | -16:17:58 | 300 | 10   | 3.0  | #2 SN Observat | 2   |                      |
| 0121.COMP             | 10       | 07:23    | 04:58:15.9 | -16:17:58 | 300 | 10   | 3.0  | 0 Calibration  | 2   |                      |
| 0122.04391247+6342139 | 1200     | 07:26    | 04:39:12.5 | +63:42:14 | 300 | 80   | 3.0  | #141 2Mass Red | 2   |                      |
| 0123.COMP             | 10       | 07:46    | 04:39:12.5 | +63:42:14 | 300 | 80   | 3.0  | 0 Calibration  | 2   |                      |
| 0124.G191B2B          | 300      | 07:47    | 05:05:30.6 | +52:49:52 | 300 | 90   | 3.0  | #56 Spectropho | 2   |                      |
| 0125.COMP             | 10       | 07:53    | 05:05:30.6 | +52:49:52 | 300 | 90   | 3.0  | 0 Calibration  | 2   |                      |
| 0126.sn2012hg         | 1800     | 07:56    | 07:07:25.6 | +56:18:19 | 300 | 11   | 3.0  | #2 SN Observat | 2   |                      |
| 0127.COMP             | 10       | 08:26    | 07:07:25.6 | +56:18:19 | 300 | 11   | 3.0  | 0 Calibration  | 2   |                      |
| 0128.COMP             | 5        | 08:32    | 07:07:25.6 | +56:18:19 | 600 | 109  | 1.5  | 0 Calibration  | 4   | test                 |

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| File           | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program       | Bin | Comments                            |
|----------------|----------|----------|------------|-----------|-----|------|------|---------------|-----|-------------------------------------|
| 0129.COMP      | 5        | 08:34    | 07:07:25.6 | +56:18:19 | 600 | 109  | 1.5  | 0 Calibration | 4   | test                                |
| 0130.FLAT      | 12       | 08:35    | 07:07:25.6 | +56:18:19 | 600 | 109  | 1.5  | 0 Calibration | 4   | 600 tilt 445, 1.5sec, binby4, Brown |
| 0131-0149.FLAT | 12       | 08:42    | 07:07:25.6 | +56:18:19 | 600 | 109  | 1.5  | 0 Calibration | 4   |                                     |
| 0150.bcand458  | 570      | 08:45    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0151.COMP      | 10       | 08:55    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | 0 Calibration | 4   |                                     |
| 0152.bcand458  | 570      | 08:56    | 09:23:45.6 | +30:28:05 | 600 | 110  | 1.5  | #178 Low Mass | 4   |                                     |
| 0153.bcand458  | 570      | 09:06    | 09:23:45.6 | +30:28:05 | 600 | 110  | 1.5  | #178 Low Mass | 4   |                                     |
| 0154.bcand458  | 570      | 09:15    | 09:23:45.6 | +30:28:05 | 600 | 110  | 1.5  | #178 Low Mass | 4   |                                     |
| 0155.bcand458  | 570      | 09:25    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0156.COMP      | 10       | 09:35    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | 0 Calibration | 4   |                                     |
| 0157.bcand458  | 570      | 09:37    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   | oops made focus worse not better    |
| 0158.bcand458  | 570      | 09:48    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   | fixed, I think                      |
| 0159.bcand458  | 570      | 09:57    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0160.bcand458  | 570      | 10:07    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0161.bcand458  | 570      | 10:17    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0162.COMP      | 10       | 10:26    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | 0 Calibration | 4   |                                     |
| 0163.bcand458  | 570      | 10:27    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0164.bcand458  | 570      | 10:37    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0165.bcand458  | 570      | 10:47    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |
| 0166.bcand458  | 570      | 10:56    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass | 4   |                                     |

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| File           | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program        | Bin | Comments |
|----------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|----------|
| 0167.COMP      | 10       | 11:06    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | 0 Calibration  | 4   |          |
| 0168.bcand458  | 570      | 11:07    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass  | 4   |          |
| 0169.bcand458  | 570      | 11:17    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass  | 4   |          |
| 0170.bcand458  | 570      | 11:27    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass  | 4   |          |
| 0171.bcand458  | 570      | 11:36    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | #178 Low Mass  | 4   |          |
| 0172.COMP      | 10       | 11:46    | 09:23:45.6 | +30:28:05 | 600 | 109  | 1.5  | 0 Calibration  | 4   |          |
| 0173.bcand458  | 570      | 11:47    | 09:23:45.6 | +30:28:05 | 600 | 110  | 1.5  | #178 Low Mass  | 4   |          |
| 0174.COMP      | 5        | 12:01    | 09:23:45.6 | +30:28:05 | 300 | 90   | 3.0  | 0 Calibration  | 2   |          |
| 0175.psn0941   | 1800     | 12:06    | 09:41:38.0 | +48:40:25 | 300 | 90   | 3.0  | #2 SN Observat | 2   |          |
| 0176.COMP      | 10       | 12:36    | 09:41:38.0 | +48:40:25 | 300 | 90   | 3.0  | 0 Calibration  | 2   |          |
| 0177.sn2012hj  | 1800     | 12:38    | 11:07:19.2 | +46:22:46 | 300 | 100  | 3.0  | #2 SN Observat | 2   |          |
| 0178.COMP      | 10       | 13:08    | 11:07:19.2 | +46:22:46 | 300 | 100  | 3.0  | 0 Calibration  | 2   |          |
| 0179.Feige34   | 180      | 13:10    | 10:39:36.7 | +43:06:09 | 300 | 91   | 3.0  | #56 Spectropho | 2   |          |
| 0180.COMP      | 10       | 13:13    | 10:39:36.7 | +43:06:09 | 300 | 91   | 3.0  | 0 Calibration  | 2   |          |
| 0181.HD84937   | 20       | 13:15    | 09:48:56.1 | +13:44:39 | 300 | 40   | 3.0  | #56 Spectropho | 2   |          |
| 0182.HD84937   | 20       | 13:16    | 09:48:56.1 | +13:44:39 | 300 | 40   | 3.0  | #56 Spectropho | 2   |          |
| 0183.HD84937   | 20       | 13:16    | 09:48:56.1 | +13:44:39 | 300 | 40   | 3.0  | #56 Spectropho | 2   |          |
| 0184.COMP      | 10       | 13:17    | 09:48:56.1 | +13:44:39 | 300 | 40   | 3.0  | 0 Calibration  | 2   |          |
| 0185-0194.BIAS | 0        | 13:22    | 09:48:56.1 | +13:44:39 | 300 | 89   | 3.0  | 0 Calibration  | 4   |          |
| 0195-0204.FLAT | 4        | 13:24    | 09:48:56.1 | +13:44:39 | 300 | 89   | 3.0  | 0 Calibration  | 4   |          |

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| <i>File</i>    | <i>Exp Time</i> | <i>UT Start</i> | <i>RA</i>  | <i>Dec</i> | <i>Gr.</i> | <i>P.A.</i> | <i>Slit</i> | <i>Program</i> | <i>Bin</i> | <i>Comments</i> |
|----------------|-----------------|-----------------|------------|------------|------------|-------------|-------------|----------------|------------|-----------------|
| 0205-0214.BIAS | 0               | 13:26           | 09:48:56.1 | +13:44:39  | 300        | 89          | 3.0         | 0 Calibration  | 2          |                 |
| 0215-0229.FLAT | 7               | 13:30           | 09:48:56.1 | +13:44:39  | 300        | 89          | 3.0         | 0 Calibration  | 2          |                 |
| 0230-0234.DARK | 900             | 14:41           | 09:48:56.1 | +13:44:39  | 300        | 89          | 3.0         | 0 Calibration  | 2          |                 |
| 0235-0239.DARK | 900             | 15:57           | 09:48:56.1 | +13:44:39  | 300        | 89          | 3.0         | 0 Calibration  | 4          |                 |