

UT Date 2001-04-21 Observers M CalkinsColl. Focus 1125 Grating/Grism 600

| File         | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program        | Bir | Comments |
|--------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|----------|
| 1-3.DARK     | 900      | 1:40     | -          | -         | 300 | 90   | 3.0  | -              |     |          |
| 4-13.BIAS    | 0        | 2:25     | -          | -         | 300 | 90   | 3.0  | -              |     |          |
| 14-23.FLAT   | 6        | 2:27     | -          | -         | 300 | 90   | 3.0  | -              |     |          |
| 24-33.BIAS   | 0        | 2:30     | -          | -         | 300 | 90   | 3.0  | -              |     |          |
| 34-43.FLAT   | 12       | 2:33     | -          | -         | 300 | 90   | 3.0  | -              |     |          |
| 0044.Feige34 | 90       | 2:49     | 10:36:41.2 | 43:21:50  | 300 | 90   | 3.0  | #56 Spectropho |     |          |
| 0045.Feige34 | 90       | 2:51     | 10:36:41.2 | 43:21:50  | 300 | 90   | 3.0  | #56 Spectropho |     |          |
| 0046.COMP    | 5        | 2:53     | 10:36:41.2 | 43:21:50  | 300 | 90   | 3.0  | #56 Spectropho |     |          |
| 0047.Feige34 | 90       | 2:55     | 10:36:41.2 | 43:21:50  | 300 | 58   | 3.0  | #56 Spectropho |     |          |
| 0048.Feige34 | 90       | 2:57     | 10:36:41.2 | 43:21:50  | 300 | 58   | 3.0  | #56 Spectropho |     |          |
| 0049.COMP    | 12       | 2:59     | 10:36:41.2 | 43:21:50  | 300 | 58   | 3.0  | #56 Spectropho |     |          |
| 0050.N3377   | 60       | 3:00     | 10:45:02.6 | +14:14:51 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 0051.COMP    | 12       | 3:02     | 10:45:02.6 | +14:14:51 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 0052.BGGem   | 240      | 3:05     | 6:03:31    | 27:41:50  | 300 | 90   | 3.0  | #100 BGGem     |     |          |
| 0053.COMP    | 12       | 3:09     | 6:03:31    | 27:41:50  | 300 | 90   | 3.0  | #100 BGGem     |     |          |
| 0054.BGGem   | 1020     | 3:10     | 6:03:31    | 27:41:50  | 300 | 90   | 3.0  | #100 BGGem     |     |          |
| 0055.COMP    | 12       | 3:28     | 6:03:31    | 27:41:50  | 300 | 90   | 3.0  | #100 BGGem     |     |          |
| 0056.SN2001V | 1200     | 3:54     | 11:57:25.0 | 25:12:10  | 300 | 110  | 3.0  | #2 SN Observat |     |          |
| 0057.COMP    | 12       | 4:15     | 11:57:25.0 | 25:12:10  | 300 | 110  | 3.0  | #2 SN Observat |     |          |
| 58-67.FLAT   | 40       | 4:19     | 11:57:25.0 | 25:12:10  | 600 | 90   | 2.0  | #2 SN Observat |     |          |

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|--------------|----------|----------|------------|----------|-----|------|------|----------------|-----|----------|
| 0068.Feige34 | 120      | 4:30     | 10:36:41.2 | 43:21:50 | 600 | 90   | 2.0  | #56 Spectropho |     |          |
| 0069.COMP    | 20       | 4:33     | 10:36:41.2 | 43:21:50 | 600 | 90   | 2.0  | #56 Spectropho |     |          |
| 0070.hs192   | 830      | 4:35     | 11:53:01.3 | 29:09:43 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0071.COMP    | 10       | 4:49     | 11:53:01.3 | 29:09:43 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0072.hs193   | 900      | 4:50     | 11:53:40.5 | 29:06:58 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0073.COMP    | 10       | 5:06     | 11:53:40.5 | 29:06:58 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0074.hs194   | 960      | 5:07     | 11:54:18.3 | 29:21:20 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0075.COMP    | 10       | 5:23     | 11:54:18.3 | 29:21:20 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0076.hs195   | 540      | 5:24     | 11:54:42.8 | 28:43:23 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0077.COMP    | 10       | 5:34     | 11:54:42.8 | 28:43:23 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0078.hs196   | 360      | 5:35     | 11:55:00.8 | 28:58:31 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0079.COMP    | 10       | 5:41     | 11:55:00.8 | 28:58:31 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0080.hs197   | 900      | 5:42     | 11:55:09.1 | 28:58:10 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0081.COMP    | 10       | 5:58     | 11:55:09.1 | 28:58:10 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0082.hs198   | 420      | 5:59     | 11:55:16.3 | 29:12:20 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0083.COMP    | 10       | 6:06     | 11:55:16.3 | 29:12:20 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0084.hs199   | 900      | 6:07     | 11:55:33.6 | 29:14:56 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0085.COMP    | 10       | 6:23     | 11:55:33.6 | 29:14:56 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0086.hs200   | 1020     | 6:24     | 11:56:07.0 | 29:14:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0087.COMP    | 10       | 6:41     | 11:56:07.0 | 29:14:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |

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|------------|----------|----------|------------|----------|-----|------|------|----------------|-----|----------|
| 0088.hs201 | 840      | 6:42     | 11:56:29.0 | 28:59:32 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0089.COMP  | 10       | 6:56     | 11:56:29.0 | 28:59:32 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0090.hs202 | 240      | 6:57     | 11:57:21.2 | 28:46:45 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0091.COMP  | 10       | 7:01     | 11:57:21.2 | 28:46:45 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0092.hs203 | 1020     | 7:02     | 11:57:32.0 | 29:33:31 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0093.COMP  | 10       | 7:20     | 11:57:32.0 | 29:33:31 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0094.hs204 | 240      | 7:20     | 11:57:33.4 | 29:40:54 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0095.COMP  | 10       | 7:25     | 11:57:33.4 | 29:40:54 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0096.hs205 | 480      | 7:25     | 11:59:41.6 | 28:51:06 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0097.COMP  | 10       | 7:34     | 11:59:41.6 | 28:51:06 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0098.hs206 | 540      | 7:35     | 12:02:25.0 | 29:40:59 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0099.COMP  | 10       | 7:44     | 12:02:25.0 | 29:40:59 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0100.hs207 | 540      | 7:45     | 12:04:42.9 | 29:41:50 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0101.COMP  | 10       | 7:54     | 12:04:42.9 | 29:41:50 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0102.hs208 | 240      | 7:55     | 12:05:17.8 | 29:03:07 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0103.COMP  | 10       | 8:00     | 12:05:17.8 | 29:03:07 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0104.hs209 | 240      | 8:01     | 12:05:22.9 | 29:09:19 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0105.COMP  | 10       | 8:05     | 12:05:22.9 | 29:09:19 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0106.hs210 | 660      | 8:06     | 12:06:07.9 | 29:21:50 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0107.COMP  | 10       | 8:17     | 12:06:07.9 | 29:21:50 | 600 | 90   | 2.0  | #122 Halo Star |     |          |

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| File       | Exp Time | UT Start | RA         | Dec      | Gr. | P.A. | Slit | Program        | Bir | Comments |
|------------|----------|----------|------------|----------|-----|------|------|----------------|-----|----------|
| 0108.hs211 | 540      | 8:18     | 12:07:04.4 | 29:30:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0109.COMP  | 10       | 8:27     | 12:07:04.4 | 29:30:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0110.hs212 | 900      | 8:28     | 12:08:01.3 | 29:14:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0111.COMP  | 10       | 8:44     | 12:08:01.3 | 29:14:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0112.hs213 | 900      | 8:45     | 12:08:43.4 | 29:14:45 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0113.COMP  | 10       | 9:00     | 12:08:43.4 | 29:14:45 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0114.hs214 | 240      | 9:02     | 12:11:44.5 | 29:16:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0115.COMP  | 10       | 9:06     | 12:11:44.5 | 29:16:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0116.hs215 | 720      | 9:07     | 12:12:16.5 | 29:22:08 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0117.COMP  | 10       | 9:20     | 12:12:16.5 | 29:22:08 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0118.hs216 | 900      | 9:21     | 12:12:21.6 | 29:07:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0119.COMP  | 10       | 9:36     | 12:12:21.6 | 29:07:55 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0120.hs217 | 660      | 9:37     | 12:12:54.3 | 29:38:44 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0121.COMP  | 10       | 9:49     | 12:12:54.3 | 29:38:44 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0122.hs218 | 900      | 9:50     | 12:13:01.9 | 29:09:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0123.COMP  | 10       | 10:05    | 12:13:01.9 | 29:09:04 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0124.hs219 | 240      | 10:07    | 12:13:16.3 | 29:24:02 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0125.COMP  | 10       | 10:11    | 12:13:16.3 | 29:24:02 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0126.hs220 | 660      | 10:13    | 12:13:20.2 | 29:02:26 | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0127.COMP  | 12       | 10:24    | 12:13:20.2 | 29:02:26 | 600 | 90   | 2.0  | #122 Halo Star |     |          |

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| File          | Exp Time | UT Start | RA         | Dec       | Gr. | P.A. | Slit | Program        | Bir | Comments |
|---------------|----------|----------|------------|-----------|-----|------|------|----------------|-----|----------|
| 0128.hs221    | 1200     | 10:25    | 12:14:13.9 | 29:21:52  | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0129.COMP     | 10       | 10:45    | 12:14:13.9 | 29:21:52  | 600 | 90   | 2.0  | #122 Halo Star |     |          |
| 0130.HZ44     | 240      | 10:47    | 13:21:19.0 | 36:23:39  | 600 | 90   | 2.0  | #56 Spectropho |     |          |
| 0131.COMP     | 10       | 10:51    | 13:21:19.0 | 36:23:39  | 600 | 90   | 2.0  | #56 Spectropho |     |          |
| 0132.sn2001ay | 1200     | 10:57    | 14:26:17.0 | 26:14:55  | 300 | 71   | 3.0  | #2 SN Observat |     |          |
| 0133.COMP     | 5        | 11:18    | 14:26:17.0 | 26:14:55  | 300 | 71   | 3.0  | #2 SN Observat |     |          |
| 0134.sn2001ay | 1200     | 11:19    | 14:26:17.0 | 26:14:55  | 300 | 71   | 3.0  | #2 SN Observat |     |          |
| 0135.COMP     | 12       | 11:39    | 14:26:17.0 | 26:14:55  | 300 | 71   | 3.0  | #2 SN Observat |     |          |
| 0136.V2416Sgr | 20       | 11:42    | 17:57:16   | -21:41:30 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 0137.V2416Sgr | 360      | 11:42    | 17:57:16   | -21:41:30 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 0138.COMP     | 12       | 11:49    | 17:57:16   | -21:41:30 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 0139.AS270    | 20       | 11:50    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 0140.AS270    | 360      | 11:51    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 0141.COMP     | 12       | 11:57    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #12 Symbiotic  |     |          |
| 142-146.sky   | 2        | 12:00    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 0147.COMP     | 5        | 12:35    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 148-157.BIAS  | 0        | 12:36    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 158-167.FLAT  | 6        | 12:38    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 168-177.BIAS  | 0        | 12:41    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |
| 178-187.FLAT  | 12       | 12:44    | 18:05:33   | -20:20:37 | 300 | 90   | 3.0  | #57 Velocity S |     |          |

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| <i>File</i>  | <i>Exp<br/>Time</i> | <i>UT<br/>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> |
|--------------|---------------------|---------------------|-----------|------------|------------|-------------|-------------|----------------|------------|-----------------|
| 188-197.DARK | 900                 | 12:49               | 18:05:33  | -20:20:37  | 300        | 90          | 3.0         | #57 Velocity S |            |                 |