



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-06-02 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:19	20:06:40	41:06:15	300	90	3.0	#6 AGN Monitor	4	
0011-0020.BIAS	0	0:58	20:06:40	41:06:15	300	90	3.0	#6 AGN Monitor	4	
0021-0030.FLAT	6	1:01	20:06:40	41:06:15	300	90	3.0	#6 AGN Monitor	4	
0031-0040.BIAS	0	1:04	20:06:40	41:06:15	300	90	3.0	#6 AGN Monitor	2	
0041-0050.FLAT	12	1:10	20:06:40	41:06:15	300	90	3.0	#6 AGN Monitor	2	
0051-0055.sky	2	2:51	20:06:40	41:06:15	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:51	20:06:40	41:06:15	300	90	3.0	#57 Velocity S	4	
0057.Feige34	90	3:09	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0058.Feige34	90	3:11	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	3:13	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.Feige34	90	3:13	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.Feige34	90	3:15	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	12	3:17	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.Feige34	90	3:19	10:36:41.2	43:21:50	300	17	3.0	#56 Spectropho	2	
0064.Feige34	90	3:21	10:36:41.2	43:21:50	300	17	3.0	#56 Spectropho	2	
0065.COMP	12	3:23	10:36:41.2	43:21:50	300	17	3.0	#56 Spectropho	2	
0066.N4486B	300	3:26	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	2	
0067.COMP	12	3:31	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	2	
0068.MRK110	360	3:39	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	2	
0069.COMP	12	3:46	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	2	



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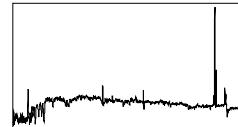
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.N3227	90	3:47	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	2	
0071.N3227	90	3:49	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	2	
0072.N3227	90	3:51	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	2	
0073.COMP	12	3:53	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	2	
0074.MRK421	180	3:54	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0075.MRK421	180	3:57	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0076.COMP	12	4:01	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0077.N4051	120	4:03	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	2	
0078.N4051	120	4:06	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	2	
0079.COMP	12	4:08	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	2	
0080.N4151	30	4:09	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	2	
0081.N4151	30	4:10	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	2	
0082.N4151	30	4:11	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	2	
0083.COMP	12	4:12	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	2	
0084.N5548	90	4:13	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0085.N5548	90	4:15	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0086.N5548	90	4:17	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0087.COMP	12	4:19	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0088.sn2002cx	1200	4:24	13:13:49.7	+06:57:31	300	12	3.0	#2 SN Observat	2	
0089.sn2002cx	1200	4:44	13:13:49.7	+06:57:31	300	12	3.0	#2 SN Observat	2	



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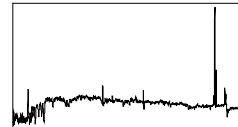
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0090.COMP	12	5:04	13:13:49.7	+06:57:31	300	12	3.0	#2 SN Observat	2	
0091.sn2002ck	1200	5:11	15:47:00.7	-00:59:25	300	-28	3.0	#2 SN Observat	2	row=78
0092.COMP	12	5:32	15:47:00.7	-00:59:25	300	-28	3.0	#2 SN Observat	2	
0093.snn6104	1200	5:38	16:16:30.7	35:42:29	300	70	3.0	#2 SN Observat	2	
0094.COMP	12	5:58	16:16:30.7	35:42:29	300	70	3.0	#2 SN Observat	2	
0095.BDp332642	120	6:06	15:50:03	33:05:49	600	80	3.0	#70f Elliptica	2	600L, 3arcsec, tilt=452
0096.COMP	20	6:08	15:50:03	33:05:49	600	80	3.0	#70f Elliptica	2	
0097.HD132737	2	6:11	14:59:52.5	27:09:35	600	52	3.0	#70f Elliptica	2	
0098.HD132737	5	6:12	14:59:52.5	27:09:35	600	52	3.0	#70f Elliptica	2	
0099.HD132737	15	6:12	14:59:52.5	27:09:35	600	52	3.0	#70f Elliptica	2	
0100.COMP	20	6:13	14:59:52.5	27:09:35	600	52	3.0	#70f Elliptica	2	
0101.vcc49	1800	6:16	12:9:44	13:29:0	600	60	3.0	#70f Elliptica	2	
0102.COMP	20	6:46	12:9:44	13:29:0	600	60	3.0	#70f Elliptica	2	
0103.vcc49	1800	6:47	12:9:44	13:29:0	600	60	3.0	#70f Elliptica	2	
0104.COMP	20	7:17	12:9:44	13:29:0	600	60	3.0	#70f Elliptica	2	
0105-0114.FLAT	24	7:25	12:9:44	13:29:0	600	90	3.0	#70f Elliptica	2	
0115.BDp332642	120	7:30	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	600L, 2arcsec, tilt=430
0116.COMP	10	7:32	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0117.hs1086	300	7:35	16:24:15.7	29:59:14	600	90	2.0	#122 Halo Star	4	
0118.COMP	10	7:40	16:24:15.7	29:59:14	600	90	2.0	#122 Halo Star	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0119.hs1087	1200	7:41	16:25:10.7	30:35:20	600	90	2.0	#122 Halo Star	4	
0120.COMP	10	8:02	16:25:10.7	30:35:20	600	90	2.0	#122 Halo Star	4	
0121.hs1088	720	8:21	16:25:16.4	29:24:50	600	90	2.0	#122 Halo Star	4	
0122.COMP	10	8:33	16:25:16.4	29:24:50	600	90	2.0	#122 Halo Star	4	
0123.hs1089	720	8:36	16:27:00.8	29:48:46	600	100	2.0	#122 Halo Star	4	
0124.COMP	10	8:48	16:27:00.8	29:48:46	600	100	2.0	#122 Halo Star	4	
0125.hs1090	720	8:51	16:27:01.1	29:52:43	600	90	2.0	#122 Halo Star	4	
0126.COMP	10	9:04	16:27:01.1	29:52:43	600	90	2.0	#122 Halo Star	4	
0127.hs1091	660	9:04	16:28:39.2	29:20:18	600	90	2.0	#122 Halo Star	4	
0128.COMP	10	9:16	16:28:39.2	29:20:18	600	90	2.0	#122 Halo Star	4	
0129.hs1092	900	9:19	16:29:00.0	29:27:01	600	90	2.0	#122 Halo Star	4	
0130.COMP	10	9:35	16:29:00.0	29:27:01	600	90	2.0	#122 Halo Star	4	
0131.hs1093	1200	9:35	16:32:29.8	30:11:24	600	90	2.0	#122 Halo Star	4	
0132.COMP	10	9:56	16:32:29.8	30:11:24	600	90	2.0	#122 Halo Star	4	
0133-0142.FLAT	40	10:04	16:32:29.8	30:11:24	600	90	2.0	#122 Halo Star	4	
0143.a2199s_126	600	10:11	16:30:45.2	39:11:42	300	90	3.0	#64 Cluster In	4	normal setup
0144.COMP	5	10:21	16:30:45.2	39:11:42	300	90	3.0	#64 Cluster In	4	
0145.a2199s_127	420	10:22	16:30:53.9	39:50:50	300	90	3.0	#64 Cluster In	4	
0146.COMP	5	10:29	16:30:53.9	39:50:50	300	90	3.0	#64 Cluster In	4	
0147.a2199s_128	300	10:30	16:31:02.6	39:47:32	300	90	3.0	#64 Cluster In	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0148.COMP	5	10:35	16:31:02.6	39:47:32	300	90	3.0	#64 Cluster In	4	
0149.a2199s_129	240	10:36	16:31:03.4	39:50:18	300	90	3.0	#64 Cluster In	4	
0150.COMP	5	10:40	16:31:03.4	39:50:18	300	90	3.0	#64 Cluster In	4	
0151.a2199s_130	960	10:41	16:31:03.7	41:09:21	300	90	3.0	#64 Cluster In	4	
0152.COMP	5	10:58	16:31:03.7	41:09:21	300	90	3.0	#64 Cluster In	4	
0153.a2199s_132	360	10:59	16:31:16.2	39:52:32	300	90	3.0	#64 Cluster In	4	
0154.COMP	5	11:05	16:31:16.2	39:52:32	300	90	3.0	#64 Cluster In	4	
0155.a2199s_133	360	11:06	16:31:19.2	39:44:37	300	90	3.0	#64 Cluster In	4	
0156.COMP	10	11:13	16:31:19.2	39:44:37	300	90	3.0	#64 Cluster In	4	
0157.a2199s_136	420	11:15	16:33:09.5	34:55:34	300	90	3.0	#64 Cluster In	4	
0158.COMP	5	11:22	16:33:09.5	34:55:34	300	90	3.0	#64 Cluster In	4	
0159.BDp404032	120	11:24	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0160.COMP	5	11:26	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0161.BDp404032	60	11:28	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0162.COMP	5	11:29	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0163-0172.BIAS	0	11:33	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0173-0182.FLAT	6	11:37	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0183-0192.BIAS	0	11:41	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0193-0202.FLAT	12	11:45	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0203-0212.DARK	900	14:04	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	



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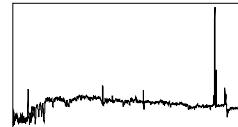
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:47	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0011-0020.BIAS	0	2:04	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0021-0030.FLAT	6	2:07	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	4	
0031-0040.BIAS	0	2:10	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0041-0050.FLAT	12	2:16	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0051-0055.sky	2	2:49	20:06:40	41:06:15	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:49	20:06:40	41:06:15	300	90	3.0	#57 Velocity S	4	
0057.Feige34	120	3:09	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0058.Feige34	120	3:11	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	3:13	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.Feige34	120	3:14	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.Feige34	120	3:16	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	12	3:19	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.Feige34	120	3:20	10:36:41.2	43:21:50	300	105	3.0	#56 Spectropho	2	
0064.Feige34	120	3:22	10:36:41.2	43:21:50	300	105	3.0	#56 Spectropho	2	
0065.COMP	12	3:25	10:36:41.2	43:21:50	300	105	3.0	#56 Spectropho	2	
0066.sn2002cr	1200	3:32	14:06:37.5	-05:26:21	300	-24	3.0	#2 SN Observat	2	
0067.COMP	12	3:52	14:06:37.5	-05:26:21	300	-24	3.0	#2 SN Observat	2	
0068.vcc345	1800	4:00	12:16:50	6:6:12	600	27	3.0	#70f Elliptica	2	600L, 3arcsec, tilt=452
0069.COMP	20	4:30	12:16:50	6:6:12	600	27	3.0	#70f Elliptica	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.vcc345	1800	4:31	12:16:50	6:6:12	600	37	3.0	#70f Elliptica	2	
0071.COMP	20	5:02	12:16:50	6:6:12	600	37	3.0	#70f Elliptica	2	
0072.vcc731	1800	5:04	12:21:56	7:35:42	600	45	3.0	#70f Elliptica	2	
0073.COMP	12	5:34	12:21:56	7:35:42	600	45	3.0	#70f Elliptica	2	
0074.vcc731	1800	5:35	12:21:56	7:35:42	600	50	3.0	#70f Elliptica	2	
0075.COMP	20	6:06	12:21:56	7:35:42	600	50	3.0	#70f Elliptica	2	
0076.vcc1178	1800	6:10	12:26:49	8:26:6	600	54	3.0	#70f Elliptica	2	
0077.COMP	20	6:40	12:26:49	8:26:6	600	54	3.0	#70f Elliptica	2	
0078.vcc1178	1800	6:42	12:26:49	8:26:6	600	57	3.0	#70f Elliptica	2	
0079.COMP	20	7:12	12:26:49	8:26:6	600	57	3.0	#70f Elliptica	2	
0080.BDp332642	120	7:15	15:50:03	33:05:49	600	95	3.0	#70f Elliptica	2	
0081.COMP	20	7:17	15:50:03	33:05:49	600	95	3.0	#70f Elliptica	2	
0082.HD132737	5	7:20	14:59:52.5	27:09:35	600	72	3.0	#70f Elliptica	2	
0083.HD132737	10	7:20	14:59:52.5	27:09:35	600	72	3.0	#70f Elliptica	2	
0084.HD132737	15	7:21	14:59:52.5	27:09:35	600	72	3.0	#70f Elliptica	2	
0085.COMP	20	7:22	14:59:52.5	27:09:35	600	72	3.0	#70f Elliptica	2	
0086-0095.FLAT	24	7:28	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0096.BDp332642	90	7:33	15:50:03	33:05:49	300	92	3.0	#56 Spectropho	2	normal setup
0097.COMP	12	7:35	15:50:03	33:05:49	300	92	3.0	#56 Spectropho	2	
0098.snn6104	1200	7:38	16:16:30.7	35:42:29	300	110	3.0	#2 SN Observat	2	row=79



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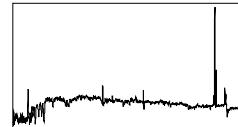
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0099.COMP	12	8:00	16:16:30.7	35:42:29	300	110	3.0	#2 SN Observat	2	
0100.sn2002cs	1200	8:04	18:46:59.9	45:42:19	300	55	3.0	#2 SN Observat	2	
0101.COMP	12	8:25	18:46:59.9	45:42:19	300	55	3.0	#2 SN Observat	2	
0102.a2199s_134	1200	8:29	16:31:19.4	39:47:25	300	90	3.0	#64 Cluster In	2	
0103.COMP	12	8:50	16:31:19.4	39:47:25	300	90	3.0	#64 Cluster In	2	
0104.a2199s_135	300	8:51	16:31:34.4	40:33:55	300	90	3.0	#64 Cluster In	2	
0105.COMP	12	8:56	16:31:34.4	40:33:55	300	90	3.0	#64 Cluster In	2	
0106.a2199s_137	240	8:58	16:33:17.7	35:20:32	300	90	3.0	#64 Cluster In	2	
0107.COMP	12	9:02	16:33:17.7	35:20:32	300	90	3.0	#64 Cluster In	2	
0108.a2199s_138	420	9:03	16:35:28.1	35:50:13	300	90	3.0	#64 Cluster In	2	
0109.COMP	12	9:10	16:35:28.1	35:50:13	300	90	3.0	#64 Cluster In	2	
0110.a2199s_139	1200	9:12	16:36:06.8	44:36:10	300	90	3.0	#64 Cluster In	2	
0111.COMP	12	9:32	16:36:06.8	44:36:10	300	90	3.0	#64 Cluster In	2	
0112-0121.FLAT	12	9:38	16:36:06.8	44:36:10	300	90	3.0	#64 Cluster In	2	
0122.COMP	24	9:49	19:01:26.9	01:23:04	300	3	1.5	#65 X-Ray Nova	2	300L, 1.5arcsec, tilt=610
0123.J1901candiC	1800	9:50	19:01:26.9	01:23:04	300	3	1.5	#65 X-Ray Nova	2	row=77
0124.COMP	24	10:20	19:01:26.9	01:23:04	300	3	1.5	#65 X-Ray Nova	2	
0125-0134.FLAT	24	10:28	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0135.CHCyg	1	10:31	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0136.CHCyg	5	10:32	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	



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UT Date 2002-06-03 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0137.CH Cyg	30	10:32	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0138.COMP	12	10:33	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0139.CI Cyg	2	10:34	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0140.CI Cyg	20	10:34	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0141.CI Cyg	60	10:35	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0142.COMP	12	10:36	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0143.sb78	1200	10:41	17:29:06.6	+22:29:33	300	20	3.0	#135 Starburst	2	
0144.COMP	12	11:01	17:29:06.6	+22:29:33	300	20	3.0	#135 Starburst	2	
0145.HD164858	3	11:05	18:3:57.7	-18:22:55	300	90	3.0	#87 IRAC Spect	2	
0146.HD164858	40	11:06	18:3:57.7	-18:22:55	300	90	3.0	#87 IRAC Spect	2	
0147.HD164858	90	11:07	18:3:57.7	-18:22:55	300	90	3.0	#87 IRAC Spect	2	
0148.COMP	12	11:09	18:3:57.7	-18:22:55	300	90	3.0	#87 IRAC Spect	2	
0149.HD171186	10	11:10	18:34:4.7	-20:16:42	300	90	3.0	#87 IRAC Spect	2	
0150.HD171186	30	11:11	18:34:4.7	-20:16:42	300	90	3.0	#87 IRAC Spect	2	
0151.COMP	12	11:12	18:34:4.7	-20:16:42	300	90	3.0	#87 IRAC Spect	2	
0152.HD171808	30	11:13	18:37:37.5	-20:3:58	300	90	3.0	#87 IRAC Spect	2	
0153.HD171808	45	11:14	18:37:37.5	-20:3:58	300	90	3.0	#87 IRAC Spect	2	
0154.COMP	12	11:15	18:37:37.5	-20:3:58	300	90	3.0	#87 IRAC Spect	2	
0155.HD177579	180	11:17	19:5:59.3	-17:13:59	300	90	3.0	#87 IRAC Spect	2	
0156.COMP	12	11:21	19:5:59.3	-17:13:59	300	90	3.0	#87 IRAC Spect	2	



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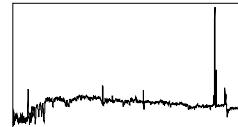
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0157.HD177560	150	11:22	19:6:0.1	-19:54:59	300	90	3.0	#87 IRAC Spect	2	
0158.COMP	12	11:25	19:6:0.1	-19:54:59	300	90	3.0	#87 IRAC Spect	2	
0159.ZAnd	2	11:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0160.ZAnd	10	11:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0161.ZAnd	60	11:28	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0162.COMP	12	11:29	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0163.HD177560	70	11:31	19:6:0.1	-19:54:59	300	90	3.0	#87 IRAC Spect	2	
0164.COMP	12	11:33	19:6:0.1	-19:54:59	300	90	3.0	#87 IRAC Spect	2	
0165.BDp404032	120	11:35	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0166.COMP	12	11:37	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0167.BDp404032	70	11:38	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0168.COMP	12	11:39	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0169-0178.BIAS	0	11:43	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	4	
0179-0188.FLAT	6	11:46	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	4	
0189-0198.BIAS	0	11:49	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	2	
0199-0208.FLAT	12	11:53	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	2	
0209-0218.DARK	900	14:13	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-06-04 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	23:54	20:06:40	41:06:15	300	90	3.0	#87 IRAC Spect	4	
0011-0020.BIAS	0	2:16	11:42:02.5	31:30:59	300	90	3.0	#87 IRAC Spect	4	
0021.FLAT	8	2:17	11:42:41.5	31:30:59	300	90	3.0	#87 IRAC Spect	4	first few hours spent engineering new guider
0022-0030.FLAT	8	2:19	11:44:55.5	31:30:59	300	90	3.0	#87 IRAC Spect	4	
0031-0040.BIAS	0	2:22	11:47:19.5	31:30:59	300	90	3.0	#87 IRAC Spect	2	
0041-0050.FLAT	16	2:26	11:52:31.6	31:30:59	300	90	3.0	#87 IRAC Spect	2	
0051.AGK2p43928	3	3:06	09:52:29	+43:28:00	300	90	3.0	#57 Velocity S	4	
0052.AGK2p43928	3	3:06	09:52:29	+43:28:00	300	90	3.0	#57 Velocity S	4	
0053.AGK2p43928	3	3:07	09:52:29	+43:28:00	300	90	3.0	#57 Velocity S	4	
0054.COMP	5	3:07	09:52:29	+43:28:00	300	90	3.0	#57 Velocity S	4	
0055.MRK421	300	3:30	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0056.COMP	5	3:35	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0057.Feige34	150	3:37	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0058.Feige34	150	3:39	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0059.COMP	10	3:42	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0060.sn2002bo	1200	3:51	10:18:06.5	+21:49:41	300	70	3.0	#2 SN Observat	2	
0061.COMP	10	4:11	10:18:06.5	+21:49:41	300	70	3.0	#2 SN Observat	2	
0062.sn2002de	1200	5:14	16:16:30.7	35:42:29	300	45	3.0	#2 SN Observat	2	
0063.COMP	10	5:34	16:16:30.7	35:42:29	300	45	3.0	#2 SN Observat	2	
0064.sb65	1200	6:05	16:16:12.0	+42:23:59	300	90	3.0	#135 Starburst	2	target gal @ row 88, ignore fainter gal @ row 79



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UT Date 2002-06-04 Observers P Berlind

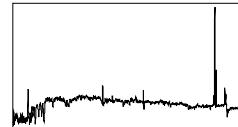
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0065.COMP	10	6:25	16:16:12.0	+42:23:59	300	90	3.0	#135 Starburst	2	
0066.sb70	900	6:26	16:31:06.6	+23:49:59	300	90	3.0	#135 Starburst	2	
0067.COMP	10	6:42	16:31:06.6	+23:49:59	300	90	3.0	#135 Starburst	2	
0068.sb72	1200	6:44	16:36:15.7	+44:04:38	300	70	3.0	#135 Starburst	2	
0069.COMP	10	7:05	16:36:15.7	+44:04:38	300	70	3.0	#135 Starburst	2	
0070.sb73	1200	7:06	16:42:23.7	+25:05:08	300	25	3.0	#135 Starburst	2	
0071.COMP	10	7:26	16:42:23.7	+25:05:08	300	25	3.0	#135 Starburst	2	
0072.sb73	1200	7:27	16:42:23.7	+25:05:08	300	25	3.0	#135 Starburst	2	
0073.COMP	10	7:47	16:42:23.7	+25:05:08	300	25	3.0	#135 Starburst	2	
0074.BIAS	0	7:51	17:30:00	32:00:00	1200	90	1.5	#135 Starburst	2	
0075.COMP	45	7:51	17:30:00	32:00:00	1200	90	1.5	#135 Starburst	2	
0076.COMP	20	7:53	17:30:00	32:00:00	1200	90	1.5	#135 Starburst	2	
0077.FLAT	100	7:55	17:30:00	32:00:00	1200	90	1.5	#135 Starburst	2	1200-line, 1.5-sec slit, blue
0078-0086.FLAT	100	8:12	17:30:00	32:00:00	1200	90	1.5	#135 Starburst	2	
0087.HD171485A	10	8:17	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0088.HD171485A	30	8:17	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0089.HD171485A	30	8:18	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0090.COMP	20	8:19	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0091.COMP	20	8:23	17:50:55.4	-30:14:51	1200	0	1.5	#134 OGLE Tran	2	
0092.OGLE-TR-13	900	8:24	17:50:55.4	-30:14:51	1200	0	1.5	#134 OGLE Tran	2	



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UT Date 2002-06-04 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0093.COMP	20	8:40	17:50:55.4	-30:14:51	1200	0	1.5	#134 OGLE Tran	2	
0094.OGLE-TR-13	900	8:40	17:50:55.4	-30:14:51	1200	0	1.5	#134 OGLE Tran	2	
0095.COMP	20	8:57	17:50:55.4	-30:14:51	1200	0	1.5	#134 OGLE Tran	2	
0096.OGLE-TR-14	1200	8:58	17:54:33.9	-30:01:31	1200	10	1.5	#134 OGLE Tran	2	
0097.COMP	20	9:19	17:54:33.9	-30:01:31	1200	10	1.5	#134 OGLE Tran	2	
0098.OGLE-TR-41	1200	9:23	17:55:16.3	-29:31:32	1200	15	1.5	#134 OGLE Tran	2	
0099.COMP	20	9:43	17:55:16.3	-29:31:32	1200	15	1.5	#134 OGLE Tran	2	
0100.G140-53	180	9:46	18:17:52.1	+05:27:07	1200	25	1.5	#134 OGLE Tran	2	
0101.G140-53	180	9:49	18:17:52.1	+05:27:07	1200	25	1.5	#134 OGLE Tran	2	
0102.COMP	20	9:53	18:17:52.1	+05:27:07	1200	25	1.5	#134 OGLE Tran	2	
0103.G21-25	180	9:54	18:48:21.9	-05:05:29	1200	12	1.5	#134 OGLE Tran	2	
0104.G21-25	180	9:58	18:48:21.9	-05:05:29	1200	12	1.5	#134 OGLE Tran	2	
0105.COMP	20	10:01	18:48:21.9	-05:05:29	1200	12	1.5	#134 OGLE Tran	2	
0106.BIAS	0	10:04	19:30:00	32:00:00	1200	12	1.5	#134 OGLE Tran	2	300-line, 1.5-sec slit
0107.J1901candiC	1800	10:09	19:01:26.9	01:23:04	300	20	1.5	#65 X-Ray Nova	2	
0108.COMP	10	10:40	19:01:26.9	01:23:04	300	20	1.5	#65 X-Ray Nova	2	
0109.snmcmc01	1200	10:46	20:45:39.3	-04:57:04	300	-5	1.5	#2 SN Observat	2	
0110.COMP	10	11:06	20:45:39.3	-04:57:04	300	-5	1.5	#2 SN Observat	2	
0111.BDp404032	90	11:08	20:06:40	41:06:15	300	0	1.5	#56 Spectropho	2	
0112.COMP	10	11:10	20:06:40	41:06:15	300	0	1.5	#56 Spectropho	2	



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FAST SPECTROGRAPH LOG



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0113.BDp284211	60	11:11	21:48:57.1	28:37:48	300	0	1.5	#56 Spectropho	2	
0114.BDp284211	60	11:12	21:48:57.1	28:37:48	300	0	1.5	#56 Spectropho	2	
0115.COMP	10	11:14	21:48:57.1	28:37:48	300	0	1.5	#56 Spectropho	2	
0116-0121.FLAT	26	11:19	21:00:00	32:00:00	300	0	1.5	#56 Spectropho	2	
0122.HD186427red	3	11:22	19:41:53	50:31:11	300	0	1.5	#130 Solar Sys	2	300-line, 1.5-sec slit, red tilt 811
0123.HD186427red	6	11:22	19:41:53	50:31:11	300	0	1.5	#130 Solar Sys	2	
0124.HD186427red	6	11:22	19:41:53	50:31:11	300	0	1.5	#130 Solar Sys	2	
0125.COMP	10	11:23	19:41:53	50:31:11	300	0	1.5	#130 Solar Sys	2	
0126.HD192281red	6	11:24	20:10:47	40:07:01	300	0	1.5	#130 Solar Sys	2	
0127.HD192281red	15	11:24	20:10:47	40:07:01	300	0	1.5	#130 Solar Sys	2	
0128.HD192281red	15	11:25	20:10:47	40:07:01	300	0	1.5	#130 Solar Sys	2	
0129.COMP	5	11:25	20:10:47	40:07:01	300	0	1.5	#130 Solar Sys	2	
0130.HD192281red	10	11:30	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0131.moon	2	11:31	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	earthshine?
0132.moon	10	11:32	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	scattered light?
0133.moon	30	11:32	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0134.moon.terminator	1	11:34	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0135.moon.terminator	5	11:34	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0136.moon.terminator	30	11:35	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0137.moon.terminator	5	11:35	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	crater at top



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UT Date 2002-06-04 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0138.moon.terminator	5	11:36	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	cool
0139.moon.terminator	10	11:36	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0140-0141.sky	10	11:38	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0142.sky	30	11:38	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0143.COMP	5	11:39	00:00:00	5:00:00	300	0	1.5	#130 Solar Sys	2	
0144.zenithsky	30	11:41	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0145.COMP	5	11:43	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0146-0155.FLAT	30	11:52	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0156-0165.BIAS	0	11:59	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0166-0175.DARK	1200	15:04	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	



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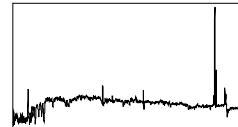
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:45	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	4	clear skies
0002-0010.DARK	900	1:01	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	4	
0011-0020.BIAS	0	2:18	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	4	
0021-0030.BIAS	0	2:20	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0031.FLAT	30	2:21	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	300-line, 1.5-sec slit, red tilt
0032-0050.FLAT	30	2:34	21:00:00	32:00:00	300	0	1.5	#130 Solar Sys	2	
0051.Venus.red	1	3:00	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0052.Venus.red	2	3:05	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0053.Venus.red	2	3:05	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0054.Venus.red	2	3:06	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0055.Venus.red	0	3:07	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0056.Venus.red	0	3:07	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0057.Venus.red	0	3:08	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0058.Venus.red	0	3:09	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0059.Venus.red	0	3:09	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0060.COMP	5	3:10	8:00:00	24:01:56	300	0	1.5	#130 Solar Sys	2	
0061.BIAS	0	3:18	13:00:00	32:00:00	600	90	3.0	#70 Elliptical	2	
0062.FLAT	40	3:21	13:00:00	32:00:00	600	90	3.0	#70 Elliptical	2	600-line, 3-sec slit, blue
0063-0071.FLAT	40	3:29	13:00:00	32:00:00	600	90	3.0	#70 Elliptical	2	
0072.COMP	5	3:33	13:00:00	32:00:00	600	90	3.0	#70 Elliptical	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0073.Feige34	240	3:37	10:36:41.2	43:21:50	600	99	3.0	#70f Elliptica	2	
0074.Feige34	240	3:41	10:36:41.2	43:21:50	600	99	3.0	#70f Elliptica	2	
0075.COMP	20	3:46	10:36:41.2	43:21:50	600	99	3.0	#70f Elliptica	2	
0076.vcc1178	1800	3:48	12:26:49	8:26:6	600	28	3.0	#70f Elliptica	2	
0077.COMP	20	4:18	12:26:49	8:26:6	600	28	3.0	#70f Elliptica	2	
0078.vcc1903	1800	4:20	12:39:31	11:55:12	600	40	3.0	#70f Elliptica	2	
0079.COMP	20	4:51	12:39:31	11:55:12	600	40	3.0	#70f Elliptica	2	
0080.vcc1903	1800	4:52	12:39:31	11:55:12	600	50	3.0	#70f Elliptica	2	
0081.COMP	20	5:23	12:39:31	11:55:12	600	50	3.0	#70f Elliptica	2	
0082.vcc1939	1800	5:24	12:40:17	2:57:42	600	50	3.0	#70f Elliptica	2	
0083.COMP	20	5:54	12:40:17	2:57:42	600	50	3.0	#70f Elliptica	2	
0084.vcc1939	1800	5:55	12:40:17	2:57:42	600	50	3.0	#70f Elliptica	2	
0085.COMP	20	6:26	12:40:17	2:57:42	600	50	3.0	#70f Elliptica	2	
0086.BDp332642	120	6:29	15:50:03	33:05:49	600	50	3.0	#70f Elliptica	2	
0087.BDp332642	120	6:32	15:50:03	33:05:49	600	50	3.0	#70f Elliptica	2	
0088.COMP	20	6:34	15:50:03	33:05:49	600	50	3.0	#70f Elliptica	2	
0089.HD132737	10	6:36	14:59:52.5	27:09:35	600	70	3.0	#70f Elliptica	2	
0090.HD132737	10	6:36	14:59:52.5	27:09:35	600	70	3.0	#70f Elliptica	2	
0091.HD132737	10	6:37	14:59:52.5	27:09:35	600	70	3.0	#70f Elliptica	2	
0092.COMP	20	6:37	14:59:52.5	27:09:35	600	70	3.0	#70f Elliptica	2	



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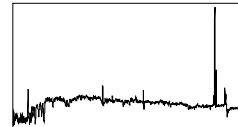
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0093.BIAS	0	6:39	16:30:00	32:00:00	600	70	3.0	#70f Elliptica	4	
0094.FLAT	40	6:40	16:30:00	32:00:00	600	90	2.0	#122 Halo Star	4	600-line, 2-sec slit, bluer
0095-0103.FLAT	40	6:48	16:30:00	32:00:00	600	90	2.0	#122 Halo Star	4	
0104.BDp332642	120	6:51	15:50:03	33:05:49	600	100	2.0	#122 Halo Star	4	
0105.BDp332642	120	6:53	15:50:03	33:05:49	600	100	2.0	#122 Halo Star	4	
0106.COMP	10	6:55	15:50:03	33:05:49	600	100	2.0	#122 Halo Star	4	
0107.hs1094	1200	6:56	16:35:05.8	29:52:26	600	100	2.0	#122 Halo Star	4	
0108.COMP	10	7:17	16:35:05.8	29:52:26	600	100	2.0	#122 Halo Star	4	
0109.hs1095	1200	7:17	16:35:42.7	30:23:52	600	100	2.0	#122 Halo Star	4	
0110.COMP	10	7:38	16:35:42.7	30:23:52	600	100	2.0	#122 Halo Star	4	
0111.hs1096	900	7:39	16:36:04.9	30:36:54	600	100	2.0	#122 Halo Star	4	
0112.COMP	10	7:54	16:36:04.9	30:36:54	600	100	2.0	#122 Halo Star	4	
0113.hs1097	720	7:55	16:38:04.6	30:42:51	600	100	2.0	#122 Halo Star	4	
0114.COMP	10	8:07	16:38:04.6	30:42:51	600	100	2.0	#122 Halo Star	4	
0115.hs1098	900	8:08	16:38:13.9	30:05:21	600	100	2.0	#122 Halo Star	4	
0116.COMP	10	8:23	16:38:13.9	30:05:21	600	100	2.0	#122 Halo Star	4	
0117.hs1099	1200	8:24	16:40:09.8	30:38:10	600	100	2.0	#122 Halo Star	4	
0118.COMP	10	8:44	16:40:09.8	30:38:10	600	100	2.0	#122 Halo Star	4	
0119.BIAS	0	8:48	18:30:00	32:00:00	600	100	2.0	#122 Halo Star	4	
0120.BDp332642	120	8:56	15:50:03	33:05:49	300	83	1.5	#56 Spectropho	2	300-line, 1.5-sec slit, tilt=610



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0121.BDp332642	120	8:58	15:50:03	33:05:49	300	83	1.5	#56 Spectropho	2	
0122.COMP	10	9:01	15:50:03	33:05:49	300	83	1.5	#56 Spectropho	2	
0123.V4641Sgr	1200	9:07	18:19:21.6	-25:24:26	300	8	1.5	#65 X-Ray Nova	2	
0124.COMP	10	9:27	18:19:21.6	-25:24:26	300	8	1.5	#65 X-Ray Nova	2	
0125.sn2002de	1200	9:30	16:16:30.7	35:42:29	300	55	1.5	#2 SN Observat	2	
0126.COMP	10	9:51	16:16:30.7	35:42:29	300	55	1.5	#2 SN Observat	2	
0127-0136.FLAT	26	9:58	19:30:00	32:00:00	300	55	1.5	#2 SN Observat	2	
0137.BIAS	0	10:00	19:30:00	32:00:00	300	55	3.0	#2 SN Observat	2	300-line, 3-sec slit, combo
0138.sb83	1200	10:02	18:10:41.4	+25:07:22	300	35	3.0	#135 Starburst	2	
0139.COMP	10	10:22	18:10:41.4	+25:07:22	300	35	3.0	#135 Starburst	2	
0140.sb81	1200	10:24	17:50:39.3	+17:12:35	300	35	3.0	#135 Starburst	2	
0141.COMP	10	10:44	17:50:39.3	+17:12:35	300	35	3.0	#135 Starburst	2	
0142.sn2002cd	1200	10:47	20:23:34.4	+58:20:47	300	0	3.0	#2 SN Observat	2	
0143.COMP	10	11:07	20:23:34.4	+58:20:47	300	0	3.0	#2 SN Observat	2	
0144.HD192281	5	11:09	20:10:46.8	40:07:01	300	0	3.0	#56 Spectropho	2	
0145.HD192281	5	11:09	20:10:46.8	40:07:01	300	0	3.0	#56 Spectropho	2	
0146.HD192281	5	11:09	20:10:46.8	40:07:01	300	0	3.0	#56 Spectropho	2	
0147.COMP	10	11:10	20:10:46.8	40:07:01	300	0	3.0	#56 Spectropho	2	
0148.BDp284211	120	11:12	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0149.BDp284211	90	11:14	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0150.BDp284211	90	11:16	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0151.COMP	10	11:18	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0152.N7331	120	11:19	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0153.COMP	10	11:21	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0154-0163.BIAS	0	11:25	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0164-0173.FLAT	16	11:30	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0174-0183.BIAS	0	11:32	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0184-0193.DARK	1200	14:35	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	



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UT Date 2002-06-06 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:36	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	2:22	22:34:46.9	+34:09:43	300	90	1.5	#57 Velocity S	4	
0021-0030.BIAS	0	2:25	22:34:46.9	+34:09:43	300	90	1.5	#57 Velocity S	2	
0031.FLAT	30	2:25	22:34:46.9	+34:09:43	300	90	1.5	#57 Velocity S	2	300-line, 1.5-sec slit, blue
0032-0040.FLAT	30	2:32	22:34:46.9	+34:09:43	300	90	1.5	#57 Velocity S	2	
0041.Venus.blue	1	3:11	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0042.Venus.blue	0	3:11	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0043.Venus.blue	0	3:12	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0044.Venus.blue	0	3:12	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0045.Venus.blue	0	3:13	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0046.Venus.blue	0	3:13	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0047.COMP	10	3:14	7:26:42	23:52:21	300	90	1.5	#130 Solar Sys	2	
0048.HD126991	5	3:18	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0049.HD126991	15	3:19	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0050.HD126991	15	3:19	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0051.HD126991	30	3:20	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0052.COMP	10	3:21	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0053.Feige34	180	3:23	10:36:41.2	43:21:50	300	100	1.5	#130 Solar Sys	2	
0054.Feige34	180	3:26	10:36:41.2	43:21:50	300	100	1.5	#130 Solar Sys	2	
0055.COMP	10	3:29	10:36:41.2	43:21:50	300	100	1.5	#130 Solar Sys	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0056.BIAS	0	3:31	13:10:00	32:00:00	300	100	3.0	#130 Solar Sys	2	
0057.FLAT	16	3:32	13:10:00	32:00:00	300	100	3.0	#130 Solar Sys	2	300-line, 3-sec slit, combo
0058-0066.FLAT	16	3:36	13:10:00	32:00:00	300	100	3.0	#130 Solar Sys	2	
0067.Feige34	180	3:38	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0068.Feige34	180	3:41	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0069.COMP	10	3:44	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0070.sn2002cx	1200	3:48	13:13:49.7	+06:57:31	300	10	3.0	#2 SN Observat	2	
0071.COMP	10	4:08	13:13:49.7	+06:57:31	300	10	3.0	#2 SN Observat	2	
0072.sn2002cx	1200	4:09	13:13:49.7	+06:57:31	300	10	3.0	#2 SN Observat	2	
0073.COMP	10	4:29	13:13:49.7	+06:57:31	300	10	3.0	#2 SN Observat	2	
0074.N5548	150	4:33	14:17:59.6	+25:08:12	300	-10	3.0	#6 AGN Monitor	4	
0075.N5548	150	4:35	14:17:59.6	+25:08:12	300	-10	3.0	#6 AGN Monitor	4	
0076.COMP	5	4:38	14:17:59.6	+25:08:12	300	-10	3.0	#6 AGN Monitor	4	
0077.N4151	30	4:40	12:10:32.6	+39:24:21	300	98	3.0	#6 AGN Monitor	4	
0078.N4151	30	4:41	12:10:32.6	+39:24:21	300	98	3.0	#6 AGN Monitor	4	
0079.COMP	5	4:41	12:10:32.6	+39:24:21	300	98	3.0	#6 AGN Monitor	4	
0080.N4051	150	4:42	12:03:09.7	+44:31:53	300	98	3.0	#6 AGN Monitor	4	
0081.N4051	150	4:45	12:03:09.7	+44:31:53	300	98	3.0	#6 AGN Monitor	4	
0082.COMP	5	4:48	12:03:09.7	+44:31:53	300	98	3.0	#6 AGN Monitor	4	
0083.MRK279	240	4:49	13:51:53.6	69:33:13	300	98	3.0	#6 AGN Monitor	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0084.COMP	5	4:53	13:51:53.6	69:33:13	300	98	3.0	#6 AGN Monitor	4	
0085.sn2002de	1200	4:56	16:16:30.7	35:42:29	300	70	3.0	#2 SN Observat	2	
0086.COMP	10	5:16	16:16:30.7	35:42:29	300	70	3.0	#2 SN Observat	2	
0087.BIAS	0	5:20	15:10:00	32:00:00	600	90	2.0	#2 SN Observat	4	
0088.BDp332642	120	5:21	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	600-line, 2-sec slit, blue
0089.BDp332642	120	5:24	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0090.COMP	10	5:26	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0091.hs1100	1200	5:27	16:40:13.2	29:54:19	600	90	2.0	#122 Halo Star	4	
0092.COMP	10	5:47	16:40:13.2	29:54:19	600	90	2.0	#122 Halo Star	4	
0093.hs1101	1200	5:48	16:40:39.5	30:19:50	600	90	2.0	#122 Halo Star	4	
0094.COMP	10	6:09	16:40:39.5	30:19:50	600	90	2.0	#122 Halo Star	4	
0095.hs1103	1200	6:11	16:41:36.0	30:49:55	600	90	2.0	#122 Halo Star	4	
0096.COMP	10	6:31	16:41:36.0	30:49:55	600	90	2.0	#122 Halo Star	4	
0097.hs1102	720	6:32	16:40:40.7	30:09:50	600	90	2.0	#122 Halo Star	4	
0098.COMP	10	6:44	16:40:40.7	30:09:50	600	90	2.0	#122 Halo Star	4	
0099.hs1104	600	6:45	16:42:36.3	30:00:18	600	90	2.0	#122 Halo Star	4	
0100.COMP	10	6:55	16:42:36.3	30:00:18	600	90	2.0	#122 Halo Star	4	
0101.hs1105	1200	6:56	16:43:43.9	29:55:11	600	90	2.0	#122 Halo Star	4	
0102.COMP	10	7:16	16:43:43.9	29:55:11	600	90	2.0	#122 Halo Star	4	
0103.hs1107	480	7:18	16:47:42.5	30:13:40	600	90	2.0	#122 Halo Star	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0104.COMP	10	7:26	16:47:42.5	30:13:40	600	90	2.0	#122 Halo Star	4	
0105-0114.FLAT	40	7:34	17:30:00	32:00:00	600	90	2.0	#122 Halo Star	4	
0115.BIAS	0	7:38	17:30:00	32:00:00	600	90	2.0	#122 Halo Star	4	
0116.FLAT	100	7:44	17:30:00	32:00:00	1200	90	1.5	#134 Ogle	2	1200-line, 1.5-sec slit, ogle
0117-0125.FLAT	100	8:01	17:30:00	32:00:00	1200	90	1.5	#134 Ogle	2	
0126.HD171485A	30	8:03	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0127.HD171485A	30	8:04	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0128.HD171485A	30	8:05	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0129.COMP	20	8:06	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0130.OGLE-TR-2	1200	8:10	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0131.COMP	20	8:30	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0132.OGLE-TR-2	1200	8:31	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0133.COMP	20	8:51	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0134.OGLE-TR-9	1200	8:54	17:51:50.8	-29:54:43	1200	12	1.5	#134 OGLE Tran	2	
0135.COMP	20	9:15	17:51:50.8	-29:54:43	1200	12	1.5	#134 OGLE Tran	2	
0136.OGLE-TR-9	1200	9:16	17:51:50.8	-29:54:43	1200	12	1.5	#134 OGLE Tran	2	
0137.COMP	20	9:36	17:51:50.8	-29:54:43	1200	12	1.5	#134 OGLE Tran	2	
0138.OGLE-TR-14	1200	9:39	17:54:33.9	-30:01:31	1200	22	1.5	#134 OGLE Tran	2	
0139.COMP	20	9:59	17:54:33.9	-30:01:31	1200	22	1.5	#134 OGLE Tran	2	
0140.G140-53	180	10:02	18:17:52.1	+05:27:07	1200	33	1.5	#134 OGLE Tran	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0141.G140-53	180	10:05	18:17:52.1	+05:27:07	1200	33	1.5	#134 OGLE Tran	2	
0142.COMP	20	10:08	18:17:52.1	+05:27:07	1200	33	1.5	#134 OGLE Tran	2	
0143.G21-25	180	10:10	18:48:21.9	-05:05:29	1200	20	1.5	#134 OGLE Tran	2	
0144.G21-25	180	10:13	18:48:21.9	-05:05:29	1200	20	1.5	#134 OGLE Tran	2	
0145.COMP	20	10:16	18:48:21.9	-05:05:29	1200	20	1.5	#134 OGLE Tran	2	
0146.BIAS	0	10:19	20:00:00	32:00:00	1200	20	1.5	#134 OGLE Tran	2	
0147.J1901candiC	1800	10:21	19:01:26.9	01:23:04	300	26	1.5	#65 X-Ray Nova	2	300-line, 1.5-sec slit, combo tilt
0148.COMP	10	10:52	19:01:26.9	01:23:04	300	26	1.5	#65 X-Ray Nova	2	
0149.HD192281	10	10:55	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0150.HD192281	10	10:56	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0151.HD192281	10	10:56	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0152.COMP	10	10:57	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0153.CHCyg	10	10:58	19:24:33	50:14:30	300	90	1.5	#12 Symbiotic	2	
0154.CHCyg	20	10:58	19:24:33	50:14:30	300	90	1.5	#12 Symbiotic	2	
0155.CHCyg	3	10:59	19:24:33	50:14:30	300	90	1.5	#12 Symbiotic	2	
0156.COMP	10	11:00	19:24:33	50:14:30	300	90	1.5	#12 Symbiotic	2	
0157.CICyg	10	11:01	19:50:12	35:41:02	300	90	1.5	#12 Symbiotic	2	
0158.CICyg	5	11:01	19:50:12	35:41:02	300	90	1.5	#12 Symbiotic	2	
0159.CICyg	30	11:02	19:50:12	35:41:02	300	90	1.5	#12 Symbiotic	2	
0160.CICyg	90	11:03	19:50:12	35:41:02	300	90	1.5	#12 Symbiotic	2	



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UT Date 2002-06-06 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0161.COMP	10	11:05	19:50:12	35:41:02	300	90	1.5	#12 Symbiotic	2	
0162.ZAnd	5	11:06	23:33:40	48:49:06	300	90	1.5	#12 Symbiotic	2	
0163.ZAnd	10	11:07	23:33:40	48:49:06	300	90	1.5	#12 Symbiotic	2	
0164.ZAnd	30	11:07	23:33:40	48:49:06	300	90	1.5	#12 Symbiotic	2	
0165.ZAnd	120	11:08	23:33:40	48:49:06	300	90	1.5	#12 Symbiotic	2	
0166.COMP	20	11:11	23:33:40	48:49:06	300	90	1.5	#12 Symbiotic	2	
0167.BDp284211	120	11:12	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0168.BDp284211	120	11:14	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0169.COMP	10	11:17	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0170-0179.FLAT	26	11:24	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0180-0189.BIAS	0	11:27	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0190-0199.BIAS	0	11:29	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	4	
0200.FLAT	8	11:31	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	300-line, 3-sec slit, combo
0201-0209.FLAT	8	11:33	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0210-0219.DARK	1200	14:46	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0002.DARK	900	2:11	12:03:18.7	31:30:58	300	90	3.0	#56 Spectropho	2	
0003.DARK	900	2:26	12:18:30.8	31:30:59	300	90	3.0	#56 Spectropho	2	
0004.DARK	900	2:41	12:33:45.9	31:30:58	300	90	3.0	#56 Spectropho	2	
0005-0014.BIAS	0	3:12	12:49:36.0	31:30:59	600	90	2.0	#56 Spectropho	2	
0015-0024.FLAT	35	3:21	12:59:22.1	31:30:58	600	90	2.0	#56 Spectropho	2	
0025.BDp332642	150	6:15	15:50:03	33:05:49	600	2	2.0	#56 Spectropho	2	
0026.BDp332642	150	6:18	15:50:03	33:05:49	600	2	2.0	#56 Spectropho	2	
0027.COMP	30	6:21	15:50:03	33:05:49	600	2	2.0	#56 Spectropho	2	
0028.COMP	30	7:32	13:00:21.9	+80:07:18	600	5	2.0	#88 Mass Funct	2	
0029.MF7031	900	7:33	13:00:21.9	+80:07:18	600	55	2.0	#88 Mass Funct	2	
0030.MF7031	900	7:48	13:00:21.9	+80:07:18	600	55	2.0	#88 Mass Funct	2	
0031.COMP	30	8:04	13:00:21.9	+80:07:18	600	55	2.0	#88 Mass Funct	2	
0032.COMP	30	8:06	13:01:15.2	+80:01:45	600	55	2.0	#88 Mass Funct	2	
0033.MF7057	900	8:07	13:01:15.2	+80:01:45	600	5	2.0	#88 Mass Funct	2	telescope exceeded limits in second exposure
0034.BDp404032	120	9:00	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	normal fast setup
0035.COMP	12	9:03	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0036.2MJ1630132m131035	420	9:08	16:30:13.2	-13:10:35	300	90	3.0	#68 2MASS Reds	2	
0037.COMP	12	9:15	16:30:13.2	-13:10:35	300	90	3.0	#68 2MASS Reds	2	
0038.2MJ1632432m022846	270	9:17	16:32:43.2	-02:28:46	300	90	3.0	#68 2MASS Reds	2	
0039.COMP	12	9:22	16:32:43.2	-02:28:46	300	90	3.0	#68 2MASS Reds	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0040.2MJ1633551m153149	1020	9:24	16:33:55.1	-15:31:49	300	90	3.0	#68 2MASS Reds	2	
0041.COMP	12	9:41	16:33:55.1	-15:31:49	300	90	3.0	#68 2MASS Reds	2	
0042.2MJ1633569m102141	480	9:43	16:33:56.9	-10:21:41	300	90	3.0	#68 2MASS Reds	2	
0043.COMP	12	9:51	16:33:56.9	-10:21:41	300	90	3.0	#68 2MASS Reds	2	
0044.2MJ1634223m135823	480	9:54	16:34:22.3	-13:58:23	300	90	3.0	#68 2MASS Reds	2	
0045.COMP	12	10:02	16:34:22.3	-13:58:23	300	90	3.0	#68 2MASS Reds	2	
0046.2MJ1635112m104741	360	10:03	16:35:11.2	-10:47:41	300	90	3.0	#68 2MASS Reds	2	
0047.COMP	12	10:10	16:35:11.2	-10:47:41	300	90	3.0	#68 2MASS Reds	2	
0048.2MJ1750499m063221	900	10:14	17:50:49.9	-06:32:21	300	90	3.0	#68 2MASS Reds	2	
0049.COMP	12	10:29	17:50:49.9	-06:32:21	300	90	3.0	#68 2MASS Reds	2	
0050.2MJ1758215m113714	780	10:32	17:58:21.5	-11:37:14	300	90	3.0	#68 2MASS Reds	2	
0051.COMP	12	10:46	17:58:21.5	-11:37:14	300	90	3.0	#68 2MASS Reds	2	
0052.2MJ1759174m083338	1200	10:47	17:59:17.4	-08:33:38	300	90	3.0	#68 2MASS Reds	2	row=74
0053.COMP	12	11:08	17:59:17.4	-08:33:38	300	90	3.0	#68 2MASS Reds	2	
0054.2MJ1836352p145138	420	11:11	18:36:35.2	+14:51:38	300	90	3.0	#68 2MASS Reds	2	row=75
0055.COMP	12	11:18	18:36:35.2	+14:51:38	300	90	3.0	#68 2MASS Reds	2	clouds return at sunrise
0056-0065.BIAS	0	11:39	20:06:40	41:06:15	300	90	3.0	#68 2MASS Reds	2	
0066-0075.FLAT	12	11:47	20:06:40	41:06:15	300	90	3.0	#68 2MASS Reds	2	
0076-0085.DARK	900	14:04	20:06:40	41:06:15	300	90	3.0	#68 2MASS Reds	2	



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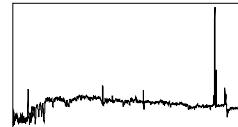
Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:45	20:06:40	41:06:15	600	90	2.0	#68 2MASS Reds	2	
0011-0020.BIAS	0	1:03	20:06:40	41:06:15	600	90	2.0	#68 2MASS Reds	2	
0021-0030.FLAT	35	1:28	20:06:40	41:06:15	600	90	2.0	#68 2MASS Reds	2	
0031-0035.sky	2	2:28	20:06:40	41:06:15	600	90	2.0	#88	2	
0036.COMP	30	2:29	20:06:40	41:06:15	600	90	2.0	#88	2	
0037.BDp332642	120	3:22	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	
0038.BDp332642	120	3:24	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	
0039.COMP	30	3:27	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	
0040.COMP	30	3:31	13:43:35.1	+18:03:24	600	-14	2.0	#88 Mass Funct	2	
0041.MF0042	600	3:32	13:43:35.1	+18:03:24	600	-14	2.0	#88 Mass Funct	2	
0042.MF0042	600	3:42	13:43:35.1	+18:03:24	600	-14	2.0	#88 Mass Funct	2	
0043.MF0042	600	3:52	13:43:35.1	+18:03:24	600	-14	2.0	#88 Mass Funct	2	
0044.COMP	30	4:03	13:43:35.1	+18:03:24	600	-14	2.0	#88 Mass Funct	2	
0045.MF4053	450	4:07	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0046.MF4053	450	4:14	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0047.COMP	30	4:22	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0048.MF7008	450	4:26	13:20:59.5	+08:58:42	600	26	2.0	#88 Mass Funct	2	
0049.MF7008	450	4:33	13:20:59.5	+08:58:42	600	26	2.0	#88 Mass Funct	2	
0050.COMP	30	4:42	13:20:59.5	+08:58:42	600	26	2.0	#88 Mass Funct	2	
0051.COMP	30	4:45	12:01:42.6	+06:26:58	600	26	2.0	#88 Mass Funct	2	



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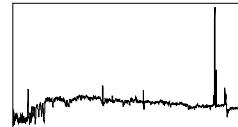
Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0052.MF7115	600	4:46	12:01:42.6	+06:26:58	600	55	2.0	#88 Mass Funct	2	
0053.MF7115	600	4:56	12:01:42.6	+06:26:58	600	55	2.0	#88 Mass Funct	2	
0054.MF7115	600	5:07	12:01:42.6	+06:26:58	600	55	2.0	#88 Mass Funct	2	
0055.COMP	30	5:18	12:01:42.6	+06:26:58	600	55	2.0	#88 Mass Funct	2	
0056.COMP	30	5:21	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0057.MF7019	600	5:22	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0058.MF7019	600	5:32	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0059.MF7019	600	5:43	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0060.COMP	30	5:53	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0061.COMP	30	5:56	13:01:15.2	+80:01:45	600	5	2.0	#88 Mass Funct	2	
0062.MF7057	900	5:57	13:01:15.2	+80:01:45	600	5	2.0	#88 Mass Funct	2	
0063.MF7057	900	6:12	13:01:15.2	+80:01:45	600	5	2.0	#88 Mass Funct	2	
0064.COMP	30	6:28	13:01:15.2	+80:01:45	600	5	2.0	#88 Mass Funct	2	
0065.MF4062	450	6:30	12:12:49.6	+65:48:53	600	60	2.0	#88 Mass Funct	2	
0066.MF4062	450	6:38	12:12:49.6	+65:48:53	600	60	2.0	#88 Mass Funct	2	
0067.COMP	30	6:46	12:12:49.6	+65:48:53	600	60	2.0	#88 Mass Funct	2	
0068.COMP	30	6:48	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0069.MF7040	900	6:49	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0070.MF7040	900	7:05	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0071.MF7040	900	7:20	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	



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Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0072.COMP	30	7:35	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0073.BDp332642	120	7:48	15:50:03	33:05:49	600	86	2.0	#56 Spectropho	2	abs setup (tilt=494)
0074.BDp332642	120	7:50	15:50:03	33:05:49	600	86	2.0	#56 Spectropho	2	
0075.COMP	30	7:53	15:50:03	33:05:49	600	86	2.0	#56 Spectropho	2	
0076.HD156362	43	7:57	17:15:58.9	27:08:02	600	90	2.0	#88f Mass Func	2	
0077.COMP	30	7:58	17:15:58.9	27:08:02	600	90	2.0	#88f Mass Func	2	
0078.NGC5846	180	8:00	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0079.NGC5846	180	8:03	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0080.COMP	30	8:07	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0081.COMP	30	8:11	17:29:22.1	+40:15:7	600	18	2.0	#88 Mass Funct	2	
0082.MF0084	1200	8:12	17:29:22.1	+40:15:7	600	18	2.0	#88 Mass Funct	2	
0083.MF0084	1200	8:32	17:29:22.1	+40:15:7	600	18	2.0	#88 Mass Funct	2	
0084.MF0084	1200	8:52	17:29:22.1	+40:15:7	600	18	2.0	#88 Mass Funct	2	
0085.COMP	30	9:13	17:29:22.1	+40:15:7	600	18	2.0	#88 Mass Funct	2	
0086.COMP	30	9:18	18:17:56.1	+33:48:59	600	95	2.0	#88 Mass Funct	2	
0087.MF0093	900	9:19	18:17:56.1	+33:48:59	600	95	2.0	#88 Mass Funct	2	
0088.MF0093	900	9:34	18:17:56.1	+33:48:59	600	95	2.0	#88 Mass Funct	2	
0089.MF0093	900	9:49	18:17:56.1	+33:48:59	600	95	2.0	#88 Mass Funct	2	
0090.COMP	30	10:05	18:17:56.1	+33:48:59	600	95	2.0	#88 Mass Funct	2	
0091.HD182762	43	10:06	19:25:28.6	19:47:54	600	90	2.0	#88f Mass Func	2	



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Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0092.COMP	30	10:08	19:25:28.6	19:47:54	600	90	2.0	#88f Mass Func	2	
0093.MF0082	1200	10:13	17:22:56.5	+31:20:30	600	86	2.0	#88 Mass Funct	2	
0094.COMP	30	10:33	17:22:56.5	+31:20:30	600	86	2.0	#88 Mass Funct	2	
0095.MF4101	900	10:37	17:15:03.5	+47:40:35	600	90	2.0	#88 Mass Funct	2	
0096.COMP	30	10:52	17:15:03.5	+47:40:35	600	90	2.0	#88 Mass Funct	2	
0097.MF7037	1200	10:55	18:02:45.7	+26:14:12	600	75	2.0	#88 Mass Funct	2	
0098.COMP	30	11:16	18:02:45.7	+26:14:12	600	75	2.0	#88 Mass Funct	2	
0099.BDp404032	90	11:19	20:06:40	41:06:15	600	-50	2.0	#56 Spectropho	2	
0100.COMP	30	11:21	20:06:40	41:06:15	600	-50	2.0	#56 Spectropho	2	
0101.M32	120	11:23	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0102.M32	120	11:25	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0103.M32	120	11:28	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0104.COMP	30	11:30	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0105-0109.sky	2	12:11	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0110.COMP	30	12:12	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0111-0120.BIAS	0	12:15	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0121-0130.FLAT	35	12:24	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0131-0140.DARK	900	14:43	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	



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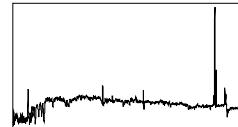
Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:54	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0011-0020.BIAS	0	1:11	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0021-0030.FLAT	35	1:19	00:39:58	+40:35:30	600	10	2.0	#57 Velocity S	2	
0031-0035.sky	2	2:31	00:39:58	+40:35:30	600	90	2.0	#57 Velocity S	2	
0036.COMP	30	2:31	00:39:58	+40:35:30	600	90	2.0	#57 Velocity S	2	
0037.HD111591	45	3:10	12:50:17.3	22:51:48	600	90	2.0	#88f Mass Func	2	
0038.COMP	30	3:12	12:50:17.3	22:51:48	600	90	2.0	#88f Mass Func	2	
0039.BDp332642	90	3:14	15:50:03	33:05:49	600	99	2.0	#56 Spectropho	2	
0040.BDp332642	90	3:16	15:50:03	33:05:49	600	99	2.0	#56 Spectropho	2	
0041.COMP	30	3:18	15:50:03	33:05:49	600	99	2.0	#56 Spectropho	2	
0042.NGC4374	120	3:22	12:22:31.6	13:09:51	600	-41	2.0	#88f Mass Func	2	
0043.NGC4374	120	3:25	12:22:31.6	13:09:51	600	-41	2.0	#88f Mass Func	2	
0044.NGC4374	120	3:27	12:22:31.6	13:09:51	600	-41	2.0	#88f Mass Func	2	
0045.COMP	30	3:29	12:22:31.6	13:09:51	600	-41	2.0	#88f Mass Func	2	
0046.MF7008	450	3:32	13:20:59.5	+08:58:42	600	25	2.0	#88 Mass Funct	2	
0047.MF7008	450	3:40	13:20:59.5	+08:58:42	600	25	2.0	#88 Mass Funct	2	
0048.COMP	30	3:48	13:20:59.5	+08:58:42	600	25	2.0	#88 Mass Funct	2	
0049.MF4042	450	3:50	11:58:56.5	+30:24:43	600	15	2.0	#88 Mass Funct	2	
0050.MF4042	450	3:57	11:58:56.5	+30:24:43	600	15	2.0	#88 Mass Funct	2	
0051.MF4042	450	4:05	11:58:56.5	+30:24:43	600	15	2.0	#88 Mass Funct	2	



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Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0052.COMP	30	4:13	11:58:56.5	+30:24:43	600	15	2.0	#88 Mass Funct	2	
0053.COMP	30	4:15	11:58:56.5	+30:24:43	600	15	2.0	#88 Mass Funct	2	
0054.MF4042	900	4:16	11:58:56.5	+30:24:43	600	-14	2.0	#88 Mass Funct	2	
0055.MF4042	900	4:31	11:58:56.5	+30:24:43	600	-14	2.0	#88 Mass Funct	2	
0056.MF4042	900	4:46	11:58:56.5	+30:24:43	600	-14	2.0	#88 Mass Funct	2	
0057.COMP	30	5:02	11:58:56.5	+30:24:43	600	-14	2.0	#88 Mass Funct	2	
0058.COMP	30	5:07	12:01:42.6	+06:26:58	600	-14	2.0	#88 Mass Funct	2	
0059.MF7115	600	5:08	12:01:42.6	+06:26:58	600	54	2.0	#88 Mass Funct	2	
0060.MF7115	600	5:24	12:01:42.6	+06:26:58	600	54	2.0	#88 Mass Funct	2	
0061.MF7115	600	5:34	12:01:42.6	+06:26:58	600	54	2.0	#88 Mass Funct	2	
0062.COMP	30	5:44	12:01:42.6	+06:26:58	600	54	2.0	#88 Mass Funct	2	
0063.MF4053	450	5:46	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0064.MF4053	450	5:54	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0065.COMP	30	6:02	12:32:08.0	+56:28:16	600	10	2.0	#88 Mass Funct	2	
0066.COMP	30	6:04	13:21:18.7	+31:23:17	600	10	2.0	#88 Mass Funct	2	
0067.MF7019	600	6:06	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0068.MF7019	600	6:16	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0069.MF7019	600	6:26	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0070.COMP	30	6:36	13:21:18.7	+31:23:17	600	20	2.0	#88 Mass Funct	2	
0071.MF7040	450	6:38	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-06-09 Observers M Calkins

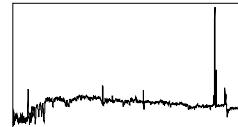
Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0072.MF7040	450	6:46	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0073.COMP	30	6:54	13:29:29.3	+11:37:29	600	90	2.0	#88 Mass Funct	2	
0074.COMP	30	6:57	13:21:18.7	+12:12:47	600	70	2.0	#88 Mass Funct	2	
0075.MF0038	1200	6:58	13:21:18.7	+12:12:47	600	70	2.0	#88 Mass Funct	2	
0076.MF0038	1200	7:18	13:21:18.7	+12:12:47	600	70	2.0	#88 Mass Funct	2	
0077.MF0038	1200	7:38	13:21:18.7	+12:12:47	600	70	2.0	#88 Mass Funct	2	
0078.COMP	30	7:59	13:21:18.7	+12:12:47	600	70	2.0	#88 Mass Funct	2	
0079.COMP	30	8:01	13:41:39.3	+05:01:58	600	50	2.0	#88 Mass Funct	2	
0080.MF7069	600	8:02	13:41:39.3	+05:01:58	600	50	2.0	#88 Mass Funct	2	
0081.MF7069	600	8:12	13:41:39.3	+05:01:58	600	50	2.0	#88 Mass Funct	2	
0082.MF7069	600	8:22	13:41:39.3	+05:01:58	600	50	2.0	#88 Mass Funct	2	
0083.COMP	30	8:32	13:41:39.3	+05:01:58	600	50	2.0	#88 Mass Funct	2	
0084.HD156362	46	8:35	17:15:58.9	27:08:02	600	90	2.0	#88f Mass Func	2	
0085.COMP	30	8:36	17:15:58.9	27:08:02	600	90	2.0	#88f Mass Func	2	
0086.NGC5846	120	8:38	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0087.NGC5846	120	8:40	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0088.NGC5846	120	8:42	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0089.COMP	30	8:45	15:03:56.9	01:47:53	600	47	2.0	#88f Mass Func	2	
0090.MF0094	1200	8:50	18:20:43.1	+38:08:50	600	-23	2.0	#88 Mass Funct	2	row=74
0091.COMP	30	9:10	18:20:43.1	+38:08:50	600	-23	2.0	#88 Mass Funct	2	



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UT Date 2002-06-09 Observers M Calkins

Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0092.MF7066	1200	9:17	17:16:27.3	+43:20:33	600	-30	2.0	#88 Mass Funct	2	
0093.COMP	30	9:38	17:16:27.3	+43:20:33	600	-30	2.0	#88 Mass Funct	2	
0094.MF0083	450	9:42	17:24:50.9	+23:44:9	600	55	2.0	#88 Mass Funct	2	
0095.COMP	30	9:50	17:24:50.9	+23:44:9	600	55	2.0	#88 Mass Funct	2	
0096.MF7062	1200	9:55	18:03:41.0	+54:43:2	600	-46	2.0	#88 Mass Funct	2	row=73
0097.COMP	30	10:15	18:03:41.0	+54:43:2	600	-46	2.0	#88 Mass Funct	2	
0098.MF0088	450	10:21	17:42:50.7	+16:12:50	600	0	2.0	#88 Mass Funct	2	counts still low...
0099.COMP	30	10:29	17:42:50.7	+16:12:50	600	0	2.0	#88 Mass Funct	2	
0100.MF0088	900	10:33	17:42:50.7	+16:12:50	600	0	2.0	#88 Mass Funct	2	
0101.COMP	30	10:48	17:42:50.7	+16:12:50	600	0	2.0	#88 Mass Funct	2	
0102.COMP	30	10:54	17:29:27.3	+18:37:48	600	20	2.0	#88 Mass Funct	2	
0103.MF0085	1500	10:55	17:29:27.3	+18:37:48	600	20	2.0	#88 Mass Funct	2	
0104.COMP	30	11:20	17:29:27.3	+18:37:48	600	20	2.0	#88 Mass Funct	2	
0105.BDp404032	90	11:23	20:06:40	41:06:15	600	-50	2.0	#56 Spectropho	2	
0106.COMP	30	11:25	20:06:40	41:06:15	600	-50	2.0	#56 Spectropho	2	
0107.M32	120	11:27	00:39:57.7	40:35:26	600	-10	2.0	#88f Mass Func	2	
0108.M32	120	11:30	00:39:57.7	40:35:26	600	-10	2.0	#88f Mass Func	2	
0109.M32	120	11:32	00:39:57.7	40:35:26	600	-10	2.0	#88f Mass Func	2	
0110.COMP	30	11:34	00:39:57.7	40:35:26	600	-10	2.0	#88f Mass Func	2	
0111.HD180242	44	11:37	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	2	



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UT Date 2002-06-09 Observers M CalkinsColl. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0112.COMP	30	11:38	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	2	
0113-0122.BIAS	0	11:44	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	2	
0123-0132.FLAT	35	11:52	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	2	
0133-0142.DARK	900	14:10	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	2	



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UT Date 2002-06-10 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:37	19:15:02.7	20:12:11	600	90	2.0	#88f Mass Func	4	
0011.BIAS	0	2:31	12:20:15.8	31:30:58	300	90	3.0	#57 Velocity S	4	300-line, 3-sec, combo
0012.BIAS	0	2:31	12:20:24.8	31:30:58	300	90	3.0	#57 Velocity S	4	
0013-0020.BIAS	0	2:32	12:21:20.8	31:30:57	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	8	2:34	12:24:00.8	31:30:57	300	90	3.0	#57 Velocity S	4	
0031.BIAS	0	2:35	12:24:18.8	31:30:58	300	90	3.0	#57 Velocity S	2	clear skies
0032-0040.BIAS	0	2:37	12:26:15.9	31:30:58	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	16	2:42	12:27:30.9	31:30:58	300	90	3.0	#57 Velocity S	2	
0051-0055.sky	3	2:46	12:49:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:48	12:49:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0057.Feige34	150	3:23	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0058.Feige34	150	3:26	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0059.COMP	10	3:29	10:36:41.2	43:21:50	300	98	3.0	#56 Spectropho	2	
0060.N3227	150	3:31	10:23:30.6	+19:51:54	300	65	3.0	#6 AGN Monitor	2	
0061.N3227	150	3:34	10:23:30.6	+19:51:54	300	65	3.0	#6 AGN Monitor	2	
0062.COMP	10	3:37	10:23:30.6	+19:51:54	300	65	3.0	#6 AGN Monitor	2	
0063.MRK421	300	3:38	11:04:27.4	+38:12:32	300	65	3.0	#6 AGN Monitor	4	
0064.COMP	5	3:43	11:04:27.4	+38:12:32	300	65	3.0	#6 AGN Monitor	4	
0065.N4051	150	3:45	12:03:09.7	+44:31:53	300	100	3.0	#6 AGN Monitor	4	
0066.N4051	150	3:47	12:03:09.7	+44:31:53	300	100	3.0	#6 AGN Monitor	4	



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UT Date 2002-06-10 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0067.COMP	5	3:50	12:03:09.7	+44:31:53	300	100	3.0	#6 AGN Monitor	4	
0068.N4151	30	3:51	12:10:32.6	+39:24:21	300	100	3.0	#6 AGN Monitor	4	
0069.N4151	30	3:51	12:10:32.6	+39:24:21	300	100	3.0	#6 AGN Monitor	4	
0070.COMP	5	3:52	12:10:32.6	+39:24:21	300	100	3.0	#6 AGN Monitor	4	
0071.N4853	360	3:53	12:58:35.1	+27:35:47	300	100	3.0	#57 Velocity S	4	
0072.COMP	5	3:59	12:58:35.1	+27:35:47	300	100	3.0	#57 Velocity S	4	
0073.N5548	150	4:00	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0074.N5548	150	4:03	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0075.COMP	5	4:06	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0076.a2199s_140	600	4:08	16:36:15.7	44:04:37	300	100	3.0	#64 Cluster In	4	
0077.COMP	5	4:18	16:36:15.7	44:04:37	300	100	3.0	#64 Cluster In	4	
0078.a2199s_142	240	4:21	16:36:32.5	39:01:40	300	100	3.0	#64 Cluster In	4	
0079.COMP	5	4:25	16:36:32.5	39:01:40	300	100	3.0	#64 Cluster In	4	
0080.a2199s_143	150	4:25	16:36:37.1	36:12:01	300	100	3.0	#64 Cluster In	4	
0081.COMP	5	4:28	16:36:37.1	36:12:01	300	100	3.0	#64 Cluster In	4	
0082.a2199s_144	360	4:29	16:36:54.3	36:25:25	300	100	3.0	#64 Cluster In	4	
0083.COMP	5	4:35	16:36:54.3	36:25:25	300	100	3.0	#64 Cluster In	4	
0084.a2199s_145	600	4:36	16:37:00.4	36:27:12	300	90	3.0	#64 Cluster In	4	
0085.COMP	5	4:46	16:37:00.4	36:27:12	300	90	3.0	#64 Cluster In	4	
0086.a2199s_146	240	4:47	16:37:16.4	44:25:05	300	90	3.0	#64 Cluster In	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0087.COMP	5	4:52	16:37:16.4	44:25:05	300	90	3.0	#64 Cluster In	4	
0088.a2199s_147	600	4:52	16:37:22.6	44:20:49	300	90	3.0	#64 Cluster In	4	
0089.COMP	5	5:03	16:37:22.6	44:20:49	300	90	3.0	#64 Cluster In	4	
0090.a2199s_148	240	5:03	16:37:30.0	44:08:39	300	90	3.0	#64 Cluster In	4	
0091.COMP	5	5:08	16:37:30.0	44:08:39	300	90	3.0	#64 Cluster In	4	
0092.a2199s_150	480	5:09	16:37:47.1	36:06:54	300	90	3.0	#64 Cluster In	4	
0093.COMP	5	5:18	16:37:47.1	36:06:54	300	90	3.0	#64 Cluster In	4	
0094.sn2002dh	1200	5:23	15:24:49.3	-22:45:57	300	0	3.0	#2 SN Observat	2	
0095.COMP	10	5:43	15:24:49.3	-22:45:57	300	0	3.0	#2 SN Observat	2	
0096.sn2002ck	1200	5:48	15:47:00.7	-00:59:25	300	0	3.0	#2 SN Observat	2	
0097.COMP	10	6:09	15:47:00.7	-00:59:25	300	0	3.0	#2 SN Observat	2	
0098.sn2002ck	1200	6:10	15:47:00.7	-00:59:25	300	0	3.0	#2 SN Observat	2	
0099.COMP	10	6:30	15:47:00.7	-00:59:25	300	0	3.0	#2 SN Observat	2	
0100.sn2002de	1200	6:33	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0101.COMP	10	6:54	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0102.BDp332642	90	6:57	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0103.BDp332642	90	6:59	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0104.COMP	10	7:01	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0105.BIAS	0	7:05	17:00:00	32:00:00	1200	0	1.5	#56 Spectropho	2	
0106.FLAT	100	7:05	17:00:00	32:00:00	1200	0	1.5	#56 Spectropho	2	1200-line, 1.5-sec slit, blue



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0107-0115.FLAT	100	7:22	17:00:00	32:00:00	1200	0	1.5	#56 Spectropho	2	
0116.HD171485A	30	7:27	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0117.HD171485A	30	7:27	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0118.HD171485A	30	7:28	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0119.COMP	20	7:29	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0120.G140-53	180	7:30	18:17:52.1	+05:27:07	1200	0	1.5	#134 OGLE Tran	2	
0121.G140-53	180	7:34	18:17:52.1	+05:27:07	1200	0	1.5	#134 OGLE Tran	2	
0122.COMP	20	7:37	18:17:52.1	+05:27:07	1200	0	1.5	#134 OGLE Tran	2	
0123.OGLE-TR-2	1200	7:41	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0124.COMP	20	8:01	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0125.OGLE-TR-2	1200	8:02	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0126.COMP	20	8:23	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0127.OGLE-TR-9	1200	8:25	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0128.COMP	20	8:46	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0129.OGLE-TR-9	1200	8:47	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0130.COMP	20	9:08	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0131.OGLE-TR-14	1200	9:09	17:54:33.9	-30:01:31	1200	15	1.5	#134 OGLE Tran	2	
0132.COMP	20	9:30	17:54:33.9	-30:01:31	1200	15	1.5	#134 OGLE Tran	2	
0133.G21-25	180	9:31	18:48:21.9	-05:05:29	1200	15	1.5	#134 OGLE Tran	2	
0134.COMP	20	9:34	18:48:21.9	-05:05:29	1200	15	1.5	#134 OGLE Tran	2	



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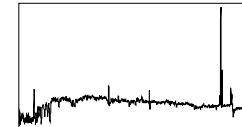
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0135.BIAS	0	9:37	18:19:21.6	-25:24:26	300	15	1.5	#134 OGLE Tran	2	300-line, 1.5-sec slit
0136.V4641Sgr	1200	9:39	18:19:21.6	-25:24:26	300	15	1.5	#134 OGLE Tran	2	
0137.COMP	10	10:00	18:19:21.6	-25:24:26	300	15	1.5	#134 OGLE Tran	2	
0138.J1901candiC	1800	10:03	19:01:26.9	01:23:04	300	25	1.5	#65 X-Ray Nova	2	
0139.COMP	10	10:33	19:01:26.9	01:23:04	300	25	1.5	#65 X-Ray Nova	2	
0140.HD192281	6	10:35	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0141.HD192281	6	10:36	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0142.HD192281	6	10:36	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0143.COMP	10	10:37	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0144.BDp284211	120	10:38	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0145.COMP	10	10:41	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0146-0155.FLAT	26	10:48	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0156.BIAS	0	10:50	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	300-line, 3-sec
0157.BDp284211	90	10:51	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0158.BDp284211	90	10:53	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0159.COMP	10	10:55	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0160.MRK509	180	10:58	20:44:09.8	-10:43:24	300	0	3.0	#6 AGN Monitor	4	
0161.COMP	5	11:02	20:44:09.8	-10:43:24	300	0	3.0	#6 AGN Monitor	4	
0162.Akn564	300	11:04	22:42:39.4	+29:43:31	300	0	3.0	#6 AGN Monitor	4	
0163.COMP	5	11:09	22:42:39.4	+29:43:31	300	0	3.0	#6 AGN Monitor	4	



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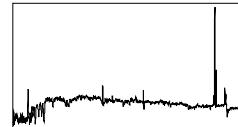
UT Date 2002-06-10 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0164-0173.BIAS	0	11:12	22:42:39.4	+29:43:31	300	0	3.0	#56 Spectropho	4	
0174-0183.FLAT	8	11:16	22:42:39.4	+29:43:31	300	0	3.0	#56 Spectropho	4	
0184-0193.BIAS	0	11:19	22:42:39.4	+29:43:31	300	0	3.0	#56 Spectropho	2	
0194-0203.FLAT	16	11:24	22:42:39.4	+29:43:31	300	0	3.0	#56 Spectropho	2	
0204-0213.DARK	1200	14:26	22:42:39.4	+29:43:31	300	0	3.0	#56 Spectropho	2	



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UT Date 2002-06-11 Observers P Berlind

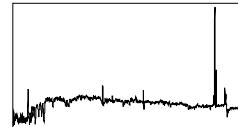
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:06	08:13:29.0	31:30:41	300	0	3.0	#56 Spectropho	4	
0002.DARK	900	22:21	08:28:40.1	31:30:43	300	0	3.0	#56 Spectropho	4	
0003.DARK	900	22:36	08:43:47.1	31:30:45	300	0	3.0	#56 Spectropho	4	
0004.DARK	900	22:51	08:58:58.2	31:30:46	300	0	3.0	#56 Spectropho	4	
0005.DARK	900	23:06	09:14:08.3	31:30:48	300	0	3.0	#56 Spectropho	4	
0006.DARK	900	23:21	09:29:15.4	31:30:50	300	0	3.0	#56 Spectropho	4	
0007.DARK	900	23:36	09:44:26.5	31:30:51	300	0	3.0	#56 Spectropho	4	
0008.DARK	900	23:52	09:59:33.6	31:30:52	300	0	3.0	#56 Spectropho	4	
0009-0010.DARK	900	0:22	10:29:51.9	31:30:54	300	0	3.0	#56 Spectropho	4	
0011-0020.BIAS	0	2:24	12:17:15.8	31:30:58	300	0	3.0	#56 Spectropho	4	
0021.FLAT	8	2:25	12:17:59.8	31:30:58	300	0	3.0	#56 Spectropho	4	300-line, 3-sec slit, combo
0022-0030.FLAT	8	2:27	12:20:13.8	31:30:58	300	0	3.0	#56 Spectropho	4	
0031-0040.BIAS	0	2:30	12:23:11.8	31:30:58	300	0	3.0	#56 Spectropho	2	
0041-0050.FLAT	16	2:35	12:28:36.9	31:30:58	300	0	3.0	#56 Spectropho	2	
0051-0055.sky	3	2:40	12:31:35.9	31:30:58	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:41	12:31:35.9	31:30:58	300	90	3.0	#57 Velocity S	4	
0057.Feige34	150	3:17	10:36:41.2	43:21:50	300	99	3.0	#56 Spectropho	2	
0058.Feige34	150	3:20	10:36:41.2	43:21:50	300	99	3.0	#56 Spectropho	2	
0059.COMP	10	3:23	10:36:41.2	43:21:50	300	99	3.0	#56 Spectropho	2	
0060.N4486B	300	3:25	12:30:32	+12:29:25	300	99	3.0	#57 Velocity S	2	



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FAST SPECTROGRAPH LOG



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0061.COMP	10	3:30	12:30:32	+12:29:25	300	99	3.0	#57 Velocity S	2	
0062.sn2002bo	1200	3:33	10:18:06.5	+21:49:41	300	68	3.0	#2 SN Observat	2	
0063.COMP	10	3:53	10:18:06.5	+21:49:41	300	68	3.0	#2 SN Observat	2	
0064.BIAS	0	3:56	14:00:00	32:00:00	300	68	3.0	#2 SN Observat	2	
0065.Feige34	240	3:58	10:36:41.2	43:21:50	600	90	3.0	#70f Elliptica	2	600-line, 3-sec slit
0066.COMP	20	4:03	10:36:41.2	43:21:50	600	90	3.0	#70f Elliptica	2	
0067.vcc1619	1800	4:05	12:32:59	12:29:48	600	45	3.0	#70f Elliptica	2	
0068.COMP	20	4:35	12:32:59	12:29:48	600	45	3.0	#70f Elliptica	2	
0069.vcc1619	1800	4:36	12:32:59	12:29:48	600	55	3.0	#70f Elliptica	2	
0070.COMP	20	5:07	12:32:59	12:29:48	600	55	3.0	#70f Elliptica	2	
0071.vcc1664	1800	5:08	12:33:55	11:42:54	600	55	3.0	#70f Elliptica	2	
0072.COMP	20	5:38	12:33:55	11:42:54	600	55	3.0	#70f Elliptica	2	
0073.vcc1664	1800	5:39	12:33:55	11:42:54	600	60	3.0	#70f Elliptica	2	
0074.COMP	20	6:10	12:33:55	11:42:54	600	60	3.0	#70f Elliptica	2	
0075.HD132737	5	6:12	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0076.HD132737	5	6:12	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0077.HD132737	5	6:13	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0078.COMP	20	6:13	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0079.BDp332642	90	6:14	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0080.BDp332642	90	6:16	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	



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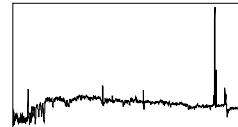
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0081.COMP	20	6:18	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0082-0091.FLAT	40	6:27	16:30:00	32:00:00	600	90	3.0	#70f Elliptica	2	
0092.BIAS	0	6:30	16:30:00	32:00:00	300	90	3.0	#57 Velocity S	2	
0093.FLAT	16	6:31	16:30:00	32:00:00	300	90	3.0	#57 Velocity S	2	300-line, 3-sec, combo
0094-0102.FLAT	16	6:36	16:30:00	32:00:00	300	90	3.0	#57 Velocity S	2	
0103.BDp332642	90	6:38	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0104.BDp332642	90	6:41	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0105.COMP	10	6:42	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0106.sn2002de	1200	6:44	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0107.COMP	10	7:05	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0108.a2199s_151	180	7:06	16:37:53.9	36:04:22	300	0	3.0	#64 Cluster In	2	
0109.COMP	10	7:09	16:37:53.9	36:04:22	300	0	3.0	#64 Cluster In	2	
0110.a2199s_152	420	7:10	16:37:59.9	35:59:44	300	0	3.0	#64 Cluster In	2	
0111.COMP	10	7:18	16:37:59.9	35:59:44	300	0	3.0	#64 Cluster In	2	
0112.BIAS	0	7:21	17:30:00	32:00:00	300	0	3.0	#2 SN Observat	2	
0113.FLAT	100	7:22	17:30:00	32:00:00	1200	0	1.5	#2 SN Observat	2	1200-line, 1.5-sec slit, blue
0114-0122.FLAT	100	7:38	17:30:00	32:00:00	1200	0	1.5	#2 SN Observat	2	
0123.HD171485A	5	7:42	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	narrow slit...
0124.HD171485A	5	7:42	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0125.HD171485A	5	7:43	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0126.COMP	20	7:43	18:33:14.6	40:09:34	1200	0	1.5	#134 OGLE Tran	2	
0127.G140-53	210	7:45	18:17:52.1	+05:27:07	1200	0	1.5	#134 OGLE Tran	2	
0128.COMP	20	7:49	18:17:52.1	+05:27:07	1200	0	1.5	#134 OGLE Tran	2	
0129.G21-25	210	7:50	18:48:21.9	-05:05:29	1200	0	1.5	#134 OGLE Tran	2	
0130.COMP	20	7:54	18:48:21.9	-05:05:29	1200	0	1.5	#134 OGLE Tran	2	
0131.OGLE-TR-41	1200	7:56	17:55:16.3	-29:31:32	1200	0	1.5	#134 OGLE Tran	2	
0132.COMP	20	8:16	17:55:16.3	-29:31:32	1200	0	1.5	#134 OGLE Tran	2	
0133.OGLE-TR-15	1200	8:17	17:54:52.3	-29:58:20	1200	0	1.5	#134 OGLE Tran	2	
0134.COMP	20	8:38	17:54:52.3	-29:58:20	1200	0	1.5	#134 OGLE Tran	2	
0135.OGLE-TR-9	1200	8:40	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0136.COMP	20	9:01	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0137.OGLE-TR-9	1200	9:02	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0138.COMP	20	9:22	17:51:50.8	-29:54:43	1200	15	1.5	#134 OGLE Tran	2	
0139.BIAS	0	9:26	19:30:00	32:00:00	300	15	1.5	#134 OGLE Tran	2	
0140.V4641Sgr	1200	9:27	18:19:21.6	-25:24:26	300	20	1.5	#65 X-Ray Nova	2	300-line, 1.5-sec slit
0141.COMP	10	9:48	18:19:21.6	-25:24:26	300	20	1.5	#65 X-Ray Nova	2	
0142.J1901candiC	1800	9:50	19:01:26.9	01:23:04	300	24	1.5	#65 X-Ray Nova	2	
0143.COMP	10	10:21	19:01:26.9	01:23:04	300	24	1.5	#65 X-Ray Nova	2	
0144.HD192281	6	10:23	20:10:46.8	40:07:01	300	24	1.5	#56 Spectropho	2	
0145.HD192281	6	10:23	20:10:46.8	40:07:01	300	24	1.5	#56 Spectropho	2	



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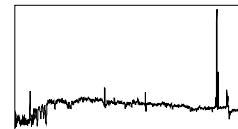
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0146.HD192281	6	10:24	20:10:46.8	40:07:01	300	24	1.5	#56 Spectropho	2	
0147.COMP	10	10:24	20:10:46.8	40:07:01	300	24	1.5	#56 Spectropho	2	
0148.BDp284211	120	10:26	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0149.COMP	10	10:28	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0150-0159.FLAT	26	10:34	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0160.BIAS	0	10:35	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0161.BDp284211	90	10:37	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	300-line, 3-sec slit, combo
0162.BDp284211	90	10:39	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0163.COMP	10	10:41	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0164.sn2002cd	1200	10:44	20:23:34.4	+58:20:47	300	-10	3.0	#2 SN Observat	2	
0165.COMP	10	11:05	20:23:34.4	+58:20:47	300	-10	3.0	#2 SN Observat	2	
0166.CH Cyg	2	11:06	19:24:33	50:14:30	300	-10	3.0	#12 Symbiotic	2	
0167.CH Cyg	5	11:06	19:24:33	50:14:30	300	-10	3.0	#12 Symbiotic	2	
0168.CH Cyg	15	11:07	19:24:33	50:14:30	300	-10	3.0	#12 Symbiotic	2	
0169.COMP	10	11:08	19:24:33	50:14:30	300	-10	3.0	#12 Symbiotic	2	
0170.CI Cyg	2	11:10	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0171.CI Cyg	5	11:10	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0172.CI Cyg	15	11:10	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0173.CI Cyg	60	11:11	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0174.COMP	10	11:13	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	



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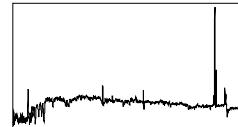
UT Date 2002-06-11 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0175.ZAnd	2	11:14	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0176.ZAnd	5	11:15	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0177.ZAnd	15	11:15	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0178.ZAnd	60	11:15	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0179.COMP	10	11:17	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0180.HD192281	5	11:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0181.HD192281	5	11:19	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0182.HD192281	5	11:19	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0183.COMP	10	11:19	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0184-0193.BIAS	0	11:23	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	2	
0194-0203.FLAT	16	11:28	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	2	
0204-0213.BIAS	0	11:30	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	4	
0214-0223.FLAT	8	11:33	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	4	
0224-0233.DARK	1200	14:35	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:27	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	4	
0011-0018.DARK	900	2:29	20:10:46.8	40:07:01	300	90	3.0	#12 Symbiotic	2	
0019.BIAS	0	2:47	20:10:46.8	40:07:01	600	90	3.0	#12 Symbiotic	2	lots of clouds
0020-0030.BIAS	0	2:49	20:10:46.8	40:07:01	600	90	3.0	#12 Symbiotic	2	
0031.FLAT	40	2:50	20:10:46.8	40:07:01	600	90	3.0	#12 Symbiotic	2	600-line, 3-sec slit, blue
0032-0040.FLAT	40	2:58	20:10:46.8	40:07:01	600	90	3.0	#12 Symbiotic	2	
0041-0050.BIAS	0	3:01	20:10:46.8	40:07:01	600	90	3.0	#12 Symbiotic	4	
0051.Feige34	300	3:27	10:36:41.2	43:21:50	600	95	3.0	#70f Elliptica	2	
0052.COMP	20	3:38	10:36:41.2	43:21:50	600	95	3.0	#70f Elliptica	2	
0053.vcc369	1800	3:43	12:17:13	13:4:36	600	45	3.0	#70f Elliptica	2	
0054.COMP	20	4:14	12:17:13	13:4:36	600	45	3.0	#70f Elliptica	2	
0055.vcc369	1800	4:15	12:17:13	13:4:36	600	45	3.0	#70f Elliptica	2	
0056.COMP	20	4:46	12:17:13	13:4:36	600	45	3.0	#70f Elliptica	2	PA=55
0057.vcc1913	420	4:47	12:39:38	7:57:6	600	55	3.0	#70f Elliptica	2	stopped by clouds
0058.COMP	10	4:54	12:39:38	7:57:6	600	55	3.0	#70f Elliptica	2	
0059.HD132737	5	4:57	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0060.HD132737	30	5:00	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0061.COMP	20	5:01	14:59:52.5	27:09:35	600	90	3.0	#70f Elliptica	2	
0062.HD131918	30	5:05	14:21:56.6	25:55:48	600	90	3.0	#10 M67 stars	2	
0063.COMP	20	5:06	14:21:56.6	25:55:48	600	90	3.0	#10 M67 stars	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0064.BDp332642	180	5:12	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0065.BDp332642	180	5:15	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0066.COMP	20	5:19	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0067.BIAS	0	5:22	15:50:03	33:05:49	600	90	3.0	#70f Elliptica	2	
0068.FLAT	16	5:22	15:50:03	33:05:49	300	90	3.0	#70f Elliptica	2	300-line, 3-sec, combo
0069-0077.FLAT	16	5:26	15:50:03	33:05:49	300	90	3.0	#70f Elliptica	2	
0078-0087.FLAT	8	5:34	15:50:03	33:05:49	300	90	3.0	#70f Elliptica	4	
0088.BDp332642	120	5:40	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	hi Susan!
0089.BDp332642	120	5:42	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0090.COMP	10	5:44	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0091.a2199s_153	540	5:46	16:38:09.0	39:55:04	300	90	3.0	#64 Cluster In	2	windy, poor seeing
0092.COMP	10	5:56	16:38:09.0	39:55:04	300	90	3.0	#64 Cluster In	2	
0093.a2199s_154	600	5:56	16:38:13.7	40:08:49	300	90	3.0	#64 Cluster In	4	
0094.COMP	5	6:07	16:38:13.7	40:08:49	300	90	3.0	#64 Cluster In	4	
0095.a2199s_155	480	6:08	16:38:14.0	41:56:20	300	90	3.0	#64 Cluster In	4	
0096.COMP	5	6:16	16:38:14.0	41:56:20	300	90	3.0	#64 Cluster In	4	
0097.a2199s_157	300	6:20	16:39:04.8	39:17:27	300	90	3.0	#64 Cluster In	4	
0098.COMP	5	6:25	16:39:04.8	39:17:27	300	90	3.0	#64 Cluster In	4	
0099.a2199s_158	300	6:26	16:40:06.4	37:11:28	300	90	3.0	#64 Cluster In	4	
0100.COMP	5	6:31	16:40:06.4	37:11:28	300	90	3.0	#64 Cluster In	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0101.a2199s_160	300	6:35	16:40:27.9	39:19:12	300	90	3.0	#64 Cluster In	4	
0102.COMP	5	6:41	16:40:27.9	39:19:12	300	90	3.0	#64 Cluster In	4	
0103.a2199s_161	300	6:41	16:41:09.8	39:45:24	300	90	3.0	#64 Cluster In	4	
0104.COMP	5	6:46	16:41:09.8	39:45:24	300	90	3.0	#64 Cluster In	4	
0105.sn2002de	1200	6:49	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0106.COMP	10	7:09	16:16:30.7	35:42:29	300	0	3.0	#2 SN Observat	2	
0107.sn2002di	420	7:13	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	stopped by clouds
0108.COMP	10	7:21	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	
0109.sn2002di	1200	7:25	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	
0110.COMP	10	7:46	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	
0111.sn2002di	1200	7:46	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	
0112.COMP	10	8:07	16:52:23.3	+30:42:40	300	0	3.0	#2 SN Observat	2	
0113.BIAS	0	8:10	18:00:00	32:00:00	300	0	3.0	#2 SN Observat	2	300-line, 1.5-sec slit
0114.V4641Sgr	1200	8:13	18:19:21.6	-25:24:26	300	0	1.5	#65 X-Ray Nova	2	
0115.COMP	10	8:34	18:19:21.6	-25:24:26	300	0	1.5	#65 X-Ray Nova	2	
0116.J1901candiC	1800	8:47	19:01:26.9	01:23:04	300	0	1.5	#65 X-Ray Nova	2	
0117.COMP	10	9:17	19:01:26.9	01:23:04	300	0	1.5	#65 X-Ray Nova	2	
0118.HD192281	5	9:20	20:10:46.8	40:07:01	300	0	1.5	#56 Spectropho	2	
0119.HD192281	5	9:20	20:10:46.8	40:07:01	300	0	1.5	#56 Spectropho	2	
0120.HD192281	5	9:20	20:10:46.8	40:07:01	300	0	1.5	#56 Spectropho	2	



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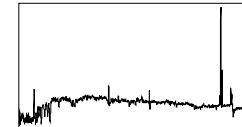
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0121.HD192281	15	9:21	20:10:46.8	40:07:01	300	0	1.5	#56 Spectropho	2	
0122.COMP	10	9:21	20:10:46.8	40:07:01	300	0	1.5	#56 Spectropho	2	
0123.BDp404032	120	9:22	20:06:40	41:06:15	300	0	1.5	#56 Spectropho	2	
0124.COMP	10	9:25	20:06:40	41:06:15	300	0	1.5	#56 Spectropho	2	
0125-0134.FLAT	30	9:33	19:40:00	30:00:00	300	0	1.5	#65 X-Ray Nova	2	
0135.BIAS	0	9:35	19:40:00	30:00:00	300	0	3.0	#65 X-Ray Nova	2	
0136.shtr37_1.1-556	600	9:38	21:37:19.1	57:20:26	300	90	3.0	#89 Herbig Ae/	4	300-;ine, 3-sec slit, combo
0137.COMP	5	9:49	21:37:19.1	57:20:26	300	90	3.0	#89 Herbig Ae/	4	
0138.shtr37_1.1-1209	600	9:50	21:36:58.5	57:23:26	300	90	3.0	#89 Herbig Ae/	4	
0139.COMP	5	10:01	21:36:58.5	57:23:26	300	90	3.0	#89 Herbig Ae/	4	
0140.shtr37_1.1-1551	720	10:01	21:37:22.7	57:25:1	300	90	3.0	#89 Herbig Ae/	4	
0141.COMP	5	10:14	21:37:22.7	57:25:1	300	90	3.0	#89 Herbig Ae/	4	
0142.shtr37_1.1-970	900	10:14	21:36:49.6	57:22:27	300	90	3.0	#89 Herbig Ae/	4	
0143.COMP	5	10:30	21:36:49.6	57:22:27	300	90	3.0	#89 Herbig Ae/	4	
0144.shtr37_1.1-590	1200	10:31	21:37:17.0	57:20:40	300	90	3.0	#89 Herbig Ae/	4	
0145.COMP	5	10:53	21:37:17.0	57:20:40	300	90	3.0	#89 Herbig Ae/	4	
0146.shtr37_1.1-988	900	10:54	21:36:49.6	57:22:27	300	90	3.0	#89 Herbig Ae/	4	
0147.COMP	5	11:09	21:36:49.6	57:22:27	300	90	3.0	#89 Herbig Ae/	4	
0148.N7331	120	11:10	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0149.COMP	5	11:13	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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UT Date 2002-06-12 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0150.BDp284211	90	11:13	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0151.COMP	10	11:15	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0152.BIAS	0	11:17	21:48:57.1	28:37:48	300	90	3.0	#65 X-Ray Nova	4	a few clouds around @ dawn
0153-0161.BIAS	0	11:18	21:48:57.1	28:37:48	300	90	3.0	#65 X-Ray Nova	4	
0162-0171.FLAT	8	11:20	21:48:57.1	28:37:48	300	90	3.0	#65 X-Ray Nova	4	
0172-0181.BIAS	0	11:23	21:48:57.1	28:37:48	300	90	3.0	#65 X-Ray Nova	2	
0182-0191.FLAT	16	11:27	21:48:57.1	28:37:48	300	90	3.0	#65 X-Ray Nova	2	



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UT Date 2002-06-13 Observers L Macri

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	2:33	12:34:27.9	31:30:57	300	90	3.0	#65 X-Ray Nova	4	binby4
0002-0010.BIAS	0	2:37	12:38:31.0	31:30:57	300	90	3.0	#65 X-Ray Nova	4	
0011-0020.FLAT	8	2:46	12:47:21.0	31:30:58	300	90	3.0	#65 X-Ray Nova	4	
0021-0023.sky	15	2:56	9:52:37	10:00:00	0	15	15.0	none	4	
0024-0025.sky	20	2:57	9:52:37	10:00:00	0	20	20.0	none	4	
0026.COMP	5	2:57	9:52:37	10:00:00	300	90	3.0	#57 Velocity S	4	
0027.BIAS	0	3:05	13:00:00	31:30:00	300	90	3.0	#57 Velocity S	2	binby2
0028-0036.BIAS	0	3:07	13:00:00	31:30:00	300	90	3.0	#57 Velocity S	2	
0037-0046.FLAT	16	3:12	13:00:00	31:30:00	300	90	3.0	#57 Velocity S	2	
0047.N4486B	120	3:38	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	binby4
0048.COMP	5	3:41	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	
0049.2MJ1118146p020034	450	3:47	11:18:14.6	+02:00:34	300	90	3.0	#68 2MASS Reds	4	
0050.COMP	5	3:56	11:18:14.6	+02:00:34	300	90	3.0	#68 2MASS Reds	4	
0051.2MJ1118228p233227	480	3:58	11:18:22.8	+23:32:27	300	90	3.0	#68 2MASS Reds	4	
0052.COMP	5	4:07	11:18:22.8	+23:32:27	300	90	3.0	#68 2MASS Reds	4	
0053.2MJ1118339p234250	480	4:08	11:18:33.9	+23:42:50	300	90	3.0	#68 2MASS Reds	4	
0054.COMP	5	4:17	11:18:33.9	+23:42:50	300	90	3.0	#68 2MASS Reds	4	
0055.2MJ1118569p230524	360	4:19	11:18:56.9	+23:05:24	300	90	3.0	#68 2MASS Reds	4	
0056.COMP	5	4:26	11:18:56.9	+23:05:24	300	90	3.0	#68 2MASS Reds	4	
0057.2MJ1119215p225019	480	4:28	11:19:21.5	+22:50:19	300	90	3.0	#68 2MASS Reds	4	



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UT Date 2002-06-13 Observers L Macri

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0058.COMP	5	4:38	11:19:21.5	+22:50:19	300	90	3.0	#68 2MASS Reds	4	
0059.2MJ1118348p194049	420	4:40	11:18:34.8	+19:40:49	300	90	3.0	#68 2MASS Reds	4	
0060.COMP	5	4:47	11:18:34.8	+19:40:49	300	90	3.0	#68 2MASS Reds	4	
0061.2MJ1202484p210843	480	4:51	12:02:48.4	+21:08:43	300	90	3.0	#68 2MASS Reds	4	
0062.COMP	5	5:00	12:02:48.4	+21:08:43	300	90	3.0	#68 2MASS Reds	4	
0063.2MJ1204246p203537	360	5:05	12:04:24.6	+20:35:37	300	90	3.0	#68 2MASS Reds	4	
0064.COMP	5	5:12	12:04:24.6	+20:35:37	300	90	3.0	#68 2MASS Reds	4	
0065.2MJ1205166p210036	420	5:18	12:05:16.6	+21:00:36	300	90	3.0	#68 2MASS Reds	4	
0066.COMP	5	5:26	12:05:16.6	+21:00:36	300	90	3.0	#68 2MASS Reds	4	
0067.2MJ1206275p233802	420	5:28	12:06:27.5	+23:38:02	300	90	3.0	#68 2MASS Reds	4	
0068.2MJ1206275p233802	600	5:37	12:06:27.5	+23:38:02	300	90	3.0	#68 2MASS Reds	4	faint, redo
0069.COMP	5	5:48	12:06:27.5	+23:38:02	300	90	3.0	#68 2MASS Reds	4	
0070.2MJ1206309p222104	600	5:50	12:06:30.9	+22:21:04	300	90	3.0	#68 2MASS Reds	4	
0071.2MJ1206309p222104	600	6:01	12:06:30.9	+22:21:04	300	90	3.0	#68 2MASS Reds	4	faint, redo
0072.COMP	5	6:12	12:06:30.9	+22:21:04	300	90	3.0	#68 2MASS Reds	4	
0073.2MJ1641189p221643	420	6:14	16:41:18.9	+22:16:43	300	90	3.0	#68 2MASS Reds	4	
0074.COMP	5	6:22	16:41:18.9	+22:16:43	300	90	3.0	#68 2MASS Reds	4	
0075.2MJ1702582p333028	600	6:25	17:02:58.2	+33:30:28	300	90	3.0	#68 2MASS Reds	4	
0076.2MJ1702582p333028	600	6:36	17:02:58.2	+33:30:28	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	6:47	17:02:58.2	+33:30:28	300	90	3.0	#68 2MASS Reds	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0078.2MJ1744592p662747	120	6:52	17:44:59.2	+66:27:47	300	90	3.0	#68 2MASS Reds	4	row=40
0079.COMP	5	6:57	17:44:59.2	+66:27:47	300	90	3.0	#68 2MASS Reds	4	
0080.2MJ1635248m053232	300	7:03	16:35:24.8	-05:32:32	300	90	3.0	#68 2MASS Reds	4	
0081.COMP	5	7:10	16:35:24.8	-05:32:32	300	90	3.0	#68 2MASS Reds	4	
0082.2MJ1635486m105419	420	7:12	16:35:48.6	-10:54:19	300	90	3.0	#68 2MASS Reds	4	
0083.COMP	5	7:20	16:35:48.6	-10:54:19	300	90	3.0	#68 2MASS Reds	4	
0084.2MJ1638478m090219	480	7:21	16:38:47.8	-09:02:19	300	90	3.0	#68 2MASS Reds	4	
0085.COMP	5	7:30	16:38:47.8	-09:02:19	300	90	3.0	#68 2MASS Reds	4	
0086.2MJ1639054m063339	420	7:31	16:39:05.4	-06:33:39	300	90	3.0	#68 2MASS Reds	4	row=40
0087.COMP	5	7:41	16:39:05.4	-06:33:39	300	90	3.0	#68 2MASS Reds	4	
0088.2MJ1642216m055630	480	7:43	16:42:21.6	-05:56:30	300	90	3.0	#68 2MASS Reds	4	
0089.COMP	5	7:52	16:42:21.6	-05:56:30	300	90	3.0	#68 2MASS Reds	4	
0090.2MJ1641348p030852	360	7:54	16:41:34.8	+03:08:52	300	90	3.0	#68 2MASS Reds	4	
0091.COMP	5	8:01	16:41:34.8	+03:08:52	300	90	3.0	#68 2MASS Reds	4	
0092.2MJ1642243m002148	360	8:02	16:42:24.3	-00:21:48	300	90	3.0	#68 2MASS Reds	4	
0093.COMP	5	8:09	16:42:24.3	-00:21:48	300	90	3.0	#68 2MASS Reds	4	
0094.2MJ1644576m081502	450	8:11	16:44:57.6	-08:15:02	300	90	3.0	#68 2MASS Reds	4	
0095.COMP	5	8:20	16:44:57.6	-08:15:02	300	90	3.0	#68 2MASS Reds	4	
0096.2MJ1647020m020231	480	8:23	16:47:02.0	-02:02:31	300	90	3.0	#68 2MASS Reds	4	
0097.COMP	5	8:32	16:47:02.0	-02:02:31	300	90	3.0	#68 2MASS Reds	4	



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UT Date 2002-06-13 Observers L Macri

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0098.2MJ1647076p005548	360	8:33	16:47:07.6	+00:55:48	300	90	3.0	#68 2MASS Reds	4	
0099.COMP	5	8:40	16:47:07.6	+00:55:48	300	90	3.0	#68 2MASS Reds	4	
0100.2MJ1647364m012509	300	8:41	16:47:36.4	-01:25:09	300	90	3.0	#68 2MASS Reds	4	
0101.COMP	5	8:47	16:47:36.4	-01:25:09	300	90	3.0	#68 2MASS Reds	4	
0102.2MJ1658310p065641	300	8:48	16:58:31.0	+06:56:41	300	90	3.0	#68 2MASS Reds	4	
0103.COMP	5	8:54	16:58:31.0	+06:56:41	300	90	3.0	#68 2MASS Reds	4	
0104.2MJ1658400p025641	360	8:55	16:58:40.0	+02:56:41	300	90	3.0	#68 2MASS Reds	4	
0105.COMP	5	9:02	16:58:40.0	+02:56:41	300	90	3.0	#68 2MASS Reds	4	
0106.2MJ1743463p330530	420	9:04	17:43:46.3	+33:05:30	300	90	3.0	#68 2MASS Reds	4	
0107.COMP	5	9:11	17:43:46.3	+33:05:30	300	90	3.0	#68 2MASS Reds	4	
0108.2MJ1758081p432511	420	9:13	17:58:08.1	+43:25:11	300	90	3.0	#68 2MASS Reds	4	
0109.COMP	5	9:21	17:58:08.1	+43:25:11	300	90	3.0	#68 2MASS Reds	4	
0110.2MJ1801363p751718	420	9:23	18:01:36.3	+75:17:18	300	90	3.0	#68 2MASS Reds	4	
0111.COMP	5	9:30	18:01:36.3	+75:17:18	300	90	3.0	#68 2MASS Reds	4	
0112.2MJ2157507m042905	480	9:34	21:57:50.7	-04:29:05	300	90	3.0	#68 2MASS Reds	4	
0113.COMP	5	9:43	21:57:50.7	-04:29:05	300	90	3.0	#68 2MASS Reds	4	
0114.2MJ2205261m054431	480	9:44	22:05:26.1	-05:44:31	300	90	3.0	#68 2MASS Reds	4	
0115.COMP	5	9:53	22:05:26.1	-05:44:31	300	90	3.0	#68 2MASS Reds	4	
0116.2MJ2241119p014621	600	9:57	22:41:11.9	+01:46:21	300	90	3.0	#68 2MASS Reds	4	three objects
0117.COMP	5	10:08	22:41:11.9	+01:46:21	300	90	3.0	#68 2MASS Reds	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0118.2MJ2153057m165338	420	10:12	21:53:05.7	-16:53:38	300	90	3.0	#68 2MASS Reds	4	
0119.COMP	5	10:20	21:53:05.7	-16:53:38	300	90	3.0	#68 2MASS Reds	4	
0120.2MJ2109512m205355	420	10:22	21:09:51.2	-20:53:55	300	90	3.0	#68 2MASS Reds	4	
0121.COMP	5	10:30	21:09:51.2	-20:53:55	300	90	3.0	#68 2MASS Reds	4	
0122.2MJ2106239m214013	360	10:31	21:06:23.9	-21:40:13	300	90	3.0	#68 2MASS Reds	4	
0123.COMP	5	10:38	21:06:23.9	-21:40:13	300	90	3.0	#68 2MASS Reds	4	
0124.2MJ2120235m131016	420	10:39	21:20:23.5	-13:10:16	300	90	3.0	#68 2MASS Reds	4	
0125.COMP	5	10:47	21:20:23.5	-13:10:16	300	90	3.0	#68 2MASS Reds	4	
0126.2MJ2104558m214350	360	10:50	21:04:55.8	-21:43:50	300	90	3.0	#68 2MASS Reds	4	
0127.COMP	5	10:56	21:04:55.8	-21:43:50	300	90	3.0	#68 2MASS Reds	4	
0128.2MJ2059592m200741	420	10:57	20:59:59.2	-20:07:41	300	90	3.0	#68 2MASS Reds	4	
0129.COMP	5	11:05	20:59:59.2	-20:07:41	300	90	3.0	#68 2MASS Reds	4	
0130.2MJ2149507p032442	600	11:07	21:49:50.7	+03:24:42	300	90	3.0	#68 2MASS Reds	4	very faint
0131.COMP	5	11:19	21:49:50.7	+03:24:42	300	90	3.0	#68 2MASS Reds	4	
0132.N7331	60	11:20	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0133.COMP	5	11:24	22:39:30.8	34:25:22	300	90	3.0	#57 Velocity S	4	
0134-0135.DARK	900	11:56	22:14:21.5	31:30:01	300	90	3.0	#57 Velocity S	4	
0136.DARK	900	12:12	22:29:31.4	31:29:59	300	90	3.0	#57 Velocity S	4	
0137.DARK	900	12:27	22:44:41.3	31:29:58	300	90	3.0	#57 Velocity S	4	
0138.DARK	900	12:42	22:59:50.1	31:29:57	300	90	3.0	#57 Velocity S	4	



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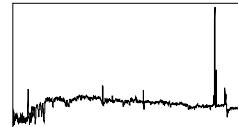
UT Date 2002-06-13 Observers L MacriColl. Focus 980 Grating/Grism 300

<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>
0139-0143.DARK	900	13:57	00:15:36.5	31:29:56	300	90	3.0	#57 Velocity S	4	
newcomp.ms	10	7:24	01:48:22.2	+11:31:34	300	0	3.0	#2 SN Observat	4	



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UT Date 2002-06-14 Observers L Macri

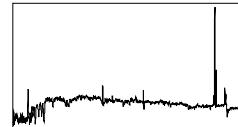
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	23:30	09:34:58.5	31:32:04	300	90	3.0	#57 Velocity S	4	binby4
0002-0008.BIAS	0	23:31	09:35:49.5	31:32:04	300	90	3.0	#57 Velocity S	4	
0009-0010.BIAS	0	23:31	09:36:02.5	31:32:05	300	90	3.0	#57 Velocity S	4	
0011.DARK	900	23:31	09:51:17.6	31:32:05	300	90	3.0	#57 Velocity S	4	
0012.DARK	900	23:47	10:06:26.7	31:32:07	300	90	3.0	#57 Velocity S	4	
0013.DARK	900	0:02	10:21:36.8	31:32:08	300	90	3.0	#57 Velocity S	4	
0014.DARK	900	0:17	10:36:46.9	31:32:09	300	90	3.0	#57 Velocity S	4	
0015.DARK	900	0:32	10:51:57.1	31:32:10	300	90	3.0	#57 Velocity S	4	
0016-0025.FLAT	8	0:50	10:54:43.1	31:32:10	300	90	3.0	#57 Velocity S	4	
0026.BIAS	0	0:51	10:55:38.1	31:32:10	300	90	3.0	#57 Velocity S	2	binby2
0027-0035.BIAS	0	0:53	10:57:33.1	31:32:10	300	90	3.0	#57 Velocity S	2	
0036-0037.DARK	900	1:08	11:28:10.4	31:32:11	300	90	3.0	#57 Velocity S	2	
0038-0040.DARK	900	1:54	12:13:55.7	31:32:12	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	16	2:31	12:37:01.9	31:32:12	300	90	3.0	#57 Velocity S	2	
0051.sky	10	2:38	12:42:09.0	31:32:12	300	90	3.0	#57 Velocity S	4	
0052.sky	10	2:38	12:42:09.0	31:32:12	0	10	10.0	none	4	
0053.sky	10	2:39	12:42:09.0	31:24:43	0	10	10.0	none	4	
0054.sky	10	2:39	12:42:12.0	31:24:42	0	10	10.0	none	4	
0055.sky	10	2:39	12:42:12.0	31:20:58	0	10	10.0	none	4	
0056.COMP	5	2:41	12:42:12.0	31:15:58	300	90	3.0	#57 Velocity S	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.Feige34	150	3:21	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	binby2
0058.Feige34	150	3:23	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0059.Feige34	150	3:26	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0060.COMP	12	3:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.sn2002xx	1200	3:47	13:13:00.3	-19:31:08	300	10	3.0	#2 SN Observat	2	
0062.COMP	12	4:08	13:13:00.3	-19:31:08	300	10	3.0	#2 SN Observat	2	
0063.sn2002de	1200	4:15	16:16:30.7	35:42:29	300	90	3.0	#2 SN Observat	2	
0064.COMP	12	4:36	16:16:30.7	35:42:29	300	90	3.0	#2 SN Observat	2	
0065.N5548	150	4:39	14:17:59.6	+25:08:12	300	45	3.0	#6 AGN Monitor	4	
0066.N5548	150	4:42	14:17:59.6	+25:08:12	300	45	3.0	#6 AGN Monitor	4	
0067.COMP	5	4:45	14:17:59.6	+25:08:12	300	45	3.0	#6 AGN Monitor	4	
0068.N4151	30	4:47	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0069.N4151	30	4:47	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0070.COMP	5	4:48	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0071.N4051	150	4:49	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0072.N4051	150	4:52	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0073.N4051	150	4:55	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0074.COMP	5	4:58	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0075.MRK421	300	4:59	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	forgot comp, sorry...
0076.MRK421	300	5:04	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.a2199s_162	300	5:14	16:41:37.3	40:09:48	300	90	3.0	#64 Cluster In	4	
0078.COMP	5	5:19	16:41:37.3	40:09:48	300	90	3.0	#64 Cluster In	4	
0079.a2199s_163	480	5:21	16:41:45.2	39:38:35	300	90	3.0	#64 Cluster In	4	
0080.COMP	5	5:30	16:41:45.2	39:38:35	300	90	3.0	#64 Cluster In	4	
0081.a2199s_164	480	5:31	16:41:47.0	39:59:03	300	90	3.0	#64 Cluster In	4	
0082.COMP	5	5:40	16:41:47.0	39:59:03	300	90	3.0	#64 Cluster In	4	
0083.a2199s_166	420	5:43	16:43:10.4	42:11:34	300	90	3.0	#64 Cluster In	4	
0084.COMP	5	5:51	16:43:10.4	42:11:34	300	90	3.0	#64 Cluster In	4	
0085.a2199s_165	480	5:53	16:42:08.1	40:16:36	300	90	3.0	#64 Cluster In	4	
0086.a2199s_165	480	6:01	16:42:08.1	40:16:36	300	90	3.0	#64 Cluster In	4	
0087.COMP	5	6:10	16:42:08.1	40:16:36	300	90	3.0	#64 Cluster In	4	
0088.a2199s_167	420	6:13	16:43:23.2	39:48:23	300	90	3.0	#64 Cluster In	4	
0089.COMP	5	6:20	16:43:23.2	39:48:23	300	90	3.0	#64 Cluster In	4	
0090.a2199s_168	420	6:23	16:44:10.8	39:47:19	300	90	3.0	#64 Cluster In	4	
0091.COMP	5	6:30	16:44:10.8	39:47:19	300	90	3.0	#64 Cluster In	4	
0092.sb68	600	6:38	16:28:28.1	+41:13:08	300	160	3.0	#135 Starburst	4	
0093.COMP	5	6:50	16:28:28.1	+41:13:08	300	160	3.0	#135 Starburst	4	
0094.sb75	600	6:55	16:51:02.9	+47:13:15	300	160	3.0	#135 Starburst	4	
0095.sb75a	300	7:14	16:51:02.9	+47:13:15	300	160	3.0	#135 Starburst	4	faint, but Halpha present
0096.sb75a	300	7:22	16:51:02.9	+47:13:15	0	300	300	None	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0097.COMP	5	7:28	16:51:02.9	+47:13:15	300	160	3.0	#135 Starburst	4	
0098.sb74	600	7:32	16:49:05.3	+29:45:32	300	160	3.0	#135 Starburst	4	
0099.COMP	5	7:43	16:49:05.3	+29:45:32	300	160	3.0	#135 Starburst	4	
0100.sb69	600	7:45	16:30:56.5	+04:04:59	300	40	3.0	#135 Starburst	4	
0101.COMP	5	7:56	16:30:56.5	+04:04:59	300	40	3.0	#135 Starburst	4	
0102.sb71	600	7:58	16:33:50.2	+07:12:10	300	40	3.0	#135 Starburst	4	
0103.COMP	5	8:09	16:33:50.2	+07:12:10	300	40	3.0	#135 Starburst	4	
0104.2MJ1647471m071245	360	8:12	16:47:47.1	-07:12:45	300	90	3.0	#68 2MASS Reds	4	
0105.COMP	5	8:19	16:47:47.1	-07:12:45	300	90	3.0	#68 2MASS Reds	4	
0106.2MJ1648239m061619	360	8:20	16:48:23.9	-06:16:19	300	90	3.0	#68 2MASS Reds	4	
0107.COMP	5	8:27	16:48:23.9	-06:16:19	300	90	3.0	#68 2MASS Reds	4	
0108.V4641Sgr	1200	8:33	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	4	
0109.COMP	5	8:54	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	4	
0110.J1901candiC	830	8:56	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	interrupted by autoguider
0111.J1901candiC	1800	9:13	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	
0112.COMP	5	9:44	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	
0113-0122.FLAT	10	9:47	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	
0123.2MJ2110009m140441	360	9:56	21:10:00.9	-14:04:41	300	90	3.0	#68 2MASS Reds	4	
0124.COMP	5	10:02	21:10:00.9	-14:04:41	300	90	3.0	#68 2MASS Reds	4	
0125.2MJ2106089m154754	300	10:03	21:06:08.9	-15:47:54	300	90	3.0	#68 2MASS Reds	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0126.COMP	5	10:08	21:06:08.9	-15:47:54	300	90	3.0	#68 2MASS Reds	4	
0127.2MJ2051502m251324	300	10:10	20:51:50.2	-25:13:24	300	90	3.0	#68 2MASS Reds	4	forgot comp, sorry...
0128.2MJ2102420m171633	360	10:17	21:02:42.0	-17:16:33	300	90	3.0	#68 2MASS Reds	4	
0129.COMP	5	10:24	21:02:42.0	-17:16:33	300	90	3.0	#68 2MASS Reds	4	
0130.2MJ2105564m142036	360	10:26	21:05:56.4	-14:20:36	300	90	3.0	#68 2MASS Reds	4	
0131.COMP	5	10:33	21:05:56.4	-14:20:36	300	90	3.0	#68 2MASS Reds	4	
0132.CHCyg	2	10:36	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0133.CHCyg	5	10:36	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0134.CHCyg	15	10:36	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0135.CHCyg	60	10:37	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0136.COMP	5	10:39	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0137.CICyg	2	10:40	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0138.CICyg	5	10:41	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0139.CICyg	15	10:41	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0140.CICyg	60	10:41	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0141.COMP	5	10:43	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0142.ZAnd	2	10:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0143.ZAnd	5	10:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0144.ZAnd	15	10:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0145.ZAnd	60	10:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0146.COMP	5	10:48	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0147.MRK509	300	10:53	20:44:09.8	-10:43:24	300	2	3.0	#6 AGN Monitor	4	
0148.COMP	5	10:59	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0149.Akn564	180	11:04	22:42:39.4	+29:43:31	300	102	3.0	#6 AGN Monitor	4	
0150.Akn564	180	11:07	22:42:39.4	+29:43:31	300	102	3.0	#6 AGN Monitor	4	
0151.COMP	5	11:11	22:42:39.4	+29:43:31	300	102	3.0	#6 AGN Monitor	4	
0152.N7469	120	11:13	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0153.N7469	120	11:15	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0154.COMP	5	11:17	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0155.BDp284211	90	11:18	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0156.COMP	5	11:20	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0157.N7331	60	11:21	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0158.COMP	5	11:23	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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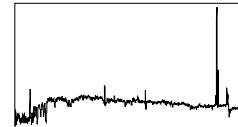
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	23:33	09:41:54.5	31:30:50	300	90	3.0	#6 AGN Monitor	4	binby4
0002-0010.BIAS	0	23:34	09:42:58.5	31:30:50	300	90	3.0	#6 AGN Monitor	4	
0011-0012.FLAT	8	23:35	09:44:06.5	31:30:50	300	90	3.0	#6 AGN Monitor	4	
0013-0020.FLAT	8	23:37	09:46:05.5	31:30:51	300	90	3.0	#6 AGN Monitor	4	
0021.DARK	900	23:38	10:01:24.7	31:30:52	300	90	3.0	#6 AGN Monitor	4	
0022.DARK	900	23:53	10:16:34.8	31:30:53	300	90	3.0	#6 AGN Monitor	4	
0023.DARK	900	0:08	10:31:43.9	31:30:54	300	90	3.0	#6 AGN Monitor	4	
0024-0025.DARK	900	0:38	11:02:00.1	31:30:55	300	90	3.0	#6 AGN Monitor	4	
0026.BIAS	0	0:54	11:02:22.1	31:30:55	300	90	3.0	#6 AGN Monitor	2	binby2
0027-0035.BIAS	0	0:55	11:04:20.2	31:30:55	300	90	3.0	#6 AGN Monitor	2	
0036-0039.FLAT	16	1:00	11:08:44.2	31:30:55	300	90	3.0	#6 AGN Monitor	2	
0040-0045.FLAT	16	1:02	11:11:38.2	31:30:56	300	90	3.0	#6 AGN Monitor	2	
0046.DARK	900	1:06	11:29:30.4	31:30:56	300	90	3.0	#6 AGN Monitor	2	
0047.DARK	900	1:21	11:44:45.5	31:30:57	300	90	3.0	#6 AGN Monitor	2	
0048-0049.DARK	900	1:51	12:15:17.8	31:30:58	300	90	3.0	#6 AGN Monitor	2	
0050.DARK	900	2:06	12:30:32.9	31:30:57	300	90	3.0	#6 AGN Monitor	2	
0051.SKY	3	2:42	12:49:09	+31:30:11	0	3	3.0	none	4	binby4
0052-0055.SKY	3	2:43	12:49:09	+31:30:11	0	3	3.0	none	4	
0056.COMP	5	2:44	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	
0057.Feige34	150	3:27	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	binby2



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0058.Feige34	150	3:30	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0059.Feige34	150	3:33	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0060.COMP	12	3:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.sn2002dj	1200	3:49	13:13:00.3	-19:31:08	300	8	3.0	#2 SN Observat	2	
0062.COMP	12	4:10	13:13:00.3	-19:31:08	300	8	3.0	#2 SN Observat	2	
0063.a2199s_169	420	4:20	16:46:41.5	36:05:25	300	90	3.0	#64 Cluster In	4	binby4
0064.COMP	5	4:27	16:46:41.5	36:05:25	300	90	3.0	#64 Cluster In	4	
0065.a2199s_170	480	4:29	16:47:14.8	40:14:41	300	90	3.0	#64 Cluster In	4	
0066.COMP	5	4:38	16:47:14.8	40:14:41	300	90	3.0	#64 Cluster In	4	
0067.a2199s_171	480	4:40	16:48:17.3	35:50:27	300	90	3.0	#64 Cluster In	4	
0068.COMP	5	4:50	16:48:17.3	35:50:27	300	90	3.0	#64 Cluster In	4	
0069.a2199s_172	480	4:51	16:48:17.5	35:54:00	300	90	3.0	#64 Cluster In	4	
0070.COMP	5	4:59	16:48:17.5	35:54:00	300	90	3.0	#64 Cluster In	4	
0071.a2199s_173	480	5:01	16:48:42.0	35:56:34	300	90	3.0	#64 Cluster In	4	
0072.COMP	5	5:09	16:48:42.0	35:56:34	300	90	3.0	#64 Cluster In	4	
0073.a2199s_175	600	5:13	16:50:45.9	42:43:22	300	90	3.0	#64 Cluster In	4	
0074.COMP	5	5:24	16:50:45.9	42:43:22	300	90	3.0	#64 Cluster In	4	
0075.a2199s_177	240	5:26	16:53:52.2	39:45:36	300	90	3.0	#64 Cluster In	4	
0076.COMP	5	5:30	16:53:52.2	39:45:36	300	90	3.0	#64 Cluster In	4	
0077.a2199s_178	360	5:31	16:54:22.2	41:20:07	300	90	3.0	#64 Cluster In	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0078.COMP	5	5:38	16:54:22.2	41:20:07	300	90	3.0	#64 Cluster In	4	
0079.sb76	600	5:41	16:52:43.6	+39:22:13	300	90	3.0	#135 Starburst	4	
0080.COMP	5	5:52	16:52:43.6	+39:22:13	300	90	3.0	#135 Starburst	4	
0081.sb79	600	5:53	17:47:10.7	+45:01:10	300	90	3.0	#135 Starburst	4	
0082.sb79	600	6:03	17:47:10.7	+45:01:10	300	90	3.0	#135 Starburst	4	
0083.COMP	5	6:14	17:47:10.7	+45:01:10	300	90	3.0	#135 Starburst	4	
0084.sb77	600	6:18	17:29:01.6	+14:17:49	300	160	3.0	#135 Starburst	4	
0085.COMP	5	6:29	17:29:01.6	+14:17:49	300	90	3.0	#135 Starburst	4	
0086.sb82	600	6:34	17:51:22.6	+18:44:56	300	55	3.0	#135 Starburst	4	
0087.COMP	5	6:45	17:51:22.6	+18:44:56	300	90	3.0	#135 Starburst	4	
0088.sb80	600	6:46	17:49:06.9	+08:06:09	300	55	3.0	#135 Starburst	4	
0089.COMP	5	6:57	17:49:06.9	+08:06:09	300	55	3.0	#135 Starburst	4	
0090.sb86	600	6:59	18:22:58.9	+30:40:03	300	55	3.0	#135 Starburst	4	
0091.COMP	5	7:10	18:22:58.9	+30:40:03	300	55	3.0	#135 Starburst	4	
0092.sb87	600	7:14	18:38:58.5	+23:17:39	300	55	3.0	#135 Starburst	4	
0093.COMP	5	7:24	18:38:58.5	+23:17:39	300	55	3.0	#135 Starburst	4	
0094.sb85	600	7:27	18:16:02.2	+28:42:27	300	0	3.0	#135 Starburst	4	
0095.COMP	5	7:38	18:16:02.2	+28:42:27	300	0	3.0	#135 Starburst	4	
0096.sb88	600	7:40	18:54:14.6	+48:55:42	300	0	3.0	#135 Starburst	4	
0097.COMP	5	7:50	18:54:14.6	+48:55:42	300	0	3.0	#135 Starburst	4	



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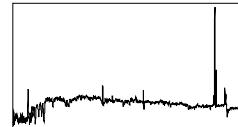
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0098.sn2002dk	1200	8:02	18:17:41.5	22:15:23	300	0	3.0	#2 SN Observat	2	binby2
0099.COMP	5	8:23	18:17:41.5	22:15:23	300	0	3.0	#2 SN Observat	2	
0100.V4641Sgr	1200	8:33	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0101.COMP	5	8:53	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0102.J1901candiC	1800	8:56	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0103.COMP	12	9:27	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0104-0113.FLAT	16	9:32	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0114.2MJ2055275m193350	300	9:37	20:55:27.5	-19:33:50	300	90	3.0	#68 2MASS Reds	4	binby4
0115.COMP	5	9:43	20:55:27.5	-19:33:50	300	90	3.0	#68 2MASS Reds	4	
0116.2MJ2056115m181835	300	9:44	20:56:11.5	-18:18:35	300	90	3.0	#68 2MASS Reds	4	
0117.COMP	5	9:49	20:56:11.5	-18:18:35	300	90	3.0	#68 2MASS Reds	4	
0118.2MJ2056306m183400	300	9:50	20:56:30.6	-18:34:00	300	90	3.0	#68 2MASS Reds	4	
0119.COMP	5	9:59	20:56:30.6	-18:34:00	300	90	3.0	#68 2MASS Reds	4	
0120.2MJ2103057m143126	300	10:03	21:03:05.7	-14:31:26	300	90	3.0	#68 2MASS Reds	4	
0121.COMP	5	10:08	21:03:05.7	-14:31:26	300	90	3.0	#68 2MASS Reds	4	two objects
0122.2MJ2104575m135648	300	10:09	21:04:57.5	-13:56:48	300	90	3.0	#68 2MASS Reds	4	
0123.COMP	5	10:15	21:04:57.5	-13:56:48	300	90	3.0	#68 2MASS Reds	4	
0124.2MJ2103080m135140	300	10:16	21:03:08.0	-13:51:40	300	90	3.0	#68 2MASS Reds	4	
0125.COMP	5	10:21	21:03:08.0	-13:51:40	300	90	3.0	#68 2MASS Reds	4	
0126.2MJ2101007m152413	300	10:22	21:01:00.7	-15:24:13	300	90	3.0	#68 2MASS Reds	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0127.COMP	5	10:28	21:01:00.7	-15:24:13	300	90	3.0	#68 2MASS Reds	4	
0128.2MJ2105031m124856	300	10:29	21:05:03.1	-12:48:56	300	90	3.0	#68 2MASS Reds	4	
0129.COMP	5	10:35	21:05:03.1	-12:48:56	300	90	3.0	#68 2MASS Reds	4	
0130.2MJ2059559m152406	300	10:37	20:59:55.9	-15:24:06	300	90	3.0	#68 2MASS Reds	4	
0131.COMP	5	10:42	20:59:55.9	-15:24:06	300	90	3.0	#68 2MASS Reds	4	
0132.2MJ2047329m223006	300	10:43	20:47:32.9	-22:30:06	300	90	3.0	#68 2MASS Reds	4	
0133.COMP	5	10:49	20:47:32.9	-22:30:06	300	90	3.0	#68 2MASS Reds	4	
0134.2MJ2047209m223225	300	10:50	20:47:20.9	-22:32:25	300	90	3.0	#68 2MASS Reds	4	
0135.COMP	5	10:55	20:47:20.9	-22:32:25	300	90	3.0	#68 2MASS Reds	4	
0136.2MJ2046372m233750	300	10:55	20:46:37.2	-23:37:50	300	90	3.0	#68 2MASS Reds	4	
0137.COMP	5	11:01	20:46:37.2	-23:37:50	300	90	3.0	#68 2MASS Reds	4	
0138.2MJ2040565m202813	300	11:02	20:40:56.5	-20:28:13	300	90	3.0	#68 2MASS Reds	4	
0139.COMP	5	11:07	20:40:56.5	-20:28:13	300	90	3.0	#68 2MASS Reds	4	
0140.2MJ2040393m202620	300	11:08	20:40:39.3	-20:26:20	300	90	3.0	#68 2MASS Reds	4	
0141.COMP	5	11:13	20:40:39.3	-20:26:20	300	90	3.0	#68 2MASS Reds	4	
0142.2MJ2032274m210958	300	11:15	20:32:27.4	-21:09:58	300	90	3.0	#68 2MASS Reds	4	
0143.COMP	5	11:20	20:32:27.4	-21:09:58	300	90	3.0	#68 2MASS Reds	4	
0144.N7331	60	11:22	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0145.COMP	5	11:23	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
newcomp.ms	10	7:24	01:48:22.2	+11:31:34	300	0	3.0	#2 SN Observat	4	



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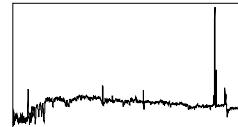
Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.BIAS	0	2:52	13:04:57.2	31:30:57	600	90	3.0	#57 Velocity S	2	
0011.BIAS	0	2:52	13:05:18.2	31:30:57	600	90	3.0	#57 Velocity S	4	600-line, 2-sec slit, blue
0012-0020.BIAS	0	2:53	13:06:22.2	31:30:57	600	90	3.0	#57 Velocity S	4	
0021.FLAT	40	2:58	13:11:14.2	31:30:56	600	90	2.0	#57 Velocity S	4	redit used to change aperture to 2
0022-0037.FLAT	40	3:10	13:23:47.3	31:30:56	600	90	2.0	#57 Velocity S	4	
0038-0040.FLAT	40	3:12	13:26:07.3	31:30:55	600	90	2.0	#57 Velocity S	4	
0041.BDp332642	120	4:22	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0042.BDp332642	120	4:25	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0043.COMP	10	4:27	15:50:03	33:05:49	600	90	2.0	#122 Halo Star	4	
0044.hs1108	900	4:28	16:47:53.7	30:25:27	600	90	2.0	#122 Halo Star	4	
0045.COMP	10	4:44	16:47:53.7	30:25:27	600	90	2.0	#122 Halo Star	4	
0046.hs1109	720	4:44	16:48:01.7	30:29:19	600	90	2.0	#122 Halo Star	4	
0047.COMP	10	4:57	16:48:01.7	30:29:19	600	90	2.0	#122 Halo Star	4	
0048.hs1110	900	4:58	16:48:14.3	30:33:34	600	90	2.0	#122 Halo Star	4	
0049.COMP	10	5:13	16:48:14.3	30:33:34	600	90	2.0	#122 Halo Star	4	
0050.hs1111	1200	5:13	16:52:17.0	29:57:29	600	90	2.0	#122 Halo Star	4	
0051.COMP	10	5:34	16:52:17.0	29:57:29	600	90	2.0	#122 Halo Star	4	
0052.hs1112	900	5:35	16:53:05.9	30:27:12	600	90	2.0	#122 Halo Star	4	
0053.COMP	10	5:50	16:53:05.9	30:27:12	600	90	2.0	#122 Halo Star	4	
0054.hs1114	900	5:51	16:54:26.3	30:04:01	600	90	2.0	#122 Halo Star	4	



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Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0055.COMP	10	6:07	16:54:26.3	30:04:01	600	90	2.0	#122 Halo Star	4	
0056.hs1116	1200	6:07	16:55:05.6	30:19:16	600	90	2.0	#122 Halo Star	4	
0057.COMP	10	6:28	16:55:05.6	30:19:16	600	90	2.0	#122 Halo Star	4	
0058.hs1113	720	6:29	16:53:24.5	29:54:42	600	90	2.0	#122 Halo Star	4	
0059.COMP	10	6:41	16:53:24.5	29:54:42	600	90	2.0	#122 Halo Star	4	
0060.hs1117	900	6:42	16:55:08.6	28:33:42	600	90	2.0	#122 Halo Star	4	
0061.COMP	10	6:58	16:55:08.6	28:33:42	600	90	2.0	#122 Halo Star	4	
0062.hs1118	720	6:59	16:56:10.0	28:51:11	600	90	2.0	#122 Halo Star	4	
0063.COMP	10	7:11	16:56:10.0	28:51:11	600	90	2.0	#122 Halo Star	4	
0064.hs1119	900	7:12	16:56:31.2	28:18:42	600	90	2.0	#122 Halo Star	4	
0065.COMP	10	7:27	16:56:31.2	28:18:42	600	90	2.0	#122 Halo Star	4	
0066.hs1120	300	7:28	16:56:30.9	29:30:49	600	90	2.0	#122 Halo Star	4	
0067.COMP	10	7:33	16:56:30.9	29:30:49	600	90	2.0	#122 Halo Star	4	
0068.hs1121	240	7:34	16:58:12.2	29:56:14	600	90	2.0	#122 Halo Star	4	
0069.COMP	10	7:39	16:58:12.2	29:56:14	600	90	2.0	#122 Halo Star	4	
0070.hs1122	900	7:40	16:59:56.4	30:06:41	600	90	2.0	#122 Halo Star	4	
0071.COMP	10	7:55	16:59:56.4	30:06:41	600	90	2.0	#122 Halo Star	4	
0072.hs1123	720	7:56	17:01:30.3	30:43:20	600	90	2.0	#122 Halo Star	4	
0073.COMP	10	8:08	17:01:30.3	30:43:20	600	90	2.0	#122 Halo Star	4	
0074.hs1124	720	8:09	17:02:03.5	30:53:08	600	90	2.0	#122 Halo Star	4	



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UT Date 2002-06-16 Observers P Berlind

Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0075.COMP	10	8:21	17:02:03.5	30:53:08	600	90	2.0	#122 Halo Star	4	
0076.hs1126	720	8:23	17:03:49.1	30:46:43	600	90	2.0	#122 Halo Star	4	
0077.COMP	10	8:35	17:03:49.1	30:46:43	600	90	2.0	#122 Halo Star	4	
0078.hs1127	360	8:36	17:06:53.5	30:35:26	600	90	2.0	#122 Halo Star	4	
0079.COMP	10	8:42	17:06:53.5	30:35:26	600	90	2.0	#122 Halo Star	4	
0080.hs1128	900	8:43	17:07:01.2	30:27:09	600	90	2.0	#122 Halo Star	4	
0081.COMP	10	8:58	17:07:01.2	30:27:09	600	90	2.0	#122 Halo Star	4	
0082.hs1129	600	8:59	17:08:49.4	30:46:13	600	90	2.0	#122 Halo Star	4	
0083.COMP	10	9:09	17:08:49.4	30:46:13	600	90	2.0	#122 Halo Star	4	
0084.hs1130	1200	9:10	17:10:34.0	30:27:54	600	90	2.0	#122 Halo Star	4	
0085.COMP	10	9:30	17:10:34.0	30:27:54	600	90	2.0	#122 Halo Star	4	
0086.hs1131	660	9:31	17:12:27.1	30:38:42	600	90	2.0	#122 Halo Star	4	
0087.COMP	10	9:42	17:12:27.1	30:38:42	600	90	2.0	#122 Halo Star	4	
0088.hs1132	1200	9:43	17:14:17.1	30:15:42	600	90	2.0	#122 Halo Star	4	
0089.COMP	10	10:04	17:14:17.1	30:15:42	600	90	2.0	#122 Halo Star	4	
0090.hs1133	900	10:05	17:17:09.3	30:43:28	600	90	2.0	#122 Halo Star	4	
0091.COMP	10	10:20	17:17:09.3	30:43:28	600	90	2.0	#122 Halo Star	4	
0092.hs1134	720	10:21	17:17:19.3	30:41:37	600	90	2.0	#122 Halo Star	4	
0093.COMP	10	10:33	17:17:19.3	30:41:37	600	90	2.0	#122 Halo Star	4	
0094.hs1135	360	10:34	17:17:22.0	30:39:18	600	90	2.0	#122 Halo Star	4	



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Coll. Focus 980 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0095.COMP	10	10:40	17:17:22.0	30:39:18	600	90	2.0	#122 Halo Star	4	
0096.hs1137	1200	10:42	17:18:16.8	30:27:32	600	90	2.0	#122 Halo Star	4	
0097.COMP	10	11:02	17:18:16.8	30:27:32	600	90	2.0	#122 Halo Star	4	
0098.hs1138	480	11:03	17:20:17.1	30:43:00	600	90	2.0	#122 Halo Star	4	
0099.COMP	10	11:11	17:20:17.1	30:43:00	600	90	2.0	#122 Halo Star	4	
0100.BDp284211	120	11:13	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	
0101.BDp284211	120	11:15	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	
0102.COMP	10	11:17	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	
0103-0112.BIAS	0	11:20	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	
0113.FLAT	40	11:21	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	600-line, 2-sec slit, blue
0114-0122.FLAT	40	11:28	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	
0123-0132.DARK	900	13:46	21:48:57.1	28:37:48	600	90	2.0	#122 Halo Star	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:22	21:48:57.1	28:37:48	300	90	3.0	#122 Halo Star	4	
0011-0020.BIAS	0	2:23	21:48:57.1	28:37:48	300	90	3.0	#122 Halo Star	4	
0021-0030.FLAT	8	2:26	21:48:57.1	28:37:48	300	90	3.0	#122 Halo Star	4	
0031-0040.BIAS	0	2:29	21:48:57.1	28:37:48	300	90	3.0	#122 Halo Star	2	
0041-0050.FLAT	16	2:34	21:48:57.1	28:37:48	300	90	3.0	#122 Halo Star	2	
0051-0055.sky	3	2:47	21:48:57.1	28:37:48	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:47	21:48:57.1	28:37:48	300	90	3.0	#57 Velocity S	4	
0057.N4853	180	3:28	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0058.N4853	210	3:32	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0059.COMP	5	3:36	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0060.Feige34	150	3:38	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.Feige34	150	3:41	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	10	3:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.MRK421	300	3:45	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0064.COMP	5	3:50	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0065.sn2002dj	1200	3:53	13:13:00.3	-19:31:08	300	18	3.0	#2 SN Observat	2	
0066.COMP	10	4:13	13:13:00.3	-19:31:08	300	18	3.0	#2 SN Observat	2	
0067.BIAS	0	4:16	14:40:00	32:00:00	300	90	1.1	#2 SN Observat	2	
0068.moon	10	4:19	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	300-line, 1.1-sec slit, red tilt
0069.term.brt.drk	5	4:21	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.term.brt.drk	5	4:21	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0071.moon.drk	10	4:22	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0072.moon.drk	10	4:23	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0073.drk.sky	15	4:23	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0074.drk.sky	60	4:24	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0075.moon.top.sky.drk.brt	30	4:27	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0076.moon.top.sky.drk.brt	30	4:28	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0077.moon.top.sky.drk.brt	60	4:29	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0078.sky	60	4:31	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0079.COMP	20	4:32	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0080-0089.FLAT	60	4:46	12:02:20	11:09:48	300	90	1.1	#130 Solar Sys	2	
0090.HD126991	20	4:50	14:28:16	24:31:04	300	90	1.1	#130 Solar Sys	2	
0091.HD126991	20	4:51	14:28:16	24:31:04	300	90	1.1	#130 Solar Sys	2	
0092.COMP	20	4:52	14:28:16	24:31:04	300	90	1.1	#130 Solar Sys	2	
0093.HD140538	5	4:53	15:44:01	02:31:01	300	90	1.1	#130 Solar Sys	2	
0094.HD140538	5	4:53	15:44:01	02:31:01	300	90	1.1	#130 Solar Sys	2	
0095.HD140538	10	4:54	15:44:01	02:31:01	300	90	1.1	#130 Solar Sys	2	
0096.COMP	10	4:54	15:44:01	02:31:01	300	90	1.1	#130 Solar Sys	2	
0097.BDp332642	300	4:58	15:50:03	33:05:49	300	90	1.1	#130 Solar Sys	2	
0098.BDp332642	300	5:03	15:50:03	33:05:49	300	90	1.1	#130 Solar Sys	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0099.COMP	10	5:08	15:50:03	33:05:49	300	90	1.1	#130 Solar Sys	2	
0100.BIAS	0	5:11	15:50:03	33:05:49	300	90	3.0	#130 Solar Sys	2	300-line, 3-sec slit, combo
0101.BDp332642	120	5:12	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0102.BDp332642	120	5:15	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0103.COMP	10	5:17	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0104.sn2002de	1200	5:21	16:16:30.7	35:42:29	300	22	3.0	#2 SN Observat	2	
0105.COMP	10	5:42	16:16:30.7	35:42:29	300	22	3.0	#2 SN Observat	2	
0106.2MJ1639133m085726	1200	5:44	16:39:13.3	-08:57:26	300	90	3.0	#68 2MASS Reds	4	
0107.COMP	5	6:09	16:39:13.3	-08:57:26	300	90	3.0	#68 2MASS Reds	4	
0108.2MJ1644495m130207	300	6:10	16:44:49.5	-13:02:07	300	90	3.0	#68 2MASS Reds	4	
0109.COMP	5	6:15	16:44:49.5	-13:02:07	300	90	3.0	#68 2MASS Reds	4	
0110.2MJ1646211m082318	300	6:16	16:46:21.1	-08:23:18	300	90	3.0	#68 2MASS Reds	4	
0111.COMP	5	6:22	16:46:21.1	-08:23:18	300	90	3.0	#68 2MASS Reds	4	
0112-0121.FLAT	8	6:25	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	4	
0122-0131.FLAT	16	6:30	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	2	
0132.BIAS	0	6:34	17:00:00	32:00:00	1200	90	1.5	OGLE	2	
0133.FLAT	100	6:34	17:00:00	32:00:00	1200	90	1.5	OGLE	2	1200-line, 1.5-sec slit, ogle
0134-0142.FLAT	100	6:51	17:00:00	32:00:00	1200	90	1.5	OGLE	2	
0143.HD171485A	30	6:54	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0144.HD171485A	30	6:55	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0145.HD171485A	30	6:56	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0146.COMP	20	6:57	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0147.G140-53	180	6:59	18:17:52.1	+05:27:07	1200	90	1.5	#134 OGLE Tran	2	
0148.G140-53	180	7:02	18:17:52.1	+05:27:07	1200	90	1.5	#134 OGLE Tran	2	
0149.COMP	20	7:05	18:17:52.1	+05:27:07	1200	90	1.5	#134 OGLE Tran	2	
0150.G21-25	180	7:06	18:48:21.9	-05:05:29	1200	90	1.5	#134 OGLE Tran	2	
0151.G21-25	180	7:09	18:48:21.9	-05:05:29	1200	90	1.5	#134 OGLE Tran	2	
0152.COMP	20	7:13	18:48:21.9	-05:05:29	1200	90	1.5	#134 OGLE Tran	2	
0153.OGLE-TR-2	1200	7:18	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0154.COMP	20	7:39	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0155.OGLE-TR-2	1200	7:39	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0156.COMP	20	8:00	17:51:24.2	-30:14:05	1200	0	1.5	#134 OGLE Tran	2	
0157.OGLE-TR-15	1200	8:03	17:54:52.3	-29:58:20	1200	12	1.5	#134 OGLE Tran	2	
0158.COMP	20	8:23	17:54:52.3	-29:58:20	1200	12	1.5	#134 OGLE Tran	2	
0159.OGLE-TR-41	1200	8:26	17:55:16.3	-29:31:32	1200	12	1.5	#134 OGLE Tran	2	
0160.COMP	20	8:46	17:55:16.3	-29:31:32	1200	12	1.5	#134 OGLE Tran	2	
0161.OGLE-TR-35	1200	8:49	17:57:16.0	-29:35:30	1200	20	1.5	#134 OGLE Tran	2	
0162.COMP	20	9:09	17:57:16.0	-29:35:30	1200	20	1.5	#134 OGLE Tran	2	
0163.BIAS	0	9:13	19:30:00	32:00:00	300	20	1.5	#134 OGLE Tran	2	
0164.V4641Sgr	1200	9:15	18:19:21.6	-25:24:26	300	20	1.5	#65 X-Ray Nova	2	300-line, 1.5-sec slit



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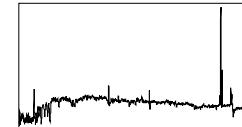
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0165.COMP	10	9:36	18:19:21.6	-25:24:26	300	20	1.5	#65 X-Ray Nova	2	
0166.J1901candiC	1800	9:39	19:01:26.9	01:23:04	300	26	1.5	#65 X-Ray Nova	2	
0167.COMP	10	10:09	19:01:26.9	01:23:04	300	26	1.5	#65 X-Ray Nova	2	
0168.HD192281	8	10:11	20:10:46.8	40:07:01	300	26	1.5	#56 Spectropho	2	
0169.HD192281	8	10:11	20:10:46.8	40:07:01	300	26	1.5	#56 Spectropho	2	
0170.COMP	10	10:12	20:10:46.8	40:07:01	300	26	1.5	#56 Spectropho	2	
0171.BDp284211	120	10:14	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0172.COMP	10	10:16	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0173-0182.FLAT	30	10:23	21:48:57.1	28:37:48	300	90	1.5	#56 Spectropho	2	
0183.BIAS	0	10:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0184.BDp284211	90	10:26	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	300-line, 3-sec slit, combo
0185.BDp284211	90	10:28	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0186.COMP	10	10:30	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0187.sn2002cd	1200	10:34	20:23:34.4	+58:20:47	300	-10	3.0	#2 SN Observat	2	
0188.COMP	10	10:54	20:23:34.4	+58:20:47	300	-10	3.0	#2 SN Observat	2	
0189.shtr37_1.1-988	600	10:58	21:36:49.6	57:22:27	300	-10	3.0	#89 Herbig Ae/	2	
0190.COMP	10	11:09	21:36:49.6	57:22:27	300	-10	3.0	#89 Herbig Ae/	2	
0191.N7331	180	11:10	22:34:46.9	+34:09:43	300	-10	3.0	#57 Velocity S	2	
0192.COMP	10	11:14	22:34:46.9	+34:09:43	300	-10	3.0	#57 Velocity S	2	
0193-0202.BIAS	0	11:18	22:34:46.9	+34:09:43	300	-10	3.0	#2 SN Observat	2	



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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>
0203-0212.FLAT	16	11:22	22:34:46.9	+34:09:43	300	-10	3.0	#2 SN Observat	2	
0213-0222.BIAS	0	11:24	22:34:46.9	+34:09:43	300	-10	3.0	#2 SN Observat	4	
0223-0232.DARK	1200	14:26	22:34:46.9	+34:09:43	300	-10	3.0	#2 SN Observat	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:00	22:34:46.9	+34:09:43	300	-10	3.0	#2 SN Observat	4	
0011-0014.BIAS	0	2:30	12:51:00.1	31:30:57	300	90	1.5	#2 SN Observat	2	
0015-0020.BIAS	0	2:31	12:52:17.1	31:30:56	300	90	1.5	#2 SN Observat	2	
0021.FLAT	30	2:32	12:53:46.1	31:30:56	300	90	1.5	#2 SN Observat	2	300-line, 1.5-sec slit. blue tilt 575
0022-0030.FLAT	30	2:39	13:00:09.1	31:30:56	300	90	1.5	#2 SN Observat	2	
0031.moon	10	3:17	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0032.term.brt.drk	5	3:18	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0033.term.brt.drk	5	3:19	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0034.term.drk	10	3:20	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0035.term.drk	10	3:21	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0036.term.drker	10	3:22	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0037.drk.sky	15	3:23	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0038.drk.sky	15	3:24	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0039-0040.sky	20	3:25	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0041.COMP	10	3:26	12:00:27	05:00:49	300	90	1.5	#130 Solar Sys	2	
0042.HD126991	5	3:30	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0043.HD126991	10	3:30	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0044.HD126991	10	3:31	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0045.COMP	10	3:31	14:28:16	24:31:04	300	90	1.5	#130 Solar Sys	2	
0046.HD140538	5	3:32	15:44:01	02:31:01	300	90	1.5	#130 Solar Sys	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0047.HD140538	2	3:33	15:44:01	02:31:01	300	90	1.5	#130 Solar Sys	2	
0048.HD140538	2	3:34	15:44:01	02:31:01	300	90	1.5	#130 Solar Sys	2	
0049.COMP	10	3:34	15:44:01	02:31:01	300	90	1.5	#130 Solar Sys	2	
0050.BDp332642	120	3:36	15:50:03	33:05:49	300	95	1.5	#130 Solar Sys	2	
0051.BDp332642	120	3:39	15:50:03	33:05:49	300	95	1.5	#130 Solar Sys	2	
0052.COMP	10	3:42	15:50:03	33:05:49	300	95	1.5	#130 Solar Sys	2	
0053.BIAS	0	3:45	14:00:00	32:00:00	300	90	3.0	#130 Solar Sys	2	
0054.sn2002dj	1200	3:51	13:13:00.3	-19:31:08	300	17	3.0	#2 SN Observat	2	300-line, 3-sec, combo
0055.COMP	10	4:11	13:13:00.3	-19:31:08	300	17	3.0	#2 SN Observat	2	
0056.N5548	150	4:19	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	Rich C and Malcom H are here
0057.N5548	150	4:21	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0058.COMP	5	4:25	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0059.N4853	300	4:29	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0060.COMP	5	4:35	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0061.2MJ1647000m073627	420	4:43	16:47:00.0	-07:36:27	300	90	3.0	#68 2MASS Reds	4	
0062.COMP	5	4:50	16:47:00.0	-07:36:27	300	90	3.0	#68 2MASS Reds	4	
0063.2MJ1647081m073024	660	4:56	16:47:08.1	-07:30:24	300	90	3.0	#68 2MASS Reds	4	
0064.COMP	5	5:08	16:47:08.1	-07:30:24	300	90	3.0	#68 2MASS Reds	4	
0065.2MJ1649362m040701	600	5:11	16:49:36.2	-04:07:01	300	90	3.0	#68 2MASS Reds	4	
0066.COMP	5	5:21	16:49:36.2	-04:07:01	300	90	3.0	#68 2MASS Reds	4	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0067.2MJ1650037m050626	900	5:29	16:50:03.7	-05:06:26	300	90	3.0	#68 2MASS Reds	4	weak em
0068.COMP	5	5:44	16:50:03.7	-05:06:26	300	90	3.0	#68 2MASS Reds	4	
0069.BDp332642	90	5:47	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0070.BDp332642	90	5:49	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0071.COMP	10	5:51	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0072.2MJ1650309m041009	360	5:54	16:50:30.9	-04:10:09	300	90	3.0	#68 2MASS Reds	4	
0073.COMP	5	6:01	16:50:30.9	-04:10:09	300	90	3.0	#68 2MASS Reds	4	
0074.2MJ1654522m084836	420	6:04	16:54:52.2	-08:48:36	300	90	3.0	#68 2MASS Reds	4	
0075.COMP	5	6:11	16:54:52.2	-08:48:36	300	90	3.0	#68 2MASS Reds	4	
0076.2MJ1655245m071525	420	6:14	16:55:24.5	-07:15:25	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	6:21	16:55:24.5	-07:15:25	300	90	3.0	#68 2MASS Reds	4	
0078.2MJ1657143m061351	360	6:23	16:57:14.3	-06:13:51	300	90	3.0	#68 2MASS Reds	4	
0079.COMP	5	6:30	16:57:35.6	-01:47:45	300	90	3.0	#68 2MASS Reds	4	
0080.2MJ1657356m014745	420	6:31	16:57:35.6	-01:47:45	300	90	3.0	#68 2MASS Reds	4	
0081.COMP	5	6:39	16:57:35.6	-01:47:45	300	90	3.0	#68 2MASS Reds	4	
0082-0091.BIAS	0	6:41	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	4	
0092-0101.FLAT	8	6:43	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	4	
0102-0111.FLAT	16	6:48	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	2	
0112.BIAS	0	6:53	17:00:00	32:00:00	300	90	3.0	#68 2MASS Reds	2	
0113.FLAT	100	6:53	17:00:00	32:00:00	1200	90	1.5	OGLE	2	1200-line, 1.5-sec slit, ogle



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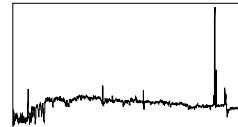
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0114-0122.FLAT	100	7:10	17:00:00	32:00:00	1200	90	1.5	OGLE	2	
0123.HD171485A	30	7:14	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0124.HD171485A	30	7:15	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0125.HD171485A	30	7:16	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0126.COMP	10	7:16	18:33:14.6	40:09:34	1200	90	1.5	#134 OGLE Tran	2	
0127.G140-53	180	7:17	18:17:52.1	+05:27:07	1200	90	1.5	#134 OGLE Tran	2	
0128.COMP	10	7:21	18:17:52.1	+05:27:07	1200	90	1.5	#134 OGLE Tran	2	
0129.G21-25	180	7:22	18:48:21.9	-05:05:29	1200	90	1.5	#134 OGLE Tran	2	
0130.COMP	10	7:25	18:48:21.9	-05:05:29	1200	90	1.5	#134 OGLE Tran	2	
0131.OGLE-TR-15	1200	7:28	17:54:52.3	-29:58:20	1200	5	1.5	#134 OGLE Tran	2	
0132.COMP	10	7:49	17:54:52.3	-29:58:20	1200	5	1.5	#134 OGLE Tran	2	
0133.OGLE-TR-35	1200	7:51	17:57:16.0	-29:35:30	1200	5	1.5	#134 OGLE Tran	2	
0134.COMP	10	8:11	17:57:16.0	-29:35:30	1200	5	1.5	#134 OGLE Tran	2	
0135.OGLE-TR-14	1200	8:14	17:54:33.9	-30:01:31	1200	12	1.5	#134 OGLE Tran	2	
0136.COMP	10	8:35	17:54:33.9	-30:01:31	1200	12	1.5	#134 OGLE Tran	2	
0137.BIAS	0	8:37	19:00:00	32:00:00	1200	12	1.5	#134 OGLE Tran	2	
0138.V4641Sgr	1200	8:43	18:19:21.6	-25:24:26	300	12	1.5	#65 X-Ray Nova	2	300-line, 1.5-sec slit
0139.COMP	10	9:04	18:19:21.6	-25:24:26	300	12	1.5	#65 X-Ray Nova	2	
0140.J1901candiC	1800	9:07	19:01:26.9	01:23:04	300	12	1.5	#65 X-Ray Nova	2	
0141.COMP	10	9:37	19:01:26.9	01:23:04	300	12	1.5	#65 X-Ray Nova	2	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0142.HD192281	6	9:40	20:10:46.8	40:07:01	300	12	1.5	#56 Spectropho	2	
0143.HD192281	6	9:41	20:10:46.8	40:07:01	300	12	1.5	#56 Spectropho	2	
0144.HD192281	6	9:41	20:10:46.8	40:07:01	300	12	1.5	#56 Spectropho	2	
0145.COMP	10	9:42	20:10:46.8	40:07:01	300	12	1.5	#56 Spectropho	2	
0146.BDp284211	120	9:43	21:48:57.1	28:37:48	300	12	1.5	#56 Spectropho	2	
0147.COMP	10	9:45	21:48:57.1	28:37:48	300	12	1.5	#56 Spectropho	2	
0148-0157.FLAT	30	9:52	21:48:57.1	28:37:48	300	12	1.5	#134 OGLE Tran	2	
0158.BIAS	0	9:54	18:17:43.5	+22:14:53	300	90	3.0	#134 OGLE Tran	2	300-line, 3-sec slit, combo
0159.sn2002dk	1200	9:59	18:17:43.5	+22:14:53	300	64	3.0	#2 SN Observat	2	
0160.COMP	10	10:19	18:17:43.5	+22:14:53	300	64	3.0	#2 SN Observat	2	
0161.sn2002dl	1200	10:22	22:20:53.9	+33:17:33	300	100	3.0	#2 SN Observat	2	
0162.COMP	10	10:42	22:20:53.9	+33:17:33	300	100	3.0	#2 SN Observat	2	
0163.shtr37_1.1-678	600	10:46	21:36:37.1	57:21:0	300	90	3.0	#89 Herbig Ae/	4	
0164.COMP	10	10:57	21:36:37.1	57:21:0	300	90	3.0	#89 Herbig Ae/	4	
0165.shtr37_1.2-707	600	11:00	21:38:33.7	57:21:9	300	90	3.0	#89 Herbig Ae/	4	
0166.COMP	5	11:10	21:38:33.7	57:21:9	300	90	3.0	#89 Herbig Ae/	4	
0167.BDp284211	90	11:12	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0168.BDp284211	90	11:14	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0169.COMP	10	11:15	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0170-0179.BIAS	0	11:20	21:48:57.1	28:37:48	300	90	3.0	#89 Herbig Ae/	4	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-06-18 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0180-0189.FLAT	8	11:22	21:48:57.1	28:37:48	300	90	3.0	#89 Herbig Ae/	4	
0190-0199.BIAS	0	11:25	21:48:57.1	28:37:48	300	90	3.0	#89 Herbig Ae/	2	
0200-0209.FLAT	16	11:29	21:48:57.1	28:37:48	300	90	3.0	#89 Herbig Ae/	2	
0210.DARK	900	11:42	22:19:40.5	31:29:59	300	90	3.0	#89 Herbig Ae/	2	
0211.DARK	900	11:57	22:34:55.3	31:29:58	300	90	3.0	#89 Herbig Ae/	2	
0212-0213.DARK	900	12:28	23:05:24.1	31:29:57	300	90	3.0	#89 Herbig Ae/	2	
0214-0217.DARK	900	13:29	00:06:24.6	31:29:56	300	90	3.0	#89 Herbig Ae/	2	
0218-0219.DARK	900	13:59	00:36:56.3	31:29:55	300	90	3.0	#89 Herbig Ae/	2	



WHIPPLE OBSERVATORY

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UT Date 2002-06-19 Observers R Cho, M Hicken

Coll. Focus 980 Grating/Grism 200

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:11	08:49:49.2	31:30:45	300	90	3.0	#89 Herbig Ae/	4	binby4
0002.DARK	900	22:26	09:04:56.3	31:30:46	300	90	3.0	#89 Herbig Ae/	4	
0003.DARK	900	22:41	09:20:06.4	31:30:48	300	90	3.0	#89 Herbig Ae/	4	
0004.DARK	900	22:56	09:35:15.5	31:30:49	300	90	3.0	#89 Herbig Ae/	4	
0005.DARK	900	23:11	09:50:25.6	31:30:51	300	90	3.0	#89 Herbig Ae/	4	
0006.DARK	900	23:26	10:05:35.7	31:30:52	300	90	3.0	#89 Herbig Ae/	4	
0007-0008.DARK	900	23:56	10:35:52.9	31:30:53	300	90	3.0	#89 Herbig Ae/	4	
0009-0010.DARK	900	0:27	11:06:12.2	31:30:55	300	90	3.0	#89 Herbig Ae/	4	
0011.FLAT	8	0:53	11:17:37.3	31:30:56	300	90	3.0	#89 Herbig Ae/	4	300-line, 3 sec slit, combo
0012-0020.FLAT	8	0:55	11:19:49.3	31:30:56	300	90	3.0	#89 Herbig Ae/	4	
0021-0040.BIAS	0	1:02	11:26:41.3	31:30:56	300	90	3.0	#89 Herbig Ae/	4	
0041.FLAT	16	1:04	11:28:41.4	31:30:56	300	90	3.0	#89 Herbig Ae/	2	binby2, 300-line, 3 sec slit, combo
0042-0050.FLAT	16	1:08	11:33:00.4	31:30:56	300	90	3.0	none	2	
0051-0070.BIAS	0	1:13	11:37:28.4	31:30:56	300	90	3.0	none	2	
0071.N4853	180	3:22	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0072.N4853	180	3:25	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0073.COMP	120	3:29	12:39:18.9	17:47:24	300	46	3.0	#56 Spectropho	4	
0074.BDp332642	90	3:53	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0075.COMP	5	3:55	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0076.sn2002dj	1200	4:06	13:13:00.3	-19:31:08	300	19	3.0	#2 SN Observat	2	



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UT Date 2002-06-19 Observers R Cho, M Hicken

Coll. Focus 980 Grating/Grism 200

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.COMP	5	4:27	13:13:00.3	-19:31:08	300	19	3.0	#2 SN Observat	2	
0078.MRK421	300	4:39	11:04:27.4	+38:12:32	300	78	3.0	#6 AGN Monitor	4	
0079.MRK421	300	4:44	11:04:27.4	+38:12:32	300	78	3.0	#6 AGN Monitor	4	
0080.COMP	40	4:51	11:04:27.4	+38:12:32	300	78	3.0	#6 AGN Monitor	4	
0081.COMP	30	5:01	11:04:27.4	+38:12:32	300	78	3.0	#6 AGN Monitor	4	
0082.N4151	30	5:21	12:10:32.6	+39:24:21	300	92	3.0	#6 AGN Monitor	4	
0083.N4151	30	5:22	12:10:32.6	+39:24:21	300	92	3.0	#6 AGN Monitor	4	
0084.COMP	10	5:26	12:10:32.6	+39:24:21	300	92	3.0	#6 AGN Monitor	4	
0085.N4051	150	5:30	12:03:09.7	+44:31:53	300	92	3.0	#6 AGN Monitor	4	
0086.N4051	150	5:32	12:03:09.7	+44:31:53	300	92	3.0	#6 AGN Monitor	4	
0087.N4051	150	5:35	12:03:09.7	+44:31:53	300	92	3.0	#6 AGN Monitor	4	
0088.COMP	10	5:40	12:03:09.7	+44:31:53	300	92	3.0	#6 AGN Monitor	4	
0089.N5548	150	5:44	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor	4	
0090.N5548	150	5:47	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor	4	
0091.COMP	10	5:50	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor	4	
0092.Feige66	30	5:57	12:34:54.7	25:20:31	300	70	3.0	#56 Spectropho	4	
0093.COMP	10	5:59	12:34:54.7	25:20:31	300	70	3.0	#56 Spectropho	4	
0094.FLAT	40	6:08	16:25:00	31:00:00	200	70	2.0	Halo	4	600-line, 2 sec slit, tilt 430, binby4, PA=90
0095-0103.FLAT	40	6:15	16:25:00	31:00:00	200	70	2.0	Halo	4	
0104.hs1139	1200	6:27	17:20:42.6	30:15:36	200	90	2.0	#122 Halo Star	4	for all halo stars and flats



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UT Date 2002-06-19 Observers R Cho, M Hicken

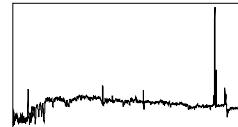
Coll. Focus 980 Grating/Grism 200

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0105.COMP	10	6:47	17:20:42.6	30:15:36	200	90	2.0	#122 Halo Star	4	header has incorrect POSANGLE comment
0106.hs1140	1200	6:49	17:23:06.7	30:02:38	200	90	2.0	#122 Halo Star	4	but correct POSANGLE variable
0106.hs1140q.ms	1200	6:49	17:23:06.7	30:02:38	200	90	2.0	#122 Halo Star	1	
0107.COMP	10	7:09	17:23:06.7	30:02:38	200	90	2.0	#122 Halo Star	4	
0108.hs1141	1200	7:14	17:23:08.5	30:30:48	200	90	2.0	#122 Halo Star	4	
0109.COMP	10	7:34	17:23:08.5	30:30:48	200	90	2.0	#122 Halo Star	4	
0110.hs1142	1200	7:36	17:25:14.7	30:10:32	200	90	2.0	#122 Halo Star	4	
0111.COMP	10	7:56	17:25:14.7	30:10:32	200	90	2.0	#122 Halo Star	4	
0112.HD192281	5	8:00	20:10:46.8	40:07:01	200	71	2.0	#56 Spectropho	4	
0113.COMP	10	8:00	20:10:46.8	40:07:01	200	71	2.0	#56 Spectropho	4	
0114-0123.FLAT	40	8:09	20:10:46.8	40:07:01	200	71	2.0	#122 Halo Star	4	
0124.V4641Sgr	1200	8:30	18:19:21.6	-25:24:26	300	7	1.5	#65 X-Ray Nova	2	300-line, 1.5 sec slit, tilt 610, binby2
0125.COMP	10	8:50	18:19:21.6	-25:24:26	300	7	1.5	#65 X-Ray Nova	2	
0126.HD192281	5	8:56	20:10:46.8	40:07:01	300	54	1.5	#56 Spectropho	2	
0127.COMP	10	8:57	20:10:46.8	40:07:01	300	54	1.5	#56 Spectropho	2	
0128-0147.FLAT	30	9:13	20:10:46.8	40:07:01	300	54	1.5	#56 Spectropho	2	
0148.J1901candiC	1800	9:21	19:01:26.9	01:23:04	300	23	1.5	#65 X-Ray Nova	2	
0149.COMP	10	9:52	19:01:26.9	01:23:04	300	23	1.5	#65 X-Ray Nova	2	
0150.sn2002do	1200	10:12	19:56:12.8	+40:26:10	300	-46	3.0	#2 SN Observat	2	
0151.COMP	10	10:33	19:56:12.8	+40:26:10	300	-46	3.0	#2 SN Observat	2	



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UT Date 2002-06-19 Observers R Cho, M Hicken

Coll. Focus 980 Grating/Grism 200

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0152.sn2002d1	1200	10:38	22:20:53.9	+33:17:33	300	84	3.0	#2 SN Observat	2	
0153.COMP	10	10:58	22:20:53.9	+33:17:33	300	84	3.0	#2 SN Observat	2	
0154.MRK509	300	11:08	20:44:09.8	-10:43:24	300	11	3.0	#6 AGN Monitor	4	
0155.COMP	5	11:14	20:44:09.8	-10:43:24	300	11	3.0	#6 AGN Monitor	4	
0156.CHCyg	2	11:22	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	156, 157, and 158 have same problem as haloes
0157.CHCyg	5	11:22	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	the posangle variable is correct
0158.CHCyg	15	11:22	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	but the comment is wrong
0159.CHCyg	60	11:22	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0160.COMP	5	11:24	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0161.CICyg	2	11:27	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0162.CICyg	5	11:27	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0163.CICyg	15	11:27	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0164.CICyg	60	11:28	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0165.COMP	5	11:30	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0166.ZAnd	2	11:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0167.ZAnd	5	11:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0168.ZAnd	15	11:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0169.ZAnd	60	11:33	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0170.COMP	5	11:34	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0171.BDp284211	90	11:38	21:48:57.1	28:37:48	300	36	3.0	#56 Spectropho	2	



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FAST SPECTROGRAPH LOG



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UT Date 2002-06-19 Observers R Cho, M HickenColl. Focus 980 Grating/Grism 200

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0172.COMP	10	11:40	21:48:57.1	28:37:48	300	36	3.0	#56 Spectropho	2	
0173.BIAS	0	12:00	21:48:57.1	28:37:48	300	90	3.0	none	2	binby2
0174-0182.BIAS	0	12:02	21:48:57.1	28:37:48	300	90	3.0	none	2	
0183-0192.FLAT	16	12:07	21:48:57.1	28:37:48	300	90	3.0	none	2	
0193.BIAS	0	12:10	21:48:57.1	28:37:48	300	90	3.0	none	4	binby4
0194-0202.BIAS	0	12:11	21:48:57.1	28:37:48	300	90	3.0	none	4	
0203-0212.FLAT	8	12:14	21:48:57.1	28:37:48	300	90	3.0	none	4	
0213.DARK	1200	12:34	23:20:26.0	31:29:56	300	90	3.0	none	2	binby2
0214.DARK	1200	12:54	23:40:39.8	31:29:56	300	90	3.0	none	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-06-20 Observers M. Hicken, R. Cho

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	22:50	09:17:57.4	31:30:48	300	90	3.0	none	2	binby2
0002-0010.BIAS	0	22:52	09:19:52.4	31:30:48	300	90	3.0	none	2	
0011-0020.FLAT	16	23:12	09:41:03.5	31:30:50	300	90	3.0	none	2	
0021.BIAS	0	23:21	09:49:03.6	31:30:51	300	90	3.0	none	2	binby4
0022-0030.BIAS	0	23:23	09:51:02.6	31:30:51	300	90	3.0	none	2	
0031-0040.FLAT	8	23:34	10:02:06.7	31:30:51	300	90	3.0	none	2	
0041.DARK	900	23:46	10:29:10.9	31:30:53	300	90	3.0	none	4	binby4
0042.DARK	900	0:01	10:44:20.0	31:30:54	300	90	3.0	none	4	
0043.DARK	900	0:16	10:59:29.1	31:30:55	300	90	3.0	none	4	
0044-0045.DARK	900	0:46	11:29:48.4	31:30:56	300	90	3.0	none	4	
0046-0048.DARK	900	1:32	12:15:14.8	31:30:57	300	90	3.0	none	4	
0049.DARK	900	1:47	12:30:24.9	31:30:56	300	90	3.0	none	4	
0050.DARK	900	2:02	12:45:35.0	31:30:57	300	90	3.0	none	4	
0051.sky	5	2:49	13:18:02.3	31:30:56	300	90	3.0	0	4	binby4
0052-0055.sky	5	2:50	13:19:23.3	31:30:56	300	90	3.0	0	4	
0056.COMP	5	2:53	13:22:08.3	31:30:56	300	90	3.0	0	4	
0057.sky	12	2:55	13:24:16.3	31:30:55	300	90	3.0	0	2	binby2
0058.sky	20	2:56	13:25:15.3	31:30:55	300	90	3.0	0	2	
0059-0061.sky	30	2:58	13:27:39.4	31:30:55	300	90	3.0	0	2	
0062.COMP	10	2:59	13:28:22.4	31:30:55	300	90	3.0	0	2	



WHIPPLE OBSERVATORY

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UT Date 2002-06-20 Observers M. Hicken, R. Cho

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0063.N4853	180	3:33	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	300-line, 3-sec slit combo
0064.N4853	180	3:36	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0065.COMP	5	3:40	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0066.BDp332642	90	3:45	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0067.COMP	10	3:47	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0068.N3227	150	3:59	10:23:30.6	+19:51:54	300	66	3.0	#6 AGN Monitor	4	
0069.N3227	150	4:01	10:23:30.6	+19:51:54	300	66	3.0	#6 AGN Monitor	4	
0070.COMP	5	4:04	10:23:30.6	+19:51:54	300	66	3.0	#6 AGN Monitor	4	
0071.2MJ1657443m014756	600	4:15	16:57:44.3	-01:47:56	300	90	3.0	#68 2MASS Reds	4	
0072.COMP	5	4:26	16:57:44.3	-01:47:56	300	90	3.0	#68 2MASS Reds	4	
0073.2MJ1657496m015602	600	4:31	16:57:49.6	-01:56:02	300	90	3.0	#68 2MASS Reds	4	
0074.COMP	5	4:41	16:57:49.6	-01:56:02	300	90	3.0	#68 2MASS Reds	4	
0075.2MJ1658013m014921	480	4:44	16:58:01.3	-01:49:21	300	90	3.0	#68 2MASS Reds	4	
0076.COMP	5	4:52	16:58:01.3	-01:49:21	300	90	3.0	#68 2MASS Reds	4	
0077.2MJ1659073m054431	600	4:53	16:59:07.3	-05:44:31	300	90	3.0	#68 2MASS Reds	4	
0078.COMP	5	5:04	16:59:07.3	-05:44:31	300	90	3.0	#68 2MASS Reds	4	
0079.2MJ1659438m013402	600	5:06	16:59:43.8	-01:34:02	300	90	3.0	#68 2MASS Reds	4	
0080.COMP	5	5:17	16:59:43.8	-01:34:02	300	90	3.0	#68 2MASS Reds	4	
0081.2MJ1700230m021932	600	5:18	17:00:23.0	-02:19:32	300	90	3.0	#68 2MASS Reds	4	
0082.COMP	5	5:28	17:00:23.0	-02:19:32	300	90	3.0	#68 2MASS Reds	4	



WHIPPLE OBSERVATORY

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UT Date 2002-06-20 Observers M. Hicken, R. Cho

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0083.2MJ1701513m015356	540	5:30	17:01:51.3	-01:53:56	300	90	3.0	#68 2MASS Reds	4	
0084.COMP	5	5:40	17:01:51.3	-01:53:56	300	90	3.0	#68 2MASS Reds	4	
0085.2MJ1702026m025101	540	5:42	17:02:02.6	-02:51:01	300	90	3.0	#68 2MASS Reds	4	
0086.COMP	5	5:51	17:02:02.6	-02:51:01	300	90	3.0	#68 2MASS Reds	4	
0087.2MJ1703087m023702	480	5:53	17:03:08.7	-02:37:02	300	90	3.0	#68 2MASS Reds	4	
0088.COMP	5	6:01	17:03:08.7	-02:37:02	300	90	3.0	#68 2MASS Reds	4	
0089.FLAT	40	6:18	16:30:00	31:00:00	600	90	2.0	#68 2MASS Reds	4	600-line, 2-sec slit, tilt 430
0090.FLAT	40	6:19	16:30:00	31:00:00	600	90	2.0	#68 2MASS Reds	4	loose grating covering
0091.FLAT	40	6:20	16:30:00	31:00:00	600	90	2.0	#68 2MASS Reds	4	I got finger prints
0092.FLAT	40	6:21	16:30:00	31:00:00	600	90	2.0	#68 2MASS Reds	4	on 600-line grating
0093-0108.FLAT	40	6:37	16:30:00	31:00:00	600	90	2.0	#68 2MASS Reds	4	
0109.hs1143	1200	6:40	17:27:54.5	30:13:11	600	90	2.0	#122 Halo Star	4	
0110.COMP	10	7:01	17:27:54.5	30:13:11	600	90	2.0	#122 Halo Star	4	
0111.hs1144	600	7:02	17:28:05.5	30:27:08	600	90	2.0	#122 Halo Star	4	
0112.COMP	10	7:13	17:28:05.5	30:27:08	600	90	2.0	#122 Halo Star	4	
0113.hs1145	1200	7:14	17:28:41.2	30:55:31	600	90	2.0	#122 Halo Star	4	
0114.COMP	10	7:34	17:28:41.2	30:55:31	600	90	2.0	#122 Halo Star	4	
0115.HD192281	5	7:36	20:10:46.8	40:07:01	600	90	2.0	#56 Spectropho	4	
0116.HD192281	5	7:42	20:10:46.8	40:07:01	600	80	2.0	#56 Spectropho	4	
0117.COMP	10	7:43	20:10:46.8	40:07:01	600	80	2.0	#56 Spectropho	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0118.FLAT	30	7:54	18:13:00	31:00:00	300	90	1.5	#56 Spectropho	2	300-line, 1.5-sec slit, tilt 610
0119-0127.FLAT	30	8:00	18:13:00	31:00:00	300	90	1.5	#56 Spectropho	2	
0128.V4641Sgr	1200	8:12	18:19:21.6	-25:24:26	300	5	1.5	#65 X-Ray Nova	2	
0129.COMP	10	8:33	18:19:21.6	-25:24:26	300	5	1.5	#65 X-Ray Nova	2	
0130.HD192281	5	8:41	20:10:46.8	40:07:01	300	62	1.5	#56 Spectropho	2	
0131.COMP	10	8:45	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	This comp is at 0132
0132.J1901candiC	1800	8:46	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0133.COMP	10	9:18	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0134.FLAT	16	9:20	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	binby2
0135-0143.FLAT	16	9:24	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0144.sn2002d1	1200	9:37	22:20:53.9	+33:17:33	300	95	3.0	#2 SN Observat	2	300-line, 3-sec slit, tilt 610
0145.COMP	10	9:57	22:20:53.9	+33:17:33	300	95	3.0	#2 SN Observat	2	
0146.sn2002dq	1200	10:08	21:19:49.9	-08:46:39	300	-9	3.0	#2 SN Observat	2	
0147.COMP	10	10:31	21:19:49.9	-08:46:39	300	-9	3.0	#2 SN Observat	2	
0148.shtr37_1.2-2125	600	10:45	21:38:6.6	57:27:22	300	90	3.0	#89 Herbig Ae/	2	
0149.COMP	10	10:56	21:38:6.6	57:27:22	300	90	3.0	#89 Herbig Ae/	2	
0150.BDp284211	90	11:01	21:48:57.1	28:37:48	300	55	3.0	#56 Spectropho	2	
0151.COMP	10	11:03	21:48:57.1	28:37:48	300	55	3.0	#56 Spectropho	2	
0152.sn2002dp	1200	11:10	23:28:30.1	+22:25:38	300	-55	3.0	#2 SN Observat	2	
0153.COMP	10	11:31	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0154.BIAS	0	11:32	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	2	binby2
0155-0163.BIAS	0	11:34	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	2	
0164-0173.FLAT	16	11:40	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	2	
0174.BIAS	0	11:45	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	4	binby4
0175-0183.BIAS	0	11:47	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	4	
0184-0193.FLAT	8	11:50	23:28:30.1	+22:25:38	300	-55	3.0	#56 Spectropho	4	
0194-0203.DARK	1200	15:22	23:28:30.1	+22:25:38	300	90	3.0	#56 Spectropho	2	