

UT Date 05/02/01 Observers P. BerlindColl. Focus 1075 Filter none

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.COMP	30	22:52	-	-	1200	90	1.5	-		
02.20.BIAS	0	22:59	-	-	1200	90	1.5	-		special binning for Groot
21.38.FLAT	600	23:02	-	-	1200	90	1.5	-		1200-line; 1.5-sec slit; tilt=190
39.50.tilttests	2	2:33	7:35:46.1	+26:54:05	1200	90	1.5	#121 UGem		test images
0051.COMP	30	2:56	07:55:05	22:00:03	1200	90	1.5	#121 UGem		1200-line grating/assembly is rotated!!!!
52.61.UGem	120	2:57	07:55:05	22:00:03	1200	90	1.5	#121 UGem		spectra are tilted on ccd
0062.COMP	30	3:20	07:55:05	22:00:03	1200	90	1.5	#121 UGem		slit/ccd alignment is fine
63.72.UGem	120	3:21	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0073.COMP	30	3:43	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
74.83.UGem	120	3:44	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0084.COMP	30	4:06	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
85.94.UGem	120	4:07	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0095.COMP	30	4:29	07:55:05	22:00:03	1200	90	1.5	#121 UGem		bright moon
96.105.UGem	120	4:30	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0106.COMP	30	4:52	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
107.116.UGem	120	4:53	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0117.COMP	30	5:15	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
118.127.UGem	120	5:16	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0128.COMP	30	5:38	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
129.138.UGem	120	5:39	07:55:05	22:00:03	1200	90	1.5	#121 UGem		



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0139.COMP	30	6:02	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0140.HZ44	300	6:04	13:21:19.0	36:23:39	1200	90	1.5	#121 UGem		
0141.COMP	30	6:09	13:21:19.0	36:23:39	1200	90	1.5	#121 UGem		
0142.BIAS	0	6:13	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho		
0143.COMP	10	6:13	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho		300-line; 3-sec slit; normal set-up
144.145.HZ44	120	6:14	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho		binby2
0146.COMP	10	6:19	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho		
147.148.test	40	6:22	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho		
0149.SN2001bb	1200	6:25	13:43:25	-29:48:13	300	5	3.0	#2 SN Observat		
0150.COMP	10	6:46	13:43:25	-29:48:13	300	5	3.0	#2 SN Observat		
0151.sn2001ay	1200	6:50	14:26:17.0	26:14:55	300	-9	3.0	#2 SN Observat		
0152.COMP	10	7:10	14:26:17.0	26:14:55	300	-9	3.0	#2 SN Observat		
153.162.FLAT	16	7:16	14:45:00	32:00:00	300	-9	3.0	#2 SN Observat		
0163.BIAS	0	7:23	13:23:35.2	+36:07:59	600	90	2.0	#2 SN Observat		
0164.HZ44	240	7:25	13:23:35.2	+36:07:59	600	90	2.0	#122 Halo Stars		600-line; 2-sec slit; tilt=430
0165.COMP	10	7:29	13:23:35.2	+36:07:59	600	90	2.0	#122 Halo Stars		
0166.hs293	600	7:30	12:59:07.8	29:11:28	600	90	2.0	#122 Halo Star		
0167.COMP	10	7:40	12:59:07.8	29:11:28	600	90	2.0	#122 Halo Star		
0168.hs294	300	7:41	12:59:12.4	29:06:29	600	90	2.0	#122 Halo Star		
0169.COMP	10	7:46	12:59:12.4	29:06:29	600	90	2.0	#122 Halo Star		



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0170.hs295	900	7:47	12:59:13.9	28:52:05	600	90	2.0	#122 Halo Star		
0171.COMP	10	8:02	12:59:13.9	28:52:05	600	90	2.0	#122 Halo Star		
0172.hs297	900	8:03	13:00:10.8	29:02:47	600	90	2.0	#122 Halo Star		
0173.COMP	10	8:18	13:00:10.8	29:02:47	600	90	2.0	#122 Halo Star		
0174.hs298	420	8:19	13:01:34.3	29:23:48	600	90	2.0	#122 Halo Star		
0175.COMP	10	8:26	13:01:34.3	29:23:48	600	90	2.0	#122 Halo Star		
0176.hs299	900	8:27	13:01:47.2	29:13:30	600	90	2.0	#122 Halo Star		
0177.COMP	10	8:42	13:01:47.2	29:13:30	600	90	2.0	#122 Halo Star		
0178.hs300	240	8:43	13:02:12.4	29:11:13	600	90	2.0	#122 Halo Star		
0179.COMP	10	8:47	13:02:12.4	29:11:13	600	90	2.0	#122 Halo Star		
0180.hs301	300	8:47	13:02:51.0	28:53:31	600	90	2.0	#122 Halo Star		
0181.COMP	10	8:53	13:02:51.0	28:53:31	600	90	2.0	#122 Halo Star		
0182.hs302	420	8:53	13:03:15.8	29:34:18	600	90	2.0	#122 Halo Star		
0183.COMP	10	9:01	13:03:15.8	29:34:18	600	90	2.0	#122 Halo Star		
184.185.BDp332642	120	9:02	15:51:59.8	+32:56:54	600	90	2.0	#122 Halo Star		
0186.COMP	10	9:07	15:51:59.8	+32:56:54	600	90	2.0	#122 Halo Star		
0187.m92i10	1200	9:08	17:17:36.3	43:09:32	600	90	2.0	#122 Halo Star		
0188.COMP	10	9:28	17:17:36.3	43:09:32	600	90	2.0	#122 Halo Star		
0189.m92i123	900	9:29	17:17:21.1	43:12:23	600	90	2.0	#122 Halo Star		
0190.COMP	10	9:44	17:17:21.1	43:12:23	600	90	2.0	#122 Halo Star		



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0191.m92iv27	900	9:45	17:17:06.6	43:12:22	600	90	2.0	#122 Halo Star		
0192.COMP	10	10:00	17:17:06.6	43:12:22	600	90	2.0	#122 Halo Star		
0193.m92xii09	900	10:01	17:17:29.9	43:06:08	600	90	2.0	#122 Halo Star		
0194.COMP	10	10:20	17:17:29.9	43:06:08	600	90	2.0	#122 Halo Star		
0195.m92xii10	900	10:20	17:17:29.5	43:06:19	600	90	2.0	#122 Halo Star		
0196.COMP	10	10:35	17:17:29.5	43:06:19	600	90	2.0	#122 Halo Star		
0197.m92s20	900	10:37	17:17:36.2	43:01:10	600	90	2.0	#122 Halo Star		
0198.COMP	10	10:52	17:17:36.2	43:01:10	600	90	2.0	#122 Halo Star		
0199.m92s24	900	10:53	17:18:17.3	43:04:43	600	90	2.0	#122 Halo Star		
0200.COMP	10	11:09	17:18:17.3	43:04:43	600	90	2.0	#122 Halo Star		
0201.M92.scan	900	11:13	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		3sec/sec; 120arcsec total scan
0202.COMP	10	11:29	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		
0203.M92.scan	480	11:30	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		3sec/sec; 60arcsec total scan
0204.COMP	10	11:38	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		
205.214.BIAS	0	11:40	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		
215.229.FLAT	40	11:43	17:17:07.3	43:08:11	600	90	2.0	#122 Halo Star		***end of FAST run***
0230.test	5	11:58	17:17:07.3	43:08:11	300	90	3.0	#122 Halo Star		ok back to 300-line, 3sec slit

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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>
1-4.DARK	900	1:59	-	-	300	90	3.0	-		
5-14.BIAS	0	3:00	-	-	300	90	3.0	-		
15-24.FLAT	6	3:02	-	-	300	90	3.0	-		
25-34.BIAS	0	3:05	-	-	300	90	3.0	-		
35-44.FLAT	12	3:12	-	-	300	90	3.0	-		
0045.Feige34	90	3:25	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0046.Feige34	90	3:26	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0047.COMP	5	3:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0048.Feige34	90	3:30	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0049.Feige34	90	3:32	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0050.COMP	12	3:34	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho		
0051.N3379	60	3:35	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S		
0052.COMP	12	3:37	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S		
0053.N3227	60	3:40	10:23:30.6	+19:51:54	300	53	3.0	#6 AGN Monitor		
0054.N3227	60	3:41	10:23:30.6	+19:51:54	300	53	3.0	#6 AGN Monitor		
0055.N3227	60	3:42	10:23:30.6	+19:51:54	300	53	3.0	#6 AGN Monitor		
0056.COMP	12	3:44	10:23:30.6	+19:51:54	300	53	3.0	#6 AGN Monitor		
0057.MRK421	120	3:48	11:04:27.4	+38:12:32	300	-60	3.0	#6 AGN Monitor		
0058.MRK421	120	3:50	11:04:27.4	+38:12:32	300	-60	3.0	#6 AGN Monitor		
0059.COMP	12	3:52	11:04:27.4	+38:12:32	300	-60	3.0	#6 AGN Monitor		

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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>
0060.N4051	60	3:55	12:03:09.7	+44:31:53	300	1	3.0	#6 AGN Monitor		
0061.N4051	60	3:56	12:03:09.7	+44:31:53	300	1	3.0	#6 AGN Monitor		
0062.N4051	60	3:57	12:03:09.7	+44:31:53	300	1	3.0	#6 AGN Monitor		
0063.COMP	12	3:59	12:03:09.7	+44:31:53	300	1	3.0	#6 AGN Monitor		
0064.N4151	60	4:01	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0065.N4151	60	4:02	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0066.N4151	60	4:03	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0067.COMP	12	4:05	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0068.N4151	20	4:06	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		shorter exp to avoid saturation
0069.N4151	20	4:06	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0070.N4151	20	4:07	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0071.COMP	12	4:08	12:10:32.6	+39:24:21	300	4	3.0	#6 AGN Monitor		
0072.HZ44	120	4:11	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho		
0073.COMP	12	4:14	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho		
74-83.FLAT	40	4:36	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho		
0084.HZ44	120	4:46	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho		
0085.COMP	10	4:48	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho		
0086.hs97	660	4:59	11:03:54.0	29:07:04	600	90	2.0	#122 Halo Star		
0087.COMP	10	5:11	11:03:54.0	29:07:04	600	90	2.0	#122 Halo Star		
0088.sn2001bg	300	5:31	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		Late request

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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>
0089.sn2001bg	300	5:37	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		IA!
0090.sn2001bg	300	5:42	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		
0091.COMP	12	5:47	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		
0092.COMP	10	5:51	08:35:18.8	+28:28:05	600	90	2.0	#2 SN Observat		
0092.SA57n6	900	5:56	12:53:57.4	29:38:08	600	90	2.0	#122 Halo Star		
0093.COMP	10	6:12	12:53:57.4	29:38:08	600	90	2.0	#122 Halo Star		
0094.hs303	900	6:13	13:03:40.3	29:11:01	600	90	2.0	#122 Halo Star		
0095.COMP	10	6:28	13:03:40.3	29:11:01	600	90	2.0	#122 Halo Star		
0096.hs304	840	6:29	13:03:40.3	29:42:26	600	90	2.0	#122 Halo Star		
0097.COMP	10	6:44	13:03:40.3	29:42:26	600	90	2.0	#122 Halo Star		
0098.hs305	900	6:44	13:03:40.6	29:11:02	600	90	2.0	#122 Halo Star		
0099.COMP	10	7:00	13:03:40.6	29:11:02	600	90	2.0	#122 Halo Star		
0100.hs306	780	7:01	13:03:58.3	29:03:28	600	90	2.0	#122 Halo Star		
0101.COMP	10	7:14	13:03:58.3	29:03:28	600	90	2.0	#122 Halo Star		
0102.hs307	720	7:15	13:04:09.1	29:19:11	600	90	2.0	#122 Halo Star		
0103.COMP	10	7:27	13:04:09.1	29:19:11	600	90	2.0	#122 Halo Star		
0104.hs308	660	7:28	13:04:29.2	28:54:34	600	90	2.0	#122 Halo Star		
0105.COMP	10	7:39	13:04:29.2	28:54:34	600	90	2.0	#122 Halo Star		
0106.hs309	660	7:40	13:04:34.3	29:18:46	600	90	2.0	#122 Halo Star		
0107.COMP	10	7:51	13:04:34.3	29:18:46	600	90	2.0	#122 Halo Star		

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0108.SA57n7	480	7:53	12:54:03.6	28:51:45	600	90	2.0	#122 Halo Star		
0109.COMP	10	8:01	12:54:03.6	28:51:45	600	90	2.0	#122 Halo Star		
0110.hs310	1020	8:02	13:05:31.5	29:02:30	600	90	2.0	#122 Halo Star		
0111.COMP	10	8:19	13:05:31.5	29:02:30	600	90	2.0	#122 Halo Star		
0112.hs311	720	8:20	13:06:17.6	29:43:34	600	90	2.0	#122 Halo Star		
0113.COMP	10	8:33	13:06:17.6	29:43:34	600	90	2.0	#122 Halo Star		
0114.hs312	900	8:33	13:06:51.1	29:03:48	600	90	2.0	#122 Halo Star		
0115.COMP	10	8:49	13:06:51.1	29:03:48	600	90	2.0	#122 Halo Star		
0116.hs313	600	8:53	13:07:37.2	28:48:38	600	90	2.0	#122 Halo Star		
0117.COMP	10	9:03	13:07:37.2	28:48:38	600	90	2.0	#122 Halo Star		
0118.hs314	840	9:04	13:08:02.7	28:50:30	600	90	2.0	#122 Halo Star		
0119.COMP	10	9:18	13:08:02.7	28:50:30	600	90	2.0	#122 Halo Star		
0120.hs315	1200	9:19	13:08:46.3	28:46:52	600	90	2.0	#122 Halo Star		
0121.COMP	10	9:40	13:08:46.3	28:46:52	600	90	2.0	#122 Halo Star		
122-126.FLAT	40	9:43	13:08:46.3	28:46:52	600	90	2.0	#122 Halo Star		
0127.MRK279	60	9:53	13:51:53.6	69:33:13	300	105	3.0	#6 AGN Monitor		
0128.MRK279	60	9:54	13:51:53.6	69:33:13	300	105	3.0	#6 AGN Monitor		
0129.COMP	12	9:56	13:51:53.6	69:33:13	300	105	3.0	#6 AGN Monitor		
0130.N5548	90	9:58	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor		
0131.N5548	90	10:00	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor		

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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>
0132.COMP	12	10:02	14:17:59.6	+25:08:12	300	68	3.0	#6 AGN Monitor		
0133.a2199e_025	240	10:06	16:54:24.8	37:49:57	300	90	3.0	#64f Cluster I		
0134.COMP	5	10:10	16:54:24.8	37:49:57	300	90	3.0	#64f Cluster I		
0135.a2199e_026	240	10:11	16:43:52.6	39:59:00	300	90	3.0	#64f Cluster I		
0136.COMP	5	10:15	16:43:52.6	39:59:00	300	90	3.0	#64f Cluster I		
0137.a2199e_027	660	10:16	16:20:10.7	35:07:53	300	90	3.0	#64f Cluster I		
0138.COMP	5	10:28	16:20:10.7	35:07:53	300	90	3.0	#64f Cluster I		
0139.a2199e_028	240	10:29	16:30:37.1	41:35:33	300	90	3.0	#64f Cluster I		
0140.COMP	5	10:33	16:30:37.1	41:35:33	300	90	3.0	#64f Cluster I		
0141.a2199e_029	600	10:34	16:34:08.7	38:08:02	300	90	3.0	#64f Cluster I		
0142.COMP	5	10:45	16:34:08.7	38:08:02	300	90	3.0	#64f Cluster I		
0143.a2199e_030	480	10:46	16:23:51.7	34:20:54	300	90	3.0	#64f Cluster I		
0144.COMP	5	10:54	16:23:51.7	34:20:54	300	90	3.0	#64f Cluster I		
0145.a2199e_031	420	10:55	16:14:33.6	36:56:37	300	90	3.0	#64f Cluster I		row=40
0146.COMP	5	11:02	16:14:33.6	36:56:37	300	90	3.0	#64f Cluster I		
0147.a2199e_032	900	11:04	16:40:12.8	39:44:00	300	90	3.0	#64f Cluster I		
0148.COMP	5	11:19	16:40:12.8	39:44:00	300	90	3.0	#64f Cluster I		
0149.a2199e_033	300	11:20	16:35:34.2	36:32:57	300	90	3.0	#64f Cluster I		
0150.COMP	5	11:26	16:35:34.2	36:32:57	300	90	3.0	#64f Cluster I		
0151.Akn564	60	11:29	22:42:39.4	+29:43:31	300	105	3.0	#6 AGN Monitor		

UT Date 05/14/01   Observers M CalkinsColl. Focus 1175   Filter none

<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>
0152.Akn564	60	11:30	22:42:39.4	+29:43:31	300	105	3.0	#6 AGN Monitor		
0153.Akn564	60	11:31	22:42:39.4	+29:43:31	300	105	3.0	#6 AGN Monitor		
0154.COMP	12	11:33	22:42:39.4	+29:43:31	300	105	3.0	#6 AGN Monitor		
0155.MRK509	60	11:36	20:44:09.8	-10:43:24	300	-21	3.0	#6 AGN Monitor		
0156.MRK509	60	11:37	20:44:09.8	-10:43:24	300	-21	3.0	#6 AGN Monitor		
0157.MRK509	60	11:38	20:44:09.8	-10:43:24	300	-21	3.0	#6 AGN Monitor		
0158.COMP	12	11:40	20:44:09.8	-10:43:24	300	-21	3.0	#6 AGN Monitor		
159-163.sky	2	11:44	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0164.COMP	5	12:14	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
165-174.BIAS	0	12:15	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
175-184.FLAT	6	12:17	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
185-194.BIAS	0	12:21	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
195-204.FLAT	12	12:25	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0205.DARK	900	12:32	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0206.DARK	900	12:47	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0207.DARK	900	13:02	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0208.DARK	900	13:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0209.DARK	900	13:33	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0210.DARK	900	13:48	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0211.DARK	900	14:03	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		

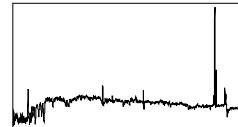
UT Date 05/14/01   Observers M CalkinsColl. Focus 1175   Filter none

<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>
0212.DARK	900	14:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0213.DARK	900	14:34	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0214.DARK	900	14:49	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		



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## FAST SPECTROGRAPH LOG



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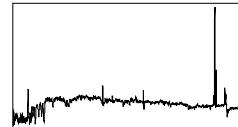
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
1-10.DARK	900	22:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
11-20.BIAS	0	22:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
21-30.FLAT	6	22:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
31-40.BIAS	0	22:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
41-50.FLAT	12	22:18	20:44:09.8	-10:43:24	300	90	3.0	#57 Velocity S		
0051.COMP	30	22:18	20:44:09.8	-10:43:24	1200	90	1.5	#121f U Gem		binning=2720x121x1, focus=1115
52-61.BIAS	0	22:18	20:44:09.8	-10:43:24	1200	90	1.5	#121f U Gem		1200L, 1.5 slit, tilt=190
62-69.FLAT	600	22:18	20:44:09.8	-10:43:24	1200	90	1.5	#121f U Gem		
0070.COMP	30	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
71-76.UGem	300	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		still light, 20:05
0077.COMP	30	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
78-82.UGem	360	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0083.COMP	30	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
84-88.UGem	360	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0089.COMP	30	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
90-92.UGem	360	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		22:10
0093.COMP	30	22:18	07:55:05	22:00:03	1200	90	1.5	#121 UGem		
0094.sn2001bg	900	22:18	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		standard setup
0095.COMP	12	22:18	08:35:18.8	+28:28:05	300	67	3.0	#2 SN Observat		
0096.HZ44	120	22:18	13:21:19.0	36:23:39	300	-63	3.0	#56 Spectropho		



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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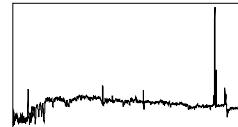
UT Date 2001-05-16 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0097.COMP	12	22:18	13:21:19.0	36:23:39	300	-63	3.0	#56 Spectropho		
0098.sn2001ay	1200	22:18	14:26:17.0	26:14:55	300	-33	3.0	#2 SN Observat		
0099.COMP	12	22:18	14:26:17.0	26:14:55	300	-33	3.0	#2 SN Observat		
100-109.FLAT	40	22:18	14:26:17.0	26:14:55	600	90	2.0	#2 SN Observat		600L, 2.0 slit, tilt=430
0110.HZ44	120	22:18	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho		
0111.COMP	10	22:18	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho		
0112.hs316	1200	22:18	13:08:47.7	29:26:06	600	90	2.0	#122 Halo Star		
0113.COMP	10	22:18	13:08:47.7	29:26:06	600	90	2.0	#122 Halo Star		
0114.hs317	1200	22:18	13:08:58.2	29:16:25	600	90	2.0	#122 Halo Star		
0115.COMP	10	22:18	13:08:58.2	29:16:25	600	90	2.0	#122 Halo Star		
0116.hs318	420	22:18	13:11:02.0	29:41:27	600	90	2.0	#122 Halo Star		
0117.COMP	10	22:18	13:11:02.0	29:41:27	600	90	2.0	#122 Halo Star		
0118.hs319	840	22:18	13:12:26.6	29:00:25	600	90	2.0	#122 Halo Star		
0119.COMP	10	22:18	13:12:26.6	29:00:25	600	90	2.0	#122 Halo Star		
0120.hs320	660	22:18	13:13:12.3	28:55:12	600	90	2.0	#122 Halo Star		
0121.COMP	10	22:18	13:13:12.3	28:55:12	600	90	2.0	#122 Halo Star		
0122.hs321	1200	22:18	13:13:19.9	28:46:43	600	90	2.0	#122 Halo Star		
0123.COMP	10	22:18	13:13:19.9	28:46:43	600	90	2.0	#122 Halo Star		
0124.hs322	1200	22:18	13:13:24.9	29:09:59	600	90	2.0	#122 Halo Star		
0125.COMP	10	22:18	13:13:24.9	29:09:59	600	90	2.0	#122 Halo Star		



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-16 Observers M Calkins

Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0126.hs323	1200	22:18	13:13:29.2	29:43:02	600	90	2.0	#122 Halo Star		
0127.COMP	10	22:18	13:13:29.2	29:43:02	600	90	2.0	#122 Halo Star		
0128.hs324	1200	22:18	13:13:56.6	29:40:33	600	90	2.0	#122 Halo Star		
0129.COMP	10	22:18	13:13:56.6	29:40:33	600	90	2.0	#122 Halo Star		
0130.hs325	1200	22:18	13:14:09.2	29:16:59	600	90	2.0	#122 Halo Star		get again....clouds
0131.COMP	10	22:18	13:14:09.2	29:16:59	600	90	2.0	#122 Halo Star		
0132.hs325	1200	22:18	13:14:09.2	29:16:59	600	90	2.0	#122 Halo Star		much better!
0133.COMP	10	22:18	13:14:09.2	29:16:59	600	90	2.0	#122 Halo Star		
0134.a2199e_035	1200	22:18	16:20:32.3	34:33:56	300	90	3.0	#64f Cluster I		back to standard setup
0135.COMP	5	22:18	16:20:32.3	34:33:56	300	90	3.0	#64f Cluster I		
0136.a2199e_036	210	22:18	16:41:48.5	39:59:24	300	90	3.0	#64f Cluster I		
0137.COMP	5	22:18	16:41:48.5	39:59:24	300	90	3.0	#64f Cluster I		
0138.a2199e_037	300	22:18	16:36:10.9	40:04:19	300	90	3.0	#64f Cluster I		
0139.COMP	5	22:18	16:36:10.9	40:04:19	300	90	3.0	#64f Cluster I		
0140.a2199e_038	300	22:18	16:33:13.3	42:20:31	300	90	3.0	#64f Cluster I		
0141.COMP	5	22:18	16:33:13.3	42:20:31	300	90	3.0	#64f Cluster I		
0142.a2199e_039	1200	22:18	16:11:06.0	43:46:30	300	90	3.0	#64f Cluster I		
0143.COMP	5	22:18	16:11:06.0	43:46:30	300	90	3.0	#64f Cluster I		
0144.a2199e_040	360	22:18	16:17:48.1	41:28:13	300	90	3.0	#64f Cluster I		
0145.COMP	5	22:18	16:17:48.1	41:28:13	300	90	3.0	#64f Cluster I		



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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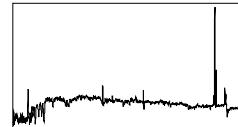
UT Date 2001-05-16 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0146.a2199e_041	240	22:18	16:22:28.3	40:10:06	300	90	3.0	#64f Cluster I		
0147.COMP	12	22:18	16:22:28.3	40:10:06	300	90	3.0	#64f Cluster I		
0148.a2199e_042	420	22:18	16:41:49.3	37:18:34	300	90	3.0	#64f Cluster I		
0149.COMP	5	22:18	16:41:49.3	37:18:34	300	90	3.0	#64f Cluster I		
0150.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0151.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0152.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0153.COMP	5	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0154.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0155.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0156.HD192281	3	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
0157.COMP	12	22:18	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho		
158-162.sky	2	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
0163.COMP	5	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
164-173.BIAS	0	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
174-183.FLAT	6	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
184-193.BIAS	0	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
194-203.FLAT	12	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		
204-213.DARK	900	22:18	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S		



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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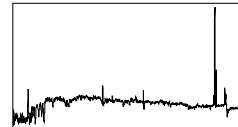
UT Date 2001-05-17 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.DARK	900	1:38	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	2:02	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	6	2:06	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:10	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	12	2:16	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	2	
0051-0055.sky	2	2:29	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:29	20:10:46.8	40:07:01	300	90	3.0	#57 Velocity S	4	
0057.Feige34	90	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0058.Feige34	90	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.Feige34	90	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0061.Feige34	90	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	12	2:29	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.N3379	60	2:29	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S	2	
0064.COMP	12	2:29	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S	2	
0065.N3379	60	2:29	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S	4	
0066.COMP	5	2:29	10:45:11.4	+12:50:48	300	90	3.0	#57 Velocity S	4	
0067.2M1156379p112350	270	2:29	11:56:37.9	+11:23:50	300	90	3.0	2MASS Redshift	4	
0068.COMP	5	2:29	11:56:37.9	+11:23:50	300	90	3.0	2MASS Redshift	4	
0069.2M1156398p112314	240	2:29	11:56:39.8	+11:23:14	300	90	3.0	2MASS Redshift	4	



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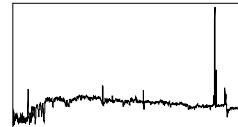
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.COMP	5	2:29	11:56:39.8	+11:23:14	300	90	3.0	2MASS Redshift	4	
0071.2M1156465p053240	420	2:29	11:56:46.5	+05:32:40	300	90	3.0	2MASS Redshift	4	
0072.COMP	5	2:29	11:56:46.5	+05:32:40	300	90	3.0	2MASS Redshift	4	
0073.2M1156516p084251	600	2:29	11:56:51.6	+08:42:51	300	90	3.0	2MASS Redshift	4	
0074.COMP	5	2:29	11:56:51.6	+08:42:51	300	90	3.0	2MASS Redshift	4	
0075.2M1157035p100515	270	2:29	11:57:03.5	+10:05:15	300	90	3.0	2MASS Redshift	4	
0076.COMP	5	2:29	11:57:03.5	+10:05:15	300	90	3.0	2MASS Redshift	4	
0077.2M1157328p111211	240	2:29	11:57:32.8	+11:12:11	300	90	3.0	2MASS Redshift	4	
0078.COMP	5	2:29	11:57:32.8	+11:12:11	300	90	3.0	2MASS Redshift	4	
0079.2M1157519p050337	300	2:29	11:57:51.9	+05:03:37	300	90	3.0	2MASS Redshift	4	
0080.COMP	5	2:29	11:57:51.9	+05:03:37	300	90	3.0	2MASS Redshift	4	
0081.2M1158159p070928	180	2:29	11:58:15.9	+07:09:28	300	90	3.0	2MASS Redshift	2	
0082.COMP	12	2:29	11:58:15.9	+07:09:28	300	90	3.0	2MASS Redshift	2	
0083.2M1159204p023558	240	2:29	11:59:20.4	+02:35:58	300	90	3.0	2MASS Redshift	2	
0084.COMP	12	2:29	11:59:20.4	+02:35:58	300	90	3.0	2MASS Redshift	2	
0085.2M1202176p044259	90	2:29	12:02:17.6	+04:42:59	300	90	3.0	2MASS Redshift	2	
0086.COMP	12	2:29	12:02:17.6	+04:42:59	300	90	3.0	2MASS Redshift	2	
0087.2M1202176p044259	90	2:29	12:02:17.6	+04:42:59	300	90	3.0	2MASS Redshift	2	
0088.COMP	12	2:29	12:02:17.6	+04:42:59	300	90	3.0	2MASS Redshift	2	
0089.2M1202395p085624	600	2:29	12:02:39.5	+08:56:24	300	90	3.0	2MASS Redshift	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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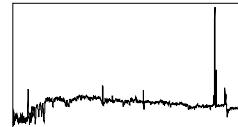
UT Date 2001-05-17 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0090.COMP	12	2:29	12:02:39.5	+08:56:24	300	90	3.0	2MASS Redshift	2	
0091.2M1204158p092349	210	2:29	12:04:15.8	+09:23:49	300	90	3.0	2MASS Redshift	2	
0092.COMP	12	2:29	12:04:15.8	+09:23:49	300	90	3.0	2MASS Redshift	2	
0093.2M1204283p085332	210	2:29	12:04:28.3	+08:53:32	300	90	3.0	2MASS Redshift	2	
0094.COMP	12	2:29	12:04:28.3	+08:53:32	300	90	3.0	2MASS Redshift	2	
0095.2M1205056p110341	480	2:29	12:05:05.6	+11:03:41	300	90	3.0	2MASS Redshift	2	
0096.COMP	12	2:29	12:05:05.6	+11:03:41	300	90	3.0	2MASS Redshift	2	
0097.2M1205232p102245	300	2:29	12:05:23.2	+10:22:45	300	90	3.0	2MASS Redshift	2	
0098.COMP	12	2:29	12:05:23.2	+10:22:45	300	90	3.0	2MASS Redshift	2	
0099.2M1205517p194437	180	2:29	12:05:51.7	+19:44:37	300	90	3.0	2MASS Redshift	2	
0100.COMP	12	2:29	12:05:51.7	+19:44:37	300	90	3.0	2MASS Redshift	2	
0101.2M1206065p000519	240	2:29	12:06:06.5	+00:05:19	300	90	3.0	2MASS Redshift	4	
0102.COMP	5	2:29	12:06:06.5	+00:05:19	300	90	3.0	2MASS Redshift	4	
0103.N3227	60	2:29	10:23:30.6	+19:51:54	300	64	3.0	#6 AGN Monitor	2	
0104.N3227	60	2:29	10:23:30.6	+19:51:54	300	64	3.0	#6 AGN Monitor	2	
0105.N3227	60	2:29	10:23:30.6	+19:51:54	300	64	3.0	#6 AGN Monitor	2	
0106.COMP	12	2:29	10:23:30.6	+19:51:54	300	64	3.0	#6 AGN Monitor	2	
0107.N4051	60	2:29	12:03:09.7	+44:31:53	300	110	3.0	#6 AGN Monitor	2	
0108.N4051	60	2:29	12:03:09.7	+44:31:53	300	110	3.0	#6 AGN Monitor	2	
0109.N4051	60	2:29	12:03:09.7	+44:31:53	300	110	3.0	#6 AGN Monitor	2	



## WHIPPLE OBSERVATORY

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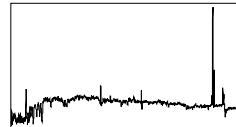
UT Date 2001-05-17 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0110.COMP	12	2:29	12:03:09.7	+44:31:53	300	110	3.0	#6 AGN Monitor	2	
0111.N4151	60	2:29	12:10:32.6	+39:24:21	300	101	3.0	#6 AGN Monitor	2	
0112.N4151	60	2:29	12:10:32.6	+39:24:21	300	101	3.0	#6 AGN Monitor	2	
0113.N4151	60	2:29	12:10:32.6	+39:24:21	300	101	3.0	#6 AGN Monitor	2	
0114.COMP	12	2:29	12:10:32.6	+39:24:21	300	101	3.0	#6 AGN Monitor	2	
0115.N5548	90	2:29	14:17:59.6	+25:08:12	300	-22	3.0	#6 AGN Monitor	2	
0116.N5548	90	2:29	14:17:59.6	+25:08:12	300	-22	3.0	#6 AGN Monitor	2	
0117.N5548	90	2:29	14:17:59.6	+25:08:12	300	-22	3.0	#6 AGN Monitor	2	
0118.COMP	12	2:29	14:17:59.6	+25:08:12	300	-22	3.0	#6 AGN Monitor	2	
0119-0128.FLAT	40	6:08	14:17:59.6	+25:08:12	600	90	2.0	#6 AGN Monitor	4	
0129.hs326	1200	6:08	13:14:27.2	29:34:58	600	90	2.0	#122 Halo Star	4	
0130.COMP	10	6:08	13:14:27.2	29:34:58	600	90	2.0	#122 Halo Star	4	
0131.HZ44	120	6:08	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0132.COMP	10	6:08	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0133.SA57n17	720	6:08	12:56:23.7	27:28:37	600	90	2.0	#122 Halo Star	4	
0134.COMP	10	6:08	12:56:23.7	27:28:37	600	90	2.0	#122 Halo Star	4	
0135.hs327	360	6:08	13:15:39.6	29:39:22	600	90	2.0	#122 Halo Star	4	
0136.COMP	10	6:08	13:15:39.6	29:39:22	600	90	2.0	#122 Halo Star	4	
0137.hs328	480	6:08	13:15:48.9	29:03:37	600	90	2.0	#122 Halo Star	4	
0138.COMP	10	6:08	13:15:48.9	29:03:37	600	90	2.0	#122 Halo Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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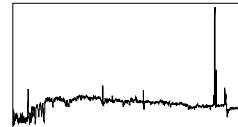
UT Date 2001-05-17 Observers M CalkinsColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0139.hs329	600	6:08	13:16:33.2	29:15:35	600	90	2.0	#122 Halo Star	4	
0140.COMP	10	6:08	13:16:33.2	29:15:35	600	90	2.0	#122 Halo Star	4	
0141.hs330	330	6:08	13:16:56.2	29:22:34	600	90	2.0	#122 Halo Star	4	
0142.COMP	10	6:08	13:16:56.2	29:22:34	600	90	2.0	#122 Halo Star	4	
0143.hs331	660	6:08	13:17:44.1	29:13:39	600	90	2.0	#122 Halo Star	4	
0144.COMP	10	6:08	13:17:44.1	29:13:39	600	90	2.0	#122 Halo Star	4	
0145.SA57n49	720	6:08	13:05:59.7	26:50:36	600	90	2.0	#122 Halo Star	4	
0146.COMP	10	6:08	13:05:59.7	26:50:36	600	90	2.0	#122 Halo Star	4	
0147.hs332	1200	6:08	13:17:58.5	29:00:25	600	90	2.0	#122 Halo Star	4	
0148.COMP	10	6:08	13:17:58.5	29:00:25	600	90	2.0	#122 Halo Star	4	
0149.hs333	570	6:08	13:19:42.9	29:23:40	600	90	2.0	#122 Halo Star	4	
0150.COMP	10	6:08	13:19:42.9	29:23:40	600	90	2.0	#122 Halo Star	4	
0151.hs334	1200	6:08	13:20:40.9	29:32:35	600	90	2.0	#122 Halo Star	4	
0152.COMP	10	6:08	13:20:40.9	29:32:35	600	90	2.0	#122 Halo Star	4	
0153.hs335	480	6:08	13:21:14.4	29:18:25	600	90	2.0	#122 Halo Star	4	
0154.COMP	10	6:08	13:21:14.4	29:18:25	600	90	2.0	#122 Halo Star	4	
0155.hs336	600	6:08	13:22:11.2	29:22:12	600	90	2.0	#122 Halo Star	4	
0156.COMP	10	6:08	13:22:11.2	29:22:12	600	90	2.0	#122 Halo Star	4	
0157.SA57n80	900	6:08	13:13:10.2	30:44:59	600	90	2.0	#122 Halo Star	4	
0158.COMP	10	6:08	13:13:10.2	30:44:59	600	90	2.0	#122 Halo Star	4	



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UT Date 2001-05-17 Observers M Calkins

Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0159.hs337	420	6:08	13:23:06.0	29:21:10	600	90	2.0	#122 Halo Star	4	
0160.COMP	10	6:08	13:23:06.0	29:21:10	600	90	2.0	#122 Halo Star	4	
0161.hs338	1020	6:08	13:23:11.7	28:56:09	600	90	2.0	#122 Halo Star	4	
0162.COMP	10	6:08	13:23:11.7	28:56:09	600	90	2.0	#122 Halo Star	4	
0163.hs339	480	6:08	13:23:37.3	29:03:23	600	90	2.0	#122 Halo Star	4	
0164.COMP	10	6:08	13:23:37.3	29:03:23	600	90	2.0	#122 Halo Star	4	
0165.hs340	660	6:08	13:23:42.3	28:49:29	600	90	2.0	#122 Halo Star	4	
0166.COMP	10	6:08	13:23:42.3	28:49:29	600	90	2.0	#122 Halo Star	4	
0167-0176.FLAT	15	10:22	13:23:42.3	28:49:29	300	90	2.0	#87f IRAC	2	
0177.1727130	480	10:22	17:27:13.0	60:03:50	300	90	2.0	#87f IRAC	2	
0178.COMP	15	10:22	17:27:13.0	60:03:50	300	90	2.0	#87f IRAC	2	
0179.1758237	210	10:22	17:58:23.7	60:38:47	300	90	2.0	#87f IRAC	2	
0180.COMP	15	10:22	17:58:23.7	60:38:47	300	90	2.0	#87f IRAC	2	
0181.1714481	180	10:22	17:14:48.0	62:29:48	300	90	2.0	#87f IRAC	2	
0182.COMP	15	10:22	17:14:48.0	62:29:48	300	90	2.0	#87f IRAC	2	
0183.sn2001bp	1200	10:22	16:02:09.2	36:43:08	300	83	3.0	#2 SN Observat	2	
0184.COMP	12	10:22	16:02:09.2	36:43:08	300	83	3.0	#2 SN Observat	2	
0185.sn2001bf	900	10:22	18:01:33.9	26:15:02	300	69	3.0	#2 SN Observat	2	
0186.COMP	12	10:22	18:01:33.9	26:15:02	300	69	3.0	#2 SN Observat	2	
0187.HD192281	3	10:22	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0188.HD192281	3	10:22	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	
0189.HD192281	3	10:22	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	
0190.COMP	12	10:22	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	
0191-0200.BIAS	0	11:44	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	4	
0201-0210.FLAT	6	11:47	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	4	
0211-0220.BIAS	0	11:49	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	
0221-0230.FLAT	12	11:54	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	
0231-0240.DARK	900	14:20	20:10:46.8	40:07:01	300	26	3.0	#56 Spectropho	2	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-18 Observers P Berlind

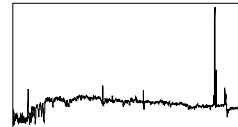
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.BIAS	0	2:19	10:38:27.0	31:30:40	300	90	3.0	#56 Spectropho	4	
0011-0020.FLAT	7	2:21	10:41:04.0	31:30:40	300	90	3.0	#56 Spectropho	4	
0021-0030.BIAS	0	2:26	10:45:33.0	31:30:40	300	90	3.0	#56 Spectropho	2	
0031-0040.FLAT	14	2:31	10:50:32.0	31:30:40	300	90	3.0	#56 Spectropho	2	
0041.sky	6	2:31	10:56:07.0	31:30:40	300	90	3.0	#56 Spectropho	4	a few clouds
0042-0043.sky	6	2:37	10:56:37.0	31:30:40	300	90	3.0	#56 Spectropho	4	
0044-0045.sky	6	2:37	10:57:07.0	31:30:41	300	90	3.0	#56 Spectropho	4	
0046.COMP	5	2:37	11:00:19.0	31:30:41	300	90	3.0	#56 Spectropho	4	
0047.Feige34	90	2:37	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0048.Feige34	90	2:37	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0049.COMP	10	2:37	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0050.2M1207007p012951	240	2:37	12:07:00.7	+01:29:51	300	90	3.0	#68 2MASS Reds	2	
0051.COMP	10	2:37	12:07:00.7	+01:29:51	300	90	3.0	#68 2MASS Reds	2	
0052.2M1206472p011710	240	2:37	12:06:47.2	+01:17:10	300	90	3.0	#68 2MASS Reds	4	
0053.COMP	5	2:37	12:06:47.2	+01:17:10	300	90	3.0	#68 2MASS Reds	4	
0054.2M1207048p090647	240	2:37	12:07:04.8	+09:06:47	300	90	3.0	#68 2MASS Reds	4	
0055.COMP	5	2:37	12:07:04.8	+09:06:47	300	90	3.0	#68 2MASS Reds	4	
0056.2M1207575p094648	240	2:37	12:07:57.5	+09:46:48	300	90	3.0	#68 2MASS Reds	4	
0057.COMP	5	2:37	12:07:57.5	+09:46:48	300	90	3.0	#68 2MASS Reds	4	
0058.2M1208021p094557	180	2:37	12:08:02.1	+09:45:57	300	90	3.0	#68 2MASS Reds	4	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-18 Observers P Berlind

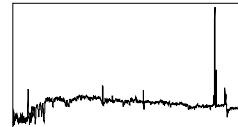
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0059.COMP	5	2:37	12:08:02.1	+09:45:57	300	90	3.0	#68 2MASS Reds	4	
0060.2M1209162p053532	180	2:37	12:09:16.2	+05:35:32	300	90	3.0	#68 2MASS Reds	4	
0061.COMP	5	2:37	12:09:16.2	+05:35:32	300	90	3.0	#68 2MASS Reds	4	
0062.2M1209444p120732	180	2:37	12:09:44.4	+12:07:32	300	90	3.0	#68 2MASS Reds	4	
0063.COMP	5	2:37	12:09:44.4	+12:07:32	300	90	3.0	#68 2MASS Reds	4	
0064.2M1211478p141204	300	2:37	12:11:47.8	+14:12:04	300	90	3.0	#68 2MASS Reds	4	
0065.COMP	5	2:37	12:11:47.8	+14:12:04	300	90	3.0	#68 2MASS Reds	4	
0066.2M1214232p094021	240	2:37	12:14:23.2	+09:40:21	300	90	3.0	#68 2MASS Reds	4	
0067.COMP	5	2:37	12:14:23.2	+09:40:21	300	90	3.0	#68 2MASS Reds	4	
0068.2M1214395p052803	240	2:37	12:14:39.5	+05:28:03	300	90	3.0	#68 2MASS Reds	4	
0069.COMP	5	2:37	12:14:39.5	+05:28:03	300	90	3.0	#68 2MASS Reds	4	
0070.2M1214425p125924	180	2:37	12:14:42.5	+12:59:24	300	90	3.0	#68 2MASS Reds	4	
0071.COMP	5	2:37	12:14:42.5	+12:59:24	300	90	3.0	#68 2MASS Reds	4	
0072.2M1214457p131934	180	2:37	12:14:45.7	+13:19:34	300	90	3.0	#68 2MASS Reds	4	
0073.COMP	5	2:37	12:14:45.7	+13:19:34	300	90	3.0	#68 2MASS Reds	4	
0074.2M1214474p105503	180	2:37	12:14:47.4	+10:55:03	300	90	3.0	#68 2MASS Reds	4	
0075.COMP	5	2:37	12:14:47.4	+10:55:03	300	90	3.0	#68 2MASS Reds	4	
0076.2M1215438p170918	240	2:37	12:15:43.8	+17:09:18	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	2:37	12:15:43.8	+17:09:18	300	90	3.0	#68 2MASS Reds	4	
0078.2M1215281p010102	330	2:37	12:15:28.1	+01:01:02	300	90	3.0	#68 2MASS Reds	4	



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## FAST SPECTROGRAPH LOG



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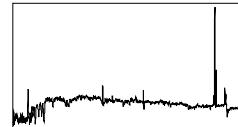
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0079.COMP	5	2:37	12:15:28.1	+01:01:02	300	90	3.0	#68 2MASS Reds	4	
0080.2M1216001p051442	240	2:37	12:16:00.1	+05:14:42	300	90	3.0	#68 2MASS Reds	4	
0081.COMP	5	2:37	12:16:00.1	+05:14:42	300	90	3.0	#68 2MASS Reds	4	
0082.2M1216124p132615	300	2:37	12:16:12.4	+13:26:15	300	90	3.0	#68 2MASS Reds	4	
0083.COMP	5	2:37	12:16:12.4	+13:26:15	300	90	3.0	#68 2MASS Reds	4	
0084.2M1216186p052947	300	2:37	12:16:18.6	+05:29:47	300	90	3.0	#68 2MASS Reds	4	
0085.COMP	5	2:37	12:16:18.6	+05:29:47	300	90	3.0	#68 2MASS Reds	4	
0086.2M1217314p033656	240	2:37	12:17:31.4	+03:36:56	300	90	3.0	#68 2MASS Reds	4	
0087.COMP	5	2:37	12:17:31.4	+03:36:56	300	90	3.0	#68 2MASS Reds	4	
0088.2M1217373p190053	180	2:37	12:17:37.3	+19:00:53	300	90	3.0	#68 2MASS Reds	4	
0089.COMP	5	2:37	12:17:37.3	+19:00:53	300	90	3.0	#68 2MASS Reds	4	
0090.2M1217546p190124	210	2:37	12:17:54.6	+19:01:24	300	90	3.0	#68 2MASS Reds	4	
0091.COMP	5	2:37	12:17:54.6	+19:01:24	300	90	3.0	#68 2MASS Reds	4	
0092.2M1217534p034140	300	2:37	12:17:53.4	+03:41:40	300	90	3.0	#68 2MASS Reds	4	
0093.COMP	5	2:37	12:17:53.4	+03:41:40	300	90	3.0	#68 2MASS Reds	4	
0094.2M1218174p021045	210	2:37	12:18:17.4	+02:10:45	300	90	3.0	#68 2MASS Reds	4	
0095.COMP	5	2:37	12:18:17.4	+02:10:45	300	90	3.0	#68 2MASS Reds	4	
0096.2M1218068p105346	150	2:37	12:18:06.8	+10:53:46	300	90	3.0	#68 2MASS Reds	4	
0097.COMP	5	2:37	12:18:06.8	+10:53:46	300	90	3.0	#68 2MASS Reds	4	
0098.2M1218286p171558	180	2:37	12:18:28.6	+17:15:58	300	90	3.0	#68 2MASS Reds	4	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-18 Observers P Berlind

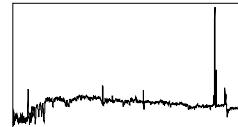
Coll. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0099.COMP	5	2:37	12:18:28.6	+17:15:58	300	90	3.0	#68 2MASS Reds	4	
0100.HZ44	120	2:37	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0101.COMP	10	2:37	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0102.SN2001V	1200	2:37	11:57:25.0	25:12:10	300	73	3.0	#2 SN Observat	2	
0103.COMP	10	2:37	11:57:25.0	25:12:10	300	73	3.0	#2 SN Observat	2	
0104.a2199e_034	1200	2:37	16:20:33.2	44:46:20	300	90	3.0	#64f Cluster I	4	LSB; zilch
0105.COMP	5	2:37	16:20:33.2	44:46:20	300	90	3.0	#64f Cluster I	4	
0106.a2199e_045	600	2:37	16:04:51.2	38:54:51	300	90	3.0	#64f Cluster I	4	
0107.COMP	5	2:37	16:04:51.2	38:54:51	300	90	3.0	#64f Cluster I	4	
0108.a2199e_046	480	2:37	16:30:26.4	35:47:12	300	90	3.0	#64f Cluster I	4	
0109.COMP	5	2:37	16:30:26.4	35:47:12	300	90	3.0	#64f Cluster I	4	
0110.a2199e_047	600	2:37	16:41:51.5	41:01:58	300	90	3.0	#64f Cluster I	4	
0111.COMP	5	2:37	16:41:51.5	41:01:58	300	90	3.0	#64f Cluster I	4	
0112.a2199e_048	600	2:37	16:34:27.6	39:57:34	300	90	3.0	#64f Cluster I	2	gal has em; close comp = star?
0113.COMP	10	2:37	16:34:27.6	39:57:34	300	90	3.0	#64f Cluster I	2	
0114.a2199e_049	600	2:37	16:12:53.7	44:08:05	300	90	3.0	#64f Cluster I	4	
0115.COMP	5	2:37	16:12:53.7	44:08:05	300	90	3.0	#64f Cluster I	4	
0116.a2199e_051	600	2:37	16:08:18.1	37:43:34	300	90	3.0	#64f Cluster I	4	
0117.COMP	5	2:37	16:08:18.1	37:43:34	300	90	3.0	#64f Cluster I	4	
0118.a2199e_056	330	2:37	16:44:58.1	39:05:20	300	90	3.0	#64f Cluster I	4	clouds increasing



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-18 Observers P BerlindColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0119.COMP	5	2:37	16:44:58.1	39:05:20	300	90	3.0	#64f Cluster I	4	
0120.a2199e_054	300	2:37	16:17:22.8	43:29:33	300	90	3.0	#64f Cluster I	4	
0121.COMP	5	2:37	16:17:22.8	43:29:33	300	90	3.0	#64f Cluster I	4	
0122.a2199e_053	330	2:37	16:12:47.6	36:53:49	300	90	3.0	#64f Cluster I	4	
0123.COMP	5	2:37	16:12:47.6	36:53:49	300	90	3.0	#64f Cluster I	4	
0124.a2199e_055	1200	2:37	16:05:42.1	42:50:48	300	90	3.0	#64f Cluster I	4	
0125.COMP	5	2:37	16:05:42.1	42:50:48	300	90	3.0	#64f Cluster I	4	
0126.a2199e_060	600	2:37	16:26:42.7	42:33:53	300	90	3.0	#64f Cluster I	4	
0127.COMP	5	2:37	16:26:42.7	42:33:53	300	90	3.0	#64f Cluster I	4	
0128.a2199e_061	600	2:37	16:22:29.5	43:31:15	300	90	3.0	#64f Cluster I	4	
0129.COMP	5	2:37	16:22:29.5	43:31:15	300	90	3.0	#64f Cluster I	4	
0130.a2199e_062	330	2:37	16:31:40.5	42:26:55	300	90	3.0	#64f Cluster I	4	
0131.COMP	5	2:37	16:31:40.5	42:26:55	300	90	3.0	#64f Cluster I	4	
0132.a2199e_063	900	2:37	16:16:37.9	42:26:55	300	90	3.0	#64f Cluster I	4	
0133.COMP	5	2:37	16:16:37.9	42:26:55	300	90	3.0	#64f Cluster I	4	
0134.a2199e_064	300	2:37	16:43:58.0	35:31:48	300	90	3.0	#64f Cluster I	4	
0135.COMP	5	2:37	16:43:58.0	35:31:48	300	90	3.0	#64f Cluster I	4	
0136.a2199e_065	600	2:37	16:06:04.7	36:52:18	300	90	3.0	#64f Cluster I	4	
0137.COMP	5	2:37	16:06:04.7	36:52:18	300	90	3.0	#64f Cluster I	4	
0138.a2199e_066	360	2:37	16:31:13.5	34:33:22	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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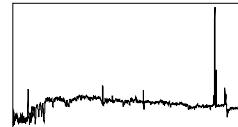
UT Date 2001-05-18 Observers P BerlindColl. Focus 1075 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0139.COMP	5	2:37	16:31:13.5	34:33:22	300	90	3.0	#64f Cluster I	4	
0140.a2199e_068	720	2:37	16:21:36.4	42:45:52	300	90	3.0	#64f Cluster I	4	wham, stopped by clouds
0141.COMP	5	2:37	16:21:36.4	42:45:52	300	90	3.0	#64f Cluster I	4	
0142-0151.BIAS	0	10:58	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0152-0161.FLAT	7	11:01	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0162-0171.BIAS	0	11:03	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	2	
0172-0181.FLAT	14	11:08	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	2	
0182-0191.DARK	900	13:25	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-20 Observers P Berlind

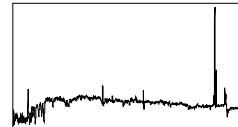
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.DARK	900	23:18	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0011-0020.BIAS	0	0:53	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0021-0030.FLAT	8	1:03	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0031-0040.BIAS	0	1:12	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	2	
0041-0050.FLAT	16	1:22	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	2	
0051.sky	2	1:22	11:00:00	32:00:00	300	90	3.0	#57 Velocity S	4	lots of clouds to west
0052-0055.sky	2	2:30	11:00:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:30	11:00:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0057.Feige34	90	2:30	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0058.Feige34	90	2:30	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0059.COMP	10	2:30	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0060.N4151	30	2:30	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0061.N4151	30	2:30	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0062.COMP	5	2:30	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0063.N4051	120	2:30	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0064.N4051	120	2:30	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0065.COMP	5	2:30	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0066.MRK421	180	2:30	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0067.MRK421	180	2:30	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0068.COMP	5	2:30	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-20 Observers P Berlind

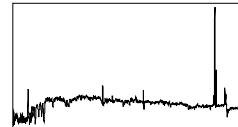
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0069.N3227	120	2:30	10:23:30.6	+19:51:54	300	57	3.0	#6 AGN Monitor	4	
0070.N3227	120	2:30	10:23:30.6	+19:51:54	300	57	3.0	#6 AGN Monitor	4	
0071.COMP	5	2:30	10:23:30.6	+19:51:54	300	57	3.0	#6 AGN Monitor	4	
0072.MRK110	360	2:30	09:25:12.9	+52:17:10	300	100	3.0	#6 AGN Monitor	4	a few clouds
0073.COMP	5	2:30	09:25:12.9	+52:17:10	300	100	3.0	#6 AGN Monitor	4	
0074.N5548	120	2:30	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0075.N5548	120	2:30	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0076.COMP	5	2:30	14:17:59.6	+25:08:12	300	100	3.0	#6 AGN Monitor	4	
0077.2M1218540p100009	300	2:30	12:18:54.0	+10:00:09	300	90	3.0	#68 2MASS Reds	4	
0078.COMP	5	2:30	12:18:54.0	+10:00:09	300	90	3.0	#68 2MASS Reds	4	
0079.2M1219252p003752	240	2:30	12:19:25.2	+00:37:52	300	90	3.0	#68 2MASS Reds	4	
0080.COMP	5	2:30	12:19:25.2	+00:37:52	300	90	3.0	#68 2MASS Reds	4	
0081.2M1219399p035437	240	2:30	12:19:39.9	+03:54:37	300	90	3.0	#68 2MASS Reds	4	
0082.COMP	5	2:30	12:19:39.9	+03:54:37	300	90	3.0	#68 2MASS Reds	4	
0083.2M1220408p190624	210	2:30	12:20:40.8	+19:06:24	300	90	3.0	#68 2MASS Reds	4	big t-storm to west
0084.COMP	5	2:30	12:20:40.8	+19:06:24	300	90	3.0	#68 2MASS Reds	4	
0085.SN2001bq	120	2:30	14:17:40.6	-07:25:01	300	-20	3.0	#2 SN Observat	2	
0086.SN2001bq	1200	2:30	14:17:40.6	-07:25:01	300	-25	3.0	#2 SN Observat	2	
0087.COMP	10	2:30	14:17:40.6	-07:25:01	300	-25	3.0	#2 SN Observat	2	
0088.NGC5534	60	2:30	14:17:40.6	-07:25:01	300	-25	3.0	#2 SN Observat	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-20 Observers P Berlind

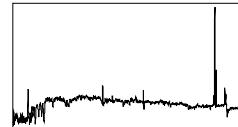
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0089.HZ44	120	2:30	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0090.COMP	10	2:30	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0091.2M1221025p190054	300	2:30	12:21:02.5	+19:00:54	300	90	3.0	#68 2MASS Reds	4	lots of lightning on guide tv
0092.COMP	5	2:30	12:21:02.5	+19:00:54	300	90	3.0	#68 2MASS Reds	4	
0093.2M1221556p063815	60	2:30	12:21:55.6	+06:38:15	300	90	3.0	#68 2MASS Reds	4	star
0094.COMP	5	2:30	12:21:55.6	+06:38:15	300	90	3.0	#68 2MASS Reds	4	
0095.2M1222245p053033	300	2:30	12:22:24.5	+05:30:33	300	90	3.0	#68 2MASS Reds	4	
0096.COMP	5	2:30	12:22:24.5	+05:30:33	300	90	3.0	#68 2MASS Reds	4	
0097.2M1222496p030615	240	2:30	12:22:49.6	+03:06:15	300	90	3.0	#68 2MASS Reds	4	
0098.COMP	5	2:30	12:22:49.6	+03:06:15	300	90	3.0	#68 2MASS Reds	4	
0099.2M1222537p054929	300	2:30	12:22:53.7	+05:49:29	300	90	3.0	#68 2MASS Reds	4	
0100.COMP	5	2:30	12:22:53.7	+05:49:29	300	90	3.0	#68 2MASS Reds	4	
0101.2M1223478p024826	300	2:30	12:23:47.8	+02:48:26	300	90	3.0	#68 2MASS Reds	4	clouds...
0102.COMP	5	2:30	12:23:47.8	+02:48:26	300	90	3.0	#68 2MASS Reds	4	
0103.2M1223512p182759	270	2:30	12:23:51.2	+18:27:59	300	90	3.0	#68 2MASS Reds	4	
0104.COMP	5	2:30	12:23:51.2	+18:27:59	300	90	3.0	#68 2MASS Reds	4	
0105.2M1220373p121540n	300	2:30	12:20:37.3	+12:15:40	300	90	3.0	#68 2MASS Reds	4	M*
0106.2M1220373p121540s	120	2:30	12:20:37.3	+12:15:40	300	90	3.0	#68 2MASS Reds	4	M*
0107.COMP	5	2:30	12:20:37.3	+12:15:40	300	90	3.0	#68 2MASS Reds	4	
0108.2M1225033p092223	240	2:30	12:25:03.3	+09:22:23	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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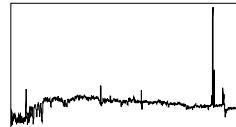
UT Date 2001-05-20 Observers P BerlindColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0109.COMP	5	2:30	12:25:03.3	+09:22:23	300	90	3.0	#68 2MASS Reds	4	
0110.2M1225326p073859	240	2:30	12:25:32.6	+07:38:59	300	90	3.0	#68 2MASS Reds	4	
0111.COMP	5	2:30	12:25:32.6	+07:38:59	300	90	3.0	#68 2MASS Reds	4	
0112.2M1226070p174436	300	2:30	12:26:07.0	+17:44:36	300	90	3.0	#68 2MASS Reds	4	
0113.COMP	5	2:30	12:26:07.0	+17:44:36	300	90	3.0	#68 2MASS Reds	4	
0114.2M1226151p095955	240	2:30	12:26:15.1	+09:59:55	300	90	3.0	#68 2MASS Reds	4	stopped by clouds
0115.COMP	5	2:30	12:26:15.1	+09:59:55	300	90	3.0	#68 2MASS Reds	4	
0116-0125.BIAS	0	9:16	12:26:19.0	+17:43:28	300	90	3.0	#68 2MASS Reds	4	
0126-0135.FLAT	8	9:19	12:26:19.0	+17:43:28	300	90	3.0	#68 2MASS Reds	4	
0136-0145.BIAS	0	9:22	12:26:19.0	+17:43:28	300	90	3.0	#68 2MASS Reds	2	
0146-0155.FLAT	16	9:27	12:26:19.0	+17:43:28	300	90	3.0	#68 2MASS Reds	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-21 Observers K Rines

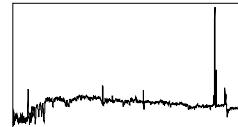
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001.DARK	1200	22:06	06:56:38.0	31:30:30	300	90	3.0	#68 2MASS Reds	4	
0002.DARK	1200	22:06	07:16:49.0	31:30:31	300	90	3.0	#68 2MASS Reds	4	
0003.DARK	1200	22:06	07:37:00.0	31:30:32	300	90	3.0	#68 2MASS Reds	4	
0004.DARK	1200	22:06	07:57:08.0	31:30:33	300	90	3.0	#68 2MASS Reds	4	
0005.DARK	1200	22:06	08:17:18.0	31:30:34	300	90	3.0	#68 2MASS Reds	4	
0006.DARK	1200	22:06	08:37:30.0	31:30:35	300	90	3.0	#68 2MASS Reds	4	
0007.DARK	1200	22:06	08:57:41.0	31:30:36	300	90	3.0	#68 2MASS Reds	4	
0008-0009.DARK	1200	0:47	09:38:03.0	31:30:37	300	90	3.0	#68 2MASS Reds	4	
0010.DARK	1200	0:47	09:58:14.0	31:30:38	300	90	3.0	#68 2MASS Reds	4	
0011.BIAS	0	0:47	10:17:33.0	31:30:39	300	90	3.0	#68 2MASS Reds	4	cirrus to W
0012-0020.BIAS	0	1:47	10:18:39.0	31:30:39	300	90	3.0	#68 2MASS Reds	4	
0021-0030.FLAT	8	1:51	10:22:51.0	31:30:39	300	90	3.0	#68 2MASS Reds	4	
0031.BIAS	0	1:51	10:23:08.0	31:30:39	300	90	3.0	#68 2MASS Reds	2	binby2
0032-0040.BIAS	0	1:54	10:25:09.0	31:30:39	300	90	3.0	#68 2MASS Reds	2	
0041-0050.FLAT	16	1:59	10:31:05.0	31:30:39	300	90	3.0	#68 2MASS Reds	2	
0051.sky	2	1:59	11:09:00.0	31:30:40	300	90	3.0	#68 2MASS Reds	2	
0052-0056.sky	10	2:40	11:12:02.0	31:30:41	300	90	3.0	#68 2MASS Reds	2	
0057.COMP	5	2:40	11:12:41.0	31:30:41	300	90	3.0	#68 2MASS Reds	2	
0058.sky	10	2:40	11:13:59.0	31:30:41	300	90	3.0	#68 2MASS Reds	4	binby4
0059-0063.sky	10	2:44	11:16:06.0	31:30:41	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-21 Observers K Rines

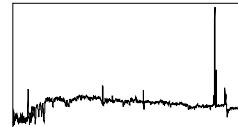
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0064.COMP	5	2:44	11:16:53.0	31:30:41	300	90	3.0	#68 2MASS Reds	4	
0065.Feige34	90	2:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0066.Feige34	90	2:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0067.COMP	5	2:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0068.Feige34	90	2:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0069.COMP	12	2:44	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0070.N3377	60	2:44	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	
0071.COMP	5	2:44	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	
0072.sn2001bg	900	2:44	08:35:18.8	+28:28:05	300	72	3.0	#2 SN Observat	4	oops-still binby4
0073.COMP	5	2:44	08:35:18.8	+28:28:05	300	72	3.0	#2 SN Observat	4	
0074.comaf_082	360	2:44	12:50:01.9	34:29:04	300	90	3.0	#64f Cluster I	4	
0075.COMP	5	2:44	12:50:01.9	34:29:04	300	90	3.0	#64f Cluster I	4	
0076.comaf_083	360	2:44	12:31:43.9	28:08:51	300	90	3.0	#64f Cluster I	4	
0077.COMP	5	2:44	12:31:43.9	28:08:51	300	90	3.0	#64f Cluster I	4	
0078.comaf_084	480	2:44	13:22:17.5	22:03:55	300	90	3.0	#64f Cluster I	4	
0079.COMP	5	2:44	13:22:17.5	22:03:55	300	90	3.0	#64f Cluster I	4	
0080.comaf_085	900	2:44	12:44:03.0	29:54:58	300	90	3.0	#64f Cluster I	4	
0081.COMP	5	2:44	12:44:03.0	29:54:58	300	90	3.0	#64f Cluster I	4	
0082.comaf_086	360	2:44	13:18:01.1	32:45:57	300	90	3.0	#64f Cluster I	4	
0083.COMP	5	2:44	13:18:01.1	32:45:57	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

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UT Date 2001-05-21 Observers K Rines

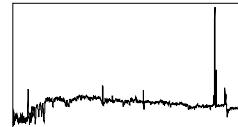
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0084.comaf_088	240	2:44	13:09:57.0	30:54:48	300	90	3.0	#64f Cluster I	4	
0085.COMP	5	2:44	13:09:57.0	30:54:48	300	90	3.0	#64f Cluster I	4	
0086.comaf_089	60	2:44	12:55:34.8	34:29:36	300	90	3.0	#64f Cluster I	4	
0087.COMP	5	2:44	12:55:34.8	34:29:36	300	90	3.0	#64f Cluster I	4	
0088.comaf_090	300	2:44	13:00:38.5	28:00:54	300	90	3.0	#64f Cluster I	4	star to E
0089.COMP	5	2:44	13:00:38.5	28:00:54	300	90	3.0	#64f Cluster I	4	
0090.comaf_091	300	2:44	13:24:33.7	31:32:46	300	90	3.0	#64f Cluster I	4	
0091.COMP	5	2:44	13:24:33.7	31:32:46	300	90	3.0	#64f Cluster I	4	
0092.comaf_092	600	2:44	13:30:18.7	32:30:53	300	90	3.0	#64f Cluster I	4	
0093.COMP	5	2:44	13:30:18.7	32:30:53	300	90	3.0	#64f Cluster I	4	
0094.comaf_093	240	2:44	12:33:35.8	22:48:04	300	90	3.0	#64f Cluster I	4	
0095.COMP	5	2:44	12:33:35.8	22:48:04	300	90	3.0	#64f Cluster I	4	
0096.comaf_094	300	2:44	13:17:34.8	33:49:54	300	90	3.0	#64f Cluster I	4	
0097.COMP	5	2:44	13:17:34.8	33:49:54	300	90	3.0	#64f Cluster I	4	
0098.comaf_095	300	2:44	13:22:30.5	22:05:58	300	90	3.0	#64f Cluster I	4	
0099.COMP	5	2:44	13:22:30.5	22:05:58	300	90	3.0	#64f Cluster I	4	
0100.comaf_096	300	2:44	12:59:39.5	27:57:16	300	90	3.0	#64f Cluster I	4	bright gxy to W
0101.COMP	5	2:44	12:59:39.5	27:57:16	300	90	3.0	#64f Cluster I	4	
0102.comaf_097	400	2:44	12:42:06.4	32:45:39	300	90	3.0	#64f Cluster I	4	
0103.COMP	5	2:44	12:42:06.4	32:45:39	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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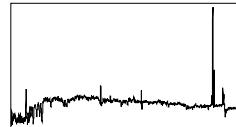
UT Date 2001-05-21 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0104.comaf_098	360	2:44	13:19:13.1	33:35:19	300	90	3.0	#64f Cluster I	4	
0105.COMP	5	2:44	13:19:13.1	33:35:19	300	90	3.0	#64f Cluster I	4	
0106.comaf_099	720	2:44	12:28:36.2	31:28:52	300	90	3.0	#64f Cluster I	4	em at pixel 2116?
0107.COMP	5	2:44	12:28:36.2	31:28:52	300	90	3.0	#64f Cluster I	4	
0108.comaf_100	480	2:44	13:11:37.0	32:03:35	300	90	3.0	#64f Cluster I	4	
0109.COMP	5	2:44	13:11:37.0	32:03:35	300	90	3.0	#64f Cluster I	4	
0110.comaf_101	240	2:44	12:55:34.4	32:12:23	300	90	3.0	#64f Cluster I	4	
0111.COMP	5	2:44	12:55:34.4	32:12:23	300	90	3.0	#64f Cluster I	4	
0112.comaf_103	240	2:44	12:31:14.2	23:29:15	300	90	3.0	#64f Cluster I	4	
0113.COMP	5	2:44	12:31:14.2	23:29:15	300	90	3.0	#64f Cluster I	4	
0114.comaf_104	240	2:44	12:56:52.4	31:17:44	300	90	3.0	#64f Cluster I	4	
0115.COMP	5	2:44	12:56:52.4	31:17:44	300	90	3.0	#64f Cluster I	4	
0116.comaf_105	360	2:44	12:59:56.6	27:55:50	300	90	3.0	#64f Cluster I	4	
0117.COMP	5	2:44	12:59:56.6	27:55:50	300	90	3.0	#64f Cluster I	4	
0118.comaf_106	360	2:44	13:11:47.8	30:58:22	300	90	3.0	#64f Cluster I	4	
0119.COMP	5	2:44	13:11:47.8	30:58:22	300	90	3.0	#64f Cluster I	4	
0120.comaf_107	240	2:44	13:19:58.3	28:14:49	300	90	3.0	#64f Cluster I	4	
0121.COMP	5	2:44	13:19:58.3	28:14:49	300	90	3.0	#64f Cluster I	4	
0122.comaf_108	420	2:44	13:25:22.8	27:14:57	300	90	3.0	#64f Cluster I	4	
0123.COMP	5	2:44	13:25:22.8	27:14:57	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

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UT Date 2001-05-21 Observers K Rines

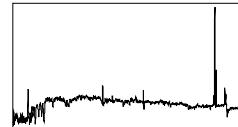
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0124.comaf_109	360	2:44	12:36:31.3	23:25:34	300	90	3.0	#64f Cluster I	4	
0125.COMP	5	2:44	12:36:31.3	23:25:34	300	90	3.0	#64f Cluster I	4	
0126.comaf_110	420	2:44	13:11:52.3	34:02:02	300	90	3.0	#64f Cluster I	4	
0127.COMP	5	2:44	13:11:52.3	34:02:02	300	90	3.0	#64f Cluster I	4	
0128.comaf_111	240	2:44	12:50:59.5	35:03:58	300	90	3.0	#64f Cluster I	4	
0129.COMP	5	2:44	12:50:59.5	35:03:58	300	90	3.0	#64f Cluster I	4	
0130.comaf_112	600	2:44	12:46:26.7	30:12:37	300	90	3.0	#64f Cluster I	4	
0131.COMP	5	2:44	12:46:26.7	30:12:37	300	90	3.0	#64f Cluster I	4	
0132.comaf_113	300	2:44	13:00:27.8	34:22:48	300	90	3.0	#64f Cluster I	4	
0133.COMP	5	2:44	13:00:27.8	34:22:48	300	90	3.0	#64f Cluster I	4	
0134.comaf_114	180	2:44	13:04:12.7	28:11:38	300	90	3.0	#64f Cluster I	4	
0135.COMP	5	2:44	13:04:12.7	28:11:38	300	90	3.0	#64f Cluster I	4	
0136.comaf_115	480	2:44	13:20:13.0	33:19:29	300	90	3.0	#64f Cluster I	4	
0137.COMP	5	2:44	13:20:13.0	33:19:29	300	90	3.0	#64f Cluster I	4	
0138.comaf_116	360	2:44	13:20:26.4	23:51:55	300	90	3.0	#64f Cluster I	4	
0139.COMP	5	2:44	13:20:26.4	23:51:55	300	90	3.0	#64f Cluster I	4	
0140.a2199e_069	480	2:44	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0141.COMP	5	2:44	16:54:45.5	37:50:52	300	90	3.0	#64f Cluster I	4	
0142.a2199e_070	600	2:44	16:00:41.3	40:25:26	300	90	3.0	#64f Cluster I	4	em
0143.COMP	5	2:44	16:00:41.3	40:25:26	300	90	3.0	#64f Cluster I	4	



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UT Date 2001-05-21 Observers K Rines

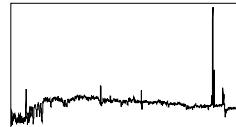
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0144.a2199e_071	900	2:44	16:08:07.9	42:59:04	300	90	3.0	#64f Cluster I	4	
0145.COMP	5	2:44	16:08:07.9	42:59:04	300	90	3.0	#64f Cluster I	4	
0146.a2199e_072	600	2:44	16:52:53.2	40:09:13	300	90	3.0	#64f Cluster I	4	
0147.COMP	5	2:44	16:52:53.2	40:09:13	300	90	3.0	#64f Cluster I	4	
0148.a2199e_073	480	2:44	16:20:46.7	43:09:11	300	90	3.0	#64f Cluster I	4	
0149.COMP	5	2:44	16:20:46.7	43:09:11	300	90	3.0	#64f Cluster I	4	
0150.a2199e_074	300	2:44	16:25:39.3	39:32:46	300	90	3.0	#64f Cluster I	4	
0151.COMP	5	2:44	16:25:39.3	39:32:46	300	90	3.0	#64f Cluster I	4	
0152.a2199e_075	240	2:44	16:38:13.7	41:55:51	300	90	3.0	#64f Cluster I	4	
0153.COMP	5	2:44	16:38:13.7	41:55:51	300	90	3.0	#64f Cluster I	4	
0154.a2199e_076	420	2:44	16:05:11.9	42:05:47	300	90	3.0	#64f Cluster I	4	
0155.COMP	5	2:44	16:05:11.9	42:05:47	300	90	3.0	#64f Cluster I	4	
0156.a2199e_078	480	2:44	16:08:03.5	37:09:13	300	90	3.0	#64f Cluster I	4	
0157.COMP	5	2:44	16:08:03.5	37:09:13	300	90	3.0	#64f Cluster I	4	
0158.a2199e_082	480	2:44	16:54:31.8	37:37:53	300	90	3.0	#64f Cluster I	4	
0159.COMP	5	2:44	16:54:31.8	37:37:53	300	90	3.0	#64f Cluster I	4	
0160.a2199e_083	360	2:44	16:37:48.4	36:03:39	300	90	3.0	#64f Cluster I	4	
0161.COMP	5	2:44	16:37:48.4	36:03:39	300	90	3.0	#64f Cluster I	4	
0162.a2199e_084	480	2:44	16:40:41.9	39:48:26	300	90	3.0	#64f Cluster I	4	
0163.COMP	5	2:44	16:40:41.9	39:48:26	300	90	3.0	#64f Cluster I	4	



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UT Date 2001-05-21 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0164.a2199e_086	300	2:44	16:42:05.0	43:16:08	300	90	3.0	#64f Cluster I	4	
0165.COMP	5	2:44	16:42:05.0	43:16:08	300	90	3.0	#64f Cluster I	4	
0166.a2199e_087	900	2:44	16:08:30.0	39:27:33	300	90	3.0	#64f Cluster I	4	
0167.COMP	5	2:44	16:08:30.0	39:27:33	300	90	3.0	#64f Cluster I	4	
0168.sn2001bf	1200	2:44	18:01:33.9	26:15:02	300	90	3.0	#2 SN Observat	2	binby2
0169.COMP	12	2:44	18:01:33.9	26:15:02	300	90	3.0	#2 SN Observat	2	
0170.snugc11260	900	2:44	18:30:25.5	34:06:13	300	90	3.0	#2 SN Observat	2	
0171.COMP	12	2:44	18:30:25.5	34:06:13	300	90	3.0	#2 SN Observat	2	
0172.sn2001bh	1200	2:44	20:43:29.8	80:09:27	300	90	3.0	#2 SN Observat	2	
0173.COMP	12	2:44	20:43:29.8	80:09:27	300	90	3.0	#2 SN Observat	2	
0174.Akn564	60	2:44	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0175.Akn564	60	2:44	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0176.Akn564	60	2:44	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0177.COMP	12	2:44	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0178.N7469	90	2:44	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0179.N7469	90	2:44	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0180.COMP	12	2:44	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0181.MRK509	60	2:44	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0182.MRK509	60	2:44	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0183.COMP	12	2:44	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	



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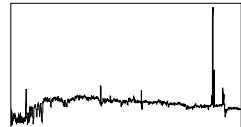
UT Date 2001-05-21 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0184-0193.BIAS	0	11:38	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	
0194-0203.FLAT	16	11:44	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	
0204.BIAS	0	11:44	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	binby4
0205-0213.BIAS	0	11:47	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	
0214.FLAT	8	11:47	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	clear at dawn
0215-0223.FLAT	8	11:50	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	
0224.DARK	1200	11:50	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	binby2
0225-0233.DARK	1200	14:55	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	



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UT Date 2001-05-22 Observers K Rines

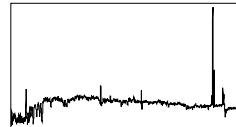
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	1200	0:50	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	
0011-0020.BIAS	0	1:45	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	
0021-0030.FLAT	8	1:47	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	4	
0031.BIAS	0	1:47	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	binby2
0032-0040.BIAS	0	1:50	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	
0041-0050.FLAT	16	1:55	20:44:09.8	-10:43:24	300	90	3.0	#2 SN Observat	2	
0051.sky	2	1:55	11:45:0	31:30:41	300	90	3.0	#2 SN Observat	4	binby4
0052-0056.sky	10	2:42	11:45:0	31:30:41	300	90	3.0	#2 SN Observat	4	
0057.COMP	5	2:42	11:45:0	31:30:41	300	90	3.0	#2 SN Observat	4	
0058.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.COMP	5	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0061.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	binby2
0062.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.COMP	12	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0064.N3377	60	2:42	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	binby4
0065.COMP	5	2:42	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	
0066.N4051	60	2:42	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0067.N4051	60	2:42	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0068.N4051	60	2:42	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	



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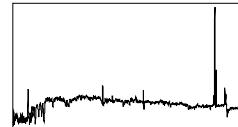
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0069.COMP	5	2:42	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0070.N4151	30	2:42	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0071.N4151	30	2:42	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0072.COMP	5	2:42	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0073.MRK421	180	2:42	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0074.MRK421	180	2:42	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0075.COMP	5	2:42	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0076.N3227	120	2:42	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0077.N3227	120	2:42	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0078.COMP	5	2:42	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0079.SN2001ah	1200	2:42	11:10:29.8	55:09:39	300	-30	3.0	#2 SN Observat	2	binby2, missed!
0080.COMP	10	2:42	11:10:29.8	55:09:39	300	-30	3.0	#2 SN Observat	2	
0081.2M1226190p174328	240	2:42	12:26:19.0	+17:43:28	300	-30	3.0	#68 2MASS Reds	4	binby4, angle wrong in header
0082.COMP	5	2:42	12:26:19.0	+17:43:28	300	-30	3.0	#68 2MASS Reds	4	
0083.2M1226329p163212	300	2:42	12:26:32.9	+16:32:12	300	-30	3.0	#68 2MASS Reds	4	angle wrong in header
0084.COMP	5	2:42	12:26:32.9	+16:32:12	300	-30	3.0	#68 2MASS Reds	4	
0085.2M1226449p194213	360	2:42	12:26:44.9	+19:42:13	300	90	3.0	#68 2MASS Reds	4	
0086.COMP	5	2:42	12:26:44.9	+19:42:13	300	90	3.0	#68 2MASS Reds	4	star sup to W
0087.2M1228550p134727	240	2:42	12:28:55.0	+13:47:27	300	90	3.0	#68 2MASS Reds	4	
0088.COMP	5	2:42	12:28:55.0	+13:47:27	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-22 Observers K Rines

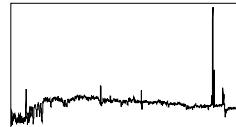
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0089.2M1229567p083538	240	2:42	12:29:56.7	+08:35:38	300	90	3.0	#68 2MASS Reds	4	
0090.COMP	5	2:42	12:29:56.7	+08:35:38	300	90	3.0	#68 2MASS Reds	4	
0091.2M1229497p023109	300	2:42	12:29:49.7	+02:31:09	300	90	3.0	#68 2MASS Reds	4	
0092.COMP	5	2:42	12:29:49.7	+02:31:09	300	90	3.0	#68 2MASS Reds	4	
0093.2M1230194p032712	240	2:42	12:30:19.4	+03:27:12	300	90	3.0	#68 2MASS Reds	4	
0094.COMP	5	2:42	12:30:19.4	+03:27:12	300	90	3.0	#68 2MASS Reds	4	
0095.2M1230210p034429	360	2:42	12:30:21.0	+03:44:29	300	90	3.0	#68 2MASS Reds	4	
0096.COMP	5	2:42	12:30:21.0	+03:44:29	300	90	3.0	#68 2MASS Reds	4	
0097.2M1230373p045733	360	2:42	12:30:37.3	+04:57:33	300	90	3.0	#68 2MASS Reds	4	
0098.COMP	5	2:42	12:30:37.3	+04:57:33	300	90	3.0	#68 2MASS Reds	4	
0099.2M1230422p030950	240	2:42	12:30:42.2	+03:09:50	300	90	3.0	#68 2MASS Reds	4	
0100.COMP	5	2:42	12:30:42.2	+03:09:50	300	90	3.0	#68 2MASS Reds	4	
0101.2M1230539p060623	240	2:42	12:30:53.9	+06:06:23	300	90	3.0	#68 2MASS Reds	4	
0102.COMP	5	2:42	12:30:53.9	+06:06:23	300	90	3.0	#68 2MASS Reds	4	
0103.2M1230583p122241	480	2:42	12:30:58.3	+12:22:41	300	90	3.0	#68 2MASS Reds	4	bright gxy to W
0104.COMP	5	2:42	12:30:58.3	+12:22:41	300	90	3.0	#68 2MASS Reds	4	
0105.2M1231150p141148	240	2:42	12:31:15.0	+14:11:48	300	90	3.0	#68 2MASS Reds	4	
0106.COMP	5	2:42	12:31:15.0	+14:11:48	300	90	3.0	#68 2MASS Reds	4	
0107.2M1233338p182142	180	2:42	12:33:33.8	+18:21:42	300	90	3.0	#68 2MASS Reds	4	
0108.COMP	5	2:42	12:33:33.8	+18:21:42	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-22 Observers K Rines

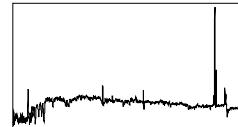
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0109.2M1233549p055145	240	2:42	12:33:54.9	+05:51:45	300	90	3.0	#68 2MASS Reds	4	
0110.COMP	5	2:42	12:33:54.9	+05:51:45	300	90	3.0	#68 2MASS Reds	4	
0111.2M1234126p035513	240	2:42	12:34:12.6	+03:55:13	300	90	3.0	#68 2MASS Reds	4	
0112.COMP	5	2:42	12:34:12.6	+03:55:13	300	90	3.0	#68 2MASS Reds	4	
0113.2M1234272p035140	360	2:42	12:34:27.2	+03:51:40	300	90	3.0	#68 2MASS Reds	4	
0114.COMP	5	2:42	12:34:27.2	+03:51:40	300	90	3.0	#68 2MASS Reds	4	
0115.2M1235115p055027	240	2:42	12:35:11.5	+05:50:27	300	90	3.0	#68 2MASS Reds	4	
0116.COMP	5	2:42	12:35:11.5	+05:50:27	300	90	3.0	#68 2MASS Reds	4	
0117.2M1235245p063727	240	2:42	12:35:24.5	+06:37:27	300	90	3.0	#68 2MASS Reds	4	
0118.COMP	5	2:42	12:35:24.5	+06:37:27	300	90	3.0	#68 2MASS Reds	4	
0119.2M1236092p073204	240	2:42	12:36:09.2	+07:32:04	300	90	3.0	#68 2MASS Reds	4	
0120.COMP	5	2:42	12:36:09.2	+07:32:04	300	90	3.0	#68 2MASS Reds	4	
0121.2M1237194p034146	360	2:42	12:37:19.4	+03:41:46	300	90	3.0	#68 2MASS Reds	4	
0122.COMP	5	2:42	12:37:19.4	+03:41:46	300	90	3.0	#68 2MASS Reds	4	
0123.2M1238118p031342	360	2:42	12:38:11.8	+03:13:42	300	90	3.0	#68 2MASS Reds	4	
0124.COMP	5	2:42	12:38:11.8	+03:13:42	300	90	3.0	#68 2MASS Reds	4	
0125.2M1238183p100422	240	2:42	12:38:18.3	+10:04:22	300	90	3.0	#68 2MASS Reds	4	obj to W
0126.COMP	5	2:42	12:38:18.3	+10:04:22	300	90	3.0	#68 2MASS Reds	4	
0127.2M1238086p170211	360	2:42	12:38:08.6	+17:02:11	300	90	3.0	#68 2MASS Reds	4	
0128.COMP	5	2:42	12:38:08.6	+17:02:11	300	90	3.0	#68 2MASS Reds	4	em



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-22 Observers K Rines

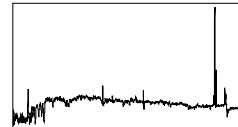
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0129.2M1238468p171515	420	2:42	12:38:46.8	+17:15:15	300	90	3.0	#68 2MASS Reds	4	
0130.COMP	5	2:42	12:38:46.8	+17:15:15	300	90	3.0	#68 2MASS Reds	4	
0131.2M1239486p105954	240	2:42	12:39:48.6	+10:59:54	300	90	3.0	#68 2MASS Reds	4	
0132.COMP	5	2:42	12:39:48.6	+10:59:54	300	90	3.0	#68 2MASS Reds	4	
0133.2M1241272p103955	300	2:42	12:41:27.2	+10:39:55	300	90	3.0	#68 2MASS Reds	4	
0134.COMP	5	2:42	12:41:27.2	+10:39:55	300	90	3.0	#68 2MASS Reds	4	
0135.2M1241067p071021	300	2:42	12:41:06.7	+07:10:21	300	90	3.0	#68 2MASS Reds	4	
0136.COMP	5	2:42	12:41:06.7	+07:10:21	300	90	3.0	#68 2MASS Reds	4	
0137.2M1238563p060931	300	2:42	12:38:56.3	+06:09:31	300	90	3.0	#68 2MASS Reds	4	
0138.COMP	5	2:42	12:38:56.3	+06:09:31	300	90	3.0	#68 2MASS Reds	4	
0139.2M1239042p005816	300	2:42	12:39:04.2	+00:58:16	300	90	3.0	#68 2MASS Reds	4	
0140.COMP	5	2:42	12:39:04.2	+00:58:16	300	90	3.0	#68 2MASS Reds	4	
0141.2M1242006p033825	360	2:42	12:42:00.6	+03:38:25	300	90	3.0	#68 2MASS Reds	4	
0142.COMP	5	2:42	12:42:00.6	+03:38:25	300	90	3.0	#68 2MASS Reds	4	
0143.2M1242425p024704	300	2:42	12:42:42.5	+02:47:04	300	90	3.0	#68 2MASS Reds	4	
0144.COMP	5	2:42	12:42:42.5	+02:47:04	300	90	3.0	#68 2MASS Reds	4	
0145.N5548	120	2:42	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0146.N5548	120	2:42	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0147.COMP	5	2:42	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0148.comaf_044	300	2:42	13:29:19.7	32:00:20	300	90	3.0	#64f Cluster I	4	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-22 Observers K Rines

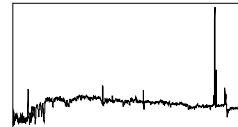
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0149.COMP	5	2:42	13:29:19.7	32:00:20	300	90	3.0	#64f Cluster I	4	
0150.comaf_057	240	2:42	12:59:31.3	28:02:49	300	90	3.0	#64f Cluster I	4	
0151.COMP	5	2:42	12:59:31.3	28:02:49	300	90	3.0	#64f Cluster I	4	
0152.comaf_061	240	2:42	13:00:42.7	27:57:48	300	90	3.0	#64f Cluster I	4	
0153.COMP	5	2:42	13:00:42.7	27:57:48	300	90	3.0	#64f Cluster I	4	
0154.sn2001az	1200	2:42	16:34:27.7	76:1:47	300	0	3.0	#2f SN Observa	2	binby2
0155.COMP	10	2:42	16:34:27.7	76:1:47	300	0	3.0	#2f SN Observa	2	
0156.a2199e_088	600	2:42	16:16:22.7	39:43:43	300	90	3.0	#64f Cluster I	4	binby4
0157.COMP	5	2:42	16:16:22.7	39:43:43	300	90	3.0	#64f Cluster I	4	
0158.a2199e_089	360	2:42	16:34:24.0	43:23:34	300	90	3.0	#64f Cluster I	4	
0159.COMP	5	2:42	16:34:24.0	43:23:34	300	90	3.0	#64f Cluster I	4	
0160.a2199e_090	300	2:42	16:23:40.4	41:06:17	300	90	3.0	#64f Cluster I	4	Ha at pixel 2161?
0161.COMP	5	2:42	16:23:40.4	41:06:17	300	90	3.0	#64f Cluster I	4	
0162.a2199e_091	400	2:42	16:37:41.4	42:31:38	300	90	3.0	#64f Cluster I	4	bright star E; redo?
0163.COMP	5	2:42	16:37:41.4	42:31:38	300	90	3.0	#64f Cluster I	4	
0164.a2199e_092	400	2:42	16:02:32.3	39:56:20	300	90	3.0	#64f Cluster I	4	
0165.COMP	5	2:42	16:02:32.3	39:56:20	300	90	3.0	#64f Cluster I	4	
0166.a2199e_091	300	2:42	16:37:41.4	42:31:38	300	64	3.0	#64f Cluster I	4	rotated to avoid br star
0167.COMP	5	2:42	16:37:41.4	42:31:38	300	64	3.0	#64f Cluster I	4	
0168.a2199e_093	400	2:42	16:09:35.8	38:18:50	300	90	3.0	#64f Cluster I	4	



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UT Date 2001-05-22 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0169.COMP	5	2:42	16:09:35.8	38:18:50	300	90	3.0	#64f Cluster I	4	
0170.a2199e_095	420	2:42	16:16:59.1	40:14:41	300	90	3.0	#64f Cluster I	4	
0171.COMP	5	2:42	16:16:59.1	40:14:41	300	90	3.0	#64f Cluster I	4	
0172.a2199e_096	900	2:42	16:26:31.5	44:07:18	300	90	3.0	#64f Cluster I	4	
0173.COMP	5	2:42	16:26:31.5	44:07:18	300	90	3.0	#64f Cluster I	4	
0174.a2199e_097	420	2:42	16:54:47.2	41:08:51	300	90	3.0	#64f Cluster I	4	
0175.COMP	5	2:42	16:54:47.2	41:08:51	300	90	3.0	#64f Cluster I	4	
0176.a2199e_098	420	2:42	16:39:23.9	41:44:44	300	90	3.0	#64f Cluster I	4	
0177.COMP	5	2:42	16:39:23.9	41:44:44	300	90	3.0	#64f Cluster I	4	
0178.a2199e_099	360	2:42	16:35:24.2	41:44:55	300	90	3.0	#64f Cluster I	4	
0179.COMP	5	2:42	16:35:24.2	41:44:55	300	90	3.0	#64f Cluster I	4	
0180.a2199e_100	720	2:42	16:52:06.8	40:01:24	300	90	3.0	#64f Cluster I	4	
0181.COMP	5	2:42	16:52:06.8	40:01:24	300	90	3.0	#64f Cluster I	4	
0182.a2199e_101	900	2:42	16:19:08.5	39:41:35	300	90	3.0	#64f Cluster I	4	
0183.COMP	5	2:42	16:19:08.5	39:41:35	300	90	3.0	#64f Cluster I	4	
0184.a2199e_102	720	2:42	16:39:42.5	37:34:39	300	90	3.0	#64f Cluster I	4	
0185.COMP	5	2:42	16:39:42.5	37:34:39	300	90	3.0	#64f Cluster I	4	
0186.a2199e_103	420	2:42	16:04:25.9	38:09:05	300	90	3.0	#64f Cluster I	4	
0187.COMP	5	2:42	16:04:25.9	38:09:05	300	90	3.0	#64f Cluster I	4	
0188.a2199e_104	480	2:42	16:48:23.4	39:38:33	300	90	3.0	#64f Cluster I	4	



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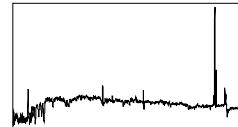
UT Date 2001-05-22 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0189.COMP	5	2:42	16:48:23.4	39:38:33	300	90	3.0	#64f Cluster I	4	
0190.a2199e_105	480	2:42	16:38:14.6	41:47:52	300	90	3.0	#64f Cluster I	4	
0191.COMP	5	2:42	16:38:14.6	41:47:52	300	90	3.0	#64f Cluster I	4	
0192.a2199e_106	480	2:42	16:22:36.0	37:07:15	300	90	3.0	#64f Cluster I	4	star to W
0193.COMP	5	2:42	16:22:36.0	37:07:15	300	90	3.0	#64f Cluster I	4	
0194.a2199e_107	420	2:42	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0195.COMP	5	2:42	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0196-0205.BIAS	0	11:29	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0206-0215.FLAT	8	11:32	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0216.BIAS	0	11:32	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	binby2
0217-0225.BIAS	0	11:36	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	
0226-0235.FLAT	16	11:41	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	
0236-0245.DARK	1200	14:44	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	



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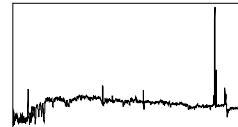
UT Date 2001-05-23 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.DARK	1200	0:07	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0011-0020.BIAS	0	1:57	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0021-0030.FLAT	8	2:01	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	4	
0031-0040.BIAS	0	2:05	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	
0041-0050.FLAT	16	2:10	16:10:32.0	43:00:03	300	90	3.0	#64f Cluster I	2	
0051.sky	5	2:10	11:30:0	31:30:40	300	90	3.0	#64f Cluster I	4	
0052-0056.sky	10	2:42	11:30:0	31:30:40	300	90	3.0	#64f Cluster I	4	
0057.COMP	5	2:42	11:30:0	31:30:40	300	90	3.0	#64f Cluster I	4	
0058.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.COMP	5	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0061.Feige34	90	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	10	2:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.N3377	60	2:42	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	
0064.COMP	5	2:42	10:45:02.6	+14:14:51	300	90	3.0	#57 Velocity S	4	
0065.a1367x1	480	2:42	11:45:4.8	19:40:50	300	90	3.0	#64f Cluster I	4	
0066.COMP	5	2:42	11:45:4.8	19:40:50	300	90	3.0	#64f Cluster I	4	
0067.SN2001V	1200	2:42	11:57:25.0	25:12:10	300	90	3.0	#2 SN Observat	2	
0068.COMP	10	2:42	11:57:25.0	25:12:10	300	90	3.0	#2 SN Observat	2	
0069.COMP	5	2:42	10:36:41.2	43:21:50	600	90	1.5	#56 Spectropho	2	tilt=457, 600 lpm, 1.5 slit



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UT Date 2001-05-23 Observers K Rines

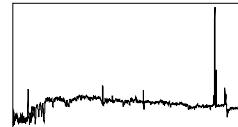
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.Feige34	90	2:42	10:36:41.2	43:21:50	600	90	1.5	#56 Spectropho	2	binby3full
0071.HD107328	1	2:42	12:20:20.9	3:18:45	600	90	1.5	#56 Spectropho	2	
0072.HD107328	1	2:42	12:20:20.9	3:18:45	600	90	1.5	#56 Spectropho	2	
0073.HD107328	1	2:42	12:20:20.9	3:18:45	600	90	1.5	#56 Spectropho	2	
0074.COMP	5	2:42	12:20:20.9	3:18:45	600	90	1.5	#56 Spectropho	2	
0075.VCC685	1800	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0076.COMP	5	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0077.VCC685	1800	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0078.COMP	5	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0079.VCC685	1800	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0080.COMP	5	2:42	12:23:57.9	16:41:37	600	29	1.5	#70f Elliptica	2	
0081.VCC758	1800	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	dome problems during exp
0082.COMP	5	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	
0083.VCC758	1800	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	
0084.COMP	5	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	
0085.VCC758	1800	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	clouds
0086.COMP	5	2:42	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	
0087-0096.BIAS	0	7:32	12:24:55.0	07:26:40	600	85	1.5	#70f Elliptica	2	
0097-0106.FLAT	15	7:38	12:24:55.0	07:26:40	600	90	1.5	#70f Elliptica	2	
0107.sn2001ay	1200	7:38	14:26:17.0	26:14:55	300	69	3.0	#2 SN Observat	2	tilt=610, 300gpm, 3 slit



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-23 Observers K Rines

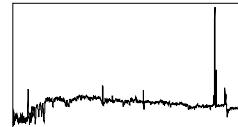
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0108.COMP	10	7:38	14:26:17.0	26:14:55	300	69	3.0	#2 SN Observat	2	
0109.a2199e_110	360	7:38	16:34:52.3	44:12:41	300	90	3.0	#64f Cluster I	4	
0110.COMP	5	7:38	16:34:52.3	44:12:41	300	90	3.0	#64f Cluster I	4	
0111.a2199e_109	900	7:38	16:03:17.8	38:50:32	300	90	3.0	#64f Cluster I	4	
0112.COMP	5	7:38	16:03:17.8	38:50:32	300	90	3.0	#64f Cluster I	4	
0113.a2199e_111	900	7:38	16:54:43.3	40:02:47	300	90	3.0	#64f Cluster I	4	
0114.COMP	5	7:38	16:54:43.3	40:02:47	300	90	3.0	#64f Cluster I	4	
0115.a2199e_005	900	7:38	16:42:46.3	37:38:36	300	90	3.0	#64f Cluster I	4	
0116.COMP	5	7:38	16:42:46.3	37:38:36	300	90	3.0	#64f Cluster I	4	
0117.a2199e_043	600	7:38	16:10:03.6	36:55:13	300	90	3.0	#64f Cluster I	4	star to E
0118.COMP	5	7:38	16:10:03.6	36:55:13	300	90	3.0	#64f Cluster I	4	
0119.a2199e_079	600	7:38	16:44:33.1	35:27:21	300	90	3.0	#64f Cluster I	2	star sup on gxy
0120.COMP	10	7:38	16:44:33.1	35:27:21	300	90	3.0	#64f Cluster I	2	
0121.a2199e_108	800	7:38	16:24:25.3	34:58:23	300	90	3.0	#64f Cluster I	4	
0122.COMP	5	7:38	16:24:25.3	34:58:23	300	90	3.0	#64f Cluster I	4	
0123.a2199e_112	700	7:38	16:23:08.2	42:39:14	300	90	3.0	#64f Cluster I	4	
0124.COMP	5	7:38	16:23:08.2	42:39:14	300	90	3.0	#64f Cluster I	4	
0125.a2199e_113	600	7:38	16:47:27.9	43:22:37	300	90	3.0	#64f Cluster I	4	
0126.COMP	5	7:38	16:47:27.9	43:22:37	300	90	3.0	#64f Cluster I	4	
0127.a2199e_114	700	7:38	16:28:23.3	43:57:27	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-23 Observers K Rines

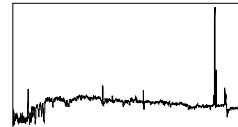
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0128.COMP	5	7:38	16:28:23.3	43:57:27	300	90	3.0	#64f Cluster I	4	
0129.a2199e_115	900	7:38	16:26:15.7	38:50:40	300	90	3.0	#64f Cluster I	4	
0130.COMP	5	7:38	16:26:15.7	38:50:40	300	90	3.0	#64f Cluster I	4	
0131.a2199e_116	700	7:38	16:04:54.2	39:36:16	300	90	3.0	#64f Cluster I	4	
0132.COMP	5	7:38	16:04:54.2	39:36:16	300	90	3.0	#64f Cluster I	4	
0133.a2199e_117	720	7:38	16:31:36.8	43:23:05	300	90	3.0	#64f Cluster I	4	
0134.COMP	5	7:38	16:31:36.8	43:23:05	300	90	3.0	#64f Cluster I	4	
0135.a2199e_118	600	7:38	16:02:54.5	40:41:56	300	90	3.0	#64f Cluster I	4	
0136.COMP	5	7:38	16:02:54.5	40:41:56	300	90	3.0	#64f Cluster I	4	
0137.Akn564	60	7:38	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0138.Akn564	60	7:38	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0139.Akn564	60	7:38	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0140.COMP	5	7:38	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0141-0150.BIAS	0	11:30	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0151-0160.FLAT	8	11:33	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0161-0170.BIAS	0	11:35	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0171-0180.FLAT	16	11:40	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0181.DARK	1800	11:40	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	binby3full for Nelson
0182-0190.DARK	1800	16:14	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K Rines

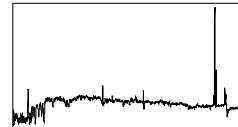
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	1200	0:34	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0011.BIAS	0	0:34	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	cirrus
0012-0020.BIAS	0	2:09	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0021-0030.FLAT	8	2:12	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0031-0040.BIAS	0	2:16	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0041-0050.FLAT	16	2:22	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0051.sky	2	2:22	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0052-0056.sky	4	2:33	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0057.COMP	10	2:33	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	2	
0058-0062.sky	4	2:35	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0063.COMP	5	2:35	22:42:39.4	+29:43:31	300	90	3.0	#64f Cluster I	4	
0064.Feige34	90	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0065.Feige34	90	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0066.COMP	5	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0067.Feige34	90	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	reset dome
0068.Feige34	90	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0069.COMP	10	2:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0070.N3227	60	2:35	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0071.N3227	60	2:35	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0072.N3227	60	2:35	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K Rines

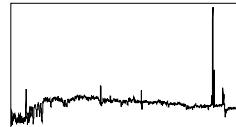
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0073.COMP	5	2:35	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0074.N4051	60	2:35	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0075.N4051	60	2:35	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0076.N4051	60	2:35	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0077.COMP	5	2:35	12:03:09.7	+44:31:53	300	90	3.0	#6 AGN Monitor	4	
0078.N4151	30	2:35	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0079.N4151	30	2:35	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0080.N4151	30	2:35	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0081.COMP	5	2:35	12:10:32.6	+39:24:21	300	90	3.0	#6 AGN Monitor	4	
0082.N5548	60	2:35	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0083.N5548	60	2:35	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0084.N5548	60	2:35	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0085.COMP	5	2:35	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	4	
0086.N4853	180	2:35	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0087.COMP	5	2:35	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0088.2M1242496p000127	200	2:35	12:42:49.6	+00:01:27	300	90	3.0	#68 2MASS Reds	4	
0089.COMP	5	2:35	12:42:49.6	+00:01:27	300	90	3.0	#68 2MASS Reds	4	
0090.2M1243387p003249	300	2:35	12:43:38.7	+00:32:49	300	90	3.0	#68 2MASS Reds	4	
0091.COMP	5	2:35	12:43:38.7	+00:32:49	300	90	3.0	#68 2MASS Reds	4	
0092.2M1244197p004447	300	2:35	12:44:19.7	+00:44:47	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K Rines

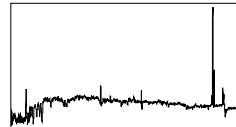
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0093.COMP	5	2:35	12:44:19.7	+00:44:47	300	90	3.0	#68 2MASS Reds	4	
0094.2M1243577p014338	200	2:35	12:43:57.7	+01:43:38	300	90	3.0	#68 2MASS Reds	4	
0095.COMP	5	2:35	12:43:57.7	+01:43:38	300	90	3.0	#68 2MASS Reds	4	
0096.2M1244403p015055	300	2:35	12:44:40.3	+01:50:55	300	90	3.0	#68 2MASS Reds	4	
0097.COMP	5	2:35	12:44:40.3	+01:50:55	300	90	3.0	#68 2MASS Reds	4	
0098.2M1245567p014800	250	2:35	12:45:56.7	+01:48:00	300	90	3.0	#68 2MASS Reds	4	
0099.COMP	5	2:35	12:45:56.7	+01:48:00	300	90	3.0	#68 2MASS Reds	4	
0100.2M1246512p001749	250	2:35	12:46:51.2	+00:17:49	300	90	3.0	#68 2MASS Reds	4	
0101.COMP	5	2:35	12:46:51.2	+00:17:49	300	90	3.0	#68 2MASS Reds	4	
0102.2M1243105p080949	200	2:35	12:43:10.5	+08:09:49	300	90	3.0	#68 2MASS Reds	4	
0103.COMP	5	2:35	12:43:10.5	+08:09:49	300	90	3.0	#68 2MASS Reds	4	
0104.2M1243180p190049	240	2:35	12:43:18.0	+19:00:49	300	90	3.0	#68 2MASS Reds	4	
0105.COMP	5	2:35	12:43:18.0	+19:00:49	300	90	3.0	#68 2MASS Reds	4	
0106.Feige34	120	2:35	10:36:41.2	43:21:50	600	90	2.0	#56 Spectropho	4	600 gpm, 2 slit, tilt=430
0107.COMP	10	2:35	10:36:41.2	43:21:50	600	90	2.0	#56 Spectropho	4	
0108.hs341	840	2:35	13:24:04.6	29:01:41	600	90	2.0	#122 Halo Star	4	
0109.COMP	10	2:35	13:24:04.6	29:01:41	600	90	2.0	#122 Halo Star	4	
0110.hs342	840	2:35	13:24:35.6	29:28:27	600	90	2.0	#122 Halo Star	4	
0111.COMP	10	2:35	13:24:35.6	29:28:27	600	90	2.0	#122 Halo Star	4	
0112.hs343	600	2:35	13:25:02.2	28:57:56	600	90	2.0	#122 Halo Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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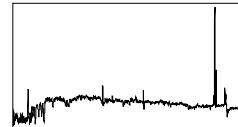
UT Date 2001-05-24 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0113.COMP	10	2:35	13:25:02.2	28:57:56	600	90	2.0	#122 Halo Star	4	
0114.hs344	900	2:35	13:25:13.8	28:57:51	600	90	2.0	#122 Halo Star	4	
0115.COMP	10	2:35	13:25:13.8	28:57:51	600	90	2.0	#122 Halo Star	4	
0116.hs345	900	2:35	13:26:22.2	28:51:15	600	90	2.0	#122 Halo Star	4	
0117.COMP	10	2:35	13:26:22.2	28:51:15	600	90	2.0	#122 Halo Star	4	
0118.hs346	780	2:35	13:26:45.6	29:21:48	600	90	2.0	#122 Halo Star	4	
0119.COMP	10	2:35	13:26:45.6	29:21:48	600	90	2.0	#122 Halo Star	4	
0120.hs347	600	2:35	13:26:50.6	29:07:08	600	90	2.0	#122 Halo Star	4	
0121.COMP	10	2:35	13:26:50.6	29:07:08	600	90	2.0	#122 Halo Star	4	
0122.hs348	900	2:35	13:27:49.6	29:18:35	600	90	2.0	#122 Halo Star	4	
0123.COMP	10	2:35	13:27:49.6	29:18:35	600	90	2.0	#122 Halo Star	4	
0124.hs349	600	2:35	13:28:28.2	28:51:54	600	90	2.0	#122 Halo Star	4	
0125.COMP	10	2:35	13:28:28.2	28:51:54	600	90	2.0	#122 Halo Star	4	
0126.hs350	600	2:35	13:28:28.5	29:43:32	600	90	2.0	#122 Halo Star	4	
0127.COMP	10	2:35	13:28:28.5	29:43:32	600	90	2.0	#122 Halo Star	4	
0128.hs351	600	2:35	13:28:45.8	29:12:44	600	90	2.0	#122 Halo Star	4	
0129.COMP	10	2:35	13:28:45.8	29:12:44	600	90	2.0	#122 Halo Star	4	
0130.hs352	900	2:35	13:28:56.2	29:43:15	600	90	2.0	#122 Halo Star	4	
0131.COMP	10	2:35	13:28:56.2	29:43:15	600	90	2.0	#122 Halo Star	4	
0132.hs353	800	2:35	13:29:46.3	29:30:53	600	90	2.0	#122 Halo Star	4	end of project!



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K Rines

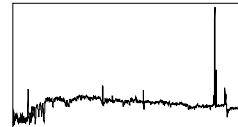
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0133.COMP	10	2:35	13:29:46.3	29:30:53	600	90	2.0	#122 Halo Star	4	
0134.HZ44	240	2:35	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0135.COMP	10	2:35	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0136-0145.FLAT	40	7:36	13:21:19.0	36:23:39	600	90	2.0	#122 Halo Star	4	
0146.2M1319046p073117	240	7:36	13:19:04.6	+07:31:17	300	90	3.0	#68 2MASS Reds	4	300 gpm, tilt=610, 3 slit
0147.COMP	5	7:36	13:19:04.6	+07:31:17	300	90	3.0	#68 2MASS Reds	4	
0148.2M1319350p105239	240	7:36	13:19:35.0	+10:52:39	300	90	3.0	#68 2MASS Reds	4	
0149.COMP	5	7:36	13:19:35.0	+10:52:39	300	90	3.0	#68 2MASS Reds	4	
0150.2M1319414p114817	240	7:36	13:19:41.4	+11:48:17	300	90	3.0	#68 2MASS Reds	4	
0151.COMP	5	7:36	13:19:41.4	+11:48:17	300	90	3.0	#68 2MASS Reds	4	
0152.2M1319446p102145	240	7:36	13:19:44.6	+10:21:45	300	90	3.0	#68 2MASS Reds	4	
0153.COMP	5	7:36	13:19:44.6	+10:21:45	300	90	3.0	#68 2MASS Reds	4	
0154.2M1319473p073256	300	7:36	13:19:47.3	+07:32:56	300	90	3.0	#68 2MASS Reds	4	
0155.COMP	5	7:36	13:19:47.3	+07:32:56	300	90	3.0	#68 2MASS Reds	4	
0156.2M1319483p072506	360	7:36	13:19:48.3	+07:25:06	300	90	3.0	#68 2MASS Reds	4	
0157.COMP	5	7:36	13:19:48.3	+07:25:06	300	90	3.0	#68 2MASS Reds	4	
0158.2M1319565p012826	420	7:36	13:19:56.5	+01:28:26	300	90	3.0	#68 2MASS Reds	4	
0159.COMP	5	7:36	13:19:56.5	+01:28:26	300	90	3.0	#68 2MASS Reds	4	
0160.2M1320561p113504	300	7:36	13:20:56.1	+11:35:04	300	90	3.0	#68 2MASS Reds	4	
0161.COMP	5	7:36	13:20:56.1	+11:35:04	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K Rines

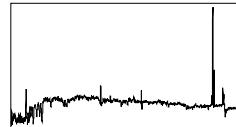
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0162.2M1321075p095817	180	7:36	13:21:07.5	+09:58:17	300	90	3.0	#68 2MASS Reds	4	
0163.COMP	5	7:36	13:21:07.5	+09:58:17	300	90	3.0	#68 2MASS Reds	4	
0164.SN2001bs	1200	7:36	15:43:39.4	67:45:31	300	90	3.0	#2f SN Observa	2	
0165.COMP	10	7:36	15:43:39.4	67:45:31	300	90	3.0	#2f SN Observa	2	
0166.a2199e_119	360	7:36	16:42:14.5	39:50:27	300	90	3.0	#64f Cluster I	4	
0167.COMP	5	7:36	16:42:14.5	39:50:27	300	90	3.0	#64f Cluster I	4	
0168.a2199e_120	480	7:36	16:11:47.5	43:44:48	300	90	3.0	#64f Cluster I	4	
0169.COMP	5	7:36	16:11:47.5	43:44:48	300	90	3.0	#64f Cluster I	4	
0170.a2199e_121	480	7:36	16:35:58.1	42:26:06	300	90	3.0	#64f Cluster I	4	obj to E
0171.COMP	5	7:36	16:35:58.1	42:26:06	300	90	3.0	#64f Cluster I	4	
0172.a2199e_122	1000	7:36	16:27:09.1	41:51:51	300	90	3.0	#64f Cluster I	4	
0173.COMP	5	7:36	16:27:09.1	41:51:51	300	90	3.0	#64f Cluster I	4	
0174.a2199e_123	360	7:36	16:20:55.6	36:17:54	300	90	3.0	#64f Cluster I	4	
0175.COMP	5	7:36	16:20:55.6	36:17:54	300	90	3.0	#64f Cluster I	4	
0176.a2199e_124	360	7:36	16:47:57.4	39:58:19	300	90	3.0	#64f Cluster I	4	
0177.COMP	5	7:36	16:47:57.4	39:58:19	300	90	3.0	#64f Cluster I	4	
0178.a2199e_125	900	7:36	16:26:45.7	41:48:18	300	90	3.0	#64f Cluster I	4	
0179.COMP	5	7:36	16:26:45.7	41:48:18	300	90	3.0	#64f Cluster I	4	
0180.sn2001bf	1200	7:36	18:01:33.9	26:15:02	300	90	3.0	#2 SN Observat	2	
0181.COMP	10	7:36	18:01:33.9	26:15:02	300	90	3.0	#2 SN Observat	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-24 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0182.a2199e_127	360	7:36	16:27:17.6	42:41:42	300	90	3.0	#64f Cluster I	4	
0183.COMP	5	7:36	16:27:17.6	42:41:42	300	90	3.0	#64f Cluster I	4	
0184.a2199e_129	480	7:36	16:41:46.0	43:53:51	300	90	3.0	#64f Cluster I	4	
0185.COMP	5	7:36	16:41:46.0	43:53:51	300	90	3.0	#64f Cluster I	4	
0186.a2199e_130	720	7:36	16:46:57.5	41:56:22	300	90	3.0	#64f Cluster I	4	
0187.COMP	5	7:36	16:46:57.5	41:56:22	300	90	3.0	#64f Cluster I	4	
0188.a2199e_132	360	7:36	16:28:07.8	39:31:24	300	90	3.0	#64f Cluster I	4	
0189.COMP	5	7:36	16:28:07.8	39:31:24	300	90	3.0	#64f Cluster I	4	
0190.MRK509	60	7:36	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0191.MRK509	60	7:36	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0192.COMP	5	7:36	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0193.N7469	90	7:36	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0194.N7469	90	7:36	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0195.COMP	5	7:36	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0196.Akn564	60	7:36	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0197.Akn564	60	7:36	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0198.Akn564	60	7:36	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0199.COMP	5	7:36	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0200-0209.BIAS	0	11:33	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0210-0219.FLAT	8	11:36	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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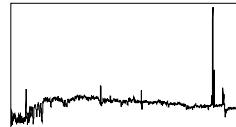
UT Date 2001-05-24 Observers K RinesColl. Focus 1095 Grating/Grism 300

<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>Bir</i>	<i>Comments</i>
0220-0229.BIAS	0	11:38	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	2	
0230-0239.FLAT	16	11:46	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	2	
0240-0249.DARK	1200	14:49	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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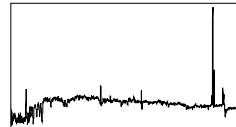
UT Date 2001-05-25 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.DARK	1200	1:04	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0011-0020.BIAS	0	1:53	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0021-0030.FLAT	8	1:57	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0031-0040.BIAS	0	2:00	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	2	
0041-0050.FLAT	16	2:05	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	2	
0051-0056.sky	2	2:36	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0057.COMP	5	2:36	22:42:39.4	+29:43:31	300	90	3.0	#2f SN Observa	4	
0058.Feige34	90	2:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0059.Feige34	90	2:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0060.COMP	5	2:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0061.Feige34	90	2:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0062.COMP	10	2:36	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0063.sn2001bg	1200	2:36	08:35:18.8	+28:28:05	300	71	3.0	#2 SN Observat	2	
0064.COMP	10	2:36	08:35:18.8	+28:28:05	300	71	3.0	#2 SN Observat	2	
0065.2M1247438p095321	300	2:36	12:47:43.8	+09:53:21	300	71	3.0	#68 2MASS Reds	4	
0066.COMP	5	2:36	12:47:43.8	+09:53:21	300	71	3.0	#68 2MASS Reds	4	
0067.2M1249224p094904	360	2:36	12:49:22.4	+09:49:04	300	71	3.0	#68 2MASS Reds	4	angle=90, wrong in header 67-102
0068.COMP	5	2:36	12:49:22.4	+09:49:04	300	71	3.0	#68 2MASS Reds	4	
0069.2M1250469p090546	300	2:36	12:50:46.9	+09:05:46	300	71	3.0	#68 2MASS Reds	4	
0070.COMP	5	2:36	12:50:46.9	+09:05:46	300	71	3.0	#68 2MASS Reds	4	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-25 Observers K Rines

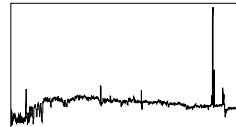
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0071.2M1251123p103412	300	2:36	12:51:12.3	+10:34:12	300	71	3.0	#68 2MASS Reds	4	
0072.COMP	5	2:36	12:51:12.3	+10:34:12	300	71	3.0	#68 2MASS Reds	4	
0073.2M1251193p095723	360	2:36	12:51:19.3	+09:57:23	300	71	3.0	#68 2MASS Reds	4	
0074.COMP	5	2:36	12:51:19.3	+09:57:23	300	71	3.0	#68 2MASS Reds	4	
0075.2M1252581p090157	240	2:36	12:52:58.1	+09:01:57	300	71	3.0	#68 2MASS Reds	4	
0076.COMP	5	2:36	12:52:58.1	+09:01:57	300	71	3.0	#68 2MASS Reds	4	
0077.2M1253066p095536	360	2:36	12:53:06.6	+09:55:36	300	71	3.0	#68 2MASS Reds	4	
0078.COMP	5	2:36	12:53:06.6	+09:55:36	300	71	3.0	#68 2MASS Reds	4	
0079.2M1253186p070301	420	2:36	12:53:18.6	+07:03:01	300	71	3.0	#68 2MASS Reds	4	
0080.COMP	5	2:36	12:53:18.6	+07:03:01	300	71	3.0	#68 2MASS Reds	4	
0081.2M1253358p093216	360	2:36	12:53:35.8	+09:32:16	300	71	3.0	#68 2MASS Reds	4	
0082.COMP	5	2:36	12:53:35.8	+09:32:16	300	71	3.0	#68 2MASS Reds	4	
0083.2M1254149p092629	420	2:36	12:54:14.9	+09:26:29	300	71	3.0	#68 2MASS Reds	4	
0084.COMP	5	2:36	12:54:14.9	+09:26:29	300	71	3.0	#68 2MASS Reds	4	
0085.2M1256037p101012	420	2:36	12:56:03.7	+10:10:12	300	71	3.0	#68 2MASS Reds	4	
0086.COMP	5	2:36	12:56:03.7	+10:10:12	300	71	3.0	#68 2MASS Reds	4	
0087.2M1256269p093605	240	2:36	12:56:26.9	+09:36:05	300	71	3.0	#68 2MASS Reds	4	
0088.COMP	5	2:36	12:56:26.9	+09:36:05	300	71	3.0	#68 2MASS Reds	4	
0089.2M1256480p110956	300	2:36	12:56:48.0	+11:09:56	300	71	3.0	#68 2MASS Reds	4	
0090.COMP	5	2:36	12:56:48.0	+11:09:56	300	71	3.0	#68 2MASS Reds	4	



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UT Date 2001-05-25 Observers K Rines

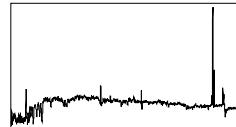
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0091.2M1256495p014956	300	2:36	12:56:49.5	+01:49:56	300	71	3.0	#68 2MASS Reds	4	
0092.COMP	5	2:36	12:56:49.5	+01:49:56	300	71	3.0	#68 2MASS Reds	4	
0093.2M1257045p103715	240	2:36	12:57:04.5	+10:37:15	300	71	3.0	#68 2MASS Reds	4	
0094.COMP	5	2:36	12:57:04.5	+10:37:15	300	71	3.0	#68 2MASS Reds	4	
0095.2M1257173p084916	480	2:36	12:57:17.3	+08:49:16	300	71	3.0	#68 2MASS Reds	4	
0096.COMP	5	2:36	12:57:17.3	+08:49:16	300	71	3.0	#68 2MASS Reds	4	
0097.2M1257174p141311	480	2:36	12:57:17.4	+14:13:11	300	71	3.0	#68 2MASS Reds	4	
0098.COMP	5	2:36	12:57:17.4	+14:13:11	300	71	3.0	#68 2MASS Reds	4	
0099.2M1257572p193702	300	2:36	12:57:57.2	+19:37:02	300	71	3.0	#68 2MASS Reds	4	
0100.COMP	5	2:36	12:57:57.2	+19:37:02	300	71	3.0	#68 2MASS Reds	4	
0101.2M1258224p084842	300	2:36	12:58:22.4	+08:48:42	300	71	3.0	#68 2MASS Reds	4	Sy II
0102.COMP	5	2:36	12:58:22.4	+08:48:42	300	71	3.0	#68 2MASS Reds	4	
0103.2M1258259p093747	300	2:36	12:58:25.9	+09:37:47	300	90	3.0	#68 2MASS Reds	4	correct headers
0104.COMP	5	2:36	12:58:25.9	+09:37:47	300	90	3.0	#68 2MASS Reds	4	
0105.2M1258282p123631NW	360	2:36	12:58:28.2	+12:36:31	300	90	3.0	#68 2MASS Reds	4	NW compt
0106.COMP	5	2:36	12:58:28.2	+12:36:31	300	90	3.0	#68 2MASS Reds	4	
0107.2M1258282p123631SE	360	2:36	12:58:28.2	+12:36:31	300	90	3.0	#68 2MASS Reds	4	SE compt
0108.COMP	5	2:36	12:58:28.2	+12:36:31	300	90	3.0	#68 2MASS Reds	4	
0109.2M1258546p091802	360	2:36	12:58:54.6	+09:18:02	300	90	3.0	#68 2MASS Reds	4	
0110.COMP	5	2:36	12:58:54.6	+09:18:02	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-25 Observers K Rines

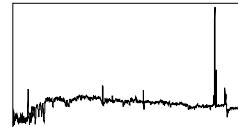
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0111.2M1259111p103006	240	2:36	12:59:11.1	+10:30:06	300	90	3.0	#68 2MASS Reds	4	
0112.COMP	5	2:36	12:59:11.1	+10:30:06	300	90	3.0	#68 2MASS Reds	4	
0113.2M1302081p060105	360	2:36	13:02:08.1	+06:01:05	300	90	3.0	#68 2MASS Reds	4	
0114.COMP	5	2:36	13:02:08.1	+06:01:05	300	90	3.0	#68 2MASS Reds	4	
0115.2M1303343p065712	240	2:36	13:03:34.3	+06:57:12	300	90	3.0	#68 2MASS Reds	4	
0116.COMP	5	2:36	13:03:34.3	+06:57:12	300	90	3.0	#68 2MASS Reds	4	
0117.2M1302204p190558	240	2:36	13:02:20.4	+19:05:58	300	90	3.0	#68 2MASS Reds	4	
0118.COMP	5	2:36	13:02:20.4	+19:05:58	300	90	3.0	#68 2MASS Reds	4	
0119.2M1303349p184812	240	2:36	13:03:34.9	+18:48:12	300	90	3.0	#68 2MASS Reds	4	
0120.COMP	5	2:36	13:03:34.9	+18:48:12	300	90	3.0	#68 2MASS Reds	4	
0121.2M1304134p011407	240	2:36	13:04:13.4	+01:14:07	300	90	3.0	#68 2MASS Reds	4	
0122.COMP	5	2:36	13:04:13.4	+01:14:07	300	90	3.0	#68 2MASS Reds	4	
0123.2M1305359p014651	240	2:36	13:05:35.9	+01:46:51	300	90	3.0	#68 2MASS Reds	4	
0124.COMP	5	2:36	13:05:35.9	+01:46:51	300	90	3.0	#68 2MASS Reds	4	
0125.2M1303447p094738	240	2:36	13:03:44.7	+09:47:38	300	90	3.0	#68 2MASS Reds	4	
0126.COMP	5	2:36	13:03:44.7	+09:47:38	300	90	3.0	#68 2MASS Reds	4	
0127.2M1304141p090024	240	2:36	13:04:14.1	+09:00:24	300	90	3.0	#68 2MASS Reds	4	
0128.COMP	5	2:36	13:04:14.1	+09:00:24	300	90	3.0	#68 2MASS Reds	4	
0129.2M1304318p083205	180	2:36	13:04:31.8	+08:32:05	300	90	3.0	#68 2MASS Reds	4	
0130.COMP	5	2:36	13:04:31.8	+08:32:05	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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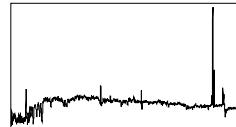
UT Date 2001-05-25 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0131.2M1304436p085959	240	2:36	13:04:43.6	+08:59:59	300	90	3.0	#68 2MASS Reds	4	
0132.COMP	5	2:36	13:04:43.6	+08:59:59	300	90	3.0	#68 2MASS Reds	4	
0133.2M1306033p063642	240	2:36	13:06:03.3	+06:36:42	300	90	3.0	#68 2MASS Reds	4	
0134.COMP	5	2:36	13:06:03.3	+06:36:42	300	90	3.0	#68 2MASS Reds	4	
0135.2M1306146p063854	240	2:36	13:06:14.6	+06:38:54	300	90	3.0	#68 2MASS Reds	4	
0136.COMP	5	2:36	13:06:14.6	+06:38:54	300	90	3.0	#68 2MASS Reds	4	
0137.2M1306342p040836	300	2:36	13:06:34.2	+04:08:36	300	90	3.0	#68 2MASS Reds	4	
0138.COMP	5	2:36	13:06:34.2	+04:08:36	300	90	3.0	#68 2MASS Reds	4	
0139.2M1306118p091152	300	2:36	13:06:11.8	+09:11:52	300	90	3.0	#68 2MASS Reds	4	
0140.COMP	5	2:36	13:06:11.8	+09:11:52	300	90	3.0	#68 2MASS Reds	4	
0141.2M1306193p111339	300	2:36	13:06:19.3	+11:13:39	300	90	3.0	#68 2MASS Reds	4	
0142.COMP	5	2:36	13:06:19.3	+11:13:39	300	90	3.0	#68 2MASS Reds	4	
0143.2M1306249p095635	300	2:36	13:06:24.9	+09:56:35	300	90	3.0	#68 2MASS Reds	4	
0144.COMP	5	2:36	13:06:24.9	+09:56:35	300	90	3.0	#68 2MASS Reds	4	
0145.2M1306520p093822SE	240	2:36	13:06:52.0	+09:38:22	300	90	3.0	#68 2MASS Reds	4	SE compt
0146.COMP	5	2:36	13:06:52.0	+09:38:22	300	90	3.0	#68 2MASS Reds	4	
0147.2M1306520p093822NW	240	2:36	13:06:52.0	+09:38:22	300	90	3.0	#68 2MASS Reds	4	NW compt
0148.COMP	5	2:36	13:06:52.0	+09:38:22	300	90	3.0	#68 2MASS Reds	4	
0149.comaf_119	300	2:36	12:52:40.8	26:22:00	300	90	3.0	#64f Cluster I	4	
0150.COMP	5	2:36	12:52:40.8	26:22:00	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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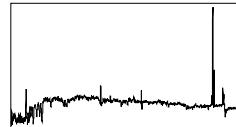
UT Date 2001-05-25 Observers K RinesColl. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0151.comaf_120	300	2:36	13:33:28.1	25:32:42	300	90	3.0	#64f Cluster I	4	
0152.COMP	5	2:36	13:33:28.1	25:32:42	300	90	3.0	#64f Cluster I	4	
0153.comaf_122	480	2:36	13:11:18.0	29:47:40	300	90	3.0	#64f Cluster I	4	
0154.COMP	5	2:36	13:11:18.0	29:47:40	300	90	3.0	#64f Cluster I	4	
0155.comaf_124	480	2:36	13:05:53.3	28:06:46	300	90	3.0	#64f Cluster I	4	em
0156.COMP	5	2:36	13:05:53.3	28:06:46	300	90	3.0	#64f Cluster I	4	
0157.comaf_125	600	2:36	13:12:51.7	27:52:50	300	90	3.0	#64f Cluster I	4	
0158.COMP	5	2:36	13:12:51.7	27:52:50	300	90	3.0	#64f Cluster I	4	
0159.comaf_127	240	2:36	13:23:42.8	31:30:54	300	90	3.0	#64f Cluster I	4	
0160.COMP	5	2:36	13:23:42.8	31:30:54	300	90	3.0	#64f Cluster I	4	
0161.sn2001ay	1200	2:36	14:26:17.0	26:14:55	300	69	3.0	#2 SN Observat	2	
0162.COMP	10	2:36	14:26:17.0	26:14:55	300	69	3.0	#2 SN Observat	2	
0163.a2199e_131	800	2:36	16:06:09.3	36:48:48	300	69	3.0	#64f Cluster I	4	angle=90, wrong in header
0164.COMP	5	2:36	16:06:09.3	36:48:48	300	69	3.0	#64f Cluster I	4	
0165.a2199e_133	400	2:36	16:45:07.1	42:08:24	300	90	3.0	#64f Cluster I	4	
0166.COMP	5	2:36	16:45:07.1	42:08:24	300	90	3.0	#64f Cluster I	4	
0167.a2199e_134	700	2:36	16:55:25.2	40:03:21	300	90	3.0	#64f Cluster I	4	gxy to E?
0168.COMP	5	2:36	16:55:25.2	40:03:21	300	90	3.0	#64f Cluster I	4	
0169.a2199e_135	400	2:36	16:08:06.6	42:40:58	300	90	3.0	#64f Cluster I	4	Sy II
0170.COMP	5	2:36	16:08:06.6	42:40:58	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-25 Observers K Rines

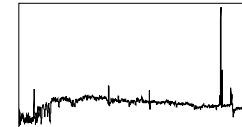
Coll. Focus 1095 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0171.a2199e_136	400	2:36	16:40:43.4	40:24:52	300	90	3.0	#64f Cluster I	4	
0172.COMP	5	2:36	16:40:43.4	40:24:52	300	90	3.0	#64f Cluster I	4	
0173.a2199e_137	500	2:36	16:49:57.7	38:45:28	300	90	3.0	#64f Cluster I	4	
0174.COMP	5	2:36	16:49:57.7	38:45:28	300	90	3.0	#64f Cluster I	4	
0175.a2199e_138	600	2:36	16:44:24.6	37:27:27	300	90	3.0	#64f Cluster I	4	star to E
0176.COMP	5	2:36	16:44:24.6	37:27:27	300	90	3.0	#64f Cluster I	4	
0177.a2199e_139	700	2:36	16:30:16.8	34:37:46	300	90	3.0	#64f Cluster I	4	
0178.COMP	5	2:36	16:30:16.8	34:37:46	300	90	3.0	#64f Cluster I	4	
0179.a2199e_140	400	2:36	16:36:46.7	41:53:15	300	90	3.0	#64f Cluster I	4	
0180.COMP	5	2:36	16:36:46.7	41:53:15	300	90	3.0	#64f Cluster I	4	
0181.a2199e_141	900	2:36	16:36:45.3	44:10:33	300	90	3.0	#64f Cluster I	4	
0182.COMP	5	2:36	16:36:45.3	44:10:33	300	90	3.0	#64f Cluster I	4	
0183.a2199e_142	500	2:36	16:12:47.8	41:19:25	300	90	3.0	#64f Cluster I	4	
0184.COMP	5	2:36	16:12:47.8	41:19:25	300	90	3.0	#64f Cluster I	4	
0185.a2199e_144	600	2:36	16:23:33.2	35:20:38	300	90	3.0	#64f Cluster I	4	
0186.COMP	5	2:36	16:23:33.2	35:20:38	300	90	3.0	#64f Cluster I	4	
0187.N7331	180	2:36	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0188.COMP	5	2:36	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0189-0198.BIAS	0	11:30	22:34:46.9	+34:09:43	300	90	3.0	#64f Cluster I	4	
0199-0208.FLAT	8	11:33	22:34:46.9	+34:09:43	300	90	3.0	#64f Cluster I	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-25 Observers K RinesColl. Focus 1095 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>Bir</i>	<i>Comments</i>
0209-0218.BIAS	0	11:42	22:34:46.9	+34:09:43	300	90	3.0	#64f Cluster I	2	
0219-0228.FLAT	16	11:47	22:34:46.9	+34:09:43	300	90	3.0	#64f Cluster I	2	
0229-0238.DARK	1200	14:51	22:34:46.9	+34:09:43	300	90	3.0	#64f Cluster I	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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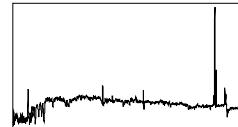
UT Date 2001-05-26 Observers P BerlindColl. Focus 1180 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0020.BIAS	0	0:34	09:25:22.0	31:30:37	300	90	2.0	Function	2	
0021.FLAT	55	0:34	09:28:59.0	31:30:37	600	90	2.0	Function	2	600-line grating; 2-sec slit; abs setup
0022-0030.FLAT	55	0:48	09:39:55.0	31:30:37	600	90	2.0	Function	2	
0031-0040.FLAT	55	0:59	09:51:25.0	31:30:38	600	90	2.0	Function	2	
0041.HD100006	40	0:59	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	tilt=494; focus=1180
0042.HD100006	40	0:59	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	
0043.COMP	20	0:59	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	
0044.HD109519	90	0:59	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	
0045.HD109519	40	0:59	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	
0046.COMP	20	0:59	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	clear skies; lots of smoke off to sw
0047.HD110024	90	0:59	12:39:07.3	21:03:45	600	90	2.0	#88f Mass Func	2	
0048.HD110024	40	0:59	12:39:07.3	21:03:45	600	90	2.0	#88f Mass Func	2	
0049.COMP	20	0:59	12:39:07.3	21:03:45	600	90	2.0	#88f Mass Func	2	
0050.HD111541	60	0:59	12:49:48.6	26:25:52	600	90	2.0	#88f Mass Func	2	
0051.HD111541	60	0:59	12:49:48.6	26:25:52	600	90	2.0	#88f Mass Func	2	
0052.COMP	20	0:59	12:49:48.6	26:25:52	600	90	2.0	#88f Mass Func	2	
0053.HD111591	60	0:59	12:50:17.3	22:51:48	600	90	2.0	#88f Mass Func	2	
0054.HD111591	60	0:59	12:50:17.3	22:51:48	600	90	2.0	#88f Mass Func	2	
0055.COMP	20	0:59	12:50:17.3	22:51:48	600	90	2.0	#88f Mass Func	2	
0056.NGC4278	240	0:59	12:17:36.1	29:33:29	600	90	2.0	#88f Mass Func	2	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-26 Observers P Berlind

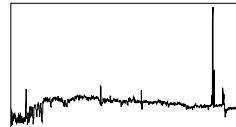
Coll. Focus 1180 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.NGC4278	240	0:59	12:17:36.1	29:33:29	600	90	2.0	#88f Mass Func	2	
0058.COMP	20	0:59	12:17:36.1	29:33:29	600	90	2.0	#88f Mass Func	2	
0059.NGC4697	240	0:59	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	
0060.NGC4697	240	0:59	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	
0061.COMP	20	0:59	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	
0062.COMP	20	0:59	09:51:19.8	+57:56:27	600	95	2.0	#88 Mass Funct	2	
0063.MF7080	720	0:59	09:51:19.8	+57:56:27	600	95	2.0	#88 Mass Funct	2	
0064.MF7080	720	0:59	09:51:19.8	+57:56:27	600	95	2.0	#88 Mass Funct	2	
0065.MF7080	720	0:59	09:51:19.8	+57:56:27	600	95	2.0	#88 Mass Funct	2	
0066.COMP	20	0:59	09:51:19.8	+57:56:27	600	95	2.0	#88 Mass Funct	2	
0067.HZ44	240	0:59	13:21:19.0	36:23:39	600	0	2.0	#88f Mass Func	2	
0068.COMP	20	0:59	13:21:19.0	36:23:39	600	0	2.0	#88f Mass Func	2	
0069.COMP	20	0:59	11:10:38.4	+28:19:0	600	-55	2.0	#88 Mass Funct	2	
0070.MF0006	720	0:59	11:10:38.4	+28:19:0	600	-55	2.0	#88 Mass Funct	2	
0071.MF0006	720	0:59	11:10:38.4	+28:19:0	600	-55	2.0	#88 Mass Funct	2	
0072.MF0006	720	0:59	11:10:38.4	+28:19:0	600	-55	2.0	#88 Mass Funct	2	
0073.COMP	20	0:59	11:10:38.4	+28:19:0	600	-55	2.0	#88 Mass Funct	2	
0074.COMP	20	0:59	13:24:13.5	+15:34:7	600	-55	2.0	#88 Mass Funct	2	
0075.MF0039	1200	0:59	13:24:13.5	+15:34:7	600	-40	2.0	#88 Mass Funct	2	
0076.MF0039	1200	0:59	13:24:13.5	+15:34:7	600	-40	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-26 Observers P Berlind

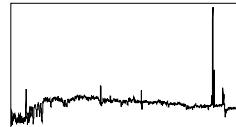
Coll. Focus 1180 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.MF0039	1200	0:59	13:24:13.5	+15:34:7	600	-40	2.0	#88 Mass Funct	2	
0078.COMP	20	0:59	13:24:13.5	+15:34:7	600	-40	2.0	#88 Mass Funct	2	
0079.COMP	20	0:59	14:13:53.5	+15:30:36	600	-40	2.0	#88 Mass Funct	2	
0080.MF0052	1200	0:59	14:13:53.5	+15:30:36	600	-72	2.0	#88 Mass Funct	2	
0081.MF0052	1200	0:59	14:13:53.5	+15:30:36	600	-72	2.0	#88 Mass Funct	2	
0082.MF0052	1200	0:59	14:13:53.5	+15:30:36	600	-72	2.0	#88 Mass Funct	2	
0083.COMP	20	0:59	14:13:53.5	+15:30:36	600	-72	2.0	#88 Mass Funct	2	
0084.NGC5846	180	0:59	15:03:56.9	01:47:53	600	55	2.0	#88f Mass Func	2	
0085.NGC5846	180	0:59	15:03:56.9	01:47:53	600	55	2.0	#88f Mass Func	2	
0086.COMP	20	0:59	15:03:56.9	01:47:53	600	55	2.0	#88f Mass Func	2	
0087.COMP	20	0:59	14:33:24.7	+20:00:20	600	55	2.0	#88 Mass Funct	2	
0088.MF0055	1200	0:59	14:33:24.7	+20:00:20	600	55	2.0	#88 Mass Funct	2	
0089.MF0055	1200	0:59	14:33:24.7	+20:00:20	600	55	2.0	#88 Mass Funct	2	
0090.MF0055	1200	0:59	14:33:24.7	+20:00:20	600	55	2.0	#88 Mass Funct	2	
0091.COMP	20	0:59	14:33:24.7	+20:00:20	600	55	2.0	#88 Mass Funct	2	
0092.COMP	20	0:59	16:05:31.2	+17:57:48	600	55	2.0	#88 Mass Funct	2	
0093.MF7054	720	0:59	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	
0094.MF7054	720	0:59	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	
0095.MF7054	720	0:59	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	
0096.COMP	20	0:59	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-26 Observers P BerlindColl. Focus 1180 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0097.COMP	20	0:59	17:35:44.1	+24:47:13	600	60	2.0	#88 Mass Funct	2	
0098.MF7082	900	0:59	17:35:44.1	+24:47:13	600	-10	2.0	#88 Mass Funct	2	
0099.MF7082	900	0:59	17:35:44.1	+24:47:13	600	-10	2.0	#88 Mass Funct	2	
0100.MF7082	900	0:59	17:35:44.1	+24:47:13	600	-10	2.0	#88 Mass Funct	2	
0101.COMP	20	0:59	17:35:44.1	+24:47:13	600	-10	2.0	#88 Mass Funct	2	
0102.COMP	20	0:59	17:13:34.8	+16:02:59	600	-10	2.0	#88 Mass Funct	2	
0103.MF7149NS	720	0:59	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	close pair of galaxies
0104.MF7149NS	720	0:59	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	
0105.MF7149NS	720	0:59	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	
0106.COMP	20	0:59	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	
0107.BDp404032	60	0:59	20:06:40	41:06:15	600	90	2.0	#88f Mass Func	2	
0108.BDp404032	60	0:59	20:06:40	41:06:15	600	90	2.0	#88f Mass Func	2	
0109.COMP	20	0:59	20:06:40	41:06:15	600	90	2.0	#88f Mass Func	2	
0110.HD192281	6	0:59	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0111.HD192281	6	0:59	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0112.HD192281	6	0:59	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0113.COMP	20	0:59	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0114.BDp284211	60	0:59	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0115.BDp284211	60	0:59	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0116.COMP	20	0:59	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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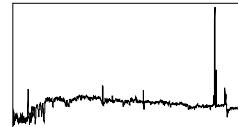
UT Date 2001-05-26 Observers P BerlindColl. Focus 1180 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0117.HD202109	60	0:59	21:12:56.2	30:13:36	600	90	2.0	#88f Mass Func	2	
0118.HD202109	40	0:59	21:12:56.2	30:13:36	600	90	2.0	#88f Mass Func	2	
0119.COMP	20	0:59	21:12:56.2	30:13:36	600	90	2.0	#88f Mass Func	2	
0120.HD198809	40	0:59	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	clear @ dawn
0121.HD198809	40	0:59	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0122.COMP	20	0:59	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0123-0132.BIAS	0	11:26	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0133-0142.FLAT	55	11:36	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0143-0152.DARK	1200	14:40	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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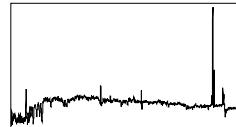
UT Date 2001-05-27 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0020.BIAS	0	1:59	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0021.FLAT	30	1:59	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	lots of cirrus
0022-0040.FLAT	30	2:14	20:52:07.7	27:05:49	600	90	2.0	#88f Mass Func	2	
0041.MF0011	540	2:14	11:25:30.9	35:30:16	600	-63	2.0	#88f Mass Func	2	
0042.MF0011	540	2:14	11:25:30.9	35:30:16	600	-63	2.0	#88f Mass Func	2	
0043.COMP	10	2:14	11:25:30.9	35:30:16	600	-63	2.0	#88f Mass Func	2	
0044.MF0006	480	2:14	11:10:38.5	28:19:00	600	-55	2.0	#88f Mass Func	2	
0045.MF0006	480	2:14	11:10:38.5	28:19:00	600	-55	2.0	#88f Mass Func	2	
0046.COMP	10	2:14	11:10:38.5	28:19:00	600	-55	2.0	#88f Mass Func	2	
0047.MF7059	480	2:14	11:38:36.2	33:52:05	600	-35	2.0	#88f Mass Func	2	clearing up a bit
0048.MF7059	480	2:14	11:38:36.2	33:52:05	600	-35	2.0	#88f Mass Func	2	
0049.COMP	10	2:14	11:38:36.2	33:52:05	600	-35	2.0	#88f Mass Func	2	
0050.COMP	10	2:14	13:34:03.5	+04:45:17	600	-40	2.0	#88 Mass Funct	2	
0051.MF7010	900	2:14	13:34:03.5	+04:45:17	600	-40	2.0	#88 Mass Funct	2	
0052.MF7010	1020	2:14	13:34:03.5	+04:45:17	600	-40	2.0	#88 Mass Funct	2	
0053.COMP	10	2:14	13:34:03.5	+04:45:17	600	-40	2.0	#88 Mass Funct	2	
0054.HZ44	150	2:14	13:21:19.0	36:23:39	600	100	2.0	#88f Mass Func	2	
0055.HZ44	150	2:14	13:21:19.0	36:23:39	600	100	2.0	#88f Mass Func	2	
0056.COMP	10	2:14	13:21:19.0	36:23:39	600	100	2.0	#88f Mass Func	2	
0057.COMP	10	2:14	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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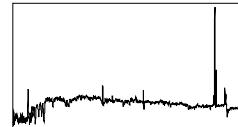
UT Date 2001-05-27 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0058.MF7099	900	2:14	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0059.MF7099	900	2:14	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0060.COMP	10	2:14	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0061.COMP	10	2:14	14:00:47.8	+48:26:36	600	100	2.0	#88 Mass Funct	2	
0062.MF7072	900	2:14	14:00:47.8	+48:26:36	600	-50	2.0	#88 Mass Funct	2	
0063.MF7072	900	2:14	14:00:47.8	+48:26:36	600	-50	2.0	#88 Mass Funct	2	
0064.COMP	10	2:14	14:00:47.8	+48:26:36	600	-50	2.0	#88 Mass Funct	2	
0065.COMP	10	2:14	14:03:12.8	+08:53:44	600	-50	2.0	#88 Mass Funct	2	
0066.MF7077	900	2:14	14:03:12.8	+08:53:44	600	-5	2.0	#88 Mass Funct	2	
0067.MF7077	900	2:14	14:03:12.8	+08:53:44	600	-5	2.0	#88 Mass Funct	2	
0068.MF7077	900	2:14	14:03:12.8	+08:53:44	600	-5	2.0	#88 Mass Funct	2	
0069.COMP	10	2:14	14:03:12.8	+08:53:44	600	-5	2.0	#88 Mass Funct	2	
0070.COMP	10	2:14	14:59:11.4	+13:25:18	600	-5	2.0	#88 Mass Funct	2	
0071.MF7126	900	2:14	14:59:11.4	+13:25:18	600	20	2.0	#88 Mass Funct	2	
0072.MF7126	900	2:14	14:59:11.4	+13:25:18	600	20	2.0	#88 Mass Funct	2	
0073.COMP	10	2:14	14:59:11.4	+13:25:18	600	20	2.0	#88 Mass Funct	2	
0074.MF7149NS	540	2:14	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	close pair of galaxies
0075.MF7149NS	540	2:14	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	
0076.COMP	10	2:14	17:13:34.8	+16:02:59	600	-5	2.0	#88 Mass Funct	2	
0077.MF7054	540	2:14	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-27 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0078.MF7054	540	2:14	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	
0079.COMP	10	2:14	16:05:31.2	+17:57:48	600	60	2.0	#88 Mass Funct	2	
0080.COMP	10	2:14	17:16:27.3	+43:20:33	600	60	2.0	#88 Mass Funct	2	
0081.MF7066	900	2:14	17:16:27.3	+43:20:33	600	0	2.0	#88 Mass Funct	2	
0082.MF7066	900	2:14	17:16:27.3	+43:20:33	600	0	2.0	#88 Mass Funct	2	
0083.MF7066	900	2:14	17:16:27.3	+43:20:33	600	0	2.0	#88 Mass Funct	2	
0084.COMP	10	2:14	17:16:27.3	+43:20:33	600	0	2.0	#88 Mass Funct	2	
0085.COMP	10	2:14	17:46:39.5	+51:16:53	600	-10	2.0	#88 Mass Funct	2	
0086.MF7104	900	2:14	17:46:39.5	+51:16:53	600	-10	2.0	#88 Mass Funct	2	
0087.MF7104	900	2:14	17:46:39.5	+51:16:53	600	-10	2.0	#88 Mass Funct	2	
0088.COMP	10	2:14	17:46:39.5	+51:16:53	600	-10	2.0	#88 Mass Funct	2	
0089.COMP	10	2:14	16:32:58.9	+23:11:50	600	-10	2.0	#88 Mass Funct	2	
0090.MF7007	900	2:14	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	more clouds moving in
0091.MF7007	900	2:14	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	
0092.MF7007	900	2:14	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	
0093.COMP	10	2:14	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	
0094.BDp404032	90	2:14	20:06:40	41:06:15	600	70	2.0	#88f Mass Func	2	
0095.COMP	10	2:14	20:06:40	41:06:15	600	90	2.0	#88f Mass Func	2	
0096.HD192281	6	2:14	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0097.HD192281	6	2:14	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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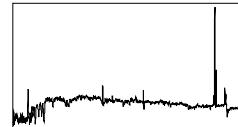
UT Date 2001-05-27 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0098.HD192281	6	2:14	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0099.COMP	10	2:14	20:10:46.8	40:07:01	600	90	2.0	#88f Mass Func	2	
0100.BDp284211	90	2:14	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0101.BDp284211	90	2:14	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0102.COMP	10	2:14	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0103-0112.BIAS	0	10:51	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0113-0122.FLAT	30	10:58	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0123-0132.DARK	1200	14:01	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-28 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0020.BIAS	0	1:50	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0021.FLAT	55	1:50	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	600-line; 2-sec slit; abs setup
0022-0040.FLAT	55	2:19	21:48:57.1	28:37:48	600	90	2.0	#88f Mass Func	2	
0041.HD100006	50	2:19	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	tilt=494; focus=1180
0042.HD100006	50	2:19	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	
0043.COMP	20	2:19	11:30:29.0	18:24:35	600	90	2.0	#88f Mass Func	2	lots and lots of clouds...
0044.HD109519	50	2:19	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	
0045.HD109519	50	2:19	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	
0046.COMP	20	2:19	12:35:08.2	21:52:53	600	90	2.0	#88f Mass Func	2	
0047.HD117876	50	2:19	13:32:48.2	24:20:48	600	90	2.0	#88f Mass Func	2	
0048.HD117876	50	2:19	13:32:48.2	24:20:48	600	90	2.0	#88f Mass Func	2	
0049.COMP	20	2:19	13:32:48.2	24:20:48	600	90	2.0	#88f Mass Func	2	
0050.HD120420	50	2:19	13:48:38.7	31:11:24	600	90	2.0	#88f Mass Func	2	
0051.HD120420	50	2:19	13:48:38.7	31:11:24	600	90	2.0	#88f Mass Func	2	
0052.COMP	20	2:19	13:48:38.7	31:11:24	600	90	2.0	#88f Mass Func	2	
0053.NGC4594	180	2:19	12:37:23.3	-11:20:54	600	90	2.0	#88f Mass Func	2	el sombrero
0054.NGC4594	180	2:19	12:37:23.3	-11:20:54	600	90	2.0	#88f Mass Func	2	
0055.COMP	20	2:19	12:37:23.3	-11:20:54	600	90	2.0	#88f Mass Func	2	
0056.NGC4697	180	2:19	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	
0057.NGC4697	180	2:19	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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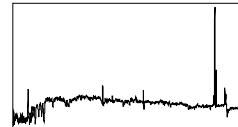
UT Date 2001-05-28 Observers P BerlindColl. Focus 1180 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0058.COMP	20	2:19	12:46:00.5	-05:31:41	600	70	2.0	#88f Mass Func	2	
0059.COMP	20	2:19	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0060.MF7099	1200	2:19	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	stopped by clouds
0061.MF7099	1200	2:19	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0062.COMP	20	2:19	13:37:23.2	+03:53:50	600	100	2.0	#88 Mass Funct	2	
0063.BDp332642	180	2:19	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	sucker hole
0064.BDp332642	300	2:19	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	
0065.COMP	20	2:19	15:50:03	33:05:49	600	100	2.0	#56 Spectropho	2	
0066.COMP	20	2:19	16:32:58.9	+23:11:50	600	100	2.0	#88 Mass Funct	2	
0067.MF7007	1200	2:19	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	another sucker hole
0068.COMP	20	2:19	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	
0069-0078.BIAS	0	9:31	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	
0079-0088.FLAT	55	9:41	16:32:58.9	+23:11:50	600	70	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-29 Observers M Calkins

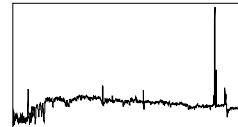
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	1:29	10:47:21.0	31:30:39	300	90	3.0		4	High dark count on first few files
0002-0004.DARK	900	2:15	11:32:48.0	31:30:40	300	90	3.0		4	
0005-0006.DARK	900	2:45	12:03:08.0	31:30:41	300	90	3.0		4	
0007-0016.BIAS	0	3:02	12:04:56.0	31:30:41	300	90	3.0		4	
0017-0026.FLAT	6	3:05	12:07:54.0	31:30:41	300	90	3.0		4	
0027-0036.BIAS	0	3:07	12:10:39.0	31:30:41	300	90	3.0		2	
0037-0046.FLAT	12	3:12	12:15:34.0	31:30:41	300	90	3.0		2	
0047.HZ44	120	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0048.HZ44	120	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0049.COMP	5	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0050.HZ44	120	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0051.HZ44	120	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0052.COMP	12	3:12	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0053.HZ44	120	3:12	13:21:19.0	36:23:39	300	74	3.0	#56 Spectropho	2	
0054.HZ44	120	3:12	13:21:19.0	36:23:39	300	74	3.0	#56 Spectropho	2	
0055.COMP	12	3:12	13:21:19.0	36:23:39	300	74	3.0	#56 Spectropho	2	
0056.N4486B	300	3:12	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	2	
0057.COMP	12	3:12	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	2	
0058.MRK421	120	3:12	11:04:27.4	+38:12:32	300	98	3.0	#6 AGN Monitor	2	
0059.MRK421	120	3:12	11:04:27.4	+38:12:32	300	98	3.0	#6 AGN Monitor	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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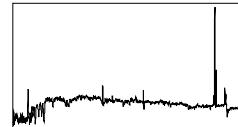
UT Date 2001-05-29 Observers M CalkinsColl. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0060.COMP	12	3:12	11:04:27.4	+38:12:32	300	98	3.0	#6 AGN Monitor	2	
0061.N4051	60	3:12	12:03:09.7	+44:31:53	300	-42	3.0	#6 AGN Monitor	2	
0062.N4051	60	3:12	12:03:09.7	+44:31:53	300	-42	3.0	#6 AGN Monitor	2	
0063.N4051	60	3:12	12:03:09.7	+44:31:53	300	-42	3.0	#6 AGN Monitor	2	
0064.COMP	12	3:12	12:03:09.7	+44:31:53	300	-42	3.0	#6 AGN Monitor	2	
0065.N4151	60	3:12	12:10:32.6	+39:24:21	300	-42	3.0	#6 AGN Monitor	2	
0066.N4151	60	3:12	12:10:32.6	+39:24:21	300	-42	3.0	#6 AGN Monitor	2	
0067.N4151	60	3:12	12:10:32.6	+39:24:21	300	-42	3.0	#6 AGN Monitor	2	
0068.COMP	12	3:12	12:10:32.6	+39:24:21	300	-42	3.0	#6 AGN Monitor	2	
0069.MRK279	60	3:12	13:51:53.6	69:33:13	300	5	3.0	#6 AGN Monitor	2	
0070.MRK279	60	3:12	13:51:53.6	69:33:13	300	5	3.0	#6 AGN Monitor	2	
0071.MRK279	60	3:12	13:51:53.6	69:33:13	300	5	3.0	#6 AGN Monitor	2	
0072.MRK279	60	3:12	13:51:53.6	69:33:13	300	5	3.0	#6 AGN Monitor	2	
0073.COMP	12	3:12	13:51:53.6	69:33:13	300	5	3.0	#6 AGN Monitor	2	
0074.N5548	90	3:12	14:17:59.6	+25:08:12	300	-56	3.0	#6 AGN Monitor	2	
0075.N5548	90	3:12	14:17:59.6	+25:08:12	300	-56	3.0	#6 AGN Monitor	2	
0076.N5548	90	3:12	14:17:59.6	+25:08:12	300	-56	3.0	#6 AGN Monitor	2	
0077.COMP	12	3:12	14:17:59.6	+25:08:12	300	-56	3.0	#6 AGN Monitor	2	
0078.TXCVn	15	3:12	12:44:42	36:45:48	300	90	3.0	#12 Symbiotic	2	
0079.TXCVn	45	3:12	12:44:42	36:45:48	300	90	3.0	#12 Symbiotic	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-29 Observers M Calkins

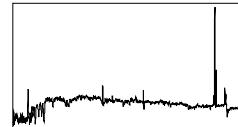
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0080.COMP	12	3:12	12:44:42	36:45:48	300	90	3.0	#12 Symbiotic	2	
0081.RWHya	5	3:12	13:34:18	-25:22:51	300	90	3.0	#12 Symbiotic	2	
0082.RWHya	60	3:12	13:34:18	-25:22:51	300	90	3.0	#12 Symbiotic	2	
0083.COMP	12	3:12	13:34:18	-25:22:51	300	90	3.0	#12 Symbiotic	2	
0084.BD21d3873	300	3:12	14:16:34	-21:45:51	300	90	3.0	#12 Symbiotic	2	
0085.COMP	12	3:12	14:16:34	-21:45:51	300	90	3.0	#12 Symbiotic	2	
0086.BD21d3873	30	3:12	14:16:34	-21:45:51	300	90	3.0	#12 Symbiotic	2	
0087.COMP	12	3:12	14:16:34	-21:45:51	300	90	3.0	#12 Symbiotic	2	
0088.comaf_129	720	3:12	12:46:17.7	20:46:59	300	90	3.0	#64f Cluster I	2	
0089.COMP	12	3:12	12:46:17.7	20:46:59	300	90	3.0	#64f Cluster I	2	
0090.comaf_130	1200	3:12	12:57:57.6	28:03:42	300	90	3.0	#64f Cluster I	2	
0091.COMP	12	3:12	12:57:57.6	28:03:42	300	90	3.0	#64f Cluster I	2	
0092.comaf_131	270	3:12	12:51:46.1	34:58:39	300	90	3.0	#64f Cluster I	2	
0093.COMP	12	3:12	12:51:46.1	34:58:39	300	90	3.0	#64f Cluster I	2	
0094.comaf_132	1200	3:12	13:16:33.2	31:32:47	300	90	3.0	#64f Cluster I	2	
0095.COMP	12	3:12	13:16:33.2	31:32:47	300	90	3.0	#64f Cluster I	2	
0096.comaf_133	480	3:12	12:47:21.5	28:00:22	300	90	3.0	#64f Cluster I	2	
0097.COMP	12	3:12	12:47:21.5	28:00:22	300	90	3.0	#64f Cluster I	2	
0098.comaf_134	150	3:12	13:22:02.8	25:29:05	300	90	3.0	#64f Cluster I	2	star?
0099.COMP	12	3:12	13:22:02.8	25:29:05	300	90	3.0	#64f Cluster I	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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UT Date 2001-05-29 Observers M Calkins

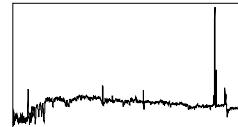
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0100.comaf_135	720	3:12	12:29:01.4	24:37:56	300	90	3.0	#64f Cluster I	2	
0101.COMP	12	3:12	12:29:01.4	24:37:56	300	90	3.0	#64f Cluster I	2	
0102.comaf_137	600	3:12	13:30:37.6	31:10:00	300	90	3.0	#64f Cluster I	2	
0103.COMP	12	3:12	13:30:37.6	31:10:00	300	90	3.0	#64f Cluster I	2	
0104.comaf_139	1200	3:12	12:59:40.0	34:48:51	300	90	3.0	#64f Cluster I	2	
0105.COMP	12	3:12	12:59:40.0	34:48:51	300	90	3.0	#64f Cluster I	2	
0106.comaf_140	1200	3:12	13:13:05.8	22:40:08	300	90	3.0	#64f Cluster I	2	
0107.COMP	12	3:12	13:13:05.8	22:40:08	300	90	3.0	#64f Cluster I	2	
0108.comaf_141	1020	3:12	12:49:01.4	27:10:45	300	90	3.0	#64f Cluster I	2	
0109.COMP	12	3:12	12:49:01.4	27:10:45	300	90	3.0	#64f Cluster I	2	
0110.comaf_142	210	3:12	13:20:15.4	33:17:53	300	90	3.0	#64f Cluster I	2	
0111.COMP	12	3:12	13:20:15.4	33:17:53	300	90	3.0	#64f Cluster I	2	
0112.comaf_143	1020	3:12	13:11:14.9	27:18:48	300	90	3.0	#64f Cluster I	2	
0113.COMP	12	3:12	13:11:14.9	27:18:48	300	90	3.0	#64f Cluster I	2	
0114.comaf_144	150	3:12	13:15:37.5	34:02:33	300	90	3.0	#64f Cluster I	2	
0115.COMP	12	3:12	13:15:37.5	34:02:33	300	90	3.0	#64f Cluster I	2	
0116.sn2001az	1200	3:12	16:34:27.7	76:01:46	300	-14	3.0	#2 SN Observat	2	
0117.COMP	12	3:12	16:34:27.7	76:01:46	300	-14	3.0	#2 SN Observat	2	
0118.sn2001bf	1200	3:12	18:01:33.9	26:15:02	300	-30	3.0	#2 SN Observat	2	row=75
0119.COMP	12	3:12	18:01:33.9	26:15:02	300	-30	3.0	#2 SN Observat	2	



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UT Date 2001-05-29 Observers M Calkins

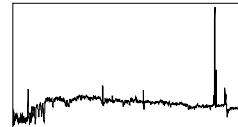
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0120.UKSCe1	1200	3:12	16:15:30	-22:12:15	300	90	3.0	#12 Symbiotic	2	
0121.COMP	12	3:12	16:15:30	-22:12:15	300	90	3.0	#12 Symbiotic	2	
0122.HD154791	1	3:12	17:06:34	23:58:17	300	90	3.0	#12 Symbiotic	2	
0123.HD154791	10	3:12	17:06:34	23:58:17	300	90	3.0	#12 Symbiotic	2	
0124.COMP	12	3:12	17:06:34	23:58:17	300	90	3.0	#12 Symbiotic	2	
0125.Hen1341	30	3:12	17:08:36	-17:26:30	300	90	3.0	#12 Symbiotic	2	
0126.Hen1341	90	3:12	17:08:36	-17:26:30	300	90	3.0	#12 Symbiotic	2	
0127.Hen1341	10	3:12	17:08:36	-17:26:30	300	90	3.0	#12 Symbiotic	2	
0128.COMP	12	3:12	17:08:36	-17:26:30	300	90	3.0	#12 Symbiotic	2	
0129.DracoC1	1200	3:12	17:19:58	57:50:06	300	90	3.0	#12 Symbiotic	2	
0130.COMP	12	3:12	17:19:58	57:50:06	300	90	3.0	#12 Symbiotic	2	
0131.M1m21	5	3:12	17:34:17	-19:09:24	300	90	3.0	#12 Symbiotic	2	row=79
0132.M1m21	300	3:12	17:34:17	-19:09:24	300	90	3.0	#12 Symbiotic	2	
0133.COMP	12	3:12	17:34:17	-19:09:24	300	90	3.0	#12 Symbiotic	2	
0134.RTSer	10	3:12	17:39:52	-11:56:39	300	90	3.0	#12 Symbiotic	2	row=75
0135.RTSer	300	3:12	17:39:52	-11:56:39	300	90	3.0	#12 Symbiotic	2	
0136.COMP	12	3:12	17:39:52	-11:56:39	300	90	3.0	#12 Symbiotic	2	
0137.UUSer	120	3:12	17:42:39	-15:24:45	300	90	3.0	#12 Symbiotic	2	row=75
0138.UUSer	600	3:12	17:42:39	-15:24:45	300	90	3.0	#12 Symbiotic	2	
0139.COMP	12	3:12	17:42:39	-15:24:45	300	90	3.0	#12 Symbiotic	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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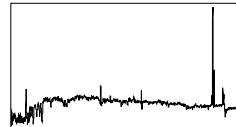
UT Date 2001-05-29 Observers M CalkinsColl. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0140.XX0ph	1	3:12	17:43:56	-06:16:08	300	90	3.0	#12 Symbiotic	2	
0141.XX0ph	5	3:12	17:43:56	-06:16:08	300	90	3.0	#12 Symbiotic	2	
0142.XX0ph	10	3:12	17:43:56	-06:16:08	300	90	3.0	#12 Symbiotic	2	
0143.COMP	12	3:12	17:43:56	-06:16:08	300	90	3.0	#12 Symbiotic	2	
0144.RSOph	5	3:12	17:50:13	-06:42:30	300	90	3.0	#12 Symbiotic	2	
0145.RSOph	60	3:12	17:50:13	-06:42:30	300	90	3.0	#12 Symbiotic	2	
0146.COMP	12	3:12	17:50:13	-06:42:30	300	90	3.0	#12 Symbiotic	2	
0147.V2416Sgr	20	3:12	17:57:16	-21:41:30	300	90	3.0	#12 Symbiotic	2	
0148.V2416Sgr	300	3:12	17:57:16	-21:41:30	300	90	3.0	#12 Symbiotic	2	
0149.COMP	13	3:12	17:57:16	-21:41:30	300	90	3.0	#12 Symbiotic	2	
0150.AS270	20	3:12	18:05:33	-20:20:37	300	90	3.0	#12 Symbiotic	2	
0151.AS270	300	3:12	18:05:33	-20:20:37	300	90	3.0	#12 Symbiotic	2	
0152.COMP	12	3:12	18:05:33	-20:20:37	300	90	3.0	#12 Symbiotic	2	
0153.Hen1591	30	3:12	18:07:32	-25:53:43	300	90	3.0	#12 Symbiotic	2	
0154.Hen1591	120	3:12	18:07:32	-25:53:43	300	90	3.0	#12 Symbiotic	2	
0155.COMP	12	3:12	18:07:32	-25:53:43	300	90	3.0	#12 Symbiotic	2	
0156.AS289	5	3:12	18:12:22	-11:40:08	300	90	3.0	#12 Symbiotic	2	
0157.AS289	60	3:12	18:12:22	-11:40:08	300	90	3.0	#12 Symbiotic	2	
0158.COMP	12	3:12	18:12:22	-11:40:08	300	90	3.0	#12 Symbiotic	2	
0159.YYHer	10	3:12	18:14:34	20:59:19	300	90	3.0	#12 Symbiotic	2	



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Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0160.YYHer	300	3:12	18:14:34	20:59:19	300	90	3.0	#12 Symbiotic	2	
0161.COMP	12	3:12	18:14:34	20:59:19	300	90	3.0	#12 Symbiotic	2	
0162.S149	30	3:12	18:18:56	27:26:27	300	90	3.0	#12 Symbiotic	2	
0163.S149	300	3:12	18:18:56	27:26:27	300	90	3.0	#12 Symbiotic	2	
0164.COMP	12	3:12	18:18:56	27:26:27	300	90	3.0	#12 Symbiotic	2	
0165.V443Her	3	3:12	18:22:07	23:27:20	300	90	3.0	#12 Symbiotic	2	
0166.V443Her	60	3:12	18:22:07	23:27:20	300	90	3.0	#12 Symbiotic	2	
0167.COMP	12	3:12	18:22:07	23:27:20	300	90	3.0	#12 Symbiotic	2	
0168.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0169.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0170.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0171.COMP	12	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	2	
0172.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0173.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0174.HD192281	5	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0175.COMP	12	3:12	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0176.N7331	180	3:12	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0177.COMP	5	3:12	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0178-0182.sky	2	12:05	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0183.COMP	5	12:05	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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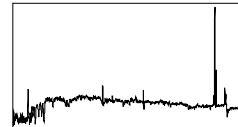
UT Date 2001-05-29 Observers M CalkinsColl. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0184-0193.BIAS	0	12:08	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0194-0203.FLAT	6	12:11	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0204-0213.BIAS	0	12:14	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0214-0223.FLAT	12	12:19	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0224-0238.DARK	900	15:57	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	



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UT Date 2001-05-30 Observers M Calkins

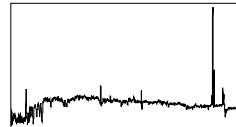
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001.DARK	900	23:42	08:46:07.9	24:56:25	300	90	3.0	#56 Spectropho	4	cirrus overhead
0002-0010.DARK	900	1:58	08:46:07.9	24:56:25	300	90	3.0	#56 Spectropho	4	
0011-0020.BIAS	0	2:22	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	6	2:25	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:28	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	12	2:33	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	2	
0051-0055.sky	2	2:38	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:38	08:46:07.9	24:56:25	300	90	3.0	#57 Velocity S	4	
0057.HZ44	120	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	4	
0058.HZ44	120	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	4	
0059.COMP	5	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	4	
0060.HZ44	120	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	2	
0061.HZ44	120	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	2	
0062.COMP	12	2:38	13:21:19.0	36:23:39	300	77	3.0	#56 Spectropho	2	
0063.sn2001bg	1200	2:38	08:35:18.8	+28:28:05	300	69	3.0	#2 SN Observat	2	
0064.COMP	12	2:38	08:35:18.8	+28:28:05	300	69	3.0	#2 SN Observat	2	
0065.HZ44	240	2:38	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	600L, 2 arcsec slit, tilt=430
0066.COMP	10	2:38	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0067.hs404	1200	2:38	10:51:19.0	29:43:04	600	90	2.0	#122 Halo Star	4	
0068.COMP	10	2:38	10:51:19.0	29:43:04	600	90	2.0	#122 Halo Star	4	



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## FAST SPECTROGRAPH LOG



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UT Date 2001-05-30 Observers M Calkins

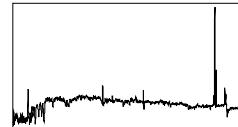
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0069.hs405	1200	2:38	10:51:38.9	29:24:55	600	90	2.0	#122 Halo Star	4	
0070.COMP	10	2:38	10:51:38.9	29:24:55	600	90	2.0	#122 Halo Star	4	
0071.hs409	1200	2:38	11:08:21.5	29:36:48	600	90	2.0	#122 Halo Star	4	
0072.COMP	10	2:38	11:08:21.5	29:36:48	600	90	2.0	#122 Halo Star	4	
0073.hs417	1020	2:38	11:41:00.5	28:49:01	600	90	2.0	#122 Halo Star	4	
0074.COMP	10	2:38	11:41:00.5	28:49:01	600	90	2.0	#122 Halo Star	4	
0075.hs418	1200	2:38	11:42:37.2	29:17:06	600	90	2.0	#122 Halo Star	4	
0076.COMP	10	2:38	11:42:37.2	29:17:06	600	90	2.0	#122 Halo Star	4	
0077.hs420	1020	2:38	12:17:38.0	29:18:29	600	90	2.0	#122 Halo Star	4	
0078.COMP	10	2:38	12:17:38.0	29:18:29	600	90	2.0	#122 Halo Star	4	
0079.hs422	1020	2:38	12:32:13.6	29:37:17	600	90	2.0	#122 Halo Star	4	get again, clouds
0080.COMP	10	2:38	12:32:13.6	29:37:17	600	90	2.0	#122 Halo Star	4	
0081.hs422	1020	2:38	12:32:13.6	29:37:17	600	90	2.0	#122 Halo Star	4	
0082.COMP	10	2:38	12:32:13.6	29:37:17	600	90	2.0	#122 Halo Star	4	
0083.hs423	1200	2:38	12:35:55.8	29:21:06	600	90	2.0	#122 Halo Star	4	
0084.COMP	12	2:38	12:35:55.8	29:21:06	600	90	2.0	#122 Halo Star	4	
0085.hs424	900	2:38	12:40:27.5	28:54:07	600	90	2.0	#122 Halo Star	4	get again, same as above
0086.COMP	10	2:38	12:40:27.5	28:54:07	600	90	2.0	#122 Halo Star	4	
0087.hs424	900	2:38	12:40:27.5	28:54:07	600	90	2.0	#122 Halo Star	4	
0088.COMP	10	2:38	12:40:27.5	28:54:07	600	90	2.0	#122 Halo Star	4	



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UT Date 2001-05-30 Observers M Calkins

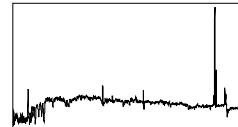
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0089-0098.FLAT	40	8:03	12:40:27.5	28:54:07	600	90	2.0	#122 Halo Star	4	
0099.sn2001ay	1200	8:03	14:26:17.0	26:14:55	300	71	3.0	#2 SN Observat	2	thru cirrus, get again for more cnts
0100.COMP	12	8:03	14:26:17.0	26:14:55	300	71	3.0	#2 SN Observat	2	
0101.sn2001ay	1200	8:03	14:26:17.0	26:14:55	300	71	3.0	#2 SN Observat	2	
0102.COMP	12	8:03	14:26:17.0	26:14:55	300	71	3.0	#2 SN Observat	2	
0103.a2199e_143	900	8:03	16:07:42.5	43:03:58	300	90	3.0	#64f Cluster I	2	row=73
0104.COMP	12	8:03	16:07:42.5	43:03:58	300	90	3.0	#64f Cluster I	2	
0105.a2199e_145	240	8:03	16:05:43.0	37:10:42	300	90	3.0	#64f Cluster I	2	
0106.COMP	12	8:03	16:05:43.0	37:10:42	300	90	3.0	#64f Cluster I	2	
0107.a2199e_146	240	8:03	16:21:39.9	39:59:35	300	90	3.0	#64f Cluster I	2	
0108.COMP	12	8:03	16:21:39.9	39:59:35	300	90	3.0	#64f Cluster I	2	
0109.a2199e_147	1200	8:03	16:11:45.8	36:10:57	300	90	3.0	#64f Cluster I	2	
0110.COMP	12	8:03	16:11:45.8	36:10:57	300	90	3.0	#64f Cluster I	2	
0111.a2199e_148	300	8:03	16:07:03.1	36:45:18	300	90	3.0	#64f Cluster I	2	
0112.COMP	12	8:03	16:07:03.1	36:45:18	300	90	3.0	#64f Cluster I	2	
0113.a2199e_149	720	8:03	16:37:46.9	44:21:36	300	90	3.0	#64f Cluster I	2	
0114.COMP	12	8:03	16:37:46.9	44:21:36	300	90	3.0	#64f Cluster I	2	
0115.RJ105	600	8:03	18:35:02	01:46:55	300	90	3.0	#12 Symbiotic	2	
0116.COMP	12	8:03	18:35:02	01:46:55	300	90	3.0	#12 Symbiotic	2	
0117.V2601Sgr	20	8:03	18:38:02	-22:41:53	300	90	3.0	#12 Symbiotic	2	



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## FAST SPECTROGRAPH LOG



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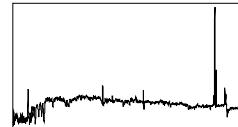
UT Date 2001-05-30 Observers M CalkinsColl. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0118.V2601Sgr	200	8:03	18:38:02	-22:41:53	300	90	3.0	#12 Symbiotic	2	
0119.COMP	12	8:03	18:38:02	-22:41:53	300	90	3.0	#12 Symbiotic	2	
0120.AS316	20	8:03	18:42:33	-21:17:47	300	90	3.0	#12 Symbiotic	2	
0121.AS316	200	8:03	18:42:33	-21:17:47	300	90	3.0	#12 Symbiotic	2	
0122.COMP	12	8:03	18:42:33	-21:17:47	300	90	3.0	#12 Symbiotic	2	
0123.DQSer	60	8:03	18:44:40	05:02:49	300	90	3.0	#12 Symbiotic	2	row=75
0124.DQSer	180	8:03	18:44:40	05:02:49	300	90	3.0	#12 Symbiotic	2	
0125.DQSer	720	8:03	18:44:40	05:02:49	300	90	3.0	#12 Symbiotic	2	
0126.COMP	12	8:03	18:44:40	05:02:49	300	90	3.0	#12 Symbiotic	2	
0127.MWC960	10	8:03	18:47:56	-20:05:52	300	90	3.0	#12 Symbiotic	2	
0128.MWC960	300	8:03	18:47:56	-20:05:52	300	90	3.0	#12 Symbiotic	2	
0129.COMP	12	8:03	18:47:56	-20:05:52	300	90	3.0	#12 Symbiotic	2	
0130-0139.BIAS	0	11:34	18:47:56	-20:05:52	300	90	3.0	#64f Cluster I	4	
0140-0149.FLAT	6	11:37	18:47:56	-20:05:52	300	90	3.0	#64f Cluster I	4	
0150-0159.BIAS	0	11:40	18:47:56	-20:05:52	300	90	3.0	#64f Cluster I	2	
0160-0169.FLAT	12	11:50	18:47:56	-20:05:52	300	90	3.0	#64f Cluster I	2	
0170-0179.DARK	900	14:10	18:47:56	-20:05:52	300	90	3.0	#64f Cluster I	2	



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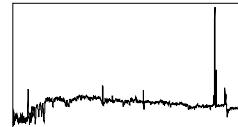
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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:43	1:58:50	52:53:47	300	90	3.0	#12 Symbiotic	4	
0011-0020.BIAS	0	2:16	1:58:50	52:53:47	300	90	3.0	#64f Cluster I	4	
0021-0030.FLAT	6	2:18	1:58:50	52:53:47	300	90	3.0	#64f Cluster I	4	
0031-0040.BIAS	0	2:21	1:58:50	52:53:47	300	90	3.0	#64f Cluster I	2	
0041-0050.FLAT	12	2:25	1:58:50	52:53:47	300	90	3.0	#64f Cluster I	2	
0051-0055.sky	2	2:41	1:58:50	52:53:47	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:41	1:58:50	52:53:47	300	90	3.0	#57 Velocity S	4	
0057.HZ44	120	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0058.HZ44	120	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	4	
0060.HZ44	120	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0061.HZ44	120	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0062.COMP	12	2:41	13:21:19.0	36:23:39	300	90	3.0	#56 Spectropho	2	
0063.HZ44	120	2:41	13:21:19.0	36:23:39	300	70	3.0	#56 Spectropho	2	
0064.HZ44	120	2:41	13:21:19.0	36:23:39	300	70	3.0	#56 Spectropho	2	
0065.COMP	12	2:41	13:21:19.0	36:23:39	300	70	3.0	#56 Spectropho	2	
0066.N3227	60	2:41	10:23:30.6	+19:51:54	300	62	3.0	#6 AGN Monitor	2	
0067.N3227	60	2:41	10:23:30.6	+19:51:54	300	62	3.0	#6 AGN Monitor	2	
0068.N3227	60	2:41	10:23:30.6	+19:51:54	300	62	3.0	#6 AGN Monitor	2	
0069.COMP	12	2:41	10:23:30.6	+19:51:54	300	62	3.0	#6 AGN Monitor	2	



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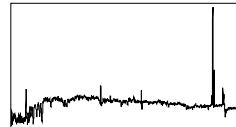
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.MRK421	120	2:41	11:04:27.4	+38:12:32	300	99	3.0	#6 AGN Monitor	2	
0071.MRK421	120	2:41	11:04:27.4	+38:12:32	300	99	3.0	#6 AGN Monitor	2	
0072.COMP	12	2:41	11:04:27.4	+38:12:32	300	99	3.0	#6 AGN Monitor	2	
0073.N4051	60	2:41	12:03:09.7	+44:31:53	300	-47	3.0	#6 AGN Monitor	2	
0074.N4051	60	2:41	12:03:09.7	+44:31:53	300	-47	3.0	#6 AGN Monitor	2	
0075.N4051	60	2:41	12:03:09.7	+44:31:53	300	-47	3.0	#6 AGN Monitor	2	
0076.COMP	12	2:41	12:03:09.7	+44:31:53	300	-47	3.0	#6 AGN Monitor	2	
0077.N4151	60	2:41	12:10:32.6	+39:24:21	300	-50	3.0	#6 AGN Monitor	2	
0078.N4151	60	2:41	12:10:32.6	+39:24:21	300	-50	3.0	#6 AGN Monitor	2	
0079.N4151	60	2:41	12:10:32.6	+39:24:21	300	-50	3.0	#6 AGN Monitor	2	
0080.COMP	12	2:41	12:10:32.6	+39:24:21	300	-50	3.0	#6 AGN Monitor	2	
0081.MRK279	60	2:41	13:51:53.6	69:33:13	300	13	3.0	#6 AGN Monitor	2	
0082.MRK279	60	2:41	13:51:53.6	69:33:13	300	13	3.0	#6 AGN Monitor	2	
0083.COMP	12	2:41	13:51:53.6	69:33:13	300	13	3.0	#6 AGN Monitor	2	
0084.N5548	90	2:41	14:17:59.6	+25:08:12	300	-50	3.0	#6 AGN Monitor	2	
0085.N5548	90	2:41	14:17:59.6	+25:08:12	300	-50	3.0	#6 AGN Monitor	2	
0086.N5548	90	2:41	14:17:59.6	+25:08:12	300	-50	3.0	#6 AGN Monitor	2	
0087.COMP	12	2:41	14:17:59.6	+25:08:12	300	-50	3.0	#6 AGN Monitor	2	
0088.N5866	120	2:41	15:05:07.2	+55:57:18	300	90	3.0	#57 Velocity S	2	
0089.COMP	12	2:41	15:05:07.2	+55:57:18	300	90	3.0	#57 Velocity S	2	



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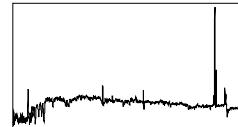
Coll. Focus 1080 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0090.comaf_121	1200	2:41	12:36:19.4	23:10:30	300	90	3.0	#64f Cluster I	2	
0091.COMP	12	2:41	12:36:19.4	23:10:30	300	90	3.0	#64f Cluster I	2	
0092.HZ44	240	2:41	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	600L, 2 arcsec, tilt=430
0093.COMP	10	2:41	13:21:19.0	36:23:39	600	90	2.0	#56 Spectropho	4	
0094.hs427	1200	2:41	12:49:19.1	28:49:58	600	90	2.0	#122 Halo Star	4	
0095.COMP	10	2:41	12:49:19.1	28:49:58	600	90	2.0	#122 Halo Star	4	
0096.hs428	1020	2:41	13:01:57.4	29:08:53	600	90	2.0	#122 Halo Star	4	
0097.COMP	10	2:41	13:01:57.4	29:08:53	600	90	2.0	#122 Halo Star	4	
0098.hs436	1020	2:41	13:20:17.2	29:18:26	600	90	2.0	#122 Halo Star	4	
0099.COMP	10	2:41	13:20:17.2	29:18:26	600	90	2.0	#122 Halo Star	4	
0100.hs421	1200	2:41	12:28:41.8	29:35:06	600	90	2.0	#122 Halo Star	4	
0101.COMP	10	2:41	12:28:41.8	29:35:06	600	90	2.0	#122 Halo Star	4	
0102.hs426	1200	2:41	12:46:26.8	29:35:09	600	90	2.0	#122 Halo Star	4	
0103.COMP	10	2:41	12:46:26.8	29:35:09	600	90	2.0	#122 Halo Star	4	
0104.hs429	1200	2:41	13:02:35.5	29:11:19	600	90	2.0	#122 Halo Star	4	
0105.COMP	10	2:41	13:02:35.5	29:11:19	600	90	2.0	#122 Halo Star	4	
0106.hs431	1200	2:41	13:03:22.0	29:43:29	600	90	2.0	#122 Halo Star	4	
0107.COMP	10	2:41	13:03:22.0	29:43:29	600	90	2.0	#122 Halo Star	4	
0108.hs433	1200	2:41	13:04:00.8	29:16:10	600	90	2.0	#122 Halo Star	4	
0109.COMP	10	2:41	13:04:00.8	29:16:10	600	90	2.0	#122 Halo Star	4	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0110.hs435	1020	2:41	13:19:22.5	29:44:14	600	90	2.0	#122 Halo Star	4	
0111.COMP	10	2:41	13:19:22.5	29:44:14	600	90	2.0	#122 Halo Star	4	
0112-0121.FLAT	40	8:20	13:19:22.5	29:44:14	600	90	2.0	#122 Halo Star	4	
0122.sn2001bp	1200	8:20	16:02:09.2	36:43:08	300	97	3.0	#2 SN Observat	2	normal setup
0123.sn2001bp	1200	8:20	16:02:09.2	36:43:08	300	97	3.0	#2 SN Observat	2	
0124.COMP	12	8:20	16:02:09.2	36:43:08	300	97	3.0	#2 SN Observat	2	
0125.1745308	360	8:20	17:45:30.8	60:56:15	300	90	2.0	#87f IRAC	2	2 arcsec slit
0126.COMP	15	8:20	17:45:30.8	60:56:15	300	90	2.0	#87f IRAC	2	
0127.1739431	360	8:20	17:39:43.0	61:02:55	300	90	2.0	#87f IRAC	2	
0128.COMP	15	8:20	17:39:43.0	61:02:55	300	90	2.0	#87f IRAC	2	
0129.1728265	300	8:20	17:28:26.5	61:31:18	300	90	2.0	#87f IRAC	2	
0130.COMP	15	8:20	17:28:26.5	61:31:18	300	90	2.0	#87f IRAC	2	
0131.1730263	300	8:20	17:30:26.3	61:43:31	300	90	2.0	#87f IRAC	2	
0132.COMP	15	8:20	17:30:26.3	61:43:31	300	90	2.0	#87f IRAC	2	
0133.1724103	360	8:20	17:24:10.3	62:32:50	300	90	2.0	#87f IRAC	2	
0134.COMP	15	8:20	17:24:10.3	62:32:50	300	90	2.0	#87f IRAC	2	
0135.1743123	480	8:20	17:43:12.3	63:11:38	300	90	2.0	#87f IRAC	2	
0136.COMP	15	8:20	17:43:12.3	63:11:38	300	90	2.0	#87f IRAC	2	
0137.1737223	600	8:20	17:37:22.3	63:24:16	300	90	2.0	#87f IRAC	2	
0138.COMP	15	8:20	17:37:22.3	63:24:16	300	90	2.0	#87f IRAC	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0139.1756268	360	8:20	17:56:26.8	63:36:24	300	90	2.0	#87f IRAC	2	
0140.COMP	15	8:20	17:56:26.8	63:36:24	300	90	2.0	#87f IRAC	2	
0141.1740346	360	8:20	17:40:34.5	65:27:14	300	90	2.0	#87f IRAC	2	
0142.COMP	15	8:20	17:40:34.5	65:27:14	300	90	2.0	#87f IRAC	2	
0143.1740346	390	8:20	17:40:34.5	65:27:14	300	90	2.0	#87f IRAC	2	
0144.COMP	15	8:20	17:40:34.5	65:27:14	300	90	2.0	#87f IRAC	2	
0145.1731586	660	8:20	17:31:58.5	65:38:31	300	90	2.0	#87f IRAC	2	
0146.COMP	15	8:20	17:31:58.5	65:38:31	300	90	2.0	#87f IRAC	2	
0147-0156.FLAT	15	10:53	17:31:58.5	65:38:31	300	90	2.0	#87f IRAC	2	
0157.AS327	15	10:53	18:53:17	-24:22:59	300	90	3.0	#12 Symbiotic	2	3 arcsec slit
0158.AS327	300	10:53	18:53:17	-24:22:59	300	90	3.0	#12 Symbiotic	2	
0159.COMP	12	10:53	18:53:17	-24:22:59	300	90	3.0	#12 Symbiotic	2	
0160.FNSgr	15	10:53	18:53:55	-18:59:41	300	90	3.0	#12 Symbiotic	2	
0161.FNSgr	480	10:53	18:53:55	-18:59:41	300	90	3.0	#12 Symbiotic	2	
0162.COMP	12	10:53	18:53:55	-18:59:41	300	90	3.0	#12 Symbiotic	2	
0163.V919Sgr	20	10:53	19:03:45	-16:59:56	300	90	3.0	#12 Symbiotic	2	
0164.V919Sgr	200	10:53	19:03:45	-16:59:56	300	90	3.0	#12 Symbiotic	2	
0165.COMP	12	10:53	19:03:45	-16:59:56	300	90	3.0	#12 Symbiotic	2	
0166.CMAql	3	10:53	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0167.CMAql	90	10:53	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0168.CMAql	480	10:53	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0169.CMAql	40	10:53	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0170.COMP	12	10:53	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0171-0180.BIAS	0	11:37	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	4	
0181-0190.FLAT	6	11:40	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	4	
0191-0200.BIAS	0	11:42	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0201-0210.FLAT	12	11:47	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	
0211-0220.DARK	900	14:07	19:03:35	-03:03:14	300	90	3.0	#12 Symbiotic	2	