



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-02 Observers M Calkins

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.COMP	5	0:01	11:16:23.0	31:30:57	300	90	3.0	#56 Spectropho	4	
0002.DARK	900	0:05	11:35:37.0	31:30:58	300	90	3.0	#56 Spectropho	4	
0003-0005.DARK	900	0:50	12:21:03.0	31:30:58	300	90	3.0	#56 Spectropho	4	
0006-0007.DARK	900	1:20	12:51:21.0	31:30:57	300	90	3.0	#56 Spectropho	4	
0008-0009.DARK	900	1:51	13:21:43.0	31:30:56	300	90	3.0	#56 Spectropho	4	
0010.DARK	900	2:06	13:36:50.0	31:30:55	300	90	3.0	#56 Spectropho	4	
0011.DARK	900	2:36	14:06:59.0	31:30:53	300	90	3.0	#56 Spectropho	4	
0012.BIAS	0	2:51	14:07:25.0	31:30:53	300	90	3.0	#56 Spectropho	4	monsoon moisture....
0013-0021.BIAS	0	2:52	14:08:30.0	31:30:53	300	90	3.0	#56 Spectropho	4	
0022.FLAT	6	3:46	15:02:06.0	31:30:48	300	90	3.0	#56 Spectropho	4	thick clouds at sunset...
0023-0031.FLAT	6	3:48	15:04:03.0	31:30:48	300	90	3.0	#56 Spectropho	4	
0032.BIAS	0	5:12	16:28:49.0	31:30:38	300	90	3.0	#56 Spectropho	2	
0033-0034.BIAS	0	5:13	16:29:15.0	31:30:38	300	90	3.0	#56 Spectropho	2	
0035-0041.BIAS	0	5:14	16:30:46.0	31:30:37	300	90	3.0	#56 Spectropho	2	
0042.FLAT	12	5:16	16:32:35.0	31:30:37	300	90	3.0	#56 Spectropho	2	
0043-0051.FLAT	12	5:19	16:36:16.0	31:30:37	300	90	3.0	#56 Spectropho	2	
0052.BDp284211	120	9:36	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0053.BDp284211	120	9:39	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0054.COMP	12	9:42	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0055.BDp284211	120	9:43	21:48:57.1	28:37:48	300	108	3.0	#56 Spectropho	2	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0056.BDp284211	120	9:45	21:48:57.1	28:37:48	300	108	3.0	#56 Spectropho	2	
0057.COMP	12	9:48	21:48:57.1	28:37:48	300	108	3.0	#56 Spectropho	2	
0058.N7331	180	9:49	22:34:46.9	+34:09:43	300	91	3.0	#57 Velocity S	2	
0059.COMP	12	9:53	22:34:46.9	+34:09:43	300	91	3.0	#57 Velocity S	2	
0060.sn2002dr	1200	9:57	22:51:01.0	+31:22:23	300	98	3.0	#2 SN Observat	2	
0061.sn2002dr	1200	10:18	22:51:01.0	+31:22:23	300	98	3.0	#2 SN Observat	2	
0062.COMP	12	10:38	22:51:01.0	+31:22:23	300	98	3.0	#2 SN Observat	2	
0063.sn2002dp	1200	10:42	23:28:30.1	+22:25:38	300	-50	3.0	#2 SN Observat	2	
0064.COMP	12	11:03	23:28:30.1	+22:25:38	300	-50	3.0	#2 SN Observat	2	
0065.MRK509	180	11:07	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0066.MRK509	180	11:10	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0067.COMP	12	11:14	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0068.Akn564	180	11:15	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0069.Akn564	180	11:19	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0070.COMP	12	11:22	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0071.BDp284211	120	11:26	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0072.BDp284211	120	11:28	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0073.COMP	12	11:30	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0074-0078.sky	2	12:07	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0079.COMP	5	12:07	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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UT Date 2002-07-02 Observers M CalkinsColl. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0080.COMP	5	12:09	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0081.COMP	12	12:10	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0082.COMP	12	12:13	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0083.COMP	12	12:17	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0084.COMP	5	12:18	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0085-0086.BIAS	0	12:20	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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UT Date 2002-07-03 Observers M Calkins

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:43	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	2:10	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	6	2:19	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:24	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	12	2:29	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0051-0055.sky	2	2:49	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:49	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	lots of clouds at sunset
0057.BDp332642	180	3:30	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0058.COMP	5	3:33	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0059.BDp332642	300	3:34	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0060.COMP	12	3:39	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0061.BDp332642	300	3:40	15:50:03	33:05:49	300	87	3.0	#56 Spectropho	2	
0062.COMP	12	3:46	15:50:03	33:05:49	300	87	3.0	#56 Spectropho	2	
0063.BDp404032	240	6:38	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	clouds are a little thinner...
0064.COMP	12	6:42	20:06:40	41:06:15	300	90	3.0	#56 Spectropho	2	
0065.V4641Sgr	900	6:55	18:19:21.6	-25:24:25	300	90	3.0	#65 X-Ray Nova	2	over run by clouds...
0066.COMP	12	7:10	18:19:21.6	-25:24:25	300	90	3.0	#65 X-Ray Nova	2	
0067.CHCyg	5	7:14	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0068.CHCyg	10	7:15	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0069.CHCyg	30	7:16	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	



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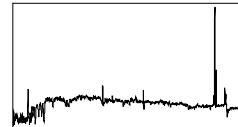
UT Date 2002-07-03 Observers M CalkinsColl. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.COMP	12	7:17	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0071.CICyg	5	7:19	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0072.CICyg	10	7:19	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0073.CICyg	30	7:20	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0074.COMP	12	7:21	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0075.id1566	1200	7:45	20:06:30.0	35:46:39	300	90	3.0	#115 PMS NGC68	2	
0076.COMP	12	8:05	20:06:30.0	35:46:39	300	90	3.0	#115 PMS NGC68	2	
0077.id2031	1200	8:06	20:05:36.1	35:42:11	300	90	3.0	#115 PMS NGC68	2	
0078.COMP	12	8:27	20:05:36.1	35:42:11	300	90	3.0	#115 PMS NGC68	2	
0079.id2300	1200	8:28	20:04:56.8	35:36:50	300	90	3.0	#115 PMS NGC68	2	
0080.COMP	12	8:49	20:04:56.8	35:36:50	300	90	3.0	#115 PMS NGC68	2	
0081.id2652	1200	8:50	19:59:55.9	35:06:10	300	90	3.0	#115 PMS NGC68	2	more clouds...
0082.COMP	12	9:10	19:59:55.9	35:06:10	300	90	3.0	#115 PMS NGC68	2	
0083-0092.BIAS	0	11:21	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	4	
0093-0102.FLAT	6	11:26	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	4	
0103-0112.BIAS	0	11:28	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	
0113-0122.FLAT	12	11:33	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	
0123-0132.DARK	900	13:50	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	



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UT Date 2002-07-04 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	23:20	10:43:11.0	31:30:56	300	90	3.0	#115 PMS NGC68	4	binby4
0002-0010.BIAS	0	23:21	10:44:17.0	31:30:56	300	90	3.0	#115 PMS NGC68	4	
0011-0012.DARK	900	23:36	11:14:35.0	31:30:57	300	90	3.0	#115 PMS NGC68	4	
0013-0015.DARK	900	0:21	12:00:04.0	31:30:58	300	90	3.0	#115 PMS NGC68	4	
0016-0025.FLAT	7	1:04	12:28:16.0	31:30:58	300	90	3.0	#115 PMS NGC68	4	
0026.BIAS	0	1:06	12:30:00.0	31:30:58	300	90	3.0	#115 PMS NGC68	2	binby2
0027-0035.BIAS	0	1:08	12:31:53.0	31:30:58	300	90	3.0	#115 PMS NGC68	2	
0036.DARK	900	1:18	12:56:33.0	31:30:57	300	90	3.0	#115 PMS NGC68	2	
0037.DARK	900	1:33	13:11:48.0	31:30:56	300	90	3.0	#115 PMS NGC68	2	
0038-0039.DARK	900	2:03	13:42:18.0	31:30:55	300	90	3.0	#115 PMS NGC68	2	
0040.DARK	900	2:19	13:57:34.0	31:30:54	300	90	3.0	#115 PMS NGC68	2	
0041-0050.FLAT	14	2:43	14:07:03.0	31:30:53	300	90	3.0	#115 PMS NGC68	2	
0051.SKY	7	2:53	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	binby4
0052.SKY	8	2:53	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0053.SKY	9	2:53	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0054.SKY	10	2:54	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0055.SKY	11	2:54	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:54	12:58:35.1	+27:35:47	300	90	3.0	#57 Velocity S	4	
0057.N4486B	180	3:44	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	
0058.COMP	5	3:47	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0059.Feige34	60	3:52	10:36:41.2	43:21:50	300	77	3.0	#56 Spectropho	4	
0060.COMP	5	3:55	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0061.2MJ1201507p093200	300	3:57	12:01:50.7	+09:32:00	300	77	3.0	#68 2MASS Reds	4	
0062.COMP	5	4:02	12:01:50.7	+09:32:00	300	90	3.0	#68 2MASS Reds	4	
0063.2MJ1203016p162902	420	4:04	12:03:01.6	+16:29:02	300	77	3.0	#68 2MASS Reds	4	
0064.2MJ1203016p162902	420	4:11	12:03:01.6	+16:29:02	300	77	3.0	#68 2MASS Reds	4	
0065.COMP	5	4:20	12:03:01.6	+16:29:02	300	77	3.0	#68 2MASS Reds	4	
0066.2MJ1204029p112832	360	4:21	12:04:02.9	+11:28:32	300	77	3.0	#68 2MASS Reds	4	
0067.COMP	5	4:28	12:04:02.9	+11:28:32	300	77	3.0	#68 2MASS Reds	4	
0068.2MJ1207185p203501	360	4:30	12:07:18.5	+20:35:01	300	77	3.0	#68 2MASS Reds	4	
0069.COMP	5	4:37	12:07:18.5	+20:35:01	300	77	3.0	#68 2MASS Reds	4	
0070.2MJ1208258p222459	300	4:38	12:08:25.8	+22:24:59	300	77	3.0	#68 2MASS Reds	4	
0071.COMP	5	4:44	12:08:25.8	+22:24:59	300	77	3.0	#68 2MASS Reds	4	
0072.2MJ1208555p214639	360	4:45	12:08:55.5	+21:46:39	300	77	3.0	#68 2MASS Reds	4	
0073.COMP	5	4:52	12:08:55.5	+21:46:39	300	77	3.0	#68 2MASS Reds	4	
0074.2MJ1209172p221501	360	4:53	12:09:17.2	+22:15:01	300	77	3.0	#68 2MASS Reds	4	
0075.2MJ1209172p221501	360	5:00	12:09:17.2	+22:15:01	300	77	3.0	#68 2MASS Reds	4	
0076.COMP	5	5:06	12:09:17.2	+22:15:01	300	77	3.0	#68 2MASS Reds	4	
0077.2MJ1234100p201240	300	5:08	12:34:10.0	+20:12:40	300	77	3.0	#68 2MASS Reds	4	
0078.COMP	5	5:14	12:34:10.0	+20:12:40	300	77	3.0	#68 2MASS Reds	4	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0079.2MJ1237479p214721	300	5:14	12:37:47.9	+21:47:21	300	77	3.0	#68 2MASS Reds	4	
0080.COMP	5	5:20	12:37:47.9	+21:47:21	300	77	3.0	#68 2MASS Reds	4	
0081.2MJ1242118p205305	300	5:21	12:42:11.8	+20:53:05	300	77	3.0	#68 2MASS Reds	4	
0082.COMP	5	5:27	12:42:11.8	+20:53:05	300	77	3.0	#68 2MASS Reds	4	
0083.2MJ1246178p204659	420	5:28	12:46:17.8	+20:46:59	300	77	3.0	#68 2MASS Reds	4	
0084.COMP	5	5:36	12:46:17.8	+20:46:59	300	77	3.0	#68 2MASS Reds	4	
0085.2MJ1252406p212452	360	5:38	12:52:40.6	+21:24:52	300	77	3.0	#68 2MASS Reds	4	
0086.COMP	5	5:45	12:52:40.6	+21:24:52	300	77	3.0	#68 2MASS Reds	4	
0087.2MJ1259062p184407	360	5:46	12:59:06.2	+18:44:07	300	77	3.0	#68 2MASS Reds	4	forgot comp, sorry
0088.2MJ1645065m071036	360	5:59	16:45:06.5	-07:10:36	300	90	3.0	#68 2MASS Reds	4	
0089.2MJ1645065m071036	360	6:06	16:45:06.5	-07:10:36	300	90	3.0	#68 2MASS Reds	4	
0090.COMP	5	6:16	16:45:06.5	-07:10:36	300	90	3.0	#68 2MASS Reds	4	
0091.2MJ1646310m072857	360	6:17	16:46:31.0	-07:28:57	300	90	3.0	#68 2MASS Reds	4	
0092.2MJ1646310m072857	360	6:24	16:46:31.0	-07:28:57	300	90	3.0	#68 2MASS Reds	4	
0093.COMP	5	6:31	16:46:31.0	-07:28:57	300	90	3.0	#68 2MASS Reds	4	
0094.2MJ1650442m105523	360	6:34	16:50:44.2	-10:55:23	300	90	3.0	#68 2MASS Reds	4	
0095.2MJ1650442m105523	360	6:41	16:50:44.2	-10:55:23	300	90	3.0	#68 2MASS Reds	4	
0096.COMP	5	6:48	16:50:44.2	-10:55:23	300	90	3.0	#68 2MASS Reds	4	
0097.V4641Sgr	1200	6:57	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	4	
0098.COMP	5	7:18	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	4	



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UT Date 2002-07-04 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0099-0108.FLAT	15	7:23	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	4	
0109.J1901candiC	1800	7:26	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	
0110.COMP	5	7:59	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	4	
0111.HD192281	8	8:02	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	4	
0112.COMP	5	8:03	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	4	
0113.sn2002dv	1200	8:19	19:49:48.7	50:41:57	300	12	3.0	#2 SN Observat	2	binby2
0114.COMP	12	8:40	19:49:48.7	50:41:57	300	90	3.0	#2 SN Observat	2	
0115.sn2002do	1200	8:44	19:56:12.8	+40:26:10	300	-13	3.0	#2 SN Observat	2	
0116.COMP	12	9:08	19:56:12.8	+40:26:10	300	-13	3.0	#2 SN Observat	2	
0117.sn2002do	1200	9:13	19:56:12.8	+40:26:10	300	90	3.0	#2 SN Observat	2	
0118.COMP	5	9:35	19:56:12.8	+40:26:10	300	90	3.0	#2 SN Observat	2	
0119.id2722	300	9:37	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	
0120.id2722	300	9:43	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	
0121.COMP	5	9:48	19:59:30.7	35:25:22	300	90	3.0	#115 PMS NGC68	2	
0122.id2757	600	9:49	19:59:17.3	35:08:20	300	90	3.0	#115 PMS NGC68	2	
0123.COMP	5	10:00	19:59:17.3	35:08:20	300	90	3.0	#115 PMS NGC68	2	
0124.id1424	600	10:01	20:06:51.3	35:39:16	300	90	3.0	#115 PMS NGC68	2	
0125.COMP	5	10:12	20:06:51.3	35:39:16	300	90	3.0	#115 PMS NGC68	2	
0126.id1716	600	10:13	20:06:12.6	35:48:44	300	90	3.0	#115 PMS NGC68	2	
0127.COMP	5	10:24	20:06:12.6	35:48:44	300	90	3.0	#115 PMS NGC68	2	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0128.id2176	600	10:26	20:05:16.5	35:48:00	300	90	3.0	#115 PMS NGC68	2	
0129.COMP	5	10:37	20:05:16.5	35:48:00	300	90	3.0	#115 PMS NGC68	2	
0130.id2566	600	10:39	20:04:04.4	35:40:35	300	90	3.0	#115 PMS NGC68	2	
0131.COMP	5	10:51	20:04:04.4	35:40:35	300	90	3.0	#115 PMS NGC68	2	
0132.id2776	600	10:53	19:59:09.2	35:18:28	300	90	3.0	#115 PMS NGC68	2	
0133.COMP	5	11:03	19:59:09.2	35:18:28	300	90	3.0	#115 PMS NGC68	2	
0134.id2851	600	11:04	19:58:44.9	35:18:54	300	90	3.0	#115 PMS NGC68	2	
0135.COMP	5	11:15	19:58:44.9	35:18:54	300	90	3.0	#115 PMS NGC68	2	
0136.CH Cyg	2	11:18	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0137.CH Cyg	5	11:18	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0138.CH Cyg	15	11:19	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0139.CH Cyg	60	11:19	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0140.COMP	12	11:21	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0141.CI Cyg	2	11:22	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0142.CI Cyg	5	11:22	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0143.CI Cyg	15	11:23	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0144.CI Cyg	60	11:23	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0145.COMP	12	11:25	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0146.Z And	2	11:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0147.Z And	5	11:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0148.ZAnd	15	11:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0149.ZAnd	60	11:28	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0150.COMP	12	11:30	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0151.N7331	60	11:32	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0152.COMP	5	11:33	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	23:40	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	4	binby4
0002-0010.BIAS	0	23:41	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	4	
0011-0015.DARK	900	0:43	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	4	
0016-0025.FLAT	6	1:03	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	4	
0026.BIAS	0	1:05	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	2	binby2
0027-0035.BIAS	0	1:07	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	2	
0036-0040.DARK	900	2:09	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	2	
0041-0050.FLAT	12	2:28	22:34:46.9	+34:09:43	300	90	3.0	#2 SN Observat	2	
0051.SKY	2	2:44	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	binby4
0052-0055.SKY	2	2:45	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:46	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	
0057.Feige34	180	3:27	10:36:41.2	43:21:50	300	82	3.0	#56 Spectropho	2	binby2
0058.COMP	5	3:31	10:36:41.2	43:21:50	300	82	3.0	#56 Spectropho	2	
0059.MRK421	300	3:33	11:04:27.4	+38:12:32	300	82	3.0	#6 AGN Monitor	4	binby4
0060.MRK421	300	3:39	11:04:27.4	+38:12:32	300	82	3.0	#6 AGN Monitor	4	
0061.COMP	5	3:44	11:04:27.4	+38:12:32	300	82	3.0	#6 AGN Monitor	4	
0062.N4051	150	3:46	12:03:09.7	+44:31:53	300	82	3.0	#6 AGN Monitor	4	
0063.N4051	150	3:48	12:03:09.7	+44:31:53	300	82	3.0	#6 AGN Monitor	4	
0064.N4051	150	3:51	12:03:09.7	+44:31:53	300	82	3.0	#6 AGN Monitor	4	
0065.COMP	5	3:54	12:03:09.7	+44:31:53	300	82	3.0	#6 AGN Monitor	4	



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UT Date 2002-07-05 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0066.N4151	30	3:55	12:10:32.6	+39:24:21	300	82	3.0	#6 AGN Monitor	4	
0067.N4151	30	3:55	12:10:32.6	+39:24:21	300	82	3.0	#6 AGN Monitor	4	
0068.COMP	5	3:56	12:10:32.6	+39:24:21	300	82	3.0	#6 AGN Monitor	4	
0069.N4486B	180	3:57	12:30:32	+12:29:25	300	82	3.0	#57 Velocity S	4	
0070.COMP	5	4:01	12:30:32	+12:29:25	300	82	3.0	#57 Velocity S	4	
0071.sn2002dj	1200	4:04	13:13:00.3	-19:31:08	300	34	3.0	#2 SN Observat	2	binby2
0072.COMP	5	4:25	13:13:00.3	-19:31:08	300	34	3.0	#2 SN Observat	2	
0073.N5548	150	4:27	14:17:59.6	+25:08:12	300	67	3.0	#6 AGN Monitor	4	binby4
0074.N5548	150	4:29	14:17:59.6	+25:08:12	300	67	3.0	#6 AGN Monitor	4	
0075.COMP	5	4:32	14:17:59.6	+25:08:12	300	67	3.0	#6 AGN Monitor	4	
0076.2MJ1212571p212536	300	4:34	12:12:57.1	+21:25:36	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	4:40	12:12:57.1	+21:25:36	300	90	3.0	#68 2MASS Reds	4	
0078.2MJ1215300p144030	360	4:41	12:15:30.0	+14:40:30	300	90	3.0	#68 2MASS Reds	4	
0079.COMP	5	4:48	12:15:30.0	+14:40:30	300	90	3.0	#68 2MASS Reds	4	
0080.2MJ1216022p122953	360	4:48	12:16:02.2	+12:29:53	300	90	3.0	#68 2MASS Reds	4	
0081.COMP	5	4:55	12:16:02.2	+12:29:53	300	90	3.0	#68 2MASS Reds	4	
0082.2MJ1216156p224021	360	4:56	12:16:15.6	+22:40:21	300	90	3.0	#68 2MASS Reds	4	
0083.COMP	5	5:03	12:16:15.6	+22:40:21	300	90	3.0	#68 2MASS Reds	4	
0084.2MJ1217564p215540	360	5:04	12:17:56.4	+21:55:40	300	90	3.0	#68 2MASS Reds	4	
0085.COMP	5	5:10	12:17:56.4	+21:55:40	300	90	3.0	#68 2MASS Reds	4	



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UT Date 2002-07-05 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0086.2MJ1220037p202406	360	5:11	12:20:03.7	+20:24:06	300	90	3.0	#68 2MASS Reds	4	
0087.COMP	5	5:17	12:20:03.7	+20:24:06	300	90	3.0	#68 2MASS Reds	4	
0088.2MJ1222189p203704	300	5:18	12:22:18.9	+20:37:04	300	90	3.0	#68 2MASS Reds	4	
0089.COMP	5	5:23	12:22:18.9	+20:37:04	300	90	3.0	#68 2MASS Reds	4	
0090.2MJ1222294p203641	300	5:24	12:22:29.4	+20:36:41	300	90	3.0	#68 2MASS Reds	4	
0091.COMP	5	5:29	12:22:29.4	+20:36:41	300	90	3.0	#68 2MASS Reds	4	
0092.2MJ1714451p144349	600	5:35	17:14:45.1	+14:43:49	300	90	3.0	#68 2MASS Reds	4	
0093.2MJ1714451p144349	600	5:46	17:14:45.1	+14:43:49	300	90	3.0	#68 2MASS Reds	4	
0094.COMP	5	5:57	17:14:45.1	+14:43:49	300	90	3.0	#68 2MASS Reds	4	
0095.2MJ1718576m010745	240	5:59	17:18:57.6	-01:07:45	300	90	3.0	#68 2MASS Reds	4	
0096.COMP	5	6:04	17:18:57.6	-01:07:45	300	90	3.0	#68 2MASS Reds	4	
0097.2MJ1719127m013835	360	6:05	17:19:12.7	-01:38:35	300	90	3.0	#68 2MASS Reds	4	
0098.COMP	5	6:11	17:19:12.7	-01:38:35	300	90	3.0	#68 2MASS Reds	4	
0099.2MJ1719585m013517	300	6:13	17:19:58.5	-01:35:17	300	90	3.0	#68 2MASS Reds	4	
0100.COMP	5	6:18	17:19:58.5	-01:35:17	300	90	3.0	#68 2MASS Reds	4	
0101.2MJ1720075m005115	300	6:19	17:20:07.5	-00:51:15	300	90	3.0	#68 2MASS Reds	4	
0102.COMP	5	6:24	17:20:07.5	-00:51:15	300	90	3.0	#68 2MASS Reds	4	
0103.2MJ1720348m011851	300	6:25	17:20:34.8	-01:18:51	300	90	3.0	#68 2MASS Reds	4	
0104.COMP	5	6:30	17:20:34.8	-01:18:51	300	90	3.0	#68 2MASS Reds	4	
0105-0114.FLAT	15	6:38	17:20:34.8	-01:18:51	300	90	1.5	#65 X-Ray Nova	2	



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UT Date 2002-07-05 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0115.V4641Sgr	1200	6:42	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	binby2
0116.COMP	12	7:03	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0117.J1901candiC	1800	7:05	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0118.COMP	12	7:35	19:01:26.9	01:23:04	300	90	1.5	#65 X-Ray Nova	2	
0119.HD192281	8	7:39	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0120.COMP	12	7:40	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0121.sb90	600	7:44	21:11:29.2	+05:03:15	300	90	3.0	#135 Starburst	4	
0122.sb90	600	7:55	21:11:29.2	+05:03:15	300	90	3.0	#135 Starburst	4	
0123.COMP	5	8:06	21:11:29.2	+05:03:15	300	90	3.0	#135 Starburst	4	
0124.sb91	600	8:11	21:14:44.3	+10:52:14	300	110	3.0	#135 Starburst	4	
0125.COMP	5	8:22	21:14:44.3	+10:52:14	300	110	3.0	#135 Starburst	4	
0126.id2912	600	8:23	19:58:19.8	35:11:07	300	90	3.0	#115 PMS NGC68	4	
0127.COMP	5	8:33	19:58:19.8	35:11:07	300	90	3.0	#115 PMS NGC68	4	
0128.id1174	600	8:35	20:07:18.9	35:49:14	300	90	3.0	#115 PMS NGC68	4	
0129.COMP	5	8:45	20:07:18.9	35:49:14	300	90	3.0	#115 PMS NGC68	4	
0130.id1453	600	8:46	20:06:47.9	35:46:50	300	90	3.0	#115 PMS NGC68	4	
0131.COMP	5	8:57	20:06:47.9	35:46:50	300	90	3.0	#115 PMS NGC68	4	
0132.id1567	600	8:58	20:06:29.8	35:40:10	300	90	3.0	#115 PMS NGC68	4	
0133.COMP	5	9:08	20:06:29.8	35:40:10	300	90	3.0	#115 PMS NGC68	4	
0134.id2095	600	9:09	20:05:55.0	35:42:43	300	90	3.0	#115 PMS NGC68	4	



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Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0135.COMP	5	9:20	20:05:55.0	35:42:43	300	90	3.0	#115 PMS NGC68	4	
0136.id2190	600	9:21	20:05:15.0	35:49:51	300	90	3.0	#115 PMS NGC68	4	
0137.COMP	5	9:31	20:05:15.0	35:49:51	300	90	3.0	#115 PMS NGC68	4	
0138.sn2002dr	1200	9:35	22:51:01.0	+31:22:23	300	98	3.0	#2 SN Observat	2	
0139.COMP	12	9:56	22:51:01.0	+31:22:23	300	98	3.0	#2 SN Observat	2	
0140.sn2002dp	1200	10:03	23:28:30.1	+22:25:38	300	110	3.0	#2 SN Observat	2	
0141.COMP	12	10:24	23:28:30.1	+22:25:38	300	110	3.0	#2 SN Observat	2	
0142.shtr37_1.3-2054	600	10:30	21:37:59.9	57:40:17	300	90	3.0	#89 Herbig Ae/	4	
0143.COMP	5	10:41	21:37:59.9	57:40:17	300	90	3.0	#89 Herbig Ae/	4	
0144.shtr37_1.3-181	600	10:44	21:39:9.2	57:30:50	300	90	3.0	#89 Herbig Ae/	4	
0145.COMP	5	10:55	21:39:9.2	57:30:50	300	90	3.0	#89 Herbig Ae/	4	
0146.shtr37_1.4-1827	600	10:56	21:37:11.2	57:39:17	300	90	3.0	#89 Herbig Ae/	4	
0147.COMP	5	11:07	21:37:11.2	57:39:17	300	90	3.0	#89 Herbig Ae/	4	
0148.MRK509	300	11:10	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0149.COMP	5	11:15	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0150.Akn564	180	11:18	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0151.Akn564	180	11:21	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0152.COMP	5	11:24	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0153.N7469	120	11:25	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0154.N7469	120	11:28	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	



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<i>File</i>	<i>Exp Time</i>	<i>UT Start</i>	<i>RA</i>	<i>Dec</i>	<i>Gr.</i>	<i>P.A.</i>	<i>Slit</i>	<i>Program</i>	<i>Bin</i>	<i>Comments</i>
0155.COMP	5	11:30	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0156.N7331	60	11:31	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0157.COMP	5	11:33	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



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UT Date 2002-07-06 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.BIAS	0	23:42	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	4	binby4
0002-0010.BIAS	0	23:43	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	4	
0011-0015.DARK	900	0:44	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	4	
0016-0025.FLAT	6	1:02	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	4	
0026.BIAS	0	1:04	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	2	binby2
0027-0035.BIAS	0	1:06	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	2	
0036-0040.DARK	900	2:07	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	2	
0041-0050.FLAT	15	2:28	22:34:46.9	+34:09:43	300	90	3.0	#115 PMS NGC68	2	
0051.SKY	1	2:37	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	binby4
0052-0055.SKY	1	2:38	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:39	12:49:09	+31:30:11	300	90	3.0	#57 Velocity S	4	
0057.Feige34	180	3:25	10:36:41.2	43:21:50	300	80	3.0	#56 Spectropho	2	binby2
0058.COMP	12	3:29	10:36:41.2	43:21:50	300	80	3.0	#56 Spectropho	2	
0059.N4486B	180	3:51	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	
0060.COMP	5	3:54	12:30:32	+12:29:25	300	90	3.0	#57 Velocity S	4	
0061.sn2002de	1200	4:12	16:16:30.7	35:42:29	300	62	3.0	#2 SN Observat	2	
0062.COMP	5	4:32	16:16:30.7	35:42:29	300	62	3.0	#2 SN Observat	2	
0063.sn2002do	1200	4:36	19:56:12.8	+40:26:10	300	98	3.0	#2 SN Observat	2	
0064.COMP	12	5:00	19:56:12.8	+40:26:10	300	98	3.0	#2 SN Observat	2	
0065.2MJ1709017p142219	900	5:14	17:09:01.7	+14:22:19	300	9	3.0	#68 2MASS Reds	4	



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UT Date 2002-07-06 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0066.2MJ1709017p142219	900	5:29	17:09:01.7	+14:22:19	300	9	3.0	#68 2MASS Reds	4	
0067.COMP	5	5:45	17:09:01.7	+14:22:19	300	9	3.0	#68 2MASS Reds	4	
0068.2MJ1720357m014032	360	5:51	17:20:35.7	-01:40:32	300	90	3.0	#68 2MASS Reds	4	
0069.COMP	5	5:57	17:20:35.7	-01:40:32	300	90	3.0	#68 2MASS Reds	4	
0070.2MJ1721220m005726	300	5:58	17:21:22.0	-00:57:26	300	90	3.0	#68 2MASS Reds	4	
0071.COMP	5	6:04	17:21:22.0	-00:57:26	300	90	3.0	#68 2MASS Reds	4	
0072.2MJ1721590m005048	300	6:05	17:21:59.0	-00:50:48	300	90	3.0	#68 2MASS Reds	4	
0073.COMP	5	6:11	17:21:59.0	-00:50:48	300	90	3.0	#68 2MASS Reds	4	
0074.2MJ1723044m012553	300	6:12	17:23:04.4	-01:25:53	300	90	3.0	#68 2MASS Reds	4	
0075.COMP	5	6:18	17:23:04.4	-01:25:53	300	90	3.0	#68 2MASS Reds	4	
0076.2MJ1724058m030420	300	6:20	17:24:05.8	-03:04:20	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	6:25	17:24:05.8	-03:04:20	300	90	3.0	#68 2MASS Reds	4	
0078.2MJ1722539m043455	420	6:27	17:22:53.9	-04:34:55	300	90	3.0	#68 2MASS Reds	4	
0079.COMP	5	6:34	17:22:53.9	-04:34:55	300	90	3.0	#68 2MASS Reds	4	
0080.V4641Sgr	1200	6:38	18:19:21.6	-25:24:26	300	9	1.5	#65 X-Ray Nova	2	binby2
0081.COMP	12	6:59	18:19:21.6	-25:24:26	300	9	1.5	#65 X-Ray Nova	2	
0082.J1901candiC	1800	7:01	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0083.COMP	12	7:32	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0084-0093.FLAT	15	7:38	19:01:26.9	01:23:04	300	9	1.5	#65 X-Ray Nova	2	
0094.2MJ1724538m011913	360	7:43	17:24:53.8	-01:19:13	300	90	3.0	#68 2MASS Reds	4	binby4



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UT Date 2002-07-06 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0095.COMP	5	7:49	17:24:53.8	-01:19:13	300	90	3.0	#68 2MASS Reds	4	
0096.2MJ1725565p003046	300	7:51	17:25:56.5	+00:30:46	300	90	3.0	#68 2MASS Reds	4	
0097.COMP	5	7:56	17:25:56.5	+00:30:46	300	90	3.0	#68 2MASS Reds	4	
0098.2MJ1727148m013020	360	7:57	17:27:14.8	-01:30:20	300	90	3.0	#68 2MASS Reds	4	
0099.COMP	5	8:03	17:27:14.8	-01:30:20	300	90	3.0	#68 2MASS Reds	4	
0100.2MJ1727406m064102	420	8:05	17:27:40.6	-06:41:02	300	90	3.0	#68 2MASS Reds	4	
0101.2MJ1727406m064102	600	8:13	17:27:40.6	-06:41:02	300	90	3.0	#68 2MASS Reds	4	
0102.COMP	5	8:26	17:27:40.6	-06:41:02	300	90	3.0	#68 2MASS Reds	4	
0103.sb89	600	8:29	20:44:09.7	+12:25:05	300	90	3.0	#135 Starburst	4	
0104.COMP	5	8:40	20:44:09.7	+12:25:05	300	90	3.0	#135 Starburst	4	
0105.sb92	600	8:41	21:34:09.3	+08:46:42	300	90	3.0	#135 Starburst	4	
0106.COMP	5	8:52	21:34:09.3	+08:46:42	300	90	3.0	#135 Starburst	4	
0107.sb92a	300	8:54	21:34:03.3	+08:47:17	300	90	3.0	#135 Starburst	4	faint cont., but OIII,Ha present
0108.COMP	5	8:59	21:34:03.3	+08:47:17	300	90	3.0	#135 Starburst	4	
0109.id2202	600	9:02	20:05:13.1	35:39:21	300	90	3.0	#115 PMS NGC68	4	
0110.COMP	5	9:12	20:05:13.1	35:39:21	300	90	3.0	#115 PMS NGC68	4	
0111.id2471	600	9:13	20:04:22.2	35:51:24	300	90	3.0	#115 PMS NGC68	4	
0112.COMP	5	9:24	20:04:22.2	35:51:24	300	90	3.0	#115 PMS NGC68	4	
0113.id2748	600	9:25	19:59:21.0	35:25:31	300	90	3.0	#115 PMS NGC68	4	
0114.COMP	5	9:35	19:59:21.0	35:25:31	300	90	3.0	#115 PMS NGC68	4	



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FAST SPECTROGRAPH LOG



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UT Date 2002-07-06 Observers L Macri

Coll. Focus 940 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0115.id1673	600	9:36	20:06:17.0	35:52:54	300	90	3.0	#115 PMS NGC68	4	
0116.COMP	5	9:47	20:06:17.0	35:52:54	300	90	3.0	#115 PMS NGC68	4	
0117.id1733	600	9:47	20:06:10.9	35:40:44	300	90	3.0	#115 PMS NGC68	4	
0118.COMP	5	9:58	20:06:10.9	35:40:44	300	90	3.0	#115 PMS NGC68	4	
0119.id1829	600	9:59	20:06:00.3	35:37:20	300	90	3.0	#115 PMS NGC68	4	
0120.COMP	5	10:09	20:06:00.3	35:37:20	300	90	3.0	#115 PMS NGC68	4	
0121.id1979	600	10:10	20:05:44.4	35:37:57	300	90	3.0	#115 PMS NGC68	4	
0122.COMP	5	10:21	20:05:44.4	35:37:57	300	90	3.0	#115 PMS NGC68	4	
0123.id2008	600	10:22	20:05:39.5	35:52:38	300	90	3.0	#115 PMS NGC68	4	
0124.COMP	5	10:32	20:05:39.5	35:52:38	300	90	3.0	#115 PMS NGC68	4	
0125.shtr37_1.4-468	600	10:34	21:37:12.3	57:33:31	300	90	3.0	#89 Herbig Ae/	4	
0126.COMP	5	10:44	21:37:12.3	57:33:31	300	90	3.0	#89 Herbig Ae/	4	
0127.shtr37_1.4-233	600	10:46	21:37:6.0	57:32:1	300	90	3.0	#89 Herbig Ae/	4	
0128.COMP	5	10:56	21:37:6.0	57:32:1	300	90	3.0	#89 Herbig Ae/	4	
0129.shtr37_1.4-331	600	10:58	21:37:36.8	57:32:46	300	90	3.0	#89 Herbig Ae/	4	
0130.COMP	5	11:08	21:37:36.8	57:32:46	300	90	3.0	#89 Herbig Ae/	4	
0131.shtr37_1.4-1148	600	11:09	21:36:24.8	57:36:32	300	90	3.0	#89 Herbig Ae/	4	
0132.COMP	5	11:19	21:36:24.8	57:36:32	300	90	3.0	#89 Herbig Ae/	4	
0133.N7331	60	11:21	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0134.COMP	5	11:22	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-06 Observers L MacriColl. Focus 940 Grating/Grism 300

<i>File</i>	<i>Exp Time</i>	<i>UT Start</i>	<i>RA</i>	<i>Dec</i>	<i>Gr.</i>	<i>P.A.</i>	<i>Slit</i>	<i>Program</i>	<i>Bin</i>	<i>Comments</i>
0135.HD192281	8	11:24	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	binby2, for Prog 65
0136.COMP	12	11:25	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	



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UT Date 2002-07-07 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.BIAS	0	2:32	14:08:03.0	31:30:52	300	90	3.0	#68 2MASS Reds	4	
0011-0020.FLAT	8	2:35	14:10:43.0	31:30:52	300	90	3.0	#68 2MASS Reds	4	
0021-0030.BIAS	0	2:37	14:12:58.0	31:30:52	300	90	3.0	#68 2MASS Reds	2	
0031-0040.FLAT	16	2:42	14:17:45.0	31:30:52	300	90	3.0	#68 2MASS Reds	2	
0041.a2199k_005	240	3:39	16:37:35.5	44:20:41	300	90	3.0	#64 Cluster In	4	ugh weak
0042.COMP	5	3:43	16:37:35.5	44:20:41	300	90	3.0	#64 Cluster In	4	
0043.a2199k_005	360	3:44	16:37:35.5	44:20:41	300	90	3.0	#64 Cluster In	4	yikes still weak but ok on the em
0044.COMP	5	3:51	16:37:35.5	44:20:41	300	90	3.0	#64 Cluster In	4	
0045.a2199k_007	480	3:54	16:18:12.3	41:28:29	300	90	3.0	#64 Cluster In	4	
0046.COMP	5	4:02	16:18:12.3	41:28:29	300	90	3.0	#64 Cluster In	4	
0047.a2199k_009	480	4:03	16:06:01.9	38:28:38	300	90	3.0	#64 Cluster In	4	
0048.COMP	5	4:12	16:06:01.9	38:28:38	300	90	3.0	#64 Cluster In	4	
0049.a2199k_010	360	4:13	16:28:58.3	42:49:41	300	90	3.0	#64 Cluster In	4	
0050.COMP	5	4:20	16:28:58.3	42:49:41	300	90	3.0	#64 Cluster In	4	
0051.a2199k_011	1200	4:20	16:24:35.2	40:15:20	300	90	3.0	#64 Cluster In	4	
0052.COMP	5	4:41	16:24:35.2	40:15:20	300	90	3.0	#64 Cluster In	4	
0053.a2199k_012	600	4:42	16:49:21.6	41:51:31	300	90	3.0	#64 Cluster In	4	
0054.COMP	5	4:53	16:49:21.6	41:51:31	300	90	3.0	#64 Cluster In	4	
0055.a2199k_014	600	4:54	16:47:34.0	43:38:22	300	90	3.0	#64 Cluster In	4	
0056.COMP	5	5:05	16:47:34.0	43:38:22	300	90	3.0	#64 Cluster In	4	



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FAST SPECTROGRAPH LOG



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UT Date 2002-07-07 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.a2199k_015	720	5:06	16:54:55.5	37:28:35	300	90	3.0	#64 Cluster In	4	
0058.COMP	5	5:18	16:54:55.5	37:28:35	300	90	3.0	#64 Cluster In	4	
0059.a2199k_016	900	5:19	16:57:12.5	39:20:17	300	90	3.0	#64 Cluster In	4	
0060.COMP	5	5:35	16:57:12.5	39:20:17	300	90	3.0	#64 Cluster In	4	
0061.a2199k_017	1200	5:41	16:17:55.2	35:37:21	300	90	3.0	#64 Cluster In	4	
0062.COMP	5	6:03	16:17:55.2	35:37:21	300	90	3.0	#64 Cluster In	4	
0063.id2043	480	6:06	20:05:33.6	35:37:56	300	90	3.0	#115 PMS NGC68	4	
0064.COMP	5	6:15	20:05:33.6	35:37:56	300	90	3.0	#115 PMS NGC68	4	
0065.id2495	600	6:16	20:04:17.8	35:55:43	300	90	3.0	#115 PMS NGC68	4	
0066.COMP	5	6:27	20:04:17.8	35:55:43	300	90	3.0	#115 PMS NGC68	4	I noticed henear lines are not steady
0067.COMP	5	6:28	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	after some tests, I found that the grating cover was not latche
0068.COMP	5	6:29	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0069.COMP	5	6:30	17:00:00	20:00:00	300	90	3.0	#115 PMS NGC68	4	
0070.COMP	5	6:31	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0071.COMP	5	6:32	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0072.COMP	5	6:33	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0073.id2577	480	6:34	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0074.COMP	5	6:43	20:04:01.7	35:49:55	300	90	3.0	#115 PMS NGC68	4	
0075.HD192281	5	6:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0076.HD192281	5	6:45	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	



WHIPPLE OBSERVATORY

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UT Date 2002-07-07 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.HD192281	5	6:45	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0078.COMP	5	6:46	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0079.HD192281	10	6:49	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	1.5-sec slit
0080.HD192281	10	6:50	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0081.COMP	10	6:50	20:10:46.8	40:07:01	300	90	1.5	#56 Spectropho	2	
0082.V4641Sgr	1200	6:54	18:19:21.6	-25:24:26	300	10	1.5	#65 X-Ray Nova	2	tv camera flopping around, smearing autoguider!
0083.COMP	10	7:14	18:19:21.6	-25:24:26	300	10	1.5	#65 X-Ray Nova	2	
0084.BDp284211	120	7:22	21:48:57.1	28:37:48	300	100	1.5	#56 Spectropho	2	
0085.COMP	10	7:25	21:48:57.1	28:37:48	300	100	1.5	#56 Spectropho	2	
0086-0095.FLAT	30	7:33	19:00:00	32:00:00	300	90	1.5	#56 Spectropho	2	
0096.BIAS	0	7:35	19:00:00	32:00:00	300	90	3.0	#56 Spectropho	4	
0097.id2878	600	7:36	19:58:35.3	35:22:59	300	90	3.0	#115 PMS NGC68	4	3-sec slit, combo
0098.COMP	5	7:47	19:58:35.3	35:22:59	300	90	3.0	#115 PMS NGC68	4	
0099.id2944	600	7:48	19:58:03.1	35:14:43	300	90	3.0	#115 PMS NGC68	4	
0100.COMP	5	7:58	19:58:03.1	35:14:43	300	90	3.0	#115 PMS NGC68	4	
0101.id1786	480	7:59	20:06:04.0	35:53:34	300	90	3.0	#115 PMS NGC68	4	
0102.COMP	5	8:08	20:06:04.0	35:53:34	300	90	3.0	#115 PMS NGC68	4	
0103.id1826	600	8:08	20:06:00.7	35:41:29	300	90	3.0	#115 PMS NGC68	4	
0104.COMP	5	8:18	20:06:00.7	35:41:29	300	90	3.0	#115 PMS NGC68	4	
0105.id2157	720	8:19	20:05:19.3	35:56:02	300	90	3.0	#115 PMS NGC68	4	



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UT Date 2002-07-07 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0106.COMP	5	8:32	20:05:19.3	35:56:02	300	90	3.0	#115 PMS NGC68	4	
0107.id2773	480	8:33	19:59:13.3	35:24:15	300	90	3.0	#115 PMS NGC68	4	
0108.COMP	5	8:41	19:59:13.3	35:24:15	300	90	3.0	#115 PMS NGC68	4	
0109.id2842	480	8:42	19:58:47.8	35:04:45	300	90	3.0	#115 PMS NGC68	4	
0110.COMP	5	8:50	19:58:47.8	35:04:45	300	90	3.0	#115 PMS NGC68	4	
0111.id1027	480	8:51	20:07:32.3	35:44:50	300	90	3.0	#115 PMS NGC68	4	
0112.COMP	5	8:59	20:07:32.3	35:44:50	300	90	3.0	#115 PMS NGC68	4	
0113.id1176	600	9:00	20:07:18.8	35:50:50	300	90	3.0	#115 PMS NGC68	4	
0114.COMP	5	9:13	20:07:18.8	35:50:50	300	90	3.0	#115 PMS NGC68	4	
0115.id1375	600	9:13	20:06:56.6	35:51:31	300	90	3.0	#115 PMS NGC68	4	
0116.COMP	5	9:24	20:06:56.6	35:51:31	300	90	3.0	#115 PMS NGC68	4	
0117.id1430	360	9:25	20:06:50.4	35:44:54	300	90	3.0	#115 PMS NGC68	4	
0118.COMP	5	9:31	20:06:50.4	35:44:54	300	90	3.0	#115 PMS NGC68	4	
0119.id1775	600	9:32	20:06:05.2	35:50:27	300	90	3.0	#115 PMS NGC68	4	
0120.COMP	5	9:42	20:06:05.2	35:50:27	300	90	3.0	#115 PMS NGC68	4	
0121.id1967	600	9:43	20:05:46.6	35:52:34	300	90	3.0	#115 PMS NGC68	4	
0122.COMP	5	9:53	20:05:46.6	35:52:34	300	90	3.0	#115 PMS NGC68	4	
0123.BDp284211	90	9:55	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0124.BDp284211	90	9:57	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0125.COMP	10	9:59	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	



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UT Date 2002-07-07 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0126.sn2002dl	1200	10:03	22:20:53.9	+33:17:33	300	90	3.0	#2 SN Observat	2	
0127.COMP	10	10:23	22:20:53.9	+33:17:33	300	90	3.0	#2 SN Observat	2	
0128.shtr37_2.1-398	600	10:25	21:39:36.0	57:20:17	300	90	3.0	#89 Herbig Ae/	4	
0129.COMP	5	10:36	21:39:36.0	57:20:17	300	90	3.0	#89 Herbig Ae/	4	
0130.shtr37_2.1-1732	600	10:37	21:39:56.0	57:27:32	300	90	3.0	#89 Herbig Ae/	4	
0131.COMP	5	10:47	21:39:56.0	57:27:32	300	90	3.0	#89 Herbig Ae/	4	
0132.sn2002ap	1200	10:50	01:36:23.8	+15:45:13	300	-40	3.0	#2 SN Observat	2	
0133.COMP	10	11:11	01:36:23.8	+15:45:13	300	-40	3.0	#2 SN Observat	2	
0134.N7331	180	11:12	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0135.COMP	5	11:15	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0136-0145.BIAS	0	11:19	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0146.FLAT	8	11:20	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	clear @ dawn
0147-0155.FLAT	8	11:22	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0156-0165.BIAS	0	11:25	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0166-0175.FLAT	16	11:29	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0176-0185.DARK	900	13:47	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0186-0195.DARK	900	16:19	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0196.DARK	900	18:33	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-08 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	21:04	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	2:31	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	8	2:35	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:38	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0041-0050.FLAT	16	2:42	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0051.sky	3	2:49	14:20:00	32:00:00	300	90	3.0	#57 Velocity S	4	lots of clouds
0052-0055.sky	3	2:49	14:20:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:50	14:20:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0057.id2669	900	5:21	19:59:51.8	35:25:42	300	90	3.0	#115 PMS NGC68	4	
0058.COMP	5	5:36	19:59:51.8	35:25:42	300	90	3.0	#115 PMS NGC68	4	
0059.id2919	900	5:37	19:58:18.3	35:20:10	300	90	3.0	#115 PMS NGC68	4	
0060.COMP	5	5:52	19:58:18.3	35:20:10	300	90	3.0	#115 PMS NGC68	4	
0061.id1073	840	5:53	20:07:27.4	35:37:37	300	90	3.0	#115 PMS NGC68	4	stop and go through clouds...
0062.COMP	5	6:08	20:07:27.4	35:37:37	300	90	3.0	#115 PMS NGC68	4	
0063.id1073	900	6:32	20:07:27.4	35:37:37	300	90	3.0	#115 PMS NGC68	4	
0064.COMP	5	6:48	20:07:27.4	35:37:37	300	90	3.0	#115 PMS NGC68	4	
0065.id1201	900	8:14	20:07:16.4	35:55:13	300	90	3.0	#115 PMS NGC68	4	
0066.COMP	5	8:29	20:07:16.4	35:55:13	300	90	3.0	#115 PMS NGC68	4	
0067.id1240	600	8:30	20:07:11.5	35:39:11	300	90	3.0	#115 PMS NGC68	4	
0068.COMP	5	8:40	20:07:11.5	35:39:11	300	90	3.0	#115 PMS NGC68	4	



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UT Date 2002-07-08 Observers P Berlind

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0069.id1792	600	8:41	20:06:03.3	35:40:52	300	90	3.0	#115 PMS NGC68	4	
0070.COMP	5	8:51	20:06:03.3	35:40:52	300	90	3.0	#115 PMS NGC68	4	
0071.id2544	600	8:53	20:04:08.6	35:43:12	300	90	3.0	#115 PMS NGC68	4	
0072.COMP	5	9:03	20:04:08.6	35:43:12	300	90	3.0	#115 PMS NGC68	4	
0073.HD192281	5	9:04	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0074.HD192281	5	9:04	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0075.HD192281	5	9:04	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0076.COMP	5	9:05	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0077.BDp284211	90	9:06	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0078.BDp284211	120	9:08	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0079.COMP	10	9:11	21:48:57.1	28:37:48	300	100	3.0	#56 Spectropho	2	
0080.id2753	720	9:12	19:59:18.8	35:11:40	300	100	3.0	#115 PMS NGC68	4	
0081.COMP	5	9:24	19:59:18.8	35:11:40	300	100	3.0	#115 PMS NGC68	4	
0082.id2826	600	9:25	19:58:52.2	35:06:51	300	100	3.0	#115 PMS NGC68	4	
0083.COMP	5	9:35	19:58:52.2	35:06:51	300	100	3.0	#115 PMS NGC68	4	
0084.id2828	1200	9:37	19:58:52.1	35:19:45	300	100	3.0	#115 PMS NGC68	4	
0085.COMP	5	9:57	19:58:52.1	35:19:45	300	100	3.0	#115 PMS NGC68	4	
0086.id2879	900	9:57	19:58:35.1	35:25:55	300	100	3.0	#115 PMS NGC68	4	
0087.COMP	5	10:13	19:58:35.1	35:25:55	300	100	3.0	#115 PMS NGC68	4	good hole in the clouds
0088.id1857	600	10:14	20:05:58.0	35:51:15	300	100	3.0	#115 PMS NGC68	4	



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UT Date 2002-07-08 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0089.COMP	5	10:25	20:05:58.0	35:51:15	300	100	3.0	#115 PMS NGC68	4	
0090.sn2002dp	1200	10:28	23:28:30.1	+22:25:38	300	-50	3.0	#2 SN Observat	2	
0091.COMP	10	10:49	23:28:30.1	+22:25:38	300	-50	3.0	#2 SN Observat	2	
0092.N7331	180	10:51	22:34:46.9	+34:09:43	300	-50	3.0	#57 Velocity S	2	
0093.COMP	10	10:55	22:34:46.9	+34:09:43	300	-50	3.0	#57 Velocity S	2	clouds moving in again @ dawn
0094-0103.BIAS	0	10:58	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	4	
0104-0113.FLAT	8	11:00	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	4	
0114-0123.BIAS	0	11:03	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	
0124-0133.FLAT	16	11:08	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	
0134-0143.DARK	1200	14:12	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	



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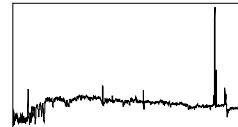
UT Date 2002-07-09 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	23:44	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	4	
0011-0020.DARK	900	2:17	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	
0021-0030.BIAS	0	2:34	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	4	
0031-0040.FLAT	8	2:37	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	4	
0041-0050.BIAS	0	2:40	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	
0051-0060.FLAT	16	2:45	22:34:46.9	+34:09:43	300	-50	3.0	#2 SN Observat	2	



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UT Date 2002-07-10 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	2:01	14:04:10.0	31:30:53	300	-50	3.0	#2 SN Observat	4	
0002.DARK	900	2:17	14:19:17.0	31:30:51	300	-50	3.0	#2 SN Observat	4	
0003.DARK	900	2:32	14:34:28.0	31:30:50	300	-50	3.0	#2 SN Observat	4	
0004.DARK	900	2:47	14:49:39.0	31:30:48	300	-50	3.0	#2 SN Observat	4	
0005.DARK	900	3:02	15:04:46.0	31:30:47	300	-50	3.0	#2 SN Observat	4	
0006.DARK	900	3:17	15:19:57.0	31:30:45	300	-50	3.0	#2 SN Observat	4	
0007.DARK	900	3:32	15:35:04.0	31:30:43	300	-50	3.0	#2 SN Observat	4	
0008.DARK	900	3:47	15:50:15.0	31:30:41	300	-50	3.0	#2 SN Observat	4	
0009.DARK	900	4:02	16:05:26.0	31:30:39	300	-50	3.0	#2 SN Observat	4	
0010.DARK	900	4:18	16:20:33.0	31:30:37	300	-50	3.0	#2 SN Observat	4	
0011-0020.BIAS	0	4:39	16:27:26.0	31:30:36	300	-50	3.0	#2 SN Observat	4	
0021-0030.FLAT	6	4:42	16:30:37.0	31:30:36	300	-50	3.0	#2 SN Observat	4	
0031-0037.BIAS	0	4:44	16:32:25.0	31:30:36	300	-50	3.0	#2 SN Observat	2	
0038-0040.BIAS	0	4:45	16:33:04.0	31:30:35	300	-50	3.0	#2 SN Observat	2	
0041.FLAT	12	4:45	16:33:34.0	31:30:35	300	-50	3.0	#2 SN Observat	2	thinning overhead...
0042-0050.FLAT	12	4:49	16:37:15.0	31:30:35	300	-50	3.0	#2 SN Observat	2	
0051.BDp284211	120	7:34	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0052.COMP	5	7:36	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0053.BDp284211	120	7:40	21:48:57.1	28:37:48	300	105	3.0	#56 Spectropho	2	
0054.COMP	12	7:43	21:48:57.1	28:37:48	300	105	3.0	#56 Spectropho	2	



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UT Date 2002-07-10 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0055.sn2002do	1200	7:48	19:56:12.8	+40:26:10	300	26	3.0	#2 SN Observat	2	
0056.COMP	12	8:09	19:56:12.8	+40:26:10	300	26	3.0	#2 SN Observat	2	
0057.BDp332642	120	8:21	15:50:03	33:05:49	600	90	2.0	#56 Spectropho	4	600L, tilt=430, 2arcsec, for Emilio
0058.BDp332642	120	8:23	15:50:03	33:05:49	600	90	2.0	#56 Spectropho	4	
0059.BDp332642	120	8:25	15:50:03	33:05:49	600	90	2.0	#56 Spectropho	4	
0060.COMP	10	8:28	15:50:03	33:05:49	600	90	2.0	#56 Spectropho	4	
0061-0065.FLAT	40	8:34	15:50:03	33:05:49	600	90	2.0	#56 Spectropho	4	
0066.V4641Sgr	1200	8:43	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	300L, 1.5arcsec, tilt=610
0067.COMP	24	9:04	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0068.J1901candiC	900	9:10	19:01:26.9	01:23:04	300	37	1.5	#65 X-Ray Nova	2	
0069.J1901candiC	900	9:26	19:01:26.9	01:23:04	300	37	1.5	#65 X-Ray Nova	2	
0070.COMP	24	9:41	19:01:26.9	01:23:04	300	37	1.5	#65 X-Ray Nova	2	
0071.BDp404032	180	9:46	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0072.COMP	24	9:50	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0073.BDp404032	120	9:50	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0074.COMP	24	9:53	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0075-0084.FLAT	24	10:02	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0085.sb94	600	10:10	22:07:01.9	+10:14:00	300	49	3.0	#135 Starburst	2	normal setup...
0086.COMP	12	10:21	22:07:01.9	+10:14:00	300	49	3.0	#135 Starburst	2	
0087.sb94a	1200	10:23	22:07:00.2	+10:13:27	300	90	3.0	#135 Starburst	2	



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UT Date 2002-07-10 Observers M CalkinsColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0088.COMP	12	10:43	22:07:00.2	+10:13:27	300	90	3.0	#135 Starburst	2	
0089.sb95	1200	10:45	22:10:31.3	+40:53:36	300	90	3.0	#135 Starburst	2	
0090.COMP	12	11:06	22:10:31.3	+40:53:36	300	90	3.0	#135 Starburst	2	
0091.snmcg	1200	11:09	23:28:23.2	-02:48:17	300	-11	3.0	#2 SN Observat	2	
0092.COMP	12	11:30	23:28:23.2	-02:48:17	300	-11	3.0	#2 SN Observat	2	
0093.BDp404032	120	11:33	20:06:40	41:06:15	300	88	3.0	#56 Spectropho	2	
0094.COMP	12	11:35	20:06:40	41:06:15	300	88	3.0	#56 Spectropho	2	
0095-0099.sky	2	12:13	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0100.COMP	5	12:13	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0101-0110.BIAS	0	12:15	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0111-0120.FLAT	6	12:17	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0121-0130.BIAS	0	12:20	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	2	
0131-0140.FLAT	12	12:24	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	2	
0141-0150.DARK	900	14:42	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	2	



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UT Date 2002-07-11 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:40	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	1:57	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0021-0030.FLAT	6	2:00	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:03	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	2	
0041-0050.FLAT	12	2:36	20:06:40	41:06:15	300	88	3.0	#57 Velocity S	2	
0051.BDp332642	180	4:03	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0052.COMP	12	4:07	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0053.BDp332642	150	4:10	15:50:03	33:05:49	300	-50	3.0	#56 Spectropho	2	
0054.COMP	12	4:13	15:50:03	33:05:49	300	-50	3.0	#56 Spectropho	2	
0055.MRK421	360	4:21	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0056.MRK421	360	4:27	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0057.COMP	12	4:34	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0058.a2199k_018	900	4:39	16:34:42.2	42:22:06	300	90	3.0	#64 Cluster In	2	corrupted by clouds, row=73
0059.COMP	12	4:54	16:34:42.2	42:22:06	300	90	3.0	#64 Cluster In	2	wait out clouds....
0060.OGLE-TR-41	360	5:26	17:55:16.3	-29:31:32	300	-10	3.0	#134 OGLE Tran	2	
0061.COMP	12	5:32	17:55:16.3	-29:31:32	300	-10	3.0	#134 OGLE Tran	2	
0062.OGLE-TR-15	360	5:36	17:54:52.3	-29:58:20	300	-7	3.0	#134 OGLE Tran	2	
0063.COMP	12	5:42	17:54:52.3	-29:58:20	300	-7	3.0	#134 OGLE Tran	2	
0064.OGLE-TR-07	480	5:48	17:52:08.6	-29:56:12	300	-3	3.0	#134 OGLE Tran	2	
0065.COMP	12	5:56	17:52:08.6	-29:56:12	300	-3	3.0	#134 OGLE Tran	2	



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UT Date 2002-07-11 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0066.OGLE-TR-30	630	6:08	17:52:48.5	-30:00:30	300	1	3.0	#134 OGLE	2	
0067.COMP	12	6:19	17:52:48.5	-30:00:30	300	1	3.0	#134 OGLE	2	
0068.OGLE-TR-25	1200	6:27	17:52:45.4	-29:35:12	300	6	3.0	#134 OGLE	2	
0069.COMP	12	6:47	17:52:45.4	-29:35:12	300	6	3.0	#134 OGLE	2	
0070.V4641Sgr	960	6:55	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	1.5 slit, 300L, tilt=610
0071.COMP	12	7:11	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0072.BDp404032	120	7:16	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0073.COMP	12	7:19	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0074-0083.FLAT	30	7:26	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0084.CH Cyg	2	9:38	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0085.CH Cyg	5	9:38	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0086.CH Cyg	15	9:38	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0087.CH Cyg	2	9:39	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0088.COMP	5	9:39	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0089.CH Cyg	1	9:40	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0090.COMP	5	9:40	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	4	
0091.CICyg	2	9:41	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0092.CICyg	5	9:42	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0093.CICyg	15	9:43	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	
0094.COMP	5	9:43	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	4	



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Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0095.ZAnd	2	9:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0096.ZAnd	5	9:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0097.ZAnd	15	9:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	ambushed by clouds....
0098.COMP	5	9:46	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0099.MRK509	360	9:52	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0100.COMP	5	9:59	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0101.Akn564	360	10:01	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	through clouds...
0102.Akn564	300	10:07	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0103.COMP	5	10:13	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0104.id2102	600	10:18	20:05:51.2	35:37:26	300	90	3.0	#115 PMS NGC68	2	row=68
0105.COMP	12	10:29	20:05:51.2	35:37:26	300	90	3.0	#115 PMS NGC68	2	
0106.id2269	720	10:30	20:05:02.9	35:41:46	300	90	3.0	#115 PMS NGC68	2	clouds back....
0107.COMP	12	10:43	20:05:02.9	35:41:46	300	90	3.0	#115 PMS NGC68	2	
0108-0117.BIAS	0	11:21	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0118-0127.FLAT	6	11:23	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0128-0137.BIAS	0	11:26	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0138-0147.FLAT	12	11:31	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0148-0157.DARK	900	13:49	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:34	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0011-0020.BIAS	0	1:50	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0021-0030.FLAT	6	1:52	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0031-0040.BIAS	0	1:54	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0041-0050.FLAT	12	1:59	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0051-0055.sky	2	2:45	21:48:57.1	28:37:48	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:45	21:48:57.1	28:37:48	300	90	3.0	#57 Velocity S	4	
0057.sn2002dj	1200	3:52	13:13:00.3	-19:31:08	300	35	3.0	#2 SN Observat	2	row=71
0058.COMP	12	4:12	13:13:00.3	-19:31:08	300	35	3.0	#2 SN Observat	2	
0059.2MJ1134467p222943	1200	4:15	11:34:46.7	+22:29:43	300	90	3.0	#68 2MASS Reds	2	
0060.COMP	12	4:36	11:34:46.7	+22:29:43	300	90	3.0	#68 2MASS Reds	2	
0061.2MJ1140560p225812	420	4:39	11:40:56.0	+22:58:12	300	90	3.0	#68 2MASS Reds	2	
0062.COMP	12	4:46	11:40:56.0	+22:58:12	300	90	3.0	#68 2MASS Reds	2	
0063.2MJ1139141p234746	360	4:48	11:39:14.1	+23:47:46	300	90	3.0	#68 2MASS Reds	2	
0064.COMP	12	4:54	11:39:14.1	+23:47:46	300	90	3.0	#68 2MASS Reds	2	
0065.2MJ1141559p201911	780	4:57	11:41:55.9	+20:19:11	300	0	3.0	#68 2MASS Reds	2	
0066.COMP	12	5:10	11:41:55.9	+20:19:11	300	0	3.0	#68 2MASS Reds	2	
0067.2MJ1307313p085938	480	5:18	13:07:31.3	08:59:38	300	90	3.0	#68 2MASS Reds	2	
0068.COMP	12	5:26	13:07:31.3	08:59:38	300	90	3.0	#68 2MASS Reds	2	
0069.2MJ1308220p154221	540	5:28	13:08:22.0	15:42:21	300	90	3.0	#68 2MASS Reds	2	



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0070.COMP	12	5:37	13:08:22.0	15:42:21	300	90	3.0	#68 2MASS Reds	2	
0071.2MJ1310372p022116	900	5:40	13:10:37.2	02:21:16	300	90	3.0	#68 2MASS Reds	2	
0072.COMP	12	5:55	13:10:37.2	02:21:16	300	90	3.0	#68 2MASS Reds	2	
0073.id2598	600	5:59	20:03:57.2	35:54:03	300	90	3.0	#115 PMS NGC68	2	
0074.COMP	12	6:09	20:03:57.2	35:54:03	300	90	3.0	#115 PMS NGC68	2	
0075.id2615	600	6:11	20:03:53.6	35:54:22	300	90	3.0	#115 PMS NGC68	2	
0076.COMP	12	6:21	20:03:53.6	35:54:22	300	90	3.0	#115 PMS NGC68	2	
0077.id1106	600	6:22	20:07:24.3	35:35:12	300	90	3.0	#115 PMS NGC68	2	
0078.COMP	12	6:33	20:07:24.3	35:35:12	300	90	3.0	#115 PMS NGC68	2	
0079.id1189	540	6:34	20:07:17.2	35:35:40	300	90	3.0	#115 PMS NGC68	2	
0080.COMP	12	6:43	20:07:17.2	35:35:40	300	90	3.0	#115 PMS NGC68	2	
0081.id2141	660	6:44	20:05:21.0	35:39:36	300	90	3.0	#115 PMS NGC68	2	
0082.COMP	12	6:56	20:05:21.0	35:39:36	300	90	3.0	#115 PMS NGC68	2	
0083.id2398	540	6:57	20:04:36.0	35:52:33	300	90	3.0	#115 PMS NGC68	2	
0084.COMP	12	7:06	20:04:36.0	35:52:33	300	90	3.0	#115 PMS NGC68	2	
0085.BDp404032	150	7:08	20:06:40	41:06:15	300	57	3.0	#56 Spectropho	2	
0086.COMP	12	7:11	20:06:40	41:06:15	300	57	3.0	#56 Spectropho	2	
0087.V4641Sgr	1200	7:15	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	300L, 1.5arcsec, tilt=610
0088.COMP	24	7:36	18:19:21.6	-25:24:26	300	90	1.5	#65 X-Ray Nova	2	
0089.J1901candiC	1800	7:41	19:01:26.9	01:23:04	300	13	1.5	#65 X-Ray Nova	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0090.COMP	24	8:12	19:01:26.9	01:23:04	300	13	1.5	#65 X-Ray Nova	2	
0091.BDp404032	120	8:18	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0092.COMP	24	8:21	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0093-0102.FLAT	30	8:29	20:06:40	41:06:15	300	90	1.5	#56 Spectropho	2	
0103.HD178494	4	8:33	19:9:33.8	-18:43:23	300	90	3.0	#87 IRAC Spect	2	normal setup
0104.HD178494	20	8:34	19:9:33.8	-18:43:23	300	90	3.0	#87 IRAC Spect	2	
0105.HD178494	45	8:34	19:9:33.8	-18:43:23	300	90	3.0	#87 IRAC Spect	2	
0106.COMP	12	8:36	19:9:33.8	-18:43:23	300	90	3.0	#87 IRAC Spect	2	
0107.HD178499	20	8:38	19:9:50.1	-24:46:16	300	90	3.0	#87 IRAC Spect	2	
0108.HD178499	80	8:39	19:9:50.1	-24:46:16	300	90	3.0	#87 IRAC Spect	2	
0109.HD178499	150	8:41	19:9:50.1	-24:46:16	300	90	3.0	#87 IRAC Spect	2	
0110.COMP	12	8:44	19:9:50.1	-24:46:16	300	90	3.0	#87 IRAC Spect	2	
0111.HD178725	45	8:45	19:10:24.9	-19:39:38	300	90	3.0	#87 IRAC Spect	2	
0112.HD178725	90	8:46	19:10:24.9	-19:39:38	300	90	3.0	#87 IRAC Spect	2	
0113.HD178725	150	8:48	19:10:24.9	-19:39:38	300	90	3.0	#87 IRAC Spect	2	
0114.COMP	12	8:51	19:10:24.9	-19:39:38	300	90	3.0	#87 IRAC Spect	2	
0115.HD180630	40	8:56	19:17:54.3	-17:53:19	300	90	3.0	#87 IRAC Spect	2	
0116.HD180630	90	8:58	19:17:54.3	-17:53:19	300	90	3.0	#87 IRAC Spect	2	
0117.HD180630	150	9:00	19:17:54.3	-17:53:19	300	90	3.0	#87 IRAC Spect	2	
0118.COMP	12	9:03	19:17:54.3	-17:53:19	300	90	3.0	#87 IRAC Spect	2	



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0119.HD180542	50	9:04	19:17:56.0	-25:32:44	300	90	3.0	#87 IRAC Spect	2	
0120.HD180542	100	9:05	19:17:56.0	-25:32:44	300	90	3.0	#87 IRAC Spect	2	
0121.HD180542	180	9:07	19:17:56.0	-25:32:44	300	90	3.0	#87 IRAC Spect	2	
0122.COMP	12	9:11	19:17:56.0	-25:32:44	300	90	3.0	#87 IRAC Spect	2	
0123.HD181195	50	9:12	19:20:16.2	-19:30:1	300	90	3.0	#87 IRAC Spect	2	
0124.HD181195	100	9:13	19:20:16.2	-19:30:1	300	90	3.0	#87 IRAC Spect	2	
0125.HD181195	180	9:16	19:20:16.2	-19:30:1	300	90	3.0	#87 IRAC Spect	2	
0126.COMP	12	9:19	19:20:16.2	-19:30:1	300	90	3.0	#87 IRAC Spect	2	
0127.HD183307	50	9:20	19:29:37.3	-19:15:31	300	90	3.0	#87 IRAC Spect	2	
0128.HD183307	100	9:22	19:29:37.3	-19:15:31	300	90	3.0	#87 IRAC Spect	2	
0129.HD183307	180	9:24	19:29:37.3	-19:15:31	300	90	3.0	#87 IRAC Spect	2	
0130.COMP	12	9:27	19:29:37.3	-19:15:31	300	90	3.0	#87 IRAC Spect	2	
0131.HD184837	60	9:28	19:37:15.9	-24:40:42	300	90	3.0	#87 IRAC Spect	2	
0132.HD184837	180	9:29	19:37:15.9	-24:40:42	300	90	3.0	#87 IRAC Spect	2	
0133.HD184837	180	9:33	19:37:15.9	-24:40:42	300	90	3.0	#87 IRAC Spect	2	
0134.COMP	12	9:36	19:37:15.9	-24:40:42	300	90	3.0	#87 IRAC Spect	2	
0135.sn2002dp	840	9:39	23:28:30.1	+22:25:38	300	110	3.0	#2 SN Observat	2	shorten for clouds
0136.COMP	12	9:54	23:28:30.1	+22:25:38	300	110	3.0	#2 SN Observat	2	wait out clouds...
0137.ZAnd	3	10:26	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0138.ZAnd	6	10:27	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	



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0139.ZAnd	30	10:28	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0140.ZAnd	60	10:29	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0141.ZAnd	120	10:30	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0142.COMP	12	10:33	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0143.snmcg	398	10:40	23:28:23.2	-02:48:17	300	-20	3.0	#2 SN Observat	2	shorten for clouds
0144.COMP	12	10:47	23:28:23.2	-02:48:17	300	-20	3.0	#2 SN Observat	2	clouds everywhere.....
0145-0154.BIAS	0	11:17	23:28:23.2	-02:48:17	300	90	3.0	#6 AGN Monitor	4	
0155-0164.FLAT	6	11:19	23:28:23.2	-02:48:17	300	90	3.0	#6 AGN Monitor	4	
0165-0174.BIAS	0	11:23	23:28:23.2	-02:48:17	300	90	3.0	#6 AGN Monitor	2	
0175-0184.FLAT	12	11:27	23:28:23.2	-02:48:17	300	90	3.0	#6 AGN Monitor	2	
0185-0194.DARK	900	13:45	23:28:23.2	-02:48:17	300	90	3.0	#6 AGN Monitor	2	



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0001.DARK	900	20:14	08:27:53.0	31:30:46	300	90	3.0	#6 AGN Monitor	4	
0002.DARK	900	20:29	08:43:03.0	31:30:47	300	90	3.0	#6 AGN Monitor	4	
0003.DARK	900	20:45	08:58:11.0	31:30:49	300	90	3.0	#6 AGN Monitor	4	
0004.DARK	900	21:00	09:13:22.0	31:30:51	300	90	3.0	#6 AGN Monitor	4	
0005.DARK	900	21:15	09:28:29.0	31:30:52	300	90	3.0	#6 AGN Monitor	4	
0006.DARK	900	21:30	09:43:40.0	31:30:53	300	90	3.0	#6 AGN Monitor	4	
0007.DARK	900	21:45	09:58:51.0	31:30:54	300	90	3.0	#6 AGN Monitor	4	
0008.DARK	900	22:00	10:13:58.0	31:30:55	300	90	3.0	#6 AGN Monitor	4	
0009.DARK	900	22:15	10:29:09.0	31:30:56	300	90	3.0	#6 AGN Monitor	4	
0010.DARK	900	22:30	10:44:16.0	31:30:57	300	90	3.0	#6 AGN Monitor	4	
0011-0020.BIAS	0	2:13	14:12:01.0	31:30:52	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	8	2:15	14:15:07.0	31:30:52	300	90	3.0	#57 Velocity S	4	
0031-0034.BIAS	0	2:17	14:16:17.0	31:30:52	300	90	3.0	#57 Velocity S	2	
0035-0040.BIAS	0	2:18	14:17:35.0	31:30:51	300	90	3.0	#57 Velocity S	2	
0041-0048.FLAT	16	2:25	14:24:57.0	31:30:51	300	90	3.0	#57 Velocity S	2	
0049-0050.FLAT	16	2:26	14:25:54.0	31:30:50	300	90	3.0	#57 Velocity S	2	
0051-0055.sky	3	2:46	14:37:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:46	14:37:00	32:00:00	300	90	3.0	#57 Velocity S	4	t-storm, delay
0057.id2730	540	6:45	19:59:28.1	35:12:50	300	90	3.0	#115 PMS NGC68	4	
0058.COMP	5	6:54	19:59:28.1	35:12:50	300	90	3.0	#115 PMS NGC68	4	



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0059.id2848	480	7:00	19:58:46.3	35:07:33	300	90	3.0	#115 PMS NGC68	4	
0060.COMP	5	7:08	19:58:46.3	35:07:33	300	90	3.0	#115 PMS NGC68	4	
0061.XS00548B3_020	300	7:09	17:16:13.8	+67:06:37	300	90	3.0	#129 CHAMP Sou	4	
0062.COMP	5	7:15	17:16:13.8	+67:06:37	300	90	3.0	#129 CHAMP Sou	4	
0063.XS00830B6_002	60	7:16	18:41:03.6	+79:53:06	300	90	3.0	#129 CHAMP Sou	4	
0064.COMP	5	7:17	18:41:03.6	+79:53:06	300	90	3.0	#129 CHAMP Sou	4	
0065.XS00830B6_005	900	7:19	18:40:57.5	+79:55:54	300	90	3.0	#129 CHAMP Sou	4	stopped by clouds but ok Me star
0066.COMP	5	7:34	18:40:57.5	+79:55:54	300	90	3.0	#129 CHAMP Sou	4	
0067.id1115	1200	7:37	20:07:24.0	35:54:57	300	90	3.0	#115 PMS NGC68	4	
0068.COMP	5	7:57	20:07:24.0	35:54:57	300	90	3.0	#115 PMS NGC68	4	
0069.id1606	600	8:18	20:06:24.9	35:48:52	300	90	3.0	#115 PMS NGC68	4	
0070.COMP	5	8:29	20:06:24.9	35:48:52	300	90	3.0	#115 PMS NGC68	4	
0071.id1706	780	8:55	20:06:13.4	35:46:51	300	90	3.0	#115 PMS NGC68	4	
0072.COMP	5	9:09	20:06:13.4	35:46:51	300	90	3.0	#115 PMS NGC68	4	
0073.id1726	720	9:10	20:06:11.8	35:56:00	300	90	3.0	#115 PMS NGC68	4	
0074.COMP	5	9:22	20:06:11.8	35:56:00	300	90	3.0	#115 PMS NGC68	4	
0075.id2034	900	9:23	20:05:35.5	35:46:20	300	90	3.0	#115 PMS NGC68	4	target is the brightest star at row 42
0076.COMP	5	9:39	20:05:35.5	35:46:20	300	90	3.0	#115 PMS NGC68	4	
0077.id2201	720	9:39	20:05:13.5	35:52:50	300	90	3.0	#115 PMS NGC68	4	
0078.COMP	5	9:52	20:05:13.5	35:52:50	300	90	3.0	#115 PMS NGC68	4	



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0079.id2225	720	9:52	20:05:10.6	35:55:23	300	90	3.0	#115 PMS NGC68	4	
0080.COMP	5	10:05	20:05:10.6	35:55:23	300	90	3.0	#115 PMS NGC68	4	
0081.id2313	600	10:05	20:04:54.6	35:44:35	300	90	3.0	#115 PMS NGC68	4	
0082.COMP	5	10:16	20:04:54.6	35:44:35	300	90	3.0	#115 PMS NGC68	4	
0083.BDp284211	90	10:17	21:48:57.1	28:37:48	300	65	3.0	#56 Spectropho	2	
0084.BDp284211	90	10:19	21:48:57.1	28:37:48	300	65	3.0	#56 Spectropho	2	
0085.COMP	10	10:21	21:48:57.1	28:37:48	300	65	3.0	#56 Spectropho	2	
0086.shtr37_2.3-341	600	10:23	21:40:37.6	57:33:6	300	90	3.0	#89 Herbig Ae/	4	
0087.COMP	5	10:33	21:40:37.6	57:33:6	300	90	3.0	#89 Herbig Ae/	4	
0088.shtr37_2.4-856	600	10:34	21:39:25.2	57:35:17	300	90	3.0	#89 Herbig Ae/	2	target is the fainter star at row 82
0089.COMP	10	10:45	21:39:25.2	57:35:17	300	90	3.0	#89 Herbig Ae/	2	
0090.sn2002ap	1200	10:48	01:36:23.8	+15:45:13	300	-50	3.0	#2 SN Observat	2	
0091.COMP	10	11:09	01:36:23.8	+15:45:13	300	-50	3.0	#2 SN Observat	2	
0092.021832p571044	480	11:10	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	more clouds
0093.COMP	10	11:19	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	
0094-0103.BIAS	0	11:22	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	4	
0104-0113.FLAT	8	11:25	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	4	
0114-0123.BIAS	0	11:27	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	
0124-0133.FLAT	16	11:32	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	
0134-0143.DARK	1200	14:49	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	6:01	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	4	
0011-0020.BIAS	0	8:08	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	4	
0021-0030.FLAT	8	8:10	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	4	
0031-0040.BIAS	0	8:13	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	
0041-0050.FLAT	16	8:18	02:18:32.4	57:10:44	300	90	3.0	#83 H+Chi Per	2	
0051.shtr37_1.1-1591	900	8:20	21:37:19.2	57:25:10	300	90	3.0	#89 Herbig Ae/	4	
0052.COMP	5	8:35	21:37:19.2	57:25:10	300	90	3.0	#89 Herbig Ae/	4	
0053.shtr37_1.1-1631	720	8:36	21:37:29.3	57:25:18	300	90	3.0	#89 Herbig Ae/	4	
0054.COMP	5	8:48	21:37:29.3	57:25:18	300	90	3.0	#89 Herbig Ae/	4	
0055.shtr37_1.1-2234	900	8:49	21:36:46.8	57:27:54	300	90	3.0	#89 Herbig Ae/	4	
0056.COMP	5	9:05	21:36:46.8	57:27:54	300	90	3.0	#89 Herbig Ae/	4	
0057.shtr37_1.1-2245	720	9:05	21:36:53.9	57:27:58	300	90	3.0	#89 Herbig Ae/	4	
0058.COMP	5	9:18	21:36:53.9	57:27:58	300	90	3.0	#89 Herbig Ae/	4	
0059.shtr37_1.1-2343	900	9:19	21:36:38.8	57:28:25	300	90	3.0	#89 Herbig Ae/	4	
0060.COMP	5	9:34	21:36:38.8	57:28:25	300	90	3.0	#89 Herbig Ae/	4	
0061.BDp284211	120	9:35	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0062.BDp284211	120	9:38	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0063.COMP	10	9:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0064-0073.BIAS	0	9:59	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	4	
0074-0083.FLAT	8	10:02	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	4	



WHIPPLE OBSERVATORY

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UT Date 2002-07-14 Observers P BerlindColl. Focus 980 Grating/Grism 300

<i>File</i>	<i>Exp Time</i>	<i>UT Start</i>	<i>RA</i>	<i>Dec</i>	<i>Gr.</i>	<i>P.A.</i>	<i>Slit</i>	<i>Program</i>	<i>Bin</i>	<i>Comments</i>
0084-0093.BIAS	0	10:04	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	
0094-0103.FLAT	16	10:09	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	
0104-0113.DARK	1200	13:12	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-15 Observers P BerlindColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	2:32	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	4	
0011-0020.BIAS	0	3:12	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	4	
0021-0030.FLAT	8	3:15	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	4	
0031-0040.BIAS	0	3:24	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	
0041-0050.FLAT	16	3:29	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	
0051-0060.DARK	1200	12:04	23:28:30.1	+22:25:38	300	90	3.0	#83 H+Chi Per	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-16 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	19:19	07:43:47.0	31:30:40	300	90	3.0	#83 H+Chi Per	4	
0002.DARK	900	19:34	07:58:59.0	31:30:42	300	90	3.0	#83 H+Chi Per	4	
0003.DARK	900	19:49	08:14:14.0	31:30:44	300	90	3.0	#83 H+Chi Per	4	
0004.DARK	900	20:04	08:29:25.0	31:30:46	300	90	3.0	#83 H+Chi Per	4	
0005.DARK	900	20:19	08:44:40.0	31:30:48	300	90	3.0	#83 H+Chi Per	4	
0006.DARK	900	20:34	08:59:51.0	31:30:49	300	90	3.0	#83 H+Chi Per	4	
0007.DARK	900	20:50	09:15:03.0	31:30:51	300	90	3.0	#83 H+Chi Per	4	
0008.DARK	900	21:05	09:30:18.0	31:30:52	300	90	3.0	#83 H+Chi Per	4	
0009.DARK	900	21:20	09:45:29.0	31:30:53	300	90	3.0	#83 H+Chi Per	4	
0010.DARK	900	21:35	10:00:41.0	31:30:55	300	90	3.0	#83 H+Chi Per	4	
0011-0012.DARK	900	22:06	10:31:12.0	31:30:56	300	90	3.0	#83 H+Chi Per	2	
0013.DARK	900	22:21	10:46:31.0	31:30:57	300	90	3.0	#83 H+Chi Per	2	
0014-0020.DARK	900	0:08	12:33:37.0	31:30:58	300	90	3.0	#83 H+Chi Per	2	
0021-0030.BIAS	0	2:26	14:37:46.0	31:30:49	300	90	3.0	#83 H+Chi Per	4	
0031-0040.FLAT	6	2:31	14:42:41.0	31:30:49	300	90	3.0	#83 H+Chi Per	4	
0041-0046.BIAS	0	2:33	14:44:34.0	31:30:49	300	90	3.0	#83 H+Chi Per	2	
0047-0050.BIAS	0	2:34	14:45:26.0	31:30:48	300	90	3.0	#83 H+Chi Per	2	
0051-0060.FLAT	12	2:38	14:49:59.0	31:30:48	300	90	3.0	#83 H+Chi Per	2	
0061-0065.sky	2	2:49	15:00:59.0	31:30:47	300	90	3.0	#57 Velocity S	4	
0066.COMP	5	2:50	15:01:42.0	31:30:47	300	90	3.0	#57 Velocity S	4	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-16 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0067.BDp332642	120	3:27	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0068.COMP	5	3:30	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0069.BDp332642	120	3:32	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0070.COMP	12	3:35	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0071.BDp332642	120	3:36	15:50:03	33:05:49	300	34	3.0	#56 Spectropho	2	
0072.COMP	12	3:39	15:50:03	33:05:49	300	34	3.0	#56 Spectropho	2	looking for holes
0073.MRK421	600	3:51	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0074.MRK421	600	4:02	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0075.COMP	12	4:12	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0076.id2661	1200	4:25	19:59:53.1	35:12:04	300	90	3.0	#115 PMS NGC68	2	
0077.COMP	12	4:46	19:59:53.1	35:12:04	300	90	3.0	#115 PMS NGC68	2	
0078.id2957	960	4:47	19:57:59.4	35:06:16	300	90	3.0	#115 PMS NGC68	2	interrupted by clouds
0079.COMP	12	5:04	19:57:59.4	35:06:16	300	90	3.0	#115 PMS NGC68	2	
0080.id1164	900	5:21	20:07:19.6	35:54:10	300	90	3.0	#115 PMS NGC68	2	
0081.COMP	12	5:37	20:07:19.6	35:54:10	300	90	3.0	#115 PMS NGC68	2	
0082-0091.BIAS	0	10:36	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	4	
0092-0101.FLAT	6	10:42	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	4	
0102-0111.BIAS	0	10:45	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	2	
0112-0121.FLAT	12	10:53	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	2	
0122-0131.DARK	900	13:11	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-17 Observers M CalkinsColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:34	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	4	
0011-0020.BIAS	0	1:37	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	4	
0021-0030.FLAT	6	1:39	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	4	
0031-0040.BIAS	0	1:42	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	2	
0041-0050.FLAT	12	2:09	20:07:15.5	35:50:54	300	90	3.0	#115 PMS NGC68	2	
0051.BDp332642	120	4:30	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0052.COMP	5	4:32	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0053.BDp332642	120	4:33	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0054.COMP	12	4:35	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0055.BDp332642	120	4:36	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0056.COMP	12	4:38	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0057-0066.DARK	900	12:31	20:06:33.0	35:50:11	300	90	3.0	#115 PMS NGC68	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-18 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	1:19	20:06:33.0	35:50:11	300	90	3.0	#115 PMS NGC68	4	
0011-0020.BIAS	0	1:44	20:06:33.0	35:50:11	300	90	3.0	#56 Spectropho	4	
0021-0030.FLAT	6	2:02	20:06:33.0	35:50:11	300	90	3.0	#56 Spectropho	4	
0031-0040.BIAS	0	2:22	20:06:33.0	35:50:11	300	90	3.0	#56 Spectropho	2	
0041-0050.FLAT	12	2:31	20:06:33.0	35:50:11	300	90	3.0	#56 Spectropho	2	
0051-0055.sky	2	2:42	20:06:33.0	35:50:11	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	2:43	20:06:33.0	35:50:11	300	90	3.0	#57 Velocity S	4	overcast at sunset
0057.BDp332642	90	4:25	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0058.COMP	5	4:27	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0059.BDp332642	90	4:28	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0060.COMP	12	4:30	15:50:03	33:05:49	300	93	3.0	#56 Spectropho	2	
0061.id1547	360	4:32	20:06:33.0	35:50:11	300	90	3.0	#115 PMS NGC68	2	row=74
0062.COMP	12	4:39	20:06:33.0	35:50:11	300	90	3.0	#115 PMS NGC68	2	
0063.id1742	420	4:40	20:06:10.4	35:51:34	300	90	3.0	#115 PMS NGC68	2	
0064.COMP	12	4:47	20:06:10.4	35:51:34	300	90	3.0	#115 PMS NGC68	2	
0065.id1779	420	4:48	20:06:04.9	35:52:08	300	90	3.0	#115 PMS NGC68	2	
0066.COMP	12	4:56	20:06:04.9	35:52:08	300	90	3.0	#115 PMS NGC68	2	clouds back
0067.id1877	600	5:32	20:05:55.9	35:48:03	300	90	3.0	#115 PMS NGC68	2	
0068.COMP	12	5:43	20:05:55.9	35:48:03	300	90	3.0	#115 PMS NGC68	2	
0069.id2270	1200	6:21	20:05:02.8	35:46:23	300	90	3.0	#115 PMS NGC68	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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UT Date 2002-07-18 Observers M Calkins

Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0070.COMP	12	6:42	20:05:02.8	35:46:23	300	90	3.0	#115 PMS NGC68	2	
0071.sn2002do	1200	6:46	19:56:12.8	+40:26:10	300	53	3.0	#2 SN Observat	2	row=73
0072.COMP	12	7:06	19:56:12.8	+40:26:10	300	53	3.0	#2 SN Observat	2	
0073.CHCyg	2	7:13	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0074.CHCyg	5	7:13	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0075.CHCyg	15	7:13	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0076.COMP	12	7:14	19:24:33	50:14:30	300	90	3.0	#12 Symbiotic	2	
0077.CICyg	2	7:16	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0078.CICyg	5	7:16	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0079.CICyg	15	7:17	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0080.COMP	12	7:18	19:50:12	35:41:02	300	90	3.0	#12 Symbiotic	2	
0081.V4641Sgr	1200	7:27	18:19:21.6	-25:24:26	300	90	3.0	#65 X-Ray Nova	2	
0082.COMP	12	7:47	18:19:21.6	-25:24:26	300	90	3.0	#65 X-Ray Nova	2	
0083.shtr37_1.2-1866	660	9:05	21:38:16.9	57:26:24	300	90	3.0	#89 Herbig Ae/	2	row=72
0084.COMP	12	9:17	21:38:16.9	57:26:24	300	90	3.0	#89 Herbig Ae/	2	
0085.sb93	900	9:49	21:44:13.4	+46:37:17	300	90	3.0	#135 Starburst	2	
0086.COMP	12	10:04	21:44:13.4	+46:37:17	300	90	3.0	#135 Starburst	2	
0087.sn2002dp	960	11:12	23:28:30.1	+22:25:38	300	1	3.0	#2 SN Observat	2	shortenend for clouds
0088.COMP	12	11:28	23:28:30.1	+22:25:38	300	1	3.0	#2 SN Observat	2	
0089-0098.BIAS	0	11:33	23:28:30.1	+22:25:38	300	90	3.0	#2 SN Observat	4	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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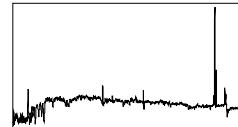
UT Date 2002-07-18 Observers M CalkinsColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0099-0108.FLAT	6	11:36	23:28:30.1	+22:25:38	300	90	3.0	#2 SN Observat	4	
0109-0118.BIAS	0	11:39	23:28:30.1	+22:25:38	300	90	3.0	#2 SN Observat	2	
0119-0128.FLAT	12	11:43	23:28:30.1	+22:25:38	300	90	3.0	#2 SN Observat	2	
0129-0138.DARK	900	14:00	23:28:30.1	+22:25:38	300	90	3.0	#2 SN Observat	2	



WHIPPLE OBSERVATORY

FAST SPECTROGRAPH LOG



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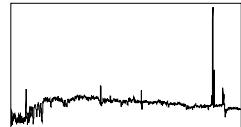
UT Date 2002-07-31 Observers M CalkinsColl. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0002.DARK	900	22:50	12:14:30.0	31:30:59	300	90	3.0	#2 SN Observat	4	
0003.DARK	900	23:05	12:29:41.0	31:30:58	300	90	3.0	#2 SN Observat	4	
0004-0005.DARK	900	23:35	12:59:59.0	31:30:57	300	90	3.0	#2 SN Observat	4	
0006.DARK	900	23:50	13:15:10.0	31:30:56	300	90	3.0	#2 SN Observat	4	
0007.DARK	900	0:05	13:30:17.0	31:30:55	300	90	3.0	#2 SN Observat	4	
0008.DARK	900	0:20	13:45:28.0	31:30:53	300	90	3.0	#2 SN Observat	4	
0009.DARK	900	0:35	14:00:39.0	31:30:52	300	90	3.0	#2 SN Observat	4	
0010.DARK	900	0:50	14:15:46.0	31:30:51	300	90	3.0	#2 SN Observat	4	
0011-0020.BIAS	0	4:20	17:31:08.0	31:30:23	300	90	3.0	#2 SN Observat	4	
0021-0030.FLAT	6	5:52	19:02:42.0	31:30:08	300	90	3.0	#2 SN Observat	4	
0031-0040.BIAS	0	5:56	19:06:54.0	31:30:08	300	90	3.0	#2 SN Observat	2	
0041-0050.FLAT	12	6:01	19:12:41.0	31:30:07	300	90	3.0	#2 SN Observat	2	



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FAST SPECTROGRAPH LOG



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UT Date 2002-08-01 Observers M Calkins

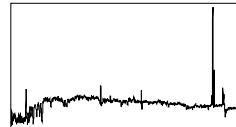
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0002.DARK	900	22:45	12:14:13.0	31:30:59	300	90	3.0	#2 SN Observat	4	
0003-0004.DARK	900	23:16	12:44:31.0	31:30:58	300	90	3.0	#2 SN Observat	4	
0005.DARK	900	23:31	12:59:43.0	31:30:57	300	90	3.0	#2 SN Observat	4	
0006.DARK	900	23:46	13:14:51.0	31:30:56	300	90	3.0	#2 SN Observat	4	
0007.DARK	900	0:01	13:30:02.0	31:30:55	300	90	3.0	#2 SN Observat	4	
0008.DARK	900	0:16	13:45:10.0	31:30:53	300	90	3.0	#2 SN Observat	4	
0009.DARK	900	0:31	14:00:21.0	31:30:52	300	90	3.0	#2 SN Observat	4	
0010.DARK	900	0:46	14:15:29.0	31:30:51	300	90	3.0	#2 SN Observat	4	
0011-0020.BIAS	0	2:34	15:48:31.0	31:30:39	300	90	3.0	#2 SN Observat	4	
0021-0026.FLAT	6	2:36	15:50:11.0	31:30:39	300	90	3.0	#2 SN Observat	4	
0027-0030.FLAT	6	2:36	15:51:04.0	31:30:38	300	90	3.0	#2 SN Observat	4	
0031-0040.BIAS	0	2:39	15:53:40.0	31:30:38	300	90	3.0	#2 SN Observat	2	
0041-0045.FLAT	12	2:42	15:56:42.0	31:30:38	300	90	3.0	#2 SN Observat	2	
0046-0050.FLAT	12	2:44	15:58:48.0	31:30:37	300	90	3.0	#2 SN Observat	2	
0051.BDp332642	180	3:11	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	lucky hole!
0052.COMP	5	3:14	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	4	
0053.BDp332642	150	3:15	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0054.COMP	12	3:18	15:50:03	33:05:49	300	90	3.0	#56 Spectropho	2	
0055.BDp332642	150	3:19	15:50:03	33:05:49	300	96	3.0	#56 Spectropho	2	
0056.COMP	12	3:22	15:50:03	33:05:49	300	96	3.0	#56 Spectropho	2	



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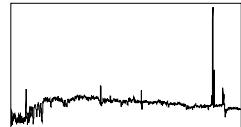
Coll. Focus 980 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.sn2002do	1200	3:29	19:56:12.8	+40:26:10	300	93	3.0	#2 SN Observat	2	row=78
0058.COMP	12	3:49	19:56:12.8	+40:26:10	300	93	3.0	#2 SN Observat	2	
0059.N5548	300	4:03	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0060.N5548	300	4:08	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	
0061.COMP	12	4:14	14:17:59.6	+25:08:12	300	90	3.0	#6 AGN Monitor	2	hole closing up
0062.MRK509	300	9:16	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0063.COMP	12	9:21	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0064.Akn564	180	9:23	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	clearing out...
0065.Akn564	180	9:26	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0066.COMP	12	9:30	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0067.N7469	120	9:31	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0068.N7469	120	9:34	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0069.COMP	12	9:36	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0070.MRK335	120	9:37	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0071.MRK335	120	9:40	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0072.COMP	12	9:42	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0073.sn2002dp	1200	9:47	23:28:30.1	+22:25:38	300	-32	3.0	#2 SN Observat	2	
0074.COMP	12	10:08	23:28:30.1	+22:25:38	300	-32	3.0	#2 SN Observat	2	
0075.snn7761	1200	10:15	23:51:29.5	-13:22:46	300	-7	3.0	#2 SN Observat	2	IA!
0076.COMP	12	10:35	23:51:29.5	-13:22:46	300	-7	3.0	#2 SN Observat	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.BDp284211	90	10:39	21:48:57.1	28:37:48	300	76	3.0	#56 Spectropho	2	
0078.COMP	12	10:41	21:48:57.1	28:37:48	300	76	3.0	#56 Spectropho	2	
0079.BDp284211	60	10:42	21:48:57.1	28:37:48	300	76	3.0	#56 Spectropho	2	
0080.COMP	12	10:44	21:48:57.1	28:37:48	300	76	3.0	#56 Spectropho	2	
0081.sb98	720	10:45	22:41:12.2	+34:14:58	300	90	3.0	#135 Starburst	2	
0082.COMP	12	10:58	22:41:12.2	+34:14:58	300	90	3.0	#135 Starburst	2	
0083.sb96	480	11:00	22:18:17.8	+40:33:46	300	10	3.0	#135 Starburst	2	
0084.COMP	12	11:09	22:18:17.8	+40:33:46	300	10	3.0	#135 Starburst	2	
0085.sb99	720	11:11	22:44:22.9	+04:21:09	300	-30	3.0	#135 Starburst	2	
0086.COMP	12	11:24	22:44:22.9	+04:21:09	300	-30	3.0	#135 Starburst	2	
0087.sb99a	540	11:26	22:44:21.9	+04:21:05	300	-30	3.0	#135 Starburst	2	
0088.COMP	12	11:35	22:44:21.9	+04:21:05	300	-30	3.0	#135 Starburst	2	
0089.sb103	600	11:39	22:57:36.0	+19:47:25	300	90	3.0	#135 Starburst	2	
0090.COMP	12	11:50	22:57:36.0	+19:47:25	300	90	3.0	#135 Starburst	2	
0091.M31	60	11:52	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0092.COMP	12	11:54	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0093.M31	60	11:55	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0094.COMP	5	11:56	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0095-0099.sky	2	12:27	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0100.COMP	12	12:27	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	



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<i>File</i>	<i>Exp Time</i>	<i>UT Start</i>	<i>RA</i>	<i>Dec</i>	<i>Gr.</i>	<i>P.A.</i>	<i>Slit</i>	<i>Program</i>	<i>Bir</i>	<i>Comments</i>
0101-0110.BIAS	0	12:29	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0111-0120.FLAT	6	12:32	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0121-0130.BIAS	0	12:34	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0131-0140.FLAT	12	12:38	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0141-0150.DARK	900	14:55	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	