



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9741

UT Date 2001-11-06 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	0:14	20:06:33.0	31:29:55	300	90	3.0		4	
0002.DARK	900	0:14	20:21:41.0	31:29:54	300	90	3.0		4	
0003.DARK	900	0:14	20:36:51.0	31:29:52	300	90	3.0		4	
0004.DARK	900	0:14	20:52:03.0	31:29:50	300	90	3.0		4	
0005.DARK	900	0:14	21:07:10.0	31:29:49	300	90	3.0		4	
0006.DARK	900	0:14	21:22:21.0	31:29:48	300	90	3.0		4	
0007.DARK	900	0:14	21:37:32.0	31:29:46	300	90	3.0		4	
0008-0009.DARK	900	2:15	22:07:50.0	31:29:45	300	90	3.0		4	
0010.DARK	900	2:15	22:23:01.0	31:29:44	300	90	3.0		4	
0011-0020.BIAS	0	2:47	22:24:37.0	31:29:44	300	90	3.0		4	
0021-0030.FLAT	6	2:59	22:36:42.0	31:29:44	300	90	3.0		4	
0031-0040.BIAS	0	3:02	22:39:57.0	31:29:43	300	90	3.0		2	
0041.FLAT	12	3:02	22:43:43.0	31:29:43	300	90	3.0		2	rain, clouds at sunset
0042-0050.FLAT	12	3:09	22:47:33.0	31:29:43	300	90	3.0		2	
0051.M31	60	3:09	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	high humidity
0052.COMP	5	3:09	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0053.M31	60	3:09	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0054.COMP	12	3:09	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0055.Feige25	120	3:09	02:36:00	05:15:16	300	90	3.0	#56 Spectropho	4	
0056.COMP	5	3:09	02:36:00	05:15:16	300	90	3.0	#56 Spectropho	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9742

UT Date 2001-11-06 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.Feige25	120	3:09	02:36:00	05:15:16	300	90	3.0	#56 Spectropho	2	
0058.COMP	12	3:09	02:36:00	05:15:16	300	90	3.0	#56 Spectropho	2	
0059.Akn564	240	3:09	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0060.Akn564	240	3:09	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0061.COMP	12	3:09	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0062.N7469	150	3:09	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0063.N7469	150	3:09	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0064.COMP	12	3:09	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0065.MRK335	120	3:09	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0066.MRK335	120	3:09	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0067.COMP	12	3:09	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0068.ZAnd	1	3:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0069.ZAnd	3	3:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0070.ZAnd	5	3:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0071.ZAnd	15	3:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0072.COMP	12	3:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0073.a168_258	830	3:09	01:23:32.1	-0:12:49	300	90	3.0	#64 Cluster In	2	
0074.COMP	12	3:09	01:23:32.1	-0:12:49	300	90	3.0	#64 Cluster In	2	
0075.a168_259	1020	3:09	01:20:57.6	-0:25:45	300	90	3.0	#64 Cluster In	2	
0076.COMP	12	3:09	01:20:57.6	-0:25:45	300	90	3.0	#64 Cluster In	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9743

UT Date 2001-11-06 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.a168_260	1200	3:09	01:13:02.0	-0:06:53	300	90	3.0	#64 Cluster In	2	
0078.COMP	12	3:09	01:13:02.0	-0:06:53	300	90	3.0	#64 Cluster In	2	
0079.a168_261	900	3:09	01:16:48.0	0:32:27	300	90	3.0	#64 Cluster In	2	
0080.COMP	12	3:09	01:16:48.0	0:32:27	300	90	3.0	#64 Cluster In	2	wait out some clouds...
0081.53vso-38411	720	3:09	05:25:42.6	-00:48:20	300	90	3.0	#112 Orion PMS	2	
0082.COMP	12	3:09	05:25:42.6	-00:48:20	300	90	3.0	#112 Orion PMS	2	
0083.54vso-38684	540	3:09	05:26:02.7	-00:42:05	300	90	3.0	#112 Orion PMS	2	
0084.COMP	12	3:09	05:26:02.7	-00:42:05	300	90	3.0	#112 Orion PMS	2	
0085.55vso-39054	720	3:09	05:26:31.0	-00:55:09	300	90	3.0	#112 Orion PMS	2	
0086.COMP	12	3:09	05:26:31.0	-00:55:09	300	90	3.0	#112 Orion PMS	2	wait out some more clouds...
0087.57vso-39473	600	3:09	05:26:59.7	-00:33:36	300	90	3.0	#112 Orion PMS	2	
0088.COMP	12	3:09	05:26:59.7	-00:33:36	300	90	3.0	#112 Orion PMS	2	
0089.58vso-40568	780	3:09	05:28:16.2	-00:41:14	300	90	3.0	#112 Orion PMS	2	
0090.COMP	12	3:09	05:28:16.2	-00:41:14	300	90	3.0	#112 Orion PMS	2	
0091.59vso-40674	720	3:09	05:28:23.1	-00:49:32	300	90	3.0	#112 Orion PMS	2	
0092.COMP	12	3:09	05:28:23.1	-00:49:32	300	90	3.0	#112 Orion PMS	2	
0093.60vso-40739	780	3:09	05:28:27.5	-00:59:42	300	90	3.0	#112 Orion PMS	2	
0094.COMP	12	3:09	05:28:27.5	-00:59:42	300	90	3.0	#112 Orion PMS	2	
0095.61vso-40815	780	3:09	05:28:32.3	-00:43:32	300	90	3.0	#112 Orion PMS	2	
0096.COMP	12	3:09	05:28:32.3	-00:43:32	300	90	3.0	#112 Orion PMS	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9744

UT Date 2001-11-06 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0097.62vso-40879	720	3:09	05:28:38.4	-00:33:25	300	90	3.0	#112 Orion PMS	2	
0098.COMP	12	3:09	05:28:38.4	-00:33:25	300	90	3.0	#112 Orion PMS	2	
0099.63vso-40968	780	3:09	05:28:45.2	-00:45:19	300	90	3.0	#112 Orion PMS	2	
0100.COMP	12	3:09	05:28:45.2	-00:45:19	300	90	3.0	#112 Orion PMS	2	
0101.64vso-41183	720	3:09	05:28:59.9	-00:34:20	300	90	3.0	#112 Orion PMS	2	
0102.COMP	13	3:09	05:28:59.9	-00:34:20	300	90	3.0	#112 Orion PMS	2	
0103.65vso-41193	540	3:09	05:29:00.3	-00:47:31	300	90	3.0	#112 Orion PMS	2	
0104.COMP	12	3:09	05:29:00.3	-00:47:31	300	90	3.0	#112 Orion PMS	2	
0105.66vso-41832	540	3:09	05:29:43.9	-00:52:00	300	90	3.0	#112 Orion PMS	2	
0106.COMP	12	3:09	05:29:43.9	-00:52:00	300	90	3.0	#112 Orion PMS	2	
0107.67vso-41856	720	3:09	05:29:45.5	-00:43:44	300	90	3.0	#112 Orion PMS	2	
0108.COMP	12	3:09	05:29:45.5	-00:43:44	300	90	3.0	#112 Orion PMS	2	
0109.68vso-41955	780	3:09	05:29:52.8	-00:39:24	300	90	3.0	#112 Orion PMS	2	
0110.COMP	12	3:09	05:29:52.8	-00:39:24	300	90	3.0	#112 Orion PMS	2	
0111.69vso-42187	720	3:09	05:30:11.0	-00:40:44	300	90	3.0	#112 Orion PMS	2	
0112.COMP	12	3:09	05:30:11.0	-00:40:44	300	90	3.0	#112 Orion PMS	2	
0113.Hiltner600	60	3:09	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0114.Hiltner600	60	3:09	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0115.COMP	12	3:09	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0116-0120.sky	2	13:29	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9745

UT Date 2001-11-06 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0121.COMP	5	13:29	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	4	
0122-0131.BIAS	0	13:31	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	4	
0132-0141.FLAT	6	13:34	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	4	
0142-0151.BIAS	0	13:37	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	2	
0152-0161.FLAT	12	13:41	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	2	
0162-0171.DARK	900	15:59	06:42:37.2	02:11:25	300	90	3.0	#57 Velocity S	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9742

UT Date 2001-11-07 Observers P Berlind

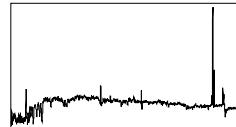
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.test	2	2:17	21:58:20.0	31:29:45	300	90	3.0	#57 Velocity S	4	computer problems
0002.test	2	2:17	21:58:29.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0003.test	2	2:17	21:58:38.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0004.test	2	2:17	21:58:50.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0005.test	2	2:17	21:58:59.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0006.test	2	2:17	21:59:12.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0007.test	2	2:17	21:59:21.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0008.test	2	2:17	21:59:33.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0009.test	2	2:17	21:59:42.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0010.test	2	2:17	21:59:51.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0011-0015.BIAS	0	2:19	22:00:39.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0016.BIAS	0	2:19	22:00:48.0	31:29:44	300	90	3.0	#57 Velocity S	4	
0017-0020.BIAS	0	2:20	22:01:22.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0021-0030.FLAT	8	2:22	22:04:07.0	31:29:45	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	2:27	22:08:44.0	31:29:45	300	90	3.0	#57 Velocity S	2	
0041-0046.FLAT	16	2:30	22:11:47.0	31:29:45	300	90	3.0	#57 Velocity S	2	
0047-0050.FLAT	16	2:32	22:13:44.0	31:29:44	300	90	3.0	#57 Velocity S	2	
0051.N7331	240	2:32	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	clouds. clearing...
0052.COMP	5	2:32	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	2	
0053.id1023	720	2:32	20:07:32.3	35:36:08	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9743

UT Date 2001-11-07 Observers P Berlind

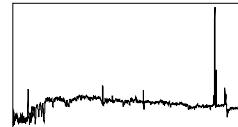
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0054.COMP	5	2:32	20:07:32.3	35:36:08	300	90	3.0	#115 PMS NGC68	4	
0055.id1304	720	2:32	20:07:04.2	35:45:53	300	90	3.0	#115 PMS NGC68	4	
0056.COMP	5	2:32	20:07:04.2	35:45:53	300	90	3.0	#115 PMS NGC68	4	
0057.id1551	720	2:32	20:06:32.1	35:47:52	300	90	3.0	#115 PMS NGC68	4	
0058.COMP	5	2:32	20:06:32.1	35:47:52	300	90	3.0	#115 PMS NGC68	4	
0059.id1899	720	2:32	20:05:53.6	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0060.COMP	5	2:32	20:05:53.6	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0061.id2320	720	2:32	20:04:53.2	35:36:47	300	90	3.0	#115 PMS NGC68	4	
0062.COMP	5	2:32	20:04:53.2	35:36:47	300	90	3.0	#115 PMS NGC68	4	
0063.sn2001fh	1200	2:32	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0064.COMP	10	2:32	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0065.a168_264	1200	2:32	01:15:02.7	1:39:04	300	90	3.0	#64 Cluster In	4	
0066.COMP	5	2:32	01:15:02.7	1:39:04	300	90	3.0	#64 Cluster In	4	
0067.a168_269	720	2:32	01:18:06.1	-2:06:51	300	90	3.0	#64 Cluster In	4	
0068.COMP	5	2:32	01:18:06.1	-2:06:51	300	90	3.0	#64 Cluster In	4	
0069.a168_270	900	2:32	01:11:54.8	1:44:10	300	90	3.0	#64 Cluster In	4	
0070.COMP	5	2:32	01:11:54.8	1:44:10	300	90	3.0	#64 Cluster In	4	
0071.a168_276	900	2:32	01:21:52.0	0:00:33	300	90	3.0	#64 Cluster In	4	
0072.COMP	5	2:32	01:21:52.0	0:00:33	300	90	3.0	#64 Cluster In	4	
0073.a168_281	720	2:32	01:21:03.6	1:35:29	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9744

UT Date 2001-11-07 Observers P Berlind

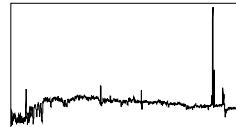
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0074.COMP	5	2:32	01:21:03.6	1:35:29	300	90	3.0	#64 Cluster In	4	
0075.ZAnd	1	2:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0076.ZAnd	3	2:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0077.ZAnd	5	2:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0078.ZAnd	15	2:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0079.COMP	5	2:32	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0080.a168_283	180	2:32	01:16:30.4	2:28:09	300	90	3.0	#64 Cluster In	4	star
0081.a168_288	1200	2:32	01:12:39.5	2:38:19	300	90	3.0	#64 Cluster In	4	
0082.COMP	5	2:32	01:12:39.5	2:38:19	300	90	3.0	#64 Cluster In	4	
0083.a168_290	900	2:32	01:19:31.9	2:07:48	300	90	3.0	#64 Cluster In	4	
0084.COMP	5	2:32	01:19:31.9	2:07:48	300	90	3.0	#64 Cluster In	4	
0085.a168_290	900	2:32	01:19:31.9	2:07:48	300	90	3.0	#64 Cluster In	4	
0086.COMP	5	2:32	01:19:31.9	2:07:48	300	90	3.0	#64 Cluster In	4	
0087.a168_292	900	2:32	01:13:00.2	1:40:27	300	90	3.0	#64 Cluster In	4	
0088.COMP	5	2:32	01:13:00.2	1:40:27	300	90	3.0	#64 Cluster In	4	
0089.a168_294	1200	2:32	01:08:35.3	1:56:36	300	90	3.0	#64 Cluster In	4	
0090.COMP	5	2:32	01:08:35.3	1:56:36	300	90	3.0	#64 Cluster In	4	
0091.a496_342	600	2:32	04:16:59.5	-12:22:05	300	90	3.0	#64 Cluster In	4	
0092.COMP	5	2:32	04:16:59.5	-12:22:05	300	90	3.0	#64 Cluster In	4	
0093.a496_362	900	2:32	04:14:39.8	-13:15:38	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9745

UT Date 2001-11-07 Observers P Berlind

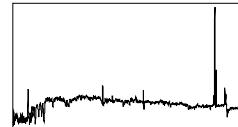
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0094.COMP	5	2:32	04:14:39.8	-13:15:38	300	90	3.0	#64 Cluster In	4	
0095.a496_361	600	2:32	04:22:11.9	-16:51:52	300	90	3.0	#64 Cluster In	4	
0096.COMP	5	2:32	04:22:11.9	-16:51:52	300	90	3.0	#64 Cluster In	4	
0097.a496_359	900	2:32	04:47:59.4	-14:10:46	300	90	3.0	#64 Cluster In	4	
0098.COMP	5	2:32	04:47:59.4	-14:10:46	300	90	3.0	#64 Cluster In	4	
0099.sn2001ep	1200	2:32	04:57:00.2	-04:45:40	300	0	3.0	#2 SN Observat	2	
0100.COMP	5	2:32	04:57:00.2	-04:45:40	300	0	3.0	#2 SN Observat	2	
0101.a496_358	600	2:32	04:50:14.7	-14:25:57	300	90	3.0	#64 Cluster In	4	
0102.COMP	5	2:32	04:50:14.7	-14:25:57	300	90	3.0	#64 Cluster In	4	
0103.a496_355	900	2:32	04:51:48.7	-13:51:03	300	90	3.0	#64 Cluster In	4	
0104.COMP	5	2:32	04:51:48.7	-13:51:03	300	90	3.0	#64 Cluster In	4	
0105.a496_351	900	2:32	04:17:42.7	-14:02:06	300	90	3.0	#64 Cluster In	4	
0106.COMP	5	2:32	04:17:42.7	-14:02:06	300	90	3.0	#64 Cluster In	4	
0107.a496_366	480	2:32	04:53:12.1	-13:29:41	300	90	3.0	#64 Cluster In	4	
0108.COMP	5	2:32	04:53:12.1	-13:29:41	300	90	3.0	#64 Cluster In	4	
0109.a496_367	600	2:32	04:48:05.9	-16:34:04	300	90	3.0	#64 Cluster In	4	
0110.COMP	5	2:32	04:48:05.9	-16:34:04	300	90	3.0	#64 Cluster In	4	
0111.a496_369	600	2:32	04:18:10.6	-12:50:32	300	90	3.0	#64 Cluster In	4	
0112.COMP	5	2:32	04:18:10.6	-12:50:32	300	90	3.0	#64 Cluster In	4	
0113.a496_376	900	2:32	04:47:27.3	-13:05:59	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9746

UT Date 2001-11-07 Observers P Berlind

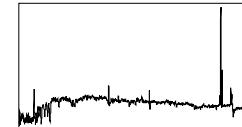
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0114.COMP	5	2:32	04:47:27.3	-13:05:59	300	90	3.0	#64 Cluster In	4	
0115.Hiltner600	60	2:32	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0116.Hiltner600	60	2:32	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0117.COMP	10	2:32	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0118.BGGem	1200	2:32	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0119.BGGem	300	2:32	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0120.COMP	10	2:32	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0121.2M054124.6p610043	720	2:32	05:41:24.6	+61:00:43	300	90	3.0	#68 2MASS Reds	4	
0122.COMP	5	2:32	05:41:24.6	+61:00:43	300	90	3.0	#68 2MASS Reds	4	
0123.2M054308.5p603610	300	2:32	05:43:08.5	+60:36:10	300	90	3.0	#68 2MASS Reds	4	
0124.COMP	5	2:32	05:43:08.5	+60:36:10	300	90	3.0	#68 2MASS Reds	4	
0125.2M054437.6p415937	300	2:32	05:44:37.6	+41:59:37	300	90	3.0	#68 2MASS Reds	4	
0126.COMP	5	2:32	05:44:37.6	+41:59:37	300	90	3.0	#68 2MASS Reds	4	
0127.sn2001XX.host	180	2:32	08:52:16.5	-17:44:29	300	-10	3.0	#2 SN Observat	2	
0128.sn2001XX	900	2:32	08:52:16.5	-17:44:29	300	-10	3.0	#2 SN Observat	2	
0129.COMP	10	2:32	08:52:16.5	-17:44:29	300	-10	3.0	#2 SN Observat	2	
0130.Feige34	120	2:32	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0131.Feige34	120	2:32	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0132.COMP	10	2:32	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0133.MRK421	300	2:32	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9747

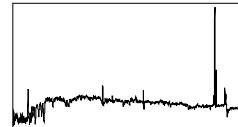
UT Date 2001-11-07 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0134.COMP	10	2:32	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	hazy and cool @ dawn
0135-0144.BIAS	0	12:45	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0145-0154.FLAT	8	12:48	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0155-0164.BIAS	0	12:51	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0165-0174.FLAT	16	12:56	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	2	
0175-0184.DARK	900	15:16	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9747

UT Date 2001-11-08 Observers P Berlind

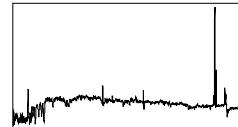
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001.DARK	900	23:55	19:55:15.0	31:29:57	300	90	3.0	#6 AGN Monitor	4	
0002.DARK	900	23:55	20:10:22.0	31:29:55	300	90	3.0	#6 AGN Monitor	4	
0003.BIAS	0	23:55	20:10:52.0	31:29:55	300	90	3.0	#6 AGN Monitor	4	scattered clouds
0004-0020.BIAS	0	0:28	20:13:36.0	31:29:55	300	90	3.0	#6 AGN Monitor	4	
0021-0026.FLAT	8	0:30	20:15:37.0	31:29:55	300	90	3.0	#6 AGN Monitor	4	
0027-0030.FLAT	8	0:31	20:16:42.0	31:29:54	300	90	3.0	#6 AGN Monitor	4	
0031-0040.BIAS	0	0:36	20:21:38.0	31:29:54	300	90	3.0	#6 AGN Monitor	2	
0041-0043.FLAT	16	0:38	20:23:56.0	31:29:54	300	90	3.0	#6 AGN Monitor	2	
0044-0050.FLAT	16	0:42	20:27:24.0	31:29:53	300	90	3.0	#6 AGN Monitor	2	
0051.sky	5	0:42	20:35:00	32:00:00	300	90	3.0	#57 Velocity S	4	Hi Susan!
0052-0055.sky	5	0:49	20:35:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	0:49	20:35:00	32:00:00	300	90	3.0	#57 Velocity S	4	
0057.HD192281	5	0:49	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0058.HD192281	5	0:49	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0059.HD192281	5	0:49	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0060.COMP	5	0:49	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0061.MRK509	210	0:49	20:44:09.8	-10:43:24	300	15	3.0	#6 AGN Monitor	4	
0062.MRK509	210	0:49	20:44:09.8	-10:43:24	300	15	3.0	#6 AGN Monitor	4	
0063.COMP	5	0:49	20:44:09.8	-10:43:24	300	15	3.0	#6 AGN Monitor	4	
0064.BDp284211	60	0:49	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9748

UT Date 2001-11-08 Observers P Berlind

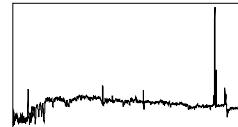
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0065.BDp284211	60	0:49	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0066.COMP	10	0:49	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0067.SS433	240	0:49	19:11:49.6	04:58:58	300	90	3.0	#57 Velocity S	4	
0068.COMP	5	0:49	19:11:49.6	04:58:58	300	90	3.0	#57 Velocity S	4	
0069.id1076	600	0:49	20:07:27.5	35:45:45	300	90	3.0	#115 PMS NGC68	2	close companions for the next 4 files
0070.id2076	600	0:49	20:05:28.1	35:43:01	300	90	3.0	#115 PMS NGC68	2	
0071.COMP	10	0:49	20:05:28.1	35:43:01	300	90	3.0	#115 PMS NGC68	2	
0072.id2097	480	0:49	20:05:54.9	35:55:56	300	90	3.0	#115 PMS NGC68	2	
0073.id75	600	0:49	20:06:05.8	35:43:44	300	90	3.0	#115 PMS NGC68	2	
0074.COMP	10	0:49	20:06:05.8	35:43:44	300	90	3.0	#115 PMS NGC68	2	
0075.id1186	480	0:49	20:07:17.7	35:41:44	300	90	3.0	#115 PMS NGC68	4	
0076.id1613	480	0:49	20:06:24.0	35:40:29	300	90	3.0	#115 PMS NGC68	4	
0077.COMP	5	0:49	20:06:24.0	35:40:29	300	90	3.0	#115 PMS NGC68	4	
0078.id1645	480	0:49	20:06:21.0	35:39:23	300	90	3.0	#115 PMS NGC68	4	
0079.id1724	480	0:49	20:06:11.7	35:40:30	300	90	3.0	#115 PMS NGC68	4	
0080.id2267	480	0:49	20:05:03.7	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0081.COMP	5	0:49	20:05:03.7	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0082.id2839	600	0:49	19:58:48.6	35:19:26	300	90	3.0	#115 PMS NGC68	4	
0083.id2470	600	0:49	20:04:22.3	35:48:21	300	90	3.0	#115 PMS NGC68	4	
0084.COMP	5	0:49	20:04:22.3	35:48:21	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9749

UT Date 2001-11-08 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0085.id2569	480	0:49	20:04:03.7	35:52:40	300	90	3.0	#115 PMS NGC68	4	
0086.id2731	600	0:49	19:59:27.7	35:10:56	300	90	3.0	#115 PMS NGC68	4	clearing
0087.COMP	5	0:49	19:59:27.7	35:10:56	300	90	3.0	#115 PMS NGC68	4	
0088.id2791	480	0:49	19:59:03.9	35:24:12	300	90	3.0	#115 PMS NGC68	4	
0089.id2939	600	0:49	19:58:05.5	35:20:49	300	90	3.0	#115 PMS NGC68	4	
0090.COMP	5	0:49	19:58:05.5	35:20:49	300	90	3.0	#115 PMS NGC68	4	
0091.sn2001fh	1200	0:49	21:20:42.5	+44:23:53	300	95	3.0	#2 SN Observat	2	
0092.COMP	10	0:49	21:20:42.5	+44:23:53	300	95	3.0	#2 SN Observat	2	
0093.ZAnd	1	0:49	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0094.ZAnd	3	0:49	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0095.ZAnd	5	0:49	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0096.ZAnd	15	0:49	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0097.COMP	5	0:49	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0098.a119c_519	540	0:49	00:49:38.4	02:17:10	300	90	3.0	#64 Cluster In	4	
0099.COMP	5	0:49	00:49:38.4	02:17:10	300	90	3.0	#64 Cluster In	4	
0100.a119c_525	1200	0:49	00:42:43.7	00:15:49	300	90	3.0	#64 Cluster In	4	
0101.COMP	5	0:49	00:42:43.7	00:15:49	300	90	3.0	#64 Cluster In	4	
0102.a119c_528	900	0:49	00:43:21.7	-2:14:25	300	90	3.0	#64 Cluster In	4	
0103.COMP	5	0:49	00:43:21.7	-2:14:25	300	90	3.0	#64 Cluster In	4	
0104.a119c_533	900	0:49	01:07:55.4	-1:40:35	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9750

UT Date 2001-11-08 Observers P Berlind

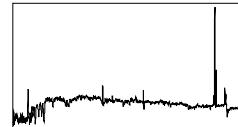
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0105.COMP	5	0:49	01:07:55.4	-1:40:35	300	90	3.0	#64 Cluster In	4	
0106.a119c_538	900	0:49	00:47:50.4	-4:17:51	300	90	3.0	#64 Cluster In	4	
0107.COMP	5	0:49	00:47:50.4	-4:17:51	300	90	3.0	#64 Cluster In	4	
0108.a119c_548	900	0:49	00:49:39.3	-4:07:14	300	90	3.0	#64 Cluster In	4	moon is up
0109.COMP	5	0:49	00:49:39.3	-4:07:14	300	90	3.0	#64 Cluster In	4	
0110.a119c_555	1200	0:49	00:48:19.1	-0:15:31	300	90	3.0	#64 Cluster In	4	
0111.COMP	5	0:49	00:48:19.1	-0:15:31	300	90	3.0	#64 Cluster In	4	
0112.a119c_556	720	0:49	00:51:16.8	-4:29:35	300	90	3.0	#64 Cluster In	4	
0113.COMP	5	0:49	00:51:16.8	-4:29:35	300	90	3.0	#64 Cluster In	4	
0114.a119c_557	900	0:49	00:43:45.3	-0:13:35	300	90	3.0	#64 Cluster In	4	
0115.COMP	5	0:49	00:43:45.3	-0:13:35	300	90	3.0	#64 Cluster In	4	
0116.a119c_565	720	0:49	00:46:17.2	-3:25:19	300	90	3.0	#64 Cluster In	4	
0117.COMP	5	0:49	00:46:17.2	-3:25:19	300	90	3.0	#64 Cluster In	4	
0118.a119c_567	480	0:49	00:52:06.4	02:26:47	300	90	3.0	#64 Cluster In	4	
0119.COMP	5	0:49	00:52:06.4	02:26:47	300	90	3.0	#64 Cluster In	4	
0120.a168_295	300	0:49	01:14:42.0	3:42:04	300	90	3.0	#64 Cluster In	4	
0121.COMP	5	0:49	01:14:42.0	3:42:04	300	90	3.0	#64 Cluster In	4	
0122.133vso-25826	300	0:49	05:00:01.0	-01:34:57	300	0	3.0	#112 Orion PMS	4	
0123.134vso-27956	300	0:49	05:03:03.0	-01:25:04	300	0	3.0	#112 Orion PMS	4	
0124.COMP	5	0:49	05:03:03.0	-01:25:04	300	0	3.0	#112 Orion PMS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9751

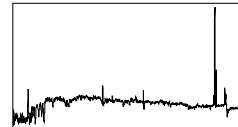
UT Date 2001-11-08 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0125.135vso-29372	360	0:49	05:05:07.8	-01:32:02	300	0	3.0	#112 Orion PMS	4	
0126.COMP	5	0:49	05:05:07.8	-01:32:02	300	0	3.0	#112 Orion PMS	4	
0127.136vso-34603	300	0:49	05:12:12.1	-01:14:00	300	0	3.0	#112 Orion PMS	4	
0128.137vso-35119	300	0:49	05:12:49.6	-01:27:22	300	0	3.0	#112 Orion PMS	4	
0129.COMP	5	0:49	05:12:49.6	-01:27:22	300	0	3.0	#112 Orion PMS	4	
0130.138vso-40035	300	0:49	05:19:18.7	-01:13:55	300	0	3.0	#112 Orion PMS	4	
0131.139vso-40940	300	0:49	05:20:18.1	-01:35:19	300	0	3.0	#112 Orion PMS	4	
0132.COMP	5	0:49	05:20:18.1	-01:35:19	300	0	3.0	#112 Orion PMS	4	
0133.140vso-41915	300	0:49	05:21:28.4	-01:36:01	300	0	3.0	#112 Orion PMS	4	
0134.141vso-45712	300	0:49	05:25:54.9	-01:26:06	300	0	3.0	#112 Orion PMS	4	
0135.COMP	5	0:49	05:25:54.9	-01:26:06	300	0	3.0	#112 Orion PMS	4	
0136.142vso-47470	300	0:49	05:27:49.6	-01:29:52	300	0	3.0	#112 Orion PMS	4	
0137.143vso-47953	300	0:49	05:28:20.2	-01:11:12	300	0	3.0	#112 Orion PMS	4	
0138.COMP	5	0:49	05:29:08.9	-01:17:04	300	0	3.0	#112 Orion PMS	4	
0139.144vso-48667	300	0:49	05:29:08.9	-01:17:04	300	0	3.0	#112 Orion PMS	4	
0140.145vso-49892	300	0:49	05:30:30.3	-01:20:52	300	0	3.0	#112 Orion PMS	4	
0141.COMP	5	0:49	05:30:30.3	-01:20:52	300	0	3.0	#112 Orion PMS	4	POWER FAILURE, lose 1 hour
0142.Akn120	180	0:49	05:13:38.0	-00:12:15	300	0	3.0	#6 AGN Monitor	4	long story, mmmts fault
0143.COMP	5	0:49	05:13:38.0	-00:12:15	300	0	3.0	#6 AGN Monitor	4	
0144.70vso-42322	300	0:49	05:30:21.6	-00:55:26	300	0	3.0	#112 Orion PMS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9752

UT Date 2001-11-08 Observers P Berlind

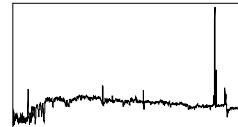
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0145.71vso-42830	300	0:49	05:30:58.6	-00:38:45	300	0	3.0	#112 Orion PMS	4	
0146.COMP	5	0:49	05:30:58.6	-00:38:45	300	0	3.0	#112 Orion PMS	4	
0147.72vso-42926	300	0:49	05:31:06.3	-00:47:27	300	0	3.0	#112 Orion PMS	4	
0148.73vso-43069	300	0:49	05:31:18.5	-00:41:06	300	0	3.0	#112 Orion PMS	4	
0149.COMP	5	0:49	05:31:18.5	-00:41:06	300	0	3.0	#112 Orion PMS	4	
0150.74vso-43188	300	0:49	05:31:26.5	-00:46:49	300	0	3.0	#112 Orion PMS	4	
0151.75vso-43911	300	0:49	05:32:06.5	-00:41:49	300	0	3.0	#112 Orion PMS	4	
0152.COMP	5	0:49	05:32:06.5	-00:41:49	300	0	3.0	#112 Orion PMS	4	
0153.76vso-44062	300	0:49	05:32:16.7	-00:49:56	300	0	3.0	#112 Orion PMS	4	
0154.77vso-44282	300	0:49	05:32:33.0	-00:57:39	300	0	3.0	#112 Orion PMS	4	
0155.COMP	5	0:49	05:32:33.0	-00:57:39	300	0	3.0	#112 Orion PMS	4	
0156.78vso-44312	300	0:49	05:32:34.9	-00:37:13	300	0	3.0	#112 Orion PMS	4	
0157.79vso-44546	300	0:49	05:32:53.7	-00:33:24	300	0	3.0	#112 Orion PMS	4	
0158.COMP	5	0:49	05:32:53.7	-00:33:24	300	0	3.0	#112 Orion PMS	4	
0159.80vso-44756	300	0:49	05:33:09.1	-00:55:31	300	0	3.0	#112 Orion PMS	4	
0160.81vso-45192	300	0:49	05:33:33.0	-00:46:22	300	0	3.0	#112 Orion PMS	4	
0161.COMP	5	0:49	05:33:33.0	-00:46:22	300	0	3.0	#112 Orion PMS	4	
0162.Hiltner600	60	0:49	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0163.Hiltner600	60	0:49	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0164.COMP	10	0:49	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9753

UT Date 2001-11-08 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0165.124vso-56613	360	0:49	05:51:02.2	-00:40:47	300	0	3.0	#112 Orion PMS	4	
0166.125vso-56821	360	0:49	05:51:23.8	-00:35:47	300	0	3.0	#112 Orion PMS	4	
0167.COMP	5	0:49	05:51:23.8	-00:35:47	300	0	3.0	#112 Orion PMS	4	
0168.126vso-56919	360	0:49	05:51:33.2	-00:50:04	300	0	3.0	#112 Orion PMS	4	
0169.127vso-57166	360	0:49	05:51:51.7	-00:50:43	300	0	3.0	#112 Orion PMS	4	
0170.COMP	5	0:49	05:51:51.7	-00:50:43	300	0	3.0	#112 Orion PMS	4	
0171.128vso-57234	360	0:49	05:51:56.2	-00:48:44	300	0	3.0	#112 Orion PMS	4	
0172.129vso-57320	360	0:49	05:52:02.3	-00:46:30	300	0	3.0	#112 Orion PMS	4	
0173.COMP	5	0:49	05:52:02.3	-00:46:30	300	0	3.0	#112 Orion PMS	4	
0174.130vso-57430	360	0:49	05:52:09.7	-00:38:44	300	0	3.0	#112 Orion PMS	4	
0175.131vso-57622	360	0:49	05:52:24.5	-00:54:00	300	0	3.0	#112 Orion PMS	4	
0176.COMP	5	0:49	05:52:24.5	-00:54:00	300	0	3.0	#112 Orion PMS	4	
0177.132vso-57730	360	0:49	05:52:32.1	-00:36:33	300	0	3.0	#112 Orion PMS	4	
0178.COMP	5	0:49	05:52:32.1	-00:36:33	300	0	3.0	#112 Orion PMS	4	
0179.2M054657.7p315209	360	0:49	05:46:57.7	+31:52:09	300	90	3.0	#68 2MASS Reds	4	
0180.COMP	5	0:49	05:46:57.7	+31:52:09	300	90	3.0	#68 2MASS Reds	4	
0181.2M054714.9p505215	300	0:49	05:47:14.9	+50:52:15	300	90	3.0	#68 2MASS Reds	4	
0182.COMP	5	0:49	05:47:14.9	+50:52:15	300	90	3.0	#68 2MASS Reds	4	
0183.2M054721.1p505841	720	0:49	05:47:21.1	+50:58:41	300	90	3.0	#68 2MASS Reds	4	
0184.COMP	5	0:49	05:47:21.1	+50:58:41	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9754

UT Date 2001-11-08 Observers P Berlind

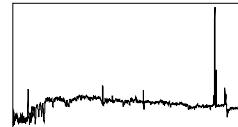
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0185.2M054748.0p503306	420	0:49	05:47:48.0	+50:33:06	300	90	3.0	#68 2MASS Reds	4	
0186.COMP	5	0:49	05:47:48.0	+50:33:06	300	90	3.0	#68 2MASS Reds	4	
0187.2M054812.9p315322	480	0:49	05:48:12.9	+31:53:22	300	90	3.0	#68 2MASS Reds	4	
0188.COMP	5	0:49	05:48:12.9	+31:53:22	300	90	3.0	#68 2MASS Reds	4	
0189.HD52971	4	0:49	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0190.HD52971	4	0:49	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0191.HD52971	4	0:49	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0192.COMP	5	0:49	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0193.BIAS	0	0:49	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	thin clouds @ dawn
0194-0202.BIAS	0	12:59	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0203-0212.FLAT	8	13:02	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0213-0222.BIAS	0	13:07	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0223-0232.FLAT	16	13:12	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0233-0242.DARK	900	15:31	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9754

UT Date 2001-11-09 Observers P Berlind

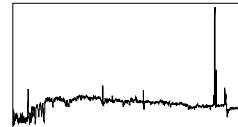
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001.DARK	900	23:29	19:32:50.0	31:30:00	300	90	3.0	#68 2MASS Reds	2	
0002.DARK	900	23:29	19:48:06.0	31:29:58	300	90	3.0	#68 2MASS Reds	2	
0003.DARK	900	23:29	20:03:21.0	31:29:56	300	90	3.0	#68 2MASS Reds	2	
0004.DARK	900	23:29	20:18:37.0	31:29:54	300	90	3.0	#68 2MASS Reds	2	
0005-0020.BIAS	0	0:32	20:21:09.0	31:29:54	300	90	3.0	#68 2MASS Reds	4	
0021.FLAT	8	0:32	20:21:31.0	31:29:54	300	90	3.0	#68 2MASS Reds	4	lots of clouds
0022-0030.FLAT	8	0:34	20:23:55.0	31:29:54	300	90	3.0	#68 2MASS Reds	4	
0031.BIAS	0	0:34	20:24:12.0	31:29:54	300	90	3.0	#68 2MASS Reds	2	all night long
0032-0035.BIAS	0	0:36	20:25:08.0	31:29:54	300	90	3.0	#68 2MASS Reds	2	
0036-0040.BIAS	0	0:37	20:26:14.0	31:29:53	300	90	3.0	#68 2MASS Reds	2	
0041-0050.FLAT	16	0:42	20:31:14.0	31:29:53	300	90	3.0	#68 2MASS Reds	2	
0051-0055.sky	3	0:44	20:33:28.0	31:29:53	300	90	3.0	#57 Velocity S	4	
0056.COMP	5	0:44	20:34:55.0	31:29:52	300	90	3.0	#57 Velocity S	4	
0057.HD192281	5	0:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0058.HD192281	5	0:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0059.HD192281	5	0:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0060.HD192281	5	0:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0061.COMP	5	0:44	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0062.HIP111762	30	0:44	22:38:22.1	+52:22:05	300	90	3.0	#89 Ae/Be Star	4	
0063.HIP111762	30	0:44	22:38:22.1	+52:22:05	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9755

UT Date 2001-11-09 Observers P Berlind

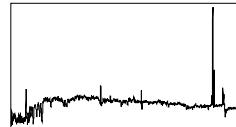
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0064.HIP111762.north	30	0:44	22:38:22.1	+52:22:05	300	90	3.0	#89 Ae/Be Star	4	
0065.COMP	5	0:44	22:38:22.1	+52:22:05	300	90	3.0	#89 Ae/Be Star	4	
0066.HIP111814	20	0:44	22:38:54.9	+36:55:42	300	90	3.0	#89 Ae/Be Star	4	
0067.HIP111814	20	0:44	22:38:54.9	+36:55:42	300	90	3.0	#89 Ae/Be Star	4	
0068.COMP	5	0:44	22:38:54.9	+36:55:42	300	90	3.0	#89 Ae/Be Star	4	
0069.HIP111916	20	0:44	22:40:12.5	+38:58:24	300	90	3.0	#89 Ae/Be Star	4	
0070.HIP111916	20	0:44	22:40:12.5	+38:58:24	300	90	3.0	#89 Ae/Be Star	4	
0071.COMP	5	0:44	22:40:12.5	+38:58:24	300	90	3.0	#89 Ae/Be Star	4	
0072.HIP112016	5	0:44	22:41:22.8	+50:05:33	300	90	3.0	#89 Ae/Be Star	4	
0073.HIP112016	6	0:44	22:41:22.8	+50:05:33	300	90	3.0	#89 Ae/Be Star	4	
0074.HIP112016	6	0:44	22:41:22.8	+50:05:33	300	90	3.0	#89 Ae/Be Star	4	
0075.COMP	5	0:44	22:41:22.8	+50:05:33	300	90	3.0	#89 Ae/Be Star	4	
0076.HIP112017	20	0:44	22:41:23.7	+41:02:16	300	90	3.0	#89 Ae/Be Star	4	
0077.HIP112017	20	0:44	22:41:23.7	+41:02:16	300	90	3.0	#89 Ae/Be Star	4	
0078.HIP112017	20	0:44	22:41:23.7	+41:02:16	300	90	3.0	#89 Ae/Be Star	4	
0079.COMP	5	0:44	22:41:23.7	+41:02:16	300	90	3.0	#89 Ae/Be Star	4	
0080.HIP112148	5	0:44	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0081.HIP112148	5	0:44	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0082.HIP112148	10	0:44	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0083.HIP112148	10	0:44	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9756

UT Date 2001-11-09 Observers P Berlind

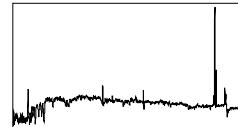
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0084.COMP	5	0:44	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0085.id1364	900	0:44	20:06:57.5	35:36:50	300	90	3.0	#115 PMS NGC68	4	
0086.COMP	5	0:44	20:06:57.5	35:36:50	300	90	3.0	#115 PMS NGC68	4	
0087.BDp284211	60	0:44	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0088.BDp284211	70	0:44	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0089.COMP	10	0:44	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0090.sn2001fh	1200	0:44	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0091.COMP	10	0:44	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0092.sn2001fc	1200	0:44	21:08:26.6	18:11:15	300	90	3.0	#2 SN Observat	2	
0093.COMP	10	0:44	21:08:26.6	18:11:15	300	90	3.0	#2 SN Observat	2	
0094.sn2001fc	1200	0:44	21:08:26.6	18:11:15	300	90	3.0	#2 SN Observat	2	
0095.COMP	10	0:44	21:08:26.6	18:11:15	300	90	3.0	#2 SN Observat	2	
0096.ZAnd	1	0:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0097.ZAnd	3	0:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0098.ZAnd	5	0:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0099.ZAnd	30	0:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0100.COMP	5	0:44	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0101.2M013621.2p472321	360	0:44	01:36:21.2	+47:23:21	300	90	3.0	#68 2MASS Reds	4	
0102.COMP	5	0:44	01:36:21.2	+47:23:21	300	90	3.0	#68 2MASS Reds	4	
0103.2M013811.1p560425	300	0:44	01:38:11.1	+56:04:25	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9757

UT Date 2001-11-09 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0104.COMP	5	0:44	01:38:11.1	+56:04:25	300	90	3.0	#68 2MASS Reds	4	
0105.2M014035.3p435139	210	0:44	01:40:35.3	+43:51:39	300	90	3.0	#68 2MASS Reds	4	
0106.COMP	5	0:44	01:40:35.3	+43:51:39	300	90	3.0	#68 2MASS Reds	4	
0107.N7469	150	0:44	23:03:15.7	+08:52:27	300	35	3.0	#6 AGN Monitor	4	
0108.N7469	150	0:44	23:03:15.7	+08:52:27	300	35	3.0	#6 AGN Monitor	4	
0109.COMP	5	0:44	23:03:15.7	+08:52:27	300	35	3.0	#6 AGN Monitor	4	
0110.Akn564	240	0:44	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0111.Akn564	240	0:44	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0112.COMP	5	0:44	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0113.MRK335	120	0:44	00:06:19.6	+20:12:11	300	26	3.0	#6 AGN Monitor	4	
0114.MRK335	120	0:44	00:06:19.6	+20:12:11	300	26	3.0	#6 AGN Monitor	4	
0115.COMP	5	0:44	00:06:19.6	+20:12:11	300	26	3.0	#6 AGN Monitor	4	
0116.2M014442.8p424415	240	0:44	01:44:42.8	+42:44:15	300	26	3.0	#68 2MASS Reds	4	
0117.COMP	5	0:44	01:44:42.8	+42:44:15	300	26	3.0	#68 2MASS Reds	4	
0118.2M014820.4p531836	420	0:44	01:48:20.4	+53:18:36	300	26	3.0	#68 2MASS Reds	4	
0119.COMP	5	0:44	01:48:20.4	+53:18:36	300	26	3.0	#68 2MASS Reds	4	
0120.2M014844.8p605009	420	0:44	01:48:44.8	+60:50:09	300	26	3.0	#68 2MASS Reds	4	hmmpphhh redo
0121.COMP	5	0:44	01:48:44.8	+60:50:09	300	26	3.0	#68 2MASS Reds	4	
0122.2M014844.8p605009	1200	0:44	01:48:44.8	+60:50:09	300	26	3.0	#68 2MASS Reds	2	got it
0123.COMP	10	0:44	01:48:44.8	+60:50:09	300	26	3.0	#68 2MASS Reds	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9758

UT Date 2001-11-09 Observers P Berlind

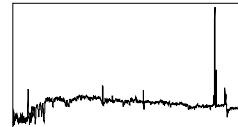
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0124.2M014748.9p630512	1200	0:44	01:47:48.9	+63:05:12	300	26	3.0	#68 2MASS Reds	4	
0125.COMP	5	0:44	01:47:48.9	+63:05:12	300	26	3.0	#68 2MASS Reds	4	
0126.2M014533.8p732859	720	0:44	01:45:33.8	+73:28:59	300	26	3.0	#68 2MASS Reds	4	
0127.COMP	5	0:44	01:45:33.8	+73:28:59	300	26	3.0	#68 2MASS Reds	4	
0128.2M015038.9p705407	900	0:44	01:50:38.9	+70:54:07	300	26	3.0	#68 2MASS Reds	4	
0129.COMP	5	0:44	01:50:38.9	+70:54:07	300	26	3.0	#68 2MASS Reds	4	
0130.2M015052.6p482106	900	0:44	01:50:52.6	+48:21:06	300	26	3.0	#68 2MASS Reds	2	
0131.COMP	5	0:44	01:50:52.6	+48:21:06	300	26	3.0	#68 2MASS Reds	2	
0132.2M015218.1p480516	600	0:44	01:52:18.1	+48:05:16	300	26	3.0	#68 2MASS Reds	2	
0133.COMP	5	0:44	01:52:18.1	+48:05:16	300	26	3.0	#68 2MASS Reds	2	
0134.2M015218.3p594810	900	0:44	01:52:18.3	+59:48:10	300	26	3.0	#68 2MASS Reds	4	
0135.COMP	5	0:44	01:52:18.3	+59:48:10	300	26	3.0	#68 2MASS Reds	4	
0136.2M015240.1p480533	480	0:44	01:52:40.1	+48:05:33	300	26	3.0	#68 2MASS Reds	4	
0137.COMP	5	0:44	01:52:40.1	+48:05:33	300	26	3.0	#68 2MASS Reds	4	
0138.2M015318.1p591535	900	0:44	01:53:18.1	+59:15:35	300	26	3.0	#68 2MASS Reds	4	
0139.COMP	5	0:44	01:53:18.1	+59:15:35	300	26	3.0	#68 2MASS Reds	4	
0140.2M015755.0p572606	420	0:44	01:57:55.0	+57:26:06	300	26	3.0	#68 2MASS Reds	2	star a few arcsec to east
0141.COMP	5	0:44	01:57:55.0	+57:26:06	300	26	3.0	#68 2MASS Reds	2	
0142.2M020058.5p542342	240	0:44	02:00:58.5	+54:23:42	300	26	3.0	#68 2MASS Reds	4	
0143.COMP	5	0:44	02:00:58.5	+54:23:42	300	26	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9759

UT Date 2001-11-09 Observers P Berlind

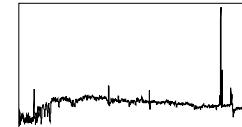
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0144.2M020550.4p674945	720	0:44	02:05:50.4	+67:49:45	300	26	3.0	#68 2MASS Reds	4	
0145.COMP	5	0:44	02:05:50.4	+67:49:45	300	26	3.0	#68 2MASS Reds	4	
0146.2M043032.6p594541	240	0:44	04:30:32.6	+59:45:41	300	26	3.0	#68 2MASS Reds	4	
0147.COMP	5	0:44	04:30:32.6	+59:45:41	300	26	3.0	#68 2MASS Reds	4	
0148.2M043111.3p674800	360	0:44	04:31:11.3	+67:48:00	300	26	3.0	#68 2MASS Reds	4	
0149.COMP	5	0:44	04:31:11.3	+67:48:00	300	26	3.0	#68 2MASS Reds	4	
0150.2M043105.2p232407	480	0:44	04:31:05.2	+23:24:07	300	26	3.0	#68 2MASS Reds	4	
0151.COMP	5	0:44	04:31:05.2	+23:24:07	300	26	3.0	#68 2MASS Reds	4	
0152.2M043157.1p421904	420	0:44	04:31:57.1	+42:19:04	300	26	3.0	#68 2MASS Reds	4	
0153.COMP	5	0:44	04:31:57.1	+42:19:04	300	26	3.0	#68 2MASS Reds	4	
0154.2M043215.9p661822	240	0:44	04:32:15.9	+66:18:22	300	26	3.0	#68 2MASS Reds	4	
0155.COMP	5	0:44	04:32:15.9	+66:18:22	300	26	3.0	#68 2MASS Reds	4	
0156.2M043200.7p012843	240	0:44	04:32:00.7	+01:28:43	300	26	3.0	#68 2MASS Reds	4	
0157.COMP	5	0:44	04:32:00.7	+01:28:43	300	26	3.0	#68 2MASS Reds	4	
0158.2M043150.9m071418	300	0:44	04:31:50.9	-07:14:18	300	26	3.0	#68 2MASS Reds	4	
0159.COMP	5	0:44	04:31:50.9	-07:14:18	300	26	3.0	#68 2MASS Reds	4	
0160.2M043244.4m055323	360	0:44	04:32:44.4	-05:53:23	300	26	3.0	#68 2MASS Reds	4	stopped by clouds again
0161.COMP	5	0:44	04:32:44.4	-05:53:23	300	26	3.0	#68 2MASS Reds	4	
0162-0171.BIAS	0	10:54	5:30:00	20:00:00	300	26	3.0	#6 AGN Monitor	4	
0172-0181.FLAT	8	10:58	5:30:00	20:00:00	300	26	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9760

UT Date 2001-11-09 Observers P BerlindColl. Focus 1000 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>
0182-0191.BIAS	0	11:01	5:30:00	20:00:00	300	26	3.0	#6 AGN Monitor	2	
0192-0201.FLAT	16	11:06	5:30:00	20:00:00	300	26	3.0	#6 AGN Monitor	2	
0202-0211.DARK	900	13:24	5:30:00	20:00:00	300	26	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9761

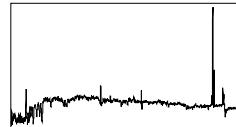
UT Date 2001-11-10 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001.DARK	900	0:00	20:08:44.0	31:29:56	600	90	2.0	#88f Mass Func	2	
0002.DARK	900	0:00	20:24:00.0	31:29:54	600	90	2.0	#88f Mass Func	2	
0003.DARK	900	0:00	20:39:16.0	31:29:52	600	90	2.0	#88f Mass Func	2	
0004.DARK	900	0:00	20:54:32.0	31:29:50	600	90	2.0	#88f Mass Func	2	
0005.DARK	900	0:00	21:09:47.0	31:29:49	600	90	2.0	#88f Mass Func	2	
0006-0008.BIAS	0	1:21	21:14:42.0	31:29:49	600	90	2.0	#88f Mass Func	2	
0009-0015.BIAS	0	1:23	21:16:18.0	31:29:48	600	90	2.0	#88f Mass Func	2	
0016-0025.FLAT	30	1:30	21:24:06.0	31:29:48	600	90	2.0	#88f Mass Func	2	
0026.BDp284211	45	1:30	21:48:57.1	28:37:48	600	55	2.0	#56 Spectropho	2	
0027.COMP	24	1:30	21:48:57.1	28:37:48	600	55	2.0	#56 Spectropho	2	
0028.HD197989	53	1:30	20:46:12.7	33:58:12	600	90	2.0	#88f Mass Func	2	
0029.COMP	24	1:30	20:46:12.7	33:58:12	600	90	2.0	#88f Mass Func	2	
0030.HD222842	55	1:30	23:43:59.5	29:21:41	600	90	2.0	#88f Mass Func	2	
0031.COMP	24	1:30	23:43:59.5	29:21:41	600	90	2.0	#88f Mass Func	2	wait out clouds



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9762

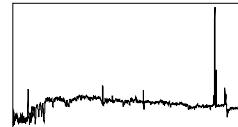
UT Date 2001-11-11 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0004.DARK	900	0:16	22:34:46.6	34:09:20	600	90	2.0	#88f Mass Func	2	
0005-0014.BIAS	0	0:33	22:34:46.6	34:09:20	600	90	2.0	#88f Mass Func	2	
0015-0024.FLAT	35	0:46	22:34:46.6	34:09:20	600	90	2.0	#88f Mass Func	2	
0025.BDp284211	40	0:46	21:48:57.1	28:37:48	600	110	2.0	#56 Spectropho	2	
0026.BDp284211	40	0:46	21:48:57.1	28:37:48	600	110	2.0	#56 Spectropho	2	
0027.COMP	24	0:46	21:48:57.1	28:37:48	600	110	2.0	#56 Spectropho	2	
0028.HD203504	58	0:46	21:22:05.2	19:48:16	600	90	2.0	#88f Mass Func	2	
0029.COMP	24	0:46	21:22:05.2	19:48:16	600	90	2.0	#88f Mass Func	2	
0030.HD203504	33	0:46	21:22:05.2	19:48:16	600	90	2.0	#88f Mass Func	2	
0031.COMP	24	0:46	21:22:05.2	19:48:16	600	90	2.0	#88f Mass Func	2	
0032.N7331	180	0:46	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0033.N7331	180	0:46	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0034.N7331	180	0:46	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0035.N7331	180	0:46	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0036.COMP	24	0:46	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0037.COMP	24	0:46	00:06:40.1	26:09:16	600	-9	2.0	#57 Velocity S	2	
0038.MF2015	1200	0:46	00:06:40.1	26:09:16	600	4	2.0	#88f Mass Func	2	
0039.MF2015	1200	0:46	00:06:40.1	26:09:16	600	4	2.0	#88f Mass Func	2	
0040.MF2015	1200	0:46	00:06:40.1	26:09:16	600	4	2.0	#88f Mass Func	2	
0041.COMP	24	0:46	00:06:40.1	26:09:16	600	4	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9763

UT Date 2001-11-11 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0042.COMP	24	0:46	00:12:15.7	22:19:18	600	100	2.0	#88f Mass Func	2	
0043.MF2024	1200	0:46	00:12:15.7	22:19:18	600	100	2.0	#88f Mass Func	2	
0044.MF2024	1200	0:46	00:12:15.7	22:19:18	600	100	2.0	#88f Mass Func	2	
0045.MF2024	1200	0:46	00:12:15.7	22:19:18	600	100	2.0	#88f Mass Func	2	
0046.COMP	24	0:46	00:12:15.7	22:19:18	600	100	2.0	#88f Mass Func	2	
0047.COMP	24	0:46	00:38:23.2	29:28:21	600	100	2.0	#88f Mass Func	2	
0048.MF2091	1200	0:46	00:38:23.2	29:28:21	600	-20	2.0	#88f Mass Func	2	
0049.MF2091	1200	0:46	00:38:23.2	29:28:21	600	-20	2.0	#88f Mass Func	2	
0050.MF2091	1200	0:46	00:38:23.2	29:28:21	600	-20	2.0	#88f Mass Func	2	
0051.COMP	24	0:46	00:38:23.2	29:28:21	600	-20	2.0	#88f Mass Func	2	
0052.HD7318	52	0:46	01:13:45.0	24:35:01	600	90	2.0	#88f Mass Func	2	
0053.COMP	24	0:46	01:13:45.0	24:35:01	600	90	2.0	#88f Mass Func	2	
0054.COMP	24	0:46	00:42:48.9	23:29:24	600	90	2.0	#88f Mass Func	2	
0055.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0056.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0057.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0058.COMP	24	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0059.COMP	24	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0060.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0061.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9764

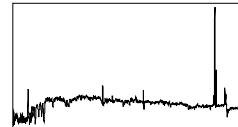
UT Date 2001-11-11 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0062.MF2104	1200	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0063.COMP	24	0:46	00:42:48.9	23:29:24	600	59	2.0	#88f Mass Func	2	
0064.HD7318	53	0:46	01:13:45.0	24:35:01	600	90	2.0	#88f Mass Func	2	
0065.COMP	24	0:46	01:13:45.0	24:35:01	600	90	2.0	#88f Mass Func	2	
0066.Feige25	180	0:46	02:36:00	05:15:16	600	26	2.0	#56 Spectropho	2	
0067.COMP	24	0:46	02:36:00	05:15:16	600	26	2.0	#56 Spectropho	2	
0068.NGC1023	120	0:46	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0069.NGC1023	120	0:46	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0070.NGC1023	120	0:46	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0071.COMP	24	0:46	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0072.COMP	24	0:46	01:07:39.2	40:14:31	600	87	2.0	#88f Mass Func	2	
0073.MF2160	1200	0:46	01:07:39.2	40:14:31	600	110	2.0	#88f Mass Func	2	
0074.MF2160	1200	0:46	01:07:39.2	40:14:31	600	110	2.0	#88f Mass Func	2	
0075.MF2160	1200	0:46	01:07:39.2	40:14:31	600	110	2.0	#88f Mass Func	2	
0076.COMP	24	0:46	01:07:39.2	40:14:31	600	110	2.0	#88f Mass Func	2	
0077.COMP	24	0:46	01:12:00.5	17:18:34	600	110	2.0	#88f Mass Func	2	
0078.MF2176	1200	0:46	01:12:00.5	17:18:34	600	69	2.0	#88f Mass Func	2	
0079.MF2176	1200	0:46	01:12:00.5	17:18:34	600	69	2.0	#88f Mass Func	2	
0080.MF2176	1200	0:46	01:12:00.5	17:18:34	600	69	2.0	#88f Mass Func	2	
0081.COMP	24	0:46	01:12:00.5	17:18:34	600	69	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9765

UT Date 2001-11-11 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0082.HD48433	57	0:46	06:43:59.3	13:13:40	600	90	2.0	#88f Mass Func	2	
0083.COMP	24	0:46	06:43:59.3	13:13:40	600	90	2.0	#88f Mass Func	2	
0084.COMP	24	0:46	06:51:03.0	+48:43:29	600	90	2.0	#88 Mass Funct	2	
0085.MF4001	1200	0:46	06:51:03.0	+48:43:29	600	-30	2.0	#88 Mass Funct	2	
0086.MF4001	1200	0:46	06:51:03.0	+48:43:29	600	-30	2.0	#88 Mass Funct	2	
0087.MF4001	1200	0:46	06:51:03.0	+48:43:29	600	-30	2.0	#88 Mass Funct	2	
0088.COMP	24	0:46	06:51:03.0	+48:43:29	600	-30	2.0	#88 Mass Funct	2	
0089.COMP	24	0:46	07:01:52.6	+47:39:57	600	-30	2.0	#88 Mass Funct	2	
0090.MF4003	1200	0:46	07:01:52.6	+47:39:57	600	0	2.0	#88 Mass Funct	2	
0091.MF4003	1200	0:46	07:01:52.6	+47:39:57	600	0	2.0	#88 Mass Funct	2	
0092.MF4003	1200	0:46	07:01:52.6	+47:39:57	600	0	2.0	#88 Mass Funct	2	
0093.COMP	24	0:46	07:01:52.6	+47:39:57	600	0	2.0	#88 Mass Funct	2	
0094.NGC3031	120	0:46	09:51:27.3	69:18:08	600	-22	2.0	#88f Mass Func	2	
0095.NGC3031	120	0:46	09:51:27.3	69:18:08	600	-22	2.0	#88f Mass Func	2	
0096.NGC3031	120	0:46	09:51:27.3	69:18:08	600	-22	2.0	#88f Mass Func	2	
0097.COMP	24	0:46	09:51:27.3	69:18:08	600	-22	2.0	#88f Mass Func	2	
0098.Hiltner600	60	0:46	06:42:37.2	02:11:25	600	38	2.0	#56 Spectropho	2	
0099.Hiltner600	60	0:46	06:42:37.2	02:11:25	600	38	2.0	#56 Spectropho	2	
0100.COMP	24	0:46	06:42:37.2	02:11:25	600	38	2.0	#56 Spectropho	2	
0101.HD48433	54	0:46	06:43:59.3	13:13:40	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9766

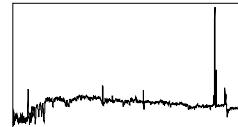
UT Date 2001-11-11 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0102.COMP	24	0:46	06:43:59.3	13:13:40	600	90	2.0	#88f Mass Func	2	
0103.COMP	24	0:46	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0104.MF7122	600	0:46	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0105.MF7122	600	0:46	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	rising sun...get again
0106.COMP	24	0:46	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0107-0111.sky	2	13:43	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0112.COMP	24	13:43	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0113-0122.BIAS	0	13:47	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0123-0132.FLAT	35	13:56	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0133-0142.DARK	900	16:20	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9769

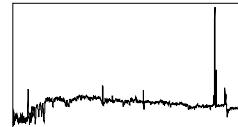
UT Date 2001-11-12 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	0:49	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0011-0020.BIAS	0	1:10	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0021.FLAT	35	1:10	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	abs setup
0022-0030.FLAT	35	1:18	09:41:56.8	+12:17:45	600	90	2.0	#88 Mass Funct	2	
0031.FLAT	35	1:18	21:48:57.1	28:37:48	600	90	2.0	#56 Spectropho	2	em setup
0032-0040.FLAT	35	2:01	21:48:57.1	28:37:48	600	90	2.0	#56 Spectropho	2	
0041.BDp284211	45	2:01	21:48:57.1	28:37:48	600	49	2.0	#56 Spectropho	2	
0042.BDp284211	45	2:01	21:48:57.1	28:37:48	600	49	2.0	#56 Spectropho	2	
0043.COMP	24	2:01	21:48:57.1	28:37:48	600	49	2.0	#56 Spectropho	2	
0044.COMP	24	2:01	00:06:40.1	+26:09:16	600	49	2.0	#88 Mass Funct	2	
0045.MF2015	1200	2:01	00:06:40.1	+26:09:16	600	7	2.0	#88 Mass Funct	2	
0046.MF2015	1200	2:01	00:06:40.1	+26:09:16	600	7	2.0	#88 Mass Funct	2	
0047.COMP	24	2:01	00:06:40.1	+26:09:16	600	7	2.0	#88 Mass Funct	2	
0048.COMP	24	2:01	00:12:15.7	+22:19:18	600	107	2.0	#88 Mass Funct	2	
0049.MF2024	1200	2:01	00:12:15.7	+22:19:18	600	107	2.0	#88 Mass Funct	2	
0050.MF2024	1200	2:01	00:12:15.7	+22:19:18	600	107	2.0	#88 Mass Funct	2	
0051.COMP	24	2:01	00:12:15.7	+22:19:18	600	107	2.0	#88 Mass Funct	2	
0052.HD3546	51	2:01	00:38:33.4	29:18:42	600	76	2.0	#88f Mass Func	2	abs setup
0053.COMP	24	2:01	00:38:33.4	29:18:42	600	76	2.0	#88f Mass Func	2	
0054.Feige25	180	2:01	02:36:00	05:15:16	600	-44	2.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9770

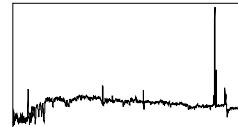
UT Date 2001-11-12 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0055.COMP	24	2:01	02:36:00	05:15:16	600	-44	2.0	#56 Spectropho	2	
0056.N7331	120	2:01	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0057.N7331	120	2:01	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0058.N7331	120	2:01	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0059.COMP	24	2:01	22:34:46.9	+34:09:43	600	-9	2.0	#57 Velocity S	2	
0060.MF2266	1200	2:01	01:49:08.5	+13:03:34	600	98	2.0	#88 Mass Funct	2	
0061.COMP	24	2:01	01:49:08.5	+13:03:34	600	98	2.0	#88 Mass Funct	2	
0062.MF2266	1200	2:01	01:49:08.5	+13:03:34	600	98	2.0	#88 Mass Funct	2	
0063.MF2266	1200	2:01	01:49:08.5	+13:03:34	600	98	2.0	#88 Mass Funct	2	
0064.COMP	24	2:01	01:49:08.5	+13:03:34	600	98	2.0	#88 Mass Funct	2	
0065.COMP	24	2:01	01:51:45.4	+33:32:14	600	98	2.0	#88 Mass Funct	2	
0066.MF2279	1200	2:01	01:51:45.4	+33:32:14	600	43	2.0	#88 Mass Funct	2	
0067.MF2279	1200	2:01	01:51:45.4	+33:32:14	600	43	2.0	#88 Mass Funct	2	
0068.MF2279	1200	2:01	01:51:45.4	+33:32:14	600	43	2.0	#88 Mass Funct	2	
0069.COMP	24	2:01	01:51:45.4	+33:32:14	600	43	2.0	#88 Mass Funct	2	
0070.COMP	24	2:01	01:55:36.5	+21:19:3	600	43	2.0	#88 Mass Funct	2	
0071.MF2297	900	2:01	01:55:36.5	+21:19:3	600	92	2.0	#88 Mass Funct	2	
0072.MF2297	900	2:01	01:55:36.5	+21:19:3	600	92	2.0	#88 Mass Funct	2	
0073.MF2297	900	2:01	01:55:36.5	+21:19:3	600	92	2.0	#88 Mass Funct	2	
0074.COMP	24	2:01	01:55:36.5	+21:19:3	600	92	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9771

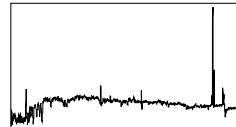
UT Date 2001-11-12 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0075.HD7318	52	2:01	01:13:45.0	24:35:01	600	92	2.0	#88f Mass Func	2	
0076.COMP	24	2:01	01:13:45.0	24:35:01	600	92	2.0	#88f Mass Func	2	
0077.COMP	24	2:01	02:22:37.4	+25:56:23	600	92	2.0	#88 Mass Funct	2	
0078.MF2399	1200	2:01	02:22:37.4	+25:56:23	600	110	2.0	#88 Mass Funct	2	
0079.MF2399	1200	2:01	02:22:37.4	+25:56:23	600	110	2.0	#88 Mass Funct	2	
0080.MF2399	1200	2:01	02:22:37.4	+25:56:23	600	110	2.0	#88 Mass Funct	2	
0081.COMP	24	2:01	02:22:37.4	+25:56:23	600	110	2.0	#88 Mass Funct	2	
0082.HD34559	54	2:01	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0083.COMP	24	2:01	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0084.Hiltner600	120	2:01	06:42:37.2	02:11:25	600	-36	2.0	#56 Spectropho	2	
0085.COMP	24	2:01	06:42:37.2	02:11:25	600	-36	2.0	#56 Spectropho	2	
0086.NGC1023	120	2:01	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0087.NGC1023	120	2:01	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0088.NGC1023	120	2:01	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0089.COMP	24	2:01	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0090.MF2441	900	2:01	02:29:38.9	+28:59:15	600	83	2.0	#88 Mass Funct	2	
0091.COMP	24	2:01	02:29:38.9	+28:59:15	600	83	2.0	#88 Mass Funct	2	
0092.MF2441	900	2:01	02:29:38.9	+28:59:15	600	83	2.0	#88 Mass Funct	2	
0093.MF2441	900	2:01	02:29:38.9	+28:59:15	600	83	2.0	#88 Mass Funct	2	
0094.COMP	24	2:01	02:29:38.9	+28:59:15	600	83	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9772

UT Date 2001-11-12 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0095.COMP	24	2:01	02:59:42.2	+10:34:10	600	83	2.0	#88 Mass Funct	2	
0096.MF7100	1200	2:01	02:59:42.2	+10:34:10	600	39	2.0	#88 Mass Funct	2	
0097.MF7100	1200	2:01	02:59:42.2	+10:34:10	600	39	2.0	#88 Mass Funct	2	
0098.MF7100	1200	2:01	02:59:42.2	+10:34:10	600	39	2.0	#88 Mass Funct	2	
0099.COMP	24	2:01	02:59:42.2	+10:34:10	600	39	2.0	#88 Mass Funct	2	
0100.COMP	24	2:01	09:41:56.8	+12:17:45	600	39	2.0	#88 Mass Funct	2	
0101.MF7122	600	2:01	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0102.MF7122	600	2:01	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0103.MF7122	600	2:01	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0104.COMP	24	2:01	09:41:56.8	+12:17:45	600	15	2.0	#88 Mass Funct	2	
0105.COMP	24	2:01	10:25:47.6	+26:34:14	600	15	2.0	#88 Mass Funct	2	
0106.MF7136	600	2:01	10:25:47.6	+26:34:14	600	105	2.0	#88 Mass Funct	2	
0107.MF7136	600	2:01	10:25:47.6	+26:34:14	600	105	2.0	#88 Mass Funct	2	
0108.MF7136	600	2:01	10:25:47.6	+26:34:14	600	105	2.0	#88 Mass Funct	2	
0109.COMP	24	2:01	10:25:47.6	+26:34:14	600	105	2.0	#88 Mass Funct	2	
0110.NGC3031	120	2:01	09:51:27.3	69:18:08	600	-20	2.0	#88f Mass Func	2	
0111.NGC3031	120	2:01	09:51:27.3	69:18:08	600	-20	2.0	#88f Mass Func	2	
0112.NGC3031	120	2:01	09:51:27.3	69:18:08	600	-20	2.0	#88f Mass Func	2	
0113.COMP	24	2:01	09:51:27.3	69:18:08	600	-20	2.0	#88f Mass Func	2	
0114.PG0934p554	90	2:01	09:34:49.8	55:19:25	600	30	2.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9773

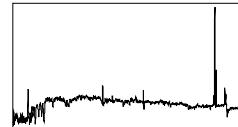
UT Date 2001-11-12 Observers M CalkinsColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0115.COMP	24	2:01	09:34:49.8	55:19:25	600	30	2.0	#56 Spectropho	2	
0116.HD34559	54	2:01	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0117.COMP	24	2:01	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0118-0127.BIAS	0	13:23	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0128-0137.FLAT	35	13:31	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	
0138-0147.DARK	900	15:49	05:19:16.6	22:05:47	600	90	2.0	#88f Mass Func	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9774

UT Date 2001-11-13 Observers P BerlindColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0005.BIAS	0	0:31	20:36:18.0	31:29:53	600	90	2.0	#88f Mass Func	2	
0006-0010.BIAS	0	0:32	20:37:23.0	31:29:52	600	90	2.0	#88f Mass Func	2	
0011.FLAT	55	0:32	20:39:07.0	31:29:52	600	90	2.0	#88f Mass Func	2	solid clouds
0012-0014.FLAT	55	0:36	20:42:35.0	31:29:52	600	90	2.0	#88f Mass Func	2	
0015-0020.FLAT	55	0:43	20:49:36.0	31:29:51	600	90	2.0	#88f Mass Func	2	
0021.COMP	20	0:43	20:51:03.0	31:29:51	600	90	2.0	#88f Mass Func	2	
0022-0023.DARK	900	2:04	22:24:53.0	31:29:44	600	90	2.0	#88f Mass Func	2	
0024-0025.DARK	900	2:35	22:55:21.0	31:29:43	600	90	2.0	#88f Mass Func	2	
0026-0028.DARK	900	3:21	23:41:10.0	31:29:42	600	90	2.0	#88f Mass Func	2	
0029-0030.DARK	900	3:51	00:11:40.0	31:29:43	600	90	2.0	#88f Mass Func	2	
0031.DARK	900	3:51	00:26:56.0	31:29:44	600	90	2.0	#88f Mass Func	2	
0032.NGC1023	20	3:51	02:37:15.8	38:50:55	600	90	2.0	#88f Mass Func	2	sucker hole
0033.NGC1023	240	3:51	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0034.NGC1023	240	3:51	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0035.COMP	20	3:51	02:37:15.8	38:50:55	600	87	2.0	#88f Mass Func	2	
0036.Hiltner600	90	3:51	06:42:37.2	02:11:25	600	0	2.0	#56 Spectropho	2	4am sucker hole
0037.Hiltner600	90	3:51	06:42:37.2	02:11:25	600	0	2.0	#56 Spectropho	2	
0038.COMP	20	3:51	06:42:37.2	02:11:25	600	0	2.0	#56 Spectropho	2	
0039.COMP	20	3:51	07:21:04.5	39:49:08	600	0	2.0	#88 Mass Funct	2	
0040.MF4010	900	3:51	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9775

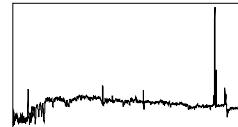
UT Date 2001-11-13 Observers P BerlindColl. Focus 1000 Grating/Grism 600

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0041.MF4010	900	3:51	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	
0042.MF4010	900	3:51	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	clouds.
0043.COMP	20	3:51	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	
0044-0053.BIAS	0	11:36	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	
0054-0063.FLAT	55	11:48	07:21:04.5	39:49:08	600	77	2.0	#88 Mass Funct	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9776

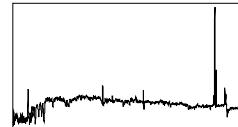
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:33	18:56:34.0	31:30:06	300	90	3.0	#57 Velocity S	4	
0002.DARK	900	22:33	19:11:45.0	31:30:04	300	90	3.0	#57 Velocity S	4	
0003.DARK	900	22:33	19:26:54.0	31:30:02	300	90	3.0	#57 Velocity S	4	
0004.DARK	900	22:33	19:42:05.0	31:30:00	300	90	3.0	#57 Velocity S	4	
0005.DARK	900	22:33	19:57:17.0	31:29:57	300	90	3.0	#57 Velocity S	4	
0006.DARK	900	22:33	20:12:24.0	31:29:56	300	90	3.0	#57 Velocity S	4	
0007.DARK	900	22:33	20:27:35.0	31:29:54	300	90	3.0	#57 Velocity S	4	
0008.DARK	900	22:33	20:42:47.0	31:29:52	300	90	3.0	#57 Velocity S	4	
0009.DARK	900	22:33	20:57:54.0	31:29:50	300	90	3.0	#57 Velocity S	4	
0010.DARK	900	22:33	21:13:06.0	31:29:49	300	90	3.0	#57 Velocity S	4	
0011-0020.BIAS	0	1:24	21:33:09.0	31:29:47	300	90	3.0	#57 Velocity S	4	
0021.FLAT	8	1:24	21:34:10.0	31:29:47	300	90	3.0	#57 Velocity S	4	lots of rain after sunset
0022-0030.FLAT	8	1:27	21:36:42.0	31:29:47	300	90	3.0	#57 Velocity S	4	
0031-0040.BIAS	0	1:31	21:40:39.0	31:29:47	300	90	3.0	#57 Velocity S	2	
0041.FLAT	16	1:31	21:41:14.0	31:29:47	300	90	3.0	#57 Velocity S	2	
0042-0050.FLAT	16	1:36	21:45:47.0	31:29:46	300	90	3.0	#57 Velocity S	2	
0051.HIP112148	15	1:36	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0052.HIP112148	15	1:36	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0053.COMP	5	1:36	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0054.HIP112167	10	1:36	22:43:03.3	+38:46:07	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9777

UT Date 2001-11-14 Observers P Berlind

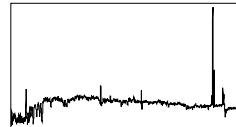
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0055.HIP112167	15	1:36	22:43:03.3	+38:46:07	300	90	3.0	#89 Ae/Be Star	4	
0056.COMP	5	1:36	22:43:03.3	+38:46:07	300	90	3.0	#89 Ae/Be Star	4	
0057.HIP112182	30	1:36	22:43:15.2	+43:46:25	300	90	3.0	#89 Ae/Be Star	4	
0058.HIP112182	30	1:36	22:43:15.2	+43:46:25	300	90	3.0	#89 Ae/Be Star	4	
0059.COMP	5	1:36	22:43:15.2	+43:46:25	300	90	3.0	#89 Ae/Be Star	4	
0060.HIP112213	20	1:36	22:43:36.6	+40:23:06	300	90	3.0	#89 Ae/Be Star	4	hi Susan!
0061.HIP112213	20	1:36	22:43:36.6	+40:23:06	300	90	3.0	#89 Ae/Be Star	4	
0062.COMP	5	1:36	22:43:36.6	+40:23:06	300	90	3.0	#89 Ae/Be Star	4	
0063.HIP112293	20	1:36	22:44:43.3	+40:33:16	300	90	3.0	#89 Ae/Be Star	4	
0064.HIP112293	20	1:36	22:44:43.3	+40:33:16	300	90	3.0	#89 Ae/Be Star	4	
0065.COMP	5	1:36	22:44:43.3	+40:33:16	300	90	3.0	#89 Ae/Be Star	4	
0066.HIP112639	15	1:36	22:48:47.2	+46:22:11	300	90	3.0	#89 Ae/Be Star	4	
0067.HIP112639	15	1:36	22:48:47.2	+46:22:11	300	90	3.0	#89 Ae/Be Star	4	
0068.COMP	5	1:36	22:48:47.2	+46:22:11	300	90	3.0	#89 Ae/Be Star	4	
0069.HIP112700	10	1:36	22:49:21.6	+45:53:50	300	90	3.0	#89 Ae/Be Star	4	
0070.HIP112700	10	1:36	22:49:21.6	+45:53:50	300	90	3.0	#89 Ae/Be Star	4	
0071.COMP	5	1:36	22:49:21.6	+45:53:50	300	90	3.0	#89 Ae/Be Star	4	
0072.HIP112710	20	1:36	22:49:29.4	+45:46:59	300	90	3.0	#89 Ae/Be Star	4	
0073.HIP112710	20	1:36	22:49:29.4	+45:46:59	300	90	3.0	#89 Ae/Be Star	4	
0074.COMP	5	1:36	22:49:29.4	+45:46:59	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9778

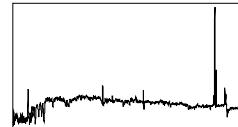
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0075.HIP112805	10	1:36	22:50:40.5	+51:06:57	300	90	3.0	#89 Ae/Be Star	4	
0076.HIP112805	10	1:36	22:50:40.5	+51:06:57	300	90	3.0	#89 Ae/Be Star	4	
0077.COMP	5	1:36	22:50:40.5	+51:06:57	300	90	3.0	#89 Ae/Be Star	4	
0078.HIP112906	20	1:36	22:51:50.1	+39:08:41	300	90	3.0	#89 Ae/Be Star	4	
0079.HIP112906	20	1:36	22:51:50.1	+39:08:41	300	90	3.0	#89 Ae/Be Star	4	
0080.COMP	5	1:36	22:51:50.1	+39:08:41	300	90	3.0	#89 Ae/Be Star	4	
0081.HIP113003	10	1:36	22:53:07.3	+43:03:21	300	90	3.0	#89 Ae/Be Star	4	
0082.HIP113003	10	1:36	22:53:07.3	+43:03:21	300	90	3.0	#89 Ae/Be Star	4	
0083.COMP	5	1:36	22:53:07.3	+43:03:21	300	90	3.0	#89 Ae/Be Star	4	
0084.HIP113110	5	1:36	22:54:21.2	+43:31:42	300	90	3.0	#89 Ae/Be Star	4	
0085.HIP113110	5	1:36	22:54:21.2	+43:31:42	300	90	3.0	#89 Ae/Be Star	4	
0086.COMP	5	1:36	22:54:21.2	+43:31:42	300	90	3.0	#89 Ae/Be Star	4	
0087.HIP113145	5	1:36	22:54:43.9	+42:30:38	300	90	3.0	#89 Ae/Be Star	4	
0088.HIP113145	5	1:36	22:54:43.9	+42:30:38	300	90	3.0	#89 Ae/Be Star	4	
0089.HIP113145	5	1:36	22:54:43.9	+42:30:38	300	90	3.0	#89 Ae/Be Star	4	
0090.COMP	5	1:36	22:54:43.9	+42:30:38	300	90	3.0	#89 Ae/Be Star	4	
0091.HIP113187	20	1:36	22:55:13.8	+46:22:20	300	90	3.0	#89 Ae/Be Star	4	
0092.HIP113187	10	1:36	22:55:13.8	+46:22:20	300	90	3.0	#89 Ae/Be Star	4	
0093.COMP	5	1:36	22:55:13.8	+46:22:20	300	90	3.0	#89 Ae/Be Star	4	
0094.HIP113188	15	1:36	22:55:14.1	+49:58:42	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9779

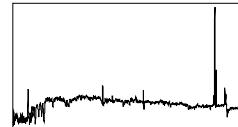
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0095.HIP113188	15	1:36	22:55:14.1	+49:58:42	300	90	3.0	#89 Ae/Be Star	4	
0096.COMP	5	1:36	22:55:14.1	+49:58:42	300	90	3.0	#89 Ae/Be Star	4	
0097.HIP113208	10	1:36	22:55:31.4	+43:17:35	300	90	3.0	#89 Ae/Be Star	4	
0098.HIP113208	10	1:36	22:55:31.4	+43:17:35	300	90	3.0	#89 Ae/Be Star	4	
0099.COMP	5	1:36	22:55:31.4	+43:17:35	300	90	3.0	#89 Ae/Be Star	4	
0100.HIP113226	5	1:36	22:55:47.0	+43:33:33	300	90	3.0	#89 Ae/Be Star	4	
0101.HIP113226	5	1:36	22:55:47.0	+43:33:33	300	90	3.0	#89 Ae/Be Star	4	
0102.HIP113226	10	1:36	22:55:47.0	+43:33:33	300	90	3.0	#89 Ae/Be Star	4	
0103.COMP	5	1:36	22:55:47.0	+43:33:33	300	90	3.0	#89 Ae/Be Star	4	
0104.HIP113411.west	20	1:36	22:58:06.6	+41:56:04	300	90	3.0	#89 Ae/Be Star	4	
0105.HIP113411.west	20	1:36	22:58:06.6	+41:56:04	300	90	3.0	#89 Ae/Be Star	4	
0106.HIP113411.east	30	1:36	22:58:06.6	+41:56:04	300	90	3.0	#89 Ae/Be Star	4	
0107.HIP113411.east	60	1:36	22:58:06.6	+41:56:04	300	90	3.0	#89 Ae/Be Star	4	
0108.COMP	5	1:36	22:58:06.6	+41:56:04	300	90	3.0	#89 Ae/Be Star	4	
0109.HIP113469	5	1:36	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0110.HIP113469	5	1:36	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0111.HIP113469	3	1:36	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0112.COMP	5	1:36	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0113.HIP113474	10	1:36	22:58:49.5	+46:19:38	300	90	3.0	#89 Ae/Be Star	4	
0114.HIP113474	10	1:36	22:58:49.5	+46:19:38	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9780

UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0115.COMP	5	1:36	22:58:49.5	+46:19:38	300	90	3.0	#89 Ae/Be Star	4	
0116.HIP113731	10	1:36	23:01:58.4	+47:00:59	300	90	3.0	#89 Ae/Be Star	4	
0117.HIP113731	10	1:36	23:01:58.4	+47:00:59	300	90	3.0	#89 Ae/Be Star	4	
0118.COMP	5	1:36	23:01:58.4	+47:00:59	300	90	3.0	#89 Ae/Be Star	4	
0119.HIP113835	30	1:36	23:03:08.3	+49:35:09	300	90	3.0	#89 Ae/Be Star	4	
0120.HIP113835	30	1:36	23:03:08.3	+49:35:09	300	90	3.0	#89 Ae/Be Star	4	
0121.COMP	5	1:36	23:03:08.3	+49:35:09	300	90	3.0	#89 Ae/Be Star	4	
0122.HIP113950	45	1:36	23:04:35.4	+44:13:10	300	90	3.0	#89 Ae/Be Star	4	
0123.HIP113950	45	1:36	23:04:35.4	+44:13:10	300	90	3.0	#89 Ae/Be Star	4	
0124.COMP	5	1:36	23:04:35.4	+44:13:10	300	90	3.0	#89 Ae/Be Star	4	
0125.HIP114097	4	1:36	23:06:32.1	+51:04:37	300	90	3.0	#89 Ae/Be Star	4	
0126.HIP114097	4	1:36	23:06:32.1	+51:04:37	300	90	3.0	#89 Ae/Be Star	4	
0127.COMP	5	1:36	23:06:32.1	+51:04:37	300	90	3.0	#89 Ae/Be Star	4	
0128.HIP114106	5	1:36	23:06:37.0	+42:39:26	300	90	3.0	#89 Ae/Be Star	4	
0129.HIP114106	6	1:36	23:06:37.0	+42:39:26	300	90	3.0	#89 Ae/Be Star	4	
0130.COMP	5	1:36	23:06:37.0	+42:39:26	300	90	3.0	#89 Ae/Be Star	4	
0131.HIP114134	10	1:36	23:06:53.9	+44:19:26	300	90	3.0	#89 Ae/Be Star	4	
0132.HIP114134	10	1:36	23:06:53.9	+44:19:26	300	90	3.0	#89 Ae/Be Star	4	
0133.HIP114134	10	1:36	23:06:53.9	+44:19:26	300	90	3.0	#89 Ae/Be Star	4	
0134.COMP	5	1:36	23:06:53.9	+44:19:26	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9781

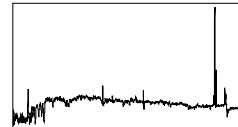
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0135.HIP114153	45	1:36	23:07:05.5	+46:07:46	300	90	3.0	#89 Ae/Be Star	4	
0136.HIP114153	45	1:36	23:07:05.5	+46:07:46	300	90	3.0	#89 Ae/Be Star	4	
0137.COMP	5	1:36	23:07:05.5	+46:07:46	300	90	3.0	#89 Ae/Be Star	4	
0138.HIP114441	6	1:36	23:10:37.6	+46:22:40	300	90	3.0	#89 Ae/Be Star	4	
0139.HIP114441	6	1:36	23:10:37.6	+46:22:40	300	90	3.0	#89 Ae/Be Star	4	
0140.HIP114441	6	1:36	23:10:37.6	+46:22:40	300	90	3.0	#89 Ae/Be Star	4	
0141.COMP	5	1:36	23:10:37.6	+46:22:40	300	90	3.0	#89 Ae/Be Star	4	
0142.ZAnd	1	1:36	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0143.ZAnd	3	1:36	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0144.ZAnd	6	1:36	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0145.ZAnd	20	1:36	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0146.COMP	5	1:36	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0147.HD217086	5	1:36	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0148.HD217086	5	1:36	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0149.HD217086	5	1:36	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0150.COMP	5	1:36	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0151.M32	30	1:36	00:39:58	+40:35:30	300	90	3.0	#57 Velocity S	4	
0152.M32	30	1:36	00:39:58	+40:35:30	300	90	3.0	#57 Velocity S	4	
0153.COMP	5	1:36	00:39:58	+40:35:30	300	90	3.0	#57 Velocity S	4	
0154.158m213	330	1:36	00:40:30.2	+40:50:55	300	90	3.0	#57 Velocity S	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9782

UT Date 2001-11-14 Observers P Berlind

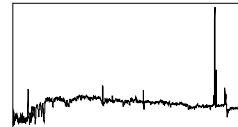
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0155.COMP	5	1:36	00:40:30.2	+40:50:55	300	90	3.0	#57 Velocity S	4	
0156.a119c_637	1200	1:36	00:55:07.2	-3:48:03	300	90	3.0	#64 Cluster In	4	
0157.COMP	5	1:36	00:55:07.2	-3:48:03	300	90	3.0	#64 Cluster In	4	
0158.a119c_638	900	1:36	01:00:11.7	-4:54:53	300	90	3.0	#64 Cluster In	4	
0159.COMP	5	1:36	01:00:11.7	-4:54:53	300	90	3.0	#64 Cluster In	4	
0160.a119c_639	720	1:36	00:42:46.7	00:18:01	300	90	3.0	#64 Cluster In	4	
0161.COMP	5	1:36	00:42:46.7	00:18:01	300	90	3.0	#64 Cluster In	4	
0162.sn2001fw	1200	1:36	02:38:10.4	+30:50:54	300	90	3.0	#2 SN Observat	2	
0163.COMP	10	1:36	02:38:10.4	+30:50:54	300	90	3.0	#2 SN Observat	2	
0164.sn2001fw	1200	1:36	02:38:10.4	+30:50:54	300	90	3.0	#2 SN Observat	2	
0165.COMP	10	1:36	02:38:10.4	+30:50:54	300	90	3.0	#2 SN Observat	2	
0166.164vso-16782	330	1:36	05:01:53.1	-01:44:40	300	0	3.0	#112 Orion PMS	4	
0167.165vso-17887	330	1:36	05:04:35.1	-01:45:31	300	0	3.0	#112 Orion PMS	4	
0168.COMP	5	1:36	05:04:35.1	-01:45:31	300	0	3.0	#112 Orion PMS	4	
0169.166vso-18137	330	1:36	05:05:15.7	-01:57:05	300	0	3.0	#112 Orion PMS	4	
0170.167vso-19866	330	1:36	05:09:21.3	-01:51:10	300	0	3.0	#112 Orion PMS	4	
0171.COMP	5	1:36	05:09:21.3	-01:51:10	300	0	3.0	#112 Orion PMS	4	
0172.168vso-24079	330	1:36	05:18:45.9	-01:48:57	300	0	3.0	#112 Orion PMS	4	
0173.169vso-24290	330	1:36	05:19:15.1	-01:48:59	300	0	3.0	#112 Orion PMS	4	
0174.COMP	5	1:36	05:19:15.1	-01:48:59	300	0	3.0	#112 Orion PMS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9783

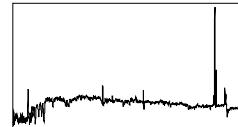
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0175.170vso-24399	330	1:36	05:19:31.2	-01:55:36	300	0	3.0	#112 Orion PMS	4	
0176.COMP	5	1:36	05:19:31.2	-01:55:36	300	0	3.0	#112 Orion PMS	4	
0177.82vso-45964	330	1:36	05:34:24.2	-00:33:10	300	0	3.0	#112 Orion PMS	4	
0178.83vso-45999	330	1:36	05:34:25.8	-00:41:48	300	0	3.0	#112 Orion PMS	4	
0179.COMP	5	1:36	05:34:25.8	-00:41:48	300	0	3.0	#112 Orion PMS	4	
0180.84vso-46129	330	1:36	05:34:35.8	-00:39:56	300	0	3.0	#112 Orion PMS	4	
0181.85vso-47140	330	1:36	05:35:39.2	-00:44:09	300	0	3.0	#112 Orion PMS	4	
0182.COMP	5	1:36	05:35:39.2	-00:44:09	300	0	3.0	#112 Orion PMS	4	
0183.86vso-47277	330	1:36	05:35:47.1	-00:47:40	300	0	3.0	#112 Orion PMS	4	
0184.87vso-47458	330	1:36	05:35:56.0	-00:45:18	300	0	3.0	#112 Orion PMS	4	
0185.COMP	5	1:36	05:35:56.0	-00:45:18	300	0	3.0	#112 Orion PMS	4	
0186.88vso-47961	330	1:36	05:36:21.9	-00:33:59	300	0	3.0	#112 Orion PMS	4	
0187.89vso-48054	360	1:36	05:36:28.2	-00:42:49	300	0	3.0	#112 Orion PMS	4	
0188.COMP	5	1:36	05:36:28.2	-00:42:49	300	0	3.0	#112 Orion PMS	4	
0189.90vso-48667	360	1:36	05:37:14.1	-00:49:02	300	0	3.0	#112 Orion PMS	4	
0190.91vso-48765	360	1:36	05:37:21.1	-00:33:40	300	0	3.0	#112 Orion PMS	4	
0191.COMP	5	1:36	05:37:21.1	-00:33:40	300	0	3.0	#112 Orion PMS	4	
0192.92vso-48767	360	1:36	05:37:21.2	-00:55:28	300	0	3.0	#112 Orion PMS	4	
0193.93vso-49478	360	1:36	05:38:10.7	-00:35:36	300	0	3.0	#112 Orion PMS	4	
0194.COMP	5	1:36	05:38:10.7	-00:35:36	300	0	3.0	#112 Orion PMS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9784

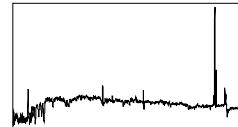
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0195.94vso-49501	360	1:36	05:38:12.3	-00:49:51	300	0	3.0	#112 Orion PMS	4	
0196.COMP	5	1:36	05:38:12.3	-00:49:51	300	0	3.0	#112 Orion PMS	4	
0197.95vso-49665	360	1:36	05:38:22.3	-00:48:32	300	0	3.0	#112 Orion PMS	4	
0198.96vso-49752	360	1:36	05:38:28.4	-00:43:59	300	0	3.0	#112 Orion PMS	4	
0199.COMP	5	1:36	05:38:28.4	-00:43:59	300	0	3.0	#112 Orion PMS	4	
0200.Akn120	180	1:36	05:13:38.0	-00:12:15	300	10	3.0	#6 AGN Monitor	4	
0201.COMP	5	1:36	05:13:38.0	-00:12:15	300	10	3.0	#6 AGN Monitor	4	
0202.97vso-49800	360	1:36	05:38:31.6	-00:31:52	300	0	3.0	#112 Orion PMS	4	
0203.98vso-49968	360	1:36	05:38:43.4	-00:36:32	300	0	3.0	#112 Orion PMS	4	
0204.COMP	5	1:36	05:38:43.4	-00:36:32	300	0	3.0	#112 Orion PMS	4	
0205.99vso-50191	360	1:36	05:38:58.4	-00:31:35	300	0	3.0	#112 Orion PMS	4	
0206.100vso-50197	360	1:36	05:38:58.9	-00:47:59	300	0	3.0	#112 Orion PMS	4	
0207.COMP	5	1:36	05:38:58.9	-00:47:59	300	0	3.0	#112 Orion PMS	4	
0208.101vso-50385	360	1:36	05:39:10.7	-00:54:22	300	0	3.0	#112 Orion PMS	4	
0209.102vso-51079	360	1:36	05:40:01.2	-00:46:21	300	0	3.0	#112 Orion PMS	4	
0210.COMP	5	1:36	05:40:01.2	-00:46:21	300	0	3.0	#112 Orion PMS	4	
0211.103vso-51558	360	1:36	05:40:34.3	-00:52:08	300	0	3.0	#112 Orion PMS	4	
0212.104vso-51728	360	1:36	05:40:47.7	-00:39:48	300	0	3.0	#112 Orion PMS	4	
0213.COMP	5	1:36	05:40:47.7	-00:39:48	300	0	3.0	#112 Orion PMS	4	
0214.Hiltner600	60	1:36	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9785

UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0215.Hiltner600	60	1:36	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0216.COMP	10	1:36	06:42:37.2	02:11:25	300	0	3.0	#56 Spectropho	2	
0217.105vso-51744	360	1:36	05:40:49.0	-00:41:32	300	0	3.0	#112 Orion PMS	4	
0218.106vso-51779	360	1:36	05:40:51.6	-00:36:12	300	0	3.0	#112 Orion PMS	4	
0219.COMP	5	1:36	05:40:51.6	-00:36:12	300	0	3.0	#112 Orion PMS	4	
0220.BGGem	1200	1:36	6:03:31	27:41:50	300	0	3.0	#100 BGGem	2	pa=90
0221.BGGem	300	1:36	6:03:31	27:41:50	300	0	3.0	#100 BGGem	2	
0222.COMP	10	1:36	6:03:31	27:41:50	300	0	3.0	#100 BGGem	2	
0223.sn2001ff	1200	1:36	08:57:00.9	+13:11:59	300	0	3.0	#2 SN Observat	2	
0224.COMP	10	1:36	08:57:00.9	+13:11:59	300	0	3.0	#2 SN Observat	2	
0225.sn2001fe	1200	1:36	09:37:57.1	+25:29:41	300	0	3.0	#2 SN Observat	2	nice and bright Ia!
0226.COMP	10	1:36	09:37:57.1	+25:29:41	300	0	3.0	#2 SN Observat	2	
0227.MRK110	360	1:36	09:25:12.9	+52:17:10	300	0	3.0	#6 AGN Monitor	4	
0228.COMP	5	1:36	09:25:12.9	+52:17:10	300	0	3.0	#6 AGN Monitor	4	
0229.N3227	90	1:36	10:23:30.6	+19:51:54	300	0	3.0	#6 AGN Monitor	4	
0230.N3227	90	1:36	10:23:30.6	+19:51:54	300	0	3.0	#6 AGN Monitor	4	
0231.N3227	90	1:36	10:23:30.6	+19:51:54	300	0	3.0	#6 AGN Monitor	4	
0232.COMP	5	1:36	10:23:30.6	+19:51:54	300	0	3.0	#6 AGN Monitor	4	
0233.MRK421	240	1:36	11:04:27.4	+38:12:32	300	0	3.0	#6 AGN Monitor	4	pa=90
0234.MRK421	240	1:36	11:04:27.4	+38:12:32	300	0	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9786

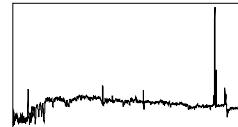
UT Date 2001-11-14 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0235.COMP	5	1:36	11:04:27.4	+38:12:32	300	0	3.0	#6 AGN Monitor	4	
0236.sn2001fv	1200	1:36	11:04:01.6	+28:01:55	300	100	3.0	#2 SN Observat	2	
0237.COMP	10	1:36	11:04:01.6	+28:01:55	300	100	3.0	#2 SN Observat	2	
0238.Feige34	90	1:36	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0239.Feige34	90	1:36	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0240.COMP	10	1:36	10:36:41.2	43:21:50	300	100	3.0	#56 Spectropho	2	
0241.BIAS	0	1:36	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	a few clouds around @ dawn
0242-0250.BIAS	0	12:58	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	
0251-0260.FLAT	8	13:02	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	
0261-0270.BIAS	0	13:05	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	
0271-0280.FLAT	16	13:09	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	
0281-0290.DARK	1200	16:12	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9787

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0005.DARK	900	23:49	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	
0006-0015.BIAS	0	0:12	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	
0016-0025.FLAT	8	0:15	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	4	
0026.BIAS	0	0:15	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	a few clouds
0027-0035.BIAS	0	0:18	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	
0036-0045.FLAT	16	0:23	10:36:41.2	43:21:50	300	100	3.0	#2 SN Observat	2	
0046-0050.sky	2	0:40	20:40:00	32:0:0	300	100	3.0	#57 Velocity S	4	
0051.COMP	5	0:40	20:40:00	32:0:0	300	100	3.0	#57 Velocity S	4	
0052.HD192281	5	0:40	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0053.HD192281	5	0:40	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0054.HD192281	5	0:40	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0055.COMP	5	0:40	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0056.HIP116088	5	0:40	23:31:23.3	+43:22:24	300	90	3.0	#89 Ae/Be Star	4	
0057.HIP116088	5	0:40	23:31:23.3	+43:22:24	300	90	3.0	#89 Ae/Be Star	4	
0058.COMP	5	0:40	23:31:23.3	+43:22:24	300	90	3.0	#89 Ae/Be Star	4	
0059.HIP115334	6	0:40	23:21:38.7	+47:21:04	300	90	3.0	#89 Ae/Be Star	4	
0060.HIP115334	6	0:40	23:21:38.7	+47:21:04	300	90	3.0	#89 Ae/Be Star	4	
0061.COMP	5	0:40	23:21:38.7	+47:21:04	300	90	3.0	#89 Ae/Be Star	4	
0062.HIP115067.east	8	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	
0063.HIP115067.east	10	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9788

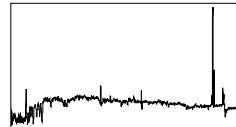
UT Date 2001-11-15 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0064.HIP115067.east	10	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	
0065.HIP115067.west	20	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	
0066.HIP115067.west	20	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	
0067.COMP	5	0:40	23:18:23.5	+47:15:42	300	90	3.0	#89 Ae/Be Star	4	
0068.HIP116540	8	0:40	23:37:05.8	+46:17:14	300	90	3.0	#89 Ae/Be Star	4	
0069.HIP116540	8	0:40	23:37:05.8	+46:17:14	300	90	3.0	#89 Ae/Be Star	4	
0070.COMP	5	0:40	23:37:05.8	+46:17:14	300	90	3.0	#89 Ae/Be Star	4	
0071.HIP115441	15	0:40	23:23:00.3	+38:59:57	300	90	3.0	#89 Ae/Be Star	4	
0072.HIP115441	15	0:40	23:23:00.3	+38:59:57	300	90	3.0	#89 Ae/Be Star	4	
0073.COMP	5	0:40	23:23:00.3	+38:59:57	300	90	3.0	#89 Ae/Be Star	4	
0074.HIP114890	15	0:40	23:16:18.9	+50:01:40	300	90	3.0	#89 Ae/Be Star	4	
0075.HIP114890	15	0:40	23:16:18.9	+50:01:40	300	90	3.0	#89 Ae/Be Star	4	
0076.COMP	5	0:40	23:16:18.9	+50:01:40	300	90	3.0	#89 Ae/Be Star	4	
0077.HIP114554	15	0:40	23:12:15.0	+38:46:59	300	90	3.0	#89 Ae/Be Star	4	
0078.HIP114554	15	0:40	23:12:15.0	+38:46:59	300	90	3.0	#89 Ae/Be Star	4	
0079.COMP	5	0:40	23:12:15.0	+38:46:59	300	90	3.0	#89 Ae/Be Star	4	
0080.HIP114593	20	0:40	23:12:52.4	+48:17:01	300	90	3.0	#89 Ae/Be Star	4	
0081.HIP114593	20	0:40	23:12:52.4	+48:17:01	300	90	3.0	#89 Ae/Be Star	4	
0082.COMP	5	0:40	23:12:52.4	+48:17:01	300	90	3.0	#89 Ae/Be Star	4	
0083.HIP114625	30	0:40	23:13:15.1	+45:50:25	300	90	3.0	#89 Ae/Be Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9789

UT Date 2001-11-15 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0084.HIP114625	30	0:40	23:13:15.1	+45:50:25	300	90	3.0	#89 Ae/Be Star	4	
0085.COMP	5	0:40	23:13:15.1	+45:50:25	300	90	3.0	#89 Ae/Be Star	4	
0086.HIP114909	15	0:40	23:16:31.1	+36:50:12	300	90	3.0	#89 Ae/Be Star	4	
0087.HIP114909	15	0:40	23:16:31.1	+36:50:12	300	90	3.0	#89 Ae/Be Star	4	
0088.HIP114909	30	0:40	23:16:31.1	+36:50:12	300	90	3.0	#89 Ae/Be Star	4	
0089.COMP	5	0:40	23:16:31.1	+36:50:12	300	90	3.0	#89 Ae/Be Star	4	
0090.HIP116135	30	0:40	23:31:53.0	+47:32:51	300	90	3.0	#89 Ae/Be Star	4	
0091.HIP116135	30	0:40	23:31:53.0	+47:32:51	300	90	3.0	#89 Ae/Be Star	4	
0092.COMP	5	0:40	23:31:53.0	+47:32:51	300	90	3.0	#89 Ae/Be Star	4	
0093.HIP113469	5	0:40	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0094.HIP113469	5	0:40	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0095.COMP	5	0:40	22:58:45.7	+43:50:19	300	90	3.0	#89 Ae/Be Star	4	
0096.HIP112148	10	0:40	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0097.HIP112148	10	0:40	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0098.COMP	5	0:40	22:42:57.3	+44:43:18	300	90	3.0	#89 Ae/Be Star	4	
0099.HD217086	5	0:40	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0100.HD217086	5	0:40	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0101.COMP	5	0:40	22:54:49.0	62:27:35	300	90	3.0	#56 Spectropho	4	
0102.BDp284211	45	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0103.BDp284211	45	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9790

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0104.COMP	10	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0105.MRK509	180	0:40	20:44:09.8	-10:43:24	300	22	3.0	#6 AGN Monitor	4	
0106.MRK509	180	0:40	20:44:09.8	-10:43:24	300	22	3.0	#6 AGN Monitor	4	
0107.COMP	5	0:40	20:44:09.8	-10:43:24	300	22	3.0	#6 AGN Monitor	4	
0108.sn2001fh	1200	0:40	21:20:42.5	+44:23:53	300	-42	3.0	#2 SN Observat	2	
0109.sn2001fh	1200	0:40	21:20:42.5	+44:23:53	300	-42	3.0	#2 SN Observat	2	
0110.COMP	10	0:40	21:20:42.5	+44:23:53	300	-42	3.0	#2 SN Observat	2	
0111.id2712	720	0:40	19:59:33.4	35:21:36	300	90	3.0	#115 PMS NGC68	4	
0112.id2741	720	0:40	19:59:24.5	35:18:33	300	90	3.0	#115 PMS NGC68	4	
0113.COMP	5	0:40	19:59:24.5	35:18:33	300	90	3.0	#115 PMS NGC68	4	
0114.id2793	720	0:40	19:59:02.5	35:05:05	300	90	3.0	#115 PMS NGC68	4	
0115.id1584	720	0:40	20:06:27.1	35:42:23	300	90	3.0	#115 PMS NGC68	4	poor seeing
0116.COMP	5	0:40	20:06:27.1	35:42:23	300	90	3.0	#115 PMS NGC68	4	
0117.N7469	150	0:40	23:03:15.7	+08:52:27	300	17	3.0	#6 AGN Monitor	4	
0118.N7469	150	0:40	23:03:15.7	+08:52:27	300	17	3.0	#6 AGN Monitor	4	
0119.COMP	5	0:40	23:03:15.7	+08:52:27	300	17	3.0	#6 AGN Monitor	4	
0120.Akn564	300	0:40	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0121.Akn564	300	0:40	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0122.COMP	5	0:40	22:42:39.4	+29:43:31	300	80	3.0	#6 AGN Monitor	4	
0123.MRK335	150	0:40	00:06:19.6	+20:12:11	300	0	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9791

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0124.MRK335	150	0:40	00:06:19.6	+20:12:11	300	0	3.0	#6 AGN Monitor	4	
0125.COMP	5	0:40	00:06:19.6	+20:12:11	300	0	3.0	#6 AGN Monitor	4	
0126.ZAnd	2	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0127.ZAnd	4	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0128.ZAnd	7	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0129.ZAnd	20	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0130.COMP	5	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0131.163m217	360	0:40	00:40:33.3	+41:11:20	300	90	3.0	#57 Velocity S	4	
0132.COMP	5	0:40	00:40:33.3	+41:11:20	300	90	3.0	#57 Velocity S	4	
0133.2M003215.1p532351	480	0:40	00:32:15.1	+53:23:51	300	90	3.0	#68 2MASS Reds	4	
0134.COMP	5	0:40	00:32:15.1	+53:23:51	300	90	3.0	#68 2MASS Reds	4	
0135.2M005019.6p670251	1200	0:40	00:50:19.6	+67:02:51	300	90	3.0	#68 2MASS Reds	4	some tough customers
0136.COMP	5	0:40	00:50:19.6	+67:02:51	300	90	3.0	#68 2MASS Reds	4	
0137.2M012030.2p652505	1200	0:40	01:20:30.2	+65:25:05	300	90	3.0	#68 2MASS Reds	4	
0138.COMP	5	0:40	01:20:30.2	+65:25:05	300	90	3.0	#68 2MASS Reds	4	
0139.2M012148.3p635011	1200	0:40	01:21:48.3	+63:50:11	300	90	3.0	#68 2MASS Reds	4	
0140.COMP	5	0:40	01:21:48.3	+63:50:11	300	90	3.0	#68 2MASS Reds	4	
0141.2M015927.6p660624	1200	0:40	01:59:27.6	+66:06:24	300	90	3.0	#68 2MASS Reds	4	
0142.COMP	5	0:40	01:59:27.6	+66:06:24	300	90	3.0	#68 2MASS Reds	4	
0143.2M020742.5p750934	300	0:40	02:07:42.5	+75:09:34	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9792

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0144.COMP	5	0:40	02:07:42.5	+75:09:34	300	90	3.0	#68 2MASS Reds	4	
0145.2M020804.9p604600	1200	0:40	02:08:04.9	+60:46:00	300	90	3.0	#68 2MASS Reds	4	ref neb?
0146.COMP	5	0:40	02:08:04.9	+60:46:00	300	90	3.0	#68 2MASS Reds	4	
0147.2M021131.2p704612	240	0:40	02:11:31.2	+70:46:12	300	90	3.0	#68 2MASS Reds	4	
0148.COMP	5	0:40	02:11:31.2	+70:46:12	300	90	3.0	#68 2MASS Reds	4	
0149.2M021449.4p682338	1200	0:40	02:14:49.4	+68:23:38	300	90	3.0	#68 2MASS Reds	4	
0150.COMP	5	0:40	02:14:49.4	+68:23:38	300	90	3.0	#68 2MASS Reds	4	
0151.2M021530.2p660601	1200	0:40	02:15:30.2	+66:06:01	300	90	3.0	#68 2MASS Reds	4	
0152.COMP	5	0:40	02:15:30.2	+66:06:01	300	90	3.0	#68 2MASS Reds	4	
0153.2M021613.1p704119	480	0:40	02:16:13.1	+70:41:19	300	90	3.0	#68 2MASS Reds	4	
0154.COMP	5	0:40	02:16:13.1	+70:41:19	300	90	3.0	#68 2MASS Reds	4	
0155.2M021738.1p691209	1200	0:40	02:17:38.1	+69:12:09	300	90	3.0	#68 2MASS Reds	4	
0156.COMP	5	0:40	02:17:38.1	+69:12:09	300	90	3.0	#68 2MASS Reds	4	
0157.2M021814.3p774652	600	0:40	02:18:14.3	+77:46:52	300	90	3.0	#68 2MASS Reds	4	
0158.COMP	5	0:40	02:18:14.3	+77:46:52	300	90	3.0	#68 2MASS Reds	4	
0159.2M021956.8p551825	300	0:40	02:19:56.8	+55:18:25	300	90	3.0	#68 2MASS Reds	4	
0160.COMP	5	0:40	02:19:56.8	+55:18:25	300	90	3.0	#68 2MASS Reds	4	
0161.2M022108.3p585910	420	0:40	02:21:08.3	+58:59:10	300	90	3.0	#68 2MASS Reds	4	
0162.COMP	5	0:40	02:21:08.3	+58:59:10	300	90	3.0	#68 2MASS Reds	4	
0163.2M022747.0p502858	300	0:40	02:27:47.0	+50:28:58	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9793

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0164.COMP	5	0:40	02:27:47.0	+50:28:58	300	90	3.0	#68 2MASS Reds	4	
0165.2M023137.4p650254	720	0:40	02:31:37.4	+65:02:54	300	90	3.0	#68 2MASS Reds	4	
0166.COMP	5	0:40	02:31:37.4	+65:02:54	300	90	3.0	#68 2MASS Reds	4	
0167.2M023559.9p102625	720	0:40	02:35:59.9	+10:26:25	300	90	3.0	#68 2MASS Reds	4	
0168.COMP	5	0:40	02:35:59.9	+10:26:25	300	90	3.0	#68 2MASS Reds	4	
0169.sn2001ep	1200	0:40	04:57:00.2	-04:45:40	300	5	3.0	#2 SN Observat	2	
0170.COMP	10	0:40	04:57:00.2	-04:45:40	300	5	3.0	#2 SN Observat	2	
0171.2M035028.3p512242	900	0:40	03:50:28.3	+51:22:42	300	90	3.0	#68 2MASS Reds	4	
0172.COMP	5	0:40	03:50:28.3	+51:22:42	300	90	3.0	#68 2MASS Reds	4	
0173.2M035108.2p480042	1200	0:40	03:51:08.2	+48:00:42	300	90	3.0	#68 2MASS Reds	4	
0174.COMP	5	0:40	03:51:08.2	+48:00:42	300	90	3.0	#68 2MASS Reds	4	
0175.2M035146.0p672005	720	0:40	03:51:46.0	+67:20:05	300	90	3.0	#68 2MASS Reds	4	
0176.COMP	5	0:40	03:51:46.0	+67:20:05	300	90	3.0	#68 2MASS Reds	4	
0177.2M035429.6p412249	900	0:40	03:54:29.6	+41:22:49	300	90	3.0	#68 2MASS Reds	4	
0178.COMP	5	0:40	03:54:29.6	+41:22:49	300	90	3.0	#68 2MASS Reds	4	
0179.2M035556.4p413519	900	0:40	03:55:56.4	+41:35:19	300	90	3.0	#68 2MASS Reds	4	
0180.COMP	5	0:40	03:55:56.4	+41:35:19	300	90	3.0	#68 2MASS Reds	4	
0181.2M035638.7p272159	300	0:40	03:56:38.7	+27:21:59	300	90	3.0	#68 2MASS Reds	4	
0182.COMP	5	0:40	03:56:38.7	+27:21:59	300	90	3.0	#68 2MASS Reds	4	
0183.2M035709.1p340938	180	0:40	03:57:09.1	+34:09:38	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9794

UT Date 2001-11-15 Observers P Berlind

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0184.COMP	5	0:40	03:57:09.1	+34:09:38	300	90	3.0	#68 2MASS Reds	4	
0185.2M035739.6p364714	240	0:40	03:57:39.6	+36:47:14	300	90	3.0	#68 2MASS Reds	4	
0186.COMP	5	0:40	03:57:39.6	+36:47:14	300	90	3.0	#68 2MASS Reds	4	
0187.2M035807.7p433303	300	0:40	03:58:07.7	+43:33:03	300	90	3.0	#68 2MASS Reds	2	star just west of nucleus
0188.COMP	10	0:40	03:58:07.7	+43:33:03	300	90	3.0	#68 2MASS Reds	2	
0189.sn2001ej	1200	0:40	07:23:43.2	33:26:38	300	90	3.0	#2 SN Observat	2	
0190.COMP	10	0:40	07:23:43.2	33:26:38	300	90	3.0	#2 SN Observat	2	
0191.NGC_2342	1200	0:40	07:09:18.8	+20:38:10	300	90	3.0	#124 COLA	2	
0192.COMP	10	0:40	07:09:18.8	+20:38:10	300	90	3.0	#124 COLA	2	
0193.NGC_2415	1200	0:40	07:36:56.9	+35:14:29	300	90	3.0	#124 COLA	2	
0194.COMP	10	0:40	07:36:56.9	+35:14:29	300	90	3.0	#124 COLA	2	
0195.2M052321.4m024735	900	0:40	05:23:21.4	-02:47:35	300	90	3.0	#68 2MASS Reds	4	
0196.COMP	5	0:40	05:23:21.4	-02:47:35	300	90	3.0	#68 2MASS Reds	4	
0197.2M052318.7p391822	900	0:40	05:23:18.7	+39:18:22	300	90	3.0	#68 2MASS Reds	4	
0198.COMP	5	0:40	05:23:18.7	+39:18:22	300	90	3.0	#68 2MASS Reds	4	
0199.2M052536.2p520742	720	0:40	05:25:36.2	+52:07:42	300	90	3.0	#68 2MASS Reds	4	
0200.COMP	5	0:40	05:25:36.2	+52:07:42	300	90	3.0	#68 2MASS Reds	4	
0201.Feige34	120	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0202.Feige34	120	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0203.COMP	10	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9795

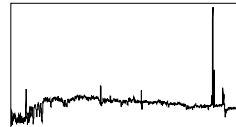
UT Date 2001-11-15 Observers P BerlindColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0204.BIAS	0	0:40	10:36:41.2	43:21:50	300	90	3.0	#2 SN Observat	4	scattered clouds @ dawn
0205-0213.BIAS	0	12:57	10:36:41.2	43:21:50	300	90	3.0	#2 SN Observat	4	
0214-0223.FLAT	8	12:59	10:36:41.2	43:21:50	300	90	3.0	#2 SN Observat	4	
0224-0233.BIAS	0	13:02	10:36:41.2	43:21:50	300	90	3.0	#2 SN Observat	2	
0234-0243.FLAT	16	13:07	10:36:41.2	43:21:50	300	90	3.0	#2 SN Observat	2	
0244.DARK	1200	13:07	09:48:12.0	31:30:57	300	90	3.0	#2 SN Observat	2	
0245.DARK	1200	13:07	10:08:29.0	31:30:59	300	90	3.0	#2 SN Observat	2	
0246-0247.DARK	1200	14:14	10:49:02.0	31:31:00	300	90	3.0	#2 SN Observat	2	
0248-0250.DARK	1200	15:14	11:49:53.0	31:31:01	300	90	3.0	#2 SN Observat	2	
0251.DARK	1200	15:14	12:10:09.0	31:31:00	300	90	3.0	#2 SN Observat	2	
0252.DARK	1200	15:14	12:30:26.0	31:30:59	300	90	3.0	#2 SN Observat	2	
0253.DARK	1200	15:14	12:50:42.0	31:30:58	300	90	3.0	#2 SN Observat	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9796

UT Date 2001-11-16 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	23:33	20:04:45.0	31:29:57	300	90	3.0	#2 SN Observat	2	binby2
0002.DARK	900	23:33	20:20:02.0	31:29:55	300	90	3.0	#2 SN Observat	2	
0003.DARK	900	23:33	20:35:17.0	31:29:53	300	90	3.0	#2 SN Observat	2	
0004.DARK	900	23:33	20:50:30.0	31:29:51	300	90	3.0	#2 SN Observat	2	
0005.DARK	900	23:33	21:05:46.0	31:29:50	300	90	3.0	#2 SN Observat	2	
0006-0015.BIAS	0	0:55	21:11:42.0	31:29:49	300	90	3.0	#2 SN Observat	2	
0016-0018.FLAT	16	1:01	21:18:08.0	31:29:49	300	90	3.0	#2 SN Observat	2	
0019-0025.FLAT	16	1:04	21:21:32.0	31:29:48	300	90	3.0	#2 SN Observat	2	
0026.BIAS	0	1:04	21:21:54.0	31:29:48	300	90	3.0	#2 SN Observat	4	binby4
0027-0035.BIAS	0	1:06	21:23:08.0	31:29:48	300	90	3.0	#2 SN Observat	4	
0036.FLAT	8	1:06	21:23:30.0	31:29:48	300	90	3.0	#2 SN Observat	4	cirrus
0037-0045.FLAT	8	1:09	21:25:49.0	31:29:48	300	90	3.0	#2 SN Observat	4	
0046.HD192281	5	1:09	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0047.HD192281	5	1:09	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0048.HD192281	5	1:09	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0049.COMP	5	1:09	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0050.id1888	600	1:09	20:05:54.8	35:55:55	300	90	3.0	#115 PMS NGC68	4	
0051.COMP	5	1:09	20:05:54.8	35:55:55	300	90	3.0	#115 PMS NGC68	4	
0052.id1961	600	1:09	20:05:47.5	35:37:46	300	90	3.0	#115 PMS NGC68	4	
0053.COMP	5	1:09	20:05:47.5	35:37:46	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9797

UT Date 2001-11-16 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0054.id2018	800	1:09	20:05:37.7	35:44:07	300	90	3.0	#115 PMS NGC68	4	
0055.COMP	5	1:09	20:05:37.7	35:44:07	300	90	3.0	#115 PMS NGC68	4	
0056.BDp284211	45	1:09	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0057.COMP	5	1:09	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0058.BDp284211	45	1:09	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	binby2
0059.COMP	10	1:09	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0060.id1024	720	1:09	20:07:32.3	35:37:44	300	90	3.0	#115 PMS NGC68	4	binby4
0061.COMP	5	1:09	20:07:32.3	35:37:44	300	90	3.0	#115 PMS NGC68	4	
0062.id1284	720	1:09	20:07:05.8	35:41:17	300	90	3.0	#115 PMS NGC68	4	
0063.COMP	5	1:09	20:07:05.8	35:41:17	300	90	3.0	#115 PMS NGC68	4	
0064.id1483	720	1:09	20:06:43.9	35:46:59	300	90	3.0	#115 PMS NGC68	4	
0065.COMP	5	1:09	20:06:43.9	35:46:59	300	90	3.0	#115 PMS NGC68	4	
0066.id1603	720	1:09	20:06:24.9	35:43:43	300	90	3.0	#115 PMS NGC68	4	
0067.COMP	5	1:09	20:06:24.9	35:43:43	300	90	3.0	#115 PMS NGC68	4	
0068.id1849	720	1:09	20:05:59.0	35:52:20	300	90	3.0	#115 PMS NGC68	4	
0069.COMP	5	1:09	20:05:59.0	35:52:20	300	90	3.0	#115 PMS NGC68	4	
0070.id2367	720	1:09	20:04:42.6	35:49:11	300	90	3.0	#115 PMS NGC68	4	
0071.COMP	5	1:09	20:04:42.6	35:49:11	300	90	3.0	#115 PMS NGC68	4	
0072.2m203856p193750	300	1:09	20:38:56.5	19:37:50	300	90	3.0	#68 2MASS	4	
0073.COMP	5	1:09	20:38:56.5	19:37:50	300	90	3.0	#68 2MASS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9798

UT Date 2001-11-16 Observers K Rines

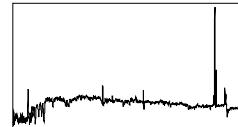
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0074.2m204628p105856	300	1:09	20:46:28	10:58:56	300	90	3.0	#68 2MASS Reds	4	
0075.COMP	5	1:09	20:46:28	10:58:56	300	90	3.0	#68 2MASS Reds	4	
0076.2M204714.5m032407	200	1:09	20:47:14.5	-03:24:07	300	90	3.0	#68 2MASS Reds	4	
0077.COMP	5	1:09	20:47:14.5	-03:24:07	300	90	3.0	#68 2MASS Reds	4	
0078.2M205146.4m034711	300	1:09	20:51:46.4	-03:47:11	300	90	3.0	#68 2MASS Reds	4	
0079.COMP	5	1:09	20:51:46.4	-03:47:11	300	90	3.0	#68 2MASS Reds	4	
0080.2M205551.9m034414	200	1:09	20:55:51.9	-03:44:14	300	90	3.0	#68 2MASS Reds	4	
0081.COMP	5	1:09	20:55:51.9	-03:44:14	300	90	3.0	#68 2MASS Reds	4	
0082.2M205222.4p000432	300	1:09	20:52:22.4	+00:04:32	300	90	3.0	#68 2MASS Reds	4	
0083.COMP	5	1:09	20:52:22.4	+00:04:32	300	90	3.0	#68 2MASS Reds	4	
0084.2M205255.1p621710	200	1:09	20:52:55.1	+62:17:10	300	90	3.0	#68 2MASS Reds	4	
0085.COMP	5	1:09	20:52:55.1	+62:17:10	300	90	3.0	#68 2MASS Reds	4	
0086.2M204941.4p635417	200	1:09	20:49:41.4	+63:54:17	300	90	3.0	#68 2MASS Reds	4	
0087.COMP	5	1:09	20:49:41.4	+63:54:17	300	90	3.0	#68 2MASS Reds	4	
0088.2M205140.3p652638	200	1:09	20:51:40.3	+65:26:38	300	90	3.0	#68 2MASS Reds	4	
0089.COMP	5	1:09	20:51:40.3	+65:26:38	300	90	3.0	#68 2MASS Reds	4	
0090.2M210250.4p633845	500	1:09	21:02:50.4	+63:38:45	300	90	3.0	#68 2MASS Reds	4	
0091.COMP	5	1:09	21:02:50.4	+63:38:45	300	90	3.0	#68 2MASS Reds	4	
0092.2M211309.6p663253	200	1:09	21:13:09.6	+66:32:53	300	90	3.0	#68 2MASS Reds	4	
0093.COMP	5	1:09	21:13:09.6	+66:32:53	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9799

UT Date 2001-11-16 Observers K Rines

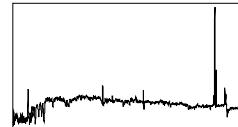
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0094.2M211315.8p663336	300	1:09	21:13:15.8	+66:33:36	300	90	3.0	#68 2MASS Reds	4	
0095.COMP	5	1:09	21:13:15.8	+66:33:36	300	90	3.0	#68 2MASS Reds	4	
0096.2M212110.4p821900	300	1:09	21:21:10.4	+82:19:00	300	90	3.0	#68 2MASS Reds	4	
0097.COMP	5	1:09	21:21:10.4	+82:19:00	300	90	3.0	#68 2MASS Reds	4	
0098.2M213106.1p703440	300	1:09	21:31:06.1	+70:34:40	300	90	3.0	#68 2MASS Reds	4	
0099.COMP	5	1:09	21:31:06.1	+70:34:40	300	90	3.0	#68 2MASS Reds	4	
0100.2M224035.7p725145	300	1:09	22:40:35.7	+72:51:45	300	90	3.0	#68 2MASS Reds	4	
0101.COMP	5	1:09	22:40:35.7	+72:51:45	300	90	3.0	#68 2MASS Reds	4	
0102.2M223840.7p355209	200	1:09	22:38:40.7	+35:52:09	300	90	3.0	#68 2MASS Reds	4	
0103.COMP	5	1:09	22:38:40.7	+35:52:09	300	90	3.0	#68 2MASS Reds	4	
0104.2M224844.2p273500	400	1:09	22:48:44.2	+27:35:00	300	90	3.0	#68 2MASS Reds	4	
0105.COMP	5	1:09	22:48:44.2	+27:35:00	300	90	3.0	#68 2MASS Reds	4	
0106.2M232147.3p435935	300	1:09	23:21:47.3	+43:59:35	300	90	3.0	#68 2MASS Reds	4	
0107.COMP	5	1:09	23:21:47.3	+43:59:35	300	90	3.0	#68 2MASS Reds	4	
0108.2M235656.0p482603	300	1:09	23:56:56.0	+48:26:03	300	90	3.0	#68 2MASS Reds	4	
0109.COMP	5	1:09	23:56:56.0	+48:26:03	300	90	3.0	#68 2MASS Reds	4	
0110.ZAnd	1	1:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0111.ZAnd	3	1:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0112.ZAnd	5	1:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0113.ZAnd	15	1:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9800

UT Date 2001-11-16 Observers K Rines

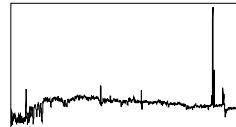
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0114.COMP	5	1:09	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0115.sn2001fa	1200	1:09	01:48:22.2	+11:31:34	300	90	3.0	#2 SN Observat	2	
0116.COMP	10	1:09	01:48:22.2	+11:31:34	300	90	3.0	#2 SN Observat	2	
0117.a168_003	360	1:09	01:09:18.2	2:34:03	300	90	3.0	#64 Cluster In	4	
0118.COMP	5	1:09	01:09:18.2	2:34:03	300	90	3.0	#64 Cluster In	4	
0119.a168_006	300	1:09	01:25:39.6	2:25:51	300	90	3.0	#64 Cluster In	4	
0120.COMP	5	1:09	01:25:39.6	2:25:51	300	90	3.0	#64 Cluster In	4	
0121.a168_008	200	1:09	01:25:33.2	2:34:45	300	90	3.0	#64 Cluster In	4	
0122.COMP	5	1:09	01:25:33.2	2:34:45	300	90	3.0	#64 Cluster In	4	
0123.a168_013	500	1:09	01:25:38.7	0:26:04	300	90	3.0	#64 Cluster In	4	
0124.COMP	5	1:09	01:25:38.7	0:26:04	300	90	3.0	#64 Cluster In	4	
0125.a168_022	240	1:09	01:17:46.5	3:24:29	300	90	3.0	#64 Cluster In	4	
0126.COMP	5	1:09	01:17:46.5	3:24:29	300	90	3.0	#64 Cluster In	4	
0127.a168_034	360	1:09	01:07:45.9	2:09:46	300	90	3.0	#64 Cluster In	4	
0128.COMP	5	1:09	01:07:45.9	2:09:46	300	90	3.0	#64 Cluster In	4	
0129.a168_035	300	1:09	01:12:55.2	3:38:18	300	90	3.0	#64 Cluster In	4	
0130.COMP	5	1:09	01:12:55.2	3:38:18	300	90	3.0	#64 Cluster In	4	
0131.a168_062	480	1:09	01:12:56.7	3:37:43	300	90	3.0	#64 Cluster In	4	
0132.COMP	5	1:09	01:12:56.7	3:37:43	300	90	3.0	#64 Cluster In	4	
0133.a168_036	480	1:09	01:12:30.1	-2:50:52	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9801

UT Date 2001-11-16 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0134.COMP	5	1:09	01:12:30.1	-2:50:52	300	90	3.0	#64 Cluster In	4	
0135.a168_045	300	1:09	01:24:29.4	2:30:46	300	90	3.0	#64 Cluster In	4	
0136.COMP	5	1:09	01:24:29.4	2:30:46	300	90	3.0	#64 Cluster In	4	
0137.a168_046	420	1:09	01:19:22.7	-3:36:20	300	90	3.0	#64 Cluster In	4	
0138.COMP	5	1:09	01:19:22.7	-3:36:20	300	90	3.0	#64 Cluster In	4	
0139.a168_049	420	1:09	01:20:16.8	3:08:02	300	90	3.0	#64 Cluster In	4	
0140.COMP	5	1:09	01:20:16.8	3:08:02	300	90	3.0	#64 Cluster In	4	
0141.a168_053	480	1:09	01:17:51.6	3:17:48	300	90	3.0	#64 Cluster In	4	
0142.COMP	5	1:09	01:17:51.6	3:17:48	300	90	3.0	#64 Cluster In	4	
0143.a168_055	480	1:09	01:08:11.1	2:12:03	300	90	3.0	#64 Cluster In	4	
0144.COMP	5	1:09	01:08:11.1	2:12:03	300	90	3.0	#64 Cluster In	4	
0145.a168_056	300	1:09	01:07:54.5	2:23:00	300	90	3.0	#64 Cluster In	4	
0146.COMP	5	1:09	01:07:54.5	2:23:00	300	90	3.0	#64 Cluster In	4	
0147.a168_057	720	1:09	01:17:07.3	-3:40:35	300	90	3.0	#64 Cluster In	4	
0148.COMP	5	1:09	01:17:07.3	-3:40:35	300	90	3.0	#64 Cluster In	4	
0149.a168_059	600	1:09	01:08:20.3	2:17:47	300	90	3.0	#64 Cluster In	4	
0150.COMP	5	1:09	01:08:20.3	2:17:47	300	90	3.0	#64 Cluster In	4	
0151.a168_066	720	1:09	01:20:39.5	3:25:41	300	90	3.0	#64 Cluster In	4	
0152.COMP	5	1:09	01:20:39.5	3:25:41	300	90	3.0	#64 Cluster In	4	
0153.a496_336	1200	1:09	04:25:19.9	-09:32:04	300	90	3.0	#64 Cluster In	4	interacting E-W pair



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9802

UT Date 2001-11-16 Observers K Rines

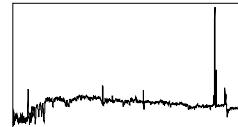
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0154.COMP	5	1:09	04:25:19.9	-09:32:04	300	90	3.0	#64 Cluster In	4	
0155.a496_340	400	1:09	04:51:13.8	-15:34:53	300	90	3.0	#64 Cluster In	4	
0156.COMP	5	1:09	04:51:13.8	-15:34:53	300	90	3.0	#64 Cluster In	4	
0157.a496_343	700	1:09	04:47:15.5	-14:56:28	300	90	3.0	#64 Cluster In	4	
0158.COMP	5	1:09	04:47:15.5	-14:56:28	300	90	3.0	#64 Cluster In	4	
0159.a496_346	900	1:09	04:21:08.4	-15:55:03	300	90	3.0	#64 Cluster In	4	
0160.COMP	5	1:09	04:21:08.4	-15:55:03	300	90	3.0	#64 Cluster In	4	
0161.a496_349	900	1:09	04:26:33.1	-08:19:27	300	90	3.0	#64 Cluster In	4	349E to E
0162.COMP	5	1:09	04:26:33.1	-08:19:27	300	90	3.0	#64 Cluster In	4	
0163.2M023733.8p644056	700	1:09	02:37:33.8	+64:40:56	300	90	3.0	#68 2MASS Reds	4	low s/n
0164.COMP	5	1:09	02:37:33.8	+64:40:56	300	90	3.0	#68 2MASS Reds	4	
0165.2M023809.9p622257	300	1:09	02:38:09.9	+62:22:57	300	90	3.0	#68 2MASS Reds	4	
0166.COMP	5	1:09	02:38:09.9	+62:22:57	300	90	3.0	#68 2MASS Reds	4	
0167.2M023907.5p515327	300	1:09	02:39:07.5	+51:53:27	300	90	3.0	#68 2MASS Reds	4	
0168.COMP	5	1:09	02:39:07.5	+51:53:27	300	90	3.0	#68 2MASS Reds	4	
0169.2M024114.0p455049	200	1:09	02:41:14.0	+45:50:49	300	90	3.0	#68 2MASS Reds	4	
0170.COMP	5	1:09	02:41:14.0	+45:50:49	300	90	3.0	#68 2MASS Reds	4	
0171.2M024213.4p672331	900	1:09	02:42:13.4	+67:23:31	300	90	3.0	#68 2MASS Reds	4	
0172.COMP	5	1:09	02:42:13.4	+67:23:31	300	90	3.0	#68 2MASS Reds	4	
0173.2M024238.1p361254	200	1:09	02:42:38.1	+36:12:54	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9803

UT Date 2001-11-16 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0174.COMP	5	1:09	02:42:38.1	+36:12:54	300	90	3.0	#68 2MASS Reds	4	
0175.2M024425.2p322100	300	1:09	02:44:25.2	+32:21:00	300	90	3.0	#68 2MASS Reds	4	
0176.COMP	5	1:09	02:44:25.2	+32:21:00	300	90	3.0	#68 2MASS Reds	4	
0177.2M033234.3p472844	800	1:09	03:32:34.3	+47:28:44	300	90	3.0	#68 2MASS Reds	4	
0178.COMP	5	1:09	03:32:34.3	+47:28:44	300	90	3.0	#68 2MASS Reds	4	
0179.2M033322.6p400947	200	1:09	03:33:22.6	+40:09:47	300	90	3.0	#68 2MASS Reds	4	
0180.COMP	5	1:09	03:33:22.6	+40:09:47	300	90	3.0	#68 2MASS Reds	4	
0181.2M033357.0p390422	200	1:09	03:33:57.0	+39:04:22	300	90	3.0	#68 2MASS Reds	4	
0182.COMP	5	1:09	03:33:57.0	+39:04:22	300	90	3.0	#68 2MASS Reds	4	
0183.2M041108.3p383726	800	1:09	04:11:08.3	+38:37:26	300	90	3.0	#68 2MASS Reds	4	
0184.COMP	5	1:09	04:11:08.3	+38:37:26	300	90	3.0	#68 2MASS Reds	4	
0185.2M041141.4p384128	900	1:09	04:11:41.4	+38:41:28	300	90	3.0	#68 2MASS Reds	4	
0186.COMP	5	1:09	04:11:41.4	+38:41:28	300	90	3.0	#68 2MASS Reds	4	
0187.2M043653.8p273314	500	1:09	04:36:53.8	+27:33:14	300	90	3.0	#68 2MASS Reds	4	
0188.COMP	5	1:09	04:36:53.8	+27:33:14	300	90	3.0	#68 2MASS Reds	4	
0189.sn2001fe	1200	1:09	09:37:57.1	+25:29:41	300	90	3.0	#2 SN Observat	2	binby2
0190.COMP	10	1:09	09:37:57.1	+25:29:41	300	90	3.0	#2 SN Observat	2	
0191.IRAS_0653p4629	1200	1:09	06:57:34.8	+46:24:09	300	90	3.0	#124 COLA	4	binby4
0192.COMP	5	1:09	06:57:34.8	+46:24:09	300	90	3.0	#124 COLA	4	
0193.BGGem	1200	1:09	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	binby2



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9804

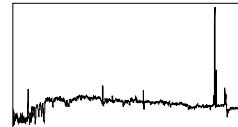
UT Date 2001-11-16 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0194.BGGem	300	1:09	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0195.COMP	10	1:09	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0196.HD52971	5	1:09	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	2	
0197.COMP	10	1:09	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	2	
0198.HD52971	5	1:09	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	binby4
0199.COMP	5	1:09	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0200-0209.BIAS	0	13:15	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0210-0219.FLAT	8	13:19	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0220.BIAS	0	13:19	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	binby2
0221-0229.BIAS	0	13:21	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0230.FLAT	16	13:21	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	clear at dawn
0231-0239.FLAT	16	13:26	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0240.DARK	1200	13:26	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	binby4
0241-0249.DARK	1200	16:29	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9805

UT Date 2001-11-17 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:17	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	binby2
0002-0010.DARK	900	0:34	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0011.BIAS	0	0:34	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	clear
0012-0020.BIAS	0	0:51	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0021-0030.FLAT	16	0:56	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	2	
0031.BIAS	0	0:56	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	binby4
0032-0040.BIAS	0	0:58	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0041-0050.FLAT	8	1:01	06:57:51	+27:13:42	300	90	3.0	#68 2MASS Reds	4	
0051.HD192281	5	1:01	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0052.HD192281	5	1:01	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0053.HD192281	5	1:01	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0054.COMP	5	1:01	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0055.BDp284211	45	1:01	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0056.COMP	5	1:01	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0057.BDp284211	45	1:01	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	binby2
0058.COMP	10	1:01	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0059.id92	720	1:01	20:06:01.8	35:48:31	300	90	3.0	#115 PMS NGC68	4	binby4
0060.COMP	5	1:01	20:06:01.8	35:48:31	300	90	3.0	#115 PMS NGC68	4	
0061.id1302	720	1:01	20:07:04.3	35:45:19	300	90	3.0	#115 PMS NGC68	4	
0062.COMP	5	1:01	20:07:04.3	35:45:19	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9806

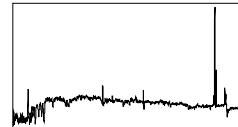
UT Date 2001-11-17 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0063.id1363	720	1:01	20:06:58.1	35:53:50	300	90	3.0	#115 PMS NGC68	4	
0064.COMP	5	1:01	20:06:58.1	35:53:50	300	90	3.0	#115 PMS NGC68	4	
0065.id1592	720	1:01	20:06:26.3	35:45:11	300	90	3.0	#115 PMS NGC68	4	
0066.COMP	5	1:01	20:06:26.3	35:45:11	300	90	3.0	#115 PMS NGC68	4	
0067.id1628	720	1:01	20:06:22.9	35:52:45	300	90	3.0	#115 PMS NGC68	4	
0068.COMP	5	1:01	20:06:22.9	35:52:45	300	90	3.0	#115 PMS NGC68	4	
0069.id1881	720	1:01	20:05:55.4	35:56:47	300	90	3.0	#115 PMS NGC68	4	
0070.COMP	5	1:01	20:05:55.4	35:56:47	300	90	3.0	#115 PMS NGC68	4	
0071.id2653	720	1:01	19:59:56.2	35:24:23	300	90	3.0	#115 PMS NGC68	4	shooting star during exposure
0072.COMP	5	1:01	19:59:56.2	35:24:23	300	90	3.0	#115 PMS NGC68	4	
0073.id2850	720	1:01	19:58:45.5	35:20:09	300	90	3.0	#115 PMS NGC68	4	star to W
0074.COMP	5	1:01	19:58:45.5	35:20:09	300	90	3.0	#115 PMS NGC68	4	
0075.id2895	720	1:01	19:58:24.3	35:11:53	300	90	3.0	#115 PMS NGC68	4	
0076.COMP	5	1:01	19:58:24.3	35:11:53	300	90	3.0	#115 PMS NGC68	4	
0077.id1188	720	1:01	20:07:17.7	35:54:28	300	90	3.0	#115 PMS NGC68	4	
0078.COMP	5	1:01	20:07:17.7	35:54:28	300	90	3.0	#115 PMS NGC68	4	
0079.id1714	720	1:01	20:06:12.5	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0080.COMP	5	1:01	20:06:12.5	35:35:26	300	90	3.0	#115 PMS NGC68	4	
0081.id1916	720	1:01	20:05:51.8	35:48:04	300	90	3.0	#115 PMS NGC68	4	
0082.COMP	5	1:01	20:05:51.8	35:48:04	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9807

UT Date 2001-11-17 Observers K Rines

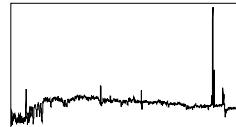
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0083.id2241	720	1:01	20:05:08.8	35:38:40	300	90	3.0	#115 PMS NGC68	4	
0084.COMP	5	1:01	20:05:08.8	35:38:40	300	90	3.0	#115 PMS NGC68	4	
0085.ZAnd	1	1:01	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0086.ZAnd	3	1:01	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0087.ZAnd	5	1:01	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0088.ZAnd	15	1:01	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0089.COMP	5	1:01	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0090.sn2001en	1200	1:01	01:25:22.9	+34:01:30	300	90	3.0	#2 SN Observat	2	
0091.COMP	10	1:01	01:25:22.9	+34:01:30	300	90	3.0	#2 SN Observat	2	
0092.sn2001eh	1200	1:01	01:38:12.1	41:39:18	300	90	3.0	#2 SN Observat	2	
0093.COMP	10	1:01	01:38:12.1	41:39:18	300	90	3.0	#2 SN Observat	2	
0094.a168_071	500	1:01	01:25:35.9	2:43:08	300	90	3.0	#64 Cluster In	4	
0095.COMP	5	1:01	01:25:35.9	2:43:08	300	90	3.0	#64 Cluster In	4	
0096.a168_074	900	1:01	01:23:10.1	3:07:18	300	90	3.0	#64 Cluster In	4	
0097.COMP	5	1:01	01:23:10.1	3:07:18	300	90	3.0	#64 Cluster In	4	
0098.a168_076	500	1:01	01:21:34.8	3:27:26	300	90	3.0	#64 Cluster In	4	
0099.COMP	5	1:01	01:21:34.8	3:27:26	300	90	3.0	#64 Cluster In	4	
0100.a168_078	700	1:01	01:16:51.9	-2:52:08	300	90	3.0	#64 Cluster In	4	
0101.COMP	5	1:01	01:16:51.9	-2:52:08	300	90	3.0	#64 Cluster In	4	
0102.a168_082	500	1:01	01:22:31.1	3:07:31	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9808

UT Date 2001-11-17 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0103.COMP	5	1:01	01:22:31.1	3:07:31	300	90	3.0	#64 Cluster In	4	
0104.a168_084	300	1:01	01:16:23.1	2:56:18	300	90	3.0	#64 Cluster In	4	
0105.COMP	5	1:01	01:16:23.1	2:56:18	300	90	3.0	#64 Cluster In	4	
0106.a168_085	900	1:01	01:25:28.3	0:44:11	300	90	3.0	#64 Cluster In	4	
0107.COMP	5	1:01	01:25:28.3	0:44:11	300	90	3.0	#64 Cluster In	4	
0108.a168_088	800	1:01	01:14:28.4	3:30:48	300	90	3.0	#64 Cluster In	4	
0109.COMP	5	1:01	01:14:28.4	3:30:48	300	90	3.0	#64 Cluster In	4	
0110.a168_089	500	1:01	01:14:11.9	3:10:14	300	90	3.0	#64 Cluster In	4	
0111.COMP	5	1:01	01:14:11.9	3:10:14	300	90	3.0	#64 Cluster In	4	
0112.a168_091	700	1:01	01:25:08.9	-2:51:50	300	90	3.0	#64 Cluster In	4	
0113.COMP	5	1:01	01:25:08.9	-2:51:50	300	90	3.0	#64 Cluster In	4	
0114.a168_094	900	1:01	01:30:28.0	-0:43:49	300	90	3.0	#64 Cluster In	4	
0115.COMP	5	1:01	01:30:28.0	-0:43:49	300	90	3.0	#64 Cluster In	4	
0116.a168_098	600	1:01	01:12:28.1	2:49:34	300	90	3.0	#64 Cluster In	4	
0117.COMP	5	1:01	01:12:28.1	2:49:34	300	90	3.0	#64 Cluster In	4	
0118.a168_101	800	1:01	01:22:39.8	2:28:42	300	90	3.0	#64 Cluster In	4	
0119.COMP	5	1:01	01:22:39.8	2:28:42	300	90	3.0	#64 Cluster In	4	
0120.a168_105	500	1:01	01:22:03.8	2:05:30	300	90	3.0	#64 Cluster In	4	
0121.COMP	5	1:01	01:22:03.8	2:05:30	300	90	3.0	#64 Cluster In	4	
0122.a168_115	800	1:01	01:18:14.9	-3:26:52	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9809

UT Date 2001-11-17 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0123.COMP	5	1:01	01:18:14.9	-3:26:52	300	90	3.0	#64 Cluster In	4	
0124.a496_377	700	1:01	04:16:42.8	-12:11:33	300	90	3.0	#64 Cluster In	4	
0125.COMP	5	1:01	04:16:42.8	-12:11:33	300	90	3.0	#64 Cluster In	4	
0126.a496_378N	700	1:01	04:16:28.1	-11:37:27	300	90	3.0	#64 Cluster In	4	126=378N; 127=378S, 490, 490W
0127.a496_378N	1200	1:01	04:16:28.1	-11:37:27	300	90	3.0	#64 Cluster In	4	490coords 041631.0-113128
0128.COMP	5	1:01	04:16:28.1	-11:37:27	300	90	3.0	#64 Cluster In	4	490 has strong em
0129.a496_379	800	1:01	04:51:51.2	-13:49:14	300	90	3.0	#64 Cluster In	4	
0130.COMP	5	1:01	04:51:51.2	-13:49:14	300	90	3.0	#64 Cluster In	4	
0131.a496_380	800	1:01	04:32:53.5	-09:13:27	300	90	3.0	#64 Cluster In	4	
0132.COMP	5	1:01	04:32:53.5	-09:13:27	300	90	3.0	#64 Cluster In	4	
0133.a496_383	800	1:01	04:49:09.1	-13:27:25	300	90	3.0	#64 Cluster In	4	
0134.COMP	5	1:01	04:49:09.1	-13:27:25	300	90	3.0	#64 Cluster In	4	
0135.a496_384	800	1:01	04:47:20.3	-15:55:02	300	90	3.0	#64 Cluster In	4	
0136.COMP	5	1:01	04:47:20.3	-15:55:02	300	90	3.0	#64 Cluster In	4	
0137.a496_385	800	1:01	04:46:26.8	-14:52:25	300	90	3.0	#64 Cluster In	4	
0138.COMP	5	1:01	04:46:26.8	-14:52:25	300	90	3.0	#64 Cluster In	4	
0139.a496_387	500	1:01	04:47:19.8	-14:40:37	300	90	3.0	#64 Cluster In	4	
0140.COMP	5	1:01	04:47:19.8	-14:40:37	300	90	3.0	#64 Cluster In	4	
0141.2M025532.6p454204	300	1:01	02:55:32.6	+45:42:04	300	90	3.0	#68 2MASS Reds	4	
0142.COMP	5	1:01	02:55:32.6	+45:42:04	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9810

UT Date 2001-11-17 Observers K Rines

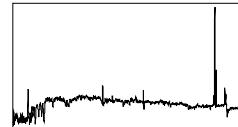
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0143.2M025549.3p461820	300	1:01	02:55:49.3	+46:18:20	300	90	3.0	#68 2MASS Reds	4	
0144.COMP	5	1:01	02:55:49.3	+46:18:20	300	90	3.0	#68 2MASS Reds	4	
0145.2M025634.6p484125	200	1:01	02:56:34.6	+48:41:25	300	90	3.0	#68 2MASS Reds	4	
0146.COMP	5	1:01	02:56:34.6	+48:41:25	300	90	3.0	#68 2MASS Reds	4	
0147.2M025706.8p503214	200	1:01	02:57:06.8	+50:32:14	300	90	3.0	#68 2MASS Reds	4	
0148.COMP	5	1:01	02:57:06.8	+50:32:14	300	90	3.0	#68 2MASS Reds	4	
0149.2M025830.9p454314	200	1:01	02:58:30.9	+45:43:14	300	90	3.0	#68 2MASS Reds	4	
0150.COMP	5	1:01	02:58:30.9	+45:43:14	300	90	3.0	#68 2MASS Reds	4	
0151.2M025902.7p443144	300	1:01	02:59:02.7	+44:31:44	300	90	3.0	#68 2MASS Reds	4	
0152.COMP	5	1:01	02:59:02.7	+44:31:44	300	90	3.0	#68 2MASS Reds	4	
0153.2M025939.6p451247	200	1:01	02:59:39.6	+45:12:47	300	90	3.0	#68 2MASS Reds	4	
0154.COMP	5	1:01	02:59:39.6	+45:12:47	300	90	3.0	#68 2MASS Reds	4	
0155.2M030436.6p432613	200	1:01	03:04:36.6	+43:26:13	300	90	3.0	#68 2MASS Reds	4	
0156.COMP	5	1:01	03:04:36.6	+43:26:13	300	90	3.0	#68 2MASS Reds	4	
0157.2M030747.9p412231	200	1:01	03:07:47.9	+41:22:31	300	90	3.0	#68 2MASS Reds	4	
0158.COMP	5	1:01	03:07:47.9	+41:22:31	300	90	3.0	#68 2MASS Reds	4	
0159.2M030828.3p425246	200	1:01	03:08:28.3	+42:52:46	300	90	3.0	#68 2MASS Reds	4	
0160.COMP	5	1:01	03:08:28.3	+42:52:46	300	90	3.0	#68 2MASS Reds	4	
0161.2M030951.7p413313	200	1:01	03:09:51.7	+41:33:13	300	90	3.0	#68 2MASS Reds	4	
0162.COMP	5	1:01	03:09:51.7	+41:33:13	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9811

UT Date 2001-11-17 Observers K Rines

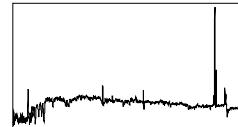
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0163.2M031119.3p431128	200	1:01	03:11:19.3	+43:11:28	300	90	3.0	#68 2MASS Reds	4	
0164.COMP	5	1:01	03:11:19.3	+43:11:28	300	90	3.0	#68 2MASS Reds	4	
0165.2M031431.9p424616	200	1:01	03:14:31.9	+42:46:16	300	90	3.0	#68 2MASS Reds	4	
0166.COMP	5	1:01	03:14:31.9	+42:46:16	300	90	3.0	#68 2MASS Reds	4	
0167.2M032025.1p423249	200	1:01	03:20:25.1	+42:32:49	300	90	3.0	#68 2MASS Reds	4	
0168.COMP	5	1:01	03:20:25.1	+42:32:49	300	90	3.0	#68 2MASS Reds	4	
0169.2M032416.5p442716	200	1:01	03:24:16.5	+44:27:16	300	90	3.0	#68 2MASS Reds	4	
0170.COMP	5	1:01	03:24:16.5	+44:27:16	300	90	3.0	#68 2MASS Reds	4	
0171.2M032612.3p423835	300	1:01	03:26:12.3	+42:38:35	300	90	3.0	#68 2MASS Reds	4	star to E
0172.COMP	5	1:01	03:26:12.3	+42:38:35	300	90	3.0	#68 2MASS Reds	4	
0173.2M033056.8p404829	200	1:01	03:30:56.8	+40:48:29	300	90	3.0	#68 2MASS Reds	4	
0174.COMP	5	1:01	03:30:56.8	+40:48:29	300	90	3.0	#68 2MASS Reds	4	
0175.2M034322.6p460946	200	1:01	03:43:22.6	+46:09:46	300	90	3.0	#68 2MASS Reds	4	star to W
0176.COMP	5	1:01	03:43:22.6	+46:09:46	300	90	3.0	#68 2MASS Reds	4	
0177.2M034339.0p460919	300	1:01	03:43:39.0	+46:09:19	300	90	3.0	#68 2MASS Reds	4	
0178.COMP	5	1:01	03:43:39.0	+46:09:19	300	90	3.0	#68 2MASS Reds	4	
0179.2M041659.0p443748	200	1:01	04:16:59.0	+44:37:48	300	90	3.0	#68 2MASS Reds	4	
0180.COMP	5	1:01	04:16:59.0	+44:37:48	300	90	3.0	#68 2MASS Reds	4	
0181.2M044830.2p445929	600	1:01	04:48:30.2	+44:59:29	300	90	3.0	#68 2MASS Reds	4	
0182.COMP	5	1:01	04:48:30.2	+44:59:29	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9812

UT Date 2001-11-17 Observers K Rines

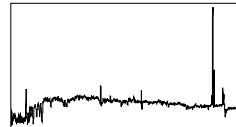
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0183.2M044842.4p454818	900	1:01	04:48:42.4	+45:48:18	300	90	3.0	#68 2MASS Reds	4	
0184.COMP	5	1:01	04:48:42.4	+45:48:18	300	90	3.0	#68 2MASS Reds	4	
0185.IRAS_0533p5407	1200	1:01	05:37:46.6	+54:09:43	300	90	3.0	#124 COLA	4	
0186.COMP	5	1:01	05:37:46.6	+54:09:43	300	90	3.0	#124 COLA	4	
0187.IRAS_0541p5840	1000	1:01	05:45:47.8	+58:42:03	300	90	3.0	#124 COLA	4	
0188.COMP	5	1:01	05:45:47.8	+58:42:03	300	90	3.0	#124 COLA	4	
0189.HD52971	5	1:01	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0190.COMP	5	1:01	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0191.Feige34	120	1:01	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0192.COMP	5	1:01	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0193.Feige34	120	1:01	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	binby2
0194.COMP	10	1:01	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0195-0204.BIAS	0	13:08	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	
0205-0214.FLAT	16	13:13	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	
0215.BIAS	0	13:13	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	binby4
0216-0224.BIAS	0	13:15	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	
0225-0234.FLAT	8	13:19	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	
0235-0244.DARK	1200	16:22	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9813

UT Date 2001-11-18 Observers K Rines

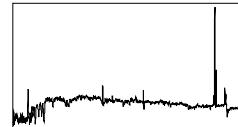
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	22:06	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	binby2
0002-0009.DARK	900	0:07	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	
0010.BIAS	0	0:07	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	cirrus
0011-0019.BIAS	0	0:29	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	
0020-0029.FLAT	16	0:34	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	2	
0030.BIAS	0	0:34	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	binby4
0031-0039.BIAS	0	0:35	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	
0040-0049.FLAT	8	0:38	10:36:41.2	43:21:50	300	90	3.0	#64 Cluster In	4	
0050.sky	2	0:38	21:20:0	31:30:0	300	90	3.0	#64 Cluster In	4	
0051-0055.sky	10	0:45	21:20:0	31:30:0	300	90	3.0	#64 Cluster In	4	
0056.COMP	5	0:45	21:20:0	31:30:0	300	90	3.0	#64 Cluster In	4	
0057.HD192281	5	0:45	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0058.COMP	5	0:45	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0059.BDp284211	45	0:45	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0060.COMP	5	0:45	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0061.BDp284211	45	0:45	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	binby2
0062.COMP	10	0:45	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0063.N7331	180	0:45	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	binby4
0064.COMP	5	0:45	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0065.ZAnd	1	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9814

UT Date 2001-11-18 Observers K Rines

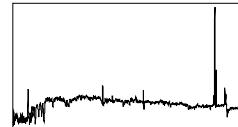
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0066.ZAnd	3	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0067.ZAnd	5	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0068.ZAnd	10	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0069.ZAnd	15	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0070.COMP	5	0:45	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0071.Akn564	300	0:45	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0072.Akn564	300	0:45	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0073.COMP	5	0:45	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0074.N7469	150	0:45	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0075.N7469	150	0:45	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0076.COMP	5	0:45	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0077.MRK509	150	0:45	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0078.MRK509	150	0:45	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0079.COMP	5	0:45	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0080.sn2001fh	1200	0:45	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0081.COMP	10	0:45	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0082.id2632	720	0:45	20:00:01.9	35:07:20	300	90	3.0	#115 PMS NGC68	4	
0083.COMP	5	0:45	20:00:01.9	35:07:20	300	90	3.0	#115 PMS NGC68	4	
0084.id2641	720	0:45	19:59:59.7	35:23:58	300	90	3.0	#115 PMS NGC68	4	
0085.COMP	5	0:45	19:59:59.7	35:23:58	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9815

UT Date 2001-11-18 Observers K Rines

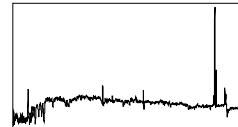
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0086.id2673	720	0:45	19:59:49.3	35:21:57	300	90	3.0	#115 PMS NGC68	4	
0087.COMP	5	0:45	19:59:49.3	35:21:57	300	90	3.0	#115 PMS NGC68	4	
0088.id2756	720	0:45	19:59:17.9	35:18:50	300	90	3.0	#115 PMS NGC68	4	
0089.COMP	5	0:45	19:59:17.9	35:18:50	300	90	3.0	#115 PMS NGC68	4	
0090.id2788	720	0:45	19:59:04.9	35:25:09	300	90	3.0	#115 PMS NGC68	4	
0091.COMP	5	0:45	19:59:04.9	35:25:09	300	90	3.0	#115 PMS NGC68	4	
0092.id1323	720	0:45	20:07:01.4	35:47:11	300	90	3.0	#115 PMS NGC68	4	
0093.COMP	5	0:45	20:07:01.4	35:47:11	300	90	3.0	#115 PMS NGC68	4	
0094.id2563	720	0:45	20:04:05.1	35:44:58	300	90	3.0	#115 PMS NGC68	4	
0095.COMP	5	0:45	20:04:05.1	35:44:58	300	90	3.0	#115 PMS NGC68	4	
0096.id2621	720	0:45	20:00:06.3	35:14:03	300	90	3.0	#115 PMS NGC68	4	
0097.COMP	5	0:45	20:00:06.3	35:14:03	300	90	3.0	#115 PMS NGC68	4	
0098.id2760	720	0:45	19:59:16.4	35:21:47	300	90	3.0	#115 PMS NGC68	4	
0099.COMP	5	0:45	19:59:16.4	35:21:47	300	90	3.0	#115 PMS NGC68	4	
0100.id2903	640	0:45	19:58:22.6	35:10:48	300	90	3.0	#115 PMS NGC68	4	
0101.COMP	5	0:45	19:58:22.6	35:10:48	300	90	3.0	#115 PMS NGC68	4	
0102.2M205927.3p135609	300	0:45	20:59:27.3	+13:56:09	300	90	3.0	#68 2MASS Reds	4	
0103.COMP	5	0:45	20:59:27.3	+13:56:09	300	90	3.0	#68 2MASS Reds	4	
0104.2M210107.7m001142	300	0:45	21:01:07.7	-00:11:42	300	90	3.0	#68 2MASS Reds	4	
0105.COMP	5	0:45	21:01:07.7	-00:11:42	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9816

UT Date 2001-11-18 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0106.2M210511.8p055355	150	0:45	21:05:11.8	+05:53:55	300	90	3.0	#68 2MASS Reds	4	
0107.COMP	5	0:45	21:05:11.8	+05:53:55	300	90	3.0	#68 2MASS Reds	4	
0108.2M211344.6p045020	300	0:45	21:13:44.6	+04:50:20	300	90	3.0	#68 2MASS Reds	4	
0109.COMP	5	0:45	21:13:44.6	+04:50:20	300	90	3.0	#68 2MASS Reds	4	
0110.2M213114.3p332152	300	0:45	21:31:14.3	+33:21:52	300	90	3.0	#68 2MASS Reds	4	
0111.COMP	5	0:45	21:31:14.3	+33:21:52	300	90	3.0	#68 2MASS Reds	4	
0112.2M213618.3p682938	600	0:45	21:36:18.3	+68:29:38	300	90	3.0	#68 2MASS Reds	4	
0113.COMP	5	0:45	21:36:18.3	+68:29:38	300	90	3.0	#68 2MASS Reds	4	
0114.2M213959.1p782658	200	0:45	21:39:59.1	+78:26:58	300	90	3.0	#68 2MASS Reds	4	
0115.COMP	5	0:45	21:39:59.1	+78:26:58	300	90	3.0	#68 2MASS Reds	4	
0116.2M215249.7p752939	200	0:45	21:52:49.7	+75:29:39	300	90	3.0	#68 2MASS Reds	4	
0117.COMP	5	0:45	21:52:49.7	+75:29:39	300	90	3.0	#68 2MASS Reds	4	
0118.2M220645.4p750252	800	0:45	22:06:45.4	+75:02:52	300	90	3.0	#68 2MASS Reds	4	
0119.COMP	5	0:45	22:06:45.4	+75:02:52	300	90	3.0	#68 2MASS Reds	4	
0120.2M221021.2p682838	200	0:45	22:10:21.2	+68:28:38	300	90	3.0	#68 2MASS Reds	4	
0121.COMP	5	0:45	22:10:21.2	+68:28:38	300	90	3.0	#68 2MASS Reds	4	
0122.2M235846.7p831100	300	0:45	23:58:46.7	+83:11:00	300	90	3.0	#68 2MASS Reds	4	
0123.COMP	5	0:45	23:58:46.7	+83:11:00	300	90	3.0	#68 2MASS Reds	4	
0124.MRK335	60	0:45	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	4	
0125.MRK335	60	0:45	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9817

UT Date 2001-11-18 Observers K Rines

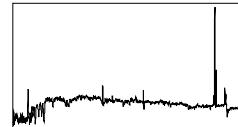
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0126.COMP	5	0:45	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	4	
0127.a119c_483	900	0:45	00:41:40.1	00:12:31	300	90	3.0	#64 Cluster In	4	
0128.COMP	5	0:45	00:41:40.1	00:12:31	300	90	3.0	#64 Cluster In	4	
0129.a119c_486	900	0:45	00:42:34.4	-2:17:51	300	90	3.0	#64 Cluster In	4	
0130.COMP	5	0:45	00:42:34.4	-2:17:51	300	90	3.0	#64 Cluster In	4	
0131.a119c_490	700	0:45	01:05:35.5	-3:36:06	300	90	3.0	#64 Cluster In	4	
0132.COMP	5	0:45	01:05:35.5	-3:36:06	300	90	3.0	#64 Cluster In	4	
0133.a119c_499	500	0:45	00:50:59.4	-4:35:59	300	90	3.0	#64 Cluster In	4	
0134.COMP	5	0:45	00:50:59.4	-4:35:59	300	90	3.0	#64 Cluster In	4	
0135.a119c_501	500	0:45	00:46:26.8	-1:45:51	300	90	3.0	#64 Cluster In	4	
0136.COMP	5	0:45	00:46:26.8	-1:45:51	300	90	3.0	#64 Cluster In	4	
0137.a119c_503	800	0:45	00:46:55.3	-0:22:17	300	90	3.0	#64 Cluster In	4	
0138.COMP	5	0:45	00:46:55.3	-0:22:17	300	90	3.0	#64 Cluster In	4	
0139.a119c_505	600	0:45	00:48:25.9	01:14:55	300	90	3.0	#64 Cluster In	4	
0140.COMP	5	0:45	00:48:25.9	01:14:55	300	90	3.0	#64 Cluster In	4	
0141.a119c_511	800	0:45	01:04:44.8	-4:13:09	300	90	3.0	#64 Cluster In	4	
0142.COMP	5	0:45	01:04:44.8	-4:13:09	300	90	3.0	#64 Cluster In	4	
0143.a168_118	300	0:45	01:05:31.9	2:51:36	300	90	3.0	#64 Cluster In	4	
0144.COMP	5	0:45	01:05:31.9	2:51:36	300	90	3.0	#64 Cluster In	4	
0145.a168_119	400	0:45	01:18:18.8	3:21:12	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9818

UT Date 2001-11-18 Observers K Rines

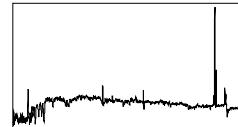
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0146.COMP	5	0:45	01:18:18.8	3:21:12	300	90	3.0	#64 Cluster In	4	
0147.a168_121	400	0:45	01:11:22.3	2:33:46	300	90	3.0	#64 Cluster In	4	
0148.COMP	5	0:45	01:11:22.3	2:33:46	300	90	3.0	#64 Cluster In	4	
0149.a168_123	600	0:45	01:26:14.3	-0:00:51	300	90	3.0	#64 Cluster In	4	
0150.COMP	5	0:45	01:26:14.3	-0:00:51	300	90	3.0	#64 Cluster In	4	
0151.a496_389	400	0:45	04:31:13.4	-18:11:43	300	90	3.0	#64 Cluster In	4	
0152.COMP	5	0:45	04:31:13.4	-18:11:43	300	90	3.0	#64 Cluster In	4	
0153.a496_396	400	0:45	04:31:32.2	-17:46:52	300	90	3.0	#64 Cluster In	4	
0154.COMP	5	0:45	04:31:32.2	-17:46:52	300	90	3.0	#64 Cluster In	4	
0155.a496_397	1200	0:45	04:14:36.0	-13:19:01	300	90	3.0	#64 Cluster In	4	
0156.COMP	5	0:45	04:14:36.0	-13:19:01	300	90	3.0	#64 Cluster In	4	
0157.a496_398	400	0:45	04:39:43.9	-09:03:22	300	90	3.0	#64 Cluster In	4	star? to E
0158.COMP	5	0:45	04:39:43.9	-09:03:22	300	90	3.0	#64 Cluster In	4	
0159.a496_409	700	0:45	04:40:49.4	-17:18:55	300	90	3.0	#64 Cluster In	4	
0160.COMP	5	0:45	04:40:49.4	-17:18:55	300	90	3.0	#64 Cluster In	4	
0161.a496_410	400	0:45	04:20:12.5	-11:53:05	300	90	3.0	#64 Cluster In	4	
0162.COMP	5	0:45	04:20:12.5	-11:53:05	300	90	3.0	#64 Cluster In	4	
0163.a496_413	700	0:45	04:38:51.4	-09:24:55	300	90	3.0	#64 Cluster In	4	
0164.COMP	5	0:45	04:38:51.4	-09:24:55	300	90	3.0	#64 Cluster In	4	
0165.a496_414	700	0:45	04:27:18.7	-17:24:59	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9819

UT Date 2001-11-18 Observers K Rines

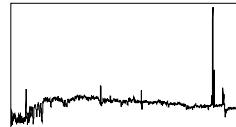
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0166.COMP	5	0:45	04:27:18.7	-17:24:59	300	90	3.0	#64 Cluster In	4	
0167.a496_415	400	0:45	04:22:50.3	-15:53:27	300	90	3.0	#64 Cluster In	4	
0168.COMP	5	0:45	04:22:50.3	-15:53:27	300	90	3.0	#64 Cluster In	4	
0169.a496_419	400	0:45	04:18:59.4	-12:25:31	300	90	3.0	#64 Cluster In	4	
0170.COMP	5	0:45	04:18:59.4	-12:25:31	300	90	3.0	#64 Cluster In	4	
0171.107vso-52018	300	0:45	05:41:07.9	-00:40:19	300	90	3.0	#112 Orion PMS	4	
0172.COMP	5	0:45	05:41:07.9	-00:40:19	300	90	3.0	#112 Orion PMS	4	
0173.108vso-52124	300	0:45	05:41:14.6	-00:51:06	300	90	3.0	#112 Orion PMS	4	
0174.COMP	5	0:45	05:41:14.6	-00:51:06	300	90	3.0	#112 Orion PMS	4	
0175.109vso-52484	300	0:45	05:41:41.8	-00:51:26	300	90	3.0	#112 Orion PMS	4	
0176.COMP	5	0:45	05:41:41.8	-00:51:26	300	90	3.0	#112 Orion PMS	4	
0177.110vso-52487	300	0:45	05:41:42.5	-00:46:58	300	90	3.0	#112 Orion PMS	4	
0178.COMP	5	0:45	05:41:42.5	-00:46:58	300	90	3.0	#112 Orion PMS	4	
0179.111vso-52507	400	0:45	05:41:43.7	-00:49:12	300	90	3.0	#112 Orion PMS	4	
0180.COMP	5	0:45	05:41:43.7	-00:49:12	300	90	3.0	#112 Orion PMS	4	
0181.112vso-52637	400	0:45	05:41:53.5	-00:35:16	300	90	3.0	#112 Orion PMS	4	
0182.COMP	5	0:45	05:41:53.5	-00:35:16	300	90	3.0	#112 Orion PMS	4	
0183.113vso-53364	400	0:45	05:42:52.9	-00:37:18	300	90	3.0	#112 Orion PMS	4	
0184.COMP	5	0:45	05:42:52.9	-00:37:18	300	90	3.0	#112 Orion PMS	4	
0185.114vso-53427	400	0:45	05:42:59.3	-00:43:05	300	90	3.0	#112 Orion PMS	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9820

UT Date 2001-11-18 Observers K Rines

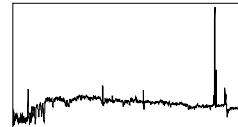
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0186.COMP	5	0:45	05:42:59.3	-00:43:05	300	90	3.0	#112 Orion PMS	4	
0187.115vso-53598	400	0:45	05:43:14.9	-00:47:09	300	90	3.0	#112 Orion PMS	4	
0188.COMP	5	0:45	05:43:14.9	-00:47:09	300	90	3.0	#112 Orion PMS	4	
0189.116vso-53702	400	0:45	05:43:24.8	-00:32:53	300	90	3.0	#112 Orion PMS	4	
0190.COMP	5	0:45	05:43:24.8	-00:32:53	300	90	3.0	#112 Orion PMS	4	
0191.sn2001ep	1200	0:45	04:57:00.2	-04:45:40	300	35	3.0	#2 SN Observat	2	
0192.COMP	10	0:45	04:57:00.2	-04:45:40	300	35	3.0	#2 SN Observat	2	
0193.sn2001ej	1200	0:45	07:23:43.2	33:26:38	300	90	3.0	#2 SN Observat	2	
0194.COMP	10	0:45	07:23:43.2	33:26:38	300	90	3.0	#2 SN Observat	2	
0195.BGGem	1200	0:45	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0196.BGGem	300	0:45	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0197.COMP	10	0:45	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0198.117vso-54160	300	0:45	05:44:30.6	-00:49:54	300	90	3.0	#112 Orion PMS	4	
0199.COMP	5	0:45	05:44:30.6	-00:49:54	300	90	3.0	#112 Orion PMS	4	
0200.118vso-55618	300	0:45	05:49:22.0	-00:46:58	300	90	3.0	#112 Orion PMS	4	
0201.COMP	5	0:45	05:49:22.0	-00:46:58	300	90	3.0	#112 Orion PMS	4	
0202.119vso-55670	300	0:45	05:49:27.2	-00:42:26	300	90	3.0	#112 Orion PMS	4	
0203.COMP	5	0:45	05:49:27.2	-00:42:26	300	90	3.0	#112 Orion PMS	4	
0204.2M052725.0p455048	400	0:45	05:27:25.0	+45:50:48	300	90	3.0	#68 2MASS Reds	4	
0205.COMP	5	0:45	05:27:25.0	+45:50:48	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9821

UT Date 2001-11-18 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0206.2M052745.8p493740	200	0:45	05:27:45.8	+49:37:40	300	90	3.0	#68 2MASS Reds	4	
0207.COMP	5	0:45	05:27:45.8	+49:37:40	300	90	3.0	#68 2MASS Reds	4	
0208.2M052822.9p495744	400	0:45	05:28:22.9	+49:57:44	300	90	3.0	#68 2MASS Reds	4	
0209.COMP	5	0:45	05:28:22.9	+49:57:44	300	90	3.0	#68 2MASS Reds	4	
0210.2M053251.5p425921	300	0:45	05:32:51.5	+42:59:21	300	90	3.0	#68 2MASS Reds	4	
0211.COMP	5	0:45	05:32:51.5	+42:59:21	300	90	3.0	#68 2MASS Reds	4	
0212.MRK110	300	0:45	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	4	
0213.COMP	5	0:45	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	4	
0214.N3227	120	0:45	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0215.N3227	120	0:45	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0216.COMP	5	0:45	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0217.BIAS	0	0:45	09:36:38.0	31:30:57	300	90	3.0	#100 BGGem	4	tcs crash
0218-0226.BIAS	0	13:11	09:37:56.0	31:30:57	300	90	3.0	#100 BGGem	4	
0227.FLAT	8	13:11	09:39:00.0	31:30:57	300	90	3.0	#100 BGGem	4	cirrus at dawn
0228-0232.FLAT	8	13:13	09:40:23.0	31:30:57	300	90	3.0	#100 BGGem	4	
0233-0236.FLAT	8	13:14	09:41:29.0	31:30:58	300	90	3.0	#100 BGGem	4	
0237.BIAS	0	13:14	09:41:55.0	31:30:58	300	90	3.0	#100 BGGem	2	binby2
0238-0246.BIAS	0	13:17	09:44:17.0	31:30:58	300	90	3.0	#100 BGGem	2	
0247-0256.FLAT	16	13:23	09:50:25.0	31:30:58	300	90	3.0	#100 BGGem	2	
0257.DARK	1200	13:23	10:13:35.0	31:31:00	300	90	3.0	#100 BGGem	4	binby4



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9822

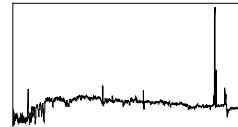
UT Date 2001-11-18 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0258-0259.DARK	1200	14:07	10:53:59.0	31:31:01	300	90	3.0	#100 BGGem	4	
0260-0262.DARK	1200	15:07	11:54:30.0	31:31:02	300	90	3.0	#100 BGGem	4	
0263.DARK	1200	15:07	12:14:42.0	31:31:01	300	90	3.0	#100 BGGem	4	
0264.DARK	1200	15:07	12:34:54.0	31:31:00	300	90	3.0	#100 BGGem	4	
0265.DARK	1200	15:07	12:55:06.0	31:30:59	300	90	3.0	#100 BGGem	4	
0266.DARK	1200	15:07	13:15:17.0	31:30:58	300	90	3.0	#100 BGGem	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9823

UT Date 2001-11-19 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	21:55	18:38:02.0	31:30:10	300	90	3.0	#100 BGGem	2	binby2
0002.DARK	900	21:55	18:53:19.0	31:30:08	300	90	3.0	#100 BGGem	2	
0003.DARK	900	21:55	19:08:35.0	31:30:05	300	90	3.0	#100 BGGem	2	
0004.DARK	900	21:55	19:23:48.0	31:30:03	300	90	3.0	#100 BGGem	2	
0005.DARK	900	21:55	19:39:04.0	31:30:00	300	90	3.0	#100 BGGem	2	
0006.DARK	900	21:55	19:54:20.0	31:29:58	300	90	3.0	#100 BGGem	2	
0007.DARK	900	21:55	20:09:36.0	31:29:56	300	90	3.0	#100 BGGem	2	
0008.DARK	900	21:55	20:24:51.0	31:29:54	300	90	3.0	#100 BGGem	2	
0009.DARK	900	21:55	20:40:07.0	31:29:53	300	90	3.0	#100 BGGem	2	
0010.DARK	900	21:55	20:55:24.0	31:29:51	300	90	3.0	#100 BGGem	2	
0011-0020.BIAS	0	0:29	20:57:47.0	31:29:51	300	90	3.0	#100 BGGem	2	
0021-0030.FLAT	16	0:34	21:02:46.0	31:29:50	300	90	3.0	#100 BGGem	2	
0031.BIAS	0	0:34	21:03:03.0	31:29:50	300	90	3.0	#100 BGGem	4	binby4
0032-0040.BIAS	0	0:35	21:04:17.0	31:29:50	300	90	3.0	#100 BGGem	4	
0041-0050.FLAT	8	0:38	21:07:02.0	31:29:50	300	90	3.0	#100 BGGem	4	
0051.sky	2	0:38	21:08:50.0	31:29:49	300	90	3.0	#100 BGGem	4	clouds
0052-0056.sky	5	0:42	21:10:30.0	31:29:49	300	90	3.0	#100 BGGem	4	
0057.COMP	5	0:42	21:11:05.0	31:29:49	300	90	3.0	#100 BGGem	4	
0058.HD192281	5	0:42	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	0:42	20:10:46.8	40:07:01	300	90	3.0	#56 Spectropho	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9824

UT Date 2001-11-19 Observers K Rines

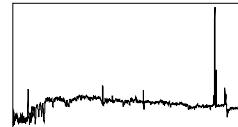
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0060.id1015	720	0:42	20:07:33.1	35:39:18	300	90	3.0	#115 PMS NGC68	4	
0061.COMP	5	0:42	20:07:33.1	35:39:18	300	90	3.0	#115 PMS NGC68	4	
0062.id1222	720	0:42	20:07:13.9	35:40:36	300	90	3.0	#115 PMS NGC68	4	
0063.COMP	5	0:42	20:07:13.9	35:40:36	300	90	3.0	#115 PMS NGC68	4	
0064.N7331	180	0:42	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0065.COMP	5	0:42	22:34:46.9	+34:09:43	300	90	3.0	#57 Velocity S	4	
0066.BDp284211	100	0:42	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0067.COMP	5	0:42	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0068.BDp284211	100	0:42	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0069.COMP	10	0:42	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0070.ZAnd	3	0:42	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0071.ZAnd	9	0:42	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0072.ZAnd	15	0:42	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0073.ZAnd	45	0:42	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0074.COMP	5	0:42	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0075.2M005118.3p625515	180	0:42	00:51:18.3	+62:55:15	300	90	3.0	#68 2MASS Reds	4	bright star E
0076.COMP	5	0:42	00:51:18.3	+62:55:15	300	90	3.0	#68 2MASS Reds	4	
0077.2M012330.9p614908	300	0:42	01:23:30.9	+61:49:08	300	90	3.0	#68 2MASS Reds	4	
0078.COMP	5	0:42	01:23:30.9	+61:49:08	300	90	3.0	#68 2MASS Reds	4	
0079.id1222	720	0:42	20:07:13.9	35:40:36	300	90	3.0	#115 PMS NGC68	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9825

UT Date 2001-11-19 Observers K Rines

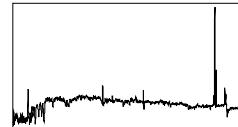
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0080.COMP	5	0:42	20:07:13.9	35:40:36	300	90	3.0	#115 PMS NGC68	4	
0081.id1378	720	0:42	20:06:56.1	35:42:11	300	90	3.0	#115 PMS NGC68	4	
0082.COMP	5	0:42	20:06:56.1	35:42:11	300	90	3.0	#115 PMS NGC68	4	
0083.a168_129	900	0:42	01:07:59.8	3:08:32	300	90	3.0	#64 Cluster In	4	
0084.COMP	5	0:42	01:07:59.8	3:08:32	300	90	3.0	#64 Cluster In	4	
0085.a168_132	900	0:42	01:22:38.0	-2:26:26	300	90	3.0	#64 Cluster In	4	
0086.COMP	5	0:42	01:22:38.0	-2:26:26	300	90	3.0	#64 Cluster In	4	
0087.a168_134	900	0:42	01:17:39.4	-2:56:27	300	90	3.0	#64 Cluster In	4	
0088.COMP	5	0:42	01:17:39.4	-2:56:27	300	90	3.0	#64 Cluster In	4	
0089.a168_137	700	0:42	01:10:53.3	2:37:06	300	90	3.0	#64 Cluster In	4	
0090.COMP	5	0:42	01:10:53.3	2:37:06	300	90	3.0	#64 Cluster In	4	
0091.2M022901.6p613328	990	0:42	02:29:01.6	+61:33:28	300	90	3.0	#68 2MASS Reds	4	clouds
0092.COMP	5	0:42	02:29:01.6	+61:33:28	300	90	3.0	#68 2MASS Reds	4	
0093.2M040637.7p302234	300	0:42	04:06:37.7	+30:22:34	300	90	3.0	#68 2MASS Reds	4	
0094.COMP	5	0:42	04:06:37.7	+30:22:34	300	90	3.0	#68 2MASS Reds	4	
0095.2M040650.9p291046	300	0:42	04:06:50.9	+29:10:46	300	90	3.0	#68 2MASS Reds	4	
0096.COMP	5	0:42	04:06:50.9	+29:10:46	300	90	3.0	#68 2MASS Reds	4	
0097.2M040725.4p434133	300	0:42	04:07:25.4	+43:41:33	300	90	3.0	#68 2MASS Reds	4	
0098.COMP	5	0:42	04:07:25.4	+43:41:33	300	90	3.0	#68 2MASS Reds	4	
0099.2M040738.3p432141	300	0:42	04:07:38.3	+43:21:41	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9826

UT Date 2001-11-19 Observers K Rines

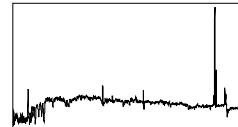
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0100.COMP	5	0:42	04:07:38.3	+43:21:41	300	90	3.0	#68 2MASS Reds	4	
0101.2M041511.5m005053	500	0:42	04:15:11.5	-00:50:53	300	90	3.0	#68 2MASS Reds	4	end of sucker hole
0102.COMP	5	0:42	04:15:11.5	-00:50:53	300	90	3.0	#68 2MASS Reds	4	
0103-0112.BIAS	0	8:33	05:30:33.3	-01:28:38	300	90	3.0	#56 Spectropho	4	
0113-0122.FLAT	8	8:37	05:30:33.3	-01:28:38	300	90	3.0	#56 Spectropho	4	
0123-0126.DARK	1200	9:42	05:30:33.3	-01:28:38	300	90	3.0	#56 Spectropho	4	
0127.DARK	1200	9:42	04:42:54.3	+40:39:15	300	90	3.0	#68 2MASS Reds	4	
0128.2M034603.1p693204	750	9:42	03:46:03.1	+69:32:04	300	90	3.0	#68 2MASS Reds	4	
0129.COMP	5	9:42	03:46:03.1	+69:32:04	300	90	3.0	#68 2MASS Reds	4	
0130.sn2001fe	1200	9:42	09:37:57.1	+25:29:41	300	90	3.0	#2 SN Observat	2	
0131.COMP	10	9:42	09:37:57.1	+25:29:41	300	90	3.0	#2 SN Observat	2	
0132.Akn120	1200	9:42	6:44:50	-27:37:13	300	90	3.0	#6 AGN Monitor	2	wrong name, really sn2001fz
0133.COMP	10	9:42	6:44:50	-27:37:13	300	90	3.0	#6 AGN Monitor	2	
0134.ch0827p29b	300	9:42	08:27:26.2	29:16:01	300	90	3.0	#129 CHAMP Sou	4	
0135.COMP	5	9:42	08:27:26.2	29:16:01	300	90	3.0	#129 CHAMP Sou	4	
0136.ch0849p44d	180	9:42	08:49:13.6	44:47:57	300	90	3.0	#129 CHAMP Sou	4	
0137.COMP	5	9:42	08:49:13.6	44:47:57	300	90	3.0	#129 CHAMP Sou	4	
0138.ch0848p44a	720	9:42	08:48:22.4	44:56:31	300	90	3.0	#129 CHAMP Sou	4	
0139.COMP	5	9:42	08:48:22.4	44:56:31	300	90	3.0	#129 CHAMP Sou	4	
0140.ch0849p44e	720	9:42	08:49:23.6	44:52:50	300	90	3.0	#129 CHAMP Sou	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9827

UT Date 2001-11-19 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0141.COMP	5	9:42	08:49:23.6	44:52:50	300	90	3.0	#129 CHAMP Sou	4	
0142.ch0849p44b	600	9:42	08:49:06.9	44:49:00	300	90	3.0	#129 CHAMP Sou	4	
0143.COMP	5	9:42	08:49:06.9	44:49:00	300	90	3.0	#129 CHAMP Sou	4	
0144.ch0934p55	60	9:42	09:34:11.1	55:11:44	300	90	3.0	#129 CHAMP Sou	4	
0145.COMP	5	9:42	09:34:11.1	55:11:44	300	90	3.0	#129 CHAMP Sou	4	
0146.Feige34	120	9:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	binby2
0147.COMP	10	9:42	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0148-0157.BIAS	0	13:16	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	2	
0158-0167.FLAT	16	13:21	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	2	
0168.DARK	1200	13:21	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	binby4
0169-0177.DARK	1200	16:27	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9828

UT Date 2001-11-20 Observers K Rines

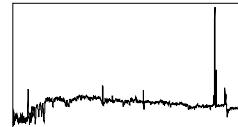
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0001-0010.DARK	900	0:06	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	2	
0011-0020.BIAS	0	0:24	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	2	
0021-0030.FLAT	16	0:29	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	2	
0031-0040.BIAS	0	0:31	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	
0041-0050.FLAT	8	0:33	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	
0051.sky	2	0:33	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	cirrus
0052-0056.sky	6	0:40	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	
0057.COMP	5	0:40	10:36:41.2	43:21:50	300	90	3.0	#68 2MASS Reds	4	
0058.BDp284211	45	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0059.COMP	5	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0060.BDp284211	45	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0061.COMP	10	0:40	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0062.Akn564	300	0:40	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0063.Akn564	300	0:40	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0064.COMP	5	0:40	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	4	
0065.MRK509	90	0:40	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0066.MRK509	90	0:40	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0067.COMP	5	0:40	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	4	
0068.N7469	90	0:40	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0069.N7469	90	0:40	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9829

UT Date 2001-11-20 Observers K Rines

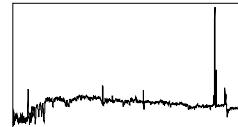
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0070.COMP	5	0:40	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	4	
0071.sn2001fh	1200	0:40	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0072.COMP	10	0:40	21:20:42.5	+44:23:53	300	90	3.0	#2 SN Observat	2	
0073.id1723	720	0:40	20:06:11.8	35:36:06	300	90	3.0	#115 PMS NGC68	4	
0074.COMP	5	0:40	20:06:11.8	35:36:06	300	90	3.0	#115 PMS NGC68	4	
0075.id2073	720	0:40	20:05:28.7	35:49:12	300	90	3.0	#115 PMS NGC68	4	
0076.COMP	5	0:40	20:05:28.7	35:49:12	300	90	3.0	#115 PMS NGC68	4	
0077.id2271	720	0:40	20:05:02.6	35:39:47	300	90	3.0	#115 PMS NGC68	4	
0078.COMP	5	0:40	20:05:02.6	35:39:47	300	90	3.0	#115 PMS NGC68	4	
0079.id2626	720	0:40	20:00:03.3	35:25:39	300	90	3.0	#115 PMS NGC68	4	
0080.COMP	5	0:40	20:00:03.3	35:25:39	300	90	3.0	#115 PMS NGC68	4	
0081.id1793	720	0:40	20:06:03.2	35:36:13	300	90	3.0	#115 PMS NGC68	4	birght star E
0082.COMP	5	0:40	20:06:03.2	35:36:13	300	90	3.0	#115 PMS NGC68	4	
0083.id1831	720	0:40	20:06:00.3	35:49:29	300	90	3.0	#115 PMS NGC68	4	
0084.COMP	5	0:40	20:06:00.3	35:49:29	300	90	3.0	#115 PMS NGC68	4	
0085.id1845	720	0:40	20:05:59.4	35:51:37	300	90	3.0	#115 PMS NGC68	4	
0086.COMP	5	0:40	20:05:59.4	35:51:37	300	90	3.0	#115 PMS NGC68	4	
0087.a168_143	420	0:40	01:07:19.4	2:08:39	300	90	3.0	#64 Cluster In	4	
0088.COMP	5	0:40	01:07:19.4	2:08:39	300	90	3.0	#64 Cluster In	4	
0089.ZAnd	1	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9830

UT Date 2001-11-20 Observers K Rines

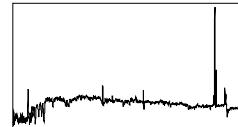
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0090.ZAnd	3	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0091.ZAnd	5	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0092.ZAnd	15	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0093.COMP	5	0:40	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	4	
0094.a168_144	600	0:40	01:14:44.8	4:06:25	300	90	3.0	#64 Cluster In	4	
0095.COMP	5	0:40	01:14:44.8	4:06:25	300	90	3.0	#64 Cluster In	4	
0096.a168_120	1200	0:40	01:15:16.4	-1:34:56	300	90	3.0	#64 Cluster In	4	
0097.COMP	5	0:40	01:15:16.4	-1:34:56	300	90	3.0	#64 Cluster In	4	
0098.a168_124	900	0:40	01:17:06.5	-3:30:01	300	90	3.0	#64 Cluster In	4	
0099.COMP	5	0:40	01:17:06.5	-3:30:01	300	90	3.0	#64 Cluster In	4	
0100.a168_133	900	0:40	01:07:33.0	2:07:51	300	90	3.0	#64 Cluster In	4	
0101.COMP	5	0:40	01:07:33.0	2:07:51	300	90	3.0	#64 Cluster In	4	
0102.a168_140	900	0:40	01:26:21.8	-1:16:31	300	90	3.0	#64 Cluster In	4	
0103.COMP	5	0:40	01:26:21.8	-1:16:31	300	90	3.0	#64 Cluster In	4	
0104.a168_146	600	0:40	01:08:25.0	2:20:34	300	90	3.0	#64 Cluster In	4	
0105.COMP	5	0:40	01:08:25.0	2:20:34	300	90	3.0	#64 Cluster In	4	
0106.a168_148	600	0:40	01:24:06.0	-2:44:30	300	90	3.0	#64 Cluster In	4	
0107.COMP	5	0:40	01:24:06.0	-2:44:30	300	90	3.0	#64 Cluster In	4	
0108.a168_149	200	0:40	01:12:24.2	3:46:28	300	90	3.0	#64 Cluster In	4	
0109.COMP	5	0:40	01:12:24.2	3:46:28	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9831

UT Date 2001-11-20 Observers K Rines

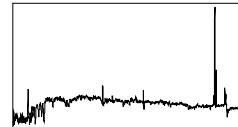
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0110.a168_174	400	0:40	01:21:34.5	2:20:28	300	90	3.0	#64 Cluster In	4	
0111.COMP	5	0:40	01:21:34.5	2:20:28	300	90	3.0	#64 Cluster In	4	
0112.a168_178	900	0:40	01:22:26.8	2:15:56	300	90	3.0	#64 Cluster In	4	
0113.COMP	5	0:40	01:22:26.8	2:15:56	300	90	3.0	#64 Cluster In	4	
0114.a168_249	1200	0:40	01:22:26.3	2:15:29	300	90	3.0	#64 Cluster In	4	
0115.COMP	5	0:40	01:22:26.3	2:15:29	300	90	3.0	#64 Cluster In	4	
0116.a168_180	400	0:40	01:18:37.2	3:30:54	300	90	3.0	#64 Cluster In	4	
0117.COMP	5	0:40	01:18:37.2	3:30:54	300	90	3.0	#64 Cluster In	4	
0118.a168_181	500	0:40	01:16:39.0	-3:30:15	300	90	3.0	#64 Cluster In	4	cut off by cirrus
0119.COMP	5	0:40	01:16:39.0	-3:30:15	300	90	3.0	#64 Cluster In	4	
0120.2M023431.8p675526	900	0:40	02:34:31.8	+67:55:26	300	90	3.0	#68 2MASS Reds	4	
0121.COMP	5	0:40	02:34:31.8	+67:55:26	300	90	3.0	#68 2MASS Reds	4	
0122.2M024443.6p493703	400	0:40	02:44:43.6	+49:37:03	300	90	3.0	#68 2MASS Reds	4	
0123.COMP	5	0:40	02:44:43.6	+49:37:03	300	90	3.0	#68 2MASS Reds	4	
0124.2M024511.1p392228	200	0:40	02:45:11.1	+39:22:28	300	90	3.0	#68 2MASS Reds	4	
0125.COMP	5	0:40	02:45:11.1	+39:22:28	300	90	3.0	#68 2MASS Reds	4	
0126.2M024720.3p485147	300	0:40	02:47:20.3	+48:51:47	300	90	3.0	#68 2MASS Reds	4	
0127.COMP	5	0:40	02:47:20.3	+48:51:47	300	90	3.0	#68 2MASS Reds	4	
0128.2M024750.1p451820	200	0:40	02:47:50.1	+45:18:20	300	90	3.0	#68 2MASS Reds	4	
0129.COMP	5	0:40	02:47:50.1	+45:18:20	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9832

UT Date 2001-11-20 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0130.2M024803.9p484535	200	0:40	02:48:03.9	+48:45:35	300	90	3.0	#68 2MASS Reds	4	
0131.COMP	5	0:40	02:48:03.9	+48:45:35	300	90	3.0	#68 2MASS Reds	4	
0132.a496_420	1200	0:40	04:47:55.2	-14:47:18	300	90	3.0	#64 Cluster In	4	
0133.COMP	5	0:40	04:47:55.2	-14:47:18	300	90	3.0	#64 Cluster In	4	
0134.a496_423	800	0:40	04:27:50.6	-08:35:50	300	90	3.0	#64 Cluster In	4	
0135.COMP	5	0:40	04:27:50.6	-08:35:50	300	90	3.0	#64 Cluster In	4	
0136.a496_427	900	0:40	04:19:15.4	-15:26:20	300	90	3.0	#64 Cluster In	4	
0137.COMP	5	0:40	04:19:15.4	-15:26:20	300	90	3.0	#64 Cluster In	4	
0138.a496_428	900	0:40	04:34:20.2	-08:37:31	300	90	3.0	#64 Cluster In	4	
0139.COMP	5	0:40	04:34:20.2	-08:37:31	300	90	3.0	#64 Cluster In	4	
0140.a496_429	900	0:40	04:32:19.6	-17:50:53	300	90	3.0	#64 Cluster In	4	em
0141.COMP	5	0:40	04:32:19.6	-17:50:53	300	90	3.0	#64 Cluster In	4	
0142.a496_430	600	0:40	04:43:22.7	-08:13:38	300	90	3.0	#64 Cluster In	4	
0143.COMP	5	0:40	04:43:22.7	-08:13:38	300	90	3.0	#64 Cluster In	4	
0144.a496_431	1000	0:40	04:53:05.9	-14:06:39	300	90	3.0	#64 Cluster In	4	
0145.COMP	5	0:40	04:53:05.9	-14:06:39	300	90	3.0	#64 Cluster In	4	
0146.a496_432	800	0:40	04:50:19.0	-14:30:13	300	90	3.0	#64 Cluster In	4	
0147.COMP	5	0:40	04:50:19.0	-14:30:13	300	90	3.0	#64 Cluster In	4	
0148.a496_433	700	0:40	04:49:29.9	-16:08:06	300	90	3.0	#64 Cluster In	4	
0149.COMP	5	0:40	04:49:29.9	-16:08:06	300	90	3.0	#64 Cluster In	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9833

UT Date 2001-11-20 Observers K Rines

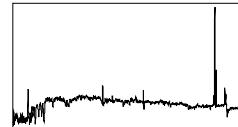
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0150.a496_435	1000	0:40	04:52:36.1	-11:23:04	300	90	3.0	#64 Cluster In	4	
0151.COMP	5	0:40	04:52:36.1	-11:23:04	300	90	3.0	#64 Cluster In	4	
0152.a496_437	700	0:40	04:15:06.4	-13:10:04	300	90	3.0	#64 Cluster In	4	
0153.COMP	5	0:40	04:15:06.4	-13:10:04	300	90	3.0	#64 Cluster In	4	
0154.a496_443	450	0:40	04:28:58.6	-09:24:45	300	90	3.0	#64 Cluster In	4	
0155.COMP	5	0:40	04:28:58.6	-09:24:45	300	90	3.0	#64 Cluster In	4	
0156.a496_456	900	0:40	04:34:23.8	-08:39:13	300	90	3.0	#64 Cluster In	4	em!
0157.COMP	5	0:40	04:34:23.8	-08:39:13	300	90	3.0	#64 Cluster In	4	
0158.a496_478	540	0:40	04:38:05.3	-09:45:58	300	90	3.0	#64 Cluster In	4	
0159.COMP	5	0:40	04:38:05.3	-09:45:58	300	90	3.0	#64 Cluster In	4	
0160.sn2001ep	1200	0:40	04:57:00.2	-04:45:40	300	44	3.0	#2 SN Observat	2	
0161.COMP	10	0:40	04:57:00.2	-04:45:40	300	44	3.0	#2 SN Observat	2	
0162.Akn120	120	0:40	05:13:38.0	-00:12:15	300	44	3.0	#6 AGN Monitor	4	
0163.Akn120	120	0:40	05:13:38.0	-00:12:15	300	44	3.0	#6 AGN Monitor	4	
0164.COMP	5	0:40	05:13:38.0	-00:12:15	300	44	3.0	#6 AGN Monitor	4	
0165.2M040022.2p383923	300	0:40	04:00:22.2	+38:39:23	300	90	3.0	#68 2MASS Reds	4	
0166.COMP	5	0:40	04:00:22.2	+38:39:23	300	90	3.0	#68 2MASS Reds	4	
0167.2M040027.1p385418	400	0:40	04:00:27.1	+38:54:18	300	90	3.0	#68 2MASS Reds	4	
0168.COMP	5	0:40	04:00:27.1	+38:54:18	300	90	3.0	#68 2MASS Reds	4	
0169.2M041822.1p731625	200	0:40	04:18:22.1	+73:16:25	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9834

UT Date 2001-11-20 Observers K Rines

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0170.COMP	5	0:40	04:18:22.1	+73:16:25	300	90	3.0	#68 2MASS Reds	4	
0171.2M042044.6p661007	300	0:40	04:20:44.6	+66:10:07	300	90	3.0	#68 2MASS Reds	4	
0172.COMP	5	0:40	04:20:44.6	+66:10:07	300	90	3.0	#68 2MASS Reds	4	
0173.2M042021.7p581034	300	0:40	04:20:21.7	+58:10:34	300	90	3.0	#68 2MASS Reds	4	
0174.COMP	5	0:40	04:20:21.7	+58:10:34	300	90	3.0	#68 2MASS Reds	4	
0175.2M043708.3p663742	200	0:40	04:37:08.3	+66:37:42	300	90	3.0	#68 2MASS Reds	4	
0176.COMP	5	0:40	04:37:08.3	+66:37:42	300	90	3.0	#68 2MASS Reds	4	
0177.2M043722.6p555934	450	0:40	04:37:22.6	+55:59:34	300	90	3.0	#68 2MASS Reds	4	
0178.COMP	5	0:40	04:37:22.6	+55:59:34	300	90	3.0	#68 2MASS Reds	4	
0179.BGGem	1200	0:40	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0180.BGGem	300	0:40	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0181.COMP	10	0:40	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0182.MRK110	300	0:40	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	4	
0183.COMP	5	0:40	09:25:12.9	+52:17:10	300	90	3.0	#6 AGN Monitor	4	
0184.MRK421	120	0:40	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0185.MRK421	120	0:40	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0186.COMP	5	0:40	11:04:27.4	+38:12:32	300	90	3.0	#6 AGN Monitor	4	
0187.N3227	120	0:40	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0188.N3227	120	0:40	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	
0189.COMP	5	0:40	10:23:30.6	+19:51:54	300	90	3.0	#6 AGN Monitor	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9835

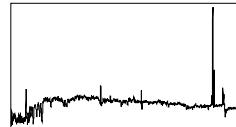
UT Date 2001-11-20 Observers K RinesColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bir	Comments
0190.Feige34	120	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0191.COMP	10	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0192.Feige34	70	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0193.COMP	5	0:40	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0194.WILSON6377	15	0:40	09:58:18	+55:50:00	300	90	3.0	#57 Velocity S	4	
0195.COMP	5	0:40	09:58:18	+55:50:00	300	90	3.0	#57 Velocity S	4	
0196.WILSON6377	15	0:40	09:58:18	+55:50:00	300	90	3.0	#57 Velocity S	2	
0197.COMP	10	0:40	09:58:18	+55:50:00	300	90	3.0	#57 Velocity S	2	
0198-0207.BIAS	0	13:24	09:58:18	+55:50:00	300	90	3.0	#68 2MASS Reds	2	
0208-0217.FLAT	16	13:30	09:58:18	+55:50:00	300	90	3.0	#68 2MASS Reds	2	
0218-0227.BIAS	0	13:32	09:58:18	+55:50:00	300	90	3.0	#68 2MASS Reds	4	
0228-0237.FLAT	8	13:35	09:58:18	+55:50:00	300	90	3.0	#68 2MASS Reds	4	
0238-0247.DARK	1200	16:38	09:58:18	+55:50:00	300	90	3.0	#68 2MASS Reds	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9836

UT Date 2001-11-21 Observers M Calkins

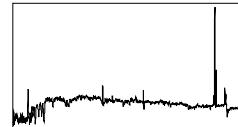
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	0:20	21:11:14.0	31:29:49	300	90	3.0		4	
0002.DARK	900	0:20	21:26:26.0	31:29:48	300	90	3.0		4	
0003.DARK	900	0:20	21:41:36.0	31:29:47	300	90	3.0		4	
0004-0013.BIAS	0	1:12	21:49:08.0	31:29:46	300	90	3.0		4	
0014-0023.FLAT	6	1:15	21:52:01.0	31:29:46	300	90	3.0		4	
0024-0033.BIAS	0	1:18	21:54:25.0	31:29:46	300	90	3.0		2	
0034-0043.FLAT	12	1:25	22:02:14.0	31:29:45	300	90	3.0		2	
0044.BDp284211	45	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0045.BDp284211	45	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0046.COMP	5	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0047.BDp284211	45	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0048.BDp284211	45	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0049.COMP	12	1:25	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0050.BDp284211	45	1:25	21:48:57.1	28:37:48	300	69	3.0	#56 Spectropho	2	
0051.BDp284211	45	1:25	21:48:57.1	28:37:48	300	69	3.0	#56 Spectropho	2	
0052.COMP	12	1:25	21:48:57.1	28:37:48	300	69	3.0	#56 Spectropho	2	
0053.M31	60	1:25	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0054.COMP	5	1:25	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	4	
0055.M31	60	1:25	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0056.COMP	12	1:25	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9837

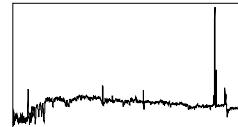
UT Date 2001-11-21 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0057.MRK509	120	1:25	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0058.MRK509	120	1:25	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0059.COMP	12	1:25	20:44:09.8	-10:43:24	300	90	3.0	#6 AGN Monitor	2	
0060.Akn564	240	1:25	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	lengthen exposure...
0061.Akn564	480	1:25	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0062.Akn564	480	1:25	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0063.COMP	12	1:25	22:42:39.4	+29:43:31	300	90	3.0	#6 AGN Monitor	2	
0064.N7469	90	1:25	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0065.N7469	90	1:25	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0066.COMP	12	1:25	23:03:15.7	+08:52:27	300	90	3.0	#6 AGN Monitor	2	
0067.MRK335	120	1:25	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0068.MRK335	120	1:25	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0069.COMP	12	1:25	00:06:19.6	+20:12:11	300	90	3.0	#6 AGN Monitor	2	
0070.ZAnd	1	1:25	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0071.ZAnd	3	1:25	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0072.ZAnd	5	1:25	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0073.ZAnd	13	1:25	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0074.COMP	12	1:25	23:33:40	48:49:06	300	90	3.0	#12 Symbiotic	2	
0075.a119c_526	1200	1:25	00:43:03.9	-1:01:02	300	90	3.0	#64 Cluster In	2	
0076.COMP	12	1:25	00:43:03.9	-1:01:02	300	90	3.0	#64 Cluster In	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9838

UT Date 2001-11-21 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0077.a119c_550	1200	1:25	00:44:57.5	-1:21:03	300	90	3.0	#64 Cluster In	2	
0078.COMP	12	1:25	00:44:57.5	-1:21:03	300	90	3.0	#64 Cluster In	2	
0079.a119c_568	1020	1:25	00:52:08.3	01:27:19	300	90	3.0	#64 Cluster In	2	
0080.COMP	12	1:25	00:52:08.3	01:27:19	300	90	3.0	#64 Cluster In	2	
0081.a119c_657	1200	1:25	00:49:31.6	01:57:41	300	90	3.0	#64 Cluster In	2	
0082.COMP	12	1:25	00:49:31.6	01:57:41	300	90	3.0	#64 Cluster In	2	
0083.a119c_654	1200	1:25	00:43:49.5	-1:48:21	300	90	3.0	#64 Cluster In	2	
0084.COMP	12	1:25	00:43:49.5	-1:48:21	300	90	3.0	#64 Cluster In	2	
0085.a119c_658	900	1:25	00:55:11.1	02:03:57	300	90	3.0	#64 Cluster In	2	
0086.COMP	12	1:25	00:55:11.1	02:03:57	300	90	3.0	#64 Cluster In	2	
0087.a119c_659	1200	1:25	00:51:20.0	01:37:35	300	90	3.0	#64 Cluster In	2	
0088.COMP	12	1:25	00:51:20.0	01:37:35	300	90	3.0	#64 Cluster In	2	
0089.a119c_661	1200	1:25	00:46:48.0	-3:00:21	300	90	3.0	#64 Cluster In	2	
0090.COMP	12	1:25	00:46:48.0	-3:00:21	300	90	3.0	#64 Cluster In	2	
0091.a119c_663	1020	1:25	01:02:57.5	-4:17:50	300	90	3.0	#64 Cluster In	2	
0092.COMP	12	1:25	01:02:57.5	-4:17:50	300	90	3.0	#64 Cluster In	2	
0093.a119c_666	1020	1:25	00:45:22.1	-0:26:06	300	90	3.0	#64 Cluster In	2	
0094.COMP	12	1:25	00:45:22.1	-0:26:06	300	90	3.0	#64 Cluster In	2	
0095.a119c_667	1020	1:25	00:46:43.4	-2:34:46	300	90	3.0	#64 Cluster In	2	
0096.COMP	12	1:25	00:46:43.4	-2:34:46	300	90	3.0	#64 Cluster In	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9839

UT Date 2001-11-21 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0097.a119c_668	900	1:25	00:53:49.5	01:59:38	300	90	3.0	#64 Cluster In	2	
0098.COMP	12	1:25	00:53:49.5	01:59:38	300	90	3.0	#64 Cluster In	2	
0099.146vso-49935	369	1:25	05:30:33.3	-01:28:38	300	90	3.0	#112 Orion PMS	2	
0100.COMP	12	1:25	05:30:33.3	-01:28:38	300	90	3.0	#112 Orion PMS	2	
0101.147vso-56041	360	1:25	05:37:18.4	-01:31:48	300	90	3.0	#112 Orion PMS	2	
0102.COMP	12	1:25	05:37:18.4	-01:31:48	300	90	3.0	#112 Orion PMS	2	
0103.148vso-56830	360	1:25	05:38:20.5	-01:21:10	300	90	3.0	#112 Orion PMS	2	
0104.COMP	12	1:25	05:38:20.5	-01:21:10	300	90	3.0	#112 Orion PMS	2	
0105.149vso-57568	330	1:25	05:39:16.6	-01:23:09	300	90	3.0	#112 Orion PMS	2	
0106.COMP	12	1:25	05:39:16.6	-01:23:09	300	90	3.0	#112 Orion PMS	2	
0107.150vso-57779	360	1:25	05:39:35.5	-01:07:05	300	90	3.0	#112 Orion PMS	2	
0108.COMP	12	1:25	05:39:35.5	-01:07:05	300	90	3.0	#112 Orion PMS	2	
0109.151vso-57859	360	1:25	05:39:43.6	-01:09:10	300	90	3.0	#112 Orion PMS	2	
0110.COMP	12	1:25	05:39:43.6	-01:09:10	300	90	3.0	#112 Orion PMS	2	
0111.152vso-58492	300	1:25	05:40:30.4	-01:09:16	300	90	3.0	#112 Orion PMS	2	
0112.COMP	12	1:25	05:40:30.4	-01:09:16	300	90	3.0	#112 Orion PMS	2	
0113.153vso-60142	420	1:25	05:46:54.4	-01:07:47	300	90	3.0	#112 Orion PMS	2	
0114.COMP	12	1:25	05:46:54.4	-01:07:47	300	90	3.0	#112 Orion PMS	2	
0115.154vso-60331	420	1:25	05:47:29.4	-01:09:22	300	90	3.0	#112 Orion PMS	2	
0116.COMP	12	1:25	05:47:29.4	-01:09:22	300	90	3.0	#112 Orion PMS	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9840

UT Date 2001-11-21 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0117.155vso-61358	330	1:25	05:50:02.8	-01:30:44	300	90	3.0	#112 Orion PMS	2	
0118.COMP	12	1:25	05:50:02.8	-01:30:44	300	90	3.0	#112 Orion PMS	2	
0119.156vso-62161	390	1:25	05:50:59.3	-01:23:07	300	90	3.0	#112 Orion PMS	2	156vso=row85, 157vso-62211=row101
0120.COMP	12	1:25	05:50:59.3	-01:23:07	300	90	3.0	#112 Orion PMS	2	
0121.158vso-62211	420	1:25	05:51:02.6	-01:06:24	300	90	3.0	#112 Orion PMS	2	
0122.COMP	12	1:25	05:51:02.6	-01:06:24	300	90	3.0	#112 Orion PMS	2	
0123.159vso-62413	360	1:25	05:51:14.8	-01:23:24	300	90	3.0	#112 Orion PMS	2	
0124.COMP	12	1:25	05:51:14.8	-01:23:24	300	90	3.0	#112 Orion PMS	2	
0125.160vso-63080	360	1:25	05:51:54.6	-01:29:06	300	90	3.0	#112 Orion PMS	2	
0126.COMP	12	1:25	05:51:54.6	-01:29:06	300	90	3.0	#112 Orion PMS	2	
0127.161vso-63161	540	1:25	05:51:59.0	-01:27:01	300	90	3.0	#112 Orion PMS	2	
0128.COMP	12	1:25	05:51:59.0	-01:27:01	300	90	3.0	#112 Orion PMS	2	
0129.162vso-63358	480	1:25	05:52:12.9	-01:33:40	300	90	3.0	#112 Orion PMS	2	
0130.COMP	12	1:25	05:52:12.9	-01:33:40	300	90	3.0	#112 Orion PMS	2	
0131.163vso-63514	660	1:25	05:52:22.0	-01:21:15	300	90	3.0	#112 Orion PMS	2	
0132.COMP	12	1:25	05:52:22.0	-01:21:15	300	90	3.0	#112 Orion PMS	2	
0133.sn2001ej	1200	1:25	07:23:43.2	33:26:38	300	86	3.0	#2 SN Observat	2	
0134.COMP	12	1:25	07:23:43.2	33:26:38	300	86	3.0	#2 SN Observat	2	
0135.Hiltner600	120	1:25	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	2	600L, 2arcsec, tilt=430
0136.COMP	35	1:25	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9841

UT Date 2001-11-21 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0137.hs500	420	1:25	8:33:22.4	28:37:23	600	90	2.0	#122 Halo Star	2	
0138.COMP	35	1:25	8:33:22.4	28:37:23	600	90	2.0	#122 Halo Star	2	
0139.FLAT	40	1:25	8:34:32.4	28:05:00	600	90	2.0	#56 Spectropho	2	Take flats while clouds pass thru...
0140-0148.FLAT	40	10:30	8:34:32.4	28:05:00	600	90	2.0	#56 Spectropho	2	
0149.hs502	300	10:30	8:35:52.1	27:57:57	600	90	2.0	#122 Halo Star	2	
0150.COMP	35	10:30	8:35:52.1	27:57:57	600	90	2.0	#122 Halo Star	2	wait out more clouds
0151.hs503	600	10:30	8:36:01.7	29:11:53	600	90	2.0	#122 Halo Star	2	
0152.COMP	35	10:30	8:36:01.7	29:11:53	600	90	2.0	#122 Halo Star	2	
0153-0162.BIAS	0	11:57	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	2	
0163-0172.FLAT	12	12:04	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	2	
0173-0182.BIAS	0	12:06	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	
0183-0192.FLAT	12	12:10	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	
0193-0202.DARK	900	14:27	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9842

UT Date 2001-11-22 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0008.DARK	900	0:39	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	
0009-0018.BIAS	0	0:56	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	
0019-0028.FLAT	6	0:58	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	4	
0029-0038.BIAS	0	1:01	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	2	
0039-0048.FLAT	12	1:05	8:36:40.0	29:45:40	300	90	3.0	#122 Halo Star	2	
0049.BDp284211	45	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0050.BDp284211	45	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0051.COMP	5	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	4	
0052.BDp284211	45	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0053.BDp284211	45	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0054.COMP	12	1:05	21:48:57.1	28:37:48	300	90	3.0	#56 Spectropho	2	
0055.BDp284211	45	1:05	21:48:57.1	28:37:48	300	48	3.0	#56 Spectropho	2	
0056.BDp284211	45	1:05	21:48:57.1	28:37:48	300	48	3.0	#56 Spectropho	2	
0057.COMP	12	1:05	21:48:57.1	28:37:48	300	48	3.0	#56 Spectropho	2	
0058.M31	60	1:05	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0059.COMP	12	1:05	00:40:00.0	+40:59:42	300	90	3.0	#57 Velocity S	2	
0060.id2421	480	1:05	20:04:31.4	35:49:23	300	90	3.0	#115 PMS NGC68	2	
0061.COMP	12	1:05	20:04:31.4	35:49:23	300	90	3.0	#115 PMS NGC68	2	
0062.id2678	480	1:05	19:59:47.0	35:21:13	300	90	3.0	#115 PMS NGC68	2	
0063.COMP	12	1:05	19:59:47.0	35:21:13	300	90	3.0	#115 PMS NGC68	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9843

UT Date 2001-11-22 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0064.id2745	480	1:05	19:59:22.7	35:05:02	300	90	3.0	#115 PMS NGC68	2	
0065.COMP	12	1:05	19:59:22.7	35:05:02	300	90	3.0	#115 PMS NGC68	2	
0066.id1244	540	1:05	20:07:11.3	35:44:10	300	90	3.0	#115 PMS NGC68	2	row=82
0067.COMP	12	1:05	20:07:11.3	35:44:10	300	90	3.0	#115 PMS NGC68	2	
0068.id1401	480	1:05	20:06:54.5	35:47:39	300	90	3.0	#115 PMS NGC68	2	
0069.COMP	12	1:05	20:06:54.5	35:47:39	300	90	3.0	#115 PMS NGC68	2	
0070.id1583	420	1:05	20:06:27.3	35:39:29	300	90	3.0	#115 PMS NGC68	2	
0071.COMP	12	1:05	20:06:27.3	35:39:29	300	90	3.0	#115 PMS NGC68	2	
0072.id1848	600	1:05	20:05:59.1	35:43:08	300	90	3.0	#115 PMS NGC68	2	
0073.COMP	12	1:05	20:05:59.1	35:43:08	300	90	3.0	#115 PMS NGC68	2	
0074.id1960	600	1:05	20:05:47.6	35:45:08	300	90	3.0	#115 PMS NGC68	2	
0075.COMP	12	1:05	20:05:47.6	35:45:08	300	90	3.0	#115 PMS NGC68	2	
0076.id1988	480	1:05	20:05:43.1	35:51:04	300	90	3.0	#115 PMS NGC68	2	
0077.COMP	12	1:05	20:05:43.1	35:51:04	300	90	3.0	#115 PMS NGC68	2	
0078.id2275	480	1:05	20:05:01.4	35:36:04	300	90	3.0	#115 PMS NGC68	2	
0079.COMP	12	1:05	20:05:01.4	35:36:04	300	90	3.0	#115 PMS NGC68	2	
0080.id2391	480	1:05	20:04:36.8	35:44:25	300	90	3.0	#115 PMS NGC68	2	row=83
0081.COMP	12	1:05	20:04:36.8	35:44:25	300	90	3.0	#115 PMS NGC68	2	
0082.id2413	480	1:05	20:04:32.9	35:52:06	300	90	3.0	#115 PMS NGC68	2	
0083.COMP	12	1:05	20:04:32.9	35:52:06	300	90	3.0	#115 PMS NGC68	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9844

UT Date 2001-11-22 Observers M Calkins

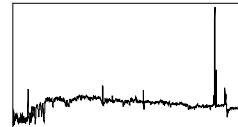
Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0084.id2468	480	1:05	20:04:23.2	35:47:11	300	90	3.0	#115 PMS NGC68	2	
0085.COMP	12	1:05	20:04:23.2	35:47:11	300	90	3.0	#115 PMS NGC68	2	
0086.id2546	540	1:05	20:04:08.5	35:56:24	300	90	3.0	#115 PMS NGC68	2	
0087.COMP	12	1:05	20:04:08.5	35:56:24	300	90	3.0	#115 PMS NGC68	2	
0088.a119c_675	780	1:05	00:51:26.6	02:01:05	300	90	3.0	#64 Cluster In	2	
0089.COMP	12	1:05	00:51:26.6	02:01:05	300	90	3.0	#64 Cluster In	2	
0090.a119c_680	1200	1:05	01:03:53.9	-4:33:57	300	90	3.0	#64 Cluster In	2	light cirrus....
0091.COMP	12	1:05	01:03:53.9	-4:33:57	300	90	3.0	#64 Cluster In	2	
0092.a119c_681	1200	1:05	00:50:57.1	01:39:38	300	90	3.0	#64 Cluster In	2	
0093.COMP	12	1:05	00:50:57.1	01:39:38	300	90	3.0	#64 Cluster In	2	wait out clouds
0094.sn2001XX2	1200	1:05	5:55:26.1	51:54:34	300	90	3.0	#2 SN Observat	2	IA
0095.COMP	12	1:05	5:55:26.1	51:54:34	300	90	3.0	#2 SN Observat	2	
0096.sn2001ep	1200	1:05	04:57:00.2	-04:45:40	300	-29	3.0	#2 SN Observat	2	
0097.COMP	12	1:05	04:57:00.2	-04:45:40	300	-29	3.0	#2 SN Observat	2	clouds moving in...
0098.171vso-26044	300	1:05	05:22:55.4	-02:07:07	300	-29	3.0	#112 Orion PMS	2	
0099.COMP	12	1:05	05:22:55.4	-02:07:07	300	-29	3.0	#112 Orion PMS	2	
0100.172vso-26838	360	1:05	05:24:33.8	-01:50:42	300	-29	3.0	#112 Orion PMS	2	
0101.COMP	12	1:05	05:24:33.8	-01:50:42	300	-29	3.0	#112 Orion PMS	2	
0102.173vso-29530	300	1:05	05:29:34.4	-01:53:40	300	-29	3.0	#112 Orion PMS	2	
0103.COMP	12	1:05	05:29:34.4	-01:53:40	300	-29	3.0	#112 Orion PMS	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9845

UT Date 2001-11-22 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0104.174vso-30352	420	1:05	05:31:13.4	-01:59:08	300	-29	3.0	#112 Orion PMS	2	
0105.COMP	12	1:05	05:31:13.4	-01:59:08	300	-29	3.0	#112 Orion PMS	2	
0106.175vso-30764	360	1:05	05:31:56.8	-01:56:28	300	-29	3.0	#112 Orion PMS	2	
0107.COMP	12	1:05	05:31:56.8	-01:56:28	300	-29	3.0	#112 Orion PMS	2	
0108.176vso-31246	600	1:05	05:32:45.2	-01:42:50	300	-29	3.0	#112 Orion PMS	2	
0109.COMP	12	1:05	05:32:45.2	-01:42:50	300	-29	3.0	#112 Orion PMS	2	
0110.177vso-32189	480	1:05	05:34:12.8	-01:46:23	300	-29	3.0	#112 Orion PMS	2	
0111.COMP	12	1:05	05:34:12.8	-01:46:23	300	-29	3.0	#112 Orion PMS	2	
0112.178vso-33708	540	1:05	05:36:31.1	-01:54:31	300	-29	3.0	#112 Orion PMS	2	
0113.COMP	12	1:05	05:36:31.1	-01:54:31	300	-29	3.0	#112 Orion PMS	2	
0114.179vso-34868	480	1:05	05:38:16.2	-01:48:40	300	-29	3.0	#112 Orion PMS	2	
0115.COMP	12	1:05	05:38:16.2	-01:48:40	300	-29	3.0	#112 Orion PMS	2	
0116.BGGem	300	1:05	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0117.COMP	12	1:05	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0118.BGGem	1200	1:05	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0119.COMP	12	1:05	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0120.sn2001ej	1200	1:05	07:23:43.2	33:26:38	300	104	3.0	#2 SN Observat	2	
0121.COMP	12	1:05	07:23:43.2	33:26:38	300	104	3.0	#2 SN Observat	2	
0122.sn2001fe	1200	1:05	09:37:57.1	+25:29:41	300	110	3.0	#2 SN Observat	2	
0123.COMP	12	1:05	09:37:57.1	+25:29:41	300	110	3.0	#2 SN Observat	2	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9846

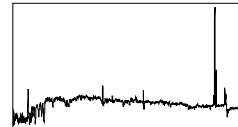
UT Date 2001-11-22 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0124.sn2001XX	1200	1:05	09:59:00.9	17:49:12	300	-54	3.0	#2 SN Observat	2	
0125.COMP	12	1:05	09:59:00.9	17:49:12	300	-54	3.0	#2 SN Observat	2	
0126.ch0933p79c	1200	1:05	09:33:27.5	79:08:04	300	90	3.0	#129 CHAMP Sou	2	
0127.COMP	12	1:05	09:33:27.5	79:08:04	300	90	3.0	#129 CHAMP Sou	2	
0128.ch0932p79b	540	1:05	09:32:13.1	79:10:27	300	90	3.0	#129 CHAMP Sou	2	
0129.COMP	12	1:05	09:32:13.1	79:10:27	300	90	3.0	#129 CHAMP Sou	2	
0130.ch0911p05	480	1:05	09:11:42.0	05:51:52	300	90	3.0	#129 CHAMP Sou	2	
0131.COMP	12	1:05	09:11:42.0	05:51:52	300	90	3.0	#129 CHAMP Sou	2	
0132.Feige34	90	1:05	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0133.COMP	12	1:05	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0134.Feige34	90	1:05	10:36:41.2	43:21:50	300	45	3.0	#56 Spectropho	2	
0135.COMP	12	1:05	10:36:41.2	43:21:50	300	45	3.0	#56 Spectropho	2	
0136-0145.BIAS	0	13:15	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0146-0155.FLAT	12	13:21	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0156-0165.BIAS	0	13:23	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0166-0175.FLAT	6	13:26	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0176-0185.DARK	900	15:43	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9847

UT Date 2001-11-23 Observers M Calkins

Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001-0010.DARK	900	23:35	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0011-0020.BIAS	0	2:25	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0021-0030.FLAT	12	2:43	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	2	
0031-0040.BIAS	0	2:46	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0041.FLAT	6	2:46	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	clouds at sunset...
0042-0050.FLAT	6	2:48	10:36:41.2	43:21:50	300	90	3.0	#56 Spectropho	4	
0051.180vso-35014	600	2:48	05:38:32.7	-02:01:12	300	90	3.0	#112 Orion PMS	2	tactical hole in Orion...
0052.COMP	12	2:48	05:38:32.7	-02:01:12	300	90	3.0	#112 Orion PMS	2	
0053.181vso-38192	600	2:48	05:48:42.7	-02:07:11	300	90	3.0	#112 Orion PMS	2	
0054.COMP	12	2:48	05:48:42.7	-02:07:11	300	90	3.0	#112 Orion PMS	2	
0055.182vso-38561	780	2:48	05:49:28.2	-01:44:57	300	90	3.0	#112 Orion PMS	2	
0056.COMP	12	2:48	05:49:28.2	-01:44:57	300	90	3.0	#112 Orion PMS	2	
0057.183vso-40282	1020	2:48	05:52:37.5	-01:59:07	300	90	3.0	#112 Orion PMS	2	
0058.COMP	12	2:48	05:52:37.5	-01:59:07	300	90	3.0	#112 Orion PMS	2	
0059.Hiltner600	60	2:48	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0060.Hiltner600	60	2:48	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0061.COMP	12	2:48	06:42:37.2	02:11:25	300	90	3.0	#56 Spectropho	2	
0062.Hiltner600	150	2:48	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	2	600L, 2arcsec, tilt=430
0063.COMP	35	2:48	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	2	
0064.hs504	780	2:48	8:36:40.0	29:45:40	600	110	2.0	#122 Halo Star	2	rotate to isolate



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



Page 9848

UT Date 2001-11-23 Observers M CalkinsColl. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0065.COMP	35	2:48	8:36:40.0	29:45:40	600	110	2.0	#122 Halo Star	2	
0066.hs505	900	2:48	8:37:29.6	28:56:41	600	90	2.0	#122 Halo Star	2	
0067.COMP	35	2:48	8:37:29.6	28:56:41	600	90	2.0	#122 Halo Star	2	
0068.hs506	300	2:48	8:37:31.5	29:33:48	600	90	2.0	#122 Halo Star	2	
0069.COMP	35	2:48	8:37:31.5	29:33:48	600	90	2.0	#122 Halo Star	2	
0070.hs501	1200	2:48	8:34:32.4	28:05:00	600	90	2.0	#122 Halo Star	2	
0071.COMP	35	2:48	8:34:32.4	28:05:00	600	90	2.0	#122 Halo Star	2	dome auto-closed for humidity
0072.FLAT	40	2:48	8:34:32.4	28:05:00	600	90	2.0	#122 Halo Star	2	good time for flats
0073-0081.FLAT	40	10:19	8:34:32.4	28:05:00	600	90	2.0	#122 Halo Star	2	
0082-0091.DARK	900	14:06	8:34:32.4	28:05:00	300	90	3.0	#122 Halo Star	2	