



## WHIPPLE OBSERVATORY

## FAST SPECTROGRAPH LOG



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Coll. Focus 1000 Grating/Grism 300

File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0001.DARK	900	0:57	01:45:04.0	31:29:47	300	100	3.0	#6 AGN Monitor	4	
0002.DARK	900	0:57	02:00:15.0	31:29:48	300	100	3.0	#6 AGN Monitor	4	
0003.DARK	900	0:57	02:15:26.0	31:29:50	300	100	3.0	#6 AGN Monitor	4	
0004.DARK	900	0:57	02:56:40.0	31:29:54	300	100	3.0	#6 AGN Monitor	4	
0005-0014.BIAS	0	2:27	03:00:34.0	31:29:54	300	100	3.0	#6 AGN Monitor	4	
0015-0017.FLAT	6	2:28	03:02:01.0	31:29:54	300	100	3.0	#6 AGN Monitor	4	
0018-0024.FLAT	6	2:30	03:03:41.0	31:29:55	300	100	3.0	#6 AGN Monitor	4	
0025-0034.BIAS	0	2:33	03:06:13.0	31:29:55	300	100	3.0	#6 AGN Monitor	2	
0035-0043.FLAT	12	2:36	03:10:03.0	31:29:55	300	100	3.0	#6 AGN Monitor	2	
0044.FLAT	12	2:36	03:10:29.0	31:29:56	300	100	3.0	#6 AGN Monitor	2	
0045.ZAnd	1	2:36	23:33:40	48:49:06	300	100	3.0	#12 Symbiotic	2	shoot thru a hole
0046.ZAnd	3	2:36	23:33:40	48:49:06	300	100	3.0	#12 Symbiotic	2	
0047.ZAnd	5	2:36	23:33:40	48:49:06	300	100	3.0	#12 Symbiotic	2	
0048.ZAnd	20	2:36	23:33:40	48:49:06	300	100	3.0	#12 Symbiotic	2	
0049.COMP	12	2:36	23:33:40	48:49:06	300	100	3.0	#12 Symbiotic	2	
0050.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	4	
0051.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	4	
0052.COMP	5	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	4	
0053.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	2	
0054.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0055.COMP	12	2:36	06:42:37.2	02:11:25	300	100	3.0	#56 Spectropho	2	
0056.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	-35	3.0	#56 Spectropho	2	
0057.Hiltner600	45	2:36	06:42:37.2	02:11:25	300	-35	3.0	#56 Spectropho	2	
0058.COMP	12	2:36	06:42:37.2	02:11:25	300	-35	3.0	#56 Spectropho	2	
0059.HD52971	2	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0060.HD52971	2	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0061.COMP	5	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	4	
0062.HD52971	2	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	2	
0063.HD52971	2	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	2	
0064.COMP	12	2:36	06:57:51	+27:13:42	300	90	3.0	#57 Velocity S	2	
0065.BGGem	300	2:36	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0066.COMP	12	2:36	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0067.BGGem	1200	2:36	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0068.COMP	12	2:36	6:03:31	27:41:50	300	90	3.0	#100 BGGem	2	
0069.FLAT	15	2:36	6:03:31	27:41:50	300	90	2.0	#87 IRAC Stars	2	2 arcsec slit
0070-0078.FLAT	15	5:26	6:03:31	27:41:50	300	90	2.0	#87 IRAC Stars	2	
0079.t02163p1504	2	5:26	02:21:47.1	+15:31:09	300	90	2.0	#87 IRAC Stars	2	
0080.t02163p1504	10	5:26	02:21:47.1	+15:31:09	300	90	2.0	#87 IRAC Stars	2	
0081.t02163p1504	30	5:26	02:21:47.1	+15:31:09	300	90	2.0	#87 IRAC Stars	2	
0082.COMP	15	5:26	02:21:47.1	+15:31:09	300	90	2.0	#87 IRAC Stars	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0083.t02580p1405	10	5:26	03:03:33.3	+14:28:14	300	90	2.0	#87 IRAC Stars	2	
0084.t02580p1405	30	5:26	03:03:33.3	+14:28:14	300	90	2.0	#87 IRAC Stars	2	
0085.t02580p1405	70	5:26	03:03:33.3	+14:28:14	300	90	2.0	#87 IRAC Stars	2	
0086.COMP	15	5:26	03:03:33.3	+14:28:14	300	90	2.0	#87 IRAC Stars	2	
0087.t02596p1412	30	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0088.t02596p1412	60	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0089.t02596p1412	120	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0090.COMP	15	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0091.t02596p1412	300	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0092.COMP	15	5:26	03:05:07.7	+14:35:14	300	90	2.0	#87 IRAC Stars	2	
0093.t03086p1512	5	5:26	03:14:08.3	+15:35:25	300	90	2.0	#87 IRAC Stars	2	
0094.t03086p1512	15	5:26	03:14:08.3	+15:35:25	300	90	2.0	#87 IRAC Stars	2	
0095.t03086p1512	30	5:26	03:14:08.3	+15:35:25	300	90	2.0	#87 IRAC Stars	2	
0096.COMP	15	5:26	03:14:08.3	+15:35:25	300	90	2.0	#87 IRAC Stars	2	
0097.t03234p1439	8	5:26	03:28:58.5	+14:59:48	300	90	2.0	#87 IRAC Stars	2	
0098.t03234p1439	15	5:26	03:28:58.5	+14:59:48	300	90	2.0	#87 IRAC Stars	2	
0099.t03234p1439	30	5:26	03:28:58.5	+14:59:48	300	90	2.0	#87 IRAC Stars	2	
0100.COMP	15	5:26	03:28:58.5	+14:59:48	300	90	2.0	#87 IRAC Stars	2	
0101.t03188p2818	2	5:26	03:24:48.9	+28:39:09	300	90	2.0	#87 IRAC Stars	2	
0102.t03188p2818	10	5:26	03:24:48.9	+28:39:09	300	90	2.0	#87 IRAC Stars	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0103.t03188p2818	30	5:26	03:24:48.9	+28:39:09	300	90	2.0	#87 IRAC Stars	2	
0104.t03188p2818	60	5:26	03:24:48.9	+28:39:09	300	90	2.0	#87 IRAC Stars	2	
0105.COMP	15	5:26	03:24:48.9	+28:39:09	300	90	2.0	#87 IRAC Stars	2	
0106.t04273p3129	120	5:26	04:33:38.8	+31:39:35	300	90	2.0	#87 IRAC Stars	2	
0107.t04273p3129	120	5:26	04:33:38.8	+31:39:35	300	90	2.0	#87 IRAC Stars	2	
0108.t04273p3129	300	5:26	04:33:38.8	+31:39:35	300	90	2.0	#87 IRAC Stars	2	
0109.COMP	15	5:26	04:33:38.8	+31:39:35	300	90	2.0	#87 IRAC Stars	2	
0110.t04310p2743	15	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0111.t04310p2743	80	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0112.t04310p2743	40	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0113.t04310p2743	15	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0114.t04310p2743	25	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0115.COMP	15	5:26	04:37:09.0	+27:55:32	300	90	2.0	#87 IRAC Stars	2	
0116.t04558p1505	2	5:26	05:01:25.3	+15:14:39	300	90	2.0	#87 IRAC Stars	2	
0117.t04558p1505	15	5:26	05:01:25.3	+15:14:39	300	90	2.0	#87 IRAC Stars	2	
0118.t04558p1505	30	5:26	05:01:25.3	+15:14:39	300	90	2.0	#87 IRAC Stars	2	
0119.COMP	15	5:26	05:01:25.3	+15:14:39	300	90	2.0	#87 IRAC Stars	2	
0120.t04586p1452	15	5:26	05:04:14.7	+15:00:12	300	90	2.0	#87 IRAC Stars	2	
0121.t04586p1452	120	5:26	05:04:14.7	+15:00:12	300	90	2.0	#87 IRAC Stars	2	
0122.t04586p1452	240	5:26	05:04:14.7	+15:00:12	300	90	2.0	#87 IRAC Stars	2	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0123.COMP	15	5:26	05:04:14.7	+15:00:12	300	90	2.0	#87 IRAC Stars	2	
0124.t04596p1507	2	5:26	05:05:16.5	+15:14:23	300	90	2.0	#87 IRAC Stars	2	
0125.t04596p1507	10	5:26	05:05:16.5	+15:14:23	300	90	2.0	#87 IRAC Stars	2	
0126.t04596p1507	30	5:26	05:05:16.5	+15:14:23	300	90	2.0	#87 IRAC Stars	2	
0127.COMP	15	5:26	05:05:16.5	+15:14:23	300	90	2.0	#87 IRAC Stars	2	
0128.t05013p1422	30	5:26	05:06:56.7	+14:30:12	300	90	2.0	#87 IRAC Stars	2	
0129.t05013p1422	60	5:26	05:06:56.7	+14:30:12	300	90	2.0	#87 IRAC Stars	2	
0130.t05013p1422	90	5:26	05:06:56.7	+14:30:12	300	90	2.0	#87 IRAC Stars	2	
0131.COMP	15	5:26	05:06:56.7	+14:30:12	300	90	2.0	#87 IRAC Stars	2	
0132.t05167p1601	45	5:26	05:22:23.4	+16:07:21	300	90	2.0	#87 IRAC Stars	2	
0133.t05167p1601	20	5:26	05:22:23.4	+16:07:21	300	90	2.0	#87 IRAC Stars	2	
0134.t05167p1601	30	5:26	05:22:23.4	+16:07:21	300	90	2.0	#87 IRAC Stars	2	
0135.COMP	15	5:26	05:22:23.4	+16:07:21	300	90	2.0	#87 IRAC Stars	2	
0136.Hiltner600	120	5:26	06:42:37.2	02:11:25	300	90	2.0	#87 IRAC Stars	2	
0137.COMP	15	5:26	06:42:37.2	02:11:25	300	90	2.0	#87 IRAC Stars	2	
0138.Hiltner600	420	5:26	06:42:37.2	02:11:25	300	90	2.0	#87 IRAC Stars	2	
0139.COMP	15	5:26	06:42:37.2	02:11:25	300	90	2.0	#87 IRAC Stars	2	
0140.FLAT	40	5:26	06:42:37.2	02:11:25	600	90	2.0	#122 Halo Star	4	600L, 2 arcsec, tilt=430
0141-0149.FLAT	40	7:17	06:42:37.2	02:11:25	600	90	2.0	#122 Halo Star	4	
0150.Hiltner600	180	7:17	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	4	



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File	Exp Time	UT Start	RA	Dec	Gr.	P.A.	Slit	Program	Bin	Comments
0151.COMP	10	7:17	06:42:37.2	02:11:25	600	90	2.0	#56 Spectropho	4	
0152.hs713	1200	7:17	9:58:16.7	29:36:21	600	90	2.0	#122 Halo Star	4	
0153.COMP	10	7:17	9:58:16.7	29:36:21	600	90	2.0	#122 Halo Star	4	
0154.hs714	720	7:17	9:58:33.0	29:06:48	600	90	2.0	#122 Halo Star	4	
0155.COMP	10	7:17	9:58:33.0	29:06:48	600	90	2.0	#122 Halo Star	4	
0156.hs715	1200	7:17	9:59:02.6	28:57:23	600	100	2.0	#122 Halo Star	4	
0157.COMP	10	7:17	9:59:02.6	28:57:23	600	100	2.0	#122 Halo Star	4	
0158.hs716	720	7:17	10:00:44.9	29:20:04	600	100	2.0	#122 Halo Star	4	
0159.COMP	10	7:17	10:00:44.9	29:20:04	600	100	2.0	#122 Halo Star	4	
0160.hs717	480	7:17	10:01:18.3	29:18:30	600	100	2.0	#122 Halo Star	4	
0161.COMP	10	7:17	10:01:18.3	29:18:30	600	100	2.0	#122 Halo Star	4	
0162.hs718	420	7:17	10:01:35.5	28:17:13	600	90	2.0	#122 Halo Star	4	
0163.COMP	10	7:17	10:01:35.5	28:17:13	600	90	2.0	#122 Halo Star	4	
0164.hs719	90	7:17	10:02:08.4	28:24:58	600	90	2.0	#122 Halo Star	4	
0165.COMP	10	7:17	10:02:08.4	28:24:58	600	90	2.0	#122 Halo Star	4	
0166.hs720	1200	7:17	10:02:22.5	29:27:54	600	90	2.0	#122 Halo Star	4	
0167.COMP	10	7:17	10:02:22.5	29:27:54	600	90	2.0	#122 Halo Star	4	
0168.hs721	780	7:17	10:02:31.3	29:37:19	600	90	2.0	#122 Halo Star	4	
0169.COMP	10	7:17	10:02:31.3	29:37:19	600	90	2.0	#122 Halo Star	4	
0170.hs722	240	7:17	10:02:52.8	28:54:57	600	90	2.0	#122 Halo Star	4	



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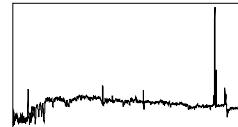
Coll. Focus 1000 Grating/Grism 300

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0171.COMP	10	7:17	10:02:52.8	28:54:57	600	90	2.0	#122 Halo Star	4	
0172.hs723	1200	7:17	10:03:07.6	28:48:31	600	90	2.0	#122 Halo Star	4	
0173.COMP	10	7:17	10:03:07.6	28:48:31	600	90	2.0	#122 Halo Star	4	
0174.hs724	1200	7:17	10:04:02.6	28:55:35	600	90	2.0	#122 Halo Star	4	
0175.COMP	10	7:17	10:04:02.6	28:55:35	600	90	2.0	#122 Halo Star	4	
0176.hs725	1200	7:17	10:04:08.2	29:27:26	600	90	2.0	#122 Halo Star	4	
0177.COMP	10	7:17	10:04:08.2	29:27:26	600	90	2.0	#122 Halo Star	4	
0178.hs726	540	7:17	10:05:42.2	29:41:53	600	90	2.0	#122 Halo Star	4	
0179.COMP	10	7:17	10:05:42.2	29:41:53	600	90	2.0	#122 Halo Star	4	
0180.Feige34	120	7:17	10:36:41.2	43:21:50	600	90	2.0	#122 Halo Star	4	
0181.COMP	10	7:17	10:36:41.2	43:21:50	600	90	2.0	#122 Halo Star	4	
0182-0191.FLAT	45	11:08	8:49:34.6	11:51:25	600	90	2.0	#10 M67 stars	2	
0192.m67_6469	120	11:08	8:49:34.6	11:51:25	600	56	2.0	#10 M67 stars	2	
0193.COMP	40	11:08	8:49:34.6	11:51:25	600	56	2.0	#10 M67 stars	2	
0194.Feige34	180	11:08	10:36:41.2	43:21:50	600	-58	2.0	#56 Spectropho	2	
0195.COMP	40	11:08	10:36:41.2	43:21:50	600	-58	2.0	#56 Spectropho	2	
0196.HD89010	1	11:08	10:13:46.3	+23:45:46	600	65	2.0	#10 M67 stars	2	
0197.HD89010	3	11:08	10:13:46.3	+23:45:46	600	65	2.0	#10 M67 stars	2	
0198.HD89010	6	11:08	10:13:46.3	+23:45:46	600	65	2.0	#10 M67 stars	2	
0199.COMP	40	11:08	10:13:46.3	+23:45:46	600	65	2.0	#10 M67 stars	2	



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0200.m67_6395	900	11:08	8:52:09.6	11:46:46	600	57	2.0	#10 M67 stars	2	
0201.m67_6395	900	11:08	8:52:09.6	11:46:46	600	57	2.0	#10 M67 stars	2	
0202.COMP	40	11:08	8:52:09.6	11:46:46	600	57	2.0	#10 M67 stars	2	
0203.m67_6499	120	11:08	8:51:29.9	11:47:16	600	57	2.0	#10 M67 stars	2	
0204.COMP	40	11:08	8:51:29.9	11:47:16	600	57	2.0	#10 M67 stars	2	
0205.m67_6482	120	11:08	8:51:17.4	11:45:22	600	57	2.0	#10 M67 stars	2	
0206.COMP	40	11:08	8:51:17.4	11:45:22	600	57	2.0	#10 M67 stars	2	
0207.sn2002X4	1200	11:08	13:07:55.2	+34:05:06	300	37	3.0	#2 SN Observat	2	
0208.COMP	12	11:08	13:07:55.2	+34:05:06	300	37	3.0	#2 SN Observat	2	
0209.sn2001gd	1200	11:08	13:13:23.8	+36:38:17	300	-41	3.0	#2 SN Observat	2	
0210.COMP	12	11:08	13:13:23.8	+36:38:17	300	-41	3.0	#2 SN Observat	2	
0211.MRK421	300	11:08	11:04:27.4	+38:12:32	300	90	3.0	#133 MRK421	2	
0212.MRK421	300	11:08	11:04:27.4	+38:12:32	300	90	3.0	#133 MRK421	2	
0213.COMP	300	11:08	11:04:27.4	+38:12:32	300	90	3.0	#133 MRK421	2	
0214.BDp332642	60	11:08	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0215.BDp332642	60	11:08	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0216.COMP	12	11:08	15:50:03	33:05:49	300	94	3.0	#56 Spectropho	2	
0217-0221.sky	2	14:00	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	4	
0222.COMP	5	14:00	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	4	
0223-0232.BIAS	0	14:04	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	4	



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<i>File</i>	<i>Exp Time</i>	<i>UT Start</i>	<i>RA</i>	<i>Dec</i>	<i>Gr.</i>	<i>P.A.</i>	<i>Slit</i>	<i>Program</i>	<i>Bir</i>	<i>Comments</i>
0233-0242.FLAT	6	14:08	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	4	
0243-0252.BIAS	0	14:10	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	2	
0253-0262.FLAT	12	14:15	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	2	
0263-0272.DARK	900	16:33	15:50:03	33:05:49	300	90	3.0	#57 Velocity S	2	