

Keck/LRIS-R&B Logsheet

Data directory: _____ Seeing: clear

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. Sky/PA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
1	sdss 1148_0 masking	B 1 R				sdss 1148_0	680			G	B R	
2	sdss 1148_p2 masking	B 1 R				sdss 1148_p2	680			G	B R	
3	sdss 1148-am2 masking	B 1 R				sdss 1148_p2	680			G	B R	
4	Cosmos	B 1 R				Cosmos	560			G	B R	
5	helpn-1 masking	B 1 R				helpn-1	560			G	B R	
6	helpn-2 masking	B 1 R				helpn-2	560			G	B R	
7	sdss Cosmos-mask	B 1 R 1				Cosmos	560	1200	600/9000	-	B R	
8	Cosmos-mask	B 1 R 1				Cosmos	560		600/9000	-	B R	
9	Cosmos-mask focus	B 1 R 1				Cosmos	560	600	600/9999	-	B R	
9-12	Cosmos-mask	B 30 R 1				Cosmos	560	600/4000	600	-	B R	2x2 binning blue and red.
5-8	internal flats	B 30 R 1				Cosmos	560	600/4000	9493	-	B R	angle = 33.38
9-10	arc	B 1 R 30				Cosmos	560	600/4000			B R	angle = 33.38
13-14	helpn1 internal flats	B 30 R 1				helpn1	560	600/4000			B R	angle = 33.38
18-20	helpn2 internal flats	B 30 R 1				helpn2	560	1200/1400	600		B R	2x2
15-17	internal flats	B 1 R 1				helpn2	560	1400	9300Å		B R	2x2
21-23	long slit 1"	B 25 R 1				long slit	560	400/3400	400		B R	2x2
18-20	internal flats	B 1 R 1				internal flats	560	3400	8500Å		B R	2x2

Project: _____

UT Date: 03/19/12

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Conditions: clear

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Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 24	incl for invar 2	B 25								B	B	el = 46
R 21	twilight flat	R 5								R	R	not p. = -248°
B 25	"	B 40								B	B	"
R 22	twilight flat	R 10								R	R	"
B 26	"	B 70								B	B	"
R 23	twilight flat	R 25								R	R	"
B 27	"	B 180								B	B	el. 48°
R 24	twilight flat	R 70								R	R	not p. -207°
B 28	"	B 300								B	B	"
R 25	twilight flat	R 120								R	R	
B		B								B	B	
R		R								R	R	
B		B								B	B	
R		R								R	R	
B 32	Cosmos	B 300	05:41 ^m	1.40	61	Cosmos	560	600/400	600	B	B	2x2
R 27	Spec.	R 1500							78006	R	R	grading angle = 33.33
B		B								B	B	
R 28	"	R 1500	06:08	1.29	61	"	"	"	"	R	R	
B 33	"	B 3000	06:39	1.15	61	"	"	"	"	B	B	
R 29	"	R 1500								R	R	
B		B								B	B	
R 30	"	R 1500	07:02	1.13	61	"	"	"	"	R	R	
B 34	Cosmos	B 1	07:30	1.09	61	"	"	"	"	B	B	ile + Ne + Ar + Cd + Zn
R 31	ARC	R 1								R	R	2x2
B 35	Cosmos	B								B	B	
R 32	Spec.	R								R	R	
Setup frame												

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Data directory: _____ Conditions: Clear Seeing: ~ 1.2

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. Sky/PA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
36	Cosmo	B 3000 R 1500	07:49	1.07	61	Cosmos	560	600/ 4000	600 9500	B - R -	B -2484 R -0.71	2x2 grating angle = 33.38 seeing ~ 1.25
33	<u>Alignment images</u>											
34	HDFN - mask	B 3000 R 1500	08:55	1.50	45.1	HDFN - mask 2	560	1200/ 3400	600 9500	B - R -	B -2373 R -0.71	2x2 grating angle = 33.38
35	"	B - R 1500	09:20	1.45	45.1	"	"	"	"	B - R -	B " R "	2x2 "
43	<u>Check alignment blue frame</u>											
44	"	B 3000 R 1500	09:49	1.40	45.1	HDFN - mask 2	560	1200/ 3400	600 9500	B - R -	B " R "	2x2 grating angle = 33.38
37	"	B - R 1500	10:14	1.38	"	"	"	"	"	B - R -	B " R "	2x2 "
45	"	B 3000 R 1500	10:40	1.36	45.1	"	"	"	"	B - R -	B " R "	2x2 grating angle = 33.38
38	"	B - R 1500	11:07	1.35	45.1	"	"	"	"	B - R -	B " R "	2x2 grating angle = 33.38 AUTO FOCUS
48	<u>Alignment images</u>											
40	"	B 3000 R 1500	11:46	1.36	45.1	"	"	"	"	B - R -	B " R "	2x2 "
41	"	B - R 1500	12:11	1.38	"	"	"	"	"	B - R -	B " R "	"
49	"	B 2800 R 1400	12:38	1.41	45.1	"	"	"	"	B - R -	B " R "	2x2 seeing ~ 1.2 ob = 44.8
42	"	B - R 1400				"	"	"	"	B - R -	B " R "	"

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Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 43	" spec	B 1500	13:01	1.46	45.1	HOFN-mask 2	560	1200/1500	600	-	B -2373	
R 50	HOFN-mask 2	R 3							9500	-	R -0.71	not limit
B 44	arc	B 1	13:25	1.50	45.1	"	560	"	"	-	B "	2x2 HeNe + Ar + Cd + Zn
R 54	HOFN-mask 2	R 3000	13:39	1.54	45.1	"	"	"	"	-	R "	2x2
B 45	spec	B 1500	14:03	1.62	45.1	"	560	"	"	-	B "	2x2
R 55-56	"	R 3								-	R "	
B 46	arc	B 1								-	B "	
R 57		R 1								-	R "	
B 62	HOFN-mask 2	B 10				HOFN-mask 2	560	1200/1500	600	-	B -2373	
R 49	+BD3326L2 spec	R 20							9500	-	R -0.71	
B 67	HOFN-mask 1	B 10				HOFN-mask 1	560	600/1400	600	-	B "	
R 50	+BD3326L2 spec	R 20							9500	-	R "	
B 72	Cosmos	B 10				Cosmos	560	600/9500	600	-	B "	
R 51	+BD3326L2 spec	R 20							9500	-	R "	
B 77	505 1148-0	B 10				slitmask	680	600/9500	600	-	B -2473	
R 52	+BD3326L2 spec	R 20							9500	-	R -0.71	

Keck/LRIS-R&B Logsheet

Conditions: _____ Seeing: _____

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 79	Cosmos mask image	1	03:53	1.41		Cosmos	560	-	-	G	B -2461	1x1 Hal. on
R 79											R	
B 80	hdfn - mask 1 image	1	03:58	1.41		hdfn - mask 1	560	-	-	G	B -2461	1x1 Hal. on
R 80											R	
B 81	hdfn - mask 2 image	1	03:00	1.41		hdfn - mask 2	560	-	-	G	B -2461	1x1 Hal. on
R 81											R	
B 82	SLS1148-0 mask image	1	03:02	1.41		SLS1148-0	680	-	-	G	B -2461	1x1 "
R 82											R	
B 83	SLS1148-m1 mask image	1	03:06	1.41		SLS1148-m1	680	-	-	G	B -2460	1x1 "
R 83											R	
B 84	SLS1148-p1 mask image	1	03:07	1.41		SLS1148-p1	680	-	-	G	B -2460	1x1 "
R 84											R	
B 85	longslit-1.0 mask image	1	03:09	1.41		longslit-1.0	560	-	-	G	B -2460	1x1 "
R 85											R	
B 86-88	Aspec focus	1	03:23	1.41		Cosmos	560	600/4000	600	-	B 2460	1x1 belt blue focus = -2496.63
R 86-88	Apschaser's focus								9500	-	R	" use = -0.706 Mg+Ne+Ar+Cl+Fe
B 61-63	Cosmos mask internal Hal flats	30	03:42	1.41		Cosmos	560	600/1000	600	-	B -2496	2x2 Hal. on
R 61-63		1							9500	-	R -0.71	
B 96-98	hdfn mask 1 internal Hal flats	30	03:49	1.41		hdfn mask 1	560	600/1000	600	-	B -2496	2x2 Hal. on
R 96-98		1							9500	-	R -0.70	
B 64-66	hdfn mask 2 internal Hal flats	30	03:57	1.41		hdfn mask 2	560	1200/1400	600	-	B -2438	2x2 Hal
R 64-66		1							9500	-	R -0.71	
B 99-101	hdfn mask 2 internal Hal flats	30	04:02	1.41		SLS1148-0	680	600/1000	600	-	B -2496	2x2 Hal.
R 99-101		1							9500	-	R -0.71	
B 102-104	SLS1148-0 internal Hal flats	30	04:14	1.41		longslit-1.0	560	400/3000	400	-	B -2564	2x2 Hal.
R 102-104		1							9500	-	R -0.68	
B 105-107	longslit-1.0 internal Hal flats	1	04:30	1.41		Cosmos	560	600/1000	600	-	B -2497	2x2 Hal. Mg+Ne+Ar+Cl+Zn
R 105-107		1							9500	-	R -0.71	
B 76	Cosmos mask Arc	1										

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Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 109	hdln-mast1	B 1	04 ^h 33	1.41		hdln-mast1	560	600/400	600	B -	B -2496	2x2
R 77	arc	R 1							9500	R -	R -0.70	"
B 110	hdln-mast2	B 3	04 ^h 36	1.41		hdln-mast2	560	1200/3400	600	B -	B -2438	2x2
R 78	arc	R 1							9500	R -	R -0.71	" opt. opt = 32.3
B 111	longslit-1.0	B 1	04 ^h 37	1.41		longslit-1.0	560	400/3400	400	B -	B -2504	2x2
R 79	arc	R 1							8500	R -	R -0.68	" opt = 32.47°
B 112	sdss1148-0	B 1	04 ^h 40	1.41		sdss1148-0	680	600/400	600	B -	B -2495	2x2
R 80	arc	R 1							8600	R -	R -0.71	" opt = 32.01°
B 113	Cosmos	B 5		1.32		Cosmos	560	600/4000	600	B -	B -2495	el = 49° not pdat = 32.70
R 81	twilight flat	R 5							9500	R -	R -0.71	" opt = 33.38°
B 114	"	B 10		1.32		"	560	600/4000	600	B -	B -2495	"
R 82	"	R 10							9500	R -	R -0.71	"
B 115	"	B 45				"	560	600/4000	600	B -	B -2495	el = 72° not pdat = -29.0
R 83	"	R 45							9500	R -	R -0.71	"
B 116	"	B 80		1.13		"	560	600/4000	600	B -	B -2495	el = 62° not pdat = -78.0
R 84	"	R 80							9500	R -	R -0.71	"
B 116?	longslit-1.0	B 300	05 ^h 24	1.11		long-1.0	560	400/3400	400	B -	B -2564	el = 62° not pdat = -78.0
R 85	twilight flat	R 270							8500	R -	R -0.68	" opt = 33.53
B 117	PSNS 10435372	B 60	05 ^h 24	1.70		long-1.0	560	400/3400	400	B -	B -2564	2x2
R 86		R 60			90.0				8500	R -	R -0.68	"
B 118	"	B 1	06 ^h 33	1.67		long-1.0	560	400/3400	400	B -	B -2564	2x2
R 87	arc	R 1			90.0				8500	R -	R -0.68	" Ag + Ne + Ar + Cl + Cr
B 119	G 11-1318	B 30	05 ^h 37	1.32		long-1.0	560	400/3400	400	B -	B -2564	2x2
R 88	Standard	R 30			90.0				8500	R -	R -0.68	"
B 120	SDSS J 085112+1523	B 600	05 ^h 50	1.08		long-1.0	560	400/3400	400	B -	B -2564	2x2
R 89		R 600			90.0				8500	R -	R -0.68	" opt = 23.58°
B 121	"	B 1	06 ^h 03	1.05		long-1.0	560	400/3400	400	B -	B -2564	2x2
R 90	arc	R 1			90.0				8500	R -	R -0.68	"

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Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B	Abigail frames	B								B		
R		R							R			
B 124	Cosmos spec	B 3000	06:10	1.24	60.89	Cosmos	560	600/400	600	-	-2494	2x2
R 91		R 1500			60.89				9500	-	-0.71	get = 33.38
B -	Cosmos spec	B 1500	6:46	1.16	60.89	Cosmos	560	"	"	-	-2494	2x2
R 92		R 1500			60.89				"	-	-0.71	AKES ~ 1.0"
B 125	Cosmos spec	B 3000	07:11	1.11	60.89	Cosmos	570	"	"	-	-2494	"
R 93		R 1500			60.89				"	-	-0.71	
B -	Cosmos spec	B 1500	07:46	1.07	60.89	"	"	"	"	-	"	2x2
R 94		R 1500			60.89				"	-	"	same #126 B&R new alignment
B 127	Cosmos spec	B 3000	08:06	1.05	60.89	"	560	"	"	-	-2494	2x2
R 95		R 1500			60.89				"	-	-0.71	
B -	Cosmos spec	B 1500	8:32	1.04	60.89	"	560	"	"	-	"	2x2
R 96		R 1500			60.89				"	-	"	
B 128	Cosmos Arc	B 1	08:59	1.05	60.89	"	560	"	"	-	"	2x2
R 97		R 1			60.89				"	-	"	same #129 B&R vs fine alignment
B 130	helpfn-mask1 spec	B 3000	09:19	1.43	00.16	helpfn-mask1	570	600/400	600	-	-2494	2x2
R 98		R 1500			00.16				9500	-	-0.7	
B -	helpfn-mask1 spec	B 1500	09:46	1.39	00.16	helpfn-mask1	"	"	"	-	-2494	2x2
R 99		R 1500			00.16				"	-	-0.7	get = 33.38
B 132	helpfn-mask1 spec	B 3000	10:15	1.37	00.16	helpfn-mask1	"	"	"	-	-2494	2x2
R 100		R 1500			00.16				"	-	-0.7	get = 33.38
B -	helpfn-mask1 spec	B 1500	10	1.35	00.16	helpfn-mask1	"	"	"	-	-2494	2x2
R 101		R 1500			00.16				"	-	-0.7	
B 134	" "	B 3000	11:06	1.35	00.16	helpfn-mask1	"	"	"	-	-2494	2x2
R 102		R 1500			00.16				"	-	-0.7	get = 33.38
B -	" "	B 1500	11:32	1.35	00.16	"	"	"	"	-	-2494	2x2
R 103		R 1500			00.16				"	-	-0.7	

Keck/LRIS-R&B Logsheet

Data directory: _____ Conditions: clear Seeing: _____

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 105	hdtn-mask 1	B 3000	11:58	1.37	0.16	hdtn-mask 1	520	600/4000	600	-	B	2x2
R 104	spec	R 1500							9800	-	R	
B -	"	B 1500	12:24	1.33	0.16	"	520	"	"	-	B	"
R 105	"	R 3000	12:50	1.43		"	"	"	"	-	R	"
B 106	"	B 1500	13:18	1.50	0.16	"	"	"	"	-	B	"
R 107	"	R 3000	13:51	1.59	0.16	"	"	"	"	-	R	"
B 108	"	B 1500	14:16	1.68	0.16	"	"	"	"	-	B	"
R 109	"	R 3000	14:43	1.80	0.16	"	"	"	"	-	R	"
B 139	hdtn-mask 1	B 1	15:05	1.18		hdtn-mask 1	520	400/3400	400	-	B	2x2
R 110	arc	R 1	15:19	1.19	175	"	"	"	8500	-	R	"
B 140	sdss 162045.63	B 600				hdtn-mask 1	520			-	B	2x2
R 141	spec	R 600			175	"	"	"		-	R	"
B 112	"	B 1	15:34	1.11	175	"	"	"	"	-	B	2x2
R 142	arc	R 1	15:45	1.12	175	"	"	"		-	R	"
B 143	sdss 162045.63	B 600				hdtn-mask 1	520			-	B	2x2
R 113	spec	R 600				"	"	"		-	R	"
B 144	sdss 165335.61	B 1				"	"	"		-	B	2x2
R 114	spec	R 1				"	"	"		-	R	"
B 145	sdss 165335.61	B 1				"	"	"		-	B	2x2
R 115	arc	R 1				"	"	"		-	R	"

Keck/LRIS-R&B Logsheet

Data directory: _____

Conditions: _____

Seeing: _____

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. SkyPA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
152	Cosmos mask img	1	03:00	1	90	Cosmos	560	600/ 400	600 9500	B R	-2356 -0.72	Mal on
153	SDSS J148-0 mask img	1	03:06		90	SDSS	680	-	600 8600	B R	-2355 -0.72	glt = 32.82?
154	Cosmos mask img	1	03:09		90	Cosmos	560	-	600 8600	B R	-2355 -0.72	
155	Long slit 60 img	1	03:17		90	Long	570	-	600 8000	B R	-2423 -0.69	glt = 24.13
156-158	Long slit 1.0 internal Hal flats	30	03:23		90	Long	560	400/ 300	400 9000	B R	-2423 -0.69	glt = 24.13
159-161	SDSS J148-0 internal Hal flats	30	03:33		90	SDSS	680	600/ 400	600 8000	B R	-2355 -0.72	glt = 31.62
162-164	Cosmos internal Hal flats	30	03:37		90	Cosmos	560	600/ 400	600 9500	B R	-2355 -0.72	glt = 33.38
165	Cosmos Arc	1	03:42		90	Cosmos	680	600/ 400	600	B	-2355	
166	SDSS J148-0 Arc	1	03:45		90	SDSS	680	600/ 400	600 9500	B R	-2355 -0.72	glt = 31.62°
167	Long slit 1.0 Arc	1	03:47		90	Long-1.0	560	400/ 300	400 8000	B R	-2422 -0.69	glt = 24.13°
168	SD imaging Dome flats	100	03:03		90	-	560	-	-	B	-2404	
169-172	"	15	03:16		70	-	520	-	-	B R	-2409 -0.77	Dome flats. el = 45°
173	SDSS J17355.74	30		1.14	90.0					B		slat PA = 90.0
174	JR image	30								B		6k count header
175	"	60								B		10" F

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B 175	"	90				Clear	566	-	-	B	B -2403	15N off 1x1
R 175	"	90			90					R	R -0.77	1x1
B 176	"	120								B	B "	15W 1x1
R 176	"	90			90					R	R "	1x1
B 177	"	200								B	B "	15N 1x1
R 177	"	120			90					R	R "	(10N, 15E)
B 178	"	400								B	B "	(15N, 30W)
R 178	"	400			90					R	R "	
B 179	"	600		1.07						B	B "	(25S, 15E)
R 179	"	500	05h52		90					R	R "	2x2
B 185	Cosmos 1148-0	3000	06h17	1.15		Cosmos	560	600/1400	600	B	B -2354	problem w/ binning & windowing.
R 185	Spec	1500			60.93				9500	R	R -0.72	185 is your target
B 189	"	1500	7:24	1.25						B	B "	
R 189	"									R	R "	
B 190	"	1500								B	B "	
R 190	"	3000	08h08	1.05						R	R "	
B 191	"				60.93					B	B "	
R 191	"	1200	08h16	1.05	60.93	Cosmos	560	600/1400	600	R	R -2355	2x2
B 192	"	1900	08h37	1.05						B	B -0.77	
R 192	"	1			60.93					R	R -0.77	
B 193	Cosmos 1148-0	3000	08h59	1.06						B	B -2355	2x2
R 193	Spec	1500			60.93	SOS 1148	680	600/1400	600	R	R -0.72	1kg Net+Ar+Cd+Zn
B 194	"	3000	09h27	1.21						B	B -2355	2x2
R 194	"	1500			50.00	-0				R	R -0.72	got = 31.62°
B 199	"	3000	10h27	1.17						B	B -2355	2x2
R 199	"	1500			50.00					R	R -0.72	got = 31.62°

Keck/LRIS-R&B Logsheet

Conditions: cloudy, dark Seeing: _____

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. Sky/PA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
157	S0551148-0	B - 1500	14 ^h 01	1.21	50.0	sdssrml	680	600/1400	600	B -	-2355	2x2
200	Appl.	R - 2000	14 ^h 15	1.22	50.0	"	"	600/1400	600	R -	-2355	got angle = 31.62°
159	"	B - 1500	14 ^h 25	1.23	50.0	"	"	"	8100	B -	-0.72	got. " = "
160	S0551148-0	R - 3000	12 ^h 07	1.24	50.06	"	"	"	"	B -	"	2x2
161	Appl.	R - 1500	12 ^h 33	1.36	50.06	"	"	"	"	R -	"	offset: 1.29" N, 1.53"E
162	"	B - 1500	12 ^h 58	1.42	"	"	"	"	"	B -	"	off set position.
206	"	R - 1500	13 ^h 25	1.54	"	"	"	"	"	R -	"	2x2
163	Appl.	B - 100	13 ^h 53	"	"	"	"	"	"	B -	"	Hg + Net Ar + Cd + Zn
207	lowssd1.0 image	R - 20	14 ^h 07	"	85	"	"	"	"	R -	"	(2312, 2462)
208	S055133257	B - 100	14 ^h 08	1.16	85	clear	560	no	"	B -	"	high attenuation (> 11.5ms)
209	field image	R - 100	"	"	"	"	"	"	"	R -	"	nothing visible @ location of obs.
164	"	B - 150	14 ^h 20	1.20	85.0	"	"	"	"	B -	"	" high attenuation
165	old image	R - 20	14 ^h 24	1.21	85.0	"	"	"	"	R -	-0.69	2x2
166	long 1.0 image	B - 150	14 ^h 28	1.22	85.0	"	"	"	"	B -	-0.77	2x2
	S047133257 fielding	R - 150	"	"	"	"	"	"	"	R -	"	2x2

Keck/LRIS-R&B Logsheet

Data directory: _____

Conditions: clear

Seeing: _____

Obs#	Target	Exp (s)	LST/UT	Airmass	H.A. Sky/PA	Slitmask	Dichroic	Grism	Grating λ_c (Å)	Filter	CCD Focus	Comments
B 210-212	external internal Mel flats	B 30	14:39	1.38		help- mask	560	600/1000	600	B -	B -2155	2x2
R 1					66.20				9500	R -	R -0.72	el=46° not point = -293.8 Mel on
B 213-215	"	B 30	14:44	1.37		"	"	"	"	B -	B "	2x2
R 1										R -	R "	el=48° not point = -252° Mel on
B 170-172	"	B 30	14:49	1.62		"	"	"	"	B -	B "	2x2
R 1						145				R -	R "	el=38° not point = -215° Mel on
B 219-220	S055M0404.64 field view	B 200	15:01	1.32		duct	"	-	-	B B	B -2404	1x1 high attenuator 21 mag.
R 1						90				R R	R -0.77	
B 176-178	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	
B	"	B								B	B	
R										R	R	