

# OBSERVING LOG

**TELESCOPE** : DuPont  
**INSTRUMENT** : WFCCD  
**CONFIGURATION** : TYPHOON  
**OBSERVER** : Jeff Rich  
**NIGHT ASSISTANT**: Consuelo

**DATE** : July 27/28 3019  
**NIGHT**: 3 of 13  
**PAGE** : 1 of 4  
**WEATHER**: clear

File	Object	UTstart	Expsec	Filter	Airmass	Aper	Seeing	Comments
3001	bias	19:03	0	V	-	150um	-	Ok, had to turn off lights!
3002	Slit image	19:06	10	V	zenith	150um	-	top/bot 1424/1430 x=1427.7, 2637.3, @y~2100
3003	"	19:09	4	V	"	750um	-	Lamp @390V, x=1439.3, 2625.7@y~2100
3004-3006	dflat	19:14	3x3	R	Flat field	open	-	Lamp @ 350V, <25k peak
3007-3009	"	19:19	3x4	V	"	open	-	Lamp @ 390V, <18k peak
3010-3012	"	19:23	3x4	B	"	open	-	Lamp @ 480V, <22k peak
3013-3015	"	19:28	3x80	grism	"	150um	-	Lamp @ 480V, ~40k peak
3016-3018	"	19:39	3x20	grism	"	750um	-	Lamp @ 480V, <38k peak
3019-3021	"	19:45	3x50	grism	"	hart	-	Lamp @ 480V, ~41k peak
3022	"	19:52	4	V	"	hart	-	Lamp @ 390V
3023-3025	HeNeAr arcs	19:56	30/60/90	grism	"	150um	-	Arcs for calibs
3026-3033	bias	20:04	8x0	-	zenith	-	-	
3034-3036	dark	20:29	3x600	V	"	open	-	
3037	LTT 4816	22:39	5	V	1.131	open	1.2"	@2250, 2021?, 393"W, 37.3"S
3038	"	22:43	"	"	1.137	"	1.2"	@1441, 2097, 1"W
3039	"	22:47	"	"	1.143	750um		OK
3040	"	22:49	"	"		"		
3041	"	22:52	300	grism	1.151	"		std.
3042	HeNeAr arc	22:59	30	grism	1.16	150um		Arc for std.
3043	NGC 5247	23:02	20	V	1.052	open	1.1"	454"W, 37"S
3044	"	23:07	"	"	1.057	"	1.2"	1.5"W, 3.5"S,
3045	"	23:10	"	"	1.061	"	1.1"	4"E, 2"S, match 1086, 2013_04_08_09
3046	"	23:13	"	"	1.065	"	1"	Old slit 1414.8, 6.3" off E, 1"S
3047	"	23:16	"	"	1.068	"	1"	

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**DATE** : July 27/28 2019  
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File	Object	UTstart	Expsec	Filter	Airmass	Aper	Seeing	Comments
3048	NGC 5247	23:22	600	grism	1.076	150um	~1"	R->L , +10.3, 493.6, 406.3
3049	"	23:33	"	"	1.095	"	<1"	416.6
3050	"	23:45	"	"	1.116	"		426.9
3051	"	23:57	"	"	1.141	"		437.2
3052	"	00:08	"	"	1.117	"	~1"	447.5 good seeing
3053	"	00:20	"	"	1.205	"		457.8
3054	"	00:31	"	"	1.243	"		468.1
3055	"	00:42	"	"	1.285	"		478.4
3056	"	00:53	"	"	1.330	"		488.7
3057	"	01:06	"	"		"		499.0
3058	"	01:17	"	"	1.444	"	~1"	509.3
3059	"	01:29	"	"	1.514	"		519.6
3060	"	01:40	"	"		"	~1"	529.9
3061	"	01:52	"	"	1.7	"		540.2, higher airmass but good seeing!
3062	NGC 5247	02:03	20	V	1.8	open	<1.2"	550.5
3063	NGC 6744	02:08	20	V	1.255	open	1.3"	Match 1089 from 7/25/19, 19.4"N, 2"E
3064	"	02:11	"	"	1.252	"	1.3"	1"W
3065	"	02:14	"	"	1.250	"	1.2"	OK go
3066	NGC 6744	02:16	600	grism	1.248	150um		R->L, +10.3, 503.0, 298.0
3067	"	02:28	"	"	1.238	"		308.3
3068	"	02:39	"	"	1.231	"		318.6
3069	"	02:51	"	"	1.225	"		328.9
3070	"	03:03	"	"	1.220	"		340.2
3071	"	03:14	"	"	1.218	"		350.5

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3072	NGC 6744	03:25	600	grism	1.216	150um		360.8
3073	"	03:38	"	"	1.216	"		370.1
3074	"	03:49	"	"	1.218	"		380.4
3075	"	04:00	"	"	1.220	"		390.7
3076	"	04:12	"	"	1.225	"		401.0
3077	"	04:23	"	"	1.231	"		411.3
3078	"	04:35	"	"	1.238	"		421.6
3079	"	04:46	"	"	1.248	"		431.9
3080	"	04:58	"	"	1.258	"		442.2
3081	"	05:09	"	"	1.270	"		452.5
3082	"	05:21	"	"	1.284	"		462.8
3083	"	05:32	"	"	1.299	"		473.1
3084	"	05:44	"	"	1.316	"		483.4
3085	"	05:54	"	"	1.342	"		493.7
3086	"	06:07	"	"	1.359	"		504.0
3087	"	06:18	"	"	1.380	"		514.3
3088	"	06:30	"	"	1.405	"		524.6
3089	"	06:42	"	"	1.442	"		534.9
3090	"	06:53	"	"	1.474	"		545.2
3091	NGC 6744	07:05	20	V	1.508	open		555.5
3092	NGC 7793	07:09	20	V	1.037	open	1.3"	Cass = 90
3093	"	07:12	"	"	1.034	"	1.1"	1.2"W, 0.3"S
3094	"	07:14	"	"	1.031	"	1.1"	OK, R->L, +10.3
3095	NGC 7793	07:18	600	grism	1.028	150um		471.6, 407.9

