

# OBSERVING LOG

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

**DATE** : December 22/23 2019  
**NIGHT**: 5 of 5  
**PAGE** : 1 of 3  
**WEATHER**: clear

File	Object	UTstart	Expsec	Filter	Airmass	Aper	Seeing	Comments
5001	bias	19:25	0	grism	-	150um	-	bias Test, OK, ~1370
5002-5004	dflat	19:27	3x3	R	Flat field	open	-	Lamp @ 350V, ~26k peak
5005-5007	"	19:37	3x4	V	"	open	-	Lamp @ 390V, <18k peak
5008-5010	"	19:41	3x4	B	"	open	-	Lamp @ 480V, <22k peak
5011-5013	"	19:46	3x80	grism	"	150um	-	Lamp @ 480V, ~40k peak
5014-5016	"	20:00	3x20	grism	"	750um	-	Lamp @ 480V, <38k peak
5017-5019	"		3x50	grism	"	hart	-	Lamp @ 480V, ~41k peak
5020	"	20:15	4	V	"	hart	-	Lamp @ 390V
5021-5023	HeNeAr arcs	20:16	30/60/90	grism	"	150um	-	Arcs for calibs
5024-5031	bias	20:24	8x0	grism	"	150um	-	Bias frames
5032-5036	Dark	21:12	5x600	"	zenith	"	-	Dark frames
5037	Slit image	00:04	1	V	"	150um	-	1424.6, 2640.4 @ y=2100 1424, 1424
5038	"	00:07	"	"	"	750um	-	1436.2, 2628.8 @ y=2100
5039	a133_k image	00:44	10	"	"	mask	-	Full readout mask image, seems tilted
5040	a133_k image	00:50	"	"	"	mask	-	OK, aperture wheel was not quite set
5041	"	00:53	"	"	"	"	-	Double check, everything OK
5042	a133_k sky	01:31	10	V	1.110	open	~1.4"	cas=218
5043	a133_k mask	01:34	"	"		mask		67.3"W, 81"S, cass=218.6
5044	a133_k mask	01:42	"	"	1.132	"		1.47"E, 1.24"S
5045	a133_k	01:47	1800	grism	1.144	mask	~1.5"	Guider seeing variable
5046	a133_k	02:19	1800	grism	1.237	mask		
5047	a133_k	02:51	1800	grism	1.372	mask		Guider seeing 1.5" - 2"
5048	HeNeAr arc	03:24	45	grism		mask		Arc for mask
5049	LED lamp	03:38	60	grism	1.590	mask		LED @ obs. orientation

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5050	NGC 1566	03:33	20	V	1.118	open	1.5"	320"E for imaging
5051	"	03:38	60	V	1.120	"	~1.4"	
5052	"	03:40	"	B	1.123	"		
5053	"	03:43	"	R	1.124	"		
5054	"	03:48	20	V	1.126	"	~1.4"	Back to typhoon, 8"E, 1.2"N, match 4071
5055	"	03:51	"	"	1.128	"	1.3"	Moving +10.3, 1"S, 1"W
5056	"	03:54	"	"	1.130	"	1.3"	OK
5057	"	03:56	"	"	1.132	150um		Slit pos. check, OK
5058	NGC 1566	03:59	600	grism	1.134	"		
5059	"	04:11	"	"	1.143	"		380.9
5060	"	04:23	"	"	1.155	"		391.2
5061	"	04:35	"	"	1.169	"		401.5
5062	"	04:46	"	"	1.184	"		411.8
5063	"	04:58	"	"	1.201	"		422.1 guider seeing ~1.3"
5064	"	05:09	"	"	1.220	"		432.4
5065	"	05:21	"	"	1.242	"		442.7
5066	"	05:32	"	"	1.266	"		453.0
5067	"	05:44	"	"	1.293	"		463.3
5068	"	05:55	"	"	1.322	"		473.6
5069	"	06:07	"	"	1.355	"		483.9
5070	"	06:18	"	"	1.391	"		494.2
5071	"	06:30	"	"	1.430	"		504.5
5072	"	06:41	"	"	1.474	"		514.8
5073	"	06:53	"	"	1.521	"		525.1

