



# SOAR AEON 2024B Goodman High Throughput Spectrograph configurations



## Goodman RED Camera      Gratings: 400, 1200CaNIR; 2100      Filters: SDSS-g, r, i, z

**FOCUS:** SP Red 400M1 NO FILTER, SP Red 400M2 GG455, SP Red 1200\_CaNIR OG570, SP Red 2100\_5000, IM Red g-SDSS, IM Red r-SDSS, IM Red i-SDSS, IM Red z-SDSS

**BIAS:** SP RED 344ATTN3 2x2, SP RED 344ATTN3 1x2, IM RED 344ATTN3 2x2 (N=21 for each mode)

**FLATS** will be taken for each of the configurations shown in the tables below (N=15 for each config)

RED CAMERA: SPECTROSCOPY CONFIGURATIONS							
Readout: 344ATTN3 (Readout noise=3.89e-, Gain=1.48e-/ADU, readout time=8.7s with 2x2 binning)							
Grating	Mode	Filter	Slit (“)	Binning	Wavelength range (A)	OSM Designation	Config Status
400	400M1	---	1.0	2x2	3000-7050	GHTS_R_400m1_2x2	Existing
400	400M2	GG455	1.0	2x2	5000-9050	GHTS_R_400m2_2x2	Existing
1200_CaNIR	1200M7	OG570	0.8	1x2	7650-8800	GHTS_R_1200_CaNIR_1x2_slit0p8	Existing
2100	5000A	---	1.0	2x2	4685-5315	GHTS_R_2100_5000A_1x2_slit1p0	Existing

RED CAMERA: IMAGING CONFIGURATIONS		
Readout: 344ATTN3 (Readout noise=3.89e-, Gain=1.48e-/ADU, readout time=10s with 2x2 binning)		
Filters	Binning	OSM Designation
SDSS-g	2x2	GHTS_R_Img-g_2x2
SDSS-r	2x2	GHTS_R_Img-r_2x2
SDSS-i	2x2	GHTS_R_Img-i_2x2
SDSS-z	2x2	GHTS_R_Img-z_2x2