Summary of SUMI optical characteristics

	Pixel size (um)	Width	Height
CIV CCD (Hamamatsu)	24	1024	256
MgII CCD (Marconi)	13	1024	1024
SlitJaw CCD (Marconi)	13	1024	1024

Optical designs	**Telescope**	**Telescope / WP**	**Slit-Jaw camera**
CIV and MgII			
Spatial scale (sec./um)	0.05505	0.05505	TBD
FOV - WP vignetting (arc min)	NA	**13.44 (note 1)**	TBD
FOV - CCD limit (arc min)	12.21376	12.21376	TBD
Pixel size - spatial (arc sec)	0.71565	0.71565	
Average spot radius (um)	0.15500	1.77000	
Resolution - spatial	0.71585	0.74171	
WP focus shift	NA	+0.674mm	+0.674mm

Spectrograph designs	**RT design**	**RT & WP CCD with wl tilt**	**RT &WP CCD - no wl tilt**
		Note 2	Note 3
Zemax filename	fixfd	wp_MgIIccdTilt	TBD
WP focus shift	NA		
CIV	1548.201	1550.772	**2.571**
Spatial scale (sec./um)	0.03609	0.03608	
FOV - spatial (arc min)	3.69562	3.69482	
Pixel size - spatial (arc sec)	0.86616	0.86597	
Ave. spot radius-spatial (um)	14.73120	17.56147	
Resolution - spatial (arc sec)	1.37144	1.53492	
Wave scale (mA/um)	0.74900	0.75866	
FOV - wave (A)	**9.20371**	**9.32246**	
Pixel size - wave (mA)	17.97600	18.20793	
Ave. spot radius-wave (um)	10.40080	10.89753	
Resolution - wave (mA)	23.78835	24.59550	
MgII	2796.352	2803.531	**7.179**
Spatial scale (sec./um)	0.03774	0.03773	
FOV - spatial (arc min)	4.18651	4.18575	
Pixel size - spatial (arc sec)	0.49061	0.49052	
Ave. spot radius-spatial (um)	15.36000	19.56793	
Resolution - spatial (arc sec)	1.25888	1.55602	
Wave scale (mA/um)	1.66900	1.66726	
FOV - wave (A)	**22.21773**	**22.19453**	
Pixel size - wave (mA)	21.69700	21.67435	
Ave. spot radius-wave (um)	11.42000	14.53033	
Resolution - wave (mA)	43.86218	53.07858	

Abbreviations

RT = Roger Thomas
WP = waveplate
wl = wavelength

Note 1. Assumes a waveplate clear aperture of 22mm positioned 106mm in front of slit
Note 2. Adds the waveplate back to the telescope section and makes sure spectra on baselin
Tilt along wavelength axis allowed
Note 3. Same as Note 2 but detector normal to polarization beams

ıe cameras.