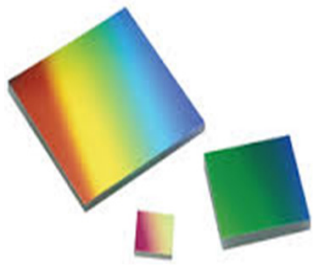
4. Collimating Mirror

Concave mirror with high reflectivity coating (protected or UV enhanced aluminium, silver or gold) placed at the focal distance from the entrance slit allowing the incident light to emerge as a collimated beam directed to the grating.

5. Grating

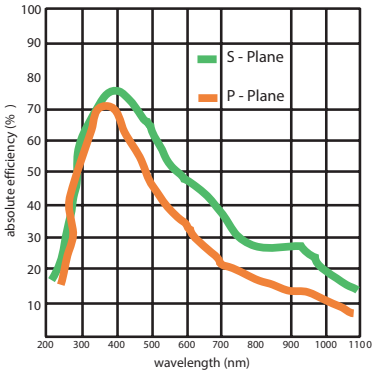
The dispersive element that "separates" the light into its spectral components allowing that each pixel of the detector receives a specific wavelength range. The grating is fixed and it is crucial for the resolution, wavelength range and sensitivity of the spectrometer. All gratings have a specific performance which can be found in the efficiency curves available on the next pages. An efficiency higher than 25% should be consider when choosing the wavelength range.



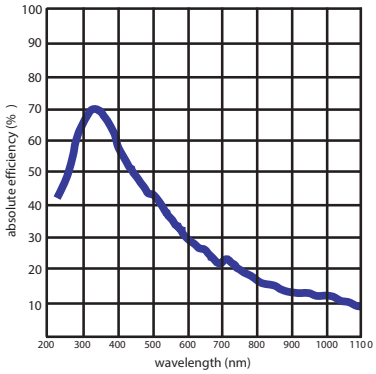
The following table contains the specifications and ordering information for the available gratings from Sarspec.

Part Number	Description	Useable range (nm)	Spectral range (nm)	Best Efficiency >25% (nm)
G500-300	Grating 500 lines/mm, blazed @ 300 nm	200 - 1100	850	250 - 750
G600-300	Grating 600 lines/mm, blazed @ 300 nm	200 - 1100	700	200 - 650
G600-500	Grating 600 lines/mm, blazed @ 500 nm	250 - 1100	700	300 - 1100
G600-750	Grating 600 lines/mm, blazed @ 750 nm	400 - 1100	670	400 - 1100
G1200-250	Grating 1200 lines/mm, blazed @ 250 nm	200 - 1100	320*	200 - 750
G1200-500	Grating 1200 lines/mm, blazed @ 500 nm	250 - 1100	280	300 - 1100
G1200-750	Grating 1200 lines/mm, blazed @ 750 nm	450 - 1100	250*	475 - 1100
G1800-250	Grating 1800 lines/mm, blazed @ 250 nm	200 - 800	220	200 - 450
G1800-500	Grating 1800 lines/mm, blazed @ 500 nm	200 - 1050	200*	320 - 1000
G2400-UV	Grating 2400 lines/mm, UV	200 - 800	150*	200 - 420
G2400-Vis	Grating 2400 lines/mm, Vis	220 - 820	100*	250 - 800
G3600-UV	Grating 3600 lines/mm, UV	200 - 500	80*	250 - 500

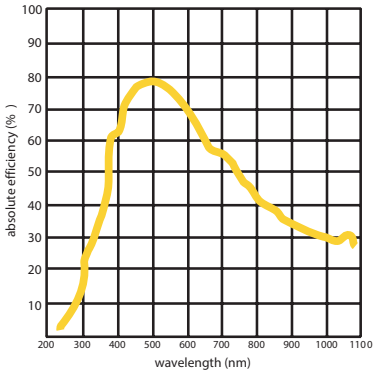
*Predicted Results



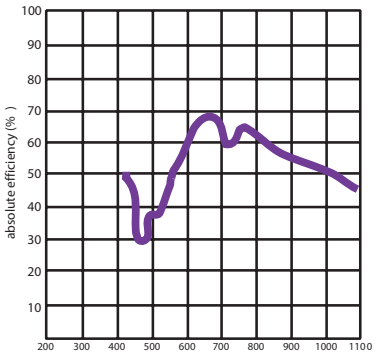
500 lines/mm blazed @ 300nm



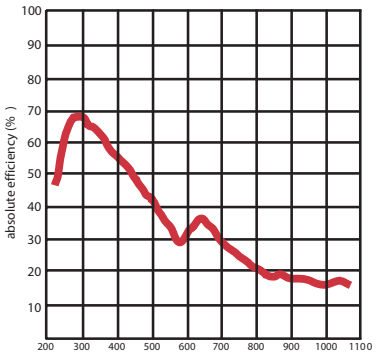
600 lines/mm blazed @ 300nm



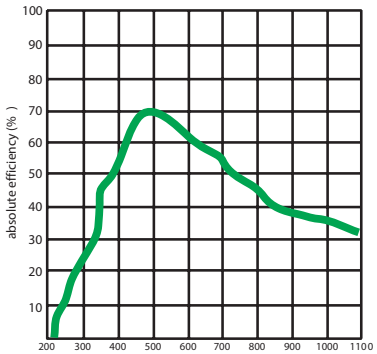
600 lines/mm blazed @ 500nm



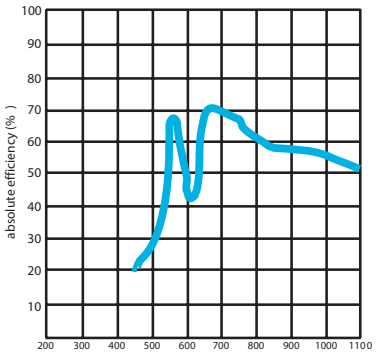
600 lines/mm blazed @ 750nm



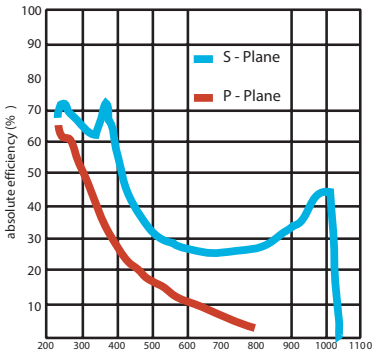
1200 lines/mm blazed @ 250nm



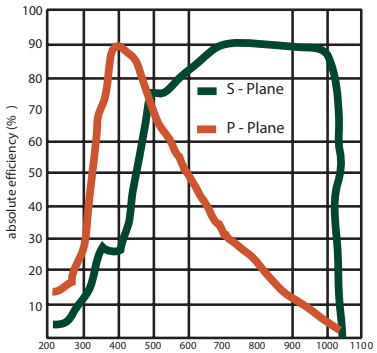
1200 lines/mm blazed @ 500nm



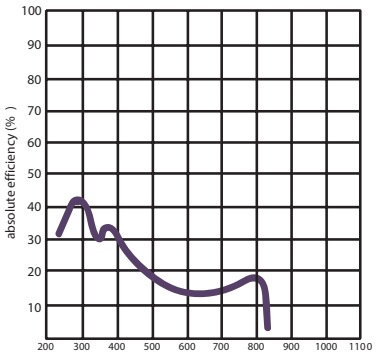
1200 lines/mm blazed @ 750nm



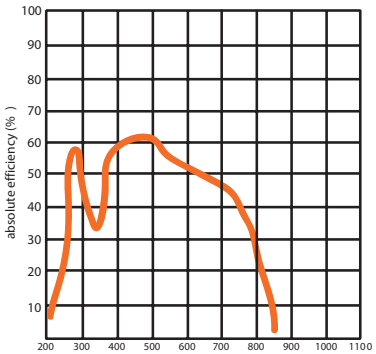
1800 lines/mm blazed @ 250nm



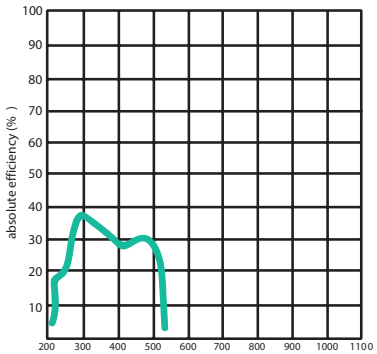
1800 lines/mm blazed @ 500nm



2400 lines/mm UV



2400 lines/mm Visible



3600 lines/mm UV

6. Focusing Mirror

Concave mirror with high reflectivity coating (protected or UV enhanced aluminium, silver or gold) that focus the diffracted beam into the detector. It is placed at the focal distance from the detector and "creates" multi-images of the entrance slit (object) with different wavelength into the pixels.

7. Order Sorting Filters

Order Sorting Filters prevents higher orders of diffraction to reach the detector. Sarspec has a wide range of solutions and selects the best option for each configuration.

Part Number	Description
OSF-CUSTOM	Order Sorting Filter - customized solution