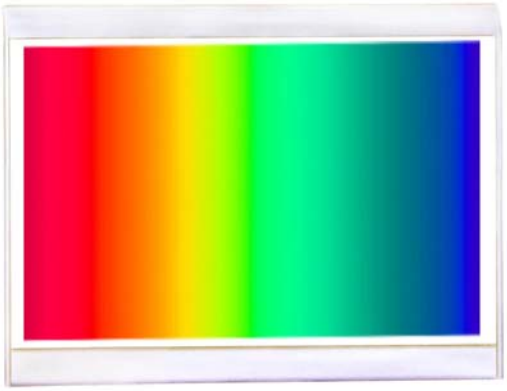
600 l/mm gratings at 840 nm

Wasatch Photonics
Ultimate Diffraction Gratings

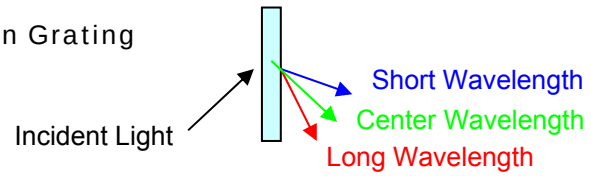


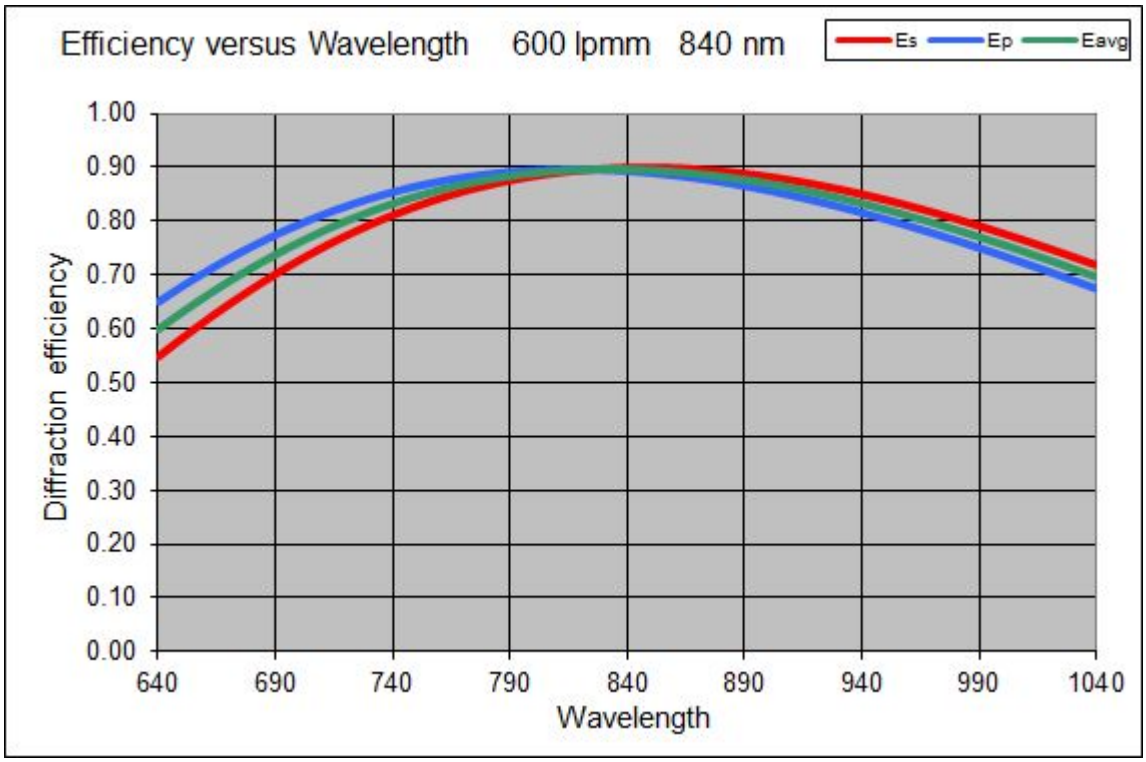
VOLUME PHASE HOLOGRAPHIC TRANSMISSION GRATINGS

600 l/mm at 840 nm

These high-efficiency grating are popular for Optical Coherence Tomography (OCT) and other applications in the region around 840 nm. They are created by using coherent laser light to write the interference pattern in dichromated gelatin. After processing, the grating is capped with a protective glass cover and then AR coated. The results are a grating with low scatter, high diffraction efficiency and low wavefront distortion. The grating is durable and can be cleaned using the same methods to clean AR coated optics.

Transmission Grating Geometry





SPECIFICATIONS

General	
Surface quality	60-40 scratch-dig
Diffracted Wavefront	< λ/5 rms @ 632.8 nm
Spatial Frequency	600 l/mm +/- 0.5 l/mm
CWL	840 nm
Angle of Incidence (AOI)	14.6° @ 840 nm
Thickness Tolerance	+/- 0.25
Dimension Tolerance	+0/-0.15
Lines Perpendicular to B	0.15°
Chamfers	0.25-0.75 mm face width
Chamfers Angle/Tolerance	45° +/-15°
AR Coating	< 0.5% Reflection; 640 nm - 1040 nm
Substrate and Cover glass	3 mm BK7 6 mm total thickness
Clear Aperture	30 mm x 40 mm
Dimensions	A=35 mm B=45 mm T=6 mm