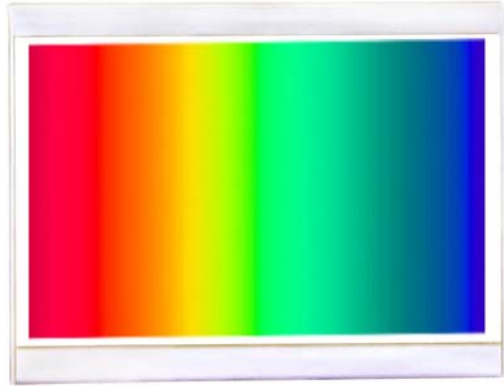


Wasatch Photonics

Ultimate Diffraction Gratings

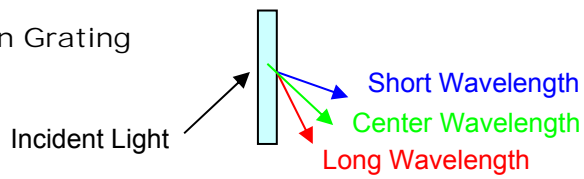


VOLUME PHASE HOLOGRAPHIC TRANSMISSION GRATINGS

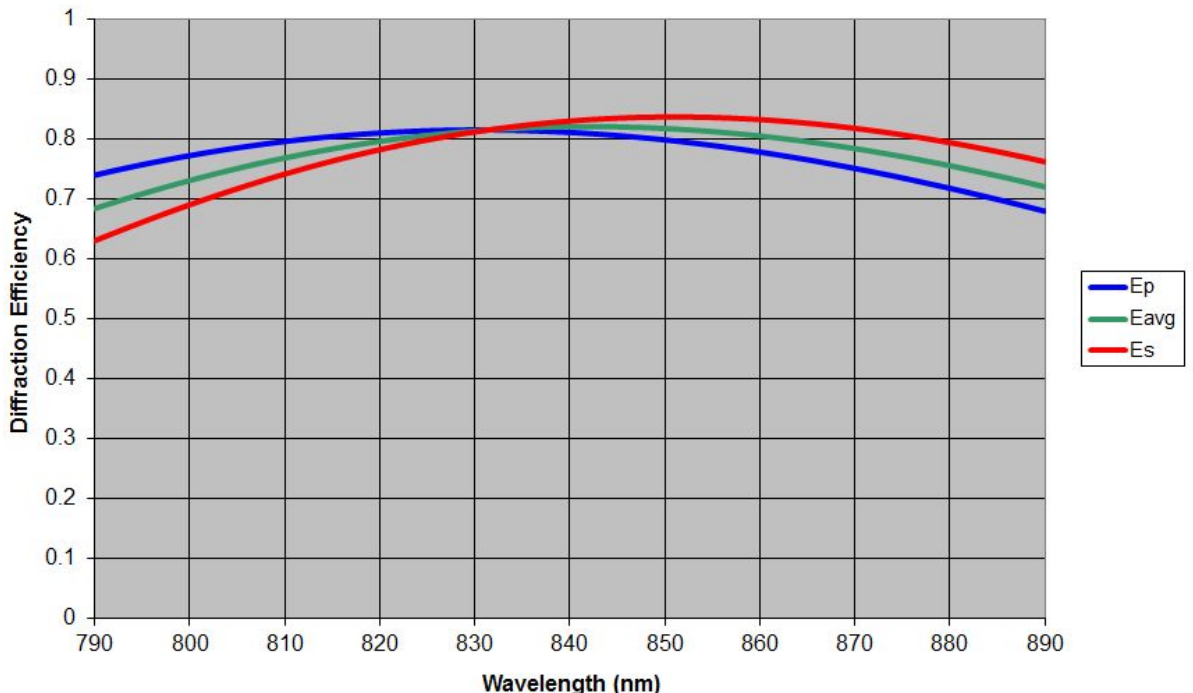
HD 1800 l/mm at 840 nm

Our patented HD gratings have a wider bandwidth than conventional volume phase holographic gratings. This one is popular for OCT (Optical Coherence Tomography) and other applications in the region of 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 other AR coated optics.

Transmission Grating Geometry



HD Grating 1800 l/mm 840 nm CWL 49.1 deg AOI = AOD



HD 1800 l/mm gratings at 840 nm

SPECIFICATIONS

General	
Surface quality	60-40 scratch-dig
Diffracted Wavefront	$< \lambda/5$ rms @ 632.8 nm
Spatial Frequency	1800 l/mm +/- 0.5 l/mm
CWL	840 nm
Angle of Incidence (AOI)	49.1° @ 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; 790 nm - 890 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

