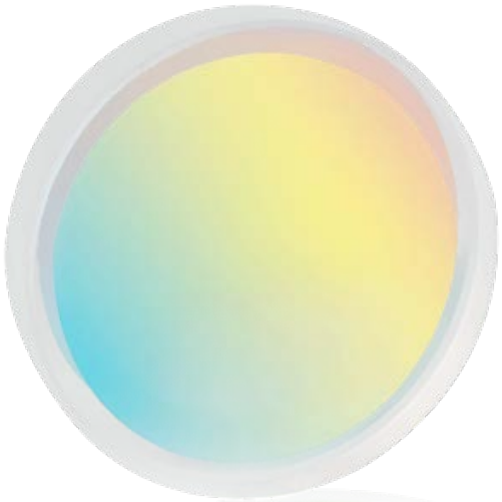
Wasatch Photonics

1000 l/mm @ 600 nm

VPH transmission grating for OCT



PERFORMANCE BENEFITS

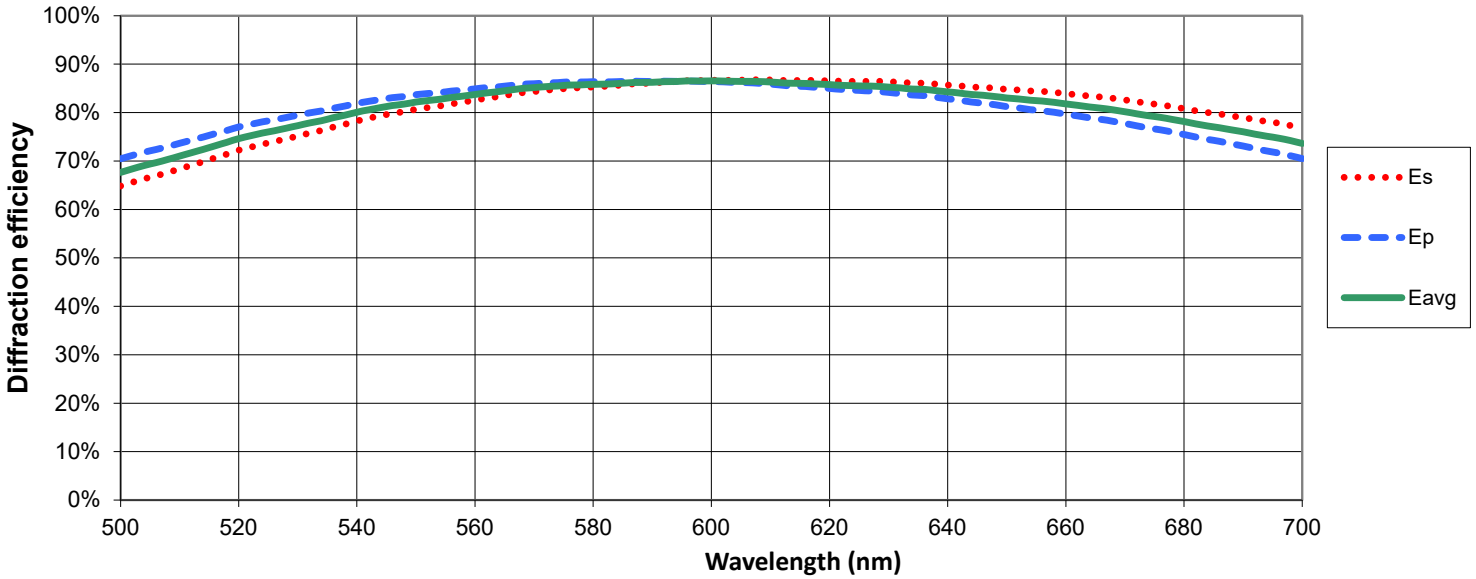
- Excellent 1st order diffraction efficiency for greater sensitivity and faster scan rates
- Superior uniformity over the full spectral band for better SNR and axial resolution
- Minimal polarization sensitivity across wavelength
- Low wavefront error to reduce roll-off
- Robust, durable optic for easy cleaning & handling
- Enables compact, transmissive optical designs

Maximize your sensitivity and scan speed with our patented grating designs

The clearest, deepest spectral domain optical coherence tomography (SD-OCT) images require an optical design that covers a broad bandwidth with maximum signal to noise ratio (SNR). That's why we developed our OCT gratings to have high efficiency and low polarization dependence across the full operating wavelength range. Choose from our range of stock gratings, or draw on our expertise in OCT to design your ideal grating. Either way, you'll be choosing the #1 grating used in ophthalmic imaging. Place our VPH gratings at the heart of your OCT spectrometer or system and achieve clearer images, faster.

Wasatch Photonics can also customize VPH gratings to your exact size, wavelength, and dispersion needs. Contact us to get started!

1st Order Diffraction Efficiency, 1000 l/mm @ 600 nm



Diffraction efficiency curves are theoretical. Actual performance will vary slightly.
Includes: glass absorption data, adhesive absorption data, film absorption data, manufacturing tolerances.

Specifications 1000 l/mm @ 600 nm	
Spatial Frequency	1000 l/mm +/- 0.5 l/mm
Wavelength Range	500 to 700 nm
Center Wavelength	600 nm
Angle of Incidence	17.5°
Dimensions	50.8 mm dia +0/-0.15 mm
Thickness	6 mm +0.25/-0.25 mm
Clear Aperture	44.8 mm dia +1/-0 mm
Polarization	Average of S and P
Surface Quality	60/40
Substrate	N-BK7 Equivalent
AR Coating	Yes
Grating Lines	Indicated by Mark on Edge
Wavefront	λ/5 RMS at 633 nm over clear aperture

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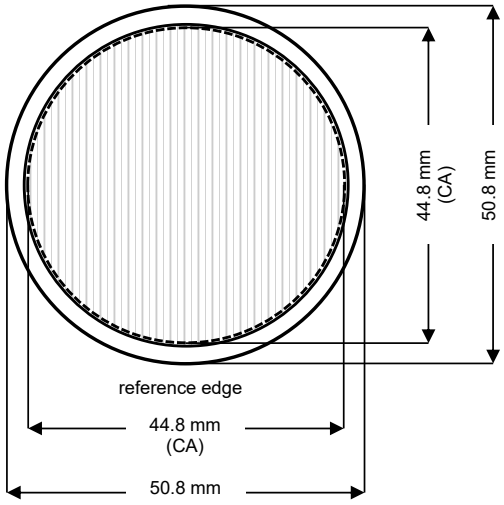
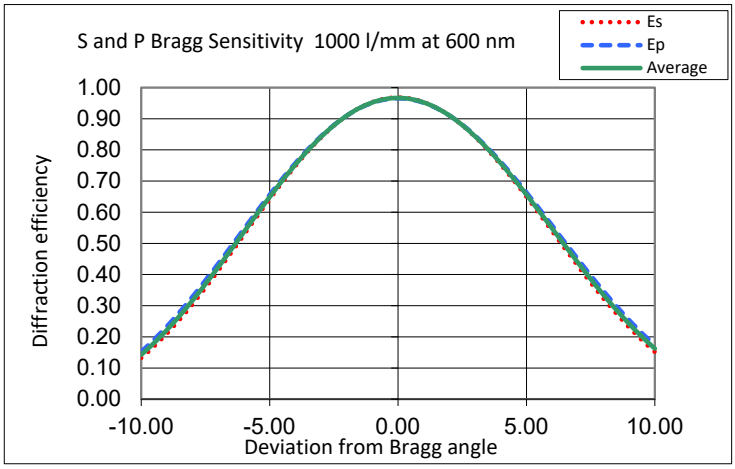
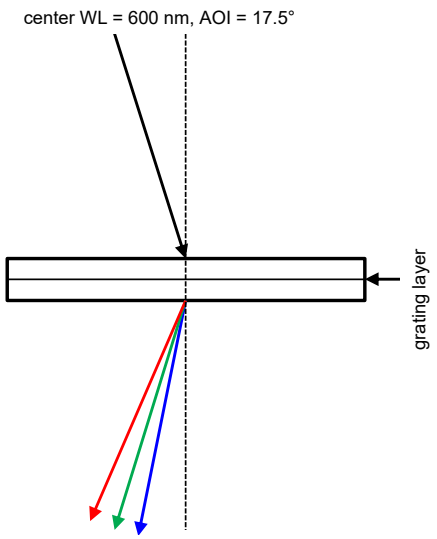


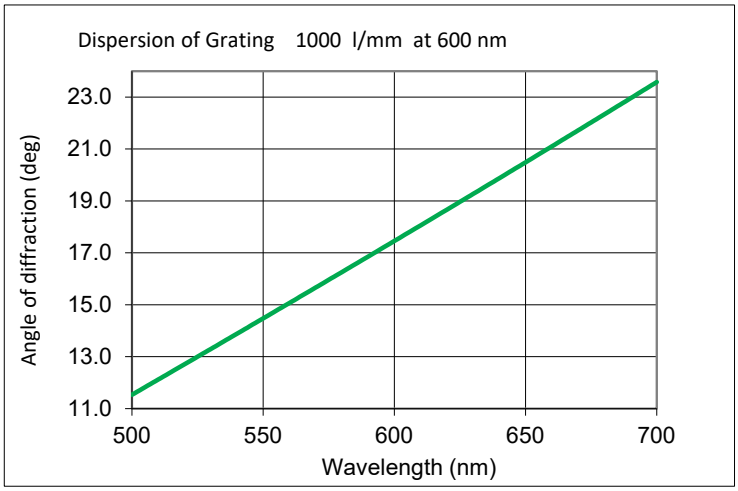




max WL = 700 nm, AOD = 23.6°

center WL = 600 nm, AOD = 17.5°

min WL = 500 nm, AOD = 11.5°



Cleaning, Handling, and Storage

Wasatch Photonics' Volume Phase Holographic Gratings, whether they are AR coated or not, can be easily be cleaned just as you would any other glass optic to remove fingerprints, dust, and contaminants. Use the standard optics cleaning method of “drop and drag”. Gently wipe the grating with a clean, lint-free cloth/wipe using acetone or alcohol without much pressure; reagent-grade methanol or Windex may also be used. Do not use polishing compounds, abrasive materials, etc. Hard rubbing with such chemical or polishing compounds may damage the AR coating. AR coated surfaces will pass the “Scotch Tape” test.

Gratings may be stored or used at temperatures up to 100C and in cryogenic conditions at less than 100K.