

Ultra Broadband Polarizer

Meadowlark Optics now offers an extremely broadband polarizer solution with up to 1,000,000:1 contrast ratio. Our new Ultra Broadband Polarizer performs well over a wavelength range of 300 to 2700 nm, rivaling the span of a Glan-Thompson calcite polarizer in a thin, compact design.

The proprietary composition of the Ultra Broadband Polarizer allows for an unprecedented width of spectral range at a fraction of the cost of other competing polarizers. This cost savings is coupled with a mount thickness of only 0.182" and high contrast over the entire range from UV to MWIR. Its wide acceptance angle, remarkably larger possible clear aperture, and compact, light-weight design allow for versatility in complex or space-limited optical setups. Ask about Meadowlark's wide range of custom options available.



Key Features

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- Extremely broadband
- Wide acceptance angle
- Custom sizes and shapes
- Excellent transmitted contrast
- Thin, compact design

Polarization Suite

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Linear Polarizers

- Precision Linear Polarizer
- High Contrast Linear Polarizer
- Ultra-High Contrast Linear Polarizer
- Glan-Thompson Polarizer
- Ultra Broadband Polarizer
- MWIR Polarizer
- Deep Ultraviolet Polarizer

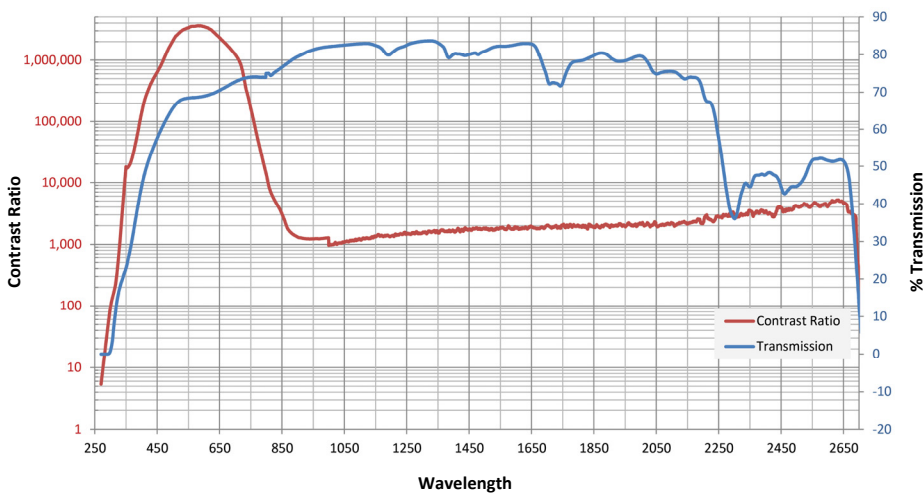
Beamsplitting Polarizers

- Wire Grid Versalight Polarizer
- Wire Grid Versalight Beam Splitter
- Laser Line Beamsplitting Polarizer
- Broadband Beamsplitting Polarizer
- Polarizing Bandpass Filter

Circular Polarizers

- Dichroic Circular Polarizer
- Beam Separator

Ultra Broadband Polarizer Contrast and Transmission vs. Wavelength (nm)



Typical transmission (blue) and Contrast (red) vs. Wavelength over the useable wavelength range of an uncoated part.



SPECIFICATIONS

Stock Version

| | |
|--|---|
| Substrate Material | UV Grade Fused Silica |
| Wavelength Range | 300 – 2700 nm (uncoated) |
| Transmitted Wavefront Distortion <i>(Custom options available for improvement of TWD)</i> | ≤ 3.5 λ per inch (P-V @ 633 nm) ≤ 1 λ per inch (RMS @ 633 nm) |
| Acceptance Angle | ± 40° |
| Surface Quality | 80 – 50 scratch-dig |
| Laser Damage Threshold <i>(if oriented in preferred direction)</i> | 0.80 J/cm ² at 355 nm 0.20 J/cm ² at 532 nm 0.30 J/cm ² at 1064 nm |
| Operating Temperature | -50°C to + 50°C |
| Polarizer Thickness | ~0.087 in. |
| Mount Thickness | 0.182 in. |
| Custom Options | |
| Size | 0.5" – 4.0" |
| Shape | Customer specified |

AR Coatings available. Please contact your Meadowlark Optics Sales Engineer for more information.

ORDERING INFORMATION

| Diameter in. (mm) | Clear Aperture in. (mm) | Part Number |
|------------------------------|------------------------------------|--------------------|
| Ø1.00 (25.4 mm) | Ø0.75 (19.3 mm) | GPM – 100 – UNC |
| Ø1.50 (25.4 mm) | Ø1.25 (32.0 mm) | GPM – 150 – UNC |
| Ø2.00 (50.8 mm) | Ø1.75 (44.7 mm) | GPM – 200 – UNC |

The standard sizes and specifications listed are only our most typically manufactured with many custom possibilities available.