

# Ultra-High Contrast Linear Polarizers



## Key Benefits

- Extremely high contrast greater than 10,000,000:1
- Unlaminated part usable to 400° C
- Wavelength ranges 340 to 5000 nm
- Absorptive Dichroic Glass

If you need extremely high contrast polarizers, then Meadowlark Optics now has the solution for you. Our UHP-UV series polarizers offer high contrast in the UV from 360 to 400 nm and our UHP-LNIR series polarizers offer high contrast over the exceptionally broad range from 650 to 5000 nm.

SPECIFICATIONS	
<b>Polarizer Material</b>	Dichroic Glass
<b>Substrate Material</b>	
Ultraviolet	Borofloat glass
Visible	D263T display float glass
Infrared	D263T display float glass
Long near-infrared	Design dependent
<b>Transmitted Wavefront Distortion (at 632.8nm)</b>	≤ 1λ per 10mm diameter
<b>Surface Quality</b>	40-20 scratch and dig
<b>Beam Deviation</b>	≤ 5 arc min
<b>Reflectance (per surface)</b>	~ 4.25% at normal incidence
<b>Diameter Tolerance</b>	
Mounted	±0.005 in.
Unmounted	+0/-0.010 in.
<b>Temperature Range *</b>	
Laminated	-20° C to +50° C
<p><i>Specifications above are for laminated Ultra-high contrast polarizers. For unlaminated parts, please contact your Meadowlark Optics Sales Engineer.</i></p> <p><i>* unlaminated parts can survive -50° C to +400° C</i></p>	

ORDERING INFORMATION			
Mounted and Laminated			
Diameter (in.)	Clear Aperture (in.)	Thickness (in.)	Part Number
1.00	0.40	0.25	UPM - 050 - UV
1.00	0.40	0.25	UPM - 050 - VIS
1.00	0.40	0.25	UPM - 050 - IR
1.00	0.40	0.25	UPM - 050 - LNIR
1.00	0.70	0.35	UPM - 100 - UV
1.00	0.70	0.35	UPM - 100 - VIS
1.00	0.70	0.35	UPM - 100 - IR
1.00	0.70	0.35	UPM - 100 - LNIR
Unmounted and Laminated			
Diameter (in.)	Clear Aperture (in.)	Thickness (in.)	Part Number
0.50	0.40	0.07	UHP - 050 - UV
0.50	0.40	0.07	UHP - 050 - VIS
0.50	0.40	0.07	UHP - 050 - IR
0.50	0.40	0.07	UHP - 050 - LNIR
1.00	0.80	0.07	UHP - 100 - UV
1.00	0.80	0.07	UHP - 100 - VIS
1.00	0.80	0.07	UHP - 100 - IR
1.00	0.80	0.07	UHP - 100 - LNIR
<p><i>Custom anti-reflection coating options are available. Please call your Meadowlark Optics Sales Engineer for assistance.</i></p> <p><i>For example:</i></p> <p><i>UV covers 340-410nm with R ≤ 1.0%</i></p> <p><i>IR-AR1 covers 450-750 nm with R ≤ 0.5%</i></p> <p><i>IR-AR2 covers 550-850 nm with R ≤ 0.5%</i></p> <p><i>IR-AR3 covers 600-1200 nm with R ≤ 0.5%</i></p> <p><i>IR-AR4 covers 1200-1750 nm with R ≤ 0.5%</i></p>			



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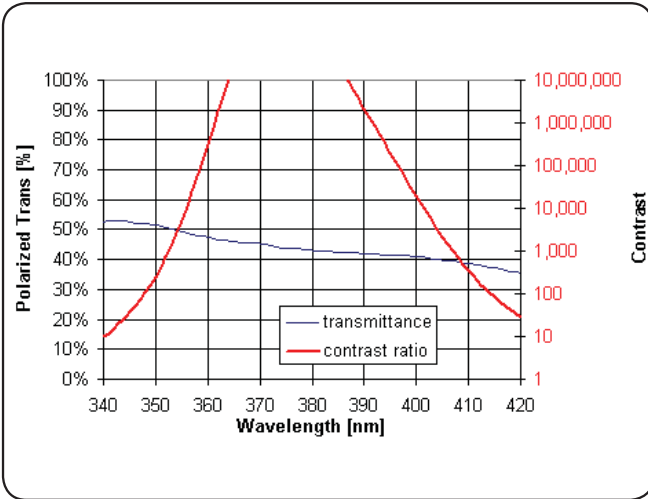


Fig. 1-8 Ultra-High Contrast UV Polarizer

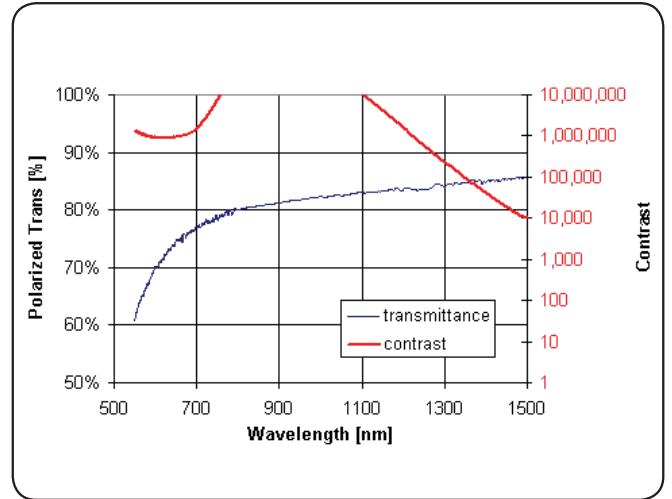


Fig. 1-9 Ultra-High Contrast VIS Polarizer

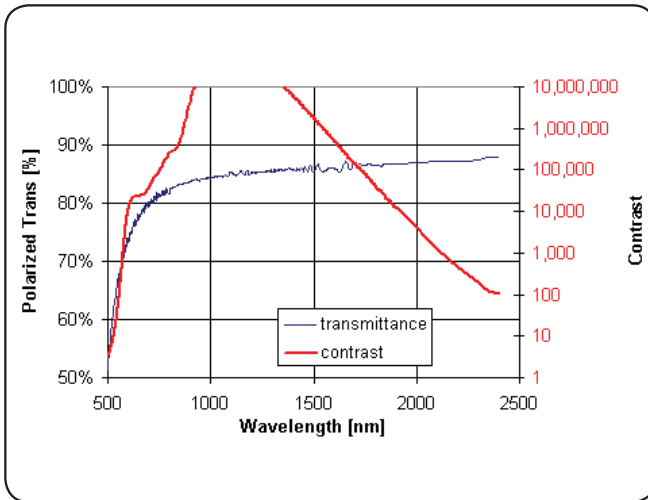


Fig. 1-10 Ultra-High Contrast IR Polarizer

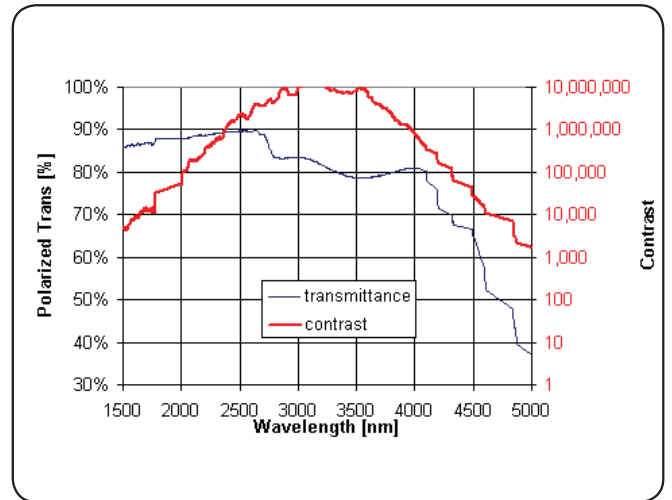


Fig. 1-11 Ultra-High Contrast LNIR Polarizer