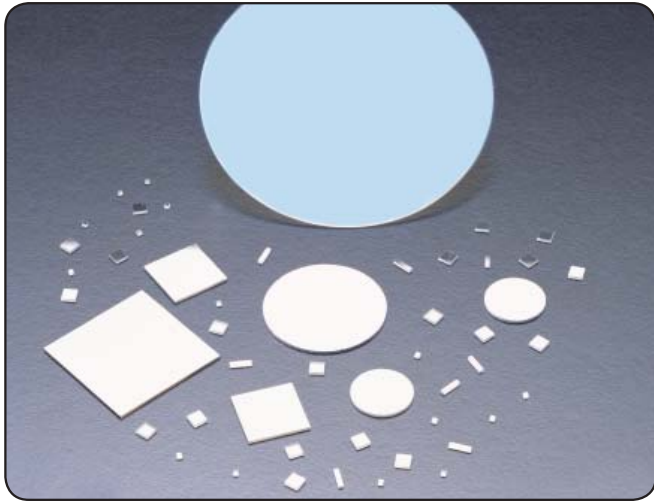


VersaLight™ Polarizers



Key Benefits

- Broadband use
- Reflective polarizer
- Large acceptance angle

VersaLight™ is constructed of a thin layer of aluminum MicroWires® on a glass substrate and sets a new standard for applications requiring high durability, contrast and a wide field of view from the visible through infrared wavelengths, including the telecom region.

VersaLight offers the performance quality of dichroic sheet polarizers while extending the operating temperature to 200° C.

The nature of VersaLight's MicroWire construction allows it to perform as an exceptional polarizing beam splitter. In operation, VersaLight reflects one polarization state and transmits another, both with high contrast. VersaLight offers the broadest band and highest field of view of any material currently available.

VersaLight can be shaped as needed and stacked to achieve very high contrast ratios. Large aperture VersaLight Polarizers are available on a custom basis, up to 8" rounds.

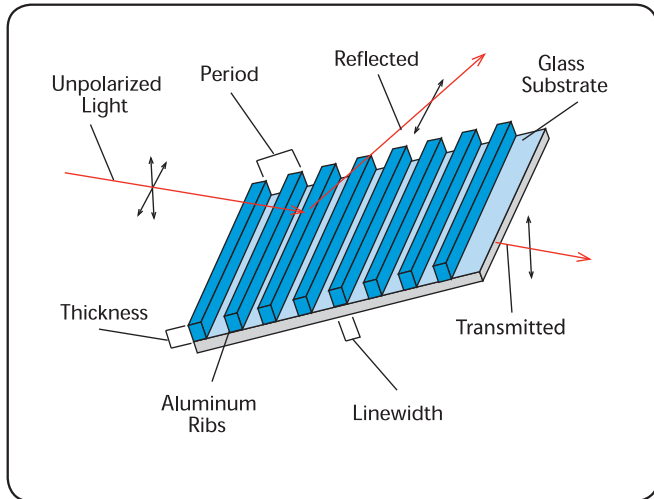


Fig. 1-12 VersaLight Polarizer construction and use

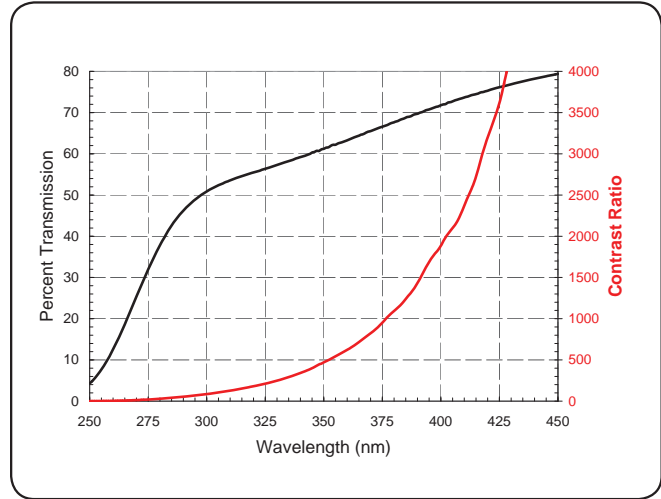


Fig. 1-13 Typical UV VersaLight Polarizer performance

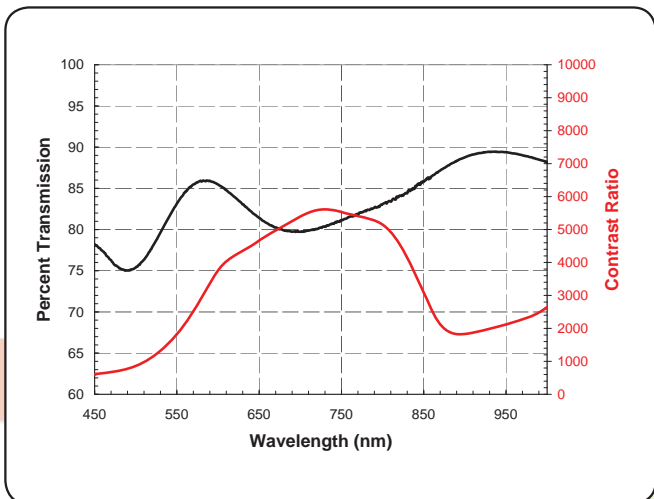


Fig. 1-14 Typical NIR VersaLight Polarizer performance

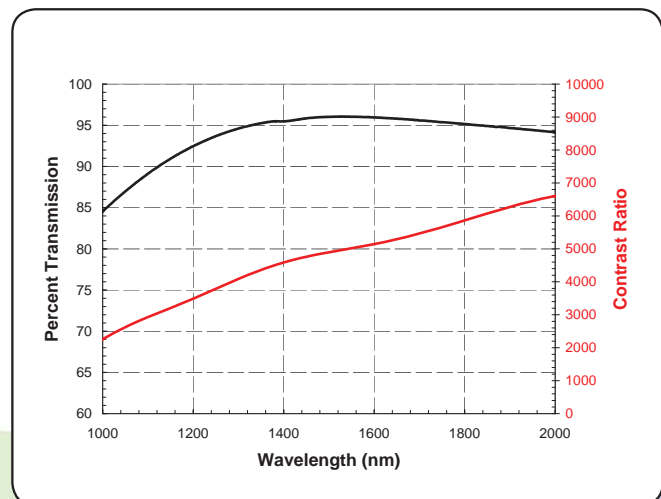


Fig. 1-15 Typical IR VersaLight Polarizer performance

VersaLight™ Polarizers

SPECIFICATIONS

Substrate Material

Ultraviolet	UV grade fused silica
Near Infrared	Precision float glass
Infrared	Precision float glass

Typical contrast in reflection > 30:1

Thickness

Ultraviolet	1.1 mm
Near Infrared	0.7 mm
Infrared	0.7 mm

Transmitted Wavefront Distortion (at 632.8 nm)

Ultraviolet	~ $\lambda/4$ per inch
Near Infrared	~ 5 λ per inch
Infrared	~ 5 λ per inch

Surface Quality 80-50 scratch and dig

Beam Deviation ≤ 1 arc min

Wavelength Range 400 nm to > 2000 nm

Maximum Temperature 200° C for single layer

Laser Damage Threshold 50 KW/cm², CW, 1540 nm

Outside Dimensions

Round	1 to 200 mm
Square	1 to 140 mm

On ultraviolet VersaLight, the wire grid surface will be unprotected, fragile and cannot be touched.

UV VersaLight is optimized for 300-450nm

NIR VersaLight is optimized for 450-1000nm

IR VersaLight is optimized for 1000-2000nm

ORDERING INFORMATION

Standard VersaLight

Dimension	AR Coating	Part Number
<i>Square</i>		
0.5 x 0.5 in.	UV	VLS-050-UV
	NIR	VLS-050-NIR
	IR	VLS-050-IR
1.0 x 1.0 in.	UV	VLS-100-UV
	NIR	VLS-100-NIR
	IR	VLS-100-IR
2.0 x 2.0 in.	UV	VLS-200-UV
	NIR	VLS-200-NIR
	IR	VLS-200-IR
<i>Round</i>		
0.5 in. diameter	UV	VLR-050-UV
	NIR	VLR-050-NIR
	IR	VLR-050-IR
1.0 in. diameter	UV	VLR-100-UV
	NIR	VLR-100-NIR
	IR	VLR-100-IR
2.0 in. diameter	UV	VLR-200-UV
	NIR	VLR-200-NIR
	IR	VLR-200-IR

Call for information on even higher contrast, doubled assemblies.

Custom sizes are available. Please contact your Meadowlark Optics sales engineer for assistance.



光技術をサポートする

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