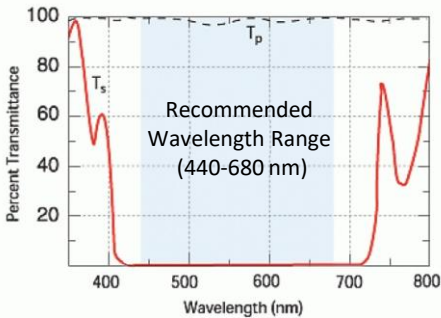


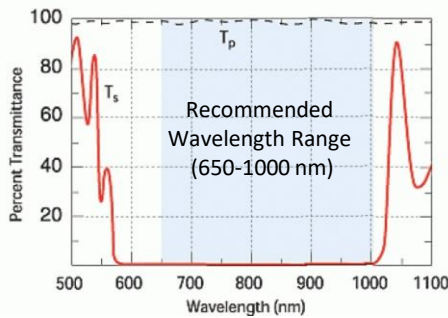
Broadband Beamsplitting Polarizer

For applications involving broadband or tunable wavelength sources, Meadowlark Optics presents a line of Broadband Beamsplitting Polarizers covering the visible to near infrared region. These cubes offer increased utility for a range of polarization needs. As with the Laser Line Beamsplitting Polarizers, two usable polarization forms result, conveniently separated by 90°. For unpolarized input, incident light will be equally split, 50% transmitted and reflected. Varying the input polarization axis will change the split ratio. These broadband designs require well-collimated input and accurate angular alignment for optimal performance. All four entrance and exit faces are antireflection coated to minimize losses.

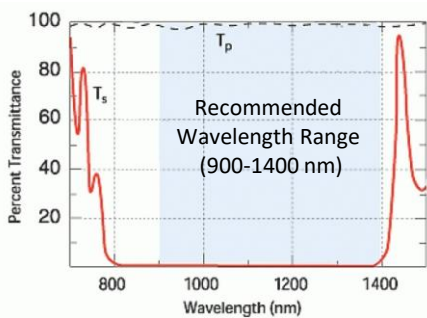
Typical Design Performance of Visible Broadband Beamsplitting Polarizer



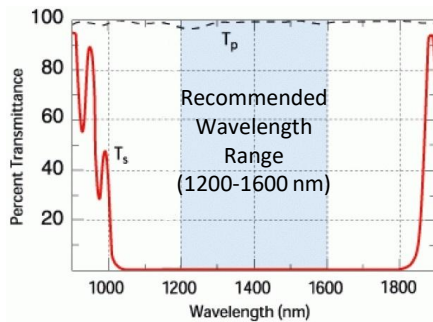
Typical Design Performance of IR1 Broadband Beamsplitting Polarizer



Typical Design Performance of IR2 Broadband Beamsplitting Polarizer



Typical Design Performance of IR3 Broadband Beamsplitting Polarizer



Key Features

• • •

High contrast

Low reflectance

Broad spectral range

High damage threshold

Polarization Suite

• • •

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



SPECIFICATIONS	
Wavelength Range	
Visible	440 – 680 nm
Near IR1	650 – 1000 nm
Near IR2	900 – 1400 nm
Near IR3	1200 – 1600 nm
Substrate Material	SF 2
Surface Quality	40 – 20 scratch - dig
Surface Flatness	$\leq \lambda/8$ (@ 633 nm)
Beam Deviation	≤ 3 arc-min
Dimension Tolerance	$\leq +0/-0.20$ mm
Reflectance (per surface)	$\leq 0.5\%$ avg
Contrast Ratio	$\geq 500:1$ (Average)
Transmission (p-polarized light)	$\geq 90\%$ avg
Transmission (s-polarized light)	$\geq 99.8\%$ avg
Clear Aperture	Central 85% diameter
Temperature Range	-50°C to +80°C
Laser Damage Threshold	≥ 0.5 J/cm ² (10 ns)

ORDERING INFORMATION		
<i>Clear Aperture</i>	<i>Dimensions +0.00/– 0.01 in. (+0.00/– 0.25 mm)</i>	<i>Part Number</i>
Visible (440 – 680 nm)		
0.425 × 0.425 × 0.425 (10.8 × 10.8 × 10.8 mm)	0.50 × 0.50 × 0.50 (12.7 × 12.7 × 12.7 mm)	BB – 050 – VIS
0.85 × 0.85 × 0.85 (21.6 × 21.6 × 21.6 mm)	1.00 × 1.00 × 1.00 (25.4 × 25.4 × 25.4 mm)	BB – 100 – VIS
Near IR1 (650 – 1000 nm)		
0.425 × 0.425 × 0.425 (10.8 × 10.8 × 10.8 mm)	0.50 × 0.50 × 0.50 (12.7 × 12.7 × 12.7 mm)	BB – 050 – IR1
0.85 × 0.85 × 0.85 (21.6 × 21.6 × 21.6 mm)	1.00 × 1.00 × 1.00 (25.4 × 25.4 × 25.4 mm)	BB – 100 – IR1
Near IR2 (900 – 1400 nm)		
0.425 × 0.425 × 0.425 (10.8 × 10.8 × 10.8 mm)	0.50 × 0.50 × 0.50 (12.7 × 12.7 × 12.7 mm)	BB – 050 – IR2
0.85 × 0.85 × 0.85 (21.6 × 21.6 × 21.6 mm)	1.00 × 1.00 × 1.00 (25.4 × 25.4 × 25.4 mm)	BB – 100 – IR2
Near IR3 (1200 – 1600 nm)		
0.425 × 0.425 × 0.425 (10.8 × 10.8 × 10.8 mm)	0.50 × 0.50 × 0.50 (12.7 × 12.7 × 12.7 mm)	BB – 050 – IR3
0.85 × 0.85 × 0.85 (21.6 × 21.6 × 21.6 mm)	1.00 × 1.00 × 1.00 (25.4 × 25.4 × 25.4 mm)	BB – 100 – IR3

Custom sizes available. Please contact one of our Solutions Engineers for more information.