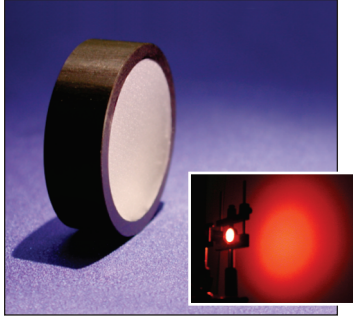


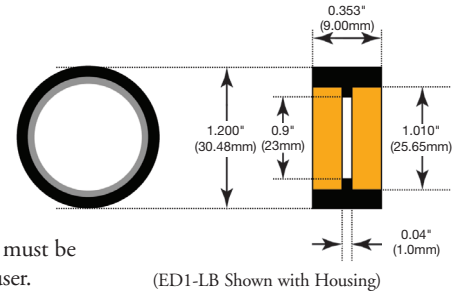
Optics

- Optical Systems
- Free Space Isolators
- E-O Devices
- Spherical Singlets
- Multi-Element Lenses
- Cylindrical Lenses
- Aspheric Lenses
- Mirrors
- Diffusers & Lens Arrays**
- Windows
- Prisms
- Gratings
- Polarization Optics
- Beamsplitters
- Filters & Attenuators
- Gas Cells

Lambertian Pattern Engineered Diffuser™



Lambertian Distribution Without the Losses Typically Associated With Opal Glass



To function as intended, the collimated beam must be incident on the engineered surface of the diffuser.

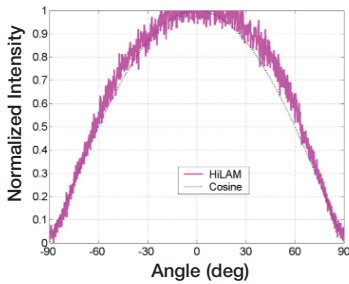
Scattered Properties

- **Scatter Shape:** Lambertian (Cosine)
- **Divergence:**¹ 120° (50%-Max)
168° (10%-Max)
- **Incident Beam Size:** 0.5mm or Greater
- **Transmission Efficiency:** >70%
- **Design Wavelength:** Achromatic (400-700nm)
- **Material:** Polymer Layer on Glass Substrate
- **Index of Refraction:** 1.53
- **Size:** Ø1" (Ø25.4mm)
- **Thickness:** 0.353" (9.0mm)
- **Clear Aperture:** 95% of Diameter
- **Transmission Spectrum:** 380-1100nm
- **Maximum Temperature:** 120°C

Physical Properties

¹) Angles defined for 633nm and collimated illumination. Actual angles may differ from nominal values for other wavelengths or degree of collimation.

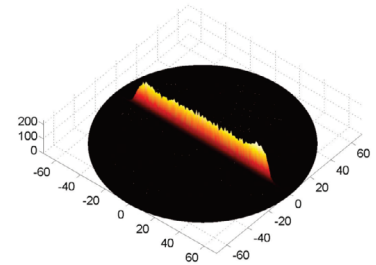
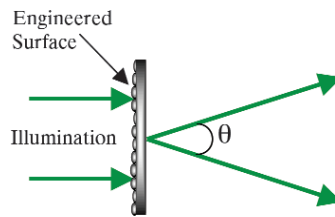
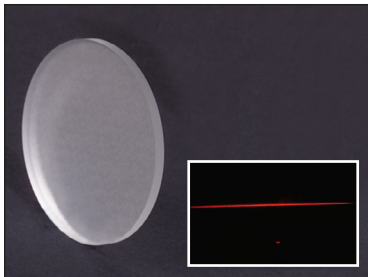
Output Profile for a Gaussian Input



Manufactured by for Thorlabs

ITEM #	\$	£	€	RMB	DESCRIPTION
ED1-LB	\$ 225.00	£ 141.80	€ 209,30	¥ 2,148.80	Ø1" Round Lambertian Diffuser

Line Pattern Engineered Diffuser™



Scattered Properties

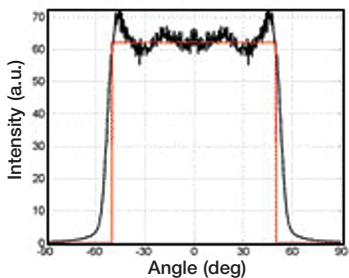
- **Scatter Shape:** Line
- **Divergence:**¹ 100° (Flat Region)
105° (50%-Max)
115° (10%-Max)
- **Incident Beam Size:** 0.5mm or Greater
- **Transmission Efficiency:** 90%
- **Design Wavelength:** Achromatic (400-700nm)

Physical Properties

- **Material:** Injection Molded ZEONOR
- **Index of Refraction:** 1.53
- **Size:** Ø1" (Ø25.4mm)
- **Thickness:** 1.5mm
- **Clear Aperture:** 95% of Diameter
- **Transmission Spectrum:** 380-1100nm
- **Maximum Temperature:** 120°C

¹) Angles defined for 633nm and collimated illumination. Actual angles may differ from nominal values for other wavelengths or degree of collimation.

Output Profile for a Gaussian Input



ITEM #	\$	£	€	RMB	DESCRIPTION
ED1-L4100	\$ 114.00	£ 71.80	€ 106,00	¥ 1,088.70	Ø1" Round 0.4° x100° Line Generator