



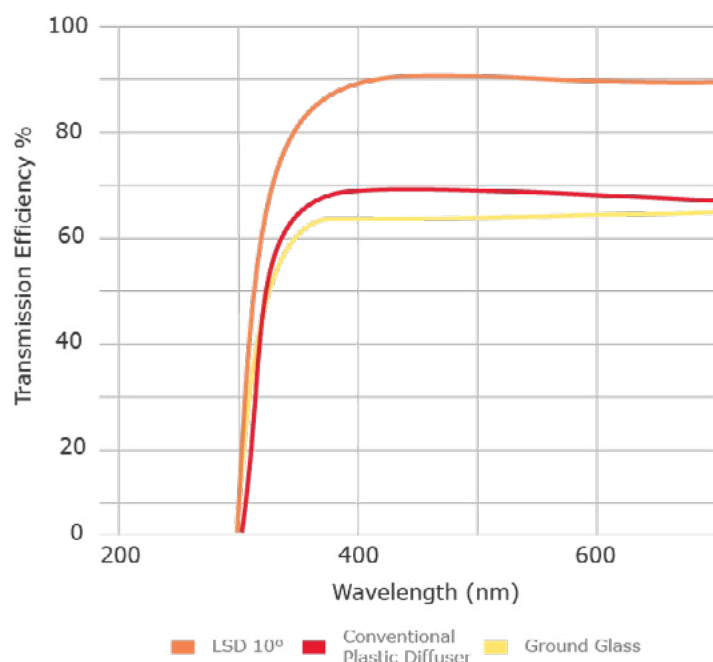
## Light Shaping Diffusers®

*Architectural and Event Lighting*

The conventional design of lighting systems is changing from larger extended sources to smaller discrete ones due to the increased availability of cost effective, high brightness LEDs. These new designs require diffusers capable of delivering uniformity and beam shaping at high transmission rates. With the largest library of diffusion angles in circular or elliptical profiles, Luminat Light Shaping Diffusers® provide practical solutions to lighting designers. Whether used for general lighting or custom applications, Luminat LSDs can set a mood, flood a wall, brighten a hallway, or illuminate a stage with unsurpassed results. Zero order or a specular component will be less than 1% for visible wavelengths, but may be higher if our standard product is used with wavelengths >700nm. Luminat is able to design custom diffuser for wavelengths in the infra-red region. Please contact [sales@luminitco.com](mailto:sales@luminitco.com) for further details.

## Features

- Reduces color over angle and improves color mixing
- Precise beam angle control
- Very high transmission
- High-quality, uniform output
- Useful for multi-color wall wash applications
- UV blocking polycarbonate available for outdoor applications



## Applications

- Interior/exterior architectural structures
- Entertainment/concert lighting
- Museums and exhibitions

## Transmission Wavelength

- 400-700nm for standard polyester, polycarbonate and acrylic

## Transmission Efficiency

- 85-92% dependent on angle and wavelength
- 88-92% over visible spectrum (typical)

## Specifications

### Brightness Uniformity

$\geq 85\%$

### Temperature Range

*Polyester and Polycarbonate:*  $-30^{\circ}\text{C}$  to  $80^{\circ}\text{C}$

*Acrylic:*  $-40^{\circ}\text{C}$  to  $80^{\circ}\text{C}$

### Humidity

Cycled at 95% for 24 hours



## Formats

Available in seamless film and sheets.

## Light Shaping Diffuser® Options

	Film	Sheets
Angles (FWHM)	80°×50°    1°×60°	95°×25°    40°
	60°×10°    40°×1°	75°×45°    30°
	30°×5°    60°×1°	60°×10°    20°
	60°    15°×1°	60°×1°    10°
	30°    60°×30°	40°×1°    5°
	20°    50°×3°	30°×5°    2°
	10°    40°×10°	30°×1°    1°
	5°    30°×1°	80°    0.5°
	60°	
Substrate & Thickness	Polycarbonate	Polycarbonate
	P1 - 0.010"	P8 - 0.118"
	Polyester	P3 - 0.030"
	E5 - 0.005"	P6 - 0.060"
Size	24" × 24"	20" × 20"
	Roll Width: 24"	
Options	- Protective Film	
	- Pressure Sensitive Adhesive (PSA)	

Custom OEM products, including a variety of angles, sizes, shapes, cut-to-print parts, and substrate materials including two-sided diffusers (PCS), color tints, and low birefringent substrates are available.

Download our other product datasheets at  
<https://luminitco.com/downloads/data-sheets>

