

20° Diffusing Angle 2" x 2" Unmounted Sheet



Stock #55-852 1 In Stock

1 C\$382^{.20}

ADD TO CART

| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-5 | C\$382.20 each |
| Qty 6+ | C\$326.20 each |
| Need More? | Request Quote |

| Product Downloads | |
|-------------------|------------------------------|
| STEP:step | Curve:pdf |
| PDF Drawing:pdf | IGES:igs |
| eDrawing:eprt | |
| EO Spec Sheet | Download All |

General

Type: Holographic Diffuser

Physical & Mechanical Properties

| | | | |
|------------------------------------|---------------|-----------------------------|-----------|
| Dimensional Tolerance (mm): | ±0.5 | Dimensions (inches): | 2 x 2 |
| Dimensions (mm): | 50.80 x 50.80 | Thickness (mm): | 0.78 |
| Width (mm): | 50.80 | Construction: | Unmounted |
| Length (mm): | 50.80 | | |

Optical Properties

| | | | |
|-------------------------------|---------------|-------------------------------------|---|
| Angle Tolerance (°): | ±2 | Diffusing Angle (°): | 20 (FWHM) |
| Substrate: | Polycarbonate | Transmission (%): | >85 |
| Wavelength Range (nm): | 400 - 700 | Damage Threshold, By Design: | 0.22 J/cm ² @ 1064nm, 10ns (typical) |

Environmental & Durability Factors

| | |
|------------------------------------|------------------------------------|
| Operating Temperature (°C): | -30 to +100 (Maximum of 240 Hours) |
|------------------------------------|------------------------------------|

Regulatory Compliance

| | |
|---|---|
| RoHS 2015: Compliant | Certificate of Conformance: View |
| Reach 247: Compliant | |

Product Details

- Transmission Efficiency >85%
- Elliptical and Circular Diffusing Outputs
- Ideal for Visible and Near-Infrared Applications
- **UV Holographic Diffusers** Also Available

Holographic Diffusers are used to control the diffuse area of illumination and increase transmission efficiency to greater than 90% from filament lamps, LEDs, arc lamps, and other sources. **Standard ground glass** and **opal glass** will produce diffuse illumination, but the diffuse light area will often exceed the requirements of the system. This over-illumination, associated with traditional diffusers, reduces efficiency and can often lead to added costs by requiring higher power illumination sources, lenses, and possibly filters. It is important to note that diffusing angles are given for a collimated input beam and angular divergence will vary for different incidence angles.

Unlike many holographic elements, these specific polycarbonate components transmit light in both the visible and near-infrared. Zero order, or a specular component, of transmitted light is less than 1% for visible wavelengths, but may be higher if these diffusers are used at wavelengths >700nm. Available individually, as unmounted sheets, or in sets of four filters. Holographic Diffusers can be cleaned with a de-ionized water rinse, followed by a forced air drying. Wipe gently with lens tissue soaked with methanol, followed with a forced clean air or nitrogen drying. Holographic Diffusers are resistant to methanol and methylene chloride.

Note: Matte surface should face the light source. To clean holographic diffusers, dampen a lint free cloth wipe with methanol and gently wipe the entire diffuser surface in a gentle, circular pattern. Immediately and carefully blow off the clean diffuser area with dry compressed air. Caution: cleaning may cause a change in the optical performance of the diffuser.

Technical Information

Accessories

Note: Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us [here](#).

| | Title | Compare | Stock Number | Price | Buy |
|-----------------------|--|---------|--|---|--|
| MORE+ | 25mm Diameter Narrow Circular Holographic Diffuser Kit | | #48-011 | C\$917.00 Request Quote | 3 In Stock <input type="text" value="1"/> |
| MORE+ | 25mm Diameter Medium Circular Holographic Diffuser Kit | | #53-869 | C\$917.00 Request Quote | 1 In Stock <input type="text" value="1"/> |
| MORE+ | 25mm Diameter Wide Circular Holographic Diffuser Kit | | #53-871 | C\$917.00 Request Quote | CONTACT US <input type="text" value="1"/> |
| MORE+ | 25mm Diameter Narrow Elliptical Holographic Diffuser Kit | | #56-055 CLEARANCE | C\$689.93 Request Quote | 1 In Stock <input type="text" value="1"/> |
| MORE+ | 25mm Diameter Medium Elliptical Holographic Diffuser Kit | | #53-873 | C\$917.00 Request Quote | CONTACT US <input type="text" value="1"/> |
| MORE+ | 50mm Diameter Narrow Circular Holographic Diffuser Kit | | #48-012 | C\$1,260.00 Request Quote | CONTACT US <input type="text" value="1"/> |
| MORE+ | 50mm Diameter Medium Circular Holographic Diffuser Kit | | #53-870 | C\$1,260.00 Request Quote | CONTACT US <input type="text" value="1"/> |
| MORE+ | 50mm Diameter Wide Circular Holographic Diffuser Kit | | #53-872 | C\$1,260.00 Request Quote | CONTACT US <input type="text" value="1"/> |
| MORE+ | 50mm Diameter Medium Elliptical Holographic Diffuser Kit | | #53-874 | C\$1,260.00 Request Quote | 1 In Stock <input type="text" value="1"/> |

Related Products



Optic Component Mounts



C, S, and T-Mount Circular Optic Mounts



Prematex® Cleaning/Wiping Cloths



UV Fused Silica Holographic Diffusers

Frequently Purchased Together



#03-631 - 0.5mm Thick, C-Mount Brass Spacer Ring
C\$15.75

Qty



#03-632 - 1.0mm Thick, C-Mount Brass Spacer Ring
C\$15.75

Qty



#03-633 - 2.0mm Thick, C-Mount Brass Spacer Ring
C\$15.75

Qty



#32-972 - 50.0mm Dia. x 100.0mm FL, Uncoated, Plano-Convex Lens
C\$69.30

Qty

Compatible Mounts

| | Title | Type | Compare | Stock Number | Price | Buy |
|--|---------------------------------|-------|---------|--------------|--|---|
| | 40mm Sq., Fixed Filter Holder | Fixed | | #54-997 | C\$130.90 Request Quote | 16 In Stock <input type="text" value="1"/> |
| | 60mm sq - Rectangular Bar Clamp | Fixed | | #54-995 | C\$176.40 Request Quote | 20+ In Stock <input type="text" value="1"/> |

Check out our full selection of mounts [here](#).

Resources

Media Type

- Application Note
- FAQ
- Glossary
- Video

APPLICATION NOTE

Understanding White Diffusing Glass

APPLICATION NOTE

Diffuser Selection Guide

FAQ

What is the difference between around glass...

FAQ

FAQ

FAQ

Why do you list
a range of
thickness
values for...

When should I
consider using
a holographic
diffuser?

How should I
clean my
holographic
diffusers?

[View More](#)