

## 63.5mm Clear Aperture, 30 Arcsec, Aluminum Retroreflector



Stock **#46-179** CLEARANCE **1 In Stock**

- 1 + €1.090<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | €1.090,00 each                |
| Qty 10-24      | €981,00 each                  |
| Need More?     | <a href="#">Request Quote</a> |

**i** Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Retroreflector

Physical & Mechanical Properties

Clear Aperture CA (mm):

63.5

Diameter (mm):

89.40

**Dimensional Tolerance (mm):**

$\pm 1.6$

## Optical Properties

**Beam Deviation (arcsec):**

30.00

**Coating:**

### Enhanced Aluminum (450-650nm)

**Exiting Wavefront Accuracy:**

9λ

**Substrate:** ☐

**BOROFLOAT®**

**Surface Quality:**

80-50

**Image Orientation:**

Left-Handed

**Ray Deviation (°):**

180

**Wavelength Range (nm):**

400 - 700

## Threading & Mounting

### Mounting Threads:

(6) 1/4-20, (5) M6 x 1.0

## Regulatory Compliance

**RoHS 2015:**

**Compliant**

**REACH 201:**

**Compliant**

**Certificate of Conformance:**

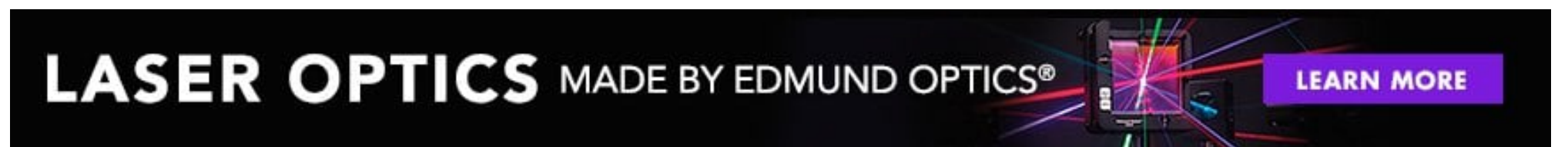
View

## Product Details

- Incident Light is Reflected Back to the Source
- Hollow Lightweight Design
- No Material Absorption or Chromatic Aberration

Hollow Retroreflectors are constructed of three first surface mirrors assembled into a corner cube. This produces a lightweight "hollow corner cube" that is totally insensitive to position and movement. The result is that parallel incident light is reflected back to the source with great accuracy, regardless of the angle of incidence. Since the optical path is in air, this configuration eliminates material absorption and chromatic aberrations present in solid glass prism-type retroreflectors. The larger housings feature a variety of mounting holes on the back plate.

The specified beam deviation value of each Hollow Retroreflector is the maximum deviation from parallelism of any single return beam from any of the six sub-apertures, when the retroreflector is fully illuminated. Exiting wavefront is the resultant peak-to-valley wavefront deformation from a fully illuminated retroreflector, which is listed in factors of  $\lambda$  (where  $\lambda = 633\text{nm}$ ). The unique, patented cushion mounting makes these Hollow Retroreflectors extremely resistant to shock.



## Technical Information

| Clear Aperture (CA) | Diameter | L1       | L2      | A       | B       | C         |
|---------------------|----------|----------|---------|---------|---------|-----------|
| 6.4mm               | 8.1mm    | 8.1mm *  | —       | —       | —       | —         |
| 12.7mm              | 14.6mm   | 19.1mm * | —       | —       | —       | M3 x0.5   |
| 25.4mm              | 41.3mm   | 36.5mm   | 49.2mm  | 44.5mm  | 50.8mm  | 1/4-20    |
| 50.8mm              | 76.2mm   | 62.0mm   | 79.5mm  | 78.7mm  | 94.2mm  | 1/4-20 ** |
| 63.5mm              | 89.4mm   | 61.5mm   | 79.0mm  | 92.3mm  | 101.6mm | 1/4-20 ** |
| 127.0mm             | 166.7mm  | 125.5mm  | 150.8mm | 171.5mm | 221.9mm | 1/4-20 ** |

**Hollow Retroreflectors**

The technical drawings illustrate the dimensions and features of the hollow retroreflectors. The left drawing is a side view showing a square block with a central circular clear aperture (CA) containing a yellow retroreflector. Dimensions include Dia. (outer diameter), CA (clear aperture diameter), L1 (inner diameter), L2 (outer diameter), and a 1/4-20 Mtg. Hole at the bottom. The right drawing is a top view showing a square block with four thru holes (7.4mm Dia.) on the 'B' Dia. B.C. (Bore Center).

\*Does not have back plate  
\*\*Additional 8 mounting holes on 50.8mm and larger Dia: (4) M6 x 1.0 at 90° and (4) 1/4-20 at 90° on 2" Bolt Circle

## Coating Curves

---

;

\*\*Additional 8 mounting holes on 50.8mm and larger Dia: (4) M6 x 1.0 at 90° and (4) 1/4-20 at 90° on 2" Bolt Circle