

63.5mm Clear Aperture, 5 Arcsec, Aluminum Retroreflector



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S\$1,946^{.00}

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General

Type:
Retroreflector

Physical & Mechanical Properties

Clear Aperture CA (mm):
63.5

Diameter (mm):
89.40

Dimensional Tolerance (mm):
±1.6

Optical Properties	
Refractive Index (n)	1.50
Transmittance (%)	92
Absorbance (at 254 nm)	0.15
Fluorescence Intensity	Low

5.00	Beam Deviation (arcsec):
Enhanced Aluminum (450-650nm)	Coating:
1.5λ	Exiting Wavefront Accuracy:
BOROFLOAT®	Substrate: □
80-50	Surface Quality:
Left-Handed	Image Orientation:
180	Ray Deviation (°):
400 - 700	Wavelength Range (nm):

Threading & Mounting

(6) 1/4-20, (5) M6 x 1.0	
Mounting Threads:	
Regulatory Compliance	
Compliant	RoHS 2015:
	REACH 201:
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 λ (where $\lambda = 633\text{nm}$). The unique, patented cushion mounting makes these Hollow Retroreflectors extremely resistant to shock.

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Technical Information

Clear Aperture (CA)	Diameter	L1	L2	A	B	C
6.4mm	8.1mm	8.1mm *	—	—	—	—
12.7mm	14.6mm	19.1mm *	—	—	—	M3 x 0.5
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 left drawing is a side view of a hollow retroreflector. It shows a square block with a central circular clear aperture (CA) containing a yellow retroreflector. Dimensions include L1 (inner diameter), L2 (outer diameter), and a central hole. The right drawing is a top view of a hollow retroreflector. It shows a square block with a central circular clear aperture (CA) containing a yellow retroreflector. Dimensions include A (side length) and B (inner diameter).

*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
