

The hollow retro-reflector is similar to the corner cube; it reflects the incident light back to its original source. This is made of a high precision assembly of 3 flat mirrors; insensitive to chromatic dispersion of the refractive index of glass and the absorptive of glass.

- The hollow is fabricated under high precision process; it can assure the reflection of high accuracy light.
- Can be used at broad wavelength range from UV to IR.
- Since there is no glass chromatic dispersion, the position of the back incident beam does not change with wavelength.
- With a small polarization effects, it is recommended to use in multiple interferometer optical path.

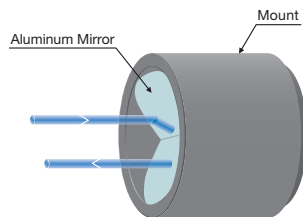


Specifications	
Material	BK7
Material of frame	Aluminum Finishing: Black anodized
Coating	Aluminum (No Protected Coating)
Laser Damage Threshold	0.25J/cm ² (Laser pulse with 10ns, repetition frequency 20Hz)
Surface Quality (Scratch-Dig)	40-20

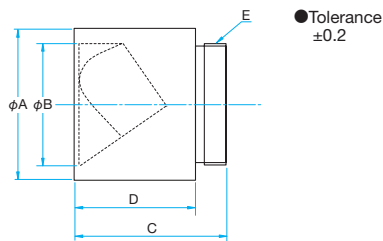
- Guide**
- ▶ We offer holders to mount each of our catalog hollow retro-reflector, consult our Sales Division for assistance in your selection.
 - ▶ For high reflective type, we are proposing the corner cube CCB.

- Attention**
- ▶ The corner cube reflects light back to its source at high precision. If the incident light position is deviated from the incident center; the reflected light will also be deviated at the similar distance.
 - ▶ Reflection on aluminum mirror may have some polarization effects. Also, direction of polarization will be twisted by the 3 times reflection, and will rotate 60deg.
 - ▶ Avoid using optical cleaning tissue for the surface cleaning; there is no protection layer on the top of the aluminum coating. Please use air-blow type of cleaner.
 - ▶ The reflectance of the aluminum coating is about 85% to 90%. Therefore the light reflectance performance after reflecting off 3 surfaces is 61% to 73%.

Schematic

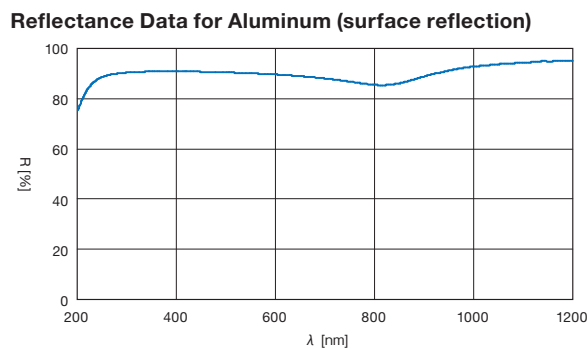


Outline Drawing



Part Number	φA [mm]	φB [mm]	C [mm]	D [mm]	E
RCCB-10	φ13	φ10	18	13	M10.85 P0.75
RCCB-20	φ25	φ20	25	20	M20.85 P0.75
RCCB-30	φ35	φ30	35	30	M30.85 P0.75

Typical Transmittance Data



Specifications

Part Number	Clear aperture [mm]	Angular deviation of beam [°]	Reflected wavefront distortion
RCCB-10-10	φ8	<10	1λ
RCCB-10-30	φ8	<30	2λ
RCCB-20-5	φ18	<5	1λ
RCCB-20-30	φ18	<30	2λ
RCCB-30-5	φ27	<5	1λ
RCCB-30-30	φ27	<30	2λ

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