



Corner cube reflectors used with retroreflective photoelectric sensors provide a high degree of reliability, since they return the light to its source even if the reflector and the sensor are significantly skewed with respect to one another. Corner cube reflectors also have the only reflective surface that works with polarized photoelectric sensors.

The nominal sensing distance for every retroreflective sensor model in this catalog section was established using a 3 in. (76 mm) RF30 reflector. Smaller reflectors will result in shorter sensing distances. These reflectors are used to detect smaller targets comparable with their dimension. The standard reflectors present a blind spot at about 10% of the sensing distance. Special reflectors XUZC24/50 are designed to eliminate this inconvenience and even allow the reflector to touch the sensor lenses.

RF30 and RF20 models can be mounted with a bolt. The RF10 model can be mounted by using a bezel or plate (not provided) or by using their own adhesive tape.

Rectangular reflectors increase sensing precision. They are also easier to mount side by side to increase the reflective surface.

Retroreflective tape can be used to cover unusually shaped targets. Reflector tape not a corner cube reflective. Only Super-reflective tape is a corner cube reflective. Super-reflective tape can be used with both polarized and non-polarized retroreflective sensors.

Reflectors

Description	Reflectivity	Temperature Range	Catalog Number
76 mm (3 in.) diameter, acrylic lens	4000X	65 °C (150 °F)	RF30
51 mm (2 in.) diameter, acrylic lens	4000X	65 °C (150 °F)	RF20
25 mm (1 in.) diameter, acrylic lens	4000X	65 °C (150 °F)	RF10
83 x 38 mm (3.25 x 1.5 in.), acrylic lens (orange)	4000X	65 °C (150 °F)	RF13
102 x 102 mm (4 x 4 in.) diameter, acrylic lens	4000X	65 °C (150 °F)	XUZC100
33 x 28 mm (1.3 x 1.1 in.) close proximity—acrylic (1)	6000X	65 °C (150 °F)	XUZC24
51 x 51 mm (2 x 2 in.) close proximity—acrylic (1)	6000X	65 °C (150 °F)	XUZC50
16 mm (0.63 in.)	4000X	65 °C (150 °F)	XUZC16
21 mm (0.83 in.)	4000X	65 °C (150 °F)	XUZC21
31 mm (1.22 in.)	4000X	65 °C (150 °F)	XUZC31
39 mm (1.53 in.)	4000X	65 °C (150 °F)	XUZC39
80 mm (3.15 in.)	4000X	65 °C (150 °F)	XUZC80

(1) XUZC24/50 reflectors must always be mounted in the vertical plane with respect to the optical axis of the sensor.

Retroreflective Tape (not suitable for polarized models)

Description	Typical Luminance Factor (2)	Temperature	Catalog Number
Photoelectric grade sheeting with adhesive backing			
76 mm (3 in.) wide, 0.3 m (1 ft) long (3)	200X	93.4 °C (200 °F)	RF7590
High intensity sheeting with adhesive backing—vinyl sealed (3)			
76 mm (3 in.) wide, 0.3 m (1 ft) long (3)	670X	65.6 °C (150 °F)	RF3870
High gain sheeting with adhesive backing—porous surface (3)			
51 mm (2 in.) wide, 0.3 m (1 ft) long (3)	900X	79.5 °C (175 °F)	RF7610

Super Reflective Tape—corner cube type, adhesive backing

Can be used with polarized retroreflective systems

Description	Typical Luminance Factor (2)	Temperature	Catalog Number
22 mm (0.9 in.) wide, 1 m (3.3 ft) long	2000X	60 °C (140 °F)	XUZB11
22 mm (0.9 in.) wide, 5 m (16.4 ft) long	2000X	60 °C (140 °F)	XUZB15

(2) Perpendicular reading. Expressed as times brighter than a perfectly diffusing, white surface.

(3) Also available in 3 m (10 ft), 15 m (50 ft) and 30 m (100 ft) lengths.