BK7 or UVFS Corner cube retroreflectors designed to deviate incident light by 180 degrees independently of an angle of incidence. These prisms have 3 mirror surfaces making angles of 90 deg to each other, juxtaposed to form the corner of a cube with the entrance face perpendicular to cube diagonal. All beams, despite of incident direction, are reflected back to the original direction. Corner cubes are used in high precision applications or with lasers over very long distances.

**STANDARD SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Material</th>
<th>Dimension Tolerances</th>
<th>Surface Quality</th>
<th>Flatness</th>
<th>Beam Deviation</th>
<th>Angular Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK7</td>
<td>+0.0, −0.2 mm</td>
<td>40-20 scratch &amp; dig</td>
<td>λ/10 @ 632.8 nm</td>
<td>180° ± 30 arcsec</td>
<td>±5 arcsec</td>
</tr>
<tr>
<td>UVFS</td>
<td></td>
<td>40-20 scratch &amp; dig</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CORNER CUBE RETROREFLECTORS**

<table>
<thead>
<tr>
<th>Material</th>
<th>Dimensions d × h, mm</th>
<th>Coating</th>
<th>Ordering Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK7</td>
<td>25.4 × 19.0</td>
<td>Uncoated</td>
<td>14CCR-1-1</td>
</tr>
<tr>
<td></td>
<td>38.1 × 28.5</td>
<td>Uncoated</td>
<td>14CCR-2-1</td>
</tr>
<tr>
<td>UVFS</td>
<td>25.4 × 19.0</td>
<td>Uncoated</td>
<td>14CCR-1-2</td>
</tr>
</tbody>
</table>

**FEATURES**

- Incident light deviates by 180 degrees independently of the angle of incidence
- Mainly used in high precision applications or with lasers over very long distances
- Various dielectric coatings can be deposited upon request

**CODE EXAMPLE FOR ORDERING**

**14CCR-1-1**

Dimensions (d×h)  
1 – 25.4 × 19.0 mm  
2 – 38.1 × 28.5 mm

Material  
1 – BK7  
2 – UVFS

**14PP** Penta Prisms

Penta prism’s function is to deviate the direction of the light beam by 90 degrees. Penta prism will neither invert nor reverse the image. Penta prisms are extremely useful in alignment systems as they define a right angle very precisely and independently of angle of incidence. Rays entering one face emerge from the adjacent face at precisely 90 deg after they have undergone two reflections inside the prism for a total of 270 deg. The penta prism acts as a turning mirror which is insensitive to alignment.

**STANDARD SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Material</th>
<th>Dimension Tolerances</th>
<th>Surface Flatness</th>
<th>Surface Quality</th>
<th>90° Deviation Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK7</td>
<td>+0.0, −0.2 mm</td>
<td>&lt;λ/4 @ 632.8 nm</td>
<td>40-20 scratch &amp; dig</td>
<td>&lt; 30 arcsec (down to 5 arcsec available)</td>
</tr>
</tbody>
</table>

**CODE EXAMPLE FOR ORDERING**

**14PP-1**

Dimensions (A×B)  
1 – 7.0 × 7.0 mm  
2 – 12.7 × 12.7 mm  
3 – 25.4 × 25.4 mm

Material  
1 – BK7

**FEATURES**

- High precision
- Various dielectric coatings can be deposited upon request
- Custom size available