

TECHSPEC® 12.7mm Aluminum Coated, Littrow Dispersion Prism



30° - 60° - 90° Littrow Dispersion Prisms

Stock **#43-672** **1 In Stock**

⊖ 1 ⊕ **\$\$123⁰⁰**

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Volume Pricing	
Qty 1-5	\$\$123.20 each
Qty 6-25	\$\$98.00 each
Qty 26-49	\$\$92.40 each
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General

Littrow Prism **Type:**

Physical & Mechanical Properties

12.70 **Length (mm):**

±0.13 **Dimensional Tolerance (mm):**

Protective as needed

Bevel:

Optical Properties

Protected Aluminum (400-2000nm)

Coating:

N-BK7

Substrate: □

80-50

Surface Quality:

±10

Angle Tolerance (arcmin):

Right-Handed

Image Orientation:

$R_{avg} > 85\%$ @ 400 - 700nm w/Black Overpaint

Coating Specification:

60

Ray Deviation (°):

400 - 700

Wavelength Range (nm):

3.00

Power (fringes) @ 632.8nm:

1.00

Irregularity (fringes) @ 632.8nm:

Regulatory Compliance

Compliant

RoHS 2015:

Compliant

Reach 219:

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Certificate of Conformance:

Product Details

- Ray Deviation of 60° If Coated
- Ideal as a Dispersion Prism if Uncoated
- Right Handed Image

TECHSPEC® 30° - 60° - 90° Littrow Dispersion Prisms can be used for a variety of applications. Uncoated Littrow dispersion prisms are used to disperse light into its component spectrum. Coated Littrow dispersion prisms are used to deviate the line of sight by 60°. TECHSPEC® 30° - 60° - 90° Littrow Dispersion Prisms feature 30°, 60°, and 90° angles, and depending on whether the B-C surface is uncoated or coated, are commonly used as dispersion or beam deviation prisms. They are comprised of a N-BK7 substrate and create a right-handed image.

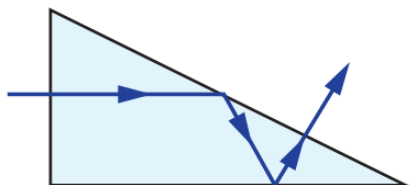
Dispersion Prisms (Uncoated)

Collimated white light enters into the A-C surface of the prism, is reflected at the hypotenuse surface, and then dispersed into its component spectrum at the B-C surface. Although Littrow prisms produce narrower dispersion than equilateral prisms, Littrow prisms are typically less expensive.

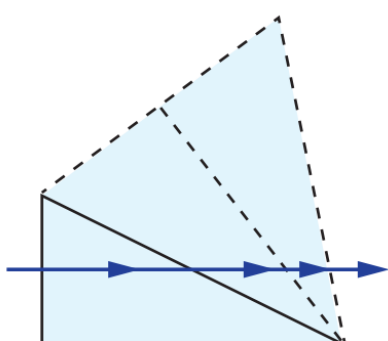
Beam Deviation Prisms (Coated)

Incident light enters into the aluminum coated B-C surface of the prism at the nominal angle and returns back using the same path. In spectrum dispersion applications utilizing white light, the resolution performance of Littrow prisms is equal to equilateral prisms since the optical path length through the glass substrate is the same distance round-trip. Additionally, light entered into the A-C surface will reflect twice inside the glass substrate before being emitted through the hypotenuse surface at 60°.

Technical Information



Littrow Dispersion Prism Ray Path



Littrow Dispersion Prism Tunnel Diagram

Stock No.	A	B	C
#43-648	12.7mm	21.9mm	12.7mm
#43-672			
#43-649	22mm	38.11mm	22mm
#43-673			

