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LightPath 390010 | 4.5mm Dia., 0.83 NA, BBAR (8000-12000nm), Molded IR Aspheric Lens

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Stock #88-073 **2 In Stock**

⊖ 1 ⊕ **\$\$574⁰⁰**

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Volume Pricing	
Qty 1-10	\$\$574.00 each
Qty 11-49	\$\$516.60 each
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General

390010 Lightpath Lens Code:

Aspheric Lens Type:

Physical & Mechanical Properties

4.50 ±0.015 Diameter (mm):

Clear Aperture CA (mm):

3.00	
1.63	Edge Thickness ET (mm):
2.17	Center Thickness CT (mm):
	Bevel:
Protective as needed	
Optical Properties	
1.47 @ 9200nm	Effective Focal Length EFL (mm):
0.83	Numerical Aperture NA:
Black Diamond™ BD-2 (Ge ₂₅ Sb ₁₂ Se ₆₀)	Substrate: <input type="checkbox"/>
9200	Aspheric Design Wavelength (nm):
BBAR (8000-12000nm)	Coating:
R _{avg} <1.0% @ 8 - 12μm	Coating Specification:
80-50	Surface Quality:
0.6	f#:
2.6023	Index of Refraction (n_d) @ 10μm:
2.5843	Index of Refraction (n_d) @ 14μm:
2.6210	Index of Refraction (n_d) @ 4μm:
2.6173	Index of Refraction (n_d) @ 5μm:
8000 - 12000	Wavelength Range (nm):
0.63	Working Distance (mm):
Infinite	Conjugate Distance:
9200	Focal Length Specification Wavelength (nm):

Material Properties	
14.00	Coefficient of Thermal Expansion CTE (10⁻⁶/°C):
4.68	Density (g/cm³):
70 x 10 ⁻⁶ /°C from -40° to +80°C (5 - 14 μm)	Thermo-optic coefficient dn/dT:
285.00	Transformation Temperature (°C):

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 247:

Product Details

- Wavelength Range of 1.8 - 12μm
- Variety of Coating Options
- Mounted and Unmounted Versions

LightPath® Mid-Wave and Long-Wave Infrared (IR) Aspheric Lenses feature a low-cost, molded design and offer several key benefits over Germanium substrate aspheres. With a dn/dT and CTE significantly less than that of Germanium, the lenses feature a smaller change in focal length as a function of temperature change. Featuring a higher operating temperature than Germanium (which suffers 20 – 30% transmission loss at 100°C), the lenses can be used in applications including collimators for QCL lasers and as components within thermal imaging assemblies. LightPath Mid-Wave and Long-Wave Infrared (IR) Aspheric Lenses have a wavelength range of 1.8 - 12μm. These lenses are available mounted or unmounted, in a variety of coating options.

Technical Information

8.0 - 12 μ m AR Coating

