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LightPath 390010 | 8.24mm Dia., 0.83 NA, BBAR (8000-12000nm), Mounted IR Aspheric Lens

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Stock #88-079 **CLEARANCE** 20+ In Stock

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⊖ 1 ⊕ €171⁹⁵

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General

390010 **Lightpath Lens Code:**

Aspheric Lens **Type:**

Physical & Mechanical Properties

8.24 ±0.10	Diameter (mm):
3.00	Clear Aperture CA (mm):
2.17	Center Thickness CT (mm):
Protective as needed	Bevel:

Optical Properties

1.47 @9200nm	Effective Focal Length EFL (mm):
0.83	Numerical Aperture NA:
Black Diamond™ BD-2 (Ge ₂₈ 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):

Threading & Mounting

Stainless Steel, M8 x0.5 Thread	Mount:
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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 233:

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

