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LightPath 390037 | 5.5mm Dia., 0.85 NA, BBAR (8000-12000nm), Molded IR Aspheric Lens

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Stock #66-566 **20+ In Stock**

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⊖ 1 ⊕ £328⁰⁰

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Volume Pricing	
Qty 1-10	£328.00 each
Qty 11-49	£295.20 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

390037 **Lightpath Lens Code:**

Aspheric Lens **Type:**

Physical & Mechanical Properties

Diameter (mm):

5.50 ±0.015

Clear Aperture CA (mm):

4.00

Edge Thickness ET (mm):

2.24

Center Thickness CT (mm):

3.00

Bevel:

Protective as needed

Optical Properties

Effective Focal Length EFL (mm):

1.87 @9500nm

Numerical Aperture NA:

0.85

Substrate: □

Black Diamond™ BD-2 (Ge₂₆Sb₁₂Se₆₀)

Aspheric Design Wavelength (nm):

9500

Coating:

BBAR (8000-12000nm)

Coating Specification:

R_{avg} <1.0% @8 - 12μm

Surface Quality:

80-50

f#:

0.58

Index of Refraction (n_d) @ 10μm:

2.6023

Index of Refraction (n_d) @ 14μm:

2.5843

Index of Refraction (n_d) @ 4μm:

2.6210

Index of Refraction (n_d) @ 5μm:

2.6173

Wavelength Range (nm):

8000 - 12000

Working Distance (mm):

0.72

Conjugate Distance:

Infinite

Focal Length Specification Wavelength (nm):

9500

Material Properties

Coefficient of Thermal Expansion CTE (10⁻⁶/°C):

14.00

Density (g/cm³):

4.68

Thermo-optic coefficient dn/dT:

70 x 10⁻⁶/°C from -40° to +80°C (5 - 14 μm)

Transformation Temperature (°C):

285.00

Regulatory Compliance

RoHS 2015:

[Compliant](#)

Certificate of Conformance:

[View](#)

Reach 247:

[Compliant](#)

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

