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# LightPath 390017 | 6.24mm Dia., 0.72 NA, BBAR (1800-3000nm), Mounted IR Aspheric Lens

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Stock #83-721 CLEARANCE **1 In Stock**

£159<sup>96</sup>

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#### Product Downloads

#### General

390017 **Lightpath Lens Code:**

Aspheric Lens **Type:**

#### Physical & Mechanical Properties

6.24 ±0.10 **Diameter (mm):**

**Clear Aperture CA (mm):**

2.60

Center Thickness CT (mm):  
6.25

Bevel:  
Protective as needed

## Optical Properties

Effective Focal Length EFL (mm):  
1.50 @ 2300nm

Numerical Aperture NA:  
0.72

Substrate:   
Black Diamond™ BD-2 (Ge<sub>28</sub>Sb<sub>12</sub>Se<sub>80</sub>)

Aspheric Design Wavelength (nm):  
2300

Coating:  
BBAR (1800-3000nm)

Coating Specification:  
R<sub>avg</sub> < 1.0% @ 1.8 - 3.0μm

Surface Quality:  
80-50

f#:  
0.69

Index of Refraction (n<sub>d</sub>) @ 10μm:  
2.6023

Index of Refraction (n<sub>d</sub>) @ 14μm:  
2.5843

Index of Refraction (n<sub>d</sub>) @ 4μm:  
2.6210

Index of Refraction (n<sub>d</sub>) @ 5μm:  
2.6173

Wavelength Range (nm):  
1800 - 3000

Working Distance (mm):  
1.24

Conjugate Distance:  
Infinite

Focal Length Specification Wavelength (nm):  
2300

## Threading & Mounting

Mount:  
Stainless Steel, M6 x 0.5 Thread

## Material Properties

Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):  
14.00

Density (g/cm<sup>3</sup>):  
4.68

Thermo-optic coefficient dn/dT:  
70 x 10<sup>-6</sup>/°C from -40° to +80°C (5 - 14 μm)

Transformation Temperature (°C):  
285.00

## Regulatory Compliance

RoHS 2015:  
[Compliant](#)

Certificate of Conformance:  
[View](#)

Reach 233:  
[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

