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# LightPath 390093 | 9.25mm Dia., 0.71 NA, BBAR (1800-3000nm), Mounted IR Aspheric Lens

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Stock #88-080 CLEARANCE **3 In Stock**

⊖ 1 ⊕ **\$\$413<sup>00</sup>**

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Qty 1+	<b>\$\$413.00</b> each
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#### General

390093 **Lightpath Lens Code:**  
Aspheric Lens **Type:**

#### Physical & Mechanical Properties

9.25 ±0.10 **Diameter (mm):**  
5.00 **Clear Aperture CA (mm):**

Center Thickness CT (mm):

2.62

Bevel:

Protective as needed

## Optical Properties

Effective Focal Length EFL (mm):

3.00 @ 7800nm

Numerical Aperture NA:

0.71

Substrate:

Black Diamond™ BD-2 (Ge<sub>26</sub>Sb<sub>12</sub>Se<sub>60</sub>)

Aspheric Design Wavelength (nm):

7800

Coating:

BBAR (1800-3000nm)

Coating Specification:

R<sub>avg</sub> <1.0% @ 1.8 - 3.0μm

Surface Quality:

80-50

f#:

0.7

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):

2.35

Conjugate Distance:

Infinite

Focal Length Specification Wavelength (nm):

7800

## Threading & Mounting

Mount:

Stainless Steel, M9 x0.5 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

1.8 - 3 $\mu$ m AR Coating

