

Lightpath 7100331 | 5.3mm FL, f/1.3, Thermal Imaging Lens Assembly

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Stock #15-686 **9 In Stock**

⊖ 1 ⊕ C\$243⁰⁰

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| Qty 1+ | C\$243.60 each |
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Product Downloads

General

Thickness: 0.70mm
Material: Si

Compatible Window:

7100331

Lightpath Lens Code:

Physical & Mechanical Properties

4.28

Clear Aperture CA (mm):

Construction:
Matte Black Anodized Aluminum Housing

Length (mm):
7.25

Front Diameter (mm):
12.00

Optical Properties

Effective Focal Length EFL (mm):
5.30

Substrate:
Black Diamond™ BD-6

f#:
1.3

Coating:
BBAR (8000-12000nm)

Wavelength Range (nm):
8000 - 12000

Coating Specification:
R_{avg} <0.75% @ 8000 - 12,000nm

Index of Refraction (n_d) @ 10μm:
2.7816

Index of Refraction (n_d) @ 14μm:
2.7683

Index of Refraction (n_d) @ 4μm:
2.7978

Working Distance (mm):
7.30

Sensor

Recommended Detector Format (H x V/Pixel Size):
320 x 240 / 12μm

Threading & Mounting

Mounting Threads:
M12 x 0.5

Thread Length (mm):
3.75

Material Properties

Coefficient of Thermal Expansion CTE (10⁻⁶/°C):
22.5

Thermo-optic coefficient dn/dT:
30.5 x 10⁻⁶ @ 10μm

Regulatory Compliance

RoHS 2015:
[Compliant](#)

Certificate of Conformance:
[View](#)

Reach 247:
[Compliant](#)

Product Details

- Precision Molded Chalcogenide Lenses
- Compact Designs for Thermal Imaging Cameras
- Focal Lengths from 2.7 to 24mm

Lightpath® Thermal Imaging Assemblies are a cost-effective alternative to diamond turned infrared lenses for applications in the mid-wave infrared (MMR) or long-wave infrared (LWIR). These lenses are molded from BD6™, a chalcogenide glass that offers high transmission from 1 to 15μm and is also optically athermalized from -40 to +85°C. These lenses feature a broadband antireflection coating from 8 to 12μm and are mounted in compact black anodized aluminum housings that are threaded to allow for adjustable focus. Lightpath Thermal Imaging Assemblies are ideal for medical diagnostics, gas sensing, thermography, thermal imaging, security, and manufacturing process control applications. Lenses with focal lengths from 2.7 to 24mm are available, covering detector sizes from 80 x 80 to 640 x 480 pixels.