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Lightpath 7100380 | 2.7mm FL, f/1.3, Thermal Imaging Lens Assembly

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General

Compatible Window:
Thickness: 0.65mm
Material: Si

Lightpath Lens Code:
7100380

Physical & Mechanical Properties

Clear Aperture CA (mm):
2.35

Construction:
Matte Black Anodized Aluminum Housing

Length (mm):
5.00

Front Diameter (mm):
10.00

Optical Properties

Effective Focal Length EFL (mm):
2.70

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):
3.64

Sensor

Recommended Detector Format (H x V/Pixel Size):
80 x 80 / 34µm

Threading & Mounting

Mounting Threads:
M10 x 0.5

Thread Length (mm):
5.00

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

Country of Origin:
China

Imported By:
Edmund Optics India Private Limited

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 (MWIR) 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.