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TECHSPEC® 45mm Dia., 0.70 NA, 900-1700nm Coated, NIR Aspheric Lens



TECHSPEC® Near-Infrared (NIR) Aspheric Lenses

Stock **#16-299** **4 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ C\$768⁰⁰

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Volume Pricing	
Qty 1-5	C\$768.60 each
Qty 6-10	C\$691.60 each
Qty 11-25	C\$645.40 each
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Product Downloads

General

Aspheric Lens **Type:**

Physical & Mechanical Properties

45.00 +0.00/-0.10 **Diameter (mm):**

Centering (arcmin):

<3

40.5 Clear Aperture CA (mm):

3.02 Edge Thickness ET (mm):

13.90 ±0.10 Center Thickness CT (mm):

Protective as needed Bevel:

Plano Shape of Back Surface:

Optical Properties

32.00 @ 780nm Effective Focal Length EFL (mm):

0.70 Numerical Aperture NA:

24.18 Back Focal Length BFL (mm):

S-LAH64 Substrate: □

780 Aspheric Design Wavelength (nm):

1.2λ Asphere Figure Error, RMS @ 632.8nm:

SWIR+ (900-1700nm) Coating:

Coating Specification:
R_{avg} < 0.5% @ 900 - 1700nm @ 0° ±30° AOI
R_{abs} < 1% @ 900 - 1700nm @ 0° ±30° AOI

40-20 Surface Quality:

0.71 f/#:

47.37 Abbe Number (v_d):

1.788 Index of Refraction (n_d):

900 - 1700 Wavelength Range (nm):

Infinite Conjugate Distance:

31.25 Power (diopters):

Material Properties

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

Regulatory Compliance

View Certificate of Conformance:

Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- Optimized for Applications in the NIR
- Uncoated or AR coated versions available
- Multiple Design Wavelengths Available

TECHSPEC® Near-Infrared (NIR) Aspheric Lenses are optimized to eliminate spherical aberration in the near-infrared. Manufactured from S-LAH64 or N-BK7 substrates and polished through a computer numerical controlled (CNC) process, these aspheric lenses achieve high precision performance across the NIR spectrum. These NIR aspheric lenses include uncoated substrates designed at 780nm with coating options at 350-700nm, 600-1050nm, or 900-1700nm. TECHSPEC® Near-Infrared (NIR) Aspheric Lenses are available with low numerical aperture designs for applications that require beam shape to be maintained as well as high numerical aperture designs for light-gathering applications. For custom designed CNC polished aspheric lenses, please contact us.

