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TECHSPEC® 50mm Dia x 50mm FL, Uncoated, High Precision Aspheric Lens



TECHSPEC® High Precision Aspheric Lenses

Stock **#12-448** **5 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ **\$\$1,468⁶⁰**

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Volume Pricing	
Qty 1-5	\$\$1,468.60 each
Qty 6-10	\$\$1,321.60 each
Qty 11+	\$\$1,233.40 each
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Product Downloads

General

Aspheric Lens **Type:**

3D Surface Profile included with uncoated lenses **Note:**

Physical & Mechanical Properties

Diameter (mm):

50.00 +0.00/-0.025

Centering (arcmin):
<1

Clear Aperture CA (mm):
45.00

Edge Thickness ET (mm):
4.82

Center Thickness CT (mm):
13.06

Bevel:
Protective as needed

Shape of Back Surface:
Plano

Optical Properties

Effective Focal Length EFL (mm):
50.00 @ 587.6nm

Numerical Aperture NA:
0.50

Back Focal Length BFL (mm):
42.77

Substrate:
N-SF6

Aspheric Design Wavelength (nm):
587.6

Asphere Figure Error, RMS @ 632.8nm:
λ/40

Coating:
Uncoated

Surface Quality:
40-20

f#:
1

Abbe Number (v_d):
25.36

Index of Refraction (n_d):
1.805

Wavelength Range (nm):
390 - 2500

Conjugate Distance:
Infinite

Focal Length Specification Wavelength (nm):
587.6

Power (diopters):
20.00

Material Properties

Coefficient of Thermal Expansion CTE (10⁻⁶/°C):
9.0

Regulatory Compliance

Certificate of Conformance:
[View](#)

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

- High Precision Aspheric Surface
- 3D Surface Profiles Included with Uncoated Lenses
- Uncoated and <0.25% Reflectance V-Coat Available

TECHSPEC® High Precision Aspheric Lenses guarantee better than λ/40 wave aspheric figure error. Achieved via precision magneto-rheological finishing (MRF), these aspheres offer high numerical apertures with diameters ranging from 15 to 50mm and are ideal for a variety of imaging and low light level applications. Each TECHSPEC High Precision Aspheric Lens is individually measured. 3D surface profiles are included with uncoated lenses. For diffraction-limited aspheres designed at specific Nd:YAG laser wavelengths, see our [TECHSPEC High Precision Laser Grade Aspheric Lenses](#).

Compatible Mounts
