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TECHSPEC® 12.5mm Dia x -50mm FL MgF₂ Coated, Illumination Grade PCV Cylinder Lens



TECHSPEC® Illumination Grade PCV Cylinder Lenses

Stock **#48-377** **20+ In Stock**

⊖ 1 ⊕ **\$111.00**

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Volume Pricing	
Qty 1-5	\$111.00 each
Qty 6-25	\$100.00 each
Qty 26-49	\$95.00 each
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General

Cylinder Lens, Plano-Concave **Type:**

Physical & Mechanical Properties

12.50 +0.0/-0.2 **Diameter (mm):**

2.00 **Center Thickness CT (mm):**

Center Thickness Tolerance (mm):
±0.1

Edge Thickness ET (mm):
2.77

Optical Properties

Effective Focal Length EFL (mm):
-50.00

Substrate:
N-BK7

f#:
4.00

Numerical Aperture NA:
0.13

Coating:
MgF₂ (400-700nm)

Wavelength Range (nm):
400 - 700

Back Focal Length BFL (mm):
-51.32

Coating Specification:
R_{avg} ≤ 1.75% @ 400 - 700nm

Focal Length Tolerance (%):
±3

Radius R₁ (mm):
-25.84

Surface Quality:
60-40

Damage Threshold, By Design:
10 J/cm² @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:
Compliant

Reach 209:
Compliant

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](#).

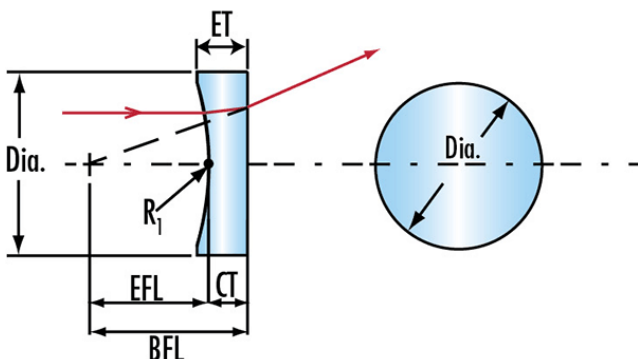
Product Details

- Cylinder Lenses Ideal for 1 Dimensional Laser Beam Convergence
- Circular and Rectangular Form Factors
- Multiple Coating Options Available

TECHSPEC® Illumination Grade PCV Cylinder Lenses are commonly used to turn a collimated laser source into a line generator. These PCV Cylinder Lenses and [TECHSPEC Illumination Grade PCX Cylinder Lenses](#) can be used together for beam expander applications.

The thin lens approximation for the length of a line generated by a negative cylinder lens is: $L = 2 * (r_0/f) * (z + f)$ where L is the line length, r₀ is half the beam diameter, z is the projection distance, and -f is the focal length of the lens.

Technical Information



Coating Curves
