

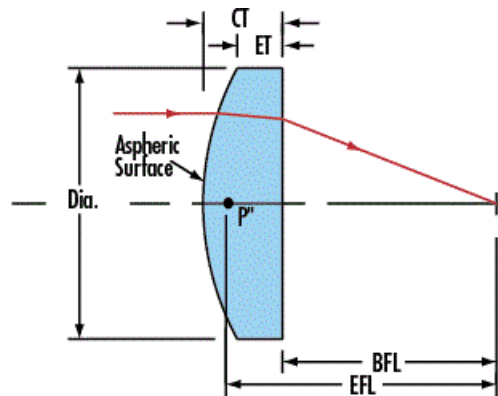
## **TECHSPEC® 15mm Dia., 0.50 Numerical Aperture Uncoated, Aspheric Lens**

#47-726



TECHSPEC® Aspheric Lenses are designed to focus light while eliminating spherical aberration from divergent light sources in applications including focusing the output of a laser diode. [Aspheric lenses can increase the numerical aperture of a lens while minimizing system aberrations.](#) Aspheric lenses may also reduce the number of elements needed in a multi-element system. Aspheric lenses can reduce overall system weight while providing advantages such as increasing throughput or simplifying assembly.

Diameter (mm):	15.00 +0.0/-0.1
Effective Focal Length EFL (mm):	15.00 @ 587.6nm
Numerical Aperture NA:	0.50
Back Focal Length BFL (mm):	11.54
Substrate:	<a href="#">L-BAL35</a>
Aspheric Design Wavelength (nm):	587.6
Coating:	Uncoated
Centering (arcmin):	≤5
Surface Quality:	60-40
Clear Aperture CA (mm):	13.5
Edge Thickness ET (mm):	2.04
Center Thickness CT (mm):	5.50 ±0.1
f/#:	1.00
Bevel:	Protective bevel as needed
Shape of Back Surface:	Plano
Wavelength Range (nm):	330 - 2400
Conjugate Distance:	Infinite
Asphere Figure Error, RMS @ 632.8nm:	1.2λ



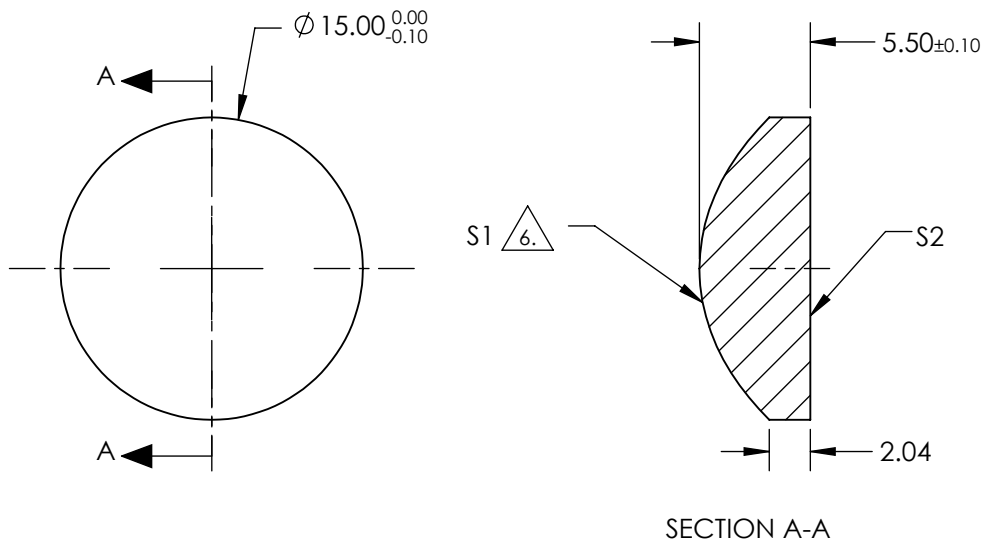
**NOTES:**

1. SUBSTRATE: L-BAL35
2. COATING  
S1: NONE  
S2: NONE
3. EDGES: FINE GROUND
4. CENTERING: 3-5 ARCMIN
5. ASPHERE FIGURE ERROR: 0.75 μm RMS

FOR INFORMATION ONLY:  
DO NOT MANUFACTURE  
PARTS TO THIS DRAWING

△ 6. ASPHERIC SURFACE DESCRIBED BY (REF. COEFFICIENT TABLE)

$$Z_{ASPH}(Y) = \frac{(\frac{1}{RADIUS}) * Y^2}{1 + \sqrt{1 - (1+k) * (\frac{1}{RADIUS})^2 * Y^2}} + D * Y^2 + E * Y^4 + F * Y^6 + G * Y^8 + H * Y^{10} + J * Y^{12} + L * Y^{14}$$



COEFFICIENT TABLE △ 6.	
COEFFICIENT	S1
SEMI-DIAMETER	7.500000E+00
(1/RADIUS)	1.131606E-01
k	-1.427973E+00
D	0.000000E+00
E	1.577441E-04
F	-6.152040E-08
G	8.528969E-10
H	-3.504659E-12
J	0.000000E+00
L	0.000000E+00

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE DIMENSIONS ARE FOR REFERENCE ONLY

REV. A	S1	S2	EFL @ 587.6nm : 15		<b>Edmund Optics®</b>			
SHAPE	CONVEX	PLANO	BFL @ 587.6nm: 11.54					
RADIUS	13.255	INFINITY	ALL DIMS IN	mm	DWG NO	47726	SHEET 1 OF 1	
SURFACE QUALITY	60-40	60-40						
CLEAR APERTURE	90%	90%						
BEVEL MAX	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED						



March 25, 2023

To Whom It May Concern,

This document certifies that the product stated below has been reviewed as requested by Edmund Optics:

<i>Stock No.</i>	<i>Description</i>
47-726	15mm Dia., 0.50 Numerical Aperture Uncoated, Aspheric Lens

This item is EU RoHS (2015/863/EU) compliant without the use of exemptions.

This certification means that:

- EO's suppliers have confirmed the material composition of this product.
- EO has implemented rigorous procedures to document this compliance.
- The information provided may, or may not, be based upon actual test data, or on information from our Vendors, Raw Material Suppliers or Subcontractors.

A handwritten signature in cursive script, appearing to read 'Jay Budd'.

Jay Budd, Director of Corporate Compliance

March 25, 2023

Edmund Optics Inc. - 101 E Gloucester Pike, Barrington, NJ 08007 | 1-800-363-1992 | [Compliance@edmundoptics.com](mailto:Compliance@edmundoptics.com)



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This item does not contain any of the substances listed on the Reach SVHC list as of 8 July 2021 in quantities exceeding 0.1% weight by weight.

Please note the following:

- Entry 11 of Annex V of the REACH regulation as amended by regulation 987/2008, exempts “non-hazardous” glass components from registration.
- Items considered to be packing materials and which do not form part of, or are not required for the operation of, the product, are not considered to be within scope of this declaration.
- EO does not routinely analyze products for substances not purposely added or specified within the design specifications, drawings and assembly procedures.

This certification means that:

- EO's suppliers have confirmed the material composition of this product.
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Jay Budd, Director of Corporate Compliance

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Edmund Optics certifies that all articles included in this shipment are in compliance with the terms and conditions of this order. The company also certifies that the articles included in this shipment are in accordance to all agreed upon specifications and quality assurance provisions. Please call 1-800-363-1992 should any questions arise from this shipment.

A handwritten signature in cursive script that reads 'Robert M. Henderson'.

Robert Henderson - Director of Quality