

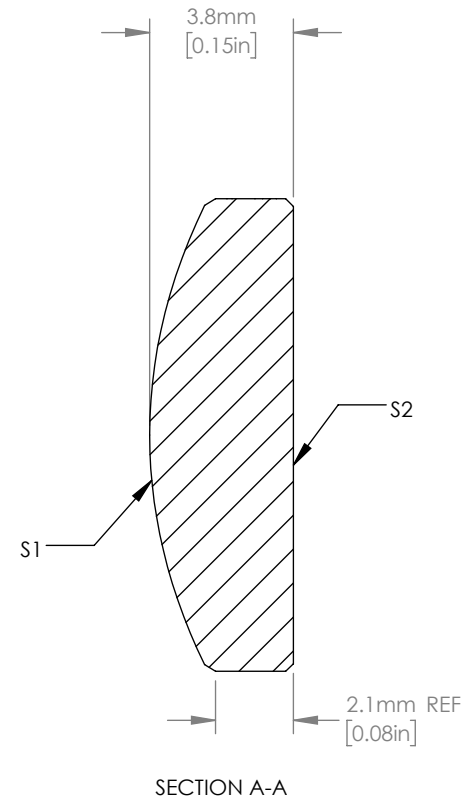
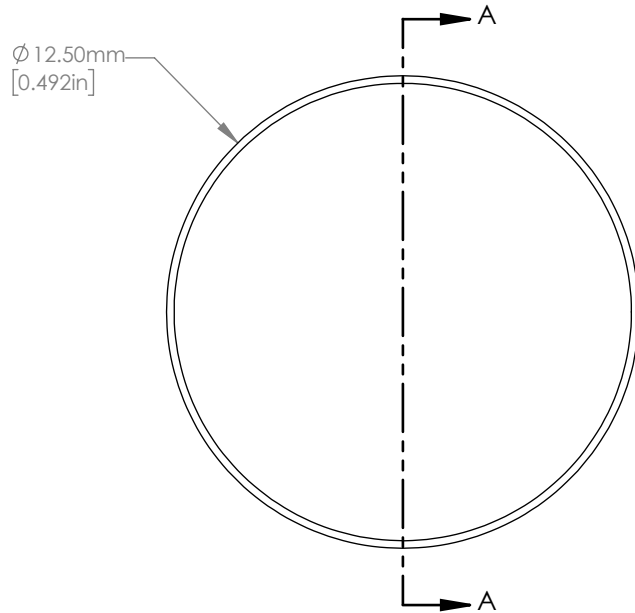
ASPHERIC COEFFICIENTS

|    | R       | k        | A <sub>4</sub> | A <sub>6</sub> | A <sub>8</sub> | A <sub>10</sub> | A <sub>12</sub> | A <sub>14</sub> | A <sub>16</sub> |
|----|---------|----------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| S1 | 12.9868 | -1.00902 | 2.50090e-05    | 2.28327e-08    | 1.77427e-11    | -               | -               | -               | -               |
| S2 | PLANO   | -        | -              | -              | -              | -               | -               | -               | -               |



ASPHERIC LENS EQUATION

$$z = \frac{Y^2}{R(1 + \sqrt{1 - (1+k)Y^2/R^2})} + A_4Y^4 + A_6Y^6 + A_8Y^8 + A_{10}Y^{10} + A_{12}Y^{12} + A_{14}Y^{14} + A_{16}Y^{16}$$



NOTES/SPECIFICATIONS:

- CLEAR APERTURE (COLLIMATION):  $\varnothing$  10.6 mm
- CLEAR APERTURE (FOCUSING):  $\varnothing$  9.8 mm
- Nd: 1.517  $\pm$  0.001 Vd: 64.167  $\pm$  1.0%
- DESIGN WAVELENGTH: 532 nm
- FOCAL LENGTH: EFL= 25.0 mm  $\pm$  1.0%
- NUMERICAL APERTURE: 0.20
- WORKING DISTANCE (REF): 22.5 mm
- DIAMETER TOLERANCE: +0.00/-0.05 mm
- SURFACE QUALITY: 40-20 SCRATCH-DIG
- WAVEFRONT ERROR: DIFFRACTION LIMITED AT DISCRETE WAVELENGTHS FROM 350-2000 nm
- RMS IRREGULARITY (S1): <55 nm
- SLOPE ERROR (PV): <200  $\mu$ RADIANS
- CENTRATION: <1 arcmin
- COATING (S1 & S2): BBAR 350-700 nm, Ravg: <0.5%, 0° AOI

FOR INFORMATION ONLY  
NOT FOR MANUFACTURING PURPOSES

|   |           |  |                                     |                      |
|---|-----------|--|-------------------------------------|----------------------|
| DRAWING PROJECTION  |           |  | <b>THORLABS</b><br>www.thorlabs.com |                      |
| NAME  | DATE      | $\varnothing$ 12.5 mm ASPHERIC LENS,<br>NA = 0.20, f = 25.0 mm, A-COATED |                                     |                      |
| DRAWN   | 11/MAY/18 |  |                                     |                      |
| APPROVAL  | 21/JUN/18 | MATERIAL   | N-BK7                               | REV<br>A             |
| COPYRIGHT © 2018 BY THORLABS  |           | ITEM #   | AL1225G-A                           | APPROX WEIGHT<br>1 g |
| VALUES IN PARENTHESIS ARE CALCULATED AND MAY CONTAIN ROUND OFF ERRORS |           |  |                                     |                      |