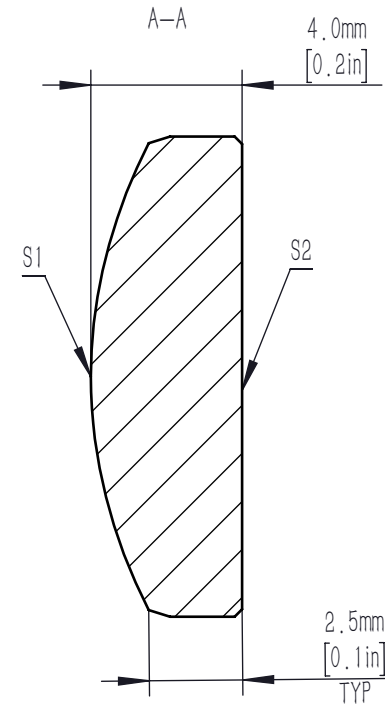
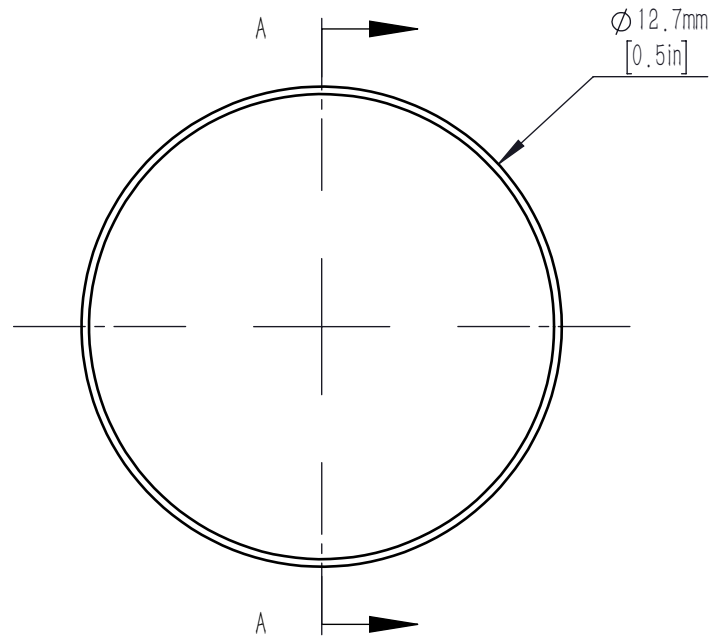
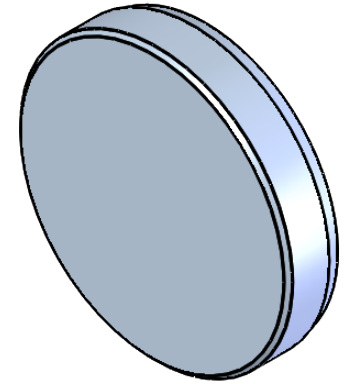


|    | R        | k    | A4            | A6             | A8             | A10           | A12           | A14           | A16            |
|----|----------|------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|
| S1 | 12.78    | -0.6 | 1.8429898e-06 | -3.8172252e-09 | -2.4345457e-11 | 3.1730496e-14 | -3.700237e-15 | 6.5107821e-17 | -4.9604147e-19 |
| S2 | INFINITE | -    | -             | -              | -              | -             | -             | -             | -              |

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



NOTES:

1. MATERIAL: N-BK7
2. DESIGN WAVELENGTH: 780.0 nm
3. NUMERICAL APERTURE: 0.22
4. FOCAL LENGTH: 25.0mm
5. FOCAL LENGTH TOLERANCE:  $\pm 1\%$
6. BACK FOCAL LENGTH(REF): BF=22.4 mm
7. CLEAR APERTURE:  $>90\%$ CA
8. DIAMETER TOLERANCE:  $+0.0/-0.1$  mm
9. THICKNESS TOLERANCE:  $\pm 0.1$  mm
10. CHAMFER: 0.2 mm, 45°
11. WAVEFRONT ERROR(RMS):  $<0.5 \mu\text{m}$
12. SAG DEVIATION(POWER, S1):  $\pm 7.5 \mu\text{m}$
13. SURFACE IRREGULARITY(S1):  $<3$  FRINGES
14. SURFACE FLATNESS(S2):  $\lambda/4$
15. SURFACE QUALITY: 60-40 SCRATCH-DIG
16. CENTRATION:  $<3$  arcmin
17. DAMAGE THRESHOLD: 9 J/cm<sup>2</sup>@810 nm, 10 ns, 10 HZ,  $\phi 0.144$  mm
18. AR COATING (S1, S2): Ravg $<0.5\%$ @400-700 nm, 6 °AOI

|  |        |             |               |        |       |     |
|--|--------|-------------|---------------|--------|-------|-----|
| DRAWING PROJECTION                                     |        |             | <b>LBTEK</b>  |        |       |     |
|  |        |             |               |        |       |     |
|  | NAME   | DATE        | AC1909-A      |        |       |     |
| DRAWN  | BSHU   | Aug./1st/24 | ASPHERIC LENS |        |       |     |
| APPROVAL   | WCHENG | Aug./1st/24 | MATERIAL      | WEIGHT | SCALE | REV |
| FOR INFORMATION ONLY<br>NOT FOR MANUFACTURING PURPOSES |        |             | N-BK7         | 0.41 g | 5:1   | A   |