

NOTES: UNLESS OTHERWISE SPECIFIED

1. LENS MATERIAL: D-ZLaF52LA(m)  
HOLDER MATERIAL: SS304L

2. **-OAI-** IS THE THEORETICAL OPTIC AXIS OF THE FIRST OPTIC SURFACE.

3. -OA2- IS THE THEORETICAL OPTIC AXIS OF THE SECOND OPTIC SURFACE.

4. ASPHERIC SURFACES ARE DEFINED BY:

$$z(r) = \frac{r^2/R_c}{1 + \sqrt{1 - (1 + K)(r/R_c)^2}} + \sum_i A_{2i} r^{2i}$$

WHERE:  $r$  = RADIAL DISTANCE FROM VERTEX IN mm

- ## 5. SURFACE DEFINITIONS:

|                 | SURFACE 1        | SURFACE 2        |
|-----------------|------------------|------------------|
| TYPE            | ASPHERE          | ASPHERE          |
| SHAPE           | CX               | CX               |
| CA              | $\emptyset 0.70$ | $\emptyset 0.70$ |
| R <sub>C</sub>  | 1.526182         | -3.684[.6]       |
| K               | 6.367520         | -34.936095       |
| A <sub>2</sub>  | 0.000000E0       | 0.000000E0       |
| A <sub>4</sub>  | 3.657031E-1      | -1.198864E-1     |
| A <sub>6</sub>  | -8.708975E0      | 1.105883E-1      |
| A <sub>8</sub>  | 3.607424E1       | -4.665918E0      |
| A <sub>10</sub> | -5.298897E0      | 8.927478E0       |
| A <sub>12</sub> | -1.934235E2      | 0.000000E0       |
| A <sub>14</sub> | 0.000000E0       | 0.000000E0       |
| A <sub>16</sub> | 0.000000E0       | 0.000000E0       |

- ## 6. NOMINAL DESIGN PARAMETERS:

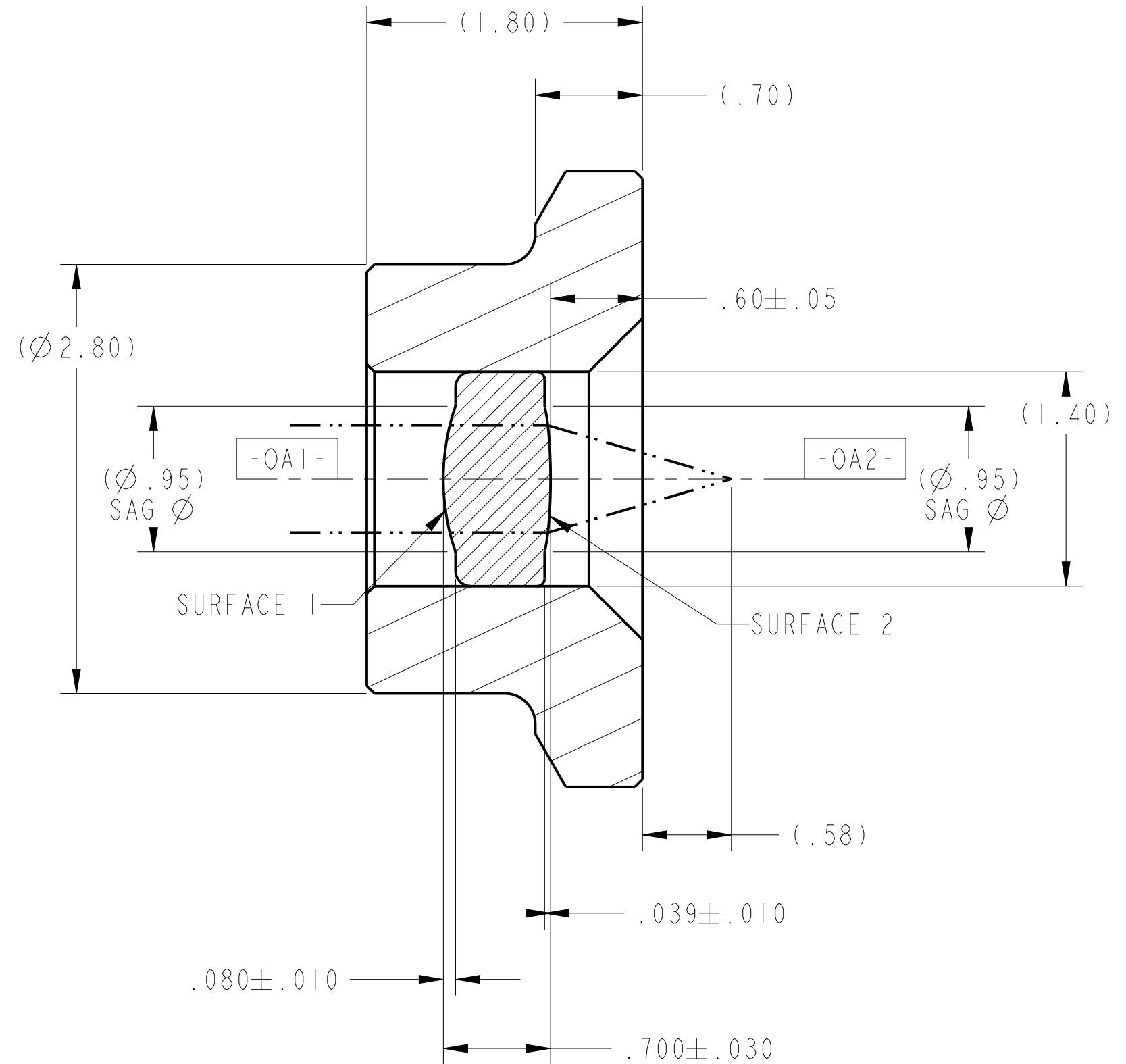
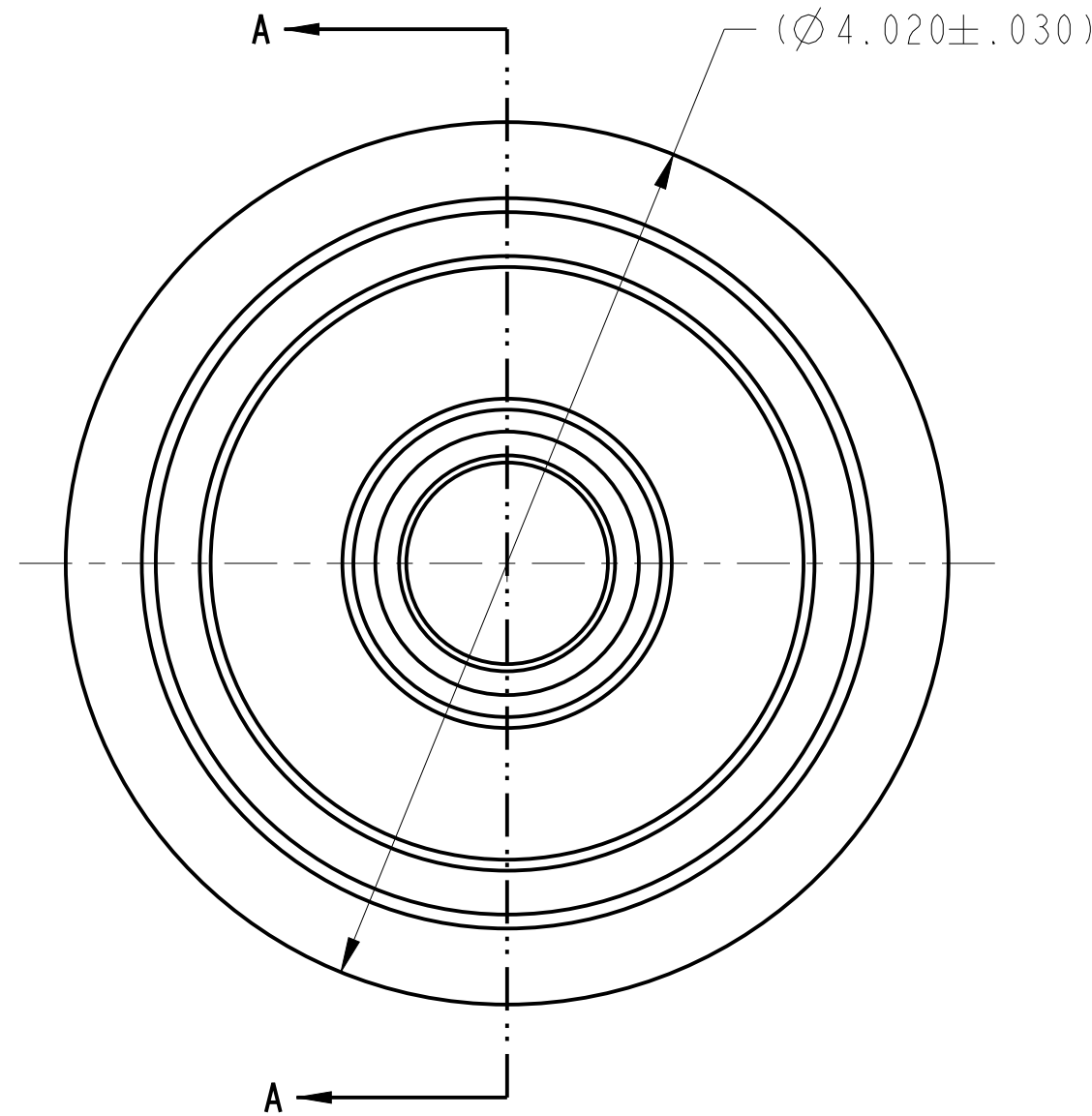
|                   |             |
|-------------------|-------------|
| DESIGN WAVELENGTH | 1520-1570nm |
| W.D.              | 1.18mm      |
| N.A.              | 0.21        |
| E.F.L.            | 1.48mm      |

7. THIS ELEMENT MUST MEET THE SCRATCH/DIG REQUIREMENTS ACROSS THE FULL CLEAR APERTURES INDICATED, BOTH SIDES, PER LIGHTPATH PWI INS-8.2-05P6.6

8. WAVEFRONT ERROR: <0.150 WAVES RMS @ 632.8nm  
PER LIGHTPATH PWI INS-8.2-13. C

| SURFACE | IRREGULARITY   |
|---------|----------------|
| S1      | 500 nm P-V MAX |
| S2      | 500 nm P-V MAX |

| REVISION HISTORY |      |                                       |          |          |
|------------------|------|---------------------------------------|----------|----------|
| REV              | DCO  | DESCRIPTION                           | DATE     | INITIALS |
| A                | 5391 | INITIAL RELEASE                       | 05/23/18 | PL       |
| B                | 5539 | 0.6 $\pm$ .05 WAS 0.7 $\pm$ .1 / - .0 | 8/30/18  | TH       |
| C                | 5757 | ADDED WFE SPEC                        | 03/19/19 | AG       |



SECTION A-A

|                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                          |                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN MM.<br>DECIMAL TOLERANCES ARE:<br><br>$.X \pm 0.25$<br>$.XX \pm 0.10$<br>$.XXX \pm 0.025$<br>$.XXXX \pm 0.013$<br>ANGLES: $\pm 0.5^\circ$ | <div style="text-align: center;">  <p>2603 CHALLENGER TECH CT. SUITE 100<br/>ORLANDO, FL 32826</p> </div> <div style="text-align: right; font-size: small;">             PROPRIETARY INFORMATION<br/>             THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF LIGHTPATH TECHNOLOGIES<br/>             AND IS NOT TO BE DISCLOSED OR REPRODUCED IN WHOLE OR PART, OR USED FOR<br/>             MANUFACTURING FOR ANYONE OTHER THAN LIGHTPATH TECHNOLOGIES WITHOUT ITS<br/>             WRITTEN CONSENT. NO RIGHT IS GRANTED TO DISCLOSE OR USE ANY INFORMATION<br/>             CONTAINED IN SAID DOCUMENT.           </div> |                                                                                                                                                          |                                                                          |
| DRAWN<br>PL\ORL                                                                                                                                                                           | TITLE<br><div style="text-align: center; font-size: large;">LENS CODE 355182</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                          |                                                                          |
| MATERIAL<br>SEE NOTES                                                                                                                                                                     | SIZE<br>A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DWG NO<br><div style="text-align: center; font-size: large;">0355182</div>                                                                               | REV<br><div style="text-align: center; font-size: large;">C</div>        |
| SOFTWARE<br>Pro/ENGINEER                                                                                                                                                                  | SCALE:<br><div style="text-align: center; font-size: large;">30.00</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | THIRD ANGLE PROJECTION<br><div style="text-align: center;">  </div> | SHEET<br><div style="text-align: center; font-size: large;">1 OF 1</div> |