

NOTES:

- SUBSTRATE:  
ELEMENT A: N-BK7 517/642  
ELEMENT B: N-SF5 673/322
- ROHS COMPLIANT
- CENTERING TOLERANCE (AT 587.6nm):  
BEAM DEVIATION (HALF ANGLE): <1 ARCMIN
- COATING (APPLY ACROSS COATING APERTURE)

S1 & S4:  
1/4 WAVE MgF2 @ 550nm  
R(AVG) < 1.75% FROM 400 - 700nm (N - BK7)

S2 & S3: NONE

5 FINE GRIND SURFACE

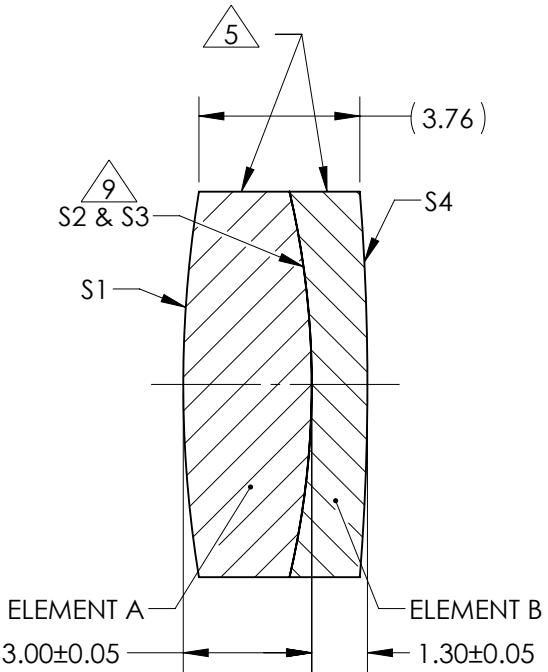
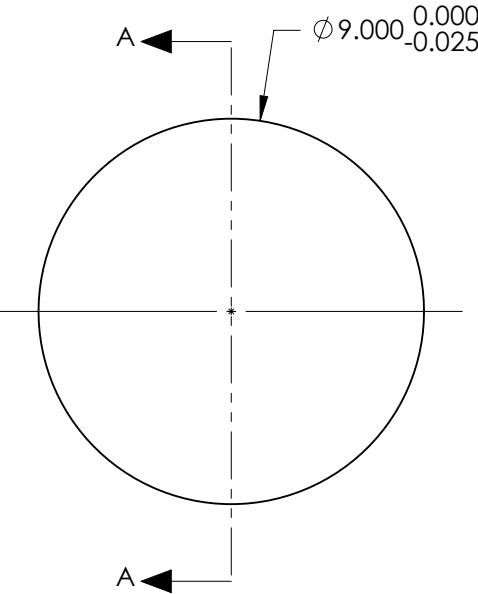
- POWER, IRREGULARITY, AND SURFACE QUALITY SPECIFICATIONS APPLY ACROSS CLEAR APERTURE

- FOCAL LENGTH (EFL): 45.00mm±1%  
BACK FOCAL LENGTH (BFL): 42.97mm

- PROTECTIVE BEVEL AS NEEDED

- DESIGN WAVELENGTH: 587.6nm

9 ELEMENTS TO BE CEMENTED WITH NORLAND OPTICAL ADHESIVE NOA61



SECTION A-A

**FOR INFORMATION ONLY:  
DO NOT MANUFACTURE  
PARTS TO THIS DRAWING**

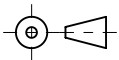
| ELEMENT TITLE           | SPECIFICATIONS AFTER CEMENTING |            |            |            |
|-------------------------|--------------------------------|------------|------------|------------|
|                         | ELEMENT A                      |            | ELEMENT B  |            |
| SURFACE                 | S1                             | S2         | S3         | S4         |
| SHAPE                   | CONVEX                         | CONVEX     | CONCAVE    | CONVEX     |
| RADIUS                  | 27.83                          | 19.75      | 19.75      | 57.06      |
| SURFACE QUALITY         | 40 - 20                        | 40 - 20    | 40 - 20    | 40 - 20    |
| MIN CLEAR APERTURE      | Ø 8.10                         | Ø 8.10     | Ø 8.10     | Ø 8.10     |
| MIN COATING APERTURE    | Ø 8.00                         | N/A        | N/A        | Ø 8.00     |
| POWER AT 632.8nm        | 3.00 RINGS                     | 3.00 RINGS | 3.00 RINGS | 3.00 RINGS |
| IRREGULARITY AT 632.8nm | 0.50 RINGS                     | 0.50 RINGS | 0.50 RINGS | 0.50 RINGS |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE  
DIMENSIONS ARE FOR REFERENCE ONLY

**Edmund Optics®**

|        |                                                             |  |                 |
|--------|-------------------------------------------------------------|--|-----------------|
| TITLE  | 9mm Dia. x 45mm FL, MgF2 Coated,<br>Achromatic Doublet Lens |  |                 |
| DWG NO | 45347                                                       |  | SHEET<br>1 OF 1 |

THIRD ANGLE  
PROJECTION



ALL DIMS IN

mm