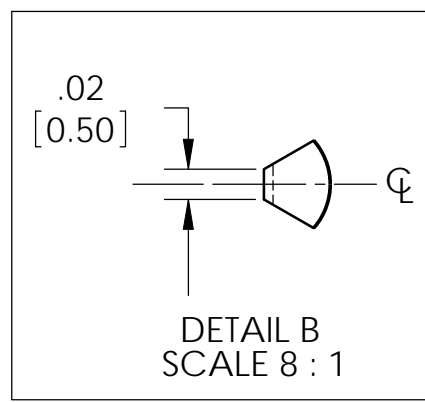
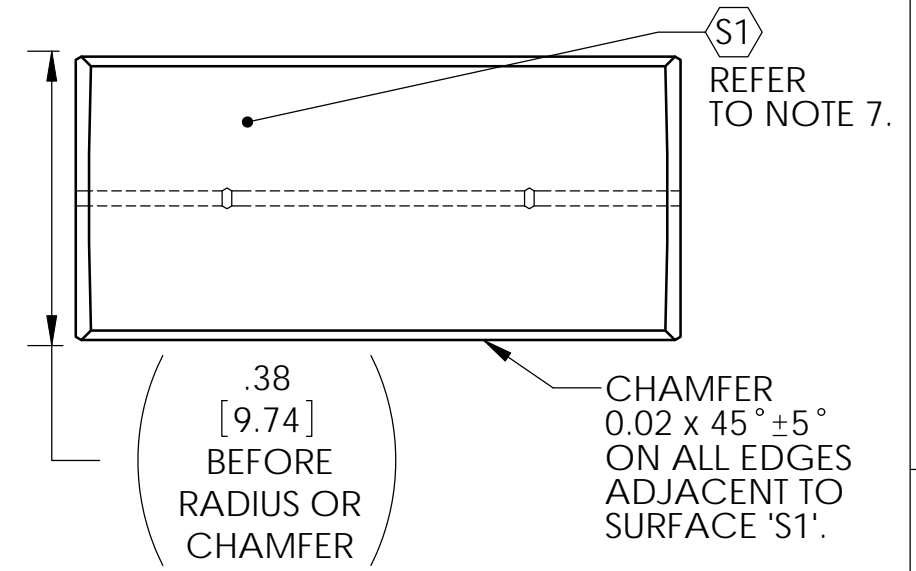
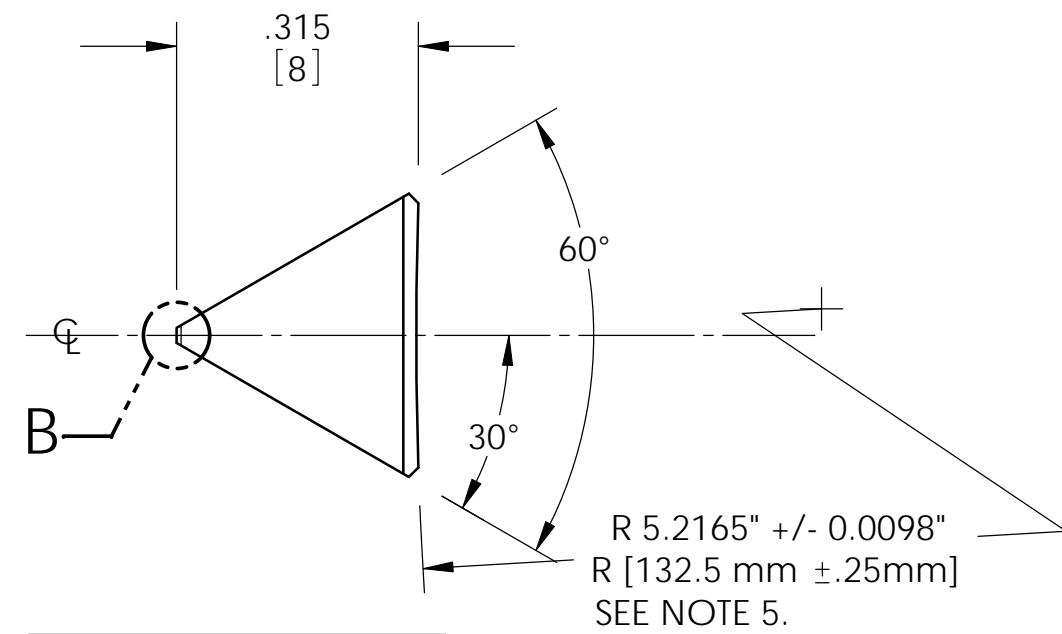
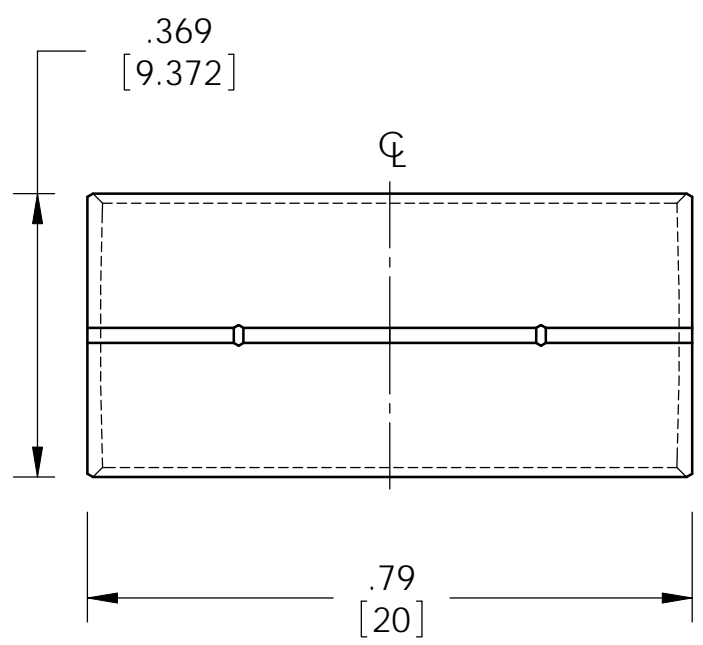
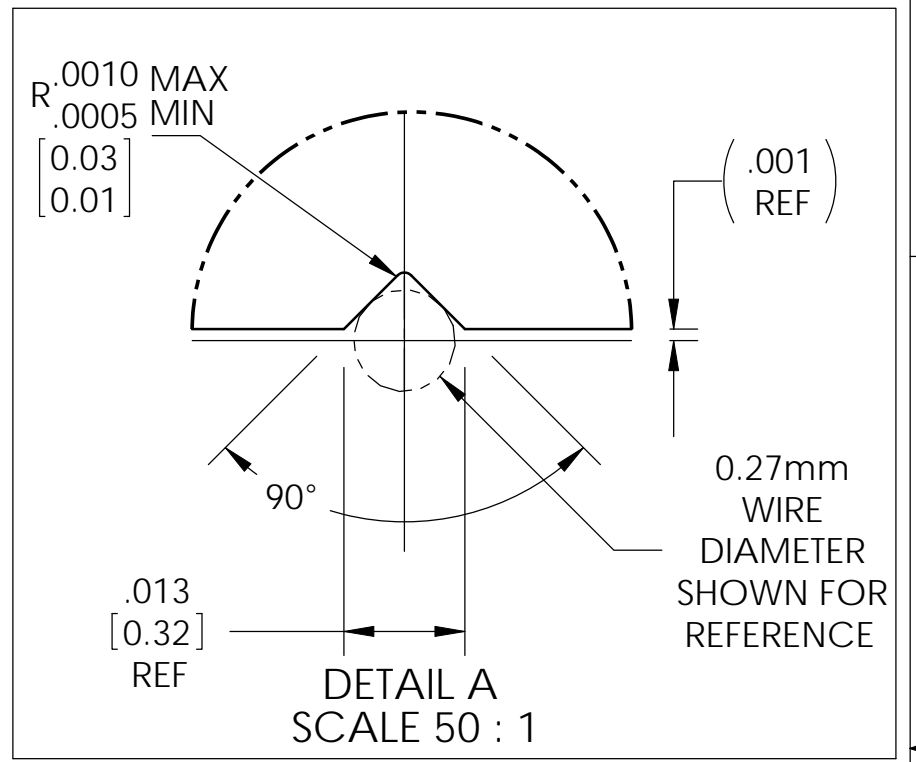
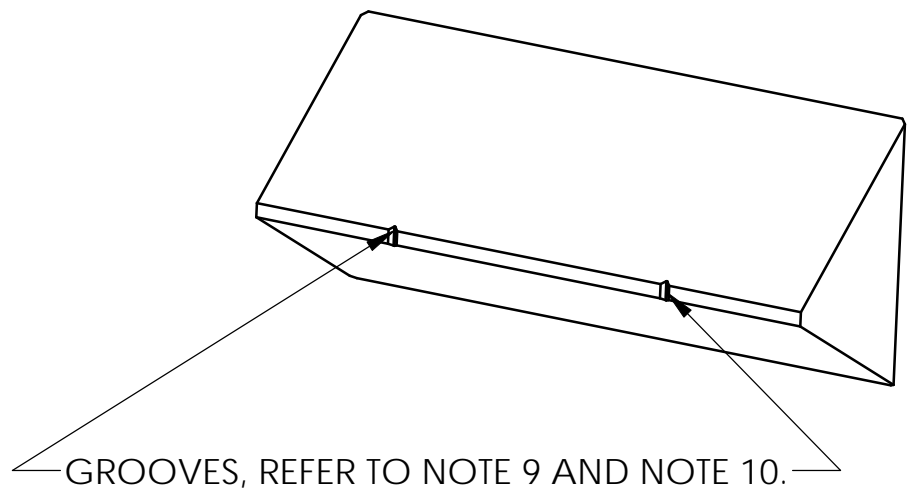
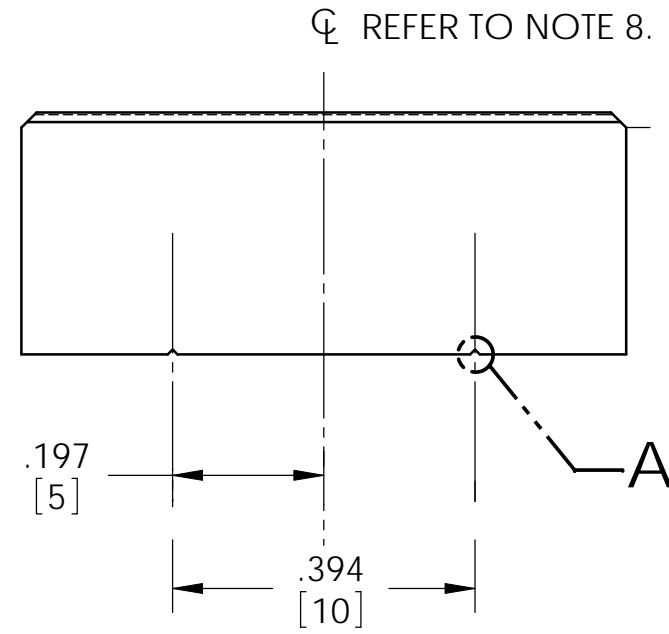


| REV. | DATE        | DCN #                 | DRAWING TREE # |
|------|-------------|-----------------------|----------------|
| v1   | 2nd Feb 09  | RFI USE ONLY (NO DCN) |                |
| v2   | 20th Feb 09 | E0900024-v1           |                |
| v3   | 31st Mar 09 | E0900099-v1           |                |
| v4   | 23 June 10  | E1000231-v1           |                |
| v5   | 10 Jan 11   | E1100029-v1           |                |



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- DO NOT SCALE FROM DRAWING.
  - MINIMISE EDGE CHIPPING.
  - REMOVE ALL SHARP EDGES.
  - ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE.
  - CYLINDRICAL RADIUS TO BE ADDED TO SURFACE 'S1'.
  - PRISM NOT TO BE USED FOR OPTICAL PURPOSES.
  - INSPECTION POLISH ALL FACES EXCEPT SURFACE 'S1'. SURFACE 'S1' TO BE 20 TO 50 Ra RANGE, WITH A FINEGRIND, MINIMAL CHIP APPEARANCE.
  - STRADDLE  $\phi$  W/IN .004" [0.1mm] T.I.R. (TOTAL INDICATED RUNOUT) FEATURE 'A'.
  - IDENTICAL GROOVES TO LOCATE AND SEPARATE TWO (SPRING STEEL) WIRES.
  - PLEASE USE LASER ABLATION TO CREATE GROOVES. A HIGH SURFACE QUALITY IS REQUIRED ON THE INTERNAL SURFACES OF THE GROOVES AND IN THE GENERAL VICINITY OF THE GROOVES. PLEASE DISCUSS BEST EFFORTS WITH LIGO STAFF.

|   |         |               |
|---|---------|---------------|
| DUAL DIMENSIONS ARE IN INCHES AND (MILLIMETERS)           |         |               |
| TOLERANCES:<br>.XX ± 0.01<br>.XXX ± 0.005<br>ANGULAR ± 1° |         |               |
| MATERIAL<br>SAPPHIRE                                      |         |               |
| FINISH<br>INSPECTION POLISH                               |         |               |
| DRAWN   | C TORRE | 11th Dec 2008 |
| CHECKED   |         |               |
| APPROVED  |         |               |

|   |                       |
|---|-----------------------|
| CALIFORNIA INSTITUTE OF TECHNOLOGY<br>MASSACHUSETTS INSTITUTE OF TECHNOLOGY |                       |
| SYSTEM  | ADVANCED LIGO         |
| SUB-SYSTEM  | SUS HLTS              |
| NEXT ASSY   | HLTS BOTTOM MASS ASSY |
| PART NAME<br>HLTS PRISM   |                       |
| SIZE  | DWG. NO. D070441      |
| REV.  | v5                    |
| SCALE: 4:1  | PROJECTION:           |
| SHEET 1 OF 1  |                       |

INTERNAL REFERENCE: - V3-003 ENG CHANGE