LCLS Gun Drive Laser Transport Tube window specification:

1. Window diameter            2"
2. Clear Aperture             90% of diameter
3. Flange Style              4.5" CF w. through holes
4. Window material           UV grade Fused Silica
5. Maximum window thickness  1.00"
6. Wavefront Distortion      \( \lambda/10 \)
7. Parallelism               30 arc sec
8. AR coating                @255 nm +/- 5 nm on both side
9. Damage threshold for AR coating 6 J/cm²
10. Scratch-Dig              20-10
11. Bakeable to              250° C
12. Leak tight to            2E-10 torr liters/sec
13. Permeability of finished window assembly no larger than 1.05 at 200 oersted
14. Desired quantity         4 EA, possibly more

The windows must be designed and fabricated in such a way that the optical properties listed above can be achieved by polishing and applying the AR coating on both sides of the fused silica, after the windows has been permanently mated to its CF flange. We are aware of that to accomplish this; the window must be thicker than the CF flange.

Please provide us with a design proposal, a simple sketch will do fine, as well as a quote and turn-around time for 4 windows as described in the attached specification.

![Fused Silica Window Diagram]

4 ½” CF or equivalent