

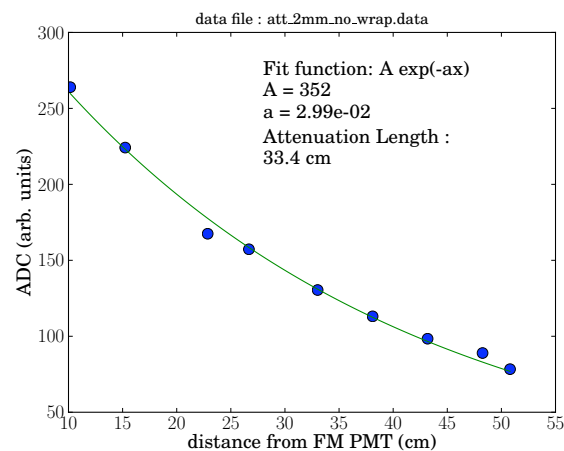
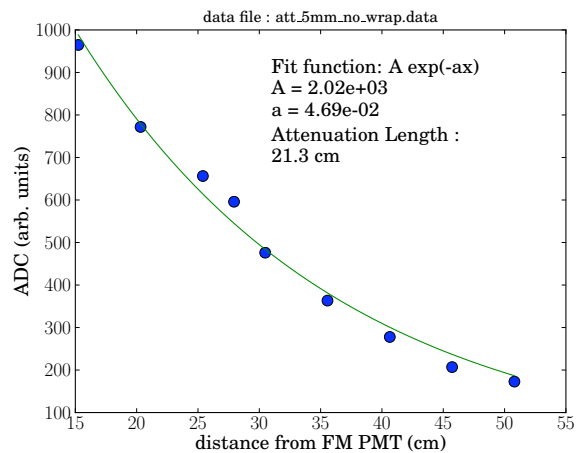
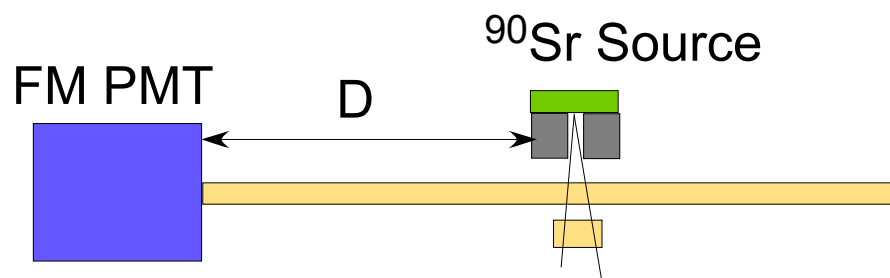
Start Counter Update

W. U. Boeglin

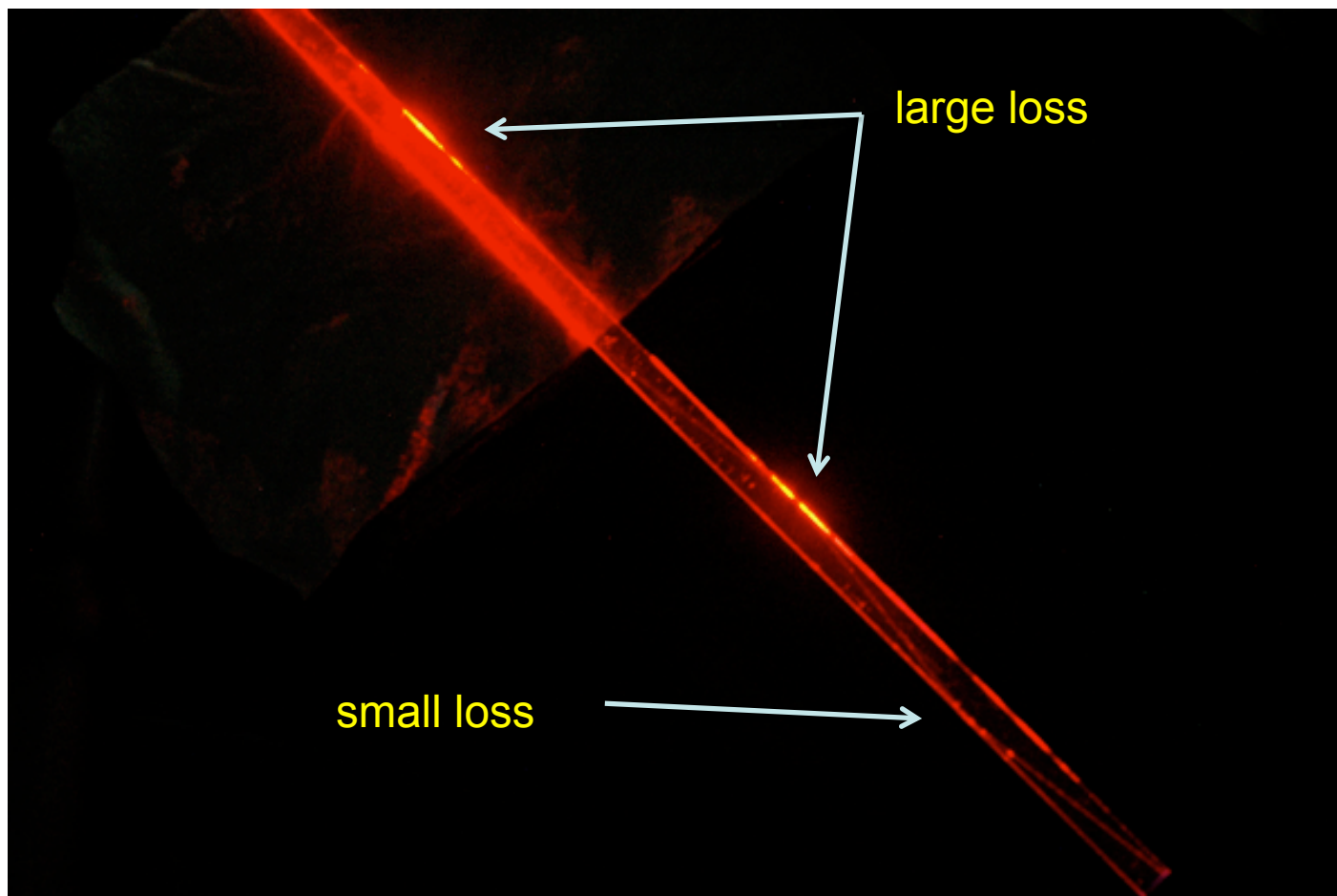
- EJ-200: Light loss studies
- Polishing Tests ongoing
- Started Construction of Polishing Machine
- Scintillator Bending Setup: Prototype this week
- Design variations/simplifications

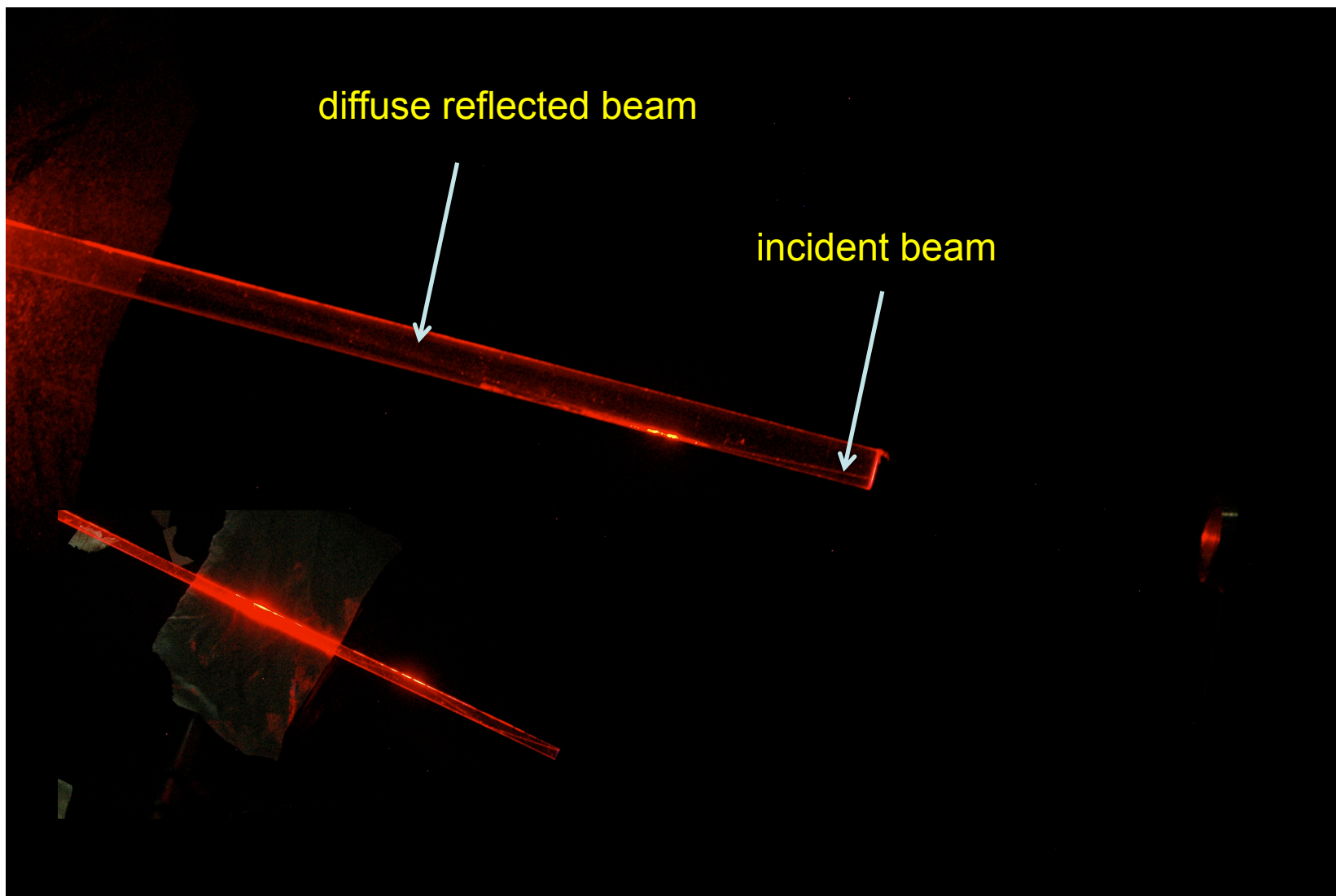
EJ-200 Scintillator Bar Studies

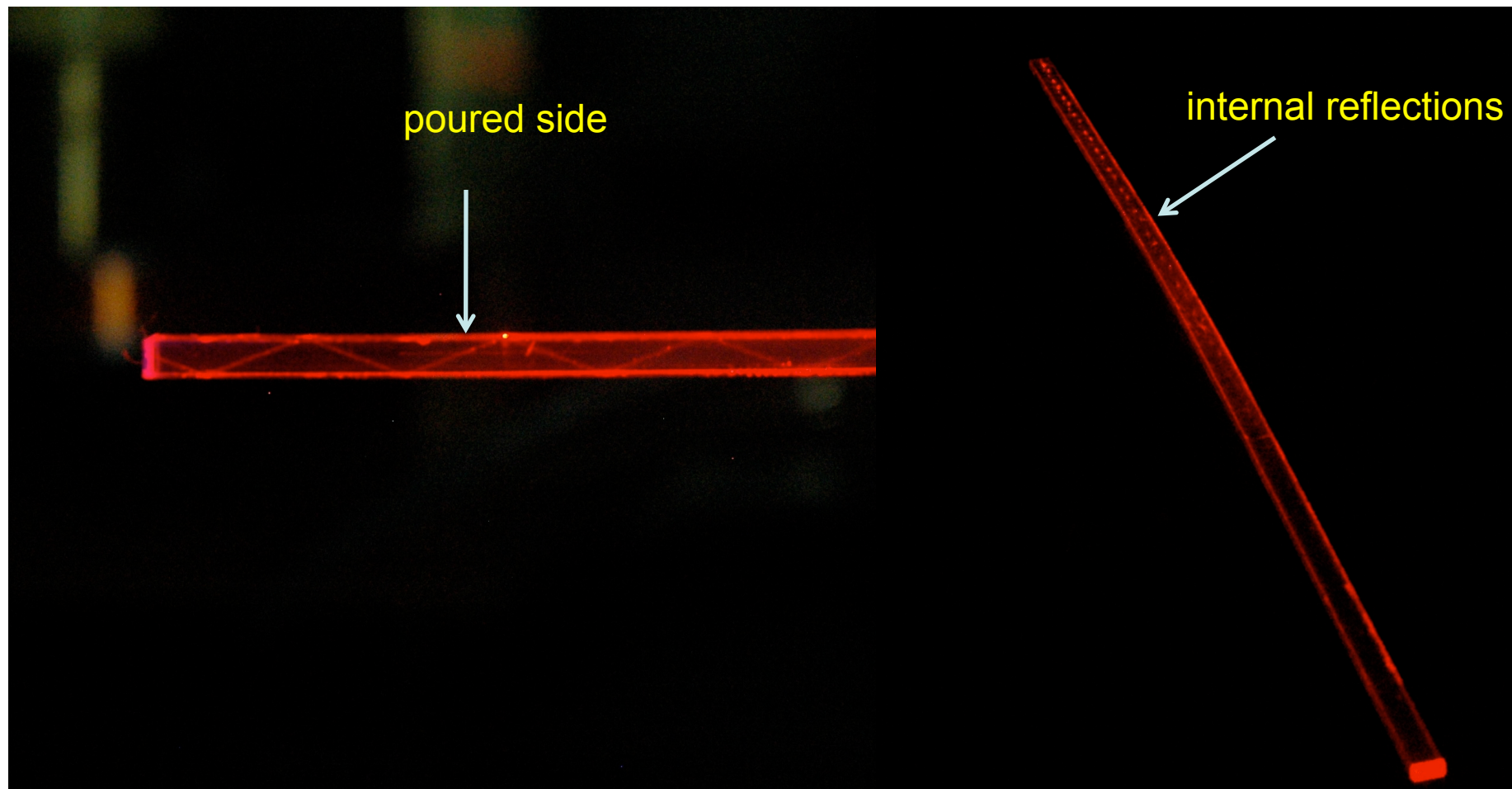
Light output measurements:



Laser Studies









Summary

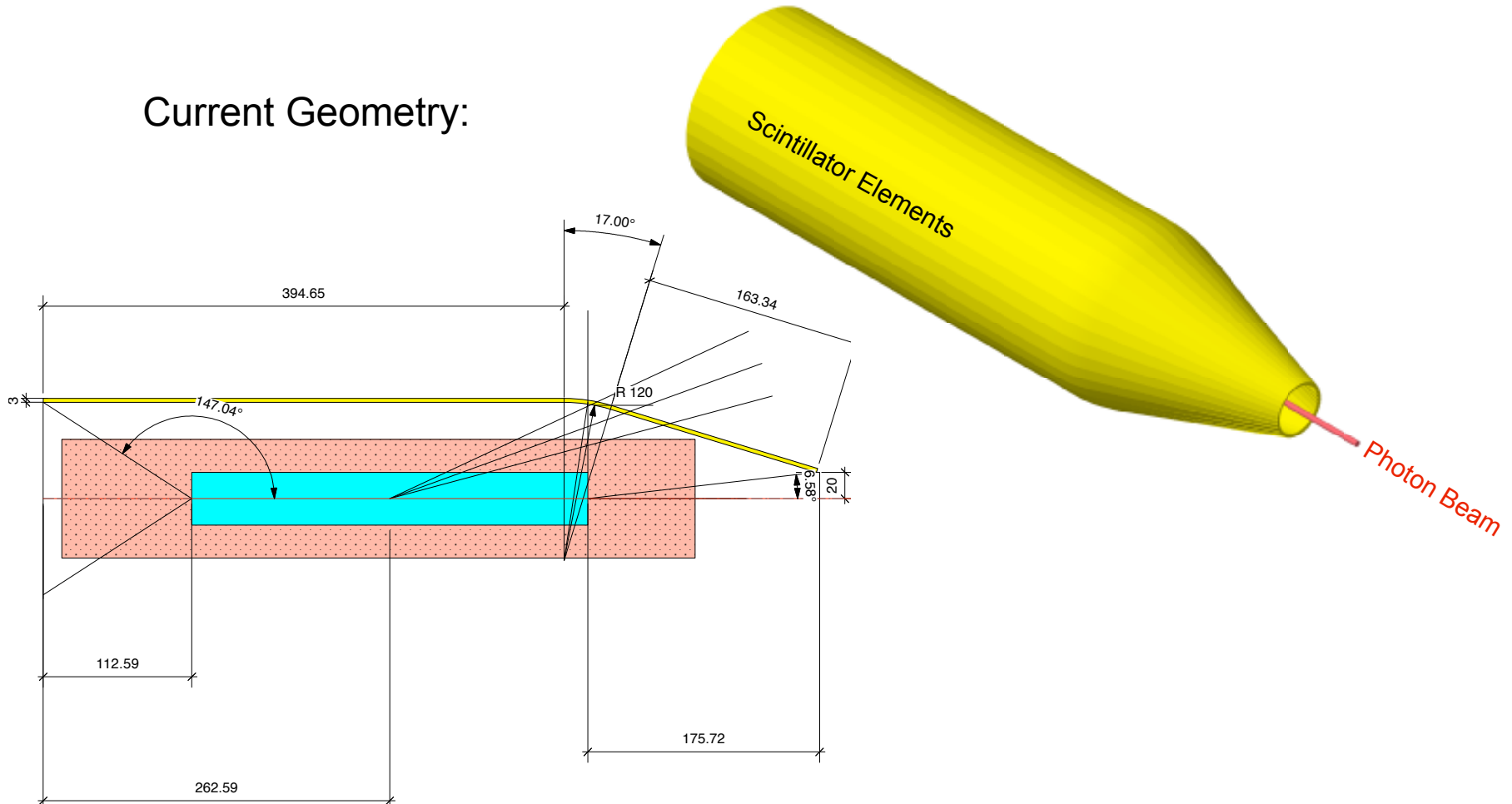
- poured side (wide side) good quality
- diamond machined side problematic, confirmed by Eljen
- thin scintillator edge smaller fraction of total internal surface
- thick scintillator wide edge leads to large light loss

Consequence

- producing highly reflective surfaces crucial
- hand polishing very difficult to produce consistent result
- build machine (already started)

Geometry Changes

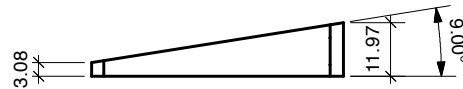
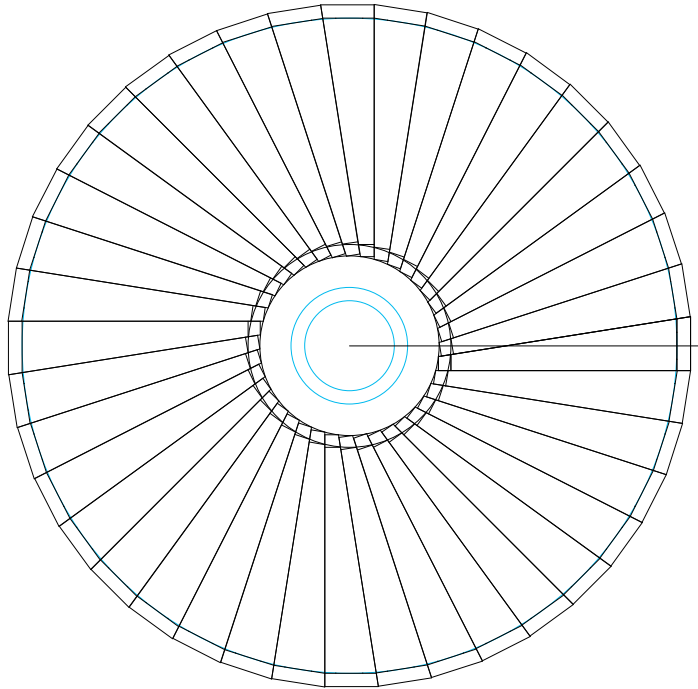
Current Geometry:



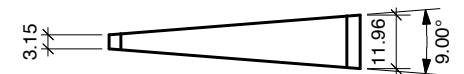
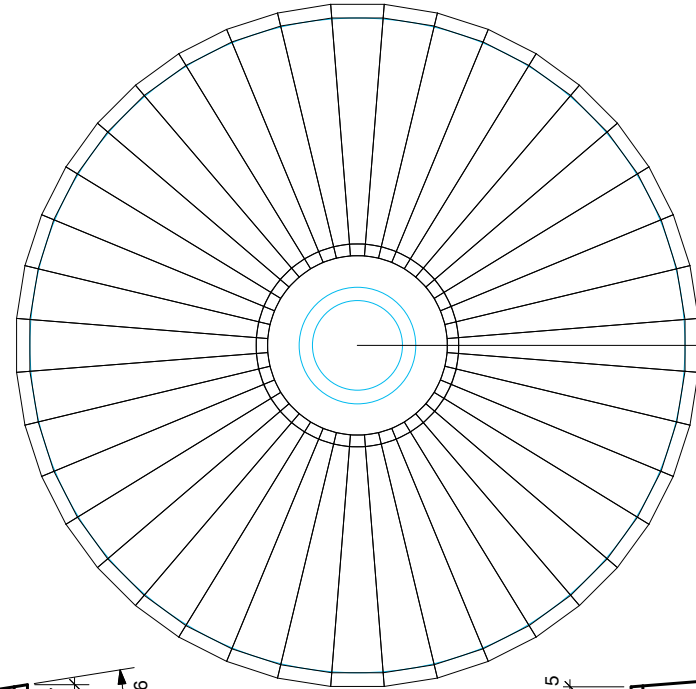
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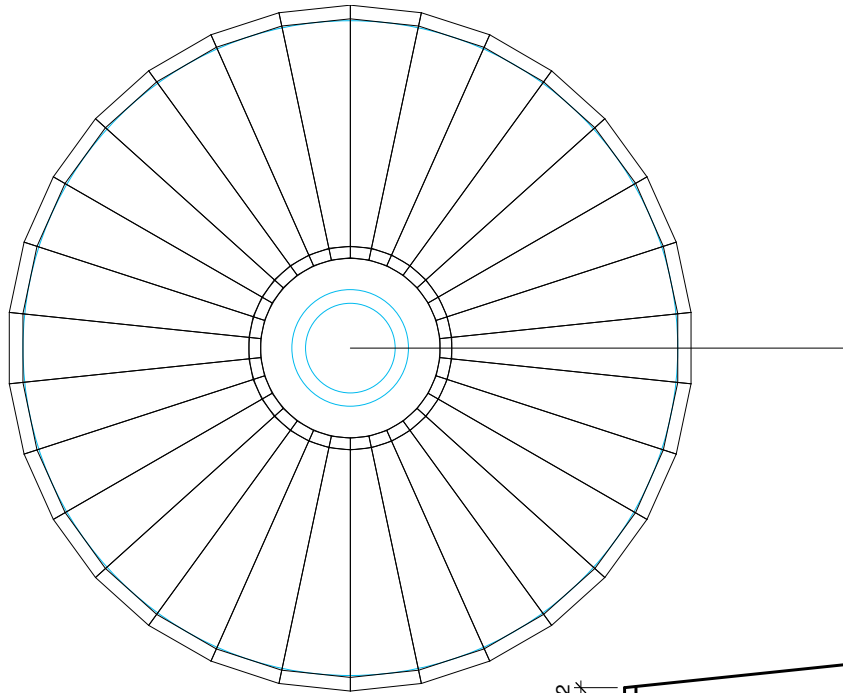
Collaboration Meeting September
2010 Start Counter

Current asymmetric



New symmetric



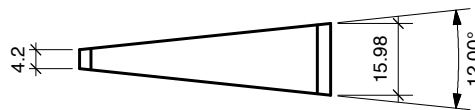


Advantage

- easier to fabricate
- improved light output

Disadvantage

- smaller segmentation
- higher rates/element



Summary

- injecting laser light into scintillators showed poor edge quality
- ordered new scintillators for further testing
- scintillator bending setup, ready next week
- hand polishing inadequate for reproducible work
- construction of polishing equipment started
- equipment for SiPM testing ready