

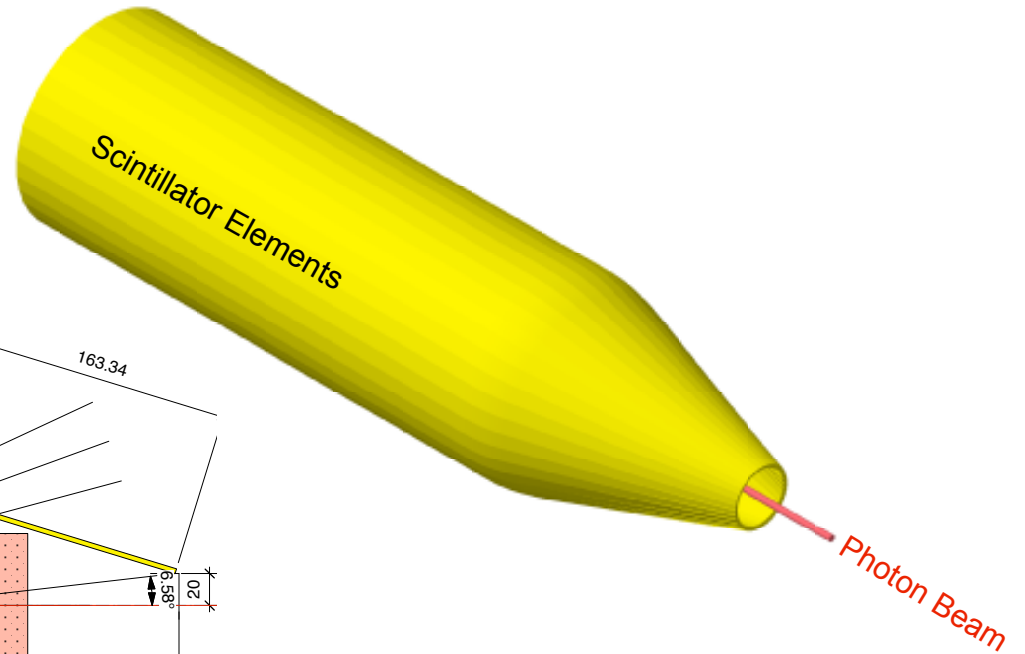
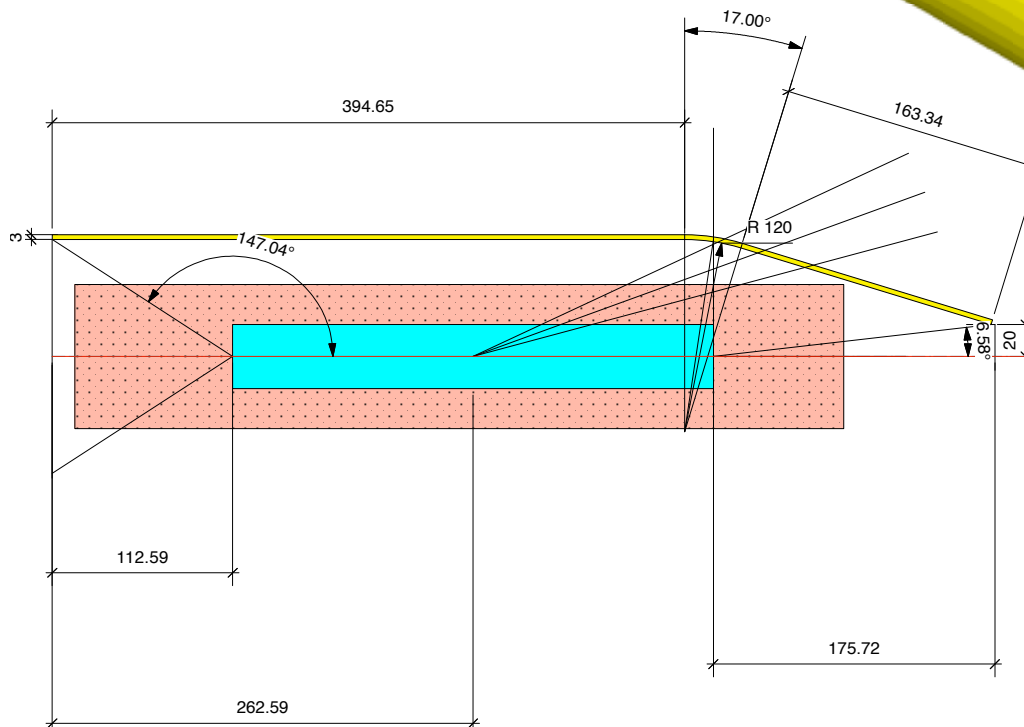
Start Counter Update

W. U. Boeglin, L. Guo, E. Pooser

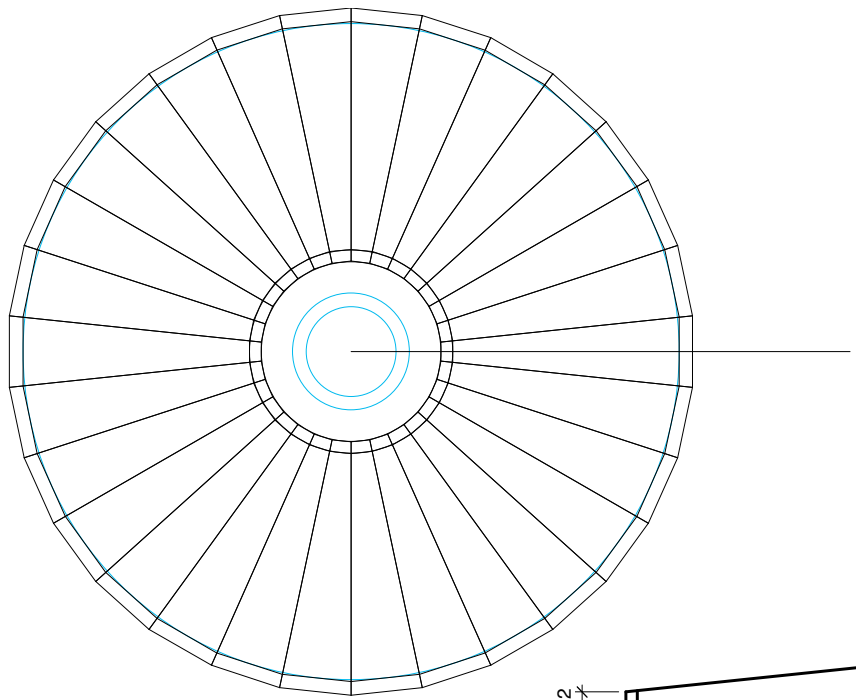
- Prototype production
- Timing studies with PMT and SiPM (E.Pooser)
- Scintillator bending tests

Geometry

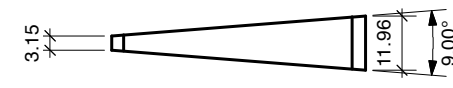
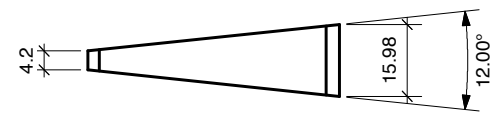
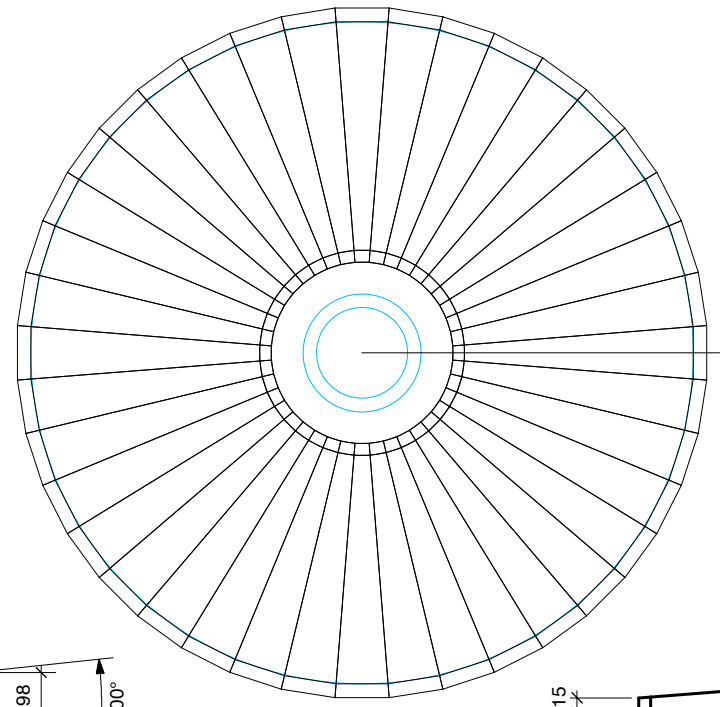
Current Geometry:



30 Elements



40 Elements

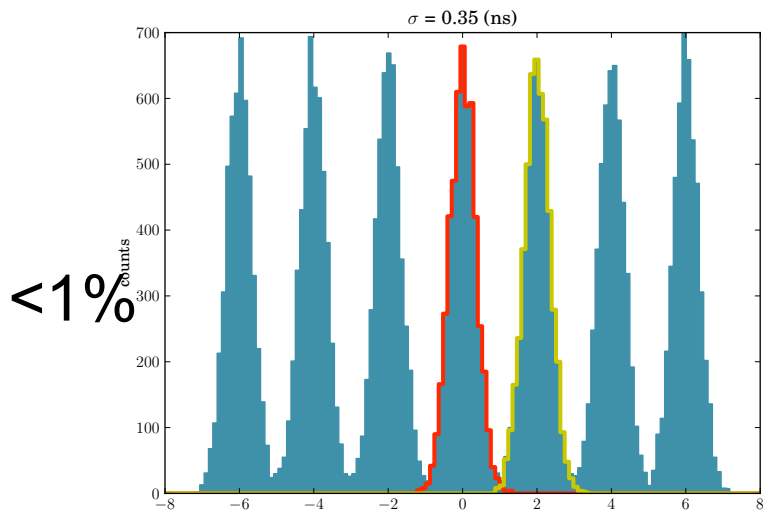


Prototype Production

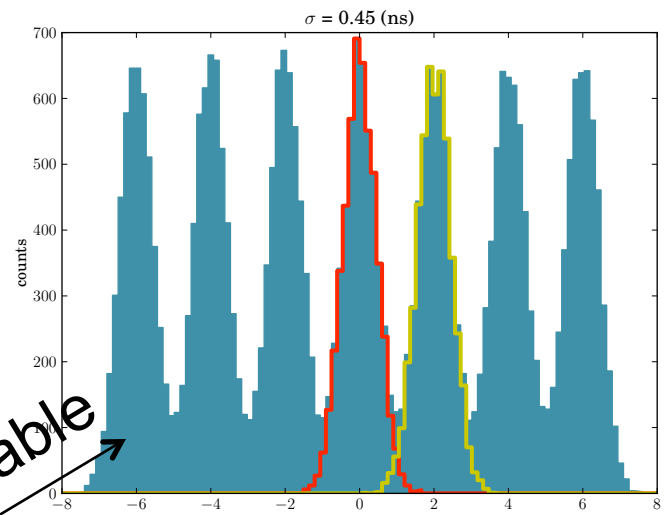
- Material ordered from Eljen: 3x 15 x 600 mm²
- Bending, Machining & Polishing by Plastic Craft (PC)
- PC has been manufacturing light guides for CTOF in CLAS
- Sample of 5 elements ordered
- Expect about 3 failures out of 8

Timing Studies

See Presentation by E. Pooser

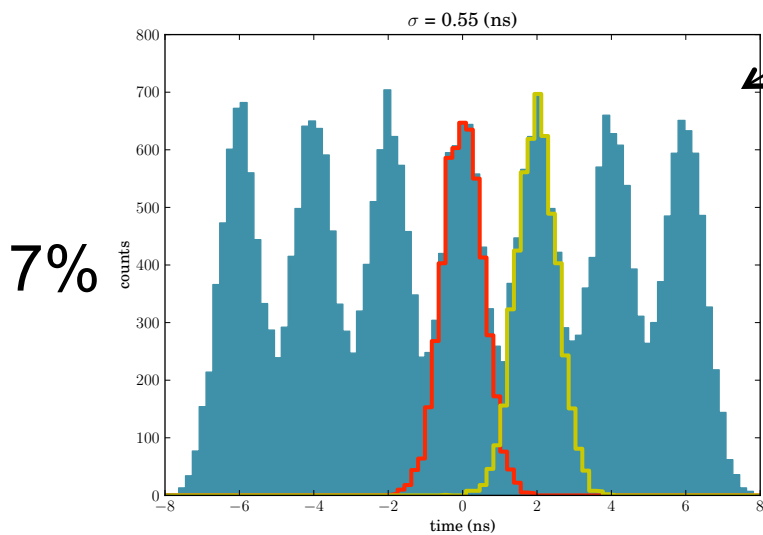


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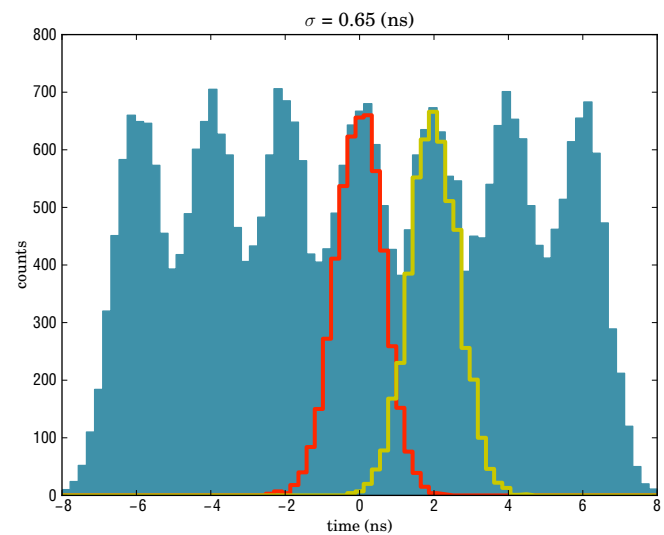


3%

achievable



7%



13%

Scintillator Bending

- Currently on hold, since scintillators might be produced by Plastic Craft
- Tests with 2, 3, and 5 mm plexi glass
- Successfully bending with necessary radius
- Temperature control critical, time consuming
- Bend angle variations $< 1^\circ$

Summary

- New scintillator material has good light output properties
- Direct readout with PMT clearly satisfies time resolution requirements
- Direct readout with SiPM still marginal
- Ordered material for scintillator module production (4 -6 week for delivery)
- Continue to follow PMT readout option using light guides
- Will order fiber light guides