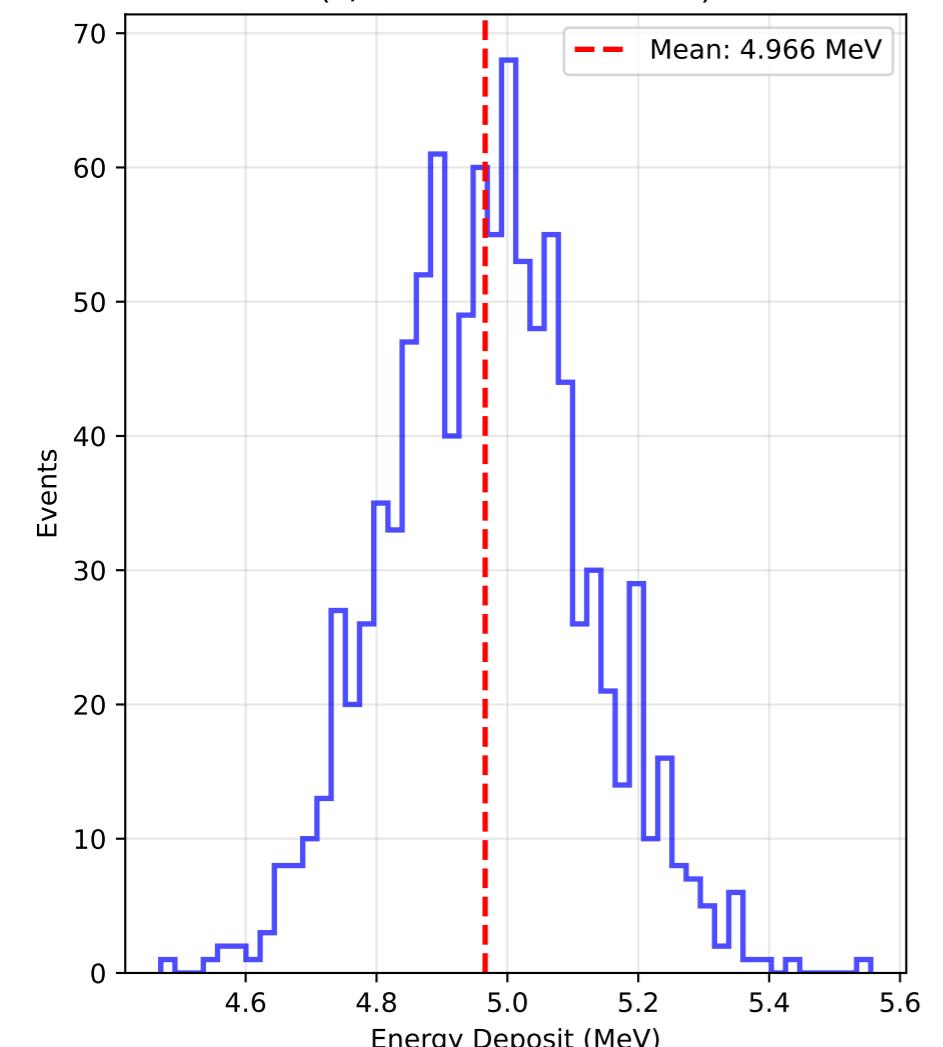
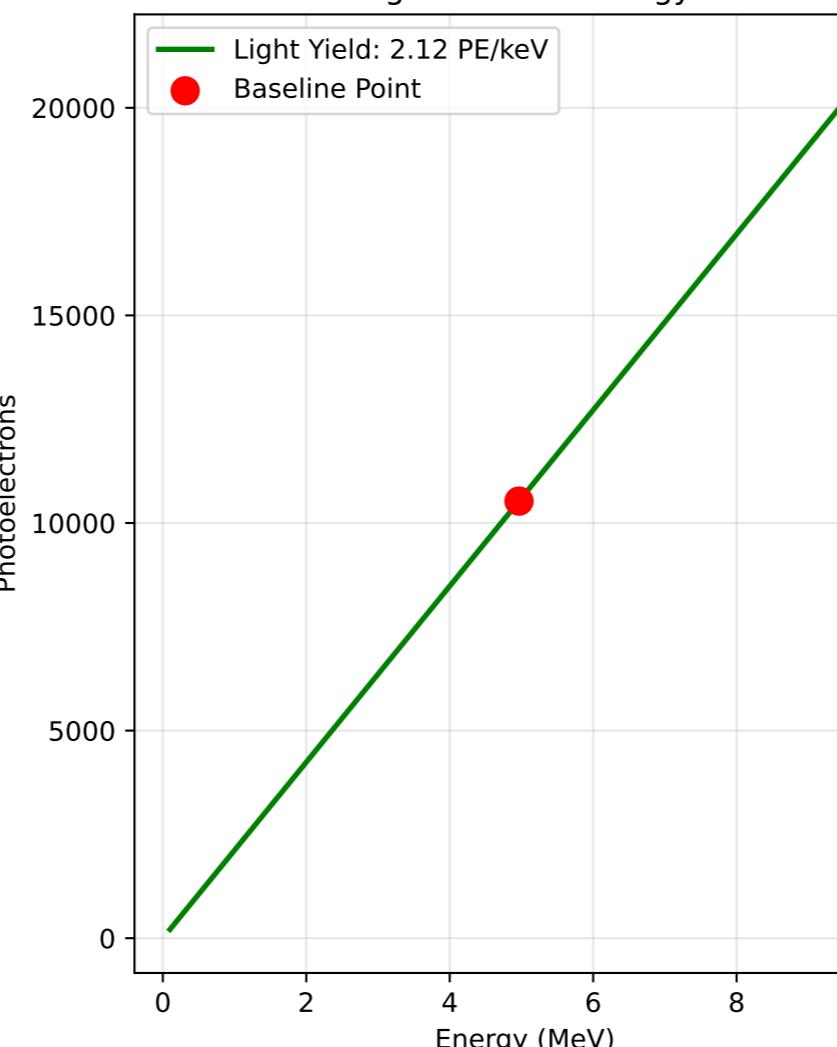


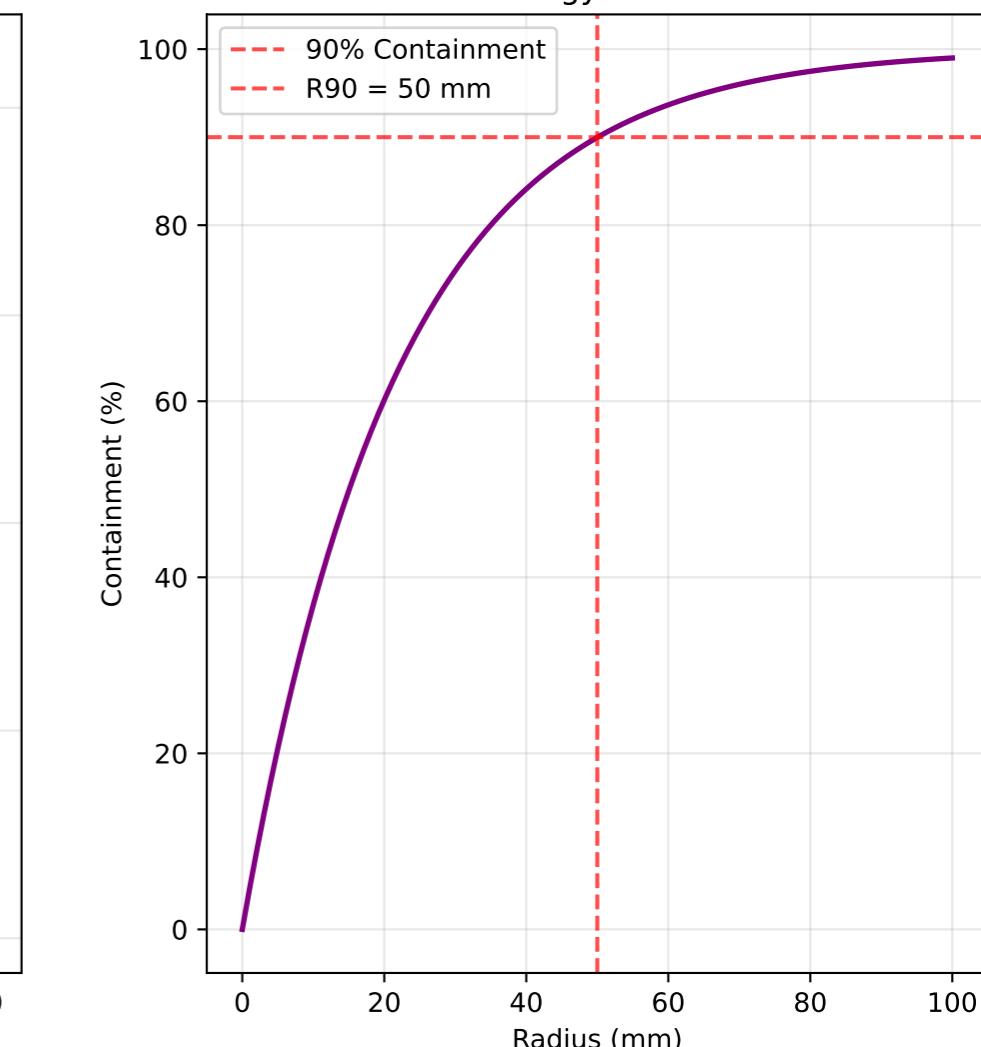
Baseline Energy Distribution
($\sigma/E = 0.0308 \pm 0.0022$)



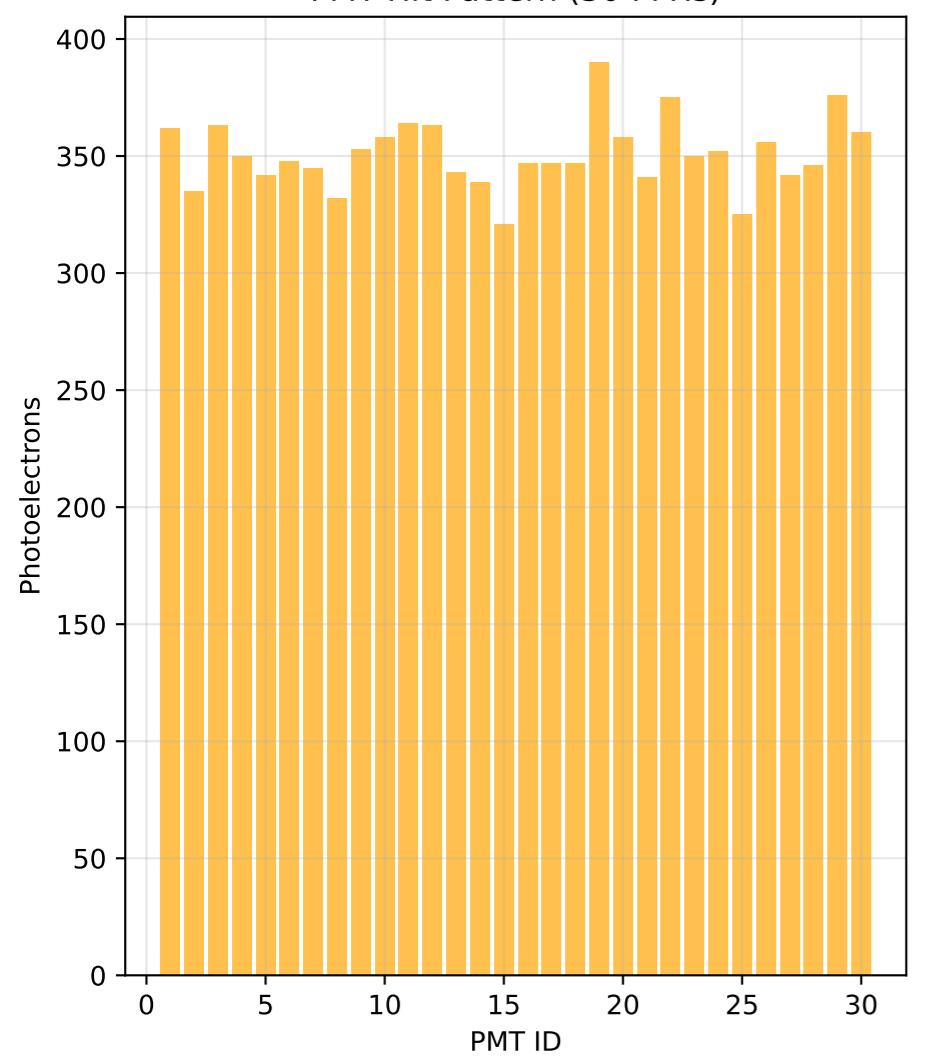
Light Yield vs Energy



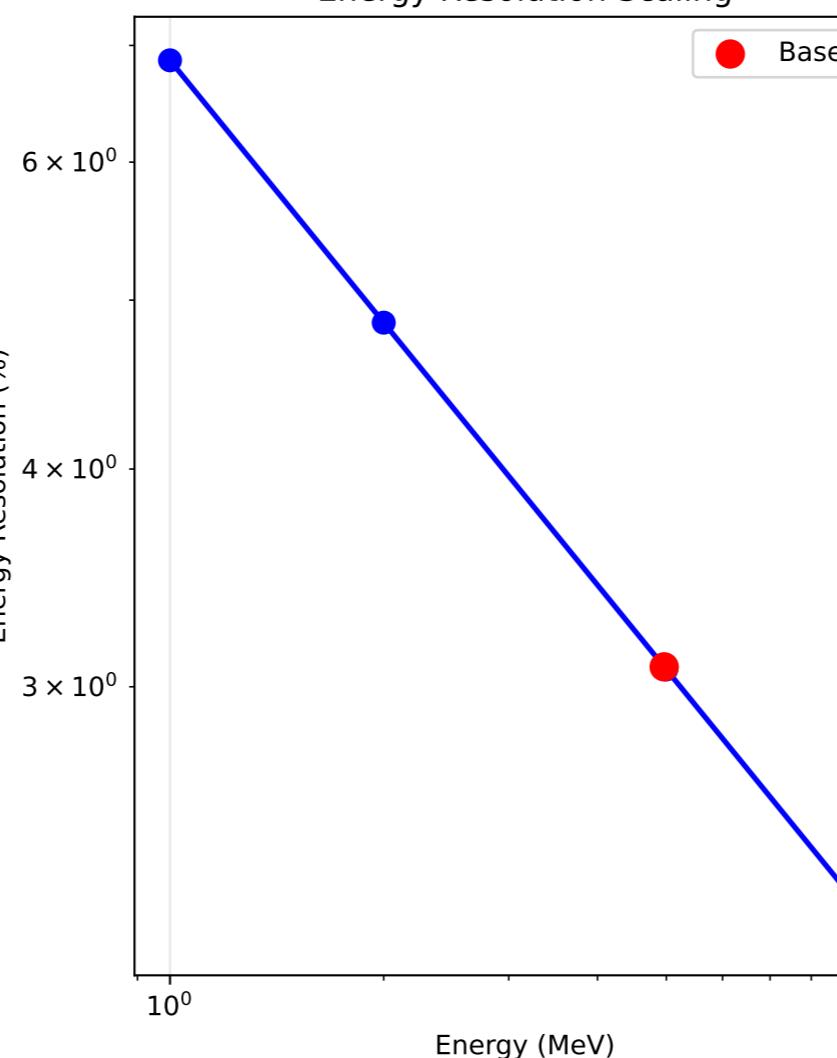
Radial Energy Containment



PMT Hit Pattern (30 PMTs)



Energy Resolution Scaling



Baseline Detector Performance Summary

Geometry: Cylindrical LAr Detector

- Diameter: 0.5 m
- Height: 0.5 m
- Volume: 0.050 m³
- PMTs: 30 sensors

Performance Metrics:

- Energy Resolution: 0.0308 ± 0.0022
- Mean Energy: 4.966 MeV
- Light Yield: 2.12 PE/keV
- 90% Containment: 50 mm
- PMT Coverage: 1.25

Optical Physics: Enabled
Scintillation Yield: 40,000 photons/MeV