PLUME Detector:

Geant4 Exploration 4

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September 7, 2021

- 1 Single Module Simulation
 - Random Perpendicular Beam
 - Random Angle Beam

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Uniform Distributed Perpendicular Beam

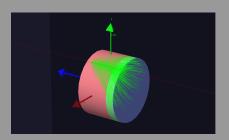


Figure 1: Perpendicular Beam in Single Module Detector.

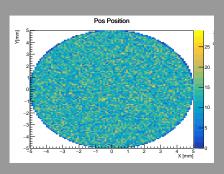


Figure 2: Uniform Distribution for Perpendicular Beam.

Total Photons Detection

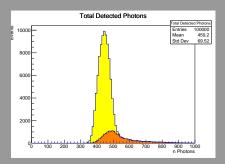


Figure 3: Counting for Total Detected Photons

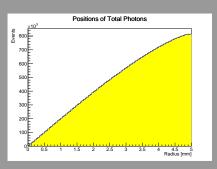


Figure 4: Radius Dependency for Total Detected Photons.

Primary Photons Detection

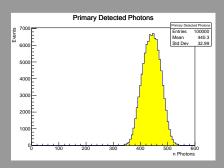


Figure 5: Counting for Primary Detected Photons.

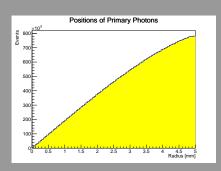


Figure 6: Radius Dependency for Primary Detected Photons.

Secondary Photons Detection

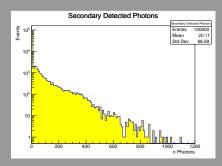


Figure 7: Counting for Secondary Detected Photons.

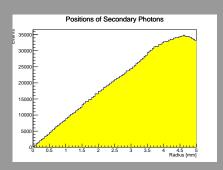


Figure 8: Radius Dependency for Secondary Detected Photons.

- 1 Single Module Simulation
 - Random Perpendicular Beam
 - Random Angle Beam

Random Angle Beam

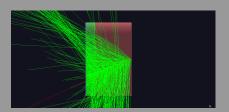


Figure 9: Beam starting at the beginning of the detector.

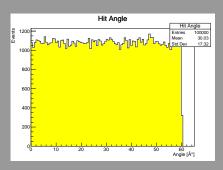


Figure 10: Uniform Distribution for Perpendicular Beam.

Total Photons Detection

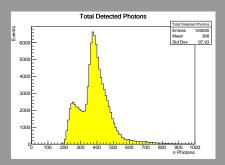


Figure 11: Counting for Total Detected Photons

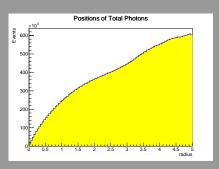


Figure 12: Radius Dependency for Total Detected Photons.

Primary Photons Detection

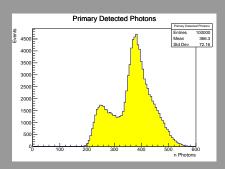


Figure 13: Counting for Primary Detected Photons.

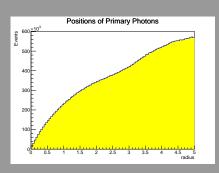


Figure 14: Radius Dependency for Primary Detected Photons.

Secondary Photons Detection

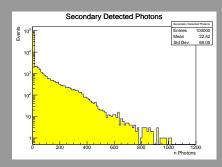


Figure 15: Counting for Secondary Detected Photons.

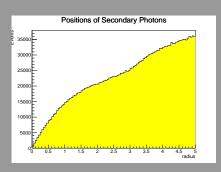


Figure 16: Radius Dependency for Secondary Detected Photons.