

PLUME Detector:

Geant4 Exploration 5

Duque Bran, Moreno Sarria

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Table of Contents

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

Table of Contents

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 - Random Perpendicular Beam
 - Random Angle Beam

Table of Contents

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 - Random Perpendicular Beam
 - Random Angle Beam

Uniform Distributed Perpendicular Beam

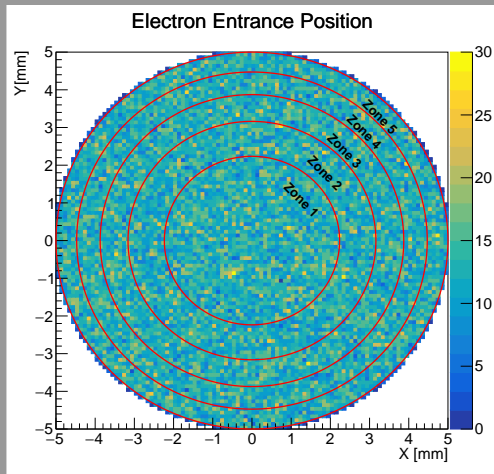


Figure 1: Uniform Distribution for Perpendicular Beam divided by Zones.

Total Photons Detected Position

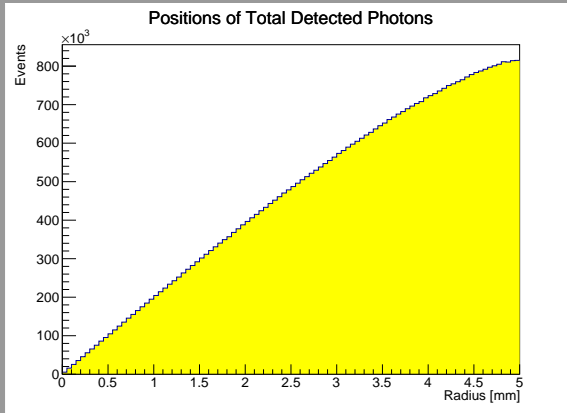


Figure 2: Position for Total Detected Photons.

Total Photons Detected Position

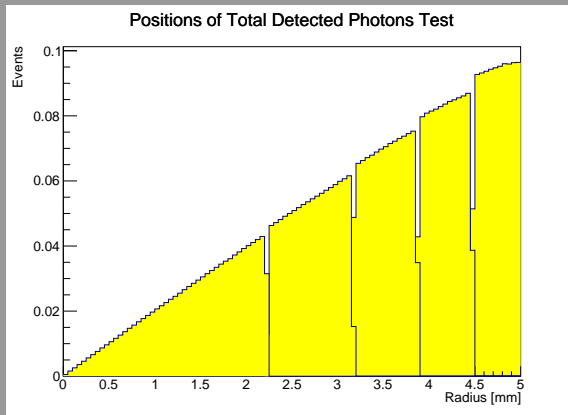


Figure 3: Position for Total Detected Photons Normalized.

Total Photons Detection Position by Zones

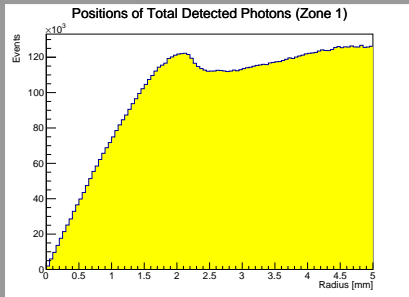


Figure 4: Position for Total Detected Photons of an Electron in Zone 1.

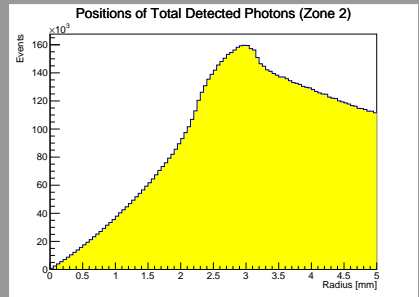


Figure 5: Position for Total Detected Photons of an Electron in Zone 2.

Total Photons Detection Position by Zones

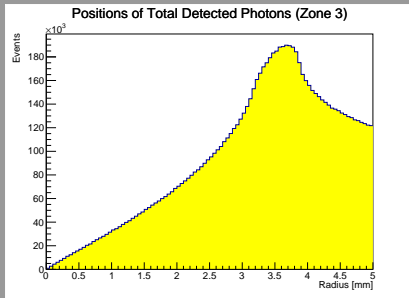


Figure 6: Position for Total Detected Photons of an Electron in Zone 3.

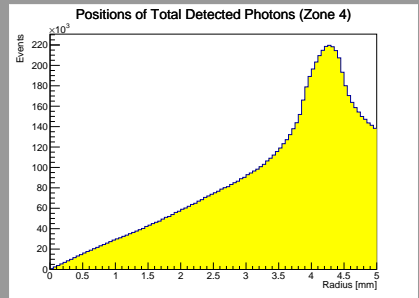


Figure 7: Position for Total Detected Photons of an Electron in Zone 4.

Total Photons Detection Position by Zones

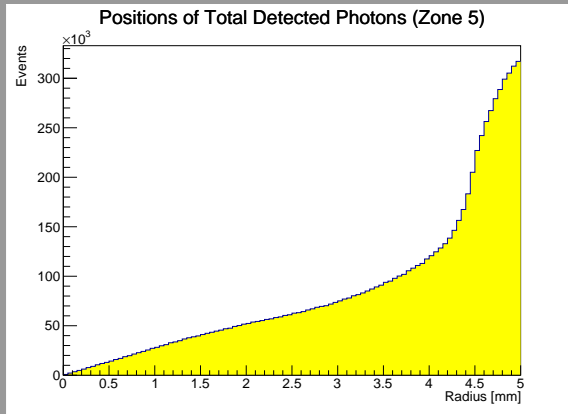


Figure 8: Position for Total Detected Photons of an Electron in Zone 5.

Table of Contents

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 - Random Angle Beam

Random Angle Beam

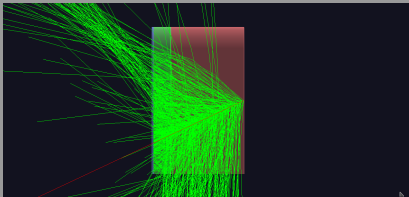


Figure 9: Beam starting at the beginning of the detector.

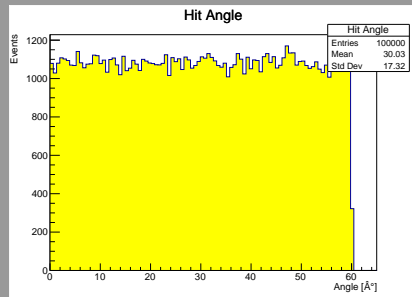


Figure 10: Uniform Distribution for Perpendicular Beam.

Total Photons Detection

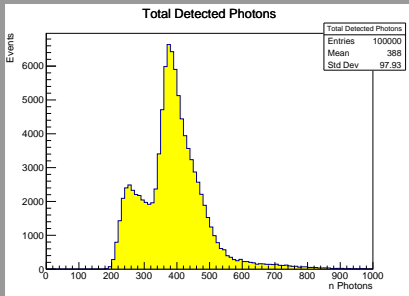


Figure 11: Counting for Total Detected Photons.

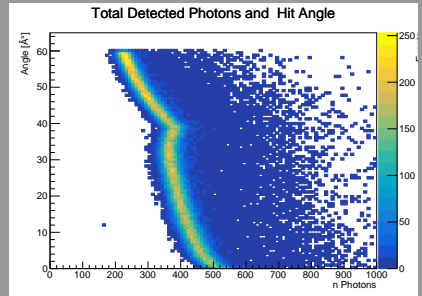


Figure 12: Counting for Total Detected Photons given the angle of the primary electron.

Primary Photons Detection

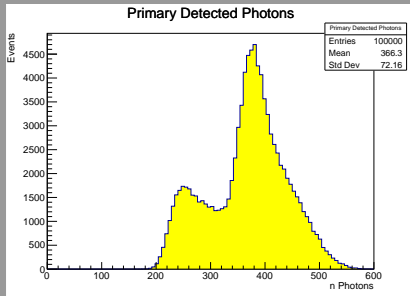


Figure 13: Counting for Primary Detected Photons.

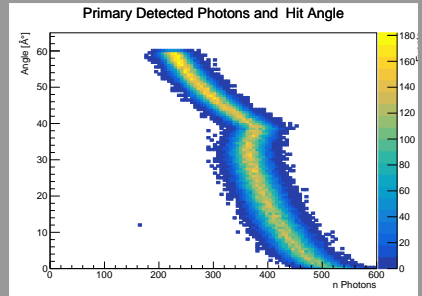


Figure 14: Counting for Primary Detected Photons given the angle of the primary electron.

Secondary Photons Detection

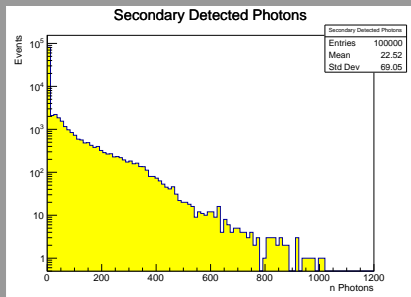


Figure 15: Counting for Secondary Detected Photons.

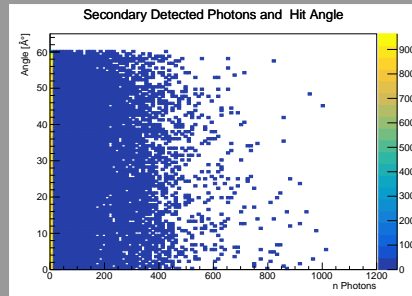


Figure 16: Counting for Secondary Detected Photons given the angle of the primary electron.

Normalization

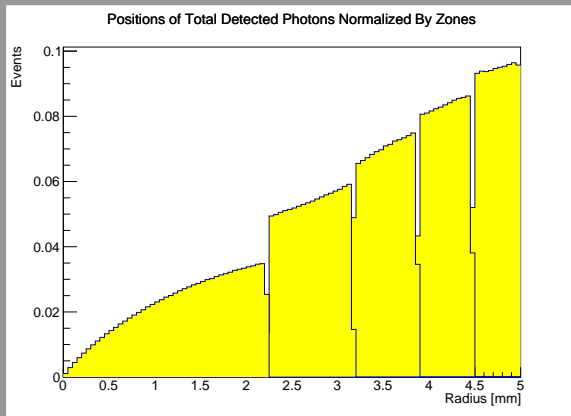


Figure 17: Number of detected photons vs radius, normalized.