

Engineering Physics Lab Report

Experiment 4: Speed of Light

Student Name

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1 Objectives

To measure the speed of light in air using a rotating mirror apparatus.

2 Apparatus

Laser source, rotating mirror, fixed mirror, beam splitter, photodetector, oscilloscope.

3 Data Table

Distance (m)	Time Delay (ns)
10.5	35.1
21.0	70.3

4 Conclusion

The calculated speed of light is approximately 2.99×10^8 m/s, which falls within the experimental margin of error.