

Abstract

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Indoor Half-Pulse L-PPM for Wireless Optical Communications: Effect of Ambient Light Noise and Flicker

The effect of ambient radiation that includes noise and flicker voltages on half pulse L-PPM for WOC applications is studied. Photodiode responsivity and capacitance effects are investigated on flicker and noise voltages levels for indoor 4-PPM. Si p-i-n photodiodes and Si APDs are tested to find which photodetector type is most suitable for indoor WOC application. The study is focused on incandescent lamps (tungsten lamps) and fluorescent lamps.