The Photometric Law of Distance Experimental Set Using Light Sensor Arduino for Growing Sunflower Sprouts

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Abstract

The research aims to develop the photometric law of distance experimental set using the light sensor Arduino for measuring the luminous intensity. The experimental set consists of 1) the light sensor based on the GY-302 BH1750FVI module of Arduino board displaying values in Lux unit on the LCD, 2) 12- Volts DC power supply, 3) one-meter length aluminum track, and 4) a manual book. It is used to measure the luminous intensity at different distances from 20 cm to 100 cm. The result revealed that there was 5.34% tolerance calibrated by Vernier's light sensor. Moreover, the developed light sensor was applied to grow the sunflower sprouts under 3 light colors (red, green, white) conditions. It was found that the red light provided proper sprouts, which agree with customers' satisfaction.

Keywords: Experimental Set, Photometric Law, Light Sensor, Arduino, Growing Sunflower Sprouts