Designing a Lux Meter

Description

A lux meter is used to measure illuminance/light intensity. The 'lux' is a measure of the brightness or intensity of light as it appears to the human eye. The lux meter is used to ensure optimum lighting conditions for workplaces, streets and parking lots, museums and other public areas.

Outcomes

You need to design a Lux meter that is able to measure white and coloured LED light under normal laboratory conditions.

The project will be evaluated on the following criteria

- Accuracy : in comparison to a standard industrial lux meter
- Resolution : ability to detect small changes
- Range of measurable illuminance
- Max distance to the light source

You have to provide a specifications sheet for the product following the formats of already available commercial Lux Meters.

Notes

- You are allowed to use microcontrollers for the display, but all sensing and amplification must be done using analog components.
- It is allowed to use an external PCB manufacturer for producing the circuits, and no marks will be reduced or added.

Supervisor

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