



ILLUMINATION SENSOR

FEATURES:

- **Outdoor daylight monitoring**
- **Illumination engineering**
- **Lighting control systems**

Photometry refers to the measurement of visible radiation (light) with a sensor having a spectral responsivity curve equal to the average human eye. This curve is known as the CIE Standard Observer Curve (photopic curve).

Climatronics' photometric sensor (P/N 101668) is used to measure lighting conditions where the eye is the primary receiver, such as illumination of work areas, interior lighting, television screens, etc. The sensor utilizes a filtered silicon photodiode to provide a spectral response that matches the CIE curve within $\pm 5\%$ under most light sources. This photodiode and filter combination is placed within a fully cosine-corrected sensor head to provide the proper response to radiation at various angles of incidence.

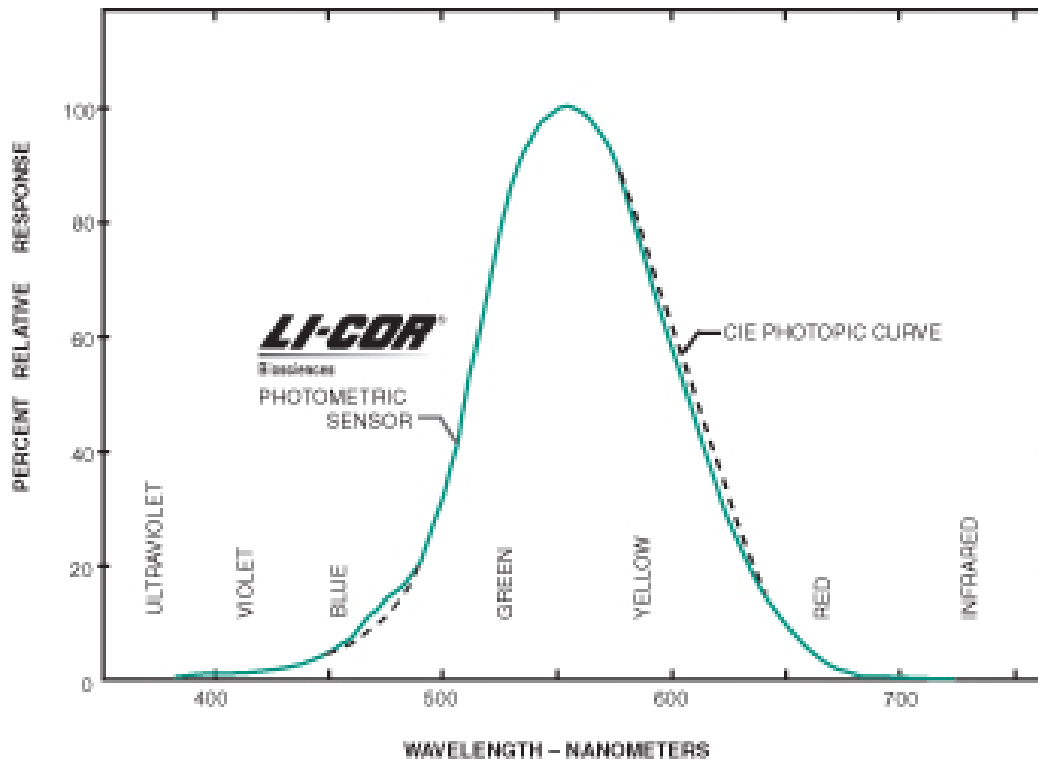
Other applications of Climatronics' Photometric Sensor include interior and industrial lighting, outdoor illuminance, passive solar energy, architecture and lighting model, illumination engineering, and biological sciences. The 101668 is a research grade photometric sensor that is very reasonably priced.

The illumination sensor is easy to use. It can be directly connected to a voltmeter or a data logger, such as Climatronics' IMP-850/IMP-860 series data loggers. Direct readout in Lux (lx) can be derived from the measured voltage divided by the calibration coefficient.



SPECIFICATIONS

Absolute Calibration:	±5%, traceable to NIST
Sensitivity:	10mV at full scale per 100 KLux
Linearity:	Maximum deviation of 1% up to 100 KLux
Stability:	<± 2% change over a 1 year period
Response Time:	10 µsec
Temperature Dependence:	±0.15% per deg C maximum
Cosine Correction:	Cosine corrected up to 80 deg incidence angle
Azimuth:	<±1% error over 360 deg at 45 deg elevation
Tilt:	No error induced from orientation
Operating Temperature:	-20 to 65 deg C
Relative Humidity:	0 - 100 %
Detector:	High stability silicon photovoltaic detector
Housing:	Weatherproof anodized aluminum case with acrylic diffuser and stainless steel hardware
Size:	7.6 cm dia. x 2.54 cm high (includes base)
Weight:	123 gm



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