

3281A & 3286A Portable Luxmeters

3281A PORTABLE LUXMETER

general-purpose model

Measuring Ranges: 0 to 300, 0 to 1,000 and 0 to 3,000 lx (switch selectable).

Accuracy: $\pm 7\%$ of reading ($23^{\circ}\text{C} \pm 2^{\circ}\text{C}$)

Photocell: Selenium cell with plastic molding.

Photocell Lead: Approx. 1.1m (3.6ft) long.

Cosine Correction: Angular errors of light incidence on the cell are corrected by the globe covered on photocell (with spectral transmission characteristics). Angle of incidence 10° ...within $\pm 1.5\%$, 30° ...within $\pm 3\%$, 60° ...within $\pm 10\%$, 80° ...within $\pm 30\%$

Color Correction: By color-correcting filter. (Please refer to the back page.)

Output: $10\text{mV} \pm 5\%$, output resistance ... approx. $4\text{ k}\Omega$.

Indicator: Taut-band suspension type with a mirror scale.

Operating Temperature Range: -10 to 40°C (32 to 104°F)

Humidity Range: 85% or less.

Dimensions (Carrying Case): Approx. $155 \times 165 \times 80\text{mm}$ ($6\text{-}1/8 \times 6\text{-}1/2 \times 3\text{-}1/8$ ")

Weight: Approx. 0.9kg (2.0 lbs).

Accessory supplied at no extra cost: Carrying case ... 1 pc.

Applicable Standard: Designed based on JISC-1609-1993 CLASS A.



- 0 to 3,000 lx in switch-selected 3 ranges
- Cosine and color corrected
- Compact and lightweight ... 0.9kg
- Output to recorder (standard)
- Taut-band suspension type indicator
- Standard carrying case
- No power source required

3286A PORTABLE LUXMETER

high-sensitivity model

Measuring Range: 0 to 3, 0 to 10, 0 to 30, 0 to 100 and 0 to 300 lx (switch selectable).

Accuracy: $\pm 7\%$ of reading ($23^{\circ}\text{C} \pm 2^{\circ}\text{C}$)

Photocell: Selenium cell with plastic molding.

Photocell Lead: Approx. 1.4m (4.6ft) long.

Cosine Correction: Angular errors of light incidence are corrected by the globe covered on photocell (with spectral transmission characteristics). Angle of incidence 10° ...within $\pm 1.5\%$, 30° ...within $\pm 3\%$, 60° ...within $\pm 10\%$, 80° ...within $\pm 30\%$

Color Correction: By color-correcting filters. (Please refer to the back page.)

Output: $1\text{V} \pm 5\%$, output resistance ... less than 1Ω .

Indicator: Taut-band suspension type with mirror scale.

Power Source: One 9V dry cell (6F22) built-in.

Operating Temperature Range: -10 to 40°C (14 to 104°F)

Humidity Range: 85% or less.

Dimensions (Carrying Case): Approx. $160 \times 160 \times 92\text{mm}$ ($6\text{-}1/8 \times 6\text{-}1/8 \times 3\text{-}3/8$ ")

Weight: Approx. 1.1kg (2.4 lbs).

Accessories supplied at no extra cost: Carrying case ... 1 pc., pocket light ... 1 pc.

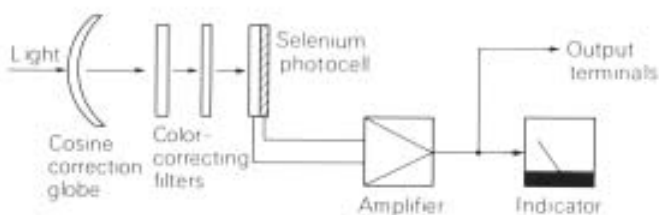
Applicable Standard: Designed based on JIS C 1609-1993 CLASS A.



- For measuring the low intensities of illumination from 0 to 300 lx in 5 ranges
- Cosine and color corrected
- Output to recorder (standard)
- Taut-band suspension type indicator
- Standard carrying case and pocket light

OPERATING PRINCIPLE

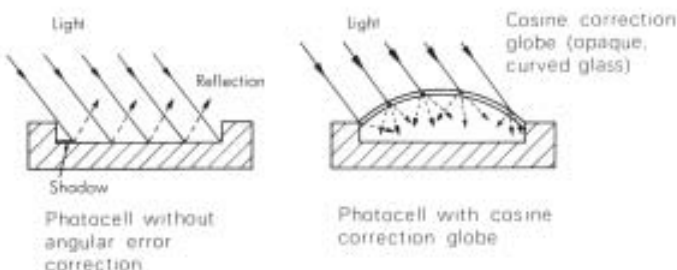
When irradiated, the selenium photocell generates a potential difference, and the photocurrent is read on the DC ammeter which is calibrated in μx .



3286A

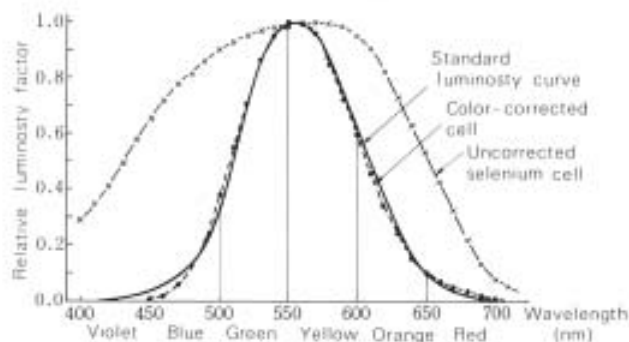
Cosine correction globe

The photocell response to light varies with the angle of incidence (so-called cosine law) due to the reflection from the surface of the cell. Angular errors are corrected using cosine correction globe with the photocell,



Color-correcting filters

The spectral response is different from that of human eye. Therefore, color-correcting filter(s) are used with photocell. The color sensitivity of photocell is nearer to the standard luminosity curve (average human eye distribution curve).



Spectral-sensitivity characteristics

(Based on CIE's evaluation method-CIE technical report No. 69)

YOKOGAWA 
Yokogawa M&C Corporation

World Wide Web. site at
http://www.yokogawa.co.jp/MCC/Welcome_e.htm

NOTICE

- Before using the product, read the instruction manual carefully ensure proper and operation.

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