

# TECHNICAL DATA MODEL DLM-1000

## 1. SENSOR

Model DLM-1000 "B" UV Sensor..... 320-400 nm ( $\mu\text{W}/\text{cm}^2$ )  
 Model DLM-1000 "C" Visible Sensor..... 380-700 nm (foot-candles)  
 Model DLM-1000 "L" Visible Sensor..... 380-700 nm (Lux)  
 (Photometric Response)

Calibration: Sensors are calibrated using line sources, or if more appropriate for the application, wide bandwidth sources. Calibration is within 5% of a working standard, traceable to the NATIONAL INSTITUTE OF STANDARDS and TECHNOLOGY, formerly NBS. Temperature coefficient ..... $\pm 0.25\%/^{\circ}\text{C}$ .

## 2. READOUT UNIT

Display 13mm..... (0.5 in.) constant fluorescing  
 Liquid Crystal Display (LCD)  
 Sampling time ..... 0.4 seconds

### Electrical Specifications:

| Range   | Resolution | Accuracy<br>$25^{\circ} \pm 5^{\circ}\text{C}$ | Units                     |
|---------|------------|--|---------------------------|
| 0-1999  | 1          | $\pm 2\%$ (+2 digits)                          | FC or Lux                 |
| 0-19990 | 10         | $\pm 2\%$ (+2 digits)                          | $\mu\text{W}/\text{cm}^2$ |

### Measurement Units

| Spectral Range | Model                       | Units                     |
|----------------|-----------------------------|---------------------------|
| 320 - 400 nm   | DLM-1000 "B" UV sensor      | $\mu\text{W}/\text{cm}^2$ |
| 380 - 700 nm   | DLM-1000 "C" visible sensor | FC                        |
| 380 - 700 nm   | DLM-1000 "L" visible sensor | Lux                       |

### Operation

- Slide the "POWER" switch to the "ON" position.
- Turn the lamp on or apply power to the light source being measured.
- Place the sensor where the radiance/luminance is to be measured.
- The value of the radiance/luminance will be indicated on the display. If at any time only a "1" appears in the left hand display position, then the measurement is out of range. Indicated values are as follows:

Lux or foot-candles    1 x the display reading  
 Microwatts/cm<sup>2</sup>    10 x the display reading

For further information please contact:



1431 W. Second Street ~ Pomona, CA 91766

PHONE (909) 623-6793 ~ FAX (909)629-1467

## 3. POWER REQUIREMENT

Battery Operation ..... One 9-volt battery provided  
 Current Drain..... 2 mA (approx)  
 Battery Life..... 150 - 200 hours

## 4. TEMPERATURE RANGE

Operation..... $0^{\circ} - 50^{\circ}\text{C}$  ( $32^{\circ} - 122^{\circ}\text{F}$ )  
 Storage .....  $10^{\circ}\text{C} - 50^{\circ}\text{C}$  ( $14^{\circ} - 122^{\circ}\text{F}$ )

## 5. HUMIDITY RANGE

0 to 100% R.H. non-condensing

## 6. DIMENSIONS

Readout Unit..... 108mm x 73mm x 23mm  
 (4.3in. x 2.9in. x 0.9in.)  
 Sensor Head..... 70mm x 52 mm x 17 mm  
 (2.8in. x 2.0 in. x 0.7 in.)

## 7. WEIGHT

Readout Unit..... 160 g (0.36 lb.)  
 Sensor ..... 90 g (0.20 lb.)

## 8. USAGE

"B" UV sensor is used to measure blacklight output UVA.

"C" visible sensor is used to measure incandescent light output and to test for visible light which may be emitted by a Blacklight. This sensor is calibrated to read in foot-candles.

"L" visible sensor is the same as the "C" sensor, except it is calibrated to read in Lux. (Optional)

### Calibration

The visible and UV sensor radiometer should be returned to the factory every six months for recalibration or a routine check-up. The recommended six month calibration is based upon normal usage of intermittent readings. If the sensors are used continuously, recalibration should be performed more often. Visible sensors are calibrated to accurately read incandescent light sources, unless a fluorescent light calibration is requested.

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