

# REED

## Model R8150

### Light Meter



## Instruction Manual

[www.reedinstruments.com](http://www.reedinstruments.com)

**REED Instruments**

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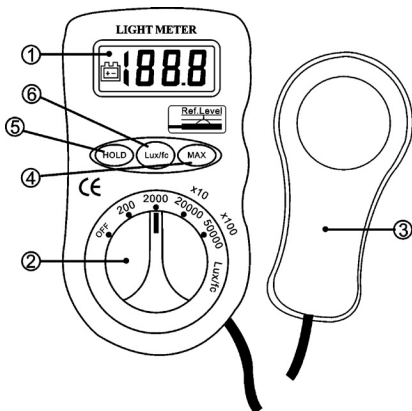
## Features

- Easy to operate with user selectable ranges
- Convenient pocket size design
- 4-digit LCD display
- Max and data hold functions
- Over range and low battery indicators
- Auto shut-off

# Specifications

Measuring Range(s):	Lux: 0 to 50,000 Fc: 0 to 5,000
Accuracy:	<10,000 Lux/Fc: $\pm(5\% \text{ rdg.} + 10 \text{ dgt})$ >10,000 Lux/Fc: $\pm(10\% \text{ rdg.} + 10 \text{ dgt})$
Resolution:	Lux/Fc: 0.1
Response Time:	<1 sec.
Sensor Type:	Photo diode & color correction filter
Autoranging:	No (Manual)
Display:	4-digit LCD
Data Hold:	Yes
Max:	Yes
Overrange Indicator:	Yes
Sampling Rate:	1.5 times/sec.
Auto Shut-off:	Yes (after 15 mins)
Kick Stand:	Yes
Low Battery Indicator:	Yes
Power Supply:	12V battery
Product Certifications:	CE
Operating Temperature:	32 to 122°F (0 to 50°C)
Storage Temperature:	14 to 140°F (-10 to 60°C)
Operating Humidity Range:	10-80%
Dimensions:	7.4 x 2.5 x 1" (188 x 64.5 x 24.5mm)
Weight:	5.6 oz (160g)

# Panel Description

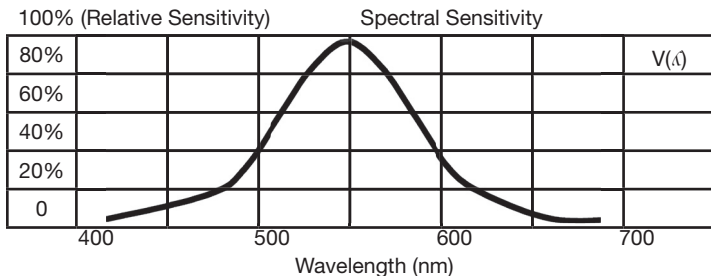


- 1- LCD display: 1999 counts LCD display with LUX, Fc, LOBAT, MAX, HOLD indication
- 2- Power /Function/Range switch: Turn power ON or OFF and select measurement function and ranges.
- 3- Photo Detector: Long life silicon photo diode inside
- 4- MAX. HOLD: If you press the MAX. button, the maximum reading will be held. Pressing the button once again, will release the hold and allow a further measurement.
- 5- DATA HOLD: The reading will be held when the Data Hold button Switch is pressed. If the button Switch is pressed once again, it will release the hold and allow a further measurement.
- 6- Function button: Selects measurement functions of Lux or Fc

# Operating Instructions

## Measuring Light

1. Turn the Power/Function/Range switch to select the range to desired (x1 Lux/Fc , x10Lux/Fc, x100Lux/Fc) range.
2. Remove the photo detector to the light source in a horizontal position.
3. Read the illuminance nominal from the LCD display.
4. Over-range: If the instrument only displays one “1” in the M.S.D. the input signal is too strong, and a higher range should be selected.
5. When the measurement is completed, replace the photo detector from the light source.
6. Spectral sensitivity characteristic: To the detector, the applied photo diode with filters makes the spectral sensitivity characteristic almost meet C.I.E. (International Commission on Illumination) photopia curve  $V(\lambda)$  as the following chart described.



## 7. Recommended Illumination:

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## Locations

## Lux

### \*Office

Conference, Reception room	200 ~ 750
Clerical work	700 ~ 1,500
Typing drafting	1000 ~ 2,000

### \*Factory

Packing work, Entrance passage	150 ~ 300
Visual work at production line	300 ~ 750
Inspection work	750 ~ 1,500
Electronic parts assembly line	1500 ~ 3,000

### \*Hotel

Public room, Cloakroom	100 ~ 200
Reception, Cashier	200 ~ 1,000

### \*Store

Indoors Stairs Corridor	150 ~ 200
Show window, Packing table	750 ~ 1,500
Forefront of show window	1500 ~ 3,000

### \*Hospital

Sickroom, Warehouse	100 ~ 200
Medical Examination room	300 ~ 750
Operating room	
Emergency Treatment	750 ~ 1,500

### \*School

Auditorium, Indoor Gymnasium	100 ~ 300
Class room	200 ~ 750
Laboratory Library Drafting room	500 ~ 1,500

## Battery Replacement

If the sign “BAT” appears on the LCD display, it indicates that the battery should be replaced. Open the battery case and replace the expired battery with new battery. (1 x 12V battery)