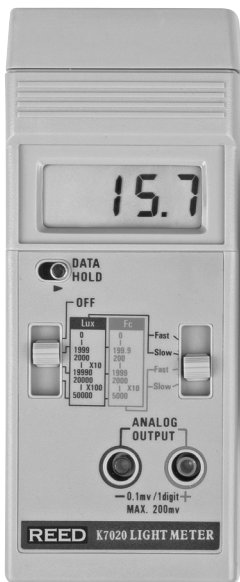


REED

Model K7020

Illuminometer

Instruction Manual



www.reedinstruments.com

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Features

- Sensor used the exclusive photo diode & color correction filter, spectrum meet C. I. E. Photopic
- Both Lux & Foot-candle measurement, wide range
- Analog output, can connect the external recorder
- High accuracy in measuring
- Separate LIGHT SENSOR allows user to measure the light at an optimum position
- Fast & Slow response time selector
- LSI circuit provides high reliability and durability
- LCD display allows clear read-out even at high ambient light level
- Pocket size, easy to carry out & operation
- Compact, light weight and excellent operation
- Built-in low battery indicator

For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com.

Specifications

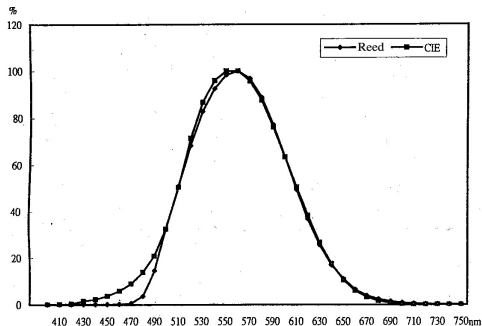
General Specifications

Display	13 mm (0.5") LCD (Liquid Crystal Display)
Measurement	Lux, Ft-candle (Fc)
Ranges	Lux-0 to 50,000 Lux, 3 ranges Foot-candle: 0 -5,000 Fc, 3 ranges
Sensor	Used the exclusive photo diode & color correction filter, spectrum designed to meet C. I. E.
Zero Adjustment	Automatic adjustment
Sampling Time	Approx. 0.4 sec.
Response Time	Fast & Slow selector
Over input indication	Indication of "1"
Analog Output	0.1 mV/1 digits, max. output: 200 mV
Operating Temperature	0 to 50°C (32°F to 122°F)
Operating Humidity	Less than 80% RH
Power Supply	006P DC 9V battery
Power Current	Approx. DC 2 mA
Weight	220 g/0.52 lbs.
Dimensions	Meter: 163 x 70 x 30 mm (6.4 x 2.8 x 1.2") Sensor probe: 85 x 55 x 12 mm (3.2 x 2.2 x 0.5")
Accessories	Sensor probe included Optional carrying case also available (Model CA-03)

Electrical Specifications

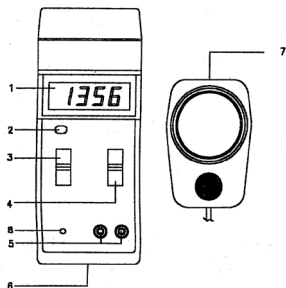
Lux			
Range	In-range Display	Resolution	Accuracy
2,000 Lux	0-1,999 Lux	1 Lux	± 5 % + 2 digits
20,000 Lux	2,000-19,990 Lux	10 Lux	± 5 % + 2 digits
50,000 Lux	20,000-50,000 Lux	100 Lux	± 5 % + 2 digits
Foot-candle (Fc)			
Range	In-range Display	Resolution	Accuracy
200 Fc	0-199.9 Fc	0.1 Fc	± 5 % + 2 digits
2,000 Fc	200-1,999 Fc	1 Fc	± 5 % + 2 digits
5,000 Fc	2,000-5,000 Fc	10 Fc	±5 % + 2 digits

Spectrum for Light Sensor



Instrument Description

- 1 - Display
- 2 - Data Hold Switch
- 3 - Power Off/Range Switch
- 4 - LUX/Fc Switch & Response Time Switch
- 5 - Analog Output Terminal
- 6 - Battery Compartment/Cover
- 7 - Light Sensor




Measuring Procedures

1. Determine Lux or Ft-candle on slide switch (#4, above), Determine the response time on slide switch (#4, above), typical select to the "SLOW" position.
2. Select the max. range on the "Range Switch" (#3, above).
3. Hold the "Light Sensor" (#6, above) by hand & face the measuring light oppositely, then the Display (#1, above) will show light values directly.
4. During the measurement, if slide the "Data Hold Switch" (#2, above) to the "HOLD" position, then will freeze the display reading permanently.
Slide the "Hold Switch" to the left side releasing the data hold function again.

Measuring Consideration

1. As the range of 20,000 Lux (2000 Fc) is designed to measure the light values 000 Lux (200 Fc). So if the measured light values less than 2000 Lux (200 Fc), please select the “Range Switch” to the lower range to let display reading show high resolution & be kept within high accuracy.
2. As the range of 50,000 Lux(5000 Fc) is designed to measure the light values 0,000 Lux (2,000 Fc). So if the measured light values less than 20,000 Lux (2,000 Fc) please select the “Range Switch” to the lower range to let display reading show high resolution & be kept within high accuracy.

Battery Replacement

1. When the left corner of the LCD display shows LO BAT “”, it indicates the battery output less than 6.5 V - 7.5 V. Replacement of the battery is then needed. *However measurements could still be taken for another few hours before the meter becomes inaccurate.*
2. Open the Battery Cover (#6 in figure on page 4) at the back of meter and remove the battery.
3. Replace with a 9V battery and reinstall the cover.

Correction Factor for Different Types of Lighting

The light meter is calibrated under a precision “Standard light tungsten incandescent source of 2856°K”. If the user intends to make measurements precisely under a different light source from

“**MERCURY LAMP**” or “**FLUORESCENT LAMP**” or
“**SODIUM LAMP**” or “**DAYLIGHT**”

the measurement value can be corrected (multiplied) using the following factors that compare the measuring reading values tested under the “Standard light tungsten source of 2856°K”.

MERCURY LAMP	x 1.05
FLUORESCENT LAMP	x 0.97
SODIUM LAMP	x 1.11
DAYLIGHT	x 0.95

Notes

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