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Dr meter LX1330B Digital Light Meter

Dr meter LX1330B Digital Light Meter Instruction Manual

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Instruction And Features

Instruction

The Digital illuminance Meter is a precision instrument used to measure illuminance in the special field such as construction, inspection, photography, greenhouse gardening and etc. It is fully cosine corrected for the angular incidence of light. The illuminance meter is compact, tough and easy to handle because of its construction. The light sensitive component uses a very stable and long life silicon diode to ensure stability with spectral response filter and fully corrected for the angular incidence of light.

Features

- Light-measuring levels ranging from 0.1 Lux to 200,000Lux, 0.01FC to 20,000FC.
- Highly accurate with precise and rapid response even in high ambient light.
- Data-Hold function for holding measuring values.
- Reading Display is arranged logically and clearly for ease and comfort of reading results.
- Automatic zeroing.
- Meter corrected for Luminous Efficiency function.
- Correction factor need to be manually calculated for nonstandard light sources.
- Short rise and fall times.
- Accessories:Carry case, instruction manual, battery(optional).

Specifications

- **Display:** 3-1 / 2 digit LCD, 1.999 counts
- **Measuring Range:** 200, 2000, 20000 und 200000 Lux
    - (20000 Lux range: reading x 10, 200000 Lux range: reading x 100)
    - And / or 20, 200, 2000, 20000 FC
    - (20000FC range: reading x 10)
    - * 1FC = 10,76 Lux
- **Out of range display:** "I" is displayed in the left side of the display
- **Accuracy:** $+ - (3\% \text{ rdg} + 10 \text{ dgt}) <= 20000$ Lux / 2000 FC
    - $+ - (5\% \text{ rdg} + 10 \text{ dgt}) <= 20000$ Lux / 2000 FC
- **Repeatability:** $+ - 2\%$
- **Temperature Characteristic:** + -0,1% °C.
- **Measuring Rate:** Approximately 2.0 time/sec.
- **Photo detector:** One silicon photo diode with filter
- **Operating Temperature and Humidity:** 0°C to 40°C(32°F to 104°F) 0 to 80% RH
- **Storage Temperature and Humidity:** -10°C to 60°C(14°F to 104°F) 0 to 80% RH
- **Power Source:** One 9Volt Battery
    - (NEDA 1604 or JLS 006P or IEC6F22)
- **Battery life (typical):** 200 hours (Alkaline Battery)
- **Photo Detector Lead Length:** 150 cm (approx)
- **Photo Detector Dimensions:** 100 mm (H) x 60 mm (W) x 28 mm (D)
- **Dimensions:** 149 mm (H) x 71 mm (W) x 41 mm (D)
- **Weight:** 250 g (5.80z)

Name of Parts & Positions
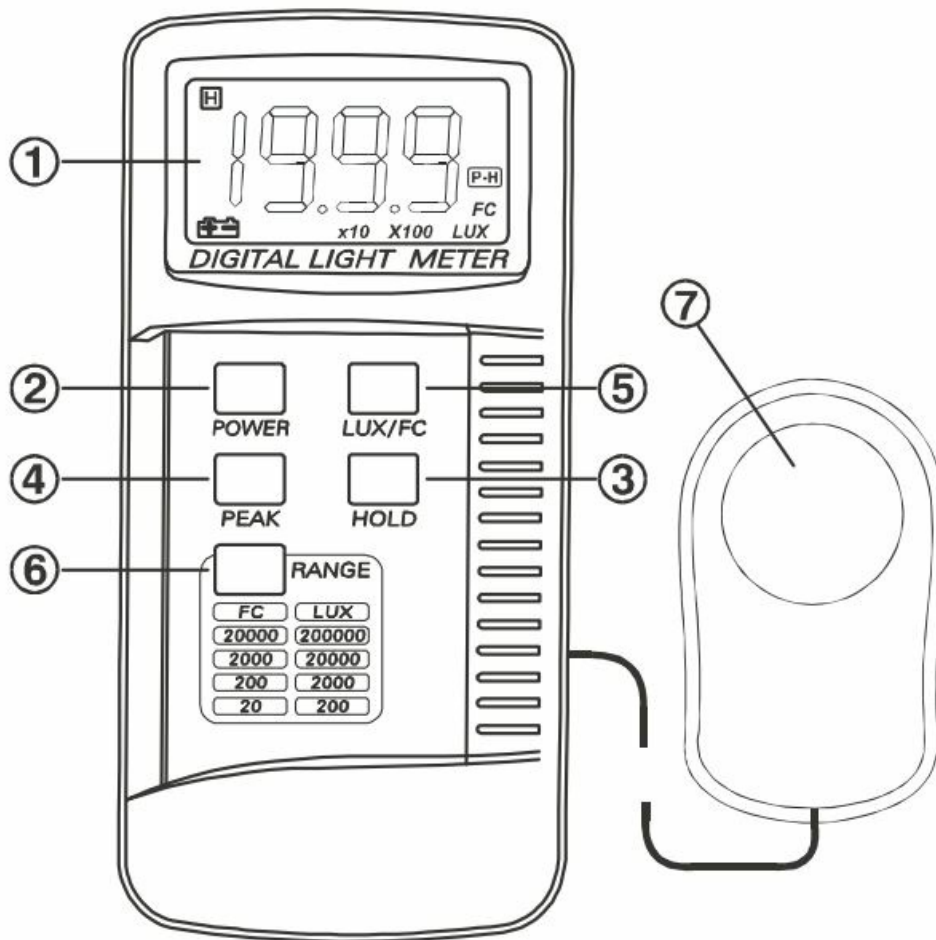
1. **LCD Display:** 3-1/2 Digits with a maximum reading of 1999.
2. **Power Switch:** The power switch key turns the digital illuminance meter ON or OFF.
3. **Data-Hold Switch:** Pressing the HOLD key selects HOLD mode. When the HOLD mode is selected, the digital illuminance meter stops all further measurement. Pressing the HOLD key again cancels the HOLD mode, causing the digital illuminance meter to resume taking measurements.
4. **Data-Peak Switch:** Pressing the PEAK key again to clear the peak recording mode.
5. **LUX / FC Unit Switch:** Pressing the LUX / FC button to choose LUX or FC unit.
6. **Range Switch:** Pressing the range key changes
   - 200LUX / 20FC, 2000LUX / 200FC, 20000LUX / 2000FC, 200000LUX / 20000FC ranges,circularly.
7. Photo Detector.

Operating Instructions

1. **Power-up:** Press the POWER button 2 to turn on the meter.
2. Selecting the LUX / FC scale: Set the range selection switch button 6 to select the desired LUX / FC range.
3. Uncover the photo detector cap7 and face it to light source.
4. Read the illuminance result from the LCD display.
5. **Out of Range:** If the meter displays"l"in the left side of the display, that means the light source is too bright, so a higher range should be selected.
6. **Data-Hold mode:** Press the HOLD button 3 to select Hold mode. When the hold mode is selected, the illuminance meter stops all further measurements. Press the HOLD key again to cancel HOLD mode. Then it resumes normal operation and you can do the measurement again.
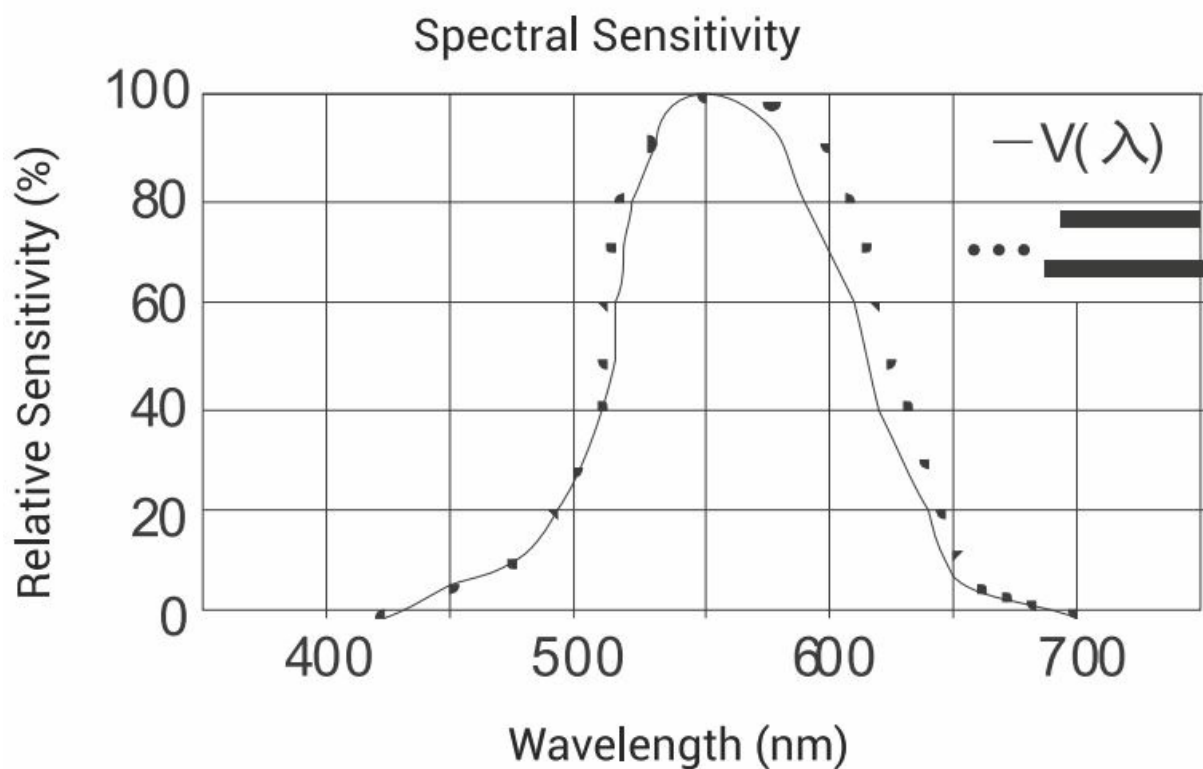7. **Data-Peak mode:** Press the PEAK button 4 to select PEAK mode.When PEAK mode is selected, the

illumiance meter stops all further measurements. Press the HOLD key again to cancel HOLD mode. Then it resumes normal operation.

8. When the measurement is completed, cover back the photo detector cap and turn the power selector OFF.

Battery Check-up & Replacement

1. When the battery power is not sufficient, LCD will display " a'; then a new 9-volt battery is required to replace the old one.
2. After turning off the meter, open the battery cover by unscrewing the screw.
3. Disconnect the battery and replace it with a standard 9-volt battery and press the cover back into the place.

Spectral Sensitivity Characteristic

Spectral Sensitivity

(Graph: Relative Sensitivity (%) on y-axis from 0 to 100, Wavelength (nm) on x-axis from 400 to 700, showing −V(λ) curve)

- To the detector, the applied photo diode with fiiters makes the spectral sensitivity characteristic almost meet C.I.E.
- (INTERNATIONAL COMMISSION ON ILLUMINTION)

Maintenance And Recommended lumination

Maintenance

1. The white plastic dome on the top of the detector should be cleaned with a damp cloth when necessary.
2. Do not store the instrument where temperature or humidity is excessively high

Recommended lumination

Office	Conference, reception room	200~750 LUX
	Clerical work	700~1500 LUX
	Typing drafting	1000~2000 LUX
Factory	Packing work, entrance passage	150~300 LUX
	Visual work at production line	300~750 LUX
	Inspection work	750~1500 LUX
	Electronic parts assembly line	1500~3000 LUX
Hotel	Public room, cloakroom	100~200 LUX
	Reception, cashier	220~1000 LUX
Store	Indoors stairs corridor	150~200 LUX
	Show window, packing table	750~1500 LUX
	Forefront of show window	1500~3000 LUX
Hospital	Sickroom, warehouse	100~200 LUX
	Medical examination room	300~750 LUX
	Operation room, emergency treatment	750~1500 LUX
School	Auditorium, indoor gymnasium	100~300 LUX
	Class room	200~750 LUX
	Laboratory library, drafting room	500~1500 LUX

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference
2. this device must accept any interference received, including interference that may cause undesired operation.

Learn more about the EU Declaration of Conformity, Please click below link to download.
http://files.drmeter.com/161-61330-08-doc-uk.pdf

Learn more about the UK Declaration of Conformity, Please click below link to download.
http://files.drmeter.com/x1330b-uk-doc.pdf

Documents / Resources

Dr meter LX1330B Digital Light Meter [pdf] Instruction Manual
LX1330B Digital Light Meter, LX1330B, Digital Light Meter, Light Meter, Meter

References

- **User Manual**