

LX-102A DIGITAL LUX METER OPERATION MANUAL

This Lux meter is a precise and delicate instrument with durable structure. It senses brightness/lux of any environment. For safety and better use, please follow instructions carefully and always keep this manual within easy reach.

1. FEATURES

- 1.1 Wide range: from 0.1 Lux to 200,000 Lux, 0.01FC to 20,000FC.
- 1.2 Accurate test, fast response, and auto zero-adjustment.
- 1.3 Data hold: hold the current test result and peak value.
- 1.4 Symbol and unit display, easy to read.
- 1.5 Low battery indicator and auto power off.

2. SPECIFICATIONS

- 2.1 Display: 3 ½ digits, big LCD, max display 1999.
- 2.2 4 ranges: 200 Lux, 2000 Lux, 20,000 Lux, 200,000 Lux.
20 FC, 200 FC, 2000 FC, 20,000 FC.
At 20,000 Lux range, to get a correct reading, the displaying value needs to multiply 10.
At 200,000 Lux range, to get a correct reading, the displaying value needs to multiply 100.
At 20,000 FC, to get a correct reading, the displaying value needs to multiply 10.
Remark: 1FC=10.76 Lux
Accuracy: <10,000 Lux/1,000 FC: $\pm 3\%$ rdg $\pm 0.5\%$ f.s.

- >10,000 Lux/1,000 FC: $\pm 5\%$ rdg ± 10 .
(Accuracy tested by a standard parallel light tungsten lamp of 2856K temperature.)
- 2.3 Repeatability: $\pm 2\%$.
- 2.4 Temperature characteristic: $\pm 0.1\%$ / °C.
- 2.5 Sampling rate: 2 times/s.
- 2.6 Sensor: photo diode and filter.
- 2.7 Operation environment: 0°C~40°C (32°F~104°F) 0~70%Rh.
- 2.8 Storage environment: -10°C~60°C (14°F~140°F) 0~80%Rh.
- 2.9 Overload display: top digit showing “1”.
- 2.10 Battery: 9V, 006P or IEC6F22 or NEDA 1604.
- 2.11 Battery life: continuous use 200 hours (alkaline battery).
- 2.12 Size: 100×60×27mm (sensor).
130×95×30mm (meter).
- 2.13 Weight: 300g.
- 2.14 Accessories: manual, battery, black pouch, gift box.

3. PANEL DESCRIPTION

- ① 1) LCD display: shows “LUX”, “FC”, “P-H” , “H”, “

2) POWER button: Press “POWER” key can turn on/off the meter.

The meter will enter dormancy mode if there is no measurement in 20 minutes. Press POWER button to restart.

3) Range and Unit button: Press “LUX” key can choose displaying unit at 200 Lux, 2,000 Lux, 20,000 Lux and 200,000 Lux. Press “FC” key can choose displaying unit at 20 FC, 200 FC, 2,000 FC and 20,000FC.

4) HOLD and PEAK button: Press “PEAK” key can trace the pulsing signal >100mS and hold its peak value. Press “HOLD” key can hold its reading and measurement value.

5) Light sensor: senses brightness/lux of environment.

6) Stand (on the back).

7) Battery case (on the back).

4. MEASUREMENT INSTRUCTION

4.1 Press POWER button to turn on the meter.

4.2 Choose suitable range and displaying unit.

4.3 Open the sensor cover, and horizontally place the sensor under the light source.

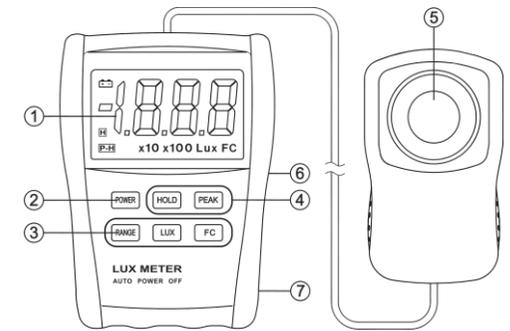
4.4 Read the measurement result on the LCD.

4.5 If “1” displaying on the top digit, it means overload, a higher range should be selected.

4.6 Press HOLD button, “**H**” symbol appears, and the current value will be held. Press HOLD again to exist HOLD mode.

Press PEAK button, “**P-H**” symbol appears, the light impulse signal can be measured and its peak value can be held. Press PEAK button again to exist PEAK mode.

4.7 If the measurement is completed, cover the light sensor and press POWER button to turn off the meter.



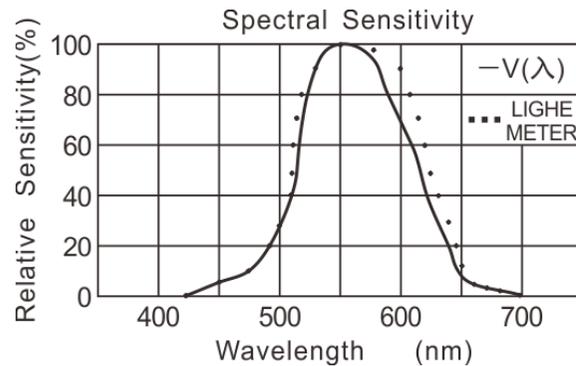
5. BATTERY REPLACEMENT

5.1 When the LCD shows “**⚡**” symbol, is necessary to replace the battery.

5.2 Turn off the meter and take off the holster. Loosen the screw on the battery door and slide the cover away from the instrument.

5.3 Replace the old battery with a new 9V battery and reinstate the cover and holster.

6. SPECTRAL SENSITIVITY CHARACTERISTIC:



7. MAINTENANCE

7.1 DO NOT operate or store the meter in high temperature/humidity environment.

7.2 Keep the white sphere of the light sensor clean when taking measurements.

7.3 The top of the spherical sensor is the accuracy reference level.

7.4 The sensitivity of the light sensor will decrease due to the service conditions as luminous intensity and time. To maintain the basic accuracy, regular calibration is recommended.

8. RECOMMENDED ILLUMINATION:

SCHOOL	Drawing classroom, sewing classroom, computer classroom.	300~1500 Lux
	Classroom, laboratory, researching room, practice place, library, bookstore, office, resting room, meeting room, health-care room, restaurant, kitchen, guard room, gymnasium, printing room, pantry, broadcasting room.	200~750 Lux
	Laboratory, library, drafting room.	150~300 Lux
	Corridor, elevator aisle, toilet, duty room, workers room, bridge, stadium, overpass.	75~150 Lux

	Storehouse, garage, fire escapes.	30~75 Lux
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HOSPITAL	Visual function tests room.	300~10000 Lux
	Operation room.	750~1500 Lux
	Consulting room, treatment room, pharmaceutical room, dispensing room, drugstore room, dissecting room, pharmacological bacterial room, emergency room, delivery room, dean's office, nurse office, meeting room.	300~750 Lux
	Sickroom, drug room, sickbed.	150~300 Lux
	Dressing rooms, material treatment	75~150 Lux

	room, sickroom corridor, stairs, endoscopy room, bacteria reduction chamber, ward room.	
	Animal room, darkroom (photo), fire escapes.	30~75 Lux

HOME	Handicraft, sewing.	1500~2000 Lux
	Writing, doing homework.	750~1500 Lux
	Reading, make-up, kitchen table, telephone.	300~750 Lux
	Wash sink, entertainment	150~300 Lux

	room, parlor, entrance mirror.	
	Wardrobe, toilet, stairs, corridor.	75~150 Lux
	Doorplate, mailbox, doorbell button, balcony.	30~75 Lux

Firm	Designing room, firm	300~2000 Lux
	Hall aisle (day) , drawing room, operating room, typing room.	750~1500 Lux

	Computer room, meeting room, printing room, control room, entertainment room, restaurant, switchboard room.	300~750 Lux
	Bookstore, resting room, guard room, elevator (aisle), toilet, entertainment room.	150~300 Lux
	Resting room, dressing room, storehouse, duty	75~150 Lux

	room (entrance).	
	Fire escapes.	30~75 Lux
FACTORY	Ultra-precision operations, designing, drawing, precisely check	300~3000 Lux
	Designing, analyzing, assembly line, painting.	750~1500 0Lux
	Package, measurement, surface treatment,	300~750 Lux

	warehouse office.	
	Dyeing, cast photos, electrical room.	150~300 Lux
	Entrance and exit, corridor, aisle, stairs, make-up room, toilet, warehouse.	75~150 Lux
	Fire escapes, warehouse, outdoor power equipment (loading and unloading, inventory	30~75 Lux

	movement operation.	
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INNS, HOTELS, CASINOS.	Counter.	750~1500 Lux
	Entrance, banquet halls, firm, parking lot, kitchen.	300~750 Lux
	Restaurant, toilet, Japanese-style room.	150~300 Lux
	Entertainment room, corridor, aisle, bathroom, dressing room,	75~150 Lux

	courtyard accent lighting.	
	Fire escapes.	30~75 Lux

SHOPS, DEPARTMENT STORES.	Indoor display, decorated window displays, demonstrations places, checkout counters, packing station.	300~3000 Lux
	Lift lobby, escalator.	300~750 Lux
	Negotiations room, make-up	150~300 Lux

	room, toilet, stairs, and corridor.	
	Resting room, indoor general lighting.	75~150 Lux
BARBER SHOPS	Cut perm, hair dyeing, make-up.	750~1500 Lux
	Face decoration, hair washing, lobby registration desk.	300~750 Lux
	Toilet.	150~300 Lux
	Corridor, stairs.	75~150Lux