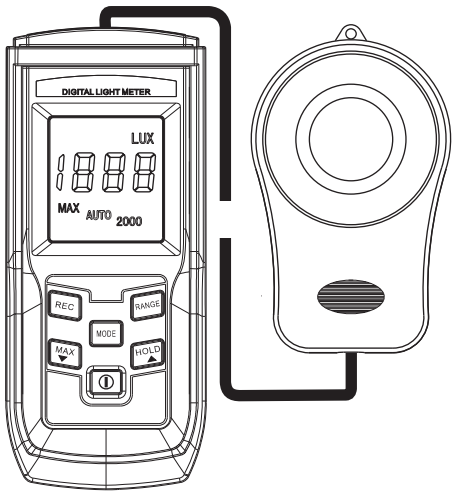
Digital Light Meter

Model: 1010D

Instruction Manual

CE



Thanks for choosing the product of our company,thank you very much. Before using our product, please read the instruction manual carefully which will show you the correct way to operate. We wish that will help you experience the excellent performance of our product.

Ⅰ. Feature

◆Measuring range 200,000Lux
◆Automatic measuring level selection
◆Maximum and Minimum reading hold function
◆LUX/FC unit selection
◆Reading locked hold
◆Automatic data recording

Ⅱ.Specifications

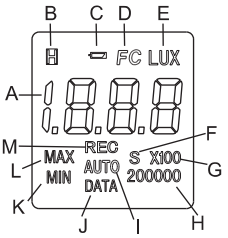
◆Display: 3-1/2 digit LCD with a maximum reading of 1999
◆Measuring range:
1010D: 200, 2000, 20000, 200000LUX
(20000LUX range reading ×10)
(200000LUX range reading ×100)
P.s: 1 fc=10.76lux
◆Spectral response: CIE photopic. (CIE human eye response curve)
◆Spectral accuracy: f'1≤6%
◆Cosine response: f'2≤2%
◆Accuracy:Calibrated to standard incandescent lamp at color temperature 2856K.
±3% ± 10dgts(＜10000lux)
±4% ± 10dgts(≥10000lux)
◆Resolutions:

Model / Range	1010D
200LUX	0.1
2000LUX	1
20000LUX	1
200000LUX	1

Repeatability: ±2%
Temperature Characteristic: ±0.1%/℃
Measuring rate: Approximately 2.0 time/second
Photo detector: One silicon photo diode with filter
Power source: Two AAA batteries
Dimensions: 185(L)×55(W)×30(H)mm
87(L)×55(W)×20(H)mm(Sennor)
Weight: 180g
Accessories: Instruction manual, batteries.

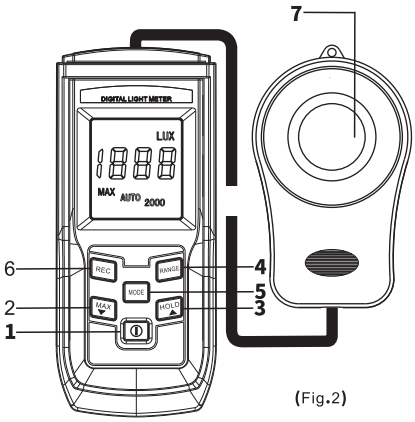
Ⅲ.Description and Function(Fig.2)

Display: 3-1/2 digit LCD, Max reading 1999(Fig.1)



(Fig.1)

A—Illumination reading
B—Data hold sign
C—The battery low power sign
D—Illumination unit FC
E—Illumination unit LUX
F—Data record time unit second
G—Multiple of 20000,200000 lux r ange
H—Measuri.ng range(200,2000,20000,200000)
I —Automatic range selection sign
J —Data sign
K—Minimum measurement sign
L —Maximum measurement sign
M—Automatic data rec ording sign



(Fig.2)

1.Power button ⏻ selection ON/OFF.
2.The maximum and minimum selection button: Press MAX once, LCD displays MAX sign, starting Maximum measuring selection work, in the process of measuring with only the maximum. Press MAX twice, LCD displays MIN sign,switching to the minimum measuring selection, in the process of measuring with only the minimum. And then press MAX a third time, MIN sign will vanish, switching to real-time measuring data.
3.Reading data hold function: Press HOLD once, LCD displays sign, " H "and the measuring data locked and hold, press HOLD twice, lock canceled, sign " H " will vanish, restarting to scan.
4.Measuring range selection button: Press RANGE repeatly to select the different measuring range.

1010D: 200→2000→20000→200000→AUTO
When displaying sign "AUTO", it means automatic range selection, which will select the proper range according to the light intensity automatically. When the sign "AUTO" vanished, it means manual range selection. When the measuring range is too low for the light intensity, sign"HI" will display, you need to press RANGE manually to switch to the next measuring range.

5.Instrument function selection: Long press MODE, five seconds later,starting the LUX/FC unit selection, sign "LUX" in LCD will start to flicker, if you want to switch to the FC selection, press HOLD; sign "FC" will start to flicker. If the sign "FC" is flickering in the LCD, but you want to switch to the LUX selection, just press MAX .When the unit has been selected, press MODE one more time to start the automatic data recording parameter setting.
(1).To set the number of the times of data recording.
The sign "REC" and sign "DATA" would both flicker in the LCD(Fig.3) and the number of recording times displays. Press HOLD and MAX to set the number from 1 to 50.
(2).To set the data sampling time interval.
Press MODE again, the sign "REC" and "S" would both flickering(Fig.4).
The number of the data sampling time interval displays in the LCD, unit for seconds. Press HOLD and MAX you can set the number from 1s to 60s.
(3).To set the delay starting time of the data recording.
Press the MODE again, the "REC" "S"and " H " will be flickering at the same time(Fig.5), the displaying number is the time of delay start of data recording. Press HOLD and MAX to set it, a maximum of 60 seconds, 1 second minimum.
To set the delay time can make it easier to place the instru-ment in a suitable location, to avoid an unstable of the object being measured, and reduce the factors which are bad for the accuracy to obtain accurate measuring results.
(4).Press "MODE" again, the data automatic recording parameters setting will exit, back to the normal measuring mode. The parameters will be saved.

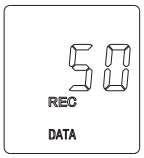


Fig.3

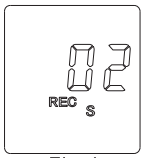


Fig.4

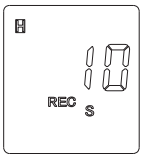


Fig.5

6.Data automatic recording. First press **REC,** then hold the first press and press **MODE** at the same time to start the automatic recording function. Sign"AUTO" will light to set the range automatically. Then the sign"REC" and" H "will both flicker in the LCD(Fig.6). It shows in the delay stage of the data recording, the delay time based on the time set before (1~60 seconds optional). When the sign" H "stops flickering but the sign "REC" flickering, indicating that the delay time has elapsed(Fig.7). Data automatic recording starting to work based on the pre-set number of times of data recording(1~50 seconds) to complete.
When the "REC" stops flickering, it means the automatic data recording has been completed. To check the record-ing data, please press **REC,** then hold press and press HOLD at the same time to view the data, the sign "DATA" will light with the sign "MAX" flickering(Fig.8), the display-ing data refer to the maximum value in the measuring pro-cess. Press HOLD, the sign "MIN" will start flickering, the data displaying refer to the minimum value in the measur-ing process. Once again press the HOLD, you can turn to view the different individual data, each time you press HOLD, first display the data label, display would just maintain a few seconds then vanished, and the display sampled data of measuring values stability, each time you press MAX, you can get back to view previous the data. When you finish checking the data, press **REC** to exit, the sign "DATA"would vanish, then turning into the normal measuring mode.

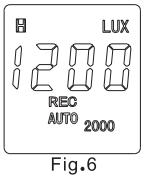


Fig.6

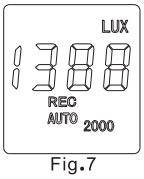


Fig.7

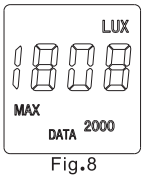


Fig.8

7.The photo detector: to detect the light intensity.

Ⅳ. Opreation Instructions

1.Press ⏻ button, turn it on.
2.Press **RANGE** button, selection the needed measuring range or select AUTO.
3.Range the photo detector cap and face it to light source in a horizontal position.
4.Read the data from the LCD display.
5.Refer to the guidance of every button, you can try different functions.
6.Measuring work done, replace the photo detector cap and press the Power button to turn it off.

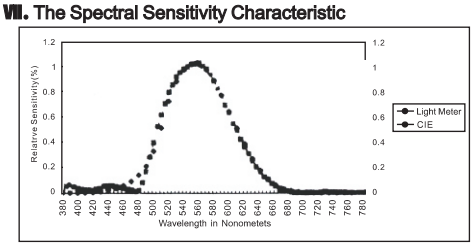
V. Battery check-up & Replacement

1. As the battery power is not sufficient, "▭" there would be a sign in the LCD indicating.
2. open the battery cover, replace the two AAA batteries.
3. Replace the battery cover.

VI. Maintenance

1. Don't store or operation where temperature or humidity is excessively high.
2. The white plastic disc on the top of the detector should be cleaned when necessary.
3. The reference level, as marker on the face plate, is the tip of the photo detector globe.
4. The calibration interval for the photo detector will vary according to operational condition.
   In order to maintain the basic accuracy of the instrument, periodic calibration is recommended.

VII. The Spectral Sensitivity Characteristic



VIII. Recommended illumination in different locations

1 fc=10.76 lux

SCHOOL

Illuminance(LUX)	Locations
1500~300	Laboratory, Computer room, Drafting room
750~200	Classroom, Conference room, Library
300~150	Hall, Rest room, Stairs, Big classroom
150~75	Corridor, Elevator, Toilet
75~30	Warehouse, Garage, Escape stairs

OFFICE BUILDING

Illuminance(LUX)	Locations
2000~1500	Design house
1500~750	Hall channels(day), Punch, Typing
750~300	Office, Computer room, Meeting room
300~150	Stacks, Playroom, Lounge, Guard room, Toilet
150~75	Tea room, Dressing room
75~30	Escape stairs

FACTORY

Illuminance(LUX)	Locations
3000~1500	Ultra precision machining and inspection, Drawing
1500~750	Design, Analysis, Assembly
750~300	Packaging, Surface work
300~150	Dyeing, Casting, Electrical room
150~75	Exit, Corridor, Channel, Stairs, Toilet
75~30	Warehouse, Garage, Escape stairs

HOSPITAL

Illuminance(LUX)	Locations
10000~5000	Special inspection
1500~750	Operating room
750~300	Anatomical room, Office, Conference room
300~150	Ward, Drug room, Corridor
150~75	Dressing room, X-ray room
75~30	Dark room(photos), Escape stairs

HOTEL, RESTAURANT, CLUB

Illuminance(LUX)	Locations
1500~750	The front desk
750~300	The banquet hall, Meeting room, Park, Kitchen
300~150	Dining-room, Toilet
150~75	Playroom, Stairs, Bathroom, Changing room
75~30	Warehouse

BARBER SHOP

Illuminance(LUX)	Locations
1500~750	Perm, Hair dye, Makeup
750~300	Wash hair, Wash face, The front desk
300~150	Toilet
150~75	Corridor, Stairs

Special Statement

a. Used batteries must be in accordance with local laws and regulations to deal with!

b. The Company reserves the right to update and modify the design of the product specifications and manual contents are subject to change without prior notice!