



- WT81
- WT81B (Bluetooth type)

## Digital Lux Meter Instruction Manual



Please scan the QR code to download LuxMate App from Google Play.

Attention: LuxMate only supports Android 5.0 version or above.

Version: WT81/WT81B-EN-00

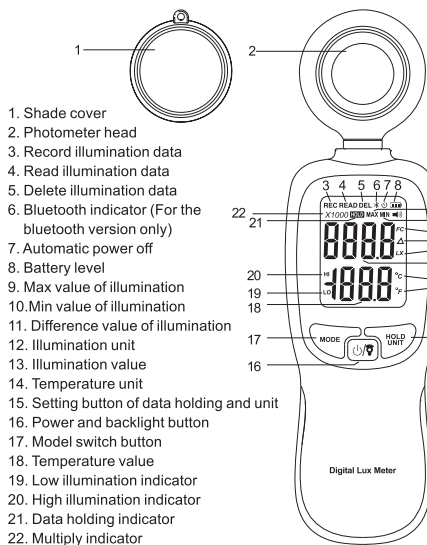
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### A. Brief Introduction

The digital luxmeter is a professional instrument for measuring illumination and brightness, which can be used in light intensity measurement engineering, quality control, illness prevention and treatment and measurement of light intensity in all kinds of environments such as factories, schools, offices, transportation routes, families, etc. The digital luxmeter boasts the following features:

1. Measure current illumination and temperature.
2. Measure difference value, max value and min value.
3. Switch between illumination and temperature unit.
4. The measurement range is (0~200000) lux, auto switch of measurement gear.
5. Automatic storage and manual storage of illumination data.
6. Setting of automatic power off.
7. Backlight and data holding.
8. The digital luxmeter is equipped with APP which passes through Bluetooth, so as to facilitate all kinds of operations on the digital luxmeter (For the bluetooth version only).

### B. Instrument Introduction



1. Shade cover
2. Photometer head
3. Record illumination data
4. Read illumination data
5. Delete illumination data
6. Bluetooth indicator (For the bluetooth version only)
7. Automatic power off
8. Battery level
9. Max value of illumination
10. Min value of illumination
11. Difference value of illumination
12. Illumination unit
13. Illumination value
14. Temperature unit
15. Setting button of data holding and unit
16. Power and backlight button
17. Model switch button
18. Temperature value
19. Low illumination indicator
20. High illumination indicator
21. Data holding indicator
22. Multiply indicator

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### C. Operation Instruction (App is just for the bluetooth version only)

1. Turn on/off
    - 1) Short press power button: automatic power off mode will start, the indicator shows on the top of screen, after 15 mins of no operation or no data record, the digital luxmeter will turn down automatically, or long press power button to turn down.
    - 2) Long press power button: automatic power off mode will shut down, and "NO" indicator will show on the screen, long press power button to turn down.
  2. Backlight
 

After turning on the digital luxmeter, short press power button to turn on or off backlight, backlight cannot be controlled under modes of data recording, data reading, and data deleting.
  3. Difference value(Δ), max value(MAX), min value(MIN)
 

Press **MODE** button to switch among different modes, which is Δ → MAX → MIN → normal measurement interface in order.

    - 1) Difference value: relative value (difference between) illumination value.
    - 2) MAX: max value since power on.
    - 3) MIN: min value since power on.
  4. Data recording(REC), data reading(READ), data deleting(DEL)
 

Under common measurement state, long press **MODE** button to enter into data recording, reading, and deleting mode, then long press **MODE** button to return to normal measurement interface, or else short press **MODE** button to specifically switch to one corresponding state among data recording, reading, and deleting.

    - 1) Data recording(auto recording and manual recording)
      - a. Automatic recording: under REC mode, short press the right button to confirm and start recording with REC indicator flashing, and short press the right button again to stop, the bottom of screen shows the number of recorded groups, and the top of screen displays real-time illumination. The maximum number of data group is 1000.
      - b. Manual recording: under REC mode, short press power button to record one datum, the number of manually recorded data groups appears on the bottom half of screen for about 1s, and the maximum number of data groups is 67.
    - 2) Data reading (auto recorded data and manually recorded data)
      - a. Read automatically recorded data: under READ mode (READ indicator flashing), short press the right button to read one datum, long press the right button to keep reading data.
      - b. Read manually recorded data: under READ mode (READ indicator flashing), short press power button to read one datum.
    - 3) Data deleting (automatically recorded data and manually recorded data)
      - a) Delete automatically recorded data: the top of screen shows the number of auto recorded data that have been saved. Under DEL mode, short press the right button to delete auto recorded data. When there is no data left, the screen shows "----".
      - b) Delete manually recorded data: the bottom of screen shows the number of manually recorded data. Under DEL state, short press power button to delete auto recorded data. When there is no data left, the screen shows "----".
- Note:
- 1) Data recording, data reading and data recording can all be controlled by APP, and data read by APP can be saved in the phone.
  - 2) The interval of automatic recording is 10s, which can be reset through APP.
5. Data holding
 

Press **HOLD** button to keep the value of current illumination, press again to exit data holding mode.

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### 6. Setting of illumination and temperature unit

Long press **UNIT** button to enter into unit switch mode(UNIT indicator flashing), then short press **UNIT** button to switch to corresponding unit (LX/C → LX/F → FC/C → FC/F). At last, long press **UNIT** button to exit unit setting. Unit can also be set through APP.

### 7. High illumination alarm (preset value 3000LX) and low illumination alarm (preset value 0LX)

When illumination value is above or below alarm points, HI or LO icon will flash. Reset high and low illumination alarm through APP when Bluetooth is connected.

### 8. Turn on/off Bluetooth radio

Turn on the luxmeter, and long press the right and left button to turn on/off Bluetooth radio. When Bluetooth radio is on, Bluetooth icon will appear and flash. You can connect Bluetooth with APP, and the icon will stop flashing when connection is successful.

### D. Technical Parameters (App is just for the bluetooth version only)

Measuring function	Illumination and temperature, difference value, max value, min value of illumination
Main parts of photometer head	Photodiode+cosines corrector+correction filter
Temperature probe	NTC thermistor
Illuminance measuring range	Total measuring range: 0~200,000 Lux, into four ranges
	×1: 0 ~ 199.9 Lux
	×10: 200 ~ 1999.9 Lux
	×100: 2000 ~ 19999.9 Lux
Temperature measuring range	-9.9 °C ~ 49.9 °C
Illuminance accuracy	±3%rdg (below 10000 Lux);
	±4%rdg (above 10000 Lux)
Temperature accuracy	±1.0 °C
Units of illumination and temperature	Four combinations of units are available.
	Lux/C
	Lux/F
	FC/°C
	FC/°F
Storage of illumination data	Automatic storage Max number of data groups is 1000, and storage cycle is set by APP.
	Manual storage Max number of data groups is 67, and whether to store data is decided by manual operation.
Operating temperature/humidity	0 ~ 40 °C, 10 ~ 90%RH
Storage temperature/humidity	-10 ~ 50 °C, 10 ~ 90%RH
LCD screen update	2 times/s
Power source	3* 1.5V AAA batteries
Battery life	About 200 hours (consecutive working time without turning on Bluetooth and backlight)

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### E. APP Operation Instruction (App is just for the bluetooth version only)

1. Main interface of APP
  - 1) Click the top left button on the main interface to enter into Bluetooth interface; click the first button on the top right of the screen to check list of saved files; click the second button on the top right of the screen to check operation menu.
  - 2) The top half of main interface shows real-time illumination and temperature, and the bottom half draws out real-time trend line of illumination.
  - 3) When APP is connected to Bluetooth, click "start" button to start recording real-time data, and the measurement frequency is 500ms a time. Bluetooth interface will pop out if the connection is not successful.
2. Bluetooth interface
 

Click the top right button of Bluetooth source, and the search time is about 5s. If Bluetooth is detected, connect Luxmeter with APP.
3. Storage interface
 

Click "storage" in the operation menu to enter into storage interface, the data saved is real-time measured, and the title cannot be empty.

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4. Setting interface
  - 1) Setting modules  
Set the unit of illumination and temperature, and storage interval.
  - 2) Automatic and manual data module  
The two modules can operate the instrument for automatic and manual data recording, reading and saving automatically and manually recorded data, as well as deleting automatically and manually recorded data.
  - 3) Alarm module  
Turn on alarm switch to set alarm points of high and low illumination.
5. File list
  - 1) Setting modules  
Click file list to check saved files, and click the file to check specific information. Long press the file to delete it.
  - 2) Dark icon: data saved from real-time measurement
  - 2) Grey icon: data transferred from and saved by Luxmeter
6. Detailed information of files
 

The top half of the detailed information interface shows the trend curve of illumination and the average, maximum, minimum value of illumination. The bottom half shows information of remarks. Click the upper right button to export saved data in Excel sheets. The exported sheets are saved in Data folder of Luxmeter folder under phone's root directory.

Specific Declarations:  
Our company shall hold no any responsibility resulting from using output from this product as an direct or indirect evidence.  
We reserves the right to modify product design and specification without notice.

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