Manuals+ — User Manuals Simplified.

LS127C UV Light Meter

Linshang LS127C UV Light Meter User Manual

Linshang LS127C UV Light Meter

Product Information

Specifications:

- Brand: Shenzhen Linshang Technology Co., Ltd.
- Model: LS127C UV Light Meter
- User Manual Version: V1.3
- Spectral Response: 230nm-280nm, peak at 254nm
- Power Measuring Range: 0 – 20000 W/cm2
- Power Resolution: 0.1W/cm2
- Energy Measuring Range: 0-9999999J/cm2
- Relative Indication Error: H=50W/cm2

Product Usage Instructions

Power On/Off:
To power on the UV Light Meter, press and hold the power button for a few seconds. To power off, repeat the same process.

Measurement:
Place the UV Light Meter in the area where you want to measure UV light intensity. Ensure it is properly calibrated and take readings as required.

Data Reading:
The UV Light Meter will display the measured UV light intensity on its screen. Make sure to note down the readings for future reference.

Maintenance:
Keep the UV Light Meter clean and store it in a safe place when not in use. Avoid exposure to extreme temperatures or moisture.

Frequently Asked Questions (FAQ):

- **Q: How often should I calibrate the UV Light Meter?**

  A: It is recommended to calibrate the UV Light Meter annually or if you notice any significant changes in readings.

- **Q: Can the UV Light Meter measure UV light from any source?**

  A: The UV Light Meter is designed to measure UV light within the specified spectral response range mentioned in the technical parameters section.

Product introduction

The UVC is also known as short-wave sterilization ultraviolet light. 253.7nm wavelength ultraviolet radiation from low pressure mercury lamp is widely used in ultraviolet sterilization industry. The UV light meter is specially designed to measure UVC intensity and energy values, which is widely applied in hospitals, CDC, pharmaceutical companies, FDA, etc. for UV intensity and energy measurement.

Standards for the product
JJG 879-2015 Verification Regulation of Ultraviolet Radiometers
WST 367-2012 Regulation of disinfection technique in healthcare settings

Technical Parameters

1. Spectral response: 230nm-280nm, λp = 254nm
2. Power measuring range: 0 – 20000 µW/cm2
3. Power resolution: 0.1µW/cm2
4. Energy measuring range: 0-9999999µJ/cm2
5. Relative indication error (H is the standard value) H<50µW/cm2 ±4µW/cm2 H>=50µW/cm2 ±8%H (relative to NIM standard)
6. Long wave response error:<60%
7. Cosine characteristics (directional response) error:10%
8. Linearity error: ±1%
9. Short-term instability:±1%(30min after startup)
10. Fatigue characteristics: attenuation <2%
11. Error of zero:±0.1% of full scale
12. Response time: <0.5 seconds
13. Recording time: 0~99999 seconds
14. Unit: µW/cm2 (default) mW/cm2 W/m2
15. Bluetooth transmission distance: 50 meters (open area)
16. Instrument size: 189mm * 76mm×31mm

17. Instrument weight: about 232 grams (including batteries)
18. Display: 240*160 dot matrix LCD
19. Battery: 2 AA alkaline dry batteries
20. Operating Temperature: 0° to 40°C, <85% RH

Spectral response curve

Use of high-precision UVC optical filters and professional UV sensor allows the instrument to almost give no response to UVA, UVB, visible light, etc.
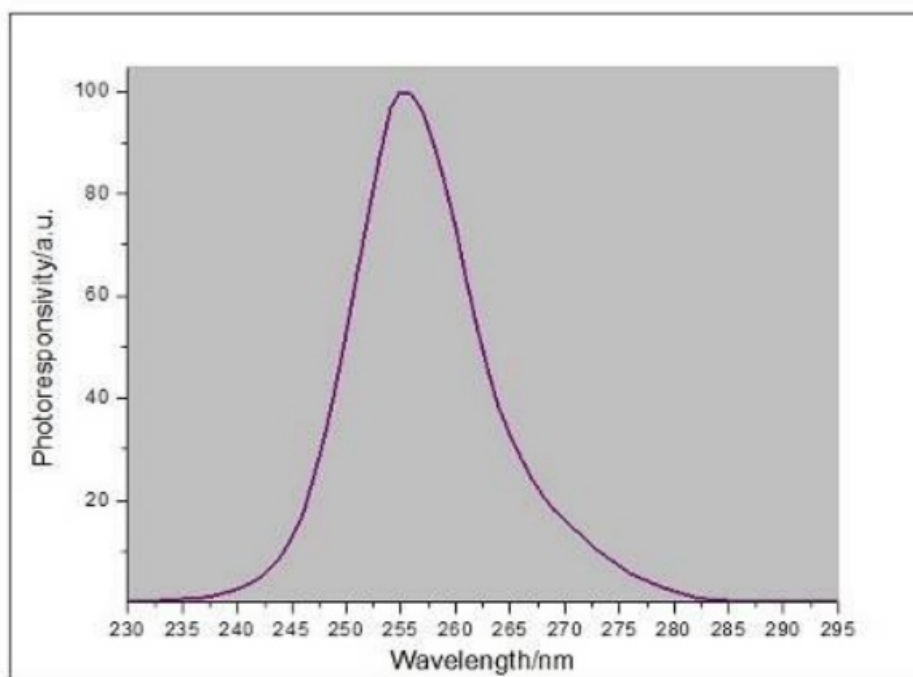
Product features

1. Specially designed for 253.7nm UV germicidal lamps (low-pressure mercury lamps).
2. Rich statistical functions, simultaneous display of current value, maximum value, minimum value, average value, measurement period, and energy value.
3. Data storage automatically before timing shutdown, which makes unattended measurements possible.
4. High-precision UVC optical filters and professional UV sensor, which allow the instrument to almost give no response to other wavebands.
5. Equipped with USB interface and dedicated PC software featured with parameter configuration, data reading, exporting of UV power data to EXCEL, report generation functions.
6. Advanced digital probe technology, by which analog signal conversion to digital signal on the probe.
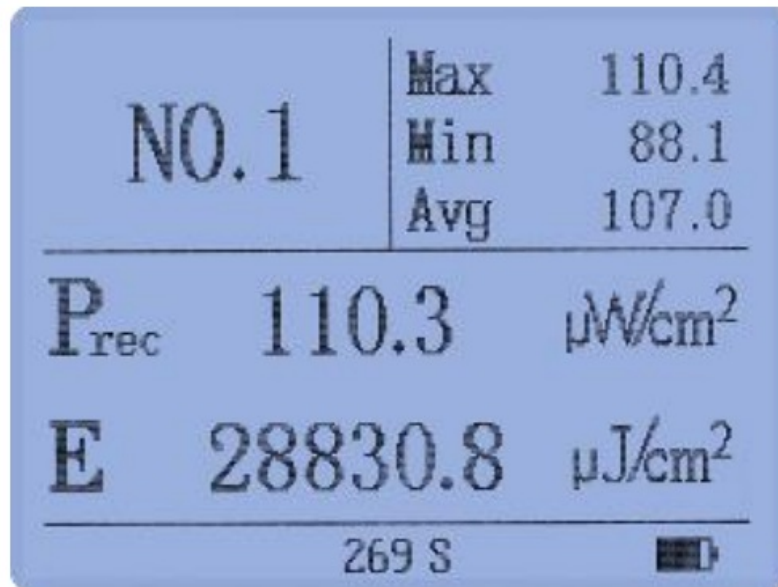
Operations

Power on/off

- Power on: Press ⏻/Enter to power on the instrument. After powering on, the instrument displays the information of the version number, serial number and calibration coefficient. Then, the latest record is displayed, as shown

below:

- Power off: Long press the ⏻ Enter button to power off; or the instrument will automatically power off when "Auto Off" set to ON.

- The data recorded automatically before shutdown, when instrument power on, the latest recorded (No.1 record) displayed.

Parameter settings mode

In the off state, long press the ⏻ Enter button 3s to enter the system setting mode. In the setting mode, there are seven sub-options, ▲ and ▼ can select Language, Unit, AutoOff, OffTime, ShowEnergy, Factory Settings and Exit. Short press ⏻ Enter to confirm selection.
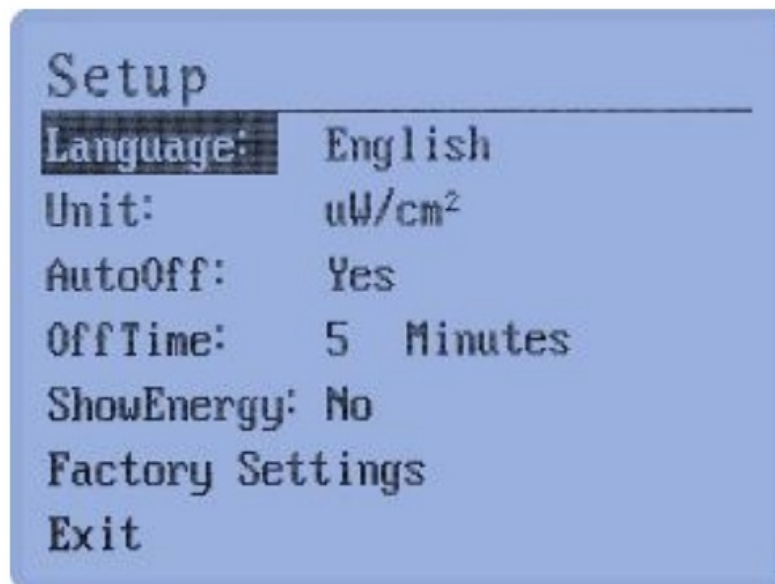

- **A. Language**

Short press ⏻ Enter or ▶ Del to enter the language selection, ▼▲ button to select the language, short press ⏻ Enter, and the setting is completed.

- **B.Unit**

Short press ⏻(Enter) or ▶(Del) to enter unit selection, ▼▲ button to select unit, short press ⏻(Enter), and setting is finished.

- **C.AutoOff:**

Short press the ⏻(Enter) or ▶(Del) to enter auto power off selection, ▼▲ button to select [Yes/No] auto power off, short press ⏻(Enter), then the setting is completed.

- **D.OffTime**

Short press ⏻(Enter) or ▶(Del) to select the shutdown time, ▼▲ to extend or shorten the shutdown time (long press to fast change the duration; may be set between 1-255 minutes), then short press ⏻(Enter) to finish the setting.

- **E.ShowEnergy**

Short press ⏻(Enter) or ▶(Del) to enter the shutdown time selection, short press ▼▲ to select [Yes/No] to display energy, and press ⏻(Enter) to end the setup.
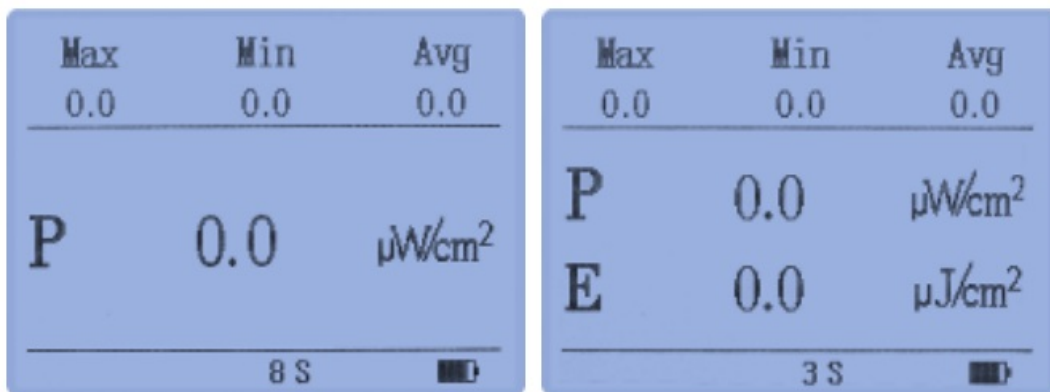
- **F.Factory Settings**

Short press ⏻(Enter) to enter the restore factory selection interface, ◀(Hold) ▶(Del) to switch the [Yes/No] option, short press ⏻(Enter) to confirm the option and return to the setting interface.

- **G.Exit**

Press ⏻(Enter) briefly to exit the main menu and access the measuring interface.

Measurement mode

- In record data query mode, press the ⏻(Enter) button to enter the measurement mode. The system displays the real real-time value of the power, maximum value, minimum value, average value, measurement duration, real real-time clock and energy values (a ccording to the setting whether to display display).

Max	Min	Avg
0.0	0.0	0.0

P   0.0 $\mu W/cm^2$

8 S

Max	Min	Avg
0.0	0.0	0.0

P   0.0 $\mu W/cm^2$
E   0.0 $\mu J/cm^2$

3 S

- In the measurement mode, if the backlight is off, press the ◀(Hold) button to light the backlight; if the backlight is already lit, short press the ◀(Hold) button, and the "HOLD" icon will be displayed in the lower-left corner of the interface. All data will be held on the LCD, and the current data will be recorded.

- In the "HOLD" state, if the backlight is off, press the ◄ Hold button to light the backlight; if the backlight is already lit, short press the ◄ Hold button to cancel the HOLD state and start a new measurement.

- In the measurement mode, if the backlight is off, short press the ► Del button to light the backlight; if the backlight is already lit, press the ► Del button to clear up the current data and start a new measurement.

- In the measurement mode, short press ▲ or ▼ to enter the Record data query mode

Record data query mode

- After powering on, enter the Record data query mode. The instrument will display the latest recorded data No.1 (up to 9 recorded data are stored in the instrument, and the oldest recorded data will be deleted automatically when exceeds 9 recorded data).

- Short press ▲ or ▼ to scroll up or down a recorded data.

- Short press ► Del to display data deletion prompt interface, short press ◄ Hold ► Del to select [Yes/No], then short press ⏻ Enter to confirm.

- Short press the ⏻ Enter button to enter the measurement mode.

PC software operation
The instrument offers USB interface and the PC software. It provides multiple functions, such as reading of all the recorded data in the instrument on the PC software, exporting of the power data to EXCEL, printing of the report, etc. For details, please refer to the PC software and its user manual in the attached U disk.

Measurement and precautions

1. When not in use, please long press the ⏻ Enter button to power off.
2. Avoid contact with corrosive materials and keep away from high humidity.
3. After shutdown, store it in a special packing box and keep it in a safe place. Protect the photosensitive part of the probe from polluting.
4. The recommended period of calibration is one year.
5. Because the UV probe is sensitive to humidity changes, the environment in which it is stored is important. When not in use for a long time, be sure to store the instrument in a low-humidity environment.
6. When the instrument displays Low Battery, replace the Battery

China National Standard

1. WS/T 367 367-2012 " Regulation of Disinfection Technique in Healthcare Settings " P Page 15, Appendix A.3 Effect monitoring of ultraviolet disinfection.
2. The 2009 version of " Technical Specifications for Disinfection in Hospitals " Page 9, 2.3 UV disinfection.
3. Ultraviolet germicidal lamp GB19258 GB19258-2003 P age 4, rated value of ultraviolet radiation intensity intensity.

The above three national standards stipulate the following:

1. The peak wavelength of the ultraviolet germicidal lamp (low low-pressure mercury lamp) is 253.7nm, which has a germicidal function.
2. The radiation intensity of the new 30W straight tu be ultraviolet lamp is greater than 100µW/cm2 as qualified.
3. The radiation intensity of the 30W straight tube ultraviolet lamp in use is greater than 70µW/cm2 as qualified qualified.
4. Different powers and different shapes of ultraviolet lamps have different radiation intensity values that are judged to be qualified.
5. The UV probe is placed at the center of the tested ultraviolet lamp at a vertical distance of 1 meter.

UV scale hook
In order to comply with UV germicidal lamp national standards, the UV light meter must be located at vertically one meter below the middle of a lamp tube to measurement. Our company also provides UV scale hooks, which is 1m long. Place the instrument as shown below and hang it directly onto the lamp to facilitate on on-site measurement of UV intensity.

**Special instructions for germicidal lamp measurement**

1. **Determining whether UV lamp power is up to standard**
   To meet the requirements of disinfection regulations, the automatic shutdown time is not less than 5 minutes. It is recommended to set the automatic shutdown time to 10 minutes. The instrument can automatically power off (1 to 255 minutes optional) optional), data recorded before automatic shutdown

- No.1 recorded data is the latest recorded data. P REC is the power value of the last shutdown time, which is used to determine whether the germicidal lamp is qualified.
- The tester places the instrument in the manner required by the test standard, turns on the instrument, and turns on the germicidal lamp before leaving the site. After the disinfection is completed, turn off the UV lamp (the disinfection time is generally much longer than 10 minutes, and the instrument has been automatically shut down at this time). The tester enters the site to turn on the instrument, and the data displayed on the instrument is the last measuring data.
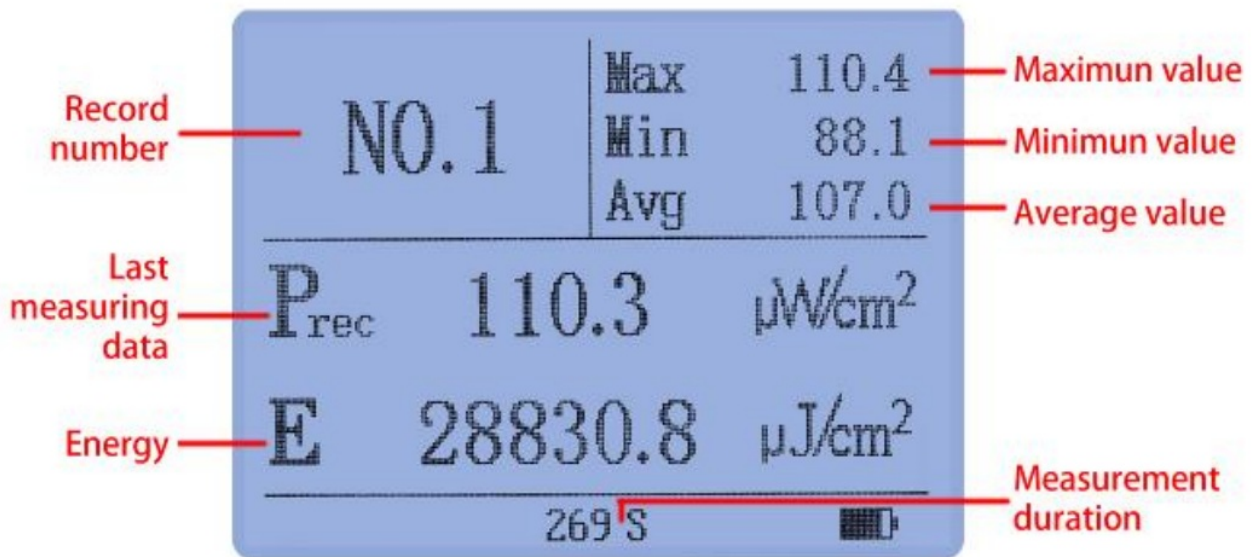
Packing list

No.	Description	Quantity	Unit
1	UV Light Meter	1	pcs
2	USB cable	1	pcs
3	AA battery	2	pcs
4	UV scale hook	1	pcs
5	Silicone Case	1	pcs
6	User manual	1	pcs
7	Calibration Report	1	pcs
8	Certificate/Warranty card	1	pcs
9	Plastic box	1	pcs

Service

1. The meter has a one-year warranty. If the instrument works abnormally, please send the whole instrument to our company for maintenance.

2. Provide users with spare parts and lifelong maintenance services.

3. Provide the users with the meter calibration service.

4. Free technical support for the long-term.

Manufacturer: Shenzhen Linshang Technology Co., Ltd.
Website: www.linshangtech.com
Service hotline: 086-755-86263411
Email: sales21@linshangtech.com

Documents / Resources

LS127C UV Light Meter	[**Linshang LS127C UV Light Meter**](#) [pdf] User Manual LS127C UV Light Meter, LS127C, UV Light Meter, Light Meter, Meter

References

- [**Transmission Meter | UV Light Meter | Coating Thickness Gauge - Linshang**](#)
- [**User Manual**](#)