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Manual for Digital Light Meter

SAUTER SP 200K

Version 2.2
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EN



PROFESSIONAL MEASURING

SP-BA-e-2622



SAUTER SP 200K

V.2.2 05/2026

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1 General

This digital illuminance meter is a precision instrument designed to measure illuminance in the work area. The sensor features full cosine correction for oblique light incidence. The device is compact, robust, and easy to use thanks to its design. The light-sensitive component used in this illuminance meter is a highly stable silicon diode with a long service life.

2 Features

- The device measures illuminance from 0 to 200,000 lux or from 0 to 20,000 FC (foot-candles)
- High accuracy and fast response
- Peak-hold function for recording peak values
- Unit and numeric display for easy reading
- Automatic zeroing
- Non-standard light sources are automatically corrected
- Short rise and fall times
- Also suitable for LED lighting

3 Technical description

Display: 3 ½-digit LCD

Measuring range: 200; 1,000; 20,000; 200,000 lux
(20,000 Lux reading x 10, 200,000 Lux reading x 100)
20; 200; 2,000; 20,000 FC
(20,000 FC reading x 10)
1 FC = 10.76 lux

Display range exceeded:

The highest digit "1" appears on the display

Accuracy:

Feature	Designation	Error limits for Class
	DIN 5032-6	C
Total error	fges	20%
Calibrated with a standard incandescent lamp with a color temperature of 2856K		

Repeatability:

± 2%

Temperature coefficient:

± 1%/°C

Measurement rate: 2 times/sec
Photosensor: Silicon photodiode with filter
Operating temperature: 0°C to 40°C (32°F to 104°F)
Humidity: 0 to 70% RH
Battery: 1 x 9V block battery, 6F22
Operating time: 200 hours
Dimensions: 185 mm x 68 mm x 38 mm
Weight: 130 g
Accessories: Carrying case, user manual, battery

4 Function buttons and part names

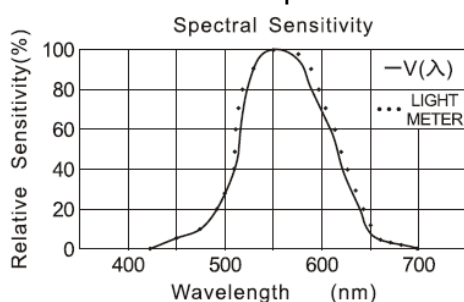


LCD Display: 3 ½ digits with a maximum reading of 1999.

1. ON/OFF: This button turns the lux meter on or off
2. Hold button: This button freezes the current reading. The meter will not display new readings until the HOLD button is pressed again.
3. Range: Press this button to switch between the measurement ranges 200 Lux/20 FC; 2,000 Lux/200 FC; 20,000 Lux/2,000 FC; 200,000 Lux/20,000 FC
4. Lux/FC Unit Button: This button is used to switch between the units Lux and Foot-Candle (FC).
5. Photo Sensor
6. Sensor cover: Used to protect the photodiode when the light meter is not in use.

5 Factors Affecting Spectral Sensitivity

Regarding the photo sensor: The photodiode with filters used nearly meets the C.I.E. (International Commission on Illumination) standard for spectral sensitivity characteristics. The photometric curve $V(\lambda)$ can be found in the following table:



6 Steps for Initial Setup

1. **Power button:** Press the power button to turn the light meter on or off.
2. **Lux/FC scale selection:** Press this button to select the desired light measurement unit.
3. The photo sensor cover must first be removed, and the photo sensor is then held horizontally toward the light source.
4. The nominal illuminance value can now be read from the LCD display.
5. **Measurement Range Exceeded:** If the device displays only a "1" on the screen, the input signal was too strong and a higher range must be selected.
6. **Data-HOLD mode:** Press the HOLD button to enter HOLD mode. The lux meter pauses all further measurements. Pressing this button again cancels this command, and the device returns to normal operation.
7. Once all measurements are complete, replace the protective cap on the photo sensor.
8. Turn off the device.

7 Check and replace batteries

1. As soon as a sufficient power supply is no longer guaranteed, the "  " symbol appears on the LCD display, and the battery must be replaced with a 9V block battery.
2. To do this, turn off the device. Open the battery compartment cover on the back of the device by pressing and sliding it in the direction of the arrow at the same time.
3. Remove the battery from the housing and replace it with a new 9V block battery.
4. Then replace the battery cover.

8 Maintenance

1. The white protective cap on the photo sensor should be wiped with a damp cloth from time to time.
2. The light meter must not be stored at excessive temperatures or humidity levels.
3. The interval for calibrating the photo sensor varies depending on usage. Generally, light sensitivity decreases in direct proportion to the product of light intensity and operating time.

To maintain the overall accuracy of the device, periodic calibration is recommended.

9 Examples of recommended illuminance levels

Illuminance requirements	
The recommendations according to DIN 5035 (Requirements for artificial lighting) for individual areas are, for example	
Illuminance in lux	Room type or activity (selection)

100 lx	Storage rooms, rest areas, changing rooms, restrooms, hallways, and stairwells
200 lx	Restrooms, toilets, dining areas, public areas,
300 lx	Reception desk, service counters, material preparation areas, workstations for general machine work, classrooms, and sales areas,
500 lx	Cashier area, laboratories, office workstations, data processing, medical care rooms, workshops
750 lx	Rooms for technical drawing, engraving, polishing and grinding of glass, molding of small parts, manufacture of glass instruments, measurement workstations
1,000 lx	Open-plan offices with dark walls, workstations for precision work, retouching,
1,500 lx	Workstations for working on watches, jewelry, and gemstones.

Note:

If the protective cap is on the photoelectric sensor, “0.00” will be displayed continuously. If this is the case, please do not adjust the potentiometer on the back of the housing.

Note:

To view the CE Declaration, please click on the following link:

<https://www.kern-sohn.com/shop/de/DOWNLOADS/>