

SANWA

LX 3132 LUX METER

Instructions

[9] Specifications

Light sensor element	Si photodiode with approximated relative luminous efficiency.
Illuminance measuring ranges	0 to 100 (lux) 0 to 300 (lux) 0 to 1000 (lux) 0 to 3000 (lux) 0 to 10000 (lux)
Measuring accuracy	$\pm 10\%$ of maximum reading (Equivalent to JIS General Class B for products for use other than certification and trading).
Internal batteries	UM-3("AA"-size) manganese batteries $\times 2$
Dimensions & weight	$163 \times 100 \times 47$ mm, approx. 300 grams
Provided accessories	Instruction manual $\times 1$
Optional accessories	Carrying case (C-01)

Design and specifications are subject to change for reasons of improvement, etc.

SANWA

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< MEMO >

Reference: Illuminance Standard in JIS 9110

Type	1500	700	300	150	70	30	15
Housing	Sewing (dark materials)	Study, reading (long hours or half-hours)	Drawing	Living room, dining room, kitchen	Bedroom, study, dressing room, hallway, emergency exit, etc.	Hotel, office, restaurant, bar, etc.	Stores, etc.
Schools	Precision drafting, sewing machine, precision	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	General classroom, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.
Offices	Precision drafting, sewing machine, precision	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	General classroom, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.
Roads and parks	Key punching, typing, calculation, telephone exchange room, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	General classroom, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.	Reading room, library, general classroom, special classroom, gymnasium, laboratory, workshop, etc.
Hospitals	Operating table, 10,000 lux or more	Operating room, emergency room, ward, etc.	Operating room, emergency room, ward, etc.	Operating room, emergency room, ward, etc.	Operating room, emergency room, ward, etc.	Operating room, emergency room, ward, etc.	Operating room, emergency room, ward, etc.
Theaters	Stage, 10,000 lux or more	Stage, 10,000 lux or more	Stage, 10,000 lux or more	Stage, 10,000 lux or more	Stage, 10,000 lux or more	Stage, 10,000 lux or more	Stage, 10,000 lux or more
Hotels	Accounting office	Reception desk, restaurant, bar, etc.	Reception desk, restaurant, bar, etc.	Reception desk, restaurant, bar, etc.	Reception desk, restaurant, bar, etc.	Reception desk, restaurant, bar, etc.	Reception desk, restaurant, bar, etc.
Restaurants	Sample cases	Cash register, waiting room, bar, etc.	Cash register, waiting room, bar, etc.	Cash register, waiting room, bar, etc.	Cash register, waiting room, bar, etc.	Cash register, waiting room, bar, etc.	Cash register, waiting room, bar, etc.
Beauty parlors and Barber's	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.	Hairdressing, hairdressing, hairdressing, hairdressing, etc.
Shops	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.	Lighting in store windows, lighting in store windows, etc.
Department stores	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.	Stage windows, general store windows, etc.

Note: The specified illuminance can be obtained by combining local illuminations. In this case, it is still desirable that the general illumination is more than 1/10 of the illuminance achieved using the local illumination.

Thank you for purchasing the LX3132 lux meter from **sanwa**.
Read this manual carefully before use for safe use of the instrument.
Retain this manual together with the instrument for future reference.

[1] Operating Precautions

- Do not open the rear case unless when it is necessary to replace the internal batteries.
Do not repair, modify or disassemble the instrument by yourself.
- Be careful not to stain or damage the light sensor.
If the light sensor gets dirty, wipe lightly with a soft, dry cloth.
- Be sure to set the Power/Range switch to OFF after use.
- When requesting repair service, please contact Sanwa's authorized service provider, or Sanwa directly.

[2] Applications

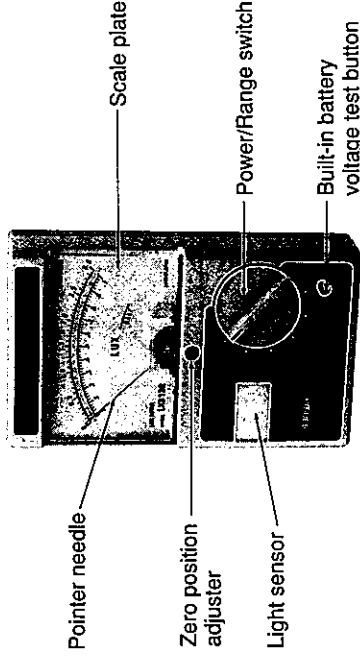
This instrument is a compact pointer-type illuminance meter featuring excellent cost efficiency, designed for use in daily life environment.

[3] Features

- The light sensor employs a silicon photodiode having a spectral sensitivity approximating the relative luminous efficiency specified by CIE (Commission Internationale d'Eclairage).
- Wide range of illuminance can be measured easily by using five measuring ranges of: 0 — 100 — 300 — 1000 — 3000 — 10000 (lux)

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[4] Nomenclature



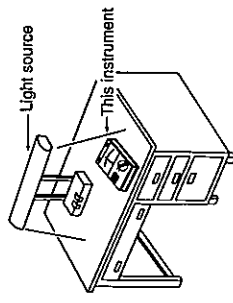
[5] Functions

- **Power/Range switch**
The rotary switch is used to turn the lux meter on-off and switch the measurement range to 100 lux, 300 lux, 1000 lux, 3000 lux or 10000 lux range.
- **Built-in battery voltage test button**
Push this button to check the voltage of the internal batteries.
 - If the pointer points to inside the "BATT" area: OK
 - If the pointer points to outside the "BATT" area:
The internal batteries are exhausted. Replace them with new batteries.

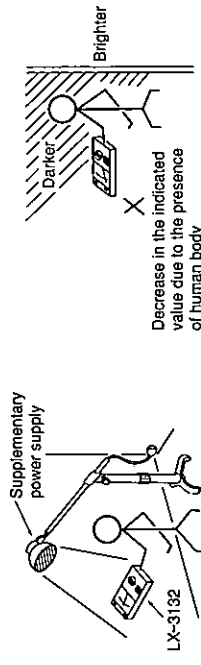
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[6] Measurement

- ##### 6 — 1 How to measure illuminance
- 1) Set the Range switch to the desired lux value range.
 - 2) Place the instrument on the position you want to measure the illuminance. The pointer will automatically indicate lux value of that position. Now set the Range switch to a range in which the pointer is swung optimally for reading out the pointed value.
 - 3) Be sure to set the Range switch to OFF after use.

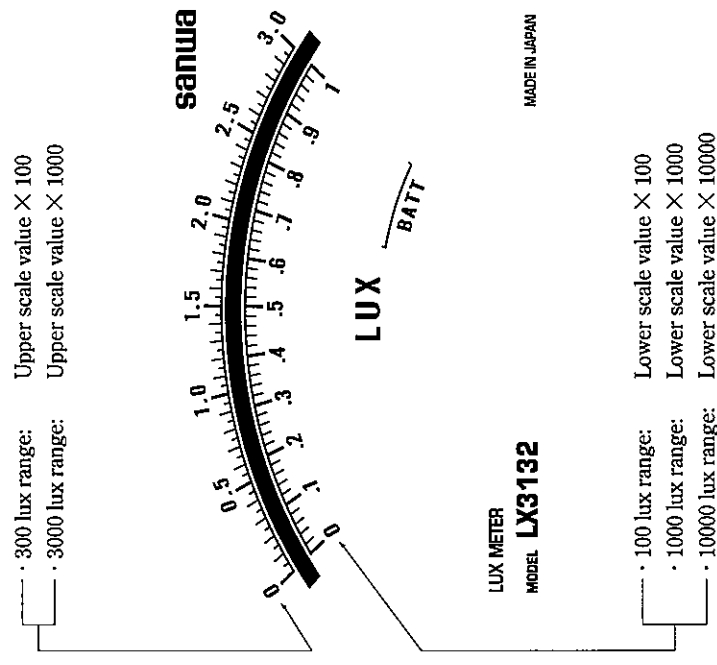


When you want to measure illuminance by holding this instrument in your hand, note that, if the measurement is performed when your back side is brighter than the front side, the indicated value will be lower than the actual value because your body cast a shadow and screens light. The indicated value also becomes unstable in this case.



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6 — 2 How to read the meter



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[7] Maintenance and Administration

To maintain accuracy, perform calibration and inspection at least once a year.

- ##### 7 — 1 Maintenance check
- 1) External view
 - Check if the external finish is damaged by dropping the instrument, etc.
 - 2) Light sensor
 - Check if the light sensor surface is scratched or damaged.

7 — 2 Calibration

For calibration and inspection of the instrument, please contact your nearest distributor, or Sanwa Electric Instrument Co., Ltd.

7 — 3 Battery replacement

The internal batteries are exhausted if the pointer points to an area outside the "BATT" area when you press the internal battery voltage test button. In this case, it is necessary to replace them with new batteries. To replace the internal batteries, remove the rear case retaining screw, open the rear case, remove the old batteries, and insert new batteries following the polarity indications shown on the battery holders.

[8] After-Sale Servicing

- ##### 8 — 1 Warranty period
- The warranty period of the instrument is one year from the date of purchase.
- ##### 8 — 2 Servicing
- 1) Check the following items before calling for service.
 - Check if the internal batteries are exhausted.
 - Check if the batteries are inserted with correct polarity.

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- ##### 2) Servicing within the warranty period
- Sanwa's authorized service provider or Sanwa will repair the instrument according to Sanwa's warranty policy.

- ##### 3) Servicing after the warranty period
- When it is expected that the original performance can be restored by repair, we will repair the instrument at the charge of the user.
 - The repair and transport fees may sometimes become higher than the original product price. To prevent this, be sure to check the above fees before ordering repair.
 - The spare parts required to restore the performance of the instrument will be stocked at least 6 years after discontinuation of production. The period in which the parts required to restore the performance is equal to the period in which servicing of this product is possible.
- However, note that this period may be shortened when any of the parts becomes unavailable due to discontinuation of production by the part manufacturer.

4) Inquiries

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