

LIGHT METER 531

Instruction Manual



**Perfect
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CONTENTS

1. Safety Information	2
2. Introduction	3
3. Precautions On Handling	4
4. Maintenance	4
5. Specifications	5
6. Symbol Definition And Button Location	
6.1 LCD Display	6
6.2 Name Of Parts & Position	7 - 11
7. Characteristics Of Sensor Spectrum Response	12



1. SAFETY INFORMATION


Read the following safety information carefully before attempting to operate or service the meter.

Use the meter only as specified in this manual ; otherwise, the protection provided by the meter may be impaired.

ENVIRONMENT CONDITIONS:

- Altitude up to 2000 meters
- Relatively humidity 90% max.
- Operation Ambient 0 ~ 40°C

EXPLANATION OF SYMBOLS:

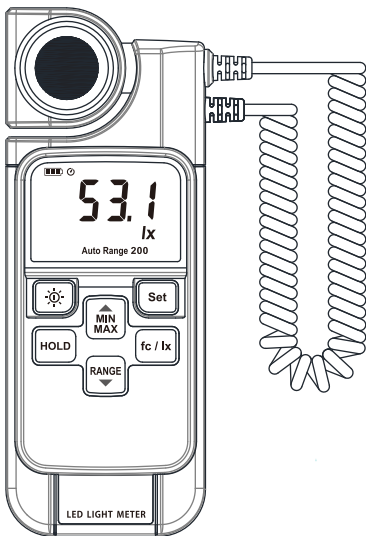
-  Comply with EMC.
When servicing, use only specified replacement parts.



2. INTRODUCTION

Thank you for using our LED Light Meter. To ensure that you can get the most from it, we recommend that you read and follow the manual carefully before use. The Light Meter has been designed, manufactured, and delivered under strict quality control criteria by a factory certified. This meter has the following characteristic.

- Easy to use
- Automatic zero
- Automatic ranging
- MAX/MIN function build in
- Large backlight LCD display





3. PRECAUTIONS ON HANDLING

4. MAINTENANCE

3. PRECAUTIONS ON HANDLING

Operating carefully, and do not drop the meter or hit it with a hard object. Avoid using the meter in a dirty, dusty, or salt-air area or where there are corrosive gases. If dirt or dust adhered to the surface of the detecting light, will decrease accuracy of the measuring value to clean the surface by wiping with a soft and dry cloth.

4. MAINTENANCE

ATTENTION!

Repairs or servicing not covered in this manual should only be performed by qualified personal.

CLEANING

Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this instrument.

Note:

If it is not used for a long time, please store the meter in chamber under 60%RH.

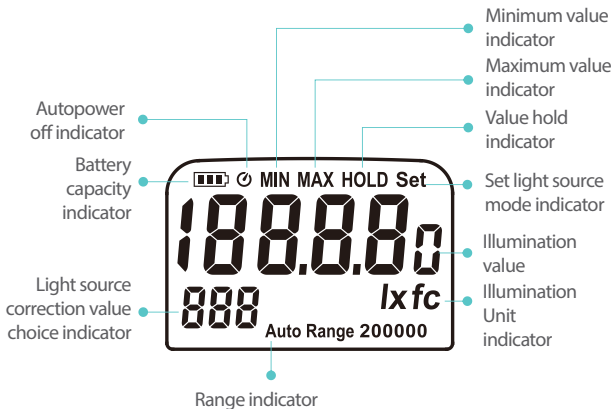


5. SPECIFICATIONS

Measuring range:	0.0 to 199.9/1999/19990/199900 lx 0.00 to 19.99/199.9/1999/19990 fc Automatic or manual selection of range
Resolution:	0.1 lx, 0.01 fc
Accuracy:	±3% rdg ±5 dgts (Standard A light source) 8% other visible light source
Angle deviation from cosine characteristics:	10° ± 1% 30° ± 2% 60° ± 5% 80° ± 20%
Temperature characteristics:	±0.1% / °C(25°C)
Response time:	0.5 sec
Light detector:	SI Photodiode
Over range:	"-OL-" display
Power supply:	1.5V type AA battery x2
Power life:	Approx. 80 hours
Operation temperature:	0°C ~ 40°C(32°F ~ 104°F)
Operation humidity	0~80% RH
Storage Temperature:	-10 to 50°C (14 to 122°F)
Storage Humidity:	0 to 60% RH
Dimension / Weight:	169(L)×63(W)×37(H)mm (6.7"×2.5"×1.5")
Weight:	Approx. 210g
Accessories:	Battery, instruction manual, carrying case.

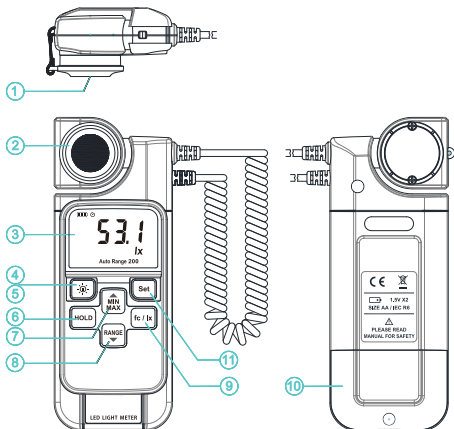
6. SYMBOL DEFINITION AND BUTTON LOCATION

6.1 LCD Display:



6. SYMBOL DEFINITION AND BUTTON LOCATION

6.2 Name of Parts & Position



* Operation:

Press the power button to turn on the power. Notice that covering the light-detecting surface with the cap. "CAP-" will auto-appear on the LCD display. After "CAL-" appears, the meter enters the automatic zero adjustment. When automatic zero adjustment is completed, "CAL-" disappears and "0.0" appears. After confirming the "0.0" display, remove the cap to start measuring.

After the measurement has been completed, press the power button again to turn off the power, and cover the light-detecting surface with the cap for protecting against stray light.

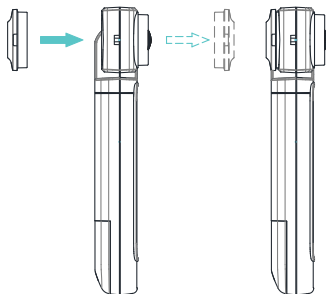
6. SYMBOL DEFINITION AND BUTTON LOCATION

Note:

If "ERR1" appears, check the cap to make sure it is on properly.

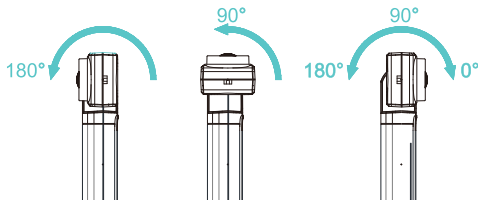
① Lens Protecting Cover :

This is used to protect the photo lance from scratching and create complete dark environment for the meter to perform dark current calibration. During power on process, this cover should be set properly in front of the sensor lens, otherwise an error message will be shown on the LCD.



② Light Sensing Probe:

- This probe can be fixed on the meter parallel or perpendicular to the LCD surface.

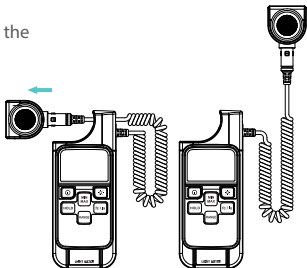


6. SYMBOL DEFINITION AND BUTTON LOCATION

- Or it may be detached from the unit to fit the measuring requirement.

3 LCD display:

6 1/2" large size back light LCD display.



4 Power button:


Push this button to turn on the meter. Push and hold this button for 3 seconds to turn it off. The unit will automatically turn itself off after 30 minutes if no key operation. To disable the automatic power off function, turn the meter off, push and keep holding "HOLD" button, then push power button to turn on. The "🔌" will disappear from the LCD to confirm this operation.

5 Backlight (Power) button:

Push this button to turn on and off the LCD backlight. The backlight will be automatically off after 30 seconds to save battery power.

6. SYMBOL DEFINITION AND BUTTON LOCATION

6 **HOLD button:**

The user may hold the present reading and keep it on the LCD display by pressing the  button. To release the data held operation, user may press the button again.

7 **Max Min button:**

Push this button to set the meter working under MAX/MIN mode. By pushing this button, the user may swap the LCD reading among maximum, minimum and current reading. Push and hold this key for 3 seconds to exit MAX/MIN mode.

8 **Range selector button:**

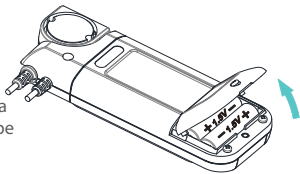
The user may use this button to select the preferred measuring or automatically selected by the meter. The available ranges are: AUTO, 200, 2000, 20000, 200000 lx / AUTO, 20, 200, 2000, 20000 fc

9 **Fc/lx selector button:**

To switch the measuring unit between Foot Candle and Lux.

10 **Battery cabinet cover:**

When battery capacity segment is less than one, the user should replace the battery. The battery cabinet cover can be opened with a Philips screw driver and two AA type batteries should be installed.





6. SYMBOL DEFINITION AND BUTTON LOCATION

11 Set button:

Press **Set** button, and use ▲ and ▼ to select a preset correction setting from L0 to L8. According to the lighting source, the user should set the appropriate preset correction for the accurate measuring result. The user can set his correction factor if a high precision light meter with " $V(\lambda)$ " < 3% is available. The available setting are list bellow:

L0: Standard incandescent light source

L1: LED white daylight (5000K)

L2: LED AMBER (YELLOW) light (3000K)

L3: LED GREEN light

L4: LED RED light

L5: LED BLUE light

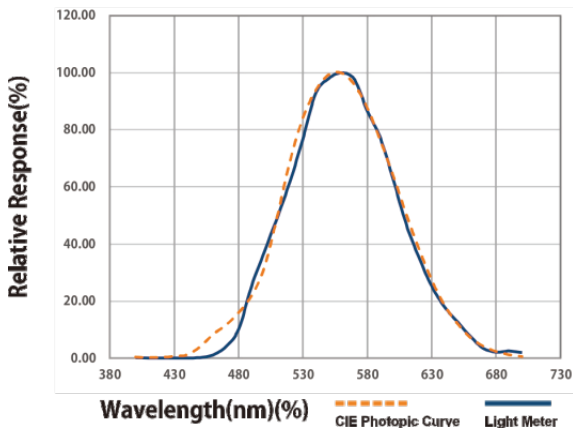
L6: Warm White Fluorescent Lamp (4000K)

L7: Cold White Fluorescent Lamp (6500K)

L8: user setup mode

Note: $1\text{fc} = 10.76\text{lxi}$

7. CHARACTERISTICS OF SENSOR SPECTRUM RESPONSE



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Thank you for your understanding.

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For B2B or project-based application, please send an email:

sales@perfectprime.com

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