

FAI DETLIGHT

FAITHFULL[®]

QUALITY TOOLS

Light Meter

Users Manual

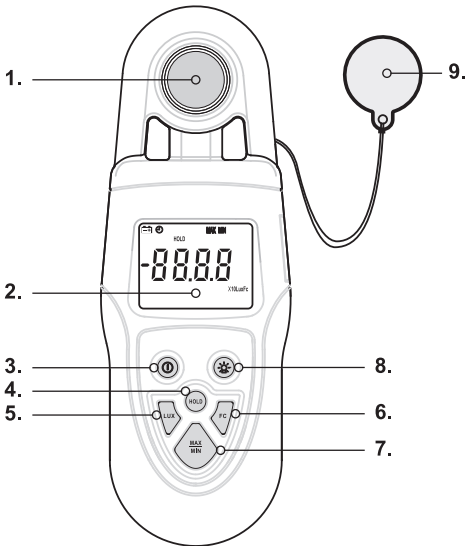
Read this manual thoroughly before use

INTRODUCTION

This meter measures the visible light emitted from a fluorescent, metal halide, high-pressure sodium or incandescent source.

One LUX (Lumen) is the illumination from a one candela lamp perpendicular to a surface one meter squared at a distance of one meter. One foot-candle (Fc) is the illumination from a one candela lamp perpendicular to a surface one foot squared at a distance of one foot.


DIAGRAM



1. Light Sensor

2. LCD Display

3. “” Button

Press the “” button to turn the meter on and off.

4. “HOLD” Button

- Press the “HOLD” button to lock the current display reading, the symbol “HOLD” will appear on the display indicating that this reading is held. Press again to cancel the lock, the symbol “HOLD” will disappear and the meter will return to it previously selected mode.
- Press and hold the “HOLD” button down to reset the meter to a zero setting.


5. “LUX” Button

Press the “LUX” button to select Lux as the unit of measurement.

6. “FC” Button

Press the “FC” button to select foot-candle (fc) as the unit of measurement.

7. “” Button

Press the “” button to switch the meter between the following modes.

Max mode (“MAX” appears), MIN mode (“MIN” appears).

If the MAX or MIN mode is not selected the meter will revert to a continuous reading mode.

8. “” Button

Press the “” button to turn the display backlight on.

Press again to turn the backlight off.

9. Light Sensor Cap

Always cover the light sensor when the meter is not in use and remove prior to taking new measurements.

OPERATING INSTRUCTION

1. Press the “**⊙**” button to turn on the meter and remove the cap from the light sensor.
2. Move the meter to the desired position and adjust its direction until the light sensor is perpendicular to the light source to be measured.
3. The meter will display the current light output in either “**LUX**” or “**FC**” depending on the mode selected.

Tip: 1 foot-candle = 10.764 LUX

1 Lux = 0.09290 foot-candles

If the display shows “x10” beside the unit shown, you must multiply the reading by 10 to get the actual measurement result.

4. Locking and Unlocking a Reading:

Press the “**HOLD**” button to lock the current reading on the display, the symbol “HOLD” will appear on the display indicating that this reading is held. Press again to cancel the lock, the symbol “HOLD” will disappear and the meter will return to its previously selected mode.

5. MAX Mode and MIN Mode:

Press the “ $\frac{\text{MAX}}{\text{MIN}}$ ” button to enter MAX mode, “**MAX**” will appear on the display. The display will now show the maximum reading of all the readings recorded since the meter entered this mode.

Press the “ $\frac{\text{MAX}}{\text{MIN}}$ ” button a second time to enter MIN mode, “**MIN**” will appear on the display. The display will now show the minimum reading of all the readings recorded since the meter entered the MIN mode.

Tip: If you press the “**HOLD**” button to lock a reading, the meter will stop measuring until you press the button again to cancel the hold.

6. To disable auto power off, press the “⊖” button to turn on the meter while pressing and holding down the “MIN / MAX” button. Repeat this procedure to enable auto power off. You can press the “⊖” button to turn the meter off manually any time.

7. Zero Adjustment:

The zero point of the light sensor may change over time. To perform a sensor zero reset, carry out the following procedure. Ensure the meter is turned off and cover the light sensor with the light sensor cap. Turn the meter on, then press and hold down the “**HOLD**” button, after approximately 2 seconds the display will show “**AdJ**” followed by a reading of “0.00” indicating that the zero adjustment has been successfully completed. Finally, release the “**HOLD**” button.

NOTE: If you do not attach the light sensor cap to the light sensor, the display will show “**CAP**” indicating that the zero adjustment has failed. Please attach the light sensor cap to the light sensor and then perform the zero adjustment again.

WARNING AND PRECAUTIONS

- Do not operate the tester where flammable or explosive gas (or dust) is present.
- Do not attempt to use this meter for anything other than its intended use.
- The light sensor is calibrated to CIE standard incandescent lamp at 2854°K and may give different readings for spectrums from other lamp types.

CLEANING

To clean the meter, use soft dry cloth. Do not use abrasive, solvent or watery cloth.

General Specifications



Sampling Rate:	2.5 times per second for digital display
Display:	LCD
Sensor:	Silicon photodiode and filter
Power Supply:	9V Battery, 6F22 or equivalent (x1)
Environment:	Indoor operation
Operating Temp:	-10°C to 50°C (<80%RH)
Storage Temp:	-10°C to 50°C (<70%RH)
Altitude:	Up to 2000m
Dimensions:	192 x 67 x 44mm
Weight:	about 198g (including battery)


ILLUMINATION

Measuring Range: 0-99999 Lux
0-9999 Foot Candles

Accuracy: $\pm 3\%$ (Calibrated to standard
incandescent lamp at 2854°K)
 $\pm 6\%$ other visible light sources
Angle deviation from cosine characteristics
 $30^\circ \pm 6\%$
 $60^\circ \pm 6\%$
 $80^\circ \pm 6\%$

Cosine Angular corrected per JIS C 1609:1993 and CNS 5119
general A class specifications.

BATTERY REPLACEMENT

When the symbol “” appears on the display, the battery is low and should be replaced immediately. To replace the battery, turn the meter off and remove the battery cover. Remove and replace the exhausted battery with a new one of the same type. Reinstall the battery cover.

We recommend the use of Lighthouse Alkaline batteries with this product. Code number: **L/HBAT9V**

NOTE

1. This manual is subject to change without notice.
2. Faithfull tools take no responsibility for any personal injury, loss or damage caused by the inappropriate or misuse of this product.
3. The contents of this manual cannot be used as the reason to use the meter for any other special application.

Every Faithfull electrical product is guaranteed for a period of one year, subject to the same exceptions as mentioned above. In the case of electrical products used for hire, the guarantee period is restricted to three months.

DISPOSAL OF THIS ARTICLE

Dear Customer,

If you at some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials, which can be recycled. Please do not dispose of this product in the household waste bin, but check with your local council for recycling facilities in your area.

IMPORTANT SAFETY INFORMATION

It is essential that you read and understand the instructions contained in this manual before using the light meter for the first time. Failure to follow these instructions could result in an electrical shock or possible damage to the meter or to the equipment under test. This manual should be stored safely for future reference.



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