

Bluetooth® Light Meter

850004

Instruction Manual

SPER
SCIENTIFIC

Environmental Measurement Instruments

TABLE OF CONTENTS

INTRODUCTION.....	3
PANEL DESCRIPTION.....	4
MEASUREMENT PROCEDURES.....	5
SELECT LUX/FOOT CANDLES.....	5
SELECT MEASUREMENT RANGE.....	5
BACKLIGHT.....	6
HOLD FUNCTION.....	6
MAX/MIN FUNCTION.....	6
AUTO POWER OFF.....	7
BLUETOOTH COMMUNICATIONS.....	8
BATTERY REPLACEMENT.....	11
SPECTRAL SENSITIVITY CHARACTERISTIC.....	11
SPECIFICATIONS.....	12
OPTIONAL ACCESSORIES.....	13
WARRANTY.....	16

INTRODUCTION

Sper Scientific's Bluetooth® Light Meter is small, light, and simple to use with results displayed on the meter's large 1-½" backlit display. Choose readings in lux or foot-candles. Features a bar graph display, minimum and maximum hold (peak) and data hold functions. The meter offers the convenience of Bluetooth® for wireless communication with free iOS and Android Apps. Results can also be remotely viewed on your smart-phone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with instructions, tripod screw, and a 9V battery. N.I.S.T. traceable certificate of compliance available.

PANEL DESCRIPTION

1. Photo Diode
2. LCD Display
3. HOLD/☀️ button
4. MAX/MIN button
5. Power button
6. Range (Lux/FC) button
7. Bluetooth button



MEASUREMENT PROCEDURES

1. Turn the meter on/off by pressing the **POWER** button.
2. Face the photo detector towards the light source you wish to measure.

SELECT LUX / FOOT CANDLES

Press the red button for 2 seconds to toggle between Lux and Foot Candle Ranges.

SELECT MEASUREMENT RANGE

Press the red button to select auto range or manual range.


If “OL” (over range) appears on the display, while in the manual range mode, select higher ranges until “OL’ disappears.

Press the red button repeatedly to choose from the following measurement ranges:

Lux: 400, >4k, >40k, 400k

FC: 40, >400, 4k

BACKLIGHT

Press  for 2 seconds to turn the illuminated display on/off.

HOLD FUNCTION

With the meter on, press the **HOLD** button to display “HOLD” and the last reading. Press **HOLD** again to exit this function.

MAX/MIN FUNCTION

Max/Min readings are continually updated as soon as you enter the Max/Min mode. These readings are reset when you exit the Max/ Min mode, or when the meter is turned off.

1. Press the **MAX/MIN** button once to display “MAX” and the maximum (peak) recorded light reading. The display will be updated only when the max (peak) level is exceeded.
2. Press the **MAX/MIN** button again to display “MIN” and the minimum light reading. The display will be updated only on reaching lower readings.
3. Press the **MAX/MIN** button again to exit Max/Min mode. The current reading is now displayed and continually updated.

AUTO POWER OFF

1. If no buttons are pushed for about 10 minutes, the meter will automatically turn off.
2. While the meter is on, press the power button for 2 seconds to override Auto Power Off: “⊗” disappears from the display indicating that Auto Power Off is disabled.

Note...The meter defaults to Auto Power Off each time it is turned on.

BLUETOOTH® COMMUNICATION

Download and Settings

1. Download the iOS or Android “Meterbox Pro” APP to your smartphone.
2. Select **Setting** at the bottom of the home screen.


Recording: Choose your test sample rate and duration.

Alarms:

1. Select Instrument Type: **Environmental Meter**.
2. Press **Next** then **Choose Function** and select your alarm parameter.
3. Insert your **Hi** and **Low** alarm values.
4. Repeat steps 3 & 4 for additional alarm parameters you wish to set for your meter.
5. Use the **Alarm** switch at the bottom to enable / disable the alarm for the parameter shown. Use the **Allow Alarm** switch at the top to enable / disable alarms on all parameters.

BLUETOOTH® COMMUNICATION




Pairing your meter and APP

1. Press the  button on the meter to activate Bluetooth®.
2. Press “Connect Device” on the APP.
3. Now choose “850004” from the device list that now appears. The meter will immediately begin displaying a real time graph of your meter’s readings.


Saving your results

To begin recording data press the red button on screen. You will now be asked to name and save the file. The data will now start recording. Press the red button again to stop recording.

Viewing saved Data

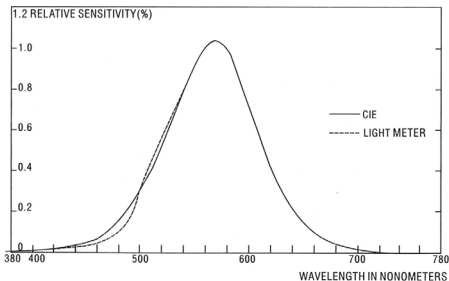
1. Press < at the top of the screen to view saved data. Next, choose “Files” at the bottom of the screen, then choose the file you wish to view. A graph of the entire record will now appear.
2.  (saved data file graph) enables you to add notes and photos to your data file.
3. Press  at the top of the screen to export the data for to your computer for further analysis or storage.
4. Press  to see the data including recording times, maximum, minimum and average readings.

BATTERY REPLACEMENT

- Turn off the meter when  is displayed.
- Open the battery compartment and insert a fresh 9V battery.
- Replace the cover.

SPECTRAL SENSITIVITY CHARACTERISTIC

The Photo diode and filters conform very closely to the spectral sensitivity characteristics of C.I.E. (International Commission on Illumination) photo curve V.



SPECIFICATIONS

Display	1/2" high digits, 4-digit LCD	
Range	Resolution	Accuracy
400 Lux	0.1	$\pm 5\%$ rdg ± 1
4000 Lux	1	$\pm 5\%$ rdg ± 10
40.00 KLux	10 Lux (0.01 KLux)	$\pm 5\%$ rdg ± 100 (< 10000 Lux) $\pm 10\%$ rdg ± 100 (> 10000 Lux)
40 FC	0.01	$\pm 5\%$ rdg ± 0.1
400 FC	0.1	$\pm 5\%$ rdg ± 1
4000 FC	1	$\pm 5\%$ rdg ± 10 (< 929.03 FC) $\pm 10\%$ rdg ± 10 (> 929.03 FC)
Operation Environment	32 to 104°F (0 to 40°C) 10 to 80% RH	
Storage Environment	14 to 140°F (-10 to 50°C) 0-80% RH	
Power	One 9V Battery	
Dimensions	8¼" x 2" x 1½" (206 x 54 x 35.6 mm)	

OPTIONAL ACCESSORIES

840093 Field Tripod

NOTES

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WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover damage resulting from accident, misuse, or abuse of the product. To obtain warranty service, ship the unit postage prepaid to:

SPER SCIENTIFIC LTD,
8281 E. Evans Rd., Suite 103
Scottsdale, AZ 85260
(480) 948-4448

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at www.sperwarranty.com within 10 days of purchase.

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