User's Manual

EXTECH ®
INSTRUMENTS
A F L I R C O M P A N Y

Model 401027

Pocket Foot Candle Light Meter
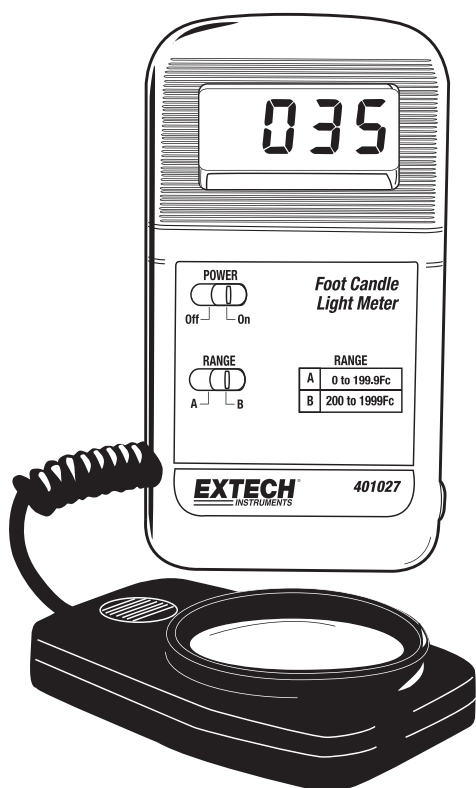
Introduction

Congratulations on your purchase of the Extech Pocket Foot Candle Light Meter which measures and displays light intensity in foot candle units. Two ranges can be selected (200.0 and 2000 Fc). The precision color-corrected photo-diode sensor provides 5% accuracy.

Specifications

Circuit	Custom LSI microprocessor based design
Display	0.5" (13mm) 3-1/2 digit (1999 count) LCD display
Sensor	Photo-diode with color correction filter (meets CIE regulations)
Out of range indication	'1 ' is displayed
Sampling time	Approx. 0.4 seconds
Power Supply	9V battery
Power consumption	Approx. 2.7mA
Operating temperature	32°F to 122°F (0°C to 50°C)
Operating Humidity	< 80% RH
Weight	0.43 lb. (195g)
Dimensions	Meter: 5.2x2.8x1" (131x70x25mm); Probe: 3.2x2.2x0.3" (82x55x7mm)
Accessories	Probe and 9V battery

Range Specifications

Range	Resolution	Accuracy
0 to 199.9 Fc	0.1 Fc	± (5% + 4 digits) Full Scale
200 to 1999 Fc	1 Fc	

Meter Description

1. Display
2. ON/OFF switch
3. Range switch
4. Light sensor
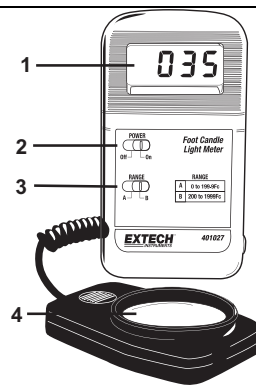
Meter Operation

1. Slide the ON/OFF Switch to the ON position.
2. Fold out the meter's rear tilt stand and set the meter on a desktop.
3. Select range "B"
4. Hold the Light Sensor with the white lens facing the light source to be measured. The sensor can also be placed on the desktop facing in the direction of the light source.
5. Read the light measurement on the LCD display.
6. If the measurement is less than 200 fc, select the lower "A" range

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Battery Replacement

The low battery indicator "LO BAT" appears on the LCD display when it is nearing the time to replace the battery. Reliable readings can still be obtained for several hours after the first appearance of the low battery indicator. To replace the batteries:

1. Slide the rear battery compartment cover off of the meter and remove the old battery
2. Replace the battery and reinstall the compartment cover

Typical Light Levels For Work Areas

		Foot Candles	Lux
Factories	Emergency Stairs, Warehouse	2 to 7	20 to 75
	Exit/Entrance Passages	7 to 15	75 to 150
	Packing Work	15 to 30	150 to 300
	Visual Work: Production Line	30 to 75	300 to 750
	Typesetting:Inspection Work	75 to 150	750 to 1,500
	Electronic Assembly, Drafting	150 to 300	1,500 to 3,000
Office	Indoor Emergency Stairs	7 to 10	75 to 100
	Corridor Stairs	10 to 20	100 to 200
	Conference,Reception Room	20 to 75	200 to 750
	Clerical Work	75 to 150	750 to 1,500
	Typing, Drafting	150 to 2000	1,500 to 2,000
Store	Indoors	7 to 15	75 to 150
	Corridor/Stairs	15 to 20	150 to 200
	Reception	20 to 30	200 to 300
	Display Stand	30 to 50	300 to 500
	Elevator	50 to 75	500 to 750
	Show Window, Packing Table	75 to 150	750 to 1,500
	Storefront, Show Window	150 to 300	1,500 to 3,000
Home	Washing	10 to 15	100 to 150
	Recreational Activities	15 to 20	150 to 200
	Drawing Room, Table	20 to 30	200 to 300
	Makeup	30 to 50	300 to 500
	Reading, Study	50 to 150	500 to 1,500
	Sewing	100 to 200	1,000 to 2,000
Restaurant	Corridor Stairs	7 to 15	75 to 150
	Entrance, Wash Room	15 to 30	150 to 300
	Cooking Room, Dining Table	30 to 75	300 to 750
	Show Window	75 to 150	750 to 1,500
Hospital	Emergency Stairs	3 to 7	30 to 75
	Stairs	7 to 10	75 to 100
	Sick Room, Warehouse	10 to 15	100 to 150
	Waiting Room	15 to 20	150 to 200
	Medical Examination Room	20 to 75	200 to 750
	Operating/Emergency Room	75 to 150	750 to 1,500
	Eye Inspection	500 to 1000	5,000 to 10,000

Light Sensor Spectrum
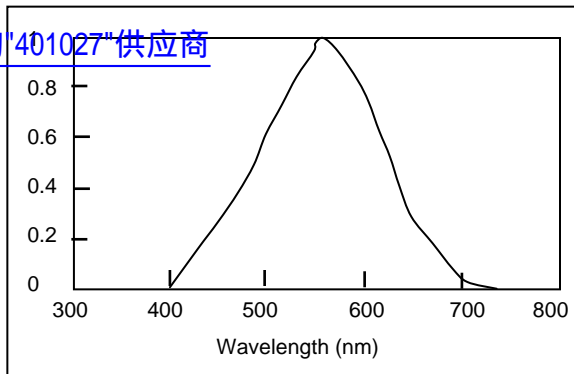
Calibration and Repair Services

Extech offers repair and calibration services for the products we sell. Extech also provides NIST certification for most products. Call the Customer Care Department for information on calibration services available for this product. Extech recommends that annual calibrations be performed to verify meter performance and accuracy.

Warranty

EXTECH INSTRUMENTS CORPORATION (A FLIR COMPANY) warrants this instrument to be free of defects in parts and workmanship for **one year** from date of shipment (a six month limited warranty applies to sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website www.extech.com for contact information. A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

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Support line (781) 890-7440

Technical Support: Extension 200; E-mail: support@extech.com

Repair & Returns: Extension 210; E-mail: repair@extech.com

Product specifications subject to change without notice

For the latest version of this User Guide, Software updates, and other up-to-the-minute product information, visit our website: www.extech.com

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