AMPROBE®

Data Sheet



LM-100 Light Meter

The Amprobe LM-100 light meter measures the visible light from fluorescent, metal halide, high-pressure sodium or incandescent sources. It is a portable, easy-to-use digital light meter designed for simple one-hand operation reading in Lumen (lux) or footcandle (fc) units. The LM-100 measures a wide range of light up to 20,000 fc or lux with an accurate, high resolution of 0.01 fc/lux.

Use the LM-100 light meter to measure the illumination level in the interior and to switch off or reduce or increase the output level of lighting fixtures. Reduce the energy burden of the building by significantly increasing the efficiency of its lighting system.

One lux is the illumination from a one candela lamp perpendicular to a surface one meter squared at a distance of one meter. One fc is the illumination from a one candela lamp perpendicular to a surface one foot squared at a distance of one foot. 1 footcandle = 10.764 lux and 1 lux = 0.09290 footcandles

- Measure in Lux or Footcandles, front panel switchable
- Measuring Range to 200000 Lux or 20000 Foot candles
- Silicon photodiode sensor and filter
- Data Hold to freeze reading on the digital display
- MAX ability to show high readings
- Includes protective sensor cap
- Large, 3-1/2 digit display

No hassle warranty

No waiting.

No shipping charges.



(note: \$500 MSLP limit)





LM-100 Light Meter Data Sheet

Specifications

Silicon photodiode and filter Leasurement rate 2.5 times per second 20, 200, 2000, 20000, 200000 Lux 20, 200, 20000, 200000 Foot candles CCCUTACY 2.3 % (Calibrated to standard incandescent lamp at 2854°K) 6% other visible light sources Angle deviation from cosine Characteristics 30° ± 2% 60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution Cosine Angula		
Reasurement rate 2.5 times per second 20, 200, 2000, 20000, 200000 Lux 20, 200, 2000, 20000, 200000 Lux 20, 200, 2000, 20000 Foot candles ccuracy 2.3 % (Calibrated to standard incandescent lamp at 2854°K) 6% other visible light sources Angle deviation from cosine Angle deviation from cosine Characteristics 30° 2.5 % 60° 30° 4.5 % 60° 5.5 % 60° 60° 60° 60° 60° 60° 60° 60° 60° 60°	Illumination	Accuracy at 23°C ± 5°C (73.4°F ± 5°F), < 75% R.H.
20, 200, 2000, 2000, 20000 Lux 20, 200, 2000, 20000 Foot candles CCUTACY \$\frac{1}{2}\$ \text{ 20}\$ (Calibrated to standard incandescent lamp at 2854°K) \$\frac{6}{6}\$ \text{ other visible light sources}}{60^{\text{ other visible light sources}}} \text{ Angle deviation from cosine } \text{ Characteristics}}{30^{\text{ other visible light sources}}} \text{ Angle deviation from cosine } \text{ Characteristics}}{60^{\text{ other visible light sources}}} \text{ 46%} \text{ 80} \text{ \text{ e}}{25\text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ e}}{25\text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ e}}{25\text{ of 60}} \text{ \text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ of 60}} \text{ \text{ e}}{20\text{ of 60}} \text{ \text{ of 60}} \text{ of 6	Sensor	Silicon photodiode and filter
20, 200, 2000, 2000 Foot candles ccuracy ± 3% (Calibrated to standard incandescent lamp at 2854°K) 6% other visible light sources Angle deviation from cosine Characteristics 30° ± 2% 60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux	Measurement rate	2.5 times per second
# 3% (Calibrated to standard incandescent lamp at 2854°K) 6% other visible light sources Angle deviation from cosine 30° ± 2% 60° ± 6% 80° ± 55% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux ### Automatic, positive implied, negative polarity indication Outomatic Outomatic	Range	20, 200, 2000, 20000, 200000 Lux
6% other visible light sources Angle deviation from cosine Characteristics 30° ± 2% 60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux meral Specifications sisplay 3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 ampling Rate 2.5 times per second for digital display olarity Automatic, positive implied, negative polarity indication verrange (OL) or (-OL) is displayed ero Automatic ow battery indication The "🖃" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ilitude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery		20, 200, 2000, 20000 Foot candles
Angle deviation from cosine 30° ± 2% 60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux Internal Specifications Internal Specificati	Accuracy	
30° ± 2% 60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux Interal Specifications Isiplay 3% digit liquid crystal display (LCD) with a maximum reading of 1999 ampling Rate 2.5 times per second for digital display Interange (OL) or (-OL) is displayed Interange (OL) or (-OL) is displayed Interange (OL) or (-OL) is displayed when the battery voltage drops below the operating level Interange (OL) or (-OL) is displayed when the battery voltage drops below the operating level Interange (OL) or (-OL) is displayed when the battery voltage drops below the operating level Interange (OL) or (-OL) is displayed when the battery voltage drops below the operating level Interpretative / Humidity (Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Intitude (2000m, indoor operation) Interange (OL) or (-OL) is 0.00 for		5
60° ± 6% 80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux Internal Specifications Inte		
80° ± 25% Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux sisplay 3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 ampling Rate 2.5 times per second for digital display olarity Automatic, positive implied, negative polarity indication verrange (OL) or (-OL) is displayed ero Automatic ow battery indication The "□" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Iltitude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery		30° ± 2%
Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class Resolution 0.01 fc/lux Interal Specifications Isipplay 3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 Isipplay 3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 Isipplay 2.5 times per second for digital display Isipplay Automatic, positive implied, negative polarity indication Interaction (OL) or (-OL) is displayed Isipplay Automatic Isipplay Automatic Isipplay (OL) or (-OL) is displayed Isipplay (OL) or (-OL) or (-		60° ± 6%
Resolution 0.01 fc/lux Internal Specifications Inisplay 3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 Initial Rate 2.5 times per second for digital display Initial Automatic, positive implied, negative polarity indication Initial Automatic Initial Au		80° ± 25%
### sisplay 3% digit liquid crystal display (LCD) with a maximum reading of 1999 ### ampling Rate 2.5 times per second for digital display olarity Automatic, positive implied, negative polarity indication (OL) or (-OL) is displayed ### automatic OUD or (-OL) is displayed ### automatic OUD or (-OL) is displayed ### automatic OUD or (-OL) is displayed when the battery voltage drops below the operating level #### automatic OUD or (-OL) is displayed when the battery voltage drops below the operating level #################################		Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class
3¾ digit liquid crystal display (LCD) with a maximum reading of 1999 2.5 times per second for digital display Automatic, positive implied, negative polarity indication (OL) or (-OL) is displayed ero Automatic ow battery indication The "="" is displayed when the battery voltage drops below the operating level operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery		Resolution 0.01 fc/lux
ampling Rate 2.5 times per second for digital display Automatic, positive implied, negative polarity indication (OL) or (-OL) is displayed ero Automatic ow battery indication The "=" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Iltitude 2000m, indoor operation ower Supply attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	ieneral Specifications	
Automatic, positive implied, negative polarity indication (OL) or (-OL) is displayed ero Automatic ow battery indication The "="" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Display	3¾ digit liquid crystal display (LCD) with a maximum reading of 1999
werrange (OL) or (-OL) is displayed ero Automatic ow battery indication The "□" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Sampling Rate	2.5 times per second for digital display
Automatic The "="" is displayed when the battery voltage drops below the operating level emperature / Humidity Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Polarity	Automatic, positive implied, negative polarity indication
The "=" is displayed when the battery voltage drops below the operating level Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Overrange	(OL) or (-OL) is displayed
emperature / Humidity Operating Storage Operation -10°C to 50°C (14°F to 122°F), 0 to 80%RH Lititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours timension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") timension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Zero	Automatic
Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours timension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") timension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Low battery indication	The "트란" is displayed when the battery voltage drops below the operating level
Ititude 2000m, indoor operation ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Temperature / Humidity	Operating -10°C to 50°C (14°F to 122°F), 0 to 80%RH
ower Supply 9V NEDA 1604, IEC 6F22, JIS 006P battery attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery		Storage -10°C to 50°C (14°F to 122°F), 0 to 70%RH
attery life 200 hours imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Altitude	2000m, indoor operation
imension (Base) 130 x 63 x 38 mm (5.1 x 2.5 x 1.5") imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Power Supply	9V NEDA 1604, IEC 6F22, JIS 006P battery
imension (Sensor) 80 x 55 x 29 mm (3.2 x 2.2 x 1.1") Veight 220 g (.48 lb.) include battery	Battery life	200 hours
Veight 220 g (.48 lb.) include battery	Dimension (Base)	130 x 63 x 38 mm (5.1 x 2.5 x 1.5")
3, , ,	Dimension (Sensor)	80 x 55 x 29 mm (3.2 x 2.2 x 1.1")
ency Approvals & Certifications	Weight	220 g (.48 lb.) include battery
	Agency Approvals & Certifica	rtions

Agency Approvals & Certifications

CE-EMC

EN61326-1 This product complies with requirements of the following European Community Directives: 89/336/EEC (Electromagnetic Compatibility) and 73/23/EEC (Low Voltage) as amended by 93/68/EEC (CE Marking). However, electrical noise or intense electromagnetic fields in the vicinity of the equipment may disturb the measurement circuit. Measuring instruments will also respond to unwanted signals that may be present within the measurement circuit. Users should exercise care and take appropriate precautions to avoid misleading results when making measurements in the presence of electronic interference.