

ILLUMINANCE METER SERIES

IM-600 / IM-600M / IM-2D



High accuracy instrument IM-600 makes a significant contribution to comfortable environment.

Topcon Illuminance meters is capable of measuring illuminance using in the Illumination design and electric work. IM series have tree models, which are handy and are suitable for daily-use and experts-use.

Digital Illuminancemeter

IM-600

IM-600 is capable of measuring wide range of illuminance and evaluating next generation illumination. Conforms to the general AA class (JIS C 1609-1: 2006) and DIN class B (DIN 5032 Part 7 class B). Compatible with PWM* controlled lighting.(SLOW mode)

*pulse width modulation.



- Capable of wide range measurement from low to high illuminance (0.005 to 999,000 lx / 0.005 to 92807 fc)
 - Built-in Keyboard enable to calculate luminous intensity.
 - Response speed are selectable. flicker and waveform can be observed by connecting oscilloscope.
 - Extension cable (option) enable IM-600 to detach Detector unit and Display unit.
- *Analogue output speed is a period of time which analogue output reach 90% of its maximum value from 10% of the maximum value.

Measurement rage	1	2	3	4	5	6
Effective measuring range	0.005-9,990	5,50-99,90	75,0-999,0	750-9,990	7,500-99,900	75,000-999,000
Response speed (FAST mode:90%)	About 60 ms	About 6 ms	About 0,6 ms	About 0,6 ms	About 0,6 ms	About 0,6 ms

Measurement mode are selectable by Keyboard

- Correction factor (C.C.F.mode)
Inputting correction factor displays the post-correction data.
- Deviation measurement (∠ mode)
Percentage measurement (% mode)
Deviation and percentage measurement displayed by inputting reference illuminance.
- Luminous intensity measurement (cd mode)



- Inputting the distance between the photoreceptor and the light source displays the luminous intensity.
- Integral illuminance measurement (lx · h / fc · h mode)
Integral illuminance and integral time alternated every 2 seconds. Maximum integral illuminance is 1,000,000,000 lx · h, and maximum integral time is 9,999 hours (approx. 1.2 years).

USB interface

Measured data can be retrieved from IM-600 via USB.

Pin No.	Signal	Baud rate	38400
1	VBUS	Data length	7
2	D-	Parity	ODD (odd number)
3	D+	Spread bit	1
4	GND		
5	GND		



*USB cable is not included in IM-600 standard package.
*Mini USB series B connect mail (5pin)

IM-600 Specifications and performance

Measurement range	0.005 to 999000 lx (0.005 to 92807 fc) Auto/manual 6-step range
Display	4-digit LCD Read
Linearity	± 2% of rdg., ± 1 digit (Auto range)
Cosine Response f2	±3% or less
V(λ) Mismatch f1'	6% or less (Deviation from spectral luminous efficacy)
Temperature Dependence f6	Within ±3% (-10 to 40°C, against 23°C)
Humidity Test fH	Within ±3%
Analog signal output	0 – 1998mVmax
Interface	USB (Virtual COM port)
Power supply	AA battery x 2
Operating conditions	Temperature: -10 to +40°C, Humidity: 85% R.H. or less
Dimensions	Approx. 188 x 65 x 34 mm (without protruding portion)
Weight	Approx. 200 g (excluding batteries)
Detection element	Silicon photodiode
Reference plane	Surface of the front case

Meaning of "of rdg." and "digit"

"of rdg" is for reading values. For example, "±2% of rdg" means ±2% of reading values.
±1digit means reading values. "digit" means 1 count in digital and indicates that there may be error of one count in the last significant digit of the digital display.



- Conforms to the general AA class (JIS C 1609-1: 2006) and DIN class B (DIN 5032 Part 7 class B).
- Compatible with PWM* controlled lighting.(SLOW mode)
- Photo-receiving diameter:14mm
- Size of photoreceptor portion:16mm(D)x 21mm(H)
- Cord length:1m

*pulse width modulation.



Magnification filter (option)

- Wide measurement range of 0.1 to 19,990 lx (0.01 to 1,999 fc) auto-range, with LCD display.
- Photoreceptor head rotates 280°.
- A single operation of a button performs: (1)power on, (2)digital display,(3)measurement value hold, and (4)power off.
- Auto-power-off function saves battery power.
- Conforms to the general A class illuminance meter (JIS C 1609-1: 2006).

Digital Illuminancemeter

Compact photoreceptor type

IM-600M

*There are countries and regions that regulate the use of IM-600M. For further information, Please cotact Topcon Technohouse.

The IM-600M is an illuminance meter based on the digital illuminance meter IM-600, with the Photoreceptor portion reduced in size to 14mm in diameter, allowing for illumination measurement in tight areas.

The capabilities are approximately the same as the IM-600, giving you confidence in measurement.

○IM-600M Specifications and performance

Measurement range	0.005 to 999000 lx (0.005 to 92807 fc) Auto/manual 6-step range
Display	4-digit LCD Read
Linearity	± 2% of rdg., ± 1 digit (Auto range)
Cosine Response f2	±3% or less
V(λ) Mismatch f1'	6% or less (Deviation from spectral luminous efficacy)
Temperature Dependence f6	Within ±3% (-10 to 40°C, against 23°C)
Humidity Test fH	Within ±3%
Analog signal output	0 – 1998mVmax
Interface	USB (Virtual COM port)
Power supply	AA battery x 2
Operating conditions	Temperature: -10 to +40°C, Humidity: 85% R.H. or less
Dimensions	Approx. 188 x 65 x 34 mm (without protruding portion)
Weight	Sensor: φ16 x 21mm, Cable : 1m
Detection element	Silicon photodiode
Reference plane	The tip of detector window

Digital Illuminancemeter

IM-2D

*There are countries and regions that regulate the use of IM-2D. For further information, Please cotact Topcon Technohouse.

Easy-to-read digital illuminance meter. The auto-range functions and wide measurement range allow for any one to perform accurate measurements, not to mention professionals. A pocket-portable type digital illuminance meter with an easy-to-read LCD display.

○IM-2D Specifications and performance

Measurement range	0.1 to 19990 lx (0.01 to 1,999 fc)
Measurement range setting	Auto-range
Display	4-digit LCD Read
Detection element	Silicon photodiode
Linearity	± 5% of rdg., ± 1 digit (Auto range)
Cosine Response f2	closely related to the Lambert' s cosine law
V(λ) Mismatch f1'	6% or less (Deviation from spectral luminous efficacy)
Power supply	One 9V battery (JIS 6F22)
Operating conditions	Temperature: 0 to +40°C, Humidity: 85% R.H. or less
Dimensions	Approx. 68 x 166 x 32 mm (without protruding portion)
Weight	Approx. 180g (including battery)
Reference plane	Top surface of globe

IM-2D Standard Package



IM-600/IM-600M OPTIONAL EQUIPMENT

■ AC adapter ZV-20



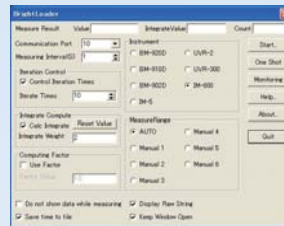
AC adapter is used in long time continuous measurement. Four types of plug are included, which enable IM-600 to be used worldwide.

■ Extension cable

Handy for using the photoreceptor and the display unit separately. 5 types available: 2m (ZV-21), 5m (ZV-22), 10m (ZV-23), 20m (ZV-24), and 30m (ZV-25).



■ Bright Loader (by Harvey lab)

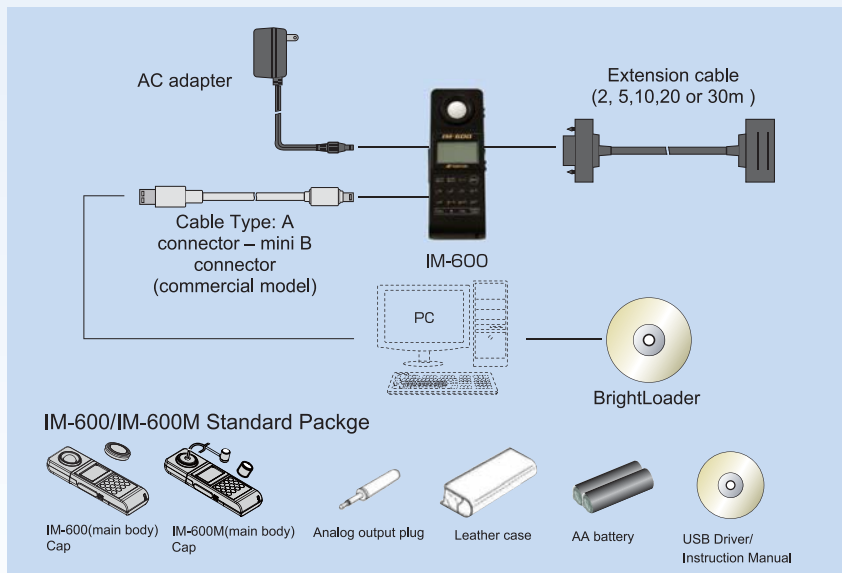


Count	Min	Range
1	4.87E+02	3
2	4.87E+02	3
3	4.87E+02	3
4	4.87E+02	3
5	4.87E+02	3
6	4.87E+02	3
7	4.87E+02	3
8	4.87E+02	3
9	4.87E+02	3
10	4.87E+02	3

Bright Loader is data collection software to retrieve measured data from IM-600. Measurement interval, the number of measurement, and Measurement range can be specified via PC. Integral illuminance can be calculated. Measured data is saved as CSV format, which can be open by spreadsheet program. Mini USB cable is required to connect PC to IM-600.

● OS / Windows 2000, Windows XP, Windows Vista(32bit)

System Diagram



JCSS
0073

JCSS is the logo of the traceability system based on the Japanese Measurement Law. TOPCON TECHNOHOUSE is a certified provider optical solutions. The company's certification number is 0073. (JCSS, JAPAN Calibration Service System)

TOPCON TECHNOHOUSE has been certified as a provider of optical solutions, according to the Japanese Measurement Law.

We will issue a calibration certificate bearing the JCSS logo, which guarantees the accuracy of illuminance (illuminance meter), luminosity (lamp), and spectral irradiance (lamp), based on national standards.

*Some screens are simulated.

*The specification and external appearances of product in this catalogue may be changed without prior notice due to improvements.

*The catalogue includes products that are sold separately.

*The actual color of products may differ slightly from the catalogue due to lighting and printing conditions.

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Note Make sure to carefully read the "User's Manual" to ensure that you use the product properly and safely.

<http://www.topcon-techno.co.jp>