LM-1 luminance meter

For precision luminance measurements

Fig.1. Photo of LM-1 luminance meter

BASIC INFORMATION:

LM-1 is a precision luminance meter optimized to be used for two basic applications: A)as an external meter for test stations for testing night vision devices (NVS test station), B) as a tool for recalibration of calibrated light sources (DAL series light sources).

In case of type A application the LM-1 meter is used for measurement of luminance of image intensifier screen seen via oculars. Aperture of optical objective of the LM-3 meter is optimized for testing night vision devices.

In case of application type B the LM-1 luminance meter is used as a small, portable meter that is sent for recalibration to Inframet facilities (or any calibration laboratory that specialize in photometric calibrations). Later the LM-1 meter is used for recalibration of DAL light source (or other calibrated polychromatic light sources). In this way shipment of relatively big computerized DAL light source used as part of a bigger system for testing TV/LLLTV cameras is avoided.

The calibration scheme of LM-1 luminance meter is traceable to Main Office of Measures of Poland. This traceability can be extended to light sources recalibrated using LM-1 meter. In this way the LM-1 meter becomes a valuable tool for accredited laboratories that use test systems based on calibrated polychromatic light sources.

LM-1 luminance meter

For precision luminance measurements

FEATURES

- Aperture of optical objective optimized for measurement of luminance of night vision devices
- Detachable luminance probe
- Wide range of luminance measurement
- Small size, easy to transport

SPECIFICATIONS

Model	LM-1 luminance meter set
Modules	LM-1 meter, LP1 luminance probe
Probe type	Si photodiode with correcting optical filter
Relative Spectral Response	Within 10% of the CIE spectral luminous efficiency V (λ)
Measured luminance range	30mcd/m2 (reading =10) up to 500 kcd/m2
Probe optical aperture	7 mm
Acceptance angle	about 10 deg
Dark current error	Reading less than 4 on the 10^-3 range
Resolution	1 digit per 1999 full scale
Uncertainty	2% (with calibrated probe provided with the instrument)
Power supply	12V DC / 300mA
AC adapter provided with the meter	100 … 240VAC → 12V DC / 3A
Operating temperature range	+5 to +35°C (option -5 to +45°C)
Dimensions of main unit	ca. 220 x 140 x 80mm
Weight of the main unit	ca. 0,5kg

*specifications are subject to change without prior notice

CONTACT:

Tel: +48 22 6668780 Fax: +48 22 3987244 Email: info@inframet.com