OxyTech
Lighting Software, Hardware and Services

Professional M1 Luxmeter

The M1 Luxmeter is a high precision and reliability instrument for measuring interior and exterior illuminances in accordance with EN Norm 13032.

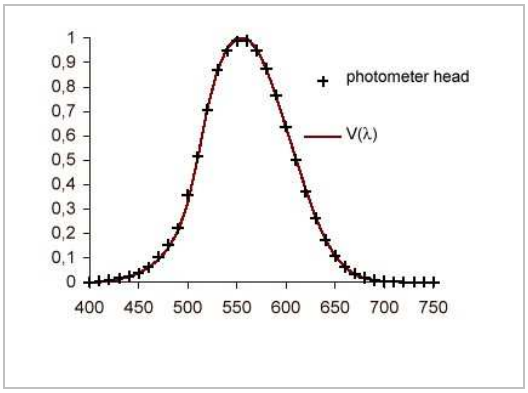
Characteristics

- Sturdy, easy to handle and use
- The device is designed for use by lighting designers, architects, engineers and experts in the lighting sector
- Maximum resolution: 0.01 lx
- Particularly suitable for measuring illuminances in roads, tunnels and exterior areas
- Automatic battery-saving turn-off function
- The M1 Luxmeter can also be used with a special adaptor to measure luminances.

Photocell and Luxmeter

The photocell consists of a silicon diode whose response corresponds to the CIE V(λ) relative visibility curve using the full-filtering method.

The photocell is connected to the luxmeter by means of a 3 meter shielded cable.



Photocell – Luxmeter System Characteristics (In accordance with EN 13032 - CIE 69 - DIN 5032/6)

▪ Acquisition Area Diameter	8 mm
▪ Configuration M1-01	
▪ Correspondence to V(λ) f_1' Curve	< 2.0%
▪ Directional Response Error f_2'	< 1.5%
▪ Configuration M1-02	
▪ Correspondence to V(λ) f_1' Curve	< 1.5%
▪ Directional Response Error f_2'	< 1.5%
▪ Linearity Error f_3	< 0.1%
▪ Display Unit Error f_4	< 0.1%
▪ Fatigue f_5 (measured at 10 lx)	< 0.2%
▪ Modulated Light f_7	< 0,1 %
▪ Polarization f_8	< 1%
▪ Scale Change Error f_{11}	< 0.1%
▪ Temperature Coefficient α	0.1% / °K
▪ Sensitivity to UV (u)	< 0.1%
▪ Sensitivity to IR (r)	< 0.1%
▪ Conversion Ratio	> 3/s
▪ Integration Period	ms 100

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Technical Data

▪ Class	Class B for instrument – Class A for photocell in accordance with DIN 5032		
▪ Photocell	Silicon diode with V(λ)-Filter and cosine correction		
▪ Photocell temperature coefficient	0.2% / K		
▪ Functions	▪ Automatic or manual selection of measurement field ▪ Visualization in lux (lx) / lux (fc) (alterable) ▪ Hold Function ▪ Max Function for visualization		
▪ Measurement Field	▪ 0.01 ... 19 900 lx / 0.001 ...1,999 fc or ▪ 0.1 ... 120 000 lx / 0.01 ... 12 000 fc		
▪ 4 Scales	MB	0.01 bis 19 900 lx	0.1 bis 120 000 lx
▪ Resolution	1	0.01 lx / 0.001 fc	0.1 lx / 0.01 fc
	2	0.1 lx / 0.01 fc	1 lx / 0.1 fc
	3	1 lx / 0.1 fc	10 lx / 1 fc
	4	10 lx / 1fc	100 lx / 10fc
▪ Luminance	Possible to measure luminance by means of special adaptor with the following measurement field:		
	1 bis 1 999 000 cd/m2		0.1 bis 199 900 fL
▪ Measurement frequency	Approx. 2.5 measurements per second		
▪ Display	3 ½ figures with LCD type display		
▪ Connection Cable	The connection cable between the instrument and photocell is approximately 3 m long (optional 10 m on request with surcharge)		
▪ Batteries	1.5 V, alkaline-manganese (IEC LR 6)		
	Autonomy approx. 75 hours (2500 measurements)		
▪ Dimensions	Instrument: 65 x 120 x 19 mm		
	Photocell: Ø 34 mm x 21 mm		
▪ Weight	190 g without battery		
▪ Note	The instrument comes supplied with leather holder or in protective plastic box (holder for luminance adaptor extra)		