



CLM-200H Portable Chroma Meter

The CLM-200H Portable Chroma Meter measures color temperature, illuminance, chromaticity, excitation purity, luminous flux, RGB, and dominant wavelength of various light sources.

Applications:

When determining the accuracy of an LE illumination, color temperature measurements are particularly important. This instrument uses sensors that closely parallel the color-matching functions specified by the International Commission on Illumination (CIE).

Depending on the application, results can be displayed through different color notations.

A few applications for the CLM-200H include:

- Evaluating light distribution of LED illumination modules or fixtures
- Lighting production and adjustment
- LED billboard development and maintenance
- Color-viewing cabinet maintenance
- Measuring projector light sources
- Using the device as a photographic color meter



Features:

- Portable, lightweight, and compact
- Detachable receptor head, as seen in the image on the left
- Simultaneous measurements
- Ideal for white LEDs
- Can be used to measure any light sources
- LED ranking function
- Calibration function
- Easy data transfer
- Optional PC controllability



Specifications:

Relative Spectral Response	Closely matches CIE Standard Observer curves $X(\lambda)$, $y(\lambda)$, and $Z(\lambda)$ within 6% of the CIE spectral luminous efficiency $V(\lambda)$.
Cosine Response	Ev: Within 3%
Receptor	Silicon photocell
Measuring function	
Tristimulus values:	X Y Z
Chromaticity:	Ev xy, Ev u'v'
Correlated color temperature:	Tc
Color difference:	$\Delta(XYZ)$, $\Delta(Evxy)$, $\Delta(Evuuv)$, $\Delta Ev\Delta Tc\Delta uv$
Chromaticity co-ordinate:	ICE1931 (x, y), ICE1976(u, v)
Dominant wavelength:	λ_d
Color purity:	Pe
Luminous flux	Φ , RGB parameter, chromaticity diagram, maximum recording and indicator
Other functions	User calibration function
	Memory capacity: 8 000 groups
	Auto Power Off
Measuring range	0.1—150 000lx, 0.01—15 000fcd
	Chromaticity: 5lx, 0.5fcd or above in four automatically selected ranges (lx or fcd is switchable)
Spectral wavelength range	360 ~ 780nm
Accuracy	Ev: $\pm 2\% \pm 1$ digit (2σ), xy: ± 0.0005 (500lx, standard illuminant A measured)
Repeatability	Ev: $\pm 0.5\% + 1$ digit (2σ), xy: ± 0.0005 (500lx, standard illuminant A measured)
Temperature drift	Ev: $\pm 3\% \pm 1$ digit of displayed value, xy: ± 0.003
Response time	0.5x (continuous measurement)
Computer interface	USB, SD
Display	3.2" high-luminance LCD color display
Operating temp/Humidity range	-10—40°C, relative humidity 85% or less (at 35°C) with no condensation
Power source	2200mAh USB rechargeable lithium battery, 12 hours or longer
Dimensions	210 x 80 x 35mm
Weight	300g incl. batteries