# **CM-10M**

## **Luminance Colorimeter**

High Speed | High Accuracy | High Sensitivity

## CHARACTERISTIC

• HIGH SENSITIVE COLORIMETER .High Transmittance Filter .High Sensitive Photo Diode .Low Noise, High Sensitive Board Design

### • HIGH SPEED • HIGH ACCURACY .Iterative Precision: $\pm 0.5\%$ (Lv),0.001(x,y) .Accuracy: $\pm 3\%$ (Lv),0.003(x,y)

 $(\leq 5 cd/m^2, Tack Time 0.5 sec)$ 



### ADVANTAGE

#### • DARK(ZERO) CALIBRATION

.Measurement Dark(Zero) automatically .Imperviousness to temperature and humidity

#### • WIDE LUMINANCE MEASUREMENT RANGE

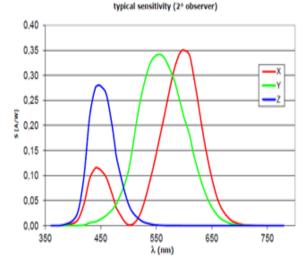
.0.01cd/m^2~20,000cd/m^2 .Fast measurement during radical change of Luminance through smart auto-gain Algorithm

#### • FLICKER MEASUREMENT

Accurate Measurement with High Frequency Provide Flicker and Luminance Measurement

#### SPECTRAL CHARACTERISTIC

.The filter response curves are based on the CIE1931 standard .Spectral tolerance of filter curve:  $\leq \pm 1\% \star \lambda$ 



\*Specifications and appearance are subject to change without prior notice without prior notice.

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## SPECIFICATION

Model	<b>CM-10M</b>	CM-10	CM-100
Receptor	Silicon photo cell(CIE 1931 XYZ filter)		
Measurement area	Ø10mm	Ø10mm	Ø10mm or Ø20mm
Working Distance	30±5mm		
Acceptance angle	5°		
Expose time	lmsec~5sec		
A/D resolution	16bit		
Display Range	0.0001 to 20,000cd/m^2		
Luminance	Measurement range	0.01 to 20,000cd/m^2	
	Accuracy*1	0.1~5cd/m^2	$\pm$ 3%(5sec)
		≥5cd/m^2	$\pm$ 2%(0.5sec)
	Repeatability( $\sigma$ )* <sup>1</sup>	0.1~5cd/m^2	1% <b>(5sec)</b>
		≥5cd/m^2	0.5%(0.5sec)
Chromaticity	Accuracy*1	0.1~5cd/m^2 $\pm$	0. 005 <b>(5sec,at white)</b>
		≥5cd/m^2 ±0.003%	(0.5sec,at white/mono)
	Repeatability( $\sigma$ )* <sup>1</sup>	0.1~5cd/m^2	<b>0.0</b> 05 <b>(5sec)</b>
		≥5cd/m^2	0.001(0.5sec)
Flicker	FMA	Display Range:0~1000%;Accuracy: $\pm 1\%$	
	JEITA	Measurement range: $\leq$ 10 cd/m^2	
		Frequency range:0~128HZ	
		Accuracy: $\pm 0.5$ db	
Measurement Speed	0.1~5cd/m^2	5sec	
	≥5cd/m^2	20/sec	
	Flicker(JEITA or FMA)	1024/sec	
Interface	USB2.0		USB2.0
Operating temperature	5 to 50° C		
Input Voltage	USB 5V	USB 5V	AC220V

\*1. Measurement of luminance and chrominance measurement in the Rayclouds conditions (using the standard LCD screen (6500K, 9300K)).

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