

**Conforms to JIS A Class and DIN Class C** 

# **CRI Illuminance Meter**



## **CL-70F** 1

# Easy to use !

# **Can take spectral** measurements of flash light

# **Good tool for lighting** planners

## **Rotating receptor head**



**Dark calibration** 

performed

needing cap

without



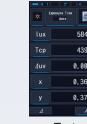
#### Easy-to-read display \*Display mode examples



Color rendering index



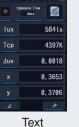
CIE1931 (CIE1964)

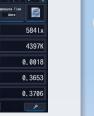


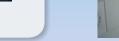
Spectrum

584lx

1397







Measurement and evaluation of the illuminance, color temperature, and color-rendering index of special illumination sources used for restaurants, museums, studios, and stages, etc.

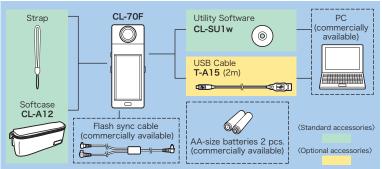
INOLTA



Measurement and evaluation of the illuminance, color-temperature, and colorrendering index of indoor illumination sources such as LEDs, fluorescent lamps, etc.



#### **System Diagram**



#### Main Specifications of CL-70F

Model	CRI Illuminance Meter CL-70F	
Illuminance meter class	Conforms to requirements for Class AA of JIS C1609- 1 : 2006 "Illuminance meters Part1:General measuring instruments; Conforms to DIN 5032 Part 7 Class C	
Sensor	CMOS linear image sensor	
Spectral wavelength range	380 nm ~ 780 nm	
Output wavelength pitch	1 nm	
Measuring range	Constant light: 1 to 200,000 lx; 1,563 to 100,000 K (Chromaticity display requires 5 lx or more) Flash light: 20 to 20,500 lx · s; 2,500 to 100,000 K	
Accuracy (Standard	E <sub>v</sub> : ±5%+1digit of displayed value	
Illuminant A) (*1, 2)	xy: 0.003 (at 800 lx)	
	E <sub>v</sub> : 30 to 200,000 lx: 1%+1digit; 1 to 30 lx: 5%+1digit (*3)	
Repeatability (2 σ ) (Standard Illuminant A)	xy: 500 to 200,000 lx: 0.0012 xy: 100 to 500 lx: 0.0025 xy: 30 to 100 lx: 0.005 xy: 5 to 30 lx: 0.011 (*4)	
Visible-region relative spectral response characteristics (f1')	Within 9%	
Cosine response (f2)	Within 6%	
Temperature drift ( $f_T$ )	E <sub>v</sub> : ±5% xy: ±0.006	
Humidity drift (f <sub>H</sub> )	E <sub>v</sub> : ±3% xy: ±0.006	
Power	2 AA-size batteries (Alkaline batteries or manganese dry cells); USB bus power	
Response time	Constant light (Maximum): 15 sec Constant light (Minimum): 0.5 sec Flash light: 1 ~ 1/500 sec (in 1-step intervals) (*5)	
Color indication modes	Correlated color temperature $T_{cp}$ , Difference from blackbody $\Delta uv$ , XYZ, xy, u'v', Dominant wavelength $\lambda_d$ , Excitation purity $P_e$ , Spectral irradiance, $E_v$ , CRI (Ra, Ri), Peak wavelength $\lambda_p$ , exposure value	
Other functions	Data memory: 999 data; Preset function; Auto power off function	
Display languages	English, Japanese, Chinese (Simplified)	
Interface	USB 2.0 Mini B	
Operation temperature/ humidity range	-10 to $40^\circ\text{C}$ , relative humidity of 85% or less (at 35°C ) with no condensation	
Storage temperature/ humidity range	-10 to $45^\circ\!C$ , relative humidity of $85\%$ or less (at $35^\circ\!C$ ) with no condensation	
Size	73 (W)× 183 (H) × 27 (D) mm (Not including projecting buttons) D (max): 40 mm	
Weight (without battery)	230 g	

(\*2) Lenear for E<sub>v</sub> (\*3) 10 times measure

ment (20) /Ave

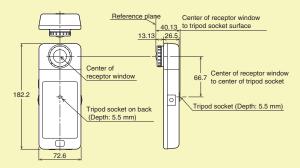
- (3) to times measurement (20) /AVe KONICA MINOLTA and the Konica Minolta logo and the symbol mark, and "Giving Shape to Ideas " are registered trademarks or trademarks of KONICA MINOLTA, Inc. The specifications and apperance shown herein are subject to change without notice. Screens shown are for illustration purpose only. Some lamp control methods may make accurate measurements difficult. For details, please contact your nearest Konica Minolta sales office or dealers. .

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## Dimensions (Units: mm)



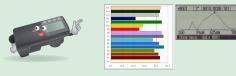
#### Utility Software (Standard accessory)

[	Software	OS	
	Windows	Windows <sup>®</sup> 7 SP1 Windows <sup>®</sup> 8 Windows <sup>®</sup> 8.1	Compatible with 32-bit and 64-bit versions of Excel <sup>®</sup>

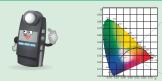
 $\cdot\,$  Windows  $^{\scriptscriptstyle (\! R\!)}$  and Excel  $^{\scriptscriptstyle (\! R\!)}$  are trademarks of Microsoft Corporation in the USA and other countries

#### Konica Minolta's Illuminance Measurement Trio <All conforms to JIS AA Class>

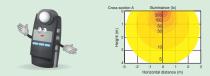
Illuminance Spectrophotometer CL-500A For industrial applications requiring high accuracy



#### Chroma Meter CL-200A A de facto industry standard for colortemperature measurement !



**Illuminance Meter T-10A** Capable of accurately measuring next-generation lamps including PWM-controlled lighting.



\* Both CL-200A and CL-500A also can measure PWM-controlled light



(\*5) Shutter speed

#### SAFETY PRECAUTIONS For correct use and for your safety, be sure to read the instruction

manual before using the instrument.

Be sure to use the specified batteries. Using improper batteries may cause a fire or electric shock.

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