



# **CRI Illuminance Meter**

# **CL-70F a**

# Easy to use!

Can take spectral measurements of flash light

Good tool for lighting planners

## **Rotating receptor head**





Dark calibration performed without needing cap



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



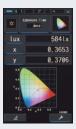
Measurement and evaluation of the illuminance, color-temperature, and color-rendering index of indoor illumination sources such as LEDs, fluorescent lamps, etc.



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



Color rendering index



CIE1931 (CIE1964)

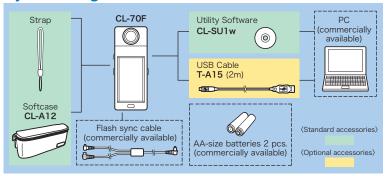


Spectrum

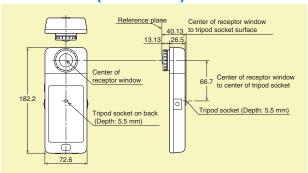


Text

### **System Diagram**



## **Dimensions (Units: mm)**



## Main Specifications of CL-70F

Model	CRI Illuminance Meter CL-70F	
Model		
Illuminance meter class	Conforms to requirements for Class A 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 (Standard Illuminant A) (*1)	xy: 500 to 200,000 lx: 0.001 (*4) xy: 100 to 500 lx: 0.002 (*4) xy: 30 to 100 lx: 0.004 (*4) xy: 5 to 30 lx: 0.008 (*4)	
Visible-region relative spectral response characteristics (f1')	Within 9%	
Cosine correction characteristics (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 $40^{\circ}C$ , relative humidity of $85\%$ or less (at $35^{\circ}C$ ) with no condensation	
Storage temperature/ humidity range	-10 to $45^{\circ}\text{C}$ , relative humidity of $85\%$ or less (at $35^{\circ}\text{C}$ ) with no condensation	
Size	73 (W)× 183 (H) × 27 (D) mm (Not including projecting buttons) D (max): 40 mm	
Weight (without battery)	230 g	

(\*1) Measurement mode: Constant light (range L), Exposure time: AUTO

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  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.

# **Utility Software (Standard accessory)**

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Software	OS	
Windows		Compatible with 32-bit and 64-bit versions of Excel®

 $\cdot$  Windows  $^{\circledR}$  and Excel  $^{\circledR}$  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

#### **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.





Certificate No : LRQ 0960094/A Registration Date : March 3, 1995

Certificate No : JQA-E-80027 Registration Date : March 12, 1997

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Sensing Business

(\*4) 10 times measurement (2σ)

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