KONICA MINOLTA

New

High-Precision, Multi-Point Spectral Analysis and Illuminance Measurement
Illuminance Spectrophotometer CL-700A

Engineered for environments demanding precise, rapid, and versatile light measurement, the CL-700A delivers advanced spectral analysis, broad illuminance coverage, and efficient multi-point capability—all in a compact, easily integrated design. Unlock reliable results and streamlined workflows with the CL-700A's powerful performance and intuitive operation.

Functions and features that make
your daily work faster and easier

1 - Wide illuminance measurement range
(0.01lx to 200,000lx)

2 - High-speed measurement under low illuminance
(0.1lx measured in 2 seconds)

3 - Improved Accuracy & repeatability

4 - Measurement wavelength range supporting up to NIR
(360nm ~ 1,000nm)

5 - Expansion of measurement indices
(TM-30, TLCI, PPFD, EML, and more)

6 - Supports multi-point measurement
(Up to 15 points)

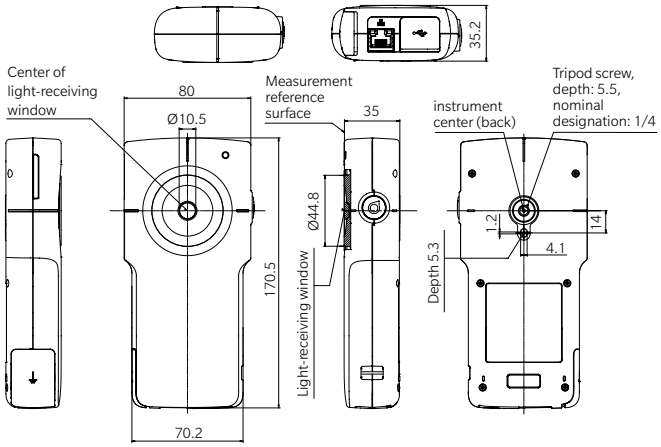
7 - Automatic zero calibration

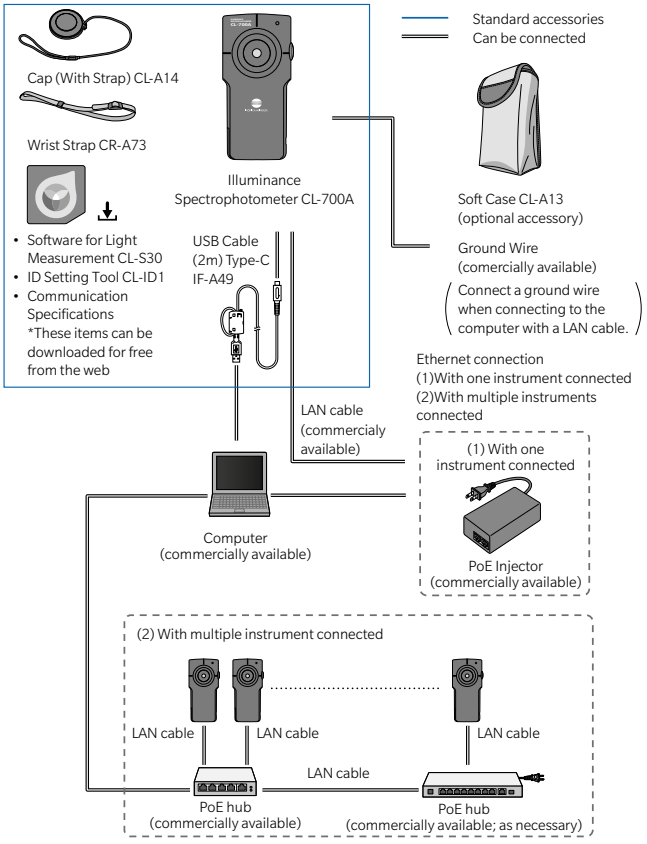
CL-700A
Specifications

Model	Illuminance Spectrophotometer CL-700A
Illuminance meter class	Complies with JIS C 1609-1:2006 Special type illuminance measuring instruments *1 Complies with DIN 5032-7:1985 classB *2
Wavelength range	360 to 1000 nm
Output wavelength pitch	1 nm
Spectral bandwidth	Approx. 10 nm (half bandwidth)
Wavelength precision *3	±0.3 nm (Centroid wavelengths of 435.8 nm, 546.1 nm, 696.5 nm, and 912.3 nm as specified in JIS Z 8724:2015)
Measuring range	0.01 to 200,000 lx (chromaticity accuracy guaranteed range is 0.5lx or more)
Accuracy *4 (Standard Illuminant A)	Ev (Illuminance) : ±2%±1 digit of displayed value xy: ±0.0015 (5 to 200,000 lx) xy: ±0.003 (0.5 to 5 lx)
Repeatability (2σ) *4 (Standard Illuminant A)	xy: 0.0005 (50 to 200,000 lx) xy: 0.001 (10 to 50 lx) xy: 0.002 (5 to 10 lx) xy: 0.004 (0.5 to 5 lx)
V(λ) mismatch (f_1')	Within 1.5% of spectral luminous efficiency V (λ)
Directional response (f_2)	Ev: Within 3%
Temperature dependence (f_T)	Ev: ±3% xy: ±0.003
Humidity resistance (f_H)	Ev: ±3% xy: ±0.003
Measurement time *5	Super FAST mode: Within 0.3 seconds FAST mode: Within 0.5 seconds NORMAL mode: Approximately 0.5 to 5 seconds
Measurement function	X,Y,Z Ev,x,y u',v' Tcp (Correlated color temperature), duv λd (Dominant wavelength), Pe (Excitation purity) Ra (General color-rendering index) Ri (i=1~15) (Special color-rendering indexes) TM-30-20 (when using CL-S30) *6 TLCI (when using CL-S30) *6 SDCM (when using CL-S30) *6 Ev',S/P EML(Equivalent Melanopic Lux) PPFD Ee(Irradiance) (when using CL-S30) *6 Ee(λ) (Spectral irradiance) Spectral graph, Peak wavelength *6
Other functions	Automatic zero calibration/wavelength correction User calibration data input/output *6 Averaged measurement Continuous measurement (when using CL-S30) *6 Multi-point measurement (up to 15 units) *6 Color matching functions: CIE 1931(2° Standard Observer), CIE1964(10° Standard Observer), CIE170-2(2°), CIE170-2(10°)
Display languages	English, Japanese, Simplified Chinese
Interface	USB 2.0, Ethernet
Power	USB bus power (when using USB), PoE (when using Ethernet, compliant with IEEE 802.3af)
Operation temperature / humidity range	0 to 40°C, relative humidity of 85% or less (at 35°C) with no condensation
Storage temperature / humidity range	-10 to 45°C, relative humidity of 85% or less (at 35°C) with no condensation
Size (W × H × D)	80 × 170.5 × 35 mm
Weight	Approx.214 g

* **1** This instrument does not comply with the following requirements for JIS C1609-1:2006 General type AA class illuminance meters:
  - When Speed Mode is set to NORMAL mode, Range 7-10 do not comply with "5.5 Display characteristics (response time)"
  - Temperatures below 0°C are outside the Operation temperature range, non-compliant with "5.7 Temperature characteristics"
  - No display, non-compliant with "6.3 Display"
  All other requirements are compliant.
* **2** Within an illuminance range of 1 lx or higher
* **3** Based on Konica Minolta test standards (temperature change ≤2°C after zero calibration).
* **4** NORMAL mode (at 23°C ±2°C, relative humidity ≤75%).
* **5** The measurement time is the value under the following conditions:
  - Time from measurement request from the operating terminal to completion of result reception from the measuring instrument
  - When connected via USB
  - Super FAST mode when Manual range setting is active
  - When Buzzer Drive Mode is OFF
  Note: When 15 points are connected (via Ethernet), the measurement time is within measurement time shown + 1 second
* **6** CL-S30 can be used when connected. There are no communication commands to execute these functions

Dimensions
& System Diagram





System requirements	Software for Light Measurement CL-S30
OS	Windows® 11 Pro 64bit, macOS® Ventura, macOS® Sonoma • The required computer system configuration is the recommended configuration for the operating system above or the specifications below (whichever is more advanced).
CPU	At least as advanced as the Intel® Core™ i Series At least as advanced as the Apple Silicon M1 chip
Memory	8 GB or more (16 GB or more is recommended if the total number of measurements [number of connected instruments × maximum number of measurements] exceeds 40,000.)
Storage	At least 100 MB of free space. At least 50 MB of the hard disk's free space needs to be on the system drive (the drive where the operating system is installed).
Display resolution	Must support at least 1,280 × 768 pixel, 16 bit color display
Other	USB port supporting at least USB 2.0 is needed for instrument connection A connection to the internet is needed to download software A CAT6A cable is needed when connecting over Ethernet
Display language	English, Japanese, Simplified Chinese

SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument.

- Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site

ISO 9001
JQA-QMA15888
Design, development, manufacture/ manufacturing management, calibration, and service of measuring instruments

ISO 14001
JQA-E-80027
Design, development, manufacture, service and sales of measuring instruments

CONTACT US-Global Network

https://www.konicaminolta.com/instruments/network/