KONICA MINOLTA

News Release

Konica Minolta to Launch the CL-700A, a New Illuminance Spectrophotometer, as the Next-Generation Solution for Low-Illuminance and High-Speed Measurement Over a Wide Wavelength Range

Measurement Range Spanning from Visible Light to Near-Infrared Light

Tokyo (December 5, 2025) - Konica Minolta, Inc. (Konica Minolta) today announced that the Company will launch the CL-700A, an illuminance spectrophotometer that enables high-speed, high-accuracy measurements even under low illuminance.

An illuminance spectrophotometer is a device to accurately measure the optical properties, including wavelength characteristics and color rendering index* in addition to brightness and color, of light sources such as LED and OLED which are indispensable for daily life. Illuminance spectrophotometers are used to control the color quality of products, make sure they meet standards, and conduct R&D in the lighting, automobile, smartphone, and electrical equipment industries. These measurement devices are essential in delivering high-performance, high-quality products.

The CL-700A is an upgraded version of the long-running CL-500A. The measurement wavelength range has been significantly expanded, covering the near-infrared range up to 1,000 nm in addition to the visible light range. This enables evaluation measurements in new application fields using near-infrared light, such as automated driving and security systems. Industry-leading high-speed measurement under low illuminance (approximately five seconds at 0.01 lx) has been achieved. The CL-700A also supports simultaneous multi-point measurement and features a compact design, making it suitable for integration into production lines.

The CL-700A stably provides reliable measurement values at high speed in a wide wavelength range including the near-infrared range, helping to improve evaluation accuracy and increase process efficiency at development and manufacturing sites.

* An index which indicates the extent to which a light source can show the color of an object naturally compared to the color under sunlight. The extent of color deviation is given as a relative value, with 100 indicating a light source that perfectly simulates sunlight (D65).

Value Proposition of the CL-700A

1. Covering a wide wavelength range from visible light to the near-infrared range

The CL-700A enables spectrometry in a wide wavelength range from 360 nm to 1,000 nm, enabling measurement in both the visible light range and the near-infrared range. Thus, the product can be used to evaluate inspection light sources for LEDs, lighting equipment, projectors, image sensors, and smartphone cameras, and to conduct optical measurements in new fields such as AR/VR and security applications.

2. Wide measurement range from low to high illuminance

The CL-700A enables illuminance measurement over a wide range from ultralow illuminance of 0.01 lx up to 200,000 lx, ensuring accurate evaluation under both faint light sources and high-illuminance sources.

	Illuminance	Usage
Low illuminance range	0.01 lx–	・Evaluation under faint light sources in a dark room or nighttime environment ・Light sources for evaluating the performance of smartphone cameras in a dark environment ・Evaluation of low-illuminance response of image sensors
Intermediate illuminance range	Tens of lx to thousands of lx	・Evaluation of uniformity of office lighting ・Evaluation of projectors ・Uniformity evaluation based on a multi-point measurement setup
High illuminance range	Tens of thousands of lx to 200,000 lx	・Illuminance evaluation of outdoor lighting (for stadiums, streets, etc.) ・Industrial LED light sources ・Evaluation of light sources for agriculture and indoor farms

3. Improved work efficiency by high-speed measurement

Measurement can be conducted in approximately five seconds at an illuminance of 0.01 lx and two seconds at 0.1 lx, the latter being much faster than the approximately 27 seconds required by the CL-500A at the same illuminance level. Thus, the CL-700A helps reduce the takt time* on production lines where measurement under low illuminance is required.
* Time required to manufacture one product

4. Simultaneous multi-point measurement

The CL-700A supports simultaneous multi-point measurement using up to 15 units, making it an ideal solution for evaluation of projectors and outdoor lighting which requires measurements of the illuminance distribution over a large area based on real-time evaluation at multiple points.

5. Flexible use by compact size

The compact design measuring 80 × 171 × 35 mm enables handheld measurement. The CL-700A is also suitable for integration into production lines and can be easily incorporated into manufacturing equipment and evaluation systems.

6. Easy-to-operate software

The CL-S30, exclusive optical measurement software, is included as a standard feature. When the CL-700A is connected to a PC, the software can be used to control the device and easily generate visual outputs including graphical representations of optical characteristics, chromaticity diagrams, and optical spectra.

Main Specifications of the Illuminance Spectrophotometer CL-700A

Wavelength range	360 to 1,000 nm
Output wavelength pitch	1 nm
Spectral bandwidth	Approx. 10 nm (half bandwidth)
Wavelength precision[*1]	±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*2 (Standard Illuminant A)	Ev : ±2% ±1digit
	xy : ±0.0015 (5 lx ～) xy : ±0.003 (0.5 ～ 5 lx)
Measurement time*3	Super FAST mode: Within 0.3 sec. FAST mode: Within 0.5 sec. NORMAL mode: Approx. 0.5 to 5 sec.
Size (W × H × D)	80 × 170.5 × 35 mm
Weight	Approx. 214 g

*1 Based on Konica Minolta test standards (temperature change ≤2°C after zero calibration).
*2 NORMAL mode (at 23°C ±2°C, relative humidity ≤75%).
*3 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

About Konica Minolta's Sensing Business

Konica Minolta's Sensing Business offers various products and solutions in the fields of light source color measurement and object color measurement based on the optical technologies developed in its former camera business and continually refined thereafter. The products and solutions offered by Konica Minolta contribute to ensuring quality and improving productivity at customers' manufacturing sites, and many products are used as de facto standard color measurement instruments. Notably, Konica Minolta has more than a 50% share in the global market for display image quality measurement and inspection (estimated by Konica Minolta), and has a solid presence as the market leader. The Company has also acquired new technologies for visual inspection of automobiles and hyperspectral imaging* to enhance its business competitiveness.

In the Industry Business, including the sensing business, Konica Minolta’s development, manufacturing, and customer support have come together to co-create value by building strong relationships with customers with core technology as its strength. The Company has set the fields it will focus on in the future as “display,” “mobility,” and “semiconductor manufacturing,” strategically invest mainly in the strengthening businesses of sensing, performance materials, IJ components, and optical components (industrial applications), and promote business development that is more closely linked to the customer’s manufacturing value chain.

* Hyperspectral imaging is a method that uses a camera with narrow bandwidth over a wide spectral range from the visible to mid-infrared wavelength region to identify substances in an area. It is expected to be used for applications such as recycling, material/resource identification, food analysis, environmental safety, product surface condition analysis, etc.

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