



KONICA MINOLTA

# Luminance Meter

# LS-150/LS-160

New models with higher accuracy and comfort of use !



Luminance Meter LS-150 measures luminance from 0.001 to 999,900 cd/m<sup>2</sup> with 1° measuring angle.



Luminance Meter LS-160 measures luminance from 0.01 to 9,999,000 cd/m<sup>2</sup> with 1/3° measuring angle.

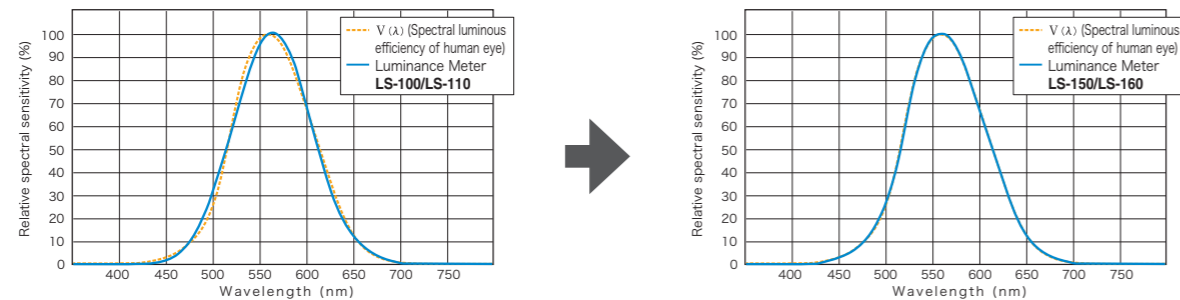


# 1

## High accuracy

Conforms to DIN 5032-7 Class B  
(LS-150)

The LS-150 and LS-160 are highly accurate luminance meters that use a newly designed sensor with a spectral response that more closely matches the  $V(\lambda)$  spectral luminous efficiency function of the human eye to provide measurement results that correlate well with visual evaluation.



# 2

## Incredibly easy to use

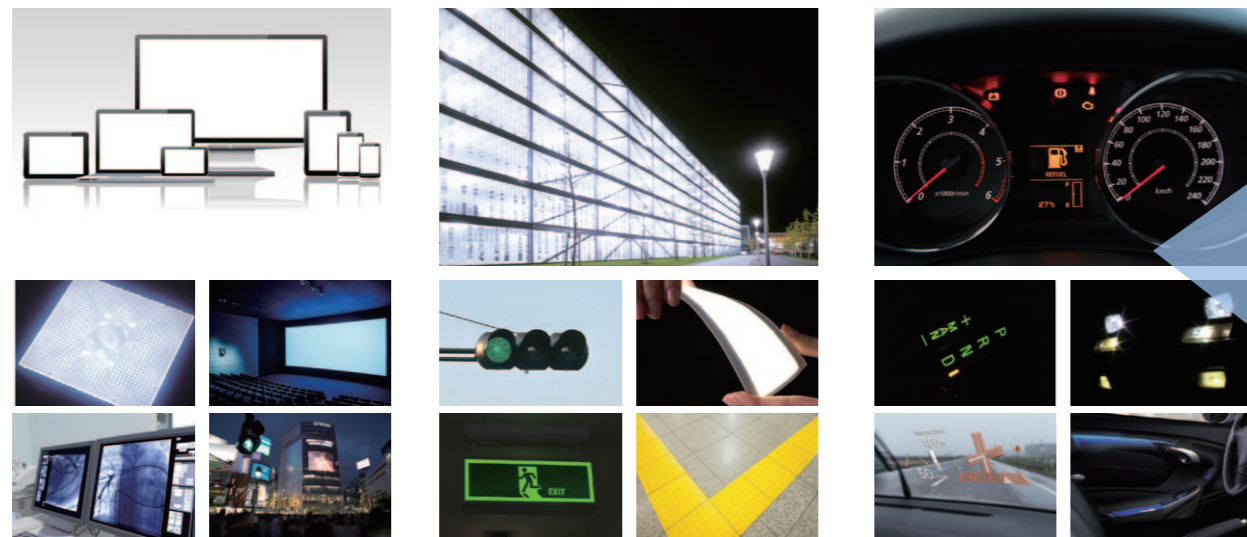
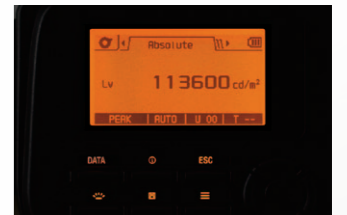
Bright viewfinder makes it easy to target desired areas of measurement subjects.

Automatic mode automatically sets the measurement time according to the brightness of the target.

Backlit display is easy to read even in dark places, and is automatically switched off during measurements.



Easy-to-hold grip. Smooth focusing during measurement.



Measurement subjects

# 3

## Numerous optional accessories

Close-up lenses  
Lineup of 4 lenses (Nos. 153, 135, 122, and 110) enable measurements of tiny areas.



Measuring distance and measuring area (Units: mm)

(Measuring angle)	Minimum measuring area		Maximum measuring area		Minimum measuring distance	Maximum measuring distance
	1/3°	1°	1/3°	1°		
None	4.5	14.4	∞	∞	1,012	∞
No.153	2.5	8	5.9	18.8	627	1,219
No.135	1.6	5.2	2.7	8.6	455	625
No.122	1.0	3.2	1.3	4.3	331	378
No.110	0.4	1.3	0.5	1.5	213	215

\*Measuring distance is the distance from the measuring distance reference plane.

C-mount CCD camera adapter enables the viewfinder to be monitored from a distance.



This adapter allows an industrial C-mount CCD camera to be attached to the viewfinder so that measurements including the view through the viewfinder can be monitored from a distance or recorded.  
\* CCD camera not included.

Illuminance adapter enables illuminance to also be measured.



Measurable illuminance range:  
• LS-150:  
Corresponds to 0.015 - 999,900 lx  
• LS-160:  
Corresponds to 0.15 - 9,999,000 lx  
\* This illuminance measuring method does not conform to DIN or JIS standards.

# 4

## Easy-to-understand utility software

The included software allows the meters to be controlled from a PC. Repeated interval measurements can be conducted for a specified number of times at specified intervals, measurement data can be displayed on graphs or lists, and data can be sent to spreadsheet applications.

Supported OS: Windows® 7 Professional 32 bit, 64 bit  
Windows® 8.1 Pro 32 bit, 64 bit  
Windows® 10 Pro 32 bit, 64 bit

### Features

Meter control	1-shot measurement Continuous measurement Interval measurement: 2 to 5,000 times at 3 to 3,600 sec. intervals (in 1-sec. increments) Instrument trigger measurement Setting of meter settings Export of data stored in meter to PC User calibration
Target data	Setting of target data Download of target data from PC to meter
Data list	List displays and delete/copy/paste of measurement and target data
External I/O	Text input; Saving in CSV format; copying of list to/from clipboard



## Main Specifications

Model	LS-150	LS-160
Measuring angle	1°	1 / 3°
Optical system	SLR viewing system, f = 85 mm F2.8	
Angle of view	9° (with diopter adjustment)	
Relative spectral responsivity	Closely matches spectral luminous efficiency (V(λ))	
Applicable standard	DIN 5032-7 Class B compliant	(N/A)
Minimum measuring area (diameter)	14.4 mm (1.3 mm when close-up lens is used)	4.5 mm (0.4 mm when close-up lens is used)
Minimum measuring distance (From the measuring distance reference plane)	1,012 mm (213 mm when close-up lens is used)	
Measurement mode	Instantaneous value, maximum/minimum value, luminance difference (Δ)/luminance ratio (%)	
Measurement time	AUTO: 0.7 to 4.3 seconds Manual: 0.7 to 7.1 seconds	
Luminance unit	cd/m <sup>2</sup> or fL	
Luminance range	0.001 to 999,900 cd/m <sup>2</sup>	0.01 to 9,999,000 cd/m <sup>2</sup>
Accuracy*1	±2% ± 2 digits (1 cd/m <sup>2</sup> or less) ±2% ± 1 digit (1 cd/m <sup>2</sup> or more)	±2% ± 2 digits (10 cd/m <sup>2</sup> or less) ±2% ± 1 digit (10 cd/m <sup>2</sup> or more)
Repeatability*1	0.2% + 1 digit	
Calibration standard	Konica Minolta standard/user-specified standard switchable	
User calibration channels	10 channels	
Data memory	1,000 data	
External display (Number of significant digits)	4 digits (Max.)	
Internal display (Number of significant digits)	4 digits (Max.)	
Interface	USB2.0	
Power	AA-size batteries (x2), USB bus power, or optional AC adapter	
Current consumption	When viewfinder display is lit: 70 mA average	
Operation temperature/humidity range	0 to 40°C, relative humidity of 85% or less (at 35°C)	
Storage temperature/humidity range	0 to 45°C, relative humidity of 85% or less (at 35°C)	
Size	71x214x154 mm	
Weight	850 g (without batteries)	
Standard accessories	Lens Cap Eyepiece ND Filter Eyepiece Cap AA-size batteries (x2) Hard Case CS-A12 Wrist Strap CS-A13 USB Cable T-A15 Data Management Software CS-S20	
Optional accessories	Close-Up Lens No. 153/135/122/110 CCD Camera Adapter CS-A14 Illuminance Adapter CS-A15 AC Adapter AC-A305J/L/M	

\* 1 Standard Illuminant A; Standard measurement distance; Measurement time setting: Auto

- KONICA MINOLTA, the Konica Minolta logo and symbol mark, and "Giving Shape to ideas" are registered trademarks or trademarks of KONICA MINOLTA, INC.
- Displays shown are for illustration purpose only.
- The specifications and appearance shown herein are subject to change without notice.
- Other company names and product names used herein are trademarks or registered trademarks of their respective companies.

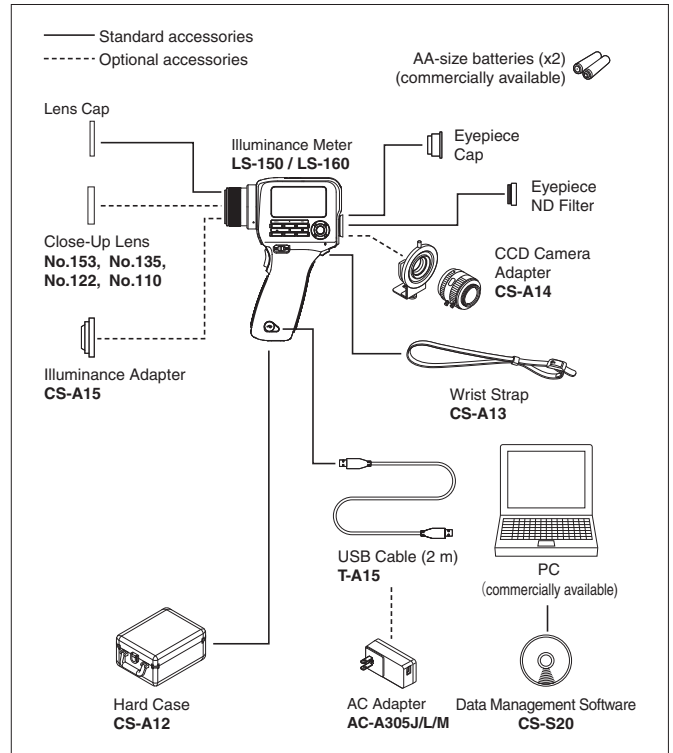
**KONICA MINOLTA, INC.**  
Konica Minolta Sensing Americas, Inc.  
Konica Minolta Sensing Europe B.V.

Osaka, Japan  
New Jersey, U.S.A.  
European Headquarter /BENELUX  
German Office  
French Office  
UK Office  
Italian Office  
Swiss Office  
Nordic Office  
Polish Office  
Turkish Office  
SE Sales Division  
Beijing Office  
Guangzhou Office  
Chongqing Office  
Qingdao Office  
Wuhan Office

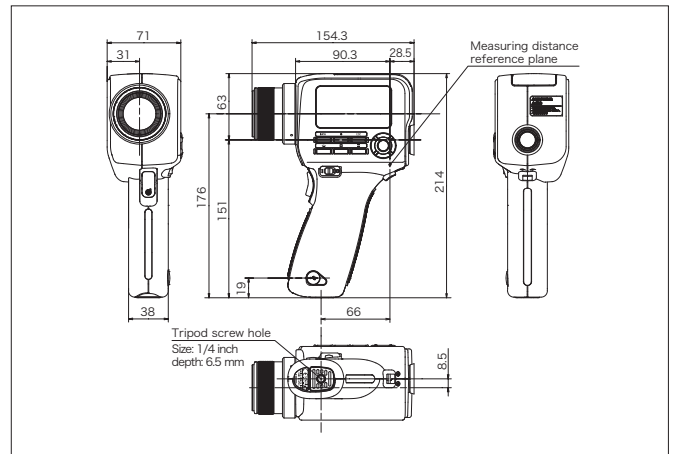
Konica Minolta Sensing Singapore Pte Ltd.  
Konica Minolta Sensing Korea Co., Ltd.

Addresses and telephone/fax numbers are subject to change without notice. For the latest contact information, please refer to the KONICA MINOLTA Worldwide Offices web page :


## System Diagram



## Dimensions (Units:mm)



**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 power supply voltage.

Improper connection may cause a fire or electric shock.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site



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



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

**Phone** : 888-473-2656 (in USA), 201-236-4300 (outside USA)  
Nieuwegein, Netherlands  
München, Germany  
Roissy CDG, France  
Warrington, United Kingdom  
Cinisello Balsamo, Italy  
Dietikon, Switzerland  
Västra Frölunda, Sweden  
Wroclaw, Poland  
Istanbul, Turkey  
Shanghai, China  
Beijing, China  
Guangdong, China  
Chongqing, China  
Shandong, China  
Hubei, China  
Singapore  
Goyang-si, Korea

**Fax** : 201-785-2482  
+31(0)30 24 81 211  
+49(0)89 4357 156 99  
+33(0)1 80 11 10 82  
+44(0)1925 711143  
+39 02849488.30  
+41(0)43 322-9809  
+48(0)71 734 52 10  
+90(0) 212-253 49 69  
+86-(0)21-5489 0005  
+86-(0)10-8522 1241  
+86-(0)20-3826 4223  
+86-(0)23-6773 4799  
+86-(0)532-8079 1873  
+86-(0)27-8544 9991  
+65 6560-9721  
+82(0)31-995-6511