

NEW Spectroradiometer CS-2000

Highly precise spectral radiance/chromaticity measurement possible from 0.003 cd/m²

A maintenance contract is available in order to ensure long-term, reliable use of your instrument.

The essentials of imaging



	When a close-up lens is attached					(Units: mm)
Measuring distance Measuring angle	55.0	70.9	350	500	1,000	2,000
1 °	ø1.00	ø1.39	ø5.00	ø7.78	ø16.66	ø34.18
0.2°	ø0.20	ø0.28	ø1.00	ø1.56	ø3.33	ø6.84
0.1°	ø0.10	ø0.14	ø0.50	ø0.78	ø1.67	ø3.42

* The measuring distance is the distance from the objective lens or the end of the metal part of the close-up lens

Major specifications of the CS-2000

Model	CS-2000					
Wavelength range	380 to 780 nm					
Wavelength resolution	0.9 nm/pixel					
Display wavelength bandwidth	1.0 nm					
Wavelength precision	±0.3 nm (median wavelength: 435.8 nm, 546.1 nm, 643.8 nm Hg-Cd lamp)					
Spectral bandwidth	5 nm or less (half bandwidth)					
Measuring angle (selectable)	1°	0.2°	0.1°			
Measurement luminance range (Standard light source A)	0.003 to 5,000 cd/m ²	0.075 to 125,000 cd/m ²	0.3 to 500,000 cd/m ²			
Minimum luminance display		0.00002 cd/m ²				
Accuracy: Luminance (Standard light source A)*1	±2%					
Accuracy: Chromaticity (Standard light source A)*1	x, y: ±0.003 (0.003 to 0.005 cd/m ²) x, y: ±0.002 (0.005 to 0.05 cd/m ²) x : ±0.0015 (0.05 cd/m ² or more) y : ±0.001	x, y : ±0.003 (0.075 to 0.125 cd/m ²) x, y : ±0.002 (0.125 to 1.25 cd/m ²) x : ±0.0015(1.25 cd/m ² or more) y : ±0.001	x, y : ±0.003 (0.3 to 0.5 cd/m ²) x, y : ±0.002 (0.5 to 5 cd/m ²) x : ±0.0015(5 cd/m ² or more) y : ±0.001			
Repeatability: Luminance (2 σ)	0.4% (0.003 to 0.05 cd/m ²) 0.3% (0.05 to 0.1 cd/m ²) 0.15% (0.1 to 5,000 cd/m ²)	0.4% (0.075 to 1.25 cd/m ²) 0.3% (1.25 to 2.5 cd/m ²) 0.15% (2.5 to 125,000 cd/m ²)	0.4% (0.3 to 5 cd/m²) 0.3% (5 to 10 cd/m²) 0.15% (10 to 500,000 cd/m²)			
Repeatability: Chromaticity (2 σ)	0.002 (0.003 to 0.005 cd/m²) 0.001 (0.005 to 0.1 cd/m²) 0.0006 (0.1 to 0.2 cd/m²) 0.0004 (0.2 to 5,000 cd/m²)	0.002 (0.075 to 0.125 cd/m ²) 0.001 (0.125 to 2.5 cd/m ²) 0.0006 (2.5 to 5 cd/m ²) 0.0004 (5 to 125,000 cd/m ²)	0.002 (0.3 to 0.5 cd/m²) 0.001 (0.5 to 10 cd/m²) 0.0006 (10 to 20 cd/m²) 0.0004 (20 to 500,000 cd/m²)			
Polarization error	r 1°: 2% or less (400 to 780 nm); 0.1° and 0.2°: 3% or less (400 to 780 nm)					
Integration time	Fast: 0.005 to 16 sec.; Normal: 0.005 to 120 sec.					
Measurement time	ent time 2 sec. min. (Manual mode) to 243 sec. max. (Normal mode)					
Color space mode	Lvxy, Lvu'v', LvTΔuv, XYZ, dominant wavelength, spectral graph					
Interface	USB 1.1					
Operating temperature/humidity range	5 to 35°C, relative humidity 80% or less with no condensation					
Storage temperature/humidity range	0 to 45°C, relative humidity 80% or less with no condensation					
Size	Main unit: 158 (W) x 200 (H) x 300 (D) mm; Lens: ø70 x 95 mm					
Weight	6.2 kg					

*1: Average of 10 measurements in Normal mode at a temperature of 23±2°C and a relative humidity of 65% or less.

Data Management Software

CS-S10w Professional (Standard accessory)

With this software, the CS-2000 can be controlled from a personal computer to display measured data with various graphs or lists, to transfer data to spreadsheet software, or to copy-and-paste data. The CS-S10w offers various data management, analysis and evaluation options, which help research and development or quality control.



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- The screen above contains some conceptual images

manual before using the instrument.

Display

Spectral graph, spectral data list, chromaticity diagram

Color space mode Lvxv, Lvu'v', LvT∆uv, XYZ, dominant wavelength, excitation purity

Mode selection

Normal mode, contrast mode, RGB mode, RGB & contrast mode, object color mode

Data management

Reading/saving files, managing data by using folders, creating, saving and reading templates with various graphs designed or laid-out by users, displaying data with graphs

Data evaluation

Observer/illuminant setting, color rendering property evaluation, statistic value display for each folder, box tolerance setting, multiple point setting for display evaluation, non-uniformity (mura) display, contrast display, polygonal tolerance setting

System requirements

- os Windows® 2000 Professional SP4, Windows® XP Professional SP2/×64 Edition,
- Windows® Vista Business 32-bit (x86)/64-bit (x64)
 - CPU Pentium® III 600 MHz or compatible (recommended)
 - Memory 128 MB or more (256 MB recommended)
 - Hard disk 60 MB of free space for installation
 - Display 1024 x 768, 256 colors Other
 - CD-ROM drive for installation, USB port for instrument connection
 - The specifications and drawings given here are
 - subject to change without prior notice. If you have any questions about specifications
 - please contact your Konica Minolta representative
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Certificate No : YKA 0937154 Registration Date : March 3, 1995

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

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SAFETY PRECAUTIONS

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

Always connect the instrument to the specified power supply

voltage. Improper connection may cause a fire or electric shock

http://konicaminolta.com/about/se/contact.html