PRECISION COLOR CONTROL EXPANDED COLOR INTERPRETATION FOR EVERY LIGHT SOURCE AT THE TOUCH OF YOUR FINGER

The gap between still and motion image capture has narrowed considerably, and so has lighting and the ability to control it. Now both still and motion shooters are faced with the choices and challenges of conventional and emerging light sources. With the many sophisticated and versatile camera's available today, a new generation of image capture talent has entered the field. New camera and lighting technology has lead the way to media content that has never before been possible. New challenges, especially in lighting and specifically in color consistency have hindered the creative flow of many studio and on-locations productions. Reproducing colors as they appear in the image has always been the essential goal and dream in photography and cinematography since its inception.

Today's digital shooters remain unchanged in their desire to control color precisely, while the diversity of light sources is ever-changing. With the popularity of LED lighting, the need for a spectrometer that can measure it and all light sources has become critical to ensure accurate color fidelity.

The NEW Sekonic SpectroMaster C-800 takes the urgency for precision color control, expanded color interpretation and the need to measure all light sources to the next generation of standards in color evaluation. Born from the first spectrometer, the SpectroMaster C-700 series, the New SpectroMaster C-800 continues to measure every light source (LED, HMI, Fluorescent and the natural light spectrum) PLUS flash. In addition, it incorporates expanded Color Rendering Properties to address the evolutionary progress of the industry. Software enhancements now include Spectral Similarity Index (SSI) Television Lighting Consistency Index (TLCI), Television Lminaire Matching Factor (TLMF) and Technical Memorandum (TM-30). With its CMOS linear sensor image, the SpectroMaster C-800 makes it possible to capture spikes in light source output, especially fluorescent and LED lighting, providing unmatched color measurement accuracy.
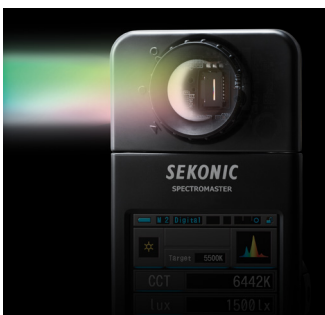
Ultimate Tool for Color Control

Spectrometer (Color Meter)

✔ **Measures Color Temperature (K)**
✔ **Provides Color Compensation Data**
✔ **Provides Light Quality Information**
such as CRI, TM-30, SSI, TLCI/TLMF, and
Spectrum distribution graph

Illuminance Meter

✔ **Provides Lux, Foot-Candle, Lux Sec., Foot-Candle Sec.**
✔ **Conforms to Class A of JIS C 1609-1: 2006**

Utilizing a CMOS linear image sensor, the C-800 SpectroMaster measures any light source with repeatable and precise accuracy
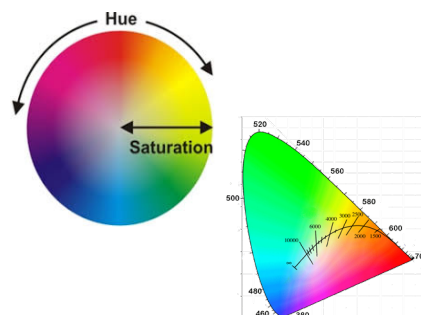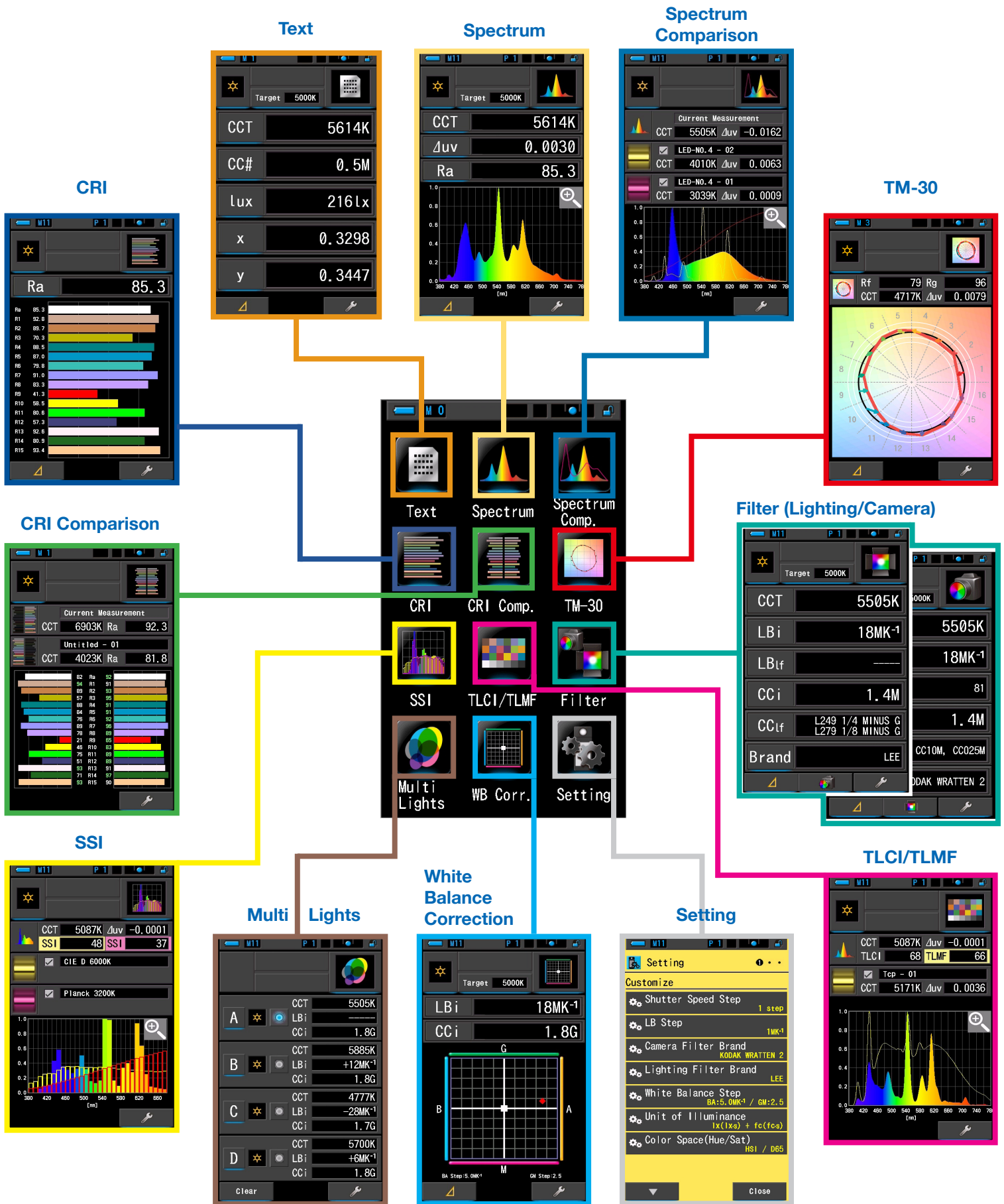

Extended color control parameters such as hue/saturation and x, y (CIE 1931) offer further interpretation and understanding of new data fields for quick and easy use in various lighting applications

Expanded color rendering properties such as SSI (Spectral Similarity Index), TLCI (Television Lighting Consistency Index), TLMF (Television Luminaire Matching Factor) and TM-30 (Technical Memorandum) on top of CRI (Color Rendering Index).

SPECTROMASTER
C-800

Various Display Modes with Intuitive Color Touch Screen

The C-800's 4.3" large color touch dot-matrix screen displays various modes and functions in a logical and intuitive layout. The main selection screen displays the quick icons for the following Display Modes.

Text

Target	5000K
CCT	5614K
CC#	0.5M
lux	216 lx
x	0.3298
y	0.3447

Spectrum

Target	5000K
CCT	5614K
Δuv	0.0030
Ra	85.3

Spectrum Comparison

Current Measurement
CCT 5505K Δuv −0.0162
☑ LED-NO.4 − 02
CCT 4010K Δuv 0.0063
☑ LED-NO.4 − 01
CCT 3039K Δuv 0.0009

CRI

Ra 85.3

Ra	85.3
R1	92.8
R2	89.7
R3	70.3
R4	88.5
R5	87.0
R6	79.8
R7	91.0
R8	83.3
R9	41.3
R10	58.5
R11	80.6
R12	57.3
R13	92.6
R14	80.9
R15	93.4

TM-30

Rf	79	Rg	96
CCT	4717K	Δuv	0.0079

CRI Comparison

Current Measurement
CCT 6903K Ra 92.3
Untitled − 01
CCT 4023K Ra 81.8

	Ra	92
	R1	91
	R2	91
	R3	95
	R4	91
	R5	91
	R6	92
	R7	96
	R8	89
	R9	65
	R10	83
	R11	89
	R12	85
	R13	91
	R14	97
	R15	90

Main selection screen:
- Text
- Spectrum
- Spectrum Comp.
- CRI
- CRI Comp.
- TM-30
- SSI
- TLCI/TLMF
- Filter
- Multi Lights
- WB Corr.
- Setting

Filter (Lighting/Camera)

Target	5000K
CCT	5505K
LBi	18MK⁻¹
LBlf	——
CCi	1.4M
CClf	L249 1/4 MINUS G / L279 1/8 MINUS G
Brand	LEE

	5000K
	5505K
	18MK⁻¹
	81
	1.4M
	CC10M, CC025M
	KODAK WRATTEN 2

SSI

CCT	5087K	Δuv	−0.0001
SSI	48	SSI	37

☑ CIE D 6000K
☑ Planck 3200K

Multi Lights

		CCT	5505K
A	☀	LBi	1.8G
		CCi	
		CCT	5885K
B	☀	LBi	+12MK⁻¹
		CCi	1.8G
		CCT	4777K
C	☀	LBi	−28MK⁻¹
		CCi	1.7G
		CCT	5700K
D	☀	LBi	+6MK⁻¹
		CCi	1.8G

Clear

White Balance Correction

Target	5000K
LBi	18MK⁻¹
CCi	1.8G

BA Step:5.0MK⁻¹ GM Step:2.5

Setting

Setting

Customize
- Shutter Speed Step — 1 step
- LB Step — 1MK⁻¹
- Camera Filter Brand — KODAK WRATTEN 2
- Lighting Filter Brand — LEE
- White Balance Step — BA:5.0MK⁻¹ / GM:2.5
- Unit of Illuminance — lx(lxs) + fc(fcs)
- Color Space(Hue/Sat) — HSI / D65

Close

TLCI/TLMF

|			
CCT	5087K	Δuv	−0.0001
TLCI	68	TLMF	66

☑ Tcp − 01
CCT 5171K Δuv 0.0036

Expanded Measurement and Compensation Values

The C-800 SpectroMaster offers a wide selection of measuring values and various compensation solutions.
Access to these values can be quickly selected by a tap of your finger on the appropriate icon.

No.	Indication	Display Item Name	Description
1	CCT	Color Temperature	Display Displays correlated color temperature.
2	Δuv	Color Temperature	Deviation Displays deviation from the black-body radiation.
3	Lux, fc	Illuminance *	Displays illuminance in lux or foot-candle.
4	HLx, Hfc	Exposure *	Displays exposure in lux-second or foot-candle-second.
5	Cci	CC Index	Displays the CC correction value in CC index.
6	CC#	CC Filter Number	Displays the CC corrected value in total value of CC filter number.
7	CCcf	CC Camera Filter	Displays the CC correction value in the compensation filter name. The filter brand is selected in the Measuring screens and Setting Mode.
	CClf	CC Lighting Filter	
8	LBi	LB Index	Displays the LB correction value in LB index.
9	LBcf	LB Camera Filter	Displays the LB correction value in the compensation filter name. The filter brand is selected in the Measuring screens and "Customize" in the Setting screen.
	LBlf	LB Lighting Filter	
10	Rf	Fidelity Index	Displays the Fidelity index of TM-30 in the value from 0 to 100.
11	Rg	Gamut Index	Displays the Gamut index of TM-30 in the value from 0 to 200.
12	SSIt	SSI Tungsten	Displays the SSI index in the value from 0 to 100 in comparison with CIE Tungsten (3200K).
13	SSId	SSI Daylight	Displays the SSI index in the value from 0 to 100 in comparison with CIE D55 (5500K).
14	SSI1	SSI #1	Displays the SSI index in the value from 0 to 100 in comparison with #1 selected light source (yellow graph) in SSI mode.
15	SSI2	SSI #2	Displays the SSI index in the value from 0 to 100 in comparison with #2 selected light source (red graph) in SSI mode.
16	TLCI	TLCI	Displays the TLCI index in the value from 0 to 100.
17	TLMF	TLMF	Displays the TLMF index in the value from 0 to 100 in comparison with selected memorized value.
18	x	Chromaticity coordinate x	CIE1931 Chromaticity coordinate x
19	y	Chromaticity coordinate y	CIE1931 Chromaticity coordinate y
20	Hue	Hue	Displays the color (i.e. red, green, blue) in the value from 0 to 359 degrees.
21	Sat	Saturation	Dispays the saturation in the value from 0 to 100.
22	Ra	Average CRI	Displays the average value of CRI R1 to R8 in the value of from 0 to 100.
23	R1 to R15	CRI Number	Displays Individual CRI number from R1 to R15 in the value of from 0 to 100.

* Models sold in some countries do not display illuminance and exposure in "fc (fc·s)" due to legal restrictions.
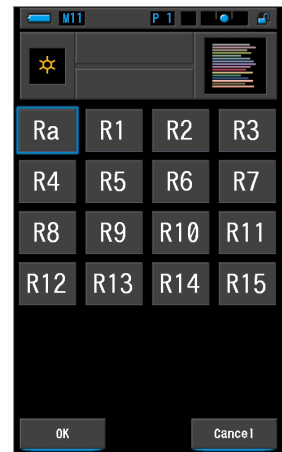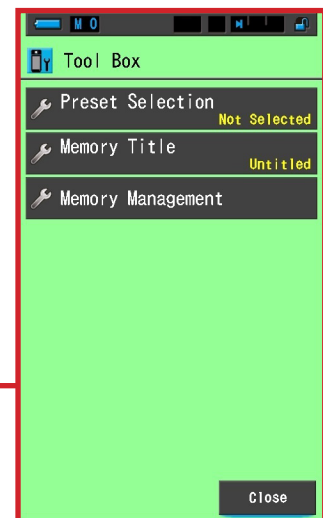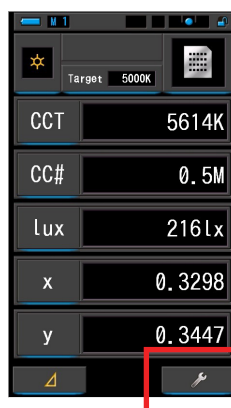
Customize Your Meter

All settings and preferences can be selected and adjusted within this Setting menu.
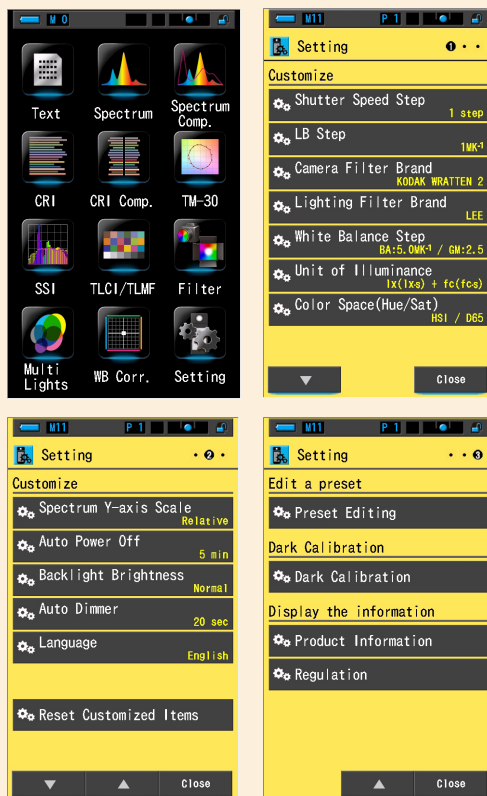
Tool Box

Frequently used settings such as Present selection, Memory titles and Memory management can be selected in the Tool Box by tapping your finger on the wrench icon on all Measuring screen.
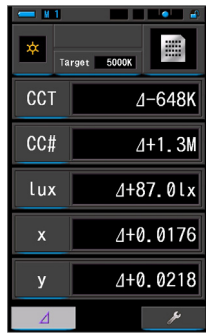
| No.	Name	Description
1	Preset Selection	Selection screen to apply preset preferences such as camera or lighting fiilter settings or change the target color temperature.
2	Memory Title	Creates special titles for memorized values.
3	Memory Management	Memorized values can be cleared renamed or recalled.

Pic 1

Pic 2

Pic 3

Pic 4

Other Functions

✔ Up to 99 readings can be memorized (pic 1).

✔ Comparison Function to show the difference between standard value and currently being measured value (pic 2).

✔ Dark calibration can be done by turning the Light Selection Ring to set to the dark calibration position or perform it from Setting menu without a cap to cover the light receiving section (*pic 3*).

✔ Two AA batteries or rechargeable batteries conveniently provide portable power (*pic 4*). A USB cable provides continuous power duringmeasurement, firmware updates, data uploads or downloads and custom settings.

✔ 270° swivel head

C-800 Series Utility Software

The C-800 series Utility (included with the meter) offers an easy ways to make meter settings such as shutter speed increments, filter brand selection and Illuminance units (lux or fc). Memorized data can be evaluated and analyzed using the advantage of a larger screen from a desktop or notebook computer. The latest firmware can be quickly and easily updated to the meter.
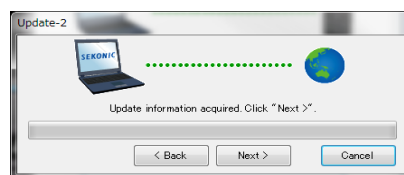
✔ Analyzes and saves the memorized data in the computer.
✔ Provides convenient selection and adjustment of meter settings.
✔ Quick view of Meter Information (serial number, user name, etc)
✔ Updates the meter and Utility Software
✔ Captures the meter screen (C-800 only)
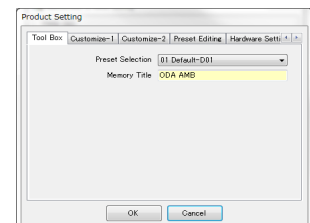✔ Saves data on computer can be transferred to the meter (C-800 only)
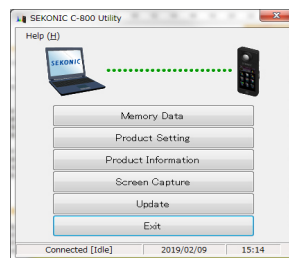
Main Screen
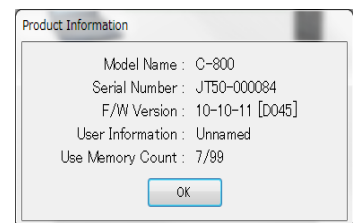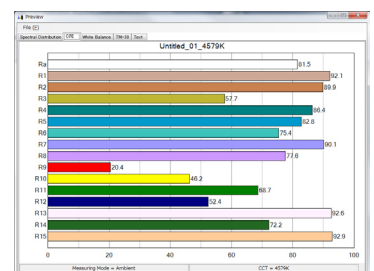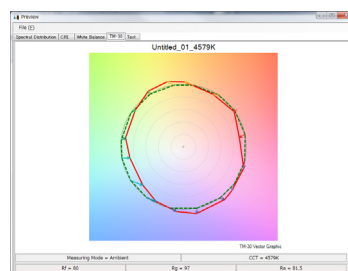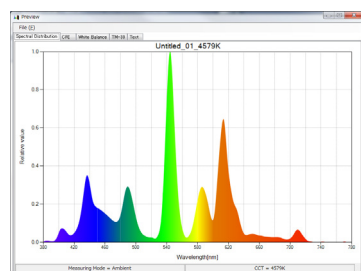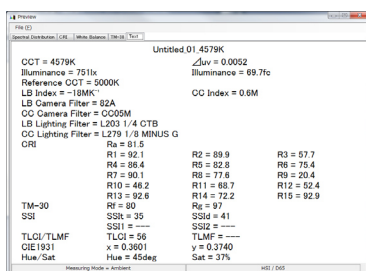

Product Information

Update Screen

Product Setting

Memory Data Preview

Specification and Comparison Chart

Product Name and Model		C-7000	C-700R	C-800
Illuminance Meter Class		* Class A of JIS C 1609-1: 2006 "Illuminance meters Part 1: General measuring instruments" * DIN 5032 Part 7 Class C	* Class A of JIS C 1609-1: 2006 "Illuminance meters Part 1: General measuring instruments"	* Class A of JIS C 1609-1: 2006 "Illuminance meters Part 1: General measuring instruments"
Sensor		CMOS linear image sensor	CMOS linear image sensor	CMOS linear image sensor
Spectral Wavelength Range		380nm to 780nm	380nm to 780nm	380nm to 780nm
Output Wavelength Pitch		1nm (Requires the C-7000 Utility to output memorized data)	N/A	N/A
Spectral Bandwidth		Approx. 11nm (half bandwidth)	Approx. 11nm (half bandwidth)	Approx. 11nm (half bandwidth)
Measuring Mode	Ambient light:	Yes	Yes	Yes
	Cord flash	Yes	Yes	Yes
	Cordless flash	Yes	Yes	Yes
	Radio triggering	No	Yes	No
Measuring Range	Ambient light:	1 to 200,000lx (= 0.1 to 18,600fc), 1,563 to 100,000K (more than 5lx required)	1 to 200,000lx = 0.09 to 18,600fc 1,600 to 40,000K (more than 5lx required)	1 to 200,000lx = 0.09 to 18,600fc 1,600 to 40,000K (more than 5lx required)
	Flash Light:	20 to 20,500lx•s = 1.86 to 1,900 fc•s 1,563 to 100,000K	20 to 20,500lx•s = 1.86 to 1,900 fc•s 1,600 to 40,000K	20 to 20,500lx•s = 1.86 to 1,900 fc•s 1,600 to 40,000K
Accuracy (Standard Illuminant A)		Illuminance: ±5% ± 1 digit (1 to 2,990lx), ±7.5% ± 1 digit (3,000 to 200,000lx) x,y: 0.003 (Standard Illuminant A, 800lx)	Illuminance: ±5% ± 1 digit (1 to 2,990lx), ±7.5% ± 1 digit (3,000 to 200,000lx) CCT: ±4MK-1(800lx)	Illuminance: ±5% ± 1 digit (1 to 2,990lx), ±7.5% ± 1 digit (3,000 to 200,000lx) CCT: ±4MK-1(800lx)
Repeatability (Standard Illuminant A)		Illuminance: 1% + 1 digit (30 to 200,000lx), 5% + 1 digit (1 to 29.9lx) x,y: 0.001 (500 to 200,000lx) x,y: 0.002 (100 to 499lx) x,y: 0.004 (30 to 99.9lx) x,y: 0.008 (5 to 29.9lx)	Illuminance: 1% + 1 digit (30 to 200,000lx), 5% + 1 digit (1 to 29.9lx) CCT: 2MK-1 (500 to 200,000 lx) CCT: 4MK-1 (100 to 499 lx) CCT: 8MK-1 (30 to 99.9 lx) CCT: 17MK-1 (5 to 29.9 lx)	Illuminance: 1% + 1 digit (30 to 200,000lx), 5% + 1 digit (1 to 29.9lx) CCT: 2MK-1 (500 to 200,000 lx) CCT: 4MK-1 (100 to 499 lx) CCT: 8MK-1 (30 to 99.9 lx) CCT: 17MK-1 (5 to 29.9 lx)
Visible-region Relative Spectral Response Characteristics (f1')		Within 9%	Within 9%	Within 9%
Cosine Response (f2)		Within 6%	Within 6%	Within 6%
Temperature Drift (fT) (Standard Illuminant A 1,000lx)		Illuminance: ±5% of indicated value x,y: ±0.006	Illuminance: ±5% of indicated value CCT: ±12MK-1	Illuminance: ±5% of indicated value CCT: ±12MK-1
Humidity Drift (fH) (Standard Illuminant A 1,000lx)		Illuminance: ±3% of indicated value x,y: ±0.006	Illuminance: ±3% of indicated value CCT: ±12MK-1	Illuminance: ±3% of indicated value CCT: ±12MK-1
Power Source		AA (1.5v) x 2 pcs, USB bus power	AA (1.5v) x 2 pcs, USB bus power	AA (1.5v) x 2 pcs, USB bus power
Measurement Time	Ambient light:	Auto - Max.: 15 sec., Min.: 0.5 sec. Manual - 0.1s, 1sec.	Auto - Max.: 15 sec., Min.: 0.5 sec. N/A	Auto - Max.: 15 sec., Min.: 0.5 sec. N/A
	Flash Light:	1 to 1/500 sec. (in 1 step)	1 to 1/500s (plus 1/75, 1/80, 1/90, 1/100, 1/200, 1/400)	1 to 1/500s (plus 1/75, 1/80, 1/90, 1/100, 1/200, 1/400)
Display Mode		Text mode, Spectrum mode, CRI mode, TM-30 mode, SSI mode, TLCI/TLMF mode, CIE1931 (CIE1964) mode, CIE1976 mode, Spectrum Comparison mode, CRI Comparison mode, CIE1931 (CIE1964) Comparison mode, CIE1976 Comparison mode	Text mode, Spectrum mode, Spectrum comparison mode, CRI mode, Camera filter mode, Lighting filter mode, Multi Lights Mode, White Balance Correction Mode	Text mode, Spectrum mode, Spectrum comparison mode, CRI mode, CRI comparison mode, TM-30 mode, SSI mode, TLCI/TLMF mode, Filter mode (Camera / Lighting), Multi Lights Mode, White Balance Correction Mode
Measuring Capability (Display Item)		Correlated Color Temperature (Tcp),Deviation (⊿uv), Tristimulus value (XYZ / $X_{10}Y_{10}Z_{10}$), CIE1931/1964 (xyz / $x_{10}y_{10}z_{10}$), CIE1976 (u', v' / u'$_{10}$v'$_{10}$), Dominant wavelength (Λd), Excitation purity (Pe), Peak wavelength (Λp), Lux(lx) or Foot-Candle(fc) – ambient light, Lux Second(Hlx) or Foot-Candle Second(Hfc) – flash light, PPFD, TM-30 (Rf, Rg), SSI (Tungsten, Daylight, SSI1, SSI2), TLCI/TLMF, CRI (Ra, R1 to R15)	Correlated color temperature (CCT), Photographic color temperature (PCT), Deviation (Δ uv), LB/CC filter number (camera/gel), LB/CC index,Lux(lx) or Foot-Candle(fc) – ambient light, Lux Second(Hlx) or Foot-Candle Second(Hfc) – flash light, CRI (Ra, R1 to R15)	Correlated color temperature (CCT), Deviation (Δ uv), LB/CC filter number (camera/gel), LB/CC index, cc number, Lux(lx) or Foot-Candle(fc) – ambient light, Lux Second(Hlx) or Foot-Candle Second(Hfc) – flash light, CRI (Ra, R1 to R15), Rf, Rg, SSI (daylight, tungsten, selected light source), TLCI, TLMF, x, y, Hue, Saturation,
Other Functions		Up to 999 memory, Preset function, Auto power off, Auto dimmer, 2 or 10 deg. filed of view setting, Continuous/Single measurement selection	Digital/Film mode, Data memory: 99 data, Preset function, Auto power off, Auto dimmer	Data memory: 99 data, Preset function, Auto power off, Auto dimmer
Display languages		English, Japanese, Chinese (Simplified)	English, Japanese, Chinese (Simplified)	English, Japanese, Chinese (Simplified)
Interface		USB 2.0 (Mini B)	USB 2.0 (Mini B)	USB 2.0 (Mini B)
Operating Temperature		'-10 to 40 deg. C	'-10 to 40 deg. C	'-10 to 40 deg. C
Storage Temperature		'-10 to 60 deg. C	'-10 to 60 deg. C	'-10 to 60 deg. C
Dimensions		73mm (w) x 183mm (h) x 27mm (d) = 2.9" (w) x 7.2" (h) x 1.1" (d) (excluding protruding part of light receiving) max. thickness 40mm (d) = 1.6" (d)	73mm (w) x 183mm (h) x 27mm (d) = 2.9" (w) x 7.2" (h) x 1.1" (d) (excluding protruding part of light receiving) max. thickness 40mm (d) = 1.6" (d)	73mm (w) x 183mm (h) x 27mm (d) = 2.9" (w) x 7.2" (h) x 1.1" (d) (excluding protruding part of light receiving) max. thickness 40mm (d) = 1.6" (d)
Weight		230g = 8.1oz (without batteries)	238g = 8.4oz (without batteries)	230g = 8.1oz (without batteries)
Standard Accessory	Software/Utility	Yes (included in the package)	Yes (Downloaded from website)	Yes (Downloaded from website)
	Operating Manual	Yes (Downloaded from website)	Yes (Downloaded from website)	Yes (Downloaded from website)
	USB cable	Yes (included in the package)	No (optional)	No (optional)
	Start Up Guide	Yes (included in the package)	Yes (included in the package)	Yes (included in the package)
	Strap	Yes	Yes	Yes
	Synchro terminal cap	Yes (built-in)	Yes (built-in)	Yes (built-in)
	Soft case	Yes	Yes	Yes

Features and specifications are subject to change without notice.