

# CM-700d

## PRODUCT SPECS:

What are the specs for the product?

Model	CM-700d	CM-600d
<b>Illumination/ viewing system</b>	di: 8°, de: 8° (diffused illumination, 8-degree viewing angle), SCI (specular component included)/SCE (specular component excluded) selectable with automatic switching (Conforms to CIE No. 15, ISO 7724/1, DIN5033 Teil7, ASTM E 1164, and JIS Z 8722)	
<b>Size of integrating sphere</b>	Φ40mm	
<b>Detector</b>	Silicon photodiode array (dual 36-element)	
<b>Spectral separation device</b>	Diffraction grating	
<b>Wavelength range</b>	400 nm to 700 nm	
<b>Wavelength pitch</b>	10 nm	
<b>Half bandwidth</b>	Approx. 10 nm	
<b>Reflectance range</b>	0 to 175%, Display resolution: 0.01%	
<b>Light source</b>	Pulsed xenon lamp (with UV cut filter)	
<b>Measurement time</b>	Approx. 1 second	
<b>Minimum measurement interval</b>	Approx. 2 second (in SCI or SCE mode)	
<b>Battery performance</b>	With alkaline dry batteries: Approx. 2,000 measurements With nickel-metal-hydride rechargeable batteries (2300 mAh): Approx. 2,000 measurements with full charge * Stand-alone continuous measurement fixed to either SCI or SCE mode at 10-second intervals at 23°C	
<b>Measurement/ illumination area</b>	MAV: Φ8 mm/Φ11 mm SAV: Φ3 mm/Φ6 mm * Changeable by replacing target mask and selecting lens position	MAV: Φ8 mm/Φ11 mm only

# CM-700d

illumination area	lens position	only
Repeatability	Spectral reflectance: Standard deviation within 0.1%, Chromaticity value: Standard deviation within $\Delta E^*_{ab}$ 0.04 * When a white calibration plate is measured 30 times at 10-second intervals after white calibration	
Inter-instrument agreement	Within $\Delta E^*_{ab}$ 0.2 (MAV/SCI) * Based on 12 BCRA Series II color tiles compared to values measured with a master body at 23°C	
No. of averaging measurements	1 to 10 (Auto averaging), 1 to 30 (Manual averaging)	
Display	2.36-inch TFT color LCD	
Interfaces	USB1.1; Bluetooth® standard version 1.2*	
Observer	2° observer or 10° observer	
Illuminant	A, C, D50, D65, F2, F6, F7, F8, F10, F11, F12 (Simultaneous evaluation with two light sources possible)	
Displayed data	Spectral values/graph, colorimetric values, color difference values/graph, PASS/FAIL result, pseudocolor, color assessment	
Color spaces	L*a*b*, L*C*h, Hunter Lab, Yxy, XYZ, Munsell, and color difference in these spaces (except for Munsell)	
Colorimetric data	MI, WI(ASTM E313-73/E313-96), YI(ASTM E313-73/ASTM D1925), ISO Brightness, 8°gloss value	
Color difference formulas	$\Delta E^*_{ab}$ (CIE1976), $\Delta E^*_{94}$ (CIE1994), $\Delta E_{00}$ (CIE 2000), CMC (l: c)	
Storable data sets	Measurement data: 4,000 sets/Target color difference data: 1,000 sets	
Pass/fail judgment	Tolerances can be set to colorimetric values (excluding Munsell), color difference values, color values (excluding 8° gloss value) respectively	

# CM-700d

<b>Power</b>	Special AC adapter; 4 AA-size alkaline dry batteries or nickel-metal-hydride rechargeable batteries
<b>Size</b>	73 (W) x 211.5 (H) x 107 (D) mm
<b>Weight</b>	Approx. 550 g (without white calibration cap and batteries)
<b>Operating temperature/ humidity range</b>	5 to 40°C, relative humidity 80% or less (at 35°C) with no condensation
<b>Storage temperature/ humidity range</b>	0 to 45°C, relative humidity 80% or less (at 35°C) with no condensation

Applicable Bluetooth® profile: Serial Port Profile, Output: Bluetooth® Power Class 1 The communication distance may vary depending on the obstacles

\* and radio wave conditions between the devices. Successful wireless communication is not guaranteed with all Bluetooth®-ready equipment.

- Bluetooth® is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.