



KONICA MINOLTA

# SPECTROPHOTOMETER CM-3220d

**An Affordable Bench-Top Instrument  
with Top-Class Precision**

**Foolproof operation  
for POS applications**

**Built in calibration tile  
to prevent loss or damage**

**No compromise in precision  
and data compatibility**

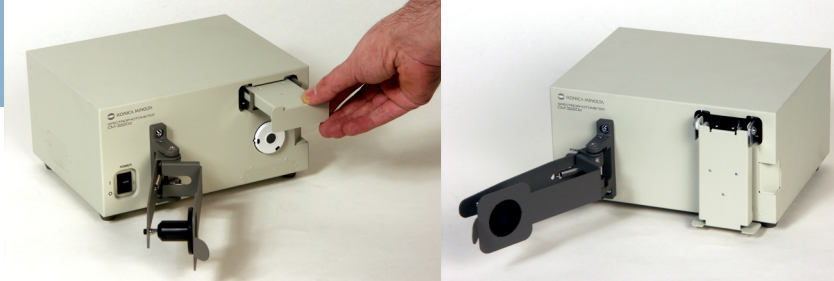
**Xenon Flash illumination  
with simultaneous SCI / SCE  
measurement**



The **CM-3220d** is a very compact and rugged d/8 geometry instrument for POS applications with full data compatibility with all Konica Minolta CM-36xx and CM-2xxx models

With only an ON/OFF switch and the built-in white calibration tile, the **CM-3220d** perfectly meets requirements for maximum ease of use as well as reliability and durability

## SMART FEATURES FOR POS APPLICATIONS



The compact CM-3220d Spectrophotometer represents an ideal bridge between the Konica Minolta family of the bench-top series CM-36xxd and the portable series CM-2xxxxd. It uses the same exclusive technology such as simultaneous SCI + SCE measurement with powerful pulsed xenon lamps and a full wavelength range of 360-740 nm with 10 nm resolution. Thus, the CM-3220d provides close Inter-Instrument-Agreement levels and data compatibility with all other d/8 sphere type models.

The CM-3220d has been designed to meet the requirements of Point of Sale (POS) applications which usually have limited space, demand very easy operation and require the highest levels of reliability and durability.

All operations apart from the OM/OFF switch are fully controlled by the external software for maximum security.

The large sample holder can be tilted 90 degrees allowing measurement of larger samples. The double flap enables perfect sample positioning and observation.

In order to prevent loss or damage of the white calibration tile, it is integrated in the instrument body and thus completely protected against dirt and scratches. The very rugged housing and the absence of any moving parts ensure highest levels of reliability.

The CM-3220d can be interfaced with SpectraMagic NX software for QC and Colour-Matching using the same instrument driver as the portable model CM-2500d.

### Specifications:

<b>Illuminating /Viewing system</b>	Diffuse: eight degree geometry; simultaneous measurement di:8° (specular included) and de:8° (specular excluded). Conforms to CIE 15.3, ISO 7024-1, DIN 5033-7, ASTM E1164 and JIS Z 8722.
<b>Sphere Size</b>	52 mm
<b>Wavelength Range</b>	360 - 740 nm
<b>Wavelength Pitch</b>	10 nm
<b>Reflectance Range</b>	0 - 175%
<b>Light Sources</b>	2 pulsed xenon lamps
<b>Measurement Time</b>	1.5 seconds (until data output)
<b>Minimum Measurement Interval</b>	3 seconds
<b>Measurement / Illumination Area</b>	8 mm / 11 mm
<b>Repeatability</b>	Spectral Reflectance within 0.1% Chromaticity value: Standard Deviation dE*ab 0.04
<b>Inter Instrument Agreement</b>	Mean dE*ab 0.2 (Based on 12 BCRA Series II colour tiles)
<b>Power Source</b>	AC Adapter (AC-A17)
<b>Dimensions / Weight</b>	232 (W) x 127 (H) x 232 (D), 4 kg
<b>Standard Accessories</b>	AC Adapter AC-A17, RS-232C cable IF-A16



This mark indicates ISO 9001:2000-certified quality management system.

### SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument.



- Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock.
- Be sure to use the specified batteries. Using improper batteries may cause a fire or electric shock.

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