



Portable spectrophotometer

CWD MINI MSF 300



Portable spectrocolorimeter CWD MINI MSF 300

The MSF 300 mini CWD spectrocolorimeter is a new generation instrument designed to measure colour using LED+UV technology.

This is a $d/8^\circ$ diffused sphere type instrument for reflection measurements, small sized, easily portable, colour searches performed using the App for smartphones via Bluetooth and a USB interface for PC communications.

The special multifunction “intelligent button” and automatic contact-less calibration of white colours directly in the cap. The instrument is delivered with 3 measurement areas for ease of adaptation to each sample: the areas measure $\Phi 11\text{mm}/\Phi 6\text{mm}/\Phi 3\text{mm}$ in size.



CWD MINI MSF 300 • MAIN FEATURES

Optical Geometry	Reflect: d / 8 ° (diffused illumination, 8 ° viewing angle); SCI + SCE
Light Source & UV	Full-band balanced LED light source , Includes UV
Color space	CIE LAB,CIE LUV,LCh,Hunter Lab,Yxy,XYZ,Musell,s-RGB,βxy
Color Difference Formula	$\Delta E^*ab, \Delta E^*CH, \Delta E^*uv, \Delta E^*cmc, \Delta E^*94, \Delta E^*00, \Delta Eab$ (Hunter)
Observer Angle	2°/10°
Colorimetric Index	REFLECTANCE,CIE-LAB,CIE-LCH,HUNTERLAB,CIE-LUV,XYZ,YXY,RGB,COLOR DIFFERENCE($\Delta E^*AB, \Delta E^*CMC, \Delta E^*94, \Delta E^*00$),WI(ASTM E313-00,ASTM E313-73,CIE,ISO2470/R457,,AATCC,HUNTER,TAUBEGERSTENSBY), YI(ASTM D1925,ASTM E313-00,ASTM E313-3),BLACKNESS (MY,DM) COLOR FASTNESS, TINT,(ASTM E313-00),COLOR DENSITY CMYK(A,T,E,M),MILM, MUNSELL
Illuminant	A,B,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30,U35,DLF,NBF,TL83,TL84,I D50,ID65,LED-B1,LED-B2,LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1, LED-V2
Spectrophotometric Mode	Nanometer integrated spectral device
Wavelength Range	400 nm - 700 nm
Wavelength Interval	10 nm
Measured Reflectance Range	0 - 200%
Integrating Sphere Size	Ø40 mm
Sensor	Silicon photodiode array double 16 groups
Measuring Time	About 1 second
Measuring Aperture	Φ11mm, Φ6mm
Repeatability*	$\Delta E^*ab \leq 0.03$
Inter-instrument Agreement**	$\Delta E^*ab = 0.40$ (Average for SCI, MAV 12 BCRA Series II color tiles)
Data Port e Connectivity	USB, Bluetooth
Data Storage	10 000 items
Language	Simplified Chinese, English, Italian
Power	3.7V/3000mAh Power adapter power supply
Display	2.4-inch color LCD, Capacitive Touch Screen
Operating Environment	5~40°C, 0~80%RH (no condensing)
Storage Environment	-20~45°C, 0~80%RH (no condensing)
Dimension	L*W*H=65x50x120 mm
Weight	0,24 kg
Standard Accessory	Power Adapter, USB cable, White Calibration Board, 11 caliber, 6 caliber, 3 caliber

* After the whiteboard is calibrated, measure the whiteboard 30 times at 5-second intervals. Standard deviation of the MAV caliber measurement results.

** The average of the MAV caliber measurement values of 12 color plates in the BCRA series.