

Spectrophotometer



CS-500/520

■ High Accuracy

It can pass Level I metrology, repeatability less than 0.04* inter-instrument agreement less than 0.2**.

■ 29 Color indexes and 26 kinds of illuminants

Support the color measurement and color difference judge under the illuminants of D65/D50/A/CWF and so on. Measure the reflectance, Lab, LCh, WI, YI, Blackness, Color strength and other 29 color indices.

■ Automatic calibration

Easy operation for better user experience.

■ UV Included and Excluded

UV included / excluded for fluorescence materials color / color difference measurement.

■ Connect APP to expand more application

Find the most similar color from Colorcard
Establish the personal color database in the clouds
Check the Color inspiration.

■ Switchable Apertures

Switchable apertures 1*3mm/4mm/8mm to measure samples with different sizes.



Parameter



Model	CS-500	CS-520
Geometry	D/8 ,SCI(diffused illumination 8° viewing Specular component included)	D/8 ,SCI/SCE(diffused illumination,8° viewing Specular component included,Specular component excluded)
Repeatability and Stability	Max: dE*ab < 0.1 Average: dE*ab < 0.05 Standard deviation: dE*ab < 0.03 Reflectance: Standard Deviation *	Max: dE*ab < 0.04 Average: dE*ab < 0.03 Standard deviation: dE*ab < 0.02 Reflectance: Standard Deviation *
Inter-instrument agreement	Average ΔE*ab < 0.3 Max ΔE*ab < 0.5 **	Average ΔE*ab < 0.2 Max ΔE*ab < 0.4 **
Illumination Area Aperture	MAV:Φ8mm/Φ11mm	Switchable: MAV:Φ8mm/Φ11mm SAV:Φ4mm/Φ6mm MINI:1*3mm
Illuminants	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	
Color Indices	Reflectance,CIE-Lab,CIE-LCh,HunterLab,CIE□Luv,XYZ,Yxy,RGB,Colordifference(ΔE*ab,ΔE*cmc,ΔE*94,ΔE*00),WI (ASTM E313-00,ASTM E313-73,CIE/ISO,AATCC,Hunter,TaubeBergerStensby),YI(ASTM D1925,ASTM E313-00 ASTM E313-73),Blackness(My,dM),Color Fastness Tint,(ASTM E313-00),Color Density CMYK(A,T,E,M),MilM,Munsell Opacity,Color strength	
Sensor	256 Pixel CMOS Sensor	
Accuracy	0.1	0.01
Spectroscopic Method	Concave Grating Spectroscopy	
Sphere diameter	40mm	
Standards	Conform to standards CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7	
Lighting source	LED(Full band balanced LED light Source)	
Wavelength Interval	10nm	
Wavelength range	400-700nm	
Reflectance Range	0-200%	
Measurement time	2s	1s
Interface	USB,Bluetooth	
Observer Angle	2°,10°	
Screen	IPS Full color screen,2.4 inches	
Battery	Rechargeable, 8000 times continous tests 3.7V/3000mAh	
Light source lifetime	One million times for 10 years	
Language	Chinese,English	
Calibration	Automatic Calibration	
Software support	Andriod,iOS,Windows	
Camera	No	Yes
Metrology Level	Level I	
Storage	App and PC software for mass storage	

*(When a white tile is measured 30 times after 5-seconds interval.)

** (BCRA Series II, average measurement of 12 tiles, MAV/SCI)