

## Professional Spectral Colorimeter



## CS-420/421/422

## Product Features

- The smaller the caliber, the more can be measured  
1\*3mm 4mm 8mm caliber switch
- Automatic calibration
- SCI/SCE  
It supports both SCI and SCE test which is more consistent with result of visual method.
- Many measurement parameters  
30+ measurement indicators such as opacity, whiteness, yellowness, etc.
- Many light source conditions  
Provide 26 Kinds of Illuminants for Choice
- Good repeatability for stable measurement  
(Delta E\*ab 0.06)
- Guaranteed measurement certification
- Portable and Massive Color Card Database  
Connect to mobile phone APP to create database to upload the color shades from printing, paint, textile color cards. No need to carry big and heavy color card, we can find color card database from Colormeter Pro APP and find the closed/similar color easier and faster.
- Cloud database, more convenient to view and upload  
Official color card databases are available. Personal users can update color information to cloud and share between different instruments which make color management much easier. Enterprise users can create and manage their own color library and formula information in the cloud and share the information to their customers and suppliers through the unique invitation code.
- Better performance than traditional colorimeter  
UV for fluorescence material test  
Camera to see the test area to avoid test error  
Paint color matching software: user can use mobile phone App to achieve color correction function.

## Technical Data

Name	CS-420	CS-421	CS-422
Geometry	D/8(diffused illumination,8 degree viewing) SCI (specular component included),SCE (specular component excluded)		
Repeatability	Chromaticity Value:Standard deviation $\Delta E^*ab \leq 0.03$ Average: $dE^*ab \leq 0.04$ Max: $dE^*ab \leq 0.06$ (when a white tile is measured 30 times at 5 seconds interval)		
Inter-instrument Agreement	$\Delta E^*ab \leq 0.4$		
Display Resolution	0.01		
Test Aperture/ Illuminated Area	MAV: $\Phi 8mm/\Phi 11mm$	SAV: $\Phi 4mm/\Phi 6mm$	MAV: $\Phi 8mm/\Phi 11mm$ +SAV: $\Phi 4mm/\Phi 6mm$
Color Space and Indices	Reflectance, CIE-Lab, CIE-LCh, Hunter Lab, CIE-Luv, XYZ, Yxy, RGB, Color Difference ( $\Delta E^*ab$ , $\Delta E^*cmc$ , $\Delta E^*94$ , $\Delta E^*00$ ), Whiteness Index (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, Taube Berger Stensby), Yellowness Index (ASTM D1925, ASTM E313-00, ASTM E313-73), Blackness Index(My,dM), Staining Fastness, Color Fastness, Tint (ASTM E313-00), Color Density CMYK(A,T,E,M), Metamerism Index Milm, Munsell, Opacity, Color Strength		
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 Matching Software	Support color matching on APP( if user buy the color matching software)		
Light Source	LED+UV		
Camera	Yes		
Calibration	Auto		
Software	Windows, Android, iOS		
Accuracy Guarantee	Pass National Metrology Level I		
Observer Angle	$2^\circ, 10^\circ$		
Sphere Size	40mm		
Standard	Conform to CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7		
Spectroscopic Method	Integrated optics		
Sensor	CMOS Sensor		
Wavelength interval	10nm		
Wavelength	400-700nm		
Reflectance	0-200%		
Reflectance Resolution	0.01%		
Measurement Time	About 1 second		
Interface	USB, bluetooth		
Screen	IPS full color screen ,2.4 inches		
Battery	Rechargeable, 8,000 times continuous tests, 3.7V/3000mAh		
Light Source Lifetime	10 years, 1 million tests		
Language	Chinese and English		
Storage	APP Mass Storage		

\*Illumination Area is the instrument aperture size