

Economical Spectral Colorimeter CS-410



Spectral colorimeter CS-410 is an economical model to measure the color difference. Instrument is with auto calibration to make it simple in operation. It contains 30 kinds of parameters and 26 kinds of illuminants.

Part One. Instrument Advantages

1. 11mm Aperture

2. Auto calibration

3. SCI/SCE

It supports both SCI and SCE test which is more consistent with result of visual method.

4. Many different kinds of test parameters

Opacity, whiteness index, yellowness index and other 30 kinds of test parameters

5. Provide 26 Kinds of Illuminants for Choice

6. Good repeatability for stable measurement (Delta E*ab 0.08)

7. Guarantee to pass the national metrology

Part Two. Technical Parameter

Model	CS-410
Color	Green

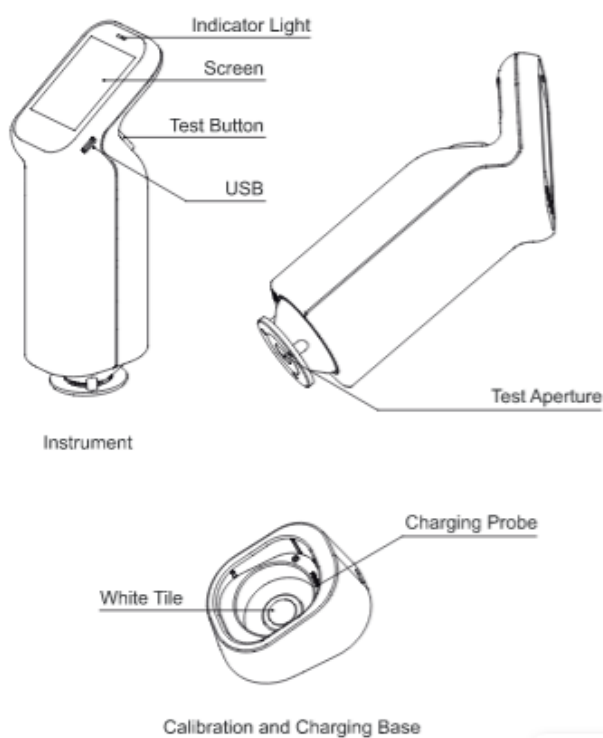
Geometry	D/8 (diffused illumination,8 degree viewing) SCI (specular component included),SCE (specular component excluded)
Repeatability	Chromaticity Value: Standard deviation $\Delta E^*ab \leq 0.04$ Average : $dE^*ab \leq 0.05$ Max.: $dE^*ab \leq 0.08$ (when a white tile is measured 30 times at 5 seconds interval)
Inter-instrument Agreement	$\Delta E^*ab \leq 0.4$
Display Accuracy	0.01
Illumination Area/ Test Aperture	8mm /11mm
Color Space and Indices	Reflectance, CIE-Lab, CIE-LCh, Hunter Lab, CIE-Luv, XYZ, Yxy, RGB, Color Difference (ΔE^*ab , ΔE^*cmc , ΔE^*94 , ΔE^*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
Support Color Matching Software	No
Light Source	LED
Camera	NO
Calibration	Auto
Software	Windows
Accuracy guarantee	Pass National Metrology Level I
Observer	2°,10°
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	10nm
Wavelength	400-700nm
Reflectance	0-200%
Reflectance	0.01%
Reflectance	0.01%
Measurement	About 1 second
Screen	IPS full color screen ,2.4 inches
Battery	Rechargeable, 8,000 times continuous tests, 3.7V/3000mAh
Light Source	10 years, 1 million tests
Language	Chinese and English
Storage	APP Mass Storage

(Note: CS-410/411/412 main difference is the aperture size and quantity)

Part 3. Instrument Outlook

CS-410 Outlook





Part 4. Technical Support

1. One year warranty for whole instrument