彩谱®
CHN Spec

Portable Spectrophotometer

CS-660

Product Advantage

- SCS Optical Engine—for Best Repeatibility
- Build–in Camera—view the measuring area
- Automatic Light Compensation––To ensure color data consistency for different glossiness
- ETC (Every Test Calibration)—for long term stability
- CLEDs—improves measuring speed and accuracy
- Color Number Mathcing (Custom made)—improves instrument practicability

Tel:+86-571-86872381 Web:www.hzcaipu.com/en
Add:No.166 of Wenyuan North Road, Jianggan District, Hangzhou City, China

Application Examples

Technical Data

Type	CS–660
Measurement Condition	Observer angles: 2° /10° Illuminant:d/8 (diffused illumination, 8° viewing),SCI (specular component included)/SCE (specular component excluded) (conform to CIE No.15、ISO 7724/1、ASTM E1164、DIN 5033 Teil7、 JIS Z8722 Condition c standards)
Sphere	Φ40mm,Alvan diffused reflection surface coating
Illumination	CLEDs (entire wavelength balanced LED light source)
Sensor	dual optical path sensor array
Wavelength	400~700nm
Reflectivity range and resolution	0~200% 0.0001
Measurement light source	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30,DLF,NBF,TL83,TL84,U35
Display	Reflectance graph/value, sample chromatic value, color difference values, color assessment results, color tendency, display measurement area, history color value simulation, manual input standard sample, generate measurement reports
Measurement Interval	0.5s
Color Space	CIE–L*a*b,L*C*h,L*u*v,XYZ,Yxy,Reflectance,Hunter–lab, Munsell MI,CMYK,RGB,HSB
Color Difference Formula	ΔE*ab, ΔE*CH, ΔE*uv, ΔE*cmc(2:1), ΔE*cmc(1:1), ΔE*94, ΔE*00, ΔEab(Hunter),555 Color classification

Type	CS–660
Other Indicators	WI(ASTM E313–00,ASTM E313–73，CIE/ISO,AATCC,Hunter, Taube Berger Stensby),YI(ASTM D1925,ASTM E313–00,ASTM E313–73),Tint(ASTM E313,CIE,Ganz),Metamerism index MiIm, Staining fastness,Color fastness,ISO brightness,8 glossiness, A density,T density,M density,E density
Repeatability	Reflectance: standard deviation within 0.08% Chromaticity value: Standard deviation within ΔE*ab 0.015 (When a white calibration plate is measured 30 x at 5–second intervals after white calibration), max. 0.03
Inter–instrument agreement	Within ΔE*ab 0.2 (BCRA Series II, average measurement of 12 color charts)
Interface	USB，Blue tooth (optional)
Working Temperature	0–45℃,relative humidity 80% or below (at 35℃); no condensation
Accessories	AC power line, operating manual, color QC software, driving software, electric operating manual, USB cable, white/black calibration tile and cover, canvas bag, verification certification
	Optional: powder presser, micron printer
Color Matching System	Matching
UV Light Source	Without
Note	1.CS–580A/CS–580B : A is for large aperture, B is for small aperture 2.CS–610 is with pantone color number matching function.