Top-port Spectrophotometer

CS-800

Product Advantages

The First Bench-top Spectrophotometer in China

CS-800 is the first bench-top spectrophotometer in China to make up for the corresponding domestic market vacancies. Over the years, its accuracy and performance make great improvement, and now has a huge market.

D/8 geometry, Simultaneous SCI/SCE measurement

Adopt international D/8 geometry (Integrating sphere diffused illumination, 8 degree viewing) Simultaneous measurement of SCI/SCE compatible with lighting observation conditions.

Top-port Caliber for Color Measurement

Adopt geometric conditions of D/8 illumination and viewing with upward testing caliber which is easier for testing all kinds of samples. Solid samples (steel, cloth) can be placed directly on the measurement caliber, particles (tablets, master batch), powder (Calcium Carbonate, pigment, coffee), paste objects (tomato sauce) can be placed in a cuvette, then placed in the caliber.

Application Examples

▲ Opaque liquid

▲ Paste

▲ Powder

▲ Pellet

Technical Data

Type	CS-800
Illumination /Viewing System	Illuminant: d/8 (diffused illumination, 8 degree viewing)Simultaneous measurement of SCI (Specular Component Included) /SCE (Specular Component Excluded)(conforms to CIE No.15, ISO7724/1,ASTM E1164,DIN5033 Teil 7, JIS Z8722, Condition c standard)
Integrating Sphere	40mm, Avian-D Fully diffuse reflective surface coating
Illumination	CLEDs
Detector	Dual optical sensor array
Wavelength	400-700nm
Wavelength Pitch	10nm
Half Band Width	5nm
Reflectance Range/ Resolution	0-200% 0.01%
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
Display	Reflectance graph/value, 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	1s
Measurement Caliber	Φ11mm
Color Space	CIE-L*a*b,L*C*h,L*u*v，XYZ，Yxy，Reflectance，Hunterlab，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,Eab(Hunter),555Color classification
Other Indicators	WI(ASTM E313-10,ASTM E313-73,CIE/ISO,AATCC,Hunter, Taube Berger,Ganz,Stensby),YI(ASTM D1925,ASTM E313-10, ASTM E313-73),Tint(ASTM E313,CIE,Ganz),Metamerism index Milm，staining fastness，color fastness，ISO brightness, 8 Glossiness,A Density,T Density,E Density,M 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)
Battery Power	recharageable, 20000 continuous tests, 7.4V/6000mAh
Interface	USB
Light source lifetime	10years, 3 million tests
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, verification certification Optional: powder presser, cuvette with diameter 29mm, cover
Color Matching Software	Workable
UV Light Source	Without