

Spectrophotometer



CS-500/520

Product Features

■ 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, Color difference (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 continuous tests 3.7V/3000mAh | |
| Light source lifetime | One million times for 10 years | |
| Language | Chinese, English | |
| Calibration | Automatic Calibration | |
| Software support | Android, 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)