



YS4560- Advanced grating spectrophotometer

YS4560 Advanced Spectrophotometer uses 45/0 (45 degree ring illumination, 0 degree reception) geometric optical structure in accordance with CIE No. 15 and adopts concave grating spectrometry to accurately measure sample reflectance and various colorimetric data; The instrument is equipped with $\Phi 8$, $\Phi 4$ mm double measuring aperture, used for traffic signs and accurate color measurement and quality control in various industries. It has a separate UV source for fluorescence sample measurements.



Con-cave Grating USB / Bluetooth ® 4.0



Long life LED
light sources



$\Phi 8$ & $\Phi 4$ mm dual
measuring apertures



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PRODUCT FEATURES

- 1.Beautiful appearance and perfect combination with ergonomic structure design.
- 2.Built-in standard polygon tolerance setting and specific traffic sign gamut, one button to realize the measurement of traffic road signs, marking lines, reflective film brightness factor and chromaticity coordinates.
- 3.Conforms with CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724/1,ASTM E1164,DIN5033 Teil7, GB 2893、GB/T 18833.
- 4.High electronic hardware configuration: 3.5-inch TFT color LCD,Capacitive Touch Screen, concave grating, 256 Image Element Double Arrays CMOS Image Sensor.
5. Measure sample spectra, accurate Lab data , can be used in color matching and accurate color transmission.
- 6.Adopt high-life and low-power combined LED light source, including UV/excluding UV.
- 7.The instrument is equipped with ϕ 8mm and ϕ 4mm aperture(optional ϕ 10 mm and ϕ 5mm) suitable for more tested samples.
- 8.Large capacity storage space, over 30,000 measurement data.
- 9.USB / Bluetooth 4.0 dual communication mode, more adaptable.
- 10.PC software has a powerful function extension.



APPLICATION INDUSTRIES

The grating spectrophotometer can easily achieve the accurate transmission of color, and can also be used as the detection equipment of the accurate color matching system; it is used for accurate color measurement and quality control of traffic road signs, plastics, electronics, paint and ink, textile and garment, printing and dyeing , ceramics and other industries. The instrument has a separate UV light source for fluorescent sample measurements.



Traffic road sign



Automobile



Plastics



Paint



Food stuff



Laboratory



Others

SPECIFICATION PARAMETERS

Model: YS4560

Illumination: 45/0(45 circular illumination, vertical viewing)

Standard: CIE No.15, GB/T3978,GB2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033Teil7

Integrating Sphere Size: 48mm

Light Source: Combined LED Light,UV Light

Spectrophotometric Mode: Concave Grating

Sensor: 256 Image Element Double Array CMOS Image Sensor

Wavelength Range: 400-700nm

Wavelength Interval: 10nm

Semiband Width: 10nm

Measured Reflectance Range: 0-200%

Measuring Aperture: MAV: ϕ 8mm/ ϕ 10mm; SAV: ϕ 4mm/ ϕ 5mm

Observer Angle: 2°/10°

Color Space: CIE LAB, XYZ, Yxy, LCh, CIE LUV, Hunter LAB, β xy

Color Difference Formula: $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \Delta E^*(\text{Hunter})$

Other Colorimetric Index: WI(ASTM E313, CIE/ISO, AATCC, Hunter),YI(ASTM D1925, ASTM 313), TI(ASTM E313, CIE/ISO), Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness

Illuminant: D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF,U30, TL83, TL84, U35

Displayed Data: Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset

Measuring Time: 1.5s

Repeatability: Spectral reflectance: MAV, standard deviation within 0.08%(400~700nm: within 0.18%)

Chromaticity value: MAV, within ΔE^*ab 0.03(After calibration, measure the average value of the white board 30 times each 5S.)

Inter-instrument agreement: MAV, within ΔE^*ab 0.15(Average value for 12 BCRA series II color tiles)

Battery: Li-ion battery. 5000 measurements within 8 hours

Dimension: L*W*H=184*77*105mm

Weight: 600g

Illuminant Life Span: 5 years, more than 3 million times measurements

Display: 3.5-inch TFT color LCD, Capacitive Touch Screen

Data Port: USB/Bluetooth 4.0 dual mode (compatible with 2.1)

Data Storage: Standard 1000 Pcs, Sample 30000 Pcs

Language: English, Chinese

Operating Environment: 0~40°C, 0~85%RH (no condensing), Altitude < 2000m

Storage Environment: -20~50°C, 0~85%RH (no condensing)

Standard accessories: power adapter, data line, built-in lithium batteries, instructions, quality control software (download from official website), black and white calibration board, protection cover, polarization filter box(Optional accessories: Micro printer, Powder test box, multi-functional test component, locating plate)