Accurate measurement of sample reflectance and various chromaticity data

YS4510Plus-Spectrophotometer

YS4510Plus-Spectrophotometer with 45/0 geometrical optics structure(45 ring-shaped illumination ,vertical viewing), comply with CIE No.15 . Adopting concave grating light splitting method. accurately measure the reflectivity and various chromaticity data of samples. users can customize the measurement aperture(Φ 8 / Φ 4 / Φ 2 m m) according to the sample measuring demands, meet the industry accurate color measurement and quality control.

Concave-Grating Spectral

Long life LED light sources

Customized measuring aperture

High-configuration electronic hardware

ISO 9001 Certified

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PRODUCT FEATURES

1.Perfect combination of beautiful appearance and the human body mechanics structural design.
2.45/0 geometrical optics,conforms with CIE No.15,GB/T 3978,GB 2893,GB/T18833,IS07724/1,ASTM E1164,DIN5033 Teil7,GB 2893,GB/T 18833.
3.Accurate color measurement and quality control.
4.High electronic hardware confguration: 3.5inch TFT color LCD,Capacitive Touch Screen,concave grating, 256 limage Element Double Arrays CMOS Image Sensor.
5. Measure sample spectra, accurate Lab data,can be used in color matching and accuratecolor transmission.
6.Use long life and low power consumption combined LED light source.
7.Customized single aperture: MAV: >8mm/φ10mm;SAV:φ4mm/q5mm;SSAV:φ2mm/q3mm.suitable for more samples.
8.USB port, widely useful.
9.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.

Traffic road sign

Textile

Plastic

Paint

Food

Laboratory

Other

SPECIFICATION PARAMETERS

Model: YS4510 Plus
Illumination: 45/0(45 circular illumination, vertical viewing)
Standard: CIE No.15, GB/T3978,GB2893,GB/T 18833,1S07724-1,ASTM E1164,DIN5033Teil7
Integrating Sphere Size: 48mm
Light Source: Combined LED 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: customized single aperture: MAV:Φ8mm/Φ10mm; SAV:Φ4mm/Φ5mm;SSAV:Φ2mm/Φ3mm
Color Space: CIE LAB, XYZ, Yxy, LCh, CIE LUV, Hunter LAB,βxy
Color Difference Formula:△E*ab,△E*uv,△E*94,△E*cmc(2:1),△E*cmc(1:1),△E*00,△E(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

Observer Angle:2°/10°
Measuring Time: 1.5s
Repeatability: Spectral reflectance: MAV, standard deviation within 0.1%(400~700nm: within 0.2%)
Chromaticity value: MAV, within△E*ab 0.05(After calibration, measure the average value of the white board 30 times each 5S.)
Inter-instrument agreement: MAV, within△E*ab 0.2(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
Data Storage: Standard 1000 Pcs, Sample 28000 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)