

BENCHTOP SPECTROPHOTOMET ER SPE71-400A



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Benchtop Spectrophotometer is used for measuring the color and appearance of fluorescent, opaque, transparent and translucent samples under various illuminants

SPE71-400A BENCHTOP SPECTROPHOTOMETER

Double Array 256 Image Element CMOS Sensor; Long life-span stable LED UV LED.

With reflective and transmissive spectrum, accurate Lab value, good to calculate color formula and do precise color transmission.

Auto identify measuring aperture. Freely switchable between 3 measuring apertures: Φ 25.4mm/8mm/4mm. Users also can customize apertures.

Built-in temperature sensor to monitor and compensate the measuring temperature to ensure the measurement more precision.

Wavelength range 360nm - 780nm. Built-in 400nm/420nm/460nm cut off Xenon lamp, more professional in UV measurement.

Independent light source detector, continuously monitor the condition of light sources to ensure the light source reliable.

Multiple measurement modes: Quality Management Mode, Sample Mode; Meet more users' requirement.

More powerful extended functions at the PC software.

SPECIFICATIONS

Model	SPE71-400A
Illuminant	360nm-780nm Combined LED Lamp, 400nm cut-off
Sensor	256 Image Element Double Array CMOS Image Sensor
Wavelength Pitch	10 nm
Semiband Width	10 nm
Reflectance Range	0-200%
Measuring Aperture	Reflective : Φ 30mm/ Φ 25.4mm, Φ 10mm/ Φ 8mm, Φ 6mm/ Φ 4mm; Transmissive : Φ 30mm, Φ 25.4mm;
Integrating Sphere Size	Φ 154mm
Optical Geometry	Reflectance: d/8 (SCI&SCE; Include UV/Exclude UV) Transmittance: d/0 (SCI&SCE; Include UV/Exclude UV) Conforms to CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7
Specular Component	Reflectance: SCI&SCE / Transmittance: SCI&SCE
Color Space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,Musell,s-RGB,HunterLab, β xy,DIN Lab99
Color Difference Formula	ΔE_{ab} , ΔE_{uv} , ΔE_{94} , $\Delta E_{cmc}(2:1)$, $\Delta E_{cmc}(1:1)$, AE 00, DIN ΔE_{99} , ΔE (Hunter)
Colorimetric Index	WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness, Gardner Index, APHA/Pt-Co Index, 555 Index
Observer	2° / 10°
Illuminants	D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12
Displayed Data	Spectrogram/Values, Chromaticity Values, Color Difference Values/Graph, Pass/Fail Result, Color Offset
Measurement time	About 2.4s (Measure SCI & SCE about 5s)
Repeatability	Spectral reflectance: Φ 25.4mm/SCI, Standard deviation within 0.05% Chromaticity value: Φ 25.4mm/SCI, Standard deviation within ΔE^*ab 0.02 Chromaticity value: Φ 25.4mm/SCI, Standard deviation within ΔE^*ab 0.03
Inter-instrument Error	Φ 25.4mm/SCI, Within ΔE^*ab 0.15 (Average for 12 BCRA Series II color tiles)
Working Environment	Temperature: 0~40°C; Humidity: 0~85% (No Condensation)
Storage Environment	Temperature: -20~50°C; Humidity: 0~85% (No Condensation)

Language	English and Chinese
Data Storage capacity	Standard 2000 Pcs, Sample 20000 Pcs
Light Source Device Life	5 years, more than 3 million times measurements.
Screen	7" TFT Capacitive Screen-touch Display
Data Port	Bluetooth
Standard Accessory	White and Black Calibration Board, Checking Green Board, Sample Holder, Φ 4mm, Φ 8mm, Φ 25.4mm Aperture, Power Adapter, USB Cable, User Guide, PC Software
Optional Accessory	Micro-printer, Transmissive Test Clamp Component
Size	370x300x200 mm
Weight	9.6kg
Power Supply	DC 24V, 3A Power Adapter



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