

MULTI ANGLE SPECTROPHOTOMET ER SPE74-1200



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SPE74-1200

Multi angle spectrophotometer is instrument with combine color imaging with multi-angle technology to deliver precise color measurements.

SPE74-1200 MULTI ANGLE SPECTROPHOTOMETER

Multi-angle measurement
 More intuitive display
 Effect measurement discrimination function
 256 Image Element Double Array CMOS Image Sensor
 Adopt Full spectrum LED light source with blue enhancement
 Concave grating spectrophotometric technology
 Professional-grade white board
 Higher quality
 Ergonomics Novel and fashionable appearance design
 Color camera preview, can clearly observe the measured area
 Multiple color measurement space, multiple observation light sources
 Easily analyze data

SPECIFICATIONS

Model	SPE74-1200
Measurement Geometry	12 measurement angles (7 illumination sources, 2 receivers)
Measure Angle	45° Receiver: 45as-15°,45as15°,45as25°,45as45°,45as75°,45as110° 15°Receiver: 15as-45°,15as-15° Standards:ASTM D 2244,E 308,E 1164,E 2194, E2539,DIN 5033,5036,6174,6175-1,6175-2;ISO 7724, 11664-4 SAE J 1545
Light Source	Full spectrum LED light source with blue enhancement
Lamp Life	5 years, 3 million times measurements
Spectroscopic Mode	Concave Grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Spectral Range	400-700nm
Wavelength interval	10 nm
Measurement Range	0~600%
Semiband Width	10 nm
Measuring Aperture	Φ12mm
color space	CIE LAB,XYZ,Yxy,LCh,βxy,DIN Lab99
Color Difference Formula	ΔE^*_{ab} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{00} , DIN ΔE_{99} , $\Delta E_{DIN6175}$
Other Colorimetric Index	Flop Index, Int-Em
Observer angle	2°/10°
Illuminant	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)

Display	3.5-inch TFT color LCD, Capacitive Touch Screen
Measuring Time	Approx. 1 second for one angle Approx. 12 seconds for all angles
Repeatability	Spectral reflectance:Standard deviation within 0.08% Chromaticity value: ΔE^*_{ab} 0.02 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Reproducibility	$\Delta E^* < 0.10$, avg on the gray tile of BCRA tile set, $\Delta E^* < 0.25$, avg on the color BCRA tile set
Inter-instrument error	$0.18\Delta E^*_{00}$ (avg on reference Series II BCRA tile set)
Effect Parameters	Sparkle Grade(SG), Diffuse coarseness(DC) and Color Variation(CV)
Effect Measurement	6 angles Sparkle Grade(SG), Color Variation(CV): 15°-45°, 15°-30°, 15°-15°, 15°-15°, 15°-45°, 15°-80° 15d Diffuse coarseness(DC)
Effect Repeatability	Sparkle Grade(SG) Short-term repeatability: 0.12% (10 times standard deviations) (When a color plate is measured 10 times at 10 second intervals after white calibration) Diffuse coarseness(DC) Short-term repeatability: 0.09% (10 times standard deviations) (When a color plate is measured 10 times at 10 second intervals after white calibration)
Effect Reproducibility	Sparkle Grade(SG) Reproducibility: 1.9% (10 times standard deviations) (avg on reference Series II BCRA tile set) Diffuse coarseness(DC) Reproducibility: 1.4% (10 times standard deviations) (avg on reference Series II BCRA tile set)
Trigger mode	Pressure sensing trigger, button trigger, software trigger
Measuring Mode	Single measurement, average measurement (1-99), continuous measurement (1-99)
Locating Mode	Color camera preview
Interface	USB, Bluetooth
Data Storage	1000 pcs Standards, 4000 pcs Samples
Language	Simplified Chinese, Traditional Chinese, English
Calibration	Built-in white board parameters, external white board, black light trap, color board
Calibration Interval	4 hours, 8 hours, 24 hours, Startup calibration
Standard Accessories	Power Adapter, USB Cable, User Guide, PC Software (download from the official website), Calibration Board, black light trap, Protective cap, wristband
Dimension	195X83X128mm
Weight	About 1Kg
Power	lithium-ion battery, 3.7V, 3200mAh, Continuous test 6000 times within 8 hours of full charge

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