

# PORTABLE SPECTROCOLORIMET ER



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Portable Spectrocolorimeter is a portable instrument designed to measure transmittance of sample and color measurement.

## SPE73 PORTABLE SPECTROCOLORIMETER

Adopt international common use d/8 SCI/SCE Synthesis technology

Adopt full waveband balanced LED light source

Silicon photodiode array sensor (32 groups with double rows)

A variety of color space, a variety of observation light sources

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Ergonomic design and easy measuring device

Pass the Calibration Certificate

ETC real-time calibration technology

Camera locating can clearly observe the measured area

Color management software

## SPECIFICATIONS

Model	SPE73-400		SPE73-400A		SPE73-700	SPE73-700A
Optical Geometry	D/8° diffused illumination, 8-direction reception			D/8°		D/8° diffused illumination, 8-direction reception
Standards compliant	Comply to CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7				-	-
Integrating Sphere Size	Φ 40mm					
Light source device	Combined LED lamp, UV lamp			Combined LED lamp		
Spectroscopic Method	Flat Grating					
Sensor	Silicon photodiode array ( dual arrow 32 groups)				Silicon photodiode array ( dual arrow 24 groups)	
Light wave range	400-700nm					
Wavelength Pitch	10 nm					
Semi-bandwidth	10 nm				-	-
Measured Reflectance Range	L:0~120; reflectivity:0~200%				L:0~100; reflectivity:The reflectivity can be measured at 3 specific wavelengths specified by the user (default: 440nm, 550nm, 600nm)	L:0~100; reflectivity:The reflectivity can be measured at 1 specific wavelength specified by the user (default: 550nm)
Measuring Aperture	Dual Apertures:MAV:Φ8mm/Φ10mm;SAV:Φ4mm/Φ5mm			Single Apertures:Φ8mm/Φ10mm		Φ8mm
Specular Component	SCI&SCE				SCI	
color space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,βxy,DIN Lab99 Munsell(C/2)				CIE LAB,XYZ,Yxy,Lch	
Color Difference Formula	ΔE*ab,ΔE*uv,ΔE*94,ΔE*cmc(2:1),ΔE*cmc(1:1),ΔE*00, DINΔE99			ΔE*ab,ΔE*94,ΔE*cmc(2:1),ΔE*cmc(1:1),ΔE*00, DINΔE99		ΔE*ab,ΔE*00
Other Colorimetric Index	WI(ASTM E313,CIE/ISO,AATCC,Hunter),YI(ASTM D1925,ASTM 313),Metamerism Index MI,Staining Fastness, Color Fastness, Color Strength, Opacity,Color Card Search				-	-
Observer angle	2° / 10°				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)			D65,A,C,D50,F2(CWF),F7(DLF),F10(TPL5),F11(TL84),F12(TL83/U30)		D65,A,F2(CWF)
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset				Reflectance (the user specifies the reflectivity at 3 specific wavelengths), Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color deviation	Reflectance (the user specifies the reflectivity at 1 specific wavelength), Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color deviation

Displayed Accuracy	0.01		Display 0.1, store 0.01	0.1
Measuring Time	About 1.5s (Measure SCI and SCE about 3.2s)		About 1.5s	
Repeatability	Chromaticity value: MAV/SCI, within ΔE*ab 0.05 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)	Chromaticity value: MAV/SCI, within ΔE*ab 0.06 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)	Chromaticity value: MAV/SCI, within ΔE*ab 0.08 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)	Chromaticity value: MAV/SCI, within ΔE*ab 0.1 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Inter-instrument Error	MAV/SCI, Within ΔE*ab 0.3 (Average for 12 BCRA Series II color tiles)		-	-
Measurement mode	Single Measurement, Average Measurement(2-99times)			
Locating Method	Camera Locating,stabilizer cross position		Stabilizer cross position	
Operating Environment	0~40°C, 0~85%RH (no condensing), Altitude < 2000m			
Storage Environment	-20~50°C, 0~85%RH (no condensing)			
Battery	Li-ion battery, 6000 measurements within 8 hours			
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		USB	USB charging software is not supported
Data Storage	Standard 1000 Pcs, Sample 30000 Pcs(One data is able to include SCI/SCE)	Standard 1000 Pcs, Sample 20000 Pcs(One data is able to include SCI/SCE)	Standard 500 Pcs, Sample 10000 Pcs	
Language	Chinese, English, traditional Chinese			
Dimension	81X71X214mm			
Weight	About 460g			
inter-instrument error	-	-	MAV/SCI, Within ΔE*ab 0.4(Average for 12 BCRA Series II color tiles)	
Standard Accessories	-	-	Power Adapter, data Cable, manual, SQCX quality, management Software(Download from office website), White and Black Calibration box, Protective Cover, Wrist strap, 8mm platform caliber	Power Adapter,data Cable, manual, SQCX quality, management Software(Download from office website), White and Black Calibration Cavity, Protective Cover, Wrist strap, 8mm platform caliber
Optional Accessory	-	-	USB Micro Printer, Powder Test Box	

# LABSTAC

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