



Portable Spectrophotometer LD-LSP-A31

Labodam Equipment Ltd.

info@labodam.com | www.labodam.com

Portable Spectrophotometer LD-LSP-A31

Overview

Portable Spectrophotometer LSP-A31 is adopted with 45/0 geometry (45 ring shaped illumination, 0 degree observation angle), where the standard white board is included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology ensures the accuracy of the color measurement data for the surface of different gloss. Large data storage space up to 20000 samples measurement records. The measurement of the color of the powder, granules and other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Simultaneous gloss and color measurement
- High capacity rechargeable lithium-ion battery
- LED light source for measurement accuracy
- Pre-locating panel design for instrument calibration
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- USB & Bluetooth data transmission
- Large storage capacity
- Connection to mini printer for printing

Applications:

Used in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Sensor	High sensitivity silicon photodiode
Weight	800 g (without battery)
Display	True color TFT touch screen
Dimension	181 × 73 × 112 mm
Interface	USB
Test area	5 × 10 mm
Test angle	60°
Test range	0 to 1000 GU
Color space	CIE- L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, Hunter-lab, Munsell MI, CMYK
Data storage	20000 samples

Illumination	45/0 (45 ring shaped illumination, 0° observation angle)
Light source	A, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, NBF, TL83, TL184, NBF, U35
Reproducibility	1.0 GU (0 to 100 GU), 1.0% (100 to 1000 GU)
UV light source	Not included
Battery capacity	Rechargeable Lithium battery, 20000 continuous measurement tests, 7.4V/600 mAh
Wavelength range	400 nm to 700 nm
Observation angle	2°/10°
Measuring aperture	11 mm
Test repeatability	0.2 GU (0 to 100 GU), 0.2% (100 to 1000 GU)
Wavelength interval	10 nm
Color matching system	Not included
Light source longevity	10 years, 3 million test
Work temperature range	0 to 45°C, relative humidity 80% or below (at 35°C), no condensation
Color difference formula	ΔE^*_{ab} , ΔE^*_{CH} , ΔE^*_{uv} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{94} , ΔE^*_{00} , ΔE_{ab} (Hunter), 555 shade sort
Illumination light source	LED
Inter instrument agreement	0.2 ΔE^*_{ab} (BCRA II color tiles, average test value of 12 tiles)