

SPECIFICATIONS



Patent #US 10,352,767 B2

MEASUREMENT

Measurement Principle:	Dual-beam Non-contact Reflectance Spectrophotometer
Measurement Method:	Port down Non-contact rotating platter
Maximum Sample Height:	140 mm (5.5 in.)
Measurement Duration:	User selectable (5,10,15,30 sec)
Sampling Rate:	Continuous at 7 measurements per second
Measurements per Rotation:	35
Area Measured per Rotation:	177.25 cm ² (27.5 in ²)

TECHNICAL

Spectral Range:	400 nm - 700 nm
Specular Component:	Excluded
Spectral Resolution:	< 3 nm
Effective Bandwidth:	10 nm equivalent triangular
Reporting Interval:	10 nm
Photometric Range:	0 to 150 %
Light Source:	Full spectrum, balanced LED array
LED Life:	5 years typical
Spectrophotometer:	Sealed optics; 256-element diode array; high resolution concave holographic grating
Displayed Height Resolution:	0.1 mm

PERFORMANCE

Inter-Instrument Agreement:	$\Delta E^* < 0.30$ (Avg) on CCSII (BCRA) Tile Set
Colorimetric Repeatability:	$\Delta E^* < 0.025$ (Max) on white tile

USER INTERFACE

Data Views:	EZ View, Color Data Table, Color Plot, Spectral Data, Spectral Plot, Trend Plot
Other Features:	Pass/Fail color indication, time and date stamp, auto-naming, auto-saving, data backup and recovery
Indices and Metrics:	E313 Whiteness Index, Tint, E313 Yellowness Index, D1925 Yellowness Index, Y Brightness, Z%, 457 nm Brightness, Baking Contrast Units, HCCI, SCCA
Color Scales:	CIE L*a*b*, Hunter Lab, CIE L*C*h, CIE Yxy, CIE XYZ
Color Difference Scales:	$\Delta L^*a^*b^*$, ΔLab , ΔL^*C^*h , ΔYxy , ΔXYZ
Color Difference Indices:	ΔE^* , ΔE , ΔE CMC, and ΔE 2000
Data Storage:	8 GB (> 1 million data records)
Illuminants:	A, C, D50, D55, D65, D75, F02, F07, F11, TL84, ULT30, ULT35
Observers:	2° and 10°
Languages:	English, Japanese, and Simplified Chinese (German coming soon)
Display:	Touch screen, high resolution 1280x800
External PC Software:	Compatible with HunterLab EasyMatch QC and EasyMatch QC-Electronic Records Quality Control Software

COMMUNICATIONS I/O

USB OTG:	Connectivity to printer, keyboard, mouse
Front Panel USB:	2.0 bidirectional, data export/import via thumb drive
Ethernet RJ45:	Print directly to standalone or network printers Email directly from the instrument Stream data to LIMS and SPC systems
Remote Access Support:	Enabled via internet-based support tool

PHYSICAL / ELECTRICAL

Sensor Dimensions:	Height: 56 cm (22 in) Width: 38 cm (15 in) Depth: 51 cm (20 in) Weight: 23 kg (50 lbs)
Display:	Touch screen, high resolution color, 7 in, 1280 x 800
Power:	Input: 100 to 240 VAC, 47 to 63 Hz to universal power supply @ 24 VDC (3.75A 90W)
Operating Environment:	4° to 38°C (40° to 100° F), 10 % to 85 % RH, noncondensing
Storage Environment:	-20° to 65°C (-5° to 150° F), 10 % to 90 % RH, noncondensing
System Components:	• Calibrated white tile (NIST Certificate of Traceability) • Black glass standard • Green diagnostic tile • Standards Box • 15.2 cm (6 in) pan / 2.54 cm (1 in) Depth • 30.5 cm (12 in) pan / 2.54 cm (1 in) Depth • 100V - 240V universal power supply • Aeros Quick Start Guide • Aeros User's guide on CD

For more information, please contact HunterLab at 703-471-6870, sales@hunterlab.com or visit www.hunterlab.com