SPECIFICATIONS

Agera®

Patent #US 11,002,676 B2

MEASUREMENT

Measurement Principle:	Dual-beam Reflectance Spectrophotometer / Glossmeter
Geometry Color:	0°/45°c (circumferential) ASTM E1164
Gloss:	60°
Measurement Method:	Port up or Port forward
Read Time:	< 3 sec.
Image Capture:	High-resolution, D65 illuminated, 45°/0° image viewing, image capture and image recall
Port Plate Opening:	**Color:** XL - 53.97 mm (2.125 in), L - 28.57 mm (1.125 in), M - 17.47 mm (0.688 in)
Area Measured:	**Color:** XLAV - 50.80 mm (2 in), LAV - 25.40 mm (1 in), MAV - 15.89 mm (0.625 in) **Gloss:** 8 mm (5/16 in)

TECHNICAL

Illumination Range:	360 nm - 700 nm
Detection 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 %
UV Control:	UV Included and UV Excluded with automated comparative data viewing and reporting. Factory calibrated with user option to calibrate to their specific fluorescent standard.
Light Source:	Full spectrum, balanced LED array
LED Life:	5 years typical
Spectrophotometer:	Sealed optics; 256-element diode array; high resolution concave holographic grating

PERFORMANCE

Inter-Instrument Agreement:	**Color:** ΔE 2000 < 0.20 CIE L*a*b* (Avg) on CCSII (CERAM) Tile Set **Gloss:** 0 - 100 <= 0.5 GU
Repeatability:	**Color:** ΔE 2000 < 0.03 CIE L*a*b* (Max) on white tile **Gloss:** 0 - 100 GU: ≤0.1 GU

Hunter Associates Laboratory Inc., 11491 Sunset Hills Road, Reston, VA 20190-5280
Tel 703.471.6870 • Fax 703.471.4237 • sales@hunterlab.com • www.hunterlab.com

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, ASTM E1349, Gloss: ASTM D523, ASTM D2457, ISO 2813, ISO 7668, JIS Z 8741
Color Scales:	CIE L*a*b*, Hunter Lab, CIE L*C*h, CIE Yxy, CIE XYZ
Color Difference Scales:	ΔL*a*b*, ΔLab, ΔL*C*h, ΔYxy, ΔXYZ
Color Difference Indices:	ΔE*, ΔE, ΔC*, ΔE CMC, ΔE 2000
Data Storage:	8 GB (> 1 million data records with images)
Illuminants:	A, C, D50, D55, D65, D75, F02, F07, F11
Observers:	2° and 10°
Languages:	English, Japanese (German and Simplified Chinese coming soon)
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
External Inputs:	Remote Footswitch or similar closed contact switching device
Remote Access Support:	Enabled via internet-based support tool

PHYSICAL / ELECTRICAL

Sensor Dimensions:	Height: 28 cm (11 in) Width: 22 cm (8.75 in) Depth: 31 cm (12.25 in) Weight: 6.35 kg (14 lb)
Display:	Capacitive touch screen, high-resolution color, 17.8 cm (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:	• Agera sensor • XL - 53.97 mm (2.125 in), L - 28.57 mm (1.125 in), M - 17.47 mm (0.688 in) port plates • Calibrated white tile (NIST Certificate of Traceability) • Calibrated black glass standard used for both color and gloss standardization (ASTM D523, ISO 2813 Certificates of Traceability) • Green diagnostic tile • 100V - 240V universal power supply • Agera Quick Start Guide • Agera User's Guide on CD

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

02/23