SPECIFICATIONS

Agera® L2

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)
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:	**D65 Source Mode:** 0 to 200 % **Agera Classic Mode:** 0 to 150 % **Dark Performance Mode:** 0 to 25 %
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
Standards Conformance:	**Color:** CIE 15:2018, ASTM E1164, DIN 5033, Teil 7 and JIS Z 8722 Condition C; **Gloss 60°:** ASTM D523, ASTM D2457, ISO 2813, ISO 7668, JIS Z 874

PERFORMANCE

Inter-Instrument Agreement:	**Color:** ΔE 2000 < 0.10 CIE L*a*b* (Avg) on CCSII (CERAM) Tile Set **Gloss:** 0 - 100 <= 0.5 GU
Repeatability:	**Color:** ΔE*< 0.03 CIE L*a*b* (Max) on Certified Instrument Standard **Gloss:** 0 - 100 GU: ≤0.1 GU

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USER INTERFACE

Data Views:	EZ View, Color Data Table, Color Plot, Spectral Data, Spectral Plot, Chromaticity Plot
Other Features:	Pass/Fail Color Indication, time and date stamp, Auto-naming, auto-saving, Image Capture via high-resolution camera, average multiple measurements, time-based automatic measurements, data backup and recovery
USB Flash Drive Features:	Data Export: Job Data, Sample Images, Screen Capture and Database
Illuminants:	A, C, D50, D55, D65, D75, F02, F07, F11
Observers:	2° and 10°
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
Indices and Metrics:	E313 Whiteness Index, Ganz Whiteness Index, E313 Tint, Ganz Tint, E313 Yellowness, D1925 Yellowness Index, Y Brightness, Z%, 457 nm Brightness, Baking Contrast Units, ASTM E1349, ASTM D7843, ISO 18314-3 Blackness (My, Mc, dM) and Greyness (Gy, Gc, dG)
Color Difference Indices:	ΔE*, ΔE, ΔC*, ΔE CMC, ΔE 2000, dC*, dH*, Strength at Max. Absorbance, Strength weighted, Metamerism, Grey Scale Color, Grey Scale Stain, Shade Number 555
Languages:	Supports multiple languages—with the option to add more as needed
Data Storage:	32 GB (> 4 million data records with images)
FDA Title 21 CFR Part 11:	Electronic Records and Electronic Signatures

COMMUNICATIONS I/O

USB Connections:	Connectivity to printer, keyboard, mouse- Front panel (1); Rear panel (2)
Ethernet RJ45:	Print directly to standalone or network printers 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: 7.7 kg (17 lb)
Display:	7"Capacitive touch screen, high-resolution (1280 x 800)
Interface:	3 USB ports, HDMI Video Output, Foot switch Input, Ethernet connection, USB Service Port, Convenient physical measurement/action button
Power:	Input: 100 to 240 VAC, 47 to 63 Hz to universal power supply @ 24 VDC (3.75A 90W)
Operating Environment:	10° to 40° C (50° to 104° F), 10 % to 90 % RH, noncondensing
Storage Environment:	-20° to 65° C (-5° to 150° F), 10 % to 90 % RH, noncondensing
System Components:	• Agera L2 sensor • XL - 53.97 mm (2.125 in), L - 28.57 mm (1.125 in), M - 17.47 mm (0.688 in) port plates • Certified Instrument Standard with NIST Certificate of Traceability • Black Glass Standard used for both color and gloss standardization • Diagnostic Check Standard • Agera L2 Quick Start Guide • 100V - 240V Universal Power Supply • Agera L2 User's Manual (electronic)

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

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