

# SPECIFICATIONS

**Aeros**®

Patent #US 10,352,767 B2

## MEASUREMENT

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

## TECHNICAL

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

## PERFORMANCE

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

## USER INTERFACE

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

## COMMUNICATIONS I/O

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

## PHYSICAL / ELECTRICAL

<b>Sensor Dimensions:</b>	Height: 56 cm (22 in) Width: 38 cm (15 in) Depth: 51 cm (20 in) Weight: 23 kg (50 lbs)
<b>Display:</b>	Touch screen, high resolution color, 7 in, 1280 x 800
<b>Power:</b>	Input: 100 to 240 VAC, 47 to 63 Hz to universal power supply @ 24 VDC (3.75A 90W)
<b>Operating Environment:</b>	4° to 38°C (40° to 100° F), 10 % to 85 % RH, noncondensing
<b>Storage Environment:</b>	-20° to 65°C (-5° to 150° F), 10 % to 90 % RH, noncondensing
<b>System Components:</b>	<ul style="list-style-type: none"><li>• Calibrated white tile (NIST Certificate of Traceability)</li><li>• Black glass standard</li><li>• Green diagnostic tile</li><li>• Standards Box</li><li>• 15.2 cm (6 in) pan / 2.54 cm (1 in) Depth</li><li>• 30.5 cm (12 in) pan / 2.54 cm (1 in) Depth</li><li>• 100V - 240V universal power supply</li><li>• Aeros Quick Start Guide</li><li>• Aeros User's guide on CD</li></ul>

For more information, please contact HunterLab at 703-471-6870, [sales@hunterlab.com](mailto:sales@hunterlab.com) or visit [www.hunterlab.com](http://www.hunterlab.com)