

# SPECIFICATIONS

## ColorQuest® XT

### Measurement

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<b>Measurement Principle:</b>	Dual-beam spectrophotometer
<b>Geometry:</b>	Diffuse d/8° total transmission, d/0° regular transmission
<b>Spectrophotometer:</b>	256 element diode array and high resolution, concave holographic grating
<b>Sphere Diameter:</b>	152 mm (6 in.)
<b>Sphere Coating:</b>	Spectrafect™
<b>Port Size/Measured Area:</b>	
Port Diameter/View Diameter in TTRAN transmittance modes	
Large Area View (LAV):	25 mm (1 in) illuminated/17.4 mm (0.69 in) measured
Port Diameter/View Diameter in RTRAN transmittance mode	
Large Area View (LAV):	17 mm (0.67 in) illuminated/17 mm (0.67 in) measured
<b>Spectral Range:</b>	400 nm - 700 nm
<b>Wavelength Resolution:</b>	< 3 nm
<b>Effective Bandwidth:</b>	10 nm equivalent triangular
<b>Reporting Interval:</b>	10 nm
<b>Photometric Range:</b>	0 to 200 %
<b>Photometric Resolution:</b>	0.003 % (0.01 % reported)
<b>Light Source:</b>	Pulsed Xenon lamp, filtered to approximate D65 daylight
<b>Flashes per Measurement:</b>	1 flash
<b>Lamp Life:</b>	> 1,000,000 flashes, user-replaceable
<b>Measurement Time:</b>	< 1 second
<b>Minimum Interval between Measurements:</b>	< 3 seconds
<b>Transmission Modes:</b>	Total (TTRAN) and Regular (RTRAN)
<b>Transmission Compartment:</b>	Large and open on 3 sides 10.2 cm D X 35.6 cm W x 16.5 cm H (4 in. D x 14 in. W x 6.5 in. H)

### Standards Conformance

Transmittance:	CIE 15:2004, ASTM E1164, DIN 5033 Teil 7 and JIS Z 8722 Condition E, G
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## Performance

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<b>Colorimetric Repeatability:</b> (20 readings)	< 0.05 $\Delta E^*$ on air
<b>Spectral Repeatability:</b>	Standard deviation within 0.1 %
<b>Inter-instrument Agreement:</b>	$\Delta E^* < 0.15$ CIE L*a*b* (Avg) (Transmission Filter Set) $\Delta E^* < 0.25$ CIE L*a*b* (Max) (Transmission Filter Set)

## Firmware

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<b>Illuminant/Observer:</b>	D65/10° and C/2°
<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>	$\Delta E^*$ , $\Delta E$ , $\Delta E_{cmc}$
<b>Indices and Metrics:</b>	APHA / PtCo/ Hazen, ASTM Color, Saybolt, Gardner, YI E313 Yellowness, ADMI, EBC, ASBC, CIE Y Transmission
<b>Other:</b>	Spectral Data (%T and Absorbance), Spectral Plot (%T and Absorbance)

## Physical / Electrical

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<b>Dimensions:</b>	Height: 49.5 cm (19.5 in.) Width: 42.0 cm (16.5 in.) Depth: 49.8 cm (19.6 in.) Weight: 20.4 kg (45 lbs)
<b>Power:</b>	100 to 240 VAC, 47 to 63 Hz 60 watts passive, 120 watts continuous use
<b>Printer Output:</b>	RS-232C serial, 9,600 baud, DB9 (female) terminal
<b>Operating Environment:</b>	10 to 40° C (50 to 104° F), 10 % to 90 % RH, noncondensing
<b>Storage Environment:</b>	-21 to 66° C (-5 to 150° F), 10 % to 90 % RH, noncondensing
<b>Standard Accessories:</b>	<ul style="list-style-type: none"><li>• Didymium diagnostic filter</li><li>• Transmittance zero calibration plate</li><li>• USB-to-Serial adapter</li><li>• Power cord</li><li>• Certificate of compliance</li><li>• ColorQuest XT User's manual</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)

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