

SPECIFICATIONS

ColorQuest® XE

Measurement

Measurement Principle:	Dual-beam spectrophotometer
Geometry:	d/8° reflectance, d/8° total transmission, d/0° regular transmission
Spectrometer:	256 element diode array and high resolution, concave holographic grating
Sphere Diameter:	152 mm (6 in)
Sphere Coating:	Spectrafect™ for sphere, Duraflect™ for port plate and specular exclusion door
Port Size/Measured Area:	
Port Diameter/View Diameter in RSIN/RSEX reflectance modes	
Large Area View (LAV):	25 mm (1 in) illuminated/19 mm (0.75 in) measured
Small Area View (SAV):	9.5 mm (0.375 in) illuminated/6 mm (0.25 in) measured
Port Diameter/View Diameter in TTRAN transmittance modes	
Large Area View (LAV):	25 mm (1 in) illuminated/17.4 mm (0.685 in) measured
Small Area View (SAV):	25 mm (1 in) illuminated/10 mm (0.40 in) measured
Port Diameter/View Diameter in RTRAN transmittance mode where lens is field stop for all areas of view	
Large Area View (LAV):	17 mm (0.67 in) illuminated/17 mm (0.67 in) measured
Small Area View (SAV):	17 mm (0.67 in) illuminated/17 mm (0.67 in) measured
Lens Switching for LAV/SAV:	Automatic
Specular Component:	Automated Included (RSIN) or Excluded (RSEX) in reflectance
Spectral Range:	400 nm - 700 nm
Wavelength Resolution:	< 3 nm
Effective Bandwidth:	10 nm equivalent triangular
Reporting Interval:	10 nm
Photometric Range:	0 to 200%
Photometric Resolution:	0.003% (0.01% reported)

Light Source:	Pulsed Xenon lamp, filtered to approximate D65
Lamp Life:	> 1,000,000 flashes, user replaceable
Transmission Modes:	Regular (RTRAN) and Total (TTRAN)
Transmission Compartment:	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	
Reflectance:	CIE 15:2004, ISO7724/1, ASTM E 1164, DIN 5033 Teil 7 and JIS Z 8722 Condition C
Transmittance:	CIE 15:2004, ASTM E 1164, DIN 5033 Teil 7 and JIS Z 8722 Condition E, G Haze conformance per ASTM D1003 Section 8. Procedure B Spectrophotometer
Standards Traceability:	Instrument standard assignment in accordance with National Physical Laboratory (NPL) following practices described in CIE Publication 44 and ASTM E259

Performance

Colorimetric Repeatability: (20 readings)	$\leq 0.03 \Delta E^*$ CIELab on white tile in LAV and SAV modes $\leq 0.05 \Delta E^*$ CIELab on blue denim tile in LAV and SAV modes
Spectral Repeatability:	Standard deviation within 0.1% in LAV and SAV modes
Inter-instrument Agreement:	$\Delta E^* \leq 0.15$ CIELab (Avg) on BCRA II Tile Set $\Delta E^* \leq 0.25$ CIELab (Max) on BCRA II Tile Set

Physical / Electrical

Dimensions:	Height: 27.9 cm (11.0 in) Width: 42.0 cm (16.5 in) Depth: 49.8 cm (19.6 in) Weight: 20.4 kg (45 lb)
Power:	100 to 240 VAC, 47 to 63 Hz 60 watts passive, 120 watts maximum
Interface:	RS-232C serial, 9,600 baud, DB9 (female) terminal
Operating Environment:	10 to 40° C (50 to 104° F), 10 to 90% RH, noncondensing
Storage Environment:	-21 to 66° C (-5 to 150° F), 10 to 90% RH, noncondensing
Standard Accessories:	<ul style="list-style-type: none"> • White calibration tile • Certificate of traceability • Black calibration light trap • Green check tile • Wavelength check filter • Transmittance zero calibration plate • Reflectance sample clamp • LAV and SAV aperture ports • RS-232C cable • Power cord
Instrument Option:	Touch Screen Display

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

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Specifications subject to change without notice