



Lumitec
1405 Poinsettia Drive, Suite 10
Delray Beach, FL 33444

Report No: 780112-C

Date: June 25, 2019

Model: Lumitec SeaBlaze Quattro

Model Numbers: 101459, 101460, 101510, 101511

Test: Electrical and Photometric tests

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products

Description of Sample:
Lumitec SeaBlaze Quattro Underwater Light

Testing Condition:
Testing environment was adjusted to allow light to perform at full power through all sample orientations

Date of Tests: 12/19/2017 and 6/25/2019

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment Used	Model Number
1m Integrating Sphere, Labsphere	AS-80000-100
Calibration Lamp Power Supply	LPS-150-0268
Auxiliary Lamp Power Supply	LPS-100-0625
Labsphere Spectrometer	CDS-610
Calibration Lamp	ICS-1400
Auxiliary Lamp	IHLS-100-75
Fluke Meter	1587
UDT Instruments Photometer	3211
Gamma Scientific Goniometer	940LED-1200

Test Summary	
Manufacture	Lumitec Lighting LLC
Model Numbers	101459, 101460, 101510, 101511
Total Lumens White ¹	2393
Input Voltage (VDC)	12
Input Current (Amp)	2.246
Input Power (W)	26.95
Input Power Factor	N/A
Current ATHD @ 120VAC (%)	N/A
Current ATHD @ 277VAC (%)	N/A
Efficacy (lumens/watt)	89
Color Rendering Index (CRI)	68.9
Correlated Color Temperature (K)	6521
Chromaticity Coordinate x, y	.3133, .3219
Ambient Temperature (°C)	25
Total Lumens Blue ²	463
Total Scotopic Lumens Blue ²	6040
Dominant Blue Wavelength (nm)	473
Total Lumens Green ³	975 (Available on 101460 and 101510 models)
Dominant Green Wavelength (nm)	521
Total Lumens Red ⁴	451 (Available on 101460 and 101510 models)
Dominant Red Wavelength (nm)	628.1

¹ Maximum integrating sphere measured lumens and power measured within 1 minute of initial startup

² Maximum lumen output measured at lowest dominant wavelength

³ Maximum lumen output measured between 520nm and 540nm

⁴ Maximum lumen output measured at highest dominant wavelength



Figure 1: Luminaire

Photometric Test Data for all Optic Configurations

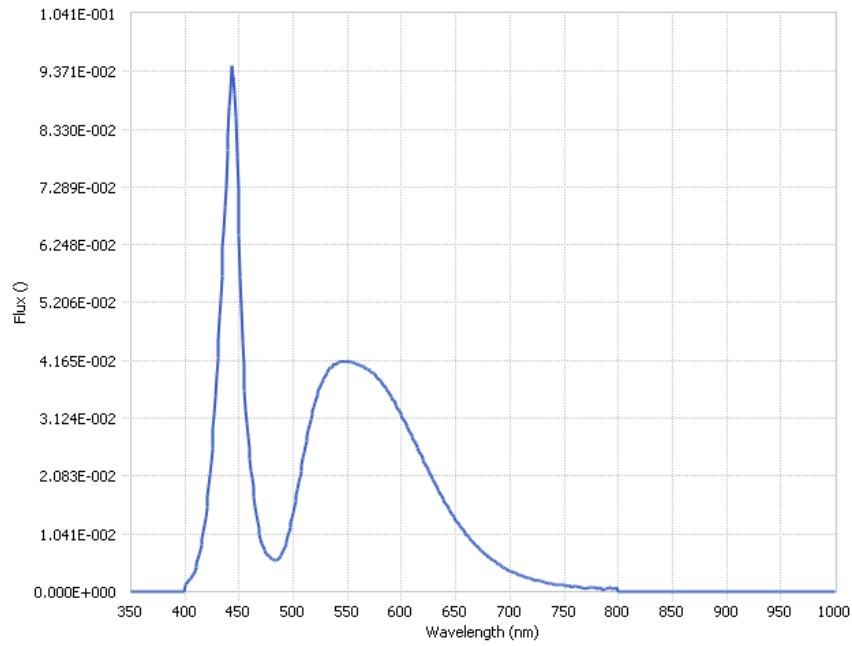


Figure 2: Spectral Power for all model numbers (White Output only)

Photometric Test Data

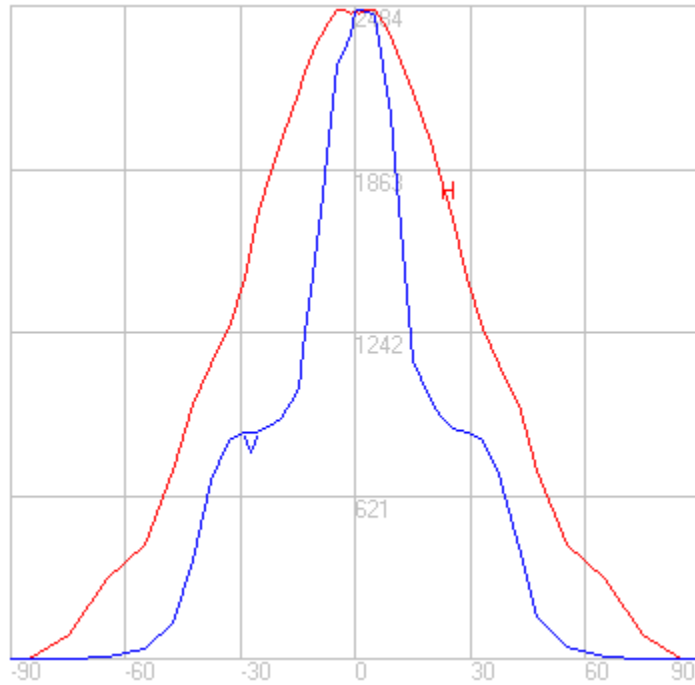


Figure 3: Axial candela plot

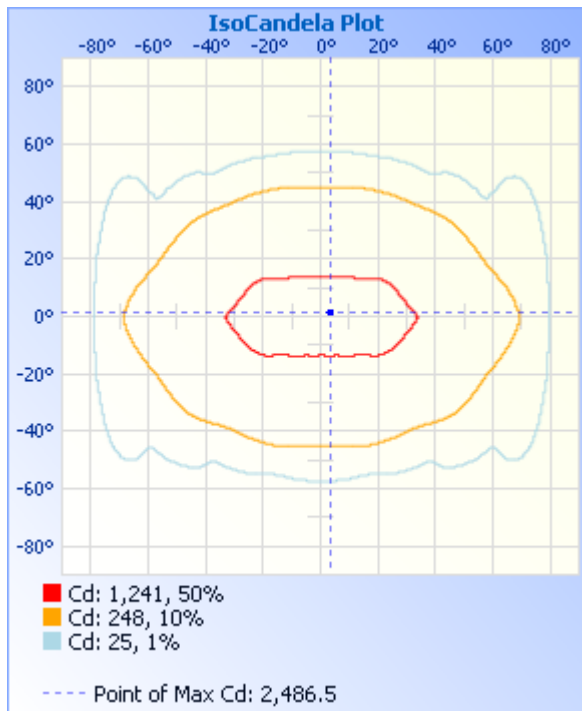


Figure 4: IsoCandela plot

	Illuminance at a Distance	
	Center Beam fc	Beam Width
4.3ft	133 fc	2.1 ft 5.5 ft
8.7ft	32.5 fc	4.3 ft 11.2 ft
13.0ft	14.6 fc	6.4 ft 16.8 ft
17.3ft	8.23 fc	8.5 ft 22.3 ft
21.7ft	5.23 fc	10.7 ft 28.0 ft
26.0ft	3.64 fc	12.8 ft 33.5 ft

■ Vert. Spread: 27.7°
 ■ Horiz. Spread: 65.6°

Figure 5: Illuminance at distance for center of beam (50% of max candela)

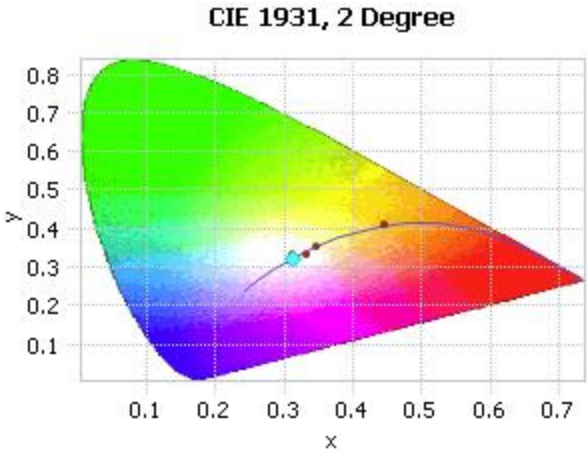


Figure 6: CIE Diagram

Test Methods

Photometric Measurements – Goniophotometer

A Type C Goniophotometer with horizontal optical axis was used to measure candelas (intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C. Secondary device used to increase airflow allowing for light to stabilize at maximum rated light output throughout testing

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A spectrometer, in conjunction with a LabSphere 1 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature (CCT and the color rendering index (CRI) for each sample.

Measurements were taken within 1 minute of initial startup

Electrical measurements are taken using the listed equipment.

Report Prepared by: Stephan Williamson

Test Report Released by:

Test Report Reviewed by: