



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L081911904



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Issue Date: 8/30/2019

Report Prepared For: Beachside Lighting
905 Kalaniana'ole Hwy., #2901, Kailua, HI 96734 USA

Model Number: E16-7W-A-NFL

Test: Photometric/Colorimetric/Electrical Test

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
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Special Test Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 8/21/19

Date of Tests: 8/28/19 - 8/30/19

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

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	1/9/21
BK PRECISION	1747	PS-DC04	1/10/21
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/21
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

General Information

Manufacturer:	Beachside Lighting
Model Number:	E16-7W-A-NFL
Driver Model Number:	N/A

Test Summary

Total Lumens:	167.22
Efficacy:	21.99
Color Redering Index:	-19.7
Correlated Color Temperature:	1479
Input Voltage (VAC/60Hz):	12.02
Input Current (Amp):	0.8012
Input Power (W):	7.61
Input Power Factor:	0.7899
Current ATHD (%):	57.5%

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:40
Total Operating Time (Hours):	2:10

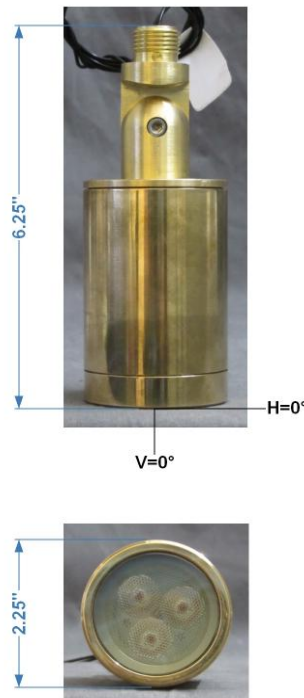
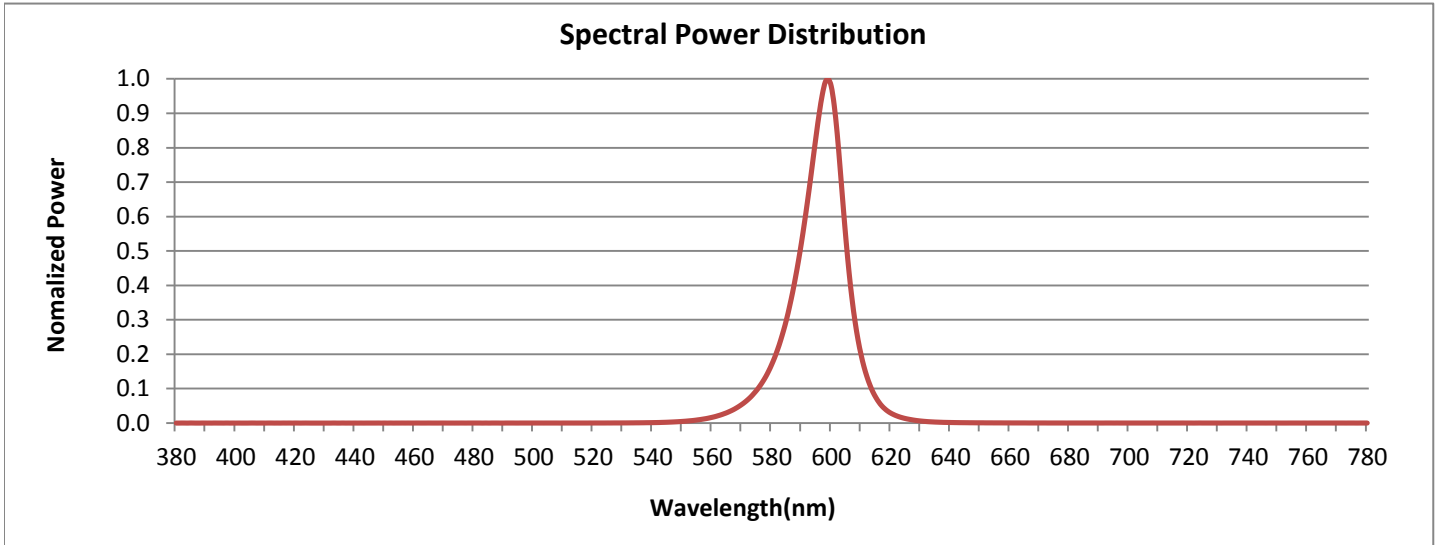


FIG. 1 LUMINAIRE

Colorimetry Test Results

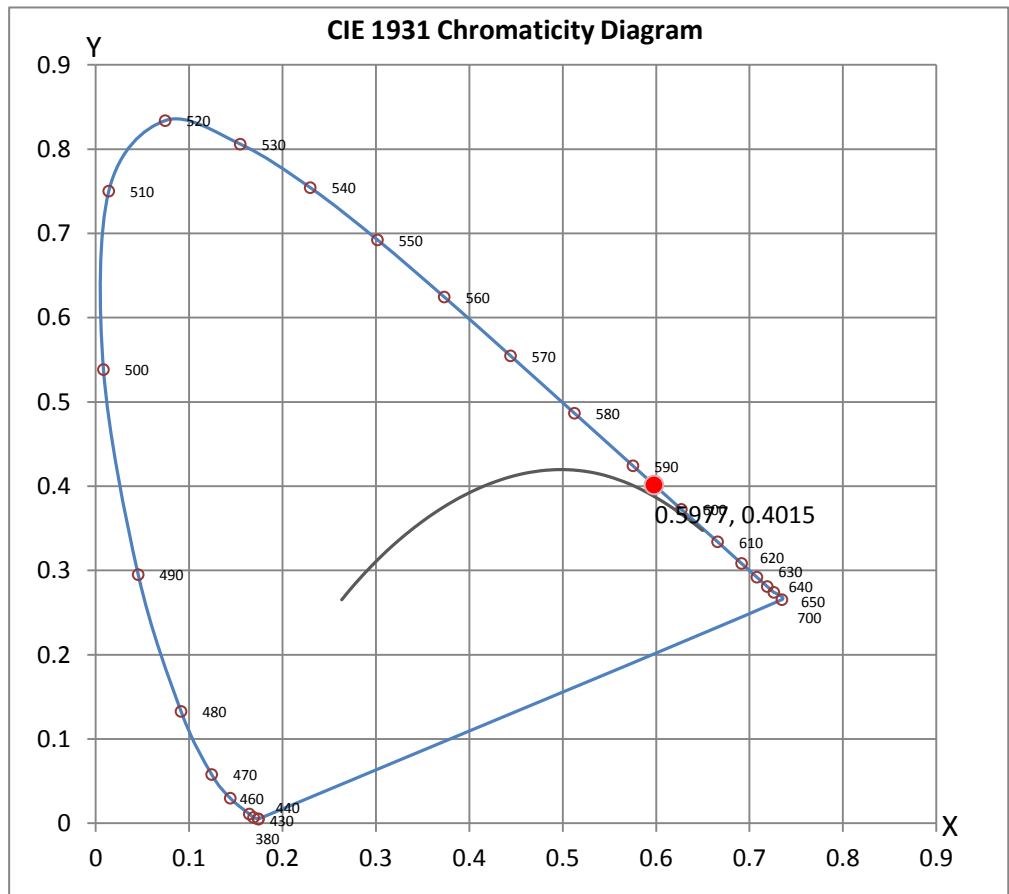


CRI & CCT

x	0.5977
y	0.4015
u'	0.3610
v'	0.5456
CRI	-19.70
CCT	1479
Duv	0.00949

R Values

R1	-32.15
R2	53.64
R3	17.80
R4	-64.31
R5	-36.65
R6	49.14
R7	-9.71
R8	-135.14
R9	-377.12
R10	32.38
R11	-89.20
R12	1.92
R13	-13.47
R14	46.87
R15	-64.64



Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer 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 and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Dennis Malonzo

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports. Total number of pages: 8*



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Photometric Test Report

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081911904.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L081911904
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
 [ISSUEDATE] 8/30/2019
 [MANUFAC] Beachside Lighting
 [LUMCAT] E16-7W-A-NFL
 [LUMINAIRE] E16 Fixture with 7watt AMBER Narrow Flood Optic
 [BALLASTCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 12.02VAC, 7.61W
 [TEST PROCEDURE] IESNA:LM-79-08

Note: Candela values converted from Type-C to Type-B

CHARACTERISTICS

NEMA Type	4 H x 4 V
Maximum Candela	587.84
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	29.1
Vertical Beam Angle (50%)	29.1
Horizontal Field Angle (10%)	48.8
Vertical Field Angle (10%)	48.8
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	88
Beam Efficiency	N.A.
Field Lumens	140
Field Efficiency	N.A.
Spill Lumens	27
Luminaire Lumens	167
Total Efficiency	N.A.
Total Luminaire Watts	7.61
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081911904.IES

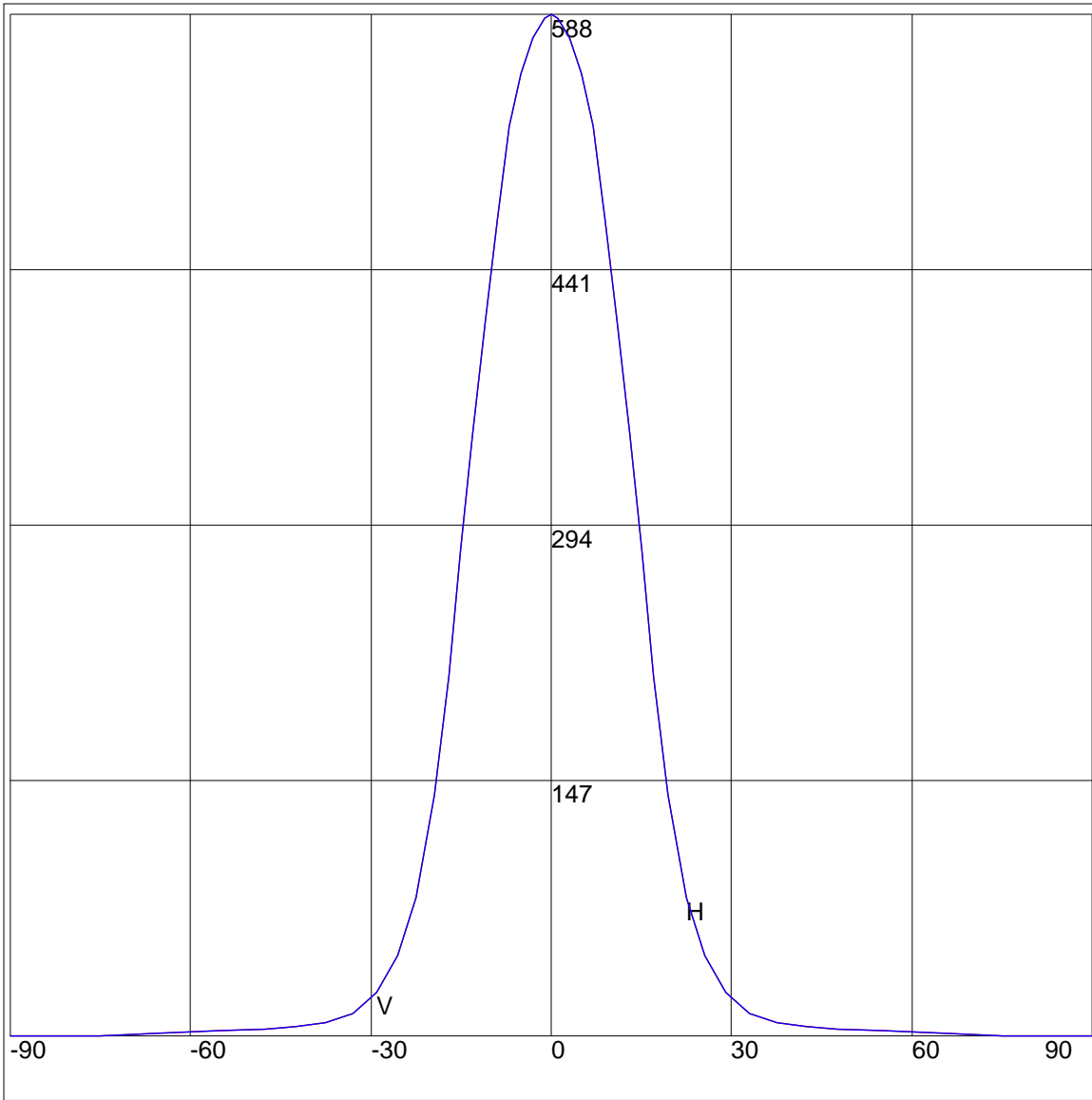
AXIAL CANDELA

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	.29	85	.29
75	.73	75	.73
65	1.55	65	1.55
55	3.07	55	3.07
47.5	4.5	47.5	4.5
42.5	5.88	42.5	5.88
37.5	8.03	37.5	8.03
33	13.04	33	13.04
29	25.52	29	25.52
25.5	46.58	25.5	46.58
22.5	80.2	22.5	80.2
19.5	139.1	19.5	139.1
17	207.21	17	207.21
15	279.52	15	279.52
13	345.39	13	345.39
11	412.19	11	412.19
9	469.85	9	469.85
7	523.8	7	523.8
5	554.12	5	554.12
3	574.59	3	574.59
1	585.51	1	585.51
0	587.84	0	587.84
-1	585.51	-1	585.51
-3	574.59	-3	574.59
-5	554.12	-5	554.12
-7	523.8	-7	523.8
-9	469.85	-9	469.85
-11	412.19	-11	412.19
-13	345.39	-13	345.39
-15	279.52	-15	279.52
-17	207.21	-17	207.21
-19.5	139.1	-19.5	139.1
-22.5	80.2	-22.5	80.2
-25.5	46.58	-25.5	46.58
-29	25.52	-29	25.52
-33	13.04	-33	13.04
-37.5	8.03	-37.5	8.03
-42.5	5.88	-42.5	5.88
-47.5	4.5	-47.5	4.5
-55	3.07	-55	3.07
-65	1.55	-65	1.55
-75	.73	-75	.73
-85	.29	-85	.29
-90	0	-90	0

ZONAL LUMEN SUMMARY

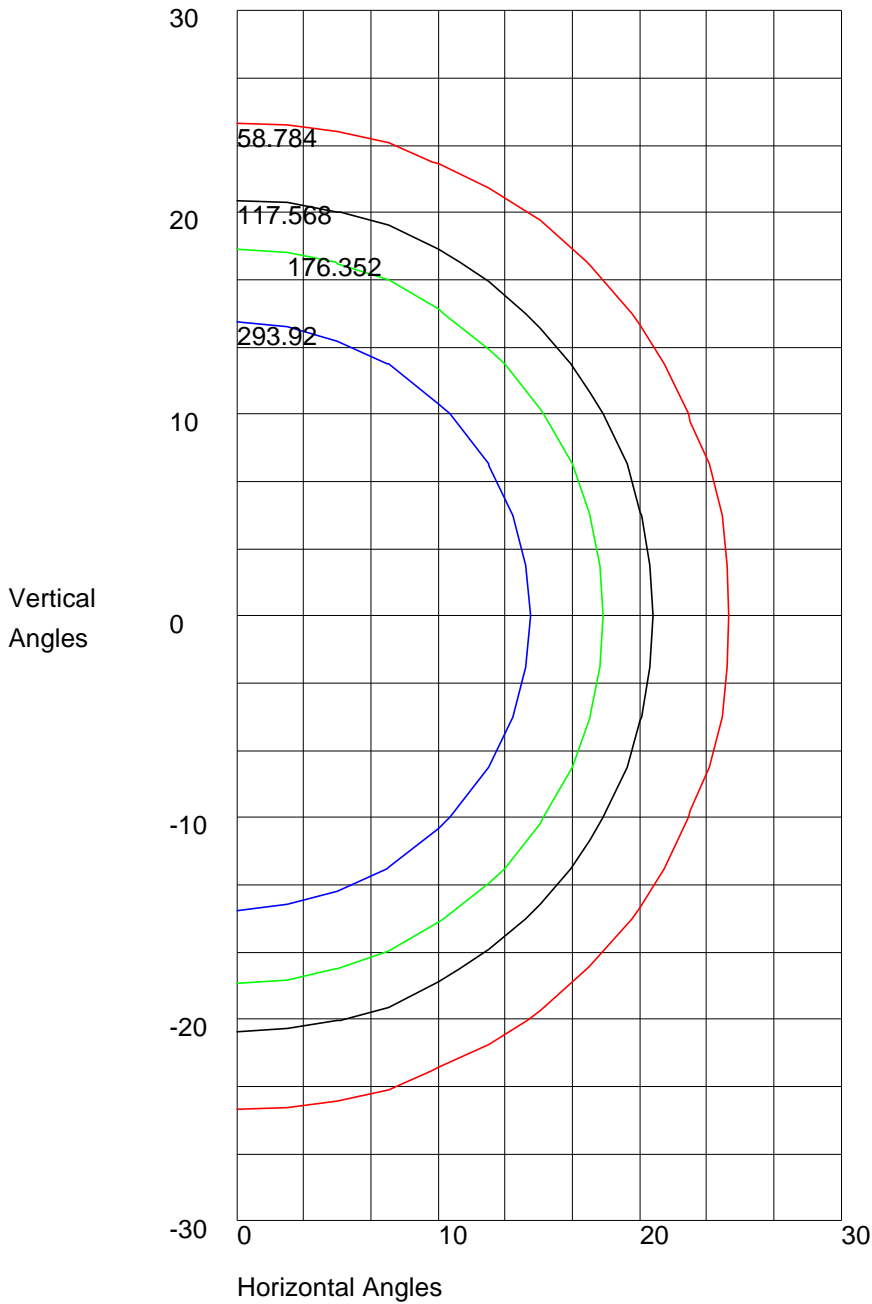
Zone	%
0-20	72.5
0-30	89.1
0-40	93.5
0-60	97.6
0-80	99.6
0-90	100
10-90	75.4
20-40	21
20-50	23.6
40-70	5.4
60-80	2
70-80	0.7
80-90	0.4
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY



Maximum Candela = 587.84 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 587.84 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 293.92
10% Maximum Candela = 58.784