



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

Report No: L021904310



**Report No:** L021904310

**Issue Date:** 3/5/2019

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

**Model Number:** L-016F-5W-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:** 2/13/19

**Date of Tests:** 3/4/19 - 3/5/19

**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**

<b>Manufacturer:</b>	Beachside Lighting
<b>Model Number:</b>	L-016F-5W-A-NFL
<b>Driver Model Number:</b>	CLASS H. TRANSFORMER TJ-H-120-50-1

**Test Summary**

<b>Total Lumens:</b>	83.30
<b>Efficacy:</b>	12.49
<b>Color Redering Index:</b>	-15.6
<b>Correlated Color Temperature:</b>	1403
<b>Input Voltage (VAC/60Hz):</b>	119.99
<b>Input Current (Amp):</b>	0.0846
<b>Input Power (W):</b>	6.67
<b>Input Power Factor:</b>	0.6571
<b>Current ATHD (%):</b>	60.0%

**Test Condition**

<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	1:30
<b>Total Operating Time (Hours):</b>	2:05

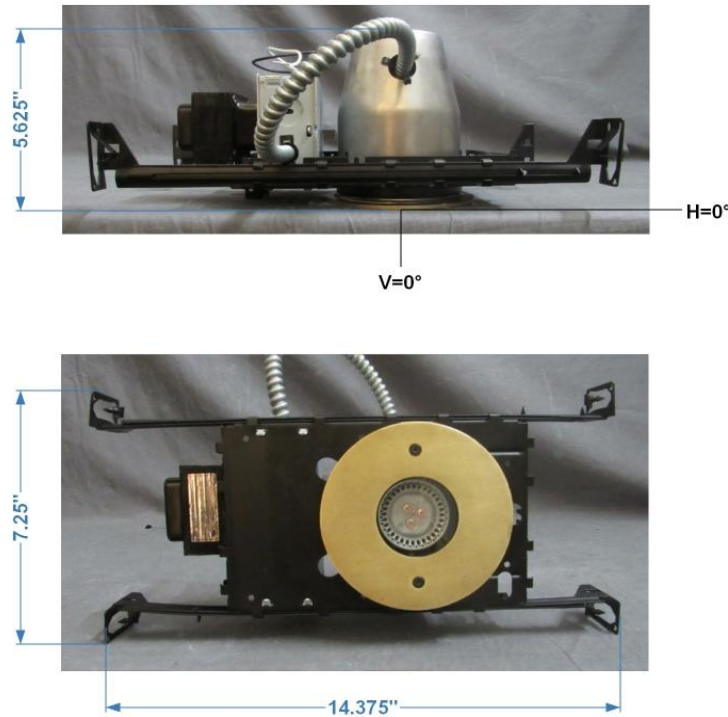
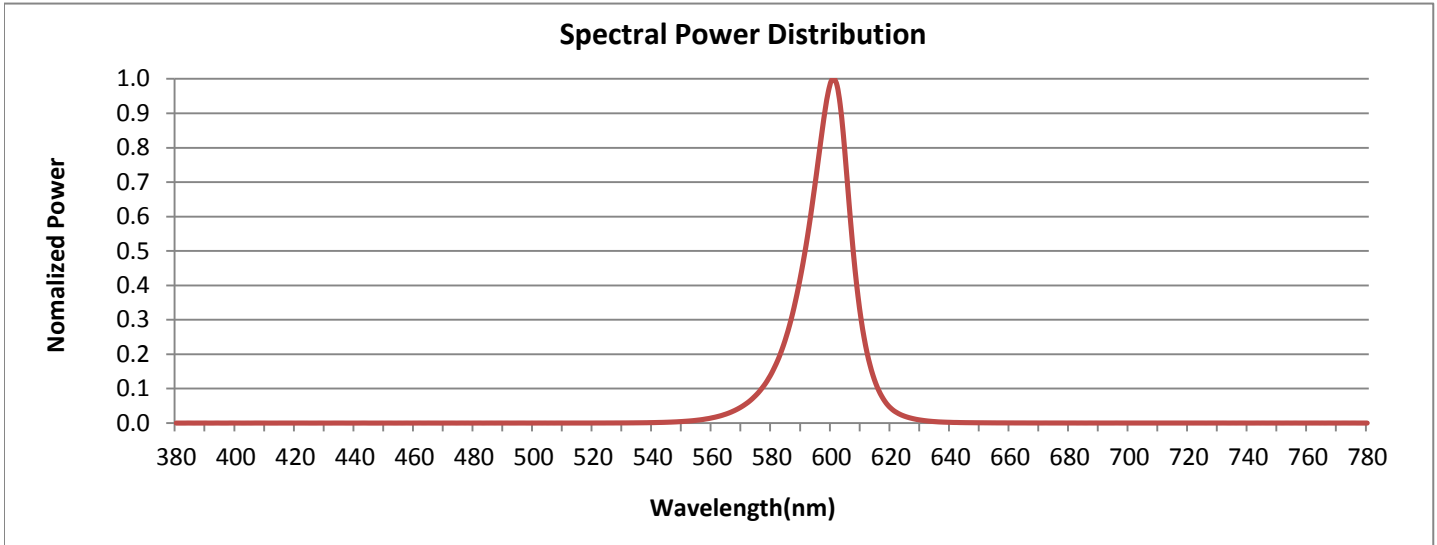


FIG. 1 LUMINAIRE

**Colorimetry Test Results**

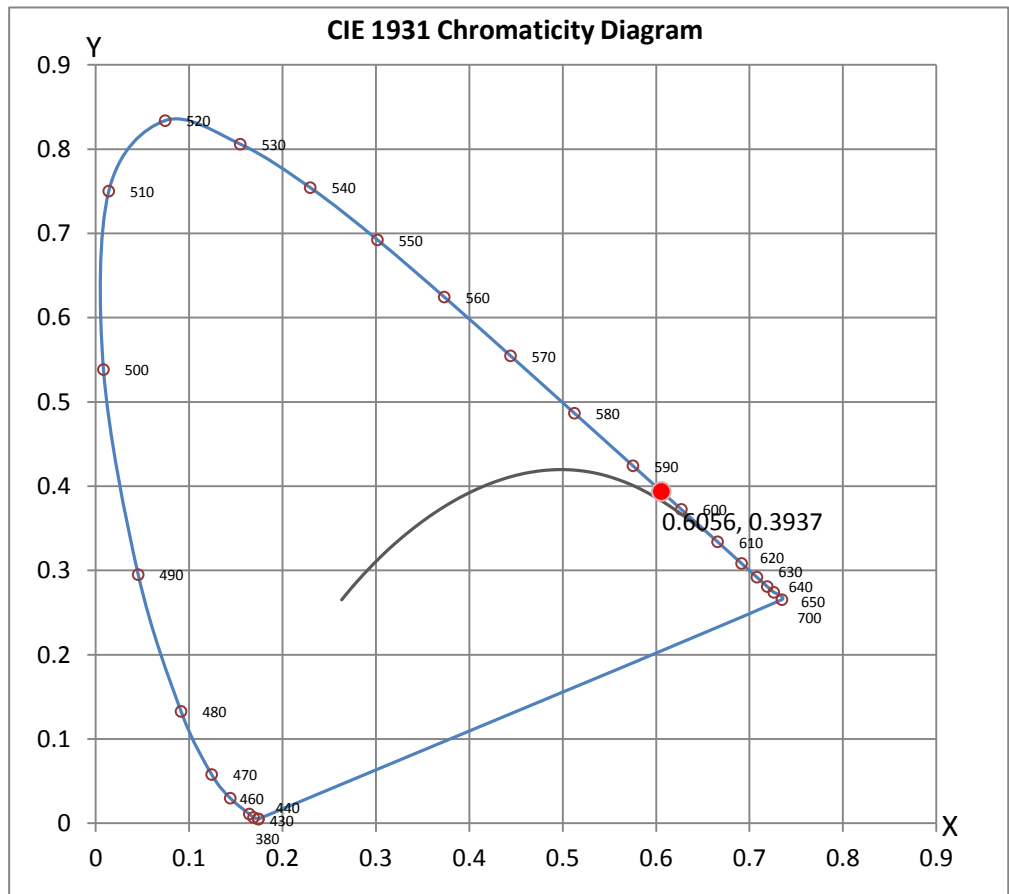


**CRI & CCT**

x	0.6056
y	0.3937
u'	0.3719
v'	0.5440
CRI	-15.60
CCT	1403
Duv	0.01225

**R Values**

R1	-26.33
R2	56.89
R3	18.36
R4	-59.08
R5	-31.33
R6	56.11
R7	-9.11
R8	-130.31
R9	-357.58
R10	37.80
R11	-80.66
R12	13.40
R13	-7.75
R14	48.02
R15	-60.00



## 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*



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

# Photometric Test Report

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L021904310.IES**

## DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L021904310  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUEDATE] 03/05/2019  
[MANUFAC] Beachside Lighting  
[LUMCAT] L-016F-5W-A-NFL  
[LUMINAIRE] L-016 Recessed Ceiling 5W MR16, Narrow Flood, Amber.  
[BALLASTCAT] CLASS H. TRANSFORMER TJ-H-120-50-1  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 119.99VAC, 6.67W  
[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	285.63
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	27.3
Vertical Beam Angle (50%)	27.3
Horizontal Field Angle (10%)	52.5
Vertical Field Angle (10%)	52.5
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	36
Beam Efficiency	N.A.
Field Lumens	69
Field Efficiency	N.A.
Spill Lumens	14
Luminaire Lumens	83
Total Efficiency	N.A.
Total Luminaire Watts	6.67
Ballast Factor	1.00

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L021904310.IES**

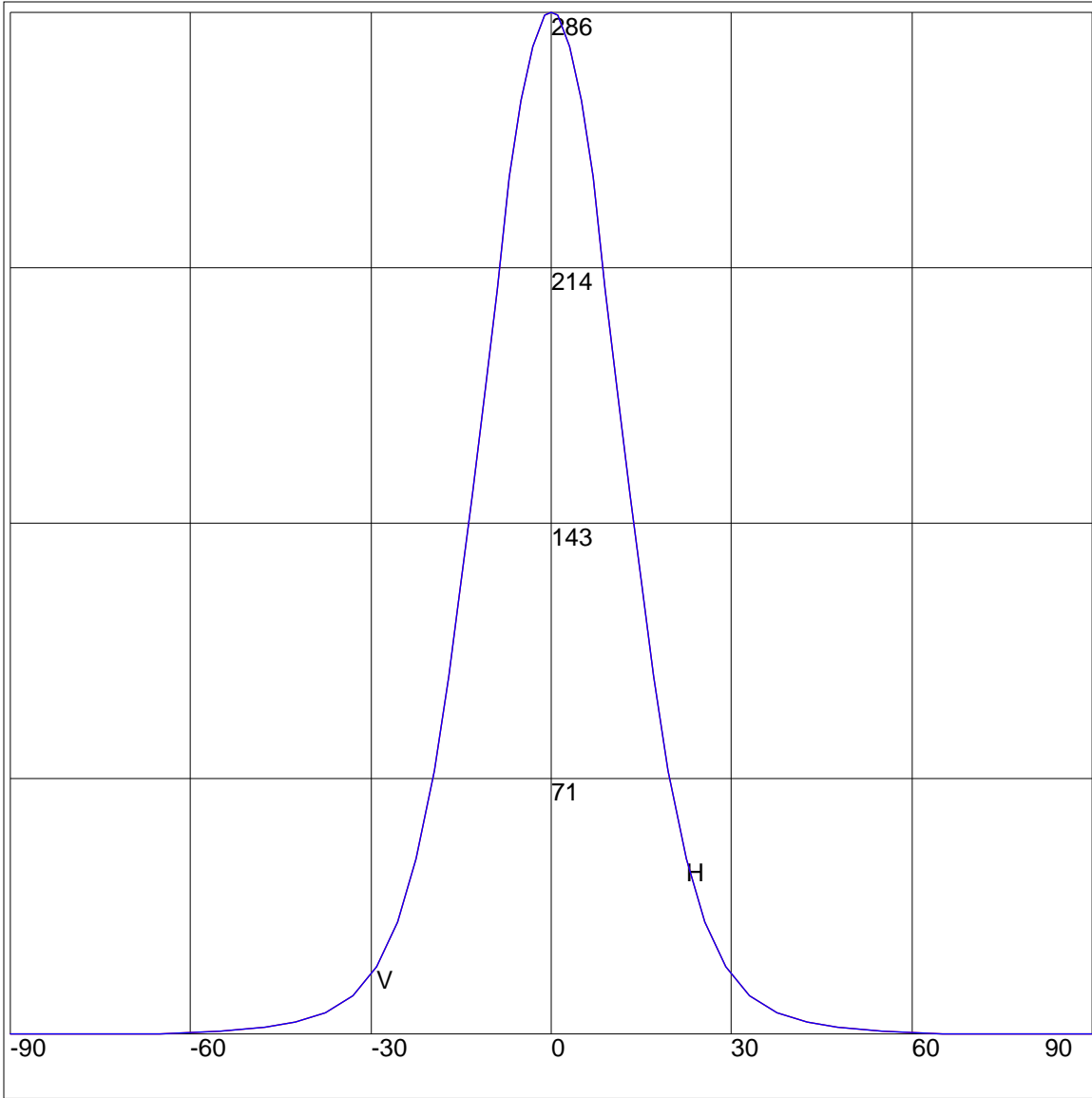
**AXIAL CANDELA**

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	0	85	0
75	.232	75	.232
65	.351	65	.351
55	1.012	55	1.012
47.5	2.189	47.5	2.189
42.5	3.558	42.5	3.558
37.5	6.122	37.5	6.122
33	10.671	33	10.671
29	18.782	29	18.782
25.5	31.277	25.5	31.277
22.5	48.956	22.5	48.956
19.5	73.833	19.5	73.833
17	100.304	17	100.304
15	125.592	15	125.592
13	150.826	13	150.826
11	180.629	11	180.629
9	208.235	9	208.235
7	239.657	7	239.657
5	261.161	5	261.161
3	275.902	3	275.902
1	284.807	1	284.807
0	285.63	0	285.63
-1	284.807	-1	284.807
-3	275.902	-3	275.902
-5	261.161	-5	261.161
-7	239.657	-7	239.657
-9	208.235	-9	208.235
-11	180.629	-11	180.629
-13	150.826	-13	150.826
-15	125.592	-15	125.592
-17	100.304	-17	100.304
-19.5	73.833	-19.5	73.833
-22.5	48.956	-22.5	48.956
-25.5	31.277	-25.5	31.277
-29	18.782	-29	18.782
-33	10.671	-33	10.671
-37.5	6.122	-37.5	6.122
-42.5	3.558	-42.5	3.558
-47.5	2.189	-47.5	2.189
-55	1.012	-55	1.012
-65	.351	-65	.351
-75	.232	-75	.232
-85	0	-85	0
-90	0	-90	0

**ZONAL LUMEN SUMMARY**

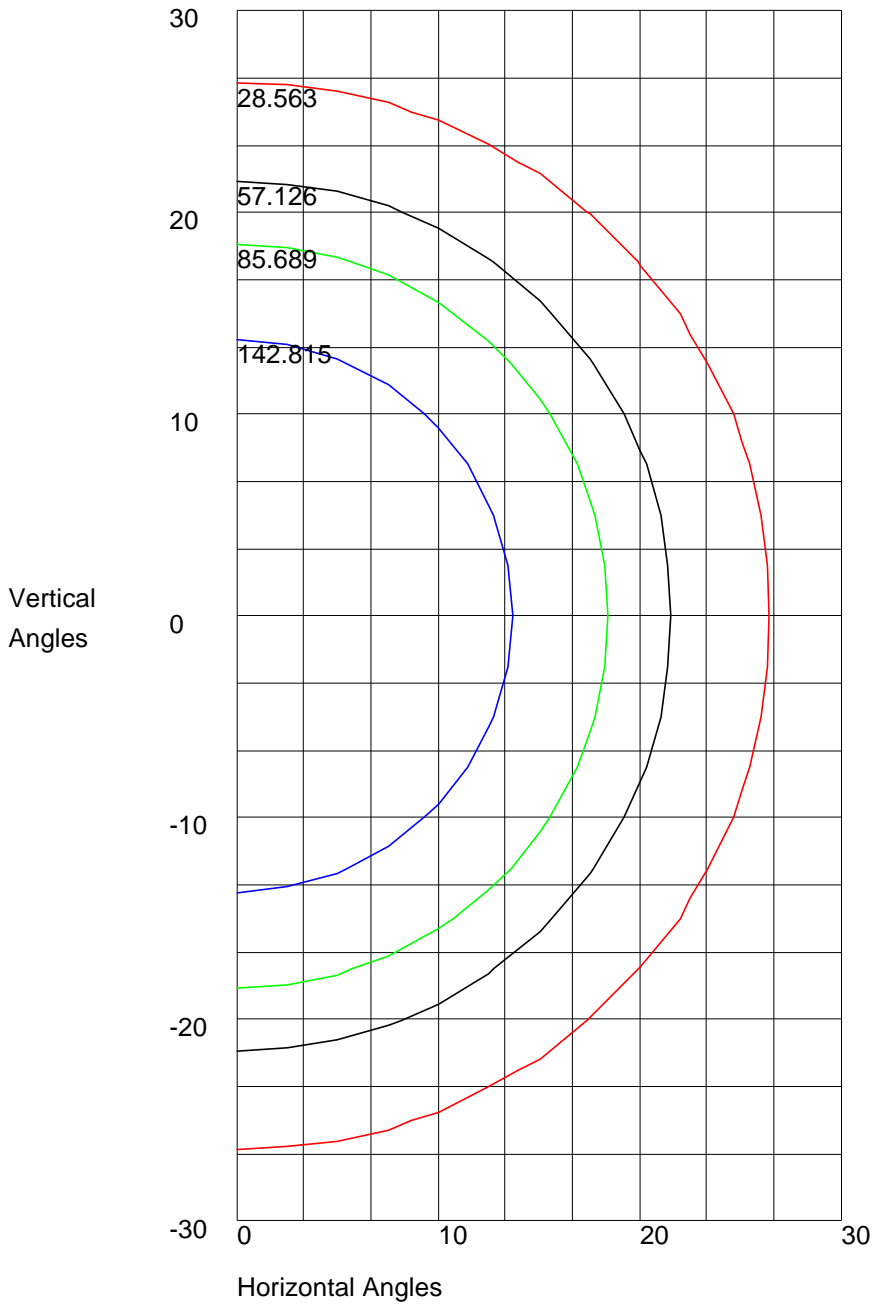
Zone	%
0-20	66.8
0-30	87.2
0-40	94.1
0-60	98.7
0-80	99.8
0-90	100
10-90	77.1
20-40	27.3
20-50	30.6
40-70	5.4
60-80	1.1
70-80	0.4
80-90	0.2
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY



Maximum Candela = 285.63 Located At Horizontal Angle = 0, Vertical Angle = 0  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 285.63 Located At Horizontal Angle = 0, Vertical Angle = 0  
50% Maximum Candela = 142.815  
10% Maximum Candela = 28.563