



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

Report No: L082313001



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Issue Date: 9/8/2023

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

Reference: N/A

Amendment: N/A

Model Number: R-003A-16-2W-A-G4

Test: Photometric/Colorimetric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:

IESNA LM79: 2019 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2017 Specification of the Chromaticity of Solid State Lighting Products

ANSI C82.77-10:2014: 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.

Date of Tests: 9/7/23

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	4/7/25
HP Power Supply	6032A	PS-DC05-S2	--
Fluke Digital Thermometer	52K/J	MT-TP05	5/24/25
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:	R-003A-16-2W-A-G4
Driver Model Number:	NA

Test Summary

Total Lumens:	14.00
Efficacy:	7.16
Color Redering Index:	-21.6
Correlated Color Temperature:	1471
Input Voltage (VAC):	12.01
Input Current (Amp):	0.2511
Input Power (W):	1.96
Input Power Factor:	0.6489
Current ATHD (%):	74.3%

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:25

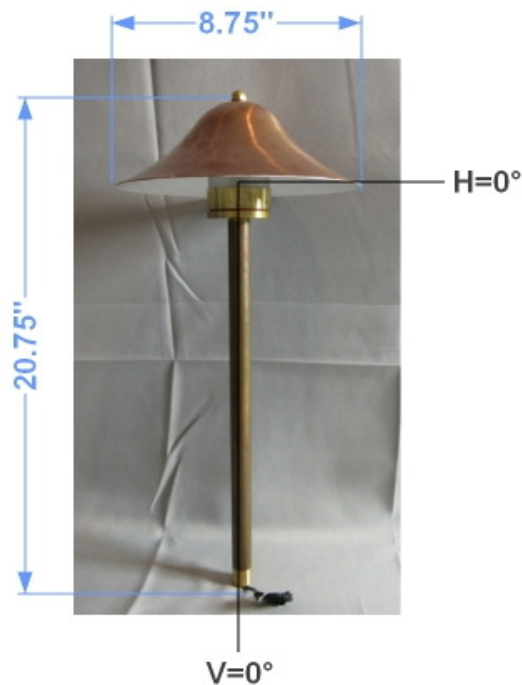
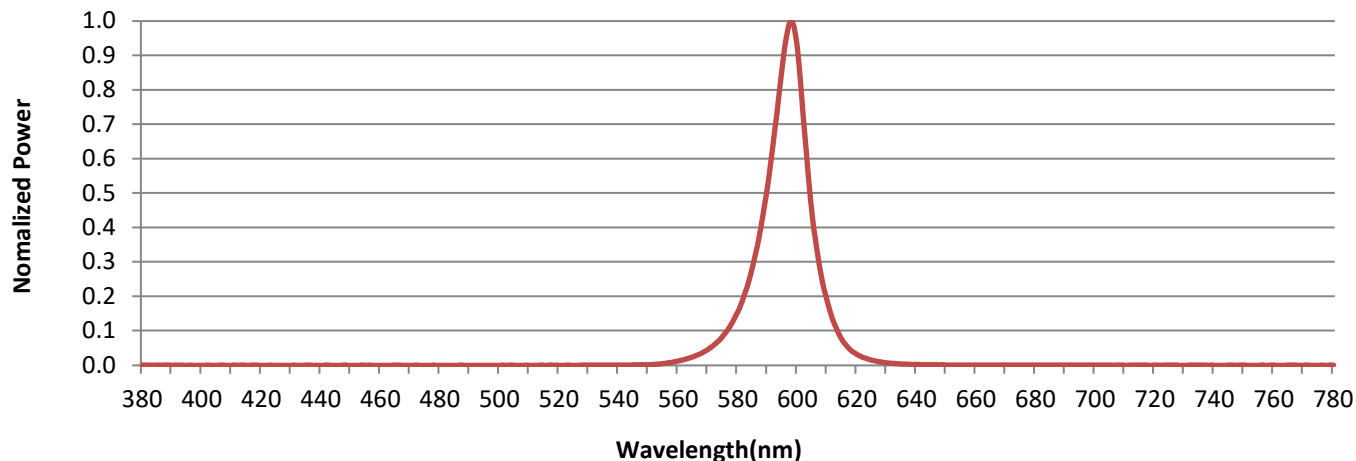


FIG. 1 LUMINAIRE

Colorimetry Test Results

Spectral Power Distribution



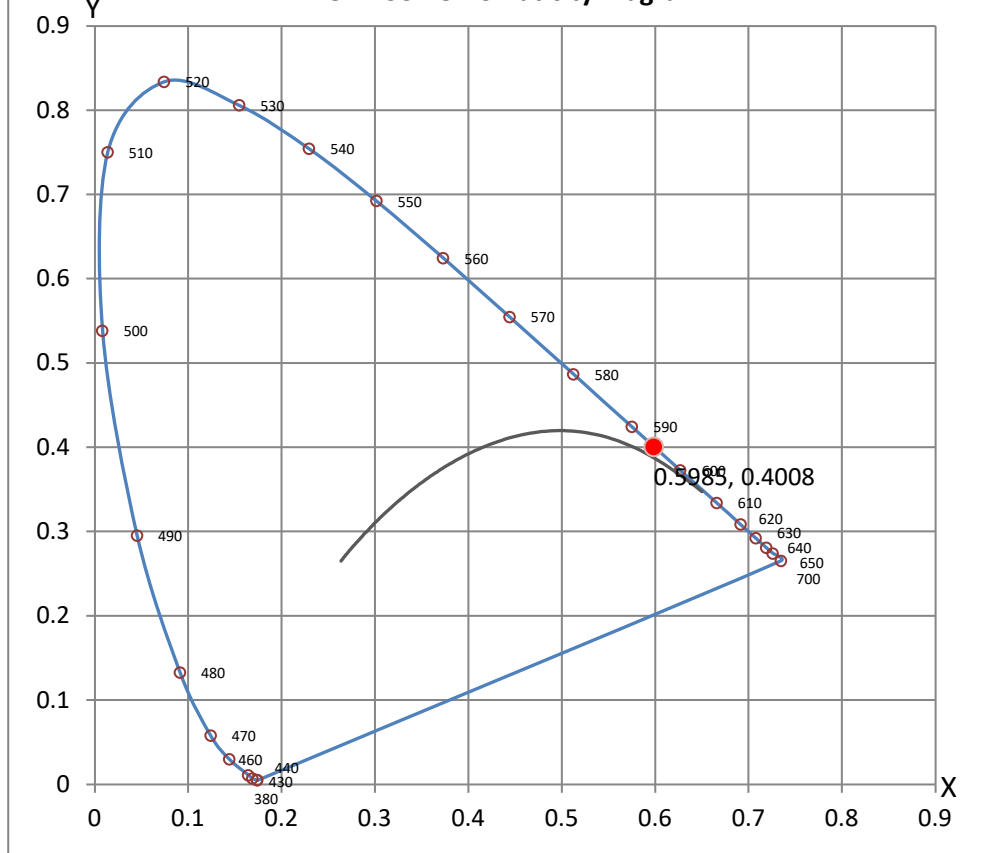
CRI & CCT

x	0.5985
y	0.4008
u'	0.3620
v'	0.5455
CRI	-21.60
CCT	1471
Duv	0.00971

R Values

R1	-34.76
R2	52.84
R3	15.28
R4	-67.69
R5	-39.17
R6	48.25
R7	-10.85
R8	-136.79
R9	-380.51
R10	31.95
R11	-92.72
R12	0.23
R13	-15.62
R14	45.12
R15	-67.22

CIE 1931 Chromaticity Diagram





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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:

The results related only to the samples as received and tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government.

Report Prepared by : JG

Test Report Reviewed by:

Steve Kang
Quality Assurance

**Attached are photometric data reports.*



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Photometric Test Report

IES ROAD REPORT

PHOTOMETRIC FILENAME : L082313001.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L082313001
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 9/8/2023
[MANUFAC] Beachside Lighting
[LUMCAT] R-003A-16-2W-A-G4
[LUMINAIRE] R-003A pathlight on 16" Riser with 2 Watt Amber, G4 Lamp
[BALLASTCAT] NA
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 12 VAC
[TEST PROCEDURE] IESNA:LM-79-19

CHARACTERISTICS

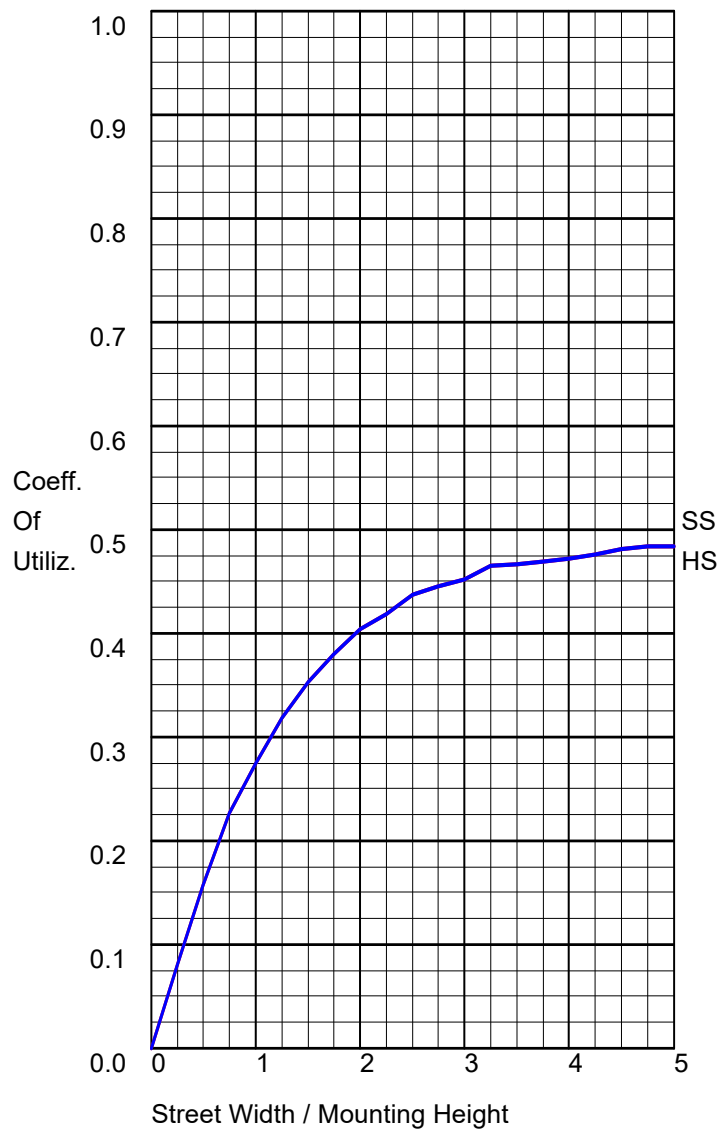
IES Classification	Type V
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	7
Total Luminaire Watts	1.96
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	3.21
Maximum Candela Angle	0H 67.5V
Maximum Candela (<90 Degrees Vertical)	3.21
Maximum Candela Angle (<90 Degrees Vertical)	0H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1.07 (7.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : L082313001.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	0.9	N.A.	6.6
FM - Front-Medium (30-60)	3.0	N.A.	21.7
FH - Front-High (60-80)	2.8	N.A.	20.4
FVH - Front-Very High (80-90)	0.2	N.A.	1.4
BL - Back-Low (0-30)	0.9	N.A.	6.6
BM - Back-Medium (30-60)	3.0	N.A.	21.7
BH - Back-High (60-80)	2.8	N.A.	20.4
BVH - Back-Very High (80-90)	0.2	N.A.	1.4
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	13.8	N.A.	100.0
BUG Rating	B0-U0-G0		

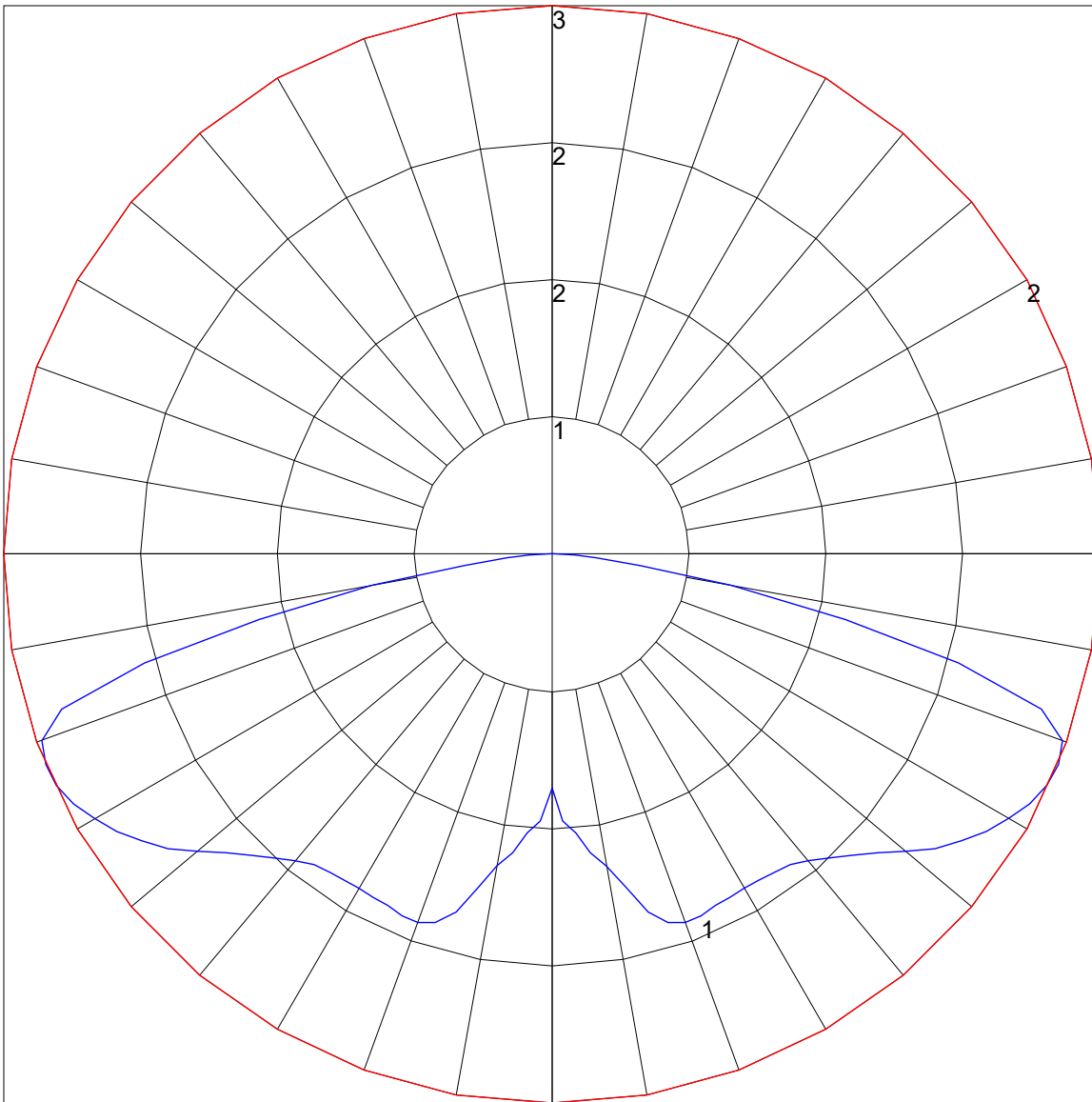
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	6.9	50.0
Downward House Side	6.9	50.0
Downward Total	13.8	99.7
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	13.8	99.7

POLAR GRAPH



Maximum Candela = 3.21 Located At Horizontal Angle = 0, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE

