



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

Report No: L111708108



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Issue Date: 1/10/2018

Report Prepared For: CAST Lighting LLC.
1120 Goffle Road Hawthorne NJ 07506-2024

Model Number: CID124

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.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 12/7/17

Date of Tests: 1/9/18 - 1/10/18

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	1/9/19
BK PRECISION	1747	PS-DC04	1/10/19
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/19
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

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Summary

Manufacturer:	CAST Lighting LLC.
Model Number:	CID124
Driver Model Number:	N/A
Total Lumens:	566.42
Input Voltage (VDC):	12.00
Input Current (Amp):	0.76
Input Power (W):	8.35
Input Power Factor:	0.92
Current ATHD @ 12V(%):	38%
Efficacy:	68
Color Rendering Index (CRI):	83
Correlated Color Temperature (K):	2644
Chromaticity Coordinate x:	0.4670
Chromaticity Coordinate y:	0.4159
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:10
Total Operating Time (Hours):	2:15

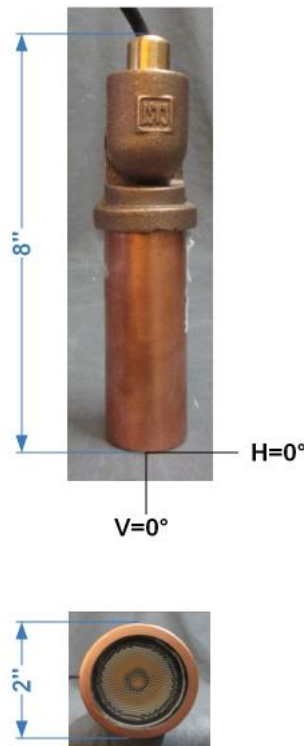
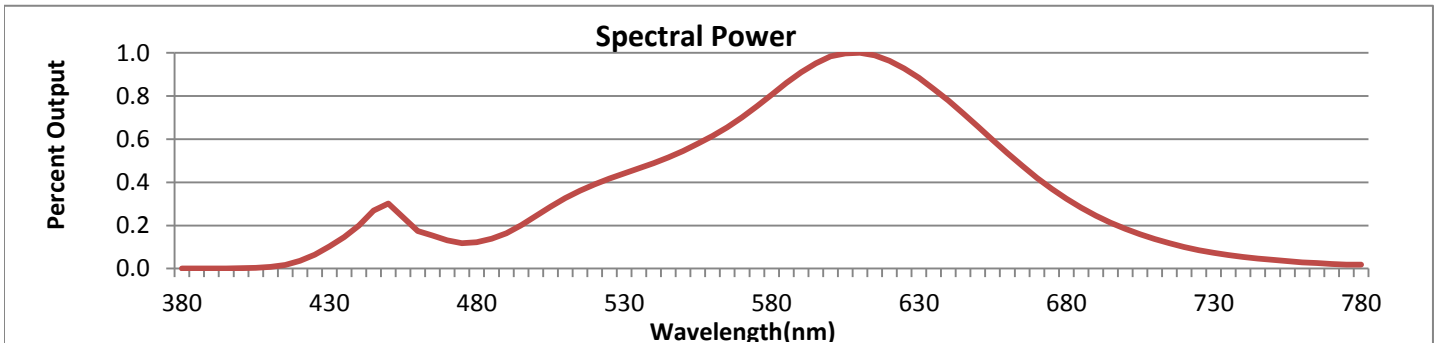


FIG. 1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



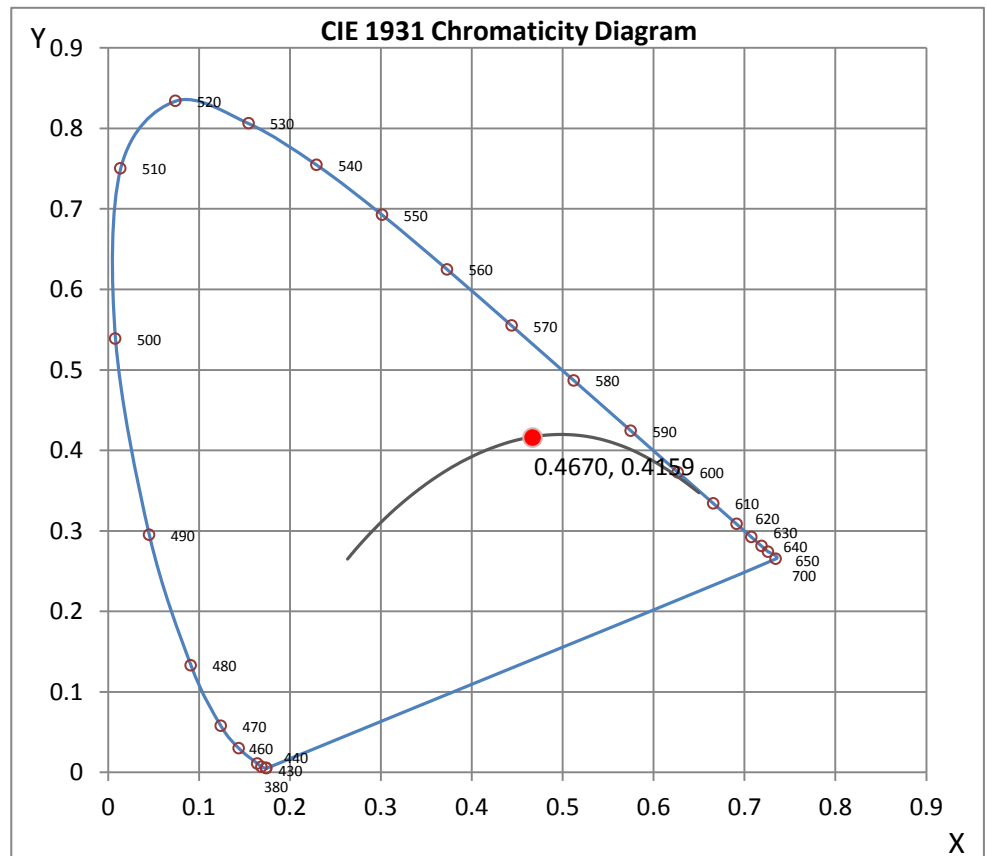
Wavelength	W/m ² nm	440	0.1990	510	0.3268	580	0.8070	650	0.6587	720	0.1000
380	0.0007	450	0.3020	520	0.3903	590	0.9109	660	0.5362	730	0.0731
390	0.0008	460	0.1746	530	0.4408	600	0.9839	670	0.4210	740	0.0538
400	0.0018	470	0.1317	540	0.4894	610	1.0000	680	0.3247	750	0.0398
410	0.0076	480	0.1220	550	0.5456	620	0.9636	690	0.2460	760	0.0294
420	0.0355	490	0.1641	560	0.6141	630	0.8847	700	0.1841	770	0.0218
430	0.1024	500	0.2443	570	0.7016	640	0.7792	710	0.1368	780	0.0188

CRI & CCT

x	0.4670
y	0.4159
u'	0.2647
v'	0.5304
CRI	82.70
CCT	2644
Duv	0.00138

R Values

R1	80.84
R2	89.92
R3	97.70
R4	81.49
R5	80.49
R6	88.22
R7	83.51
R8	59.31
R9	10.48
R10	77.19
R11	81.05
R12	73.35
R13	82.71
R14	98.72



*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

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 : Keyur Patel

Test Report Released by:



Jeff Ahn
Engineering Manager

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 : L111708108.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L111708108
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 1/10/2018
[MANUFAC] CAST Lighting LLC.
[LUMCAT] CID124
[LUMINAIRE] Impressionist 24° Optic Hi Setting
[BALLASTCAT] N/A
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 12VAC, 8.35W
[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	1886
Maximum Candela Angle	-1H 0V
Horizontal Beam Angle (50%)	27.4
Vertical Beam Angle (50%)	27.4
Horizontal Field Angle (10%)	52.8
Vertical Field Angle (10%)	52.8
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	240
Beam Efficiency	N.A.
Field Lumens	451
Field Efficiency	N.A.
Spill Lumens	115
Luminaire Lumens	566
Total Efficiency	N.A.
Total Luminaire Watts	8.35
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L111708108.IES

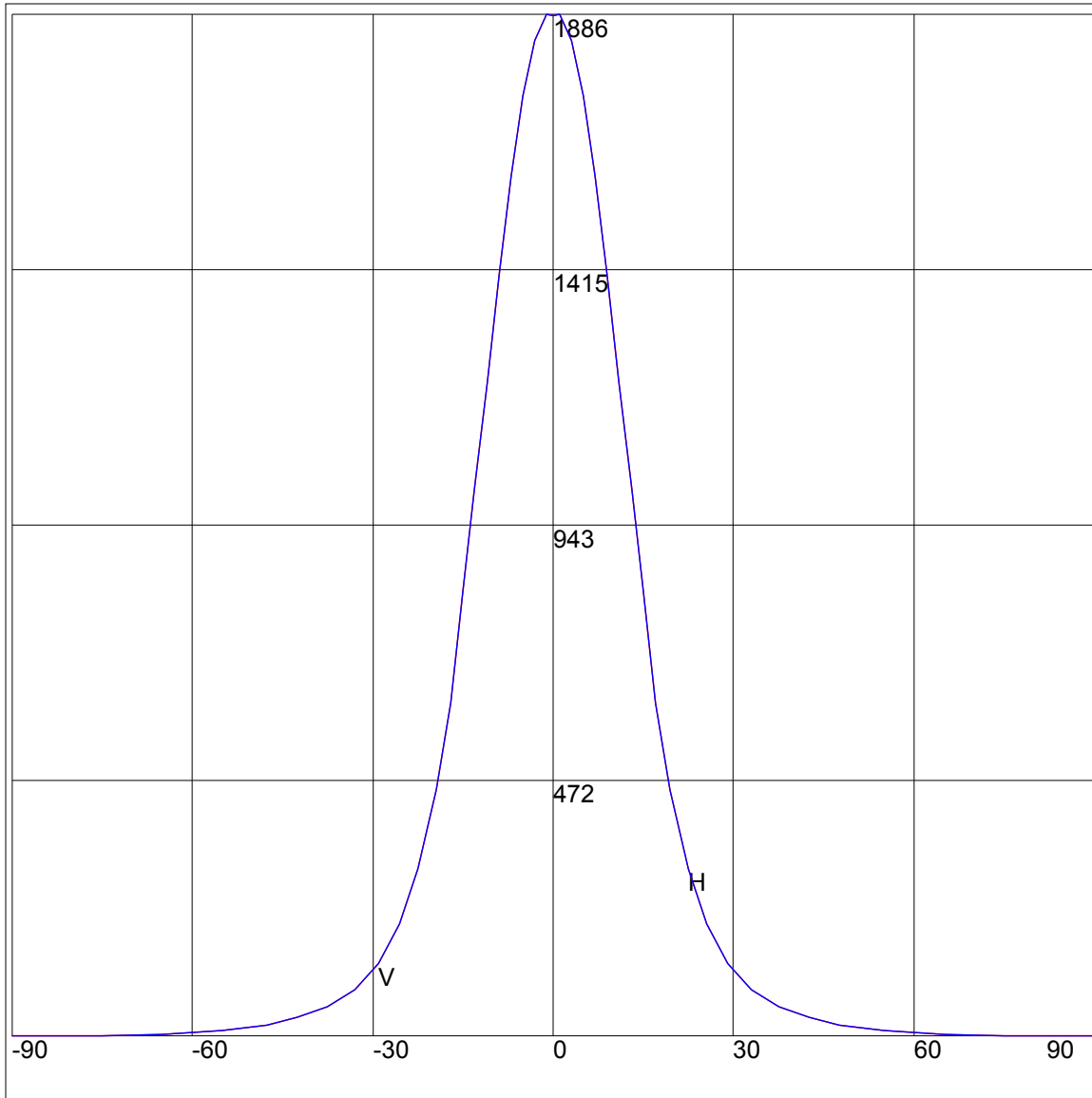
AXIAL CANDELA

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	0	85	0
75	1	75	1
65	4	65	4
55	11	55	11
47.5	21	47.5	21
42.5	34	42.5	34
37.5	55	37.5	55
33	87	33	87
29	134	29	134
25.5	207	25.5	207
22.5	309	22.5	309
19.5	455	19.5	455
17	616	17	616
15	816	15	816
13	1009	13	1009
11	1209	11	1209
9	1407	9	1407
7	1587	7	1587
5	1735	5	1735
3	1838	3	1838
1	1886	1	1886
0	1883	0	1883
-1	1886	-1	1886
-3	1838	-3	1838
-5	1735	-5	1735
-7	1587	-7	1587
-9	1407	-9	1407
-11	1209	-11	1209
-13	1009	-13	1009
-15	816	-15	816
-17	616	-17	616
-19.5	455	-19.5	455
-22.5	309	-22.5	309
-25.5	207	-25.5	207
-29	134	-29	134
-33	87	-33	87
-37.5	55	-37.5	55
-42.5	34	-42.5	34
-47.5	21	-47.5	21
-55	11	-55	11
-65	4	-65	4
-75	1	-75	1
-85	0	-85	0
-90	0	-90	0

ZONAL LUMEN SUMMARY

Zone	%
0-20	64.4
0-30	83.8
0-40	91.7
0-60	98.2
0-80	99.9
0-90	100
10-90	77.6
20-40	27.3
20-50	31.9
40-70	7.7
60-80	1.7
70-80	0.5
80-90	0.1
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY

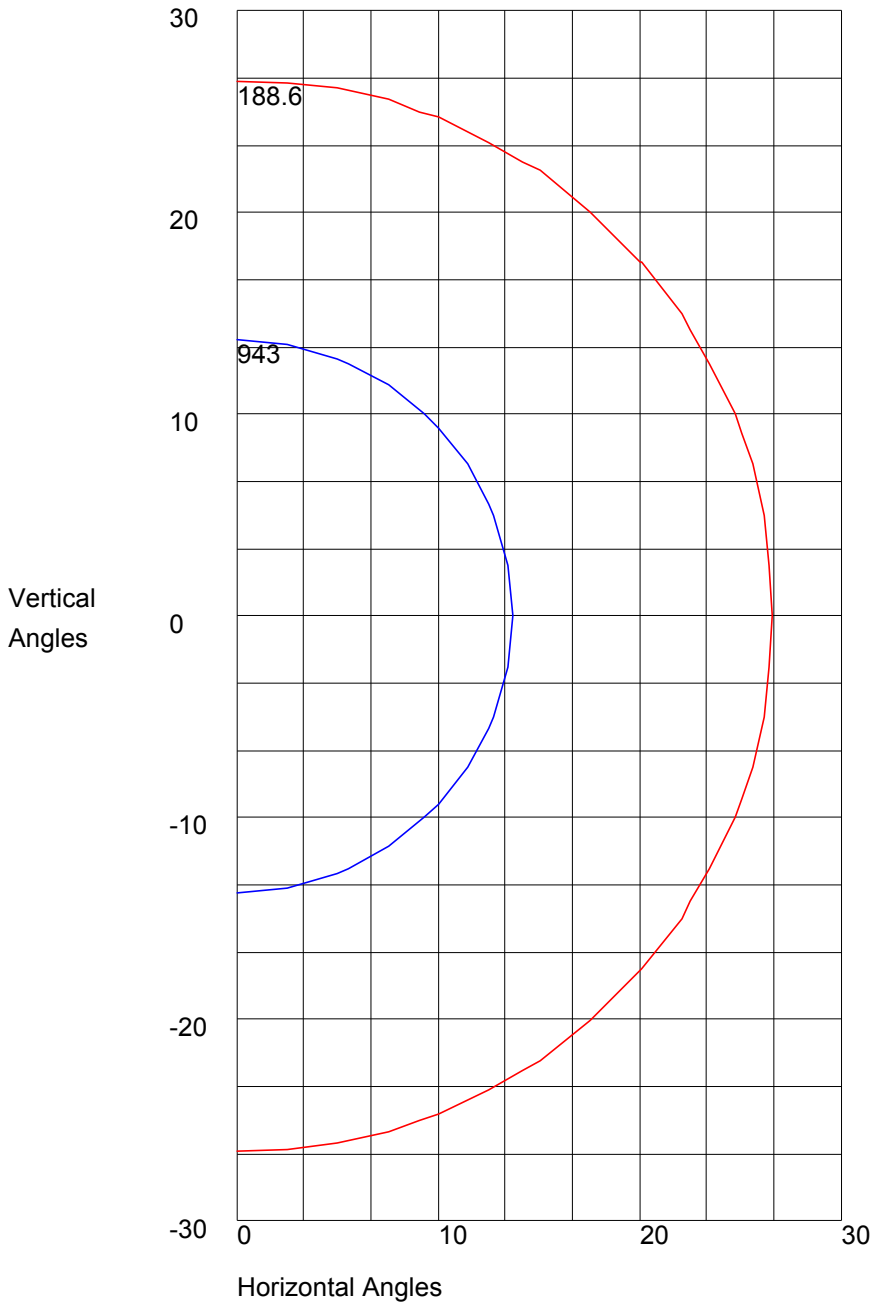


Maximum Candela = 1886 Located At Horizontal Angle = -1, Vertical Angle = 0

H - Horizontal Axial Candela

V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 1886 Located At Horizontal Angle = -1, Vertical Angle = 0
50% Maximum Candela = 943
10% Maximum Candela = 188.6