



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

Report No: L111708111



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Issue Date: 1/10/2018

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

Model Number: CID115X39

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:	CID115X39
Driver Model Number:	N/A
Total Lumens:	537.76
Input Voltage (VDC):	12.00
Input Current (Amp):	0.75
Input Power (W):	8.34
Input Power Factor:	0.92
Current ATHD @ 12V(%):	38%
Efficacy:	64
Color Rendering Index (CRI):	83
Correlated Color Temperature (K):	2621
Chromaticity Coordinate x:	0.4689
Chromaticity Coordinate y:	0.4163
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:35
Total Operating Time (Hours):	1:35

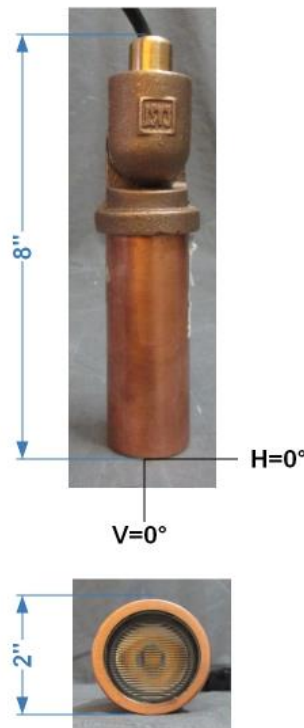
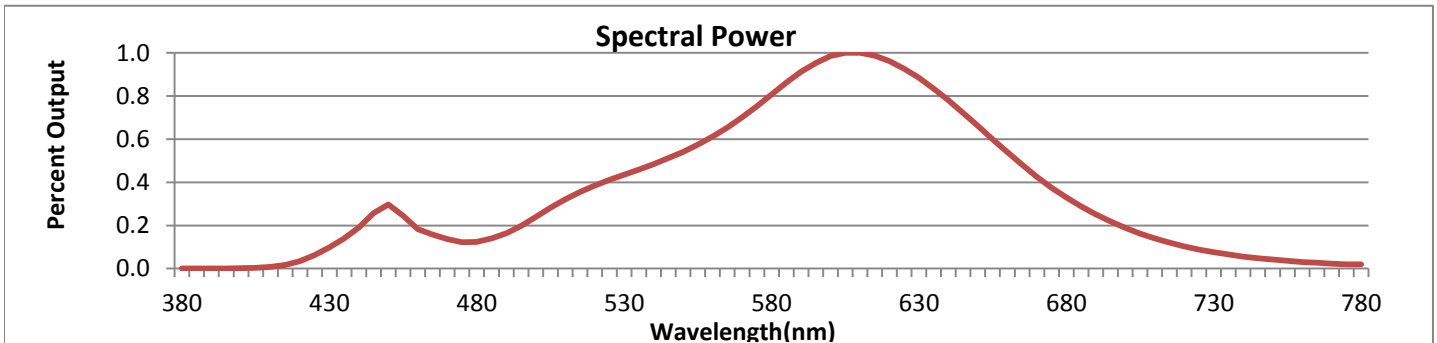


FIG. 1 LUMINAIRE

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



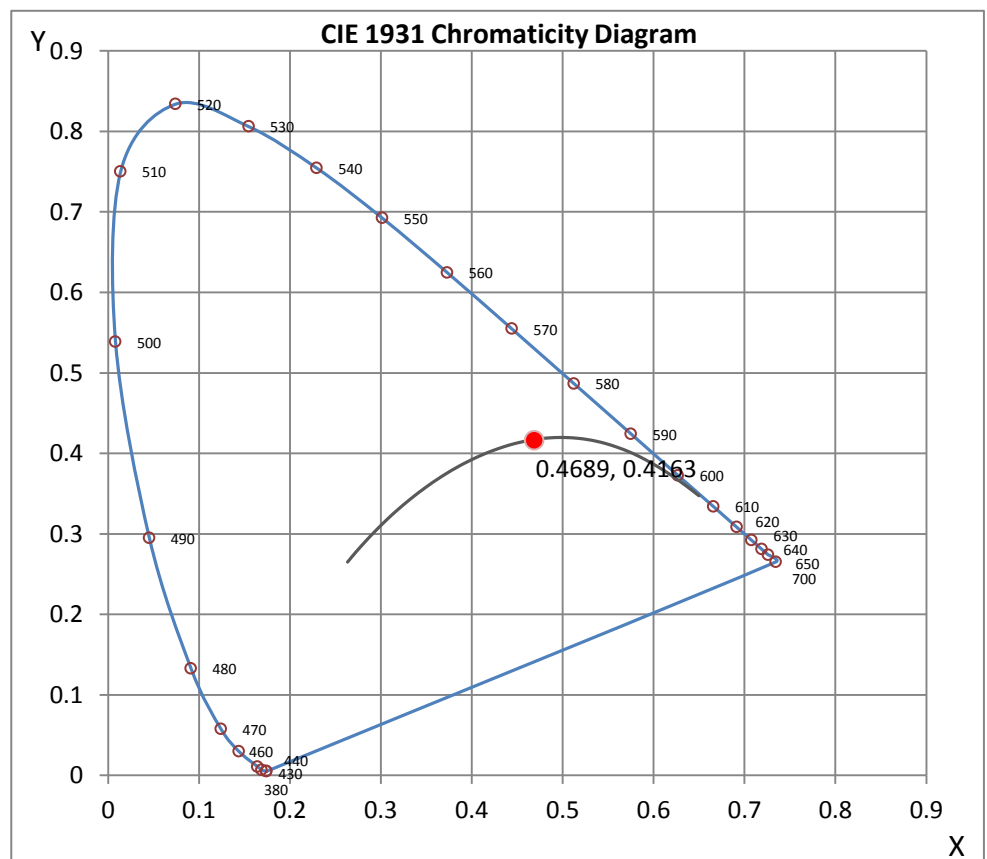
Wavelength	W/m ² nm	440	0.1861	510	0.3196	580	0.8062	650	0.6632	720	0.1035
380	0.0007	450	0.2907	520	0.3829	590	0.9111	660	0.5418	730	0.0760
390	0.0008	460	0.1771	530	0.4341	600	0.9843	670	0.4260	740	0.0560
400	0.0018	470	0.1342	540	0.4827	610	1.0000	680	0.3303	750	0.0414
410	0.0074	480	0.1224	550	0.5405	620	0.9629	690	0.2512	760	0.0307
420	0.0341	490	0.1617	560	0.6097	630	0.8846	700	0.1888	770	0.0229
430	0.0972	500	0.2385	570	0.6984	640	0.7807	710	0.1405	780	0.0197

CRI & CCT

x	0.4689
y	0.4163
u'	0.2657
v'	0.5309
CRI	82.50
CCT	2621
Duv	0.00139

R Values

R1	80.58
R2	89.96
R3	97.69
R4	81.01
R5	80.21
R6	88.28
R7	83.23
R8	58.80
R9	9.87
R10	77.31
R11	80.43
R12	73.32
R13	82.52
R14	98.85



*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 : L111708111.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L111708111
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 1/10/2018
[MANUFAC] CAST Lighting LLC.
[LUMCAT] CID115X39
[LUMINAIRE] Impressionist 15° x 39° 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, 8.34W
[TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

NEMA Type	5 H x 3 V
Maximum Candela	1672
Maximum Candela Angle	-1H 0V
Horizontal Beam Angle (50%)	41.0
Vertical Beam Angle (50%)	19.9
Horizontal Field Angle (10%)	71.7
Vertical Field Angle (10%)	44.6
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	233
Beam Efficiency	N.A.
Field Lumens	446
Field Efficiency	N.A.
Spill Lumens	92
Luminaire Lumens	538
Total Efficiency	N.A.
Total Luminaire Watts	8.34
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L111708111.IES

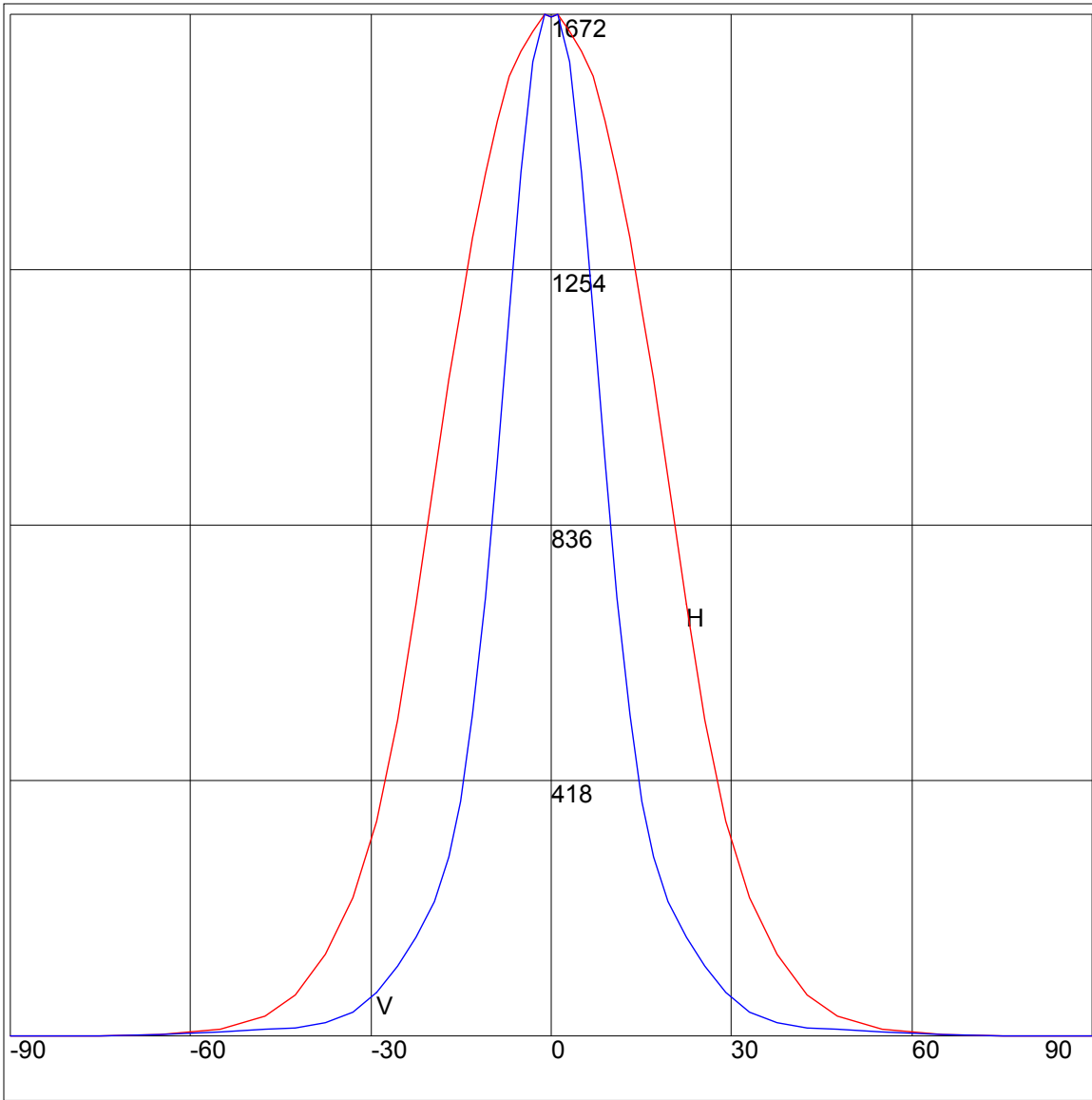
AXIAL CANDELA

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	0	85	0
75	1	75	1
65	4	65	3
55	12	55	7
47.5	34	47.5	11
42.5	67	42.5	14
37.5	135	37.5	22
33	228	33	39
29	353	29	71
25.5	517	25.5	116
22.5	708	22.5	163
19.5	913	19.5	220
17	1076	17	293
15	1188	15	384
13	1306	13	526
11	1412	11	719
9	1498	9	941
7	1570	7	1184
5	1611	5	1413
3	1645	3	1595
1	1672	1	1672
0	1668	0	1668
-1	1672	-1	1672
-3	1645	-3	1595
-5	1611	-5	1413
-7	1570	-7	1184
-9	1498	-9	941
-11	1412	-11	719
-13	1306	-13	526
-15	1188	-15	384
-17	1076	-17	293
-19.5	913	-19.5	220
-22.5	708	-22.5	163
-25.5	517	-25.5	116
-29	353	-29	71
-33	228	-33	39
-37.5	135	-37.5	22
-42.5	67	-42.5	14
-47.5	34	-47.5	11
-55	12	-55	7
-65	4	-65	3
-75	1	-75	1
-85	0	-85	0
-90	0	-90	0

ZONAL LUMEN SUMMARY

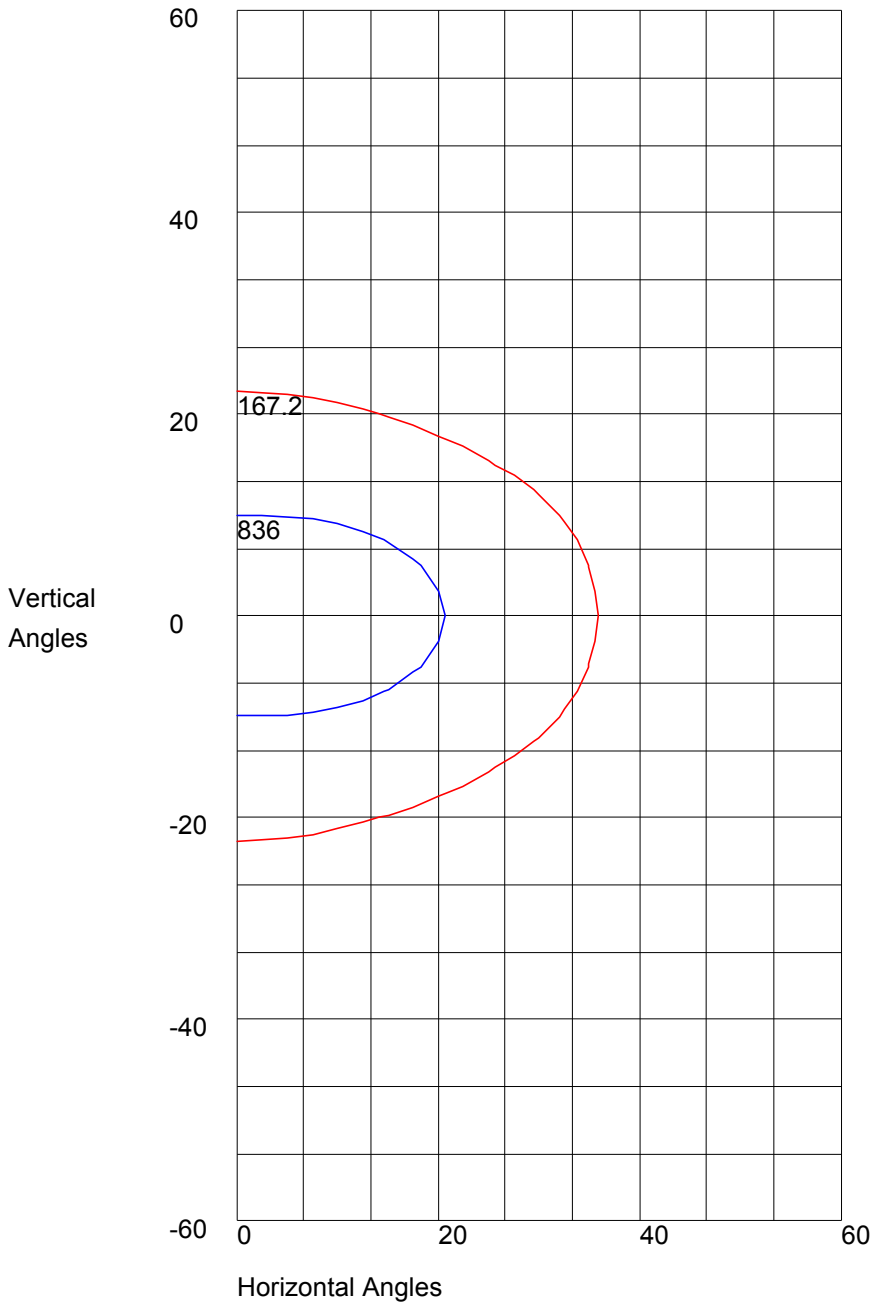
Zone	%
0-20	60.4
0-30	82.7
0-40	92.1
0-60	98.5
0-80	99.9
0-90	100
10-90	79.4
20-40	31.7
20-50	36.4
40-70	7.4
60-80	1.4
70-80	0.4
80-90	0.1
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY



Maximum Candela = 1672 Located At Horizontal Angle = -1, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 1672 Located At Horizontal Angle =-1, Vertical Angle = 0
50% Maximum Candela = 836
10% Maximum Candela = 167.2