



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

Report No: L031705801



**Report No:** L031705801

**Issue Date:** 3/31/2017

**Report Prepared For:** Everbrite, LLC.  
4969 S. 110th Street, Greenfield, WI. 53228

**Model Number:** XLS-3.0

**Test:** Electrical and Photometric tests

**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:** 3/15/17

**Date of Tests:** 3/27/17 - 3/31/17

**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-S1	11/28/17
ITECH	IT6122	PS-DC03-S1	11/28/17
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/28/17
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**

<b>Manufacturer:</b>	Everbrite, LLC.
<b>Model Number:</b>	XLS-3.0
<b>Driver Model Number:</b>	CUSTOM DRIVER
<b>Total Lumens:</b>	2003.90
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.49
<b>Input Power (W):</b>	27.40
<b>Input Power Factor:</b>	0.46
<b>Current ATHD @ 120V(%):</b>	87%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	73
<b>Color Rendering Index (CRI):</b>	84
<b>Correlated Color Temperature (K):</b>	3466
<b>Chromaticity Coordinate x:</b>	0.4074
<b>Chromaticity Coordinate y:</b>	0.3920
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	1:00
<b>Total Operating Time (Hours):</b>	1:45

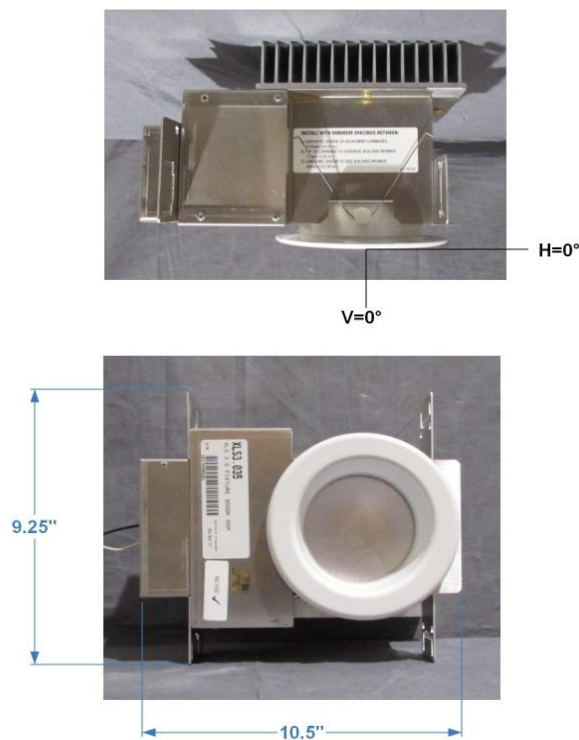
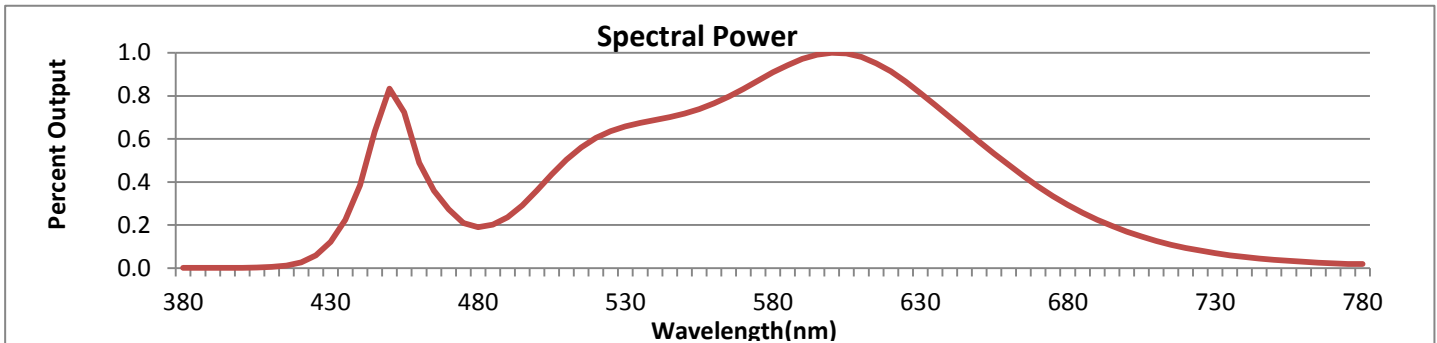


FIG. 1 LUMINAIRE

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



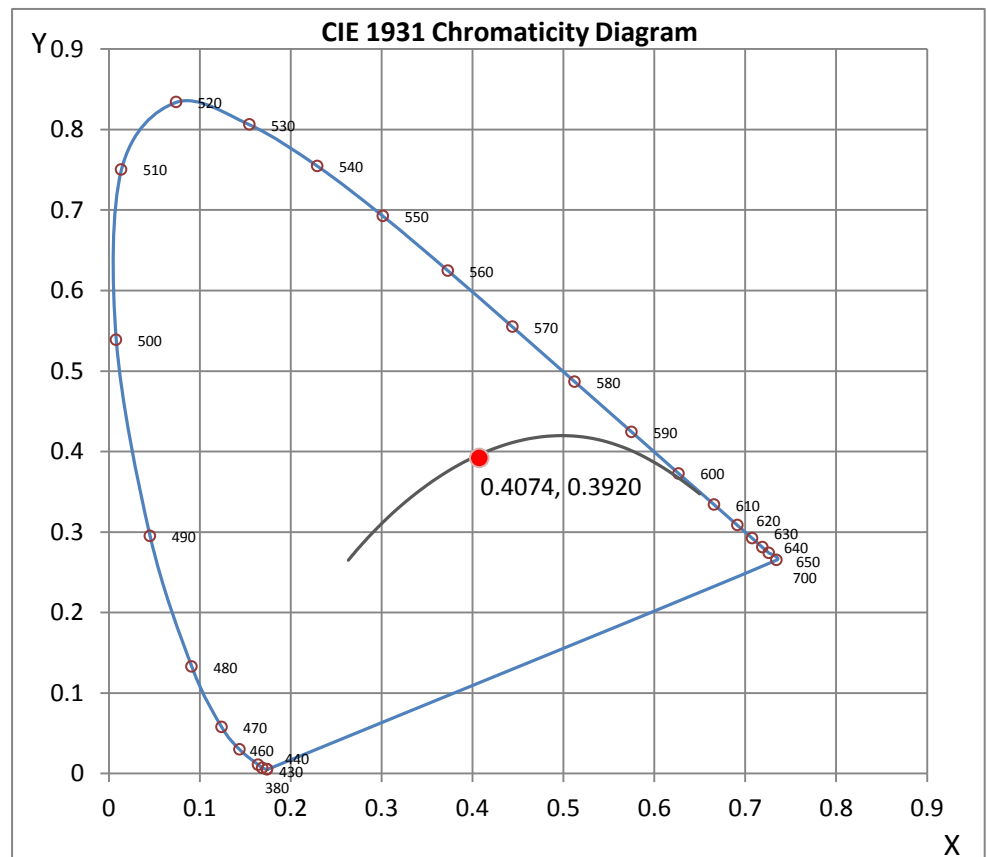
Wavelength	W/m <sup>2</sup> nm	440	0.3852	510	0.5041	580	0.9095	650	0.5871	720	0.0938
380	0.0008	450	0.8338	520	0.6047	590	0.9723	660	0.4795	730	0.0694
390	0.0011	460	0.4882	530	0.6587	600	1.0000	670	0.3793	740	0.0513
400	0.0018	470	0.2735	540	0.6882	610	0.9808	680	0.2943	750	0.0385
410	0.0053	480	0.1894	550	0.7175	620	0.9142	690	0.2245	760	0.0289
420	0.0270	490	0.2358	560	0.7648	630	0.8136	700	0.1692	770	0.0216
430	0.1222	500	0.3615	570	0.8329	640	0.7019	710	0.1264	780	0.0189

**CRI & CCT**

x	0.4074
y	0.3920
u'	0.2365
v'	0.5121
CRI	83.90
CCT	3466
Duv	0.00010

**R Values**

R1	83.02
R2	89.25
R3	94.32
R4	84.09
R5	82.48
R6	85.50
R7	86.60
R8	66.11
R9	16.15
R10	74.40
R11	83.76
R12	63.79
R13	84.43
R14	96.48



\*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: 9*



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

# Photometric Test Report

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L031705801.IES**

## DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L031705801  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUEDATE] 3/31/2017  
 [MANUFAC] EVERBRITE, LLC.  
 [LUMCAT] XLS-3.0  
 [LUMINAIRE] RECESSED CAN LIGHT  
 [BALLASTCAT] CUSTOM DRIVER  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [INPUT] 120VAC, 27.40W  
 [TEST PROCEDURE] IESNA:LM-79-08

## CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2004
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	27.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.72
Spacing Criterion (90-270)	0.72
Spacing Criterion (Diagonal)	0.68
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 ft (Diameter)
Luminous Height	0.00 ft

## LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	19522	19522	19522
55	11497	11497	11497
65	8728	8728	8728
75	7773	7773	7773
85	7695	7695	7695

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L031705801.IES

CANDELA TABULATION

	<u>0</u>
0.0	3340
1.0	3334
3.0	3300
5.0	3240
7.0	3155
9.0	3041
11.0	2899
13.0	2733
15.0	2538
17.0	2311
19.5	1982
22.5	1546
25.5	1140
29.0	753
33.0	448
37.5	261
42.5	150
47.5	97
55.0	59
65.0	33
75.0	18
85.0	6
90.0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L031705801.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	958.65	N.A.	47.80
0-30	1512.6	N.A.	75.50
0-40	1749.17	N.A.	87.30
0-60	1919.44	N.A.	95.80
0-80	1989.32	N.A.	99.30
0-90	2003.9	N.A.	100.00
10-90	1757.44	N.A.	87.70
20-40	790.53	N.A.	39.40
20-50	910.80	N.A.	45.50
40-70	213.90	N.A.	10.70
60-80	69.88	N.A.	3.50
70-80	26.24	N.A.	1.30
80-90	14.59	N.A.	0.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2003.9	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	246.47
10-20	712.18
20-30	553.95
30-40	236.58
40-50	120.27
50-60	50.00
60-70	43.63
70-80	26.24
80-90	14.59
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L031705801.IES**

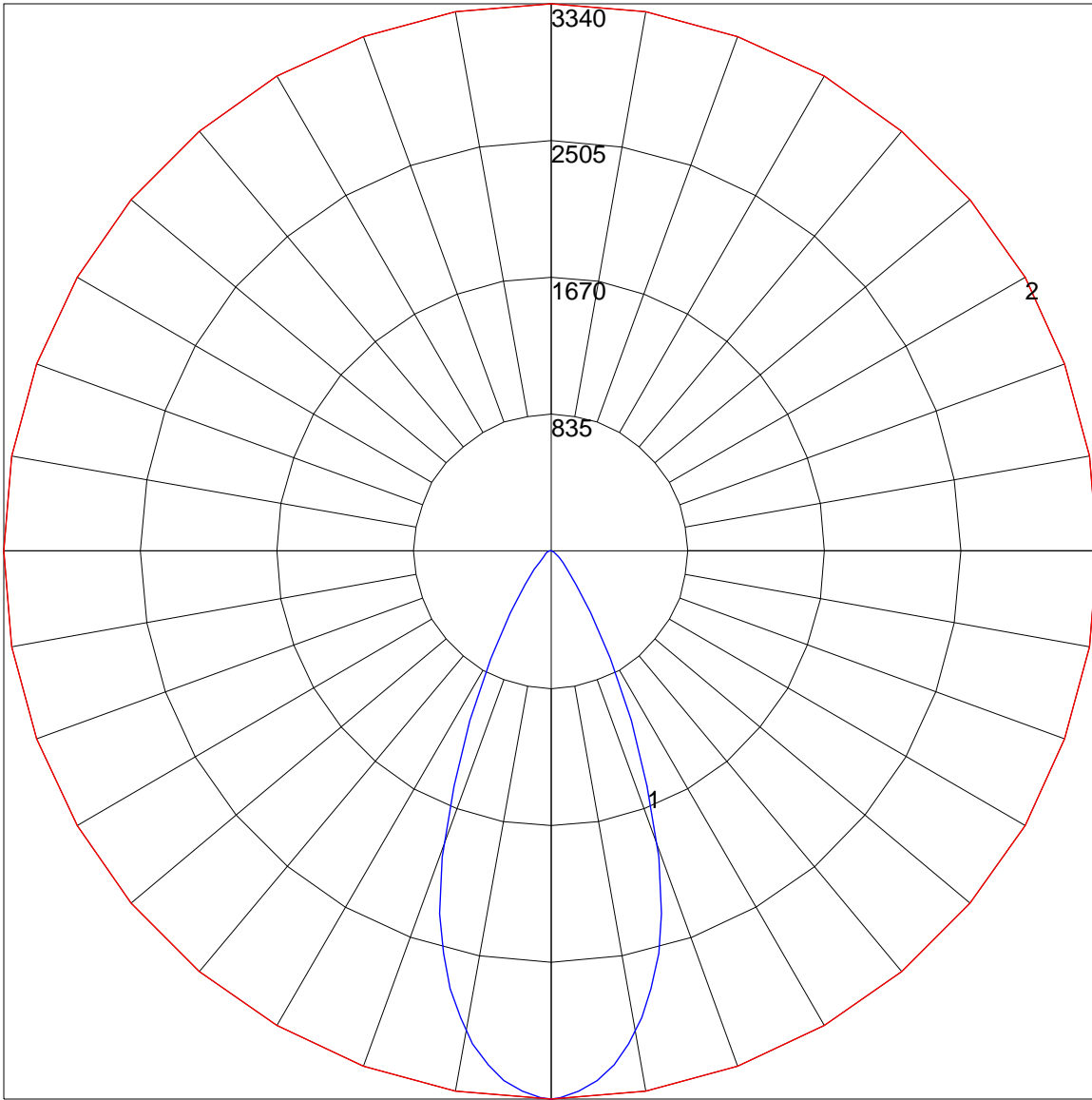
**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	0
1	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	95	94	93	0
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	88	86	0
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80	0
4	97	89	84	79	95	88	83	79	86	82	78	84	80	77	82	79	76	75	0
5	92	84	78	74	91	83	78	74	81	76	73	80	75	72	78	74	72	70	0
6	88	79	73	69	87	78	73	69	77	72	68	75	71	68	74	70	67	66	0
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62	0
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59	0
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56	0
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53	0



POLAR GRAPH



Maximum Candela = 3340 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)