



REPORT

545 E. Algonquin Rd., Arlington Heights, IL 60005

Project No. G102056385

Original Issue Date: March 30, 2015

Revision Date: September 16, 2016

REPORT NO. 102056385CHI-015

TEST OF ONE LED WALL SCONCE

MODEL NO. 700WSBOW4W-LED830

LED MODEL NO. EVERLIGHT 62-217B/KK2C-S3030QAR2B42Z15/2T

DRIVER MODEL NO. LTF DA25W700C2036BF1-0000

RENDERED TO

GENERATION BRANDS

7400 LINDER AVE

SKOKIE, IL 60077

Revision Note September 16, 2016: This report was revised to add BUG rating.

TEST: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION: The testing performed was authorized by signed quote number 500587731.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

ANSI NEMA ANSLG C78.377: 2012: Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number 700WSBOW4W-LED830. The sample was received by Intertek on March 27, 2015, in undamaged condition and one sample was tested as received. The sample designation was 03272015125056-007C.

DATES OF TESTS: March 30, 2015

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SUMMARY

Model No.:	700WSBOW4W-LED830
Description:	LED Wall Sconce

Criteria	Result	
	Sphere	Goniometer
Total Lumen Output (Lumens)	696.6	698.9
Total Power (W)	17.74	17.87
Luminaire Efficacy (LPW)	39.27	39.11

Criteria	Result
Power Factor	0.965
Current ATHD %	14.83
Correlated Color Temperature (CCT - K)	2999
Color Rendering Index (CRI - Ra)	82.6
Color Rendering Index (CRI - R9)	15.6
DUV	0.000
Chromaticity Coordinate (x)	0.437
Chromaticity Coordinate (y)	0.405
Chromaticity Coordinate (u')	0.250
Chromaticity Coordinate (v')	0.522
BUG Rating	B1-U0-G0

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Yokogawa Power Meter	WT210	146919	07/16/14	07/16/15	03/30/15
Omega Thermometer	DPI8-C24	146920	10/09/14	10/09/15	03/30/15
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV	03/30/15
Newport Hygrometer	iServer	146956	01/06/15	01/06/16	03/30/15
Elgar, AC Power Supply	CW1251P	146918	VBV	VBV	03/30/15
Cole-Parmer Triple Timer	94440-00	CHI0041	04/01/14	04/01/15	03/30/15
Labsphere 2M Sphere & Spectroradiation	CDS1100	146137	VBV	VBV	03/30/15
Elgar AC Power Supply	CW1251M	146113	VBV	VBV	03/30/15
Sorenson DC Power Supply	XFR150-8	146847	VBV	VBV	03/30/15
Yokogawa Power Analyzer	WT1600	146767	04/09/14	04/09/15	03/30/15
Omega Temperature Meter	MDSi8	146873	07/15/14	07/15/15	03/30/15
Newport Thermohygrometer	iTHX-M	146382	07/02/14	07/02/15	03/30/15

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical Measurements – Integrating Sphere Method

A Labsphere Model CDS 1100 CCD Array Spectroradiometer and Two Meter or Ten Foot Sphere was used to measure correlated color temperature, chromaticity coordinates, and the color rendering index for each SSL unit.

Ambient temperature was measured at a position inside the sphere. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation. Each SSL unit was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

The calibration of the sphere photometer-spectroradiometer system is traceable to the National Institute of Standards and Technology.

Photometric and Electrical Measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

BUG Ratings (Backlight, Uplight, Glare) – for Outdoor Fixtures Only

Zonal Lumens were calculated and grouped using the formula in IESNA TM-15-11 for each zone as defined in the BUG addendum. The maximum lumen rating in each zone was compared against the BUG zonal requirements of Energy Star. Photometric Toolbox software was used to calculate results.

RESULTS OF TEST

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) - Integrating Sphere Method

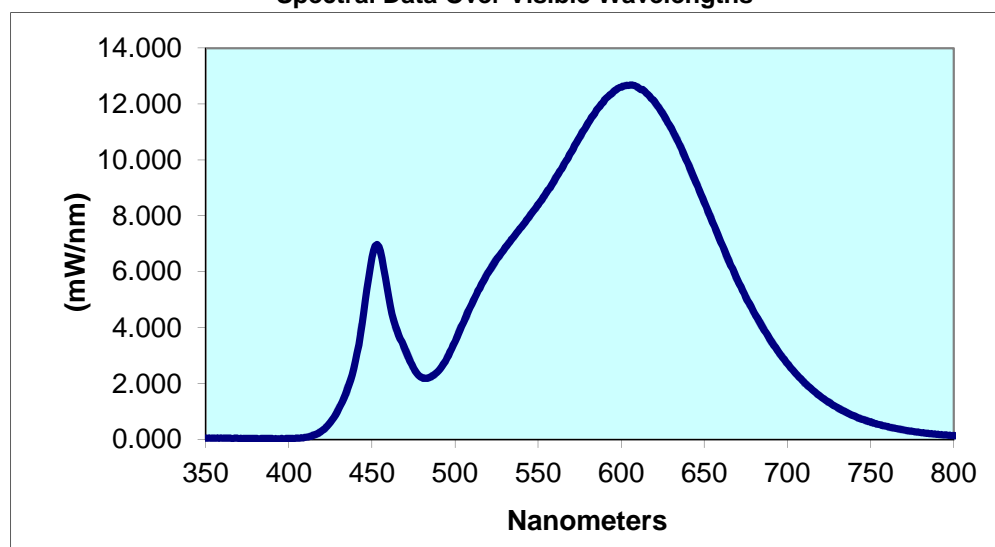
Intertek Sample No.	Base Orientatio n	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Current ATHD (%)	Luminous Flux (Lumens)	Lumen Efficacy (LPW)
03272015125056-007C	UP	120.0	153.1	17.74	0.965	14.83	696.6	39.27

Correlated Color Temperature (K)	CRI -Ra	CRI -R9	DUV	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
2999	82.6	15.6	0.000	0.437	0.405	0.250	0.522

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.046	440	2.803	530	6.853	620	12.08	710	2.054
355	0.050	445	4.545	535	7.231	625	11.65	715	1.780
360	0.050	450	6.533	540	7.606	630	11.14	720	1.538
365	0.047	455	6.736	545	8.004	635	10.55	725	1.330
370	0.039	460	5.110	550	8.407	640	9.879	730	1.141
375	0.038	465	3.902	555	8.836	645	9.193	735	0.986
380	0.035	470	3.204	560	9.295	650	8.482	740	0.845
385	0.031	475	2.551	565	9.784	655	7.769	745	0.726
390	0.029	480	2.217	570	10.30	660	7.062	750	0.627
395	0.031	485	2.235	575	10.82	665	6.359	755	0.539
400	0.033	490	2.466	580	11.32	670	5.710	760	0.465
405	0.046	495	2.905	585	11.78	675	5.101	765	0.399
410	0.079	500	3.513	590	12.16	680	4.537	770	0.344
415	0.158	505	4.196	595	12.42	685	4.025	775	0.293
420	0.319	510	4.844	600	12.61	690	3.535	780	0.252
425	0.624	515	5.444	605	12.68	695	3.101		
430	1.095	520	5.983	610	12.60	700	2.716		
435	1.774	525	6.443	615	12.39	705	2.363		

Spectral Data Over Visible Wavelengths



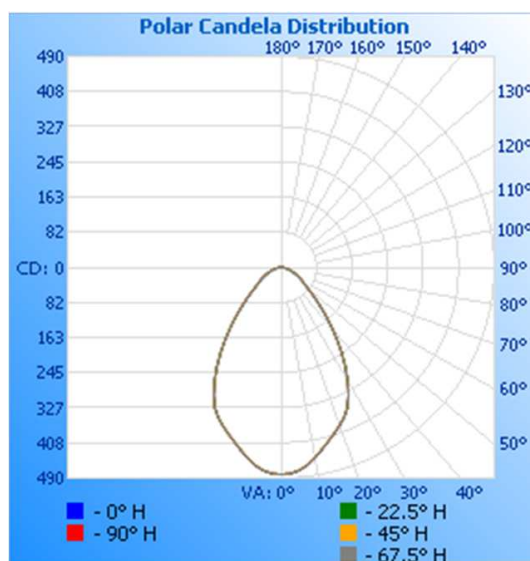
RESULTS OF TEST (cont'd)

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Sample No.	Base Orientatio n	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
03272015125056-007C	UP	120.0	154.4	17.87	0.964	698.9	39.11

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	481	481	481	481	481
5	474	473	473	473	473
10	450	448	448	449	449
15	419	418	418	418	418
20	392	391	391	391	391
25	360	360	360	360	360
30	307	307	306	307	306
35	243	243	242	243	242
40	180	181	180	181	180
45	125	128	128	129	129
50	85	89	89	90	90
55	63	63	64	64	64
60	49	50	51	51	52
65	36	37	38	39	39
70	26	26	28	28	28
75	17	17	19	19	19
80	10	10	12	12	12
85	5	5	5	5	5
90	0	0	0	0	0



RESULTS OF TEST (cont'd)

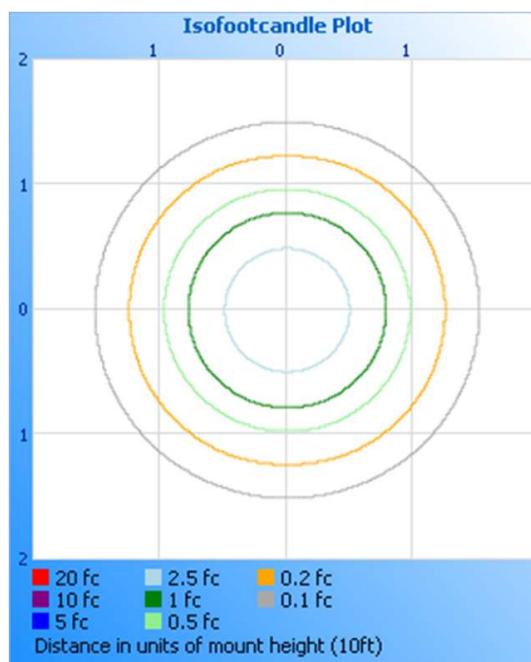
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	325.5	46.6
0-40	476.5	68.2
0-60	635.6	90.9
60-90	63.3	9.1
0-90	698.9	100.0
90-180	0.0	0.0
0-180	698.9	100.0

Luminaire Classification System (LCS)

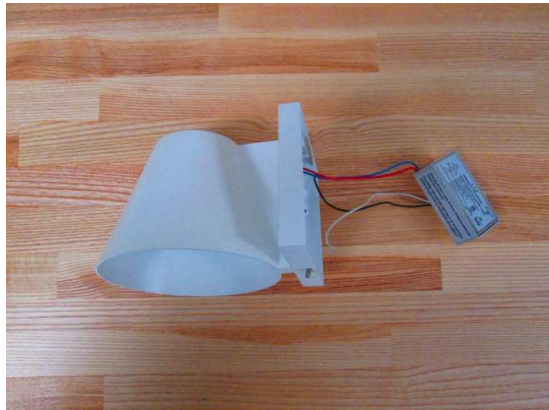
LCS	Zone	Lumens	% Luminaire
FL	(0-30)	162.9	23.3
FM	(30-60)	155.2	22.2
FH	(60-80)	28.8	4.1
FVH	(80-90)	2.9	0.4
BL	(0-30)	162.9	23.3
BM	(30-60)	155.2	22.2
BH	(60-80)	28.8	4.1
BVH	(80-90)	2.9	0.4
UL	(90-100)	0.0	0.0
UH	(100-180)	0.0	0.0
Total		699.6	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	44.4	6.3
10-20	117.9	16.9
20-30	163.3	23.4
30-40	151.0	21.6
40-50	100.0	14.3
50-60	59.2	8.5
60-70	37.9	5.4
70-80	19.7	2.8
80-90	5.8	0.8

BUG Rating: B1-U0-G0
IES Classification: Type VS
Longitudinal Classification: Very Short

PICTURES (not to scale)



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



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Attachment: None

Report Reviewed By:



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