



FOR THE SCOPE OF
ACCREDITATION UNDER NVLAP LAB
CODE 100402-0.

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Project No. G100403047

Original Issue Date: May 26, 2011

Revision Date: July 12, 2011

REPORT NO. 100403047CRT-001

TEST OF ONE LED WALL PACK LAMP

LED MODEL NO. WP45

RENDERED TO

INTENCITY LIGHTING, INC.
22922 NORTH HIGHWAY 7
DARDANELLE, AR 72834

Revision Note July 12, 2011: This report was revised to add off-state power results.

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

LABORATORY NOTE: The laboratory that conducted the testing detailed in this report has been Qualified, Verified, and Recognized for LM-79 Testing for ENERGY STAR for SSL by US DOE's CALiPER program.

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 500299124.

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 Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2008 Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE: The client submitted one sample of model number WP45. The sample was received by Intertek on April 15, 2011, in undamaged condition, and one sample was tested as received. The sample designation was I11388L.

DATES OF TESTS: May 19, 2011 through July 12, 2011

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SUMMARY

Model No.: WP45
Description: LED Wall Pack Lamp

Criteria	Result
Total Lumen Output	5005 Lumens
Total Power	73.14 W
Luminaire Efficacy	68.43
Power Factor	0.995
Current ATHD	7.63%
Correlated Color Temperature (CCT)	5447 K
Color Rendering Index (CRI) - Ra	70.4
Color Rendering Index (CRI) - R9	-10.9
Duv	0.007
Chromaticity Coordinate (x)	0.334
Chromaticity Coordinate (y)	0.357
Chromaticity Coordinate (u')	0.202
Chromaticity Coordinate (v')	0.486
Off State Power	0.0 W

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Calibration Date	Calibration Due Date
Leeds & Northup Standard Resistor	Manganin	Y089	02/17/11	02/17/12
Data Precision Digital Voltmeter	3600	V124	02/17/11	02/17/12
Fluke Multimeter	45	M133	02/17/11	02/17/12
Fluke Temperature Meter	52	T801	06/11/10	06/11/11
Kikusui DC Power Supply	35-10L	E160	---	---
Sorenson DC Power Supply	DLM150-20E	--	---	---
NIST Spectral Flux Standard Source	RF1024	---	09/18/10	100 hours of use
Yokogawa Power Analyzer	WT1600	E462	06/11/10	06/11/11
ITS 3 Meter Sphere	W/ CDS 1100	N307	w/use	w/use
Fluke Temp Meter	53 II	T1318	02/25/11	02/25/12
Elgar AC Power Supply	CW1251	--	--	--
Yokogawa Power Meter	WT210	E464	04/19/11	04/19/12
LSI High Speed Mirror Goniometer	6440	--	w/ use	w/ use
Cole Parmer Hygro Thermometer	445703	T1357	10/12/10	10/12/11
Xitron Power Analyzer	2503AH	E235	4/20/2011	4/20/2012



TEST METHODS

Seasoning in Sample Orientation – LED Products

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

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.

Photometric and Electrical Measurements – Integrating Sphere Method

A Labsphere Model DAS 1100 Diode 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.

Off-State Power

A power analyzer is used to record the electrical data during normal operation and again while the unit is switched off.

Estimated Total Operating Time

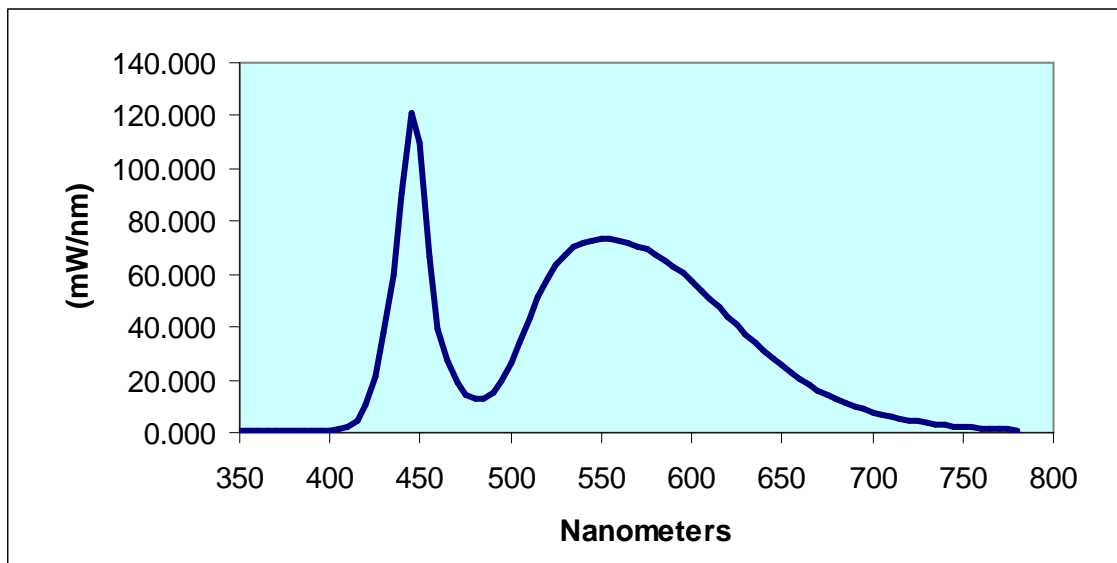
<u>Model No.</u>	<u>Total Hours</u>
WP45	6

RESULTS OF TESTS

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
WP45							
350	0.632	460	39.353	570	70.621	680	12.849
355	0.680	465	27.344	575	69.245	685	11.348
360	0.696	470	19.186	580	67.370	690	10.092
365	0.586	475	14.418	585	65.249	695	8.937
370	0.639	480	12.869	590	62.941	700	7.884
375	0.570	485	13.020	595	60.229	705	6.981
380	0.594	490	14.935	600	57.356	710	6.181
385	0.593	495	19.441	605	54.049	715	5.424
390	0.668	500	26.363	610	50.771	720	4.701
395	0.738	505	34.429	615	47.384	725	4.176
400	0.944	510	42.968	620	44.134	730	3.635
405	1.346	515	51.112	625	40.760	735	3.177
410	2.303	520	58.051	630	37.457	740	2.821
415	4.752	525	63.428	635	34.179	745	2.491
420	10.231	530	67.416	640	31.049	750	2.210
425	20.843	535	70.432	645	28.245	755	1.940
430	37.684	540	71.999	650	25.523	760	1.701
435	60.060	545	72.999	655	22.879	765	1.500
440	91.050	550	73.456	660	20.475	770	1.325
445	121.028	555	73.404	665	18.322	775	1.194
450	110.028	560	72.918	670	16.237	780	1.061
455	66.452	565	71.962	675	14.434		

**IntenCity Lighting Inc.
Sample No. I11388L
Model No. WP45
Spectral Data Over Visible Wavelengths**



RESULTS OF TESTS (cont'd)

Photometric Measurements at 25°C – Integrating Sphere Method

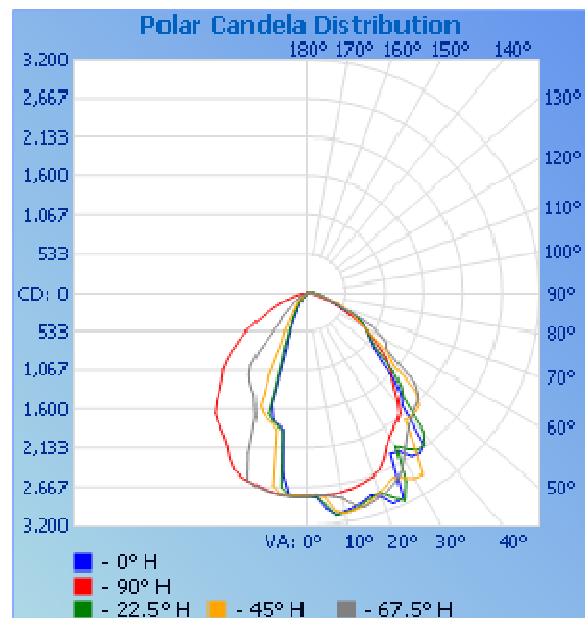
Intertek Sample No.	Correlated Color		CRI -Ra	CRI -R9	Duv	Current ATHD (%)	CIE 31' Chromaticity Coordinate	CIE 31' Chromaticity Coordinate	CIE 76' Chromaticity Coordinate	CIE 76' Chromaticity Coordinate
	Temperature (K)						(x)	(y)	(u')	(v')
WP45										
I11388L	5447		70.4	-10.9	0.007	7.63	0.334	0.357	0.202	0.486

Photometric and Electrical Measurements – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
WP45							
I11388L	UP	120.0	610.6	73.14	0.995	5005	68.43

Intensity (Candlepower) Summary at 25°C - Candelas

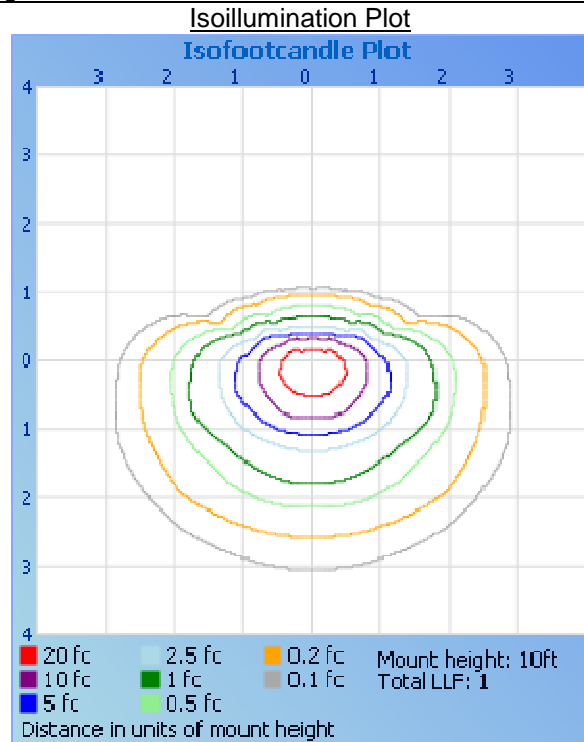
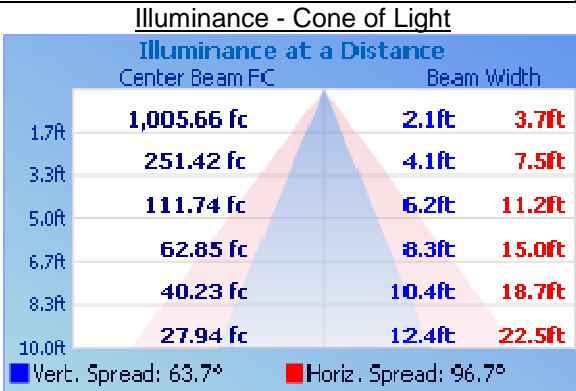
Angle	0	22.5	45	67.5	90
WP45					
0	2794	2794	2794	2794	2794
5	2977	2920	2818	2796	2795
10	3061	3076	3081	2866	2784
15	2966	2988	3034	3049	2731
20	2982	2916	2923	2980	2683
25	3105	3154	2804	2872	2511
30	2521	2437	2948	2640	2281
35	2698	2635	2548	2379	2154
40	2024	2485	2217	2222	1940
45	1710	1819	2176	2135	1654
50	1214	1312	1560	1917	1426
55	1034	1045	1219	1321	1134
60	882	871	823	1164	807
65	618	688	647	675	541
70	371	382	471	409	289
75	257	254	243	242	118
80	184	176	151	126	33
85	132	124	97	57	2
90	86	79	56	22	0
95	52	47	28	3	0
100	29	24	9	0	0
105	13	8	0	0	0



RESULTS OF TESTS (cont'd)

Illumination Plots

Model No.: WP45
Mounting Height: 10 ft.



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
WP45		
0-30	1929	38.5
0-40	2937	58.7
0-60	4438	88.7
60-90	549.2	11.0
0-90	4987	99.6
90-180	17.6	0.4
0-180	5005	100.0

Off State Power

Sample No.	Input Power in Off State (Watts)
WP45	
I11388L	0.0

Picture (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:

Kenda Branch
Engineer
Lighting Division

Attachment: None

Report Reviewed By:

FOR:
Jeffery Davis
Senior Associate Engineer
Lighting Division