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Report No: L031601808R02

Date: 5/6/2016



NVLAP LAB CODE 200927-0

Report No: L031601808R02

Prepared For: Suxess Inc., dba LUX Dynamics
 1350 Capital Blvd, Reno, NV 89502

Model Number: LED-GYM-8-UNV - 850 HO LADC

Test: Photometric/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. Catalog number is LED-GYM-8-UNV - 850 HO LADC. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 2/16/16

Date of Tests: 3/24/16 - 3/25/16

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	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
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:	Suxess Inc., dba LUX Dynamics
Model Number:	LED-GYM-8-UNV - 850 HO LADC
Driver Model Number:	OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (8 DRIVERS)
Total Lumens:	74599.88
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	5.97
Input Power (W):	715.10
Input Power Factor:	1.00
Current ATHD @ 120V(%):	3%
Current ATHD @ 277V(%):	N/A
Efficacy:	104
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:00
Total Operating Time (Hours):	1:35
Off State Power(W):	0.00



FIG.1 LUMINAIRE

*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*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601808R02.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L031601808R02
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 5/6/2016
 [MANUFAC] Suxess Inc., dba LUX Dynamics
 [LUMCAT] LED-GYM-8-UNV - 850 HO LADC
 [LUMINAIRE] 48.75"L. X 28.5"W. X 1.5"H. LED HIGH BAY
 [BALLASTCAT] OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (8 DRIVERS)
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [_INPUT] 120VAC, 715.10W
 [_TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	74600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	715.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.58 ft
Luminous Height	0.06 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	36827	43005	44282
55	31032	41417	41470
65	23942	38945	43257
75	15231	37839	40816
85	9079	27807	28309

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CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0	25307	25307	25307	25307	25307	25307	25307	25307	25307	25307
5	25149	25152	25131	25113	25104	25092	25098	25111	25133	25168
10	24767	24744	24721	24702	24730	24788	24847	24891	24926	24965
15	24114	24109	24084	24114	24189	24242	24346	24417	24417	24355
20	23225	23242	23249	23286	23400	23539	23510	23410	23352	23406
25	22065	22096	22097	22250	22407	22330	22278	22370	22499	22535
30	20563	20641	20669	20905	20909	20948	21096	21171	21186	21348
35	18931	18997	19151	19277	19405	19599	19654	19829	20123	20449
40	17015	17138	17289	17551	17808	17949	18216	18592	18911	19199
45	14883	15055	15261	15687	15948	16289	16683	17067	17559	17761
50	12639	12786	13104	13613	14018	14428	14952	15371	15782	16188
55	10240	10434	10830	11394	11829	12408	12930	13486	13868	14092
60	8104	8277	8680	9230	9792	10379	10992	11529	11909	12042
65	5885	6015	6366	6912	7544	8221	8879	9444	9763	10015
70	3856	3954	4260	4788	5461	6183	6886	7434	7832	8168
75	2348	2431	2676	3155	3770	4478	5117	5621	6043	6291
80	1273	1346	1572	1960	2521	3085	3511	3797	3904	3936
85	525	604	777	1048	1413	1599	1578	1595	1713	1955
90	220	222	224	227	230	232	234	235	238	239
95	0	0	0	0	0	0	0	232	231	231
100	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0

Vert. Angles **Horizontal Angles**

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
0	25307	25307	25307	25307	25307	25307	25307	25307	25307
5	25198	25218	25235	25256	25269	25285	25281	25278	25282
10	25001	25033	25041	25048	25046	25031	25008	25007	25001
15	24303	24230	24194	24190	24184	24196	24214	24218	24211
20	23484	23546	23579	23582	23563	23556	23544	23534	23547
25	22524	22565	22680	22780	22872	22953	23004	23046	23073
30	21570	21800	21974	22098	22185	22241	22285	22309	22336
35	20672	20829	21042	21211	21297	21339	21363	21391	21417
40	19560	19687	19799	19976	20023	20032	20070	20109	20111
45	18011	18268	18361	18378	18316	18299	18283	18286	18289
50	16307	16343	16371	16353	16258	16210	16151	16128	16108
55	14148	14063	14022	14127	14175	14141	14117	14117	14111
60	12122	12215	12249	12346	12435	12526	12589	12621	12635

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CANDELA TABULATION - (Cont.)

65	10257	10399	10503	10625	10769	10914	11032	11108	11125
70	8381	8522	8741	8968	9145	9218	9272	9292	9300
75	6461	6633	6851	6934	6922	6865	6823	6797	6787
80	4101	4353	4575	4706	4774	4780	4753	4719	4709
85	2297	2560	2652	2589	2424	2254	2109	2019	1991
90	241	243	244	244	244	244	244	244	244
95	231	231	231	231	231	231	231	231	231
100	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	9240.83	N.A.	12.40
0-30	19638.24	N.A.	26.30
0-40	32341.58	N.A.	43.40
0-60	57405.81	N.A.	77.00
0-80	72419.35	N.A.	97.10
0-90	74454.52	N.A.	99.80
10-90	72058.73	N.A.	96.60
20-40	23100.76	N.A.	31.00
20-50	36358.13	N.A.	48.70
40-70	34280.64	N.A.	46.00
60-80	15013.58	N.A.	20.10
70-80	5797.15	N.A.	7.80
80-90	2035.13	N.A.	2.70
90-110	145.36	N.A.	0.20
90-120	145.36	N.A.	0.20
90-130	145.36	N.A.	0.20
90-150	145.36	N.A.	0.20
90-180	145.36	N.A.	0.20
110-180	0.00	N.A.	0.00
0-180	74599.88	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2395.76
10-20	6845.07
20-30	10397.42
30-40	12703.34
40-50	13257.37
50-60	11806.86
60-70	9216.42
70-80	5797.15
80-90	2035.13
90-100	145.36
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

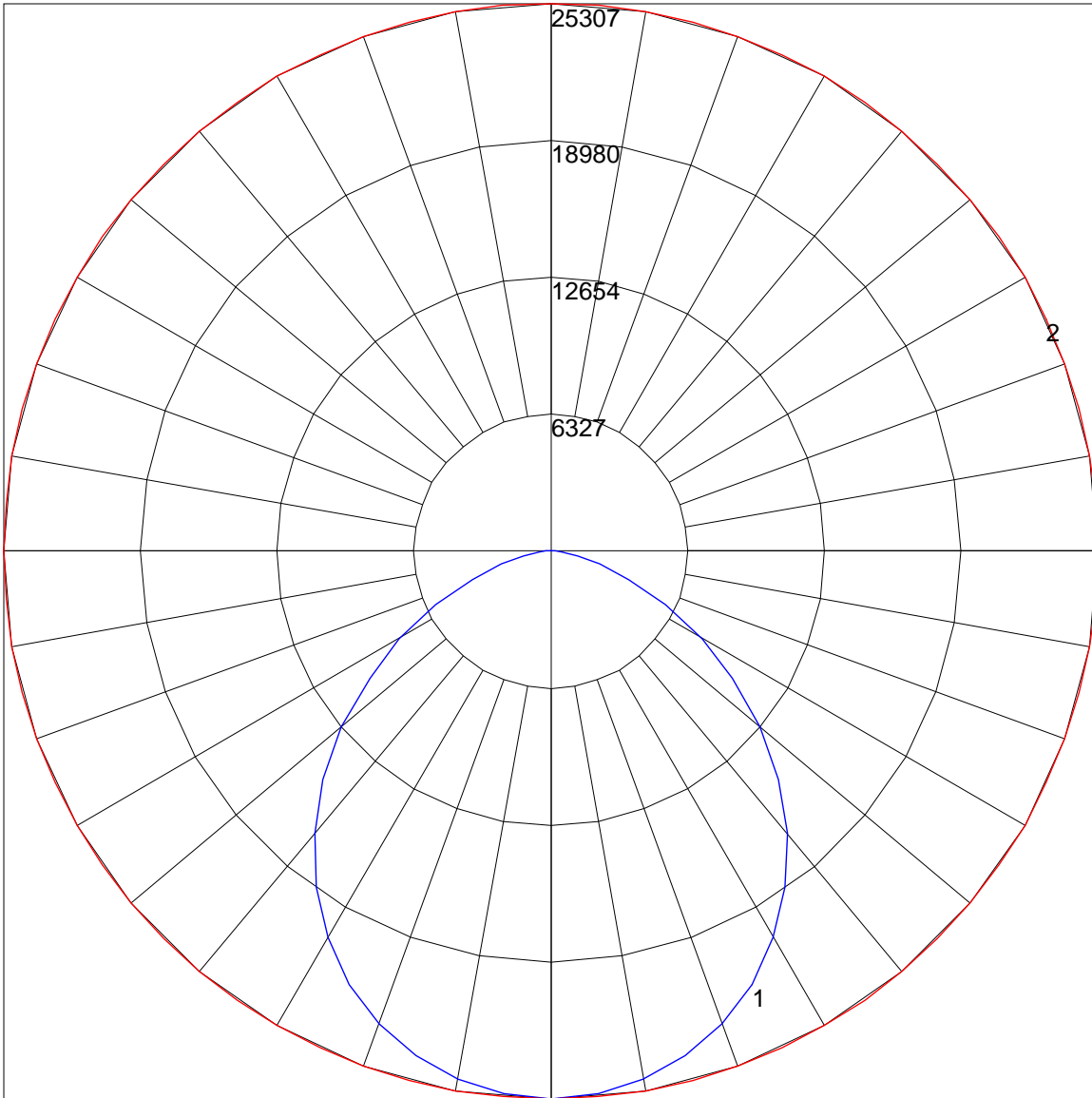
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	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
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	43	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

POLAR GRAPH



Maximum Candela = 25307 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.)