LIGHT LABORATORY INC.
8165 E Kaiser Blvd. Anaheim, CA 92808
p. 714.282.2270
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Report No: L031601807R02
Date: 5/6/2016

NVLAP LAB CODE 200927-0

Report No: L031601807R02

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

Model Number: LED-GYM-6-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-6-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: 3/16/16 - 3/17/16

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.

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Test Summary	
Manufacturer:	Suxess Inc., dba LUX Dynamics
Model Number:	LED-GYM-6-UNV - 850 HO LADC
Driver Model Number:	OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (6 DRIVERS)
Total Lumens:	55546.36
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	4.41
Input Power (W):	529.30
Input Power Factor:	1.00
Current ATHD @ 120V(%):	3%
Current ATHD @ 277V(%):	N/A
Efficacy:	105
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	2:25
Off State Power(W):	0.00

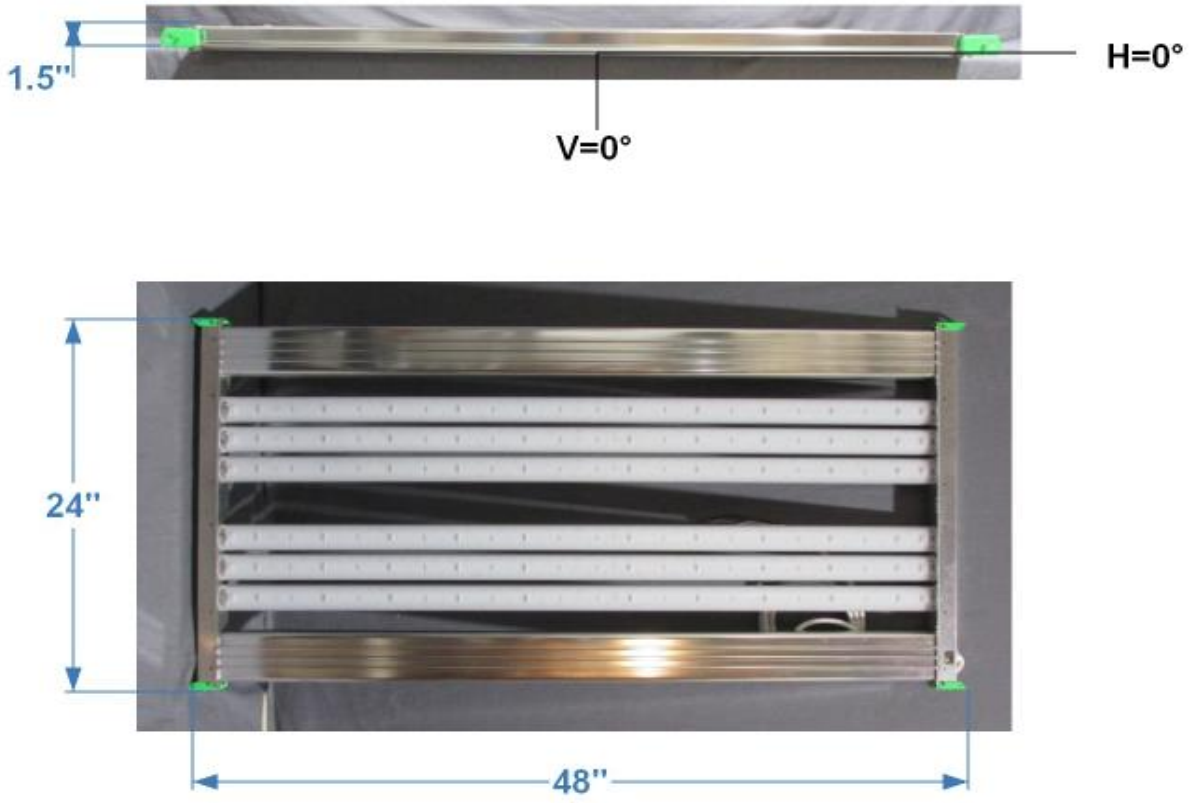

FIG.1 LUMINAIRE

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

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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*

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

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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601807R02.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L031601807R02
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUEDATE] 5/6/2016
[MANUFAC] Suxess Inc., dba LUX Dynamics
[LUMCAT] LED-GYM-6-UNV - 850 HO LADC
[LUMINAIRE] 48"L. X 24"W. X 1.5"H. LED HIGH BAY
[BALLASTCAT] OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (6 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, 529.30W
[_TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	55546
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	529.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.36
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.19 ft
Luminous Height	0.06 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	36523	42861	43323
55	30688	40441	39877
65	23572	37790	42034
75	14848	36399	37534
85	8748	27670	23409

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601807R02.IES

CANDELA TABULATION

	0	5	10	15	20	25	30	35	40	45
0	18615	18615	18615	18615	18615	18615	18615	18615	18615	18615
5	18490	18480	18513	18546	18593	18625	18670	18726	18776	18811
10	18194	18210	18285	18382	18487	18557	18580	18565	18555	18544
15	17738	17789	17901	18037	18076	18046	18005	18034	18079	18126
20	17108	17177	17335	17377	17310	17326	17460	17564	17582	17472
25	16298	16393	16486	16423	16482	16726	16791	16599	16369	16379
30	15318	15383	15370	15385	15715	15764	15518	15499	15797	16084
35	14152	14123	14110	14347	14596	14444	14534	14837	15076	15196
40	12751	12689	12811	13125	13220	13338	13537	13864	14120	14349
45	11117	11120	11373	11623	11924	12050	12453	12797	13004	13445
50	9383	9470	9752	10134	10453	10755	11081	11501	11952	12170
55	7627	7684	8089	8438	8812	9176	9739	10127	10492	10487
60	6082	6166	6518	6881	7288	7894	8276	8700	8893	8913
65	4364	4425	4715	5092	5597	6102	6588	7058	7243	7447
70	2837	2910	3122	3514	4013	4576	5157	5481	5861	6055
75	1724	1780	1964	2306	2780	3316	3787	4165	4455	4689
80	931	983	1158	1420	1834	2281	2586	2837	2804	2811
85	381	442	565	767	1053	1177	1152	1231	1375	1568
90	164	166	167	168	169	171	173	176	180	182
95	0	0	0	0	0	0	0	171	172	173
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**

	50	55	60	65	70	75	80	85	90
0	18615	18615	18615	18615	18615	18615	18615	18615	18615
5	18843	18867	18881	18899	18909	18915	18915	18926	18925
10	18534	18540	18544	18555	18553	18563	18569	18572	18582
15	18164	18196	18198	18170	18141	18099	18056	18039	18018
20	17295	17151	17115	17171	17275	17374	17447	17483	17489
25	16637	16882	17018	17077	17108	17145	17175	17182	17185
30	16193	16258	16310	16398	16488	16601	16675	16723	16747
35	15359	15570	15763	15936	16060	16145	16184	16213	16222
40	14607	14909	15087	15104	15051	15023	15010	15022	15020
45	13713	13672	13689	13752	13777	13744	13692	13656	13638
50	12265	12191	12075	12060	12060	12040	12008	11990	11984
55	10387	10461	10450	10403	10398	10400	10400	10391	10392
60	9016	9061	9103	9169	9225	9271	9319	9354	9363

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601807R02.IES

CANDELA TABULATION - (Cont.)

65	7586	7702	7794	7905	8049	8182	8266	8324	8343
70	6166	6315	6499	6725	6922	7027	7069	7091	7095
75	4861	4989	4942	4893	4880	4887	4892	4895	4892
80	3057	3342	3558	3679	3716	3704	3674	3652	3639
85	1830	1976	1974	1844	1680	1537	1438	1383	1363
90	182	180	179	178	178	178	177	177	177
95	173	173	173	173	173	173	173	173	173
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601807R02.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6865.65	N.A.	12.40
0-30	14588.96	N.A.	26.30
0-40	24083.66	N.A.	43.40
0-60	42767.18	N.A.	77.00
0-80	53921.56	N.A.	97.10
0-90	55438.22	N.A.	99.80
10-90	53658.73	N.A.	96.60
20-40	17218.01	N.A.	31.00
20-50	27123.68	N.A.	48.80
40-70	25549.82	N.A.	46.00
60-80	11154.4	N.A.	20.10
70-80	4288.1	N.A.	7.70
80-90	1516.64	N.A.	2.70
90-110	108.14	N.A.	0.20
90-120	108.14	N.A.	0.20
90-130	108.14	N.A.	0.20
90-150	108.14	N.A.	0.20
90-180	108.14	N.A.	0.20
110-180	0.00	N.A.	0.00
0-180	55546.36	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1779.48
10-20	5086.18
20-30	7723.31
30-40	9494.7
40-50	9905.66
50-60	8777.85
60-70	6866.3
70-80	4288.1
80-90	1516.64
90-100	108.14
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 : L031601807R02.IES

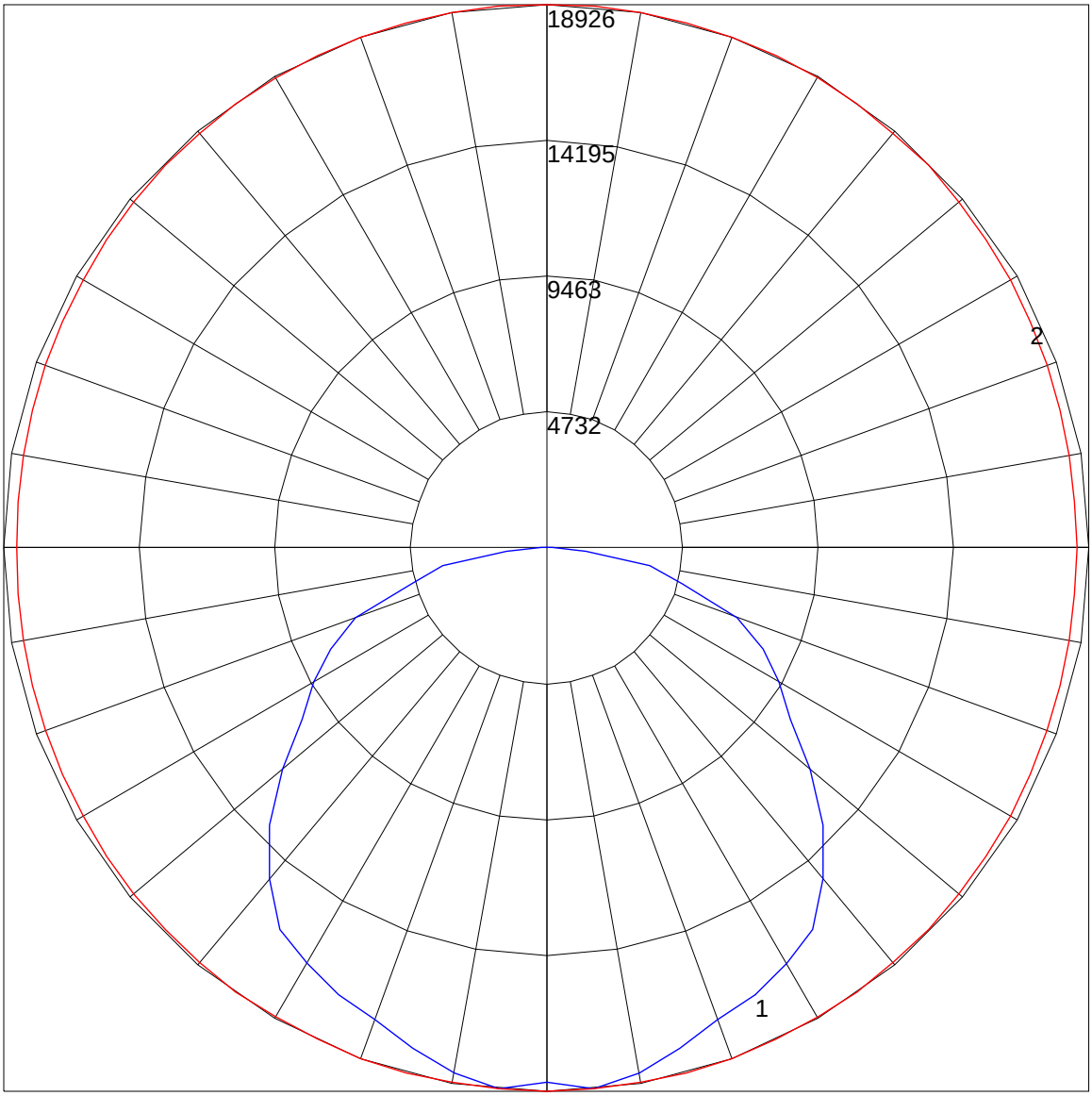
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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
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	29	25	23

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601807R02.IES

POLAR GRAPH



Maximum Candela = 18926 Located At Horizontal Angle = 85, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (85 - 265) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)