LIGHT LABORATORY INC.
8165 E Kaiser Blvd. Anaheim, CA 92808
p. 714.282.2270
f. 714.676.5558

Report No: L031601809R02
Date: 5/6/2016

NVLAP LAB CODE 200927-0

Report No: L031601809R02

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

Model Number: LED-GYM-10-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-10-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-10-UNV - 850 HO LADC
Driver Model Number:	OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (10 DRIVERS)
Total Lumens:	92447.17
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	7.46
Input Power (W):	894.30
Input Power Factor:	1.00
Current ATHD @ 120V(%):	3%
Current ATHD @ 277V(%):	N/A
Efficacy:	103
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	2:30
Off State Power(W):	0.00

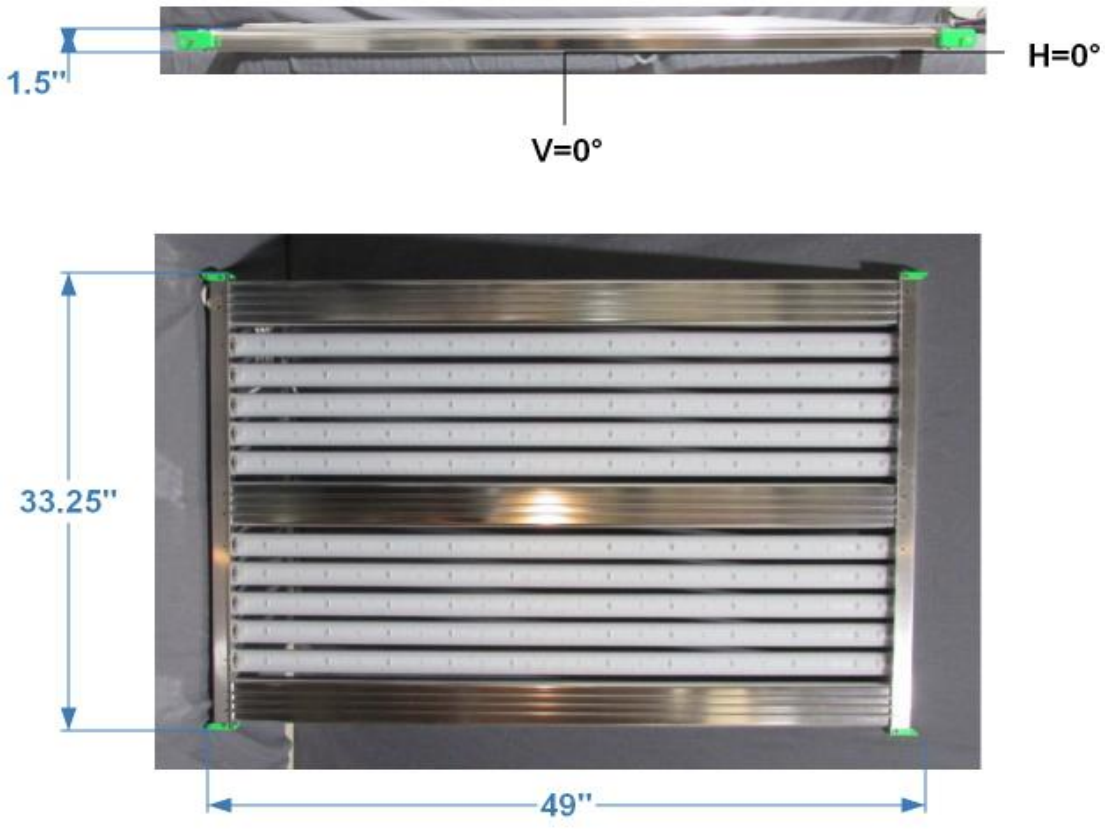

FIG.1 LUMINAIRE

*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 : L031601809R02.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L031601809R02
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUEDATE] 5/6/2016
[MANUFAC] Suxess Inc., dba LUX Dynamics
[LUMCAT] LED-GYM-10-UNV - 850 HO LADC
[LUMINAIRE] 49"L. X 33.25"W. X 1.5"H. LED HIGH BAY
[BALLASTCAT] OSRAM OPTOTRONIC OTi 85/120-277/2A6 DIMLT2 L (10 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, 894.30W
[_TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	92447
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	894.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.34
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	2.04 ft
Luminous Height	0.06 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	35629	41913	43225
55	29886	40346	40538
65	22976	37718	42834
75	14595	36875	37516
85	8719	24713	20187

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601809R02.IES

CANDELA TABULATION

	0	5	10	15	20	25	30	35	40	45
0	31344	31344	31344	31344	31344	31344	31344	31344	31344	31344
5	31150	31138	31131	31160	31181	31223	31225	31259	31291	31339
10	30614	30655	30685	30735	30793	30848	30953	30995	31054	31140
15	29831	29855	29917	30008	30132	30214	30324	30364	30399	30366
20	28735	28744	28860	29004	29140	29260	29268	29230	29168	29136
25	27288	27327	27495	27661	27813	27879	27791	27767	27842	27880
30	25543	25593	25798	25992	26144	26147	26199	26291	26420	26647
35	23523	23572	23763	24029	24186	24335	24490	24690	25060	25441
40	21218	21219	21473	21814	22132	22346	22643	23065	23586	24095
45	18591	18599	18914	19445	19856	20219	20725	21370	21827	22219
50	15728	15805	16223	16871	17392	17951	18578	19138	19641	20170
55	12733	12878	13384	14070	14679	15363	16062	16765	17353	17579
60	10155	10304	10812	11451	12232	12986	13759	14464	14873	15000
65	7292	7411	7852	8519	9334	10181	11031	11709	12075	12373
70	4767	4888	5252	5877	6728	7651	8515	9181	9705	10115
75	2905	3005	3304	3869	4633	5535	6312	6912	7430	7759
80	1569	1657	1938	2419	3095	3742	4219	4600	4670	4569
85	651	740	939	1216	1622	1764	1598	1488	1704	2135
90	285	286	287	291	292	293	296	300	305	309
95	0	0	0	283	283	283	282	281	280	281
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	31344	31344	31344	31344	31344	31344	31344	31344	31344
5	31376	31417	31458	31478	31500	31522	31537	31532	31543
10	31195	31226	31250	31261	31266	31265	31242	31265	31287
15	30329	30305	30268	30225	30220	30222	30221	30209	30234
20	29144	29169	29199	29188	29200	29229	29264	29259	29289
25	27933	28069	28251	28416	28570	28688	28761	28806	28798
30	26958	27235	27442	27587	27722	27840	27945	27970	27990
35	25770	26103	26404	26626	26781	26879	26933	26948	26960
40	24446	24730	24918	25025	25079	25118	25125	25120	25132
45	22518	22759	22929	22994	22984	22940	22894	22864	22860
50	20433	20451	20374	20316	20250	20214	20201	20201	20188
55	17564	17505	17484	17474	17512	17547	17574	17605	17603
60	15070	15170	15343	15457	15528	15588	15640	15687	15695

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601809R02.IES

CANDELA TABULATION - (Cont.)

65	12695	12898	13051	13237	13481	13673	13842	13948	13982
70	10371	10587	10892	11216	11482	11636	11698	11730	11743
75	8049	8375	8541	8449	8267	8087	7941	7857	7829
80	4573	4708	4901	5051	5106	5080	5028	4991	4977
85	2594	2864	2849	2633	2336	2058	1859	1747	1708
90	307	302	299	297	296	295	295	295	295
95	281	282	283	283	284	285	285	285	285
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 : L031601809R02.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	11504.23	N.A.	12.40
0-30	24446.72	N.A.	26.40
0-40	40315.00	N.A.	43.60
0-60	71538.63	N.A.	77.40
0-80	90030.63	N.A.	97.40
0-90	92233.17	N.A.	99.80
10-90	89252.14	N.A.	96.50
20-40	28810.76	N.A.	31.20
20-50	45345.38	N.A.	49.10
40-70	42696.64	N.A.	46.20
60-80	18492.03	N.A.	20.00
70-80	7019.02	N.A.	7.60
80-90	2202.51	N.A.	2.40
90-110	214.01	N.A.	0.20
90-120	214.01	N.A.	0.20
90-130	214.01	N.A.	0.20
90-150	214.01	N.A.	0.20
90-180	214.01	N.A.	0.20
110-180	0.00	N.A.	0.00
0-180	92447.17	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2981.00
10-20	8523.23
20-30	12942.49
30-40	15868.28
40-50	16534.6
50-60	14689.02
60-70	11473.00
70-80	7019.02
80-90	2202.51
90-100	214.01
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 : L031601809R02.IES

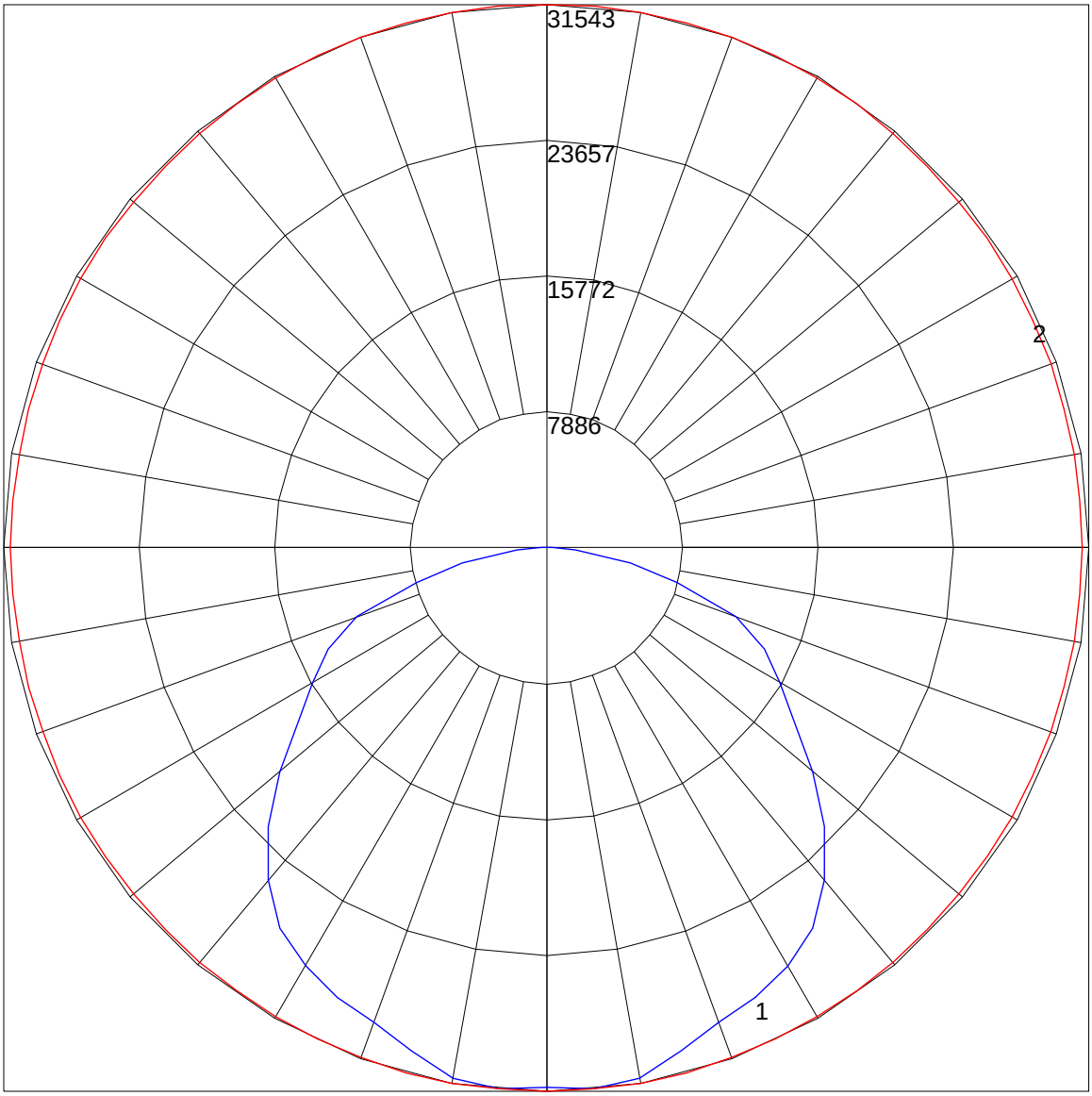
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	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	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L031601809R02.IES

POLAR GRAPH



Maximum Candela = 31543 Located At Horizontal Angle = 90, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)