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Report No: L111602306R01

Date: 11/15/2016



NVLAP LAB CODE 200927-0

Report No: L111602306R01

Report Prepared For: Revolution Lighting Technologies
 4139 Guardian St. Simi Valley, CA 93063

Model Number: 128012-125

Test: Electrical and Photometric tests

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 128012-125 . Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 11/9/16

Date of Tests: 11/11/16 - 11/15/16

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:	Revolution Lighting Technologies
Model Number:	128012-125
Driver Model Number:	LETRON LP0240-1450(2 DRIVERS)
Total Lumens:	18295.26
Input Voltage (VAC/60Hz):	277.00
Input Current (Amp):	0.51
Input Power (W):	126.95
Input Power Factor:	0.90
Current ATHD @ 120V(%):	N/A
Current ATHD @ 277V(%):	19%
Efficacy:	144
Color Rendering Index (CRI):	84
Correlated Color Temperature (K):	4995
Chromaticity Coordinate x:	0.3452
Chromaticity Coordinate y:	0.3516
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:05
Off State Power(W):	0.00

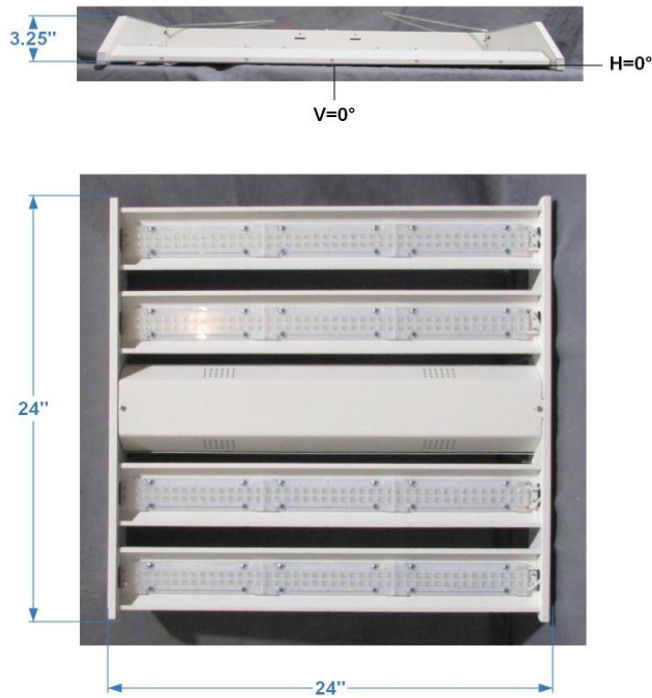
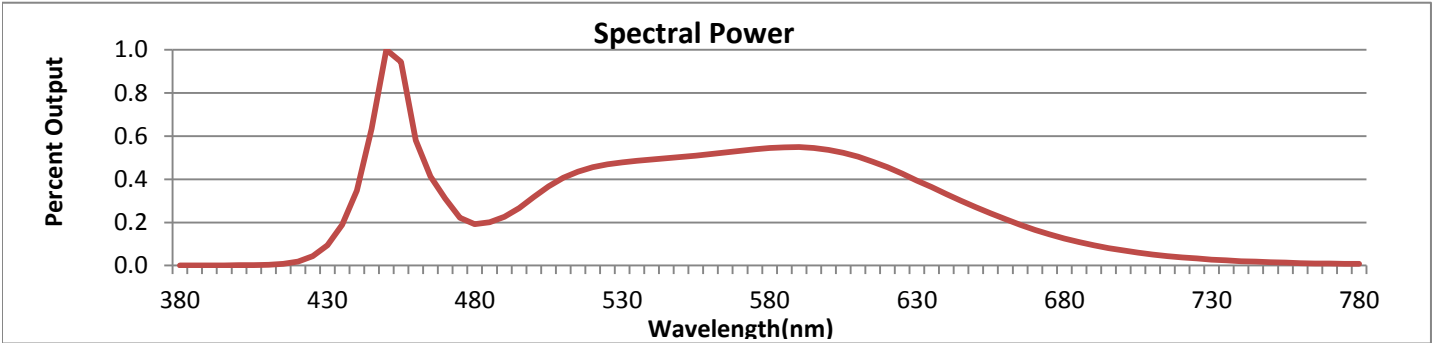


FIG. 1 LUMINAIRE

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



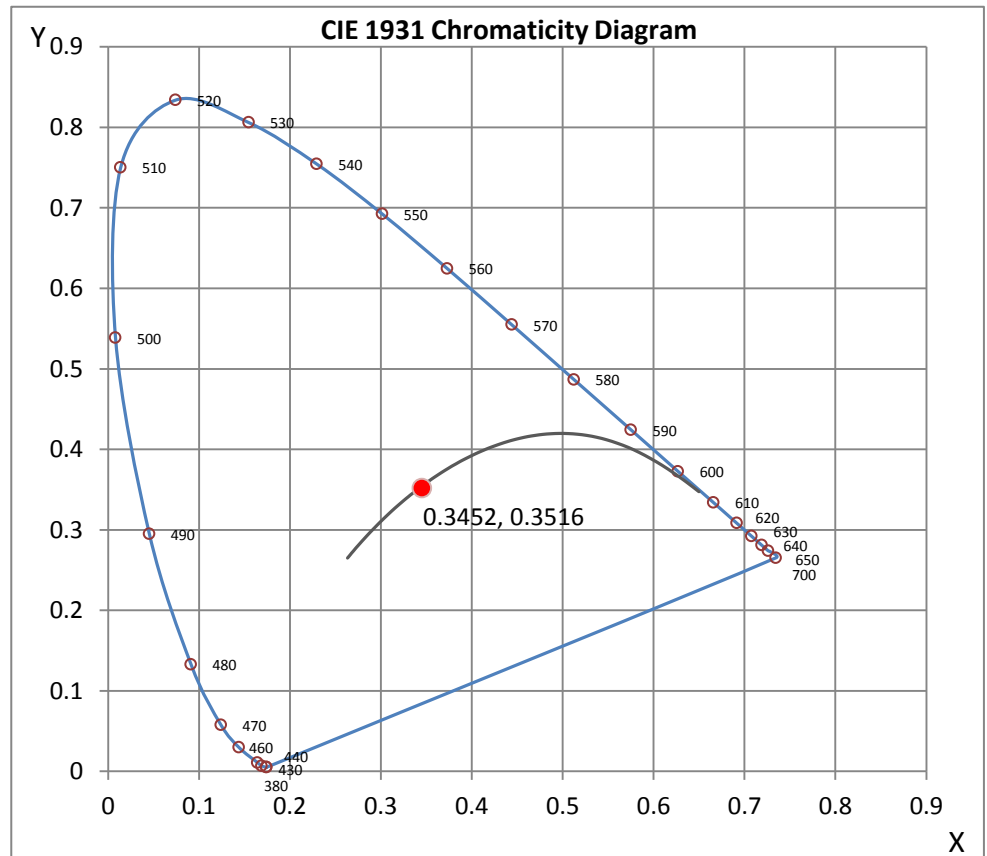
Wavelength	W/m ² nm	440	0.3482	510	0.4071	580	0.5456	650	0.2704	720	0.0379
380	0.0007	450	1.0000	520	0.4566	590	0.5491	660	0.2149	730	0.0278
390	0.0011	460	0.5813	530	0.4785	600	0.5369	670	0.1659	740	0.0205
400	0.0014	470	0.3105	540	0.4915	610	0.5048	680	0.1254	750	0.0153
410	0.0036	480	0.1925	550	0.5032	620	0.4561	690	0.0938	760	0.0115
420	0.0184	490	0.2260	560	0.5166	630	0.3942	700	0.0695	770	0.0087
430	0.0934	500	0.3180	570	0.5322	640	0.3314	710	0.0513	780	0.0075

CRI & CCT

x	0.3452
y	0.3516
u'	0.2115
v'	0.4847
CRI	84.30
CCT	4995
Duv	-0.00004

R Values

R1	83.47
R2	89.29
R3	92.29
R4	84.03
R5	82.86
R6	83.42
R7	88.57
R8	70.76
R9	17.86
R10	73.39
R11	83.26
R12	54.95
R13	85.25
R14	95.49



*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.

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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 : L111602306R01.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L111602306R01
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 11/15/2016
 [MANUFAC] REVOLUTION LIGHTING TECHNOLOGIES
 [LUMCAT] 128012-125
 [LUMINAIRE] 128W ECO LINEAR HIGH BAY 5000K MEDIUM OPTIC
 [BALLASTCAT] LETRON LP0240-1450(2 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] 277VAC, 126.95W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	18295
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	126.95
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15905	20830	16685
55	6529	10222	6617
65	2728	3511	2073
75	1635	1047	414
85	718	547	513

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L111602306R01.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	10141	10141	10141	10141	10141
5	10353	10337	10284	10248	10261
10	10656	10643	10550	10421	10334
15	10749	10788	10694	10417	10226
20	10321	10505	10491	10025	9705
25	9371	9733	9913	9293	8939
30	8127	8621	9066	8330	7882
35	6780	7280	7879	7188	6784
40	5351	5822	6464	5886	5551
45	3775	4265	4944	4399	3960
50	2300	2744	3342	2846	2392
55	1257	1534	1968	1570	1274
60	668	779	1007	780	665
65	387	421	498	380	294
70	236	257	261	146	117
75	142	147	91	42	36
80	72	59	26	27	27
85	21	14	16	16	15
90	0	0	0	0	0

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3960.95	N.A.	21.70
0-30	8317.28	N.A.	45.50
0-40	12842.44	N.A.	70.20
0-60	17707.95	N.A.	96.80
0-80	18275.56	N.A.	99.90
0-90	18295.26	N.A.	100.00
10-90	17306.12	N.A.	94.60
20-40	8881.49	N.A.	48.50
20-50	12236.44	N.A.	66.90
40-70	5318.6	N.A.	29.10
60-80	567.61	N.A.	3.10
70-80	114.52	N.A.	0.60
80-90	19.70	N.A.	0.10
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	18295.26	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	989.14
10-20	2971.81
20-30	4356.34
30-40	4525.16
40-50	3354.95
50-60	1510.57
60-70	453.09
70-80	114.52
80-90	19.70
90-100	0.00
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

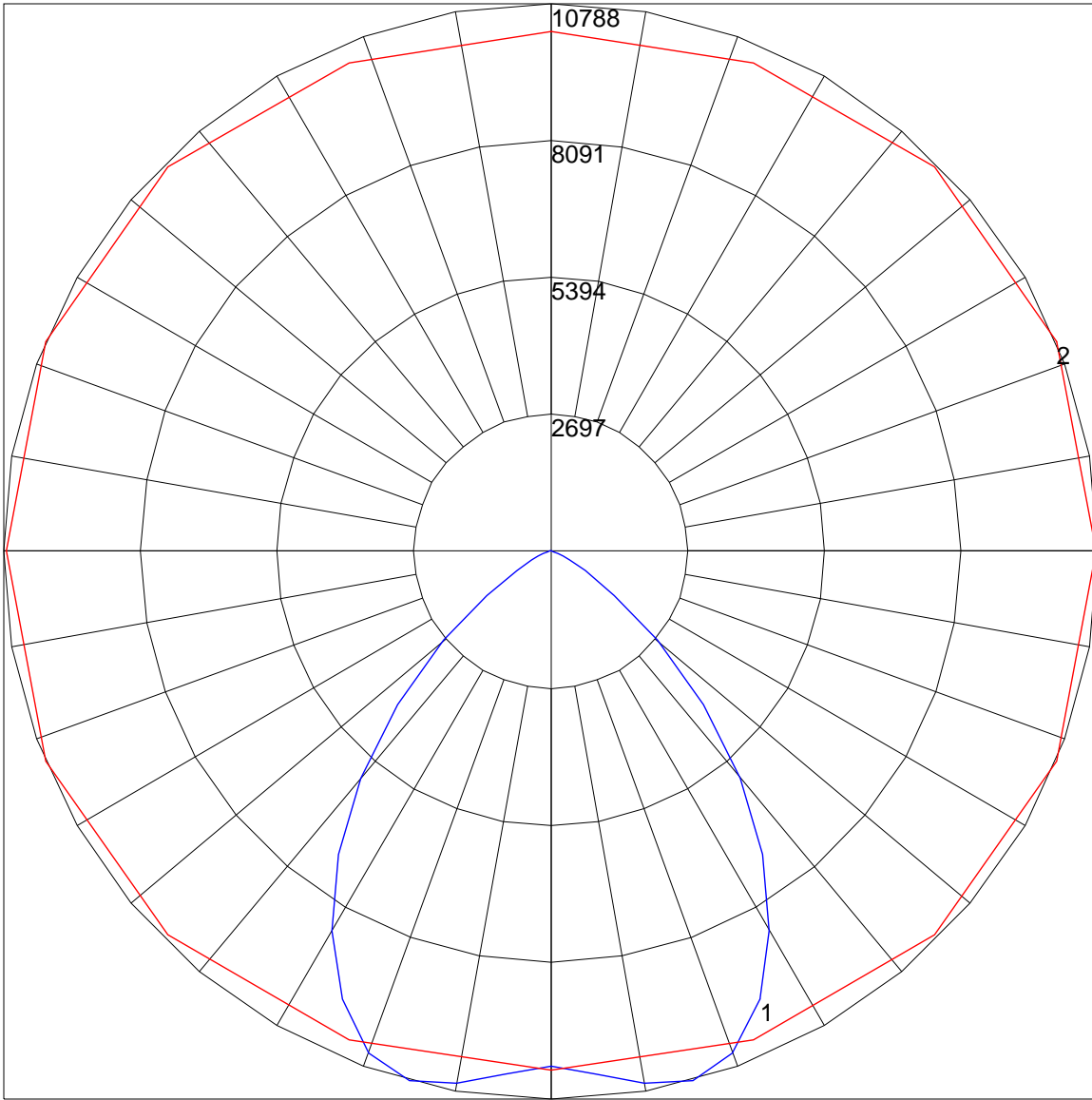
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	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	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	51	45	42	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37

POLAR GRAPH



Maximum Candela = 10788 Located At Horizontal Angle = 22.5, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)