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Report No: L111401001

Date: 11/10/2014



NVLAP LAB CODE 200927-0

Report No: L111401001

Report Prepared For: Dreamscape Lighting
 5521 Washington Blvd, Los Angeles, CA 90016

Model Number: DLED-5600-3.9W

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 DLED-5600-3.9W. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 10/21/14

Date of Tests: 11/6/14 - 11/6/14

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	01/04/15
Xitron Power Analysis System	2503AH	MT-EL01	01/09/15
BK Precision DC Power Supply	1747	PSDC-04	01/08/15
Fluke Digital Thermometer	52k/J	MT-TP02-GC	01/04/15
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:	Dreamscape Lighting
Model Number:	DLED-5600-3.9W
Driver Model Number:	LTF DA12W24V-0000
Total Lumens:	356.63
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.05
Input Power (W):	5.04
Input Power Factor:	0.79
Current ATHD @ 120V(%):	30%
Current ATHD @ 277V(%):	N/A
Efficacy:	71
Color Rendering Index (CRI):	97
Correlated Color Temperature (K):	3077
Chromaticity Coordinate x:	0.4315
Chromaticity Coordinate y:	0.4019
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	0:50
Off State Power(W):	0.00

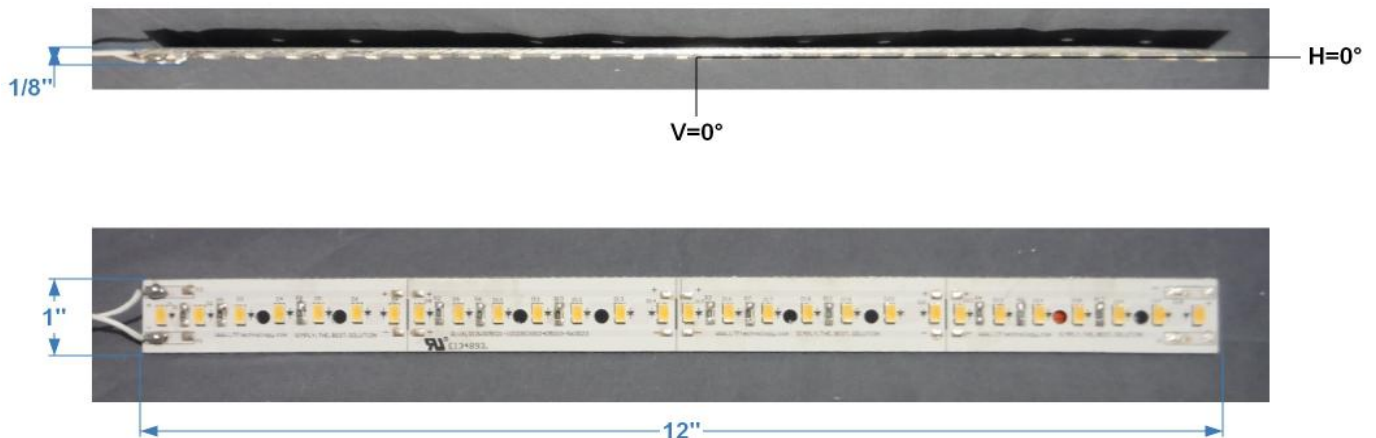
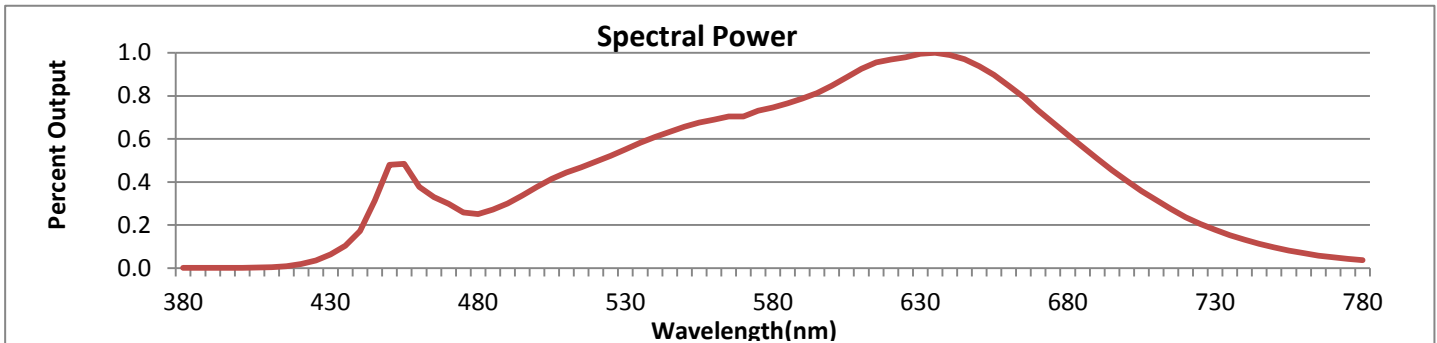


FIG. 1 LUMINAIRE

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



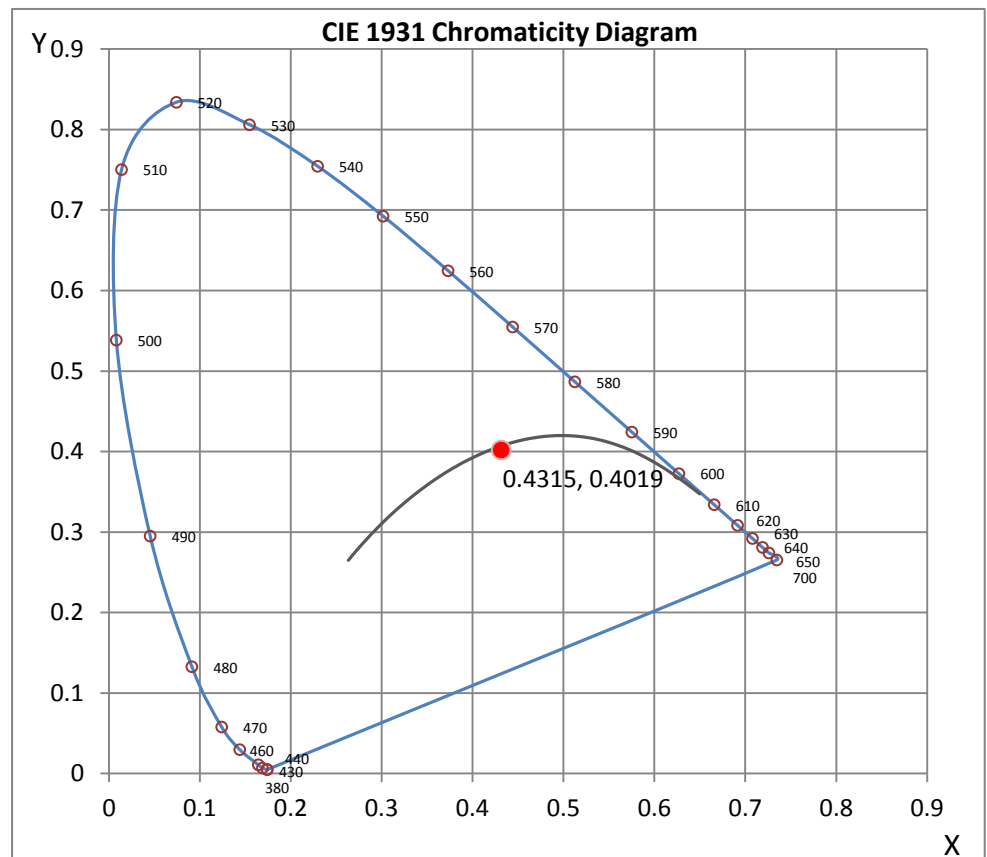
Wavelength	W/m ² nm	440	0.1727	510	0.4436	580	0.7465	650	0.9383	720	0.2356
380	0.0009	450	0.4803	520	0.4945	590	0.7873	660	0.8472	730	0.1776
390	0.0009	460	0.3773	530	0.5508	600	0.8466	670	0.7328	740	0.1319
400	0.0013	470	0.2991	540	0.6090	610	0.9261	680	0.6194	750	0.0962
410	0.0040	480	0.2516	550	0.6563	620	0.9684	690	0.5077	760	0.0690
420	0.0185	490	0.2998	560	0.6897	630	0.9960	700	0.4052	770	0.0507
430	0.0634	500	0.3775	570	0.7045	640	0.9891	710	0.3159	780	0.0368

CRI & CCT

x	0.4315
y	0.4019
u'	0.2480
v'	0.5197
CRI	97.20
CCT	3077
Duv	-0.00010

R Values

R1	98.43
R2	98.50
R3	95.97
R4	98.08
R5	97.30
R6	96.90
R7	97.74
R8	94.94
R9	87.70
R10	94.36
R11	97.86
R12	82.37
R13	98.62
R14	96.77



*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 : Wilson Khounlavong

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 : L111401001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L111401001
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 11/10/2014
 [MANUFAC] DREAMSCAPE LIGHTING
 [LUMCAT] DLED-5600-3.9W
 [LUMINAIRE] 12"L X 1"W X 1/8"H. LED STRIP
 [BALLASTCAT] LTF DA12W24V-0000
 [BALLAST] INPUT: 120VAC, 0.12A, 50/60HZ. OUTPUT: 24VDC
 [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, 5.04W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	357
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	5.04
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.98 ft
Luminous Width (90-270)	0.02 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	63843	65372	66218
55	60799	62598	63507
65	56071	58214	56500
75	46807	46553	47867
85	28706	29839	26818

IES INDOOR REPORT
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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	125.16	125.16	125.16	125.16	125.16
5	122.19	123.54	125.03	125.81	126.07
10	120.62	122.02	123.41	124.28	124.48
15	118.08	119.20	120.77	121.46	121.85
20	114.39	115.45	117.08	117.80	118.11
25	109.60	110.89	112.15	113.24	113.25
30	104.19	105.24	106.60	107.54	107.73
35	97.48	98.78	99.81	100.93	100.88
40	90.60	91.38	92.69	93.42	93.78
45	82.28	83.21	84.25	85.19	85.34
50	73.51	72.79	75.25	76.50	76.26
55	63.56	64.46	65.44	66.28	66.39
60	53.25	54.42	55.00	56.04	55.22
65	43.19	43.70	44.84	44.59	43.52
70	32.38	33.14	32.98	32.85	32.78
75	22.08	22.77	21.96	22.39	22.58
80	12.12	14.23	13.00	13.26	14.64
85	4.56	4.53	4.74	4.66	4.26
90	0.00	0.00	0.00	0.00	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	45.82	N.A.	12.80
0-30	97.41	N.A.	27.30
0-40	159.80	N.A.	44.80
0-60	282.87	N.A.	79.30
0-80	350.47	N.A.	98.30
0-90	356.63	N.A.	100.00
10-90	344.79	N.A.	96.70
20-40	113.98	N.A.	32.00
20-50	178.79	N.A.	50.10
40-70	166.65	N.A.	46.70
60-80	67.61	N.A.	19.00
70-80	24.03	N.A.	6.70
80-90	6.16	N.A.	1.70
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	356.63	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	11.85
10-20	33.97
20-30	51.59
30-40	62.39
40-50	64.81
50-60	58.26
60-70	43.58
70-80	24.03
80-90	6.16
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

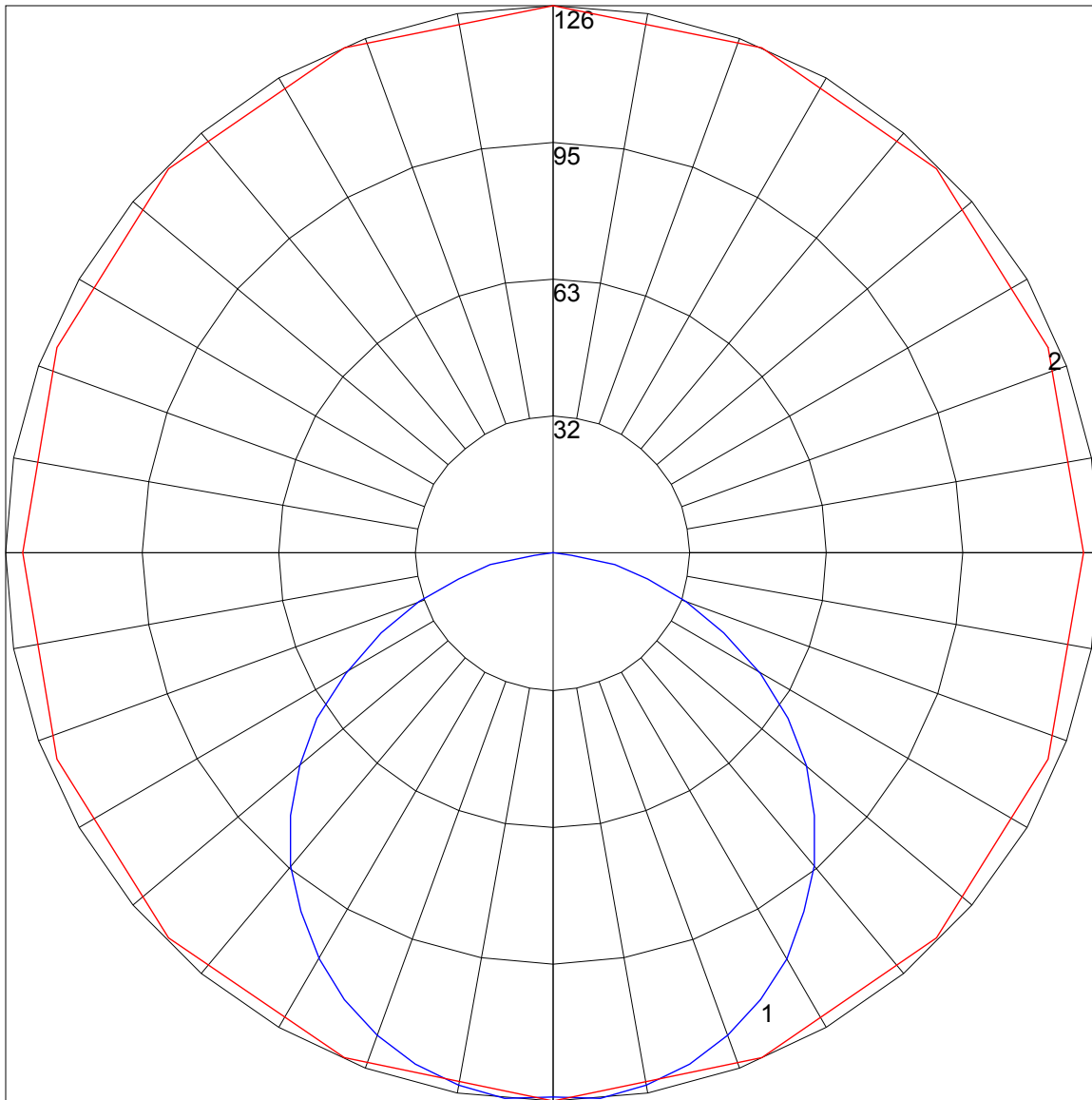
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	45	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 126.07 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.)