



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

Test #: L09133803

Date: 10/9/2013



NVLAP LAB CODE 200927-0

Test Report: L09133803

Model Number: ELED Strip TW WW

Report Prepared For: ELATION LIGHTING
 6122 S. EASTERN AVE, COMMERCE, CA 90040

Test: Electrical and Photometric tests as required by the IESNA test standards.

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. Fixture catalog number is ELED Strip TW WW. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 9/5/13

Date of Tests: 10/9/13 - 10/9/13

Seasoning of Sample SSL: 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	01/04/14
Xitron Power Analysis System	2503AH	MT-EL01	01/09/14
Fluke Digital Thermometer	52k/J	MT-TP02-GC	01/04/14
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.

LM-79 Test Summary

Manufacturer:	ELATION LIGHTING
Model Number:	ELED Strip TW WW
LAMPCAT:	N/A
Driver Model Number:	N/A
Total Lumens:	529.26
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.37
Input Power (W):	39.27
Input Power Factor:	0.89
Total Harmonic Distortion @ 120V(%):	30%
Total Harmonic Distortion @ 277V(%):	N/A
Efficacy:	13
Color Rendering Index (CRI):	77
Correlated Color Temperature (K):	2994
Chromaticity Coordinate x:	0.4369
Chromaticity Coordinate y:	0.4034
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:35
Total Operating Time (Hours):	1:40
Off State Power(W):	0.00

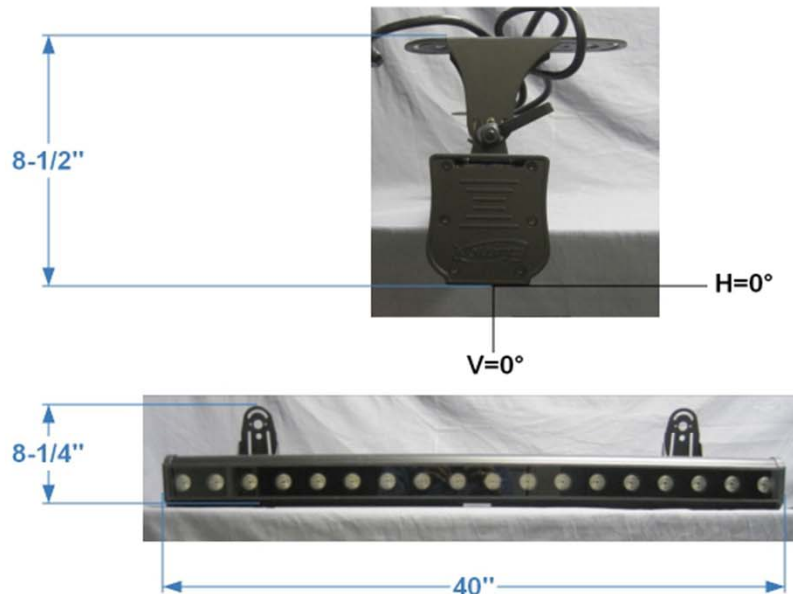
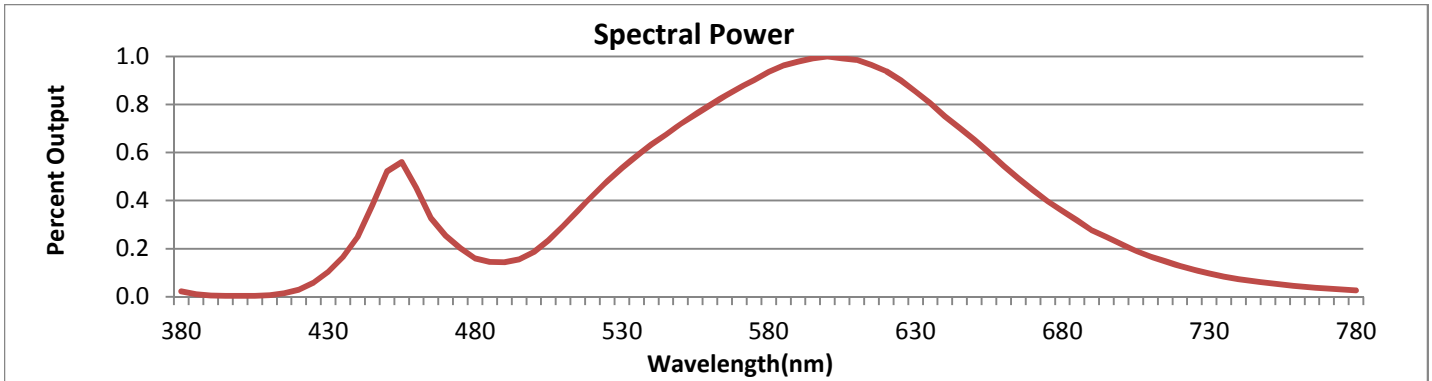


FIG1. LUMINAIRE

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



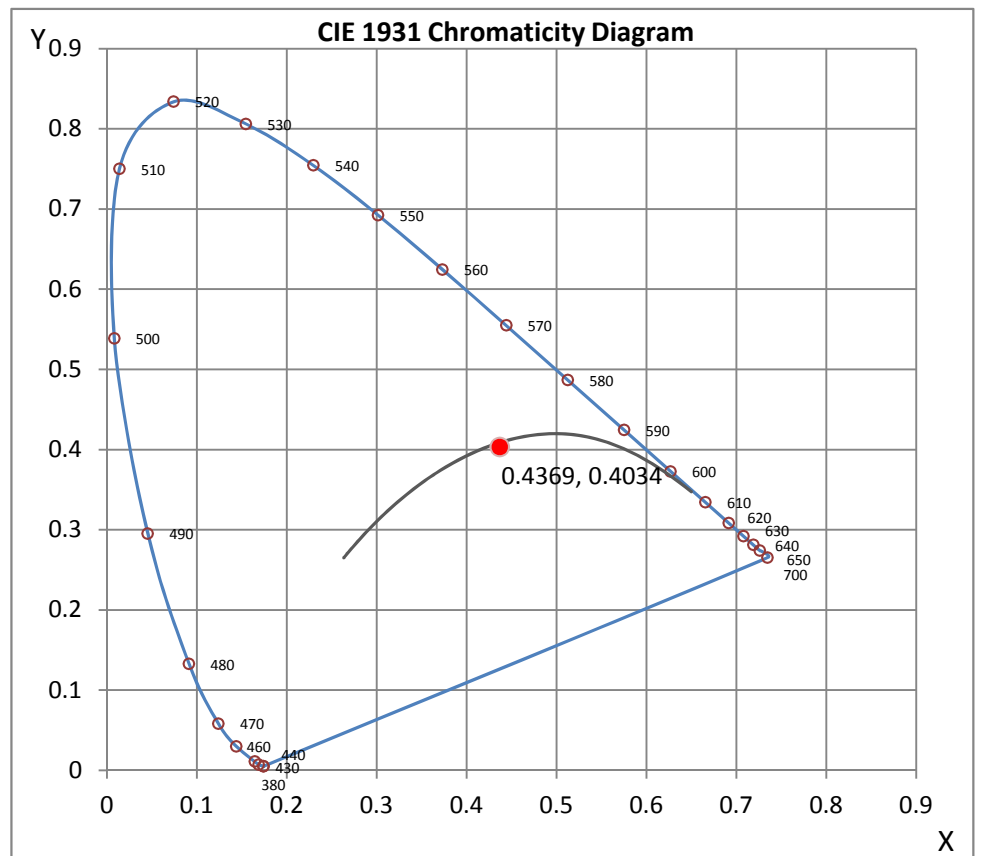
Wavelength	W/m ² nm	440	0.0092	510	0.0109	580	0.0347	650	0.0242	720	0.0047
380	0.0008	450	0.0193	520	0.0156	590	0.0362	660	0.0202	730	0.0036
390	0.0002	460	0.0168	530	0.0198	600	0.0370	670	0.0164	740	0.0027
400	0.0001	470	0.0094	540	0.0235	610	0.0365	680	0.0132	750	0.0021
410	0.0002	480	0.0059	550	0.0266	620	0.0348	690	0.0103	760	0.0016
420	0.0011	490	0.0053	560	0.0295	630	0.0316	700	0.0081	770	0.0013
430	0.0039	500	0.0069	570	0.0322	640	0.0278	710	0.0062	780	0.0010

CRI & CCT

x	0.4369
y	0.4034
u'	0.2508
v'	0.5211
CRI	77.20
CCT	2994
Duv	-0.00027

R Values

R1	75.10
R2	85.21
R3	91.94
R4	73.14
R5	72.48
R6	77.40
R7	83.74
R8	58.46
R9	3.10
R10	63.25
R11	66.47
R12	51.51
R13	77.16
R14	94.77



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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: 8*

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Photometric Test Report

IES FLOOD REPORT

PHOTOMETRIC FILENAME : L09133803.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L09133803
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUEDATE] 10/9/2013S
[MANUFAC] ELATION LIGHTING
[LUMCAT] ELED Strip TW WW
[LUMINAIRE] 8-1/4"L. X 40"W. X 8-1/2"H. LED LUMINAIRE
[MORE] CLEAR LENS
[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, 39.27W
[TEST PROCEDURE] IESNA:LM-79-08

Note: Candela values converted from Type-C to Type-B

CHARACTERISTICS

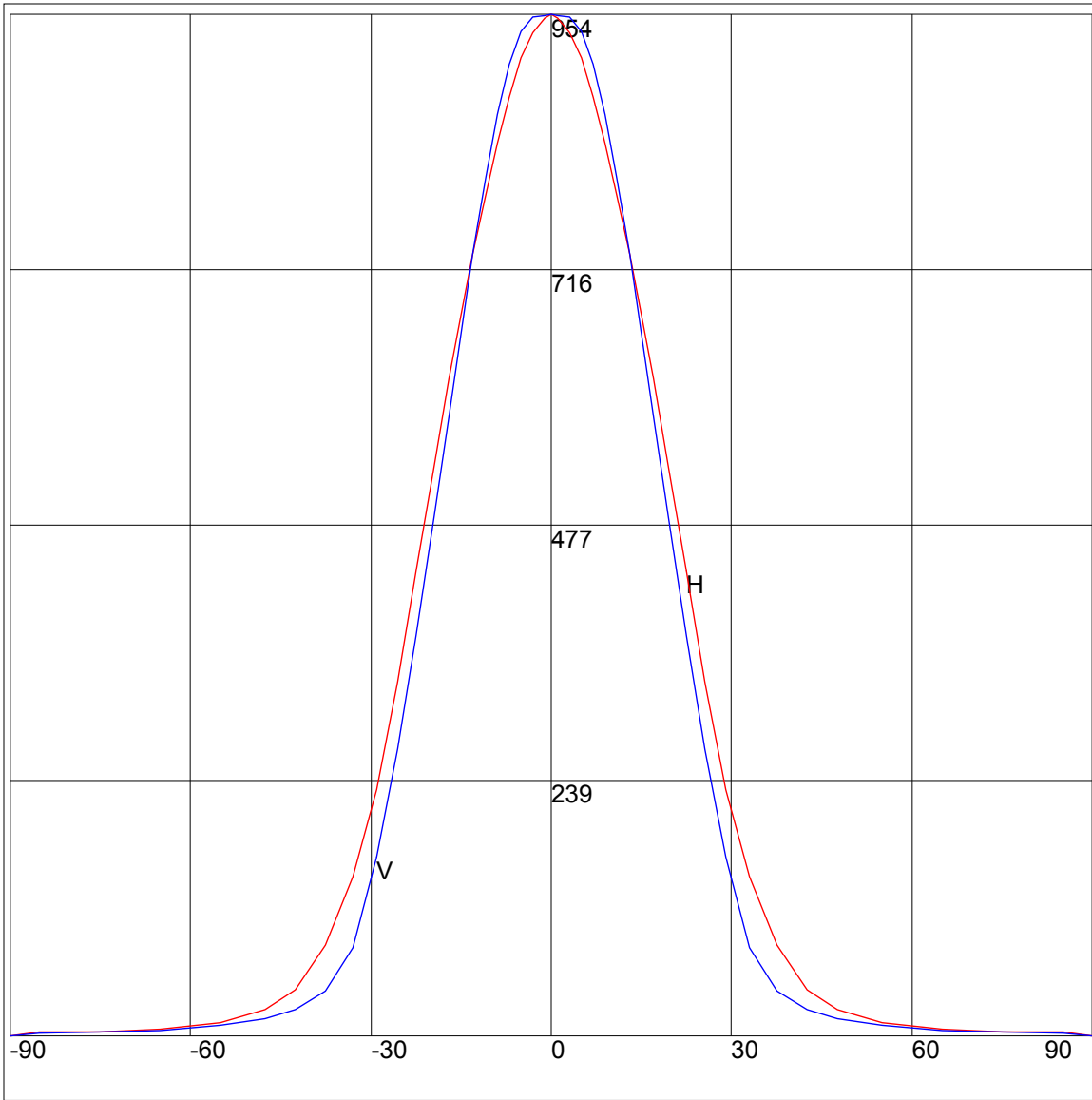
NEMA Type	5 H x 4 V
Maximum Candela	954
Maximum Candela Angle	-1H -1V
Horizontal Beam Angle (50%)	42.5
Vertical Beam Angle (50%)	39.5
Horizontal Field Angle (10%)	73.5
Vertical Field Angle (10%)	64.8
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	288
Beam Efficiency	N.A.
Field Lumens	459
Field Efficiency	N.A.
Spill Lumens	70
Luminaire Lumens	529
Total Efficiency	N.A.
Total Luminaire Watts	39.27
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L09133803.IES

AXIAL CANDELA

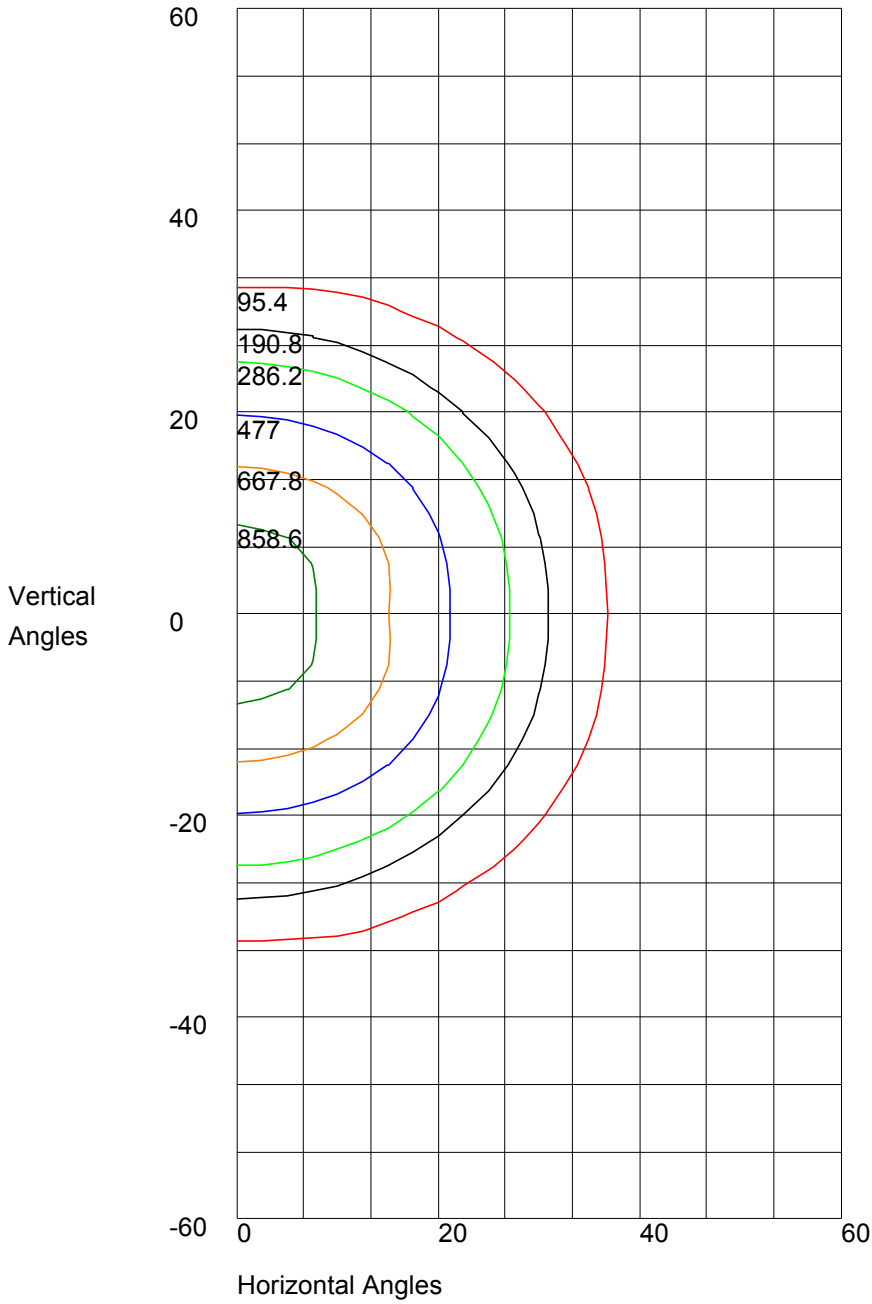
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	4	85	3
75	4	75	4
65	7	65	6
55	13	55	11
47.5	25	47.5	17
42.5	44	42.5	25
37.5	85	37.5	42
33	149	33	83
29	230	29	168
25.5	331	25.5	268
22.5	434	22.5	374
19.5	534	19.5	487
17	614	17	578
15	672	15	653
13	729	13	729
11	784	11	800
9	833	9	861
7	877	7	907
5	913	5	938
3	937	3	952
1	950	1	953
0	954	0	954
-1	950	-1	953
-3	937	-3	952
-5	913	-5	938
-7	877	-7	907
-9	833	-9	861
-11	784	-11	800
-13	729	-13	729
-15	672	-15	653
-17	614	-17	578
-19.5	534	-19.5	487
-22.5	434	-22.5	374
-25.5	331	-25.5	268
-29	230	-29	168
-33	149	-33	83
-37.5	85	-37.5	42
-42.5	44	-42.5	25
-47.5	25	-47.5	17
-55	13	-55	11
-65	7	-65	6
-75	4	-75	4
-85	4	-85	3
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 954 Located At Horizontal Angle = -1, Vertical Angle = -1
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 954 Located At Horizontal Angle =-1, Vertical Angle =-1
50% Maximum Candela = 477
10% Maximum Candela = 95.4