



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

Test #: L09133805

Date: 10/9/2013



NVLAP LAB CODE 200927-0

Test Report: L09133805

Model Number: ELED Strip TW BOTH

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 BOTH . 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 BOTH
LAMPCAT:	N/A
Driver Model Number:	N/A
Total Lumens:	1373.02
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.64
Input Power (W):	72.85
Input Power Factor:	0.95
Total Harmonic Distortion @ 120V(%):	21%
Total Harmonic Distortion @ 277V(%):	N/A
Efficacy:	19
Color Rendering Index (CRI):	78
Correlated Color Temperature (K):	4611
Chromaticity Coordinate x:	0.3558
Chromaticity Coordinate y:	0.3531
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:40
Total Operating Time (Hours):	1:45
Off State Power(W):	0.00

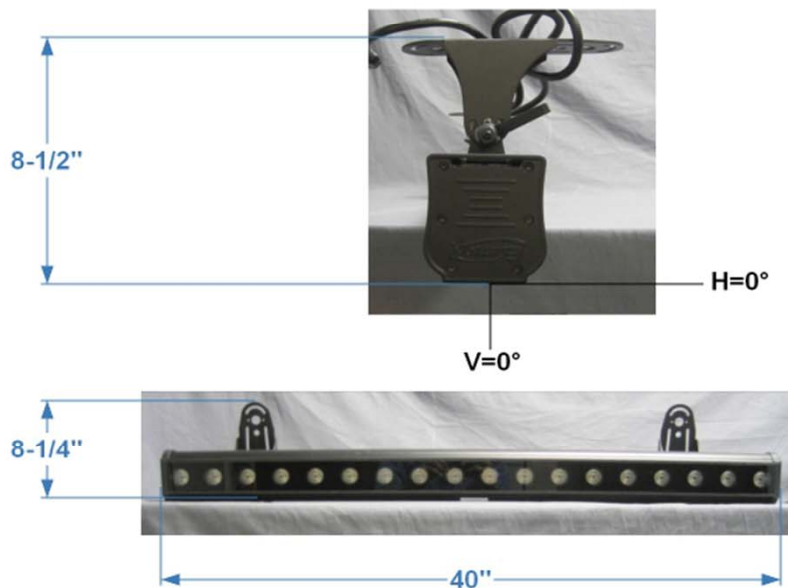
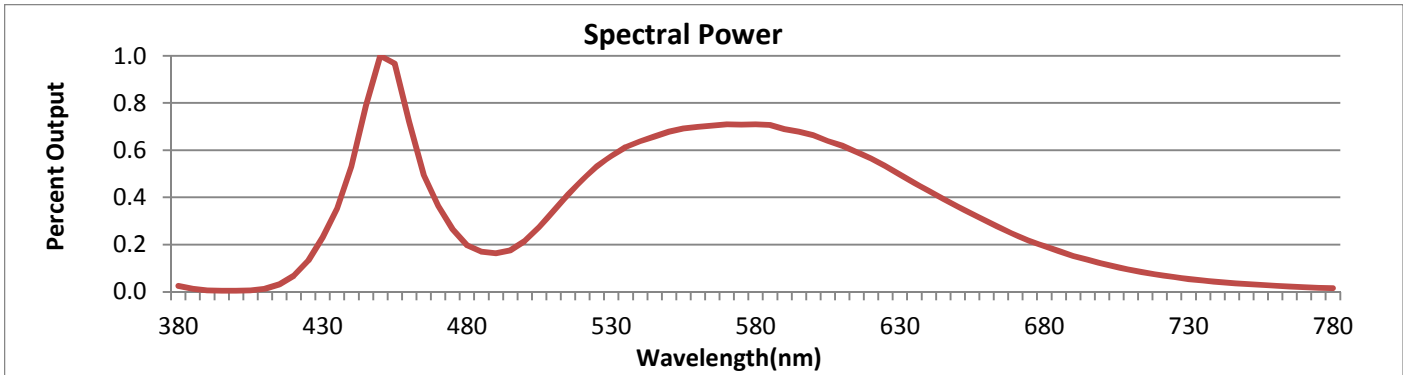


FIG1. LUMINAIRE

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



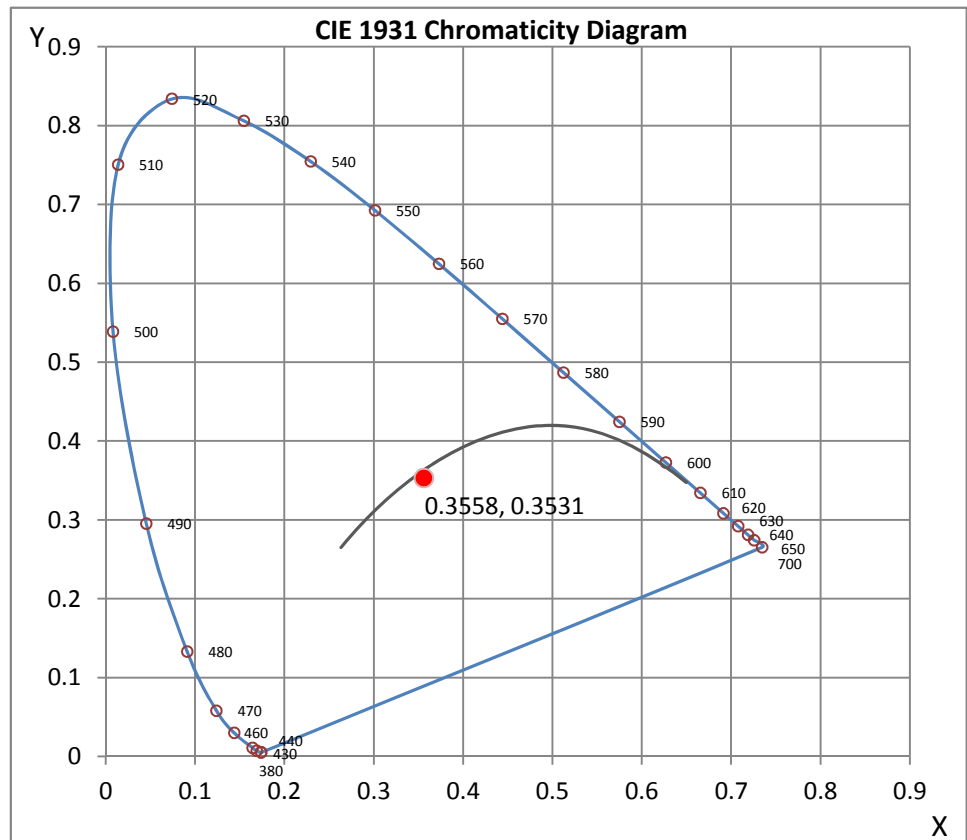
Wavelength	W/m ² nm	440	0.0618	510	0.0399	580	0.0827	650	0.0422	720	0.0083
380	0.0029	450	0.1166	520	0.0554	590	0.0805	660	0.0348	730	0.0062
390	0.0008	460	0.0841	530	0.0671	600	0.0774	670	0.0280	740	0.0048
400	0.0005	470	0.0425	540	0.0745	610	0.0722	680	0.0225	750	0.0038
410	0.0016	480	0.0229	550	0.0791	620	0.0659	690	0.0177	760	0.0030
420	0.0079	490	0.0190	560	0.0816	630	0.0580	700	0.0139	770	0.0023
430	0.0270	500	0.0250	570	0.0827	640	0.0498	710	0.0108	780	0.0018

CRI & CCT

x	0.3558
y	0.3531
u'	0.2181
v'	0.4870
CRI	77.90
CCT	4611
Duv	-0.00339

R Values

R1	77.00
R2	83.25
R3	84.40
R4	76.61
R5	75.13
R6	73.56
R7	85.96
R8	67.03
R9	7.15
R10	56.42
R11	71.06
R12	45.99
R13	78.33
R14	90.41



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



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

Test #: L09133805

Date: 10/9/2013



NVLAP LAB CODE 200927-0

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*

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



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

Photometric Test Report

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L09133805.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L09133805
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 10/9/2013
 [MANUFAC] ELATION LIGHTING
 [LUMCAT] ELED Strip TW BOTH
 [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, 72.85W
 [TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

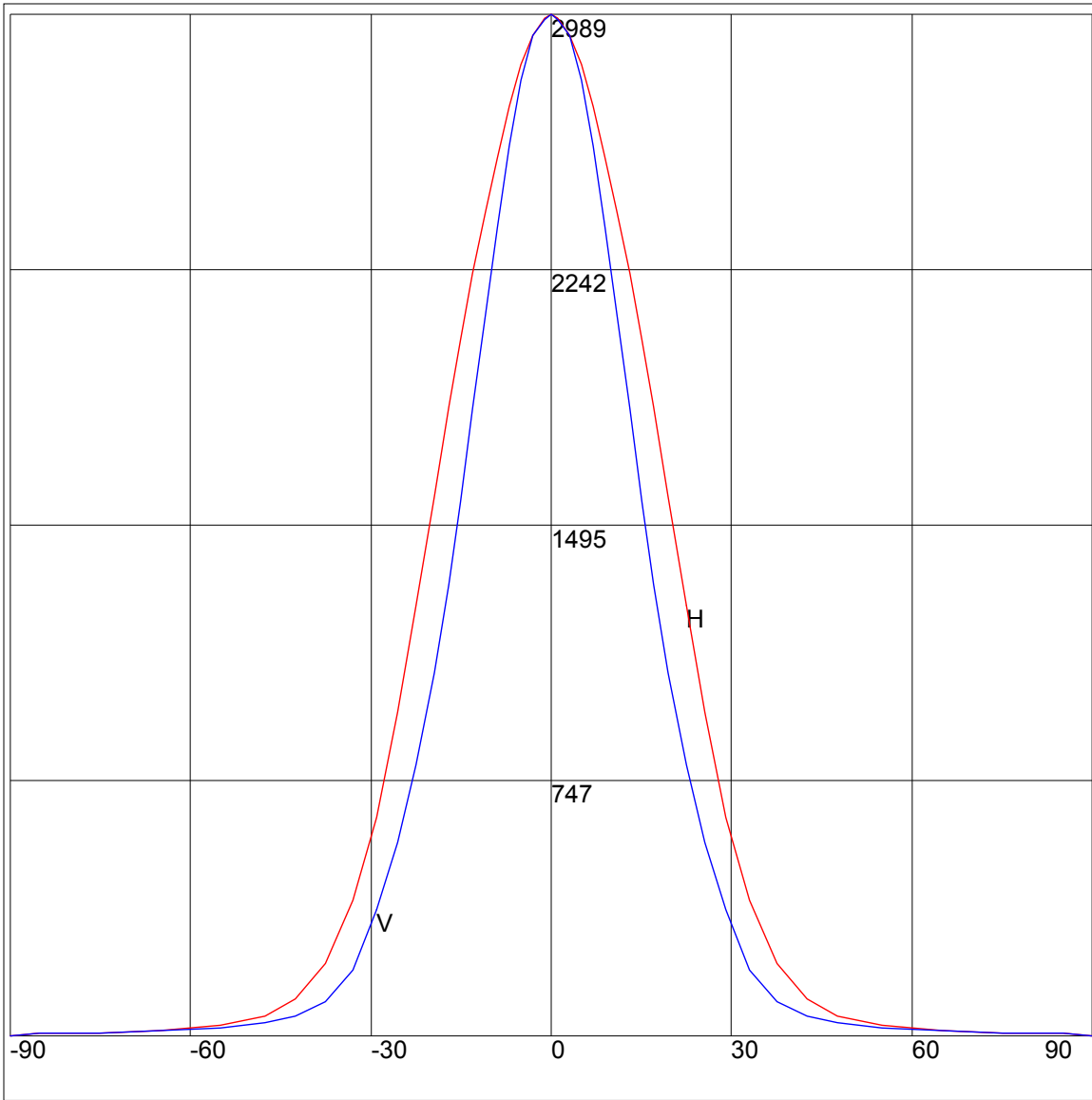
NEMA Type	5 H x 4 V
Maximum Candela	2989
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	40.6
Vertical Beam Angle (50%)	31.2
Horizontal Field Angle (10%)	70.9
Vertical Field Angle (10%)	61.3
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	643
Beam Efficiency	N.A.
Field Lumens	1161
Field Efficiency	N.A.
Spill Lumens	212
Luminaire Lumens	1373
Total Efficiency	N.A.
Total Luminaire Watts	72.85
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L09133805.IES

AXIAL CANDELA

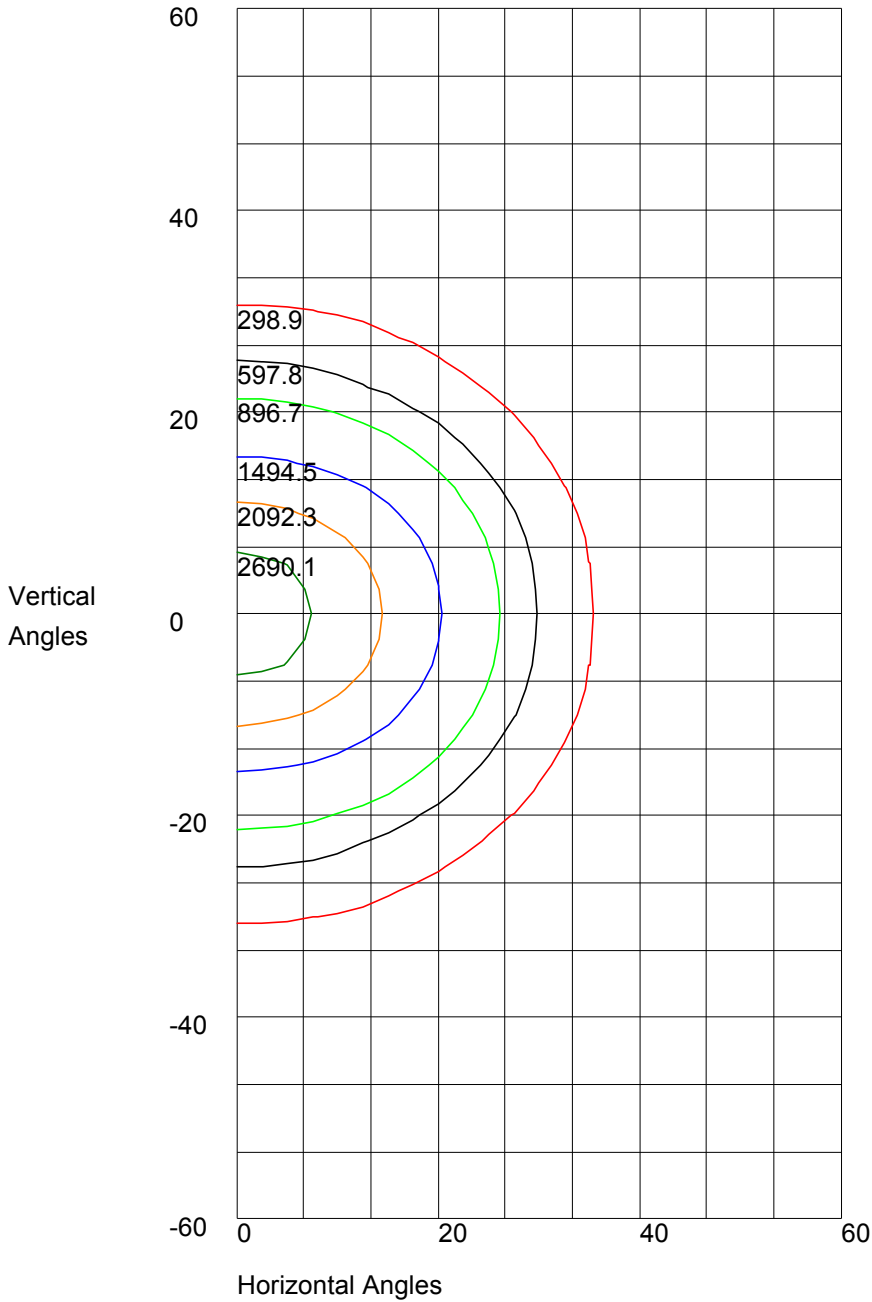
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	9	85	9
75	11	75	10
65	16	65	16
55	32	55	26
47.5	60	47.5	42
42.5	109	42.5	61
37.5	215	37.5	102
33	397	33	195
29	642	29	373
25.5	949	25.5	568
22.5	1260	22.5	795
19.5	1579	19.5	1065
17	1841	17	1323
15	2038	15	1564
13	2229	13	1836
11	2411	11	2111
9	2571	9	2367
7	2718	7	2604
5	2844	5	2798
3	2929	3	2928
1	2979	1	2975
0	2989	0	2989
-1	2979	-1	2975
-3	2929	-3	2928
-5	2844	-5	2798
-7	2718	-7	2604
-9	2571	-9	2367
-11	2411	-11	2111
-13	2229	-13	1836
-15	2038	-15	1564
-17	1841	-17	1323
-19.5	1579	-19.5	1065
-22.5	1260	-22.5	795
-25.5	949	-25.5	568
-29	642	-29	373
-33	397	-33	195
-37.5	215	-37.5	102
-42.5	109	-42.5	61
-47.5	60	-47.5	42
-55	32	-55	26
-65	16	-65	16
-75	11	-75	10
-85	9	-85	9
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 2989 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 2989 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 1494.5
10% Maximum Candela = 298.9