



PROFESSIONAL
OUTDOOR LIGHTING



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Report No: L081407502
Date: 9/3/2014



NVLAP LAB CODE 200927-0

Report No: L081407502

Report Prepared For: U.S.T.E. dba Vista Professional Outdoor Lighting
1625 Surveyor Ave. Simi Valley CA 93063

Model Number: 1057-XX-NS-A-30

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 1057-XX-NS-A-30. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 8/26/14

Date of Tests: 9/3/14 - 9/3/14

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.

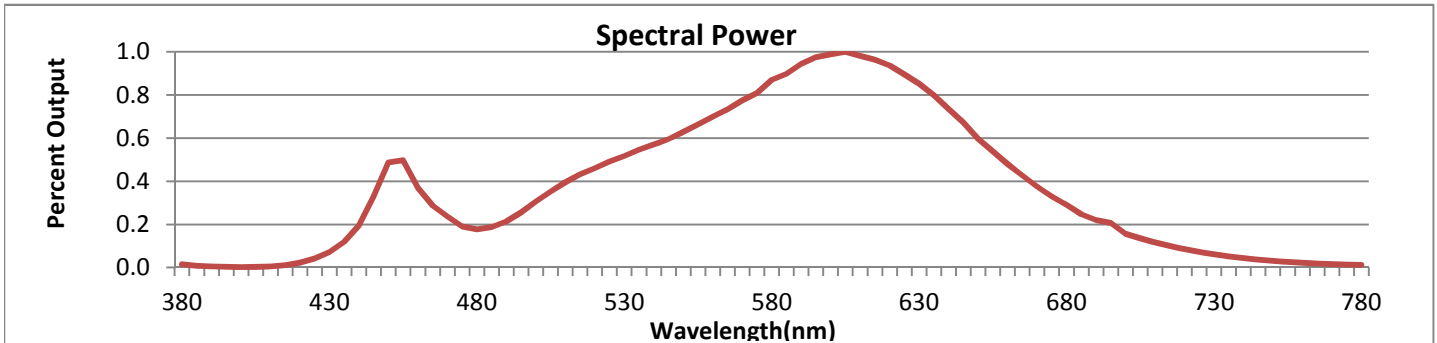
Test Summary

Manufacturer:	U.S.T.E. dba Vista Professional Outdoc
Model Number:	1057-XX-NS-A-30
Driver Model Number:	THOMAS RESEARCH PRODUCTS LED40W-089-C0450-D
Total Lumens:	1834.98
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.16
Input Power (W):	18.06
Input Power Factor:	0.94
Current ATHD @ 120V(%):	18%
Current ATHD @ 277V(%):	% (0A, 0W, 0PF)
Efficacy:	102
Color Rendering Index (CRI):	83
Correlated Color Temperature (K):	2994
Chromaticity Coordinate x:	0.4390
Chromaticity Coordinate y:	0.4075
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:25
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.



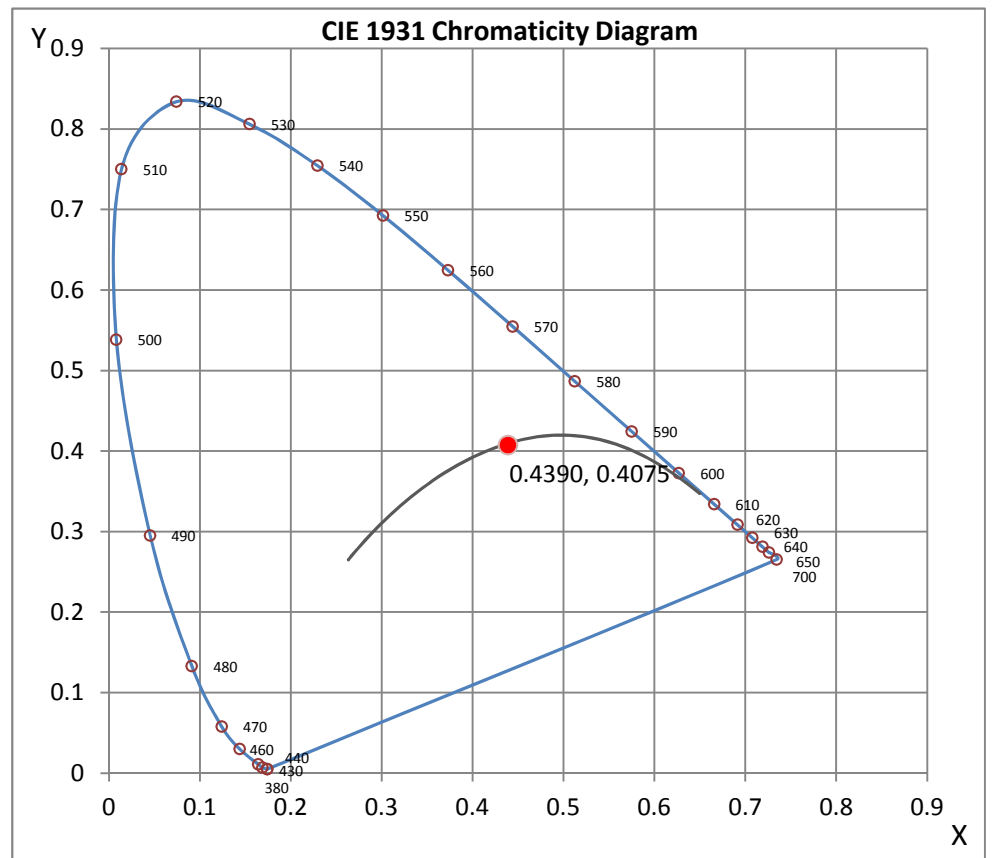
Wavelength	W/m ² nm	440	0.0301	510	0.0610	580	0.1345	650	0.0924	720	0.0133
380	0.0025	450	0.0754	520	0.0713	590	0.1461	660	0.0743	730	0.0096
390	0.0007	460	0.0571	530	0.0799	600	0.1530	670	0.0582	740	0.0068
400	0.0004	470	0.0366	540	0.0881	610	0.1517	680	0.0450	750	0.0049
410	0.0008	480	0.0275	550	0.0975	620	0.1448	690	0.0341	760	0.0035
420	0.0035	490	0.0332	560	0.1082	630	0.1320	700	0.0242	770	0.0025
430	0.0111	500	0.0474	570	0.1199	640	0.1138	710	0.0182	780	0.0018

CRI & CCT

x	0.4390
y	0.4075
u'	0.2504
v'	0.5230
CRI	82.90
CCT	2994
Duv	0.00107

R Values

R1	81.23
R2	90.31
R3	97.09
R4	81.03
R5	80.74
R6	87.62
R7	84.23
R8	60.97
R9	10.69
R10	77.25
R11	79.81
R12	67.71
R13	83.92
R14	98.47



*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.

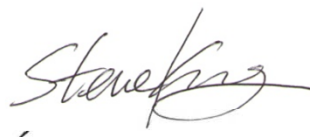
Report Prepared by : Keyur Patel

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 : L081407502.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L081407502
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 9/3/2014
 [MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
 [LUMCAT] 1057-XX-NS-A-30
 [LUMINAIRE] 7"DIA X 12-1/2"H. LED FLOODLIGHT
 [MORE] CLEAR LENS
 [BALLASTCAT] THOMAS RESEARCH PRODUCTS LED40W-089-C0450-D
 [BALLAST] INPUT: 90-305VAC, 0.56A, 50/60HZ. OUTPUT: 30-89VDC, 450mA, 40W max
 [LAMPPOSITION] 0,0
 [LAMP CAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 18.06W
 [TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

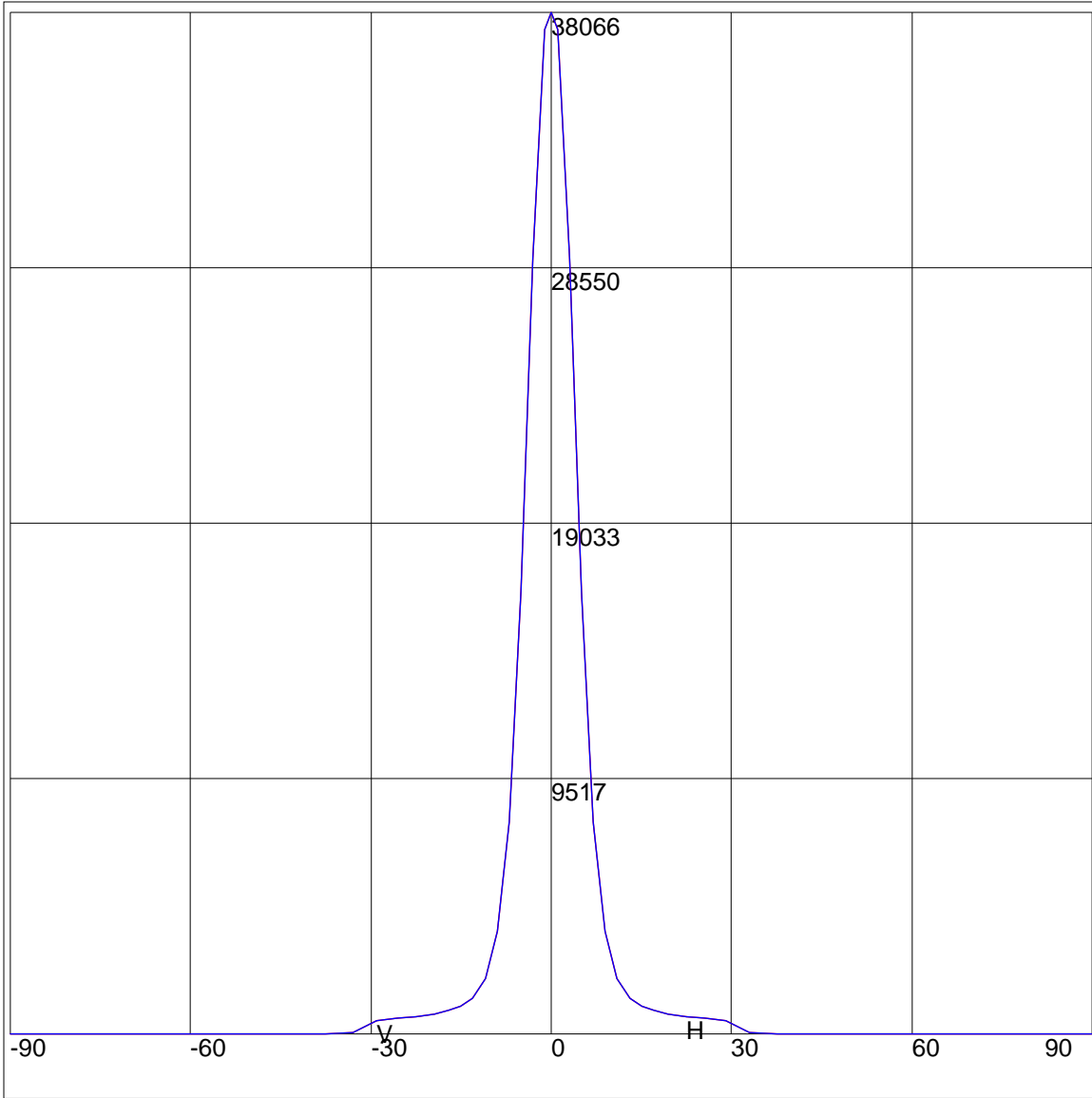
NEMA Type	2 H x 2 V
Maximum Candela	38066
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	9.2
Vertical Beam Angle (50%)	9.2
Horizontal Field Angle (10%)	18.1
Vertical Field Angle (10%)	18.1
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	641
Beam Efficiency	N.A.
Field Lumens	1101
Field Efficiency	N.A.
Spill Lumens	734
Luminaire Lumens	1835
Total Efficiency	N.A.
Total Luminaire Watts	18.06
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081407502.IES

AXIAL CANDELA

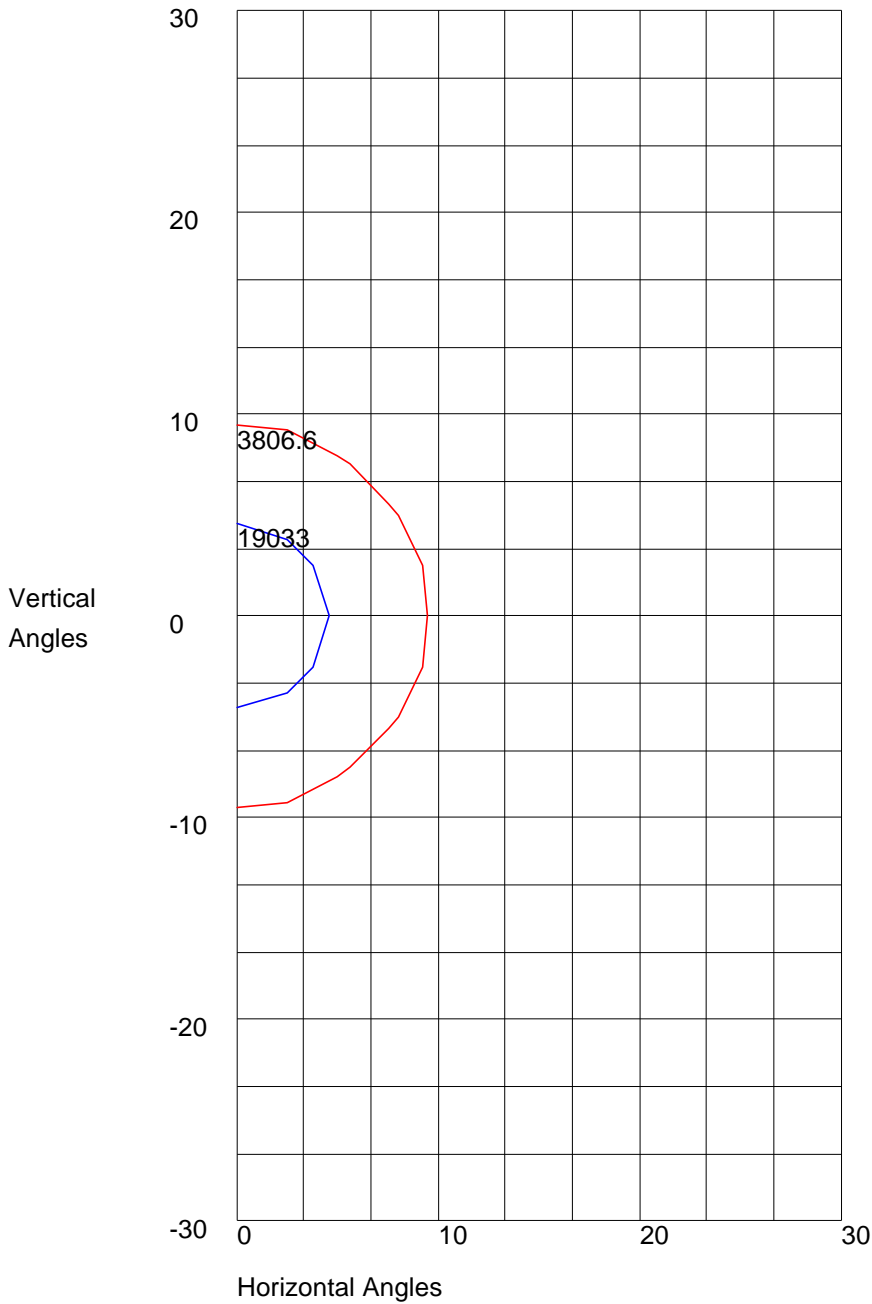
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	2	85	2
75	2	75	2
65	4	65	4
55	5	55	5
47.5	7	47.5	7
42.5	12	42.5	12
37.5	21	37.5	21
33	54	33	54
29	490	29	490
25.5	631	25.5	631
22.5	681	22.5	681
19.5	767	19.5	767
17	886	17	886
15	1045	15	1045
13	1371	13	1371
11	2087	11	2087
9	3849	9	3849
7	7921	7	7921
5	16476	5	16476
3	28902	3	28902
1	37435	1	37435
0	38066	0	38066
-1	37435	-1	37435
-3	28902	-3	28902
-5	16476	-5	16476
-7	7921	-7	7921
-9	3849	-9	3849
-11	2087	-11	2087
-13	1371	-13	1371
-15	1045	-15	1045
-17	886	-17	886
-19.5	767	-19.5	767
-22.5	681	-22.5	681
-25.5	631	-25.5	631
-29	490	-29	490
-33	54	-33	54
-37.5	21	-37.5	21
-42.5	12	-42.5	12
-47.5	7	-47.5	7
-55	5	-55	5
-65	4	-65	4
-75	2	-75	2
-85	2	-85	2
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 38066 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 38066 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 19033
10% Maximum Candela = 3806.6