



**PROFESSIONAL
OUTDOOR LIGHTING**



8165 E Kaiser Blvd. Anaheim, CA 92808
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Report No: L081407503

Date: 9/3/2014



NVLAP LAB CODE 200927-0

Report No: L081407503

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

Model Number: 1057-XX-MF-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-MF-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.

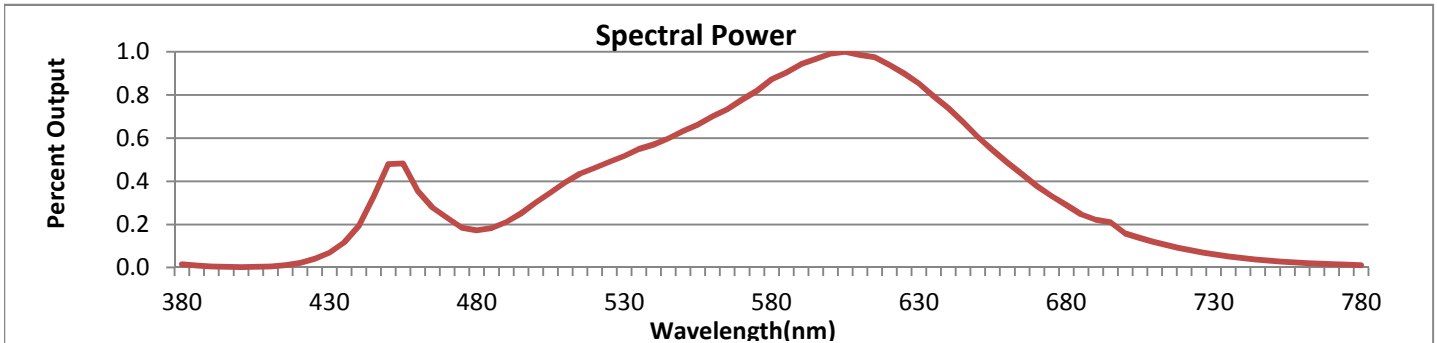
Test Summary

Manufacturer:	U.S.T.E. dba Vista Professional Outdoo
Model Number:	1057-XX-MF-A-30
Driver Model Number:	THOMAS RESEARCH PRODUCTS LED40W-089-C0450-D
Total Lumens:	1602.68
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.16
Input Power (W):	18.08
Input Power Factor:	0.94
Current ATHD @ 120V(%):	18%
Current ATHD @ 277V(%):	N/A
Efficacy:	89
Color Rendering Index (CRI):	83
Correlated Color Temperature (K):	2982
Chromaticity Coordinate x:	0.4405
Chromaticity Coordinate y:	0.4091
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:30
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.



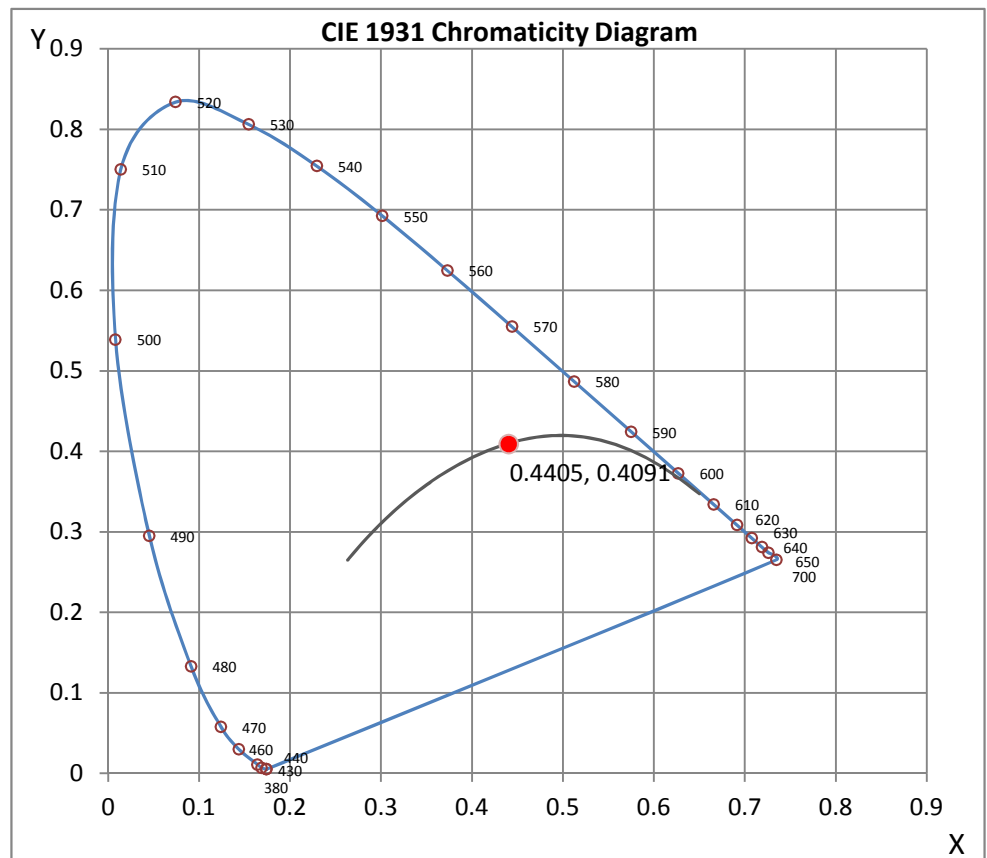
Wavelength	W/m ² nm	440	0.0255	510	0.0522	580	0.1153	650	0.0801	720	0.0113
380	0.0021	450	0.0635	520	0.0610	590	0.1245	660	0.0643	730	0.0081
390	0.0006	460	0.0470	530	0.0682	600	0.1310	670	0.0498	740	0.0058
400	0.0003	470	0.0305	540	0.0754	610	0.1302	680	0.0382	750	0.0041
410	0.0007	480	0.0228	550	0.0837	620	0.1241	690	0.0292	760	0.0028
420	0.0028	490	0.0278	560	0.0926	630	0.1129	700	0.0208	770	0.0020
430	0.0091	500	0.0398	570	0.1029	640	0.0977	710	0.0156	780	0.0015

CRI & CCT

x	0.4405
y	0.4091
u'	0.2507
v'	0.5239
CRI	82.70
CCT	2982
Duv	0.00150

R Values

R1	80.97
R2	89.98
R3	97.10
R4	80.93
R5	80.42
R6	87.21
R7	84.40
R8	60.91
R9	10.32
R10	76.57
R11	79.64
R12	66.99
R13	83.60
R14	98.39



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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:

Test Report Reviewed by:

Jeff Ahn
 Engineering Manager

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.



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Photometric Test Report

IES FLOOD REPORT

PHOTOMETRIC FILENAME : L081407503.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L081407503
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUE DATE] 9/3/2014
[MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
[LUMCAT] 1057-XX-MF-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, 18.08W
[TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

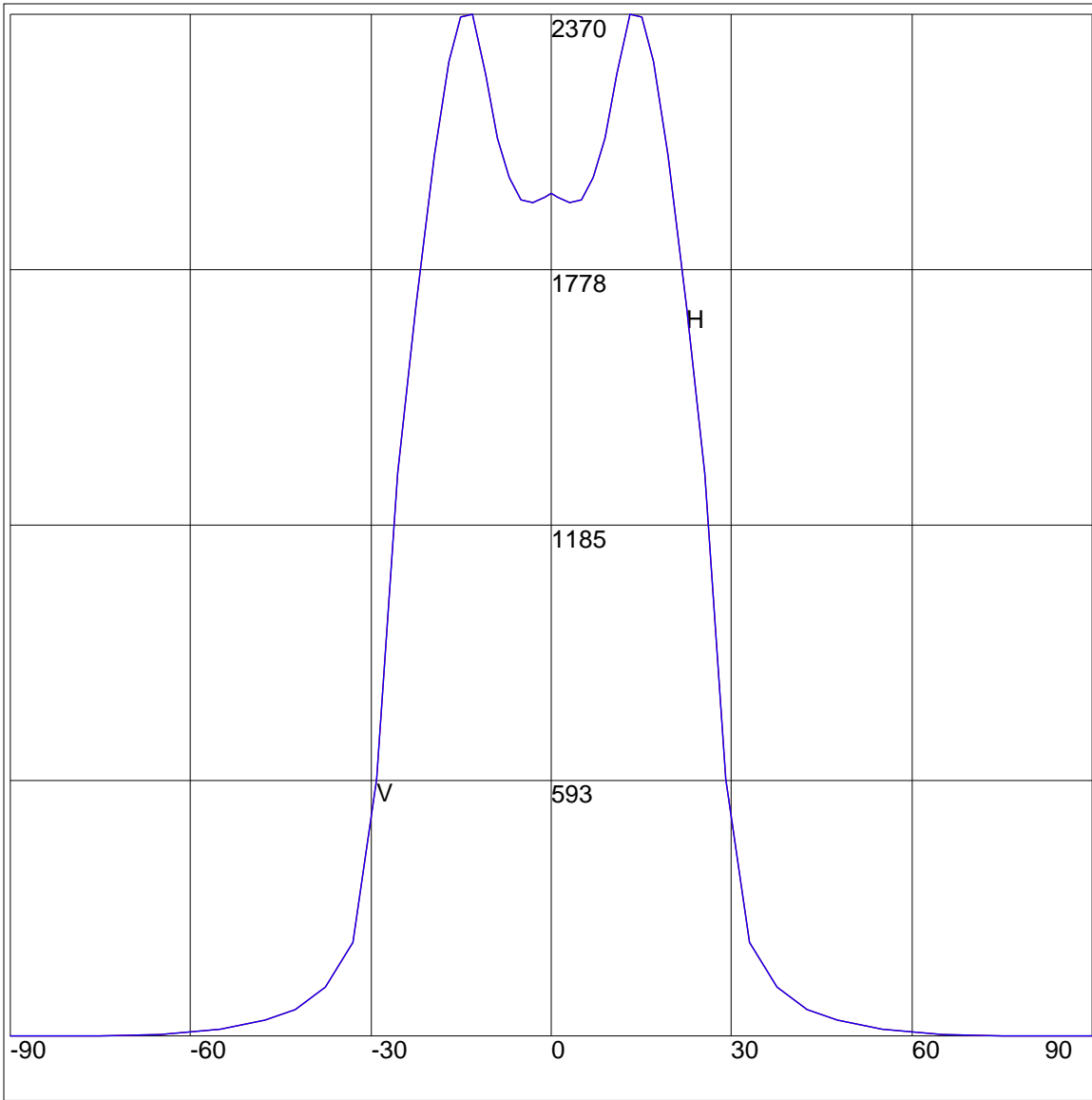
NEMA Type	4 H x 4 V
Maximum Candela	2370
Maximum Candela Angle	-13H -1V
Horizontal Beam Angle (50%)	52.2
Vertical Beam Angle (50%)	45.6
Horizontal Field Angle (10%)	65.6
Vertical Field Angle (10%)	63.0
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	1235
Beam Efficiency	N.A.
Field Lumens	1476
Field Efficiency	N.A.
Spill Lumens	127
Luminaire Lumens	1603
Total Efficiency	N.A.
Total Luminaire Watts	18.08
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081407503.IES

AXIAL CANDELA

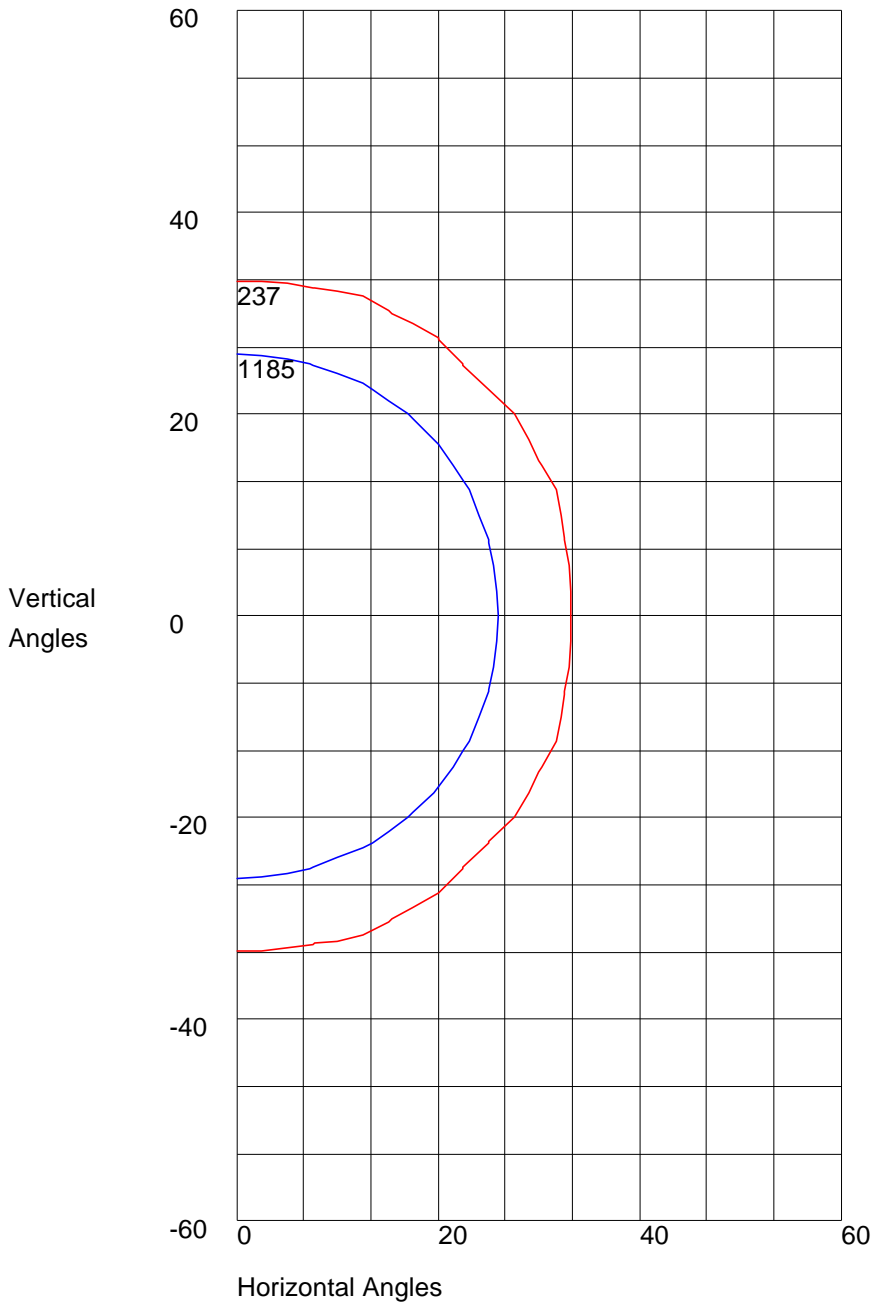
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	0	85	0
75	1	75	1
65	6	65	6
55	17	55	17
47.5	37	47.5	37
42.5	64	42.5	64
37.5	114	37.5	114
33	217	33	217
29	598	29	598
25.5	1306	25.5	1306
22.5	1694	22.5	1694
19.5	2043	19.5	2043
17	2259	17	2259
15	2364	15	2364
13	2370	13	2370
11	2233	11	2233
9	2082	9	2082
7	1991	7	1991
5	1939	5	1939
3	1932	3	1932
1	1947	1	1947
0	1954	0	1954
-1	1947	-1	1947
-3	1932	-3	1932
-5	1939	-5	1939
-7	1991	-7	1991
-9	2082	-9	2082
-11	2233	-11	2233
-13	2370	-13	2370
-15	2364	-15	2364
-17	2259	-17	2259
-19.5	2043	-19.5	2043
-22.5	1694	-22.5	1694
-25.5	1306	-25.5	1306
-29	598	-29	598
-33	217	-33	217
-37.5	114	-37.5	114
-42.5	64	-42.5	64
-47.5	37	-47.5	37
-55	17	-55	17
-65	6	-65	6
-75	1	-75	1
-85	0	-85	0
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 2370 Located At Horizontal Angle =-13, Vertical Angle =-1
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 2370 Located At Horizontal Angle =-13, Vertical Angle =-1
50% Maximum Candela = 1185
10% Maximum Candela = 237