



**PROFESSIONAL  
OUTDOOR LIGHTING**



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Report No: L081407501

Date: 9/3/2014



NVLAP LAB CODE 200927-0

**Report No:** L081407501

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

**Model Number:** 1057-XX-VNS-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-VNS-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:** 9/2/14 - 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.

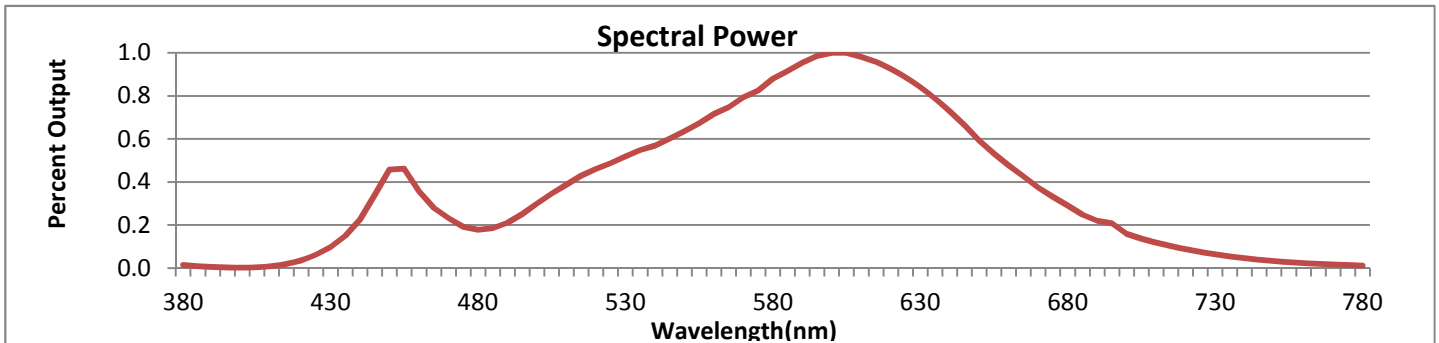
**Test Summary**

<b>Manufacturer:</b>	U.S.T.E. dba Vista Professional Outdoor Lighting
<b>Model Number:</b>	1057-XX-VNS-A-30
<b>Driver Model Number:</b>	THOMAS RESEARCH PRODUCTS LED40W-045-C0900-D
<b>Total Lumens:</b>	1684.96
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.32
<b>Input Power (W):</b>	38.28
<b>Input Power Factor:</b>	1.00
<b>Current ATHD @ 120V(%):</b>	2%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	44
<b>Color Rendering Index (CRI):</b>	82
<b>Correlated Color Temperature (K):</b>	3001
<b>Chromaticity Coordinate x:</b>	0.4387
<b>Chromaticity Coordinate y:</b>	0.4078
<b>Ambient Temperature (°F):</b>	77.0
<b>Stabilization Time (Hours):</b>	1:10
<b>Total Operating Time (Hours):</b>	1:55
<b>Off State Power(W):</b>	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.



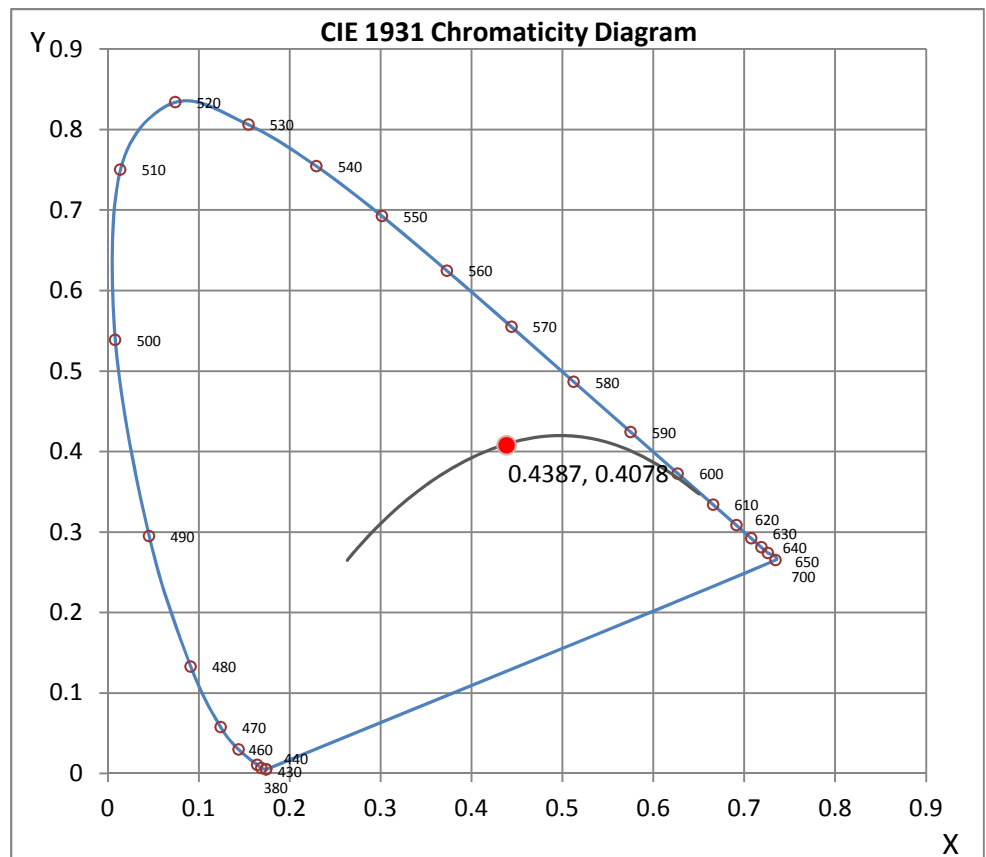
Wavelength	W/m <sup>2</sup> nm	440	0.0266	510	0.0458	580	0.1039	650	0.0699	720	0.0103
380	0.0017	450	0.0540	520	0.0544	590	0.1127	660	0.0563	730	0.0076
390	0.0005	460	0.0421	530	0.0612	600	0.1180	670	0.0442	740	0.0054
400	0.0004	470	0.0273	540	0.0672	610	0.1157	680	0.0343	750	0.0039
410	0.0010	480	0.0210	550	0.0750	620	0.1090	690	0.0259	760	0.0027
420	0.0042	490	0.0249	560	0.0845	630	0.0991	700	0.0188	770	0.0020
430	0.0115	500	0.0354	570	0.0936	640	0.0859	710	0.0140	780	0.0014

**CRI & CCT**

x	0.4387
y	0.4078
u'	0.2501
v'	0.5231
CRI	81.70
CCT	3001
Duv	0.00123

**R Values**

R1	79.72
R2	89.29
R3	96.81
R4	79.65
R5	79.21
R6	86.14
R7	83.77
R8	59.33
R9	6.44
R10	75.05
R11	77.90
R12	66.91
R13	82.40
R14	98.24



\*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.

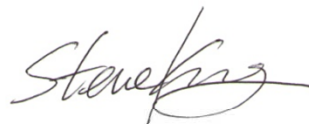
Report Prepared by : Keyur Patel

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 : L081407501.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L081407501  
[TESTLAB] LIGHT LABORATORY, INC.  
[ISSUEDATE] 9/3/2014  
[MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING  
[LUMCAT] 1057-XX-VNS-A-30  
[LUMINAIRE] 7"DIA X 12-1/2"H. LED FLOODLIGHT  
[MORE] CLEAR LENS  
[BALLASTCAT] THOMAS RESEARCH PRODUCTS LED40W-045-C0900-D  
[BALLAST] INPUT: 90-305VAC, 0.56A, 50/60HZ. OUTPUT: 15-45VDC, 900mA, 40W max  
[LAMPPOSITION] 0,0  
[LAMP] N/A  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 120VAC, 38.28W  
[TEST PROCEDURE] IESNA:LM-79-08

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

### CHARACTERISTICS

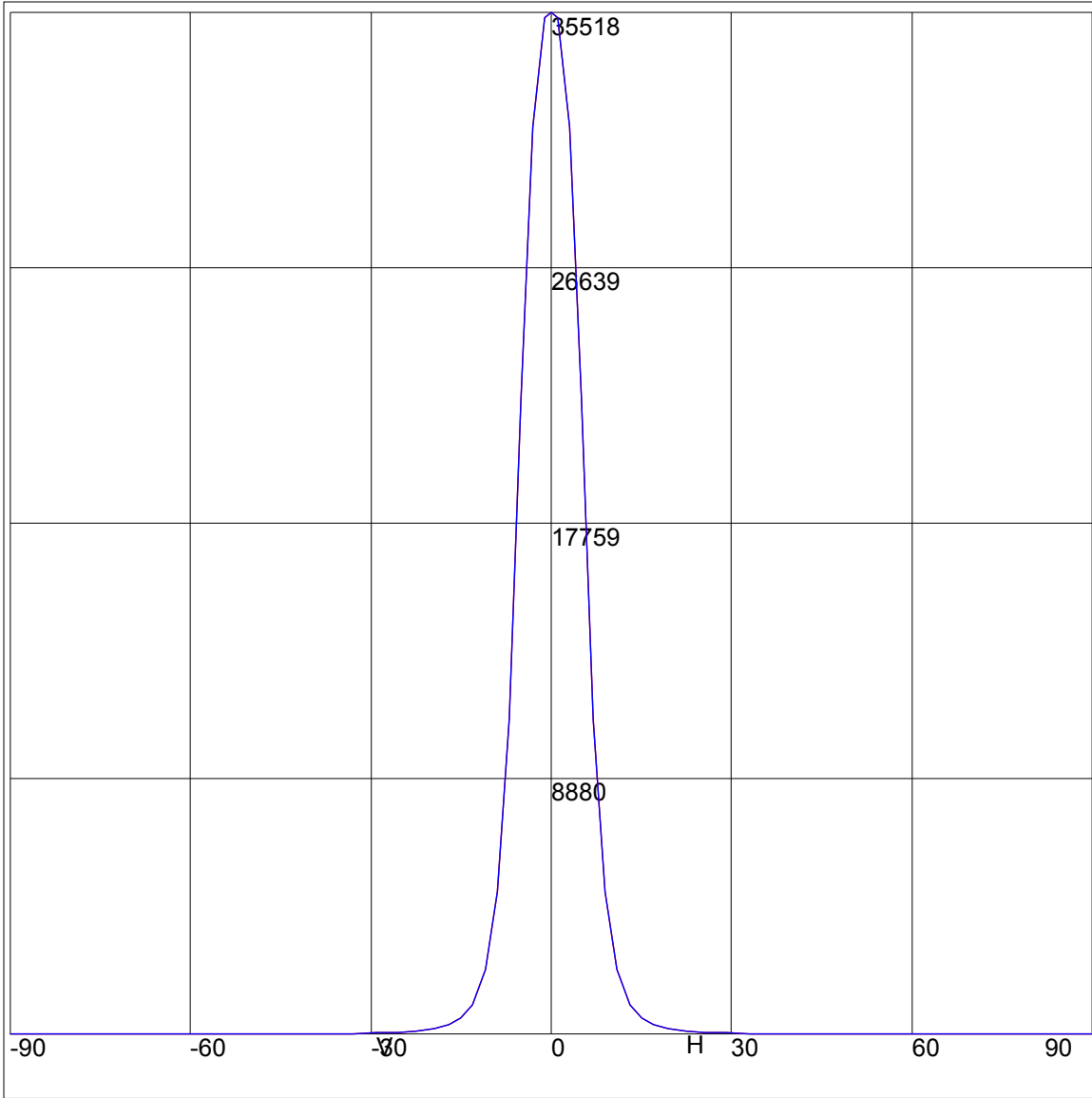
NEMA Type	2 H x 2 V
Maximum Candela	35518
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	11.5
Vertical Beam Angle (50%)	11.5
Horizontal Field Angle (10%)	20.1
Vertical Field Angle (10%)	20.1
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	802
Beam Efficiency	N.A.
Field Lumens	1385
Field Efficiency	N.A.
Spill Lumens	300
Luminaire Lumens	1685
Total Efficiency	N.A.
Total Luminaire Watts	38.28
Ballast Factor	1.00

IES FLOOD REPORT  
PHOTOMETRIC FILENAME : L081407501.IES

AXIAL CANDELA

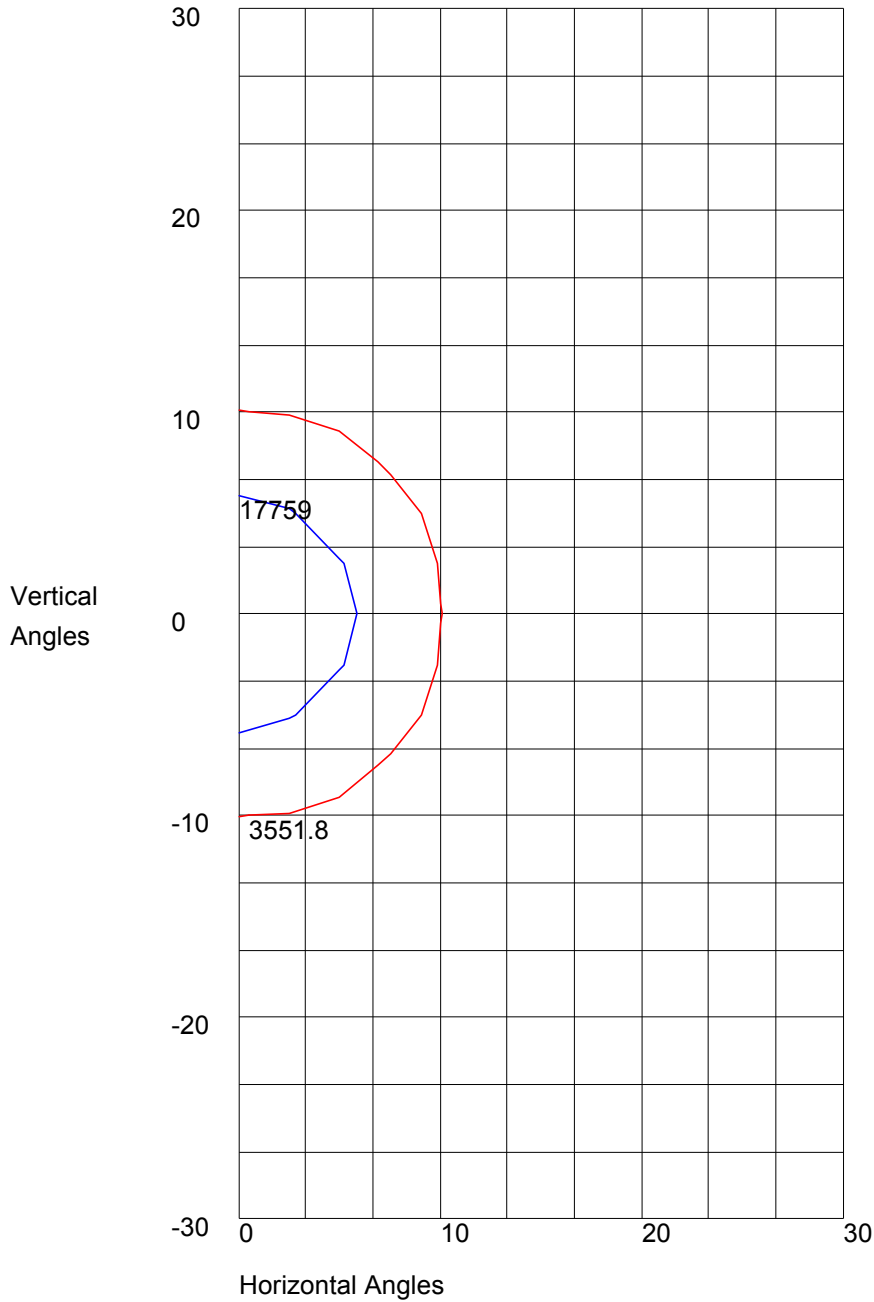
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	1	85	1
75	2	75	2
65	3	65	3
55	4	55	4
47.5	6	47.5	6
42.5	10	42.5	10
37.5	17	37.5	17
33	28	33	28
29	45	29	45
25.5	70	25.5	70
22.5	100	22.5	100
19.5	186	19.5	186
17	342	17	342
15	564	15	564
13	1018	13	1018
11	2263	11	2263
9	4970	9	4970
7	10937	7	10937
5	22066	5	22066
3	31549	3	31549
1	35349	1	35349
0	35518	0	35518
-1	35349	-1	35349
-3	31549	-3	31549
-5	22066	-5	22066
-7	10937	-7	10937
-9	4970	-9	4970
-11	2263	-11	2263
-13	1018	-13	1018
-15	564	-15	564
-17	342	-17	342
-19.5	186	-19.5	186
-22.5	100	-22.5	100
-25.5	70	-25.5	70
-29	45	-29	45
-33	28	-33	28
-37.5	17	-37.5	17
-42.5	10	-42.5	10
-47.5	6	-47.5	6
-55	4	-55	4
-65	3	-65	3
-75	2	-75	2
-85	1	-85	1
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 35518 Located At Horizontal Angle = 0, Vertical Angle = 0  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 35518 Located At Horizontal Angle = 0, Vertical Angle = 0  
50% Maximum Candela = 17759  
10% Maximum Candela = 3551.8