



**PROFESSIONAL**  
OUTDOOR LIGHTING



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Report No: L081407506R01  
Date: 9/4/2014



NVLAP LAB CODE 200927-0

**Report No: L081407506R01**

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

**Model Number: 1057-XX-MF-B-30**

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-B-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:** 9/4/14 - 9/4/14

**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.

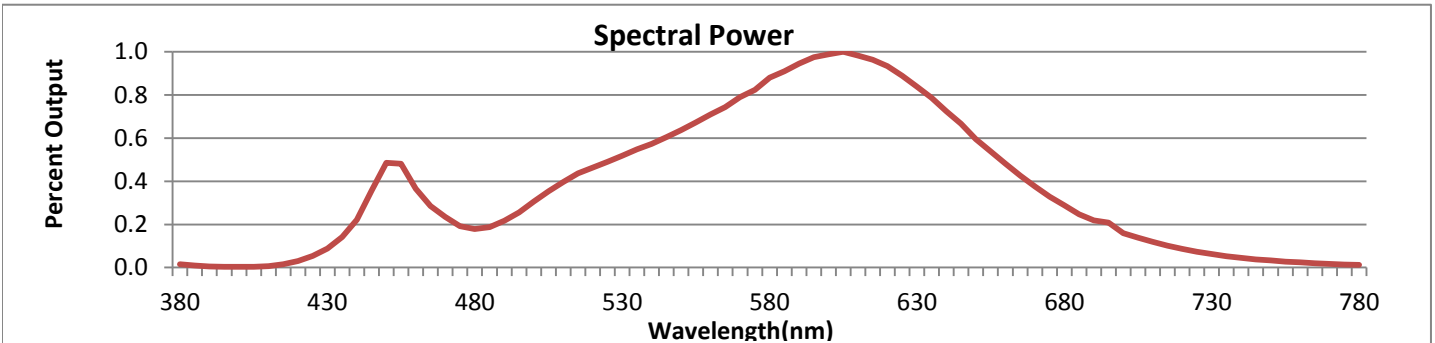
**Test Summary**

<b>Manufacturer:</b>	U.S.T.E. dba Vista Professional Outdoo
<b>Model Number:</b>	1057-XX-MF-B-30
<b>Driver Model Number:</b>	THOMAS RESEARCH PRODUCTS LED40W-054-C0700-D
<b>Total Lumens:</b>	2213.54
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.23
<b>Input Power (W):</b>	27.55
<b>Input Power Factor:</b>	0.99
<b>Current ATHD @ 120V(%):</b>	6%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	80
<b>Color Rendering Index (CRI):</b>	82
<b>Correlated Color Temperature (K):</b>	3016
<b>Chromaticity Coordinate x:</b>	0.4372
<b>Chromaticity Coordinate y:</b>	0.4067
<b>Ambient Temperature (°F):</b>	77.0
<b>Stabilization Time (Hours):</b>	0:40
<b>Total Operating Time (Hours):</b>	1:20
<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.



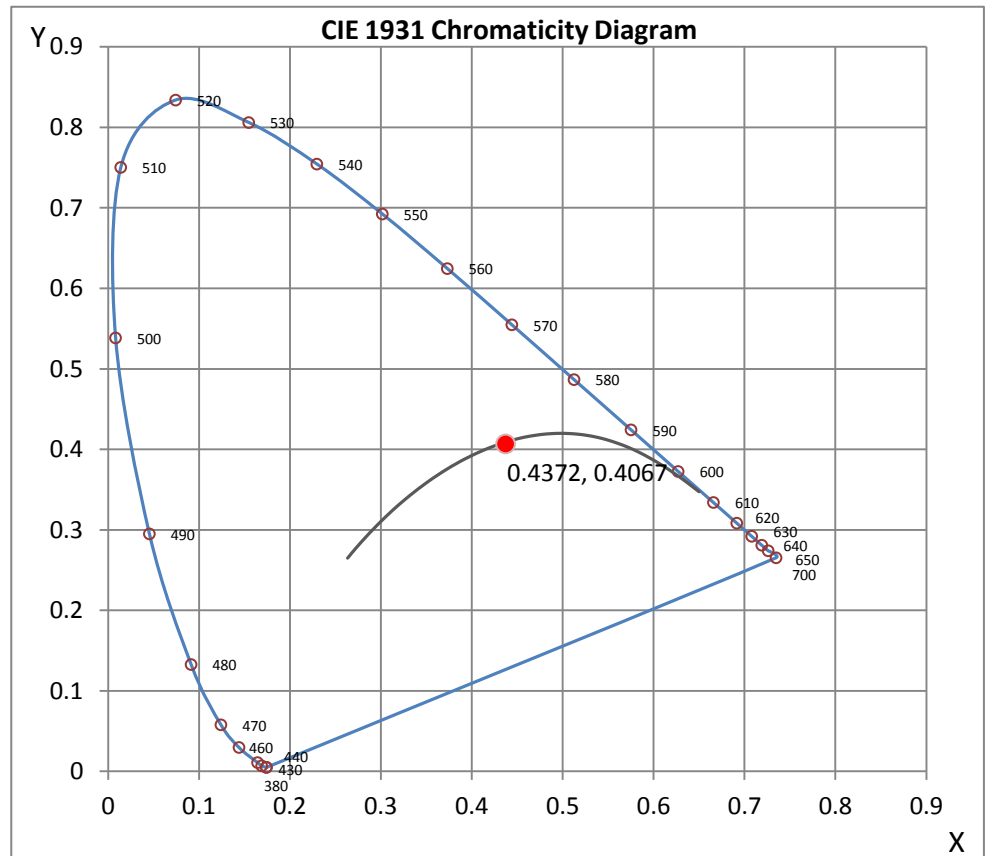
Wavelength	W/m <sup>2</sup> nm	440	0.0406	510	0.0726	580	0.1612	650	0.1090	720	0.0158
380	0.0029	450	0.0889	520	0.0849	590	0.1729	660	0.0881	730	0.0114
390	0.0009	460	0.0667	530	0.0948	600	0.1809	670	0.0687	740	0.0082
400	0.0005	470	0.0429	540	0.1049	610	0.1798	680	0.0526	750	0.0060
410	0.0013	480	0.0327	550	0.1165	620	0.1708	690	0.0401	760	0.0043
420	0.0054	490	0.0397	560	0.1297	630	0.1534	700	0.0291	770	0.0031
430	0.0160	500	0.0561	570	0.1445	640	0.1324	710	0.0217	780	0.0023

**CRI & CCT**

x	0.4372
y	0.4067
u'	0.2496
v'	0.5225
CRI	82.30
CCT	3016
Duv	0.00100

**R Values**

R1	80.47
R2	89.76
R3	96.87
R4	80.34
R5	80.00
R6	86.79
R7	84.04
R8	60.29
R9	8.72
R10	76.08
R11	78.84
R12	67.46
R13	83.11
R14	98.31



\*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 : Wilson Khounlavong

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 : L081407506R01.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L081407506R01  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUE DATE] 9/3/2014  
 [MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING  
 [LUMCAT] 1057-XX-MF-B-30  
 [LUMINAIRE] 7"DIA X 12-1/2"H. LED FLOODLIGHT  
 [MORE] CLEAR LENS  
 [BALLASTCAT] THOMAS RESEARCH PRODUCTS LED40W-054-C0700-D  
 [BALLAST] INPUT: 100-277VAC, 0.40A, 50/60HZ. OUTPUT: 18-54VDC, 700mA, 37.8W 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, 27.55W  
 [TEST PROCEDURE] IESNA:LM-79-08

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

### CHARACTERISTICS

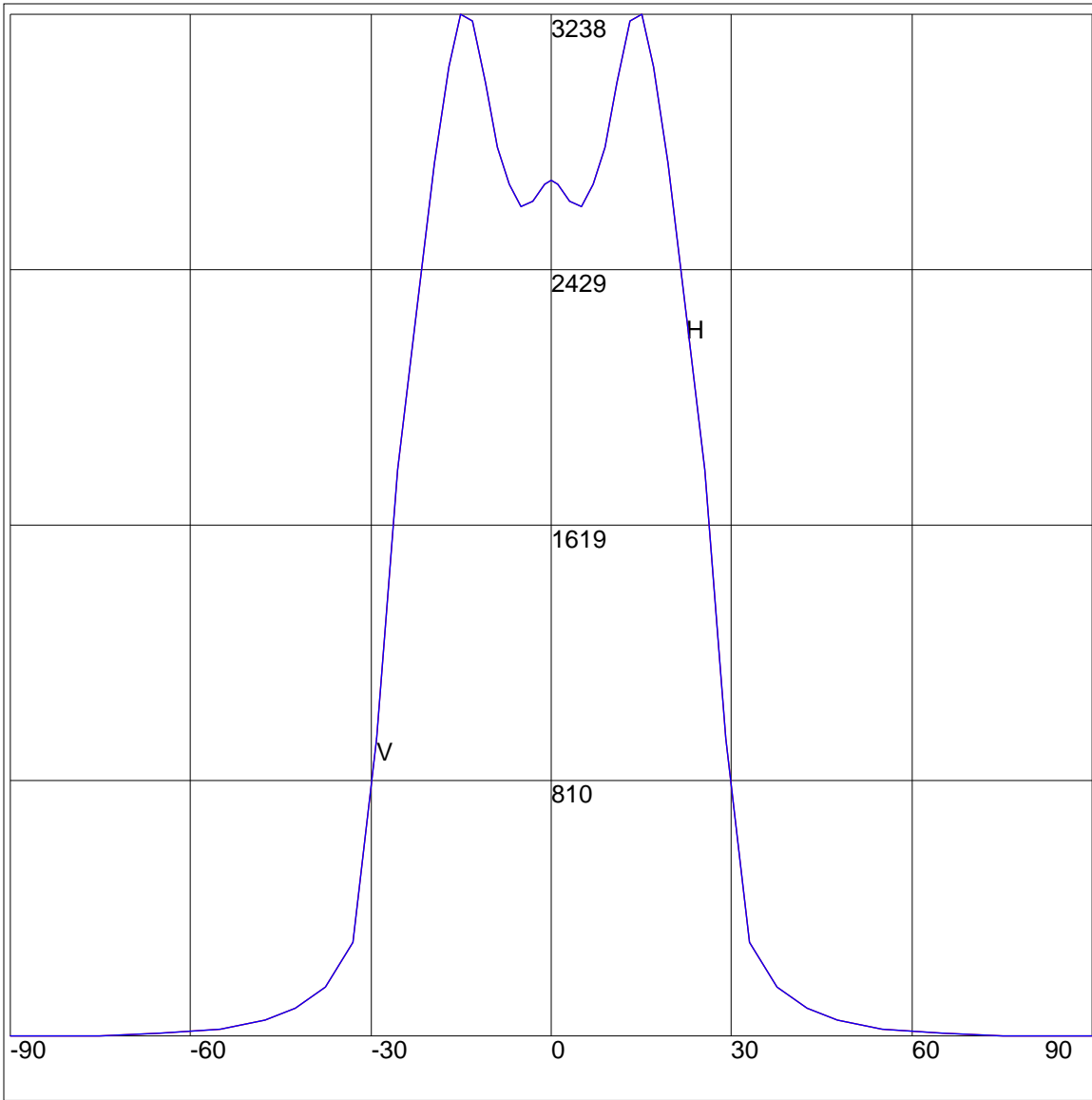
NEMA Type	4 H x 4 V
Maximum Candela	3238
Maximum Candela Angle	-15H -1V
Horizontal Beam Angle (50%)	52.5
Vertical Beam Angle (50%)	43.3
Horizontal Field Angle (10%)	65.7
Vertical Field Angle (10%)	61.2
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	1679
Beam Efficiency	N.A.
Field Lumens	2036
Field Efficiency	N.A.
Spill Lumens	177
Luminaire Lumens	2214
Total Efficiency	N.A.
Total Luminaire Watts	27.55
Ballast Factor	1.00

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L081407506R01.IES**

**AXIAL CANDELA**

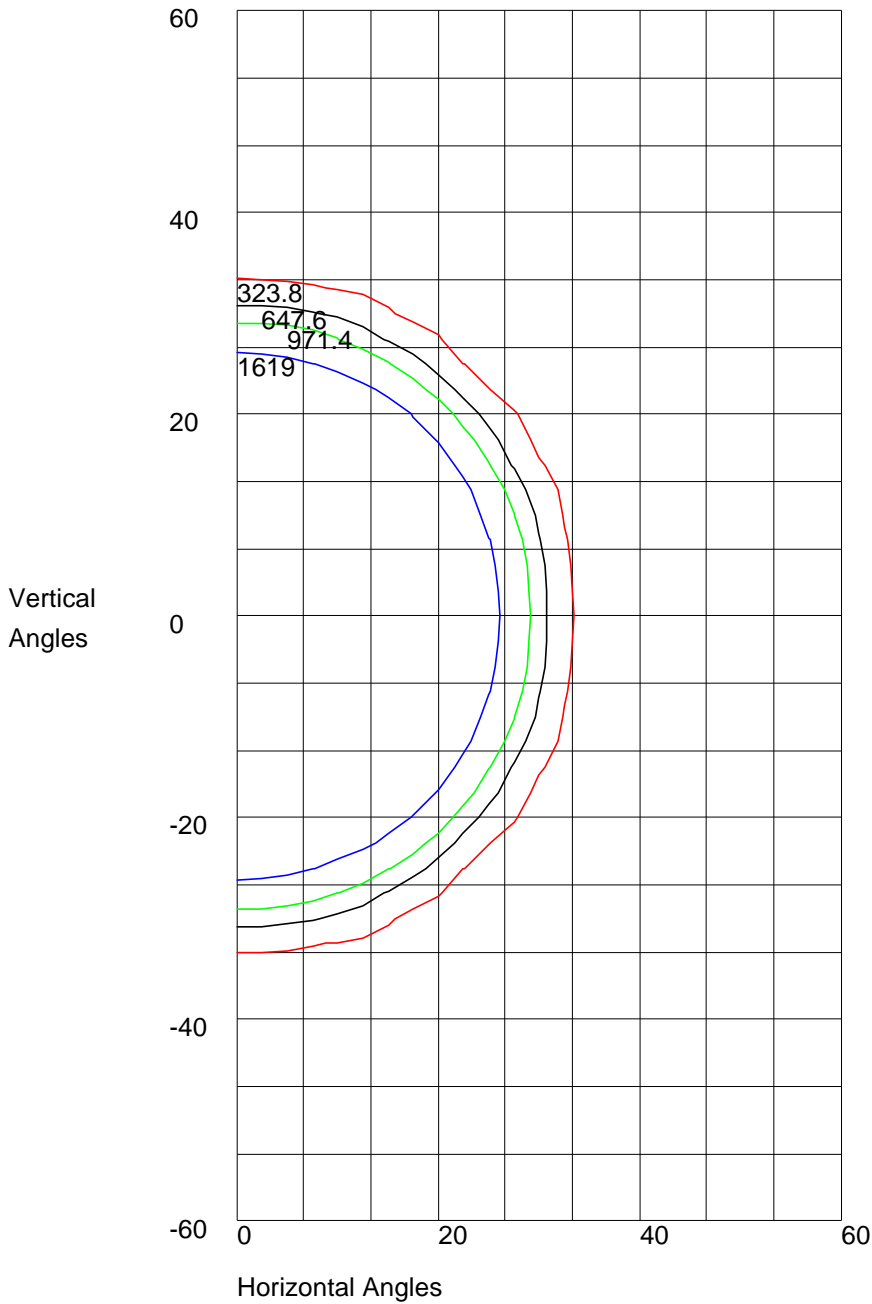
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	3	85	3
75	4	75	4
65	9	65	9
55	24	55	24
47.5	51	47.5	51
42.5	89	42.5	89
37.5	155	37.5	155
33	298	33	298
29	944	29	944
25.5	1797	25.5	1797
22.5	2283	22.5	2283
19.5	2768	19.5	2768
17	3070	17	3070
15	3238	15	3238
13	3218	13	3218
11	3020	11	3020
9	2815	9	2815
7	2699	7	2699
5	2631	5	2631
3	2647	3	2647
1	2701	1	2701
0	2711	0	2711
-1	2701	-1	2701
-3	2647	-3	2647
-5	2631	-5	2631
-7	2699	-7	2699
-9	2815	-9	2815
-11	3020	-11	3020
-13	3218	-13	3218
-15	3238	-15	3238
-17	3070	-17	3070
-19.5	2768	-19.5	2768
-22.5	2283	-22.5	2283
-25.5	1797	-25.5	1797
-29	944	-29	944
-33	298	-33	298
-37.5	155	-37.5	155
-42.5	89	-42.5	89
-47.5	51	-47.5	51
-55	24	-55	24
-65	9	-65	9
-75	4	-75	4
-85	3	-85	3
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 3238 Located At Horizontal Angle =-15, Vertical Angle =-1  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 3238 Located At Horizontal Angle =-15, Vertical Angle =-1  
50% Maximum Candela = 1619  
10% Maximum Candela = 323.8