



**PROFESSIONAL
OUTDOOR LIGHTING**



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Report No: L081407508R01
Date: 9/4/2014



NVLAP LAB CODE 200927-0

Report No: L081407508R01

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

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

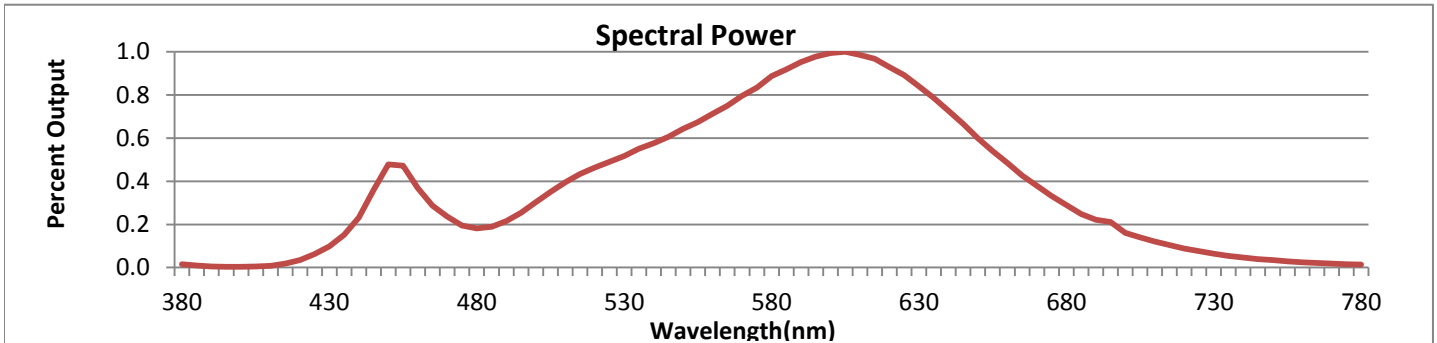
Test Summary

Manufacturer:	U.S.T.E. dba Vista Professional Outdoo
Model Number:	1057-XX-MF-C-30
Driver Model Number:	THOMAS RESEARCH PRODUCTS LED40W-045-C0900-D
Total Lumens:	2747.60
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.32
Input Power (W):	38.31
Input Power Factor:	1.00
Current ATHD @ 120V(%):	2%
Current ATHD @ 277V(%):	N/A
Efficacy:	72
Color Rendering Index (CRI):	82
Correlated Color Temperature (K):	3015
Chromaticity Coordinate x:	0.4370
Chromaticity Coordinate y:	0.4062
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:35
Total Operating Time (Hours):	1:15
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.



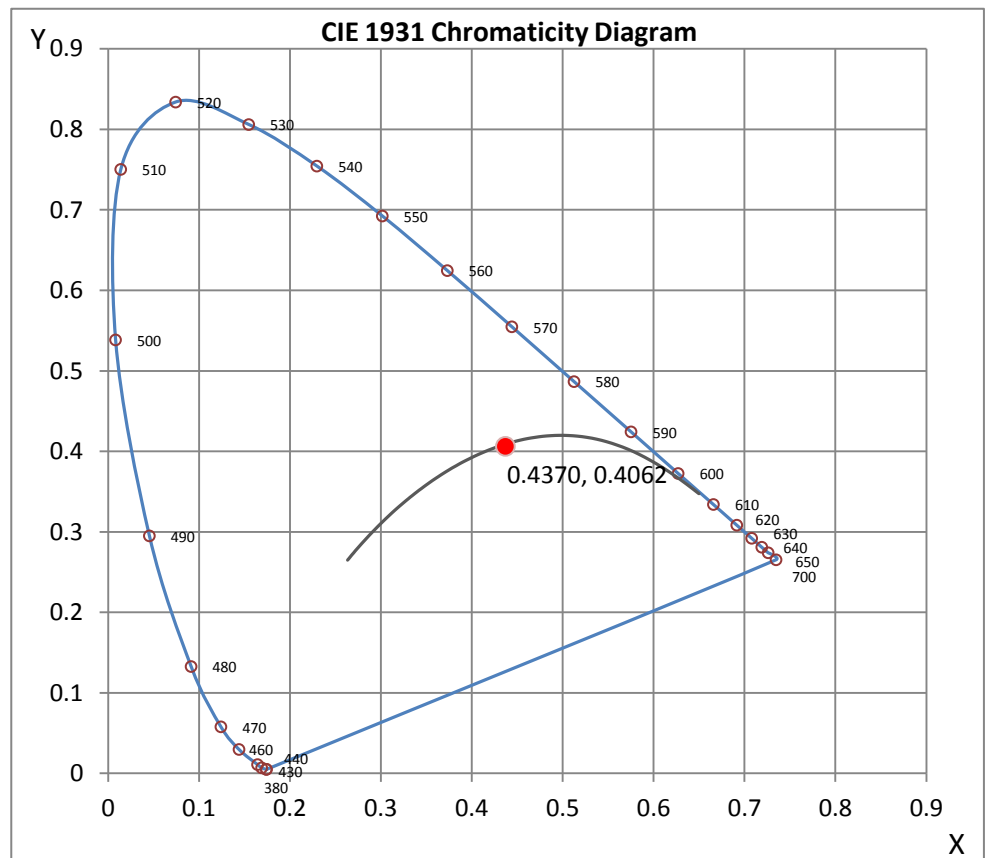
Wavelength	W/m ² nm	440	0.0470	510	0.0799	580	0.1797	650	0.1213	720	0.0178
380	0.0032	450	0.0968	520	0.0937	590	0.1928	660	0.0983	730	0.0129
390	0.0010	460	0.0745	530	0.1046	600	0.2011	670	0.0766	740	0.0094
400	0.0006	470	0.0479	540	0.1166	610	0.1994	680	0.0586	750	0.0069
410	0.0017	480	0.0366	550	0.1300	620	0.1881	690	0.0447	760	0.0050
420	0.0071	490	0.0437	560	0.1442	630	0.1700	700	0.0326	770	0.0036
430	0.0199	500	0.0613	570	0.1609	640	0.1473	710	0.0244	780	0.0027

CRI & CCT

x	0.4370
y	0.4062
u'	0.2497
v'	0.5222
CRI	82.00
CCT	3015
Duv	0.00083

R Values

R1	80.08
R2	89.54
R3	96.75
R4	79.89
R5	79.60
R6	86.44
R7	83.86
R8	59.90
R9	7.87
R10	75.58
R11	78.19
R12	67.45
R13	82.74
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 : 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 : L081407508R01.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L081407508R01
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 9/3/2014
 [MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
 [LUMCAT] 1057-XX-MF-C-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 CAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 38.31W
 [TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

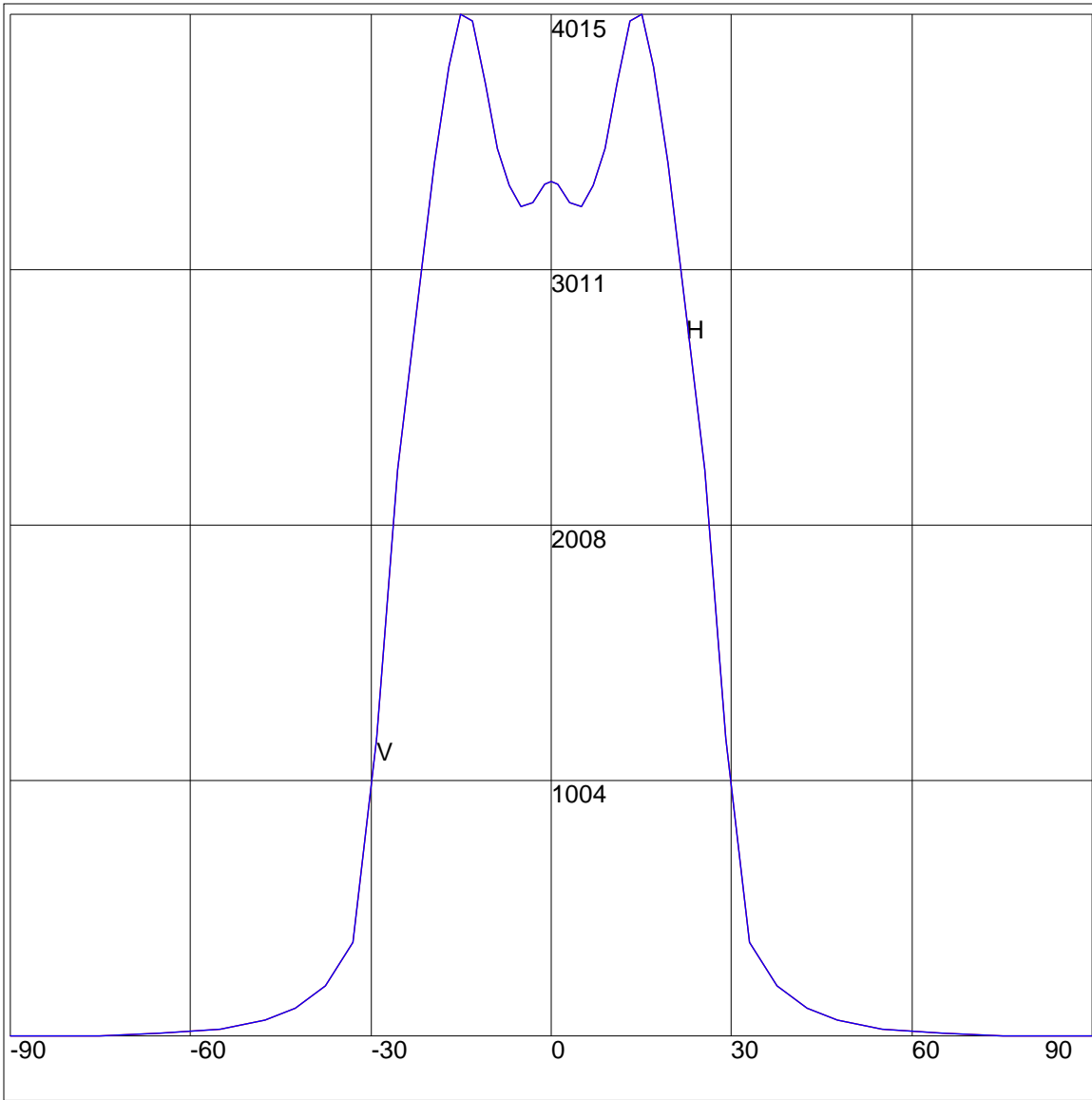
NEMA Type	4 H x 4 V
Maximum Candela	4015
Maximum Candela Angle	-15H -1V
Horizontal Beam Angle (50%)	52.5
Vertical Beam Angle (50%)	43.3
Horizontal Field Angle (10%)	65.7
Vertical Field Angle (10%)	61.3
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	2082
Beam Efficiency	N.A.
Field Lumens	2525
Field Efficiency	N.A.
Spill Lumens	223
Luminaire Lumens	2748
Total Efficiency	N.A.
Total Luminaire Watts	38.31
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081407508R01.IES

AXIAL CANDELA

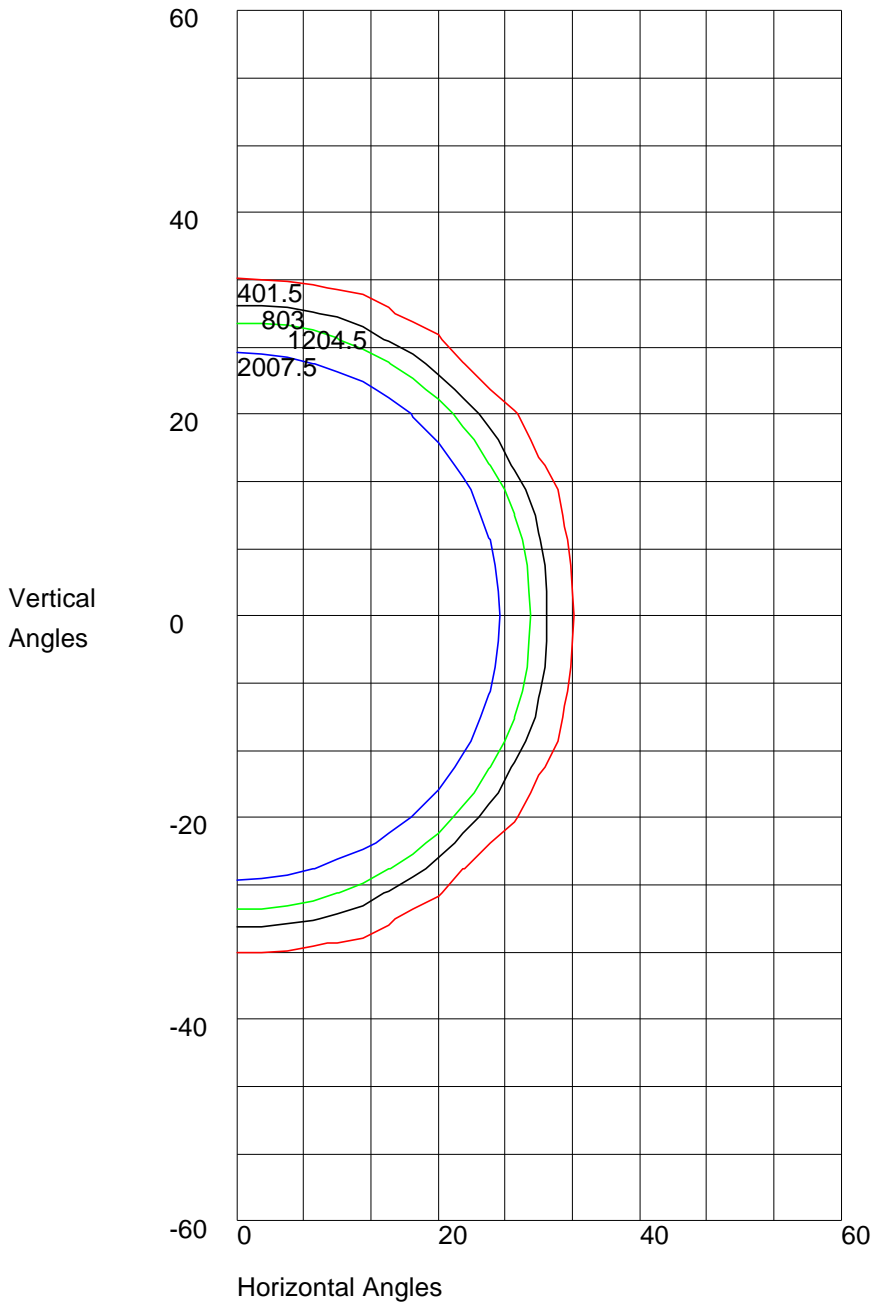
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	4	85	4
75	5	75	5
65	12	65	12
55	30	55	30
47.5	64	47.5	64
42.5	110	42.5	110
37.5	198	37.5	198
33	369	33	369
29	1170	29	1170
25.5	2228	25.5	2228
22.5	2831	22.5	2831
19.5	3433	19.5	3433
17	3807	17	3807
15	4015	15	4015
13	3990	13	3990
11	3743	11	3743
9	3488	9	3488
7	3343	7	3343
5	3259	5	3259
3	3277	3	3277
1	3346	1	3346
0	3360	0	3360
-1	3346	-1	3346
-3	3277	-3	3277
-5	3259	-5	3259
-7	3343	-7	3343
-9	3488	-9	3488
-11	3743	-11	3743
-13	3990	-13	3990
-15	4015	-15	4015
-17	3807	-17	3807
-19.5	3433	-19.5	3433
-22.5	2831	-22.5	2831
-25.5	2228	-25.5	2228
-29	1170	-29	1170
-33	369	-33	369
-37.5	198	-37.5	198
-42.5	110	-42.5	110
-47.5	64	-47.5	64
-55	30	-55	30
-65	12	-65	12
-75	5	-75	5
-85	4	-85	4
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 4015 Located At Horizontal Angle = -15, Vertical Angle = -1
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 4015 Located At Horizontal Angle =-15, Vertical Angle =-1
50% Maximum Candela = 2007.5
10% Maximum Candela = 401.5