



**PROFESSIONAL
OUTDOOR LIGHTING**



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Report No: L081407509
Date: 9/9/2014



NVLAP LAB CODE 200927-0

Report No: L081407509

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

Model Number: 1057-XX-WF-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-WF-C-30 . Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 9/8/14

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

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 Outdoor Lighting	
Model Number:	1057-XX-WF-C-30	
Driver Model Number:	THOMAS RESEARCH PRODUCTS LED40W-045-C0900-D	
Total Lumens:	2774.58	
Input Voltage (VAC/60Hz):	120.00	
Input Current (Amp):	0.32	
Input Power (W):	38.14	
Input Power Factor:	1.00	
Current ATHD @ 120V(%):	2%	
Current ATHD @ 277V(%):	7% (0.15A, 37.96W, 0.93PF)	
Efficacy:	73	
Color Rendering Index (CRI):	82	
Correlated Color Temperature (K):	3050	
Chromaticity Coordinate x:	0.4343	
Chromaticity Coordinate y:	0.4046	
Ambient Temperature (°F):	77.0	
Stabilization Time (Hours):	1:00	
Total Operating Time (Hours):	1:40	
Off State Power(W):	0.00	

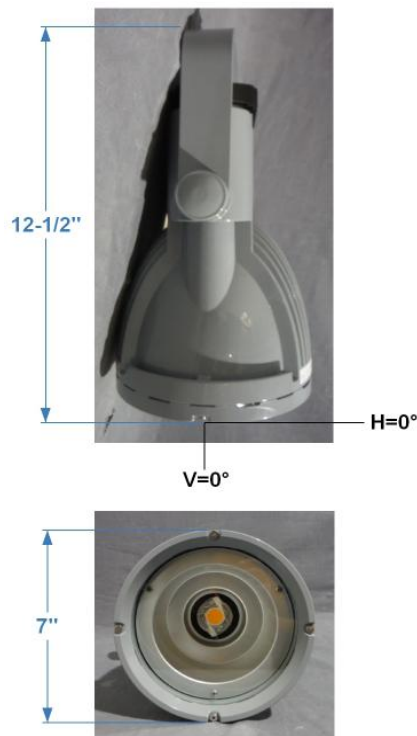
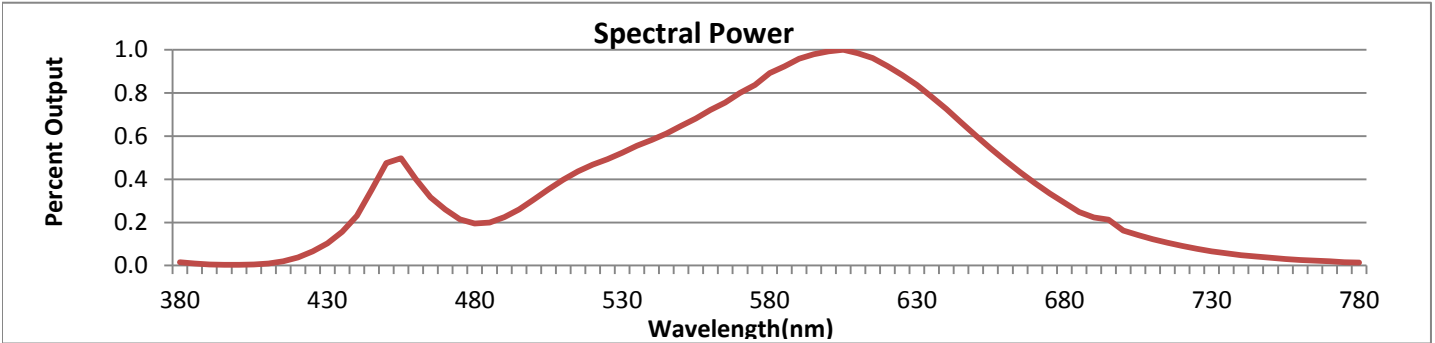


FIG. 1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



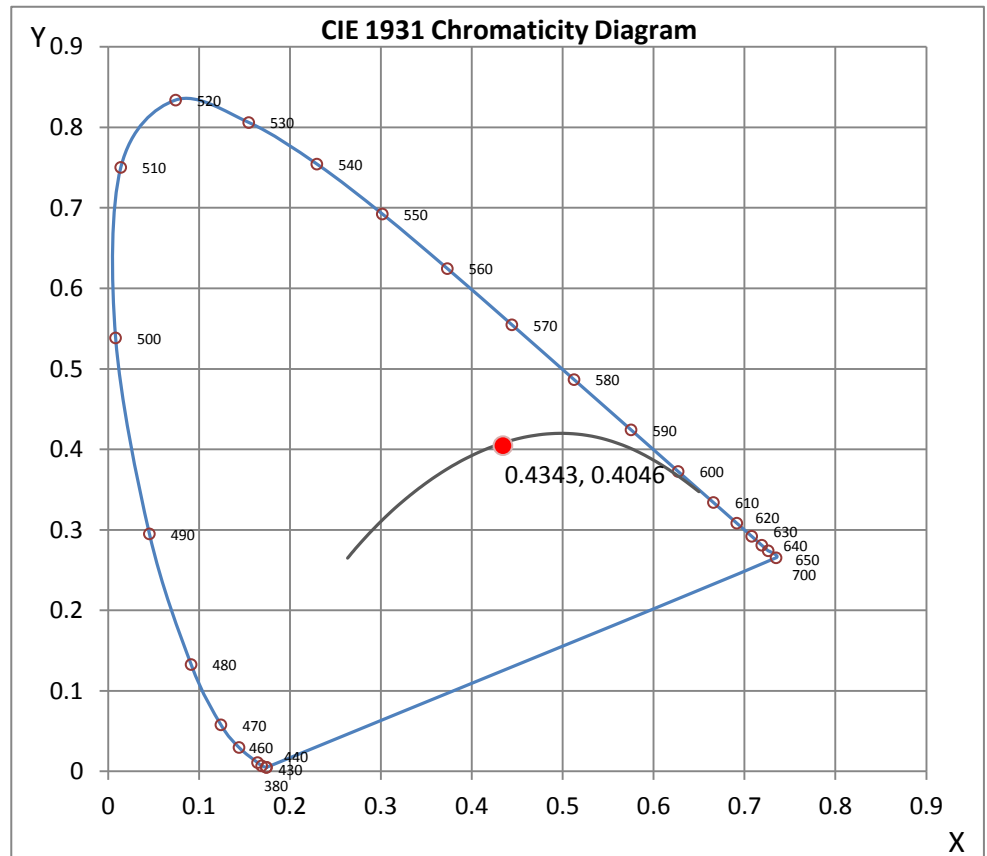
Wavelength	W/m ² nm	440	0.0465	510	0.0800	580	0.1798	650	0.1214	720	0.0182
380	0.0032	450	0.0957	520	0.0941	590	0.1931	660	0.0981	730	0.0133
390	0.0010	460	0.0809	530	0.1053	600	0.1998	670	0.0769	740	0.0098
400	0.0007	470	0.0524	540	0.1171	610	0.1980	680	0.0585	750	0.0072
410	0.0019	480	0.0394	550	0.1303	620	0.1862	690	0.0450	760	0.0053
420	0.0077	490	0.0451	560	0.1453	630	0.1685	700	0.0328	770	0.0038
430	0.0206	500	0.0618	570	0.1610	640	0.1460	710	0.0247	780	0.0028

CRI & CCT

x	0.4343
y	0.4046
u'	0.2486
v'	0.5212
CRI	82.10
CCT	3050
Duv	0.00058

R Values

R1	80.25
R2	89.83
R3	96.73
R4	79.77
R5	79.78
R6	86.70
R7	83.85
R8	60.19
R9	8.50
R10	76.10
R11	77.92
R12	67.69
R13	82.97
R14	98.30



*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 : L081407509.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L081407509
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUE DATE] 9/9/2014
[MANUFAC] U.S.T.E. DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
[LUMCAT] 1057-XX-WF-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, 38.14W
[TEST PROCEDURE] IESNA:LM-79-08

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

CHARACTERISTICS

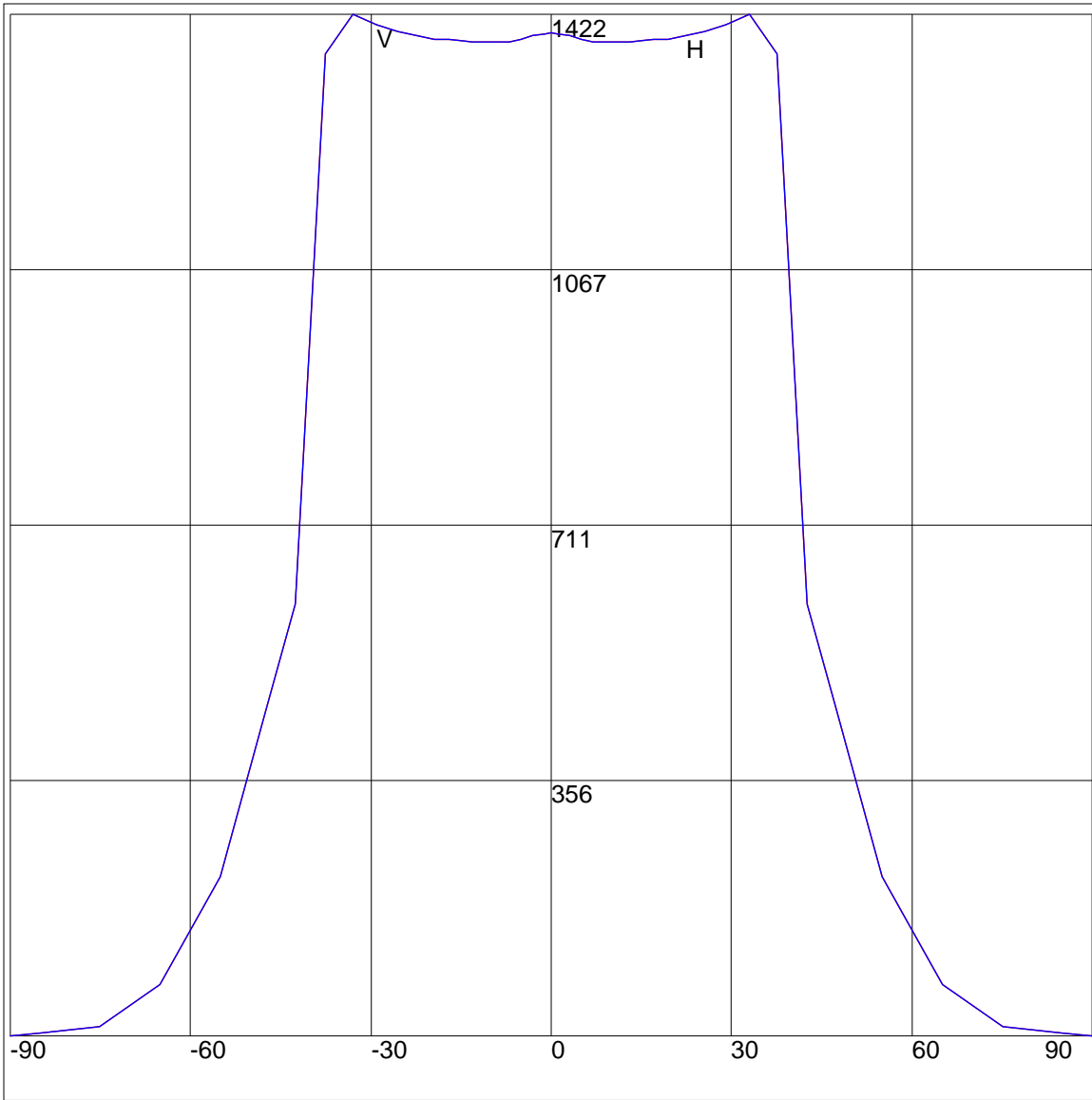
NEMA Type	6 H x 6 V
Maximum Candela	1422
Maximum Candela Angle	-33H -1V
Horizontal Beam Angle (50%)	83.6
Vertical Beam Angle (50%)	54.9
Horizontal Field Angle (10%)	120.7
Vertical Field Angle (10%)	107.7
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	2161
Beam Efficiency	N.A.
Field Lumens	2656
Field Efficiency	N.A.
Spill Lumens	118
Luminaire Lumens	2775
Total Efficiency	N.A.
Total Luminaire Watts	38.14
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L081407509.IES

AXIAL CANDELA

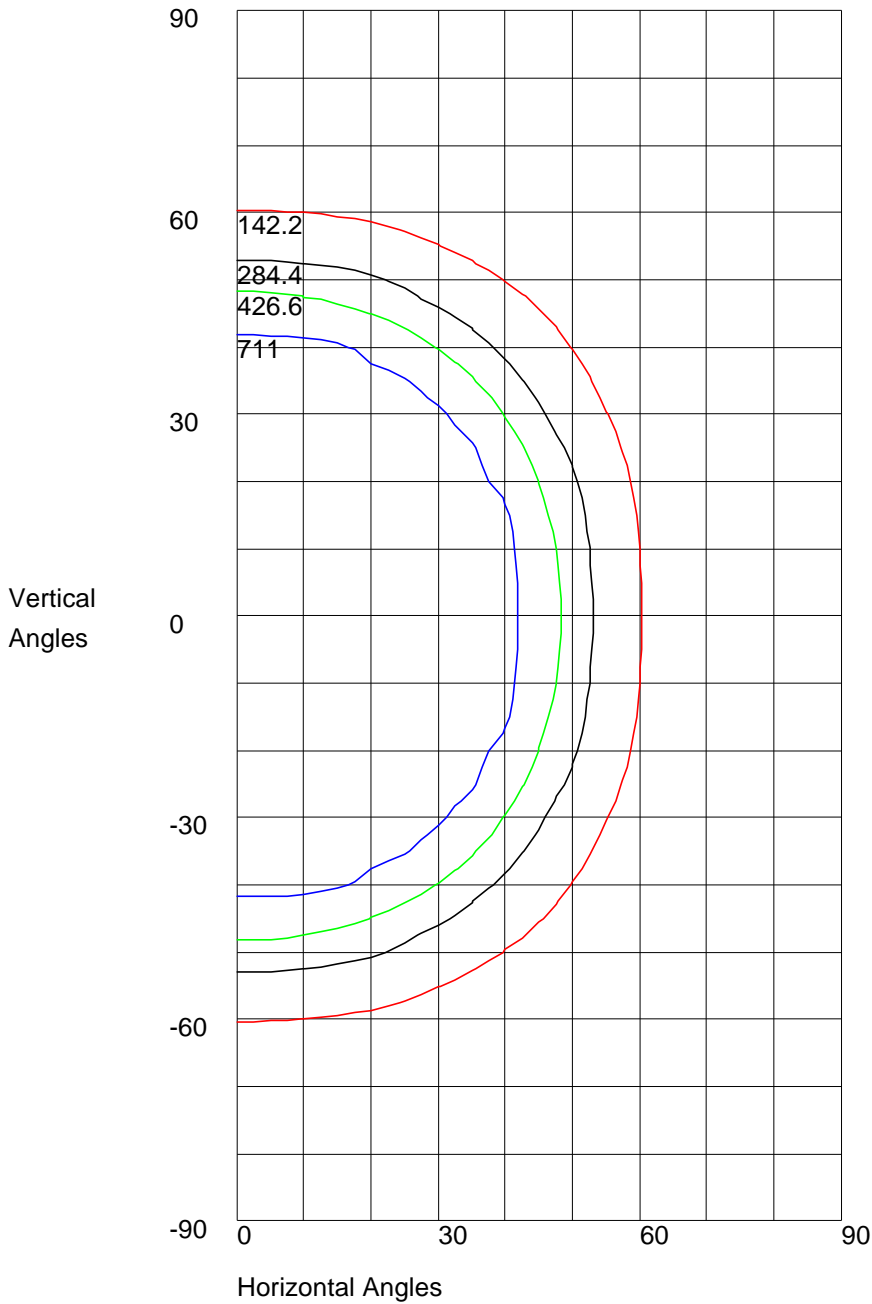
DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	5	85	5
75	13	75	13
65	72	65	72
55	223	55	223
47.5	450	47.5	450
42.5	601	42.5	601
37.5	1367	37.5	1367
33	1422	33	1422
29	1408	29	1408
25.5	1398	25.5	1398
22.5	1392	22.5	1392
19.5	1388	19.5	1388
17	1387	17	1387
15	1385	15	1385
13	1384	13	1384
11	1383	11	1383
9	1383	9	1383
7	1384	7	1384
5	1387	5	1387
3	1392	3	1392
1	1395	1	1395
0	1396	0	1396
-1	1395	-1	1395
-3	1392	-3	1392
-5	1387	-5	1387
-7	1384	-7	1384
-9	1383	-9	1383
-11	1383	-11	1383
-13	1384	-13	1384
-15	1385	-15	1385
-17	1387	-17	1387
-19.5	1388	-19.5	1388
-22.5	1392	-22.5	1392
-25.5	1398	-25.5	1398
-29	1408	-29	1408
-33	1422	-33	1422
-37.5	1367	-37.5	1367
-42.5	601	-42.5	601
-47.5	450	-47.5	450
-55	223	-55	223
-65	72	-65	72
-75	13	-75	13
-85	5	-85	5
-90	0	-90	0

AXIAL CANDELA DISPLAY



Maximum Candela = 1422 Located At Horizontal Angle =-33, Vertical Angle =-1
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 1422 Located At Horizontal Angle =-33, Vertical Angle =-1
50% Maximum Candela = 711
10% Maximum Candela = 142.2