Report No:
L112210704

Issue Date: 11/17/2022

| Report Prepared For: | USTE dba Vista Professioinal Outdoor Lighting <br> 1625 Surveyor Ave., Simi Valley CA 93063 |
| :--- | :--- |
| Model Number: | 1054-X-MF-30-A-MV-ND |
| Test: | Photometric/Colorimetric/Electrical Test |

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2019 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products ANSI NEMA ANSLG C78.377: 2017 Specification of the Chromaticity of Solid State Lighting Products ANSI C82.77-10:2014: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Special Test Condition: Fixture is tested with no special conditions.

## Date of Tests:

11/17/22

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-S4 | $4 / 7 / 23$ |
| HP Power Supply | 6032 A | PS-DC05-S2 | -- |
| Fluke Digital Thermometer | $52 \mathrm{~K} / \mathrm{J}$ | MT-TP05 | $3 / 17 / 23$ |
| 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 |


| General Information |  |
| :--- | :--- |
| Manufacturer: | USTE dba Vista Professioinal Outdoor Lighting |
| Model Number: | 1054-X-MF-30-A-MV-ND |
| Driver Model Number: | ERP PSB30W-1050-27.5 |


| Test Summary |  |
| :--- | :--- |
| Total Lumens: | 5989.00 |
| Efficacy: | 114.37 |
| Color Redering Index: | 82.5 |
| Correlated Color Temperature: | 3095 |
| Input Voltage (VAC/60Hz): | 120.01 |
| Input Current (Amp): | 0.4455 |
| Input Power (W): | 52.37 |
| Input Power Factor: | 0.9793 |
| Current ATHD (\%): | $14.2 \%$ |
|  |  |
| Test Condition | 25.0 |
| Ambient Temperature ${ }^{\circ} \mathrm{C}$ ): | $0: 35$ |
| Stabilization Time (Hours): | $1: 00$ |
| Total Operating Time (Hours): |  |



FIG. 1 LUMINAIRE

Colorimetry Test Results


CRI \& CCT

| $\mathbf{x}$ | 0.4322 |
| :---: | ---: |
| $\mathbf{y}$ | 0.4057 |
| $\mathbf{u}^{\mathbf{\prime}}$ | 0.2468 |
| $\mathbf{v}^{\mathbf{\prime}}$ | 0.5213 |
| $\mathbf{C R I}$ | 82.50 |
| $\mathbf{C C T}$ | 3095 |
| Duv | 0.00133 |

## R Values

| R1 | 80.53 |
| :--- | ---: |
| R2 | 90.63 |
| R3 | 96.51 |
| R4 | 81.10 |
| R5 | 81.33 |
| R6 | 89.40 |
| R7 | 82.54 |
| R8 | 57.80 |
| R9 | 3.49 |
| R10 | 79.29 |
| R11 | 81.06 |
| R12 | 69.68 |
| R13 | 82.90 |
| R14 | 98.61 |
| R15 | 72.30 |



## 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 $25^{\circ} \mathrm{C}$ and is measured from the center of the fixture，within 1 ft from the outside of the fixture．Temperature is maintained at $25^{\circ} \mathrm{C}$ throughout the testing process and the sample is stabilized for at least 30 mins 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 $25^{\circ} \mathrm{C}$ and is measured from the center of the fixture，within 1 ft from the outside of the fixture．Temperature is maintained at $25^{\circ} \mathrm{C}$ throughout the testing process and the sample is stabilized for at least 30 mins and longer as necessary for the sample to achieve stabilization．

Electrical measurements are measured using the listed equipment．

## Disclaimers：

The results related only to the samples as received and tested．This report must not be used by the customer to claim product certification，approval or endorsement by NVLAP，NIST or any agency of the Federal Government．

Report Prepared by ：Kunjan Modi

> Test Report Reviewed by:


Steve Kang
Quality Assurance
＊Attached are photometric data reports．

## Photometric Test Report

## IES FLOOD REPORT

PHOTOMETRIC FILENAME : L112210704.IES

## DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L112210704
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 11/17/2022
[MANUFAC] USTE dba Vista Professioinal Outdoor Lighting
[LUMCAT] 1054-X-MF-30-A-MV-ND
[LUMINAIRE] LED LINEAR FLOODLIGHT-MEDIUM FLOOD
[BALLASTCAT] ERP PSB30W-1050-27.5
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC
[TEST PROCEDURE] IESNA:LM-79-08
Note: Candela values converted from Type-C to Type-B

## CHARACTERISTICS

NEMA Type
Maximum Candela
Maximum Candela Angle
Horizontal Beam Angle (50\%)
Vertical Beam Angle (50\%)
Horizontal Field Angle (10\%)
Vertical Field Angle (10\%)
Lumens Per Lamp
Total Lamp Lumens
Beam Lumens
Beam Efficiency
Field Lumens
Field Efficiency
Spill Lumens
Luminaire Lumens
Total Efficiency
Total Luminaire Watts
Ballast Factor
$7 \mathrm{H} \times 5 \mathrm{~V}$
3958
$-3 \mathrm{H}-7 \mathrm{~V}$
97.5
57.1
140.3
88.9
N.A. (absolute)
N.A. (absolute)

4021
N.A.

5548
N.A.

441
5989
N.A.
52.36
1.00

## AXIAL CANDELA

| DEG. | HOR. | DEG. | VERT. |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 90 | 0 | 90 | 0 |
| 85 | 27 | 85 | 5 |
| 75 | 207 | 75 | 55 |
| 65 | 619 | 65 | 119 |
| 55 | 1471 | 55 | 181 |
| 47.5 | 2165 | 47.5 | 285 |
| 42.5 | 2531 | 42.5 | 441 |
| 37.5 | 2836 | 37.5 | 746 |
| 33 | 3075 | 33 | 1231 |
| 29 | 3261 | 29 | 1828 |
| 25.5 | 3405 | 25.5 | 2393 |
| 22.5 | 3514 | 22.5 | 2799 |
| 19.5 | 3607 | 19.5 | 3135 |
| 17 | 3671 | 17 | 3366 |
| 15 | 3722 | 15 | 3542 |
| 13 | 3764 | 13 | 3694 |
| 11 | 3801 | 11 | 3810 |
| 9 | 3835 | 9 | 3887 |
| 7 | 3861 | 7 | 3924 |
| 5 | 3878 | 5 | 3924 |
| 3 | 3888 | 3 | 3902 |
| 1 | 3893 | 1 | 3889 |
| 0 | 3899 | 0 | 3899 |
| -1 | 3893 | -1 | 3887 |
| -3 | 3888 | -3 | 3904 |
| -5 | 3878 | -5 | 3918 |
| -7 | 3861 | -7 | 3919 |
| -9 | 3835 | -9 | 3891 |
| -11 | 3801 | -11 | 3827 |
| -13 | 3764 | -13 | 3724 |
| -15 | 3722 | -15 | 3582 |
| -17 | 3671 | -17 | 3417 |
| -19.5 | 3607 | -19.5 | 3184 |
| -22.5 | 3514 | -22.5 | 2877 |
| -25.5 | 3405 | -25.5 | 2501 |
| -29 | 3261 | -29 | 1949 |
| -33 | 3075 | -33 | 1341 |
| -37.5 | 2836 | -37.5 | 809 |
| -42.5 | 2531 | -42.5 | 470 |
| -47.5 | 2165 | -47.5 | 296 |
| -55 | 1471 | -55 | 182 |
| -65 | 619 | -65 | 121 |
| -75 | 207 | -75 | 62 |
| -85 | 27 | -90 | 0 |
| -90 | 0 |  |  |

## AXIAL CANDELA DISPLAY



Maximum Candela $=3958$ Located At Horizontal Angle $=-3$, Vertical Angle $=-7$
H - Horizontal Axial Candela
V - Vertical Axial Candela

## ISOCANDELA CURVES



Maximum Candela $=3958$ Located At Horizontal Angle $=-3$, Vertical Angle $=-7$ 50\% Maximum Candela = 1979
10\% Maximum Candela $=395.8$

