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 Anaheim, CA 92808  
 www.lightlaboratory.com

Report No: L022111901



**Report No:** L022111901

**Issue Date:** 2/24/2021

**Report Prepared For:** Hunter Industries  
 1940 Diamond St., San Marcos, CA 92078

**Model Number:** PAR36ECO35WFL

**Test:** Photometric/Colorimetric/Electrical Test

**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. Received in working and undamaged condition. No modifications were necessary.

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

**Sample Arrival Date:** 2/17/21

**Date of Tests:** 2/18/21 - 2/23/21

**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	1/9/22
BK PRECISION	1747	PS-DC04	1/10/22
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/22
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

<b>Manufacturer:</b>	Hunter Industries
<b>Model Number:</b>	PAR36ECO35WFL
<b>Driver Model Number:</b>	N/A

### Test Summary

<b>Total Lumens:</b>	684.12
<b>Efficacy:</b>	117.55
<b>Color Redering Index:</b>	83.5
<b>Correlated Color Temperature:</b>	2635
<b>Input Voltage (VAC/60Hz):</b>	11.99
<b>Input Current (Amp):</b>	0.7067
<b>Input Power (W):</b>	5.82
<b>Input Power Factor:</b>	0.6866
<b>Current ATHD (%):</b>	69.8%

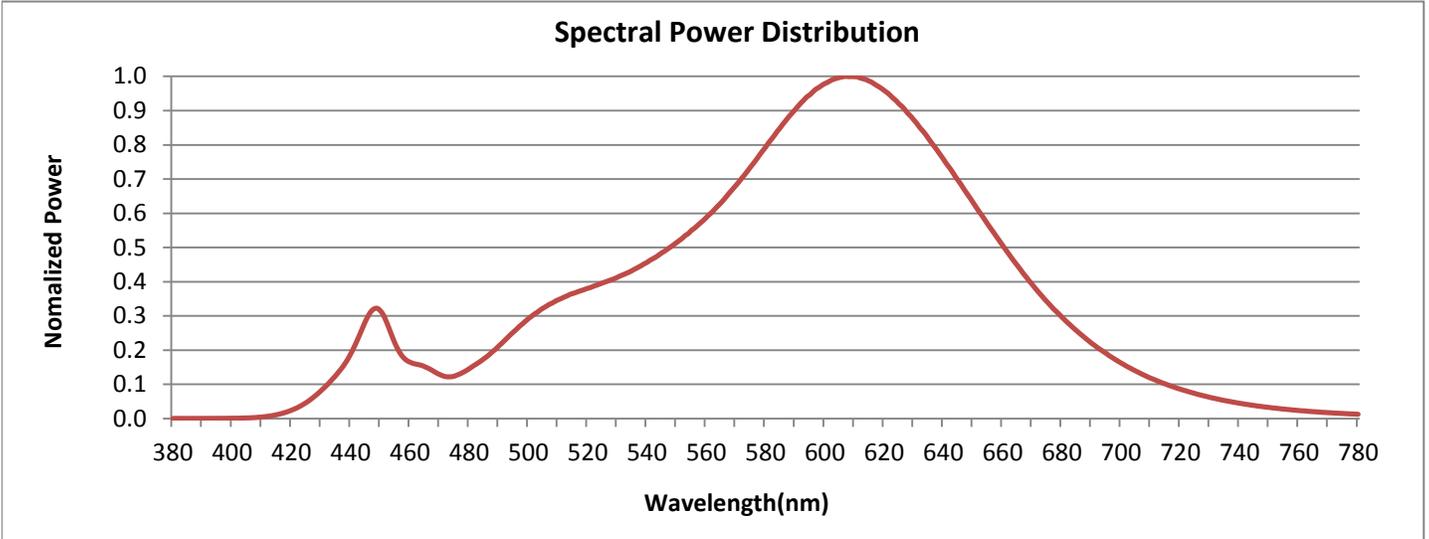
### Test Condition

<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:50
<b>Total Operating Time (Hours):</b>	1:30



FIG. 1 LUMINAIRE

**Colorimetry Test Results**

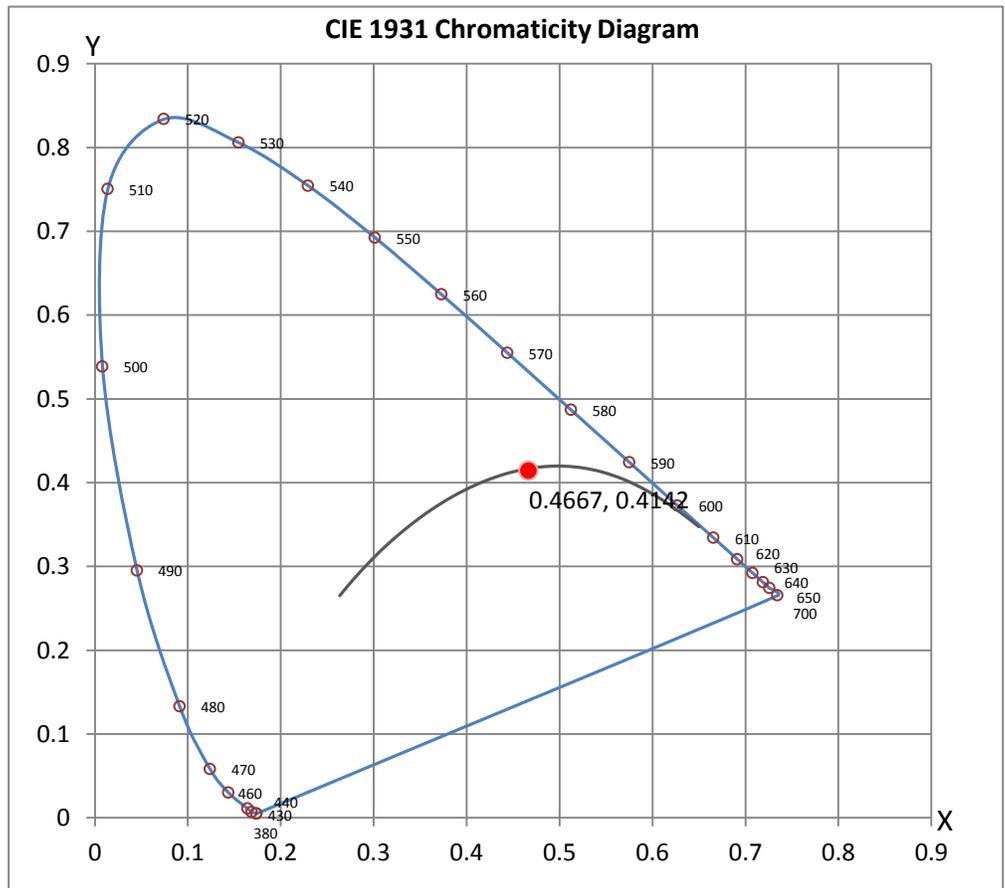


**CRI & CCT**

x	0.4667
y	0.4142
u'	0.2653
v'	0.5297
CRI	83.50
CCT	2635
Duv	0.00079

**R Values**

R1	81.76
R2	91.91
R3	95.77
R4	82.75
R5	83.17
R6	92.84
R7	81.75
R8	57.81
R9	9.98
R10	83.10
R11	83.67
R12	82.10
R13	84.00
R14	98.27
R15	73.19



## 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 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 : L022111901.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L022111901  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUEDATE] 2/24/2021  
[MANUFAC] Hunter Industries  
[LUMCAT] PAR36ECO35WFL  
[LUMINAIRE] PAR36 6W 2700K Flood  
[BALLASTCAT] N/A  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 11.99VAC, 5.82W  
[TEST PROCEDURE] IESNA:LM-79-08

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

**CHARACTERISTICS**

NEMA Type	5 H x 5 V
Maximum Candela	1338
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	33.7
Vertical Beam Angle (50%)	33.7
Horizontal Field Angle (10%)	72.7
Vertical Field Angle (10%)	72.7
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	255
Beam Efficiency	N.A.
Field Lumens	545
Field Efficiency	N.A.
Spill Lumens	139
Luminaire Lumens	684
Total Efficiency	N.A.
Total Luminaire Watts	5.82
Ballast Factor	1.00

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L022111901.IES**

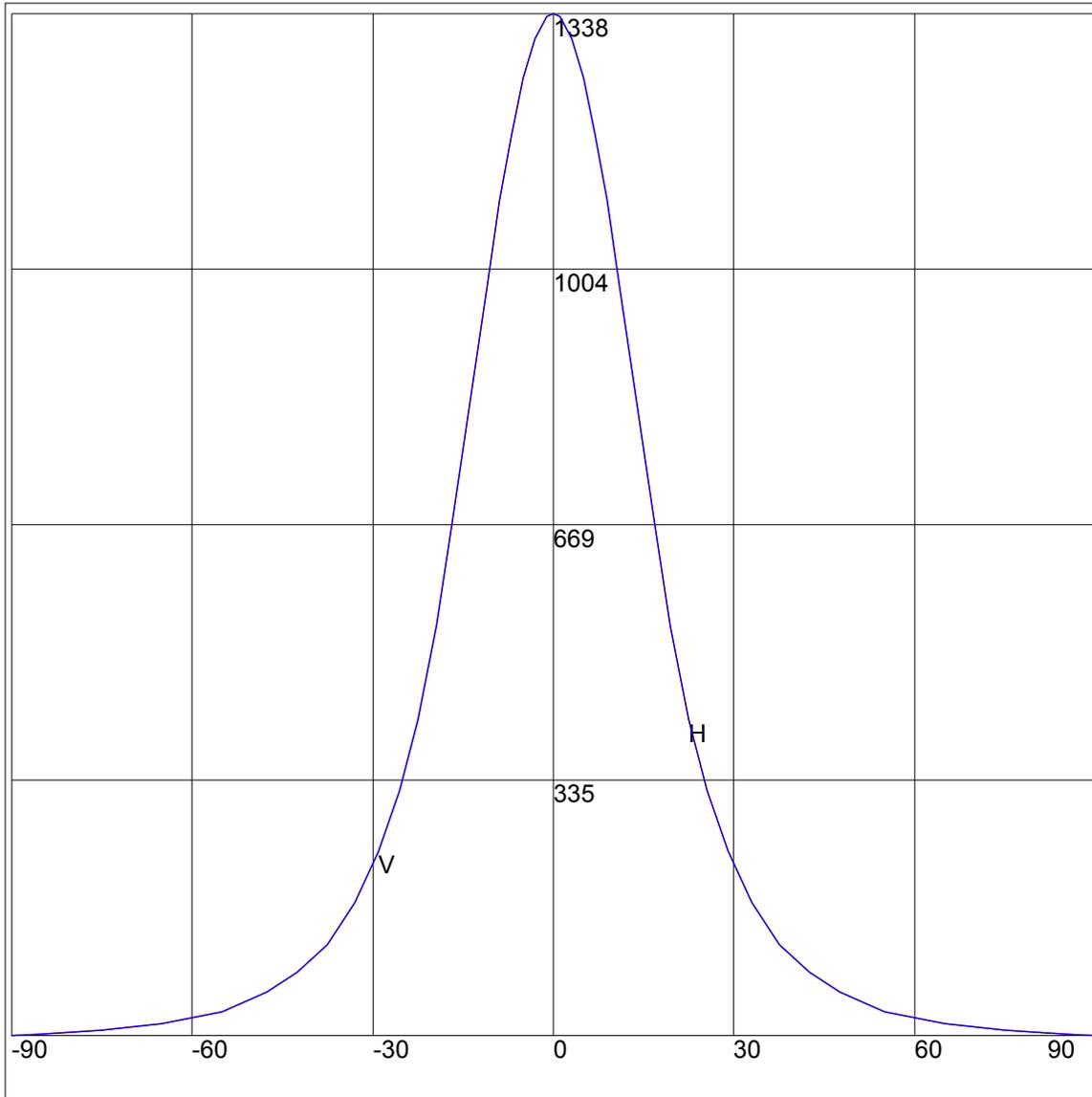
**AXIAL CANDELA**

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	2	85	2
75	8	75	8
65	16	65	16
55	32	55	32
47.5	57	47.5	57
42.5	83	42.5	83
37.5	120	37.5	120
33	174	33	174
29	242	29	242
25.5	321	25.5	321
22.5	414	22.5	414
19.5	537	19.5	537
17	660	17	660
15	764	15	764
13	870	13	870
11	985	11	985
9	1093	9	1093
7	1178	7	1178
5	1253	5	1253
3	1305	3	1305
1	1334	1	1334
0	1338	0	1338
-1	1334	-1	1334
-3	1305	-3	1305
-5	1253	-5	1253
-7	1178	-7	1178
-9	1093	-9	1093
-11	985	-11	985
-13	870	-13	870
-15	764	-15	764
-17	660	-17	660
-19.5	537	-19.5	537
-22.5	414	-22.5	414
-25.5	321	-25.5	321
-29	242	-29	242
-33	174	-33	174
-37.5	120	-37.5	120
-42.5	83	-42.5	83
-47.5	57	-47.5	57
-55	32	-55	32
-65	16	-65	16
-75	8	-75	8
-85	2	-85	2
-90	0	-90	0

**ZONAL LUMEN SUMMARY**

Zone	%
0-20	47.2
0-30	70.1
0-40	83.8
0-60	95.9
0-80	99.6
0-90	100
10-90	83.5
20-40	36.6
20-50	44.4
40-70	14.6
60-80	3.7
70-80	1.3
80-90	0.4
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY

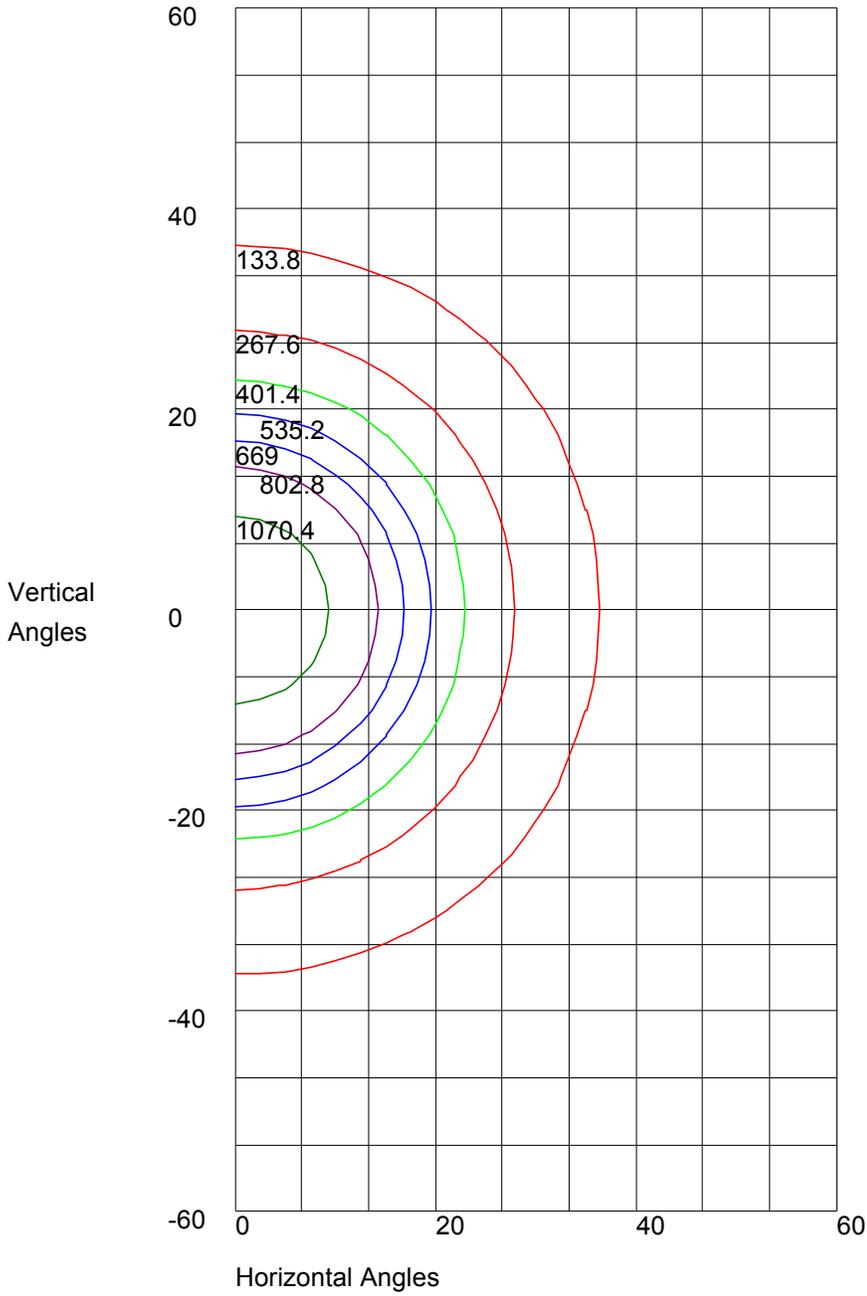


Maximum Candela = 1338 Located At Horizontal Angle = 0, Vertical Angle = 0

H - Horizontal Axial Candela

V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 1338 Located At Horizontal Angle = 0, Vertical Angle = 0  
50% Maximum Candela = 669  
10% Maximum Candela = 133.8