



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L061705801R01



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Issue Date: 6/22/2017

Report Prepared For: Aubrey Industries Clarte Lighting
975 N Todd Ave, Azusa, CA 91702

Model Number: PAR 8 NARROW FLOOD

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

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 6/19/17

Date of Tests: 6/20/17 - 6/22/17

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	11/28/17
ITECH	IT6122	PS-DC03-S1	11/28/17
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/28/17
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:	Aubrey Industries Clarte Lighting
Model Number:	PAR 8 NARROW FLOOD
Driver Model Number:	ERP ESS015W-1050-14
Total Lumens:	669.70
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.092
Input Power (W):	10.87
Input Power Factor:	0.98
Current ATHD @ 120V(%):	10%
Current ATHD @ 277V(%):	N/A
Efficacy:	62
Color Rendering Index (CRI):	83
Correlated Color Temperature (K):	3117
Chromaticity Coordinate x:	0.4255
Chromaticity Coordinate y:	0.3940
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:05
Total Operating Time (Hours):	2:05

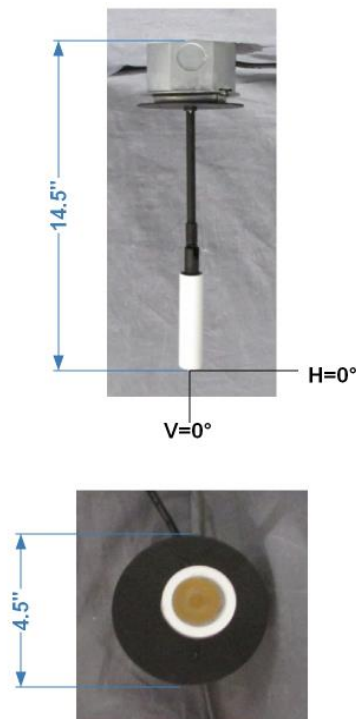
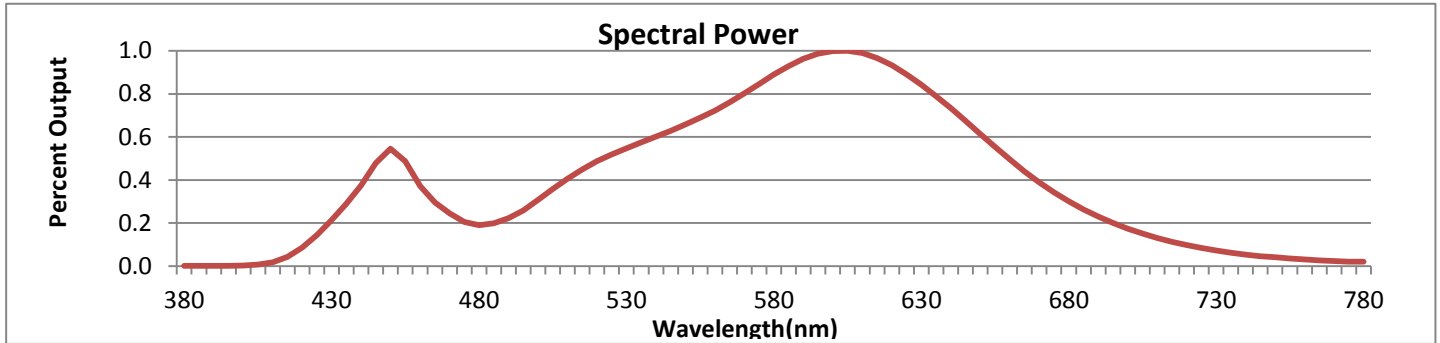


FIG. 1 LUMINAIRE

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



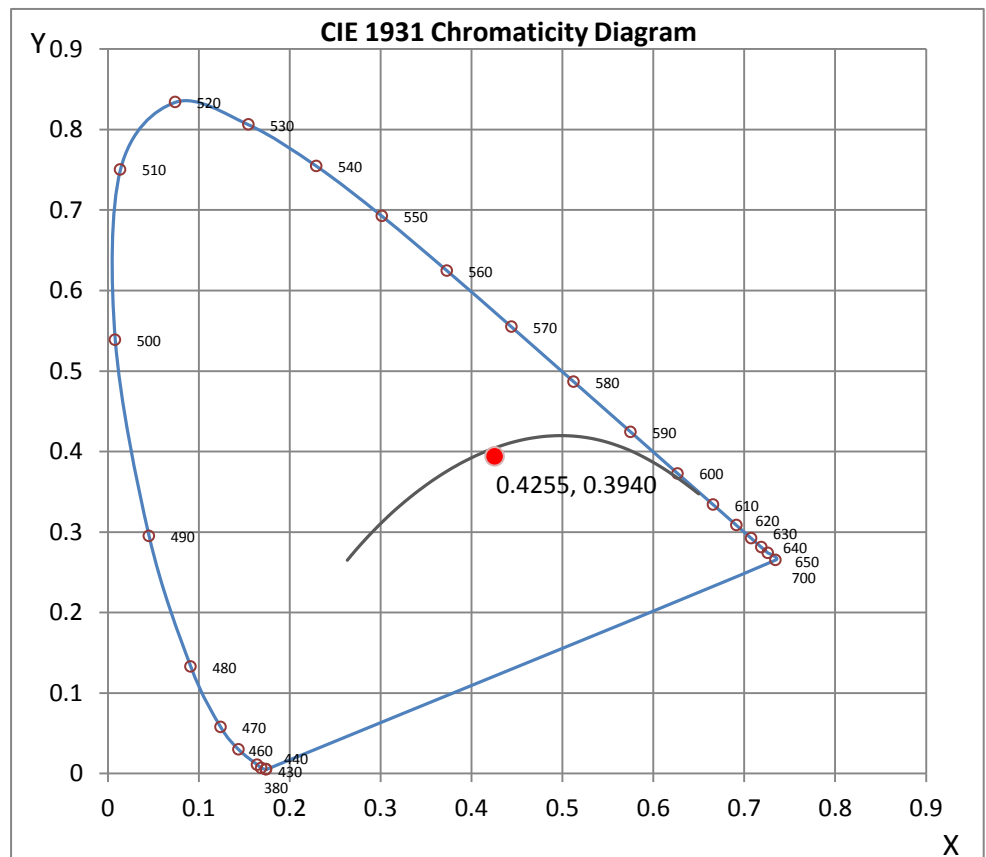
Wavelength	W/m ² nm	440	0.3748	510	0.4063	580	0.8900	650	0.6133	720	0.0973
380	0.0010	450	0.5449	520	0.4869	590	0.9637	660	0.4966	730	0.0722
390	0.0013	460	0.3710	530	0.5474	600	0.9992	670	0.3890	740	0.0536
400	0.0028	470	0.2448	540	0.6022	610	0.9893	680	0.3012	750	0.0407
410	0.0181	480	0.1899	550	0.6578	620	0.9331	690	0.2304	760	0.0310
420	0.0856	490	0.2220	560	0.7228	630	0.8421	700	0.1743	770	0.0238
430	0.2140	500	0.3069	570	0.8028	640	0.7334	710	0.1303	780	0.0209

CRI & CCT

x	0.4255
y	0.3940
u'	0.2475
v'	0.5156
CRI	82.70
CCT	3117
Duv	-0.00243

R Values

R1	81.46
R2	89.71
R3	95.60
R4	81.27
R5	81.15
R6	86.46
R7	84.02
R8	62.30
R9	12.77
R10	75.57
R11	79.91
R12	71.65
R13	83.25
R14	97.35



*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.

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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: 9*



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Photometric Test Report

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L061705801R01.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L061705801R01
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 6/22/2017
[MANUFAC] Aubrey Industries Clarte Lighting
[LUMCAT] PAR 8 NARROW FLOOD
[LUMINAIRE] Surface Round 1 light 4" Canopy Plate
[BALLASTCAT] ERP ESS015W-1050-14
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC, 10.87W
[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	2237
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	26.1
Vertical Beam Angle (50%)	26.1
Horizontal Field Angle (10%)	53.0
Vertical Field Angle (10%)	53.0
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	264
Beam Efficiency	N.A.
Field Lumens	531
Field Efficiency	N.A.
Spill Lumens	139
Luminaire Lumens	670
Total Efficiency	N.A.
Total Luminaire Watts	10.87
Ballast Factor	1.00

IES FLOOD REPORT
PHOTOMETRIC FILENAME : L061705801R01.IES

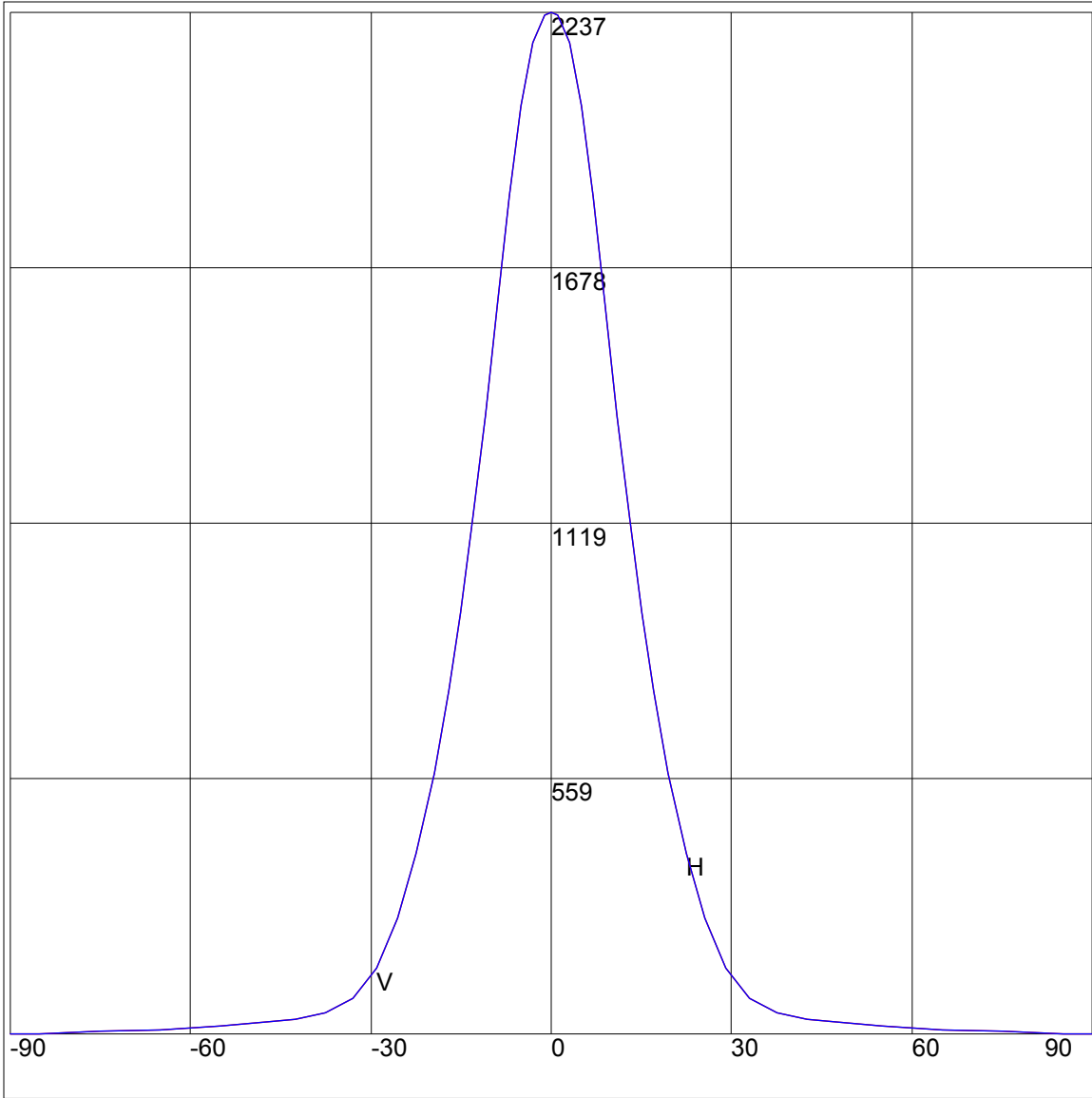
AXIAL CANDELA

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	2	85	2
75	7	75	7
65	11	65	11
55	18	55	18
47.5	27	47.5	27
42.5	33	42.5	33
37.5	47	37.5	47
33	79	33	79
29	145	29	145
25.5	256	25.5	256
22.5	396	22.5	396
19.5	572	19.5	572
17	752	17	752
15	924	15	924
13	1125	13	1125
11	1354	11	1354
9	1597	9	1597
7	1833	7	1833
5	2032	5	2032
3	2171	3	2171
1	2232	1	2232
0	2237	0	2237
-1	2232	-1	2232
-3	2171	-3	2171
-5	2032	-5	2032
-7	1833	-7	1833
-9	1597	-9	1597
-11	1354	-11	1354
-13	1125	-13	1125
-15	924	-15	924
-17	752	-17	752
-19.5	572	-19.5	572
-22.5	396	-22.5	396
-25.5	256	-25.5	256
-29	145	-29	145
-33	79	-33	79
-37.5	47	-37.5	47
-42.5	33	-42.5	33
-47.5	27	-47.5	27
-55	18	-55	18
-65	11	-65	11
-75	7	-75	7
-85	2	-85	2
-90	0	-90	0

ZONAL LUMEN SUMMARY

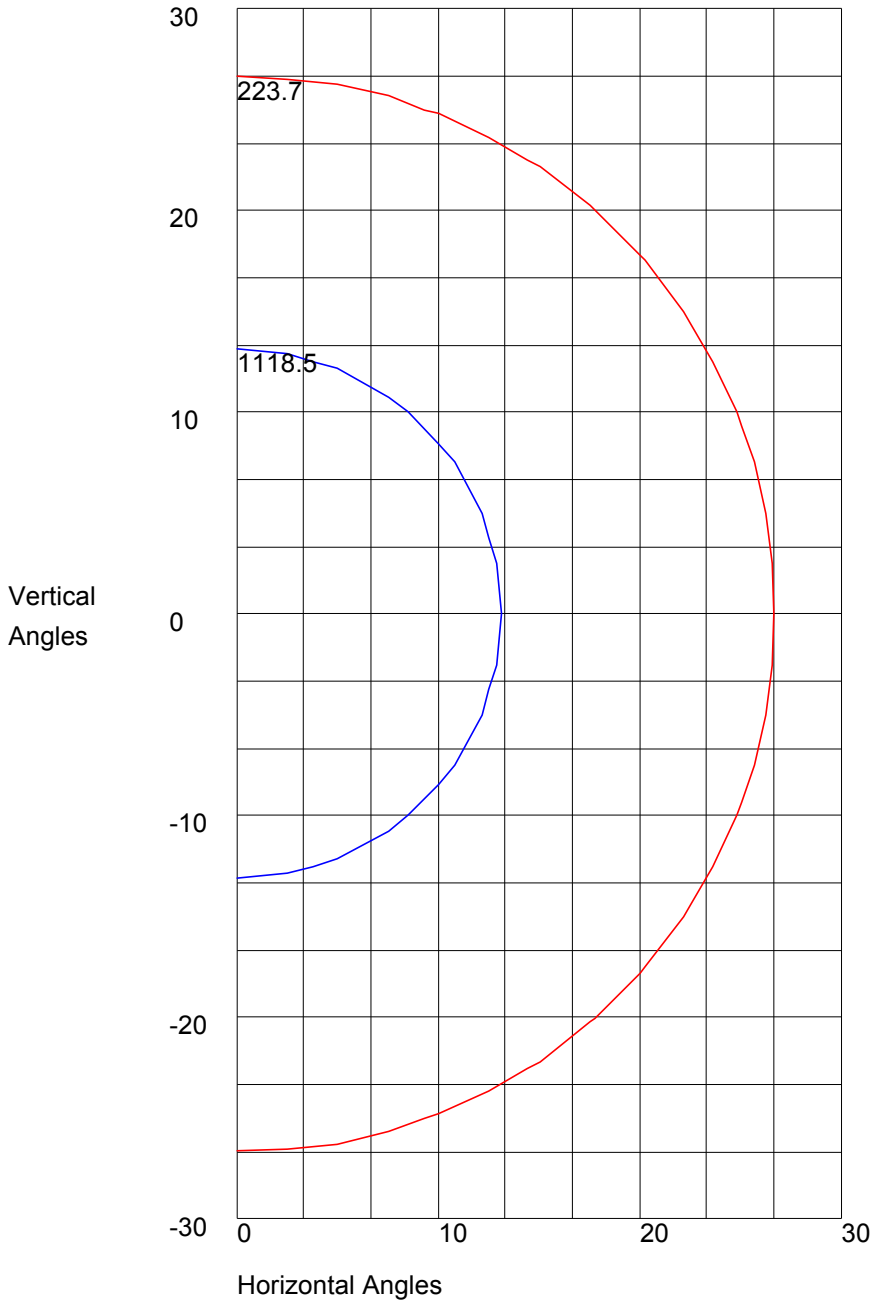
Zone	%
0-20	63
0-30	83.3
0-40	89.8
0-60	95.8
0-80	99.2
0-90	100
10-90	77.9
20-40	26.7
20-50	30.6
40-70	8
60-80	3.4
70-80	1.4
80-90	0.8
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY



Maximum Candela = 2237 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 2237 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 1118.5
10% Maximum Candela = 223.7

ADDENDUM: Illuminance cone diagram

Mounting Height = 12 ft.

