



# REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: February 2, 2015

REPORT NO. 101918458LAX-003

TEST OF ONE LED PAR

MODEL NO. CUPIX PAR300 WHITE

RENDERED TO

ELATION LIGHTING INC.  
6122 S. EASTERN AVE  
COMMERCE CA 90040

TEST: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the federal government.

AUTHORIZATION: The testing performed was authorized by signed quote number Q500519256.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number CUPIX PAR300 WHITE . The sample was received by Intertek on January 29, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1501290915-001.

DATES OF TESTS: January 30, 2015

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SUMMARY

Model No.:	CUPIX PAR300 WHITE
Description:	LED PAR

Criteria	Result
Total Lumen Output (Lumens)	1743.8
Total Power (W)	128.59
Luminaire Efficacy (LPW)	13.56
Power Factor	0.951

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	01/26/15	02/26/15
Elgar Power Supply	CW1251	000944	VBU	VBU
Yokogawa Power Analyzer	WT210	000945	11/26/14	11/26/15
Temp. & RH Meter	971	001178	12/22/14	12/22/15
Extech Instruments Stop Watch	N/A	001390	12/08/14	12/08/15
Tape Measure	33-430	001491	12/08/14	12/08/15

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical Measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

**RESULTS OF TEST**

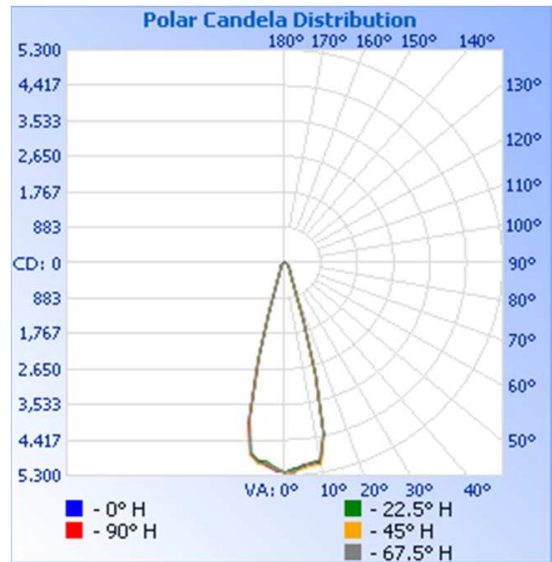
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
LAN1501290915-001	UP	120.00	1140.9	128.6	0.951	1743.8	13.56

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 5,230.3

Angle	0	22.5	45	67.5	90
0	5216	5216	5216	5216	5216
5	5080	5098	5148	5066	5046
10	5059	5007	5090	4966	4980
15	2875	2885	2853	2902	2874
20	734	755	743	768	736
25	368	382	378	364	388
30	256	266	254	253	249
35	206	204	199	186	199
40	155	162	158	164	157
45	124	133	131	138	138
50	96	102	109	101	99
55	99	87	109	95	92
60	74	70	91	74	84
65	65	52	57	63	60
70	21	33	36	48	37
75	21	19	33	20	25
80	3	9	6	15	17
85	6	1	0	0	11
90	8	3	0	8	3

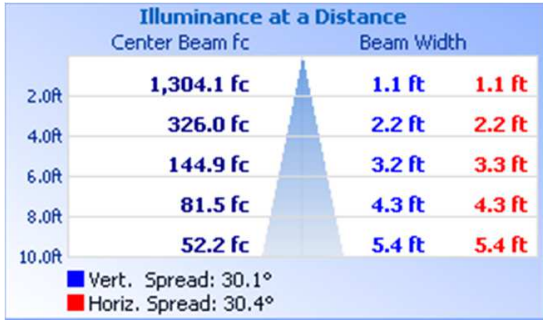


RESULTS OF TEST (cont'd)

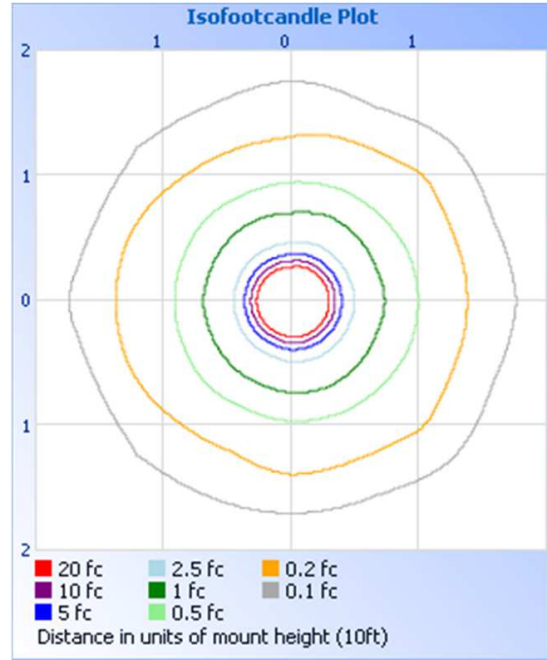
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1362	78.1%
0-40	1481	84.9%
0-60	1661	95.2%
60-90	82.7	4.7%
0-90	1743.5	1.5%
90-180	0.4	0.0%
0-180	1743.8	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	480.0	27.5%
10-20	707.1	40.6%
20-30	175.1	10.0%
30-40	118.9	6.8%
40-50	96.9	5.6%
50-60	82.8	4.8%
60-70	56.3	3.2%
70-80	22.4	1.3%
80-90	4.0	0.2%
90-100	0.4	0.0%

PICTURE (not to scale)



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



Ameet Alawi  
Technician  
Lighting Division

Attachment: None

Report Reviewed By:



Kenda Branch  
Lighting Performance Team Lead  
Lighting Division