



REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: February 2, 2015

REPORT NO. 101918458LAX-005

TEST OF ONE LED PAR

MODEL NO. CUPIX PAR300 GREEN

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 GREEN . 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 GREEN
Description:	LED PAR

Criteria	Result
Total Lumen Output (Lumens)	1823.1
Total Power (W)	93.61
Luminaire Efficacy (LPW)	19.48
Power Factor	0.937

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

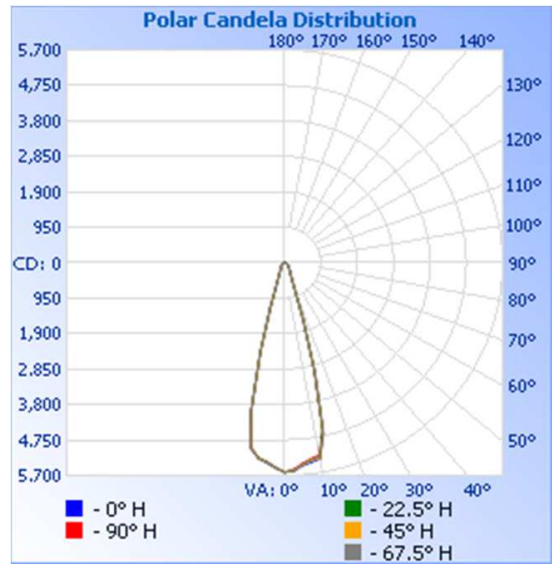
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

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	120.01	833.0	93.61	0.937	1823.1	19.48

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 5,606.2

Angle	0	22.5	45	67.5	90
0	5606	5606	5606	5606	5606
5	5447	5419	5429	5405	5385
10	5328	5282	5310	5276	5220
15	3035	3007	3071	3068	2954
20	785	795	806	800	786
25	384	396	403	393	390
30	275	278	275	263	259
35	208	213	206	200	198
40	164	168	166	163	165
45	135	137	138	136	138
50	112	110	111	111	112
55	98	100	102	102	100
60	84	80	83	85	82
65	61	61	63	62	62
70	38	41	39	39	42
75	23	22	23	24	25
80	9	9	10	10	10
85	2	1	1	1	2
90	0	1	0	0	0

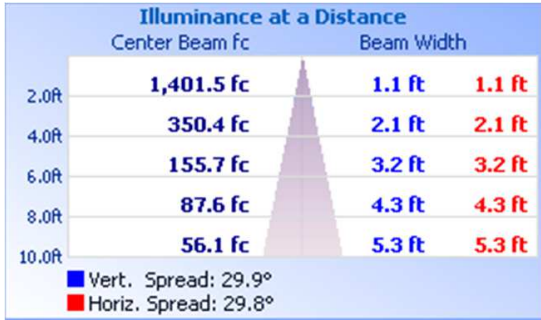


RESULTS OF TEST (cont'd)

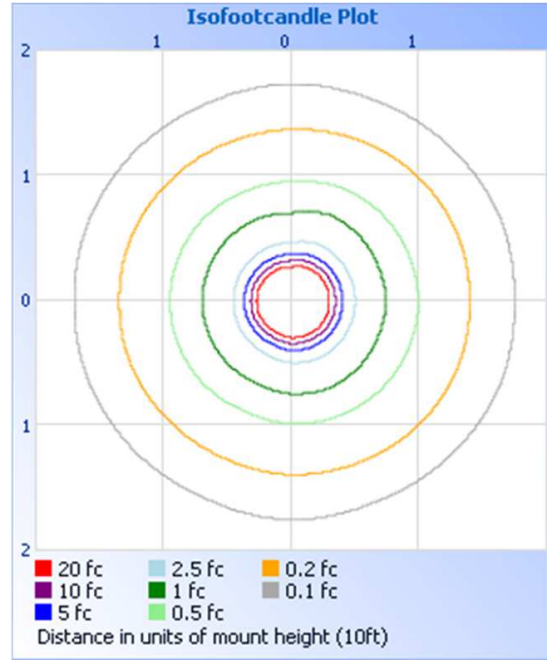
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1426	78.2%
0-40	1551	85.1%
0-60	1738	95.3%
60-90	84.9	4.7%
0-90	1823.1	1.5%
90-180	0	0.0%
0-180	1823.1	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	508.3	27.9%
10-20	735.4	40.3%
20-30	182.8	10.0%
30-40	124.8	6.8%
40-50	101.5	5.6%
50-60	85.4	4.7%
60-70	58.3	3.2%
70-80	23.8	1.3%
80-90	2.8	0.2%

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