



# REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: October 9, 2015

REPORT NO. 101918458LAX-094

TEST OF ONE ACL PAR 200

RENDERED TO

ELATION LIGHTING  
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 ACL PAR 200. The sample was received by Intertek on October 2, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1510021403-001.

DATES OF TESTS: October 5, 2015

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SUMMARY

Model No.: ACL PAR 200
Description: LED Cove

Criteria	Result
Total Lumen Output (Lumens)	2212
Total Power (W)	137.3
Luminaire Efficacy (LPW)	16.11
Power Factor	0.979

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	09/28/15	10/28/15
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	365510	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 (cont'd)

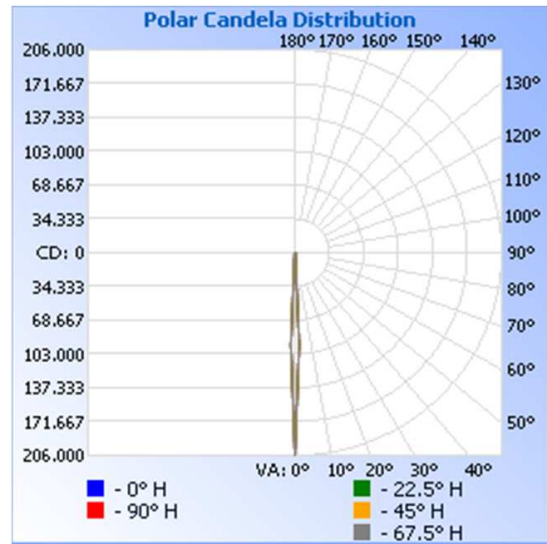
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

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)
LAN1510021403-001	UP	120.0	1169	137.3	0.9788	2212	16.11

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 205,056.5

Angle	0	22.5	45	67.5	90
0	205056	205056	205056	205056	205056
5	6927	6927	6927	6927	6927
10	1318	1318	1318	1318	1318
15	473	473	473	473	473
20	277	277	277	277	277
25	105	105	105	105	105
30	78	78	78	78	78
35	54	54	54	54	54
40	65	65	65	65	65
45	40	40	40	40	40
50	55	55	55	55	55
55	64	64	64	64	64
60	55	55	55	55	55
65	53	53	53	53	53
70	20	20	20	20	20
75	52	52	52	52	52
80	50	50	50	50	50
85	54	54	54	54	54
90	31	31	31	31	31

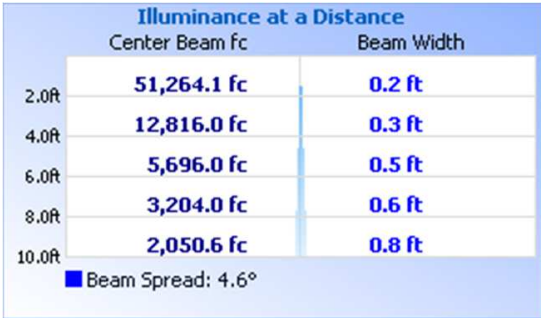


RESULTS OF TEST (cont'd)

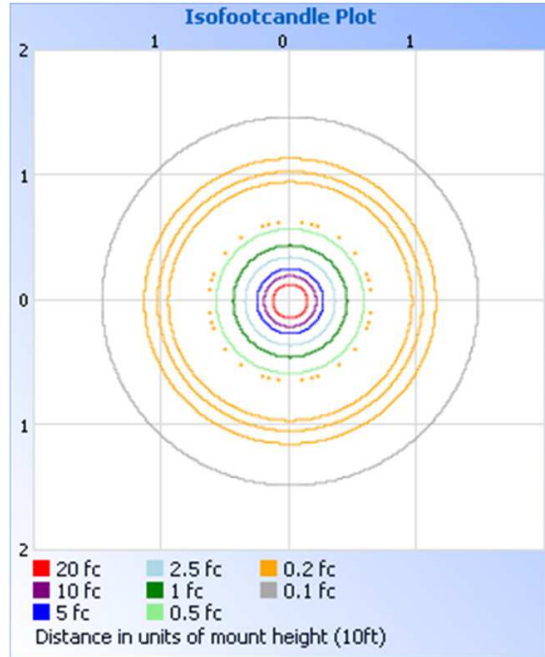
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1919	86.8
0-40	1953	88.3
0-60	2057	93.0
60-90	150.6	6.8
0-90	2207	99.8
90-180	4.3	0.2
0-180	2212	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	1694	76.6
10-20	163.1	7.4
20-30	61.6	2.8
30-40	33.9	1.5
40-50	48.7	2.2
50-60	55.0	2.5
60-70	45.1	2.0
70-80	51.5	2.3
80-90	54.0	2.4
90-100	4.3	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