

REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086

Date: November 26, 2019

REPORT NO. 104160086LAX-006

TEST OF ONE LED LUMINAIRE

MODEL NO. AERO-LED35-SO-SAL
LED MODEL NO. LUMILEDS 2835E 9V
DRIVER MODEL NO. OSRAM OTI 50W G2

RENDERED TO

PRUDENTIAL LIGHTING
1774 E 21ST STREET
LOS ANGELES, CA 90058

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

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

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-01019626-1.

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 Prototype sample of model number AERO-LED35-SO-SAL. The sample was received by Intertek on November 18, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN1911181404-001.

DATES OF TESTS: November 20, 2019

SUMMARY

Model No.:	AERO-LED35-SO-SAL
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	5024
Total Power (W)	37.55
Luminaire Efficacy (LPW)	133.8
Power Factor	0.984

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	11/20/19
AC Source	CW1251P	000944	VBU	VBU	11/20/19
Power Analyzer	WT210	000945	10/02/19	10/02/20	11/20/19
Tape Measure	33-428	001491	VBU	VBU	11/20/19
Magnetic Level	581-9	001610	10/11/19	10/11/20	11/20/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	11/20/19
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	11/20/19

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 Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

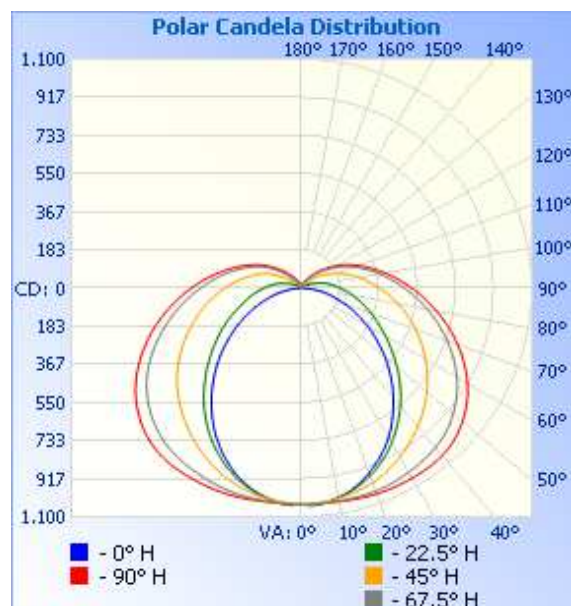
RESULTS OF TEST

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 (LPW)
LAN1911181404-001	Up	120.1	317.7	37.55	0.984	5024	133.8

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	1041	1041	1041	1041	1041
5	1042	1038	1034	1040	1039
10	1022	1022	1026	1038	1041
15	989	996	1012	1039	1047
20	944	960	995	1037	1052
25	892	913	969	1032	1055
30	831	859	939	1022	1055
35	758	799	903	1011	1054
40	683	735	866	998	1048
45	603	666	825	976	1031
50	524	597	781	944	1003
55	441	528	734	904	964
60	364	464	684	857	916
65	288	406	633	801	858
70	220	354	581	742	794
75	156	306	528	679	728
80	100	264	475	615	659
85	48	223	423	553	592
90	0	186	373	493	528
95	0	154	327	436	466
100	0	124	283	384	410
105	0	94	242	335	357
110	0	68	204	289	309
115	0	51	166	247	264
120	0	38	129	205	222
125	0	30	100	162	182
130	0	24	77	127	143
135	0	20	59	98	111
140	0	17	45	74	84
145	0	14	35	55	62
150	0	12	26	40	45
155	0	12	20	28	32
160	0	11	15	20	21
165	0	11	12	14	0
170	0	12	12	11	0
175	0	12	11	10	0



RESULTS OF TEST (cont'd)

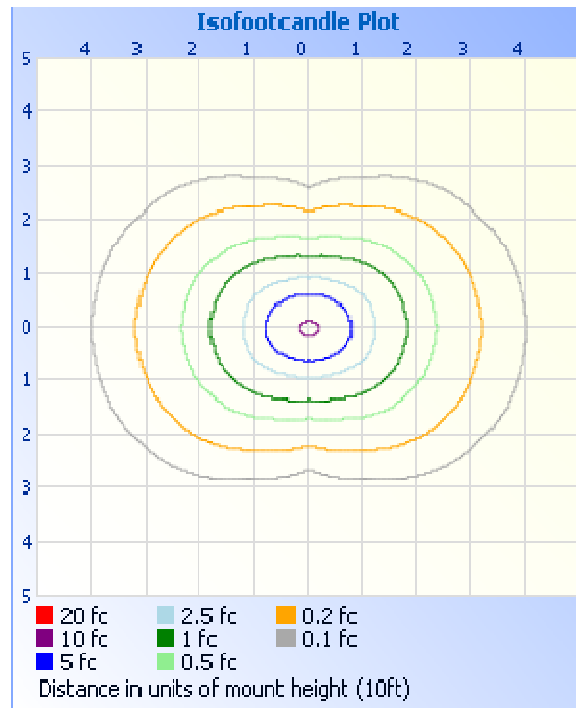
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	832.8	16.6
0-40	1398	27.8
0-60	2669	53.1
60-90	1517	30.2
0-90	4186	83.3
90-180	838.0	16.7
0-180	5024	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	98.7	2.0
10-20	286.8	5.7
20-30	447.2	8.9
30-40	565.2	11.2
40-50	631.4	12.6
50-60	639.4	12.7
60-70	594.4	11.8
70-80	511.9	10.2
80-90	410.9	8.2
90-100	312.1	6.2
100-110	224.3	4.5
110-120	146.0	2.9
120-130	82.9	1.7
130-140	41.6	0.8
140-150	19.4	0.4
150-160	8.2	0.2
160-170	2.9	0.1
170-180	0.6	0.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.56
Spacing Criterion (Diagonal)	1.52

PICTURES (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:

A handwritten signature in black ink, appearing to read 'Erik Linares', written in a cursive style.

Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Vladimir Kozak', written in a cursive style.

Vladimir Kozak
Engineering Supervisor
Lighting Division