

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086

Date: November 26, 2019

REPORT NO. 104160086LAX-001

TEST OF ONE LED LUMINAIRE

MODEL NO. S1-LED35-LO-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 S1-LED35-LO-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 21, 2019

SUMMARY

Model No.:	S1-LED35-LO-SAL
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	2163
Total Power (W)	15.05
Luminaire Efficacy (LPW)	143.7
Power Factor	0.949

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	11/21/19
AC Source	CW1251P	000944	VBU	VBU	11/21/19
Power Analyzer	WT210	000945	10/02/19	10/02/20	11/21/19
Tape Measure	33-428	001491	VBU	VBU	11/21/19
Magnetic Level	581-9	001610	10/11/19	10/11/20	11/21/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	11/21/19
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	11/21/19

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.

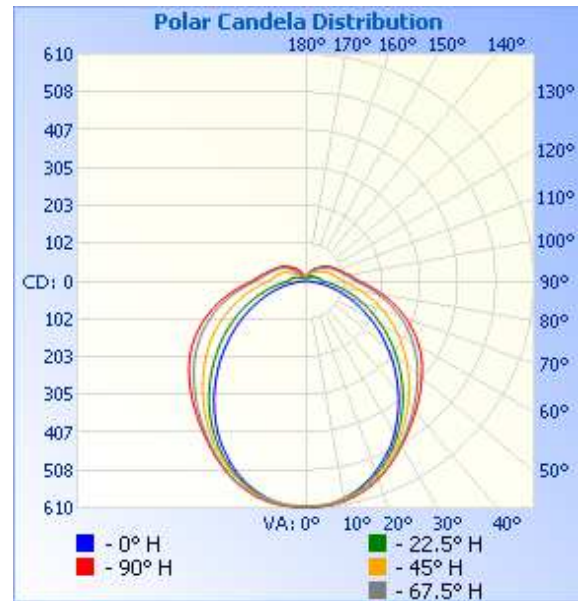
RESULTS OF TEST

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	120.0	132.2	15.05	0.948	2163	143.7

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	606	606	606	606	606
5	605	604	603	606	607
10	593	595	595	599	600
15	573	577	580	585	587
20	546	553	558	565	567
25	513	522	530	539	541
30	475	487	498	508	512
35	432	446	463	478	484
40	385	405	427	448	457
45	339	362	391	419	431
50	290	318	355	391	406
55	244	275	320	362	379
60	199	233	284	332	350
65	157	194	250	300	319
70	116	156	216	266	283
75	80	122	182	230	247
80	47	90	150	195	210
85	20	65	122	162	174
90	0	46	98	134	144
95	0	42	89	118	126
100	0	38	80	106	112
105	0	34	73	95	101
110	0	29	67	86	92
115	0	26	60	79	84
120	0	23	52	71	76
125	0	21	46	63	68
130	0	19	40	55	60
135	0	17	36	48	53
140	0	14	31	42	46
145	0	13	27	36	40
150	0	11	22	31	32
155	0	0	18	25	26
160	0	0	14	19	20
165	0	0	10	14	10



RESULTS OF TEST (cont'd)

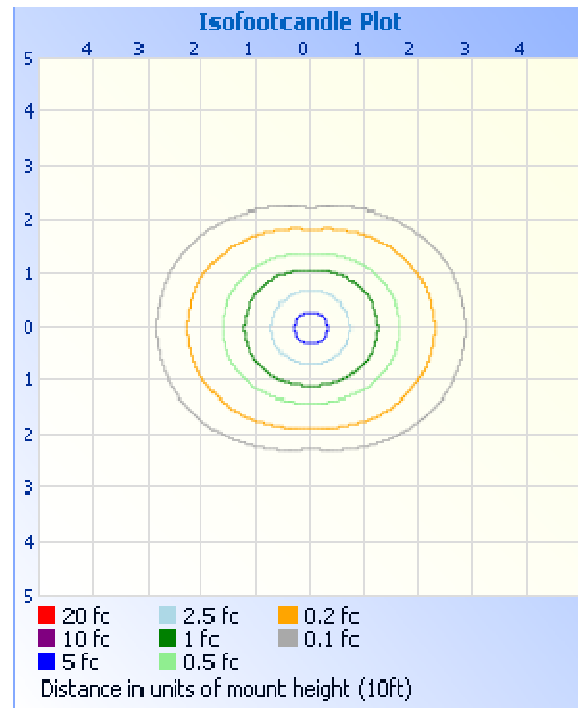
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	464.4	21.5
0-40	752.5	34.8
0-60	1335	61.7
60-90	547.3	25.3
0-90	1882	87.0
90-180	281.1	13.0
0-180	2163	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	57.4	2.7
10-20	163.6	7.6
20-30	243.4	11.3
30-40	288.1	13.3
40-50	299.5	13.8
50-60	282.7	13.1
60-70	241.9	11.2
70-80	183.3	8.5
80-90	122.1	5.6
90-100	85.4	3.9
100-110	67.1	3.1
110-120	50.4	2.3
120-130	34.8	1.6
130-140	22.3	1.0
140-150	13.4	0.6
150-160	6.3	0.3
160-170	1.5	0.1

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36

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'.

Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Vladimir Kozak'.

Vladimir Kozak
Engineering Supervisor
Lighting Division