

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086

Date: November 26, 2019

REPORT NO. 104160086LAX-003

TEST OF ONE LED LUMINAIRE

MODEL NO. S1-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 S1-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.:	S1-LED35-SO-SAL
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	5100
Total Power (W)	37.50
Luminaire Efficacy (LPW)	136.0
Power Factor	0.985

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.

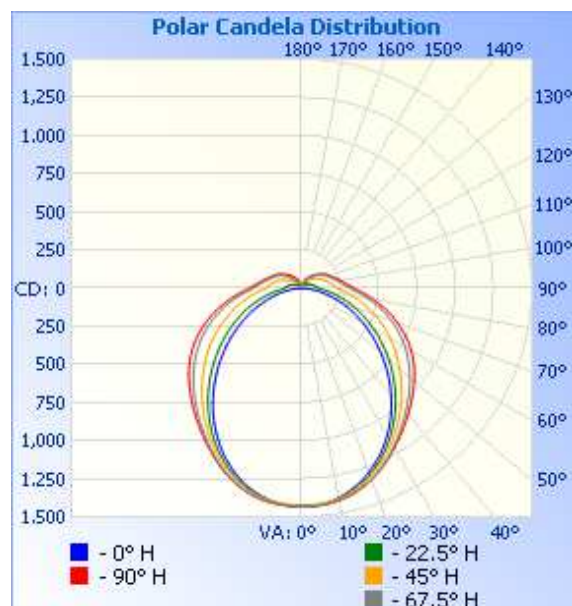
RESULTS OF TEST

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	120.0	317.3	37.50	0.984	5100	136.0

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	1428	1428	1428	1428	1428
5	1424	1423	1419	1428	1428
10	1396	1401	1401	1411	1414
15	1347	1357	1364	1378	1383
20	1284	1301	1313	1333	1336
25	1208	1228	1249	1271	1276
30	1115	1144	1171	1199	1208
35	1015	1051	1089	1127	1143
40	906	952	1006	1058	1080
45	796	851	921	989	1018
50	682	748	836	921	957
55	573	646	752	852	894
60	468	549	669	781	826
65	368	456	587	704	750
70	274	368	506	623	667
75	187	286	427	541	580
80	110	212	353	458	493
85	47	152	286	381	410
90	0	107	232	315	340
95	0	96	209	279	298
100	0	88	190	249	265
105	0	77	173	225	238
110	0	67	157	204	216
115	0	59	140	186	198
120	0	53	122	168	180
125	0	48	107	147	160
130	0	43	94	129	141
135	0	38	83	114	124
140	0	34	71	99	107
145	0	30	61	85	92
150	0	25	52	72	77
155	0	22	42	58	62
160	0	19	33	44	47
165	0	16	24	32	24
170	0	15	19	22	14
175	0	13	14	14	10



RESULTS OF TEST (cont'd)

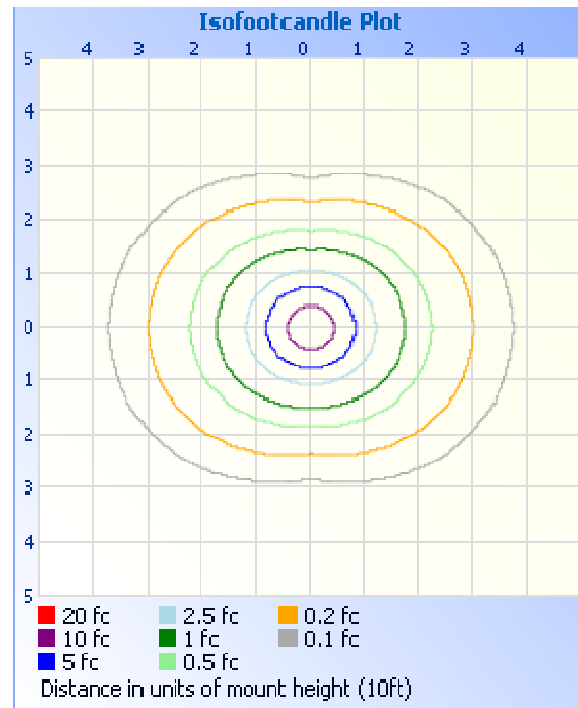
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1094	21.5
0-40	1774	34.8
0-60	3147	61.7
60-90	1288	25.3
0-90	4435	87.0
90-180	664.7	13.0
0-180	5100	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	135.2	2.7
10-20	385.2	7.6
20-30	573.7	11.3
30-40	679.5	13.3
40-50	706.8	13.9
50-60	666.5	13.1
60-70	569.7	11.2
70-80	431.4	8.5
80-90	286.9	5.6
90-100	200.8	3.9
100-110	157.6	3.1
110-120	118.2	2.3
120-130	81.5	1.6
130-140	52.2	1.0
140-150	31.3	0.6
150-160	16.1	0.3
160-170	6.0	0.1
170-180	1.2	0.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.28
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:



Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:



Vladimir Kozak
Engineering Supervisor
Lighting Division