

REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086

Date: November 26, 2019

REPORT NO. 104160086LAX-002

TEST OF ONE LED LUMINAIRE

MODEL NO. S1-LED35-MO-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-MO-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 LAN1911181204-001.

DATES OF TESTS: November 21, 2019

SUMMARY

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

Criteria	Result
Total Lumen Output (Lumens)	3683
Total Power (W)	25.87
Luminaire Efficacy (LPW)	142.4
Power Factor	0.972

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.

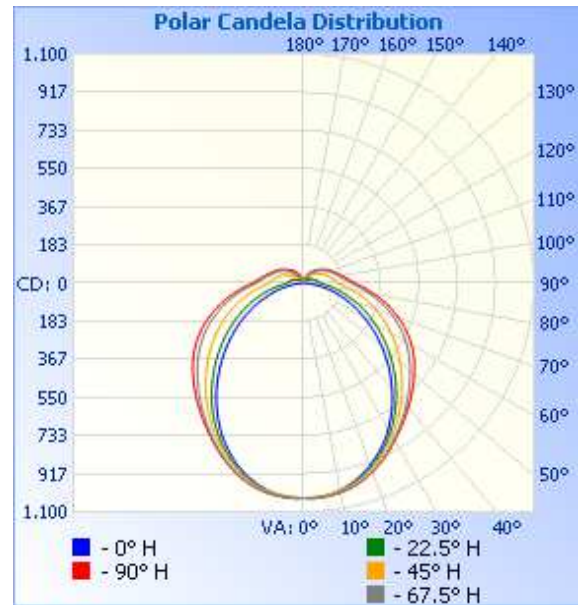
RESULTS OF TEST

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)
LAN1911181204-001	Up	120.0	222.2	25.87	0.972	3683	142.4

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	1033	1033	1033	1033	1033
5	1032	1030	1027	1033	1033
10	1011	1012	1013	1021	1022
15	977	983	988	998	1000
20	931	942	951	963	966
25	876	890	903	918	922
30	810	829	848	866	872
35	737	761	788	814	825
40	657	689	727	764	778
45	578	615	666	714	734
50	495	540	604	664	690
55	417	467	543	615	645
60	339	397	484	564	596
65	268	329	424	509	542
70	198	266	366	452	482
75	136	206	309	391	419
80	80	154	255	332	356
85	35	110	207	276	297
90	0	77	167	228	245
95	0	70	150	201	215
100	0	64	137	180	191
105	0	56	124	162	172
110	0	49	113	147	156
115	0	43	100	134	143
120	0	39	87	120	130
125	0	35	77	106	115
130	0	31	68	93	101
135	0	28	60	81	89
140	0	24	52	71	77
145	0	21	45	61	66
150	0	18	38	52	55
155	0	16	30	42	44
160	0	13	24	32	34
165	0	12	18	23	18
170	0	10	13	15	0
175	0	0	10	10	0



RESULTS OF TEST (cont'd)

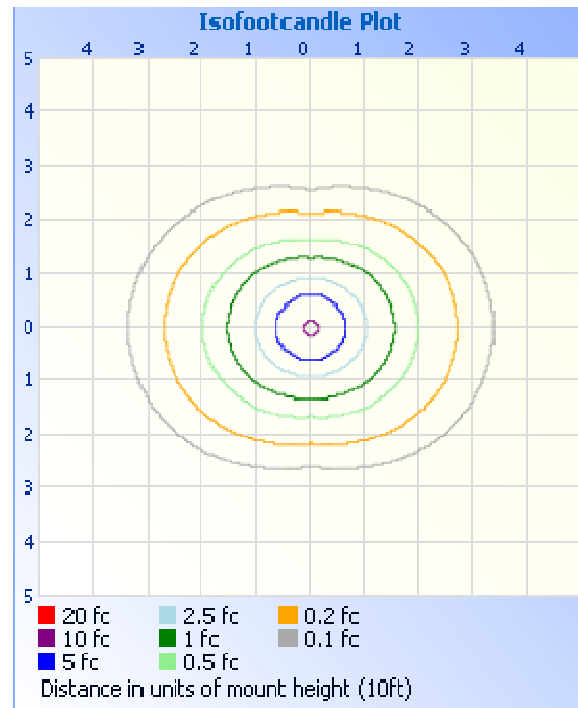
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	791.2	21.5
0-40	1282	34.8
0-60	2273	61.7
60-90	931.0	25.3
0-90	3204	87.0
90-180	479.3	13.0
0-180	3683	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	278.6	7.6
10-20	414.7	11.3
20-30	490.8	13.3
30-40	509.8	13.8
40-50	480.9	13.1
50-60	411.5	11.2
60-70	311.9	8.5
70-80	207.5	5.6
80-90	0.0	0.0
90-100	113.9	3.1
100-110	85.5	2.3
110-120	58.7	1.6
120-130	37.4	1.0
130-140	22.4	0.6
140-150	11.5	0.3
150-160	4.2	0.1
160-170	0.6	0.0

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:



Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:



Vladimir Kozak
Engineering Supervisor
Lighting Division