REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086 Date: November 26, 2019

REPORT NO. 104160086LAX-005

TEST OF ONE LED LUMINAIRE

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

Criteria	Result
Total Lumen Output (Lumens)	4124
Total Power (W)	37.58
Luminaire Efficacy (LPW)	109.7
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.

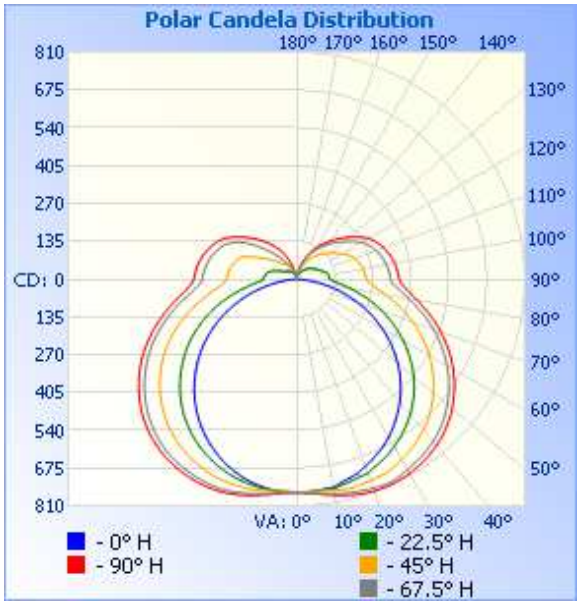
RESULTS OF TEST

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	120.1	317.8	37.58	0.984	4124	109.7

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	761	761	761	761	761
5	759	759	760	768	769
10	755	760	764	777	783
15	734	747	771	787	797
20	712	738	766	795	805
25	685	716	762	798	806
30	652	692	744	786	801
35	614	662	727	773	791
40	570	628	701	755	774
45	522	589	672	730	751
50	470	543	634	698	721
55	412	492	592	660	684
60	351	437	544	617	642
65	286	379	492	568	595
70	219	318	437	516	544
75	152	256	379	461	489
80	87	196	322	406	436
85	32	145	273	359	389
90	0	119	248	334	364
95	0	115	243	329	359
100	0	112	238	322	352
105	0	102	230	312	341
110	0	90	220	300	328
115	0	81	203	285	313
120	0	74	182	264	292
125	0	66	163	235	262
130	0	59	145	208	232
135	0	52	128	183	203
140	0	44	111	158	174
145	0	36	93	134	148
150	0	28	75	110	122
155	0	21	56	87	94
160	0	16	41	62	67
165	0	12	25	40	30
170	0	0	15	20	12

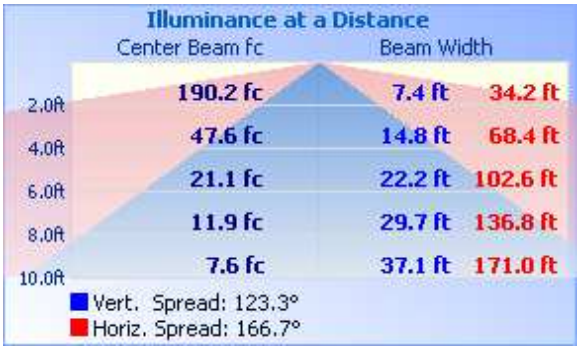


RESULTS OF TEST (cont'd)

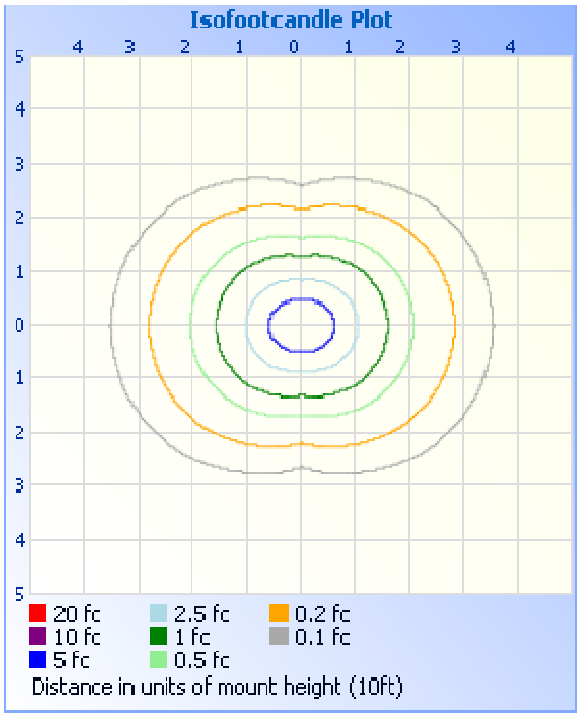
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	637.8	15.5
0-40	1086	26.3
0-60	2103	51.0
60-90	1110	26.9
0-90	3212	77.9
90-180	911.7	22.1
0-180	4124	100.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.58
Spacing Criterion (Diagonal)	1.60

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	72.9	1.8
10-20	217.2	5.3
20-30	347.7	8.4
30-40	447.9	10.9
40-50	505.7	12.3
50-60	511.2	12.4
60-70	464.0	11.3
70-80	372.7	9.0
80-90	272.8	6.6
90-100	236.2	5.7
100-110	214.7	5.2
110-120	176.7	4.3
120-130	126.8	3.1
130-140	81.2	2.0
140-150	47.0	1.1
150-160	22.1	0.5
160-170	6.6	0.2
170-180	0.5	0.0

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:

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Report Reviewed By:

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Lighting Division

Attachment: None