

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104283100

Date: March 19, 2020

REPORT NO. 104283100LAX-003

TEST OF ONE MW-PRO-SO-4 LED LUMINAIRE

MODEL NO. MW-PRO-LED35-SO
LED MODEL NO. LUMILEDS 2835E 9V 3500K 80 CRI
DRIVER MODEL NO. OSRAM OPTOTRONIC OTI 50/120-277/1A4 DIM-1 L G2 @ 960MA

RENDERED TO

PRUDENTIAL LIGHTING
1774 EAST 21ST
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 Production sample of model number MW-PRO-LED35-SO. The sample was received by Intertek on March 17, 2020, in undamaged condition and one sample was tested as received. The sample designation was LAN2003171300-002.

DATES OF TESTS: March 18, 2020

SUMMARY

Model No.:	MW-PRO-LED35-SO
Description:	MW-PRO-SO-4 LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	4277
Total Power (W)	36.31
Luminaire Efficacy (LPW)	117.8
Power Factor	0.983

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	03/18/20
AC Source	CW1251P	000944	VBU	VBU	03/18/20
Power Analyzer	WT210	000945	10/02/19	10/02/20	03/18/20
Tape Measure	33-428	001491	VBU	VBU	03/18/20
Magnetic Level	581-9	001610	10/11/19	10/11/20	03/18/20
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	03/18/20
Temp. & RH Meter	971	001867	06/03/19	06/03/20	03/18/20

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.

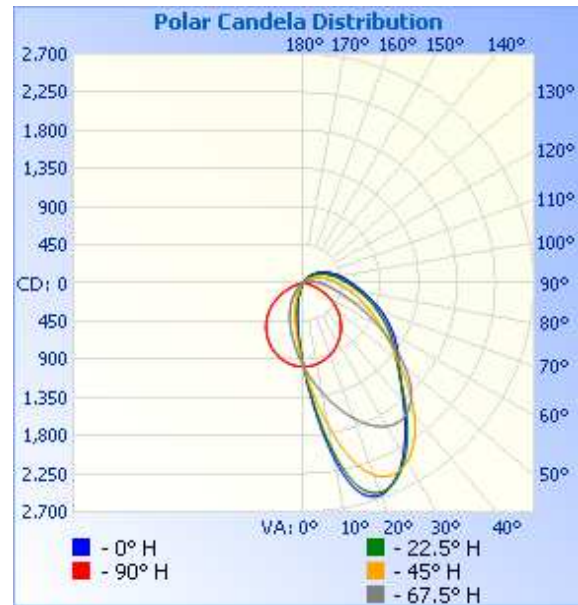
RESULTS OF TEST

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)
LAN2003171300-002	Up	120.0	307.7	36.31	0.983	4277	117.8

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	982	982	982	982	982
5	1487	1450	1313	1147	980
10	2113	2034	1725	1326	965
15	2555	2481	2139	1513	939
20	2659	2628	2408	1692	902
25	2551	2559	2490	1847	859
30	2342	2376	2428	1949	808
35	2084	2124	2262	1980	748
40	1823	1852	2016	1927	683
45	1610	1610	1731	1783	612
50	1455	1428	1460	1560	532
55	1340	1293	1239	1293	446
60	1219	1165	1061	1025	353
65	1094	1036	908	787	261
70	971	917	774	590	175
75	843	801	660	443	104
80	731	690	563	337	51
85	642	598	473	261	16
90	563	518	396	202	0
95	500	453	334	155	0
100	445	398	284	119	0
105	393	348	241	87	0
110	341	300	203	59	0
115	296	261	170	34	0
120	258	225	124	16	0
125	217	183	84	9	0
130	172	138	55	6	0
135	134	93	29	6	0
140	95	51	16	6	0
145	53	25	8	0	0
150	28	10	8	0	0
155	11	6	7	0	0
160	9	6	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

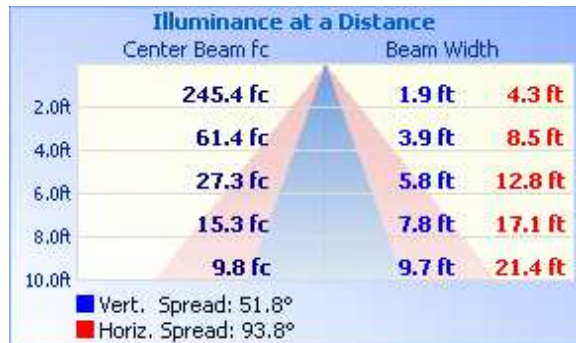


RESULTS OF TEST (cont'd)

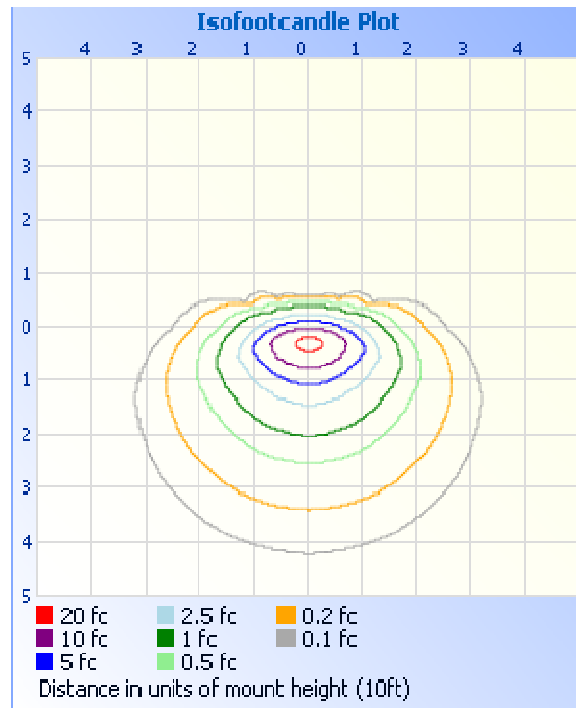
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1003	23.5
0-40	1663	38.9
0-60	2862	66.9
60-90	991.1	23.2
0-90	3853	90.1
90-180	424.6	9.9
0-180	4277	100.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	2.16
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.56

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	100.7	2.4
10-20	343.3	8.0
20-30	559.1	13.1
30-40	659.6	15.4
40-50	643.0	15.0
50-60	555.9	13.0
60-70	439.6	10.3
70-80	322.7	7.5
80-90	228.8	5.3
90-100	163.4	3.8
100-110	115.7	2.7
110-120	76.2	1.8
120-130	43.5	1.0
130-140	19.4	0.5
140-150	5.3	0.1
150-160	1.1	0.0
160-170	0.1	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:

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

Kellen Murakami
Technician
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