

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104283100

Date: March 19, 2020

REPORT NO. 104283100LAX-001

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

MODEL NO. MW-PRO-LED35-LO
LED MODEL NO. LUMILEDS 2835E 9V 3500K 80 CRI
DRIVER MODEL NO. OSRAM OPTOTRONIC OTI 20/120-277/700 DIM-1 L G2 @ 380MA

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-LO. 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-LO
Description:	MW-PRO-LO-4 LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	1777
Total Power (W)	14.61
Luminaire Efficacy (LPW)	121.6
Power Factor	0.987

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.

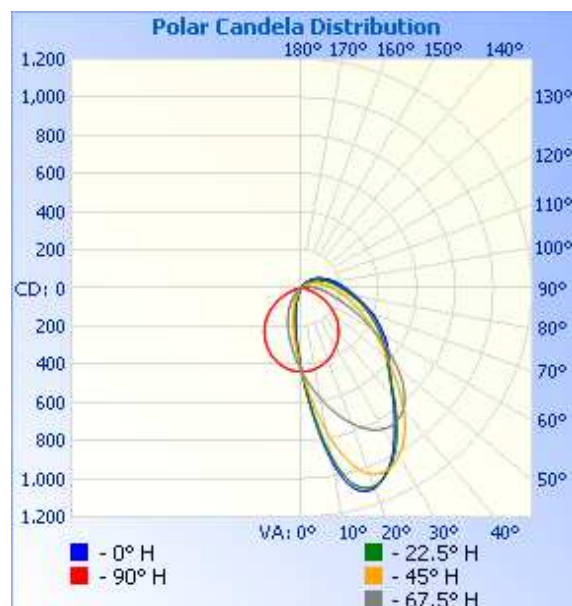
RESULTS OF TEST

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	123.4	14.61	0.987	1777	121.6

Intensity (Candlepower) Summary at 25°C - Candelas

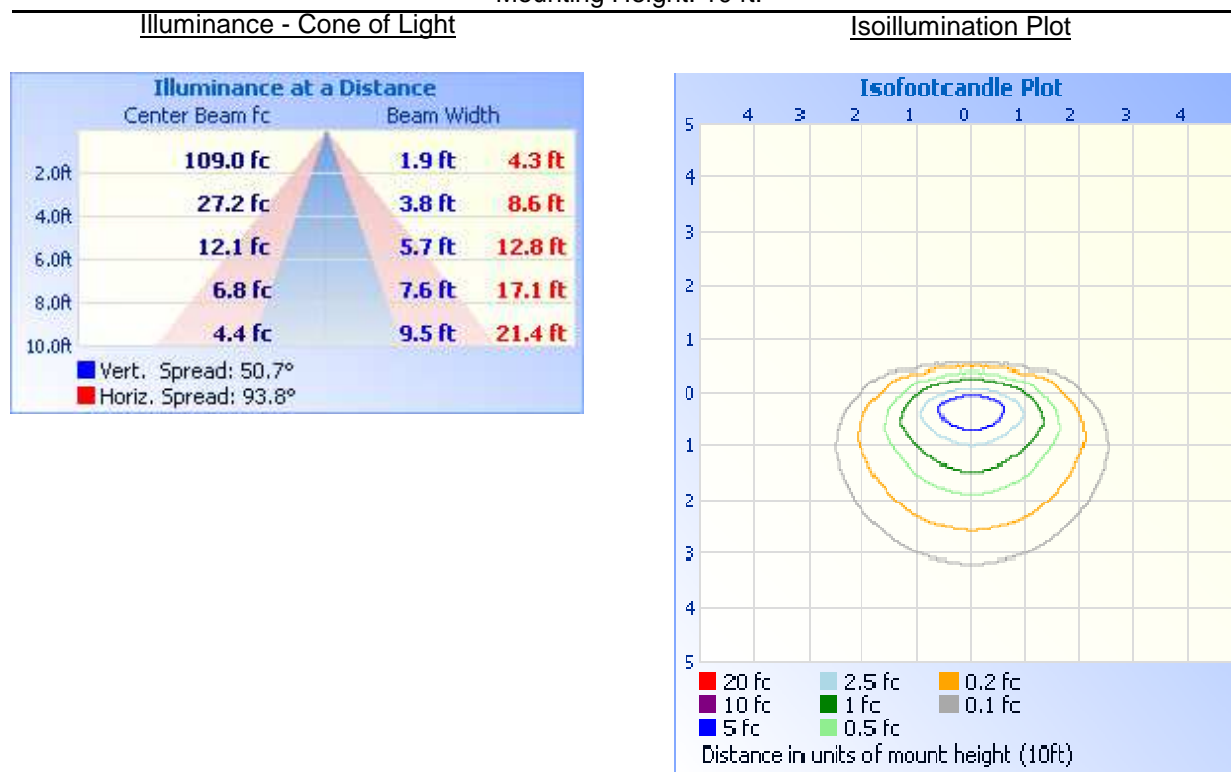
Angle	0	22.5	45	67.5	90
0	436	436	436	436	436
5	656	648	584	511	436
10	926	898	769	592	428
15	1090	1067	938	674	416
20	1114	1106	1035	752	400
25	1056	1062	1053	816	380
30	961	977	1014	852	356
35	846	865	936	857	330
40	740	750	825	825	301
45	653	652	702	755	269
50	594	581	591	652	234
55	547	527	502	536	195
60	497	475	432	422	154
65	444	422	370	322	113
70	394	372	315	241	76
75	340	324	268	181	45
80	295	279	229	138	22
85	260	241	192	106	7
90	228	209	160	82	0
95	202	183	134	63	0
100	180	160	114	48	0
105	158	139	96	35	0
110	137	120	81	23	0
115	119	104	68	13	0
120	103	90	49	6	0
125	86	72	33	0	0
130	68	54	21	0	0
135	53	36	10	0	0
140	37	19	6	0	0
145	20	9	0	0	0
150	11	0	0	0	0
155	0	0	0	0	0
160	0	0	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.



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	432.9	24.4
0-40	709.2	39.9
0-60	1204	67.8
60-90	403.9	22.7
0-90	1608	90.5
90-180	168.5	9.5
0-180	1777	100.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	2.06
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.50

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	44.7	2.5
10-20	149.7	8.4
20-30	238.4	13.4
30-40	276.3	15.6
40-50	266.0	15.0
50-60	229.0	12.9
60-70	180.0	10.1
70-80	131.4	7.4
80-90	92.6	5.2
90-100	65.9	3.7
100-110	46.4	2.6
110-120	30.4	1.7
120-130	16.9	0.9
130-140	7.3	0.4
140-150	1.6	0.1
150-160	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'.

Kellen Murakami
Technician
Lighting Division

Attachment: None

Report Reviewed By:

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

Vladimir Kozak
Engineering Supervisor
Lighting Division