

# REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104283100

Date: March 19, 2020

REPORT NO. 104283100LAX-004

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

MODEL NO. MW-PRO-LED35-HO  
LED MODEL NO. LUMILEDS 2835E 9V 3500K 80 CRI  
DRIVER MODEL NO. OSRAM OPTOTRONIC OTI 50/120-277/1A4 DIM-1 L G2 @ 1245MA

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

Criteria	Result
Total Lumen Output (Lumens)	5407
Total Power (W)	47.98
Luminaire Efficacy (LPW)	112.7
Power Factor	0.988

## 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.

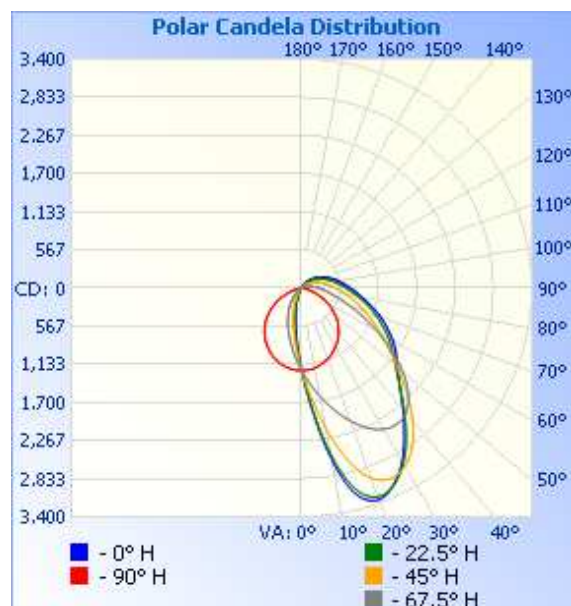
## RESULTS OF TEST

### 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	404.7	47.98	0.988	5407	112.7

### Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	1218	1218	1218	1218	1218
5	1813	1800	1628	1426	1217
10	2597	2519	2137	1648	1198
15	3182	3094	2653	1876	1166
20	3343	3297	3003	2097	1122
25	3216	3225	3119	2288	1069
30	2970	3005	3053	2419	1005
35	2646	2696	2853	2463	932
40	2330	2357	2554	2403	852
45	2050	2051	2199	2231	762
50	1854	1818	1858	1959	663
55	1703	1643	1577	1630	555
60	1555	1482	1351	1296	440
65	1392	1319	1157	996	325
70	1240	1168	986	750	218
75	1078	1022	843	563	131
80	937	882	718	429	64
85	823	764	606	333	20
90	722	661	507	258	0
95	641	579	428	199	0
100	570	508	364	153	0
105	504	444	309	113	0
110	438	384	261	76	0
115	381	334	218	45	0
120	332	289	159	22	0
125	280	235	109	12	0
130	222	176	71	8	0
135	174	120	38	8	0
140	124	66	21	7	0
145	70	33	10	0	0
150	37	13	10	0	0
155	15	8	9	0	0
160	12	7	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

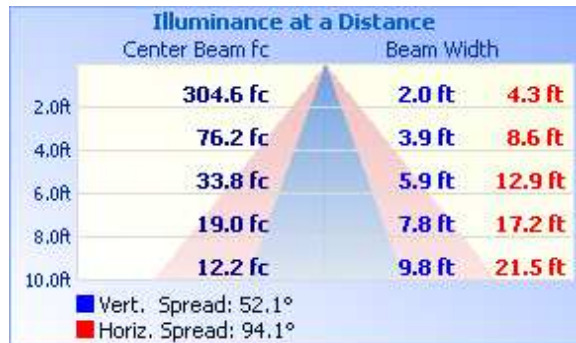


## RESULTS OF TEST (cont'd)

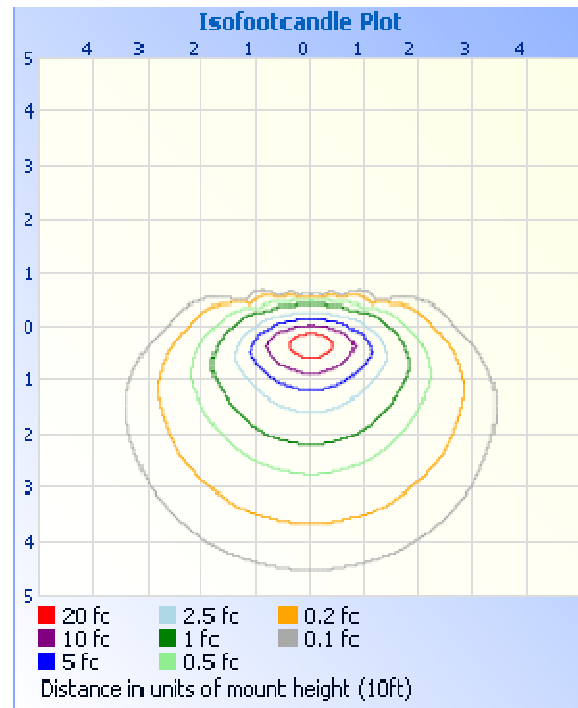
### Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1252	23.2
0-40	2082	38.5
0-60	3600	66.6
60-90	1262	23.3
0-90	4862	89.9
90-180	544.8	10.1
0-180	5407	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	124.9	2.3
10-20	427.3	7.9
20-30	699.9	12.9
30-40	830.1	15.4
40-50	813.0	15.0
50-60	704.4	13.0
60-70	558.6	10.3
70-80	411.2	7.6
80-90	292.5	5.4
90-100	209.2	3.9
100-110	148.2	2.7
110-120	97.8	1.8
120-130	56.0	1.0
130-140	25.0	0.5
140-150	7.0	0.1
150-160	1.5	0.0
160-170	0.1	0.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	2.18
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.56

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