

# REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104037618

Date: August 2, 2019

REPORT NO. 104037618LAX-002

TEST OF ONE LED LUMINAIRE

MODEL NO. BPRO4-FLSH-LED35-VHO-4-TMW-BTW-SC-UNV-X1-DM01

LED MODEL NO. LUMILEDS 2835E 9V

DRIVER MODEL NO. OSRAM OTI50W G2 - 1200 MAMP

RENDERED TO

PRUDENTIAL LIGHTING

1774 EAST 21ST

LOS ANGELES, CA 90058

TEST: Electrical and Photometric tests as required to the IESNA test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-00978421.

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 BPRO4-FLSH-LED35-VHO-4-TMW-BTW-SC-UNV-X1-DM01. The sample was received by Intertek on July 19, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN190719136-003.

DATES OF TESTS: July 31, 2019

## SUMMARY

Model No.:	BPRO4-FLSH-LED35-VHO-4-TMW-BTW-SC-UNV-X1-DM01
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	5366
Total Power (W)	46.07
Luminaire Efficacy (LPW)	116.5
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	07/31/19
AC Source	CW1251P	000944	VBU	VBU	07/31/19
Power Analyzer	WT210	000945	11/28/18	11/28/19	07/31/19
Tape Measure	33-428	001491	VBU	VBU	07/31/19
Magnetic Level	581-9	001610	10/31/18	10/31/19	07/31/19
Thermometer	DPI8-C24	001782	09/21/18	09/21/19	07/31/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	07/31/19

## 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.

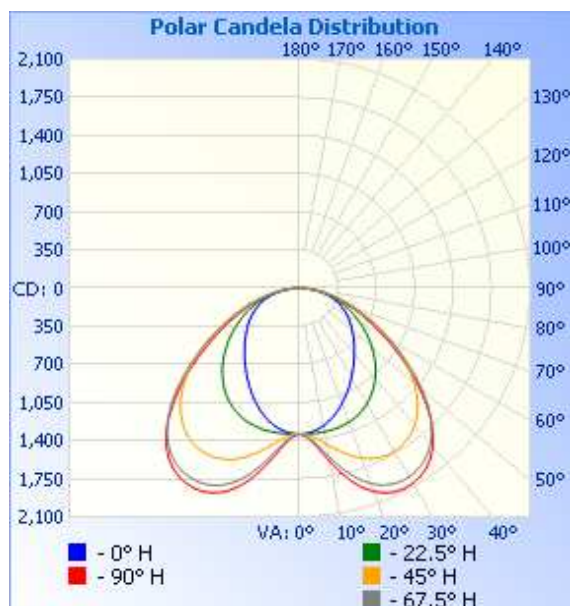
## RESULTS OF TEST

### 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)
LAN190719136-003	Up	120.0	388.6	46.07	0.988	5366	116.5

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

Angle	0	22.5	45	67.5	90
0	1339	1339	1339	1339	1339
5	1323	1340	1369	1409	1423
10	1279	1337	1457	1577	1622
15	1211	1328	1566	1766	1836
20	1128	1310	1659	1908	1987
25	1039	1278	1717	1986	2061
30	946	1227	1730	1999	2068
35	859	1159	1702	1959	2016
40	776	1075	1636	1860	1893
45	702	977	1524	1694	1692
50	632	868	1370	1464	1431
55	568	754	1177	1205	1154
60	502	639	964	948	900
65	436	528	749	722	682
70	364	419	552	529	502
75	285	313	382	368	351
80	197	207	236	226	217
85	100	102	105	100	94
90	0	0	0	0	0

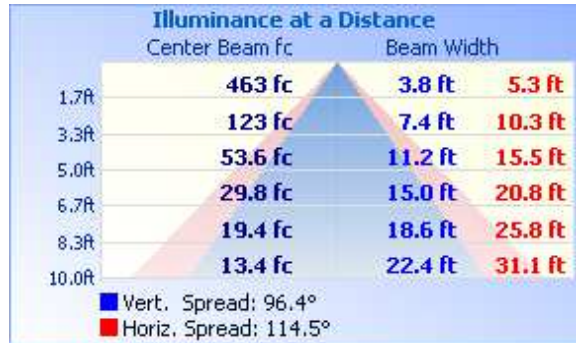


## RESULTS OF TEST (cont'd)

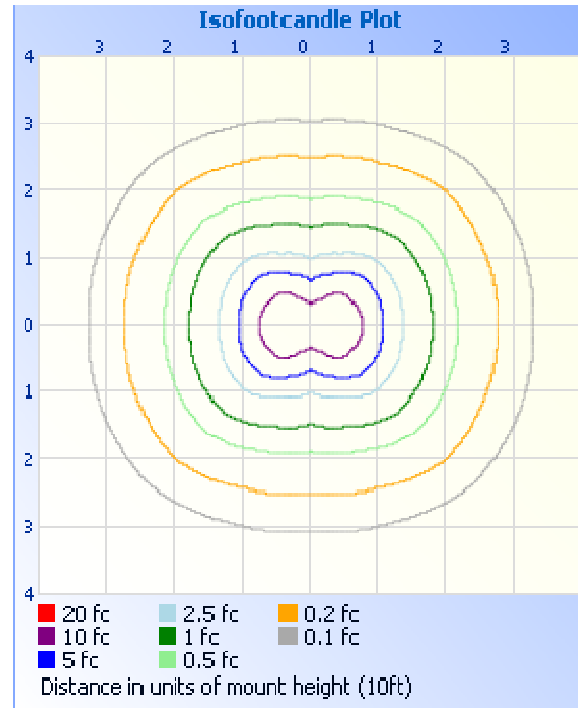
### Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1328	24.7
0-40	2308	43.0
0-60	4244	79.1
60-90	1122	20.9
0-90	5366	100.0
90-180	0.0	0.0
0-180	5366	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	134.0	2.5
10-20	439.9	8.2
20-30	754.0	14.1
30-40	979.9	18.3
40-50	1039	19.4
50-60	897.0	16.7
60-70	639.3	11.9
70-80	369.1	6.9
80-90	113.9	2.1

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.90
Spacing Criterion (Diagonal)	1.76

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 "Erik Linares".

Erik Linares  
Associate Engineer  
Lighting Division

Attachment: None

Report Reviewed By:

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

Vladimir Kozak  
Engineering Supervisor  
Lighting Division