

# REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G104464711

Date: October 1, 2020

REPORT NO. 104464711LAX-011

TEST OF ONE LED LUMINAIRE

MODEL NO. BPRO4-FLSH-LED35-LO-4-WWG-DM01

LED MODEL NO. LUMILEDS 2835E 9V

DRIVER MODEL NO. OSRAM OTI20G2 - 391MAMP

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-01069292-0.

**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 BPRO4-FLSH-LED35-LO-4-WWG-DM01. The sample was received by Intertek on September 29, 2020, in undamaged condition and one sample was tested as received. The sample designation was LAN2009290928-001.

**DATES OF TESTS:** October 1, 2020

## SUMMARY

Model No.:	BPRO4-FLSH-LED35-LO-4-WWG-DM01
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	1989
Total Power (W)	15.09
Luminaire Efficacy (LPW)	131.8
Power Factor	0.966

## EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	10/01/20
AC Source	CW1251P	000944	VBU	VBU	10/01/20
Power Analyzer	WT210	000945	09/29/20	09/29/21	10/01/20
Tape Measure	33-428	001491	VBU	VBU	10/01/20
Magnetic Level	581-9	001610	10/11/19	10/11/20	10/01/20
Temp. & RH Meter	Testo 622	001897	04/22/20	04/22/21	10/01/20

## 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.

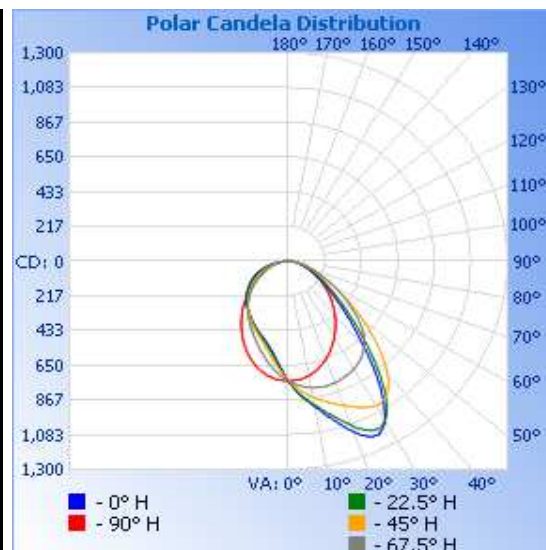
## RESULTS OF TEST

### 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)
LAN2009290928-001	Up	120.0	131.4	15.09	0.966	1989	131.8

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

	Angle	0	22.5	45	67.5	90
	90	0	0	0	0	0
W A L L  S I D E	85	23	24	28	30	30
	80	49	51	63	67	64
	75	77	81	103	108	96
	70	110	118	156	158	129
	65	153	165	225	224	166
	60	206	226	318	310	207
	55	278	309	437	416	256
	50	374	419	586	527	311
	45	513	574	756	629	370
	40	699	777	915	700	429
	35	946	998	1014	746	487
	30	1145	1150	1039	778	545
	25	1205	1165	1006	794	600
	20	1134	1089	959	808	650
	15	1022	997	910	810	693
	10	925	911	864	802	723
	5	844	836	810	779	739
	0	747	747	747	747	747
R O O M  S I D E	5	644	658	671	703	739
	10	570	577	600	650	723
	15	518	525	543	595	693
	20	486	491	500	545	650
	25	458	461	468	497	600
	30	429	432	436	455	545
	35	403	403	405	416	487
	40	378	375	373	376	429
	45	352	346	337	334	370
	50	320	316	300	290	311
	55	291	284	262	244	256
	60	255	247	222	199	207
	65	222	210	183	160	166
	70	182	171	143	124	129
	75	137	130	104	92	96
	80	89	86	68	60	64
	85	42	42	33	29	30
	90	0	0	0	0	0
	Angle	180	202.5	225	247.5	270

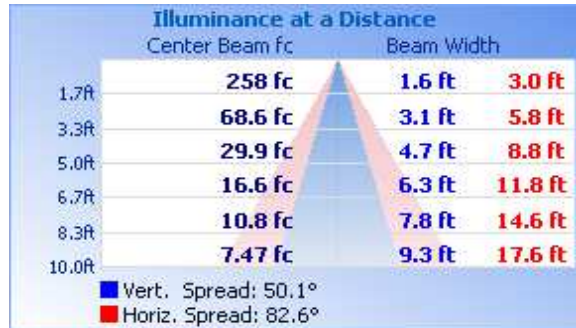


## RESULTS OF TEST (cont'd)

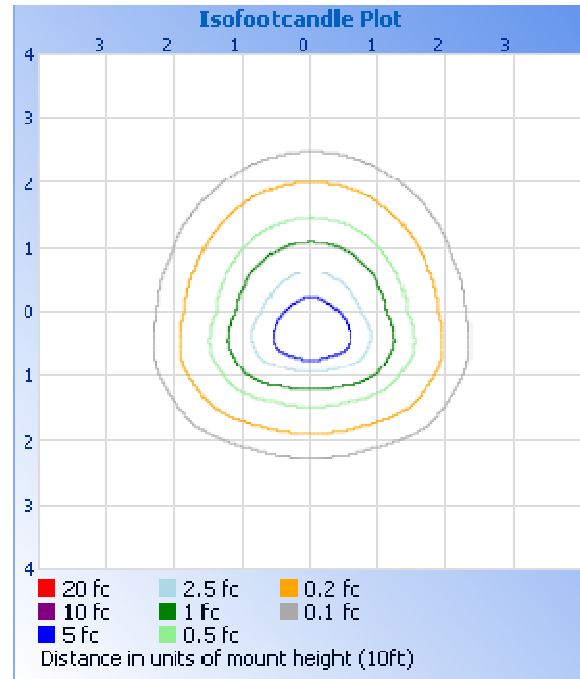
### Illumination Plots

Mounting Height: 10 ft.

#### Illuminance - Cone of Light



#### Isoillumination Plot



#### Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	612.5	30.8
0-40	1012	50.9
0-60	1656	83.3
60-90	333.0	16.7
0-90	1989	100.0
90-180	0.0	0.0
0-180	1989	100.0

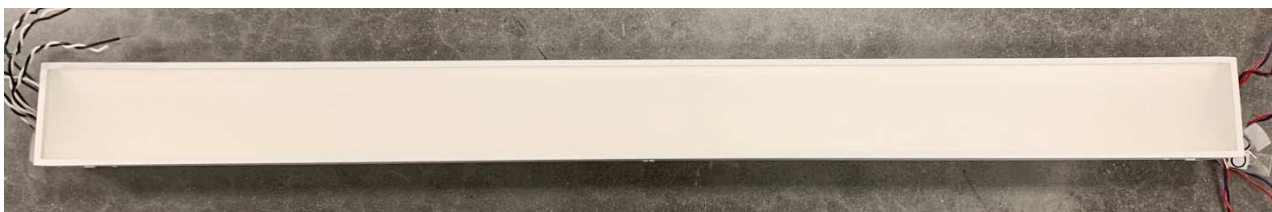
#### Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	70.6	3.5
10-20	207.2	10.4
20-30	334.7	16.8
30-40	399.6	20.1
40-50	364.0	18.3
50-60	279.5	14.1
60-70	189.1	9.5
70-80	109.0	5.5
80-90	34.9	1.8

#### Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.60
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.44

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:

Kellen Murakami  
Technician  
Lighting Division

Attachment: None

Report Reviewed By:

Vladimir Kozak  
Engineering Supervisor  
Lighting Division