

# REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104359650

Date: June 18, 2020

REPORT NO. 104361023LAX-004D

TEST OF ONE LED LUMINAIRE

MODEL NO. BPRO4-FLSH-LED35-HO-4-WWF

LED MODEL NO. LUMILEDS 2835E 9V

DRIVER MODEL NO. HO - OSRAM OTI50G2 - 1123MAMP

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 Prototype sample of model number BPRO4-FLSH-LED35-HO-4-WWF. The sample was received by Intertek on June 1, 2020, in undamaged condition and one sample was tested as received. The sample designation was LAN2006021315-004.

**DATES OF TESTS:** June 18, 2020

## SUMMARY

Model No.:	BPRO4-FLSH-LED35-HO-4-WWF
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	5304
Total Power (W)	41.51
Luminaire Efficacy (LPW)	127.8
Power Factor	0.986

## EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	06/18/20
AC Source	CW1251P	000944	VBU	VBU	06/18/20
Power Analyzer	WT210	000945	10/02/19	10/02/20	06/18/20
Tape Measure	33-428	001491	VBU	VBU	06/18/20
Magnetic Level	581-9	001610	10/11/19	10/11/20	06/18/20
Temp. & RH Meter	Testo 622	001910	04/15/20	04/15/21	06/18/20
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	06/18/20

## 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.

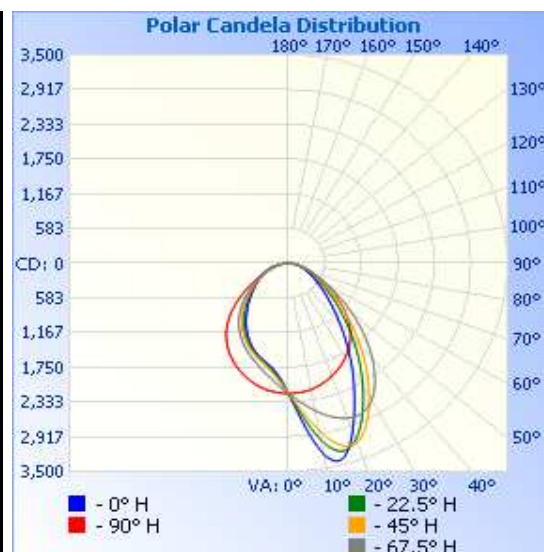
## RESULTS OF TEST

### 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)
LAN2006021315-004	Up	120.0	350.6	41.51	0.986	5304	127.8

### 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	58	60	65	71	71
	80	122	134	146	154	152
	75	192	216	238	249	239
	70	265	310	346	364	340
	65	348	422	477	519	474
	60	450	560	639	732	656
	55	577	733	839	1013	883
	50	744	951	1091	1352	1128
	45	962	1229	1404	1721	1356
	40	1246	1567	1773	2086	1546
	35	1611	1962	2173	2415	1699
	30	2041	2378	2583	2660	1826
	25	2498	2798	2963	2778	1932
	20	3000	3152	3201	2769	2020
	15	3388	3268	3154	2669	2093
	10	3254	3016	2858	2517	2148
	5	2696	2573	2491	2348	2179
	0	2184	2184	2184	2184	2184
R O O M  S I D E	5	1889	1932	1954	2041	2179
	10	1743	1779	1802	1911	2148
	15	1658	1683	1699	1797	2093
	20	1570	1599	1614	1693	2020
	25	1458	1499	1522	1593	1932
	30	1326	1381	1410	1486	1826
	35	1178	1246	1284	1366	1699
	40	1028	1105	1146	1229	1546
	45	889	957	995	1076	1356
	50	757	808	838	904	1128
	55	638	666	684	726	883
	60	535	539	545	560	656
	65	447	428	423	421	474
	70	366	332	319	310	340
	75	282	243	227	220	239
	80	186	160	145	140	152
	85	84	76	69	66	71
	90	0	0	0	0	0
	Angle	180	202.5	225	247.5	270

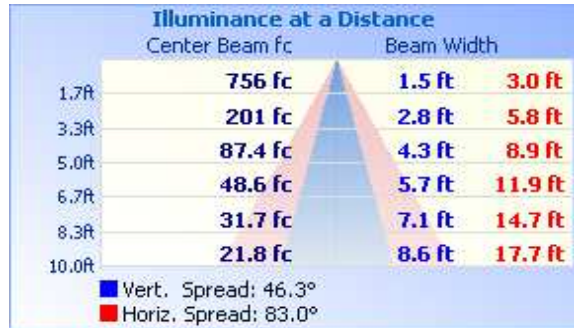


## RESULTS OF TEST (cont'd)

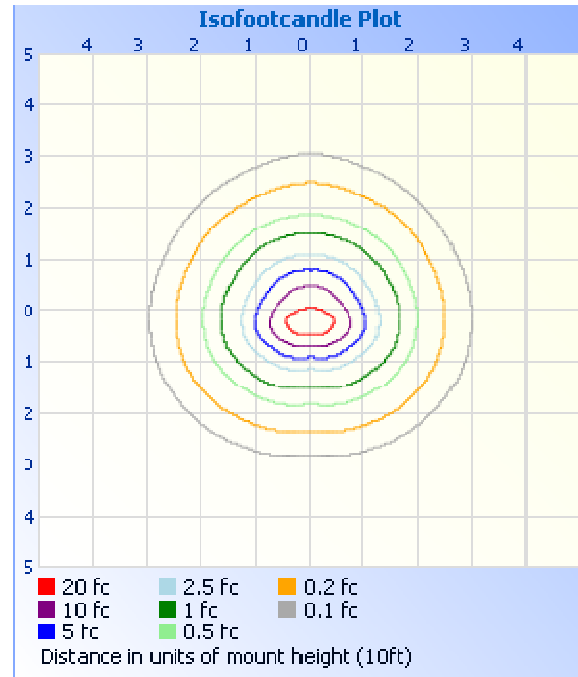
### Illumination Plots

Mounting Height: 10 ft.

#### Illuminance - Cone of Light



#### Isoillumination Plot



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

Zone	Lumens	% Luminaire
0-30	1857	35.0
0-40	2913	54.9
0-60	4536	85.5
60-90	769.0	14.5
0-90	5304	100.0
90-180	0.0	0.0
0-180	5304	100.0

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

Zone	Lumens	% Luminaire
0-10	215.6	4.1
10-20	663.2	12.5
20-30	978.1	18.4
30-40	1056	19.9
40-50	931.6	17.6
50-60	691.1	13.0
60-70	445.0	8.4
70-80	248.1	4.7
80-90	76.0	1.4

#### Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.30

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