

## REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104516183

Date: November 23, 2020

REPORT NO. 104516183LAX-003F

TEST OF ONE DIRECT LED LUMINAIRE

MODEL NO. BPRO2-LIN-LVR-LED35-SO-MGZ

LED MODEL NO. LUMILEDS 2835

DRIVER MODEL NO. OSRAM OTI 50W G2

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-01120100-0.

**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 BPRO2-LIN-LVR-LED35-SO-MGZ. The sample was received by Intertek on November 20, 2020, in undamaged condition and one sample was tested as received. The sample designation was LAN2011200828-001 .

**DATES OF TESTS:** November 23, 2020

## SUMMARY

Model No.:	BPRO2-LIN-LVR-LED35-SO-MGZ
Description:	Direct LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	1251
Total Power (W)	32.71
Luminaire Efficacy (LPW)	38.25
Power Factor	0.991

## EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	11/23/20
AC Source	CW1251P	000944	VBU	VBU	11/23/20
Power Analyzer	WT210	000945	09/29/20	09/29/21	11/23/20
Tape Measure	33-428	001491	VBU	VBU	11/23/20
Magnetic Level	581-9	001610	10/21/20	10/21/21	11/23/20
Thermometer	DPI8-C24	001782	10/09/20	10/09/21	11/23/20
Temp. & RH Meter	971	002137	10/13/20	10/13/21	11/23/20

## 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.

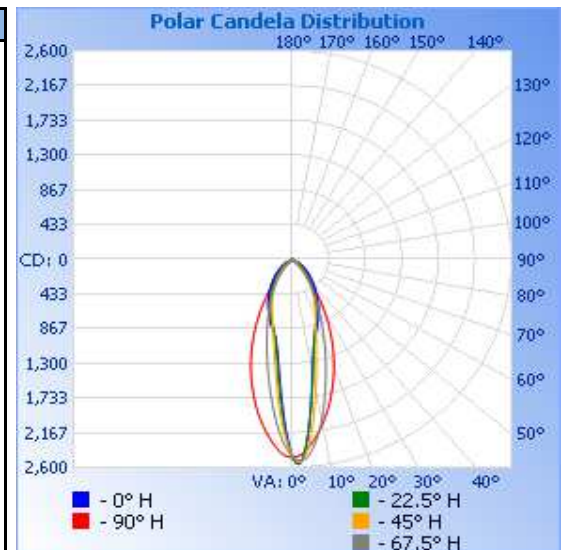
## RESULTS OF TEST

### 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)
LAN2011200828-001	Up	120.0	275.0	32.71	0.991	1251	38.25

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

Angle	0	22.5	45	67.5	90
W A L L  S I D E	90	0	0	0	0
	85	0	0	0	0
	80	0	0	1	1
	75	1	1	2	2
	70	1	3	4	4
	65	30	11	6	7
	60	80	38	10	11
	55	140	81	18	16
	50	211	137	57	22
	45	289	208	132	47
	40	379	295	228	192
	35	479	400	346	215
	30	602	527	478	278
	25	734	664	629	791
	20	871	815	813	1113
	15	1028	1004	1101	1532
	10	1382	1406	1614	2078
	5	2168	2174	2304	2432
0	2461	2461	2461	2461	2461
R O O M  S I D E	5	1615	1697	1822	2076
	10	1081	1111	1222	1579
	15	898	878	890	1167
	20	790	745	711	861
	25	678	622	571	637
	30	568	504	443	460
	35	460	392	326	308
	40	366	295	224	174
	45	284	214	135	64
	50	211	145	64	21
	55	145	89	20	15
	60	86	46	10	10
	65	35	16	6	6
	70	1	3	4	4
	75	1	1	2	2
	80	0	0	1	1
	85	0	0	0	0
	90	0	0	0	0
Angle	180	202.5	225	247.5	270

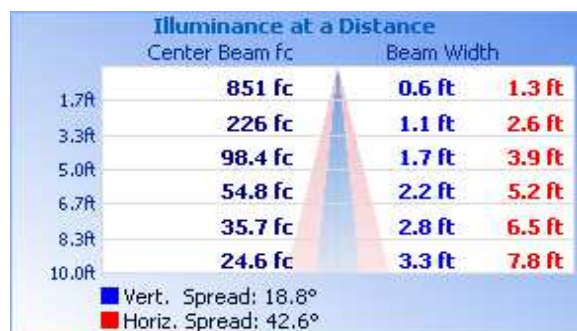


## RESULTS OF TEST (cont'd)

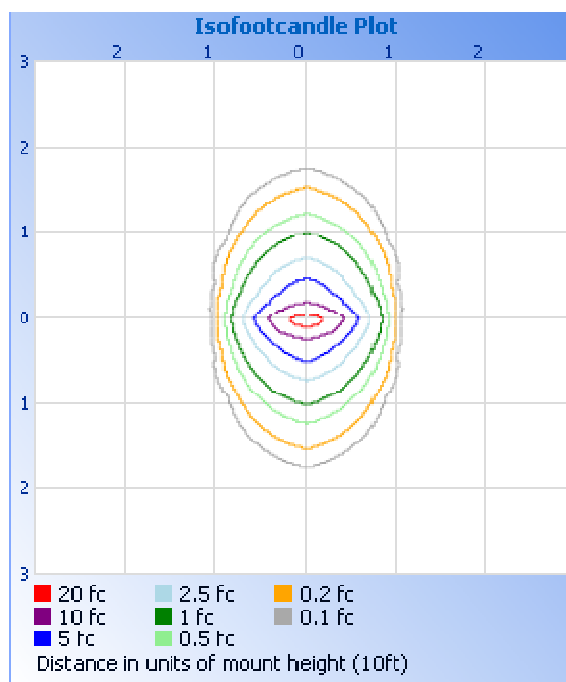
### Illumination Plots

Mounting Height: 10 ft.

#### Illuminance - Cone of Light



#### Isoillumination Plot



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

Zone	Lumens	% Luminaire
0-30	834.7	66.7
0-40	1074	85.9
0-60	1237	98.8
60-90	14.8	1.2
0-90	1251	100.0
90-180	0.0	0.0
0-180	1251	100.0

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

Zone	Lumens	% Luminaire
0-10	180.7	14.4
10-20	326.1	26.1
20-30	327.9	26.2
30-40	239.8	19.2
40-50	116.1	9.3
50-60	46.0	3.7
60-70	12.4	1.0
70-80	2.0	0.2
80-90	0.4	0.0

#### Spacing Criterion at 25°C

Spacing Criterion (0-180)	0.40
Spacing Criterion (90-270)	0.72
Spacing Criterion (Diagonal)	0.54

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