

# REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G103942970

Date: May 14, 2019

REPORT NO. 103942970LAX-001

TEST OF ONE DIRECT LED LUMINAIRE

MODEL NO. P61-LED35-SO-PCL-D4W  
LED MODEL NO. NICHIA 4591A  
DRIVER MODEL NO. OSRAM OPTOTRONIC

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-00943024.

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 P61-LED35-SO-PCL-D4W. The sample was received by Intertek on May 10, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN1905101205-001 .

DATES OF TESTS: May 13, 2019

## SUMMARY

Model No.:	P61-LED35-SO-PCL-D4W
Description:	direct led luminaire

Criteria	Result
Total Lumen Output (Lumens)	1834
Total Power (W)	18.72
Luminaire Efficacy (LPW)	97.97
Power Factor	0.995

## EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBV	VBV	05/13/19
AC Source	CW1251P	000944	VBV	VBV	05/13/19
Power Analyzer	WT210	000945	11/28/18	11/28/19	05/13/19
Magnetic Level	581-9	001610	10/31/18	10/31/19	05/13/19
Thermometer	DPI8-C24	001782	09/21/18	09/21/19	05/13/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	05/13/19

## 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.

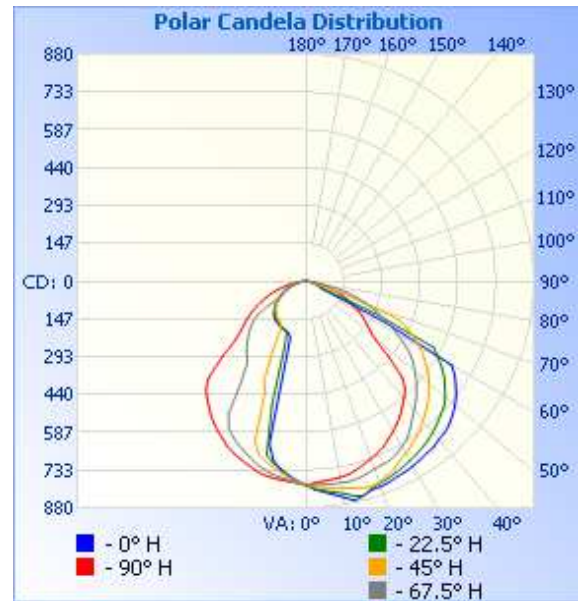
## RESULTS OF TEST

### 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)
LAN1905101205-001	Up	120.0	156.8	18.72	0.995	1834	97.97

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

Angle	0	22.5	45	67.5	90
0	790	790	790	790	790
5	822	816	804	792	779
10	852	836	815	794	772
15	862	862	832	791	758
20	848	834	830	776	734
25	836	821	805	767	710
30	828	804	773	743	674
35	815	786	742	702	636
40	801	764	705	652	591
45	784	736	666	606	527
50	752	704	621	552	352
55	708	653	567	492	288
60	651	590	506	407	239
65	72	293	432	326	188
70	56	53	226	244	142
75	36	36	40	162	92
80	21	18	19	45	47
85	8	8	8	10	7
90	0	0	0	0	0



RESULTS OF TEST (cont'd)

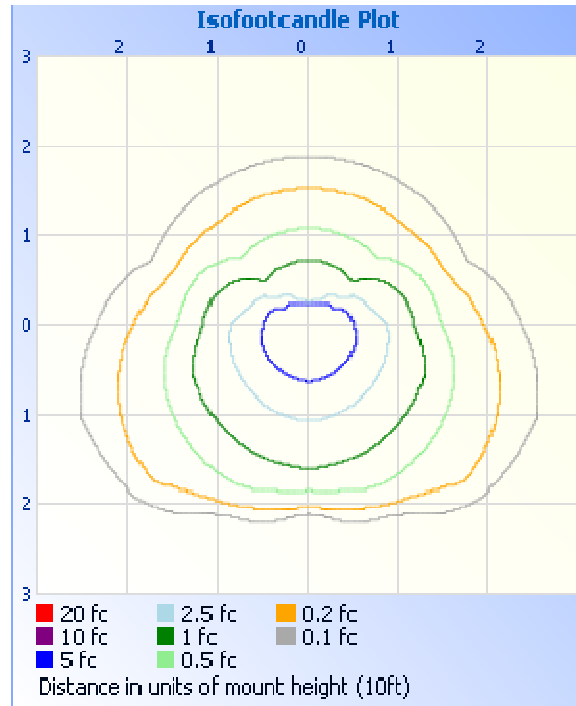
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	550.4	30.0
0-40	876.1	47.8
0-60	1548	84.4
60-90	285.9	15.6
0-90	1834	100.0
90-180	0.0	0.0
0-180	1834	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	74.6	4.1
10-20	200.1	10.9
20-30	275.7	15.0
30-40	325.7	17.8
40-50	350.2	19.1
50-60	321.9	17.5
60-70	202.7	11.0
70-80	71.5	3.9
80-90	11.7	0.6

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.58
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.20

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:

Gregory V. Rosandich  
Technician  
Lighting Division

Attachment: None

Report Reviewed By:

Vladimir Kozak  
Engineering Supervisor  
Lighting Division