

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104160270

Date: November 27, 2019

REPORT NO. 104160270LAX-002

TEST OF ONE LED ASYMMETRIC LUMINAIRE - REMOTE DRIVER

MODEL NO. PCRL-LED35-LO
LED MODEL NO. NICHIA 4591A
DRIVER MODEL NO. OSRAM OPTOTRONIC

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-01019626-1.

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 PCRL-LED35-LO. The sample was received by Intertek on November 20, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN1911201457-002.

DATES OF TESTS: November 26, 2019

SUMMARY

Model No.:	PCRL-LED35-LO
Description:	LED Asymmetric Luminaire - Remote Driver

Criteria	Result
Total Lumen Output (Lumens)	1653
Total Power (W)	18.34
Luminaire Efficacy (LPW)	90.13
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	11/26/19
AC Source	CW1251P	000944	VBU	VBU	11/26/19
Power Analyzer	WT210	000945	10/02/19	10/02/20	11/26/19
Tape Measure	33-428	001491	VBU	VBU	11/26/19
Magnetic Level	581-9	001610	10/11/19	10/11/20	11/26/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	11/26/19
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	11/26/19

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.

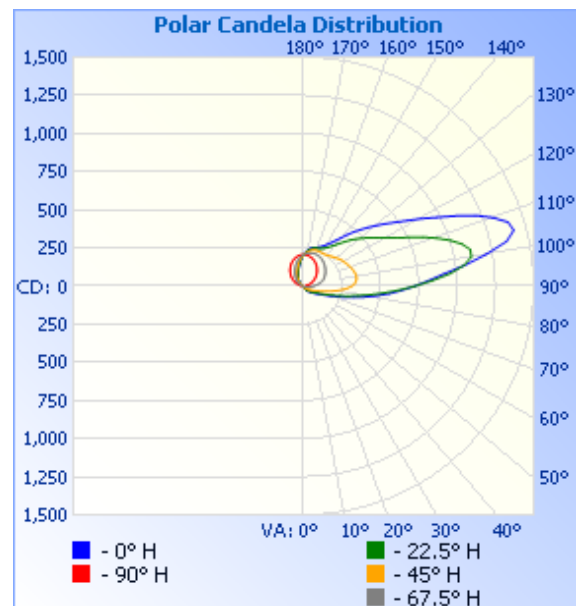
RESULTS OF TEST

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)
LAN1911201457-002	Down	120.0	158.4	18.34	0.966	1653	90.13

Intensity (Candlepower) Summary at 25°C - Candelas

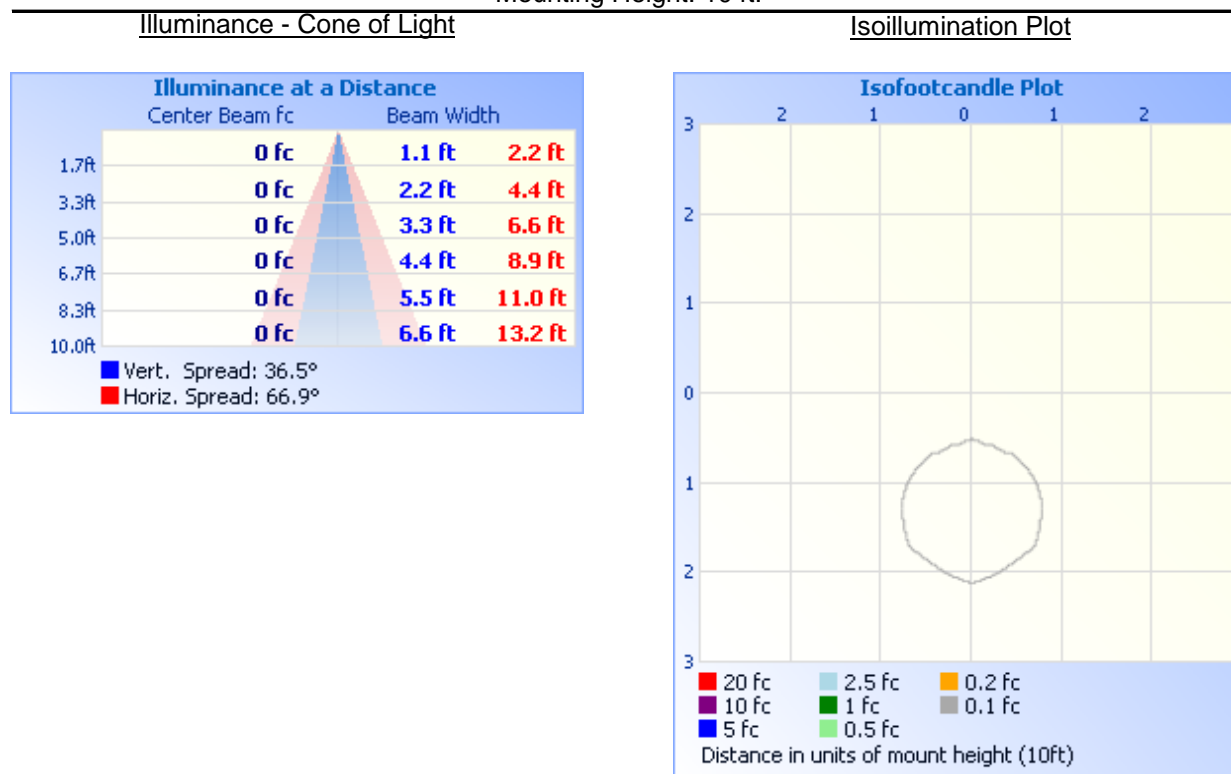
Angle	0	22.5	45	67.5	90
0	0	0	0	0	0
5	0	0	0	0	0
10	0	0	0	0	0
15	0	0	0	0	0
20	0	0	0	0	0
25	12	0	0	0	0
30	19	13	0	0	0
35	28	22	0	0	0
40	38	32	13	0	0
45	49	42	19	0	0
50	62	52	27	0	0
55	76	65	37	0	0
60	97	84	48	10	0
65	130	112	64	14	0
70	188	163	88	18	0
75	279	244	128	24	0
80	407	361	188	33	0
85	561	521	257	46	0
90	722	723	314	63	0
95	918	960	342	84	0
100	1211	1110	350	105	17
105	1417	1069	345	124	30
110	1314	921	335	140	45
115	1090	758	322	152	60
120	886	633	311	163	76
125	730	554	300	174	92
130	619	488	285	184	108
135	524	426	271	194	123
140	440	366	259	203	137
145	366	320	252	211	151
150	317	291	249	218	164
155	288	273	249	223	176
160	271	264	249	225	186
165	262	258	245	224	194
170	251	246	236	221	201
175	231	227	221	214	206
180	204	204	204	204	204



RESULTS OF TEST (cont'd)

Illumination Plots

Mounting Height: 10 ft.



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	0.6	0.0
0-40	3.8	0.2
0-60	28.4	1.7
60-90	257.4	15.6
0-90	285.9	17.3
90-180	1368.0	82.7
0-180	1653	100.0

Spacing Criterion at 25°C

Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	0.0	0.0
10-20	0.0	0.0
20-30	0.6	0.0
30-40	3.3	0.2
40-50	8.4	0.5
50-60	16.2	1.0
60-70	32.8	2.0
70-80	73.0	4.4
80-90	151.6	9.2
90-100	250.8	15.2
100-110	295.1	17.8
110-120	236.4	14.3
120-130	179.6	10.9
130-140	140.8	8.5
140-150	108.6	6.6
150-160	82.6	5.0
160-170	54.5	3.3
170-180	19.3	1.2

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:

Handwritten signature of Gregory V. Rosandich.

Gregory V. Rosandich
Technician
Lighting Division

Attachment: None

Report Reviewed By:

Handwritten signature of Erik Linares.

Erik Linares
Associate Engineer
Lighting Division