

REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G104160086

Date: November 26, 2019

REPORT NO. 104160086LAX-007

TEST OF ONE LED LUMINAIRE

MODEL NO. FLAIR-LED35-SO-SAL
LED MODEL NO. LUMILEDS 2835E 9V
DRIVER MODEL NO. OSRAM OTI 50W G2

RENDERED TO

PRUDENTIAL LIGHTING
1774 E 21ST STREET
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 Prototype sample of model number FLAIR-LED35-SO-SAL. The sample was received by Intertek on November 18, 2019, in undamaged condition and one sample was tested as received. The sample designation was LAN1911181404-001.

DATES OF TESTS: November 20, 2019

SUMMARY

Model No.:	FLAIR-LED35-SO-SAL
Description:	LED Luminaire

Criteria	Result
Total Lumen Output (Lumens)	4728
Total Power (W)	37.53
Luminaire Efficacy (LPW)	126.0
Power Factor	0.985

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	VBU	VBU	11/20/19
AC Source	CW1251P	000944	VBU	VBU	11/20/19
Power Analyzer	WT210	000945	10/02/19	10/02/20	11/20/19
Tape Measure	33-428	001491	VBU	VBU	11/20/19
Magnetic Level	581-9	001610	10/11/19	10/11/20	11/20/19
Temp. & RH Meter	971	001177	01/29/19	01/29/20	11/20/19
Thermometer	DPI8-C24	001782	10/15/19	10/15/20	11/20/19

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.

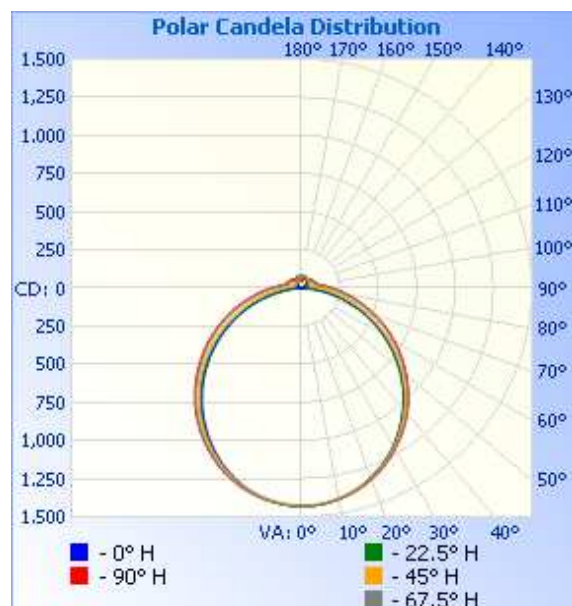
RESULTS OF TEST

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)
LAN1911181404-001	Up	120.0	317.6	37.53	0.984	4728	126.0

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	1428	1428	1428	1428	1428
5	1423	1424	1418	1423	1423
10	1403	1403	1397	1403	1404
15	1367	1369	1366	1373	1376
20	1319	1323	1323	1332	1336
25	1262	1266	1268	1280	1283
30	1195	1197	1201	1215	1219
35	1115	1118	1126	1143	1149
40	1029	1032	1044	1063	1071
45	935	939	954	977	984
50	834	837	856	881	892
55	727	730	753	785	798
60	615	618	647	686	702
65	501	506	543	587	605
70	384	393	441	490	509
75	269	285	343	397	418
80	157	185	254	312	334
85	63	104	180	240	262
90	3	54	125	182	203
95	5	34	90	138	157
100	9	33	72	110	126
105	14	35	67	95	107
110	19	36	66	89	98
115	23	39	66	87	94
120	26	42	65	84	92
125	30	44	64	81	88
130	36	50	64	78	84
135	44	56	64	76	80
140	52	61	64	74	77
145	59	66	68	72	75
150	65	72	72	72	72
155	72	76	76	76	71
160	76	79	80	79	70
165	80	81	83	83	65
170	83	83	84	83	52
175	86	85	84	81	45
180	77	77	77	77	77



RESULTS OF TEST (cont'd)

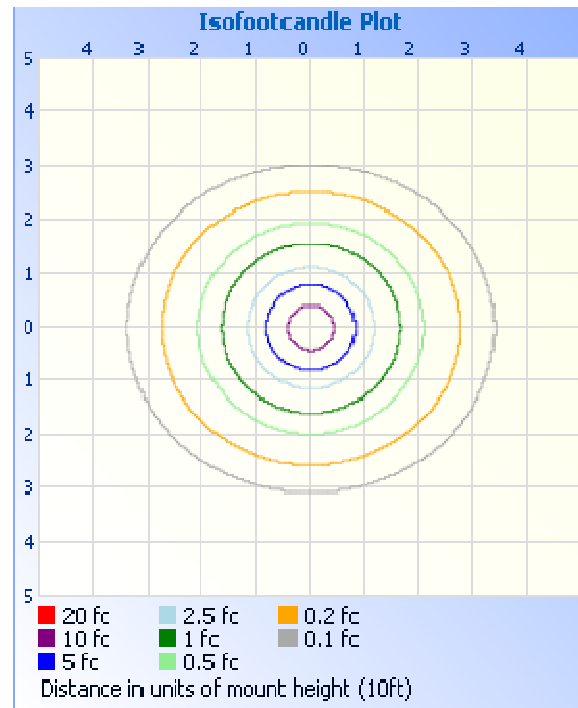
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1105	23.4
0-40	1810	38.3
0-60	3218	68.1
60-90	1087	23.0
0-90	4305	91.1
90-180	423.1	8.9
0-180	4728	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	135.0	2.9
10-20	386.1	8.2
20-30	584.1	12.4
30-40	704.4	14.9
40-50	734.4	15.5
50-60	673.5	14.2
60-70	538.6	11.4
70-80	359.1	7.6
80-90	189.4	4.0
90-100	96.5	2.0
100-110	68.9	1.5
110-120	60.7	1.3
120-130	52.9	1.1
130-140	45.5	1.0
140-150	38.8	0.8
150-160	31.5	0.7
160-170	21.1	0.4
170-180	7.3	0.2

Spacing Criterion at 25°C

Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38

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:



Erik Linares
Associate Engineer
Lighting Division

Attachment: None

Report Reviewed By:



Vladimir Kozak
Engineering Supervisor
Lighting Division