



REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103315037

Date: November 29, 2017

REPORT NO. 103315037LAX-004

TEST OF ONE LED DIRECT/INDIRECT LUMINAIRE

MODEL NO. P4040-LED35-LO-FWA -D9
LED MODEL NO. NICHIA NFSL757D
DRIVER MODEL NO. OSRAM 79399

RENDERED TO

PRUDENTIAL LTG
1774 EAST 21ST STREET
LOS ANGELES, CA 90058-1008

TEST: Electrical and Photometric tests as required to the IESNA test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-00710638-6.

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 P4040-LED35-LO-FWA -D9. The sample was received by Intertek on November 21, 2017, in undamaged condition and one sample was tested as received. The sample designation was LAN1711211050-004.

DATES OF TESTS: November 28, 2017



SUMMARY

Model No.:	P4040-LED35-LO-FWA -D9
Description:	LED direct/indirect luminaire

Criteria	Result
Total Lumen Output (Lumens)	9741
Total Power (W)	96.76
Luminaire Efficacy (LPW)	100.7
Power Factor	0.991

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	10/30/17	11/30/17	11/28/17
AC Source	CW1251P	000944	VBU	VBU	11/28/17
Power Analyzer	WT210	000945	11/10/17	11/10/18	11/28/17
Tape Measure	33-428	001491	01/06/17	01/06/18	11/28/17
Magnetic Level	581-9	001610	10/10/17	10/10/18	11/28/17
Temp. & RH Meter	971	001178	12/22/16	12/22/17	11/28/17

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.

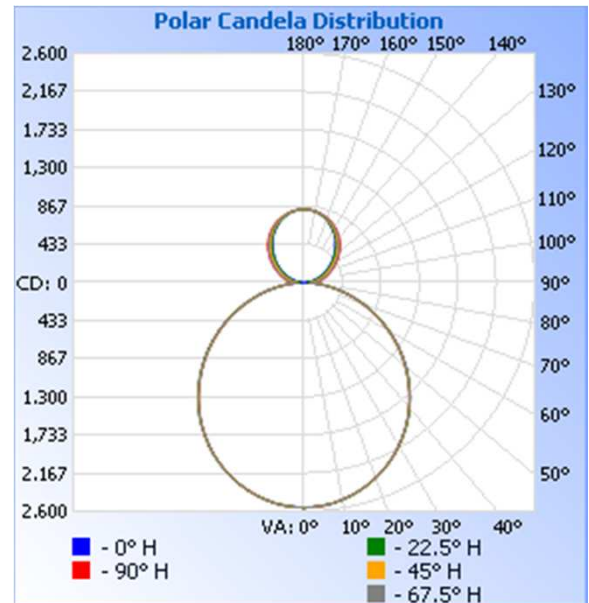
RESULTS OF TEST

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)
LAN1711211050-004	Up	120.0	813.6	96.76	0.991	9741	100.7

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	2555	2555	2555	2555	2555
5	2539	2542	2541	2543	2544
10	2501	2505	2504	2504	2503
15	2442	2444	2444	2443	2441
20	2362	2364	2362	2361	2360
25	2259	2262	2261	2260	2259
30	2139	2143	2140	2140	2138
35	2003	2006	2003	2001	1999
40	1853	1852	1849	1846	1844
45	1682	1683	1679	1676	1674
50	1502	1502	1497	1494	1492
55	1315	1313	1307	1302	1301
60	1116	1114	1110	1104	1101
65	917	914	909	901	898
70	716	713	709	698	694
75	518	516	510	499	495
80	330	325	321	311	308
85	150	148	146	138	136
90	11	40	70	82	79
95	42	70	119	158	171
100	86	106	157	198	212
105	135	151	199	242	257
110	190	201	247	289	304
115	246	257	297	339	354
120	305	317	354	392	407
125	368	381	413	447	462
130	433	437	476	504	517
135	490	501	536	560	572
140	553	565	589	613	624
145	615	623	639	662	671
150	666	670	687	705	711
155	709	714	728	743	747
160	750	754	764	774	777
165	785	786	793	799	800
170	810	811	814	817	818
175	825	826	827	828	828
180	831	831	831	831	831

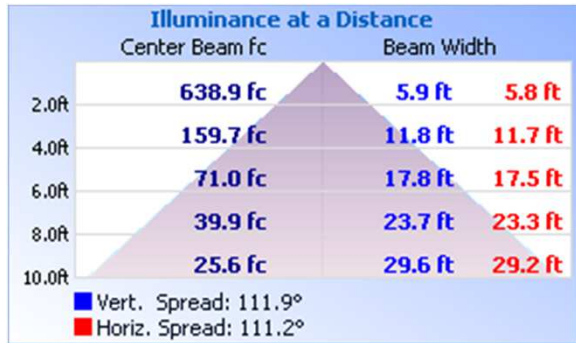


RESULTS OF TEST (cont'd)

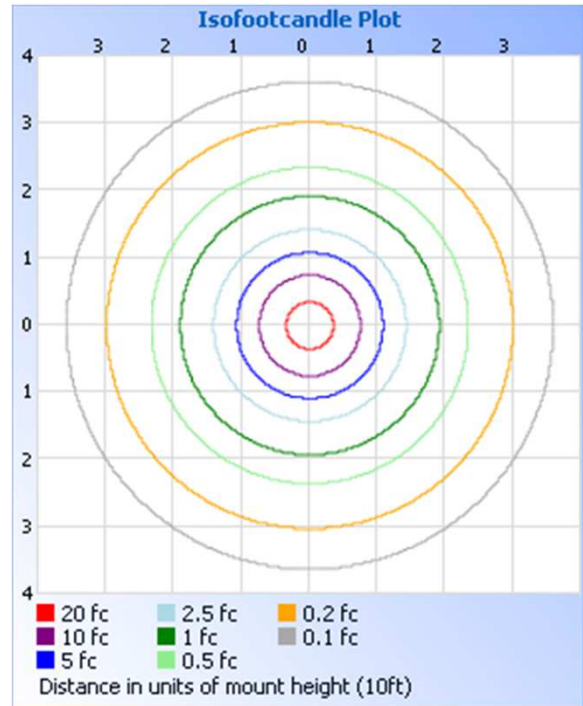
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



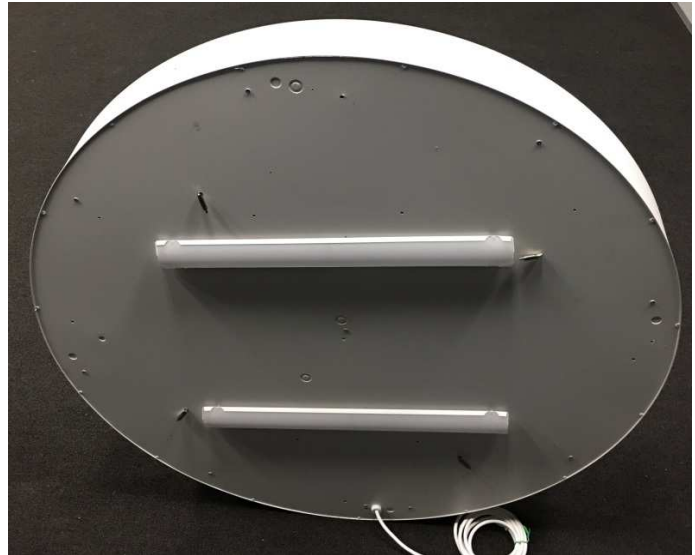
Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1972	20.2
0-40	3224	33.1
0-60	5687	58.4
60-90	1608	16.5
0-90	7296	74.9
90-180	2445.0	25.1
0-180	9741	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	241.4	2.5
10-20	689.2	7.1
20-30	1042	10.7
30-40	1252	12.9
40-50	1295	13.3
50-60	1168	12.0
60-70	898.3	9.2
70-80	537.7	5.5
80-90	172.4	1.8
90-100	121.1	1.2
100-110	208.9	2.1
110-120	296.1	3.0
120-130	370.2	3.8
130-140	410.3	4.2
140-150	400.8	4.1
150-160	335.5	3.4
160-170	223.5	2.3
170-180	78.5	0.8

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:



Ameet Alawi
Technician
Lighting Division

Attachment: None

Report Reviewed By:



Vladimir Kozak
Engineering Supervisor
Lighting Division