REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103315037 Date: November 29, 2017

REPORT NO. 103315037LAX-001

TEST OF ONE LED DIRECT/INDIRECT LUMINAIRE

MODEL NO. P4018-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 P4018-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 LAN1711211050-002.

DATES OF TESTS: November 22, 2017

SUMMARY

Model No.:	P4018-LED35-LO-FWA -D9
Description:	LED direct/indirect luminaire

Criteria	Result
Total Lumen Output (Lumens)	1765
Total Power (W)	22.48
Luminaire Efficacy (LPW)	78.51
Power Factor	0.998

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	11/22/17
AC Source	CW1251P	000944	VBU	VBU	11/22/17
Power Analyzer	WT210	000945	11/10/17	11/10/18	11/22/17
Tape Measure	33-428	001491	01/06/17	01/06/18	11/22/17
Magnetic Level	581-9	001610	10/10/17	10/10/18	11/22/17
Temp. & RH Meter	971	001178	12/22/16	12/22/17	11/22/17

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.

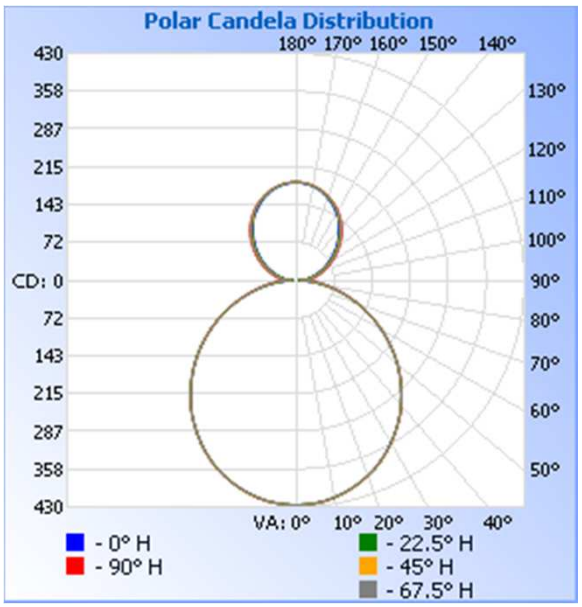
RESULTS OF TEST

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)
LAN1711211050-002	Up	120.1	187.7	22.48	0.998	1765	78.51

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	426	426	426	426	426
5	424	424	424	424	424
10	418	418	418	418	419
15	408	408	408	408	408
20	394	394	395	395	395
25	377	377	378	378	378
30	356	357	357	357	357
35	333	333	334	334	334
40	307	308	308	308	309
45	279	279	280	280	280
50	249	249	250	250	250
55	218	218	218	218	218
60	185	185	185	185	185
65	152	152	152	153	153
70	119	119	119	120	120
75	86	87	87	89	90
80	55	56	58	62	63
85	25	27	32	38	39
90	5	5	8	10	11
95	17	18	22	28	30
100	25	27	31	36	39
105	35	37	41	46	48
110	47	49	53	57	59
115	59	61	65	69	70
120	72	74	78	81	83
125	86	88	91	94	96
130	99	103	105	107	109
135	113	115	118	120	122
140	126	129	130	133	134
145	140	140	142	144	145
150	150	152	154	155	155
155	160	161	163	164	164
160	169	170	171	172	172
165	176	177	178	178	178
170	181	182	183	182	183
175	184	185	186	185	185
180	186	186	186	186	186

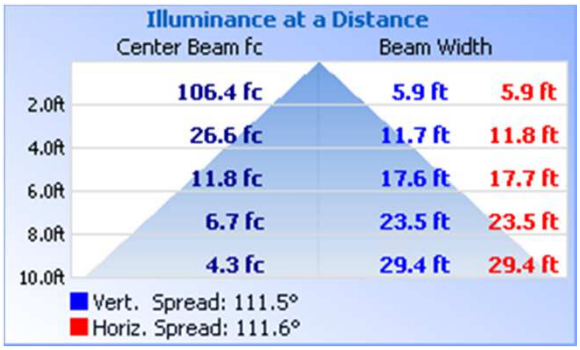


RESULTS OF TEST (cont'd)

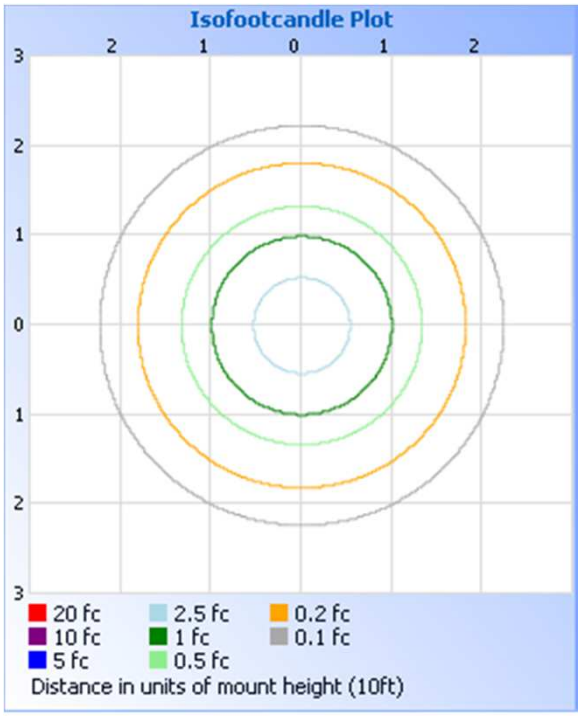
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



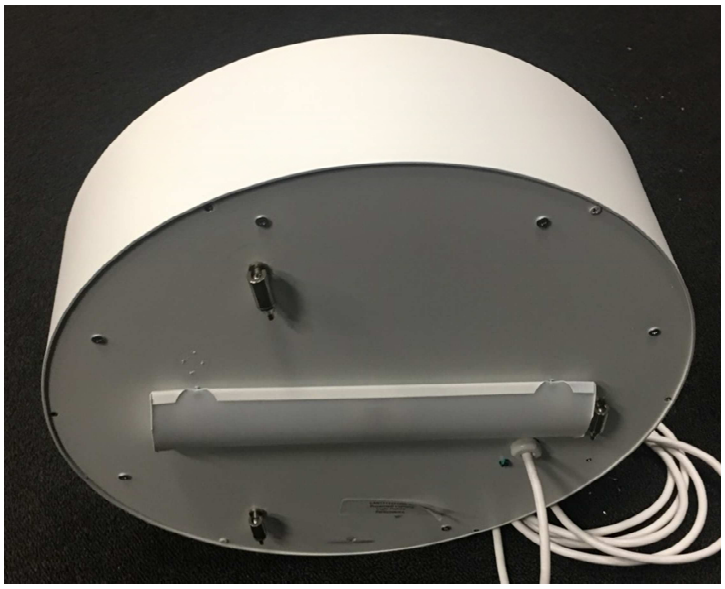
Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	329.2	18.7
0-40	537.8	30.5
0-60	948.2	53.7
60-90	280.4	15.9
0-90	1229	69.6
90-180	536.0	30.4
0-180	1765	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	40.3	2.3
10-20	115.1	6.5
20-30	173.9	9.9
30-40	208.6	11.8
40-50	215.6	12.2
50-60	194.8	11.0
60-70	150.8	8.5
70-80	93.2	5.3
80-90	36.5	2.1
90-100	24.1	1.4
100-110	44.2	2.5
110-120	64.4	3.7
120-130	81.4	4.6
130-140	90.6	5.1
140-150	89.0	5.0
150-160	74.9	4.2
160-170	50.0	2.8
170-180	17.6	1.0

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:

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Report Reviewed By:

Vladimir Kozak
Engineering Supervisor
Lighting Division

Attachment: None