REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G102948172 Date: March 7, 2017

REPORT NO. 102948172LAX-003

TEST OF ONE LED INDIRECT ONLY

MODEL NO. C-40-LED35-LO-D9
LED MODEL NO. NICHIA NFSL757D
DRIVER MODEL NO. OSRAM 79399

RENDERED TO

PRUDENTIAL LIGHTING
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 prototype sample of model number C-40-LED35-LO-D9. The sample was received by Intertek on February 22, 2017, in undamaged condition and one sample was tested as received. The sample designation was LAN1702221443-003.

DATES OF TESTS: March 6, 2017

SUMMARY

Model No.:	C-40-LED35-LO-D9
Description:	LED indirect only

Criteria	Result
Total Lumen Output (Lumens)	3098
Total Power (W)	41.19
Luminaire Efficacy (LPW)	75.21
Power Factor	0.996

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	03/01/17	04/01/17	03/06/17
AC Source	CW1251P	000944	VBU	VBU	03/06/17
Power Analyzer	WT210	000945	12/05/16	12/05/17	03/06/17
Tape Measure	33-428	001491	01/06/17	01/06/18	03/06/17
Magnetic Level	581-9	001610	09/28/16	09/28/17	03/06/17
Temp. & RH Meter	971	001178	12/22/16	12/22/17	03/06/17

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.

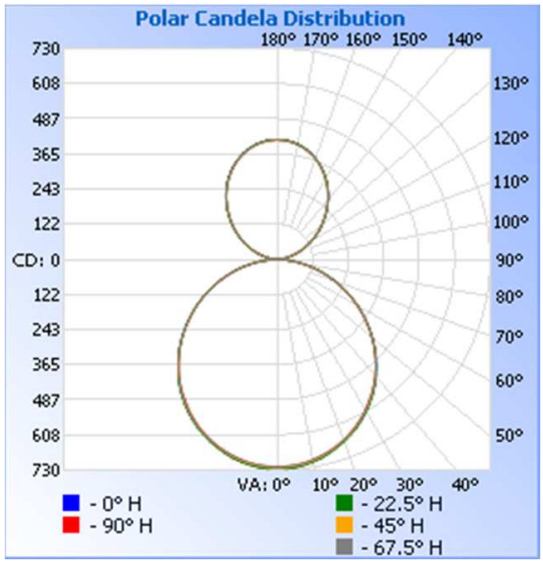
RESULTS OF TEST (cont'd)

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)
LAN1702221443-003	Up	120.0	344.3	41.19	0.996	3098	75.21

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	721	721	721	721	721
5	722	723	718	714	715
10	710	712	708	704	705
15	693	694	690	688	688
20	669	672	667	665	665
25	642	644	640	638	637
30	609	609	606	604	603
35	570	570	567	567	565
40	526	527	524	524	523
45	478	478	476	477	475
50	426	427	426	426	426
55	373	373	371	371	371
60	318	317	316	316	317
65	262	259	261	258	259
70	204	202	203	202	203
75	149	147	147	146	148
80	94	93	93	93	94
85	43	43	43	43	42
90	3	3	4	5	5
95	11	12	11	12	11
100	32	30	30	30	29
105	58	55	53	53	53
110	84	84	81	80	82
115	114	114	112	110	112
120	144	145	142	142	144
125	175	176	174	174	175
130	207	208	205	206	208
135	239	240	238	238	240
140	271	271	269	271	272
145	301	302	300	301	302
150	329	330	327	329	330
155	354	355	353	354	354
160	375	376	374	375	375
165	393	394	391	391	392
170	405	406	404	404	405
175	413	413	411	411	412
180	415	415	415	415	415

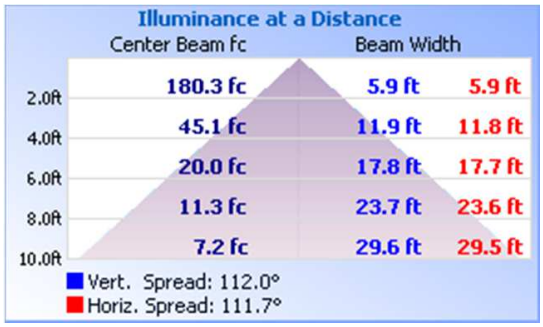


RESULTS OF TEST (cont'd)

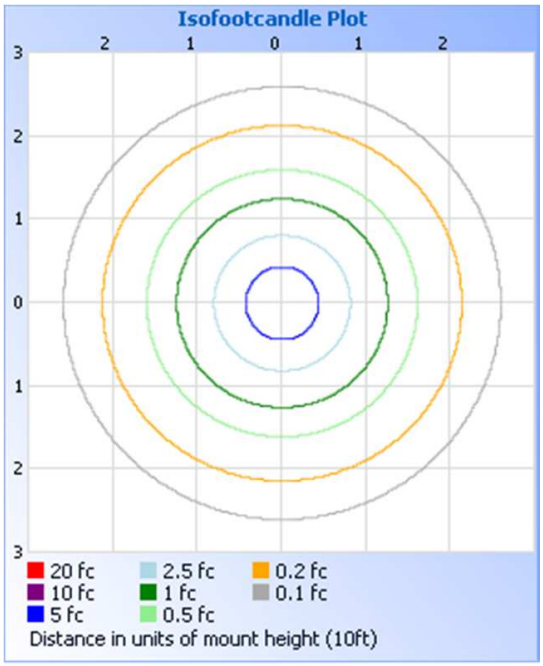
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	557.8	18.0
0-40	912.9	29.5
0-60	1613	52.1
60-90	460.8	14.9
0-90	2074	67.0
90-180	1024	33.0
0-180	3098	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	68.2	2.2
10-20	194.9	6.3
20-30	294.7	9.5
30-40	355.1	11.5
40-50	367.7	11.9
50-60	332.5	10.7
60-70	257.0	8.3
70-80	155.5	5.0
80-90	48.3	1.6
90-100	14.5	0.5
100-110	57.6	1.9
110-120	111.0	3.6
120-130	156.2	5.0
130-140	184.1	5.9
140-150	188.0	6.1
150-160	162.8	5.3
160-170	110.4	3.6
170-180	39.1	1.3

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
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Lighting Division

Report Reviewed By:

Timothy Quigley
Engineer
Lighting Division

Attachment: None