



REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G103624486

Date: August 13, 2018

REPORT NO. 103624486LAX-003

TEST OF ONE LED DIRECT INDIRECT LUMINAIRE

MODEL NO. BTRI-44-LED35-LO
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-00849811-9.

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 BTRI-44-LED35-LO. The sample was received by Intertek on August 8, 2018, in undamaged condition and one sample was tested as received. The sample designation was LAN1808081241-003.

DATES OF TESTS: August 9, 2018



SUMMARY

Model No.:	BTRI-44-LED35-LO
Description:	LED direct indirect luminaire

Criteria	Result
Total Lumen Output (Lumens)	7777
Total Power (W)	65.53
Luminaire Efficacy (LPW)	118.7
Power Factor	0.991

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Goniophotometer	6440T	000943	08/01/18	09/01/18	08/09/18
AC Source	CW1251P	000944	VBU	VBU	08/09/18
Power Analyzer	WT210	000945	11/10/17	11/10/18	08/09/18
Tape Measure	33-428	000684	01/04/18	01/04/19	08/09/18
Magnetic Level	581-9	001610	10/10/17	10/10/18	08/09/18
Temp. & RH Meter	971	001177	01/25/18	01/25/19	08/09/18

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.

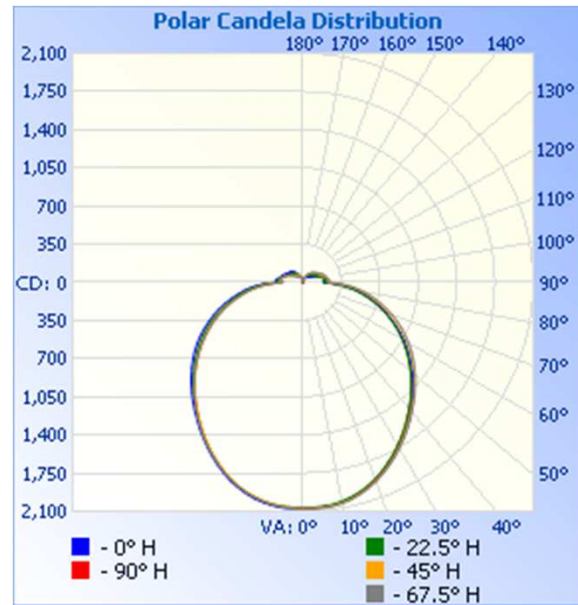
RESULTS OF TEST

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)
LAN1808081241-003	Up	120.0	550.3	65.53	0.991	7777	118.7

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	2072	2072	2072	2072	2072
5	2069	2061	2072	2075	2066
10	2050	2037	2052	2059	2045
15	2005	1989	2007	2013	1996
20	1938	1917	1937	1944	1924
25	1850	1826	1851	1857	1833
30	1747	1726	1750	1758	1730
35	1649	1618	1647	1653	1619
40	1532	1507	1538	1547	1507
45	1420	1395	1432	1441	1397
50	1304	1281	1326	1335	1287
55	1181	1167	1218	1227	1170
60	1062	1047	1103	1114	1052
65	931	922	981	992	928
70	799	790	854	865	803
75	664	660	721	734	674
80	529	524	586	597	540
85	390	389	446	454	405
90	192	195	237	242	206
95	211	215	238	236	215
100	195	191	220	224	207
105	182	176	203	216	188
110	166	152	183	204	169
115	147	132	170	188	155
120	108	123	158	170	142
125	95	112	146	154	124
130	85	103	136	141	106
135	75	98	125	128	91
140	68	92	115	114	79
145	68	85	100	98	70
150	75	77	85	84	62
155	62	63	71	68	50
160	50	50	55	54	41
165	37	38	41	41	32
170	26	26	28	28	24
175	17	17	17	16	16

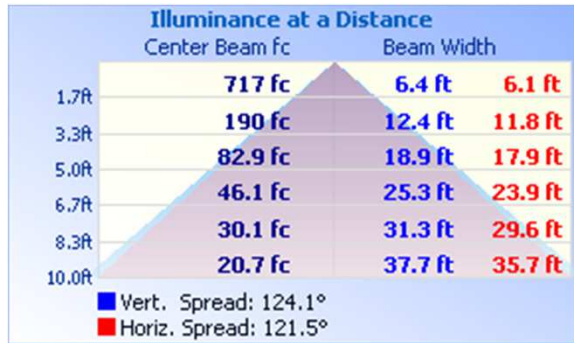


RESULTS OF TEST (cont'd)

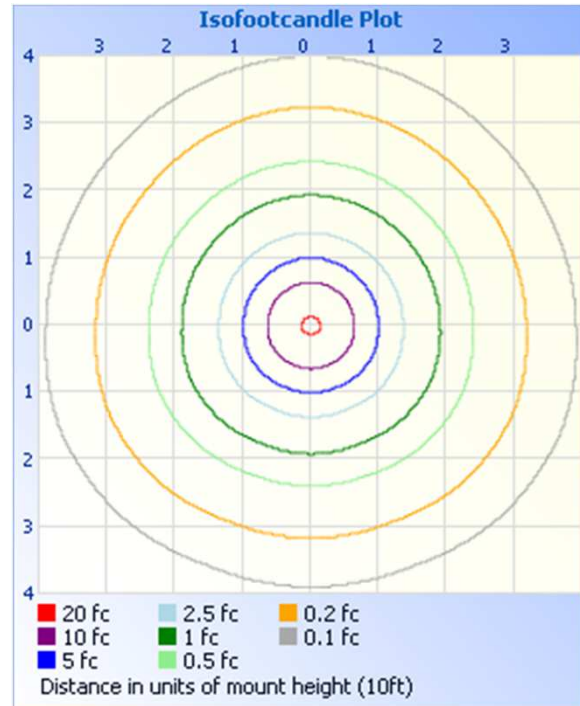
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1607	20.7
0-40	2629	33.8
0-60	4784	61.5
60-90	2105	27.1
0-90	6890	88.6
90-180	887.9	11.4
0-180	7777	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	196.6	2.5
10-20	563.2	7.2
20-30	847.2	10.9
30-40	1022	13.1
40-50	1091	14.0
50-60	1064	13.7
60-70	938.8	12.1
70-80	726.6	9.3
80-90	440.0	5.7
90-100	234.1	3.0
100-110	204.8	2.6
110-120	155.9	2.0
120-130	113.9	1.5
130-140	81.7	1.1
140-150	54.4	0.7
150-160	30.0	0.4
160-170	11.3	0.1
170-180	1.8	0.0

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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Technician
Lighting Division

Attachment: None

Report Reviewed By:



Vladimir Kozak
Engineering Supervisor
Lighting Division