



REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: April 10, 2015

REPORT NO. 101918458LAX-029

TEST OF ONE PENDANT DOWNLIGHT

MODEL NO. COLOUR PENDANT RED

RENDERED TO

ELATION LIGHTING
6122 S. EASTERN AVE
COMMERCE CA 90040

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

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the federal government.

AUTHORIZATION: The testing performed was authorized by signed quote number Q500519256.

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 COLOUR PENDANT RED. The sample was received by Intertek on April 2, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1504020937-001.

DATES OF TESTS: April 9, 2015

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SUMMARY

Model No.:	COLOUR PENDANT RED
Description:	PENDANT Downlight

Criteria	Result
Total Lumen Output (Lumens)	513.4
Total Power (W)	33.82
Luminaire Efficacy (LPW)	15.18
Power Factor	0.940

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	03/23/15	04/23/15
Elgar Power Supply	CW1251	000944	VBU	VBU
Yokogawa Power Analyzer	WT210	000945	11/26/14	11/26/15
Temp. & RH Meter	971	001178	12/22/14	12/22/15
Extech Instruments Stop Watch	365510	001390	12/08/14	12/08/15
Tape Measure	33-430	001491	12/08/14	12/08/15

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 Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

RESULTS OF TEST

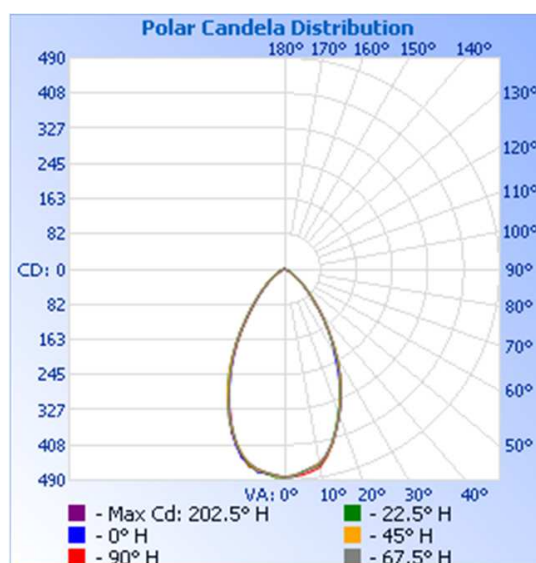
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
LAN1504020937-001	UP	120.0	300.5	33.82	0.940	513.4	15.18

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 483.2

Angle	0	22.5	45	67.5	90
0	483	483	483	483	483
5	472	472	473	473	479
10	457	462	456	459	467
15	419	417	419	417	420
20	363	357	362	361	364
25	298	300	302	303	304
30	229	241	239	238	240
35	175	173	176	176	175
40	123	120	123	121	119
45	79	82	84	80	79
50	51	53	53	52	51
55	33	32	31	32	30
60	18	18	17	17	17
65	10	10	10	10	10
70	7	7	7	7	7
75	4	4	4	4	4
80	2	2	2	2	2
85	1	1	1	1	1
90	0	0	0	0	0

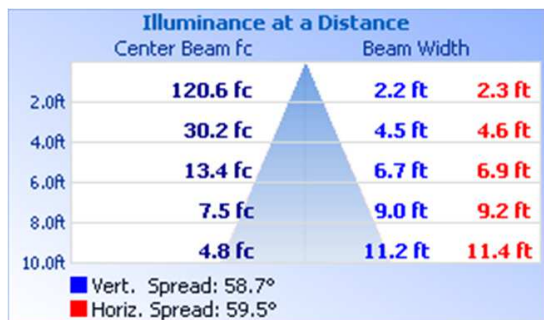


RESULTS OF TEST (cont'd)

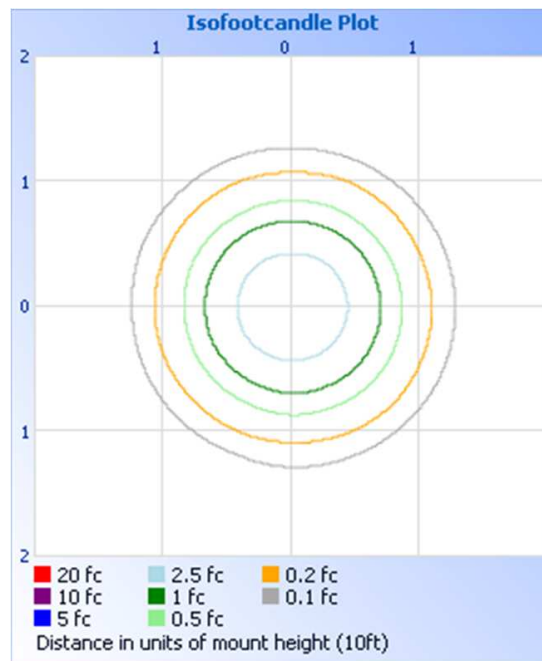
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	299.4	58.30%
0-40	407.3	79.30%
0-60	497	96.80%
60-90	16.3	3.20%
0-90	513.3	100.0%
90-180	0	0.0%
0-180	513.4	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	44.9	8.8%
10-20	116.9	22.8%
20-30	137.6	26.8%
30-40	107.9	21.0%
40-50	61.8	12.0%
50-60	28.0	5.4%
60-70	10.7	2.1%
70-80	4.6	0.9%
80-90	0.9	0.2%

PICTURE (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:



Kenda Branch
Lighting Performance Team Lead
Lighting Division