



# REPORT

25800 COMMERCE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458

Date: April 10, 2015

REPORT NO. 101918458LAX-027

TEST OF ONE PENDANT DOWNLIGHT

MODEL NO. COLOUR PENDANT BLUE

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 BLUE. 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 10, 2015

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## SUMMARY

Model No.:	COLOUR PENDANT BLUE
Description:	PENDANT Downlight

Criteria	Result
Total Lumen Output (Lumens)	126.7
Total Power (W)	20.56
Luminaire Efficacy (LPW)	6.16
Power Factor	0.905

## 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

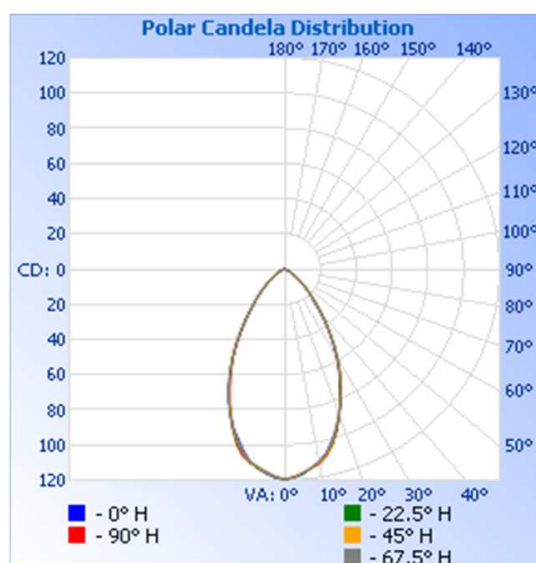
### Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

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	120.06	190.00	20.56	0.905	126.7	6.16

### Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 119.4

Angle	0	22.5	45	67.5	90
0	119	119	119	119	119
5	117	117	116	116	116
10	111	112	112	111	112
15	101	103	102	102	103
20	88	89	88	89	89
25	74	74	75	74	73
30	59	60	60	59	58
35	43	44	44	43	43
40	29	31	30	30	30
45	20	21	21	20	20
50	13	13	13	13	13
55	8	8	8	8	8
60	5	5	5	5	5
65	3	3	3	3	3
70	2	2	2	2	2
75	1	1	1	1	1
80	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

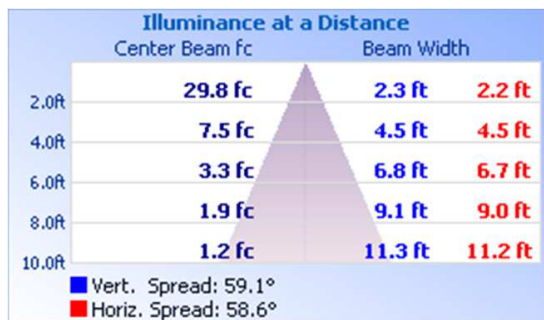


## RESULTS OF TEST (cont'd)

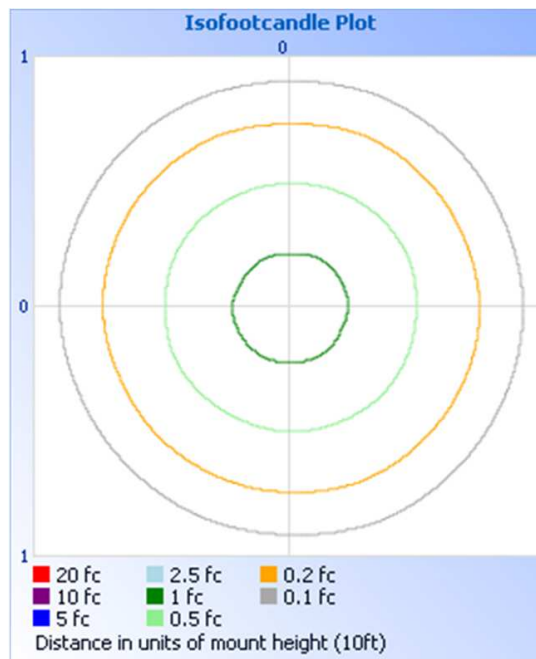
### Illumination Plots

Mounting Height: 10 ft.

#### Illuminance - Cone of Light



#### Isoillumination Plot



#### Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	72.9	57.6%
0-40	99.6	78.6%
0-60	122.4	96.6%
60-90	4.4	3.4%
0-90	126.7	1.2%
90-180	0	0.0%
0-180	126.7	100.0%

#### Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	10.9	8.6%
10-20	28.4	22.4%
20-30	33.7	26.6%
30-40	26.7	21.0%
40-50	15.5	12.3%
50-60	7.2	5.7%
60-70	2.9	2.3%
70-80	1.2	1.0%
80-90	0.3	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