REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458 Date: March 18, 2015

REPORT NO. 101918458LAX-018

TEST OF ONE LED BAR

MODEL NO. SIX BAR 500

RENDERED TO

ELATION PROFESSIONAL
6122 S. EASTERN AVE
COMMERCE, CA 90040 USA

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 production sample of model number SIX BAR 500. The sample was received by Intertek on March 10, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1503101019-001.

DATES OF TESTS: March 17, 2015

SUMMARY

Model No.:	SIX BAR 500
Description:	LED BAR

Criteria	Result
Total Lumen Output (Lumens)	976.0
Total Power (W)	73.74
Luminaire Efficacy (LPW)	13.24
Power Factor	0.968

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	02/25/15	03/25/15
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

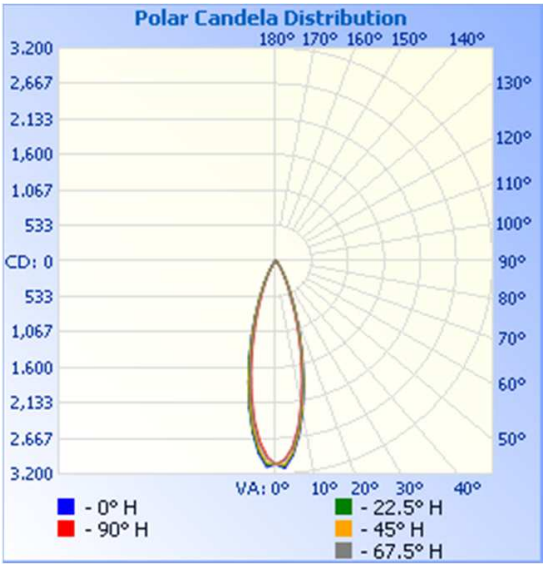
Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
LAN1503101019-001	UP	120.0	562.2	73.74	0.968	976	13.24

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 3,119.4

Note: Test Performed with the FROST FILTER

Angle	0	22.5	45	67.5	90
0	3054	3054	3054	3054	3054
5	2932	2904	2884	2830	2808
10	2289	2268	2254	2195	2165
15	1535	1531	1514	1466	1422
20	904	908	894	853	814
25	489	496	486	454	425
30	251	258	251	231	211
35	133	134	130	117	107
40	69	72	69	63	56
45	40	41	40	36	32
50	25	26	24	22	21
55	16	17	18	16	15
60	13	13	13	12	11
65	10	10	10	9	10
70	7	9	7	9	7
75	6	7	7	5	6
80	4	4	4	3	5
85	3	1	3	2	3
90	0	0	0	0	0

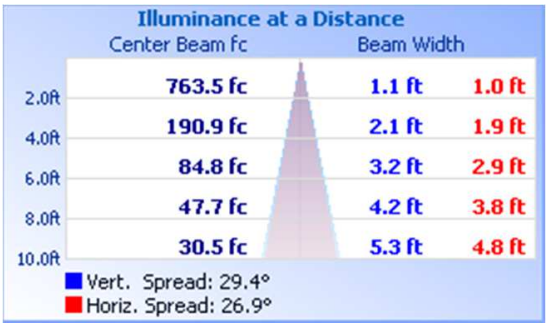


RESULTS OF TEST (cont'd)

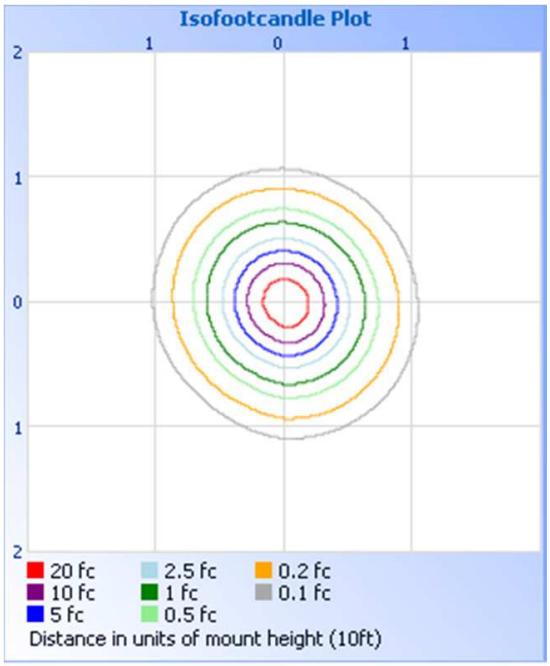
Illumination Plots

inting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	840.2	86.1%
0-40	915.8	93.8%
0-60	958.7	98.2%
60-90	17.2	1.8%
0-90	976	0.8%
90-180	0	0.0%
0-180	976	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	244.3	25.0%
10-20	388.0	39.8%
20-30	208.0	21.3%
30-40	75.5	7.7%
40-50	28.5	2.9%
50-60	14.4	1.5%
60-70	9.4	1.0%
70-80	5.8	0.6%
80-90	2.0	0.2%

PICTURE (not to scale)

CONCLUSION

The

In Charge Of Tests:

Ameet Alawi
Technician
Lighting Division

Attachment: None

Report Reviewed By:

Kenda Branch
Lighting Performance Team Lead
Lighting Division