REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G101918458 Date: March 18, 2015

REPORT NO. 101918458LAX-020

TEST OF ONE LED BAR

MODEL NO. SIX BAR 1000

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 1000. The sample was received by Intertek on March 10, 2015, in undamaged condition and one sample was tested as received. The sample designation was LAN1503101019-002.

DATES OF TESTS: March 18, 2015

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SUMMARY

Model No.:	SIX BAR 1000
Description:	LED BAR

Criteria	Result
Total Lumen Output (Lumens)	2078.4
Total Power (W)	110.27
Luminaire Efficacy (LPW)	18.85
Power Factor	0.980

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

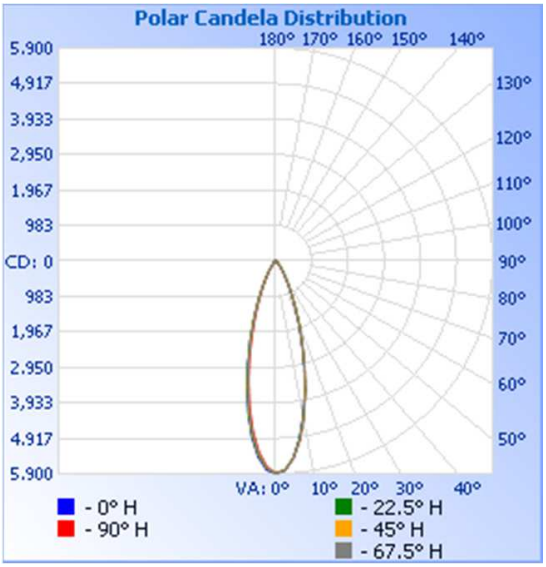
Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
LAN1503101019-002	UP	120.0	937.6	110.3	0.980	2078.4	18.85

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 5,882.0

Note: Test Performed with the FROST FILTER

Angle	0	22.5	45	67.5	90
0	5882	5882	5882	5882	5882
5	5476	5464	5480	5502	5491
10	4334	4349	4392	4398	4377
15	2983	3006	3016	3045	3012
20	1817	1861	1877	1868	1833
25	1025	1054	1058	1048	1018
30	535	578	578	564	538
35	287	305	307	298	280
40	157	170	170	167	155
45	91	98	99	97	91
50	58	62	64	63	59
55	42	43	45	45	43
60	32	32	33	35	33
65	26	25	26	26	26
70	20	19	22	21	21
75	15	15	16	16	17
80	10	11	12	13	12
85	4	7	7	8	7
90	0	2	1	1	1

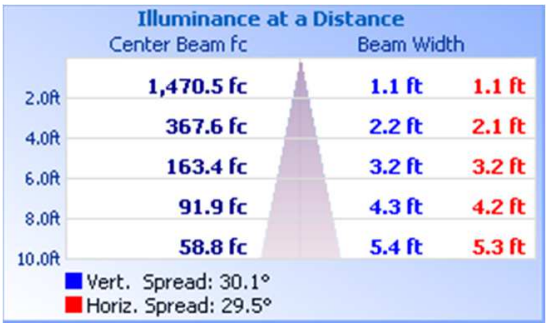


RESULTS OF TEST (cont'd)

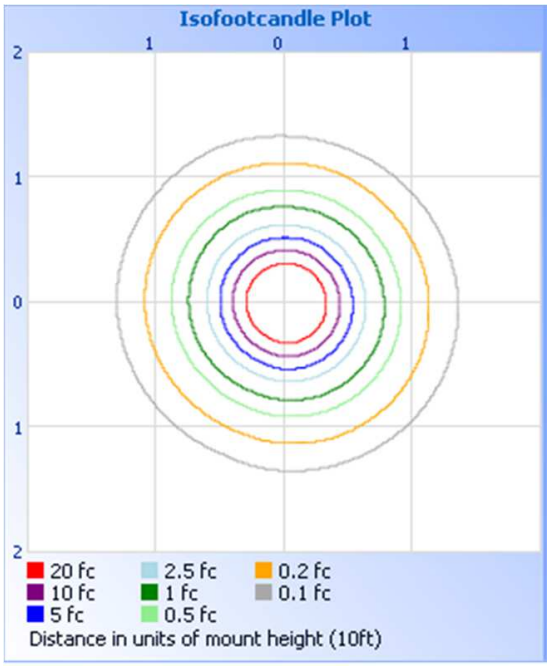
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1737	83.6%
0-40	1919	92.3%
0-60	2029	97.6%
60-90	49.0	2.4%
0-90	2078.3	1.1%
90-180	0.2	0.0%
0-180	2078.4	100.0%

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	478.0	23.0%
10-20	795.7	38.3%
20-30	463.6	22.3%
30-40	181.9	8.8%
40-50	72.2	3.5%
50-60	37.8	1.8%
60-70	25.4	1.2%
70-80	16.7	0.8%
80-90	6.8	0.3%
90-100	0.2	0.0%

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

Report Reviewed By:

Kenda Branch
Lighting Performance Team Lead
Lighting Division

Attachment: None