REPORT

25800 COMMERCENTRE DRIVE, LAKE FOREST, CA 92630

Project No. G102328456 Date: August 2, 2016

REPORT NO. 102328456LAX-074

TEST OF ONE LED BAR

MODEL NO. SIXBAR 1000IP-NO UV

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 Qu-00648726.

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 SIXBAR 1000IP-NO UV . The sample was received by Intertek on July 27, 2016, in undamaged condition and one sample was tested without the frost lens. The sample designation was LAN1607271107-001.

DATES OF TESTS: July 28, 2016

SUMMARY

Model No.:	SIXBAR 1000IP-NO UV
Description:	LED BAR

Criteria	Result
Total Lumen Output (Lumens)	2233
Total Power (W)	100.3
Luminaire Efficacy (LPW)	22.26

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
LSI High Speed Mirror Goniometer	6440T	000943	07/13/16	08/13/16
Elgar Power Supply	CW1251	000944	VBU	VBU
Yokogawa Power Analyzer	WT210	000945	12/04/15	12/04/16
Temp. & RH Meter	971	001178	12/18/15	12/18/16
Extech Instruments Stop Watch	365510	001379	11/19/15	11/19/16
Tape Measure	C1-25	000915	12/04/15	12/04/16
Empire Magnetic Level	581-9	--	VBU	VBU

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 (cont'd)

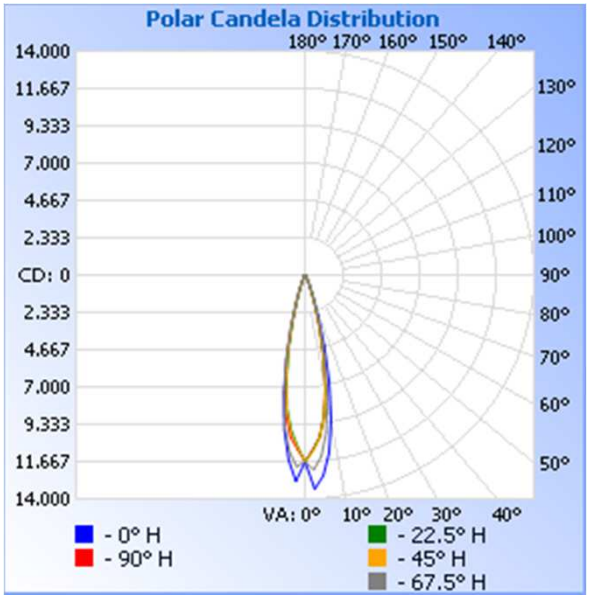
Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

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)
LAN1607271107-001	UP	120.0	857.3	100.3	0.975	2233	22.26

Intensity (Candlepower) Summary at 25°C - Candelas

Maximum Candela Value: 13,384.6

Angle	0	22.5	45	67.5	90
0	11664	11664	11664	11664	11664
5	12603	10147	10218	11368	10181
10	9172	7126	7179	7903	7033
15	4538	3385	3433	3802	3284
20	1489	1231	1153	1321	1143
25	517	437	397	447	391
30	210	190	186	195	175
35	117	104	93	104	92
40	86	80	69	68	59
45	70	67	63	67	64
50	51	47	37	38	42
55	27	24	29	32	24
60	21	26	24	29	25
65	15	22	17	25	29
70	11	7	11	13	17
75	0	4	1	10	4
80	2	7	2	5	0
85	4	3	4	1	0
90	0	0	0	0	0

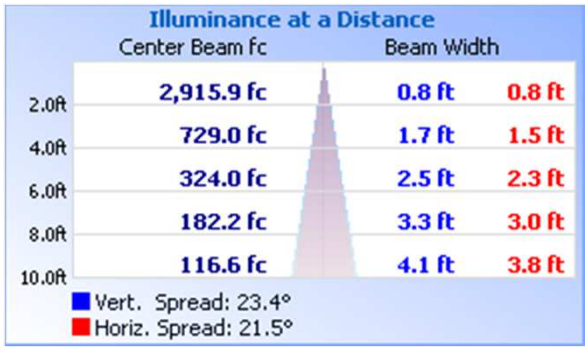


RESULTS OF TEST (cont'd)

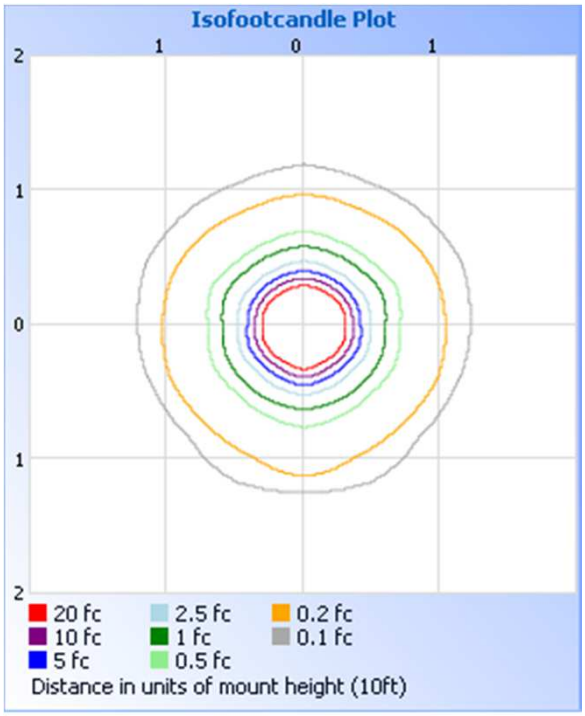
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	2069	92.7
0-40	2134	95.6
0-60	2206	98.8
60-90	26.8	1.2
0-90	2233	100.0
90-180	0.0	0.0
0-180	2233	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	899.1	40.3
10-20	953.9	42.7
20-30	215.8	9.7
30-40	64.9	2.9
40-50	45.2	2.0
50-60	27.1	1.2
60-70	18.1	0.8
70-80	6.6	0.3
80-90	2.1	0.1

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:

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Report Reviewed By:

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Attachment: None