

SONNEMAN - A Way of Light

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

2769

PROJECT NUMBER

G103703321

REPORT NUMBER

103703321CRT-066

ISSUE DATE

February 26, 2019

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

© 2019 INTERTEK



TEST REPORT**REPORT NO.: 103703321CRT-066****REPORT DATE: February 26, 2019**

TEST OF (1) STIX 18" LED BATH BAR

MODEL NO. 2769

RENDERED TO:

SONNEMAN - A WAY OF LIGHT
151 AIRPORT DRIVE
WAPPINGERS FALLS, NY 12590**STATEMENT OF LIMITATION**

NVLAP Lab Code 100402-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-00932265.

STANDARDS USED

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

SAMPLE INFORMATION

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1902180859-003	2769	Stix 18" LED Bath Bar	Production	2/18/2019

DATE OF TESTS

February 25, 2019.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

TEST REPORT

REPORT NO.: 103703321CRT-066

REPORT DATE: February 26, 2019

SUMMARY

MODEL NO:	2769
DESCRIPTION:	Stix 18" LED Bath Bar
DRIVER MODEL NO:	LTF TA60WA12LED

CRITERIA	RESULTS
Lumen Output (lumens)	484.6
Input Power (W) @ 120 (VAC)	14.12
Lumen Efficacy (lm/W)	34.3
Input Power Factor () @ 120 (VAC)	0.946

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	3/11/2019	2/25/2019
Elgar AC Power Supply	CW1251	---	VBU	2/25/2019
Sorenson DC Power Supply	XG 150-10	---	VBU	2/25/2019
Yokogawa Power Analyzer	WT210	E464	5/3/2019	2/25/2019
Omega Thermometer	DPi8-C24	M263	5/3/2019	2/25/2019
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	2/25/2019
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	2/25/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	2/25/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	2/25/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	2/25/2019

*Note: Calibration of goniometer system was completed before the calibration due date of the lamps. The calibration file created from these NIST traceable lamps was used on 2/25/19

TEST REPORT**REPORT NO.: 103703321CRT-066****REPORT DATE: February 26, 2019****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 Type C Mirror Goniometer was used to measure the intensity (candela) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

The calibration of the goniometer-photometer system is traceable to the National Institute of Standards and Technology.

TEST REPORT

REPORT NO.: 103703321CRT-066

REPORT DATE: February 26, 2019

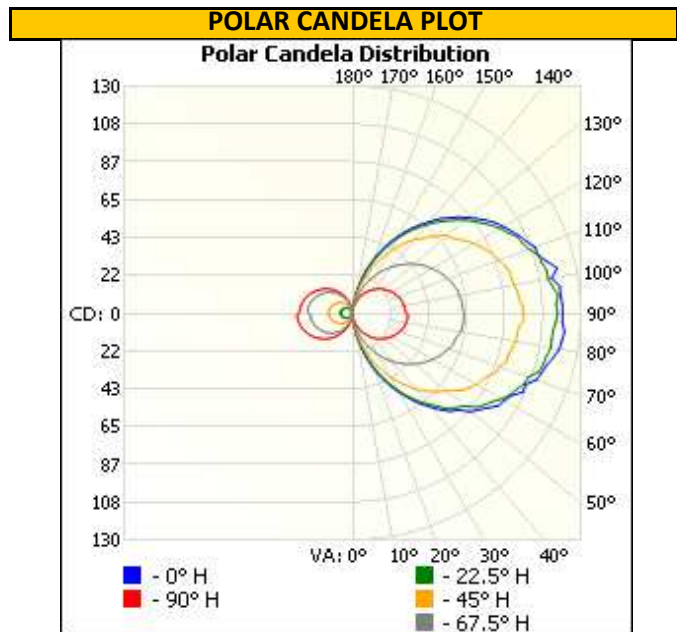
RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR ()	LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)
CRT1902180859-003	Base Up	120.03	124.3	14.12	0.946	484.6	34.3

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	0	0	0	0	0
5	5	5	4	2	2
10	13	12	10	6	3
15	23	22	17	11	6
20	33	31	25	16	9
25	42	41	33	21	11
30	52	50	42	26	14
35	62	60	49	32	16
40	71	68	57	36	18
45	79	78	64	41	21
50	88	83	70	45	23
55	94	92	77	49	25
60	100	98	82	53	26
65	107	103	85	56	28
70	112	107	89	59	29
75	115	112	92	60	30
80	120	115	94	63	31
85	121	115	95	63	32
90	120	117	98	64	31
95	119	118	95	63	30
100	115	113	94	62	30
105	115	112	93	60	29
110	111	107	89	58	28
115	105	104	85	55	26
120	99	97	80	52	25
125	93	90	74	48	23
130	85	83	70	44	22
135	77	75	62	39	20
140	69	66	56	35	18
145	60	58	47	30	15
150	50	48	40	24	13
155	41	39	31	19	11
160	31	29	23	14	8
165	21	19	15	9	6
170	12	10	8	5	4
175	4	3	2	2	2



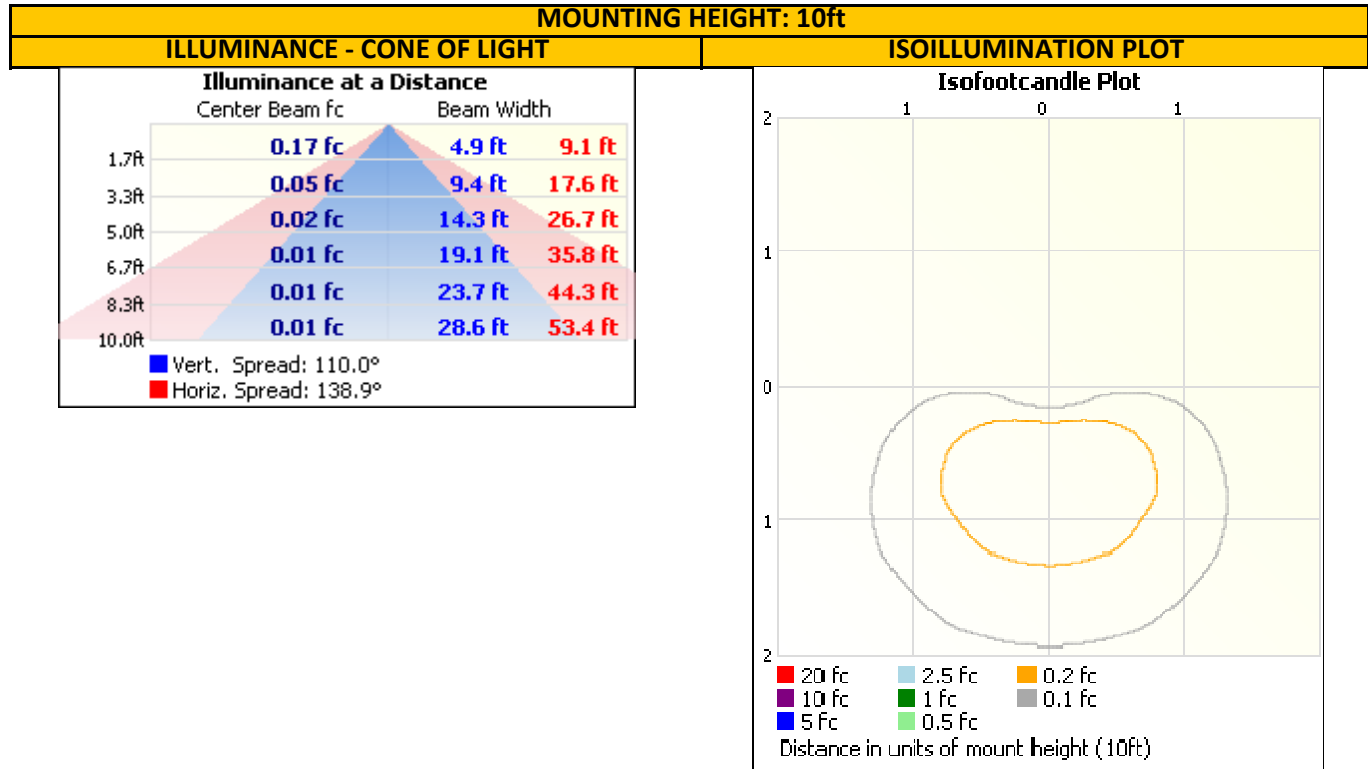
TEST REPORT

REPORT NO.: 103703321CRT-066

REPORT DATE: February 26, 2019

RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	11.5	2.4
0-40	28.1	5.8
0-60	90.5	18.7
60-90	153.3	31.6
0-90	243.8	50.3
90-180	240.8	49.7
0-180	484.6	100.0

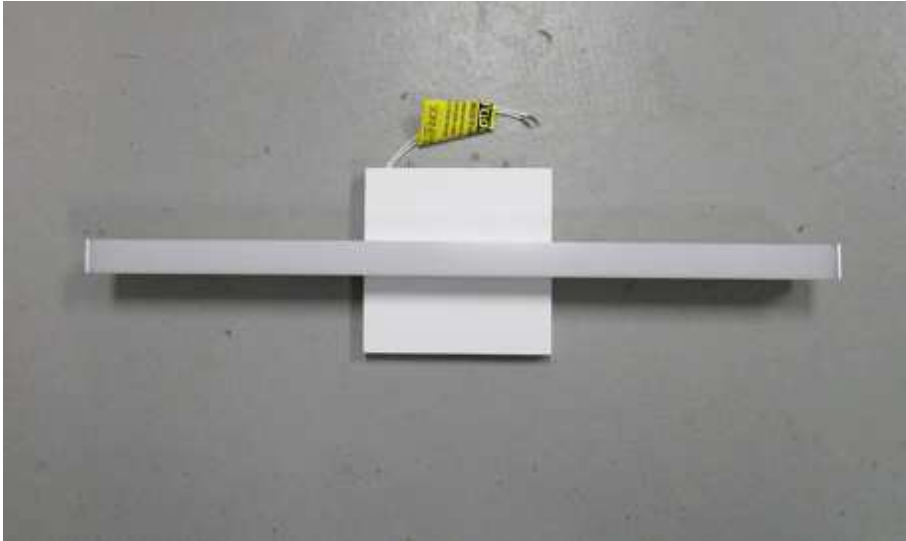
ZONE	LUMENS	% LUMINAIRE
0-10	0.3	0.1
10-20	2.8	0.6
20-30	8.4	1.7
30-40	16.6	3.4
40-50	26.2	5.4
50-60	36.2	7.5
60-70	45.2	9.3
70-80	52.2	10.8
80-90	55.9	11.5
90-100	55.9	11.5
100-110	52.0	10.7
110-120	44.8	9.2
120-130	35.6	7.4
130-140	25.6	5.3
140-150	16.0	3.3
150-160	8.0	1.6
160-170	2.6	0.5
170-180	0.3	0.1

TEST REPORT

REPORT NO.: 103703321CRT-066

REPORT DATE: February 26, 2019

PICTURES



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:

Gerald Gray
Associate Engineer
Lighting Division

Report Reviewed By:

Jeff Davis
Engineering Supervisor
Lighting Division

Attachments: .IES File

REVISION HISTORY

JOB NUMBER	DATE OF REVISION	PROJECT HANDLER	REVIEWED BY	REVISION NOTE
None				