

SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

23QxxL120B120PHA

PROJECT NUMBER

G104393027

REPORT NUMBER

104393027CRT-045

ISSUE DATE

8/11/2021

REVISED DATE

None

TEST DATES

8/10/2021

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104393027CRT-045

MODEL NUMBER(s)

23QXXL120B120PHA

REPORT RENDERED TO:

SONNEMAN - A WAY OF LIGHT
151 AIRPORT DRIVE
WAPPINGERS FALLS, NY 12590
USA

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-01089188-0.

TEST STANDARDS


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

In Charge of Testing:

Reviewer:



Gerald Gray
Associate Engineer
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Melanie Brittain
Senior Associate Engineer
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SAMPLE INFORMATION

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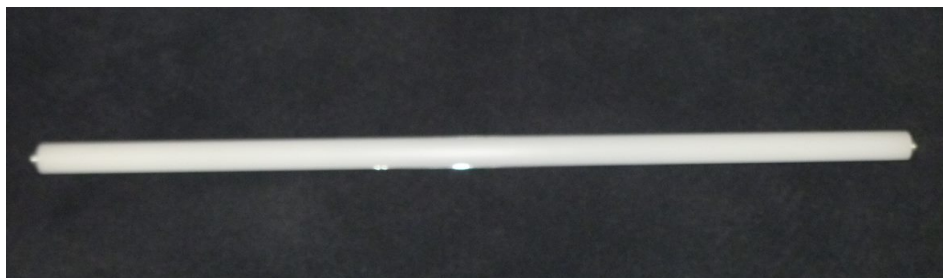
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	CRT2107191345-015	23QxxL120B120PHA	Purolinear360 24" Single Linear LED Wall Bar	Production	7/19/2021
xx denotes exterior finish and does not impact performance.					

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	23QxxL120B120PHA	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	23QxxL120B120PHA
Product Description:	Purolinear360 24" Single Linear LED Wall Bar
LED Model No.:	Not Provided
Driver Model No.:	LTF DS25W24VBF1UD
Light Source:	LED

Criteria	Results
Light Output (lumens)	542.4
Input Power (W) @ 120 (Vac)	9.71
Lumen Efficacy (lm/W)	55.9
Input Power Factor () @ 120 (Vac)	0.944

TEST METHODS

SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with IESNA LM-79.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	23QxxL120B120PHA	NA

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

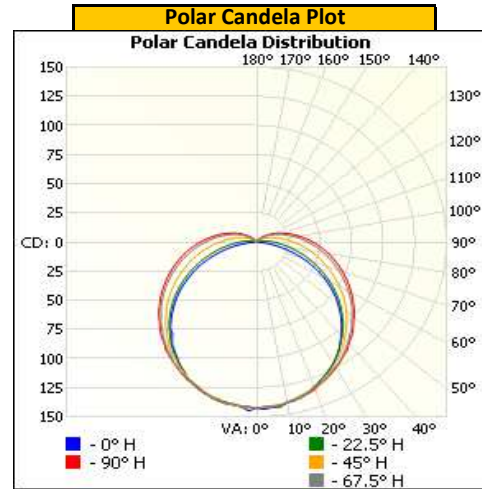
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Horizontal	120.02	85.7	9.71	0.944

Light Output (lm)	Lumen Efficacy (lm/W)
542.4	55.9

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	142	142	142	142	142
5	142	142	142	142	141
10	140	140	140	140	139
15	137	136	137	138	138
20	133	132	133	133	135
25	127	127	128	130	130
30	121	121	122	124	125
35	113	113	116	119	120
40	104	105	108	112	113
45	95	96	100	106	108
50	84	87	92	98	100
55	73	77	84	92	93
60	62	66	75	84	86
65	49	56	67	76	79
70	37	45	58	68	72
75	24	35	50	61	65
80	12	27	43	54	58
85	3	19	36	47	51
90	0	13	29	40	44
95	0	9	24	34	38
100	0	6	19	29	32
105	0	4	15	24	27
110	0	2	11	19	22
115	0	2	8	15	18
120	0	1	6	12	14
125	0	0	4	9	11
130	0	0	3	6	8
135	0	0	2	4	5
140	0	0	1	3	3
145	0	0	0	1	2
150	0	0	0	0	1
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

Entire luminous intensity matrix found in .IES file



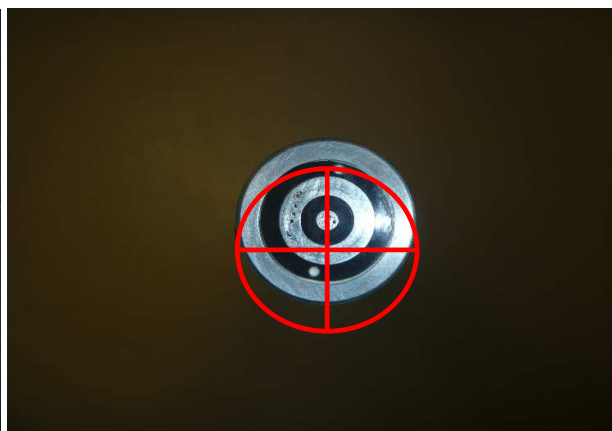
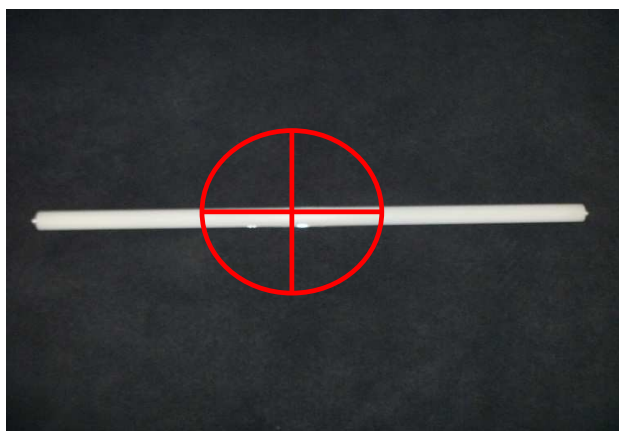
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ORIENTATION AND ALIGNMENT OF EUT

Luminous Opening		
Length (ft)	Width (ft)	Height (ft)
1.93	0.06	0.00
0°-180° H	90°-270° H	0°-180° V

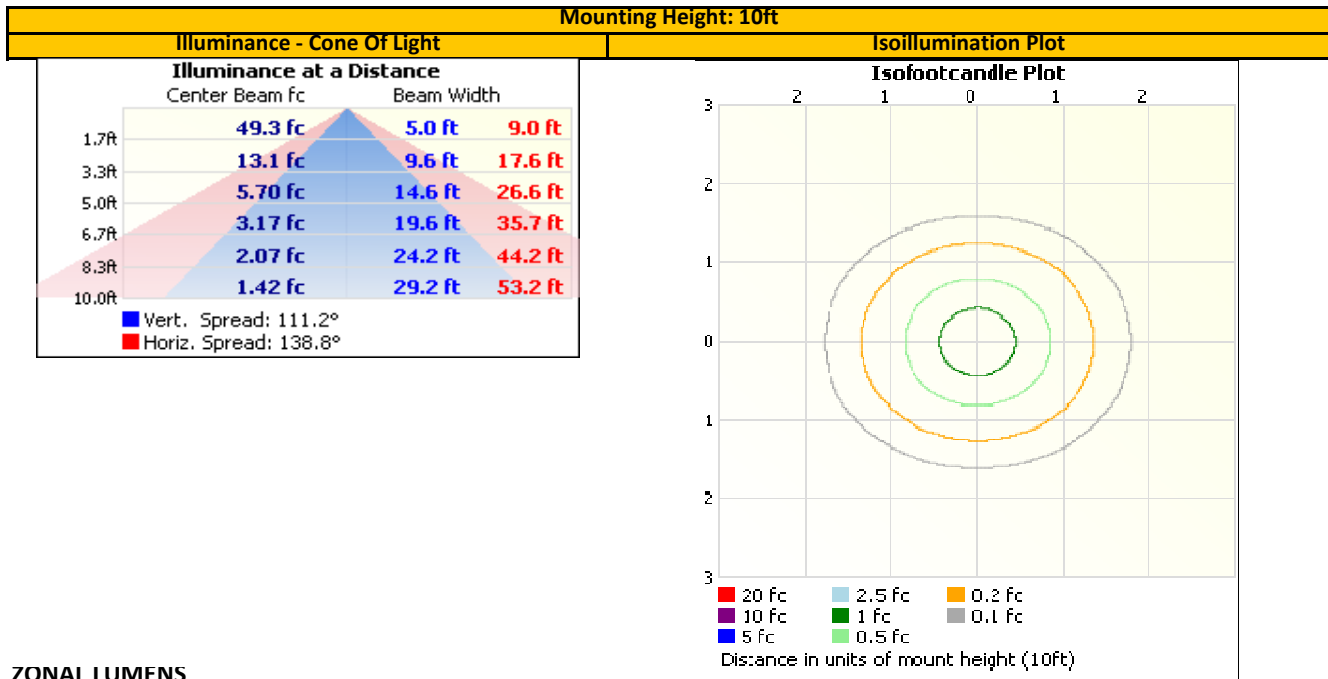
Test Distance (ft)
29.6

PHOTOMETRIC CENTER OF EUT



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	111.5	20.6%	90-100	23.6	4.3%
0-40	184.3	34.0%	100-110	14.8	2.7%
0-60	337.7	62.3%	110-120	8.5	1.6%
60-90	151.7	28.0%	120-130	4.2	0.8%
70-100	110.0	20.3%	130-140	1.6	0.3%
90-120	46.8	8.6%	140-150	0.4	0.1%
0-90	489.4	90.2%	150-160	0.0	0.0%
90-180	53.0	9.8%	160-170	0.0	0.0%
0-180	542.4	100.0%	170-180	0.0	0.0%

EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI High Speed Mirror Goniophotometer	6440	---	5/14/2021	8/14/2021
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Yokogawa Power Analyzer	WT210	E464	5/11/2021	5/11/2022
4	Traceable Hygrothermometer	4800	L204	2/21/2021	2/21/2022
5	Sorenson DC Power Supply	XG 150-10	---	VBU	VBU
6	Omega Thermometer	DPI8-C24	M263	3/23/2021	3/23/2022
7	Bosch Distance Laser	Pro GLM 20	L211	3/3/2021	3/3/2022
8	M-D Building Products Digital Level	Smart Tool	L112	5/26/2021	5/26/2022

REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
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