

# SONNEMAN - A WAY OF LIGHT

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

1XDXXLC36W-18

### PROJECT NUMBER

G106005580

### REPORT NUMBER

106005580CRT-011

### ISSUE DATE

6/4/2025

### REVISION DATE

None

### TEST DATES

6/4/2025

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

106005580CRT-011

**MODEL NUMBER(s)**

1XDXXLC36W-18

**REPORT RENDERED TO:**

SONNEMAN - A WAY OF LIGHT  
103 TOWER DRIVE  
MIDDLETOWN, NY 10941  
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 U.S. government.

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-01491297-0.

**TEST STANDARDS**


ANSI/IES LM-79-19: Optical and Electrical Measurements of Solid State Lighting Products

In Charge of Testing:

Reviewer:



Kristie Ray  
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**SAMPLE INFORMATION**

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**ITEMS RECEIVED**

Item No.	Control No.	Model No.	Description	Type	Received Date	Sampling Date
1	CRT2505201423-003	1XDXXLC36W-18	36" Light Curve Luminaire w/18" Height	Production	5/20/2025	N/A
2	CRT2505201423-007-005	LTF TA60WA24LED65B15	Driver	Production	5/20/2025	N/A
3	CRT2505201423-007-006	1XC01XX48K	48" Linear Power Bar	Production	5/20/2025	N/A

**TESTED SAMPLE CONFIGURATIONS**

Config No.	Tested Model No.	Item Nos. Utilized
1	1XDXXLC36W-18	1,2,3

**SAMPLE PHOTOS**



**SUMMARY**

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**PRODUCT INFORMATION AND SUMMARY OF DATA**

Test Configuration 1	
Product Model No.:	1XDXXLC36W-18
Product Description:	36" Light Curve Luminaire w/18" Height
LED Model No.:	Proprietary
Driver Model No.:	LTF TA60WA24LED65B15

Criteria	Results
Light Output (lumens)	324.0
Input Power (W) @ 120 (Vac)	14.76
Luminous Efficacy (lm/W)	22.0
Input Power Factor (I) @ 120 (Vac)	0.959

**TEST METHODS**

**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

No seasoning was performed in accordance with ANSI/IES LM-79-19

**DUT SAMPLING METHOD**

For testing plans, program requirements, or shipments requiring sampling of DUTs or components, the selections for each test were random. All samples are marked with control numbers regardless of being tested.

**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 DUT. Electrical measurements of the unit were measured using a power analyzer. Each DUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature and relative humidity was measured at 25°C ± 1.2°C and 10-65% respectively at a position within 1.5m and at equal height of the DUT. Stabilization procedures to LM-79-19 were followed. The test distance was ≥ 5x the longest luminous dimension of the DUT.

ANSI/IES Technical Memorandums (TM) reported are not NVLAP accredited

**TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING**

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	1XDXXLC36W-18	NA

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS**

Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.08	128.1	14.76	0.959

Light Output (lm)	Efficacy (lm/W)
324.0	22.0

**LUMINOUS INTENSITY SUMMARY (candela)**

Vertical	Horizontal					Polar Candela Plot
Angle (°)	0	22.5	45	67.5	90	
0	28	28	28	28	28	
5	29	28	29	29	29	
10	28	28	30	30	31	
15	28	29	31	32	32	
20	28	30	32	34	35	
25	27	30	33	36	37	
30	27	30	35	38	39	
35	27	31	36	39	41	
40	26	31	37	41	42	
45	26	31	37	42	44	
50	25	30	37	43	44	
55	24	30	38	44	46	
60	23	29	38	43	46	
65	21	29	37	44	46	
70	20	28	37	43	45	
75	19	27	36	42	45	
80	18	26	35	41	44	
85	17	25	33	40	43	
90	15	23	32	39	41	
95	14	21	30	37	39	
100	12	20	29	35	37	
105	11	18	26	33	34	
110	9	17	24	30	32	
115	8	15	22	27	29	
120	6	13	20	25	27	
125	5	12	18	23	24	
130	4	10	16	20	22	
135	3	9	14	18	19	
140	2	7	12	15	16	
145	2	6	10	13	14	
150	1	4	8	11	11	
155	1	3	6	8	9	
160	1	2	4	6	7	
165	0	2	3	4	5	
170	0	1	2	2	3	
175	0	1	1	1	1	
180	0	0	0	0	0	

Full luminous intensity matrix found in .IES file

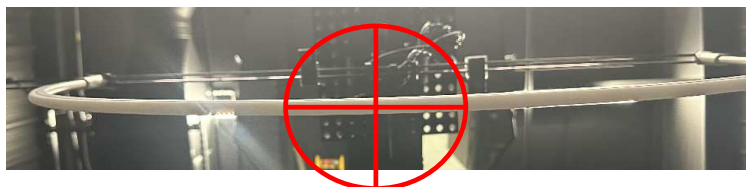
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**ORIENTATION AND ALIGNMENT OF DUT**

Luminous Opening		
Length (ft)	Width (ft)	Height (ft)
3.08	0.03	1.52
0°-180° H	90°-270° H	0°-180° V

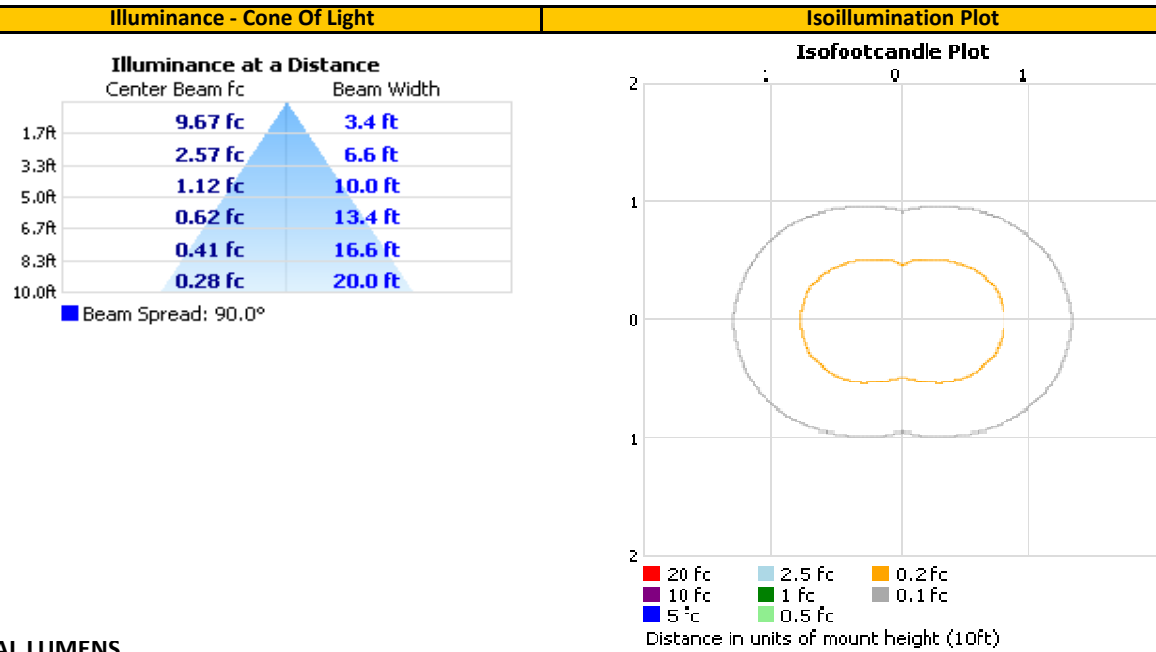
Test Distance (ft)
29.2

**PHOTOMETRIC CENTER OF DUT**



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## ILLUMINANCE SUMMARY



## ZONAL LUMENS

### Zonal Lumen Summary

Zone (°)	Lumens	Luminaire
0-30	26.6	8.2%
0-40	48.4	14.9%
0-60	108.3	33.4%
60-90	105.0	32.4%
70-100	100.8	31.1%
90-120	77.0	23.8%
0-90	213.3	65.8%
90-180	110.8	34.2%
0-180	324.0	100.0%

Zone (°)	Lumens	Total	Zone (°)	Lumens	Total
0-10	2.7	0.8%	90-100	30.8	9.5%
10-20	8.7	2.7%	100-110	25.9	8.0%
20-30	15.2	4.7%	110-120	20.3	6.3%
30-40	21.8	6.7%	120-130	14.8	4.6%
40-50	27.7	8.5%	130-140	9.8	3.0%
50-60	32.2	10.0%	140-150	5.6	1.7%
60-70	35.0	10.8%	150-160	2.6	0.8%
70-80	35.7	11.0%	160-170	0.8	0.3%
80-90	34.3	10.6%	170-180	0.1	0.0%

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**UNIFIED GLARE RATING (UGR) SUMMARY**

Reflectances					
Ceiling Cavity	70	70	50	50	30
Walls	50	30	50	30	30
Floor Cavity	20	20	20	20	20

Room Size	
X=2H	Y=2H
	3H
	4H
	6H
	8H
	12H

UGR Viewed Crosswise				
0.0	1.2	0.8	2.1	3.1
2.0	3.1	2.8	4.0	5.0
2.9	3.9	3.7	4.8	5.8
3.7	4.7	4.5	5.5	6.6
4.0	5.0	4.9	5.9	6.9
4.4	5.3	5.2	6.2	7.2

4H	2H
	3H
	4H
	6H
	8H
	12H

1.8	2.9	2.6	3.7	4.8
3.9	4.9	4.8	5.7	6.8
4.9	5.8	5.7	6.6	7.7
5.8	6.6	6.6	7.5	8.5
6.2	6.9	7.0	7.8	8.9
6.5	7.2	7.4	8.1	9.2

8H	4H
	6H
	8H
	12H

6.2	7.0	7.1	7.8	8.9
7.3	7.9	8.2	8.9	10.0
7.8	8.4	8.7	9.3	10.4
8.3	8.8	9.2	9.7	10.9

12H	4H
	6H
	8H

6.6	7.3	7.5	8.2	9.3
7.8	8.4	8.7	9.3	10.5
8.5	9.0	9.3	9.9	11.0

Room Size	
X=2H	Y=2H
	3H
	4H
	6H
	8H
	12H

UGR Viewed Endwise				
6.7	7.9	7.4	8.7	9.7
10.2	11.4	11.0	12.2	13.2
12.1	13.2	12.9	14.0	15.1
14.1	15.1	14.9	16.0	17.0
15.2	16.2	16.0	17.0	18.1
16.4	17.3	17.2	18.2	19.3

4H	2H
	3H
	4H
	6H
	8H
	12H

6.8	7.9	7.6	8.7	9.7
10.5	11.4	11.3	12.3	13.3
12.4	13.3	13.3	14.2	15.3
14.6	15.3	15.4	16.2	17.3
15.7	16.4	16.6	17.3	18.4
17.0	17.7	17.8	18.6	19.7

8H	4H
	6H
	8H
	12H

12.5	13.2	13.4	14.1	15.2
14.7	15.4	15.6	16.3	17.4
15.9	16.5	16.8	17.4	18.5
17.3	17.8	18.2	18.7	19.9

12H	4H
	6H
	8H

12.5	13.2	13.3	14.1	15.2
14.7	15.3	15.6	16.2	17.4
16.0	16.5	16.9	17.4	18.6

Maximum UGR	
	19.9



**EQUIPMENT LIST**

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI Type C Goniophotometer System	6440	---	4/21/2025	7/20/2025
2	Elgar AC Power Supply	CW1251	---	VBV	VBV
3	Yokogawa Power Analyzer	WT210	E464	6/12/2024	6/12/2025
4	Testo Hygrothermometer	608-H1	L285	5/8/2025	5/8/2026
5	Omega Thermometer	DPI8-C24	M263	3/13/2025	3/13/2026
6	Tape Measure	Crescent	L288	12/9/2024	12/9/2027

The AC power supplies used for testing have a crest factor capable of 0-3.5

**REVISION HISTORY**

#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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