

SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

1XDXXLC36W-24

PROJECT NUMBER

G106005580

REPORT NUMBER

106005580CRT-012

ISSUE DATE

6/4/2025

REVISION DATE

None

TEST DATES

6/4/2025

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

© 2017 INTERTEK



WARNING: This document may contain information subject to EAR99.
Diversion contrary to US law is prohibited.

REPORT NUMBER

106005580CRT-012

MODEL NUMBER(s)

1XDXXLC36W-24

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
Team Lead, Engineering
Lighting Division



Melanie Brittain
SeniAssociate Engineer
Lighting Division

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.

SAMPLE INFORMATION

REPORT NO. 106005580CRT-012

ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received Date	Sampling Date
1	CRT2505201423-001	1XDXXLC36W-24	36" Light Curve Luminaire w/24" 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-24	1,2,3

SAMPLE PHOTOS



SUMMARY

REPORT NO. 106005580CRT-012

PRODUCT INFORMATION AND SUMMARY OF DATA

Test Configuration 1	
Product Model No.:	1XDXXLC36W-24
Product Description:	36" Light Curve Luminaire w/24" Height
LED Model No.:	Proprietary
Driver Model No.:	LTF TA60WA24LED65B15

Criteria	Results
Light Output (lumens)	365.9
Input Power (W) @ 120 (Vac)	16.82
Luminous Efficacy (lm/W)	21.8
Input Power Factor () @ 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

REPORT NO. 106005580CRT-012

Test Configuration	Tested Model No.	Pass/Fail/NA
1	1XDXL36W-24	NA

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS

Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.05	146.0	16.82	0.959

Light Output (lm)	Efficacy (lm/W)
365.9	21.8

LUMINOUS INTENSITY SUMMARY (candela)

Vertical	Horizontal					Polar Candela Plot
Angle (°)	0	22.5	45	67.5	90	
0	27	27	27	27	27	
5	27	28	28	28	28	
10	28	28	29	30	30	
15	28	29	31	32	33	
20	28	30	33	35	36	
25	28	31	35	37	39	
30	28	32	37	40	41	
35	28	33	38	42	44	
40	28	33	39	44	46	
45	28	34	41	46	48	
50	27	34	41	47	49	
55	27	34	42	48	50	
60	26	33	42	48	51	
65	26	33	42	48	51	
70	24	32	41	48	51	
75	23	31	41	48	50	
80	22	30	40	46	50	
85	21	29	39	45	48	
90	19	27	37	44	46	
95	18	26	35	42	44	
100	16	24	33	40	42	
105	15	22	31	37	39	
110	13	20	29	35	36	
115	11	18	26	32	34	
120	9	17	24	29	31	
125	7	15	22	26	28	
130	6	13	19	24	25	
135	4	11	17	21	22	
140	3	9	14	18	19	
145	2	7	12	15	16	
150	2	5	9	13	13	
155	1	4	7	10	11	
160	1	3	5	7	8	
165	1	2	4	4	6	
170	0	1	2	2	4	
175	0	1	1	1	1	
180	0	0	0	0	0	

Full luminous intensity matrix found in .IES file

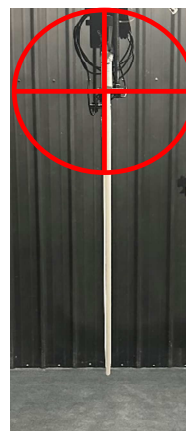
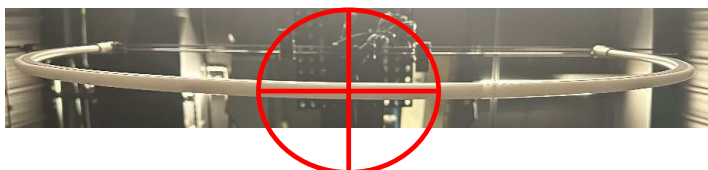
REPORT NO. 106005580CRT-012

ORIENTATION AND ALIGNMENT OF DUT

Luminous Opening		
Length (ft)	Width (ft)	Height (ft)
3.07	0.03	2.02
0°-180° H	90°-270° H	0°-180° V

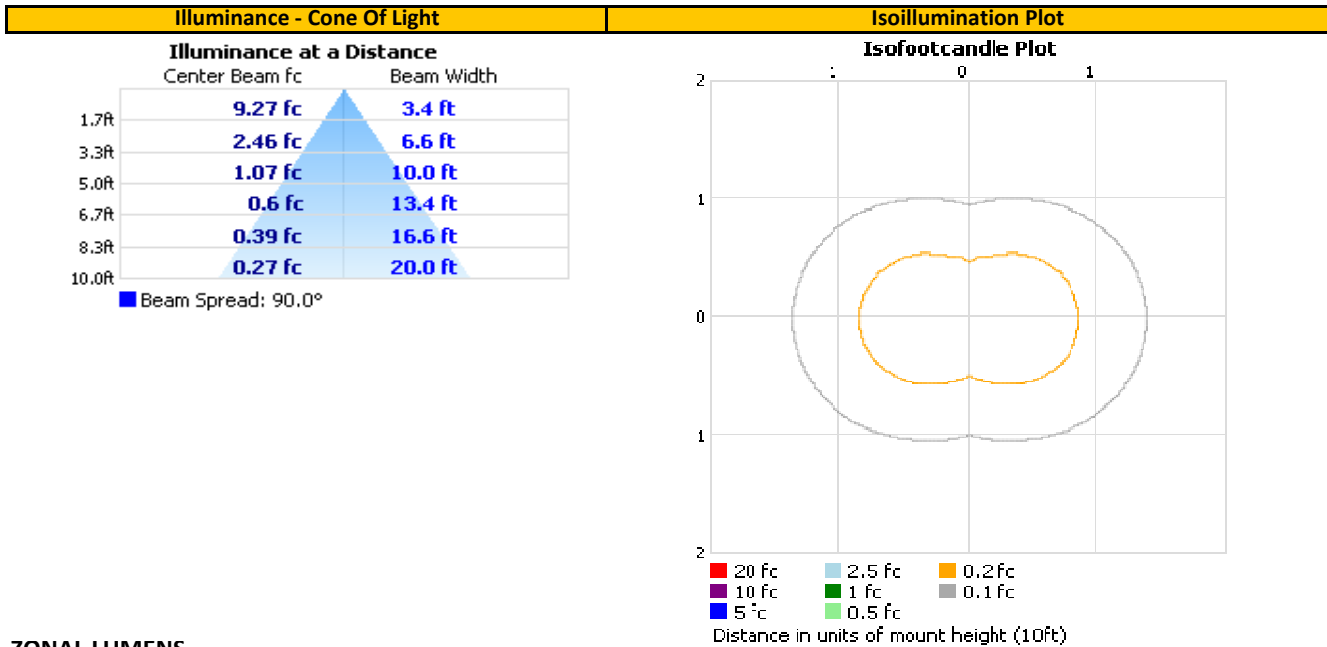
Test Distance (ft)
29.2

PHOTOMETRIC CENTER OF DUT



REPORT NO. 106005580CRT-012

ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone (°)	Lumens	Luminaire	Zone (°)	Lumens	Total
0-30	27.1	7.4%	90-100	35.7	9.8%
0-40	50.3	13.7%	100-110	30.4	8.3%
0-60	116.0	31.7%	110-120	24.1	6.6%
60-90	119.2	32.6%	120-130	17.7	4.8%
70-100	115.6	31.6%	130-140	11.8	3.2%
90-120	90.2	24.7%	140-150	6.8	1.8%
0-90	235.2	64.3%	150-160	3.2	0.9%
90-180	130.8	35.7%	160-170	1.0	0.3%
0-180	365.9	100.0%	170-180	0.1	0.0%

REPORT NO. 106005580CRT-012

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	0.1	0.0	1.0	2.0
1.1	2.2	1.9	3.1	4.1
2.1	3.1	2.9	4.0	5.1
3.0	4.0	3.9	4.9	6.0
3.4	4.4	4.3	5.3	6.4
3.8	4.7	4.7	5.6	6.7

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

0.6	1.7	1.4	2.5	3.6
2.9	3.9	3.8	4.7	5.8
4.0	4.9	4.9	5.7	6.9
5.0	5.8	5.9	6.7	7.8
5.5	6.2	6.3	7.1	8.2
5.9	6.6	6.8	7.5	8.6

8H	4H
	6H
	8H
	12H

5.2	5.9	6.1	6.8	8.0
6.4	7.0	7.3	8.0	9.1
7.0	7.6	7.9	8.5	9.7
7.6	8.1	8.5	9.0	10.2

12H	4H
	6H
	8H

5.6	6.2	6.4	7.1	8.3
6.9	7.5	7.8	8.4	9.6
7.6	8.1	8.5	9.0	10.2

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

UGR Viewed Endwise				
4.1	5.3	4.9	6.2	7.2
7.5	8.6	8.3	9.5	10.5
9.2	10.2	10.0	11.1	12.2
10.9	11.9	11.8	12.8	13.9
11.8	12.7	12.6	13.6	14.7
12.7	13.6	13.5	14.5	15.6

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

4.4	5.4	5.2	6.3	7.4
7.9	8.9	8.8	9.7	10.8
9.8	10.6	10.6	11.5	12.6
11.7	12.4	12.5	13.3	14.5
12.6	13.4	13.5	14.3	15.4
13.6	14.3	14.5	15.2	16.4

8H	4H
	6H
	8H
	12H

9.9	10.6	10.8	11.5	12.7
12.0	12.6	12.9	13.5	14.7
13.1	13.6	13.9	14.6	15.7
14.2	14.7	15.1	15.7	16.9

12H	4H
	6H
	8H

9.9	10.6	10.8	11.5	12.6
12.0	12.6	12.9	13.5	14.7
13.1	13.7	14.0	14.6	15.8

Maximum UGR	
16.9	

EQUIPMENT LIST

REPORT NO. 106005580CRT-012

#	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	---	---	---
---	---	---	---	---
---	---	---	---	---