

# LIGHTING SERVICES INC

## TEST REPORT

**SCOPE OF WORK**

LED Performance Testing

**MODEL NUMBER**

LZ-C0619-8030ZM-PT2-TE120W

**PROJECT NUMBER**

G104351874

**REPORT NUMBER**

104351874CRT-001

**ISSUE DATE**

6/10/2020

**REVISED DATE**

None

**TEST DATES**

6/9/2020

**DOCUMENT CONTROL NUMBER**

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

104351874CRT-001

**MODEL NUMBER(s)**

LZ-C0619-8030ZM-PT2-TE120W

**REPORT RENDERED TO:**

LIGHTING SERVICES INC  
2 HOLT DRIVE  
STONY POINT, NY 10980

**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-01080631-0.

**TEST STANDARDS**

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

In Charge of Testing:

Reviewer:



Melanie Brittain  
Senior Associate Engineer  
Lighting Division

Ryan Siddon  
Manager, Operations & Engineering  
Lighting Division

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## SAMPLE INFORMATION

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### ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	CRT2006011048-001	LZ-C0619-8030ZM-PT2-TE120W	LED Track Light 5°	Production	6/1/2020

### SAMPLE PHOTOS - TESTED CONFIGURATIONS



**SUMMARY****REPORT NO. 104351874CRT-001****PRODUCT INFORMATION AND SUMMARY OF DATA**

Product Model No.:	LZ-C0619-8030ZM-PT2-TE120W
Product Description:	LED Track Light
LED Model No.:	Cree CXB1310
Driver Model No.:	Magtech MD22
Light Source:	LED

Criteria	Results
Light Output (lumens)	482.4
Input Power (W) @ 120 (Vac)	19.57
Lumen Efficacy (lm/W)	24.65
Input Power Factor () @ 120 (Vac)	0.995

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

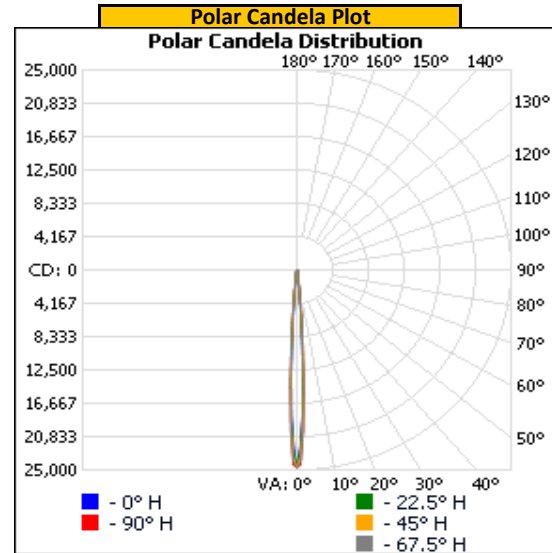
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.01	164.0	19.57	0.995

Light Output (lm)	Lumen Efficacy (lm/W)
482.4	24.6

### INTENSITY SUMMARY - CANDELA

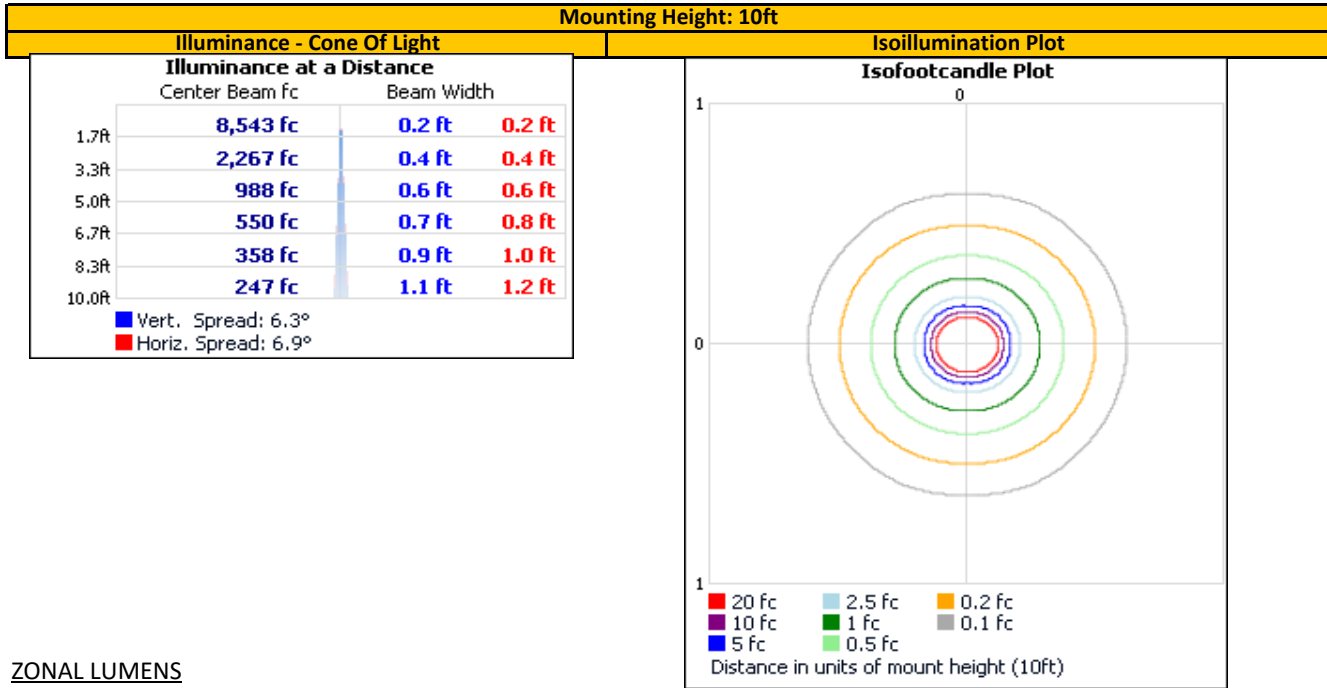
Angle	0	22.5	45	67.5	90
0	24688	24688	24688	24688	24688
5	4537	4941	5467	5759	5525
10	381	409	440	445	431
15	119	122	127	128	126
20	64	65	66	66	66
25	33	34	34	33	33
30	19	19	19	19	19
35	14	15	14	13	13
40	11	11	11	10	10
45	7	6	6	6	6
50	1	1	1	1	1
55	0	0	0	0	0
60	0	0	0	0	0
65	0	0	0	0	0
70	0	0	0	0	0
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0
95	0	0	0	0	0
100	0	0	0	0	0
105	0	0	0	0	0
110	0	0	0	0	0
115	0	0	0	0	0
120	0	0	0	0	0
125	0	0	0	0	0
130	0	0	0	0	0
135	0	0	0	0	0
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
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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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire			
0-30	468.8	97.2%			
0-40	477.7	99.0%			
0-60	482.4	100.0%			
60-90	0.0	0.0%			
70-100	0.0	0.0%			
90-120	0.0	0.0%			
0-90	482.4	100.0%			
90-180	0.0	0.0%			
0-180	482.4	100.0%			
Zone	Lumens	Total	Zone	Lumens	Total
0-10	411.7	85.4%	90-100	0.0	0.0%
10-20	40.8	8.5%	100-110	0.0	0.0%
20-30	16.2	3.4%	110-120	0.0	0.0%
30-40	8.9	1.8%	120-130	0.0	0.0%
40-50	4.7	1.0%	130-140	0.0	0.0%
50-60	0.1	0.0%	140-150	0.0	0.0%
60-70	0.0	0.0%	150-160	0.0	0.0%
70-80	0.0	0.0%	160-170	0.0	0.0%
80-90	0.0	0.0%	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 Goniometer	6440	---	5/21/2020	6/21/2020
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Yokogawa Power Analyzer	WT210	E464	5/11/2020	5/11/2021
4	Omega Thermometer	DPi8-C24	M263	2/27/2020	2/27/2021
5	M-D Building Products Digital Level	Smart Tool	E499	6/27/2019	6/27/2020
6	NIST Luminous Intensity Standard Source	NBS10322	N1427	2/11/2019	2/11/2021
7	NIST Luminous Intensity Standard Source	NBS10332	N1435	2/11/2019	2/11/2021
8	NIST Luminous Intensity Standard Source	NBS10265	N1437	2/11/2019	2/11/2021
9	NIST Luminous Flux Standard Source	NBS10428	N1424	1/3/2019	1/3/2021
10	Sorenson DC Power Supply	XG 150-10	---	VBU	VBU

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

**REVISION HISTORY**

#	Revision Date	Updated By	Reviewed By	Description of Change
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