

CONTEMPORARY VISIONS, LLC DBA SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

25FN4RBVSTSK2700FLCFSKV1 (500mA)

PROJECT NUMBER

G104629313

REPORT NUMBER

104629313CRT-085

ISSUE DATE

4/30/2021

REVISED DATE

None

TEST DATES

4/29/2021

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104629313CRT-085

MODEL NUMBER(s)

25FN4RBVSTSK2700FLCF5KV1 (500MA)

REPORT RENDERED TO:

CONTEMPORARY VISIONS, LLC DBA SONNEMAN - A WAY OF LIGHT
20 NORTH AVE
LARCHMONT, NY 10538-2463
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-01145763-1.

TEST STANDARDS

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

In Charge of Testing:



Kristie Ray
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Reviewer:



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SAMPLE INFORMATION

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Aperture	Power	Finish	Nominal CCT	Regress
4"	500mA	Satin Black	2700K	Standard

ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Shape/ Style	Type	Received
1	CRT2103221293-002-036	25L42700V1	Light Engine	N/A	Production	3/22/2021
2	CRT2103221293-002-048	PHB30W-0500-42 @ 500mA	Driver	N/A	Production	3/22/2021
3	CRT2103221293-002-015	25O4FL	Primary Optic	Flood	Production	3/22/2021
4	CRT2103221293-002-034	25T4RBVSTSK	Trim	Round Bevel	Production	3/22/2021
5	CRT2103221293-002-054	25F4RCFSK	Ring	N/A	Production	3/22/2021
6	CRT2103221293-002-023	25R4R	Reject Plate	N/A	Production	3/22/2021
7	CRT2103231335-003	25HICCP	Housing	N/A	Production	3/23/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	25FN4RBVSTSK2700FLCFSKV1 (500mA)	1-7

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	25FN4RBVSTSK2700FLCF SKV1 (500mA)
Product Description:	Recessed Downlight
LED Model No.:	Cree CXB1820
Driver Model No.:	ERP PHB30W-0500-42
Light Source:	LED

Criteria	Results
Light Output (lumens)	1733.2
Input Power (W) @ 120 (Vac)	20.43
Lumen Efficacy (lm/W)	84.86
Input Power Factor () @ 120 (Vac)	0.990

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	25FN4RBVSTSK2700FLCF5KV1 (500mA)	NA

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

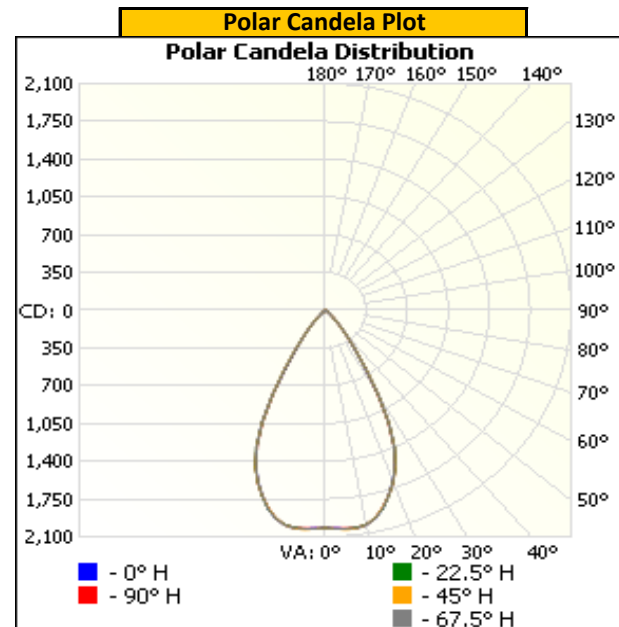
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (f)
Up	120.01	171.9	20.43	0.990

Light Output (lm)	Lumen Efficacy (lm/W)
1733.2	84.9

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	2017	2017	2017	2017	2017
5	2034	2035	2038	2031	2028
10	2020	2016	2020	2018	2015
15	1899	1899	1891	1898	1893
20	1686	1690	1690	1688	1694
25	1393	1393	1394	1383	1382
30	906	902	912	912	890
35	440	451	458	459	443
40	214	215	221	226	219
45	92	94	96	99	97
50	33	34	36	37	36
55	14	14	14	14	15
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



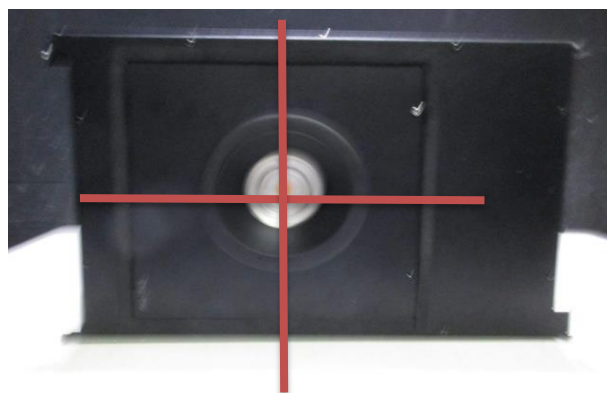
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ORIENTATION AND ALIGNMENT OF EUT

Luminous Opening		
Length (ft)	Width (ft)	Height (ft)
0.33	0.33	0.00
0°-180° H	90°-270° H	0°-180° V

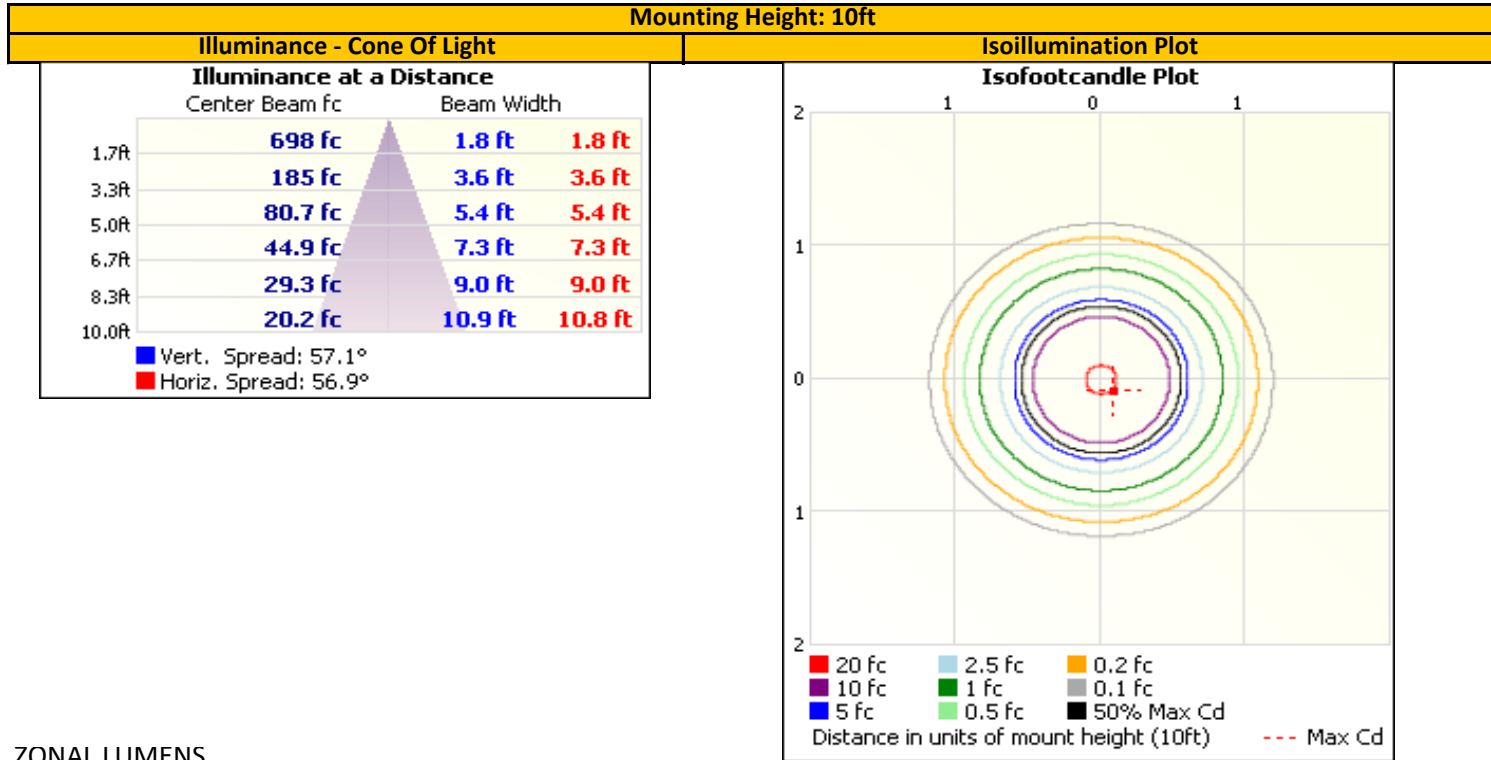
Test Distance (ft)
29.6

PHOTOMETRIC CENTER OF EUT



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	1,336.4	77.1%	0-10	193.7	11.2%
0-40	1,638.2	94.5%	10-20	527.5	30.4%
0-60	1,733.2	100.0%	20-30	615.3	35.5%
60-90	0.0	0.0%	30-40	301.8	17.4%
70-100	0.0	0.0%	40-50	81.3	4.7%
90-120	0.0	0.0%	50-60	13.7	0.8%
0-90	1,733.2	100.0%	60-70	0.0	0.0%
90-180	0.0	0.0%	70-80	0.0	0.0%
0-180	1,733.2	100.0%	80-90	0.0	0.0%
			90-100	0.0	0.0%
			100-110	0.0	0.0%
			110-120	0.0	0.0%
			120-130	0.0	0.0%
			130-140	0.0	0.0%
			140-150	0.0	0.0%
			150-160	0.0	0.0%
			160-170	0.0	0.0%
			170-180	0.0	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				
1.9	1.9	1.9	1.9	2.1
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

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

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

8H	4H
	6H
	8H
	12H

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

12H	4H
	6H
	8H

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

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

UGR Viewed Endwise				
1.9	1.9	1.9	1.9	2.2
1.9	1.9	1.9	1.9	2.0
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

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

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

8H	4H
	6H
	8H
	12H

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

12H	4H
	6H
	8H

1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9
1.9	1.9	1.9	1.9	1.9

Maximum UGR	
	2.2

EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI High Speed Mirror Goniophotometer	6440	---	4/15/2021	7/15/2021
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Yokogawa Power Analyzer	WT210	E464	5/11/2020	5/11/2021
4	Traceable Hygrothermometer	4800	L204	2/21/2021	2/21/2022
5	M-D Building Products Digital Level	Smart Tool	307-L112	5/14/2020	5/14/2021
6	Sorenson DC Power Supply	XG 150-10	---	VBU	VBU
7	Traceable Thermometer	4800	L204	2/12/2021	2/12/2022
8	Bosch Distance Laser	Pro GLM 20	L211	3/3/2021	3/3/2022

REVISION HISTORY

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