

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-250-VS-120-277-WW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-034

ISSUE DATE

2/19/2021

REVISED DATE

None

TEST DATES

02/08/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104357589CHI-034

MODEL NUMBER(s)

CF-250-VS-120-277-WW

REPORT RENDERED TO:

PHOENIX PRODUCTS LLC
8711 W PORT AVE.
MILWAUKEE, WI, 53224
USA

STATEMENT OF LIMITATION

NVLAP Lab Code 600186-0. 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-01080058-1.

TEST STANDARDS

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

In Charge of Testing:



Ian Smith
Engineer
Lighting Division

Reviewer:



Jeff Davis
NA Technical Lead
Lighting Division

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SAMPLE INFORMATION

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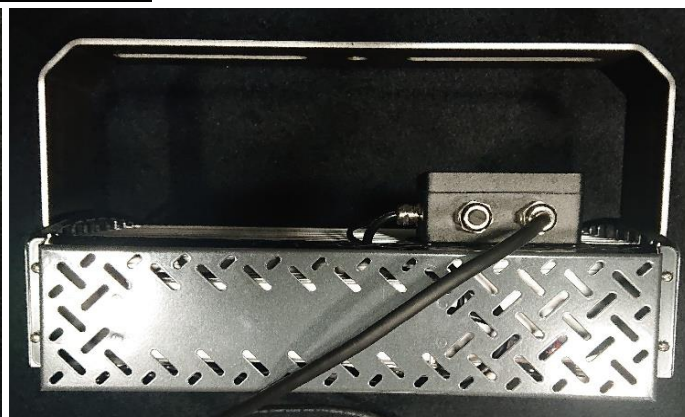
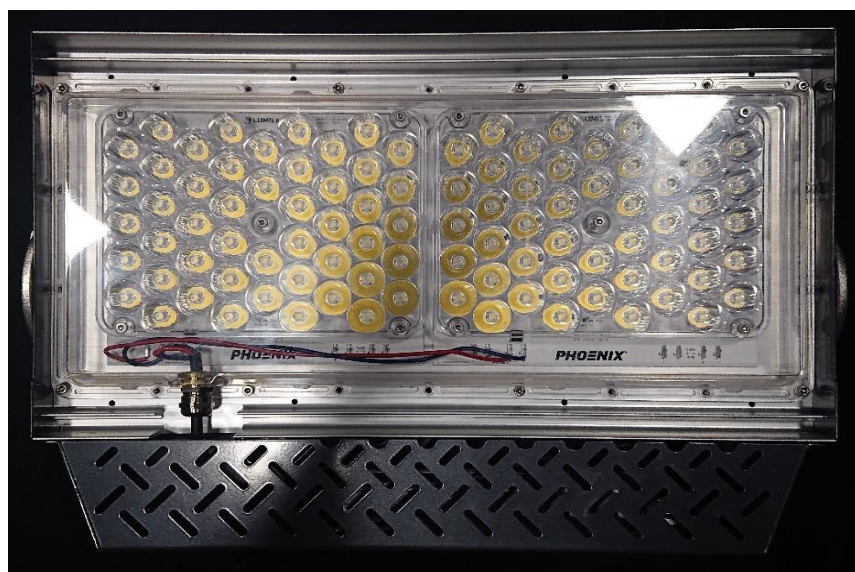
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH01272021125026	CF-250-VS-120-277-WW	Command Flood 250	Production	1/27/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	CF-250-VS-120-277-WW	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-250-VS-120-277-WW
Product Description:	Command Flood 250
LED Model No.:	Lumileds 5050
Driver Model No.:	Inventronics / EUM-240S350DT
Light Source:	LED

Criteria	Results
Light Output (lumens)	30959.4
Input Power (W) @ 120 (Vac)	236.96
Lumen Efficacy (lm/W)	130.7
Input Power Factor () @ 120 (Vac)	0.998

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	CF-250-VS-120-277-WW	NA

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

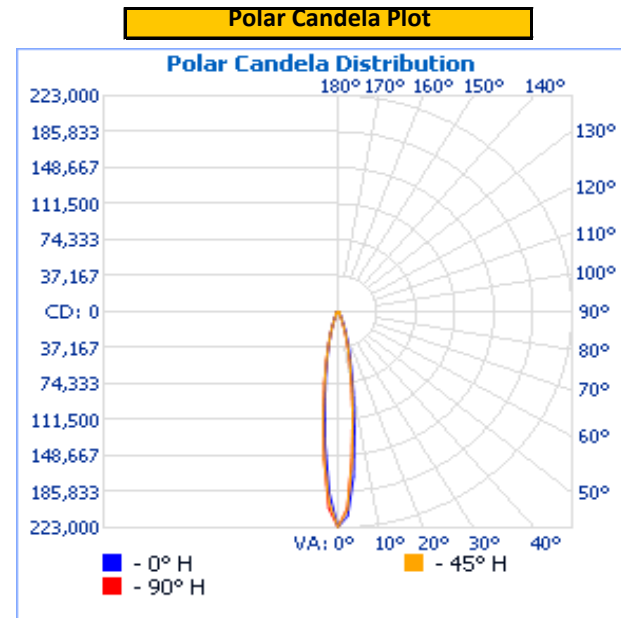
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.1	1977.0	236.96	0.998

Light Output (lm)	Lumen Efficacy (lm/W)
30959.4	130.7

INTENSITY SUMMARY - CANDELA

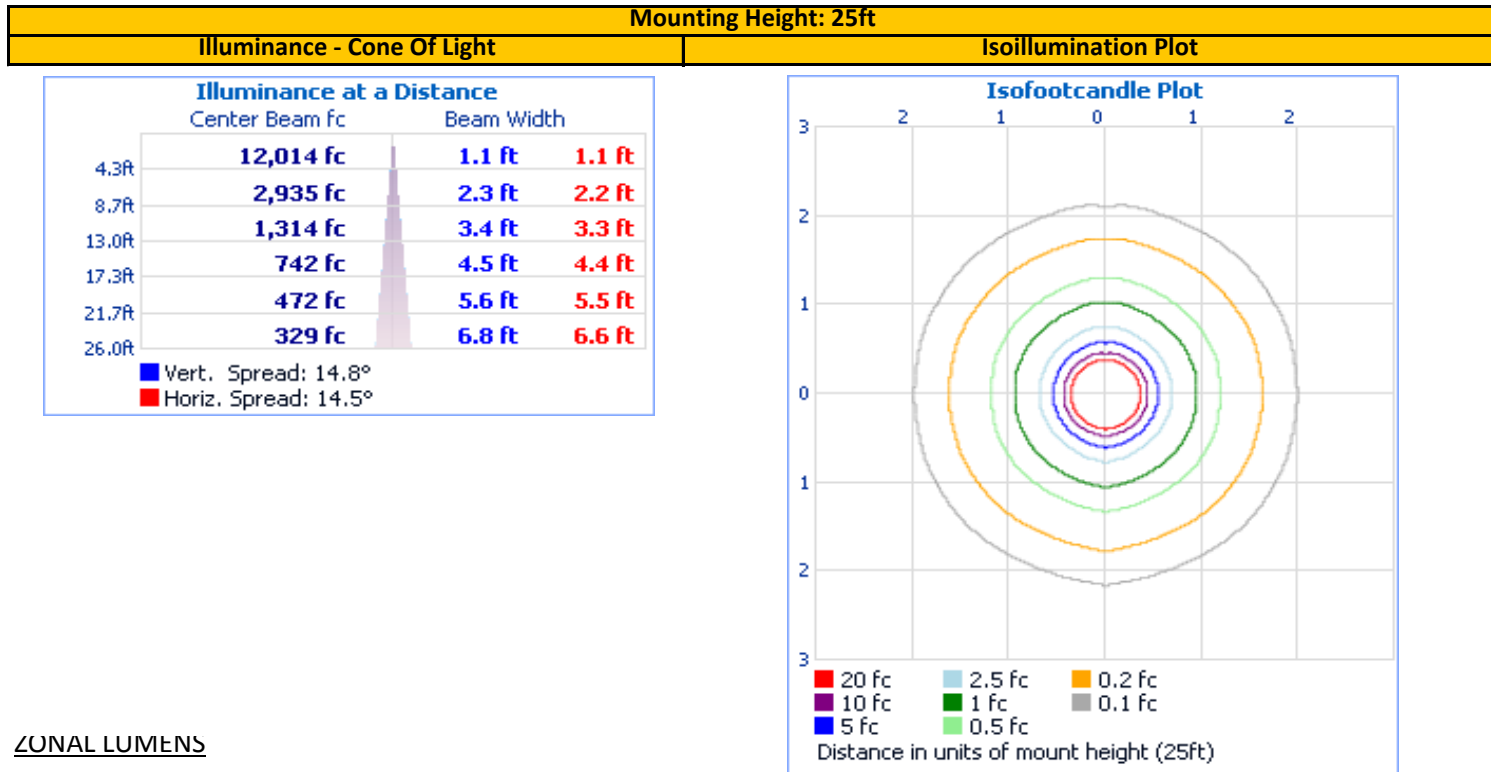
Angle	0	25	45	65	90
0	222144	222144	222144	222144	222144
5	170388	154152	153626	153818	152048
10	84510	75012	74122	73918	74085
15	40333	35467	34686	34206	34014
20	20113	16872	15726	14970	14804
25	9268	7613	7059	6606	6488
30	5637	4622	4252	4029	3939
35	3645	3019	2833	2720	2710
40	2662	2216	2126	1997	1974
45	2045	1736	1646	1554	1505
50	1608	1359	1285	1228	1173
55	1325	1151	1072	1033	1008
60	1077	927	895	844	811
65	838	735	716	667	627
70	617	535	513	479	438
75	406	344	326	309	278
80	214	174	163	160	135
85	68	48	50	54	43
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	Zone	Lumens	Total
0-30	25,646.6	82.8%	0-10	11861.1	38.3%
0-40	27,547.2	89.0%	10-20	10053.3	32.5%
0-60	29,835.4	96.4%	20-30	3732.2	12.1%
60-90	1,124.0	3.6%	30-40	1900.6	6.1%
70-100	424.3	1.4%	40-50	1303.0	4.2%
90-120	0.0	0.0%	50-60	985.2	3.2%
0-90	30,959.4	100.0%	60-70	699.7	2.3%
90-180	0.0	0.0%	70-80	353.6	1.1%
0-180	30,959.4	100.0%	80-90	70.7	0.2%
			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%

EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Yokogawa Power Meter	WT210	146919	7/1/2020	7/1/2021
2	Omega Thermometer	DPI8-C24	146920	10/1/2020	10/1/2021
3	LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
4	Newport Thermohygrometer	iServer	146958	9/30/2020	9/30/2021
5	Pacific AC Power Supply	118-ACX	CHI0153	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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