

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-250-WF-120-277-WW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-037

ISSUE DATE

2/19/2021

REVISED DATE

None

TEST DATES

02/10/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104357589CHI-037

MODEL NUMBER(s)

CF-250-WF-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

REPORT NO. 104357589CHI-037

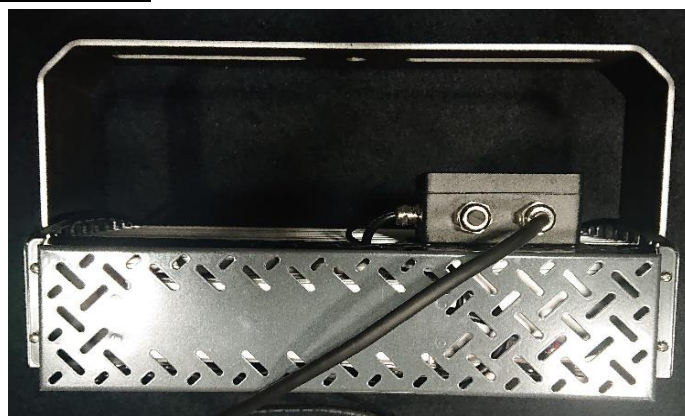
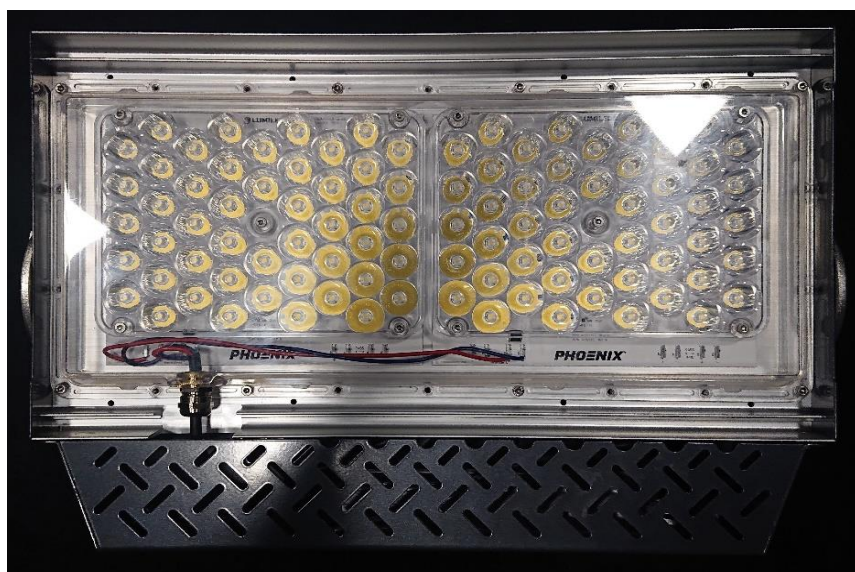
ITEMS RECEIVED

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

TESTED SAMPLE CONFIGURATIONS

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

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

REPORT NO. 104357589CHI-037

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-250-WF-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)	29266.1
Input Power (W) @ 120 (Vac)	237.19
Lumen Efficacy (lm/W)	123.4
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

REPORT NO. 104357589CHI-037

Test Configuration	Tested Model No.	Pass/Fail/NA
1	CF-250-WF-120-277-WW	NA

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

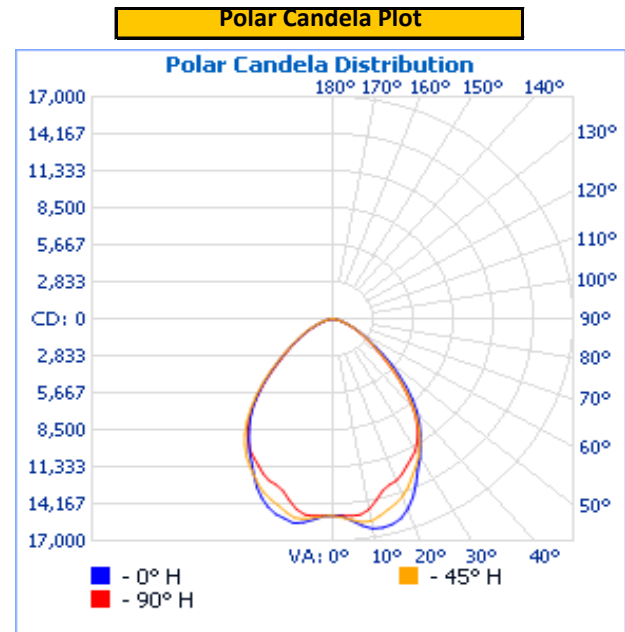
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (f)
Up	120.0	1979.2	237.19	0.998

Light Output (lm)	Lumen Efficacy (lm/W)
29266.1	123.4

INTENSITY SUMMARY - CANDELA

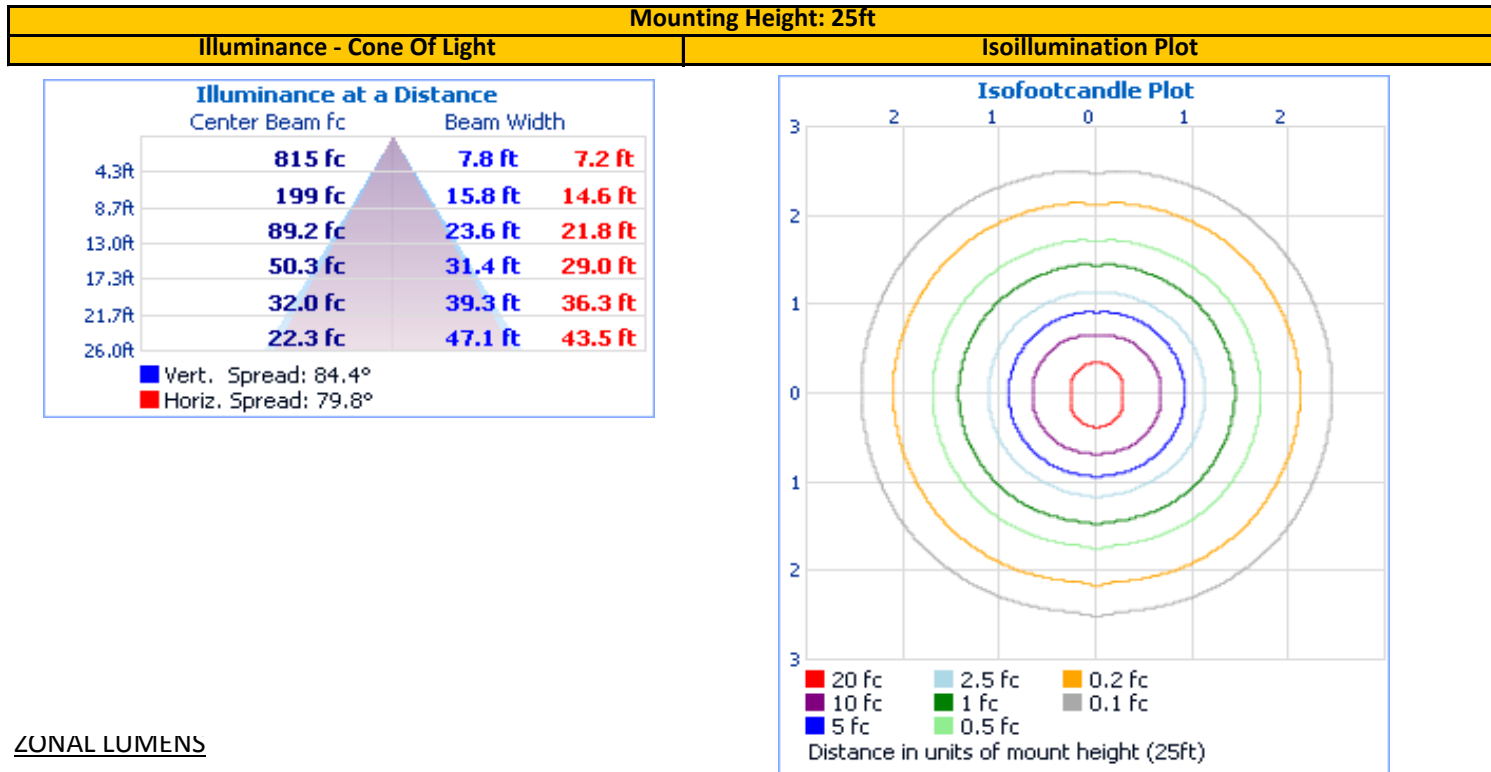
Angle	0	22.5	45	67.5	90
0	15068	15068	15068	15068	15068
5	15522	15579	15461	15309	15150
10	16324	15974	15724	15295	14808
15	16293	15546	15121	14458	13624
20	15498	14898	14463	13832	13173
25	13923	13619	13299	13016	12402
30	12323	12426	12151	11981	11660
35	10817	10883	10708	10654	10466
40	9229	9057	8872	8802	8814
45	7347	6901	6795	6742	6731
50	5432	4890	4876	4798	4712
55	3680	3514	3426	3364	3394
60	2551	2436	2474	2340	2355
65	1702	1668	1648	1549	1558
70	1026	1011	1001	946	900
75	613	592	587	565	509
80	308	287	289	279	244
85	85	74	82	89	73
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



REPORT NO. 104357589CHI-037

ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary										
<div></div>	Zone	Lumens	Luminaire	<div></div>	Zone	Lumens	Total	Zone	Lumens	Total
	0-30	11,737.6	40.1%		0-10	1474.2	5.0%	90-100	0.0	0.0%
	0-40	18,378.0	62.8%		10-20	4199.1	14.3%	100-110	0.0	0.0%
	0-60	26,852.9	91.8%		20-30	6064.2	20.7%	110-120	0.0	0.0%
	60-90	2,413.2	8.2%		30-40	6640.4	22.7%	120-130	0.0	0.0%
	70-100	766.9	2.6%		40-50	5311.3	18.1%	130-140	0.0	0.0%
	90-120	0.0	0.0%		50-60	3163.7	10.8%	140-150	0.0	0.0%
	0-90	29,266.1	100.0%		60-70	1646.3	5.6%	150-160	0.0	0.0%
	90-180	0.0	0.0%		70-80	645.1	2.2%	160-170	0.0	0.0%
	0-180	29,266.1	100.0%		80-90	121.8	0.4%	170-180	0.0	0.0%

EQUIPMENT LIST

REPORT NO. 104357589CHI-037

#	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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