

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-375-WF-120-277-NW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-041

ISSUE DATE

2/19/2021

REVISED DATE

None

TEST DATES

02/16/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104357589CHI-041

MODEL NUMBER(s)

CF-375-WF-120-277-NW

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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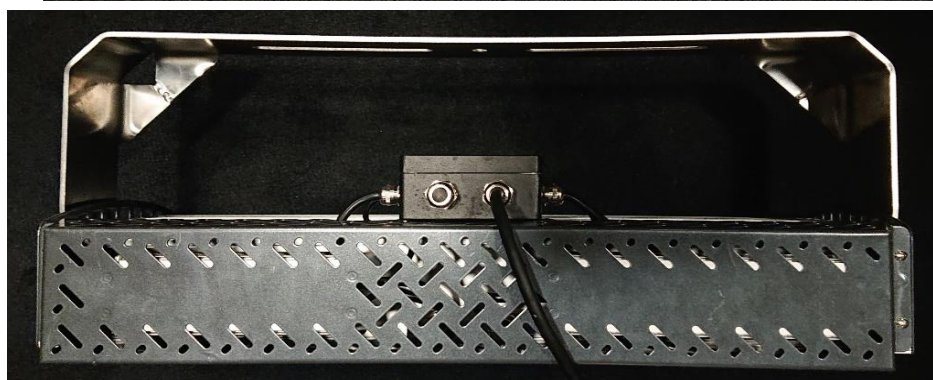
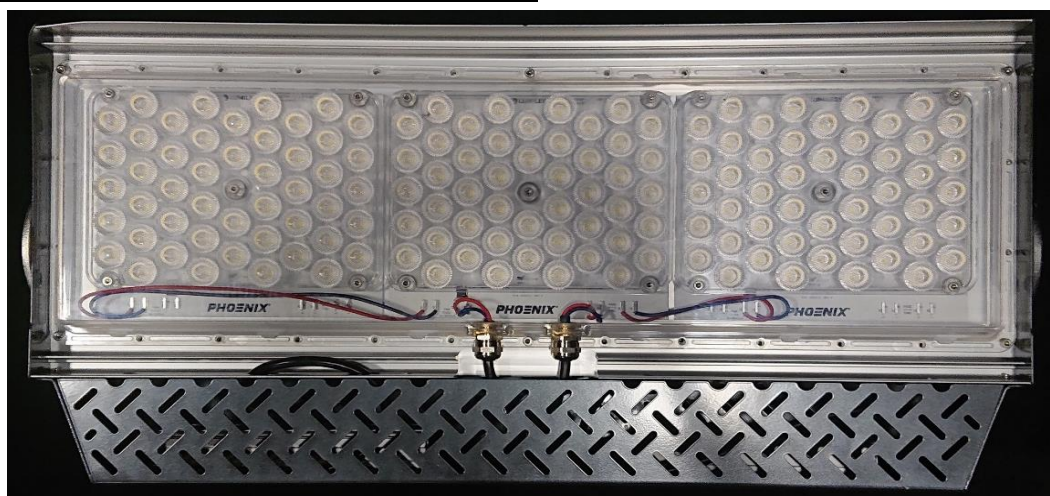
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH01272021125026	CF-375-WF-120-277-NW	Command Flood 375	Production	1/27/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	CF-375-WF-120-277-NW	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-375-WF-120-277-NW
Product Description:	Command Flood 375
LED Model No.:	Lumileds 5050
Driver Model No.:	Inventronics / EUM-240S350DT & EUM-150S210DT
Light Source:	LED

Criteria	Results
Light Output (lumens)	46150.2
Input Power (W) @ 120 (Vac)	354.98
Lumen Efficacy (lm/W)	130.0
Input Power Factor () @ 120 (Vac)	0.999

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-375-WF-120-277-NW	NA

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

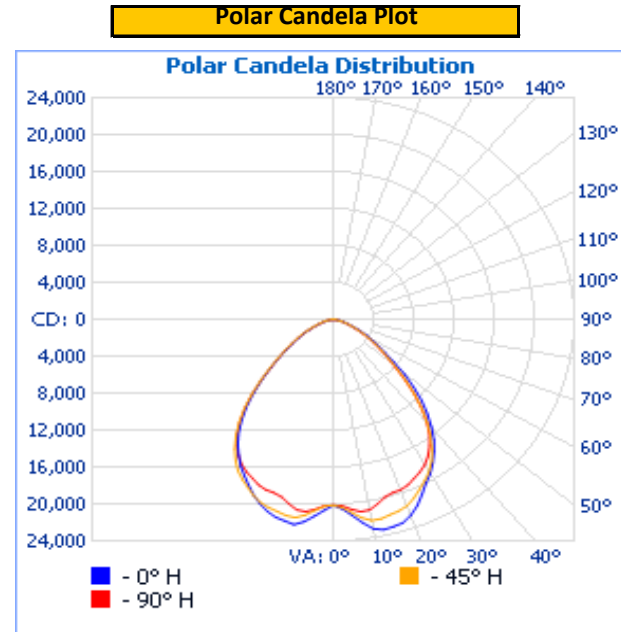
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.1	2959.7	354.98	0.999

Light Output (lm)	Lumen Efficacy (lm/W)
46150.2	130.0

INTENSITY SUMMARY - CANDELA

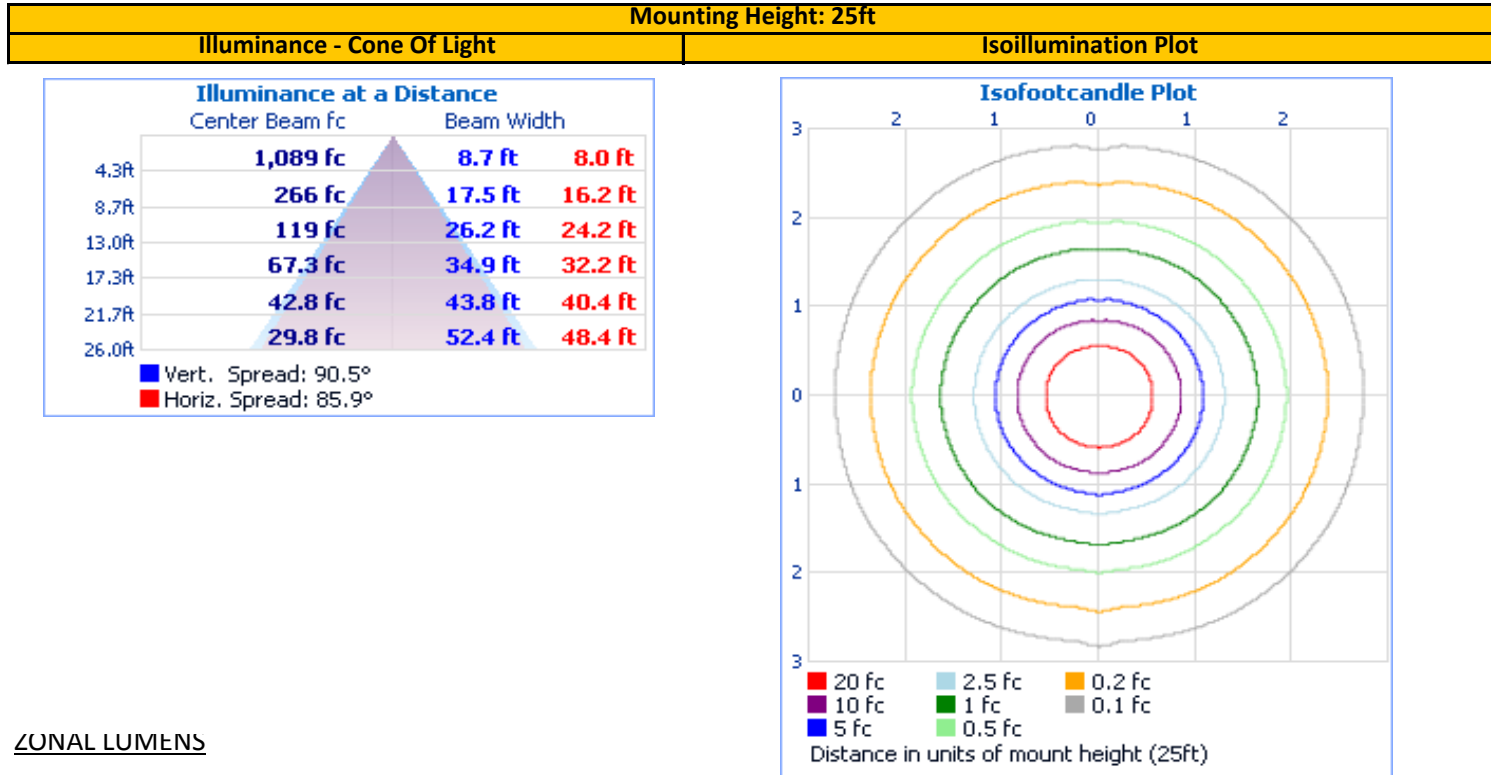
Angle	0	25	45	65	90
0	20135	20135	20135	20135	20135
5	21284	21255	21008	20795	20654
10	23029	22493	22114	21509	20948
15	23231	22400	21900	20992	19903
20	22580	21974	21476	20618	19644
25	20907	20612	20319	19861	19014
30	19310	19285	19059	18722	18203
35	17500	17324	17142	16913	16728
40	15204	14812	14528	14304	14493
45	12459	11664	11452	11270	11397
50	9281	8437	8278	8198	8106
55	6287	5903	5937	5767	5812
60	4448	4179	4216	4026	4049
65	3019	2878	2792	2688	2664
70	1752	1705	1684	1616	1532
75	1045	983	978	955	863
80	509	467	475	467	409
85	133	114	129	150	122
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	17,347.0	37.6%	0-10	2033.9	4.4%
0-40	27,917.1	60.5%	10-20	6089.6	13.2%
0-60	42,087.1	91.2%	20-30	9223.5	20.0%
60-90	4,063.1	8.8%	30-40	10570.2	22.9%
70-100	1,269.3	2.8%	40-50	8819.6	19.1%
90-120	0.0	0.0%	50-60	5350.4	11.6%
0-90	46,150.2	100.0%	60-70	2793.7	6.1%
90-180	0.0	0.0%	70-80	1072.7	2.3%
0-180	46,150.2	100.0%	80-90	196.6	0.4%
			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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