

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-375-MF-120-277-NW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-040

ISSUE DATE

2/19/2021

REVISED DATE

None

TEST DATES

02/17/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104357589CHI-040

MODEL NUMBER(s)

CF-375-MF-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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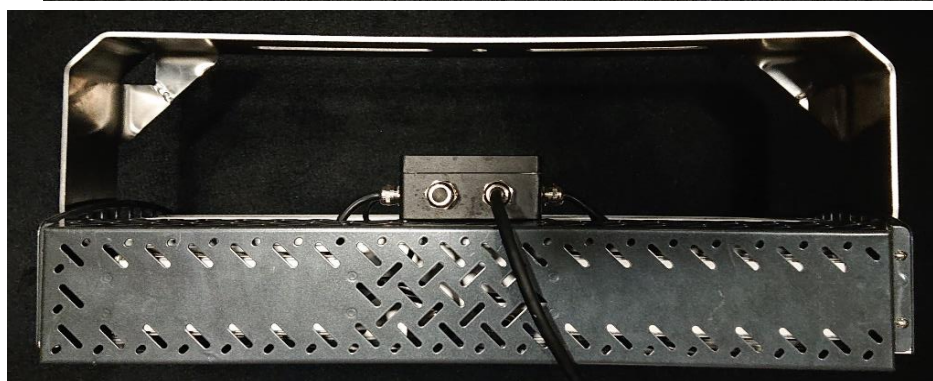
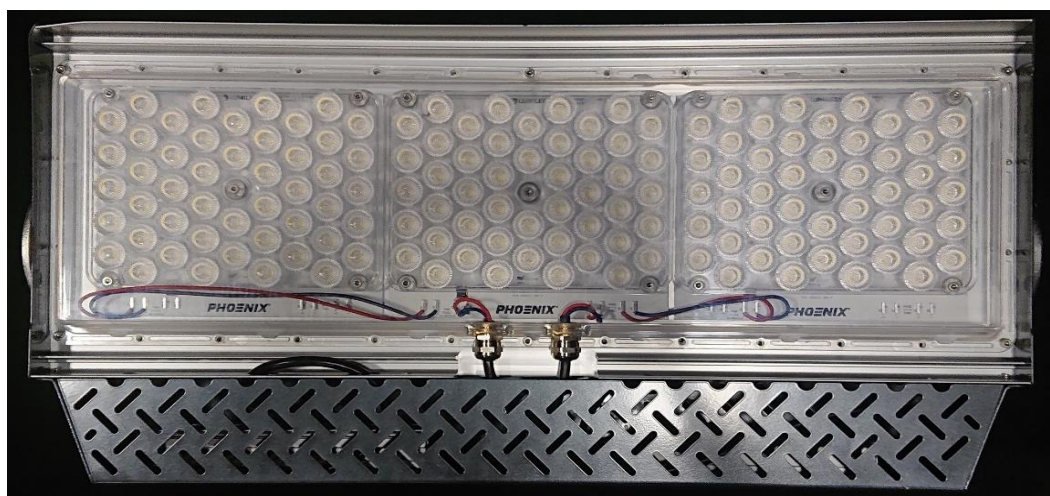
ITEMS RECEIVED

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

TESTED SAMPLE CONFIGURATIONS

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

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-375-MF-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)	47579.2
Input Power (W) @ 120 (Vac)	355.66
Lumen Efficacy (lm/W)	133.8
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-MF-120-277-NW	NA

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

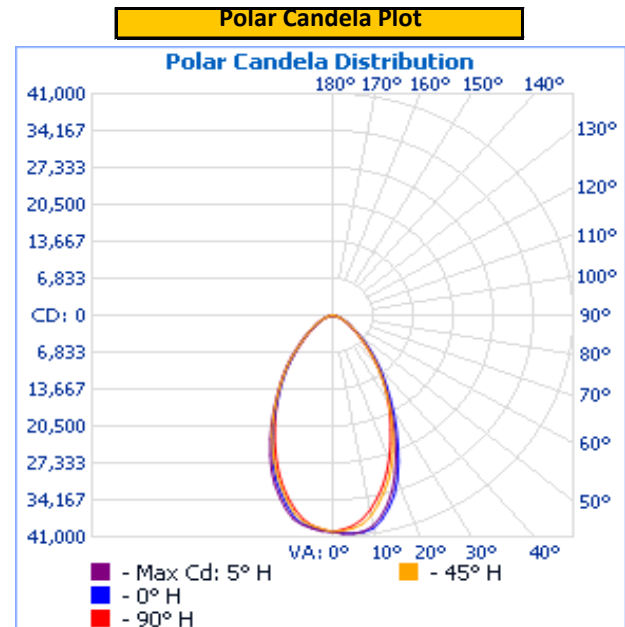
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.1	2965.4	355.66	0.999

Light Output (lm)	Lumen Efficacy (lm/W)
47579.2	133.8

INTENSITY SUMMARY - CANDELA

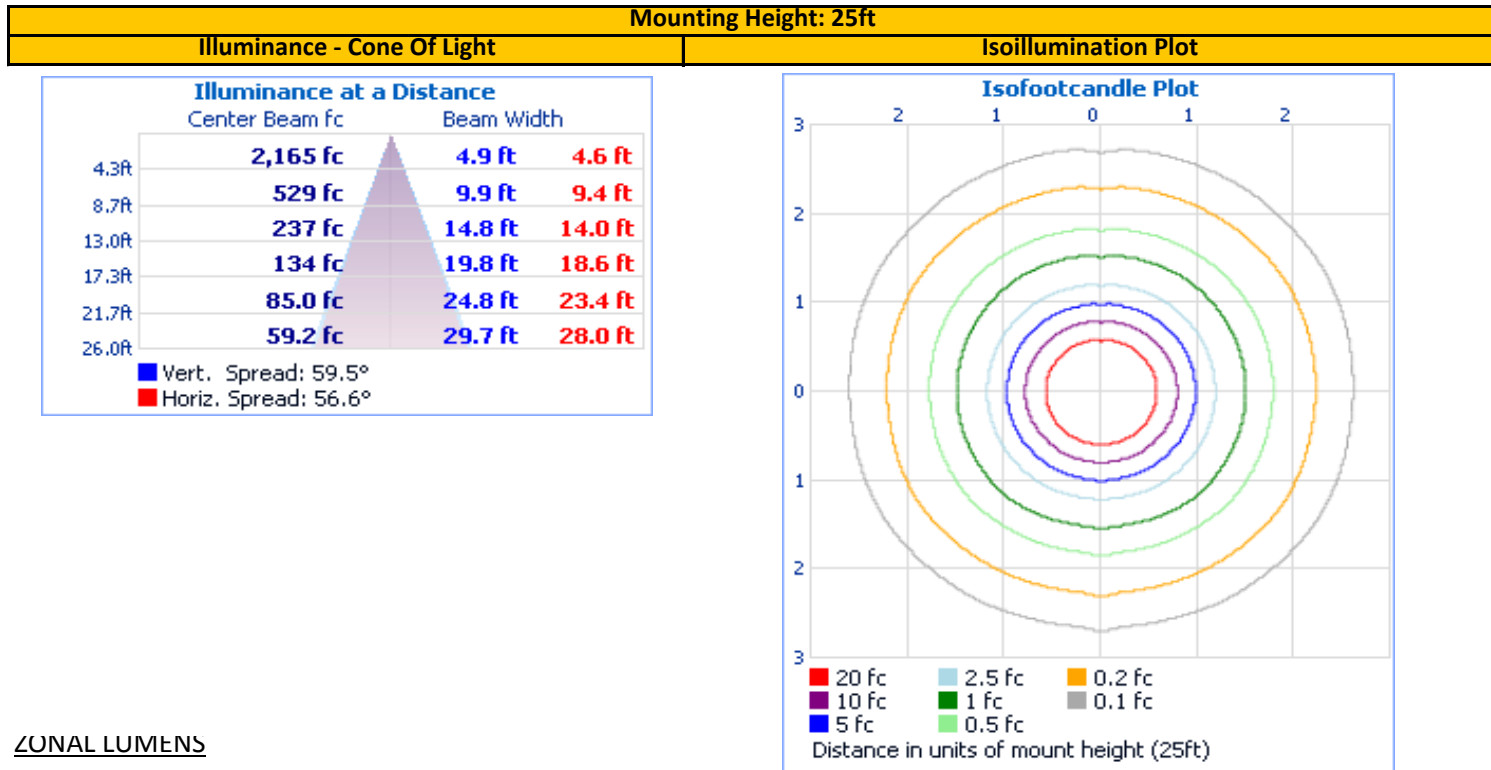
Angle	0	25	45	65	90
0	40024	40024	40024	40024	40024
5	40464	40124	39577	39245	39090
10	40025	38745	37655	36946	36596
15	36896	35106	33818	33090	32755
20	32244	30268	29382	28860	28171
25	26277	25026	24287	23813	23403
30	20797	19961	19354	19231	19133
35	16063	15596	15060	15188	15369
40	12373	11720	11414	11468	11522
45	9103	8512	8237	8133	8130
50	6486	6140	5875	5713	5696
55	4403	4254	4230	4020	4005
60	3185	3001	3044	2849	2798
65	2255	2090	2083	2003	1916
70	1435	1364	1362	1320	1249
75	884	813	815	811	740
80	433	388	398	407	363
85	105	90	106	127	109
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	24,300.0	51.1%	0-10	3705.8	7.8%
0-40	33,949.9	71.4%	10-20	9432.3	19.8%
0-60	44,383.0	93.3%	20-30	11161.9	23.5%
60-90	3,196.2	6.7%	30-40	9649.9	20.3%
70-100	1,091.1	2.3%	40-50	6585.4	13.8%
90-120	0.0	0.0%	50-60	3847.7	8.1%
0-90	47,579.2	100.0%	60-70	2105.1	4.4%
90-180	0.0	0.0%	70-80	915.7	1.9%
0-180	47,579.2	100.0%	80-90	175.4	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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