

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-375-MF-120-277-CW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-020

ISSUE DATE

1/22/2021

REVISED DATE

None

TEST DATES

01/22/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104357589CHI-020

MODEL NUMBER(s)

CF-375-MF-120-277-CW

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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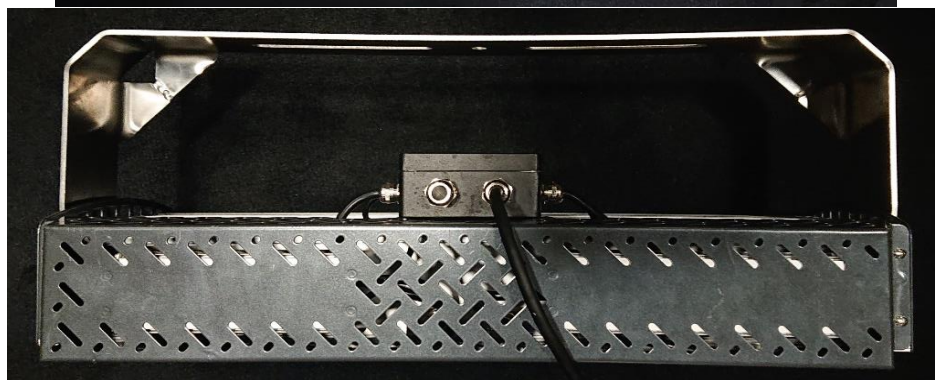
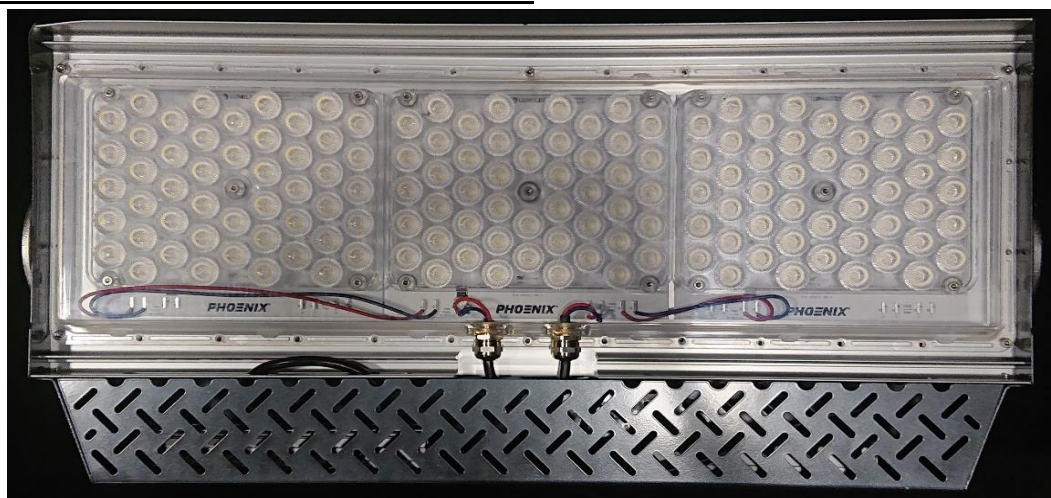
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH01112021101748	CF-375-MF-120-277-CW	Command Flood 375	Production	1/12/2021

TESTED SAMPLE CONFIGURATIONS

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

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-375-MF-120-277-CW
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)	47181.0
Input Power (W) @ 120 (Vac)	354.59
Lumen Efficacy (lm/W)	133.1
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-CW	NA

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

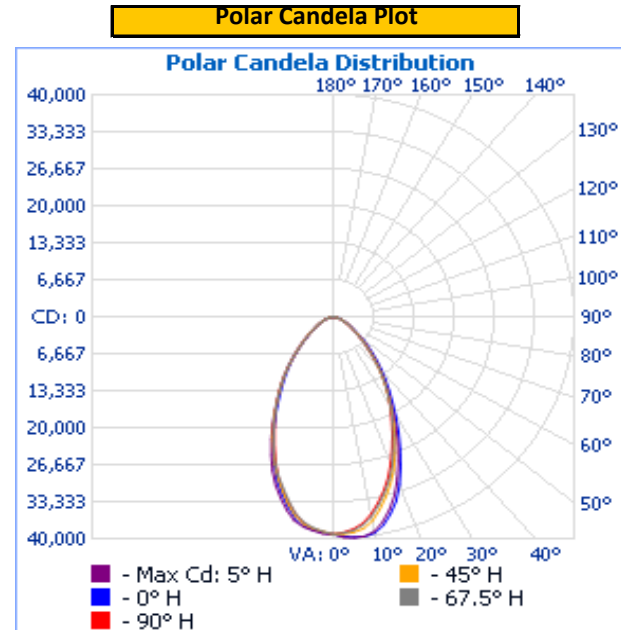
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.0	2957.6	354.59	0.999

Light Output (lm)	Lumen Efficacy (lm/W)
47181.0	133.1

INTENSITY SUMMARY - CANDELA

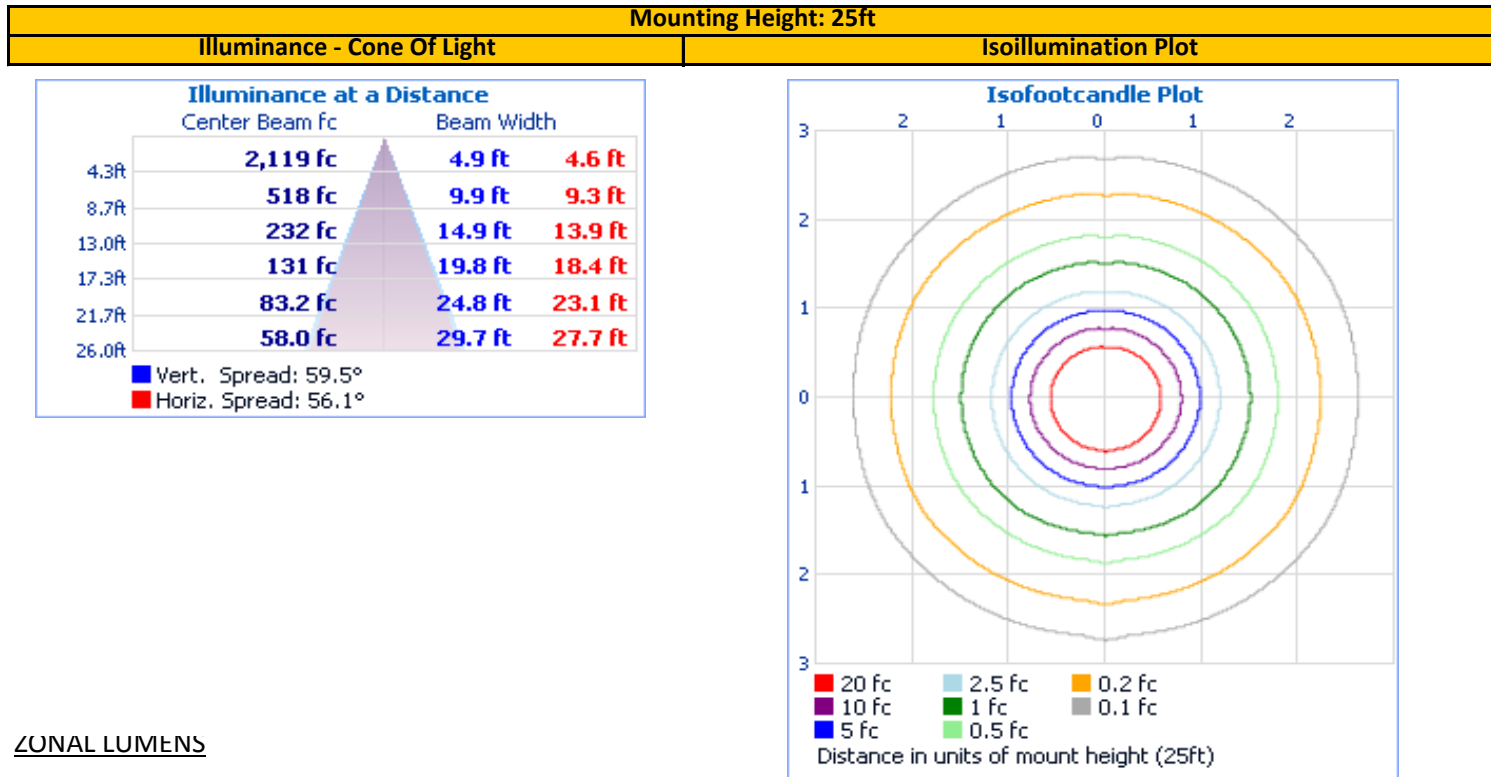
Angle	0	22.5	45	67.5	90
0	39184	39184	39184	39184	39184
5	39841	39536	38966	38616	38389
10	39559	38416	37352	36523	36076
15	36774	34918	33602	32836	32385
20	32162	30218	29282	28585	27946
25	26272	25050	24262	23639	23171
30	20828	20057	19383	19204	18952
35	16154	15741	15120	15199	15257
40	12476	11923	11557	11541	11466
45	9250	8700	8384	8174	8153
50	6612	6287	5991	5769	5741
55	4515	4403	4324	4065	4019
60	3274	3091	3119	2891	2819
65	2330	2168	2146	2031	1942
70	1511	1431	1416	1346	1266
75	930	866	859	838	759
80	470	424	432	434	377
85	132	110	124	141	113
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							
<div></div>	Zone	Lumens	Luminaire	<div></div>	Zone	Lumens	Total
	0-30	23,958.6	50.8%		0-10	3641.9	7.7%
	0-40	33,512.1	71.0%		10-20	9299.2	19.7%
	0-60	43,939.8	93.1%		20-30	11017.4	23.4%
	60-90	3,241.2	6.9%		30-40	9553.5	20.2%
	70-100	1,112.0	2.4%		40-50	6564.5	13.9%
	90-120	0.0	0.0%		50-60	3863.2	8.2%
	0-90	47,181.0	100.0%		60-70	2129.1	4.5%
	90-180	0.0	0.0%		70-80	930.9	2.0%
	0-180	47,181.0	100.0%		80-90	181.2	0.4%

LUM. CLASSIFICATION SYSTEM (LCS)

CS Zone	Lumens	% Lamp	% Lum
FL (0-30)	12154.9	N.A.	25.7
FM (30-60)	10036.2	N.A.	21.3
FH (60-80)	1511.7	N.A.	3.2
FVH (80-90)	86.0	N.A.	0.2
BL (0-30)	11831.8	N.A.	25.1
BM (30-60)	9962.1	N.A.	21.1
BH (60-80)	1549.5	N.A.	3.3
BVH (80-90)	95.2	N.A.	0.2
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	47227.4	N.A.	100.0
BUG Rating	B5-U0-G1		

IES Classification: Type VS
Longitudinal Classification: Very Short

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
6	Sorenson DC Power Supply	XHR 150-7	146922	VBU	VBU
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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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