

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-375-SP-120-277-CW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-019

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-019

MODEL NUMBER(s)

CF-375-SP-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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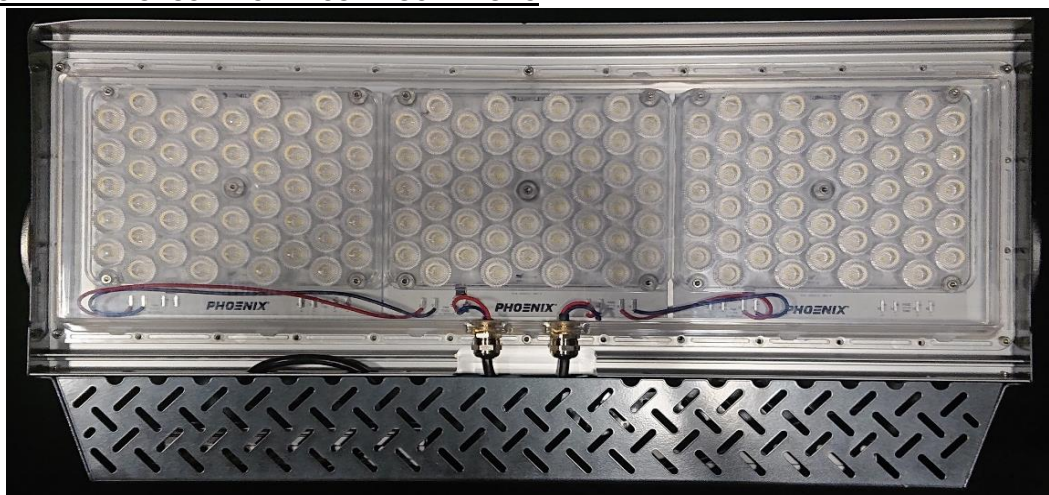
ITEMS RECEIVED

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

TESTED SAMPLE CONFIGURATIONS

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

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-375-SP-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)	48934.3
Input Power (W) @ 120 (Vac)	354.49
Lumen Efficacy (lm/W)	138.0
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-SP-120-277-CW	NA

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

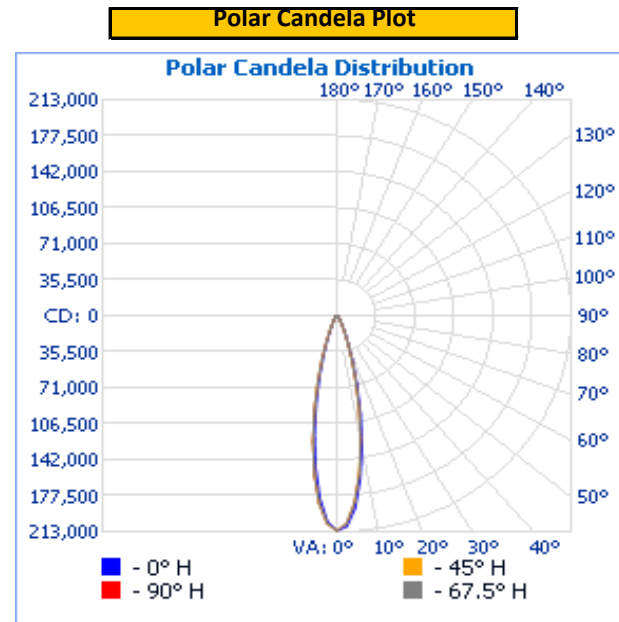
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.0	2956.4	354.49	0.999

Light Output (lm)	Lumen Efficacy (lm/W)
48934.3	138.0

INTENSITY SUMMARY - CANDELA

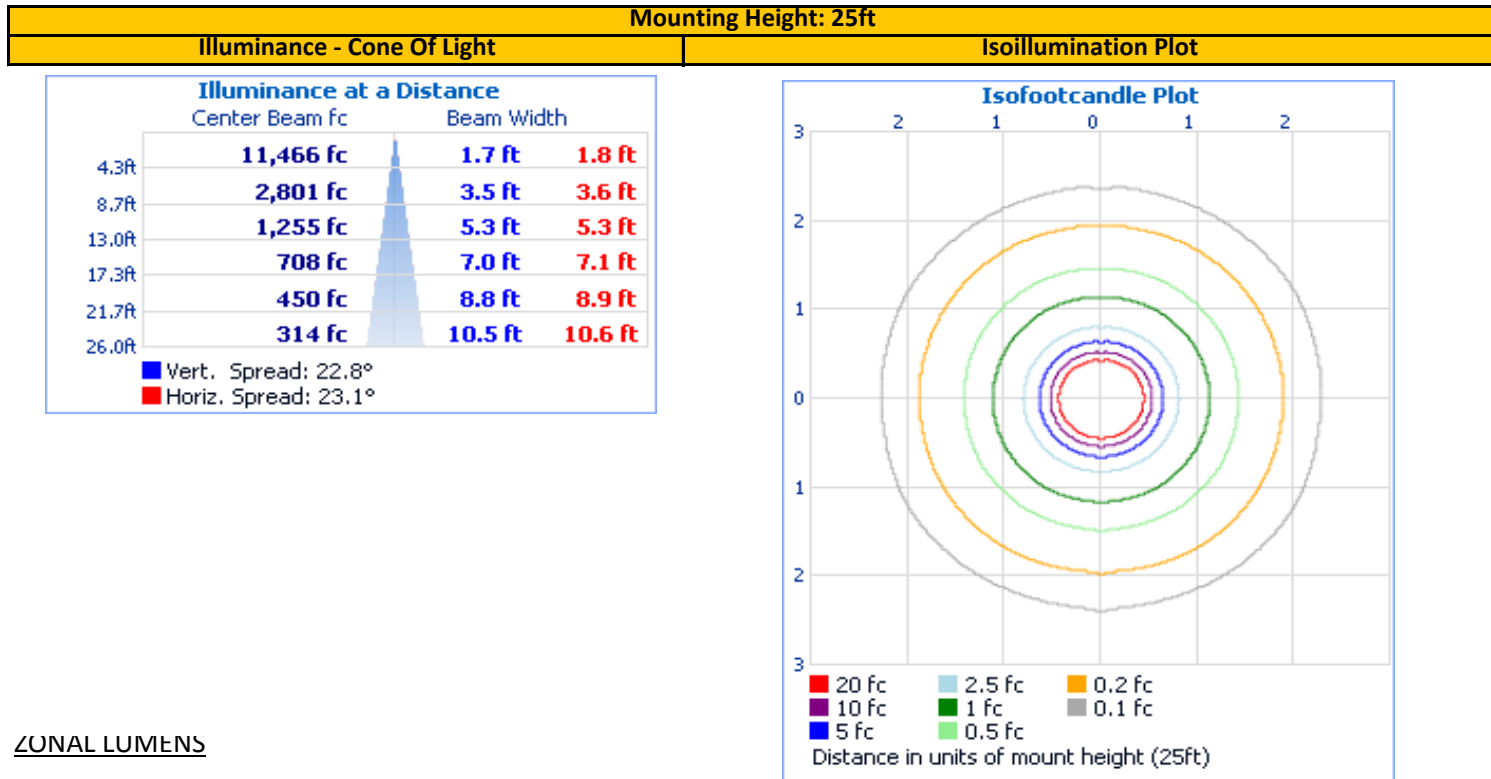
Angle	0	22.5	45	67.5	90
0	212011	212011	212011	212011	212011
5	190289	184285	184232	184730	185370
10	130578	122726	123004	124052	125348
15	70616	64235	64878	65705	66520
20	31392	28820	29305	29388	29837
25	14487	13082	13159	13083	13196
30	7598	6920	6944	6909	6864
35	4625	4350	4305	4262	4312
40	3323	3158	3096	3061	3113
45	2652	2544	2461	2427	2459
50	2220	2142	2048	2002	2007
55	1864	1787	1730	1662	1651
60	1545	1488	1434	1361	1355
65	1224	1177	1153	1079	1053
70	915	845	863	819	750
75	617	556	549	559	487
80	321	283	290	296	249
85	100	88	95	104	85
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	Zone	Lumens	Total
	0-30	40,729.3	83.2%		0-10	15601.9	31.9%	90-100	0.0	0.0%
	0-40	43,575.0	89.0%		10-20	18421.6	37.6%	100-110	0.0	0.0%
	0-60	47,084.3	96.2%		20-30	6705.8	13.7%	110-120	0.0	0.0%
	60-90	1,850.0	3.8%		30-40	2845.7	5.8%	120-130	0.0	0.0%
	70-100	724.4	1.5%		40-50	1951.5	4.0%	130-140	0.0	0.0%
	90-120	0.0	0.0%		50-60	1557.8	3.2%	140-150	0.0	0.0%
	0-90	48,934.3	100.0%		60-70	1125.6	2.3%	150-160	0.0	0.0%
	90-180	0.0	0.0%		70-80	595.5	1.2%	160-170	0.0	0.0%
	0-180	48,934.3	100.0%		80-90	128.8	0.3%	170-180	0.0	0.0%

LUM. CLASSIFICATION SYSTEM (LCS)

CS Zone	Lumens	% Lamp	% Lum
FL (0-30)	20325.3	N.A.	41.3
FM (30-60)	3169.3	N.A.	6.4
FH (60-80)	850.0	N.A.	1.7
FVH (80-90)	61.7	N.A.	0.1
BL (0-30)	20702.6	N.A.	42.0
BM (30-60)	3191.9	N.A.	6.5
BH (60-80)	871.7	N.A.	1.8
BVH (80-90)	67.2	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	49239.7	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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