PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK
LED Performance Testing

MODEL NUMBER
CF-375-SP-120-277-NW

PROJECT NUMBER
G104357589

REPORT NUMBER
104357589CHI-039

ISSUE DATE
2/19/2021

REVISED DATE
None

TEST DATES
02/15/2021.

DOCUMENT CONTROL NUMBER
RTTDS-R-AMER-Test-3407

PAGES
7

REPORT NUMBER
104357589CHI-039

MODEL NUMBER(s)
CF-375-SP-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

REPORT NO. 104357589CHI-039

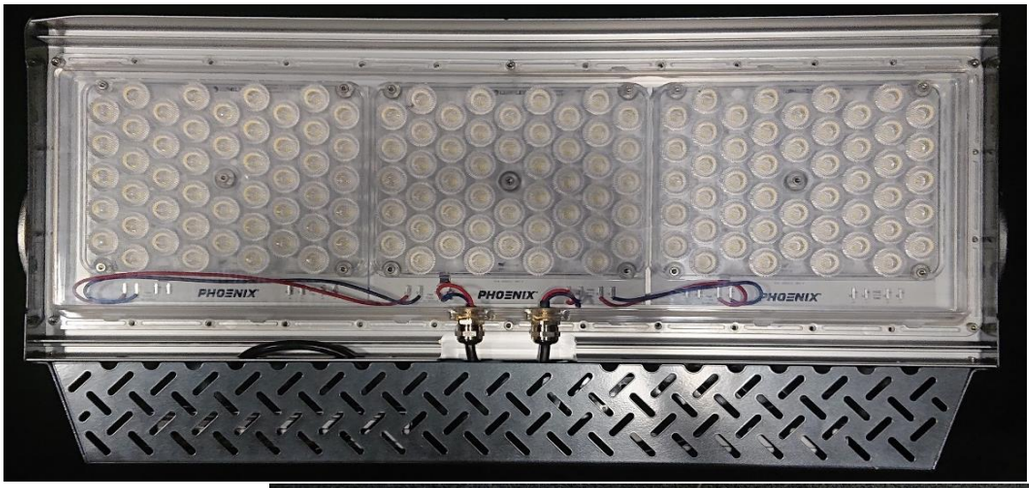
ITEMS RECEIVED

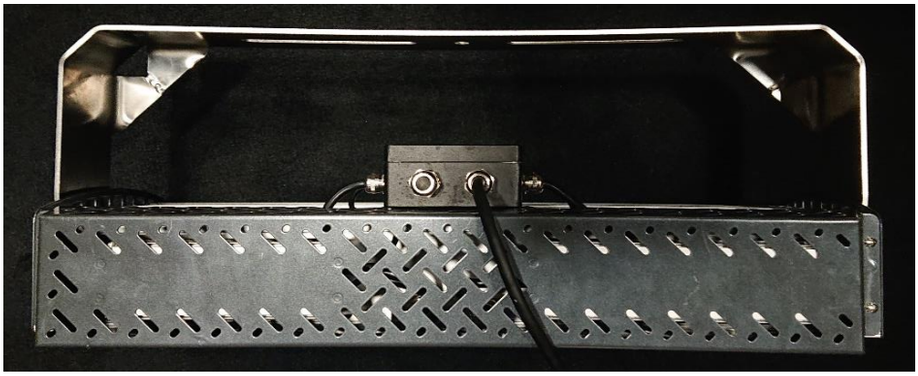
Item No.	Control No.	Model No.	Description	Type	Received
1	AH01272021125026	CF-375-SP-120-277-NW	Command Flood 375	Production	1/27/2021

TESTED SAMPLE CONFIGURATIONS

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

SAMPLE PHOTOS - TESTED CONFIGURATIONS





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SUMMARY **REPORT NO. 104357589CHI-039**

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-375-SP-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)	49092.2
Input Power (W) @ 120 (Vac)	355.20
Lumen Efficacy (lm/W)	138.2
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.

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TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	CF-375-SP-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 ()
Up	120.1	2961.5	355.20	0.999

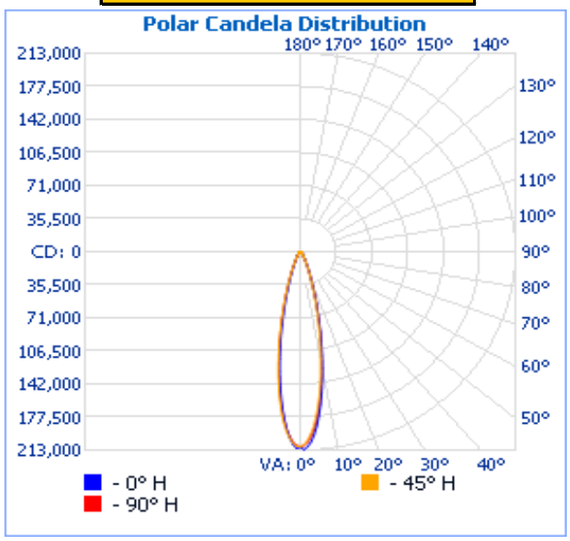
Light Output (lm)	Lumen Efficacy (lm/W)
49092.2	138.2

INTENSITY SUMMARY - CANDELA

Angle	0	25	45	65	90
0	209287	209287	209287	209287	209287
5	187375	177168	178022	180028	181853
10	126501	115224	117108	119317	122352
15	67132	60149	61541	63029	65299
20	31489	28350	28942	29509	30405
25	15414	14018	14057	14150	14357
30	8578	7744	7750	7707	7663
35	5258	4839	4797	4791	4777
40	3811	3552	3498	3457	3421
45	3016	2865	2776	2705	2705
50	2385	2250	2188	2143	2128
55	1932	1892	1819	1749	1738
60	1572	1524	1486	1409	1389
65	1229	1210	1192	1115	1067
70	923	867	884	849	756
75	611	556	548	575	482
80	313	275	280	285	240
85	90	76	84	95	78
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

Polar Candela Plot



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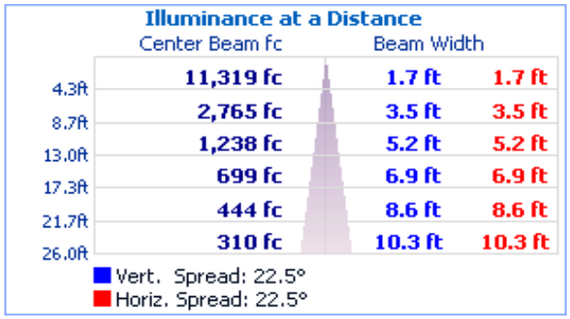
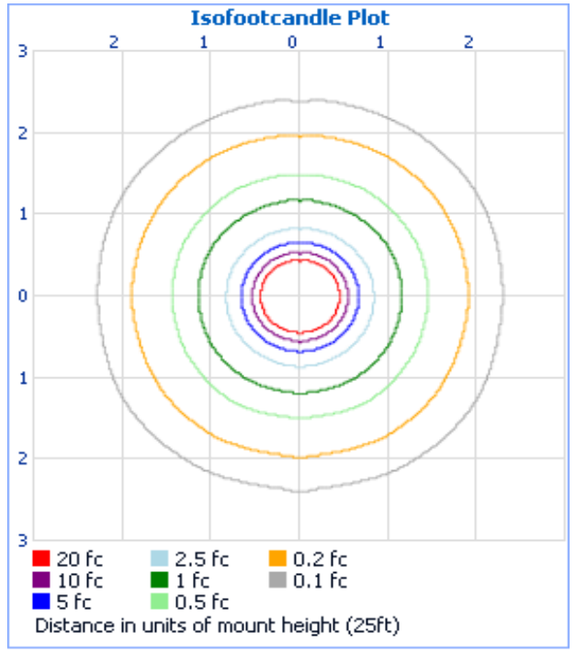
ILLUMINANCE SUMMARY

Mounting Height: 25ft

Illuminance - Cone Of Light



Isoillumination Plot



ZONAL LUMENS

Zonal Lumen Summary

Zone	Lumens	Luminaire
0-30	40,284.5	82.1%
0-40	43,423.8	88.5%
0-60	47,200.7	96.1%
60-90	1,891.5	3.9%
70-100	732.5	1.5%
90-120	0.0	0.0%
0-90	49,092.2	100.0%
90-180	0.0	0.0%
0-180	49,092.2	100.0%

Zone	Lumens	Total	Zone	Lumens	Total
0-10	15323.7	31.2%	90-100	0.0	0.0%
10-20	17921.1	36.5%	100-110	0.0	0.0%
20-30	7039.8	14.3%	110-120	0.0	0.0%
30-40	3139.2	6.4%	120-130	0.0	0.0%
40-50	2143.6	4.4%	130-140	0.0	0.0%
50-60	1633.3	3.3%	140-150	0.0	0.0%
60-70	1159.0	2.4%	150-160	0.0	0.0%
70-80	606.6	1.2%	160-170	0.0	0.0%
80-90	125.9	0.3%	170-180	0.0	0.0%

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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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