

PHOENIX PRODUCTS LLC

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

CF-250-SP-120-277-CW

PROJECT NUMBER

G104357589

REPORT NUMBER

104357589CHI-015

ISSUE DATE

1/22/2021

REVISED DATE

None

TEST DATES

01/22/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

© 2017 INTERTEK



REPORT NUMBER

104357589CHI-015

MODEL NUMBER(s)

CF-250-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

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

SAMPLE INFORMATION

REPORT NO. 104357589CHI-015

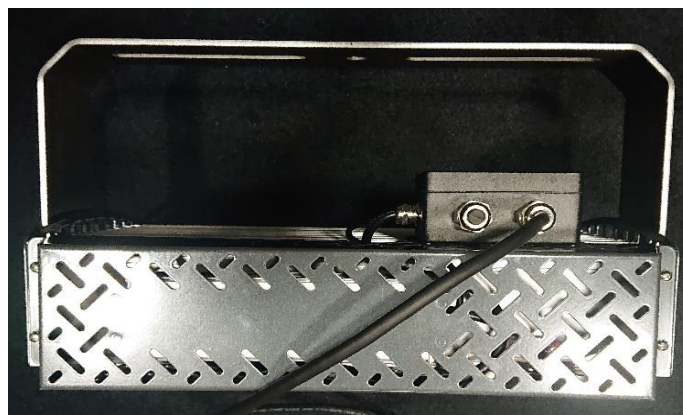
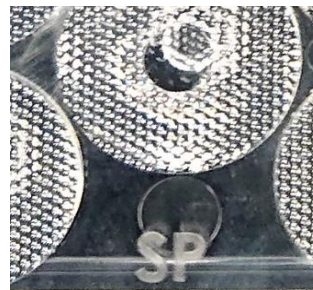
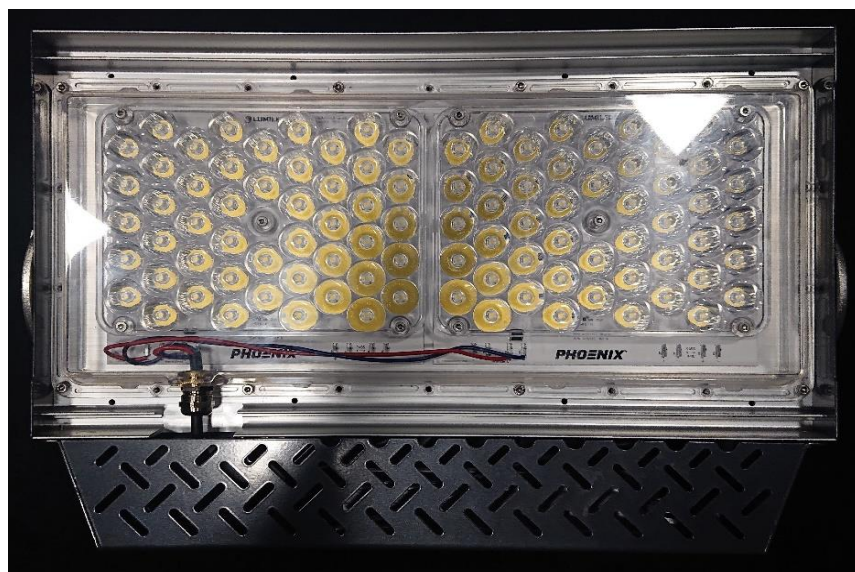
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH01112021101748	CF-250-SP-120-277-CW	Command Flood 250	Production	1/12/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	CF-250-SP-120-277-CW	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

REPORT NO. 104357589CHI-015

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	CF-250-SP-120-277-CW
Product Description:	Command Flood 250
LED Model No.:	Lumileds 5050
Driver Model No.:	Inventronics / EUM-240S350DT
Light Source:	LED

Criteria	Results
Light Output (lumens)	32470.3
Input Power (W) @ 120 (Vac)	236.05
Lumen Efficacy (lm/W)	137.6
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

REPORT NO. 104357589CHI-015

Test Configuration	Tested Model No.	Pass/Fail/NA
1	CF-250-SP-120-277-CW	NA

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

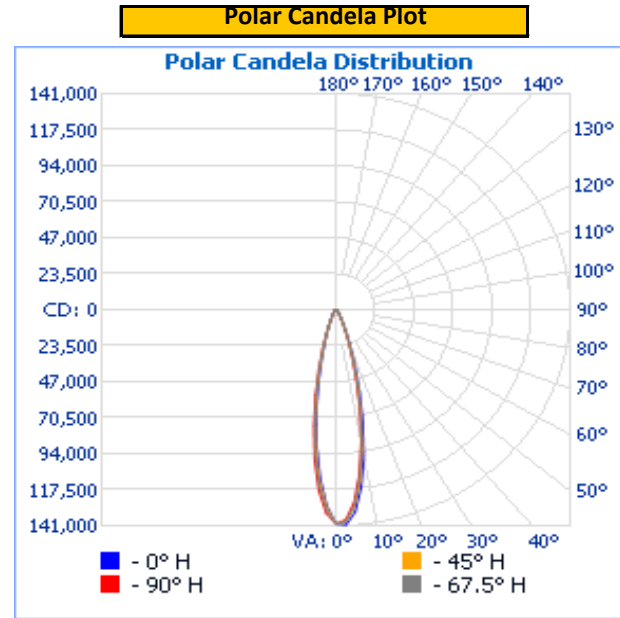
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.0	1970.1	236.05	0.999

Light Output (lm)	Lumen Efficacy (lm/W)
32470.3	137.6

INTENSITY SUMMARY - CANDELA

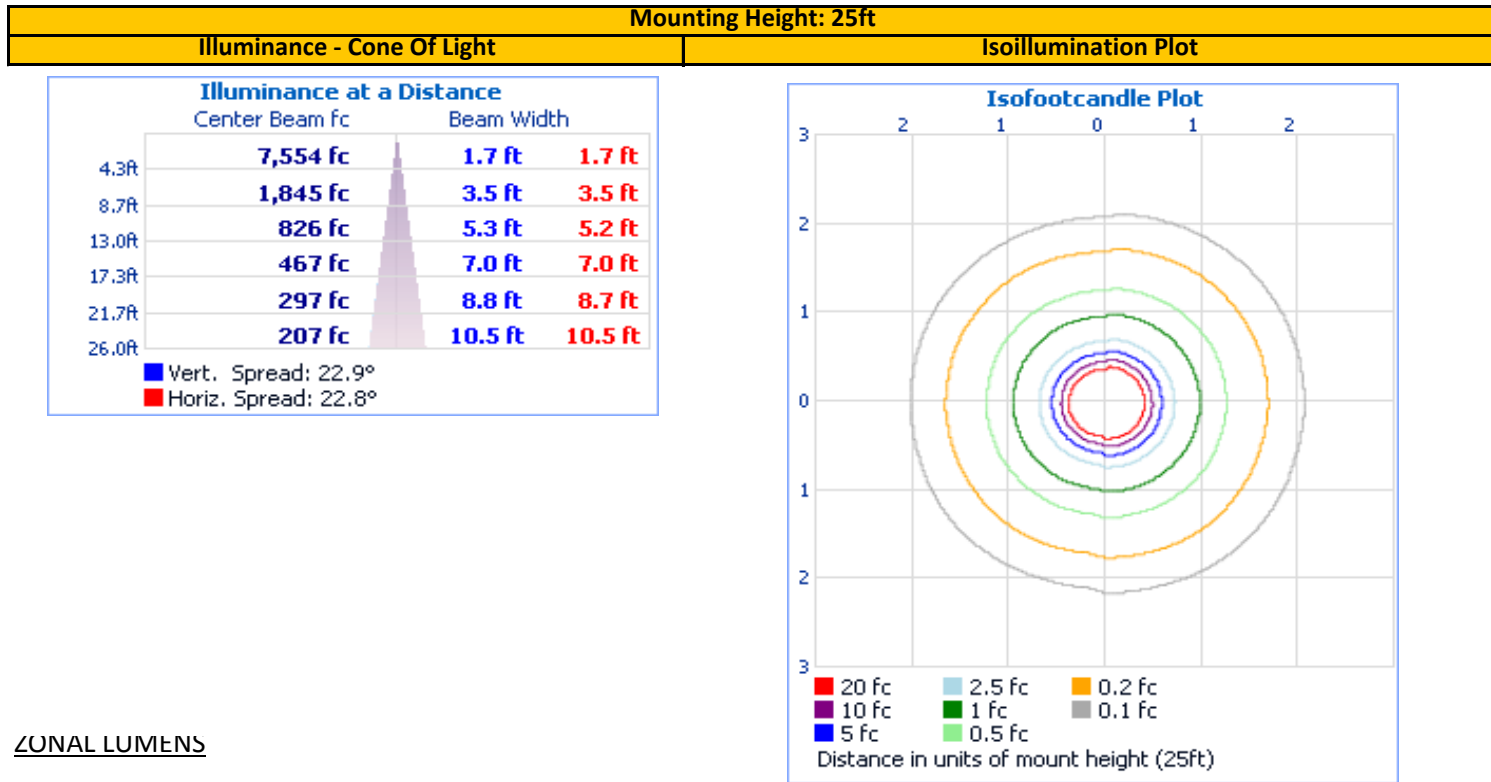
Angle	0	22.5	45	67.5	90
0	139673	139673	139673	139673	139673
5	132467	132252	131379	130612	130018
10	96653	96058	95352	94700	93145
15	54858	54144	53614	53209	52240
20	25353	25006	24913	24794	24587
25	11467	11354	11228	11261	11006
30	5854	5765	5693	5666	5584
35	3442	3400	3408	3357	3326
40	2321	2326	2316	2301	2276
45	1809	1811	1818	1805	1784
50	1522	1510	1490	1483	1460
55	1279	1276	1249	1255	1230
60	1054	1048	1043	1047	1033
65	847	843	836	844	834
70	646	647	627	632	622
75	446	450	430	434	416
80	249	256	252	244	237
85	95	95	93	84	89
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



REPORT NO. 104357589CHI-015

ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	26,996.2	83.1%	0-10	10282.5	31.7%
0-40	28,909.2	89.0%	10-20	12193.1	37.6%
0-60	31,245.9	96.2%	20-30	4520.6	13.9%
60-90	1,224.4	3.8%	30-40	1913.1	5.9%
70-100	476.9	1.5%	40-50	1301.5	4.0%
90-120	0.0	0.0%	50-60	1035.1	3.2%
0-90	32,470.3	100.0%	60-70	747.5	2.3%
90-180	0.0	0.0%	70-80	392.3	1.2%
0-180	32,470.3	100.0%	80-90	84.6	0.3%
			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%

LUM. CLASSIFICATION SYSTEM (LCS)

CS Zone		Lumens	% Lamp	% Lum
FL	(0-30)	14413.7	N.A.	44.1
FM	(30-60)	2189.9	N.A.	6.7
FH	(60-80)	581.8	N.A.	1.8
FVH	(80-90)	45.9	N.A.	0.1
BL	(0-30)	12779.0	N.A.	39.1
BM	(30-60)	2064.0	N.A.	6.3
BH	(60-80)	558.3	N.A.	1.7
BVH	(80-90)	38.7	N.A.	0.1
UL	(90-100)	0.0	N.A.	0.0
UH	(100-180)	0.0	N.A.	0.0
Total	-----	32671.3	N.A.	100.0
BUG Rating		B5-U0-G2		

IES Classification: Type I
Longitudinal Classification: Very Short

EQUIPMENT LIST

REPORT NO. 104357589CHI-015

#	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					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

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
---	None	---	---	---
---	---	---	---	---
---	---	---	---	---