AFX INC.

TEST REPORT

SCOPE OF WORK
LED Performance Testing

MODEL NUMBER
SUMS051413L30D1WH

PROJECT NUMBER
G104599123

REPORT NUMBER
104599123CHI-002

ISSUE DATE
2/23/2021

REVISED DATE
None

TEST DATES
02/18/2021.

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

PAGES
7

REPORT NUMBER
104599123CHI-002

MODEL NUMBER(s)
SUMS051413L30D1WH

REPORT RENDERED TO:
AFX INC.
2345 N. ERNIE KRUEGER CIRCLE
WAUKEGAN, IL 60087
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-01038287-2.

TEST STANDARDS
IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

In Charge of Testing:	Reviewer:
Ian Smith	Jeff Davis
Engineer	NA Technical Lead
Lighting Division	Lighting Division

545 E Algonquin Rd
Arlington Heights , IL 60005
Telephone: (847) 439-5667
www.intertek.com

SAMPLE INFORMATION

REPORT NO. 104599123CHI-002

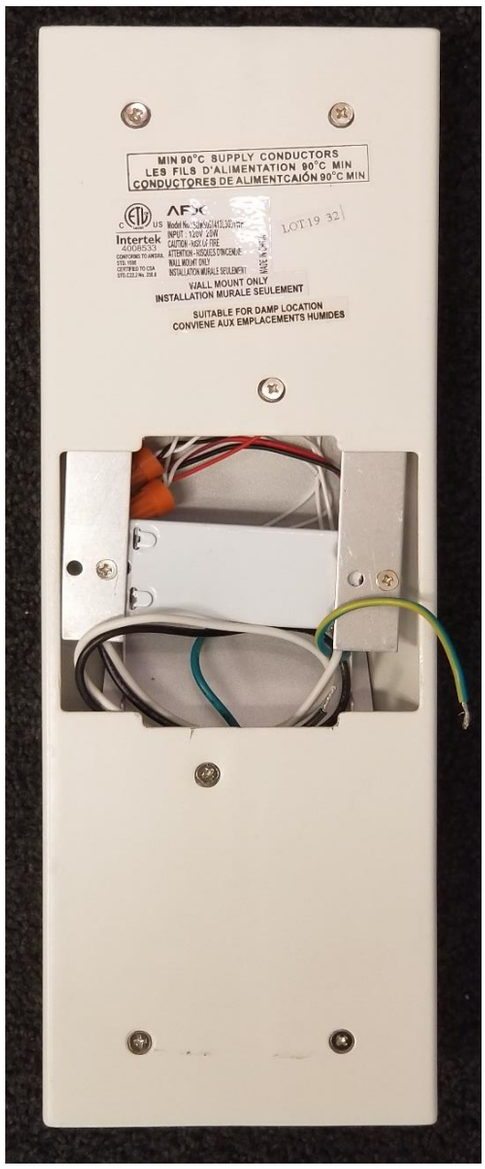
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH02162021113725	SUMS051413L30D1WH	Sconce	Production	2/16/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	SUMS051413L30D1WH	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



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SUMMARY **REPORT NO. 104599123CHI-002**

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SUMS051413L30D1WH
Product Description:	Sconce
LED Model No.:	Samsung / Various
Driver Model No.:	Quantum / QTD-440D2440-HMV20
Light Source:	LED

Criteria	Results
Light Output (lumens)	199.0
Input Power (W) @ 120 (Vac)	18.58
Lumen Efficacy (lm/W)	10.7
Input Power Factor () @ 120 (Vac)	0.985

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	SUMS051413L30D1WH	NA

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

Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.04	157.1	18.58	0.985

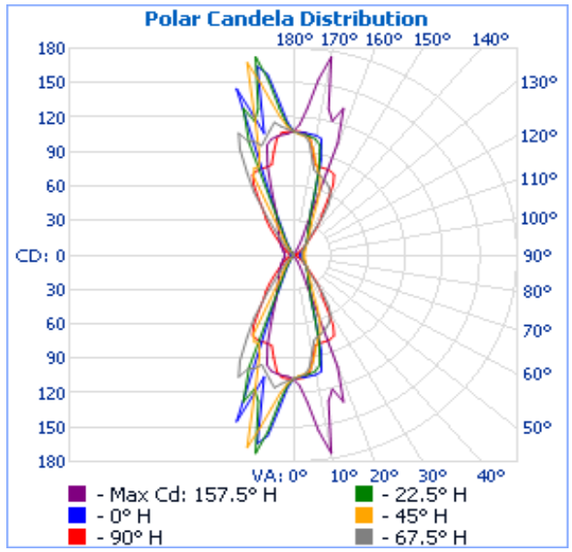
Light Output (lm)	Lumen Efficacy (lm/W)
199.0	10.7

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	108	108	108	108	108
5	107	105	104	105	107
10	106	102	93	86	91
15	86	80	76	74	80
20	42	42	62	71	80
25	31	30	38	66	77
30	25	24	28	59	55
35	20	20	22	42	38
40	17	17	18	20	25
45	15	15	15	15	16
50	13	13	13	12	11
55	11	11	12	10	8
60	9	10	11	8	6
65	8	9	10	8	4
70	7	8	10	7	3
75	6	8	9	7	2
80	6	7	9	7	1
85	6	7	9	7	1
90	6	7	9	7	0
95	6	7	9	7	1
100	6	7	9	7	1
105	6	8	9	7	2
110	7	8	10	7	3
115	8	9	10	8	4
120	9	10	11	8	6
125	11	11	12	10	8
130	13	13	13	12	11
135	15	15	15	15	16
140	17	17	18	20	25
145	20	20	22	42	38
150	25	24	28	59	55
155	31	30	38	66	77
160	42	42	62	71	80
165	86	80	76	74	80
170	106	102	93	86	91
175	107	105	104	105	107
180	108	108	108	108	108

Entire luminous intensity matrix found in .IES file

Polar Candela Plot



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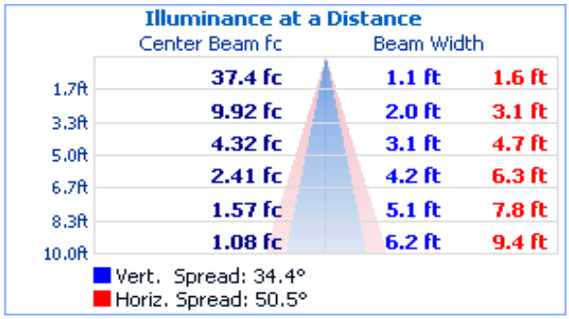
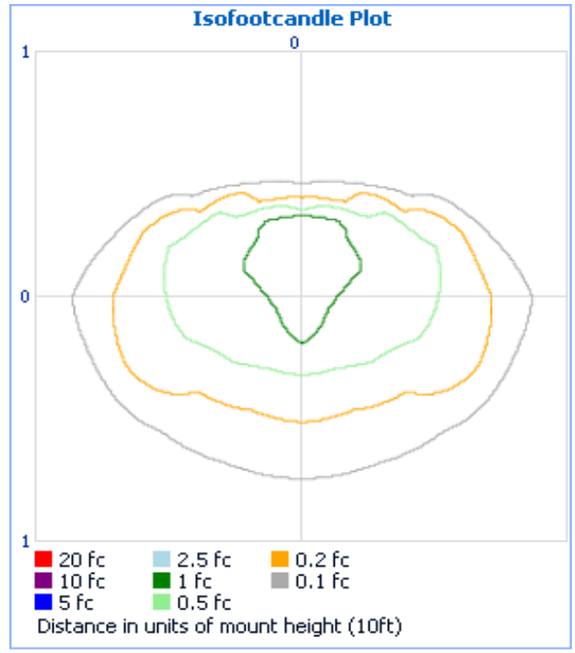
ILLUMINANCE SUMMARY

Mounting Height: 10ft

Illuminance - Cone Of Light



Isoillumination Plot



ZONAL LUMENS

Zonal Lumen Summary

Zone	Lumens	Luminaire
0-30	61.2	30.8%
0-40	74.4	37.4%
0-60	87.3	43.9%
60-90	12.2	6.1%
70-100	11.3	5.7%
90-120	12.2	6.1%
0-90	99.5	50.0%
90-180	99.5	50.0%
0-180	199.0	100.0%

Zone	Lumens	Total	Zone	Lumens	Total
0-10	11.0	5.5%	90-100	3.7	1.8%
10-20	26.7	13.4%	100-110	4.0	2.0%
20-30	23.5	11.8%	110-120	4.6	2.3%
30-40	13.2	6.6%	120-130	5.5	2.8%
40-50	7.4	3.7%	130-140	7.4	3.7%
50-60	5.5	2.8%	140-150	13.2	6.6%
60-70	4.6	2.3%	150-160	23.5	11.8%
70-80	4.0	2.0%	160-170	26.7	13.4%
80-90	3.7	1.8%	170-180	11.0	5.5%

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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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