



FOR THE SCOPE OF
ACCREDITATION UNDER NVLAP LAB
CODE 100402-0.

REPORT

3933 US ROUTE 11, CORTLAND, NEW YORK 13045

Project No. Qu-00769800

Date: March 10, 2017

REPORT NO. Qu-00769800CRT-001

TEST OF ONE RECESSED DOWNLIGHT

MODEL NO. A6VOFLED-5035K
LED MODEL NO. PHILIPS L2 FLEX MODULE
DRIVER MODEL NO. PHILIPS XITANIUM 50W

RENDERED TO:

VANTAGE LIGHTING
181 NARRAGANSETT PARK DRIVE
EAST PROVIDENCE, RI

TESTS: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: 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-00769800.

STANDARDS USED:

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

DESCRIPTION OF SAMPLE: The client submitted one sample of model number A6VOFLED-5035K. The sample was received by Intertek on March 8, 2017 in undamaged condition and one sample was tested as received. The sample designation was N/A.

DATE OF TESTS: March 8, 2017

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SUMMARY:

MODEL NO. A6VOFLED-5035K
DESCRIPTION: RECESSED DOWNLIGHT

Criteria	Results
Light Output (Lumens)	4532.2
Total Power (W)	58.77
Lumen Efficacy (Lm/W)	77.1
Power Factor ()	0.992
LED Board Temperature (°C)	53.5

EQUIPMENT LIST

Equipment Used	Model No.	Control No.	Last Cal.	Cal. Due
LSI High Speed Mirror Goniometer	6440	---	2/28/2017	3/28/2017
Elgar AC Power Supply	CW1251	---	VBV	VBV
Sorenson DC Power Supply	XG 150-10	---	VBV	VBV
Yokogawa Power Analyzer	WT210	E464	5/2/2016	5/2/2017
Omega Thermometer	DPi8-C24	M263	5/2/2016	5/2/2017
M-D Building Products Digital Level	Smart Tool	L112	4/8/2016	4/8/2017
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2017	1/9/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2017	1/9/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2017	1/9/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2017	1/11/2019
Fluke Thermometer	53II	D587	12/29/2016	12/29/2017

TEST METHODS:

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

The LED Board temperature was taken after LM-79 Stabilization as requested by the client at the Tp location.

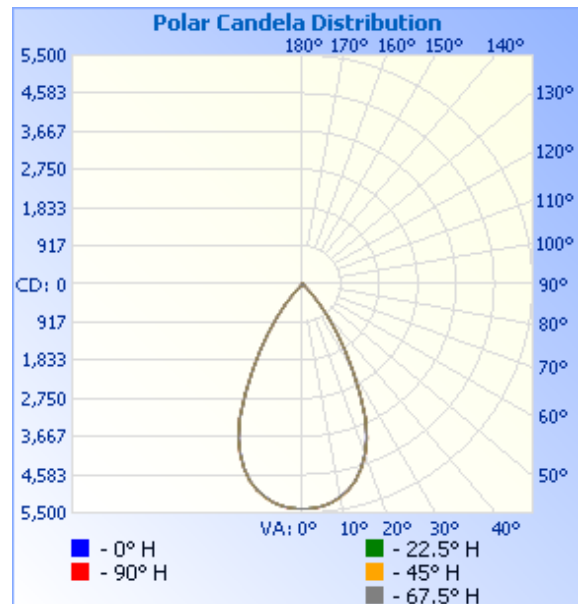
RESULTS:

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Control No.	Base Orientation	Input Voltage (VAC)	Input Current (mA)	Input Power (W)	Input Power Factor ()	Light Output (Lumens)	Lumen Efficacy (lm/W)
CRT1703080934-001	Base Up	120.05	493.3	58.77	0.992	4532.2	77.1

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	5405	5405	5405	5405	5405
5	5357	5361	5358	5361	5366
10	5184	5193	5202	5198	5197
15	4882	4886	4891	4888	4883
20	4343	4354	4355	4354	4362
25	3550	3552	3557	3557	3559
30	2380	2393	2394	2396	2400
35	1416	1426	1418	1427	1431
40	650	657	658	662	662
45	156	166	166	168	168
50	30	33	37	38	36
55	14	16	19	20	18
60	4	5	8	9	7
65	0	0	0	1	0
70	0	0	0	0	0
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

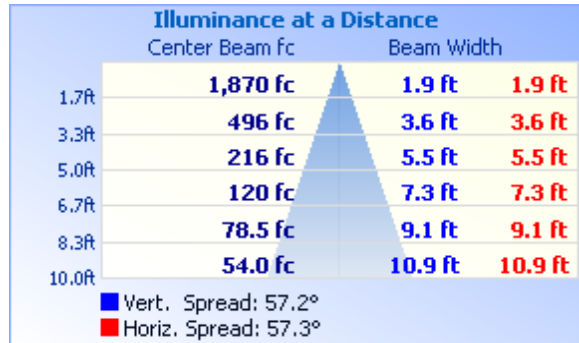


RESULTS:

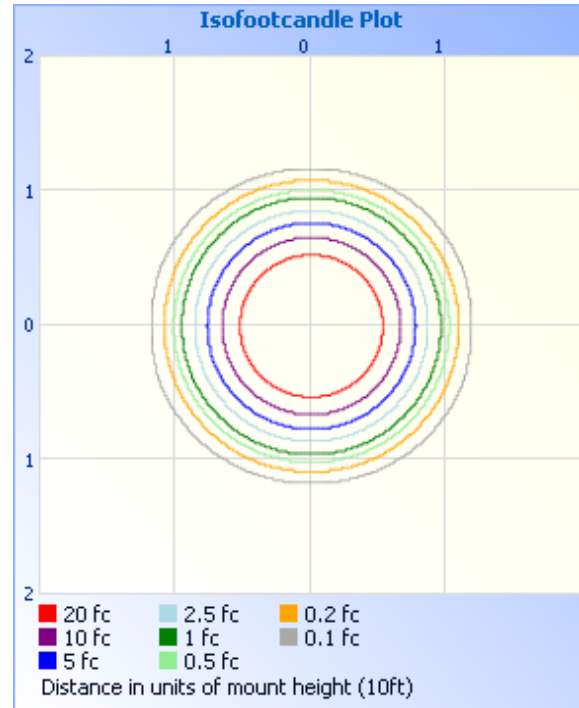
Illumination Plots

Mounting Height: 10ft

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	3443.8	76.0
0-40	4338.8	95.7
0-60	4530.5	100.0
60-90	1.7	0.0
0-90	4532.2	100.0
90-180	0.0	0.0
0-180	4532.2	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	506.1	11.2
10-20	1359.6	30.0
20-30	1578.1	34.8
30-40	894.9	19.7
40-50	175.0	3.9
50-60	16.8	0.4
60-70	1.7	0.0
70-80	0.0	0.0
80-90	0.0	0.0

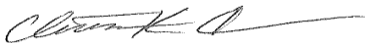
PRODUCT PICTURE:



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



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Report Reviewed By:



Ryan Siddon
Project Engineer
Lighting Division

Attachments: IES File - CRT1703080934-001