



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

REPORT

3933 US ROUTE 11, CORTLAND, NEW YORK 13045

Project No. G102182053

Date: July 21, 2015

REPORT NO. 102182053CRT-006

TEST OF ONE RECESSED DOWNLIGHTS

MODEL NO. A4VOCLED1-1330K- NW
LED MODEL NO. XICATO XTM
DRIVER MODEL NO. HARVARD CL7005-UNI-C

RENDERED TO:

LEXINGTON LIGHTING GROUP, LLC DBA VANTAGE LIGHTING
645 MYLES STANDISH BLVD
TAUNTON, MA 02780

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 .

STANDARDS USED:

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

DESCRIPTION OF SAMPLE: The client submitted one prototype sample of model number A4VOCLED1-1330K- NW. The sample was received by Intertek on June 24, 2015 in undamaged condition and one sample was tested as received. The sample designation was CRT1506241050-002-003.

DATE OF TESTS: July 21, 2015

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SUMMARY:

MODEL NO. A4VOCLED1-1330K- NW
DESCRIPTION: RECESSED DOWNLIGHTS

Criteria	Results
Light Output (Lumens)	1274
Total Power (W)	14.55
Lumen Efficacy (Lm/W)	87.5
Power Factor ()	0.993

EQUIPMENT LIST

Equipment Used	Model No.	Control No.	Last Cal.	Cal. Due
LSI High Speed Mirror Goniometer	6440	---	7/10/2015	8/10/2015
Elgar AC Power Supply	CW1251	---	VBU	VBU
Sorenson DC Power Supply	XG 150-10	---	VBU	VBU
Yokogawa Power Analyzer	WT210	E464	4/20/2015	4/20/2016
ExTech Hygro Thermometer	445703	T1357	12/10/2014	12/10/2015
Fisher Scientific Stopwatch	14-649-9	N1405	8/25/2014	8/25/2015
M-D Building Products Digital Level	Smart Tool	L112	3/25/2015	3/25/2016
NIST Luminous Intensity Standard Source	NBS10322	N1427	12/12/2014	12/12/2015
NIST Luminous Intensity Standard Source	NBS10215	N1432	12/12/2014	12/12/2015
NIST Luminous Intensity Standard Source	H754	N1433	12/12/2014	12/12/2015
NIST Luminous Flux Standard Source	NBS10428	N1424	12/17/2014	12/17/2015

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.

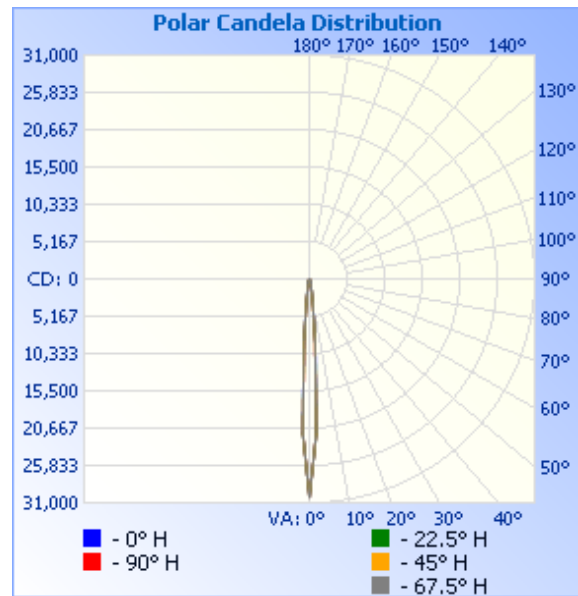
RESULTS:

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)
CRT1506241050-002-003	Base Up	120.1	122.1	14.55	0.993	1274.0	87.54

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	30201	30201	30201	30201	30201
5	9009	8917	8755	8500	8499
10	1663	1606	1564	1546	1545
15	744	739	727	721	732
20	559	561	560	560	558
25	489	487	484	483	489
30	436	433	427	429	438
35	293	304	254	297	301
40	26	25	21	23	25
45	2	5	3	4	3
50	0	0	0	0	0
55	0	0	0	0	0
60	0	0	0	0	0
65	0	2	0	0	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:

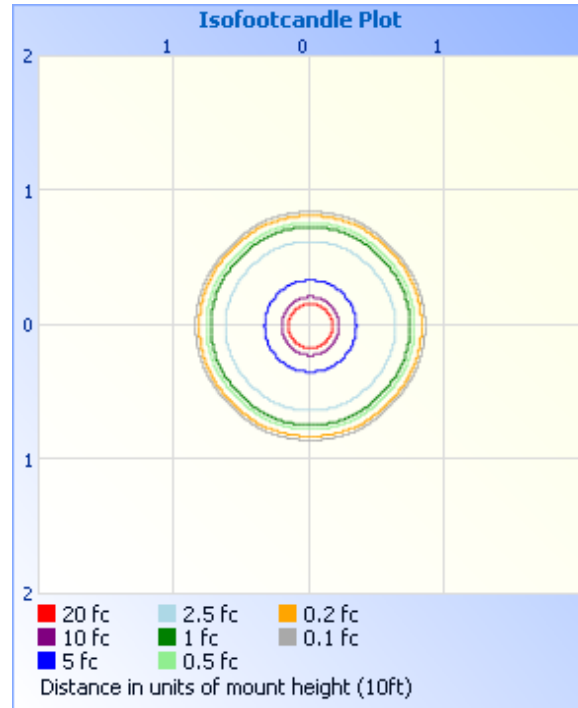
Illumination Plots

Mounting Height: 10

Illuminance - Cone of Light

Illuminance at a Distance			
	Center Beam fc	Beam Width	
1.7ft	10,450 fc	0.2 ft	0.2 ft
3.3ft	2,773 fc	0.4 ft	0.4 ft
5.0ft	1,208 fc	0.7 ft	0.6 ft
6.7ft	673 fc	0.9 ft	0.9 ft
8.3ft	438 fc	1.1 ft	1.1 ft
10.0ft	302 fc	1.3 ft	1.3 ft
<div> <div style="display: inline-block; width: 10px; height: 10px; background-color: blue; margin-right: 5px;"></div> Vert. Spread: 7.5° <div style="display: inline-block; width: 10px; height: 10px; background-color: red; margin-left: 10px; margin-right: 5px;"></div> Horiz. Spread: 7.4° </div>			

Isoillumination Plot



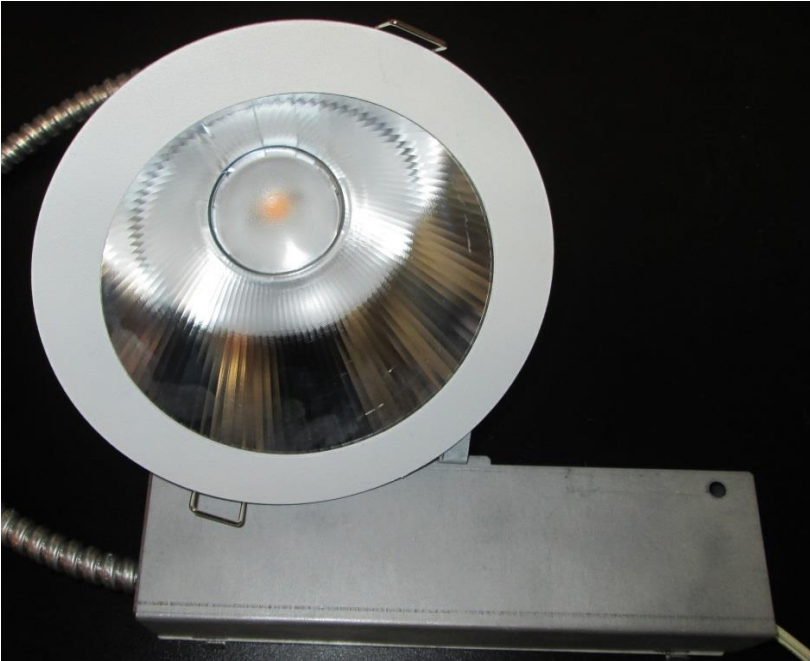
Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	1116.2	87.6
0-40	1269.2	99.6
0-60	1273.9	100.0
60-90	0.1	0.0
0-90	1274.1	100.0
90-180	0.0	0.0
0-180	1274.1	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	665.6	52.2
10-20	225.6	17.7
20-30	225.0	17.7
30-40	153.0	12.0
40-50	4.7	0.4
50-60	0.1	0.0
60-70	0.1	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:



Gerald Gray
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Lighting Division

Report Reviewed By:



Jeffrey Davis
Engineering Supervisor
Lighting Division

Attachments: IES File - CRT1506241050-002-003