



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 23, 2015

REPORT NO. 102182053CRT-016

TEST OF ONE RECESSED DOWNLIGHTS

MODEL NO. A2VOCLED1-0730K-WE  
LED MODEL NO. CREE CXB 1507  
DRIVER MODEL NO. HATCH LC-14

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 A2VOCLED1-0730K-WE. The sample was received by Intertek on June 24, 2015 in undamaged condition and one sample was tested as received. The sample designation was CRT1507081017-001-003.

DATE OF TESTS: July 22, 2015

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#### SUMMARY:

MODEL NO. A2VOCLED1-0730K-WE
DESCRIPTION: RECESSED DOWNLIGHTS

Criteria	Results
Light Output (Lumens)	958
Total Power (W)	11.55
Lumen Efficacy (Lm/W)	82.9
Power Factor ( )	0.976

#### 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.

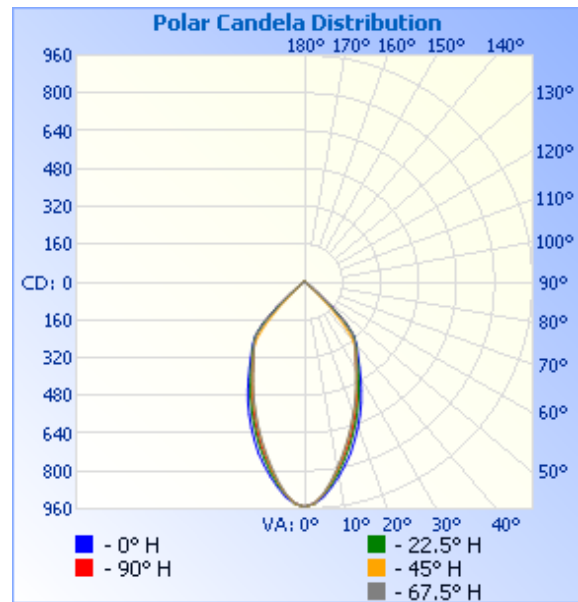
## RESULTS:

### 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)
CRT1507081017-001-002	Base Up	120.0	98.6	11.55	0.976	957.7	82.92

### Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	951	951	951	951	951
5	913	904	902	900	903
10	834	819	802	796	806
15	749	725	698	695	711
20	655	629	600	598	614
25	563	539	515	510	520
30	472	453	437	433	439
35	394	384	376	375	376
40	336	331	314	330	328
45	247	240	157	228	243
50	82	74	46	65	80
55	30	26	23	26	25
60	15	15	14	14	14
65	8	8	8	8	8
70	4	4	4	4	4
75	1	2	2	3	3
80	0	1	1	2	1
85	0	0	0	0	0
90	0	0	0	0	0

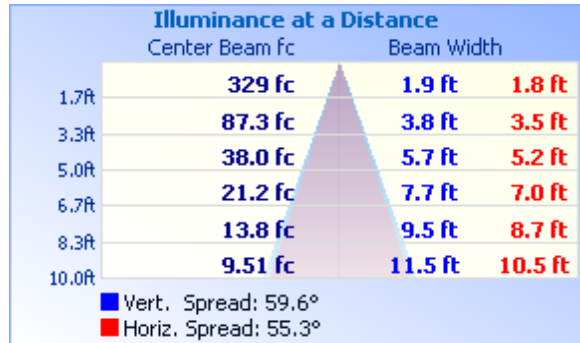


## RESULTS:

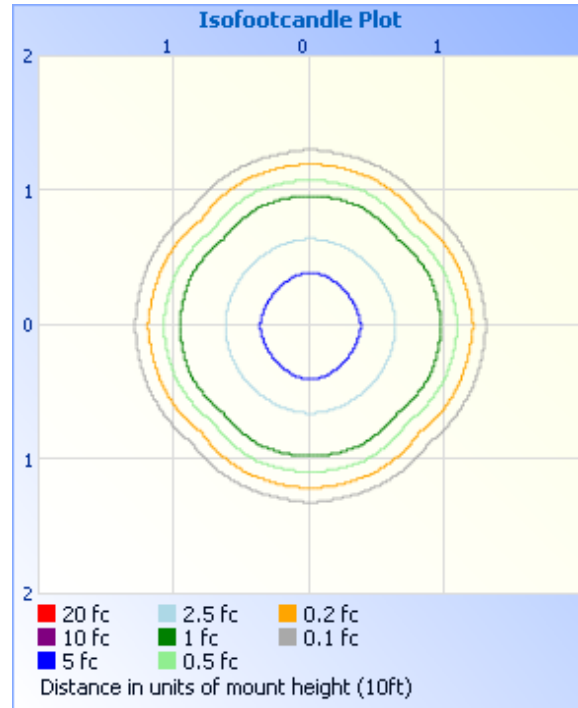
### Illumination Plots

Mounting Height: 10

Illuminance - Cone of Light



Isoillumination Plot



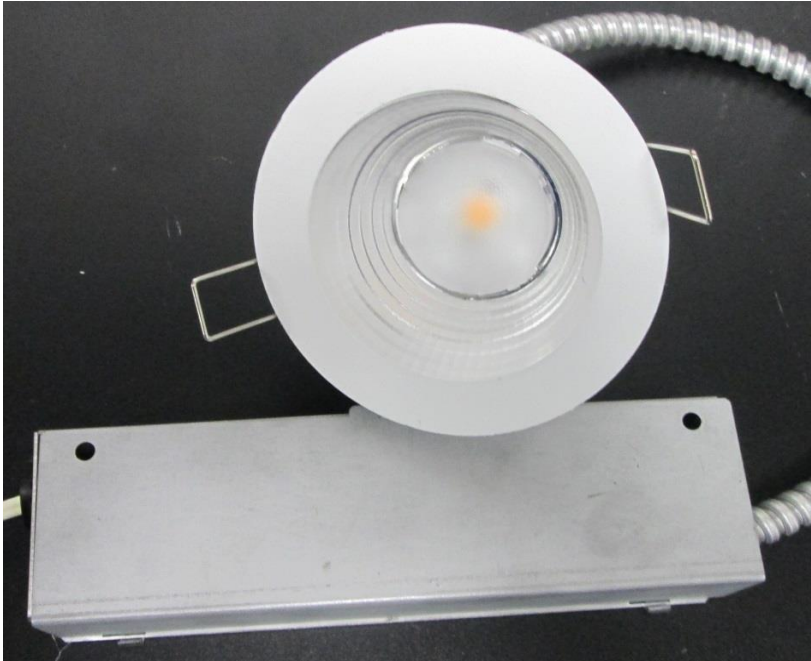
Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	523.4	54.6
0-40	762.1	79.6
0-60	946.8	98.9
60-90	10.9	1.1
0-90	957.7	100.0
90-180	0.0	0.0
0-180	957.7	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	83.0	8.7
10-20	198.7	20.7
20-30	241.7	25.2
30-40	238.8	24.9
40-50	157.5	16.4
50-60	27.1	2.8
60-70	8.2	0.9
70-80	2.4	0.3
80-90	0.3	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  
Associate Engineer  
Lighting Division

Report Reviewed By:



Jeffrey Davis  
Engineering Supervisor  
Lighting Division

Attachments: IES File - CRT1507081017-001-003