



# REPORT

545 E. Algonquin Rd., Arlington Heights, IL 60005

Project No. G101518786

March 19, 2015

REPORT NO. 101518786CHI-097

TEST OF ONE LED RECESSED RETRO-FIT FIXTURE WITH EGGCRATE LOUVER

MODEL NO. ER6A-LH930WW  
DRIVER MODEL NO. EBR 015U-0350-42  
LED MODEL NO. CITIZEN CLU024-1202B8-303H5D2

RENDERED TO

GENERATION BRANDS  
7400 LINDER AVE.  
SKOKIE, IL 60077

TEST: 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 500506211.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

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

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number ER6A-LH930WW . The sample was received by Intertek on March 6, 2015, in undamaged condition and one sample was tested as received. The sample designation was AH03062015070428.

DATE OF TEST: March 18, 2015

## SUMMARY

Model No.:	ER6A-LH930WW
Description:	LED Recessed Retro-fit Fixture with Eggcrate Louver

Criteria	Result
Total Lumen Output (Lumens)	571.0
Total Power (W)	14.52
Luminaire Efficacy (LPW)	39.33
Power Factor	0.990

## EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
Yokogawa Power Meter	WT210	146919	07/16/14	07/16/15
Omega Newport Thermometer	DPI8-C24	146920	10/09/14	10/09/15
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Hygrometer	iServer	146956	01/06/15	01/06/16
Elgar, AC Power Supply	CW1251P	146918	VBV	VBV
Cole-Parmer Triple Timer	94440-00	CHI0041	04/01/14	04/01/15

## 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 each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

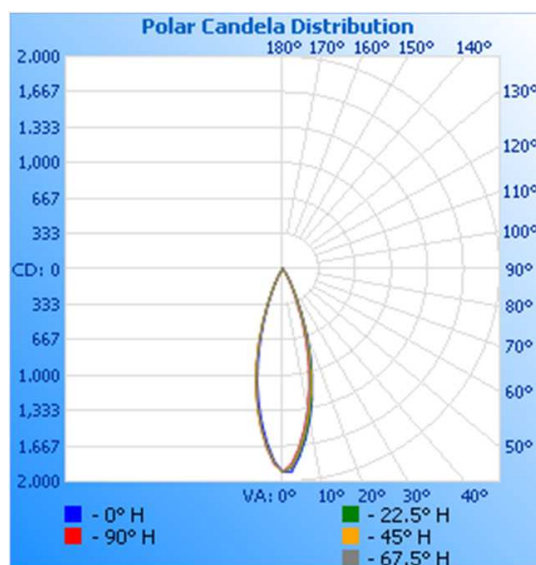
## RESULTS OF TEST

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

Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
AH03062015070428	UP	120.0	122.2	14.52	0.990	571.0	39.33

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

Angle	0	22.5	45	67.5	90
0	1907	1907	1907	1907	1907
5	1771	1745	1724	1710	1691
10	1435	1417	1379	1346	1331
15	1044	1025	992	942	926
20	635	621	596	557	536
25	313	296	285	258	243
30	129	120	111	103	96
35	51	42	39	36	32
40	18	15	14	12	11
45	7	6	5	5	5
50	3	3	3	3	3
55	2	2	2	2	2
60	1	2	2	2	2
65	1	1	1	1	1
70	1	1	1	1	1
75	1	1	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

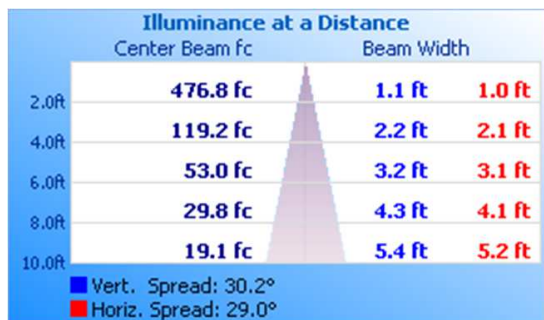


# RESULTS OF TEST (cont'd)

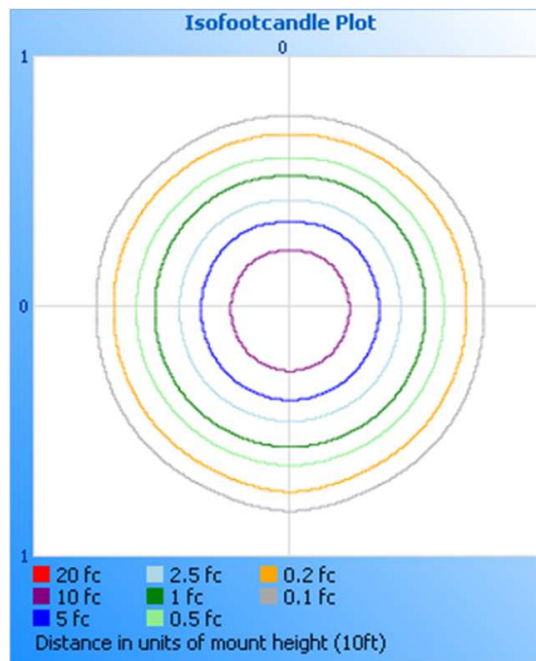
## Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



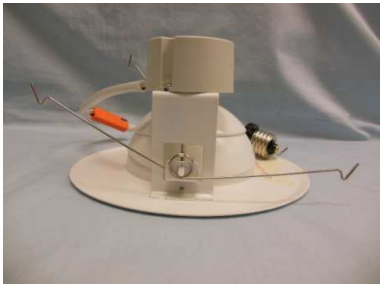
Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	535.6	93.8
0-40	562.7	98.5
0-60	569.2	99.7
60-90	1.8	0.3
0-90	571.0	100.0
90-180	0.0	0.0
0-180	571.0	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	150.7	26.4
10-20	257.8	45.2
20-30	127.1	22.3
30-40	27.1	4.7
40-50	4.6	0.8
50-60	1.9	0.3
60-70	1.2	0.2
70-80	0.5	0.1
80-90	0.1	0.0

PICTURE (not to scale)



#### 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:



Lester Irabagon  
Engineer  
Lighting Division

Attachment: None

Report Reviewed By:



Timothy Quigley  
Engineer  
Lighting Division