



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

# REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Project No. G100641836

Date: March 9, 2012

REPORT NO. 100641836CRT-003

TEST OF ONE 10" BOWL CEILING MOUNT FIXTURE

FIXTURE MODEL NO. RWHC14-WH

RENDERED TO

MILLENNIUM LIGHTING  
922 DAILEY MILL ROAD  
MCDONOUGH, GA 30253

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

LABORATORY NOTE: The laboratory that conducted the testing detailed in this report has been Qualified, Verified, and Recognized for LM-79 Testing for ENERGY STAR for SSL by US DOE's CALiPER program.

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 500357309.

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-54: 1999 Guide to Lamp Seasoning

IESNA LM-46-04: 1998 Approved Method for Photometric Testing of Indoor Luminaires Using High Intensity Discharge or Incandescent Filament Lamps

DESCRIPTION OF SAMPLE: The client submitted one sample of model number RWHC14-WH. The sample was received by Intertek on February 14, 2012, in undamaged condition, and one sample was tested as received. The sample designation was M242866-1.

DATES OF TESTS: March 6, 2012.

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SUMMARY

Model No.: RWHC14-WH
Description: Ceiling Mount Fixture with a 200 W Incandescent Bulb

Criteria	Result
Total Lumen Output	1368 Lumens
Total Power	165.9 W
Luminaire Efficacy	8.246
Power Factor	1.000

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Calibration Date	Calibration Due Date
Elgar AC Power Supply	CW1251	--	--	--
Xitron Power Analyzer	2503H	E235	04/20/11	04/20/12
Cole Parmer Hygro Thermometer	445703	T1359	10/26/11	10/26/12
Kikusui DC Power Supply	35-10L	E160	---	---
Sorenson DC Power Supply	DLM150-20E	--	---	---
LSI High Speed Mirror Goniometer	6440	--	02/17/12	03/17/12

TEST METHODS

Seasoning in Each Burn Orientation

The photometric tests were performed after the lamps were seasoned. Before the photometric tests, each bulb was operated in its designated orientation in the appropriate fixture for a time period of 1.5% of its rated hours in accordance with IESNA LM-54 Guide to Lamp Seasoning.

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.

Estimated Total Operating Time

Model No.	Total Hours
RWHC14-WH	1

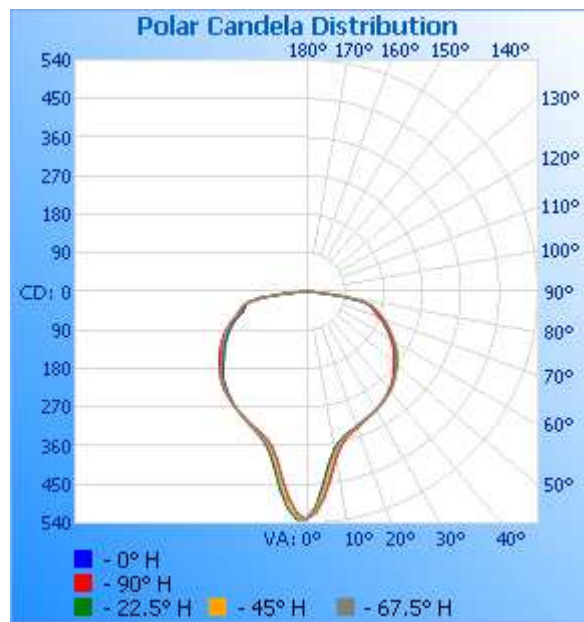
## RESULTS OF TESTS

### Photometric and Electrical Measurements – 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)
RWHC14-WH							
M242866-1	UP	120.0	1382	165.9	1.000	1368	8.246

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

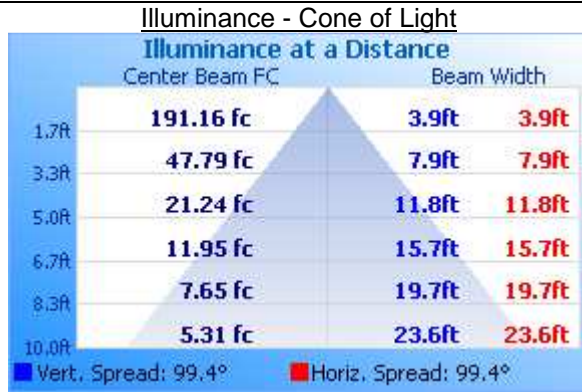
Angle	0	22.5	45	67.5	90
RWHC14-WH					
0	531	531	531	531	531
5	449	452	461	475	482
10	373	375	380	390	397
15	347	347	349	352	356
20	336	336	337	339	341
25	326	326	327	328	330
30	321	321	321	322	321
35	312	312	313	312	310
40	302	303	303	302	299
45	288	290	290	289	284
50	273	275	274	274	266
55	255	257	257	256	248
60	234	237	237	236	228
65	212	214	215	213	206
70	190	193	194	192	182
75	166	169	171	168	161
80	130	136	141	129	136
85	35	39	44	40	44
90	1	1	2	1	2



## RESULTS OF TESTS (cont'd)

### Illumination Plots

Model No.: RWHC14-WH  
Mounting Height: 10 ft.



### Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
RWHC14-WH		
0-30	297.0	21.7
0-40	491.6	35.9
0-60	932.7	68.2
60-90	435.2	31.8
0-90	1368	100.0
90-180	0.2	0.0
0-180	1368	100.0

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:



Kenda Branch  
Engineer  
Lighting Division

Attachment: None

Report Reviewed By:



David Ellis  
Senior Project Engineer  
Lighting Division