



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-004

TEST OF ONE WAREHOUSE LIGHT FIXTURE

FIXTURE MODEL NO. RWHC17-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 RWHC17-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 M242867-3.

DATES OF TESTS: March 6, 2012.

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SUMMARY

Model No.: RWHC17-WH
Description: Warehouse Fixture with a 200 W Incandescent Bulb

Criteria	Result
Total Lumen Output	1324 Lumens
Total Power	165.3 W
Luminaire Efficacy	8.010
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
RWHC17-WH	2

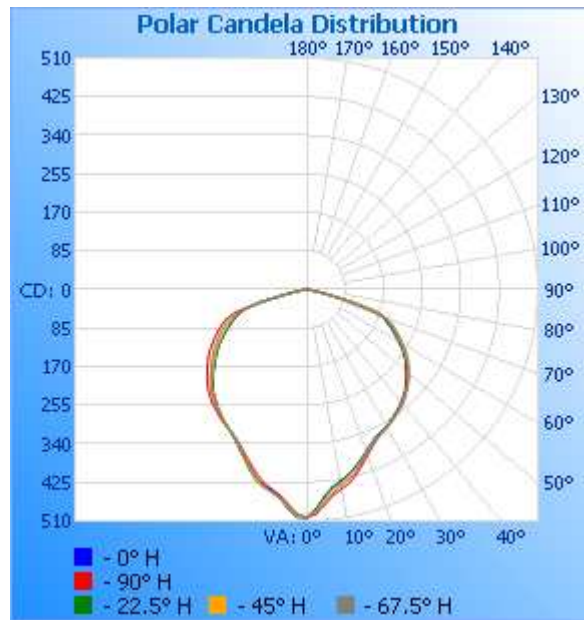
RESULTS OF TESTS

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)
RWHC17-WH							
M242867-3	UP	120.0	1379	165.3	1.000	1324	8.010

Intensity (Candlepower) Summary at 25°C - Candelas

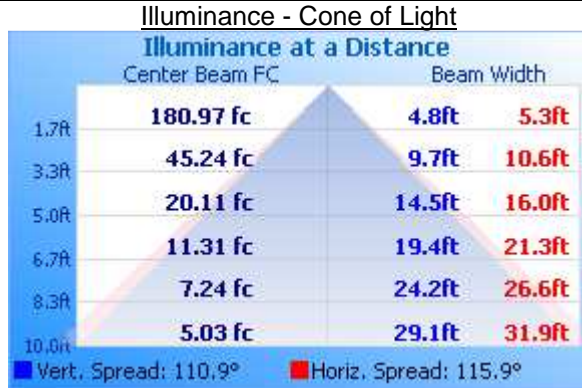
Angle	0	22.5	45	67.5	90
RWHC17-WH					
0	503	503	503	503	503
5	457	458	463	469	474
10	429	430	434	438	446
15	407	408	411	416	422
20	381	382	384	388	390
25	359	360	362	363	364
30	350	350	351	353	350
35	338	339	340	341	337
40	326	326	327	329	324
45	310	310	312	313	308
50	290	290	292	295	286
55	266	267	270	273	265
60	237	239	242	246	240
65	208	210	214	219	215
70	181	183	188	186	188
75	93	99	102	77	104
80	21	22	24	23	24
85	6	7	8	9	8
90	0	0	0	0	0



RESULTS OF TESTS (cont'd)

Illumination Plots

Model No.: RWHC17-WH
Mounting Height: 10 ft.



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
RWHC17-WH		
0-30	331.2	25.0
0-40	542.0	40.9
0-60	1007	76.1
60-90	317.0	23.9
0-90	1324	100.0
90-180	0.0	0.0
0-180	1324	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:

A handwritten signature in black ink, appearing to read 'Kenda Branch', written in a cursive style.

Kenda Branch
Engineer
Lighting Division

Attachment: None

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'David Ellis', written in a cursive style.

David Ellis
Senior Project Engineer
Lighting Division