



# NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200  
FAX (717) 767-4100  
www.nctlinc.com

AAMA/WDMA/CSA 101/I.S.2/A440-05  
AAMA/WDMA/CSA 101/I.S.2/A440-08

## STRUCTURAL PERFORMANCE TEST REPORT SUMMARY

### RENDERED TO:

Remodelers Supply Center  
2622 North Pulaski  
Chicago, IL 60639

MODEL/TYPE: "1199 ClimateGuard" Fixed Lite

TITLE	SUMMARY OF RESULTS
Primary Product Designator	2005: FW-LC45 1422 x 1422 mm (56x56) 2008:Class LC-PG45: Size tested 1422 x 1422 mm (56 x 56 in)-Type FW
Air Infiltration/Exfiltration	Infiltration Rate: 0.5 L/s/m <sup>2</sup> (0.1 cfm/ft <sup>2</sup> ) (<0.01 cfm/ft <sup>2</sup> measured)
Water Penetration Resistance	580 pa (12.0 psf)
Design Pressure	± 2160 pa (45.0 psf)
Uniform Load Structural Test	± 3240 pa (67.5 psf)
Forced Entry Resistance	Passed ASTM F588-07 Grade 10

**Test Completion Date: 07/11/11**

**Test Expiration Date: 07/11/15**

Reference must be made to NCTL Report Number NCTL-110-14147-1 dated 07/13/11 for complete test sample description and data.

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JAY LEADER  
Technician



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## **STRUCTURAL PERFORMANCE TEST REPORT**

# **NCTL-110-14147-1**

**REPORT TO:**  
Remodelers Supply Center  
2622 North Pulaski  
Chicago, IL 60639

**ORIGINAL REPORT NUMBER:** NCTL-110-14147-1  
**ORIGINAL REPORT DATE:** 07/13/11  
**TEST EXPIRATION DATE:** 07/11/15

**MODEL/TYPE:** "1199 ClimateGuard" Fixed Lite



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REPORT NCTL-110-14147-1 TO: Remodelers Supply Center  
2622 North Pulaski  
Chicago, IL 60639

STARTING TEST DATE: 07/11/11  
ENDING TEST DATE: 07/11/11  
TEST EXPIRATION DATE: 07/11/15

SPECIFICATION: AAMA/WDMA/CSA 101/I.S.2/A440-05, "Standard/Specification for Windows, Doors and Unit Skylights."  
  
AAMA/WDMA/CSA 101/I.S.2/A440-08, "NAFS-North American Fenestration Standard/Specification for Windows, Doors and Skylights."

PERFORMANCE CLASS: 2005: FW-LC45 1422 x 1422 mm (56x56)  
2008: Class LC-PG45: Size tested 1422 x 1422 mm (56x56 in)-Type FW

## DESCRIPTION OF SAMPLE TESTED

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MODEL/TYPE:	"1199 ClimateGuard"
CONFIGURATION:	Fixed Lite
FRAME SIZE:	1422.4 mm (56") wide by 1422.4 mm (56") high
FIXED LITE VIEWING AREA:	1339.85 mm (52-3/4") wide by 1339.85 mm (52-3/4") high
FRAME TYPE:	Extruded aluminum with poured urethane thermal breaks
JOINT CONSTRUCTION	
FRAME:	(2) Screw butt-type
GLAZING COMPONENTS	
OVERALL:	21.97mm (0.865") nominal
GLASS THICKNESS:	(2) Lites of 3 mm (0.125") nominal annealed
SPACER TYPE/SIZE:	Coated Steel U-shaped (CU-D) 15.62 mm (0.615")
GLAZING SYSTEM:	Interior glazed with butyl tape back-bedding, a silicone heal bead and a snap-in extruded aluminum glazing bead
WEATHERSTRIP	
TYPE:	(1) Strip bulb vinyl
LOCATION:	Glazing bead
OPERATING HARDWARE	None employed
AUXILIARY	
TYPE:	Urethane foam
LOCATION:	Frame webbing
REINFORCEMENT	None employed
WEEP HOLES	No apparent weeps employed
INTERIOR & EXTERIOR	
SURFACE FINISH:	White painted aluminum

**SEALANT**

LOCATION: Frame and glazing bead corners  
 MATERIAL: Small joint sealant

INSECT SCREEN No screen employed

INSTALLATION METHOD: The window was installed in a 50.8 mm x 254 mm (2" x 10") wood buck and with 25.4 mm (1") x 12.7 mm (0.5") wood blind stops at the interior and exterior perimeter of the frame. Each blind stop was secured with 31.75 mm (1-1/4") long brad staples located at 76.2 mm (3") from each end and 254 mm (10") on center.

**TEST RESULTS****5.3.2 AIR LEAKAGE RESISTANCE AT 75 PA (1.6 PSF)**

ASTM E283	<b><u>Measured</u></b>	<b><u>Allowed</u></b>
Infiltration Rate	0.5 L/s/m <sup>2</sup> (0.1 CFM/ft <sup>2</sup> ) (<0.01 CFM/ft <sup>2</sup> measured)	1.5 L/s/m <sup>2</sup> (0.3 CFM/ft <sup>2</sup> )

*The Tested Specimen Meets Or Exceeds the Performance Levels Specified in AAMA/WDMA/CSA 101/I.S.2/A440-05/08*

**5.3.3 WATER RESISTANCE TEST**

ASTM E547

No Leakage after 4 cycles of 5 minutes @ 580pa (12.0 psf)

*\* Tested with and without insect screen*

**5.3.4.2 UNIFORM LOAD DEFLECTION AT DESIGN PRESSURE**

ASTM E330

No Damage After Positive 2160 pa (45.0 psf)

No Damage After Negative 2160 pa (45.0 psf)

	<b><u>Measured</u></b>	
Measured Deflection Positive	0.20 mm	(0.008 inches)
Measured Deflection Negative	0.30 mm	(0.012 inches)

**5.3.4.3 UNIFORM LOAD STRUCTURAL TEST**

ASTM E330

No Damage After Positive 3240 pa (67.5 psf)

No Damage After Negative 3240 pa (67.5 psf)

	<b><u>Measured</u></b>	
Measured Permanent Set Positive	00.13 mm	(0.005 inches)
Measured Permanent Set Negative	00.10 mm	(0.004 inches)

Maximum Allowed 0.4% for R Rating 5.61 mm (0.021 inches)

*\*\* No glass breakage or permanent damage causing the unit to be inoperable*

**5.3.5 FORCED ENTRY RESISTANCE.**

Passed ASTM F588 Grade 10

See Appendix for results.

The tested specimen meets (or exceeds) the performance level specified in AAMA/WDMA/CSA 101/I.S.2/A440-05 and AAMA/WDMA/CSA 101/I.S.2/A440-08 for air leakage resistance. The listed results were secured by using the designated test methods and indicate compliance with the performance requirements of the referenced specification paragraphs for the FW-LC45 1422 x 1422 mm (56x56) and 2008: Class LC-PG45: Size tested 1422 x 1422 mm (56x56 in)-Type FW product designations.

This test report was prepared by National Certified Testing Laboratory (NCTL), for the exclusive use of the above named client and it does not constitute certification of this product. The results are for the particular specimen tested and do not imply the quality of similar or identical products manufactured or installed from specifications identical to the tested product. The test specimen was supplied to NCTL by the above named client. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen are to be drawn from the ASTM E330 test. Forced entry resistance test equipment used is in compliance with Section 7 of the ASTM F588-07 test method. Foam tape is mounted to the perimeter of the test buck prior to clamping to the test wall. NCTL is a testing lab and assumes that all information provided by the client is accurate and does not guarantee or warranty any product tested or installed.

Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report. Component drawings were reviewed for product verification. The bill of materials contains details with any deviations noted. Ambient conditions during the referenced testing are available upon request. A copy of this report along with representative sections of the test specimen will be retained by NCTL. This report does not constitute certification or approval of the product, which may only be granted by a certification program validator or recognized approval entity. All tests were conducted in full compliance with the referenced specifications and/or test methods. This report may not be reproduced, except in full, without the written consent of NCTL.

## NATIONAL CERTIFIED TESTING LABORATORIES

A handwritten signature in black ink that reads "Jay Leader". The signature is written over a circular logo containing the letters "NCTL". Below the signature, the words "DIGITAL SIGNATURE" are printed in a small, sans-serif font.

JAY LEADER  
Technician

A handwritten signature in black ink that reads "R. H. Zeiders". The signature is written over a circular logo containing the letters "NCTL". Below the signature, the words "DIGITAL SIGNATURE" are printed in a small, sans-serif font.

ROBERT H. ZEIDERS  
Vice-President Engineering & Quality

JL/hl

## Attachments

- Appendix A – Forced Entry Test Results
- Appendix B – Drawing & Revision Summary
- Appendix C – Drawings

**APPENDIX A**  
Forced Entry Resistance Test Results

**Test Method:** ASTM F 588-07, "Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact". Grade 10

**TEST RESULTS**

<u>Paragraph No.</u>	<u>Loads</u>	<u>Duration</u>	<u>Measured</u>	<u>Allowed</u>
A2.1 Disassembly Test	N/A	5 Minutes	No Entry	No Entry
A2.3 Sash Manipulation	N/A	5 Minutes	No Entry	No Entry

## APPENDIX B

### **Section 1:**

Component Drawings, with Applicable Part Numbers, Manufacturing and Modeling Details, were reviewed (as submitted) for Product Verification  
(Reference: NCTL-110-14147-1)

See Attached Documentation;  
any deviations noted.

Note: The above referenced component drawings along with representative sections of the test specimen will be retained per procedure by NCTL. This testing facility assumes that all information provided by the client is accurate.

### **Section 2:**

<u>Identification</u>	<u>Date</u>	<u>Page &amp; Revision</u>
Original Issue	07/13/11	Not Applicable