



# NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200  
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**AAMA/WDMA/CSA 101/I.S.2/A440-08**  
**AAMA/WDMA/CSA 101/I.S.2/A440-05**

## TEST REPORT SUMMARY

Rendered to:

**REMODELERS SUPPLY CENTER**  
2622 North Pulaski  
Chicago, IL 60639

**PRODUCT TYPE: Awning (Project-Out-at-Bottom)**

**SERIES/ MODEL: "1199"**

Title	Summary of Results
Primary Product Designator AAMA/WDMA/CSA 101/I.S.2/A440-08 AAMA/WDMA/CSA 101/I.S.2/A440-05	Class LC-PG60: Size tested 1219 x 813 mm (48 x 32 in) - Type AP AP-LC60: 1219 x 813 (48 x 32)
Positive Design Pressure	+2880 Pa (+60.0 psf)
Negative Design Pressure	-2880 Pa (-60.0 psf)
Operating Force (in motion)	26.7 N (6 lbf)
Air Infiltration	<0.1 L/s/m <sup>2</sup> (<0.01 cfm/ft <sup>2</sup> )
Water Penetration Resistance Test Pressure	580 Pa (12.0 psf)
Uniform Load Structural Test Pressure	±4320 Pa (90.0 psf)
Forced Entry Resistance	ASTM F588-07 - Grade 10 Pass

Reference must be made to Report No. NCTL-110-15328-1 dated 09/18/12 for complete test specimen description and data.

**For National Certified Testing Laboratories**

  
DIGITAL SIGNATURE

Jay Leader  
Technician



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

## **STRUCTURAL TEST REPORT**

**NCTL-110-15328-1**

REPORT TO:  
REMODELERS SUPPLY CENTER  
2622 NORTH PULASKI  
CHICAGO, IL 60639

REPORT NUMBER: NCTL-110-15328-1  
REPORT DATE: 09/18/12

PRODUCT:  
**"1199" Awning (Project-Out-at-Bottom)**



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**Report Number** NCTL-110-15328-1

**Report Date** 09/18/12

**Report To** Remodelers Supply Center  
2622 North Pulaski  
Chicago, IL 60639

**Test Date** 09/05/12  
**Expiration Date** 09/05/16

**Specification** AAMA/WDMA/CSA 101/I.S.2/A440-08  
NAFS North American Fenestration Standard/Specification for windows,  
doors, and skylights  
AAMA/WDMA/CSA 101/I.S.2/A440-05  
Standard/Specification for Windows, Doors, and Unit Skylights

**Performance Results** AAMA/WDMA/CSA 101/I.S.2/A440-08  
Class LC-PG60: Size tested 1219 x 813 mm (48 x 32 in) - Type AP  
AAMA/WDMA/CSA 101/I.S.2/A440-05  
AP-LC60: 1219 x 813 (48 x 32)

## **Description of Specimen Tested**

Note: All dimensions are in the order (Width x Height x Thickness) unless otherwise noted.

**Model/ Series** "1199" (Project-Out-at-Bottom)

**Configuration** Awning

**Overall Frame Size** 1219.2 mm x 812.8 mm (48" x 32")

**Vent Size** 1179.51 mm x 773.11 mm (46.4375" x 30.4375")

**Frame & Vent Type** Extruded aluminum with poured urethane thermal breaks

**Joint Construction** Frame  
(2) Screw butt-type  
Vent  
Mitered with (2) staked-in-place aluminum corner keys

**Glazing Components**  
Overall 22.23 mm (0.875") Nominal  
Glass Thickness (1) Lite of 4 mm (0.163") nominal annealed exterior  
(1) Lite of 3 mm (0.123") nominal annealed interior  
Spacer Type/Size 14.96 mm (0.589") Coated U-shaped steel spacer (Type CU-D)  
Glazing System Interior glazed with a mastic back-bedding and a snap-in extruded aluminum glazing bead with a bulb-vinyl gasket

**Weatherstrip**  
Type (2) Strips of bulb-vinyl  
Location Vent perimeter

**Operating Hardware****Locks**

Type Metal latch handle  
 Location 165.1 mm (6.5") from the bottom of each jamb

**Keeper**

Type Metal  
 Location Bottom of each stile at the lock location

**Roto Operator**

Type Standard scissors-type  
 Location Midspan of the sill

**Hinge Hardware**

Type (4)-Bar  
 Location Top of each jamb/ stile

**Reinforcement**

No reinforcement employed

**Weep Description**

No apparent weeps employed

**Interior/ Exterior  
Surface Finish**

Brown painted aluminum

**Sealant**

Location Frame and vent corners  
 Material Small joint sealant

**Insect Screen**

Size 1095.38 mm x 698.5 mm (43.125" x 27.5")  
 Corner Construction Mitered, aluminum corner key  
 Material Fiberglass mesh with vinyl-bulb spline, (2) sill retainer springs and (2) extruded aluminum clips per jamb retainer

**Installation Method**

The window was installed in a 50.8 mm x 254 mm (2" x 10") wood buck and secured with 12.7 mm (0.5") x 19.05 mm (0.75") wood blind stop at the interior and exterior perimeter of the buck. Each blind stop was secured with 38.1 mm (1.5") U-shaped staples located at 76.2 mm (3") from end and the remaining staples 203.2 mm (8") on center. The exterior perimeter was sealed with silicone.

***Test Results - AAMA/WDMA/CSA 101/I.S.2/A440-2008 & 2005***

<u>Paragraph</u>	<u>Test</u>
5.2/ 9.3.1	Operating Force and Force to Latch - Method B (Force Gauge) ASTM E2068-00(08)
	Initiate Motion = 30 N (7 lbf)
	Maintain Motion - Opening = 26.7 N (6 lbf)
	Maintain Motion - Closing = 26.7 N (6 lbf)
	Allowed (LC Rating <sub>08</sub> ) = 30 N (7 lbf)
	Latches = <26.7 N (<6 lbf)
	Allowed = 100 N (22.5 lbf)

**NOTE:** The results above represent the maximum force among all sash tested.

Paragraph      Test  
 5.3.2.1/ 9.3.2      Air Leakage Resistance  
 ASTM E283-04(12)

The tested specimen meets or exceeds the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440-2008 and 2005 for air infiltration at 75 Pa (1.6 psf).

Maximum Allowable                      = 1.5 L/s/m<sup>2</sup> (0.3 cfm/ft<sup>2</sup>)

Optional Information at 75 Pa (1.6 psf):

Total Infiltration Rate                      = 0.52 L/s (1.1 cfm)

Infiltration Rate/Area                      = <0.1 L/s/m<sup>2</sup> (<0.01 cfm/ft<sup>2</sup>)

Paragraph      Test  
 5.3.3/ 9.3.3      Water Penetration Resistance  
 ASTM E547-00(09)

No Leakage after 4 cycles of 5 minutes at 580 Pa (12.0 psf)

**NOTE:** Tested without insect screen

Paragraph      Test  
 5.3.4.2/ 9.3.4.2      Uniform Load Deflection at Design Pressure  
 ASTM E330-02(10)

Top Rail

No damage after positive                      2880 Pa (60.0 psf) held for 10 seconds

No damage after negative                      2880 Pa (60.0 psf) held for 10 seconds

Measured Deflection <sub>Positive</sub>                      = 0.53 mm (0.021 inches)

Measured Deflection <sub>Negative</sub>                      = 0.33 mm (0.013 inches)

Paragraph      Test  
 5.3.4.3/ 9.3.4.3      Uniform Load Structural Test  
 ASTM E330-02(10)

Horizontal Mullion

No damage after positive                      4320 Pa (90.0 psf) held for 10 seconds

No damage after negative                      4320 Pa (90.0 psf) held for 10 seconds

Measured Permanent Set <sub>Positive</sub>                      = 0.03 mm (0.001 inches)

Measured Permanent Set <sub>Negative</sub>                      = 0.03 mm (0.001 inches)

Maximum Allowed (0.4%)                      = 4.72 mm (0.186 inches)

**NOTE:** Deflection and Permanent Set measurements taken on the top rail over a 1179.51 mm (46.4375") span.

Paragraph      Test  
 5.3.5/ 9.3.5      Forced Entry Resistance  
 ASTM F588-07

Type A Window Assembly/Grade 10:      Pass

<u>Test</u>	<u>Results</u>	<u>Allowed</u>
Disassembly	No Entry	No Entry
Test A1	No Entry	No Entry
Test A2	No Entry	No Entry
Test A3	No Entry	No Entry
Test A4	No Entry	No Entry
Test A5	No Entry	No Entry

Test A7	No Entry	No Entry
Hardware Manipulation Test	No Entry	No Entry
Sash Manipulation Test	No Entry	No Entry

Type D Window Assembly/Grade 10: Pass

<u>Test</u>	<u>Results</u>	<u>Allowed</u>
Disassembly	No Entry	No Entry
Sash Manipulation Test	No Entry	No Entry

**NOTE:** 1. T1 = 5 minutes, L1 = 150 lbf, L2 = 75 lbf, L3 = 25 lbf  
2. Loads were held for 60 seconds.

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. The results in this report are actual tested values and are applicable to the specimen tested only, using the components and construction methods described herein.

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 is the joint property of National Certified Testing Laboratories Inc. and the Client to whom it is issued. Permission to reproduce this report by anyone other than National Certified Testing Laboratories Inc and the Client must be granted in writing by both of the above parties. This report may not be reproduced, except its entirety, without the written consent of NCTL.

**National Certified Testing Laboratories**


Jay Leader  
Technician



Robert H. Zeiders, P.E.  
Vice-President Engineering & Quality

## Attachments

- Appendix A – Revision Summary
- Appendix B – Drawings

## Appendix A

### **Section 1:**

Component Drawings, with Applicable Part Numbers, Manufacturing and Modeling Details, were Reviewed (as submitted) for Product Verification  
(Reference: NCTL-110-15328-1)

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	09/18/12	Not Applicable