



Architectural Testing

TEST REPORT

Report No.: E3509.01-301-44

Rendered to:

SKYCO SKYLIGHTS
Costa Mesa, California

PRODUCT TYPE: Unit Skylight – Plastic Glazed
SERIES/MODEL: 4896-A-S-CM-SPW-MF

SPECIFICATION(S): AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights.*

Title	Summary of Results
AAMA/WDMA/CSA 101/I.S.2/A440-11	SKP – PG30: Size Tested 2546 x 1327 mm (100-1/4 x 52-1/4 in.) – SKP
Design Pressure	±1440 Pa (±30.08 psf)
Air Infiltration	0.2 L/s/m ² (0.03 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)

Test Completion Date: 12/11/14

Reference must be made to Report No. E3509.01-301-44, dated 12/19/14 for complete test specimen description and detailed test results.



1.0 Report Issued To: Skyco Skylights
2995 Airway Avenue, Suite B
Costa Mesa, California 92626

2.0 Test Laboratory: Architectural Testing, Inc.
4 Rancho Circle
Lake Forest, California 92630
949-460-9600

3.0 Project Summary:

3.1 Product Type: Unit Skylight – Plastic Glazed

3.2 Series/Model: 4896-A-S-CM-SPW-MF

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method. The specimen tested successfully met the performance requirements for a **SKP – PG30: Size Tested 2546 x 1327 mm (100-1/4 x 52-1/4 in.) – SKP** rating.

3.4 Test Dates: 12/09/14 - 12/11/14

3.5 Test Record Retention End Date: All test records for this report will be retained until December 11, 2018.

3.6 Test Location: Architectural Testing, Inc.'s test facility in Lake Forest, California.

3.7 Test Specimen Source: The specimens were selected by Architectural Testing, Inc. personnel. The specimen was witnessed during production and tagged prior to shipment on December 05, 2014, (Reference Architectural Testing Test Specimen Selection Report No. E3507.01-301-15, dated December 08, 2014). Representative samples of the test specimen will be retained by Architectural Testing for a minimum of four years from the test completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix C. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Bob Sampson	RCS Consulting
Ryan Marshall	Skyco Skylights
Patrick Walsh	Skyco Skylights
Jarod Hardman	Architectural Testing, Inc.

4.0 Test Specification:

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights.*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 3.38 m ² (36.37 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	2546	100-1/4	1327	52-1/4
Dome height	-	-	333	13-1/8

5.2 Frame Construction:

Frame Member	Material	Description
Curb frame	6063 T-5 Aluminum	See attached Drawing #ALCM048 and Drawing #ALCM096.
Snap-in perimeter cap	6063 T-5 Aluminum	See attached Drawing #SICP048 and Drawing #SICP096.

	Joinery Type	Detail
Frame corners	Mitered	Corners welded and silicone sealant applied to corner joint inside of condensation track.
Snap-in perimeter cap	Mitered	Cap bead of silicone sealant applied to exterior of miter.

5.3 Weatherstripping:

Description	Quantity	Location
EPDM Gasket	1 row	Press fit into channel of frame (Drawing #ALCM048/ALCM096), see attached drawing #GSKT048/GSKT096.

5.0 Test Specimen Description: (Continued)

5.4 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Glass Type	Glazing	Glazing Method
Monolithic	0.118" CC1 Polycarbonate	Secured by snap in perimeter cap with 1/2" bead of silicone sealant on top and underside of dome perimeter when secured.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Dome	1	2438 x 1219	96 x 48	1"

5.5 Drainage:

Drainage Method	Size	Quantity	Location
Weep hole	1/4" diameter	8	One at each corner and mid-span of each side through frame between snap in cap receiver and press fit gasket receiver.

5.6 Hardware: No hardware was utilized.

5.7 Reinforcement: No reinforcement was utilized.

5.8 Screen Construction: No screen was utilized.

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/2" shim space. The exterior perimeter of the skylight was sealed at the curb with silicone sealant.

Location	Anchor Description	Anchor Location
Full perimeter of skylight	#10 x 1-3/4" slotted hex head screw with neoprene bonded steel washer	3" from each corner and 12" on center spacing for long spans and 3" from each corner and 15-1/2" on center spacing for short spans.

7.0 Test Results: The temperature during testing was 22°C (72°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.2 L/s/m ² (0.03 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Water Penetration, per ASTM E 547 and ASTM E 331 at 220 Pa (4.59 psf)	N/A	N/A	2
Uniform Load Deflection, per ASTM E 330 Deflections taken at curb +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	0.0 mm (0.00") 0.0 mm (0.00")	Report Only	3, 4, 5
Uniform Load Structural, per ASTM E 330 Permanent sets taken at curb +2880 Pa (+60.15 psf) -2160 Pa (-45.11 psf)	0.0 mm (0.00") 0.0 mm (0.00")	1.3 mm (0.05") max. 1.3 mm (0.05") max.	4, 5
Optional Performance			
Air Leakage, Infiltration per ASTM E 283 at 300 Pa (6.27 psf)	0.2 L/s/m ² (0.03 cfm/ft ²)	Report Only	
Water Penetration, per ASTM E 547 and ASTM E 331 at 580 Pa (12.11 psf)	Pass	No leakage	

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 3: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

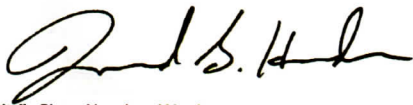
Note 4: Loads were held for 60 seconds.

Note 5: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

Architectural Testing will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Architectural Testing, Inc. for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimens tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.



Digitally Signed by: Jarod Hardman

Jarod S. Hardman
Laboratory Manager



Digitally Signed by: Kenny C. White

Kenny C. White
Laboratory Manager

JSH:ss

Attachments (pages): This report is complete only when all attachments listed are included.

- Appendix-A: Alteration Addendum (1)
- Appendix-B: Location of Air Seal (1)
- Appendix-C: Drawings (14)