



TEST REPORT

Report No.: E3508.02-301-44

Rendered to:

SKYCO SKYLIGHTS
Costa Mesa, California

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

SPECIFICATION: Occupational Safety and Health Administration/U.S. Department of Labor Regulations Standards – 29 CFR 1926 Subpart M (Fall Protection) 1926.501(b)(4)(i); 1926.501(i)(2); 1926.501(b)(4)(ii)

Test Date: 12/11/14
Report Date: 01/05/15
Revision Date: 01/12/15
Test Record Retention Date: 12/11/18



Test Report No.: E3508.02-301-44
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Revision 1 Date: 01/12/15
Test Record Retention End Date: 12/11/18
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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
949-460-9600

3.0 Project Summary:

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

3.2 Product Type: Unit Skylight – Plastic Glazed

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test methods.

3.4 Test Date: 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. test facility in Lake Forest, California.

3.7 Test Sample Source: The specimens were selected by Architectural Testing, Inc. personnel. The specimens were witnessed during production and tagged prior to shipment on December 5, 2014, (Reference Architectural Testing Test Specimen Selection Report No. E3507.01-301-15, dated December 8, 2014). Representative samples of the test specimens 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 specimens reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix B. 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 S. Hardman	Architectural Testing, Inc.



4.0 Test Specifications:

Occupational Safety and Health Administration/U.S. Department of Labor Regulations Standards – 29 CFR 1926 Subpart M (Fall Protection) 1926.501(b)(4)(i); 1926.501(i)(2); 1926.501(b)(4)(ii).

A 400 lbf. weight, fabricated from a bag filled with sand, was placed on the center of the dome for a minimum of 60 seconds. The bag was removed and the test unit was inspected for any signs of damage or failure. A 200 lbf. weight, fabricated from a bag filled with sand, was dropped from a 4' height above the dome, any visible damage was noted.

The static test was performed to demonstrate that a 4896-A-S-CM-SPW-MF unit skylight – plastic glazed, installed according to the manufacturer's instructions and in new or undamaged condition can support a 350-Pound weight at any one time based on 1926.502(i)(2).

The 800 lbf-ft impact test was performed to demonstrate the adequacy of the 400 lb. static test results.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 3.38 m ² (36.37 ft ²)	Width		Length	
	Millimeters	Inches	Millimeters	Inches
Overall size	2546	100-1/4	1327	52-1/4
Outside curb dimension	2521	99-1/4	1302	51-1/4

	Dimension	
	Millimeters	Inches
Dome Thickness (Min.)	3	0.12
Dome Height	333	13-1/8
Dome Width	2489	98
Dome Length	1270	50
	Mass	
	Kilograms	Pounds
Dome Weight	10.8	24.0



5.0 Test Specimen Description: (Continued)

5.2 Frame Construction:

Frame Member	Material	Drawing #
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.

5.4 Glazing:

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 Diameter		Glass Bite
		millimeters	Inches	
Dome	1	2438 x 1219	96 x 48	1"

6.0 Installation: The specimens were witnessed during installation by Architectural Testing, Inc. personnel and checked for compliance with manufacturer installation instructions.

The specimen was installed onto a nominal 2x8 Spruce-Pine-Fir curb. The rough opening allowed for a 1/2" shim space. A bead of silicone sealant was applied to the top side of the curb and the skylight was compressed against the curb.

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 results are tabulated as follows:

7.1 OSHA Safety Test

Test	Load Location	Results
400 lbf.	Center of dome	No visible damage to dome or inversion of dome occurred.

Note: The 400 lbf. weight was gently applied perpendicular to the center of dome. After 60 seconds of rest time, there was no visible damage to skylight.

7.2 OSHA Safety Drop Test

Test Method	Load Location	Results
800 lbf-ft (4' drop height)	Center of dome	Dome ridge indented at point of impact, no visible damage or cracking of dome and no compromising of dome perimeter retention.

Note: The dome ridge returned to its original shape approximately 30 minutes after impact test occurred, a small crease in the dome remained at the point of impact inversion.



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The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimens can be made. 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 specimen(s) 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: Tyler Westerling

Tyler Westerling, P.E.
Senior Project Engineer

JSH: ss

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

Appendix-A: Photographs (2)

Appendix-B: Drawings (14)