

TEST REPORT

Report No.: B9447.01-301-16

Rendered to:

**SUNOPTICS PRISMATIC SKYLIGHTS
Sacramento, California**

**SERIES/MODEL: Safety Security Guard
PRODUCT TYPE: Skylight Fall Protection System**

This report contains in its entirety:

**Cover Page: 1 page
Report Body: 3 pages
Photographs: 2 pages
Drawings: 1 page**

**Report No.: B9447.01-301-16
Test Dates: 06/08/12
Through: 08/08/12
Report Date: 08/20/12
Record Retention End Date: 08/08/16**



1.0 Report Issued To: Sunoptics Prismatic Skylights
6201 27th Street
Sacramento, California 95822

2.0 Test Laboratory: Architectural Testing, Inc.
2524 East Jensen Avenue
Fresno, California 93706
(559) 233-8705

3.0 Project Summary: The skylight screen was tested for fall protection.

3.1 Product Type: Skylight Fall Protection System

3.2 Series/Model: Safety Security Guard

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method. Test specimen description and results are reported herein. The specimen tested was found to comply with the drop-test requirements of OSHA 1926.502(c), *Safety Net Systems*, Paragraph (4)(i).

3.4 Test Dates: 6/08/2012 - 8/08/2012

3.5 Test Record Retention End Date: All test records for this report will be retained until August 8, 2016.

3.6 Test Location: Architectural Testing, Inc. test facility in Fresno, California.

3.7 Test Sample Source: The test specimen was provided by the client. 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 B. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Tyler Westerling	Architectural Testing, Inc.
David Douglass	Architectural Testing, Inc.

4.0 Test Method: OSHA 1926.502(c), *Safety Net Systems*, Paragraph (4)(i).

4.1 Test Weight: 400 lb. bag of sand approximately 30" in diameter

4.2 Drop Height: 42" above the screen

5.0 Test Specimen Description:

5.1 Sizes:

Item	Width	Length
Curb Inside Dimensions	48"	96"
Screen Overall Size	47-3/4"	95-3/4"
Screen Wire Spacing	4"	4"
Last Row Wire Spacing	3-1/4"	3-1/4"

5.2 Construction:

Item	Material	Description
Screen Wire	Galvanized Cold Rolled Steel	0.163" dia. wire, spot welded at every crossing joint
Anchor clips	Galvanized Steel	0.031" thick x 1/2" galvanized steel forming a loop clamp 1-1/2" long

6.0 Installation:

The specimen was installed into a test curb fabricated from nominal 2 x 8 Douglas fir lumber. To simulate attachment to a roof, the curb was fastened to four 2 x 10 boards laid flat. The Skylight Screen was fastened to the top edge of the curb. The assembly was supported 40" above the ground on heavy duty steel stands.

Anchor Location	Anchor Description	Fasteners
Curb to simulated roof 24" on center	Sheet metal bracket	Four #10 x 1-1/2" screws, 2 into outer side of curb, 2 into roof boards
Skylight Screen to Curb 12" on center	Anchor clip folded around perimeter wire, attached to top edge of curb	#10 x 1-1/2" Phillips finishing washer head drill-point screws

7.0 Test Results: The temperature during testing was 27°C (81°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Notes
Drop Test, per OSHA 1926.502(c)(4)(i)	No penetration	No penetration	1, 2

General Note: All testing was performed in accordance with the referenced standard.

Note 1: The test weight did not fall through. Visual damage was observed, including screen welds broken, anchors pulled out, and two corner joints of the test curb partially detached.

Note 2: The test weight was left in place for a period of 5 minutes after impact. The screen held the weight without showing signs of further weakening. While still holding the weight after impact, the total deflection of the center of the screen was 18" below the top of the curb.

Architectural Testing will service this report for the entire test record retention period. Test records that are retained 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 specimen tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

David Douglass
Project Manager

Tyler Westerling, P.E.
Project Engineer

DD: ms/ss

Attachments (pages): This report is complete only when all attachments listed are included.
 Appendix-A: Photographs (2)
 Appendix-B: Drawings (1)

This report produced from controlled document template ATI 00479, issued 01/27/12.



Architectural Testing

Test Report No.: B9447.01-301-16
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Appendix A

Photographs



Photo No. 1
Drop test setup, test weight at 42" above screen



Photo No. 2
After impact, screen is holding test weight



Photo No. 3
After removal of test weight



Architectural Testing

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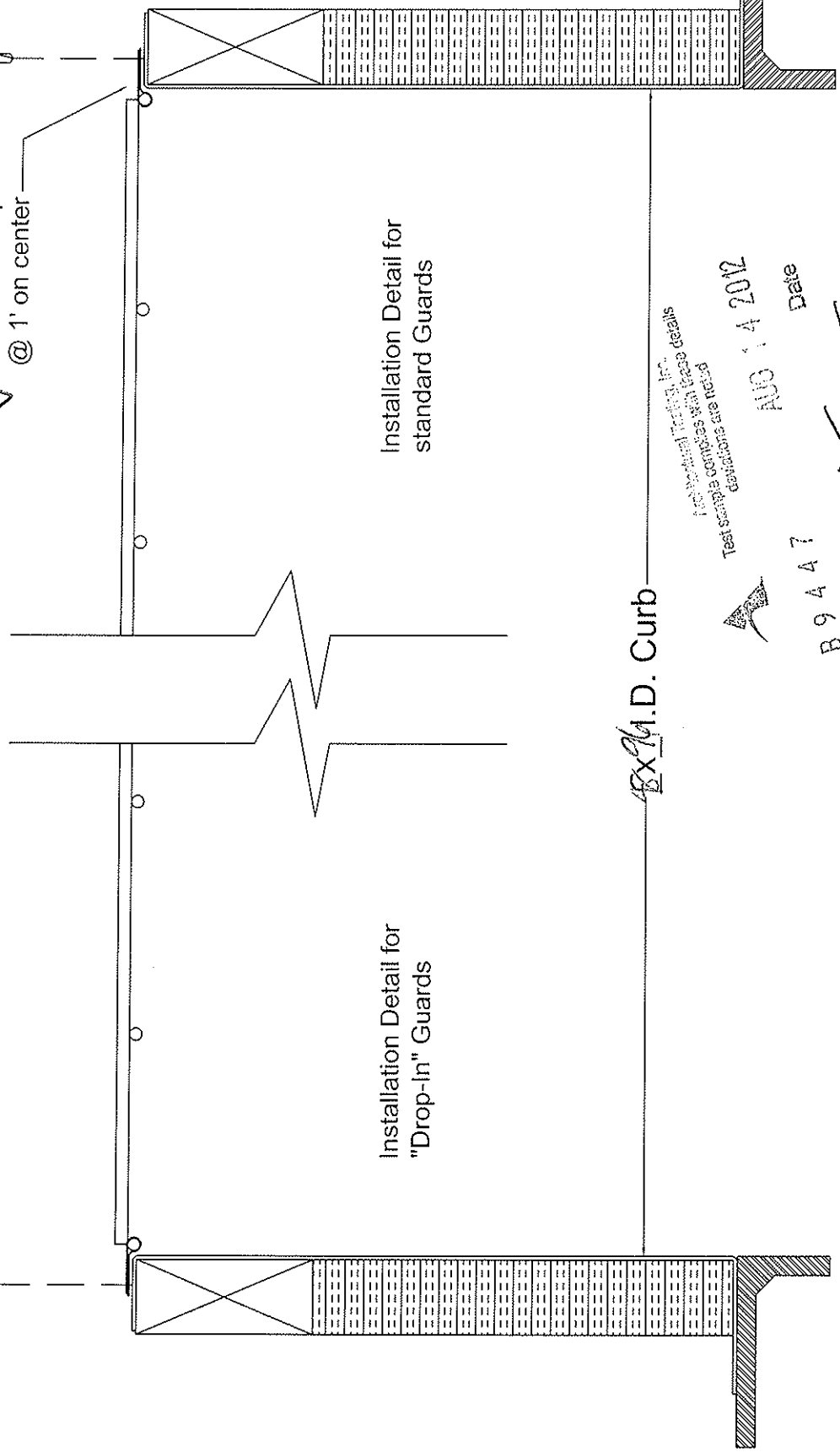
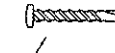
Appendix B

Drawings

#10X 1/2"

Install With Provided Screws

Installation Clip @ 1' on center



Installation Detail for "Drop-In" Guards

Installation Detail for standard Guards

EX M.D. Curb

Technical Details, Inc.
Test sample conforms with trace details
deviations are noted



B 9 4 4 7

Report # Tech

AUG 14 2012

Date

Drawing for

Steel Guard Instructions

Date 01/14/08

Scale NONE

Sheet

1