

## Evaluation Report "SkylightTube™" Tubular Daylight Device

### Manufacturer

**U.S. Sunlight Corporation**  
5625-B Brisa Street  
Livermore, CA 94550  
925-271-7614

*for*

**Florida Product Approval**

**# FL 14564.1**

**Florida Building Code 2007**

**Per Rule 9N-3**

**Method: 1 - D**

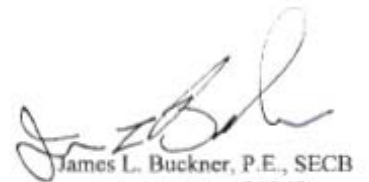
**Category: Sky Lights**

**Sub - Category: Skylight**

**Product Name:** *SkylightTube™*

### Prepared by:

James L. Buckner, P.E., SECB  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
Project Manager: Youry Demosthenes  
Report No. 11-125- TDD-Flush-S4W-ER  
Date: 4 / 20 / 11



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Florida P.E. # 31242  
4/zB/11

### Contents:

Evaluation Report                      Pages 1 – 6

**CBUCK, Inc.**

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Specialty Structural Engineering

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<b>Manufacturer:</b>	<b>U.S. Sunlight Corporation</b>
<b>Product Name:</b>	<b>SkylightTube™ Self-Flashing Tubular Daylight Device</b>
<b>Product Category:</b>	Sky Lights
<b>Product Sub-Category</b>	Skylight
<b>Compliance Method:</b>	State Product Approval Rule 9N-3.005 (1) (d)
<b>Product Description:</b>	The SkyLightTube™ is a roof mounted low profile, square lens, dome unit that directs natural light into the home or building. The Self-Flashing Tubular Daylight Device (TDD) brings in natural light without the heat transfer of a traditional skylight or window.
<b>Product Assembly as Evaluated:</b>	Self-Flashing Tubular Daylight Device Base Component Mechanically Attached to Deck
<b>Model:</b>	2014 ST
<b>Fan Base Support:</b>	<b>Type:</b> Wood Deck (Design of support system is outside the scope of this evaluation)  <b>Description:</b> <ul style="list-style-type: none"><li>• 15/32" or greater Plywood , or</li><li>• Wood plank deck (based on minimum density/specific gravity of 0.42)</li></ul>
<b>Roof Slope:</b>	Slope shall be in compliance with FBC 2007, Chapter 15 based on the type of roof covering.
<b>Performance:</b>	Structural Wind Resistance: <ul style="list-style-type: none"><li>• Positive Design Pressure: + 180.0 PSF</li><li>• Negative Design Pressure: - 180.0 PSF</li></ul>

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### Structural Performance Standards:

The product described herein has demonstrated compliance with:

- **AAMA/WDMA/CSA101/I.S.2/A440-05** – *Specifications for Windows, Doors and Skylights*

### Code Compliance:

The product described herein has demonstrated compliance with the Florida Building Code 2007, Section 2606.5.

### Evaluation Report Scope:

This product evaluation demonstrates compliance of this product with the structural wind load requirements of the Florida Building Code, as related to Florida Product Approval Rule 9N-3.001.

### Limits of Use:

- The interior components of the SkylightTube™ are not part of the building envelope and are therefore not included in this evaluation
- Scope of “Limitations and Conditions of Use” for this evaluation:  
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 9N-3.005. Per Rule 9N-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
- Option for application outside “Limitations and Conditions of Use”  
Rule 9N-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
- Fire Classification is outside the scope of Rule 9N-3, and is therefore not included in this evaluation.
- This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties)

### Quality Assurance:

The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-3.0005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Keystone Certifications, Inc.** (FBC Organization ID# QUA 1824)

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## Components

### Material Standards:

### SkylightTube™ Tubular Daylight Device

- TDD Base
  - Nominal Dimensions: 30" × 30"
  - Material: Steel
  - Thickness: 20 Ga.
  - Corrosion Resistance: G-90 Galvanized
- TDD Dome
  - Material: Polycarbonate (Clear)Plastic
  - Thickness: 1/8"
  - Manufacturer: Bayer Material Science
  - ID: Makrolon 2605
  - Certification: UL

### Fastener

- Option #1
  - Use: Attaches TDD Base to Plywood Deck
  - Type: Pan Head Wood Screw
  - Size : #10 × 2 in. Minimum
  - Standard: Per ANSIASME B18.6.1
  - Corrosion Resistance: Per FBC Section 1506.6
- Option #2
  - Use: Attaches TDD Base to Plywood Deck
  - Type: Hex-Head Wood Screw
  - Size : #10 × 2 in. Minimum
  - Standard: Per ANSIASME B18.6.1
  - Corrosion Resistance: Per FBC Section 1506.6

## Installation:

### Installation Method:

(Refer to Page 6 of this evaluation report.)

"The Self-Flashing Tubular Daylight Device" shall be installed in compliance with the installation method listed in this report. The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation instructions as a supplemental guide for attachment.

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- Evaluated Referenced Data:**
1. AAMA/WDMA/CSA101/I.S.2/A440-05 – Specifications for Windows, Doors and Skylights  
By Architectural Testing, Inc. - California (FBC Organization ID# TST 2609)  
Project #: 09067.01-301-44, Dated: 08/28/11
  2. UL Certification of Plastic Component  
By Underwriters Laboratories, Inc. (FBC Organization #CER ID: 1739)  
UL File #QMFZ2.E168120
  3. Quality Assurance  
By Keystone Certifications, Inc. (FBC Organization ID# QUA 1824)  
US Sunlight Corporation Licensee #852
  4. Certification of Independence  
By James L. Buckner, P.E. @ CBUCK Engineering  
(FBC Organization # ANE 1916)

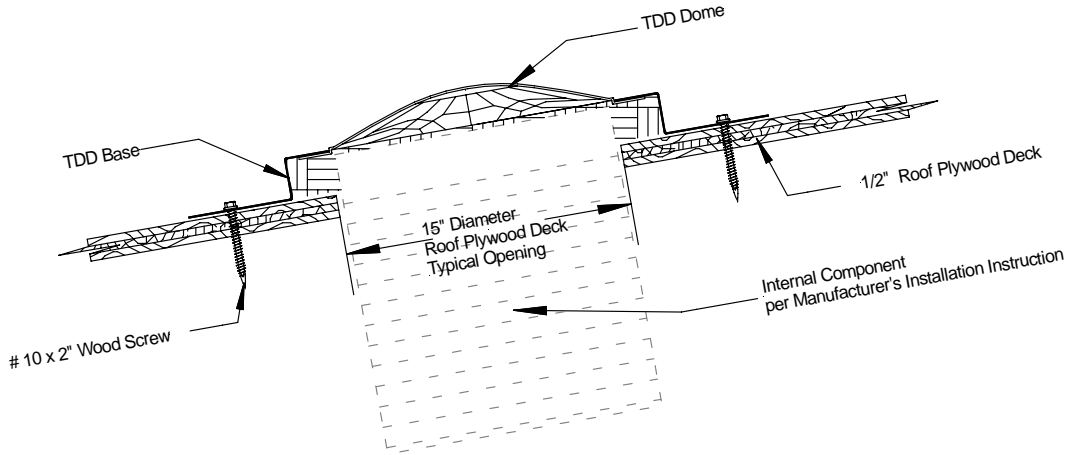
**Installation Method**

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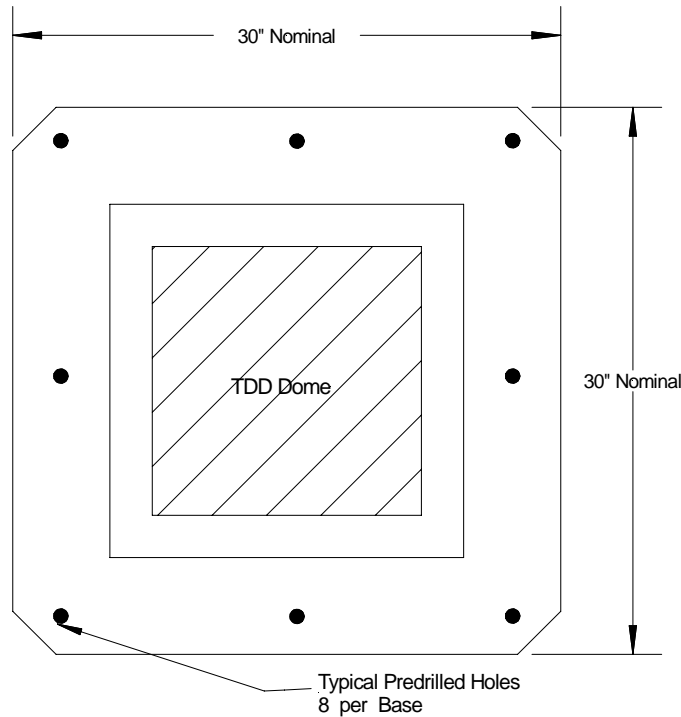
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## U.S. Sunlight Corporation Self-Flashing Roof Mounted Fan Unit Attachment Assembly



**TDD Unit Assembly  
Section View**



**TDD Unit Assembly  
Plan View**