

# ICC-ES Evaluation Report

## ESR-3557

Reissued October 2019

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**DIVISION: 08 00 00—OPENINGS**  
**Section: 08 62 00—Unit Skylights**

### REPORT HOLDER:

**ACUITY BRANDS LIGHTING DBA: SUNOPTICS  
 PRISMATIC SKYLIGHTS**

### EVALUATION SUBJECT:

**SUNOPTICS PRISMATIC SKYLIGHTS**

## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

### Properties evaluated:

- Structural
- Water penetration resistance
- Air infiltration
- Durability

### 1.2 Evaluation to the following green standard:

2015 and 2012 ICC 700 *National Green Building Standard*™ (ICC 700-2015 and ICC 700-2012)

### Attributes verified:

See Section 3.0.

## 2.0 USES

The Sunoptics Prismatic Skylights Model 800MD and 800SC skylights described in this report are plastic-glazed, non-operable skylights complying with Sections 2405 and 2610 of the IBC and Section R308.6 of the IRC.

## 3.0 DESCRIPTION

Sunoptics Prismatic Skylights are glazed using prismatic ribbed domes formed from flat CC2 prismatic acrylic sheets with a thinnest thickness of 0.040 inch (1.016 mm) (overall thickness of 0.120 inch) or CC1 prismatic polycarbonate sheets with a thinnest thickness of 0.045 inch (1.143 mm) (overall thickness of 0.125 inch) recognized under [ESR-3362](#). The domes are attached at the factory to a frame made from 6063 T6 aluminum extrusions. The skylights are curb-mounted. Details for the skylights are noted in Table 1.

The attributes of the skylights have been verified as conforming to the requirements of ICC 700-2015 and ICC 700-2012 Section 701.4.3.3 for fenestration air leakage. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

## 4.0 DESIGN AND INSTALLATION

### 4.1 Design:

**4.1.1 Performance Grade:** The performance grade (PG) ratings are provided in Table 1.

**4.1.2 Air Infiltration:** When tested at an air pressure differential of 1.57 psf (75 Pa), the skylights have an air leakage rate of less than 0.3 cfm/ft<sup>2</sup> (1.5 L/s·m<sup>2</sup>).

### 4.2 Installation:

The curb-mounted skylights must be installed on minimum 2-by nominal wood framing with a minimum 0.50 specific gravity, sized to the inside dimension noted in Table 1, and of a height sufficient so that the plastic glazing is a minimum of 4 inches (102 mm) above the plane of the roof. The wood curb and its attachment to the roof structure must be designed to resist wind uplift and gravity loads.

The skylights are installed on curbs that are flashed in accordance with the code. Caulking/sealing on the curb surface in contact with the mounted skylight is not required for an air seal. The skylight units are supplied with an air seal tape factory-applied on the frame surface that contacts the curb.

The skylight must be attached with No.12 by 1<sup>1</sup>/<sub>2</sub>-inch stainless steel, HWH (hex washer head) wood screws with a neoprene gasket, in each mounting hole provided in the skylight frame, with the screw length being sufficient to penetrate the wood a minimum of 7/8 inch (22.2 mm). See Table 1 for the required fastener spacing.

The skylights must have the gap between the skylight frame and the wood curb fully shimmed. Flashing of the curb must comply with, and be installed in accordance with, IBC Section 1507 or IRC Section R905, as applicable. The wood curb and its attachment to the roof structure must be designed to resist the appropriate code-prescribed loads.

Additional installation details are provided in Figures 1, 2 and 3.

**5.0 CONDITIONS OF USE**

The Sunoptics Prismatic Skylights Model 800MD and 800SC skylights described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The skylights must be installed in accordance with this report, Sections 2405.4 and 2610 of the IBC or Section R308.6 of the IRC, as applicable, and the manufacturer’s published installation instructions. In the event of a conflict between this report and the manufacturer’s published installation instructions, this report governs.
- 5.2 The allowable loads (performance grades) for the skylights are as set forth in Table 1 and must be equal to, or greater than, the applied loads specified by the applicable code. Snow loads are outside the scope of this report
- 5.3 The manufacturer’s installation instructions must be provided at each jobsite.
- 5.4 The use of the skylights as components of fire-resistance-rated assemblies is outside the scope of this report.
- 5.5 The attachment of the curbs to the supporting structure is outside the scope of this report.
- 5.6 The use of the skylights in wind-borne debris regions is outside the scope of this report.

5.7 The skylights are manufactured in Sacramento, California, under a quality control program with inspections by ICC-ES.

**6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Plastic-glazed Skylights (AC16), dated April 2017 (editorially revised December 2018).

**7.0 IDENTIFICATION**

7.1 The skylights are labeled with the Sunoptics Prismatic Skylights name and address; the product model (Model 800MD or 800SC) and product designation as noted in Table 1 of this report; the evaluation report number (ESR-3557); and a safety label complying with Class I, ANSI Z 35.1-1972 (warning of risk of falling).

7.2 The report holder’s contact information is the following:

**ACUITY BRANDS LIGHTING DBA: SUNOPTICS  
PRISMATIC SKYLIGHTS  
6201 27TH STREET  
SACRAMENTO, CALIFORNIA 95822  
(916) 395-4700  
[www.sunoptics.acuitybrands.com](http://www.sunoptics.acuitybrands.com)  
[Scott.Weaver@AcuityBrands.com](mailto:Scott.Weaver@AcuityBrands.com)**

**TABLE 1—DIMENSIONAL DETAILS, PERFORMANCE GRADE AND REQUIRED FASTENER SPACING FOR PRISMATIC SKYLIGHTS**

MODEL NO. <sup>1,2</sup>	INSIDE FRAME DIMENSIONS (inches)	INSIDE CURB DIMENSIONS (inches)	DOMES TYPE AND MATERIAL	OVERALL DOME THICKNESS (inch)	DOMES RISE (inches)	PERFORMANCE GRADE (PG) (psf),	PRODUCT DESIGNATION
800MD	63¼" X 99¼"	62¾" x 98¾"	Double Glazed Prismatic Polycarbonate	Outer:0.165 Inner: 0.125	17"	40	SKP-PG40
800MD	63¼" X 99¼"	62¾" x 98¾"	Double Glazed Prismatic Acrylic	Outer:0.165 Inner: 0.120	16½"	30	SKP-PG30
800MD	63¼" X 99¼"	62¾" x 98¾"	Triple Glazed Prismatic Polycarbonate	Outer:0.165 Two Inner: 0.125	17"	45	SKP-PG45
800MD	63¼" X 99¼"	62¾" x 98¾"	Triple Glazed Prismatic Acrylic	Outer:0.165 Two Inner: 0.125	18¼"	35	SKP-PG35
800SC	52¼" X 100¼"	51¾" x 97¾"	Double Glazed Prismatic Polycarbonate	Outer:0.125 Inner: 0.125	15"	30	SKP-PG30
800SC	52¼" X 100¼"	51¾" x 97¾"	Double Glazed Prismatic Acrylic	Outer:0.165 Inner: 0.125	15"	60	SKP-PG60

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa

<sup>1</sup>. The retainer fasteners must be #18 by ½"-long hex head screws. The screws must not be spaced greater than 1¼" from the corners.  
<sup>2</sup>. The mounting fasteners must be #12 by 1½"-long hex washer head screws. The screws must be spaced 12" o.c. and no closer than 3" from edge.

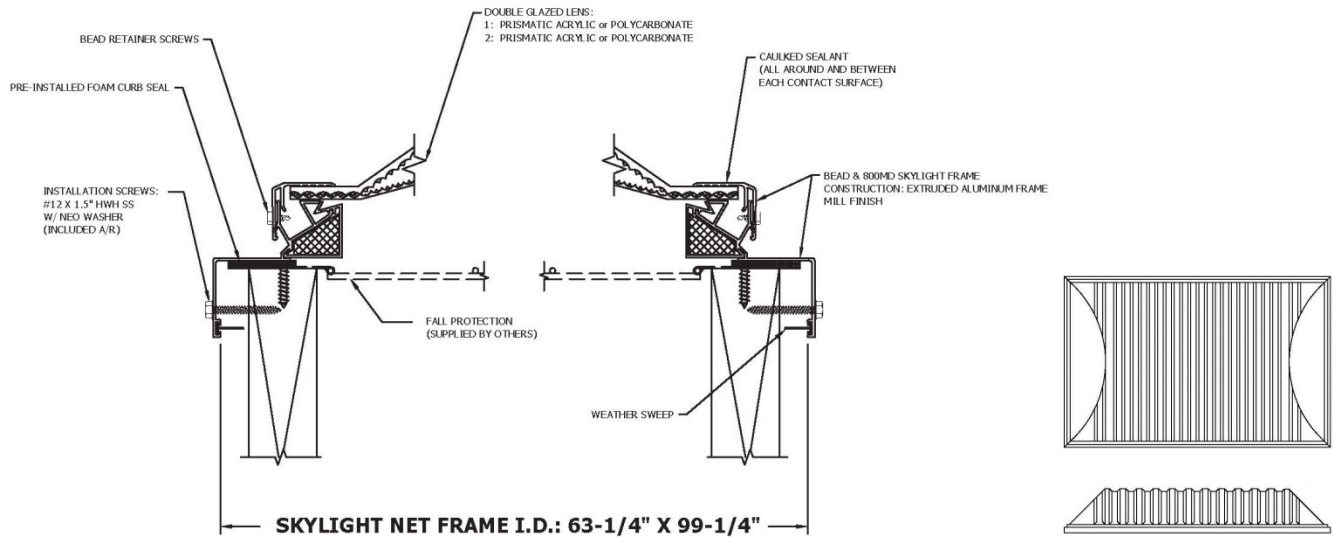


FIGURE 1—SUNOPTICS PRISMATIC SKYLIGHTS CURB MOUNT SKYLIGHT MODEL 800MD DOUBLE GLAZED DOME

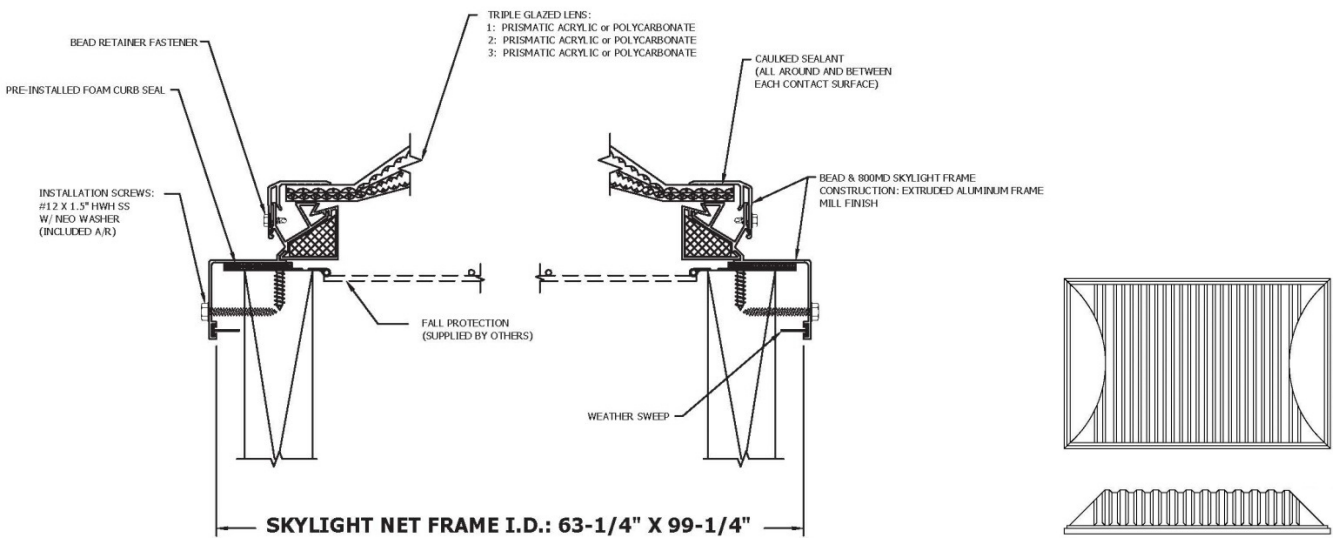


FIGURE 2—SUNOPTICS PRISMATIC SKYLIGHTS CURB MOUNT SKYLIGHT MODEL 800MD TRIPLE GLAZED DOME

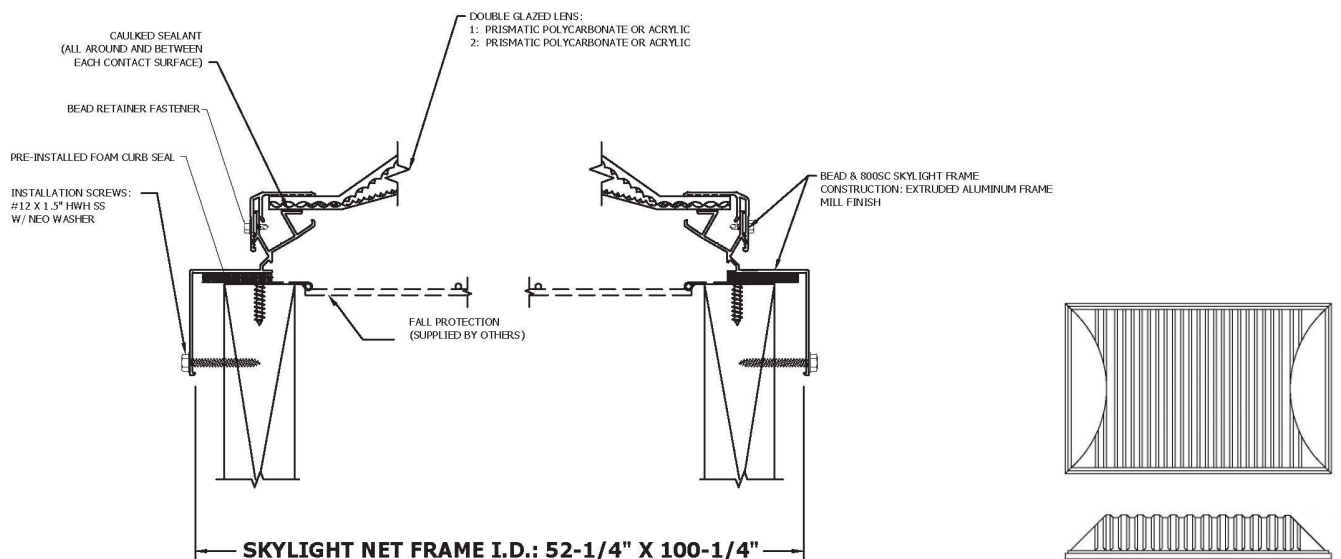


FIGURE 3—SUNOPTICS PRISMATIC SKYLIGHTS CURB MOUNT SKYLIGHT MODEL 800SC DOUBLE GLAZED DOME

# ICC-ES Evaluation Report

# ESR-3557 CBC and CRC Supplement

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## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that Sunoptics Prismatic Skylights, recognized in ICC-ES main evaluation report ESR-3557, have also been evaluated for compliance with the code(s) noted below.

### Applicable code edition(s):

- 2019 and 2016 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 and 2016 *California Residential Code* (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Sunoptics Prismatic Skylights, described in Sections 2.0 through 7.0 of the main evaluation report ESR-3557, comply with CBC Chapters 24 and 26, provided the design and installation are in accordance with the 2018 and 2015 *International Building Code*® (IBC) provisions respectively, noted in the main report and the additional requirements of CBC Chapters 24 and 26, as applicable.

The products have not been evaluated under Chapter 7A for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

#### 2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

#### 2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

### 2.2 CRC:

The Sunoptics Prismatic Skylights, described in Sections 2.0 through 7.0 of the main evaluation report ESR-3557, complies with CRC Chapter 3, provided the design and installation are in accordance with the 2018 and 2015 *International Residential Code*® (IRC) provisions respectively, noted in the main report.

The products have not been evaluated under CRC Section R337 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

The products recognized in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the evaluation report, reissued October 2019.