

ICC-ES Evaluation Report

ESR-2444

Reissued May 2024

Revised October 2024


Subject to renewal May 2025

This report also contains:

- [CA Supplement](#)

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

Copyright © 2024 ICC Evaluation Service, LLC. All rights reserved.

<p>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</p> <p>Section: 07 40 00— Roofing and Siding Panels</p>	<p>REPORT HOLDER: FOUR SEASONS SOLAR PRODUCTS</p>	<p>EVALUATION SUBJECT: WEATHERLOCK II LAMINATED FOAM ROOF PANELS</p>	
--	---	--	---

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018 and 2015 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018 and 2015 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Structural
- Fire classification

2.0 USES

The Weatherlock II laminated foam roof panels described in this report are used as structural roof panels of patio covers complying with Appendix I of the IBC and Appendix BF of the 2024 IRC [Appendix AH of the 2021 IRC (Appendix H of the 2018 and 2015 IRC)].

3.0 DESCRIPTION

3.1 General:

The Weatherlock II laminated foam roof panels are factory-laminated sandwich panels consisting of either aluminum facing on both sides of a foam plastic core, or aluminum facing on the bottom face and oriented strand board (OSB) facing on the opposite face of a foam plastic core. The panels have nominal thicknesses of 3 inches (76 mm), 4.25 inches (108 mm), and 7 inches (178 mm), are 46.25 inches wide (1175 mm), and have a maximum length of 24 feet (7.32 m). The aluminum facers are formed into a tongue-and-groove configuration at the longitudinal edges. The OSB facers have square edges. The panels may be installed with optional aluminum splines.

The panels with aluminum facing on both faces have a Class B roof classification in accordance with ASTM E108. In order to achieve a Class B roof classification, the maximum roof slope must not exceed 1:12 (8.3 percent).

3.2 Materials:

3.2.1 Panel Core: The core material is expanded polystyrene (EPS) foam plastic board complying with ASTM C578 having a nominal density of either 1.0 pcf (16 kg/m³) or 1.5 pcf (24.0 kg/m³). The board is supplied by the manufacturer identified in the approved quality documentation. The foam plastic has a flame-spread index of 25 or less and a maximum smoke-developed index of 450 or less when tested in accordance with ASTM E84 and is listed with an approved agency.

3.2.2 Panel Facings:

3.2.2.1 Aluminum: The aluminum facing material of the panels is 3105-H254 aluminum with a nominal thickness of 0.024 inch (0.61 mm) and a minimum base-metal thickness of 0.022 inch (0.56 mm). The minimum tensile ultimate and yield strengths of the panel facings are 23.5 ksi (162 MPa) and 19.5 ksi (134 MPa), respectively.

3.2.2.2 OSB: The oriented strand board (OSB) facer adhered to the foam plastic core is $7/16$ -inch-thick (11.1 mm), Exposure 1 sheathing, 24/16 rated, complying with U.S. DOC PS 2 and is manufactured by an approved supplier noted in the approved quality documentation. The strength axis of the OSB board must be parallel to the panel's length. No splices are permitted on the OSB.

3.2.3 Panel Adhesive: The panel facings are factory-laminated to the panel core with an adhesive, described in the approved quality documentation that is a Type II, Class 2, adhesive complying with the ICC-ES Acceptance Criteria for Sandwich Panel Adhesives (AC05). The adhesive is recognized in a current ICC-ES evaluation report.

3.2.4 Fasteners: Fasteners used to attach the panels to underlying supports must be $1/4$ -inch-diameter (6.4 mm) steel fasteners installed with a $1\frac{1}{4}$ -inch-outside-diameter (32 mm) corrosion-resistant steel washer.

3.2.5 Splines: The I-shaped aluminum splines are made from 0.080-inch-thick (2.0 mm) 6065-T6 or 6063-T6 aluminum having 3-inch-wide (76 mm) flanges and webs of various depths to match the appropriate roof panel thickness. See [Figure 1](#) for a drawing of a typical aluminum spline or mullion.

4.0 DESIGN AND INSTALLATION

4.1 Design:

For use in allowable stress design, the allowable uniform gravity downward (live or snow) and upward wind loads for the panels used as roof panels are as set forth in [Tables 1](#) and [2](#). The tabulated loads are the allowable total transverse loads for the panels, which must be greater than the applied loads determined in accordance with the code, including the load combinations in IBC Section 1605. Use of the panels to resist any other load conditions (such as axial compression or tension forces due to horizontal wind loads, or use as a roof diaphragm to resist in-plane seismic or horizontal-wind loads) is outside the scope of this report. When panels are installed in accordance with the IRC, an engineered design is required in accordance with IRC Section R301.1.3.

4.2 Installation:

4.2.1 General: The panels must be installed as the roof of the patio cover with the panel length perpendicular to the supporting members and continuous in the direction of the roof slope, without transverse joints. The roof panel longitudinal seam must be located a minimum of 29.5 inches (749 mm) from the inside face of the wall parallel to the panel length. A thermal barrier as specified by the code is not required to be installed in the interior of the patio cover structure. Exposed edges of the foam core must be covered with aluminum fascia. The panels must be installed with a minimum roof slope as indicated in Footnote 4 of [Tables 1](#) and [2](#). Supports at each end of the panel span must be provided to the panels and splines, as applicable, with a minimum of 1-inch-wide (25.4 mm) continuous bearing width, to provide support for panels that are subjected to gravity loads, upward and downward wind loads. As an alternative to restraining the panels that are subjected to wind uplift loads, the panels must be fastened in accordance with Footnote 3 of [Tables 1](#) and [2](#) of this report. The installation details must be substantiated to the satisfaction of the code official.

4.2.2 Installation with Splines: Panels including aluminum splines, as described in Section 3.2.5 of this report, must be installed in accordance with Section 4.2.1 of this report and must be fastened to the flanges of the I-shaped spline on the exterior and interior side of the aluminum or OSB facings, using No. 8 stainless steel self-drilling screws spaced 12 inches (305 mm) on center.

4.2.3 OSB and Aluminum Faced Panels: Panels having OSB facing on the exterior side and aluminum facing on the interior side must be installed in accordance with Sections 4.2.1 and 4.2.2 of this report, as applicable. The OSB facer must be exposed to the exterior side. A roof covering, including roof underlayment, complying with Chapter 15 of the IBC or Chapter 9 of the IRC, as applicable, must be installed on the OSB side of the panels.

5.0 CONDITIONS OF USE:

The Weatherlock II laminated foam roof panels 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 Panel fabrication, identification and installation must comply with this report and the manufacturer's published installation instructions. In the event of conflicts between this report and the manufacturer's published instructions, this report governs.
- 5.2 The panels are limited to use as roof panels of patio covers regulated under Appendix I of the IBC and Appendix BF of the 2024 IRC [Appendix AH of the 2021 IRC (Appendix H of the 2018 and 2015 IRC)].
- 5.3 Panel connections to the supporting structure must be designed in accordance with the applicable code.
- 5.4 The remaining portions of the structure must be designed and constructed in accordance with the applicable code.
- 5.5 Calculations and drawings demonstrating compliance with this report must be submitted to the code official for approval. The calculations and drawings must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.6 Justification must be submitted to the code official demonstrating that the OSB faced panels with the roof covering intended for each project comply as a Class A, B, or C roof assembly as required by IBC Sections 1505 and 2603.6 or IRC Section R902, as applicable, with the classification complying with the minimum classification requirements for the building.
- 5.7 The roof panels are manufactured under a quality-control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Sandwich Panels \(AC04\)](#), dated June 2019 (editorially revised August 2024).
- 6.2 Data in accordance with the [ICC-ES Acceptance Criteria for Foam Plastic Insulation \(AC12\)](#), dated June 2015 (editorially revised June 2024).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-2444) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, a label must be affixed to each panel and aluminum spline, bearing the company name (Four Seasons Solar Products).
- 7.3 The report holder's contact information is the following:

FOUR SEASONS SOLAR PRODUCTS
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NEW YORK 11741
(631) 563-4000
www.fourseasonssunrooms.com

TABLE 1—ALLOWABLE SPANS FOR ALUMINUM FACED PANELS

Allowable Span Table and Uplift Fastener Spacing^{1,2,5}											
3.0 inch - 0.024" - 1.0pcf EPS - 0.024" - with Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	17'-9"		13'-10"								³ / ₈ " / foot
Wind (Upward)	19'-0"	16'-2"	14'-4"	13'-1"	12'-0"	10'-11"	9'-6"	8'-5"	7'-7"	6'-10"	n/a
Wind (Downward)	17'-9"	15'-5"	13'-10"	12'-8"	11'-8"	10'-4"	9'-1"	8'-1"	7'-3"	6'-8"	n/a
Snow			12'-8"	11'-4"	10'-5"	9'-8"	9'-1"	8'-7"	8'-1"	7'-9"	¹ / ₂ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	11"	9"	7"	6"	6"	5"	5"	5"	5"	
3.0 inch - 0.024" - 1.0pcf EPS - 0.024" - without Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	16'-0"		12'-2"								³ / ₈ " / foot
Wind (Upward)	17'-0"	14'-4"	12'-7"	11'-4"	9'-5"	8'-0"	7'-0"	6'-2"	5'-7"	5'-1"	n/a
Wind (Downward)	16'-0"	13'-8"	12'-2"	10'-8"	8'-11"	7'-8"	6'-9"	6'-0"	5'-5"	4'-11"	n/a
Snow			11'-0"	9'-11"	9'-1"	8'-5"	7'-10"	7'-2"	6'-6"	5'-11"	¹ / ₂ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	12"	10"	8"	8"	7"	7"	6"	6"	6"	
3.0 inch - 0.024" - 1.5pcf EPS - 0.024" - with Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	17'-6"		13'-11"								³ / ₈ " / foot
Wind (Upward)	18'-11"	16'-2"	14'-5"	13'-3"	12'-4"	11'-7"	11'-0"	10'-5"	10'-0"	9'-4"	n/a
Wind (Downward)	17'-6"	15'-4"	13'-11"	12'-10"	12'-0"	11'-4"	10'-9"	10'-3"	9'-10"	9'-0"	n/a
Snow			13'-4"	12'-4"	11'-6"	10'-11"	10'-4"	9'-11"	9'-6"	9'-2"	¹ / ₂ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	11"	9"	7"	6"	5"	5"	4"	4"	4"	
3.0 inch - 0.024" - 1.5pcf EPS - 0.024" - without Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	16'-4"		12'-9"								³ / ₈ " / foot
Wind (Upward)	17'-5"	14'-10"	13'-2"	12'-0"	11'-2"	10'-5"	9'-10"	9'-1"	8'-2"	7'-5"	n/a
Wind (Downward)	16'-4"	14'-2"	12'-9"	11'-9"	10'-11"	10'-3"	9'-8"	8'-9"	7'-10"	7'-2"	n/a
Snow			12'-3"	11'-3"	10'-6"	9'-11"	9'-4"	8'-11"	8'-6"	8'-2"	¹ / ₂ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	11"	9"	8"	7"	6"	5"	5"	5"	5"	
4.25 inch - 0.024" - 1.0pcf EPS - 0.024" - with Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	20'-0"		15'-11"								¹ / ₄ " / foot
Wind (Upward)	20'-0"	19'-7"	16'-10"	15'-0"	13'-7"	12'-7"	11'-9"	11'-1"	10'-6"	9'-6"	n/a
Wind (Downward)	20'-0"	18'-3"	15'-11"	14'-4"	13'-2"	12'-3"	11'-5"	10'-10"	10'-0"	9'-2"	n/a
Snow			14'-3"	12'-10"	11'-9"	10'-11"	10'-3"	9'-8"	9'-2"	8'-9"	³ / ₈ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	9"	8"	6"	6"	5"	5"	4"	4"	4"	
4.25 inch - 0.024" - 1.0pcf EPS - 0.024" - without Mullions											
Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection)⁽⁴⁾
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	20'-0"		14'-6"								¹ / ₄ " / foot
Wind (Upward)	20'-0"	17'-6"	15'-1"	13'-5"	12'-3"	10'-8"	9'-4"	8'-3"	7'-5"	6'-9"	n/a
Wind (Downward)	20'-0"	16'-7"	14'-6"	13'-0"	11'-10"	10'-2"	8'-11"	7'-11"	7'-2"	6'-6"	n/a
Snow			12'-11"	11'-8"	10'-8"	9'-11"	9'-3"	8'-9"	8'-4"	7'-10"	³ / ₈ " / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	10"	8"	7"	6"	6"	6"	5"	5"	5"	

(Continued)

TABLE 1—ALLOWABLE SPANS FOR ALUMINUM FACED PANELS (Continued)

Allowable Span Table and Uplift Fastener Spacing ^{1,2,5}											
4.25 inch - 0.024" - 1.5pcf EPS - 0.024" - with Mullions											
Loading Type	Applied Pressure for Design										
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	21'-11"		17'-4"								3/8" / foot
Wind (Upward)	23'-0"	20'-4"	18'-2"	16'-7"	15'-5"	14'-5"	13'-5"	12'-8"	12'-0"	11'-5"	n/a
Wind (Downward)	21'-11"	19'-2"	17'-4"	16'-0"	15'-0"	13'-11"	13'-1"	12'-4"	11'-9"	11'-2"	n/a
Snow			16'-3"	14'-7"	13'-5"	12'-5"	11'-8"	11'-0"	10'-6"	10'-0"	1/2" / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	9"	7"	6"	5"	5"	4"	4"	4"	3"	
4.25 inch - 0.024" - 1.5pcf EPS - 0.024" - without Mullions											
Loading Type	Applied Pressure for Design										
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	20'-4"		16'-0"								3/8" / foot
Wind (Upward)	21'-10"	18'-7"	16'-7"	15'-2"	14'-1"	13'-0"	12'-2"	11'-5"	10'-8"	9'-8"	n/a
Wind (Downward)	20'-4"	17'-9"	16'-0"	14'-8"	13'-8"	12'-8"	11'-10"	11'-2"	10'-3"	9'-4"	n/a
Snow			14'-9"	13'-4"	12'-2"	11'-4"	10'-7"	10'-0"	9'-6"	9'-1"	1/2" / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	9"	8"	6"	6"	5"	5"	4"	4"	4"	
7 inch - 0.024" - 1.5pcf EPS - 0.024" - with Mullions											
Loading Type	Applied Pressure for Design										
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	23'-0"		23'-0"								1/4" / foot
Wind (Upward)	23'-0"	23'-0"	23'-0"	22'-3"	20'-3"	18'-8"	17'-5"	16'-5"	15'-7"	14'-10"	n/a
Wind (Downward)	23'-0"	23'-0"	23'-0"	20'-11"	19'-3"	17'-10"	16'-9"	15'-10"	15'-1"	14'-5"	n/a
Snow			20'-9"	18'-9"	17'-2"	16'-0"	15'-0"	14'-2"	13'-6"	12'-10"	3/8" / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	8"	6"	5"	4"	4"	3"	3"	3"	3"	
7 inch - 0.024" - 1.5pcf EPS - 0.024" - without Mullions											
Loading Type	Applied Pressure for Design										
	10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
Live	23'-0"		20'-3"								1/4" / foot
Wind (Upward)	23'-0"	23'-0"	21'-6"	19'-2"	17'-5"	16'-1"	15'-0"	14'-1"	13'-5"	12'-9"	n/a
Wind (Downward)	23'-0"	23'-0"	20'-3"	18'-3"	16'-8"	15'-6"	14'-7"	13'-9"	13'-1"	12'-6"	n/a
Snow			18'-1"	16'-3"	14'-11"	13'-10"	13'-0"	12'-3"	11'-8"	11'-2"	3/8" / foot
Fastener Spacing ⁽³⁾ for Uplift Wind Loads	12"	8"	6"	5"	5"	4"	4"	4"	3"	3"	

Notes:

⁽¹⁾ - Roof Panels are intended for use with a Patio Enclosure as defined in Appendix I of the International Building Code® and Appendix BF of the 2024 International Residential Code® [Appendix AH of the 2021 International Residential Code® (Appendix H of the 2018 and 2015 International Residential Code®)].

- All superimposed loads presented above are uniform in nature. The spans are based on simply-supported single span installations. Consideration shall be given to non-uniform loads such as those associated with snow build-up and areas of discontinuity for wind loads.

- Unless otherwise noted, the maximum eave projection of the roof system is 24-inches.

⁽²⁾ Panel Spans are based on a maximum temperature differential between the two panel skins of 10 degrees Fahrenheit or 5.56 degrees Celsius.

⁽³⁾ Fasteners shall be #14 sheet metal screws with 1.25" diameter plate washer. Length of fastener shall be at least 1 inch longer than laminated roof panel thickness.

⁽⁴⁾ Minimum panel slopes are based on panel deflection only. Increased slopes will be required where panel accessories, such as mullions or flashing, can increase ponding caused by irregularities in the water flow path.

⁽⁵⁾ The tabulated spans are also applicable to roof panel's subject to the roof maintenance concentrated live load specified in IBC Table 1607.1.

TABLE 2—ALLOWABLE SPANS FOR OSB AND ALUMINUM FACED PANELS

Allowable Span Table and Uplift Fastener Spacing ⁽¹⁾⁽²⁾												
4.25 inch - 0.024" - 1.0pcf EPS - 7/16" OSB - with Mullions												
	Loading Type	Applied Pressure for Design										Minimum Panel Slope (Per Foot of Projection) ⁽⁴⁾
		10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
5 psf Additional Dead Load Added⁽⁵⁾	Live	15'-0"		15'-0"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	15'-0"	15'-0"	14'-5"	13'-3"	12'-4"	11'-8"	11'-0"	10'-6"	n/a
	Wind (Downward)	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	14'-4"	13'-7"	12'-10"	12'-3"	11'-9"	n/a
	Snow			15'-0"	15'-0"	14'-7"	13'-9"	13'-0"	12'-4"	11'-9"	11'-3"	3/8" / foot
10 psf Additional Dead Load Added⁽⁵⁾	Live	15'-0"		15'-0"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	15'-0"	15'-0"	14'-5"	13'-3"	12'-4"	11'-8"	11'-0"	10'-6"	n/a
	Wind (Downward)	15'-0"	15'-0"	15'-0"	15'-0"	14'-4"	13'-7"	12'-10"	12'-3"	11'-9"	10'-11"	n/a
	Snow			15'-0"	14'-7"	13'-9"	13'-0"	12'-4"	11'-9"	11'-3"	10'-10"	3/8" / foot
15 psf Additional Dead Load Added⁽⁵⁾	Live	15'-0"		15'-0"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	15'-0"	15'-0"	14'-5"	13'-3"	12'-4"	11'-8"	11'-0"	10'-6"	n/a
	Wind (Downward)	15'-0"	15'-0"	15'-0"	14'-4"	13'-7"	12'-10"	12'-3"	11'-9"	10'-11"	10'-2"	n/a
	Snow			14'-7"	13'-9"	13'-0"	12'-4"	11'-9"	11'-3"	10'-10"	10'-5"	3/8" / foot
	Fastener Spacing ⁽³⁾ for Upward Wind Loads	12"	12"	12"	9"	8"	7"	6"	6"	5"	5"	
4.25 inch - 0.024" - 1.0pcf EPS - 7/16" OSB - without Mullions												
	Loading Type	Applied Pressure for Design										
		10 psf	15 psf	20 psf	25 psf	30 psf	35 psf	40 psf	45 psf	50 psf	55 psf	
5 psf Additional Dead Load Added⁽⁵⁾	Live	15'-0"		13'-10"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	14'-8"	13'-0"	11'-10"	10'-11"	9'-11"	8'-9"	7'-10"	7'-1"	n/a
	Wind (Downward)	15'-0"	15'-0"	13'-10"	12'-9"	11'-11"	11'-2"	10'-6"	9'-10"	9'-0"	8'-3"	n/a
	Snow			13'-4"	12'-4"	11'-6"	10'-9"	10'-2"	9'-8"	9'-2"	8'-9"	3/8" / foot
10 psf Additional Dead Load Added⁽⁵⁾	Live	15'-0"		12'-9"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	14'-8"	13'-0"	11'-10"	10'-11"	9'-11"	8'-9"	7'-10"	7'-1"	n/a
	Wind (Downward)	15'-0"	13'-10"	12'-9"	11'-11"	11'-2"	10'-6"	9'-10"	9'-0"	8'-3"	7'-8"	n/a
	Snow			12'-4"	11'-6"	10'-9"	10'-2"	9'-8"	9'-2"	8'-9"	8'-4"	3/8" / foot
15 psf Additional Dead Load Added⁽⁶⁾	Live	13'-10"		11'-11"								1/4" / foot
	Wind (Upward)	15'-0"	15'-0"	14'-8"	13'-0"	11'-10"	10'-11"	9'-11"	8'-9"	7'-10"	7'-1"	n/a
	Wind (Downward)	13'-10"	12'-9"	11'-11"	11'-2"	10'-6"	9'-10"	9'-0"	8'-3"	7'-8"	7'-1"	n/a
	Snow			11'-6"	10'-9"	10'-2"	9'-8"	9'-2"	8'-9"	8'-4"	8'-0"	3/8" / foot
	Fastener Spacing ⁽³⁾ for Upward Wind Loads	12"	12"	12"	10"	9"	8"	7"	7"	7"	6"	

Notes:

(1) - Roof Panels are intended for use with a Patio Enclosure as defined in Appendix I of the International Building Code® and Appendix BF of the 2024 International Residential Code® [Appendix AH of the 2021 International Residential Code® (Appendix H of the 2018 and 2015 International Residential Code®)].

- All superimposed loads presented above are uniform in nature. The spans are based on simply-supported single span installations. Consideration shall be given to non-uniform loads such as those associated with snow build-up and areas of discontinuity for wind loads.

- Unless otherwise noted, the maximum eave projection of the roof system is 24-inches.

(2) Panel Spans are based on a maximum temperature differential between the two panel skins of 10 degrees Fahrenheit or 5.56 degrees Celsius.

(3) Fasteners shall be #14 sheet metal screws with 1.25" diameter plate washer. Length of fastener shall be at least 1 inch longer than laminated roof panel thickness.

(4) Minimum panel slopes are based on panel deflection only. Increased slopes will be required where panel accessories, such as mullions or flashing, can increase ponding caused by irregularities in the water flow path.

(5) When panels are subject to maintenance loads (as defined in the IBC), maximum span shall be limited to 15'-0" or that indicated in the span table, whichever is less.

(6) When panels are subject to maintenance loads (as defined in the IBC), maximum span shall be limited to 13'-9" or that indicated in the span table, whichever is less.

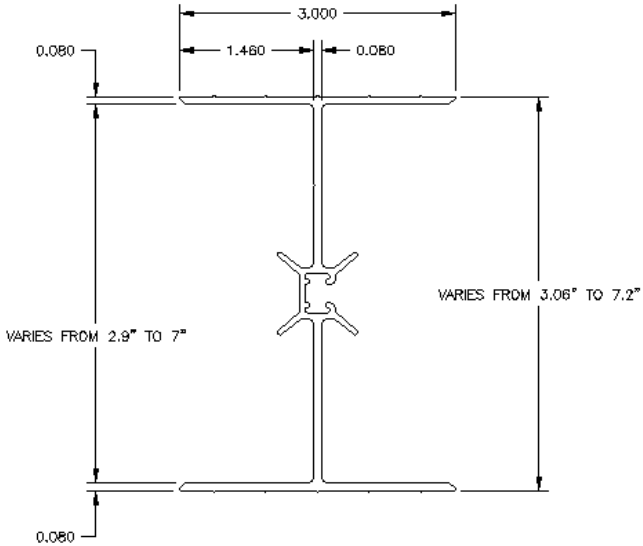


FIGURE 1—I-SHAPED SPLINE

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 40 00—Roofing and Siding Panels

REPORT HOLDER:

FOUR SEASONS SOLAR PRODUCTS

EVALUATION SUBJECT:

WEATHERLOCK II LAMINATED FOAM ROOF PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Weatherlock II Laminated Foam Roof Panels, described in ICC-ES evaluation report ESR-2444, have also been evaluated for compliance with the codes noted below.

Applicable codes:

- 2022 California Building Code® (CBC)

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

- 2022 California Residential Code® (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Weatherlock II Laminated Foam Roof Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-2444, comply with CBC Chapters 8, 15, 20, 23, 26, and Appendix I, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions, respectively, noted in the evaluation report and the additional requirements of CBC Chapters 8, 15, 20, 23, 26, and Appendix I, as applicable.

The Weatherlock II Laminated Foam Roof Panels have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any 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 Weatherlock II Laminated Foam Roof Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-2444, comply with CRC Chapters 3, 9, and Appendix AH, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions, respectively, noted in the evaluation report and the additional requirements of the CRC Chapters 3, 9, and Appendix AH, as applicable.

The Weatherlock II Laminated Foam Roof Panels have not been evaluated under CRC Section R337 for use in the exterior design and construction of new buildings located in any 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 May 2024 and revised October 2024.