

Design Criteria for Span Tables:

Values in the maximum allowable rail span tables provided herein are subject to the following general criteria and additional criteria shown on individual span tables sheets. Values in span tables are based on the same engineering methodology and calculation algorithms used for U-Builder and are provided here for reference.

Building Assumptions

- Building Risk Category: II
- Mean Roof Height: 30 ft
- Roof Pitch: 0°-45°
- Site Elevation: 0 ft

Wind Design Assumptions

- Wind loads used are based on ASCE 7-22 Sec. 29.4.4
- Exposure Category B, C, or D
- Basic Wind Speed = 90 – 180 mph
- Level terrain. Topographic factor, $k_{zt} = 1.0$
- $\gamma_E = 1.0$ for ‘Interior’ spans, $\gamma_E = 1.5$ for ‘Exposed’ spans (ASCE 7-22, Fig. 29.4-7)

Snow Design Assumptions

- Ground Snow Load = 0-100 psf
- Exposure Factor coefficients of Partially Exposed condition
- Thermal Factor = 1.0
- Results based on uniform snow load

Seismic Design Assumptions

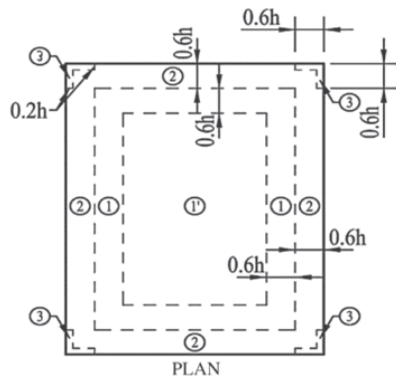
- 0.2-s Spectral Response Acceleration
- $S_s = 1.25$ and 3 with $S_{ds} = 1, 2.4$ respectively per criteria shown on individual span tables sheets.
- $S_1 = 0.5$ & $S_{d1} = 0.6$
- Seismic site class D

Array Assumptions

- Module orientation and Rail direction per criteria shown on individual span tables sheets.
- Maximum module dimensions of 40.1” x 67” (~19 sq.ft, 47.65 lbs) and 41” x 80” (~23 sq.ft, 58.6 lbs) per criteria shown on individual span tables sheets.
- Minimum distance between modules and roof edge is at least twice the module height above roof surface.
- Modules are parallel to roof surface and maximum height above roof surface is 5” to 10” depending on attachment type.
- Gaps between module rows and columns is 0.25” in to 1” depending on clamp type.
- The most restrictive of all roof zone spans shall be used when any part of the module is attributed to that span.
- ‘Exposed’ spans as defined in ASCE 7-22 sec. 29.4.4 shall be used when any part of an exposed module or panel as is attributed to that span.

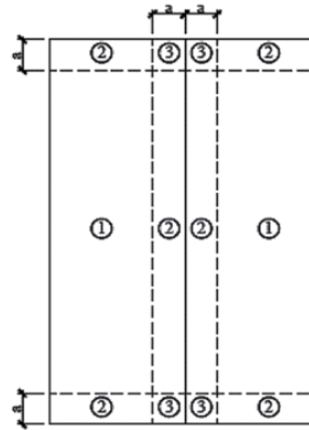
Span Tables

Zone should be considered as per ASCE 7-22, Fig. 30.3-2A to 30.3-2D

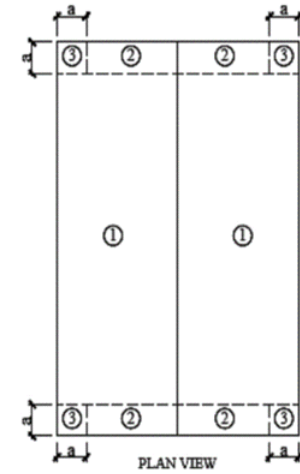


Gable Roofs $\theta \leq 7^\circ$

Rails can be installed in these possible orientations.



Gable Roofs $7^\circ < \theta \leq 27^\circ$



Gable Roofs $27^\circ < \theta \leq 45^\circ$

#N/A

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

[illegible]

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

Highlighted cell with strikethrough indicate 3-rail system span and module clamp allowable capacity exceeds with 3-rails. 4-Rail system required. Contact Unirac Engineering Services for support.

[illegible]

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Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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[illegible]

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[illegible]



ASCE 7-22
Design Standard

II
Risk Category

30 ft
Roof Height

Ss = 1.25
Seismic

23 sq.ft
Module Area

LANDSCAPE
Orientation

CROSS-SLOPE
Rail Direction

SML
Rail Type

PRO SERIES
Clamp

SM BUTYL Rafter
Attachment

SPAN TABLES

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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				90			95			100			105			110			115			120			130			140			150			160			170			180		
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3						
90	B	0-7	Interior	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53					
			Exposed	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53					
		7-20	Interior	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65				
			Exposed	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65					
		20-27	Interior	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72				
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	C	0-7	Interior	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53					
			Exposed	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53					
		7-20	Interior	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65					
			Exposed	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65					
		20-27	Interior	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72				
			Exposed	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72				
	27-45	Interior	72	72	72	72	72																																			

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10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

40 Highlighted cell with strikethrough indicate 3-rail system span and module clamp allowable capacity exceeds with 3-rails. 4-Rail system required. Contact Unirac Engineering Services for support.

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
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				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3				
0	B	0-7	Interior	83	83	83	83	83	83	83	83	82	83	83	79	83	83	76	83	83	72	83	80	68	83	75	62	80	68	56	76	63	51	70	58	47	65	54	42	60	50	38	
			Exposed	83	83	76	83	82	71	83	79	67	83	76	62	83	72	59	80	68	56	77	64	53	70	58	48	64	53	42	59	49	36	54	45	31	50	39	42	47	35	37	
		7-20	Interior	83	83	83	83	83	83	83	83	80	83	83	73	77	83	83	73	83	80	68	83	77	65	82	70	58	77	63	52	71	58	48	65	53	42	60	49	37	56	46	33
			Exposed	83	83	73	83	79	67	83	76	63	83	71	59	80	67	55	77	63	52	73	59	49	66	53	43	59	49	37	54	43	32	50	37	42	46	33	37	40	44	33	
		20-27	Interior	84	84	84	84	84	84	84	84	84	84	84	84	83	84	84	80	84	83	77	84	80	73	84	74	66	84	67	59	80	61	54	76	56	50	71	52	46	66	48	40
	Exposed		84	84	80	84	82	76	84	78	71	84	75	67	84	71	63	84	67	59	82	63	56	76	56	50	70	51	45	64	47	38	59	41	34	55	36	45	51	32	40		
	27-45	Interior	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	80	73	80	75	66	76	69	60	70	63	55	64	59	51	59	55	48			
		Exposed	84	84	84	84	84	84	84	84	77	84	81	74	83	78	69	80	75	65	77	81	62	70	64	56	63	58	51	58	53	46	53	49	40	49	45	36	45	40	32		
	C	0-7	Interior	83	83	78	83	83	74	83	81	69	83	77	65	83	74	61	81	70	57	79	66	54	73	60	49	66	55	45	61	50	38	56	47	33	52	41	44	49	37	39	
			Exposed	83	74	61	81	69	57	77	65	53	74	61	50	70	58	47	66	54	44	62	52	40	56	47	34	52	41	43	47	35	38	42	46	33	37	41	29	33	36	26	
7-20		Interior	83	83	75	83	81	70	83	77	65	83	74	61	82	69	57	78	65	54	76	62	51	68	55	46	61	50	39	56	46	34	51	40	44	47	35	39	42	46	35		
		Exposed	81	69	57	78	64	53	74	60	50	69	56	47	65	53	42	61	50	38	58	47	35	52	40	45	47	34	38	41	45	33	36	39	29	31	35	26	42	81	23		
20-27		Interior	84	84	81	84	84	78	84	80	74	84	77	69	84	73	65	84	69																								

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Highlighted cell with strikethrough indicate 3-rail system span and module clamp allowable capacity exceeds with 3-rails. 4-Rail system required. Contact Unirac Engineering Services for support.

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[illegible]

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Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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0	B	0-7	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98

[illegible]

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Ground Snow Load (psf)		Wind Exposure Category		Roof Tilt Angle (deg)		Panel Exposure		Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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0	B	0-7	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98

[illegible]

Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

* Cells with an astrisks indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
				Roof Wind Zone																																							
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
0	B	0-7	Interior	83	83	83	83	83	83	83	83	83	80	83	83	77	83	83	73	83	81	69	83	78	65	83	72	59	78	65	53	73	60	49	67	55	45	62	51	39	58	48	35
			Exposed	83	83	73	83	80	68	83	77	64	83	73	60	80	69	56	78	65	53	75	61	50	67	56	45	61	51	38	56	47	33	52	41	29	48	36	26	44	32	34	
		7-20	Interior	83	83	83	83	83	81	83	83	78	83	83	74	83	81	69	83	78	65	83	75	61	80	67	55	75	61	50	68	55	46	62	51	39	57	47	34	53	41	31	
			Exposed	83	81	69	83	77	64	83	73	60	81	68	56	77	64	53	74	60	50	70	57	47	63	51	39	56	46	34	51	40	29	47	35	26	42	30	34	37	27	30	
		20-27	Interior	84	84	84	84	84	84	84	84	84	84	84	81	84	84	78	84	81	74	84	78	70	84	71	63	83	64	56	78	58	51	74	53	47	68	49	42	63	46	37	
			Exposed	84	84	77	84	80	73	84	76	68	84	72	64	84	67	60	83	63	56	80	60	53	74	54	47	67	49	41	61	43	35	56	37	31	52	33	27	49	29	37	
	27-45	Interior	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	79	84	83	76	83	78	70	72	63	73	66	57	66	61	53	61	56	49	57	52	45		
		Exposed	84	84	82	84	84	78	84	82	75	84	79	71	81	76	66	78	72	62	75	68	59	67	61	53	60	55	48	55	51	42	50	47	37	47	41	33	41	37	29		
	C	0-7	Interior	83	83	75	83	82	71	83	78	66	83	75	62	82	71	58	79	67	55	76	64	52	73	60	49	63	52	40	58	48	35	54	44	31	50	38	27	46	34	36	
			Exposed	82	71	58	78	66	54	75	62	51	71	58	48	67	55	45	63	52	40	60	49	37	54	44	31	49	37	27	45	32	35	39	28	30	34	25	27	30	33	24	
		7-20	Interior	83	83	72	83	79	67	83	75	62	83	71	58	79	66	54	76	62	51	73	59	48	65	53	42	59	48	36	53	42	31	49	37	27	45	32	36	39	29	32	
			Exposed	79	66	54	75	61	51	71	57	47	66	54	43	62	50	39	58	47	35	55	44	32	49	37	27	44	32	35	37	27	31	33	36	27	29	32	24	26	28	24	
		20-27	Interior	84	84	79	84	82	76	84	78	71	84	75	66	84	70	62	84	66	58	81	62	55	76	56	49	70	50	44	64	46	37	58	39	33	54	35	29	50	31	26	
			Exposed	84	70	62	84	65	57	80	60	53	77	56	50	73	53	47	69	50	43	65	47	39	59	40	33	53	34	28	49	30	37	45	26	32	39	35	29	34	31	25	
	D	0-7	Interior	84	84	84	84	84	80	84	84	77	84	80	73	83	77	69	79	74	65	77	70	61	69	63	55	63	57	50	57	52	46	52	48	39	48	44	35	44	39	31	
			Exposed	83	77	68	79	73	64	75	68	59	71	64	56	66	60	52	62	72	57	50	59	54	47	53	49	40	48	43	34	41	37	29	36	33	26	32	29	34	28	25	31
		7-20	Interior	83	80	67	83	76	63	83	72	59	79	67	55	76	64	52	73	60	49	69	57	47	62	52	39	57	47	34	52	41	29	48	36	26	44	32	34	39	28	30	
			Exposed	76	63	52	72	59	48	67	56	45	63	52	40	60	49	37	56	47	33	53	43	30	48	36	26	43	31	33	37	27	29	32	36	25	29	31	22	25	28	20	
		20-27	Interior	83	76	64	83	72	59	80	67	55	76	63	52	73	59	48	68	55	46	64	52	41	57	47	35	52	40	30	47	35	26	42	30	34	37	27	30	33	36	27	
			Exposed	72	59	48	67	54	45	62	51	39	58	48	36	55	44	32	52	40	29	49	36	27	42	31	34	36	26	30	31	35	26	27	30	22	27	26	32	24	18		
	B	0-7	Interior	84	79	73	84	76	67	84	71	62	84	66	58	81	62	55	78	58	52	76	55	49	68	49	42	62	44	36	57	38	31	52	33	27	48	29	36	45	26	32	
			Exposed	81	62	55	78	57	51	74	54	47	69	50	43	65	47	39	62	43	36	58	39	33	52	33	28	48	29	36	42	25	31	37	33	27	32	29	24	29	26	24	
		7-20	Interior	84	84	78	84	81	75	83	78	69	80	75	65	77	70	61	73	66	58	69	63	54	62	56	49	56	51	44	51	47	37	46	41	33	41	36	29	36	32	26	
			Exposed	76	70	61	72	65	57	67	61	53	62	57	50	59	54	47	55	51	43	52	48	39	47	42	33	40	36	28	35	31	37	30	27	33	27	36	29	36	32	26	
		20-27	Interior	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	
			Exposed	78	78	73	78	78	68	78	77	64	78	73	60	78	68	56	77	64	53	74	60	50	70	57	47	63	51	39	56	46	34	51	40	29	47	35	26	42	30	34	37
10	B	0-7	Interior	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81		
			Exposed	81	81	77	81	80	73	81	76	68	81	72	64	81	67	60	81	63	56	80	53	74	54	47	67	49	41	61	43	35	56	37	31	52	33	27	49	29	37		
		7-20	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	
			Exposed	83	83	82	83	83	78	83	82	75	83	79	71	81	76	66	78	72	62	75	68	59	67	61	53	60	55	48	55	51	42	50	47	37	47	41	33	41	37	29	
		20-27	Interior	78	78	75	78	78	71	78	78	66	78	75	62	78	71	58	78	67	55	76	64	52	70	57	47	63	52	40	58	48	35	54	44	31	50	38	27	46	34	36	
			Exposed	78	71	58	78	66	54	75	62	51	71	58	48	67	55	45	63	52	40	60	49	37	54	44	31	49	37	27	45	32	35	39	28	30	34	25	27	30	33	24	
	C	0-7	Interior	78	78	72	78	78	67	78	75	62	78	71	58	78	66	54	76	62	51	73	59	48	65	53	42	59	48	36	53	42	31	49	37	27	45	32	36	39	29	32	
			Exposed	78	66	54	75	61	51																																		

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

[illegible]

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				90			95			100			105			110			115			120			130			140			150			160			170			180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				Roof Wind Zone																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
0	B	0-7	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
				Roof Wind Zone																																							
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
30	B	0-7	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		7-20	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
	C	0-7	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		7-20	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	68	77	77	63	77	73	60	77	67	57	77	63	54	75	60	52	69	58	50	62	53	46	57	49	52	53	46	48	50	52	45	47	49	40	43	46	36	
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	78	83	83	81	73	83	77	66	83	72	63	83	66	60	83	63	57	81	60	54	75	55	50	67	51	46	62	47	41	58	44	50	54	51	47	51	48	43
	D	0-7	Interior	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
			Exposed	87	87	84	87	87	87	80	87	84	76	86	80	71	82	77	65	78	73	62	75	68	65	62	55	60	57	51	56	53	47	52	50	43	49	47	51	46	54	48	
		7-20	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	61	77	68	58	77	64	55	75	60	52	69	58	50	64	55	47	61	53	45	57	48	51	62	44	47	49	51	43	46	48	38	53	45	33	50	40	30	
		20-27	Interior	85	85	85	85	85	83	85	85	85	79	85	82	75	85	78	69	85	75	64	85	69	61	84	62	56	78	57	52	72	53	49	65	50	46	61	47	53	58	43	50
			Exposed	85	78	69	85	73	63	85	67	60	85	63	57	81	60	54	78	57	52	75	55	50	66	50	46	61	47	52	57	42	48	53	50	45	50	47	40	47	43	36	
40	B	0-7	Interior	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89
			Exposed	89	85	77	87	81	72	83	77	66	79	73	63	75	68	60	69	64	57	65	61	54	59	56	50	55	52	46	51	49	41	48	45	50	45	52	47	52	49	43	
		7-20	Interior	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
			Exposed	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
		20-27	Interior	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
			Exposed	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
	C	0-7	Interior	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
			Exposed	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
		7-20	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
	D	0-7	Interior	85	85	77	85	81	72	83	77	66	79	73	63	75	68	60	69	64	57	65	61	54	59	56	50	55	52	46	51	49	41	48	45	50	45	52	47	52	49	43	
			Exposed	85	85	77	85	81	72	83	77	66	79	73	63	75	68	60	69	64	57	65	61	54	59	56	50	55	52	46	51	49	41	48	4								

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

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* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
				Roof Wind Zone																																							
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
0	B	0-7	Interior	98	98	98	98	98	98	98	98	97	98	98	98	92	98	98	88	98	97	84	98	93	81	98	86	75	93	81	66	87	76	61	82	69	57	78	64	54	73	60	51
			Exposed	98	98	87	98	96	83	98	91	79	98	87	75	97	84	71	93	80	66	89	77	63	82	70	58	77	63	53	71	59	50	65	55	46	61	52	54	57	49	50	
		7-20	Interior	98	98	98	98	98	98	98	98	93	98	98	89	98	84	98	94	80	98	89	77	97	82	68	58	76	62	83	68	58	78	63	54	72	59	51	65	55	48		
			Exposed	98	98	84	98	92	79	98	87	75	98	83	70	93	79	64	89	76	62	85	71	59	78	63	54	70	58	50	63	54	47	59	51	54	56	48	50	52	45	47	
		20-27	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	93	98	98	89	98	89	98	94	85	98	86	78	98	79	70	94	73	63	88	65	59	83	61	56	78	58	52
			Exposed	98	98	93	98	97	88	98	91	83	98	87	79	98	82	75	98	79	70	96	75	65	88	66	59	82	61	55	77	56	51	71	53	48	65	49	45	61	47	52	
	27-45	Interior	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	96	99	99	92	99	93	84	87	78	87	81	72	82	76	65	77	70	61	70	64	57			
		Exposed	99	99	99	99	99	95	99	99	99	99	94	85	98	90	81	94	86	78	89	83	75	82	77	65	76	69	60	68	63	56	62	59	53	58	55	49	55	52	47		
	C	0-7	Interior	98	98	90	98	98	85	98	94	81	98	89	77	98	86	74	95	82	69	91	79	64	84	73	59	79	65	55	74	61	51	67	57	48	62	53	44	59	50	52	
			Exposed	98	85	73	94	81	67	89	78	63	85	74	60	82	69	57	78	65	54	76	62	52	67	57	48	62	53	44	57	49	51	54	46	48	50	53	44	48	50	39	
		7-20	Interior	98	98	86	98	95	82	98	90	77	98	85	73	96	81	67	91	78	63	87	74	61	80	65	56	74	60	52	65	56	48	61	52	45	57	49	52	54	46	49	
			Exposed	96	81	67	90	77	63	85	72	59	81	66	56	77	62	54	73	59	51	68	57	49	61	52	45	57	48	51	53	45	48	49	52	44	46	49	39	42	46	35	
		20-27	Interior	98	98	96	98	98	90	98	94	85	98	89	81	98	85	77	98	81	73	98	77	67	91	69	61	84	62	57	79	58	53	74	54	49	67	51	46	63	48	42	
			Exposed	98	85	77	98	80	71	96	76	65	92	70	62	88	65	59	84	62	56	80	59	54	75	54	50	66	50	46	71	47	52	57	43	49	54	51	46	51	48	42	
	D	27-45	Interior	99	99	99	99	99	97	99	99	92	99	97	88	99	92	84	96	88	80	92	85	77	84	79	68	78	72	62	71	65	58	64	61	54	60	57	51	57	54	48	
			Exposed	99	92	83	95	87	79	90	83	75	85	79	69	91	76	65	78	62	72	62	74	67	59	64	61	54	60	56	50	55	53	47	52	49	46	51	46	51	46	53	48
	0-7	Interior	98	95	82	98	91	78	98	86	75	95	82	69	91	79	64	87	76	61	84	72	59	78	64	54	72	59	50	65	55	47	61	52	54	57	49	50	54	46	47		
		Exposed	91	79	64	86	75	61	82	70	58	79	65	55	75	62	52	71	59	50	67	57	48	61	52	54	56	48	50	52	44	46	49	51	42	46	49	37	53	46	33		
		7-20	Interior	98	92	79	98	87	75	97	82	68	92	78	64	87	74	61	83	69	58	79	64	55	72	59	61	84	62	57	79	58	53	74	54	49	67	51	46	63	48	42	
			Exposed	87	74	60	82	67	57	78	63	54	74	60	51	68	57	49	64	54	47	61	52	44	56	48	51	52	43	47	48	51	42	45	47	37	52	44	33	49	39	29	
	B	20-27	Interior	98	96	87	98	90	82	98	86	78	98	81	74	98	77	67	94	74	63	90	68	61	83	61	56	78	57	52	71	53	48	65	49	45	61	46	52	57	42	49	
			Exposed	98	77	67	93	72	63	88	65	59	84	62	56	80	59	54	77	56	51	74	54	49	65	50	46	51	56	53	48	52	49	45	49	46	39	46	42	35			
		27-45	Interior	99	99	94	99	98	89	99	93	84	97	89	80	92	85	77	88	81	72	84	78	67	77	71	61	69	64	57	63	59	53	58	55	49	55	52	46	52	49	54	
			Exposed	92	85	76	86	80	71	82	77	65	78	72	62	74	67	59	68	63	56	64	60	54	59	56	50	54	52	46	51	48	53	47	45	49	44	52	46	52	49	42	
	C	0-7	Interior	91	91	90	91	91	85	91	91	81	91	89	77	91	86	74	91	82	69	91	79	64	84	73	59	79	65	55	74	61	51	67	57	48	62	53	44	59	50	52	
			Exposed	91	85	73	91	81	67	89	78	63	85	74	60	82	69	57	78	65	54	76	62	52	67	57	48	62	53	44	57	49	51	54	46	48	50	53	44	48	50	39	
		7-20	Interior	91	91	86	91	91	82	91	90	77	91	85	73	91	81	67	91	78	63	87	74	61	80	65	56	74	60	52	65	56	48	61	52	45	57	49	52	54	46	49	
			Exposed	91	81	67	90	77	63	85	72	59	81	66	56	77	62	54	73	59	51	68	57	49	61	52	45	57	48	51	53	45	48	49	52	44	46	49	39	42	46	35	
		20-27	Interior	95	95	95	95	95	90	95	94	85	95	89	81	95	85	77	95	81	73	95	77	67	91	69	61	84	62	57	79	58	53	74	54	49	67	51	46	63	48	42	
			Exposed	95	85	77	95	80	71	95	76	65	92	70	62	88	65	59	84	62	56	80	59	54	75	54	50	66	50	46	61	47	52	57	43	49	54	51	46	51	48	42	
	D	27-45	Interior	98	98	98	98	98	97	98	98	92	98	97	88	98	92	84	96	88	80	92	85	77	84	79	68	78	72	62	71	65	58	64	61	54	60	57	51	57	54	48	
			Exposed	98	92	83	95	87	79	90	83	75	85	79	69	81	76	65	78	72	62	74	67	59	64	61	54	60	56	50	55	53	47	52	49	46	51	46	51	46	53	48	
	0-7	Interior	91	91	82	91	91	78	91	86	75	91	82	69	91	79	64	87	76	61	84</																						

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

[illegible]

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																									
				90			95			100			105			110			115			120			130			140			150			160			170			180					
				Roof Wind Zone																																									
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
0	B	0-7	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	98	89	98	98	85	98	94	81	98	87	75	94	81	67	88	76	62	83	71	58	78	65	54	74	61	51			
			Exposed	98	98	88	98	97	84	98	92	80	98	88	76	98	84	72	93	81	67	90	78	63	83	71	58	78	64	54	72	60	50	65	56	47	61	52	43	58	49	51			
		7-20	Interior	99	99	99	99	99	99	99	99	99	95	99	99	99	99	99	95	81	99	90	78	98	83	70	59	77	64	53	84	70	58	78	63	54	73	59	51	66	56	48			
			Exposed	99	99	85	99	93	80	99	88	76	99	84	71	94	80	65	90	76	62	86	72	60	79	64	55	72	59	51	64	55	47	60	51	43	56	48	51	53	45	48			
		20-27	Interior	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	94	99	99	90	99	95	86	99	87	79	99	80	72	95	75	64	89	66	60	84	62	56	79	58	53		
			Exposed	99	99	94	99	98	89	99	92	84	99	88	80	99	83	76	99	80	71	97	76	66	89	67	60	83	61	56	78	57	52	72	53	48	65	50	46	62	47	53			
	C	0-7	Interior	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	97	99	99	92	99	94	85	95	88	79	88	82	74	82	77	66	77	61	62	72	65	58			
			Exposed	99	99	99	99	99	96	99	99	91	99	95	86	99	91	82	95	87	79	90	83	75	83	77	66	77	70	61	69	64	57	63	60	53	59	56	50	56	53	47			
		7-20	Interior	98	98	91	98	98	86	98	95	82	98	90	78	98	86	75	96	83	70	92	80	65	88	77	62	85	73	59	79	65	55	73	60	51	66	56	47	61	52	43	58	49	51
			Exposed	98	86	75	95	82	68	90	78	64	86	75	61	83	70	58	79	66	55	76	63	53	72	60	50	68	57	48	62	53	45	58	50	51	54	46	48	51	42	45	48	50	49
		20-27	Interior	99	99	87	99	96	83	99	91	78	99	86	74	97	82	68	92	79	64	88	75	61	81	66	56	75	61	52	66	56	49	62	53	45	58	49	52	54	47	49			
			Exposed	97	82	68	91	78	63	86	73	60	82	67	57	78	63	54	75	60	52	69	58	50	62	53	46	57	49	52	53	46	48	50	52	45	47	49	49	40	43	46	36		
	D	0-7	Interior	99	99	97	99	99	91	99	95	86	99	90	82	99	86	78	99	82	75	99	78	69	95	75	64	91	69	61	84	62	56	78	57	49	65	50	46	61	47	53	58	43	50
			Exposed	99	86	78	99	81	73	97	77	66	93	72	63	88	66	60	85	63	57	81	60	54	75	55	50	66	50	46	57	52	48	53	50	45	50	47	42	48	47	40	47	43	36
		7-20	Interior	99	99	99	99	99	98	99	99	99	99	99	98	88	99	93	84	98	89	81	93	86	77	85	79	69	79	74	63	73	66	58	65	61	55	61	58	51	57	54	48		
			Exposed	99	93	84	96	88	80	91	84	76	86	80	71	82	77	65	78	63	57	83	62	75	68	60	65	62	55	69	64	57	63	60	53	59	56	50	56	53	47	52	50	43	
		20-27	Interior	98	90	83	98	91	79	98	87	75	96	83	70	92	80	65	88	77	62	85	73	59	79	65	55	73	60	51	66	56	47	61	52	43	58	49	51	54	46	48			
			Exposed	92	80	65	87	76	61	83	71	58	79	66	55	76	63	53	72	60	50	68	57	48	62	53	43	57	49	50	53	45	47	50	52	43	47	49	98	43	46	34			
10	B	0-7	Interior	99	93	80	99	87	76	98	83	69	93	79	64	88	75	61	84	70	58	80	65	56	74	60	51	65	55	48	60	51	43	56	48	51	53	45	48	50	52	45			
			Exposed	88	75	61	83	68	58	79	64	55	75	60	52	69	58	50	64	55	47	61	53	45	57	48	51	62	44	47	49	51	43	46	48	98	53	45	98	50	49	39			
		7-20	Interior	99	97	88	99	91	83	99	86	79	99	82	75	99	78	69	95	75	64	91	69	61	84	62	56	78	57	52	72	53	49	65	50	46	61	47	53	58	43	50			
			Exposed	97	78	69	94	73	63	89	67	60	85	63	57	81	60	54	78	57	52	75	55	50	66	50	46	61	47	52	57	42	48	53	50	45	50	47	49	40	47	43	36		
		20-27	Interior	99	99	95	99	99	90	99	94	85	98	90	81	93	86	77	89	82	74	85	79	69	78	72	62	70	64	57	63	60	53	59	56	50	56	53	47	52	50	43			
			Exposed	93	85	77	87	81	72	83	77	66	79	73	63	75	68	60	69	64	57	65	61	54	59	56	50	55	52	46	51	49	41	48	45	50	45	52	47	52	49	43			
	C	0-7	Interior	92	92	91	92	92	86	92	92	82	92	90	78	92	86	75	92	83	70	92	80	65	85	74	60	80	66	55	75	61	52	68	57	48	63	54	45	59	51	52			
			Exposed	92	86	75	92	82	68	90	78	64	86	75	61	83	70	58	79	66	55	76	63	53	68	58	49	62	53	45	58	50	51	54	46	48	51	42	45	48	50	49			
		7-20	Interior	92	92	87	92	92	83	92	91	78	92	86	74	92	82	68	92	79	64	88	75	61	81	66	56	75	61	52	66	56	49	62	53	45	58	49	52	54	47	49			
			Exposed	92	82	68	91	78	63	86	73	60	82	67	57	78	63	54	75	60	52	69	58	50	62	53	46	57	49	52	53	46	48	50	52	45	47	49	49	40	43	46	36		
		20-27	Interior	96	96	96	96	96	91	96	95	86	96	90	82	96	86	78	96	82	75	96	78	69	92	70	62	85	63	57	80	59	53	75	55	50	68	51	47	63	48	43			
			Exposed	96	86	78	96	81	73	96	77	66	93	72	63	88	66	60	85	63	57	81	60	54	75	55	50	66	50	46	57	52	48	53	50	45	50	47	42	48	47	43	36		
	D	0-7	Interior	99	99	99	99	99	98	99	99	99	99	99	98	88	99	93	84	98	89	81	93	86	77	85	79	69	79	74	63	73	66	58	65	61	55	61	58	51	57	54	48		
			Exposed	99	93	84	96	88	80	91	84	76	86	80	71	82	77	65	78	63	57	83	62	75	68	60	65	62	55	69	64	57	63	60	53	59	56	50	56						

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
				Roof Wind Zone																																							
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
30	B	0-7	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		7-20	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
	C	0-7	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
		7-20	Interior	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
			Exposed	77	77	68	77	77	63	77	73	60	77	67	57	77	63	54	75	60	52	69	58	50	62	53	46	57	49	52	53	46	48	50	52	45	47	49	40	43	46	36	
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	78	83	81	73	83	77	66	83	72	63	83	66	60	83	63	57	81	60	54	75	55	50	67	51	46	62	47	41	58	44	50	54	51	47	51	48	43	
	D	0-7	Interior	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
			Exposed	87	87	84	87	87	80	87	84	76	86	80	71	82	77	65	78	73	62	75	68	65	62	55	60	57	51	56	53	47	52	50	43	49	47	51	46	54	48	48	
		7-20	Interior	77	77	65	77	76	61	77	71	58	77	66	55	76	63	53	72	60	50	68	57	48	62	53	43	57	49	50	53	45	47	50	52	43	47	49	38	43	46	34	
			Exposed	77	77	77	77	77	77	77	77	69	77	64	77	75	61	77	70	58	77	65	56	74	60	51	65	55	48	60	51	43	56	48	51	53	45	48	50	52	45		
		20-27	Interior	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
			Exposed	85	85	78	85	73	63	85	67	70	85	63	57	81	60	54	78	57	52	75	55	50	66	50	46	61	47	52	57	42	48	53	50	45	50	47	40	47	43	36	
40	B	0-7	Interior	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89
			Exposed	89	89	87	87	81	72	83	77	66	79	73	63	75	68	60	69	64	57	85	61	54	59	56	50	55	52	46	51	49	41	48	45	50	45	52	47	52	49	43	
		7-20	Interior	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
			Exposed	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
		20-27	Interior	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
			Exposed	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
	C	0-7	Interior	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
			Exposed	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
		7-20	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
		20-27	Interior	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
			Exposed	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
	D	0-7	Interior	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
			Exposed	85	85	77	85	81	72	83	77	66	79	73	63	75	68	60	69	64	57	85	61	54	59	56	50	55	52	46	51	49	41	48	45	50	4						

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

Highlighted cell with strikethrough indicate 3-rail system span and module clamp allowable capacity exceeds with 3-rails. 4-Rail system required. Contact Unirac Engineering Services for support.

[illegible]

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

Maximum Allowable Rail Spans for Rooftop Solar Panels Parallel to the Roof Surface (inches)

Ground Snow Load (psf)	Wind Exposure Category	Roof Tilt Angle (deg)	Panel Exposure	Basic Wind Speed (mph)																																							
				90			95			100			105			110			115			120			130			140			150			160			170			180			
				Roof Wind Zone																																							
				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
0	B	0-7	Interior	98	98	98	98	98	98	98	98	97	98	98	98	92	98	98	88	98	97	84	98	93	81	98	86	75	93	81	66	87	76	61	82	69	57	78	64	54	73	60	51
			Exposed	98	98	87	98	96	83	98	91	79	98	87	75	97	84	71	93	80	66	89	77	63	82	70	58	77	63	53	71	59	50	65	55	46	61	52	54	57	49	50	
		7-20	Interior	98	98	98	98	98	98	98	98	93	98	98	89	98	84	98	94	80	98	89	77	97	82	68	58	76	62	83	68	58	78	63	54	72	59	51	65	55	48		
			Exposed	98	98	84	98	92	79	98	87	75	98	83	70	93	79	64	89	76	62	85	71	59	78	63	54	70	58	50	63	54	47	59	51	54	56	48	50	52	45	47	
		20-27	Interior	98	98	98	98	98	98	98	98	98	98	98	98	98	93	98	98	89	98	94	85	98	86	78	98	79	70	94	73	63	88	65	59	83	61	56	78	58	52		
			Exposed	98	98	93	98	97	88	98	91	83	98	87	79	98	82	75	98	79	70	96	75	65	88	66	59	82	61	55	77	56	51	71	53	48	65	49	45	61	47	52	
	27-45	Interior	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	96	99	92	99	93	84	87	78	87	81	72	82	76	65	77	70	61	70	64	57			
		Exposed	99	99	99	99	99	95	99	99	99	99	94	85	98	90	81	94	86	78	89	83	75	82	77	65	76	69	60	68	63	56	62	59	53	58	55	49	55	52	47		
	C	0-7	Interior	98	98	90	98	98	85	98	94	81	98	89	77	98	86	74	95	82	69	91	79	64	84	73	59	79	65	55	74	61	51	67	57	48	62	53	44	59	50	52	
			Exposed	98	85	73	94	81	67	89	78	63	85	74	60	82	69	57	78	65	54	76	62	52	67	57	48	62	53	44	57	49	51	54	46	48	50	53	44	48	50	39	
		7-20	Interior	98	98	86	98	95	82	98	90	77	98	85	73	96	81	67	91	78	63	87	74	61	80	65	56	74	60	52	65	56	48	61	52	45	57	49	52	54	46	49	
			Exposed	96	81	67	90	77	63	85	72	59	81	66	56	77	62	54	73	59	51	68	57	49	61	52	45	57	48	51	53	45	48	49	52	44	46	49	39	42	46	35	
		20-27	Interior	98	98	96	98	98	90	98	94	85	98	89	81	98	85	77	98	81	73	98	77	67	91	69	61	84	62	57	79	58	53	74	54	49	67	51	46	63	48	42	
			Exposed	98	85	77	98	80	71	96	76	65	92	70	62	88	65	59	84	62	56	80	59	54	75	54	50	66	50	46	71	52	57	43	49	54	51	46	51	48	42		
	D	27-45	Interior	99	99	99	99	99	97	99	99	92	99	97	88	99	92	84	96	88	80	92	85	77	84	79	68	78	72	62	71	65	58	64	61	54	60	57	51	57	54	48	
			Exposed	99	92	83	95	87	79	90	83	75	85	79	69	91	76	65	78	62	72	62	74	67	59	64	61	54	60	56	50	55	53	47	52	49	46	51	46	53	48		
	0-7	Interior	98	95	82	98	91	78	98	86	75	95	82	69	91	79	64	87	76	61	84	72	59	78	64	54	72	59	50	65	55	47	61	52	54	57	49	50	54	46	47		
		Exposed	91	79	64	86	75	61	82	70	58	79	65	55	75	62	52	71	59	50	67	57	48	61	52	54	56	48	50	52	44	46	49	51	42	46	48	37	53	46	33		
		7-20	Interior	98	92	79	98	87	75	97	82	68	92	78	64	87	74	61	83	69	58	79	64	55	72	59	51	64	55	47	59	51	43	56	48	50	52	44	47	49	52	44	
			Exposed	87	74	60	82	67	57	78	63	54	74	60	51	68	57	49	64	54	47	61	52	44	56	48	51	52	43	47	48	51	42	45	47	37	52	44	33	49	39	29	
	B	20-27	Interior	98	96	87	98	90	82	98	86	78	98	81	74	98	77	67	94	74	63	90	68	61	83	61	56	78	57	52	71	53	48	65	49	45	61	46	52	57	42	49	
			Exposed	98	77	67	93	72	63	88	65	59	84	62	56	80	59	54	77	56	51	74	54	49	65	50	46	51	56	53	48	52	49	45	49	46	39	46	42	35			
	27-45	Interior	99	99	94	99	98	89	99	93	84	97	89	80	92	85	77	88	81	72	84	78	67	77	71	61	69	64	57	63	59	53	58	55	49	55	52	46	52	49	54		
		Exposed	92	85	76	86	80	71	82	77	65	78	72	62	74	67	59	68	63	56	64	60	54	59	56	50	54	52	46	51	48	53	47	45	49	44	52	46	52	49	42		
10	C	0-7	Interior	91	91	90	91	91	85	91	91	81	91	89	77	91	86	74	91	82	69	91	79	64	84	73	59	79	65	55	74	61	51	67	57	48	62	53	44	59	50	52	
			Exposed	91	85	73	91	81	67	89	78	63	85	74	60	82	69	57	78	65	54	76	62	52	67	57	48	62	53	44	57	49	51	54	46	48	50	53	44	48	50	39	
		7-20	Interior	91	91	86	91	91	82	91	90	77	91	85	73	91	81	67	91	78	63	87	74	61	80	65	56	74	60	52	65	56	48	61	52	45	57	49	52	54	46	49	
			Exposed	91	81	67	90	77	63	85	72	59	81	66	56	77	62	54	73	59	51	68	57	49	61	52	45	57	48	51	53	45	48	49	52	44	46	49	39	42	46	35	
		20-27	Interior	95	95	95	95	95	90	95	94	85	95	89	81	95	85	77	95	81	73	95	77	67	91	69	61	84	62	57	79	58	53	74	54	49	67	51	46	63	48	42	
			Exposed	95	85	77	95	80	71	95	76	65	92	70	62	88	65	59	84	62	56	80	59	54	75	54	50	66	50	46	61	47	52	57	43	49	54	51	46	51	48	42	
	D	27-45	Interior	98	98	98	98	98	97	98	98	92	98	97	88	98	92	84	96	88	80	92	85	77	84	79	68	78	72	62	71	65	58	64	61	54	60	57	51	57	54	48	
			Exposed	98	92	83	95	87	79	90	83	75	85	79	69	81	76	65	78	62	74	67	59	64	61	54	60	56	50	55	53	47	52	49	46	51	46	53	48				
	0-7	Interior	91	91	82	91	91	78	91	86	75	91	82	69	91	79	64	87	76	61	84	72	59	78	64	54	72	59	50	65													

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

* Cells with an asterisk indicates that the L-foot must be oriented in the Y- direction as indicated in the image.

10 Highlighted cell indicate 3-rail system span. Contact Unirac Engineering Services for support.

40 Highlighted cell with strikethrough indicate 3-rail system span and module clamp allowable capacity exceeds with 3-rails. 4-Rail system required. Contact Unirac Engineering Services for support.