

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 7-16 Sec 29.4.4 with Provisions from SEAOC PV2-2017
- 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 7-16, 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

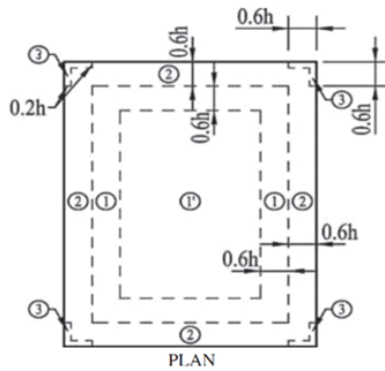
- 0.2-s Spectral Response Acceleration, $S_S \leq 3$
- $S_S = 1.25$ and 3 per criteria shown on individual span tables sheets.
- $S_1 = 0.5$
- Seismic site class D

Array Assumptions

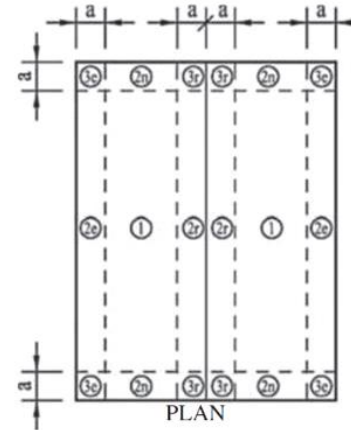
- Module orientation and Rail direction per criteria shown on individual span tables sheets.
- Maximum module dimensions of 40.1" x 67" (~19 sq.ft, 47.65 lbs) and 41" x 80" (~23 sq.ft, 58.6 lbs) per criteria shown on individual span tables sheets.
- Minimum distance between modules and roof edge is at 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 7-16 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 7-16, Fig. 30.3-2A to 30.3-2D



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

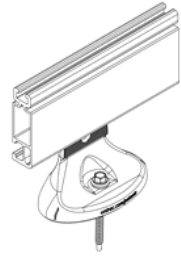


Gable Roofs $7^\circ < \theta \leq 45^\circ$

Grouping of ASCE 7-16 Roof Zones (Gable and Flat)

- **Roof Tilt 0° - 7°**
Roof Zone 1 = 1
Roof Zone 2 = 2
Roof Zone 3 = 3
- **Roof Tilt 7° - 27°**
Roof Zone 1 = 1, 2e
Roof Zone 2 = 2n, 2r, 3e
Roof Zone 3 = 3r
- **Roof Tilt 27° - 45°**
Roof Zone 1 = 1, 2e, 2r
Roof Zone 2 = 2n, 3r
Roof Zone 3 = 3e

Rails can be installed in these possible orientations.

*Flashloc Comp	
Y+	
Y-	Alternate orientation not allowed

[illegible]

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.

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

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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.

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

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		7-20	Interior	83*	83*	83*	83*	83*	70	83*	81*	56	83*	66	46	83*	55	39	81*	46	34	66	40	31	53	32	26	44	27	23	36	24	20	32	21	17	28	18	23	25	24	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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20-27		Interior	88*	88*	88*	88*	88*	88*	88*	88*	88*	88*	88*	72*	88*	77*	58	88*	64*	49	88*	55	41	81*	41	32	64*	33	26	53	29	21	45	25	18	38	22	15	33	20	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Exposed	88*	76*	58	88*	61	46	88*	51	38	85*	42	33	71*	36	29	63*	33	25	56	30	23	45	25	18	37	22	15	32	19	19	28	25	17	25	22	18	22	19	13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
27-45	Interior	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	83*	73*	83*	83*	83*	83*	83*	56	83*	64*	44	68*	51	35	52	42	30	42	35	26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Exposed	83*	83*	72*	83*	83*	60*	83*	72*	49	83*	61*	42	69*	52	36	58*	44	32	48	39	29	41	34	26	35	31	23	30	27	19	25	23	16	22	20	19	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
60	B	0-7	Interior	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40</

[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.

[illegible]

* 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.

[illegible]

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

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]

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

[illegible]

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.

* 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.

[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.

* Cells with an asterisk indicates that the L-root 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	120*	120*	120*	120*	120*	120*	120*	120*	120*	120*	120*	102	120*	120*	85	120*	120*	72	120*	104	62	120*	79	47	104	62	37	82	50	32	66	41	28	54	34	24	45	30	22									
			Exposed	120*	120*	85	120*	117*	69	120*	97	58	120*	82	49	120*	70	42	102	61	36	88	53	33	67	41	28	53	34	24	42	29	21	35	25	18	31	22	24	27	20	21									
		7-20	Interior	115*	115*	115*	115*	115*	115*	115*	115*	115*	115*	115*	95	115*	115*	77	115*	93	63	115*	77	53	115*	55	39	69	42	32	57	34	28	48	29	24	41	26	21	35	23	19									
			Exposed	115*	114*	76	115*	88	60	115*	70	49	115*	58	41	92	48	35	68	41	32	60	35	29	49	30	25	40	25	21	34	22	18	29	19	24	26	17	21	23	23	19									
		20-27	Interior	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	112*	108*	112*	110*	86	112*	77	59	112*	58	43	90	45	34	71	36	28	60	31	24	51	28	21									
			Exposed	112*	112*	112*	112*	112*	101*	112*	100*	77	112*	81	62	112*	67	51	112*	56	42	97*	48	36	72	36	29	58	31	23	48	27	19	41	23	16	35	20	14	31	18	19									
	27-45	Interior	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	109*	100*	109*	109*	73	109*	83	56	92*	64	44	68	51	35	52	42	30	42	35	26										
		Exposed	109*	109*	109*	109*	109*	109*	109*	109*	92*	109*	109*	76	109*	96*	64	109*	81	55	102*	69	47	69	52	36	51	40	30	39	33	25	33	29	21	29	26	18	25	23	16										
	C	0-7	Interior	120*	120*	97	120*	120*	78	120*	110	65	120*	92	55	120*	78	47	116*	68	41	99	59	35	75	46	30	59	37	26	47	31	22	39	27	19	33	24	17	29	21	23									
			Exposed	120*	78	47	111	65	39	92	55	34	78	47	31	66	41	28	57	36	25	50	33	23	39	28	20	32	24	17	28	20	22	25	18	19	22	24	17	19	21	15									
		7-20	Interior	115*	115*	89	115*	103*	70	115*	81	56	115*	66	46	115*	55	39	81	46	34	66	40	31	53	32	26	44	27	23	36	24	20	32	21	17	28	18	23	25	24	20									
			Exposed	115*	54	39	73	44	33	63	37	30	55	33	27	48	30	24	43	27	22	38	25	20	32	21	17	27	18	22	24	23	19	21	20	17	18	18	15	24	16	13									
20-27		Interior	112*	112*	112*	112*	112*	112*	112*	112*	92	112*	93*	72	112*	77	58	112*	64	49	112*	55	41	81	41	32	64	33	26	53	29	21	45	25	18	38	22	15	33	20	20										
		Exposed	112*	76	58	112*	61	46	103*	51	38	85	42	33	71	36	29	63	33	25	56	30	23	45	25	18	37	22	15	32	19	19	28	25	17	25	22	18	22	19	13										
27-45	Interior	109*	109*	109*	109*	109*	109*	109*	109*	106*	109*	109*	88*	109*	109*	73	109*	92*	62	109*	78	53	81	58	40	58	45	32	44	36	27	35	31	23	31	28	20	27	24	17											
	Exposed	109*	109*	72	109*	88*	59	109*	72	49	85	61	42	69	52	36	57	44	32	48	39	29	35	32	23	30	27	19	26	23	16	23	21	21	20	18	18	18	24	16											
D	0-7	Interior	120*	119*	70	120*	97	58	120*	81	49	119*	69	41	100	59	36	85	52	32	74	45	30	57	35	25	45	30	21	36	26	19	31	23	25	28	20	22	25	18	19										
		Exposed	99	59	35	82	50	32	69	42	28	59	37	26	51	33	23	44	30	21	39	27	19	32	23	25	27	20	21	24	17	18	21	23	16	18	20	14	24	18	13										
	7-20	Interior	115*	89	61	115*	70	49	115*	57	41	87	47	35	67	40	31	59	35	29	53	32	26	42	27	22	35	23	19	30	20	25	26	17	22	23	23	19	21	21	17										
		Exposed	66	40	31	57	34	28	50	30	25	44	27	23	39	25	21	35	23	19	32	21	17	27	17	22	23	23	19	20	20	16	17	17	17	17	17	17	17	17											
	20-27	Interior	112*	112*	103*	112*	100*	78	112*	80	61	112*	66	50	112*	55	41	94*	47	35	80	40	31	62	32	25	51	28	20	42	24	17	36	21	14	31	18	19	28	25	17										
		Exposed	112*	55	41	90	45	34	74	37	29	64	33	26	56	30	23	50	27	20	45	25	18	36	21	15	31	18	19	27	24	16	23	21	14	18	18	18	16	14											
27-45	Interior	109*	109*	109*	109*	109*	93*	109*	109*	76	109*	95*	63	109*	79	53	98*	67	46	79	58	40	56	44	32	42	35	26	34	30	22	29	26	19	26	23	16	23	21	21											
	Exposed	109*	78	53	92*	64	44	72	54	37	58	45	32	48	39	29	41	34	26	35	31	23	30	27	19	25	23	16	22	20	19	17	17	17	17	17	17	17	17												
10	B	0-7	Interior	103	103	103	103	103	103	103	103	103	103	103	102	103	103	85	103	103	72	103	103	62	103	79	47	103	62	37	82	50	32	66	41	28	54	34	24	45	30	22									
			Exposed	103	103	85	103	103	69	103	97	58	103	82	49	103	70	42	102	61	36	88	53	33	67	41	28	53	34	24	42	29	21	35	25	18	31	22	24	27	20	21									
		7-20	Interior	104*	104*	104*	104*	104*	104*	104*	104*	104*	104*	104*	95*	104*	104*	77	104*	93*	63	104*	77	53	104*	55	39	69	42	32	57	34	28	48	29	24	41	26	21	35	23	19									
			Exposed	104*	104*	76	104*	88*	60	104*	70	49	104*	58	41	92*	48	35	68	41	32	60	35	29	49	30	25	40	25	21	34	22	18	29	19	24	26	17	21	23	23	19									
		20-27	Interior	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	86*	105*	77	59	105*	58	43	90*	45	34	71	36	28	60	31	24	51	28	21										
			Exposed	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	105*	86*	105*	77	59	105*	58	43	90*	45	34	71	36	28	60	31	24	51	28	21										
	27-45	Interior	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	102*	73	102*	83*	56	92*	64	44	68	51	35	52	42	30	42	35	26											
		Exposed	102*	102*	102*	102*	102*	102*	102*	102*	92*	102*	102*	76	102*	96*	64	102*	81*	55	102*	69	47	69	52	36	51	40	30	39	33	25	33	29	21	29	26	18	25	23	16										
	C	0-7	Interior	103	103	97	103	103	78	103	103	65	103	92	55	103	78	47	103	68	41	99	59	35	75	46	30	59	37	26	47	31	22	39	27	19	33	24	17	29	21	23									
			Exposed	103	78	47	103	65	39	92	55	34	78	47	31	66	41	28	57	36	25	50	33	23	39	28	20	32	24	17	28	20	22	25	18	19	22	24	17	19	21	15									
		7-20	Interior	104*	104*	89*	104*	103*	70	104*	81	56	104*	66	46	104*	55	39	81	46	34	66	40	31	53	32	26	44	27	23	36	24	20	32	21	17	28	18	23	25	24	20									
			Exposed	104*	54	39	73	44	33	63	37	30	55	33	27	48	30	24	43	27	22	38	25	20	32	21	17	27	18	22	24	23	19	21	20	17	18	18	15	24	16	13									
20-27		Interior	105*	105*	105*	105*	105*	105*	105*	105*	92*	105*	93*	72	105*	77	58	105*	64	49	105*	55	41	81	41	32	64	33	26	53	29	21	45	25	18	38	22	15	33	20	20										
		Exposed	105*	76	58	105*	61	46	103*	51	38	85	42	33	71	36	29	63	33	25	56	30	23	45	25	18																									

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

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 astrisks indicates that the L-root 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.

[illegible]

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