



11/17/2017

Attn: Mr. Marshall Green  
Quick Mount PV  
2700 Mitchell Dr.  
Walnut Creek, CA, 94598

RE: Quick Mount PV QBlock Mount System for use with Unirac Solarmount Light Flush-to-Roof Rail System SEI Project No.: 17054.00

Dear Mr. Green

Structural Enginuity Inc. (SEI) has completed its review of the Quickmount PV QBlock Mount System for use in conjunction with the Unirac Solarmount Light Flush-to-Roof Rail System. The QBlock product line includes the E-Mount (QMSE), E-Mount Lag (QMSE-LAG), Classic Composition Mount (QMSC), and the Classic Shake Mount (QMLC).

The review was based on the following reference data:

- Unirac, Design & Engineering Guide – Solarmount: Flush-to-Roof Design, May 19, 2016
- Applied Materials & Engineering, Quick Mount PV Load Testing, Project Number 108443C, May 22, 2009
- Applied Materials & Engineering, Quick Mount PV Load Testing, Project Number 108443C, May 22, 2009
- Applied Materials & Engineering, Laboratory Load Testing of the QMSE-Lag, Project Number 114490C, October 29, 2014
- ICC Evaluation Service, Quick Mount PV Roof Mounts, ESR-2835, April 2015
- ICC Evaluation Service, Quick Mount PV Roof Mounts, ESR-3744, November 2016

SEI has determined that the QMSE, QMSE-Lag, QMSC, and QMLC mounts are suitable for use with the Unirac Solarmount Light System. The approved installation and allowable loads for the Quick Mount PV QBlock products is outlined in the ICC reports (ESR-2835 & ESR-3744). These values are shown below, no additional load duration factors may be applied to these values.

**Table 1: QMSE, QMSC, & QMLC Roof Mounts**

Load Direction	Specific Gravity of Lumber Rafter	Allowable Load
Uplift	0.5	811
	0.36	436
Lateral	0.5	671
	0.36	634

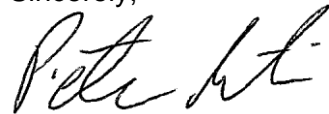
**Table 2: QMSE-LAG Roof Mount**

Load Direction	Specific Gravity of Lumber Rafter	Allowable Load
Uplift	0.5	732
	-	-
Lateral	0.5	526
	-	-

SEI has prepared allowable rail span charts for the Unirac Solarmount Light System used in conjunction with the Quick Mount PV QBlock products. These span tables serve as a quick reference for looking up maximum rail spans based on building and site conditions and follow the 2016 CBC, 2015 IBC/IRC and applicable ASCE 7-10 load cases. The tables take into account the strength of the rail system as well as the allowable uplift and lateral forces of the QBlock mounts. A site specific analysis is required if the site conditions or building characteristics do not meet the requirements listed in the attached tables. In all cases, the tables are meant to be used in conjunction with Unirac Solarmount System Structural Report and Calculations and all requirements listed are still applicable for these tables including edge zones and edge distances.

Please contact our office if you have any further questions relating to this matter.

Sincerely,



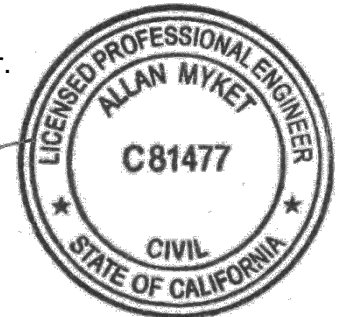
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11/28/2017

**Structural Enginuity Inc.**

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 1A</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	96	84	72	60	54	84	84	84	72	60	54	72	72	72	72	60	54
	115	96	84	84	72	60	54	78	78	78	72	60	54	72	72	72	72	60	54
	120	96	84	84	72	60	54	78	78	78	72	60	54	66	66	66	66	60	54
	130	96	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	140	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	150	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	160	78	78	78	72	60	54	60	60	60	60	60	54	48	48	48	48	48	48
	170	78	78	78	72	60	54	54	54	54	54	54	54	42	42	42	42	42	42
	180	72	72	72	72	60	54	54	54	54	54	54	54	36	36	36	36	36	36
	200	66	66	66	66	60	54	48	48	48	48	48	48	30	30	30	30	30	30

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 1B</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Portrait					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Western Cedar					
														Specific Gravity:	0.36					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>B</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
Roofs > 7° to 27°	110	96	96	84	72	60	54	84	84	84	72	60	54	71	71	71	71	60	54	
	115	96	84	84	72	60	54	78	78	78	72	60	54	65	65	65	65	60	54	
	120	96	84	84	72	60	54	78	78	78	72	60	54	59	59	59	59	59	54	
	130	96	84	78	72	60	54	72	72	72	72	60	54	50	50	50	50	50	50	
	140	84	84	78	72	60	54	67	67	67	67	60	54	42	42	42	42	42	42	
	150	84	84	78	72	60	54	58	58	58	58	58	54	37	37	37	37	37	37	
	160	78	78	78	72	60	54	50	50	50	50	50	50	32	32	32	32	32	32	
	170	78	78	78	72	60	54	44	44	44	44	44	44	28	28	28	28	28	28	
	180	72	72	72	72	60	54	39	39	39	39	39	39	25	25	25	25	25	25	
	200	61	61	61	61	60	54	31	31	31	31	31	31	20	20	20	20	20	20	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 1C</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir		Specific Gravity: 0.5													
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	96	84	72	60	54	84	84	84	72	60	54	72	72	72	72	60	54
	115	96	84	84	72	60	54	78	78	78	72	60	54	72	72	72	72	60	54
	120	96	84	84	72	60	54	78	78	78	72	60	54	66	66	66	66	60	54
	130	96	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	140	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	150	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	160	78	78	78	72	60	54	60	60	60	60	60	54	48	48	48	48	48	48
	170	78	78	78	72	60	54	54	54	54	54	54	54	42	42	42	42	42	42
	180	72	72	72	72	60	54	54	54	54	54	54	54	36	36	36	36	36	36
	200	66	66	66	66	60	54	48	48	48	48	48	48	30	30	30	30	30	30

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 2A</b>		Roof Height: 0 - 30 feet						Panel Orientation: Portrait											
		Roof Angle: $7 < \theta \leq 27$ degrees						Rafter Species: Douglas Fir											
		Specific Gravity: 0.5																	
Exposure <b>C</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	115	84	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	120	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	130	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	140	78	78	78	72	60	54	60	60	60	60	60	54	42	42	42	42	42	42
	150	78	78	78	72	60	54	54	54	54	54	54	54	42	42	42	42	42	42
	160	72	72	72	72	60	54	48	48	48	48	48	48	36	36	36	36	36	36
	170	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	180	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	200	54	54	54	54	54	54	36	36	36	36	36	36	24	24	24	24	24	24

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 2B</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Portrait					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Western Cedar					
														Specific Gravity:	0.36					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>C</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	84	78	72	60	54	72	72	72	72	60	54	49	49	49	49	49	49	
	115	84	84	78	72	60	54	71	71	71	71	60	54	45	45	45	45	45	45	
	120	84	84	78	72	60	54	65	65	65	65	60	54	41	41	41	41	41	41	
	130	84	84	78	72	60	54	55	55	55	55	55	54	35	35	35	35	35	35	
	140	78	78	78	72	60	54	47	47	47	47	47	47	30	30	30	30	30	30	
	150	78	78	78	72	60	54	40	40	40	40	40	40	26	26	26	26	26	26	
	160	69	69	69	69	60	54	35	35	35	35	35	35	23	23	23	23	23	23	
	170	61	61	61	61	60	54	31	31	31	31	31	31	20	20	20	20	20	20	
	180	54	54	54	54	54	54	28	28	28	28	28	28	18	18	18	18	18	18	
	200	43	43	43	43	43	43	22	22	22	22	22	22	14	14	14	14	14	14	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 2C</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir		Specific Gravity: 0.5													
Exposure <b>C</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	115	84	84	78	72	60	54	72	72	72	72	60	54	60	60	60	60	60	54
	120	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	130	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	140	78	78	78	72	60	54	60	60	60	60	60	54	42	42	42	42	42	42
	150	78	78	78	72	60	54	54	54	54	54	54	54	42	42	42	42	42	42
	160	72	72	72	72	60	54	48	48	48	48	48	48	36	36	36	36	36	36
	170	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	180	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	200	54	54	54	54	54	54	36	36	36	36	36	36	24	24	24	24	24	24

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"



**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 3A</b>		Roof Height: 0 - 30 feet						Roof Angle: $7 < \theta \leq 27$ degrees						Panel Orientation: Portrait					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs > 7° to 27°	110	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	115	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	120	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	130	78	78	78	72	60	54	60	60	60	60	60	54	42	42	42	42	42	42
	140	72	72	72	72	60	54	54	54	54	54	54	54	36	36	36	36	36	36
	150	72	72	72	72	60	54	48	48	48	48	48	48	36	36	36	36	36	36
	160	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	170	60	60	60	60	60	54	42	42	42	42	42	42	24	24	24	24	24	24
	180	60	60	60	60	60	54	36	36	36	36	36	36	24	24	24	24	24	24
	200	48	48	48	48	48	48	30	30	30	30	30	30	18	18	18	18	18	18

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 3B</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Western Cedar Specific Gravity: 0.36															
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	84	84	78	72	60	54	65	65	65	65	60	54	41	41	41	41	41	41
	115	84	84	78	72	60	54	59	59	59	59	59	54	38	38	38	38	38	38
	120	84	84	78	72	60	54	54	54	54	54	54	54	35	35	35	35	35	35
	130	78	78	78	72	60	54	46	46	46	46	46	46	29	29	29	29	29	29
	140	72	72	72	72	60	54	39	39	39	39	39	39	25	25	25	25	25	25
	150	66	66	66	66	60	54	34	34	34	34	34	34	22	22	22	22	22	22
	160	58	58	58	58	58	54	30	30	30	30	30	30	19	19	19	19	19	19
	170	51	51	51	51	51	51	26	26	26	26	26	26	17	17	17	17	17	17
	180	45	45	45	45	45	45	23	23	23	23	23	23	15	15	15	15	15	15
	200	36	36	36	36	36	36	19	19	19	19	19	19	12	12	12	12	12	12

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 3C</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	84	84	78	72	60	54	72	72	72	72	60	54	54	54	54	54	54	54
	115	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	120	84	84	78	72	60	54	66	66	66	66	60	54	48	48	48	48	48	48
	130	78	78	78	72	60	54	60	60	60	60	60	54	42	42	42	42	42	42
	140	72	72	72	72	60	54	54	54	54	54	54	54	36	36	36	36	36	36
	150	72	72	72	72	60	54	48	48	48	48	48	48	36	36	36	36	36	36
	160	66	66	66	66	60	54	42	42	42	42	42	42	30	30	30	30	30	30
	170	60	60	60	60	60	54	42	42	42	42	42	42	24	24	24	24	24	24
	180	60	60	60	60	60	54	36	36	36	36	36	36	24	24	24	24	24	24
	200	48	48	48	48	48	48	30	30	30	30	30	30	18	18	18	18	18	18

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 4A</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Portrait					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	115	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	120	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	130	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	140	78	78	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	150	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	160	78	78	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	170	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	180	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	200	66	66	66	60	60	54	60	60	60	60	60	54	60	60	60	60	60	54

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 4B</b>		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Western Cedar Specific Gravity: 0.36															
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	115	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	120	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	130	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	140	78	78	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	150	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	160	78	78	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	170	72	72	72	72	66	54	64	64	64	64	64	54	64	64	64	64	64	54
	180	69	69	69	66	66	54	57	57	57	57	57	54	57	57	57	57	57	54
	200	55	55	55	55	55	54	45	45	45	45	45	45	45	45	45	45	45	45

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 4C</b>		Roof Height: 0 - 30 feet											Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
<b>B</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	115	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	120	84	84	84	78	66	54	84	84	84	78	66	54	84	84	84	78	66	54
	130	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	140	78	78	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	150	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	160	78	78	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	170	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	180	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	200	66	66	66	60	60	54	60	60	60	60	60	54	60	60	60	60	60	54

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 5A</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Portrait					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	115	84	84	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	120	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	130	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	140	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	150	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	160	66	66	66	66	60	54	60	60	60	60	60	54	60	60	60	60	60	54
	170	66	66	66	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54
	180	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54	54
	200	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 5B</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Portrait					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	115	84	84	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	120	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	130	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	140	72	72	72	72	66	54	68	68	68	68	66	54	68	68	68	68	66	54
	150	71	71	71	66	66	54	58	58	58	58	58	54	58	58	58	58	58	54
	160	62	62	62	62	60	54	51	51	51	51	51	51	51	51	51	51	51	51
	170	54	54	54	54	54	54	45	45	45	45	45	45	45	45	45	45	45	45
	180	48	48	48	48	48	48	40	40	40	40	40	40	40	40	40	40	40	40
	200	38	38	38	38	38	38	32	32	32	32	32	32	32	32	32	32	32	32

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"



**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 5C</b>		Roof Height: 0 - 30 feet											Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
<b>C</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	78	78	66	54	84	84	78	78	66	54	84	84	78	78	66	54
	115	84	84	78	78	66	54	78	78	78	78	66	54	78	78	78	78	66	54
	120	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	130	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	140	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	150	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	160	66	66	66	66	60	54	60	60	60	60	60	54	60	60	60	60	60	54
	170	66	66	66	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54
	180	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54	54
	200	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 6A</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Portrait					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>D</b>	110	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	115	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	120	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	130	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	140	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	150	66	66	66	66	60	54	60	60	60	60	60	54	60	60	60	60	60	54
	160	60	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54
	170	60	60	60	60	54	54	48	48	48	48	48	48	48	48	48	48	48	48
	180	54	54	54	54	54	48	48	48	48	48	48	48	48	48	48	48	48	48
	200	48	48	48	48	48	48	42	42	42	42	42	42	42	42	42	42	42	42

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 6B</b>		Roof Height: 0 - 30 feet											Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Western Cedar						
													Specific Gravity: 0.36						
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
<b>D</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	115	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	120	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	130	72	72	72	72	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	140	69	69	69	66	66	54	56	56	56	56	56	54	56	56	56	56	56	54
	150	59	59	59	59	59	54	49	49	49	49	49	49	49	49	49	49	49	49
	160	52	52	52	52	52	52	42	42	42	42	42	42	42	42	42	42	42	42
	170	45	45	45	45	45	45	37	37	37	37	37	37	37	37	37	37	37	37
	180	40	40	40	40	40	40	33	33	33	33	33	33	33	33	33	33	33	33
	200	32	32	32	32	32	32	27	27	27	27	27	27	27	27	27	27	27	27

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 6C</b>		Roof Height: 0 - 30 feet											Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
<b>D</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	115	78	78	78	72	66	54	78	78	78	72	66	54	78	78	78	72	66	54
	120	78	78	78	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	130	72	72	72	72	66	54	72	72	72	72	66	54	72	72	72	72	66	54
	140	72	72	72	66	66	54	66	66	66	66	66	54	66	66	66	66	66	54
	150	66	66	66	66	60	54	60	60	60	60	60	54	60	60	60	60	60	54
	160	60	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54	54
	170	60	60	60	60	54	54	48	48	48	48	48	48	48	48	48	48	48	48
	180	54	54	54	54	54	48	48	48	48	48	48	48	48	48	48	48	48	48
	200	48	48	48	48	48	48	42	42	42	42	42	42	42	42	42	42	42	42

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 7A</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Douglas Fir					
														Specific Gravity:	0.5					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>B</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	96	96	84	84	72	96	96	96	84	84	72	84	84	84	84	84	72	
	115	96	96	96	84	84	72	96	96	96	84	84	72	78	78	78	78	78	72	
	120	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72	
	130	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72	
	140	96	96	96	84	84	72	84	84	84	84	84	72	72	72	72	72	72	72	
	150	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66	
	160	96	96	84	84	78	72	78	78	78	78	78	72	60	60	60	60	60	60	
	170	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60	
	180	84	84	84	84	78	72	72	72	72	72	72	72	54	54	54	54	54	54	
	200	78	78	78	78	78	72	60	60	60	60	60	60	48	48	48	48	48	48	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 7B</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Western Cedar					
														Specific Gravity:	0.36					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>B</b>	Roofs > 7° to 27°	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
		110	96	96	96	84	84	72	96	96	96	84	84	72	84	84	84	84	84	72
		115	96	96	96	84	84	72	96	96	96	84	84	72	78	78	78	78	78	72
		120	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72
		130	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72
		140	96	96	96	84	84	72	84	84	84	84	84	72	68	68	68	68	68	68
		150	96	96	84	84	78	72	78	78	78	78	78	72	59	59	59	59	59	59
		160	96	96	84	84	78	72	78	78	78	78	78	72	51	51	51	51	51	51
		170	84	84	84	84	78	72	70	70	70	70	70	70	45	45	45	45	45	45
		180	84	84	84	84	78	72	62	62	62	62	62	62	40	40	40	40	40	40
200	78	78	78	78	78	72	50	50	50	50	50	50	32	32	32	32	32	32		

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Light Solarmount Rails for use with QMSE-Lag Products**

<b>Table 7C</b>		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species: Douglas Fir					
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	96	96	84	84	72	96	96	96	84	84	72	84	84	84	84	84	72
	115	96	96	96	84	84	72	96	96	96	84	84	72	78	78	78	78	78	72
	120	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72
	130	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72
	140	96	96	96	84	84	72	84	84	84	84	84	72	72	72	72	72	72	72
	150	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66
	160	96	96	84	84	78	72	78	78	78	78	78	72	60	60	60	60	60	60
	170	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60
	180	84	84	84	84	78	72	72	72	72	72	72	72	54	54	54	54	54	54
	200	78	78	78	78	78	72	60	60	60	60	60	60	48	48	48	48	48	48

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 8A</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Douglas Fir					
														Specific Gravity:	0.5					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>C</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72	
	115	96	96	96	84	84	72	84	84	84	84	84	72	72	72	72	72	72	72	
	120	96	96	84	84	84	72	78	78	78	78	78	72	72	72	72	72	72	72	
	130	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66	
	140	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60	
	150	84	84	84	84	78	72	72	72	72	72	72	72	54	54	54	54	54	54	
	160	84	84	84	78	78	72	66	66	66	66	66	66	48	48	48	48	48	48	
	170	78	78	78	78	78	72	60	60	60	60	60	60	48	48	48	48	48	48	
	180	78	78	78	78	78	72	54	54	54	54	54	54	42	42	42	42	42	42	
	200	72	72	72	72	72	72	48	48	48	48	48	48	36	36	36	36	36	36	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"



**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 8B</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Western Cedar					
														Specific Gravity:	0.36					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
<b>C</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72	
	115	96	96	96	84	84	72	84	84	84	84	84	72	72	72	72	72	72	72	
	120	96	96	84	84	84	72	78	78	78	78	78	72	66	66	66	66	66	66	
	130	96	96	84	84	78	72	78	78	78	78	78	72	56	56	56	56	56	56	
	140	84	84	84	84	78	72	72	72	72	72	72	72	48	48	48	48	48	48	
	150	84	84	84	84	78	72	64	64	64	64	64	64	41	41	41	41	41	41	
	160	84	84	84	78	78	72	56	56	56	56	56	56	36	36	36	36	36	36	
	170	78	78	78	78	78	72	49	49	49	49	49	49	32	32	32	32	32	32	
	180	78	78	78	78	78	72	44	44	44	44	44	44	28	28	28	28	28	28	
	200	68	68	68	68	68	68	35	35	35	35	35	35	23	23	23	23	23	23	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 8C</b>		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure <b>C</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	96	96	84	84	72	84	84	84	84	84	72	78	78	78	78	78	72
	115	96	96	96	84	84	72	84	84	84	84	84	72	72	72	72	72	72	72
	120	96	96	84	84	84	72	78	78	78	78	78	72	72	72	72	72	72	72
	130	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66
	140	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60
	150	84	84	84	84	78	72	72	72	72	72	72	72	54	54	54	54	54	54
	160	84	84	84	78	78	72	66	66	66	66	66	66	48	48	48	48	48	48
	170	78	78	78	78	78	72	60	60	60	60	60	60	48	48	48	48	48	48
	180	78	78	78	78	78	72	54	54	54	54	54	54	42	42	42	42	42	42
	200	72	72	72	72	72	72	48	48	48	48	48	48	36	36	36	36	36	36

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 9A</b>		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt; 7° to 27°</b>	110	96	96	84	84	84	72	78	78	78	78	78	72	72	72	72	72	72	72
	115	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66
	120	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66
	130	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60
	140	84	84	84	84	78	72	66	66	66	66	66	66	54	54	54	54	54	54
	150	84	84	84	78	78	72	66	66	66	66	66	66	48	48	48	48	48	48
	160	78	78	78	78	78	72	60	60	60	60	60	60	42	42	42	42	42	42
	170	78	78	78	78	78	72	54	54	54	54	54	54	42	42	42	42	42	42
	180	72	72	72	72	72	72	48	48	48	48	48	48	36	36	36	36	36	36
	200	66	66	66	66	66	66	42	42	42	42	42	42	30	30	30	30	30	30

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 9B</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Western Cedar					
														Specific Gravity:	0.36					
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	96	84	84	84	72	78	78	78	78	78	72	66	66	66	66	66	66	
	115	96	96	84	84	78	72	78	78	78	78	78	72	60	60	60	60	60	60	
	120	96	96	84	84	78	72	78	78	78	78	78	72	55	55	55	55	55	55	
	130	84	84	84	84	78	72	72	72	72	72	72	72	47	47	47	47	47	47	
	140	84	84	84	84	78	72	62	62	62	62	62	62	40	40	40	40	40	40	
	150	84	84	84	78	78	72	54	54	54	54	54	54	35	35	35	35	35	35	
	160	78	78	78	78	78	72	47	47	47	47	47	47	30	30	30	30	30	30	
	170	78	78	78	78	78	72	42	42	42	42	42	42	27	27	27	27	27	27	
	180	72	72	72	72	72	72	37	37	37	37	37	37	24	24	24	24	24	24	
	200	57	57	57	57	57	57	30	30	30	30	30	30	19	19	19	19	19	19	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 9C</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	7 < $\theta$ ≤ 27 degrees											Rafter Species:	Douglas Fir					
														Specific Gravity:	0.5					
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt; 7° to 27°</b>	110	96	96	84	84	84	72	78	78	78	78	78	72	72	72	72	72	72	72	
	115	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66	
	120	96	96	84	84	78	72	78	78	78	78	78	72	66	66	66	66	66	66	
	130	84	84	84	84	78	72	72	72	72	72	72	72	60	60	60	60	60	60	
	140	84	84	84	84	78	72	66	66	66	66	66	66	54	54	54	54	54	54	
	150	84	84	84	78	78	72	66	66	66	66	66	66	48	48	48	48	48	48	
	160	78	78	78	78	78	72	60	60	60	60	60	60	42	42	42	42	42	42	
	170	78	78	78	78	78	72	54	54	54	54	54	54	42	42	42	42	42	42	
	180	72	72	72	72	72	72	48	48	48	48	48	48	36	36	36	36	36	36	
	200	66	66	66	66	66	66	42	42	42	42	42	42	30	30	30	30	30	30	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 10A</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	115	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	120	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	130	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	140	96	96	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	150	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	160	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	170	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	180	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	200	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 10B</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	115	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	120	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	130	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	140	96	96	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	150	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	160	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	170	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	180	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	200	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 10C</b>		Roof Height: 0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure <b>B</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	115	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	120	96	96	96	84	84	84	96	96	96	84	84	84	96	96	96	84	84	84
	130	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	140	96	96	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	150	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	160	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	170	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	180	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	200	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"



**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 11A</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	115	96	96	84	84	84	78	96	96	84	84	84	78	96	96	84	84	84	78
	120	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	130	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	140	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	150	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	160	78	78	78	78	78	72	78	78	78	78	78	72	78	78	78	78	78	72
	170	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72
	180	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
	200	66	66	66	66	66	66	60	60	60	60	60	60	60	60	60	60	60	60

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 11B</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	115	96	96	84	84	84	78	96	96	84	84	84	78	96	96	84	84	84	78
	120	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	130	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	140	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	150	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	160	78	78	78	78	78	72	78	78	78	78	78	72	78	78	78	78	78	72
	170	78	78	78	78	72	72	71	71	71	71	71	71	71	71	71	71	71	71
	180	72	72	72	72	72	72	63	63	63	63	63	63	63	63	63	63	63	63
	200	61	61	61	61	61	61	51	51	51	51	51	51	51	51	51	51	51	51

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 11C</b>		Roof Height: 0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
<b>C</b>		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	96	96	84	84	84	84	96	96	84	84	84	84	96	96	84	84	84	84
	115	96	96	84	84	84	78	96	96	84	84	84	78	96	96	84	84	84	78
	120	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	130	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	140	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	150	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	160	78	78	78	78	78	72	78	78	78	78	78	72	78	78	78	78	78	72
	170	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72
	180	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
	200	66	66	66	66	66	66	60	60	60	60	60	60	60	60	60	60	60	60

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 12A</b>		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	27 < $\theta$ ≤ 45 degrees											Rafter Species:	Douglas Fir					
														Specific Gravity:	0.5					
Exposure <b>D</b>	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3						
		Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)						
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78	
	115	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78	
	120	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78	
	130	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	
	140	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	
	150	78	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	
	160	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72	
	170	72	72	72	72	72	72	66	66	66	66	66	66	66	66	66	66	66	66	
	180	72	72	72	72	72	66	66	66	66	66	66	66	66	66	66	66	66	66	
	200	60	60	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54	

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE, QMSC, QMLC Products**

<b>Table 12B</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	115	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	120	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	130	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	140	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	150	78	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72
	160	78	78	78	78	72	72	68	68	68	68	68	68	68	68	68	68	68	68
	170	72	72	72	72	72	72	60	60	60	60	60	60	60	60	60	60	60	60
	180	64	64	64	64	64	64	53	53	53	53	53	53	53	53	53	53	53	53
	200	51	51	51	51	51	51	43	43	43	43	43	43	43	43	43	43	43	43

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

**Rail Spans (in.) for Unirac Solarmount Light Rails for use with QMSE-Lag Products**

<b>Table 12C</b>		Roof Height: 0 - 30 feet						Roof Angle: $27 < \theta \leq 45$ degrees						Panel Orientation: Landscape					
		Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
Exposure	Ultimate Wind Speed, V (mph)	Ground Snow Load (psf)						Ground Snow Load (psf)						Ground Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
<b>Roofs &gt;27° to 45°</b>	110	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	115	84	84	84	84	84	78	84	84	84	84	84	78	84	84	84	84	84	78
	120	84	84	84	84	78	78	84	84	84	84	78	78	84	84	84	84	78	78
	130	84	84	84	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	140	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	150	78	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72
	160	78	78	78	78	72	72	72	72	72	72	72	72	72	72	72	72	72	72
	170	72	72	72	72	72	72	66	66	66	66	66	66	66	66	66	66	66	66
	180	72	72	72	72	72	66	66	66	66	66	66	66	66	66	66	66	66	66
	200	60	60	60	60	60	60	54	54	54	54	54	54	54	54	54	54	54	54

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable uplift and lateral values of Quick Mount products per ICC reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"