

12/29/2017

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

RE: Quick Mount PV QBase Mount System for use with
Unirac Solarmount 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 QBase Mount System for use in conjunction with the Unirac Solarmount Flush-to-Roof Rail System. The QBase product line includes the Composition Mount (QMNC), Metal, Shake, & Slate Mount (QMNS), Standard Flat Tile Mount (QMSFT), Universal Tile Mount (QMUTM), and the Low Slope Mount (QMLSH).

The review was based on the following reference data:

- Unirac, Design & Engineering Guide – Solarmount: Flush-to-Roof Design, May 19, 2016
- Applied Materials & Engineering, New Construction Composition Mount (QMNC 3-3/4" Finished Height) Load Testing, Project Number 111114C, March 23, 2011
- Applied Materials & Engineering, Quick Mount QBase with 6.5" Post as Used in Low Slope Mount (QMLSH-7) & Universal Tile Mount (QMUTM) Load Testing, Project Number 111316C, July 5, 2011
- Applied Materials & Engineering, Low Slope Mount QMLSH-9 Hardware Load Testing, Project Number 111203C, May 5, 2011
- Applied Materials & Engineering, Low Slope Mount QMLSH-12 Hardware Load Testing, Project Number 111204C, May 9, 2011
- Eclipse Engineering, Allowable Load Capacities for the Quick Mount PV QBase Mount system, June 19, 2014

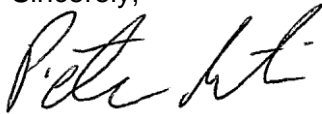
SEI has determined that the QMNC, QMNS, QMSFT, QMUTM, and QMLSH mounts are suitable for use with the Unirac Solarmount System. The approved installation and allowable loads for the Quick Mount PV QBase products is outlined in the Eclipse Engineering report referenced above. The allowable load values are shown below, no additional load duration factors may be applied to these values.

Table 1: QBase Roof Mounts					
Load Direction	Specific Gravity of Lumber Rafter	QMNC, QMNS, QMSFT	QMUTM, QMLSH-7	QMLSH-9	QMLSH-12
Tension	0.5	1179 lb.			
Shear - Parallel to Rafter	0.5	686 lb.	257 lb.	257 lb.	168 lb.
Shear - Perpendicular to Rafter	0.5	464 lb.	171 lb.	216 lb.	122 lb.

SEI has prepared allowable rail span charts for the Unirac Solarmount System used in conjunction with the Quick Mount PV QBase 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 tension and shear forces of the QBase 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,



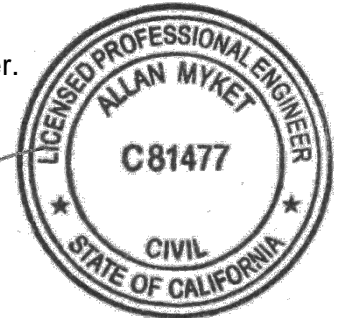
Peter Martin
Engineer II

pmartin@structuralengenuityinc.com



Allan T. Myket, P.E.
President/Founder

amyket@structuralengenuityinc.com



12/29/2017

Structural Engenuity Inc.

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 1A		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	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
Roofs > 7° to 27°	110	150	150	120	90	66	54	132	132	120	90	66	54	108	108	108	90	66	54
	115	150	132	120	90	66	54	120	120	120	90	66	54	108	108	108	90	66	54
	120	150	132	120	90	66	54	120	120	120	90	66	54	102	102	102	90	66	54
	130	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	140	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	150	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	160	120	120	120	90	66	54	90	90	90	90	66	54	78	78	78	78	66	54
	170	120	120	120	90	66	54	84	84	84	84	66	54	72	72	72	72	66	54
	180	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	200	102	102	102	90	66	54	78	78	78	78	66	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 1B		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	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
Roofs > 7° to 27°	110	150	150	120	90	66	54	132	132	120	90	66	54	108	108	108	90	66	54
	115	150	132	120	90	66	54	120	120	120	90	66	54	108	108	108	90	66	54
	120	150	132	120	90	66	54	120	120	120	90	66	54	102	102	102	90	66	54
	130	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	140	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	150	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	160	120	120	120	90	66	54	90	90	90	90	66	54	78	78	78	78	66	54
	170	120	120	120	90	66	54	84	84	84	84	66	54	72	72	72	72	66	54
	180	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	200	102	102	102	90	66	54	78	78	78	78	66	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 1C		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	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
Roofs > 7° to 27°	110	150	150	120	90	66	54	132	132	120	90	66	54	108	108	108	90	66	54
	115	150	132	120	90	66	54	120	120	120	90	66	54	108	108	108	90	66	54
	120	150	132	120	90	66	54	120	120	120	90	66	54	102	102	102	90	66	54
	130	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	140	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	150	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	160	120	120	120	90	66	54	90	90	90	90	66	54	78	78	78	78	66	54
	170	120	120	120	90	66	54	84	84	84	84	66	54	72	72	72	72	66	54
	180	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	200	102	102	102	90	66	54	78	78	78	78	66	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 1D		Roof Height: 0 - 30 feet		Panel Orientation: Portrait																
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir																
Exposure 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
Roofs > 7° to 27°	110	150	141	85	61	48	39	132	132	85	61	48	39	108	108	85	61	48	39	
	115	150	132	85	61	48	39	120	120	85	61	48	39	108	108	85	61	48	39	
	120	150	132	85	61	48	39	120	120	85	61	48	39	102	102	85	61	48	39	
	130	150	132	85	61	48	39	108	108	85	61	48	39	90	90	85	61	48	39	
	140	132	132	85	61	48	39	108	108	85	61	48	39	84	84	84	61	48	39	
	150	132	132	85	61	48	39	102	102	85	61	48	39	78	78	78	61	48	39	
	160	120	120	85	61	48	39	90	90	85	61	48	39	78	78	78	61	48	39	
	170	120	120	85	61	48	39	84	84	84	61	48	39	72	72	72	61	48	39	
	180	108	108	85	61	48	39	84	84	84	61	48	39	60	60	60	60	48	39	
	200	102	102	85	61	48	39	78	78	78	61	48	39	48	48	48	48	48	39	

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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 2A		Roof Height:	0 - 30 feet											Panel Orientation: Portrait					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure C	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
Roofs > 7° to 27°	110	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	115	132	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	120	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	130	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	140	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	150	120	120	120	90	66	54	84	84	84	84	66	54	70	70	70	70	66	54
	160	108	108	108	90	66	54	78	78	78	78	66	54	60	60	60	60	60	54
	170	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	180	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	200	84	84	84	84	66	54	60	60	60	60	60	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 2B		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs > 7° to 27°	110	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	115	132	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	120	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	130	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	140	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	150	120	120	120	90	66	54	84	84	84	84	66	54	70	70	70	70	66	54
	160	108	108	108	90	66	54	78	78	78	78	66	54	60	60	60	60	60	54
	170	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	180	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	200	84	84	84	84	66	54	60	60	60	60	60	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 2C		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs > 7° to 27°	110	150	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	115	132	132	120	90	66	54	108	108	108	90	66	54	90	90	90	90	66	54
	120	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	130	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	140	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	150	120	120	120	90	66	54	84	84	84	84	66	54	70	70	70	70	66	54
	160	108	108	108	90	66	54	78	78	78	78	66	54	60	60	60	60	60	54
	170	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	180	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	200	84	84	84	84	66	54	60	60	60	60	60	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 2D		Roof Height:	0 - 30 feet											Panel Orientation:	Portrait					
		Roof Angle:	7 < θ ≤ 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)						
C	Roofs > 7° to 27°	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50	
		110	150	132	85	61	48	39	108	108	85	61	48	39	90	90	85	61	48	39
		115	132	132	85	61	48	39	108	108	85	61	48	39	90	90	85	61	48	39
		120	132	132	85	61	48	39	108	108	85	61	48	39	84	84	84	61	48	39
		130	132	132	85	61	48	39	102	102	85	61	48	39	78	78	78	61	48	39
		140	120	120	85	61	48	39	90	90	85	61	48	39	72	72	72	61	48	39
		150	120	120	85	61	48	39	84	84	84	61	48	39	70	70	70	61	48	39
		160	108	108	85	61	48	39	78	78	78	61	48	39	60	60	60	60	48	39
		170	102	102	85	61	48	39	72	72	72	61	48	39	48	48	48	48	48	39
		180	102	102	85	61	48	39	72	72	72	61	48	39	48	48	48	48	48	39
200	84	84	84	61	48	39	60	60	60	60	48	39	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 3A		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure D	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
Roofs > 7° to 27°	110	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	115	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	120	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	130	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	140	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	150	108	108	108	90	66	54	78	78	78	78	66	54	59	59	59	59	59	54
	160	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	170	90	90	90	90	66	54	70	70	70	70	66	54	30	30	30	30	30	30
	180	90	90	90	90	66	54	60	60	60	60	60	54	30	30	30	30	30	30
	200	78	78	78	78	66	54	48	48	48	48	48	48	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 3B		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure D	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
Roofs > 7° to 27°	110	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	115	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	120	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	130	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	140	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	150	108	108	108	90	66	54	78	78	78	78	66	54	59	59	59	59	59	54
	160	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	170	90	90	90	90	66	54	70	70	70	70	66	54	30	30	30	30	30	30
	180	90	90	90	90	66	54	60	60	60	60	60	54	30	30	30	30	30	30
	200	78	78	78	78	66	54	48	48	48	48	48	48	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 3C		Roof Height:	0 - 30 feet											Panel Orientation: Portrait					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure D	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
Roofs > 7° to 27°	110	132	132	120	90	66	54	108	108	108	90	66	54	84	84	84	84	66	54
	115	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	120	132	132	120	90	66	54	102	102	102	90	66	54	78	78	78	78	66	54
	130	120	120	120	90	66	54	90	90	90	90	66	54	72	72	72	72	66	54
	140	108	108	108	90	66	54	84	84	84	84	66	54	60	60	60	60	60	54
	150	108	108	108	90	66	54	78	78	78	78	66	54	59	59	59	59	59	54
	160	102	102	102	90	66	54	72	72	72	72	66	54	48	48	48	48	48	48
	170	90	90	90	90	66	54	70	70	70	70	66	54	30	30	30	30	30	30
	180	90	90	90	90	66	54	60	60	60	60	60	54	30	30	30	30	30	30
	200	78	78	78	78	66	54	48	48	48	48	48	48	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 3D		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure D	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
Roofs > 7° to 27°	110	132	132	85	61	48	39	108	108	85	61	48	39	84	84	84	61	48	39
	115	132	132	85	61	48	39	102	102	85	61	48	39	78	78	78	61	48	39
	120	132	132	85	61	48	39	102	102	85	61	48	39	78	78	78	61	48	39
	130	120	120	85	61	48	39	90	90	85	61	48	39	72	72	72	61	48	39
	140	108	108	85	61	48	39	84	84	84	61	48	39	60	60	60	60	48	39
	150	108	108	85	61	48	39	78	78	78	61	48	39	59	59	59	59	48	39
	160	102	102	85	61	48	39	72	72	72	61	48	39	48	48	48	48	48	39
	170	90	90	85	61	48	39	70	70	70	61	48	39	30	30	30	30	30	30
	180	90	90	85	61	48	39	60	60	60	60	48	39	30	30	30	30	30	30
	200	78	78	78	61	48	39	48	48	48	48	48	39	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 4A		Roof Height: 0 - 30 feet												Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees												Rafter Species: Douglas Fir						
Exposure 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
Roofs >27° to 45°	110	132	132	132	90	54	42	132	132	132	90	54	42	132	132	132	90	54	42	
	115	132	132	132	90	54	42	132	132	132	90	54	42	132	132	132	90	54	42	
	120	132	132	132	90	54	42	132	132	132	90	54	42	132	132	132	90	54	42	
	130	132	132	120	90	54	42	132	132	120	90	54	42	132	132	120	90	54	42	
	140	120	120	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42	
	150	120	120	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42	
	160	120	120	108	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42	
	170	108	108	108	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42	
	180	108	108	108	90	54	42	102	102	102	90	54	42	102	102	102	90	54	42	
	200	102	102	96	90	54	42	90	90	90	90	54	42	90	90	90	90	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 4B		Roof Height: 0 - 30 feet												Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees												Rafter Species: Douglas Fir						
Exposure 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
Roofs >27° to 45°	110	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42	
	115	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42	
	120	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42	
	130	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42	
	140	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42	
	150	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42	
	160	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42	
	170	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42	
	180	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42	
	200	102	102	96	77	54	42	90	90	90	77	54	42	90	90	90	77	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 4C		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure 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
Roofs >27° to 45°	110	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42
	115	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42
	120	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42
	130	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42
	140	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	150	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	160	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	170	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	180	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42
	200	102	102	96	77	54	42	90	90	90	77	54	42	90	90	90	77	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 4D		Roof Height: 0 - 30 feet											Panel Orientation: Portrait							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure 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
Roofs >27° to 45°	110	132	109	69	51	40	33	132	109	69	51	40	33	132	109	69	51	40	33	
	115	132	109	69	51	40	33	132	109	69	51	40	33	132	109	69	51	40	33	
	120	132	109	69	51	40	33	132	109	69	51	40	33	132	109	69	51	40	33	
	130	132	109	69	51	40	33	132	109	69	51	40	33	132	109	69	51	40	33	
	140	120	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	150	120	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	160	120	109	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	170	108	108	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	180	108	108	69	51	40	33	102	102	69	51	40	33	102	102	69	51	40	33	
	200	102	102	69	51	40	33	90	90	69	51	40	33	90	90	69	51	40	33	

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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 5A		Roof Height: 0 - 30 feet											Panel Orientation: Portrait							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure C		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
Roofs >27° to 45°	110	132	132	120	90	54	42	132	132	120	90	54	42	132	132	120	90	54	42	
	115	132	132	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42	
	120	120	120	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42	
	130	120	120	120	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42	
	140	108	108	108	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42	
	150	108	108	108	90	54	42	102	102	102	90	54	42	102	102	102	90	54	42	
	160	102	102	102	90	54	42	90	90	90	90	54	42	90	90	90	90	54	42	
	170	102	102	96	90	54	42	84	84	84	84	54	42	84	84	84	84	54	42	
	180	90	90	90	90	54	42	84	84	84	84	54	42	84	84	84	84	54	42	
	200	78	78	78	78	54	42	78	78	78	78	54	42	78	78	78	78	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 5B		Roof Height: 0 - 30 feet											Panel Orientation: Portrait							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure C		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
Roofs >27° to 45°	110	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42	
	115	132	132	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42	
	120	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42	
	130	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42	
	140	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42	
	150	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42	
	160	102	102	102	77	54	42	90	90	90	77	54	42	90	90	90	77	54	42	
	170	102	102	96	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42	
	180	90	90	90	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42	
	200	78	78	78	77	54	42	78	78	78	77	54	42	78	78	78	77	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 5C		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs >27° to 45°	110	132	132	106	77	54	42	132	132	106	77	54	42	132	132	106	77	54	42
	115	132	132	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	120	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	130	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	140	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	150	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42
	160	102	102	102	77	54	42	90	90	90	77	54	42	90	90	90	77	54	42
	170	102	102	96	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42
	180	90	90	90	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42
	200	78	78	78	77	54	42	78	78	78	77	54	42	78	78	78	77	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 5D		Roof Height: 0 - 30 feet											Panel Orientation: Portrait							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure C		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
Roofs >27° to 45°	110	132	109	69	51	40	33	132	109	69	51	40	33	132	109	69	51	40	33	
	115	132	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	120	120	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	130	120	109	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	140	108	108	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	150	108	108	69	51	40	33	102	102	69	51	40	33	102	102	69	51	40	33	
	160	102	102	69	51	40	33	90	90	69	51	40	33	90	90	69	51	40	33	
	170	102	102	69	51	40	33	84	84	69	51	40	33	84	84	69	51	40	33	
	180	90	90	69	51	40	33	84	84	69	51	40	33	84	84	69	51	40	33	
	200	78	78	69	51	40	33	78	78	69	51	40	33	78	78	69	51	40	33	

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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 6A		Roof Height: 0 - 30 feet		Panel Orientation: Portrait															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir															
		Specific Gravity: 0.5																	
Exposure D	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
Roofs >27° to 45°	110	120	120	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42
	115	120	120	120	90	54	42	120	120	120	90	54	42	120	120	120	90	54	42
	120	120	120	120	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42
	130	108	108	108	90	54	42	108	108	108	90	54	42	108	108	108	90	54	42
	140	108	108	108	90	54	42	102	102	102	90	54	42	102	102	102	90	54	42
	150	102	102	102	90	54	42	90	90	90	90	54	42	90	90	90	90	54	42
	160	90	90	90	90	54	42	84	84	84	84	54	42	84	84	84	84	54	42
	170	90	90	90	90	54	42	78	78	78	78	54	42	78	78	78	78	54	42
	180	84	84	84	84	54	42	78	78	78	78	54	42	78	78	78	78	54	42
	200	78	78	78	78	54	42	72	72	72	72	54	42	72	72	72	72	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 6B		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)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	115	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	120	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	130	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	140	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42
	150	102	102	102	77	54	42	90	90	90	77	54	42	90	90	90	77	54	42
	160	90	90	90	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42
	170	90	90	90	77	54	42	78	78	78	77	54	42	78	78	78	77	54	42
	180	84	84	84	77	54	42	78	78	78	77	54	42	78	78	78	77	54	42
	200	78	78	78	77	54	42	72	72	72	72	54	42	72	72	72	72	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 6C		Roof Height: 0 - 30 feet											Panel Orientation: Portrait						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure D	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
Roofs >27° to 45°	110	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	115	120	120	106	77	54	42	120	120	106	77	54	42	120	120	106	77	54	42
	120	120	120	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	130	108	108	106	77	54	42	108	108	106	77	54	42	108	108	106	77	54	42
	140	108	108	106	77	54	42	102	102	102	77	54	42	102	102	102	77	54	42
	150	102	102	102	77	54	42	90	90	90	77	54	42	90	90	90	77	54	42
	160	90	90	90	77	54	42	84	84	84	77	54	42	84	84	84	77	54	42
	170	90	90	90	77	54	42	78	78	78	77	54	42	78	78	78	77	54	42
	180	84	84	84	77	54	42	78	78	78	77	54	42	78	78	78	77	54	42
	200	78	78	78	77	54	42	72	72	72	72	54	42	72	72	72	72	54	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 6D		Roof Height: 0 - 30 feet											Panel Orientation: Portrait							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure D	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	
Roofs >27° to 45°	110	120	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	115	120	109	69	51	40	33	120	109	69	51	40	33	120	109	69	51	40	33	
	120	120	109	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	130	108	108	69	51	40	33	108	108	69	51	40	33	108	108	69	51	40	33	
	140	108	108	69	51	40	33	102	102	69	51	40	33	102	102	69	51	40	33	
	150	102	102	69	51	40	33	90	90	69	51	40	33	90	90	69	51	40	33	
	160	90	90	69	51	40	33	84	84	69	51	40	33	84	84	69	51	40	33	
	170	90	90	69	51	40	33	78	78	69	51	40	33	78	78	69	51	40	33	
	180	84	84	69	51	40	33	78	78	69	51	40	33	78	78	69	51	40	33	
	200	78	78	69	51	40	33	72	72	69	51	40	33	72	72	69	51	40	33	

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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 7A		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure 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
Roofs > 7° to 27°	110	150	150	150	120	120	90	150	150	150	120	120	90	132	132	132	120	120	90
	115	150	150	150	120	120	90	150	150	150	120	120	90	120	120	120	120	120	90
	120	150	150	150	120	120	90	132	132	132	120	120	90	120	120	120	120	120	90
	130	150	150	150	120	120	90	132	132	132	120	120	90	120	120	120	120	120	90
	140	150	150	150	120	120	90	132	132	132	120	120	90	108	108	108	108	108	90
	150	150	150	132	120	120	90	120	120	120	120	120	90	102	102	102	102	102	90
	160	150	150	132	120	120	90	120	120	120	120	120	90	90	90	90	90	90	90
	170	132	132	132	120	120	90	108	108	108	108	108	90	90	90	90	90	90	90
	180	132	132	132	120	120	90	108	108	108	108	108	90	84	84	84	84	84	84
	200	120	120	120	120	120	90	90	90	90	90	90	90	78	78	78	78	78	78

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 7B		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	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
Roofs > 7° to 27°	110	150	150	150	120	117	90	150	150	150	120	117	90	132	132	132	120	117	90
	115	150	150	150	120	117	90	150	150	150	120	117	90	120	120	120	120	117	90
	120	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90
	130	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90
	140	150	150	150	120	117	90	132	132	132	120	117	90	108	108	108	108	108	90
	150	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90
	160	150	150	132	120	117	90	120	120	120	120	117	90	90	90	90	90	90	90
	170	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90
	180	132	132	132	120	117	90	108	108	108	108	108	90	84	84	84	84	84	84
	200	120	120	120	120	117	90	90	90	90	90	90	90	78	78	78	78	78	78

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 7C		Roof Height:	0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir						
Exposure 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
Roofs > 7° to 27°	110	150	150	150	120	117	90	150	150	150	120	117	90	132	132	132	120	117	90	
	115	150	150	150	120	117	90	150	150	150	120	117	90	120	120	120	120	117	90	
	120	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90	
	130	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90	
	140	150	150	150	120	117	90	132	132	132	120	117	90	108	108	108	108	108	90	
	150	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90	
	160	150	150	132	120	117	90	120	120	120	120	117	90	90	90	90	90	90	90	
	170	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90	
	180	132	132	132	120	117	90	108	108	108	108	108	90	84	84	84	84	84	84	
	200	120	120	120	120	117	90	90	90	90	90	90	90	78	78	78	78	78	78	

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 7D		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure 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
Roofs > 7° to 27°	110	150	150	136	98	76	63	150	150	136	98	76	63	132	132	132	98	76	63
	115	150	150	136	98	76	63	150	150	136	98	76	63	120	120	120	98	76	63
	120	150	150	136	98	76	63	132	132	132	98	76	63	120	120	120	98	76	63
	130	150	150	136	98	76	63	132	132	132	98	76	63	120	120	120	98	76	63
	140	150	150	136	98	76	63	132	132	132	98	76	63	108	108	108	98	76	63
	150	150	150	132	98	76	63	120	120	120	98	76	63	102	102	102	98	76	63
	160	150	150	132	98	76	63	120	120	120	98	76	63	90	90	90	90	76	63
	170	132	132	132	98	76	63	108	108	108	98	76	63	90	90	90	90	76	63
	180	132	132	132	98	76	63	108	108	108	98	76	63	84	84	84	84	76	63
	200	120	120	120	98	76	63	90	90	90	90	76	63	78	78	78	78	76	63

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 8A		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure C	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
Roofs > 7° to 27°	110	150	150	150	120	120	90	132	132	132	120	120	90	120	120	120	120	120	90
	115	150	150	150	120	120	90	132	132	132	120	120	90	108	108	108	108	108	90
	120	150	150	132	120	120	90	120	120	120	120	120	90	108	108	108	108	108	90
	130	150	150	132	120	120	90	120	120	120	120	120	90	102	102	102	102	102	90
	140	132	132	132	120	120	90	108	108	108	108	108	90	90	90	90	90	90	90
	150	132	132	132	120	120	90	108	108	108	108	108	90	84	84	84	84	84	84
	160	132	132	132	120	120	90	102	102	102	102	102	90	78	78	78	78	78	78
	170	120	120	120	120	120	90	90	90	90	90	90	90	78	78	78	78	78	78
	180	120	120	120	120	120	90	84	84	84	84	84	84	72	72	72	72	72	72
	200	108	108	108	108	108	90	78	78	78	78	78	78	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 8B		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs > 7° to 27°	110	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90
	115	150	150	150	120	117	90	132	132	132	120	117	90	108	108	108	108	108	90
	120	150	150	132	120	117	90	120	120	120	120	117	90	108	108	108	108	108	90
	130	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90
	140	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90
	150	132	132	132	120	117	90	108	108	108	108	108	90	84	84	84	84	84	84
	160	132	132	132	120	117	90	102	102	102	102	102	90	78	78	78	78	78	78
	170	120	120	120	120	117	90	90	90	90	90	90	90	78	78	78	78	78	78
	180	120	120	120	120	117	90	84	84	84	84	84	84	72	72	72	72	72	72
	200	108	108	108	108	108	90	78	78	78	78	78	78	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 8C		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs > 7° to 27°	110	150	150	150	120	117	90	132	132	132	120	117	90	120	120	120	120	117	90
	115	150	150	150	120	117	90	132	132	132	120	117	90	108	108	108	108	108	90
	120	150	150	132	120	117	90	120	120	120	120	117	90	108	108	108	108	108	90
	130	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90
	140	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90
	150	132	132	132	120	117	90	108	108	108	108	108	90	84	84	84	84	84	84
	160	132	132	132	120	117	90	102	102	102	102	102	90	78	78	78	78	78	78
	170	120	120	120	120	117	90	90	90	90	90	90	90	78	78	78	78	78	78
	180	120	120	120	120	117	90	84	84	84	84	84	84	72	72	72	72	72	72
	200	108	108	108	108	108	90	78	78	78	78	78	78	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 8D		Roof Height:	0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir						
Exposure C		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
Roofs > 7° to 27°	110	150	150	136	98	76	63	132	132	132	98	76	63	120	120	120	98	76	63	
	115	150	150	136	98	76	63	132	132	132	98	76	63	108	108	108	98	76	63	
	120	150	150	132	98	76	63	120	120	120	98	76	63	108	108	108	98	76	63	
	130	150	150	132	98	76	63	120	120	120	98	76	63	102	102	102	98	76	63	
	140	132	132	132	98	76	63	108	108	108	98	76	63	90	90	90	90	76	63	
	150	132	132	132	98	76	63	108	108	108	98	76	63	84	84	84	84	76	63	
	160	132	132	132	98	76	63	102	102	102	98	76	63	78	78	78	78	76	63	
	170	120	120	120	98	76	63	90	90	90	90	76	63	78	78	78	78	76	63	
	180	120	120	120	98	76	63	84	84	84	84	76	63	72	72	72	72	72	63	
	200	108	108	108	98	76	63	78	78	78	78	76	63	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 9A		Roof Height:	0 - 30 feet											Panel Orientation: Landscape					
		Roof Angle:	7 < θ ≤ 27 degrees											Rafter Species: Douglas Fir Specific Gravity: 0.5					
Exposure D	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
Roofs > 7° to 27°	110	150	150	132	120	120	90	120	120	120	120	120	90	108	108	108	108	108	90
	115	150	150	132	120	120	90	120	120	120	120	120	90	102	102	102	102	102	90
	120	150	150	132	120	120	90	120	120	120	120	120	90	102	102	102	102	102	90
	130	132	132	132	120	120	90	108	108	108	108	108	90	90	90	90	90	90	90
	140	132	132	132	120	120	90	102	102	102	102	102	90	84	84	84	84	84	84
	150	132	132	132	120	120	90	102	102	102	102	102	90	78	78	78	78	78	78
	160	120	120	120	120	120	90	90	90	90	90	90	90	72	72	72	72	72	72
	170	120	120	120	120	120	90	84	84	84	84	84	84	72	72	72	72	72	72
	180	108	108	108	108	108	90	78	78	78	78	78	78	60	60	60	60	60	60
	200	102	102	102	102	102	90	72	72	72	72	72	72	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 9B		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir															
		Specific Gravity: 0.5																	
Exposure D	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
Roofs > 7° to 27°	110	150	150	132	120	117	90	120	120	120	120	117	90	108	108	108	108	108	90
	115	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90
	120	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90
	130	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90
	140	132	132	132	120	117	90	102	102	102	102	102	90	84	84	84	84	84	84
	150	132	132	132	120	117	90	102	102	102	102	102	90	78	78	78	78	78	78
	160	120	120	120	120	117	90	90	90	90	90	90	90	72	72	72	72	72	72
	170	120	120	120	120	117	90	84	84	84	84	84	84	72	72	72	72	72	72
	180	108	108	108	108	108	90	78	78	78	78	78	78	60	60	60	60	60	60
	200	102	102	102	102	102	90	72	72	72	72	72	72	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 9C		Roof Height: 0 - 30 feet		Panel Orientation: Landscape																
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir																
Exposure D		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
Roofs > 7° to 27°	110	150	150	132	120	117	90	120	120	120	120	117	90	108	108	108	108	108	90	
	115	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90	
	120	150	150	132	120	117	90	120	120	120	120	117	90	102	102	102	102	102	90	
	130	132	132	132	120	117	90	108	108	108	108	108	90	90	90	90	90	90	90	
	140	132	132	132	120	117	90	102	102	102	102	102	90	84	84	84	84	84	84	
	150	132	132	132	120	117	90	102	102	102	102	102	90	78	78	78	78	78	78	
	160	120	120	120	120	117	90	90	90	90	90	90	90	72	72	72	72	72	72	
	170	120	120	120	120	117	90	84	84	84	84	84	84	72	72	72	72	72	72	
	180	108	108	108	108	108	90	78	78	78	78	78	78	60	60	60	60	60	60	
	200	102	102	102	102	102	90	72	72	72	72	72	72	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 9D		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $7 < \theta \leq 27$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure D	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
Roofs > 7° to 27°	110	150	150	132	98	76	63	120	120	120	98	76	63	108	108	108	98	76	63
	115	150	150	132	98	76	63	120	120	120	98	76	63	102	102	102	98	76	63
	120	150	150	132	98	76	63	120	120	120	98	76	63	102	102	102	98	76	63
	130	132	132	132	98	76	63	108	108	108	98	76	63	90	90	90	90	76	63
	140	132	132	132	98	76	63	102	102	102	98	76	63	84	84	84	84	76	63
	150	132	132	132	98	76	63	102	102	102	98	76	63	78	78	78	78	76	63
	160	120	120	120	98	76	63	90	90	90	90	76	63	72	72	72	72	72	63
	170	120	120	120	98	76	63	84	84	84	84	76	63	72	72	72	72	72	63
	180	108	108	108	98	76	63	78	78	78	78	76	63	60	60	60	60	60	60
	200	102	102	102	98	76	63	72	72	72	72	72	63	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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 10A		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
Roofs >27° to 45°	110	150	150	150	132	90	90	150	150	150	132	90	90	150	150	150	132	90	90
	115	150	150	150	132	90	90	150	150	150	132	90	90	150	150	150	132	90	90
	120	150	150	150	132	90	90	150	150	150	132	90	90	150	150	150	132	90	90
	130	150	150	132	132	90	90	150	150	132	132	90	90	150	150	132	132	90	90
	140	150	150	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	150	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	160	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	170	132	132	132	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90
	180	120	120	120	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90
	200	120	120	120	120	90	90	108	108	108	108	90	90	108	108	108	108	90	90

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 10B		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	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 >27° to 45°	110	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	115	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	120	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	130	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	140	150	150	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	150	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	160	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	170	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	180	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	200	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 10C		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure 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
Roofs >27° to 45°	110	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	115	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	120	150	150	150	124	90	81	150	150	150	124	90	81	150	150	150	124	90	81
	130	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	140	150	150	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	150	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	160	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	170	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	180	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	200	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 10D		Roof Height: 0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
Exposure 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
Roofs >27° to 45°	110	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	115	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	120	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	130	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	140	150	150	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	150	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	160	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	170	132	132	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53
	180	120	120	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53
	200	120	120	110	81	64	53	108	108	108	81	64	53	108	108	108	81	64	53

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 11A		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
Roofs >27° to 45°	110	150	150	132	132	90	90	150	150	132	132	90	90	150	150	132	132	90	90
	115	150	150	132	132	90	90	150	150	132	132	90	90	150	150	132	132	90	90
	120	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	130	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	140	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90
	150	132	132	132	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90
	160	120	120	120	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90
	170	120	120	120	120	90	90	108	108	108	108	90	90	108	108	108	108	90	90
	180	108	108	108	108	90	90	108	108	108	108	90	90	108	108	108	108	90	90
	200	102	102	102	102	90	90	90	90	90	90	90	90	90	90	90	90	90	90

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 11B		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
Roofs >27° to 45°	110	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	115	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	120	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	130	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	140	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	150	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	160	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	170	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	180	108	108	108	108	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	200	102	102	102	102	90	81	90	90	90	90	90	81	90	90	90	90	90	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 11C		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure C	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
Roofs >27° to 45°	110	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	115	150	150	132	124	90	81	150	150	132	124	90	81	150	150	132	124	90	81
	120	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	130	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	140	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	150	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	160	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	170	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	180	108	108	108	108	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	200	102	102	102	102	90	81	90	90	90	90	90	81	90	90	90	90	90	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 11D		Roof Height: 0 - 30 feet											Panel Orientation: Landscape						
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir						
													Specific Gravity: 0.5						
Exposure C	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
Roofs >27° to 45°	110	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	115	150	150	110	81	64	53	150	150	110	81	64	53	150	150	110	81	64	53
	120	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	130	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	140	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53
	150	132	132	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53
	160	120	120	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53
	170	120	120	110	81	64	53	108	108	108	81	64	53	108	108	108	81	64	53
	180	108	108	108	81	64	53	108	108	108	81	64	53	108	108	108	81	64	53
	200	102	102	102	81	64	53	90	90	90	81	64	53	90	90	90	81	64	53

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMNC, QMNS, & QMSFT Products

Table 12A		Roof Height:	0 - 30 feet											Panel Orientation:	Landscape					
		Roof Angle:	27 < θ ≤ 45 degrees											Rafter Species:	Douglas Fir					
														Specific Gravity:	0.5					
Exposure D	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	
Roofs >27° to 45°	110	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90	
	115	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90	
	120	132	132	132	132	90	90	132	132	132	132	90	90	132	132	132	132	90	90	
	130	132	132	132	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90	
	140	120	120	120	120	90	90	120	120	120	120	90	90	120	120	120	120	90	90	
	150	120	120	120	120	90	90	108	108	108	108	90	90	108	108	108	108	90	90	
	160	120	120	120	120	90	90	108	108	108	108	90	90	108	108	108	108	90	90	
	170	108	108	108	108	90	90	102	102	102	102	90	90	102	102	102	102	90	90	
	180	108	108	108	108	90	90	102	102	102	102	90	90	102	102	102	102	90	90	
	200	90	90	90	90	90	90	84	84	84	84	84	84	84	84	84	84	84	84	84

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMUTM & QMLSH-7 Products

Table 12B		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 D	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 >27° to 45°	110	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	115	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	120	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	130	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	140	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	150	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	160	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	170	108	108	108	108	90	81	102	102	102	102	90	81	102	102	102	102	90	81
	180	108	108	108	108	90	81	102	102	102	102	90	81	102	102	102	102	90	81
	200	90	90	90	90	90	81	84	84	84	84	84	81	84	84	84	84	84	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-9 Products

Table 12C		Roof Height: 0 - 30 feet		Panel Orientation: Landscape															
		Roof Angle: $27 < \theta \leq 45$ degrees		Rafter Species: Douglas Fir Specific Gravity: 0.5															
Exposure D	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
Roofs >27° to 45°	110	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	115	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	120	132	132	132	124	90	81	132	132	132	124	90	81	132	132	132	124	90	81
	130	132	132	132	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	140	120	120	120	120	90	81	120	120	120	120	90	81	120	120	120	120	90	81
	150	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	160	120	120	120	120	90	81	108	108	108	108	90	81	108	108	108	108	90	81
	170	108	108	108	108	90	81	102	102	102	102	90	81	102	102	102	102	90	81
	180	108	108	108	108	90	81	102	102	102	102	90	81	102	102	102	102	90	81
	200	90	90	90	90	90	81	84	84	84	84	84	81	84	84	84	84	84	81

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Unirac Solarmount Rails for use with QMLSH-12 Products

Table 12D		Roof Height: 0 - 30 feet											Panel Orientation: Landscape							
		Roof Angle: $27 < \theta \leq 45$ degrees											Rafter Species: Douglas Fir							
Exposure D		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
Roofs >27° to 45°	110	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53	
	115	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53	
	120	132	132	110	81	64	53	132	132	110	81	64	53	132	132	110	81	64	53	
	130	132	132	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53	
	140	120	120	110	81	64	53	120	120	110	81	64	53	120	120	110	81	64	53	
	150	120	120	110	81	64	53	108	108	108	81	64	53	108	108	108	81	64	53	
	160	120	120	110	81	64	53	108	108	108	81	64	53	108	108	108	81	64	53	
	170	108	108	108	81	64	53	102	102	102	81	64	53	102	102	102	81	64	53	
	180	108	108	108	81	64	53	102	102	102	81	64	53	102	102	102	81	64	53	
	200	90	90	90	81	64	53	84	84	84	81	64	53	84	84	84	81	64	53	

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 test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"