



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  
IronRidge XR100 Roof Flush Mount 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 IronRidge XR100 Rail, Roof Flush Mount 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:

- Starling Madison Lofquist, Inc., IronRidge XR100 Rail, Roof Flush Mounting System – Structural Analysis, March 14, 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

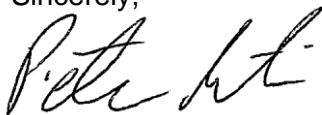
SEI has determined that the QMNC, QMNS, QMSFT, QMUTM, and QMLSH mounts are suitable for use with the IronRidge XR100 Rail, Roof Flush Mount System. The approved installation and allowable loads for the Quick Mount PV QBase products is outlined in the Eclipse Engineering report referenced above. The allowable 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 IronRidge XR100 Rail 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 IronRidge XR100 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.

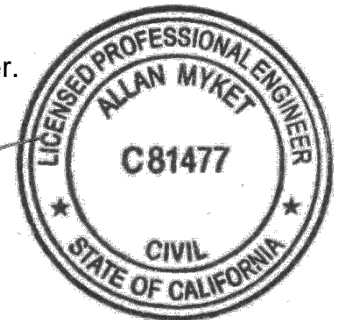
Sincerely,



Peter Martin  
Engineer II  
[pmartin@structuralengenuityinc.com](mailto:pmartin@structuralengenuityinc.com)



Allan T. Myket, P.E.  
President/Founder  
[amyket@structuralengenuityinc.com](mailto:amyket@structuralengenuityinc.com)



12/29/2017

**Structural Engenuity Inc.**

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 1A</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	112	97	83	72	64	58	53	49	46	43	
	105	112	97	83	72	64	58	53	49	46	43	
	110	112	97	83	72	64	58	53	49	46	43	
	120	112	97	83	72	64	58	53	49	46	43	
	130	112	97	83	72	64	58	53	49	46	43	
	140	105	97	83	72	64	58	53	49	46	43	
	150	98	96	82	72	64	58	53	49	46	43	
	160	92	92	81	72	64	58	53	49	46	43	
Category C	170	87	87	79	71	64	58	53	49	46	43	
	100	112	97	83	72	64	58	53	49	46	43	
	105	112	97	83	72	64	58	53	49	46	43	
	110	112	97	83	72	64	58	53	49	46	43	
	120	103	97	83	72	64	58	53	49	46	43	
	130	96	95	82	72	64	58	53	49	46	43	
	140	89	89	80	71	64	58	53	49	46	43	
	150	84	84	78	70	64	58	53	49	46	43	
Category D	160	79	79	76	69	63	58	53	49	46	43	
	170	74	74	74	67	62	57	53	49	46	43	
	100	112	97	83	72	64	58	53	49	46	43	
	105	108	97	83	72	64	58	53	49	46	43	
	110	103	97	83	72	64	58	53	49	46	43	
	120	95	95	82	72	64	58	53	49	46	43	
	130	88	88	80	71	64	58	53	49	46	43	
	140	82	82	78	70	63	58	53	49	46	43	
150	77	77	76	68	62	58	53	49	46	43		
160	73	73	73	67	61	57	53	49	46	43		
170	68	68	68	65	60	56	53	49	46	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 1B</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	112	97	83	72	64	58	50	44	39	35	
	105	112	97	83	72	64	58	50	44	39	35	
	110	112	97	83	72	64	58	50	44	39	35	
	120	112	97	83	72	64	58	50	44	39	35	
	130	112	97	83	72	64	58	50	44	39	35	
	140	105	97	83	72	64	58	50	44	39	35	
	150	98	96	82	72	64	58	50	44	39	35	
	160	92	92	81	72	64	58	50	44	39	35	
Category C	170	87	87	79	71	64	58	50	44	39	35	
	100	112	97	83	72	64	58	50	44	39	35	
	105	112	97	83	72	64	58	50	44	39	35	
	110	112	97	83	72	64	58	50	44	39	35	
	120	103	97	83	72	64	58	50	44	39	35	
	130	96	95	82	72	64	58	50	44	39	35	
	140	89	89	80	71	64	58	50	44	39	35	
	150	84	84	78	70	64	58	50	44	39	35	
Category D	160	79	79	76	69	63	58	50	44	39	35	
	170	74	74	74	67	62	57	50	44	39	35	
	100	112	97	83	72	64	58	50	44	39	35	
	105	108	97	83	72	64	58	50	44	39	35	
	110	103	97	83	72	64	58	50	44	39	35	
	120	95	95	82	72	64	58	50	44	39	35	
	130	88	88	80	71	64	58	50	44	39	35	
	140	82	82	78	70	63	58	50	44	39	35	
150	77	77	76	68	62	58	50	44	39	35		
160	73	73	73	67	61	57	50	44	39	35		
170	68	68	68	65	60	56	50	44	39	35		

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 1C</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	112	97	83	72	64	58	50	44	39	35	
	105	112	97	83	72	64	58	50	44	39	35	
	110	112	97	83	72	64	58	50	44	39	35	
	120	112	97	83	72	64	58	50	44	39	35	
	130	112	97	83	72	64	58	50	44	39	35	
	140	105	97	83	72	64	58	50	44	39	35	
	150	98	96	82	72	64	58	50	44	39	35	
	160	92	92	81	72	64	58	50	44	39	35	
Category C	170	87	87	79	71	64	58	50	44	39	35	
	100	112	97	83	72	64	58	50	44	39	35	
	105	112	97	83	72	64	58	50	44	39	35	
	110	112	97	83	72	64	58	50	44	39	35	
	120	103	97	83	72	64	58	50	44	39	35	
	130	96	95	82	72	64	58	50	44	39	35	
	140	89	89	80	71	64	58	50	44	39	35	
	150	84	84	78	70	64	58	50	44	39	35	
Category D	160	79	79	76	69	63	58	50	44	39	35	
	170	74	74	74	67	62	57	50	44	39	35	
	100	112	97	83	72	64	58	50	44	39	35	
	105	108	97	83	72	64	58	50	44	39	35	
	110	103	97	83	72	64	58	50	44	39	35	
	120	95	95	82	72	64	58	50	44	39	35	
	130	88	88	80	71	64	58	50	44	39	35	
	140	82	82	78	70	63	58	50	44	39	35	
150	77	77	76	68	62	58	50	44	39	35		
160	73	73	73	67	61	57	50	44	39	35		
170	68	68	68	65	60	56	50	44	39	35		

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 1D</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	112	97	83	61	47	39	33	29	25	23		
	105	112	97	83	61	47	39	33	29	25	23		
	110	112	97	83	61	47	39	33	29	25	23		
	120	112	97	83	61	47	39	33	29	25	23		
	130	112	97	83	61	47	39	33	29	25	23		
	140	105	97	83	61	47	39	33	29	25	23		
	150	98	96	82	61	47	39	33	29	25	23		
	160	92	92	81	61	47	39	33	29	25	23		
Category C	170	87	87	79	61	47	39	33	29	25	23		
	100	112	97	83	61	47	39	33	29	25	23		
	105	112	97	83	61	47	39	33	29	25	23		
	110	112	97	83	61	47	39	33	29	25	23		
	120	103	97	83	61	47	39	33	29	25	23		
	130	96	95	82	61	47	39	33	29	25	23		
	140	89	89	80	61	47	39	33	29	25	23		
	150	84	84	78	61	47	39	33	29	25	23		
Category D	160	79	79	76	61	47	39	33	29	25	23		
	170	74	74	74	61	47	39	33	29	25	23		
	100	112	97	83	61	47	39	33	29	25	23		
	105	108	97	83	61	47	39	33	29	25	23		
	110	103	97	83	61	47	39	33	29	25	23		
	120	95	95	82	61	47	39	33	29	25	23		
	130	88	88	80	61	47	39	33	29	25	23		
	140	82	82	78	61	47	39	33	29	25	23		
150	77	77	76	61	47	39	33	29	25	23			
160	73	73	73	61	47	39	33	29	25	23			
170	68	68	68	61	47	39	33	29	25	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 2A</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	106	97	83	72	64	58	53	49	46	43		
	105	102	97	83	72	64	58	53	49	46	43		
	110	97	97	83	72	64	58	53	49	46	43		
	120	90	90	83	72	64	58	53	49	46	43		
	130	83	83	83	72	64	58	53	49	46	43		
	140	77	77	77	72	64	58	53	49	46	43		
	150	73	73	73	72	64	58	53	49	46	43		
	160	68	68	68	68	64	58	53	49	46	43		
Category C	100	91	91	83	72	64	58	53	49	46	43		
	105	87	87	83	72	64	58	53	49	46	43		
	110	83	83	83	72	64	58	53	49	46	43		
	120	76	76	76	72	64	58	53	49	46	43		
	130	71	71	71	71	64	58	53	49	46	43		
	140	66	66	66	66	64	58	53	49	46	43		
	150	62	62	62	62	62	58	53	49	46	43		
	160	58	58	58	58	58	58	53	49	46	43		
Category D	100	84	84	83	72	64	58	53	49	46	43		
	105	80	80	80	72	64	58	53	49	46	43		
	110	77	77	77	72	64	58	53	49	46	43		
	120	70	70	70	70	64	58	53	49	46	43		
	130	65	65	65	65	64	58	53	49	46	43		
	140	61	61	61	61	61	58	53	49	46	43		
	150	57	57	57	57	57	57	53	49	46	43		
	160	53	53	53	53	53	53	53	49	46	43		
	170	50	50	50	50	50	50	50	49	46	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 2B</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	106	97	83	72	64	58	50	44	39	35		
	105	102	97	83	72	64	58	50	44	39	35		
	110	97	97	83	72	64	58	50	44	39	35		
	120	90	90	83	72	64	58	50	44	39	35		
	130	83	83	83	72	64	58	50	44	39	35		
	140	77	77	77	72	64	58	50	44	39	35		
	150	73	73	73	72	64	58	50	44	39	35		
	160	68	68	68	68	64	58	50	44	39	35		
Category C	100	91	91	83	72	64	58	50	44	39	35		
	105	87	87	83	72	64	58	50	44	39	35		
	110	83	83	83	72	64	58	50	44	39	35		
	120	76	76	76	72	64	58	50	44	39	35		
	130	71	71	71	71	64	58	50	44	39	35		
	140	66	66	66	66	64	58	50	44	39	35		
	150	62	62	62	62	62	58	50	44	39	35		
	160	58	58	58	58	58	58	50	44	39	35		
Category D	100	84	84	83	72	64	58	50	44	39	35		
	105	80	80	80	72	64	58	50	44	39	35		
	110	77	77	77	72	64	58	50	44	39	35		
	120	70	70	70	70	64	58	50	44	39	35		
	130	65	65	65	65	64	58	50	44	39	35		
	140	61	61	61	61	61	58	50	44	39	35		
	150	57	57	57	57	57	57	50	44	39	35		
	160	53	53	53	53	53	53	50	44	39	35		
170	50	50	50	50	50	50	50	44	39	35			

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 67.5"



**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 2C</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	106	97	83	72	64	58	50	44	39	35	
	105	102	97	83	72	64	58	50	44	39	35	
	110	97	97	83	72	64	58	50	44	39	35	
	120	90	90	83	72	64	58	50	44	39	35	
	130	83	83	83	72	64	58	50	44	39	35	
	140	77	77	77	72	64	58	50	44	39	35	
	150	73	73	73	72	64	58	50	44	39	35	
	160	68	68	68	68	64	58	50	44	39	35	
Category C	100	91	91	83	72	64	58	50	44	39	35	
	105	87	87	83	72	64	58	50	44	39	35	
	110	83	83	83	72	64	58	50	44	39	35	
	120	76	76	76	72	64	58	50	44	39	35	
	130	71	71	71	71	64	58	50	44	39	35	
	140	66	66	66	66	64	58	50	44	39	35	
	150	62	62	62	62	62	58	50	44	39	35	
	160	58	58	58	58	58	58	50	44	39	35	
Category D	100	84	84	83	72	64	58	50	44	39	35	
	105	80	80	80	72	64	58	50	44	39	35	
	110	77	77	77	72	64	58	50	44	39	35	
	120	70	70	70	70	64	58	50	44	39	35	
	130	65	65	65	65	64	58	50	44	39	35	
	140	61	61	61	61	61	58	50	44	39	35	
	150	57	57	57	57	57	57	50	44	39	35	
	160	53	53	53	53	53	53	50	44	39	35	
	170	50	50	50	50	50	50	50	44	39	35	

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 2D</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	106	97	83	61	47	39	33	29	25	23		
	105	102	97	83	61	47	39	33	29	25	23		
	110	97	97	83	61	47	39	33	29	25	23		
	120	90	90	83	61	47	39	33	29	25	23		
	130	83	83	83	61	47	39	33	29	25	23		
	140	77	77	77	61	47	39	33	29	25	23		
	150	73	73	73	61	47	39	33	29	25	23		
	160	68	68	68	61	47	39	33	29	25	23		
Category C	100	91	91	83	61	47	39	33	29	25	23		
	105	87	87	83	61	47	39	33	29	25	23		
	110	83	83	83	61	47	39	33	29	25	23		
	120	76	76	76	61	47	39	33	29	25	23		
	130	71	71	71	61	47	39	33	29	25	23		
	140	66	66	66	61	47	39	33	29	25	23		
	150	62	62	62	61	47	39	33	29	25	23		
	160	58	58	58	58	47	39	33	29	25	23		
Category D	100	84	84	83	61	47	39	33	29	25	23		
	105	80	80	80	61	47	39	33	29	25	23		
	110	77	77	77	61	47	39	33	29	25	23		
	120	70	70	70	61	47	39	33	29	25	23		
	130	65	65	65	61	47	39	33	29	25	23		
	140	61	61	61	61	47	39	33	29	25	23		
	150	57	57	57	57	47	39	33	29	25	23		
	160	53	53	53	53	47	39	33	29	25	23		
170	50	50	50	50	47	39	33	29	25	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 3A</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	87	87	83	72	64	58	53	49	46	43		
	105	83	83	83	72	64	58	53	49	46	43		
	110	80	80	80	72	64	58	53	49	46	43		
	120	73	73	73	72	64	58	53	49	46	43		
	130	68	68	68	68	64	58	53	49	46	43		
	140	63	63	63	63	63	58	53	49	46	43		
	150	59	59	59	59	59	58	53	49	46	43		
	160	56	56	56	56	56	56	53	49	46	43		
Category C	100	74	74	74	72	64	58	53	49	46	43		
	105	71	71	71	71	64	58	53	49	46	43		
	110	68	68	68	68	64	58	53	49	46	43		
	120	62	62	62	62	62	58	53	49	46	43		
	130	58	58	58	58	58	58	53	49	46	43		
	140	54	54	54	54	54	54	53	49	46	43		
	150	50	50	50	50	50	50	50	49	46	43		
	160	47	47	47	47	47	47	47	47	46	43		
Category D	100	68	68	68	68	64	58	53	49	46	43		
	105	65	65	65	65	64	58	53	49	46	43		
	110	62	62	62	62	62	58	53	49	46	43		
	120	57	57	57	57	57	57	53	49	46	43		
	130	53	53	53	53	53	53	53	49	46	43		
	140	49	49	49	49	49	49	49	49	46	43		
	150	46	46	46	46	46	46	46	46	46	43		
	160	43	43	43	43	43	43	43	43	43	43		
	170	41	41	41	41	41	41	41	41	41	41		

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 3B</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	87	87	83	72	64	58	50	44	39	35		
	105	83	83	83	72	64	58	50	44	39	35		
	110	80	80	80	72	64	58	50	44	39	35		
	120	73	73	73	72	64	58	50	44	39	35		
	130	68	68	68	68	64	58	50	44	39	35		
	140	63	63	63	63	63	58	50	44	39	35		
	150	59	59	59	59	59	58	50	44	39	35		
	160	56	56	56	56	56	56	50	44	39	35		
Category C	100	74	74	74	72	64	58	50	44	39	35		
	105	71	71	71	71	64	58	50	44	39	35		
	110	68	68	68	68	64	58	50	44	39	35		
	120	62	62	62	62	62	58	50	44	39	35		
	130	58	58	58	58	58	58	50	44	39	35		
	140	54	54	54	54	54	54	50	44	39	35		
	150	50	50	50	50	50	50	50	44	39	35		
	160	47	47	47	47	47	47	47	44	39	35		
Category D	100	68	68	68	68	64	58	50	44	39	35		
	105	65	65	65	65	64	58	50	44	39	35		
	110	62	62	62	62	62	58	50	44	39	35		
	120	57	57	57	57	57	57	50	44	39	35		
	130	53	53	53	53	53	53	50	44	39	35		
	140	49	49	49	49	49	49	49	44	39	35		
	150	46	46	46	46	46	46	46	44	39	35		
	160	43	43	43	43	43	43	43	43	39	35		
170	41	41	41	41	41	41	41	41	39	35			

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 3C</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	87	87	83	72	64	58	50	44	39	35		
	105	83	83	83	72	64	58	50	44	39	35		
	110	80	80	80	72	64	58	50	44	39	35		
	120	73	73	73	72	64	58	50	44	39	35		
	130	68	68	68	68	64	58	50	44	39	35		
	140	63	63	63	63	63	58	50	44	39	35		
	150	59	59	59	59	59	58	50	44	39	35		
	160	56	56	56	56	56	56	50	44	39	35		
Category C	100	74	74	74	72	64	58	50	44	39	35		
	105	71	71	71	71	64	58	50	44	39	35		
	110	68	68	68	68	64	58	50	44	39	35		
	120	62	62	62	62	62	58	50	44	39	35		
	130	58	58	58	58	58	58	50	44	39	35		
	140	54	54	54	54	54	54	50	44	39	35		
	150	50	50	50	50	50	50	50	44	39	35		
	160	47	47	47	47	47	47	47	44	39	35		
Category D	100	68	68	68	68	64	58	50	44	39	35		
	105	65	65	65	65	64	58	50	44	39	35		
	110	62	62	62	62	62	58	50	44	39	35		
	120	57	57	57	57	57	57	50	44	39	35		
	130	53	53	53	53	53	53	50	44	39	35		
	140	49	49	49	49	49	49	49	44	39	35		
	150	46	46	46	46	46	46	46	44	39	35		
	160	43	43	43	43	43	43	43	43	39	35		
	170	41	41	41	41	41	41	41	41	39	35		

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 3D</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	7 - 27 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	87	87	83	61	47	39	33	29	25	23		
	105	83	83	83	61	47	39	33	29	25	23		
	110	80	80	80	61	47	39	33	29	25	23		
	120	73	73	73	61	47	39	33	29	25	23		
	130	68	68	68	61	47	39	33	29	25	23		
	140	63	63	63	61	47	39	33	29	25	23		
	150	59	59	59	59	47	39	33	29	25	23		
	160	56	56	56	56	47	39	33	29	25	23		
Category C	100	74	74	74	61	47	39	33	29	25	23		
	105	71	71	71	61	47	39	33	29	25	23		
	110	68	68	68	61	47	39	33	29	25	23		
	120	62	62	62	61	47	39	33	29	25	23		
	130	58	58	58	58	47	39	33	29	25	23		
	140	54	54	54	54	47	39	33	29	25	23		
	150	50	50	50	50	47	39	33	29	25	23		
	160	47	47	47	47	47	39	33	29	25	23		
Category D	100	68	68	68	61	47	39	33	29	25	23		
	105	65	65	65	61	47	39	33	29	25	23		
	110	62	62	62	61	47	39	33	29	25	23		
	120	57	57	57	57	47	39	33	29	25	23		
	130	53	53	53	53	47	39	33	29	25	23		
	140	49	49	49	49	47	39	33	29	25	23		
	150	46	46	46	46	46	39	33	29	25	23		
	160	43	43	43	43	43	39	33	29	25	23		
	170	41	41	41	41	41	39	33	29	25	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 4A</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	107	98	84	75	67	61	56	52	49	46	
	105	107	98	84	75	67	61	56	52	49	46	
	110	106	97	84	75	67	61	56	52	49	46	
	120	101	94	82	74	67	61	56	52	49	46	
	130	96	91	80	72	66	61	56	52	49	46	
	140	91	88	78	70	65	60	56	52	49	46	
	150	87	85	76	69	64	59	56	52	49	46	
	160	83	82	74	67	62	58	55	52	49	46	
Category C	100	101	94	82	74	67	61	56	52	49	46	
	105	98	93	81	73	67	61	56	52	49	46	
	110	95	91	80	72	66	61	56	52	49	46	
	120	90	87	77	70	65	60	56	52	49	46	
	130	85	84	75	68	63	59	56	52	49	46	
	140	81	80	72	66	62	58	55	52	49	46	
	150	77	76	70	65	60	57	53	51	49	46	
	160	73	73	68	63	59	55	52	50	48	46	
Category D	100	96	91	80	72	66	61	56	52	49	46	
	105	93	89	79	71	65	61	56	52	49	46	
	110	90	87	77	70	65	60	56	52	49	46	
	120	85	83	75	68	63	59	55	52	49	46	
	130	80	80	72	66	61	58	54	52	49	46	
	140	75	75	70	64	60	56	53	51	48	46	
	150	71	71	67	62	58	55	52	50	48	46	
	160	68	68	65	60	57	54	51	49	47	45	
	170	64	64	52	58	55	52	50	48	46	44	

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 4B</b>		Roof Height:	0-30 ft		Panel Orientation:	Portrait					
		Roof Angle:	28 - 45 degrees		Rafter Species:	Douglas Fir					
		Roof Wind Zone:	1		Specific Gravity:	0.50					
XR100 Rail	Wind Speed	Ground Snow Load									
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf
Category B	100	107	98	84	75	61	50	43	37	33	30
	105	107	98	84	75	61	50	43	37	33	30
	110	106	97	84	75	61	50	43	37	33	30
	120	101	94	82	74	61	50	43	37	33	30
	130	96	91	80	72	61	50	43	37	33	30
	140	91	88	78	70	61	50	43	37	33	30
	150	87	85	76	69	61	50	43	37	33	30
	160	83	82	74	67	61	50	43	37	33	30
Category C	100	101	94	82	74	61	50	43	37	33	30
	105	98	93	81	73	61	50	43	37	33	30
	110	95	91	80	72	61	50	43	37	33	30
	120	90	87	77	70	61	50	43	37	33	30
	130	85	84	75	68	61	50	43	37	33	30
	140	81	80	72	66	61	50	43	37	33	30
	150	77	76	70	65	60	50	43	37	33	30
	160	73	73	68	63	59	50	43	37	33	30
Category D	100	96	91	80	72	61	50	43	37	33	30
	105	93	89	79	71	61	50	43	37	33	30
	110	90	87	77	70	61	50	43	37	33	30
	120	85	83	75	68	61	50	43	37	33	30
	130	80	80	72	66	61	50	43	37	33	30
	140	75	75	70	64	60	50	43	37	33	30
	150	71	71	67	62	58	50	43	37	33	30
	160	68	68	65	60	57	50	43	37	33	30
	170	64	64	52	58	55	50	43	37	33	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 67.5"



**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 4C</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	107	98	84	75	61	50	43	37	33	30	
	105	107	98	84	75	61	50	43	37	33	30	
	110	106	97	84	75	61	50	43	37	33	30	
	120	101	94	82	74	61	50	43	37	33	30	
	130	96	91	80	72	61	50	43	37	33	30	
	140	91	88	78	70	61	50	43	37	33	30	
	150	87	85	76	69	61	50	43	37	33	30	
	160	83	82	74	67	61	50	43	37	33	30	
Category C	100	101	94	82	74	61	50	43	37	33	30	
	105	98	93	81	73	61	50	43	37	33	30	
	110	95	91	80	72	61	50	43	37	33	30	
	120	90	87	77	70	61	50	43	37	33	30	
	130	85	84	75	68	61	50	43	37	33	30	
	140	81	80	72	66	61	50	43	37	33	30	
	150	77	76	70	65	60	50	43	37	33	30	
	160	73	73	68	63	59	50	43	37	33	30	
Category D	100	96	91	80	72	61	50	43	37	33	30	
	105	93	89	79	71	61	50	43	37	33	30	
	110	90	87	77	70	61	50	43	37	33	30	
	120	85	83	75	68	61	50	43	37	33	30	
	130	80	80	72	66	61	50	43	37	33	30	
	140	75	75	70	64	60	50	43	37	33	30	
	150	71	71	67	62	58	50	43	37	33	30	
	160	68	68	65	60	57	50	43	37	33	30	
	170	64	64	52	58	55	50	43	37	33	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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 4D</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	1				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	107	98	69	50	40	33	28	24	22	19	
	105	107	98	69	50	40	33	28	24	22	19	
	110	106	97	69	50	40	33	28	24	22	19	
	120	101	94	69	50	40	33	28	24	22	19	
	130	96	91	69	50	40	33	28	24	22	19	
	140	91	88	69	50	40	33	28	24	22	19	
	150	87	85	69	50	40	33	28	24	22	19	
	160	83	82	69	50	40	33	28	24	22	19	
Category C	100	101	94	69	50	40	33	28	24	22	19	
	105	98	93	69	50	40	33	28	24	22	19	
	110	95	91	69	50	40	33	28	24	22	19	
	120	90	87	69	50	40	33	28	24	22	19	
	130	85	84	69	50	40	33	28	24	22	19	
	140	81	80	69	50	40	33	28	24	22	19	
	150	77	76	69	50	40	33	28	24	22	19	
	160	73	73	68	50	40	33	28	24	22	19	
Category D	100	96	91	69	50	40	33	28	24	22	19	
	105	93	89	69	50	40	33	28	24	22	19	
	110	90	87	69	50	40	33	28	24	22	19	
	120	85	83	69	50	40	33	28	24	22	19	
	130	80	80	69	50	40	33	28	24	22	19	
	140	75	75	69	50	40	33	28	24	22	19	
	150	71	71	67	50	40	33	28	24	22	19	
	160	68	68	65	50	40	33	28	24	22	19	
	170	64	64	52	50	40	33	28	24	22	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 5A</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	107	98	84	75	67	61	56	52	49	46		
	105	107	98	84	75	67	61	56	52	49	46		
	110	106	97	84	75	67	61	56	52	49	46		
	120	101	94	82	74	67	61	56	52	49	46		
	130	94	91	80	72	66	61	56	52	49	46		
	140	88	88	78	70	65	60	56	52	49	46		
	150	83	83	76	69	64	59	56	52	49	46		
	160	78	78	74	67	62	58	55	52	49	46		
Category C	100	101	94	82	74	67	61	56	52	49	46		
	105	98	93	81	73	67	61	56	52	49	46		
	110	94	91	80	72	66	61	56	52	49	46		
	120	87	87	77	70	65	60	56	52	49	46		
	130	81	81	75	68	63	59	56	52	49	46		
	140	76	76	72	66	62	58	55	52	49	46		
	150	71	71	70	65	60	57	53	51	49	46		
	160	67	67	67	63	59	55	52	50	48	46		
Category D	100	95	91	80	72	66	61	56	52	49	46		
	105	91	89	79	71	65	61	56	52	49	46		
	110	87	87	77	70	65	60	56	52	49	46		
	120	81	81	75	68	63	59	55	52	49	46		
	130	75	75	72	66	61	58	54	52	49	46		
	140	70	70	70	64	60	56	53	51	48	46		
	150	66	66	66	62	58	55	52	50	48	46		
	160	62	62	62	60	57	54	51	49	47	45		
170	59	59	59	58	55	52	50	48	46	44			

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 5B</b>		Roof Height:	0-30 ft		Panel Orientation:	Portrait					
		Roof Angle:	28 - 45 degrees		Rafter Species:	Douglas Fir					
		Roof Wind Zone:	2		Specific Gravity:	0.50					
XR100 Rail	Wind Speed	Ground Snow Load									
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf
Category B	100	107	98	84	75	61	50	43	37	33	30
	105	107	98	84	75	61	50	43	37	33	30
	110	106	97	84	75	61	50	43	37	33	30
	120	101	94	82	74	61	50	43	37	33	30
	130	94	91	80	72	61	50	43	37	33	30
	140	88	88	78	70	61	50	43	37	33	30
	150	83	83	76	69	61	50	43	37	33	30
	160	78	78	74	67	61	50	43	37	33	30
Category C	100	101	94	82	74	61	50	43	37	33	30
	105	98	93	81	73	61	50	43	37	33	30
	110	94	91	80	72	61	50	43	37	33	30
	120	87	87	77	70	61	50	43	37	33	30
	130	81	81	75	68	61	50	43	37	33	30
	140	76	76	72	66	61	50	43	37	33	30
	150	71	71	70	65	60	50	43	37	33	30
	160	67	67	67	63	59	50	43	37	33	30
Category D	100	95	91	80	72	61	50	43	37	33	30
	105	91	89	79	71	61	50	43	37	33	30
	110	87	87	77	70	61	50	43	37	33	30
	120	81	81	75	68	61	50	43	37	33	30
	130	75	75	72	66	61	50	43	37	33	30
	140	70	70	70	64	60	50	43	37	33	30
	150	66	66	66	62	58	50	43	37	33	30
	160	62	62	62	60	57	50	43	37	33	30
170	59	59	59	58	55	50	43	37	33	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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 5C</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	2					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	107	98	84	75	61	50	43	37	33	30		
	105	107	98	84	75	61	50	43	37	33	30		
	110	106	97	84	75	61	50	43	37	33	30		
	120	101	94	82	74	61	50	43	37	33	30		
	130	94	91	80	72	61	50	43	37	33	30		
	140	88	88	78	70	61	50	43	37	33	30		
	150	83	83	76	69	61	50	43	37	33	30		
	160	78	78	74	67	61	50	43	37	33	30		
Category C	100	101	94	82	74	61	50	43	37	33	30		
	105	98	93	81	73	61	50	43	37	33	30		
	110	94	91	80	72	61	50	43	37	33	30		
	120	87	87	77	70	61	50	43	37	33	30		
	130	81	81	75	68	61	50	43	37	33	30		
	140	76	76	72	66	61	50	43	37	33	30		
	150	71	71	70	65	60	50	43	37	33	30		
	160	67	67	67	63	59	50	43	37	33	30		
Category D	100	95	91	80	72	61	50	43	37	33	30		
	105	91	89	79	71	61	50	43	37	33	30		
	110	87	87	77	70	61	50	43	37	33	30		
	120	81	81	75	68	61	50	43	37	33	30		
	130	75	75	72	66	61	50	43	37	33	30		
	140	70	70	70	64	60	50	43	37	33	30		
	150	66	66	66	62	58	50	43	37	33	30		
	160	62	62	62	60	57	50	43	37	33	30		
170	59	59	59	58	55	50	43	37	33	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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 5D</b>		Roof Height:	0-30 ft		Panel Orientation:	Portrait					
		Roof Angle:	28 - 45 degrees		Rafter Species:	Douglas Fir					
		Roof Wind Zone:	2		Specific Gravity:	0.50					
XR100 Rail	Wind Speed	Ground Snow Load									
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf
Category B	100	107	98	69	50	40	33	28	24	22	19
	105	107	98	69	50	40	33	28	24	22	19
	110	106	97	69	50	40	33	28	24	22	19
	120	101	94	69	50	40	33	28	24	22	19
	130	94	91	69	50	40	33	28	24	22	19
	140	88	88	69	50	40	33	28	24	22	19
	150	83	83	69	50	40	33	28	24	22	19
	160	78	78	69	50	40	33	28	24	22	19
Category C	100	101	94	69	50	40	33	28	24	22	19
	105	98	93	69	50	40	33	28	24	22	19
	110	94	91	69	50	40	33	28	24	22	19
	120	87	87	69	50	40	33	28	24	22	19
	130	81	81	69	50	40	33	28	24	22	19
	140	76	76	69	50	40	33	28	24	22	19
	150	71	71	69	50	40	33	28	24	22	19
	160	67	67	67	50	40	33	28	24	22	19
Category D	100	95	91	69	50	40	33	28	24	22	19
	105	91	89	69	50	40	33	28	24	22	19
	110	87	87	69	50	40	33	28	24	22	19
	120	81	81	69	50	40	33	28	24	22	19
	130	75	75	69	50	40	33	28	24	22	19
	140	70	70	69	50	40	33	28	24	22	19
	150	66	66	66	50	40	33	28	24	22	19
	160	62	62	62	50	40	33	28	24	22	19
	170	59	59	59	50	40	33	28	24	22	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMNC, QMNS, & QMSFT Products**

<b>Table 6A</b>		Roof Height:	0-30 ft					Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees					Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3					Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load											
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf		
Category B	100	107	98	84	75	67	61	56	52	49	46		
	105	107	98	84	75	67	61	56	52	49	46		
	110	106	97	84	75	67	61	56	52	49	46		
	120	101	94	82	74	67	61	56	52	49	46		
	130	94	91	80	72	66	61	56	52	49	46		
	140	88	88	78	70	65	60	56	52	49	46		
	150	83	83	76	69	64	59	56	52	49	46		
	160	78	78	74	67	62	58	55	52	49	46		
Category C	100	101	94	82	74	67	61	56	52	49	46		
	105	98	93	81	73	67	61	56	52	49	46		
	110	94	91	80	72	66	61	56	52	49	46		
	120	87	87	77	70	65	60	56	52	49	46		
	130	81	81	75	68	63	59	56	52	49	46		
	140	76	76	72	66	62	58	55	52	49	46		
	150	71	71	70	65	60	57	53	51	49	46		
	160	67	67	67	63	59	55	52	50	48	46		
Category D	100	95	91	80	72	66	61	56	52	49	46		
	105	91	89	79	71	65	61	56	52	49	46		
	110	87	87	77	70	65	60	56	52	49	46		
	120	81	81	75	68	63	59	55	52	49	46		
	130	75	75	72	66	61	58	54	52	49	46		
	140	70	70	70	64	60	56	53	51	48	46		
	150	66	66	66	62	58	55	52	50	48	46		
	160	62	62	62	60	57	54	51	49	47	45		
170	59	59	59	58	55	52	50	48	46	44			

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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMUTM & QMLSH-7 Products**

<b>Table 6B</b>		Roof Height:	0-30 ft		Panel Orientation:	Portrait					
		Roof Angle:	28 - 45 degrees		Rafter Species:	Douglas Fir					
		Roof Wind Zone:	3		Specific Gravity:	0.50					
XR100 Rail	Wind Speed	Ground Snow Load									
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf
Category B	100	107	98	84	75	61	50	43	37	33	30
	105	107	98	84	75	61	50	43	37	33	30
	110	106	97	84	75	61	50	43	37	33	30
	120	101	94	82	74	61	50	43	37	33	30
	130	94	91	80	72	61	50	43	37	33	30
	140	88	88	78	70	61	50	43	37	33	30
	150	83	83	76	69	61	50	43	37	33	30
	160	78	78	74	67	61	50	43	37	33	30
Category C	100	101	94	82	74	61	50	43	37	33	30
	105	98	93	81	73	61	50	43	37	33	30
	110	94	91	80	72	61	50	43	37	33	30
	120	87	87	77	70	61	50	43	37	33	30
	130	81	81	75	68	61	50	43	37	33	30
	140	76	76	72	66	61	50	43	37	33	30
	150	71	71	70	65	60	50	43	37	33	30
	160	67	67	67	63	59	50	43	37	33	30
Category D	100	95	91	80	72	61	50	43	37	33	30
	105	91	89	79	71	61	50	43	37	33	30
	110	87	87	77	70	61	50	43	37	33	30
	120	81	81	75	68	61	50	43	37	33	30
	130	75	75	72	66	61	50	43	37	33	30
	140	70	70	70	64	60	50	43	37	33	30
	150	66	66	66	62	58	50	43	37	33	30
	160	62	62	62	60	57	50	43	37	33	30
170	59	59	59	58	55	50	43	37	33	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 67.5"



**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-9 Products**

<b>Table 6C</b>		Roof Height:	0-30 ft				Panel Orientation:	Portrait				
		Roof Angle:	28 - 45 degrees				Rafter Species:	Douglas Fir				
		Roof Wind Zone:	3				Specific Gravity:	0.50				
XR100 Rail	Wind Speed	Ground Snow Load										
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf	
Category B	100	107	98	84	75	61	50	43	37	33	30	
	105	107	98	84	75	61	50	43	37	33	30	
	110	106	97	84	75	61	50	43	37	33	30	
	120	101	94	82	74	61	50	43	37	33	30	
	130	94	91	80	72	61	50	43	37	33	30	
	140	88	88	78	70	61	50	43	37	33	30	
	150	83	83	76	69	61	50	43	37	33	30	
	160	78	78	74	67	61	50	43	37	33	30	
Category C	100	101	94	82	74	61	50	43	37	33	30	
	105	98	93	81	73	61	50	43	37	33	30	
	110	94	91	80	72	61	50	43	37	33	30	
	120	87	87	77	70	61	50	43	37	33	30	
	130	81	81	75	68	61	50	43	37	33	30	
	140	76	76	72	66	61	50	43	37	33	30	
	150	71	71	70	65	60	50	43	37	33	30	
	160	67	67	67	63	59	50	43	37	33	30	
Category D	100	95	91	80	72	61	50	43	37	33	30	
	105	91	89	79	71	61	50	43	37	33	30	
	110	87	87	77	70	61	50	43	37	33	30	
	120	81	81	75	68	61	50	43	37	33	30	
	130	75	75	72	66	61	50	43	37	33	30	
	140	70	70	70	64	60	50	43	37	33	30	
	150	66	66	66	62	58	50	43	37	33	30	
	160	62	62	62	60	57	50	43	37	33	30	
170	59	59	59	58	55	50	43	37	33	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 67.5"

**Rail Spans for IronRidge Series XR100 Roof Mount for use with QMLSH-12 Products**

<b>Table 6D</b>		Roof Height:	0-30 ft		Panel Orientation:	Portrait					
		Roof Angle:	28 - 45 degrees		Rafter Species:	Douglas Fir					
		Roof Wind Zone:	3		Specific Gravity:	0.50					
XR100 Rail	Wind Speed	Ground Snow Load									
Exposure	mph	0 psf	10 psf	20 psf	30 psf	40 psf	50 psf	60 psf	70 psf	80 psf	90 psf
Category B	100	107	98	69	50	40	33	28	24	22	19
	105	107	98	69	50	40	33	28	24	22	19
	110	106	97	69	50	40	33	28	24	22	19
	120	101	94	69	50	40	33	28	24	22	19
	130	94	91	69	50	40	33	28	24	22	19
	140	88	88	69	50	40	33	28	24	22	19
	150	83	83	69	50	40	33	28	24	22	19
	160	78	78	69	50	40	33	28	24	22	19
Category C	100	101	94	69	50	40	33	28	24	22	19
	105	98	93	69	50	40	33	28	24	22	19
	110	94	91	69	50	40	33	28	24	22	19
	120	87	87	69	50	40	33	28	24	22	19
	130	81	81	69	50	40	33	28	24	22	19
	140	76	76	69	50	40	33	28	24	22	19
	150	71	71	69	50	40	33	28	24	22	19
	160	67	67	67	50	40	33	28	24	22	19
Category D	100	95	91	69	50	40	33	28	24	22	19
	105	91	89	69	50	40	33	28	24	22	19
	110	87	87	69	50	40	33	28	24	22	19
	120	81	81	69	50	40	33	28	24	22	19
	130	75	75	69	50	40	33	28	24	22	19
	140	70	70	69	50	40	33	28	24	22	19
	150	66	66	66	50	40	33	28	24	22	19
	160	62	62	62	50	40	33	28	24	22	19
170	59	59	59	50	40	33	28	24	22	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 test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67.5"