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Pegasus Solar™ Inc.
100 West Ohio Avenue
Richmond, CA 94804

January 4, 2017

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Attn: Mr. Kai Stephan, CEO

Subject: Pegasus Solar™ LightSpeed Rail-Less Solar Mounting System Structural Analysis for Composite Asphalt Roof Shingle Roofs

SML Job No.: 182-15

Dear Mr. Stephan:

We have analyzed the Pegasus Solar™ LightSpeed rail-less photovoltaic (PV) panel roof mount system and determined that, for the configurations and criteria described below, it is in compliance with the applicable sections of the following reference documents:

- Codes: International Building Code 2006, 2009, 2012 & 2015 Editions
International Residential Code 2006, 2009, 2012 & 2015 Editions
ASCE/SEI 7-05 & 7-10 Min. Design Loads for Buildings & Other Structures
- Other: Aluminum Design Manual, 2005, 2010 & 2015 Editions

The Pegasus Solar™ LightSpeed rail-less photovoltaic (PV) panel roof mount system is comprised of a 6000 series aluminum clamp assembly and corner connectors, 5/16-18 stainless steel bolts and nuts to fasten the mounting system together, and the system is attached to the roof wood rafters or truss top chords with 5/16" diameter x 4.5" long 18-8 stainless steel wood lag screws.

We tested the mounting system with the 5/16" diameter 18-8 stainless steel wood lag screws passing through metal flashing, two layers of composite asphalt roof shingles, 15/32" thick plywood and finally penetrating 2.5" (see table note 4) into 2x SPF #2 in the center third of the 1.5" wide face to model either a 1.5" wide roof truss top chord or roof rafter.

The test report no. 2165XD163-4, dated December 28, 2016, by Western Technologies shows that the critical failure occurs in primarily one of two ways; pullout of the wood lag screws in tension from the 2x wood framing for both the tension and lateral tests and fracturing of the cast aluminum arm at the arm flange in compression loading. There was also a secondary failure of one of the cast aluminum bases at the base flange during the lateral loading tests. Maximum allowable values for these failure conditions were derived using a safety factor of 3.0 for the wood lag screw pullout failure based on ICC AC13 and safety factor 1.86 for aluminum failure based on ADM 2010 & 2015 on the yield and ultimate loads provided by the testing. The

maximum allowable tension (uplift), compression and lateral shear forces are 523 lb, 2242 lb and 276 lb respectively. The maximum allowable moment capacity of the 35 mm and 40 mm corner brackets is 348 ft-lb based on Western Technologies testing with a safety factor of 1.85, again based on ADM 2010 & 2015. The 2.5 inch wide by 0.5 inch thick aluminum ‘Double Mount’ adds 257 ft-lb of moment capacity when used and can increase the allowable spacing as indicated in the attached tables, see table note 6.

For the landscape orientation, the downward normal pressures on the PV panels were limited to 113 psf (5400 Pa) for spans up to 4 feet and 50.1 psf (2400 Pa) for spans up to 6 feet, and the upward normal pressures on the PV panels were limited to 50.1 psf (2400 Pa) for all spans. For the portrait orientation the downward and upward normal pressures on the PV panels were limited to 50.1 psf (2400 Pa) for all spans. These pressure limits comply with UL 1703.

The attached tables below show the maximum allowable mount spacing based on the interaction of the combined loading criteria of wind speed, roof slope, and snow loads which produce reaction loads below the combined interaction of the allowable loads listed above. The effect of seismic loads (for all design categories A-F) has been determined to be less than the effect due to wind or snow loads in all load conditions and combinations. The assumed topography is flat with a $K_{zt} = 1.0$. Therefore, the maximum allowable mount spacing for common load cases due to dead, wind and snow loads are the controlling load cases. Note: drifted and sliding snow is outside of the scope of this letter.

The maximum allowable cantilever, from the edge of the PV module to the center of the roof framing, is the smaller of 19 inches or ½ of the maximum mount spacing, as shown in tables 3 through table 43. A ‘Double Mount’ increases the allowable distance between the roof framing and the edge of the PV module by up to 7 additional inches, allowing the distance from the edge of the PV module to the roof framing centerline to be greater than 19 inches, while still maintaining the tested PV module cantilever restrictions, see table 2 below.

Roof Angle (Degrees)	Roof Slope (in/in)
0.0	0:12
4.8	1:12
9.5	2:12
14.0	3:12
18.4	4:12
22.6	5:12
26.6	6:12
33.7	8:12
39.8	10:12
45.0	12:12

Span (in)	Standard Mount (in)	Double Mount (in)
72	19	26
64	19	26
48	19	26
32	16	23
24	12	19

Table 3. Portrait Orientation - ASCE 7-05 - Interior Mounts (5.5 ft Tributary Width)											
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)							
				85	90	100	110	120	130	140	150
0 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*64	48	36	36	32
			2	48 /*60	48	36	36	24	24	0	0
			3	36	32	24	16	0	0	0	0
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	36
			2	48 /*60	48	36	36	24	24	16	0
			3	36	36	24	24	0	0	0	0
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*64	48	48	36	36	32
			2	48 /*72	48 /*72	48	48	36	24	24	24
			3	48 /*72	48 /*72	48	48	36	36	24	24
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48	36	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*60	48	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		28 to 45 Degrees	1	48 /*64	48 /*60	48	36	36	24	24	16
			2	48	48	36	36	24	24	16	0
			3	48	48	36	36	24	24	16	0
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	0
			2	36	32	24	0	0	0	0	0
			3	16	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	16
			2	36	32	24	0	0	0	0	0
			3	24	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	36	36	24	24	16	0	
		2	48	36	36	24	24	16	0	0	
		3	48	36	36	24	24	16	0	0	
1-10 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*64	48	36	36	32
			2	48 /*60	48	36	36	24	24	0	0
			3	36	32	24	16	0	0	0	0
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	36
			2	48 /*60	48	36	36	24	24	16	0
			3	36	36	24	24	0	0	0	0
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*64	48	48	36	36	32
			2	48 /*72	48 /*72	48	48	36	36	24	24
			3	48 /*72	48 /*72	48	48	36	36	24	24
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48	36	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*60	48	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		28 to 45 Degrees	1	48 /*64	48 /*60	48	36	36	24	24	16
			2	48	48	36	36	24	24	16	0
			3	48	48	36	36	24	24	16	0
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	0
			2	36	32	24	0	0	0	0	0
			3	16	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	16
			2	36	32	24	0	0	0	0	0
			3	24	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	36	36	24	24	16	0	
		2	48	36	36	24	24	16	0	0	
		3	48	36	36	24	24	16	0	0	

Table 4. Portrait Orientation - ASCE 7-05 - Interior Mounts (5.5 ft Tributary Width)											
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)							
				85	90	100	110	120	130	140	150
11-20 PSF	B	0 to 7 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48	36	36	32
			2	48 /*60	48	36	36	24	24	0	0
			3	36	32	24	16	0	0	0	0
		8 to 27 Degrees	1	48 /*60	48 /*60	48 /*60	48 /*60	48	48	36	36
			2	48 /*60	48	36	36	24	24	16	0
			3	36	36	24	24	0	0	0	0
		28 to 45 Degrees	1	48 /*64	48 /*64	48 /*64	48	48	36	36	32
			2	48 /*64	48 /*64	48	48	36	24	24	
			3	48 /*64	48 /*64	48	48	36	36	24	24
	C	0 to 7 Degrees	1	48 /*64	48 /*64	48	36	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*60	48 /*60	48 /*60	48	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		28 to 45 Degrees	1	48 /*64	48 /*60	48	36	36	24	24	16
			2	48	48	36	36	24	24	16	0
			3	48	48	36	36	24	24	16	0
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	0
			2	36	32	24	0	0	0	0	0
			3	16	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48 /*60	48 /*60	48	36	32	24	24	16
			2	36	32	24	0	0	0	0	0
			3	24	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	36	36	24	24	16	0	
		2	48	36	36	24	24	16	0	0	
		3	48	36	36	24	24	16	0	0	
21-30 PSF	B	0 to 7 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48	36	36	32
			2	48 /*60	48	36	36	24	24	0	0
			3	36	32	24	16	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	36	36
			2	48	48	36	36	24	24	16	0
			3	36	36	24	24	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	36	36	32
			2	48	48	48	48	36	36	24	24
			3	48	48	48	48	36	36	24	24
	C	0 to 7 Degrees	1	48 /*64	48 /*64	48	36	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	36	36	32	24	24
			2	36	36	24	24	0	0	0	0
			3	24	24	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	36	36	24	24	16
			2	48	48	36	36	24	24	16	0
			3	48	48	36	36	24	24	16	0
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	36	32	24	24	0
			2	36	32	24	0	0	0	0	0
			3	16	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	36	32	24	24	16
			2	36	32	24	0	0	0	0	0
			3	24	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	36	36	24	24	16	0	
		2	48	36	36	24	24	16	0	0	
		3	48	36	36	24	24	16	0	0	

Table 5. Portrait Orientation - ASCE 7-05 - Interior Mounts (5.5 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
31-40 PSF	B	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	32	
			2	36 /*48	36 /*48	36	36	24	24	0	0	
			3	36	32	24	16	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	24	24	16	0	
			3	36	36	24	24	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	32
			2	36	36	36	36	36	36	24	24	
			3	36	36	36	36	36	36	24	24	
	C	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36	36	32	24	24	
			2	36	36	24	24	0	0	0	0	
			3	24	24	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	32	24	24	
			2	36	36	24	24	0	0	0	0	
			3	24	24	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	24	24	16	
			2	36	36	36	36	24	24	16	0	
			3	36	36	36	36	24	24	16	0	
	D	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36	32	24	24	0	
			2	36	32	24	0	0	0	0	0	
			3	16	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	32	24	24	16	
			2	36	32	24	0	0	0	0	0	
			3	24	0	0	0	0	0	0	0	
28 to 45 Degrees		1	36	36	36	36	24	24	16	0		
		2	36	36	36	24	24	16	0	0		
		3	36	36	36	24	24	16	0	0		
41-50 PSF	B	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	32	
			2	36 /*48	36 /*48	36	36	24	24	0	0	
			3	36	32	24	16	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	
			2	32	32	32	32	24	24	16	0	
			3	32	32	24	24	0	0	0	0	
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	
			2	32	32	32	32	32	32	24	24	
			3	32	32	32	32	32	32	24	24	
	C	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36	36	32	24	24	
			2	36	36	24	24	0	0	0	0	
			3	24	24	0	0	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	24	0	
			2	32	32	24	24	0	0	0	0	
			3	24	24	0	0	0	0	0	0	
		28 to 45 Degrees	1	32	32	32	32	32	24	24	16	
			2	32	32	32	32	24	24	16	0	
			3	32	32	32	32	24	24	16	0	
	D	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36	32	24	24	0	
			2	36	32	24	0	0	0	0	0	
			3	16	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	24	0	0	
			2	32	32	24	0	0	0	0	0	
			3	24	0	0	0	0	0	0	0	
28 to 45 Degrees		1	32	32	32	32	24	24	0	0		
		2	32	32	32	24	24	16	0	0		
		3	32	32	32	24	24	16	0	0		

Table 6. Portrait Orientation - ASCE 7-05 - Interior Mounts (5.5 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
51-60 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	24
			3	24	24	24	24	24	24	24	24	24
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	24	24	24	24	24	24	24	24	0
			2	24	24	24	24	24	24	24	16	0
			3	24	24	24	24	24	24	24	16	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	24	24	24	24	24	24	24	0	0	
		2	24	24	24	24	24	24	16	0	0	
		3	24	24	24	24	24	24	16	0	0	
61-70 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	24
			3	24	24	24	24	24	24	24	24	24
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	24	24	24	24	24	24	24	0	0
			2	24	24	24	24	24	24	24	0	0
			3	24	24	24	24	24	24	24	0	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	24	24	24	24	24	24	0	0	0	
		2	24	24	24	24	24	24	0	0	0	
		3	24	24	24	24	24	24	0	0	0	

Table 7. Portrait Orientation - ASCE 7-05 - Interior Mounts (5.5 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
71-80 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	16	16	16	16	16
			2	16	16	16	16	16	16	16	16	16
			3	16	16	16	16	16	16	16	16	16
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	16	16	16	0	0
			2	16	16	16	16	16	16	16	0	0
			3	16	16	16	16	16	16	16	0	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	16	16	0	0	0
			2	16	16	16	16	16	16	0	0	0
			3	16	16	16	16	16	16	0	0	0
81-90 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	16	16	16	16	0
			2	16	16	16	16	16	16	16	16	0
			3	16	16	16	16	16	16	16	16	0
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	16	16	0	0	0
			2	16	16	16	16	16	16	0	0	0
			3	16	16	16	16	16	16	0	0	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	16	16	16	16	0	0	0	0	0
			2	16	16	16	16	0	0	0	0	0
			3	16	16	16	16	0	0	0	0	0

Table 8. Portrait Orientation - ASCE 7-05 - Edge Mounts (2.75 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
0 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0	
			3	48 /*72	48 /*64	48	36	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48	48	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	48	0	0	0	0	0	0	0	
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
		2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
		3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
1-10 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0	
			3	48 /*72	48 /*64	48	36	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48	48	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48		
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	36	
			2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0	
			3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0	
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	48	0	0	0	0	0	0	0	
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
		2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
		3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		

Table 9. Portrait Orientation - ASCE 7-05 - Edge Mounts (2.75 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
11-20 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0	
			3	48 /*72	48 /*64	48	36	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48	48	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	48	0	0	0	0	0	0	0	
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
		2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
		3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
21-30 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0	
			3	48 /*72	48 /*64	48	36	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48	48	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48		
			2	48 /*72	48 /*72	48 /*60	48	0	0	0		
			3	48	48	0	0	0	0	0		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	
			2	48 /*72	48 /*64	48	0	0	0	0	0	
			3	48	0	0	0	0	0	0	0	
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
		2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		
		3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0		

Table 10. Portrait Orientation - ASCE 7-05 - Edge Mounts (2.75 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
31-40 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0		
			3	48 /*72	48 /*64	48	36	0	0	0	0		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
			3	48 /*72	48 /*72	48	48	0	0	0	0		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0		
			3	48	48	0	0	0	0	0	0		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0		
			3	48	48	0	0	0	0	0	0		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0	
			2	48 /*72	48 /*64	48	0	0	0	0	0		
			3	36	0	0	0	0	0	0	0		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	
			2	48 /*72	48 /*64	48	0	0	0	0	0		
			3	48	0	0	0	0	0	0	0		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0			
		2	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0			
		3	48 /*72	48 /*72	48 /*72	48 /*60	48	36	0	0			
41-50 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	0	0		
			3	48 /*72	48 /*64	48	36	0	0	0	0		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	0		
			3	48 /*64	48 /*64	48	48	0	0	0	0		
		28 to 45 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48		
			3	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48		
			2	48 /*72	48 /*72	48 /*60	48	0	0	0	0		
			3	48	48	0	0	0	0	0	0		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	0	
			2	48 /*64	48 /*64	48 /*60	48	0	0	0	0		
			3	48	48	0	0	0	0	0	0		
		28 to 45 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	0		
			3	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	0		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	0		
			2	48 /*72	48 /*64	48	0	0	0	0	0		
			3	36	0	0	0	0	0	0	0		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	0	0	
			2	48 /*64	48 /*64	48	0	0	0	0	0		
			3	48	0	0	0	0	0	0	0		
28 to 45 Degrees		1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	0	0			
		2	48 /*64	48 /*64	48 /*64	48 /*60	48	36	0	0			
		3	48 /*64	48 /*64	48 /*64	48 /*60	48	36	0	0			

Table 11. Portrait Orientation - ASCE 7-05 - Edge Mounts (2.75 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
51-60 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48
			3	48	48	48	48	48	48	48	48	48
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	0
			2	48	48	48	48	48	48	48	36	0
			3	48	48	48	48	48	48	48	36	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	48	48	48	48	48	0	0	
		2	48	48	48	48	48	48	36	0	0	
		3	48	48	48	48	48	48	36	0	0	
61-70 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48
			3	48	48	48	48	48	48	48	48	48
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	0	0
			2	48	48	48	48	48	48	48	0	0
			3	48	48	48	48	48	48	48	0	0
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	0
			2	0	0	0	0	0	0	0	0	0
			3	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	48	48	48	48	48	0	0	
		2	48	48	48	48	48	48	48	0	0	
		3	48	48	48	48	48	48	48	0	0	

Table 12. Portrait Orientation - ASCE 7-05 - Edge Mounts (2.75 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
71-80 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	36	36
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	0	0	
			2	36	36	36	36	36	36	0	0	
			3	36	36	36	36	36	36	0	0	
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	36	36	36	36	36	0	0	0		
		2	36	36	36	36	36	0	0	0		
		3	36	36	36	36	36	0	0	0		
81-90 PSF	B	0 to 7 Degrees	1	0	0	0	0	0	0	0		
			2	0	0	0	0	0	0	0		
			3	0	0	0	0	0	0	0		
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	0	
			2	36	36	36	36	36	36	36	0	
			3	36	36	36	36	36	36	36	0	
	C	0 to 7 Degrees	1	0	0	0	0	0	0	0		
			2	0	0	0	0	0	0	0		
			3	0	0	0	0	0	0	0		
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	0	0	0	
			2	36	36	36	36	36	0	0	0	
			3	36	36	36	36	36	0	0	0	
	D	0 to 7 Degrees	1	0	0	0	0	0	0	0		
			2	0	0	0	0	0	0	0		
			3	0	0	0	0	0	0	0		
		8 to 27 Degrees	1	0	0	0	0	0	0	0	0	
			2	0	0	0	0	0	0	0	0	
			3	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	36	36	36	36	0	0	0	0		
		2	36	36	36	36	0	0	0	0		
		3	36	36	36	36	0	0	0	0		

Table 13. Landscape Orientation - ASCE 7-05 - Interior Mounts (3.29 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
0 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	64	64	64	48
			2	72	72	64	60	48	36	0	0	0
			3	64	48	36	36	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	64	60
			2	72	72	64	60	48	36	36	36	0
			3	64	60	48	36	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	64	60	48
			2	72	72	72	72	72	64	60	48	36
			3	72	72	72	72	64	60	48	48	36
	C	0 to 7 Degrees	1	72	72	72	64	64	48	48	36	
			2	64	60	48	36	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	64	48	48	48	36
			2	64	64	48	36	0	0	0	0	0
			3	48	36	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	64	60	48	36	36	36
			2	72	72	64	60	48	36	36	36	0
			3	72	72	64	60	48	36	36	36	0
	D	0 to 7 Degrees	1	72	72	64	64	48	36	36	0	
			2	60	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	64	48	48	48	36	36
			2	60	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	64	60	48	36	36	36	0	
		2	72	64	60	48	36	36	36	0	0	
		3	72	64	60	48	36	36	36	0	0	
1-10 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	64	64	64	48
			2	72	72	64	60	48	36	0	0	0
			3	64	48	36	36	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	64	60
			2	72	72	64	60	48	36	36	36	0
			3	64	60	48	36	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	64	60	48	48
			2	72	72	72	72	64	60	48	48	36
			3	72	72	72	72	64	60	48	48	36
	C	0 to 7 Degrees	1	72	72	72	64	64	48	48	36	
			2	64	60	48	36	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	64	48	48	48	36
			2	64	64	48	36	0	0	0	0	0
			3	48	36	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	64	60	48	48	36	36
			2	72	72	64	60	48	36	36	36	0
			3	72	72	64	60	48	36	36	36	0
	D	0 to 7 Degrees	1	72	72	64	64	48	36	36	0	
			2	60	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	64	48	48	48	36	36
			2	60	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	64	60	48	36	36	36	0	
		2	72	64	60	48	36	36	36	0	0	
		3	72	64	60	48	36	36	36	0	0	

Table 14. Landscape Orientation - ASCE 7-05 - Interior Mounts (3.29 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
11-20 PSF	B	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	48	
			2	64	64	64	60	48	36	0	0	0	
			3	64	48	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	64	60
			2	64	64	64	60	48	36	36	36	0	0
			3	64	60	48	36	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	64	64	60	48	48
			2	72	72	72	72	72	64	60	48	36	36
			3	72	72	72	72	72	64	60	48	36	36
	C	0 to 7 Degrees	1	64	64	64	64	64	64	48	48	36	
			2	64	60	48	36	0	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	64	64	48	48	36	
			2	64	64	48	36	0	0	0	0	0	
			3	48	36	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	64	64	60	48	36	36	36	
			2	72	72	64	60	48	36	36	36	0	
			3	72	72	64	60	48	36	36	36	0	
	D	0 to 7 Degrees	1	64	64	64	64	48	36	36	36	0	
			2	60	48	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	48	48	36	36	36	
			2	60	48	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	72	64	64	60	48	36	36	36	0		
		2	72	64	60	48	36	36	36	36	0		
		3	72	64	60	48	36	36	36	36	0		
21-30 PSF	B	0 to 7 Degrees	1	60	60	60	60	60	60	60	60	48	
			2	60	60	60	60	48	36	0	0	0	
			3	60	48	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	60	60	60	60	48	
			2	64	64	64	60	48	36	36	36	0	
			3	64	60	48	36	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	64	64	64	60	48	48	
			2	72	72	72	64	64	60	48	36	36	
			3	72	72	72	64	64	60	48	36	36	
	C	0 to 7 Degrees	1	60	60	60	60	60	48	48	48	36	
			2	60	60	48	36	0	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	60	60	60	48	48	48	36	
			2	64	64	48	36	0	0	0	0	0	
			3	48	36	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	64	64	60	48	48	36	36	
			2	72	72	64	60	48	36	36	36	0	
			3	72	72	64	60	48	36	36	36	0	
	D	0 to 7 Degrees	1	60	60	60	60	48	36	36	36	0	
			2	60	48	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	60	60	48	48	36	36	36	
			2	60	48	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	64	64	64	60	48	36	36	36	0		
		2	64	64	60	48	36	36	36	36	0		
		3	64	64	60	48	36	36	36	36	0		

Table 15. Landscape Orientation - ASCE 7-05 - Interior Mounts (3.29 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
31-40 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	36	0	0	
			3	48	48	36	36	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	36	0
			3	48	48	48	36	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	60	48	48
			2	64	64	64	64	64	64	60	48	36
			3	64	64	64	64	64	64	60	48	36
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	36
			2	48	48	48	36	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	36
			2	48	48	48	36	0	0	0	0	0
			3	48	36	0	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	60	48	48	48	36	36
			2	64	64	64	60	48	36	36	36	0
			3	64	64	64	60	48	36	36	36	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	36	36	0
			2	48	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	36	36
			2	48	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	60	48	48	48	36	36	0	
		2	64	64	60	48	36	36	36	0	0	
		3	64	64	60	48	36	36	36	0	0	
41-50 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	0	0
			3	48	48	36	36	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	36
			3	48	48	48	48	48	48	48	48	36
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	36
			3	48	48	48	48	48	48	48	48	36
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	36
			2	48	48	48	36	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	36
			2	48	48	48	36	0	0	0	0	0
			3	48	36	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	36	36
			2	48	48	48	48	48	48	36	36	0
			3	48	48	48	48	48	48	36	36	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	36	36	0
			2	48	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	36	36
			2	48	48	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	48	48	48	48	48	36	36	
		2	48	48	48	48	48	48	36	36	0	
		3	48	48	48	48	48	48	36	36	0	

Table 16. Landscape Orientation - ASCE 7-05 - Interior Mounts (3.29 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
51-60 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	0	0	0	
			3	36	36	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	0
			3	36	36	36	36	0	0	0	0	0	
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	36
			3	48	48	48	48	48	48	48	48	48	36
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	0	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	0	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	36	36
			2	48	48	48	48	48	48	36	36	36	0
			3	48	48	48	48	48	48	36	36	36	0
	D	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	0	
			2	36	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	0	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	48	48	48	48	48	48	36	36	36	0	
		2	48	48	48	48	48	36	36	36	0	0	
		3	48	48	48	48	48	36	36	36	0	0	
61-70 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	36	0	0	
			3	36	36	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	0
			3	36	36	36	36	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	36	36	36
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	0	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	0	0	0	0	0	0
			3	36	36	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	0
			3	36	36	36	36	36	36	36	36	36	0
	D	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	0	
			2	36	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	0	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	36	36	36	36	36	36	36	36	36	0	
		2	36	36	36	36	36	36	36	36	0	0	
		3	36	36	36	36	36	36	36	36	0	0	

Table 17. Landscape Orientation - ASCE 7-05 - Interior Mounts (3.29 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
71-80 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	36	0	0	
			3	36	36	36	36	36	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	0
			3	32	32	32	32	32	0	0	0	0	0
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	36	36	36
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	0	0	0	0	0
			3	32	32	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	0
			3	36	36	36	36	36	36	36	36	36	0
	D	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	0	
			2	36	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	0	0	0	0	0	0
			3	32	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	36	36	36	36	36	36	36	36	36	0	
		2	36	36	36	36	36	36	36	36	0	0	
		3	36	36	36	36	36	36	36	36	0	0	
81-90 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	24	36	
			2	36	36	36	36	36	36	36	0	0	
			3	36	36	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	0	0
			3	24	24	24	24	0	0	0	0	0	0
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	32
			3	32	32	32	32	32	32	32	32	32	32
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	0	0	0	0	0	
			3	36	36	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	0	0	0	0	0	0
			3	24	24	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	0
			3	32	32	32	32	32	32	32	32	32	0
	D	0 to 7 Degrees	1	36	36	24	36	36	36	36	36	0	
			2	36	36	24	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	0	0	0	0	0	0	0
			3	24	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	32	32	32	32	32	32	32	32	32	0	
		2	32	32	32	32	32	32	32	32	0	0	
		3	32	32	32	32	32	32	32	32	0	0	

Table 18. Landscape Orientation - ASCE 7-05 - Edge Mounts (1.65 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
0 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	0	72	
			2	72	72	72	72	72	72	72	0	0	
			3	72	72	72	64	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	64	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	0	0	0	0	0	0
			3	72	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	0	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	72	72	72	72	64	0	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0	
			2	72	72	72	0	0	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	0	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	0	0	
		2	72	72	72	72	72	72	64	0	0	0	
		3	72	72	72	72	72	72	64	0	0	0	
1-10 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	0
			3	72	72	72	64	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	64	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	0	0	0	0	0	0
			3	72	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	0	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	72	72	72	72	64	0	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0	
			2	72	72	72	0	0	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	0	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	0	0	
		2	72	72	72	72	72	72	64	0	0	0	
		3	72	72	72	72	72	72	64	0	0	0	

Table 19. Landscape Orientation - ASCE 7-05 - Edge Mounts (1.65 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
11-20 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	0	72	
			2	72	72	72	72	72	72	72	0	0	
			3	72	72	72	64	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	64	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	0	0	0	0	0	
			3	72	64	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	0	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	72	72	72	72	64	0	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0	
			2	72	72	72	0	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	0	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	0	0	
		2	72	72	72	72	72	72	64	0	0	0	
		3	72	72	72	72	72	72	64	0	0	0	
21-30 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	
			3	72	72	72	64	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	64	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	0	0	0	0	0	
			3	72	64	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	0	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0	0
			3	72	72	72	72	72	72	72	64	0	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0	
			2	72	72	72	0	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	0	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	0	0	
		2	72	72	72	72	72	72	64	0	0	0	
		3	72	72	72	72	72	72	64	0	0	0	

Table 20. Landscape Orientation - ASCE 7-05 - Edge Mounts (1.65 ft Tributary Width)												
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)								
				85	90	100	110	120	130	140	150	
31-40 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	0	72
			2	72	72	72	72	72	72	0	0	
			3	72	72	72	64	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0
			3	72	72	72	64	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	0	0	0	0	0
			3	72	64	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0
			3	72	72	72	72	72	72	72	64	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0
			2	72	72	72	0	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	0	
		2	72	72	72	72	72	72	64	0	0	
		3	72	72	72	72	72	72	64	0	0	
41-50 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	0	0
			3	72	72	72	64	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0
			3	72	72	72	64	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	0	0	0	0	0
			3	72	64	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	64	64	48
			2	72	72	72	72	0	0	0	0	0
			3	72	72	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	64	0
			3	72	72	72	72	72	72	72	64	0
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	64	0
			2	72	72	72	0	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	64	64	48	48
			2	72	72	72	0	0	0	0	0	0
			3	72	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	48	0	
		2	72	72	72	72	72	72	64	0	0	
		3	72	72	72	72	72	72	64	0	0	

Table 21. Landscape Orientation - ASCE 7-05 - Edge Mounts (1.65 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
51-60 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	0	0	
			3	48	48	48	48	48	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	0
			3	48	48	48	48	48	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64	48
			2	72	72	72	72	72	72	72	72	64	0
			3	72	72	72	72	72	72	72	72	64	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	0
			2	48	48	48	48	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	64	48	0	
		2	72	72	72	72	72	72	72	64	0	0	
		3	72	72	72	72	72	72	72	64	0	0	
61-70 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	48	0	
			3	48	48	48	48	48	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	0
			3	48	48	48	48	48	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	0	0	0	0	
			3	48	48	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	64	48	48
			2	72	72	72	72	72	72	72	64	48	0
			3	72	72	72	72	72	72	72	64	48	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	0
			2	48	48	48	48	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	64	48	48	0	
		2	72	72	72	72	72	72	64	48	0	0	
		3	72	72	72	72	72	72	64	48	0	0	

Table 22. Landscape Orientation - ASCE 7-05 - Edge Mounts (1.65 ft Tributary Width)													
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)									
				85	90	100	110	120	130	140	150		
71-80 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	0	0	
			3	48	48	48	48	48	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	0
			3	48	48	48	48	48	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	64
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	64	64	64	48	48	48
			2	72	72	72	72	64	64	64	48	48	0
			3	72	72	72	72	64	64	64	48	48	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	0
			2	48	48	48	0	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	0	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	64	64	64	48	48	48	0	
		2	72	72	72	64	64	64	48	48	48	0	
		3	72	72	72	64	64	64	48	48	48	0	
81-90 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	0	0	
			3	48	48	48	48	48	0	0	0	0	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	0	0
			3	48	48	48	48	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	64	64	64	48
			2	64	64	64	64	64	64	64	64	64	48
			3	64	64	64	64	64	64	64	64	64	48
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	0	0	0	0	0	0
			3	48	48	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	48	48	48	48
			2	64	64	64	64	64	64	48	48	48	0
			3	64	64	64	64	64	64	48	48	48	0
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	0
			2	48	48	48	0	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	0	0	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	64	64	64	64	48	48	48	0	
		2	64	64	64	64	64	64	48	48	48	0	
		3	64	64	64	64	64	64	48	48	48	0	

Table 23. Portrait Orientation - ASCE 7-10 - Interior Mounts (5.5 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
0 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36
			2	48 /*60	48	48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36
			2	48 /*60	48	48	36	36	36	32	24	24	16	
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	36
			2	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*64	48 /*64	48	48	36	36	32	24	
			2	36	36	36	32**	24**	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	48 /*64	48 /*60	48	48	48	36	36	32	24	24	
			2	48	48	48	36	36	36	32	24	24	16	
			3	48	48	48	36	36	36	32	24	24	16	
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	48	48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	48 /*64	48 /*64	48	48	48	36	36	32	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	48	48	48	36	36	36	32	24	24	16		
		2	48	36	36	36	36	24	24	24	16	16		
		3	48	36	36	36	36	24	24	24	16	16		
1-15 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	
			2	48 /*60	48	48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36
			2	48 /*60	48	48	36	36	36	32	24	24	16	
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	
			2	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*64	48 /*64	48	48	36	36	32	24	
			2	36	36	36	32**	24**	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	48 /*64	48 /*60	48	48	48	36	36	32	24	24	
			2	48	48	48	36	36	36	32	24	24	16	
			3	48	48	48	36	36	36	32	24	24	16	
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	48	48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	48 /*64	48 /*64	48	48	48	36	36	32	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	48	48	48	36	36	36	32	24	24	16		
		2	48	36	36	36	36	24	24	24	16	16		
		3	48	36	36	36	36	24	24	24	16	16		

Table 24. Portrait Orientation - ASCE 7-10 - Interior Mounts (5.5 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
16-20 PSF	B	0 to 7 Degrees	1	48/*64	48/*64	48/*64	48/*64	48/*64	48/*64	48/*64	48/*60	48	36	36
			2	48/*60	48	48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48	48	36
			2	48/*60	48	48	36	36	36	32	24	24	16	
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	48/*64	48/*64	48/*64	48/*64	48/*64	48/*64	48/*60	48	36	36	36
			2	48/*64	48/*64	48/*64	48/*60	48	48	36	36	32	24	24
			3	48/*64	48/*64	48/*64	48/*60	48	48	36	36	32	24	24
	C	0 to 7 Degrees	1	48/*64	48/*64	48/*64	48/*60	48	48	36	36	32	24	
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	48/*60	48/*60	48/*60	48/*60	48	48	36	36	32	24	
			2	36	36	36	32**	24**	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	48/*64	48/*60	48	48	48	36	36	32	24	24	
			2	48	48	48	36	36	36	32	24	24	16	
			3	48	48	48	36	36	36	32	24	24	16	
	D	0 to 7 Degrees	1	48/*64	48/*60	48	48	48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	48/*60	48/*60	48	48	48	36	36	32	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	48	48	48	36	36	36	32	24	24	16		
		2	48	36	36	36	36	24	24	24	16	16		
		3	48	36	36	36	36	24	24	24	16	16		
21-25 PSF	B	0 to 7 Degrees	1	48/*64	48/*64	48/*64	48/*64	48/*64	48/*64	48/*64	48/*60	48	36	36
			2	48/*60	48	48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48	48	36
			2	48/*60	48	48	36	36	36	32	24	24	16	
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48/*60	48	36	36	36
			2	48/*60	48/*60	48/*60	48/*60	48	48	36	36	32	24	24
			3	48/*60	48/*60	48/*60	48/*60	48	48	36	36	32	24	24
	C	0 to 7 Degrees	1	48/*64	48/*64	48/*64	48/*60	48	48	36	36	32	24	
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	48/*60	48/*60	48/*60	48/*60	48	48	36	36	32	24	
			2	36	36	36	32**	24**	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	48/*60	48/*60	48	48	48	36	36	32	24	24	
			2	48	48	48	36	36	36	32	24	24	16	
			3	48	48	48	36	36	36	32	24	24	16	
	D	0 to 7 Degrees	1	48/*64	48/*60	48	48	48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	48/*60	48/*60	48	48	48	36	36	32	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	48	48	48	36	36	36	32	24	24	16		
		2	48	36	36	36	36	24	24	24	16	16		
		3	48	36	36	36	36	24	24	24	16	16		

Table 25. Portrait Orientation - ASCE 7-10 - Interior Mounts (5.5 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
26-30 PSF	B	0 to 7 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	36	
			2	48 /*60	48	48	36	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	16	12	
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	36	36
			2	48	48	48	36	36	36	36	32	24	24	16	
			3	36	36	32	24	24	24	16	16	16	16	12	
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	36	36	36	36
			2	48	48	48	48	48	48	48	36	36	32	24	
			3	48	48	48	48	48	48	48	36	36	32	24	
	C	0 to 7 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*60	48	48	36	36	32	24		
			2	36	36	36	32	24	24	16	16	16	12		
			3	24	24	16	16	16	16	12	12	0	0		
		8 to 27 Degrees	1	48	48	48	48	48	48	48	36	36	32	24	
			2	36	36	36	32**	24**	24	16	16	16	16		
			3	24	24	24	16	16	16	12	12	12	0		
		28 to 45 Degrees	1	48	48	48	48	48	48	36	36	32	24	24	
			2	48	48	48	36	36	36	32	24	24	16		
			3	48	48	48	36	36	36	32	24	24	16		
	D	0 to 7 Degrees	1	48 /*64	48 /*60	48	48	48	36	32	24	24	24		
			2	36	32	24	24	24	16	16	16	12	12		
			3	16	16	16	16	16	12	12	0	0	0		
		8 to 27 Degrees	1	48	48	48	48	48	36	36	32	24	24		
			2	36	32	24	24	24	16	16	16	12	12		
			3	24	16	16	16	16	12	12	0	0	0		
28 to 45 Degrees		1	48	48	48	36	36	36	32	24	24	16			
		2	48	36	36	36	36	24	24	24	16	16			
		3	48	36	36	36	36	24	24	24	16	16			
31-35 PSF	B	0 to 7 Degrees	1	36 /*60	36 /*60	36 /*60	36 /*60	36 /*60	36 /*60	36 /*60	36 /*60	36 /*48	36	36	
			2	36 /*60	36 /*48	36 /*48	36	36	36	32	24	24	16		
			3	36	32	32	24	24	16	16	16	16	12		
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	32	24	24	16		
			3	36	36	32	24	24	24	16	16	16	12		
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	36	36	36	32	24	
			3	36	36	36	36	36	36	36	36	36	32	24	
	C	0 to 7 Degrees	1	36 /*60	36 /*60	36 /*60	36 /*60	36 /*48	36 /*48	36	36	32	24		
			2	36	36	36	32	24	24	16	16	16	12		
			3	24	24	16	16	16	16	12	12	0	0		
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	32	24	
			2	36	36	36	32	24	24	16	16	16	16		
			3	24	24	24	16	16	16	12	12	12	0		
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	32	24	24	
			2	36	36	36	36	36	36	36	32	24	24	16	
			3	36	36	36	36	36	36	36	32	24	24	16	
	D	0 to 7 Degrees	1	36 /*60	36 /*60	36 /*48	36 /*48	36 /*48	36	32	24	24	24		
			2	36	32	24	24	24	16	16	16	12	12		
			3	16	16	16	16	16	12	12	0	0	0		
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	32	24	24	
			2	36	32	24	24	24	16	16	16	12	12		
			3	24	16	16	16	16	12	12	0	0	0		
28 to 45 Degrees		1	36	36	36	36	36	36	36	32	24	24	16		
		2	36	36	36	36	36	36	24	24	24	16	16		
		3	36	36	36	36	36	36	24	24	24	16	16		

Table 26. Portrait Orientation - ASCE 7-10 - Interior Mounts (5.5 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
36-40 PSF	B	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	
			2	36 /*48	36 /*48	36 /*48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	32	24	24	16
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	32	24
			3	36	36	36	36	36	36	36	36	36	32	24
	C	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	32	24
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	32	24
			2	36	36	36	32	24	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	32	24	24
			2	36	36	36	36	36	36	36	32	24	24	16
			3	36	36	36	36	36	36	36	32	24	24	16
	D	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	32	24	24
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	36	36	36	36	36	36	36	32	24	24	16	
		2	36	36	36	36	36	36	24	24	24	16	16	
		3	36	36	36	36	36	36	24	24	24	16	16	
41-45 PSF	B	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	
			2	36 /*48	36 /*48	36 /*48	36	36	36	32	24	24	16	
			3	36	32	32	24	24	16	16	16	16	12	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	32	24	24	16
			3	36	36	32	24	24	24	16	16	16	12	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	32	24
			3	36	36	36	36	36	36	36	36	36	32	24
	C	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	32	24
			2	36	36	36	32	24	24	16	16	16	12	
			3	24	24	16	16	16	16	12	12	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	32	24
			2	36	36	36	32	24	24	16	16	16	16	
			3	24	24	24	16	16	16	12	12	12	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	32	24	24
			2	36	36	36	36	36	36	36	32	24	24	16
			3	36	36	36	36	36	36	36	32	24	24	16
	D	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	32	24	24	24	
			2	36	32	24	24	24	16	16	16	12	12	
			3	16	16	16	16	16	12	12	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	32	24	24
			2	36	32	24	24	24	16	16	16	12	12	
			3	24	16	16	16	16	12	12	0	0	0	
28 to 45 Degrees		1	36	36	36	36	36	36	36	32	24	24	16	
		2	36	36	36	36	36	36	24	24	24	16	16	
		3	36	36	36	36	36	36	24	24	24	16	16	

Table 27. Portrait Orientation - ASCE 7-10 - Interior Mounts (5.5 ft Tributary Width)																
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)												
				110	115	120	125	130	140	150	160	170	180			
46-50 PSF	B	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36		
			2	36 /*48	36 /*48	36 /*48	36	36	36	32	24	24	16	16		
			3	36	32	32	24	24	16	16	16	16	16	12	12	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	24	24	16	16
			3	32	32	32	24	24	24	16	16	16	16	16	12	12
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	32	32	32	24
			3	32	32	32	32	32	32	32	32	32	32	32	32	24
	C	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	36	32	24	24	
			2	36	36	36	32	24	24	16	16	16	16	16	12	
			3	24	24	16	16	16	16	12	12	12	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32	32	32	24
			2	32	32	32	32	24	24	16	16	16	16	16	16	16
			3	24	24	24	16	16	16	12	12	12	12	12	0	0
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32	24	24	24
			2	32	32	32	32	32	32	32	32	32	24	24	16	16
			3	32	32	32	32	32	32	32	32	32	24	24	16	16
	D	0 to 7 Degrees	1	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36 /*48	36	32	24	24	24	24	
			2	36	32	24	24	24	24	16	16	16	12	12	12	
			3	16	16	16	16	16	16	12	12	0	0	0	0	
		8 to 27 Degrees	1	32	32	32	32	32	32	32	32	32	32	24	24	0
			2	32	32	24	24	24	24	16	16	16	16	12	12	0
			3	24	16	16	16	16	16	12	12	0	0	0	0	
28 to 45 Degrees		1	32	32	32	32	32	32	32	32	32	24	24	16	16	
		2	32	32	32	32	32	32	24	24	24	24	16	16	16	
		3	32	32	32	32	32	32	24	24	24	24	16	16	16	

Table 28. Portrait Orientation - ASCE 7-10 - Edge Mounts (2.75 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
0 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*72	48 /*64	48 /*60		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
1-15 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	32	24			
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*72	48 /*64	48 /*60		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	24	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			

Table 29. Portrait Orientation - ASCE 7-10 - Edge Mounts (2.75 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
16-20 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
21-25 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	32	24			
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	24	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			

Table 30. Portrait Orientation - ASCE 7-10 - Edge Mounts (2.75 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
26-30 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*64	48 /*60	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
31-35 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72		
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	32	24			
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*64	48 /*60	
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	48	36	36	32	24	24	24	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			

Table 31. Portrait Orientation - ASCE 7-10 - Edge Mounts (2.75 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
36-40 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48 /*64	48 /*60		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*72	48 /*64	48 /*60		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48		
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
41-45 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
			3	48 /*72	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48 /*64	48 /*60		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*72	48 /*64	48 /*60		
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	36	32		
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48		
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	48	36		
			3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	48	36		
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48		
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	48	36	36	36	32	24	24	16	16	16		
28 to 45 Degrees		1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36		
		2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			
		3	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*60	48	48	36	36			

Table 32. Portrait Orientation - ASCE 7-10 - Edge Mounts (2.75 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
46-50 PSF	B	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	
			2	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48	48	36	
			3	48 /*72	48 /*64	48 /*64	48 /*60	48	36	36	36	32	24		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48	48	36	
			3	48 /*64	48 /*64	48 /*64	48 /*60	48	48	36	36	32	24		
		28 to 45 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	
			3	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	
	C	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	
			2	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	36	36	32	24		
			3	48	48	36	36	36	32	24	24	16	16		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	36	36	36	36	32	
			3	48	48	48	36	36	32	24	24	24	16		
		28 to 45 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48
			2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48	48	36	
			3	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48	48	36	
	D	0 to 7 Degrees	1	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*72	48 /*64	48 /*60	48	48	
			2	48 /*72	48 /*64	48 /*60	48	48	36	36	32	24	24		
			3	36	36	36	32	32	24	24	16	16	16		
		8 to 27 Degrees	1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48	0
			2	48 /*64	48 /*64	48 /*60	48	48	36	36	32	24	24	0	
			3	48	36	36	36	32	24	24	16	16	0		
28 to 45 Degrees		1	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48	48	36		
		2	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	48	36	36			
		3	48 /*64	48 /*64	48 /*64	48 /*64	48 /*64	48 /*60	48	48	36	36			

Table 33. Landscape Orientation - ASCE 7-10 - Interior Mounts (3.29 ft Tributary Width)															
3	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
0 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	64	64	
			2	72	72	72	64	64	60	48	36	36	0	0	
			3	60	48	48	48	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	64	60	48	48	36	36	0	0
			3	64	60	48	48	48	36	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64	64	64	60
			2	72	72	72	72	72	72	72	64	64	48	48	48
			3	72	72	72	72	72	72	72	64	64	48	48	48
	C	0 to 7 Degrees	1	72	72	72	72	72	72	64	64	60	48	48	
			2	64	64	60	48	48	36	0	0	0	0	0	
			3	36	36	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	64	64	48	48	
			2	64	64	60	48	48	36	36	0	0	0	0	
			3	48	36	36	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	72	64	64	48	48	36	36
			2	72	72	72	72	64	60	48	36	36	36	36	36
			3	72	72	72	72	64	60	48	36	36	36	36	36
	D	0 to 7 Degrees	1	72	72	72	72	64	64	48	48	36	36	36	
			2	60	48	48	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	64	60	48	48	48	36	36
			2	60	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	64	64	60	48	48	36	36	36	36	
		2	72	72	64	64	60	48	36	36	0	0	0	0	
		3	72	72	64	64	60	48	36	36	0	0	0	0	
1-15 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	64	64	
			2	72	72	72	64	64	60	48	36	36	36	0	0
			3	60	48	48	48	36	36	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	64	64	64
			2	72	72	72	72	64	60	48	48	36	36	36	36
			3	64	60	48	48	48	36	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64	64	64	60
			2	72	72	72	72	72	72	64	64	48	48	48	48
			3	72	72	72	72	72	72	64	64	48	48	48	48
	C	0 to 7 Degrees	1	72	72	72	72	72	72	64	64	60	48	48	
			2	64	64	60	48	48	36	0	0	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	64	64	64	48	48	48
			2	64	64	60	48	48	36	36	0	0	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	64	64	48	48	36	36
			2	72	72	72	72	64	60	48	36	36	36	36	36
			3	72	72	72	72	64	60	48	36	36	36	36	36
	D	0 to 7 Degrees	1	72	72	72	72	64	64	48	48	36	36	36	
			2	60	48	48	36	36	0	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	64	64	60	48	48	48	36	36
			2	60	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	64	64	60	48	48	36	36	36	36	
		2	72	72	64	64	60	48	36	36	0	0	0	0	
		3	72	72	64	64	60	48	36	36	0	0	0	0	

Table 34. Landscape Orientation - ASCE 7-10 - Interior Mounts (3.29 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
16-20 PSF	B	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	64	64	64	
			2	64	64	64	64	64	64	60	48	36	36	0	
			3	60	48	48	48	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	64	64	64	64
			2	64	64	64	64	64	64	60	48	48	36	36	0
			3	64	60	48	48	48	36	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64	64	64	60
			2	72	72	72	72	72	72	72	72	64	64	48	48
			3	72	72	72	72	72	72	72	72	64	64	48	48
	C	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	60	48	48	
			2	64	64	60	48	48	36	0	0	0	0	0	
			3	36	36	36	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	60	48	48	0
			2	64	64	60	48	48	36	36	0	0	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	64	64	64	48	48	48	36	36
			2	72	72	72	72	64	64	60	48	36	36	36	36
			3	72	72	72	72	64	64	60	48	36	36	36	36
	D	0 to 7 Degrees	1	64	64	64	64	64	64	64	48	48	36	36	
			2	60	48	48	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	64	64	64	60	48	48	36	36
			2	60	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	64	64	64	60	48	48	36	36	0	0	
		2	72	72	64	64	60	48	36	36	0	0	0	0	
		3	72	72	64	64	60	48	36	36	0	0	0	0	
21-25 PSF	B	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	64	64	64	
			2	64	64	64	64	64	64	60	48	36	36	0	
			3	60	48	48	48	36	36	0	0	0	0	0	
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	64	64	64	60
			2	64	64	64	64	64	64	60	48	48	36	36	0
			3	64	60	48	48	48	36	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	64	64	64	60
			2	72	72	72	72	72	72	72	72	64	64	48	48
			3	72	72	72	72	72	72	72	72	64	64	48	48
	C	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	60	48	48	
			2	64	64	60	48	48	36	0	0	0	0	0	
			3	36	36	36	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	60	48	48	0
			2	64	64	60	48	48	36	36	0	0	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	64	64	64	60	48	48	48	36	36
			2	72	72	72	64	64	60	48	36	36	36	36	36
			3	72	72	72	64	64	60	48	36	36	36	36	36
	D	0 to 7 Degrees	1	64	64	64	64	64	64	64	48	48	36	36	
			2	60	48	48	36	36	0	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	64	64	60	60	48	48	36	36
			2	60	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	64	64	64	64	64	60	48	48	36	36	36	
		2	72	64	64	64	64	60	48	36	36	0	0	0	
		3	72	64	64	64	64	60	48	36	36	0	0	0	

Table 35. Landscape Orientation - ASCE 7-10 - Interior Mounts (3.29 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
26-30 PSF	B	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	64	64	64
			2	64	64	64	64	64	64	60	48	36	36	0
			3	60	48	48	48	36	36	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	64	64	64	64	60	60	60
			2	64	64	64	64	64	64	60	48	48	36	36
			3	64	60	48	48	48	36	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	64	64	64	64	60
			2	72	72	72	72	72	72	64	64	64	48	48
			3	72	72	72	72	72	72	64	64	64	48	48
	C	0 to 7 Degrees	1	64	64	64	64	64	64	64	64	60	48	48
			2	64	64	60	48	48	36	0	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	64	64	60	60	60	48	48	48	48
			2	64	64	60	48	48	36	36	0	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	64	64	64	64	60	48	48	48	36
			2	72	72	64	64	64	60	48	36	36	36	36
			3	72	72	64	64	64	60	48	36	36	36	36
	D	0 to 7 Degrees	1	64	64	64	64	64	64	64	48	48	36	36
			2	60	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	64	64	60	60	60	60	60	48	48	48	36
			2	60	48	48	48	36	36	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	64	64	64	60	48	48	36	36	36	
		2	64	64	64	64	60	48	36	36	0	0	0	
		3	64	64	64	64	60	48	36	36	0	0	0	
31-35 PSF	B	0 to 7 Degrees	1	60	60	60	60	60	60	60	60	60	60	60
			2	60	60	60	60	60	60	60	48	36	36	0
			3	60	48	48	48	36	36	0	0	0	0	0
		8 to 27 Degrees	1	60	60	60	60	60	60	60	60	48	48	48
			2	60	60	60	60	60	60	60	48	48	36	36
			3	60	60	48	48	48	36	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	64	64	64	60	60
			2	72	72	72	72	72	72	64	64	64	48	48
			3	72	72	72	72	72	72	64	64	64	48	48
	C	0 to 7 Degrees	1	60	60	60	60	60	60	60	60	60	48	48
			2	60	60	60	48	48	36	0	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	60	60	60	60	60	60	48	48	48	48	48
			2	60	60	60	48	48	36	36	0	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	60	60	48	48	48	36
			2	64	64	64	64	64	60	48	36	36	36	36
			3	64	64	64	64	64	60	48	36	36	36	36
	D	0 to 7 Degrees	1	60	60	60	60	60	60	60	48	48	36	36
			2	60	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	60	60	60	48	48	48	48	48	48	48	36
			2	60	48	48	48	36	36	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	64	64	64	60	60	48	48	36	36	
		2	64	64	64	64	64	60	48	36	36	0	0	
		3	64	64	64	64	60	48	36	36	0	0	0	

Table 36. Landscape Orientation - ASCE 7-10 - Interior Mounts (3.29 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
36-40 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	36	36	0
			3	48	48	48	48	48	36	36	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	36	36
			3	48	48	48	48	48	48	36	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	64	64	60	60	48
			2	64	64	64	64	64	64	64	64	60	48	48
			3	64	64	64	64	64	64	64	64	60	48	48
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	36	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	60	48	48	48	36
			2	64	64	64	64	64	64	60	48	36	36	36
			3	64	64	64	64	64	64	60	48	36	36	36
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	36	36
			2	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	36
			2	48	48	48	48	48	36	36	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	64	60	60	48	48	48	36	36	0	
		2	64	64	64	60	60	48	36	36	0	0	0	
		3	64	64	64	60	60	48	36	36	0	0	0	
40-50 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	36	36	0
			3	48	48	48	48	48	36	36	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	36	36
			3	48	48	48	48	48	48	36	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	48	48
			3	48	48	48	48	48	48	48	48	48	48	48
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	36	36	0	0	0
			3	48	36	36	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	48	48	48	48	48	48	48	48	48	48	36
			2	48	48	48	48	48	48	48	48	36	36	36
			3	48	48	48	48	48	48	48	48	36	36	36
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	36	36
			2	48	48	48	36	36	0	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	36
			2	48	48	48	48	48	36	36	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	48	48	48	48	48	48	48	48	48	36	36	
		2	48	48	48	48	48	48	48	36	36	0	0	
		3	48	48	48	48	48	48	48	36	36	0	0	

Table 37. Landscape Orientation - ASCE 7-10 - Interior Mounts (3.29 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
51-70 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	36	36	36	36	0	
			3	36	36	36	36	36	36	36	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	0	0	0	0	
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	36	36	36	36	36
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	0	0	0	0	0	
			3	36	36	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	0	0	0	0
			3	36	36	36	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	36	36	36	36	36
			3	36	36	36	36	36	36	36	36	36	36	36	36
	D	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	36
			2	36	36	36	36	36	36	36	0	0	0	0	0
			3	36	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	36	36	36	36	36	36	36	36	36	36	36	36	
		2	36	36	36	36	36	36	36	36	36	0	0	0	
		3	36	36	36	36	36	36	36	36	36	0	0	0	
71-90 PSF	B	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	36	36	36	36	0	
			3	36	36	36	36	36	36	36	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	24	24	24	24
			3	24	24	24	24	24	24	24	0	0	0	0	0
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	32	32	32
			3	32	32	32	32	32	32	32	32	32	32	32	32
	C	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	0	0	0	0	0	
			3	36	36	36	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	0	0	0	0
			3	24	24	24	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	32	32	32	32	32	32	32	32	32	32	32	32
			2	32	32	32	32	32	32	32	32	32	32	32	32
			3	32	32	32	32	32	32	32	32	32	32	32	32
	D	0 to 7 Degrees	1	36	36	36	36	36	36	36	36	36	36	36	
			2	36	36	36	36	36	36	0	0	0	0	0	
			3	36	0	0	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	24	24	24	24	24	24	24	24	24	24	24	24
			2	24	24	24	24	24	24	24	24	0	0	0	0
			3	24	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	32	32	32	32	32	32	32	32	32	32	32	32	
		2	32	32	32	32	32	32	32	32	32	32	0	0	
		3	32	32	32	32	32	32	32	32	32	0	0	0	

Table 38. Landscape Orientation - ASCE 7-10 - Edge Mounts (1.65 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
0 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	0	
			3	72	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	0	0	
			3	72	72	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	72	72	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	72	0	0	
1-15 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	0	
			3	72	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	0	0	
			3	72	72	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	72	72	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	72	0	0	

Table 39. Landscape Orientation - ASCE 7-10 - Edge Mounts (1.65 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
16-20 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	0	
			3	72	72	72	72	72	72	64	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	0	0	
			3	72	72	64	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	72	72	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	64	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	0	0	0	
		3	72	72	72	72	72	72	72	72	72	0	0	0	
21-25 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	0	
			3	72	72	72	72	72	72	64	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	0	0	0	0	
			3	72	72	64	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	72	72	0	0	0	0	0	
			3	64	0	0	0	0	0	0	0	0	0	0	
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	64	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	0	0	0	

Table 40. Landscape Orientation - ASCE 7-10 - Edge Mounts (1.65 ft Tributary Width)														
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)										
				110	115	120	125	130	140	150	160	170	180	
26-30 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	0
			3	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	0	0	
31-35 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	0
			3	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	0	0	

Table 41. Landscape Orientation - ASCE 7-10 - Edge Mounts (1.65 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
36-40 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	0	
			3	72	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	
			2	72	72	72	72	72	72	72	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	72	64	
		2	72	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	72	0	0	
40-50 PSF	B	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	72	72	72	0
			3	72	72	72	72	72	72	72	64	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	
			2	72	72	72	72	72	72	72	72	0	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	64
			2	72	72	72	72	72	72	72	72	64	0	0	0
			3	72	72	64	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	64
			3	72	72	72	72	72	72	72	72	72	72	72	64
	D	0 to 7 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	64
			2	72	72	72	72	72	72	72	0	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	72	72	72	72	72	72	72	72	64	64	64	48
			2	72	72	72	72	72	72	72	64	0	0	0	0
			3	64	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	72	64	64	
		2	72	72	72	72	72	72	72	72	72	72	0	0	
		3	72	72	72	72	72	72	72	72	72	72	0	0	

Table 42. Landscape Orientation - ASCE 7-10 - Edge Mounts (1.65 ft Tributary Width)															
Snow Load	Exposure Category	Roof Angle	Roof Zone	Basic Wind Speed, V (mph)											
				110	115	120	125	130	140	150	160	170	180		
51-70 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	48	48	48	0	
			3	48	48	48	48	48	48	48	48	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	48	48	48
			3	48	48	48	48	48	48	48	48	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	72	72
			2	72	72	72	72	72	72	72	72	72	72	72	72
			3	72	72	72	72	72	72	72	72	72	72	72	72
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	0	0	0	0	
			3	48	48	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	0	0	0
			3	48	48	48	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	72	72	72	72	72	72	72	72	72	72	64	48
			2	72	72	72	72	72	72	72	72	72	72	64	48
			3	72	72	72	72	72	72	72	72	72	72	64	48
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	0	0	0	0	0	
			3	48	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	72	72	72	72	72	72	72	72	72	64	48	48	
		2	72	72	72	72	72	72	72	72	72	64	0	0	
		3	72	72	72	72	72	72	72	72	72	64	0	0	
71-90 PSF	B	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	48	48	48	0	
			3	48	48	48	48	48	48	48	48	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	48	48	48
			3	48	48	48	48	48	48	48	48	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	64	64	64	64	64	64
			2	64	64	64	64	64	64	64	64	64	64	64	64
			3	64	64	64	64	64	64	64	64	64	64	64	64
	C	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	
			2	48	48	48	48	48	48	48	0	0	0	0	
			3	48	48	48	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	48	0	0	0
			3	48	48	48	0	0	0	0	0	0	0	0	0
		28 to 45 Degrees	1	64	64	64	64	64	64	64	64	64	48	48	48
			2	64	64	64	64	64	64	64	64	64	48	48	48
			3	64	64	64	64	64	64	64	64	64	48	48	48
	D	0 to 7 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	0	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0	0	0
		8 to 27 Degrees	1	48	48	48	48	48	48	48	48	48	48	48	48
			2	48	48	48	48	48	48	48	48	0	0	0	0
			3	48	0	0	0	0	0	0	0	0	0	0	0
28 to 45 Degrees		1	64	64	64	64	64	64	64	64	48	48	48	48	
		2	64	64	64	64	64	64	64	64	48	48	0	0	
		3	64	64	64	64	64	64	64	64	48	48	0	0	

Table 43. Ridge Extension Spacing - ASCE 7-10					
Up To 130 MPH Wind Speed, 30 psf Ground Snow Load & Roof Zones 1 and 2					
	Roof Angle	Ridge Extension Type	Wind Exposure 'B'	Wind Exposure 'C'	Wind Exposure 'D'
Portrait Orientation	0 to 7 Degrees	Std Interior	48 /*60	36	36
		Std Edge	48 /*72	48 /*72	48 /*72
		1 Course Edge	48 /*64	48	36
		2 Course Edge	48	32	24
	8 to 27 Degrees	Std Interior	48	36	36
		Std Edge	48 /*72	48 /*72	48 /*72
		1 Course Edge	48 /*64	48	36
		2 Course Edge	48	32	24
Landscape Orientation	0 to 7 Degrees	Std Interior	64	48	48
		Std Edge	72	72	72
		1 Course Edge	72	72	64
		2 Course Edge	72	48	36
	8 to 27 Degrees	Std Interior	64	48	48
		Std Edge	72	72	72
		1 Course Edge	72	72	64
		2 Course Edge	72	48	48

Please see diagrams RE1 through RE3, below for sketches pertaining to the ridge extension types, Standard (Std) Interior and Edge, 1 course Edge and 2 courses Edge respectively.

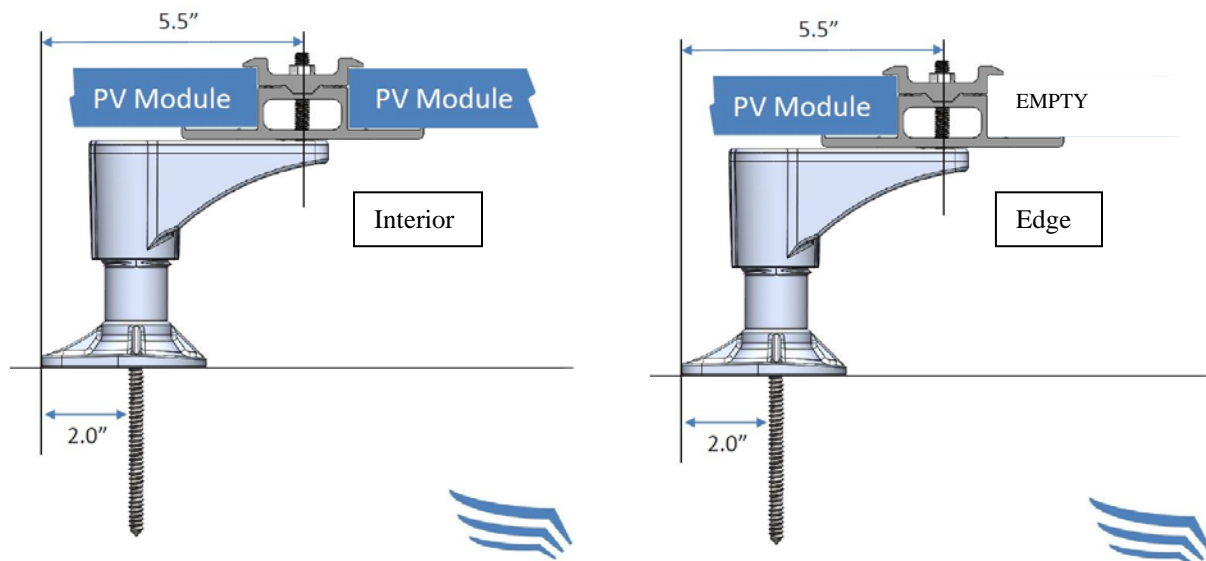


Diagram RE1. Standard Interior has PV Modules on Both Sides, Standard Edge has PV Module on One Side Only (Arm Facing Up Slope and Base Facing Down Slope).

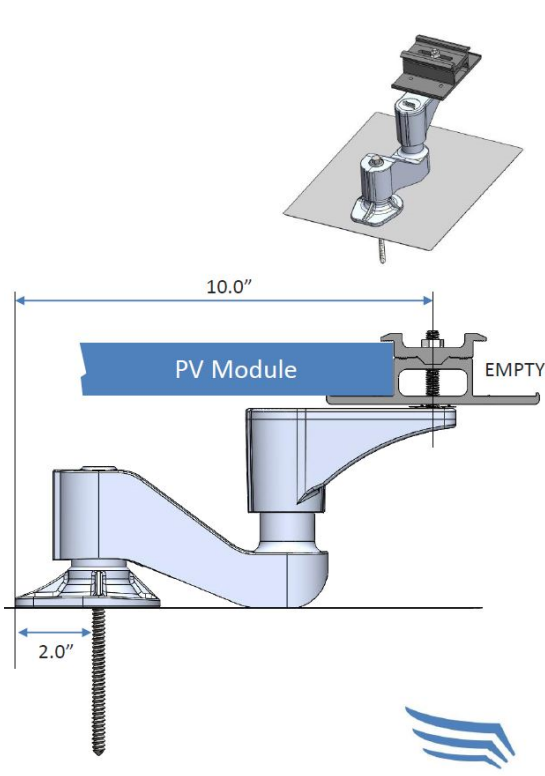


Diagram RE2. 1 Course (Modules One Side with Arm and Extension Facing Up Slope and Base Down Slope).

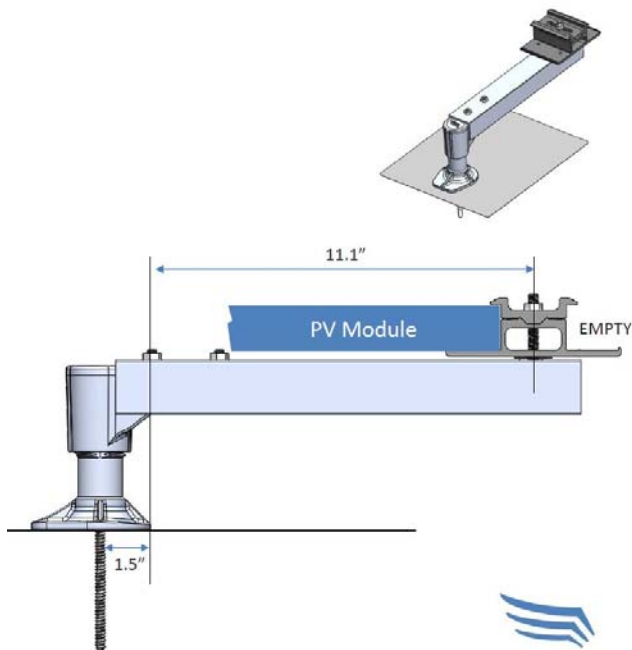


Diagram RE3. 2 Courses (Modules One Side with Arm and Double Extension Facing Up Slope and Base Down Slope).