

11/17/2017

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

RE: Quick Mount PV TRM System for use with  
Unirac Solarmount Flush-to-Roof Rail System

SEI Project No.: 17054.00

Dear Mr. Green

Structural Enginuity Inc. (SEI) has completed its review of the Quickmount PV Tile Replacement Mount System for use in conjunction with the Unirac Solarmount Flush-to-Roof Rail System. The TRM product line includes the option of a 4.5" and 5.5" post.

The review was based on the following reference data:

- Unirac, Design & Engineering Guide – Solarmount: Flush-to-Roof Design, May 19, 2016
- Construction Testing Services, Quick Mount PV Load Testing – Tile Replacement Mount [QMPV# 1-28-2016-Rev C], Job Number 11304, April 29, 2016
- Construction Testing Services, Quick Mount PV Load Testing – Tile Replacement Mount [QMPV# 1-28-2016-Rev C], Job Number 11304, January 6, 2017
- Structural Enginuity, Inc., Quick Mount PV Tile Replacement Mount, Project Number 16411.00, November 16, 2016
- Structural Enginuity, Inc., Quick Mount PV Tile Replacement Mount 5.5" Extension Post TRM Assembly Certification, Project Number 16473.00, January 11, 2017

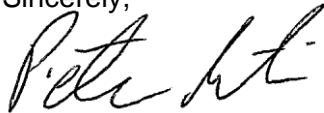
SEI has determined that the Tile Replacement Mount is suitable for use with the Unirac Solarmount System. The approved installation and allowable loads for the Quick Mount PV TRM products is outlined in the Structural Enginuity, Inc. letters referenced above. The allowable load values are shown below, no additional load duration factors may be applied to these values.

| Table 1: TRM Allowable Loads |             |                |
|------------------------------|-------------|----------------|
| Load Direction               | Post Height | Allowable Load |
| Uplift                       | 4.5"        | 623            |
|                              | 5.5"        | 623            |
| Lateral                      | 4.5"        | 197            |
|                              | 5.5"        | 195            |
| Compression                  | 4.5"        | 659            |
|                              | 5.5"        | 659            |

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

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

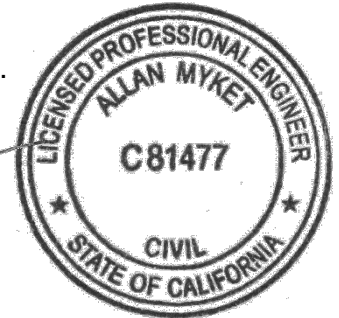
Sincerely,



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



Allan T. Myket, P.E.  
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11/28/2017

**Structural Enginuity Inc.**

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 1A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |    |    |    |                           |     |     |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |                           |     |     |    |    |    |
|----------------------|------------------------------------|--|-----|-----|----|----|----|---------------------------|-----|-----|----|----|--|---------------------------|-----|-----|----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |  | Roof Wind Pressure Zone 3 |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |  | Ground Snow Load (psf)    |     |     |    |    |    |
|                      |                                    | 0  | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50   | 0                         | 10  | 20  | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 100 | 72 | 56 | 46 | 132                       | 132 | 100 | 72 | 56 | 46   | 102                       | 102 | 100 | 72 | 56 | 46 |
|                      | 115                                | 150  | 132 | 100 | 72 | 56 | 46 | 120                       | 120 | 100 | 72 | 56 | 46   | 92                        | 92  | 92  | 72 | 56 | 46 |
|                      | 120                                | 150  | 132 | 100 | 72 | 56 | 46 | 120                       | 120 | 100 | 72 | 56 | 46   | 84                        | 84  | 84  | 72 | 56 | 46 |
|                      | 130                                | 150  | 132 | 100 | 72 | 56 | 46 | 108                       | 108 | 100 | 72 | 56 | 46   | 71                        | 71  | 71  | 71 | 56 | 46 |
|                      | 140                                | 132  | 132 | 100 | 72 | 56 | 46 | 95                        | 95  | 95  | 72 | 56 | 46   | 61                        | 61  | 61  | 61 | 56 | 46 |
|                      | 150                                | 132  | 132 | 100 | 72 | 56 | 46 | 82                        | 82  | 82  | 72 | 56 | 46   | 52                        | 52  | 52  | 52 | 52 | 46 |
|                      | 160                                | 120  | 120 | 100 | 72 | 56 | 46 | 72                        | 72  | 72  | 72 | 56 | 46   | 46                        | 46  | 46  | 46 | 46 | 46 |
|                      | 170                                | 120  | 120 | 100 | 72 | 56 | 46 | 63                        | 63  | 63  | 63 | 56 | 46   | 40                        | 40  | 40  | 40 | 40 | 40 |
|                      | 180                                | 108  | 108 | 96  | 72 | 56 | 46 | 56                        | 56  | 56  | 56 | 56 | 46   | 36                        | 36  | 36  | 36 | 36 | 36 |
|                      | 200                                | 88   | 88  | 88  | 72 | 56 | 46 | 45                        | 45  | 45  | 45 | 45 | 45   | 29                        | 29  | 29  | 29 | 29 | 29 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 1B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |                           |     |    |    |    |    |
|----------------------|------------------------------------|--|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                      |                                    | 0  | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 99 | 71 | 56 | 46 | 132                       | 132 | 99 | 71 | 56 | 46   | 102                       | 102 | 99 | 71 | 56 | 46 |
|                      | 115                                | 150  | 132 | 99 | 71 | 56 | 46 | 120                       | 120 | 99 | 71 | 56 | 46   | 92                        | 92  | 92 | 71 | 56 | 46 |
|                      | 120                                | 150  | 132 | 99 | 71 | 56 | 46 | 120                       | 120 | 99 | 71 | 56 | 46   | 84                        | 84  | 84 | 71 | 56 | 46 |
|                      | 130                                | 150  | 132 | 99 | 71 | 56 | 46 | 108                       | 108 | 99 | 71 | 56 | 46   | 71                        | 71  | 71 | 71 | 56 | 46 |
|                      | 140                                | 132  | 132 | 99 | 71 | 56 | 46 | 95                        | 95  | 95 | 71 | 56 | 46   | 61                        | 61  | 61 | 61 | 56 | 46 |
|                      | 150                                | 132  | 132 | 99 | 71 | 56 | 46 | 82                        | 82  | 82 | 71 | 56 | 46   | 52                        | 52  | 52 | 52 | 52 | 46 |
|                      | 160                                | 120  | 120 | 99 | 71 | 56 | 46 | 72                        | 72  | 72 | 71 | 56 | 46   | 46                        | 46  | 46 | 46 | 46 | 46 |
|                      | 170                                | 120  | 120 | 99 | 71 | 56 | 46 | 63                        | 63  | 63 | 63 | 56 | 46   | 40                        | 40  | 40 | 40 | 40 | 40 |
|                      | 180                                | 108  | 108 | 96 | 71 | 56 | 46 | 56                        | 56  | 56 | 56 | 56 | 46   | 36                        | 36  | 36 | 36 | 36 | 36 |
|                      | 200                                | 88   | 88  | 88 | 71 | 56 | 46 | 45                        | 45  | 45 | 45 | 45 | 45   | 29                        | 29  | 29 | 29 | 29 | 29 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 2A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |    |    |    |                           |     |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |    |    |    |    |    |
|----------------------|------------------------------------|--|-----|-----|----|----|----|---------------------------|-----|-----|----|----|----|--|----|----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |    | Roof Wind Pressure Zone 3                        |    |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |    | Ground Snow Load (psf)                           |    |    |    |    |    |
|                      |                                    | 0  | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50 | 0  | 10 | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 132 | 100 | 72 | 56 | 46 | 108                       | 108 | 100 | 72 | 56 | 46 | 71   | 71 | 71 | 71 | 56 | 46 |
|                      | 115                                | 132  | 132 | 100 | 72 | 56 | 46 | 101                       | 101 | 100 | 72 | 56 | 46 | 64   | 64 | 64 | 64 | 56 | 46 |
|                      | 120                                | 132  | 132 | 100 | 72 | 56 | 46 | 93                        | 93  | 93  | 72 | 56 | 46 | 59   | 59 | 59 | 59 | 56 | 46 |
|                      | 130                                | 132  | 132 | 100 | 72 | 56 | 46 | 78                        | 78  | 78  | 72 | 56 | 46 | 50   | 50 | 50 | 50 | 50 | 46 |
|                      | 140                                | 120  | 120 | 100 | 72 | 56 | 46 | 67                        | 67  | 67  | 67 | 56 | 46 | 43   | 43 | 43 | 43 | 43 | 43 |
|                      | 150                                | 114  | 114 | 97  | 72 | 56 | 46 | 58                        | 58  | 58  | 58 | 56 | 46 | 37   | 37 | 37 | 37 | 37 | 37 |
|                      | 160                                | 99   | 99  | 92  | 72 | 56 | 46 | 50                        | 50  | 50  | 50 | 50 | 46 | 32   | 32 | 32 | 32 | 32 | 32 |
|                      | 170                                | 87   | 87  | 87  | 72 | 56 | 46 | 44                        | 44  | 44  | 44 | 44 | 44 | 29   | 29 | 29 | 29 | 29 | 29 |
|                      | 180                                | 77   | 77  | 77  | 69 | 56 | 46 | 39                        | 39  | 39  | 39 | 39 | 39 | 25   | 25 | 25 | 25 | 25 | 25 |
|                      | 200                                | 61   | 61  | 61  | 61 | 54 | 46 | 32                        | 32  | 32  | 32 | 32 | 32 | 20   | 20 | 20 | 20 | 20 | 20 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 2B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |                           |    |    |    |    |    |
|----------------------|------------------------------------|--|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|----|----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |    |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |    |    |    |    |    |
|                      |                                    | 0  | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10 | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 132 | 99 | 71 | 56 | 46 | 108                       | 108 | 99 | 71 | 56 | 46   | 71                        | 71 | 71 | 71 | 56 | 46 |
|                      | 115                                | 132  | 132 | 99 | 71 | 56 | 46 | 101                       | 101 | 99 | 71 | 56 | 46   | 64                        | 64 | 64 | 64 | 56 | 46 |
|                      | 120                                | 132  | 132 | 99 | 71 | 56 | 46 | 93                        | 93  | 93 | 71 | 56 | 46   | 59                        | 59 | 59 | 59 | 56 | 46 |
|                      | 130                                | 132  | 132 | 99 | 71 | 56 | 46 | 78                        | 78  | 78 | 71 | 56 | 46   | 50                        | 50 | 50 | 50 | 50 | 46 |
|                      | 140                                | 120  | 120 | 99 | 71 | 56 | 46 | 67                        | 67  | 67 | 67 | 56 | 46   | 43                        | 43 | 43 | 43 | 43 | 43 |
|                      | 150                                | 114  | 114 | 97 | 71 | 56 | 46 | 58                        | 58  | 58 | 58 | 56 | 46   | 37                        | 37 | 37 | 37 | 37 | 37 |
|                      | 160                                | 99   | 99  | 92 | 71 | 56 | 46 | 50                        | 50  | 50 | 50 | 50 | 46   | 32                        | 32 | 32 | 32 | 32 | 32 |
|                      | 170                                | 87   | 87  | 87 | 71 | 56 | 46 | 44                        | 44  | 44 | 44 | 44 | 44   | 29                        | 29 | 29 | 29 | 29 | 29 |
|                      | 180                                | 77   | 77  | 77 | 69 | 56 | 46 | 39                        | 39  | 39 | 39 | 39 | 39   | 25                        | 25 | 25 | 25 | 25 | 25 |
|                      | 200                                | 61   | 61  | 61 | 61 | 54 | 46 | 32                        | 32  | 32 | 32 | 32 | 32   | 20                        | 20 | 20 | 20 | 20 | 20 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 3A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |    |    |    |                           |    |    |    |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |    |    |    |    |    |
|----------------------|------------------------------------|--|-----|-----|----|----|----|---------------------------|----|----|----|----|----|--|----|----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |    |    |    | Roof Wind Pressure Zone 2 |    |    |    |    |    | Roof Wind Pressure Zone 3                        |    |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |    |    |    | Ground Snow Load (psf)    |    |    |    |    |    | Ground Snow Load (psf)                           |    |    |    |    |    |
|                      |                                    | 0  | 10  | 20  | 30 | 40 | 50 | 0                         | 10 | 20 | 30 | 40 | 50 | 0  | 10 | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 132  | 132 | 100 | 72 | 56 | 46 | 93                        | 93 | 93 | 72 | 56 | 46 | 59   | 59 | 59 | 59 | 56 | 46 |
|                      | 115                                | 132  | 132 | 100 | 72 | 56 | 46 | 85                        | 85 | 85 | 72 | 56 | 46 | 54   | 54 | 54 | 54 | 54 | 46 |
|                      | 120                                | 132  | 132 | 100 | 72 | 56 | 46 | 77                        | 77 | 77 | 72 | 56 | 46 | 49   | 49 | 49 | 49 | 49 | 46 |
|                      | 130                                | 120  | 120 | 100 | 72 | 56 | 46 | 65                        | 65 | 65 | 65 | 56 | 46 | 42   | 42 | 42 | 42 | 42 | 42 |
|                      | 140                                | 108  | 108 | 96  | 72 | 56 | 46 | 56                        | 56 | 56 | 56 | 56 | 46 | 36   | 36 | 36 | 36 | 36 | 36 |
|                      | 150                                | 95   | 95  | 91  | 72 | 56 | 46 | 48                        | 48 | 48 | 48 | 48 | 46 | 31   | 31 | 31 | 31 | 31 | 31 |
|                      | 160                                | 82   | 82  | 82  | 70 | 56 | 46 | 42                        | 42 | 42 | 42 | 42 | 42 | 27   | 27 | 27 | 27 | 27 | 27 |
|                      | 170                                | 72   | 72  | 72  | 67 | 56 | 46 | 37                        | 37 | 37 | 37 | 37 | 37 | 24   | 24 | 24 | 24 | 24 | 24 |
|                      | 180                                | 64   | 64  | 64  | 64 | 55 | 46 | 33                        | 33 | 33 | 33 | 33 | 33 | 21   | 21 | 21 | 21 | 21 | 21 |
|                      | 200                                | 51   | 51  | 51  | 51 | 51 | 45 | 27                        | 27 | 27 | 27 | 27 | 27 | 17   | 17 | 17 | 17 | 17 | 17 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 3B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |    |    |    |    |                           |    |    |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |    |    |    |    |    |
|----------------------|------------------------------------|--|-----|----|----|----|----|---------------------------|----|----|----|----|----|--|----|----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |    |    |    |    | Roof Wind Pressure Zone 2 |    |    |    |    |    | Roof Wind Pressure Zone 3                        |    |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |    |    |    |    | Ground Snow Load (psf)    |    |    |    |    |    | Ground Snow Load (psf)                           |    |    |    |    |    |
|                      |                                    | 0  | 10  | 20 | 30 | 40 | 50 | 0                         | 10 | 20 | 30 | 40 | 50 | 0  | 10 | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 132  | 132 | 99 | 71 | 56 | 46 | 93                        | 93 | 93 | 71 | 56 | 46 | 59   | 59 | 59 | 59 | 56 | 46 |
|                      | 115                                | 132  | 132 | 99 | 71 | 56 | 46 | 85                        | 85 | 85 | 71 | 56 | 46 | 54   | 54 | 54 | 54 | 54 | 46 |
|                      | 120                                | 132  | 132 | 99 | 71 | 56 | 46 | 77                        | 77 | 77 | 71 | 56 | 46 | 49   | 49 | 49 | 49 | 49 | 46 |
|                      | 130                                | 120  | 120 | 99 | 71 | 56 | 46 | 65                        | 65 | 65 | 65 | 56 | 46 | 42   | 42 | 42 | 42 | 42 | 42 |
|                      | 140                                | 108  | 108 | 96 | 71 | 56 | 46 | 56                        | 56 | 56 | 56 | 56 | 46 | 36   | 36 | 36 | 36 | 36 | 36 |
|                      | 150                                | 95   | 95  | 91 | 71 | 56 | 46 | 48                        | 48 | 48 | 48 | 48 | 46 | 31   | 31 | 31 | 31 | 31 | 31 |
|                      | 160                                | 82   | 82  | 82 | 70 | 56 | 46 | 42                        | 42 | 42 | 42 | 42 | 42 | 27   | 27 | 27 | 27 | 27 | 27 |
|                      | 170                                | 72   | 72  | 72 | 67 | 56 | 46 | 37                        | 37 | 37 | 37 | 37 | 37 | 24   | 24 | 24 | 24 | 24 | 24 |
|                      | 180                                | 64   | 64  | 64 | 64 | 55 | 46 | 33                        | 33 | 33 | 33 | 33 | 33 | 21   | 21 | 21 | 21 | 21 | 21 |
|                      | 200                                | 51   | 51  | 51 | 51 | 51 | 45 | 27                        | 27 | 27 | 27 | 27 | 27 | 17   | 17 | 17 | 17 | 17 | 17 |

Notes:

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



**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 4A</b>             |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |                           |     |    |    |    |    |
|-----------------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>B</b>        | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                             |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                             |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| <b>Roofs &gt;27° to 45°</b> | 110                                | 132   | 128 | 81 | 59 | 47 | 39 | 132                       | 128 | 81 | 59 | 47 | 39   | 132                       | 128 | 81 | 59 | 47 | 39 |
|                             | 115                                | 132   | 128 | 81 | 59 | 47 | 39 | 132                       | 128 | 81 | 59 | 47 | 39   | 132                       | 128 | 81 | 59 | 47 | 39 |
|                             | 120                                | 132   | 128 | 81 | 59 | 47 | 39 | 132                       | 128 | 81 | 59 | 47 | 39   | 132                       | 128 | 81 | 59 | 47 | 39 |
|                             | 130                                | 132   | 128 | 81 | 59 | 47 | 39 | 132                       | 128 | 81 | 59 | 47 | 39   | 132                       | 128 | 81 | 59 | 47 | 39 |
|                             | 140                                | 120   | 120 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                             | 150                                | 120   | 120 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                             | 160                                | 113   | 112 | 81 | 59 | 47 | 39 | 104                       | 104 | 81 | 59 | 47 | 39   | 104                       | 104 | 81 | 59 | 47 | 39 |
|                             | 170                                | 102   | 102 | 81 | 59 | 47 | 39 | 91                        | 91  | 81 | 59 | 47 | 39   | 91                        | 91  | 81 | 59 | 47 | 39 |
|                             | 180                                | 92  | 92  | 81 | 59 | 47 | 39 | 81                        | 81  | 81 | 59 | 47 | 39   | 81                        | 81  | 81 | 59 | 47 | 39 |
|                             | 200                                | 77  | 77  | 72 | 59 | 47 | 39 | 65                        | 65  | 65 | 59 | 47 | 39   | 65                        | 65  | 65 | 59 | 47 | 39 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 4B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |                           |     |    |    |    |    |
|----------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                      |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 132   | 126 | 80 | 59 | 46 | 38 | 132                       | 126 | 80 | 59 | 46 | 38   | 132                       | 126 | 80 | 59 | 46 | 38 |
|                      | 115                                | 132   | 126 | 80 | 59 | 46 | 38 | 132                       | 126 | 80 | 59 | 46 | 38   | 132                       | 126 | 80 | 59 | 46 | 38 |
|                      | 120                                | 132   | 126 | 80 | 59 | 46 | 38 | 132                       | 126 | 80 | 59 | 46 | 38   | 132                       | 126 | 80 | 59 | 46 | 38 |
|                      | 130                                | 132   | 126 | 80 | 59 | 46 | 38 | 132                       | 126 | 80 | 59 | 46 | 38   | 132                       | 126 | 80 | 59 | 46 | 38 |
|                      | 140                                | 120   | 120 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38   | 120                       | 120 | 80 | 59 | 46 | 38 |
|                      | 150                                | 120   | 120 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38   | 120                       | 120 | 80 | 59 | 46 | 38 |
|                      | 160                                | 113   | 112 | 80 | 59 | 46 | 38 | 104                       | 104 | 80 | 59 | 46 | 38   | 104                       | 104 | 80 | 59 | 46 | 38 |
|                      | 170                                | 102   | 102 | 80 | 59 | 46 | 38 | 91                        | 91  | 80 | 59 | 46 | 38   | 91                        | 91  | 80 | 59 | 46 | 38 |
|                      | 180                                | 92  | 92  | 80 | 59 | 46 | 38 | 81                        | 81  | 80 | 59 | 46 | 38   | 81                        | 81  | 80 | 59 | 46 | 38 |
|                      | 200                                | 77  | 77  | 72 | 59 | 46 | 38 | 65                        | 65  | 65 | 59 | 46 | 38   | 65                        | 65  | 65 | 59 | 46 | 38 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 5A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |                           |     |    |    |    |    |
|----------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                      |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 132   | 128 | 81 | 59 | 47 | 39 | 132                       | 128 | 81 | 59 | 47 | 39   | 132                       | 128 | 81 | 59 | 47 | 39 |
|                      | 115                                | 132   | 128 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                      | 120                                | 120   | 120 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                      | 130                                | 120   | 118 | 81 | 59 | 47 | 39 | 108                       | 108 | 81 | 59 | 47 | 39   | 108                       | 108 | 81 | 59 | 47 | 39 |
|                      | 140                                | 107   | 107 | 81 | 59 | 47 | 39 | 97                        | 97  | 81 | 59 | 47 | 39   | 97                        | 97  | 81 | 59 | 47 | 39 |
|                      | 150                                | 95  | 95  | 81 | 59 | 47 | 39 | 83                        | 83  | 81 | 59 | 47 | 39   | 83                        | 83  | 81 | 59 | 47 | 39 |
|                      | 160                                | 85  | 85  | 77 | 59 | 47 | 39 | 73                        | 73  | 73 | 59 | 47 | 39   | 73                        | 73  | 73 | 59 | 47 | 39 |
|                      | 170                                | 76  | 76  | 71 | 59 | 47 | 39 | 64                        | 64  | 64 | 59 | 47 | 39   | 64                        | 64  | 64 | 59 | 47 | 39 |
|                      | 180                                | 69  | 69  | 66 | 59 | 47 | 39 | 57                        | 57  | 57 | 57 | 47 | 39   | 57                        | 57  | 57 | 57 | 47 | 39 |
|                      | 200                                | 55  | 55  | 55 | 52 | 47 | 39 | 45                        | 45  | 45 | 45 | 45 | 39   | 45                        | 45  | 45 | 45 | 45 | 39 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 5B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |                           |     |    |    |    |    |
|----------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                      |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 132   | 126 | 80 | 59 | 46 | 38 | 132                       | 126 | 80 | 59 | 46 | 38   | 132                       | 126 | 80 | 59 | 46 | 38 |
|                      | 115                                | 132   | 126 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38   | 120                       | 120 | 80 | 59 | 46 | 38 |
|                      | 120                                | 120   | 120 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38   | 120                       | 120 | 80 | 59 | 46 | 38 |
|                      | 130                                | 120   | 118 | 80 | 59 | 46 | 38 | 108                       | 108 | 80 | 59 | 46 | 38   | 108                       | 108 | 80 | 59 | 46 | 38 |
|                      | 140                                | 107   | 107 | 80 | 59 | 46 | 38 | 97                        | 97  | 80 | 59 | 46 | 38   | 97                        | 97  | 80 | 59 | 46 | 38 |
|                      | 150                                | 95  | 95  | 80 | 59 | 46 | 38 | 83                        | 83  | 80 | 59 | 46 | 38   | 83                        | 83  | 80 | 59 | 46 | 38 |
|                      | 160                                | 85  | 85  | 77 | 59 | 46 | 38 | 73                        | 73  | 73 | 59 | 46 | 38   | 73                        | 73  | 73 | 59 | 46 | 38 |
|                      | 170                                | 76  | 76  | 71 | 59 | 46 | 38 | 64                        | 64  | 64 | 59 | 46 | 38   | 64                        | 64  | 64 | 59 | 46 | 38 |
|                      | 180                                | 69  | 69  | 66 | 59 | 46 | 38 | 57                        | 57  | 57 | 57 | 46 | 38   | 57                        | 57  | 57 | 57 | 46 | 38 |
|                      | 200                                | 55  | 55  | 55 | 52 | 46 | 38 | 45                        | 45  | 45 | 45 | 45 | 38   | 45                        | 45  | 45 | 45 | 45 | 38 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 6A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    | Panel Orientation: Portrait<br>Post Height: 4.5" |                           |     |    |    |    |    |
|----------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|--|---------------------------|-----|----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |  | Roof Wind Pressure Zone 3 |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |  | Ground Snow Load (psf)    |     |    |    |    |    |
|                      |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50   | 0                         | 10  | 20 | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 120   | 120 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                      | 115                                | 120   | 120 | 81 | 59 | 47 | 39 | 120                       | 120 | 81 | 59 | 47 | 39   | 120                       | 120 | 81 | 59 | 47 | 39 |
|                      | 120                                | 120   | 117 | 81 | 59 | 47 | 39 | 108                       | 108 | 81 | 59 | 47 | 39   | 108                       | 108 | 81 | 59 | 47 | 39 |
|                      | 130                                | 105   | 105 | 81 | 59 | 47 | 39 | 95                        | 95  | 81 | 59 | 47 | 39   | 95                        | 95  | 81 | 59 | 47 | 39 |
|                      | 140                                | 92  | 92  | 81 | 59 | 47 | 39 | 81                        | 81  | 81 | 59 | 47 | 39   | 81                        | 81  | 81 | 59 | 47 | 39 |
|                      | 150                                | 82  | 82  | 75 | 59 | 47 | 39 | 70                        | 70  | 70 | 59 | 47 | 39   | 70                        | 70  | 70 | 59 | 47 | 39 |
|                      | 160                                | 73  | 73  | 69 | 59 | 47 | 39 | 61                        | 61  | 61 | 59 | 47 | 39   | 61                        | 61  | 61 | 59 | 47 | 39 |
|                      | 170                                | 65  | 65  | 64 | 57 | 47 | 39 | 53                        | 53  | 53 | 53 | 47 | 39   | 53                        | 53  | 53 | 53 | 47 | 39 |
|                      | 180                                | 57  | 57  | 57 | 53 | 47 | 39 | 47                        | 47  | 47 | 47 | 47 | 39   | 47                        | 47  | 47 | 47 | 47 | 39 |
|                      | 200                                | 46  | 46  | 46 | 46 | 43 | 39 | 38                        | 38  | 38 | 38 | 38 | 38   | 38                        | 38  | 38 | 38 | 38 | 38 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 6B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |    |    |    |    |                           |     |    |    |    |    | Panel Orientation: Portrait<br>Post Height: 5.5" |     |    |    |    |    |
|----------------------|------------------------------------|---|-----|----|----|----|----|---------------------------|-----|----|----|----|----|--|-----|----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |    |    |    |    | Roof Wind Pressure Zone 2 |     |    |    |    |    | Roof Wind Pressure Zone 3                        |     |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |    |    |    |    | Ground Snow Load (psf)    |     |    |    |    |    | Ground Snow Load (psf)                           |     |    |    |    |    |
|                      |                                    | 0   | 10  | 20 | 30 | 40 | 50 | 0                         | 10  | 20 | 30 | 40 | 50 | 0  | 10  | 20 | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 120   | 120 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38 | 120  | 120 | 80 | 59 | 46 | 38 |
|                      | 115                                | 120   | 120 | 80 | 59 | 46 | 38 | 120                       | 120 | 80 | 59 | 46 | 38 | 120  | 120 | 80 | 59 | 46 | 38 |
|                      | 120                                | 120   | 117 | 80 | 59 | 46 | 38 | 108                       | 108 | 80 | 59 | 46 | 38 | 108  | 108 | 80 | 59 | 46 | 38 |
|                      | 130                                | 105   | 105 | 80 | 59 | 46 | 38 | 95                        | 95  | 80 | 59 | 46 | 38 | 95   | 95  | 80 | 59 | 46 | 38 |
|                      | 140                                | 92  | 92  | 80 | 59 | 46 | 38 | 81                        | 81  | 80 | 59 | 46 | 38 | 81   | 81  | 80 | 59 | 46 | 38 |
|                      | 150                                | 82  | 82  | 75 | 59 | 46 | 38 | 70                        | 70  | 70 | 59 | 46 | 38 | 70   | 70  | 70 | 59 | 46 | 38 |
|                      | 160                                | 73  | 73  | 69 | 59 | 46 | 38 | 61                        | 61  | 61 | 59 | 46 | 38 | 61   | 61  | 61 | 59 | 46 | 38 |
|                      | 170                                | 65  | 65  | 64 | 57 | 46 | 38 | 53                        | 53  | 53 | 53 | 46 | 38 | 53   | 53  | 53 | 53 | 46 | 38 |
|                      | 180                                | 57  | 57  | 57 | 53 | 46 | 38 | 47                        | 47  | 47 | 47 | 46 | 38 | 47   | 47  | 47 | 47 | 46 | 38 |
|                      | 200                                | 46  | 46  | 46 | 46 | 43 | 38 | 38                        | 38  | 38 | 38 | 38 | 38 | 38   | 38  | 38 | 38 | 38 | 38 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 7A</b>            |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 4.5" |                           |     |     |     |    |    |
|----------------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|-----|-----|-----|----|----|
| Exposure<br><b>B</b>       | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |     |     |     |    |    |
|                            |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |     |     |     |    |    |
|                            |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10  | 20  | 30  | 40 | 50 |
| <b>Roofs &gt;7° to 27°</b> | 110                                | 150  | 150 | 150 | 115 | 89 | 73 | 150                       | 150 | 150 | 115 | 89 | 73  | 132                       | 132 | 132 | 115 | 89 | 73 |
|                            | 115                                | 150  | 150 | 150 | 115 | 89 | 73 | 150                       | 150 | 150 | 115 | 89 | 73  | 120                       | 120 | 120 | 115 | 89 | 73 |
|                            | 120                                | 150  | 150 | 150 | 115 | 89 | 73 | 132                       | 132 | 132 | 115 | 89 | 73  | 120                       | 120 | 120 | 115 | 89 | 73 |
|                            | 130                                | 150  | 150 | 150 | 115 | 89 | 73 | 132                       | 132 | 132 | 115 | 89 | 73  | 113                       | 113 | 113 | 113 | 89 | 73 |
|                            | 140                                | 150  | 150 | 150 | 115 | 89 | 73 | 132                       | 132 | 132 | 115 | 89 | 73  | 97                        | 97  | 97  | 97  | 89 | 73 |
|                            | 150                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 84                        | 84  | 84  | 84  | 84 | 73 |
|                            | 160                                | 150  | 150 | 132 | 115 | 89 | 73 | 114                       | 114 | 114 | 114 | 89 | 73  | 73                        | 73  | 73  | 73  | 73 | 73 |
|                            | 170                                | 132  | 132 | 132 | 115 | 89 | 73 | 100                       | 100 | 100 | 100 | 89 | 73  | 64                        | 64  | 64  | 64  | 64 | 64 |
|                            | 180                                | 132  | 132 | 132 | 115 | 89 | 73 | 89                        | 89  | 89  | 89  | 89 | 73  | 57                        | 57  | 57  | 57  | 57 | 57 |
|                            | 200                                | 120  | 120 | 120 | 115 | 89 | 73 | 71                        | 71  | 71  | 71  | 71 | 71  | 46                        | 46  | 46  | 46  | 46 | 46 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 7B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 5.5" |                           |     |     |     |    |    |
|----------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|-----|-----|-----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |     |     |     |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |     |     |     |    |    |
|                      |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10  | 20  | 30  | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 150 | 114 | 89 | 73 | 150                       | 150 | 150 | 114 | 89 | 73  | 132                       | 132 | 132 | 114 | 89 | 73 |
|                      | 115                                | 150  | 150 | 150 | 114 | 89 | 73 | 150                       | 150 | 150 | 114 | 89 | 73  | 120                       | 120 | 120 | 114 | 89 | 73 |
|                      | 120                                | 150  | 150 | 150 | 114 | 89 | 73 | 132                       | 132 | 132 | 114 | 89 | 73  | 120                       | 120 | 120 | 114 | 89 | 73 |
|                      | 130                                | 150  | 150 | 150 | 114 | 89 | 73 | 132                       | 132 | 132 | 114 | 89 | 73  | 113                       | 113 | 113 | 113 | 89 | 73 |
|                      | 140                                | 150  | 150 | 150 | 114 | 89 | 73 | 132                       | 132 | 132 | 114 | 89 | 73  | 97                        | 97  | 97  | 97  | 89 | 73 |
|                      | 150                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 84                        | 84  | 84  | 84  | 84 | 73 |
|                      | 160                                | 150  | 150 | 132 | 114 | 89 | 73 | 114                       | 114 | 114 | 114 | 89 | 73  | 73                        | 73  | 73  | 73  | 73 | 73 |
|                      | 170                                | 132  | 132 | 132 | 114 | 89 | 73 | 100                       | 100 | 100 | 100 | 89 | 73  | 64                        | 64  | 64  | 64  | 64 | 64 |
|                      | 180                                | 132  | 132 | 132 | 114 | 89 | 73 | 89                        | 89  | 89  | 89  | 89 | 73  | 57                        | 57  | 57  | 57  | 57 | 57 |
|                      | 200                                | 120  | 120 | 120 | 114 | 89 | 73 | 71                        | 71  | 71  | 71  | 71 | 71  | 46                        | 46  | 46  | 46  | 46 | 46 |

Notes:

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



**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 8A</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 4.5" |                           |     |     |     |    |    |
|----------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|-----|-----|-----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |     |     |     |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |     |     |     |    |    |
|                      |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10  | 20  | 30  | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 150 | 115 | 89 | 73 | 132                       | 132 | 132 | 115 | 89 | 73  | 113                       | 113 | 113 | 113 | 89 | 73 |
|                      | 115                                | 150  | 150 | 150 | 115 | 89 | 73 | 132                       | 132 | 132 | 115 | 89 | 73  | 103                       | 103 | 103 | 103 | 89 | 73 |
|                      | 120                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 94                        | 94  | 94  | 94  | 89 | 73 |
|                      | 130                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 79                        | 79  | 79  | 79  | 79 | 73 |
|                      | 140                                | 132  | 132 | 132 | 115 | 89 | 73 | 106                       | 106 | 106 | 106 | 89 | 73  | 68                        | 68  | 68  | 68  | 68 | 68 |
|                      | 150                                | 132  | 132 | 132 | 115 | 89 | 73 | 92                        | 92  | 92  | 92  | 89 | 73  | 59                        | 59  | 59  | 59  | 59 | 59 |
|                      | 160                                | 132  | 132 | 132 | 115 | 89 | 73 | 80                        | 80  | 80  | 80  | 80 | 73  | 52                        | 52  | 52  | 52  | 52 | 52 |
|                      | 170                                | 120  | 120 | 120 | 114 | 89 | 73 | 71                        | 71  | 71  | 71  | 71 | 71  | 46                        | 46  | 46  | 46  | 46 | 46 |
|                      | 180                                | 120  | 120 | 120 | 109 | 89 | 73 | 63                        | 63  | 63  | 63  | 63 | 63  | 41                        | 41  | 41  | 41  | 41 | 41 |
|                      | 200                                | 98   | 98  | 98  | 98  | 87 | 73 | 50                        | 50  | 50  | 50  | 50 | 50  | 33                        | 33  | 33  | 33  | 33 | 33 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 8B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 5.5" |                           |     |     |     |    |    |
|----------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|-----|-----|-----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |     |     |     |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |     |     |     |    |    |
|                      |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10  | 20  | 30  | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 150 | 114 | 89 | 73 | 132                       | 132 | 132 | 114 | 89 | 73  | 113                       | 113 | 113 | 113 | 89 | 73 |
|                      | 115                                | 150  | 150 | 150 | 114 | 89 | 73 | 132                       | 132 | 132 | 114 | 89 | 73  | 103                       | 103 | 103 | 103 | 89 | 73 |
|                      | 120                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 94                        | 94  | 94  | 94  | 89 | 73 |
|                      | 130                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 79                        | 79  | 79  | 79  | 79 | 73 |
|                      | 140                                | 132  | 132 | 132 | 114 | 89 | 73 | 106                       | 106 | 106 | 106 | 89 | 73  | 68                        | 68  | 68  | 68  | 68 | 68 |
|                      | 150                                | 132  | 132 | 132 | 114 | 89 | 73 | 92                        | 92  | 92  | 92  | 89 | 73  | 59                        | 59  | 59  | 59  | 59 | 59 |
|                      | 160                                | 132  | 132 | 132 | 114 | 89 | 73 | 80                        | 80  | 80  | 80  | 80 | 73  | 52                        | 52  | 52  | 52  | 52 | 52 |
|                      | 170                                | 120  | 120 | 120 | 114 | 89 | 73 | 71                        | 71  | 71  | 71  | 71 | 71  | 46                        | 46  | 46  | 46  | 46 | 46 |
|                      | 180                                | 120  | 120 | 120 | 109 | 89 | 73 | 63                        | 63  | 63  | 63  | 63 | 63  | 41                        | 41  | 41  | 41  | 41 | 41 |
|                      | 200                                | 98   | 98  | 98  | 98  | 87 | 73 | 50                        | 50  | 50  | 50  | 50 | 50  | 33                        | 33  | 33  | 33  | 33 | 33 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 9A</b>            |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 4.5" |                           |    |    |    |    |    |
|----------------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|----|----|----|----|----|
| Exposure<br><b>D</b>       | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |    |    |    |    |    |
|                            |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |    |    |    |    |    |
|                            |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10 | 20 | 30 | 40 | 50 |
| <b>Roofs &gt;7° to 27°</b> | 110                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 94                        | 94 | 94 | 94 | 89 | 73 |
|                            | 115                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 86                        | 86 | 86 | 86 | 86 | 73 |
|                            | 120                                | 150  | 150 | 132 | 115 | 89 | 73 | 120                       | 120 | 120 | 115 | 89 | 73  | 79                        | 79 | 79 | 79 | 79 | 73 |
|                            | 130                                | 132  | 132 | 132 | 115 | 89 | 73 | 104                       | 104 | 104 | 104 | 89 | 73  | 67                        | 67 | 67 | 67 | 67 | 67 |
|                            | 140                                | 132  | 132 | 132 | 115 | 89 | 73 | 89                        | 89  | 89  | 89  | 89 | 73  | 57                        | 57 | 57 | 57 | 57 | 57 |
|                            | 150                                | 132  | 132 | 132 | 115 | 89 | 73 | 77                        | 77  | 77  | 77  | 77 | 73  | 50                        | 50 | 50 | 50 | 50 | 50 |
|                            | 160                                | 120  | 120 | 120 | 112 | 89 | 73 | 67                        | 67  | 67  | 67  | 67 | 67  | 43                        | 43 | 43 | 43 | 43 | 43 |
|                            | 170                                | 115  | 115 | 115 | 107 | 89 | 73 | 59                        | 59  | 59  | 59  | 59 | 59  | 38                        | 38 | 38 | 38 | 38 | 38 |
|                            | 180                                | 102  | 102 | 102 | 102 | 88 | 73 | 53                        | 53  | 53  | 53  | 53 | 53  | 34                        | 34 | 34 | 34 | 34 | 34 |
|                            | 200                                | 82   | 82  | 82  | 82  | 81 | 72 | 42                        | 42  | 42  | 42  | 42 | 42  | 28                        | 28 | 28 | 28 | 28 | 28 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 9B</b>      |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $7 < \theta \leq 27$ degrees |     |     |     |    |    |                           |     |     |     |    | Panel Orientation: Landscape<br>Post Height: 5.5" |                           |    |    |    |    |    |
|----------------------|------------------------------------|--|-----|-----|-----|----|----|---------------------------|-----|-----|-----|----|---|---------------------------|----|----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1  |     |     |     |    |    | Roof Wind Pressure Zone 2 |     |     |     |    |   | Roof Wind Pressure Zone 3 |    |    |    |    |    |
|                      |                                    | Ground Snow Load (psf)   |     |     |     |    |    | Ground Snow Load (psf)    |     |     |     |    |   | Ground Snow Load (psf)    |    |    |    |    |    |
|                      |                                    | 0  | 10  | 20  | 30  | 40 | 50 | 0                         | 10  | 20  | 30  | 40 | 50  | 0                         | 10 | 20 | 30 | 40 | 50 |
| Roofs >7° to 27°     | 110                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 94                        | 94 | 94 | 94 | 89 | 73 |
|                      | 115                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 86                        | 86 | 86 | 86 | 86 | 73 |
|                      | 120                                | 150  | 150 | 132 | 114 | 89 | 73 | 120                       | 120 | 120 | 114 | 89 | 73  | 79                        | 79 | 79 | 79 | 79 | 73 |
|                      | 130                                | 132  | 132 | 132 | 114 | 89 | 73 | 104                       | 104 | 104 | 104 | 89 | 73  | 67                        | 67 | 67 | 67 | 67 | 67 |
|                      | 140                                | 132  | 132 | 132 | 114 | 89 | 73 | 89                        | 89  | 89  | 89  | 89 | 73  | 57                        | 57 | 57 | 57 | 57 | 57 |
|                      | 150                                | 132  | 132 | 132 | 114 | 89 | 73 | 77                        | 77  | 77  | 77  | 77 | 73  | 50                        | 50 | 50 | 50 | 50 | 50 |
|                      | 160                                | 120  | 120 | 120 | 112 | 89 | 73 | 67                        | 67  | 67  | 67  | 67 | 67  | 43                        | 43 | 43 | 43 | 43 | 43 |
|                      | 170                                | 115  | 115 | 115 | 107 | 89 | 73 | 59                        | 59  | 59  | 59  | 59 | 59  | 38                        | 38 | 38 | 38 | 38 | 38 |
|                      | 180                                | 102  | 102 | 102 | 102 | 88 | 73 | 53                        | 53  | 53  | 53  | 53 | 53  | 34                        | 34 | 34 | 34 | 34 | 34 |
|                      | 200                                | 82   | 82  | 82  | 82  | 81 | 72 | 42                        | 42  | 42  | 42  | 42 | 42  | 28                        | 28 | 28 | 28 | 28 | 28 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 10A</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    |    | Panel Orientation: Landscape<br>Post Height: 4.5" |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|----|---|-----|-----|----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |    | Roof Wind Pressure Zone 3                         |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |    | Ground Snow Load (psf)                            |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50 | 0   | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62 | 150   | 150 | 129 | 95 | 75 | 62 |
|                      | 115                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62 | 150   | 150 | 129 | 95 | 75 | 62 |
|                      | 120                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62 | 150   | 150 | 129 | 95 | 75 | 62 |
|                      | 130                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62 | 150   | 150 | 129 | 95 | 75 | 62 |
|                      | 140                                | 150   | 150 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 150                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 160                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 170                                | 132   | 132 | 129 | 95 | 75 | 62 | 120                       | 120 | 120 | 95 | 75 | 62 | 120   | 120 | 120 | 95 | 75 | 62 |
|                      | 180                                | 120   | 120 | 120 | 95 | 75 | 62 | 120                       | 120 | 120 | 95 | 75 | 62 | 120   | 120 | 120 | 95 | 75 | 62 |
|                      | 200                                | 120   | 120 | 115 | 95 | 75 | 62 | 103                       | 103 | 103 | 95 | 75 | 62 | 103   | 103 | 103 | 95 | 75 | 62 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 10B</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    | Panel Orientation: Landscape<br>Post Height: 5.5" |                           |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|---|---------------------------|-----|-----|----|----|----|
| Exposure<br><b>B</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |   | Roof Wind Pressure Zone 3 |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |   | Ground Snow Load (psf)    |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50  | 0                         | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 115                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 120                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 130                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 140                                | 150   | 150 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 150                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 160                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 170                                | 132   | 132 | 128 | 94 | 74 | 61 | 120                       | 120 | 120 | 94 | 74 | 61  | 120                       | 120 | 120 | 94 | 74 | 61 |
|                      | 180                                | 120   | 120 | 120 | 94 | 74 | 61 | 120                       | 120 | 120 | 94 | 74 | 61  | 120                       | 120 | 120 | 94 | 74 | 61 |
|                      | 200                                | 120   | 120 | 115 | 94 | 74 | 61 | 103                       | 103 | 103 | 94 | 74 | 61  | 103                       | 103 | 103 | 94 | 74 | 61 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 11A</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    | Panel Orientation: Landscape<br>Post Height: 4.5" |                           |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|---|---------------------------|-----|-----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |   | Roof Wind Pressure Zone 3 |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |   | Ground Snow Load (psf)    |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50  | 0                         | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62  | 150                       | 150 | 129 | 95 | 75 | 62 |
|                      | 115                                | 150   | 150 | 129 | 95 | 75 | 62 | 150                       | 150 | 129 | 95 | 75 | 62  | 150                       | 150 | 129 | 95 | 75 | 62 |
|                      | 120                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62  | 132                       | 132 | 129 | 95 | 75 | 62 |
|                      | 130                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62  | 132                       | 132 | 129 | 95 | 75 | 62 |
|                      | 140                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62  | 132                       | 132 | 129 | 95 | 75 | 62 |
|                      | 150                                | 132   | 132 | 129 | 95 | 75 | 62 | 120                       | 120 | 120 | 95 | 75 | 62  | 120                       | 120 | 120 | 95 | 75 | 62 |
|                      | 160                                | 120   | 120 | 120 | 95 | 75 | 62 | 116                       | 116 | 116 | 95 | 75 | 62  | 116                       | 116 | 116 | 95 | 75 | 62 |
|                      | 170                                | 120   | 120 | 114 | 95 | 75 | 62 | 102                       | 102 | 102 | 95 | 75 | 62  | 102                       | 102 | 102 | 95 | 75 | 62 |
|                      | 180                                | 108   | 108 | 106 | 94 | 75 | 62 | 90                        | 90  | 90  | 90 | 75 | 62  | 90                        | 90  | 90  | 90 | 75 | 62 |
|                      | 200                                | 88  | 88  | 88  | 83 | 75 | 62 | 72                        | 72  | 72  | 72 | 72 | 62  | 72                        | 72  | 72  | 72 | 72 | 62 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 11B</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    | Panel Orientation: Landscape<br>Post Height: 5.5" |                           |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|---|---------------------------|-----|-----|----|----|----|
| Exposure<br><b>C</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |   | Roof Wind Pressure Zone 3 |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |   | Ground Snow Load (psf)    |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50  | 0                         | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 115                                | 150   | 150 | 128 | 94 | 74 | 61 | 150                       | 150 | 128 | 94 | 74 | 61  | 150                       | 150 | 128 | 94 | 74 | 61 |
|                      | 120                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 130                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 140                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61  | 132                       | 132 | 128 | 94 | 74 | 61 |
|                      | 150                                | 132   | 132 | 128 | 94 | 74 | 61 | 120                       | 120 | 120 | 94 | 74 | 61  | 120                       | 120 | 120 | 94 | 74 | 61 |
|                      | 160                                | 120   | 120 | 120 | 94 | 74 | 61 | 116                       | 116 | 116 | 94 | 74 | 61  | 116                       | 116 | 116 | 94 | 74 | 61 |
|                      | 170                                | 120   | 120 | 114 | 94 | 74 | 61 | 102                       | 102 | 102 | 94 | 74 | 61  | 102                       | 102 | 102 | 94 | 74 | 61 |
|                      | 180                                | 108   | 108 | 106 | 94 | 74 | 61 | 90                        | 90  | 90  | 90 | 74 | 61  | 90                        | 90  | 90  | 90 | 74 | 61 |
|                      | 200                                | 88  | 88  | 88  | 83 | 74 | 61 | 72                        | 72  | 72  | 72 | 72 | 61  | 72                        | 72  | 72  | 72 | 72 | 61 |

Notes:

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



**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 12A</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    |    | Panel Orientation: Landscape<br>Post Height: 4.5" |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|----|---|-----|-----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |    | Roof Wind Pressure Zone 3                         |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |    | Ground Snow Load (psf)                            |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50 | 0   | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 115                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 120                                | 132   | 132 | 129 | 95 | 75 | 62 | 132                       | 132 | 129 | 95 | 75 | 62 | 132   | 132 | 129 | 95 | 75 | 62 |
|                      | 130                                | 132   | 132 | 129 | 95 | 75 | 62 | 120                       | 120 | 120 | 95 | 75 | 62 | 120   | 120 | 120 | 95 | 75 | 62 |
|                      | 140                                | 120   | 120 | 120 | 95 | 75 | 62 | 120                       | 120 | 120 | 95 | 75 | 62 | 120   | 120 | 120 | 95 | 75 | 62 |
|                      | 150                                | 120   | 120 | 120 | 95 | 75 | 62 | 108                       | 108 | 108 | 95 | 75 | 62 | 108   | 108 | 108 | 95 | 75 | 62 |
|                      | 160                                | 116   | 116 | 110 | 95 | 75 | 62 | 97                        | 97  | 97  | 95 | 75 | 62 | 97  | 97  | 97  | 95 | 75 | 62 |
|                      | 170                                | 103   | 103 | 102 | 91 | 75 | 62 | 85                        | 85  | 85  | 85 | 75 | 62 | 85  | 85  | 85  | 85 | 75 | 62 |
|                      | 180                                | 92  | 92  | 92  | 85 | 75 | 62 | 76                        | 76  | 76  | 76 | 75 | 62 | 76  | 76  | 76  | 76 | 75 | 62 |
|                      | 200                                | 73  | 73  | 73  | 73 | 68 | 62 | 61                        | 61  | 61  | 61 | 61 | 61 | 61  | 61  | 61  | 61 | 61 | 61 |

Notes:

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

**Rail Spans (in.) for Unirac Solarmount Rails for use with TRM Products**

| <b>Table 12B</b>     |                                    | Roof Height: 0 - 30 feet<br>Roof Angle: $27 < \theta \leq 45$ degrees |     |     |    |    |    |                           |     |     |    |    |    | Panel Orientation: Landscape<br>Post Height: 5.5" |     |     |    |    |    |
|----------------------|------------------------------------|---|-----|-----|----|----|----|---------------------------|-----|-----|----|----|----|---|-----|-----|----|----|----|
| Exposure<br><b>D</b> | Ultimate<br>Wind Speed,<br>V (mph) | Roof Wind Pressure Zone 1   |     |     |    |    |    | Roof Wind Pressure Zone 2 |     |     |    |    |    | Roof Wind Pressure Zone 3                         |     |     |    |    |    |
|                      |                                    | Ground Snow Load (psf)  |     |     |    |    |    | Ground Snow Load (psf)    |     |     |    |    |    | Ground Snow Load (psf)                            |     |     |    |    |    |
|                      |                                    | 0   | 10  | 20  | 30 | 40 | 50 | 0                         | 10  | 20  | 30 | 40 | 50 | 0   | 10  | 20  | 30 | 40 | 50 |
| Roofs >27° to 45°    | 110                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61 | 132   | 132 | 128 | 94 | 74 | 61 |
|                      | 115                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61 | 132   | 132 | 128 | 94 | 74 | 61 |
|                      | 120                                | 132   | 132 | 128 | 94 | 74 | 61 | 132                       | 132 | 128 | 94 | 74 | 61 | 132   | 132 | 128 | 94 | 74 | 61 |
|                      | 130                                | 132   | 132 | 128 | 94 | 74 | 61 | 120                       | 120 | 120 | 94 | 74 | 61 | 120   | 120 | 120 | 94 | 74 | 61 |
|                      | 140                                | 120   | 120 | 120 | 94 | 74 | 61 | 120                       | 120 | 120 | 94 | 74 | 61 | 120   | 120 | 120 | 94 | 74 | 61 |
|                      | 150                                | 120   | 120 | 120 | 94 | 74 | 61 | 108                       | 108 | 108 | 94 | 74 | 61 | 108   | 108 | 108 | 94 | 74 | 61 |
|                      | 160                                | 116   | 116 | 110 | 94 | 74 | 61 | 97                        | 97  | 97  | 94 | 74 | 61 | 97  | 97  | 97  | 94 | 74 | 61 |
|                      | 170                                | 103   | 103 | 102 | 91 | 74 | 61 | 85                        | 85  | 85  | 85 | 74 | 61 | 85  | 85  | 85  | 85 | 74 | 61 |
|                      | 180                                | 92  | 92  | 92  | 85 | 74 | 61 | 76                        | 76  | 76  | 76 | 74 | 61 | 76  | 76  | 76  | 76 | 74 | 61 |
|                      | 200                                | 73  | 73  | 73  | 73 | 68 | 61 | 61                        | 61  | 61  | 61 | 61 | 61 | 61  | 61  | 61  | 61 | 61 | 61 |

Notes:

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