

# SPAN TABLES ASCE 7-16

**SolFX  
Solar Strut  
Mount**



## Structural Certification & Span Tables for the SolFX Solar Strut Mount System

This letter certifies the structural performance and code compliance of the **SolFX Solar Strut Mount** system. This document must be read in full prior to use on any project.

The SolFX Solar Strut Mount is a rooftop mounting system designed to support photovoltaic (PV) modules in a flush-mounted configuration (parallel to the roof surface). PV modules are secured using SolFX mounting clamps to **1-5/8" steel strut channels loads are based on 33 ksi steel cold formed to 42ksi**, which are mounted to selected roof attachments via stainless steel hardware or mounting brackets. Attachments are fastened directly to the structural roof members or to stanchions anchored to the structure.

This system has been designed and certified in accordance with the following reference standards and applies to the load conditions and configurations identified in the attached span tables:

- **ASCE/SEI 7-16 – Minimum Design Loads for Buildings and Other Structures**
- **2021 International Building Code (IBC 2021)**
- **2022 California Building Code (CBC 2022)**
- **SEAOC PV2-2017 – Wind Design for Solar Arrays**

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### Scope of Span Tables

The span tables provided with this letter define the **maximum allowable spacing between roof attachments** for the SolFX Solar Strut Mount system. These values account for combinations of:

- **Wind exposure categories B, C, and D**
- **Roof zones** per ASCE 7-16 for gable and hip roofs
- **Roof slopes between 8° and 45°**

The span tables apply only when the following conditions are met:

1. Span is measured **center-to-center** between adjacent roof attachments.
2. Each module must be supported by a minimum of **two strut channels**.
3. Roof slope is between **8° and 45°**.

4. Mean roof height (average of eave and ridge height from grade) does not exceed **30 feet**.
5. Minimum **2" clearance** is maintained between roof and underside of the array. The system height ( $h_2$ ), defined as the distance from module top surface to roof, shall not exceed **10"**.
6. Module dimensions do not exceed the limits listed in the applicable span tables.
7. All components must be installed per the **SolFX Solar Strut Mount Installation Guide**. Using roofing best practices.

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### Design Assumptions and Adjustments

1. The system is designed as **Risk Category II**, per ASCE 7-16 Table 1.5-1.
2. **Wind speeds** follow ASCE 7-16 Fig. 26.5-1B and applicable local amendments.
  - No topographic wind effects are included.
  - Topographic factor ( $K_{zt}$ ) and ground elevation factor ( $K_e$ ) are both assumed to be **1.0**.
3. **Snow load** is based on **ground snow load** (ASCE 7-16 Fig. 7.2-1).
  - If local code specifies flat roof snow load, it must be converted to ground snow load prior to using these tables.
  - No special snow conditions (unbalanced, drifting, sliding, etc.) are considered.
  - No rain-on-snow surcharge is considered.
  - These tables do not apply to buildings that are **unheated, below freezing, or kept just above freezing**.
4. **Seismic assumptions (Ss, Site Class A-D):**
  - Ground snow  $\leq$  42 psf:  $S_s \leq 2.0g$
  - Ground snow  $>$  65 psf:  $S_s < 1.0g$
  - Ground snow between 42–65 psf:  $S_s < 1.5g$
5. **Roof Zones** are defined using ASCE 7-16 Figures 30.3-2A through 30.3-21.

- Grouped based on equivalent external pressure coefficients (GCp).
- Zone definitions and locations are illustrated in the figures below each span table.

6. **Cantilever length** (from rail end to nearest attachment) must not exceed **1/3 of the maximum allowable span**.

7. Allowable span may be multiplied by **1.08** if the rail is continuous over at least **three spans**.

8. **Rail connectors** Do not increase span of cantilevered channels. 1/3 max span cantilever rule applies when connecting two rails with Rail Connector.

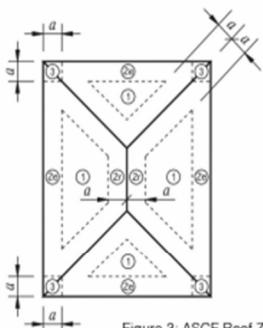


Figure 3: ASCE Roof Zone Locations for Hip Roofs

**Notation (Per ASCE 7-16)**

**a** = 10% of least horizontal dimension or 0.4h, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.

**B** = Horizontal dimension of building measured normal to wind direction, in ft (m).

**h** = Mean roof height, in ft (m).

**θ** = Angle of plane of roof from horizontal, in degrees.

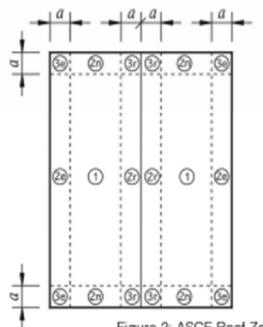


Figure 2: ASCE Roof Zone Locations for Gable Roofs

**Notation (Per ASCE 7-16)**

**a** = 10% of least horizontal dimension or 0.4h, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.

**B** = Horizontal dimension of building measured normal to wind direction, in ft (m).

**h** = Mean roof height, in ft (m).

**θ** = Angle of plane of roof from horizontal, in degrees.

## Edge Module

- A module is considered an Edge Module if the distance from the module to the nearest roof edge (eave, ridge, rake, or hip) is less than twice the height of the array ( $2h_2$ ), where  $h_2$  is the vertical distance from the roof surface to the top of the module.
- Reduced allowable spans and cantilevers apply only to the section of rail supporting these Edge Modules. If the relevant roof edge is an eave or ridge, this adjustment applies only to the rail closest to that edge.

## Limitations & Responsibilities

- These span tables are certified **only for the SolFX Solar Strut Mount system**.
- The structural adequacy of **roof attachments, PV modules, and roof framing** is **not evaluated** in this document.
- It is the responsibility of the **installer or system designer** to ensure those elements can support all applicable design loads resulting from the racking configuration.
- This letter does **not certify site-specific conditions**, including localized wind/snow loads, roof profile, or roof zones — these remain the responsibility of the installer or licensed engineer of record.

Steve Reid, SE

# 60 Cell Modules Exposure B and C

| 1 5/8" Strut Channel | Roof Type(s) Flush Mount System Span Table (Inches )<br>Max module length 68", Max module Area: 21.8SF<br>Exposure B Roof Pitch 8°-45° |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |
|----------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Wind Speed           | Ground Snow (PSF): 0   |         |         | 10      |         |         | 20      |         |         | 30      |         |         | 40      |         |         | 50      |         |         | Edge Mod |         |         |         |         |         |
|                      | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 |
| 90                   | 120  | 101     | 92      | 109     | 101     | 92      | 93      | 93      | 92      | 81      | 81      | 81      | 72      | 72      | 72      | 65      | 65      | 65      | 96       | 81      | 74      |         |         |         |
| 95                   | 113  | 96      | 87      | 108     | 96      | 87      | 92      | 92      | 87      | 81      | 81      | 81      | 72      | 72      | 72      | 65      | 65      | 65      | 90       | 77      | 70      |         |         |         |
| 100                  | 107  | 90      | 82      | 106     | 90      | 82      | 91      | 90      | 82      | 81      | 81      | 81      | 72      | 72      | 72      | 65      | 65      | 65      | 85       | 73      | 66      |         |         |         |
| 105                  | 101  | 86      | 78      | 101     | 86      | 78      | 90      | 86      | 78      | 81      | 81      | 78      | 72      | 72      | 72      | 65      | 65      | 65      | 81       | 69      | 63      |         |         |         |
| 110                  | 96   | 82      | 74      | 96      | 82      | 74      | 89      | 82      | 74      | 80      | 80      | 74      | 72      | 72      | 72      | 65      | 65      | 65      | 77       | 66      | 60      |         |         |         |
| 115                  | 91   | 78      | 71      | 91      | 78      | 71      | 88      | 78      | 71      | 79      | 78      | 71      | 72      | 72      | 71      | 65      | 65      | 65      | 74       | 63      | 57      |         |         |         |
| 120                  | 87   | 74      | 68      | 87      | 74      | 68      | 87      | 74      | 68      | 78      | 74      | 68      | 72      | 72      | 68      | 65      | 65      | 65      | 70       | 60      | 55      |         |         |         |
| 125                  | 83   | 71      | 65      | 83      | 71      | 65      | 83      | 71      | 65      | 77      | 71      | 65      | 71      | 71      | 65      | 65      | 65      | 65      | 67       | 58      | 53      |         |         |         |
| 130                  | 80   | 68      | 62      | 80      | 68      | 62      | 80      | 68      | 62      | 77      | 68      | 62      | 70      | 68      | 62      | 65      | 65      | 65      | 62       | 65      | 55      | 51      |         |         |
| 135                  | 77   | 66      | 60      | 77      | 66      | 60      | 77      | 66      | 60      | 76      | 66      | 60      | 70      | 66      | 60      | 65      | 65      | 65      | 60       | 62      | 53      | 49      |         |         |
| 140                  | 74   | 63      | 58      | 74      | 63      | 58      | 74      | 63      | 58      | 74      | 63      | 58      | 69      | 63      | 58      | 65      | 63      | 58      | 60       | 51      | 47      |         |         |         |
| 145                  | 71   | 61      | 56      | 71      | 61      | 56      | 71      | 61      | 56      | 71      | 61      | 56      | 68      | 61      | 56      | 64      | 61      | 56      | 58       | 49      | 45      |         |         |         |
| 150                  | 69   | 59      | 54      | 69      | 59      | 54      | 69      | 59      | 54      | 69      | 59      | 54      | 68      | 59      | 54      | 63      | 59      | 54      | 56       | 48      | 44      |         |         |         |
| 155                  | 66   | 57      | 52      | 66      | 57      | 52      | 66      | 57      | 52      | 66      | 57      | 52      | 66      | 57      | 52      | 63      | 57      | 52      | 52       | 54      | 46      | 42      |         |         |
| 160                  | 64   | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 62      | 55      | 50      | 52       | 45      | 41      |         |         |         |
| 165                  | 62   | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 50       | 43      | 40      |         |         |         |
| 170                  | 60   | 52      | 47      | 60      | 52      | 47      | 60      | 52      | 47      | 60      | 52      | 47      | 60      | 52      | 47      | 60      | 52      | 47      | 49       | 42      | 38      |         |         |         |

| 1 5/8" Strut Channel | Roof Type(s) Flush Mount System Span Table (Inches )<br>Max module length 68", Max module Area: 21.8SF<br>Exposure C Roof Pitch 8°-45° |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |
|----------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Wind Speed           | Ground Snow (PSF): 0   |         |         | 10      |         |         | 20      |         |         | 30      |         |         | 40      |         |         | 50      |         |         | Edge Mod |         |         |         |         |         |
|                      | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 |
| 90                   | 99   | 84      | 77      | 99      | 84      | 77      | 90      | 84      | 77      | 80      | 80      | 77      | 72      | 72      | 72      | 65      | 65      | 65      | 80       | 68      | 62      |         |         |         |
| 95                   | 94   | 80      | 73      | 94      | 80      | 73      | 89      | 80      | 73      | 79      | 79      | 73      | 72      | 72      | 72      | 65      | 65      | 65      | 75       | 64      | 59      |         |         |         |
| 100                  | 89   | 75      | 69      | 89      | 75      | 69      | 87      | 75      | 69      | 78      | 75      | 69      | 72      | 72      | 69      | 65      | 65      | 65      | 71       | 61      | 56      |         |         |         |
| 105                  | 84   | 72      | 65      | 84      | 72      | 65      | 84      | 72      | 65      | 78      | 72      | 65      | 71      | 71      | 65      | 65      | 65      | 65      | 68       | 58      | 53      |         |         |         |
| 110                  | 80   | 68      | 62      | 80      | 68      | 62      | 80      | 68      | 62      | 77      | 68      | 62      | 70      | 68      | 62      | 65      | 65      | 65      | 62       | 55      | 50      |         |         |         |
| 115                  | 76   | 65      | 59      | 76      | 65      | 59      | 76      | 65      | 59      | 76      | 65      | 59      | 70      | 65      | 59      | 65      | 59      | 65      | 62       | 53      | 48      |         |         |         |
| 120                  | 73   | 62      | 57      | 73      | 62      | 57      | 73      | 62      | 57      | 73      | 62      | 57      | 69      | 62      | 57      | 64      | 62      | 57      | 59       | 51      | 46      |         |         |         |
| 125                  | 70   | 60      | 54      | 70      | 60      | 54      | 70      | 60      | 54      | 70      | 60      | 54      | 68      | 60      | 54      | 64      | 60      | 54      | 57       | 48      | 44      |         |         |         |
| 130                  | 67   | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 63      | 57      | 52      | 54       | 47      | 43      |         |         |         |
| 135                  | 64   | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 62      | 55      | 50      | 50       | 45      | 41      |         |         |         |
| 140                  | 62   | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 62      | 53      | 49      | 50       | 43      | 39      |         |         |         |
| 145                  | 60   | 51      | 47      | 60      | 51      | 47      | 60      | 51      | 47      | 60      | 51      | 47      | 60      | 51      | 47      | 60      | 51      | 47      | 48       | 42      | 38      |         |         |         |
| 150                  | 58   | 49      | 45      | 58      | 49      | 45      | 58      | 49      | 45      | 58      | 49      | 45      | 58      | 49      | 45      | 58      | 49      | 45      | 47       | 40      | 37      |         |         |         |
| 155                  | 56   | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 45       | 39      | 36      |         |         |         |
| 160                  | 54   | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 44       | 38      | 34      |         |         |         |
| 165                  | 52   | 45      | 41      | 52      | 45      | 41      | 52      | 45      | 41      | 52      | 45      | 41      | 52      | 45      | 41      | 52      | 45      | 41      | 43       | 37      | 33      |         |         |         |
| 170                  | 51   | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 41       | 35      | 32      |         |         |         |

# 60 Cell Modules Exposure D

| 1 5/8"<br>Strut<br>Channel | Roof Type(s) Flush Mount System Span Table (Inches ) |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |
|----------------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|
|                            | Max module length 68", Max module Area: 21.8SF       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |
|                            | Exposure D Roof Pitch 8°-45°                         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |
| Wind Speed                 | Ground Snow (PSF): 0                                 |         |         | 10      |         |         | 20      |         |         | 30      |         |         | 40      |         |         | 50      |         |         | Edge Mod |         |         |
|                            | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 |
| 90                         | 91   | 77      | 70      | 91      | 77      | 70      | 88      | 77      | 70      | 79      | 77      | 70      | 72      | 72      | 70      | 65      | 65      | 65      | 73       | 62      | 57      |
| 95                         | 85   | 73      | 66      | 85      | 73      | 66      | 85      | 73      | 66      | 78      | 73      | 66      | 71      | 71      | 66      | 65      | 65      | 65      | 69       | 59      | 54      |
| 100                        | 81   | 69      | 63      | 81      | 69      | 63      | 81      | 69      | 63      | 77      | 69      | 63      | 71      | 69      | 63      | 65      | 65      | 63      | 65       | 56      | 51      |
| 105                        | 77   | 66      | 60      | 77      | 66      | 60      | 77      | 66      | 60      | 76      | 66      | 60      | 70      | 66      | 60      | 65      | 65      | 60      | 62       | 53      | 49      |
| 110                        | 73   | 62      | 57      | 73      | 62      | 57      | 73      | 62      | 57      | 73      | 62      | 57      | 69      | 62      | 57      | 64      | 62      | 57      | 59       | 51      | 46      |
| 115                        | 70   | 60      | 54      | 70      | 60      | 54      | 70      | 60      | 54      | 70      | 60      | 54      | 68      | 60      | 54      | 64      | 60      | 54      | 56       | 48      | 44      |
| 120                        | 67   | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 67      | 57      | 52      | 63      | 57      | 52      | 54       | 46      | 42      |
| 125                        | 64   | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 62      | 55      | 50      | 52       | 44      | 41      |
| 130                        | 61   | 53      | 48      | 61      | 53      | 48      | 61      | 53      | 48      | 61      | 53      | 48      | 61      | 53      | 48      | 61      | 53      | 48      | 50       | 43      | 39      |
| 135                        | 59   | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 48       | 41      | 38      |
| 140                        | 57   | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 46       | 40      | 36      |
| 145                        | 55   | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 44       | 38      | 35      |
| 150                        | 53   | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 43       | 37      | 34      |
| 155                        | 51   | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 51      | 44      | 40      | 42       | 36      | 33      |
| 160                        | 50   | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 40       | 35      | 32      |
| 165                        | 48   | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 39       | 34      | 31      |
| 170                        | 47   | 40      | 37      | 47      | 40      | 37      | 47      | 40      | 37      | 47      | 40      | 37      | 47      | 40      | 37      | 47      | 40      | 37      | 38       | 33      | 30      |

# 72 Cell Modules Exposure B and C

| 15/8" Strut Channel | Roof Type(s) Flush Mount System Span Table (Inches )<br>Max module length 88", Max module Area: 28SF<br>Exposure B Roof Pitch 8°-45° |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |    |
|---------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----|
| Wind Speed          | Ground Snow (PSF): 0   |         |         | 10      |         |         | 20      |         |         | 30      |         |         | 40      |         |         | 50      |         |         | Edge Mod |         |         |    |
|                     | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 |    |
| 90                  | 106  | 90      | 82      | 97      | 90      | 82      | 83      | 83      | 82      | 72      | 72      | 72      | 64      | 64      | 64      | 58      | 58      | 58      | 85       | 72      | 66      |    |
| 95                  | 100  | 85      | 77      | 96      | 85      | 77      | 82      | 82      | 77      | 72      | 72      | 72      | 64      | 64      | 64      | 58      | 58      | 58      | 80       | 68      | 62      |    |
| 100                 | 95   | 80      | 73      | 94      | 80      | 73      | 81      | 80      | 73      | 72      | 72      | 72      | 64      | 64      | 64      | 58      | 58      | 58      | 76       | 65      | 59      |    |
| 105                 | 90   | 76      | 69      | 90      | 76      | 69      | 80      | 76      | 69      | 72      | 72      | 69      | 64      | 64      | 64      | 58      | 58      | 58      | 72       | 61      | 56      |    |
| 110                 | 85   | 73      | 66      | 85      | 73      | 66      | 79      | 73      | 66      | 71      | 71      | 66      | 64      | 64      | 64      | 58      | 58      | 58      | 69       | 59      | 53      |    |
| 115                 | 81   | 69      | 63      | 81      | 69      | 63      | 78      | 69      | 63      | 70      | 69      | 63      | 64      | 64      | 64      | 58      | 58      | 58      | 65       | 56      | 51      |    |
| 120                 | 78   | 66      | 60      | 78      | 66      | 60      | 77      | 66      | 60      | 70      | 66      | 60      | 64      | 64      | 64      | 60      | 58      | 58      | 58       | 62      | 53      | 49 |
| 125                 | 74   | 63      | 58      | 74      | 63      | 58      | 74      | 63      | 58      | 69      | 63      | 58      | 63      | 63      | 58      | 58      | 58      | 58      | 60       | 51      | 47      |    |
| 130                 | 71   | 61      | 55      | 71      | 61      | 55      | 71      | 61      | 55      | 68      | 61      | 55      | 63      | 61      | 55      | 58      | 58      | 55      | 57       | 49      | 45      |    |
| 135                 | 68   | 58      | 53      | 68      | 58      | 53      | 68      | 58      | 53      | 67      | 58      | 53      | 62      | 58      | 53      | 58      | 58      | 53      | 55       | 47      | 43      |    |
| 140                 | 66   | 56      | 51      | 66      | 56      | 51      | 66      | 56      | 51      | 66      | 56      | 51      | 61      | 56      | 51      | 57      | 56      | 51      | 53       | 46      | 42      |    |
| 145                 | 63   | 54      | 49      | 63      | 54      | 49      | 63      | 54      | 49      | 63      | 54      | 49      | 61      | 54      | 49      | 57      | 54      | 49      | 51       | 44      | 40      |    |
| 150                 | 61   | 52      | 48      | 61      | 52      | 48      | 61      | 52      | 48      | 61      | 52      | 48      | 60      | 52      | 48      | 56      | 52      | 48      | 50       | 42      | 39      |    |
| 155                 | 59   | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 59      | 51      | 46      | 56      | 51      | 46      | 48       | 41      | 38      |    |
| 160                 | 57   | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 57      | 49      | 45      | 55      | 49      | 45      | 46       | 40      | 36      |    |
| 165                 | 55   | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 55      | 47      | 43      | 45       | 39      | 35      |    |
| 170                 | 54   | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 44       | 37      | 34      |    |

| 15/8" Strut Channel | Roof Type(s) Flush Mount System Span Table (Inches )<br>Max module length 88", Max module Area: 28SF<br>Exposure C Roof Pitch 8°-45° |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |  |
|---------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|--|
| Wind Speed          | Ground Snow (PSF): 0   |         |         | 10      |         |         | 20      |         |         | 30      |         |         | 40      |         |         | 50      |         |         | Edge Mod |         |         |  |
|                     | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 |  |
| 90                  | 87   | 74      | 68      | 80      | 74      | 68      | 79      | 74      | 68      | 71      | 71      | 68      | 63      | 63      | 63      | 57      | 57      | 57      | 70       | 60      | 55      |  |
| 95                  | 82   | 70      | 64      | 75      | 70      | 64      | 78      | 70      | 64      | 70      | 70      | 64      | 63      | 63      | 63      | 57      | 57      | 57      | 66       | 57      | 52      |  |
| 100                 | 78   | 66      | 60      | 71      | 66      | 60      | 77      | 66      | 60      | 69      | 66      | 60      | 63      | 63      | 60      | 57      | 57      | 57      | 63       | 54      | 49      |  |
| 105                 | 74   | 63      | 57      | 67      | 63      | 57      | 74      | 63      | 57      | 68      | 63      | 57      | 63      | 63      | 57      | 57      | 57      | 57      | 60       | 51      | 47      |  |
| 110                 | 70   | 60      | 55      | 64      | 60      | 55      | 70      | 60      | 55      | 67      | 60      | 55      | 62      | 60      | 55      | 57      | 57      | 55      | 57       | 49      | 44      |  |
| 115                 | 67   | 57      | 52      | 61      | 57      | 52      | 67      | 57      | 52      | 66      | 57      | 52      | 61      | 57      | 52      | 57      | 57      | 52      | 54       | 46      | 42      |  |
| 120                 | 64   | 55      | 50      | 59      | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 61      | 55      | 50      | 57      | 55      | 50      | 52       | 44      | 41      |  |
| 125                 | 61   | 52      | 48      | 56      | 52      | 48      | 61      | 52      | 48      | 61      | 52      | 48      | 60      | 52      | 48      | 56      | 52      | 48      | 50       | 43      | 39      |  |
| 130                 | 59   | 50      | 46      | 54      | 50      | 46      | 59      | 50      | 46      | 59      | 50      | 46      | 59      | 50      | 46      | 55      | 50      | 46      | 48       | 41      | 37      |  |
| 135                 | 57   | 48      | 44      | 52      | 48      | 44      | 57      | 48      | 44      | 57      | 48      | 44      | 57      | 48      | 44      | 55      | 48      | 44      | 46       | 39      | 36      |  |
| 140                 | 54   | 47      | 43      | 50      | 47      | 43      | 54      | 47      | 43      | 54      | 47      | 43      | 54      | 47      | 43      | 54      | 47      | 43      | 44       | 38      | 35      |  |
| 145                 | 53   | 45      | 41      | 48      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 53      | 45      | 41      | 43       | 37      | 33      |  |
| 150                 | 51   | 43      | 40      | 47      | 43      | 40      | 51      | 43      | 40      | 51      | 43      | 40      | 51      | 43      | 40      | 51      | 43      | 40      | 41       | 35      | 32      |  |
| 155                 | 49   | 42      | 38      | 45      | 42      | 38      | 49      | 42      | 38      | 49      | 42      | 38      | 49      | 42      | 38      | 49      | 42      | 38      | 40       | 34      | 31      |  |
| 160                 | 47   | 41      | 37      | 44      | 41      | 37      | 47      | 41      | 37      | 47      | 41      | 37      | 47      | 41      | 37      | 47      | 41      | 37      | 39       | 33      | 30      |  |
| 165                 | 46   | 39      | 36      | 42      | 39      | 36      | 46      | 39      | 36      | 46      | 39      | 36      | 46      | 39      | 36      | 46      | 39      | 36      | 37       | 32      | 29      |  |
| 170                 | 45   | 38      | 35      | 41      | 38      | 35      | 45      | 38      | 35      | 45      | 38      | 35      | 45      | 38      | 35      | 45      | 38      | 35      | 36       | 31      | 28      |  |

# 72 Cell Modules Exposure D

| 1 5/8" Strut Channel |                    |         |         | Roof Type(s) Flush Mount System Span Table (Inches )<br>Max module length 88", Max module Area: 28SF<br>Exposure D Roof Pitch 8°-45° |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |  |  |
|----------------------|--------------------|---------|---------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|--|--|
| Wind Speed (mph)     | Ground Snow: 0 psf |         |         | 10 psf   |         |         | 20 psf  |         |         | 30 psf  |         |         | 40 psf  |         |         | 50 PSF  |         |         | Edge Mod |         |         |  |  |
|                      | Group 1            | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 | Group 1  | Group 2 | Group 3 |  |  |
| 90                   | 80                 | 68      | 62      | 80   | 68      | 62      | 77      | 68      | 62      | 69      | 68      | 62      | 63      | 63      | 62      | 57      | 57      | 57      | 57       | 55      | 50      |  |  |
| 95                   | 75                 | 64      | 58      | 75   | 64      | 58      | 75      | 64      | 58      | 68      | 64      | 58      | 63      | 63      | 58      | 57      | 57      | 57      | 57       | 52      | 47      |  |  |
| 100                  | 71                 | 61      | 55      | 71   | 61      | 55      | 71      | 61      | 55      | 67      | 61      | 55      | 62      | 61      | 55      | 57      | 57      | 55      | 57       | 49      | 45      |  |  |
| 105                  | 67                 | 58      | 53      | 67   | 58      | 53      | 67      | 58      | 53      | 67      | 58      | 53      | 61      | 58      | 53      | 57      | 57      | 53      | 55       | 47      | 43      |  |  |
| 110                  | 64                 | 55      | 50      | 64   | 55      | 50      | 64      | 55      | 50      | 64      | 55      | 50      | 61      | 55      | 50      | 57      | 55      | 50      | 52       | 45      | 41      |  |  |
| 115                  | 61                 | 52      | 48      | 61   | 52      | 48      | 61      | 52      | 48      | 61      | 52      | 48      | 60      | 52      | 48      | 56      | 52      | 48      | 50       | 43      | 39      |  |  |
| 120                  | 59                 | 50      | 46      | 59   | 50      | 46      | 59      | 50      | 46      | 59      | 50      | 46      | 59      | 50      | 46      | 55      | 50      | 46      | 47       | 41      | 37      |  |  |
| 125                  | 56                 | 48      | 44      | 56   | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 56      | 48      | 44      | 55      | 48      | 44      | 46       | 39      | 36      |  |  |
| 130                  | 54                 | 46      | 42      | 54   | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 54      | 46      | 42      | 44       | 38      | 34      |  |  |
| 135                  | 52                 | 44      | 41      | 52   | 44      | 41      | 52      | 44      | 41      | 52      | 44      | 41      | 52      | 44      | 41      | 52      | 44      | 41      | 42       | 36      | 33      |  |  |
| 140                  | 50                 | 43      | 39      | 50   | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 50      | 43      | 39      | 41       | 35      | 32      |  |  |
| 145                  | 48                 | 41      | 38      | 48   | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 48      | 41      | 38      | 39       | 34      | 31      |  |  |
| 150                  | 47                 | 40      | 36      | 47   | 40      | 36      | 47      | 40      | 36      | 47      | 40      | 36      | 47      | 40      | 36      | 47      | 40      | 36      | 38       | 32      | 30      |  |  |
| 155                  | 45                 | 39      | 35      | 45   | 39      | 35      | 45      | 39      | 35      | 45      | 39      | 35      | 45      | 39      | 35      | 45      | 39      | 35      | 37       | 31      | 29      |  |  |
| 160                  | 44                 | 37      | 34      | 44   | 37      | 34      | 44      | 37      | 34      | 44      | 37      | 34      | 44      | 37      | 34      | 44      | 37      | 34      | 35       | 30      | 28      |  |  |
| 165                  | 42                 | 36      | 33      | 42   | 36      | 33      | 42      | 36      | 33      | 42      | 36      | 33      | 42      | 36      | 33      | 42      | 36      | 33      | 34       | 29      | 27      |  |  |
| 170                  | 41                 | 35      | 32      | 41   | 35      | 32      | 41      | 35      | 32      | 41      | 35      | 32      | 41      | 35      | 32      | 41      | 35      | 32      | 33       | 29      | 26      |  |  |