

Span Table for Skyrail-3 Part# 8395 - 60 Cell

Load		Rail Span		
Ground Snow (kPa)	Wind Pressure q50 (kPa)	1.22m	1.63m	1.83m
0 - 0.96	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
1.2	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
1.44	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
1.68	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
1.92	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
2.16	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			
2.4	0.38			
	0.45			
	0.55			
	0.63			
	0.73			
	0.83			

See Notes on Page 2

Legend	
	Interior & Edge

Span Table is applicable under the following conditions:

- 1** Building height is up to 33ft (10m)
- 2** Surrounding terrain is considered rough (exposure B).
- 3** Design tributary area is considered minimum 100 sq.ft.
- 4** Roof pitch is less than or equal to 6/12 (27 degrees).
- 5** Long sides of modules are clamped on two skyrails within green zones in such a way that half of module load is transferred to each rail (See Diagram 1).
- 6** No parapets or overhangs are considered. Local effects on wind exposure due to hills and escarpments are not considered. Corner zones may have higher wind uplifts which are not covered in this table.
- 7** Building is located in very low seismic activity zone where no seismic design requirements are applicable.
- 8** The deflection on these spans has been limited to Span/120.
- 9** Rail shall be continuous over a minimum of two spans. Depth of the rail must be perpendicular to the roof surface. When rails are installed parallel to the roof ridge or eaves the slotted side must face down the slope (See Skyrail-3 Section Drawing).
- 10** Modules are considered slippery without any obstruction against snow sliding.
- 11** Rail splices should be located at 1/3rd of the rail spans.
- 12a** 72 Cell Modules: weight of about 48.5 lbs (22kg) each and dimensions of approximately 77"x39" (1956mmx992mm) are considered.
- 12b** 60 Cell Modules: weight of about 39.7 lbs (18kg) each and dimensions of approximately 66"x39" (1680mmx990mm) are considered.
- 13** Other factors affecting the rail span, such as structural capacity of the roof framing and support strength are not considered in this table. The structural capacity of the supporting connections & roof framing shall be evaluated separately .Advice of a professional engineer is required for all project specific requirements.

(For conditions that deviate from those listed above, please contact hb Solar International Inc.)

Skyrail-3 Properties		
	Imperial	Metric
Ag=	0.505 in ²	326 mm ²
Ix=	0.247 in ⁴	102891 mm ⁴
Iy=	0.203 in ⁴	84633 mm ⁴
Mrx=	652 lb.ft	0.88 kN.m
Mry=	569 lb.ft	0.77 kN.m
Fy=	35 ksi	241 MPa
Weight=	0.593 lb / ft	0.883 kg/m
Alloy and temper 6005A-T61		

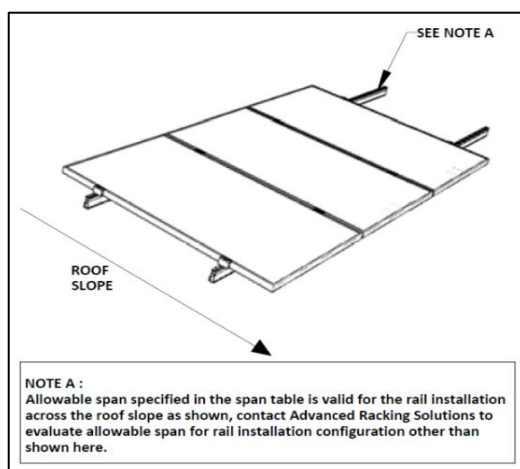
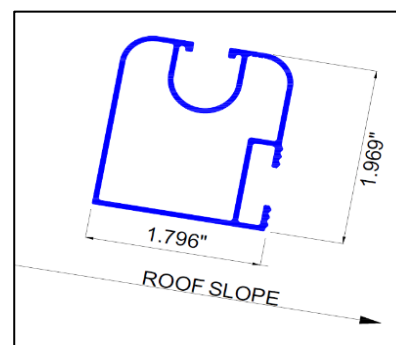


Diagram 1



Skyrail-3 Section Drawing