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STRUCTURAL ENGINEERS
| NSW | VIC | QLD | WA | TAS |

STRUCTURAL CERTIFICATE

Ref: DD-231265-CERT-C1

15 December 2023

Schletter Australia Pty Ltd

Unit 4, 27 Williamson Road

INGLEBURN NSW 2565

RE: SPAN TABLES FOR SCHLETTER'S ROOF HOOK STANDARD PROLINE

This is to certify that DesignDevise (**DD**) have calculated the span tables for Schletter's 'Roof Hook Standard Proline' roof hook (Product no. 108000-000) for flush mount solar panels installation over hip roofs and gable roofs of any size.

The span tables are documented in the following drawings (Refer **Appendix A**):

- DD-231265-ST-C1, Sheets S01 to S02, Rev. C1, dated 15.12.2023.

DD confirms that the spans have been calculated using accepted engineering principles and in accordance with the requirements of the following Australian Standards and Specifications:

- AS/NZS 1170.0: 2002 Structural Design Actions – Part 0: General Principles;
- AS/NZS 1170.1: 2002 Structural Design Actions – Part 1: Permanent, Imposed and other Actions;
- AS/NZS 1170.2: 2021 Structural Design Actions – Part 2: Wind Actions;
- AS/NZS 1664.1: 1997 Aluminium Structures - Limit State Design.

Proprietary products, parameters, limitations, and assumptions used to calculate spans are listed in the above-mentioned drawings.

Yours faithfully

RANA WASEEM

Principal Structural Engineer

CPEng MIEAust NER: 5737360 (Structural)
Professional Engineer (NSW) PRE0001775 (Civil/Structural)
Design Practitioner (NSW) DEP0003296 (Structural)
BLA (VIC): PE0002622 (Civil)
RPEQ (QLD): 24524 (Structural)

Enc:

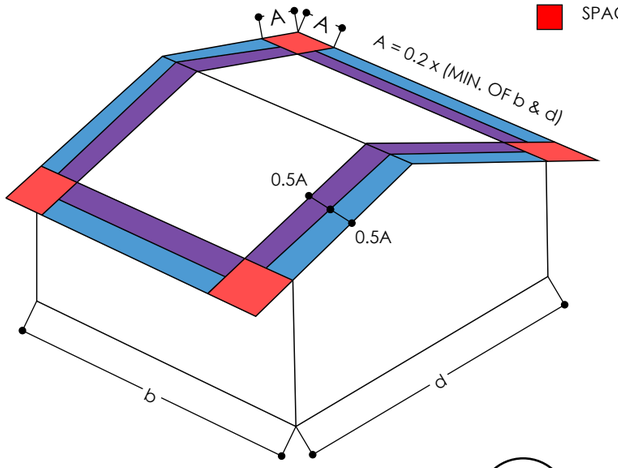
- Appendix A – Span Table Drawings

Appendix A
Span Table Drawings

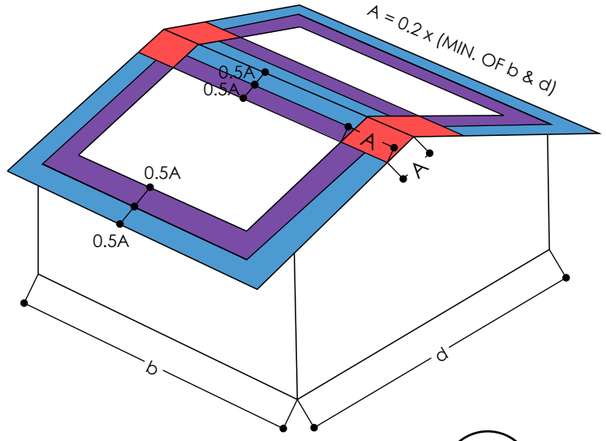
GABLE ROOF ZONES

LEGEND

- INTERIOR ZONE (UNHATCHED)
- INTERMEDIATE ZONES SPACING = INTERIOR ZONE SPACING / 1.5
- EDGE ZONES SPACING = INTERIOR ZONE SPACING / 2.0
- CORNER ZONES SPACING = INTERIOR ZONE SPACING / 3.0



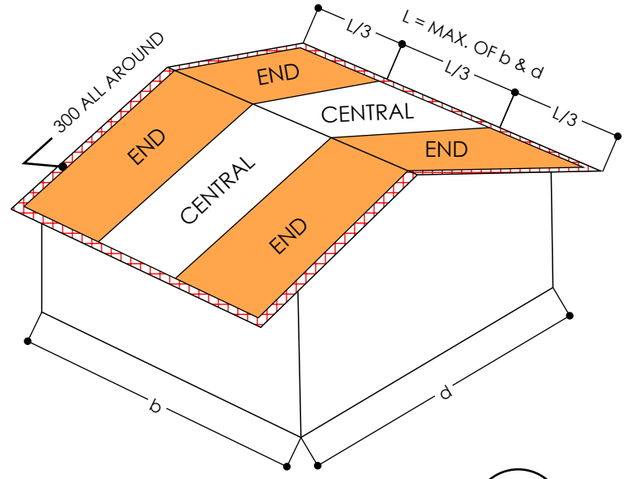
GABLE ROOF ZONES - PITCH < 10°
WHEN ANY OF h/b OR h/d > 0.50 — 1



GABLE ROOF ZONES - PITCH ≥ 10°
WHEN ANY OF h/b OR h/d > 0.50 — 2

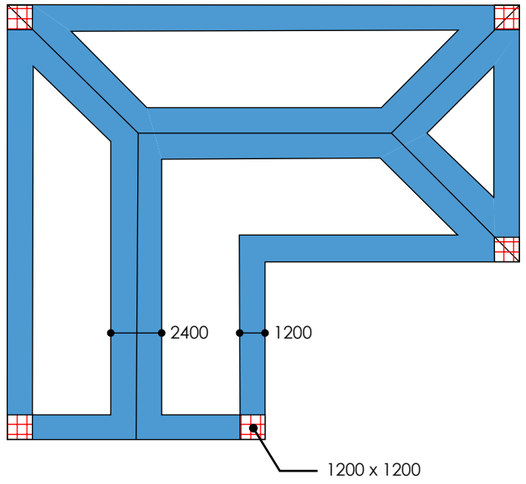
LEGEND

- CENTRAL ZONE (UNHATCHED)
- END ZONES
- EXCLUSION ZONE (DO NOT INSTALL PANELS)



GABLE ROOF ZONES - ANY PITCH
WHEN BOTH h/b & h/d ≤ 0.5 — 3

RESIDENTIAL HIP ROOF ZONES (TO AS4055 LIMITS)



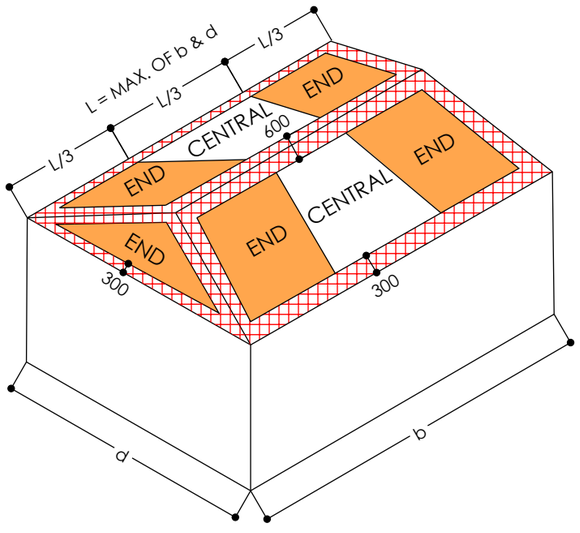
LEGEND

- INTERIOR ZONE (UNHATCHED)
- EDGE ZONES SPACING = INTERIOR ZONE SPACING / 2.0
- EXCLUSION ZONE (DO NOT INSTALL PANELS)

HIP ROOF ZONES
WHEN ANY OF h/b OR h/d > 0.50 — 4

LEGEND

- CENTRAL ZONE (UNHATCHED)
- END ZONES
- EXCLUSION ZONE (DO NOT INSTALL PANELS)



HIP ROOF ZONES
WHEN BOTH h/b & h/d ≤ 0.5 — 5

PRINT IN COLOUR

GENERAL NOTES

1. THESE DRAWINGS PROVIDE THE GENERAL SPAN TABLES FOR SCHLETTER'S 'ROOF HOOK STANDARD PROLINE' ROOF HOOK **(PRODUCT NO. 108000-000)** FOR FLUSH MOUNT SOLAR PANELS INSTALLATION APPLICATION WITH BUILDINGS LOCATED ON FLAT TERRAINS, WITH OTHER LIMITATIONS LISTED BELOW
2. ALL SPANS ARE IN mm, HEIGHTS IN m, ROOF PITCH IN DEGREES
3. SCHLETTER'S RAILS AND ROOF HOOK CAPACITIES CALCULATED BASED ON THE SECTION PROPERTIES AND TEST REPORTS PROVIDED BY SCHLETTER
4. FIXINGS CAPACITY BASED ON FIXINGS MANUFACTURER DATA BROCHURES
5. DESIGNDEVISE (**DD**) HAVE NOT INDEPENDENTLY VERIFIED THE ACCURACY OF THE ABOVE-MENTIONED PROPERTIES AND CAPACITIES
6. BUILDING ROOF INCLUDING METAL SHEET, TOP-HATS/PURLINS, RAFTERS ETC. AND STRUCTURE TO BE CHECKED BY OTHERS FOR ADEQUACY AGAINST THE SOLAR PANEL AND ASSOCIATED WIND LOADS.
7. SOLAR PANELS STRUCTURAL CAPACITIES BY OTHERS
8. ALL COMPONENTS TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS
9. SITE SPECIFIC CERTIFICATIONS BY OTHERS
10. IT IS ASSUMED THE USERS OF THESE DRAWINGS HAVE SUFFICIENT ENGINEERING KNOWLEDGE TO INTERPRET AND APPLY THESE SPAN TABLES AND LIMITATIONS
11. ROOF ZONING REQUIREMENTS MUST BE FOLLOWED AS DETAILED ON THIS DRAWING
12. LINEAR INTERPOLATIONS FOR TABLE VALUES ARE ALLOWED
13. RAILS TO BE FIXED TO TIMBER RAFTERS ONLY, WITH 14-GAUGE 65mm TYPE 17 ROOFING TIMBER SCREWS

DESIGN CRITERIA

1. WIND PARAMETERS IN ACCORDANCE WITH AS1170.2-2021:
   - FLUSH MOUNT SOLAR PANELS (PARALLEL TO PITCH)
   - GAP BETWEEN TOP OF ROOF AND UNDER-SIDE OF PANELS TO BE 50mm TO 150mm
   - IMPORTANCE LEVEL 2
   - TERRAIN CATEGORIES 2, 2.5 AND 3 ONLY
   - Ms, Mt, Md, Mc FACTORS TAKEN AS 1.0
   - DESIGN LIFE 25-YEARS
   - ANNUAL PROBABILITY OF EXCEEDANCE FOR ULTIMATE WIND LOADS 200-YEARS
   - MEAN ROOF HEIGHT FROM ROAD LEVEL UP TO 30m
   - ANY BUILDING WIDTH (b) AND BUILDING DEPTH (d)
   - HIP AND GABLE ROOFS WITH PITCHES UP TO 30°
2. A MINIMUM OF 12kg/m² IS CONSIDERED FOR THE SOLAR PANELS, RAILS AND FIXINGS SELF-WEIGHT AGAINST THE UPLIFT. NO OTHER DEAD LOADS CONSIDERED
3. ULTIMATE LOAD COMBINATION OF 0.90 DEAD LOADS + 1.0 ULTIMATE WIND LOADS IS CONSIDERED FOR UPLIFT
4. WATER PONDING, SEISMIC, SNOW, HAIL LOADING AND CORROSIVITY EXCLUDED. PERMANENT WORKS STRUCTURAL ENGINEER TO CONFIRM

COLOUR NAMES

WHITE | BLUE | ORANGE | VIOLET | RED

CLIENT	**SCHLETTER GROUP**
PROJECT	**ROOF HOOK STANDARD PROLINE**
231264	**SPAN TABLES**

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DESIGNER - **AA**

APPROVED - **RW**

SCALE - **NTS - A3**

REV	DESCRIPTION	APP'D	DATE
C1	**ISSUED FOR CONSTRUCTION**	**RW**	**15.12.23**

STATUS - **ISSUED FOR CONSTRUCTION**

DRAWING NUMBER & TITLE - **S01 - NOTES & ROOF ZONES**

REV **C1**

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WIND REGION A - STANDARD ROOF HOOK PROLINE SPAN TABLE

REGION	TC	PITCH	H	h/d & h/b	ZONE	PRO 35 ON-PURLIN	PRO 50 ON-PURLIN
WIND REGION A	TC2	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,274	1,310
					CENTRAL	1,415	1,616
				h/d or h/b > 0.5	INTERIOR	1,540	1,915
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,071	1,071
					CENTRAL	1,278	1,318
				h/d or h/b > 0.5	INTERIOR	1,389	1,557
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	966	966
					CENTRAL	1,187	1,187
				h/d or h/b > 0.5	INTERIOR	1,317	1,400
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	910	910
					CENTRAL	1,118	1,118
				h/d or h/b > 0.5	INTERIOR	1,278	1,318
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	843	843
					CENTRAL	1,035	1,035
				h/d or h/b > 0.5	INTERIOR	1,219	1,219
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,274	1,309
					CENTRAL	1,539	1,912
				h/d or h/b > 0.5	INTERIOR	1,539	1,912
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,070	1,070
					CENTRAL	1,388	1,555
				h/d or h/b > 0.5	INTERIOR	1,388	1,555
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	965	965
					CENTRAL	1,317	1,399
				h/d or h/b > 0.5	INTERIOR	1,317	1,399
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	910	910
					CENTRAL	1,277	1,317
				h/d or h/b > 0.5	INTERIOR	1,277	1,317
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	843	843
					CENTRAL	1,218	1,218
				h/d or h/b > 0.5	INTERIOR	1,218	1,218
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,268	1,297
					CENTRAL	1,530	1,888
				h/d or h/b > 0.5	INTERIOR	1,691	2,287
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,063	1,063
					CENTRAL	1,381	1,539
				h/d or h/b > 0.5	INTERIOR	1,524	1,875
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	959	959
					CENTRAL	1,311	1,386
				h/d or h/b > 0.5	INTERIOR	1,446	1,686
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	904	904
					CENTRAL	1,272	1,305
				h/d or h/b > 0.5	INTERIOR	1,402	1,587
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	838	838
					CENTRAL	1,208	1,208
				h/d or h/b > 0.5	INTERIOR	1,349	1,467
	TC2.5	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,337	1,443
					CENTRAL	1,619	2,116
				h/d or h/b > 0.5	INTERIOR	1,619	2,116
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,259	1,279
					CENTRAL	1,522	1,869
				h/d or h/b > 0.5	INTERIOR	1,522	1,869
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,143	1,143
					CENTRAL	1,436	1,664
				h/d or h/b > 0.5	INTERIOR	1,436	1,664
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,049	1,049
					CENTRAL	1,374	1,523
				h/d or h/b > 0.5	INTERIOR	1,374	1,523
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	947	947
					CENTRAL	1,304	1,372
				h/d or h/b > 0.5	INTERIOR	1,304	1,372
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,337	1,442
					CENTRAL	1,618	2,113
				h/d or h/b > 0.5	INTERIOR	1,618	2,113
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,259	1,278
					CENTRAL	1,521	1,867
				h/d or h/b > 0.5	INTERIOR	1,521	1,867
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,142	1,142
					CENTRAL	1,435	1,662
				h/d or h/b > 0.5	INTERIOR	1,435	1,662
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,048	1,048
					CENTRAL	1,373	1,522
				h/d or h/b > 0.5	INTERIOR	1,373	1,522
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	946	946
					CENTRAL	1,303	1,371
				h/d or h/b > 0.5	INTERIOR	1,303	1,371
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,330	1,428
					CENTRAL	1,607	2,084
				h/d or h/b > 0.5	INTERIOR	1,779	2,405
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,253	1,268
					CENTRAL	1,511	1,843
				h/d or h/b > 0.5	INTERIOR	1,671	2,253
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,133	1,133
					CENTRAL	1,427	1,643
				h/d or h/b > 0.5	INTERIOR	1,576	2,004
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,041	1,041
					CENTRAL	1,366	1,506
				h/d or h/b > 0.5	INTERIOR	1,508	1,835
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	940	940
					CENTRAL	1,297	1,358
				h/d or h/b > 0.5	INTERIOR	1,431	1,652
	TC3	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,407	1,598
					CENTRAL	1,708	2,309
				h/d or h/b > 0.5	INTERIOR	1,708	2,309
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,407	1,598
					CENTRAL	1,708	2,309
				h/d or h/b > 0.5	INTERIOR	1,708	2,309
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,305	1,374
					CENTRAL	1,579	2,012
				h/d or h/b > 0.5	INTERIOR	1,579	2,012
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,222	1,222
					CENTRAL	1,486	1,782
				h/d or h/b > 0.5	INTERIOR	1,486	1,782
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	1,071	1,071
					CENTRAL	1,389	1,557
				h/d or h/b > 0.5	INTERIOR	1,389	1,557
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,407	1,597
					CENTRAL	1,706	2,307
				h/d or h/b > 0.5	INTERIOR	1,706	2,307
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,407	1,597
					CENTRAL	1,706	2,307
				h/d or h/b > 0.5	INTERIOR	1,706	2,307
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,304	1,373
					CENTRAL	1,578	2,009
				h/d or h/b > 0.5	INTERIOR	1,578	2,009
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,221	1,221
					CENTRAL	1,485	1,780
				h/d or h/b > 0.5	INTERIOR	1,485	1,780
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	1,070	1,070
					CENTRAL	1,388	1,555
				h/d or h/b > 0.5	INTERIOR	1,388	1,555
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,399	1,580
					CENTRAL	1,693	2,289
				h/d or h/b > 0.5	INTERIOR	1,876	2,536
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,399	1,580
					CENTRAL	1,693	2,289
				h/d or h/b > 0.5	INTERIOR	1,876	2,536
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	1,298	1,360
					CENTRAL	1,567	1,982
				h/d or h/b > 0.5	INTERIOR	1,734	2,344
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	1,211	1,211
					CENTRAL	1,477	1,759
				h/d or h/b > 0.5	INTERIOR	1,632	2,148
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	1,063	1,063
					CENTRAL	1,381	1,539
				h/d or h/b > 0.5	INTERIOR	1,524	1,875

WIND REGION B - STANDARD ROOF HOOK PROLINE SPAN TABLE

REGION	TC	PITCH	H	h/d & h/b	ZONE	PRO 35 ON-PURLIN	PRO 50 ON-PURLIN
WIND REGION B	TC2	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	875	875
					CENTRAL	1,074	1,074
				h/d or h/b > 0.5	INTERIOR	1,253	1,266
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	719	719
					CENTRAL	880	880
				h/d or h/b > 0.5	INTERIOR	1,036	1,036
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	649	649
					CENTRAL	795	795
				h/d or h/b > 0.5	INTERIOR	934	934
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	613	613
					CENTRAL	749	749
				h/d or h/b > 0.5	INTERIOR	881	881
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	568	568
					CENTRAL	695	695
				h/d or h/b > 0.5	INTERIOR	816	816
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	875	875
					CENTRAL	1,252	1,265
				h/d or h/b > 0.5	INTERIOR	1,252	1,265
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	718	718
					CENTRAL	1,035	1,035
				h/d or h/b > 0.5	INTERIOR	1,035	1,035
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	649	649
					CENTRAL	934	934
				h/d or h/b > 0.5	INTERIOR	934	934
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	612	612
					CENTRAL	880	880
				h/d or h/b > 0.5	INTERIOR	880	880
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	568	568
					CENTRAL	815	815
				h/d or h/b > 0.5	INTERIOR	815	815
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	870	870
					CENTRAL	1,247	1,254
				h/d or h/b > 0.5	INTERIOR	1,374	1,524
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	715	715
					CENTRAL	1,028	1,028
				h/d or h/b > 0.5	INTERIOR	1,243	1,246
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	646	646
					CENTRAL	928	928
				h/d or h/b > 0.5	INTERIOR	1,124	1,124
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	610	610
					CENTRAL	875	875
				h/d or h/b > 0.5	INTERIOR	1,059	1,059
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	566	566
					CENTRAL	811	811
				h/d or h/b > 0.5	INTERIOR	981	981
	TC2.5	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	962	962
					CENTRAL	1,315	1,394
				h/d or h/b > 0.5	INTERIOR	1,315	1,394
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	855	855
					CENTRAL	1,237	1,237
				h/d or h/b > 0.5	INTERIOR	1,237	1,237
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	766	766
					CENTRAL	1,105	1,105
				h/d or h/b > 0.5	INTERIOR	1,105	1,105
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	704	704
					CENTRAL	1,014	1,014
				h/d or h/b > 0.5	INTERIOR	1,014	1,014
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	637	637
					CENTRAL	916	916
				h/d or h/b > 0.5	INTERIOR	916	916
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	961	961
					CENTRAL	1,314	1,393
				h/d or h/b > 0.5	INTERIOR	1,314	1,393
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	855	855
					CENTRAL	1,236	1,236
				h/d or h/b > 0.5	INTERIOR	1,236	1,236
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	765	765
					CENTRAL	1,104	1,104
				h/d or h/b > 0.5	INTERIOR	1,104	1,104
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	704	704
					CENTRAL	1,013	1,013
				h/d or h/b > 0.5	INTERIOR	1,013	1,013
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	636	636
					CENTRAL	915	915
				h/d or h/b > 0.5	INTERIOR	915	915
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	955	955
					CENTRAL	1,308	1,380
				h/d or h/b > 0.5	INTERIOR	1,443	1,679
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	850	850
					CENTRAL	1,225	1,225
				h/d or h/b > 0.5	INTERIOR	1,358	1,488
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	761	761
					CENTRAL	1,096	1,096
				h/d or h/b > 0.5	INTERIOR	1,283	1,329
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	700	700
					CENTRAL	1,006	1,006
				h/d or h/b > 0.5	INTERIOR	1,220	1,220
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	634	634
					CENTRAL	910	910
				h/d or h/b > 0.5	INTERIOR	1,101	1,101
	TC3	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,063	1,063
					CENTRAL	1,383	1,544
				h/d or h/b > 0.5	INTERIOR	1,383	1,544
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,063	1,063
					CENTRAL	1,383	1,544
				h/d or h/b > 0.5	INTERIOR	1,383	1,544
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	917	917
					CENTRAL	1,283	1,328
				h/d or h/b > 0.5	INTERIOR	1,283	1,328
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	818	818
					CENTRAL	1,181	1,181
				h/d or h/b > 0.5	INTERIOR	1,181	1,181
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	719	719
					CENTRAL	1,036	1,036
				h/d or h/b > 0.5	INTERIOR	1,036	1,036
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,062	1,062
					CENTRAL	1,383	1,543
				h/d or h/b > 0.5	INTERIOR	1,383	1,543
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,062	1,062
					CENTRAL	1,383	1,543
				h/d or h/b > 0.5	INTERIOR	1,383	1,543
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	916	916
					CENTRAL	1,282	1,327
				h/d or h/b > 0.5	INTERIOR	1,282	1,327
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	817	817
					CENTRAL	1,180	1,180
				h/d or h/b > 0.5	INTERIOR	1,180	1,180
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	718	718
					CENTRAL	1,035	1,035
				h/d or h/b > 0.5	INTERIOR	1,035	1,035
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	1,054	1,054
					CENTRAL	1,376	1,527
				h/d or h/b > 0.5	INTERIOR	1,518	1,860
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	1,054	1,054
					CENTRAL	1,376	1,527
				h/d or h/b > 0.5	INTERIOR	1,518	1,860
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	911	911
					CENTRAL	1,277	1,315
				h/d or h/b > 0.5	INTERIOR	1,408	1,599
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	813	813
					CENTRAL	1,171	1,171
				h/d or h/b > 0.5	INTERIOR	1,327	1,421
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	715	715
					CENTRAL	1,028	1,028
				h/d or h/b > 0.5	INTERIOR	1,243	1,246

WIND REGION C - STANDARD ROOF HOOK PROLINE SPAN TABLE

REGION	TC	PITCH	H	h/d & h/b	ZONE	PRO 35 ON-PURLIN	PRO 50 ON-PURLIN
WIND REGION C	TC2	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	628	628
					CENTRAL	768	768
				h/d or h/b > 0.5	INTERIOR	902	902
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	516	516
					CENTRAL	631	631
				h/d or h/b > 0.5	INTERIOR	741	741
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	467	467
					CENTRAL	571	571
				h/d or h/b > 0.5	INTERIOR	669	669
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	441	441
					CENTRAL	538	538
				h/d or h/b > 0.5	INTERIOR	631	631
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	409	409
					CENTRAL	500	500
				h/d or h/b > 0.5	INTERIOR	586	586
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	627	627
					CENTRAL	902	902
				h/d or h/b > 0.5	INTERIOR	902	902
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	516	516
					CENTRAL	740	740
				h/d or h/b > 0.5	INTERIOR	740	740
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	467	467
					CENTRAL	669	669
				h/d or h/b > 0.5	INTERIOR	669	669
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	441	441
					CENTRAL	631	631
				h/d or h/b > 0.5	INTERIOR	631	631
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	409	409
					CENTRAL	585	585
				h/d or h/b > 0.5	INTERIOR	585	585
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	625	625
					CENTRAL	896	896
				h/d or h/b > 0.5	INTERIOR	1,085	1,085
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	515	515
					CENTRAL	737	737
				h/d or h/b > 0.5	INTERIOR	890	890
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	466	466
					CENTRAL	666	666
				h/d or h/b > 0.5	INTERIOR	804	804
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	440	440
					CENTRAL	628	628
				h/d or h/b > 0.5	INTERIOR	759	759
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	408	408
					CENTRAL	583	583
				h/d or h/b > 0.5	INTERIOR	704	704
	TC2.5	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	689	689
					CENTRAL	992	992
				h/d or h/b > 0.5	INTERIOR	992	992
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	613	613
					CENTRAL	882	882
				h/d or h/b > 0.5	INTERIOR	882	882
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	550	550
					CENTRAL	789	789
				h/d or h/b > 0.5	INTERIOR	789	789
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	506	506
					CENTRAL	726	726
				h/d or h/b > 0.5	INTERIOR	726	726
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	458	458
					CENTRAL	656	656
				h/d or h/b > 0.5	INTERIOR	656	656
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	689	689
					CENTRAL	991	991
				h/d or h/b > 0.5	INTERIOR	991	991
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	613	613
					CENTRAL	881	881
				h/d or h/b > 0.5	INTERIOR	881	881
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	550	550
					CENTRAL	789	789
				h/d or h/b > 0.5	INTERIOR	789	789
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	506	506
					CENTRAL	725	725
				h/d or h/b > 0.5	INTERIOR	725	725
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	458	458
					CENTRAL	656	656
				h/d or h/b > 0.5	INTERIOR	656	656
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	685	685
					CENTRAL	985	985
				h/d or h/b > 0.5	INTERIOR	1,193	1,193
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	611	611
					CENTRAL	876	876
				h/d or h/b > 0.5	INTERIOR	1,060	1,060
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	548	548
					CENTRAL	785	785
				h/d or h/b > 0.5	INTERIOR	949	949
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	504	504
					CENTRAL	722	722
				h/d or h/b > 0.5	INTERIOR	872	872
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	457	457
					CENTRAL	653	653
				h/d or h/b > 0.5	INTERIOR	789	789
	TC3	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	760	760
					CENTRAL	1,096	1,096
				h/d or h/b > 0.5	INTERIOR	1,096	1,096
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	760	760
					CENTRAL	1,096	1,096
				h/d or h/b > 0.5	INTERIOR	1,096	1,096
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	657	657
					CENTRAL	946	946
				h/d or h/b > 0.5	INTERIOR	946	946
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	587	587
					CENTRAL	843	843
				h/d or h/b > 0.5	INTERIOR	843	843
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	516	516
					CENTRAL	741	741
				h/d or h/b > 0.5	INTERIOR	741	741
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	759	759
					CENTRAL	1,095	1,095
				h/d or h/b > 0.5	INTERIOR	1,095	1,095
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	759	759
					CENTRAL	1,095	1,095
				h/d or h/b > 0.5	INTERIOR	1,095	1,095
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	657	657
					CENTRAL	945	945
				h/d or h/b > 0.5	INTERIOR	945	945
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	587	587
					CENTRAL	842	842
				h/d or h/b > 0.5	INTERIOR	842	842
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	516	516
					CENTRAL	740	740
				h/d or h/b > 0.5	INTERIOR	740	740
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	756	756
					CENTRAL	1,087	1,087
				h/d or h/b > 0.5	INTERIOR	1,278	1,319
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	756	756
					CENTRAL	1,087	1,087
				h/d or h/b > 0.5	INTERIOR	1,278	1,319
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	654	654
					CENTRAL	939	939
				h/d or h/b > 0.5	INTERIOR	1,137	1,137
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	584	584
					CENTRAL	838	838
				h/d or h/b > 0.5	INTERIOR	1,014	1,014
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	515	515
					CENTRAL	737	737
				h/d or h/b > 0.5	INTERIOR	890	890

WIND REGION D - STANDARD ROOF HOOK PROLINE SPAN TABLE

REGION	TC	PITCH	H	h/d & h/b	ZONE	PRO 35 ON-PURLIN	PRO 50 ON-PURLIN
WIND REGION D	TC2	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	446	446
					CENTRAL	544	544
				h/d or h/b > 0.5	INTERIOR	638	638
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	368	368
					CENTRAL	448	448
				h/d or h/b > 0.5	INTERIOR	525	525
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	333	333
					CENTRAL	406	406
				h/d or h/b > 0.5	INTERIOR	475	475
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	314	314
					CENTRAL	383	383
				h/d or h/b > 0.5	INTERIOR	449	449
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	292	292
					CENTRAL	356	356
				h/d or h/b > 0.5	INTERIOR	416	416
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	446	446
					CENTRAL	638	638
				h/d or h/b > 0.5	INTERIOR	638	638
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	368	368
					CENTRAL	525	525
				h/d or h/b > 0.5	INTERIOR	525	525
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	333	333
					CENTRAL	475	475
				h/d or h/b > 0.5	INTERIOR	475	475
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	314	314
					CENTRAL	448	448
				h/d or h/b > 0.5	INTERIOR	448	448
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	292	292
					CENTRAL	416	416
				h/d or h/b > 0.5	INTERIOR	416	416
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	444	444
					CENTRAL	635	635
				h/d or h/b > 0.5	INTERIOR	767	767
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	367	367
					CENTRAL	523	523
				h/d or h/b > 0.5	INTERIOR	631	631
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	332	332
					CENTRAL	474	474
				h/d or h/b > 0.5	INTERIOR	571	571
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	314	314
					CENTRAL	447	447
				h/d or h/b > 0.5	INTERIOR	539	539
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	291	291
					CENTRAL	415	415
				h/d or h/b > 0.5	INTERIOR	500	500
	TC2.5	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	489	489
					CENTRAL	701	701
				h/d or h/b > 0.5	INTERIOR	701	701
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	436	436
					CENTRAL	624	624
				h/d or h/b > 0.5	INTERIOR	624	624
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	391	391
					CENTRAL	560	560
				h/d or h/b > 0.5	INTERIOR	560	560
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	360	360
					CENTRAL	515	515
				h/d or h/b > 0.5	INTERIOR	515	515
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	327	327
					CENTRAL	466	466
				h/d or h/b > 0.5	INTERIOR	466	466
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	489	489
					CENTRAL	701	701
				h/d or h/b > 0.5	INTERIOR	701	701
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	436	436
					CENTRAL	624	624
				h/d or h/b > 0.5	INTERIOR	624	624
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	391	391
					CENTRAL	559	559
				h/d or h/b > 0.5	INTERIOR	559	559
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	360	360
					CENTRAL	515	515
				h/d or h/b > 0.5	INTERIOR	515	515
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	326	326
					CENTRAL	466	466
				h/d or h/b > 0.5	INTERIOR	466	466
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	487	487
					CENTRAL	697	697
				h/d or h/b > 0.5	INTERIOR	843	843
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	435	435
					CENTRAL	621	621
				h/d or h/b > 0.5	INTERIOR	750	750
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	390	390
					CENTRAL	557	557
				h/d or h/b > 0.5	INTERIOR	672	672
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	359	359
					CENTRAL	513	513
				h/d or h/b > 0.5	INTERIOR	619	619
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	326	326
					CENTRAL	465	465
				h/d or h/b > 0.5	INTERIOR	560	560
	TC3	0≤α<5°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	539	539
					CENTRAL	773	773
				h/d or h/b > 0.5	INTERIOR	773	773
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	539	539
					CENTRAL	773	773
				h/d or h/b > 0.5	INTERIOR	773	773
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	467	467
					CENTRAL	669	669
				h/d or h/b > 0.5	INTERIOR	669	669
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	417	417
					CENTRAL	597	597
				h/d or h/b > 0.5	INTERIOR	597	597
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	368	368
					CENTRAL	525	525
				h/d or h/b > 0.5	INTERIOR	525	525
		5≤α<10°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	539	539
					CENTRAL	773	773
				h/d or h/b > 0.5	INTERIOR	773	773
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	539	539
					CENTRAL	773	773
				h/d or h/b > 0.5	INTERIOR	773	773
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	467	467
					CENTRAL	668	668
				h/d or h/b > 0.5	INTERIOR	668	668
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	417	417
					CENTRAL	597	597
				h/d or h/b > 0.5	INTERIOR	597	597
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	368	368
					CENTRAL	525	525
				h/d or h/b > 0.5	INTERIOR	525	525
		10≤α<30°	0 to 5m	h/d & h/b ≤ 0.5	ENDS	537	537
					CENTRAL	769	769
				h/d or h/b > 0.5	INTERIOR	930	930
			>5m to 10m	h/d & h/b ≤ 0.5	ENDS	537	537
					CENTRAL	769	769
				h/d or h/b > 0.5	INTERIOR	930	930
			>10m to 15m	h/d & h/b ≤ 0.5	ENDS	465	465
					CENTRAL	665	665
				h/d or h/b > 0.5	INTERIOR	804	804
			>15m to 20m	h/d & h/b ≤ 0.5	ENDS	416	416
					CENTRAL	594	594
				h/d or h/b > 0.5	INTERIOR	717	717
			>20m to 30m	h/d & h/b ≤ 0.5	ENDS	367	367
					CENTRAL	523	523
				h/d or h/b > 0.5	INTERIOR	631	631

STEPS TO DETERMINE ROOF HOOK SPACING FROM SPAN TABLES

STEP 1
DETERMINE FOLLOWING:
- BUILDING WIDTH (b)
- BUILDING DEPTH (d)
- MEAN ROOF HEIGHT FROM ROAD LEVEL (h)
- h/b AND h/d RATIOS
- ROOF PITCH (α)
- WIND REGION AND WIND TERRAIN CATEGORY AS PER AS1170.2-2021

STEP 2
READ THE RELEVANT SPACING VALUES FROM THE TABLE AND APPLY TO ROOF ZONES SHOWN ON DRAWING S01

IF THE h/b & h/d RATIOS ARE ≤ 0.5, THERE ARE ONLY TWO APPLICABLE ROOF ZONES **(DIAGRAMS 3 & 5)**:
- CENTRAL ZONES - VALUES DIRECTLY GIVEN IN TABLES
- END ZONES - VALUES DIRECTLY GIVEN IN TABLES

IF ANY OF h/b OR h/d RATIO IS > 0.5, THERE ARE FOUR APPLICABLE ROOF ZONES **(DIAGRAMS 1, 2 & 4)**:
- INTERIOR ZONES - VALUE DIRECTLY GIVEN IN TABLES
- INTERMEDIATE ZONES - INTERIOR VALUE / 1.5
- EDGE ZONES - INTERIOR VALUE / 2.0
- CORNER ZONES - INTERIOR VALUE / 3.0

SPAN TABLE MODIFICATION FACTORS
SPAN TABLES ARE BASED ON A PANEL SIZE OF **1,100mm x 2,100mm** SUPPORTED ON A MINIMUM OF TWO RAILS WITH THREE OR MORE CONTINUOUS RAIL SPANS (MINIMUM 4 CONNECTION POINTS) AND IMPORTANCE LEVEL 2. FOR DIFFERENT PANEL SIZE, ADDITIONAL RAILS, SPANS LESS THAN THREE AND IMPORTANCE LEVEL 3, VALUES READ FROM THE SPAN TABLES MUST BE MULTIPLIED BY THE 'f' FACTORS AS GIVEN BELOW:

A. SOLAR PANEL SIZE

$f = \sqrt{\frac{2100}{y}}$ FOR PANEL LENGTHS LESS THAN 2100

$f = \frac{2100}{y}$ FOR PANEL LENGTHS GREATER THAN 2100

where y is solar panel dimension perpendicular to rails

B. ADDITIONAL RAILS

f = 1.20 FOR 3 RAILS
f = 1.30 FOR 4 RAILS

THIS IS BASED ON THE ASSUMPTION THAT SOLAR PANEL WILL OVERHANG FROM EDGE RAILS BY 20% OF PANEL DIMENSION PERPENDICULAR TO RAILS

C. LESS THAN THREE RAIL SPANS

f = 0.89

D. IMPORTANCE LEVEL
TABLES ARE BASED ON IMPORTANCE LEVEL 2. FOR IMPORTANCE LEVEL 3, FOLLOWING FACTORS TO BE USED:

f = 0.91 FOR REGION A
f = 0.83 FOR REGION B
f = 0.85 FOR REGION C
f = 0.81 FOR REGION D

PRINT IN COLOUR

NOTE: MAX. SPACING MUST NOT EXCEED 2100mm BEFORE OR AFTER APPLICATION OF ANY MODIFICATION FACTOR

CLIENT **SCHLETTER GROUP**

PROJECT **ROOF HOOK STANDARD PROLINE**

231265 **SPAN TABLES**

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