STRUCTURAL SPAN TABLES
ULTRAWOOD Non-combustible Aluminium Battens

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Introduction:
Blue Chip Group Pty Ltd has had these tables prepared by a third-party structural engineer for use by people skilled in the design and specification of the type of structures covered. Accordingly, it accepts no responsibility for misinterpretation of the information provided or any errors or omissions. Users should satisfy themselves as to the suitability of the span tables for any given application or project.

Australian Standards and Compliance:
It is assumed that the proposed structural sections and aluminium extrusions comply with the following Australian standards.

- AS 1170.0:2002, Structural Design Actions – General Principles
- AS 1170.1:2002, Structural Design Actions – Permanent Imposed and Other Actions
- AS 1170.2:2002, Structural Design Actions – Wind Actions
- AS 4055:2006, Wind Loads for Housing
- AS 1664:1997, Aluminium Structures
- AS 1866:1997, Aluminium Extrusion & 6063-T6 Alloy Composition

Australian Standards and Compliance (continued):
All other products such as fixings are to be used in accordance with the relevant manufacturer's specifications along with appropriate advice from a qualified professional as required to ensure NCC compliance and suitability for any given project or application.

Design Loadings:

Base Loads:
- Dead Load (DL) – Only self-weight is allowed for
- Wind Load (WL) – 0.25 ≤ KPa ≤ 3.5, where KPa = Wind Pressure
- Span tables are designed for non-trafficable strip ceiling when used in horizontal plane

Wind Loads:
- Span tables are designed for wind pressure between 0.25 ≤ KPa ≤ 3.5
- Wu = Ultimate wind load (Upwards or downwards)
- Ws = Serviceability wind load (Upwards or downwards)

Ultimate Limit State:
- 0.9DL + Wu = (Upwards)
- 1.2DL + Wu = (Downwards)

Serviceability Limit State:
- DL + Ws = (Upwards)
- DL + Ws = (Downwards)

Serviceability Deflection Limits – 2 Scenarios:
- Dead Load: Span/150 & Span/300
- Wind Load: Span/150 & Span/300

Structural Aluminium:
All workmanship and materials to be in accordance with AS 1664 except if varied by contract documents. Structural aluminium shall be erected plumb and true to line. Temporary bracing shall be installed and shall be left in place until other means are provided to adequately brace the structure.

Wind Class:
Wind classification has been chosen as per AS 4055. The table below shows the design wind speeds for classes N1 through to N6.

Regional Wind Speed:
Design wind speeds were adopted from AS 4055.

Design Gust Wind Speed for Non-cyclonic Regions A & B:

Wind Classification	**Design Gust Wind Speed (m/s)**	
Region A & B (Non-cyclonic)	Ultimate Limit State (Vu)	Serviceability Limit State (Vs)
N1	34	26
N2	40	26
N3	50	32
N4	61	39
N5	74	47
N6	86	55

Wind Pressures for Case 1: Maximum Building Height = 4.0m

Wind Classification	Ultimate Case		Serviceability Case	
Region A & B (Non-cyclonic)	Upward Pressure (KPa)	Downward Pressure (KPa)	Upward Pressure (KPa)	Downward Pressure (KPa)
N1	-1.04	0.35	-0.61	0.20
N2	-1.44	0.48	-0.61	0.20
N3	-2.25	0.75	-0.92	0.31
N4	-3.35	1.12	-1.37	0.46
N5	-4.93	1.64	-1.99	0.66
N6	-6.66	2.22	-2.72	0.91

Wind Pressures for Case 2: Maximum Building Height = 6.0m

Wind Classification	Ultimate Case		Serviceability Case	
Region A & B (Non-cyclonic)	Upward Pressure (KPa)	Downward Pressure (KPa)	Upward Pressure (KPa)	Downward Pressure (KPa)
N1	-0.14	0.35	-0.08	0.20
N2	-0.19	0.48	-0.08	0.02
N3	-0.30	0.75	-0.12	0.31
N4	-0.45	1.12	-0.18	0.46
N5	-0.66	1.64	-0.06	0.66
N6	-0.89	2.22	-0.36	0.91

Wind Pressures for Case 3: Maximum Building Height = 8.0m

Wind Classification	Ultimate Case		Serviceability Case	
Region A & B (Non-cyclonic)	Upward Pressure (KPa)	Downward Pressure (KPa)	Upward Pressure (KPa)	Downward Pressure (KPa)
N1	-0.14	0.42	-0.08	0.24
N2	-0.19	0.58	-0.08	0.24
N3	-0.30	0.90	-0.12	0.37
N4	-0.45	1.34	-0.18	0.55
N5	-0.66	1.97	-0.27	0.80
N6	-0.89	2.66	-0.36	1.09

Wind Pressures for Case 4: Maximum Building Height = 12.0m

Wind Classification	Ultimate Case		Serviceability Case	
Region A & B (Non-cyclonic)	Upward Pressure (KPa)	Downward Pressure (KPa)	Upward Pressure (KPa)	Downward Pressure (KPa)
N1	-0.14	0.49	-0.08	0.28
N2	-0.19	0.67	-0.08	0.28
N3	-0.30	1.05	-0.12	0.43
N4	-0.45	1.56	-0.18	0.64
N5	-0.66	2.30	-0.27	0.93
N6	-0.89	3.11	-0.36	1.27

50 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	50mm x 50mm
Batten Mass (M):	1.062kg/m
Neutral Axis (X1) from LHS:	30.7mm
Neutral Axis (X2) from RHS:	19.3mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	150,587mm4 / 86,898mm4
Section Modulus, Sxx / Syy:	6,023mm3 / 2,831mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

50 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	7159	7879	8488	9019
0.50	5682	6254	6737	7159
0.75	4964	5463	5885	6254
1.00	4510	4964	5347	5682
1.25	4187	4608	4964	5275
1.50	3940	4336	4671	4964
1.75	3743	4119	4437	4715
2.00	3580	3940	4244	4510
2.25	3442	3788	4081	4336
2.50	3323	3657	3940	4187
2.75	3219	3543	3817	4056
3.00	3127	3442	3708	3940
3.25	3045	3351	3610	3836
3.50	2971	3269	3522	3743

50 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	5682	6254	6737	7159
0.50	4510	4964	5347	5682
0.75	3940	4336	4671	4964
1.00	3580	3940	4244	4510
1.25	3323	3657	3940	4187
1.50	3127	3442	3708	3940
1.75	2971	3269	3522	3743
2.00	2841	3127	3369	3580
2.25	2732	3007	3239	3442
2.50	2638	2903	3127	3323
2.75	2555	2812	3029	3219
3.00	2482	2732	2943	3127
3.25	2417	2660	2865	3045
3.50	2358	2595	2795	2971

50 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	50mm x 50mm
Batten Mass (M):	1.062kg/m
Neutral Axis (X1) from LHS:	30.7mm
Neutral Axis (X2) from RHS:	19.3mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	150,587mm4 / 86,898mm4
Section Modulus, Sxx / Syy:	6,023mm3 / 2,831mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

50 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	9596	10562	11377	12090
0.50	7617	8383	9030	9596
0.75	6654	7323	7889	8383
1.00	6045	6654	7168	7617
1.25	5612	6177	6654	7071
1.50	5281	5813	6262	6654
1.75	5017	5522	5948	6321
2.00	4798	5281	5689	6045
2.25	4614	5078	5470	5813
2.50	4454	4903	5281	5612
2.75	4315	4749	5116	5437
3.00	4192	4614	4970	5281
3.25	4082	4492	4839	5142
3.50	3982	4383	4721	5017

50 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	7617	8383	9030	9596
0.50	6045	6654	7168	7617
0.75	5281	5813	6262	6654
1.00	4798	5281	5689	6045
1.25	4454	4903	5281	5612
1.50	4192	4614	4970	5281
1.75	3982	4383	4721	5017
2.00	3809	4192	4516	4798
2.25	3662	4030	4342	4614
2.50	3536	3891	4192	4454
2.75	3425	3770	4061	4315
3.00	3327	3662	3945	4192
3.25	3240	3566	3841	4082
3.50	3161	3479	3747	3982

100 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	100mm x 50mm
Batten Mass (M):	1.618kg/m
Neutral Axis (X1) from LHS:	53.61mm
Neutral Axis (X2) from RHS:	46.39mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	262,158mm4 / 632,130mm4
Section Modulus, Sxx / Syy:	10,486mm3 / 11,790mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

100 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	13870	15266	16444	17475
0.50	11009	12117	13052	13870
0.75	9617	10585	11402	12117
1.00	8738	9617	10360	11009
1.25	8112	8928	9617	10220
1.50	7633	8402	9050	9617
1.75	7251	7981	8597	9136
2.00	6936	7633	8223	8738
2.25	6669	7340	7906	8402
2.50	6438	7086	7633	8112
2.75	6237	6865	7395	7858
3.00	6059	6669	7183	7633
3.25	5899	6493	6994	7432
3.50	5755	6335	6824	7251

100 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	11009	12117	13052	13870
0.50	8738	9617	10360	11009
0.75	7633	8402	9050	9617
1.00	6936	7633	8223	8738
1.25	6438	7086	7633	8112
1.50	6059	6669	7183	7633
1.75	5755	6335	6824	7251
2.00	5505	6059	6527	6936
2.25	5293	5826	6275	6669
2.50	5110	5625	6059	6438
2.75	4950	5449	5869	6237
3.00	4809	5293	5702	6059
3.25	4682	5154	5551	5899
3.50	4568	5028	5416	5755

100 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	100mm x 50mm
Batten Mass (M):	1.618kg/m
Neutral Axis (X1) from LHS:	53.61mm
Neutral Axis (X2) from RHS:	46.39mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	262,158mm4 / 632,130mm4
Section Modulus, Sxx / Syy:	10,486mm3 / 11,790mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

100 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	18592	20463	22043	23424
0.50	14757	16242	17496	18592
0.75	12892	14189	15285	16242
1.00	11713	12892	13887	14757
1.25	10873	11968	12892	13699
1.50	10232	11262	12132	12892
1.75	9720	10698	11524	12246
2.00	9297	10232	11022	11713
2.25	8939	9838	10598	11262
2.50	8630	9499	10232	10873
2.75	8361	9202	9912	10533
3.00	8122	8939	9629	10232
3.25	7908	8704	9376	9963
3.50	7715	8491	9147	9720

100 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	14757	16242	17496	18592
0.50	11713	12892	13887	14757
0.75	10232	11262	12132	12892
1.00	9297	10232	11022	11713
1.25	8630	9499	10232	10873
1.50	8122	8939	9629	10232
1.75	7715	8491	9147	9720
2.00	7379	8122	8749	9297
2.25	7095	7809	8412	8939
2.50	6850	7540	8122	8630
2.75	6636	7304	7868	8361
3.00	6446	7095	7643	8122
3.25	6277	6908	7442	7908
3.50	6123	6740	7260	7715

150 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	150mm x 50mm
Batten Mass (M):	2.281kg/m
Neutral Axis (X1) from LHS:	78.16mm
Neutral Axis (X2) from RHS:	71.84mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	394,841mm4 / 2,038,533mm4
Section Modulus, Sxx / Syy:	15,794mm3 / 26,082mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

150 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	20491	22553	24294	25817
0.50	16264	17901	19283	20491
0.75	14208	15638	16845	17901
1.00	12909	14208	15305	16264
1.25	11984	13190	14208	15098
1.50	11277	12412	13371	14208
1.75	10713	11791	12701	13497
2.00	10246	11277	12148	12909
2.25	9852	10843	11680	12412
2.50	9512	10469	11277	11984
2.75	9214	10142	10925	11609
3.00	8951	9852	10612	11277
3.25	8715	9592	10333	10980
3.50	8503	9358	10081	10713

150 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	16264	17901	19283	20491
0.50	12909	14208	15305	16264
0.75	11277	12412	13371	14208
1.00	10246	11277	12148	12909
1.25	9512	10469	11277	11984
1.50	8951	9852	10612	11277
1.75	8503	9358	10081	10713
2.00	8133	8951	9642	10246
2.25	7820	8606	9271	9852
2.50	7550	8309	8951	9512
2.75	7314	8050	8671	9214
3.00	7105	7820	8423	8951
3.25	6918	7614	8202	8715
3.50	6749	7428	8001	8503

150 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	150mm x 50mm
Batten Mass (M):	2.281kg/m
Neutral Axis (X1) from LHS:	78.16mm
Neutral Axis (X2) from RHS:	71.84mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	394,841mm4 / 2,038,533mm4
Section Modulus, Sxx / Syy:	15,794mm3 / 26,082mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

150 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	11398	12545	13513	14360
4.0	10902	11999	12925	13735
4.5	10482	11537	12427	13206
5.0	10120	11139	11999	12750
5.5	9804	10790	11623	12352
6.0	9524	10482	11291	11999
6.5	9273	10206	10994	11683
7.0	9047	9957	10726	11398
7.5	8841	9731	10482	11139
8.0	8653	9524	10259	10902
8.5	8480	9333	10054	10684
9.0	8320	9157	9864	10482
9.5	8171	8993	9688	10295
10.0	8033	8841	9524	10120

150 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	9047	9957	10726	11398
4.0	8653	9524	10259	10902
4.5	8320	9157	9864	10482
5.0	8033	8841	9524	10120
5.5	7781	8564	9226	9804
6.0	7559	8320	8962	9524
6.5	7360	8101	8726	9273
7.0	7180	7903	8513	9047
7.5	7017	7723	8320	8841
8.0	6868	7559	8143	8653
8.5	6730	7408	7980	8480
9.0	6603	7268	7829	8320
9.5	6486	7138	7689	8171
10.0	6376	7017	7559	8033

200 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	200mm x 50mm
Batten Mass (M):	3.763kg/m
Neutral Axis (X1) from LHS:	105.5mm
Neutral Axis (X2) from RHS:	94.5mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	626,536mm4 / 5,029,016mm4
Section Modulus, Sxx / Syy:	25,061mm3 / 47,667mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

200 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	11489	12645	13621	14474
4.0	10989	12094	13028	13844
4.5	10566	11629	12527	13311
5.0	10201	11227	12094	12852
5.5	9882	10876	11716	12450
6.0	9600	10566	11381	12094
6.5	9347	10287	11082	11776
7.0	9119	10036	10811	11489
7.5	8911	9808	10566	11227
8.0	8722	9600	10341	10989
8.5	8547	9407	10134	10769
9.0	8386	9230	9943	10566
9.5	8236	9065	9765	10377
10.0	8097	8911	9600	10201

200 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	9119	10036	10811	11489
4.0	8722	9600	10341	10989
4.5	8386	9230	9943	10566
5.0	8097	8911	9600	10201
5.5	7844	8633	9299	9882
6.0	7619	8386	9034	9600
6.5	7419	8165	8796	9347
7.0	7238	7966	8581	9119
7.5	7073	7785	8386	8911
8.0	6923	7619	8208	8722
8.5	6784	7467	8043	8547
9.0	6656	7326	7892	8386
9.5	6537	7195	7751	8236
10.0	6426	7073	7619	8097

200 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	200mm x 50mm
Batten Mass (M):	3.763kg/m
Neutral Axis (X1) from LHS:	105.5mm
Neutral Axis (X2) from RHS:	94.5mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	626,536mm4 / 5,029,016mm4
Section Modulus, Sxx / Syy:	25,061mm3 / 47,667mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

200 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	15400	16950	18259	19403
4.0	14730	16212	17464	18558
4.5	14163	15588	16792	17844
5.0	13674	15050	16212	17228
5.5	13247	14580	15705	16689
6.0	12868	14163	15256	16212
6.5	12529	13790	14855	15785
7.0	12223	13454	14492	15400
7.5	11946	13148	14163	15050
8.0	11691	12868	13861	14730
8.5	11457	12610	13584	14435
9.0	11241	12372	13328	14163
9.5	11041	12152	13090	13910
10.0	10853	11946	12868	13674

200 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	12223	13454	14492	15400
4.0	11691	12868	13861	14730
4.5	11241	12372	13328	14163
5.0	10853	11946	12868	13674
5.5	10514	11572	12466	13247
6.0	10213	11241	12109	12868
6.5	9945	10945	11790	12529
7.0	9702	10678	11503	12223
7.5	9481	10436	11241	11946
8.0	9280	10213	11002	11691
8.5	9094	10009	10782	11457
9.0	8922	9820	10579	11241
9.5	8763	9645	10390	11041
10.0	8615	9481	10213	10853

250 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	250mm x 50mm
Batten Mass (M):	5.252kg/m
Neutral Axis (X1) from LHS:	131.52mm
Neutral Axis (X2) from RHS:	118.48mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	886,829mm4 / 10,739,361mm4
Section Modulus, Sxx / Syy:	35,473mm3 / 81,657mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

250 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	14794	16283	17540	18639
4.0	14150	15574	16777	17828
4.5	13605	14975	16131	17141
5.0	13136	14458	15574	16550
5.5	12725	14006	15087	16032
6.0	12361	13605	14656	15574
6.5	12036	13247	14270	15164
7.0	11742	12924	13922	14794
7.5	11475	12630	13605	14458
8.0	11231	12361	13316	14150
8.5	11007	12114	13050	13867
9.0	10799	11886	12803	13605
9.5	10606	11673	12575	13362
10.0	10426	11475	12361	13136

250 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	11742	12924	13922	14794
4.0	11231	12361	13316	14150
4.5	10799	11886	12803	13605
5.0	10426	11475	12361	13136
5.5	10100	11117	11975	12725
6.0	9812	10799	11633	12361
6.5	9553	10515	11326	12036
7.0	9320	10258	11050	11742
7.5	9108	10025	10799	11475
8.0	8914	9812	10569	11231
8.5	8736	9615	10358	11007
9.0	8571	9434	10162	10799
9.5	8418	9265	9981	10606
10.0	8276	9108	9812	10426

250 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	250mm x 50mm
Batten Mass (M):	5.252kg/m
Neutral Axis (X1) from LHS:	131.52mm
Neutral Axis (X2) from RHS:	118.48mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	886,829mm4 / 10,739,361mm4
Section Modulus, Sxx / Syy:	35,473mm3 / 81,657mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

250 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	19831	21827	23512	24985
4.0	18968	20877	22489	23897
4.5	18238	20073	21623	22978
5.0	17608	19380	20877	22185
5.5	17058	18774	20224	21491
6.0	16570	18238	19646	20877
6.5	16134	17758	19129	20327
7.0	15740	17324	18662	19831
7.5	15383	16930	18238	19380
8.0	15055	16570	17850	18968
8.5	14754	16239	17493	18588
9.0	14476	15932	17162	18238
9.5	14217	15648	16856	17912
10.0	13976	15383	16570	17608

250 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	15740	17324	18662	19831
4.0	15055	16570	17850	18968
4.5	14476	15932	17162	18238
5.0	13976	15383	16570	17608
5.5	13539	14902	16052	17058
6.0	13152	14476	15593	16570
6.5	12806	14095	15183	16134
7.0	12493	13751	14812	15740
7.5	12209	13438	14476	15383
8.0	11950	13152	14168	15055
8.5	11711	12889	13884	14754
9.0	11490	12646	13622	14476
9.5	11284	12420	13379	14217
10.0	11093	12209	13152	13976

300 x 50mm Battens – Vertical Wall Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	300mm x 50mm
Batten Mass (M):	6.065kg/m
Neutral Axis (X1) from LHS:	156.23mm
Neutral Axis (X2) from RHS:	143.77mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	1,052,729mm4 / 17,904,115mm4
Section Modulus, Sxx / Syy:	42,109mm3 / 114,603mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

300 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	17542	19307	20798	22101
4.0	16778	18467	19892	21139
4.5	16132	17756	19127	20325
5.0	15576	17143	18467	19624
5.5	15089	16607	17889	19010
6.0	14657	16132	17378	18467
6.5	14271	15708	16920	17980
7.0	13923	15324	16508	17542
7.5	13607	14976	16132	17143
8.0	13317	14657	15789	16778
8.5	13051	14364	15473	16443
9.0	12805	14093	15181	16132
9.5	12576	13841	14910	15844
10.0	12363	13607	14657	15576

300 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	13923	15324	16508	17542
4.0	13317	14657	15789	16778
4.5	12805	14093	15181	16132
5.0	12363	13607	14657	15576
5.5	11976	13181	14199	15089
6.0	11634	12805	13793	14657
6.5	11328	12467	13430	14271
7.0	11051	12163	13102	13923
7.5	10800	11887	12805	13607
8.0	10570	11634	12532	13317
8.5	10359	11401	12281	13051
9.0	10163	11186	12050	12805
9.5	9982	10986	11834	12576
10.0	9812	10800	11634	12363

300 x 50mm Battens – Vertical Wall Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	300mm x 50mm
Batten Mass (M):	6.065kg/m
Neutral Axis (X1) from LHS:	156.23mm
Neutral Axis (X2) from RHS:	143.77mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	1,052,729mm4 / 17,904,115mm4
Section Modulus, Sxx / Syy:	42,109mm3 / 114,603mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

300 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	23514	25881	27879	29625
4.0	22491	24754	26665	28336
4.5	21625	23801	25639	27245
5.0	20879	22980	24754	26305
5.5	20226	22261	23980	25482
6.0	19648	21625	23295	24754
6.5	19130	21056	22681	24102
7.0	18664	20542	22128	23514
7.5	18239	20075	21625	22980
8.0	17851	19648	21165	22491
8.5	17494	19255	20741	22041
9.0	17164	18891	20350	21625
9.5	16858	18554	19986	21239
10.0	16572	18239	19648	20879

300 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
3.5	18664	20542	22128	23514
4.0	17851	19648	21165	22491
4.5	17164	18891	20350	21625
5.0	16572	18239	19648	20879
5.5	16054	17669	19033	20226
6.0	15595	17164	18489	19648
6.5	15184	16712	18003	19130
7.0	14814	16304	17563	18664
7.5	14477	15934	17164	18239
8.0	14169	15595	16799	17851
8.5	13885	15283	16463	17494
9.0	13623	14994	16152	17164
9.5	13380	14727	15864	16858
10.0	13153	14477	15595	16572

50 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	50mm x 50mm
Batten Mass (M):	1.062kg/m
Neutral Axis (X1) from LHS:	30.7mm
Neutral Axis (X2) from RHS:	19.3mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	150,587mm4 / 86,898mm4
Section Modulus, Sxx / Syy:	6,023mm3 / 2,831mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

50 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8599	9464	10195	10833
0.50	6825	7512	8092	8599
0.75	5962	6562	7069	7512
1.00	5417	5962	6422	6825
1.25	5029	5535	5962	6336
1.50	4732	5208	5611	5962
1.75	4495	4948	5330	5664
2.00	4300	4732	5098	5417
2.25	4134	4550	4901	5208
2.50	3991	4393	4732	5029
2.75	3867	4256	4584	4872
3.00	3756	4134	4453	4732
3.25	3657	4025	4336	4608
3.50	3568	3927	4230	4495

50 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6825	7512	8092	8599
0.50	5417	5962	6422	6825
0.75	4732	5208	5611	5962
1.00	4300	4732	5098	5417
1.25	3991	4393	4732	5029
1.50	3756	4134	4453	4732
1.75	3568	3927	4230	4495
2.00	3413	3756	4046	4300
2.25	3281	3611	3890	4134
2.50	3168	3487	3756	3991
2.75	3069	3378	3639	3867
3.00	2981	3281	3535	3756
3.25	2903	3195	3442	3657
3.50	2832	3117	3358	3568

50 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	50mm x 50mm
Batten Mass (M):	1.062kg/m
Neutral Axis (X1) from LHS:	30.7mm
Neutral Axis (X2) from RHS:	19.3mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	150,587mm4 / 86,898mm4
Section Modulus, Sxx / Syy:	6,023mm3 / 2,831mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

50 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	11526	12686	13665	14522
0.50	9149	10069	10847	11526
0.75	7992	8796	9475	10069
1.00	7261	7992	8609	9149
1.25	6741	7419	7992	8493
1.50	6343	6982	7521	7992
1.75	6026	6632	7144	7592
2.00	5763	6343	6833	7261
2.25	5542	6099	6570	6982
2.50	5350	5889	6343	6741
2.75	5183	5705	6145	6530
3.00	5035	5542	5969	6343
3.25	4902	5396	5812	6176
3.50	4783	5264	5670	6026

50 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	9149	10069	10847	11526
0.50	7261	7992	8609	9149
0.75	6343	6982	7521	7992
1.00	5763	6343	6833	7261
1.25	5350	5889	6343	6741
1.50	5035	5542	5969	6343
1.75	4783	5264	5670	6026
2.00	4575	5035	5424	5763
2.25	4398	4841	5215	5542
2.50	4247	4674	5035	5350
2.75	4114	4528	4877	5183
3.00	3996	4398	4738	5035
3.25	3891	4283	4613	4902
3.50	3796	4178	4501	4783

100 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	100mm x 50mm
Batten Mass (M):	1.618kg/m
Neutral Axis (X1) from LHS:	53.61mm
Neutral Axis (X2) from RHS:	46.39mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	262,158mm4 / 632,130mm4
Section Modulus, Sxx / Syy:	10,486mm3 / 11,790mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

100 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	7726	8210	8643	9036
0.50	6132	6516	6860	7172
0.75	5357	5693	5993	6266
1.00	4867	5172	5445	5693
1.25	4518	4801	5055	5285
1.50	4252	4518	4757	4973
1.75	4039	4292	4518	4724
2.00	3863	4105	4322	4518
2.25	3715	3947	4155	4344
2.50	3586	3811	4012	4195
2.75	3474	3692	3887	4063
3.00	3375	3586	3775	3947
3.25	3286	3492	3676	3843
3.50	3206	3407	3586	3750

100 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6132	6516	6860	7172
0.50	4867	5172	5445	5693
0.75	4252	4518	4757	4973
1.00	3863	4105	4322	4518
1.25	3586	3811	4012	4195
1.50	3375	3586	3775	3947
1.75	3206	3407	3586	3750
2.00	3066	3258	3430	3586
2.25	2948	3133	3298	3448
2.50	2847	3025	3184	3329
2.75	2758	2930	3085	3225
3.00	2679	2847	2997	3133
3.25	2608	2772	2918	3051
3.50	2545	2704	2847	2976

100 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	100mm x 50mm
Batten Mass (M):	1.618kg/m
Neutral Axis (X1) from LHS:	53.61mm
Neutral Axis (X2) from RHS:	46.39mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	262,158mm4 / 632,130mm4
Section Modulus, Sxx / Syy:	10,486mm3 / 11,790mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

100 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	10356	11005	11585	12113
0.50	8220	8735	9196	9614
0.75	7181	7631	8033	8399
1.00	6524	6933	7299	7631
1.25	6057	6436	6776	7084
1.50	5700	6057	6376	6666
1.75	5414	5753	6057	6332
2.00	5179	5503	5793	6057
2.25	4979	5291	5570	5824
2.50	4807	5109	5378	5623
2.75	4657	4949	5210	5447
3.00	4524	4807	5061	5291
3.25	4405	4681	4928	5152
3.50	4297	4567	4807	5026

100 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8220	8735	9196	9614
0.50	6524	6933	7299	7631
0.75	5700	6057	6376	6666
1.00	5179	5503	5793	6057
1.25	4807	5109	5378	5623
1.50	4524	4807	5061	5291
1.75	4297	4567	4807	5026
2.00	4110	4368	4598	4807
2.25	3952	4200	4421	4622
2.50	3816	4055	4269	4463
2.75	3696	3928	4135	4323
3.00	3591	3816	4017	4200
3.25	3496	3715	3911	4089
3.50	3411	3625	3816	3989

150 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	150mm x 50mm
Batten Mass (M):	2.281kg/m
Neutral Axis (X1) from LHS:	78.16mm
Neutral Axis (X2) from RHS:	71.84mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	394,841mm4 / 2,038,533mm4
Section Modulus, Sxx / Syy:	15,794mm3 / 26,082mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

150 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	7561	7905	8221	8515
0.50	6001	6274	6525	6758
0.75	5242	5481	5700	5904
1.00	4763	4980	5179	5364
1.25	4422	4623	4808	4980
1.50	4161	4350	4525	4686
1.75	3953	4132	4298	4452
2.00	3781	3953	4111	4258
2.25	3635	3800	3953	4094
2.50	3510	3669	3816	3953
2.75	3400	3555	3697	3829
3.00	3303	3453	3591	3720
3.25	3216	3362	3497	3622
3.50	3137	3280	3411	3533

150 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6001	6274	6525	6758
0.50	4763	4980	5179	5364
0.75	4161	4350	4525	4686
1.00	3781	3953	4111	4258
1.25	3510	3669	3816	3953
1.50	3303	3453	3591	3720
1.75	3137	3280	3411	3533
2.00	3001	3137	3263	3379
2.25	2885	3016	3137	3249
2.50	2786	2912	3029	3137
2.75	2699	2821	2934	3039
3.00	2621	2741	2850	2952
3.25	2552	2669	2775	2875
3.50	2490	2603	2708	2804

150 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	150mm x 50mm
Batten Mass (M):	2.281kg/m
Neutral Axis (X1) from LHS:	78.16mm
Neutral Axis (X2) from RHS:	71.84mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	394,841mm4 / 2,038,533mm4
Section Modulus, Sxx / Syy:	15,794mm3 / 26,082mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

150 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	10135	10596	11020	11414
0.50	8044	8410	8747	9060
0.75	7027	7347	7641	7914
1.00	6385	6675	6943	7191
1.25	5927	6197	6445	6675
1.50	5578	5832	6065	6282
1.75	5298	5539	5761	5967
2.00	5068	5298	5510	5707
2.25	4873	5094	5298	5488
2.50	4704	4919	5116	5298
2.75	4557	4765	4956	5133
3.00	4427	4629	4814	4986
3.25	4311	4507	4687	4855
3.50	4205	4397	4573	4736

150 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8044	8410	8747	9060
0.50	6385	6675	6943	7191
0.75	5578	5832	6065	6282
1.00	5068	5298	5510	5707
1.25	4704	4919	5116	5298
1.50	4427	4629	4814	4986
1.75	4205	4397	4573	4736
2.00	4022	4205	4374	4530
2.25	3867	4044	4205	4356
2.50	3734	3904	4060	4205
2.75	3617	3782	3933	4074
3.00	3514	3674	3821	3957
3.25	3421	3577	3720	3853
3.50	3338	3490	3630	3759

200 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	200mm x 50mm
Batten Mass (M):	3.763kg/m
Neutral Axis (X1) from LHS:	105.5mm
Neutral Axis (X2) from RHS:	94.5mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	626,536mm4 / 5,029,016mm4
Section Modulus, Sxx / Syy:	25,061mm3 / 47,667mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

200 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	7916	8198	8463	8712
0.50	6283	6507	6717	6915
0.75	5489	5685	5868	6041
1.00	4987	5165	5332	5489
1.25	4629	4795	4950	5095
1.50	4356	4512	4658	4795
1.75	4138	4286	4424	4555
2.00	3958	4100	4232	4356
2.25	3806	3942	4069	4189
2.50	3674	3806	3929	4044
2.75	3559	3687	3806	3918
3.00	3458	3581	3697	3806
3.25	3367	3487	3600	3706
3.50	3285	3402	3512	3615

200 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6283	6507	6717	6915
0.50	4987	5165	5332	5489
0.75	4356	4512	4658	4795
1.00	3958	4100	4232	4356
1.25	3674	3806	3929	4044
1.50	3458	3581	3697	3806
1.75	3285	3402	3512	3615
2.00	3142	3254	3359	3458
2.25	3021	3129	3230	3325
2.50	2916	3021	3118	3210
2.75	2825	2926	3021	3110
3.00	2744	2843	2934	3021
3.25	2672	2768	2857	2941
3.50	2607	2700	2787	2869

200 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	200mm x 50mm
Batten Mass (M):	3.763kg/m
Neutral Axis (X1) from LHS:	105.5mm
Neutral Axis (X2) from RHS:	94.5mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	626,536mm4 / 5,029,016mm4
Section Modulus, Sxx / Syy:	25,061mm3 / 47,667mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

200 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	10611	10990	11345	11678
0.50	8422	8723	9004	9269
0.75	7357	7620	7866	8098
1.00	6685	6923	7147	7357
1.25	6205	6427	6635	6830
1.50	5840	6048	6244	6427
1.75	5547	5745	5931	6105
2.00	5306	5495	5673	5840
2.25	5101	5284	5454	5615
2.50	4925	5101	5266	5421
2.75	4771	4942	5101	5252
3.00	4635	4801	4956	5101
3.25	4513	4674	4825	4967
3.50	4403	4560	4707	4846

200 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8422	8723	9004	9269
0.50	6685	6923	7147	7357
0.75	5840	6048	6244	6427
1.00	5306	5495	5673	5840
1.25	4925	5101	5266	5421
1.50	4635	4801	4956	5101
1.75	4403	4560	4707	4846
2.00	4211	4362	4503	4635
2.25	4049	4194	4329	4457
2.50	3909	4049	4180	4303
2.75	3787	3922	4049	4168
3.00	3679	3810	3933	4049
3.25	3582	3710	3830	3942
3.50	3495	3620	3736	3846

250 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	250mm x 50mm
Batten Mass (M):	5.252kg/m
Neutral Axis (X1) from LHS:	131.52mm
Neutral Axis (X2) from RHS:	118.48mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	886,829mm4 / 10,739,361mm4
Section Modulus, Sxx / Syy:	35,473mm3 / 81,657mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

250 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8189	8430	8658	8874
0.50	6500	6691	6872	7044
0.75	5678	5845	6003	6153
1.00	5159	5311	5454	5591
1.25	4789	4930	5063	5190
1.50	4507	4639	4765	4884
1.75	4281	4407	4526	4639
2.00	4095	4215	4329	4437
2.25	3937	4053	4163	4267
2.50	3801	3913	4019	4119
2.75	3682	3791	3893	3991
3.00	3577	3682	3782	3876
3.25	3483	3585	3682	3774
3.50	3398	3498	3593	3682

250 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6500	6691	6872	7044
0.50	5159	5311	5454	5591
0.75	4507	4639	4765	4884
1.00	4095	4215	4329	4437
1.25	3801	3913	4019	4119
1.50	3577	3682	3782	3876
1.75	3398	3498	3593	3682
2.00	3250	3346	3436	3522
2.25	3125	3217	3304	3386
2.50	3017	3106	3190	3270
2.75	2923	3009	3090	3167
3.00	2839	2923	3002	3077
3.25	2764	2846	2923	2996
3.50	2697	2776	2851	2923

250 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	250mm x 50mm
Batten Mass (M):	5.252kg/m
Neutral Axis (X1) from LHS:	131.52mm
Neutral Axis (X2) from RHS:	118.48mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	886,829mm4 / 10,739,361mm4
Section Modulus, Sxx / Syy:	35,473mm3 / 81,657mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

250 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	10977	11300	11605	11896
0.50	8713	8969	9211	9442
0.75	7611	7835	8047	8248
1.00	6915	7119	7311	7494
1.25	6420	6609	6787	6957
1.50	6041	6219	6387	6547
1.75	5739	5908	6067	6219
2.00	5489	5650	5803	5948
2.25	5278	5433	5580	5719
2.50	5095	5245	5387	5522
2.75	4936	5081	5219	5349
3.00	4795	4936	5070	5196
3.25	4669	4806	4936	5060
3.50	4555	4689	4816	4936

250 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8713	8969	9211	9442
0.50	6915	7119	7311	7494
0.75	6041	6219	6387	6547
1.00	5489	5650	5803	5948
1.25	5095	5245	5387	5522
1.50	4795	4936	5070	5196
1.75	4555	4689	4816	4936
2.00	4357	4485	4606	4721
2.25	4189	4312	4429	4539
2.50	4044	4163	4276	4383
2.75	3918	4033	4142	4246
3.00	3806	3918	4024	4124
3.25	3706	3815	3918	4016
3.50	3615	3722	3822	3918

300 x 50mm Battens – Horizontal Ceiling Application / 1 Single Span

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	300mm x 50mm
Batten Mass (M):	6.065kg/m
Neutral Axis (X1) from LHS:	156.23mm
Neutral Axis (X2) from RHS:	143.77mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	1,052,729mm4 / 17,904,115mm4
Section Modulus, Sxx / Syy:	42,109mm3 / 114,603mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

300 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8118	8321	8514	8700
0.50	6443	6604	6758	6905
0.75	5629	5770	5904	6032
1.00	5114	5242	5364	5481
1.25	4748	4866	4980	5088
1.50	4468	4579	4686	4788
1.75	4244	4350	4451	4548
2.00	4059	4161	4258	4350
2.25	3903	4001	4094	4183
2.50	3768	3863	3952	4038
2.75	3650	3742	3829	3912
3.00	3546	3635	3719	3800
3.25	3453	3539	3621	3700
3.50	3369	3453	3533	3610

300 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	6443	6604	6758	6905
0.50	5114	5242	5364	5481
0.75	4468	4579	4686	4788
1.00	4059	4161	4258	4350
1.25	3768	3863	3952	4038
1.50	3546	3635	3719	3800
1.75	3369	3453	3533	3610
2.00	3222	3302	3379	3453
2.25	3098	3175	3249	3320
2.50	2991	3066	3137	3205
2.75	2897	2970	3039	3105
3.00	2815	2885	2952	3016
3.25	2741	2809	2874	2937
3.50	2674	2741	2804	2865

300 x 50mm Battens – Horizontal Ceiling Application / 2 Equal Spans

Structural Properties and Material Criteria (6063-T6 Aluminium Alloy to AS 1866):

Width (X) x Height (Y):	300mm x 50mm
Batten Mass (M):	6.065kg/m
Neutral Axis (X1) from LHS:	156.23mm
Neutral Axis (X2) from RHS:	143.77mm
Neutral Axis (Y1) from Top:	25mm
Moment of Inertia, Ixx / Iyy:	1,052,729mm4 / 17,904,115mm4
Section Modulus, Sxx / Syy:	42,109mm3 / 114,603mm3
Shear Modulus / Shear Strength:	25.8 GPa / 152 MPa
Tensile Yield / Bearing Yield:	214 MPa / 276 MPa
Modulus of Elasticity:	68.9 GPa
Poisson Ratio:	0.33

300 x 50mm Batten – Deflection Ratio: Span / 150				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	10882	11154	11413	11662
0.50	8637	8853	9059	9256
0.75	7545	7734	7914	8086
1.00	6855	7027	7190	7347
1.25	6364	6523	6675	6820
1.50	5989	6139	6281	6418
1.75	5689	5831	5967	6097
2.00	5441	5577	5707	5831
2.25	5232	5363	5487	5607
2.50	5051	5178	5298	5413
2.75	4893	5016	5132	5244
3.00	4753	4872	4986	5094
3.25	4628	4744	4854	4960
3.50	4515	4628	4736	4839

300 x 50mm Batten – Deflection Ratio: Span / 300				
Spacing Between Battens	**25mm**	**50mm**	**75mm**	**100mm**
KPa Wind Pressure	Maximum Span Between Supports (mm)			
0.25	8637	8853	9059	9256
0.50	6855	7027	7190	7347
0.75	5989	6139	6281	6418
1.00	5441	5577	5707	5831
1.25	5051	5178	5298	5413
1.50	4753	4872	4986	5094
1.75	4515	4628	4736	4839
2.00	4319	4427	4530	4628
2.25	4153	4256	4355	4450
2.50	4009	4110	4205	4297
2.75	3884	3981	4074	4162
3.00	3773	3867	3957	4043
3.25	3674	3765	3853	3937
3.50	3584	3674	3759	3841