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STANDING SEAM METAL ROOF PANEL

WESTERN LOCK®

14" WIDE PANEL – LOAD TABLES

WSMR UL Certificate Number: R40094
Issue Date: 7/23/2020

Load Tables extracted from UL report number R14692

New Tech 675 Snap-On Panel

Width	14.00 in
Alloy	ASTM A653, G50 (Fy= 50 ksi)
Gauge	24 (0.024 in)

ALLOWABLE STRENGTH DESIGN (ASD)
Wind Load Factor = 1.0
ALLOWABLE UNIFORM LOAD (PSF)
SPAN LENGTH (Feet)

SPAN	DEFLECTION	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00
1	L/180	263	208	168	139	116	99	85	74	65
	L/240	263	208	168	139	116	99	85	74	65
	L/360	263	208	168	139	116	99	85	74	65
2	L/180	263	208	168	139	116	99	85	74	65
	L/240	263	208	168	139	116	99	85	74	65
	L/360	263	208	168	139	116	99	85	74	65
3	L/180	297	236	192	159	134	114	98	86	75
	L/240	297	236	192	159	134	114	98	86	75
	L/360	297	236	192	159	134	114	98	86	75

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:
   One Span - Mp= .125wl², Mn= .125wl², x= .0130wl^4/EI
   Two Span - Mp= .125wl², Mn= .096wl², x= .0092wl^4/EI
   Three Span - Mp= .080wl², Mn= .107wl², x= .0069wl^4/EI
   Modulas of Elasticity (E) = 29,500 ksi

2. Allowable uniform loads are determined per the following:
   a) Allowable Shear Stress (Fv) [AISI C3.2]
   b) Combined Bending and Shear [AISI C3.3]
   c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:
   Ω (Bending) = 1.67
   Ω (Shear) = 1.67
   Ω (Web Crippling) = 1.85

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 150 lb at mid-span, load width = 4 in
   Simple Span : Max. Span = 5.455 ft (L/180)
   Two Span : Max. Span = 6.594 ft (L/180)
   Three Span +: Max. Span = 7.102 ft (L/180)

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ALLOWABLE UNIFORM LOAD (PSF)
SPAN LENGTH (Feet)

SPAN	DEFLECTION	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25
1	L/180	57	51	46	41	37	34	31	28	26
	L/240	57	51	46	41	37	34	31	28	26
	L/360	57	51	44	38	32	28	25	22	19
2	L/180	57	51	46	41	37	34	31	28	26
	L/240	57	51	46	41	37	34	31	28	26
	L/360	57	51	46	41	37	34	31	28	26
3	L/180	66	59	53	48	43	39	36	33	30
	L/240	66	59	53	48	43	39	36	33	30
	L/360	66	59	53	48	43	39	36	33	30

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ALLOWABLE STRENGTH DESIGN (ASD)
Wind Load Factor = 1.0
ALLOWABLE UNIFORM LOAD (PSF)
SPAN LENGTH (Feet)

SPAN	DEFLECTION	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50
1	L/180	24	22	20	19	17	16	15	14	13
	L/240	24	22	20	18	17	15	14	13	11
	L/360	17	15	14	12	11	10	9	8	8
2	L/180	24	22	20	19	17	16	15	14	13
	L/240	24	22	20	19	17	16	15	14	13
	L/360	24	22	19	17	16	14	13	12	11
3	L/180	28	26	24	22	20	19	18	17	16
	L/240	28	26	24	22	20	19	18	17	16
	L/360	28	26	24	22	20	19	17	16	14

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SPAN LENGTH (Feet)

SPAN	DEFLECTION	8.75	9.00	9.25	9.50	9.75	10.00	10.25	10.50	10.75
1	L/180	12	12	11	10	10	9	9	8	8
	L/240	11	10	9	8	8	7	7	6	6
	L/360	7	6	6	5	5	5	4	4	4
2	L/180	12	12	11	10	10	9	9	8	8
	L/240	12	12	11	10	10	9	9	8	8
	L/360	10	9	8	8	7	7	6	6	5
3	L/180	15	14	13	12	12	11	10	10	9
	L/240	15	14	13	12	12	11	10	10	9
	L/360	13	12	11	10	10	9	8	8	7

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