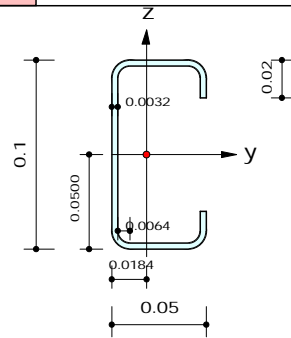
	Company		Project Title	
	Author		File Name	D:\...\MidasCal81_100_V8.mgb

1. Design Information

Design Code : AISI-CFSD86
 Unit System : kgf, m
 Member No : 447
 Material : SS400 (No:10)
 (Fy = 24000000, Es = 210000000000)
 Section Name : LC-100x50x20x3.2(Purlin3) (No:91)
 (Rolled : LC-100x50x20x3.2).
 Member Length : 8.00000



2. Member Forces

Axial Force Fxx = -227.60 (LCB: 1, POS:J)
 Bending Moments My = -66.879, Mz = -33.933
 End Moments Myi = -59.587, Myj = -58.026 (for Lb)
 Myi = -13.958, Myj = -58.026 (for Ly)
 Mzi = -30.238, Mzj = -30.355 (for Lz)
 Shear Forces Fyy = 53.7996 (LCB: 1, POS:J)
 Fzz = 107.073 (LCB: 1, POS:J)

Depth	0.10000	Thickness	0.00320
Width	0.05000	Rounding	0.00640
Lip Depth	0.02000		
Area	0.00070	Asz	0.00026
Qyb	0.00231	Qzb	0.00024
Iyy	0.00000	Izz	0.00000
Ybar	0.01842	Zbar	0.05000
Syy	0.00002	Szz	0.00001
ry	0.03900	rz	0.01870

3. Design Parameters

Unbraced Lengths Ly = 8.00000, Lz = 3.41056, Lb = 3.41056
 Effective Length Factors Ky = 1.00, Kz = 1.00
 Moment Factor / Bending Coefficient
 Cmy = 1.00, Cmz = 1.00, Cb = 1.00

4. Checking Results

Axial Strength

$$Pu/Pa = 227.60/1379.96 = 0.165 < 1.000 \dots\dots\dots \text{O.K}$$

Bending Strength

$$Muy/May = 66.879/191.535 = 0.349 < 1.000 \dots\dots\dots \text{O.K}$$

$$Muz/Maz = 33.933/105.417 = 0.322 < 1.000 \dots\dots\dots \text{O.K}$$

Combined Strength (Compression+Bending)

$$Pu/Pa = 0.16 > 0.15$$

$$R_{max1} = Pu/Pa + (C_{my}/\alpha_y) * M_{uy}/M_{ay} + (C_{mz} * \alpha_z) * M_{uz}/M_{az}$$

$$R_{max2} = Pu/P_{ao} + M_y/M_{ay} + M_z/M_{az}$$

$$R_{max} = \text{MAX}[R_{max1}, R_{max2}] = 0.836 < 1.000 \dots\dots\dots \text{O.K}$$

Shear Strength

$$V_{uy}/V_{ay} = 0.083 < 1.000 \dots\dots\dots \text{O.K}$$

$$V_{uz}/V_{az} = 0.043 < 1.000 \dots\dots\dots \text{O.K}$$