

| $b \coloneqq 4$ in  | Steel Angle Width     |                   |  |  |
|---|-----------------------|-------------------|--|--|
| $t \coloneqq \frac{5}{8} in$  | Steel Angle Thickness |                   |  |  |
| $Fy = 260 \ MPa$  | Steel Yield Strength  |                   |  |  |
| $S \coloneqq \frac{\left(b \cdot t^2\right)}{6} = 0.26 \ \boldsymbol{in}^3$ | Section Modulus       |                   |  |  |
| $Mf \coloneqq 1.4 \cdot 10 \ kN \cdot 4 \ in =$                             | $1.422 \; kN \cdot m$ | Factored Moment   |  |  |
| $Mr \coloneqq 0.9 \cdot S \cdot Fy = 0.999 \ kN \cdot m$                    |                       | Moment Resistence |  |  |
| $CSR := \frac{Mf}{Mr} = 1.424$  | <- Not Ok             |                   |  |  |
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