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CFD

$$q = \epsilon \times \sigma \times (T)^4 \quad .2$$

$$\begin{aligned} & \left( \right) \\ & + \quad = \quad q \\ & 5.77 \times 10^{-8} \quad \text{sb} \end{aligned}$$

<sup>1</sup> Markus & Morris, Building, Climate and Energy, pp.38  
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<sup>1</sup> Markus & Morris, Building, Climate and Energy, pp.77

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$$q = 0.9 \times 5.77 \times 10^{-8} \times (34 + 273)^4$$
$$q = 512.5 \text{ watt / m}^2$$

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حساب درجة الحرارة في الشمس:

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$$T = [q / sb]^{1/4} - 273$$

$$T = [q / 5.77]^{1/4} \times 100 - 273$$

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$$T = [628 / 5.77]^{1/4} \times 100 - 273$$

$$T = 50 \text{ C}$$

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$$T_0 = T_r \times 0.5 + T_{air} \times 0.5 = [50.25 \times 0.5] + 35 \times 0.5 = 42.6 \text{ C}$$

solar excess

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