

Chapter8_example5

The volumetric thermal expansion coefficient is $0.00192 / \text{degree R}$

The Rayleigh Number is 4.92×10^8

The value of convection coefficient is $0.586 \text{ BTU}/(\text{hr} \cdot \text{sq} \cdot \text{ft} \cdot \text{degree R})$

The heat transferred from one side is 93.7 BTU/hr

The Rayleigh Number based on characteristic length is 7.69×10^6

The convective coefficient based on characteristic length is $0.862 \text{ BTU}/(\text{hr} \cdot \text{sq} \cdot \text{ft} \cdot \text{degree R})$

The heat transferred from top is 137 BTU/hr

The top transfers heat at a higher rate