

10–88



Air at 20°C flows at $V = 80.0$ m/s over a smooth flat plate of length $L = 17.5$ m. Plot the turbulent boundary layer profile in physical variables (u as a function of y) at $x = L$. Compare the profile generated by the one-seventh-power law, the log law, and Spalding's law of the wall, assuming that the boundary layer is fully turbulent from the beginning of the plate.