

【5.6】

$$\text{摩擦速度: } u_* = \sqrt{gRI} = \sqrt{g \frac{D}{4} I} = 1.807[\text{cm/s}]$$

$$\frac{u_* \delta_L}{\nu} = 11.6 \rightarrow \text{粘性底層厚: } \delta_L = 11.6 \frac{\nu}{u_*} = 0.0642[\text{cm}]$$

$$\frac{\bar{u}}{u_*} = 5.75 \log \frac{u_* D/2}{\nu} + 1.75 \rightarrow \text{平均流速: } \bar{u} = u_* \left(5.75 \log \frac{u_* D/2}{\nu} + 1.75 \right) = 37.0[\text{cm/s}]$$