la constante $C_{k_y k_z}$ se determina por la normalización:

$$\int_{-\infty}^{+\infty} dx \int_{-L_y/2}^{+L_y/2} dy \int_{-L_z/2}^{+L_z/2} dz \, |\psi_{n k_y k_z}(x, y, z)|^2$$

$$= |C_{k_y k_z}|^2 \cdot \underbrace{\int_{-\infty}^{+\infty} dx \, |\varphi_n(x - x_0)|^2}_{= 1} \cdot L_y \cdot L_z = 1$$

$$\therefore \; |C_{k_y k_z}| = \frac{1}{\sqrt{L_y L_z}}$$

Eligiendo la fase real: $C_{k_y k_z} = \dfrac{1}{\sqrt{L_y L_z}}$.