

$$I_{in} - \text{wysciowe} \quad d = \frac{\pi}{2N}$$

$$I_{k+1} = I_k \cos^2 d$$

$$I_{out} = I_{in} \cos^{2N} \left(\frac{\pi}{2N} \right)$$

$$\text{dla } N \rightarrow \infty$$

$$I_{out} = I_{in} \left(1 - \left(\frac{\pi}{2N} \right)^2 \right)^{2N} = I_{in} \left(1 - \frac{\pi^2}{2N} \right) = I_{in}$$

$$I_{out} = I_{in}$$