$$|C(y_c)| \sim \left[\frac{c_i^2}{(c_c(y_c) - c_r)^2 + c_i^2} \right]^{\frac{1}{2}}$$

$$\arg(C(y_c)) \sim \arctan\left(\frac{c_c(y_c) - c_r}{c_i} \right)$$