Abstract: It is well known that the expected number of real zeros of a random cosine polynomial $V_n(x) = \sum_{j=0}^{n} a_j \cos(jx), x \in [0,2\pi)$, with the $a_j$ being standard Gaussian i.i.d. random variables is asymptotically $2n/\sqrt{3}$. We investigate three different cases of random cosine polynomials with pairwise equal blocks of coefficients and show that in each case (asymptotically) $\mathbb{E}[N_n(0,2\pi)] \geq 2n/\sqrt{3}$. 