For \( \lambda = k\Lambda_0 \), let \( V(\lambda) \) be the integrable highest weight \( \widehat{sl}(n, \mathbb{C}) \)-module. A dominant weight \( \mu \) of \( V(\lambda) \) is maximal if \( \mu + \delta \) is not a weight. It is known that the set of maximal dominant weights of \( V(\lambda) \) is finite. For \( k \geq 1 \), we give explicit descriptions of these maximal dominant weights and conjecture that their multiplicities are given by certain avoiding permutations. In particular, we show that for \( k = 2 \), the multiplicities are in one-to-one correspondence with 321-avoiding permutations. (Received September 16, 2010)