The tables provides the conditional critical region for testing the independence in a 2×2 table by means of the Fisher's exact test. The aim is to test:

Ho: Independence vs H_1: Dependence (two-tailed test)

or H_1: Negative dependence (one-tailed test)

Under Ho: $P(x_1) = P(x_1 \mid a_1, n_1, N) = \mathbf{C}(n_1, x_1)\times\mathbf{C}(n_2, x_2) / \mathbf{C}(N, a_1)$, with $a_1 = x_1+x_2$ and $N=n_1+n_2$. For a target error α, the critical region is a set, CR, of x_1-values with $\sum_{CR} P(x_1)\leq\alpha$ obtained by the optimal criterion (Luna and Martín, 1987):

"For a two-tailed test to the target error α, arrange the values x_1 from the largest to the smallest value for $\left| x_2/n_2 - x_1/n_1 \right|$ and keep adding points to the CR until the sum of their probabilities is as near as possible to α (without passing it). In the case of a tie –points with an equal value of $\left| x_2/n_2 - x_1/n_1 \right|$ - arrange the points in the order of smallest to greatest probability $P(x_1)$. For a one-tailed test, the arrangement is based in $x_2/n_2 - x_1/n_1$".