The formula for calculating the sample size required for a confidence interval on normally distributed data can be approximated by the following:

$$N = \frac{K^2 * s^2}{E^2}$$

where K is a constant that depends on N, s is the repeatability standard deviation, and E is the effect size. For a confidence interval, E is the width/2 or the \pm - amount.

Let's assume that the confidence interval is expressed as (Lower, Upper), then E is like a standard deviation of means:

$$E^{2} = (\overline{x} - Lower)^{2} = s_{Mean}^{2} = s_{EffectSize}^{2}$$

Dividing the both the numerator and denominator of the formula for N by \bar{x}^2 , we get

$$N = \frac{\left(K^{2} * s^{2}\right)/\bar{x}^{2}}{E^{2}/\bar{x}^{2}} = \frac{K^{2} * (s^{2}/\bar{x}^{2})}{E^{2}/\bar{x}^{2}} = \frac{K^{2} * CV^{2}_{\text{Repeatability}}}{CV^{2}_{\text{Effect Size}}}$$

For large N, K can be approximated by 2.8^2 . So, if we use the example from the table of $CV_{Repeatability}=15\%$ and $CV_{Effect Size}=2\%$, then

$$N = \left(\frac{2.8 * 0.15}{0.02}\right)^2 = 441$$

This compares to 440 in the table. This formula will not work for small N, say $CV_{Repeatability}=15\%$ and $CV_{Effect Size}=25\%$,

$$N = \left(\frac{2.8 * 0.15}{0.25}\right)^2 = 3$$

This compares to 6 in the table.

There is no reference as this is just a scaled way of representing the standard deviation and effect size. This scaling let me present one table rather than two tables. Since the audience for the table thinks in terms of CVs, it seemed a natural thing to do. Be careful, however. This table applies only to determining a sample size for a confidence interval from a one-sample, normal or Gaussian distributed variable.