Fig. 5. Nomogram from which ARL values can be determined when $x_i$ is normally distributed.

To find the values of $L_a$ and $L_r$ which are obtained with particular values of $k$, $h$, and $\sigma(x)$ we place a ruler on the nomogram so that it joins the points $|k - m_a| / \sigma(x)$ and $h/\sigma(x)$ and read off the value of $L_a$ from the scale on the right hand side of the diagram. In a similar way we obtain $L_r$ from the line joining $|k - m_r| / \sigma(x)$ and $h/\sigma(x)$.

By using the nomograms we find that a number of schemes can be designed which have the same values of $L_a$ and $L_r$ when $m = m_a$ and $m = m_r$. The question therefore arises, which of the alternatives should we use? There are a number of advantages gained by the use of a central reference value. For example, when the sample mean is used for control purposes, we find that the schemes which require the lowest