Line-element examples for grey samples ($0{,}2 \leq x \leq 5$)

$F_u(x)$ is called the line-element function of $f_u(x)$.
Both functions are normalized to the surround value:

$$\frac{d[F_u(x)]}{dx} = f_u(x) \qquad [1]$$

$$F_u(x) = \int \frac{f'_u(x)}{f_u(x)}\, dx \qquad [2]$$

Example for the normalized functions with x_u=1:

$$F_u(x) = \frac{F(x)}{F(x_u)} = \frac{\ln(1+b\,x)}{\ln(1+b)} \qquad [3]$$

$$f_u(x) = \frac{f(x)}{f(x_u)} = \frac{1+b\,x}{1+b} \qquad [4]$$