

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

$F(x)$ is called the line-element function of $f(x)$.

The following relations are valid for $x=Y/Y_u=Y/18$:

$$\frac{d[F(x)]}{dx} = f(x) \quad [1]$$

$$F(x) = \int \frac{f'(x)}{f(x)} dx \quad [2]$$

Example for the normalized tristimulus value $x=Y/Y_u$:

$$\frac{d[a \ln(1+bx)]}{dx} = \frac{ab}{1+bx} \quad [3]$$

$$a \ln(1+bx) = \int \frac{ab}{1+bx} dx \quad [4]$$