**sensation scaling functions
lightness $L^*$ and luminous value $Y$**

**adaptation on surround white:**
$$L^* = 100\,(Y/100)^{1/2,0}$$

**adaptation on surround gray:**
$$L^* = 100\,(Y/100)^{1/2,4}$$
**description with CIELAB 1976:**
$$L^* = 116\,(Y/100)^{1/3,0} - 16$$

**adaptation on surround black:**
$$L^* = 100\,(Y/100)^{1/3,0}$$

Ae250−2