log (L*/L*_u)
CIELAB

relative lightness L*/L*_u
normalized to the
background lightness L*_u

$L^*_{CIELAB} = 116 \ (Y/Y_u)^{1/3} - 16 \quad (Y_u = 100, \ 0{,}89 \leq Y)$ **[2a]**

$L^*_{CIELAB} = 65{,}4 \ (Y/Y_u)^{1/3} - 16 \quad (Y_u = 18, \ 0{,}89 \leq Y)$ **[2b]**

regularity index: $g^*_S = 88$, $g^*_W = 74$,   **[ISO 15775]**

linearized real output:

equally spaced 9 steps in CIELAB
after contrast transfer $C_Y = 25:1$ to $2:1$

$L^*_{CIELAB,r} = 1$, $m_u = 1{,}02$

$L^*_{CIELAB,u} = 49$, $Y_u = 18$

white
device white
device black
black

1,93

0,4

$Y_N = 3{,}6$ $Y_u = 18$ $Y_W = 90$

0,1   1   10   100   1000   **Y**

−2   −1   0   1   2   3 **log Y**

2
1
0
−1

eea20−4a