

$L^*_{r,CIELAB}$

relative lightness normalized to the background lightness $L^*_{u,CIELAB}$

3 $L^* = 116 (Y/Y_u)^{1/3} - 16, \quad Y_n=100, Y_u=18, 1 \leq Y \leq 100$ [1b]

2 $L^* = k_u (Y/Y_u)^{1/3} - 16, \quad k_u=116 [Y_n/Y_u]^{1/3}=65,50$ [2b]

$L^*/L^*_u = [(Y/Y_u)^{1/3} - 16/k_u] / [1 - 16/k_u]$ [3b]

