

$L^*_{80}/L^*_{80,u}$   
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# HAULAB lightness $L^*_{80}$ normalized to the background lightness, $L^*_{80,u}$

$L^* = s(Y/Y_u)^n - d$  ( $Y_n=100, Y_u=39, s=137,2, n=0,31, d=52,8$ ) [1a]  
 $L^* = r(Y/Y_u)^n - d$  ( $r = s(Y_u/Y_n)^n = 80,63, L^*_u = r - d = 27,7$ ) [1b]

$Y_{curve}, ij=15, Y_{uij}=39, L^*_{uij}=50$   
 $k=99, Y_{kij}=100, L^*_{kij}=85,0, L^*/L^*_u=1,68$   
 $k=39, Y_{kij}=40, L^*_{kij}=51,8, L^*/L^*_u=1,00$   
 $k=1, Y_{kij}=2, L^*_{kij}=-9,4, L^*/L^*_u=-0,24$   
 $k=0, Y_{kij}=1, L^*_{kij}=-17,2, L^*/L^*_u=-0,39$

$m_{u90} = 0,919, f_{90}=80, f_4=1$   
 $m_u = 1,449$

$\phi=90'$   
 $L_{aw} = 1000 \text{ cd/m}^2$

application range

