

$\Delta Y/\Delta Y_u$ 

HAULAB tristimulus value difference

 $\Delta Y/\Delta Y_u$  $\Delta Y$  normalized to  $\Delta Y_u$ 

$$L^* = s(Y/Y_n)^n - d \quad (Y_n=100, Y_u=11, s=134,6, n=0,31, d=19,2) \quad [1a]$$

$$L^* = r(Y/Y_u)^n - d \quad (r = s(Y_u/Y_n)^n = 79,10, L^*_u = r - d = 59,8) \quad [1b]$$

6

4

2

0

 $Y_{curve}, ij=3, Y_{uij}=11, L^*_{uij}=50$ 
 $k=99, Y_{kij}=100, L^*_{kij}=115,3, \Delta Y/\Delta Y_u=4,38$ 
 $k=11, Y_{kij}=12, L^*_{kij}=50,4, \Delta Y/\Delta Y_u=1,01$ 
 $k=1, Y_{kij}=2, L^*_{kij}=20,7, \Delta Y/\Delta Y_u=0,29$ 
 $k=0, Y_{kij}=1, L^*_{kij}=12,9, \Delta Y/\Delta Y_u=0,18$ 
 $\phi=120'$   
 $L_{aw}=40 \text{ cd/m}^2$ 

 application  
 range

 $m_{u90} = 0,022, f_{90}=2, f_4=0$ 
 $m_u = 1,569$ 

0,1

0,182

10

10

100

 $Y_u=11$  $Y_u=18$  $Y_u=100$ 

log Y

4,383

1,072