

Farbenraum CIELAB 1976, Farbwerte, -merkmale und -arten (a*, b*)

Normfarbwerte X, Y, Z -> Farbmerkmale L*, a*, b*

Helligkeit $L^* = 116 (Y/Y_n)^{1/3} - 16$
RG-Buntheit $a^* = 500 [(X/X_n)^{1/3} - (Y/Y_n)^{1/3}] = 500 [a' - a'_n] Y^{1/3}$
JB-Buntheit $b^* = 200 [(Y/Y_n)^{1/3} - (Z/Z_n)^{1/3}] = 500 [b' - b'_n] Y^{1/3}$

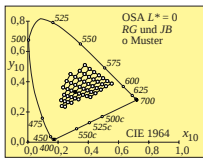
Farbmerkmale L*, a*, b* -> Normfarbwerte X, Y, Z

Normfarbwerte $X = X_n [(L^* + 16) / 116 + a^*/500]^3$
 $Y = Y_n [(L^* + 16) / 116]^3$
 $Z = Z_n [(L^* + 16) / 116 - b^*/200]^3$

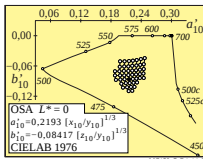
Farbarten für CIELAB 1976, LABHNU 1977, LABHNUx 1979

CIELAB 1976, 2° $a^* = 0,2191 (x/y)^{1/3}$ $b^* = -0,08376 (z/y)^{1/3}$
LABHNU 1977 $a^* = (x/y + 1/6)^{1/3} / 4$ $b^* = -(z/y + 1/6)^{1/3} / 12$
LABHNU1 1979 $a^* = (x/y + 1) / 15$ linear! $b^* = -(z/y + 1/6)^{1/3} / 12$
LABHNU2 1979 $a^* = (x/y + 1/6)^{2/3} / 15$ $b^* = -(z/y + 1/6)^{1/3} / 12$
CIELAB 1976, 10° $a^* = 0,2193 (x_{10}/y_{10})^{1/3}$ $b^* = -0,08417 (z_{10}/y_{10})^{1/3}$
Farbart-Konstanten $a_2 = 500 (1/X_n)^{1/3} = 0,2191$ $b_2 = -200 (1/Z_n)^{1/3} = -0,08376$
CIELAB, 2°, 10° $a_{10} = 500 (1/X_{a10})^{1/3} = 0,2193$ $b_{10} = -200 (1/Z_{a10})^{1/3} = -0,08417$

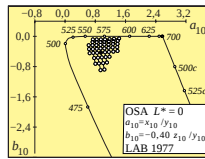
MG150-3, B4,13,2



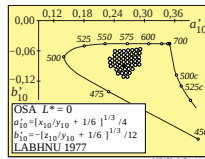
MG150-5, B4,13,3



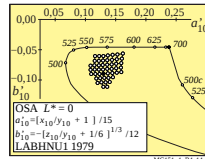
MG150-7, B4,14,2



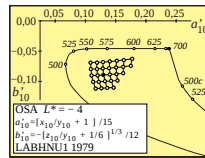
MG150-6, B4,14,1



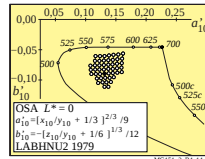
MG151-6, B4,14,3



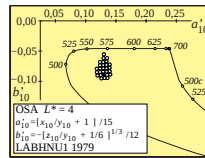
MG151-1, B4,14,4



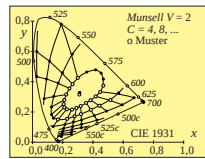
MG151-3, B4,15,1



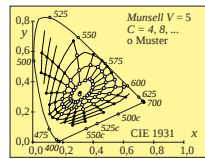
MG151-2, B4,14,5



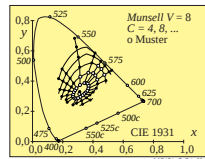
MG151-4, B4,15,3



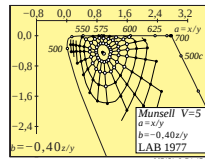
MG151-5, B4,15,1



MG151-6, B4,15,2



MG151-7, B4,16,3



MG151-8, B4,17,1