

LABJND colour difference formula of CIE 230:2019

Modifications with normalization to Y_u of surround

$$dY = A_1 + A_2 Y^{A_3} \quad \text{error } 0,0019 \quad A_1=0,0258, A_2=0,0036, A_3=1,087 \quad [3d]$$

$$= A_1 + A_{2u} (Y/Y_u)^{A_3} \quad A_1=0,0258, A_{2u}=0,0826, A_3=1,087 \quad [4d]$$

$$\int \frac{dY}{A_1 + A_2 [Y]^{A_3}} = A_1 Y + \frac{A_2 [Y]^{(A_3+1)}}{A_3+1} = F^*(Y) \quad (A_3 \neq 1) \quad [3i]$$

$$dY = A_1 [1 + A_2 Y]^{A_3} \quad \text{error } 0,0018 \quad A_1=0,0251, A_2=0,1566, A_3=1,107 \quad [7d]$$

$$= A_1 [1 + A_{2u} (Y/Y_u)]^{A_3} \quad A_1=0,0251, A_{2u}=2,778, A_3=1,107 \quad [8d]$$

$$\frac{1}{A_1} \int \frac{dY}{[1 + A_2 Y]^{A_3}} = \frac{1}{A_1} \frac{[1 + A_2 Y]^{(A_3+1)}}{A_2 (A_3+1)} = F^*(Y) \quad (A_3 \neq 1) \quad [7i]$$