

# WCGa data $rgb^*$ , $XYZxy$ , and $L^*ABCh_{AB2}$ in L\*AB2JND-colour space

Tristimulus values of black and white:  $Y_{Nn}=40,3$ ,  $Y_{Wn}=88,6$ ,  $Y_{Wa}=88,6$ .

$rgb^* \ L_d^* \ A_{2,d} \ B_{2,d} \ C_{AB2,d} \ h_{AB2,d}$

|       | $R_d$ | $1$ | $0$ | $0$  | $77$  | $45$  | $11$ | $46$  | $13$ |
|-------|-------|-----|-----|------|-------|-------|------|-------|------|
| $Y_d$ | $1$   | $1$ | $0$ | $94$ | $1$   | $38$  | $38$ | $88$  |      |
| $G_d$ | $0$   | $1$ | $0$ | $88$ | $-44$ | $27$  | $52$ | $148$ |      |
| $C_d$ | $0$   | $1$ | $1$ | $90$ | $-46$ | $-10$ | $47$ | $192$ |      |
| $B_d$ | $0$   | $0$ | $1$ | $71$ | $-1$  | $-38$ | $38$ | $268$ |      |
| $M_d$ | $1$   | $0$ | $1$ | $79$ | $44$  | $-27$ | $52$ | $328$ |      |
| $N_d$ | $0$   | $0$ | $0$ | $69$ | $0$   | $0$   | $0$  | $0$   |      |
| $W_d$ | $1$   | $1$ | $1$ | $95$ | $0$   | $0$   | $0$  | $0$   |      |

$$a_2 = a_{20} [(x - x_c)/y]$$

$$b_2 = b_{20} [z/y]$$

$$a_{20} = 1, \ b_{20} = -0,4$$

$$x_c = 0,110, \ B_c = 0,800$$

$$A_2 = 2,5 (a_2 - a_{2,n}) Y \quad [1d]$$

$$B_2 = 2,5 B_c (b_2 - b_{2,n}) Y \quad [2d]$$

$$C_{AB2} = [A_2^2 + B_2^2]^{0,5} \quad [3d]$$

$$h_{AB2} = \text{atan} [B_2 / A_2] \quad [4d]$$

