

$$XYZ_{W,10} = 99.8, 100.0, 75.8$$

$$A_{2,10} = 2.5 (a_{2,10} - a_{2,n,10}) Y_{10}$$

$$B_{2,10} = 2.5 B_c (b_{2,10} - b_{2,n,10}) Y_{10}$$

$$a_{2,10} = a_{20} [(x_{10} - x_c) / y_{10}]$$

$$b_{2,10} = b_{20} [z_{10} / y_{10}]$$

$$a_{20} = 1, b_{20} = -0.4$$

$$x_c = 0.110, B_c = 1.100$$

$$C_{AB,2,10} = [A_{2,10}^2 + B_{2,10}^2]^{1/2}$$

6 Ostwald colours (o)

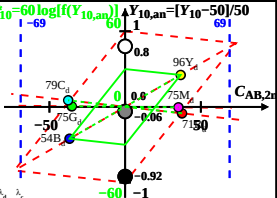
of maximum (m)  $C_{AB,10}$  in

linear colour space ( $C_{AB,2,10}, Y_{10}$ )

Illumin. P45,  $Y_{W,10} = 100, Y_{N,10} = 50$

| Name  | Range   | $X_{d,10}$ | $Y_{d,10}$ | $Z_{d,10}$ | $x_{d,10}$ | $y_{d,10}$ | $\lambda_d$ | $\lambda_c$ |
|-------|---------|------------|------------|------------|------------|------------|-------------|-------------|
| $R_d$ | 567_775 | 83.75      | 70.79      | 37.97      | 0.435      | 0.3677     | 597         | 485         |
| $Y_d$ | 490_775 | 93.61      | 96.11      | 39.73      | 0.4079     | 0.4188     | 571         | 465         |
| $G_d$ | 490_567 | 59.86      | 75.42      | 39.73      | 0.342      | 0.4309     | 536         | 536c        |
| $C_d$ | 380_567 | 66.1       | 79.35      | 75.84      | 0.2986     | 0.3585     | 485         | 597         |
| $B_d$ | 380_490 | 56.24      | 54.03      | 74.08      | 0.305      | 0.293      | 465         | 571         |
| $M_d$ | 567_490 | 89.99      | 74.72      | 74.08      | 0.3768     | 0.3128     | 536c        | 536         |
| $W_d$ | 380_775 | 99.8       | 100.0      | 75.8       | 0.3621     | 0.3628     | 100%        |             |
| $N_d$ | 380_775 | 49.9       | 50.0       | 37.9       | 0.3621     | 0.3628     | 50%         |             |
| $Z_d$ | 380_775 | 17.96      | 18.0       | 13.64      | 0.3621     | 0.3628     | 18%         |             |

$$L^*_{10} = 60 \log[f(Y_{10,an})] \quad Y_{10,an} = [Y_{10} - 50] / 50$$



$$f(Y_{10,an}) = \pm [1 + 10 |Y_{10,an}|^n]$$

$n$  increases to 1 for:

1. decreasing of the contrast  $C$
2. adjacent compared to separate colours.

Parameter:

$Y_{10}$  & Name

Illuminant P45

$Y_{W,10} = 100, Y_{N,10} = 50$