

Colorimetric "Standard data": Television Luminous System TLS00 for CIE lightness  $L^*=00$  of black and for CIE standard illuminant D65

| System TLS00    | Colour         | $r_d$ | $g_d$ | $b_d$ | $L^*_d$ | $C^*_{ab,d}$ | $h_{ab,d}$ | $a^*_d$ | $b^*_d$ | $x_d$ | $y_d$ | $z_d$ | $x_d$  | $y_d$  | $Y_{88.59}$ |
|-----------------|----------------|-------|-------|-------|---------|--------------|------------|---------|---------|-------|-------|-------|--------|--------|-------------|
| WCGA            | $R_d$          | 1.0   | 0.0   | 0.0   | 47.29   | 76.0         | 33         | 63.85   | 41.22   | 29.01 | 16.24 | 4.26  | 0.5859 | 0.328  | 0.1833      |
|                 | $Y_d$          | 1.0   | 1.0   | 0.0   | 88.3    | 95.88        | 97         | -11.91  | 95.13   | 63.74 | 72.69 | 8.27  | 0.4405 | 0.5023 | 0.8204      |
|                 | $LabC^*h_{ab}$ | $C_d$ | 0.0   | 1.0   | 0.0     | 51.89        | 74.31      | 158     | -68.78  | 28.11 | 8.53  | 20.05 | 0.2235 | 0.5254 | 0.2263      |
| D65 reflection: | $C_d$          | 0.0   | 1.0   | 1.0   | 58.29   | 52.57        | 236        | -29.21  | -43.7   | 18.74 | 26.27 | 69.02 | 0.1643 | 0.2304 | 0.2965      |
|                 | $B_d$          | 0.0   | 0.0   | 1.0   | 25.29   | 52.83        | 296        | 23.51   | -47.3   | 6.22  | 4.51  | 22.65 | 0.1863 | 0.1351 | 0.0509      |
| $Y_N = 0.01$    | $M_d$          | 1.0   | 0.0   | 1.0   | 48.2    | 73.27        | 353        | 72.78   | -8.48   | 32.46 | 16.95 | 23.04 | 0.448  | 0.234  | 0.1913      |
| $L^*_d = 0.09$  | $N_d$          | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01  | 0.01  | 0.01  | 0.3322 | 0.3322 | 0.0001      |
| Normalization:  | $W_d$          | 1.0   | 1.0   | 1.0   | 95.41   | 0.01         | 0          | 0.0     | 84.21   | 88.6  | 96.48 | 0.01  | 0.3127 | 0.329  | 1.0         |
| white $Y_W=89$  | $N_d$          | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01  | 0.01  | 0.01  | 0.3322 | 0.3322 | 0.0001      |
|                 | $W_d$          | 1.13  | 1.13  | 1.13  | 100.0   | 0.0          | 0          | 0.0     | 95.05   | 100.0 | 108.9 | 0.01  | 0.3127 | 0.329  | 1.1287      |
|                 | $Z_d$          | 0.18  | 0.18  | 0.18  | 49.5    | 0.01         | 0          | 0.01    | 0.0     | 17.11 | 18.0  | 19.6  | 0.3127 | 0.329  | 0.2032      |

Colorimetric "Adapted data (a)": Television Luminous System TLS00a for CIE lightness  $L^*=00a$  of black and for CIE standard illuminant D65

| System TLS00a   | Colour         | $r_d$ | $g_d$ | $b_d$ | $L^*_d$ | $C^*_{ab,d}$ | $h_{ab,d}$ | $a^*_d$ | $b^*_d$ | $x_d$ | $y_d$ | $z_d$ | $x_d$  | $y_d$  | $Y_{88.59}$ |
|-----------------|----------------|-------|-------|-------|---------|--------------|------------|---------|---------|-------|-------|-------|--------|--------|-------------|
| WCGA            | $R_d$          | 1.0   | 0.0   | 0.0   | 47.29   | 76.0         | 33         | 63.85   | 41.22   | 29.01 | 16.24 | 4.26  | 0.5859 | 0.328  | 0.1833      |
|                 | $Y_d$          | 1.0   | 1.0   | 0.0   | 88.3    | 95.88        | 97         | -11.91  | 95.13   | 63.74 | 72.69 | 8.27  | 0.4405 | 0.5023 | 0.8204      |
|                 | $LabC^*h_{ab}$ | $C_d$ | 0.0   | 1.0   | 0.0     | 51.89        | 74.31      | 158     | -68.78  | 28.11 | 8.53  | 20.05 | 0.2235 | 0.5254 | 0.2263      |
| D65 reflection: | $C_d$          | 0.0   | 1.0   | 1.0   | 58.29   | 52.57        | 236        | -29.21  | -43.7   | 18.74 | 26.27 | 69.02 | 0.1643 | 0.2304 | 0.2965      |
|                 | $B_d$          | 0.0   | 0.0   | 1.0   | 25.29   | 52.83        | 296        | 23.51   | -47.3   | 6.22  | 4.51  | 22.65 | 0.1863 | 0.1351 | 0.0509      |
| $Y_N = 0.01$    | $M_d$          | 1.0   | 0.0   | 1.0   | 48.2    | 73.27        | 353        | 72.78   | -8.48   | 32.46 | 16.95 | 23.04 | 0.448  | 0.234  | 0.1913      |
| $L^*_d = 0.09$  | $N_d$          | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01  | 0.01  | 0.01  | 0.3322 | 0.3322 | 0.0001      |
| Normalization:  | $W_d$          | 1.0   | 1.0   | 1.0   | 95.41   | 0.01         | 0          | 0.0     | 84.21   | 88.6  | 96.48 | 0.01  | 0.3127 | 0.329  | 1.0         |
| white $Y_W=89$  | $N_d$          | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01  | 0.01  | 0.01  | 0.3322 | 0.3322 | 0.0001      |
|                 | $W_d$          | 1.13  | 1.13  | 1.13  | 100.0   | 0.0          | 0          | 0.0     | 95.05   | 100.0 | 108.9 | 0.01  | 0.3127 | 0.329  | 1.1287      |
|                 | $Z_d$          | 0.18  | 0.18  | 0.18  | 49.5    | 0.01         | 0          | 0.01    | 0.0     | 17.11 | 18.0  | 19.6  | 0.3127 | 0.329  | 0.2032      |

Colorimetric "Adapted data (b)": Television Luminous System TLS00b for CIE lightness  $L^*=00b$  of black and for CIE standard illuminant D65

| System TLS00b   | Colour | $r_d$ | $g_d$ | $b_d$ | $L^*_d$ | $C^*_{ab,d}$ | $h_{ab,d}$ | $a^*_d$ | $b^*_d$ | $x_d$              | $y_d$              | $z_d$               | $x_d$ | $y_d$ | $Y_{88.59}$ |
|-----------------|--------|-------|-------|-------|---------|--------------|------------|---------|---------|--------------------|--------------------|---------------------|-------|-------|-------------|
| WCGA            | $R_d$  | 1.0   | 0.0   | 0.0   | 47.29   | 76.0         | 33         | 63.85   | 41.22   | 29.01(=29.0+0.01)  | 16.24(=16.23+0.01) | 4.26(=4.25+0.01)    | 29.01 | 16.24 | 0.1833      |
|                 | $Y_d$  | 1.0   | 1.0   | 0.0   | 88.3    | 95.88        | 97         | -11.91  | 95.13   | 63.74(=63.73+0.01) | 72.69(=72.68+0.01) | 8.27(=8.26+0.01)    | 63.74 | 72.69 | 0.8204      |
|                 | $G_d$  | 1.0   | 1.0   | 0.0   | 51.89   | 74.31        | 158        | -68.78  | 28.11   | 8.53(=8.52+0.01)   | 20.05(=20.04+0.01) | 9.58(=9.57+0.01)    | 8.53  | 20.05 | 0.2263      |
| D65 reflection: | $C_d$  | 0.0   | 1.0   | 1.0   | 58.29   | 52.57        | 236        | -29.21  | -43.7   | 18.74(=18.73+0.01) | 26.27(=26.26+0.01) | 69.02(=69.01+0.01)  | 18.74 | 26.27 | 0.2965      |
|                 | $B_d$  | 0.0   | 0.0   | 1.0   | 25.29   | 52.83        | 296        | 23.51   | -47.3   | 6.22(=6.21+0.01)   | 4.51(=4.5+0.01)    | 22.65(=22.64+0.01)  | 6.22  | 4.51  | 0.0509      |
|                 | $M_d$  | 1.0   | 0.0   | 1.0   | 48.2    | 73.27        | 353        | 72.78   | -8.48   | 32.46(=32.45+0.01) | 16.95(=16.94+0.01) | 23.04(=23.03+0.01)  | 32.46 | 16.95 | 0.1913      |
| $L^*_d = 0.0$   | $N_d$  | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01(=0.0+0.01)    | 0.01(=0.0+0.01)    | 0.01(=0.0+0.01)     | 0.01  | 0.01  | 0.0001      |
| Normalization:  | $W_d$  | 1.0   | 1.0   | 1.0   | 95.41   | 0.01         | 0          | 0.0     | 0.0     | 84.21(=84.2+0.01)  | 88.6(=88.59+0.01)  | 96.48(=96.47+0.01)  | 84.21 | 88.6  | 1.0         |
| white $Y_W=89$  | $N_d$  | 0.0   | 0.0   | 0.0   | 0.09    | 0.02         | 0          | 0.02    | 0.01    | 0.01(=0.0+0.01)    | 0.01(=0.0+0.01)    | 0.01(=0.0+0.01)     | 0.01  | 0.01  | 0.0001      |
|                 | $W_d$  | 1.13  | 1.13  | 1.13  | 100.0   | 0.0          | 0          | 0.0     | 0.0     | 95.05(=95.04+0.01) | 100.0(=99.99+0.01) | 108.9(=108.89+0.01) | 95.05 | 100.0 | 1.1287      |
|                 | $Z_d$  | 0.18  | 0.18  | 0.18  | 49.5    | 0.01         | 0          | 0.01    | 0.0     | 17.11(=17.1+0.01)  | 18.0(=17.99+0.01)  | 19.6(=19.59+0.01)   | 17.11 | 18.0  | 0.2032      |