

Colorimetric data of "Standard Original": Television Reflective System TRS18 for CIE lightness $L^*=18$ of black

System TRS18

(Reflective CIE, $Y_N=2.52$
and CIELAB zero point)
(CIELAB according
to ISO/IEC 15775)

Color	$L^*=LAB^*_1$	$a^*=LAB^*_2$	$b^*=LAB^*_3$	$C^*=LAB^*_r$	$X=XYZ_1$	$Y=XYZ_2$	$Z=XYZ_3$	x	y	Y/88.59
C_d	87.14	-44.42	-13.12	46.33	48.72	70.29	94.79	0.2279	0.3288	0.7934
B_d	35.47	64.92	-95.07	115.13	17.93	84.55	84.55	0.1612	0.0785	0.0986
M_d	59.01	89.33	-19.43	91.42	53.43	27.04	44.82	0.4265	0.2158	0.3052
R_d	52.76	71.63	49.88	87.29	37.9	20.83	4.41	0.6003	0.3299	0.2351
Y_d	92.74	-20.03	84.97	87.3	68.68	82.37	14.66	0.4144	0.4971	0.9298
G_d	84.0	-78.99	73.94	108.2	33.17	64.07	13.0	0.3009	0.5812	0.7231
N_d	18.01	0.0	0.0	0.0	2.4	2.52	2.74	0.3127	0.329	0.0284
W_d	95.41	0.0	0.0	0.0	84.21	88.59	96.48	0.3127	0.329	1.0
NO_d	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.3127	0.329	0.0
WI_d	100.0	0.0	0.0	0.0	95.05	100.0	108.9	0.3127	0.329	1.1288

Colorimetric data: Television Reflective System TRS18 for CIE lightness $L^*=18$ of black

System TRS18

(Reflection adapted
and CIELAB zero point)

Color	$L^*=LAB^*_1$	$a^*=LAB^*_2$	$b^*=LAB^*_3$	$C^*=LAB^*_r$	$X=XYZ_1$	$Y=XYZ_2$	$Z=XYZ_3$	x	y	Y/88.59
C_d	87.14	-44.42	-13.12	46.33	48.72	70.29	94.79	0.2279	0.3288	0.7934
B_d	35.47	64.92	-95.07	115.13	17.93	84.55	84.55	0.1612	0.0785	0.0986
M_d	59.01	89.33	-19.43	91.42	53.43	27.04	44.82	0.4265	0.2158	0.3052
R_d	52.76	71.63	49.88	87.29	37.9	20.83	4.41	0.6003	0.3299	0.2351
Y_d	92.74	-20.03	84.97	87.3	68.68	82.37	14.66	0.4144	0.4971	0.9298
G_d	84.0	-78.99	73.94	108.2	33.17	64.07	13.0	0.3009	0.5812	0.7231
N_d	18.01	0.0	0.0	0.0	2.4	2.52	2.74	0.3127	0.329	0.0284
W_d	95.41	0.0	0.0	0.0	84.21	88.59	96.48	0.3127	0.329	1.0
NO_d	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.3037	0.3195	0.0
WI_d	100.0	0.0	0.0	0.0	95.05	100.0	108.9	0.3127	0.329	1.1288

Calculated colorimetric data: Television Luminous System (TLsxx) for CIE lightness $L^*=xx=00$, 18 of black

System TLS00

(Display reflection
 $Y_r=0.0$)

Color	$L^*=LAB^*_1$	$a^*=LAB^*_2$	$b^*=LAB^*_3$	$C^*=LAB^*_r$	$X=XYZ_1$	$Y=XYZ_2$	$Z=XYZ_3$	x	y	Y/88.59
C_d	86.88	-46.15	-13.54	48.11	47.68 (-47.68+0.0)	69.76 (-69.76+0.0)	94.74 (-94.74+0.0)	0.2247	0.3288	0.7874
B_d	30.39	64.92	-100.57	128.51	15.99 (-15.99+0.0)	84.2 (-84.2+0.0)	84.2 (-84.2+0.0)	0.15	0.06	0.072
M_d	57.31	94.35	-20.68	96.59	52.53 (-52.53+0.0)	25.24 (-25.24+0.0)	43.31 (-43.31+0.0)	0.4339	0.2084	0.2849
R_d	50.5	76.91	64.55	100.41	36.54 (-36.54+0.0)	18.84 (-18.84+0.0)	1.71 (-1.71+0.0)	0.64	0.33	0.2127
Y_d	92.66	-20.68	90.75	93.08	68.22 (-68.22+0.0)	82.19 (-82.19+0.0)	12.27 (-12.27+0.0)	0.4194	0.5052	0.9278
G_d	83.62	-82.74	79.9	115.03	31.68 (-31.68+0.0)	63.35 (-63.35+0.0)	10.55 (-10.55+0.0)	0.3	0.6	0.715
N_d	0.0	0.0	0.0	0.0	0.0 (=0.0+0.0)	0.0 (=0.0+0.0)	0.0 (=0.0+0.0)	0.2789	0.2934	0.0
W_d	95.41	0.0	0.0	0.0	84.21 (-84.21+0.0)	88.59 (-88.59+0.0)	96.48 (-96.48+0.0)	0.3127	0.329	1.0
NO_d	0.01	0.0	0.0	0.0	-2.45 (-2.45+0.0)	-2.58 (-2.58+0.0)	-2.81 (-2.81+0.0)	0.3127	0.329	-0.0292
Y_r	100.13	0.0	0.0	0.0	95.37 (-95.37+0.0)	100.33 (=100.33+0.0)	109.26 (=109.26+0.0)	0.3127	0.329	1.1325

System TLS18

(Display reflection
 $Y_r=2.52$)

Color	$L^*=LAB^*_1$	$a^*=LAB^*_2$	$b^*=LAB^*_3$	$C^*=LAB^*_r$	$X=XYZ_1$	$Y=XYZ_2$	$Z=XYZ_3$	x	y	Y/88.59
C_d	87.14	-44.42	-13.12	46.33	48.72 (-46.32+2.4)	70.29 (-67.77+2.52)	94.79 (-92.04+2.74)	0.2279	0.3288	0.7934
B_d	35.47	64.92	-95.07	115.13	17.93 (-15.54+2.4)	84.55 (-81.81+2.74)	84.55 (-81.81+2.74)	0.1612	0.0785	0.0986
M_d	59.01	89.33	-19.43	91.42	53.43 (-51.03+2.4)	27.04 (-24.52+2.52)	44.82 (-42.07+2.74)	0.4265	0.2158	0.3052
R_d	52.76	71.63	49.88	87.29	37.9 (-35.5+2.4)	20.83 (-18.31+2.52)	4.41 (-1.66+2.74)	0.6003	0.3299	0.2351
Y_d	92.74	-20.03	84.97	87.3	68.68 (-66.28+2.4)	82.37 (-79.85+2.52)	14.66 (-11.92+2.74)	0.4144	0.4971	0.9298
G_d	84.0	-78.99	73.94	108.2	33.17 (-30.78+2.4)	64.07 (-61.55+2.52)	13.0 (-10.25+2.74)	0.3009	0.5812	0.7231
N_d	18.01	0.0	0.0	0.0	2.4 (=0.0+2.4)	2.52 (=0.0+2.52)	2.74 (=0.0+2.74)	0.3127	0.329	0.0284
W_d	95.41	0.0	0.0	0.0	84.21 (-81.81+2.4)	88.59 (-86.07+2.52)	96.48 (-93.73+2.74)	0.3127	0.329	1.0
NO_d	0.01	0.0	0.0	0.0	0.0 (=2.38+2.4)	0.0 (=2.51+2.52)	0.0 (-2.73+2.74)	0.3037	0.3196	0.0
WI_d	100.0	0.0	0.0	0.0	95.05 (-92.65+2.4)	100.0 (-97.48+2.52)	108.9 (=106.16+2.74)	0.3127	0.329	1.1288

AE900-7N, Colorimetric data of Television Reflective System TRS18 and calculated Television Luminous Systems TLS00 & TLS18

Test chart AE90; 8 basic colors $RYGBMWN_d$ for TLS00 & TLS18

Calculation of CIE data for sRGB display for 2 reflections

input: $rgb/cmy0/000n/w$ set...

output: $\rightarrow rgb_{dd}$ setrgbcolor