

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

System TLS00b	Color i	r^*_{ad}	g^*_{ad}	b^*_{ad}	L^*_a	a^*_{ad}	b^*_{ad}	$C^*_{ab,d}$	$h_{ab,d}$	$X_{ab,d}$	$Y_{ab,d}$	$Z_{ab,d}$	$x_{ab,d}$	$y_{ab,d}$	$Y_{ab,d}/88.59$
D65 reflection:	01_{D_0}	0.0	0.0	0.0	0.01	0.0	0.0	0.01	0	0.0(=0.0+0.0)	0.0(=0.0+0.0)	0.0(=0.0+0.0)	0.3118	0.3281	0.0
	02_{D_1}	0.067	0.067	0.067	6.36	0.0	0.0	0.01	0	0.67(=-0.67+0.0)	0.7(=-0.7+0.0)	0.77(=-0.77+0.0)	0.3127	0.329	0.0079
	03_{D_2}	0.133	0.133	0.133	12.72	0.0	0.0	0.01	0	1.44(=-1.44+0.0)	1.53(=-1.53+0.0)	1.65(=-1.65+0.0)	0.3127	0.329	0.0171
$Y_N = 0.0$	04_{D_3}	0.2	0.2	0.2	19.08	0.0	0.0	0.01	0	2.63(=-2.63+0.0)	2.77(=-2.76+0.0)	3.01(=-3.01+0.0)	0.3127	0.329	0.0312
$L^*_N = 0.0$	05_{D_4}	0.267	0.267	0.267	25.44	0.0	0.0	0.01	0	4.33(=-4.33+0.0)	4.56(=-4.56+0.0)	4.96(=-4.96+0.0)	0.3127	0.329	0.0515
	06_{D_5}	0.333	0.333	0.333	31.8	0.0	0.0	0.01	0	6.65(=-6.65+0.0)	7.0(=-7.0+0.0)	7.62(=-7.62+0.0)	0.3127	0.329	0.079
	07_{D_6}	0.4	0.4	0.4	38.16	0.0	0.0	0.01	0	9.67(=-9.67+0.0)	10.18(=-10.18+0.0)	11.08(=-11.08+0.0)	0.3127	0.329	0.1149
	08_{D_7}	0.467	0.467	0.467	44.52	0.0	0.0	0.01	0	13.5(=-13.5+0.0)	14.2(=-14.2+0.0)	15.46(=-15.46+0.0)	0.3127	0.329	0.1603
	09_{D_8}	0.533	0.533	0.533	50.89	0.0	0.0	0.01	0	18.4(=-18.4+0.0)	19.3(=-19.3+0.0)	20.88(=-20.88+0.0)	0.3127	0.329	0.2164
	10_{D_9}	0.6	0.6	0.6	57.25	0.0	0.0	0.01	0	23.95(=-23.95+0.0)	25.18(=-25.18+0.0)	27.42(=-27.41+0.0)	0.3127	0.329	0.2842
	$11_{D_{10}}$	0.667	0.667	0.667	63.61	0.0	0.0	0.01	0	30.72(=-30.72+0.0)	32.32(=-32.32+0.0)	35.19(=-35.19+0.0)	0.3127	0.329	0.3649
	$12_{D_{11}}$	0.733	0.733	0.733	69.97	0.0	0.0	0.01	0	38.69(=-38.69+0.0)	40.71(=-40.71+0.0)	44.32(=-44.32+0.0)	0.3127	0.329	0.4595
	$13_{D_{12}}$	0.8	0.8	0.8	76.33	0.0	0.0	0.01	0	47.92(=-47.92+0.0)	50.43(=-50.42+0.0)	54.9(=-54.9+0.0)	0.3127	0.329	0.5692
	$14_{D_{13}}$	0.867	0.867	0.867	82.69	0.0	0.0	0.01	0	58.53(=-58.53+0.0)	61.58(=-61.58+0.0)	67.65(=-67.05+0.0)	0.3127	0.329	0.6951
	$15_{D_{14}}$	0.933	0.933	0.933	89.05	0.0	0.0	0.01	0	70.59(=-70.59+0.0)	74.27(=-74.27+0.0)	80.87(=-80.86+0.0)	0.3127	0.329	0.8383
	$16_{D_{15}}$	1.0	1.0	1.0	95.41	0.0	0.0	0.01	0	84.2(=-84.2+0.0)	88.59(=-88.59+0.0)	96.46(=-96.46+0.0)	0.3127	0.329	1.0
	17_{N_0}	0.0	0.0	0.0	0.01	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)	0.3118	0.3281	0.0
	18_{W_0}	1.0	1.0	1.0	95.41	0.0	0.0	0.01	0	84.2(=-84.2+0.0)	88.59(=-88.59+0.0)	96.46(=-96.46+0.0)	0.3127	0.329	1.0

Calculated colorimetric data (b): Television Luminous Systems TLS18b for CIE lightness $L^*=18$ of black and for illuminant D65

Color i	r^*_{ad}	g^*_{ad}	b^*_{ad}	L^*_a	a^*_{ad}	b^*_{ad}	$C^*_{ab,d}$	$h_{ab,d}$	$X_{ab,d}$	$Y_{ab,d}$	$Z_{ab,d}$	$x_{ab,d}$	$y_{ab,d}$	$Y_{ab,d}/88.59$
D65 reflection:	01_{D_0}	0.0	0.0	0.0	18.01	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	0.2683
	02_{D_1}	0.067	0.067	0.067	20.84	0.0	0.0	0	3.2(=-0.68+2.52)	3.49(=-0.68+2.52)	3.49(=-0.74+2.74)	0.3127	0.329	0.3062
	03_{D_2}	0.133	0.133	0.133	23.65	0.0	0.0	0	3.8(=-1.4+2.4)	3.99(=-1.47+2.52)	4.35(=-1.61+2.74)	0.3127	0.329	0.4451
$Y_N = 2.52$	04_{D_3}	0.2	0.2	0.2	27.32	0.0	0.0	0	4.95(=-2.55+2.4)	5.21(=-2.69+2.52)	5.67(=-2.93+2.74)	0.3127	0.329	0.5588
$L^*_N = 18.01$	05_{D_4}	0.267	0.267	0.267	31.69	0.0	0.0	3	6.6(=-4.21+2.4)	6.95(=-4.43+2.52)	7.57(=-4.82+2.74)	0.3127	0.329	0.7084
	06_{D_5}	0.333	0.333	0.333	36.59	0.0	0.0	0	8.86(=-6.46+2.4)	9.32(=-6.8+2.52)	10.15(=-7.4+2.74)	0.3127	0.329	0.1052
	07_{D_6}	0.4	0.4	0.4	41.86	0.0	0.0	0	11.79(=-9.4+2.4)	12.41(=-9.89+2.52)	13.51(=-10.77+2.74)	0.3127	0.329	0.1401
	08_{D_7}	0.467	0.467	0.467	47.39	0.0	0.0	353	15.51(=-13.11+2.4)	16.32(=-13.8+2.52)	17.77(=-15.02+2.74)	0.3127	0.329	0.1842
	09_{D_8}	0.533	0.533	0.533	53.11	0.0	0.0	0	20.1(=-17.7+2.4)	21.15(=-18.63+2.52)	23.03(=-20.28+2.74)	0.3127	0.329	0.2387
	10_{D_9}	0.6	0.6	0.6	58.96	0.0	0.0	0	25.65(=-23.25+2.4)	26.98(=-24.46+2.52)	29.38(=-26.64+2.74)	0.3127	0.329	0.3046
	$11_{D_{10}}$	0.667	0.667	0.667	64.9	0.0	0.0	0	32.24(=-29.85+2.4)	33.92(=-31.4+2.52)	36.94(=-34.19+2.74)	0.3127	0.329	0.3829
	$12_{D_{11}}$	0.733	0.733	0.733	70.92	0.0	0.0	0	39.98(=-37.59+2.4)	42.07(=-39.55+2.52)	45.8(=-43.06+2.74)	0.3127	0.329	0.4749
	$13_{D_{12}}$	0.8	0.8	0.8	76.99	0.0	0.0	0	48.96(=-46.56+2.4)	51.51(=-48.99+2.52)	56.09(=-53.34+2.74)	0.3127	0.329	0.5814
	$14_{D_{13}}$	0.867	0.867	0.867	83.1	0.0	0.0	0	59.26(=-56.86+2.4)	62.35(=-59.83+2.52)	67.89(=-65.14+2.74)	0.3127	0.329	0.7038
	$15_{D_{14}}$	0.933	0.933	0.933	89.24	0.0	0.0	0	74.6(=-72.2+2.4)	78.59(=-76.16+2.52)	85.13(=-82.57+2.74)	0.3127	0.329	0.8429
	$16_{D_{15}}$	1.0	1.0	1.0	95.41	0.0	0.0	0	84.2(=-81.8+2.4)	88.59(=-86.07+2.52)	96.46(=-93.72+2.74)	0.3127	0.329	1.0
	17_{N_0}	0.0	0.0	0.0	18.01	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	0.0285
	18_{W_0}	1.0	1.0	1.0	95.41	0.0	0.0	0	84.2(=-81.8+2.4)	88.59(=-86.07+2.52)	96.46(=-93.72+2.74)	0.3127	0.329	1.0

Calculated colorimetric data (b): Television Luminous Systems TLS70b for CIE lightness $L^*=70$ of black and for illuminant D65

Color i	r^*_{ad}	g^*_{ad}	b^*_{ad}	L^*_a	a^*_{ad}	b^*_{ad}	$C^*_{ab,d}$	$h_{ab,d}$	$X_{ab,d}$	$Y_{ab,d}$	$Z_{ab,d}$	$x_{ab,d}$	$y_{ab,d}$	$Y_{ab,d}/88.59$
D65 reflection:	01_{D_0}	0.0	0.0	0.0	69.7	0.0	0.0	0	38.32(=-0.0+38.32)	40.32(=-0.0+40.32)	43.9(=-0.0+43.9)	0.3127	0.329	0.4551
	02_{D_1}	0.067	0.067	0.067	69.97	0.0	0.0	0	38.68(=-0.36+38.32)	40.7(=-0.38+40.32)	44.32(=-0.42+43.9)	0.3127	0.329	0.4594
	03_{D_2}	0.133	0.133	0.133	70.28	0.0	0.0	0	39.11(=-0.79+38.32)	41.15(=-0.83+40.32)	44.8(=-0.9+43.9)	0.3127	0.329	0.4644
$Y_N = 40.32$	04_{D_3}	0.2	0.2	0.2	70.75	0.0	0.0	0	39.75(=-1.43+38.32)	41.83(=-1.51+40.32)	45.54(=-1.64+43.9)	0.3127	0.329	0.4721
$L^*_N = 69.7$	05_{D_4}	0.267	0.267	0.267	71.42	0.0	0.0	0	40.68(=-2.36+38.32)	42.8(=-2.48+40.32)	46.61(=-2.7+43.9)	0.3127	0.329	0.4832
	06_{D_5}	0.333	0.333	0.333	72.32	0.0	0.0	0	41.94(=-3.62+38.32)	44.13(=-3.81+40.32)	48.05(=-4.15+43.9)	0.3127	0.329	0.4981
	07_{D_6}	0.4	0.4	0.4	73.46	0.0	0.0	0	43.9(=-5.09+38.32)	45.87(=-5.55+40.32)	49.94(=-6.04+43.9)	0.3127	0.329	0.5177
	08_{D_7}	0.467	0.467	0.467	74.86	0.0	0.0	0	45.67(=-7.35+38.32)	48.06(=-7.74+40.32)	52.33(=-8.43+43.9)	0.3127	0.329	0.5425
	09_{D_8}	0.533	0.533	0.533	76.54	0.0	0.0	0	48.25(=-9.93+38.32)	50.77(=-10.45+40.32)	55.28(=-11.38+43.9)	0.3127	0.329	0.573
	10_{D_9}	0.6	0.6	0.6	78.49	0.0	0.0	0	51.36(=-13.04+38.32)	54.04(=-13.72+40.32)	58.84(=-14.94+43.9)	0.3127	0.329	0.61
	$11_{D_{10}}$	0.667	0.667	0.667	80.7	0.0	0.0	0	55.06(=-16.74+38.32)	57.93(=-17.61+40.32)	63.08(=-19.18+43.9)	0.3127	0.329	0.6539
	$12_{D_{11}}$	0.733	0.733	0.733	83.18	0.0	0.0	0	59.4(=-21.08+38.32)	62.5(=-22.18+40.32)	68.05(=-24.15+43.9)	0.3127	0.329	0.7055
	$13_{D_{12}}$	0.8	0.8	0.8	85.9	0.0	0.0	0	64.43(=-26.11+38.32)	67.8(=-27.48+40.32)	73.82(=-29.92+43.9)	0.3127	0.329	0.7653
	$14_{D_{13}}$	0.867	0.867	0.867	88.86	0.0	0.0	0	71.1(=-31.89+38.32)	73.87(=-33.55+40.32)	80.43(=-36.53+43.9)	0.3127	0.329	0.8339
	$15_{D_{14}}$	0.933	0.933	0.933	92.04	0.0	0.0	0	76.78(=-38.46+38.32)	80.79(=-40.47+40.32)	87.96(=-44.06+43.9)	0.3127	0.329	0.9119
	$16_{D_{15}}$	1.0	1.0	1.0	95.41	0.0	0.0	0	84.2(=-45.88+38.32)	88.59(=-48.27+40.32)	96.46(=-52.56+43.9)	0.3127	0.329	1.0
	17_{N_0}	0.0	0.0	0.0	69.7	0.0	0.0	0	38.32(=-0.0+38.32)	40.32(=-0.0+40.32)	43.9(=-0.0+43.9)	0.3127	0.329	0.4551
	18_{W_0}	1.0	1.0	1.0	95.41	0.0	0.0	0	84.2(=-45.88+38.32)	88.59(=-48.27+40.32)	96.46(=-52.56+43.9)	0.3127	0.329	1.0

CEI50-7N00

Test chart CEI5; 16 grey steps and NW_0 for TLS00, TLS00a & TLS00b
Calculation of CIE-colour data for sRGB display for all reflections

input: rgb
output: -> rgb_{ad}