

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

System TLS00b	Color i	$r^*_{a,d}$	$g^*_{a,d}$	$b^*_{a,d}$	L^*_d	$a^*_{a,d}$	$b^*_{a,d}$	$C^*_{ab,d}$	$h_{ab,d}$	$X_{b,d}$	$Y_{b,d}$	$Z_{b,d}$	$x_{b,d}$	$y_{b,d}$	$Y_{b,d}/88.59$
D65 reflection: $Y_N = 0.0$ $L^*_N = 0.0$	01,0 _d	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
	02,1 _d	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
	03,2 _d	0.133	0.133	0.133	12.72	0.0	0.0	0.01	0	1.44(=1.44+0.0)	1.52(=1.52+0.0)	1.65(=1.65+0.0)	0.3127	0.329	0.0171
	04,3 _d	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
	05,4 _d	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
	06,5 _d	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
	07,6 _d	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
	08,7 _d	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
	09,8 _d	0.533	0.533	0.533	50.89	0.0	0.0	0.01	0	18.22(=18.22+0.0)	19.17(=19.17+0.0)	20.88(=20.88+0.0)	0.3127	0.329	0.2164
	10,9 _d	0.6	0.6	0.6	57.25	0.0	0.0	0.01	0	23.93(=23.93+0.0)	25.18(=25.18+0.0)	27.42(=27.41+0.0)	0.3127	0.329	0.2842
	11,A _d	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,B _d	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,C _d	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 _d	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)	67.05(=67.05+0.0)	0.3127	0.329	0.6951
	15,E _d	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,F _d	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 _d	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
	18,W _d	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	$r^*_{a,d}$	$g^*_{a,d}$	$b^*_{a,d}$	L^*_d	a^*_d	b^*_d	$C^*_{ab,d}$	$h_{ab,d}$	$X_{a,d}$	$Y_{a,d}$	$Z_{a,d}$	$x_{a,d}$	$y_{a,d}$	$Y_{a,d}/88.59$
D65 reflection: $Y_N = 2.52$ $L^*_N = 18.01$	01,0 _d	0.0	0.0	0.0	18.01	0.0	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	0.0285
	02,1 _d	0.067	0.067	0.067	20.84	0.0	0.0	0.0	0	3.05(=0.65+2.4)	3.2(=0.68+2.52)	3.49(=0.74+2.74)	0.3127	0.329	0.0362
	03,2 _d	0.133	0.133	0.133	23.65	0.0	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	0.0451
	04,3 _d	0.2	0.2	0.2	27.32	0.0	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	0.0588
	05,4 _d	0.267	0.267	0.267	31.69	0.0	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	0.0784
	06,5 _d	0.333	0.333	0.333	36.59	0.0	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
	07,6 _d	0.4	0.4	0.4	41.86	0.0	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
	08,7 _d	0.467	0.467	0.467	47.39	0.0	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
	09,8 _d	0.533	0.533	0.533	53.11	0.0	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
	10,9 _d	0.6	0.6	0.6	58.96	0.0	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,A _d	0.667	0.667	0.667	64.9	0.0	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,B _d	0.733	0.733	0.733	70.92	0.0	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,C _d	0.8	0.8	0.8	76.99	0.0	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 _d	0.867	0.867	0.867	83.1	0.0	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,E _d	0.933	0.933	0.933	89.24	0.0	0.0	0.0	0	70.97(=68.58+2.4)	74.68(=72.16+2.52)	81.31(=78.57+2.74)	0.3127	0.329	0.8429
	16,F _d	1.0	1.0	1.0	95.41	0.0	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 _d	0.0	0.0	0.0	18.01	0.0	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	0.0285
	18,W _d	1.0	1.0	1.0	95.41	0.0	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	$r^*_{a,d}$	$g^*_{a,d}$	$b^*_{a,d}$	L^*_d	$a^*_{a,d}$	$b^*_{a,d}$	$C^*_{ab,d}$	$h_{ab,d}$	$X_{a,d}$	$Y_{a,d}$	$Z_{a,d}$	$x_{a,d}$	$y_{a,d}$	$Y_{a,d}/88.59$
D65 reflection: $Y_N = 40.32$ $L^*_N = 69.7$	01,0 _d	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
	02,1 _d	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
	03,2 _d	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
	04,3 _d	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
	05,4 _d	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
	06,5 _d	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
	07,6 _d	0.4	0.4	0.4	73.46	0.0	0.0	0	43.59(=5.27+38.32)	45.87(=5.55+40.32)	49.94(=6.04+43.9)	0.3127	0.329	0.5177
	08,7 _d	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
	09,8 _d	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
	10,9 _d	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,A _d	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,B _d	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,C _d	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 _d	0.867	0.867	0.867	88.86	0.0	0.0	0	70.21(=31.89+38.32)	73.87(=33.55+40.32)	80.43(=36.53+43.9)	0.3127	0.329	0.8339
	15,E _d	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,F _d	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 _d	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 _d	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_d for TLS00, TLS00a & TLS00b

Calculation of CIE-colour data for sRGB display for 3 reflections

input: *rgb*output: *->rgbdd*