

Interpretation $rgb \rightarrow olv^*$ and CIELAB data of a 48 step device hue circle for a LED low glossy display with the luminance reflection $L_w=5\%$ compared to the white reference (100%)

48 step device hue circle with six device hues *OYLCVM*: $h_{\text{dha}} = 34.5, 102.3, 133.6, 196.8, 302.4, 326.4$
comparison with four elementary hues *RJGB*: $h_{\text{dha}} = 25.5, 92.3, 162.2, 271.7$, and *C' M'* = 217.0, 328.6

9 step equidistant grey scale: $L^* = 26.6, 35.2, 43.8, 52.4, 61.0, 69.6, 78.2, 86.8, 95.4$

[illegible]

KER70-3N

Interpretation $rgb \rightarrow olv^*$ and CIELAB data of a 48 step device hue circle for a LECD low glossy display with the luminance reflection $L_r=10\%$ compared to the white reference (100%)

48 step device hue circle with six device hues *OYLCVM*: $h_{\text{dev}} = 30.5, 103.2, 135.3, 197.0, 300.0, 326.0$
comparison with four elementary hues *RJGB*: $h_{\text{dev}} = 25.5, 92.3, 162.2, 271.7$, and *C' M'* = 217.0, 328.6

9 step equidistant grey scale: $L^* = 37.9, 45.1, 52.2, 59.4, 66.6, 73.8, 81.0, 88.2, 95.4$

	AI/2			r ² → r ² + Δr ²			AI/2			r ² → r ² + Δr ²			
	000	100	0.875	0.402	0.580	1.000 0.000	000	100	0.875	0.402	0.580	1.000 0.000	
000	30.0	1.0	0.875	0.0	0.891	1.000	000	30.0	1.0	0.875	0.0	0.891	1.000
001	36.0	0.1	0.875	0.0	0.891	1.000	001	36.0	0.1	0.875	0.0	0.891	1.000
010	43.0	0.1	0.213	0.0	0.298	0.702	010	43.0	0.1	0.213	0.0	0.298	0.702
011	51.0	0.1	0.213	0.0	0.298	0.702	011	51.0	0.1	0.213	0.0	0.298	0.702
020	58.0	0.1	0.438	0.0	0.264	0.736	020	58.0	0.1	0.438	0.0	0.264	0.736
021	65.0	0.1	0.438	0.0	0.03	0.97	021	65.0	0.1	0.438	0.0	0.03	0.97
030	72.0	0.1	0.438	0.0	0.03	0.97	030	72.0	0.1	0.438	0.0	0.03	0.97
031	79.0	0.1	0.438	0.0	0.03	0.97	031	79.0	0.1	0.438	0.0	0.03	0.97
040	86.0	0.1	0.438	0.0	0.03	0.97	040	86.0	0.1	0.438	0.0	0.03	0.97
041	93.0	0.1	0.438	0.0	0.03	0.97	041	93.0	0.1	0.438	0.0	0.03	0.97
050	100.0	0.1	0.438	0.0	0.03	0.97	050	100.0	0.1	0.438	0.0	0.03	0.97
051	107.0	0.1	0.438	0.0	0.03	0.97	051	107.0	0.1	0.438	0.0	0.03	0.97
060	114.0	0.1	0.438	0.0	0.03	0.97	060	114.0	0.1	0.438	0.0	0.03	0.97
061	121.0	0.1	0.438	0.0	0.03	0.97	061	121.0	0.1	0.438	0.0	0.03	0.97
070	128.0	0.1	0.438	0.0	0.03	0.97	070	128.0	0.1	0.438	0.0	0.03	0.97
071	135.0	0.1	0.438	0.0	0.03	0.97	071	135.0	0.1	0.438	0.0	0.03	0.97
080	142.0	0.1	0.438	0.0	0.03	0.97	080	142.0	0.1	0.438	0.0	0.03	0.97
081	149.0	0.1	0.438	0.0	0.03	0.97	081	149.0	0.1	0.438	0.0	0.03	0.97
090	156.0	0.1	0.438	0.0	0.03	0.97	090	156.0	0.1	0.438	0.0	0.03	0.97
091	163.0	0.1	0.438	0.0	0.03	0.97	091	163.0	0.1	0.438	0.0	0.03	0.97
100	170.0	0.1	0.438	0.0	0.03	0.97	100	170.0	0.1	0.438	0.0	0.03	0.97
101	177.0	0.1	0.438	0.0	0.03	0.97	101	177.0	0.1	0.438	0.0	0.03	0.97
110	184.0	0.1	0.438	0.0	0.03	0.97	110	184.0	0.1	0.438	0.0	0.03	0.97
111	191.0	0.1	0.438	0.0	0.03	0.97	111	191.0	0.1	0.438	0.0	0.03	0.97
120	198.0	0.1	0.438	0.0	0.03	0.97	120	198.0	0.1	0.438	0.0	0.03	0.97
121	205.0	0.1	0.438	0.0	0.03	0.97	121	205.0	0.1	0.438	0.0	0.03	0.97
130	212.0	0.1	0.438	0.0	0.03	0.97	130	212.0	0.1	0.438	0.0	0.03	0.97
131	219.0	0.1	0.438	0.0	0.03	0.97	131	219.0	0.1	0.438	0.0	0.03	0.97
140	226.0	0.1	0.438	0.0	0.03	0.97	140	226.0	0.1	0.438	0.0	0.03	0.97
141	233.0	0.1	0.438	0.0	0.03	0.97	141	2					

KER70-7N

Interpretation $rgb \rightarrow olv^*$ and CIELAB data of a 48 step device hue circle for a LECD low glossy display with the luminance reflection $L_w=20\%$ compared to the white reference (100%)

48 step device hue circle with six device hues *OYLCVM*: $h_{ab,a} = 26.5, 104.5, 137.5, 197.4, 296.7, 325.4$
comparison with four elementary hues *RJGB*: $h_{ab,a} = 25.5, 92.3, 162.2, 271.7$, and *C' M'* = 217.0, 328.6

9 step equidistant grey scale: $L^* = 51.9, 57.4, 62.8, 68.2, 73.7, 79.1, 84.5, 90.0, 95.4$

[illegible]

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Interpretation $rgb \rightarrow olv^*$ and CIELAB data of a 48 step device hue circle for a LECD low glossy display with the luminance reflection $L_r=40\%$ compared to the white reference (100%)

48 step device hue circle with six device hues *OYLCVM*: $h_{\text{d},k}$ = 23.2, 106.5, 139.9, 198.2, 293.2, 324.2
comparison with four elementary hues *RJGB*: $h_{\text{d},k}$ = 25.5, 92.3, 162.2, 271.7, and *C' M'* = 217.0, 328.6

9 step equidistant grey scale: $L^* = 69.7, 72.9, 76.1, 79.3, 82.5, 85.8, 89.0, 92.2, 95.4$

	γ_{H^+}	$\gamma_{\text{H}^+}^{\text{H}_2\text{O}}$	AI/A2	$\gamma_{\text{H}^+}^{\text{H}_2\text{O}} \rightarrow \alpha^+$	AI/A2	$\gamma_{\text{H}^+}^{\text{H}_2\text{O}} \rightarrow \alpha^+$
$\alpha 00 \rightarrow 0$	30.0	1.0	0.004	0.322 678	1.000 000 000 000	1.000 000 000 000 000
$\alpha 01 \rightarrow 1$	30.0	1.0	0.004	0.322 678	1.000 000 000 000	1.000 000 000 000 000
$\alpha 37 \rightarrow 3$	43.9	0.109 060	0.284	0.716 100	0.250 020 000 000	0.250 020 000 000 000
$\alpha 74 \rightarrow 7$	51.8	0.026 016	0.272	0.728 100	0.375 035 000 000	0.375 035 000 000 000
$\alpha 56 \rightarrow 5$	60.0	0.0382	0.0	0.916 020	1.000 050 000 000	1.000 050 000 000 000
$\alpha 59 \rightarrow 5$	65.0	0.050	0.0	0.974 077	1.000 050 000 000	1.000 050 000 000 000
$\alpha 74 \rightarrow 7$	76.1	0.0786	0.716	0.221 000	0.750 050 000 000	0.750 050 000 000 000
$\alpha 87 \rightarrow 8$	83.4	0.0999	0.004	0.996	1.000 875 000 000	1.000 875 000 000 000
$\alpha 00 \rightarrow 0$	90.0	0.797 10	0.0	0.379 621	1.000 000 000 000	1.000 000 000 000 000
$\alpha 12 \rightarrow 1$	96.6	0.645 10	0.0	0.163 837	0.875 1000 000 000	0.875 1000 000 000 000
$\alpha 25 \rightarrow 2$	103.9	0.551 10	0.0	0.489 059	0.791 000 000 000	0.791 000 000 000 000
$\alpha 37 \rightarrow 3$	110.0	0.426 10	0.0	0.845 059	0.500 000 000 000	0.500 000 000 000 000
$\alpha 50 \rightarrow 5$	120.0	0.425 10	0.0	0.405 595	0.500 000 000 000	0.500 000 000 000 000
$\alpha 62 \rightarrow 6$	128.2	0.383 10	0.0	0.062 938	0.375 1000 000 000	0.375 1000 000 000 000
$\alpha 75 \rightarrow 7$	136.1	0.352 10	0.0	0.816 184	0.250 1000 000 000	0.250 1000 000 000 000
$\alpha 87 \rightarrow 8$	143.4	0.328 10	0.0	0.622 0378	0.125 1000 000 000	0.125 1000 000 000 000
$\alpha 00 \rightarrow 0$	150.0	0.319 10	0.0	0.549 461	0.000 1000 000 000	0.000 1000 000 000 000
$\alpha 12 \rightarrow 1$	156.6	0.306 10	0.0	0.445 0555	0.000 1000 0125	0.000 1000 000 000 000
$\alpha 25 \rightarrow 2$	163.9	0.293 10	0.0	0.341 0555	0.000 1000 0250	0.000 1000 000 000 000
$\alpha 37 \rightarrow 3$	171.8	0.232 10	0.0	0.859 141	0.000 1000 0375	0.000 1000 000 000 000
$\alpha 50 \rightarrow 5$	180.0	0.181 10	0.0	0.447 0553	0.000 1000 0500	0.000 1000 000 000 000
$\alpha 62 \rightarrow 6$	182.8	0.116 10	0.0	0.925 075	0.000 1000 0625	0.000 1000 000 000 000
$\alpha 75 \rightarrow 7$	189.0	0.087 10	0.0	0.447 0553	0.000 1000 0750	0.000 1000 000 000 000
$\alpha 87 \rightarrow 8$	204.2	0.10	0.13	0.945 0555	0.000 1000 0875	0.000 1000 000 000 000
$\alpha 00 \rightarrow 0$	210.0	0.10	0.0	0.656 751	0.249 000 1000 000 000	0.249 000 1000 000 000 000
$\alpha 12 \rightarrow 1$	216.0	0.08	0.0	0.448 100	0.125 000 1000 000 000	0.125 000 1000 000 000 000
$\alpha 25 \rightarrow 2$	223.9	0.07	0.0	0.158 842	0.000 1000 0750 1000	0.000 1000 0750 1000 000 000
$\alpha 37 \rightarrow 3$	231.8	0.022 10	0.0	0.176 0204	0.000 625 1000	0.000 625 1000 000 000 000
$\alpha 50 \rightarrow 5$	240.0	0.127 0.10	0.0	0.802 0187	0.000 375 1000 000 000	0.000 375 1000 000 000 000
$\alpha 62 \rightarrow 6$	246.0	0.100	0.0	0.448 100	0.000 375 1000 000 000	0.000 375 1000 000 000 000
$\alpha 75 \rightarrow 7$	256.1	0.037 0.10	0.0	0.541 048	0.000 1000 0500 1000	0.000 1000 0500 1000 000 000
$\alpha 87 \rightarrow 8$	263.4	0.359 0.10	0.0	0.128 0272	0.000 125 1000	0.000 125 1000 000 000 000
$\alpha 00 \rightarrow 0$	270.0	0.377 0.10	0.0	0.988 012	0.000 1000 000 1000	0.000 1000 000 1000 000 000
$\alpha 12 \rightarrow 1$	276.6	0.393 0.10	0.0	0.859 141	0.125 000 1000 000 000	0.125 000 1000 000 000 000
$\alpha 25 \rightarrow 2$	283.9	0.413 0.10	0.0	0.553 447	0.250 000 1000 000 000	0.250 000 1000 000 000 000
$\alpha 37 \rightarrow 3$	291.8	0.333 0.10	0.0	0.867 313	0.500 000 1000 000 000	0.500 000 1000 000 000 000
$\alpha 50 \rightarrow 5$	300.0	0.339 0.10	0.0	0.687 313	0.500 000 1000 000 000	0.500 000 1000 000 000 000
$\alpha 62 \rightarrow 6$	308.2	0.609 0.10	0.0	0.125 075	0.625 000 1000 000 000	0.625 000 1000 000 000 000
$\alpha 75 \rightarrow 7$	316.1	0.693 0.10	0.0	0.452 548	0.750 000 1000 000 000	0.750 000 1000 000 000 000
$\alpha 87 \rightarrow 8$	323.4	0.789 0.10	0.0	0.685 315	0.875 000 1000 000 000	0.875 000 1000 000 000 000
$\alpha 00 \rightarrow 0$	330.0	0.923 0.10	0.0	0.616 384	1.000 000 1000 000 000	1.000 000 1000 000 000 000
$\alpha 12 \rightarrow 1$	336.6	0.910	0.0	0.859 875	0.125 000 1000 000 000	0.125 000 1000 000 000 000
$\alpha 25 \rightarrow 2$	343.9	0.887	0.0	0.728 0187	0.250 000 1000 000 000	0.250 000 1000 000 000 000
$\alpha 37 \rightarrow 3$	351.8	0.810	0.0	0.595 763	0.375 000 1000 000 000	0.375 000 1000 000 000 000
$\alpha 50 \rightarrow 5$	360.0	0.710	0.0	0.464 711	0.289 000 1000 000 000	0.289 000 1000 000 000 000
$\alpha 62 \rightarrow 6$	368.2	0.610	0.0	0.329 635	0.365 000 1000 000 000	0.365 000 1000 000 000 000
$\alpha 75 \rightarrow 7$	376.1	0.510	0.0	0.287 629	0.300 1000 000 000 000	0.300 1000 000 000 000 000
$\alpha 87 \rightarrow 8$	383.4	0.400	0.0	0.887 669	0.300 1000 000 000 000	0.300 1000 000 000 000 000

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TUB-test chart KE87: 48 step LECD device hue circle

Interpretation *rgb* $\rightarrow$ *olv** and *rgb** data of colours Ma

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input: rqb->olv* setrqbcOLOR
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output: no change compared to input