

Interpretation  $rgb \rightarrow olv^*$  and CIELAB data of a 48 step device hue circle  
for a LECD low glossy display with the luminance reflection  $L_r=0\%$  compared to the white reference (100%)

48 step device hue circle with six device hues  $OYL\bar{C}VM$ :  $h_{ab,a} = 46.0, 101.2, 131.0, 196.6, 306.1, 326.8$   
comparison with four elementary hues  $R\bar{J}GB$ :  $h_{ab,a} = 25.5, 92.3, 162.2, 271.7$ , and  $C^*M^*$  = 217.0, 328.6

9 step equidistant grey scale:  $L^* = 0.0, 11.9, 23.9, 35.8, 47.7, 59.6, 71.6, 83.5, 95.4$

| $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ | $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ |
|----------|-----------|-------------|-------|--------------|---------------------------|----------|-----------|-------------|-------|--------------|---------------------------|
| o00v=O   | 30.0      | 1.0         | 0.001 | 0.0          | 0.01                      | 46.0     | 1.0       | 0.000       | 0.0   | 0.01         | 196.9                     |
| o12y     | 36.6      | 1.0         | 0.126 | 0.0          | 0.01                      | 48.1     | 1.0       | 0.000       | 0.125 | 0.00         | 230.4                     |
| o25y     | 43.9      | 1.0         | 0.251 | 0.0          | 0.01                      | 53.1     | 1.0       | 0.000       | 0.250 | 0.00         | 254.2                     |
| o37y     | 51.8      | 1.0         | 0.376 | 0.0          | 0.01                      | 59.3     | 1.0       | 0.000       | 0.375 | 0.00         | 270.8                     |
| o50y     | 60.0      | 1.0         | 0.501 | 0.0          | 0.01                      | 66.7     | 1.0       | 0.000       | 0.500 | 0.00         | 282.2                     |
| o62y     | 68.2      | 1.0         | 0.626 | 0.0          | 0.01                      | 74.4     | 1.0       | 0.000       | 0.625 | 0.00         | 291.2                     |
| o75y     | 76.1      | 1.0         | 0.751 | 0.0          | 0.01                      | 82.8     | 1.0       | 0.000       | 0.750 | 0.00         | 298.4                     |
| o87y     | 83.4      | 1.0         | 0.876 | 0.0          | 0.01                      | 91.5     | 1.0       | 0.000       | 0.875 | 0.00         | 304.0                     |
| y00l=Y   | 90.0      | 0.999       | 1.0   | 0.0          | 0.01                      | 101.3    | 1.0       | 0.000       | 1.000 | 0.00         | 306.2                     |
| y12l     | 96.6      | 0.874       | 1.0   | 0.0          | 0.01                      | 109.3    | 0.875     | 1.000       | 0.00  | 0.00         | 306.7                     |
| y25l     | 103.9     | 0.749       | 1.0   | 0.0          | 0.01                      | 114.8    | 0.750     | 1.000       | 0.00  | 0.00         | 308.0                     |
| y37l     | 111.8     | 0.624       | 1.0   | 0.0          | 0.01                      | 119.4    | 0.625     | 1.000       | 0.00  | 0.00         | 309.6                     |
| y50l     | 120.0     | 0.499       | 1.0   | 0.0          | 0.01                      | 123.0    | 0.500     | 1.000       | 0.00  | 0.00         | 311.8                     |
| y62l     | 128.2     | 0.374       | 1.0   | 0.0          | 0.01                      | 126.1    | 0.375     | 1.000       | 0.00  | 0.00         | 314.4                     |
| y75l     | 136.1     | 0.249       | 1.0   | 0.0          | 0.01                      | 128.4    | 0.250     | 1.000       | 0.00  | 0.00         | 317.6                     |
| y87l     | 143.4     | 0.124       | 1.0   | 0.0          | 0.01                      | 130.3    | 0.125     | 1.000       | 0.00  | 0.00         | 321.3                     |
| l00c=L   | 150.0     | 0.0         | 1.0   | 0.001        | 0.01                      | 131.1    | 0.000     | 1.000       | 0.00  | 0.00         | 326.9                     |
| l12c     | 156.6     | 0.0         | 1.0   | 0.126        | 0.01                      | 133.4    | 0.000     | 1.000       | 0.125 | 0.00         | 336.9                     |
| l25c     | 163.9     | 0.0         | 1.0   | 0.251        | 0.01                      | 138.1    | 0.000     | 1.000       | 0.250 | 0.00         | 343.6                     |
| l37c     | 171.8     | 0.0         | 1.0   | 0.376        | 0.01                      | 142.8    | 0.000     | 1.000       | 0.375 | 0.00         | 350.7                     |
| l50c     | 180.0     | 0.0         | 1.0   | 0.501        | 0.01                      | 147.9    | 0.000     | 1.000       | 0.500 | 0.00         | 359.0                     |
| l62c     | 188.2     | 0.0         | 1.0   | 0.626        | 0.01                      | 153.6    | 0.000     | 1.000       | 0.625 | 0.00         | 368.2                     |
| l75c     | 196.1     | 0.0         | 1.0   | 0.751        | 0.01                      | 160.5    | 0.000     | 1.000       | 0.750 | 0.00         | 376.1                     |
| l87c     | 203.4     | 0.0         | 1.0   | 0.876        | 0.01                      | 170.2    | 0.000     | 1.000       | 0.875 | 0.00         | 383.4                     |

LE060-3N,1

Interpretation  $rgb \rightarrow olv^*$  and CIELAB data of a 48 step device hue circle  
for a LECD low glossy display with the luminance reflection  $L_r=0.6\%$  compared to the white reference (100%)

48 step device hue circle with six device hues  $OYL\bar{C}VM$ :  $h_{ab,a} = 43.3, 101.4, 131.4, 196.6, 305.6, 326.8$   
comparison with four elementary hues  $R\bar{J}GB$ :  $h_{ab,a} = 25.5, 92.3, 162.2, 271.7$ , and  $C^*M^*$  = 217.0, 328.6

9 step equidistant grey scale:  $L^* = 5.0, 16.3, 27.6, 38.9, 50.2, 61.5, 72.8, 84.1, 95.4$

| $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ | $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ |
|----------|-----------|-------------|-------|--------------|---------------------------|----------|-----------|-------------|-------|--------------|---------------------------|
| o00v=O   | 30.0      | 1.0         | 0.001 | 0.0          | 0.01                      | 43.3     | 1.0       | 0.000       | 0.0   | 0.01         | 197.0                     |
| o12y     | 36.6      | 1.0         | 0.126 | 0.0          | 0.01                      | 45.4     | 1.0       | 0.000       | 0.125 | 0.00         | 230.5                     |
| o25y     | 43.9      | 1.0         | 0.251 | 0.0          | 0.01                      | 51.0     | 1.0       | 0.000       | 0.250 | 0.00         | 254.3                     |
| o37y     | 51.8      | 1.0         | 0.376 | 0.0          | 0.01                      | 57.8     | 1.0       | 0.000       | 0.375 | 0.00         | 270.9                     |
| o50y     | 60.0      | 1.0         | 0.501 | 0.0          | 0.01                      | 65.7     | 1.0       | 0.000       | 0.500 | 0.00         | 282.3                     |
| o62y     | 68.2      | 1.0         | 0.626 | 0.0          | 0.01                      | 73.9     | 1.0       | 0.000       | 0.625 | 0.00         | 291.3                     |
| o75y     | 76.1      | 1.0         | 0.751 | 0.0          | 0.01                      | 82.7     | 1.0       | 0.000       | 0.750 | 0.00         | 298.5                     |
| o87y     | 83.4      | 1.0         | 0.876 | 0.0          | 0.01                      | 91.6     | 1.0       | 0.000       | 0.875 | 0.00         | 304.1                     |
| y00l=Y   | 90.0      | 0.999       | 1.0   | 0.0          | 0.01                      | 101.5    | 1.0       | 0.000       | 1.000 | 0.00         | 305.6                     |
| y12l     | 96.6      | 0.874       | 1.0   | 0.0          | 0.01                      | 109.5    | 0.875     | 1.000       | 0.00  | 0.00         | 306.2                     |
| y25l     | 103.9     | 0.749       | 1.0   | 0.0          | 0.01                      | 115.1    | 0.750     | 1.000       | 0.00  | 0.00         | 307.5                     |
| y37l     | 111.8     | 0.624       | 1.0   | 0.0          | 0.01                      | 119.7    | 0.625     | 1.000       | 0.00  | 0.00         | 309.3                     |
| y50l     | 120.0     | 0.499       | 1.0   | 0.0          | 0.01                      | 123.4    | 0.500     | 1.000       | 0.00  | 0.00         | 311.5                     |
| y62l     | 128.2     | 0.374       | 1.0   | 0.0          | 0.01                      | 126.5    | 0.375     | 1.000       | 0.00  | 0.00         | 314.2                     |
| y75l     | 136.1     | 0.249       | 1.0   | 0.0          | 0.01                      | 128.8    | 0.250     | 1.000       | 0.00  | 0.00         | 317.4                     |
| y87l     | 143.4     | 0.124       | 1.0   | 0.0          | 0.01                      | 130.7    | 0.125     | 1.000       | 0.00  | 0.00         | 321.2                     |
| l00c=L   | 150.0     | 0.0         | 1.0   | 0.001        | 0.01                      | 131.5    | 0.000     | 1.000       | 0.00  | 0.00         | 326.9                     |
| l12c     | 156.6     | 0.0         | 1.0   | 0.126        | 0.01                      | 133.7    | 0.000     | 1.000       | 0.125 | 0.00         | 336.9                     |
| l25c     | 163.9     | 0.0         | 1.0   | 0.251        | 0.01                      | 138.3    | 0.000     | 1.000       | 0.250 | 0.00         | 343.6                     |
| l37c     | 171.8     | 0.0         | 1.0   | 0.376        | 0.01                      | 142.9    | 0.000     | 1.000       | 0.375 | 0.00         | 350.8                     |
| l50c     | 180.0     | 0.0         | 1.0   | 0.501        | 0.01                      | 148.0    | 0.000     | 1.000       | 0.500 | 0.00         | 359.0                     |
| l62c     | 188.2     | 0.0         | 1.0   | 0.626        | 0.01                      | 153.6    | 0.000     | 1.000       | 0.625 | 0.00         | 368.2                     |
| l75c     | 196.1     | 0.0         | 1.0   | 0.751        | 0.01                      | 160.5    | 0.000     | 1.000       | 0.750 | 0.00         | 376.1                     |
| l87c     | 203.4     | 0.0         | 1.0   | 0.876        | 0.01                      | 170.2    | 0.000     | 1.000       | 0.875 | 0.00         | 383.4                     |

LE060-7N,1

Interpretation  $rgb \rightarrow olv^*$  and CIELAB data of a 48 step device hue circle  
for a LECD low glossy display with the luminance reflection  $L_r=1.2\%$  compared to the white reference (100%)

48 step device hue circle with six device hues  $OYL\bar{C}VM$ :  $h_{ab,a} = 41.1, 101.5, 131.8, 196.7, 305.0, 326.7$   
comparison with four elementary hues  $R\bar{J}GB$ :  $h_{ab,a} = 25.5, 92.3, 162.2, 271.7$ , and  $C^*M^*$  = 217.0, 328.6

9 step equidistant grey scale:  $L^* = 10.4, 21.0, 31.7, 42.3, 52.9, 63.5, 74.2, 84.8, 95.4$

| $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ | $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ |
|----------|-----------|-------------|-------|--------------|---------------------------|----------|-----------|-------------|-------|--------------|---------------------------|
| o00v=O   | 30.0      | 1.0         | 0.001 | 0.0          | 0.01                      | 41.2     | 1.0       | 0.000       | 0.0   | 0.01         | 197.0                     |
| o12y     | 36.6      | 1.0         | 0.126 | 0.0          | 0.01                      | 43.4     | 1.0       | 0.000       | 0.125 | 0.00         | 230.6                     |
| o25y     | 43.9      | 1.0         | 0.251 | 0.0          | 0.01                      | 49.4     | 1.0       | 0.000       | 0.250 | 0.00         | 254.4                     |
| o37y     | 51.8      | 1.0         | 0.376 | 0.0          | 0.01                      | 56.7     | 1.0       | 0.000       | 0.375 | 0.00         | 270.8                     |
| o50y     | 60.0      | 1.0         | 0.501 | 0.0          | 0.01                      | 65.0     | 1.0       | 0.000       | 0.500 | 0.00         | 282.1                     |
| o62y     | 68.2      | 1.0         | 0.626 | 0.0          | 0.01                      | 73.5     | 1.0       | 0.000       | 0.625 | 0.00         | 291.0                     |
| o75y     | 76.1      | 1.0         | 0.751 | 0.0          | 0.01                      | 82.5     | 1.0       | 0.000       | 0.750 | 0.00         | 297.7                     |
| o87y     | 83.4      | 1.0         | 0.876 | 0.0          | 0.01                      | 91.6     | 1.0       | 0.000       | 0.875 | 0.00         | 303.0                     |
| y00l=Y   | 90.0      | 0.999       | 1.0   | 0.0          | 0.01                      | 101.6    | 1.0       | 0.000       | 1.000 | 0.00         | 305.0                     |
| y12l     | 96.6      | 0.874       | 1.0   | 0.0          | 0.01                      | 109.8    | 0.875     | 1.000       | 0.00  | 0.00         | 305.7                     |
| y25l     | 103.9     | 0.749       | 1.0   | 0.0          | 0.01                      | 115.5    | 0.750     | 1.000       | 0.00  | 0.00         | 307.1                     |
| y37l     | 111.8     | 0.624       | 1.0   | 0.0          | 0.01                      | 120.1    | 0.625     | 1.000       | 0.00  | 0.00         | 308.9                     |
| y50l     | 120.0     | 0.499       | 1.0   | 0.0          | 0.01                      | 123.8    | 0.500     | 1.000       | 0.00  | 0.00         | 311.2                     |
| y62l     | 128.2     | 0.374       | 1.0   | 0.0          | 0.01                      | 126.9    | 0.375     | 1.000       | 0.00  | 0.00         | 313.9                     |
| y75l     | 136.1     | 0.249       | 1.0   | 0.0          | 0.01                      | 129.2    | 0.250     | 1.000       | 0.00  | 0.00         | 317.3                     |
| y87l     | 143.4     | 0.124       | 1.0   | 0.0          | 0.01                      | 131.1    | 0.125     | 1.000       | 0.00  | 0.00         | 321.3                     |
| l00c=L   | 150.0     | 0.0         | 1.0   | 0.001        | 0.01                      | 131.8    | 0.000     | 1.000       | 0.00  | 0.00         | 326.8                     |
| l12c     | 156.6     | 0.0         | 1.0   | 0.126        | 0.01                      | 134.0    | 0.000     | 1.000       | 0.125 | 0.00         | 336.9                     |
| l25c     | 163.9     | 0.0         | 1.0   | 0.251        | 0.01                      | 138.4    | 0.000     | 1.000       | 0.250 | 0.00         | 343.7                     |
| l37c     | 171.8     | 0.0         | 1.0   | 0.376        | 0.01                      | 143.0    | 0.000     | 1.000       | 0.375 | 0.00         | 350.8                     |
| l50c     | 180.0     | 0.0         | 1.0   | 0.501        | 0.01                      | 148.0    | 0.000     | 1.000       | 0.500 | 0.00         | 359.0                     |
| l62c     | 188.2     | 0.0         | 1.0   | 0.626        | 0.01                      | 153.7    | 0.000     | 1.000       | 0.625 | 0.00         | 368.2                     |
| l75c     | 196.1     | 0.0         | 1.0   | 0.751        | 0.01                      | 160.5    | 0.000     | 1.000       | 0.750 | 0.00         | 376.1                     |
| l87c     | 203.4     | 0.0         | 1.0   | 0.876        | 0.01                      | 170.1    | 0.000     | 1.000       | 0.875 | 0.00         | 383.4                     |

LE061-3N,1

Interpretation  $rgb \rightarrow olv^*$  and CIELAB data of a 48 step device hue circle  
for a LECD low glossy display with the luminance reflection  $L_r=2.5\%$  compared to the white reference (100%)

48 step device hue circle with six device hues  $OYL\bar{C}VM$ :  $h_{ab,a} = 38.2, 101.8, 132.5, 196.7, 304.1, 326.6$   
comparison with four elementary hues  $R\bar{J}GB$ :  $h_{ab,a} = 25.5, 92.3, 162.2, 271.7$ , and  $C^*M^*$  = 217.0, 328.6

9 step equidistant grey scale:  $L^* = 17.7, 27.4, 37.1, 46.8, 56.5, 66.3, 76.0, 85.7, 95.4$

| $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ | $d_{Ma}$ | $h_{rgb}$ | $olv^*Ma_d$ | A2    | $h_{abMa_d}$ | $rgb \rightarrow olv^*Ma$ |
|----------|-----------|-------------|-------|--------------|---------------------------|----------|-----------|-------------|-------|--------------|---------------------------|
| o00v=O   | 30.0      | 1.0         | 0.001 | 0.0          | 0.01                      | 38.2     | 1.0       | 0.000       | 0.0   | 0.01         | 197.0                     |
| o12y     | 36.6      | 1.0         | 0.126 | 0.0          | 0.01                      | 40.7     | 1.0       | 0.000       | 0.125 | 0.00         | 230.7                     |
| o25y     | 43.9      | 1.0         | 0.251 | 0.0          | 0.01                      | 47.0     | 1.0       | 0.000       | 0.250 | 0.00         | 254.5                     |
| o37y     | 51.8      | 1.0         | 0.376 | 0.0          | 0.01                      | 54.8     | 1.0       | 0.000       | 0.375 | 0.00         | 270.8                     |
| o50y     | 60.0      | 1.0         | 0.501 | 0.0          | 0.01                      | 63.7     | 1.0       | 0.000       | 0.500 | 0.00         | 281.9                     |
| o62y     | 68.2      | 1.0         | 0.626 | 0.0          | 0.01                      | 72.7     | 1.0       | 0.000       | 0.625 | 0.00         | 290.5                     |
| o75y     | 76.1      | 1.0         | 0.751 | 0.0          | 0.01                      | 82.2     | 1.0       | 0.000       | 0.750 | 0.00         | 297.1                     |
| o87y     | 83.4      | 1.0         | 0.876 | 0.0          | 0.01                      | 91.6     | 1.0       | 0.000       | 0.875 | 0.00         | 302.2                     |
| y00l=Y   | 90.0      | 0.999       | 1.0   | 0.0          | 0.01                      | 101.9    | 1.0       | 0.000       | 1.000 | 0.00         | 304.1                     |
| y12l     | 96.6      | 0.874       | 1.0   | 0.0          | 0.01                      | 110.3    | 0.875     | 1.000       | 0.00  | 0.00         | 304.8                     |
| y25l     | 103.9     | 0.749       | 1.0   | 0.0          | 0.01                      | 116.0    | 0.750     | 1.000       | 0.00  | 0.00         | 306.3                     |
| y37l     | 111.8     | 0.624       | 1.0   | 0.0          | 0.01                      | 120.7    | 0.625     | 1.000       | 0.00  | 0.00         | 308.3                     |
| y50l     | 120.0     | 0.499       | 1.0   | 0.0          | 0.01                      | 124.4    | 0.500     | 1.000       | 0.00  | 0.00         | 310.7                     |
| y62l     | 128.2     | 0.374       | 1.0   | 0.0          | 0.01                      | 127.5    | 0.375     | 1.000       | 0.00  | 0.00         | 313.5                     |