TUB registration: 20100601-KE86/KE86L0N1.TXT /.PS
application for measurement of printer or monitor systems

See original copy: http://web.me.com/klaus.richter/KE86/KE86L0N1.TXT /.PS
Technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB material: code=fha4a

Interpretation *rgb -> 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 $OYLCVMb$: $h_{dsb,y}$ = 46.0, 101.2, 131.0, 196.6, 306.1, 326.8
comparison with four elementary hues $RGBM$: $h_{dsb,r}$ = 25.5, 92.3, 162.2, 271.7, and C^*M^* = 217.0, 328.6
9 step equidistant grey scale: L^* = 5.0, 11.9, 23.9, 35.8, 47.7, 59.6, 71.6, 83.5, 95.4

d_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$		d_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$	
c00y=O	30.0	1.0	0.307 0.0	0.54 0.46 1.000 0.000 0.000		c00v=C	210.0	0.0	1.0 0.628 0.978 0.022 0.000 1.000 1.000		
c12y	36.6	1.0	0.337 0.0	0.604 0.396 1.000 0.125 0.000		c12v	216.6	0.0	0.76 1.0 0.678 0.322 0.000 0.875 1.000		C
c25y	43.9	1.0	0.412 0.0	0.706 0.294 1.000 0.250 0.000		c25v	223.9	0.0	0.323 1.0 0.583 0.417 0.000 0.750 1.000		
c37y	51.8	1.0	0.504 0.0	0.965 0.035 1.000 0.375 0.000		c37v	231.8	0.0	0.019 1.0 0.153 0.847 0.000 0.625 1.000		B
c50y	60.0	1.0	0.615 0.0	1.000 0.000 1.000 0.500 0.000		c50v	240.0	0.0	184.0 1.0 0.538 0.462 0.000 0.500 1.000		
c62y	68.2	1.0	0.731 0.0	0.152 0.848 1.000 0.625 0.000		c62v	248.2	0.342 0.0	1.0 0.266 0.734 0.000 0.375 1.000		
c75y	76.1	1.0	0.857 0.0	0.144 0.856 1.000 0.750 0.000		c75v	256.1	0.467 0.0	1.0 0.26 0.74 0.000 0.250 1.000		
c87y	83.4	1.0	0.987 0.0	0.195 0.805 1.000 0.875 0.000		c87v	263.4	0.566 0.0	1.0 0.469 0.531 0.000 0.125 1.000		
y000=Y	90.0	0.873 1.0	0.0	0.981 0.019 1.000 1.000 0.000		v00m=V	270.0	0.605 0.0	1.0 0.16 0.84 0.000 0.000 1.000		
y12l	96.6	0.758 1.0	0.0	0.065 0.935 0.875 1.000 0.000		v12m	276.6	0.615 0.0	1.0 0.083 0.917 0.125 0.000 1.000		
y25l	103.9	0.679 1.0	0.0	0.433 0.567 0.750 1.000 0.000		v25m	283.9	0.637 0.0	1.0 0.903 0.097 0.250 0.000 1.000		
y37l	111.8	0.614 1.0	0.0	0.909 0.091 0.625 1.000 0.000		v37m	291.8	0.666 0.0	1.0 0.67 0.33 0.375 0.000 1.000		M
y50l	120.0	0.561 1.0	0.0	0.49 0.51 0.500 1.000 0.000		v50m	300.0	0.704 0.0	1.0 0.37 0.63 0.500 0.000 1.000		
y62l	128.2	0.517 1.0	0.0	0.136 0.864 0.375 1.000 0.000		v62m	308.2	0.749 0.0	1.0 0.006 0.994 0.625 0.000 1.000		
y75l	136.1	0.484 1.0	0.0	0.871 0.129 0.250 1.000 0.000		v75m	316.1	0.805 0.0	1.0 0.558 0.442 0.750 0.000 1.000		
y87l	143.4	0.457 1.0	0.0	0.652 0.348 0.125 1.000 0.000		v87m	323.4	0.871 0.0	1.0 0.029 0.971 0.875 0.000 1.000		
l00c=L	150.0	0.446 1.0	0.0	0.569 0.431 0.000 1.000 0.000		m00u=M	330.0	0.969 0.0	1.0 0.249 0.751 1.000 0.000 1.000		M'
l12c	156.6	0.413 1.0	0.0	0.305 0.695 0.000 1.000 0.125		m12u	336.6	1.0	0.855 0.84 0.16 1.000 0.000 0.875		
l25c	163.9	0.383 1.0	0.0	0.104 0.896 0.000 1.000 0.250		m25u	343.9	1.0	0.737 0.896 0.104 1.000 0.000 0.750		
l37c	171.8	0.278 1.0	0.0	0.228 0.772 0.000 1.000 0.375		m37u	351.8	1.0	0.612 0.899 0.101 1.000 0.000 0.625		
l50c	180.0	0.205 1.0	0.0	0.643 0.357 0.000 1.000 0.500		m50u	360.0	1.0	0.467 0.738 0.262 1.000 0.000 0.500		
l62c	188.2	0.124 1.0	0.0	0.989 0.011 0.000 1.000 0.625		m62u	368.2	1.0	0.292 0.336 0.664 1.000 0.000 0.375		
l75c	196.1	0.026 1.0	0.0	0.209 0.791 0.000 1.000 0.750		m75u	376.1	1.0	0.09 0.073 0.927 1.000 0.000 0.250		
l87c	203.4	0.0	1.0	0.888 0.12 0.000 1.000 0.875		m87u	383.4	1.0	0.154 0.0 1.000 0.000 0.000 0.125		

KE86D−3N, 1

Interpretation *rgb -> 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 $OYLCVMb$: $h_{dsb,y}$ = 46.1, 101.5, 131.8, 196.7, 305.0, 326.7
comparison with four elementary hues $RGBM$: $h_{dsb,r}$ = 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_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$		d_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$	
c00y=O	30.0	1.0	0.234 0.0	0.126 0.874 1.000 0.000 0.000		c00v=C	210.0	0.0	1.0 0.629 0.97 0.03 0.000 1.000 1.000		
c12y	36.6	1.0	0.258 0.0	0.857 0.143 1.000 0.125 0.000		c12v	216.6	0.0	0.756 1.0 0.051 0.949 0.000 0.875 1.000		C
c25y	43.9	1.0	0.357 0.0	0.143 0.857 1.000 0.250 0.000		c25v	223.9	0.0	0.32 1.0 0.561 0.439 0.000 0.750 1.000		
c37y	51.8	1.0	0.465 0.0	0.276 0.724 1.000 0.375 0.000		c37v	231.8	0.0	0.019 1.0 0.153 0.847 0.000 0.625 1.000		B
c50y	60.0	1.0	0.59 0.0	0.283 0.717 1.000 0.500 0.000		c50v	240.0	0.0	183.0 1.0 0.537 0.463 0.000 0.500 1.000		
c62y	68.2	1.0	0.717 0.0	0.266 0.734 1.000 0.625 0.000		c62v	248.2	0.342 0.0	1.0 0.323 0.677 0.000 0.375 1.000		
c75y	76.1	1.0	0.852 0.0	0.188 0.812 1.000 0.750 0.000		c75v	256.1	0.456 0.0	1.0 0.352 0.648 0.000 0.250 1.000		
c87y	83.4	1.0	0.988 0.0	0.902 0.098 1.000 0.875 0.000		c87v	263.4	0.55 0.0	1.0 0.603 0.397 0.000 0.125 1.000		
y000=Y	90.0	0.868 1.0	0.0	0.946 0.054 1.000 1.000 0.000		v00m=V	270.0	0.586 0.0	1.0 0.316 0.684 0.000 0.000 1.000		
y12l	96.6	0.751 1.0	0.0	0.006 0.994 0.875 1.000 0.000		v12m	276.6	0.596 0.0	1.0 0.229 0.771 0.125 0.000 1.000		
y25l	103.9	0.67 1.0	0.0	0.362 0.638 0.750 1.000 0.000		v25m	283.9	0.622 0.0	1.0 0.027 0.973 0.250 0.000 1.000		
y37l	111.8	0.608 1.0	0.0	0.83 0.17 0.625 1.000 0.000		v37m	291.8	0.653 0.0	1.0 0.772 0.228 0.375 0.000 1.000		M
y50l	120.0	0.551 1.0	0.0	0.405 0.595 0.500 1.000 0.000		v50m	300.0	0.694 0.0	1.0 0.45 0.55 0.500 0.000 1.000		
y62l	128.2	0.508 1.0	0.0	0.048 0.952 0.375 1.000 0.000		v62m	308.2	0.742 0.0	1.0 0.068 0.932 0.625 0.000 1.000		
y75l	136.1	0.473 1.0	0.0	0.782 0.218 0.250 1.000 0.000		v75m	316.1	0.8 0.0	1.0 0.603 0.397 0.750 0.000 1.000		
y87l	143.4	0.445 1.0	0.0	0.562 0.438 0.125 1.000 0.000		v87m	323.4	0.868 0.0	1.0 0.059 0.941 0.875 0.000 1.000		
l00c=L	150.0	0.435 1.0	0.0	0.479 0.521 0.000 1.000 0.000		m00u=M	330.0	0.967 0.0	1.0 0.264 0.736 1.000 0.000 1.000		M'
l12c	156.6	0.405 1.0	0.0	0.237 0.763 0.000 1.000 0.125		m12u	336.6	1.0	0.855 0.842 0.158 1.000 0.000 0.875		
l25c	163.9	0.341 1.0	0.0	0.276 0.724 0.000 1.000 0.250		m25u	343.9	1.0	0.737 0.894 0.106 1.000 0.000 0.750		
l37c	171.8	0.276 1.0	0.0	0.206 0.794 0.000 1.000 0.375		m37u	351.8	1.0	0.612 0.892 0.108 1.000 0.000 0.625		
l50c	180.0	0.204 1.0	0.0	0.633 0.367 0.000 1.000 0.500		m50u	360.0	1.0	0.467 0.737 0.263 1.000 0.000 0.500		
l62c	188.2	0.124 1.0	0.0	0.988 0.012 0.000 1.000 0.625		m62u	368.2	1.0	0.292 0.336 0.664 1.000 0.000 0.375		
l75c	196.1	0.026 1.0	0.0	0.21 0.79 0.000 1.000 0.750		m75u	376.1	1.0	0.097 0.776 0.224 1.000 0.000 0.250		
l87c	203.4	0.0	1.0	0.882 0.118 1.000 1.000 0.875		m87u	383.4	1.0	0.152 0.0 1.000 0.000 0.000 0.125		

KE86I−3N, 1

Interpretation *rgb -> 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 $OYLCVMb$: $h_{dsb,y}$ = 43.3, 101.4, 131.4, 196.6, 305.6, 326.8
comparison with four elementary hues $RGBM$: $h_{dsb,r}$ = 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_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$		d_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$	
c00y=O	30.0	1.0	0.266 0.0	0.87 0.13 1.000 0.000 0.000		c00v=C	210.0	0.0	1.0 0.628 0.974 0.026 0.000 1.000 1.000		
c12y	36.6	1.0	0.297 0.0	0.942 0.058 1.000 0.125 0.000		c12v	216.6	0.0	0.758 1.0 0.063 0.937 0.000 0.875 1.000		C
c25y	43.9	1.0	0.381 0.0	0.955 0.045 1.000 0.250 0.000		c25v	223.9	0.0	0.321 1.0 0.571 0.429 0.000 0.750 1.000		
c37y	51.8	1.0	0.483 0.0	0.136 0.864 1.000 0.375 0.000		c37v	231.8	0.0	0.019 1.0 0.152 0.848 0.000 0.625 1.000		B
c50y	60.0	1.0	0.601 0.0	0.828 0.172 1.000 0.500 0.000		c50v	240.0	0.0	182.0 1.0 0.541 0.459 0.000 0.500 1.000		
c62y	68.2	1.0	0.723 0.0	0.212 0.788 1.000 0.625 0.000		c62v	248.2	0.338 0.0	1.0 0.294 0.706 0.000 0.375 1.000		
c75y	76.1	1.0	0.854 0.0	0.167 0.833 1.000 0.750 0.000		c75v	256.1	0.462 0.0	1.0 0.307 0.693 0.000 0.250 1.000		
c87y	83.4	1.0	0.987 0.0	0.192 0.808 1.000 0.875 0.000		c87v	263.4	0.558 0.0	1.0 0.466 0.534 0.000 0.125 1.000		
y000=Y	90.0	0.87 1.0	0.0	0.963 0.037 1.000 1.000 0.000		v00m=V	270.0	0.595 0.0	1.0 0.24 0.76 0.000 0.000 1.000		
y12l	96.6	0.754 1.0	0.0	0.035 0.965 0.875 1.000 0.000		v12m	276.6	0.605 0.0	1.0 0.158 0.842 0.125 0.000 1.000		
y25l	103.9	0.675 1.0	0.0	0.397 0.603 0.750 1.000 0.000		v25m	283.9	0.629 0.0	1.0 0.966 0.034 0.250 0.000 1.000		
y37l	111.8	0.609 1.0	0.0	0.868 0.132 0.625 1.000 0.000		v37m	291.8	0.66 0.0	1.0 0.722 0.278 0.375 0.000 1.000		M
y50l	120.0	0.556 1.0	0.0	0.446 0.554 0.500 1.000 0.000		v50m	300.0	0.699 0.0	1.0 0.41 0.59 0.500 0.000 1.000		
y62l	128.2	0.511 1.0	0.0	0.091 0.909 0.375 1.000 0.000		v62m	308.2	0.745 0.0	1.0 0.037 0.963 0.625 0.000 1.000		
y75l	136.1	0.479 1.0	0.0	0.825 0.175 0.250 1.000 0.000		v75m	316.1	0.802 0.0	1.0 0.581 0.419 0.750 0.000 1.000		
y87l	143.4	0.451 1.0	0.0	0.606 0.394 0.125 1.000 0.000		v87m	323.4	0.869 0.0	1.0 0.044 0.956 0.875 0.000 1.000		
l00c=L	150.0	0.44 1.0	0.0	0.523 0.477 0.000 1.000 0.000		m00u=M	330.0	0.968 0.0	1.0 0.257 0.743 1.000 0.000 1.000		M'
l12c	156.6	0.409 1.0	0.0	0.27 0.73 0.000 1.000 0.125		m12u	336.6	1.0	0.855 0.841 0.159 1.000 0.000 0.875		
l25c	163.9	0.343 1.0	0.0	0.745 0.255 0.000 1.000 0.250		m25u	343.9	1.0	0.737 0.896 0.104 1.000 0.000 0.750		
l37c	171.8	0.277 1.0	0.0	0.217 0.783 0.000 1.000 0.375		m37u	351.8	1.0	0.612 0.896 0.104 1.000 0.000 0.625		
l50c	180.0	0.205 1.0	0.0	0.638 0.362 0.000 1.000 0.500		m50u	360.0	1.0	0.467 0.738 0.262 1.000 0.000 0.500		
l62c	188.2	0.124 1.0	0.0	0.99 0.01 0.000 1.000 0.625		m62u	368.2	1.0	0.292 0.336 0.664 1.000 0.000 0.375		
l75c	196.1	0.026 1.0	0.0	0.209 0.791 0.000 1.000 0.750		m75u	376.1	1.0	0.091 0.73 0.27 1.000 0.000 0.250		
l87c	203.4	0.0	1.0	0.881 0.119 1.000 1.000 0.875		m87u	383.4	1.0	0.136 0.0 0.913 0.087 1.000 0.000 0.125		

KE86D−7N, 1

Interpretation *rgb -> 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 $OYLCVMb$: $h_{dsb,y}$ = 38.2, 101.8, 132.5, 196.7, 304.1, 326.6
comparison with four elementary hues $RGBM$: $h_{dsb,r}$ = 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_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$		d_{sa}	h_{rgb}	rgb^*s_{ds}	*AL/AZ*	*rgb -> olv*$_{ds}$	
c00y=O	30.0	1.0	0.19 0.0	0.478 0.522 1.000 0.000 0.000		c00v=C	210.0	0.0	1.0 0.63 0.963 0.037 0.000 1.000 1.000		
c12y	36.6	1.0	0.226 0.0	0.191 0.809 1.000 0.125 0.000		c12v	216.6	0.0	0.753 1.0 0.026 0.974 0.000 0.875 1.000		C
c25y	43.9	1.0	0.321 0.0	0.428 0.572 1.000 0.250 0.000		c25v	223.9	0.0	0.318 1.0 0.543 0.457 0.000 0.750 1.000		
c37y	51.8	1.0	0.437 0.0	0.501 0.499 1.000 0.375 0.000		c37v	231.8	0.0	0.019 1.0 0.155 0.845 0.000 0.625 1.000		B
c50y	60.0	1.0	0.57 0.0	0.44 0.56 1.000 0.500 0.000		c50v	240.0	178.0 1.0	0.54 0.46 0.000 0.500 1.000		
c62y	68.2	1.0	0.705 0.0	0.359 0.641 1.000 0.625 0.000		c62v	248.2	0.328 0.0	1.0 0.376 0.624 0.000 0.375 1.000		
c75y	76.1	1.0	0.847 0.0	0.225 0.775 1.000 0.750 0.000		c75v	256.1	0.445 0.0	1.0 0.437 0.563 0.000 0.250 1.000		
c87y	83.4	1.0	0.987 0.0	0.235 0.765 1.000 0.875 0.000		c87v	263.4	0.535 0.0	1.0 0.722 0.278 0.000 0.125 1.000		
y000=Y	90.0	0.864 1.0	0.0	0.913 0.087 1.000 1.000 0.000		v00m=V	270.0	0.568 0.0	1.0 0.453 0.547 0.000 0.000 1.000		
y12l	96.6	0.744 1.0	0.0	0.954 0.046 0.875 1.000 0.000		v12m	276.6	0.58 0.0	1.0 0.358 0.642 0.125 0.000 1.000		
y25l	103.9	0.662 1.0	0.0	0.298 0.702 0.750 1.000 0.000		v25m	283.9	0.608 0.0	1.0 0.138 0.862 0.250 0.000 1.000		
y37l	111.8	0.595 1.0	0.0	0.729 0.271 0.625 1.000 0.000		v37m	291.8	0.639 0.0	1.0 0.886 0.114 0.375 0.000 1.000		M
y50l	120.0	0.541 1.0	0.0	0.331 0.669 0.500 1.000 0.000		v50m	300.0	0.684 0.0	1.0 0.526 0.474 0.500 0.000 1.000		
y62l	128.2	0.496 1.0	0.0	0.972 0.028 0.375 1.000 0.000		v62m	308.2	0.734 0.0	1.0 0.127 0.873 0.625 0.000 1.000		
y75l	136.1	0.463 1.0	0.0	0.704 0.296 0.250 1.000 0.000		v75m	316.1	0.794 0.0	1.0 0.646 0.354 0.750 0.000 1.000		
y87l	143.4	0.436 1.0	0.0	0.485 0.515 0.125 1.000 0.000		v87m	323.4	0.864 0.0	1.0 0.088 0.912 0.875 0.000 1.000		
l00c=L	150.0	0.425 1.0	0.0	0.402 0.598 0.000 1.000 0.000		m00u=M	330.0	0.965 0.0	1.0 0.279 0.721 1.000 0.000 1.000		M'
l12c	156.6	0.397 1.0	0.0	0.177 0.823 0.000 1.000 0.125		m12u	336.6	1.0	0.855 0.844 0.156 1.000 0.000 0.875		
l25c	163.9	0.336 1.0	0.0	0.681 0.319 0.000 1.000 0.250		m25u	343.9	1.0	0.736 0.888 0.112 1.000 0.000 0.750		
l37c	171.8	0.273 1.0	0.0	0.186 0.814 0.000 1.000 0.375		m37u	351.8	1.0	0.611 0.884 0.116 1.000 0.000 0.625		
l50c	180.0	0.203 1.0	0.0	0.623 0.377 0.000 1.000 0.500		m50u	360.0	1.0	0.467 0.735 0.265 1.000 0.000 0.500		
l62c	188.2	0.123 1.0	0.0	0.985 0.015 0.000 1.000 0.625		m62u	368.2	1.0	0.296 0.371 0.629 1.000 0.000 0.375		
l75c	196.1	0.026 1.0	0.0	0.211 0.789 0.000 1.000 0.750		m75u	376.1	1.0	0.107 0.858 0.142 1.000 0.000 0.250		
l87c	203.4	0.0	1.0	0.139 0.885 1.115 0.000 1.000 0.875		m87u	383.4	1.0	0.095 0.0 0.237 0.763 1.000 0.000 0.125		

KE86I−7N, 1

TUB-test chart KE86; 48 step LECD device hue circle
Interpretation *rgb −> olv** *rgb** data of colours Ma

input: *rgb->olv* setrgbcolor*
output: *no change compared to input*