

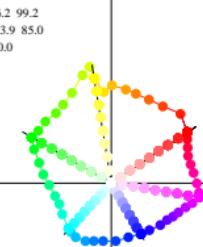
Data of Maximum color M in colorimetric system laser printer HRS27_96; separation cmy0* for input or output; Six hue angles of the 60 degree standard colours s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$; Six hue angles of the device colours d: $h_{ab,d} = 33.7, 99.3, 150.0, 227.4, 300.0, 351.0$; Six hue angles of the elementary colours e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Y-d Yellow
 $LCH^*d = 91.5 \quad 86.2 \quad 99.2$
 $LAB^*d = 91.5 \quad -13.9 \quad 85.0$
 $rgb^*d = 1.0 \quad 1.0 \quad 0.0$

L-G_d Leaf green
 $LCH^*d = 56.9 \quad 73.9 \quad 149.9$
 $LAB^*d = 56.9 \quad -63.9 \quad 36.9$
 $rgb^*d = 0.0 \quad 1.0 \quad 0.0$

C-C_d Cyan blue
 $LCH^*d = 52.2 \quad 50.2 \quad 227.4$
 $LAB^*d = 52.2 \quad -34.0 \quad -37.0$
 $rgb^*d = 0.0 \quad 1.0 \quad 1.0$

device CIELAB (a^*d, b^*d) chroma diagram

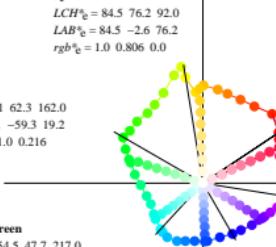


O-R_d Orange red
 $LCH^*d = 46.2 \quad 73.4 \quad 33.7$
 $LAB^*d = 46.2 \quad 61.1 \quad 40.7$
 $rgb^*d = 1.0 \quad 0.0 \quad 0.0$

M-M_d Magenta red
 $LCH^*d = 45.3 \quad 71.4 \quad 350.9$
 $LAB^*d = 45.3 \quad 70.5 \quad -11.2$
 $rgb^*d = 1.0 \quad 0.0 \quad 1.0$

V-B_d Violet blue (very similar to elementary Blue)
 $LCH^*d = 31.6 \quad 47.2 \quad 300.0$
 $LAB^*d = 31.6 \quad 23.6 \quad -40.8$
 $rgb^*d = 0.0 \quad 0.0 \quad 1.0$

elementary CIELAB (a^*e, b^*e) chroma diagram



G_e Green
 $LCH^*e = 57.1 \quad 62.3 \quad 162.0$
 $LAB^*e = 57.1 \quad -59.3 \quad 19.2$
 $rgb^*e = 0.0 \quad 1.0 \quad 0.216$

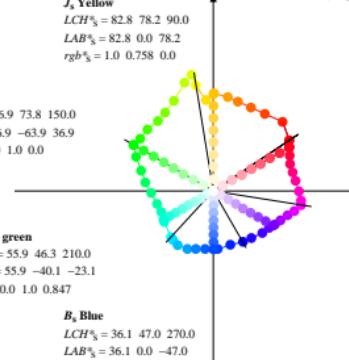
C_e Blue green
 $LCH^*e = 54.5 \quad 47.7 \quad 217.0$
 $LAB^*e = 54.5 \quad -38.1 \quad -28.7$
 $rgb^*e = 0.0 \quad 1.0 \quad 0.914$

R_e Red
 $LCH^*e = 45.1 \quad 67.7 \quad 25.0$
 $LAB^*e = 45.1 \quad 61.4 \quad 28.6$
 $rgb^*e = 1.0 \quad 0.0 \quad 0.244$

R_e Red
 $LCH^*e = 45.1 \quad 67.7 \quad 25.0$
 $LAB^*e = 45.1 \quad 61.4 \quad 28.6$
 $rgb^*e = 1.0 \quad 0.0 \quad 0.244$

M_e Blue red
 $LCH^*e = 33.6 \quad 55.2 \quad 329.0$
 $LAB^*e = 33.6 \quad 47.3 \quad -28.4$
 $rgb^*e = 0.437 \quad 0.1 \quad 1.0$

standard CIELAB (a^*_s, b^*_s) chroma diagram



G_s Green
 $LCH^*_s = 56.9 \quad 73.8 \quad 150.0$
 $LAB^*_s = 56.9 \quad -63.9 \quad 36.9$
 $rgb^*_s = 0.0 \quad 1.0 \quad 0.0$

C_s Blue green
 $LCH^*_s = 55.9 \quad 46.3 \quad 210.0$
 $LAB^*_s = 55.9 \quad -40.1 \quad -23.1$
 $rgb^*_s = 0.0 \quad 1.0 \quad 0.847$

B_s Blue
 $LCH^*_s = 36.1 \quad 47.0 \quad 270.0$
 $LAB^*_s = 36.1 \quad 0.0 \quad -47.0$
 $rgb^*_s = 0.0 \quad 0.294 \quad 1.0$

R_s Red
 $LCH^*_s = 45.8 \quad 70.3 \quad 30.0$
 $LAB^*_s = 45.8 \quad 60.9 \quad 35.1$
 $rgb^*_s = 1.0 \quad 0.0 \quad 0.13$

M_s Blue red
 $LCH^*_s = 34.0 \quad 55.6 \quad 330.0$
 $LAB^*_s = 34.0 \quad 48.1 \quad -27.8$
 $rgb^*_s = 0.461 \quad 0.0 \quad 1.0$

Notes to the CIELAB chroma diagrams (a^*_d, b^*_d , a^*_s, b^*_s , a^*_e, b^*_e)

1. For the rgb^* -input values the CIELAB data LCH^*d and LAB^*d have been measured.

2. For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^*_d the equation:

$$h_{ab,s} = atan(r_d^* \cos(30) + g_d^* \cos(150)) / (r_d^* \sin(30) + g_d^* \sin(150) + b_d^* \sin(270)) \quad (1)$$

3. For the 48 or 360 equally spaced standard hue angles $h_{ab,s}$ of the colours of maximum chroma use the seven hue angles of the 60 degree colours s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ (i=0..6) and the equations for a 48 and 360 step hue circle:

$$h_{48ab,sij} = h_{ab,s,i} + [h_{ab,s,i+1} - h_{ab,s,i}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (2)$$

$$h_{360ab,sij} = h_{ab,s,i} + [h_{ab,s,i+1} - h_{ab,s,i}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$

4. For the 48 or 360 elementary hue angles $h_{ab,e}$ of the colours of maximum chroma use the seven hue angles of the elementary colours e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ (i=0..6) and the equations for a 48 and 360 step elementary hue circle:

$$h_{48ab,ei} = h_{ab,e,i} + [h_{ab,e,i+1} - h_{ab,e,i}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (4)$$

$$h_{360ab,ei} = h_{ab,e,i} + [h_{ab,e,i+1} - h_{ab,e,i}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$

5. For any elementary hue angle $h_{ab,e}$ there is a well defined device hue angle $h_{ab,d}$ see the following tables, columns 1 to 3.

6. The values rgb^*_d produce the output of the device-independent elementary hues