

Data of Maximum color M in colorimetric system Offset print ORS40_18_96; separation cmy6*, D65 and D50 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: $h_{ab,d} = 31.4, 96.2, 152.6, 233.9, 298.6, 353.1$; Six hue angles of the elementary colours e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Y=J_d Yellow
device CIELAB (a^*_d, b^*_d) chroma diagram

$LCH^*_d = 90.3 \ 88.8 \ 96.2$
 $LAB^*_d = 90.3 \ -9.6 \ 88.3$
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

L=G_d Leaf green
 $LCH^*_d = 55.8 \ 73.4 \ 152.5$
 $LAB^*_d = 55.8 \ -65.1 \ 33.8$
 $rgb^*_d = 0.0 \ 1.0 \ 0.0$

C=C_d Cyan blue
 $LCH^*_d = 63.0 \ 52.0 \ 233.9$
 $LAB^*_d = 63.0 \ -30.6 \ -42.0$
 $rgb^*_d = 0.0 \ 1.0 \ 1.0$

O=R_d Orange red
 $LCH^*_d = 48.6 \ 77.6 \ 31.4$
 $LAB^*_d = 48.6 \ 66.3 \ 40.4$
 $rgb^*_d = 1.0 \ 0.0 \ 0.0$

M=M_d Magenta red
 $LCH^*_d = 49.6 \ 74.0 \ 353.0$
 $LAB^*_d = 49.6 \ 73.5 \ -8.9$
 $rgb^*_d = 1.0 \ 0.0 \ 1.0$

V=B_d Violet blue (very different to elementary Blue)
 $LCH^*_d = 27.5 \ 53.9 \ 298.6$
 $LAB^*_d = 27.5 \ 25.8 \ -47.3$
 $rgb^*_d = 0.0 \ 0.0 \ 1.0$

J_e Yellow
elementary CIELAB (a^*_e, b^*_e) chroma diagram

$LCH^*_e = 85.8 \ 82.8 \ 92.0$
 $LAB^*_e = 85.8 \ -2.8 \ 82.7$
 $rgb^*_e = 1.0 \ 0.89 \ 0.0$

G_e Green
 $LCH^*_e = 56.9 \ 64.9 \ 162.0$
 $LAB^*_e = 56.9 \ -61.8 \ 20.0$
 $rgb^*_e = 0.0 \ 1.0 \ 0.162$

C_e Blue green
 $LCH^*_e = 61.3 \ 49.2 \ 217.0$
 $LAB^*_e = 61.3 \ -39.3 \ -29.6$
 $rgb^*_e = 0.0 \ 1.0 \ 0.796$

B_e Blue
 $LCH^*_e = 41.2 \ 45.0 \ 272.0$
 $LAB^*_e = 41.2 \ 1.5 \ -45.0$
 $rgb^*_e = 0.0 \ 0.385 \ 1.0$

R_e Red
 $LCH^*_e = 48.8 \ 73.8 \ 25.0$
 $LAB^*_e = 48.8 \ 66.8 \ 31.1$
 $rgb^*_e = 1.0 \ 0.0 \ 0.175$

M_e Blue red
 $LCH^*_e = 37.6 \ 58.8 \ 329.0$
 $LAB^*_e = 37.6 \ 50.4 \ -30.3$
 $rgb^*_e = 0.465 \ 0.0 \ 1.0$

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

$LCH^*_s = 83.9 \ 80.7 \ 90.0$
 $LAB^*_s = 83.9 \ 0.0 \ 80.7$
 $rgb^*_s = 1.0 \ 0.844 \ 0.0$

G_s Green
 $LCH^*_s = 57.0 \ 71.7 \ 150.0$
 $LAB^*_s = 57.0 \ -62.1 \ 35.8$
 $rgb^*_s = 0.044 \ 1.0 \ 0.0$

R_s Red
 $LCH^*_s = 48.6 \ 76.7 \ 30.0$
 $LAB^*_s = 48.6 \ 66.4 \ 38.3$
 $rgb^*_s = 1.0 \ 0.0 \ 0.039$

C_s Blue green
 $LCH^*_s = 60.7 \ 49.0 \ 210.0$
 $LAB^*_s = 60.7 \ -42.5 \ -24.5$
 $rgb^*_s = 0.0 \ 1.0 \ 0.714$

M_s Blue red
 $LCH^*_s = 37.9 \ 59.2 \ 330.0$
 $LAB^*_s = 37.9 \ 51.3 \ -29.6$
 $rgb^*_s = 0.478 \ 0.0 \ 1.0$

B_s Blue
 $LCH^*_s = 42.1 \ 45.0 \ 270.0$
 $LAB^*_s = 42.1 \ 0.0 \ -45.0$
 $rgb^*_s = 0.0 \ 0.41 \ 1.0$

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

- For the rgb^*_d -input values the CIELAB data LCH^*_d and LAB^*_d have been measured.
- For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^*_d the equation:
 $h_{ab,s} = \arctan \left(\frac{r^*_d \cos(150) + g^*_d \cos(30)}{r^*_d \sin(30) + g^*_d \sin(270)} + b^*_d \sin(270) \right)$ (1)
- 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: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,5$) and the equations for a 48 and 360 step hue circle:
 $h_{ab,ab,s,j} = h_{ab,s} + j |h_{ab,s,i+1} - h_{ab,s,i}| / 8$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 7$) (2)
 $h_{360,ab,s,j} = h_{ab,s} + j |h_{ab,s,i+1} - h_{ab,s,i}| / 60$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 59$) (3)
- 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: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,5$) and the equations for a 48 and 360 step elementary hue circle:
 $h_{ab,ab,e,j} = h_{ab,e} + j |h_{ab,e,i+1} - h_{ab,e,i}| / 8$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 7$) (4)
 $h_{360,ab,e,j} = h_{ab,e} + j |h_{ab,e,i+1} - h_{ab,e,i}| / 60$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 59$) (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.
- The values rgb^*_d produce the output of the device-independent elementary hues