

Daten der Maximalfarbe M im Farbmeter-Sytem Laserdrucker HRS18_96; ohne Separation, D65 und D50 für Ein- oder Ausgabe; Sechs Bunttonwinkel der 60-Grad Standardfarben s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$; Sechs Bunttonwinkel der Gerätefarben d: $h_{ab,d} = 32.9, 100.4, 143.4, 206.8, 264.1, 351.1$; Sechs Bunttonwinkel der Elementarfarben e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Y=G_d Gelb

$LCH^*_d = 93.5 \ 96.6 \ 100.4$
 $LAB^*_d = 93.5 \ -17.4 \ 95.0$
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

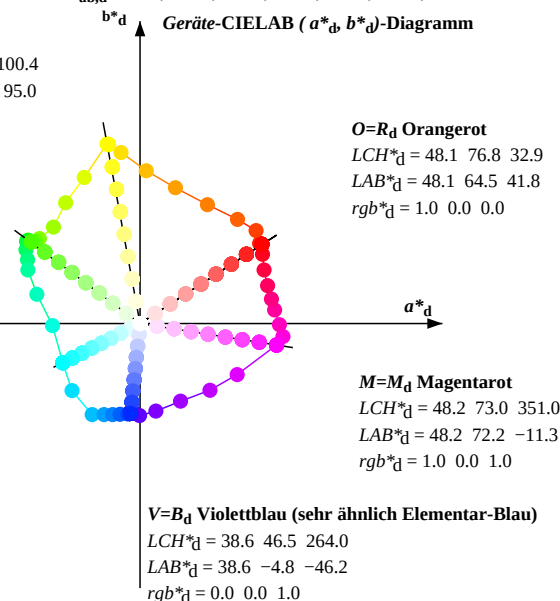
L=G_d Laubgrün

$LCH^*_d = 60.2 \ 73.8 \ 143.3$
 $LAB^*_d = 60.2 \ -59.2 \ 44.0$
 $rgb^*_d = 0.0 \ 1.0 \ 0.0$

C=C_d Cyanblau

$LCH^*_d = 56.3 \ 45.8 \ 206.8$
 $LAB^*_d = 56.3 \ -40.8 \ -20.6$
 $rgb^*_d = 0.0 \ 1.0 \ 1.0$

Geräte-CIELAB (a^*_d, b^*_d)-Diagramm



O=R_d Orangerot

$LCH^*_d = 48.1 \ 76.8 \ 32.9$
 $LAB^*_d = 48.1 \ 64.5 \ 41.8$
 $rgb^*_d = 1.0 \ 0.0 \ 0.0$

M=M_d Magentarot

$LCH^*_d = 48.2 \ 73.0 \ 351.0$
 $LAB^*_d = 48.2 \ 72.2 \ -11.3$
 $rgb^*_d = 1.0 \ 0.0 \ 1.0$

V=B_d Violettblau (sehr ähnlich Elementar-Blau)

$LCH^*_d = 38.6 \ 46.5 \ 264.0$
 $LAB^*_d = 38.6 \ -4.8 \ -46.2$
 $rgb^*_d = 0.0 \ 0.0 \ 1.0$

J_e Gelb

$LCH^*_e = 84.8 \ 86.0 \ 92.0$
 $LAB^*_e = 84.8 \ -3.0 \ 85.9$
 $rgb^*_e = 1.0 \ 0.813 \ 0.0$

G_e Grün

$LCH^*_e = 57.9 \ 58.7 \ 162.0$
 $LAB^*_e = 57.9 \ -55.8 \ 18.1$
 $rgb^*_e = 0.0 \ 1.0 \ 0.722$

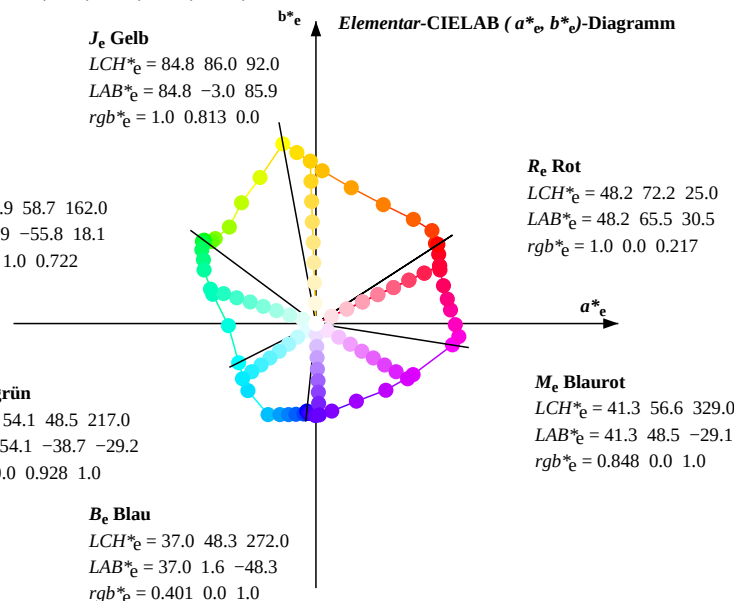
C_e Blaugrün

$LCH^*_e = 54.1 \ 48.5 \ 217.0$
 $LAB^*_e = 54.1 \ -38.7 \ -29.2$
 $rgb^*_e = 0.0 \ 0.928 \ 1.0$

B_e Blau

$LCH^*_e = 37.0 \ 48.3 \ 272.0$
 $LAB^*_e = 37.0 \ 1.6 \ -48.3$
 $rgb^*_e = 0.401 \ 0.0 \ 1.0$

Elementar-CIELAB (a^*_e, b^*_e)-Diagramm



R_e Rot

$LCH^*_e = 48.2 \ 72.2 \ 25.0$
 $LAB^*_e = 48.2 \ 65.5 \ 30.5$
 $rgb^*_e = 1.0 \ 0.0 \ 0.217$

M_e Blaurot

$LCH^*_e = 41.3 \ 56.6 \ 329.0$
 $LAB^*_e = 41.3 \ 48.5 \ -29.1$
 $rgb^*_e = 0.848 \ 0.0 \ 1.0$

J_s Gelb

$LCH^*_s = 82.9 \ 83.7 \ 90.0$
 $LAB^*_s = 82.9 \ 0.0 \ 83.7$
 $rgb^*_s = 1.0 \ 0.784 \ 0.0$

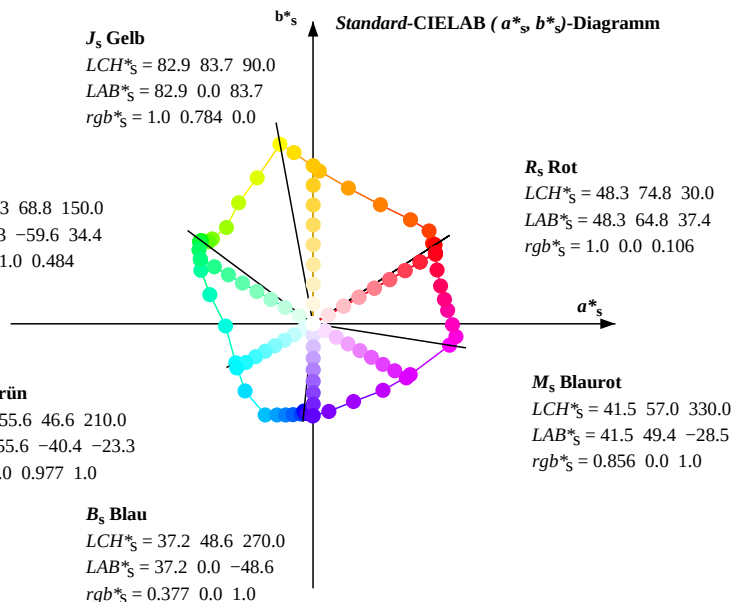
G_s Grün

$LCH^*_s = 58.3 \ 68.8 \ 150.0$
 $LAB^*_s = 58.3 \ -59.6 \ 34.4$
 $rgb^*_s = 0.0 \ 1.0 \ 0.484$

C_s Blaugrün

$LCH^*_s = 55.6 \ 46.6 \ 210.0$
 $LAB^*_s = 55.6 \ -40.4 \ -23.3$
 $rgb^*_s = 0.0 \ 0.977 \ 1.0$

Standard-CIELAB (a^*_s, b^*_s)-Diagramm



R_s Rot

$LCH^*_s = 48.3 \ 74.8 \ 30.0$
 $LAB^*_s = 48.3 \ 64.8 \ 37.4$
 $rgb^*_s = 1.0 \ 0.0 \ 0.106$

M_s Blaurot

$LCH^*_s = 41.5 \ 57.0 \ 330.0$
 $LAB^*_s = 41.5 \ 49.4 \ -28.5$
 $rgb^*_s = 0.856 \ 0.0 \ 1.0$

B_s Blau

$LCH^*_s = 37.2 \ 48.6 \ 270.0$
 $LAB^*_s = 37.2 \ 0.0 \ -48.6$
 $rgb^*_s = 0.377 \ 0.0 \ 1.0$

Anmerkung zu den CIELAB-Buntheits-Diagrammen (a^*_d, b^*_d), (a^*_s, b^*_s), (a^*_e, b^*_e)

1. Für die rgb^*_d -Eingabedaten wurden die CIELAB-Daten LCH^*_d und LAB^*_d gemessen.

$h_{ab,s} \ rgb^*_d$

$$h_{ab,s} = \text{atan} [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)] \quad (1)$$

3. Für die 48 oder 360 gleichabständig gestuften Standard-Bunttonwinkel $h_{ab,s}$ der Farben von maximaler Buntheit benutze die sieben Bunttonwinkel der 60Grad-Farben s: $h_{ab,si} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) und die Gleichungen für einen 48- und 360-stufigen Bunttonkreis:

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

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

4. Für die 48 oder 360 Elementar-Bunttonwinkel $h_{ab,e}$ der Farben von maximaler Buntheit benutze die sieben Bunttonwinkel der Elementar-Farben e: $h_{ab,ei} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) und die Gleichungen für einen 48- und 360-stufigen Elementar-Bunttonkreis:

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

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

5. Für jeden Elementar-Bunttonwinkel $h_{ab,e}$ gibt es einem genau definierten Geräte-Bunttonwinkel $h_{ab,d}$ siehe die folgenden Tabellen, Spalten 1 bis 3.

6. Die Werte rgb^*_d erzeugen die Ausgabe der geräteunabhängigen Elementar-Bunttöne

Siehe Original/Kopie: <http://web.me.com/klaus.richter/OG29/OG29L0NA.TXT> /.PS
Technische Information: <http://www.ps.bam.de> oder <http://130.149.60.45/~farbmetrik>

Daten der Maximalfarbe M im Farbmetrik-System Laserdrucker HRS18_96; ohne Separation, D65 und D50 für Ein- oder Ausgabe; Sechs Bunttonwinkel der 60-Grad Standardfarben s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Sechs Bunttonwinkel der Gerätefarben d: $h_{ab,d} = 32.9, 100.4, 143.4, 206.8, 264.1, 351.1$; Sechs Bunttonwinkel der Elementarfarben e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{ds50M}	$LAB^*_{ds50Mx}(x=LabCh)$	rgb^*_{ds50M}	$LAB^*_{ds50Mx}(x=LabCh)$	rgb^*_{s50M}	LAB^*_{de50M}	rgb^*_{de50M}	$LAB^*_{de50Mx}(x=LabCh)$	rgb^*_{e50M}
32.9	30.0	25.5	1.0	0.0	0.0	48.2	64.5	41.8	76.9	32.9	32.9
33.9	37.5	33.8	1.0	0.125	0.0	48.9	63.3	42.5	76.2	33.9	33.9
38.6	45.0	42.2	1.0	0.25	0.0	49.9	61.4	49.1	78.7	38.6	38.6
46.8	52.5	50.5	1.0	0.375	0.0	54.8	51.7	55.0	75.5	46.8	46.8
60.6	60.0	58.9	1.0	0.5	0.0	63.1	35.6	63.0	72.3	60.6	60.6
75.4	67.5	67.2	1.0	0.625	0.0	72.0	18.7	71.8	74.2	75.4	75.4
87.6	75.0	75.6	1.0	0.75	0.0	80.7	3.3	80.9	80.9	87.6	87.6
96.3	82.5	84.0	1.0	0.875	0.0	88.8	-9.9	90.5	91.1	96.3	96.3
100.4	90.0	92.3	1.0	1.0	0.0	93.5	-17.4	95.1	96.7	100.4	100.4
110.9	97.5	101.1	0.875	1.0	0.0	82.4	-29.5	77.3	82.7	110.9	110.9
121.6	105.0	109.8	0.75	1.0	0.0	74.0	-39.3	64.0	75.1	121.6	121.6
131.9	112.5	118.5	0.625	1.0	0.0	67.2	-45.7	51.1	68.6	131.9	131.9
139.8	120.0	127.3	0.5	1.0	0.0	62.1	-53.1	45.0	69.7	139.8	139.8
141.7	127.5	136.0	0.375	1.0	0.0	61.2	-55.0	43.5	70.2	141.7	141.7
143.8	135.0	144.7	0.25	1.0	0.0	60.1	-58.8	43.2	73.1	143.8	143.8
144.1	142.5	153.5	0.125	1.0	0.0	59.7	-59.7	43.3	73.8	144.1	144.1
143.4	150.0	162.2	0.0	1.0	0.0	60.3	-59.2	44.1	73.9	143.4	143.4
144.0	157.5	169.1	0.0	1.0	0.125	59.6	-59.9	43.5	74.1	144.0	144.0
144.5	165.0	175.9	0.0	1.0	0.25	59.7	-59.4	42.4	73.0	144.5	144.5
147.1	172.5	182.8	0.0	1.0	0.375	58.6	-60.2	39.1	71.9	147.1	147.1
150.4	180.0	189.6	0.0	1.0	0.5	58.3	-59.4	33.8	68.5	150.4	150.4
154.5	187.5	196.4	0.0	1.0	0.625	57.6	-59.2	28.3	65.7	154.5	154.5
164.1	195.0	203.3	0.0	1.0	0.75	58.1	-54.5	15.5	56.7	164.1	164.1
181.4	202.5	210.1	0.0	1.0	0.875	59.7	-46.2	-1.0	46.3	181.4	181.4
206.8	210.0	217.0	0.0	1.0	1.0	56.3	-40.8	-20.6	45.8	206.8	206.8
224.6	217.5	223.8	0.0	0.875	1.0	52.5	-35.9	-35.4	50.6	224.6	224.6
242.3	225.0	230.7	0.0	0.75	1.0	51.3	-25.2	-48.1	54.5	242.3	242.3
248.4	232.5	237.5	0.0	0.625	1.0	48.1	-19.0	-48.1	51.8	248.4	248.4
253.2	240.0	244.4	0.0	0.5	1.0	45.5	-14.5	-48.1	50.3	253.2	253.2
257.6	247.5	251.2	0.0	0.375	1.0	43.1	-10.5	-47.9	49.2	257.6	257.6
262.3	255.0	258.0	0.0	0.25	1.0	41.2	-6.3	-47.7	48.2	262.3	262.3
264.8	262.5	264.9	0.0	0.125	1.0	39.8	-4.2	-47.4	47.7	264.8	264.8
264.1	270.0	271.7	0.0	0.0	1.0	38.7	-4.7	-46.2	46.5	264.1	264.1
265.2	277.5	278.8	0.125	0.0	1.0	39.2	-3.9	-47.3	47.6	265.2	265.2
266.9	285.0	286.0	0.25	0.0	1.0	38.9	-2.5	-47.3	47.5	266.9	266.9
269.8	292.5	293.1	0.375	0.0	1.0	37.3	-0.1	-48.6	48.7	269.8	269.8
280.2	300.0	300.2	0.5	0.0	1.0	36.2	8.4	-46.2	47.1	280.2	280.2
297.5	307.5	307.3	0.625	0.0	1.0	36.8	21.4	-41.0	46.4	297.5	297.5
316.4	315.0	314.4	0.75	0.0	1.0	39.0	37.0	-35.1	51.1	316.4	316.4
332.3	322.5	321.5	0.875	0.0	1.0	42.0	51.4	-26.9	58.1	332.3	332.3
351.1	330.0	328.6	1.0	0.0	1.0	48.2	72.2	-11.3	73.1	351.1	351.1
354.9	337.5	335.7	1.0	0.0	0.875	48.3	75.6	-6.7	75.9	354.9	354.9
359.6	345.0	342.8	1.0	0.0	0.75	47.9	73.8	-0.5	73.8	359.6	359.6
365.8	352.5	349.9	1.0	0.0	0.625	48.1	71.2	7.2	71.6	365.8	365.8
370.5	360.0	357.0	1.0	0.0	0.5	48.3	69.4	12.9	70.6	370.5	370.5
376.6	367.5	364.2	1.0	0.0	0.375	47.9	67.4	20.1	70.3	376.6	376.6
383.4	375.0	371.3	1.0	0.0	0.25	48.2	65.6	28.5	71.5	383.4	383.4
389.5	382.5	378.4	1.0	0.0	0.125	48.3	64.9	36.7	74.5	389.5	389.5
392.9	390.0	385.5	1.0	0.0	0.0	48.2	64.5	41.8	76.9	392.9	392.9

OG290-7N, Seite der Serie 2/4, RX0, D65, XYZnw=1.8, 1.8, 1.9, 88.1, 93.2, 98.1, LABnw=14.7, 0.3, 1.3, 97.3, -0.9, 2.2, nicht adaptiert

Ausgabe: Laserdrucker HRS18_96; ohne Separation, D65 und D50, Seite 2/4

TUB-Registrierung: 20110301-OG29/OG29L0NA.TXT /.PS
Anwendung für Messung von Drucker- oder Monitorsystemen

TUB-Material: Code=rh4ta

Daten der Maximalfarbe M im Farbmeter-System Laserdrucker HRS18_96; ohne Separation, D65 und D50 für Ein- oder Ausgabe; Sechs Bunttonwinkel der 60-Grad Standardfarben s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$; Sechs Bunttonwinkel der Gerätefarben d: $h_{ab,d} = 33.3, 96.7, 143.6, 208.3, 255.8, 354.0$; Sechs Bunttonwinkel der Elementarfarben e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Y=J_d Gelb

$LCH^*_d = 93.9 \ 93.2 \ 96.7$
 $LAB^*_d = 93.9 \ -10.9 \ 92.6$
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

L=G_d Laubgrün

$LCH^*_d = 59.6 \ 67.6 \ 143.5$
 $LAB^*_d = 59.6 \ -54.3 \ 40.1$
 $rgb^*_d = 0.0 \ 1.0 \ 0.0$

C=C_d Cyanblau

$LCH^*_d = 55.0 \ 50.0 \ 208.3$
 $LAB^*_d = 55.0 \ -44.0 \ -23.7$
 $rgb^*_d = 0.0 \ 1.0 \ 1.0$

O=R_d Orangerot

$LCH^*_d = 50.2 \ 81.4 \ 33.3$
 $LAB^*_d = 50.2 \ 68.0 \ 44.7$
 $rgb^*_d = 1.0 \ 0.0 \ 0.0$

M=M_d Magentarot

$LCH^*_d = 49.9 \ 72.6 \ 354.0$
 $LAB^*_d = 49.9 \ 72.2 \ -7.5$
 $rgb^*_d = 1.0 \ 0.0 \ 1.0$

V=B_d Violettblau (sehr ähnlich Elementar-Blau)

$LCH^*_d = 37.3 \ 50.2 \ 255.8$
 $LAB^*_d = 37.3 \ -12.3 \ -48.7$
 $rgb^*_d = 0.0 \ 0.0 \ 1.0$

J_e Gelb

$LCH^*_e = 89.2 \ 88.2 \ 92.0$
 $LAB^*_e = 89.2 \ -3.0 \ 88.2$
 $rgb^*_e = 1.0 \ 0.871 \ 0.0$

G_e Grün

$LCH^*_e = 56.9 \ 56.6 \ 162.0$
 $LAB^*_e = 56.9 \ -53.9 \ 17.5$
 $rgb^*_e = 0.0 \ 1.0 \ 0.694$

C_e Blaugrün

$LCH^*_e = 52.5 \ 54.7 \ 217.0$
 $LAB^*_e = 52.5 \ -43.7 \ -32.9$
 $rgb^*_e = 0.0 \ 0.923 \ 1.0$

B_e Blau

$LCH^*_e = 35.1 \ 48.0 \ 272.0$
 $LAB^*_e = 35.1 \ 1.6 \ -48.0$
 $rgb^*_e = 0.498 \ 0.0 \ 1.0$

R_e Rot

$LCH^*_e = 50.1 \ 75.7 \ 25.0$
 $LAB^*_e = 50.1 \ 68.6 \ 32.0$
 $rgb^*_e = 1.0 \ 0.0 \ 0.246$

M_e Blaurot

$LCH^*_e = 41.8 \ 54.1 \ 329.0$
 $LAB^*_e = 41.8 \ 46.4 \ -27.9$
 $rgb^*_e = 0.844 \ 0.0 \ 1.0$

J_s Gelb

$LCH^*_s = 87.4 \ 86.4 \ 90.0$
 $LAB^*_s = 87.4 \ 0.0 \ 86.4$
 $rgb^*_s = 1.0 \ 0.844 \ 0.0$

G_s Grün

$LCH^*_s = 57.6 \ 64.0 \ 150.0$
 $LAB^*_s = 57.6 \ -55.4 \ 32.0$
 $rgb^*_s = 0.0 \ 1.0 \ 0.451$

C_s Blaugrün

$LCH^*_s = 54.5 \ 50.9 \ 210.0$
 $LAB^*_s = 54.5 \ -44.1 \ -25.4$
 $rgb^*_s = 0.0 \ 0.985 \ 1.0$

B_s Blau

$LCH^*_s = 35.3 \ 48.6 \ 270.0$
 $LAB^*_s = 35.3 \ 0.0 \ -48.6$
 $rgb^*_s = 0.476 \ 0.0 \ 1.0$

R_s Rot

$LCH^*_s = 50.3 \ 78.8 \ 30.0$
 $LAB^*_s = 50.3 \ 68.3 \ 39.4$
 $rgb^*_s = 1.0 \ 0.0 \ 0.13$

M_s Blaurot

$LCH^*_s = 42.0 \ 54.5 \ 330.0$
 $LAB^*_s = 42.0 \ 47.2 \ -27.2$
 $rgb^*_s = 0.851 \ 0.0 \ 1.0$

Anmerkung zu den CIELAB-Buntheits-Diagrammen (a^*_d, b^*_d), (a^*_s, b^*_s), (a^*_e, b^*_e)

1. Für die rgb^*_d -Eingabedaten wurden die CIELAB-Daten LCH^*_d und LAB^*_d gemessen.

$h_{ab,s}, rgb^*_d$

$$h_{ab,s} = \text{atan} [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)] \quad (1)$$

3. Für die 48 oder 360 gleichabständig gestuften Standard-Buntonwinkel $h_{ab,s}$ der Farben von maximaler Buntheit benutze die sieben Buntonwinkel der 60Grad-Farben s: $h_{ab,si} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) und die Gleichungen für einen 48- und 360-stufigen Buntonkreis:

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

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

4. Für die 48 oder 360 Elementar-Buntonwinkel $h_{ab,e}$ der Farben von maximaler Buntheit benutze die sieben Buntonwinkel der Elementar-Farben e: $h_{ab,ei} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) und die Gleichungen für einen 48- und 360-stufigen Elementar-Buntonkreis:

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

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

5. Für jeden Elementar-Buntonwinkel $h_{ab,e}$ gibt es einem genau definierten Geräte-Buntonwinkel $h_{ab,d}$ siehe die folgenden Tabellen, Spalten 1 bis 3.

6. Die Werte rgb^*_d erzeugen die Ausgabe der geräteunabhängigen Elementar-Bunttöne

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Daten der Maximalfarbe M im Farbmetrik-System Laserdrucker HRS18_96; ohne Separation, D65 und D50 für Ein- oder Ausgabe; Sechs Bunttonwinkel der 60-Grad Standardfarben s: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Sechs Bunttonwinkel der Gerätefarben d: $h_{ab,d} = 33.3, 96.7, 143.6, 208.3, 255.8, 354.0$; Sechs Bunttonwinkel der Elementarfarben e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

h _{ab,d}	h _{ab,s}	h _{ab,e}	rgb* _{dd50M}	LAB* _{dd50Mx} (x=LabCh)	rgb* _{ds50M}	LAB* _{ds50Mx} (x=LabCh)	rgb* _{s50M}	LAB* _{de50Mx} (x=LabCh)	rgb* _{e50M}																							
33.3	30.0	25.5	1.0	0.0	0.0	50.2	68.1	44.7	81.5	33.3	1.0	0.0	0.13	50.3	68.3	39.4	78.9	30	1.0	0.0	0.0	1.0	0.0	0.246	50.1	68.7	32.0	75.8	25	1.0	0.0	0.0
34.1	37.5	33.8	1.0	0.125	0.0	50.9	66.9	45.3	80.8	34.1	1.0	0.242	0.0	51.8	65.5	51.2	83.2	38	1.0	0.125	0.0	1.0	0.113	0.0	50.8	67.1	45.2	80.9	34	1.0	0.125	0.0
38.3	45.0	42.2	1.0	0.25	0.0	51.8	65.4	51.6	83.3	38.3	1.0	0.371	0.0	56.4	56.6	56.6	80.1	45	1.0	0.25	0.0	1.0	0.317	0.0	54.4	60.6	54.5	81.5	42	1.0	0.25	0.0
45.2	52.5	50.5	1.0	0.375	0.0	56.5	56.3	56.7	79.9	45.2	1.0	0.457	0.0	61.7	46.4	61.6	77.2	53	1.0	0.375	0.0	1.0	0.436	0.0	60.3	49.0	60.5	77.9	51	1.0	0.375	0.0
57.1	60.0	58.9	1.0	0.5	0.0	64.4	41.1	63.6	75.7	57.1	1.0	0.526	0.0	66.2	37.8	65.5	75.7	60	1.0	0.5	0.0	1.0	0.517	0.0	65.6	39.0	64.9	75.7	59	1.0	0.5	0.0
70.9	67.5	67.2	1.0	0.625	0.0	73.1	24.8	71.4	75.6	70.9	1.0	0.599	0.0	71.3	28.3	70.1	75.6	68	1.0	0.625	0.0	1.0	0.59	0.0	70.6	29.5	69.6	75.6	67	1.0	0.625	0.0
83.0	75.0	75.6	1.0	0.75	0.0	81.5	9.7	79.5	80.1	83.0	1.0	0.667	0.0	75.9	20.0	74.5	77.1	75	1.0	0.75	0.0	1.0	0.678	0.0	76.6	18.7	75.2	77.5	76	1.0	0.75	0.0
92.2	82.5	84.0	1.0	0.875	0.0	89.4	-3.3	88.4	88.5	92.2	1.0	0.75	0.0	81.5	9.8	79.5	80.1	83	1.0	0.875	0.0	1.0	0.763	0.0	82.3	8.5	80.6	81.0	84	1.0	0.875	0.0
96.7	90.0	92.3	1.0	1.0	0.0	94.0	-10.8	92.6	93.3	96.7	1.0	0.845	0.0	87.5	0.0	86.5	86.5	90	1.0	1.0	0.0	1.0	0.872	0.0	89.2	-3.0	88.2	88.3	92	1.0	1.0	0.0
107.5	97.5	101.1	0.875	1.0	0.0	82.5	-23.3	74.4	78.0	107.5	0.985	1.0	0.0	92.6	-12.6	90.6	91.5	98	0.875	1.0	0.0	0.95	1.0	0.0	89.4	-16.5	85.6	87.2	101	0.875	1.0	0.0
118.9	105.0	109.8	0.75	1.0	0.0	73.8	-33.5	60.8	69.5	118.9	0.904	1.0	0.0	85.1	-21.0	78.7	81.5	105	0.75	1.0	0.0	0.847	1.0	0.0	80.6	-25.9	71.5	76.1	110	0.75	1.0	0.0
130.4	112.5	118.5	0.625	1.0	0.0	66.8	-40.5	47.8	62.7	130.4	0.815	1.0	0.0	78.3	-28.8	68.0	73.9	113	0.625	1.0	0.0	0.749	1.0	0.0	73.8	-33.6	60.7	69.4	119	0.625	1.0	0.0
139.4	120.0	127.3	0.5	1.0	0.0	61.5	-48.2	41.4	63.6	139.4	0.738	1.0	0.0	73.2	-34.3	59.6	68.8	120	0.5	1.0	0.0	0.662	1.0	0.0	68.9	-38.8	51.7	64.7	127	0.5	1.0	0.0
141.6	127.5	136.0	0.375	1.0	0.0	60.6	-50.2	39.8	64.1	141.6	0.651	1.0	0.0	68.3	-39.4	50.5	64.1	128	0.375	1.0	0.0	0.547	1.0	0.0	63.5	-45.4	44.0	63.3	136	0.375	1.0	0.0
144.0	135.0	144.7	0.25	1.0	0.0	59.4	-54.0	39.3	66.9	144.0	0.561	1.0	0.0	64.1	-44.6	44.7	63.2	135	0.25	1.0	0.0	0.0	1.0	0.256	59.0	-54.6	38.3	66.8	145	0.25	1.0	0.0
144.4	142.5	153.5	0.125	1.0	0.0	59.0	-54.9	39.4	67.6	144.4	0.301	1.0	0.0	59.9	-52.4	39.6	65.8	143	0.125	1.0	0.0	0.0	1.0	0.542	57.3	-55.3	28.2	62.1	153	0.125	1.0	0.0
143.6	150.0	162.2	0.0	1.0	0.0	59.6	-54.3	40.2	67.6	143.6	0.0	1.0	0.452	57.7	-55.4	32.0	64.0	150	0.0	1.0	0.0	0.0	1.0	0.694	57.0	-53.8	17.5	56.7	162	0.0	1.0	0.0
144.3	157.5	169.1	0.0	1.0	0.125	59.0	-55.0	39.6	67.8	144.3	0.0	1.0	0.648	56.8	-54.9	22.2	59.4	158	0.0	1.0	0.125	0.0	1.0	0.765	57.4	-51.5	10.0	52.6	169	0.0	1.0	0.12
144.9	165.0	175.9	0.0	1.0	0.25	59.0	-54.6	38.5	66.8	144.9	0.0	1.0	0.729	57.1	-52.7	14.2	54.7	165	0.0	1.0	0.25	0.0	1.0	0.813	58.0	-49.6	3.5	49.8	176	0.0	1.0	0.25
147.7	172.5	182.8	0.0	1.0	0.375	57.9	-55.6	35.2	65.9	147.7	0.0	1.0	0.793	57.7	-50.5	6.2	51.0	173	0.0	1.0	0.375	0.0	1.0	0.861	58.6	-46.9	-2.4	47.0	183	0.0	1.0	0.37
151.4	180.0	189.6	0.0	1.0	0.5	57.5	-55.1	30.1	62.9	151.4	0.0	1.0	0.841	58.3	-48.1	0.0	48.2	180	0.0	1.0	0.5	0.0	1.0	0.902	58.0	-46.2	-8.1	44.0	190	0.0	1.0	0.5
156.1	187.5	196.4	0.0	1.0	0.625	56.8	-55.3	24.6	60.7	156.1	0.0	1.0	0.891	58.3	-46.2	-6.4	46.7	188	0.0	1.0	0.625	0.0	1.0	0.934	57.0	-46.1	-13.4	48.0	196	0.0	1.0	0.62
166.8	195.0	203.3	0.0	1.0	0.75	57.2	-52.0	12.2	53.5	166.8	0.0	1.0	0.929	57.2	-46.1	-12.3	47.9	195	0.0	1.0	0.75	0.0	1.0	0.971	55.9	-45.2	-19.1	49.2	203	0.0	1.0	0.75
185.0	202.5	210.1	0.0	1.0	0.875	58.8	-45.9	-4.0	46.2	185.0	0.0	1.0	0.971	55.9	-45.2	-19.1	49.2	203	0.0	1.0	0.875	0.0	1.0	0.985	1.0	-54.6	-25.4	51.0	210	0.0	1.0	0.87
208.3	210.0	217.0	0.0	1.0	1.0	55.1	-44.0	-23.6	50.1	208.3	0.0	0.985	1.0	54.6	-44.0	-25.4	51.0	210	0.0	1.0	1.0	0.0	1.0	0.923	1.0	-43.6	-32.8	54.7	217	0.0	1.0	1.0
222.4	217.5	223.8	0.0	0.875	1.0	50.9	-42.4	-38.8	57.6	222.4	0.0	0.914	1.0	52.2	-43.4	-33.9	55.3	218	0.0	0.875	1.0	0.0	0.861	1.0	-50.8	-41.7	-40.3	58.1	224	0.0	0.875	1.0
236.4	225.0	230.7	0.0	0.75	1.0	49.6	-34.3	-51.6	62.1	236.4	0.0	0.852	1.0	50.7	-41.2	-41.2	58.5	225	0.0	0.75	1.0	0.0	0.75	1.0	-50.1	-37.9	-46.8	60.4	231	0.0	0.75	1.0
241.6	232.5	237.5	0.0	0.625	1.0	46.5	-27.7	-51.3	58.4	241.6	0.0	0.78	1.0	49.9	-36.6	-48.6	61.0	233	0.0	0.625	1.0	0.0	0.625	1.0	-48.6	-32.2	-51.6	61.0	238	0.0	0.625	1.0
245.8	240.0	244.4	0.0	0.5	1.0	43.9	-22.9	-51.1	56.1	245.8	0.0	0.664	1.0	47.5	-29.7	-51.5	59.6	240	0.0	0.5	1.0	0.0	0.554	1.0	-45.1	-24.9	-51.2	57.1	244	0.0	0.5	1.0
249.8	247.5	251.2	0.0	0.375	1.0	41.6	-18.6	-50.7	54.2	249.8	0.0	0.432	1.0	42.7	-20.5	-50.9	55.1	248	0.0	0.375	1.0	0.0	0.341	1.0	-41.1	-17.4	-50.7	53.7	251	0.0	0.375	1.0
254.2	255.0	258.0	0.0	0.25	1.0	39.8	-14.2	-50.3	52.3	254.2	0.0	0.207	1.0	39.4	-13.4	-50.1	52.0	255	0.0	0.25	1.0	0.0	0.215	1.0	-37.7	-10.5	-49.7	50.9	258	0.0	0.25	1.0
256.5	262.5	264.9	0.0	0.125	1.0	38.5	-11.9	-49.8	51.3	256.5	0.397	0.0	1.0	35.8	-6.1	-50.5	51.0	263	0.0	0.125	1.0	0.0	0.1	1.0	-35.7	-4.3	-50.0	50.3	265	0.0	0.125	1.0
255.8	270.0	271.7	0.0	0.0	1.0	37.4	-12.2	-48.6	50.3	255.8	0.476	0.0	1.0	35.3	0.0	-48.6	48.7	264	0.0	0.0	1.0	0.0	0.499	0.0	35.2	1.7	-47.9	48.0	272	0.0	0.0	1.0
256.8	277.5	278.8	0.125	0.0	1.0	37.9	-11.6	-49.8	51.2	256.8	0.537	0.0	1.0	35.5	6.6	-46.6	47.1	272	0.0	0.125	0.0	0.0	0.543	0.0	35.6	7.3	-46.3	47.0	279	0.125	0.0	1.0
258.5	285.0	286.0	0.25	0.0	1.0	37.7	-10.0	-49.7	50.8	258.5	0.58	0.0	1.0	35.9	11.9	-44.9	48.4	285	0.0	0.0	1.0	0.0	0.586	0.0	36.0	12.7	-44.0	45.9	286	0.25	0.0	1.0
261.0	292.5	293.1	0.375	0.0	1.0	36.0	-8.0	-50.9	51.7	261.0	0.63	0.0	1.0	36.5	17.6	-44.1	<															