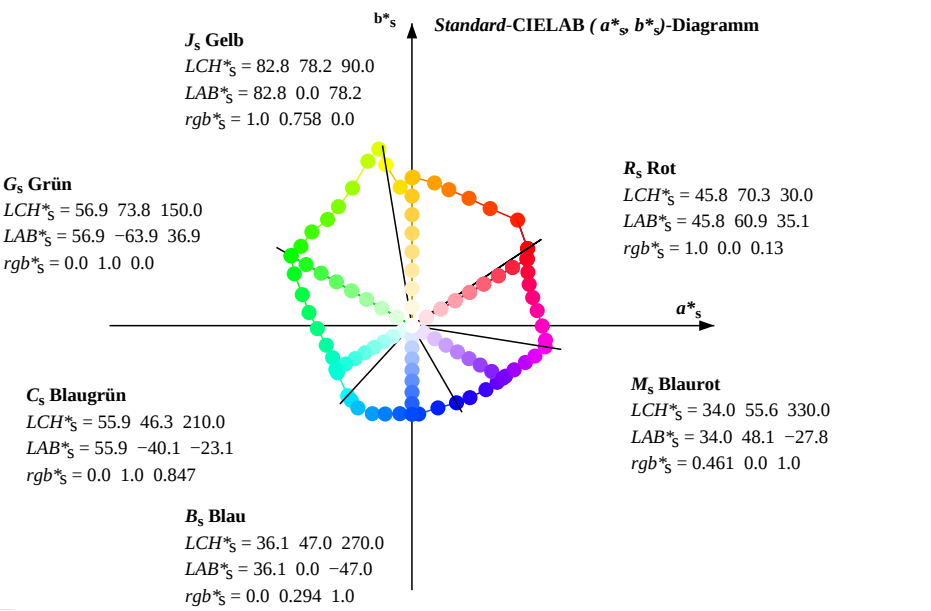
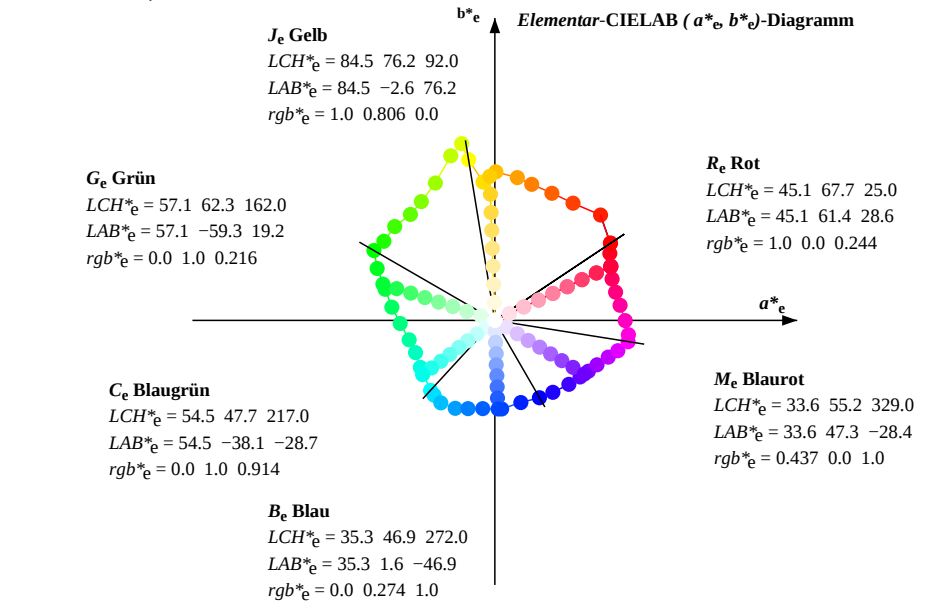
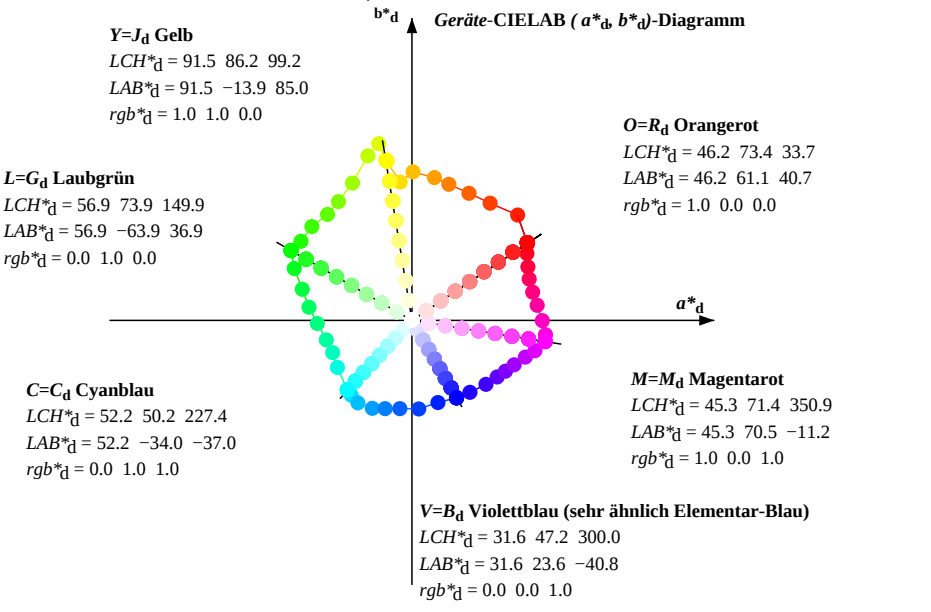




Anmerkung zu den CIELAB-Buntheits-Diagrammen (a^*_d, b^*_d), (a^*_s, b^*_s), (a^*_e, b^*_e)

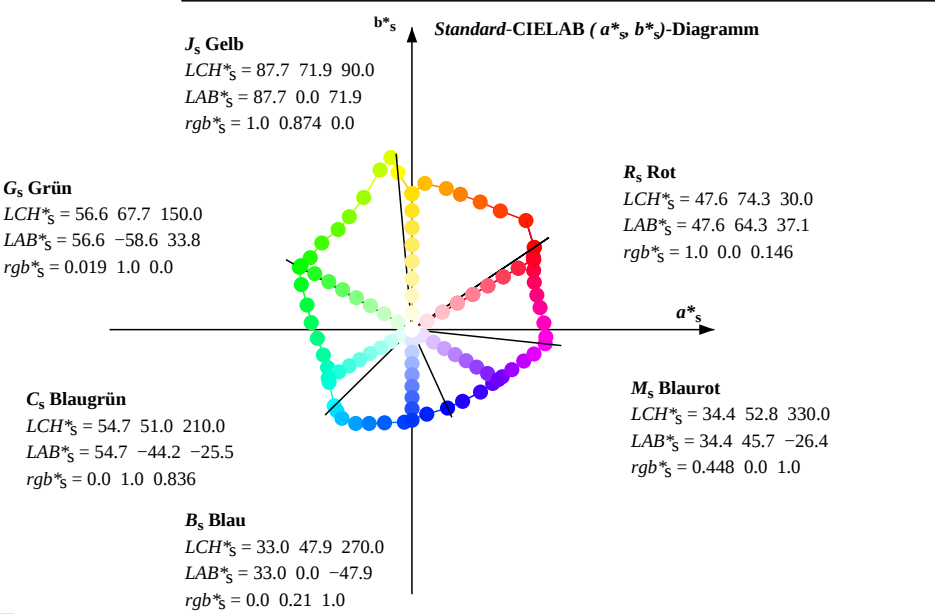
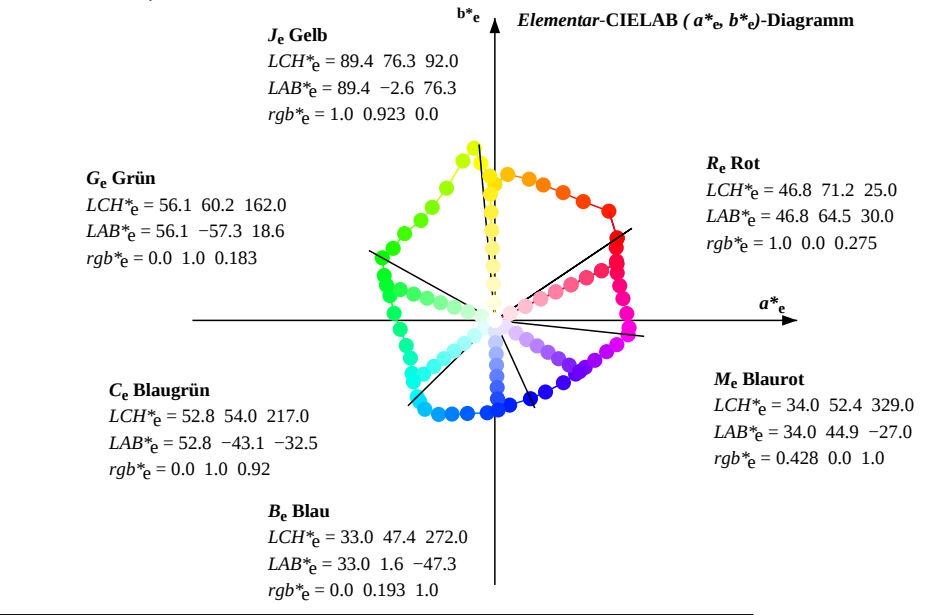
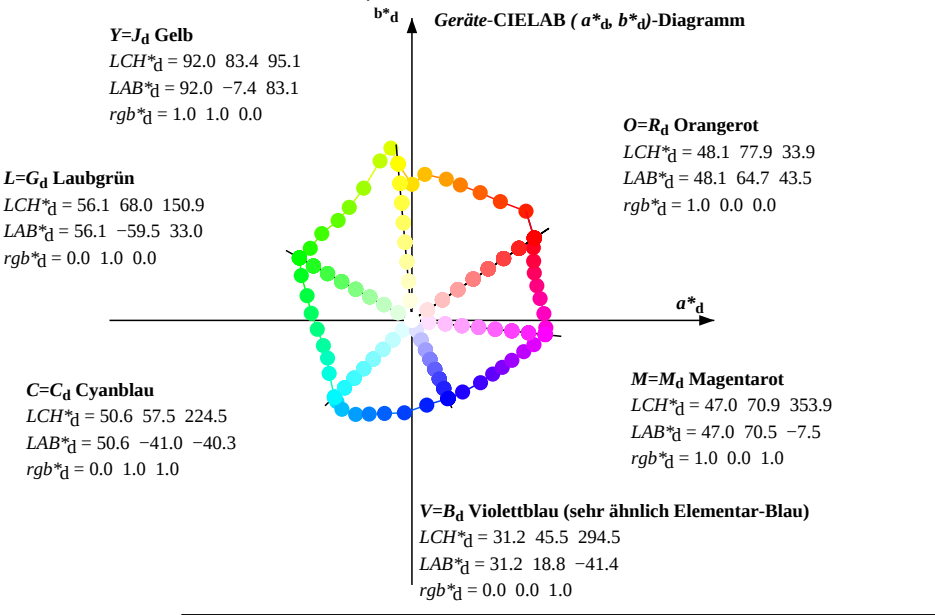
- Für die rgb^*_d -Eingabedaten wurden die CIELAB-Daten LCH^*_d und LAB^*_d gemessen.
 $h_{ab,s} \ rgb^*_d$
 $h_{ab,s} = atan [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)]$ (1)
- Für die 48 oder 360 gleichabständig gestuften Standard-Buntonwinkel $h_{ab,s}$ 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:
 $h_{48ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 8$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 7$) (2)
 $h_{360ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 60$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 59$) (3)
- 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:
 $h_{48ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 8$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 7$) (4)
 $h_{360ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60$ ($i = 0, 1, \dots, 5; j = 0, 1, \dots, 59$) (5)
- Für jeden Elementar-Buntonwinkel $h_{ab,e}$ gibt es einen genau definierten Geräte-Buntonwinkel $h_{ab,d}$ siehe die folgenden Tabellen, Spalten 1 bis 3.
- Die Werte rgb^*_de erzeugen die Ausgabe der geräteunabhängigen Elementar-Bunttöne

Daten der Maximalfarbe M im Farbmetrik-System Laserdrucker HRS27_96; Separation cmY0*, 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} = 33.7, 99.3, 150.0, 227.4, 300.0, 351.0; 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* _{dd} 50M			LAB* _{dd} 50Mx (x=LabCh)			rgb* _{ds} 50M			LAB* _{ds} 50Mx (x=LabCh)			rgb* _s 50M			rgb* _{de} 50M			LAB* _{de} 50Mx (x=LabCh)			rgb* _e 50M			rgb* _{dd} rgb* _{ds} rgb* _d		
33.7	30.0	25.5	1.0	0.0	0.0	46.3	61.1	40.8	73.5	33.7	1.0	0.0	0.131	45.9	60.9	35.2	70.4	30	1.0	0.0	0.0	1.0	0.0	0.245	45.1	61.4	28.6	67.8	25	1.0	0.0	0.0			
45.0	37.5	33.8	1.0	0.125	0.0	52.6	55.8	55.8	78.9	45.0	1.0	0.048	0.0	48.7	59.5	46.5	75.6	38	1.0	0.125	0.0	1.0	0.003	0.0	46.4	61.0	41.2	73.6	34	1.0	0.125	0.0			
56.3	45.0	42.2	1.0	0.25	0.0	59.9	41.3	62.0	74.5	56.3	1.0	0.125	0.0	52.6	55.8	55.8	78.9	45	1.0	0.25	0.0	1.0	0.092	0.0	50.9	57.6	51.9	77.5	42	1.0	0.25	0.0			
65.8	52.5	50.5	1.0	0.375	0.0	65.7	30.2	67.4	73.8	65.8	1.0	0.213	0.0	57.7	45.6	60.5	75.8	53	1.0	0.375	0.0	1.0	0.191	0.0	56.4	48.2	59.5	76.6	51	1.0	0.375	0.0			
74.8	60.0	58.9	1.0	0.5	0.0	71.5	19.5	72.0	74.6	74.8	1.0	0.298	0.0	62.1	37.1	64.3	74.3	60	1.0	0.5	0.0	1.0	0.285	0.0	61.5	38.3	63.7	74.3	59	1.0	0.5	0.0			
81.0	67.5	67.2	1.0	0.625	0.0	75.7	11.9	75.5	76.5	81.0	1.0	0.405	0.0	67.1	27.7	68.6	74.0	68	1.0	0.625	0.0	1.0	0.391	0.0	66.4	28.9	68.1	73.9	67	1.0	0.625	0.0			
89.6	75.0	75.6	1.0	0.75	0.0	82.5	0.5	78.6	78.6	89.6	1.0	0.503	0.0	71.6	19.3	72.1	74.6	75	1.0	0.75	0.0	1.0	0.523	0.0	72.3	18.1	72.7	75.0	76	1.0	0.75	0.0			
94.8	82.5	84.0	1.0	0.875	0.0	87.2	-6.1	73.2	73.5	94.8	1.0	0.654	0.0	77.3	9.4	76.4	77.0	83	1.0	0.875	0.0	1.0	0.668	0.0	78.1	8.1	76.8	77.2	84	1.0	0.875	0.0			
99.3	90.0	92.3	1.0	1.0	0.0	91.6	-13.8	85.1	86.2	99.3	1.0	0.759	0.0	82.8	0.0	78.2	78.2	90	1.0	1.0	0.0	1.0	0.807	0.0	84.6	-2.6	76.2	76.3	92	1.0	1.0	0.0			
100.6	97.5	101.1	0.875	1.0	0.0	93.6	-17.5	93.5	95.1	100.6	1.0	0.964	0.0	90.3	-11.4	81.7	82.5	98	0.875	1.0	0.0	0.865	1.0	0.0	93.2	-18.0	93.0	94.7	101	0.875	1.0	0.0			
105.0	105.0	109.8	0.75	1.0	0.0	88.6	-23.2	87.1	90.1	105.0	0.749	1.0	0.0	88.5	-23.2	87.0	90.1	105	0.75	1.0	0.0	0.676	1.0	0.0	83.6	-28.5	78.6	83.7	110	0.75	1.0	0.0			
113.4	112.5	118.5	0.625	1.0	0.0	80.3	-31.4	72.8	79.3	113.4	0.631	1.0	0.0	80.7	-31.1	73.5	79.8	113	0.625	1.0	0.0	0.54	1.0	0.0	75.9	-36.6	66.2	75.7	119	0.625	1.0	0.0			
121.7	120.0	127.3	0.5	1.0	0.0	73.8	-38.7	62.9	73.9	121.7	0.525	1.0	0.0	75.1	-37.4	65.0	75.0	120	0.5	1.0	0.0	0.402	1.0	0.0	70.1	-43.3	57.7	72.2	127	0.5	1.0	0.0			
128.4	127.5	136.0	0.375	1.0	0.0	69.1	-44.5	56.2	71.7	128.4	0.383	1.0	0.0	69.4	-44.1	56.6	71.9	128	0.375	1.0	0.0	0.264	1.0	0.0	64.5	-52.0	50.4	72.5	136	0.375	1.0	0.0			
136.9	135.0	144.7	0.25	1.0	0.0	63.9	-52.9	49.6	72.6	136.9	0.278	1.0	0.0	65.1	-51.1	51.2	72.4	135	0.25	1.0	0.0	0.113	1.0	0.0	59.9	-59.1	41.5	72.3	145	0.25	1.0	0.0			
144.5	142.5	153.5	0.125	1.0	0.0	60.3	-58.6	41.9	72.1	144.5	0.149	1.0	0.0	61.0	-57.6	43.4	72.2	143	0.125	1.0	0.0	0.0	1.0	0.061	56.9	-63.2	32.2	71.0	153	0.125	1.0	0.0			
150.0	150.0	162.2	0.0	1.0	0.0	57.0	-63.9	37.0	73.9	150.0	0.0	1.0	0.0	57.0	-63.9	36.9	73.9	150	0.0	1.0	0.0	0.0	1.0	0.217	57.1	-59.2	19.3	62.4	162	0.0	1.0	0.0			
156.2	157.5	169.1	0.0	1.0	0.125	56.9	-62.1	27.5	68.0	156.2	0.0	1.0	0.154	57.0	-61.3	24.8	66.2	158	0.0	1.0	0.125	0.0	1.0	0.321	57.2	-56.1	10.9	57.3	169	0.0	1.0	0.125			
164.1	165.0	175.9	0.0	1.0	0.25	57.2	-57.9	16.5	60.3	164.1	0.0	1.0	0.263	57.2	-57.6	15.5	59.8	165	0.0	1.0	0.25	0.0	1.0	0.42	57.2	-52.9	3.7	53.1	176	0.0	1.0	0.25			
172.7	172.5	182.8	0.0	1.0	0.375	57.1	-54.4	6.9	54.9	172.7	0.0	1.0	0.379	57.2	-54.3	6.7	54.8	173	0.0	1.0	0.375	0.0	1.0	0.513	57.4	-49.5	-2.5	49.6	183	0.0	1.0	0.375			
181.8	180.0	189.6	0.0	1.0	0.5	57.3	-49.9	-1.5	50.0	181.8	0.0	1.0	0.475	57.3	-50.9	0.0	51.0	180	0.0	1.0	0.5	0.0	1.0	0.592	57.7	-46.6	-8.1	47.4	190	0.0	1.0	0.5			
192.9	187.5	196.4	0.0	1.0	0.625	57.8	-45.2	-10.3	46.5	192.9	0.0	1.0	0.57	57.6	-47.5	-6.6	48.1	188	0.0	1.0	0.625	0.0	1.0	0.667	57.6	-44.2	-12.6	46.1	196	0.0	1.0	0.625			
202.0	195.0	203.3	0.0	1.0	0.75	57.2	-41.9	-16.9	45.4	202.0	0.0	1.0	0.654	57.6	-44.6	-11.9	46.2	195	0.0	1.0	0.75	0.0	1.0	0.762	57.0	-41.8	-17.7	45.5	203	0.0	1.0	0.75			
212.3	202.5	210.1	0.0	1.0	0.875	55.6	-39.4	-24.8	46.7	212.3	0.0	1.0	0.762	57.0	-41.8	-17.7	45.5	203	0.0	1.0	0.875	0.0	1.0	0.847	55.9	-40.1	-23.1	46.4	210	0.0	1.0	0.875			
227.4	210.0	217.0	0.0	1.0	1.0	52.2	-33.9	-36.9	50.3	227.4	0.0	1.0	0.847	55.9	-40.1	-23.1	46.4	210	0.0	1.0	1.0	0.0	1.0	0.914	54.5	-38.1	-28.7	47.8	217	0.0	1.0	1.0			
230.9	217.5																																		

[illegible]

Daten der Maximalfarbe M im Farbmimetrik-System Laserdrucker HRS27_96; Separation cmy0*, 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 Buntonwinkel der Gerätefarben d: $h_{ab,d} = 33.7, 99.3, 150.0, 227.4, 300.0, 351.0$; Sechs Buntonwinkel 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^*_{d361Mi}	$LAB^*_{d361Mix}$ (x=LabCh)	$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mix}$ (x=LabCh)	rgb^*_{s50M}	$rgb^*_{de361Mi}$	$LAB^*_{de361Mix}$ (x=LabCh)	rgb^*_{e50M}	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
348	345	343	0.923 0.0	1.0 43.1 67.2	-14.2 68.7 348	0.84 0.0	1.0 41.0 63.7	-17.0 65.9 345	1.0 0.0 0.75	0.779 0.0	1.0 39.8 61.2	-18.6 64.0 343	1.0 0.0 0.75
349	346	344	0.949 0.0	1.0 43.9 68.4	-13.2 69.6 349	0.871 0.0	1.0 41.5 64.9	-16.1 66.9 346	1.0 0.0 0.733	0.809 0.0	1.0 40.4 62.4	-17.8 64.9 344	1.0 0.0 0.733
350	347	345	0.975 0.0	1.0 44.6 69.5	-12.2 70.6 350	0.898 0.0	1.0 42.3 66.1	-15.2 67.8 347	1.0 0.0 0.717	0.84 0.0	1.0 41.0 63.7	-17.0 65.9 345	1.0 0.0 0.717
351	348	346	1.0 0.0	0.999 45.4 70.6	-11.1 71.4 351	0.923 0.0	1.0 43.1 67.2	-14.2 68.7 348	1.0 0.0 0.7	0.871 0.0	1.0 41.5 64.9	-16.1 66.9 346	1.0 0.0 0.7
352	349	347	1.0 0.0	0.955 45.2 70.6	-9.8 71.3 352	0.949 0.0	1.0 43.9 68.4	-13.2 69.6 349	1.0 0.0 0.683	0.898 0.0	1.0 42.3 66.1	-15.2 67.8 347	1.0 0.0 0.683
353	350	348	1.0 0.0	0.911 45.0 70.7	-8.6 71.2 353	0.975 0.0	1.0 44.6 69.5	-12.2 70.6 350	1.0 0.0 0.667	0.923 0.0	1.0 43.1 67.2	-14.2 68.7 348	1.0 0.0 0.667
354	351	349	1.0 0.0	0.871 44.8 70.6	-7.3 71.0 354	1.0 0.0	0.999 45.4 70.6	-11.1 71.4 351	1.0 0.0 0.65	0.949 0.0	1.0 43.9 68.4	-13.2 69.6 349	1.0 0.0 0.65
355	352	349	1.0 0.0	0.85 44.8 70.4	-6.1 70.7 355	1.0 0.0	0.955 45.2 70.6	-9.8 71.3 352	1.0 0.0 0.633	0.949 0.0	1.0 43.9 68.4	-13.2 69.6 349	1.0 0.0 0.633
356	353	350	1.0 0.0	0.829 44.8 70.1	-4.8 70.3 356	1.0 0.0	0.911 45.0 70.7	-8.6 71.2 353	1.0 0.0 0.617	0.975 0.0	1.0 44.6 69.5	-12.2 70.6 350	1.0 0.0 0.617
357	354	351	1.0 0.0	0.809 44.8 69.9	-3.6 70.0 357	1.0 0.0	0.871 44.8 70.6	-7.3 71.0 354	1.0 0.0 0.6	1.0 0.0	0.999 45.4 70.6	-11.1 71.4 351	1.0 0.0 0.6
358	355	352	1.0 0.0	0.788 44.8 69.5	-2.3 69.6 358	1.0 0.0	0.85 44.8 70.4	-6.1 70.7 355	1.0 0.0 0.583	1.0 0.0	0.955 45.2 70.6	-9.8 71.3 352	1.0 0.0 0.583
359	356	353	1.0 0.0	0.767 44.8 69.2	-1.1 69.2 359	1.0 0.0	0.829 44.8 70.1	-4.8 70.3 356	1.0 0.0 0.567	1.0 0.0	0.911 45.0 70.7	-8.6 71.2 353	1.0 0.0 0.567
0	357	354	1.0 0.0	0.747 44.8 68.9	0.0 68.9 0	1.0 0.0	0.809 44.8 69.9	-3.6 70.0 357	1.0 0.0 0.55	1.0 0.0	0.871 44.8 70.6	-7.3 71.0 354	1.0 0.0 0.55
1	358	355	1.0 0.0	0.729 44.8 68.5	1.2 68.6 1	1.0 0.0	0.788 44.8 69.5	-2.3 69.6 358	1.0 0.0 0.533	1.0 0.0	0.85 44.8 70.4	-6.1 70.7 355	1.0 0.0 0.533
2	359	356	1.0 0.0	0.711 44.8 68.2	2.4 68.2 2	1.0 0.0	0.767 44.8 69.2	-1.1 69.2 359	1.0 0.0 0.517	1.0 0.0	0.829 44.8 70.1	-4.8 70.3 356	1.0 0.0 0.517
3	360	357	1.0 0.0	0.694 44.8 67.8	3.6 67.9 3	1.0 0.0	0.747 44.8 68.9	0.0 68.9 0	1.0 0.0 0.5	1.0 0.0	0.809 44.8 69.9	-3.6 70.0 357	1.0 0.0 0.5
4	361	358	1.0 0.0	0.676 44.8 67.4	4.7 67.6 4	1.0 0.0	0.729 44.8 68.5	1.2 68.6 1	1.0 0.0 0.483	1.0 0.0	0.788 44.8 69.5	-2.3 69.6 358	1.0 0.0 0.483
5	362	359	1.0 0.0	0.659 44.8 67.0	5.9 67.3 5	1.0 0.0	0.711 44.8 68.2	2.4 68.2 2	1.0 0.0 0.467	1.0 0.0	0.7		



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

- Für die rgb^*_d -Eingabedaten wurden die CIELAB-Daten LCH^*_d und LAB^*_d gemessen.
- $h_{ab,s} \ rgb^*_d$
$$h_{ab,s} = atan [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)] \quad (1)$$
- 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:
$$h_{48ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (2)$$
$$h_{360ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$
- 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:
$$h_{48ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (4)$$
$$h_{360ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$
- Für jeden Elementar-Buntonwinkel $h_{ab,e}$ gibt es einen genau definierten Geräte-Buntonwinkel $h_{ab,d}$ siehe die folgenden Tabellen, Spalten 1 bis 3.
- Die Werte rgb^*_de erzeugen die Ausgabe der geräteunabhängigen Elementar-Bunttöne

