

48-stufiger Bunttonkreis mit Interpretation $rgb \rightarrow rgb^*_{ab}$ -Geräte-Bunttonstufen von 1080 Normfarben

$rgb \rightarrow rgb^*_{ab}$	L^*	a^*_a	b^*_a	$rgb \rightarrow rgb^*_{dhab}$	L^*	a^*_a	b^*_a	$rgb \rightarrow rgb^*_{dhab}$	L^*	a^*_a	b^*_a	$rgb \rightarrow rgb^*_{dhab}$	L^*	a^*_a	b^*_a	$rgb \rightarrow rgb^*_{dhab}$	L^*	a^*_a	b^*_a
1.0 0.0 0.0	32.2	50.5	69.4	43.8	1.0 1.0 0.0	92.7	90.9	-4.1	81.7	0.0 1.0 0.0	153.5	55.0	-62.9	31.2	0.0 1.0 1.0	229.1	61.4	-38.8	-44.8
1.0 0.12 0.0	38.8	54.6	60.5	48.7	0.87 1.0 0.0	96.4	86.9	-9.2	82.4	0.0 1.0 0.12	161.0	55.8	-61.3	32.1	0.0 0.87 1.0	233.8	57.6	-33.1	-45.3
1.0 0.25 0.0	46.2	59.0	51.1	53.5	0.75 1.0 0.0	99.9	83.1	-13.8	78.5	0.0 1.0 0.25	170.1	56.6	-59.1	32.0	0.0 0.75 1.0	238.8	53.9	-27.5	-45.6
1.0 0.37 0.0	55.4	64.2	40.7	59.2	0.62 1.0 0.0	106.9	77.7	-20.6	67.7	0.0 1.0 0.37	181.5	57.5	-56.1	-11.5	0.0 0.62 1.0	245.8	49.1	-20.6	-46.1
1.0 0.5 0.0	65.0	69.7	30.2	65.1	0.5 1.0 0.0	113.8	73.3	-27.1	61.3	0.0 1.0 0.5	192.1	58.2	-53.3	-11.4	0.0 0.5 1.0	254.1	44.5	-13.2	-46.5
1.0 0.62 0.0	74.2	75.5	20.0	71.3	0.37 1.0 0.0	122.0	68.5	-34.5	45.0	0.0 1.0 0.62	202.2	58.8	-50.3	-20.6	0.0 0.37 1.0	264.0	39.6	-4.8	-46.6
1.0 0.75 0.0	81.6	80.8	11.3	76.7	0.25 1.0 0.0	137.1	62.0	-45.0	41.7	0.0 1.0 0.75	212.2	59.6	-46.6	-29.4	0.0 0.25 1.0	272.7	35.6	2.2	-47.3
1.0 0.87 0.0	87.6	85.8	3.4	81.7	0.12 1.0 0.0	145.6	58.7	-53.5	36.5	0.0 1.0 0.87	220.4	60.5	-43.1	-36.8	0.0 0.12 1.0	282.0	31.6	10.1	-47.6

$RYGB_{\text{ton}}$	25.4	92.3	162.2	271.7	$RYGB_{\text{all}}$	25.4	42.1	58.8	75.6	92.3	109.7	127.2	144.7	162.2	189.6	216.9	244.3	271.7	300.1	328.6	357.0	LAB^*_{Nio}	22.2	0.5	0.5	LAB^*_{Wio}	96.3	-0.5	1.9								
25.4	42.1				58.8	75.6		92.3	109.7		127.2		144.7	162.2	189.6	216.9	244.3	271.7	300.1	328.6	357.0	22.2	0.5	0.5	96.3	-0.5	1.9										
46	3				5	7		11	13		14		17	19	22	26	29	32	35	40		21.6	19.1	18.1	20.2	21.2	22.2	23.8	23.8	25.4	26.4	28.2	29.2	31.5	32.1	35.1	35.9
17.9 23.7	32.2 38.8				46.2 55.4	65.0 74.2		81.6 87.6	99.9 106.9		113.8 122.0		122.0 137.1	153.5 161.0	170.1 181.5	192.1 202.2	220.4 229.1	245.8 254.1	272.7 282.0	304.6 315.4	332.5 341.3	0.0 3.8	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7

16-stufiger Elementar-Bunttonkreis mit Ziel-Elementar-Buntton: $h_{ab,a} = 25.4, 92.3, 162.2, 271.7$

	X	Y	Z	x	y	h_{AB}	L^*	a^*	b^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h_{ab,a}$	$rgb \rightarrow rgb^*_e$																																							
$r00j=R$	1399	1173	935	789	697	669	667	674	687	639	570	595	695	707	591	498	469	418	329	286	491	1963	4763	6932	8013	8463	8652	8747	8802	8814	8824	8827	8844	8864	8859	8876	35.3	19.1	5.4	0.59	0.318	13.0	50.8	69.9	34.3	50.8	69.7	33.2	25.4	1.00 0.00 0.00				
$r25j$	1247	1003	753	569	453	406	390	407	462	471	460	589	917	1219	1265	1208	1189	1125	993	905	1171	2760	5375	7254	8154	8523	8680	8762	8808	8815	8823	8839	8857	8853	8873	38.9	24.5	4.0	0.576	0.364	22.2	56.6	56.2	52.2	56.6	56.2	50.9	75.8	42.2	1.00 0.25 0.00				
$r50j$	1431	1173	887	662	513	446	424	447	532	572	592	826	1444	2185	2552	2615	2632	2578	2427	2315	2609	4110	6259	7684	8344	8611	8731	8795	8834	8837	8841	8838	8853	8871	8865	8880	46.1	35.5	5.0	0.531	0.409	37.9	66.1	36.9	62.6	66.1	36.9	61.2	71.5	58.8	1.00 0.50 0.00			
$r75j$	1642	1384	1057	775	591	507	474	505	621	698	750	1112	2087	3411	4272	4544	4641	4630	4508	4412	4671	5827	7267	8146	8539	8698	8777	8827	8858	8852	8853	8852	8862	8880	8873	8887	55.7	50.5	6.4	0.494	0.448	62.0	76.3	18.3	73.8	76.3	18.5	72.2	74.6	75.5	1.00 0.75 0.00			
$j00g=J$	1994	1703	1314	968	726	617	564	609	774	903	1007	1560	3094	5403	8762	9229	8001	8299	8447	8508	8568	8605	8687	8738	8783	8878	8914	8934	8927	8924	8920	8933	8947	8938	8951	73.0	77.7	8.7	0.457	0.487	94.4	90.6	-3.9	89.3	90.6	-3.5	87.4	87.5	92.3	1.00 1.00 0.00				
$j25g$	1346	1297	1104	857	654	561	527	572	738	861	963	1563	3147	4999	6332	6543	6278	5831	5302	4882	4611	4476	4361	4282	4277	4294	4332	4433	4572	4643	4611	4533	4407	4306	4353	4597	39.9	49.7	8.0	0.408	0.509	121.8	75.9	-23.5	66.3	75.9	-23.3	64.7	68.8	109.8	0.75 1.00 0.00			
$j50g$	952	1015	951	770	596	520	495	545	702	823	919	1427	2805	4667	5689	5591	5045	4337	3584	3012	2671	2499	2367	2277	2264	2280	2319	2429	2588	2679	2647	2558	2414	2300	2363	2642	24.2	35.4	7.5	0.36	0.527	139.6	66.0	-38.2	51.4	66.0	-38.1	50.0	62.9	127.3	0.50 1.00 0.00			
$j75g$	741	920	927	788	629	556	540	594	759	883	979	1489	2832	4541	5312	4992	4272	3415	2548	1914	1554	1379	1250	1165	1153	1170	1207	1313	1472	1567	1537	1453	1314	1207	1273	1553	15.4	27.1	7.8	0.305	0.539	152.5	59.1	-52.4	38.3	59.1	-52.4	37.0	64.2	144.7	0.25 1.00 0.00			
$g00b=G$	2069	1404	1036	861	737	656	647	666	701	807	965	1063	1036	954	818	718	784	1064	1649	1406	1164	2422	2420	2517	2702	2911	3151	3296	3368	3759	4642	5485	5533	4886	4008	3040	11.9	23.8	11.3	0.252	0.506	164.2	55.9	-61.0	20.8	55.9	-61.1	19.6	64.1	162.2	0.00 1.00 0.00			
$g25b$	2092	1411	1037	857	733	653	645	667	705	811	970	1076	1039	957	821	722	793	1076	1397	1230	1381	3989	4255	4620	5134	5565	5812	5923	5931	6031	6239	6249	5800	4986	4052	3056	14.4	26.0	25.7	0.217	0.393	190.4	58.0	-53.9	-7.8	58.0	-54.0	-9.1	54.7	189.5	0.00 1.00 0.50			
$g50b$	2087	1393	1013	834	710	633	628	649	689	796	953	1050	1023	940	804	707	782	1063	1397	1208	2087	2992	3717	4057	4495	5057	5430	5453	5316	5098	4829	4503	4074	3538	2962	2403	1709	17.5	28.3	45.2	0.192	0.31	223.2	60.1	-44.7	-32.3	60.1	-44.7	-33.6	56.0	216.9	0.00 1.00 1.00		
$g75b$	1183	778	620	633	634	596	598	618	654	754	901	993	968	890	762	671	741	1009	1289	1183	1908	2259	2757	3060	3433	3613	3486	3212	2891	2576	2257	1898	1526	1221	984	716	14.0	18.5	41.4	0.189	0.25	250.5	50.1	-21.9	-44.9	50.1	-22.0	-46.0	51.0	244.3	0.00 0.50 1.00			
$b00r=B$	908	1494	2082	2530	2757	3060	3433	3613	3486	3212	2891	2576	2257	1898	1526	1221	984	716	452	311	311	443	549	550	555	573	604	692	830	916	892	820	701	614	677	925	8.9	9.0	26.1	0.202	0.205	271.8	36.1	1.7	-46.4	36.1	1.4	-47.2	47.2	271.7	0.00 0.00 1.00			
$b25r$	882	1277	1636	1908	2064	2281	2541	2614	2421	2098	1754	1443	1159	873	614	455	370	270	176	155	213	443	711	796	830	859	896	995	1143	1234	1209	1133	1002	906	972	1232	7.8	5.5	17.9	0.25	0.175	295.3	28.1	26.5	-44.2	28.1	26.0	-44.9	51.9	300.1	0.50 0.00 1.00			
$b50r$	1638	1825	1990	2143	2261	2438	2642	2666	2450	2106	1753	1440	1155	873	624	480	418	333	236	207	328	1007	2066	2685	2952	3069	3148	3271	3432	3521	3497	3417	3281	3172	3231	3501	17.1	10.0	18.4	0.374	0.22	330.6	37.9	48.2	-28.3	37.9	47.8	-29.2	56.0	328.5	1.00 0.00 1.00			
$b75r$	2637	2448	2284	2259	2305	2416	2530	2487	2253	1909	1568	1277	1026	777	564	457	434	382	302	279	498	1952	4743	6925	8026	8490	8687	8786	8840	8853	8865	8875	8896	8921	8919	8919	8911	9120	9115	37.4	19.6	17.3	0.503	0.263	357.9	51.4	74.2	-2.7	51.4	74.1	-3.8	74.2	357.0	1.00 0.00 0.50

5-stufige gleichabständige Graureihe mit Ziel-Helligkeit: $L^* = 22.2, 40.7, 59.3, 77.8, 96.3$

	277	301	310	313	325	333	345	350	361	372	377	385	386	385	380	372	361	354	348	348	350	356	362	373	388	402	421	441	461	484	510	539	570	605	634	666	3.5	3.6	2.9	0.351	0.36	357.8	22.5	0.6	0.6	22.5	0.0	0.0	0.1	33.1	0.00 0.00 0.00
$n000w=N$	277	301	310	313	325	333	345	350	361	372	377	385	386	385	380	372	361	354	348	34																															

48-stufiger Bunttonkreis mit Interpretation rgb -> rgb*a-Geräte-Bunttonstufen von 1080 Normfarben

rgb -> rgb*a	h _{ab,a} L*	a* _a	b* _a	rgb -> rgb*a	h _{ab,a} L*	a* _a	b* _a	rgb -> rgb*a	h _{ab,a} L*	a* _a	b* _a	rgb -> rgb*d	h _{ab,a} L*	a* _a	b* _a	rgb -> rgb*d	h _{ab,a} L*	a* _a	b* _a
1.0 0.0 0.0	32.2 50.5	69.4	43.8	1.0 1.0 0.0	92.7 90.9	-4.1	81.77	0.0 1.0 0.0	153.5 55.0	-62.9 31.2		0.0 1.0 1.0	229.1 61.4	-38.8	-44.8	0.0 0.0 1.0	292.2 26.8	19.6	-48.0
1.0 0.12 0.0	38.8 54.6	60.5	48.7	0.87 1.0 0.0	96.4 86.9	-9.2	82.4	0.0 1.0 0.12	161.0 55.8	-61.3 21.0		0.0 0.87 1.0	233.8 57.6	-33.1	-45.3	0.12 0.0 1.0	304.6 29.4	29.4	-42.6
1.0 0.25 0.0	46.2 59.0	51.1	53.5	0.75 1.0 0.0	99.9 83.1	-13.8	87.5	0.0 1.0 0.25	170.1 56.6	-59.1 10.2		0.0 0.75 1.0	238.8 53.9	-27.5	-45.6	0.25 0.0 1.0	315.4 31.4	37.5	-36.9
1.0 0.37 0.0	55.4 64.2	40.7	59.2	0.62 1.0 0.0	106.9 77.7	-20.6	67.7	0.0 1.0 0.37	181.5 57.5	-56.1 -11.5		0.0 0.62 1.0	245.8 49.1	-20.6	-46.1	0.37 0.0 1.0	321.8 35.7	42.3	-33.2
1.0 0.5 0.0	65.0 69.7	30.2	65.1	0.5 1.0 0.0	113.8 73.3	-27.1	61.3	0.0 1.0 0.5	192.1 58.2	-53.3 -11.4		0.0 0.5 1.0	254.1 44.5	-13.2	-46.5	0.5 0.0 1.0	332.5 39.1	51.1	-26.5
1.0 0.62 0.0	74.2 75.5	20.0	71.3	0.37 1.0 0.0	122.0 68.5	-34.5	45.0	0.0 1.0 0.62	202.2 58.8	-50.3 -20.6		0.0 0.37 1.0	264.0 39.6	-4.8	-46.6	0.62 0.0 1.0	341.3 42.1	58.2	-19.6
1.0 0.75 0.0	81.6 80.8	11.3	76.7	0.25 1.0 0.0	137.1 62.0	-45.0	41.7	0.0 1.0 0.75	212.2 59.6	-46.6 -29.4		0.0 0.25 1.0	272.7 35.6	2.2	-47.3	0.75 0.0 1.0	345.8 46.2	62.8	-15.8
1.0 0.87 0.0	87.6 85.8	3.4	81.7	0.12 1.0 0.0	145.6 58.7	-53.5	36.5	0.0 1.0 0.87	220.4 60.5	-43.1 -36.8		0.0 0.12 1.0	282.0 31.6	10.1	-47.6	0.87 0.0 1.0	351.0 48.9	68.2	-10.7

RYGB _{ton}	25.4	92.3	162.2	271.7	RYGB _{all}	25.4	42.1	58.8	75.6	92.3	109.7	127.2	144.7	162.2	189.6	216.9	244.3	271.7	300.1	328.6	357.0	LAB*Nio:	22.2	0.5	0.5	LAB*Wio:	96.3	-0.5	1.9
25.4	42.1	58.8	75.6	92.3	109.7	127.2	144.7	162.2	189.6	216.9	244.3	271.7	300.1	328.6	357.0	216.9	244.3	271.7	300.1	328.6	357.0	22.2	0.5	0.5	96.3	-0.5	1.9		
46	3	5	7	11	13	14	17	19	22	26	29	32	35	40	46	51	57	64	71	79	88	22.2	0.5	0.5	96.3	-0.5	1.9		
17.9 23.7	32.2 38.8	46.2 55.4	65.0 74.2	81.6 87.6	92.7 96.4	113.8 122.0	137.1 145.6	145.6 153.5	170.1 181.5	192.1 202.2	220.4 229.1	245.8 254.1	272.7 282.0	304.6 315.4	332.5 341.3	351.0 355.9	216.9	244.3	271.7	300.1	328.6	357.0	22.2	0.5	0.5	96.3	-0.5	1.9	
28.2 32.2	46.2 55.4	65.0 74.2	81.6 87.6	92.7 96.4	113.8 122.0	137.1 145.6	145.6 153.5	170.1 181.5	192.1 202.2	220.4 229.1	245.8 254.1	272.7 282.0	304.6 315.4	332.5 341.3	351.0 355.9	216.9	244.3	271.7	300.1	328.6	357.0	22.2	0.5	0.5	96.3	-0.5	1.9		
0.382	0.452	0.356	0.178	0.922	0.408	0.343	0.89	0.124	0.76	0.573	0.884	0.641	0.63	0.265	0.656	0.656	0.124	0.76	0.573	0.884	0.641	0.63	0.265	0.656	0.656	0.124	0.76	0.573	
651 650	648 657	666 675	684 693	702 711	558 477	396 315	315 234	72 73	74 75	77 78	71 62	44 35	17 8	170 251	575 656	575 656	72 73	74 75	77 78	71 62	44 35	17 8	170 251	575 656	575 656	72 73	74 75	77 78	
649 648	666 675	684 693	702 711	720 639	396 315	234 153	153 72	74 75	76 77	79 80	53 44	26 17	89 170	332 413	655 654	655 654	74 75	76 77	79 80	53 44	26 17	89 170	332 413	655 654	655 654	74 75	76 77	79 80	
507 506	504 531	558 585	612 639	666 693	234 711	468 225	225 702	216 217	218 219	221 222	197 170	116 89	197 170	116 89	269 512	269 512	216 217	218 219	221 222	197 170	116 89	197 170	116 89	269 512	269 512	269 512	216 217	218 219	221 222
505 504	558 585	612 639	666 693	720 477	468 225	702 459	459 216	218 219	220 221	223 224	143 116	62 35	251 494	260 503	511 510	511 510	216 217	218 219	220 221	223 224	143 116	62 35	251 494	260 503	511 510	511 510	216 217	218 219	220 221

16-stufiger Elementar-Bunttonkreis mit Ziel-Elementar-Buntton: h_{ab,a} = 25.4, 92.3, 162.2, 271.7

	X	Y	Z	a	b	A	B	C _{AB}	h _{AB}	L* _a	a* _a	b* _a	C* _{ab,a}	h _{ab,a}	rgb -> rgb*c																																					
r00j=R	1399	1173	935	789	697	669	667	674	687	639	570	595	695	707	591	498	469	418	329	286	491	1963	4763	6932	8013	8463	8652	8747	8802	8814	8824	8827	8844	8859	8876	35.3	19.1	5.4	1.85	-0.114	16.9	3.9	17.4	13.0	50.8	69.7	33.2	77.2	25.4	1.00 0.00 0.00		
r25j	1247	1003	753	569	453	406	390	407	462	471	460	589	917	1219	1265	1208	1189	1125	993	905	1171	2760	5375	7254	8154	8523	8680	8762	8808	8815	8823	8823	8839	8857	8853	8873	38.9	24.5	4.0	1.582	-0.065	15.2	6.2	16.5	22.2	56.6	56.2	50.9	75.8	42.2	1.00 0.25 0.00	
r50j	1431	1173	887	662	513	446	424	447	532	572	592	826	1444	2185	2552	2615	2632	2578	2427	2315	2609	4110	6259	7684	8344	8611	8731	8795	8834	8837	8841	8838	8853	8871	8865	8880	46.1	35.5	5.0	1.298	-0.057	11.9	9.3	15.1	37.9	66.1	36.9	61.2	71.5	58.8	1.00 0.50 0.00	
r75j	1642	1384	1057	775	591	507	474	505	621	698	750	1112	2087	3411	4272	4544	4641	4630	4508	4412	4671	5827	7267	8146	8539	8698	8777	8827	8858	8852	8853	8852	8862	8880	8873	8887	55.7	50.5	6.4	1.103	-0.05	7.2	13.6	15.3	62.0	76.3	18.5	72.2	74.6	75.5	1.00 0.75 0.00	
j00g=J	1994	1703	1314	968	726	617	564	609	774	903	1007	1560	3094	5403	7229	8001	8299	8447	8508	8568	8605	8687	8738	8783	8818	8853	8884	8914	8934	8927	8924	8920	8933	8947	8938	8951	73.0	77.7	8.7	0.939	-0.044	-1.6	21.3	21.4	94.4	90.6	-3.5	87.4	87.5	92.3	1.00 1.00 0.00	
j25g	1346	1297	1104	857	654	561	527	572	738	861	963	1497	2948	4999	6332	6543	6278	5831	5302	4882	4611	4476	4361	4282	4277	4294	4332	4433	4572	4433	4572	4611	4533	4407	4306	4353	4539	39.9	49.7	8.0	0.803	-0.064	-7.8	12.6	14.9	121.8	75.9	-23.3	64.7	68.8	109.8	0.75 1.00 0.00
j50g	952	1015	951	770	596	520	495	545	702	823	919	1427	2805	4667	5689	5591	5045	4337	3584	3012	2671	2499	2367	2277	2264	2280	2319	2429	2588	2679	2647	2558	2414	2300	2363	2642	24.2	35.4	7.5	0.684	-0.084	-9.8	8.3	12.8	139.6	66.0	-38.1	50.0	62.9	127.3	0.50 1.00 0.00	
j75g	741	920	927	788	629	556	540	594	759	883	979	1489	2832	4541	5312	4992	4272	3415	2548	1914	1554	1379	1250	1165	1153	1170	1207	1313	1472	1567	1537	1453	1314	1207	1273	1553	15.4	27.1	7.8	0.567	-0.115	-10.6	5.5	12.0	152.5	59.1	-52.4	37.0	64.2	144.7	0.25 1.00 0.00	
g00b=G	2069	1404	1036	861	737	656	647	666	701	807	965	1063	1036	954	818	718	784	1064	1069	1404	1656	2164	2422	2420	2517	2702	2911	3151	3296	3368	3759	4642	5485	5533	4886	4008	3040	11.9	23.8	11.3	0.499	-0.19	-11.0	3.1	11.4	164.2	55.9	-61.1	19.6	64.1	162.2	0.00 1.00 0.00
g25b	2092	1411	1037	857	733	653	645	667	705	811	970	1067	1039	957	821	722	793	1076	1397	2304	3281	3989	4255	4620	5134	5565	5812	5923	5931	6031	6239	6249	5800	4986	4052	3056	14.4	26.0	25.7	0.553	-0.394	-10.6	-1.9	10.8	190.4	58.0	-54.0	-9.1	54.7	189.5	0.00 1.00 0.50	
g50b	1387	1393	1013	834	710	633	628	649	689	796	953	1050	1023	940	804	707	782	1063	2097	2304	3281	3989	4255	4620	5134	5565	5812	5923	5931	6031	6239	6249	5800	4986	4052	3056	17.5	28.3	45.2	0.621	-0.639	-9.6	-9.0	13.2	223.2	60.1	-44.7	-33.6	56.0	216.9	0.00 1.00 1.00	
g75b	1249	2087	2992	3717	4057	4495	5057	5430	5453	5316	5098	4829	4503	4074	3538	2962	2403	1790	1183	778	620	633	634	596	598	618	654	754	901	993	968	890	762	671	741	1009	14.0	18.5	41.4	0.758	-0.894	-3.7	-10.6	11.2	250.5	50.1	-22.0	-46.0	51.0	244.3	0.00 0.50 1.00	
b00r=B	908	1494	2082	2530	2757	3060	3433	3613	3486	3212	2891	2576	2257	1898	1526	1221	984	716	452	311	311	443	549	550	555	573	604	692	830	916	892	820	701	614	677	925	8.9	9.0	26.1	0.987	-1.15	0.2	-7.5	7.5	271.8	36.1	1.4	-47.2	47.2	271.7	0.00 0.00 1.00	
b25r	882	1277	1636	1908	2064	2281	2541	2614	2421	2098	1754	1443	1159	873	614	455	370	278	176	155	213</																															