48 step circle with interpretation *rgb* −> *rgb$_d$ device hue steps of 1080 standard colours**

rgb −> *rgb**$_d$	$h_{ab,a}$	*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**$_a$	*rgb* −> *rgb**$_d$	$h_{ab,a}$	*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	31.3	48.4	66.2	40.3	1.0 1.0 0.0	96.2	90.2	−9.6	88.3	0.0 1.0 0.0	152.5	55.8	−65.2	33.9	0.0 1.0 1.0	233.9	63.0	−30.5	−41.9	0.0 0.0 1.0	298.7	27.5	26.0	−47.3	1.0 0.0 1.0	353.0	49.5	73.5	−8.9
1.0 0.12 0.0	38.9	52.8	56.7	45.9	0.87 1.0 0.0	99.9	86.4	−14.5	83.3	0.0 1.0 0.12	159.4	56.7	−62.6	23.5	0.0 0.87 1.0	239.6	59.1	−24.9	−42.6	0.12 0.0 1.0	308.4	29.6	34.0	−42.7	1.0 0.0 0.87	357.1	49.4	72.3	−3.6
1.0 0.25 0.0	47.6	57.4	46.7	51.2	0.75 1.0 0.0	103.4	82.7	−18.9	79.6	0.0 1.0 0.25	167.8	57.5	−59.1	12.7	0.0 0.75 1.0	245.5	55.3	−19.6	−43.1	0.25 0.0 1.0	317.1	31.3	40.8	−37.8	1.0 0.0 0.75	0.8	49.2	71.2	1.1
1.0 0.37 0.0	58.1	62.8	35.8	57.6	0.62 1.0 0.0	110.2	77.5	−25.5	69.0	0.0 1.0 0.37	179.0	58.5	−54.5	0.8	0.0 0.62 1.0	253.6	50.4	−12.9	−43.9	0.37 0.0 1.0	322.4	35.4	44.8	−34.5	1.0 0.0 0.62	5.8	49.3	69.7	7.0
1.0 0.5 0.0	68.6	68.6	25.0	64.1	0.5 1.0 0.0	116.8	73.3	−31.7	62.8	0.0 1.0 0.5	190.1	59.3	−50.3	−8.9	0.0 0.5 1.0	262.6	45.7	−5.7	−44.6	0.5 0.0 1.0	331.5	38.3	52.7	−28.5	1.0 0.0 0.5	10.6	48.9	69.3	13.0
1.0 0.62 0.0	78.2	74.5	14.6	70.8	0.37 1.0 0.0	124.3	68.7	−38.7	56.8	0.0 1.0 0.62	201.4	60.1	−45.8	−18.0	0.0 0.37 1.0	272.8	40.7	2.2	−45.0	0.62 0.0 1.0	339.4	40.9	59.1	−22.2	1.0 0.0 0.37	15.7	48.9	68.2	19.2
1.0 0.75 0.0	85.6	80.0	5.8	76.6	0.25 1.0 0.0	137.9	62.4	−48.6	43.9	0.0 1.0 0.75	213.2	61.0	−40.8	−26.7	0.0 0.25 1.0	281.3	36.6	9.2	−45.9	0.75 0.0 1.0	343.4	44.9	63.2	−18.7	1.0 0.0 0.25	22.0	48.8	67.1	27.1
1.0 0.87 0.0	91.4	85.1	−2.0	82.0	0.12 1.0 0.0	145.4	59.3	−56.5	38.9	0.0 1.0 0.87	223.3	61.9	−36.1	−34.0	0.0 0.12 1.0	289.8	32.4	16.8	−46.6	0.87 0.0 1.0	348.3	47.4	68.2	−14.0	1.0 0.0 0.12	26.9	48.6	66.5	33.8

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, 0.2, 0.6 ***LAB*Wio:*** 96.3, −0.8, 2.0

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
46	1	3	4	7	10	13	14	17	19	22	25	28	32	35	40
15.7 22.0	31.3 38.9	47.6 58.1	58.1 68.6	85.6 91.4	99.9 103.4	116.8 124.3	124.3 137.9	152.5 159.4	167.8 179.0	201.4 213.2	233.9 239.6	253.6 262.6	289.8 298.7	317.1 322.4	348.3 353.0
26.9 31.3	47.6 58.1	68.6 78.2	78.2 85.6	96.2 99.9	110.2 116.8	137.9 145.4	145.4 152.5	167.8 179.0	190.1 201.4	223.3 233.9	245.5 253.6	272.8 281.3	308.4 317.1	331.5 339.4	357.1 0.8
0.703	0.369	0.074	0.722	0.183	0.928	0.217	0.908	0.33	0.952	0.369	0.798	0.888	0.144	0.673	0.984
651 650	648 657	666 675	675 684	702 711	639 558	396 315	315 234	72 73	74 75	77 78	80 71	53 44	17 8	170 251	575 656
649 648	666 675	684 693	693 702	720 639	477 396	234 153	153 72	74 75	76 77	79 80	62 53	35 26	89 170	332 413	655 654
507 506	504 531	558 585	585 612	666 693	477 234	468 225	225 702	216 217	218 219	221 222	224 197	143 116	35 8	494 17	269 512
505 504	558 585	612 639	639 666	720 477	711 468	702 459	459 216	218 219	220 221	223 224	170 143	89 62	251 494	260 503	511 510

16 step elementary hue circle with intended elementary hues: $h_{ab,a}$ = 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* −> *rgb**$_e$
r00j=R	1335	1118	883	730	636	605	600	609	630	591	531	566	678	701	590	497	468	417																	
	328	285	489	1960	4762	6931	8011	8461	8649	8744	8799	8809	8819	8821	8839	8859	8855	8871		31.4	17.3	6.6	0.566	0.313	17.3	48.7	66.5	32.9	48.7	66.7	31.8	73.9	**25.4**	**1.00 0.00 0.00**
r25j	1241	997	748	565	451	404	389	405	459	467	455	581	898	1184	1219	1160	1140	1076																	
	946	860	1123	2711	5340	7236	8147	8519	8679	8762	8807	8815	8823	8823	8839	8857	8854	8873		34.5	22.5	5.1	0.555	0.361	29.2	54.5	52.6	49.2	54.5	52.9	47.9	71.4	**42.2**	**1.00 0.25 0.00**
r50j	1399	1144	864	646	503	438	417	439	520	555	570	786	1354	2017	2325	2364	2373	2316																	
	2167	2056	2349	3874	6109	7614	8315	8598	8725	8791	8832	8836	8841	8838	8852	8870	8866	8879		40.5	31.9	6.2	0.514	0.405	46.6	63.2	34.6	59.5	63.2	35.0	58.0	67.8	**58.9**	**1.00 0.50 0.00**
r75j	1583	1325	1010	743	568	490	459	488	596	663	706	1033	1913	3079	3802	4013	4086	4061																	
	3925	3820	4095	5365	7005	8027	8486	8673	8762	8815	8848	8844	8845	8845	8857	8875	8867	8884		48.6	44.8	7.6	0.48	0.443	68.5	72.7	17.1	70.4	72.7	17.6	68.8	71.1	**75.5**	**1.00 0.75 0.00**
j00g=J	1933	1642	1262	928	702	598	550	589	746	862	953	1460	2847	4868	6383	6984	7209	7298																	
	7283	7277	7410	7891	8370	8632	8759	8819	8863	8897	8920	8914	8913	8910	8921	8937	8928	8943		63.1	68.2	10.2	0.445	0.481	93.3	86.1	−4.0	85.1	86.1	−3.3	83.2	83.3	**92.3**	**1.00 1.00 0.00**
j25g	1430	1343	1125	864	658	562	527	571	735	859	962	1498	2960	5049	6458	6750	6560	6189																	
	5730	5364	5122	5003	4898	4827	4825	4843	4880	4975	5103	5166	5138	5064	4951	4859	4902	5126		41.3	53.0	10.1	0.396	0.507	115.4	77.8	−25.6	71.3	77.8	−25.0	69.6	74.0	**109.8**	**0.75 1.00 0.00**
j50g	979	1028	952	764	590	512	487	535	689	809	904	1409	2792	4683	5749	5683	5161	4471																	
	3730	3164	2823	2650	2517	2427	2413	2430	2470	2581	2741	2832	2801	2711	2564	2449	2512	2793		24.2	36.8	9.3	0.344	0.523	131.8	67.1	−41.3	55.2	67.1	−40.9	53.7	67.6	**127.3**	**0.50 1.00 0.00**
j75g	740	919	927	788	629	556	540	594	759	882	978	1488	2831	4539	5310	4989	4269	3411																	
	2543	1907	1548	1372	1243	1158	1147	1164	1200	1307	1466	1561	1531	1447	1307	1201	1267	1547		14.9	27.7	9.8	0.285	0.527	145.3	59.6	−56.0	40.7	59.6	−55.6	39.3	68.2	**144.7**	**0.25 1.00 0.00**
g00b=G	760	1072	1250	1214	1089	1049	1070	1161	1353	1487	1582	2076	3314	4758	5248	4762	3938	3000																	
	2073	1406	1038	862	738	657	648	667	703	808	967	1065	1038	956	820	719	785	1066		12.2	24.9	15.6	0.232	0.471	159.4	56.9	−61.7	20.9	56.9	−61.5	19.6	64.5	**162.2**	**0.00 1.00 0.00**
g25b	1061	1702	2237	2523	2535	2646	2848	3069	3313	3457	3526	3905	4752	5541	5551	4890	4008	3037																	
	2088	1407	1033	854	729	649	642	664	701	807	966	1064	1036	953	817	719	790	1072		15.6	27.3	35.0	0.2	0.35	193.4	59.3	−50.8	−7.1	59.3	−50.5	−8.5	51.2	**189.5**	**0.00 1.00 0.50**
g50b	1374	2257	3200	3874	4120	4462	4950	5363	5612	5726	5740	5865	6129	6198	5780	4976	4044	3049																	
	2082	1389	1011	833	709	632	627	648	688	795	951	1048	1020	939	803	707	780	1061		19.3	29.6	57.3	0.181	0.279	229.9	61.3	−39.4	−28.0	61.3	−39.1	−29.4	49.0	**216.9**	**0.00 1.00 1.00**
g75b	1370	2308	3342	4166	4552	5041	5674	6129	6216	6146	5981	5745	5428	4984	4395	3711	3016	2263																	
	1520	1004	771	722	678	624	624	645	683	787	940	1034	1007	928	795	700	774	1049		18.4	23.9	62.3	0.176	0.228	254.1	56.0	−20.9	−41.7	56.0	−20.6	−43.0	47.7	**244.3**	**0.00 0.50 1.00**
b00r=B	998	1643	2320	2834	3087	3423	3843	4071	3978	3736	3438	3132	2808	2431	2013	1643	1327	975																	
	626	417	383	493	575	567	572	592	624	717	858	945	920	847	724	634	701	951		11.6	12.0	39.6	0.183	0.19	271.2	41.2	1.3	−44.0	41.2	1.3	−45.0	45.0	**271.7**	**0.00 0.00 1.00**
b25r	757	1189	1584	1888	2053	2283	2557	2650	2462	2141	1800	1489	1200	909	642	475	381	272																	
	173	151	200	370	540	573	586	604	634	720	855	939	916	846	728	643	700	941		7.5	5.3	24.3	0.203	0.142	288.9	27.5	27.4	−46.1	27.5	27.2	−46.9	54.2	**300.1**	**0.50 0.00 1.00**
b50r	1651	1834	1994	2146	2261	2436	2638	2661	2445	2101	1748	1435	1151	870	621	478	417	333																	
	236	207	329	1018	2095	2728	3002	3121	3201	3325	3486	3575	3551	3471	3336	3227	3285	3555		16.8	9.8	24.6	0.327	0.191	322.8	37.4	50.1	−29.6	37.4	50.1	−30.6	58.7	**328.5**	**1.00 0.00 1.00**
b75r	2481	2281	2106	2058	2071	2152	2246	2216	2027	1731	1430	1192	990	774	571	466	440	389																	
	307	281	497	1945	4721	6890	7983	8444	8642	8741	8797	8809	8821	8825	8843	8865	8865	8883		33.8	17.9	20.9	0.465	0.247	357.3	49.4	72.2	−2.5	49.4	72.4	−3.7	72.5	**357.0**	**1.00 0.00 0.50**

5 step equidistant grey scale with intended lightness: *L = 22.2, 40.7, 59.3, 77.8, 96.3**

n000w=N	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	3.8	0.317	0.332	0.5	22.5	0.2	0.7	**22.5**	0.0	0.0	0.0	37.9	**0.00 0.00 0.00**
n025w	1036	1084	1107	1126	1144	1161	1174	1189	1204	1209	1218	1223	1224	1220	1212	1194	1178	1161																	
	1148	1144	1139	1143	1148	1158	1173	1191	1211	1234	1257	1283	1309	1339	1373	1411	1444	1476		11.1	11.7	12.9	0.31	0.327	271.5	40.8	−0.3	−0.4	**40.8**	−0.3	−1.4	1.4	256.8	**0.25 0.25 0.25**
n050w	2421	2537	2593	2640	2678	2710	2735	2760	2784	2792	2800	2807	2809	2802	2792	2765	2742	2719																	
	2695	2687	2675	2674	2675	2685	2702	2718	2741	2768	2795	2816	2842	2870	2903	2941	2973	3003		25.7	27.2	30.0	0.31	0.328	266.5	59.2	−0.6	−0.4	**59.2**	−0.3	−1.8	1.8	258.1	**0.50 0.50 0.50**
n075w	4546	4783	4913	5022	5097	5163	5223	5269	5314	5331	5347	5361	5367	5368	5365	5337	5315	5288																	
	5257	5254	5237	5232	5230	5237	5257	5275	5301	5331	5357	5370	5387	5409	5435	5473	5489	5520		49.9	52.9	57.3	0.311	0.33	264.9	77.8	−0.8	0.2	**77.8**	−0.2	−1.4	1.4	259.2	**0.75 0.75 0.75**
n100w=W	7373	7810	8068	8301	8459	8596	8717	8817	8904	8946	8987	9026	9060	9088	9119	9111	9120	9115																	
	9099	9125	9110	9110	9103	9113	9140	9155	9182	9209	9226	9215	9208	9204	9208	9226	9210	9229		86.0	91.0	95.9	0.315	0.333	99.2	96.4	−0.8	2.1	**96.4**	0.0	0.0	0.0	100.0	**1.00 1.00 1.00**