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

*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$	*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$	*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$	*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$	*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$	*rgb −> olv**	$h_{ab,a}$	*L**	*a**$_a$	*b**$_a$
1.0 0.0 0.0	34.8	52.7	71.6	49.8	1.0 1.0 0.0	103.2	92.7	−20.0	84.9	0.0 1.0 0.0	136.9	84.0	−79.0	73.9	0.0 1.0 1.0	196.4	87.1	−44.4	−13.1	0.0 0.0 1.0	304.3	35.4	64.9	−95.0	1.0 0.0 1.0	328.0	59.0	89.3	−55.7
1.0 0.12 0.0	36.3	53.7	68.9	50.7	0.87 1.0 0.0	111.2	90.5	−31.9	82.2	0.0 1.0 0.12	137.7	84.0	−78.4	71.1	0.0 0.87 1.0	220.1	78.5	−30.9	−26.0	0.12 0.0 1.0	304.7	35.9	65.4	−94.2	1.0 0.0 0.87	333.9	57.4	85.2	−41.5
1.0 0.25 0.0	40.2	56.0	62.4	52.9	0.75 1.0 0.0	118.4	88.7	−43.3	79.9	0.0 1.0 0.25	139.9	84.1	−76.9	64.6	0.0 0.75 1.0	247.5	70.1	−16.1	−39.1	0.25 0.0 1.0	305.8	37.2	66.6	−92.1	1.0 0.0 0.75	341.7	56.1	81.5	−26.9
1.0 0.37 0.0	47.2	59.8	52.2	56.4	0.62 1.0 0.0	124.5	87.2	−53.6	78.0	0.0 1.0 0.37	143.5	84.3	−74.3	54.8	0.0 0.62 1.0	269.8	61.8	−0.1	−52.2	0.37 0.0 1.0	307.8	39.3	68.6	−88.5	1.0 0.0 0.62	351.5	55.0	78.4	−11.7
1.0 0.5 0.0	57.2	64.9	39.2	61.0	0.5 1.0 0.0	129.2	86.0	−62.5	76.4	0.0 1.0 0.5	148.8	84.6	−70.6	42.7	0.0 0.5 1.0	284.5	53.9	16.8	−64.8	0.5 0.0 1.0	310.5	42.2	71.5	−83.6	1.0 0.0 0.5	2.8	54.1	75.9	3.8
1.0 0.62 0.0	69.6	71.0	24.6	66.4	0.37 1.0 0.0	132.7	85.0	−69.7	75.3	0.0 1.0 0.62	155.9	85.1	−65.6	29.3	0.0 0.37 1.0	293.9	46.8	33.9	−76.3	0.62 0.0 1.0	314.0	45.7	75.2	−77.7	1.0 0.0 0.37	14.5	53.5	74.0	19.1
1.0 0.75 0.0	82.5	77.8	9.4	72.3	0.25 1.0 0.0	135.1	84.4	−74.8	74.5	0.0 1.0 0.75	165.5	85.6	−59.5	15.2	0.0 0.25 1.0	299.7	41.0	49.1	−85.9	0.75 0.0 1.0	318.2	49.8	79.5	−70.9	1.0 0.0 0.25	24.6	53.0	72.6	33.4
1.0 0.87 0.0	94.0	85.1	−5.5	78.5	0.12 1.0 0.0	136.3	84.1	−77.8	74.1	0.0 1.0 0.87	178.8	86.3	−52.4	1.0	0.0 0.12 1.0	303.0	37.1	60.0	−92.3	0.87 0.0 1.0	322.9	54.2	84.2	−63.5	1.0 0.0 0.12	31.6	52.8	71.9	44.4

RJGB*$_{ton}$**, 25.4, 92.3, 162.2, 271.7 ***RJGB*$_{all}$:** 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: 18.0, 0.0, 0.0 ***LAB*Wio:*** 95.4, 0.0, 0.0

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	2	4	5	6	8	11	19	21	23	24	25	27	30	40	43														
14.5 24.6	36.3 40.2	47.2 57.2	57.2 69.6	69.6 82.5	94.0 103.2	118.4 124.5	139.9 143.5	148.8 155.9	165.5 178.8	178.8 196.4	196.4 220.1	247.5 269.8	293.9 299.7	322.9 328.0	341.7 351.5														
31.6 34.8	47.2 57.2	69.6 82.5	82.5 94.0	94.0 103.2	111.2 118.4	129.2 132.7	148.8 155.9	165.5 178.8	196.4 220.1	220.1 247.5	247.5 269.8	284.5 293.9	303.0 304.3	333.9 341.7	2.8 14.5														
0.111	0.276	0.131	0.461	0.848	0.817	0.577	0.22	0.651	0.609	0.866	0.882	0.128	0.119	0.092	0.487														
651 650	657 666	675 684	684 693	693 702	711 720	558 477	74 75	76 77	78 79	79 80	80 71	62 53	35 26	575 656	654 653														
649 648	675 684	693 702	702 711	711 720	639 558	396 315	76 77	78 79	80 71	71 62	62 53	44 35	17 8	655 654	652 651														
507 506	531 558	585 612	612 639	639 666	693 720	234 711	218 219	220 221	222 223	223 224	224 197	170 143	89 62	269 512	510 509														
505 504	585 612	639 666	666 693	693 720	477 234	468 225	220 221	222 223	224 197	197 170	170 143	116 89	35 8	511 510	508 507														

16 step elementary hue circle with intended elementary hues: $h_{ab,a}$ = 25.4, 92.3, 162.2, 271.7

Code	*iton*	*index*	*X*	*Y*	*Z*	*x*	*y*	*L**	*a**	*b**	*L**$_a$	*a**$_a$	*b**$_a$	*C**$_{ab,a}$	$h_{ab,a}$	*rgb −> olv**	*X*	*Y*	*Z*	*x*	*y*	*L**	*a**	*b**	*L**$_a$	*a**$_a$	*b**$_a$	*C**$_{ab,a}$	$h_{ab,a}$	*rgb −> rgb**
r00j=R	650	506	38.6	21.1	8.5	0.5650	.565	53.0	72.6	33.4	53.0	72.6	33.4	80.0	**24.6**	**1.0, 0.0, 0.25**														
	649	505	38.1	20.9	5.5	0.5890	.589	52.8	71.9	44.4	52.8	71.9	44.4	84.5	**31.6**	**1.0, 0.0, 0.12**	38.6	21.1	8.2	0.568	0.31	53.0	72.6	34.5	53.0	72.6	34.5	80.4	**25.4**	**1.00 0.00 0.00**
r25j	666	558	39.4	23.9	4.9	0.5770	.577	56.0	62.4	52.9	56.0	62.4	52.9	81.8	**40.2**	**1.0, 0.25, 0.0**														
	675	585	41.4	27.9	5.5	0.5520	.552	59.8	52.2	56.4	59.8	52.2	56.4	76.9	**47.2**	**1.0, 0.37, 0.0**	40.0	25.0	5.1	0.57	0.357	57.1	59.5	53.9	57.1	59.5	53.9	80.3	**42.1**	**1.00 0.25 0.00**
r50j	684	612	44.4	33.9	6.5	0.5220	.522	64.9	39.2	61.0	64.9	39.2	61.0	72.5	**57.2**	**1.0, 0.5, 0.0**														
	693	639	48.6	42.2	7.9	0.4910	.491	71.0	24.6	66.4	71.0	24.6	66.4	70.8	**69.6**	**1.0, 0.62, 0.0**	44.9	34.9	6.7	0.518	0.403	65.7	37.3	61.7	65.7	37.3	61.7	72.1	**58.8**	**1.00 0.50 0.00**
r75j	693	639	48.6	42.2	7.9	0.4910	.491	71.0	24.6	66.4	71.0	24.6	66.4	70.8	**69.6**	**1.0, 0.62, 0.0**														
	702	666	53.9	52.9	9.7	0.4620	.462	77.8	9.4	72.3	77.8	9.4	72.3	72.9	**82.5**	**1.0, 0.75, 0.0**	50.9	46.8	8.7	0.477	0.439	74.0	17.7	69.0	74.0	17.7	69.0	71.2	**75.6**	**1.00 0.75 0.00**
j00g=J	702	666	53.9	52.9	9.7	0.4620	.462	77.8	9.4	72.3	77.8	9.4	72.3	72.9	**82.5**	**1.0, 0.75, 0.0**														
	711	693	60.6	66.2	11.9	0.4360	.436	85.1	−5.5	78.5	85.1	−5.5	78.5	78.7	**94.0**	**1.0, 0.87, 0.0**	59.4	63.8	11.5	0.44	0.473	83.8	−3.0	77.4	83.8	−3.0	77.4	77.5	**92.2**	**1.00 1.00 0.00**
j25g	720	720	68.6	82.3	14.6	0.4140	.414	92.7	−20.0	84.9	92.7	−20.0	84.9	87.3	**103.2**	**1.0, 1.0, 0.0**														
	639	477	59.3	77.5	14.2	0.3920	.392	90.5	−31.9	82.2	90.5	−31.9	82.2	88.2	**111.2**	**0.87, 1.0, 0.0**	61.4	79.0	14.3	0.396	0.51	91.2	−29.9	83.0	91.2	−29.9	83.0	88.2	**109.8**	**0.75 1.00 0.00**
j50g	477	711	45.5	70.4	13.5	0.3510	.351	87.2	−53.6	78.0	87.2	−53.6	78.0	94.7	**124.5**	**0.62, 1.0, 0.0**														
	396	468	40.7	67.9	13.3	0.3330	.333	86.0	−62.5	76.4	86.0	−62.5	76.4	98.8	**129.2**	**0.5, 1.0, 0.0**	42.7	69.0	13.4	0.341	0.551	86.5	−58.7	77.1	86.5	−58.7	77.1	96.9	**127.2**	**0.50 1.00 0.00**
j75g	75	219	34.9	64.7	22.4	0.2860	.286	84.3	−74.3	54.8	84.3	−74.3	54.8	92.4	**143.5**	**0.0, 1.0, 0.37**														
	76	220	36.4	65.4	30.5	0.2750	.275	84.6	−70.6	42.7	84.6	−70.6	42.7	82.5	**148.8**	**0.0, 1.0, 0.5**	35.3	64.9	24.2	0.283	0.521	84.4	−73.5	51.9	84.4	−73.5	51.9	90.0	**144.7**	**0.25 1.00 0.00**
g00b=G	77	221	38.5	66.2	41.5	0.2630	.263	85.1	−65.6	29.3	85.1	−65.6	29.3	71.8	**155.9**	**0.0, 1.0, 0.62**														
	78	222	41.2	67.3	55.7	0.2510	.251	85.6	−59.5	15.2	85.6	−59.5	15.2	61.4	**165.5**	**0.0, 1.0, 0.75**	40.3	66.9	50.8	0.255	0.423	85.4	−61.5	19.7	85.4	−61.5	19.7	64.6	**162.1**	**0.00 1.00 0.00**
g25b	79	223	44.6	68.6	73.4	0.2390	.239	86.3	−52.4	1.0	86.3	−52.4	1.0	52.4	**178.8**	**0.0, 1.0, 0.87**														
	80	224	48.7	70.2	94.7	0.2270	.227	87.1	−44.4	−13.1	87.1	−44.4	−13.1	46.3	**196.4**	**0.0, 1.0, 1.0**	47.9	70.8	88.1	0.231	0.342	87.4	−47.7	−8.0	87.4	−47.7	−8.0	48.4	**189.5**	**0.00 1.00 0.50**
g50b	80	224	48.7	70.2	94.7	0.2270	.227	87.1	−44.4	−13.1	87.1	−44.4	−13.1	46.3	**196.4**	**0.0, 1.0, 1.0**														
	71	197	40.6	54.2	92.1	0.2170	.217	78.5	−30.9	−26.0	78.5	−30.9	−26.0	40.4	**220.1**	**0.0, 0.87, 1.0**	41.7	56.2	92.8	0.218	0.294	79.7	−32.6	−24.6	79.7	−32.6	−24.6	40.8	**217.0**	**0.00 1.00 1.00**
g75b	71	197	40.6	54.2	92.1	0.2170	.217	78.5	−30.9	−26.0	78.5	−30.9	−26.0	40.4	**220.1**	**0.0, 0.87, 1.0**														
	62	170	34.0	40.8	89.9	0.2060	.206	70.1	−16.1	−39.1	70.1	−16.1	−39.1	42.3	**247.5**	**0.0, 0.75, 1.0**	34.7	42.3	90.1	0.207	0.253	71.1	−18.0	−37.5	71.1	−18.0	−37.5	41.6	**244.3**	**0.00 0.50 1.00**
b00r=B	53	143	28.6	30.1	88.1	0.1940	.194	61.8	−0.1	−52.2	61.8	−0.1	−52.2	52.2	**269.8**	**0.0, 0.62, 1.0**														
	44	116	24.5	21.9	86.7	0.1840	.184	53.9	16.8	−64.8	53.9	16.8	−64.8	66.9	**284.5**	**0.0, 0.5, 1.0**	28.1	29.2	87.9	0.193	0.2	60.9	1.6	−53.5	60.9	1.6	−53.5	53.6	**271.7**	**0.00 0.00 1.00**
b25r	26	62	19.4	11.8	85.0	0.1670	.167	41.0	49.1	−85.9	41.0	49.1	−85.9	99.0	**299.7**	**0.0, 0.25, 1.0**														
	17	35	18.3	9.6	84.6	0.1630	.163	37.1	60.0	−92.3	37.1	60.0	−92.3	110.0	**303.0**	**0.0, 0.12, 1.0**	19.3	11.5	85.0	0.166	0.1	40.5	50.3	−86.6	40.5	50.3	−86.6	100.2	**300.1**	**0.50 0.00 1.00**
b50r	656	512	53.4	27.0	86.2	0.320	.32	59.0	89.3	−55.7	59.0	89.3	−55.7	105.2	**328.0**	**1.0, 0.0, 1.0**														
	655	511	49.3	25.4	64.8	0.3530	.353	57.4	85.2	−41.5	57.4	85.2	−41.5	94.8	**333.9**	**1.0, 0.0, 0.87**	53.3	27.0	84.4	0.323	0.164	59.0	89.1	−54.4	59.0	89.1	−54.4	104.4	**328.6**	**1.00 0.00 1.00**
b75r	653	509	43.3	22.9	32.9	0.4360	.436	55.0	78.4	−11.7	55.0	78.4	−11.7	79.3	**351.5**	**1.0, 0.0, 0.62**														
	652	508	41.2	22.1	21.9	0.4830	.483	54.1	75.9	3.8	54.1	75.9	3.8	76.0	**2.8**	**1.0, 0.0, 0.5**	42.1	22.5	27.0	0.459	0.245	54.5	77.1	−4.0	54.5	77.1	−4.0	77.2	**357.0**	**1.00 0.00 0.50**
5 step equidistant grey scale with intended lightness: *L = 18.0, 37.3, 56.7, 76.0, 95.4**																														
n000w=N	999	999	2.3	2.5	2.7	0.312	0.312	18.0	0.0	0.0	18.0	0.0	0.0	0.0	**0.0**	**0.0, 0.0, 0.0**														
	999	999	2.3	2.5	2.7	0.312	0.312	18.0	0.0	0.0	18.0	0.0	0.0	0.0	**0.0**	**0.0, 0.0, 0.0**	2.3	2.5	2.7	0.312	0.329	18.0	0.0	0.0	**18.0**	0.0	0.0	0.0	0.0	**0.00 0.00 0.00**
n025w	1001	1001	6.5	6.8	7.5	0.312	0.312	31.5	0.0	0.0	31.5	0.0	0.0	0.0	**325.5**	**0.25, 0.25, 0.25**														
	1002	1002	11.8	12.5	13.6	0.312	0.312	42.0	0.0	0.0	42.0	0.0	0.0	0.0	**325.0**	**0.37, 0.37, 0.37**	9.2	9.7	10.6	0.312	0.329	37.3	0.0	0.0	**37.3**	0.0	0.0	0.0	325.3	**0.25 0.25 0.25**
n050w	1003	1003	19.9	20.9	22.8	0.312	0.312	52.8	0.0	0.0	52.8	0.0	0.0	0.0	**324.8**	**0.5, 0.5, 0.5**														
	1004	1004	30.9	32.5	35.4	0.312	0.312	63.7	0.0	0.0	63.7	0.0	0.0	0.0	**324.7**	**0.62, 0.62, 0.62**	23.4	24.6	26.8	0.312	0.329	56.7	0.0	0.0	**56.7**	0.0	0.0	0.0	324.8	**0.50 0.50 0.50**
n075w	1005	1005	45.1	47.4	51.7	0.312	0.312	74.5	0.0	0.0	74.5	0.0	0.0	0.0	**323.7**	**0.75, 0.75, 0.75**														
	1006	1006	62.8	66.1	71.9	0.312	0.312	85.0	0.0	0.0	85.0	0.0	0.0	0.0	**324.1**	**0.87, 0.87, 0.87**	47.6	50.0	54.5	0.312	0.329	76.1	0.0	0.0	**76.1**	0.0	0.0	0.0	323.7	**0.75 0.75 0.75**
n100w=W	1007	1007	84.1	88.5	96.4	0.312	0.312	95.4	0.0	0.0	95.4	0.0	0.0	0.0	**0.0**	**1.0, 1.0, 1.0**														
	1007	1007	84.1	88.5	96.4	0.312	0.312	95.4	0.0	0.0	95.4	0.0	0.0	0.0	**0.0**	**1.0, 1.0, 1.0**	84.1	88.5	96.4	0.312	0.329	95.4	0.0	0.0	**95.4**	0.0	0.0	0.0	0.0	**1.00 1.00 1.00**