

Ostwald optimal colours (o) of maximum (m) C _{AB} for D65, Y _w =100, Y _m =520_770, LINYAB data															%
i ₁ , λ ₁	i ₂ , λ ₂	Y ₁₀₀	A ₁₀₀	B ₁₀₀	C _{AB}	a	b	h _{AB}	i _d , λ _d	i _c , λ _c	Code				%
0	405	32	561	58.2	-22.74	-17.89	28.94	0.5596	-0.743	218.1	16 483	37 589	Cm		%
6	435	32	562	58.79	-26.78	-9.88	28.55	0.4948	-0.6036	200.2	17 486	42 610			%
10	450	32	563	59.42	-33.54	4.93	33.9	0.3859	-0.3525	171.6	19 496	-1 496c			%
12	460	33	565	60.32	-36.45	12.66	38.58	0.3461	-0.2256	160.8	21 505	-1 505c			%
12	465	33	567	61.66	-36.65	13.24	38.97	0.356	-0.2207	160.1	21 506	-1 506c			%
14	470	33	569	62.72	-38.14	19.32	42.76	0.3422	-0.1274	153.1	24 520	-1 520c			%
15	475	34	573	65.29	-38.28	22.47	44.39	0.364	-0.0913	149.5	25 528	-1 528c	Gm		%
16	480	36	580	69.95	-37.48	26.04	45.64	0.4146	-0.0632	145.2	27 537	-1 537c			%
17	485	39	595	78.75	-32.73	31.0	45.09	0.5347	-0.0418	136.5	29 548	-1 548c			%
18	490	-1	490c	93.8	-12.06	38.4	40.25	0.8218	-0.0261	107.4	33 565	11 459	max		%
19	495	-1	495c	92.3	-10.68	38.39	39.85	0.8346	-0.0195	105.5	33 566	12 462			%
20	500	-1	500c	90.42	-8.91	38.07	39.1	0.8518	-0.0144	103.1	33 567	12 464			%
22	510	-1	510c	85.27	-4.15	36.48	36.72	0.9016	-0.0076	96.5	33 569	13 469			%
23	520	-1	519c	81.98	-1.26	35.24	35.26	0.935	-0.0056	92.0	34 570	14 471	Ym		%
25	530	-1	529c	74.04	5.15	32.02	32.43	1.0201	-0.0031	80.8	34 573	15 475			%
27	540	-1	539c	64.9	11.57	28.16	30.44	1.1288	-0.0016	67.6	35 577	15 478			%
28	545	-1	544c	60.13	14.5	26.11	29.87	1.1917	-0.0012	60.9	35 579	15 479			%
29	550	-1	549c	55.26	17.18	24.01	29.53	1.2613	-0.0009	54.4	36 582	16 480			%
30	555	-1	554c	50.4	19.49	21.91	29.33	1.3372	-0.0007	48.3	36 584	16 481			%
32	560	-1	560c	41.0	22.8	17.83	28.95	1.5064	-0.0005	38.0	37 589	16 483			%
380	770	100.0	0.0	0.0	0.01	0.9504	-0.4355	0.0							%
Ostwald optimal colours (o) of maximum (m) C _{AB} for D65, Y _w =100, Y _m =770_520, LINYAB complementary															%
i ₁ , λ ₁	i ₂ , λ ₂	Y ₁₀₀	A ₁₀₀	B ₁₀₀	C _{AB}	a	b	h _{AB}	i _d , λ _d	i _c , λ _c	Code				%
32	561	0	405	41.79	22.74	17.89	28.94	1.4946	-0.0072	38.1	37 589	16 483	Rm		%
32	562	6	435	41.2	26.78	9.88	28.55	1.6006	-0.1956	20.2	42 610	17 486			%
32	563	10	450	40.57	33.54	-4.93	33.9	1.7771	-0.557	351.6	-1 496c	19 496			%
33	565	12	460	39.67	36.45	-12.66	38.58	1.8691	-0.7547	340.8	-1 505c	21 505			%
33	567	12	465	38.33	36.65	-13.24	38.97	1.9064	-0.781	340.1	-1 506c	21 506			%
33	569	14	470	37.27	38.14	-19.32	42.76	1.9738	-0.954	333.1	-1 520c	24 520			%
34	573	15	475	34.7	38.28	-22.47	44.39	2.0536	-1.083	329.5	-1 528c	25 528	Mm		%
36	580	16	480	30.04	37.48	-26.04	45.64	2.1982	-1.3026	325.2	-1 537c	27 537			%
39	595	17	485	21.24	32.73	-31.0	45.09	2.4914	-1.8952	316.5	-1 548c	29 548			%
-1	490c	18	490	6.19	12.06	-38.4	40.25	2.899	-6.6372	287.4	11 459	33 565	min		%
-1	495c	19	495	7.69	10.68	-38.39	39.85	2.3392	-5.4245	285.5	12 462	33 566			%
-1	500c	20	500	9.57	8.91	-38.07	39.1	1.8814	-4.4105	283.1	12 464	33 567			%
-1	510c	22	510	14.72	4.15	-36.48	36.72	1.2328	-2.9143	276.5	13 469	33 569			%
-1	519c	23	520	18.01	1.26	-35.24	35.26	1.0204	-2.3925	272.0	14 471	34 570	Bm		%
-1	529c	25	530	25.95	-5.15	-32.02	32.43	0.7516	-1.6693	260.8	15 475	34 573			%
-1	539c	27	540	35.09	-11.57	-28.16	30.44	0.6205	-1.238	247.6	15 478	35 577			%
-1	544c	28	545	39.86	-14.5	-26.11	29.87	0.5865	-1.0906	240.9	15 479	35 579			%
-1	549c	29	550	44.73	-17.18	-24.01	29.53	0.5663	-0.9725	234.4	16 480	36 582			%
-1	554c	30	555	49.59	-19.49	-21.91	29.33	0.5572	-0.8774	228.3	16 481	36 584			%
-1	560c	32	560	58.99	-22.8	-17.83	28.95	0.5638	-0.7379	218.0	16 483	37 589			%
380	770	100.0	0.0	0.0	0.01	0.9504	-0.4355	0.0							%

rgb _{AB} and CIE data of a elementary hue circle according to CIE R1-47 for Ostwald colours for CIE illuminant D65																								
Yxy _{AB} c _{AB} AB _{AB} LabC _{ab} ab _{ab} data for relative spacing of elementary hue h _{AB} of L ^{IN} YAB for CIE 2 degree observer																								
Elementary hue circle with 4 intended elementary hue angles: h _{AB} = 17.7, 93.3, 159.1, 270.8 of L ^{IN} YAB, and 90 intended hue angles:																								
00.001, ..., 089, L ^{IN} YAB data of CIE test colours 9 (R): 11.2 9.9 3.1, 10 (Y): 59.0 -1.2 20.9, 11 (G): 20.3 -7.2 12.7, 12 (B): 6.4 0.1 -8.2																								
no.	AB _Y	x	y	a	b	c _{AB}	A	B	C _{AB}	h _{AB}	L*	a*	b*	C* _{ab}	h _{ab}	rgb [*] _{AB}	Code _{AB}							
000	40.7	0.447	0.259	1.727	-0.453	0.777	31.6	-0.7	31.6	358.7	70.0	81.6	-1.9	81.7	359.6	1.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00
001	40.8	0.45	0.261	1.72	-0.44	0.77	31.4	-0.1	31.4	359.6	70.0	81.1	-0.5	81.1	359.6	1.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
002	40.8	0.453	0.264	1.714	-0.427	0.764	31.1	0.3	31.2	0.6	70.0	80.6	0.9	80.6	0.6	1.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
003	40.8	0.456	0.267	1.708	-0.414	0.758	30.9	0.8	30.9	1.6	70.0	80.0	2.4	80.1	1.7	1.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
004	40.8	0.459	0.269	1.701	-0.4	0.752	30.7	1.4	30.7	2.6	70.0	79.5	4.0	79.6	2.9	1.00	0.00	0.3	0.00	0.00	0.00	0.00	0.00	0.00
005	40.8	0.462	0.272	1.695	-0.387	0.746	30.4	1.9	30.5	3.6	70.1	78.9	5.6	79.1	4.0	1.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00
006	40.9	0.465	0.275	1.689	-0.374	0.741	30.2	2.4	30.3	4.7	70.1	78.4	7.2	78.7	5.2	1.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
007	40.9	0.469	0.278	1.682	-0.361	0.736	29.9	3.0	30.1	5.7	70.1	77.8	8.9	78.3	6.5	1.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
008	40.9	0.471	0.28	1.676	-0.348	0.73	29.7	3.5	29.9	6.8	70.1	77.3	10.6	78.0	7.7	1.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
009	40.9	0.475	0.284	1.67	-0.335	0.726	29.4	4.1	29.7	7.9	70.1	76.7	12.3	77.7	9.1	1.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00
010	40.9	0.479	0.288	1.663	-0.322	0.722	29.2	4.6	29.6	9.0	70.1	76.1	14.1	77.5	10.5	1.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
011	41.0	0.483	0.291	1.657	-0.309	0.718	28.9	5.1	29.4	10.1	70.1	75.6	15.9	77.3	11.9	1.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
012	41.0	0.486	0.294	1.65	-0.296	0.714	28.7	5.6	29.3	11.2	70.2	75.0	17.8	77.1	13.3	1.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
013	41.0	0.49	0.298	1.644	-0.283	0.71	28.5	6.2	29.1	12.3	70.2	74.5	19.7	77.0	14.8	1.00	0.00	0.1	0.00	0.00	0.00	0.00	0.00	0.00
014	41.0	0.493	0.301	1.638	-0.271	0.707	28.2	6.7	29.0	13.4	70.2	73.9	21.6	77.0	16.3	1.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
015	41.0	0.497	0.304	1.632	-0.258	0.704	28.0	7.2	28.9	14.5	70.2	73.4	23.6	77.1	17.8	1.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
016	41.1	0.501	0.308	1.626	-0.246	0.701	27.7	7.7	28.8	15.6	70.2	72.8	25.7	77.2	19.4	1.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
017	41.1	0.505	0.311	1.619	-0.234	0.699	27.5	8.2	28.7	16.7	70.2	72.3	27.7	77.4	21.0	1.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
018	41.1	0.509	0.315	1.613	-0.222	0.697	27.3	8.7	28.6	17.8	70.2	71.7	29.9	77.7	22.6	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
019	41.1	0.513	0.319	1.607	-0.21	0.695	27.0	9.2	28.6	18.9	70.3	71.2	32.0	78.1	24.2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
020	41.1	0.517	0.322	1.602	-0.198	0.693	26.8	9.7	28.5	19.9	70.3	70.7	34.2	78.5	25.8	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
021	41.2	0.521	0.327	1.594	-0.184	0.691	26.5	10.3	28.5	21.3	70.3	70.0	37.1	79.2	27.9	1.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
022	41.2	0.527	0.332	1.586	-0.169	0.689	26.2	10.9	28.4	22.7	70.3	69.3	40.1	80.1	30.1	1.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
023	41.3	0.532	0.337	1.578	-0.155	0.687	25.9	11.5	28.4	24.0	70.4	68.6	43.1	81.1	32.2	1.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
024	41.3	0.537	0.341	1.57	-0.141	0.686	25.6	12.1	28.4	25.3	70.4	67.9	46.5	82.3	34.4	1.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
025	41.4	0.542	0.346	1.563	-0.128	0.685	25.3	12.7	28.4	26.5	70.4	67.2	49.8	83.7	37.5	1.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
026	41.4	0.546	0.351	1.556	-0.115	0.685	25.1	13.2	28.4	27.8	70.5	66.6	53.1	85.2	40.5	1.00	0.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
027	41.5	0.551	0.355	1.549	-0.103	0.685	24.8	13.7	28.4	28.9	70.5	66.0	56.6	86.9	43.6	1.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
028	41.5	0.556	0.36	1.543	-0.092	0.685	24.6	14.2	28.4	30.0	70.5	65.4	60.1	88.8	46.6	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
029	41.5	0.56	0.364	1.537	-0.081	0.685	24.3	14.7	28.4	31.1	70.5	64.8	63.8	91.0	49.5	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
030	41.6	0.565	0.369	1.531	-0.071	0.685	24.1	15.1	28.5	32.1	70.6	64.3	67.6	93.3	52.4	1.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
031	41.6	0.569	0.373	1.525	-0.061	0.686	23.9	15.5	28.5	33.0	70.6	63.7	71.5	95.8	55.4	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
032	41.6	0.573	0.377	1.52	-0.052	0.686	23.7	15.9	28.6	33.9	70.6	63.2	75.7	98.6	58.4	1.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
033	41.7	0.577	0.381	1.515	-0.043	0.687	23.5	16.3	28.6	34.7	70.6	62.8	80.8	101.7	61.4	1.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
034	41.7	0.581	0.384	1.51	-0.035	0.688	23.3	16.7	28.7	35.5	70.6	62.3	84.6	105.1	64.6	1.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
035	41.7	0.584	0.388	1.506	-0.027	0.689	23.2	17.0	28.7	36.2	70.7	61.9	89.6	109.0	67.7	1.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
036	41.7	0.588	0.391	1.502	-0.02	0.69	23.0	17.3	28.8	36.9	70.7	61.6	95.2	113.4	70.8	1.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
037	41.7	0.591	0.394	1.498	-0.014	0.691	22.9	17.6	28.8	37.5	70.7	61.2	101.5	118.5	73.9	1.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
038	41.7	0.594	0.397	1.495	-0.008	0.692	22.7	17.8	28.9	38.0	70.7	60.9	108.2	124.2	77.0	1.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
039	41.6	0.598	0.401	1.491	0.0	0.694	22.5	18.1	28.9	38.7	70.6	60.5	121.1	135.4	80.5	1.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
040	42.4	0.595	0.403	1.475	0.0	0.682	22.2	18.4	28.9	39.6	71.1	59.3	122.2	135.9	83.6	1.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
041	43.3	0.593	0.406	1.458	0.0	0.669	22.0	18.8	28.9	40.5	71.7	58.0	123.3	136.3	86.8	1.00	0.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
042	44.2	0.59	0.409	1.44	0.0	0.655	21.6	19.2	29.0	41.5	72.3	56.6	124.4	136.7	89.9	1.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
043	45.1	0.587	0.412	1.423	0.0	0.642	21.3	19.6	29.0	42.6	73.0	55.2	125.4	137.0	93.0	1.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
044	46.1	0.584	0.415	1.405	0.0	0.63	21.0	20.0	29.0	43.6	73.6	53.8	126.4	137.4	96.1	1.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
045	47.1	0.581	0.418	1.388	0.0	0.617	20.6	20.5	29.1	44.7	74.2	52.4	127.3	137.7	99.2	1.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
046	48.1	0.578	0.421	1.372	0.0	0.606	20.3	20.9	29.1	45.8	74.9	51.0	128.2	138.0	102.3	1.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
047	49.1	0.575	0.424	1.356	0.	0.595	19.9	21.3	29.2	46.9	75.5	49.7	129.0	138.3	105.4	1.00	0.38</							

rgb _{AB} and CIE data of a elementary hue circle according to CIE R1-47 for Ostwald colours for CIE illuminant D65																				
Yxy _{AB} c _{AB} AB ABC _{AB} LabC _{AB} a _{hAB} data for relative spacing of elementary hues a _{hAB} of L ₁ Y ₁ AB for CIE 2 degree observer																				
Elementary hue circle with 4 intended elementary hue angles: h _{AB} = 17.7, 93.3, 159.1, 270.8 of L ₁ Y ₁ AB, and 90 intended hue angles:																				
090, 091, ..., 179, L ₁ Y ₁ AB data of CIE test colours 9 (R): 11.2 9.9 3.1, 10 (Y): 59.0 -1.2 20.9, 11 (G): 20.3 -7.2 12.7, 12 (B): 6.4 0.1 -8.2																				
no	AB	Y	x	y	a	b	c _{AB}	A	B	C _{AB}	h _{AB}	L*	a*	b*	C*	h _{AB}	rgb _{AB}	a _{hAB}	Code _{AB}	
090	80.7	0.483	0.511	0.947	-0.005	0.43	-0.2	34.7	34.7	90.4	92.0	-0.4	143.5	143.5	90.1	1.00	0.95	0.00	% R59 Y	
091	81.3	0.481	0.511	0.941	-0.005	0.43	-0.7	35.0	35.0	91.2	92.3	-1.5	143.2	143.2	90.6	1.00	0.96	0.00	% R56 Y	
092	81.9	0.479	0.512	0.935	-0.005	0.43	-1.2	35.2	35.2	92.0	92.5	-2.4	143.0	143.0	90.9	1.00	0.98	0.00	% R59 Y	
093	82.8	0.477	0.515	0.926	-0.005	0.43	-1.9	35.5	35.6	93.2	92.9	-3.9	142.8	142.8	91.6	1.00	0.99	0.00	% R99 Y	
094	83.6	0.474	0.516	0.918	-0.006	0.43	-2.6	35.8	35.9	94.2	93.2	-5.2	142.4	142.5	92.1	0.98	1.00	0.00	% Y01 G	
095	84.2	0.472	0.518	0.911	-0.006	0.43	-3.2	36.1	36.2	95.1	93.5	-6.4	141.8	141.9	92.6	0.97	1.00	0.00	% Y02 G	
096	84.9	0.47	0.519	0.905	-0.007	0.43	-3.8	36.3	36.5	96.0	93.0	-7.6	140.8	141.0	93.1	0.95	1.00	0.00	% Y05 G	
097	85.6	0.468	0.521	0.897	-0.008	0.43	-4.5	36.6	36.8	97.0	94.1	-8.9	139.4	139.7	93.6	0.94	1.00	0.00	% Y85 G	
098	86.4	0.465	0.522	0.889	-0.008	0.43	-5.2	36.8	37.2	98.0	94.5	-10.3	138.0	138.4	94.2	0.92	1.00	0.00	% Y06 G	
099	87.2	0.462	0.523	0.881	-0.009	0.431	-5.9	37.1	37.6	99.0	94.8	-11.7	136.5	137.0	94.9	0.91	1.00	0.00	% Y08 G	
100	88.0	0.459	0.525	0.874	-0.011	0.431	-6.7	37.3	37.9	100.2	95.1	-13.1	135.1	135.8	95.5	0.89	1.00	0.00	% Y10 G	
101	88.8	0.456	0.527	0.866	-0.012	0.431	-7.4	37.6	38.3	101.2	95.5	-14.5	133.8	134.6	96.2	0.88	1.00	0.00	% Y11 G	
102	89.6	0.454	0.528	0.859	-0.013	0.432	-8.1	37.8	38.7	102.1	95.8	-15.9	132.5	133.5	96.8	0.86	1.00	0.00	% Y13 G	
103	90.3	0.451	0.529	0.852	-0.014	0.432	-8.8	38.0	39.0	103.0	96.1	-17.1	131.3	132.4	97.4	0.85	1.00	0.00	% Y16 G	
104	91.2	0.447	0.53	0.843	-0.016	0.432	-9.7	38.2	39.4	104.2	96.5	-18.8	129.1	130.4	98.3	0.83	1.00	0.00	% Y14 G	
105	92.0	0.444	0.53	0.837	-0.018	0.432	-10.4	38.3	39.7	105.0	96.8	-20.1	126.7	128.3	99.0	0.82	1.00	0.00	% Y17 G	
106	92.8	0.443	0.528	0.833	-0.019	0.433	-10.3	38.6	40.0	106.0	97.1	-20.4	124.2	126.2	99.2	0.82	1.00	0.00	% Y19 G	
107	94.3	0.44	0.527	0.836	-0.024	0.426	-10.7	38.8	40.2	105.4	97.7	-20.4	121.2	122.9	99.5	0.79	1.00	0.00	% Y20 G	
108	93.6	0.434	0.53	0.818	-0.026	0.43	-12.3	38.3	40.2	107.9	97.4	-23.8	118.7	121.1	101.3	0.77	1.00	0.00	% Y22 G	
109	93.2	0.431	0.532	0.811	-0.026	0.432	-12.9	38.1	40.2	108.8	97.3	-25.1	118.2	120.8	102.0	0.76	1.00	0.00	% Y23 G	
110	92.8	0.429	0.534	0.803	-0.027	0.434	-13.6	37.9	40.2	109.7	97.1	-26.5	117.6	120.6	102.6	0.74	1.00	0.00	% Y25 G	
111	92.3	0.426	0.536	0.796	-0.027	0.436	-14.2	37.6	40.3	110.7	96.9	-27.9	117.1	120.4	103.4	0.73	1.00	0.00	% Y26 G	
112	91.9	0.424	0.538	0.788	-0.027	0.438	-14.7	37.4	40.3	111.7	96.8	-29.4	116.5	120.2	104.1	0.71	1.00	0.00	% Y28 G	
113	91.5	0.421	0.54	0.779	-0.028	0.44	-15.6	37.2	40.3	112.7	96.6	-30.9	115.9	119.9	104.9	0.7	1.00	0.00	% Y30 G	
114	91.0	0.418	0.542	0.771	-0.028	0.44	-16.2	37.0	40.4	113.7	96.6	-32.5	115.4	119.9	105.7	0.68	1.00	0.00	% Y31 G	
115	90.5	0.415	0.544	0.762	-0.029	0.447	-16.9	36.7	40.5	114.7	96.2	-34.2	114.7	119.7	106.5	0.67	1.00	0.00	% Y32 G	
116	90.0	0.412	0.547	0.753	-0.029	0.451	-17.7	36.5	40.6	115.8	96.0	-35.9	114.1	119.6	107.4	0.65	1.00	0.00	% Y34 G	
117	89.5	0.409	0.549	0.744	-0.03	0.454	-18.4	36.3	40.7	116.9	95.8	-37.6	113.5	119.6	108.3	0.64	1.00	0.00	% Y35 G	
118	89.0	0.405	0.551	0.735	-0.03	0.458	-19.1	36.0	40.8	118.0	95.6	-39.4	112.9	119.6	109.2	0.62	1.00	0.00	% Y37 G	
119	88.5	0.402	0.554	0.725	-0.031	0.462	-19.9	35.8	40.9	119.0	95.3	-41.3	112.2	119.6	110.2	0.6	1.00	0.00	% Y39 G	
120	88.0	0.398	0.557	0.715	-0.031	0.467	-20.6	35.5	41.1	120.1	95.1	-43.2	111.6	119.7	111.1	0.59	1.00	0.00	% Y46 G	
121	87.4	0.394	0.559	0.705	-0.032	0.472	-21.4	35.2	41.2	121.2	94.9	-45.2	110.9	119.8	112.1	0.57	1.00	0.00	% Y42 G	
122	86.9	0.391	0.562	0.695	-0.032	0.477	-22.1	35.0	41.4	122.2	94.7	-47.2	110.2	119.1	113.1	0.56	1.00	0.00	% Y43 G	
123	86.3	0.387	0.565	0.684	-0.033	0.482	-22.9	34.7	41.6	123.4	94.4	-49.3	109.6	120.1	114.2	0.54	1.00	0.00	% Y45 G	
124	85.8	0.383	0.568	0.674	-0.033	0.487	-23.7	34.4	41.8	124.5	94.2	-51.4	108.9	120.4	115.2	0.53	1.00	0.00	% Y46 G	
125	85.2	0.379	0.571	0.663	-0.034	0.493	-24.4	34.2	42.0	125.5	93.9	-53.5	108.2	120.7	116.3	0.51	1.00	0.00	% Y48 G	
126	84.6	0.374	0.574	0.652	-0.034	0.499	-25.2	33.9	42.2	126.6	93.7	-55.7	107.5	121.1	117.3	0.5	1.00	0.00	% Y49 G	
127	84.1	0.37	0.577	0.641	-0.035	0.505	-25.9	33.6	42.5	127.6	93.5	-57.9	106.8	121.5	118.4	0.48	1.00	0.00	% Y51 G	
128	83.5	0.366	0.581	0.63	-0.036	0.511	-26.7	33.3	42.7	128.7	93.2	-60.2	106.1	122.0	119.5	0.47	1.00	0.00	% Y52 G	
129	82.9	0.361	0.584	0.619	-0.036	0.518	-27.4	33.0	43.0	129.7	93.0	-62.5	105.4	122.5	120.6	0.45	1.00	0.00	% Y54 G	
130	82.3	0.357	0.587	0.608	-0.037	0.523	-28.2	32.8	43.2	130.6	92.7	-64.7	104.7	123.1	121.7	0.44	1.00	0.00	% Y55 G	
131	81.8	0.352	0.591	0.596	-0.038	0.532	-28.9	32.5	43.5	131.6	92.5	-67.1	104.0	123.8	122.8	0.42	1.00	0.00	% Y57 G	
132	81.2	0.348	0.594	0.585	-0.038	0.539	-29.6	32.2	43.8	132.5	92.2	-69.5	103.3	124.5	123.9	0.41	1.00	0.00	% Y58 G	
133	80.7	0.343	0.597	0.574	-0.039	0.546	-30.3	31.9	44.0	133.5	92.0	-71.9	102.6	125.3	125.0	0.39	1.00	0.00	% Y60 G	
134	80.1	0.338	0.601	0.563	-0.04	0.553	-31.0	31.7	44.3	134.4	91.7	-74.3	101.8	126.1	126.1	0.38	1.00	0.00	% Y61 G	
135	79.6	0.333	0.604	0.551	-0.04	0.561	-31.7	31.4	44.6	135.2	91.5	-76.7	101.1	127.0	127.1	0.36	1.00	0.00	% Y63 G	
136	79.0	0.328	0.608	0.54	-0.041	0.568	-32.3	31.1	44.9	136.1	91.2	-79.1	100.4	127.9	128.2	0.35	1.00	0.00	% Y64 G	
137	78.1	0.321	0.612	0.524	-0.042	0.579	-33.2	30.7	45.2	137.2	90.8	-82.7	99.1	129.1	129.8	0.33	1.00	0.00	% Y66 G	
138	76.9	0.311	0.618	0.504	-0.044	0.593	-34.3	30.0	45.6	138.8	90.2	-87.2	97.2	130.6	131.8	0.32	1.00	0.00	% Y67 G	
139	75.7	0.302	0.623	0.485	-0.047	0.605	-35.1	29.4	45.8	140.1	89.7	-91.3	95.3	131.9	133.7	0.3	1.00	0.00	% Y69 G	
140	74.6	0.294	0.627	0.469	-0.049	0.616	-35.8	28.7	45.9	141.2	89.2	-94.9	93.4	133.1	135.4	0.29	1.00	0.00	% Y76 G	
141	73.5	0.287	0.63	0.455	-0.052	0.626	-36.4	28.2	46.7	142.2	88.7	-98.0	91.5	134.2	136.9	0.27	1.00	0.00	% Y72 G	
142	72.4	0.279	0.633	0.442	-0.054	0.639	-37.0	27.7	47.2	143.2	88.2	-101.2	90.0	135.0	138.2	0.26	1.00	0.00	% Y73 G	
143	71.7	0.274	0.634	0.432	-0.057	0.641	-37.1	27.1	47.9	143.8	87.8	-103.2	88.0	135.6	139.5	0.24	1.00	0.00	% Y75 G	
144	70.8	0.269	0.635	0.423	-0.059	0.646	-37.3	26.6	48.5	144.4	87.4	-105.2	86.2	136.0	140.6	0.23	1.00	0.00	% Y76 G	
145	70.1	0.264	0.635	0.416	-0.062	0.651	-37.4	26.1	49.5	145.0	87.0	-106.9	84.5	136.3	141.6	0.21	1.00	0.00	% Y78 G	
146	68.8	0.255	0.636	0.401	-0.067	0.661	-37.8	25.3	49.5	146.2	86.4	-110.3	81.5	137.2	143.5	0.2	1.00	0.00	% Y79 G	
147	67.6	0.246	0.636	0.387	-0.073	0.669	-38.1	24.4	49.2	147.3	85.8	-113.5	78.3	137.9	145.3	0.18	1.00	0.00	% Y81 G	
148	66.6	0.238	0.634	0.376	-0.08	0.675	-38.2	23.6	49.4	148.2	85.3	-116.0	75.2	138.2	147.0	0.16	1.00	0.00	% Y83 G	
149	65.7	0.232	0.63	0.367	-0.087	0.678	-38.3	22.9	49.6	149.1	84.8	-117.8	72.1	138.2	148.5	0.15	1.00	0.00	% Y84 G	
150	64.8	0.227	0.63	0.358	-0.088	0.679	-38.4	22.2	49.6	150.0	84.3	-119.6	69.0	138.2	149.6	0.14	1.00	0.00	% Y86 G	

rgb* _{AB} and CIE data of a elementary hue circle according to CIE R1-47 for Ostwald colours for CIE illuminant D65																				
Yxy, c _{AB} _{AB} ABC _{AB} LabC* _{ab} h _{ab} data for relative spacing of elementary hue h _{AB} of L ₁ Y ₁ AB for CIE 2 degree observer																				
Elementary hue circle with 4 intended elementary hue angles: h _{AB} = 17.7, 93.3, 159.1, 270.8 of L ₁ Y ₁ AB, and 90 intended hue angles:																				
180, 181, ..., 269, L ₁ Y ₁ AB data of CIE test colours 9 (R): 11.2 9.9 3.1, 10 (Y): 59.0 29.1 1.2 20.9, 11 (G): 20.3 -7.2 12.7, 12 (B): 6.4 0.1 -8.2																				
no.	AB	Y	x	y	a	b	c _{AB}	A	B	C _{AB}	h _{AB}	L*	a*	b*	C* _{ab}	h _{ab}	rgb* _{AB}	Code _{AB}		
180	59.2	0.167	0.404	0.415	-0.423	0.535	-31.6	0.7	31.6	178.7	81.4	-101.1	1.5	181.1	179.7	1.00	1.00	0.37	G180	
181	59.1	0.167	0.399	0.419	-0.432	0.531	-31.4	0.1	31.4	179.6	81.4	-100.9	1.0	189.1	179.7	1.00	1.00	0.39	G198	
182	59.1	0.167	0.395	0.423	-0.441	0.527	-31.1	-0.3	31.2	180.6	81.3	-99.2	-0.7	99.2	180.4	0.00	1.00	0.4	G208	
183	59.1	0.167	0.391	0.427	-0.45	0.523	-30.9	-0.8	30.9	181.6	81.3	-98.2	-1.8	98.2	181.0	0.00	1.00	0.42	G218	
184	59.1	0.167	0.387	0.431	-0.459	0.52	-30.7	-1.4	30.7	182.6	81.3	-97.2	-3.0	97.2	181.7	0.00	1.00	0.44	G228	
185	59.1	0.166	0.383	0.434	-0.468	0.516	-30.4	-1.9	30.5	183.6	81.3	-96.2	-4.1	96.3	182.4	0.00	1.00	0.46	G238	
186	59.0	0.166	0.379	0.438	-0.477	0.513	-30.2	-2.4	30.3	184.7	81.3	-95.2	-5.2	95.3	183.1	0.00	1.00	0.48	G248	
187	59.0	0.166	0.375	0.442	-0.486	0.505	-29.9	-3.0	30.1	185.7	81.3	-94.2	-6.3	94.4	183.8	0.00	1.00	0.49	G258	
188	59.0	0.166	0.372	0.445	-0.495	0.507	-29.7	-3.6	30.2	186.9	81.3	-93.2	-7.4	93.7	184.5	0.00	1.00	0.51	G268	
189	59.0	0.166	0.368	0.45	-0.505	0.504	-29.4	-4.1	29.7	187.9	81.3	-92.2	-8.4	92.6	185.2	0.00	1.00	0.53	G278	
190	59.0	0.166	0.364	0.454	-0.514	0.501	-29.2	-4.6	29.6	189.0	81.2	-91.3	-9.5	91.8	185.9	0.00	1.00	0.55	G278B	
191	58.9	0.165	0.361	0.458	-0.523	0.499	-28.9	-5.1	29.4	190.1	81.2	-90.3	-10.5	90.9	186.6	0.00	1.00	0.57	G288	
192	58.9	0.165	0.357	0.462	-0.532	0.497	-28.7	-5.6	29.3	191.2	81.2	-89.3	-11.5	90.1	187.3	0.00	1.00	0.58	G298	
193	58.9	0.165	0.354	0.466	-0.541	0.495	-28.5	-6.2	29.1	192.3	81.2	-88.4	-12.5	89.3	188.0	0.00	1.00	0.6	G308	
194	58.9	0.165	0.351	0.47	-0.55	0.493	-28.2	-6.7	29.0	193.4	81.2	-87.4	-13.5	88.5	188.8	0.00	1.00	0.62	G318	
195	58.8	0.165	0.348	0.474	-0.558	0.491	-28.0	-7.2	28.8	194.5	81.2	-86.5	-14.5	87.7	189.5	0.00	1.00	0.64	G328	
196	58.8	0.165	0.345	0.478	-0.567	0.488	-27.7	-7.7	28.6	195.6	81.2	-85.5	-15.4	87.0	190.2	0.00	1.00	0.65	G338	
197	58.8	0.165	0.342	0.482	-0.576	0.481	-27.5	-8.2	28.7	196.7	81.2	-84.7	-16.3	86.3	190.9	0.00	1.00	0.67	G338B	
198	58.8	0.164	0.339	0.486	-0.584	0.487	-27.3	-8.7	28.6	197.8	81.2	-83.8	-17.2	85.6	191.6	0.00	1.00	0.69	G348	
199	58.8	0.164	0.336	0.49	-0.593	0.486	-27.0	-9.2	28.6	198.9	81.1	-82.9	-18.1	84.9	192.3	0.00	1.00	0.71	G358	
200	58.8	0.164	0.333	0.493	-0.601	0.485	-26.8	-9.7	28.5	199.9	81.1	-82.1	-19.0	84.2	193.0	0.00	1.00	0.73	G368	
201	58.7	0.164	0.33	0.498	-0.611	0.485	-26.5	-10.3	28.5	201.3	81.1	-81.0	-20.0	83.4	193.9	0.00	1.00	0.74	G378	
202	58.7	0.164	0.326	0.503	-0.622	0.484	-26.2	-10.9	28.4	202.7	81.1	-79.9	-21.1	82.6	194.8	0.00	1.00	0.76	G388	
203	58.6	0.164	0.323	0.507	-0.631	0.484	-25.9	-11.5	28.4	204.0	81.1	-78.8	-22.2	81.9	195.7	0.00	1.00	0.78	G398	
204	58.6	0.164	0.32	0.512	-0.643	0.484	-25.6	-12.1	28.4	205.3	81.0	-77.8	-23.2	81.2	196.5	0.00	1.00	0.8	G408	
205	58.5	0.164	0.317	0.516	-0.652	0.484	-25.3	-12.7	28.4	206.5	81.0	-76.8	-24.1	80.5	197.4	0.00	1.00	0.82	G418	
206	58.5	0.164	0.314	0.521	-0.661	0.485	-25.1	-13.2	28.4	207.8	81.0	-75.9	-25.0	79.9	198.2	0.00	1.00	0.83	G418B	
207	58.4	0.164	0.312	0.525	-0.67	0.486	-24.8	-13.7	28.4	208.9	81.0	-75.0	-25.9	79.3	199.0	0.00	1.00	0.85	G428	
208	58.4	0.163	0.309	0.529	-0.679	0.486	-24.6	-14.2	28.4	210.0	80.9	-74.1	-26.7	78.8	199.8	0.00	1.00	0.87	G438	
209	58.4	0.163	0.307	0.532	-0.687	0.487	-24.3	-14.7	28.4	211.1	80.9	-73.3	-27.4	78.2	200.5	0.00	1.00	0.89	G448	
210	58.3	0.163	0.305	0.536	-0.695	0.488	-24.1	-15.1	28.5	212.1	80.9	-72.5	-28.1	77.8	201.2	0.00	1.00	0.91	G458	
211	58.3	0.163	0.303	0.539	-0.702	0.489	-23.9	-15.5	28.5	213.0	80.9	-71.7	-28.8	77.3	201.9	0.00	1.00	0.92	G468	
212	58.3	0.163	0.301	0.543	-0.709	0.49	-23.7	-15.9	28.6	214.0	80.9	-71.0	-29.5	76.9	202.6	0.00	1.00	0.94	G478	
213	58.2	0.163	0.299	0.546	-0.716	0.492	-23.5	-16.3	28.6	214.7	80.9	-70.3	-30.1	76.5	203.1	0.00	1.00	0.96	G488	
214	58.2	0.163	0.298	0.549	-0.722	0.493	-23.3	-16.7	28.7	215.5	80.8	-69.7	-30.6	76.1	203.7	0.00	1.00	0.97	G498	
215	58.2	0.163	0.296	0.552	-0.727	0.494	-23.2	-17.0	28.7	216.2	80.8	-69.1	-31.1	75.8	204.2	0.00	1.00	0.99	G508	
216	58.2	0.163	0.295	0.554	-0.733	0.495	-23.0	-17.3	28.8	216.9	80.8	-68.6	-31.6	75.5	204.7	0.00	1.00	0.98	G508B	
217	58.2	0.163	0.293	0.557	-0.737	0.496	-22.9	-17.6	28.8	217.5	80.8	-68.1	-32.0	75.2	205.2	0.00	1.00	0.96	G518	
218	58.2	0.163	0.292	0.559	-0.742	0.497	-22.7	-17.8	28.9	218.0	80.8	-67.6	-32.4	75.0	205.6	0.00	1.00	0.94	G528	
219	58.3	0.164	0.291	0.563	-0.746	0.496	-22.5	-18.1	28.9	218.7	80.9	-66.8	-32.8	74.4	206.2	0.00	1.00	0.92	G538	
220	57.5	0.162	0.289	0.562	-0.756	0.503	-22.3	-18.4	28.9	219.4	80.9	-66.0	-33.3	74.6	206.7	0.00	1.00	0.91	G548	
221	56.6	0.161	0.287	0.562	-0.768	0.511	-22.0	-18.8	28.9	220.5	80.0	-66.4	-34.4	74.8	207.4	0.00	1.00	0.9	G558	
222	55.7	0.159	0.284	0.561	-0.78	0.52	-21.6	-19.2	29.0	221.5	79.4	-66.2	-35.3	75.0	208.0	0.00	1.00	0.87	G568	
223	54.8	0.158	0.281	0.56	-0.794	0.529	-21.3	-19.6	29.0	222.6	78.9	-65.9	-36.2	75.3	208.8	0.00	1.00	0.85	G578	
224	53.8	0.156	0.279	0.56	-0.808	0.54	-21.0	-20.0	29.0	223.6	78.3	-65.7	-37.2	75.5	209.5	0.00	1.00	0.83	G588	
225	52.8	0.154	0.276	0.559	-0.823	0.551	-20.6	-20.5	29.1	224.7	77.7	-65.4	-38.2	75.8	210.2	0.00	1.00	0.82	G598	
226	51.8	0.152	0.273	0.558	-0.839	0.562	-20.3	-20.9	29.1	225.7	77.2	-65.2	-39.2	76.1	211.0	0.00	1.00	0.8	G598B	
227	50.7	0.15	0.27	0.557	-0.855	0.563	-20.0	-21.3	29.2	226.9	76.6	-64.9	-40.2	76.4	211.8	0.00	1.00	0.78	G608	
228	49.9	0.149	0.267	0.557	-0.871	0.587	-19.6	-21.7	29.3	227.7	76.0	-64.6	-41.2	76.6	212.5	0.00	1.00	0.76	1.00	G618
229	48.9	0.147	0.264	0.557	-0.889	0.6	-19.2	-22.3	29.3	229.1	75.4	-64.1	-42.3	76.8	213.4	0.00	1.00	0.74	1.00	G628
230	48.0	0.146	0.261	0.558	-0.906	0.612	-18.8	-22.6	29.4	230.2	74.8	-63.6	-43.3	76.9	214.2	0.00	1.00	0.73	1.00	G638
231	47.1	0.144	0.258	0.559	-0.922	0.624	-18.4	-22.9	29.4	231.2	74.3	-63.0	-44.2	76.9	215.0	0.00	1.00	0.71	1.00	G648
232	46.4	0.143	0.256	0.561	-0.937	0.635	-18.0	-23.2	29.4	232.1	73.8	-62.3	-45.0	76.9	215.8	0.00	1.00	0.69	1.00	G658
233	45.7	0.142	0.253	0.563	-0.951	0.645	-17.7	-23.6	29.5	233.1	73.3	-61.6	-45.8	76.8	216.6	0.00	1.00	0.67	1.00	G668
234	45.0	0.141	0.251	0.565	-0.966	0.655	-17.3	-23.8	29.5	234.0	72.9	-60.9	-46.6	76.7	217.4	0.00	1.00	0.65	1.00	G678
235	44.3	0.141	0.248	0.567	-0.981	0.667	-16.9	-24.2	29.5	234.9	72.4	-60.1	-47.4	76.6	218.2	0.00	1.00	0.64	1.00	G678B
236	43.5	0.14	0.245	0.57	-0.998	0.679	-16.5	-24.5	29.5	235.9	71.9	-59.3	-48.3	76.5	219.1	0.00	1.00	0.62	1.00	G688
237	42																			

rgb_{AB} and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant D65

Xyy_{AB}, abc_{AB}, ABC_{AB}, LabC_{AB} at **h_{AB}** data for relative spacing of elementary hue **h_{AB}** of **LIN_{YAB}** for CIE 2 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{AB} = 17.7, 93.3, 159.1, 270.8 of LIN_{YAB}, and 90 intended hue angles:

270, 271, ..., 360, LIN_{YAB} data of CIE test colours 9 (R): 11.2 9.9 3.1, 10 (Y): 59.0 1-2 20.9, 11 (G): 20.3 -7.2 12.7, 12 (B): 6.4 0.1 -8.2

no.	AB _Y	x	y	a	b	c _{AB}	A	B	C _{AB}	h _{AB}	L*	a*	b*	C* _{AB}	h _{AB}	rgb _{AB}	Code _{AB}		
270	19.2	0.127	0.132	0.963	-2.244	1.889	0.2	-34.7	34.7	270.4	50.9	1.2	-83.9	83.9	270.8	0.00	0.01	1.00	% G99B
271	18.6	0.127	0.128	0.99	-2.316	1.881	0.7	-35.0	35.0	271.2	50.2	4.0	-88.1	85.2	272.6	0.0	0.0	1.00	% B00R
272	18.0	0.127	0.125	1.019	-2.389	1.954	1.2	-35.2	35.2	272.0	49.5	6.6	-88.2	86.5	274.4	0.02	0.00	1.00	% B01R
273	17.1	0.127	0.119	1.066	-2.512	2.08	1.9	-35.5	35.6	273.2	48.4	10.8	-88.1	88.8	277.0	0.04	0.00	1.00	% B02R
274	16.3	0.128	0.115	1.111	-2.627	2.197	2.6	-35.8	35.9	274.2	47.4	14.6	-89.7	90.9	279.2	0.05	0.00	1.00	% B02R
275	15.7	0.128	0.111	1.156	-2.736	2.309	3.2	-36.1	36.2	275.1	46.6	18.2	-91.1	93.0	281.3	0.07	0.00	1.00	% B03R
276	15.0	0.129	0.107	1.205	-2.85	2.428	3.8	-36.3	36.5	276.0	45.7	21.9	-92.6	95.1	283.3	0.09	0.00	1.00	% B04R
277	14.3	0.129	0.102	1.264	-2.989	2.573	4.5	-36.6	36.8	277.0	44.7	26.1	-94.2	97.7	285.5	0.11	0.00	1.00	% B05R
278	13.5	0.13	0.097	1.336	-3.157	2.749	5.2	-36.8	37.2	278.0	43.5	30.9	-96.0	100.9	287.8	0.13	0.00	1.00	% B06R
279	12.7	0.131	0.092	1.413	-3.349	2.951	5.9	-37.1	37.6	279.1	42.3	36.0	-99.7	104.3	290.1	0.15	0.00	1.00	% B07R
280	11.9	0.132	0.087	1.513	-3.567	3.182	6.7	-37.3	37.9	280.2	41.1	41.3	-99.9	108.1	292.4	0.17	0.00	1.00	% B08R
281	11.1	0.133	0.082	1.619	-3.809	3.44	7.4	-37.6	38.3	281.2	39.8	46.7	-102.0	112.2	294.6	0.19	0.00	1.00	% B09R
282	10.3	0.134	0.077	1.734	-4.075	3.723	8.1	-37.8	38.7	282.1	38.5	52.1	-104.0	116.4	296.6	0.2	0.00	1.00	% B10R
283	9.6	0.135	0.072	1.858	-4.357	4.025	8.8	-38.0	39.0	283.0	37.3	57.5	-106.0	120.6	298.4	0.22	0.00	1.00	% B11R
284	8.7	0.136	0.066	2.068	-4.831	4.535	9.7	-38.2	39.4	284.2	35.4	65.5	-109.0	127.2	300.8	0.24	0.00	1.00	% B12R
285	7.9	0.137	0.061	2.251	-5.235	4.919	10.4	-38.3	39.7	285.0	33.9	71.7	-111.2	132.3	302.8	0.26	0.00	1.00	% B13R
286	6.7	0.131	0.052	2.488	-5.692	5.368	10.3	-38.6	40.0	284.9	31.1	76.8	-115.6	138.8	303.5	0.28	0.00	1.00	% B14R
287	5.6	0.128	0.045	2.848	-7.295	7.117	10.7	-38.8	40.2	285.8	28.5	84.7	-119.6	146.5	305.3	0.3	0.00	1.00	% B15R
288	6.3	0.144	0.05	2.887	-6.421	6.291	12.3	-38.2	40.2	287.9	30.4	89.6	-116.1	146.6	307.6	0.32	0.00	1.00	% B16R
289	6.7	0.15	0.052	2.866	-6.055	5.937	12.9	-38.1	40.2	288.8	31.3	90.6	-114.5	146.0	308.3	0.34	0.00	1.00	% B17R
290	7.1	0.157	0.055	2.846	-5.713	5.697	13.6	-37.9	40.2	289.7	32.2	91.7	-112.8	145.4	309.0	0.35	0.00	1.00	% B17R
291	7.6	0.163	0.057	2.826	-5.395	5.362	14.2	-37.6	40.3	290.7	33.1	92.7	-111.2	144.8	309.8	0.37	0.00	1.00	% B18R
292	8.0	0.169	0.06	2.887	-5.099	5.02	14.9	-37.4	40.3	291.7	34.0	93.8	-109.6	144.2	311.3	0.39	0.00	1.00	% B19R
293	8.6	0.175	0.063	2.788	-4.826	4.56	14.9	-37.2	40.3	292.7	34.4	95.0	-108.0	145.7	312.2	0.42	0.00	1.00	% B20R
294	8.9	0.182	0.065	2.77	-4.572	4.52	16.2	-37.0	40.4	293.7	35.9	95.8	-106.4	143.1	311.9	0.43	0.00	1.00	% B21R
295	9.4	0.188	0.068	2.753	-4.338	4.298	16.9	-36.7	40.5	294.7	36.8	96.7	-104.8	142.6	312.7	0.45	0.00	1.00	% B22R
296	9.9	0.194	0.071	2.736	-4.12	4.095	17.7	-36.5	40.6	295.8	37.7	97.7	-103.2	142.1	313.4	0.47	0.00	1.00	% B23R
297	10.4	0.201	0.073	2.72	-3.919	3.997	18.4	-36.3	40.7	296.9	38.6	98.7	-101.6	141.4	314.1	0.48	0.00	1.00	% B24R
298	10.9	0.207	0.076	2.704	-3.733	3.735	19.1	-36.0	40.8	298.0	39.9	99.6	-100.0	141.2	314.8	0.5	0.00	1.00	% B25R
299	11.4	0.213	0.079	2.689	-3.56	3.576	19.9	-35.8	40.9	299.0	40.3	100.6	-98.5	140.8	315.6	0.52	0.00	1.00	% B26R
300	11.9	0.219	0.082	2.675	-3.4	3.429	20.6	-35.5	41.1	300.1	41.2	101.5	-96.9	140.4	316.3	0.54	0.00	1.00	% B27R
301	12.5	0.225	0.084	2.661	-3.251	3.294	21.4	-35.2	41.2	301.2	42.0	102.4	-95.4	140.0	316.9	0.56	0.00	1.00	% B28R
302	13.0	0.231	0.087	2.647	-3.113	3.17	22.1	-34.9	41.4	302.2	42.8	103.2	-94.0	139.0	317.5	0.58	0.00	1.00	% B29R
303	13.6	0.237	0.09	2.634	-2.985	3.055	22.9	-34.7	41.6	303.4	43.7	104.1	-92.9	139.3	318.3	0.6	0.00	1.00	% B30R
304	14.1	0.243	0.092	2.622	-2.865	2.949	23.7	-34.4	41.8	304.5	44.5	104.9	-91.1	138.9	319.0	0.62	0.00	1.00	% B31R
305	14.7	0.248	0.095	2.61	-2.754	2.851	24.4	-34.1	42.0	305.4	45.3	105.7	-89.7	138.6	319.6	0.63	0.00	1.00	% B31R
306	15.3	0.254	0.097	2.598	-2.65	2.761	25.2	-33.9	42.2	306.6	46.0	106.5	-88.3	138.3	320.3	0.65	0.00	1.00	% B32R
307	15.8	0.259	0.1	2.586	-2.554	2.677	25.9	-33.6	42.5	307.6	46.8	107.2	-86.9	138.0	320.9	0.67	0.00	1.00	% B33R
308	16.4	0.264	0.102	2.575	-2.464	2.599	26.7	-33.3	42.7	308.7	47.5	107.9	-85.6	137.8	321.5	0.69	0.00	1.00	% B34R
309	17.0	0.269	0.105	2.565	-2.379	2.527	27.4	-33.0	43.0	309.7	48.2	108.6	-84.3	137.5	322.1	0.71	0.00	1.00	% B35R
310	17.6	0.274	0.107	2.554	-2.294	2.474	28.1	-32.8	43.2	310.7	49.0	109.3	-83.0	137.2	322.8	0.73	0.00	1.00	% B36R
311	18.1	0.279	0.109	2.544	-2.227	2.398	28.9	-32.5	43.5	311.6	49.6	109.9	-81.8	137.0	323.3	0.75	0.00	1.00	% B37R
312	18.7	0.283	0.111	2.534	-2.158	2.34	29.6	-32.2	43.8	312.5	50.3	110.5	-80.6	136.8	323.9	0.77	0.00	1.00	% B38R
313	19.2	0.288	0.114	2.524	-2.093	2.286	30.3	-31.9	44.0	313.5	51.0	111.1	-79.4	136.6	324.4	0.78	0.00	1.00	% B39R
314	19.8	0.292	0.116	2.515	-2.033	2.236	31.0	-31.7	44.3	314.4	51.6	111.7	-78.2	136.4	324.9	0.8	0.00	1.00	% B40R
315	20.3	0.296	0.118	2.505	-1.976	2.189	31.7	-31.4	44.6	315.2	52.2	112.2	-77.1	136.2	325.4	0.82	0.00	1.00	% B41R
316	20.9	0.3	0.12	2.496	-1.923	2.145	32.3	-31.1	44.9	316.1	52.8	112.7	-76.0	136.0	325.9	0.84	0.00	1.00	% B42R
317	21.3	0.306	0.123	2.474	-1.841	2.073	33.2	-30.7	45.2	317.0	53.8	113.0	-74.3	135.2	326.6	0.86	0.00	1.00	% B43R
318	21.9	0.313	0.128	2.436	-1.736	1.974	34.3	-30.0	45.6	318.8	55.1	113.9	-71.8	135.0	327.5	0.88	0.00	1.00	% B44R
319	24.2	0.319	0.133	2.399	-1.646	1.888	35.1	-29.4	45.8	320.1	56.3	112.7	-69.5	132.5	328.3	0.9	0.00	1.00	% B45R
320	25.3	0.324	0.137	2.363	-1.57	1.812	35.8	-28.7	45.9	321.2	57.4	112.3	-67.5	131.0	328.9	0.91	0.00	1.00	% B46R
321	26.4	0.328	0.141	2.328	-1.504	1.744	36.4	-28.0	46.0	322.2	58.4	111.6	-65.6	129.5	329.5	0.93	0.00	1.00	% B47R
322	27.3	0.332	0.144	2.295	-1.446	1.682	36.8	-27.6	46.0	323.0	59.3	110.9	-63.8	127.9	330.0	0.95	0.00	1.00	% B47R
323	28.2	0.335	0.148	2.263	-1.395	1.626	37.1	-27.1	45.9	323.8	60.1	110.0	-62.2	126.4	330.5	0.97	0.00	1.00	% B48R
324	29.1	0.337	0.151	2.232	-1.35	1.575	37.3	-26.6	45.8	324.4	60.8	109.1	-60.7	124.8	330.9	1.00	0.0	1.0	% B49R
325	29.8	0.34	0.154	2.203	-1.31	1.528	37.4	-26.1	45.6	325.0	61.5	108.1	-59.3	123.3	331.2	1.00	0.00	0.98	% B50R
326	31.1	0.344	0.159	2.165	-1.248	1.462	38.0	-25.3	45.5	326.2	62.6	107.0	-57.5	121.6	331.7	1.00	0.00	0.96	% B51R
327	32.3	0.348	0.163	2.129	-1.192	1.4	38.1	-24.4	45.2	327.3	63.6	105.4	-54.7	119.1	332.6	1.00	0.00	0.94	% B52R
328	33.3	0.351	0.167	2.097	-1.144	1.348													