***Ostwald* optimal colours (o) of maximum (m) C_{AB} for E00, Y_W=100, Y_m=520_770, CIELAB data** %

i_1, λ_1		i_2, λ_2		L^*_{100}	a^*_{100}	b^*_{100}	C^*_{ab}	a'	b'	h_{ab}	i_d, λ_d		i_c, λ_c		Code	%
1	405	32	564	80.42	−71.93	−32.6	78.97	0.1811	−0.1001	204.3	16	484	38	592	Cm	%
6	435	33	565	80.69	−86.68	−17.31	88.4	0.1735	−0.0924	191.2	17	488	45	627		%
10	450	33	566	80.99	−110.3	13.71	111.15	0.1612	−0.0768	172.9	19	498	−1	498c		%
12	460	33	568	81.45	−119.36	34.48	124.25	0.1568	−0.0665	163.8	21	507	−1	507c		%
13	465	33	569	81.92	−121.61	45.97	130.01	0.1559	−0.0609	159.2	22	514	−1	514c		%
14	470	34	571	82.66	−120.77	57.74	133.86	0.1568	−0.0553	154.4	24	522	−1	522c		%
14	475	35	575	84.24	−115.44	60.46	130.32	0.1605	−0.0544	152.3	25	525	−1	525c	Gm	%
16	480	36	581	86.11	−105.73	83.03	134.43	0.1664	−0.0442	141.8	27	538	−1	538c		%
17	485	39	595	90.19	−81.64	98.55	127.97	0.18	−0.0386	129.6	29	549	−1	549c		%
18	490	−1	490c	97.85	−20.19	119.57	121.26	0.21	−0.0327	99.5	33	568	11	459	max	%
19	495	−1	495c	97.3	−17.91	125.92	127.19	0.211	−0.0297	98.0	33	568	12	461		%
19	500	−1	499c	97.3	−17.91	125.92	127.19	0.211	−0.0297	98.0	33	568	12	461		%
22	510	−1	510c	94.63	−6.64	140.85	141.01	0.216	−0.0218	92.7	34	571	13	469		%
24	520	−1	520c	91.75	4.59	146.03	146.1	0.2212	−0.0178	88.1	34	574	14	473	Ym	%
26	530	−1	530c	88.02	17.68	145.85	146.92	0.2277	−0.0145	83.0	35	577	15	477		%
28	540	−1	540c	83.56	31.64	141.2	144.7	0.2352	−0.0119	77.3	36	581	15	479		%
29	545	−1	545c	81.07	38.69	137.72	143.05	0.2393	−0.0109	74.3	36	583	16	480		%
29	550	−1	549c	81.07	38.69	137.72	143.05	0.2393	−0.0109	74.3	36	583	16	480		%
30	555	−1	554c	78.42	45.65	133.68	141.26	0.2436	−0.0102	71.1	37	585	16	482		%
32	560	−1	560c	72.66	58.88	124.34	137.58	0.2528	−0.0092	64.6	38	590	16	483		%
	380		770	100.0	0.0	0.0	0.0	0.2191	−0.0837	0.0						%

***Ostwald* optimal colours (o) of maximum (m) C_{AB} for E00, Y_W=100, Y_m=770_520, CIELAB complementary** %

i_1, λ_1		i_2, λ_2		L^*_{100}	a^*_{100}	b^*_{100}	C^*_{ab}	a'	b'	h_{ab}	i_d, λ_d		i_c, λ_c		Code	%
32	564	1	405	71.27	62.52	98.78	116.91	0.2555	−0.0287	57.6	38	592	16	484	Rm	%
33	565	6	435	70.93	71.83	28.95	77.45	0.2611	−0.0675	21.9	45	627	17	488		%
33	566	10	450	70.56	84.55	−14.4	85.77	0.2687	−0.0918	350.3	−1	498c	19	498		%
33	568	12	460	69.98	90.17	−29.54	94.89	0.2724	−0.1004	341.8	−1	507c	21	507		%
33	569	13	465	69.37	92.89	−35.98	99.61	0.2744	−0.1042	338.8	−1	514c	22	514		%
34	571	14	470	68.37	95.44	−41.93	104.24	0.2766	−0.1079	336.2	−1	522c	24	522		%
35	575	14	475	66.11	99.55	−45.82	109.59	0.2807	−0.1108	335.2	−1	525c	25	525	Mm	%
36	581	16	480	63.17	102.89	−56.56	117.41	0.2851	−0.1184	331.2	−1	538c	27	538		%
39	595	17	485	55.38	108.0	−71.77	129.67	0.296	−0.1326	326.3	−1	549c	29	549		%
−1	490c	18	490	28.02	85.37	−120.26	147.48	0.3177	−0.2165	305.3	11	459	33	568	min	%
−1	495c	19	495	31.41	71.03	−115.43	135.53	0.2953	−0.2021	301.6	12	461	33	568		%
−1	499c	19	500	31.41	71.03	−115.43	135.53	0.2953	−0.2021	301.6	12	461	33	568		%
−1	510c	22	510	43.16	21.12	−96.96	99.24	0.2372	−0.1634	282.2	13	469	34	571		%
−1	520c	24	520	51.68	−12.26	−82.78	83.68	0.2098	−0.1431	261.5	14	473	34	574	Bm	%
−1	530c	26	530	59.79	−39.13	−69.07	79.38	0.1928	−0.128	240.4	15	477	35	577		%
−1	540c	28	540	67.12	−57.58	−56.56	80.72	0.1838	−0.1168	224.4	15	479	36	581		%
−1	545c	29	545	70.46	−63.67	−50.83	81.48	0.1816	−0.1123	218.6	16	480	36	583		%
−1	549c	29	550	70.46	−63.67	−50.83	81.48	0.1816	−0.1123	218.6	16	480	36	583		%
−1	554c	30	555	73.6	−67.81	−45.45	81.64	0.1806	−0.1084	213.8	16	482	37	585		%
−1	560c	32	560	79.25	−70.77	−35.73	79.28	0.1813	−0.1019	206.7	16	483	38	590		%
	380		770	100.0	0.0	0.0	0.0	0.2191	−0.0837	0.0						%

1−000400−L0 VE490−7N

***Ostwald* optimal colours (o) of maximum (m) C_{AB} for E00, $Y_{W,10}$=100, Y_m=520_770, CIELAB data** %

i_1, λ_1		i_2, λ_2		L^*_{100}	a^*_{100}	b^*_{100}	C^*_{ab}	a'	b'	h_{ab}	i_d, λ_d		i_c, λ_c		Code	%
1	405	31	559	79.43	−69.97	−33.95	77.77	0.1818	−0.101	205.8	15	477	37	589	Cm	%
7	435	32	561	79.66	−92.09	−9.07	92.53	0.1701	−0.0883	185.6	16	484	−1	484c		%
10	450	32	562	79.85	−108.58	17.48	109.98	0.1615	−0.0748	170.8	18	493	−1	493c		%
12	460	33	565	80.46	−114.73	39.56	121.36	0.1586	−0.0638	160.9	21	506	−1	506c		%
13	465	33	568	81.27	−113.49	52.13	124.89	0.1597	−0.0577	155.3	23	515	−1	515c		%
13	470	34	572	83.3	−106.48	55.62	120.14	0.1645	−0.0565	152.4	24	520	−1	520c		%
14	475	36	581	86.11	−93.97	71.54	118.1	0.1723	−0.0497	142.7	26	532	−1	532c	Gm	%
16	480	40	604	91.81	−55.72	101.41	115.71	0.1928	−0.038	118.7	30	551	−1	551c		%
17	485	−1	485c	96.74	−15.85	118.68	119.73	0.2119	−0.0326	97.6	32	564	11	456		%
18	490	−1	490c	96.1	−13.14	125.53	126.21	0.2131	−0.0293	95.9	32	564	11	458	max	%
19	495	−1	495c	95.33	−9.88	131.44	131.81	0.2145	−0.0263	94.3	33	565	12	460		%
20	500	−1	500c	94.43	−6.08	136.47	136.6	0.2162	−0.0236	92.5	33	566	12	462		%
22	510	−1	510c	92.16	3.03	143.93	143.96	0.2205	−0.019	88.7	33	569	13	466		%
23	520	−1	519c	90.77	8.29	146.41	146.64	0.223	−0.0169	86.7	34	570	13	468	Ym	%
25	530	−1	529c	87.45	19.7	146.61	147.93	0.2287	−0.013	82.3	34	573	14	470		%
27	540	−1	539c	83.46	31.82	142.58	146.09	0.2353	−0.0092	77.4	35	577	14	473		%
29	545	−1	545c	78.83	44.02	135.72	142.68	0.2426	−0.0052	72.0	36	582	15	475		%
29	550	−1	549c	78.83	44.02	135.72	142.68	0.2426	−0.0052	72.0	36	582	15	475		%
31	555	−1	555c	73.61	55.53	126.92	138.53	0.2505	0.0	66.3	37	587	15	476		%
32	560	3	415	70.87	63.43	69.32	93.97	0.2562	−0.0449	47.5	39	595	15	478		%
	380		770	100.0	0.0	0.0	0.0	0.219	−0.0837	0.0						%

***Ostwald* optimal colours (o) of maximum (m) C_{AB} for E00, $Y_{W,10}$=100, Y_m=770_520, CIELAB complementary** %

i_1, λ_1		i_2, λ_2		L^*_{100}	a^*_{100}	b^*_{100}	C^*_{ab}	a'	b'	h_{ab}	i_d, λ_d		i_c, λ_c		Code	%
31	559	1	405	72.45	58.84	95.98	112.58	0.2529	−0.0309	58.4	37	589	15	477	Rm	%
32	561	7	435	72.18	71.63	12.24	72.67	0.2603	−0.077	9.6	−1	484c	16	484		%
32	562	10	450	71.95	79.98	−16.73	81.72	0.2653	−0.093	348.1	−1	493c	18	493		%
33	565	12	460	71.21	84.68	−30.98	90.17	0.2684	−0.101	339.9	−1	506c	21	506		%
33	568	13	465	70.2	86.97	−37.58	94.74	0.2703	−0.1049	336.6	−1	515c	23	515		%
34	572	13	470	67.48	91.21	−42.27	100.53	0.2746	−0.1083	335.1	−1	520c	24	520		%
36	581	14	475	63.17	95.86	−53.49	109.78	0.2806	−0.1165	330.8	−1	532c	26	532	Mm	%
40	604	16	480	51.52	92.9	−78.43	121.58	0.289	−0.1402	319.8	−1	551c	30	551		%
−1	485c	17	485	34.38	59.2	−109.46	124.44	0.2788	−0.1893	298.4	11	456	32	564		%
−1	490c	18	490	37.42	46.35	−105.27	115.03	0.2632	−0.1795	293.7	11	458	32	564	min	%
−1	495c	19	495	40.57	32.86	−100.6	105.83	0.2486	−0.1701	288.0	12	460	33	565		%
−1	500c	20	500	43.84	19.01	−95.52	97.39	0.2352	−0.1613	281.2	12	462	33	566		%
−1	510c	22	510	50.61	−8.3	−84.51	84.92	0.2127	−0.1454	264.3	13	466	33	569		%
−1	519c	23	520	54.06	−21.03	−78.76	81.52	0.2038	−0.1383	255.0	13	468	34	570	Bm	%
−1	529c	25	530	60.84	−42.55	−67.32	79.65	0.1909	−0.1263	237.7	14	470	34	573		%
−1	539c	27	540	67.25	−57.63	−56.4	80.64	0.1838	−0.1166	224.3	14	473	35	577		%
−1	545c	29	545	73.13	−66.12	−46.31	80.73	0.1813	−0.109	215.0	15	475	36	582		%
−1	549c	29	550	73.13	−66.12	−46.31	80.73	0.1813	−0.109	215.0	15	475	36	582		%
−1	555c	31	555	78.41	−68.43	−37.22	77.9	0.1822	−0.1029	208.5	15	476	37	587		%
3	415	32	560	80.74	−72.04	−28.77	77.57	0.1812	−0.0982	201.7	15	478	39	595		%
	380		770	100.0	0.0	0.0	0.0	0.219	−0.0837	0.0						%

1−001400−L0 VE491−7N

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 2 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 27.9, 91.3, 162.9, 267.6 of *CIELAB*, and 90 intended hue angles:

000, 001, ..., 089, CIELAB data of CIE test colours 9 (R): 41.9 59.0 31.3, 10 (Y): 81.8 −1.7 73.1, 11 (G): 51.5 −41.4 12.6, 12 (B): 29.4 −1.9 −46.6

$no._{ab}$	Y	x	y	a	b	c_{AB}	A	B	C_{AB}	h_{AB}	L^*	a^*	b^*	C^*_{ab}	h_{ab}	$rgb^*_{e,ab}$			$Code_{ab}$
000	41.7	0.463	0.257	1.8	−0.433	0.801	33.4	−1.3	33.4	357.6	70.6	80.9	−4.0	81.0	357.1	1.00	0.00	0.6	% B69R #
001	41.7	0.465	0.259	1.795	−0.423	0.796	33.2	−0.9	33.2	358.3	70.7	80.5	−2.8	80.5	357.9	1.00	0.00	0.58	% B70R #
002	41.7	0.468	0.261	1.79	−0.412	0.791	33.0	−0.5	33.0	359.0	70.7	80.1	−1.5	80.1	358.8	1.00	0.00	0.56	% B71R #
003	41.7	0.47	0.263	1.785	−0.402	0.785	32.8	−0.1	32.8	359.8	70.7	79.7	−0.3	79.7	359.7	1.00	0.00	0.54	% B72R #
004	41.8	0.473	0.265	1.78	−0.392	0.781	32.6	0.3	32.6	0.5	70.7	79.3	0.9	79.3	0.7	1.00	0.00	0.51	% B74R #
005	41.8	0.476	0.268	1.775	−0.381	0.776	32.4	0.7	32.4	1.3	70.7	78.9	2.3	78.9	1.6	1.00	0.00	0.49	% B75R #
006	41.8	0.478	0.27	1.77	−0.371	0.771	32.2	1.1	32.2	2.1	70.7	78.4	3.6	78.5	2.6	1.00	0.00	0.47	% B76R #
007	41.8	0.481	0.272	1.765	−0.36	0.767	32.0	1.6	32.1	2.9	70.7	78.0	5.0	78.2	3.6	1.00	0.00	0.45	% B77R #
008	41.8	0.484	0.274	1.76	−0.35	0.762	31.8	2.0	31.9	3.7	70.7	77.6	6.4	77.9	4.7	1.00	0.00	0.43	% B78R #
009	41.8	0.486	0.277	1.755	−0.339	0.758	31.6	2.5	31.7	4.5	70.7	77.2	7.8	77.6	5.8	1.00	0.00	0.41	% B79R #
010	41.9	0.489	0.279	1.75	−0.329	0.754	31.4	2.9	31.6	5.3	70.8	76.8	9.3	77.3	6.9	1.00	0.00	0.38	% B80R #
011	41.9	0.492	0.282	1.745	−0.319	0.75	31.2	3.3	31.4	6.1	70.8	76.3	10.8	77.1	8.0	1.00	0.00	0.36	% B81R #
012	41.9	0.495	0.284	1.74	−0.308	0.746	31.0	3.8	31.3	7.0	70.8	75.9	12.3	76.9	9.2	1.00	0.00	0.34	% B82R #
013	41.9	0.498	0.287	1.735	−0.298	0.742	30.8	4.2	31.1	7.8	70.8	75.5	13.9	76.8	10.4	1.00	0.00	0.32	% B83R #
014	41.9	0.501	0.289	1.73	−0.288	0.739	30.6	4.6	31.0	8.6	70.8	75.1	15.4	76.7	11.6	1.00	0.00	0.3	% B84R #
015	41.9	0.504	0.292	1.726	−0.278	0.736	30.4	5.1	30.9	9.5	70.8	74.7	17.0	76.6	12.8	1.00	0.00	0.28	% B85R #
016	42.0	0.507	0.294	1.721	−0.268	0.733	30.2	5.5	30.7	10.3	70.8	74.2	18.7	76.6	14.1	1.00	0.00	0.25	% B87R #
017	42.0	0.51	0.297	1.716	−0.257	0.73	30.0	5.9	30.6	11.2	70.8	73.8	20.3	76.6	15.4	1.00	0.00	0.23	% B88R #
018	42.0	0.513	0.3	1.711	−0.248	0.727	29.8	6.3	30.5	12.0	70.8	73.4	22.0	76.6	16.7	1.00	0.00	0.21	% B89R #
019	42.0	0.516	0.302	1.706	−0.238	0.724	29.7	6.7	30.4	12.8	70.9	73.0	23.7	76.8	18.0	1.00	0.00	0.19	% B90R #
020	42.0	0.519	0.305	1.701	−0.228	0.722	29.5	7.2	30.3	13.7	70.9	72.6	25.4	76.9	19.3	1.00	0.00	0.17	% B91R #
021	42.0	0.523	0.308	1.696	−0.219	0.72	29.3	7.6	30.2	14.5	70.9	72.2	27.2	77.1	20.6	1.00	0.00	0.15	% B92R #
022	42.0	0.526	0.31	1.692	−0.209	0.718	29.1	8.0	30.2	15.3	70.9	71.8	29.0	77.4	22.0	1.00	0.00	0.12	% B93R #
023	42.1	0.529	0.313	1.688	−0.199	0.717	28.9	8.4	30.1	16.2	70.9	71.5	30.9	77.9	23.4	1.00	0.00	0.1	% B94R #
024	42.1	0.533	0.316	1.685	−0.19	0.716	28.8	8.8	30.1	17.0	70.9	71.1	32.9	78.4	24.8	1.00	0.00	0.08	% B95R #
025	42.1	0.536	0.319	1.681	−0.18	0.715	28.6	9.2	30.1	17.8	70.9	70.8	34.8	78.9	26.2	1.00	0.00	0.06	% B96R #
026	42.1	0.54	0.321	1.677	−0.171	0.715	28.5	9.6	30.1	18.6	70.9	70.5	36.8	79.6	27.5	1.00	0.00	0.04	% B97R #
027	42.1	0.543	0.324	1.674	−0.162	0.715	28.4	9.9	30.1	19.3	70.9	70.2	38.8	80.2	28.9	1.00	0.00	0.02	% B98R #
028	42.1	0.546	0.327	1.67	−0.154	0.714	28.2	10.3	30.1	20.1	70.9	69.9	40.8	81.0	30.2	1.00	0.0	0.00	% R00Y #
029	42.1	0.55	0.329	1.667	−0.145	0.714	28.1	10.7	30.1	20.8	70.9	69.6	42.8	81.7	31.6	1.00	0.01	0.00	% R01Y #
030	42.1	0.553	0.332	1.664	−0.137	0.714	27.9	11.0	30.0	21.5	70.9	69.3	44.9	82.6	32.9	1.00	0.03	0.00	% R03Y #
031	42.1	0.556	0.335	1.66	−0.129	0.713	27.8	11.3	30.0	22.2	70.9	69.0	46.9	83.5	34.1	1.00	0.04	0.00	% R04Y #
032	42.1	0.559	0.337	1.657	−0.122	0.713	27.7	11.7	30.0	22.9	70.9	68.7	48.9	84.4	35.4	1.00	0.06	0.00	% R06Y #
033	42.1	0.562	0.339	1.654	−0.114	0.713	27.5	12.0	30.0	23.5	70.9	68.4	51.0	85.4	36.6	1.00	0.07	0.00	% R07Y #
034	42.1	0.565	0.342	1.65	−0.107	0.713	27.4	12.3	30.0	24.1	70.9	68.2	53.0	86.4	37.8	1.00	0.09	0.00	% R09Y #
035	42.1	0.568	0.344	1.647	−0.101	0.713	27.3	12.6	30.0	24.7	71.0	67.9	55.1	87.4	39.0	1.00	0.11	0.00	% R11Y #
036	42.2	0.57	0.347	1.644	−0.094	0.713	27.2	12.8	30.0	25.3	71.0	67.6	57.1	88.5	40.2	1.00	0.12	0.00	% R12Y #
037	42.2	0.573	0.349	1.641	−0.088	0.713	27.0	13.1	30.0	25.8	71.0	67.3	59.2	89.7	41.3	1.00	0.14	0.00	% R14Y #
038	42.2	0.575	0.351	1.638	−0.082	0.712	26.9	13.3	30.0	26.4	71.0	67.0	61.2	90.8	42.4	1.00	0.15	0.00	% R15Y #
039	42.2	0.578	0.353	1.635	−0.077	0.712	26.8	13.6	30.0	26.9	71.0	66.8	63.3	92.0	43.4	1.00	0.17	0.00	% R17Y #
040	42.2	0.58	0.355	1.632	−0.071	0.712	26.7	13.8	30.0	27.4	71.0	66.5	65.3	93.2	44.4	1.00	0.18	0.00	% R18Y #
041	42.2	0.582	0.357	1.629	−0.066	0.712	26.5	14.0	30.0	27.8	71.0	66.3	67.4	94.5	45.4	1.00	0.2	0.00	% R20Y #
042	42.2	0.584	0.359	1.626	−0.062	0.711	26.4	14.2	30.0	28.3	71.0	66.0	69.4	95.8	46.4	1.00	0.22	0.00	% R22Y #
043	42.2	0.586	0.361	1.623	−0.057	0.711	26.3	14.4	30.0	28.7	71.0	65.7	71.4	97.1	47.3	1.00	0.23	0.00	% R23Y #
044	42.2	0.588	0.363	1.62	−0.053	0.711	26.2	14.6	30.0	29.1	71.0	65.5	73.4	98.4	48.2	1.00	0.25	0.00	% R25Y #
045	42.3	0.59	0.364	1.617	−0.049	0.71	26.1	14.8	30.0	29.5	71.0	65.2	75.4	99.7	49.1	1.00	0.26	0.00	% R26Y #
046	42.3	0.591	0.366	1.615	−0.045	0.71	26.0	15.0	30.0	29.9	71.0	65.0	77.4	101.1	49.9	1.00	0.28	0.00	% R28Y #
047	42.3	0.593	0.368	1.612	−0.041	0.709	25.9	15.1	30.0	30.3	71.1	64.8	79.3	102.4	50.7	1.00	0.3	0.00	% R30Y #
048	42.3	0.594	0.369	1.609	−0.038	0.708	25.8	15.3	30.0	30.6	71.1	64.5	81.2	103.8	51.5	1.00	0.31	0.00	% R31Y #
049	42.3	0.596	0.37	1.607	−0.035	0.708	25.7	15.4	30.0	30.9	71.1	64.3	83.2	105.1	52.2	1.00	0.33	0.00	% R33Y #
050	42.4	0.597	0.372	1.604	−0.032	0.707	25.6	15.5	29.9	31.2	71.1	64.1	85.1	106.5	53.0	1.00	0.34	0.00	% R34Y #
051	42.4	0.598	0.373	1.602	−0.029	0.706	25.5	15.7	29.9	31.5	71.1	63.9	86.9	107.9	53.6	1.00	0.36	0.00	% R36Y #
052	42.4	0.599	0.374	1.599	−0.027	0.705	25.4	15.8	29.9	31.8	71.1	63.6	88.8	109.3	54.3	1.00	0.37	0.00	% R37Y #
053	42.4	0.6	0.375	1.597	−0.025	0.705	25.3	15.9	29.9	32.1	71.1	63.4	90.6	110.6	55.0	1.00	0.39	0.00	% R39Y #
054	42.4	0.601	0.377	1.594	−0.022	0.704	25.2	16.0	29.9	32.3	71.2	63.2	92.4	112.0	55.6	1.00	0.41	0.00	% R41Y #
055	42.5	0.602	0.378	1.592	−0.02	0.703	25.1	16.1	29.8	32.6	71.2	63.0	94.2	113.3	56.2	1.00	0.42	0.00	% R42Y #
056	42.5	0.602	0.379	1.589	−0.018	0.702	25.0	16.2	29.8	32.8	71.2	62.8	95.9	114.7	56.7	1.00	0.44	0.00	% R44Y #
057	42.5	0.603	0.38	1.587	−0.017	0.701	25.0	16.2	29.8	33.0	71.2	62.6	97.6	116.0	57.3	1.00	0.45	0.00	% R45Y #
058	42.6	0.604	0.381	1.584	−0.014	0.699	24.8	16.4	29.8	33.4	71.2	62.3	100.7	118.5	58.2	1.00	0.47	0.00	% R47Y #
059	42.7	0.606	0.384	1.578	−0.01	0.697	24.6	16.6	29.7	33.9	71.3	61.8	106.2	122.9	59.7	1.00	0.48	0.00	% R48Y #
060	42.8	0.606	0.385	1.572	−0.007	0.694	24.5	16.8	29.7	34.4	71.4	61.4	110.8	126.7	61.0	1.00	0.5	0.00	% R50Y #
061	43.0	0.607	0.387	1.567	−0.005	0.691	24.4	17.0	29.7	34.8	71.5	61.0	114.7	129.9	62.0	1.00	0.52	0.00	% R52Y #
062	43.3	0.607	0.389	1.561	−0.003	0.687	24.3	17.1	29.7	35.2	71.7	60.5	118.0	132.6	62.8	1.00	0.53	0.00	% R53Y #
063	43.7	0.607	0.39	1.553	−0.002	0.681	24.2	17.4	29.8	35.7	72.0	60.0	120.7	134.8	63.5	1.00	0.55	0.00	% R55Y #
064	44.2	0.606	0.392	1.544	−0.001	0.675	24.0	17.6	29.8	36.2	72.3	59.3	123.0	136.6	64.2	1.00	0.56	0.00	% R56Y #
065	45.0	0.604	0.395	1.529	0.0	0.663	23.8	18.0	29.8	37.0	72.9	58.2	125.1	138.0	65.0	1.00	0.58	0.00	% R58Y #
066	46.3	0.6	0.399	1.504	0.0	0.643	23.3	18.5	29.8	38.4	73.7	56.4	127.2	139.1	66.0	1.00	0.59	0.00	% R59Y #
067	47.6	0.596	0.403	1.478	0.0	0.623	22.8	19.0	29.7	39.9	74.6	54.3	129.0	140.0	67.1	1.00	0.61	0.00	% R61Y #
068	49.1	0.592	0.407	1.452	0.0	0.603	22.2	19.6	29.6	41.4	75.5	52.2	130.4	140.5	68.1	1.00	0.63	0.00	% R63Y #
069	50.6	0.587	0.412	1.426	0.0	0.584	21.6	20.2	29.6	43.1	76.4	50.1	131.7	140.9	69.1	1.00	0.64	0.00	% R64Y #
070	52.2	0.583	0.416	1.401	0.0	0.566	20.9	20.8	29.6	44.8	77.4	47.9	132.7	141.1	70.1	1.00	0.66	0.00	% R66Y #
071	53.7	0.579	0.42	1.378	0.0	0.55	20.3	21.4	29.5	46.5	78.3	45.9	133.5	141.2	71.0	1.00	0.67	0.00	% R67Y #
072	55.6	0.573	0.425	1.348	0.0	0.53	19.4	22.2	29.5	48.8	79.4	43.1	135.2	141.9	72.3	1.00	0.69	0.00	% R69Y #
073	57.2	0.569	0.429	1.324	0.0	0.514	18.5	22.8	29.4	50.8	80.3	40.7	136.6	142.5	73.3	1.00	0.71	0.00	% R71Y #
074	58.3	0.566	0.432	1.307	0.0	0.504	17.9	23.2	29.4	52.3	80.9	39.0	137.5	142.9	74.1	1.00	0.72	0.00	% R72Y #
075	59.2	0.563	0.435	1.294	0.0	0.495	17.4	23.6	29.3	53.5	81.4	37.7	138.2	143.3	74.7	1.00	0.74	0.00	% R74Y #
076	60.6	0.559	0.439	1.274	0.0	0.484	16.6	24.1	29.3	55.4	82.1	35.6	139.3	143.8	75.6	1.00	0.75	0.00	% R75Y #
077	62.4	0.554	0.444	1.248	−0.001	0.47	15.5	24.9	29.3	58.0	83.1	32.8	140.6	144.4	76.8	1.00	0.77	0.00	% R77Y #
078	64.0	0.55	0.448	1.226	−0.001	0.458	14.4	25.5	29.3	60.4	84.0	30.3	141.7	144.9	77.9	1.00	0.78	0.00	% R78Y #
079	65.5	0.545	0.452	1.206	−0.001	0.449	13.5	26.1	29.4	62.6	84.7	28.0	142.6	145.3	78.8	1.00	0.8	0.00	% R80Y #
080	67.0	0.541	0.456	1.186	−0.001	0.439	12.4	26.7	29.4	64.9	85.5	25.6	143.5	145.8	79.8	1.00	0.82	0.00	% R82Y #
081	68.6	0.537	0.46	1.165	−0.001	0.431	11.3	27.3	29.6	67.4	86.3	23.0	144.3	146.2	80.9	1.00	0.83	0.00	% R83Y #
082	70.3	0.532	0.465	1.144	−0.001	0.423	10.1	27.9	29.7	70.0	87.1	20.5	145.1	146.5	81.9	1.00	0.85	0.00	% R85Y #
083	71.9	0.528	0.469	1.124	−0.002	0.417	8.9	28.6	30.0	72.5	87.9	17.9	145.8	146.8	82.9	1.00	0.86	0.00	% R86Y #
084	73.6	0.523	0.473	1.104	−0.002	0.411	7.7	29.2	30.2	75.2	88.7	15.2	146.2	147.0	84.0	1.00	0.88	0.00	% R88Y #
085	75.2	0.518	0.477	1.085	−0.002	0.406	6.4	29.9	30.5	77.8	89.5	12.6	146.4	147.0	85.0	1.00	0.89	0.00	% R89Y #
086	76.8	0.514	0.481	1.067	−0.003	0.402	5.1	30.5	30.9	80.3	90.2	10.0	146.5	146.9	86.0	1.00	0.91	0.00	% R91Y #
087	78.3	0.51	0.485	1.049	−0.003	0.399	3.9	31.0	31.3	82.8	90.9	7.5	146.4	146.6	87.0	1.00	0.93	0.00	% R93Y #
088	79.8	0.505	0.489	1.033	−0.003	0.397	2.6	31.6	31.7	85.2	91.6	5.0	146.1	146.2	88.0	1.00	0.94	0.00	% R94Y #
089	81.4	0.501	0.493	1.016	−0.004	0.396	1.3	32.2	32.2	87.6	92.3	2.5	145.6	145.6	89.0	1.00	0.96	0.00	% R96Y #

CIEXYZ data of CIE test colours 9 (R): 23.5 12.4 4.0, 10 (Y): 59.2 60.0 10.9, 11 (G): 12.4 19.7 13.9, 12 (B): 5.8 6.0 24.4

1−000410−L0 VE490−7N

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 10 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 28.5, 87.1, 159.6, 249.7 of *CIELAB*, and 90 intended hue angles:

000, 001, ..., 089, CIELAB data of CIE test colours 9 (R): 41.2 54.3 29.5, 10 (Y): 80.2 3.6 72.6, 11 (G): 51.6 −38.8 14.4, 12 (B): 32.4 −14.8 −40.3

$no._{ab,10}$	Y_{10}	x_{10}	y_{10}	a_{10}	b_{10}	$c_{AB,10}$	A_{10}	B_{10}	$C_{AB,10}$	$h_{AB,10}$	L^*_{10}	a^*_{10}	b^*_{10}	$C^*_{ab,10}$	$h_{ab,10}$	$rgb^*_{e,ab,10}$			$Code_{ab,10}$
000	42.1	0.583	0.366	1.592	−0.055	0.685	24.9	14.5	28.8	30.1	70.9	62.8	72.3	95.8	49.0	1.00	0.00	0.51	% B74R #
001	42.1	0.582	0.366	1.592	−0.055	0.685	24.9	14.5	28.8	30.1	70.9	62.8	72.2	95.8	48.9	1.00	0.00	0.49	% B75R #
002	42.1	0.582	0.366	1.592	−0.055	0.685	24.9	14.5	28.8	30.1	70.9	62.9	72.1	95.7	48.9	1.00	0.00	0.48	% B75R #
003	42.1	0.582	0.365	1.592	−0.055	0.685	24.9	14.4	28.8	30.1	70.9	62.9	72.1	95.7	48.8	1.00	0.00	0.46	% B76R #
004	42.1	0.582	0.365	1.592	−0.056	0.685	24.9	14.4	28.8	30.1	70.9	62.9	72.0	95.6	48.8	1.00	0.00	0.44	% B77R #
005	42.1	0.582	0.365	1.593	−0.056	0.685	24.9	14.4	28.8	30.0	70.9	62.9	71.9	95.6	48.8	1.00	0.00	0.42	% B78R #
006	42.1	0.582	0.365	1.593	−0.056	0.685	24.9	14.4	28.8	30.0	70.9	62.9	71.8	95.5	48.7	1.00	0.00	0.4	% B79R #
007	42.1	0.582	0.365	1.593	−0.056	0.685	24.9	14.4	28.8	30.0	70.9	62.9	71.8	95.5	48.7	1.00	0.00	0.39	% B80R #
008	42.1	0.582	0.365	1.593	−0.056	0.685	25.0	14.4	28.8	30.0	70.9	62.9	71.7	95.4	48.7	1.00	0.00	0.37	% B81R #
009	42.1	0.582	0.365	1.593	−0.056	0.685	25.0	14.4	28.8	30.0	70.9	63.0	71.6	95.4	48.6	1.00	0.00	0.35	% B82R #
010	43.9	0.486	0.29	1.677	−0.307	0.683	29.7	4.0	30.0	7.7	72.1	71.5	12.7	72.6	10.1	1.00	0.00	0.33	% B83R #
011	43.9	0.49	0.292	1.674	−0.296	0.682	29.6	4.5	29.9	8.7	72.1	71.2	14.4	72.7	11.5	1.00	0.00	0.31	% B84R #
012	43.9	0.493	0.295	1.67	−0.284	0.68	29.4	5.0	29.9	9.7	72.2	70.9	16.2	72.7	12.9	1.00	0.00	0.29	% B85R #
013	43.9	0.497	0.298	1.667	−0.273	0.679	29.3	5.5	29.8	10.6	72.2	70.6	18.0	72.9	14.3	1.00	0.00	0.28	% B85R #
014	44.0	0.5	0.301	1.663	−0.263	0.678	29.2	6.0	29.8	11.6	72.2	70.3	19.8	73.1	15.7	1.00	0.00	0.26	% B86R #
015	44.0	0.504	0.303	1.66	−0.252	0.676	29.0	6.4	29.7	12.5	72.2	70.0	21.6	73.3	17.1	1.00	0.00	0.24	% B87R #
016	44.0	0.507	0.306	1.657	−0.241	0.676	28.9	6.9	29.7	13.5	72.2	69.7	23.4	73.6	18.5	1.00	0.00	0.22	% B88R #
017	44.0	0.511	0.309	1.653	−0.231	0.675	28.8	7.4	29.7	14.4	72.2	69.4	25.3	73.9	20.0	1.00	0.00	0.2	% B89R #
018	44.0	0.514	0.312	1.65	−0.221	0.674	28.6	7.8	29.7	15.3	72.2	69.1	27.1	74.3	21.4	1.00	0.00	0.19	% B90R #
019	44.0	0.518	0.314	1.646	−0.211	0.673	28.5	8.2	29.7	16.2	72.2	68.8	29.0	74.7	22.8	1.00	0.00	0.17	% B91R #
020	44.1	0.521	0.317	1.643	−0.202	0.673	28.3	8.7	29.6	17.0	72.2	68.5	30.9	75.2	24.2	1.00	0.00	0.15	% B92R #
021	44.1	0.525	0.32	1.64	−0.193	0.672	28.2	9.1	29.6	17.9	72.3	68.2	32.8	75.7	25.6	1.00	0.00	0.13	% B93R #
022	44.1	0.528	0.322	1.636	−0.184	0.672	28.1	9.5	29.6	18.7	72.3	67.9	34.6	76.3	27.0	1.00	0.00	0.11	% B94R #
023	44.1	0.531	0.325	1.633	−0.175	0.672	27.9	9.9	29.6	19.5	72.3	67.6	36.5	76.9	28.4	1.00	0.00	0.1	% B94R #
024	44.1	0.534	0.328	1.63	−0.166	0.671	27.8	10.2	29.6	20.2	72.3	67.3	38.4	77.5	29.7	1.00	0.00	0.08	% B95R #
025	44.1	0.538	0.33	1.626	−0.158	0.671	27.6	10.6	29.6	21.0	72.3	67.0	40.3	78.2	31.0	1.00	0.00	0.06	% B96R #
026	44.1	0.541	0.333	1.623	−0.15	0.671	27.5	11.0	29.6	21.7	72.3	66.7	42.2	79.0	32.3	1.00	0.00	0.04	% B97R #
027	44.2	0.544	0.335	1.62	−0.143	0.671	27.4	11.3	29.6	22.5	72.3	66.4	44.2	79.8	33.6	1.00	0.00	0.02	% B98R #
028	44.2	0.546	0.338	1.616	−0.135	0.671	27.2	11.6	29.6	23.1	72.3	66.1	46.1	80.6	34.8	1.00	0.00	0.0	% B99R #
029	44.2	0.549	0.34	1.613	−0.128	0.671	27.1	12.0	29.6	23.8	72.3	65.8	48.0	81.5	36.0	1.00	0.0	0.00	% R00Y #
030	44.2	0.552	0.343	1.61	−0.121	0.67	27.0	12.3	29.6	24.5	72.3	65.5	49.9	82.4	37.2	1.00	0.02	0.00	% R02Y #
031	44.2	0.555	0.345	1.607	−0.115	0.67	26.8	12.6	29.6	25.1	72.4	65.3	51.7	83.3	38.4	1.00	0.04	0.00	% R04Y #
032	44.2	0.557	0.347	1.604	−0.108	0.67	26.7	12.8	29.6	25.7	72.4	65.0	53.6	84.3	39.5	1.00	0.05	0.00	% R05Y #
033	44.2	0.56	0.349	1.6	−0.102	0.67	26.6	13.1	29.6	26.3	72.4	64.7	55.5	85.3	40.6	1.00	0.07	0.00	% R07Y #
034	44.2	0.562	0.352	1.597	−0.096	0.67	26.4	13.4	29.6	26.8	72.4	64.4	57.4	86.3	41.6	1.00	0.09	0.00	% R09Y #
035	44.3	0.564	0.354	1.594	−0.091	0.67	26.3	13.6	29.6	27.4	72.4	64.1	59.2	87.3	42.7	1.00	0.11	0.00	% R11Y #
036	44.3	0.567	0.356	1.591	−0.086	0.669	26.2	13.9	29.6	27.9	72.4	63.8	61.1	88.4	43.7	1.00	0.12	0.00	% R12Y #
037	44.3	0.569	0.358	1.588	−0.081	0.669	26.1	14.1	29.6	28.4	72.4	63.6	62.9	89.4	44.6	1.00	0.14	0.00	% R14Y #
038	44.3	0.571	0.36	1.585	−0.076	0.669	25.9	14.3	29.6	28.9	72.4	63.3	64.7	90.5	45.6	1.00	0.16	0.00	% R16Y #
039	44.3	0.573	0.362	1.582	−0.071	0.669	25.8	14.5	29.6	29.3	72.4	63.0	66.5	91.6	46.5	1.00	0.17	0.00	% R17Y #
040	44.3	0.574	0.363	1.58	−0.067	0.668	25.7	14.7	29.6	29.8	72.4	62.8	68.3	92.8	47.3	1.00	0.19	0.00	% R19Y #
041	44.3	0.576	0.365	1.577	−0.063	0.668	25.6	14.9	29.6	30.2	72.4	62.5	70.0	93.9	48.2	1.00	0.21	0.00	% R21Y #
042	44.3	0.578	0.367	1.574	−0.059	0.668	25.4	15.1	29.6	30.6	72.4	62.3	71.7	95.0	49.0	1.00	0.22	0.00	% R22Y #
043	44.3	0.579	0.368	1.571	−0.055	0.667	25.3	15.2	29.6	31.0	72.4	62.0	73.5	96.1	49.8	1.00	0.24	0.00	% R24Y #
044	44.3	0.581	0.37	1.569	−0.052	0.667	25.2	15.4	29.6	31.4	72.4	61.8	75.1	97.3	50.5	1.00	0.26	0.00	% R26Y #
045	44.3	0.582	0.371	1.566	−0.048	0.666	25.1	15.5	29.5	31.7	72.4	61.5	76.8	98.4	51.2	1.00	0.28	0.00	% R28Y #
046	44.3	0.583	0.373	1.564	−0.045	0.666	25.0	15.7	29.5	32.1	72.4	61.3	78.4	99.5	51.9	1.00	0.29	0.00	% R29Y #
047	44.3	0.585	0.374	1.561	−0.042	0.665	24.9	15.8	29.5	32.4	72.4	61.0	80.0	100.7	52.6	1.00	0.31	0.00	% R31Y #
048	42.0	0.581	0.363	1.597	−0.059	0.688	25.1	14.3	28.9	29.6	70.8	63.3	70.2	94.6	47.9	1.00	0.33	0.00	% R33Y #
049	42.1	0.583	0.365	1.595	−0.055	0.688	25.0	14.5	28.9	30.0	70.9	63.1	72.4	96.1	48.9	1.00	0.34	0.00	% R34Y #
050	42.2	0.585	0.367	1.592	−0.05	0.687	25.0	14.7	29.0	30.5	71.0	62.9	74.9	97.8	49.9	1.00	0.36	0.00	% R36Y #
051	42.3	0.587	0.37	1.588	−0.045	0.687	24.9	15.0	29.1	31.0	71.1	62.6	77.5	99.6	51.0	1.00	0.38	0.00	% R38Y #
052	42.4	0.59	0.372	1.584	−0.04	0.686	24.8	15.2	29.1	31.5	71.2	62.3	80.3	101.6	52.1	1.00	0.4	0.00	% R40Y #
053	42.6	0.591	0.374	1.58	−0.035	0.685	24.7	15.5	29.2	32.1	71.3	62.0	83.2	103.8	53.3	1.00	0.41	0.00	% R41Y #
054	42.8	0.593	0.376	1.575	−0.031	0.683	24.6	15.7	29.2	32.6	71.4	61.6	86.3	106.0	54.4	1.00	0.43	0.00	% R43Y #
055	42.9	0.595	0.379	1.57	−0.027	0.681	24.5	16.0	29.3	33.1	71.5	61.3	89.4	108.4	55.5	1.00	0.45	0.00	% R45Y #
056	43.1	0.596	0.381	1.565	−0.023	0.679	24.4	16.2	29.3	33.6	71.6	60.9	92.7	110.9	56.7	1.00	0.46	0.00	% R46Y #
057	43.4	0.597	0.383	1.559	−0.019	0.676	24.2	16.5	29.3	34.2	71.8	60.4	96.0	113.5	57.8	1.00	0.48	0.00	% R48Y #
058	43.6	0.598	0.385	1.553	−0.016	0.673	24.1	16.7	29.3	34.7	71.9	60.0	99.4	116.1	58.8	1.00	0.5	0.00	% R50Y #
059	43.8	0.599	0.387	1.547	−0.013	0.67	24.0	16.9	29.4	35.2	72.1	59.5	102.8	118.8	59.9	1.00	0.51	0.00	% R51Y #
060	44.1	0.599	0.389	1.541	−0.011	0.666	23.8	17.1	29.4	35.7	72.3	59.0	106.2	121.5	60.9	1.00	0.53	0.00	% R53Y #
061	44.4	0.6	0.391	1.534	−0.008	0.662	23.7	17.3	29.4	36.1	72.5	58.5	109.6	124.3	61.9	1.00	0.55	0.00	% R55Y #
062	44.6	0.6	0.392	1.527	−0.007	0.658	23.5	17.5	29.4	36.6	72.6	58.0	113.0	127.0	62.8	1.00	0.57	0.00	% R57Y #
063	44.9	0.6	0.394	1.52	−0.005	0.653	23.4	17.7	29.4	37.1	72.8	57.4	116.3	129.7	63.7	1.00	0.58	0.00	% R58Y #
064	45.3	0.599	0.396	1.513	−0.003	0.648	23.2	17.9	29.3	37.6	73.0	56.9	119.6	132.4	64.5	1.00	0.6	0.00	% R60Y #
065	45.6	0.599	0.398	1.506	−0.002	0.644	23.1	18.1	29.3	38.1	73.3	56.3	122.7	135.0	65.3	1.00	0.62	0.00	% R62Y #
066	45.9	0.599	0.399	1.498	0.0	0.639	22.9	18.3	29.3	38.6	73.5	55.7	125.8	137.6	66.1	1.00	0.63	0.00	% R63Y #
067	47.0	0.597	0.403	1.478	0.0	0.624	22.5	18.8	29.3	39.9	74.2	54.1	129.5	140.4	67.3	1.00	0.65	0.00	% R65Y #
068	48.6	0.592	0.408	1.45	0.001	0.603	21.9	19.5	29.3	41.6	75.2	51.9	132.7	142.4	68.6	1.00	0.67	0.00	% R67Y #
069	50.2	0.588	0.413	1.424	0.001	0.584	21.2	20.1	29.3	43.4	76.2	49.7	134.6	143.5	69.7	1.00	0.69	0.00	% R69Y #
070	51.8	0.584	0.417	1.399	0.001	0.566	20.6	20.7	29.3	45.1	77.1	47.6	135.6	143.7	70.6	1.00	0.7	0.00	% R70Y #
071	53.2	0.579	0.42	1.377	0.0	0.55	20.1	21.3	29.3	46.6	78.0	45.7	135.9	143.4	71.4	1.00	0.72	0.00	% R72Y #
072	54.6	0.576	0.423	1.359	0.0	0.537	19.6	21.8	29.3	48.0	78.8	44.0	135.7	142.7	72.0	1.00	0.74	0.00	% R74Y #
073	55.7	0.572	0.426	1.341	0.0	0.526	19.0	22.3	29.3	49.4	79.4	42.3	136.7	143.1	72.7	1.00	0.75	0.00	% R75Y #
074	57.1	0.568	0.43	1.32	0.0	0.512	18.3	22.8	29.3	51.2	80.2	40.3	137.9	143.7	73.7	1.00	0.77	0.00	% R77Y #
075	58.7	0.564	0.435	1.297	0.0	0.498	17.4	23.4	29.2	53.3	81.1	38.0	139.2	144.3	74.7	1.00	0.79	0.00	% R79Y #
076	60.4	0.559	0.439	1.273	0.0	0.484	16.5	24.1	29.2	55.5	82.0	35.5	140.6	145.0	75.8	1.00	0.8	0.00	% R80Y #
077	62.2	0.555	0.444	1.249	0.0	0.471	15.5	24.8	29.3	58.0	83.0	32.9	142.0	145.7	76.9	1.00	0.82	0.00	% R82Y #
078	64.0	0.55	0.448	1.226	0.0	0.459	14.5	25.5	29.3	60.4	83.9	30.3	143.2	146.4	78.0	1.00	0.84	0.00	% R84Y #
079	65.6	0.546	0.453	1.205	0.0	0.449	13.4	26.2	29.4	62.8	84.8	27.8	144.2	146.9	79.0	1.00	0.86	0.00	% R86Y #
080	67.2	0.541	0.457	1.184	0.0	0.439	12.4	26.8	29.5	65.2	85.6	25.4	145.1	147.3	80.0	1.00	0.87	0.00	% R87Y #
081	68.8	0.537	0.461	1.164	−0.001	0.431	11.3	27.4	29.7	67.6	86.4	22.9	145.8	147.6	81.0	1.00	0.89	0.00	% R89Y #
082	70.4	0.532	0.465	1.144	−0.001	0.424	10.2	28.0	29.8	70.0	87.2	20.5	146.4	147.8	82.0	1.00	0.91	0.00	% R91Y #
083	72.1	0.528	0.469	1.124	−0.001	0.417	8.9	28.7	30.0	72.6	88.0	17.8	146.8	147.8	83.0	1.00	0.92	0.00	% R92Y #
084	73.8	0.523	0.474	1.103	−0.002	0.411	7.6	29.3	30.3	75.4	88.8	15.0	146.9	147.7	84.1	1.00	0.94	0.00	% R94Y #
085	75.4	0.518	0.478	1.083	−0.002	0.406	6.3	29.9	30.6	78.0	89.6	12.4	146.8	147.4	85.1	1.00	0.96	0.00	% R96Y #
086	76.9	0.514	0.482	1.066	−0.003	0.402	5.1	30.5	30.9	80.4	90.3	9.9	146.6	147.0	86.1	1.00	0.98	0.00	% R98Y #
087	78.4	0.509	0.485	1.049	−0.003	0.399	3.9	31.1	31.3	82.8	90.9	7.5	146.2	146.4	87.0	1.00	0.99	0.00	% R99Y #
088	79.9	0.505	0.489	1.032	−0.004	0.397	2.6	31.6	31.7	85.2	91.6	4.9	145.3	145.4	88.0	0.98	1.00	0.00	% Y01G #
089	81.3	0.5	0.492	1.016	−0.004	0.395	1.3	32.1	32.1	87.6	92.2	2.5	143.5	143.6	88.9	0.97	1.00	0.00	% Y02G #

CIEXYZ data of CIE test colours 9 (R): 21.8 11.9 4.1, 10 (Y): 58.6 57.1 10.1, 11 (G): 12.9 19.8 13.3, 12 (B): 5.8 7.2 23.7

1−001410−L0 VE491−7N

see similar files: http://130.149.60.45/~farbmetrik/VE49/VE49.HTM
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20130201-VE49/VE49L0NP.PDF /.PS
application for measurement of display output, no separation

TUB material: code=rha4ta

see similar files: http://130.149.60.45/~farbmetrik/VE49/VE49.HTM
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

rgb*e,ab* **and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00**

***Yxy, abc*$_{AB}$, *ABC*$_{AB}$, *LabC**$_{ab}$*h*$_{ab}$ data for relative spacing of elementary hue *h*$_{ab}$ of *CIELAB* for CIE 2 degree observer**

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 27.9, 91.3, 162.9, 267.6 of *CIELAB*, and 90 intended hue angles:

090, 091, ..., 179, CIELAB data of CIE test colours 9 (R): 41.9 59.0 31.3, 10 (Y): 81.8 −1.7 73.1, 11 (G): 51.5 −41.4 12.6, 12 (B): 29.4 −1.9 −46.6

$no._{ab}$	Y	x	y	a	b	c_{AB}	A	B	C_{AB}	h_{AB}	L^*	a^*	b^*	C^*_{ab}	h_{ab}	$rgb^*_{e,ab}$			$Code_{ab}$
090	82.9	0.496	0.497	0.999	−0.004	0.395	0.0	32.7	32.7	90.0	92.9	0.0	144.8	144.8	90.0	1.00	0.97	0.00	% R97Y #
091	84.3	0.492	0.5	0.984	−0.005	0.394	−1.3	33.2	33.3	92.2	93.6	−2.4	143.7	143.7	90.9	1.00	0.99	0.00	% R99Y #
092	85.7	0.488	0.503	0.969	−0.006	0.394	−2.6	33.7	33.8	94.4	94.2	−4.9	142.1	142.2	91.9	0.99	1.00	0.00	% Y00G #
093	87.1	0.483	0.506	0.954	−0.007	0.395	−3.9	34.2	34.4	96.6	94.8	−7.3	140.0	140.2	93.0	0.97	1.00	0.00	% Y02G #
094	88.5	0.478	0.509	0.94	−0.009	0.395	−5.3	34.5	34.9	98.7	95.3	−9.7	137.2	137.5	94.0	0.96	1.00	0.00	% Y03G #
095	89.8	0.474	0.511	0.926	−0.011	0.395	−6.5	34.9	35.5	100.6	95.9	−12.1	134.2	134.7	95.1	0.94	1.00	0.00	% Y05G #
096	91.0	0.469	0.513	0.914	−0.013	0.396	−7.8	35.2	36.0	102.4	96.4	−14.2	131.3	132.0	96.1	0.93	1.00	0.00	% Y06G #
097	92.1	0.465	0.514	0.903	−0.015	0.396	−8.8	35.4	36.5	104.0	96.8	−16.1	128.5	129.5	97.1	0.92	1.00	0.00	% Y07G #
098	93.1	0.461	0.515	0.894	−0.017	0.396	−9.8	35.5	36.9	105.4	97.2	−17.7	126.1	127.3	98.0	0.9	1.00	0.00	% Y09G #
099	95.2	0.463	0.509	0.909	−0.02	0.39	−8.6	36.1	37.1	103.4	98.1	−15.3	123.3	124.3	97.1	0.89	1.00	0.00	% Y10G #
100	94.3	0.452	0.516	0.877	−0.024	0.395	−11.5	35.4	37.3	108.0	97.7	−20.8	119.3	121.1	99.9	0.87	1.00	0.00	% Y12G #
101	93.8	0.45	0.518	0.868	−0.024	0.398	−12.3	35.2	37.3	109.3	97.5	−22.5	118.7	120.8	100.7	0.86	1.00	0.00	% Y13G #
102	93.3	0.447	0.52	0.858	−0.024	0.401	−13.2	35.0	37.4	110.6	97.3	−24.2	118.1	120.6	101.5	0.85	1.00	0.00	% Y14G #
103	92.8	0.443	0.523	0.848	−0.025	0.404	−14.0	34.8	37.5	112.0	97.1	−25.9	117.5	120.3	102.4	0.83	1.00	0.00	% Y16G #
104	92.3	0.44	0.525	0.838	−0.025	0.408	−14.9	34.5	37.6	113.3	96.9	−27.8	116.9	120.1	103.3	0.82	1.00	0.00	% Y17G #
105	91.7	0.437	0.528	0.827	−0.025	0.411	−15.8	34.3	37.8	114.7	96.7	−29.6	116.2	120.0	104.3	0.8	1.00	0.00	% Y19G #
106	91.2	0.433	0.531	0.816	−0.026	0.416	−16.7	34.0	37.9	116.1	96.5	−31.6	115.6	119.8	105.2	0.79	1.00	0.00	% Y20G #
107	90.6	0.43	0.533	0.805	−0.026	0.42	−17.5	33.8	38.1	117.4	96.2	−33.5	114.9	119.7	106.2	0.78	1.00	0.00	% Y21G #
108	90.0	0.426	0.536	0.794	−0.027	0.425	−18.4	33.5	38.3	118.8	96.0	−35.5	114.2	119.7	107.2	0.76	1.00	0.00	% Y23G #
109	89.4	0.422	0.539	0.783	−0.027	0.43	−19.3	33.3	38.5	120.1	95.7	−37.6	113.6	119.6	108.3	0.75	1.00	0.00	% Y24G #
110	88.8	0.419	0.542	0.772	−0.028	0.436	−20.2	33.0	38.7	121.4	95.5	−39.6	112.9	119.6	109.3	0.74	1.00	0.00	% Y25G #
111	88.2	0.415	0.545	0.76	−0.028	0.441	−21.1	32.7	38.9	122.7	95.2	−41.7	112.2	119.7	110.4	0.72	1.00	0.00	% Y27G #
112	87.6	0.411	0.548	0.749	−0.029	0.447	−21.9	32.5	39.2	124.0	95.0	−43.9	111.5	119.8	111.4	0.71	1.00	0.00	% Y28G #
113	87.0	0.407	0.552	0.737	−0.029	0.454	−22.8	32.2	39.5	125.3	94.7	−46.0	110.8	119.9	112.5	0.69	1.00	0.00	% Y30G #
114	86.3	0.403	0.555	0.725	−0.03	0.46	−23.6	31.9	39.7	126.5	94.4	−48.2	110.0	120.1	113.6	0.68	1.00	0.00	% Y31G #
115	85.7	0.398	0.558	0.714	−0.03	0.467	−24.5	31.6	40.0	127.7	94.2	−50.4	109.3	120.4	114.7	0.67	1.00	0.00	% Y32G #
116	85.1	0.394	0.561	0.702	−0.031	0.473	−25.3	31.3	40.3	128.8	93.9	−52.5	108.6	120.6	115.8	0.65	1.00	0.00	% Y34G #
117	84.4	0.39	0.564	0.691	−0.031	0.48	−26.1	31.1	40.6	129.9	93.6	−54.7	107.8	120.9	116.9	0.64	1.00	0.00	% Y35G #
118	83.8	0.386	0.568	0.679	−0.032	0.487	−26.8	30.8	40.9	131.0	93.3	−56.9	107.1	121.3	118.0	0.62	1.00	0.00	% Y37G #
119	83.1	0.381	0.571	0.667	−0.032	0.495	−27.6	30.5	41.1	132.1	93.1	−59.1	106.4	121.7	119.0	0.61	1.00	0.00	% Y38G #
120	82.5	0.377	0.574	0.656	−0.033	0.502	−28.3	30.2	41.4	133.1	92.8	−61.3	105.6	122.1	120.1	0.6	1.00	0.00	% Y39G #
121	81.9	0.372	0.577	0.645	−0.033	0.509	−29.0	29.9	41.7	134.0	92.5	−63.5	104.9	122.6	121.2	0.58	1.00	0.00	% Y41G #
122	81.3	0.368	0.581	0.634	−0.034	0.517	−29.7	29.7	42.0	135.0	92.2	−65.7	104.1	123.1	122.2	0.57	1.00	0.00	% Y42G #
123	80.6	0.364	0.584	0.623	−0.035	0.524	−30.4	29.4	42.3	135.9	91.9	−67.9	103.4	123.7	123.2	0.55	1.00	0.00	% Y44G #
124	80.0	0.359	0.587	0.612	−0.035	0.532	−31.0	29.1	42.5	136.7	91.7	−70.0	102.6	124.3	124.3	0.54	1.00	0.00	% Y45G #
125	79.4	0.355	0.59	0.601	−0.036	0.539	−31.6	28.8	42.8	137.6	91.4	−72.1	101.9	124.9	125.2	0.53	1.00	0.00	% Y46G #
126	78.8	0.351	0.593	0.591	−0.036	0.546	−32.2	28.6	43.1	138.4	91.1	−74.2	101.2	125.5	126.2	0.51	1.00	0.00	% Y48G #
127	78.2	0.346	0.597	0.58	−0.037	0.554	−32.8	28.3	43.3	139.1	90.8	−76.3	100.4	126.1	127.2	0.5	1.00	0.00	% Y49G #
128	77.6	0.342	0.6	0.57	−0.038	0.561	−33.3	28.0	43.5	139.8	90.6	−78.3	99.7	126.8	128.1	0.48	1.00	0.00	% Y51G #
129	77.0	0.338	0.603	0.56	−0.038	0.568	−33.8	27.8	43.8	140.5	90.3	−80.3	99.0	127.5	129.0	0.47	1.00	0.00	% Y52G #
130	76.3	0.333	0.606	0.549	−0.039	0.577	−34.4	27.5	44.0	141.3	90.0	−82.7	98.0	128.3	130.1	0.46	1.00	0.00	% Y53G #
131	75.4	0.326	0.61	0.534	−0.041	0.587	−35.1	27.0	44.3	142.3	89.5	−85.7	96.7	129.3	131.5	0.44	1.00	0.00	% Y55G #
132	74.5	0.32	0.614	0.521	−0.042	0.597	−35.6	26.6	44.5	143.2	89.1	−88.4	95.5	130.2	132.8	0.43	1.00	0.00	% Y56G #
133	73.6	0.314	0.617	0.509	−0.043	0.606	−36.1	26.2	44.6	144.0	88.7	−91.0	94.2	131.0	133.9	0.41	1.00	0.00	% Y58G #
134	72.8	0.309	0.62	0.497	−0.045	0.614	−36.6	25.8	44.8	144.7	88.3	−93.3	93.0	131.7	135.0	0.4	1.00	0.00	% Y59G #
135	72.1	0.304	0.623	0.487	−0.046	0.622	−36.9	25.5	44.9	145.3	88.0	−95.4	91.8	132.4	136.1	0.39	1.00	0.00	% Y60G #
136	71.4	0.299	0.625	0.478	−0.048	0.629	−37.2	25.1	44.9	145.9	87.7	−97.3	90.5	133.0	137.0	0.37	1.00	0.00	% Y62G #
137	70.8	0.294	0.627	0.47	−0.049	0.635	−37.5	24.8	44.9	146.5	87.3	−99.1	89.3	133.4	137.9	0.36	1.00	0.00	% Y63G #
138	70.2	0.29	0.628	0.462	−0.051	0.64	−37.7	24.4	44.9	147.0	87.1	−100.7	88.0	133.8	138.8	0.34	1.00	0.00	% Y65G #
139	69.6	0.286	0.629	0.455	−0.053	0.645	−37.9	24.1	44.9	147.5	86.8	−102.2	86.8	134.1	139.6	0.33	1.00	0.00	% Y66G #
140	69.1	0.282	0.63	0.448	−0.055	0.65	−38.0	23.8	44.9	147.9	86.5	−103.5	85.5	134.3	140.4	0.32	1.00	0.00	% Y67G #
141	68.6	0.279	0.63	0.443	−0.057	0.654	−38.2	23.5	44.8	148.3	86.3	−104.7	84.2	134.4	141.2	0.3	1.00	0.00	% Y69G #
142	68.1	0.275	0.63	0.437	−0.059	0.657	−38.3	23.2	44.8	148.8	86.0	−105.9	82.7	134.4	142.0	0.29	1.00	0.00	% Y70G #
143	67.6	0.271	0.628	0.431	−0.063	0.66	−38.4	22.7	44.7	149.3	85.8	−107.3	80.4	134.1	143.1	0.27	1.00	0.00	% Y72G #
144	67.2	0.266	0.626	0.425	−0.068	0.663	−38.6	22.3	44.6	149.9	85.6	−108.5	78.1	133.7	144.2	0.26	1.00	0.00	% Y73G #
145	66.8	0.262	0.624	0.42	−0.072	0.665	−38.7	21.8	44.4	150.5	85.4	−109.6	75.7	133.3	145.3	0.25	1.00	0.00	% Y74G #
146	66.4	0.258	0.621	0.415	−0.077	0.667	−38.8	21.4	44.3	151.1	85.2	−110.7	73.4	132.8	146.4	0.23	1.00	0.00	% Y76G #
147	66.0	0.254	0.618	0.411	−0.082	0.668	−38.9	20.9	44.2	151.6	85.0	−111.6	71.1	132.4	147.4	0.22	1.00	0.00	% Y77G #
148	65.7	0.25	0.614	0.407	−0.087	0.669	−38.9	20.5	44.0	152.2	84.8	−112.5	68.9	131.9	148.4	0.2	1.00	0.00	% Y79G #
149	65.4	0.246	0.611	0.403	−0.093	0.67	−39.0	20.0	43.9	152.7	84.7	−113.2	66.8	131.5	149.4	0.19	1.00	0.00	% Y80G #
150	65.1	0.243	0.607	0.4	−0.098	0.671	−39.0	19.6	43.7	153.2	84.5	−114.0	64.7	131.1	150.4	0.18	1.00	0.00	% Y81G #
151	64.9	0.239	0.603	0.397	−0.103	0.671	−39.1	19.2	43.5	153.8	84.4	−114.6	62.8	130.7	151.2	0.16	1.00	0.00	% Y83G #
152	64.6	0.236	0.6	0.394	−0.108	0.672	−39.1	18.8	43.4	154.2	84.2	−115.2	61.0	130.4	152.0	0.15	1.00	0.00	% Y84G #
153	64.6	0.236	0.6	0.394	−0.108	0.672	−39.1	18.8	43.4	154.2	84.2	−115.2	61.0	130.4	152.0	0.13	1.00	0.00	% Y86G #
154	64.6	0.236	0.6	0.394	−0.108	0.672	−39.1	18.8	43.4	154.2	84.2	−115.2	61.0	130.4	152.0	0.12	1.00	0.00	% Y87G #
155	61.3	0.219	0.601	0.365	−0.118	0.694	−38.9	17.2	42.5	156.0	82.5	−121.0	56.6	133.6	154.9	0.11	1.00	0.00	% Y88G #
156	60.9	0.216	0.596	0.363	−0.124	0.693	−38.8	16.7	42.2	156.6	82.3	−121.4	54.5	133.1	155.8	0.09	1.00	0.00	% Y90G #
157	60.6	0.213	0.59	0.361	−0.132	0.692	−38.7	16.2	41.9	157.2	82.2	−121.6	52.0	132.3	156.8	0.08	1.00	0.00	% Y91G #
158	60.4	0.21	0.583	0.36	−0.141	0.689	−38.6	15.6	41.6	157.9	82.0	−121.7	49.4	131.4	157.8	0.06	1.00	0.00	% Y93G #
159	60.2	0.207	0.575	0.36	−0.151	0.686	−38.4	14.9	41.3	158.7	81.9	−121.6	46.7	130.3	158.9	0.05	1.00	0.00	% Y94G #
160	59.9	0.204	0.568	0.36	−0.159	0.683	−38.3	14.4	40.9	159.4	81.8	−121.5	44.4	129.4	159.9	0.04	1.00	0.00	% Y95G #
161	59.7	0.202	0.561	0.36	−0.168	0.679	−38.2	13.8	40.6	160.0	81.7	−121.3	42.1	128.4	160.8	0.02	1.00	0.00	% Y97G #
162	59.6	0.2	0.553	0.362	−0.178	0.675	−38.0	13.2	40.2	160.8	81.6	−120.9	39.7	127.2	161.7	0.01	1.00	0.00	% Y98G #
163	59.4	0.198	0.544	0.364	−0.189	0.67	−37.8	12.5	39.8	161.6	81.5	−120.2	37.1	125.8	162.8	0.00	1.00	0.0	% G00B #
164	59.2	0.196	0.534	0.366	−0.201	0.663	−37.5	11.7	39.3	162.6	81.4	−119.3	34.2	124.1	163.9	0.00	1.00	0.01	% G00B #
165	59.1	0.194	0.528	0.368	−0.21	0.659	−37.3	11.2	39.0	163.2	81.3	−118.7	32.4	123.1	164.7	0.00	1.00	0.03	% G01B #
166	59.0	0.193	0.521	0.37	−0.219	0.654	−37.1	10.6	38.6	163.9	81.3	−118.1	30.4	122.0	165.5	0.00	1.00	0.05	% G02B #
167	58.9	0.191	0.513	0.373	−0.229	0.649	−36.9	10.0	38.3	164.7	81.2	−117.4	28.4	120.7	166.3	0.00	1.00	0.07	% G03B #
168	58.8	0.19	0.505	0.376	−0.24	0.644	−36.7	9.4	37.9	165.6	81.2	−116.5	26.2	119.4	167.3	0.00	1.00	0.09	% G04B #
169	58.8	0.188	0.497	0.379	−0.251	0.637	−36.4	8.7	37.5	166.5	81.1	−115.5	23.9	118.0	168.3	0.00	1.00	0.11	% G05B #
170	58.7	0.187	0.488	0.383	−0.264	0.631	−36.1	7.9	37.0	167.6	81.1	−114.4	21.4	116.4	169.3	0.00	1.00	0.13	% G06B #
171	58.6	0.186	0.479	0.388	−0.279	0.623	−35.8	7.0	36.5	168.8	81.0	−113.1	18.9	114.7	170.5	0.00	1.00	0.15	% G07B #
172	58.5	0.184	0.469	0.393	−0.294	0.615	−35.5	6.1	36.0	170.1	81.0	−111.7	16.2	112.9	171.7	0.00	1.00	0.17	% G08B #
173	58.4	0.183	0.459	0.399	−0.31	0.607	−35.1	5.2	35.5	171.5	80.9	−110.2	13.5	111.0	172.9	0.00	1.00	0.19	% G09B #
174	58.4	0.183	0.453	0.403	−0.32	0.601	−34.8	4.6	35.1	172.4	80.9	−109.0	11.9	109.7	173.7	0.00	1.00	0.21	% G10B #
175	58.3	0.182	0.447	0.408	−0.331	0.595	−34.5	4.0	34.7	173.3	80.9	−107.9	10.2	108.4	174.5	0.00	1.00	0.22	% G11B #
176	58.3	0.182	0.44	0.412	−0.341	0.59	−34.2	3.3	34.4	174.3	80.9	−106.7	8.5	107.0	175.4	0.00	1.00	0.24	% G12B #
177	58.3	0.181	0.434	0.417	−0.353	0.584	−33.9	2.7	34.0	175.4	80.9	−105.4	6.7	105.7	176.3	0.00	1.00	0.26	% G13B #
178	58.2	0.181	0.428	0.422	−0.364	0.578	−33.6	2.0	33.7	176.5	80.9	−104.2	5.0	104.3	177.2	0.00	1.00	0.28	% G14B #
179	58.2	0.18	0.421	0.427	−0.376	0.572	−33.3	1.3	33.3	177.6	80.8	−102.9	3.2	103.0	178.1	0.00	1.00	0.3	% G15B #

CIEXYZ data of CIE test colours 9 (R): 23.5 12.4 4.0, 10 (Y): 59.2 60.0 10.9, 11 (G): 12.4 19.7 13.9, 12 (B): 5.8 6.0 24.4

1−000420−L0 VE490−7N

rgb*e,ab* **and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00**

***Yxy, abc*$_{AB}$, *ABC*$_{AB}$, *LabC**$_{ab}$*h*$_{ab}$ data for relative spacing of elementary hue *h*$_{ab}$ of *CIELAB* for CIE 10 degree observer**

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 28.5, 87.1, 159.6, 249.7 of *CIELAB*, and 90 intended hue angles:

090, 091, ..., 179, CIELAB data of CIE test colours 9 (R): 41.2 54.3 29.5, 10 (Y): 80.2 3.6 72.6, 11 (G): 51.6 −38.8 14.4, 12 (B): 32.4 −14.8 −40.3

$no._{ab,10}$	Y_{10}	x_{10}	y_{10}	a_{10}	b_{10}	$c_{AB,10}$	A_{10}	B_{10}	$C_{AB,10}$	$h_{AB,10}$	L^*_{10}	a^*_{10}	b^*_{10}	$C^*_{ab,10}$	$h_{ab,10}$	$rgb^*_{e,ab,10}$			$Code_{ab,10}$
090	82.7	0.496	0.496	1.0	−0.005	0.394	0.0	32.6	32.6	89.9	92.9	0.0	141.7	141.7	89.9	0.96	1.00	0.00	% Y03G #
091	84.2	0.491	0.499	0.984	−0.007	0.393	−1.2	33.0	33.1	92.2	93.5	−2.4	139.6	139.7	91.0	0.94	1.00	0.00	% Y05G #
092	85.5	0.487	0.502	0.969	−0.008	0.392	−2.6	33.5	33.6	94.4	94.1	−4.8	137.5	137.6	92.0	0.93	1.00	0.00	% Y06G #
093	87.0	0.482	0.505	0.954	−0.01	0.392	−3.9	33.9	34.1	96.6	94.7	−7.3	135.0	135.2	93.1	0.91	1.00	0.00	% Y08G #
094	88.1	0.477	0.507	0.942	−0.011	0.392	−5.0	34.2	34.5	98.4	95.2	−9.4	132.2	132.6	94.0	0.9	1.00	0.00	% Y09G #
095	89.2	0.473	0.508	0.931	−0.014	0.391	−6.1	34.4	34.9	100.1	95.6	−11.3	129.0	129.5	95.0	0.89	1.00	0.00	% Y10G #
096	90.3	0.468	0.509	0.92	−0.017	0.39	−7.1	34.5	35.2	101.6	96.1	−13.0	125.4	126.1	95.9	0.87	1.00	0.00	% Y12G #
097	92.1	0.467	0.505	0.924	−0.02	0.386	−6.9	34.9	35.6	101.2	96.8	−12.5	121.9	122.5	95.8	0.86	1.00	0.00	% Y13G #
098	91.6	0.459	0.509	0.902	−0.023	0.388	−8.9	34.4	35.6	104.5	96.6	−16.3	118.4	119.5	97.8	0.85	1.00	0.00	% Y14G #
099	91.3	0.457	0.511	0.894	−0.024	0.39	−9.6	34.3	35.6	105.7	96.5	−17.7	117.8	119.2	98.5	0.83	1.00	0.00	% Y16G #
100	90.9	0.454	0.513	0.885	−0.024	0.392	−10.3	34.1	35.6	106.9	96.3	−19.2	117.2	118.8	99.3	0.82	1.00	0.00	% Y17G #
101	90.5	0.452	0.515	0.876	−0.025	0.394	−11.1	33.9	35.7	108.1	96.2	−20.7	116.6	118.5	100.0	0.8	1.00	0.00	% Y19G #
102	90.0	0.449	0.517	0.867	−0.025	0.397	−11.9	33.7	35.7	109.4	96.0	−22.3	116.0	118.1	100.9	0.79	1.00	0.00	% Y20G #
103	89.6	0.446	0.52	0.857	−0.025	0.4	−12.7	33.5	35.8	110.8	95.8	−24.0	115.3	117.8	101.7	0.78	1.00	0.00	% Y21G #
104	89.1	0.442	0.522	0.847	−0.026	0.403	−13.5	33.2	35.9	112.1	95.6	−25.7	114.6	117.5	102.6	0.76	1.00	0.00	% Y23G #
105	88.6	0.439	0.524	0.837	−0.026	0.406	−14.3	33.0	36.0	113.5	95.4	−27.5	113.9	117.2	103.5	0.75	1.00	0.00	% Y24G #
106	88.0	0.436	0.527	0.827	−0.027	0.41	−15.2	32.8	36.1	114.8	95.1	−29.3	113.2	116.9	104.5	0.73	1.00	0.00	% Y26G #
107	87.5	0.432	0.53	0.816	−0.028	0.414	−16.0	32.5	36.3	116.2	94.9	−31.2	112.4	116.7	105.5	0.72	1.00	0.00	% Y27G #
108	86.9	0.429	0.532	0.805	−0.028	0.419	−16.9	32.3	36.4	117.6	94.7	−33.1	111.6	116.4	106.5	0.71	1.00	0.00	% Y28G #
109	86.3	0.425	0.535	0.794	−0.029	0.424	−17.7	32.0	36.6	118.9	94.4	−35.1	110.8	116.2	107.5	0.69	1.00	0.00	% Y30G #
110	85.8	0.421	0.538	0.783	−0.029	0.429	−18.5	31.7	36.8	120.3	94.2	−37.1	109.9	116.0	108.6	0.68	1.00	0.00	% Y31G #
111	85.2	0.417	0.541	0.771	−0.03	0.434	−19.4	31.4	36.9	121.6	93.9	−39.1	109.1	115.9	109.7	0.67	1.00	0.00	% Y32G #
112	84.6	0.413	0.543	0.76	−0.031	0.439	−20.2	31.1	37.1	123.0	93.7	−41.2	108.2	115.8	110.8	0.65	1.00	0.00	% Y34G #
113	83.9	0.409	0.546	0.748	−0.032	0.445	−21.0	30.8	37.4	124.3	93.4	−43.3	107.2	115.7	112.0	0.64	1.00	0.00	% Y35G #
114	83.3	0.405	0.549	0.737	−0.032	0.451	−21.9	30.6	37.6	125.5	93.1	−45.4	106.3	115.6	113.1	0.62	1.00	0.00	% Y37G #
115	82.7	0.4	0.552	0.725	−0.033	0.457	−22.6	30.2	37.8	126.8	92.8	−47.5	105.3	115.6	114.3	0.61	1.00	0.00	% Y38G #
116	82.0	0.396	0.555	0.713	−0.034	0.464	−23.4	29.9	38.0	128.0	92.6	−49.7	104.3	115.6	115.4	0.6	1.00	0.00	% Y39G #
117	81.4	0.392	0.558	0.702	−0.035	0.47	−24.2	29.6	38.3	129.2	92.3	−51.8	103.3	115.6	116.6	0.58	1.00	0.00	% Y41G #
118	80.8	0.387	0.561	0.69	−0.036	0.477	−24.9	29.3	38.5	130.3	92.0	−54.0	102.2	115.6	117.8	0.57	1.00	0.00	% Y42G #
119	80.1	0.383	0.563	0.679	−0.037	0.483	−25.6	29.0	38.7	131.4	91.7	−56.1	101.1	115.6	119.0	0.56	1.00	0.00	% Y43G #
120	79.6	0.379	0.565	0.669	−0.039	0.489	−26.2	28.7	38.9	132.4	91.5	−57.9	99.9	115.5	120.0	0.54	1.00	0.00	% Y45G #
121	79.0	0.374	0.567	0.66	−0.04	0.494	−26.8	28.4	39.1	133.3	91.2	−59.6	98.7	115.4	121.1	0.53	1.00	0.00	% Y46G #
122	78.5	0.37	0.569	0.65	−0.041	0.5	−27.3	28.1	39.2	134.2	91.0	−61.4	97.5	115.3	122.2	0.51	1.00	0.00	% Y48G #
123	77.9	0.366	0.571	0.641	−0.043	0.505	−27.9	27.8	39.4	135.1	90.7	−63.2	96.3	115.2	123.2	0.5	1.00	0.00	% Y49G #
124	77.4	0.362	0.573	0.632	−0.044	0.511	−28.4	27.4	39.5	135.9	90.5	−65.0	95.0	115.1	124.3	0.49	1.00	0.00	% Y50G #
125	76.8	0.358	0.574	0.623	−0.046	0.516	−28.9	27.1	39.7	136.8	90.2	−66.7	93.7	115.1	125.4	0.47	1.00	0.00	% Y52G #
126	76.3	0.354	0.576	0.614	−0.048	0.522	−29.4	26.8	39.8	137.6	90.0	−68.5	92.5	115.1	126.5	0.46	1.00	0.00	% Y53G #
127	75.7	0.349	0.578	0.605	−0.049	0.527	−29.9	26.5	39.9	138.4	89.7	−70.2	91.2	115.1	127.5	0.45	1.00	0.00	% Y54G #
128	75.2	0.345	0.579	0.596	−0.051	0.533	−30.3	26.2	40.1	139.1	89.5	−71.9	89.9	115.1	128.6	0.43	1.00	0.00	% Y56G #
129	74.7	0.341	0.58	0.587	−0.053	0.538	−30.7	25.8	40.2	139.9	89.2	−73.6	88.6	115.2	129.7	0.42	1.00	0.00	% Y57G #
130	74.2	0.337	0.582	0.579	−0.055	0.543	−31.2	25.5	40.3	140.6	89.0	−75.3	87.3	115.3	130.7	0.4	1.00	0.00	% Y59G #
131	73.6	0.332	0.583	0.57	−0.057	0.549	−31.6	25.2	40.4	141.3	88.7	−76.9	86.0	115.4	131.8	0.39	1.00	0.00	% Y60G #
132	73.1	0.328	0.584	0.562	−0.059	0.554	−31.9	24.9	40.5	142.0	88.5	−78.5	84.7	115.6	132.8	0.38	1.00	0.00	% Y61G #
133	72.6	0.324	0.585	0.554	−0.061	0.559	−32.3	24.6	40.6	142.7	88.2	−80.1	83.4	115.7	133.8	0.36	1.00	0.00	% Y63G #
134	72.1	0.32	0.586	0.546	−0.063	0.564	−32.7	24.2	40.7	143.4	88.0	−81.7	82.2	115.9	134.8	0.35	1.00	0.00	% Y64G #
135	71.6	0.316	0.587	0.539	−0.065	0.569	−33.0	23.9	40.8	144.0	87.8	−83.2	80.9	116.1	135.8	0.33	1.00	0.00	% Y66G #
136	71.2	0.312	0.587	0.531	−0.067	0.574	−33.3	23.6	40.8	144.6	87.5	−84.7	79.6	116.3	136.7	0.32	1.00	0.00	% Y67G #
137	70.7	0.308	0.588	0.524	−0.07	0.578	−33.6	23.3	40.9	145.2	87.3	−86.2	78.4	116.5	137.7	0.31	1.00	0.00	% Y68G #
138	70.2	0.304	0.588	0.517	−0.072	0.583	−33.9	23.0	40.9	145.8	87.1	−87.7	77.1	116.8	138.6	0.29	1.00	0.00	% Y70G #
139	69.8	0.3	0.589	0.51	−0.074	0.587	−34.1	22.7	41.0	146.4	86.9	−89.1	75.9	117.0	139.5	0.28	1.00	0.00	% Y71G #
140	69.3	0.296	0.589	0.503	−0.077	0.592	−34.4	22.3	41.0	146.9	86.6	−90.4	74.7	117.3	140.4	0.27	1.00	0.00	% Y72G #
141	68.9	0.293	0.589	0.497	−0.079	0.596	−34.6	22.0	41.1	147.4	86.4	−91.7	73.5	117.6	141.3	0.25	1.00	0.00	% Y74G #
142	68.5	0.289	0.589	0.49	−0.081	0.6	−34.8	21.7	41.1	148.0	86.2	−93.0	72.3	117.9	142.1	0.24	1.00	0.00	% Y75G #
143	43.6	0.593	0.383	1.548	−0.024	0.664	23.9	16.4	29.0	34.4	72.0	59.4	92.2	109.7	57.1	0.22	1.00	0.00	% Y77G #
144	43.6	0.593	0.383	1.548	−0.024	0.664	23.9	16.4	29.0	34.4	71.9	59.5	92.1	109.7	57.1	0.21	1.00	0.00	% Y78G #
145	43.6	0.593	0.383	1.548	−0.024	0.664	23.9	16.4	29.0	34.4	71.9	59.5	92.1	109.6	57.1	0.2	1.00	0.00	% Y79G #
146	43.6	0.593	0.383	1.548	−0.024	0.665	23.9	16.3	29.0	34.4	71.9	59.5	92.0	109.6	57.1	0.18	1.00	0.00	% Y81G #
147	43.6	0.593	0.383	1.548	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.5	91.9	109.5	57.0	0.17	1.00	0.00	% Y82G #
148	43.6	0.593	0.383	1.548	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.5	91.9	109.5	57.0	0.16	1.00	0.00	% Y83G #
149	43.6	0.593	0.383	1.549	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.5	91.8	109.4	57.0	0.14	1.00	0.00	% Y85G #
150	43.6	0.593	0.383	1.549	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.5	91.7	109.4	57.0	0.13	1.00	0.00	% Y86G #
151	43.5	0.593	0.382	1.549	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.5	91.6	109.3	56.9	0.11	1.00	0.00	% Y88G #
152	43.5	0.593	0.382	1.549	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.6	91.6	109.2	56.9	0.1	1.00	0.00	% Y89G #
153	43.5	0.593	0.382	1.549	−0.024	0.665	23.9	16.3	29.0	34.3	71.9	59.6	91.5	109.2	56.9	0.09	1.00	0.00	% Y90G #
154	43.5	0.593	0.382	1.549	−0.025	0.665	23.9	16.3	29.0	34.2	71.9	59.6	91.4	109.1	56.8	0.07	1.00	0.00	% Y92G #
155	43.5	0.593	0.382	1.55	−0.025	0.665	23.9	16.3	29.0	34.2	71.9	59.6	91.3	109.1	56.8	0.06	1.00	0.00	% Y93G #
156	43.5	0.593	0.382	1.55	−0.025	0.665	23.9	16.3	29.0	34.2	71.9	59.6	91.2	109.0	56.8	0.05	1.00	0.00	% Y94G #
157	43.5	0.593	0.382	1.55	−0.025	0.666	23.9	16.3	29.0	34.2	71.9	59.6	91.2	109.0	56.8	0.03	1.00	0.00	% Y96G #
158	43.5	0.593	0.382	1.55	−0.025	0.666	23.9	16.3	29.0	34.2	71.9	59.6	91.1	108.9	56.7	0.02	1.00	0.00	% Y97G #
159	43.5	0.593	0.382	1.55	−0.025	0.666	23.9	16.3	29.0	34.2	71.9	59.6	91.0	108.8	56.7	0.0	1.00	0.00	% Y99G #
160	43.5	0.593	0.382	1.551	−0.025	0.666	23.9	16.2	29.0	34.1	71.9	59.7	90.9	108.8	56.7	0.00	1.00	0.0	% G00B #
161	43.5	0.593	0.382	1.551	−0.025	0.666	23.9	16.2	29.0	34.1	71.9	59.7	90.8	108.7	56.6	0.00	1.00	0.03	% G01B #
162	43.5	0.593	0.382	1.551	−0.025	0.666	23.9	16.2	28.9	34.1	71.8	59.7	90.8	108.7	56.6	0.00	1.00	0.05	% G02B #
163	43.5	0.593	0.382	1.551	−0.025	0.666	23.9	16.2	28.9	34.1	71.8	59.7	90.7	108.6	56.6	0.00	1.00	0.07	% G03B #
164	43.4	0.593	0.382	1.551	−0.025	0.666	24.0	16.2	28.9	34.1	71.8	59.7	90.6	108.5	56.6	0.00	1.00	0.09	% G04B #
165	43.4	0.593	0.382	1.551	−0.026	0.666	24.0	16.2	28.9	34.1	71.8	59.7	90.5	108.5	56.5	0.00	1.00	0.11	% G05B #
166	43.4	0.592	0.382	1.552	−0.026	0.666	24.0	16.2	28.9	34.1	71.8	59.7	90.4	108.4	56.5	0.00	1.00	0.14	% G07B #
167	43.4	0.592	0.381	1.552	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	90.4	108.4	56.5	0.00	1.00	0.16	% G08B #
168	43.4	0.592	0.381	1.552	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	90.3	108.3	56.4	0.00	1.00	0.18	% G09B #
169	43.4	0.592	0.381	1.552	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	90.2	108.2	56.4	0.00	1.00	0.2	% G10B #
170	43.4	0.592	0.381	1.552	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	90.1	108.2	56.4	0.00	1.00	0.23	% G11B #
171	43.4	0.592	0.381	1.553	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	90.0	108.1	56.3	0.00	1.00	0.25	% G12B #
172	43.4	0.592	0.381	1.553	−0.026	0.667	24.0	16.2	28.9	34.0	71.8	59.8	89.9	108.0	56.3	0.00	1.00	0.27	% G13B #
173	43.4	0.592	0.381	1.553	−0.026	0.667	24.0	16.2	28.9	33.9	71.8	59.8	89.9	108.0	56.3	0.00	1.00	0.29	% G14B #
174	43.4	0.592	0.381	1.553	−0.026	0.667	24.0	16.1	28.9	33.9	71.8	59.9	89.8	107.9	56.2	0.00	1.00	0.31	% G15B #
175	43.4	0.592	0.381	1.553	−0.027	0.667	24.0	16.1	28.9	33.9	71.8	59.9	89.7	107.9	56.2	0.00	1.00	0.34	% G17B #
176	43.3	0.592	0.381	1.554	−0.027	0.667	24.0	16.1	28.9	33.9	71.8	59.9	89.6	107.8	56.2	0.00	1.00	0.36	% G18B #
177	43.3	0.592	0.381	1.554	−0.027	0.668	24.0	16.1	28.9	33.9	71.8	59.9	89.5	107.7	56.2	0.00	1.00	0.38	% G19B #
178	43.3	0.592	0.381	1.554	−0.027	0.668	24.0	16.1	28.9	33.9	71.8	59.9	89.4	107.7	56.1	0.00	1.00	0.4	% G20B #
179	43.3	0.592	0.381	1.554	−0.027	0.668	24.0	16.1	28.9	33.8	71.8	59.9	89.3	107.6	56.1	0.00	1.00	0.43	% G21B #

CIEXYZ data of CIE test colours 9 (R): 21.8 11.9 4.1, 10 (Y): 58.6 57.1 10.1, 11 (G): 12.9 19.8 13.3, 12 (B): 5.8 7.2 23.7

1−001420−L0 VE491−7N

TUB registration: 20130201-VE49/VE49L0NP.PDF /.PS
application for measurement of display output, no separation

TUB material: code=rha4ta

see similar files: http://130.149.60.45/~farbmetrik/VE49/VE49.HTM
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 2 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 27.9, 91.3, 162.9, 267.6 of *CIELAB*, and 90 intended hue angles:

180, 181, ..., 269, CIELAB data of CIE test colours 9 (R): 41.9 59.0 31.3, 10 (Y): 81.8 −1.7 73.1, 11 (G): 51.5 −41.4 12.6, 12 (B): 29.4 −1.9 −46.6

$no._{ab}$	Y	x	y	a	b	c_{AB}	A	B	C_{AB}	h_{AB}	L^*	a^*	b^*	C^*_{ab}	h_{ab}	$rgb^*_{e,ab}$			$Code_{ab}$
180	58.2	0.18	0.415	0.433	−0.389	0.567	−33.0	0.6	33.0	178.8	80.8	−101.6	1.5	101.6	179.1	0.00	1.00	0.32	% G16B #
181	58.2	0.179	0.409	0.438	−0.401	0.561	−32.6	0.0	32.6	180.1	80.8	−100.3	−0.2	100.3	180.1	0.00	1.00	0.34	% G17B #
182	58.1	0.179	0.403	0.443	−0.414	0.556	−32.3	−0.8	32.3	181.4	80.8	−98.9	−1.9	99.0	181.1	0.00	1.00	0.36	% G18B #
183	58.1	0.178	0.397	0.449	−0.427	0.551	−32.0	−1.5	32.0	182.8	80.8	−97.6	−3.7	97.7	182.1	0.00	1.00	0.38	% G19B #
184	58.1	0.178	0.391	0.455	−0.44	0.546	−31.6	−2.3	31.7	184.2	80.8	−96.3	−5.4	96.4	183.2	0.00	1.00	0.4	% G20B #
185	58.0	0.177	0.385	0.46	−0.453	0.541	−31.3	−3.1	31.4	185.6	80.7	−94.9	−7.1	95.2	184.3	0.00	1.00	0.42	% G21B #
186	58.0	0.177	0.379	0.466	−0.467	0.537	−30.9	−3.8	31.2	187.1	80.7	−93.6	−8.8	94.0	185.3	0.00	1.00	0.44	% G22B #
187	58.0	0.176	0.374	0.472	−0.48	0.533	−30.6	−4.6	30.9	188.6	80.7	−92.2	−10.5	92.8	186.5	0.00	1.00	0.45	% G22B #
188	58.0	0.176	0.368	0.478	−0.494	0.53	−30.2	−5.4	30.7	190.2	80.7	−90.9	−12.1	91.7	187.6	0.00	1.00	0.47	% G23B #
189	57.9	0.175	0.363	0.483	−0.507	0.527	−29.9	−6.2	30.5	191.7	80.7	−89.6	−13.7	90.6	188.7	0.00	1.00	0.49	% G24B #
190	57.9	0.175	0.358	0.489	−0.52	0.524	−29.5	−7.0	30.4	193.3	80.7	−88.3	−15.3	89.6	189.8	0.00	1.00	0.51	% G25B #
191	57.9	0.174	0.353	0.495	−0.534	0.522	−29.2	−7.7	30.2	194.8	80.7	−87.0	−16.8	88.6	190.9	0.00	1.00	0.53	% G26B #
192	57.9	0.174	0.348	0.501	−0.548	0.52	−28.8	−8.6	30.1	196.5	80.6	−85.6	−18.5	87.6	192.1	0.00	1.00	0.55	% G27B #
193	57.8	0.174	0.342	0.508	−0.563	0.518	−28.4	−9.4	29.9	198.3	80.6	−84.1	−20.1	86.5	193.4	0.00	1.00	0.57	% G28B #
194	57.8	0.174	0.338	0.514	−0.576	0.516	−28.0	−10.2	29.8	200.0	80.6	−82.7	−21.6	85.5	194.6	0.00	1.00	0.59	% G29B #
195	57.8	0.173	0.333	0.52	−0.59	0.515	−27.7	−11.0	29.8	201.6	80.6	−81.4	−23.0	84.6	195.8	0.00	1.00	0.61	% G30B #
196	57.8	0.173	0.329	0.526	−0.603	0.514	−27.3	−11.7	29.7	203.2	80.6	−80.1	−24.4	83.7	196.9	0.00	1.00	0.63	% G31B #
197	57.8	0.173	0.325	0.532	−0.615	0.514	−27.0	−12.4	29.7	204.7	80.6	−78.8	−25.7	82.9	198.0	0.00	1.00	0.65	% G32B #
198	57.7	0.173	0.322	0.538	−0.626	0.514	−26.6	−13.0	29.7	206.1	80.6	−77.7	−26.8	82.2	199.0	0.00	1.00	0.66	% G33B #
199	57.7	0.173	0.318	0.543	−0.637	0.514	−26.3	−13.7	29.7	207.4	80.5	−76.6	−27.9	81.5	200.0	0.00	1.00	0.68	% G34B #
200	57.6	0.173	0.315	0.548	−0.647	0.515	−26.0	−14.2	29.7	208.7	80.5	−75.5	−29.0	80.9	200.9	0.00	1.00	0.7	% G35B #
201	57.6	0.172	0.312	0.552	−0.657	0.516	−25.7	−14.8	29.7	209.8	80.5	−74.6	−29.9	80.4	201.8	0.00	1.00	0.72	% G36B #
202	57.5	0.172	0.31	0.556	−0.666	0.516	−25.5	−15.3	29.7	210.9	80.5	−73.7	−30.8	79.9	202.6	0.00	1.00	0.74	% G37B #
203	57.5	0.172	0.308	0.56	−0.674	0.517	−25.2	−15.7	29.7	211.9	80.4	−72.9	−31.6	79.4	203.4	0.00	1.00	0.76	% G38B #
204	57.4	0.172	0.305	0.564	−0.681	0.519	−25.0	−16.1	29.8	212.8	80.4	−72.1	−32.3	79.1	204.1	0.00	1.00	0.78	% G39B #
205	57.3	0.172	0.301	0.57	−0.697	0.522	−24.6	−17.0	29.9	214.6	80.3	−70.9	−33.8	78.6	205.4	0.00	1.00	0.8	% G40B #
206	56.6	0.17	0.298	0.57	−0.71	0.53	−24.3	−17.5	29.9	215.8	79.9	−70.6	−34.8	78.7	206.3	0.00	1.00	0.82	% G41B #
207	55.1	0.167	0.295	0.566	−0.725	0.541	−23.8	−17.9	29.8	216.8	79.1	−70.7	−35.9	79.3	206.9	0.00	1.00	0.84	% G42B #
208	53.9	0.165	0.292	0.565	−0.742	0.552	−23.4	−18.4	29.8	218.2	78.4	−70.3	−37.2	79.6	207.8	0.00	1.00	0.86	% G43B #
209	52.5	0.162	0.288	0.564	−0.76	0.565	−22.8	−18.9	29.7	219.6	77.6	−70.0	−38.5	79.9	208.8	0.00	1.00	0.87	% G43B #
210	51.2	0.16	0.284	0.563	−0.781	0.579	−22.3	−19.5	29.6	221.1	76.8	−69.6	−40.0	80.2	209.8	0.00	1.00	0.89	% G44B #
211	49.8	0.157	0.28	0.562	−0.802	0.594	−21.8	−20.0	29.6	222.6	75.9	−69.1	−41.4	80.6	210.9	0.00	1.00	0.91	% G45B #
212	48.4	0.154	0.275	0.561	−0.825	0.611	−21.2	−20.6	29.6	224.1	75.1	−68.7	−42.9	81.0	211.9	0.00	1.00	0.93	% G46B #
213	47.1	0.152	0.271	0.56	−0.848	0.627	−20.7	−21.1	29.5	225.5	74.2	−68.2	−44.3	81.3	213.0	0.00	1.00	0.95	% G47B #
214	45.8	0.149	0.267	0.56	−0.871	0.644	−20.1	−21.6	29.5	227.0	73.4	−67.6	−45.7	81.6	214.0	0.00	1.00	0.97	% G48B #
215	44.5	0.147	0.262	0.562	−0.897	0.662	−19.4	−22.1	29.5	228.6	72.5	−66.7	−47.2	81.7	215.2	0.00	1.0	1.00	% G49B #
216	43.4	0.145	0.258	0.564	−0.92	0.679	−18.9	−22.5	29.4	230.0	71.8	−65.7	−48.5	81.7	216.4	0.00	0.98	1.00	% G50B #
217	42.4	0.144	0.255	0.566	−0.94	0.693	−18.4	−22.9	29.4	231.2	71.2	−64.8	−49.5	81.6	217.3	0.00	0.96	1.00	% G51B #
218	41.7	0.143	0.252	0.568	−0.956	0.704	−18.0	−23.2	29.4	232.2	70.7	−64.0	−50.4	81.5	218.2	0.00	0.94	1.00	% G52B #
219	41.2	0.142	0.25	0.57	−0.968	0.712	−17.7	−23.4	29.3	232.9	70.3	−63.5	−51.0	81.4	218.7	0.00	0.92	1.00	% G53B #
220	40.7	0.142	0.248	0.571	−0.98	0.721	−17.4	−23.6	29.3	233.5	69.9	−63.0	−51.6	81.4	219.3	0.00	0.91	1.00	% G54B #
221	40.1	0.141	0.246	0.574	−0.996	0.732	−17.0	−23.9	29.3	234.4	69.5	−62.2	−52.4	81.4	220.0	0.00	0.89	1.00	% G55B #
222	39.3	0.14	0.242	0.577	−1.015	0.746	−16.6	−24.2	29.3	235.5	68.9	−61.3	−53.3	81.2	221.0	0.00	0.87	1.00	% G56B #
223	38.4	0.139	0.239	0.581	−1.039	0.764	−16.0	−24.5	29.3	236.8	68.3	−60.0	−54.5	81.1	222.2	0.00	0.85	1.00	% G57B #
224	37.3	0.137	0.234	0.587	−1.068	0.785	−15.4	−24.9	29.3	238.3	67.5	−58.4	−55.8	80.8	223.6	0.00	0.83	1.00	% G58B #
225	36.5	0.137	0.231	0.592	−1.092	0.803	−14.8	−25.3	29.3	239.5	66.9	−57.1	−56.8	80.6	224.8	0.00	0.81	1.00	% G59B #
226	36.0	0.136	0.229	0.596	−1.107	0.814	−14.5	−25.5	29.3	240.3	66.5	−56.3	−57.5	80.5	225.6	0.00	0.79	1.00	% G60B #
227	35.5	0.136	0.226	0.6	−1.123	0.826	−14.2	−25.7	29.3	241.0	66.1	−55.4	−58.2	80.3	226.4	0.00	0.77	1.00	% G61B #
228	34.9	0.135	0.224	0.604	−1.14	0.839	−13.8	−25.9	29.3	241.8	65.7	−54.4	−58.9	80.2	227.2	0.00	0.75	1.00	% G62B #
229	34.4	0.135	0.221	0.608	−1.158	0.853	−13.4	−26.1	29.4	242.7	65.3	−53.4	−59.6	80.1	228.1	0.00	0.73	1.00	% G63B #
230	33.9	0.134	0.219	0.613	−1.177	0.868	−13.1	−26.3	29.4	243.5	64.8	−52.4	−60.3	79.9	229.0	0.00	0.71	1.00	% G64B #
231	33.3	0.134	0.216	0.618	−1.196	0.883	−12.7	−26.5	29.4	244.4	64.4	−51.3	−61.1	79.8	229.9	0.00	0.7	1.00	% G64B #
232	32.7	0.133	0.214	0.623	−1.217	0.899	−12.3	−26.7	29.4	245.2	63.9	−50.2	−61.9	79.7	230.9	0.00	0.68	1.00	% G65B #
233	32.2	0.133	0.211	0.629	−1.238	0.917	−11.9	−27.0	29.5	246.1	63.5	−49.0	−62.7	79.6	231.9	0.00	0.66	1.00	% G66B #
234	31.6	0.132	0.208	0.635	−1.261	0.935	−11.5	−27.2	29.5	247.0	63.0	−47.8	−63.5	79.5	233.0	0.00	0.64	1.00	% G67B #
235	31.0	0.132	0.206	0.641	−1.284	0.954	−11.1	−27.4	29.6	247.9	62.5	−46.5	−64.3	79.4	234.1	0.00	0.62	1.00	% G68B #
236	30.4	0.131	0.203	0.647	−1.308	0.974	−10.7	−27.6	29.6	248.8	62.0	−45.3	−65.2	79.4	235.2	0.00	0.6	1.00	% G69B #
237	29.8	0.131	0.2	0.654	−1.333	0.995	−10.3	−27.9	29.7	249.7	61.5	−43.9	−66.0	79.3	236.3	0.00	0.58	1.00	% G70B #
238	29.3	0.13	0.197	0.662	−1.36	1.017	−9.9	−28.1	29.8	250.6	61.0	−42.6	−66.9	79.3	237.5	0.00	0.56	1.00	% G71B #
239	28.7	0.13	0.194	0.669	−1.387	1.04	−9.4	−28.3	29.9	251.5	60.5	−41.2	−67.7	79.3	238.6	0.00	0.54	1.00	% G72B #
240	28.1	0.129	0.191	0.678	−1.415	1.065	−9.0	−28.5	29.9	252.4	60.0	−39.8	−68.6	79.3	239.8	0.00	0.52	1.00	% G73B #
241	27.6	0.129	0.189	0.685	−1.439	1.086	−8.7	−28.7	30.0	253.1	59.5	−38.5	−69.4	79.3	240.9	0.00	0.5	1.00	% G74B #
242	27.2	0.129	0.187	0.692	−1.46	1.104	−8.3	−28.9	30.1	253.8	59.2	−37.4	−70.0	79.4	241.8	0.00	0.49	1.00	% G75B #
243	26.8	0.129	0.185	0.698	−1.482	1.123	−8.0	−29.0	30.1	254.4	58.8	−36.3	−70.6	79.4	242.8	0.00	0.47	1.00	% G76B #
244	26.4	0.129	0.182	0.706	−1.504	1.143	−7.7	−29.2	30.2	255.0	58.4	−35.1	−71.3	79.5	243.7	0.00	0.45	1.00	% G77B #
245	26.0	0.128	0.18	0.713	−1.527	1.163	−7.4	−29.3	30.3	255.7	58.1	−34.0	−71.9	79.5	244.6	0.00	0.43	1.00	% G78B #
246	25.6	0.128	0.178	0.721	−1.55	1.184	−7.1	−29.5	30.4	256.3	57.7	−32.8	−72.5	79.6	245.6	0.00	0.41	1.00	% G79B #
247	25.2	0.128	0.176	0.728	−1.574	1.205	−6.8	−29.7	30.4	257.0	57.3	−31.6	−73.2	79.7	246.6	0.00	0.39	1.00	% G80B #
248	24.8	0.128	0.174	0.737	−1.599	1.227	−6.5	−29.8	30.5	257.6	56.9	−30.4	−73.8	79.8	247.6	0.00	0.37	1.00	% G81B #
249	24.5	0.128	0.172	0.745	−1.624	1.25	−6.2	−29.9	30.6	258.2	56.5	−29.1	−74.5	80.0	248.6	0.00	0.35	1.00	% G82B #
250	24.1	0.128	0.17	0.754	−1.649	1.273	−5.9	−30.1	30.7	258.8	56.2	−27.9	−75.1	80.1	249.6	0.00	0.33	1.00	% G83B #
251	23.7	0.128	0.167	0.763	−1.676	1.297	−5.6	−30.2	30.8	259.4	55.8	−26.6	−75.8	80.3	250.6	0.00	0.31	1.00	% G84B #
252	23.3	0.128	0.165	0.772	−1.703	1.322	−5.3	−30.4	30.8	260.1	55.4	−25.3	−76.4	80.5	251.6	0.00	0.29	1.00	% G85B #
253	22.9	0.128	0.163	0.782	−1.73	1.348	−5.0	−30.5	30.9	260.7	55.0	−24.0	−77.1	80.7	252.6	0.00	0.27	1.00	% G86B #
254	22.6	0.127	0.161	0.792	−1.759	1.374	−4.6	−30.7	31.0	261.3	54.6	−22.7	−77.7	81.0	253.6	0.00	0.26	1.00	% G86B #
255	22.2	0.127	0.159	0.802	−1.788	1.402	−4.3	−30.8	31.1	261.9	54.2	−21.4	−78.4	81.3	254.7	0.00	0.24	1.00	% G87B #
256	21.8	0.127	0.157	0.813	−1.817	1.43	−4.0	−30.9	31.2	262.4	53.8	−20.0	−79.0	81.5	255.7	0.00	0.22	1.00	% G88B #
257	21.4	0.127	0.155	0.824	−1.848	1.458	−3.7	−31.1	31.3	263.0	53.4	−18.7	−79.7	81.9	256.8	0.00	0.2	1.00	% G89B #
258	21.1	0.127	0.153	0.835	−1.879	1.488	−3.4	−31.2	31.4	263.6	53.0	−17.3	−80.4	82.2	257.8	0.00	0.18	1.00	% G90B #
259	20.7	0.127	0.15	0.847	−1.911	1.519	−3.1	−31.4	31.5	264.2	52.7	−15.9	−81.0	82.6	258.8	0.00	0.16	1.00	% G91B #
260	20.4	0.127	0.148	0.859	−1.944	1.55	−2.8	−31.5	31.6	264.7	52.3	−14.5	−81.7	83.0	259.9	0.00	0.14	1.00	% G92B #
261	20.0	0.127	0.146	0.871	−1.978	1.583	−2.5	−31.6	31.7	265.3	51.9	−13.0	−82.4	83.4	260.9	0.00	0.12	1.00	% G93B #
262	19.7	0.127	0.144	0.884	−2.012	1.616	−2.2	−31.7	31.8	265.8	51.5	−11.6	−83.0	83.8	261.9	0.00	0.1	1.00	% G94B #
263	19.3	0.127	0.142	0.897	−2.046	1.649	−1.9	−31.9	31.9	266.4	51.1	−10.2	−83.7	84.3	262.9	0.00	0.08	1.00	% G95B #
264	19.0	0.127	0.14	0.91	−2.081	1.683	−1.7	−32.0	32.0	266.9	50.7	−8.8	−84.3	84.8	263.9	0.00	0.06	1.00	% G96B #
265	18.7	0.128	0.138	0.923	−2.116	1.718	−1.4	−32.1	32.2	267.4	50.3	−7.4	−84.9	85.3	264.9	0.00	0.05	1.00	% G97B #
266	18.4	0.128	0.136	0.937	−2.153	1.754	−1.1	−32.2	32.3	267.9	49.9	−6.0	−85.6	85.8	265.9	0.00	0.03	1.00	% G98B #
267	18.0	0.128	0.134	0.952	−2.191	1.792	−0.8	−32.4	32.4	268.4	49.6	−4.5	−86.2	86.4	266.9	0.00	0.01	1.00	% G99B #
268	17.7	0.128	0.132	0.967	−2.23	1.83	−0.5	−32.5	32.5	268.9	49.2	−3.0	−86.9	87.0	267.9	0.0	0.00	1.00	% B00R #
269	17.4	0.128	0.13	0.983	−2.27	1.87	−0.2	−32.6	32.6	269.4	48.8	−1.5	−87.6	87.6	268.9	0.02	0.00	1.00	% B01R #

CIEXYZ data of CIE test colours 9 (R): 23.5 12.4 4.0, 10 (Y): 59.2 60.0 10.9, 11 (G): 12.4 19.7 13.9, 12 (B): 5.8 6.0 24.4

1−000430−L0 VE490−7N

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 10 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 28.5, 87.1, 159.6, 249.7 of *CIELAB*, and 90 intended hue angles:

180, 181, ..., 269, CIELAB data of CIE test colours 9 (R): 41.2 54.3 29.5, 10 (Y): 80.2 3.6 72.6, 11 (G): 51.6 −38.8 14.4, 12 (B): 32.4 −14.8 −40.3

$no._{ab,10}$	Y_{10}	x_{10}	y_{10}	a_{10}	b_{10}	$c_{AB,10}$	A_{10}	B_{10}	$C_{AB,10}$	$h_{AB,10}$	L^*_{10}	a^*_{10}	b^*_{10}	$C^*_{ab,10}$	$h_{ab,10}$	$rgb^*_{e,ab,10}$			$Code_{ab,10}$
180	43.3	0.592	0.381	1.554	−0.027	0.668	24.0	16.1	28.9	33.8	71.7	59.9	89.3	107.5	56.1	0.00	1.00	0.45	% G22B #
181	43.3	0.592	0.381	1.555	−0.027	0.668	24.0	16.1	28.9	33.8	71.7	60.0	89.2	107.5	56.0	0.00	1.00	0.47	% G23B #
182	43.3	0.592	0.38	1.555	−0.027	0.668	24.0	16.1	28.9	33.8	71.7	60.0	89.1	107.4	56.0	0.00	1.00	0.49	% G24B #
183	43.3	0.592	0.38	1.555	−0.027	0.668	24.0	16.1	28.9	33.8	71.7	60.0	89.0	107.3	56.0	0.00	1.00	0.51	% G25B #
184	43.3	0.592	0.38	1.555	−0.028	0.668	24.0	16.1	28.9	33.8	71.7	60.0	88.9	107.3	55.9	0.00	1.00	0.54	% G27B #
185	43.3	0.592	0.38	1.555	−0.028	0.668	24.0	16.1	28.9	33.7	71.7	60.0	88.8	107.2	55.9	0.00	1.00	0.56	% G28B #
186	43.3	0.592	0.38	1.556	−0.028	0.669	24.0	16.1	28.9	33.7	71.7	60.0	88.7	107.1	55.9	0.00	1.00	0.58	% G29B #
187	43.3	0.592	0.38	1.556	−0.028	0.669	24.0	16.0	28.9	33.7	71.7	60.0	88.6	107.1	55.8	0.00	1.00	0.6	% G30B #
188	43.2	0.592	0.38	1.556	−0.028	0.669	24.0	16.0	28.9	33.7	71.7	60.1	88.5	107.0	55.8	0.00	1.00	0.62	% G31B #
189	43.2	0.592	0.38	1.556	−0.028	0.669	24.0	16.0	28.9	33.7	71.7	60.1	88.5	106.9	55.8	0.00	1.00	0.65	% G32B #
190	43.2	0.592	0.38	1.556	−0.028	0.669	24.1	16.0	28.9	33.6	71.7	60.1	88.4	106.9	55.7	0.00	1.00	0.67	% G33B #
191	43.2	0.592	0.38	1.557	−0.028	0.669	24.1	16.0	28.9	33.6	71.7	60.1	88.3	106.8	55.7	0.00	1.00	0.69	% G34B #
192	43.2	0.592	0.38	1.557	−0.028	0.669	24.1	16.0	28.9	33.6	71.7	60.1	88.2	106.7	55.7	0.00	1.00	0.71	% G35B #
193	43.2	0.592	0.38	1.557	−0.029	0.669	24.1	16.0	28.9	33.6	71.7	60.1	88.1	106.7	55.6	0.00	1.00	0.74	% G37B #
194	43.2	0.592	0.38	1.557	−0.029	0.669	24.1	16.0	28.9	33.6	71.7	60.2	88.0	106.6	55.6	0.00	1.00	0.76	% G38B #
195	43.2	0.592	0.38	1.557	−0.029	0.669	24.1	16.0	28.9	33.6	71.7	60.2	87.9	106.5	55.6	0.00	1.00	0.78	% G39B #
196	43.2	0.592	0.379	1.558	−0.029	0.67	24.1	16.0	28.9	33.5	71.7	60.2	87.8	106.5	55.5	0.00	1.00	0.8	% G40B #
197	43.2	0.592	0.379	1.558	−0.029	0.67	24.1	16.0	28.9	33.5	71.7	60.2	87.7	106.4	55.5	0.00	1.00	0.82	% G41B #
198	43.2	0.591	0.379	1.558	−0.029	0.67	24.1	16.0	28.9	33.5	71.6	60.2	87.6	106.3	55.4	0.00	1.00	0.85	% G42B #
199	43.2	0.591	0.379	1.558	−0.029	0.67	24.1	15.9	28.9	33.5	71.6	60.2	87.5	106.3	55.4	0.00	1.00	0.87	% G43B #
200	43.1	0.591	0.379	1.558	−0.029	0.67	24.1	15.9	28.9	33.5	71.6	60.2	87.4	106.2	55.4	0.00	1.00	0.89	% G44B #
201	43.1	0.591	0.379	1.559	−0.03	0.67	24.1	15.9	28.9	33.4	71.6	60.3	87.3	106.1	55.3	0.00	1.00	0.91	% G45B #
202	43.1	0.591	0.379	1.559	−0.03	0.67	24.1	15.9	28.9	33.4	71.6	60.3	87.3	106.1	55.3	0.00	1.00	0.94	% G47B #
203	43.1	0.591	0.379	1.559	−0.03	0.67	24.1	15.9	28.9	33.4	71.6	60.3	87.2	106.0	55.3	0.00	1.00	0.96	% G48B #
204	43.1	0.591	0.379	1.559	−0.03	0.67	24.1	15.9	28.9	33.4	71.6	60.3	87.1	105.9	55.2	0.00	1.00	0.98	% G49B #
205	43.1	0.591	0.379	1.559	−0.03	0.671	24.1	15.9	28.9	33.4	71.6	60.3	87.0	105.9	55.2	0.00	0.99	1.00	% G50B #
206	43.1	0.591	0.379	1.56	−0.03	0.671	24.1	15.9	28.9	33.3	71.6	60.3	86.9	105.8	55.2	0.00	0.97	1.00	% G51B #
207	43.1	0.591	0.379	1.56	−0.03	0.671	24.1	15.9	28.9	33.3	71.6	60.4	86.8	105.7	55.1	0.00	0.94	1.00	% G52B #
208	43.1	0.591	0.379	1.56	−0.03	0.671	24.1	15.9	28.9	33.3	71.6	60.4	86.7	105.7	55.1	0.00	0.92	1.00	% G53B #
209	43.1	0.591	0.379	1.56	−0.031	0.671	24.1	15.9	28.9	33.3	71.6	60.4	86.6	105.6	55.0	0.00	0.9	1.00	% G54B #
210	43.1	0.591	0.378	1.56	−0.031	0.671	24.1	15.9	28.9	33.3	71.6	60.4	86.5	105.5	55.0	0.00	0.88	1.00	% G55B #
211	43.1	0.591	0.378	1.561	−0.031	0.671	24.1	15.8	28.9	33.3	71.6	60.4	86.4	105.5	55.0	0.00	0.85	1.00	% G57B #
212	43.0	0.591	0.378	1.561	−0.031	0.671	24.1	15.8	28.9	33.2	71.6	60.4	86.3	105.4	54.9	0.00	0.83	1.00	% G58B #
213	43.0	0.591	0.378	1.561	−0.031	0.671	24.2	15.8	28.9	33.2	71.6	60.5	86.2	105.3	54.9	0.00	0.81	1.00	% G59B #
214	43.0	0.591	0.378	1.561	−0.031	0.671	24.2	15.8	28.9	33.2	71.6	60.5	86.1	105.2	54.9	0.00	0.79	1.00	% G60B #
215	43.0	0.591	0.378	1.562	−0.031	0.672	24.2	15.8	28.9	33.2	71.6	60.5	86.0	105.2	54.8	0.00	0.77	1.00	% G61B #
216	43.0	0.591	0.378	1.562	−0.031	0.672	24.2	15.8	28.9	33.2	71.6	60.5	85.9	105.1	54.8	0.00	0.74	1.00	% G62B #
217	43.0	0.591	0.378	1.562	−0.032	0.672	24.2	15.8	28.9	33.1	71.5	60.5	85.8	105.0	54.8	0.00	0.72	1.00	% G63B #
218	43.0	0.591	0.378	1.562	−0.032	0.672	24.2	15.8	28.9	33.1	71.5	60.5	85.7	105.0	54.7	0.00	0.7	1.00	% G64B #
219	43.0	0.591	0.378	1.562	−0.032	0.672	24.2	15.8	28.9	33.1	71.5	60.6	85.6	104.9	54.7	0.00	0.68	1.00	% G65B #
220	43.0	0.591	0.378	1.563	−0.032	0.672	24.2	15.8	28.9	33.1	71.5	60.6	85.5	104.8	54.6	0.00	0.65	1.00	% G67B #
221	43.0	0.591	0.378	1.563	−0.032	0.672	24.2	15.8	28.9	33.1	71.5	60.6	85.4	104.8	54.6	0.00	0.63	1.00	% G68B #
222	43.0	0.591	0.377	1.563	−0.032	0.672	24.2	15.7	28.9	33.0	71.5	60.6	85.3	104.7	54.6	0.00	0.61	1.00	% G69B #
223	43.0	0.59	0.377	1.563	−0.032	0.672	24.2	15.7	28.9	33.0	71.5	60.6	85.2	104.6	54.5	0.00	0.59	1.00	% G70B #
224	43.0	0.59	0.377	1.563	−0.033	0.672	24.2	15.7	28.9	33.0	71.5	60.6	85.1	104.5	54.5	0.00	0.57	1.00	% G71B #
225	42.9	0.59	0.377	1.564	−0.033	0.673	24.2	15.7	28.9	33.0	71.5	60.7	85.0	104.5	54.4	0.00	0.54	1.00	% G72B #
226	42.9	0.59	0.377	1.564	−0.033	0.673	24.2	15.7	28.9	33.0	71.5	60.7	84.9	104.4	54.4	0.00	0.52	1.00	% G73B #
227	42.9	0.59	0.377	1.564	−0.033	0.673	24.2	15.7	28.9	32.9	71.5	60.7	84.8	104.3	54.4	0.00	0.5	1.00	% G74B #
228	42.9	0.59	0.377	1.564	−0.033	0.673	24.2	15.7	28.9	32.9	71.5	60.7	84.7	104.3	54.3	0.00	0.48	1.00	% G75B #
229	42.9	0.59	0.377	1.565	−0.033	0.673	24.2	15.7	28.9	32.9	71.5	60.7	84.6	104.2	54.3	0.00	0.46	1.00	% G76B #
230	42.9	0.59	0.377	1.565	−0.033	0.673	24.2	15.7	28.9	32.9	71.5	60.7	84.5	104.1	54.2	0.00	0.43	1.00	% G78B #
231	42.9	0.59	0.377	1.565	−0.034	0.673	24.2	15.7	28.9	32.9	71.5	60.8	84.4	104.0	54.2	0.00	0.41	1.00	% G79B #
232	42.9	0.59	0.377	1.565	−0.034	0.673	24.2	15.7	28.9	32.8	71.5	60.8	84.3	104.0	54.2	0.00	0.39	1.00	% G80B #
233	42.9	0.59	0.377	1.565	−0.034	0.673	24.3	15.6	28.9	32.8	71.5	60.8	84.2	103.9	54.1	0.00	0.37	1.00	% G81B #
234	42.9	0.59	0.377	1.566	−0.034	0.674	24.3	15.6	28.9	32.8	71.5	60.8	84.1	103.8	54.1	0.00	0.34	1.00	% G82B #
235	42.9	0.59	0.376	1.566	−0.034	0.674	24.3	15.6	28.9	32.8	71.4	60.8	84.0	103.8	54.1	0.00	0.32	1.00	% G83B #
236	42.9	0.59	0.376	1.566	−0.034	0.674	24.3	15.6	28.9	32.8	71.4	60.8	83.9	103.7	54.0	0.00	0.3	1.00	% G84B #
237	42.9	0.59	0.376	1.566	−0.034	0.674	24.3	15.6	28.9	32.7	71.4	60.9	83.8	103.6	54.0	0.00	0.28	1.00	% G85B #
238	42.8	0.59	0.376	1.567	−0.035	0.674	24.3	15.6	28.9	32.7	71.4	60.9	83.7	103.5	53.9	0.00	0.26	1.00	% G86B #
239	42.8	0.59	0.376	1.567	−0.035	0.674	24.3	15.6	28.9	32.7	71.4	60.9	83.6	103.5	53.9	0.00	0.23	1.00	% G88B #
240	42.8	0.59	0.376	1.567	−0.035	0.674	24.3	15.6	28.9	32.7	71.4	60.9	83.5	103.4	53.9	0.00	0.21	1.00	% G89B #
241	42.8	0.59	0.376	1.567	−0.035	0.674	24.3	15.6	28.9	32.6	71.4	60.9	83.4	103.3	53.8	0.00	0.19	1.00	% G90B #
242	42.8	0.59	0.376	1.567	−0.035	0.674	24.3	15.6	28.9	32.6	71.4	60.9	83.3	103.3	53.8	0.00	0.17	1.00	% G91B #
243	42.8	0.59	0.376	1.568	−0.035	0.674	24.3	15.6	28.9	32.6	71.4	61.0	83.2	103.2	53.7	0.00	0.14	1.00	% G92B #
244	42.8	0.589	0.376	1.568	−0.036	0.675	24.3	15.5	28.9	32.6	71.4	61.0	83.1	103.1	53.7	0.00	0.12	1.00	% G93B #
245	42.8	0.589	0.376	1.568	−0.036	0.675	24.3	15.5	28.9	32.6	71.4	61.0	83.0	103.1	53.6	0.00	0.1	1.00	% G94B #
246	42.8	0.589	0.375	1.568	−0.036	0.675	24.3	15.5	28.9	32.5	71.4	61.0	82.9	103.0	53.6	0.00	0.08	1.00	% G95B #
247	42.8	0.589	0.375	1.569	−0.036	0.675	24.3	15.5	28.9	32.5	71.4	61.0	82.8	102.9	53.6	0.00	0.06	1.00	% G96B #
248	42.8	0.589	0.375	1.569	−0.036	0.675	24.3	15.5	28.9	32.5	71.4	61.0	82.7	102.8	53.5	0.00	0.03	1.00	% G98B #
249	42.8	0.589	0.375	1.569	−0.036	0.675	24.3	15.5	28.9	32.5	71.4	61.1	82.6	102.8	53.5	0.00	0.01	1.00	% G99B #
250	42.8	0.589	0.375	1.569	−0.036	0.675	24.3	15.5	28.9	32.5	71.4	61.1	82.5	102.7	53.4	0.0	0.00	1.00	% B00R #
251	42.7	0.589	0.375	1.569	−0.037	0.675	24.3	15.5	28.9	32.4	71.4	61.1	82.4	102.6	53.4	0.01	0.00	1.00	% B00R #
252	42.7	0.589	0.375	1.57	−0.037	0.675	24.3	15.5	28.9	32.4	71.4	61.1	82.3	102.6	53.4	0.03	0.00	1.00	% B01R #
253	42.7	0.589	0.375	1.57	−0.037	0.675	24.4	15.5	28.9	32.4	71.4	61.1	82.2	102.5	53.3	0.04	0.00	1.00	% B02R #
254	42.7	0.589	0.375	1.57	−0.037	0.676	24.4	15.5	28.9	32.4	71.4	61.1	82.1	102.4	53.3	0.06	0.00	1.00	% B03R #
255	42.7	0.589	0.375	1.57	−0.037	0.676	24.4	15.4	28.9	32.4	71.3	61.2	82.0	102.3	53.2	0.07	0.00	1.00	% B03R #
256	42.7	0.589	0.375	1.57	−0.037	0.676	24.4	15.4	28.9	32.3	71.3	61.2	81.9	102.3	53.2	0.09	0.00	1.00	% B04R #
257	42.7	0.589	0.375	1.571	−0.038	0.676	24.4	15.4	28.9	32.3	71.3	61.2	81.8	102.2	53.2	0.1	0.00	1.00	% B05R #
258	42.7	0.589	0.374	1.571	−0.038	0.676	24.4	15.4	28.9	32.3	71.3	61.2	81.7	102.1	53.1	0.11	0.00	1.00	% B05R #
259	42.7	0.589	0.374	1.571	−0.038	0.676	24.4	15.4	28.9	32.3	71.3	61.2	81.6	102.1	53.1	0.13	0.00	1.00	% B06R #
260	42.7	0.589	0.374	1.571	−0.038	0.676	24.4	15.4	28.9	32.2	71.3	61.2	81.5	102.0	53.0	0.14	0.00	1.00	% B07R #
261	42.7	0.589	0.374	1.572	−0.038	0.676	24.4	15.4	28.9	32.2	71.3	61.3	81.4	101.9	53.0	0.16	0.00	1.00	% B08R #
262	42.7	0.588	0.374	1.572	−0.038	0.676	24.4	15.4	28.9	32.2	71.3	61.3	81.3	101.8	52.9	0.17	0.00	1.00	% B08R #
263	42.7	0.588	0.374	1.572	−0.039	0.677	24.4	15.4	28.9	32.2	71.3	61.3	81.2	101.8	52.9	0.19	0.00	1.00	% B09R #
264	42.7	0.588	0.374	1.572	−0.039	0.677	24.4	15.4	28.9	32.2	71.3	61.3	81.1	101.7	52.9	0.2	0.00	1.00	% B10R #
265	42.6	0.588	0.374	1.572	−0.039	0.677	24.4	15.3	28.9	32.1	71.3	61.3	81.0	101.6	52.8	0.22	0.00	1.00	% B11R #
266	42.6	0.588	0.374	1.573	−0.039	0.677	24.4	15.3	28.9	32.1	71.3	61.3	80.9	101.6	52.8	0.23	0.00	1.00	% B11R #
267	42.6	0.588	0.374	1.573	−0.039	0.677	24.4	15.3	28.9	32.1	71.3	61.4	80.8	101.5	52.7	0.24	0.00	1.00	% B12R #
268	42.6	0.588	0.374	1.573	−0.039	0.677	24.4	15.3	28.9	32.1	71.3	61.4	80.7	101.4	52.7	0.26	0.00	1.00	% B13R #
269	42.6	0.588	0.373	1.573	−0.04	0.677	24.4	15.3	28.9	32.0	71.3	61.4	80.6	101.4	52.7	0.27	0.00	1.00	% B13R #

CIEXYZ data of CIE test colours 9 (R): 21.8 11.9 4.1, 10 (Y): 58.6 57.1 10.1, 11 (G): 12.9 19.8 13.3, 12 (B): 5.8 7.2 23.7

1−001430−L0 VE491−7N

TUB registration: 20130201-VE49/VE49L0NP.PDF /.PS
application for measurement of display output, no separation

TUB material: code=rha4ta

see similar files: http://130.149.60.45/~farbmetrik/VE49/VE49.HTM
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 2 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 27.9, 91.3, 162.9, 267.6 of *CIELAB*, and 90 intended hue angles:

270, 271, ..., 360, CIELAB data of CIE test colours 9 (R): 41.9 59.0 31.3, 10 (Y): 81.8 −1.7 73.1, 11 (G): 51.5 −41.4 12.6, 12 (B): 29.4 −1.9 −46.6

$no._{ab}$	Y	x	y	a	b	c_{AB}	A	B	C_{AB}	h_{AB}	L^*	a^*	b^*	C^*_{ab}	h_{ab}	$rgb^*_{e,ab}$			$Code_{ab}$
270	17.1	0.128	0.128	0.999	−2.312	1.912	0.0	−32.7	32.7	269.9	48.4	0.0	−88.2	88.2	269.9	0.03	0.00	1.00	% B01R #
271	16.8	0.128	0.126	1.016	−2.355	1.955	0.2	−32.8	32.8	270.4	48.0	1.5	−88.9	88.9	270.9	0.05	0.00	1.00	% B02R #
272	16.5	0.128	0.124	1.034	−2.399	1.999	0.5	−32.9	32.9	270.9	47.6	3.1	−89.6	89.6	271.9	0.07	0.00	1.00	% B03R #
273	16.1	0.128	0.122	1.052	−2.445	2.046	0.8	−33.1	33.1	271.4	47.2	4.7	−90.3	90.4	272.9	0.08	0.00	1.00	% B04R #
274	15.8	0.129	0.12	1.071	−2.493	2.094	1.1	−33.2	33.2	271.9	46.8	6.3	−90.9	91.2	273.9	0.1	0.00	1.00	% B05R #
275	15.5	0.129	0.118	1.092	−2.542	2.144	1.4	−33.3	33.3	272.4	46.3	8.0	−91.6	92.0	274.9	0.12	0.00	1.00	% B06R #
276	15.2	0.129	0.116	1.112	−2.593	2.196	1.7	−33.4	33.4	272.9	45.9	9.7	−92.3	92.8	275.9	0.13	0.00	1.00	% B06R #
277	14.9	0.129	0.114	1.134	−2.646	2.251	2.0	−33.5	33.6	273.4	45.5	11.4	−93.0	93.7	276.9	0.15	0.00	1.00	% B07R #
278	14.6	0.129	0.112	1.157	−2.702	2.307	2.3	−33.6	33.7	273.9	45.1	13.1	−93.8	94.7	278.0	0.17	0.00	1.00	% B08R #
279	14.2	0.13	0.11	1.181	−2.76	2.367	2.6	−33.7	33.8	274.4	44.6	14.9	−94.5	95.7	279.0	0.18	0.00	1.00	% B09R #
280	13.9	0.13	0.108	1.207	−2.82	2.429	2.8	−33.8	33.9	274.8	44.2	16.8	−95.2	96.7	280.0	0.2	0.00	1.00	% B10R #
281	13.6	0.13	0.105	1.233	−2.883	2.494	3.1	−33.9	34.1	275.3	43.7	18.6	−95.9	97.7	281.0	0.22	0.00	1.00	% B11R #
282	13.3	0.13	0.103	1.261	−2.949	2.562	3.4	−34.0	34.2	275.8	43.2	20.5	−96.7	98.9	282.0	0.23	0.00	1.00	% B11R #
283	12.9	0.131	0.101	1.299	−3.037	2.654	3.8	−34.1	34.3	276.4	42.6	23.0	−97.7	100.3	283.2	0.25	0.00	1.00	% B12R #
284	12.5	0.131	0.098	1.343	−3.138	2.759	4.2	−34.2	34.5	277.1	42.0	25.8	−98.7	102.0	284.6	0.27	0.00	1.00	% B13R #
285	12.0	0.132	0.095	1.389	−3.244	2.871	4.7	−34.4	34.7	277.7	41.3	28.6	−99.8	103.8	286.0	0.28	0.00	1.00	% B14R #
286	11.6	0.132	0.092	1.438	−3.356	2.988	5.1	−34.5	34.8	278.4	40.6	31.4	−100.8	105.6	287.3	0.3	0.00	1.00	% B15R #
287	11.2	0.133	0.089	1.489	−3.473	3.112	5.5	−34.6	35.0	279.0	40.0	34.3	−101.9	107.5	288.6	0.32	0.00	1.00	% B16R #
288	10.8	0.133	0.086	1.543	−3.595	3.241	5.9	−34.7	35.2	279.6	39.3	37.1	−103.0	109.4	289.8	0.33	0.00	1.00	% B16R #
289	10.4	0.134	0.083	1.599	−3.723	3.377	6.2	−34.8	35.3	280.2	38.6	39.9	−104.0	111.4	291.0	0.35	0.00	1.00	% B17R #
290	10.1	0.134	0.081	1.658	−3.856	3.518	6.6	−34.9	35.5	280.7	38.0	42.7	−105.0	113.4	292.1	0.37	0.00	1.00	% B18R #
291	9.7	0.135	0.078	1.719	−3.994	3.665	7.0	−35.0	35.6	281.3	37.3	45.5	−106.1	115.4	293.2	0.38	0.00	1.00	% B19R #
292	9.3	0.135	0.076	1.782	−4.136	3.817	7.3	−35.0	35.8	281.8	36.7	48.3	−107.1	117.5	294.2	0.4	0.00	1.00	% B20R #
293	9.0	0.136	0.073	1.848	−4.282	3.974	7.6	−35.1	35.9	282.3	36.0	51.0	−108.1	119.5	295.2	0.42	0.00	1.00	% B21R #
294	8.7	0.136	0.071	1.915	−4.432	4.135	7.9	−35.2	36.1	282.7	35.4	53.6	−109.1	121.5	296.1	0.43	0.00	1.00	% B21R #
295	8.4	0.137	0.069	1.983	−4.586	4.3	8.2	−35.2	36.2	283.2	34.8	56.2	−110.0	123.5	297.0	0.45	0.00	1.00	% B22R #
296	8.1	0.137	0.067	2.053	−4.741	4.467	8.5	−35.3	36.3	283.6	34.2	58.7	−110.9	125.5	297.8	0.47	0.00	1.00	% B23R #
297	7.8	0.138	0.065	2.124	−4.899	4.637	8.8	−35.4	36.4	284.0	33.7	61.1	−111.8	127.4	298.6	0.48	0.00	1.00	% B24R #
298	7.6	0.138	0.063	2.195	−5.057	4.808	9.1	−35.4	36.6	284.3	33.1	63.5	−112.7	129.3	299.4	0.5	0.00	1.00	% B25R #
299	7.3	0.139	0.061	2.266	−5.214	4.978	9.3	−35.5	36.7	284.7	32.6	65.7	−113.5	131.1	300.0	0.52	0.00	1.00	% B26R #
300	7.1	0.139	0.059	2.336	−5.37	5.147	9.5	−35.5	36.8	285.0	32.1	67.8	−114.2	132.9	300.7	0.53	0.00	1.00	% B26R #
301	6.9	0.139	0.058	2.406	−5.523	5.312	9.7	−35.5	36.8	285.3	31.6	69.8	−115.0	134.5	301.2	0.55	0.00	1.00	% B27R #
302	6.4	0.137	0.054	2.504	−5.895	5.697	9.7	−35.6	37.0	285.3	30.6	71.9	−116.7	137.1	301.6	0.57	0.00	1.00	% B28R #
303	5.7	0.131	0.049	2.679	−6.653	6.474	9.6	−35.8	37.1	285.0	28.7	74.9	−119.7	141.3	302.0	0.58	0.00	1.00	% B29R #
304	5.2	0.131	0.045	2.867	−7.207	7.058	9.8	−35.8	37.2	285.3	27.4	78.8	−121.6	144.9	302.9	0.6	0.00	1.00	% B30R #
305	5.2	0.137	0.045	3.015	−7.145	7.04	10.6	−35.7	37.2	286.6	27.5	83.4	−121.2	147.1	304.5	0.62	0.00	1.00	% B31R #
306	5.7	0.147	0.048	3.032	−6.614	6.538	11.5	−35.4	37.2	288.1	28.6	86.1	−119.1	147.0	305.8	0.63	0.00	1.00	% B31R #
307	6.1	0.154	0.051	3.005	−6.166	6.104	12.2	−35.2	37.3	289.1	29.6	87.2	−117.2	146.2	306.6	0.65	0.00	1.00	% B32R #
308	6.5	0.162	0.054	2.977	−5.734	5.689	12.9	−35.0	37.3	290.3	30.8	88.4	−115.3	145.3	307.4	0.67	0.00	1.00	% B33R #
309	7.0	0.17	0.057	2.947	−5.324	5.295	13.7	−34.8	37.4	291.5	31.9	89.6	−113.2	144.4	308.3	0.68	0.00	1.00	% B34R #
310	7.6	0.179	0.061	2.917	−4.936	4.925	14.6	−34.5	37.5	292.9	33.1	90.9	−111.1	143.5	309.2	0.7	0.00	1.00	% B35R #
311	8.2	0.188	0.065	2.886	−4.573	4.579	15.4	−34.2	37.6	294.3	34.4	92.1	−108.9	142.6	310.2	0.72	0.00	1.00	% B36R #
312	8.8	0.197	0.069	2.854	−4.234	4.259	16.4	−33.9	37.7	295.8	35.7	93.3	−106.6	141.6	311.1	0.73	0.00	1.00	% B36R #
313	9.5	0.207	0.073	2.823	−3.921	3.965	17.4	−33.6	37.9	297.3	37.0	94.5	−104.2	140.7	312.1	0.75	0.00	1.00	% B37R #
314	10.3	0.216	0.077	2.792	−3.632	3.695	18.4	−33.3	38.1	299.0	38.4	95.7	−101.8	139.7	313.2	0.77	0.00	1.00	% B38R #
315	11.1	0.226	0.082	2.761	−3.366	3.449	19.5	−32.9	38.3	300.7	39.7	96.8	−99.4	138.8	314.2	0.78	0.00	1.00	% B39R #
316	11.9	0.236	0.086	2.731	−3.122	3.226	20.7	−32.6	38.6	302.4	41.1	98.0	−96.9	137.8	315.3	0.8	0.00	1.00	% B40R #
317	12.8	0.246	0.091	2.701	−2.9	3.024	21.9	−32.2	38.9	304.2	42.5	99.1	−94.4	136.9	316.3	0.82	0.00	1.00	% B41R #
318	13.8	0.256	0.096	2.672	−2.697	2.841	23.1	−31.7	39.3	306.0	43.9	100.2	−91.9	136.0	317.4	0.83	0.00	1.00	% B41R #
319	14.8	0.266	0.1	2.644	−2.512	2.677	24.4	−31.3	39.7	307.9	45.4	101.3	−89.4	135.2	318.5	0.85	0.00	1.00	% B42R #
320	15.8	0.276	0.105	2.617	−2.344	2.529	25.6	−30.8	40.1	309.7	46.8	102.3	−86.9	134.3	319.6	0.87	0.00	1.00	% B43R #
321	16.9	0.285	0.11	2.591	−2.192	2.396	27.0	−30.4	40.6	311.5	48.2	103.4	−84.4	133.5	320.7	0.88	0.00	1.00	% B44R #
322	18.0	0.294	0.114	2.566	−2.054	2.277	28.3	−29.9	41.2	313.4	49.6	104.3	−82.0	132.7	321.8	0.9	0.00	1.00	% B45R #
323	19.2	0.303	0.119	2.541	−1.929	2.171	29.6	−29.4	41.7	315.2	50.9	105.2	−79.6	131.9	322.9	0.92	0.00	1.00	% B46R #
324	20.4	0.312	0.124	2.518	−1.815	2.075	31.0	−28.9	42.3	316.9	52.3	106.1	−77.2	131.2	323.9	0.93	0.00	1.00	% B46R #
325	21.6	0.32	0.128	2.495	−1.713	1.99	32.3	−28.3	43.0	318.7	53.6	106.9	−74.9	130.5	324.9	0.95	0.00	1.00	% B47R #
326	22.8	0.328	0.132	2.474	−1.621	1.914	33.6	−27.8	43.6	320.3	54.8	107.7	−72.6	129.9	326.0	0.97	0.00	1.00	% B48R #
327	25.0	0.341	0.14	2.424	−1.472	1.783	35.7	−26.8	44.7	323.0	57.1	108.2	−68.6	128.1	327.6	0.98	0.00	1.00	% B49R #
328	27.4	0.352	0.149	2.362	−1.337	1.654	37.4	−25.7	45.4	325.4	59.4	107.9	−64.4	125.6	329.1	1.00	0.00	0.99	% B50R #
329	29.3	0.359	0.155	2.307	−1.246	1.557	38.3	−24.8	45.7	327.0	61.0	106.7	−61.2	123.1	330.1	1.00	0.00	0.98	% B50R #
330	30.7	0.363	0.16	2.257	−1.184	1.481	38.5	−24.0	45.4	328.0	62.2	105.1	−58.8	120.4	330.7	1.00	0.00	0.96	% B51R #
331	31.6	0.365	0.164	2.212	−1.139	1.42	38.3	−23.3	44.9	328.6	63.0	103.2	−56.9	117.9	331.1	1.00	0.00	0.94	% B52R #
332	32.7	0.37	0.17	2.178	−1.078	1.359	38.6	−22.2	44.5	330.0	63.9	102.1	−54.0	115.5	332.1	1.00	0.00	0.93	% B53R #
333	33.8	0.377	0.175	2.151	−1.021	1.308	38.9	−21.0	44.2	331.6	64.8	101.3	−51.1	113.5	333.2	1.00	0.00	0.91	% B54R #
334	34.6	0.382	0.179	2.128	−0.975	1.266	39.0	−19.9	43.8	333.0	65.4	100.5	−48.5	111.6	334.2	1.00	0.00	0.89	% B55R #
335	35.3	0.386	0.183	2.108	−0.937	1.231	39.1	−18.9	43.4	334.1	65.9	99.7	−46.3	110.0	335.0	1.00	0.00	0.88	% B55R #
336	37.7	0.39	0.191	2.034	−0.871	1.136	39.0	−17.8	42.9	335.4	67.8	96.5	−42.8	105.6	336.0	1.00	0.00	0.86	% B56R #
337	38.9	0.393	0.197	1.995	−0.831	1.085	38.8	−16.8	42.3	336.5	68.7	94.6	−40.3	102.8	336.8	1.00	0.00	0.84	% B57R #
338	39.5	0.397	0.201	1.977	−0.798	1.055	38.6	−15.7	41.7	337.8	69.1	93.6	−38.0	101.0	337.8	1.00	0.00	0.83	% B58R #
339	39.9	0.402	0.204	1.962	−0.767	1.029	38.4	−14.6	41.1	339.1	69.4	92.7	−35.7	99.3	338.9	1.00	0.00	0.81	% B59R #
340	40.2	0.405	0.207	1.949	−0.744	1.01	38.2	−13.8	40.6	340.0	69.6	92.0	−33.9	98.0	339.7	1.00	0.00	0.79	% B60R #
341	40.5	0.409	0.211	1.935	−0.718	0.988	37.9	−12.8	40.0	341.2	69.8	91.1	−31.8	96.5	340.7	1.00	0.00	0.78	% B60R #
342	40.7	0.413	0.215	1.921	−0.688	0.965	37.5	−11.7	39.3	342.6	69.9	90.1	−29.4	94.7	341.9	1.00	0.00	0.76	% B61R #
343	40.8	0.415	0.217	1.914	−0.676	0.955	37.3	−11.3	39.0	343.1	70.0	89.6	−28.4	94.0	342.4	1.00	0.00	0.74	% B62R #
344	40.9	0.417	0.218	1.907	−0.663	0.945	37.1	−10.7	38.7	343.7	70.1	89.1	−27.3	93.2	342.9	1.00	0.00	0.73	% B63R #
345	41.0	0.42	0.221	1.9	−0.648	0.933	36.9	−10.2	38.3	344.5	70.2	88.6	−25.9	92.3	343.6	1.00	0.00	0.71	% B64R #
346	41.1	0.423	0.223	1.891	−0.631	0.921	36.6	−9.5	37.9	345.4	70.2	88.0	−24.4	91.3	344.4	1.00	0.00	0.69	% B65R #
347	41.2	0.426	0.226	1.882	−0.611	0.907	36.4	−8.7	37.4	346.5	70.3	87.3	−22.6	90.2	345.4	1.00	0.00	0.68	% B65R #
348	41.3	0.43	0.23	1.872	−0.589	0.892	36.0	−7.8	36.9	347.7	70.4	86.6	−20.5	89.0	346.6	1.00	0.00	0.66	% B66R #
349	41.4	0.435	0.234	1.861	−0.564	0.877	35.7	−6.8	36.3	349.1	70.4	85.7	−18.1	87.6	348.0	1.00	0.00	0.64	% B67R #
350	41.5	0.441	0.238	1.849	−0.537	0.86	35.2	−5.6	35.7	350.8	70.5	84.8	−15.4	86.2	349.7	1.00	0.00	0.63	% B68R #
351	41.5	0.444	0.241	1.842	−0.521	0.851	35.0	−5.0	35.3	351.8	70.5	84.3	−13.7	85.4	350.7	1.00	0.00	0.61	% B69R #
352	41.5	0.446	0.242	1.838	−0.512	0.845	34.8	−4.6	35.1	352.3	70.5	83.9	−12.8	84.9	351.3	1.00	0.00	0.59	% B70R #
353	41.6	0.448	0.244	1.833	−0.502	0.84	34.6	−4.2	34.9	352.9	70.6	83.6	−11.8	84.4	351.9	1.00	0.00	0.58	% B70R #
354	41.6	0.45	0.246	1.829	−0.493	0.834	34.5	−3.8	34.7	353.5	70.6	83.2	−10.7	83.9	352.6	1.00	0.00	0.56	% B71R #
355	41.6	0.452	0.247	1.824	−0.483	0.828	34.3	−3.4	34.5	354.2	70.6	82.8	−9.7	83.4	353.2	1.00	0.00	0.54	% B72R #
356	41.6	0.454	0.249	1.819	−0.473	0.823	34.1	−3.0	34.2	354.8	70.6	82.4	−8.6	82.9	354.0	1.00	0.00	0.53	% B73R #
357	41.6	0.456	0.251	1.815	−0.463	0.817	33.9	−2.6	34.0	355.5	70.6	82.1	−7.5	82.4	354.7	1.00	0.00	0.51	% B74R #
358	41.7	0.458	0.253	1.81	−0.453	0.812	33.7	−2.2	33.8	356.2	70.6	81.7	−6.4	81.9	355.5	1.00	0.00	0.49	% B75R #
359	41.7	0.461	0.255	1.805	−0.443	0.806	33.6	−1.8	33.6	356.8	70.6	81.3	−5.2	81.4	356.3	1.00	0.00	0.48	% B75R #
360	41.7	0.463	0.257	1.8	−0.433	0.801	33.4	−1.3	33.4	357.6	70.6	80.9	−4.0	81.0	357.1	1.00	0.00	0.46	% B76R #

CIEXYZ data of CIE test colours 9 (R): 23.5 12.4 4.0, 10 (Y): 59.2 60.0 10.9, 11 (G): 12.4 19.7 13.9, 12 (B): 5.8 6.0 24.4

1−000440−L0 VE490−7N

$rgb^*_{e,ab}$ and CIE data of a elementary hue circle according to CIE R1-47 for *Ostwald* colours for CIE illuminant E00

Yxy, abc_{AB}, ABC_{AB}, $LabC^*_{ab}h_{ab}$ data for relative spacing of elementary hue h_{ab} of *CIELAB* for CIE 10 degree observer

Elementary hue circle with 4 intended elementary hue angles: h_{ab} = 28.5, 87.1, 159.6, 249.7 of *CIELAB*, and 90 intended hue angles:

270, 271, ..., 360, CIELAB data of CIE test colours 9 (R): 41.2 54.3 29.5, 10 (Y): 80.2 3.6 72.6, 11 (G): 51.6 −38.8 14.4, 12 (B): 32.4 −14.8 −40.3

$no._{ab,10}$	Y_{10}	x_{10}	y_{10}	a_{10}	b_{10}	$c_{AB,10}$	A_{10}	B_{10}	$C_{AB,10}$	$h_{AB,10}$	L^*_{10}	a^*_{10}	b^*_{10}	$C^*_{ab,10}$	$h_{ab,10}$	$rgb^*_{e,ab,10}$			$Code_{ab,10}$
270	42.6	0.588	0.373	1.574	−0.04	0.677	24.4	15.3	28.9	32.0	71.3	61.4	80.5	101.3	52.6	0.29	0.00	1.00	% B14R #
271	42.6	0.588	0.373	1.574	−0.04	0.677	24.4	15.3	28.9	32.0	71.3	61.4	80.4	101.2	52.6	0.3	0.00	1.00	% B15R #
272	42.6	0.588	0.373	1.574	−0.04	0.677	24.5	15.3	28.9	32.0	71.3	61.4	80.3	101.1	52.5	0.32	0.00	1.00	% B16R #
273	42.6	0.588	0.373	1.574	−0.04	0.677	24.5	15.3	28.9	32.0	71.3	61.5	80.2	101.1	52.5	0.33	0.00	1.00	% B16R #
274	42.6	0.588	0.373	1.574	−0.04	0.678	24.5	15.3	28.9	31.9	71.3	61.5	80.1	101.0	52.4	0.34	0.00	1.00	% B17R #
275	42.6	0.588	0.373	1.575	−0.041	0.678	24.5	15.3	28.9	31.9	71.3	61.5	80.0	100.9	52.4	0.36	0.00	1.00	% B18R #
276	42.6	0.588	0.373	1.575	−0.041	0.678	24.5	15.2	28.9	31.9	71.2	61.5	79.9	100.9	52.4	0.37	0.00	1.00	% B18R #
277	42.6	0.588	0.373	1.575	−0.041	0.678	24.5	15.2	28.9	31.9	71.2	61.5	79.8	100.8	52.3	0.39	0.00	1.00	% B19R #
278	42.6	0.588	0.373	1.575	−0.041	0.678	24.5	15.2	28.9	31.9	71.2	61.5	79.7	100.7	52.3	0.4	0.00	1.00	% B20R #
279	42.5	0.588	0.373	1.576	−0.041	0.678	24.5	15.2	28.9	31.8	71.2	61.6	79.6	100.7	52.2	0.42	0.00	1.00	% B21R #
280	42.5	0.587	0.373	1.576	−0.041	0.678	24.5	15.2	28.9	31.8	71.2	61.6	79.5	100.6	52.2	0.43	0.00	1.00	% B21R #
281	42.5	0.587	0.372	1.576	−0.042	0.678	24.5	15.2	28.9	31.8	71.2	61.6	79.4	100.5	52.1	0.45	0.00	1.00	% B22R #
282	42.5	0.587	0.372	1.576	−0.042	0.678	24.5	15.2	28.9	31.8	71.2	61.6	79.3	100.5	52.1	0.46	0.00	1.00	% B23R #
283	42.5	0.587	0.372	1.576	−0.042	0.678	24.5	15.2	28.9	31.7	71.2	61.6	79.2	100.4	52.1	0.47	0.00	1.00	% B23R #
284	42.5	0.587	0.372	1.577	−0.042	0.679	24.5	15.2	28.9	31.7	71.2	61.6	79.1	100.3	52.0	0.49	0.00	1.00	% B24R #
285	42.5	0.587	0.372	1.577	−0.042	0.679	24.5	15.2	28.8	31.7	71.2	61.7	79.0	100.3	52.0	0.5	0.00	1.00	% B25R #
286	42.5	0.587	0.372	1.577	−0.042	0.679	24.5	15.1	28.8	31.7	71.2	61.7	78.9	100.2	51.9	0.52	0.00	1.00	% B26R #
287	42.5	0.587	0.372	1.577	−0.043	0.679	24.5	15.1	28.8	31.7	71.2	61.7	78.8	100.1	51.9	0.53	0.00	1.00	% B26R #
288	42.5	0.587	0.372	1.577	−0.043	0.679	24.5	15.1	28.8	31.6	71.2	61.7	78.7	100.1	51.9	0.55	0.00	1.00	% B27R #
289	42.5	0.587	0.372	1.578	−0.043	0.679	24.5	15.1	28.8	31.6	71.2	61.7	78.6	100.0	51.8	0.56	0.00	1.00	% B28R #
290	42.5	0.587	0.372	1.578	−0.043	0.679	24.6	15.1	28.8	31.6	71.2	61.8	78.5	99.9	51.8	0.58	0.00	1.00	% B29R #
291	42.5	0.587	0.372	1.578	−0.043	0.679	24.6	15.1	28.8	31.6	71.2	61.8	78.4	99.9	51.7	0.59	0.00	1.00	% B29R #
292	42.5	0.587	0.371	1.578	−0.043	0.679	24.6	15.1	28.8	31.5	71.2	61.8	78.3	99.8	51.7	0.6	0.00	1.00	% B30R #
293	42.5	0.587	0.371	1.579	−0.044	0.679	24.6	15.1	28.8	31.5	71.2	61.8	78.2	99.7	51.6	0.62	0.00	1.00	% B31R #
294	42.4	0.587	0.371	1.579	−0.044	0.679	24.6	15.1	28.8	31.5	71.2	61.8	78.1	99.7	51.6	0.63	0.00	1.00	% B31R #
295	42.4	0.587	0.371	1.579	−0.044	0.68	24.6	15.1	28.8	31.5	71.2	61.8	78.0	99.6	51.6	0.65	0.00	1.00	% B32R #
296	42.4	0.586	0.371	1.579	−0.044	0.68	24.6	15.1	28.8	31.5	71.2	61.9	77.9	99.5	51.5	0.66	0.00	1.00	% B33R #
297	42.4	0.586	0.371	1.579	−0.044	0.68	24.6	15.0	28.8	31.4	71.2	61.9	77.8	99.5	51.5	0.68	0.00	1.00	% B34R #
298	42.4	0.586	0.371	1.58	−0.044	0.68	24.6	15.0	28.8	31.4	71.1	61.9	77.8	99.4	51.4	0.69	0.00	1.00	% B34R #
299	42.4	0.586	0.371	1.58	−0.045	0.68	24.6	15.0	28.8	31.4	71.1	61.9	77.7	99.3	51.4	0.7	0.00	1.00	% B35R #
300	42.4	0.586	0.371	1.58	−0.045	0.68	24.6	15.0	28.8	31.4	71.1	61.9	77.6	99.3	51.3	0.72	0.00	1.00	% B36R #
301	42.4	0.586	0.371	1.58	−0.045	0.68	24.6	15.0	28.8	31.4	71.1	61.9	77.5	99.2	51.3	0.73	0.00	1.00	% B36R #
302	42.4	0.586	0.371	1.58	−0.045	0.68	24.6	15.0	28.8	31.3	71.1	61.9	77.4	99.1	51.3	0.75	0.00	1.00	% B37R #
303	42.4	0.586	0.37	1.581	−0.045	0.68	24.6	15.0	28.8	31.3	71.1	62.0	77.3	99.1	51.2	0.76	0.00	1.00	% B38R #
304	42.4	0.586	0.37	1.581	−0.045	0.68	24.6	15.0	28.8	31.3	71.1	62.0	77.2	99.0	51.2	0.78	0.00	1.00	% B39R #
305	42.4	0.586	0.37	1.581	−0.046	0.68	24.6	15.0	28.8	31.3	71.1	62.0	77.1	98.9	51.1	0.79	0.00	1.00	% B39R #
306	42.4	0.586	0.37	1.581	−0.046	0.681	24.6	15.0	28.8	31.2	71.1	62.0	77.0	98.9	51.1	0.81	0.00	1.00	% B40R #
307	42.4	0.586	0.37	1.582	−0.046	0.681	24.6	14.9	28.8	31.2	71.1	62.0	76.9	98.8	51.0	0.82	0.00	1.00	% B41R #
308	42.4	0.586	0.37	1.582	−0.046	0.681	24.6	14.9	28.8	31.2	71.1	62.0	76.8	98.7	51.0	0.83	0.00	1.00	% B41R #
309	42.4	0.586	0.37	1.582	−0.046	0.681	24.7	14.9	28.8	31.2	71.1	62.1	76.7	98.7	51.0	0.85	0.00	1.00	% B42R #
310	42.4	0.586	0.37	1.582	−0.047	0.681	24.7	14.9	28.8	31.2	71.1	62.1	76.6	98.6	50.9	0.86	0.00	1.00	% B43R #
311	42.3	0.586	0.37	1.582	−0.047	0.681	24.7	14.9	28.8	31.1	71.1	62.1	76.5	98.6	50.9	0.88	0.00	1.00	% B44R #
312	42.3	0.585	0.37	1.583	−0.047	0.681	24.7	14.9	28.8	31.1	71.1	62.1	76.4	98.5	50.8	0.89	0.00	1.00	% B44R #
313	42.3	0.585	0.37	1.583	−0.047	0.681	24.7	14.9	28.8	31.1	71.1	62.1	76.3	98.4	50.8	0.91	0.00	1.00	% B45R #
314	42.3	0.585	0.369	1.583	−0.047	0.681	24.7	14.9	28.8	31.1	71.1	62.1	76.2	98.4	50.8	0.92	0.00	1.00	% B46R #
315	42.3	0.585	0.369	1.583	−0.047	0.681	24.7	14.9	28.8	31.0	71.1	62.2	76.1	98.3	50.7	0.94	0.00	1.00	% B47R #
316	42.3	0.585	0.369	1.583	−0.048	0.681	24.7	14.9	28.8	31.0	71.1	62.2	76.0	98.2	50.7	0.95	0.00	1.00	% B47R #
317	42.3	0.585	0.369	1.584	−0.048	0.682	24.7	14.9	28.8	31.0	71.1	62.2	75.9	98.2	50.6	0.96	0.00	1.00	% B48R #
318	42.3	0.585	0.369	1.584	−0.048	0.682	24.7	14.8	28.8	31.0	71.1	62.2	75.9	98.1	50.6	0.98	0.00	1.00	% B49R #
319	42.3	0.585	0.369	1.584	−0.048	0.682	24.7	14.8	28.8	31.0	71.1	62.2	75.8	98.1	50.6	1.00	0.00	1.0	% B49R #
320	42.3	0.585	0.369	1.584	−0.048	0.682	24.7	14.8	28.8	30.9	71.1	62.2	75.7	98.0	50.5	1.00	0.00	0.98	% B50R #
321	42.3	0.585	0.369	1.584	−0.048	0.682	24.7	14.8	28.8	30.9	71.1	62.3	75.6	97.9	50.5	1.00	0.00	0.97	% B51R #
322	42.3	0.585	0.369	1.585	−0.049	0.682	24.7	14.8	28.8	30.9	71.1	62.3	75.5	97.9	50.4	1.00	0.00	0.95	% B52R #
323	42.3	0.585	0.369	1.585	−0.049	0.682	24.7	14.8	28.8	30.9	71.0	62.3	75.4	97.8	50.4	1.00	0.00	0.94	% B52R #
324	42.3	0.585	0.369	1.585	−0.049	0.682	24.7	14.8	28.8	30.9	71.0	62.3	75.3	97.8	50.3	1.00	0.00	0.92	% B53R #
325	42.3	0.585	0.369	1.585	−0.049	0.682	24.7	14.8	28.8	30.8	71.0	62.3	75.2	97.7	50.3	1.00	0.00	0.91	% B54R #
326	42.3	0.585	0.368	1.585	−0.049	0.682	24.7	14.8	28.8	30.8	71.0	62.3	75.1	97.6	50.3	1.00	0.00	0.9	% B54R #
327	42.3	0.585	0.368	1.586	−0.049	0.682	24.7	14.8	28.8	30.8	71.0	62.4	75.0	97.6	50.2	1.00	0.00	0.88	% B55R #
328	42.3	0.584	0.368	1.586	−0.05	0.682	24.8	14.8	28.8	30.8	71.0	62.4	75.0	97.5	50.2	1.00	0.00	0.87	% B56R #
329	42.2	0.584	0.368	1.586	−0.05	0.682	24.8	14.7	28.8	30.8	71.0	62.4	74.9	97.5	50.1	1.00	0.00	0.85	% B57R #
330	42.2	0.584	0.368	1.586	−0.05	0.683	24.8	14.7	28.8	30.7	71.0	62.4	74.8	97.4	50.1	1.00	0.00	0.84	% B57R #
331	42.2	0.584	0.368	1.586	−0.05	0.683	24.8	14.7	28.8	30.7	71.0	62.4	74.7	97.3	50.1	1.00	0.00	0.82	% B58R #
332	42.2	0.584	0.368	1.587	−0.05	0.683	24.8	14.7	28.8	30.7	71.0	62.4	74.6	97.3	50.0	1.00	0.00	0.81	% B59R #
333	42.2	0.584	0.368	1.587	−0.05	0.683	24.8	14.7	28.8	30.7	71.0	62.4	74.5	97.2	50.0	1.00	0.00	0.8	% B59R #
334	42.2	0.584	0.368	1.587	−0.051	0.683	24.8	14.7	28.8	30.7	71.0	62.5	74.4	97.2	49.9	1.00	0.00	0.78	% B60R #
335	42.2	0.584	0.368	1.587	−0.051	0.683	24.8	14.7	28.8	30.6	71.0	62.5	74.3	97.1	49.9	1.00	0.00	0.77	% B61R #
336	42.2	0.584	0.368	1.587	−0.051	0.683	24.8	14.7	28.8	30.6	71.0	62.5	74.2	97.1	49.9	1.00	0.00	0.75	% B62R #
337	42.2	0.584	0.368	1.588	−0.051	0.683	24.8	14.7	28.8	30.6	71.0	62.5	74.2	97.0	49.8	1.00	0.00	0.74	% B62R #
338	42.2	0.584	0.367	1.588	−0.051	0.683	24.8	14.7	28.8	30.6	71.0	62.5	74.1	97.0	49.8	1.00	0.00	0.72	% B63R #
339	42.2	0.584	0.367	1.588	−0.052	0.683	24.8	14.7	28.8	30.5	71.0	62.5	74.0	96.9	49.7	1.00	0.00	0.71	% B64R #
340	42.2	0.584	0.367	1.588	−0.052	0.683	24.8	14.6	28.8	30.5	71.0	62.5	73.9	96.8	49.7	1.00	0.00	0.69	% B65R #
341	42.2	0.584	0.367	1.588	−0.052	0.683	24.8	14.6	28.8	30.5	71.0	62.6	73.8	96.8	49.7	1.00	0.00	0.68	% B65R #
342	42.2	0.584	0.367	1.588	−0.052	0.684	24.8	14.6	28.8	30.5	71.0	62.6	73.7	96.7	49.6	1.00	0.00	0.67	% B66R #
343	42.2	0.584	0.367	1.589	−0.052	0.684	24.8	14.6	28.8	30.5	71.0	62.6	73.7	96.7	49.6	1.00	0.00	0.65	% B67R #
344	42.2	0.583	0.367	1.589	−0.052	0.684	24.8	14.6	28.8	30.4	71.0	62.6	73.6	96.6	49.5	1.00	0.00	0.64	% B67R #
345	42.2	0.583	0.367	1.589	−0.053	0.684	24.8	14.6	28.8	30.4	71.0	62.6	73.5	96.6	49.5	1.00	0.00	0.62	% B68R #
346	42.2	0.583	0.367	1.589	−0.053	0.684	24.8	14.6	28.8	30.4	71.0	62.6	73.4	96.5	49.5	1.00	0.00	0.61	% B69R #
347	42.2	0.583	0.367	1.589	−0.053	0.684	24.9	14.6	28.8	30.4	71.0	62.7	73.3	96.5	49.4	1.00	0.00	0.59	% B70R #
348	42.2	0.583	0.367	1.59	−0.053	0.684	24.9	14.6	28.8	30.4	71.0	62.7	73.2	96.4	49.4	1.00	0.00	0.58	% B70R #
349	42.1	0.583	0.367	1.59	−0.053	0.684	24.9	14.6	28.8	30.3	71.0	62.7	73.2	96.4	49.4	1.00	0.00	0.56	% B71R #
350	42.1	0.583	0.366	1.59	−0.053	0.684	24.9	14.6	28.8	30.3	71.0	62.7	73.1	96.3	49.3	1.00	0.00	0.55	% B72R #
351	42.1	0.583	0.366	1.59	−0.054	0.684	24.9	14.5	28.8	30.3	71.0	62.7	73.0	96.3	49.3	1.00	0.00	0.54	% B72R #
352	42.1	0.583	0.366	1.59	−0.054	0.684	24.9	14.5	28.8	30.3	70.9	62.7	72.9	96.2	49.2	1.00	0.00	0.52	% B73R #
353	42.1	0.583	0.366	1.59	−0.054	0.684	24.9	14.5	28.8	30.3	70.9	62.7	72.8	96.2	49.2	1.00	0.00	0.51	% B74R #
354	42.1	0.583	0.366	1.591	−0.054	0.684	24.9	14.5	28.8	30.3	70.9	62.8	72.8	96.1	49.2	1.00	0.00	0.49	% B75R #
355	42.1	0.583	0.366	1.591	−0.054	0.684	24.9	14.5	28.8	30.2	70.9	62.8	72.7	96.0	49.1	1.00	0.00	0.48	% B75R #
356	42.1	0.583	0.366	1.591	−0.054	0.685	24.9	14.5	28.8	30.2	70.9	62.8	72.6	96.0	49.1	1.00	0.00	0.46	% B76R #
357	42.1	0.583	0.366	1.591	−0.054	0.685	24.9	14.5	28.8	30.2	70.9	62.8	72.5	95.9	49.1	1.00	0.00	0.45	% B77R #
358	42.1	0.583	0.366	1.591	−0.055	0.685	24.9	14.5	28.8	30.2	70.9	62.8	72.4	95.9	49.0	1.00	0.00	0.43	% B78R #
359	42.1	0.583	0.366	1.592	−0.055	0.685	24.9	14.5	28.8	30.2	70.9	62.8	72.4	95.8	49.0	1.00	0.00	0.42	% B78R #
360	42.1	0.583	0.366	1.592	−0.055	0.685	24.9	14.5	28.8	30.1	70.9	62.8	72.3	95.8	49.0	1.00	0.00	0.41	% B79R #

CIEXYZ data of CIE test colours 9 (R): 21.8 11.9 4.1, 10 (Y): 58.6 57.1 10.1, 11 (G): 12.9 19.8 13.3, 12 (B): 5.8 7.2 23.7

1−001440−L0 VE491−7N

TUB registration: 20130201-VE49/VE49L0NP.PDF /.PS
application for measurement of display output, no separation

TUB material: code=rha4ta