

see similar files: <http://farbe.li.tu-berlin.de/BE39/BE39.HTM>
technical information: <http://farbe.li.tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

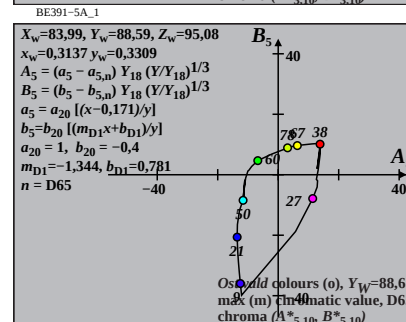
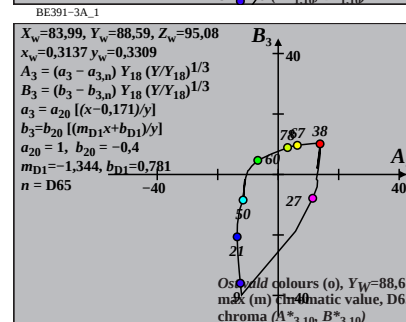
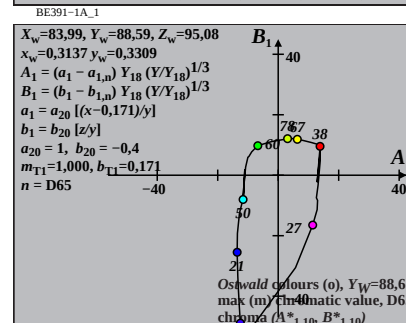
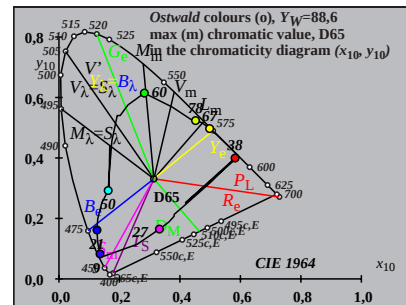
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for D65, $Y_w=88,6$, $Y_m=520,770$

λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
0	405	31	556	76.14	-63.69	-32.73	71.61	0.1807	-0.1034	207.2	15 476	37 585 Cm
6	435	31	557	76.6	-79.33	-17.09	81.15	0.1724	-0.0949	192.1	16 480	44 621
10	450	31	559	76.66	-104.0	14.38	104.99	0.1591	-0.078	172.1	18 491	-1 491c
11	460	32	562	77.59	-106.96	26.3	110.15	0.1581	-0.0717	166.1	19 498	-1 498c
12	465	33	565	78.44	-108.31	38.66	115.0	0.1579	-0.0653	160.3	21 506	-1 506c
14	470	34	570	79.55	-105.44	62.82	122.74	0.1601	-0.053	149.2	24 522	-1 522c
15	475	35	579	82.28	-90.9	78.08	119.83	0.169	-0.0462	139.3	26 533	-1 533c Gm
16	480	41	606	88.26	-51.22	98.09	110.66	0.1907	-0.0389	117.5	30 550	-1 550c
16	485	-1	484c	92.47	-19.41	105.36	107.14	0.2063	-0.0374	100.4	32 560	10 454
18	490	-1	490c	91.19	-14.24	119.52	120.37	0.2086	-0.0302	96.7	32 562	11 459 max
19	495	-1	495c	90.38	-10.78	125.17	125.64	0.2101	-0.0271	94.9	32 563	12 461
19	500	-1	499c	90.38	-10.78	125.17	125.64	0.2101	-0.0271	94.9	32 563	12 461
22	510	-1	510c	87.03	2.81	136.08	136.11	0.2166	-0.0195	88.8	33 566	13 466
23	520	-1	519c	85.59	8.2	138.07	138.32	0.2192	-0.0174	86.5	33 568	13 468 Ym
26	530	-1	530c	80.1	26.24	135.8	138.31	0.2288	-0.0115	79.0	34 573	14 472
27	540	-1	539c	77.92	32.52	133.12	137.03	0.2325	-0.0095	76.2	35 576	14 473
28	545	-1	544c	75.58	38.77	129.76	135.43	0.2363	-0.0075	73.3	35 578	14 474
29	550	-1	549c	73.08	44.94	125.82	133.6	0.2404	-0.0054	70.3	36 580	15 475
31	555	-1	555c	67.68	56.46	116.69	129.64	0.2489	0.0	64.1	37 586	15 476
32	560	10	451	66.12	81.07	-15.27	82.5	0.2645	-0.095	349.3	-1 492c	18 492
31	556	0	405	76.0	48.11	59.74	76.71	0.2413	-0.0534	51.1	37 585	15 476 Rm
31	557	6	435	75.53	57.37	22.48	61.62	0.2465	-0.0735	21.4	44 621	16 480
31	559	10	450	75.47	68.68	-12.46	69.8	0.2527	-0.0925	349.7	-1 491c	18 491
32	562	11	460	74.5	72.44	-20.87	75.39	0.2552	-0.0972	343.9	-1 498c	19 498
33	565	12	465	73.57	75.5	-28.15	80.57	0.2573	-0.1013	339.5	-1 506c	21 506
34	570	14	470	72.31	77.62	-38.5	86.64	0.2591	-0.1074	333.6	-1 522c	24 522
35	579	15	475	68.89	79.19	-47.07	92.12	0.2618	-0.1133	329.2	-1 533c	26 533 Mm
41	606	16	480	59.35	70.77	-65.44	96.39	0.2621	-0.1289	317.2	-1 550c	30 550
-1	484c	16	485	49.78	43.57	-81.94	92.81	0.2483	-0.1477	298.0	10 454	32 560
-1	490c	18	490	53.06	30.12	-78.58	84.16	0.237	-0.1423	290.9	11 459	32 562 min
-1	495c	19	495	54.95	22.04	-76.01	79.14	0.2307	-0.139	286.1	12 461	32 563
-1	499c	19	500	54.95	22.04	-76.01	79.14	0.2307	-0.139	286.1	12 461	32 563
-1	510c	22	510	61.59	-5.06	-65.65	65.85	0.2119	-0.1278	265.5	13 466	33 566
-1	519c	23	520	64.03	-14.04	-61.63	63.21	0.2064	-0.124	257.1	13 468	33 568 Bm
-1	530c	26	530	71.66	-37.09	-48.77	61.27	0.1941	-0.1134	232.7	14 472	34 573
-1	539c	27	540	74.15	-42.73	-44.52	61.71	0.1915	-0.1103	226.1	14 473	35 576
-1	544c	28	545	76.56	-47.17	-40.39	62.1	0.1897	-0.1074	220.5	14 474	35 578
-1	549c	29	550	78.88	-50.39	-36.41	62.17	0.1887	-0.1048	215.8	15 475	36 580
-1	555c	31	555	83.16	-53.18	-29.03	60.59	0.1884	-0.1003	208.6	15 476	37 586
10	451	32	560	84.24	-82.62	12.24	83.52	0.174	-0.0796	171.5	18 492	-1 492c
380	770	95.41	0.0	0.0	0.0	0.2152	-0.0857	0.0				

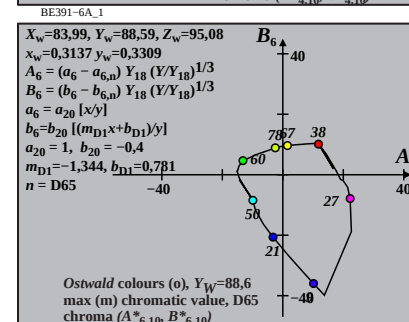
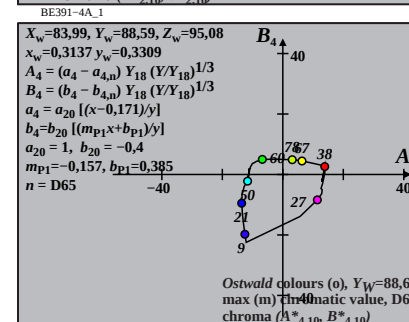
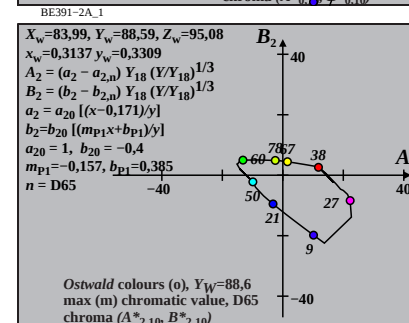
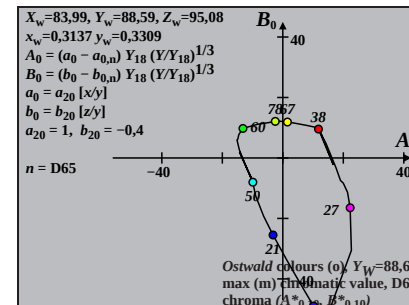
TUB-test chart BE39; CIE (x_{10} , y_{10}) and chroma ($A^*_{i,10}$, $B^*_{i,10}$)

Ostwald optimal colours for illuminant P60; diagram for illuminant P60, $Y_w=88,6$

input: w/rgb/cmyk -> rgb



BE391-1A_1



BE391-2A_1

TUB registration: 20170801-BE39/BE39L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

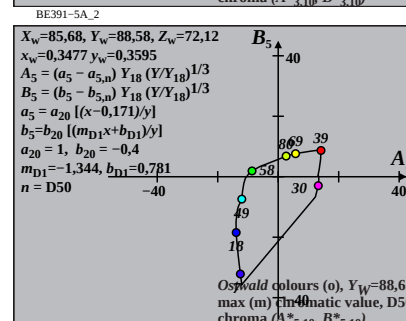
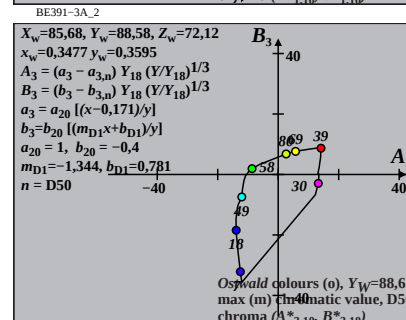
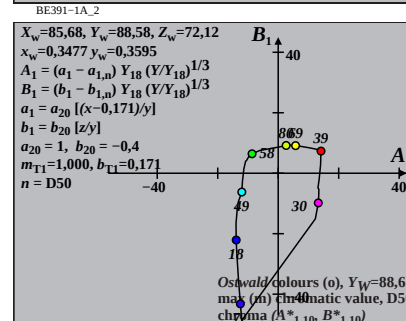
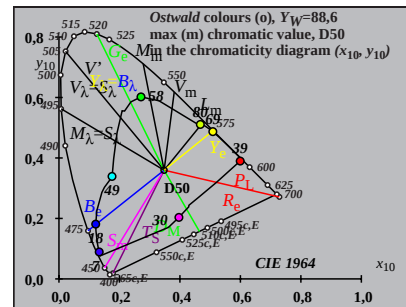
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for D50, $Y_w=88,6$, $Y_m=520,770$

i	λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
1	405	31 559	75.81	-74.14	-32.84	81.09	0.176	-0.0944	203.8	15 479	37 589		Cm
7	435	32 561	76.06	-88.18	-14.56	89.37	0.1685	-0.0853	189.3	16 484	58 693		
10	450	32 562	76.19	-101.94	9.91	102.42	0.161	-0.0733	174.4	18 493	-1 493c		
12	460	32 564	76.6	-107.87	31.3	112.32	0.1581	-0.0628	163.8	20 503	-1 503c		
13	465	33 566	77.17	-107.42	43.33	115.84	0.1587	-0.0571	158.0	22 512	-1 512c		
14	470	34 570	78.3	-103.34	56.29	117.68	0.1615	-0.0511	151.4	24 521	-1 521c		
15	475	35 576	80.26	-93.29	70.23	116.78	0.1679	-0.0451	143.0	26 531	-1 531c		Gm
16	480	38 590	84.26	-70.56	86.88	111.93	0.1812	-0.0388	129.0	28 543	-1 543c		
17	485	-1 485c	92.59	-10.86	109.97	110.51	0.2116	-0.0322	95.6	32 563	11 458		
18	490	-1 490c	92.0	-8.41	116.83	117.13	0.2127	-0.0291	94.1	32 564	12 460	max	
19	495	-1 495c	91.29	-5.39	122.85	122.97	0.2141	-0.0262	92.5	33 565	12 462		
20	500	-1 500c	90.45	-1.83	128.06	128.07	0.2158	-0.0236	90.8	33 566	12 464		
21	510	-1 509c	89.46	2.21	132.39	132.41	0.2177	-0.0212	89.0	33 567	13 466		
24	520	-1 520c	85.49	17.03	141.32	142.34	0.2251	-0.015	83.1	34 571	14 471	Ym	
25	530	-1 529c	83.78	22.72	140.61	142.43	0.2281	-0.0131	80.8	34 573	14 473		
28	540	-1 540c	77.61	40.65	133.26	139.33	0.2385	-0.0073	73.0	35 579	15 476		
29	545	-1 545c	75.23	46.62	129.53	137.66	0.2423	-0.0052	70.2	36 581	15 477		
29	550	-1 549c	75.23	46.62	129.53	137.66	0.2423	-0.0052	70.2	36 581	15 477		
31	555	-1 555c	70.05	57.92	120.77	133.95	0.2505	0.0	64.3	37 587	15 479		
32	560	2 411	67.3	63.8	87.6	108.37	0.2551	-0.0304	53.9	38 591	16 480		
31	559	1 405	76.33	53.04	58.6	79.04	0.2455	-0.0494	47.8	37 589	15 479	Rm	
32	561	7 435	76.08	60.36	17.87	62.95	0.2496	-0.0694	16.4	58 693	16 484		
32	562	10 450	75.95	66.6	-8.85	67.19	0.2531	-0.0825	352.4	-1 493c	18 493		
32	564	12 460	75.54	70.06	-22.73	73.65	0.2551	-0.0894	342.0	-1 503c	20 503		
33	566	13 465	74.95	71.45	-28.72	77.01	0.2561	-0.0925	338.0	-1 512c	22 512		
34	570	14 470	73.73	72.95	-34.74	80.8	0.2575	-0.0957	334.5	-1 521c	24 521		
35	576	15 475	71.45	74.03	-41.62	84.93	0.2592	-0.0998	330.6	-1 531c	26 531	Mm	
38	590	16 480	66.09	72.94	-53.03	90.18	0.2613	-0.1075	323.9	-1 543c	28 543		
-1	485c	17 485	49.46	26.62	-83.22	87.37	0.2371	-0.1358	287.7	11 458	32 563		
-1	490c	18 490	51.03	20.02	-81.6	84.02	0.2317	-0.1334	283.7	12 460	32 564	min	
-1	495c	19 495	52.81	12.42	-79.34	80.31	0.2257	-0.1305	278.9	12 462	33 565		
-1	500c	20 500	54.79	4.07	-76.52	76.63	0.2195	-0.1272	273.0	12 464	33 566		
-1	509c	21 510	56.93	-4.73	-73.24	73.39	0.2134	-0.1237	266.3	13 466	33 567		
-1	520c	24 520	64.19	-31.07	-61.41	68.83	0.1971	-0.1129	243.1	14 471	34 571	Bm	
-1	529c	25 530	66.8	-38.85	-57.03	69.01	0.193	-0.1094	235.7	14 473	34 573		
-1	540c	28 540	74.47	-55.6	-43.98	70.89	0.1857	-0.1002	218.3	15 476	35 579		
-1	545c	29 545	76.89	-58.7	-39.83	70.94	0.1849	-0.0976	214.1	15 477	36 581		
-1	549c	29 550	76.89	-58.7	-39.83	70.94	0.1849	-0.0976	214.1	15 477	36 581		
-1	555c	31 555	81.39	-61.1	-32.07	69.01	0.1851	-0.0931	207.6	15 479	37 587		
2	411	32 560	83.43	-61.66	-27.1	67.35	0.1854	-0.0905	203.7	16 480	38 591		
380	770	95.41	0.0	0.0	0.0	0.0	0.2166	-0.0782	0.0				

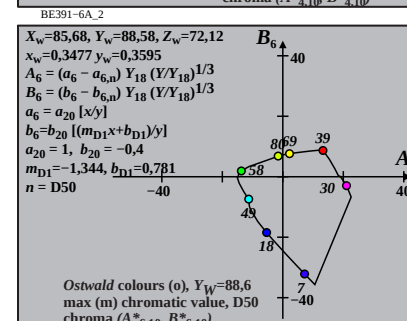
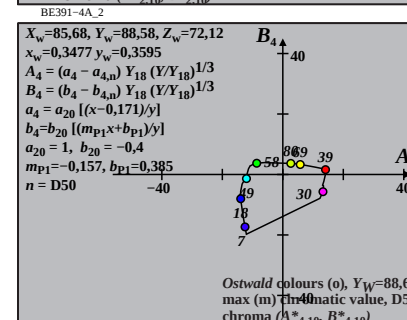
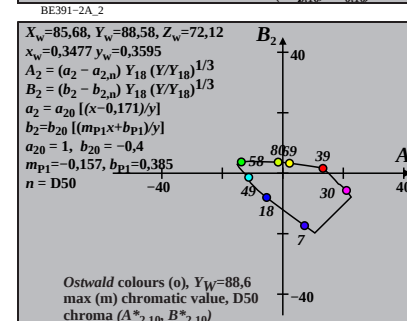
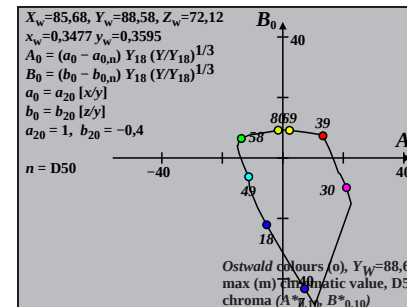
TUB-test chart BE39; CIE (x_{10} , y_{10}) and chroma ($A^*_{i,10}$, $B^*_{i,10}$)

Ostwald optimal colours for illuminant P55; diagram for illuminant P55, $Y_w=88,6$

input: w/rgb/cmyk -> rgb



BE391-7A_2



BE391-8A_2

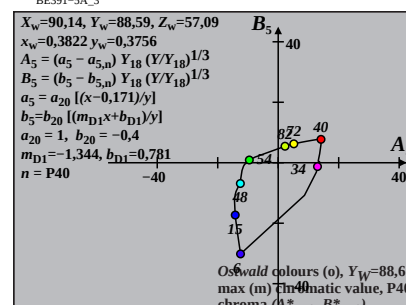
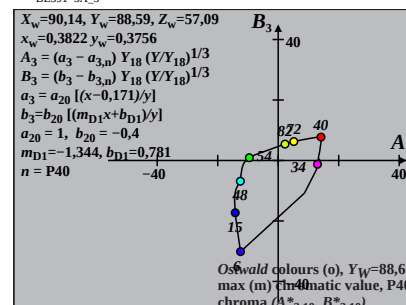
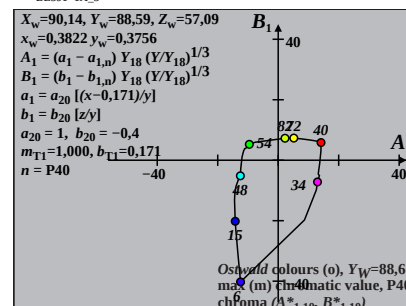
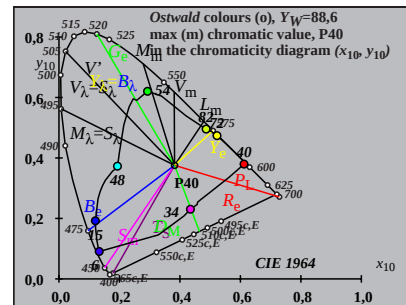
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for P40, $Y_{w,10}=88,6$, $Y_m=520_770$

i	λ_1	i	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	$C^*_{10AB,10}$	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	i	λ_c	Code
0	405	32	563	75.01	-78.15	-34.74	85.53	0.1764	-0.0883	203.9	16	481	38 591 Cm
7	435	32	564	75.18	-90.63	-14.29	91.75	0.1695	-0.0789	188.9	17	487	-1 487c
10	450	33	565	75.32	-100.3	9.01	100.71	0.1642	-0.0682	174.8	19	495	-1 495c
12	460	33	567	75.69	-103.79	29.0	107.76	0.1624	-0.059	164.3	21	505	-1 505c
12	465	33	568	76.47	-101.63	30.33	106.06	0.1641	-0.0585	163.3	21	506	-1 506c
14	470	34	571	77.13	-99.72	52.55	112.72	0.1656	-0.0486	152.2	24	521	-1 521c
15	475	35	576	78.75	-92.17	65.41	113.02	0.1706	-0.0433	144.6	26	531	-1 531c Gm
16	480	37	585	81.96	-75.87	80.35	110.51	0.1807	-0.0379	133.3	28	542	-1 542c
17	485	42	611	88.62	-36.75	100.49	107.0	0.2024	-0.032	110.0	31	558	-1 558c
17	490	-1	489c	93.2	-7.47	108.37	108.63	0.2168	-0.0306	93.9	33	566	11 458 max
19	495	-1	495c	92.1	-2.82	121.72	121.75	0.219	-0.025	91.3	33	568	12 463
20	500	-1	500c	91.38	0.21	127.19	127.19	0.2204	-0.0226	89.9	33	569	13 465
22	510	-1	510c	89.51	7.73	135.74	135.96	0.2241	-0.0183	86.7	34	571	13 469
23	520	-1	519c	88.34	12.18	143.87	144.38	0.2263	-0.0163	85.1	34	572	14 471 Ym
25	530	-1	529c	85.49	22.06	143.82	145.5	0.2314	-0.0126	81.2	35	575	14 474
28	540	-1	540c	79.96	38.44	137.33	142.61	0.2408	-0.007	74.3	36	581	15 477
28	545	-1	544c	79.96	38.44	137.33	142.61	0.2408	-0.007	74.3	36	581	15 477
30	550	-1	550c	75.47	49.47	130.1	139.19	0.248	-0.0029	69.1	37	585	15 479
31	555	-1	555c	72.99	54.76	125.85	137.25	0.2518	0.0	66.4	37	587	16 480
31	560	-1	559c	72.99	54.76	125.85	137.25	0.2518	0.0	66.4	37	587	16 480
32	563	0	405	77.11	53.37	61.87	81.71	0.2496	-0.0444	49.2	38	591	16 481 Rm
32	564	7	435	76.94	59.41	16.73	61.73	0.253	-0.0647	15.7	-1	487c	17 487
33	565	10	450	76.81	63.77	-7.84	64.25	0.2555	-0.0758	352.9	-1	495c	19 495
33	567	12	460	76.45	66.07	-20.78	69.26	0.2569	-0.0817	342.5	-1	505c	21 505
33	568	12	465	75.67	67.2	-22.12	70.75	0.2578	-0.0824	341.7	-1	506c	21 506
34	571	14	470	74.99	68.14	-32.02	75.29	0.2586	-0.0871	334.8	-1	521c	24 521
35	576	15	475	73.23	69.08	-38.0	78.84	0.2599	-0.0902	331.1	-1	531c	26 531 Mm
37	585	16	480	69.31	69.27	-46.95	83.69	0.2618	-0.0954	325.8	-1	542c	28 542
42	611	17	485	58.64	56.13	-66.97	87.38	0.2588	-0.11	309.9	-1	558c	31 558
-1	489c	17	490	47.74	20.07	-85.76	88.08	0.2364	-0.1288	283.1	11	458	33 566 min
-1	495c	19	495	50.79	7.17	-82.57	82.88	0.2258	-0.1242	274.9	12	463	33 568
-1	500c	20	500	52.61	-0.53	-80.07	80.07	0.2199	-0.1213	269.6	13	465	33 569
-1	510c	22	510	56.83	-17.46	-73.6	75.65	0.2081	-0.1147	256.6	13	469	34 571
-1	519c	23	520	59.19	-26.14	-69.79	74.52	0.2025	-0.1113	249.4	14	471	34 572 Bm
-1	529c	25	530	64.19	-42.07	-61.49	74.51	0.1935	-0.1045	235.6	14	474	35 575
-1	540c	28	540	71.82	-59.01	-48.54	76.41	0.186	-0.0955	219.4	15	477	36 581
-1	544c	28	545	71.82	-59.01	-48.54	76.41	0.186	-0.0955	219.4	15	477	36 581
-1	550c	30	550	76.66	-64.32	-40.23	75.87	0.1848	-0.0905	212.0	15	479	37 585
-1	555c	31	555	78.96	-65.09	-36.27	74.51	0.1853	-0.0883	209.1	16	480	37 587
-1	559c	31	560	78.96	-65.09	-36.27	74.51	0.1853	-0.0883	209.1	16	480	37 587
380	770	95.41	0.0	0.0	0.0	0.0	0.2203	-0.0723	0.0				

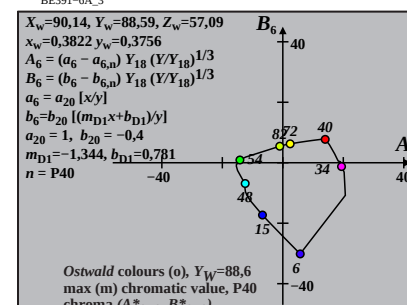
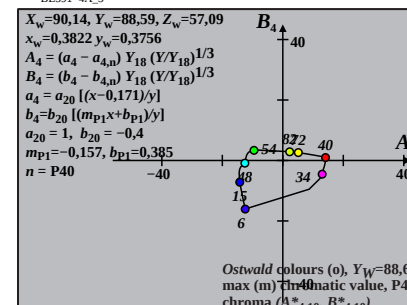
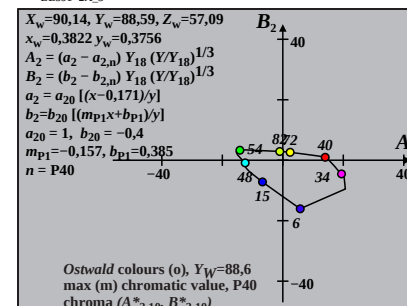
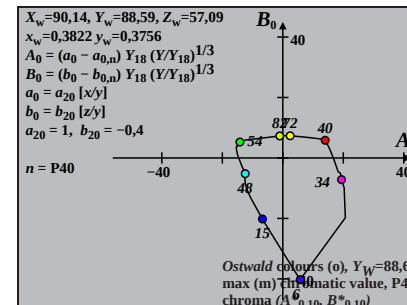
TUB-test chart BE39; CIE (x_{10}, y_{10}) and chroma ($A^*_{i,10}, B^*_{i,10}$)

Ostwald optimal colours for illuminant P50; diagram for illuminant P50, $Y_{w,10}=88,6$

input: w/rgb/cmyk -> rgb



BE391-1A_3, BE391-1A_3, BE391-3A_3, BE391-5A_3, BE391-7A_3



BE391-2A_3, BE391-4A_3, BE391-6A_3, BE391-8A_3

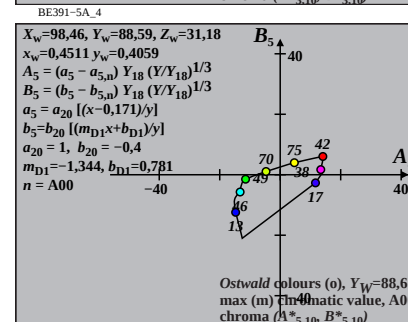
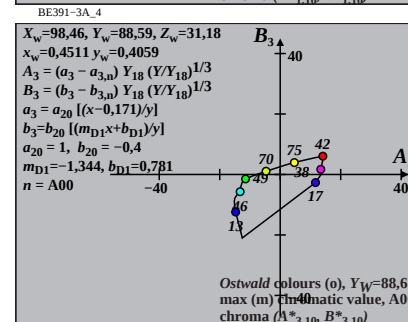
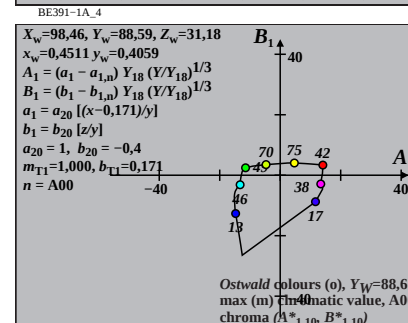
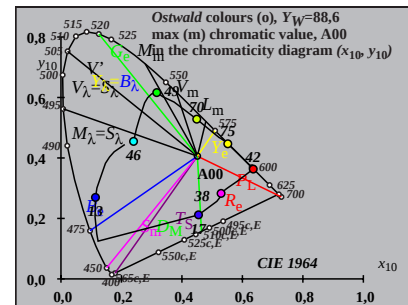
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for A00, $Y_w=88,6$, $Y_m=520_770$

λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
1	405	34	570	73.74	-85.09	-36.67	92.66	0.177	-0.0731	203.3	17 487 39 597	Cm
7	435	34	570	73.86	-89.97	-20.7	92.32	0.1742	-0.067	192.9	18 491 47 639	
9	450	34	571	74.03	-92.62	-7.66	92.94	0.1727	-0.062	184.7	19 495 -1 495c	
12	460	34	572	74.16	-95.85	18.39	97.6	0.1709	-0.0521	169.1	21 505 -1 505c	
13	465	34	573	74.43	-95.43	28.93	99.72	0.1713	-0.0481	163.1	22 512 -1 512c	
14	470	34	574	74.95	-93.68	40.09	101.89	0.1727	-0.044	156.8	24 520 -1 520c	
15	475	35	576	75.82	-89.67	51.52	103.42	0.1755	-0.0398	150.1	25 528 -1 528c	Gm
16	480	36	581	77.49	-82.26	63.76	104.08	0.1806	-0.0357	142.2	27 537 -1 537c	
17	485	37	588	80.42	-68.73	77.58	103.65	0.1894	-0.0315	131.5	29 547 -1 547c	
18	490	41	609	86.98	-36.46	97.04	103.66	0.2083	-0.0268	110.5	32 561 -1 561c	max
19	495	-1 495c	93.32	1.05	115.54	115.54	0.2274	-0.0228	89.4	34 573 13 465		
20	500	-1 500c	92.8	3.25	121.7	121.75	0.2285	-0.0207	88.4	34 573 13 468		
21	510	-1 509c	92.17	5.86	127.16	127.29	0.2298	-0.0187	87.3	34 574 14 470		
24	520	-1 520c	89.43	16.25	140.1	141.04	0.235	-0.0135	83.3	35 577 15 476	Ym	
25	530	-1 529c	88.22	20.43	148.92	150.31	0.2372	-0.0118	82.1	35 578 15 477		
27	540	-1 539c	85.3	29.63	146.0	148.98	0.2423	-0.0084	78.5	36 581 16 480		
29	545	-1 545c	81.72	39.57	140.72	146.18	0.2482	-0.0048	74.2	37 585 16 483		
30	550	-1 550c	79.68	44.6	137.34	144.41	0.2515	-0.0027	72.0	37 587 16 484		
31	555	-1 555c	77.46	49.59	133.55	142.46	0.2549	0.0	69.6	37 589 17 485		
32	560	-1 560c	75.06	54.41	129.42	140.39	0.2584	0.0	67.1	38 592 17 486		
34	570	1 405	78.29	53.9	62.95	82.87	0.257	-0.0362	49.4	39 597 17 487	Rm	
34	570	7 435	78.18	56.21	25.17	61.59	0.2583	-0.0499	24.1	47 639 18 491		
34	571	9 450	78.02	57.68	7.74	58.2	0.2592	-0.0563	7.6	-1 495c 19 495		
34	572	12 460	77.9	59.26	-13.81	60.85	0.2601	-0.0641	346.8	-1 505c 21 505		
34	573	13 465	77.65	59.7	-19.76	62.89	0.2605	-0.0663	341.6	-1 512c 22 512		
34	574	14 470	77.16	60.18	-25.13	65.21	0.2609	-0.0683	337.3	-1 520c 24 520		
35	576	15 475	76.32	60.48	-30.12	67.56	0.2614	-0.0703	333.5	-1 528c 25 528	Mm	
36	581	16 480	74.61	60.92	-35.76	70.64	0.2623	-0.0726	329.5	-1 537c 27 537		
37	588	17 485	71.26	60.53	-43.56	74.58	0.2634	-0.0762	324.2	-1 547c 29 547		
41	609	18 490	61.68	50.84	-61.61	79.88	0.2614	-0.0863	309.5	-1 561c 32 561	min	
-1 495c	19 495	47.38	-3.17	-87.44	87.5	0.2243	-0.1064	267.9	13 465 34 573			
-1 500c	20 500	48.88	-9.53	-85.73	86.25	0.2192	-0.1044	263.6	13 468 34 573			
-1 509c	21 510	50.6	-16.61	-83.41	85.05	0.2138	-0.1021	258.7	14 470 34 574			
-1 520c	24 520	57.0	-40.0	-73.54	83.71	0.198	-0.0937	241.4	15 476 35 577	Bm		
-1 529c	25 530	59.42	-47.39	-69.57	84.18	0.1938	-0.0907	235.7	15 477 35 578			
-1 539c	27 540	64.49	-59.97	-61.09	85.61	0.1877	-0.0851	225.5	16 480 36 581			
-1 545c	29 545	69.63	-68.42	-52.33	86.14	0.1848	-0.0801	217.4	16 483 37 585			
-1 550c	30 550	72.16	-70.79	-47.99	85.53	0.1846	-0.0778	214.1	16 484 37 587			
-1 555c	31 555	74.64	-71.88	-43.71	84.13	0.1851	-0.0756	211.3	17 485 37 589			
-1 560c	32 560	77.06	-71.7	-39.54	81.88	0.1863	-0.0737	208.8	17 486 38 592			
380	770	95.41	0.0	0.0	0.0	0.2269	-0.0591	0.0				

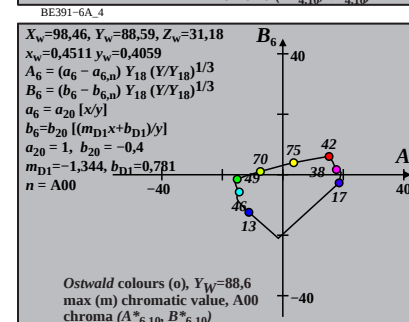
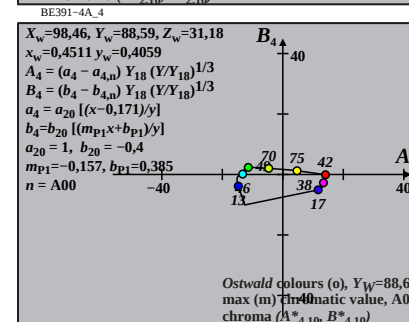
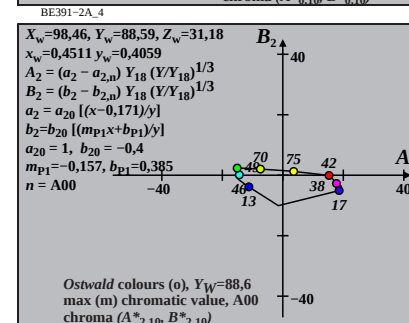
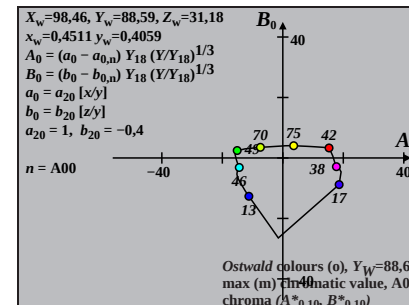
TUB-test chart BE39; CIE (x_{10}, y_{10}) and chroma ($A^*_{i,10}, B^*_{i,10}$)

Ostwald optimal colours for illuminant P45; diagram for illuminant P45, $Y_w=88,6$

input: w/rgb/cmyk -> rgb



BE391-7A_4



BE391-8A_4

TUB registration: 20170801-BE39/BE39L0NP.PDF / PS
application for measurement of offset print output

TUB material: code=rha4ta

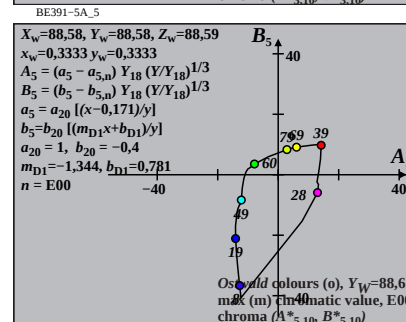
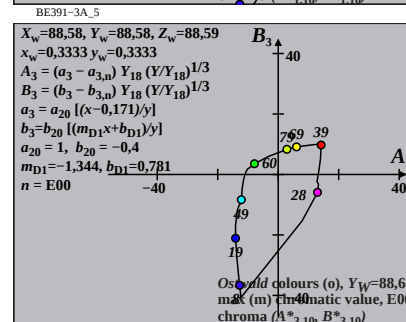
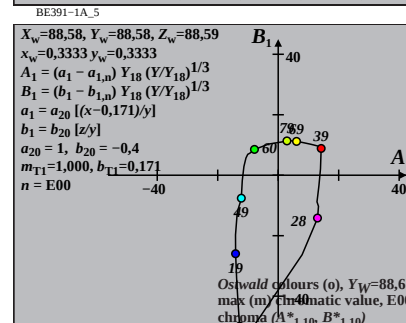
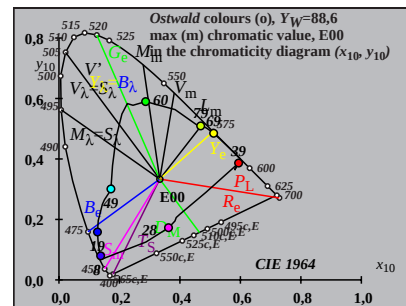
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for E00, $Y_{w,10}=88,6$, $Y_m=520_770$

i	λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	$C^*_{10AB,10}$	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
1	405	31 559	75.65	-67.2	-32.61	74.69	0.1818	-0.101	205.8	15 477	37 589		Cm
7	435	32 561	75.87	-88.44	-8.71	88.87	0.1701	-0.0883	185.6	16 484	-1 484c		
10	450	32 562	76.06	-104.28	16.79	105.62	0.1615	-0.0748	170.8	18 493	-1 493c		
12	460	33 565	76.64	-110.19	37.99	116.55	0.1586	-0.0638	160.9	21 506	-1 506c		
13	465	33 568	77.42	-108.99	50.06	119.94	0.1597	-0.0577	155.3	23 515	-1 515c		
13	470	34 572	79.37	-102.27	53.42	115.38	0.1645	-0.0565	152.4	24 520	-1 520c		
14	475	36 581	82.07	-90.25	68.7	113.43	0.1723	-0.0497	142.7	26 532	-1 532c		Gm
16	480	40 604	87.54	-53.52	97.39	111.13	0.1928	-0.038	118.7	30 551	-1 551c		
17	485	-1 485c	92.28	-15.22	113.98	114.99	0.2119	-0.0326	97.6	32 564	11 456		
18	490	-1 490c	91.66	-12.62	120.55	121.21	0.2131	-0.0293	95.9	32 564	11 458		max
19	495	-1 495c	90.93	-9.49	126.23	126.58	0.2145	-0.0263	94.3	33 565	12 460		
20	500	-1 500c	90.06	-5.84	131.06	131.19	0.2162	-0.0236	92.5	33 566	12 462		
22	510	-1 510c	87.88	2.91	138.36	138.39	0.2205	-0.019	88.7	33 569	13 466		
23	520	-1 519c	86.54	7.96	140.28	140.5	0.223	-0.0169	86.7	34 570	13 468		Ym
25	530	-1 529c	83.36	18.92	140.03	141.3	0.2287	-0.013	82.3	34 573	14 470		
27	540	-1 539c	79.53	30.56	135.94	139.34	0.2353	-0.0092	77.3	35 577	14 473		
29	545	-1 545c	75.08	42.27	129.27	136.01	0.2426	-0.0052	71.8	36 582	15 475		
29	550	-1 549c	75.08	42.27	129.27	136.01	0.2426	-0.0052	71.8	36 582	15 475		
31	555	-1 555c	70.06	53.33	120.8	132.05	0.2505	0.0	66.1	37 587	15 476		
32	560	3 415	67.43	60.92	66.58	90.25	0.2562	-0.0449	47.5	39 595	15 478		
31	559	1 405	76.48	49.11	57.09	75.31	0.246	-0.0537	49.2	37 589	15 477		Rm
32	561	7 435	76.27	60.04	9.71	60.82	0.2521	-0.0786	9.1	-1 484c	16 484		
32	562	10 450	76.08	67.21	-13.83	68.62	0.2562	-0.091	348.3	-1 493c	18 493		
33	565	12 460	75.49	71.09	-25.93	75.67	0.2585	-0.0975	339.9	-1 506c	21 506		
33	568	13 465	74.68	72.8	-31.54	79.34	0.2599	-0.1006	336.5	-1 515c	23 515		
34	572	13 470	72.52	75.64	-35.27	83.46	0.2625	-0.1031	335.0	-1 520c	24 520		
36	581	14 475	69.17	78.13	-44.35	89.84	0.2657	-0.109	330.4	-1 532c	26 532		Mm
40	604	16 480	60.68	70.33	-63.25	94.59	0.2657	-0.1238	318.0	-1 551c	30 551		
-1	485c	17 485	50.29	34.87	-82.44	89.51	0.2458	-0.1441	292.9	11 456	32 564		
-1	490c	18 490	51.91	28.09	-80.6	85.35	0.2401	-0.1414	289.2	11 458	32 564		min
-1	495c	19 495	53.69	20.46	-78.19	80.82	0.234	-0.1382	284.6	12 460	33 565		
-1	500c	20 500	55.65	12.15	-75.29	76.27	0.2277	-0.1348	279.1	12 462	33 566		
-1	510c	22 510	60.05	-5.57	-68.3	68.53	0.2153	-0.1274	265.3	13 466	33 569		
-1	519c	23 520	62.45	-14.46	-64.35	65.96	0.2097	-0.1236	257.3	13 468	34 570		Bm
-1	529c	25 530	67.4	-30.6	-56.04	63.85	0.2004	-0.1164	241.3	14 470	34 573		
-1	539c	27 540	72.33	-43.16	-47.64	64.29	0.1942	-0.1099	227.8	14 473	35 577		
-1	545c	29 545	77.04	-51.32	-39.57	64.81	0.191	-0.1044	217.6	15 475	36 582		
-1	549c	29 550	77.04	-51.32	-39.57	64.81	0.191	-0.1044	217.6	15 475	36 582		
-1	555c	31 555	81.38	-54.76	-32.09	63.48	0.1905	-0.0997	210.3	15 476	37 587		
3	415	32 560	83.33	-58.24	-24.81	63.3	0.1892	-0.0959	203.0	15 478	39 595		
380	770	95.41	0.0	0.0	0.0	0.0	0.219	-0.0837	0.0				

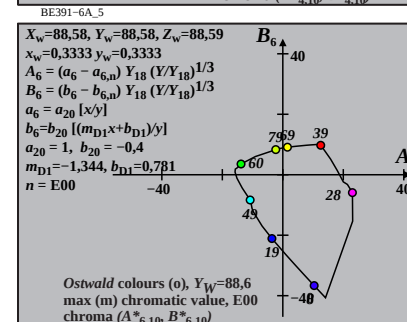
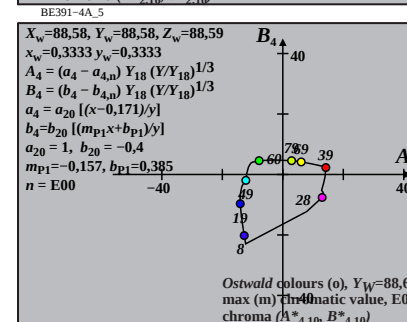
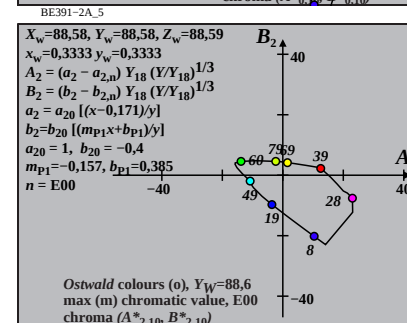
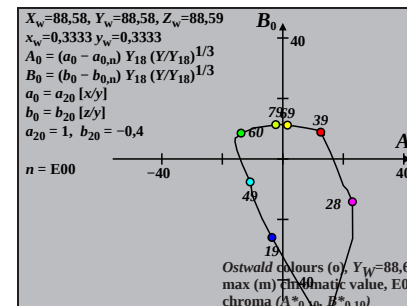
TUB-test chart BE39; CIE (x_{10}, y_{10}) and chroma ($A^*_{i,10}, B^*_{i,10}$)

Ostwald optimal colours for illuminant P40; diagram for illuminant P40, $Y_{w,10}=88,6$

input: w/rgb/cmyk -> rgb



BE391-7A_5



BE391-8A_5

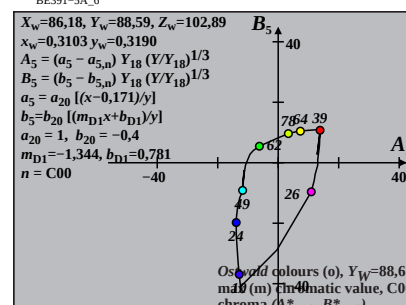
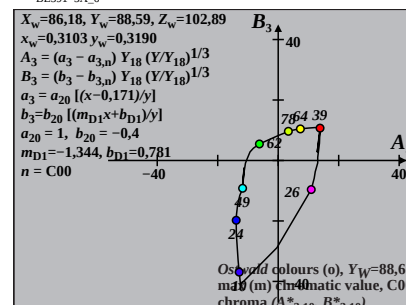
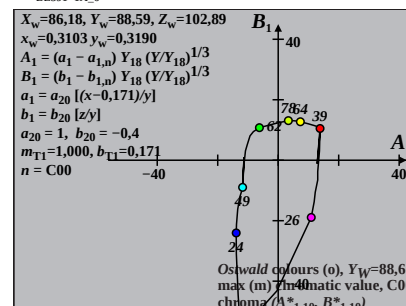
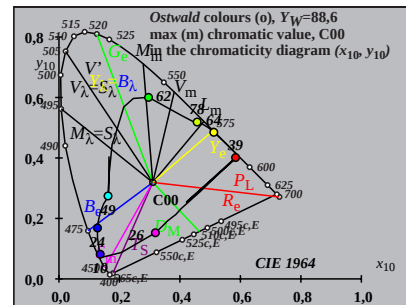
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for C00, $Y_w=88,6$, $Y_m=520,770$

λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
1	405	31	556	75.77	-60.45	-32.97	68.85	0.1839	-0.1063	208.6	15 475 37 586	Cm
6	435	31	558	76.29	-76.89	-17.04	78.75	0.1751	-0.0974	192.4	16 480 44 623	
9	450	32	560	76.66	-96.46	6.49	96.67	0.1646	-0.0844	176.1	17 487 -1 487c	
12	460	32	563	77.08	-110.7	37.45	116.87	0.1571	-0.0674	161.3	20 504 -1 504c	
12	465	33	566	78.48	-106.72	39.87	113.92	0.1601	-0.0664	159.5	21 507 -1 507c	
13	470	34	572	80.35	-101.75	54.2	115.29	0.1638	-0.0593	151.9	24 520 -1 520c	
14	475	36	582	83.51	-87.05	70.77	112.18	0.173	-0.0517	140.8	26 533 -1 533c	Gm
16	480	44	622	90.21	-36.45	102.78	109.05	0.1998	-0.0386	109.5	31 556 0 403	
17	485	-1	485c	91.61	-18.09	114.22	115.64	0.2086	-0.0338	99.0	32 562 11 456	
18	490	-1	490c	90.87	-14.99	121.11	122.04	0.21	-0.0301	97.0	32 563 11 459	max
19	495	-1	495c	90.02	-11.38	126.96	127.47	0.2116	-0.0268	95.1	32 564 12 461	
20	500	-1	500c	89.06	-7.35	131.81	132.01	0.2135	-0.0239	93.1	33 565 12 463	
22	510	-1	510c	86.81	1.71	136.8	136.81	0.2179	-0.0191	89.2	33 567 13 466	
24	520	-1	520c	83.99	11.93	139.02	139.53	0.2231	-0.015	85.0	34 570 13 468	Ym
26	530	-1	530c	80.5	23.1	136.58	138.52	0.2291	-0.0113	80.3	34 574 14 471	
28	540	-1	540c	76.2	35.1	130.82	135.45	0.2362	-0.0074	74.9	35 578 14 473	
28	545	-1	544c	76.2	35.1	130.82	135.45	0.2362	-0.0074	74.9	35 578 14 473	
29	550	-1	549c	73.75	41.16	126.97	133.47	0.2402	-0.0053	72.0	36 580 14 474	
31	555	-1	555c	68.31	52.84	117.77	129.08	0.2486	0.0	65.8	37 585 15 475	
31	560	9	447	69.42	71.85	-5.06	72.03	0.2594	-0.091	355.9	-1 487c 17 487	
31	556	1	405	76.37	45.58	58.88	74.47	0.2419	-0.0554	52.2	37 586 15 475	Rm
31	558	6	435	75.85	55.45	22.04	59.67	0.2475	-0.0757	21.6	44 623 16 480	
32	560	9	450	75.47	65.51	-6.15	65.8	0.2531	-0.0914	354.6	-1 487c 17 487	
32	563	12	460	75.03	72.52	-26.13	77.09	0.2572	-0.1027	340.1	-1 504c 20 504	
33	566	12	465	73.52	74.95	-28.74	80.27	0.2592	-0.1044	339.0	-1 507c 21 507	
34	572	13	470	71.35	78.46	-36.96	86.73	0.2623	-0.1096	334.7	-1 520c 24 520	
36	582	14	475	67.19	81.2	-47.65	94.15	0.2662	-0.1173	329.5	-1 533c 26 533	Mm
44	622	16	480	55.32	61.46	-72.61	95.13	0.2605	-0.14	310.2	0 403 31 556	
-1	485c	17	485	52.03	38.3	-79.64	88.37	0.2454	-0.1478	295.6	11 456 32 562	
-1	490c	18	490	53.83	30.74	-77.48	83.36	0.2392	-0.1447	291.6	11 459 32 563	min
-1	495c	19	495	55.74	22.55	-74.84	78.17	0.2329	-0.1413	286.7	12 461 32 564	
-1	500c	20	500	57.76	14.04	-71.83	73.19	0.2266	-0.1377	281.0	12 463 33 565	
-1	510c	22	510	61.99	-3.02	-65.05	65.12	0.2151	-0.1306	267.3	13 466 33 567	
-1	520c	24	520	66.49	-19.03	-57.56	60.63	0.2054	-0.1236	251.7	13 468 34 570	Bm
-1	530c	26	530	71.17	-32.67	-49.62	59.41	0.1982	-0.1171	236.6	14 471 34 574	
-1	540c	28	540	75.95	-42.99	-41.45	59.72	0.1935	-0.111	223.9	14 473 35 578	
-1	544c	28	545	75.95	-42.99	-41.45	59.72	0.1935	-0.111	223.9	14 473 35 578	
-1	549c	29	550	78.28	-46.54	-37.43	59.73	0.1922	-0.1083	218.8	14 474 36 580	
-1	555c	31	555	82.71	-50.08	-29.81	58.28	0.1915	-0.1034	210.7	15 475 37 585	
9	447	31	560	81.88	-80.49	4.08	80.6	0.1756	-0.0859	177.0	17 487 -1 487c	
380	770	95.41	0.0	0.0	0.0	0.0	0.0	0.2171	-0.088	0.0		

TUB-test chart BE39; CIE (x_{10} , y_{10}) and chroma ($A^*_{i,10}$, $B^*_{i,10}$)

Ostwald optimal colours for illuminant P35; diagram for illuminant P35, $Y_w=88,6$

input: w/rgb/cmyk -> rgb

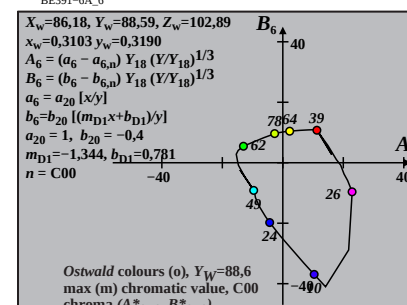
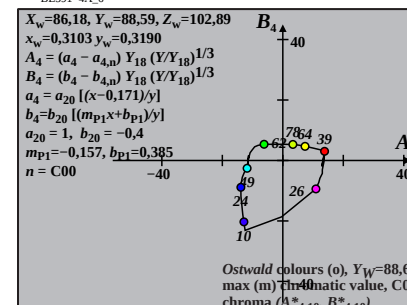
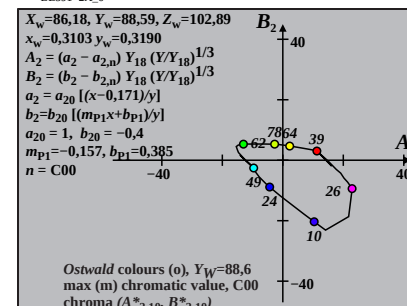
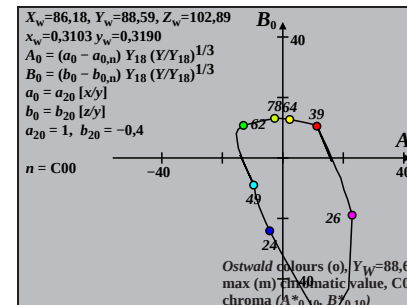


BE391-1A_6

BE391-3A_6

BE391-5A_6

BE391-7A_6



BE391-2A_6

BE391-4A_6

BE391-6A_6

BE391-8A_6

TUB registration: 20170801-BE39/BE39L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

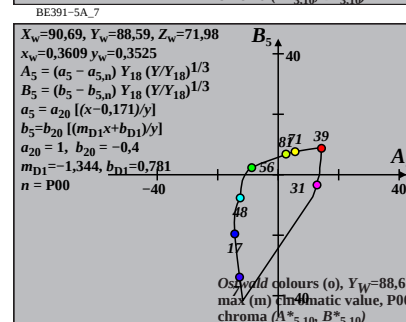
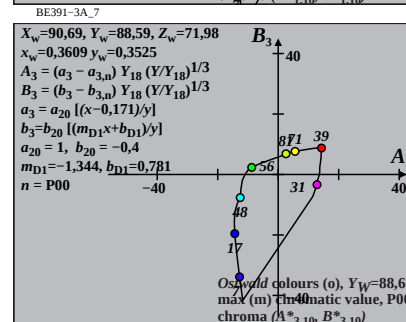
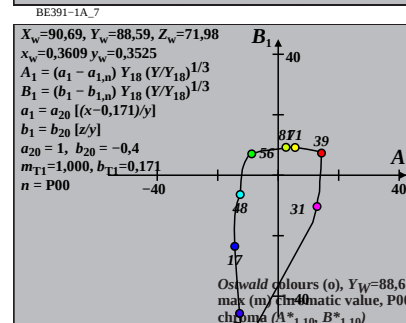
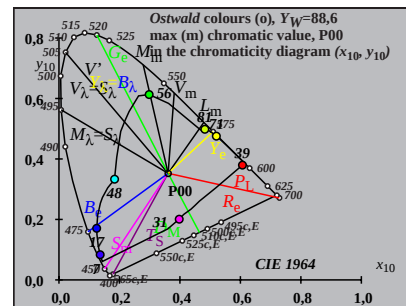
Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for P00, $Y_{w,10}=88,6$, $Y_m=520_770$

i	λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
0	405	32 562	75.23	-72.6	-34.22	80.26	0.18	-0.0951	205.2	15 479	38 591		Cm
7	435	32 563	75.4	-89.74	-11.04	90.42	0.1705	-0.0836	187.0	17 485	-1 485c		
9	450	32 564	75.75	-98.0	5.01	98.12	0.166	-0.0756	177.0	18 491	-1 491c		
12	460	33 567	76.03	-106.52	34.29	111.91	0.1615	-0.0612	162.1	21 506	-1 506c		
13	465	33 569	76.67	-105.75	46.01	115.32	0.1623	-0.0556	156.4	22 514	-1 514c		
13	470	34 572	78.26	-100.34	48.76	111.56	0.1662	-0.0547	154.0	23 518	-1 518c		
15	475	35 579	80.0	-90.86	72.33	116.14	0.1723	-0.0439	141.4	26 534	-1 534c		Gm
16	480	38 593	84.47	-66.52	89.29	111.35	0.1868	-0.0378	126.6	29 547	-1 547c		
17	485	-1 485c	92.79	-10.84	112.12	112.64	0.2157	-0.0314	95.5	33 566	11 457		
17	490	-1 489c	92.79	-10.84	112.12	112.64	0.2157	-0.0314	95.5	33 566	11 457		max
19	495	-1 495c	91.59	-5.77	124.83	124.96	0.218	-0.0255	92.6	33 567	12 461		
19	500	-1 499c	91.59	-5.77	124.83	124.96	0.218	-0.0255	92.6	33 567	12 461		
22	510	-1 510c	88.85	5.43	137.75	137.86	0.2234	-0.0185	87.7	34 570	13 467		
23	520	-1 519c	87.62	10.07	142.54	142.89	0.2258	-0.0165	85.9	34 572	13 469		Ym
26	530	-1 530c	82.96	25.7	140.91	143.24	0.2341	-0.0109	79.6	35 577	14 473		
28	540	-1 540c	79.05	36.94	135.77	140.71	0.2407	-0.0071	74.7	36 580	15 475		
28	545	-1 544c	79.05	36.94	135.77	140.71	0.2407	-0.0071	74.7	36 580	15 475		
29	550	-1 549c	76.87	42.55	132.36	139.03	0.2442	-0.0051	72.1	36 583	15 476		
31	555	-1 555c	72.06	53.34	124.25	135.21	0.2518	0.0	66.7	37 587	15 478		
32	560	-1 560c	69.43	58.34	119.7	133.16	0.2558	0.0	64.0	38 590	15 479		
32	562	0 405	76.9	51.08	60.98	79.55	0.2489	-0.0483	50.0	38 591	15 479		Rm
32	563	7 435	76.73	59.53	12.44	60.82	0.2537	-0.072	11.8	-1 485c	17 485		
32	564	9 450	76.39	63.88	-4.65	64.05	0.2562	-0.0804	355.8	-1 491c	18 491		
33	567	12 460	76.11	68.02	-23.66	72.02	0.2586	-0.0898	340.8	-1 506c	21 506		
33	569	13 465	75.47	69.4	-29.19	75.29	0.2597	-0.0926	337.1	-1 514c	22 514		
34	572	13 470	73.77	71.53	-32.12	78.41	0.2616	-0.0943	335.8	-1 518c	23 518		
35	579	15 475	71.77	72.0	-41.68	83.19	0.2628	-0.0996	329.9	-1 534c	26 534		Mm
38	593	16 480	65.77	70.67	-53.96	88.91	0.2651	-0.108	322.6	-1 547c	29 547		
-1	485c	17 485	48.91	27.05	-84.44	88.67	0.2421	-0.1371	287.7	11 457	33 566		min
-1	489c	17 490	48.91	27.05	-84.44	88.67	0.2421	-0.1371	287.7	11 457	33 566		
-1	495c	19 495	52.08	13.6	-80.74	81.88	0.231	-0.1319	279.5	12 461	33 567		
-1	499c	19 500	52.08	13.6	-80.74	81.88	0.231	-0.1319	279.5	12 461	33 567		
-1	510c	22 510	58.2	-11.38	-71.41	72.31	0.2129	-0.1218	260.9	13 467	34 570		
-1	519c	23 520	60.54	-20.07	-67.57	70.49	0.2073	-0.1181	253.4	13 469	34 572		Bm
-1	530c	26 530	67.95	-42.77	-55.13	69.78	0.1947	-0.1079	232.1	14 473	35 577		
-1	540c	28 540	72.88	-53.23	-46.72	70.82	0.1901	-0.1019	221.2	15 475	36 580		
-1	544c	28 545	72.88	-53.23	-46.72	70.82	0.1901	-0.1019	221.2	15 475	36 580		
-1	549c	29 550	75.25	-56.71	-42.65	70.96	0.1889	-0.0993	216.9	15 476	36 583		
-1	555c	31 555	79.76	-60.07	-34.89	69.47	0.1886	-0.0946	210.1	15 478	37 587		
-1	560c	32 560	81.87	-59.98	-31.25	67.63	0.1894	-0.0926	207.5	15 479	38 590		
380	770	95.41	0.0	0.0	0.0	0.2208	-0.0781	0.0					

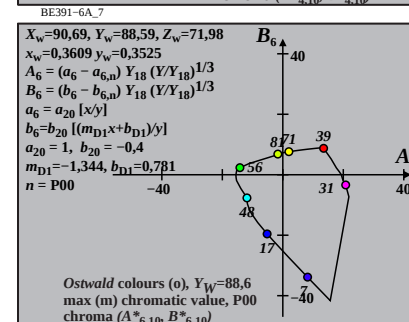
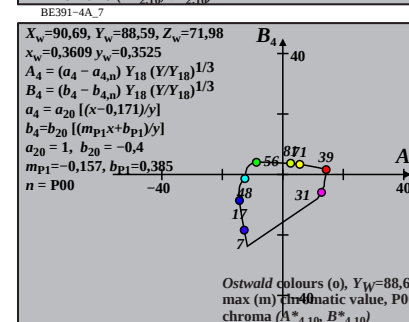
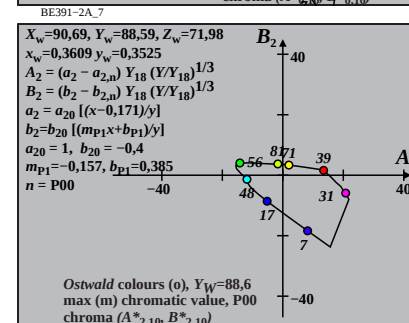
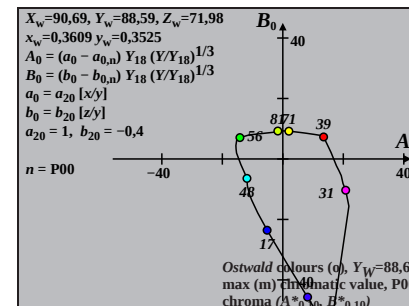
TUB-test chart BE39; CIE (x_{10} , y_{10}) and chroma ($A^*_{i,10}$, $B^*_{i,10}$)

Ostwald optimal colours for illuminant P30; diagram for illuminant P30, $Y_{w,10}=88,6$

input: w/rgb/cmyk -> rgb



BE391-7A_7



BE391-8A_7

TUB registration: 20170801-BE39/BE39L0NP.PDF / PS
application for measurement of offset print output

TUB material: code=rha4ta

Ostwald optimal colours (o) of maximum (m) $C_{AB,10}$ for Q00, $Y_w=88.6$, $Y_m=520.770$

i	λ_1	λ_2	L^*_{10}	A^*_{10}	B^*_{10}	C^*_{10AB}	a^*_{10}	b^*_{10}	$h_{10a^*b^*}$	λ_d	i_c	λ_c	Code
1	405	31	556	76.0	-60.53	-31.91	68.43	0.1841	-0.1064	207.7	15	475	37 587 Cm
7	435	31	558	76.28	-86.6	-6.97	86.88	0.17	-0.0925	184.6	16	482	-1 482c
10	450	32	560	76.52	-106.19	19.17	107.9	0.1594	-0.0779	169.7	18	493	-1 493c
12	460	32	563	77.21	-113.29	40.82	120.42	0.156	-0.0661	160.1	21	506	-1 506c
13	465	33	566	78.14	-112.18	53.23	124.17	0.1572	-0.0595	154.6	23	515	-1 515c
13	470	34	572	80.43	-103.98	57.18	118.67	0.1629	-0.0581	151.1	24	520	-1 520c
15	475	36	583	83.12	-87.88	82.54	120.57	0.1726	-0.0458	136.7	27	536	-1 536c Gm
15	480	45	629	91.51	-35.16	96.99	103.17	0.2008	-0.0422	109.9	31	556	2 413
17	485	-1	485c	91.78	-20.01	115.08	116.81	0.208	-0.0337	99.8	32	561	11 455
17	490	-1	489c	91.78	-20.01	115.08	116.81	0.208	-0.0337	99.8	32	561	11 455 max
18	495	-1	494c	91.08	-17.1	121.47	122.67	0.2093	-0.0302	98.0	32	562	11 458
19	500	-1	499c	90.27	-13.62	126.93	127.66	0.2109	-0.0271	96.1	32	563	12 460
21	510	-1	509c	88.2	-5.03	135.24	135.33	0.2149	-0.0218	92.1	33	566	12 464
24	520	-1	520c	83.83	11.22	138.44	138.9	0.223	-0.0153	85.3	34	570	13 468 Ym
26	530	-1	530c	80.07	23.26	135.82	137.79	0.2295	-0.0114	80.2	34	574	14 471
27	540	-1	539c	77.94	29.43	133.19	136.41	0.2331	-0.0094	77.5	35	576	14 472
29	545	-1	545c	73.25	41.61	126.12	132.8	0.2408	-0.0053	71.7	36	581	14 474
30	550	-1	550c	70.7	47.41	121.87	130.77	0.2449	-0.003	68.7	36	583	15 475
30	555	-1	554c	70.7	47.41	121.87	130.77	0.2449	-0.003	68.7	36	583	15 475
31	560	9	447	69.2	73.77	-8.69	74.28	0.261	-0.0938	353.2	-1	488c	17 488
31	556	1	405	76.14	46.06	56.15	72.62	0.2425	-0.0572	50.6	37	587	15 475 Rm
31	558	7	435	75.86	60.15	7.72	60.65	0.2504	-0.0842	7.3	-1	482c	16 482
32	560	10	450	75.62	69.18	-15.69	70.94	0.2554	-0.0974	347.2	-1	493c	18 493
32	563	12	460	74.9	73.88	-27.74	78.92	0.2583	-0.1043	339.4	-1	506c	21 506
33	566	13	465	73.9	76.17	-33.53	83.23	0.2601	-0.1077	336.2	-1	515c	23 515
34	572	13	470	71.25	79.77	-38.1	88.4	0.2634	-0.111	334.4	-1	520c	24 520
36	583	15	475	67.73	80.34	-49.71	94.48	0.2657	-0.1191	328.2	-1	536c	27 536 Mm
45	629	15	480	52.29	65.19	-76.34	100.39	0.2655	-0.146	310.4	2	413	31 556
-1	485c	17	485	51.6	42.29	-80.46	90.9	0.2489	-0.1498	297.7	11	455	32 561
-1	489c	17	490	51.6	42.29	-80.46	90.9	0.2489	-0.1498	297.7	11	455	32 561 min
-1	494c	18	495	53.32	35.06	-78.37	85.85	0.2428	-0.1467	294.1	11	458	32 562
-1	499c	19	500	55.2	27.0	-75.74	80.41	0.2365	-0.1433	289.6	12	460	32 563
-1	509c	21	510	59.46	9.23	-69.17	69.78	0.2235	-0.1357	277.6	12	464	33 566
-1	520c	24	520	66.73	-17.63	-57.14	59.8	0.2066	-0.1241	252.8	13	468	34 570 Bm
-1	530c	26	530	71.69	-32.18	-48.72	58.39	0.1988	-0.1171	236.5	14	471	34 574
-1	539c	27	540	74.12	-37.96	-44.57	58.55	0.1961	-0.114	229.5	14	472	35 576
-1	545c	29	545	78.73	-46.08	-36.67	58.89	0.1928	-0.1085	218.5	14	474	36 581
-1	550c	30	550	80.88	-48.39	-32.96	58.55	0.1921	-0.1061	214.2	15	475	36 583
-1	554c	30	555	80.88	-48.39	-32.96	58.55	0.1921	-0.1061	214.2	15	475	36 583
9	447	31	560	82.05	-82.81	7.26	83.13	0.1747	-0.0848	174.9	17	488	-1 488c
380	770	95.41	0.0	0.0	0.0	0.0	0.2173	-0.0886	0.0				

TUB-test chart BE39; CIE (x_{10} , y_{10}) and chroma ($A^*_{i,10}$, $B^*_{i,10}$)

Ostwald optimal colours for illuminant P25; diagram for illuminant P25, $Y_w=88.6$

input: w/rgb/cmyk -> rgb

