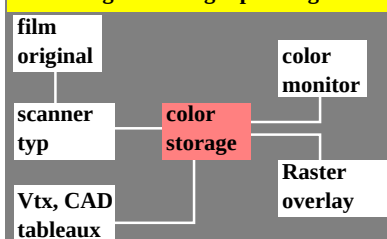


http://130.149.60.45/~farbmetrik/SE23/SE23L0NP.PDF /PS; start output
N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 1/1

diagram for interfaces in the area image handling – printing



SE230-1, B6_28

sensation scaling functions lightness L^* and tristimulus value Y

adaptation on surround white:

$$L^* = 100 (Y / 100)^{1/2,0}$$

adaptation on surround gray:

$$L^* = 100 (Y / 100)^{1/2,4}$$

description with CIELAB 1976:

$$L^* = 116 (Y / 100)^{1/3,0} - 16$$

adaptation on surround black:

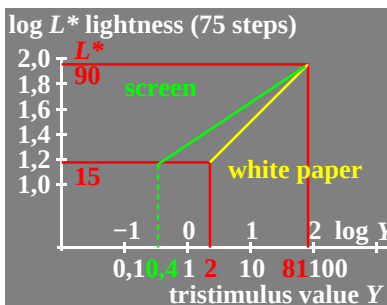
$$L^* = 100 (Y / 100)^{1/3,0}$$

SE230-2, B6_29

colorness luminous value
 N^* L^* $Y = (L^*/10)^2 Y = (L^*/10)^3 / 9$

	N^*	L^*	Y	$Y_{\max}$	$Y_{\text{normalized}} (=Y_{\text{paper}})$
0	90	81	$Y_{\max}$	81,0	
2	80	64	56,9	38,1	
4	70	49	38,1	24,0	
6	60	36	24,0	13,9	
8	50	25	13,9	7,1	
10	40	16	7,1	3,0	
12	30	9	3,0	0,9	
14	20	4	0,9		
15	15	2,25	$Y_{\min}$	0,4	

SE230-4, B6_31



SE230-3, B6_30

linear scan area	lightness- area	lightness color	
Y	L^*	h^*	no. d
76,6 ... 85,5	87,5 ... 92,4	90 FFF	4095
60,1 ... 68,1	77,5 ... 82,4	80 DDD	3549
45,6 ... 52,5	67,5 ... 72,4	70 BBB	3003
33,1 ... 39,0	57,5 ... 62,4	60 999	2457
22,6 ... 27,5	47,5 ... 52,4	50 777	1911
14,1 ... 18,0	37,5 ... 42,4	40 555	1365
7,6 ... 10,5	27,5 ... 32,4	30 333	819
3,1 ... 5,0	17,5 ... 22,4	20 111	273
1,6 ... 3,0	12,5 ... 17,4	15 000	0

SE230-5, B6_32

whiteness	black-	tristimulus	cover-
r_d^*	g_d^*	b_d^*	age
r_d^*	g_d^*	b_d^*	b
15,15,15	0	81 $Y_{\max}$	0,00
13,13,13	2	64	0,22
11,11,11	4	49	0,41
9, 9, 9	6	36	0,57
7, 7, 7	8	25	0,71
5, 5, 5	10	16	0,83
3, 3, 3	12	9	0,91
1, 1, 1	14	4	0,98
0, 0, 0	15	2,25 $Y_{\min}$	1,00

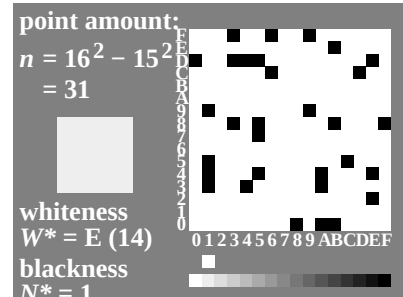
SE230-6, B6_33

whiteness	yellow-	tristimulus	cover-
r_d^*	g_d^*	b_d^*	age
r_d^*	g_d^*	b_d^*	b
15,15,15	0	81 $Y_{\max}$	0,00
15,15,13	2		0,22
15,15,11	4		0,41
15,15, 9	6		0,57
15,15, 7	8		0,71
15,15, 5	10		0,83
15,15, 3	12		0,91
15,15, 1	14		0,98
15,15, 0	15	76 $Y_{\min}$	1,00

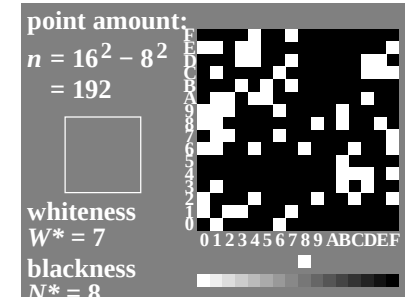
SE230-7, B6_34

whiteness	black-	tristimulus	cover-
r_d^*	g_d^*	b_d^*	age
r_d^*	g_d^*	b_d^*	b
15,15,15	0	81 $Y_{\max}$	0,00
13,13,13	2	64	0,22
11,11,11	4	49	0,41
9, 9, 9	6	36	0,57
7, 7, 7	8	25	0,71
5, 5, 5	10	16	0,83
3, 3, 3	12	9	0,91
1, 1, 1	14	4	0,98
0, 0, 0	15	2,25 $Y_{\min}$	1,00

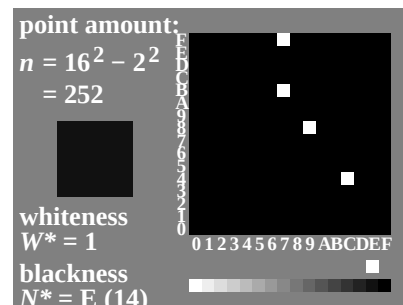
SE231-8, B7_03



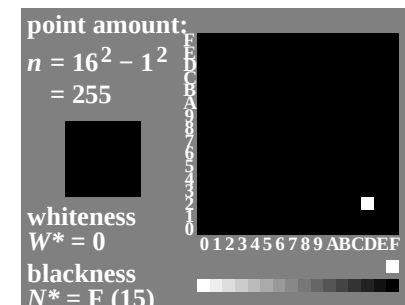
SE231-1, B6_36_1



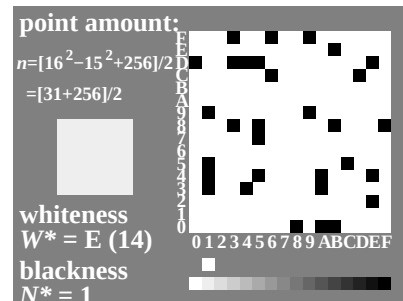
SE231-2, B6_36_2



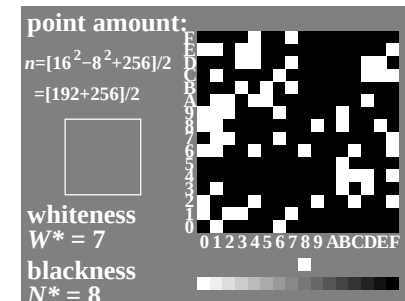
SE231-3, B6_36_3



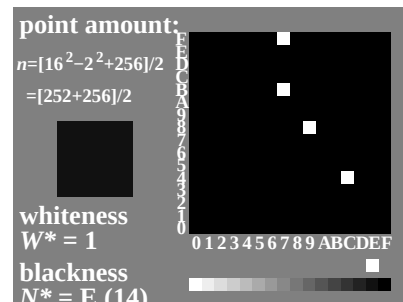
SE231-4, B6_36_4



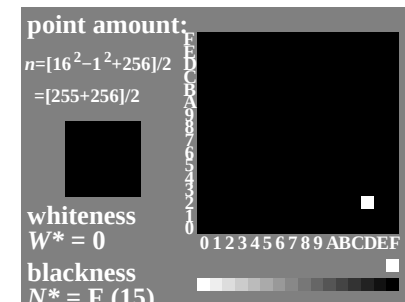
SE231-5, B6_36_1



SE231-6, B6_36_2



SE231-7, B6_36_3



SE231-8, B6_36_4

TUB-test chart SE23; Colour scaling
Lightness and scaling functions, area coverage

input: w/rgb/cmyk -> w/rgb/cmykd
output: no change

TUB registration: 20130201-SE23/SE23L0NP.PDF /PS
application for measurement of display output

TUB material: code=rha4ta