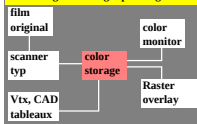


diagram for interfaces in the area image handling - printing

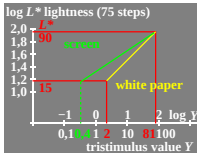


SN230-1, B6_28

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

SN230-2, B6_29



SN230-3, B6_30

colorness	luminous value		Y = (L*/10) ^{2/9}	
N*	L*	Y	Ymax	Ynormalized (=Ypaper)
0	90	81	81,0	0,00
2	80	64	56,9	0,22
4	70	49	38,1	0,41
6	60	36	24,0	0,57
8	50	25	13,9	0,71
10	40	16	7,1	0,83
12	30	9	3,0	0,91
14	20	4	0,9	0,98
15	15	2,25	Ymin	1,00

SN230-4, B6_31

linear scan area	Y	lightness- area	L*	lightness color	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			

SN230-5, B6_32

whiteness	black-	tristimulus	cover-
$r_a^* g_a^* b_a^*$	ness N^*	value Y	age 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

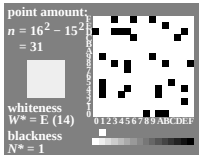
SN230-6, B6_33

whiteness	yellow-	tristimulus	cover-
$r_a^* g_a^* b_a^*$	ness Y^*	value Y	age 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

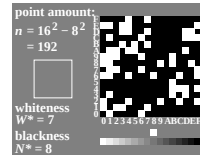
SN230-7, B6_34

whiteness	black-	tristimulus	cover-
$r_a^* g_a^* b_a^*$	ness N^*	value Y	age 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

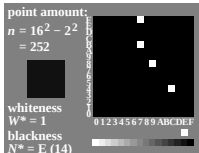
SN230-8, B7_03



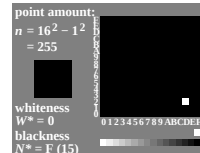
SN231-1, B6_36_1



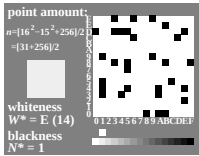
SN231-2, B6_36_2



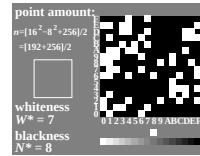
SN231-3, B6_36_3



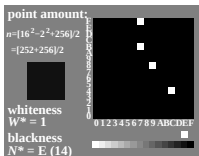
SN231-4, B6_36_4



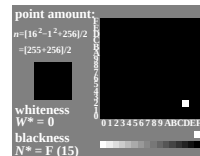
SN231-5, B6_36_1



SN231-6, B6_36_2



SN231-7, B6_36_3



SN231-8, B6_36_4

TUB-test chart SN23; Colour scaling
Lightness and scaling functions, area coverage

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