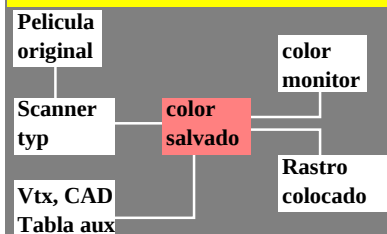


Diagrama para interfaces en el área de impresión gráfica



SS230-1, 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:

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

SS230-2, B6_29

point amount:

$$n = 16^2 - 15^2 = 31$$

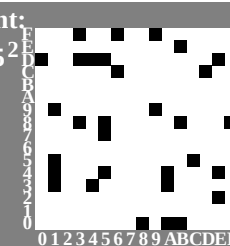


whiteness

$$W^* = E (14)$$

blackness

$$N^* = 1$$



SS231-1, B6_36_1

point amount:

$$n = 16^2 - 8^2 = 192$$



whiteness

$$W^* = 7$$

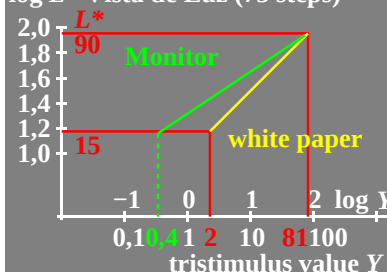
blackness

$$N^* = 8$$



SS231-2, B6_36_2

log L^* Vista de Luz (75 steps)



SS230-3, B6_30

*-Color luminous value

N^*	L^*	$Y = (L^*/10)^2 Y = (L^*/10)^3 / 9$	Y_{max}	$Y_{normalized} (=Y_{paper})$
0	90	81	81,0	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	0,4
15	15	2,25	Y_{min}	0,4

SS230-4, B6_31

point amount:

$$n = 16^2 - 2^2 = 252$$

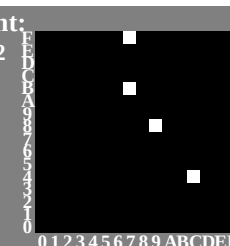


whiteness

$$W^* = 1$$

blackness

$$N^* = E (14)$$



SS231-3, B6_36_3

point amount:

$$n = 16^2 - 1^2 = 255$$

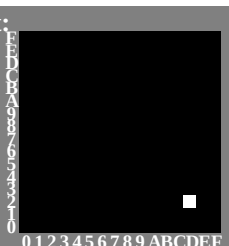


whiteness

$$W^* = 0$$

blackness

$$N^* = F (15)$$



SS231-4, B6_36_4

linear scan area	lightness- area	lightness color	area	L^*	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				

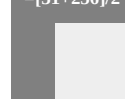
SS230-5, B6_32

whiteness	black-	tristimulus	cover-
r_d^*	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

SS230-6, B6_33

point amount:

$$n = [16^2 - 15^2 + 256] / 2 = [31 + 256] / 2$$



whiteness

$$W^* = E (14)$$

blackness

$$N^* = 1$$



SS231-5, B6_36_1

point amount:

$$n = [16^2 - 8^2 + 256] / 2 = [192 + 256] / 2$$

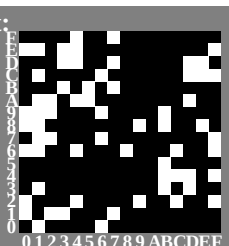


whiteness

$$W^* = 7$$

blackness

$$N^* = 8$$



SS231-6, B6_36_2

whiteness $r_d^* g_d^* b_d^*$	yellow- ness Y^*	tristimulus value Y	cover- age
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

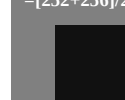
SS230-7, B6_34

whiteness $r_d^* g_d^* b_d^*$	black- ness N^*	tristimulus value Y	cover- 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

SS231-8, B7_03

point amount:

$$n = [16^2 - 2^2 + 256] / 2 = [252 + 256] / 2$$

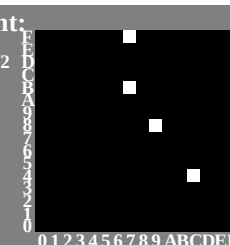


whiteness

$$W^* = 1$$

blackness

$$N^* = E (14)$$



SS231-7, B6_36_3

point amount:

$$n = [16^2 - 1^2 + 256] / 2 = [255 + 256] / 2$$

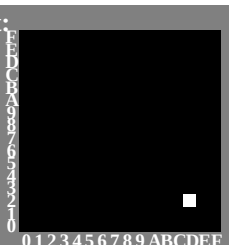


whiteness

$$W^* = 0$$

blackness

$$N^* = F (15)$$



SS231-8, B6_36_4

gráfico TUB-SS23; Colour scaling
Lightness and scaling functions, area coverage

entrada: w/rgb/cmyk -> w/rgb/cmyk_d
salida: ningún cambio