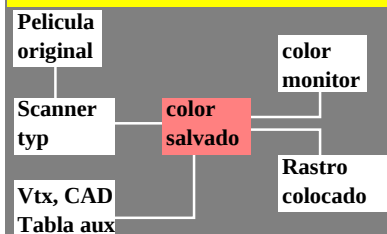


Diagrama para interfaces en el área de impresión gráfica



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:

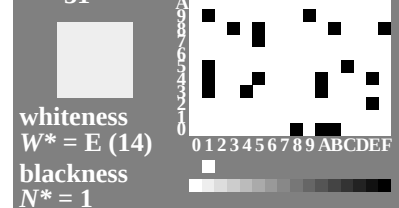
$$L^* = 116 (Y / 100)^{1/3,0} - 16$$

adaptation on surround black:

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

SS230-2, B6_29

point amount:
 $n = 16^2 - 15^2$
 $= 31$



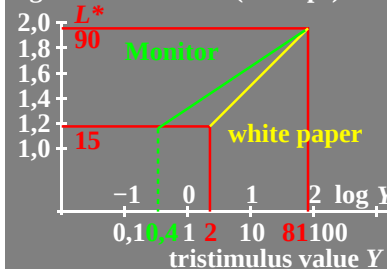
SS230-1, B6_36_1

point amount:
 $n = 16^2 - 8^2$
 $= 192$



SS230-2, B6_36_2

log L^* Vista de Luz (75 steps)



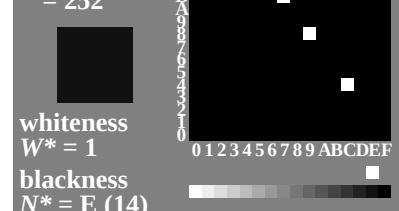
SS230-3, B6_30

*-Color luminous value
 $N^* \quad L^* \quad Y = (L^*/10)^2 Y = (L^*/10)^3 / 9$

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

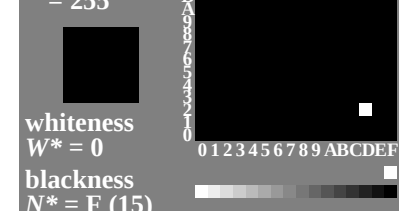
SS230-4, B6_31

point amount:
 $n = 16^2 - 2^2$
 $= 252$



SS230-3, B6_36_3

point amount:
 $n = 16^2 - 1^2$
 $= 255$



SS230-4, B6_36_4

linear scan area	lightness- area	lightness color
Y	L^*	$h^* \quad no. \quad d$
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-
$r_d^* \quad g_d^* \quad b_d^*$	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:
 $n = [16^2 - 15^2 + 256] / 2$
 $= [31 + 256] / 2$



SS230-5, B6_36_1

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



SS230-6, B6_36_2

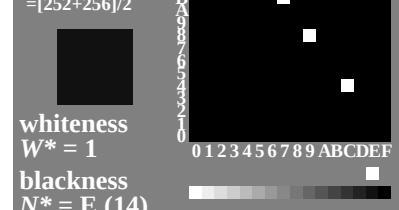
whiteness	yellow-	tristimulus	cover-
$r_d^* \quad g_d^* \quad b_d^*$	ness Y^*	value Y	age b
15,15,15	0	81 Y_{max}	0,00
15,15,13	2		0,22
15,15,11	4		0,41
15,15, 9	6		0,57
15,15, 7	8		0,71
15,15, 5	10		0,83
15,15, 3	12		0,91
15,15, 1	14		0,98
15,15, 0	15	76 Y_{min}	1,00

SS230-7, B6_34

whiteness	black-	tristimulus	cover-
$r_d^* \quad g_d^* \quad b_d^*$	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

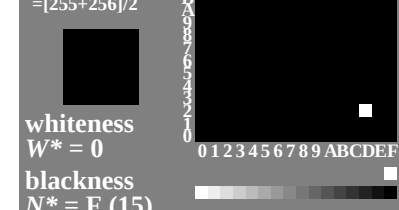
SS230-8, B7_03

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



SS230-7, B6_36_3

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



SS230-8, 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