

basic and mixed colors of standard color television by DIN 6169

basic color or mixed color and name	CIE standard chromaticity		CIE standard tristimulus value		
	x	y	X	Y	Z
<i>three additive basic colors and White:</i>					
$O = R_d$ Orange red	0,6400	0,3300	43,03	22,19	2,02
$L = G_d$ Leaf green	0,2900	0,6000	34,16	70,68	12,96
$V = B_d$ Violet blue	0,1415	0,0482	17,82	7,13	93,87
W White	0,3127	0,3291	95,01	100,00	108,85
<i>three additive basic colors and White:</i>					
$O = R_d$ Orange red	0,6400	0,3300	43,03+21%	22,19+21%	2,02+21%
$L = G_d$ Leaf green	0,2900	0,6000	34,16+21%	70,68+21%	12,96+21%
$V = B_d$ Violet blue	0,1415	0,0482	17,82+21%	7,13+21%	93,87+21%
W White	0,3127	0,3291	95,01+0%	100,00+0%	108,85+0%
2					
$rgb\ l^*$:				1,0 0,0 0,0 = 1,0 0,0 0,0	
$rgb\ l^*$:				1,0 1,0 1,0 -> 0,9 0,9 0,9	
2					
$L^*\ C^*_{ab}$					

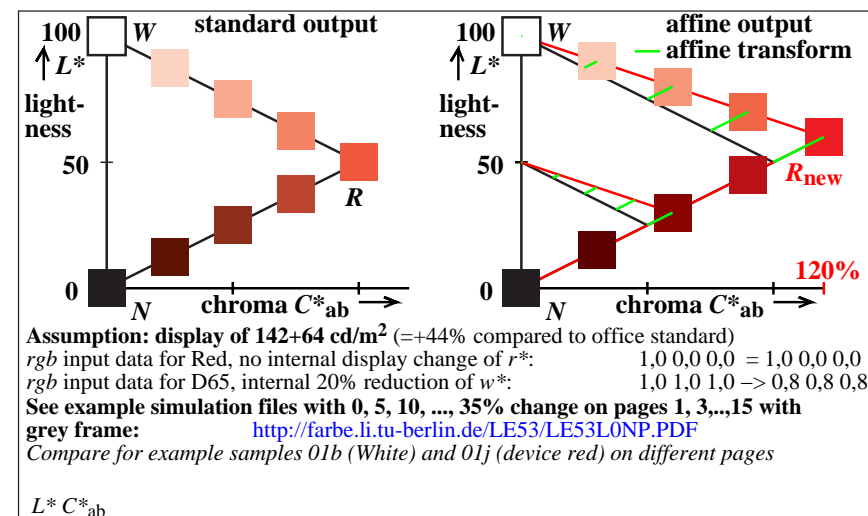
AI880-3N

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2					
$rgb\ l^*$:				1,0 0,0 0,0 = 1,0 0,0 0,0	
$rgb\ l^*$:				1,0 1,0 1,0 -> 0,8 0,8 0,8	
4					
$L^*\ C^*_{ab}$					
$i^* = l^* + 0,5\ c^*$					
$n^* = 1 - i^*$					

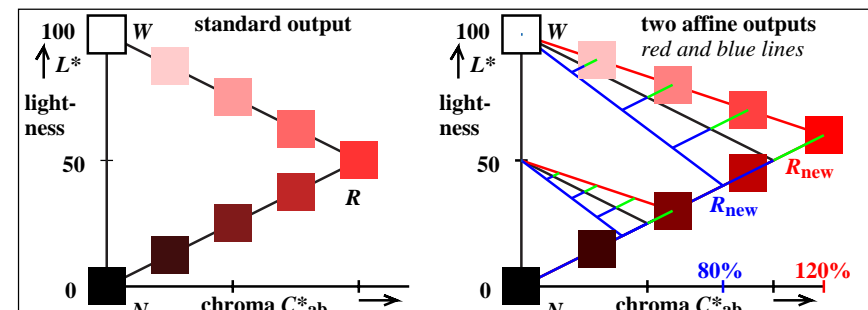
AI880-7N

grafico AI88; Blackish and luminous colours
change of tristimulus values XYZ and rgb data of displays



$L^* C^*_{ab}$

AI881-3N



Result: R_{new} appears fluorescent and more chromatic on many RGB displays
 R_{new} appears blackish or greyish on many RGBW displays

RGBW display (projector) avec le couleur primaire blanc
 rgb input data for D65, internal 20% reduction of r^* : 1,0 0,0 0,0 → 0,8 0,0 0,0
 rgb input data for White, no internal display change of w^* : 1,0 0,0 0,0 = 1,0 1,0 1,0

AI881-7N

immettere: $w/rgb/cmyk \rightarrow rgb_d$
uscita: nessun cambiamento