



see similar files: <http://farbe.li.tu-berlin.de/ME96/ME96.HTM>
<http://130.149.60.45/~farbmtrik> or <http://farbe.li.tu-berlin.de>

perceived color terms (colorness: cube root coordinates)

perceived color terms	name and relationship with standard chromaticity values	notes:
lightness	$L^* = 116 (Y / 100)^{1/3} - 16$ Aproximation: $L^* = 100 (Y / 100)^{1/3}$	<i>definition 1976 in: CIELUV, CIELAB</i>
chroma	for nonlinear chroma diagram (a^* , b^*)	
red-green	$a^* = 500 [(X / X_n)^{1/3} - (Y / Y_n)^{1/3}]$ $= 500 (a' - a'_n) Y^{1/3}$	<i>definition 1976 in: CIELAB</i>
yellow-blue	$b^* = 200 [(Y / Y_n)^{1/3} - (Z / Z_n)^{1/3}]$ $= 500 (b' - b'_n) Y^{1/3}$	$n=D65$ (surround)
radial	$C_{ab}^* = [a^*{}^2 + b^*{}^2]^{1/2}$	
saturation	= chroma / lightness	
red-green	$S_a^* = a^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (a' - a'_n)$	<i>definition for: CIELAB 1976</i>
yellow-blue	$S_b^* = b^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (b' - b'_n)$	
radial	$S_{ab}^* = C^* / [100 (Y / 100)^{1/3}]$ $= 21,6 [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	
chromaticity	for nonlinear chromaticity diagram (a' , b')	
red-green	$a' = (1 / X_n)^{1/3} (x / y)^{1/3}$ $= 0,2191 (x / y)^{1/3}$ for D65	<i>definition for opponent color system</i>
yellow-blue	$b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$ $= -0,08376 (z / y)^{1/3}$ for D65	
radial	$c_{ab} = [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	

1-103000-L0

ME961-7N

TUB-test chart ME96; Computer graphics and colorimetry
 Image series ME96, 3D=1, de=0

three surface colours

I

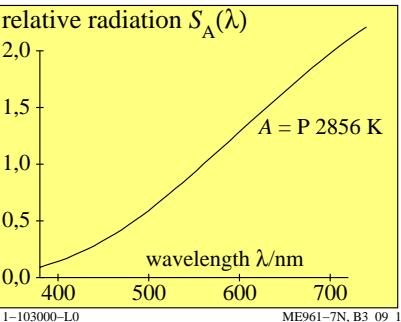
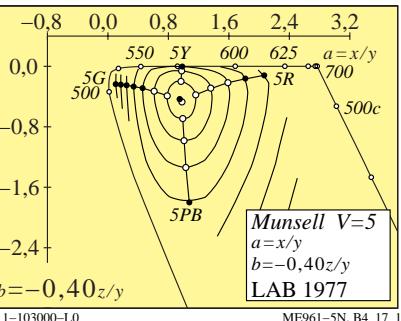
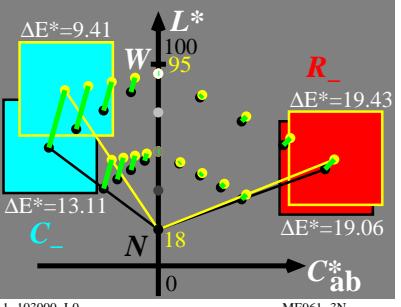
II

III

colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

1-103000-L0

ME961-1N, B2_33



input: $rgb/cmky \rightarrow rgb/cmky$
 output: no change

three surface colours

I

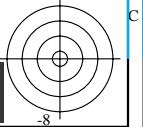
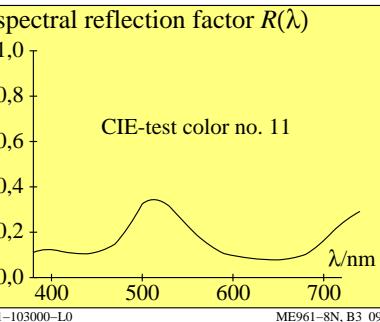
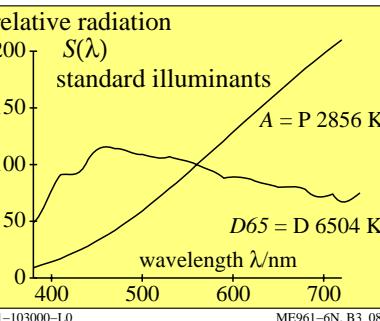
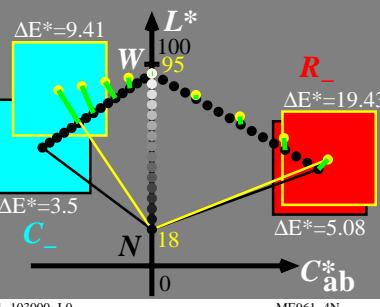
II

fluorescent red
 in offset print

colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

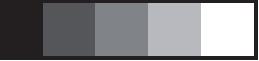
1-103000-L0

ME961-2N, B2_33





see similar files: <http://farbe.li.tu-berlin.de/ME96/ME96.HTML>
<http://farbe.li.tu-berlin.de/ME96/ME96.FA> or <http://farbe.li.tu-berlin.de>



perceived color terms (colorness: cube root coordinates)

perceived color terms	name and relationship with standard chromaticity values	notes:
lightness	$L^* = 116 (Y / 100)^{1/3} - 16$ Aproximation: $L^* = 100 (Y / 100)^{1/3}$	<i>definition 1976 in: CIELUV, CIELAB</i>
chroma	for nonlinear chroma diagram (a^* , b^*)	
red-green	$a^* = 500 [(X / X_n)^{1/3} - (Y / Y_n)^{1/3}]$ $= 500 (a' - a'_n) Y^{1/3}$	<i>definition 1976 in: CIELAB</i>
yellow-blue	$b^* = 200 [(Y / Y_n)^{1/3} - (Z / Z_n)^{1/3}]$ $= 500 (b' - b'_n) Y^{1/3}$	$n=D65$ (surround)
radial	$C_{ab}^* = [a^*^2 + b^*^2]^{1/2}$	
saturation	= chroma / lightness	
red-green	$S_a^* = a^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (a' - a'_n)$	<i>definition for: CIELAB 1976</i>
yellow-blue	$S_b^* = b^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (b' - b'_n)$	
radial	$S_{ab}^* = C_{ab}^* / [100 (Y / 100)^{1/3}]$ $= 21,6 [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	
chromaticity	for nonlinear chromaticity diagram (a' , b')	
red-green	$a' = (1 / X_n)^{1/3} (x / y)^{1/3}$ $= 0,2191 (x / y)^{1/3}$ for D65	<i>definition for opponent color system</i>
yellow-blue	$b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$ $= -0,08376 (z / y)^{1/3}$ for D65	
radial	$c_{ab} = [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	

1-103100-L0

ME961-72

TUB-test chart ME96; Computer graphics and colorimetry
 Image series ME96, 3D=1, de=0, $L-cmyn6^*$

three surface colours

I

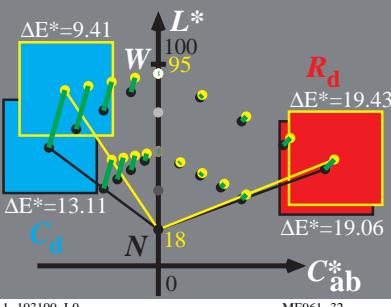
II

III

colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

1-103100-L0

ME961-12, B2_33



three surface colours

I

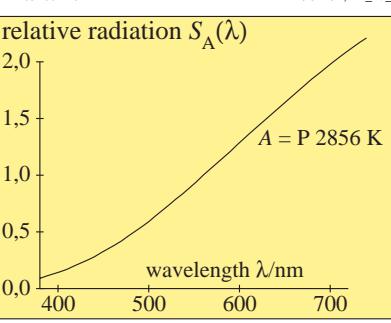
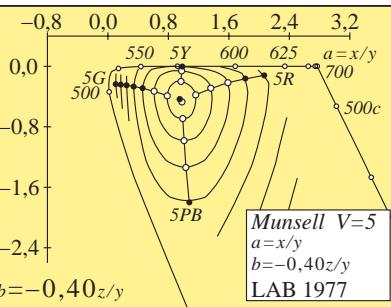
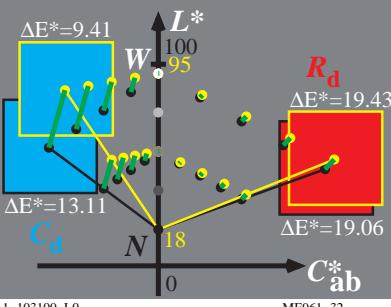
II

fluorescent red
in offset print

colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

1-103100-L0

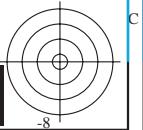
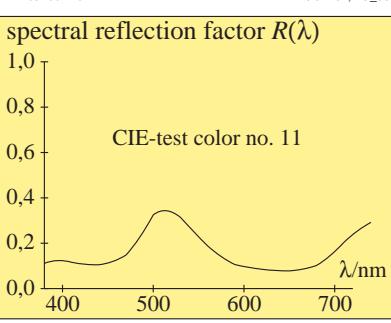
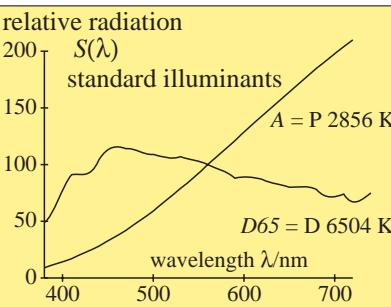
ME961-22, B2_33

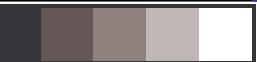
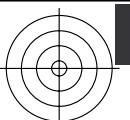


PE4300L_120830.TXT, 1080 colors, Separation cmyn6*

input: $rgb/cmky \rightarrow rgbd$

output: 3D-linearization to rgb^*dd

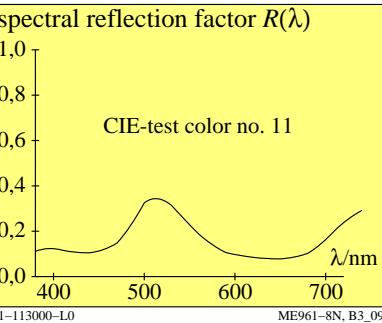
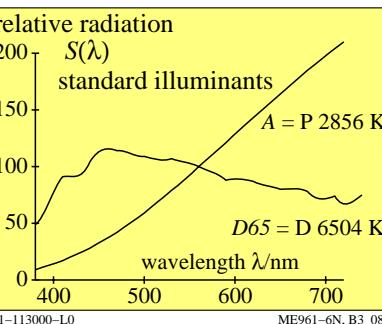
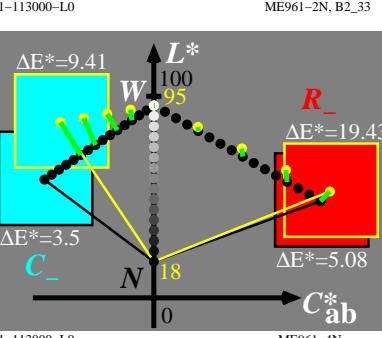
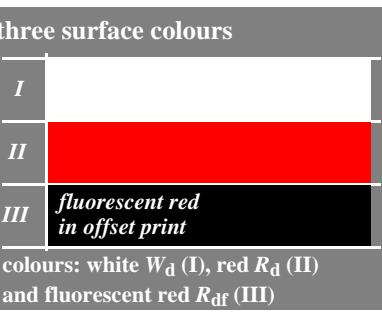
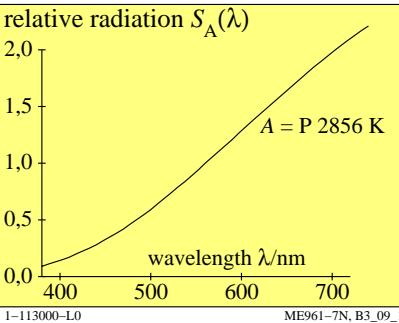
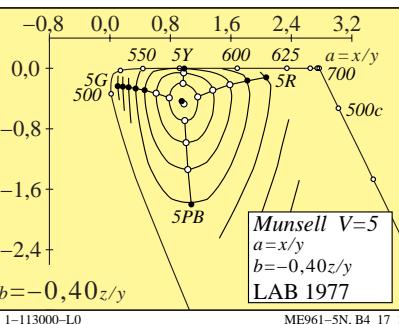
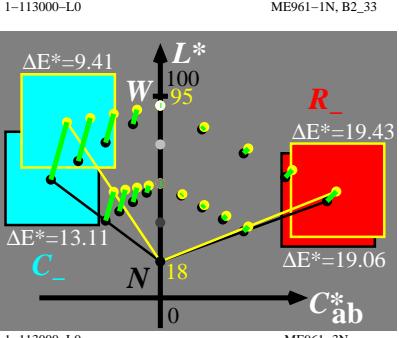
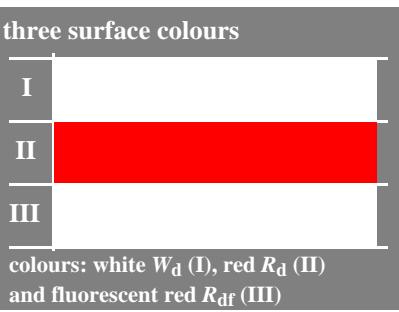




see similar files: <http://farbe.li.tu-berlin.de/ME96/ME96.HTM>
<http://130.149.60.45/~farbmetrik> or <http://farbe.li.tu-berlin.de>

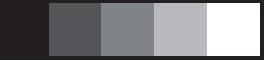
perceived color terms (colorness: cube root coordinates)

percieved color terms	name and relationship with standard chromaticity values	notes:
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chroma	<i>for nonlinear chroma diagram (a^*, b^*)</i>	
red-green	$a^* = 500 [(X / X_n)^{1/3} - (Y / Y_n)^{1/3}]$ $= 500 (a' - a'_n) Y^{1/3}$	<i>definition 1976 in: CIELAB</i>
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radial	$C_{ab}^* = [a^{*2} + b^{*2}]^{1/2}$	
saturation	= chroma / lightness	
red-green	$S_a^* = a^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (a' - a'_n)$	<i>definition for:</i>
yellow-blue	$S_b^* = b^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (b' - b'_n)$	<i>CIELAB 1976</i>
radial	$S_{ab}^* = C^* / [100 (Y / 100)^{1/3}]$ $= 21,6 [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	
chromaticity	<i>for nonlinear chromaticity diagram (a', b')</i>	
red-green	$a' = (1 / X_n)^{1/3} (x / y)^{1/3}$ $= 0,2191 (x / y)^{1/3}$ for D65	<i>definition for opponent color system</i>
yellow-blue	$b' = - 0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$ $= - 0,08376 (z / y)^{1/3}$ for D65	
radial	$c'_{ab} = [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	





see similar files: <http://farbe.li.tu-berlin.de/ME96/ME96.HTM>
<http://130.149.60.45/~farbmtrik> or <http://farbe.li.tu-berlin.de>



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yellow-blue	$b^* = 200 [(Y / Y_n)^{1/3} - (Z / Z_n)^{1/3}]$ $= 500 (b' - b'_n) Y^{1/3}$	$n=D65$ (surround)
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saturation	= chroma / lightness	
red-green	$S_a^* = a^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (a' - a'_n)$	<i>definition for:</i> <i>for:</i> <i>CIELAB 1976</i>
yellow-blue	$S_b^* = b^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (b' - b'_n)$	
radial	$S_{ab}^* = C^* / [100 (Y / 100)^{1/3}]$ $= 21,6 [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	
chromaticity	for nonlinear chromaticity diagram (a' , b')	
red-green	$a' = (1 / X_n)^{1/3} (x / y)^{1/3}$ $= 0,2191 (x / y)^{1/3}$ for D65	<i>definition for</i> <i>opponent</i> <i>color system</i>
yellow-blue	$b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$ $= -0,08376 (z / y)^{1/3}$ for D65	
radial	$c_{ab}^* = [(a' - a'_n)^2 + (b' - b'_n)^2]^{1/2}$	

1-113100-L0

ME961-73

TUB-test chart ME96; Computer graphics and colorimetry
 Image series ME96, 3D=1, de=1, $L-cmyn6^*$



-8

three surface colours

I

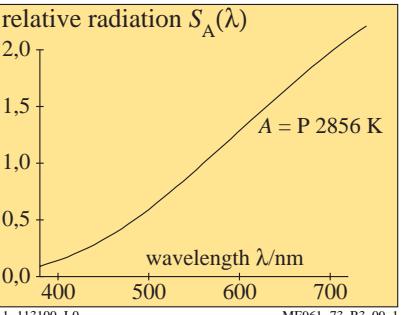
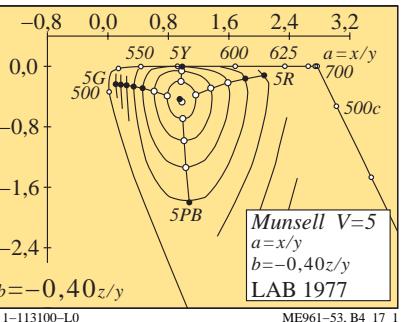
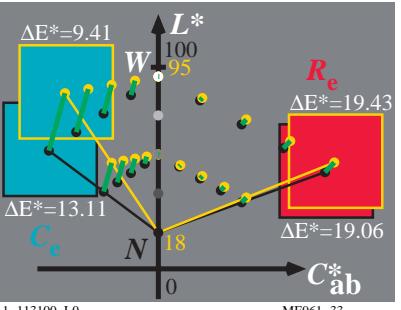
II

III

colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

1-113100-L0

ME961-13, B2_33



PE4300L_120830.TXT, 1080 colors, Separation cmyn6*

input: $rgb/cmky \rightarrow rgb_{de}$
 output: 3D-linearization to rgb^*_{de}

three surface colours

I

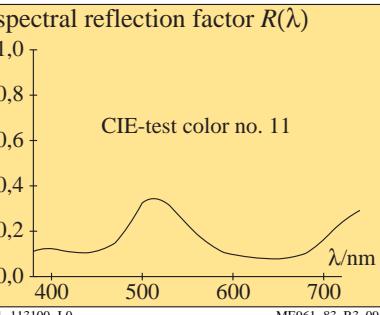
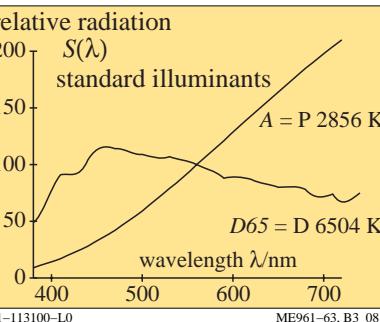
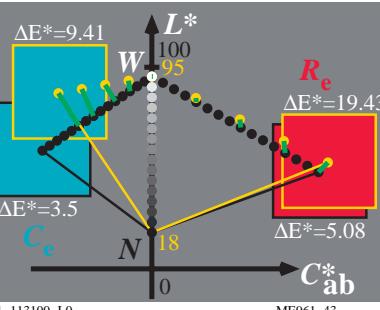
II

fluorescent red
 in offset print

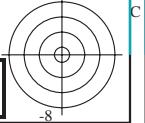
colours: white W_d (I), red R_d (II)
 and fluorescent red R_{df} (III)

1-113100-L0

ME961-23, B2_33



ME961-83, B3_09_2



-6