



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

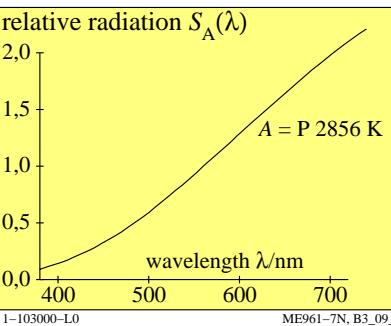
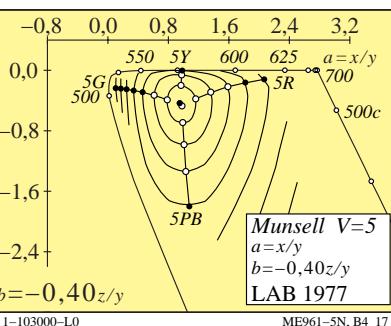
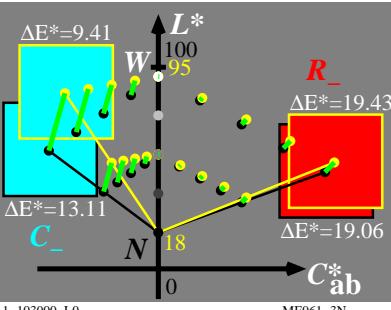
ME961-7N

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



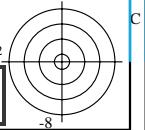
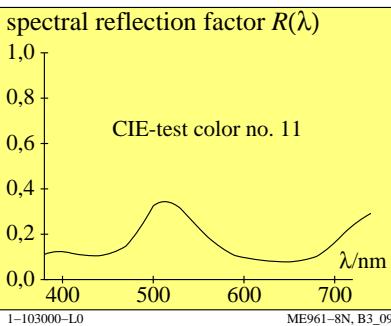
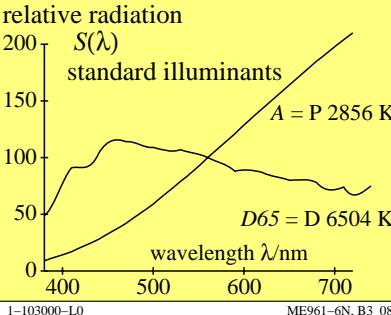
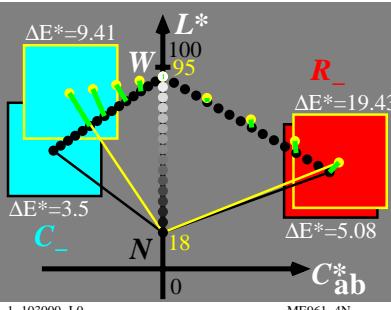
input: $rgb/cmky \rightarrow rgb/cmky$
output: no change

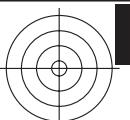
three surface colours

| | |
|-----|------------------------------------|
| I | |
| II | |
| III | 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

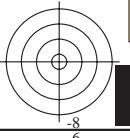
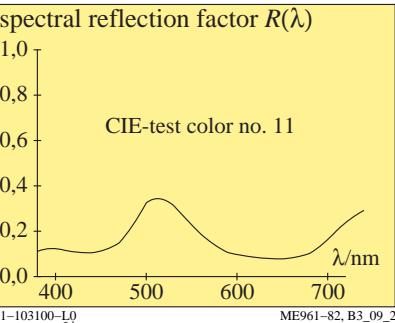
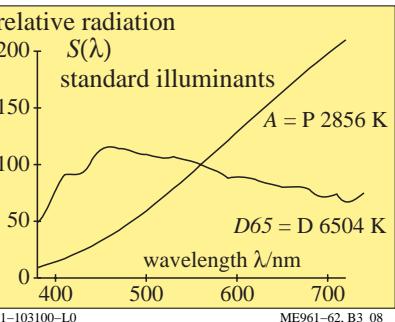
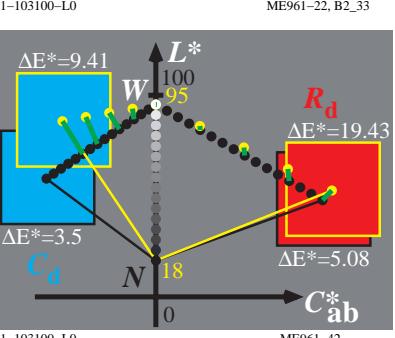
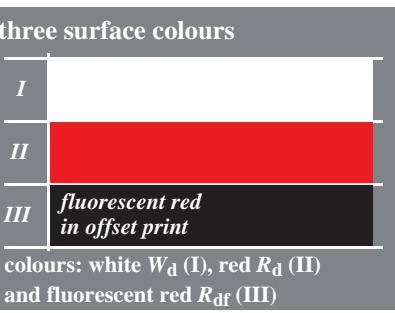
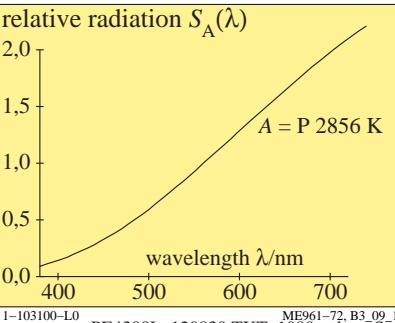
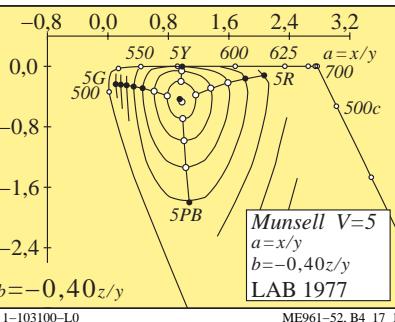
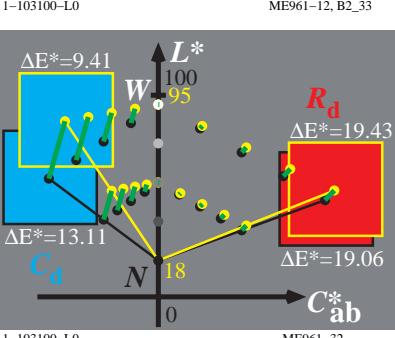
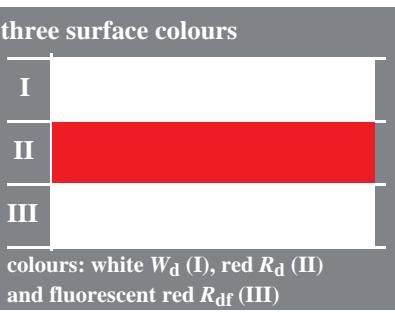


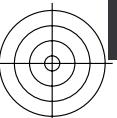


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perceived color terms (colorness: cube root coordinates)

| percieved color terms | name and relationship with standard chromaticity values | notes: |
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| lightness | $L^* = 116 (Y / 100)^{1/3} - 16$ Aproximation: $L^* = 100 (Y / 100)^{1/3}$ | definition 1976 in: <i>CIELUV, CIELAB</i> |
| chroma | for nonlinear chroma diagram (a^*, b^*) | |
| red-green | $a^* = 500 [(X / X_n)^{1/3} - (Y / Y_n)^{1/3}]$ $= 500 (a' - a'_n) Y^{1/3}$ | definition 1976 in: <i>CIELAB</i> |
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| red-green | $S_a^* = a^* / [100 (Y / 100)^{1/3}]$ $= 21,6 (a' - a'_n)$ | definition for: |
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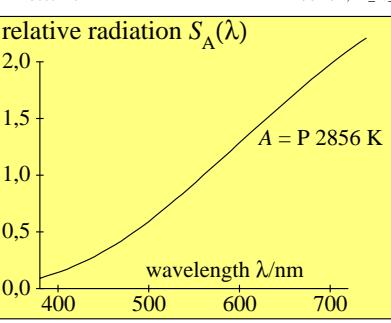
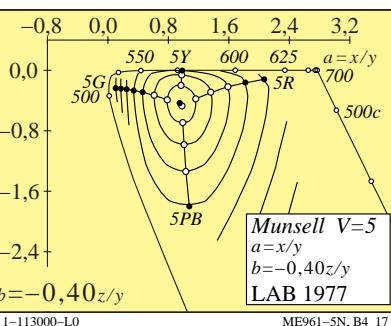
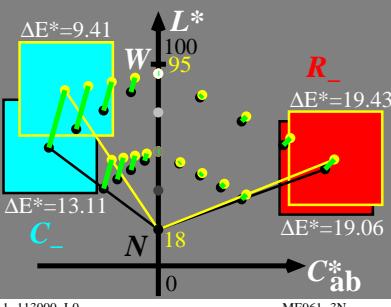
1-113000-L0 ME961-7N

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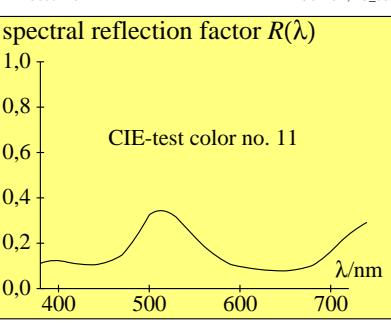
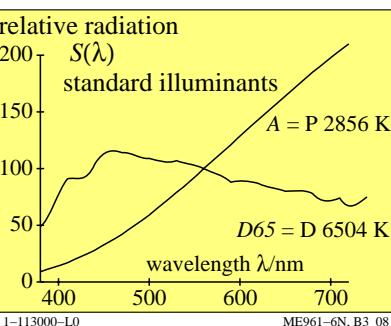
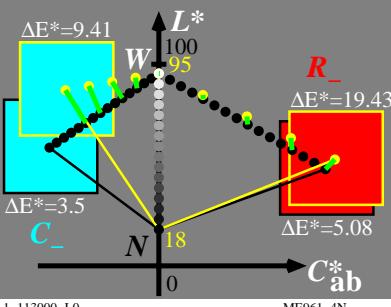


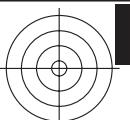
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