

### percieved color terms (colorness: cube root coordinates)

| percieved color terms | name and relationship with standard valori cromatico                                        | Note:                                 |
|-----------------------|---------------------------------------------------------------------------------------------|---------------------------------------|
| <b>chiarezza</b>      | $L^* = 116 (Y / 100)^{1/3} - 16$<br>Approssimazione: $L^* = 100 (Y / 100)^{1/3}$            | definition 1976 in:<br>CIELUV, CIELAB |
| <b>chroma</b>         | per diagramma chroma (A, B)                                                                 |                                       |
| rosso-verde           | $a^* = 500 [ (X / X_n)^{1/3} - (Y / Y_n)^{1/3} ]$<br>$= 500 (a' - a'_n) Y^{1/3}$            | definition 1976 per:<br>CIELAB        |
| giallo-blu            | $b^* = 200 [ (Y / Y_n)^{1/3} - (Z / Z_n)^{1/3} ]$<br>$= 500 (b' - b'_n) Y^{1/3}$            | $n=D65$ (sfondo)                      |
| radiale               | $C^* = [ a^{*2} + b^{*2} ]^{1/2}$                                                           |                                       |
| <b>saturation</b>     | = chroma / chiarezza                                                                        | definition                            |
| rosso-verde           | $S_a^* = a^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (a' - a'_n)$                             | per:<br>CIELAB 1976                   |
| giallo-blu            | $S_b^* = b^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (b' - b'_n)$                             |                                       |
| radiale               | $S_c^* = C^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$ |                                       |
| <b>chromaticito</b>   | for nonlinear chromaticity diagram ( $a'$ , $b'$ ) definition                               |                                       |
| rosso-verde           | $a' = (1 / X_n)^{1/3} (x / y)^{1/3}$                                                        | opponent                              |
| giallo-blu            | $= 0,2191 (x / y)^{1/3}$ per D65                                                            | color system                          |
| radiale               | $b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$<br>$= -0,08376 (z / y)^{1/3}$ per D65             |                                       |
|                       | $c' = [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$                                              |                                       |

Grafico TUB-MI46; Grafica computerizzata e colorimetria  
Serie di immagini MI46, 3D=0, de=0

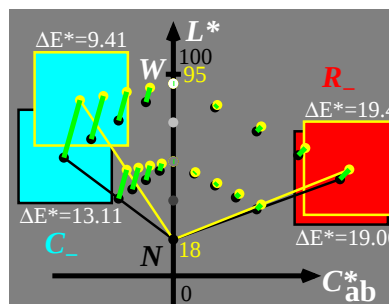
### tre superficie i colori



colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
e fluorescente rosso  $R_{df}$  (III)

4-003030-L0

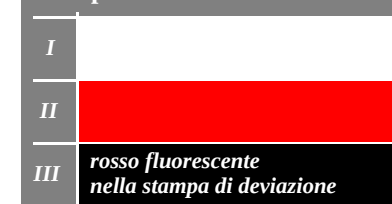
MI461-1N, B2\_33



4-003030-L0

MI461-3N

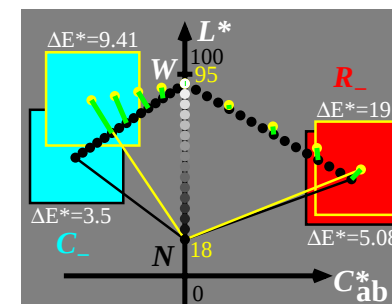
### tre superficie i colori



colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
e fluorescente rosso  $R_{df}$  (III)

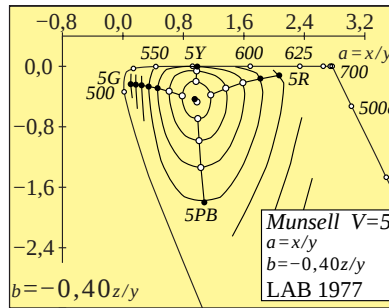
4-003030-L0

MI461-2N, B2\_33



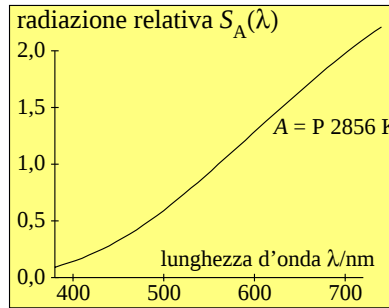
4-003030-L0

MI461-4N



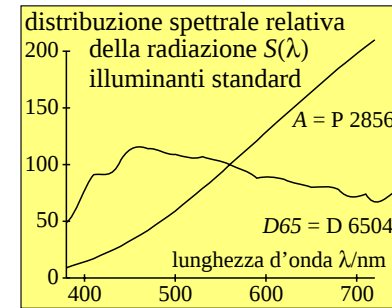
4-003030-L0

MI461-5N, B4\_17\_1



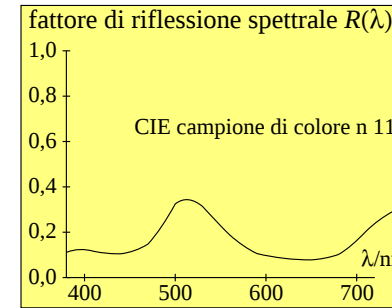
4-003030-L0

MI461-7N, B3\_09\_1



4-003030-L0

MI461-6N, B3\_08



4-003030-L0

MI461-8N, B3\_09\_2

Input: rgb/cmyk -> rgb/cmyk  
Output: nessun cambiamento

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| <b>chroma</b>         | per diagramma chroma (A, B)                                                                 |                                       |
| rosso-verde           | $a^* = 500 [ (X / X_n)^{1/3} - (Y / Y_n)^{1/3} ]$<br>$= 500 (a' - a'_n) Y^{1/3}$            | definition 1976 per:<br>CIELAB        |
| giallo-blu            | $b^* = 200 [ (Y / Y_n)^{1/3} - (Z / Z_n)^{1/3} ]$<br>$= 500 (b' - b'_n) Y^{1/3}$            | $n=D65$ (sfondo)                      |
| radiale               | $C^* = [ a^{*2} + b^{*2} ]^{1/2}$                                                           |                                       |
| <b>saturation</b>     | = chroma / chiarezza                                                                        | definition                            |
| rosso-verde           | $S_a^* = a^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (a' - a'_n)$                             | per:<br>CIELAB 1976                   |
| giallo-blu            | $S_b^* = b^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (b' - b'_n)$                             |                                       |
| radiale               | $S_c^* = C^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$ |                                       |
| <b>chromaticito</b>   | for nonlinear chromaticity diagram ( $a'$ , $b'$ ) definition                               |                                       |
| rosso-verde           | $a' = (1 / X_n)^{1/3} (x / y)^{1/3}$                                                        | opponent                              |
| giallo-blu            | $= 0,2191 (x / y)^{1/3}$ per D65                                                            | color system                          |
| radiale               | $b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$<br>$= -0,08376 (z / y)^{1/3}$ per D65             |                                       |
|                       | $c' = [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$                                              |                                       |

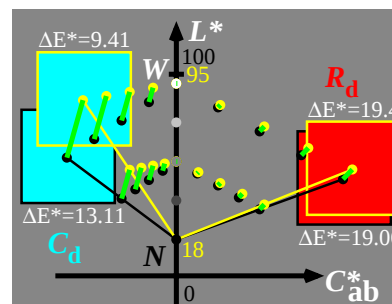
### tre superficie i colori



colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
e fluorescente rosso  $R_{df}$  (III)

4-003130-L0

MI461-10, B2\_33



4-003130-L0

MI461-30

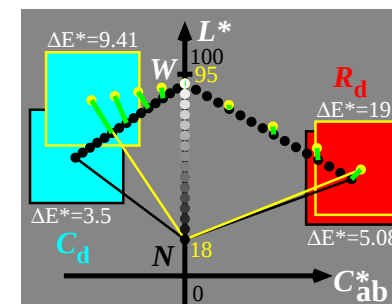
### tre superficie i colori



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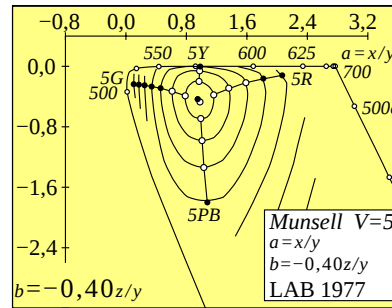
4-003130-L0

MI461-20, B2\_33



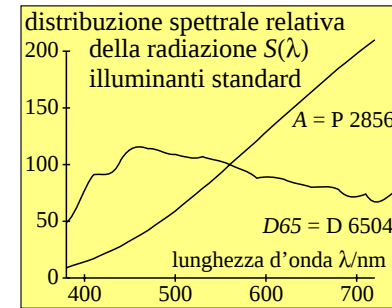
4-003130-L0

MI461-40



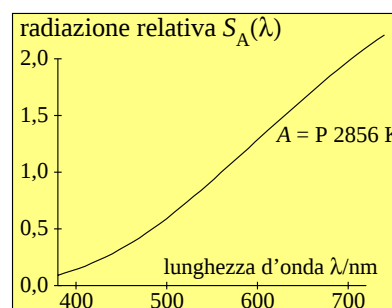
4-003130-L0

MI461-50, B4\_17\_1



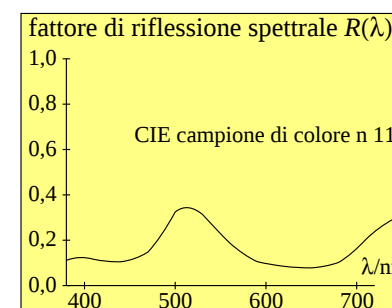
4-003130-L0

MI461-60, B3\_08



4-003130-L0

MI461-70, B3\_09\_1



4-003130-L0

MI461-80, B3\_09\_2

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|-----------------------|---------------------------------------------------------------------------------------------|---------------------------------------|
| <b>chiarezza</b>      | $L^* = 116 (Y / 100)^{1/3} - 16$<br>Approssimazione: $L^* = 100 (Y / 100)^{1/3}$            | definition 1976 in:<br>CIELUV, CIELAB |
| <b>chroma</b>         | per diagramma chroma (A, B)                                                                 |                                       |
| rosso-verde           | $a^* = 500 [ (X / X_n)^{1/3} - (Y / Y_n)^{1/3} ]$<br>$= 500 (a' - a'_n) Y^{1/3}$            | definition 1976 per:<br>CIELAB        |
| giallo-blu            | $b^* = 200 [ (Y / Y_n)^{1/3} - (Z / Z_n)^{1/3} ]$<br>$= 500 (b' - b'_n) Y^{1/3}$            | $n=D65$ (sfondo)                      |
| radiale               | $C^* = [ a^{*2} + b^{*2} ]^{1/2}$                                                           |                                       |
| <b>saturation</b>     | = chroma / chiarezza                                                                        | definition                            |
| rosso-verde           | $S_a^* = a^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (a' - a'_n)$                             | per:<br>CIELAB 1976                   |
| giallo-blu            | $S_b^* = b^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (b' - b'_n)$                             |                                       |
| radiale               | $S_c^* = C^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$ |                                       |
| <b>chromaticito</b>   | for nonlinear chromaticity diagram ( $a'$ , $b'$ ) definition                               |                                       |
| rosso-verde           | $a' = (1 / X_n)^{1/3} (x / y)^{1/3}$                                                        | opponent                              |
| giallo-blu            | $= 0,2191 (x / y)^{1/3}$ per D65                                                            | color system                          |
| radiale               | $b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$<br>$= -0,08376 (z / y)^{1/3}$ per D65             |                                       |
|                       | $c' = [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$                                              |                                       |

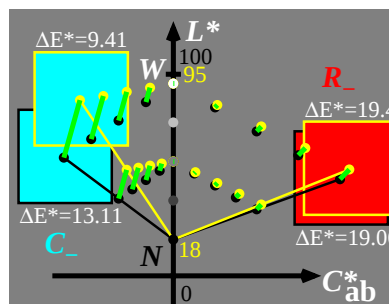
### tre superficie i colori



colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
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4-013030-L0

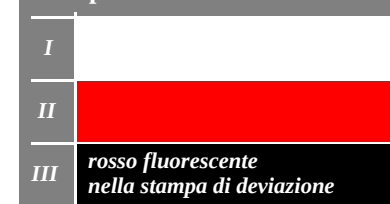
MI461-1N, B2\_33



4-013030-L0

MI461-3N

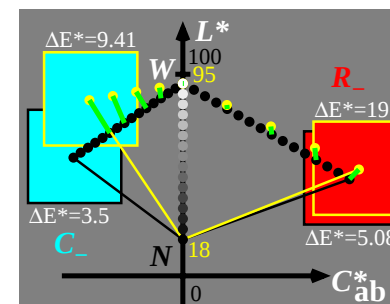
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colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
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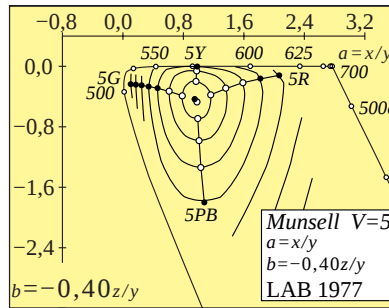
4-013030-L0

MI461-2N, B2\_33



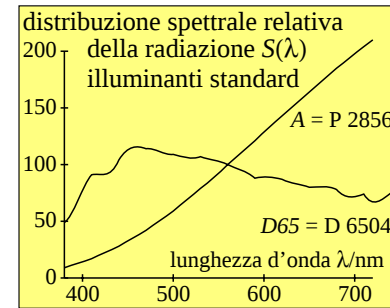
4-013030-L0

MI461-4N



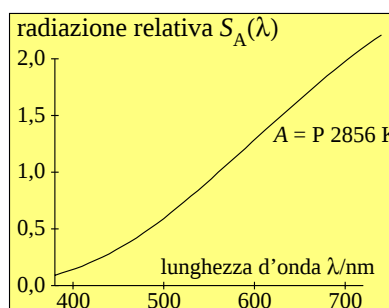
4-013030-L0

MI461-5N, B4\_17\_1



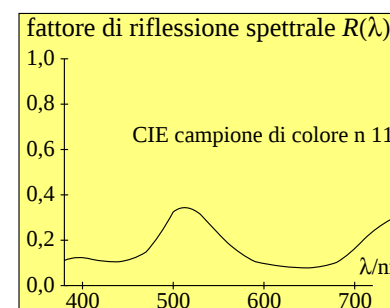
4-013030-L0

MI461-6N, B3\_08



4-013030-L0

MI461-7N, B3\_09\_1



4-013030-L0

MI461-8N, B3\_09\_2

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| <b>chroma</b>         | per diagramma chroma (A, B)                                                                 |                                       |
| rosso-verde           | $a^* = 500 [ (X / X_n)^{1/3} - (Y / Y_n)^{1/3} ]$<br>$= 500 (a' - a'_n) Y^{1/3}$            | definition 1976 per:<br>CIELAB        |
| giallo-blu            | $b^* = 200 [ (Y / Y_n)^{1/3} - (Z / Z_n)^{1/3} ]$<br>$= 500 (b' - b'_n) Y^{1/3}$            | $n=D65$ (sfondo)                      |
| radiale               | $C^* = [ a^{*2} + b^{*2} ]^{1/2}$                                                           |                                       |
| <b>saturation</b>     | = chroma / chiarezza                                                                        | definition                            |
| rosso-verde           | $S_a^* = a^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (a' - a'_n)$                             | per:<br>CIELAB 1976                   |
| giallo-blu            | $S_b^* = b^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 (b' - b'_n)$                             |                                       |
| radiale               | $S_c^* = C^* / [ 100 (Y / 100)^{1/3} ]$<br>$= 21,6 [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$ |                                       |
| <b>chromaticito</b>   | for nonlinear chromaticity diagram ( $a'$ , $b'$ ) definition                               |                                       |
| rosso-verde           | $a' = (1 / X_n)^{1/3} (x / y)^{1/3}$                                                        | opponent                              |
| giallo-blu            | $= 0,2191 (x / y)^{1/3}$ per D65                                                            | color system                          |
| radiale               | $b' = -0,4 (1 / Z_n)^{1/3} (z / y)^{1/3}$<br>$= -0,08376 (z / y)^{1/3}$ per D65             |                                       |
|                       | $c' = [ (a' - a'_n)^2 + (b' - b'_n)^2 ]^{1/2}$                                              |                                       |

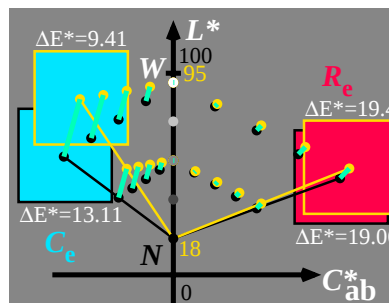
### tre superficie i colori



colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
e fluorescente rosso  $R_{df}$  (III)

4-013130-L0

MI461-11, B2\_33



4-013130-L0

MI461-31

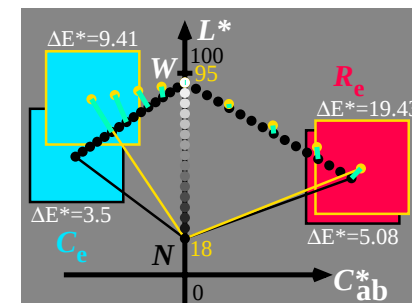
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colori: bianco  $W_d$  (I), rosso  $R_d$  (II)  
e fluorescente rosso  $R_{df}$  (III)

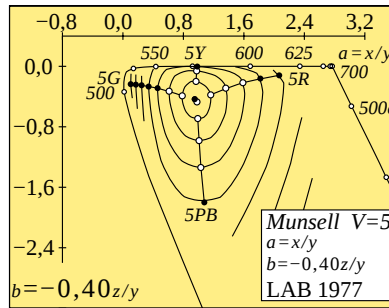
4-013130-L0

MI461-21, B2\_33



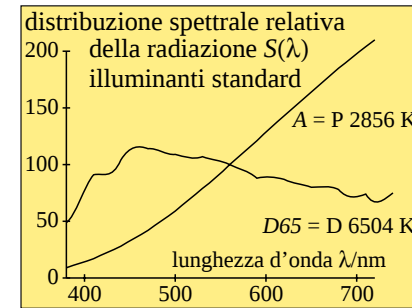
4-013130-L0

MI461-41



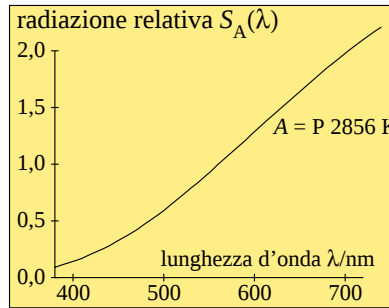
4-013130-L0

MI461-51, B4\_17\_1



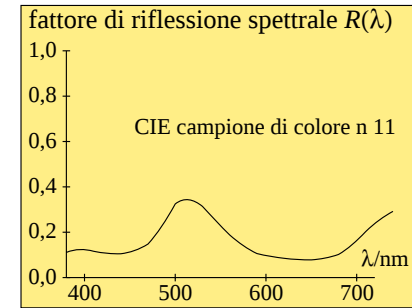
4-013130-L0

MI461-61, B3\_08



4-013130-L0

MI461-71, B3\_09\_1



4-013130-L0

MI461-81, B3\_09\_2