

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_00%_O0 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

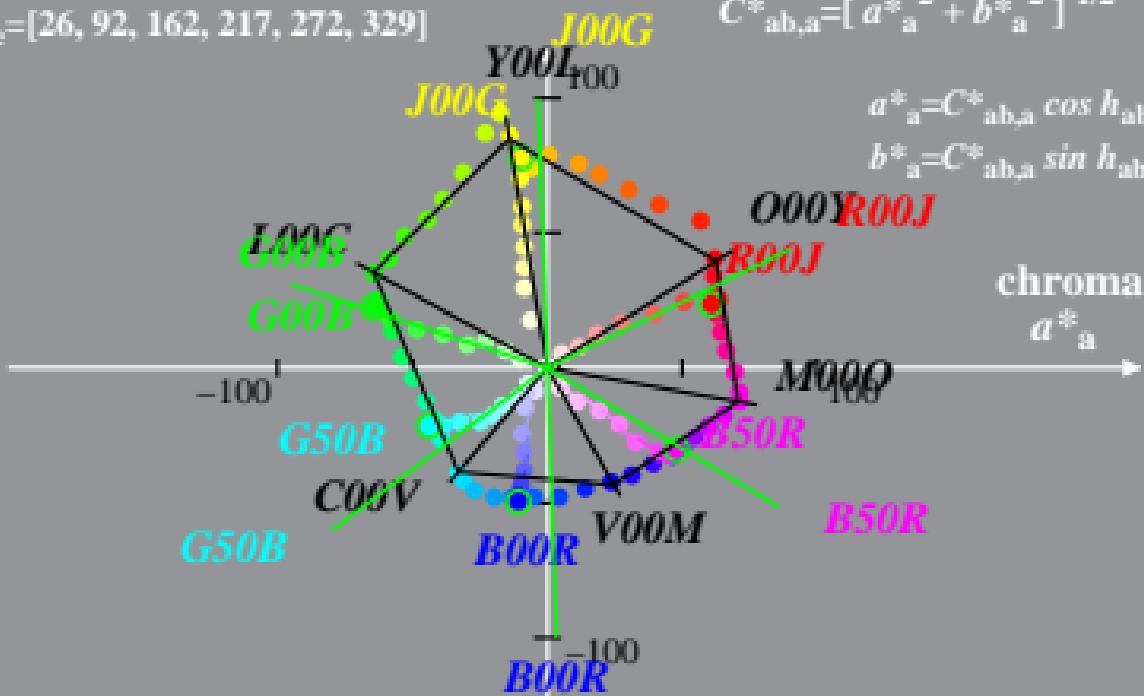
$$h_{ab,ex} = [26, 92, 162, 217, 272, 329]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab} = a^* - a^*_N - l^*_{lab} [a^*_W - a^*_N]$$

$$b^*_{ab} = b^* - b^*_N - l^*_{lab} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$



$$a^*_{ab} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{ab} = C^*_{ab,a} \sin h_{ab}$$

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_00%_O1 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

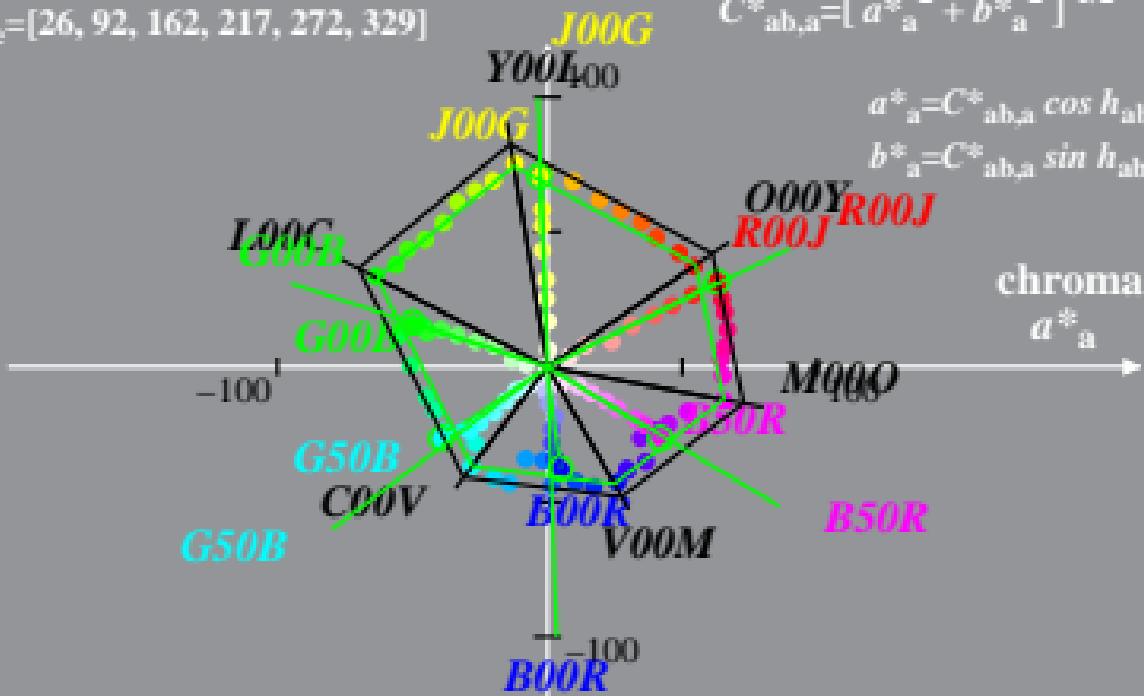
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$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab,a} = a^* - a^*_N - l^*_{lab} \cdot [a^*_W - a^*_N]$$

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$$C^*_{ab,a} = [a^*_{ab,a}^2 + b^*_{ab,a}^2]^{1/2}$$



$$a^*_{ab,a} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{ab,a} = C^*_{ab,a} \sin h_{ab}$$

chroma
 $a^*_{ab,a}$

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_25%_O0 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

$$h_{ab,ex} = [42, 109, 175, 230, 286, 343]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

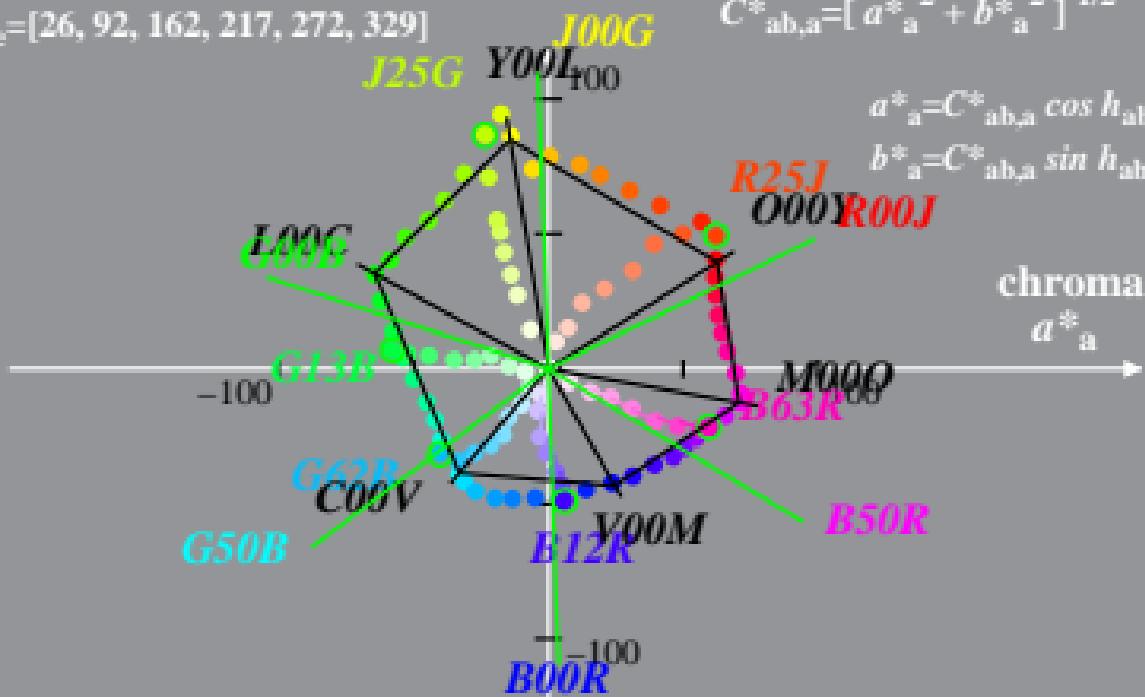
$$a^*_{ab} = a^* - a^*_N - l^*_{lab} [a^*_W - a^*_N]$$

$$b^*_{ab} = b^* - b^*_N - l^*_{lab} [b^*_W - b^*_N]$$

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Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_25%-O1 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

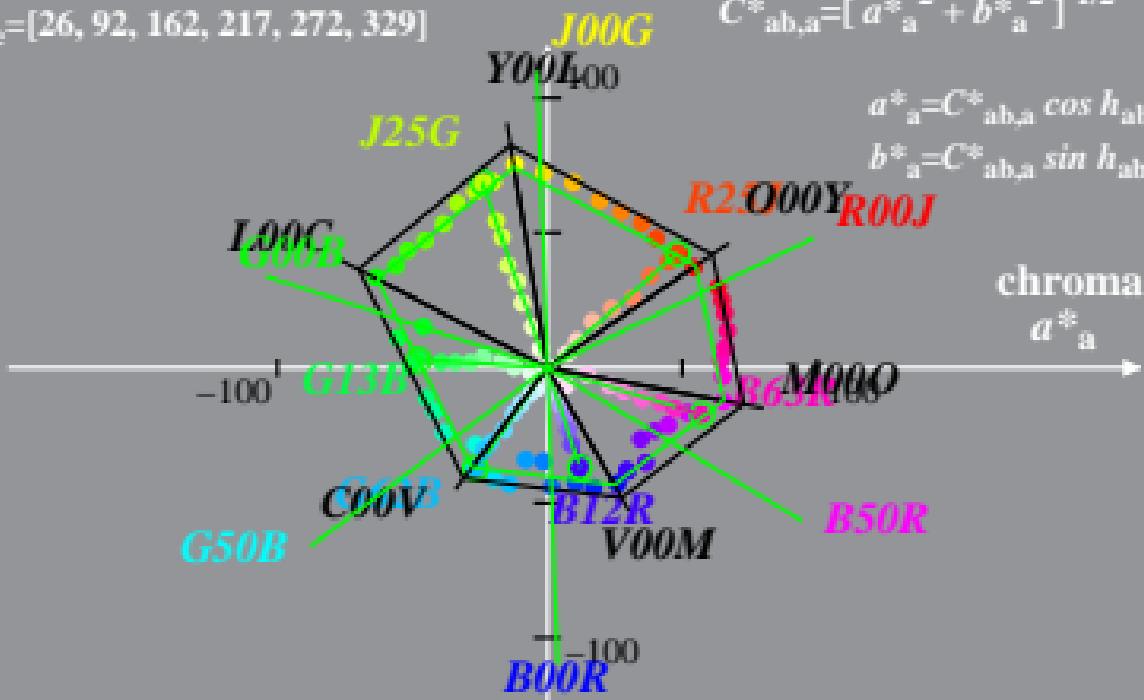
$$h_{ab,ex} = [42, 109, 175, 230, 286, 343]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab,a} = a^* - a^*_N - l^*_{lab} \cdot [a^*_W - a^*_N]$$

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$$C^*_{ab,a} = [a^*_{ab,a}^2 + b^*_{ab,a}^2]^{1/2}$$



Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_50%_O0 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

$$h_{ab,ex} = [59, 127, 189, 244, 300, 357]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab} = a^* - a^*_N - l^*_{lab} [a^*_W - a^*_N]$$

$$b^*_{ab} = b^* - b^*_N - l^*_{lab} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

$Y00I_{t00}$

$J00G$

$R50J$

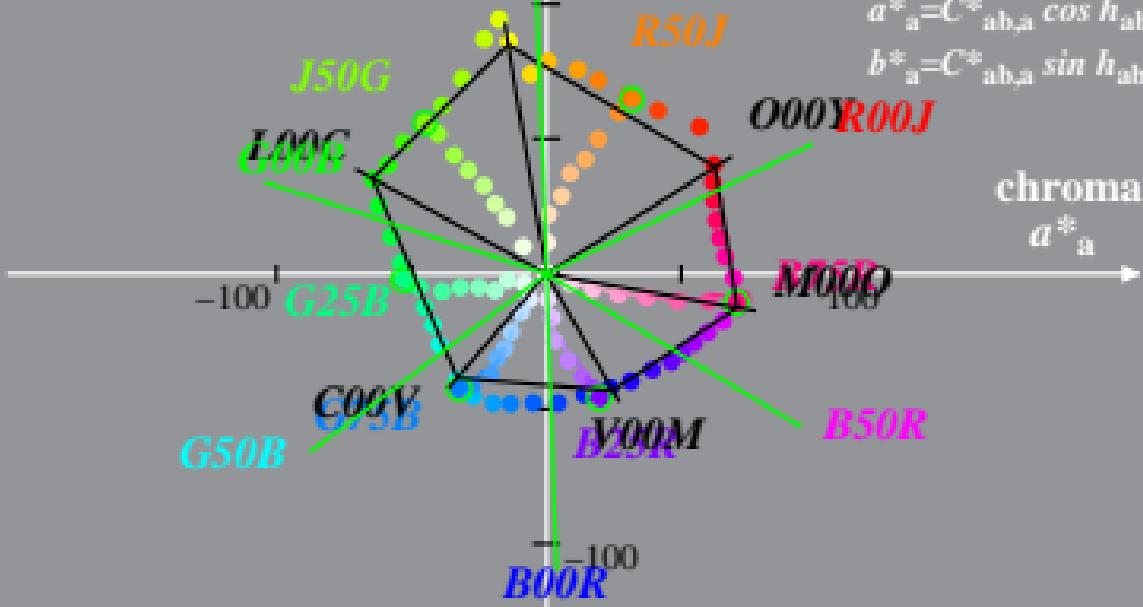
$O00R00J$

$$a^*_{ab} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{ab} = C^*_{ab,a} \sin h_{ab}$$

chroma

a^*_{ab}



Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_50%-O1 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

$$h_{ab,ex} = [59, 127, 189, 244, 300, 357]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab,a} = a^* - a^*_N - l^*_{lab} \cdot [a^*_W - a^*_N]$$

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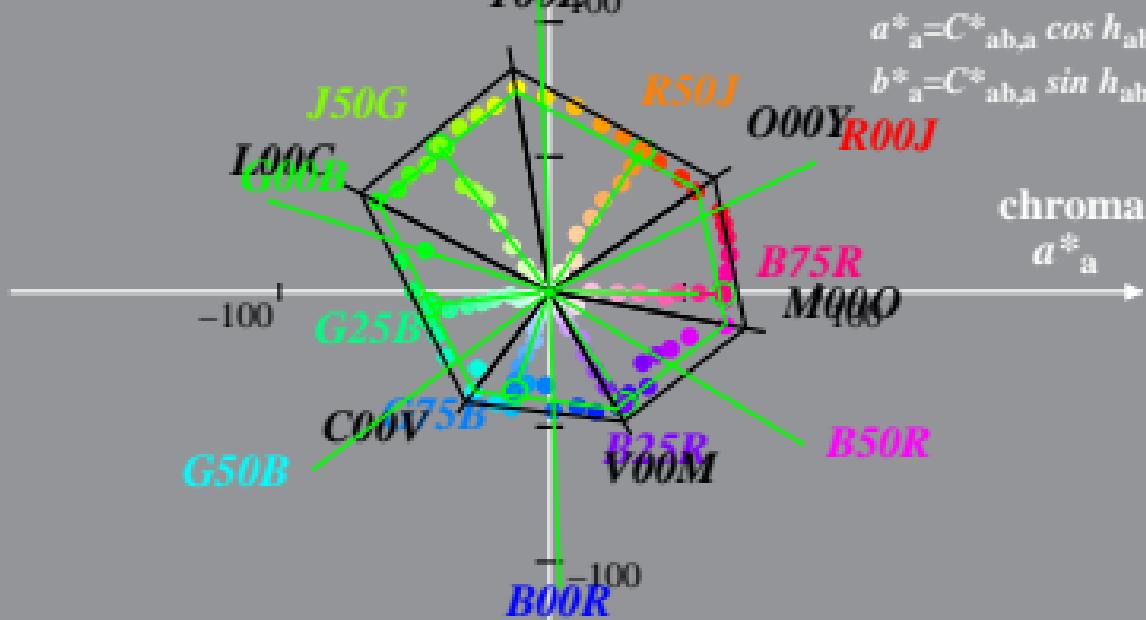
$$C^*_{ab,a} = [a^*_{ab,a}^2 + b^*_{ab,a}^2]^{1/2}$$

J00G

Y00I00

$$a^*_{ab,a} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{ab,a} = C^*_{ab,a} \sin h_{ab}$$



Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)
 System: HE83_HRS16_96_D65_75%_O0 $l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 99, 152, 232, 299, 349]$$

$$h_{ab,ex} = [75, 144, 203, 258, 314, 371]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329]$$

$$a^*_{ab} = a^* - a^*_N - l^*_{lab} [a^*_W - a^*_N]$$

$$b^*_{ab} = b^* - b^*_N - l^*_{lab} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

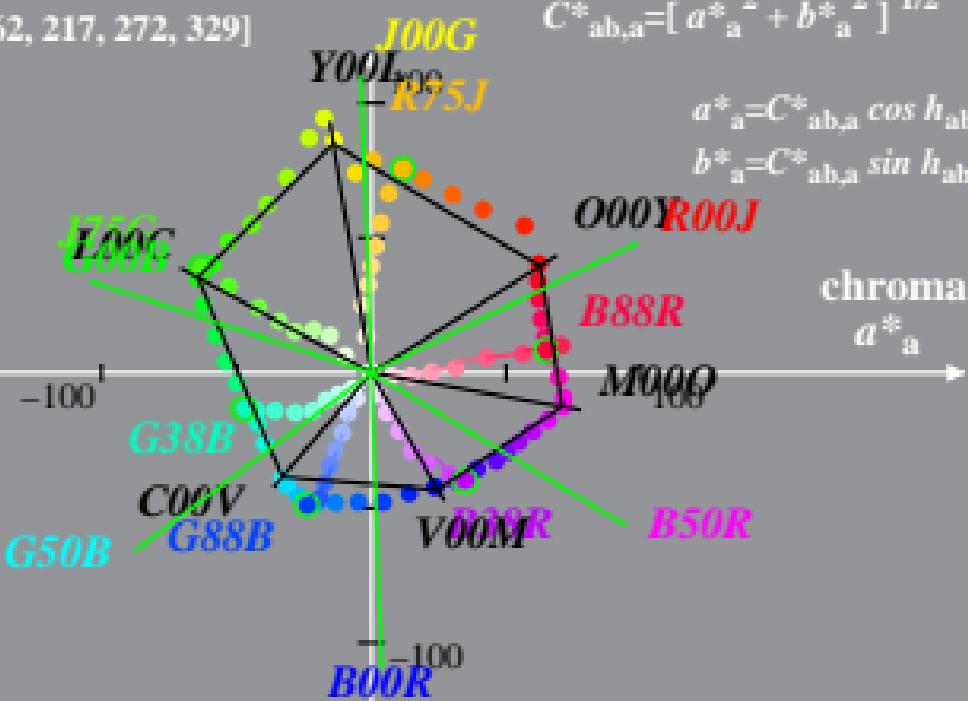
J00G
Y00L₀₀
-R75J

O00Y00J

$$a^*_{ab} = C^*_{ab,a} \cos h_{ab}$$

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chroma
 a^*_{ab}



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$$a^*_{ab,a} = a^* - a^*_N - l^*_{lab} \cdot [a^*_W - a^*_N]$$

$$b^*_{ab,a} = b^* - b^*_N - l^*_{lab} \cdot [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^*_{ab,a}^2 + b^*_{ab,a}^2]^{1/2}$$

J00G

Y00I400

R75J

O00YR00J

B88R

chroma
 $a^*_{ab,a}$

M900

-100

B00R

-100

G50B

G38E

C00V

G88D

V00M

B38R

B50R