

Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 0%\_Fadin

$$l^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

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

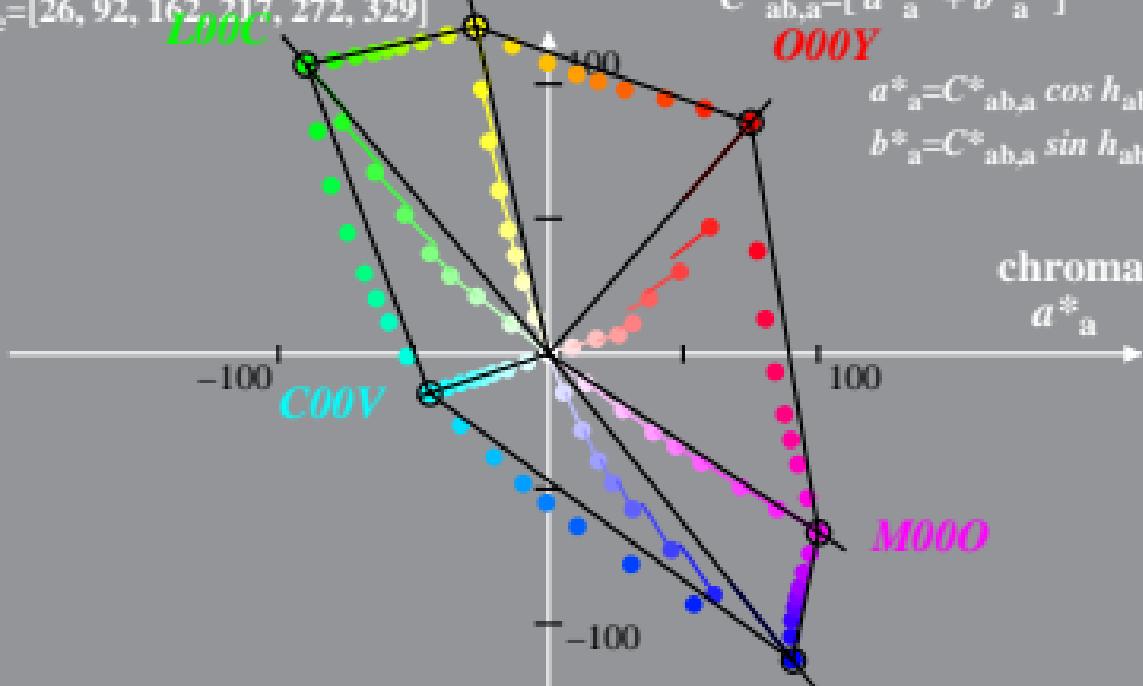
$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

*000Y*

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

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

chroma  
 $a^*_{ab}$



Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
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$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

*Y00L*

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

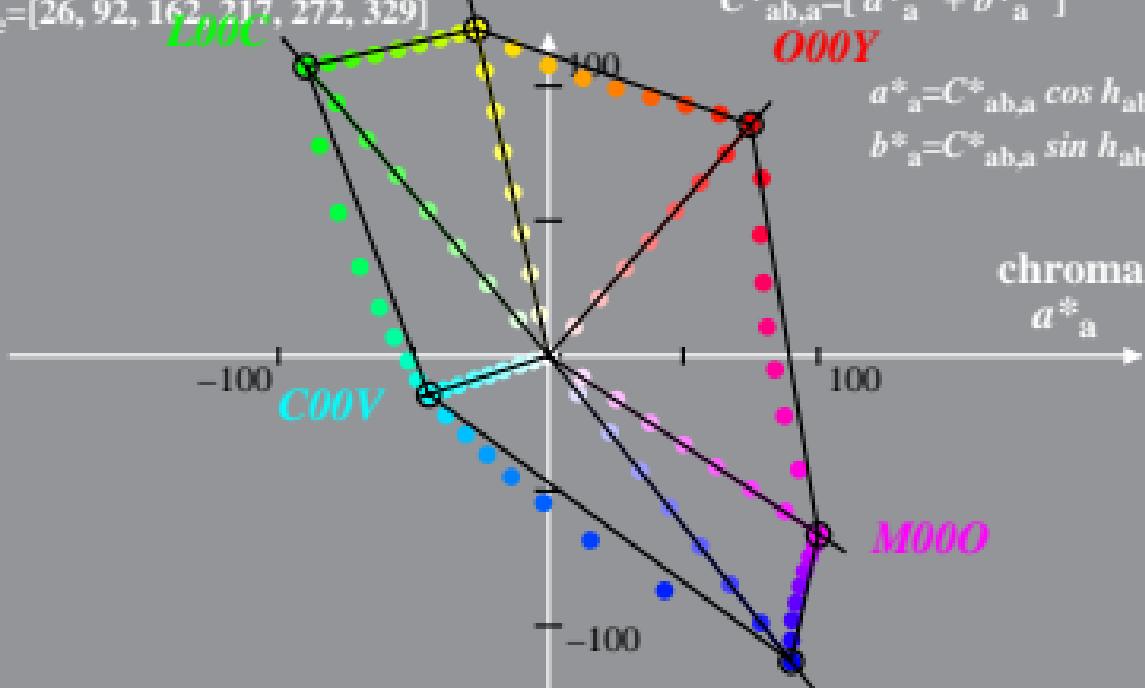
*L00C*

*000Y*

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

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

chroma  
 $a^*_{ab}$



Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
 LE45\_LECD display\_2 0,6%\_Fadin

$$l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

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

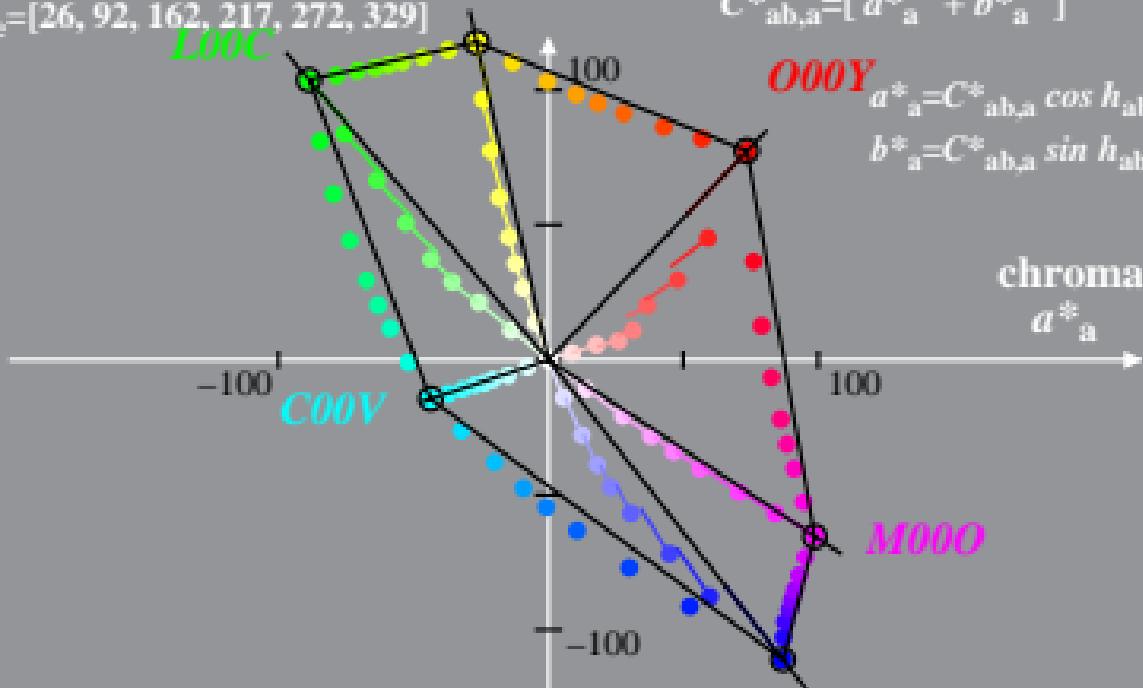
$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, \text{yellow}]$$

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

$$\begin{aligned} L00C & \quad O00Y \\ a^*_{ab} &= C^*_{ab,a} \cos h_{ab} \\ b^*_{ab} &= C^*_{ab,a} \sin h_{ab} \end{aligned}$$



Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 0,6%\_Fadit       $L^*_{ab,a} = (L^* - L^*_{ref}) / (L^*_{ref} - L^*_{min})$

#### CIELAB hue angles:

$h_{\text{obs}, i} = [38, 96, 151, 236, 305, 390]$ .

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

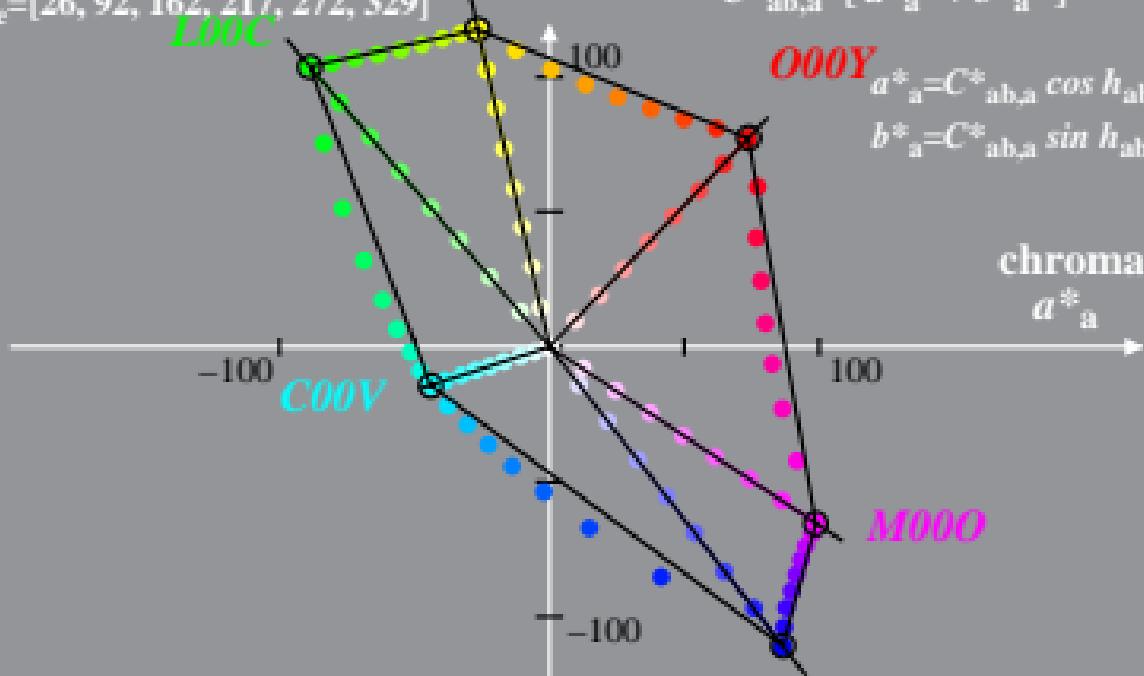
16

16

$$a^*_\text{a} = a^* - a^*_\text{N} - l^*|_{\text{ab}*} [a^*_\text{W} - a^*_\text{N}]$$

$$h^* = h^* - h^*_{\infty} = f^*_{\infty} - [h^*_{\infty} - h^*_{\infty}]$$

$$C^*_{\text{sh},2} = [a^*_{-2} + b^*_{-2}]^{1/2}$$



Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
 LE45\_LECD display\_2 1,2%\_Fadin

$$l^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

$$b^*_{ab}$$

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

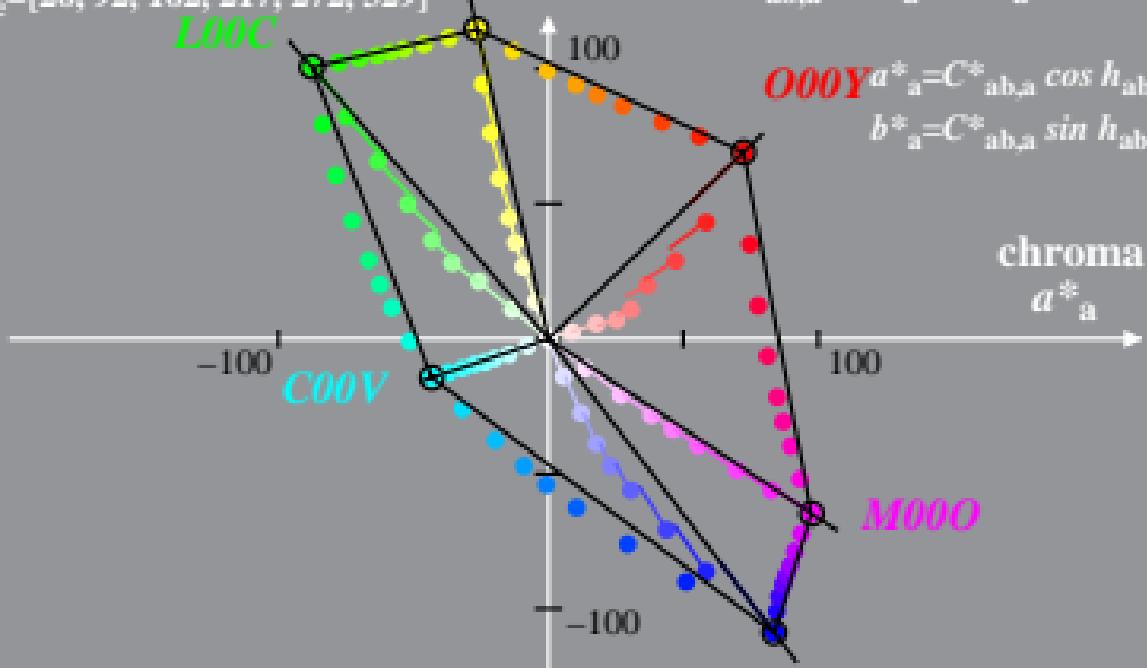
$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 350]$$

**Y00L**

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



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

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

chroma  
 $a^*_{ab}$

Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 1,2%\_Fadit

$$l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

$$b^*_{ab}$$

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

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

CIELAB hue angles:

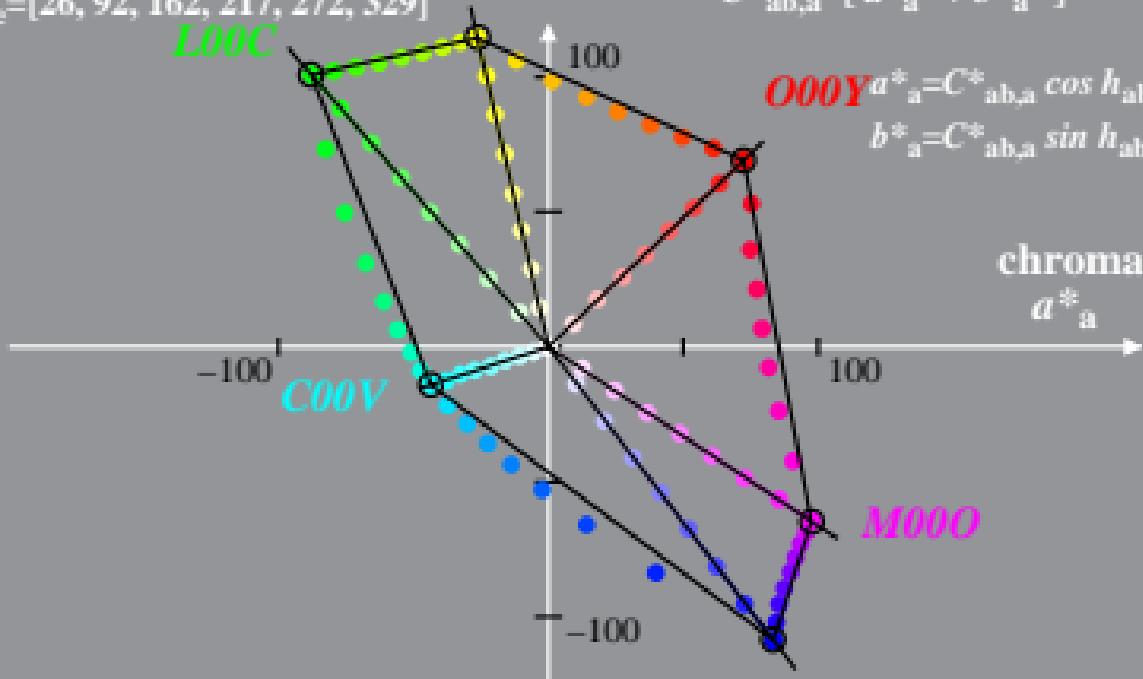
$$h_{ab,d} = [38, 96, 151, 236, 305, 354] \text{ Y00L}$$

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

$$L00C$$

$$O00Y a^*_{ab} = C^*_{ab,a} \cos h_{ab}$$

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



Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 2,5%\_Fadin

$$l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

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

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

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

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

$Y00L$

$L00C$

$C00V$

$b^*_{ab}$

$a^*_{ab}$

$O00Y$

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

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

chroma

$a^*_{ab}$

$M00O$

$V00M$

Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 2,5%\_Fadit

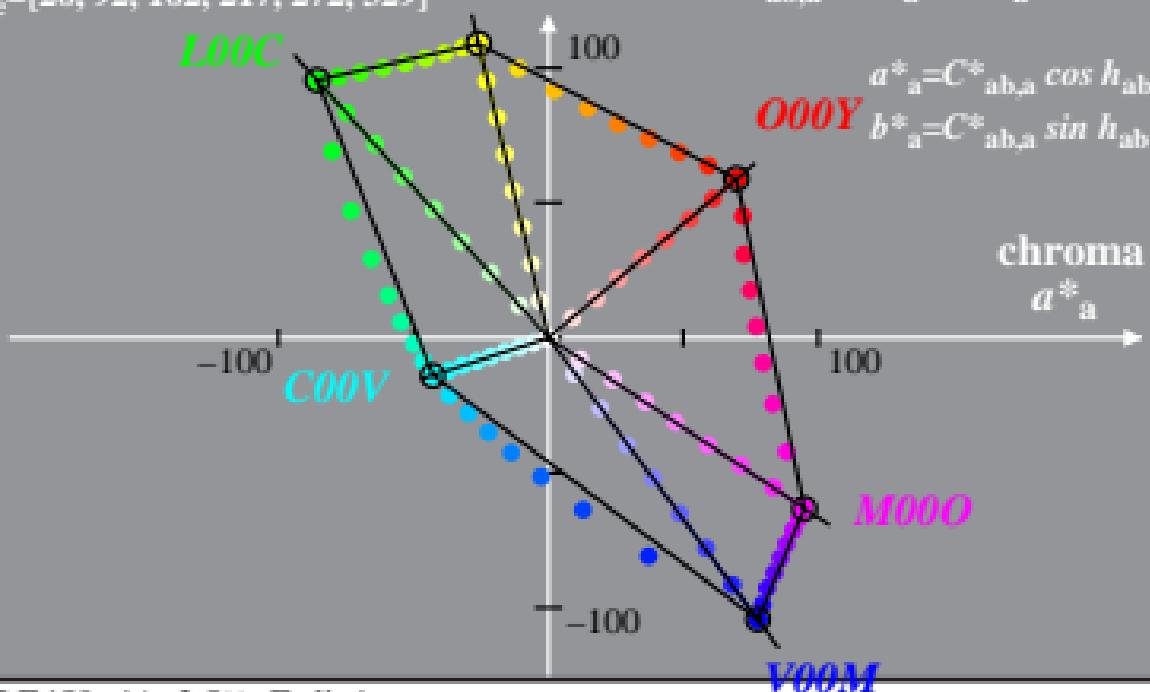
$$l^*_{\text{lab}} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

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

$$\begin{aligned} b^*_{ab} &= b^* - b^*_N - l^*_{\text{lab}} * [b^*_W - b^*_N] \\ C^*_{ab,a} &= [a^*_{ab}^2 + b^*_{ab}^2]^{1/2} \end{aligned}$$



Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 5%\_Fadin

$$l^*_{\text{lab}} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

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

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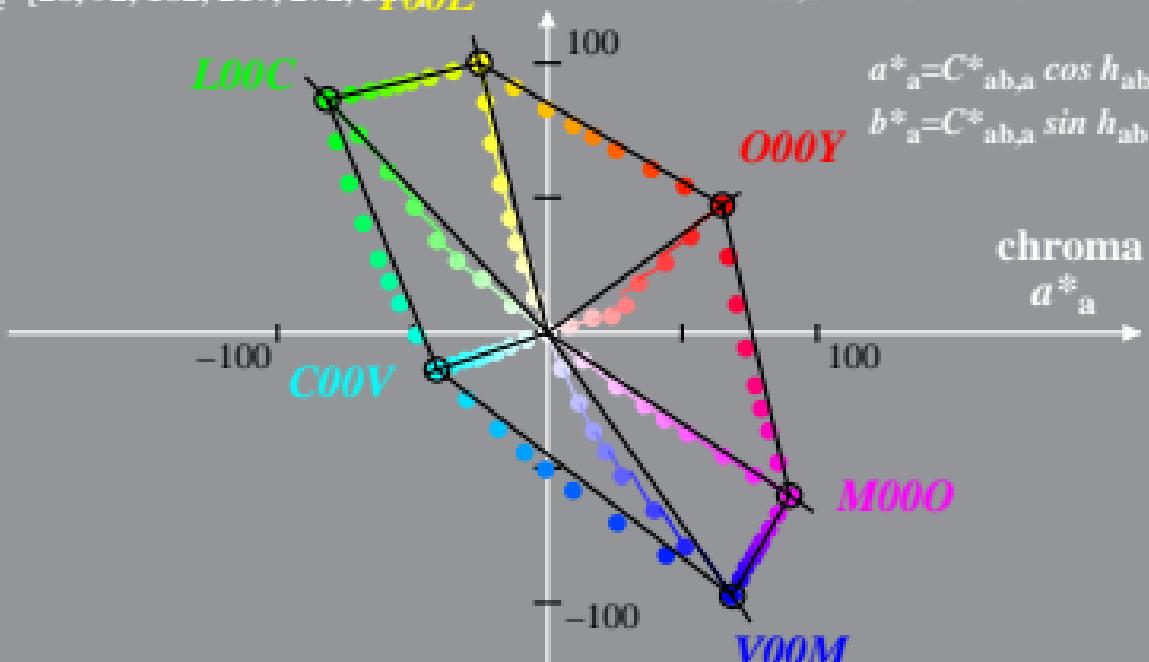
$$C^*_{ab,a} = [a^*_{ab}^2 + b^*_{ab}^2]^{1/2}$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 340]$$

**Y00L**



Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 5%\_Fadit

$$l^*_{\text{lab}} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 340]$$

$$b^*_{ab}$$

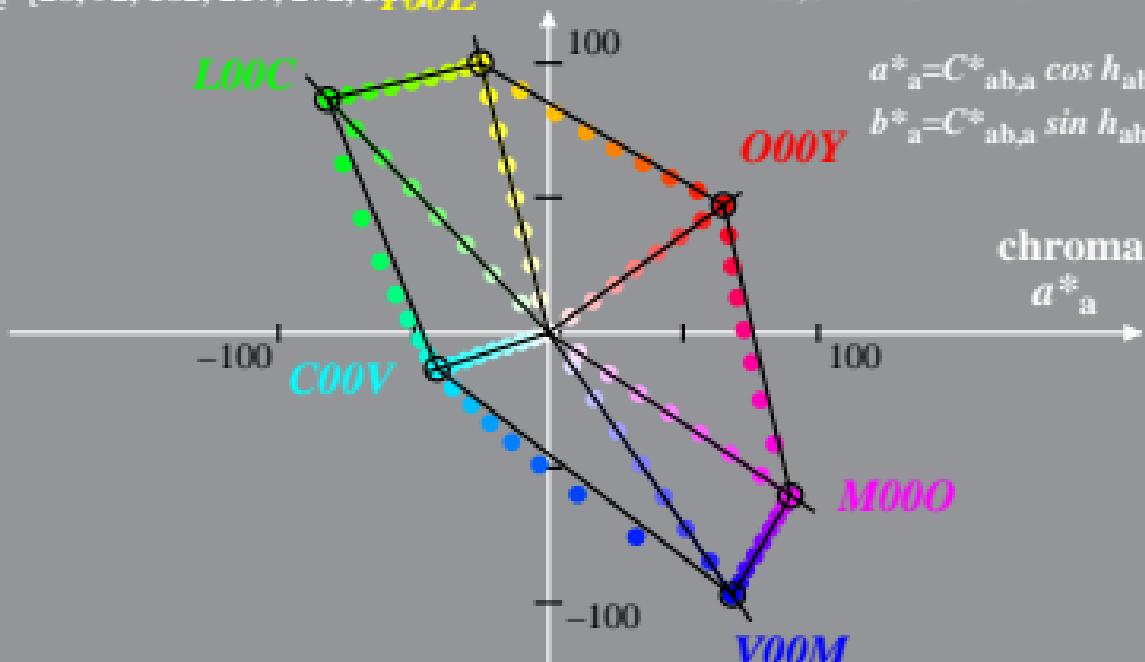
$$a^*_{ab} = a^* - a^*_N - l^*_{\text{lab}} * [a^*_W - a^*_N]$$

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

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

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

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Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 10%\_Fadin

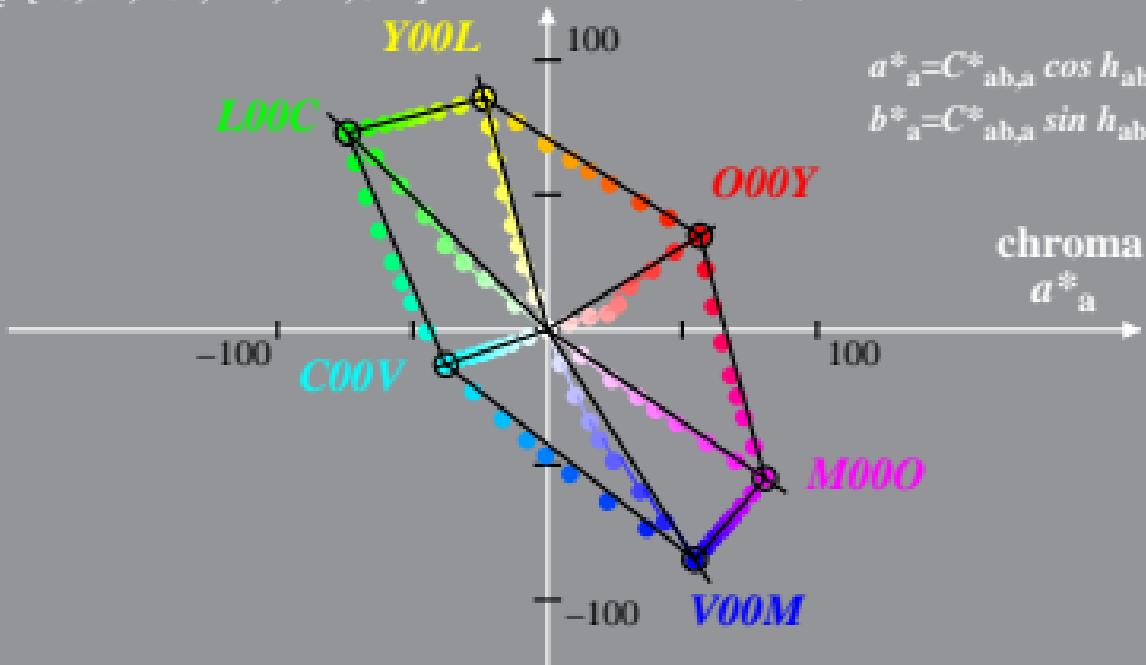
$$l^*_{\text{lab}} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB hue angles:

$$h_{ab,d} = [38, 96, 151, 236, 305, 354]$$

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$$\begin{aligned} b^*_{ab} &= b^* - b^*_N - l^*_{\text{lab}} * [b^*_W - b^*_N] \\ C^*_{ab,a} &= [a^*_{ab}^2 + b^*_{ab}^2]^{1/2} \end{aligned}$$



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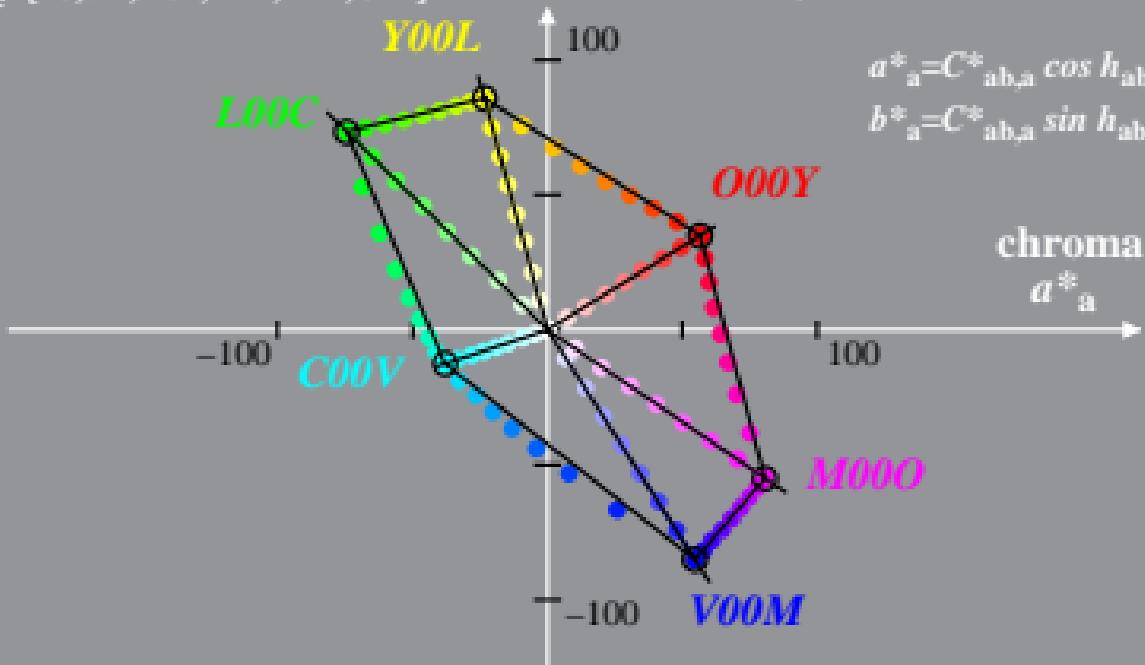
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Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 20%\_Fadin

CIELAB hue angles:

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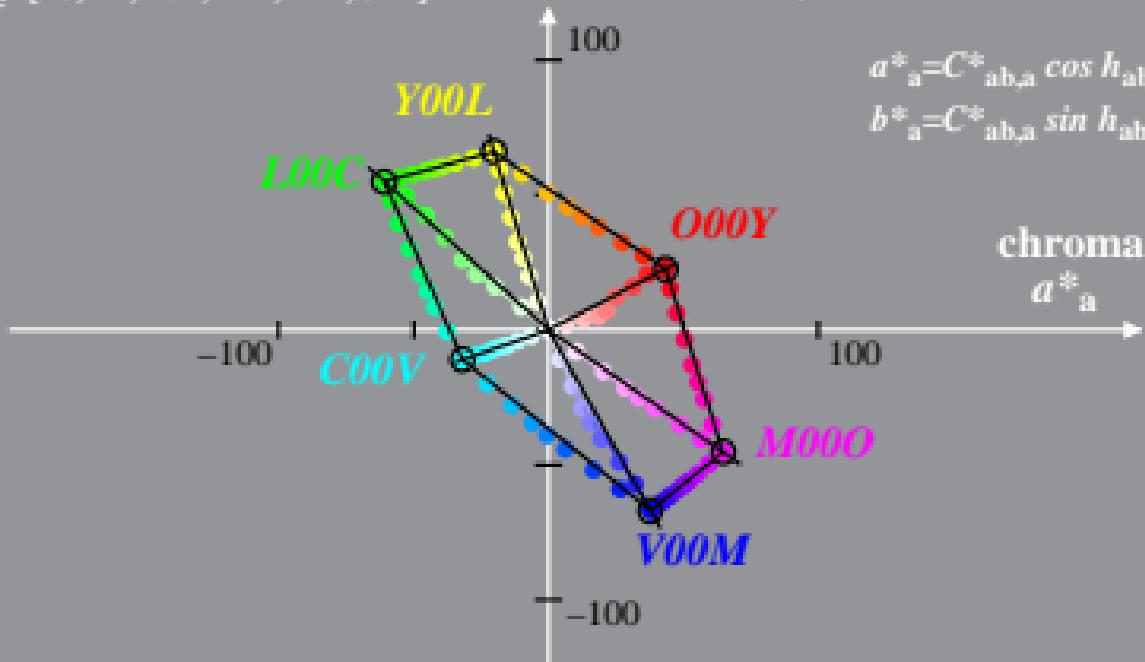
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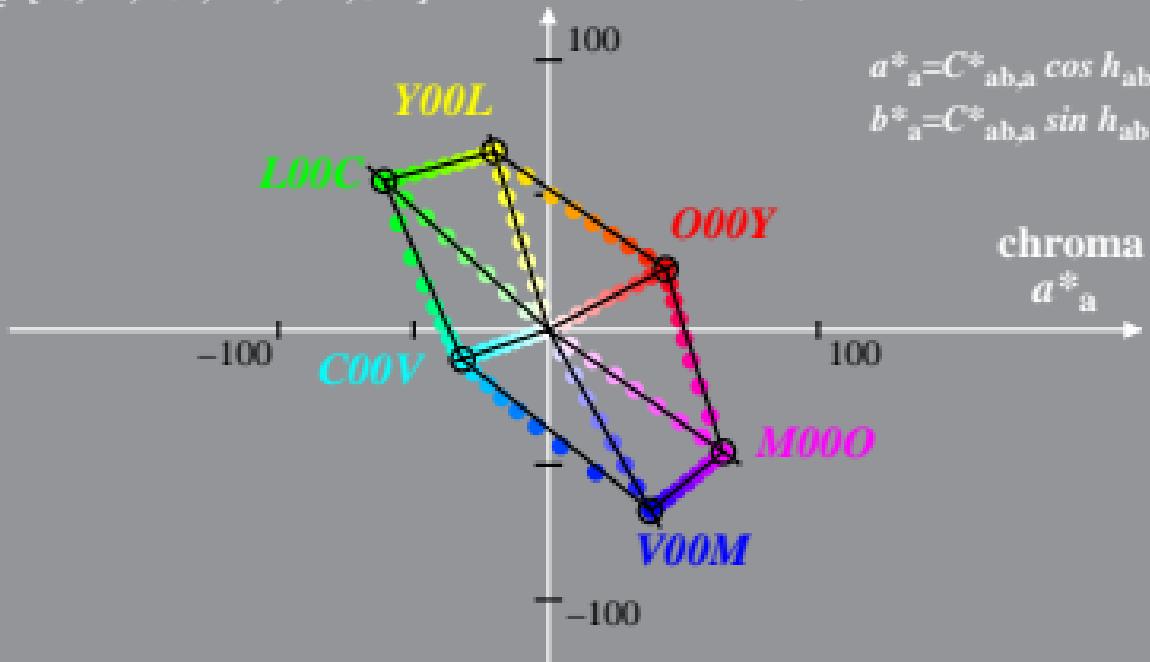
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Linear relation CIELAB ( $L^*, a^*, b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}, L^*$ )  
 LE45\_LECD display\_2 40%\_Fadin

$$l^*_{lab} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

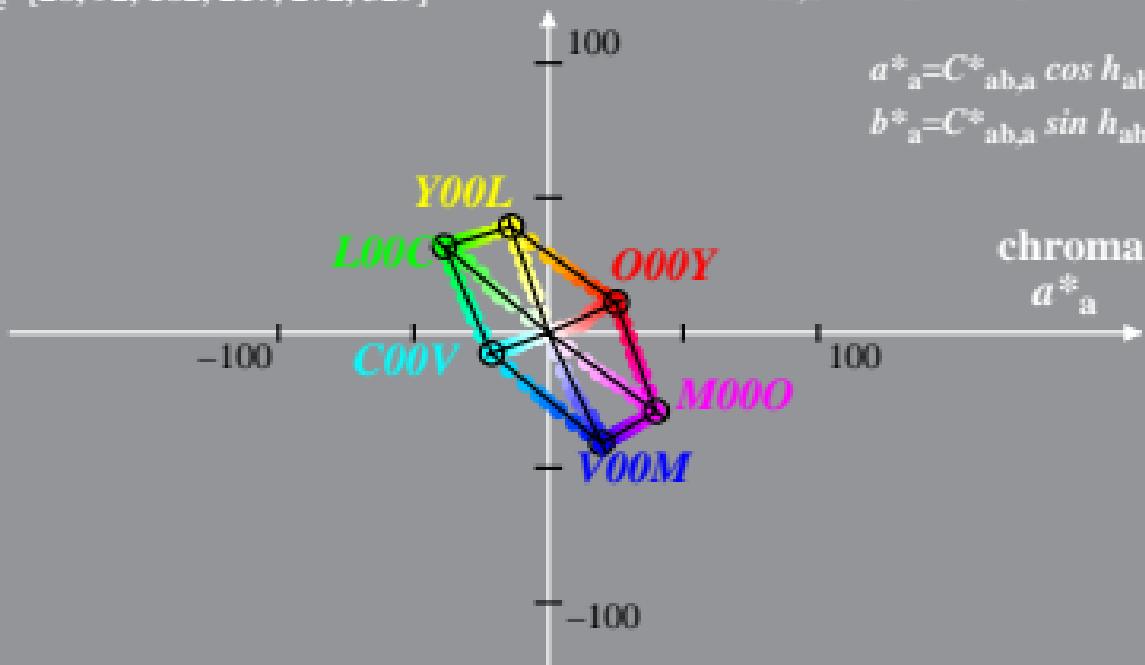
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 LE45\_LECD display\_2 40%\_Fadit

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