

Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C_{ab,a}^*$ ,  $L^*$ )  
System: NRS18\_b05r

CIELAB hue angles:

$$h_{ab,d} = [26, 89, 166, 192, 262, 325]$$

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

$$l_{lab}^* = (L^* - L_N^*) / (L_W^* - L_N^*)$$

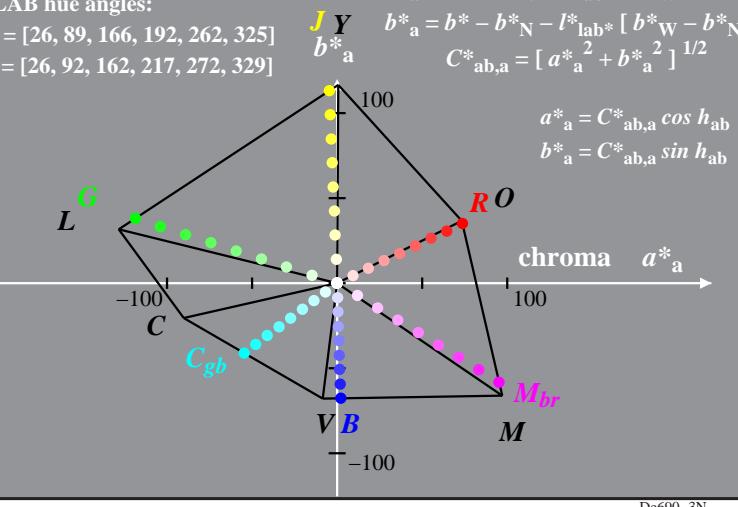
$$a_{ab}^* = a^* - a_N^* - l_{lab}^* [a_W^* - a_N^*]$$

$$b_{ab}^* = b^* - b_N^* - l_{lab}^* [b_W^* - b_N^*]$$

$$C_{ab,a}^* = [a_{ab}^{*2} + b_{ab}^{*2}]^{1/2}$$

$$a_{ab}^* = C_{ab,a}^* \cos h_{ab}$$

$$b_{ab}^* = C_{ab,a}^* \sin h_{ab}$$



Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C_{ab,a}^*$ ,  $L^*$ )  
System: NRS18\_b10r+05

CIELAB hue angles:

$$h_{ab,d} = [26, 89, 166, 195, 273, 330]$$

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

$$l_{lab}^* = (L^* - L_N^*) / (L_W^* - L_N^*)$$

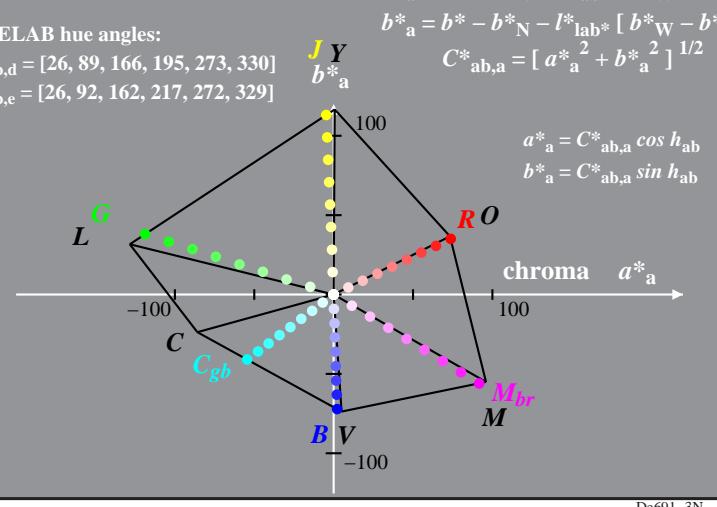
$$a_{ab}^* = a^* - a_N^* - l_{lab}^* [a_W^* - a_N^*]$$

$$b_{ab}^* = b^* - b_N^* - l_{lab}^* [b_W^* - b_N^*]$$

$$C_{ab,a}^* = [a_{ab}^{*2} + b_{ab}^{*2}]^{1/2}$$

$$a_{ab}^* = C_{ab,a}^* \cos h_{ab}$$

$$b_{ab}^* = C_{ab,a}^* \sin h_{ab}$$



Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C_{ab,a}^*$ ,  $L^*$ )  
System: NRS18\_b10r

CIELAB hue angles:

$$h_{ab,d} = [26, 89, 166, 192, 273, 325]$$

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

$$l_{lab}^* = (L^* - L_N^*) / (L_W^* - L_N^*)$$

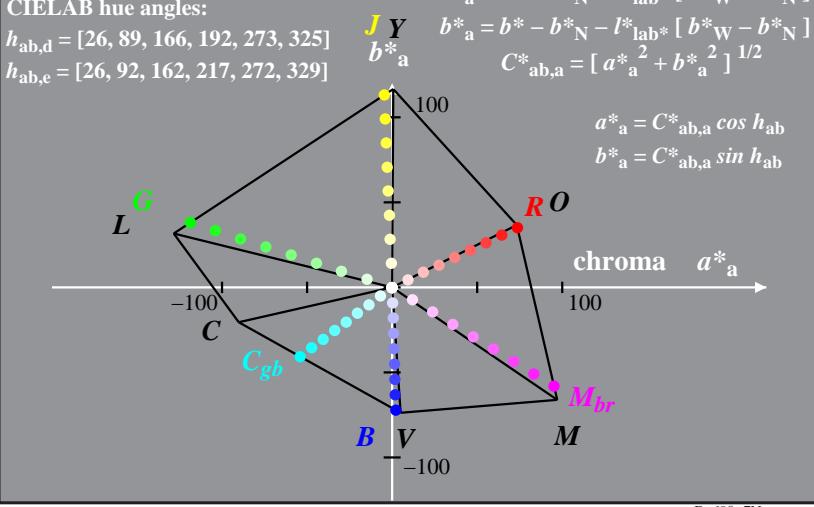
$$a_{ab}^* = a^* - a_N^* - l_{lab}^* [a_W^* - a_N^*]$$

$$b_{ab}^* = b^* - b_N^* - l_{lab}^* [b_W^* - b_N^*]$$

$$C_{ab,a}^* = [a_{ab}^{*2} + b_{ab}^{*2}]^{1/2}$$

$$a_{ab}^* = C_{ab,a}^* \cos h_{ab}$$

$$b_{ab}^* = C_{ab,a}^* \sin h_{ab}$$



Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C_{ab,a}^*$ ,  $L^*$ )  
System: NRS18\_b15r+05

CIELAB hue angles:

$$h_{ab,d} = [26, 89, 166, 195, 283, 330]$$

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

$$l_{lab}^* = (L^* - L_N^*) / (L_W^* - L_N^*)$$

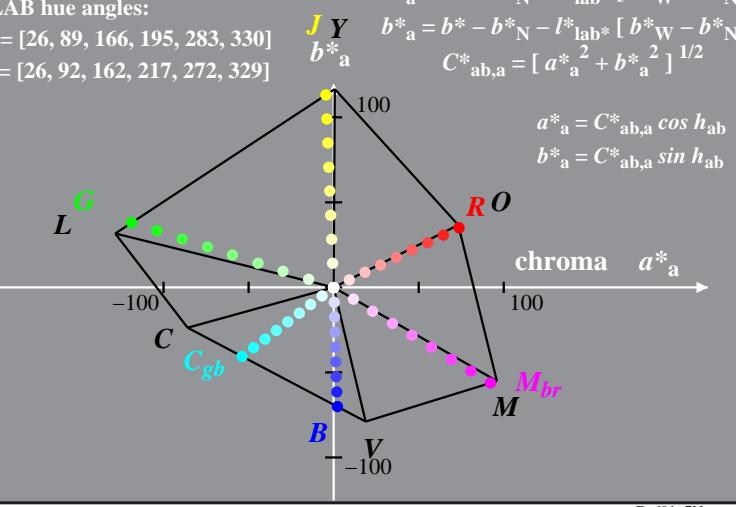
$$a_{ab}^* = a^* - a_N^* - l_{lab}^* [a_W^* - a_N^*]$$

$$b_{ab}^* = b^* - b_N^* - l_{lab}^* [b_W^* - b_N^*]$$

$$C_{ab,a}^* = [a_{ab}^{*2} + b_{ab}^{*2}]^{1/2}$$

$$a_{ab}^* = C_{ab,a}^* \cos h_{ab}$$

$$b_{ab}^* = C_{ab,a}^* \sin h_{ab}$$



BAM-test chart De69; Colour image reproduction  
4 system and CIE elementary hues in CIE diagram ( $a^*$ ,  $b^*$ )

input: *rgb* (-> *olv\**) *setrgbcOLOR*  
output: no change compared to input

BAM registration: 20080601-De69/10L/L69E00NA.PS /TXT  
application for measurement of printer or monitor systems

BAM material: code=rha4ta