

Linear relation CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) and adapted (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
 Television Luminous System: TLS00a

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

$$a^*_a = a^*$$

$$b^*_a = b^*$$

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

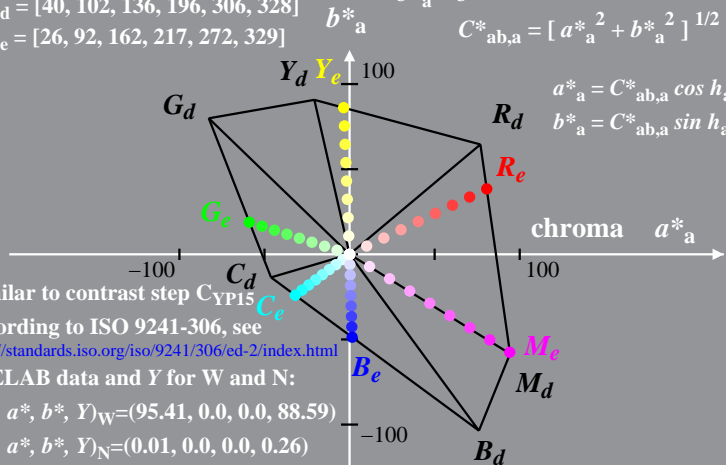
$$a^*_a = C^*_{ab,a} \cos h_{ab}$$

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

CIELAB hue angles *RYGCBM*:

$$h_{ab,d} = [40, 102, 136, 196, 306, 328]$$

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



Similar to contrast step  $C_{YP15}$   
 according to ISO 9241-306, see  
<http://standards.iso.org/iso/9241/306/ed-2/index.html>

CIELAB data and  $Y$  for  $W$  and  $N$ :

$$(L^*, a^*, b^*, Y)_W = (95.41, 0.0, 0.0, 88.59)$$

$$(L^*, a^*, b^*, Y)_N = (0.01, 0.0, 0.0, 0.26)$$