

Linear relation CIELAB (L^* , a^* , b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)

Television Luminous System: TLS18a

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

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

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

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

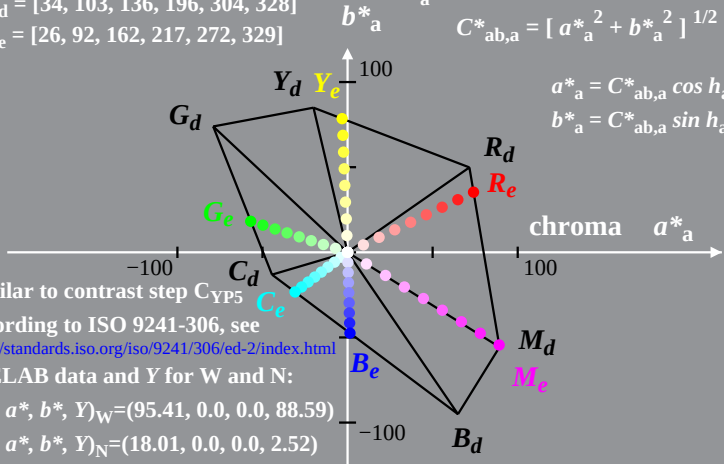
$$a^*_a = C^*_{ab,a} \cos h_{ab}$$

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

CIELAB hue angles *RYGCBM*:

$$h_{ab,d} = [34, 103, 136, 196, 304, 328]$$

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



Similar to contrast step C_{YP5}
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 :

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

$$(L^*, a^*, b^*, Y)_N = (18.01, 0.0, 0.0, 2.52)$$