

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

Television Luminous System: TLS70a

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

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

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

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

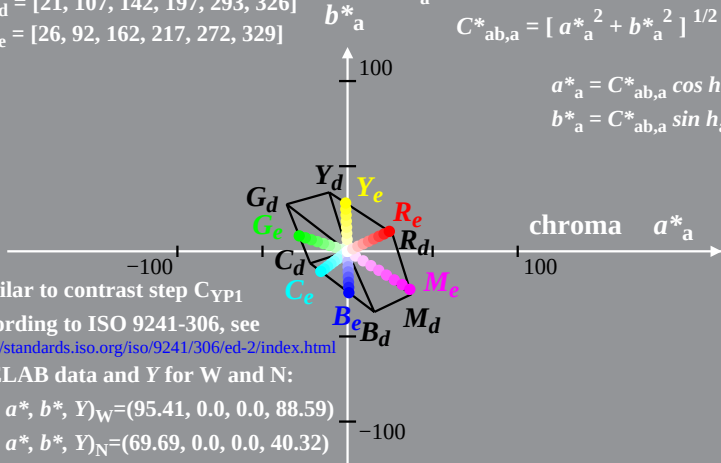
$$a^*_a = C^*_{ab,a} \cos h_{ab}$$

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

CIELAB hue angles *RYGCBM*:

$$h_{ab,d} = [21, 107, 142, 197, 293, 326]$$

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



Similar to contrast step C_{YP1}

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 :

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

$$(L^*, a^*, b^*, Y)_N = (69.69, 0.0, 0.0, 40.32)$$