

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

System: HE87_FRS09_92_D65_00%_00

$$l^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$$

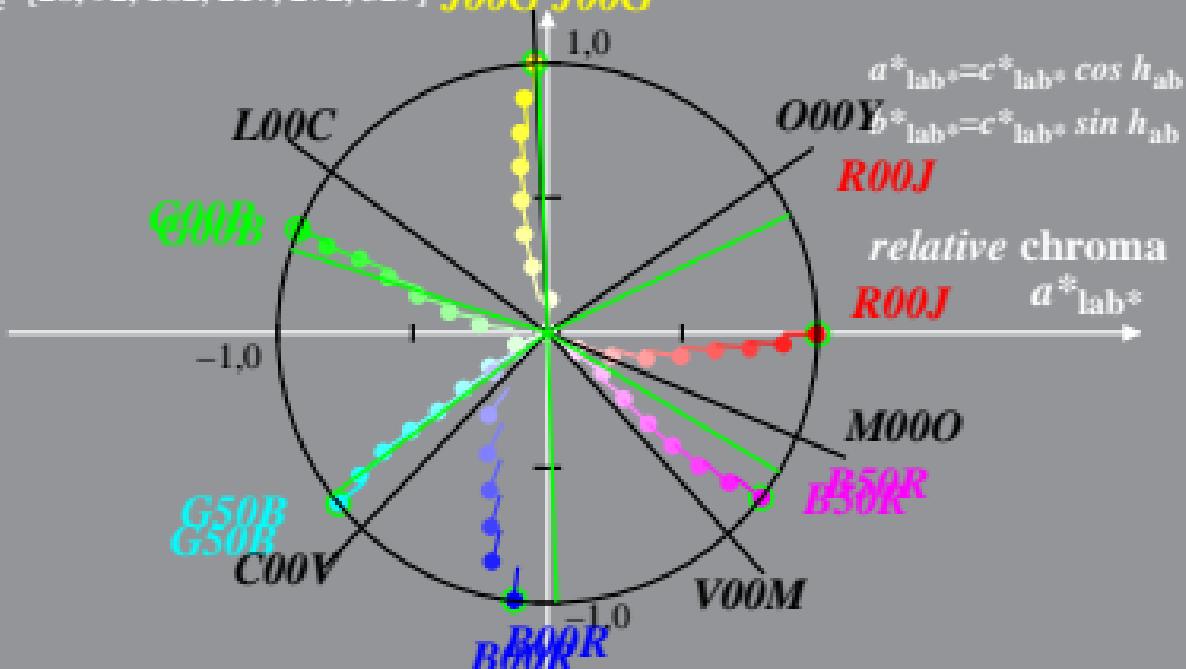
CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$t^*_{lab*} = l^*_{lab*} - c^*_{lab*} [l^*_M - 0,5]$$

$$h_{ab,ex} = [26, 92, 162, 217, 272, 329] \quad b^*_{lab*} \quad Y00L$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329] \quad J00G \quad J00G \quad M = \text{Maximum colour}$$



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

System: HE87_FRS09_92_D65_00%_01

$$l^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$$

CIELAB hue angles:

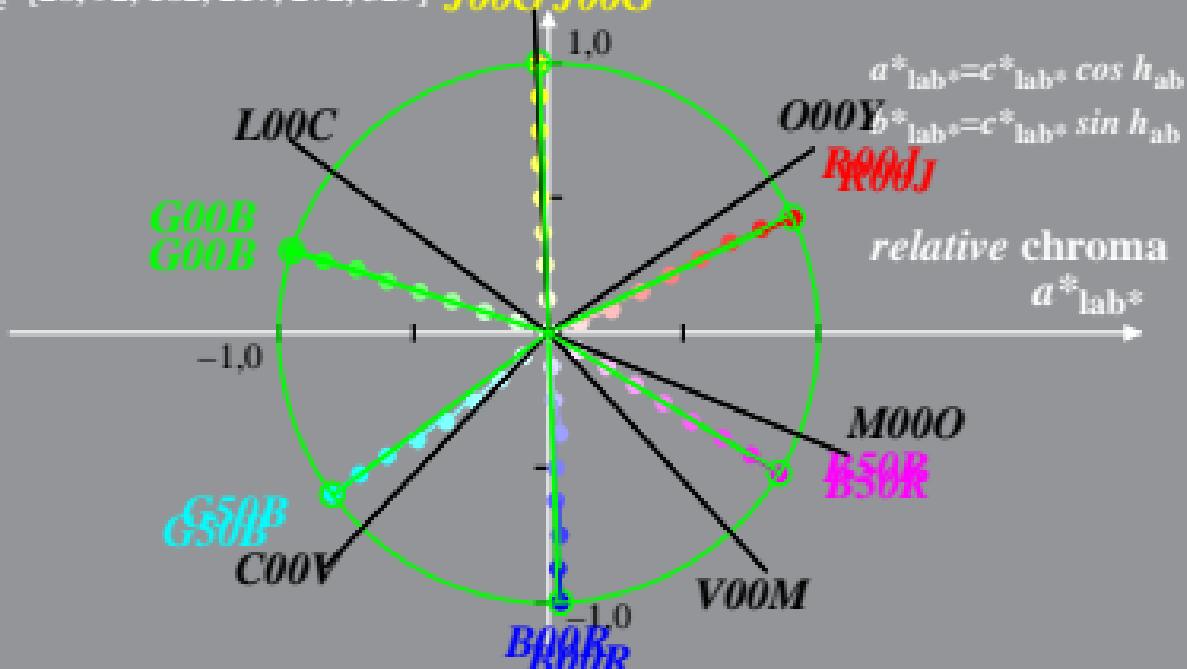
$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$t^*_{lab*} = l^*_{lab*} - c^*_{lab*} [l^*_M - 0,5]$$

$$h_{ab,ex} = [26, 92, 162, 217, 272, 329] \quad Y00L$$

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329] \quad J00G \quad J00G \quad M = \text{Maximum colour}$$



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

System: HE87_FRS09_92_D65_25%_O0

$$l^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$$

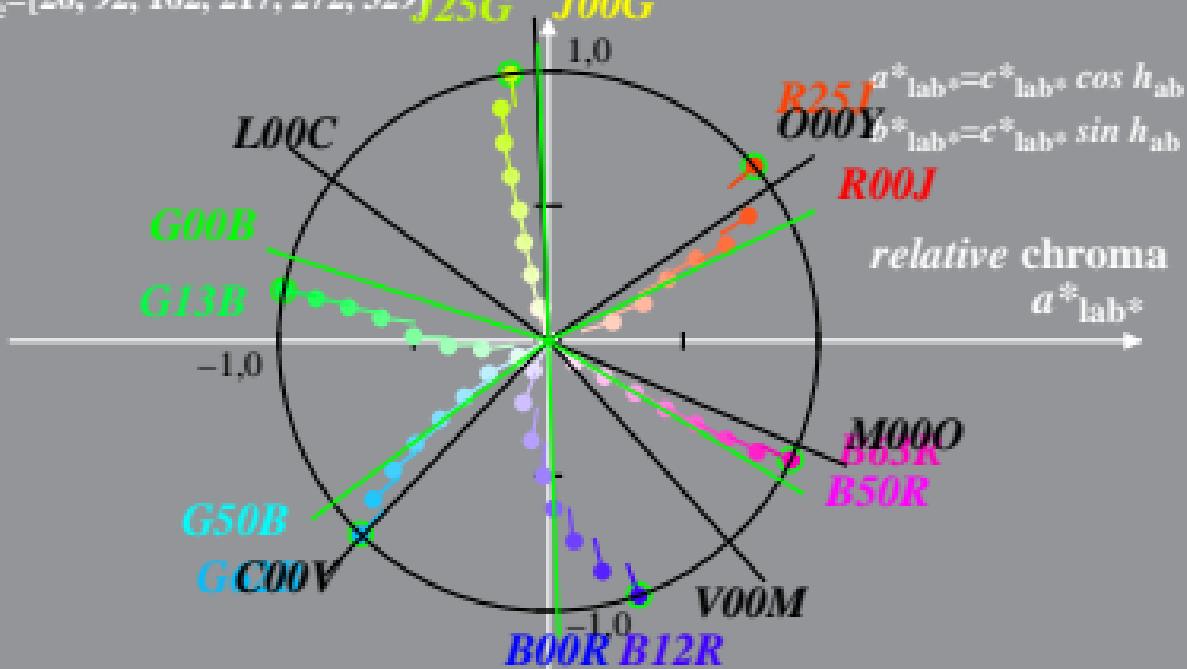
CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$t^*_{lab*} = l^*_{lab*} - c^*_{lab*} [l^*_M - 0,5]$$

$$h_{ab,ex} = [42, 109, 175, 230, 286, 343] \quad Y00L$$

$$h_{ab,e} = [26, 92, 162, 217, 272, 329] \quad J25G \quad J00G \quad M=\text{Maximum colour}$$



Linear relation adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and relative CIELAB (c^* , t^*)
 System: HE87_FRS09_92_D65_25%_01 $I^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

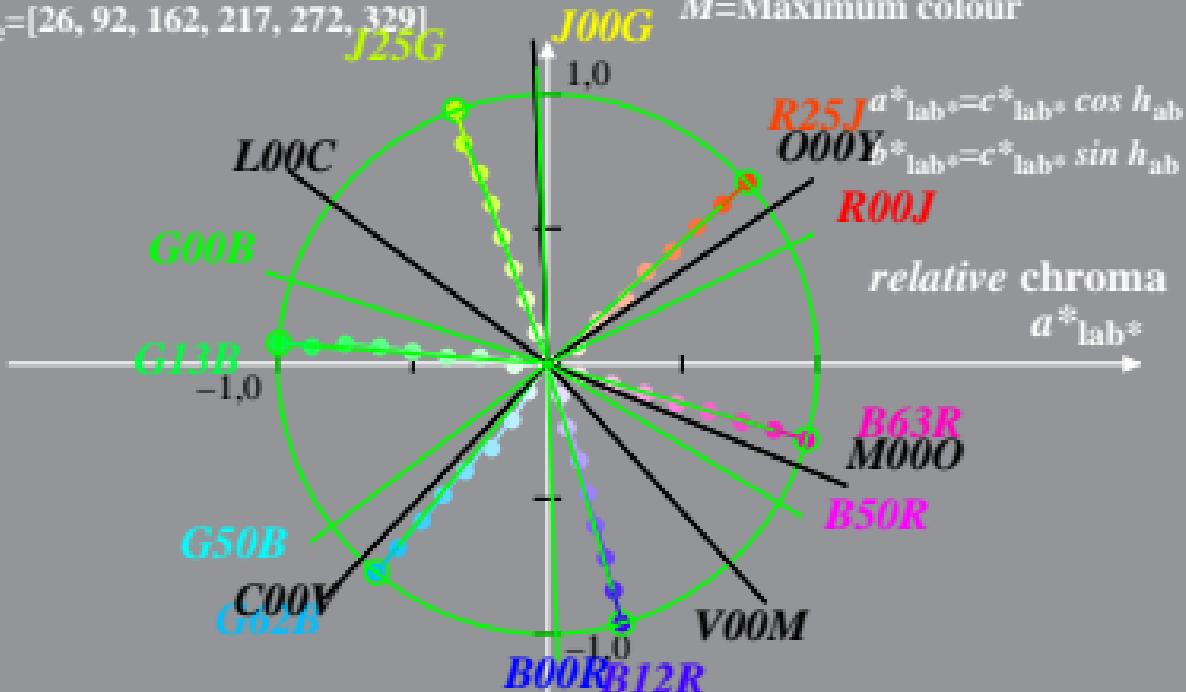
$$h_{ab,ex} = [42, 109, 175, 230, 286, 343] \quad Y00L$$

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

$$t^*_{lab*} = I^*_{lab*} - c^*_{lab*} [I^*_M - 0,5]$$

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

M =Maximum colour



Linear relation adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and relative CIELAB (c^* , t^*)
 System: HE87_FRS09_92_D65_50%_O0 $I^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

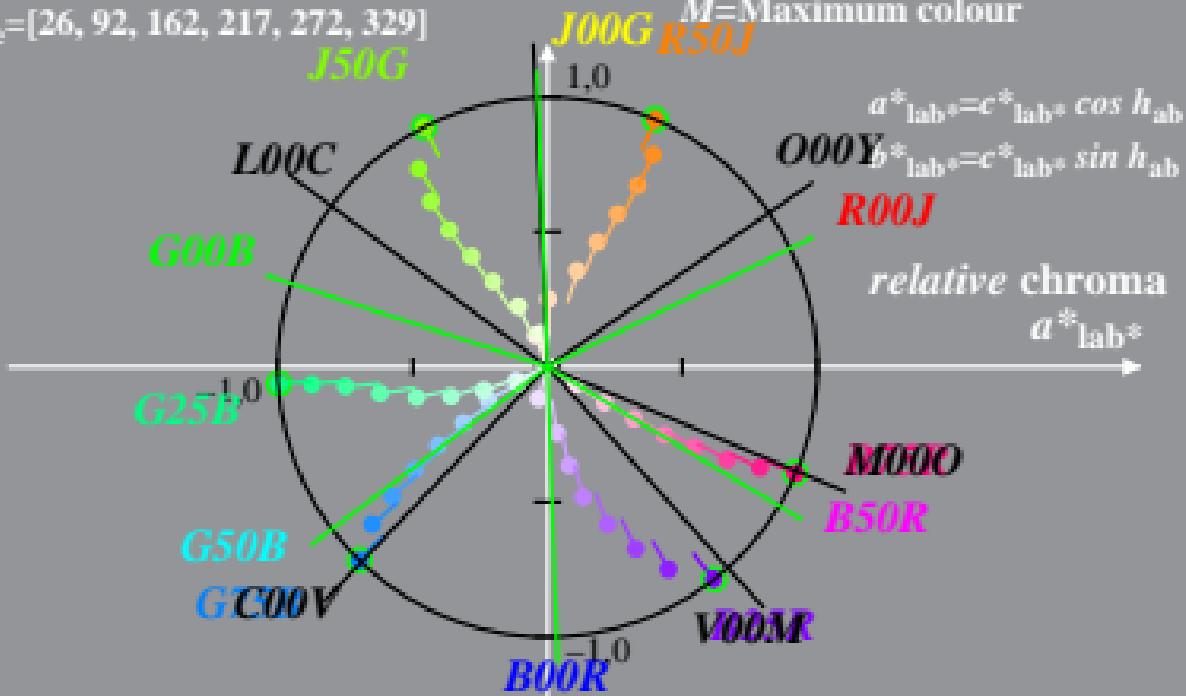
$$h_{ab,ex} = [59, 127, 189, 244, 300, 357] \quad Y00L$$

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

$$t^*_{lab*} = I^*_{lab*} - c^*_{lab*} [I^*_M - 0,5]$$

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

M =Maximum colour



Linear relation adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and relative CIELAB (c^* , t^*)
 System: HE87_FRS09_92_D65_50%_O1 $I^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

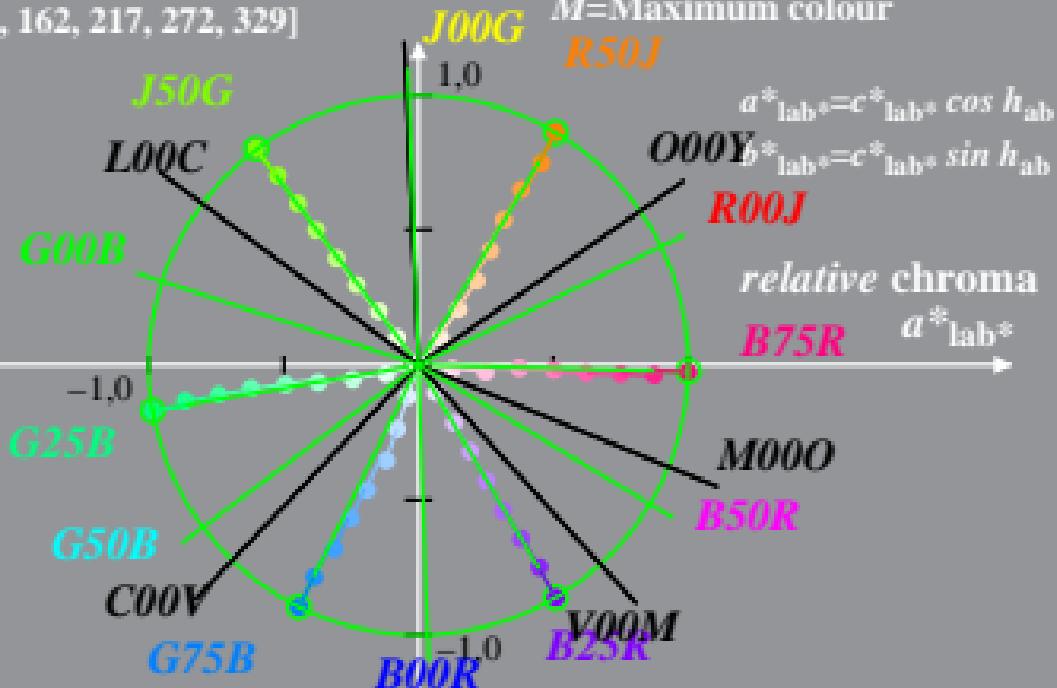
$$h_{ab,ex} = [59, 127, 189, 244, 300, 357] \quad Y00L$$

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

$$t^*_{lab*} = I^*_{lab*} - c^*_{lab*} [I^*_M - 0,5]$$

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

M =Maximum colour



Linear relation adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and relative CIELAB (c^* , t^*)
 System: HE87_FRS09_92_D65_75%_O0 $I^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$
 CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$h_{ab,ex} = [75, 144, 203, 258, 314, 371]$$

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

$$t^*_{lab*} = I^*_{lab*} - c^*_{lab*} [I^*_M - 0,5]$$

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

M =Maximum colour

$J^{75}G$

$J^{00}G$

$J^{75}G$
 $L^{00}C$

$G^{00}B$

$G^{38}B$
 $G^{50}B$

$C^{00}V$
 $G^{88}B$

$B^{00}R$

$O^{00}Y$

$R^{00}J$

relative chroma

a^*_{lab*}

$B^{88}R$
 $M^{00}O$

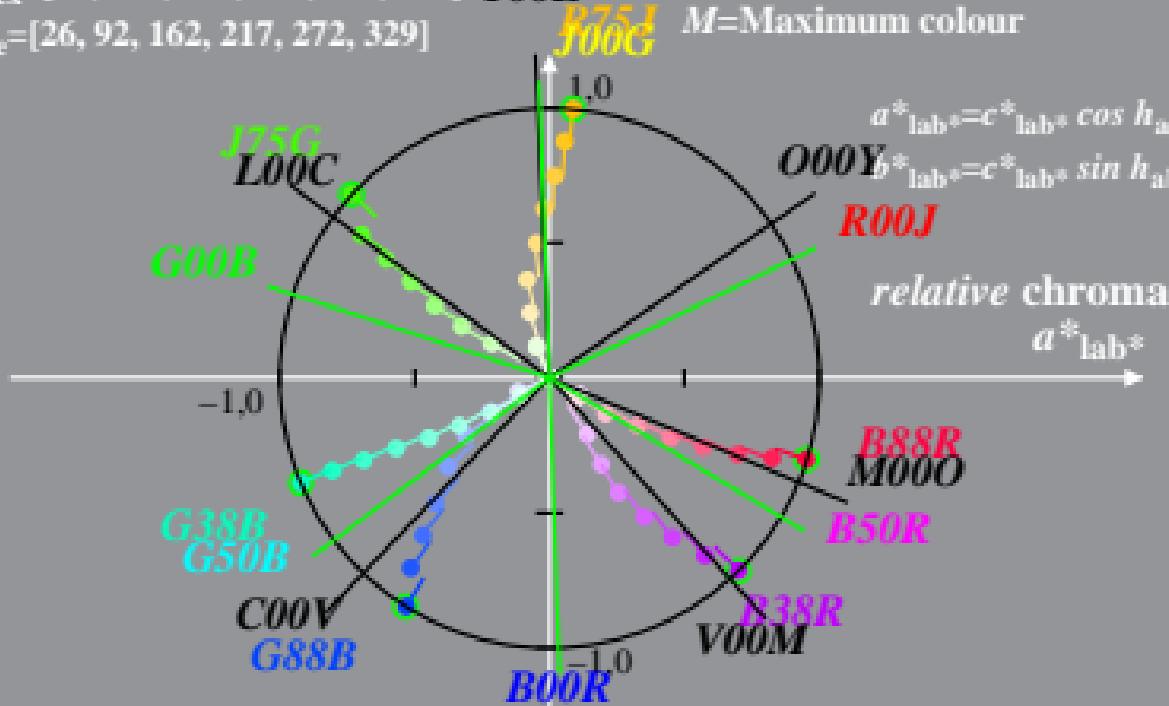
$B^{50}R$

$V^{00}M$

$R^{38}R$

$$a^*_{lab*} = c^*_{lab*} \cos h_{ab}$$

$$b^*_{lab*} = c^*_{lab*} \sin h_{ab}$$



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

System: HE87_FRS09_92_D65_75%_01

$$l^*_M = (L^*_M - L^*_N) / (L^*_W - L^*_N)$$

CIELAB hue angles:

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$t^*_{lab*} = l^*_{lab*} - c^*_{lab*} [l^*_M - 0,5]$$

$$h_{ab,ex} = [75, 144, 203, 258, 314, 371] \quad Y00L$$

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

$$c^*_{lab*} = C^*_{ab,a} / C^*_{ab,a,M}$$

J00G75M=Maximum colour

