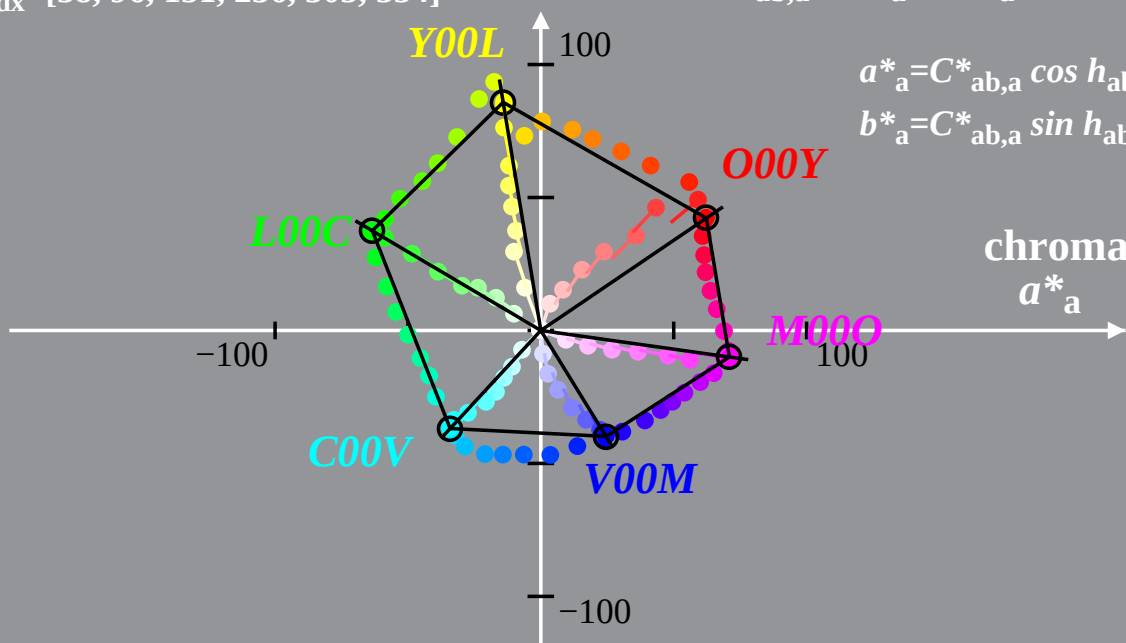
Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_00%_O0

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[38, 96, 151, 236, 305, 354]

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



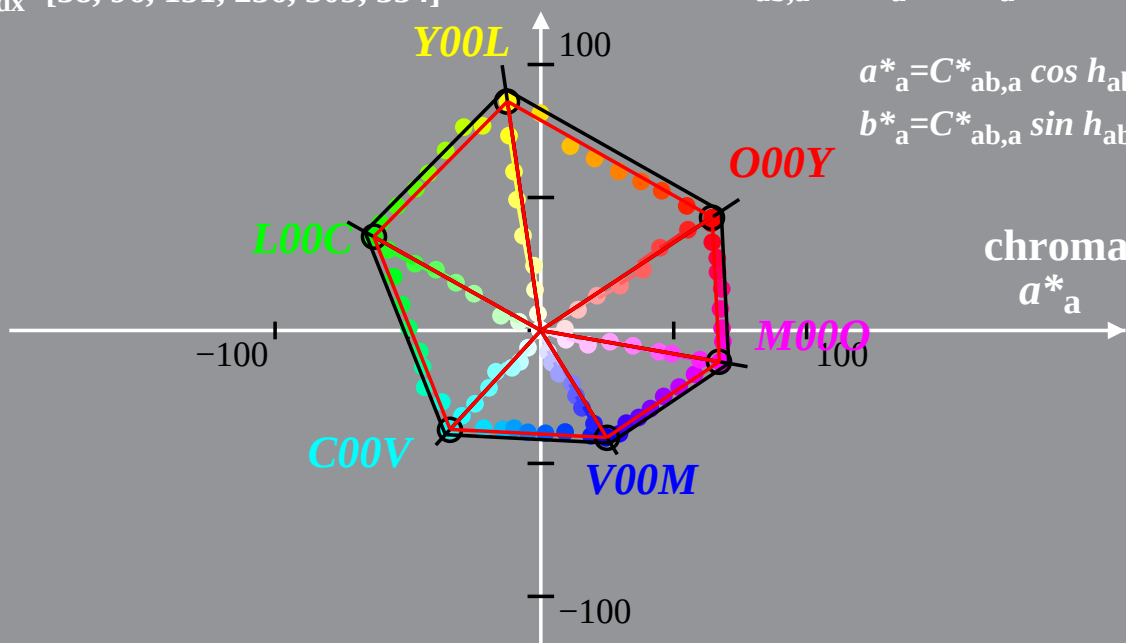
GE810−4A, 1; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_00%_O1

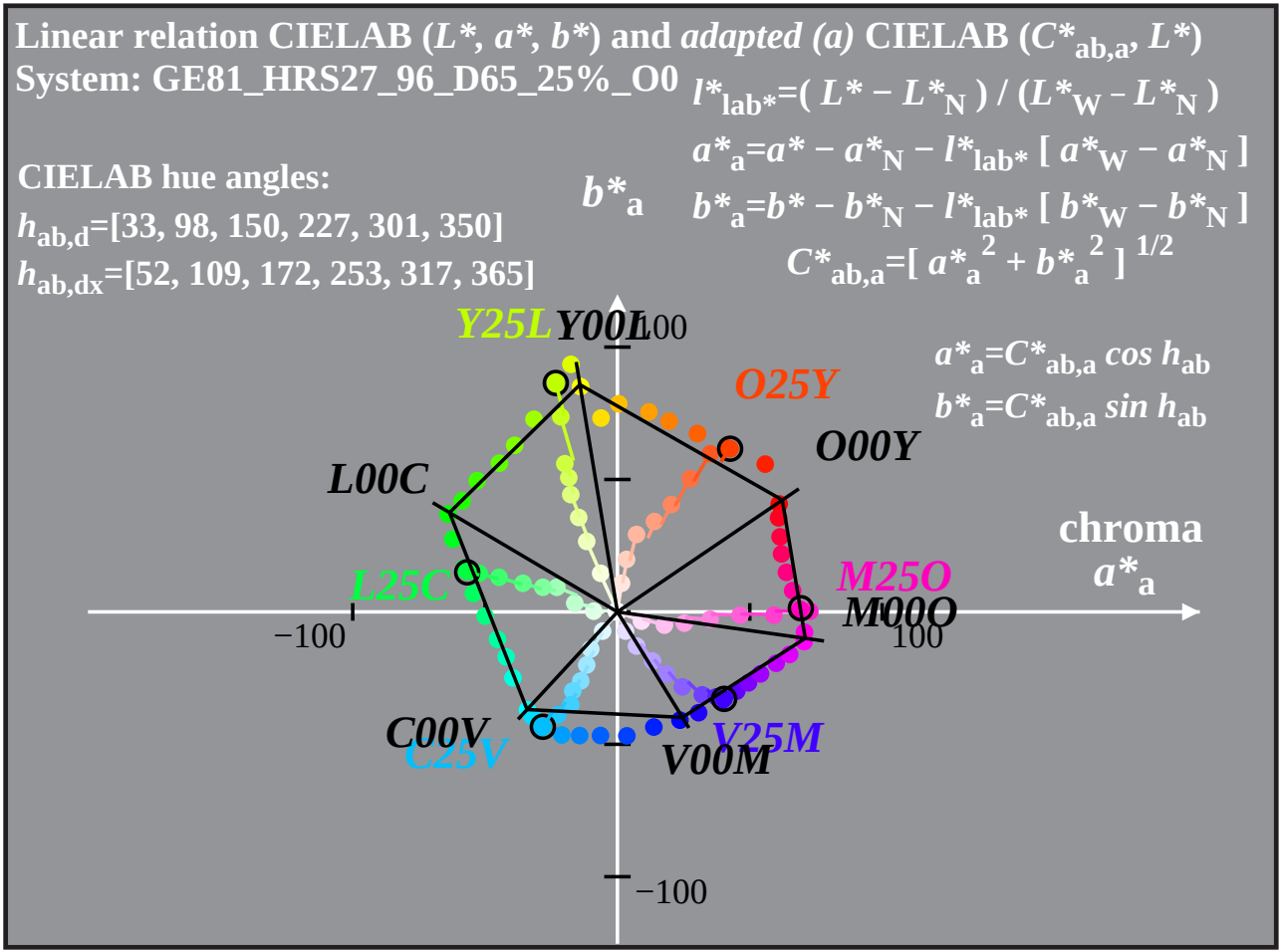
$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[38, 96, 151, 236, 305, 354]

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



GE810−4A, 2; cf1=0.95; nt=0.18; nx=1.0



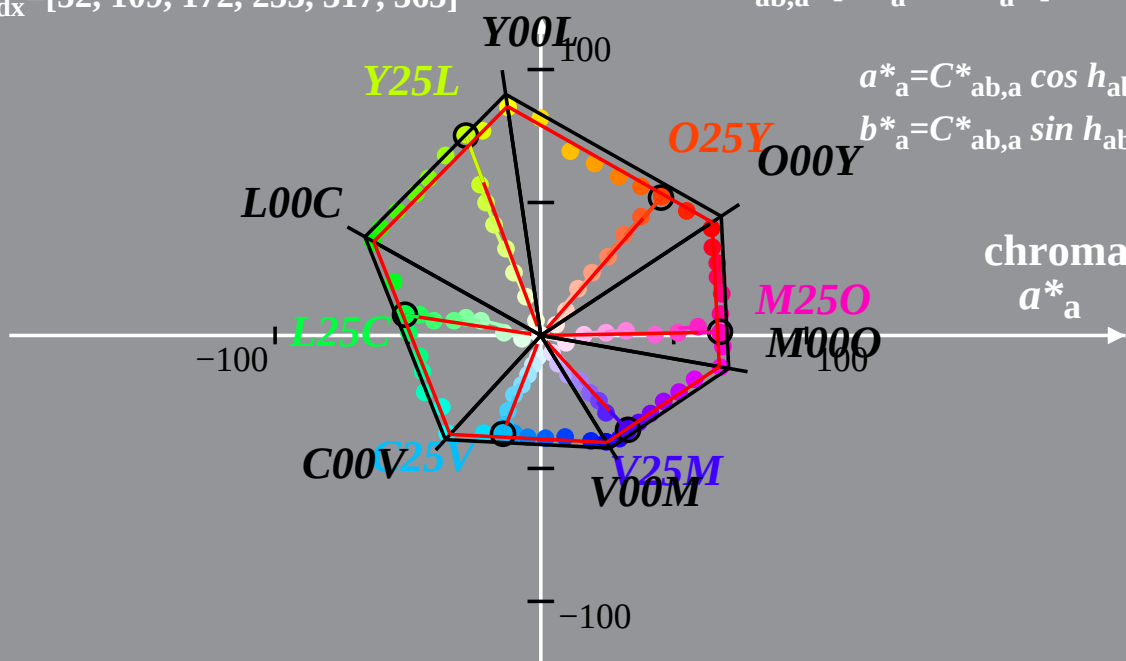
GE810−4A, 3; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_25%_O1

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[52, 109, 172, 253, 317, 365]

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



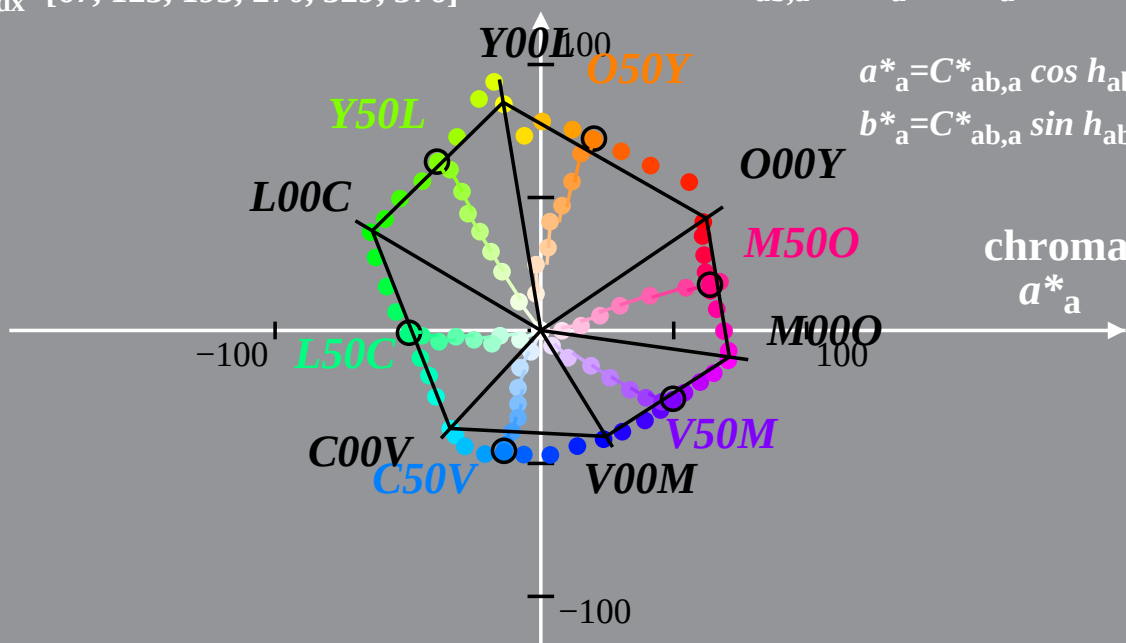
GE810−4A, 4; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_50%_O0

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[67, 123, 193, 270, 329, 376]

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



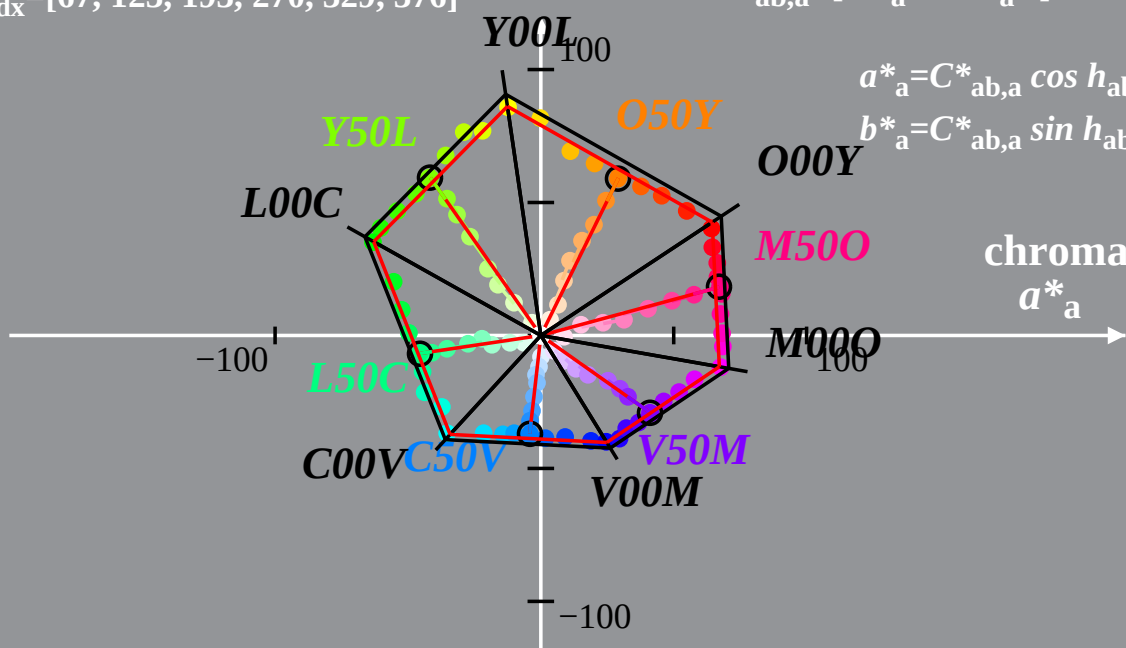
GE810−4A, 5; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_50%_O1

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[67, 123, 193, 270, 329, 376]

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



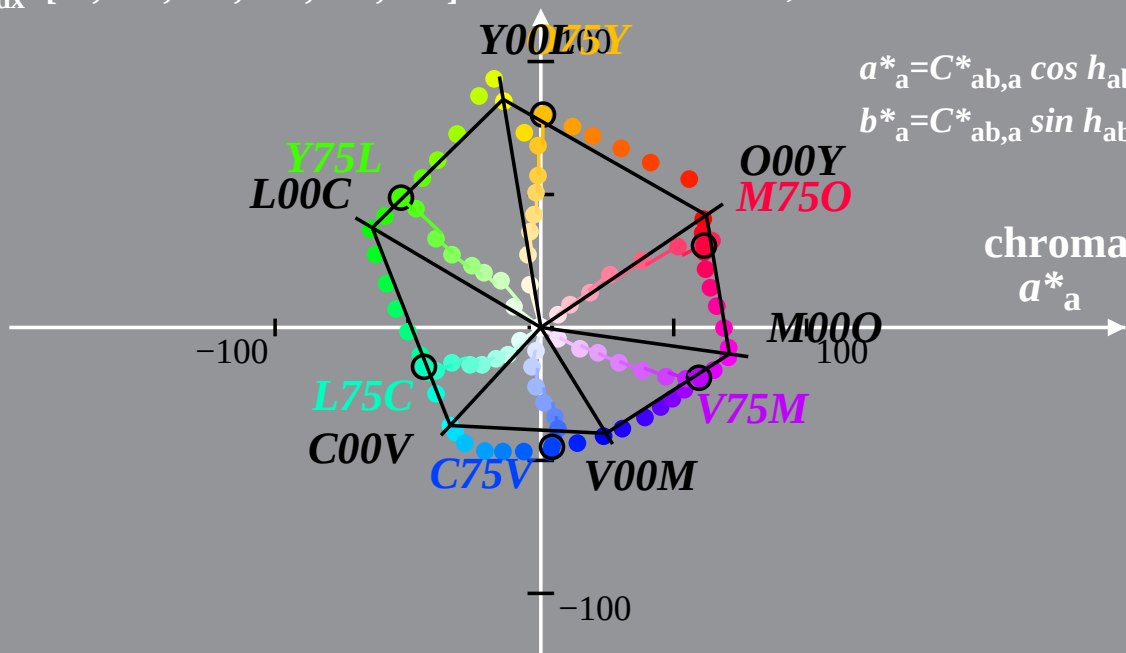
GE810−4A, 6; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_75%_O0

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[81, 137, 214, 287, 341, 387]

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



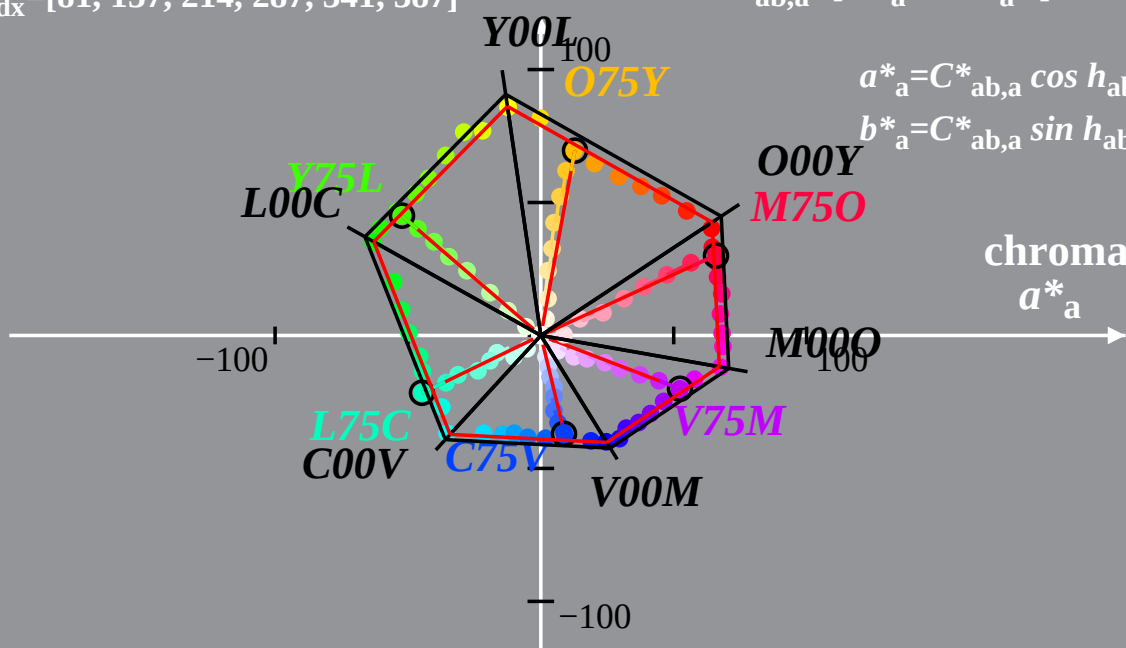
GE810−4A, 7; cf1=0.95; nt=0.18; nx=1.0

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: GE81_HRS27_96_D65_75%_O1

$$l^*_{lab^*}=(L^* - L^*_N) / (L^*_W - L^*_N)$$
$$a^*_a=a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$
$$b^*_a=b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$
$$C^*_{ab,a}=[a^{*2}_a + b^{*2}_a]^{1/2}$$

CIELAB hue angles:
$h_{ab,d}$=[33, 98, 150, 227, 301, 350]
$h_{ab,dx}$=[81, 137, 214, 287, 341, 387]

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



GE810−4A, 8; cf1=0.95; nt=0.18; nx=1.0