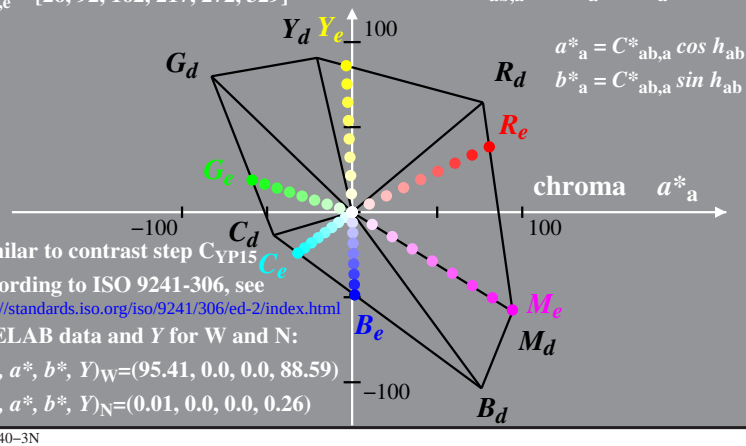
see similar files: http://farbe.li.tu-berlin.de/AEY4/AEY4.HTM
technical information: http://farbe.li.tu-berlin.de or http://130.149.60.45/~farbmetrik

TUB registration: 20200601-AEY4/AEY4L0NP.PDF / .PS
application for measurement of display or print output
TUB material: code=rha4ta

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

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

CIELAB hue angles *RYGCBM:*
$h_{ab,d}$ = [40, 102, 136, 196, 306, 328]
$h_{ab,e}$ = [26, 92, 162, 217, 272, 329]



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

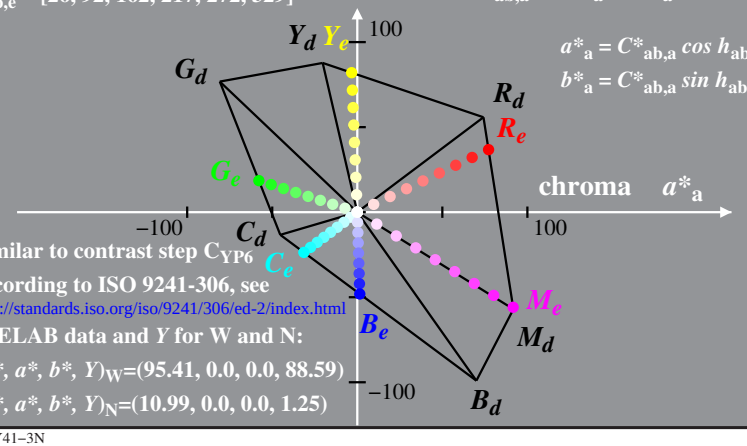
Similar to contrast step C_{YP15}
according to ISO 9241-306, see
http://standards.iso.org/iso/9241/306/ed-2/index.html
CIELAB data and *Y* for W and N:
$(L^*, a^*, b^*, Y)_W$=(95.41, 0.0, 0.0, 88.59)
$(L^*, a^*, b^*, Y)_N$=(0.01, 0.0, 0.0, 0.26)

AEY40−3N

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
Television Luminous System: TLS11a

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

CIELAB hue angles *RYGCBM:*
$h_{ab,d}$ = [36, 103, 136, 196, 305, 328]
$h_{ab,e}$ = [26, 92, 162, 217, 272, 329]



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

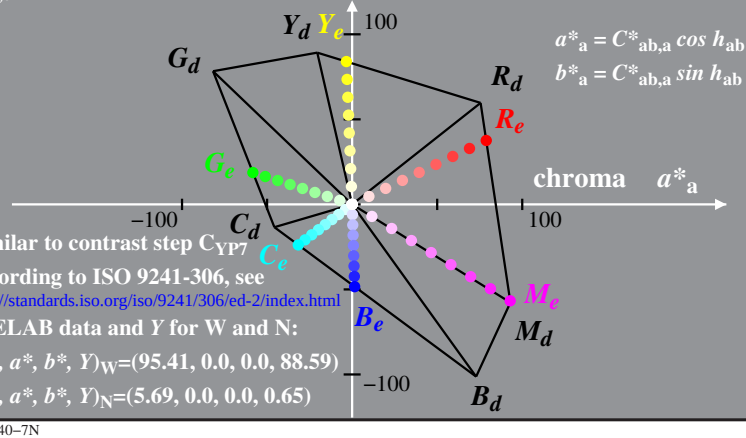
Similar to contrast step C_{YP6}
according to ISO 9241-306, see
http://standards.iso.org/iso/9241/306/ed-2/index.html
CIELAB data and *Y* for W and N:
$(L^*, a^*, b^*, Y)_W$=(95.41, 0.0, 0.0, 88.59)
$(L^*, a^*, b^*, Y)_N$=(10.99, 0.0, 0.0, 1.25)

AEY41−3N

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
Television Luminous System: TLS06a

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

CIELAB hue angles *RYGCBM:*
$h_{ab,d}$ = [38, 102, 136, 196, 305, 328]
$h_{ab,e}$ = [26, 92, 162, 217, 272, 329]



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

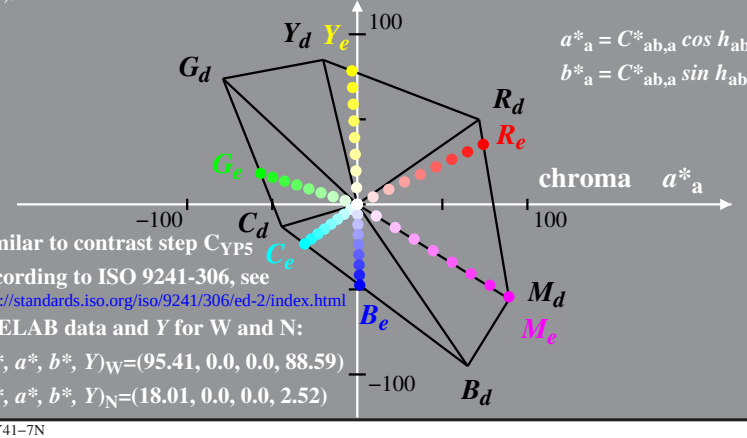
Similar to contrast step C_{YP7}
according to ISO 9241-306, see
http://standards.iso.org/iso/9241/306/ed-2/index.html
CIELAB data and *Y* for W and N:
$(L^*, a^*, b^*, Y)_W$=(95.41, 0.0, 0.0, 88.59)
$(L^*, a^*, b^*, Y)_N$=(5.69, 0.0, 0.0, 0.65)

AEY40−7N

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
Television Luminous System: TLS18a

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

CIELAB hue angles *RYGCBM:*
$h_{ab,d}$ = [34, 103, 136, 196, 304, 328]
$h_{ab,e}$ = [26, 92, 162, 217, 272, 329]



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

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)

AEY41−7N

TUB-test chart AEY4; TLS00a, TLS06a, TLS11a, TLS18a
and CIE elementary hue data in CIELAB diagram *(a*, b*)*

input: *w/rgb/cmyk −> rgb*
output: no change