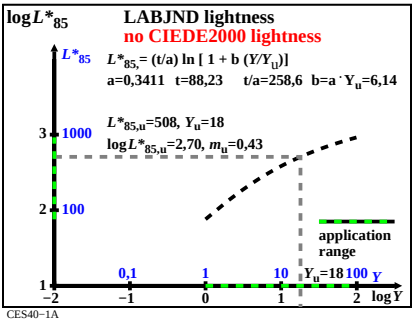
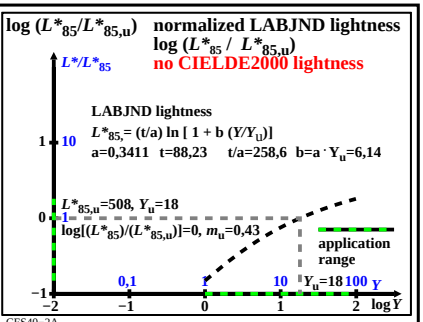
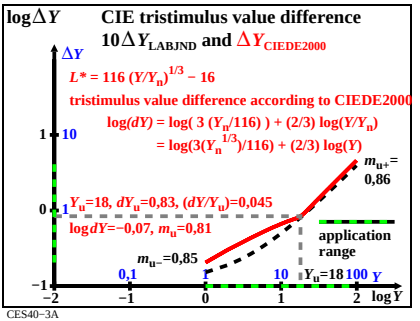
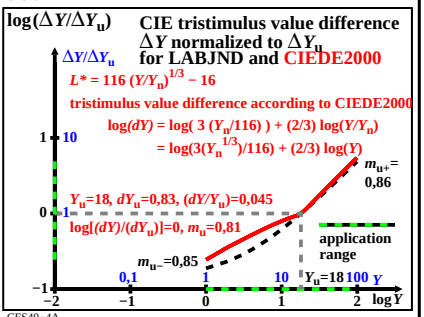
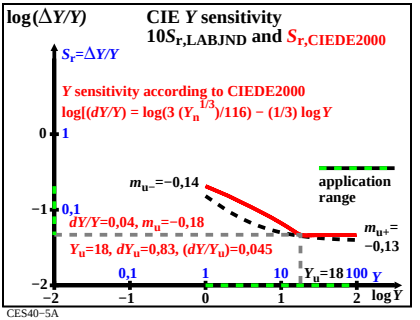
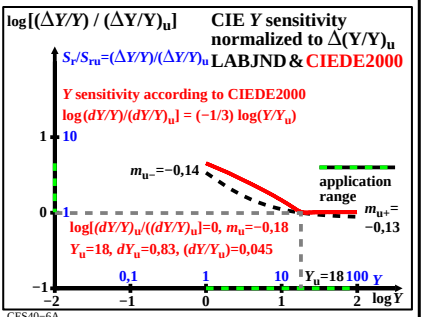

log L*85
LABJND lightness
no CIEDE2000 lightness
L*85
L*85,= (t/a) ln [1 + b (Y/Yu)]
a=0,3411 t=88,23 t/a=258,6 b=a · Yu=6,14
L*85,u=508, Yu=18
log L*85,u=2,70, mu=0,43
application range
Yu=18
log Y
CES40−1A

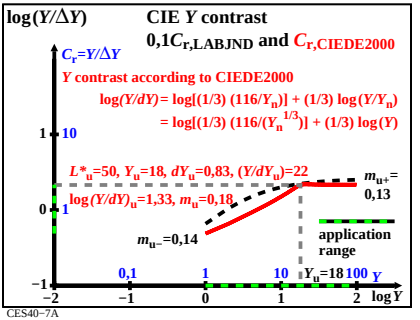

log (L*85/L*85,u)
normalized LABJND lightness
log (L*85 / L*85,u)
no CIELDE2000 lightness
L*/L*85
LABJND lightness
L*85,= (t/a) ln [1 + b (Y/Yu)]
a=0,3411 t=88,23 t/a=258,6 b=a · Yu=6,14
L*85,u=508, Yu=18
log[(L*85)/(L*85,u)]=0, mu=0,43
application range
Yu=18
log Y
CES40−2A

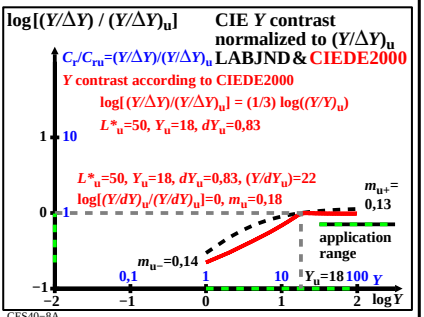

log ΔY
CIE tristimulus value difference
10ΔY LABJND and ΔY CIEDE2000
ΔY
L* = 116 (Y/Yn)1/3 − 16
tristimulus value difference according to CIEDE2000
log(dY) = log(3 (Yu/116)) + (2/3) log(Y/Yn)
= log(3(Yn1/3)/116) + (2/3) log(Y)
Yu=18, dYu=0,83, (dY/Yu)=0,045
log dY=−0,07, mu=0,81
mu+= 0,86
mu−=0,85
application range
Yu=18
log Y
CES40−3A


log(ΔY/ΔYu)
CIE tristimulus value difference
ΔY normalized to ΔYu
for LABJND and CIEDE2000
ΔY/ΔYu
L* = 116 (Y/Yn)1/3 − 16
tristimulus value difference according to CIEDE2000
log(dY) = log(3 (Yu/116)) + (2/3) log(Y/Yn)
= log(3(Yn1/3)/116) + (2/3) log(Y)
Yu=18, dYu=0,83, (dY/Yu)=0,045
log[(dY)/(dYu)]=0, mu=0,81
mu+= 0,86
mu−=0,85
application range
Yu=18
log Y
CES40−4A


log(ΔY/Y)
CIE Y sensitivity
10Sr,LABJND and Sr,CIEDE2000
Sr=ΔY/Y
Y sensitivity according to CIEDE2000
log[(dY/Y) = log(3 (Yn1/3)/116) − (1/3) log Y
mu−=−0,14
dY/Y=0,04, mu=−0,18
Yu=18, dYu=0,83, (dY/Y)u=0,045
mu+= −0,13
application range
Yu=18
log Y
CES40−5A


log[(ΔY/Y) / (ΔY/Y)u]
CIE Y sensitivity
normalized to Δ(Y/Y)u
Sr/Sru=(ΔY/Y)/(ΔY/Y)u LABJND & CIEDE2000
Y sensitivity according to CIEDE2000
log(dY/Y)/(dY/Y)u] = (−1/3) log(Y/Yu)
mu−=−0,14
log[(dY/Y)u/((dY/Y)u]=0, mu=−0,18
Yu=18, dYu=0,83, (dY/Y)u=0,045
mu+= −0,13
application range
Yu=18
log Y
CES40−6A


log(Y/ΔY)
CIE Y contrast
0,1Cr,LABJND and Cr,CIEDE2000
Cr=Y/ΔY
Y contrast according to CIEDE2000
log(Y/dY)= log[(1/3) (116/Yn)] + (1/3) log(Y/Yn)
= log[(1/3) (116/(Yn1/3)] + (1/3) log(Y)
L*u=50, Yu=18, dYu=0,83, (Y/dY)u=22
log(Y/dY)u=1,33, mu=0,18
mu+= 0,13
mu−=0,14
application range
Yu=18
log Y
CES40−7A


log[(Y/ΔY) / (Y/ΔY)u]
CIE Y contrast
normalized to (Y/ΔY)u
Cr/Cru=(Y/ΔY)/(Y/ΔY)u LABJND & CIEDE2000
Y contrast according to CIEDE2000
log[(Y/ΔY)/(Y/ΔY)u] = (1/3) log((Y/Y)u)
L*u=50, Yu=18, dYu=0,83
L*u=50, Yu=18, dYu=0,83, (Y/dYu)=22
log[(Y/dY)u/(Y/dY)u]=0, mu=0,18
mu+= 0,13
mu−=0,14
application range
Yu=18
log Y
CES40−8A

CES40−7N