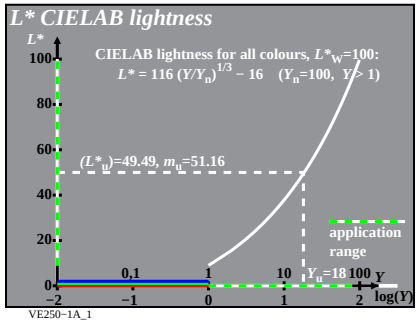
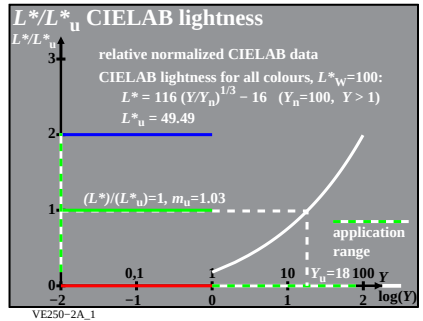
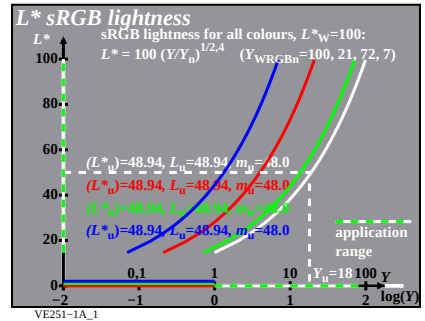
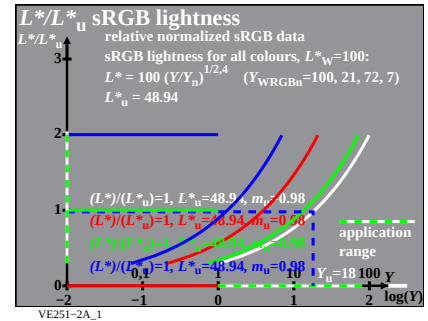
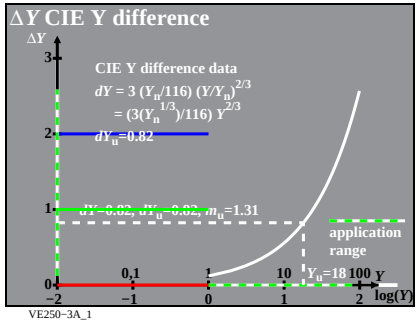
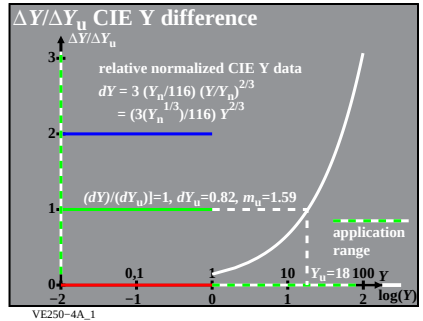

L* CIELAB lightness
CIELAB lightness for all colours, L*W=100:
L* = 116 (Y/Yn)1/3 − 16 (Yn=100, Y > 1)
(L*u)=49.49, mu=51.16
application range
log(Y)
VE250−1A_1

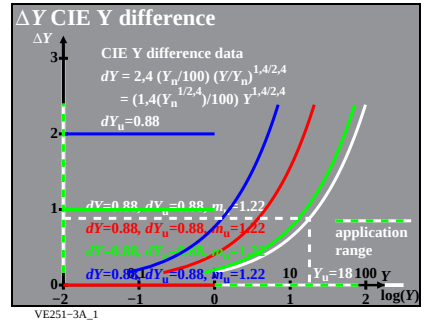

L*/L*u CIELAB lightness
relative normalized CIELAB data
CIELAB lightness for all colours, L*W=100:
L* = 116 (Y/Yn)1/3 − 16 (Yn=100, Y > 1)
L*u = 49.49
(L*)/(L*u)=1, mu=1.03
application range
log(Y)
VE250−2A_1

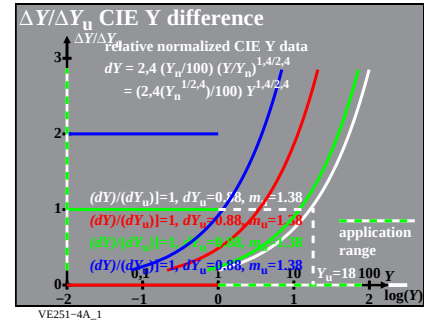

L* sRGB lightness
sRGB lightness for all colours, L*W=100:
L* = 100 (Y/Yn)1/2,4 (YWRGBn=100, 21, 72, 7)
(L*u)=48.94, Lu=48.94, mu=48.0
application range
log(Y)
VE251−1A_1

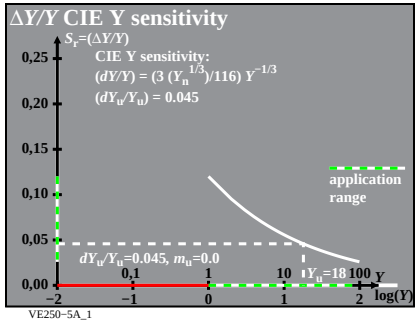

L*/L*u sRGB lightness
relative normalized sRGB data
sRGB lightness for all colours, L*W=100:
L* = 100 (Y/Yn)1/2,4 (YWRGBn=100, 21, 72, 7)
L*u = 48.94
(L*)/(L*u)=1, L*u=48.94, mu=0.98
application range
log(Y)
VE251−2A_1

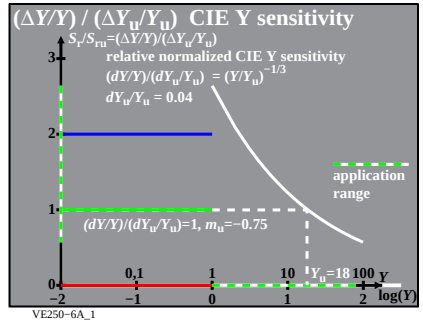

ΔY CIE Y difference
CIE Y difference data
dY = 3 (Yu/116) (Y/Yn)2/3
= (3(Yn1/3)/116) Y2/3
dYu=0.82
dY=0.82, dYu=0.82, mu=1.31
application range
log(Y)
VE250−3A_1

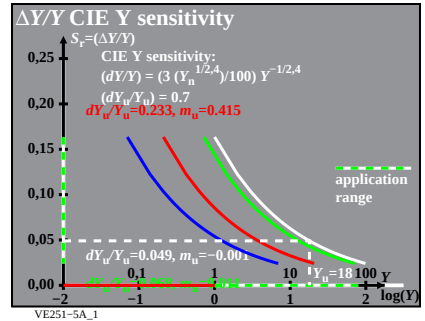

ΔY/ΔYu CIE Y difference
relative normalized CIE Y data
dY = 3 (Yn/116) (Y/Yn)2/3
= (3(Yn1/3)/116) Y2/3
(dY)/(dYu)]=1, dYu=0.82, mu=1.59
application range
log(Y)
VE250−4A_1

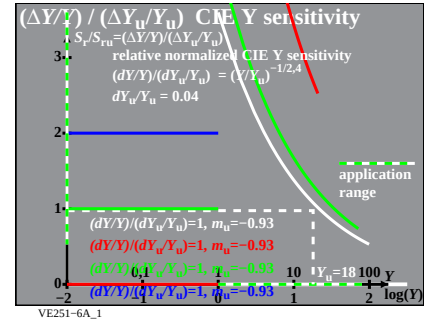

ΔY CIE Y difference
CIE Y difference data
dY = 2,4 (Yu/100) (Y/Yn)1,4/2,4
= (1,4(Yn1/2,4)/100) Y1,4/2,4
dYu=0.88
dY=0.88, dYu=0.88, mu=1.22
application range
log(Y)
VE251−3A_1

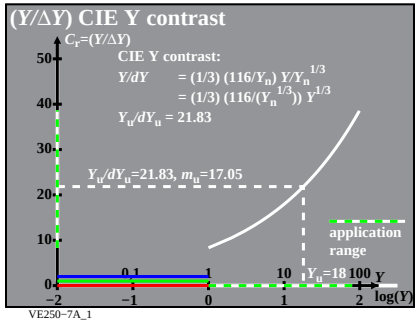

ΔY/ΔYu CIE Y difference
relative normalized CIE Y data
dY = 2,4 (Yn/100) (Y/Yn)1,4/2,4
= (2,4(Yn1/2,4)/100) Y1,4/2,4
(dY)/(dYu)]=1, dYu=0.88, mu=1.38
application range
log(Y)
VE251−4A_1

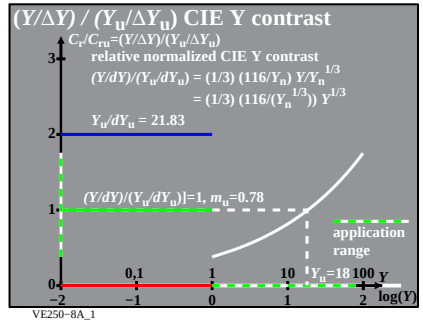

ΔY/Y CIE Y sensitivity
Sr=(ΔY/Y)
CIE Y sensitivity:
(dY/Y) = (3 (Yn1/3)/116) Y−1/3
(dYu/Yu) = 0.045
dYu/Yu=0.045, mu=0.0
application range
log(Y)
VE250−5A_1

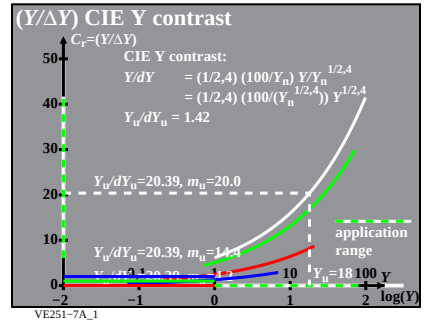

(ΔY/Y) / (ΔYu/Yu) CIE Y sensitivity
Sr/Sru=(ΔY/Y)/(ΔYu/Yu)
relative normalized CIE Y sensitivity
(dY/Y)/(dYu/Yu) = (Y/Yu)−1/3
dYu/Yu = 0.04
(dY/Y)/(dYu/Yu)=1, mu=−0.75
application range
log(Y)
VE250−6A_1

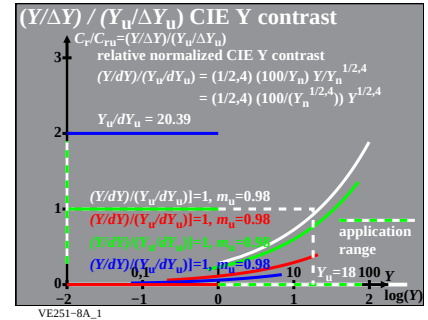

ΔY/Y CIE Y sensitivity
Sr=(ΔY/Y)
CIE Y sensitivity:
(dY/Y) = (3 (Yn1/2,4)/100) Y−1/2,4
(dYu/Yu) = 0.7
dYu/Yu=0.233, mu=0.415
dYu/Yu=0.049, mu=−0.001
application range
log(Y)
VE251−5A_1


(ΔY/Y) / (ΔYu/Yu) CIE Y sensitivity
Sr/Sru=(ΔY/Y)/(ΔYu/Yu)
relative normalized CIE Y sensitivity
(dY/Y)/(dYu/Yu) = (Y/Yu)−1/2,4
dYu/Yu = 0.04
(dY/Y)/(dYu/Yu)=1, mu=−0.93
application range
log(Y)
VE251−6A_1


(Y/ΔY) CIE Y contrast
Cr=(Y/ΔY)
CIE Y contrast:
Y/dY = (1/3) (116/Yn) Y/Yn1/3
= (1/3) (116/(Yn1/3)) Y1/3
Yu/dYu = 21.83
Yu/dYu=21.83, mu=17.05
application range
log(Y)
VE250−7A_1


(Y/ΔY) / (Yu/ΔYu) CIE Y contrast
Cr/Cru=(Y/ΔY)/(Yu/ΔYu)
relative normalized CIE Y contrast
(Y/dY)/(Yu/dYu) = (1/3) (116/Yn) Y/Yn1/3
= (1/3) (116/(Yn1/3)) Y1/3
Yu/dYu = 21.83
(Y/dY)/(Yu/dYu)]=1, mu=0.78
application range
log(Y)
VE250−8A_1


(Y/ΔY) CIE Y contrast
Cr=(Y/ΔY)
CIE Y contrast:
Y/dY = (1/2,4) (100/Yn) Y/Yn1/2,4
= (1/2,4) (100/(Yn1/2,4)) Y1/2,4
Yu/dYu = 1.42
Yu/dYu=20.39, mu=20.0
Yu/dYu=20.39, mu=14.4
application range
log(Y)
VE251−7A_1


(Y/ΔY) / (Yu/ΔYu) CIE Y contrast
Cr/Cru=(Y/ΔY)/(Yu/ΔYu)
relative normalized CIE Y contrast
(Y/dY)/(Yu/dYu) = (1/2,4) (100/Yn) Y/Yn1/2,4
= (1/2,4) (100/(Yn1/2,4)) Y1/2,4
Yu/dYu = 20.39
(Y/dY)/(Yu/dYu)]=1, mu=0.98
application range
log(Y)
VE251−8A_1

VE250−7R