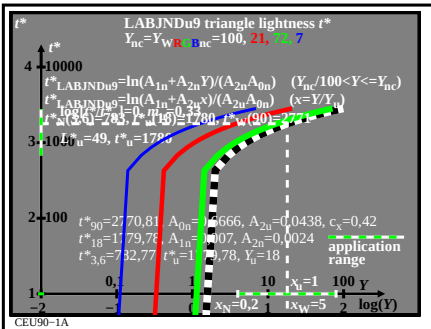
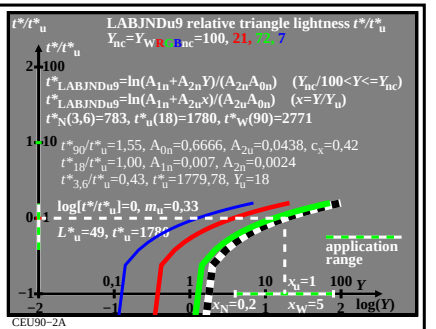
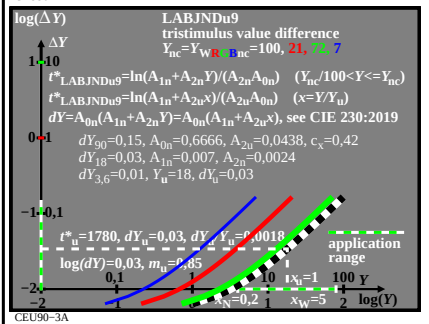
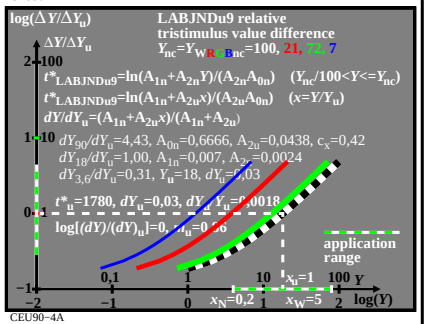
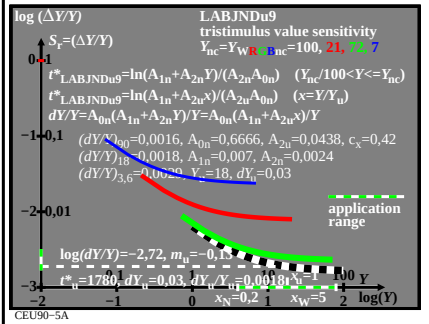
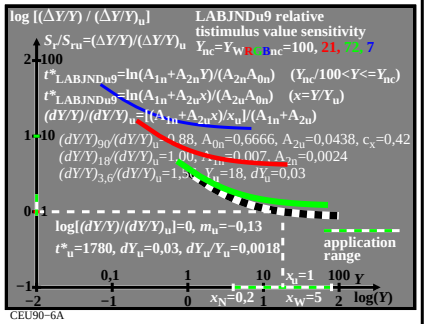

t*
LABJNDu9 triangle lightness t*
Yₙc=YWRGBnc=100, 21, 72, 7
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
t*N(3,6)=783, t*u(18)=1780, t*W(90)=2771
L*u=49, t*u=1780
t*90=2770,81, A0n=0,6666, A2u=0,0438, cx=0,42
t*18=1779,78, A1n=0,007, A2n=0,0024
t*3,6=782,77, t*u=1779,78, Yu=18
application range
CEU90–1A

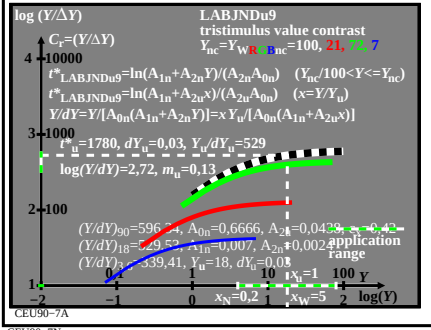

t*/t*u
LABJNDu9 relative triangle lightness t*/t*u
Yₙc=YWRGBnc=100, 21, 72, 7
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
t*N(3,6)=783, t*u(18)=1780, t*W(90)=2771
t*90/t*u=1,55, A0n=0,6666, A2u=0,0438, cx=0,42
t*18/t*u=1,00, A1n=0,007, A2n=0,0024
t*3,6/t*u=0,43, t*u=1779,78, Yu=18
log[t*/t*u]=0, mu=0,33
L*u=49, t*u=1780
application range
CEU90–2A

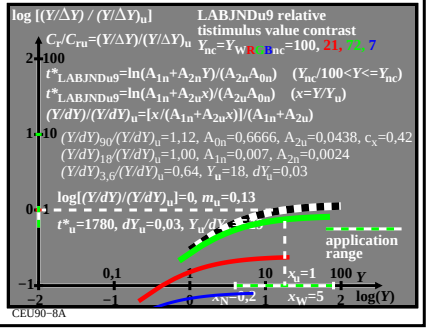

log(ΔY)
LABJNDu9 tristimulus value difference
Yₙc=YWRGBnc=100, 21, 72, 7
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
dY=A0n(A1n+A2nY)=A0n(A1n+A2nx), see CIE 230:2019
dY90=0,15, A0n=0,6666, A2u=0,0438, cx=0,42
dY18=0,03, A1n=0,007, A2n=0,0024
dY3,6=0,01, Yu=18, dYu=0,03
t*u=1780, dYu=0,03, dYu/Yu=0,0018
log(dY)=0,03, mu=0,05
application range
CEU90–3A


log(ΔY/ΔYu)
LABJNDu9 relative tristimulus value difference
Yₙc=YWRGBnc=100, 21, 72, 7
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
dY/dYu=(A1n+A2nx)/(A1n+A2u)
dY90/dYu=4,43, A0n=0,6666, A2u=0,0438, cx=0,42
dY18/dYu=1,00, A1n=0,007, A2n=0,0024
dY3,6/dYu=0,31, Yu=18, dYu=0,03
t*u=1780, dYu=0,03, dYu/Yu=0,0018
log[(dY)/(dY)u]=0, mu=0,36
application range
CEU90–4A


log (ΔY/Y)
LABJNDu9 tristimulus value sensitivity
Yₙc=YWRGBnc=100, 21, 72, 7
Sr=(ΔY/Y)
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
dY/Y=A0n(A1n+A2nY)/Y=A0n(A1n+A2nx)/Y
(dY/Y)90=0,0016, A0n=0,6666, A2u=0,0438, cx=0,42
(dY/Y)18=0,0018, A1n=0,007, A2n=0,0024
(dY/Y)3,6=0,0028, Yu=18, dYu=0,03
log(dY/Y)=−2,72, mu=−0,13
t*u=1780, dYu=0,03, dYu/Yu=0,0018
application range
CEU90–5A


log [(ΔY/Y) / (ΔY/Y)u]
LABJNDu9 relative tristimulus value sensitivity
Yₙc=YWRGBnc=100, 21, 72, 7
Sr/Sru=(ΔY/Y)/(ΔY/Y)u
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
(dY/Y)/(dY/Y)u=[(A1n+A2nx)/xu]/(A1n+A2u)
(dY/Y)90/(dY/Y)u=0,88, A0n=0,6666, A2u=0,0438, cx=0,42
(dY/Y)18/(dY/Y)u=1,00, A1n=0,007, A2n=0,0024
(dY/Y)3,6/(dY/Y)u=1,56, Yu=18, dYu=0,03
log[(dY/Y)/(dY/Y)u]=0, mu=−0,13
t*u=1780, dYu=0,03, dYu/Yu=0,0018
application range
CEU90–6A


log (Y/ΔY)
LABJNDu9 tristimulus value contrast
Yₙc=YWRGBnc=100, 21, 72, 7
Cr=(Y/ΔY)
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
Y/dY=Y/[A0n(A1n+A2nY)]=xYu/[A0n(A1n+A2nx)]
t*u=1780, dYu=0,03, Yu/dYu=529
log(Y/dY)=2,72, mu=0,13
(Y/dY)90=596,54, A0n=0,6666, A2u=0,0438, cx=0,42
(Y/dY)18=529,53, A1n=0,007, A2n=0,0024
(Y/dY)3,6=339,41, Yu=18, dYu=0,03
application range
CEU90–7A


log [(Y/ΔY) / (Y/ΔY)u]
LABJNDu9 relative tristimulus value contrast
Yₙc=YWRGBnc=100, 21, 72, 7
Cr/Cru=(Y/ΔY)/(Y/ΔY)u
t*LABJNDu9=ln(A1n+A2nY)/(A2nA0n) (Yₙc/100<Y<=Yₙc)
t*LABJNDu9=ln(A1n+A2nx)/(A2uA0n) (x=Y/Yu)
(Y/dY)/(Y/dY)u=[x/(A1n+A2nx)]/(A1n+A2u)
(Y/dY)90/(Y/dY)u=1,12, A0n=0,6666, A2u=0,0438, cx=0,42
(Y/dY)18/(Y/dY)u=1,00, A1n=0,007, A2n=0,0024
(Y/dY)3,6/(Y/dY)u=0,64, Yu=18, dYu=0,03
log[(Y/dY)/(Y/dY)u]=0, mu=0,13
t*u=1780, dYu=0,03, Yu/dYu=529
application range
CEU90–8A