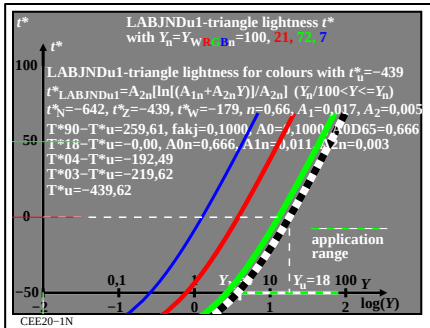
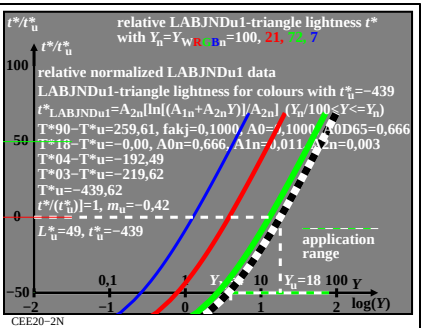
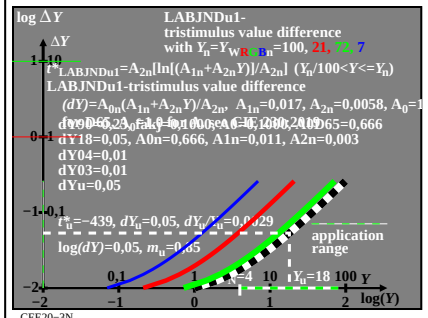
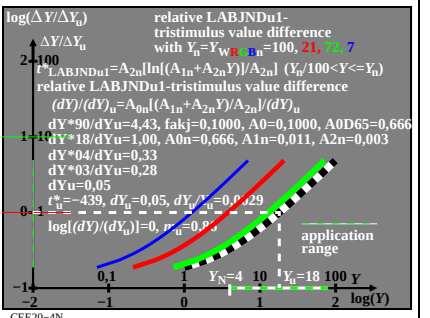
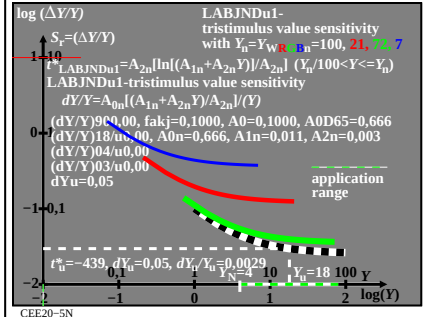
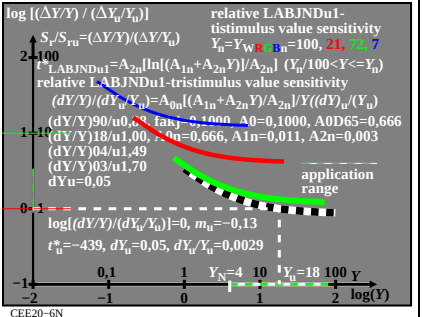

t*
LABJNDu1-triangle lightness t*
with Yi=YWRGBn=100, 21, 72, 7
t*
100
50
0
−50
LABJNDu1-triangle lightness for colours with t*u=−439
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
t*N=−642, t*Z=−439, t*W=−179, n=0,66, A1=0,017, A2=0,005
T*90−T*u=259,61, fakj=0,1000, A0=0,1000, A0D65=0,666
T*18−T*u=−0,00, A0n=0,666, A1n=0,011, A2n=0,003
T*04−T*u=−192,49
T*03−T*u=−219,62
T*u=−439,62
application range
0,1
1
Yu
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−1N

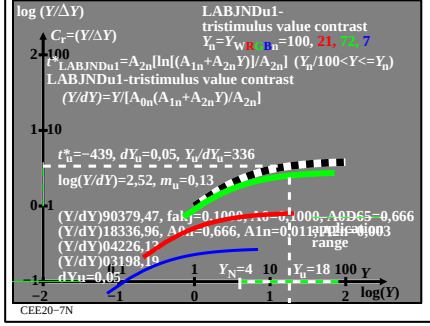

t*/t*u
relative LABJNDu1-triangle lightness t*
with Yi=YWRGBn=100, 21, 72, 7
t*/t*u
100
50
0
−50
relative normalized LABJNDu1 data
LABJNDu1-triangle lightness for colours with t*u=−439
t*LABJNDu1=A2n[ln[(A1n+A2nY)/A2n] (Yu/100<Y<=Yn)
T*90−T*u=259,61, fakj=0,1000, A0=0,1000, A0D65=0,666
T*18−T*u=−0,00, A0n=0,666, A1n=0,011, A2n=0,003
T*04−T*u=−192,49
T*03−T*u=−219,62
T*u=−439,62
t*/(t*u)]=1, mu=−0,42
L*u=49, t*u=−439
application range
0,1
1
Yu
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−2N

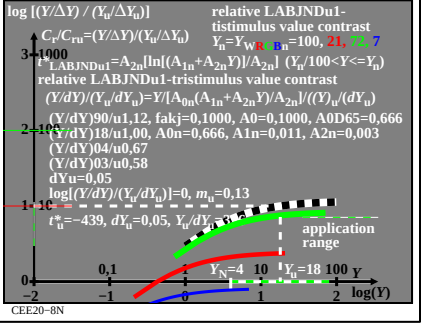

log ΔY
LABJNDu1-
tristimulus value difference
with Yi=YWRGBn=100, 21, 72, 7
ΔY
1,10
0,1
−1,0
−2
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
LABJNDu1-tristimulus value difference
(dY)=A0n(A1n+A2nY)/A2n, A1n=0,017, A2n=0,0058, A0=1
dY*90/dYu=4,43, fakj=0,1000, A0=0,1000, A0D65=0,666
dY*18/dYu=1,00, A0n=0,666, A1n=0,011, A2n=0,003
dY*04/dYu=0,33
dY*03/dYu=0,28
dYu=0,05
t*u=−439, dYu=0,05, dYu/Yu=0,0029
log(dY)=0,05, mu=0,05
application range
0,1
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−3N


log(ΔY/ΔYu)
relative LABJNDu1-
tristimulus value difference
with Yi=YWRGBn=100, 21, 72, 7
ΔY/ΔYu
2,10
1,10
0,1
−1,0
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
relative LABJNDu1-tristimulus value difference
(dY)/(dY)u=A0n[(A1n+A2nY)/A2n]/(dY)u
dY*90/dYu=4,43, fakj=0,1000, A0=0,1000, A0D65=0,666
dY*18/dYu=1,00, A0n=0,666, A1n=0,011, A2n=0,003
dY*04/dYu=0,33
dY*03/dYu=0,28
dYu=0,05
t*u=−439, dYu=0,05, dYu/Yu=0,0029
log[(dY)/(dYu)]=0, mu=0,05
application range
0,1
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−4N


log (ΔY/Y)
LABJNDu1-
tristimulus value sensitivity
with Yi=YWRGBn=100, 21, 72, 7
Sr=(ΔY/Y)
1,10
0,1
−1,0
−2
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
LABJNDu1-tristimulus value sensitivity
dY/Y=A0n[(A1n+A2nY)/A2n]/(Y)
(dY/Y)90/0,00, fakj=0,1000, A0=0,1000, A0D65=0,666
(dY/Y)18/u0,00, A0n=0,666, A1n=0,011, A2n=0,003
(dY/Y)04/u0,00
(dY/Y)03/u0,00
dYu=0,05
application range
t*u=−439, dYu=0,05, dYu/Yu=0,0029
0,1
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−5N


log [(ΔY/Y) / (ΔYu/Yu)]
relative LABJNDu1-
tistimulus value sensitivity
with Yi=YWRGBn=100, 21, 72, 7
Sr/Sru=(ΔY/Y)/(ΔYu/Yu)
2,10
1,10
0,1
−1,0
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
relative LABJNDu1-tristimulus value sensitivity
(dY/Y)/(dYu/Yu)=A0n[(A1n+A2nY)/A2n]/Y/((dY)u/(Yu)
(dY/Y)90/u0,08, fakj=0,1000, A0=0,1000, A0D65=0,666
(dY/Y)18/u1,00, A0n=0,666, A1n=0,011, A2n=0,003
(dY/Y)04/u1,49
(dY/Y)03/u1,70
dYu=0,05
application range
log[(dY/Y)/(dYu/Yu)]=0, mu=−0,13
t*u=−439, dYu=0,05, dYu/Yu=0,0029
0,1
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−6N


log (Y/ΔY)
LABJNDu1-
tristimulus value contrast
Yi=YWRGBn=100, 21, 72, 7
Cr=(Y/ΔY)
2,10
1,10
0,1
−1,0
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
LABJNDu1-tristimulus value contrast
(Y/dY)=Y/[A0n(A1n+A2nY)/A2n]
t*u=−439, dYu=0,05, Yu/dYu=336
log(Y/dY)=2,52, mu=0,13
(Y/dY)90379,47, fakj=0,1000, A0=0,1000, A0D65=0,666
(Y/dY)18336,96, A0n=0,666, A1n=0,011, A2n=0,003
(Y/dY)04226,12
(Y/dY)03198,19
dYu=0,05
application range
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−7N


log [(Y/ΔY) / (Yu/ΔYu)]
relative LABJNDu1-
tistimulus value contrast
Yi=YWRGBn=100, 21, 72, 7
Cr/Cru=(Y/ΔY)/(Yu/ΔYu)
3,1000
2,10
1,10
0
t*LABJNDu1=A2n[ln[(A1n+A2nY)]/A2n] (Yu/100<Y<=Yn)
relative LABJNDu1-tristimulus value contrast
(Y/dY)/(Yu/dYu)=Y/[A0n(A1n+A2nY)/A2n]/((Y)u/(dY)u)
(Y/dY)90/u1,12, fakj=0,1000, A0=0,1000, A0D65=0,666
(Y/dY)18/u1,00, A0n=0,666, A1n=0,011, A2n=0,003
(Y/dY)04/u0,67
(Y/dY)03/u0,58
dYu=0,05
log[(Y/dY)/(Yu/dYu)]=0, mu=0,13
t*u=−439, dYu=0,05, Yu/dYu=336
application range
0,1
1
YN=4
10
Yi=18
100
Y
−2
−1
0
1
2
log(Y)
CEE20−8N