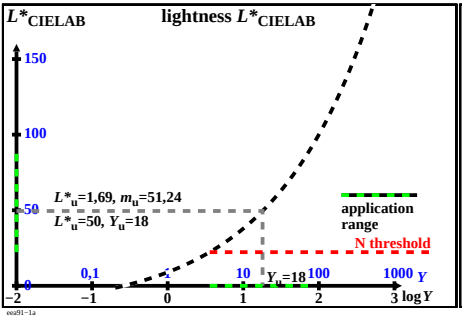
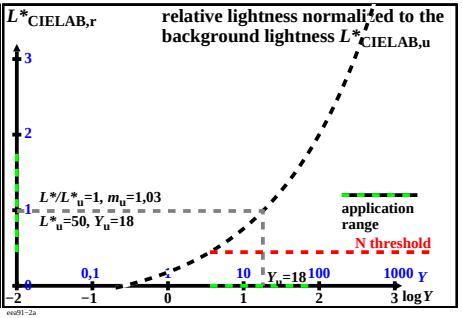
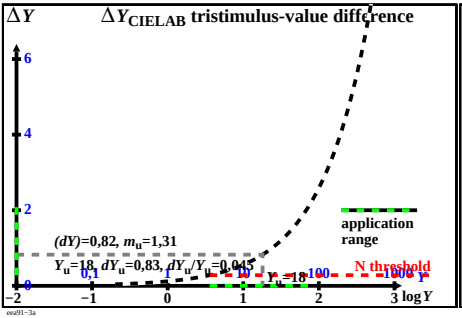
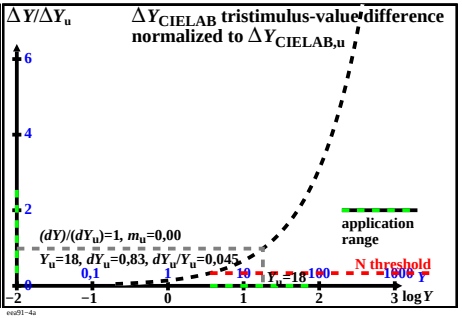
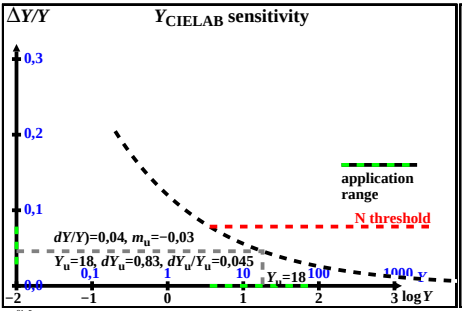
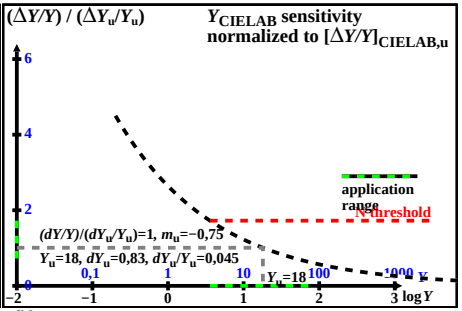

L*CIELAB
lightness L*CIELAB
150
100
50
0
L*u=1,69, mu=51,24
L*u=50, Yu=18
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−1a

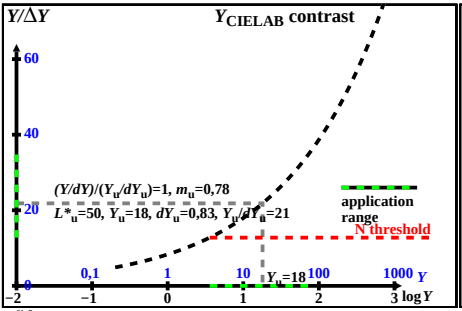

L*CIELAB,r
relative lightness normalized to the background lightness L*CIELAB,u
3
2
1
0
L*/L*u=1, mu=1,03
L*u=50, Yu=18
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−2a

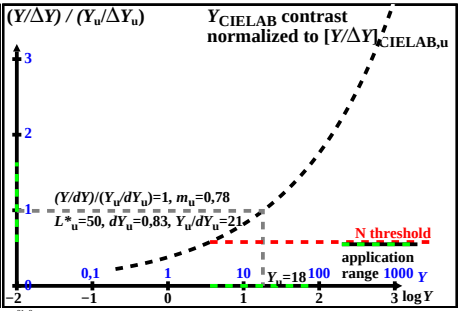

ΔY
ΔYCIELAB tristimulus-value difference
6
4
2
0
(dY)=0,82, mu=1,31
Yu=18, dYu=0,83, dYu/Yu=0,045
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−3a


ΔY/ΔYu
ΔYCIELAB tristimulus-value difference normalized to ΔYCIELAB,u
6
4
2
0
(dY)/(dYu)=1, mu=0,00
Yu=18, dYu=0,83, dYu/Yu=0,045
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−4a


ΔY/Y
YCIELAB sensitivity
0,3
0,2
0,1
0,0
dY/Y)=0,04, mu=−0,03
Yu=18, dYu=0,83, dYu/Yu=0,045
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−5a


(ΔY/Y) / (ΔYu/Yu)
YCIELAB sensitivity normalized to [ΔY/Y]CIELAB,u
6
4
2
0
(dY/Y)/(dYu/Yu)=1, mu=−0,75
Yu=18, dYu=0,83, dYu/Yu=0,045
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−6a


Y/ΔY
YCIELAB contrast
60
40
20
0
(Y/dY)/(Yu/dYu)=1, mu=0,78
L*u=50, Yu=18, dYu=0,83, Yu/dYu=21
application range
N threshold
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−7a


(Y/ΔY) / (Yu/ΔYu)
YCIELAB contrast normalized to [Y/ΔY]CIELAB,u
3
2
1
0
(Y/dY)/(Yu/dYu)=1, mu=0,78
L*u=50, dYu=0,83, Yu/dYu=21
N threshold
application range
0,1
1
10
Yu=18
100
1000
Y
−2
−1
0
1
2
3 log Y
eea91−8a

eea91−7n