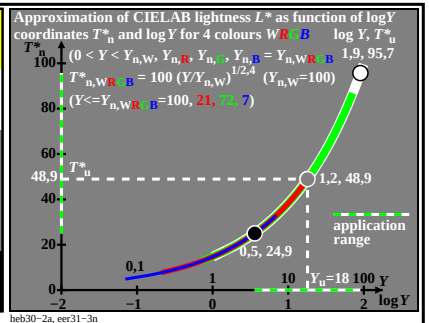
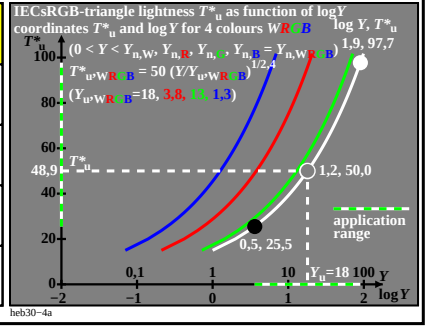
sensation scaling functions
lightness L^* and tristimulus value Y
adaptation on surround white W
$L^*_W = 100\ (\ Y\ /\ 100)^{1/2,0}$
adaptation on surround grey U
$L^*_{IECsRGB} = 100\ (\ Y\ /\ 100)^{1/2,4}$
description with CIELAB 1976
$L^*_{CIELAB} = 116\ (\ Y\ /\ 100)^{1/3,0} - 16$
adaptation on surround black N
$L^*_N = 100\ (\ Y\ /\ 100)^{1/3,0}$
heb30−1a

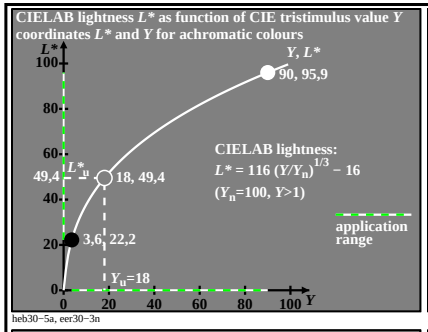


heb30−2a, eer31−3n

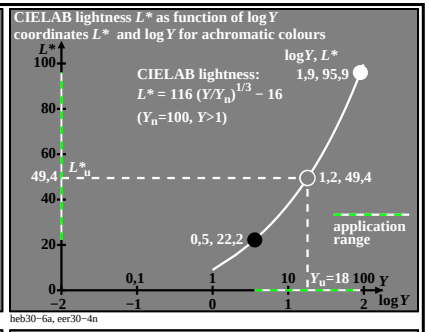
lightness scaling (ln(10)=2,3, Yu=18)
L^*_{CIELAB}, $T^*_{IECsRGB}$, T^*_{TUBJND}
description with CIELAB 1976
$L^*_{CIELAB} = 116\ (\ Y\ /\ 100)^{1/3,0} - 16$
Approximation by IECsRGB 1999
$T^*_{IECsRGB} = 100\ (\ Y\ /\ 100\ )^{1/2,4}$
Approximation by TUBJND 2024
$T^*_{TUBJND} = 47{,}49\ (\ Y\ /\ Y_u)^{1/ln(10)}$
ln $[T^*_{TUBJND,relative}]$ has the slope 1!
ln $[T^*_{TUBJND,r}] = \log\ (\ Y\ /\ Y_u\ )$
heb30−3a
heb30−3n



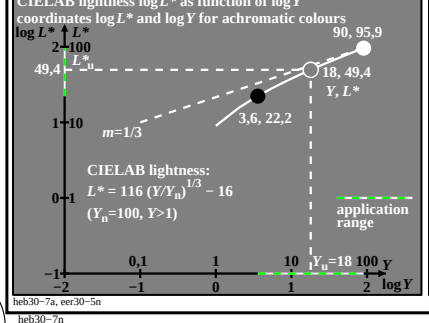
heb30−4a



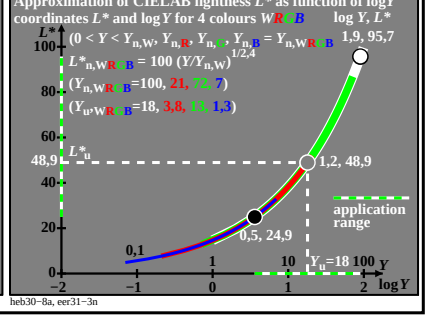
heb30−5a, eer30−3n



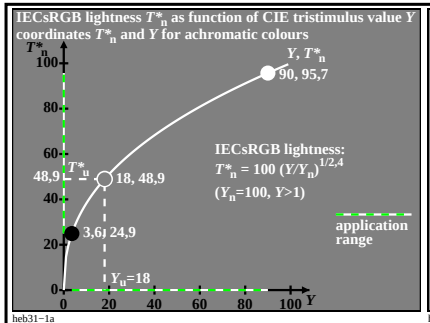
heb30−6a, eer30−4n



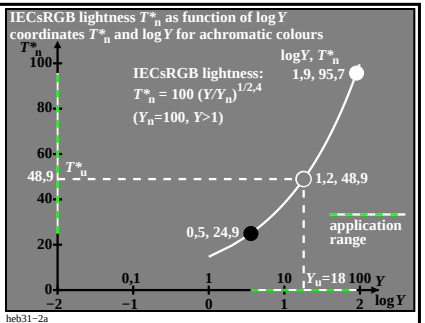
heb30−7a, eer30−5n



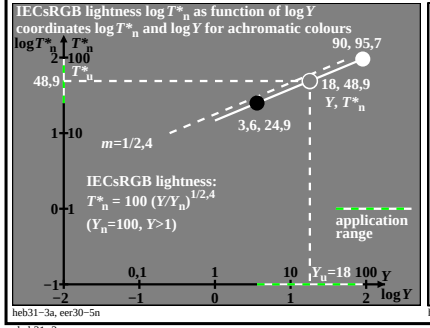
heb30−8a, eer31−3n
heb30−7n



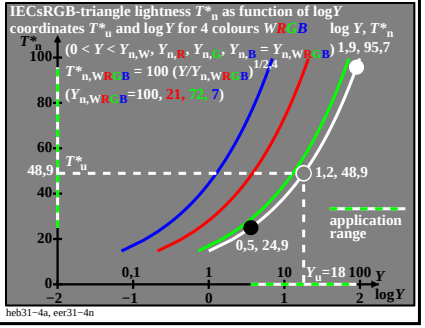
heb31−1a



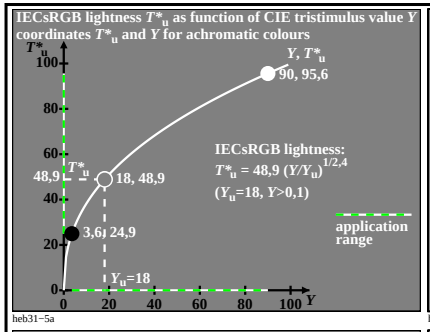
heb31−2a



heb31−3a, eer30−5n



heb31−4a, eer31−4n
heb31−3n



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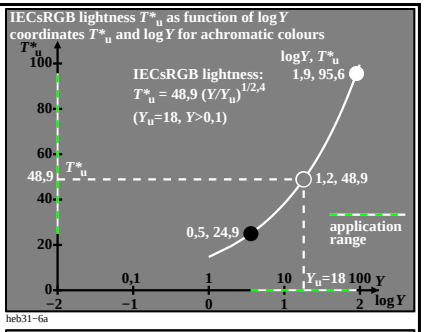
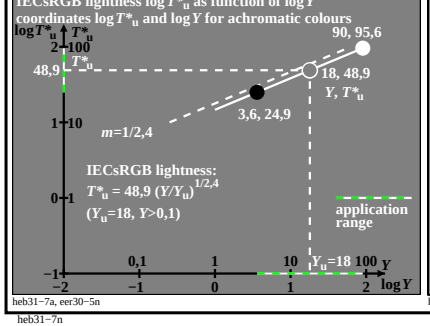
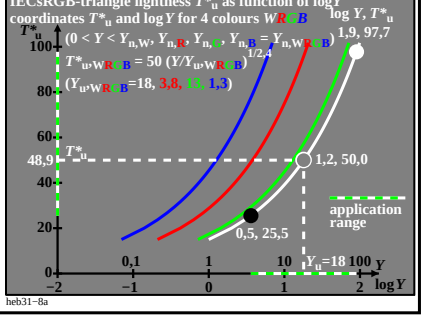


heb31−6a



heb31−7a, eer30−5n



heb31−8a
heb31−7n