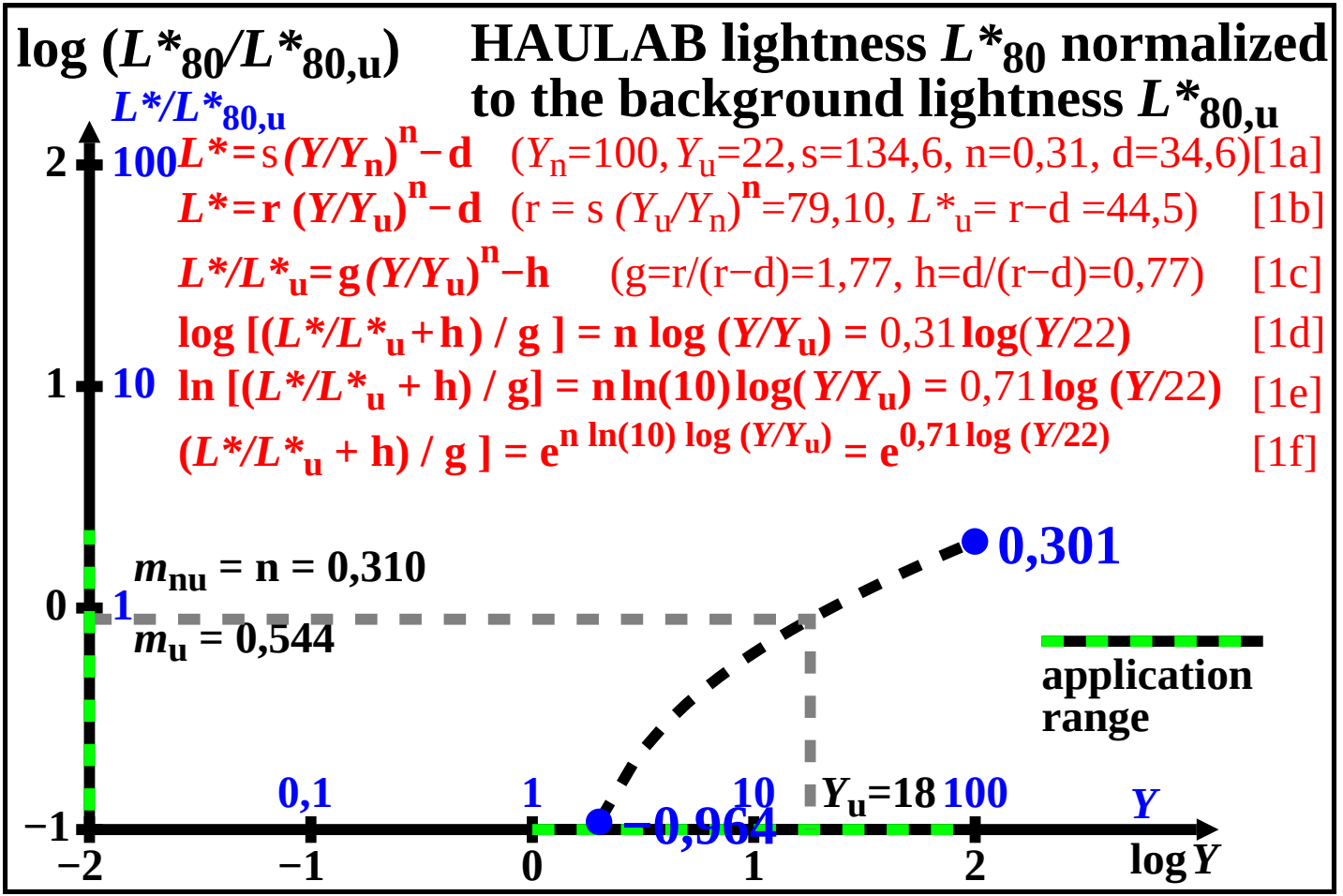
log (L*80/L*80,u)
HAULAB lightness L*80 normalized to the background lightness L*80,u
L*/L*80,u
L*=s(Y/Yn)^n−d (Yn=100, Yu=22, s=134,6, n=0,31, d=34,6) [1a]
L*=r (Y/Yu)^n−d (r = s (Yu/Yn)^n=79,10, L*u= r−d =44,5) [1b]
L*/L*u=g(Y/Yu)^n−h (g=r/(r−d)=1,77, h=d/(r−d)=0,77) [1c]
log [(L*/L*u+h) / g] = n log (Y/Yu) = 0,31 log(Y/22) [1d]
ln [(L*/L*u + h) / g] = n ln(10) log(Y/Yu) = 0,71 log (Y/22) [1e]
(L*/L*u + h) / g] = e^(n ln(10) log (Y/Yu)) = e^(0,71 log (Y/22)) [1f]
2
1
0
−1
100
10
1
mnu = n = 0,310
mu = 0,544
0,301
−0,964
application range
0,1
1
10
Yu=18
100
Y
−2
−1
0
1
2
log Y

hep70−1a