Siehe ähnliche Dateien der ganzen Serie: http://farbe.li.tu-berlin.de/hgps.htm
Technische Information: http://farbe.li.tu-berlin.de oder http://color.li.tu-berlin.de

TUB-Registrierung: 20241001-hgp0/hgp0l0np.pdf /.ps
Anwendung für Beurteilung und Messung von Display- oder Druck-Ausgabe
TUB-Material: Code=rha4ta

$L^*_{85,2}/L^*_{85,2,u}$ LABJND-Helligkeit $L^*_{85,2}$ normiert für die UmgebungsHelligkeit $L^*_{85,2,u}$

$L^*/L^*_U = (t/a)\ \{\ \ln(1 + a\cdot Y) - \ln(1 + a\cdot Y_U)\ \}$ [1a]
$L^*/L^*_U = (t/a)\ \{\ \ln[\ 1 + b\cdot(Y/Y_U)\ ] - \ln(1 + b)\ \}$ [1b]
a=0,3411 t=88,23 t/a=258,6 b=6,141 [1c]

hgp00−1a

L^*/L^*_u CIELAB-Helligkeit L^* normiert für die UmgebungsHelligkeit L^*_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=116, n=1/3, d=16) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=65,49, $L^*_u = r - d$) [1b]
$L^*/L^*_u = g\ (Y/Y_u)^n - h$ ($g = r/(r-d)$=1,32, $h = d/(r-d)$=0,32) [1c]
$\log[(L^*/L^*_u + h)/g] = n \log(Y/Y_u)$ [1d]
$\ln[(L^*/L^*_u + h)/g] = \ln(10)\ n \log(Y/Y_u)$ [1e]
$(L^*/L^*_u + h)/g = e^{\ln(10)\ n \log(Y/Y_u)}$ [1f]

hgp00−2a

L^*/L^*_u IECsRGB-Helligkeit L^* normiert für die UmgebungsHelligkeit L^*_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/2,4, d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=48,94, $L^*_u = r - d$) [1b]
$L^*/L^*_u = (Y/Y_u)^n$ [1c]
$\log(L^*/L^*_u) = n \log(Y/Y_u)$ [1d]
$\ln(L^*/L^*_u) = \ln(10)\ n \log(Y/Y_u)$ [1e]
$L^*/L^*_u = e^{\ln(10)\ n \log(Y/Y_u)}$ [1f]

hgp00−3a

L^*/L^*_u TUBsRGB-Helligkeit L^* normiert für die UmgebungsHelligkeit L^*_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/ln(10), d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=47,48, $L^*_u = r - d$) [1b]
$L^*/L^*_u = (Y/Y_u)^{1/\ln(10)}$ ($\ln(x) = \ln(10) \log(x)$) [1c]
$\log(L^*/L^*_u) = (1/\ln(10)) \log(Y/Y_u)$ [1d]
$\ln(L^*/L^*_u) = \log(Y/Y_u)$ [1e]
$L^*/L^*_u = e^{\log(Y/Y_u)}$ [1f]

hgp00−4a

hgp00−3n

$\Delta Y/\Delta Y_u$ LABJND-Normfarbwertdifferenz ΔY normiert für ΔY_u

$L^*/L^*_U = (t/a)\ \{\ \ln(1 + a\cdot Y) - \ln(1 + a\cdot Y_U)\ \}$ [1a]
$L^*/L^*_U = (t/a)\ \{\ \ln[\ 1 + b\cdot(Y/Y_U)\ ] - \ln(1 + b)\ \}$ [1b]
normierte Normfarbwert-Y-Differenz
$dY/dY_u = (1 + a\cdot Y)\ /\ (1 + a\cdot Y_u)$ [3d]

hgp00−5a

$\Delta Y/\Delta Y_u$ CIELAB-Normfarbwertdifferenz ΔY normiert für ΔY_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=116, n=1/3, d=16) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=65,49, $L^*_u = r - d$) [1b]
$dY = [Y_n/(n\ s)]\ (Y/Y_n)^{1-n}$ [2c]
$dY_u = [Y_n/(n\ s)]\ (Y_u/Y_n)^{1-n}$ = 1,4602 [2d]
$dY/dY_u = (Y/Y_u)^{1-n}$ [2e]
$\log(dY/dY_u) = (1-n) \log(Y/Y_u)$ [2f]

hgp00−6a

$\Delta Y/\Delta Y_u$ IECsRGB-Normfarbwertdifferenz ΔY normiert für ΔY_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/2,4, d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=48,94, $L^*_u = r - d$) [1b]
$dY = [Y_n/(n\ s)]\ (Y/Y_n)^{1-n}$ [2c]
$dY_u = [Y_n/(n\ s)]\ (Y_u/Y_n)^{1-n}$ = 1,1746 [2d]
$dY/dY_u = (Y/Y_u)^{1-n}$ [2e]
$\log(dY/dY_u) = (1-n) \log(Y/Y_u)$ [2f]

hgp00−7a

$\Delta Y/\Delta Y_u$ TUBsRGB-Normfarbwertdifferenz ΔY normiert für ΔY_u

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/ln(10), d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=47,48, $L^*_u = r - d$) [1b]
$dY = [Y_n/(n\ s)]\ (Y/Y_n)^{1-n}$ [2c]
$dY_u = [Y_n/(n\ s)]\ (Y_u/Y_n)^{1-n}$ = 1,0934 [2d]
$dY/dY_u = (Y/Y_u)^{1-n}$ [2e]
$\log(dY/dY_u) = (1-n) \log(Y/Y_u)$ [2f]

hgp00−8a

hgp00−7n

$(\Delta Y/Y)\ /\ (\Delta Y/Y)_u$ LABJND-Y-Empfindlichkeit normiert für $(\Delta Y/Y)_u$

$L^*/L^*_U = (t/a)\ \{\ \ln(1 + a\cdot Y) - \ln(1 + a\cdot Y_U)\ \}$ [1a]
$L^*/L^*_U = (t/a)\ \{\ \ln[\ 1 + b\cdot(Y/Y_U)\ ] - \ln(1 + b)\ \}$ [1b]
Hellbezugswert-Y-Empfindlichkeit
$(dY/Y)\ /\ (dY_u/Y_u)$
$= [(1 + a\cdot Y)/Y\ ]\ /\ [\ (1 + a\cdot Y_u)/Y_u\ ]$ [3f]

hgp01−1a

$(\Delta Y/Y)\ /\ (\Delta Y/Y)_u$ CIELAB-Y-Empfindlichkeit normiert für $(\Delta Y/Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=116, n=1/3, d=16) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=65,49, $L^*_u = r - d$) [1b]
$dY/Y = [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}]/Y$ [3c]
$(dY/Y)_u = [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}]/Y_u$ [3d]
$(dY/Y)/(dY/Y)_u = (Y/Y_u)^{-n}$ [3e]
$\log[(dY/Y)/(dY/Y)_u] = (-n) \log(Y/Y_u)$ [3f]

hgp01−2a

$(\Delta Y/Y)\ /\ (\Delta Y/Y)_u$ IECsRGB-Y-Empfindlichkeit normiert für $(\Delta Y/Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/2,4, d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=48,94, $L^*_u = r - d$) [1b]
$dY/Y = [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}]/Y$ [3c]
$(dY/Y)_u = [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}]/Y_u$ [3d]
$(dY/Y)/(dY/Y)_u = (Y/Y_u)^{-n}$ [3e]
$\log[(dY/Y)/(dY/Y)_u] = (-n) \log(Y/Y_u)$ [3f]

hgp01−3a

$(\Delta Y/Y)\ /\ (\Delta Y/Y)_u$ TUBsRGB-Y-Empfindlichkeit normiert für $(\Delta Y/Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/ln(10), d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=47,48, $L^*_u = r - d$) [1b]
$dY/Y = [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}]/Y$ [3c]
$(dY/Y)_u = [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}]/Y_u$ [3d]
$(dY/Y)/(dY/Y)_u = (Y/Y_u)^{-n}$ [3e]
$\log[(dY/Y)/(dY/Y)_u] = (-n) \log(Y/Y_u)$ [3f]

hgp01−4a

hgp01−3n

$(Y/\Delta Y)\ /\ (Y/\Delta Y)_u)$ LABJND-Y-Kontrast normiert für $(Y/\Delta Y)_u$

$L^*/L^*_U = (t/a)\ \{\ \ln(1 + a\cdot Y) - \ln(1 + a\cdot Y_U)\ \}$ [1a]
$L^*/L^*_U = (t/a)\ \{\ \ln[\ 1 + b\cdot(Y/Y_U)\ ] - \ln(1 + b)\ \}$ [1b]
Hellbezugswert-Y Kontrast
$(Y/dY)\ /\ (Y_u dY_u)$
$= [Y/(1 + a\cdot Y)\ ]\ /\ [\ Y_u/(1 + a\cdot Y_u)\ ]$ [4h]

hgp01−5a

$(Y/\Delta Y)\ /\ (Y/\Delta Y)_u)$ CIELAB-Y-Kontrast normiert für $(Y/\Delta Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=116, n=1/3, d=16) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=65,49, $L^*_u = r - d$) [1b]
$Y/dY = Y/\{\ [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}\ \}$ [4c]
$(Y/Y)_u = Y_u/\{\ [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}\ \}$ [4d]
$(Y/dY)/(Y/dY)_u = (Y/Y_u)^n$ [4e]
$\log[(Y/dY)/(Y/dY)_u] = (n) \log(Y/Y_u)$ [4f]

hgp01−6a

$(Y/\Delta Y)\ /\ (Y/\Delta Y)_u)$ IECsRGB-Y-Kontrast normiert für $(Y/\Delta Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/2,4, d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=48,94, $L^*_u = r - d$) [1b]
$Y/dY = Y/\{\ [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}\ \}$ [4c]
$(Y/Y)_u = Y_u/\{\ [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}\ \}$ [4d]
$(Y/dY)/(Y/dY)_u = (Y/Y_u)^n$ [4e]
$\log[(Y/dY)/(Y/dY)_u] = (n) \log(Y/Y_u)$ [4f]

hgp01−7a

$(Y/\Delta Y)\ /\ (Y/\Delta Y)_u)$ TUBsRGB-Y-Kontrast normiert für $(Y/\Delta Y)_u$

$L^* = s\ (Y/Y_n)^n - d$ (Y_n=100, Y_u=18, s=100, n=1/ln(10), d=0) [1a]
$L^* = r\ (Y/Y_u)^n - d$ ($r = s\ (Y_u/Y_n)^n$=47,48, $L^*_u = r - d$) [1b]
$Y/dY = Y/\{\ [(Y_n/(n\ s))\ (Y/Y_n)^{1-n}\ \}$ [4c]
$(Y/Y)_u = Y_u/\{\ [(Y_n/(n\ s))\ (Y_u/Y_n)^{1-n}\ \}$ [4d]
$(Y/dY)/(Y/dY)_u = (Y/Y_u)^n$ [4e]
$\log[(Y/dY)/(Y/dY)_u] = (n) \log(Y/Y_u)$ [4f]

hgp01−8a

hgp01−7n