250101 1L2L002H_S2710.HTK, http://farbe.li.tu-berlin.de/hg2s.htm or http://color.li.tu-berlin.de/hg2s.htm
PXXYYHTM_AZ_2S_CRE_AH_EG0_199, PXXYYHTM_AYSA2_R_199, format:YE8XYX2H.HTK

Section 2, Chapter H: *SDR and HDR-colour metric for optimal colour-image quality (2025)*
This image page with 260 image series: he2s in English, hg2s in German.
Previous image page: ge2s in English, gg2s in German.
Next image page, see ie2s in English, ig2s in German.
Introduction, content list and summary: feai, fea_i, fea_s in English or fgai, fga_i, fga_s in German.

Section 2: *Colourimetry, Colour Vision and Applications for Colour Image Technology (2019-2025)*, Image part he2s

Chapter H: SDR and HDR-Clourimetry for optimal colour-image quality (2025)

The following 260 image series between hea0 and hez9
show the content with links to the single figures in up to six formats.

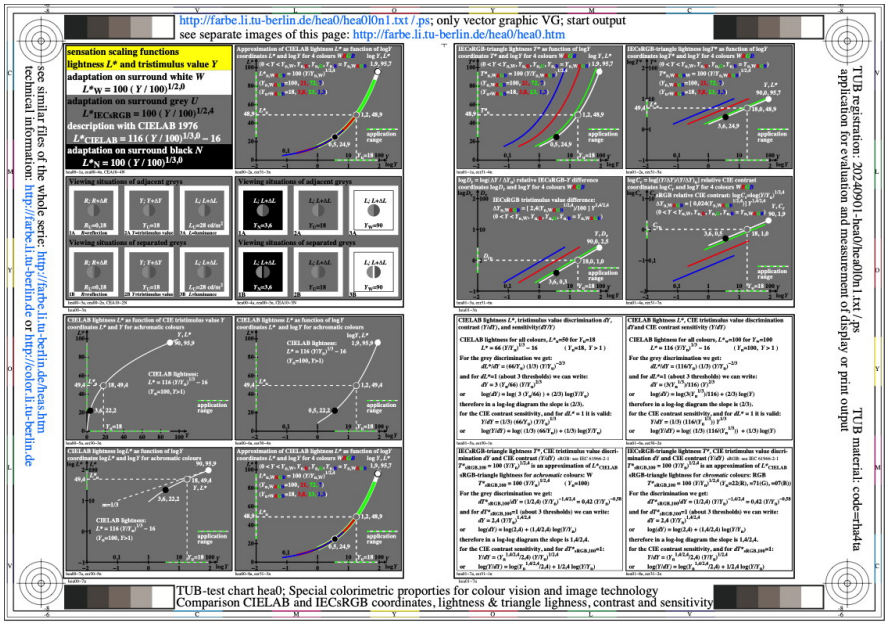

Image hea0l0n1.jpg: Output in format A6 of the file hea0l0np.pdf, see hea0l0n1. ps / txt / pdf / jpg

hea0: TUB-test chart hea0; Special colourimetric properties of colour vision and image technology; Comparison of CIELAB and IECsRGB: triangle lightness, contrast and sensitivity

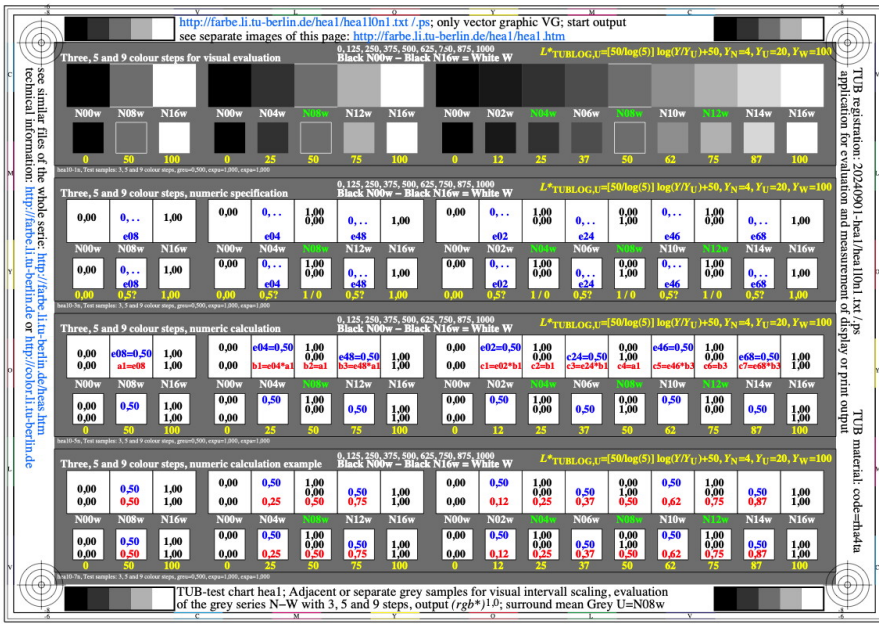

Image hea1l0n1.jpg: Output in format A6 of the file hea1l0np.pdf, see hea1l0n1. ps / txt / pdf / jpg

hea1: TUB-test chart hea1; adjacent and separate grey samples for visual interval scaling, evaluation of series N-W with 3, 5, and 9 steps, output (rgb*)^1, surround U=N08w

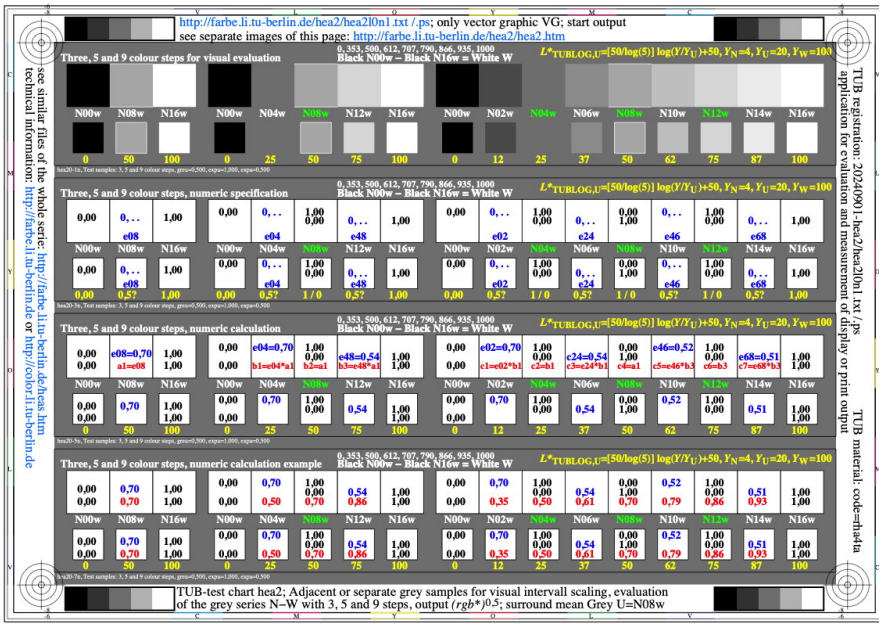

Image hea2l0n1.jpg: Output in format A6 of the file hea2l0np.pdf, see hea2l0n1. ps / txt / pdf / jpg

hea2: TUB-test chart hea2; adjacent and separate grey samples for visual interval scaling, evaluation of series N-W with 3, 5, and 9 steps, output (rgb*)^0,5, surround U=N08w

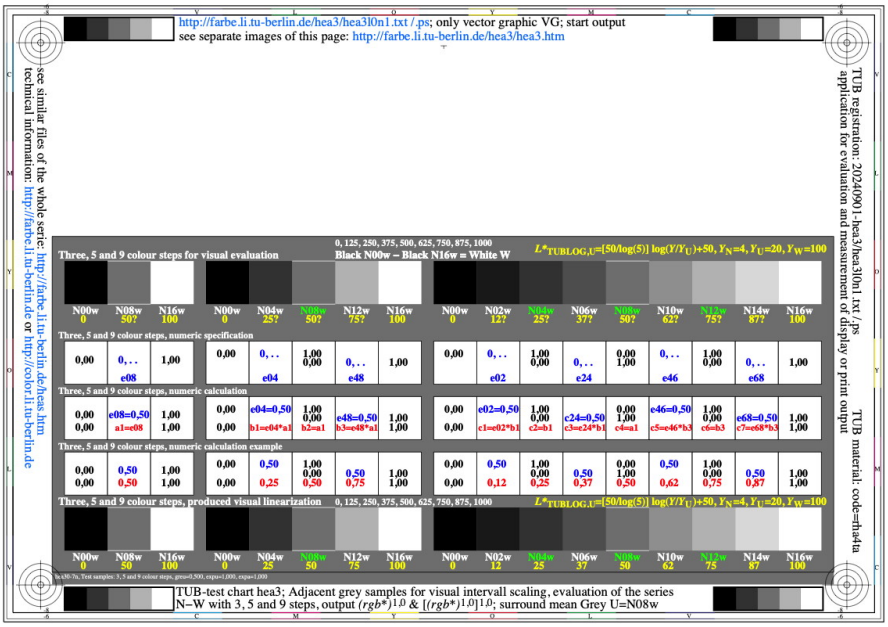

Image hea3l0n1.jpg: Output in format A6 of the file hea3l0np.pdf, see hea3l0n1. ps / txt / pdf / jpg

hea3: TUB-test chart hea3; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & inverse, surround U=N08w

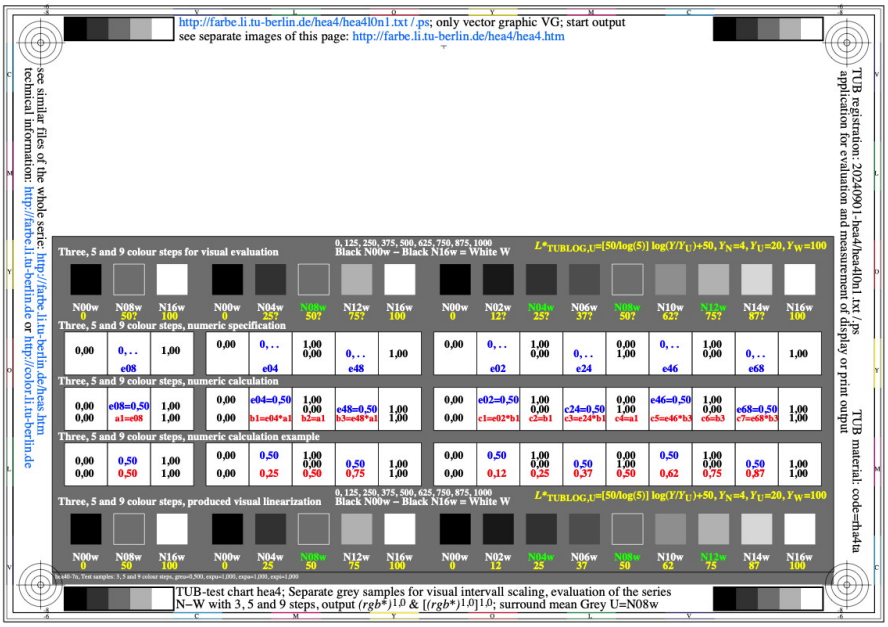

Image hea4l0n1.jpg: Output in format A6 of the file hea4l0np.pdf, see hea4l0n1. ps / txt / pdf / jpg

hea4: TUB-test chart hea4; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & inverse, surround U=N08w

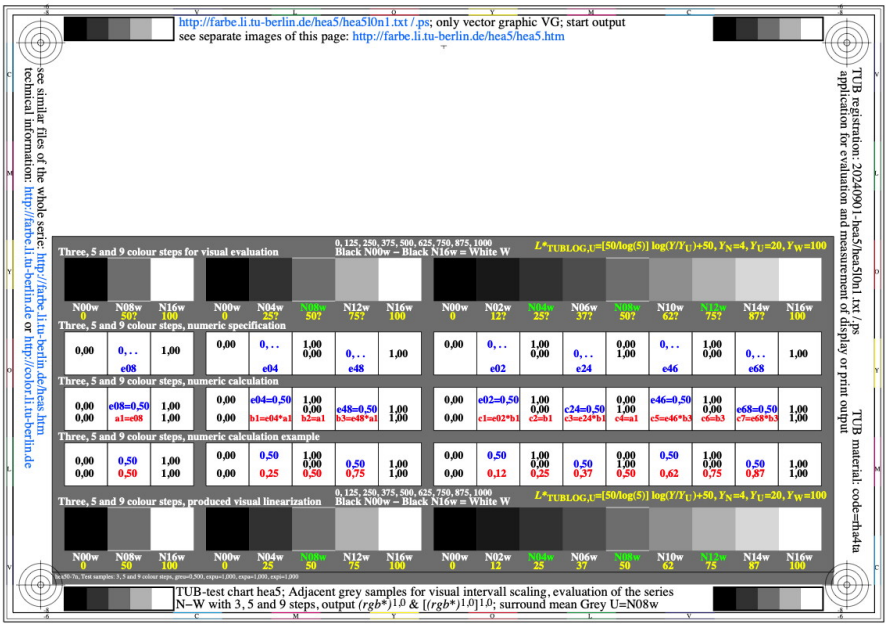

Image hea5l0n1.jpg: Output in format A6 of the file hea5l0np.pdf, see hea5l0n1. ps / txt / pdf / jpg

hea5: TUB-test chart hea5; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & inverse, surround U=N08w

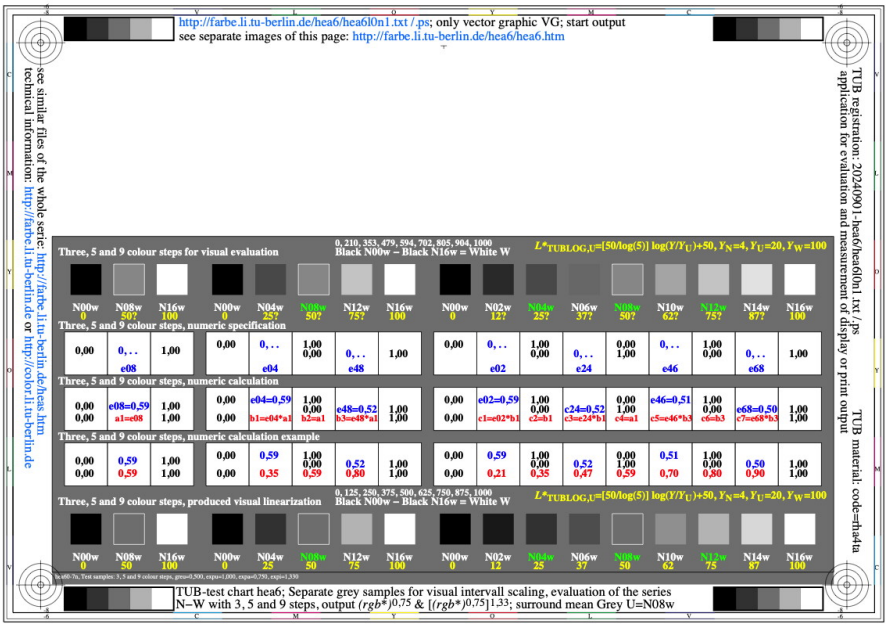

Image hea6l0n1.jpg: Output in format A6 of the file hea6l0np.pdf, see hea6l0n1. ps / txt / pdf / jpg

hea6: TUB-test chart hea6; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & inverse, surround U=N08w

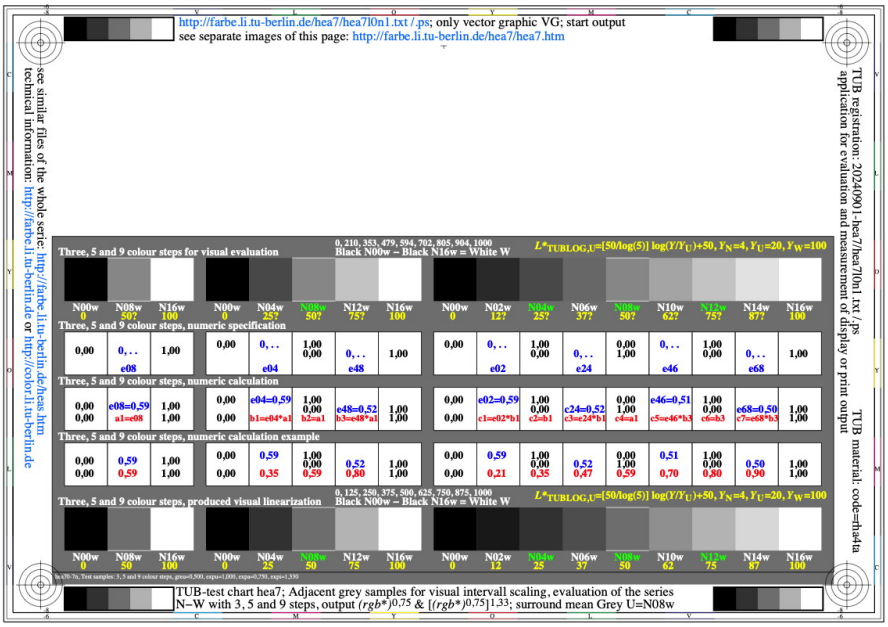

Image hea7l0n1.jpg: Output in format A6 of the file hea7l0np.pdf, see hea7l0n1. ps / txt / pdf / jpg

hea7: TUB-test chart hea7; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & inverse, surround U=N08w

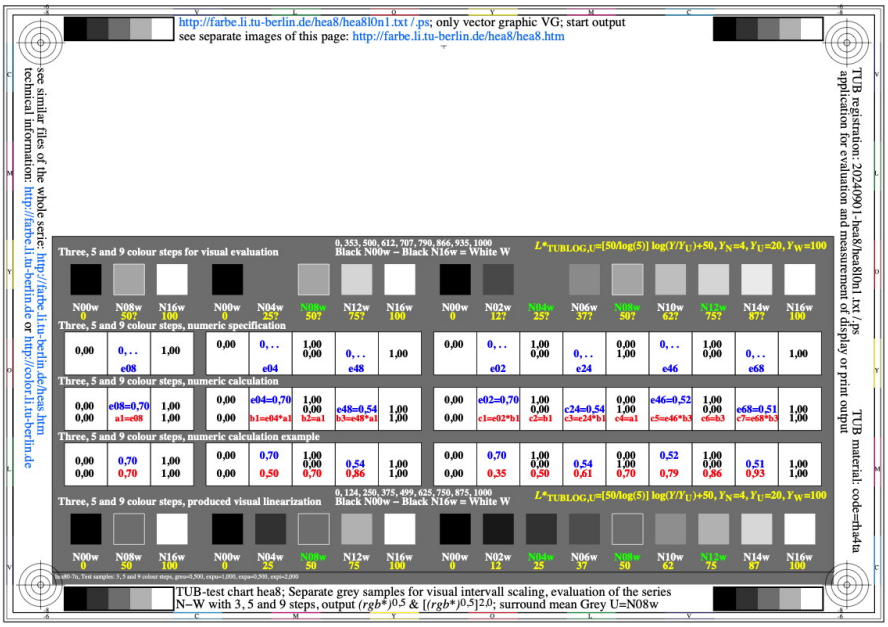

Image hea8l0n1.jpg: Output in format A6 of the file hea8l0np.pdf, see hea8l0n1. ps / txt / pdf / jpg

hea8: TUB-test chart hea8; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & inverse, surround U=N08w

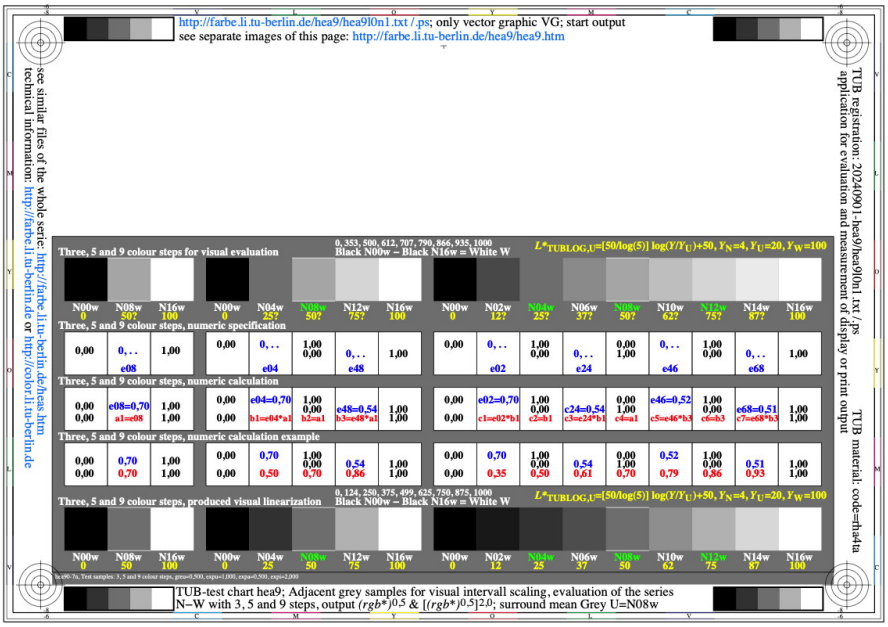

Image hea9l0n1.jpg: Output in format A6 of the file hea9l0np.pdf, see hea9l0n1. ps / txt / pdf / jpg

hea9: TUB-test chart hea9; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & inverse, surround U=N08w

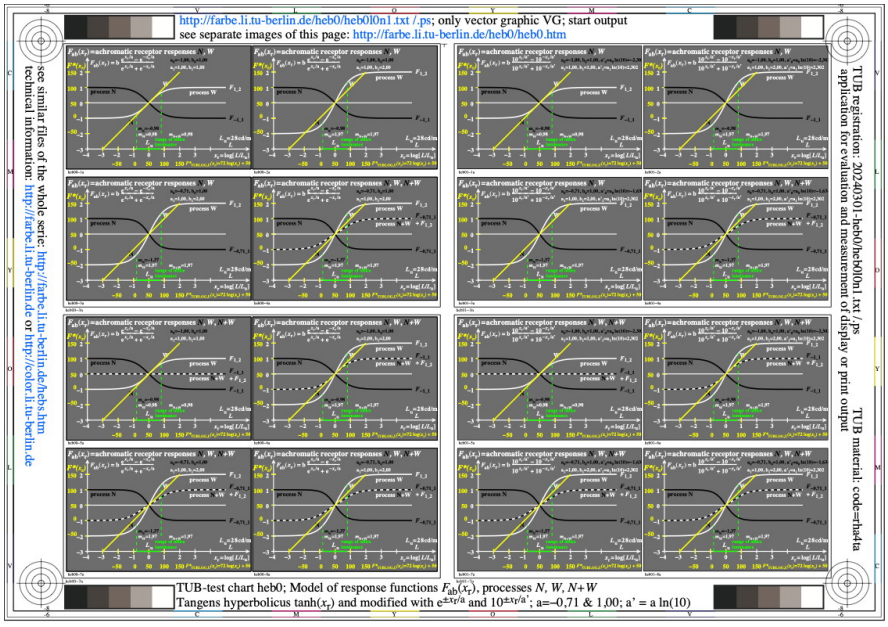

Image heb0l0n1.jpg: Output in format A6 of the file heb0l0np.pdf, see heb0l0n1. ps / txt / pdf / jpg

heb0: TUB-test chart heb0; Q/Fab(xr)-models for visual responses
Q/Fab(xr) with hyperbel functions e^(xr/a) and 10^(xr/a')
with contants a'=a ln(10) and a^n = a^1,0

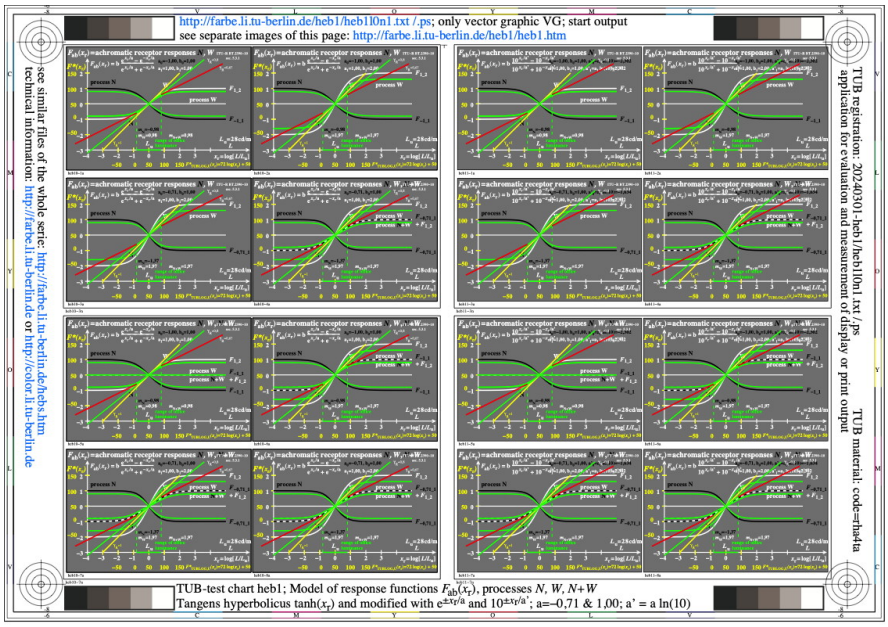

Image heb1l0n1.jpg: Output in format A6 of the file heb1l0np.pdf, see heb1l0n1. ps / txt / pdf / jpg

heb1: TUB-test chart heb1; Fab(xr)-model for visual responses
Application of hyperbel function tanh on receptor responses
Presentation of the functions and derivation for discrimination

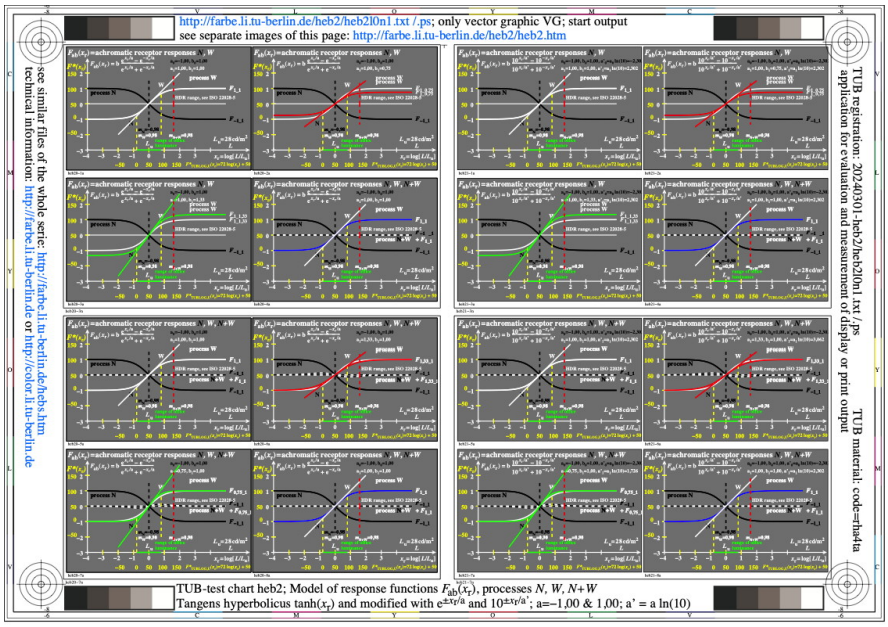

Image heb2l0n1.jpg: Output in format A6 of the file heb2l0np.pdf, see heb2l0n1. ps / txt / pdf / jpg

heb2: TUB-test chart heb2; Q/Fab(xr)-models for visual responses
Q/Fab(xr) with hyperbel functions e^(xr/a) and 10^(xr/a')
with contants a'=a ln(10) and a^n = a^1,0

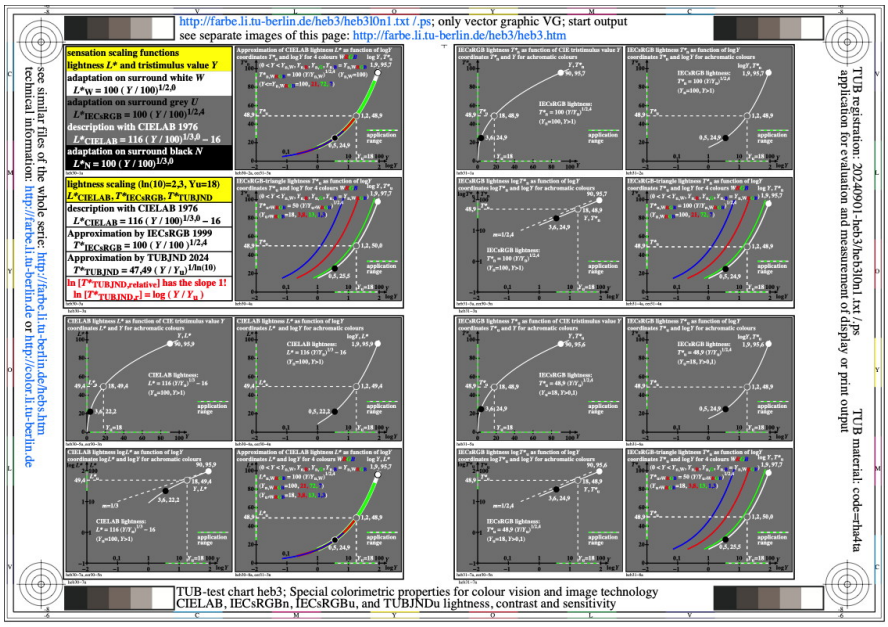

Image heb3l0n1.jpg: Output in format A6 of the file heb3l0np.pdf, see heb3l0n1. ps / txt / pdf / jpg

heb3: TUB-test chart heb3; Special colourimetric properties of colour vision and image technology; Comparison of CIELAB and IECsRGB: triangle lightness, contrast and sensitivity

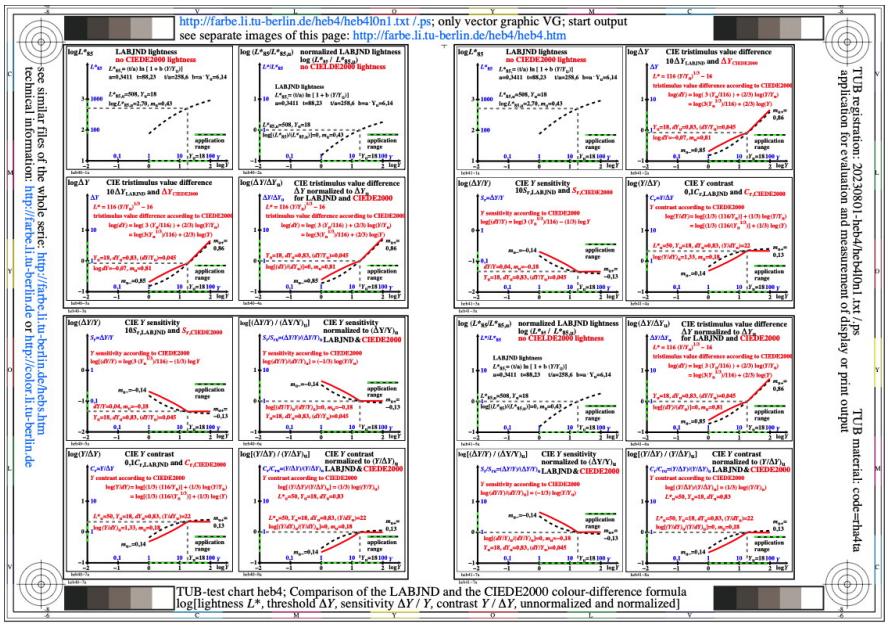

Image heb4l0n1.jpg: Output in format A6 of the file heb4l0np.pdf, see heb4l0n1. ps / txt / pdf / jpg

heb4: TUB-test chart heb4; Comparison of the CIELAB and the CIEDE2000 colour difference formula; log[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

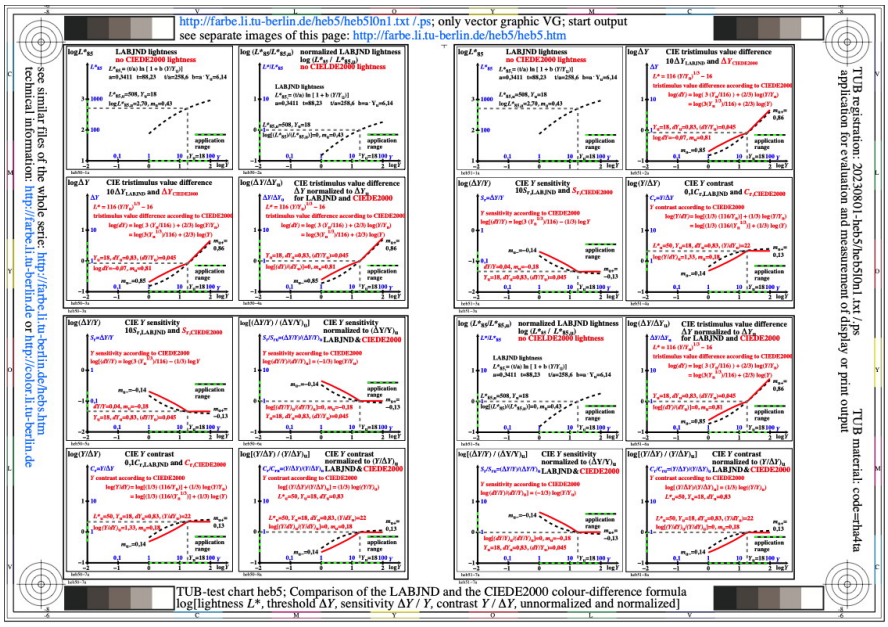

Image heb5l0n1.jpg: Output in format A6 of the file heb5l0np.pdf, see heb5l0n1. ps / txt / pdf / jpg

heb5: TUB-test chart heb5; Comparison of the CIELAB and the CIEDE2000 colour difference formula; log[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

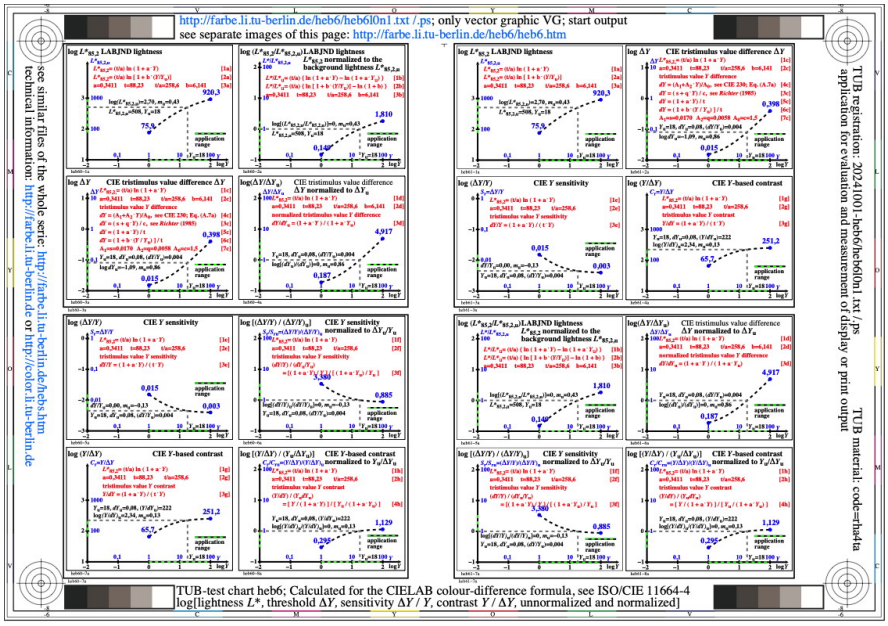

Image heb6l0n1.jpg: Output in format A6 of the file heb6l0np.pdf, see heb6l0n1. ps / txt / pdf / jpg

heb6: TUB-test chart heb6; Calculations for the CIELAB colour-difference formula, see ISO/CIE 11664-4, log[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

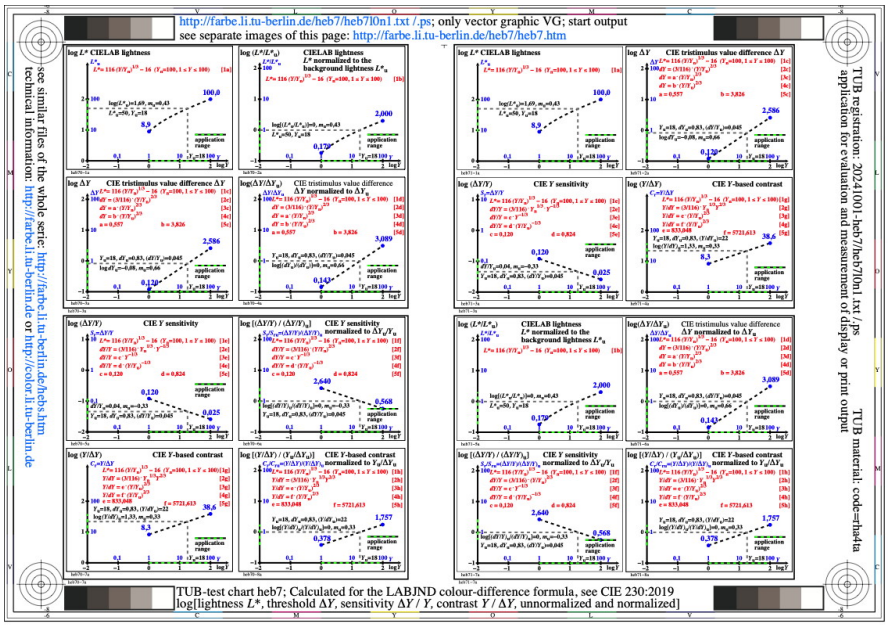

Image heb7l0n1.jpg: Output in format A6 of the file heb7l0np.pdf, see heb7l0n1. ps / txt / pdf / jpg

heb7: TUB-test chart heb7; Calculations for the LABJND colour-difference formula, see CIE 230:2019, log[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

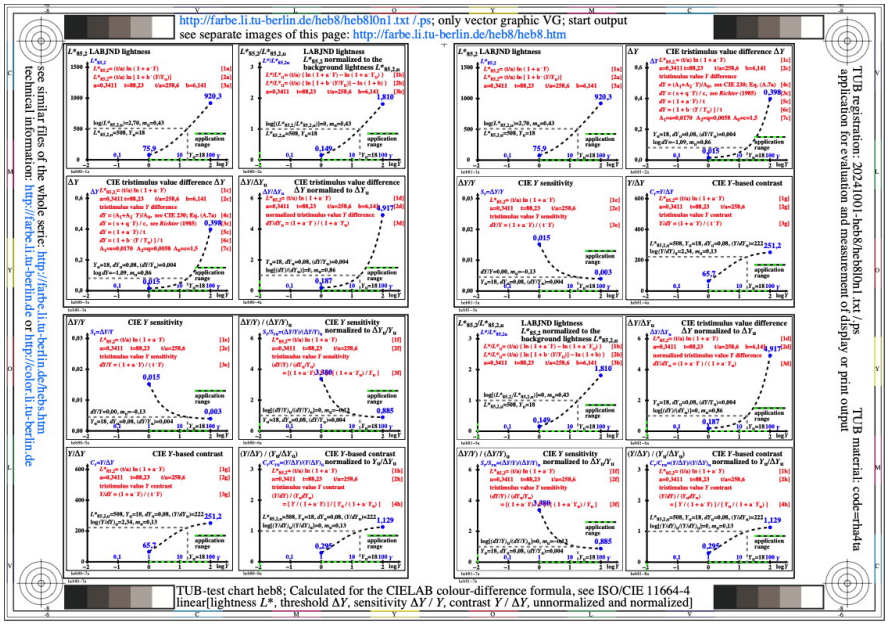

Image heb8l0n1.jpg: Output in format A6 of the file heb8l0np.pdf, see heb8l0n1. ps / txt / pdf / jpg

heb8: TUB-test chart heb8; Calculations for the CIELAB colour-difference formula, see ISO/CIE 11664-4, linear[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

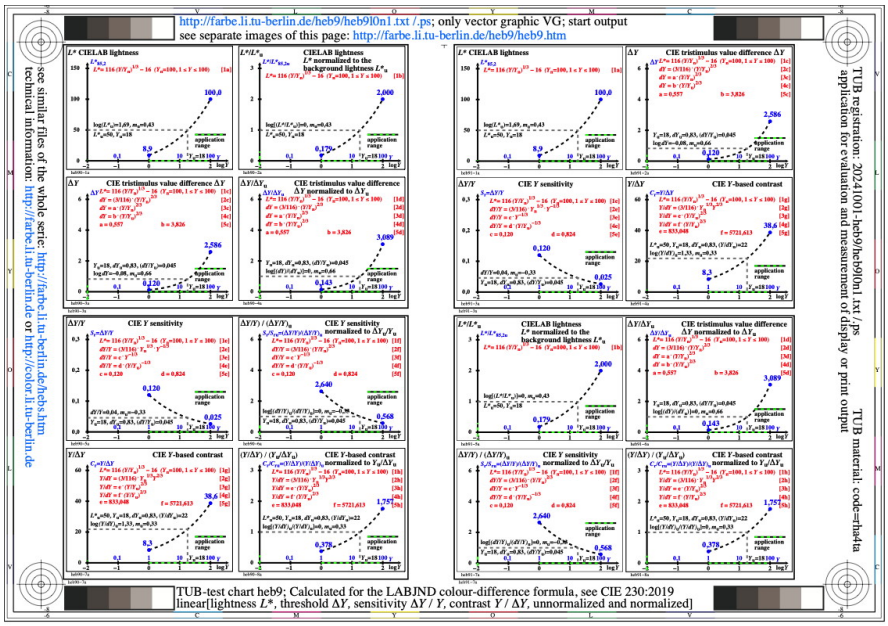

Image heb9l0n1.jpg: Output in format A6 of the file heb9l0np.pdf, see heb9l0n1. ps / txt / pdf / jpg

heb9: TUB-test chart heb9; Calculations for the LABJND colour-difference formula, see CIE 230:2019, linear[lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

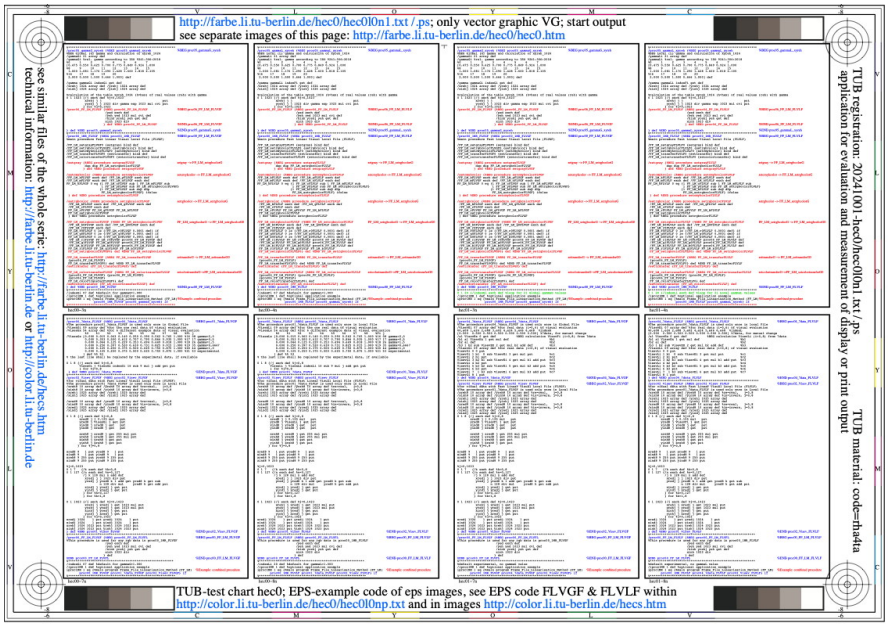

Image hec0l0n1.jpg: Output in format A6 of the file hec0l0np.pdf, see hec0l0n1. ps / txt / pdf / jpg

hec0: TUB-test chart hec0; EPS-example code of EPS images, see EPS code FLVGL and FLVLF in http://color.li.tu-berlin.de/hec0/hec0l0np.txt and /hecs.htm

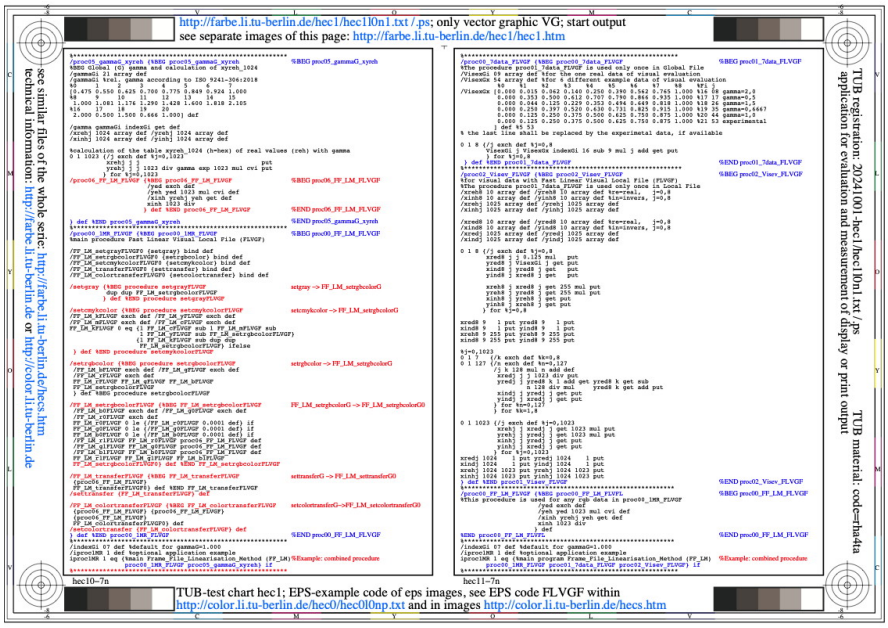

Image hec1l0n1.jpg: Output in format A6 of the file hec1l0np.pdf, see hec1l0n1. ps / txt / pdf / jpg

hec1: TUB-test chart hec1; EPS-example code of EPS images, see EPS code FLVGL in http://color.li.tu-berlin.de/hec0/hec0l0np.txt and /hecs.htm

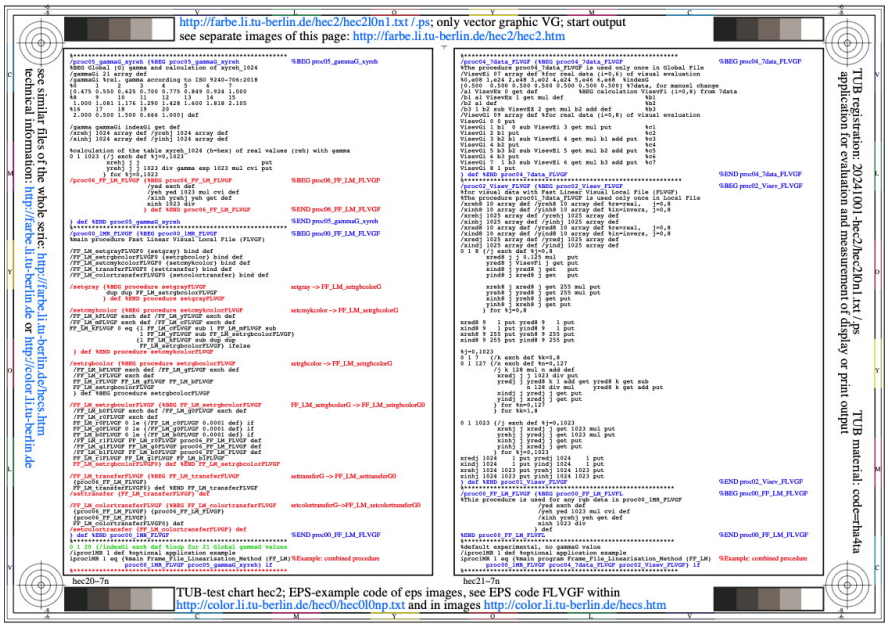

Image hec2l0n1.jpg: Output in format A6 of the file hec2l0np.pdf, see hec2l0n1. ps / txt / pdf / jpg

hec2: TUB-test chart hec2; EPS-example code of EPS images, see EPS code FLVGL in http://color.li.tu-berlin.de/hec0/hec0l0np.txt and /hecs.htm

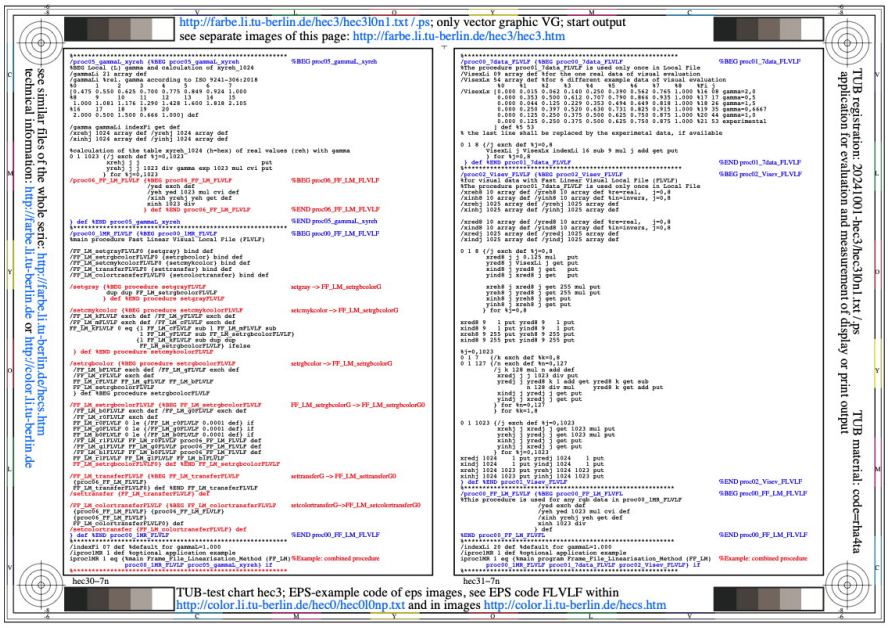

Image hec3l0n1.jpg: Output in format A6 of the file hec3l0np.pdf, see hec3l0n1. ps / txt / pdf / jpg

hec3: TUB-test chart hec3; EPS-example code of EPS images, see EPS code FLVLF in http://color.li.tu-berlin.de/hec0/hec0l0np.txt and /hecs.htm

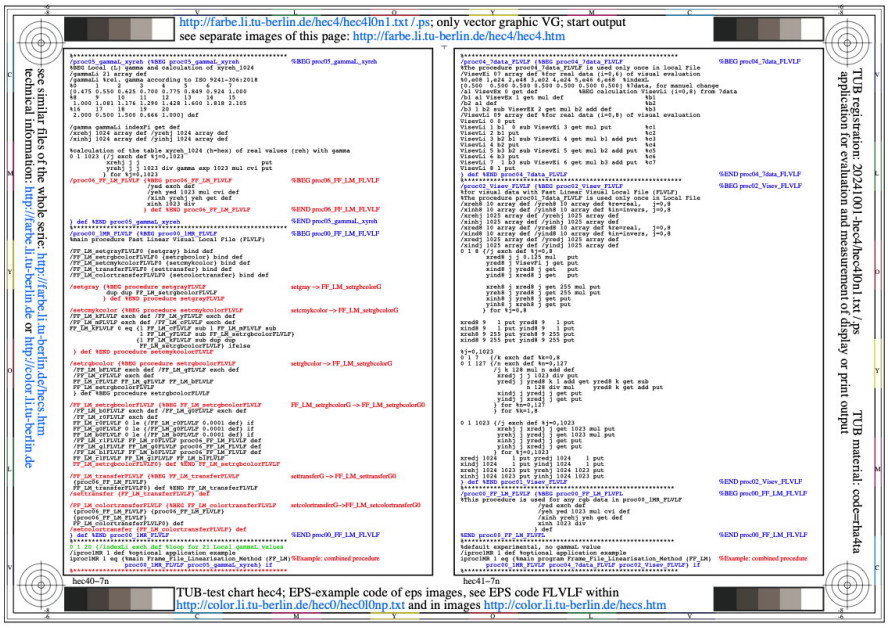

Image hec4l0n1.jpg: Output in format A6 of the file hec4l0np.pdf, see hec4l0n1. ps / txt / pdf / jpg

hec4: TUB-test chart hec4; EPS-example code of EPS images, see EPS code FLVLF in http://color.li.tu-berlin.de/hec0/hec0l0np.txt and /hecs.htm

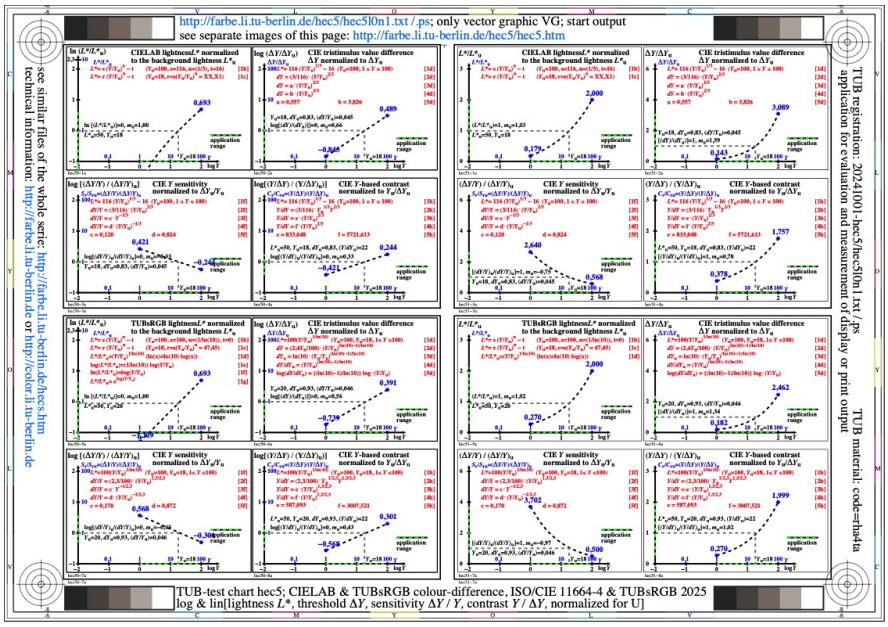

Image hec5l0n1.jpg: Output in format A6 of the file hec5l0np.pdf, see hec5l0n1. ps / txt / pdf / jpg

hec5: TUB-test chart hec5; CIELAB & TUBsRGB-colour difference see ISO/CIE 11664-4 & TUBsRGB, ln, log and lin[lightness L*, threshold deltaY, sensitivity deltaY/Y, contrast Y/deltaY]

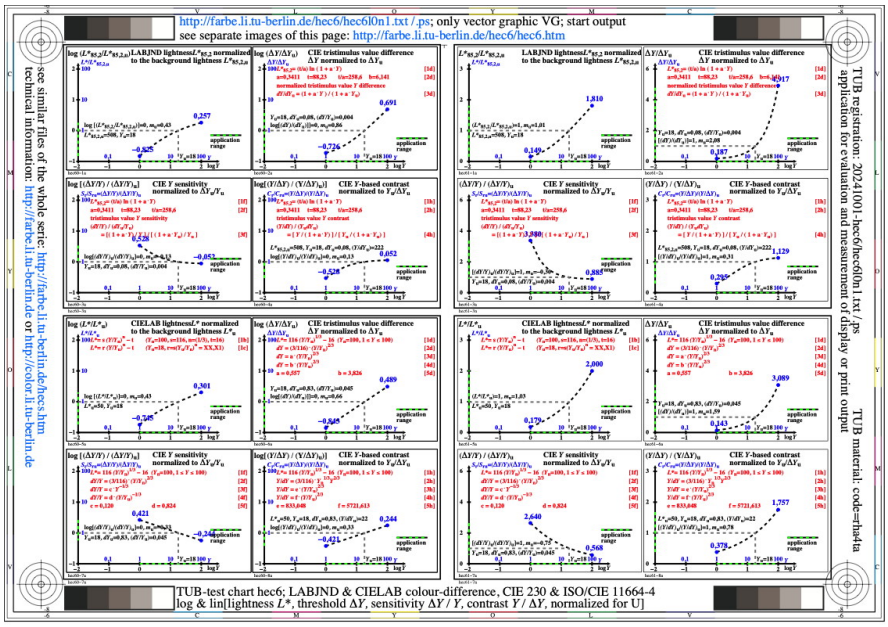

Image hec6l0n1.jpg: Output in format A6 of the file hec6l0np.pdf, see hec6l0n1. ps / txt / pdf / jpg

hec6: TUB-test chart hec6; LABJND & CIELAB-colour difference see CIE 230:2019 & ISO/CIE 11664-4, log and lin[lightness L*, threshold deltaY, sensitivity deltaY/Y, contrast Y/deltaY]

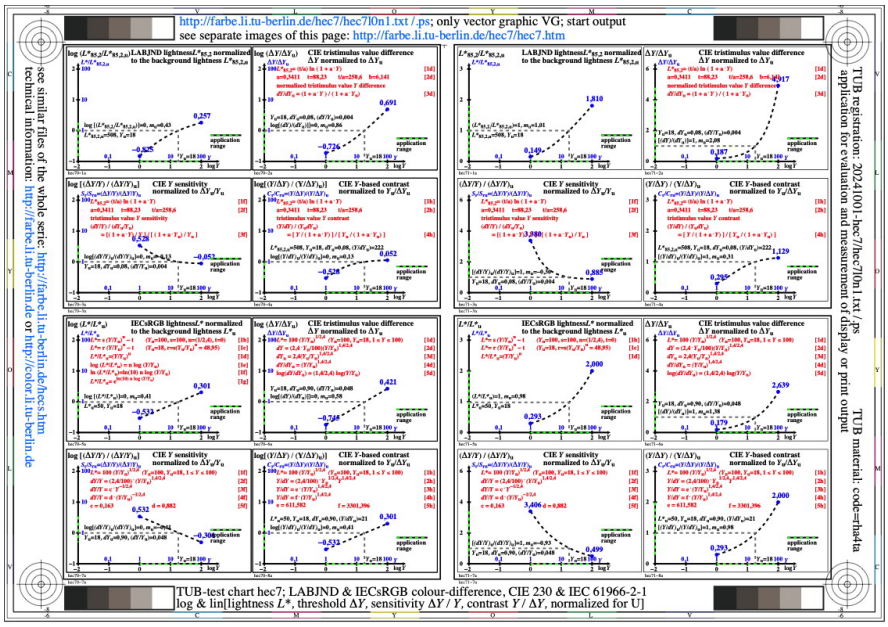

Image hec7l0n1.jpg: Output in format A6 of the file hec7l0np.pdf, see hec7l0n1. ps / txt / pdf / jpg

hec7: TUB-test chart hec7; LABJND & IECsRGB-colour difference see CIE 230:2019 & IECsRGB, log and lin[lightness L*, threshold deltaY, sensitivity deltaY/Y, contrast Y/deltaY]

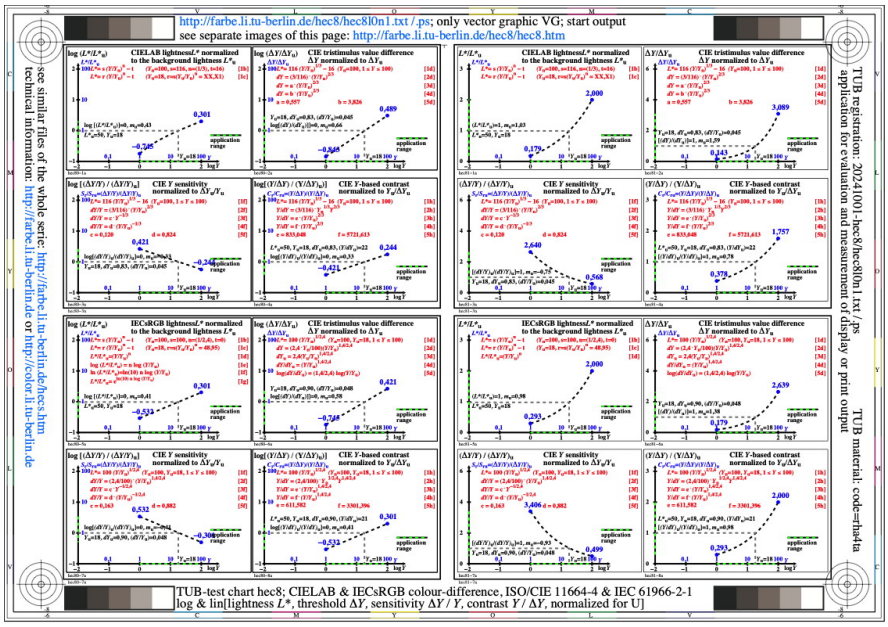

Image hec8l0n1.jpg: Output in format A6 of the file hec8l0np.pdf, see hec8l0n1. ps / txt / pdf / jpg

hec8: TUB-test chart hec8; CIELAB & IECsRGB-colour difference see ISO/CIE 11664-4 & IEC 61966-2-1, log and lin[lightness L*, threshold deltaY, sensitivity deltaY/Y, contrast Y/deltaY]

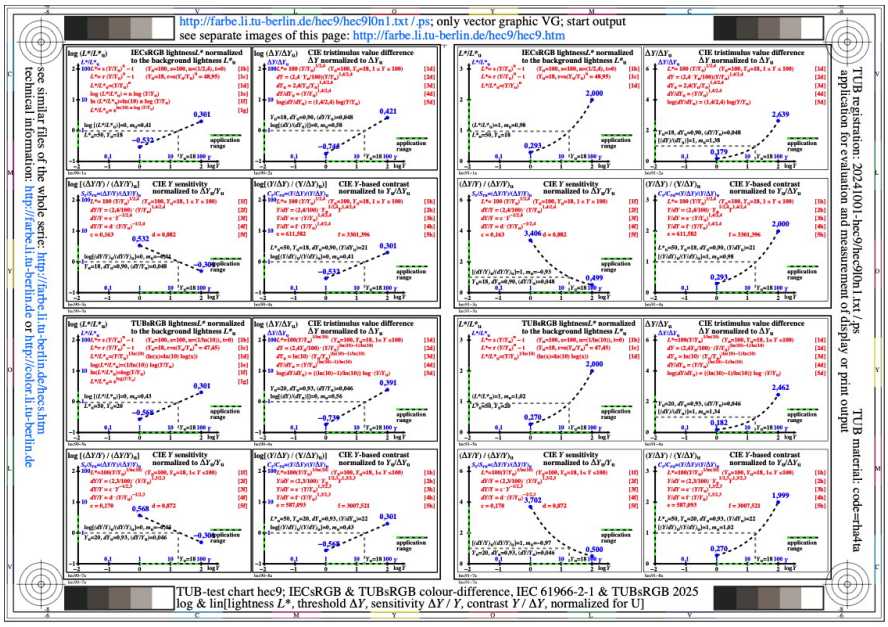

Image hec9l0n1.jpg: Output in format A6 of the file hec9l0np.pdf, see hec9l0n1. ps / txt / pdf / jpg

hec9: TUB-test chart hec9; IECsRGB & TUBsRGB-colour difference see IEC 61966-2-1 & TUBsRGB, log and lin[lightness L*, threshold deltaY, sensitivity deltaY/Y, contrast Y/deltaY]

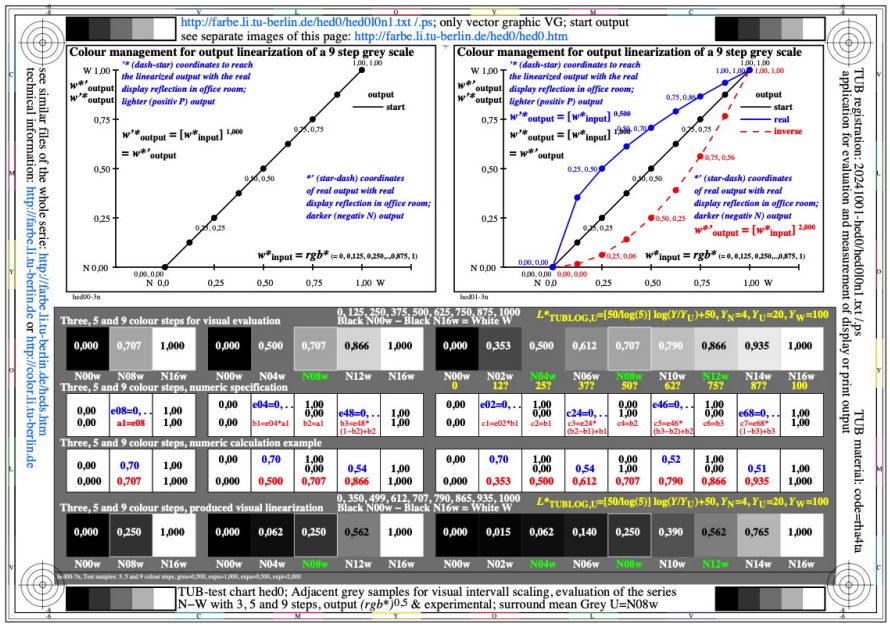

Image hed0l0n1.jpg: Output in format A6 of the file hed0l0np.pdf, see hed0l0n1. ps / txt / pdf / jpg

hed0: TUB-test chart hed0; adjacent grey samples for visual interval scaling, evaluation of N-W with 3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

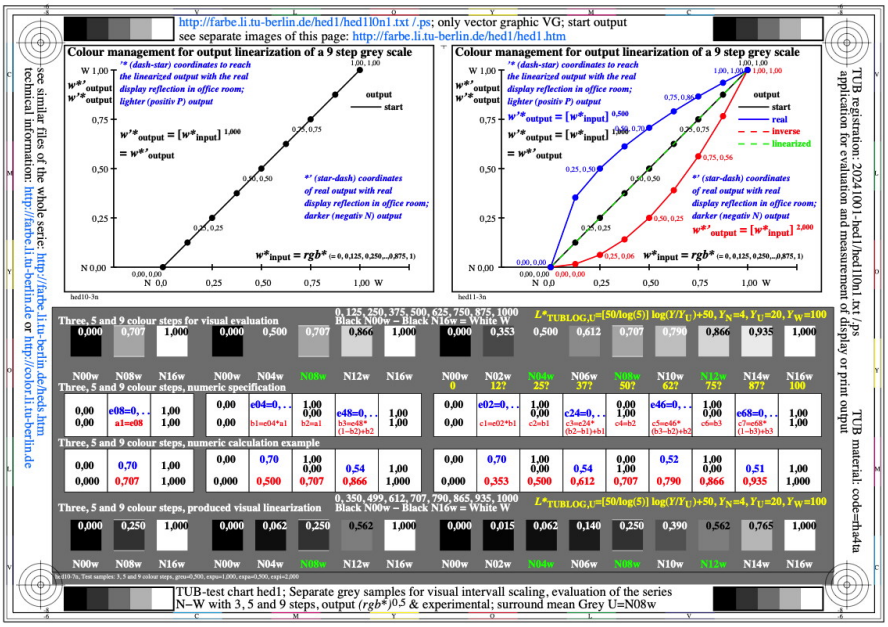

Image hed1l0n1.jpg: Output in format A6 of the file hed1l0np.pdf, see hed1l0n1. ps / txt / pdf / jpg

hed1: TUB-test chart hed1; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

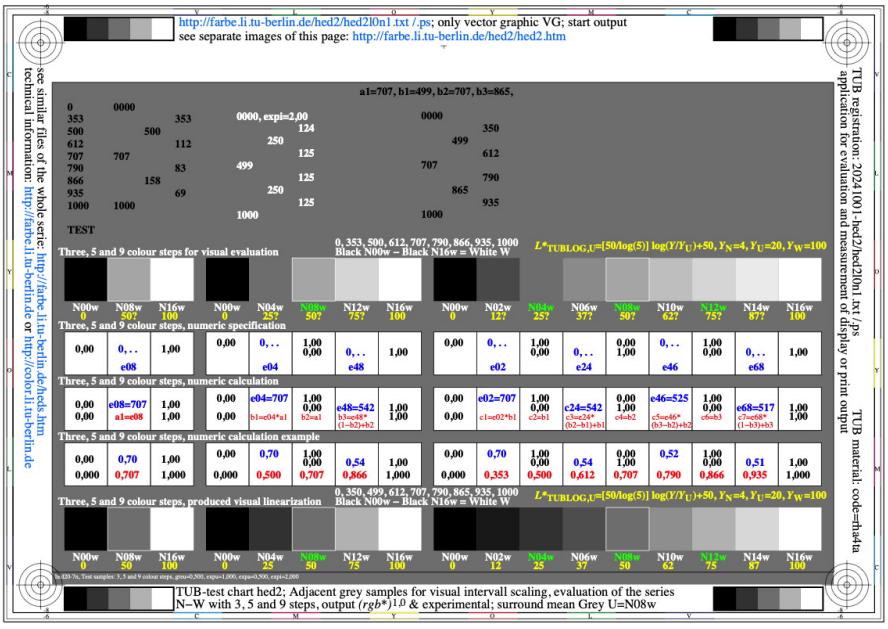

Image hed2l0n1.jpg: Output in format A6 of the file hed2l0np.pdf, see hed2l0n1. ps / txt / pdf / jpg

hed2: TUB-test chart hed2; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

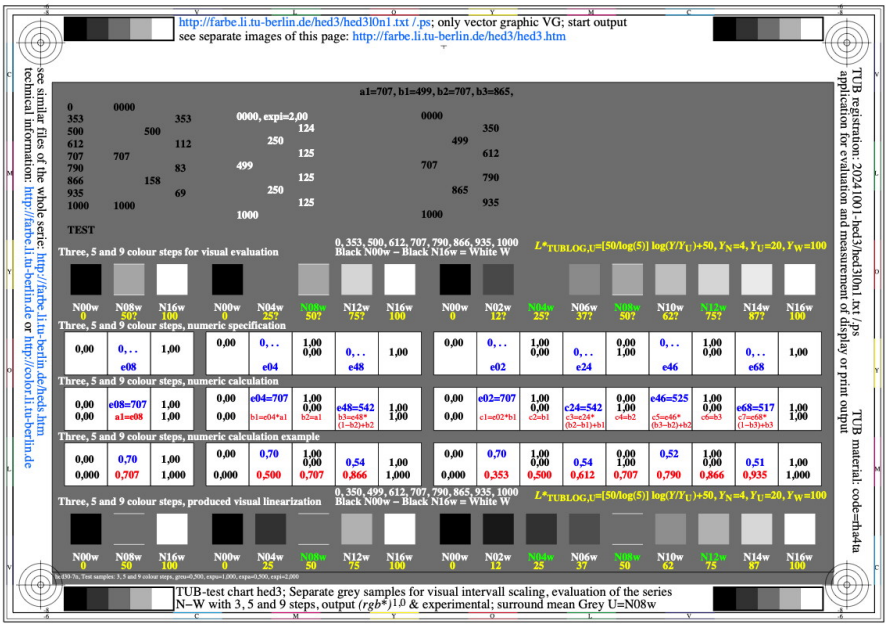

Image hed3l0n1.jpg: Output in format A6 of the file hed3l0np.pdf, see hed3l0n1. ps / txt / pdf / jpg

hed3: TUB-test chart hed3; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

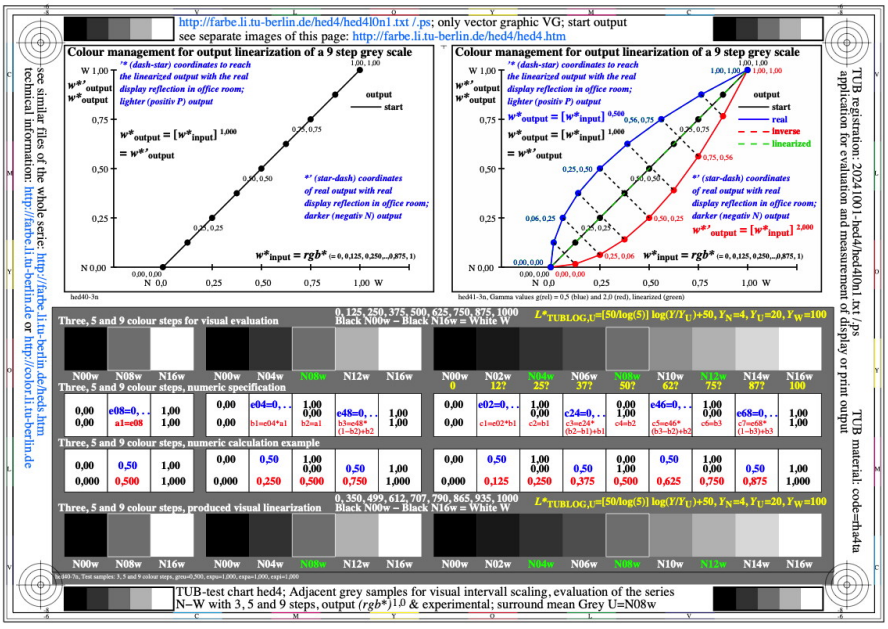

Image hed4l0n1.jpg: Output in format A6 of the file hed4l0np.pdf, see hed4l0n1. ps / txt / pdf / jpg

hed4: TUB-test chart hed4; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & manuel, surround U=N08w

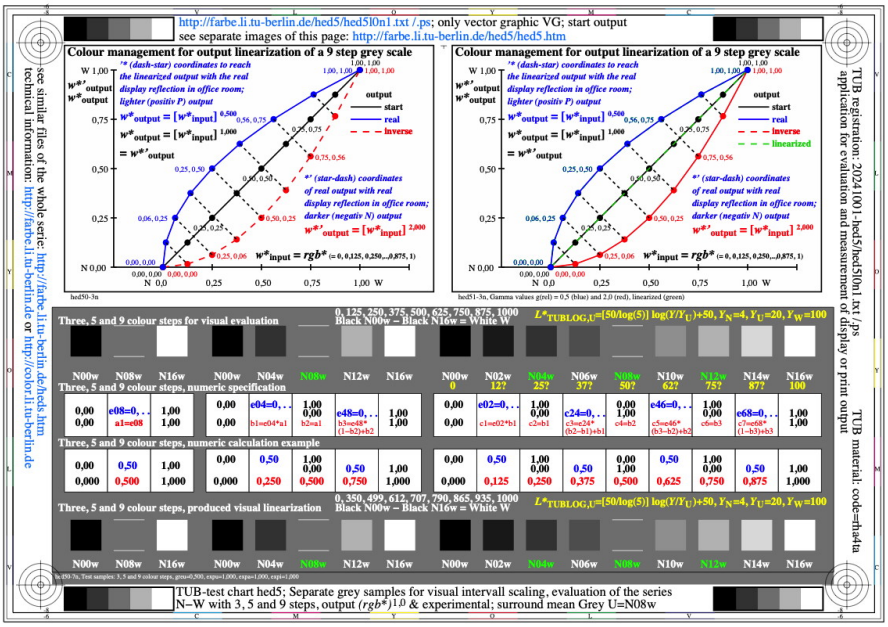

Image hed5l0n1.jpg: Output in format A6 of the file hed5l0np.pdf, see hed5l0n1. ps / txt / pdf / jpg

hed5: TUB-test chart hed5; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & manuel, surround U=N08w

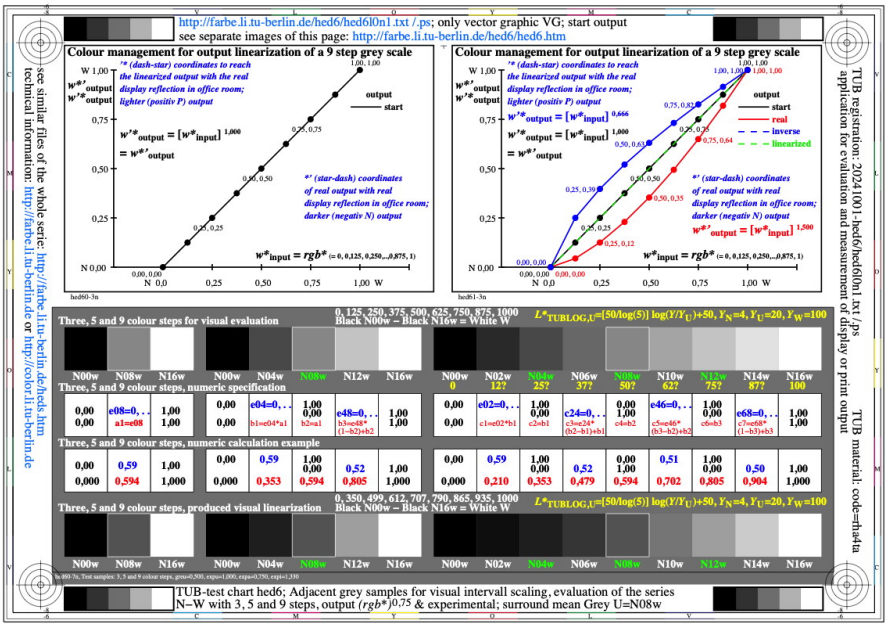

Image hed6l0n1.jpg: Output in format A6 of the file hed6l0np.pdf, see hed6l0n1. ps / txt / pdf / jpg

hed6: TUB-test chart hed6; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & manuel, surround U=N08w

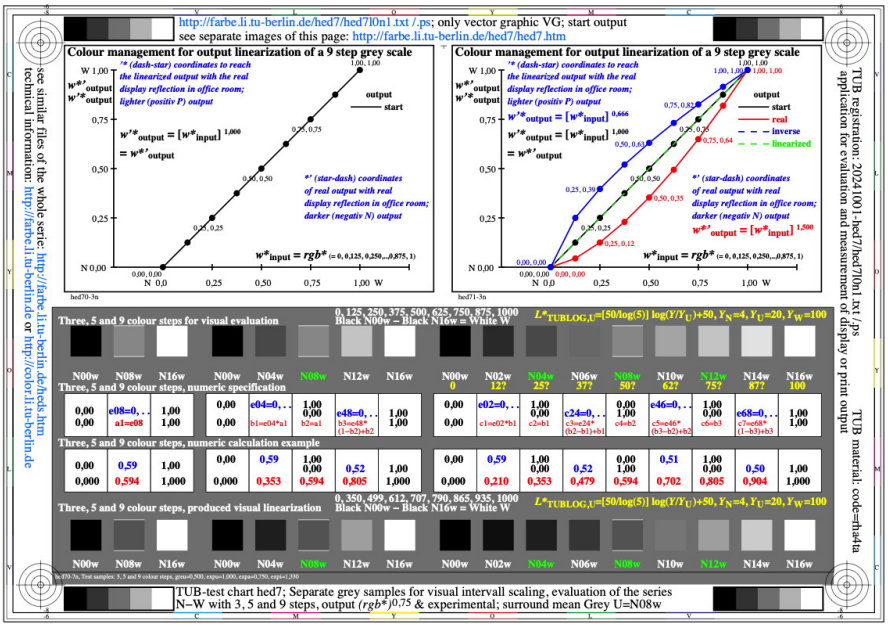

Image hed7l0n1.jpg: Output in format A6 of the file hed7l0np.pdf, see hed7l0n1. ps / txt / pdf / jpg

hed7: TUB-test chart hed7; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & manuel, surround U=N08w

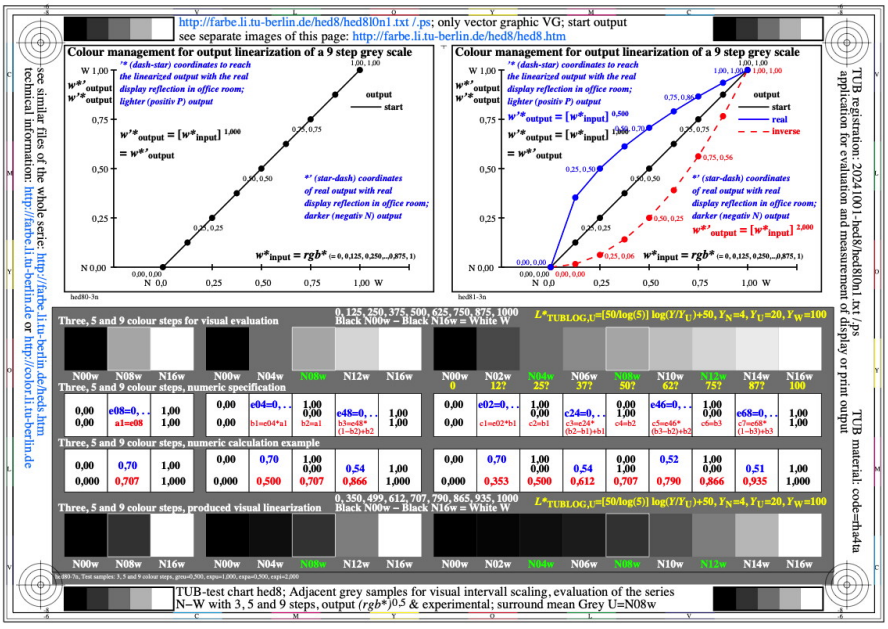

Image hed8l0n1.jpg: Output in format A6 of the file hed8l0np.pdf, see hed8l0n1. ps / txt / pdf / jpg

hed8: TUB-test chart hed8; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

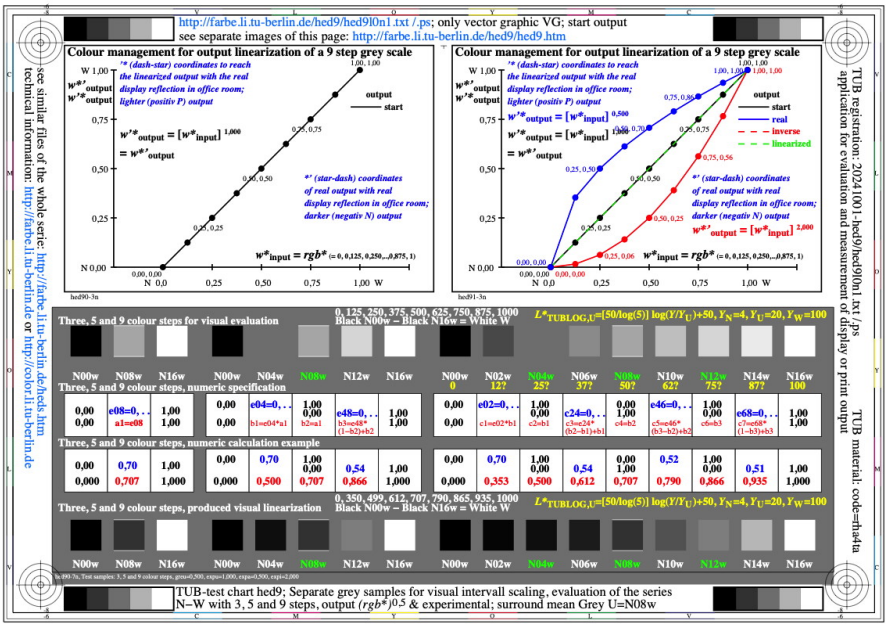

Image hed9l0n1.jpg: Output in format A6 of the file hed9l0np.pdf, see hed9l0n1. ps / txt / pdf / jpg

hed9: TUB-test chart hed9; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

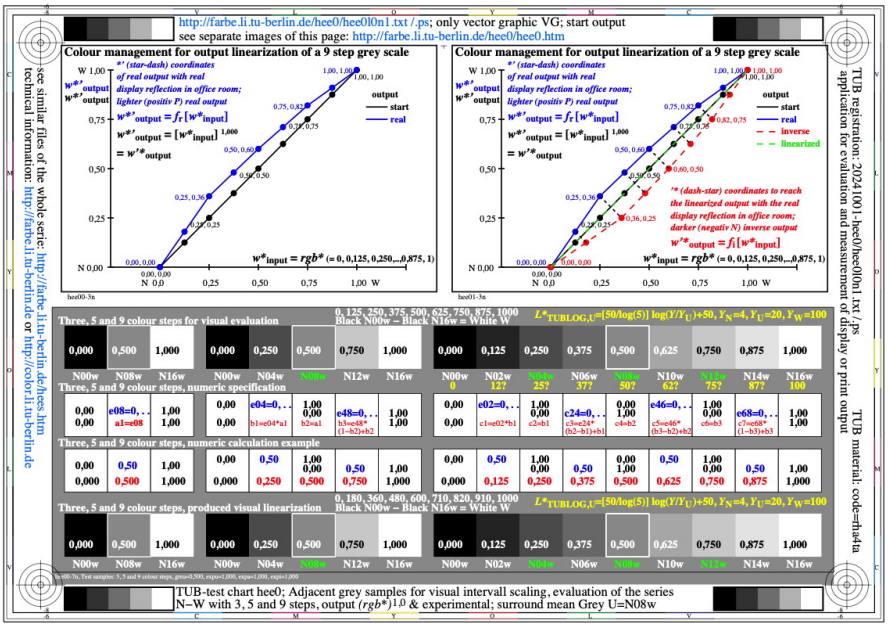

Image hee0l0n1.jpg: Output in format A6 of the file hee0l0np.pdf, see hee0l0n1. ps / txt / pdf / jpg

hee0: TUB-test chart hee0; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

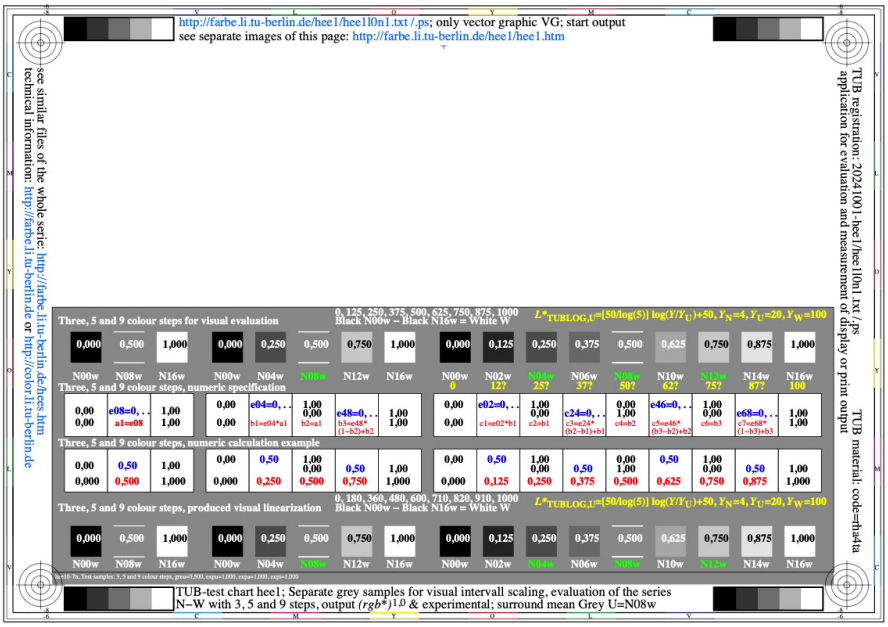

Image hee1l0n1.jpg: Output in format A6 of the file hee1l0np.pdf, see hee1l0n1. ps / txt / pdf / jpg

hee1: TUB-test chart hee1; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

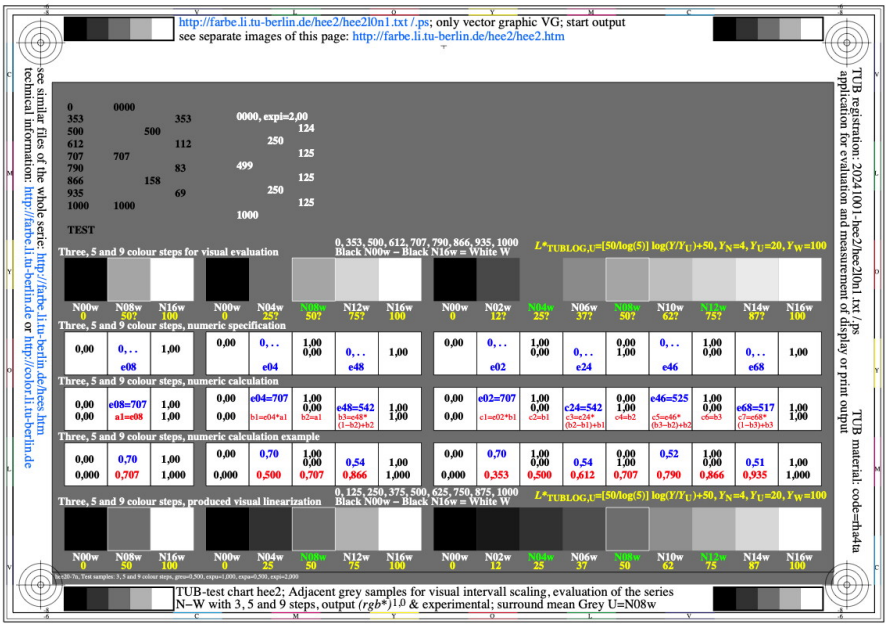

Image hee2l0n1.jpg: Output in format A6 of the file hee2l0np.pdf, see hee2l0n1. ps / txt / pdf / jpg

hee2: TUB-test chart hee2; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

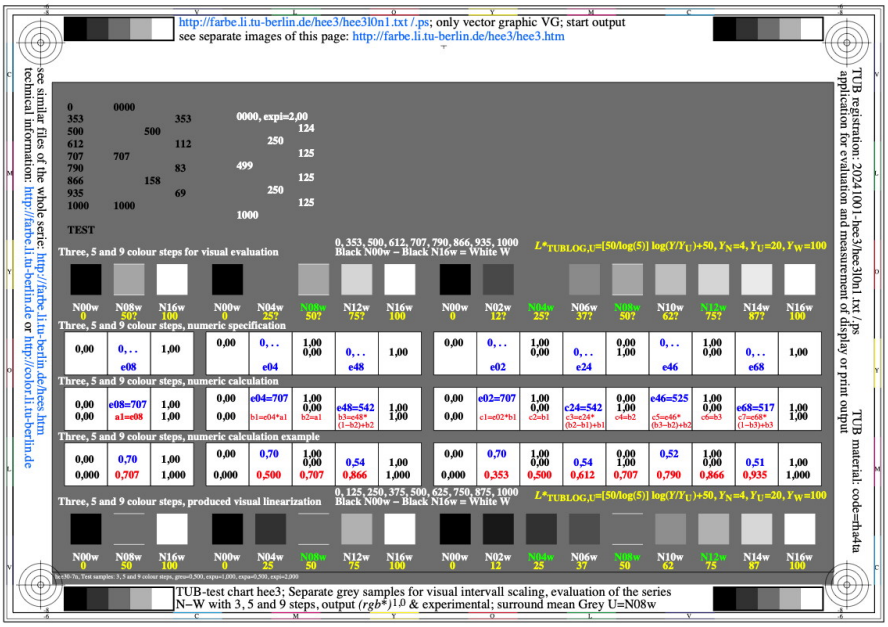

Image hee3l0n1.jpg: Output in format A6 of the file hee3l0np.pdf, see hee3l0n1. ps / txt / pdf / jpg

hee3: TUB-test chart hee3; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

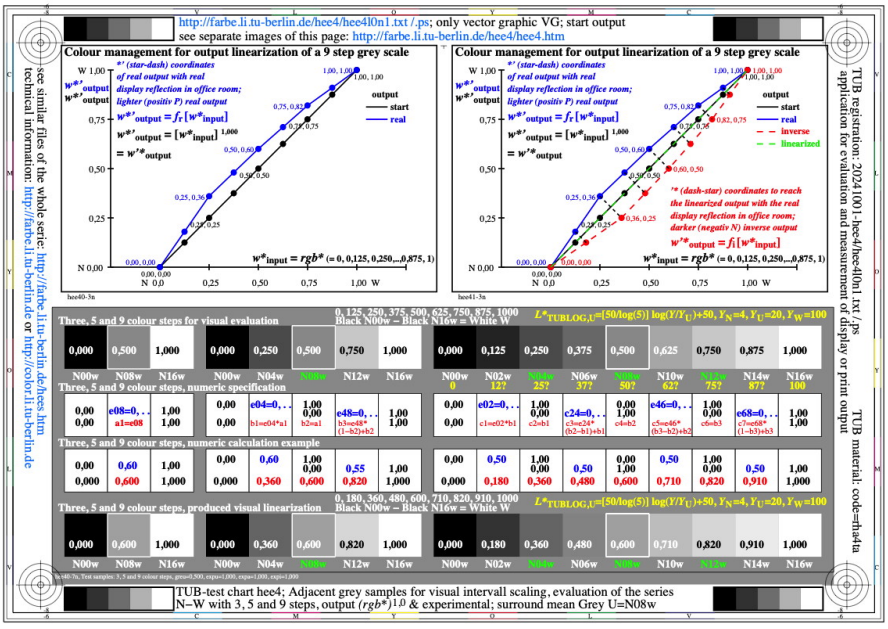

Image hee4l0n1.jpg: Output in format A6 of the file hee4l0np.pdf, see hee4l0n1. ps / txt / pdf / jpg

hee4: TUB-test chart hee4; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & manuel, surround U=N08w

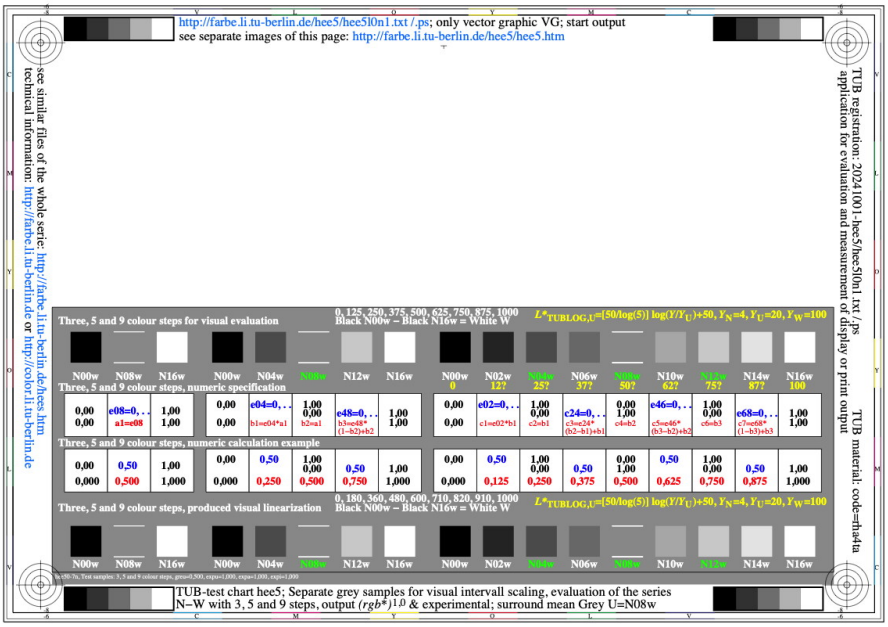

Image hee5l0n1.jpg: Output in format A6 of the file hee5l0np.pdf, see hee5l0n1. ps / txt / pdf / jpg

hee5: TUB-test chart hee5; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^1,0 & manuel, surround U=N08w

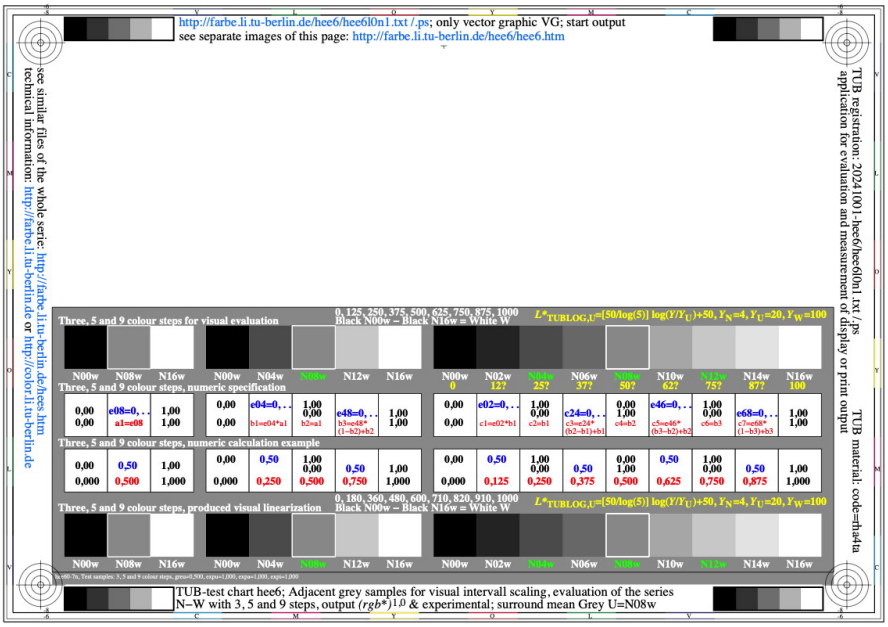

Image hee6l0n1.jpg: Output in format A6 of the file hee6l0np.pdf, see hee6l0n1. ps / txt / pdf / jpg

hee6: TUB-test chart hee6; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & manuel, surround U=N08w

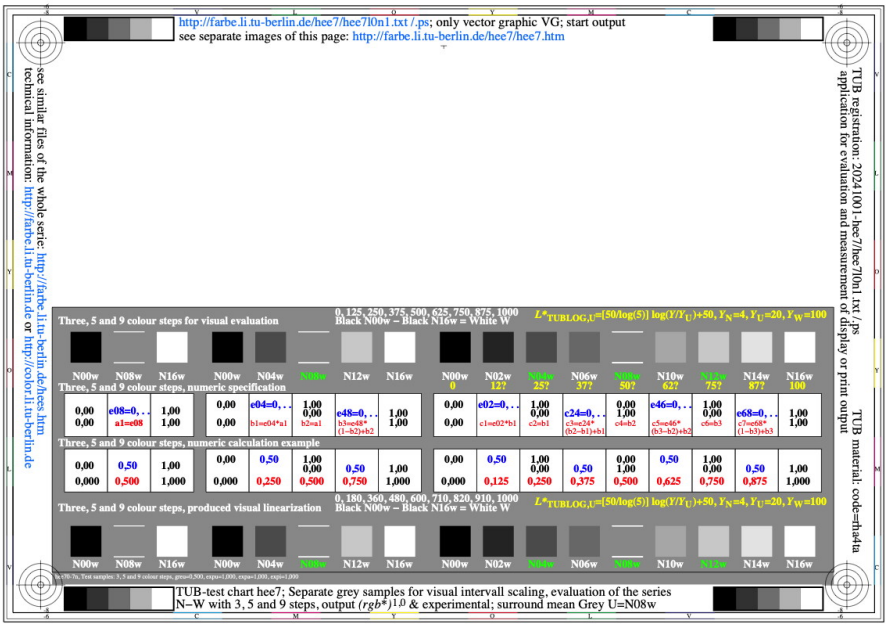

Image hee7l0n1.jpg: Output in format A6 of the file hee7l0np.pdf, see hee7l0n1. ps / txt / pdf / jpg

hee7: TUB-test chart hee7; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,75 & manuel, surround U=N08w

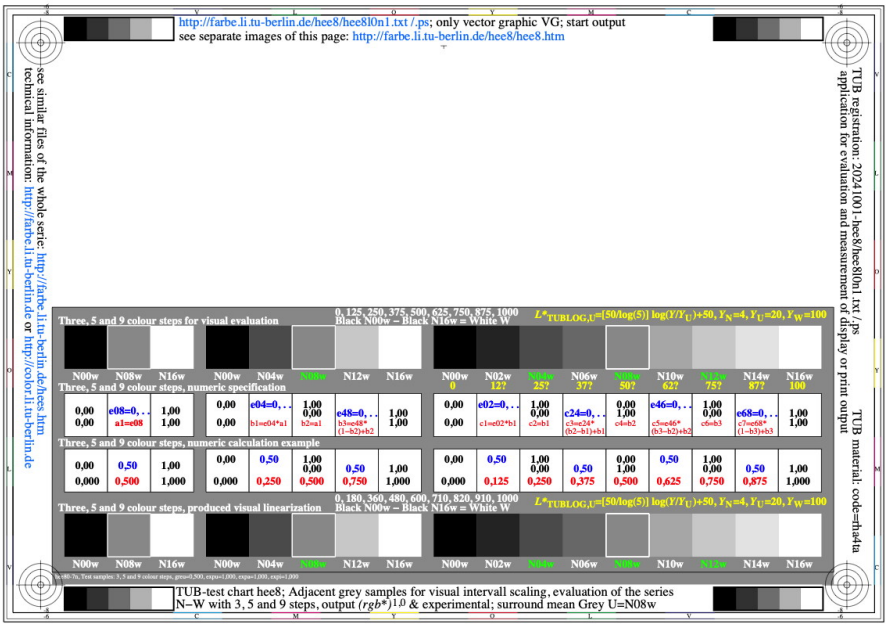

Image hee8l0n1.jpg: Output in format A6 of the file hee8l0np.pdf, see hee8l0n1. ps / txt / pdf / jpg

hee8: TUB-test chart hee8; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

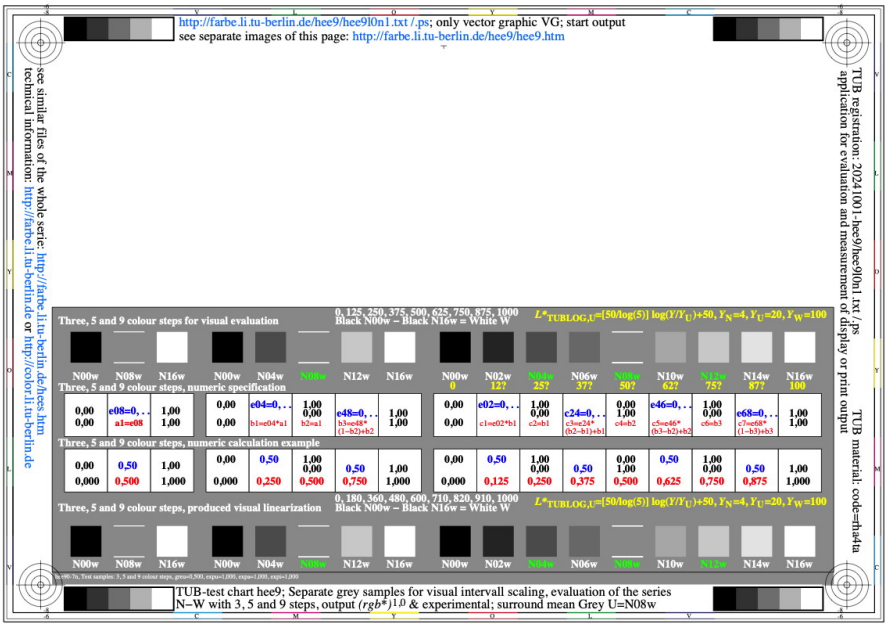

Image hee9l0n1.jpg: Output in format A6 of the file hee9l0np.pdf, see hee9l0n1. ps / txt / pdf / jpg

hee9: TUB-test chart hee9; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, output (rgb*)^0,5 & manuel, surround U=N08w

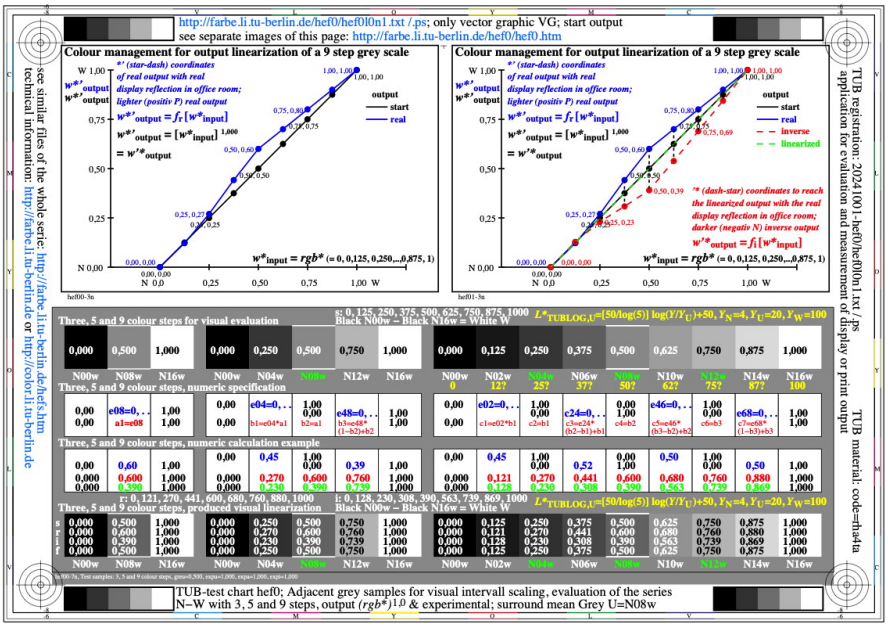

Image hef0l0n1.jpg: Output in format A6 of the file hef0l0np.pdf, see hef0l0n1. ps / txt / pdf / jpg

hef0: TUB-test chart hef0; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, data (rgb*)^1 & manu_a1, surround U=N08w

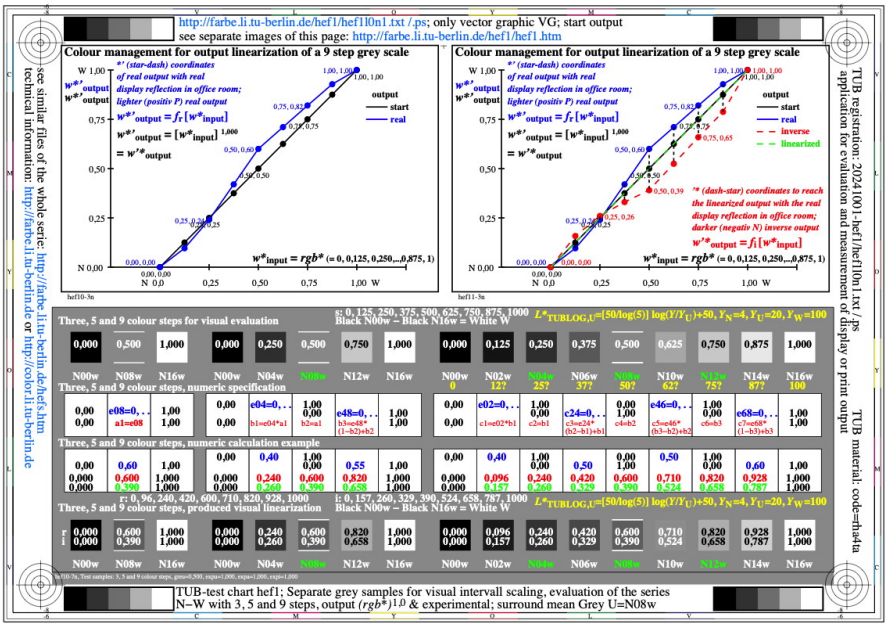

Image hef1l0n1.jpg: Output in format A6 of the file hef1l0np.pdf, see hef1l0n1. ps / txt / pdf / jpg

hef1: TUB-test chart hef1; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, data (rgb*)^1 & manu_s1, surround U=N08w

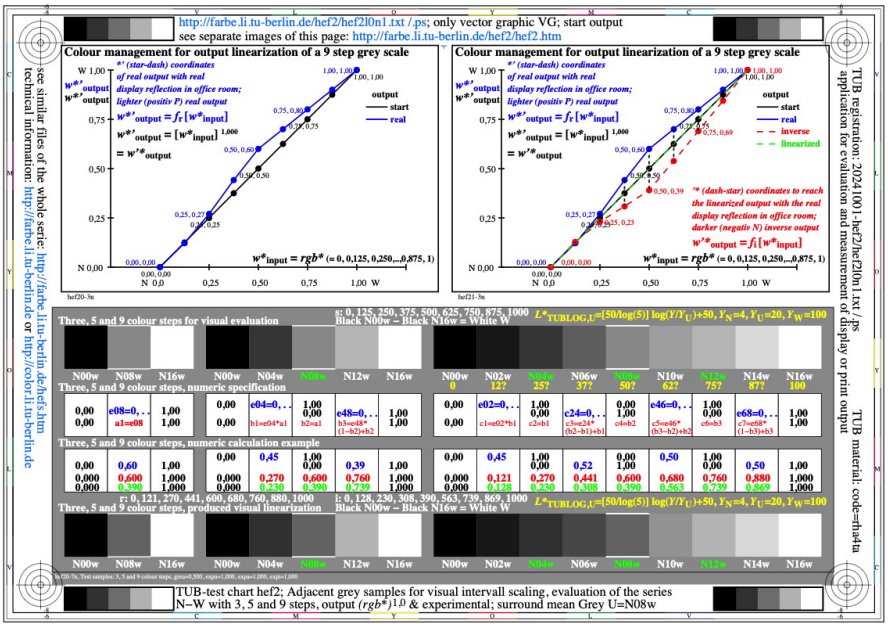

Image hef2l0n1.jpg: Output in format A6 of the file hef2l0np.pdf, see hef2l0n1. ps / txt / pdf / jpg

hef2: TUB-test chart hef2; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_a1, surround U=N08w

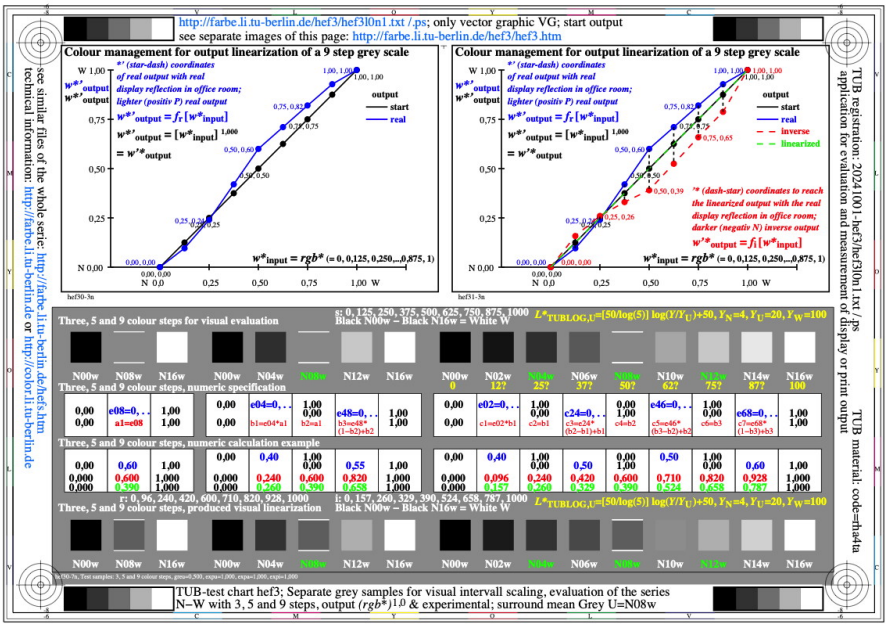

Image hef3l0n1.jpg: Output in format A6 of the file hef3l0np.pdf, see hef3l0n1. ps / txt / pdf / jpg

hef3: TUB-test chart hef3; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_s1, surround U=N08w

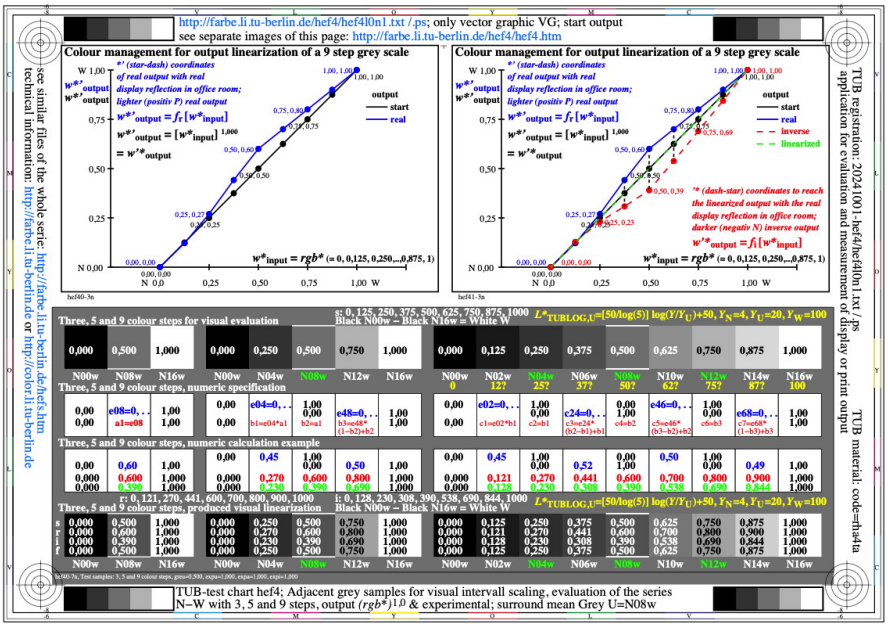

Image hef4l0n1.jpg: Output in format A6 of the file hef4l0np.pdf, see hef4l0n1. ps / txt / pdf / jpg

hef4: TUB-test chart hef4; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, data1 (rgb*)^1 & manu_a1, surround U=N08w

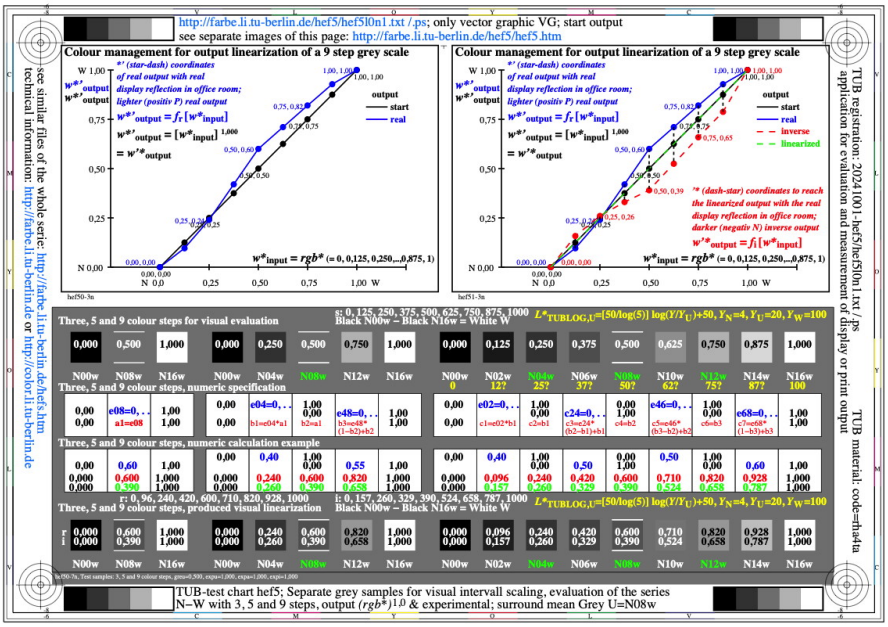

Image hef5l0n1.jpg: Output in format A6 of the file hef5l0np.pdf, see hef5l0n1. ps / txt / pdf / jpg

hef5: TUB-test chart hef5; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, data1 (rgb*)^1 & manu_s1, surround U=N08w

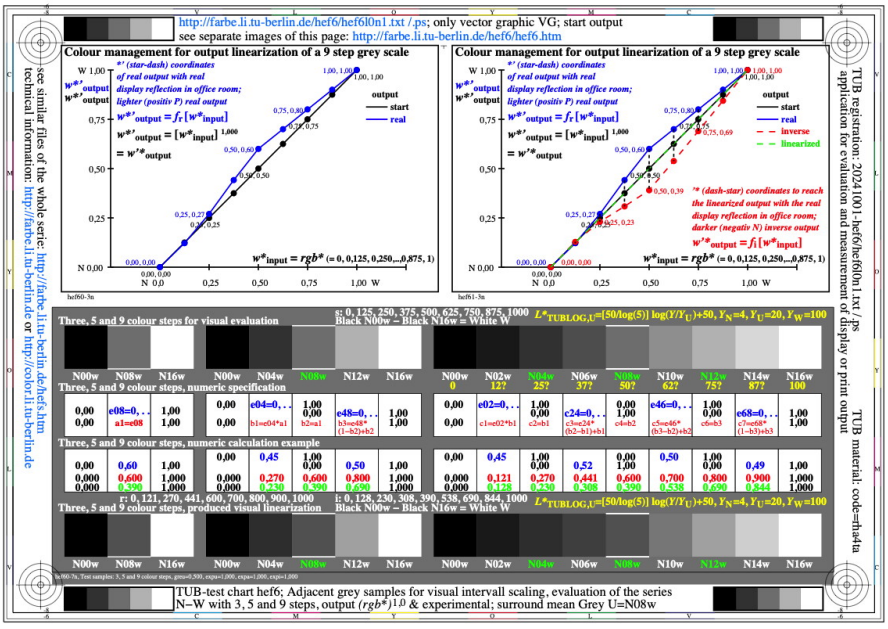

Image hef6l0n1.jpg: Output in format A6 of the file hef6l0np.pdf, see hef6l0n1. ps / txt / pdf / jpg

hef6: TUB-test chart hef6; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_a1, surround U=N08w

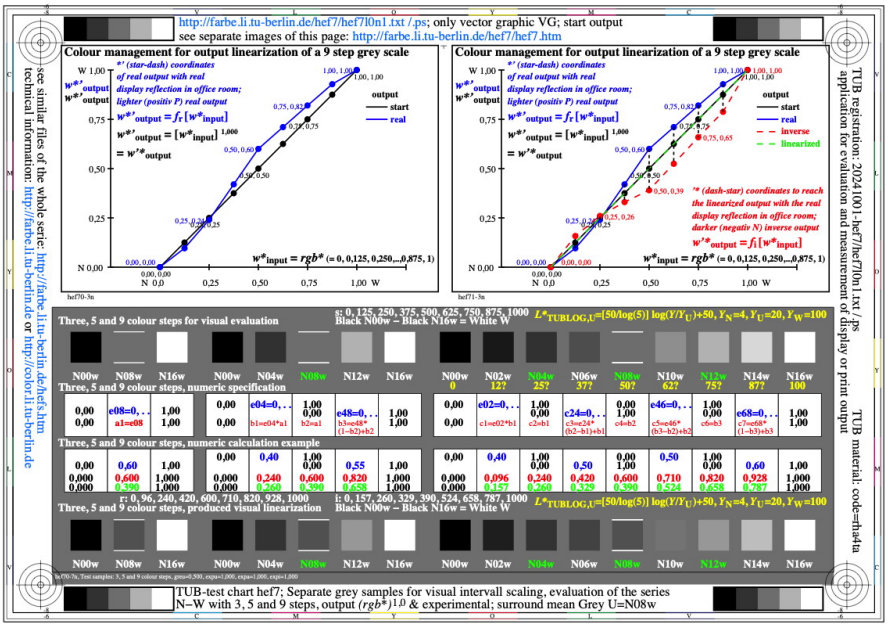

Image hef7l0n1.jpg: Output in format A6 of the file hef7l0np.pdf, see hef7l0n1. ps / txt / pdf / jpg

hef7: TUB-test chart hef7; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_s1, surround U=N08w

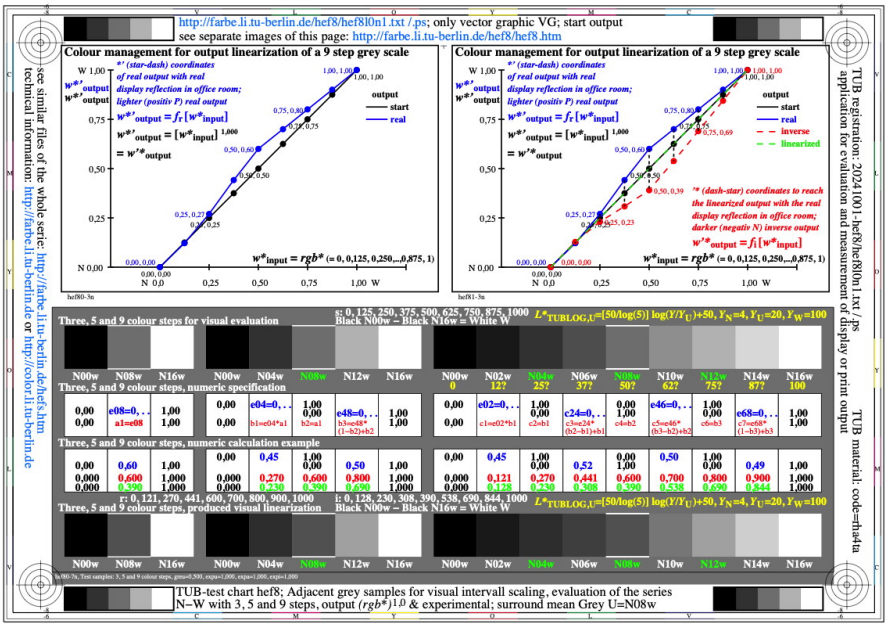

Image hef8l0n1.jpg: Output in format A6 of the file hef8l0np.pdf, see hef8l0n1. ps / txt / pdf / jpg

hef8: TUB-test chart hef8; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out2 (rgb*)^1 & manu_a2, surround U=N08w

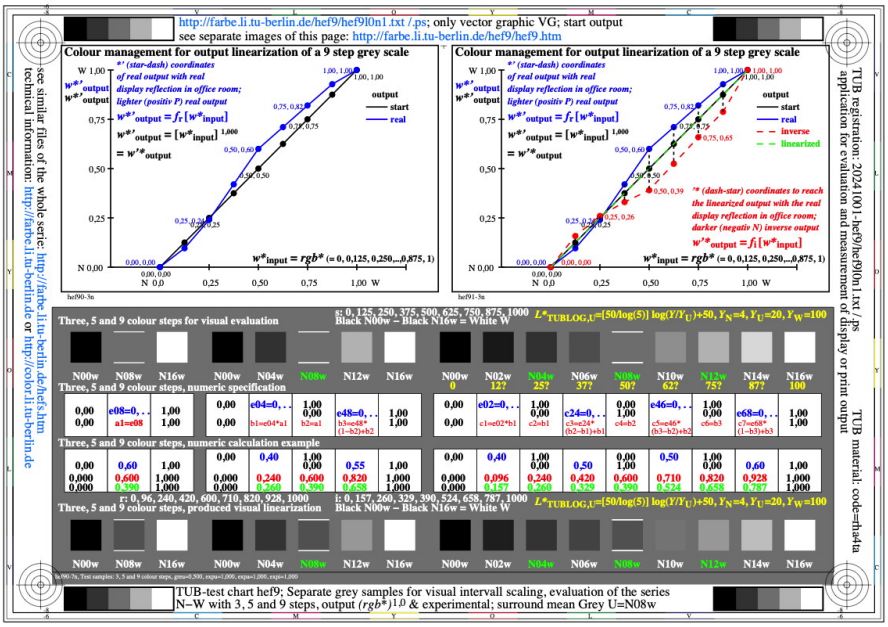

Image hef9l0n1.jpg: Output in format A6 of the file hef9l0np.pdf, see hef9l0n1. ps / txt / pdf / jpg

hef9: TUB-test chart hef9; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out2 (rgb*)^1 & manu_s2, surround U=N08w

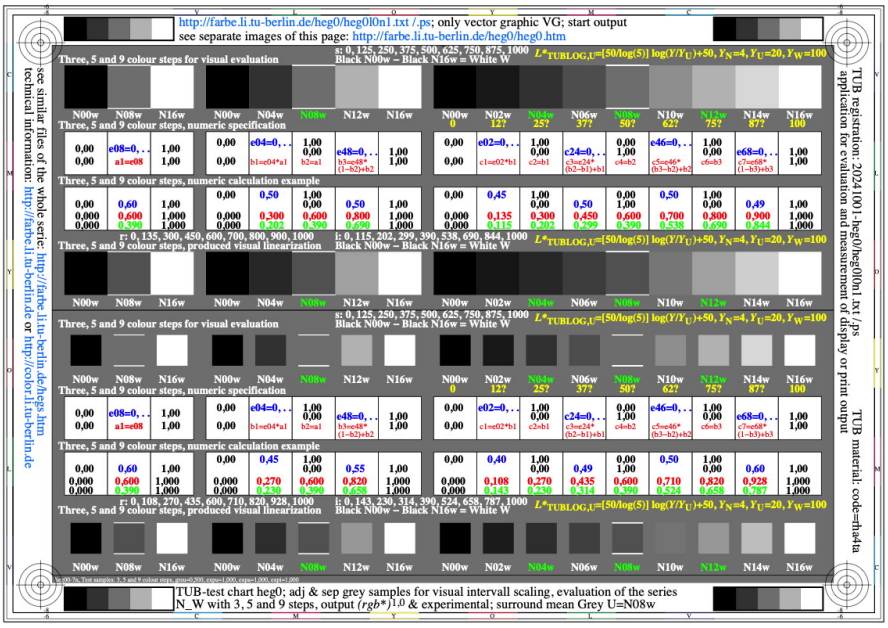

Image heg0l0n1.jpg: Output in format A6 of the file heg0l0np.pdf, see heg0l0n1. ps / txt / pdf / jpg

heg0: TUB-test chart heg0; adjacent (a) and separate (s) samples
N-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

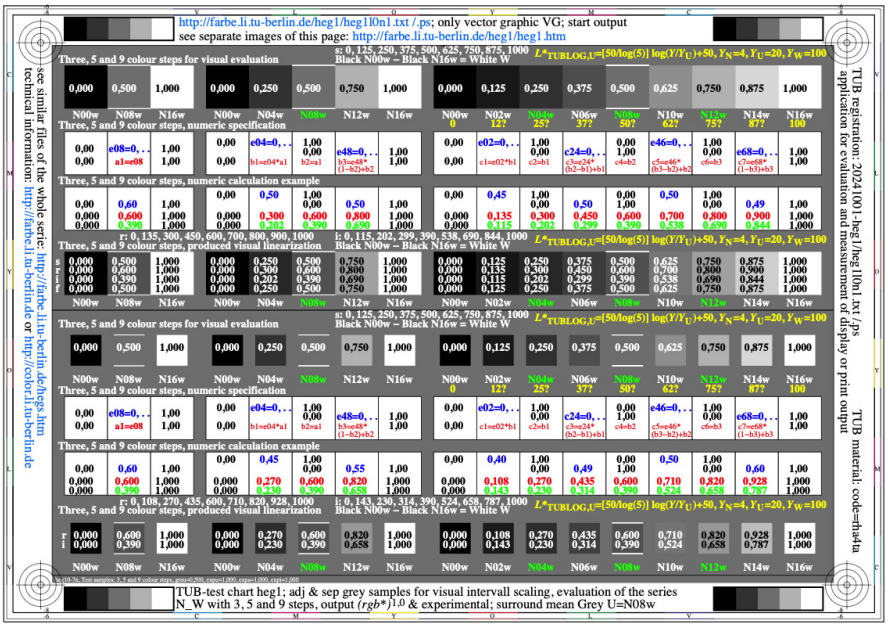

Image heg1l0n1.jpg: Output in format A6 of the file heg1l0np.pdf, see heg1l0n1. ps / txt / pdf / jpg

heg1: TUB-test chart heg1; adjacent (a) and separate (s) samples
N-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

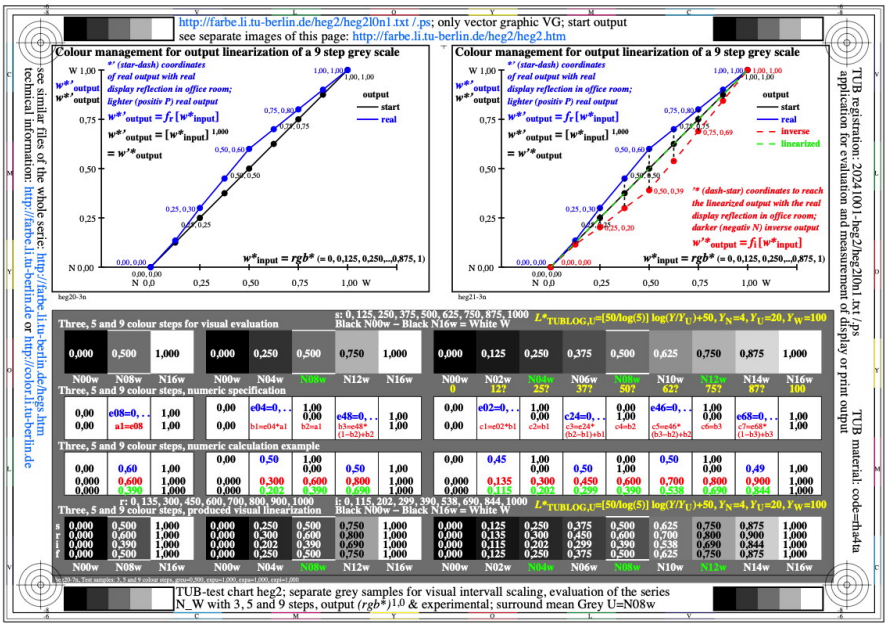

Image heg2l0n1.jpg: Output in format A6 of the file heg2l0np.pdf, see heg2l0n1. ps / txt / pdf / jpg

heg2: TUB-test chart heg2; adjacent (a) samples
N-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

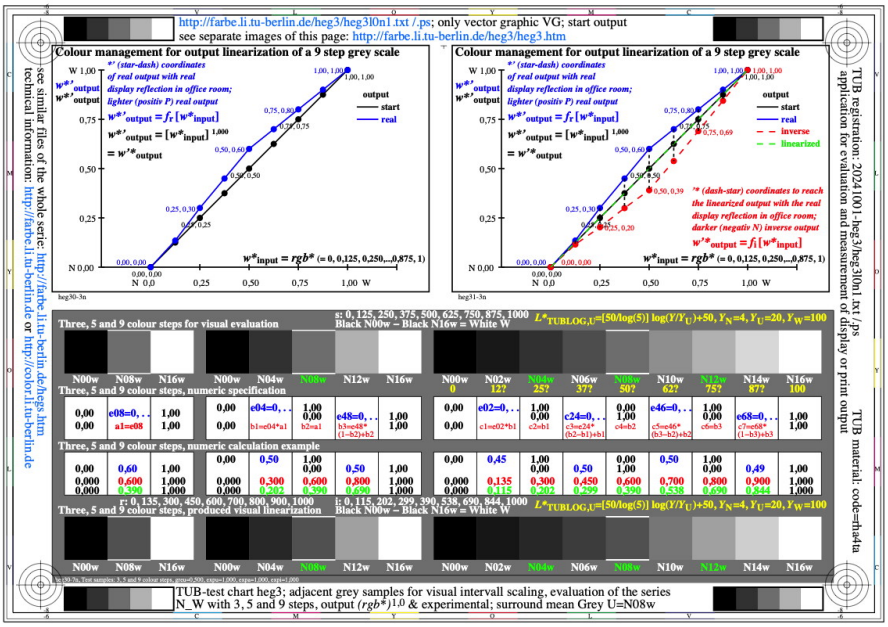

Image heg3l0n1.jpg: Output in format A6 of the file heg3l0np.pdf, see heg3l0n1. ps / txt / pdf / jpg

heg3: TUB-test chart heg3; adjacent (a) samples
N-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

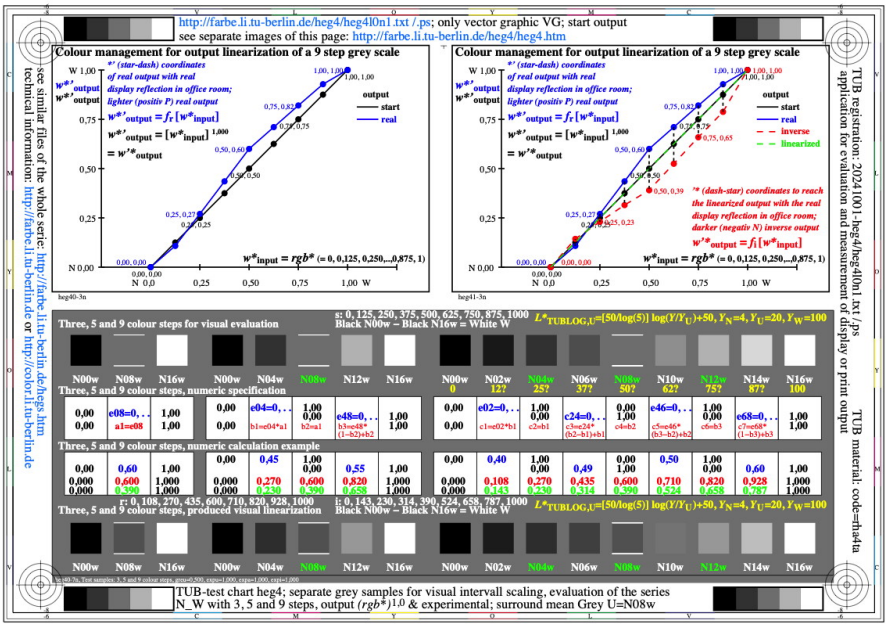

Image heg4l0n1.jpg: Output in format A6 of the file heg4l0np.pdf, see heg4l0n1. ps / txt / pdf / jpg

heg4: TUB-test chart heg4; separate (s) samples
N-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

Image heg5l0n1.jpg: Output in format A6 of the file heg5l0np.pdf, see heg5l0n1. ps / txt / pdf / jpg

heg5: TUB-test chart heg5; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, data1 (rgb*)^1 & manu_s1, surround U=N08w

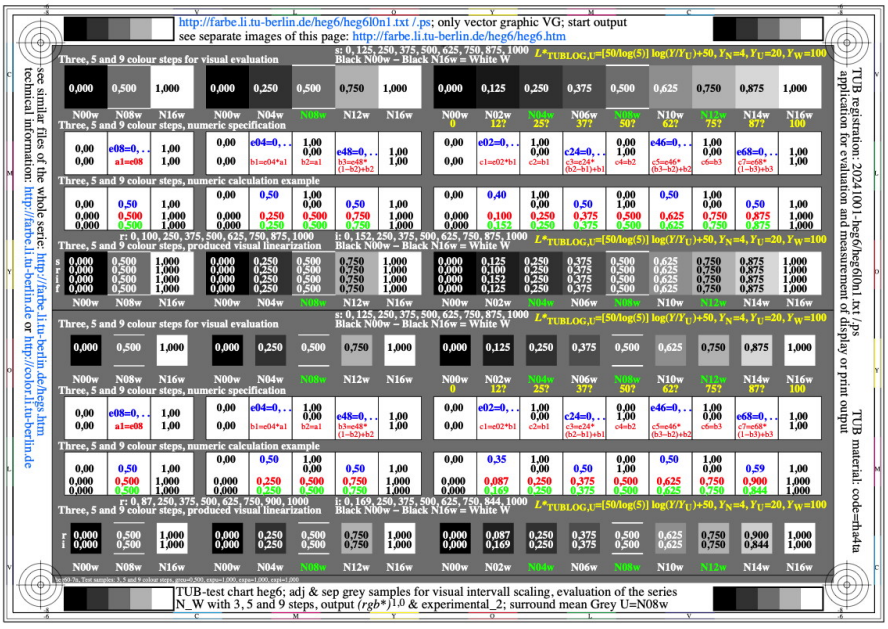

Image heg6l0n1.jpg: Output in format A6 of the file heg6l0np.pdf, see heg6l0n1. ps / txt / pdf / jpg

heg6: TUB-test chart heg6; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_a1, surround U=N08w

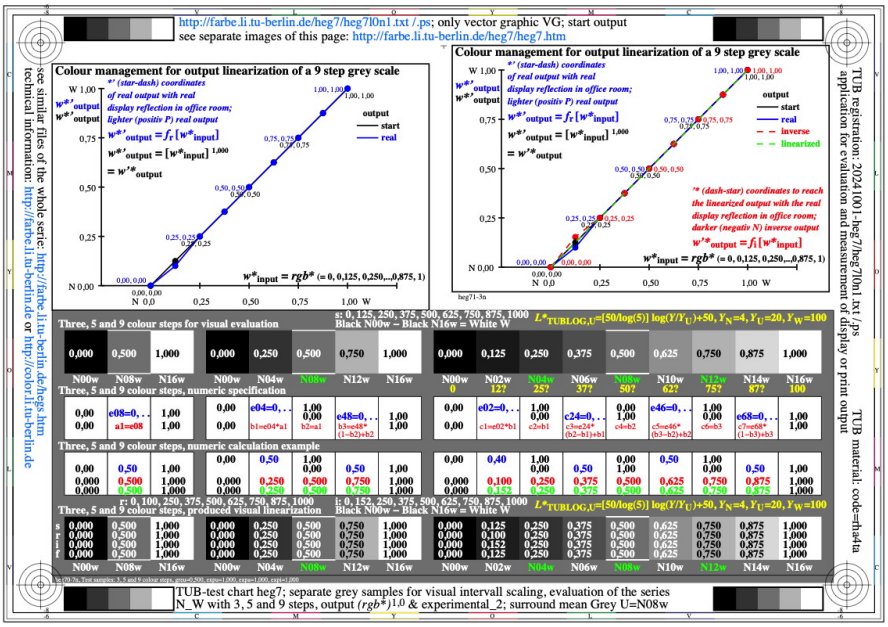

Image heg7l0n1.jpg: Output in format A6 of the file heg7l0np.pdf, see heg7l0n1. ps / txt / pdf / jpg

heg7: TUB-test chart heg7; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out1 (rgb*)^1 & manu_s1, surround U=N08w

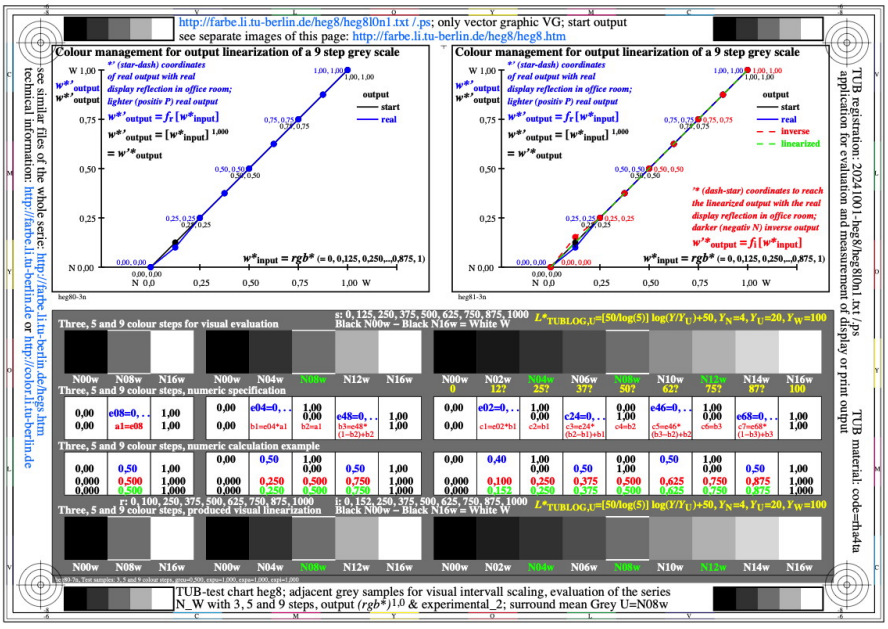

Image heg8l0n1.jpg: Output in format A6 of the file heg8l0np.pdf, see heg8l0n1. ps / txt / pdf / jpg

heg8: TUB-test chart heg8; adjacent grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out2 (rgb*)^1 & manu_a2, surround U=N08w

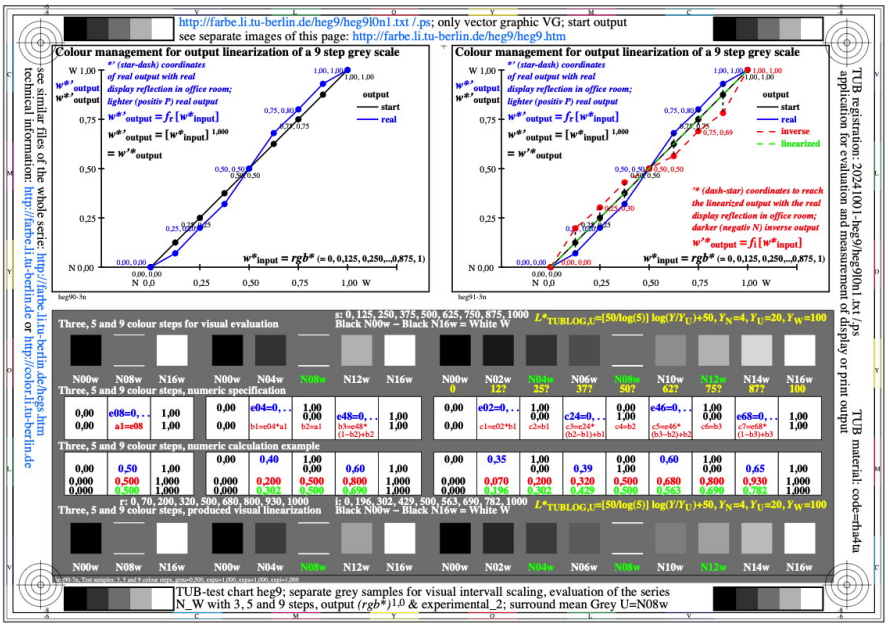

Image heg9l0n1.jpg: Output in format A6 of the file heg9l0np.pdf, see heg9l0n1. ps / txt / pdf / jpg

heg9: TUB-test chart heg9; separate grey samples
for visual interval scaling, evaluation of N-W with
3, 5, and 9 steps, out2 (rgb*)^1 & manu_s2, surround U=N08w

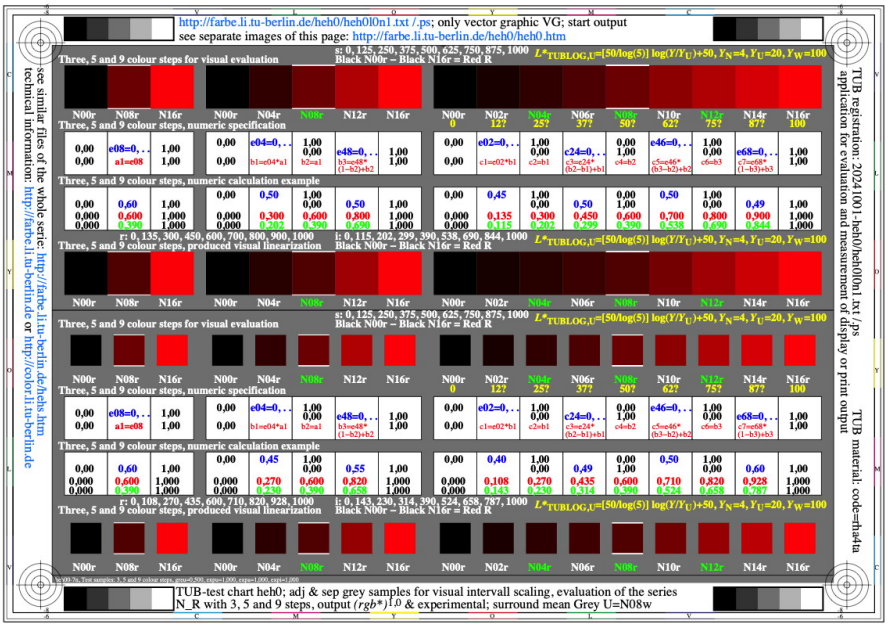

Image heh0l0n1.jpg: Output in format A6 of the file heh0l0np.pdf, see heh0l0n1. ps / txt / pdf / jpg

heh0: TUB-test chart heh0; adjacent (a) and separate (s) samples
N-R for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

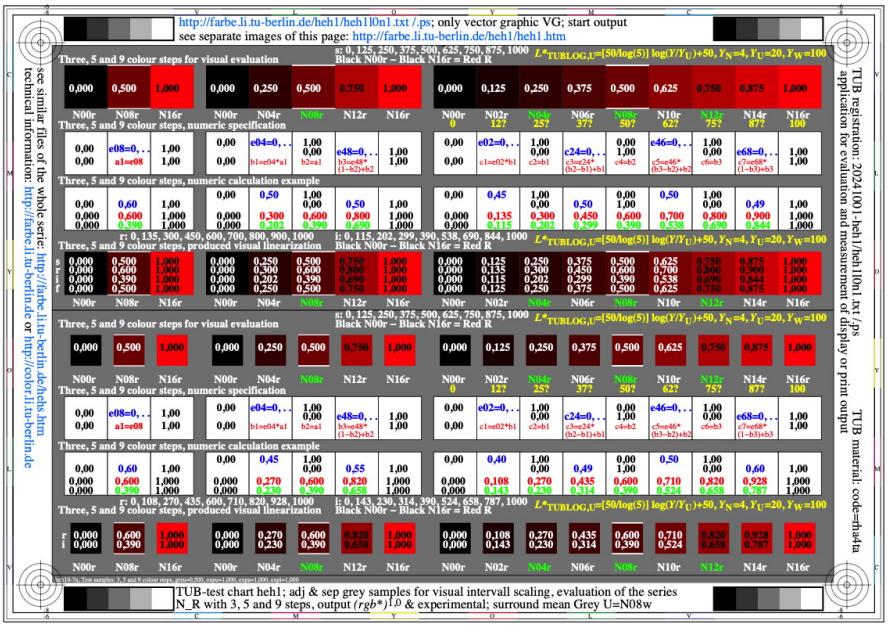

Image heh1l0n1.jpg: Output in format A6 of the file heh1l0np.pdf, see heh1l0n1. ps / txt / pdf / jpg

heh1: TUB-test chart heh1; adjacent (a) and separate (s) samples
N-R for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

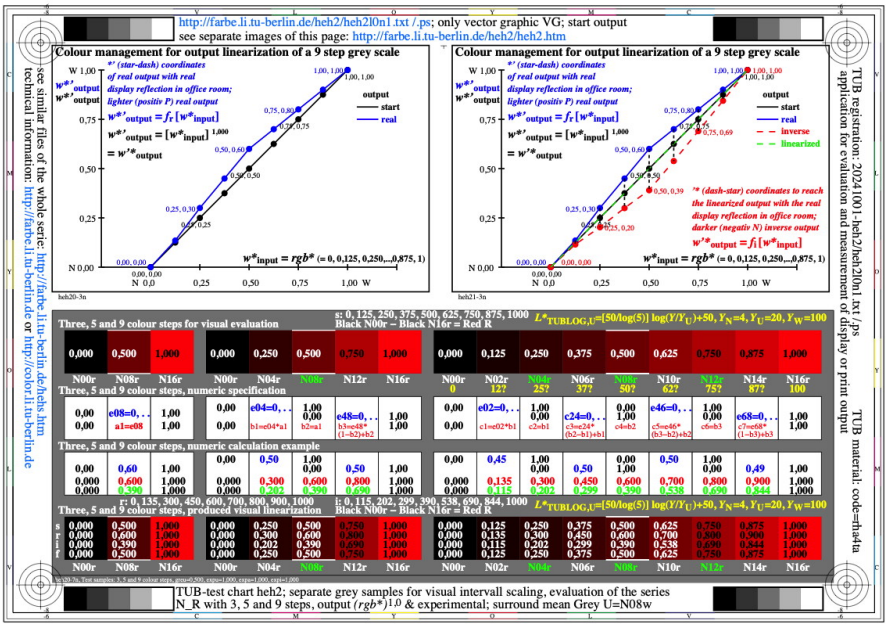

Image heh2l0n1.jpg: Output in format A6 of the file heh2l0np.pdf, see heh2l0n1. ps / txt / pdf / jpg

heh2: TUB-test chart heh2; adjacent (a) samples
N-R for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

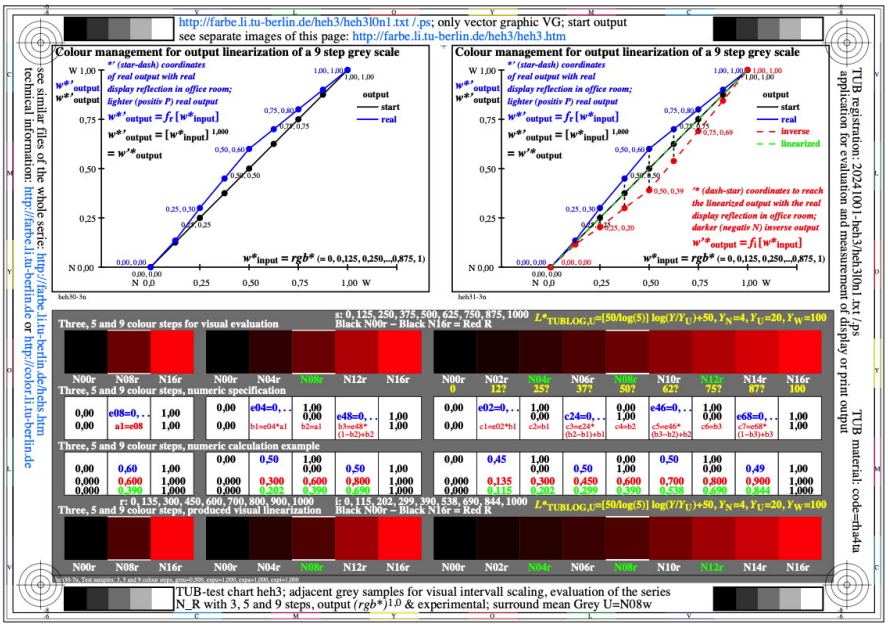

Image heh3l0n1.jpg: Output in format A6 of the file heh3l0np.pdf, see heh3l0n1. ps / txt / pdf / jpg

heh3: TUB-test chart heh3; adjacent (a) samples
N-R for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

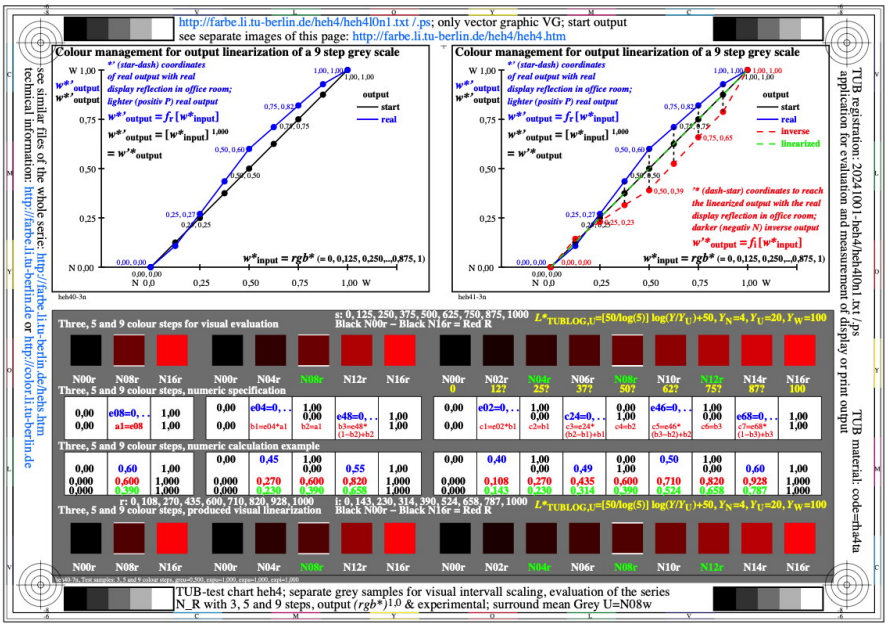

Image heh4l0n1.jpg: Output in format A6 of the file heh4l0np.pdf, see heh4l0n1. ps / txt / pdf / jpg

heh4: TUB-test chart heh4; separate (s) samples
N-R for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

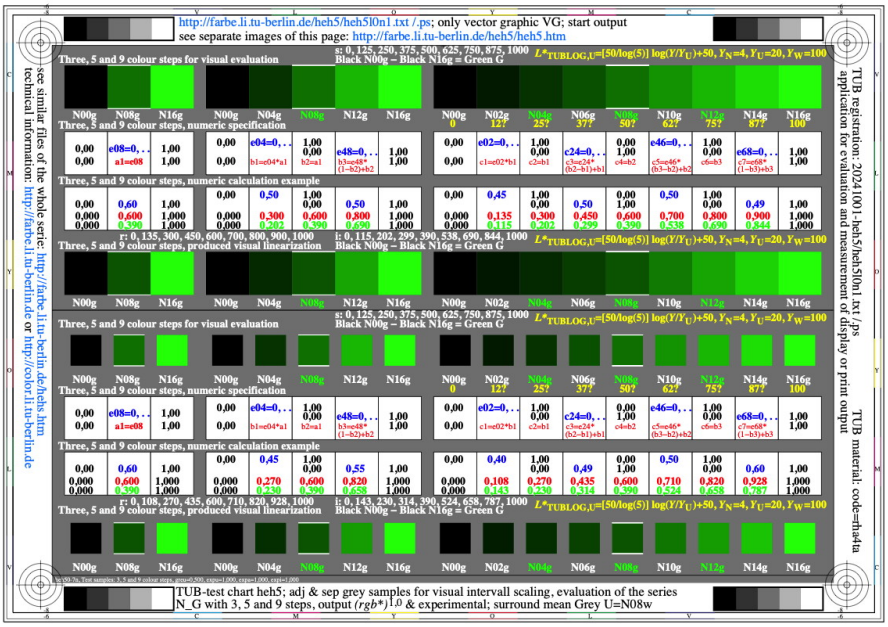

Image heh5l0n1.jpg: Output in format A6 of the file heh5l0np.pdf, see heh5l0n1. ps / txt / pdf / jpg

heh5: TUB-test chart heh5; adjacent (a) and separate (s) samples
N-G for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

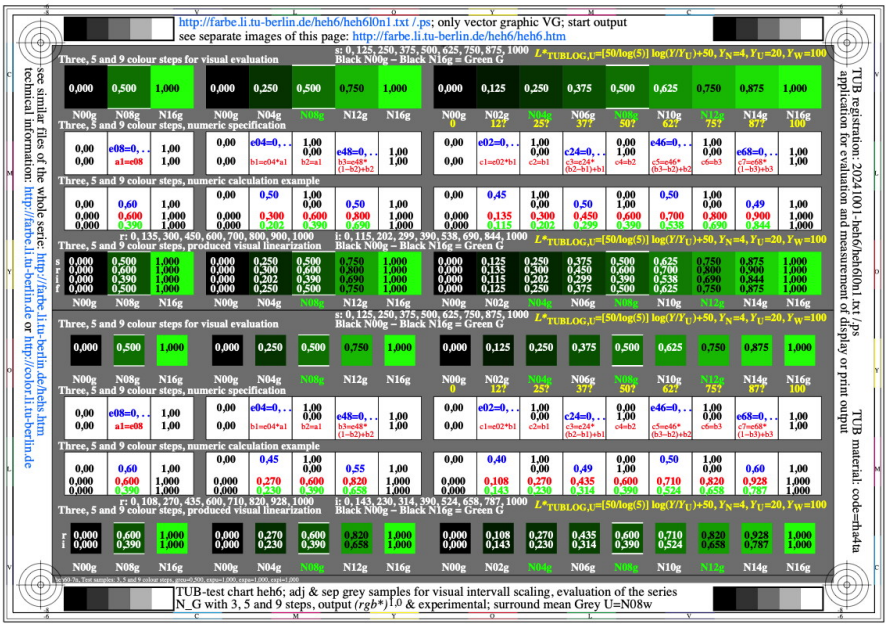

Image heh6l0n1.jpg: Output in format A6 of the file heh6l0np.pdf, see heh6l0n1. ps / txt / pdf / jpg

heh6: TUB-test chart heh6; adjacent (a) and separate (s) samples
N-G for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

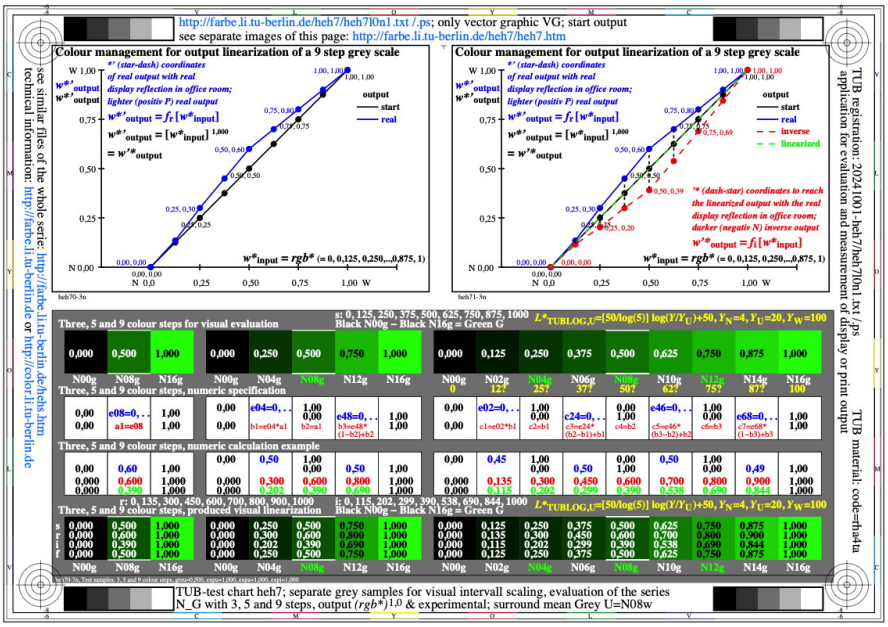

Image heh7l0n1.jpg: Output in format A6 of the file heh7l0np.pdf, see heh7l0n1. ps / txt / pdf / jpg

heh7: TUB-test chart heh7; adjacent (a) samples
N-G for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

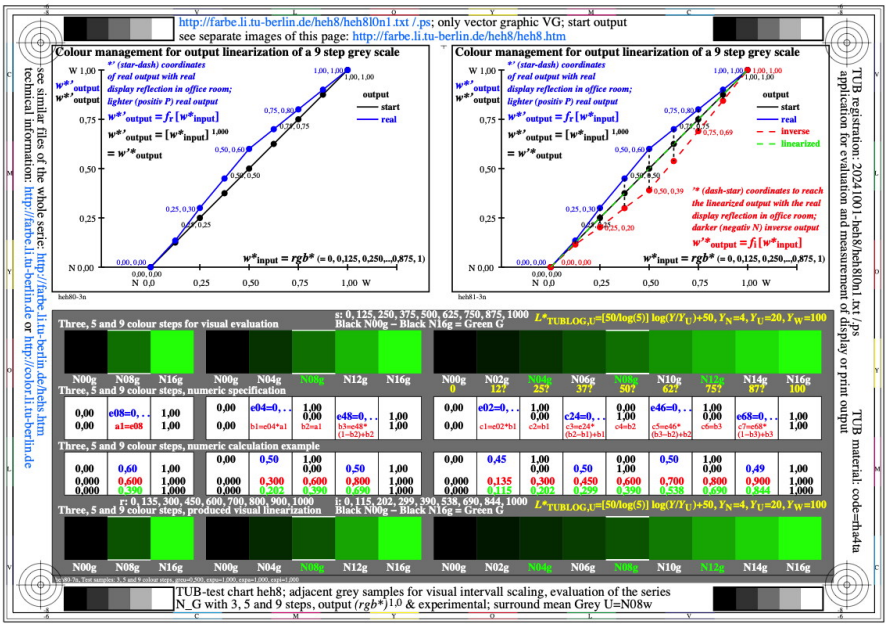

Image heh8l0n1.jpg: Output in format A6 of the file heh8l0np.pdf, see heh8l0n1. ps / txt / pdf / jpg

heh8: TUB-test chart heh8; adjacent (a) samples
N-G for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

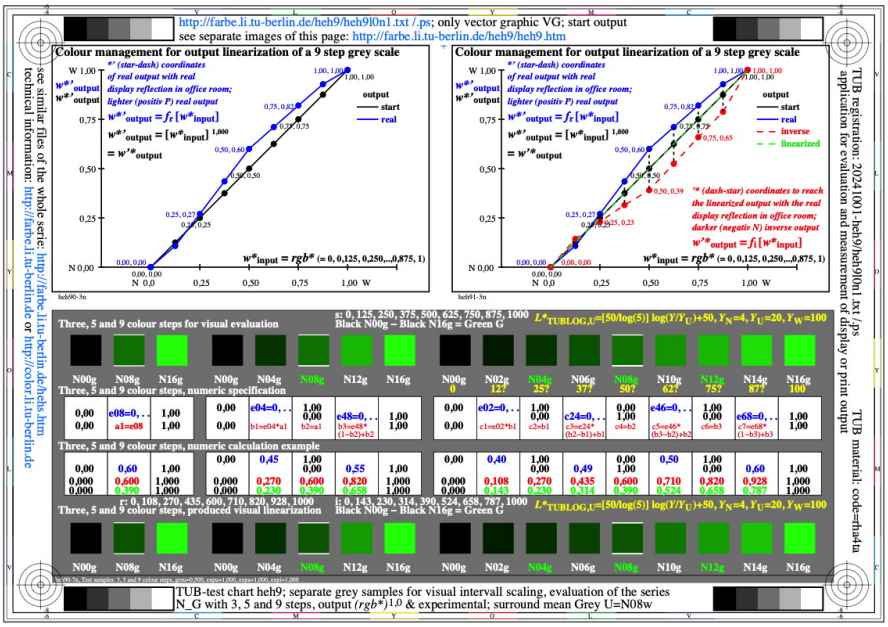

Image heh9l0n1.jpg: Output in format A6 of the file heh9l0np.pdf, see heh9l0n1. ps / txt / pdf / jpg

heh9: TUB-test chart heh9; separate (s) samples
N-G for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

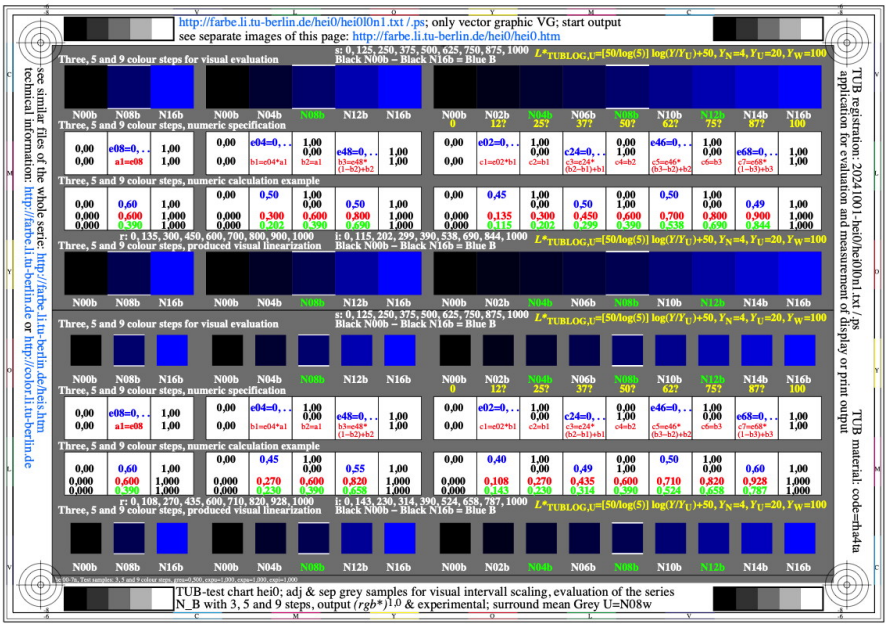

Image hei0l0n1.jpg: Output in format A6 of the file hei0l0np.pdf, see hei0l0n1. ps / txt / pdf / jpg

hei0: TUB-test chart hei0; adjacent (a) and separate (s) samples
N-B for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

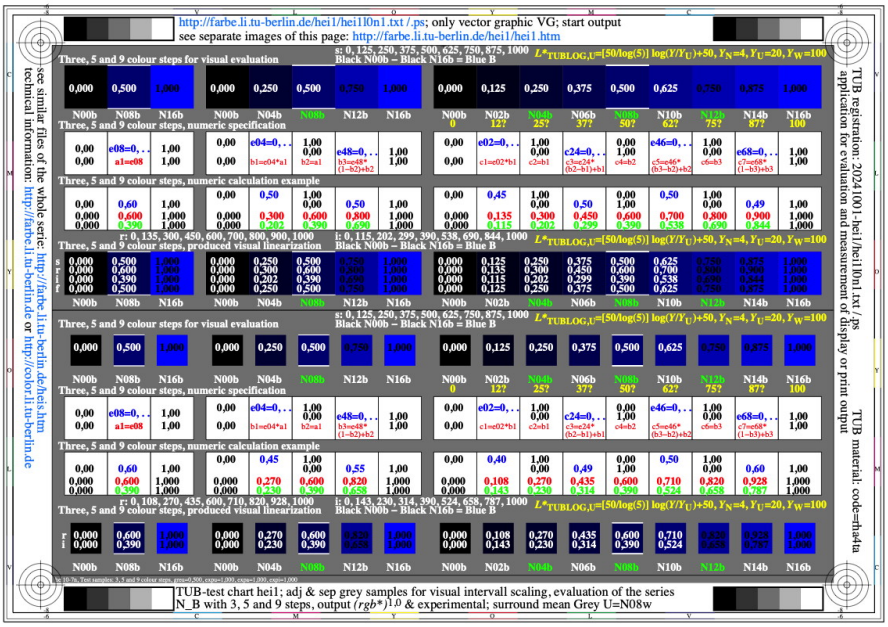

Image hei1l0n1.jpg: Output in format A6 of the file hei1l0np.pdf, see hei1l0n1. ps / txt / pdf / jpg

hei1: TUB-test chart hei1; adjacent (a) and separate (s) samples
N-B for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

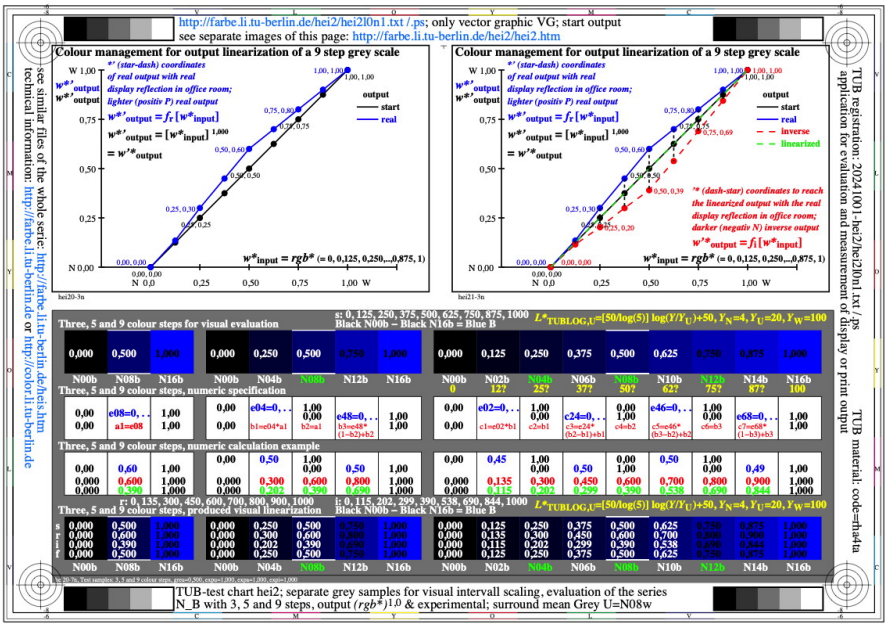

Image hei2l0n1.jpg: Output in format A6 of the file hei2l0np.pdf, see hei2l0n1. ps / txt / pdf / jpg

hei2: TUB-test chart hei2; adjacent (a) samples
N-B for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

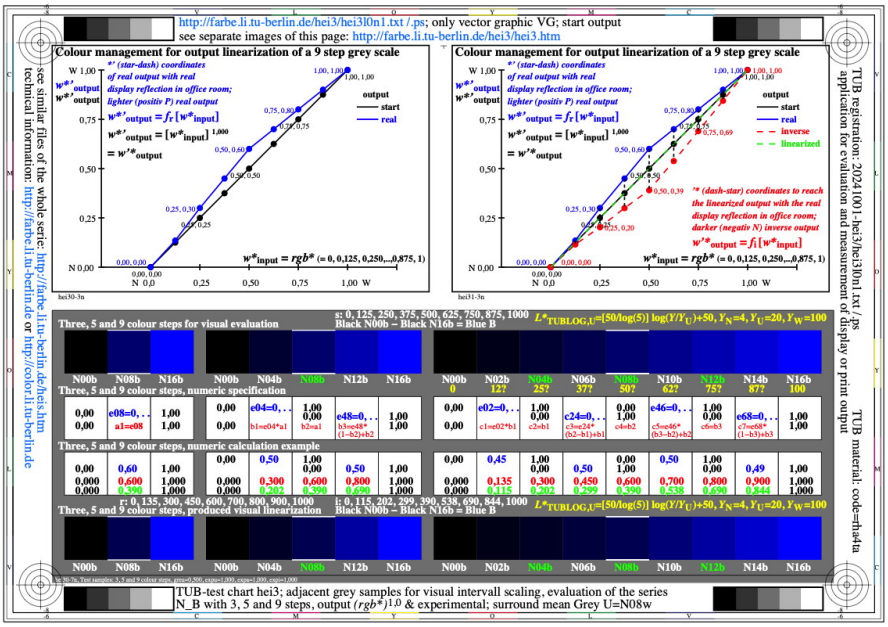

Image hei3l0n1.jpg: Output in format A6 of the file hei3l0np.pdf, see hei3l0n1. ps / txt / pdf / jpg

hei3: TUB-test chart hei3; adjacent (a) samples
N-B for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

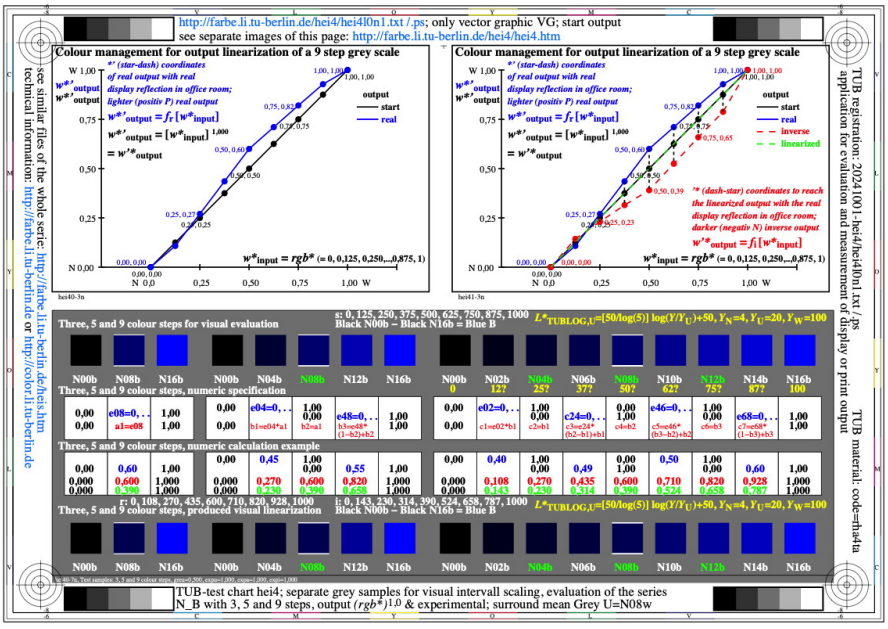

Image hei4l0n1.jpg: Output in format A6 of the file hei4l0np.pdf, see hei4l0n1. ps / txt / pdf / jpg

hei4: TUB-test chart hei4; separate (s) samples
N-B for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

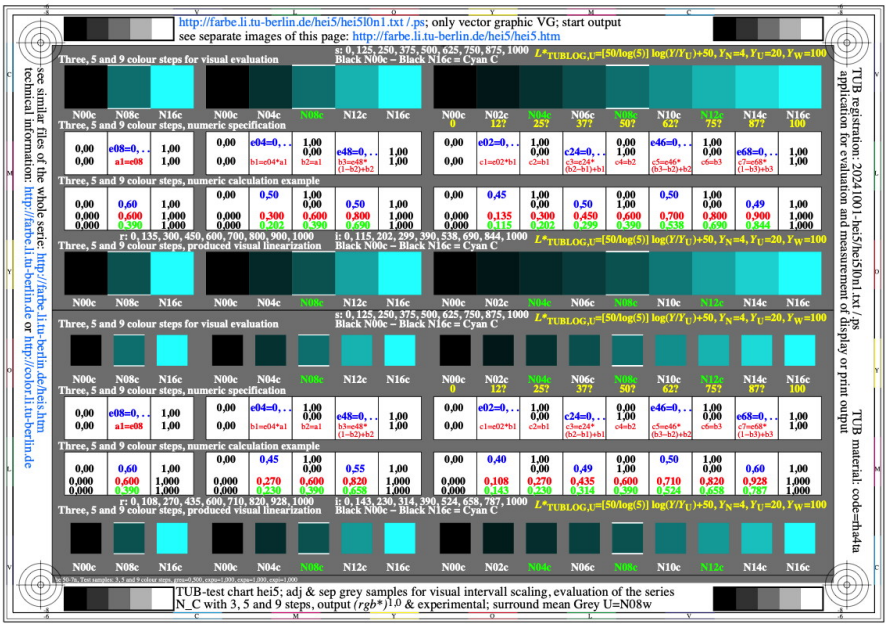

Image hei5l0n1.jpg: Output in format A6 of the file hei5l0np.pdf, see hei5l0n1. ps / txt / pdf / jpg

hei5: TUB-test chart hei5; adjacent (a) and separate (s) samples
N-C for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

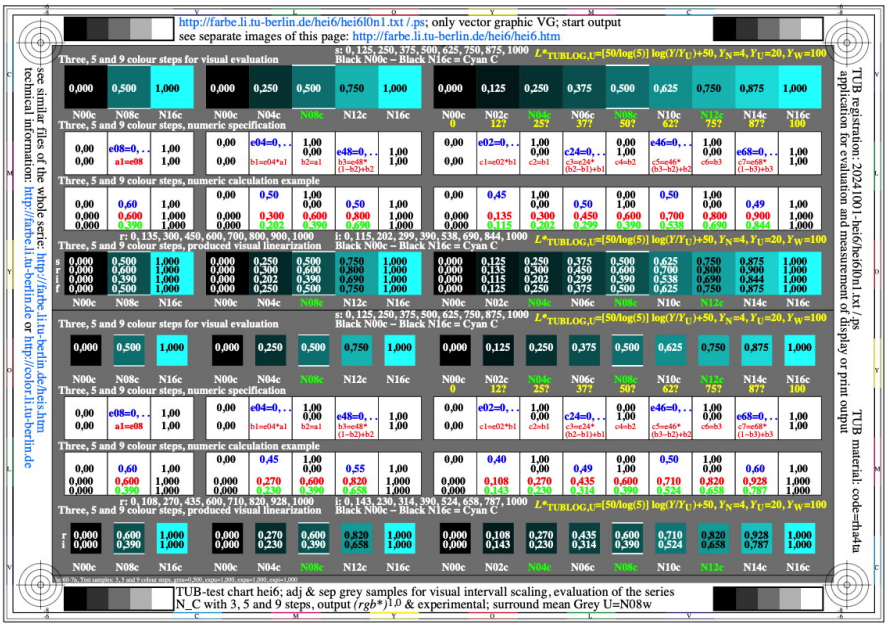

Image hei6l0n1.jpg: Output in format A6 of the file hei6l0np.pdf, see hei6l0n1. ps / txt / pdf / jpg

hei6: TUB-test chart hei6; adjacent (a) and separate (s) samples
N-C for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

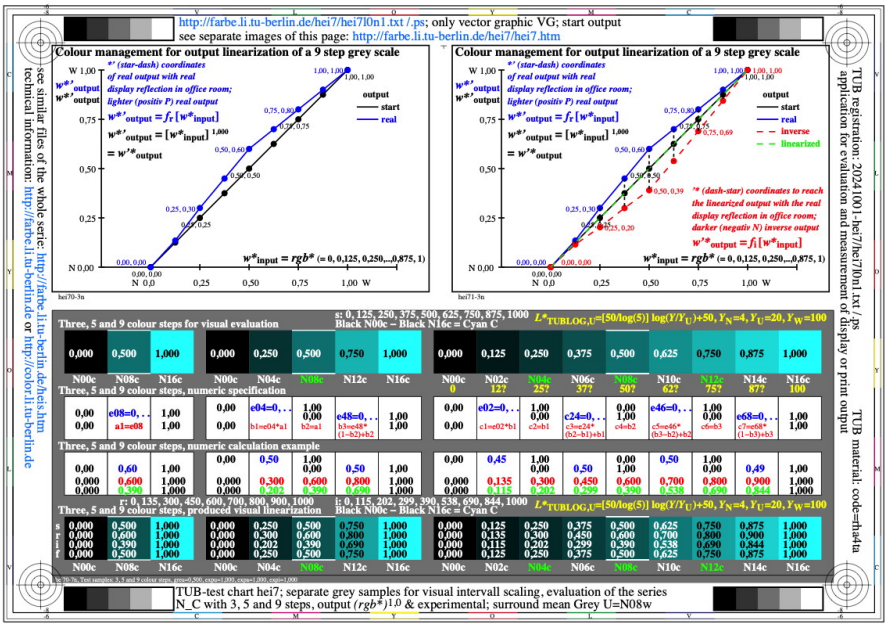

Image hei7l0n1.jpg: Output in format A6 of the file hei7l0np.pdf, see hei7l0n1. ps / txt / pdf / jpg

hei7: TUB-test chart hei7; adjacent (a) samples
N-C for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

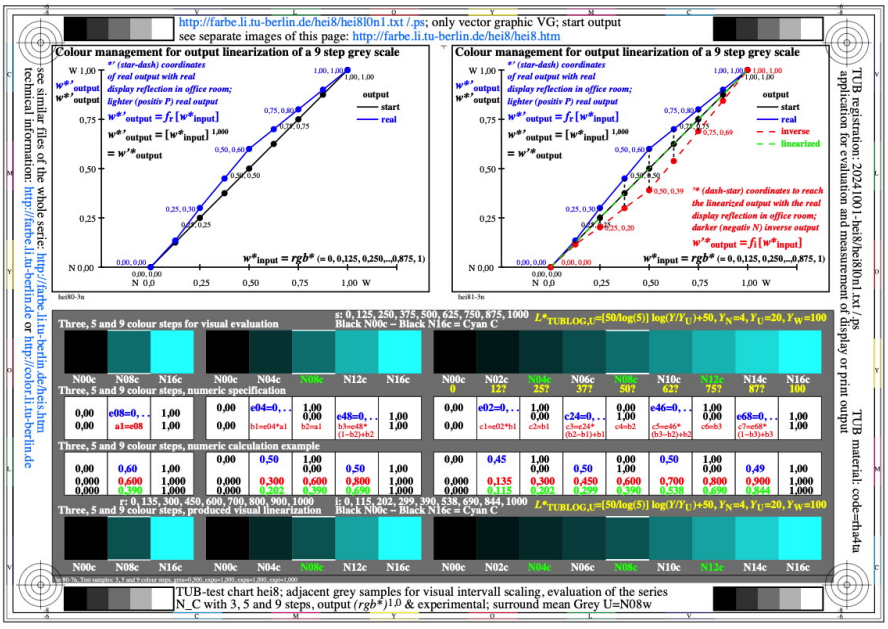

Image hei8l0n1.jpg: Output in format A6 of the file hei8l0np.pdf, see hei8l0n1. ps / txt / pdf / jpg

hei8: TUB-test chart hei8; adjacent (a) samples
N-C for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

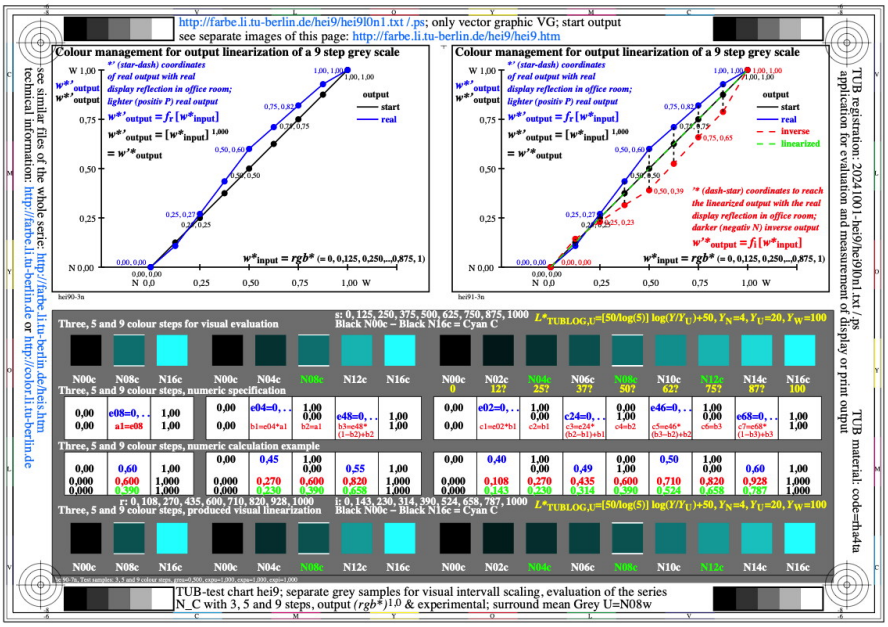

Image hei9l0n1.jpg: Output in format A6 of the file hei9l0np.pdf, see hei9l0n1. ps / txt / pdf / jpg

hei9: TUB-test chart hei9; separate (s) samples
N-C for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

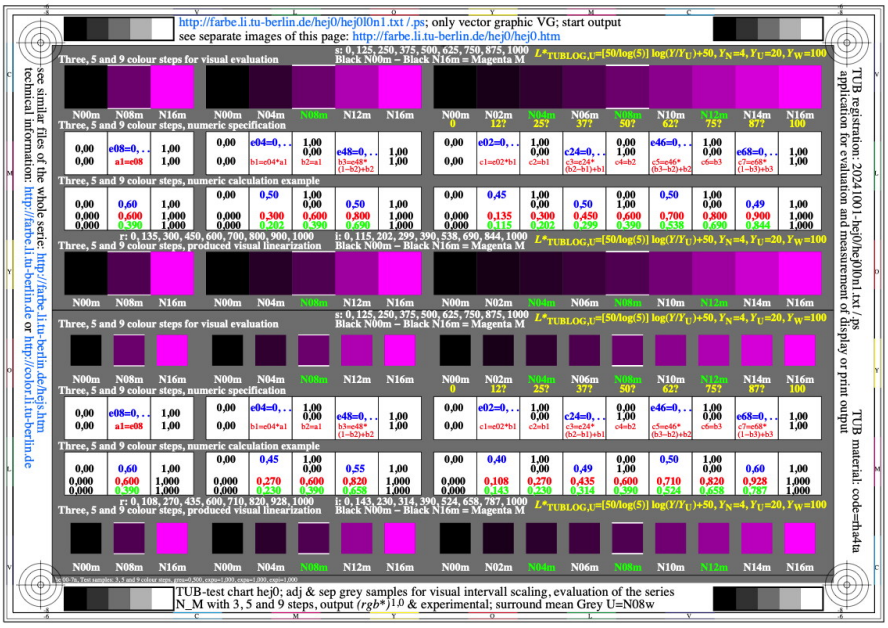

Image hej0l0n1.jpg: Output in format A6 of the file hej0l0np.pdf, see hej0l0n1. ps / txt / pdf / jpg

hej0: TUB-test chart hej0; adjacent (a) and separate (s) samples
N-M for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

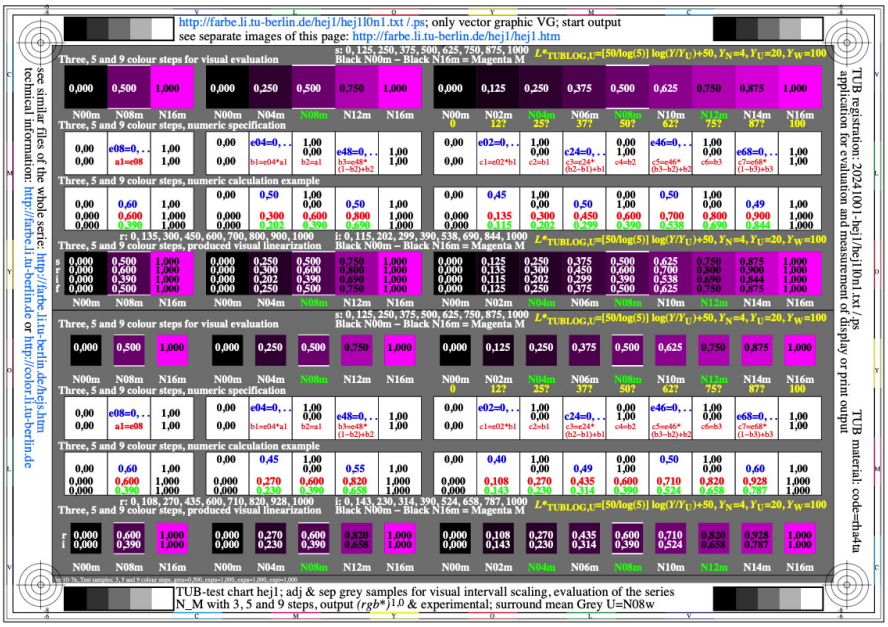

Image hej1l0n1.jpg: Output in format A6 of the file hej1l0np.pdf, see hej1l0n1. ps / txt / pdf / jpg

hej1: TUB-test chart hej1; adjacent (a) and separate (s) samples
N-M for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

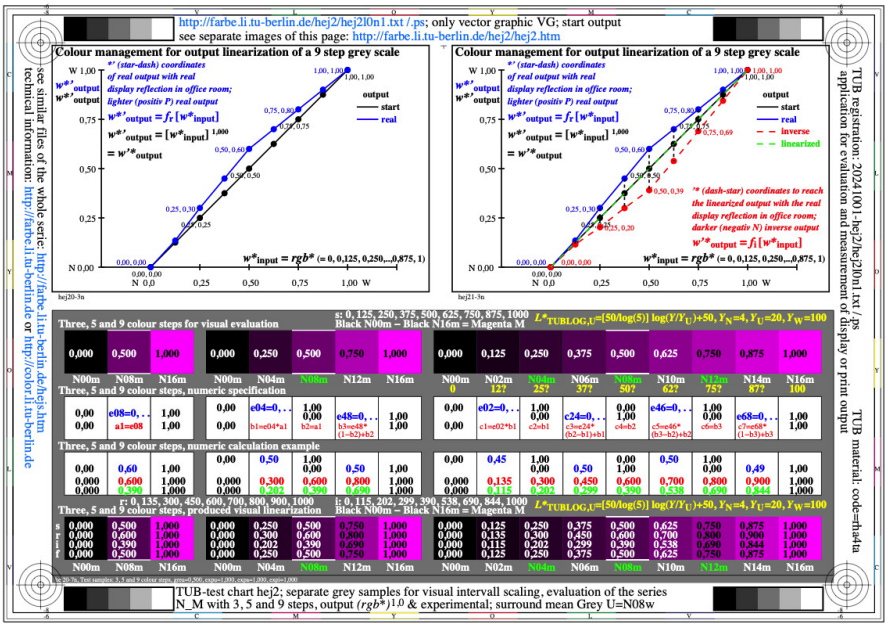

Image hej2l0n1.jpg: Output in format A6 of the file hej2l0np.pdf, see hej2l0n1. ps / txt / pdf / jpg

hej2: TUB-test chart hej2; adjacent (a) samples
N-M for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

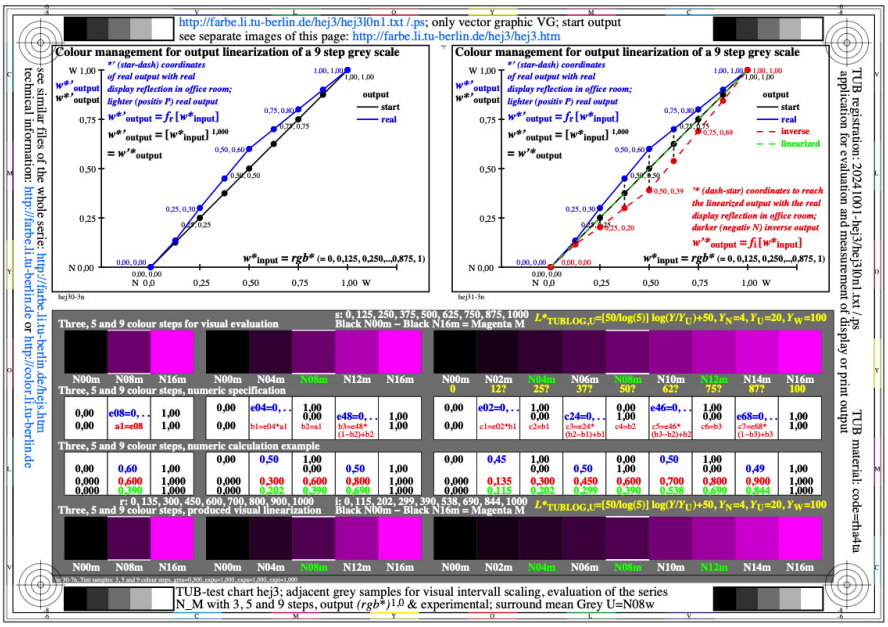

Image hej3l0n1.jpg: Output in format A6 of the file hej3l0np.pdf, see hej3l0n1. ps / txt / pdf / jpg

hej3: TUB-test chart hej3; adjacent (a) samples
N-M for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

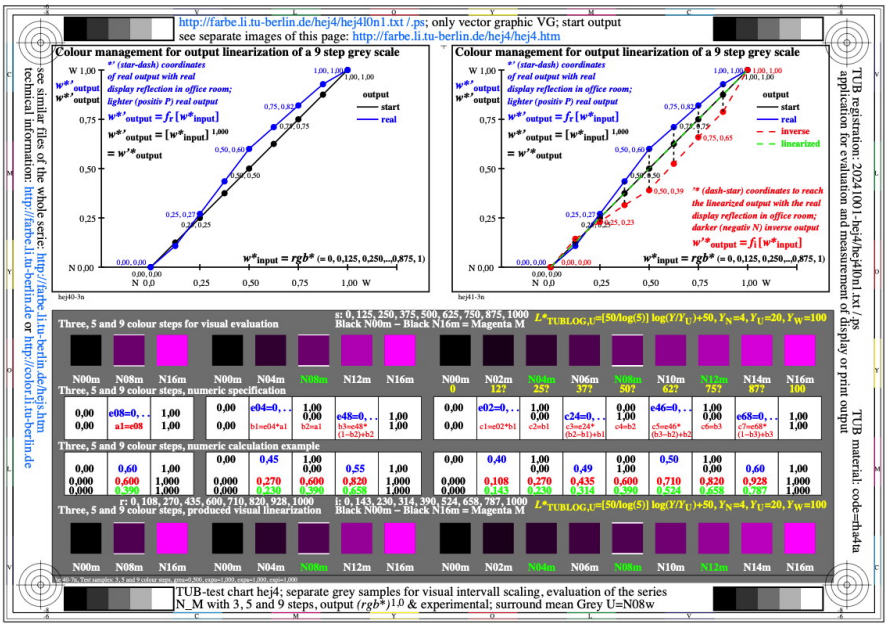

Image hej4l0n1.jpg: Output in format A6 of the file hej4l0np.pdf, see hej4l0n1. ps / txt / pdf / jpg

hej4: TUB-test chart hej4; separate (s) samples
N-M for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

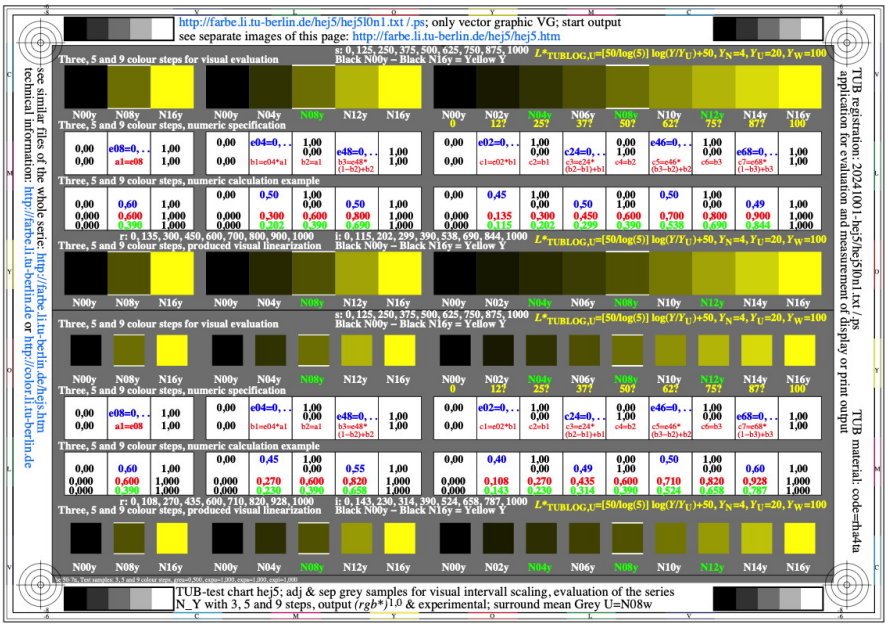

Image hej5l0n1.jpg: Output in format A6 of the file hej5l0np.pdf, see hej5l0n1. ps / txt / pdf / jpg

hej5: TUB-test chart hej5; adjacent (a) and separate (s) samples
N-Y for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

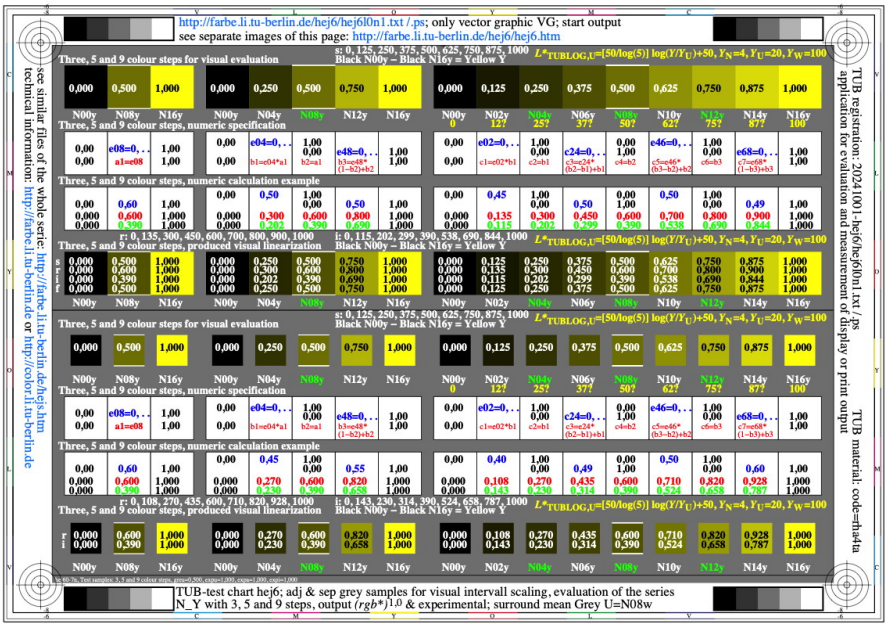

Image hej6l0n1.jpg: Output in format A6 of the file hej6l0np.pdf, see hej6l0n1. ps / txt / pdf / jpg

hej6: TUB-test chart hej6; adjacent (a) and separate (s) samples
N-Y for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

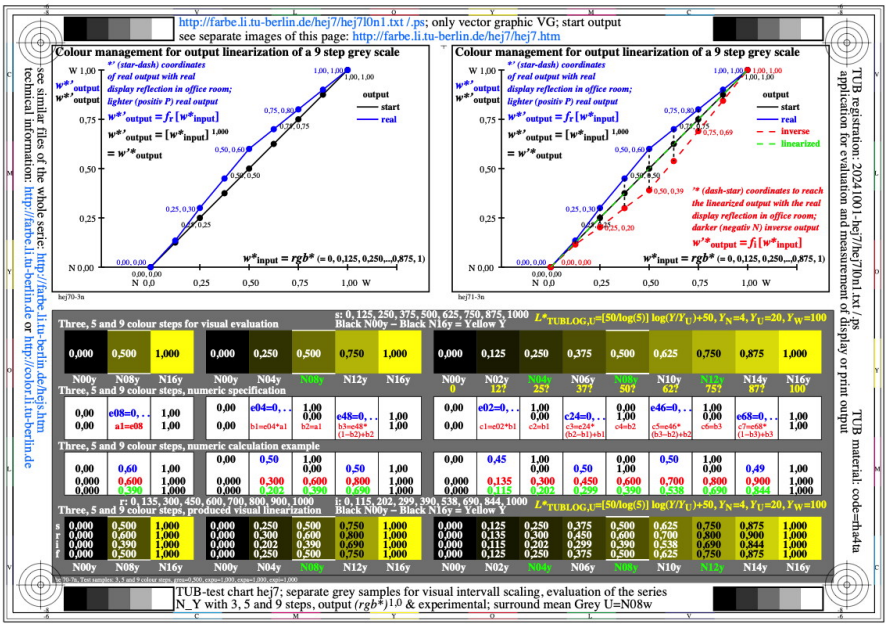

Image hej7l0n1.jpg: Output in format A6 of the file hej7l0np.pdf, see hej7l0n1. ps / txt / pdf / jpg

hej7: TUB-test chart hej7; adjacent (a) samples
N-Y for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

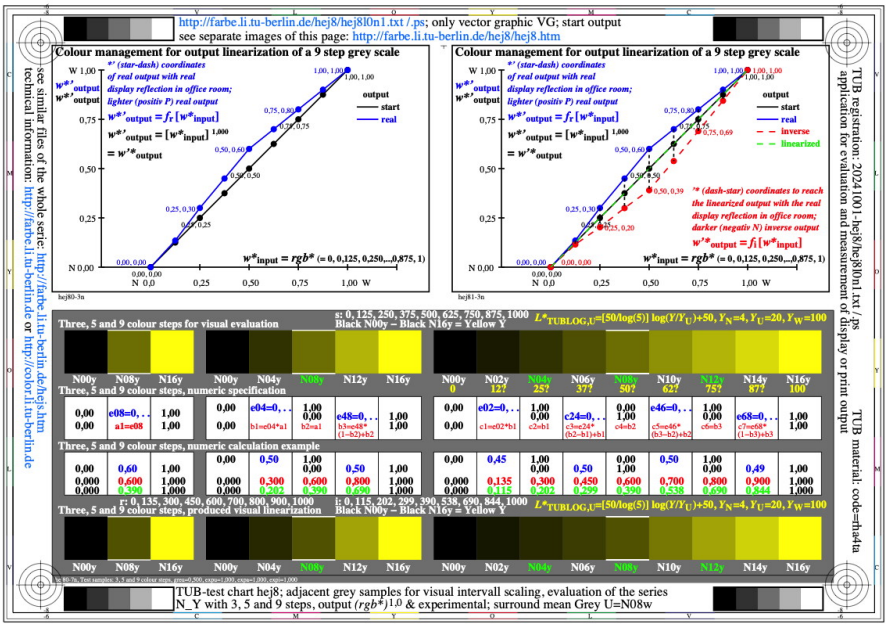

Image hej8l0n1.jpg: Output in format A6 of the file hej8l0np.pdf, see hej8l0n1. ps / txt / pdf / jpg

hej8: TUB-test chart hej8; adjacent (a) samples
N-Y for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

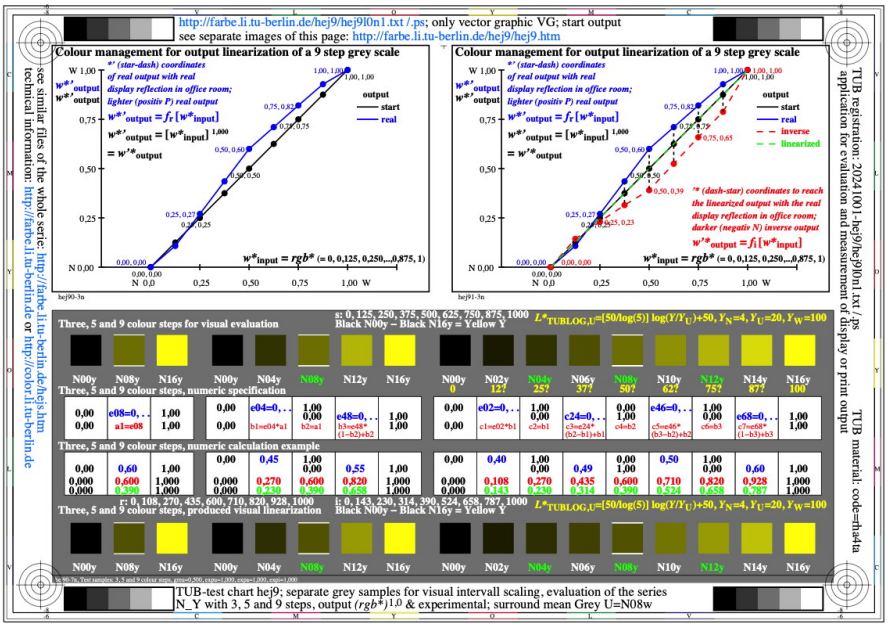

Image hej9l0n1.jpg: Output in format A6 of the file hej9l0np.pdf, see hej9l0n1. ps / txt / pdf / jpg

hej9: TUB-test chart hej9; separate (s) samples
N-Y for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

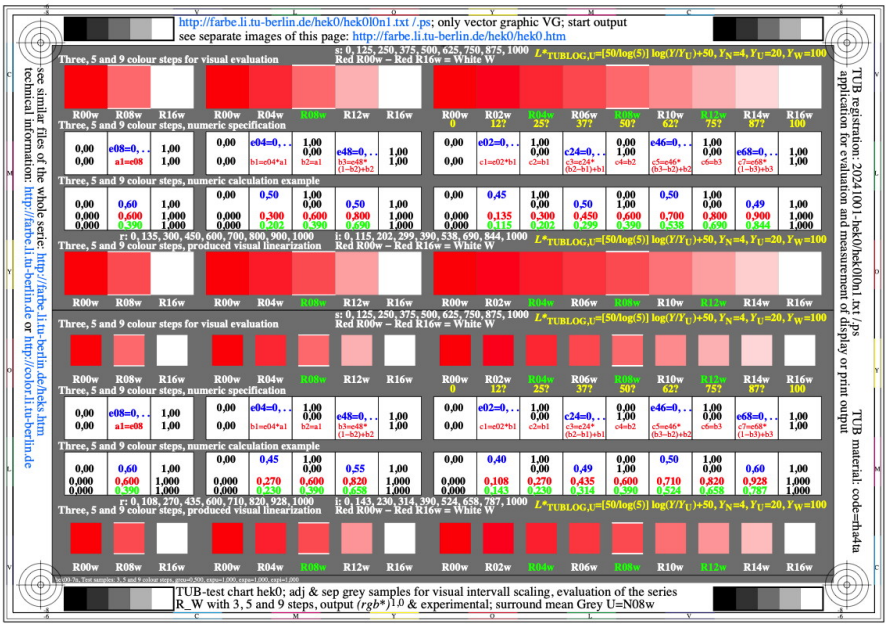

Image hek0l0n1.jpg: Output in format A6 of the file hek0l0np.pdf, see hek0l0n1. ps / txt / pdf / jpg

hek0: TUB-test chart hek0; adjacent (a) and separate (s) samples
R-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

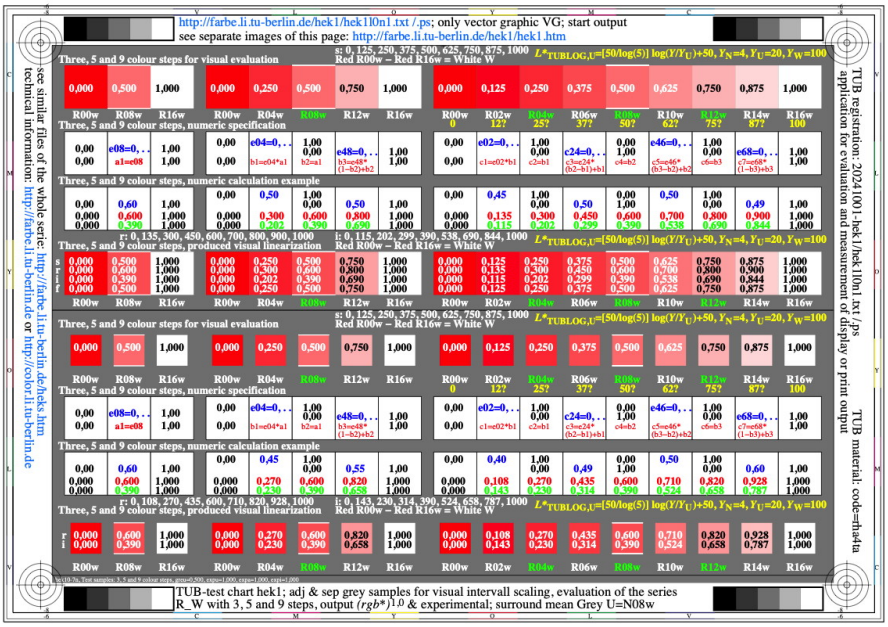

Image hek1l0n1.jpg: Output in format A6 of the file hek1l0np.pdf, see hek1l0n1. ps / txt / pdf / jpg

hek1: TUB-test chart hek1; adjacent (a) and separate (s) samples
R-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

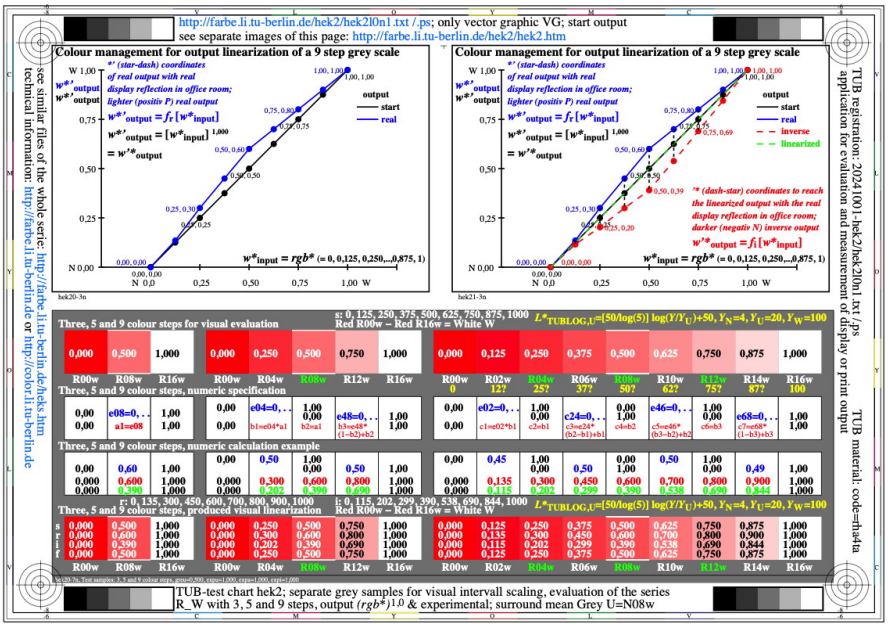

Image hek2l0n1.jpg: Output in format A6 of the file hek2l0np.pdf, see hek2l0n1. ps / txt / pdf / jpg

hek2: TUB-test chart hek2; adjacent (a) samples
R-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

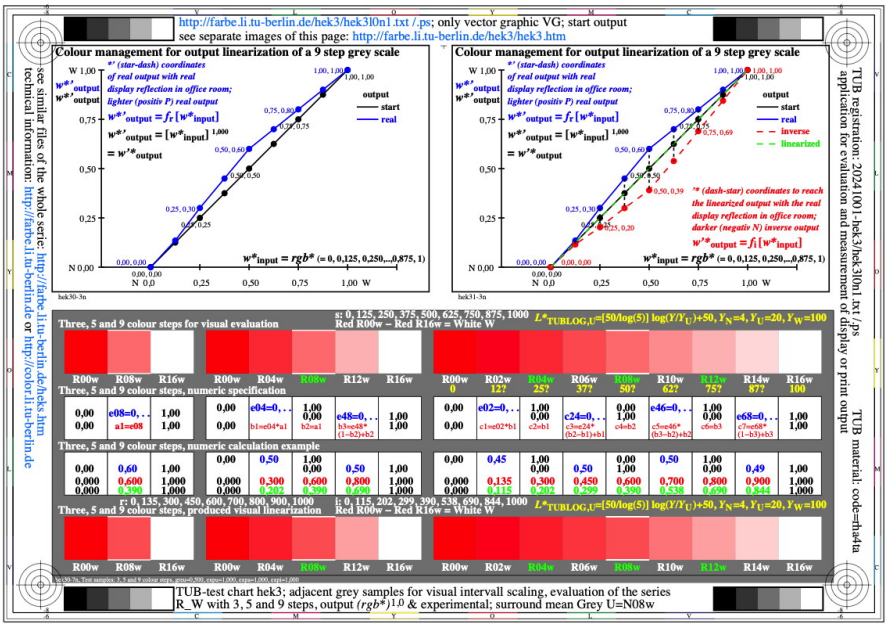

Image hek3l0n1.jpg: Output in format A6 of the file hek3l0np.pdf, see hek3l0n1. ps / txt / pdf / jpg

hek3: TUB-test chart hek3; adjacent (a) samples
R-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

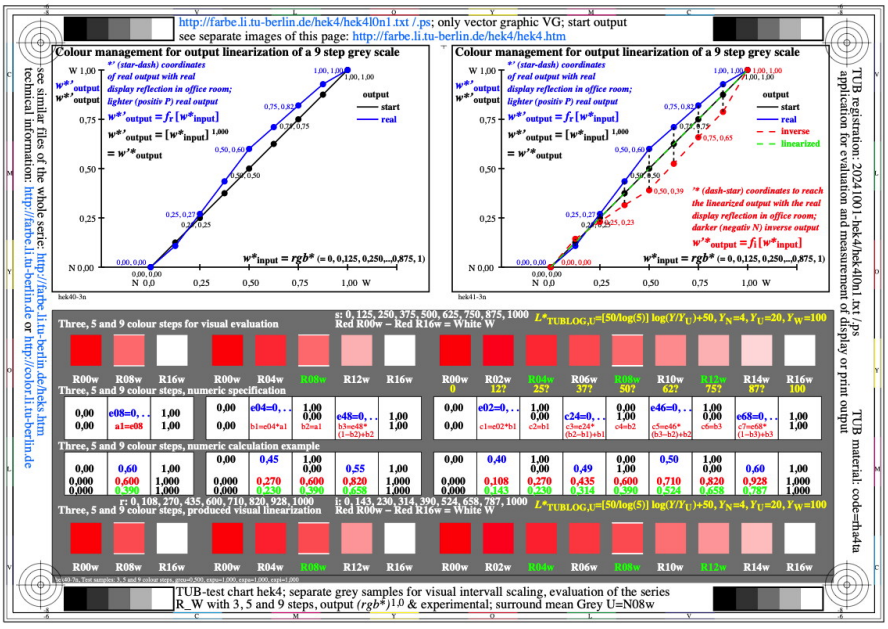

Image hek4l0n1.jpg: Output in format A6 of the file hek4l0np.pdf, see hek4l0n1. ps / txt / pdf / jpg

hek4: TUB-test chart hek4; separate (s) samples
R-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

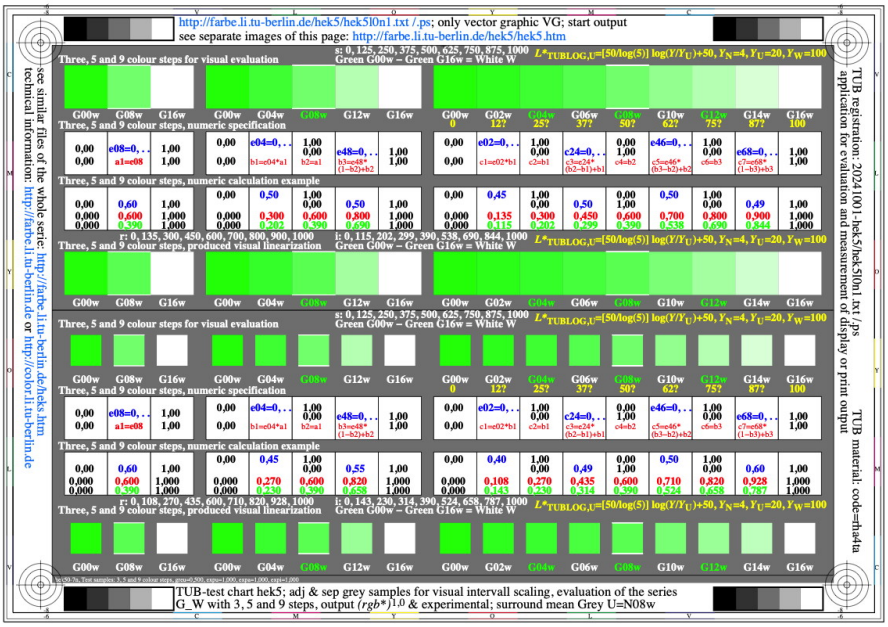

Image hek5l0n1.jpg: Output in format A6 of the file hek5l0np.pdf, see hek5l0n1. ps / txt / pdf / jpg

hek5: TUB-test chart hek5; adjacent (a) and separate (s) samples
G-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

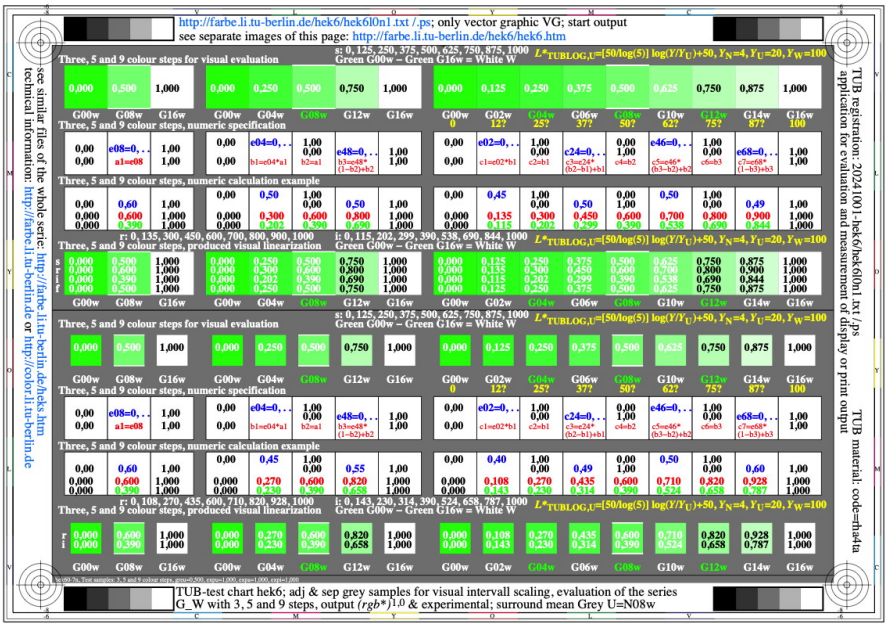

Image hek6l0n1.jpg: Output in format A6 of the file hek6l0np.pdf, see hek6l0n1. ps / txt / pdf / jpg

hek6: TUB-test chart hek6; adjacent (a) and separate (s) samples
G-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

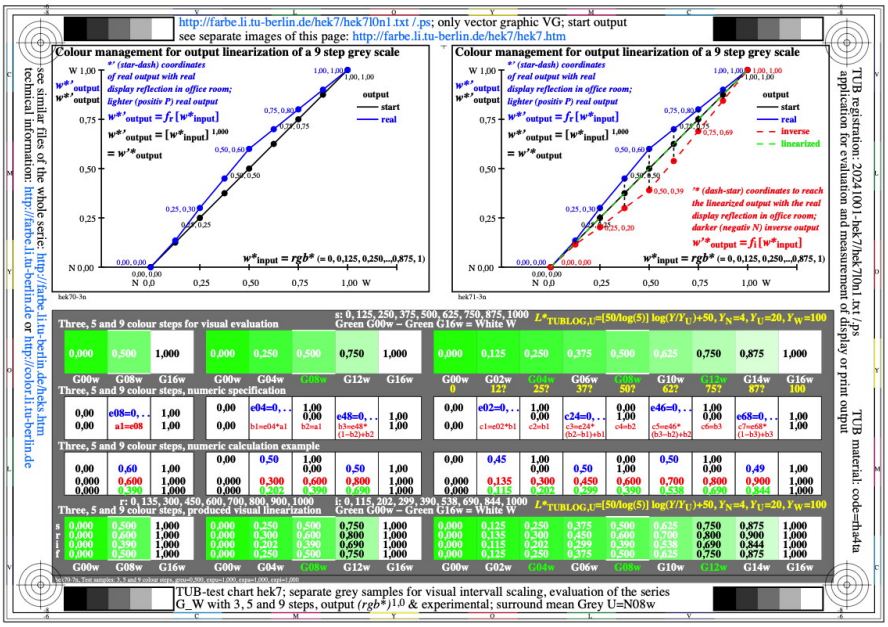

Image hek7l0n1.jpg: Output in format A6 of the file hek7l0np.pdf, see hek7l0n1. ps / txt / pdf / jpg

hek7: TUB-test chart hek7; adjacent (a) samples
G-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

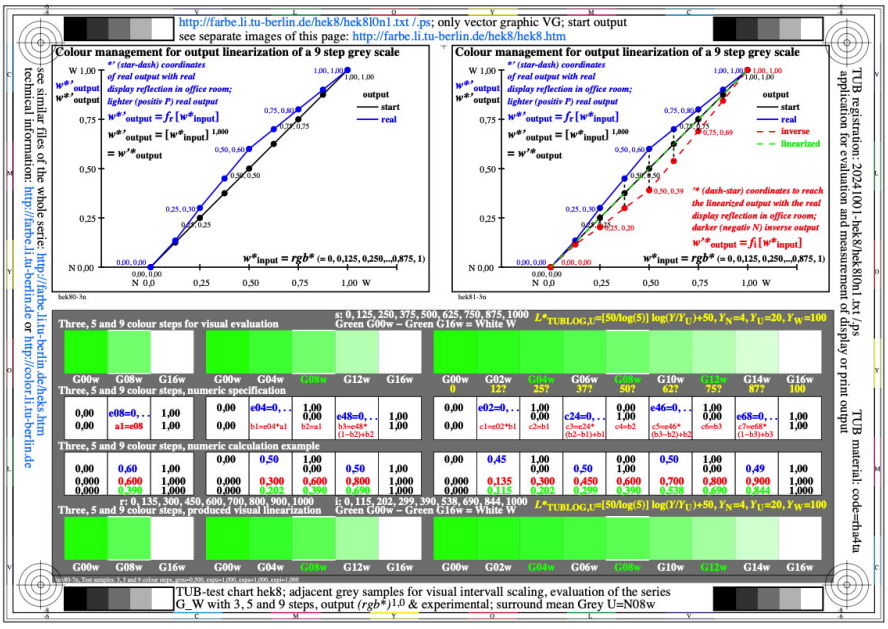

Image hek8l0n1.jpg: Output in format A6 of the file hek8l0np.pdf, see hek8l0n1. ps / txt / pdf / jpg

hek8: TUB-test chart hek8; adjacent (a) samples
G-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

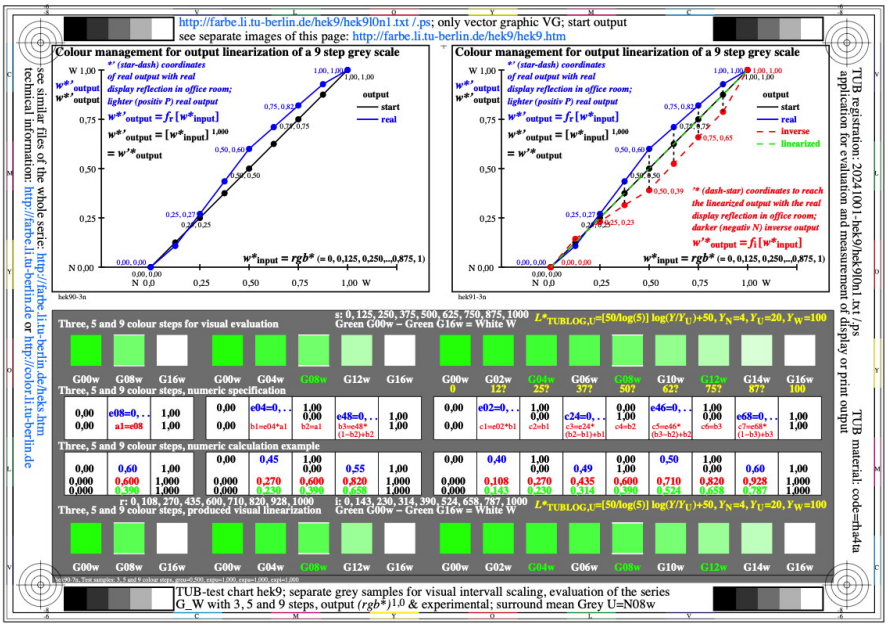

Image hek9l0n1.jpg: Output in format A6 of the file hek9l0np.pdf, see hek9l0n1. ps / txt / pdf / jpg

hek9: TUB-test chart hek9; separate (s) samples
G-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

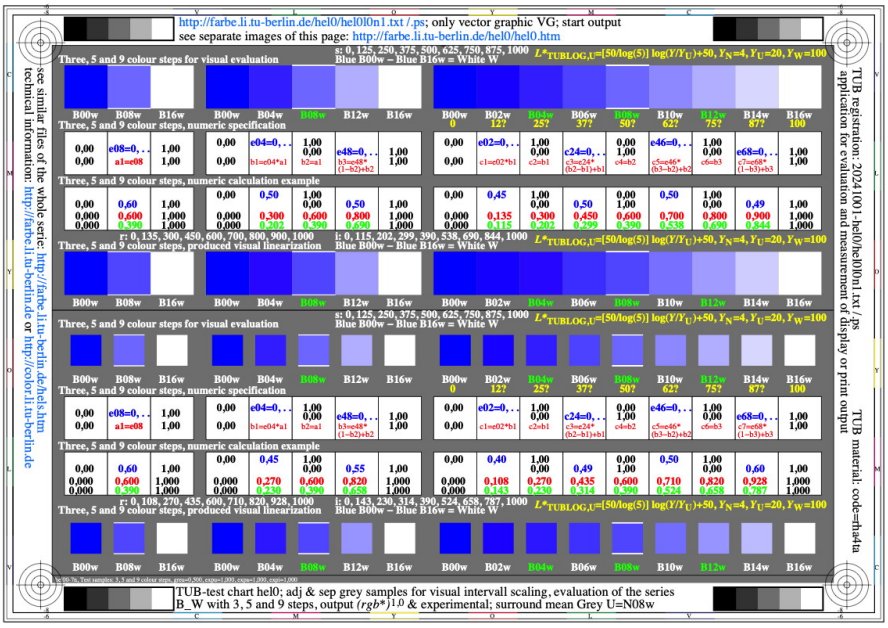

Image hel0l0n1.jpg: Output in format A6 of the file hel0l0np.pdf, see hel0l0n1. ps / txt / pdf / jpg

hel0: TUB-test chart hel0; adjacent (a) and separate (s) samples
B-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

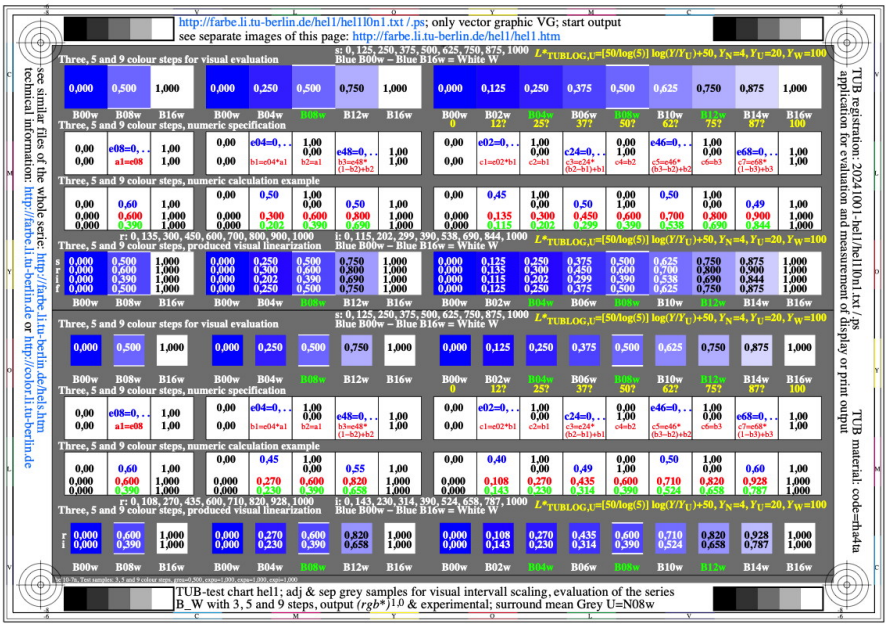

Image hel1l0n1.jpg: Output in format A6 of the file hel1l0np.pdf, see hel1l0n1. ps / txt / pdf / jpg

hel1: TUB-test chart hel1; adjacent (a) and separate (s) samples
B-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

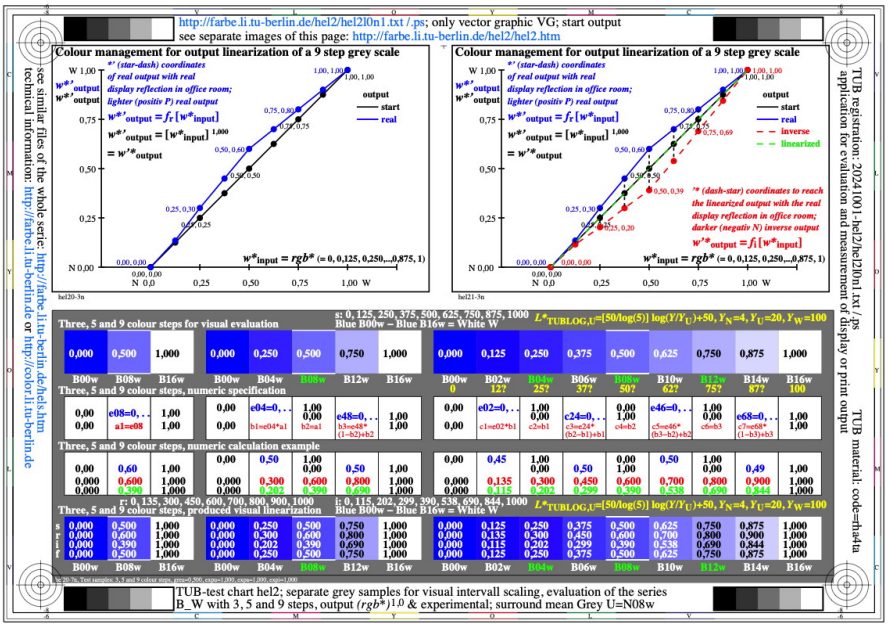

Image hel2l0n1.jpg: Output in format A6 of the file hel2l0np.pdf, see hel2l0n1. ps / txt / pdf / jpg

hel2: TUB-test chart hel2; adjacent (a) samples
B-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

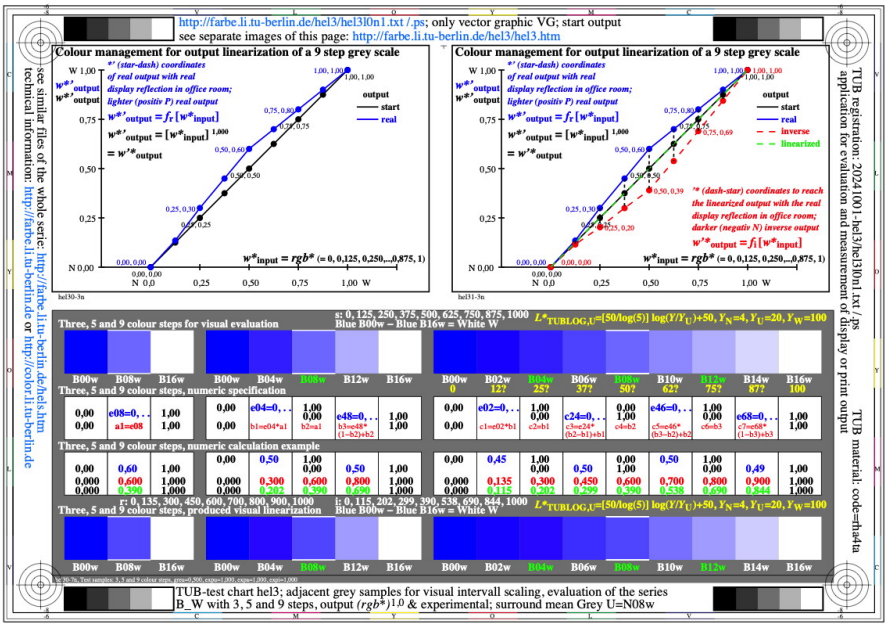

Image hel3l0n1.jpg: Output in format A6 of the file hel3l0np.pdf, see hel3l0n1. ps / txt / pdf / jpg

hel3: TUB-test chart hel3; adjacent (a) samples
B-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

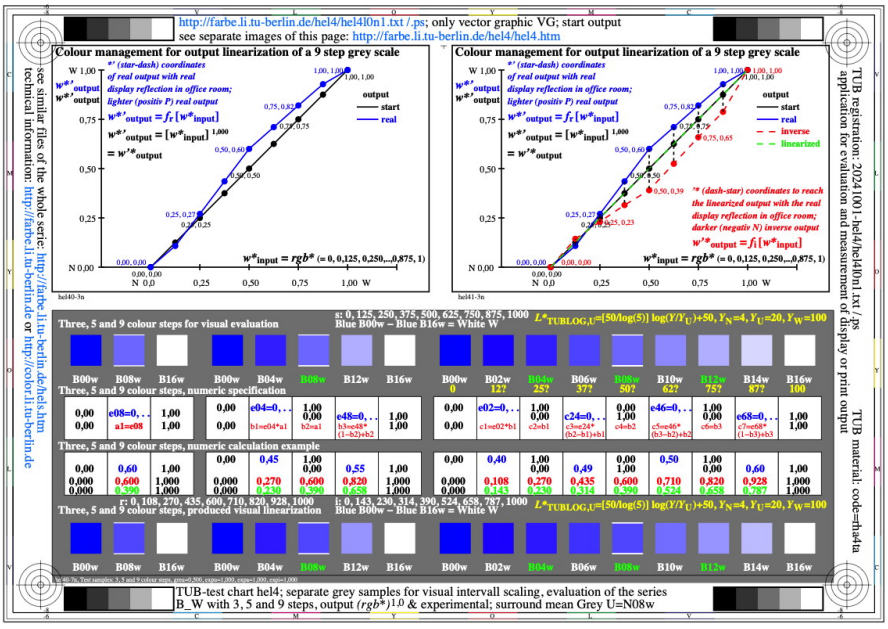

Image hel4l0n1.jpg: Output in format A6 of the file hel4l0np.pdf, see hel4l0n1. ps / txt / pdf / jpg

hel4: TUB-test chart hel4; separate (s) samples
B-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

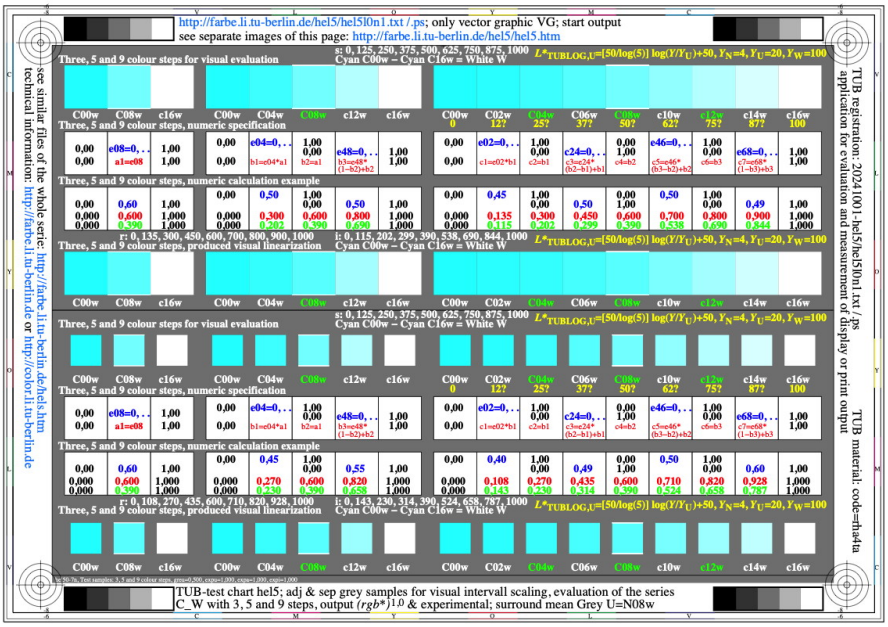

Image hel5l0n1.jpg: Output in format A6 of the file hel5l0np.pdf, see hel5l0n1. ps / txt / pdf / jpg

hel5: TUB-test chart hel5; adjacent (a) and separate (s) samples
C-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

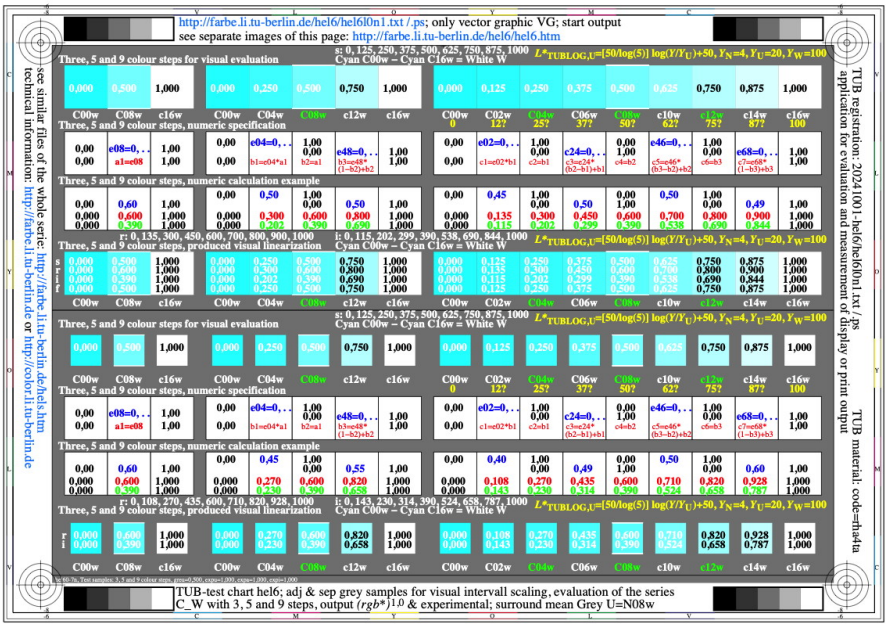

Image hel6l0n1.jpg: Output in format A6 of the file hel6l0np.pdf, see hel6l0n1. ps / txt / pdf / jpg

hel6: TUB-test chart hel6; adjacent (a) and separate (s) samples
C-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

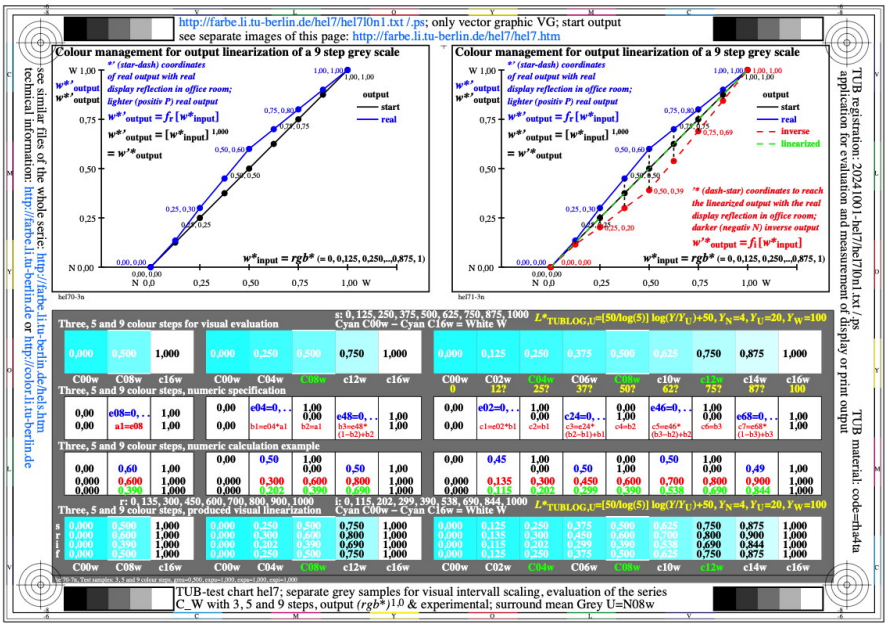

Image hel7l0n1.jpg: Output in format A6 of the file hel7l0np.pdf, see hel7l0n1. ps / txt / pdf / jpg

hel7: TUB-test chart hel7; adjacent (a) samples
C-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

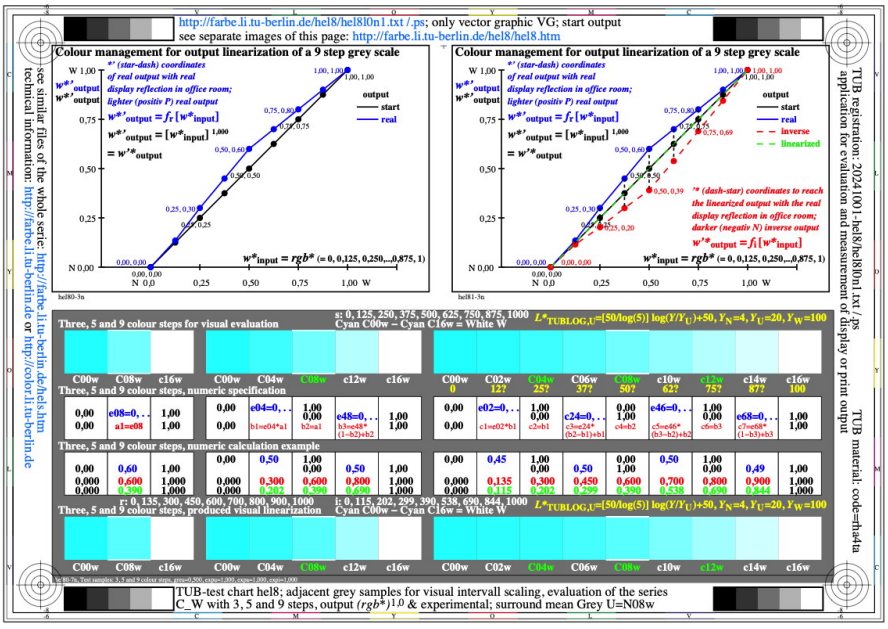

Image hel8l0n1.jpg: Output in format A6 of the file hel8l0np.pdf, see hel8l0n1. ps / txt / pdf / jpg

hel8: TUB-test chart hel8; adjacent (a) samples
C-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

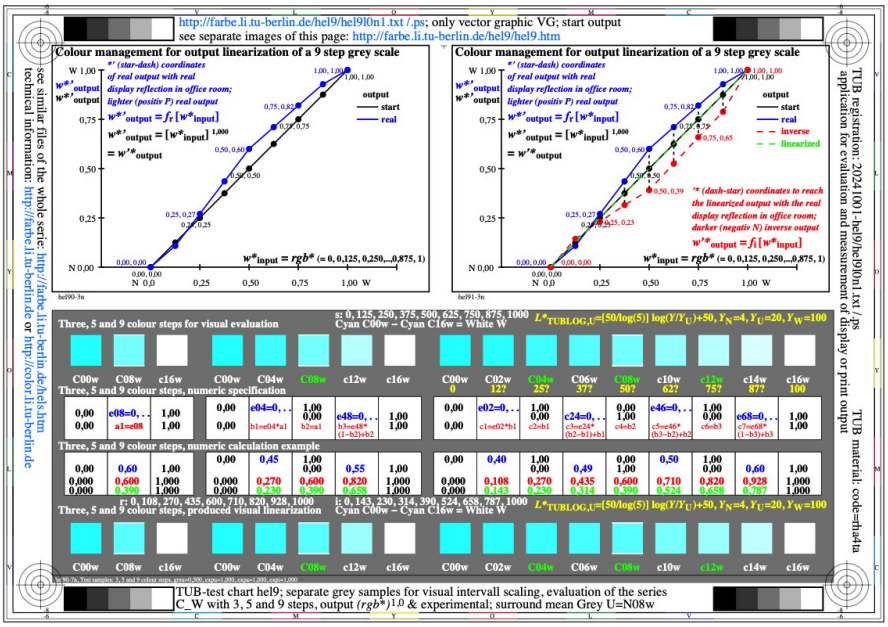

Image hel9l0n1.jpg: Output in format A6 of the file hel9l0np.pdf, see hel9l0n1. ps / txt / pdf / jpg

hel9: TUB-test chart hel9; separate (s) samples
C-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

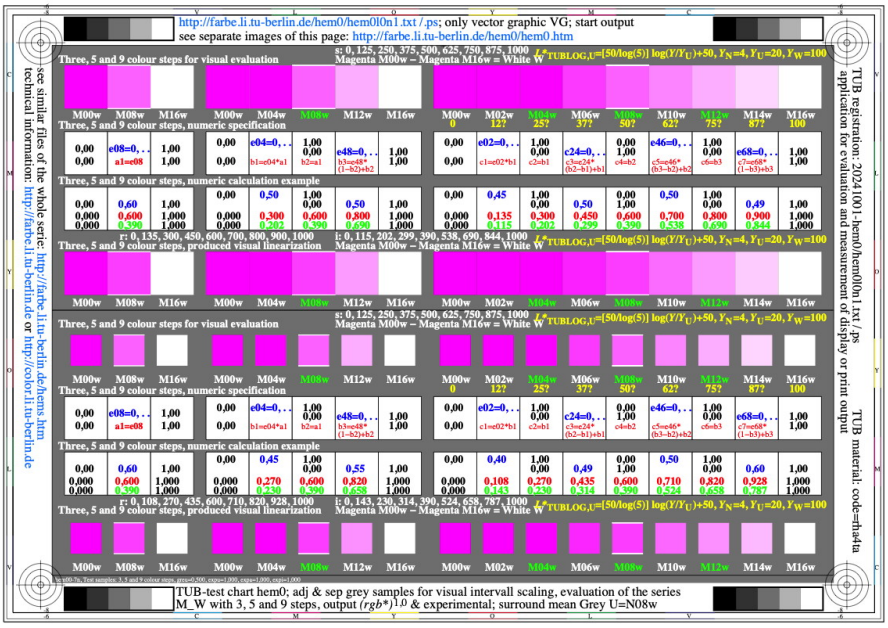

Image hem0l0n1.jpg: Output in format A6 of the file hem0l0np.pdf, see hem0l0n1. ps / txt / pdf / jpg

hem0: TUB-test chart hem0; adjacent (a) and separate (s) samples
M-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

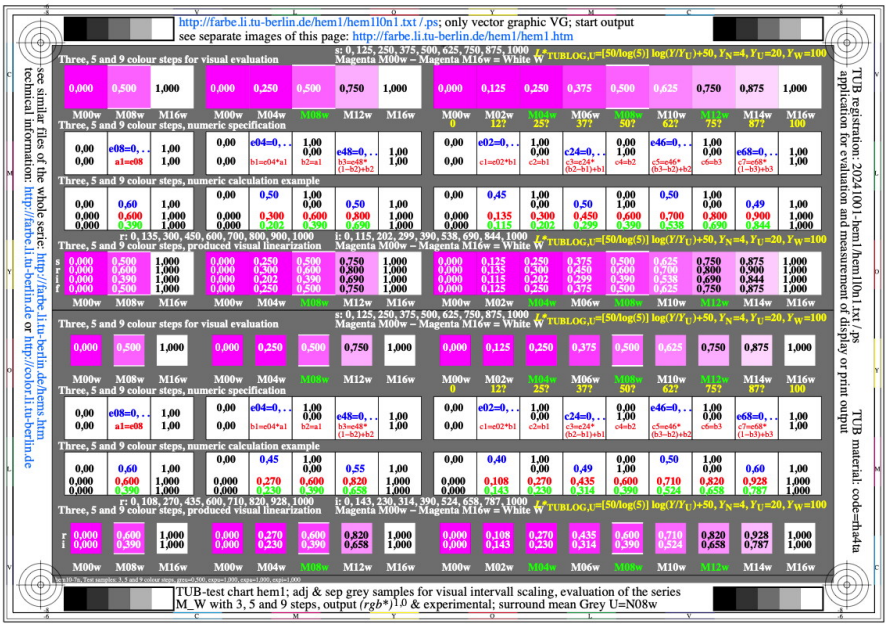

Image hem1l0n1.jpg: Output in format A6 of the file hem1l0np.pdf, see hem1l0n1. ps / txt / pdf / jpg

hem1: TUB-test chart hem1; adjacent (a) and separate (s) samples
M-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

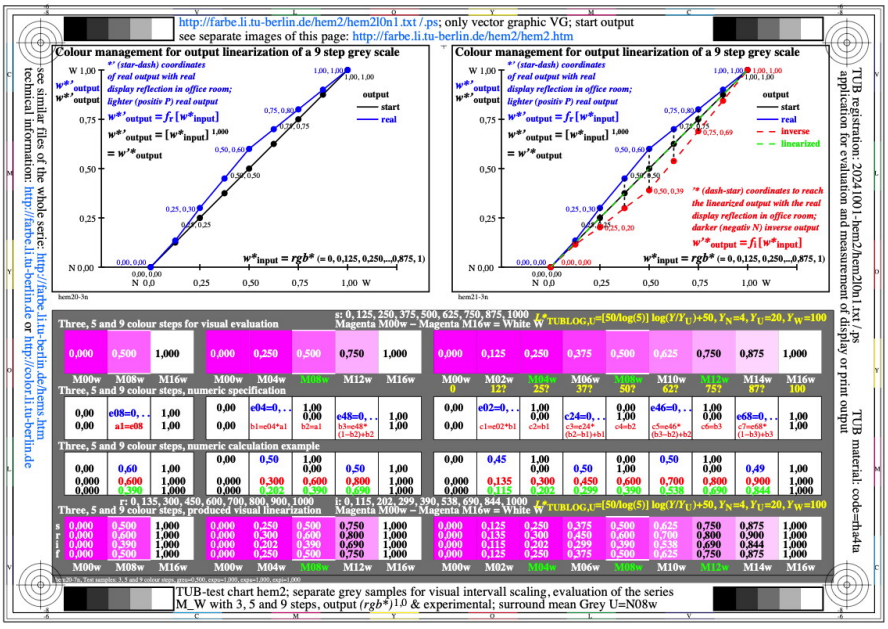

Image hem2l0n1.jpg: Output in format A6 of the file hem2l0np.pdf, see hem2l0n1. ps / txt / pdf / jpg

hem2: TUB-test chart hem2; adjacent (a) samples
M-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

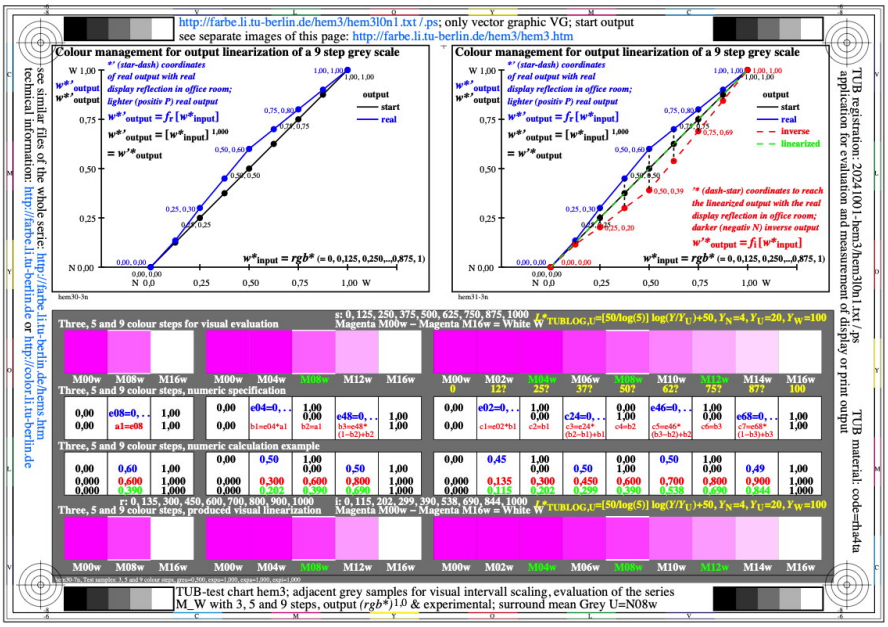

Image hem3l0n1.jpg: Output in format A6 of the file hem3l0np.pdf, see hem3l0n1. ps / txt / pdf / jpg

hem3: TUB-test chart hem3; adjacent (a) samples
M-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

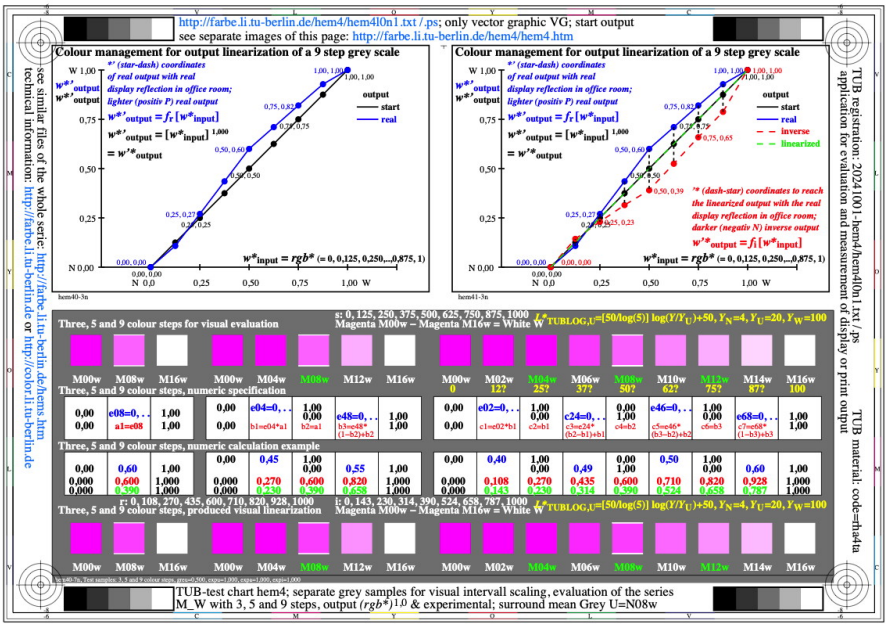

Image hem4l0n1.jpg: Output in format A6 of the file hem4l0np.pdf, see hem4l0n1. ps / txt / pdf / jpg

hem4: TUB-test chart hem4; separate (s) samples
M-W for visual interval scaling of 3, 5, and 9 steps
with graphic s, (rgb*)^1 & manuel, surround U=N08w

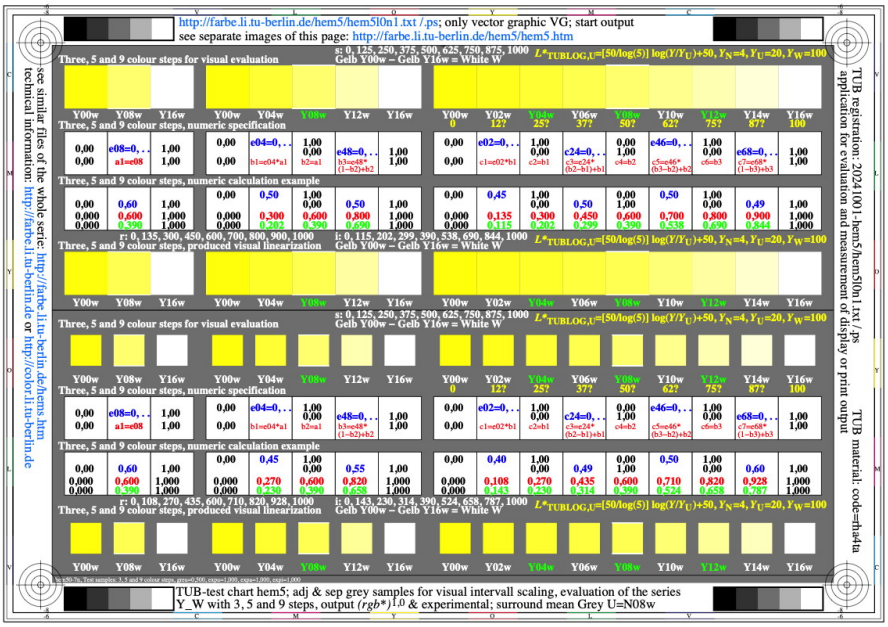

Image hem5l0n1.jpg: Output in format A6 of the file hem5l0np.pdf, see hem5l0n1. ps / txt / pdf / jpg

hem5: TUB-test chart hem5; adjacent (a) and separate (s) samples
Y-W for visual interval scaling of 3, 5, and 9 steps
output without data a&s, (rgb*)^1 & manuel, surround U=N08w

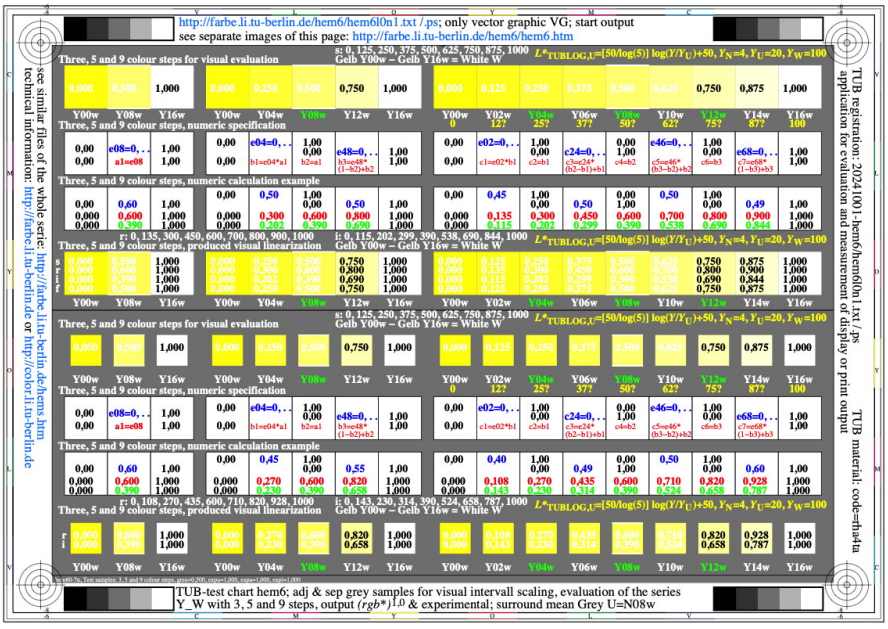

Image hem6l0n1.jpg: Output in format A6 of the file hem6l0np.pdf, see hem6l0n1. ps / txt / pdf / jpg

hem6: TUB-test chart hem6; adjacent (a) and separate (s) samples
Y-W for visual interval scaling of 3, 5, and 9 steps
output with data a&s, (rgb*)^1 & manuel, surround U=N08w

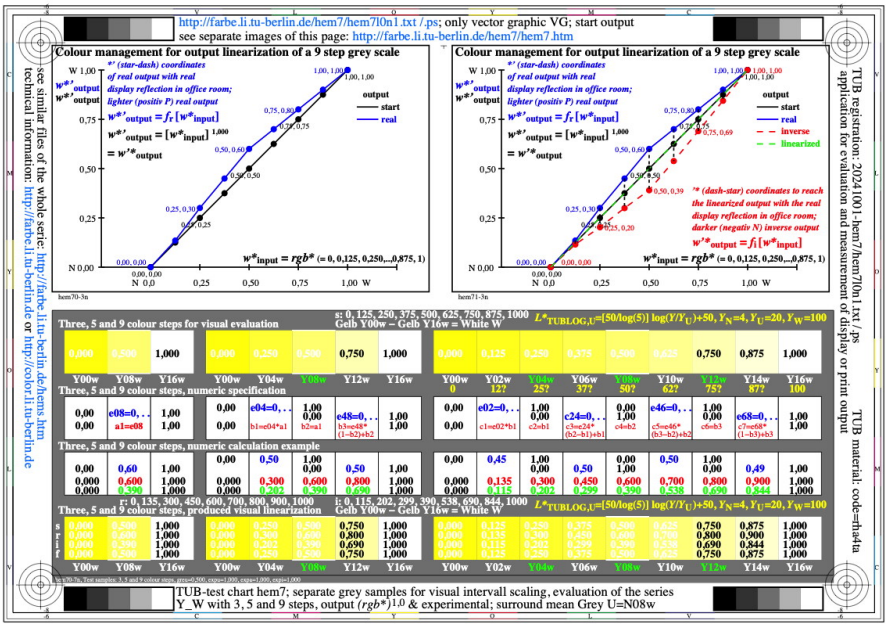

Image hem7l0n1.jpg: Output in format A6 of the file hem7l0np.pdf, see hem7l0n1. ps / txt / pdf / jpg

hem7: TUB-test chart hem7; adjacent (a) samples
Y-W for visual interval scaling of 3, 5, and 9 steps
with data & graphic a, (rgb*)^1 & manuel, surround U=N08w

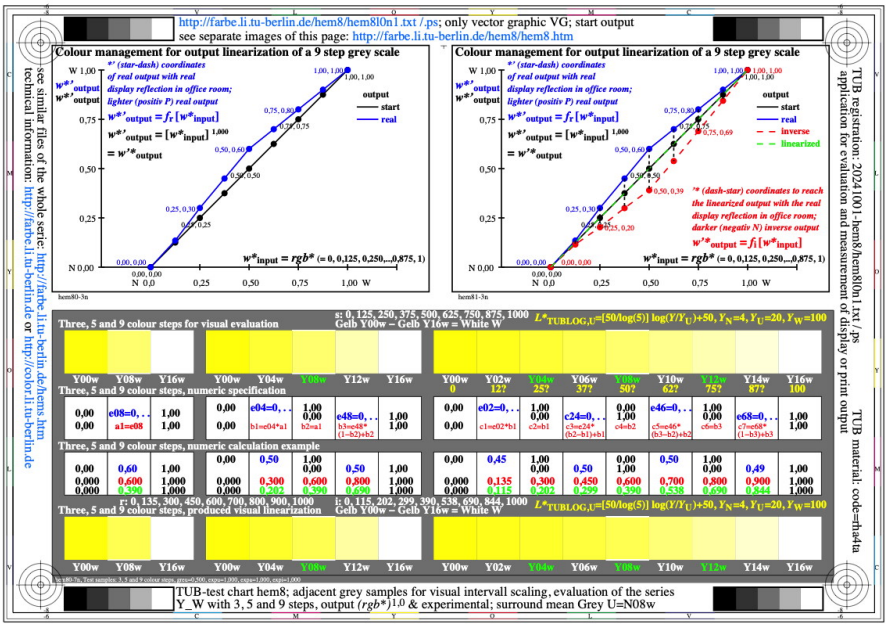

Image hem8l0n1.jpg: Output in format A6 of the file hem8l0np.pdf, see hem8l0n1. ps / txt / pdf / jpg

hem8: TUB-test chart hem8; adjacent (a) samples
Y-W for visual interval scaling of 3, 5, and 9 steps
with graphic a, (rgb*)^1 & manuel, surround U=N08w

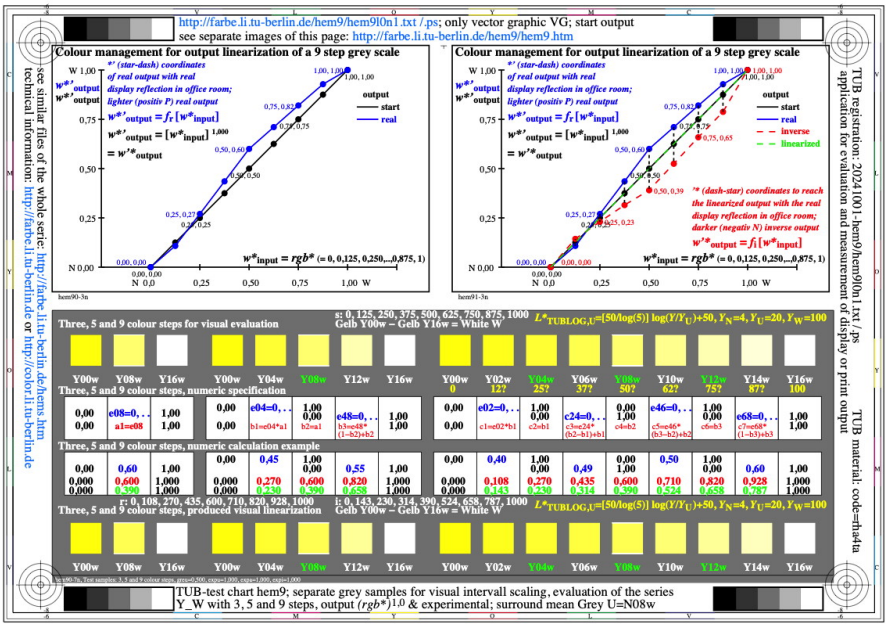

Image hem9l0n1.jpg: Output in format A6 of the file hem9l0np.pdf, see hem9l0n1. ps / txt / pdf / jpg

hem9: TUB-test chart hem9; separate (s) samples Y-W for visual interval scaling of 3, 5, and 9 steps with graphic s, (rgb*)^1 & manuel, surround U=N08w

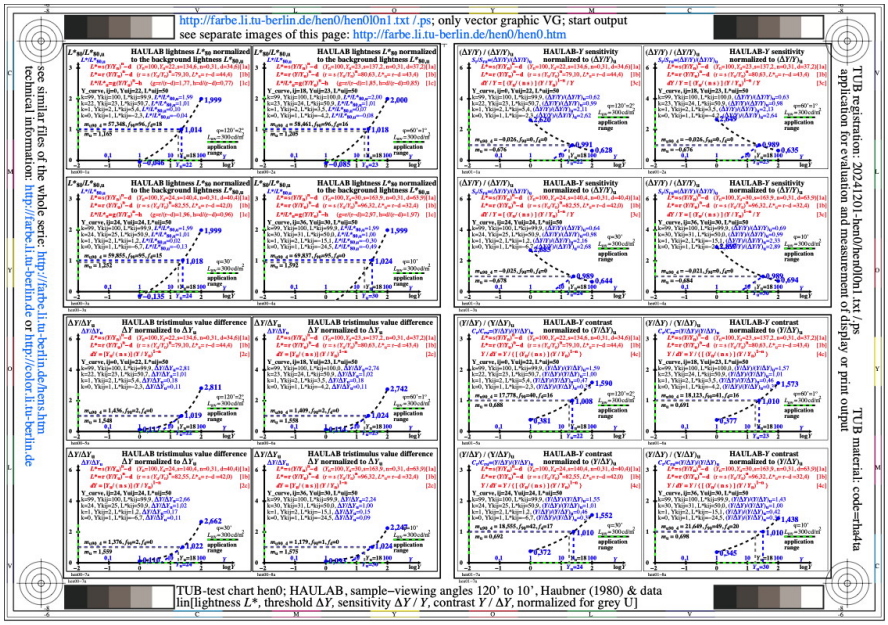

Image hen0l0n1.jpg: Output in format A6 of the file hen0l0np.pdf, see hen0l0n1. ps / txt / pdf / jpg

hen0: TUB-test chart hen0; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & data; lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

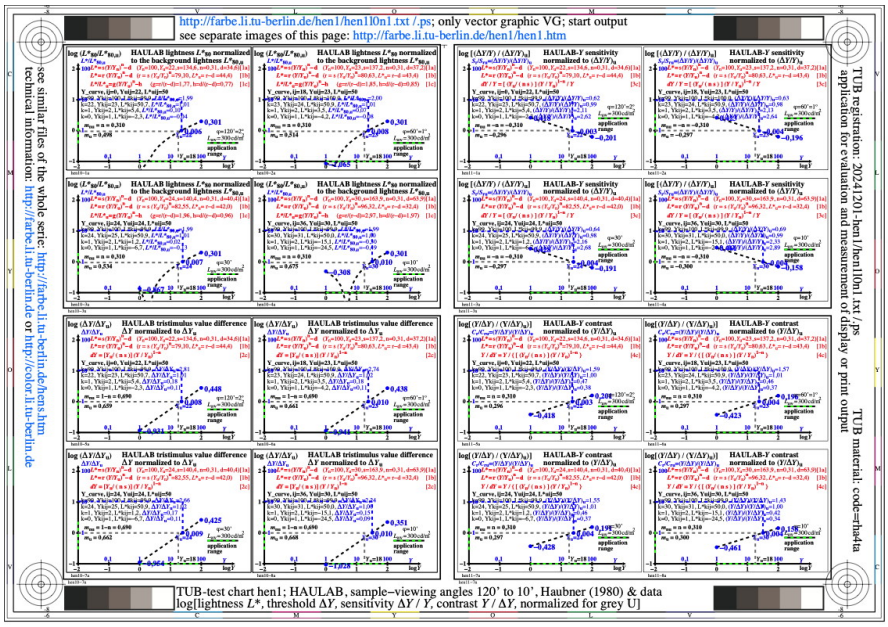

Image hen1l0n1.jpg: Output in format A6 of the file hen1l0np.pdf, see hen1l0n1. ps / txt / pdf / jpg

hen1: TUB-test chart hen1; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & data; log [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

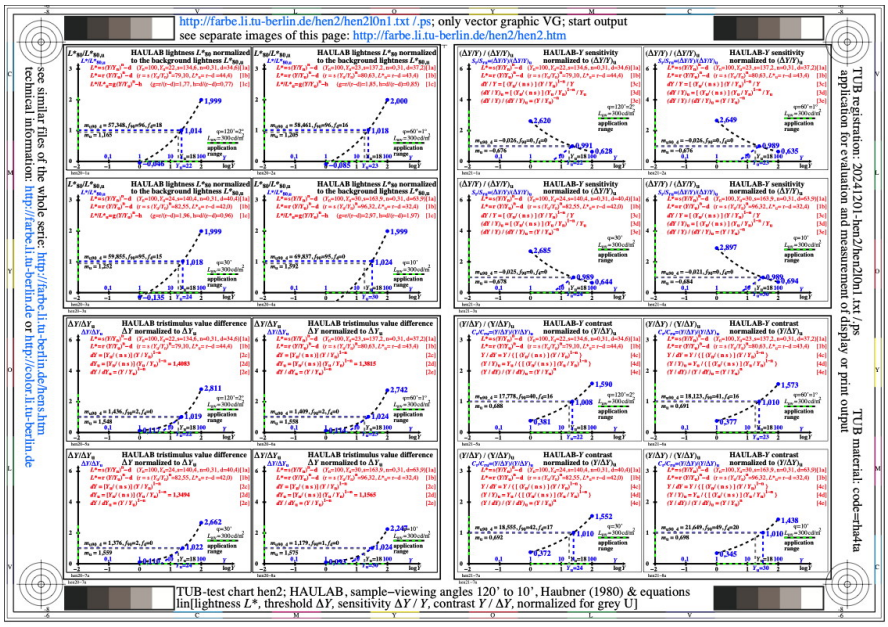

Image hen2l0n1.jpg: Output in format A6 of the file hen2l0np.pdf, see hen2l0n1. ps / txt / pdf / jpg

hen2: TUB-test chart hen2; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & equations; lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

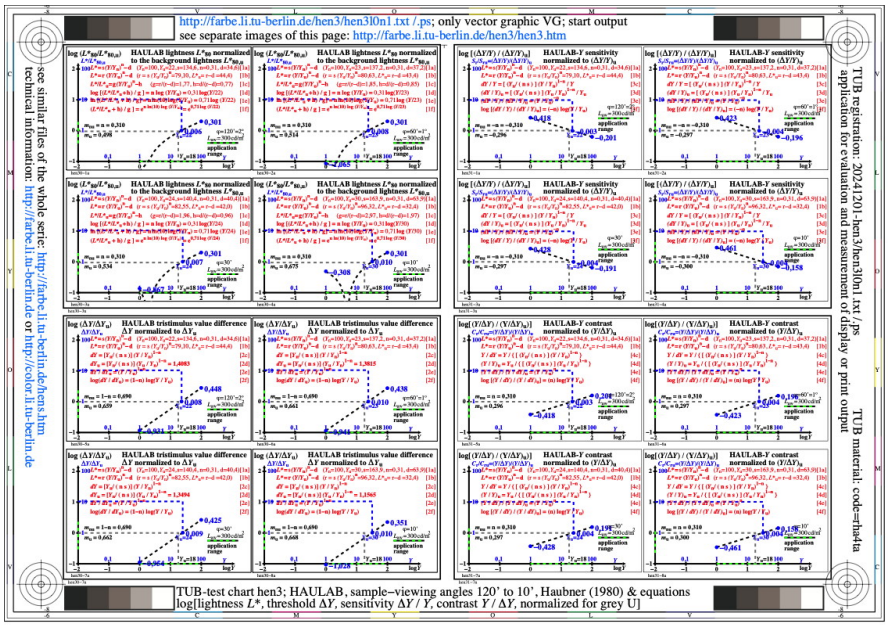

Image hen3l0n1.jpg: Output in format A6 of the file hen3l0np.pdf, see hen3l0n1. ps / txt / pdf / jpg

hen3: TUB-test chart hen3; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & equations; log [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

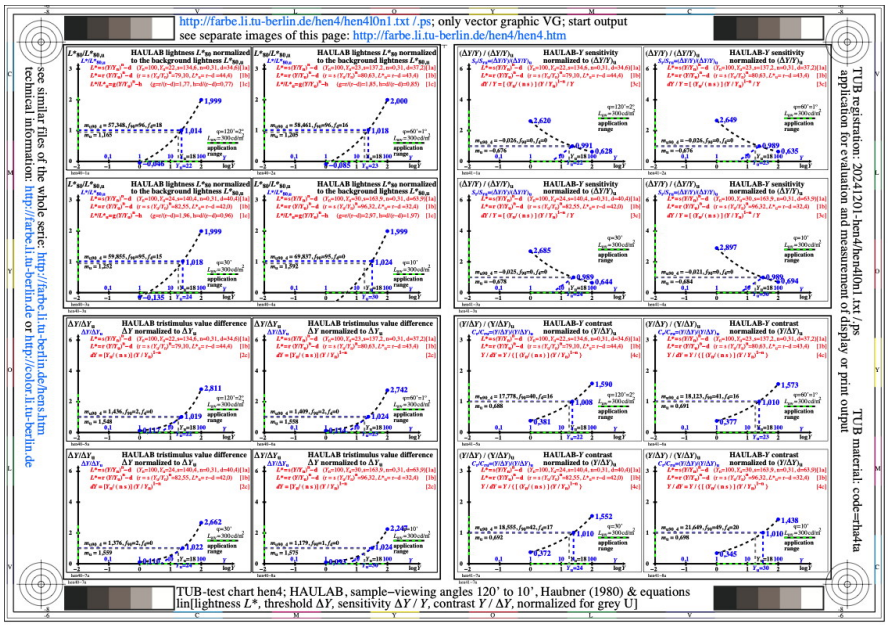

Image hen4l0n1.jpg: Output in format A6 of the file hen4l0np.pdf, see hen4l0n1. ps / txt / pdf / jpg

hen4: TUB-test chart hen4; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & formulae; lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

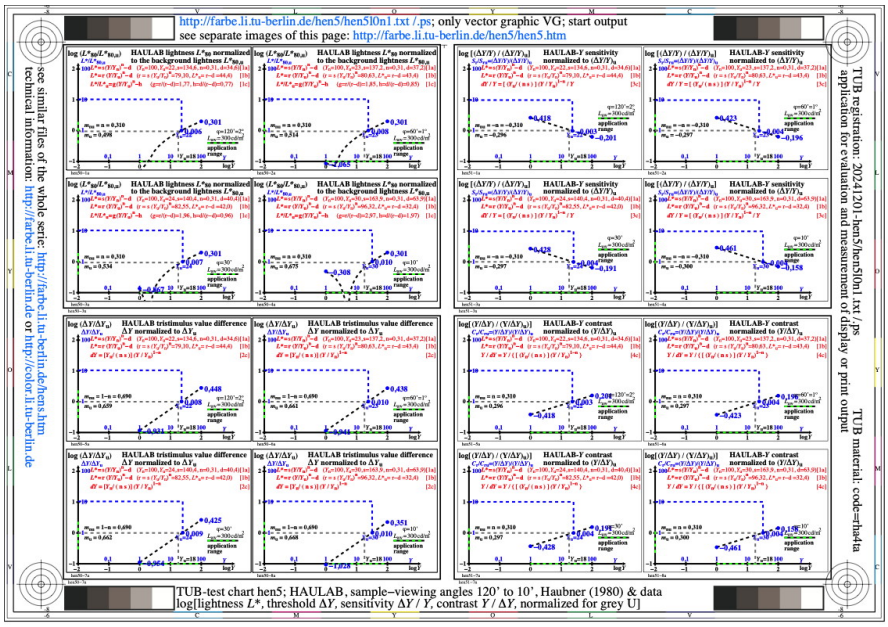

Image hen5l0n1.jpg: Output in format A6 of the file hen5l0np.pdf, see hen5l0n1. ps / txt / pdf / jpg

hen5: TUB-test chart hen5; HAULAB, viewing angle 120' to 10', (Haubner, 1980) & data; log [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

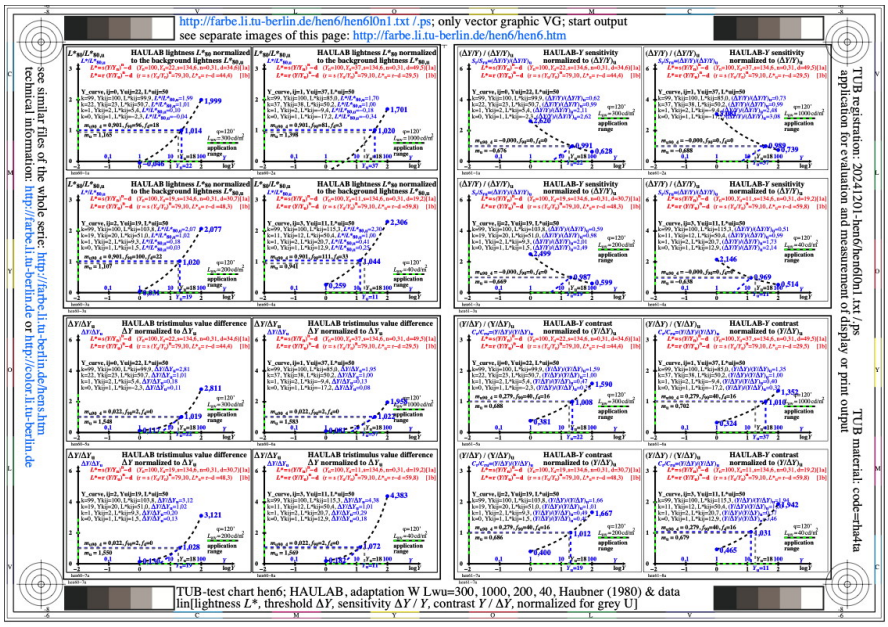

Image hen6l0n1.jpg: Output in format A6 of the file hen6l0np.pdf, see hen6l0n1. ps / txt / pdf / jpg

hen6: TUB-test chart hen6; HAULAB, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

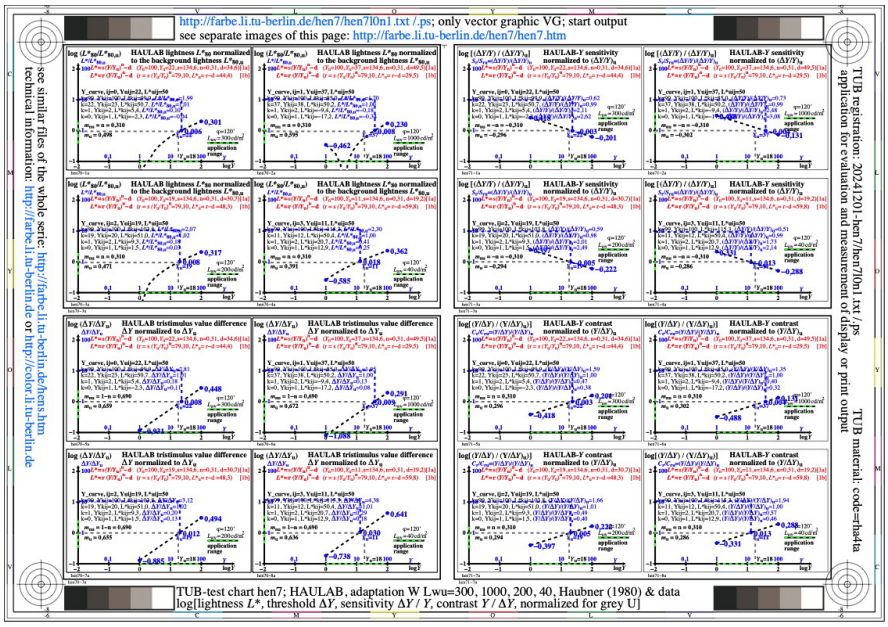

Image hen7l0n1.jpg: Output in format A6 of the file hen7l0np.pdf, see hen7l0n1. ps / txt / pdf / jpg

hen7: TUB-test chart hen7; HAULAB, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

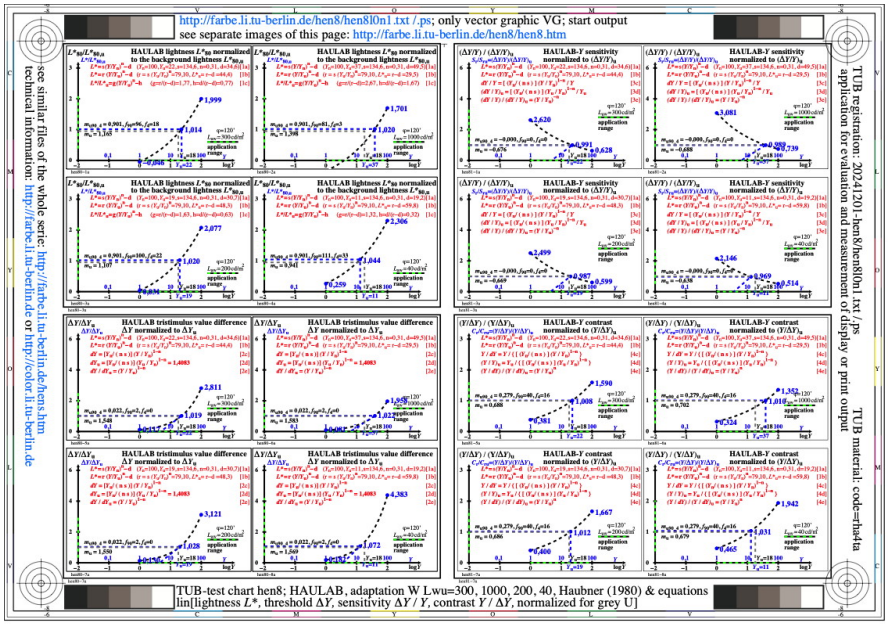

Image hen8l0n1.jpg: Output in format A6 of the file hen8l0np.pdf, see hen8l0n1. ps / txt / pdf / jpg

hen8: TUB-test chart hen7; HAULAB, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

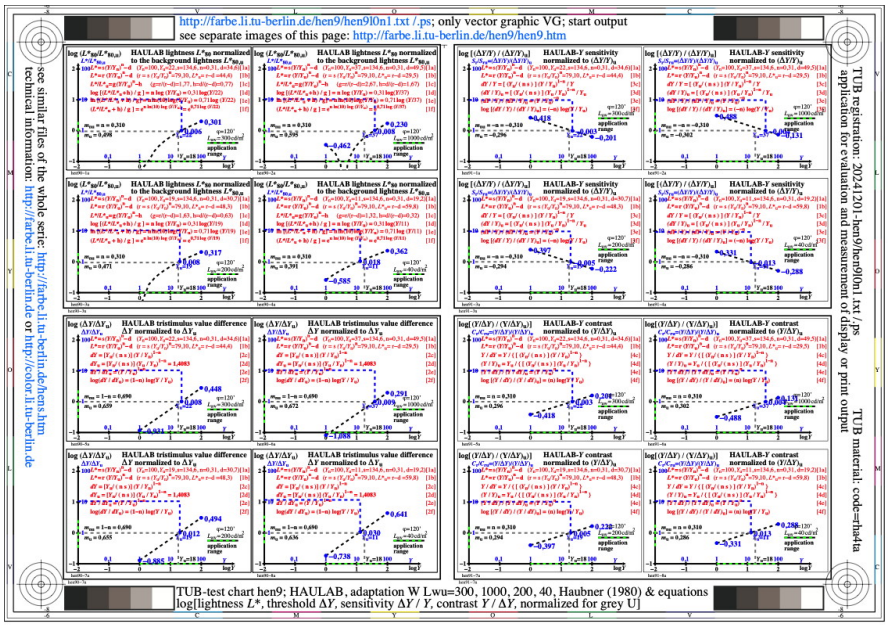

Image hen9l0n1.jpg: Output in format A6 of the file hen9l0np.pdf, see hen9l0n1. ps / txt / pdf / jpg

hen9: TUB-test chart hen9; HAULAB, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

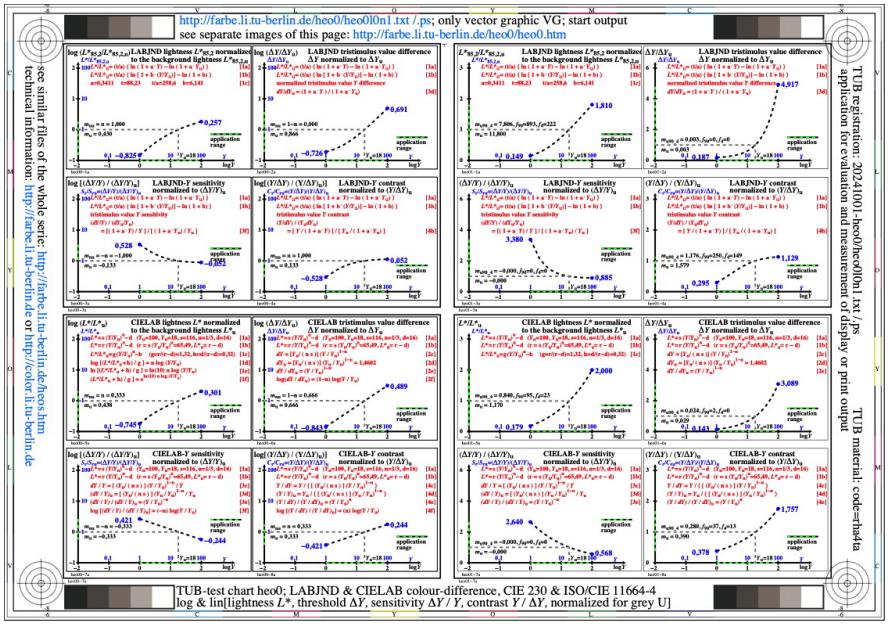

Image heo0l0n1.jpg: Output in format A6 of the file heo0l0np.pdf, see heo0l0n1. ps / txt / pdf / jpg

heo0: TUB-test chart heo0; Formulae LABJND (CIE 230:219) and CIELAB (ISO/CIE 11664-4), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

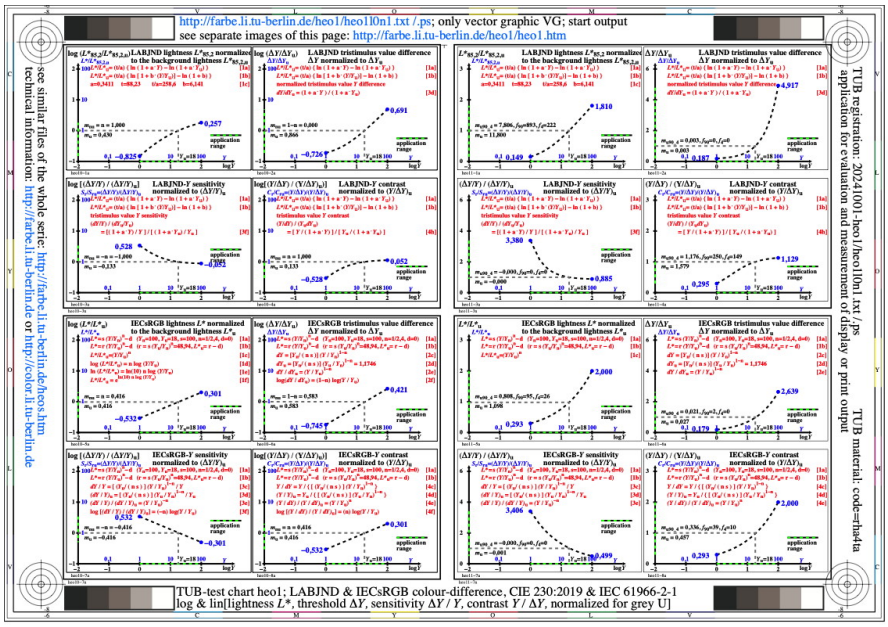

Image heo1l0n1.jpg: Output in format A6 of the file heo1l0np.pdf, see heo1l0n1. ps / txt / pdf / jpg

heo1: TUB-test chart heo1; Formulae LABJND (CIE 230:219) and IECsRGB (IEC 61966-2-1), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

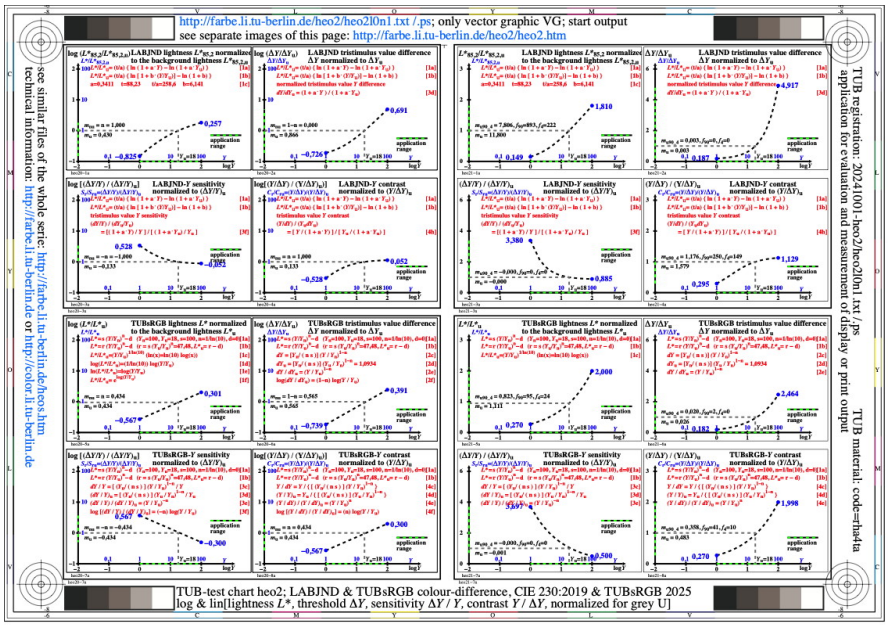

Image heo2l0n1.jpg: Output in format A6 of the file heo2l0np.pdf, see heo2l0n1. ps / txt / pdf / jpg

heo2: TUB-test chart heo2; Formulae LABJND (CIE 230:219) and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

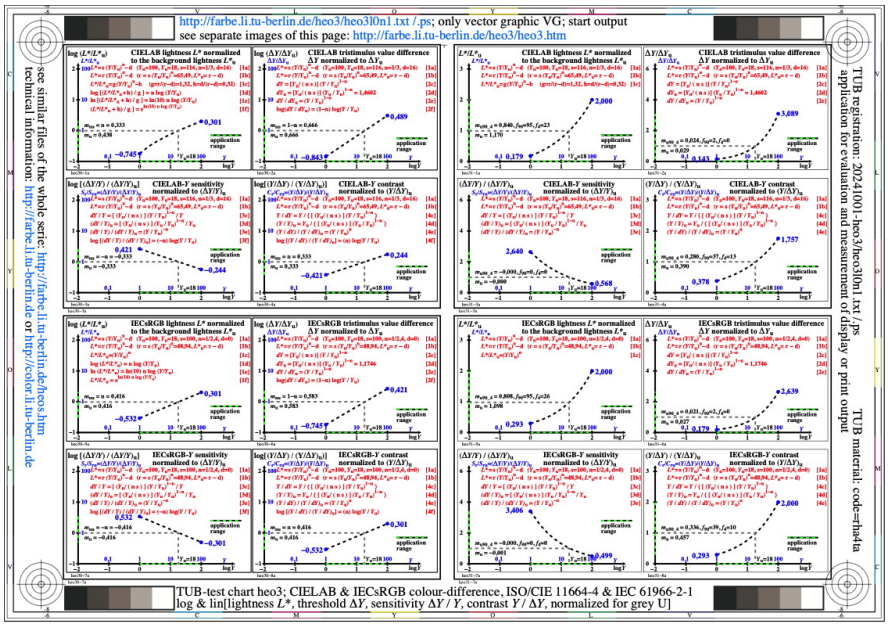

Image heo3l0n1.jpg: Output in format A6 of the file heo3l0np.pdf, see heo3l0n1. ps / txt / pdf / jpg

heo3: TUB-test chart heo3; Formulae CIELAB (ISO/CIE 11664-4), and IECsRGB (IEC 61966-2-1), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

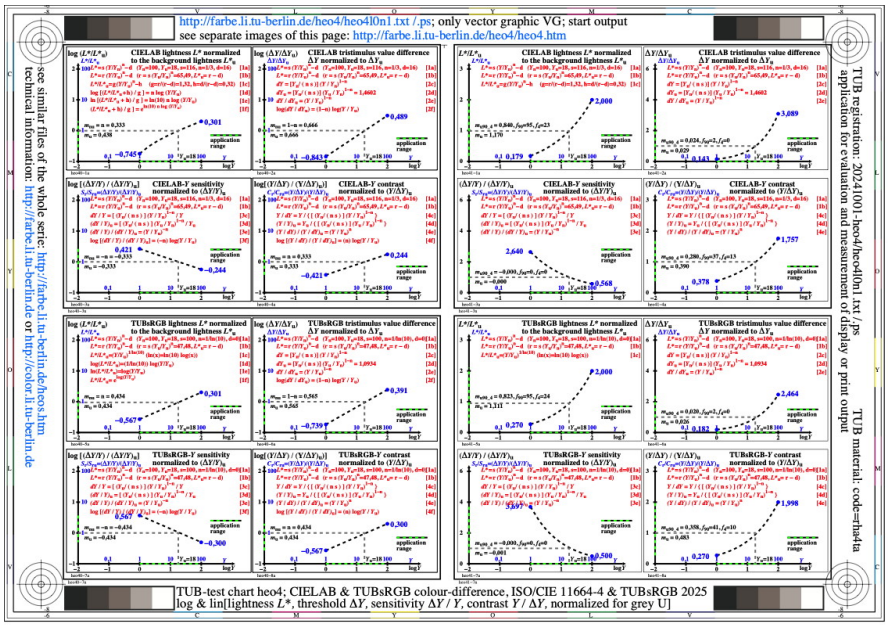

Image heo4l0n1.jpg: Output in format A6 of the file heo4l0np.pdf, see heo4l0n1. ps / txt / pdf / jpg

heo4: TUB-test chart heo4; Formulae CIELAB (ISO/CIE 11664-4), and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

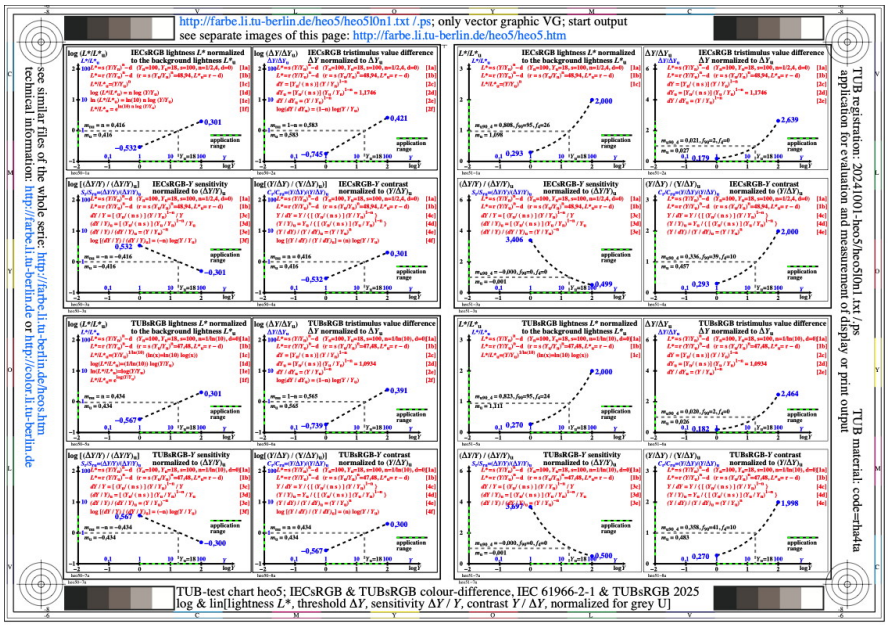

Image heo5l0n1.jpg: Output in format A6 of the file heo5l0np.pdf, see heo5l0n1. ps / txt / pdf / jpg

heo5: TUB-test chart heo5; Formulae IECsRGB (IEC 61966-2-1), and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

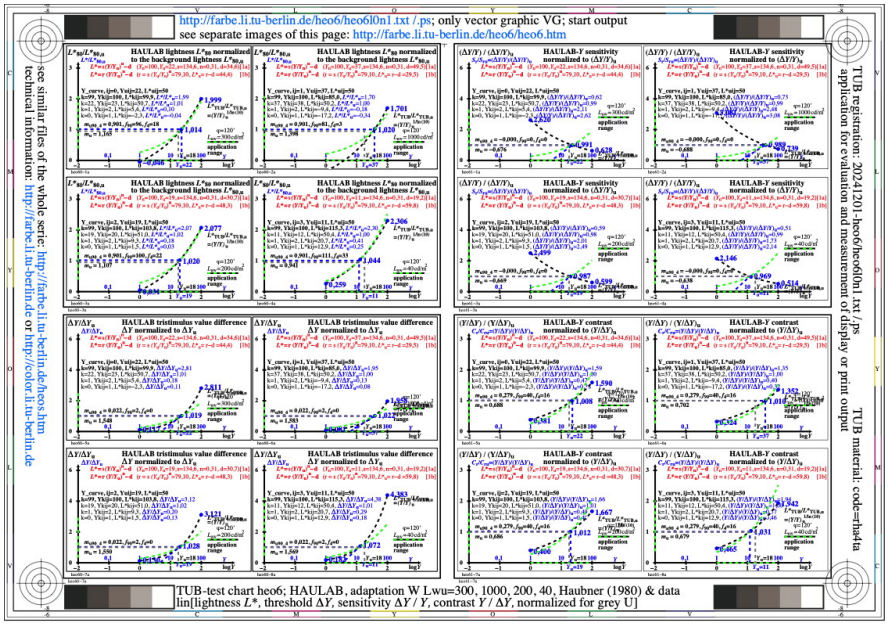

Image heo6l0n1.jpg: Output in format A6 of the file heo6l0np.pdf, see heo6l0n1. ps / txt / pdf / jpg

heo6: TUB-test chart heo6; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

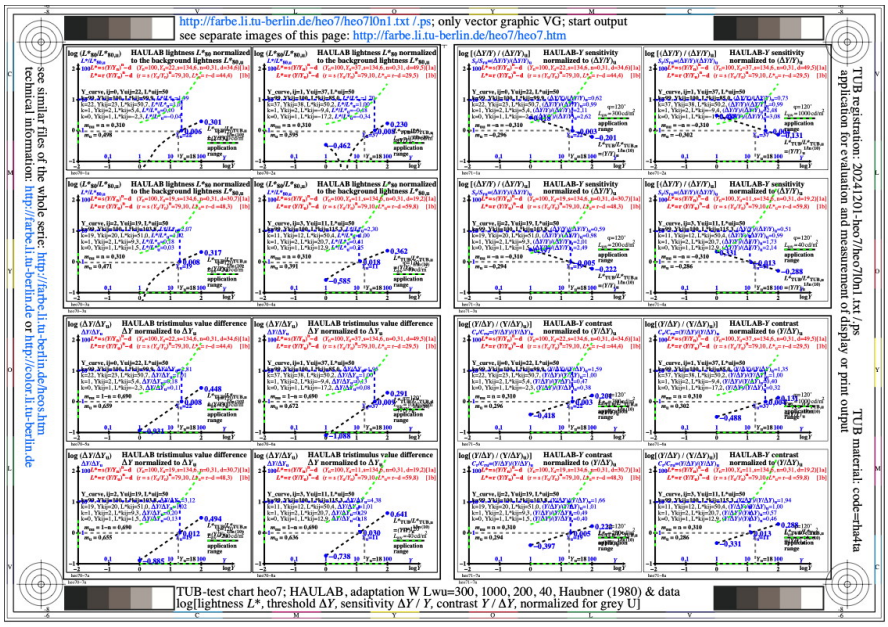

Image heo7l0n1.jpg: Output in format A6 of the file heo7l0np.pdf, see heo7l0n1. ps / txt / pdf / jpg

heo7: TUB-test chart heo7; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

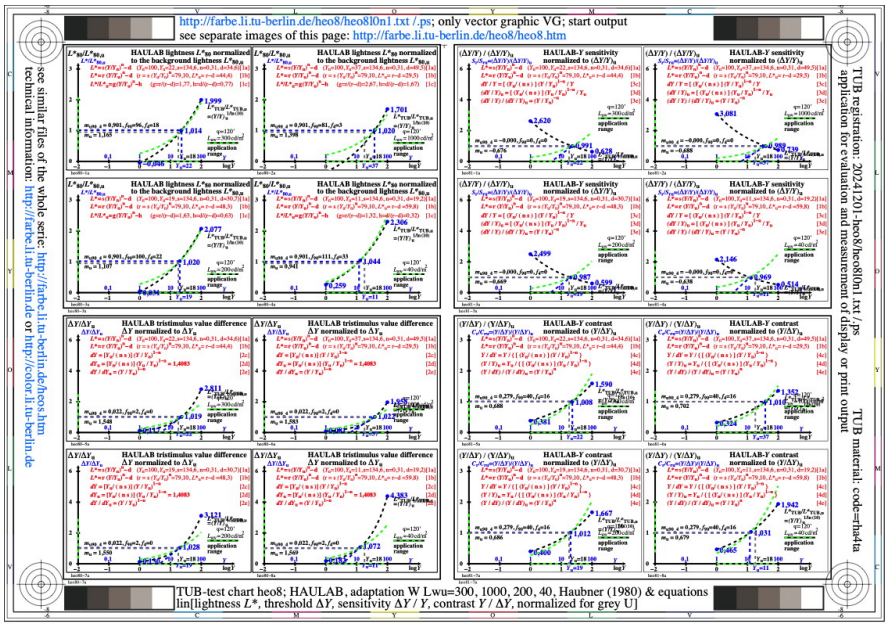

Image heo8l0n1.jpg: Output in format A6 of the file heo8l0np.pdf, see heo8l0n1. ps / txt / pdf / jpg

heo8: TUB-test chart heo8; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

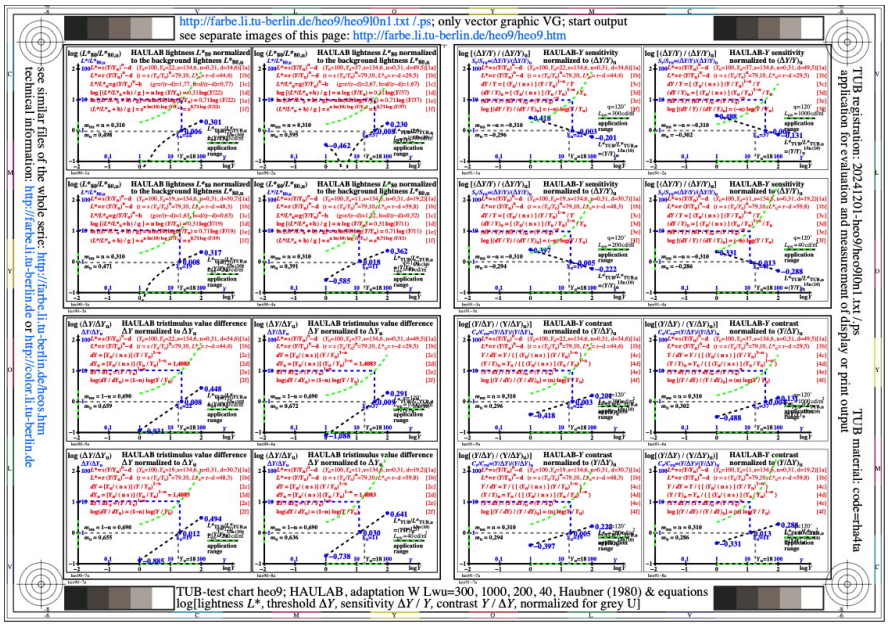

Image heo9l0n1.jpg: Output in format A6 of the file heo9l0np.pdf, see heo9l0n1. ps / txt / pdf / jpg

heo9: TUB-test chart heo9; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

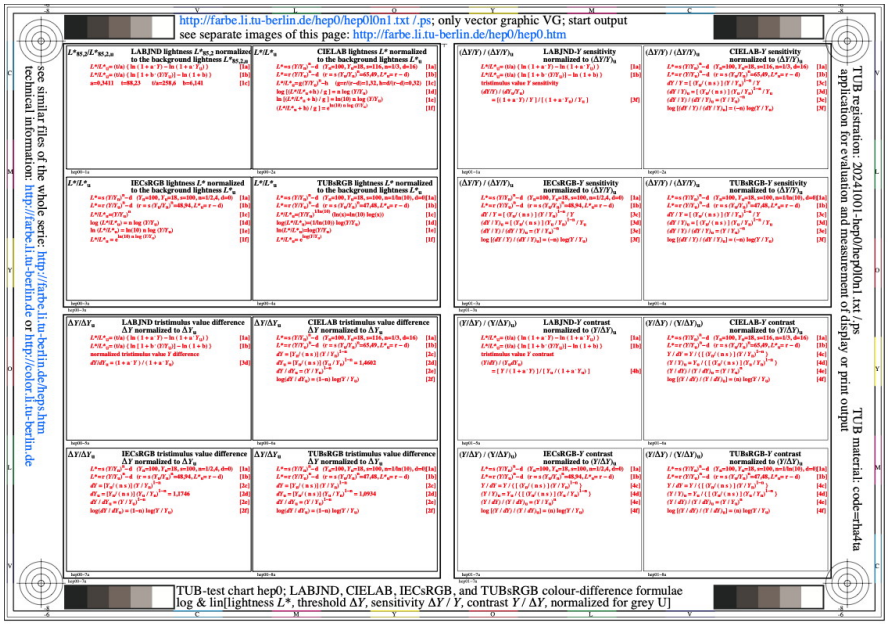

Image hep0l0n1.jpg: Output in format A6 of the file hep0l0np.pdf, see hep0l0n1. ps / txt / pdf / jpg

hep0: TUB-test chart hep0; LABJND, CIELAB, IECsRGB, and TUBsRGB-colour difference formulae, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

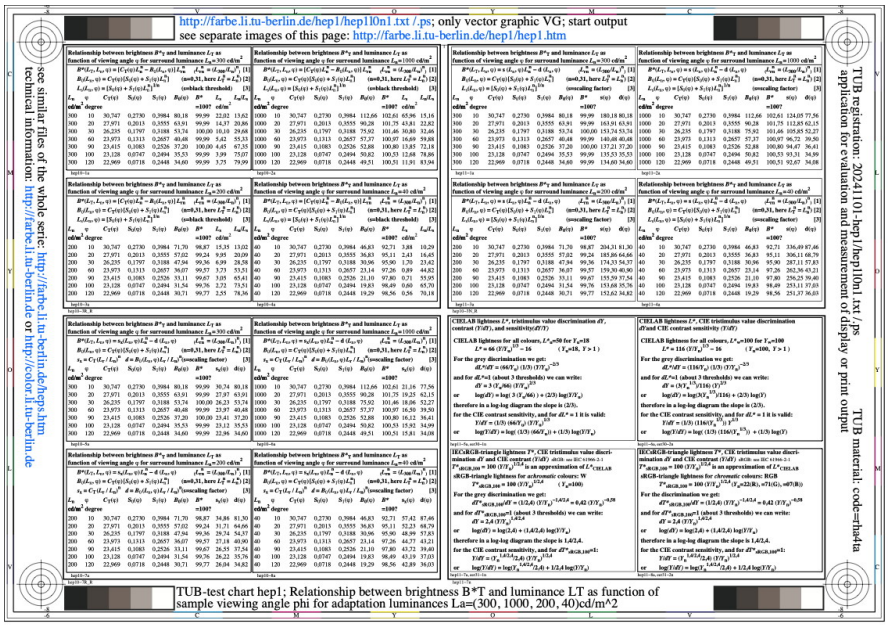

Image hep1l0n1.jpg: Output in format A6 of the file hep1l0np.pdf, see hep1l0n1. ps / txt / pdf / jpg

hep1: TUB-test chart hep1; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(300, 1000, 200, 40) cd/m^2

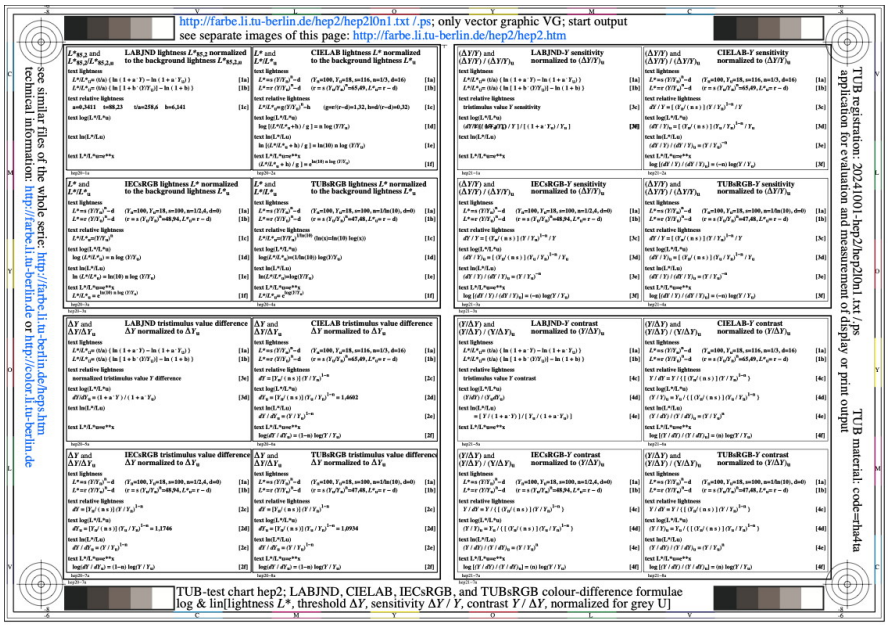

Image hep2l0n1.jpg: Output in format A6 of the file hep2l0np.pdf, see hep2l0n1. ps / txt / pdf / jpg

hep2: TUB-test chart hep2; LABJND, CIELAB, IECsRGB, and TUBsRGB-colour difference formulae, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

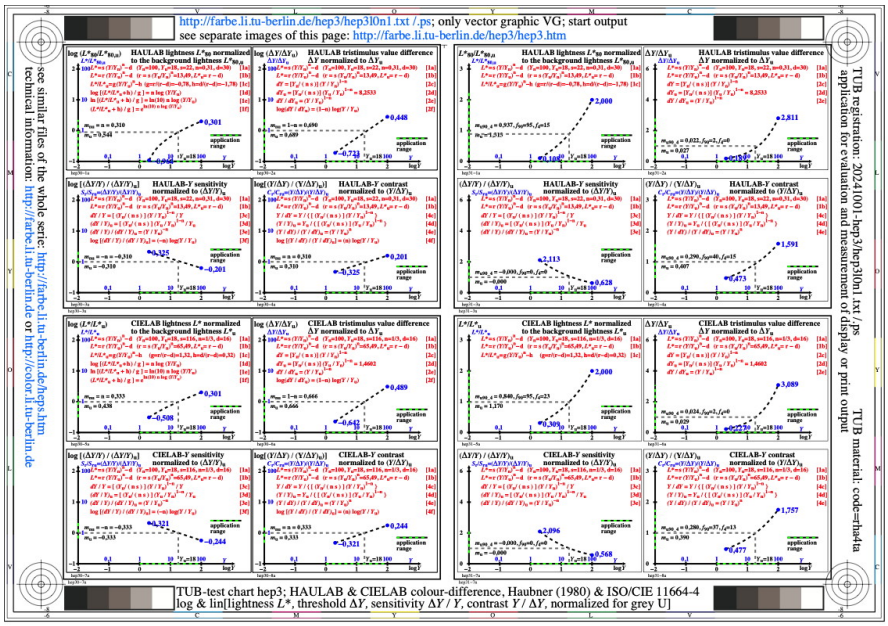

Image hep3l0n1.jpg: Output in format A6 of the file hep3l0np.pdf, see hep3l0n1. ps / txt / pdf / jpg

hep3: TUB-test chart hep3; Formulae HAULAB, Haubner (1980) and CIELAB (ISO/CIE 11664-4), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

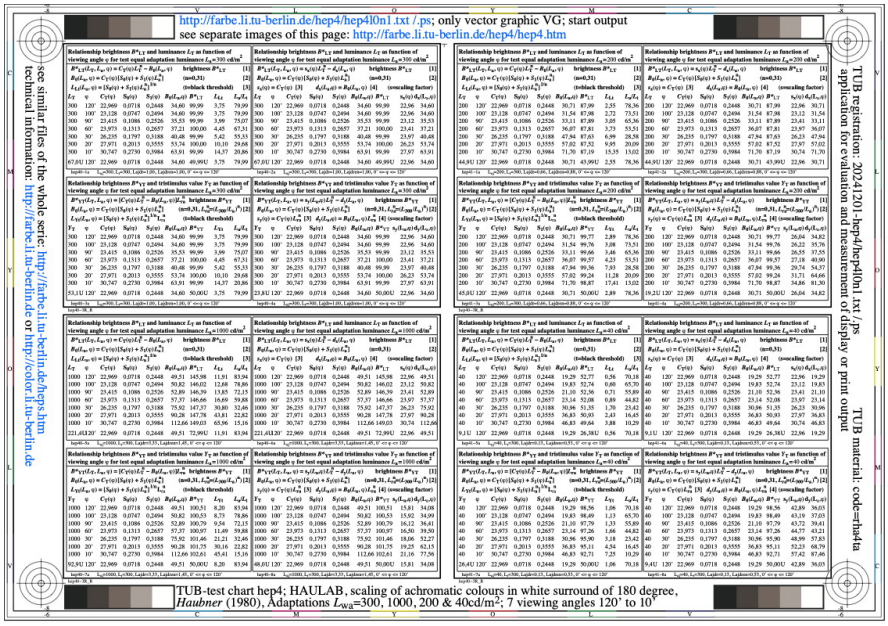

Image hep4l0n1.jpg: Output in format A6 of the file hep4l0np.pdf, see hep4l0n1. ps / txt / pdf / jpg

hep4: TUB-test chart hep4; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(300, 1000, 200, 40) cd/m^2

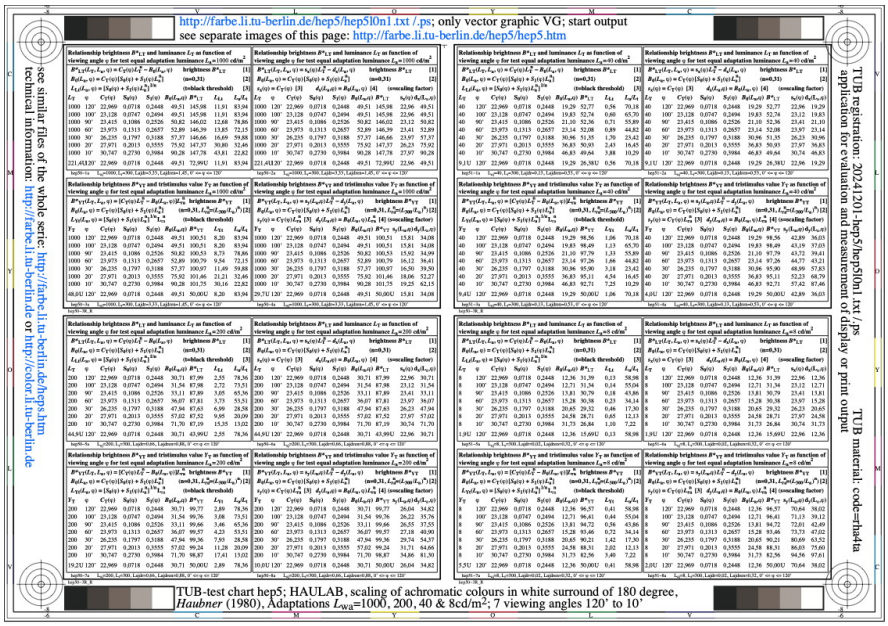

Image hep5l0n1.jpg: Output in format A6 of the file hep5l0np.pdf, see hep5l0n1. ps / txt / pdf / jpg

hep5: TUB-test chart hep5; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1000, 200, 40, 8) cd/m^2

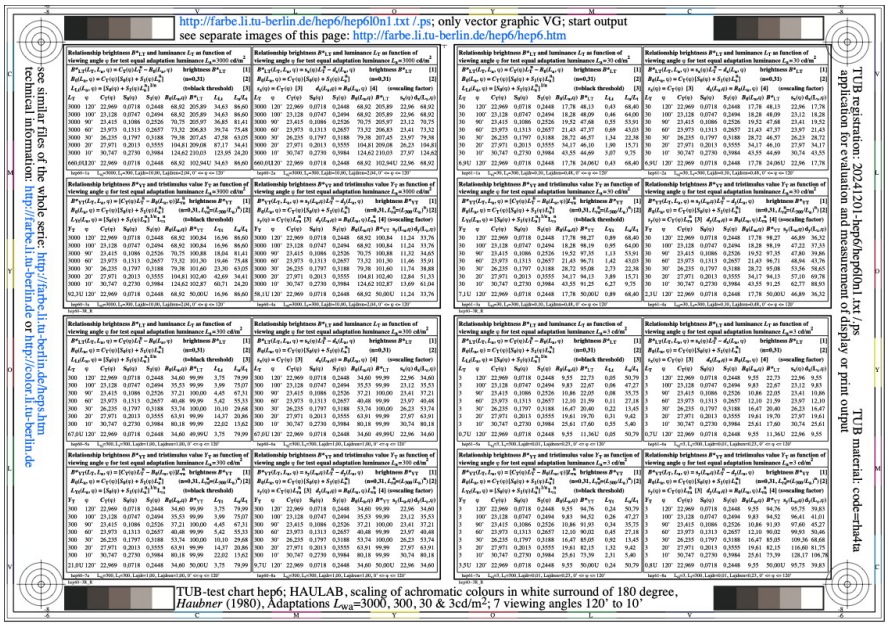

Image hep6l0n1.jpg: Output in format A6 of the file hep6l0np.pdf, see hep6l0n1. ps / txt / pdf / jpg

hep6: TUB-test chart hep6; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1500, 300, 30, 3) cd/m^2

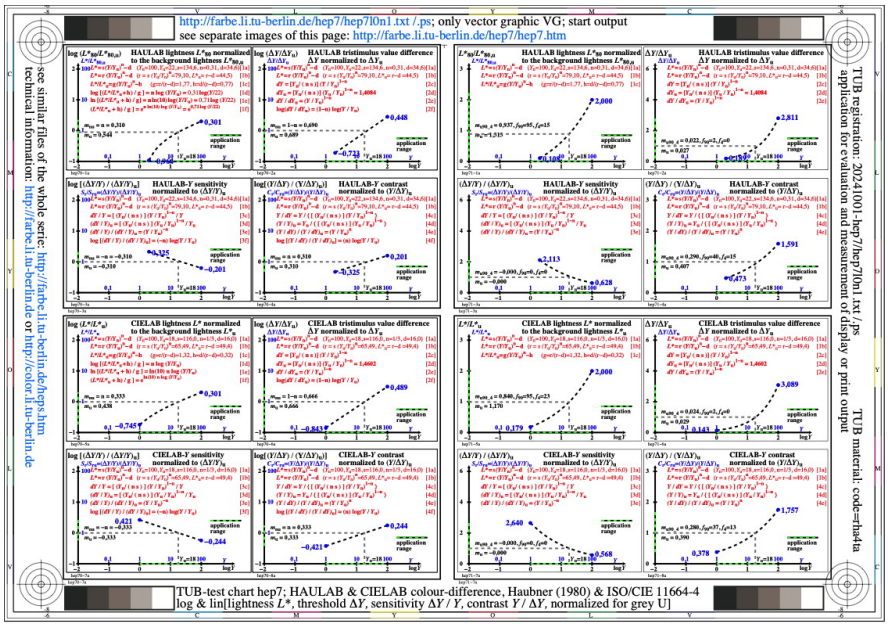

Image hep7l0n1.jpg: Output in format A6 of the file hep7l0np.pdf, see hep7l0n1. ps / txt / pdf / jpg

hep7: TUB-test chart hep7; Formulae HAULAB, Haubner (1980) and CIELAB (ISO/CIE 11664-4), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

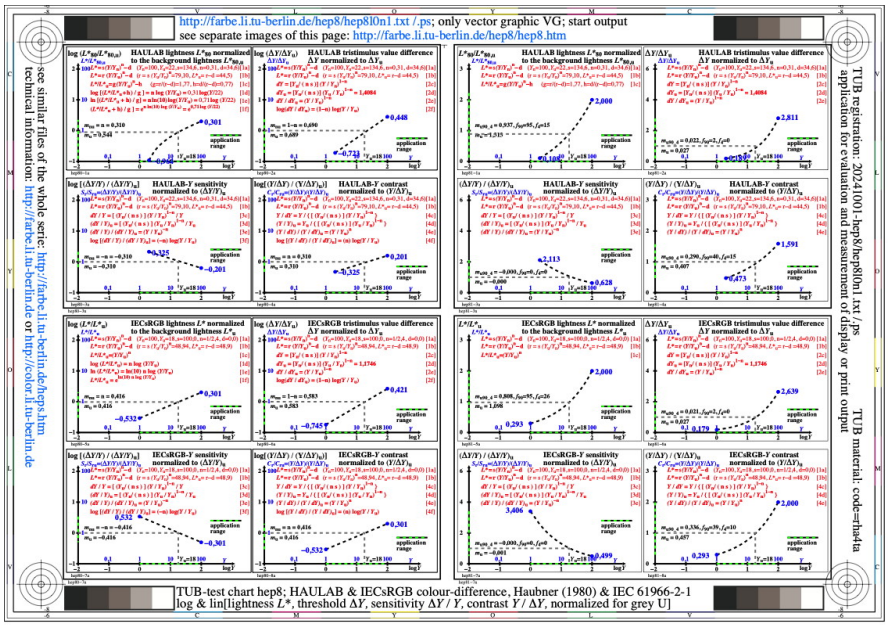

Image hep8l0n1.jpg: Output in format A6 of the file hep8l0np.pdf, see hep8l0n1. ps / txt / pdf / jpg

hep8: TUB-test chart hep8; Formulae HAULAB, Haubner (1980) and IECsRGB (IEC 61966-2-1), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

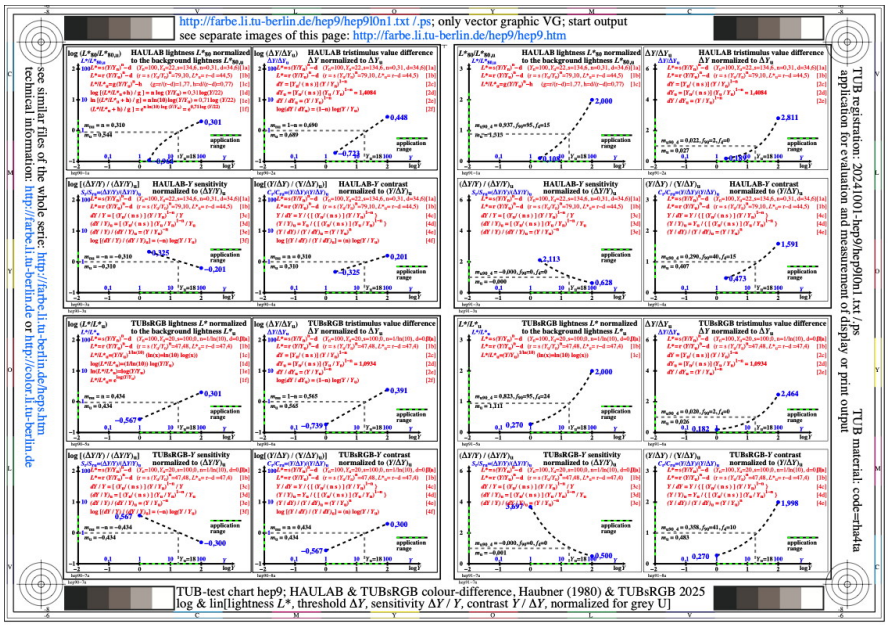

Image hep9l0n1.jpg: Output in format A6 of the file hep9l0np.pdf, see hep9l0n1. ps / txt / pdf / jpg

hep9: TUB-test chart hep9; Formulae HAULAB, Haubner (1980) and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

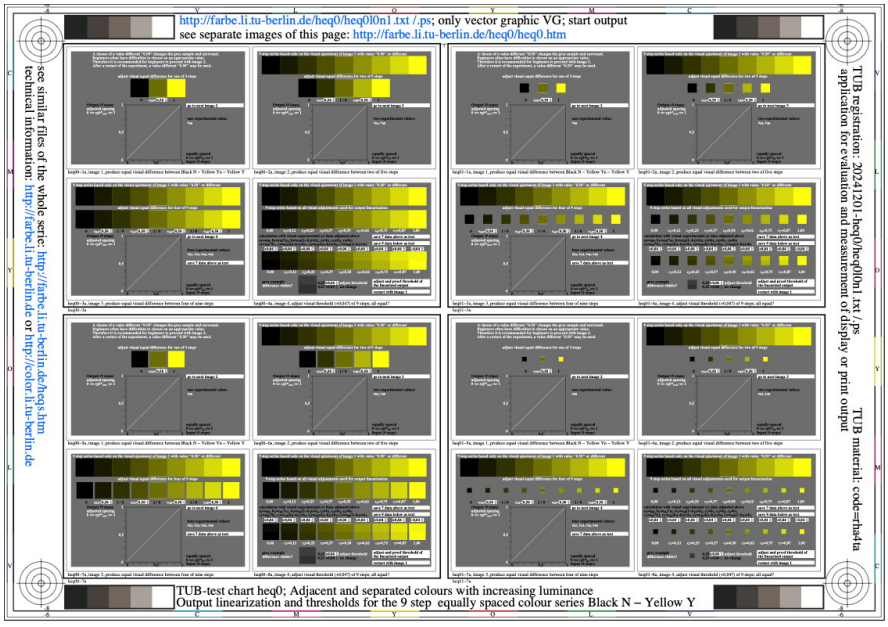

Image heq0l0n1.jpg: Output in format A6 of the file heq0l0np.pdf, see heq0l0n1. ps / txt / pdf / jpg

heq0: TUB-test chart heq0; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - Yellow Y

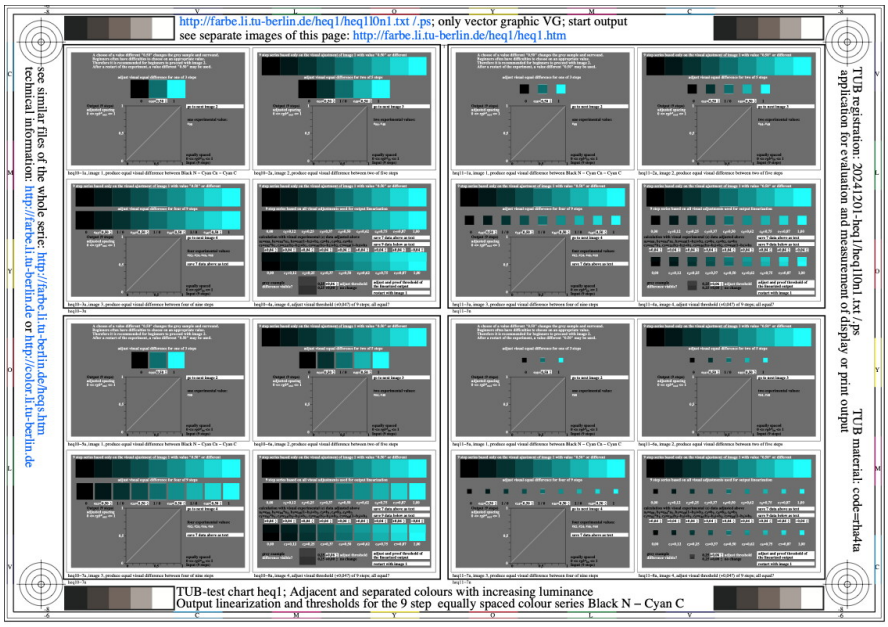

Image heq1l0n1.jpg: Output in format A6 of the file heq1l0np.pdf, see heq1l0n1. ps / txt / pdf / jpg

heq1: TUB-test chart heq1; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - Cyan C

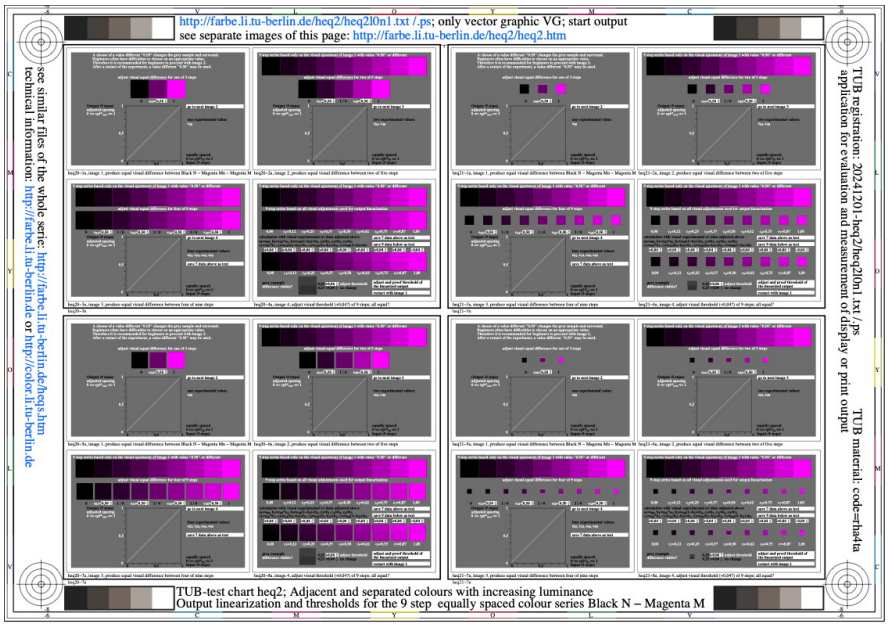

Image heq2l0n1.jpg: Output in format A6 of the file heq2l0np.pdf, see heq2l0n1. ps / txt / pdf / jpg

heq2: TUB-test chart heq2; Adjacent and separate colours of 9 steps with increaing luminance; output linearization and thresholds for colour series Black N - Magenta M

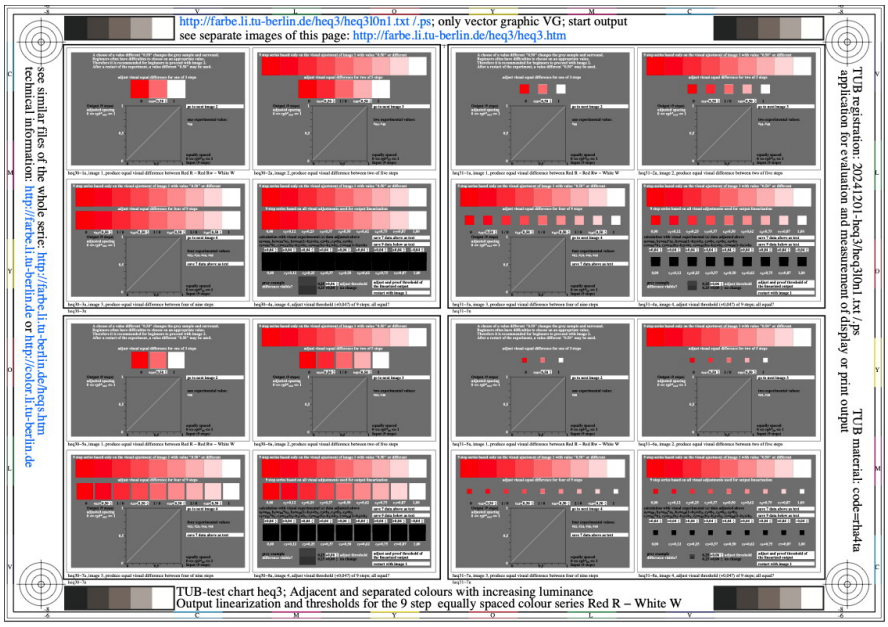

Image heq3l0n1.jpg: Output in format A6 of the file heq3l0np.pdf, see heq3l0n1. ps / txt / pdf / jpg

heq3: TUB-test chart heq3; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Red R - White W

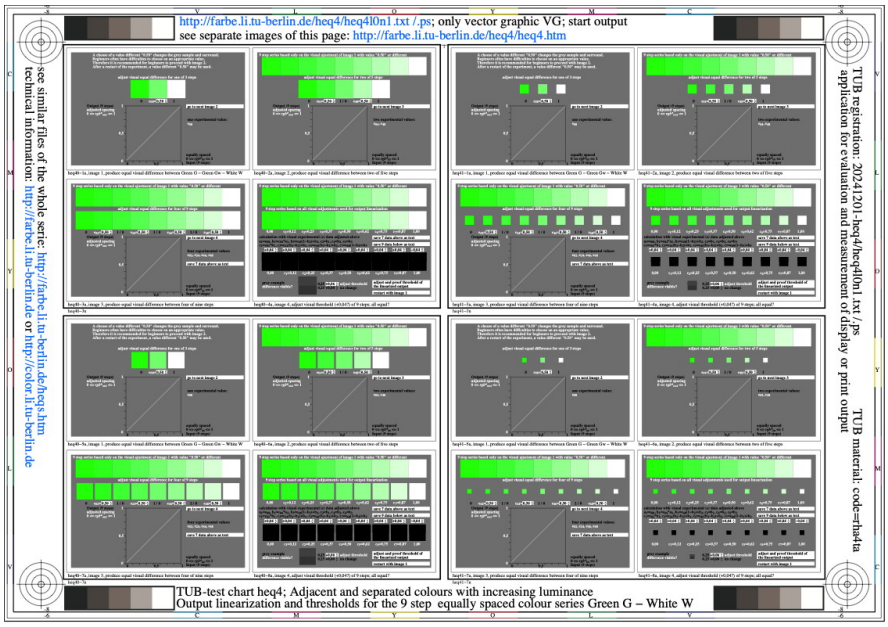

Image heq4l0n1.jpg: Output in format A6 of the file heq4l0np.pdf, see heq4l0n1. ps / txt / pdf / jpg

heq4: TUB-test chart heq4; Adjacent and separated colours of nine steps with increaing luminance; output linearization and thresholds for colour series Green G - White W

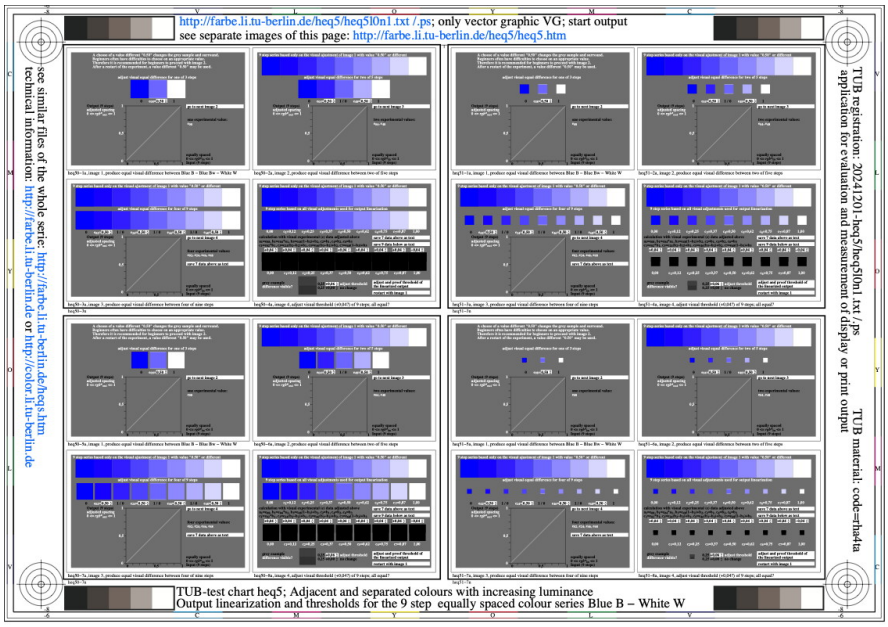

Image heq5l0n1.jpg: Output in format A6 of the file heq5l0np.pdf, see heq5l0n1. ps / txt / pdf / jpg

heq5: TUB-test chart heq5; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Blue B - White W

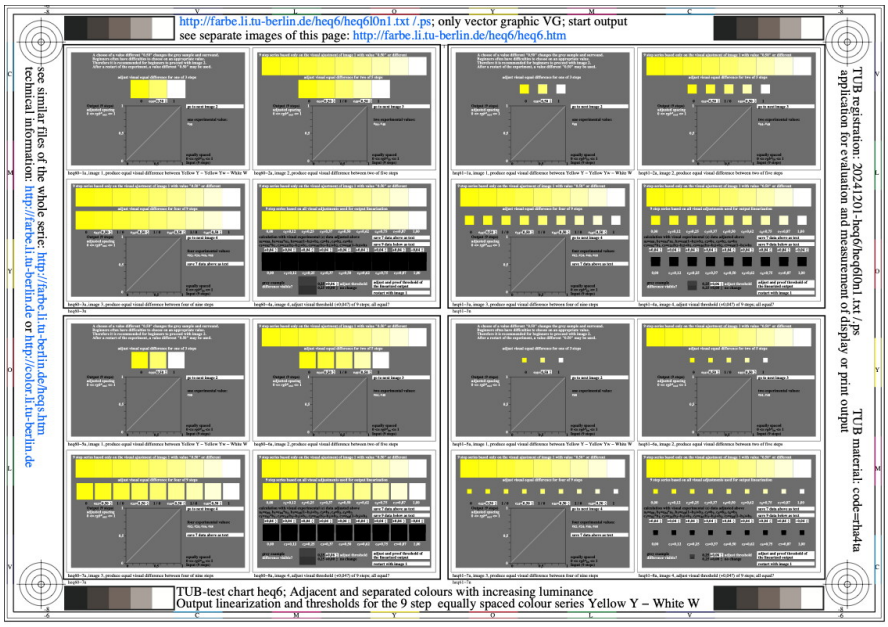

Image heq6l0n1.jpg: Output in format A6 of the file heq6l0np.pdf, see heq6l0n1. ps / txt / pdf / jpg

heq6: TUB-test chart heq6; Adjacent and separate colours of 9 steps with increaing luminance; output linearization and thresholds for colour series Yellow Y - White W

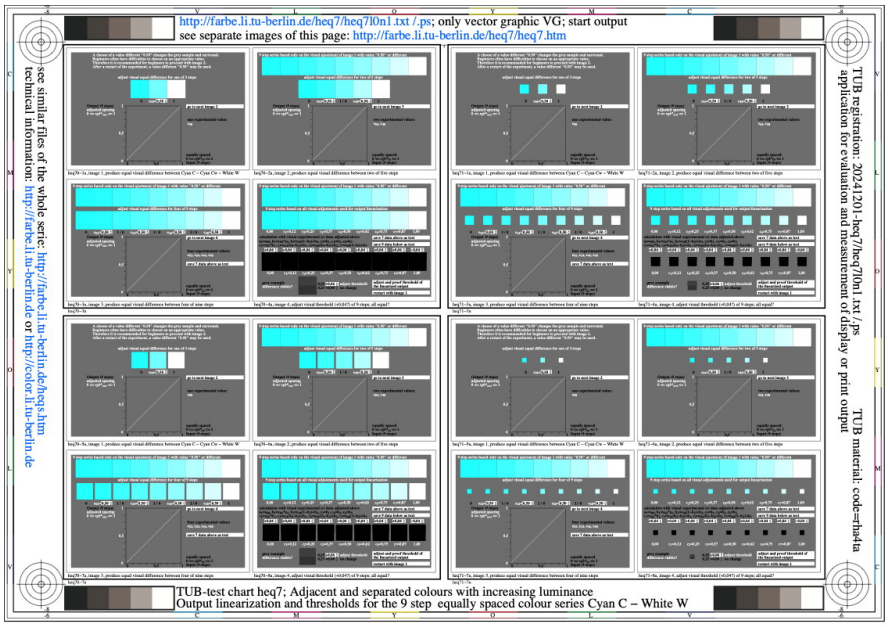

Image heq7l0n1.jpg: Output in format A6 of the file heq7l0np.pdf, see heq7l0n1. ps / txt / pdf / jpg

heq7: TUB-test chart heq7; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Cyan C - White W

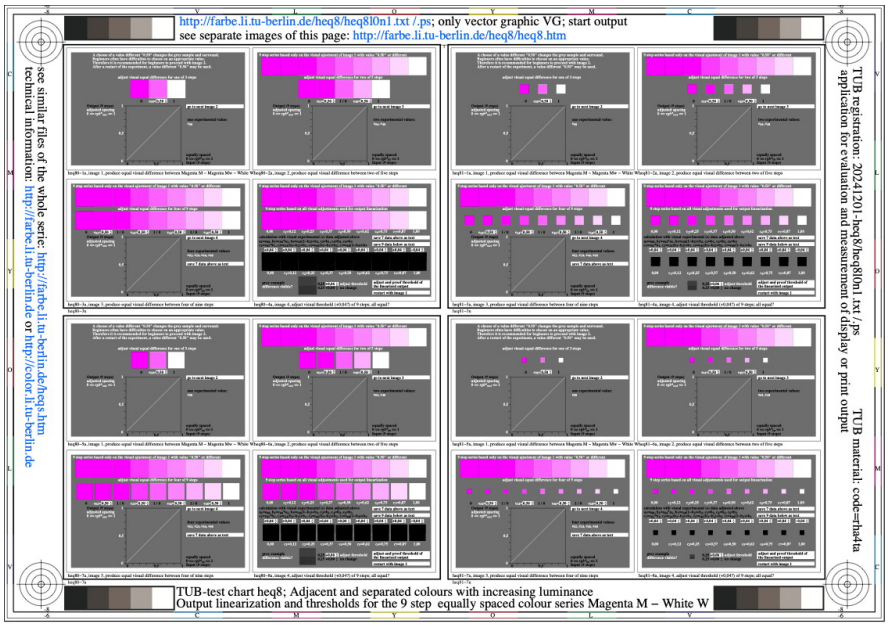

Image heq8l0n1.jpg: Output in format A6 of the file heq8l0np.pdf, see heq8l0n1. ps / txt / pdf / jpg

heq8: TUB-test chart heq8; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Magenta M - White W

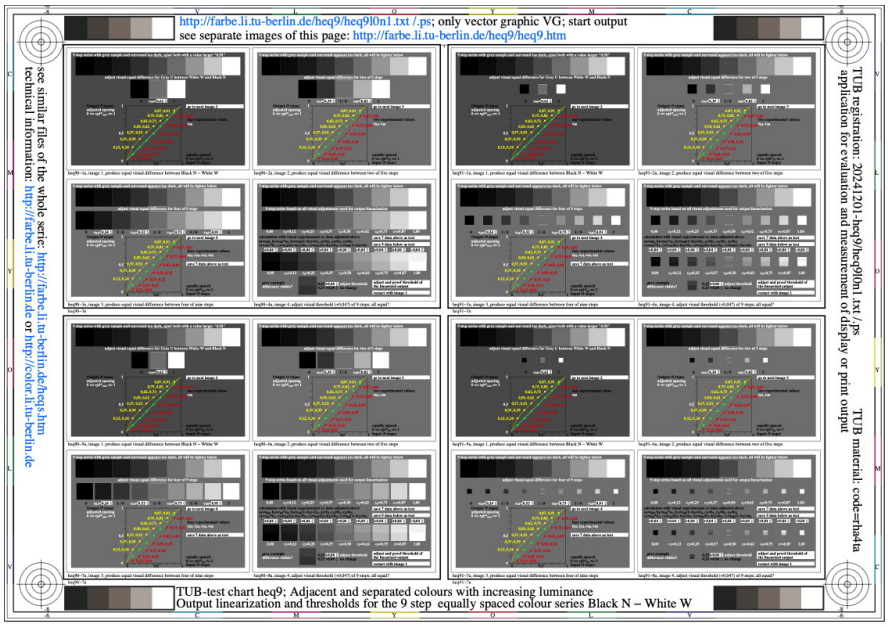

Image heq9l0n1.jpg: Output in format A6 of the file heq9l0np.pdf, see heq9l0n1. ps / txt / pdf / jpg

heq9: TUB-test chart heq9; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - White W

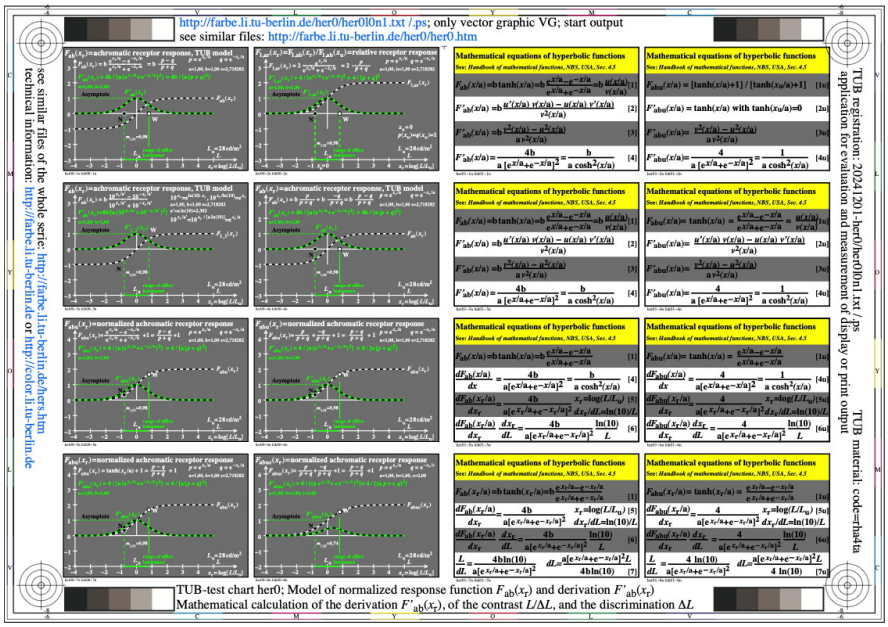

Image her0l0n1.jpg: Output in format A6 of the file her0l0np.pdf, see her0l0n1. ps / txt / pdf / jpg

her0: TUB-test chart her0; Achromatic receptor responses
Components of absolute and relative responses in figures
Hyperbel function equations and mathematical derivation

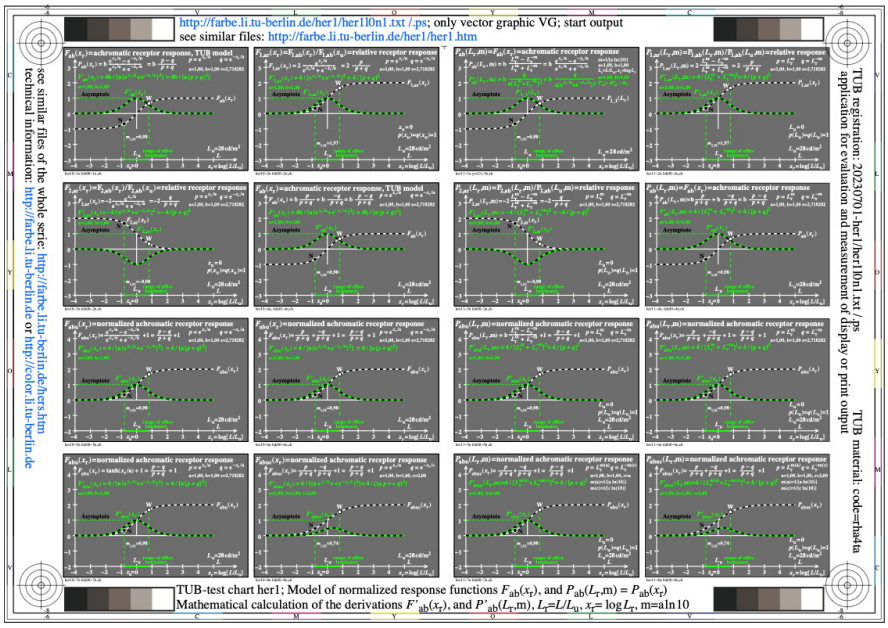

Image her1l0n1.jpg: Output in format A6 of the file her1l0np.pdf, see her1l0n1. ps / txt / pdf / jpg

her1: TUB-test chart her1; Achromatic receptor responses
Components of absolute and relative responses in figures
Hyperbel function equations and mathematical derivation

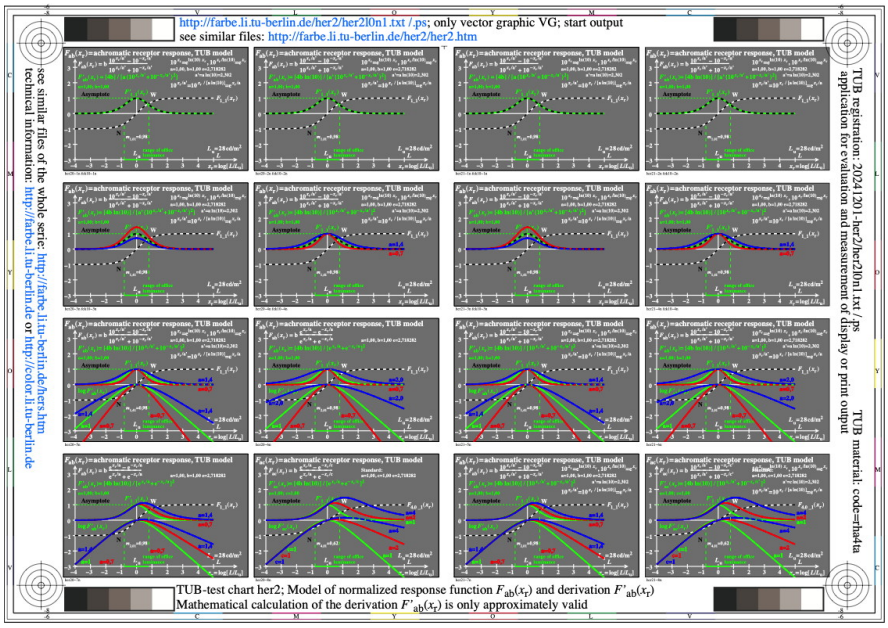

Image her2l0n1.jpg: Output in format A6 of the file her2l0np.pdf, see her2l0n1. ps / txt / pdf / jpg

her2: TUB-test chart her2; Achromatic receptor responses Fac(xr)
Change of derivation F'abc(xr) with parameters a and c
Model functions for approximation of experimental results

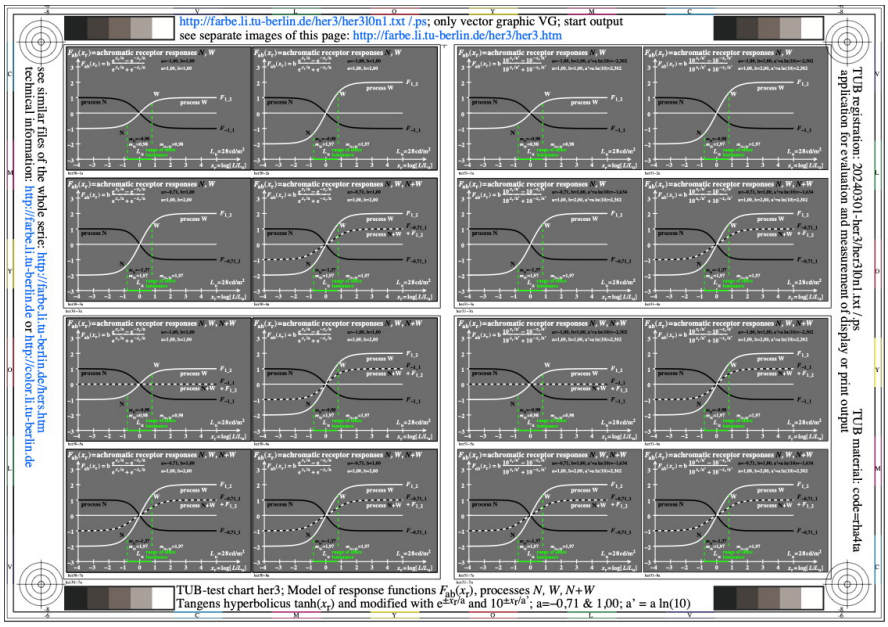

Image her3l0n1.jpg: Output in format A6 of the file her3l0np.pdf, see her3l0n1. ps / txt / pdf / jpg

her3: TUB-test chart her3; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,7; 4 x 4 images

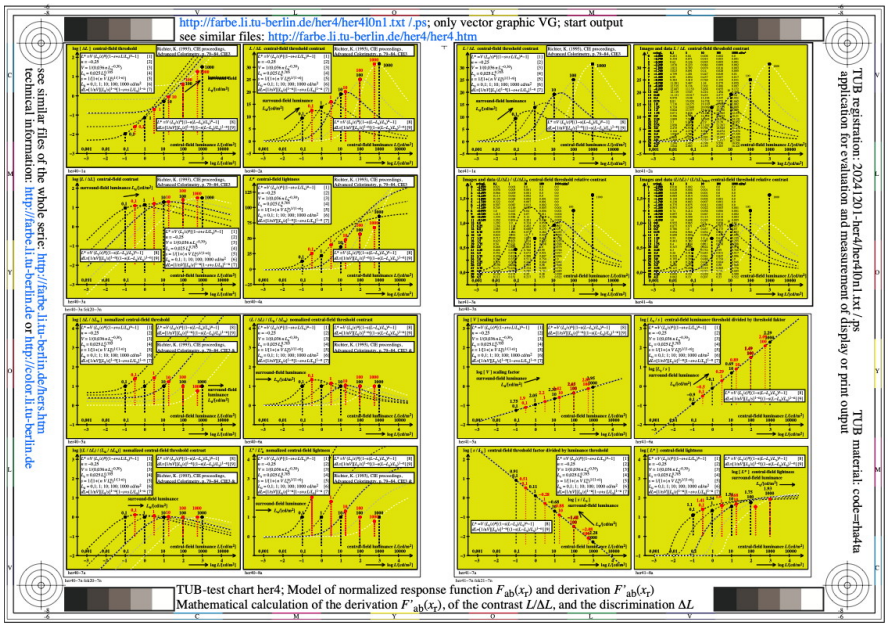

Image her4l0n1.jpg: Output in format A6 of the file her4l0np.pdf, see her4l0n1. ps / txt / pdf / jpg

her4: TUB-test chart her4; Achromatic thresholds, 5 Lu & Lm on Y thresholds delta_L (0,4s), contrast and lightness; experi-mental data of *Lingelbach and Richter* with adaptation

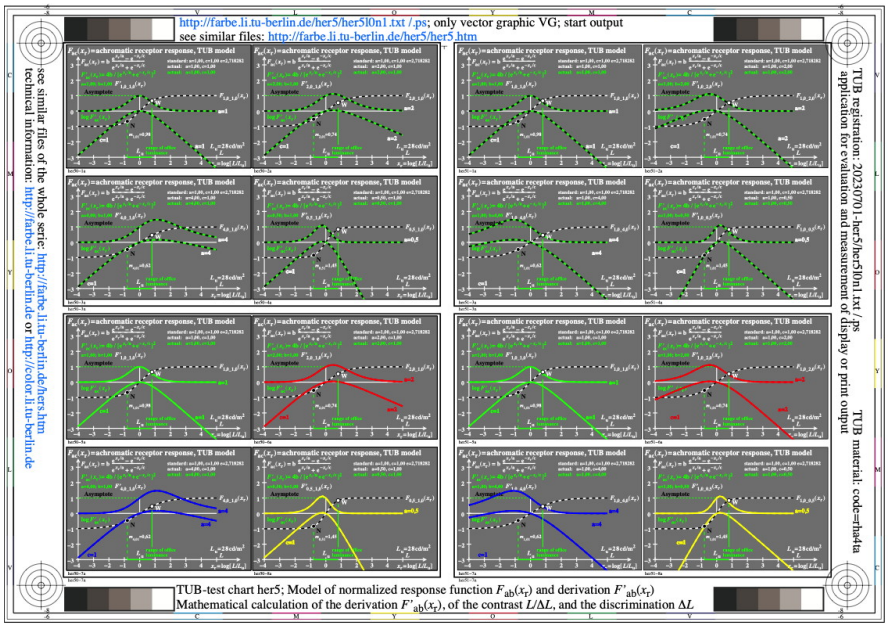

Image her5l0n1.jpg: Output in format A6 of the file her5l0np.pdf, see her5l0n1. ps / txt / pdf / jpg

her5: TUB-test chart her5; Achromatic receptor response Fac(xr) and change of derivation F'ac(xr) with parameters a and c F'ac(xr) is approximately valid and for Lingelbach experiments

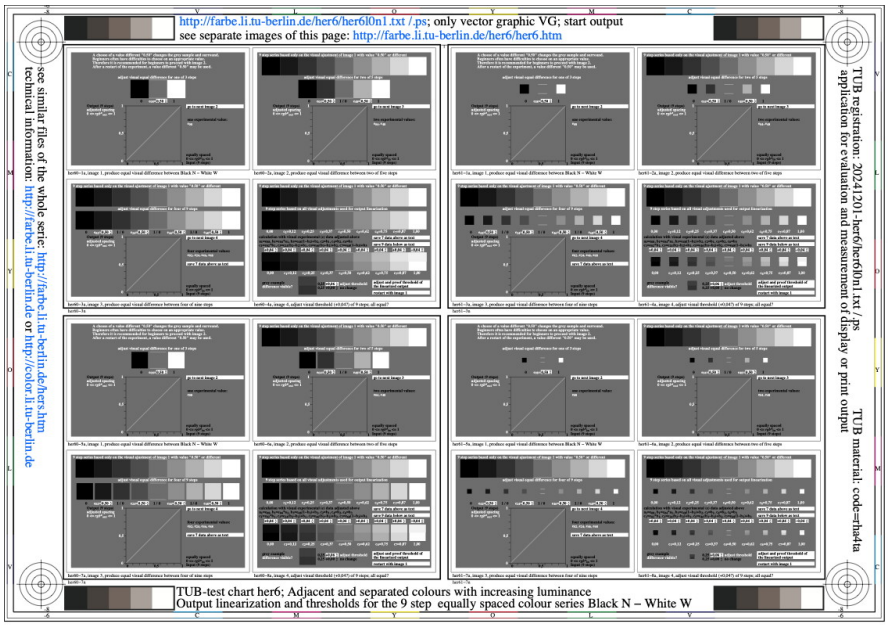

Image her6l0n1.jpg: Output in format A6 of the file her6l0np.pdf, see her6l0n1. ps / txt / pdf / jpg

her6: TUB-test chart her6; Adjacent and separate colours of 9 steps with increaing luminance; output linearization and thresholds for colour series Black N - White W

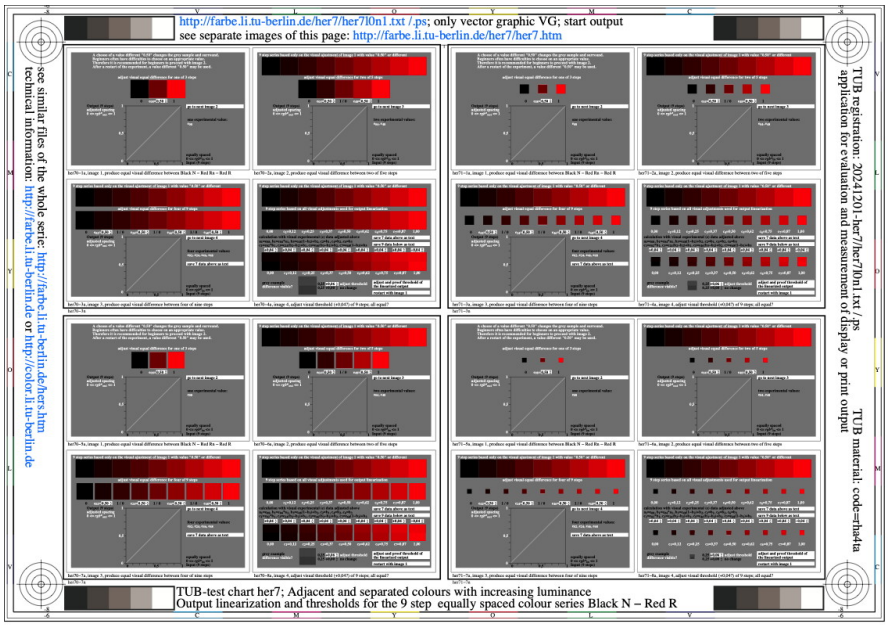

Image her7l0n1.jpg: Output in format A6 of the file her7l0np.pdf, see her7l0n1. ps / txt / pdf / jpg

her7: TUB-test chart her7; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - Red R

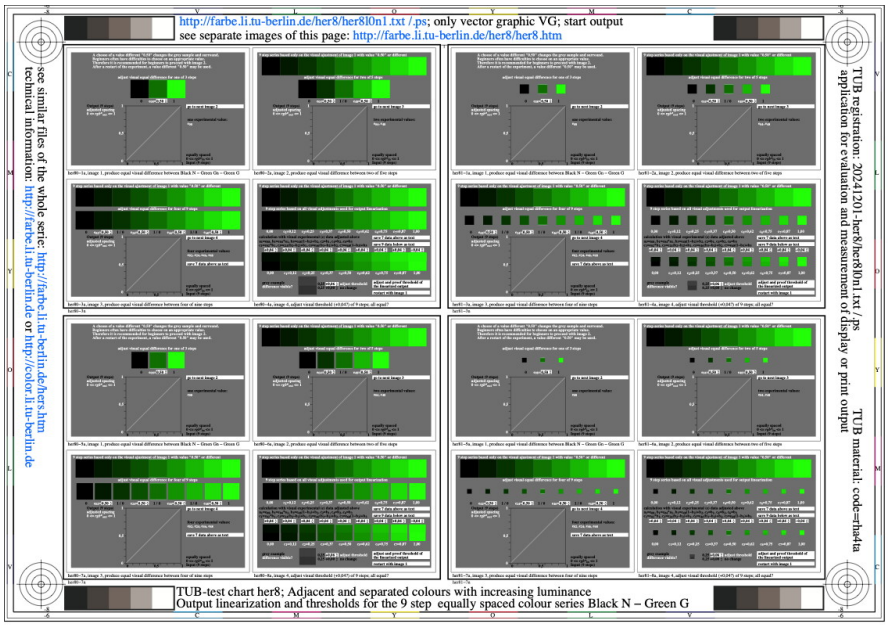

Image her8l0n1.jpg: Output in format A6 of the file her8l0np.pdf, see her8l0n1. ps / txt / pdf / jpg

her8: TUB-test chart her8; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - Green G

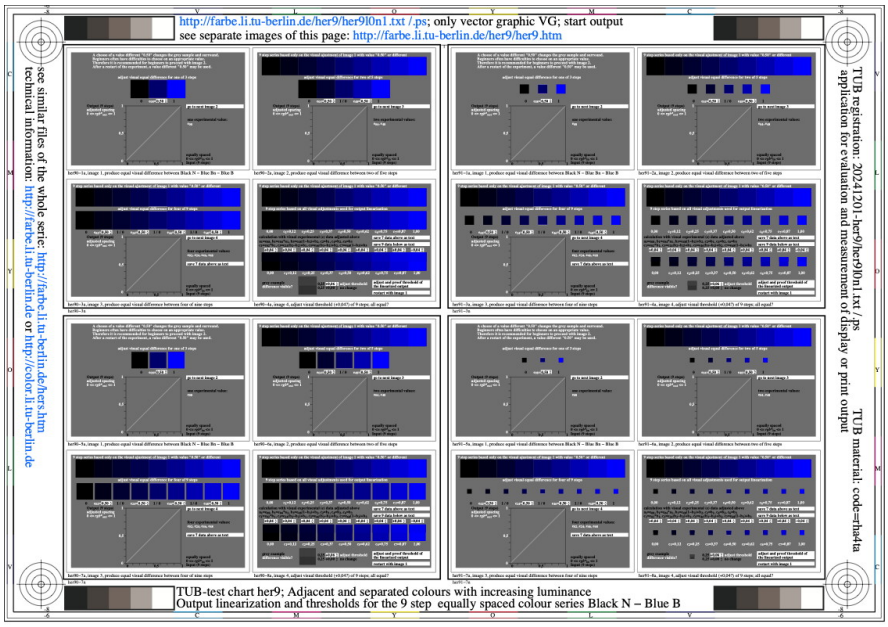

Image her9l0n1.jpg: Output in format A6 of the file her9l0np.pdf, see her9l0n1. ps / txt / pdf / jpg

her9: TUB-test chart her9; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - Blue B

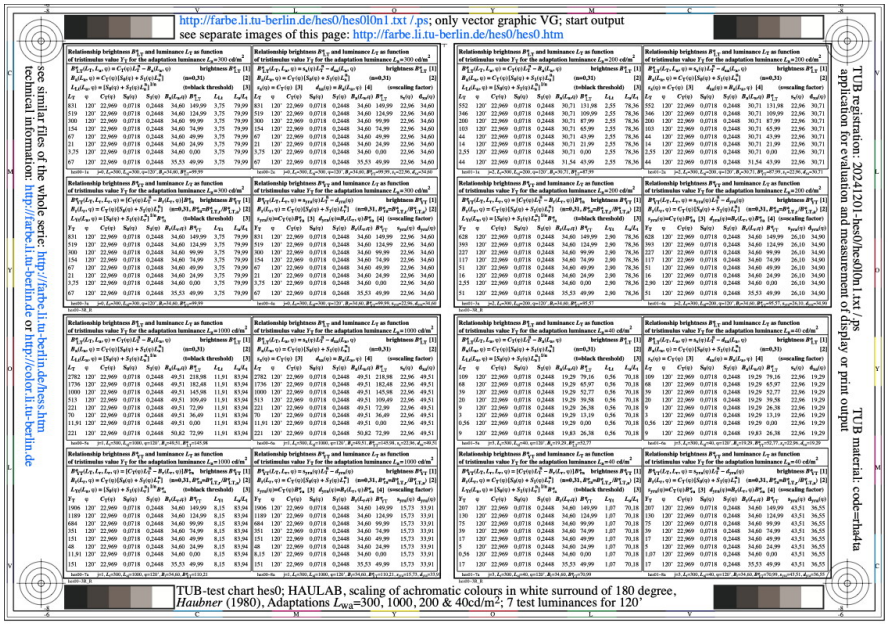

Image hes0l0n1.jpg: Output in format A6 of the file hes0l0np.pdf, see hes0l0n1. ps / txt / pdf / jpg

hes0: TUB-test chart hes0; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(300, 1000, 200, 40) cd/m^2

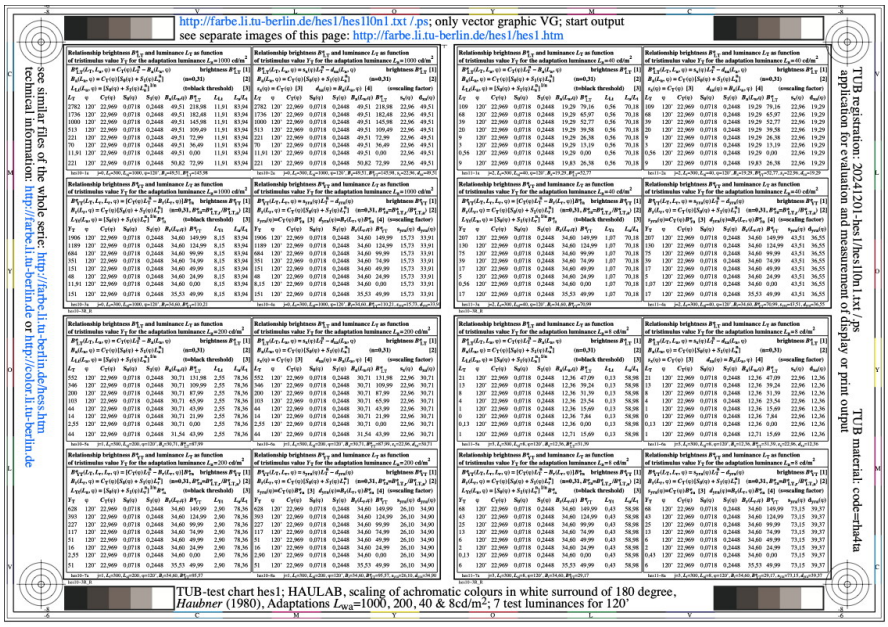

Image hes1l0n1.jpg: Output in format A6 of the file hes1l0np.pdf, see hes1l0n1. ps / txt / pdf / jpg

hes1: TUB-test chart hes1; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1000, 200, 40, 8) cd/m^2

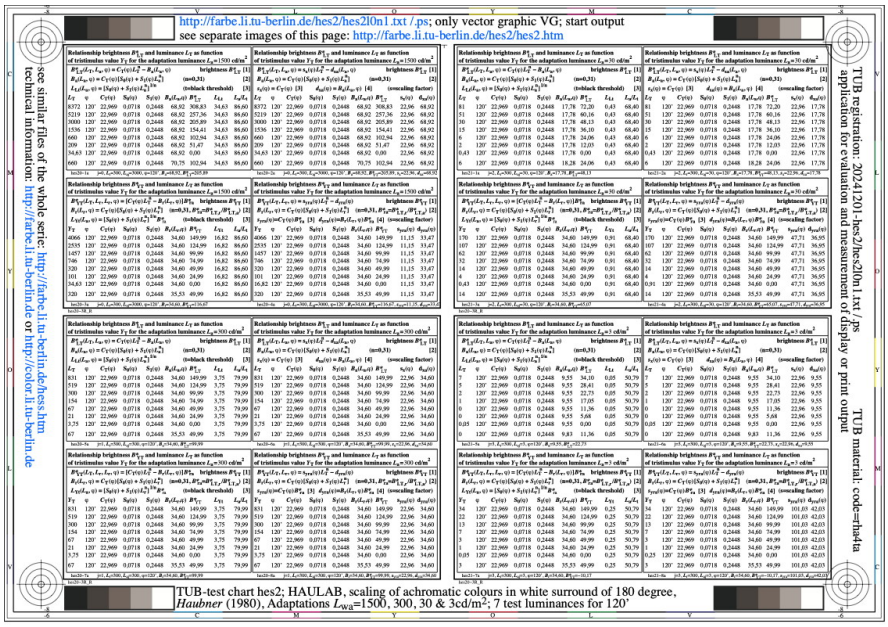

Image hes2l0n1.jpg: Output in format A6 of the file hes2l0np.pdf, see hes2l0n1. ps / txt / pdf / jpg

hes2: TUB-test chart hes2; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1500, 300, 30, 3) cd/m^2

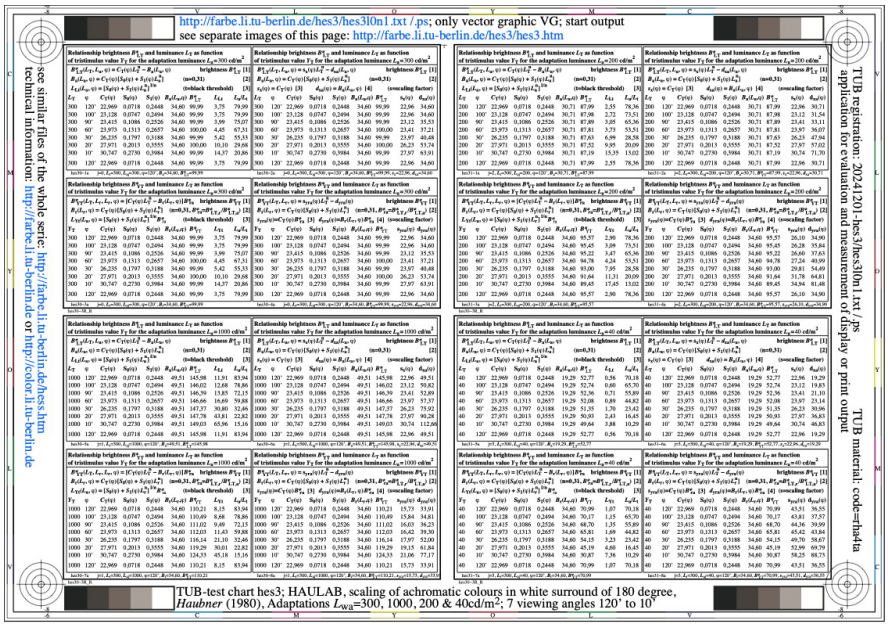

Image hes3l0n1.jpg: Output in format A6 of the file hes3l0np.pdf, see hes3l0n1. ps / txt / pdf / jpg

hes3: TUB-test chart hes3; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(300, 1000, 200, 40) cd/m^2

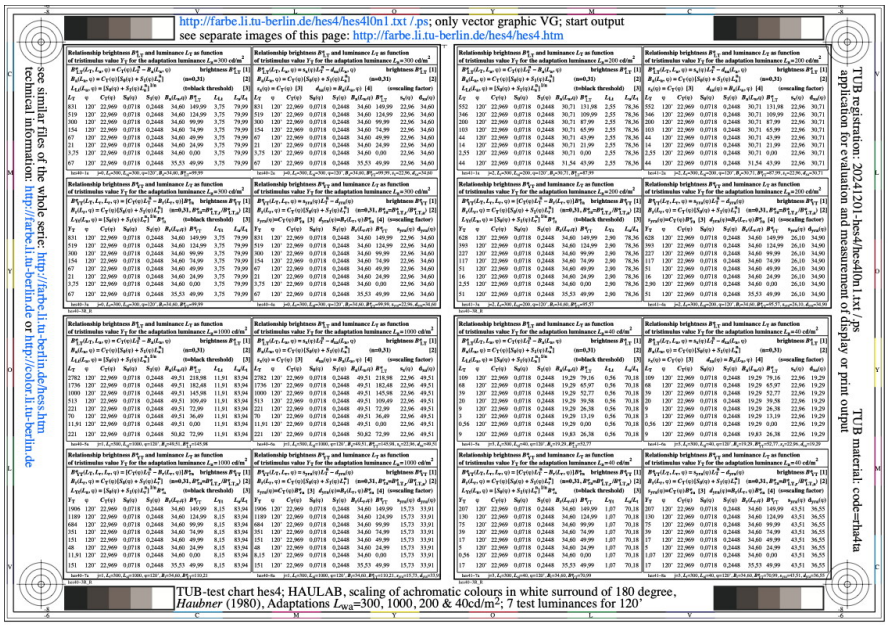

Image hes4l0n1.jpg: Output in format A6 of the file hes4l0np.pdf, see hes4l0n1. ps / txt / pdf / jpg

hes4: TUB-test chart hes4; Relationship between brightness B*T and luminance LT as function of test sample luminance LT for surround luminances La=(300, 1000, 200, 40) cd/m^2

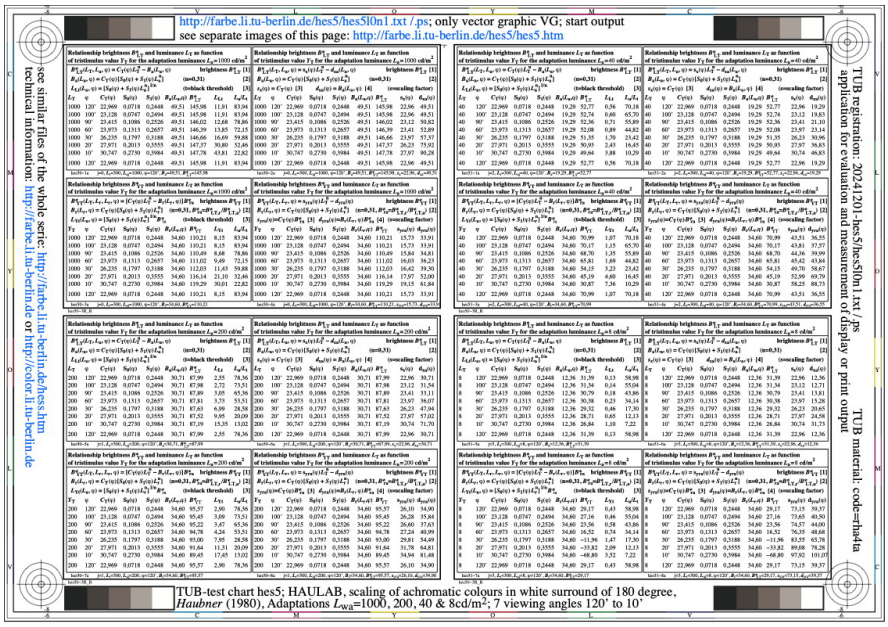

Image hes5l0n1.jpg: Output in format A6 of the file hes5l0np.pdf, see hes5l0n1. ps / txt / pdf / jpg

hes5: TUB-test chart hes5; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1000, 200, 40, 8) cd/m^2

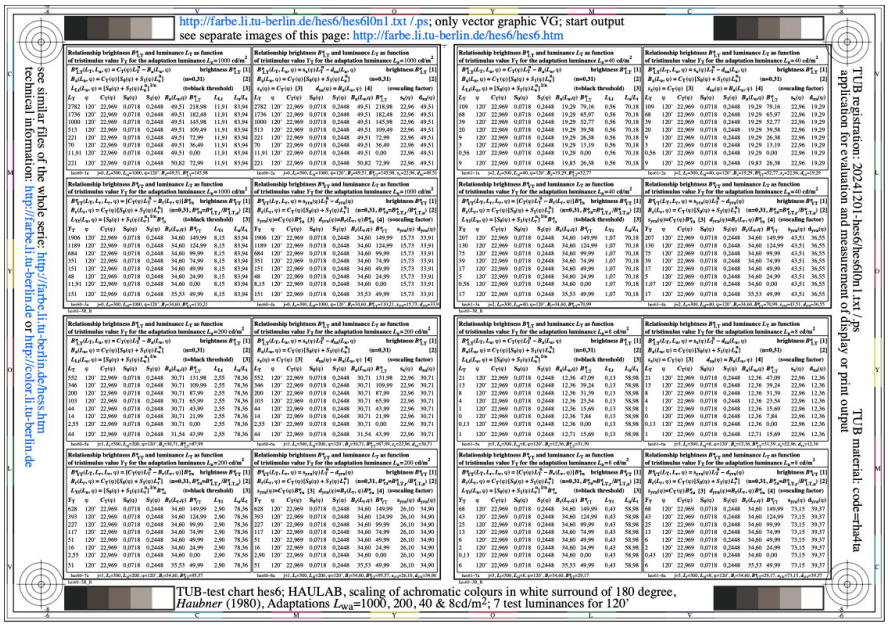

Image hes6l0n1.jpg: Output in format A6 of the file hes6l0np.pdf, see hes6l0n1. ps / txt / pdf / jpg

hes6: TUB-test chart hes6; Relationship between brightness B*T and luminance LT as function of test sample luminance LT for surround luminances La=(1000, 200, 40, 8) cd/m^2

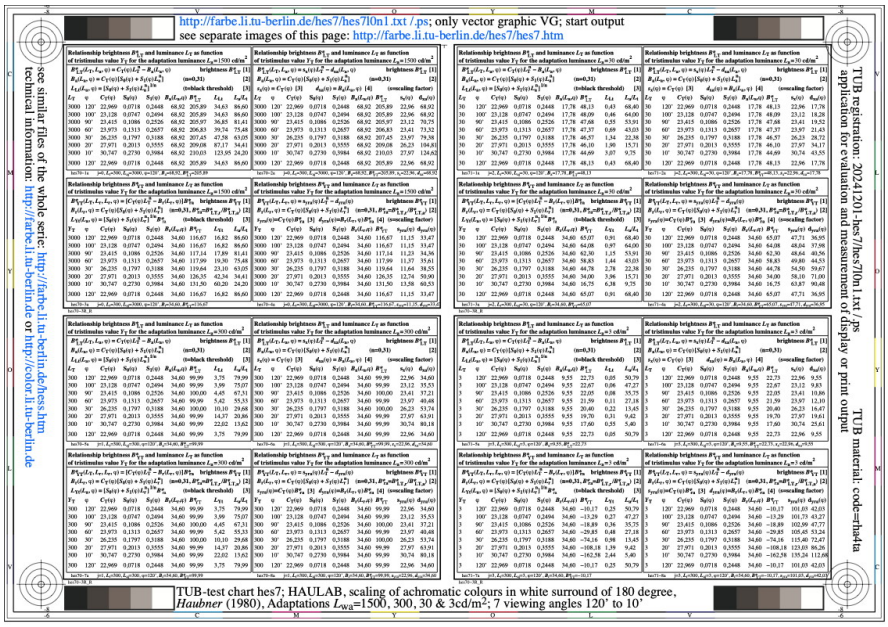

Image hes7l0n1.jpg: Output in format A6 of the file hes7l0np.pdf, see hes7l0n1. ps / txt / pdf / jpg

hes7: TUB-test chart hes7; Relationship between brightness B*T and luminance LT as function of sample viewing angle phi for surround luminances La=(1500, 300, 30, 3) cd/m^2

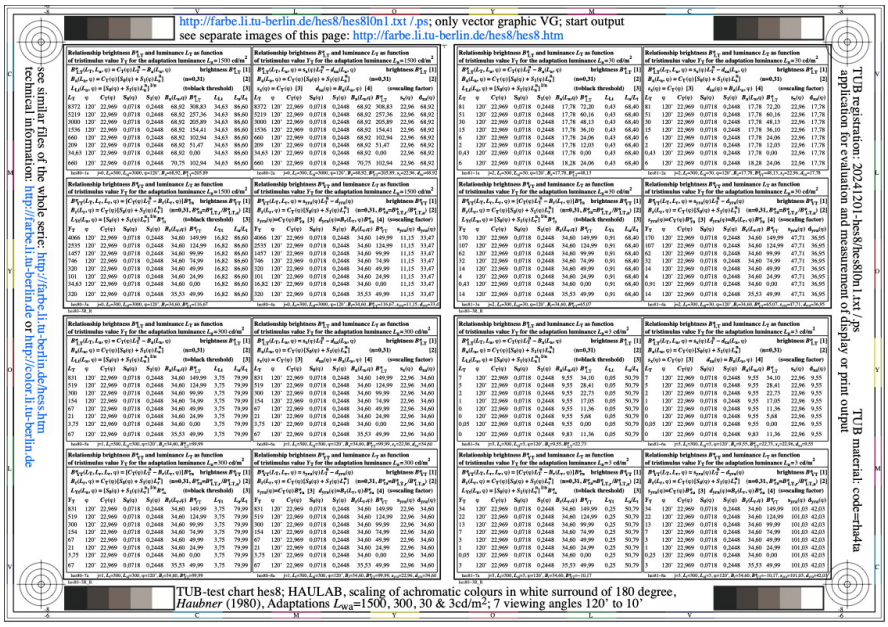

Image hes8l0n1.jpg: Output in format A6 of the file hes8l0np.pdf, see hes8l0n1. ps / txt / pdf / jpg

hes8: TUB-test chart hes8; Relationship between brightness B*T and luminance LT as function of test sample luminance LT for surround luminances La=(1500, 300, 30, 3) cd/m^2

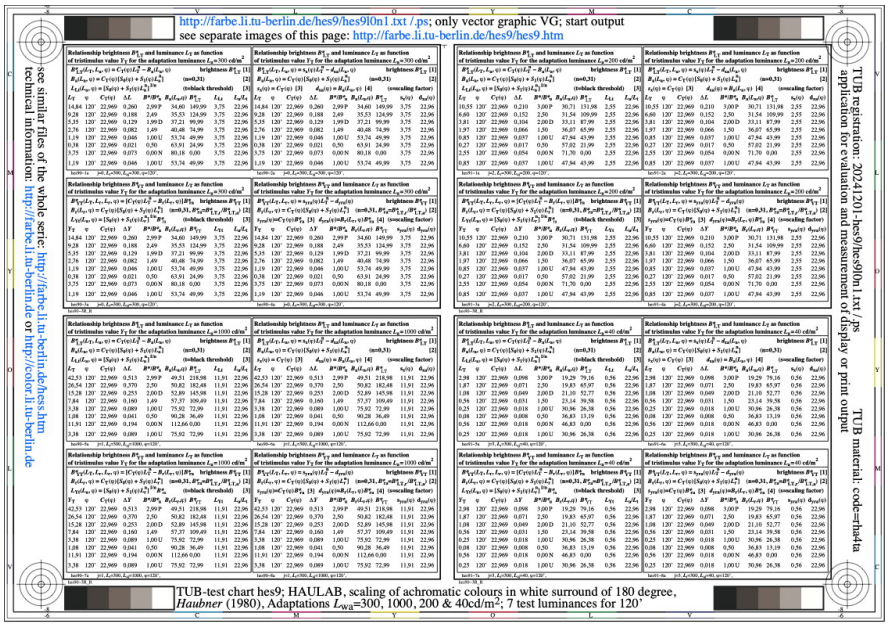

Image hes9l0n1.jpg: Output in format A6 of the file hes9l0np.pdf, see hes9l0n1. ps / txt / pdf / jpg

hes9: TUB-test chart hes9; Relationship between brightness B*T and luminance LT as function of test sample luminance LT for surround luminances La=(1500, 300, 30, 3) cd/m^2

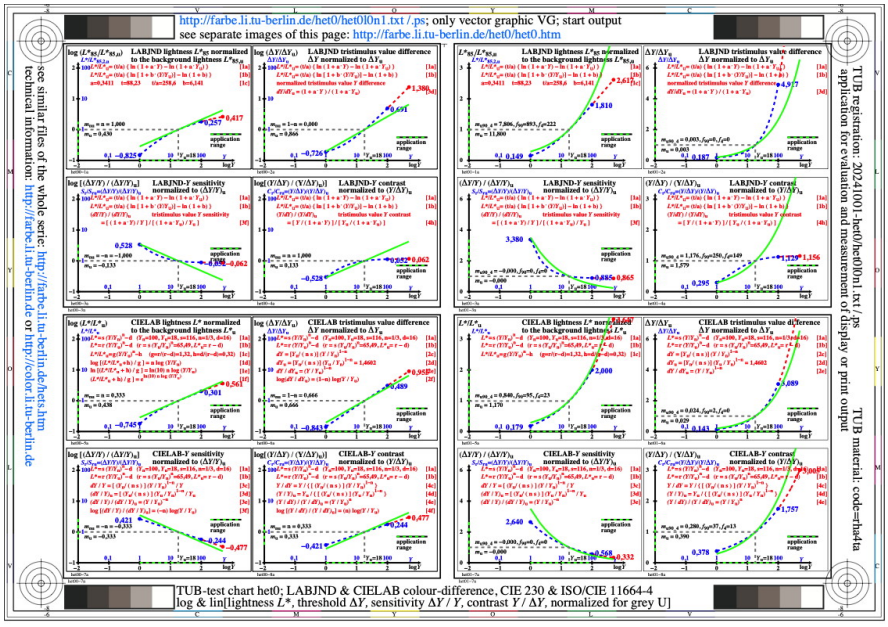

Image het0l0n1.jpg: Output in format A6 of the file het0l0np.pdf, see het0l0n1. ps / txt / pdf / jpg

het0: TUB-test chart het0; Formulae LABJND (CIE 230:219) and CIELAB (ISO/CIE 11664-4), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

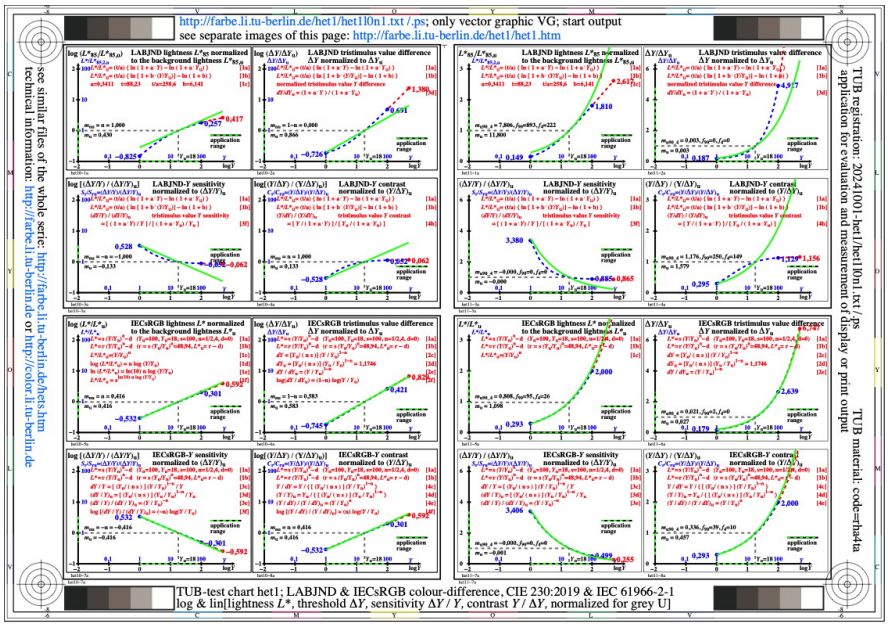

Image het1l0n1.jpg: Output in format A6 of the file het1l0np.pdf, see het1l0n1. ps / txt / pdf / jpg

het1: TUB-test chart het1; Formulae LABJND (CIE 230:219) and IECsRGB (IEC 61966-2-1), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

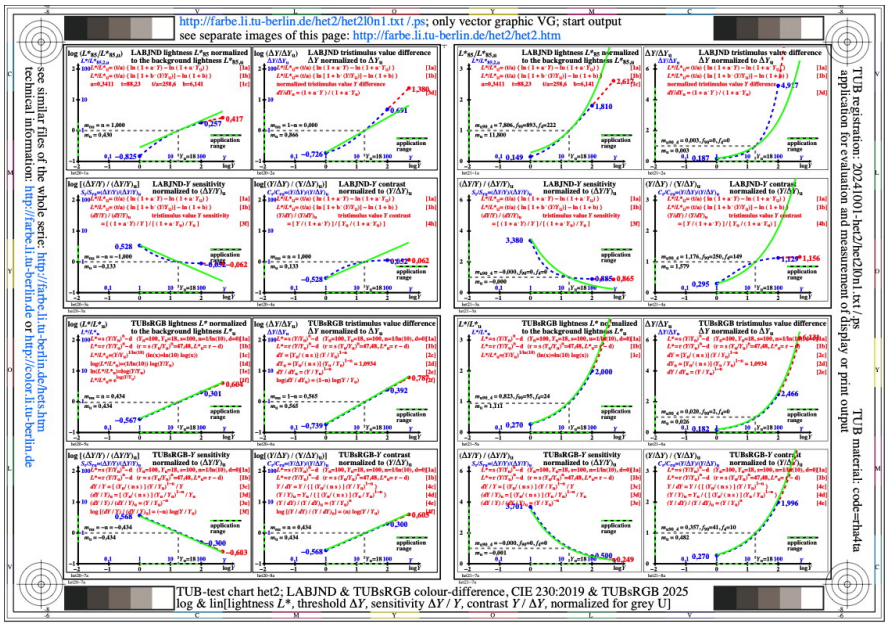

Image het2l0n1.jpg: Output in format A6 of the file het2l0np.pdf, see het2l0n1. ps / txt / pdf / jpg

het2: TUB-test chart het2; Formulae LABJND (CIE 230:219) and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

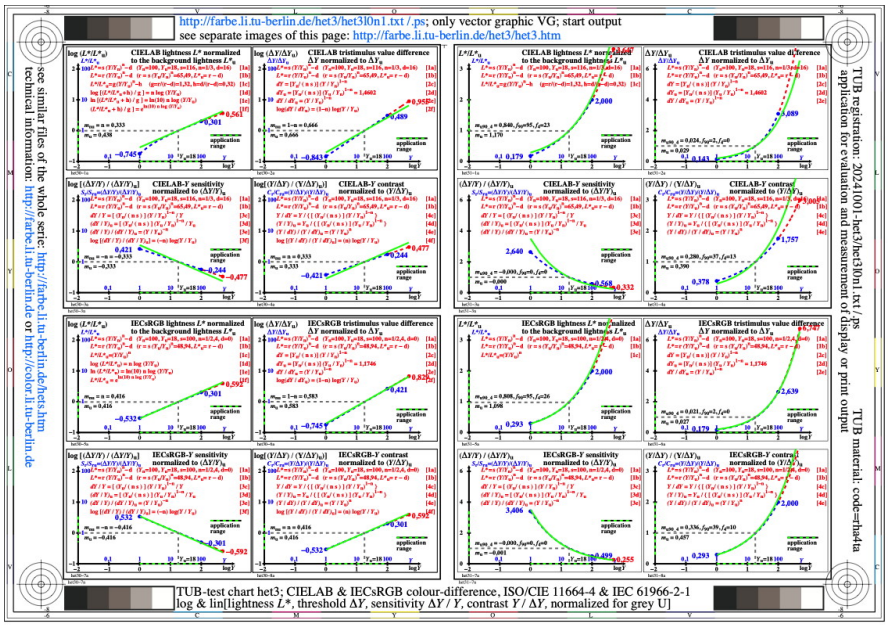

Image het3l0n1.jpg: Output in format A6 of the file het3l0np.pdf, see het3l0n1. ps / txt / pdf / jpg

het3: TUB-test chart het3; Formulae CIELAB (ISO/CIE 11664-4), and IECsRGB (IEC 61966-2-1), log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

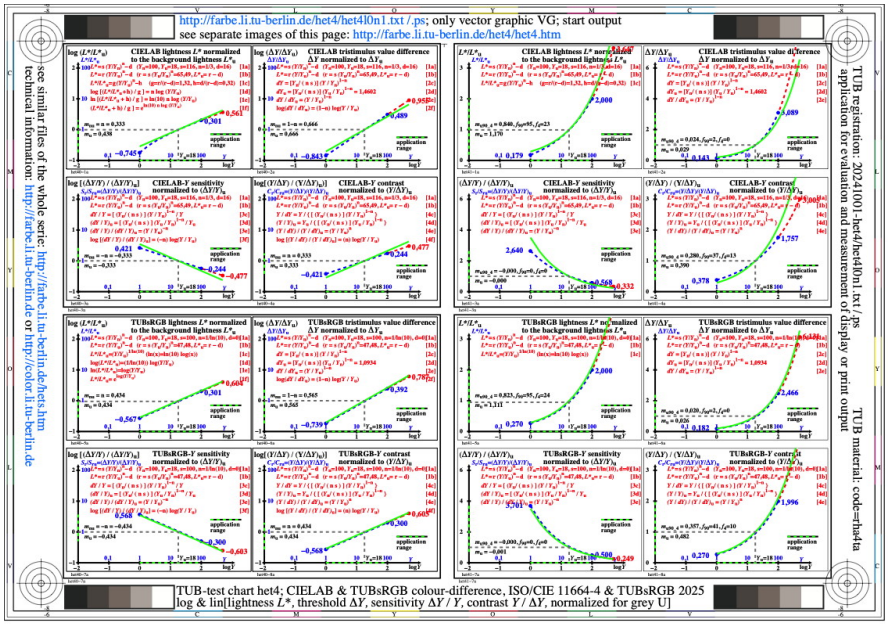

Image het4l0n1.jpg: Output in format A6 of the file het4l0np.pdf, see het4l0n1. ps / txt / pdf / jpg

het4: TUB-test chart het4; Formulae CIELAB (ISO/CIE 11664-4), and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

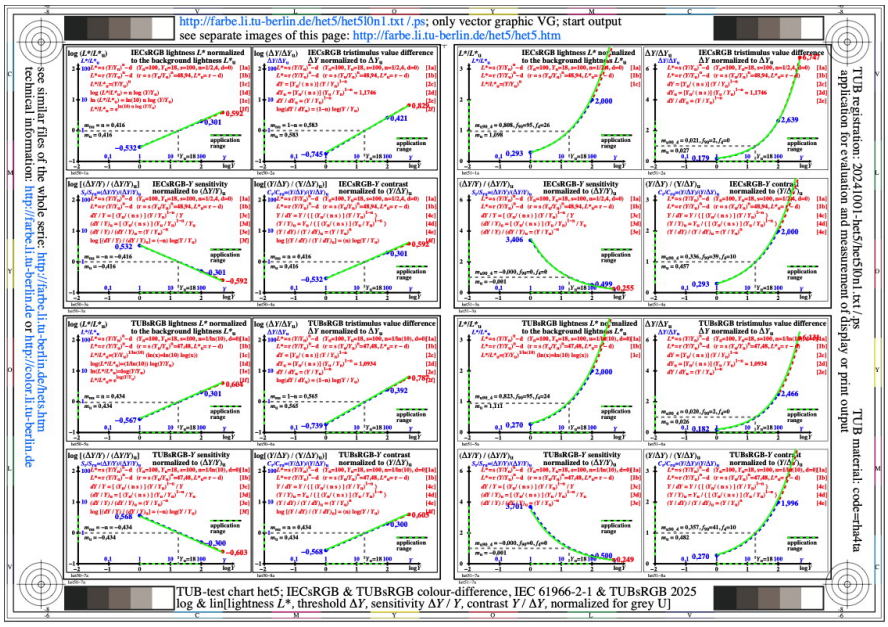

Image het5l0n1.jpg: Output in format A6 of the file het5l0np.pdf, see het5l0n1. ps / txt / pdf / jpg

het5: TUB-test chart het5; Formulae IECsRGB (IEC 61966-2-1), and colour difference TUBsRGB 2025, log & lin [lightness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

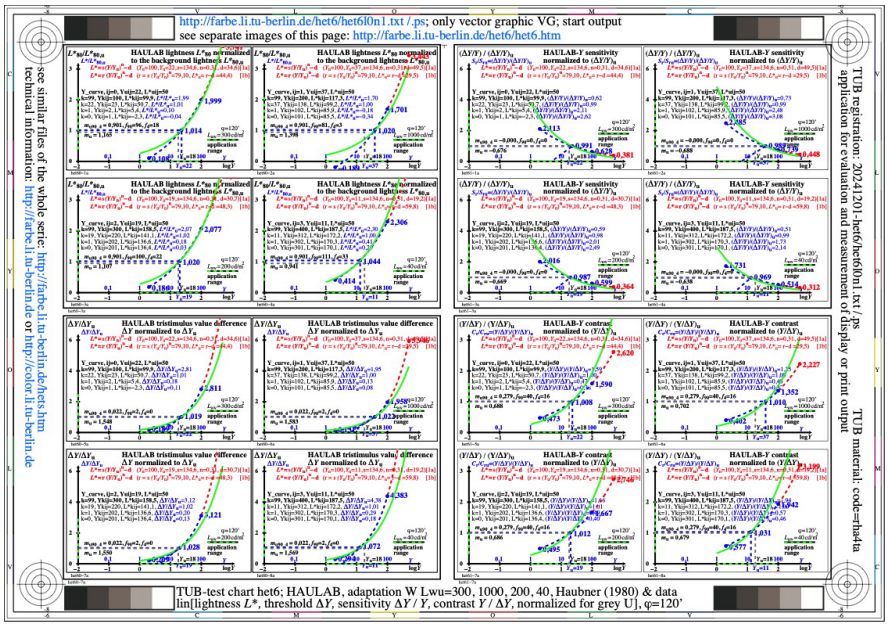

Image het6l0n1.jpg: Output in format A6 of the file het6l0np.pdf, see het6l0n1. ps / txt / pdf / jpg

het6: TUB-test chart het6; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

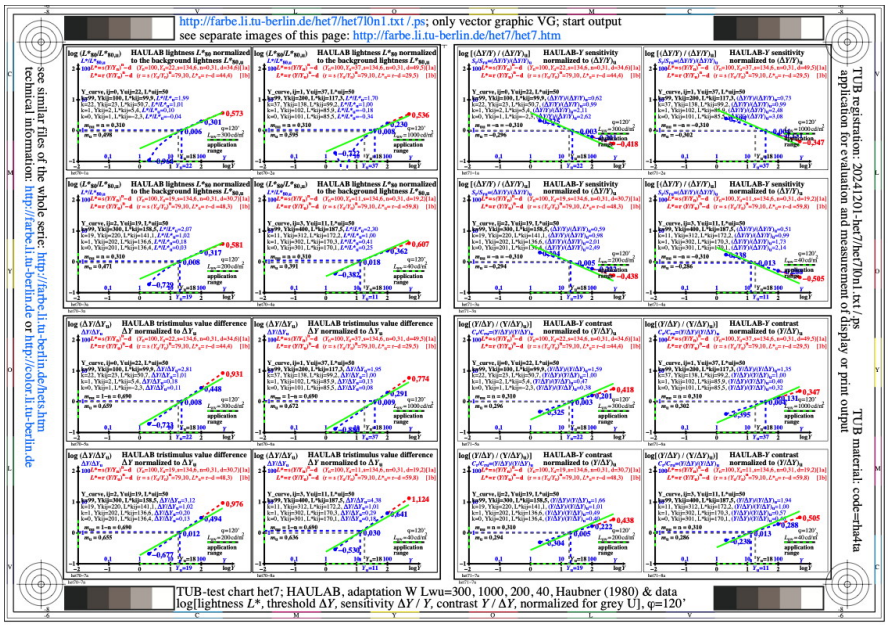

Image het7l0n1.jpg: Output in format A6 of the file het7l0np.pdf, see het7l0n1. ps / txt / pdf / jpg

het7: TUB-test chart het7; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

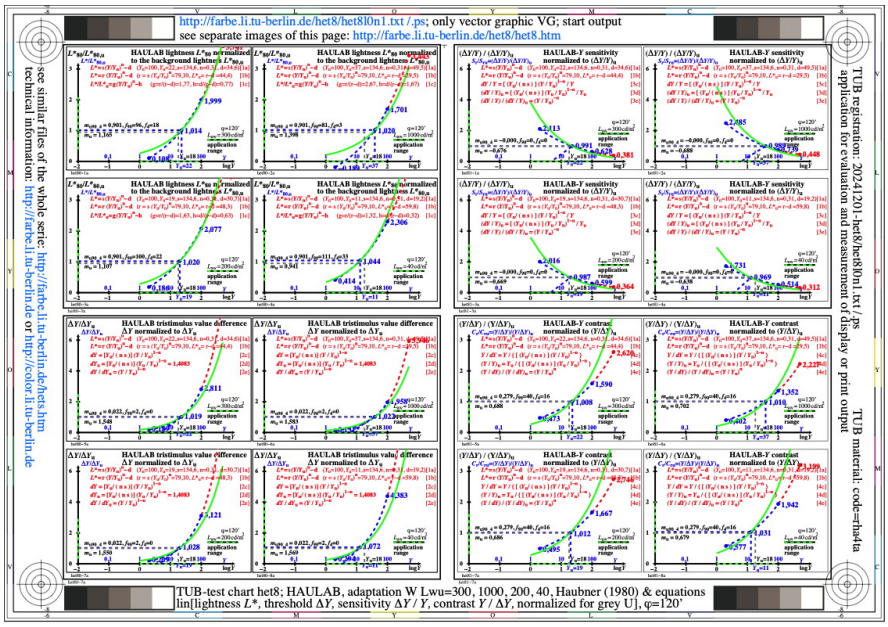

Image het8l0n1.jpg: Output in format A6 of the file het8l0np.pdf, see het8l0n1. ps / txt / pdf / jpg

het8: TUB-test chart het8; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

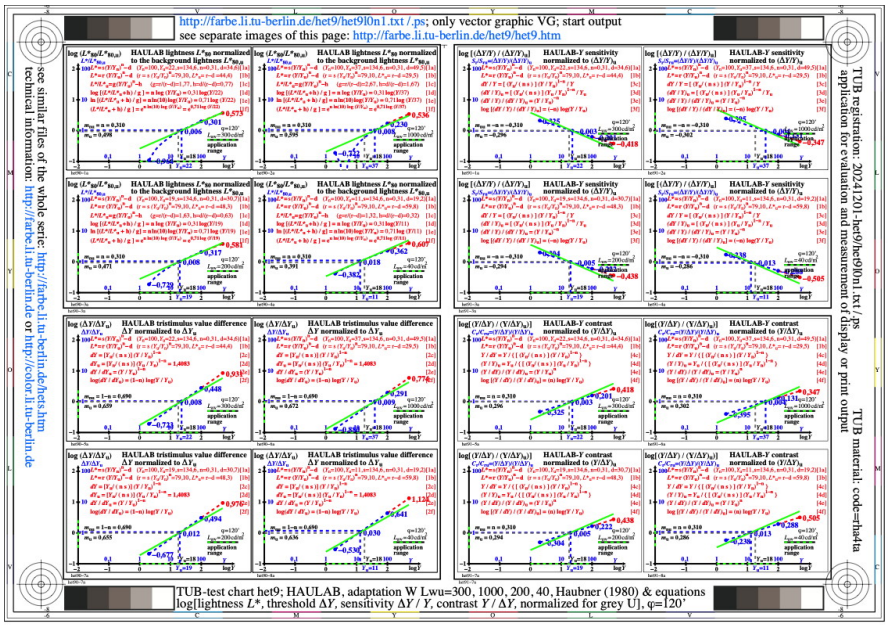

Image het9l0n1.jpg: Output in format A6 of the file het9l0np.pdf, see het9l0n1. ps / txt / pdf / jpg

het9: TUB-test chart het9; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

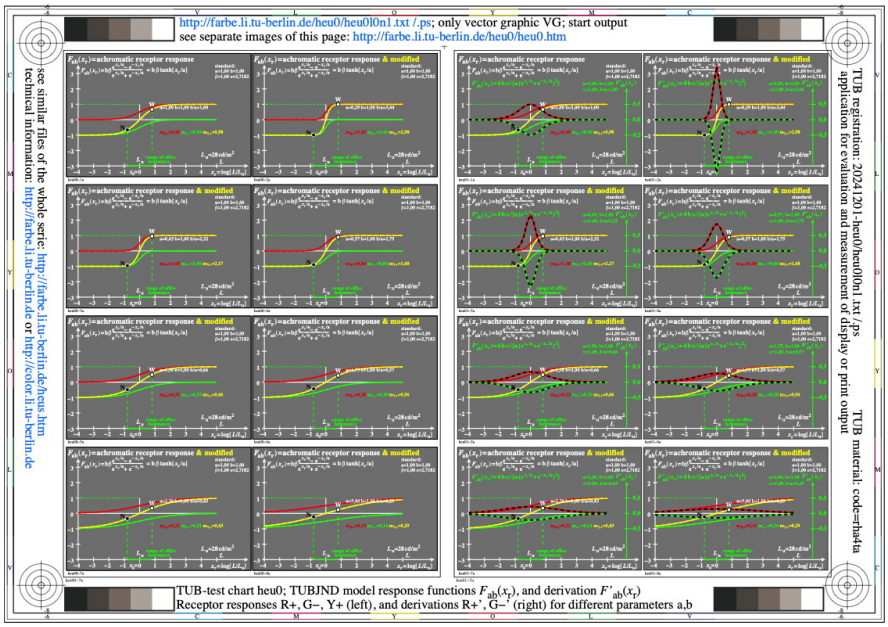

Image heu0l0n1.jpg: Output in format A6 of the file heu0l0np.pdf, see heu0l0n1. ps / txt / pdf / jpg

heu0: TUB-test chart heu0; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations R+', G-' (right) for diferent parameters a,b

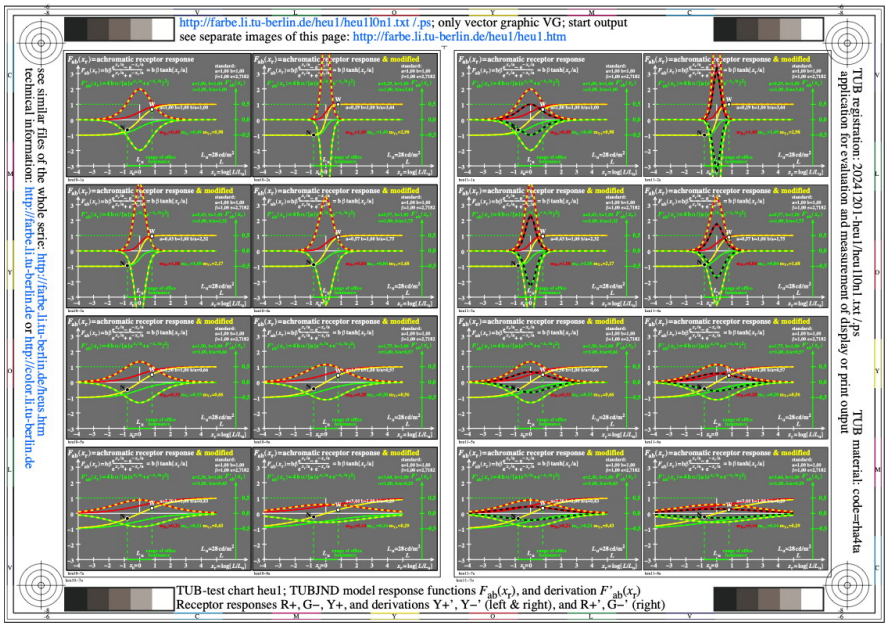

Image heu1l0n1.jpg: Output in format A6 of the file heu1l0np.pdf, see heu1l0n1. ps / txt / pdf / jpg

heu1: TUB-test chart heu1; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
Y+', Y-' (left & right), and R+'/G-' (right) for a,b

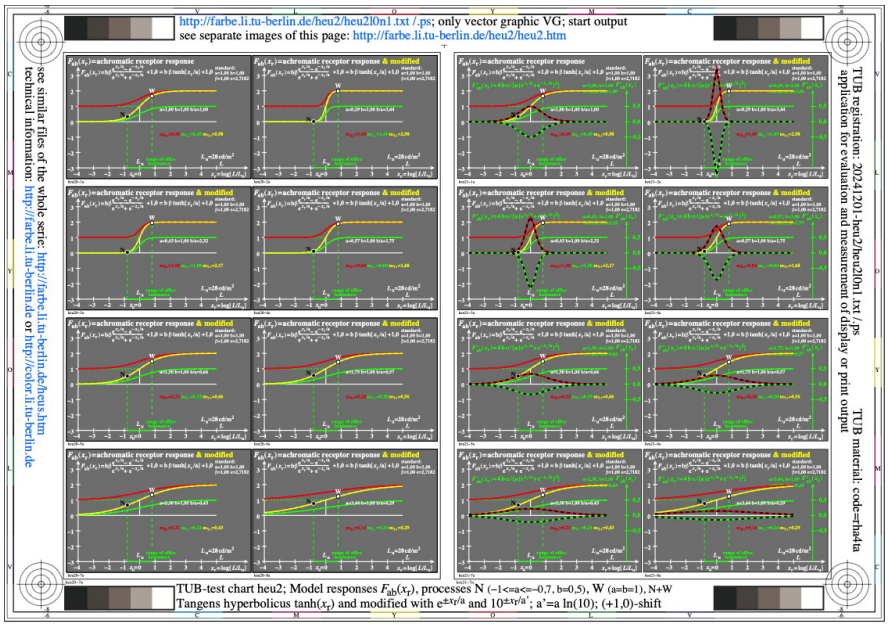

Image heu2l0n1.jpg: Output in format A6 of the file heu2l0np.pdf, see heu2l0n1. ps / txt / pdf / jpg

heu2: TUB-test chart heu2; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
R+', G-' (right) for diferent parameters a,b

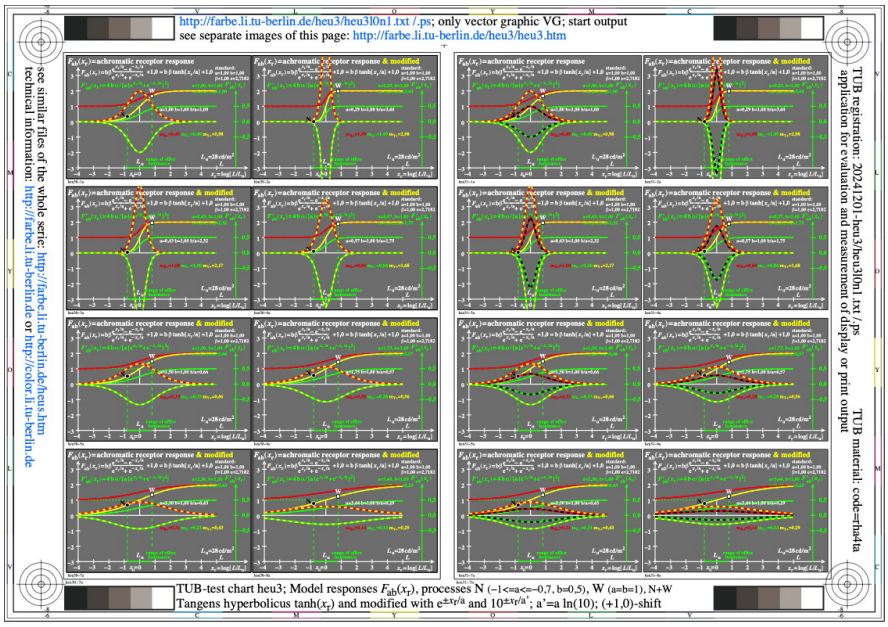

Image heu3l0n1.jpg: Output in format A6 of the file heu3l0np.pdf, see heu3l0n1. ps / txt / pdf / jpg

heu3: TUB-test chart heu3; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations Y+', Y-' (left & right), and R+'/G-' (right) for a,b

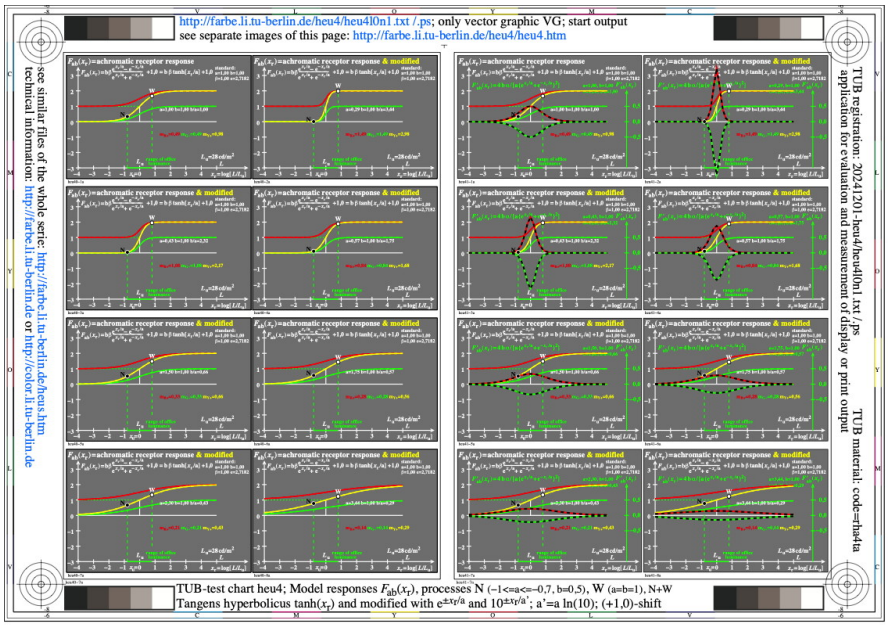

Image heu4l0n1.jpg: Output in format A6 of the file heu4l0np.pdf, see heu4l0n1. ps / txt / pdf / jpg

heu4: TUB-test chart heu4; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations R+', G-' (right) for diferent parameters a,b

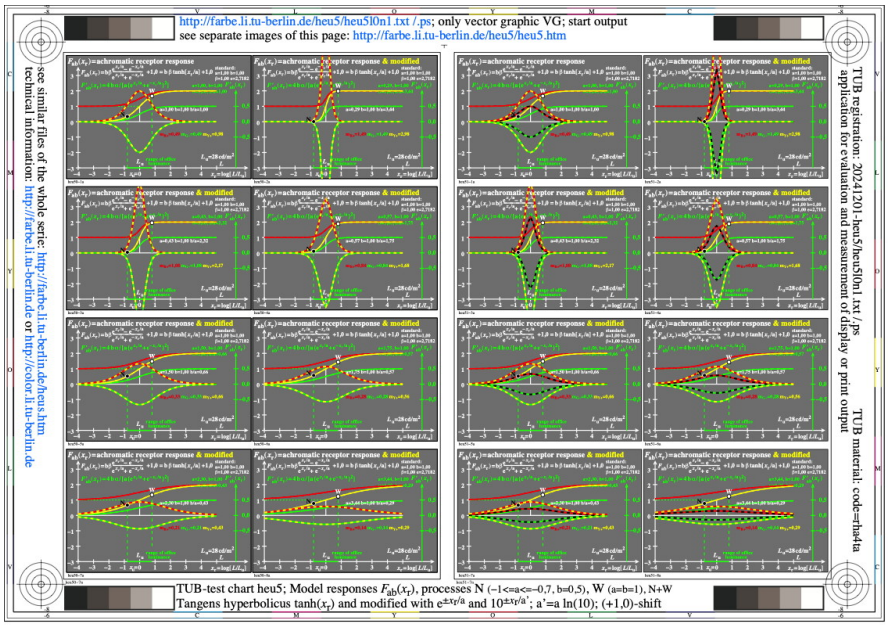

Image heu5l0n1.jpg: Output in format A6 of the file heu5l0np.pdf, see heu5l0n1. ps / txt / pdf / jpg

heu5: TUB-test chart heu5; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations Y+', Y-' (left & right), and R+'/G-' (right) for a,b

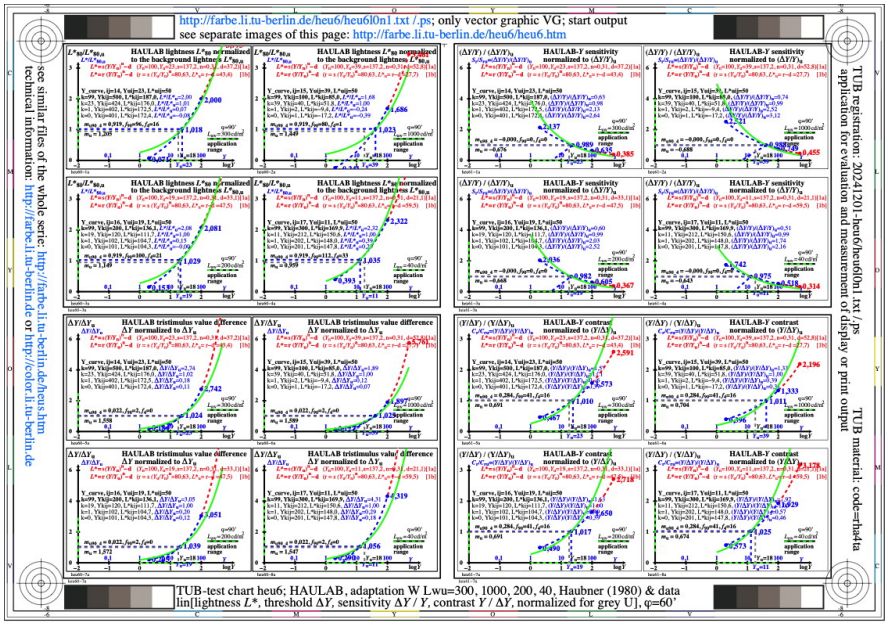

Image heu6l0n1.jpg: Output in format A6 of the file heu6l0np.pdf, see heu6l0n1. ps / txt / pdf / jpg

heu6: TUB-test chart heu6; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

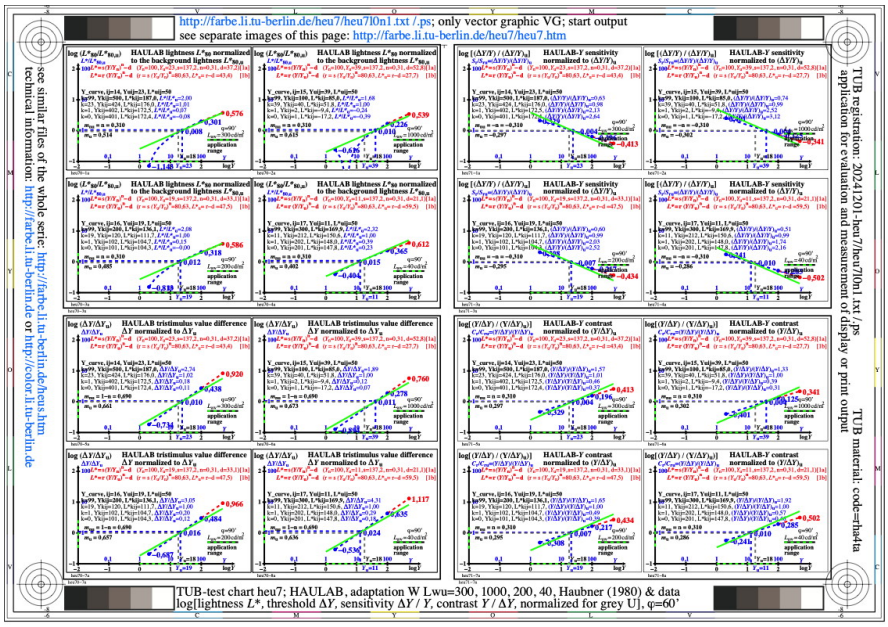

Image heu7l0n1.jpg: Output in format A6 of the file heu7l0np.pdf, see heu7l0n1. ps / txt / pdf / jpg

heu7: TUB-test chart heu7; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

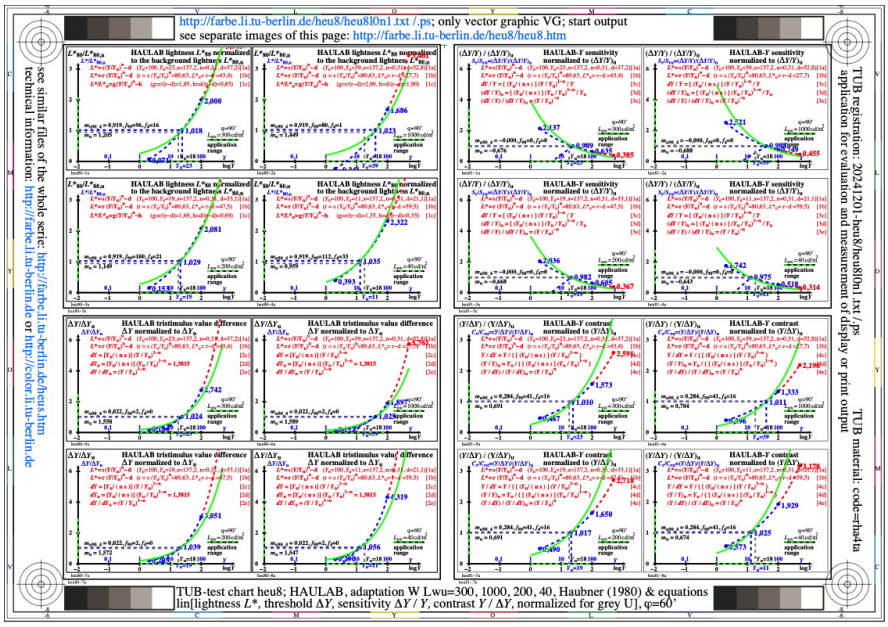

Image heu8l0n1.jpg: Output in format A6 of the file heu8l0np.pdf, see heu8l0n1. ps / txt / pdf / jpg

heu8: TUB-test chart heu8; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

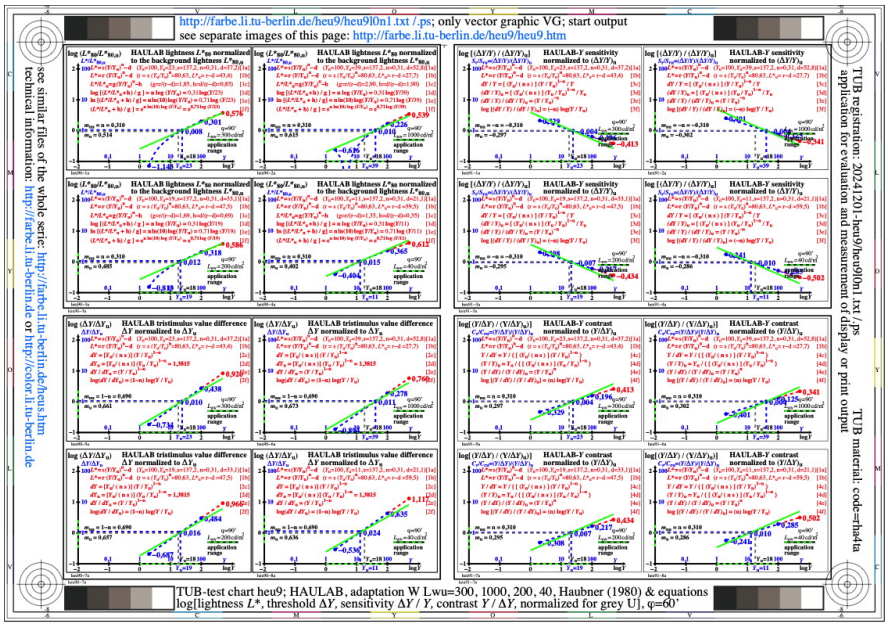

Image heu9l0n1.jpg: Output in format A6 of the file heu9l0np.pdf, see heu9l0n1. ps / txt / pdf / jpg

heu9: TUB-test chart heu9; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

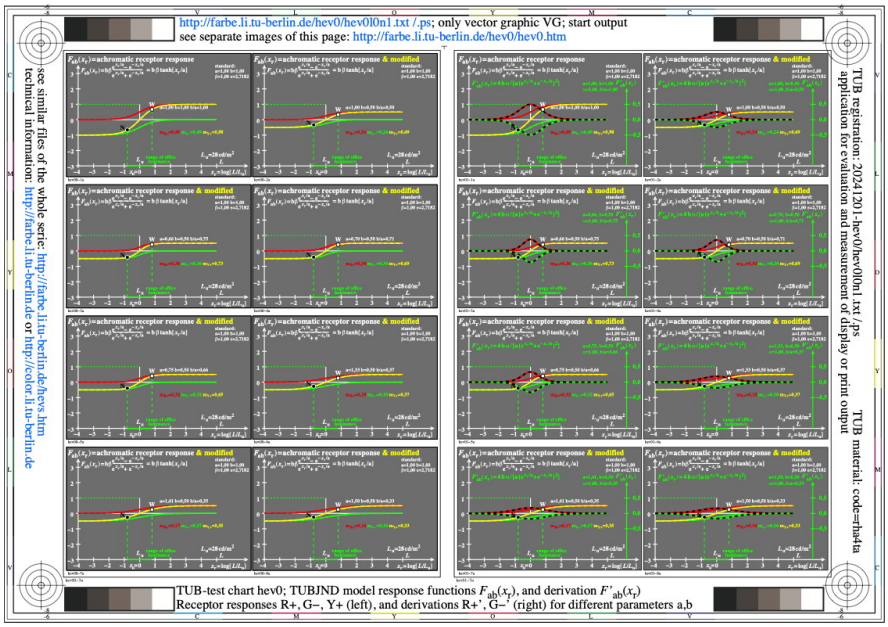

Image hev0l0n1.jpg: Output in format A6 of the file hev0l0np.pdf, see hev0l0n1. ps / txt / pdf / jpg

hev0: TUB-test chart hev0; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations R+', G-' (right) for diferent parameters a,b

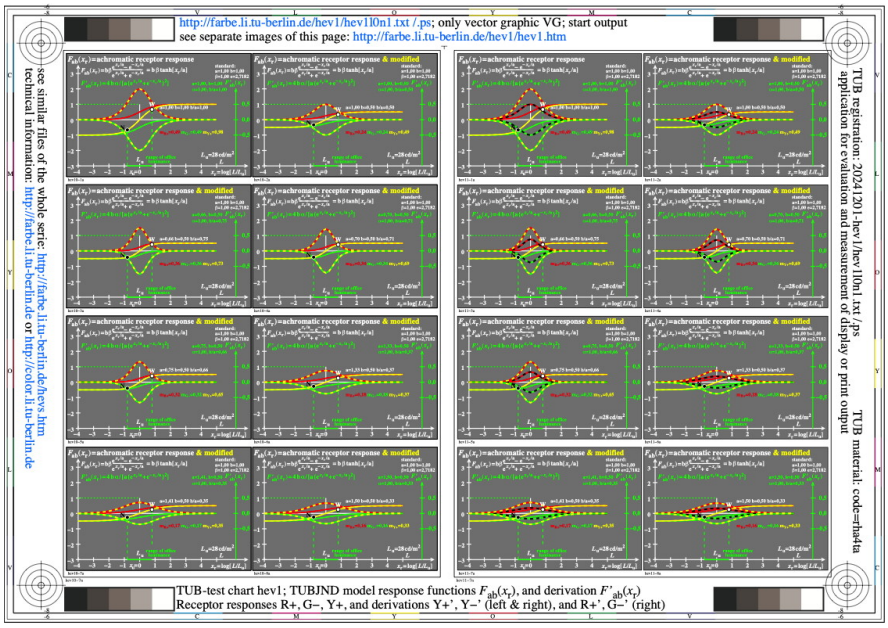

Image hev1l0n1.jpg: Output in format A6 of the file hev1l0np.pdf, see hev1l0n1. ps / txt / pdf / jpg

hev1: TUB-test chart hev1; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
Y+', Y-' (left & right), and R+'/G-' (right) for a,b

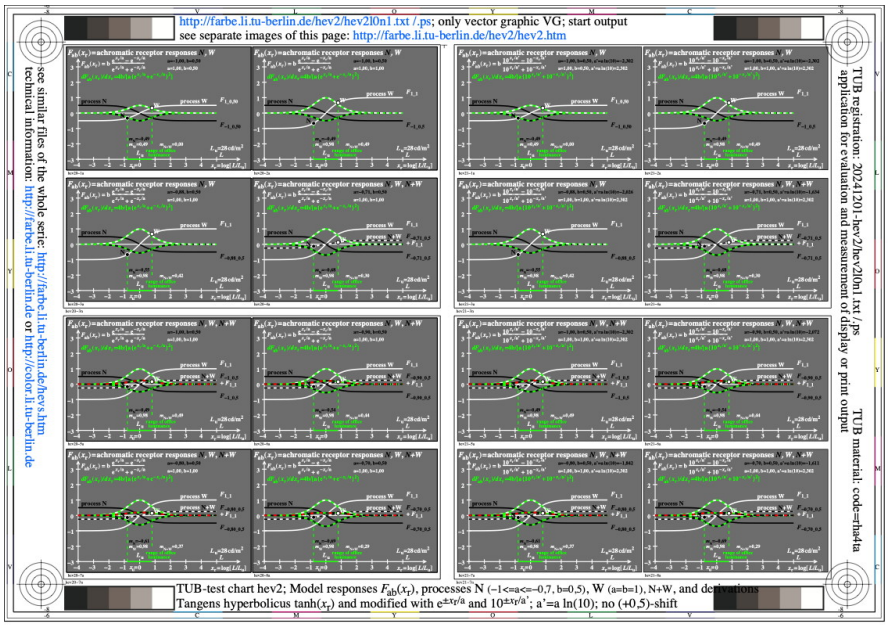

Image hev2l0n1.jpg: Output in format A6 of the file hev2l0np.pdf, see hev2l0n1. ps / txt / pdf / jpg

hev2: TUB-test chart hev2; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,5; 4 x 4 images

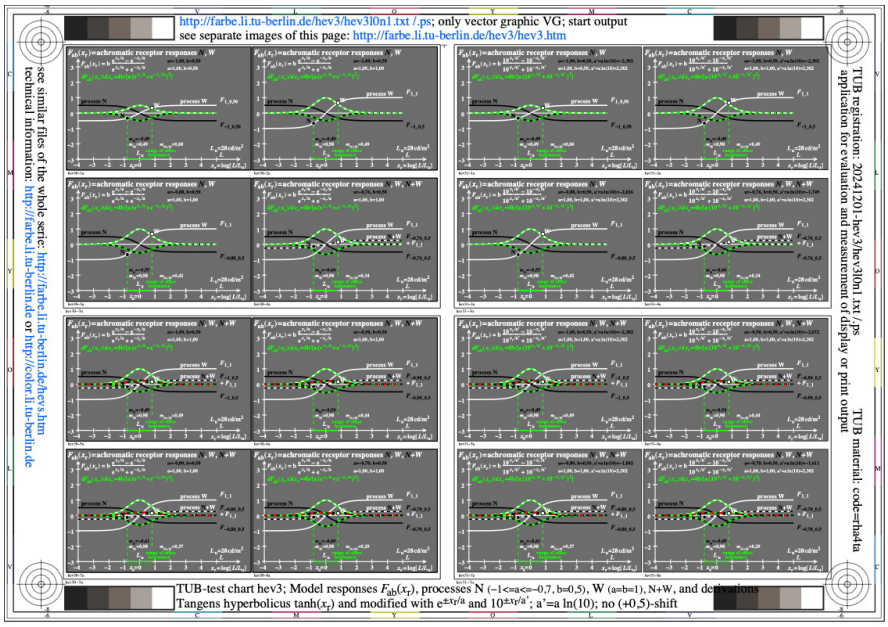

Image hev3l0n1.jpg: Output in format A6 of the file hev3l0np.pdf, see hev3l0n1. ps / txt / pdf / jpg

hev3: TUB-test chart hev3; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^1,0; 4 x 4 images

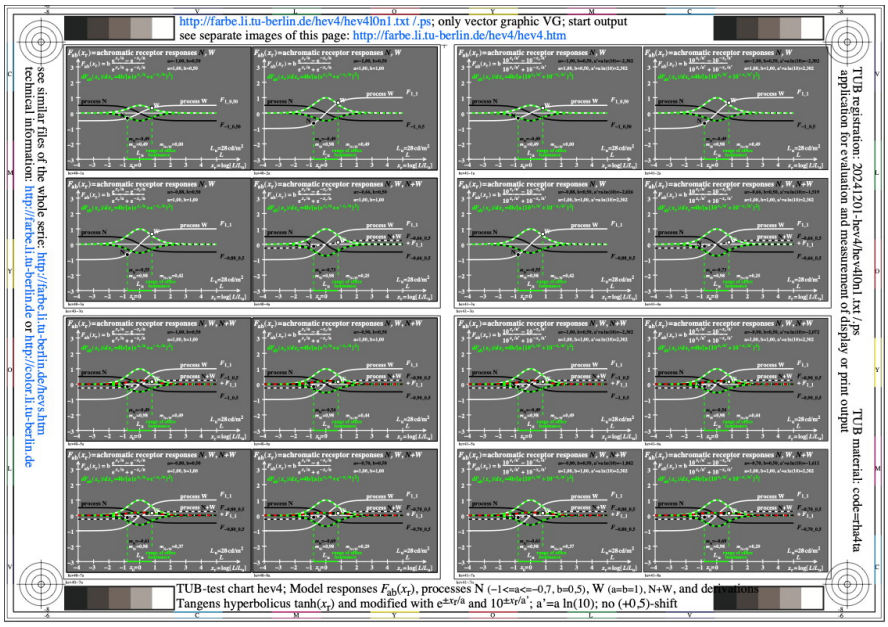

Image hev4l0n1.jpg: Output in format A6 of the file hev4l0np.pdf, see hev4l0n1. ps / txt / pdf / jpg

hev4: TUB-test chart hev4; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,7; 4 x 4 images

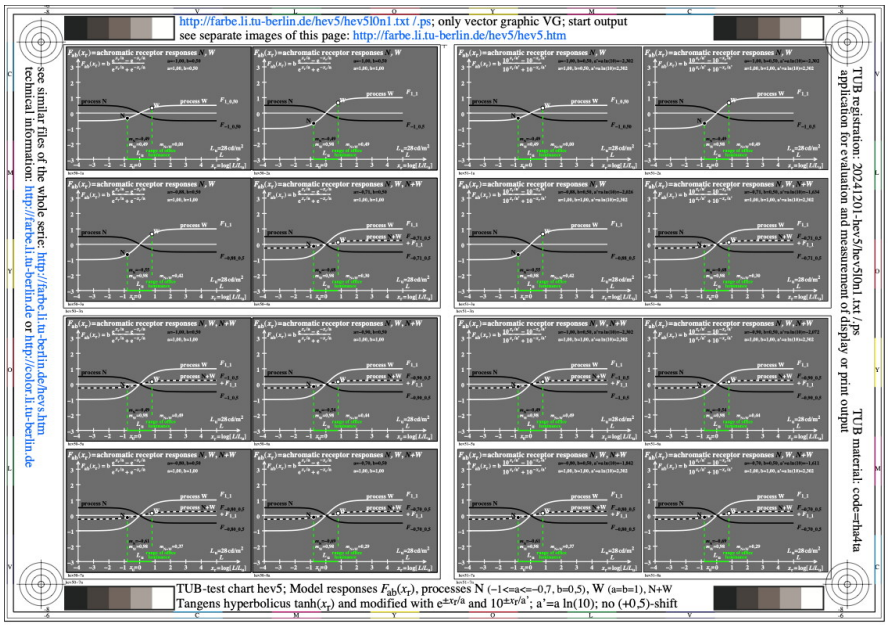

Image hev5l0n1.jpg: Output in format A6 of the file hev5l0np.pdf, see hev5l0n1. ps / txt / pdf / jpg

hev5: TUB-test chart hev5; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,5; 4 x 4 images

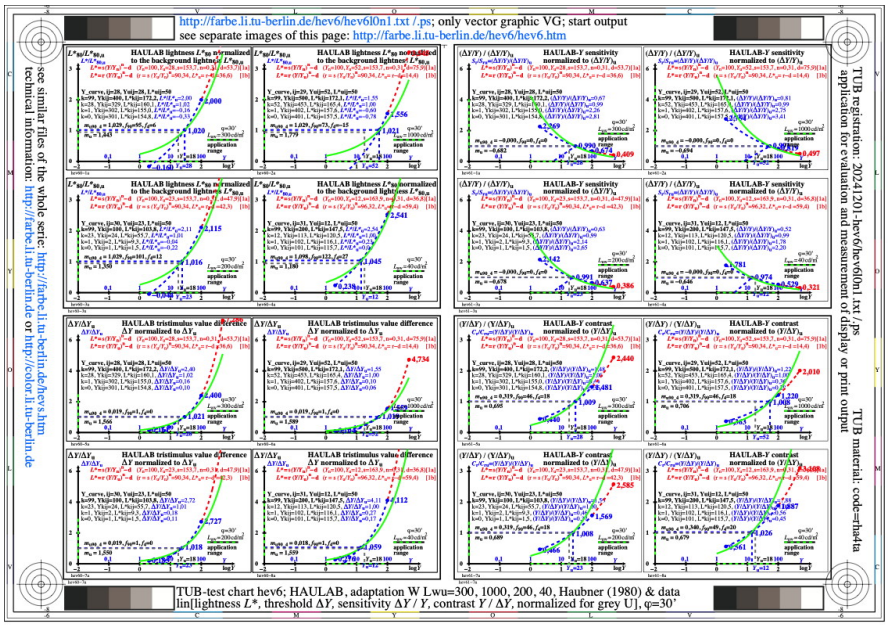

Image hev6l0n1.jpg: Output in format A6 of the file hev6l0np.pdf, see hev6l0n1. ps / txt / pdf / jpg

hev6: TUB-test chart hev6; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

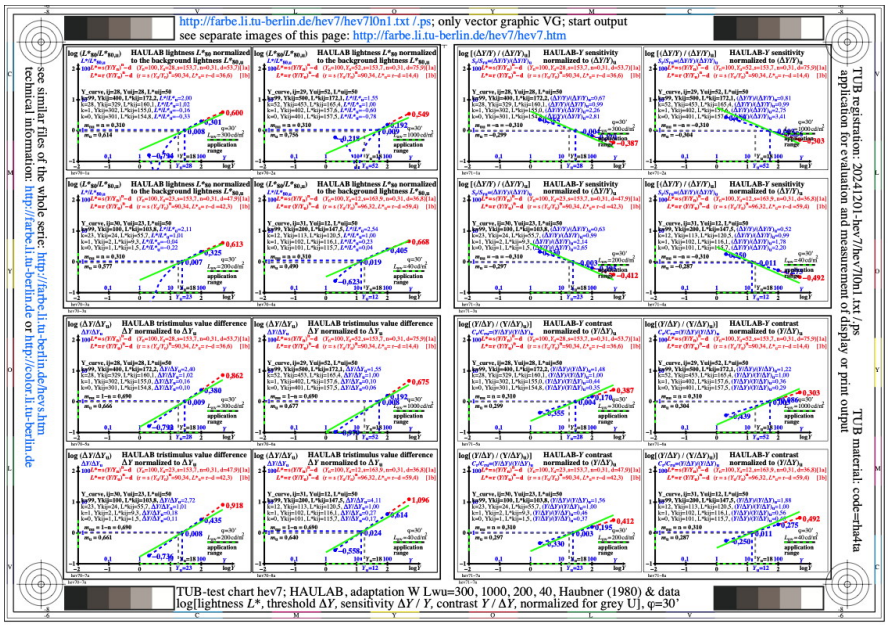

Image hev7l0n1.jpg: Output in format A6 of the file hev7l0np.pdf, see hev7l0n1. ps / txt / pdf / jpg

hev7: TUB-test chart hev7; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

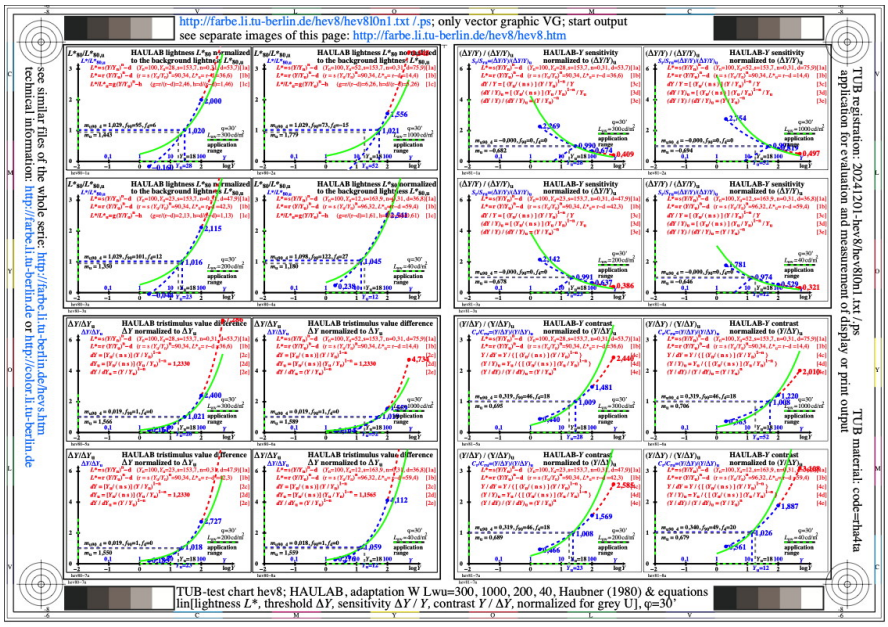

Image hev8l0n1.jpg: Output in format A6 of the file hev8l0np.pdf, see hev8l0n1. ps / txt / pdf / jpg

hev8: TUB-test chart hev8; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

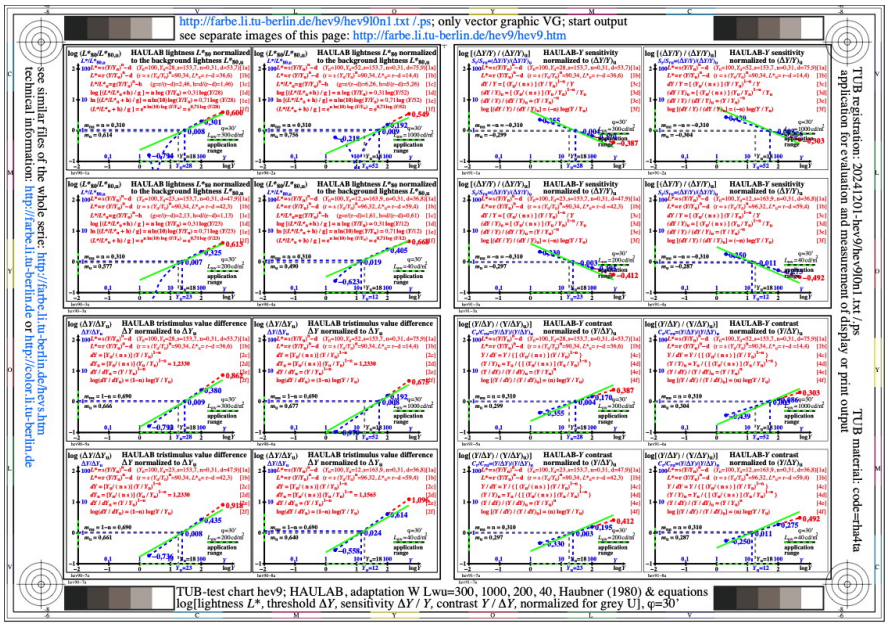

Image hev9l0n1.jpg: Output in format A6 of the file hev9l0np.pdf, see hev9l0n1. ps / txt / pdf / jpg

hev9: TUB-test chart hev9; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

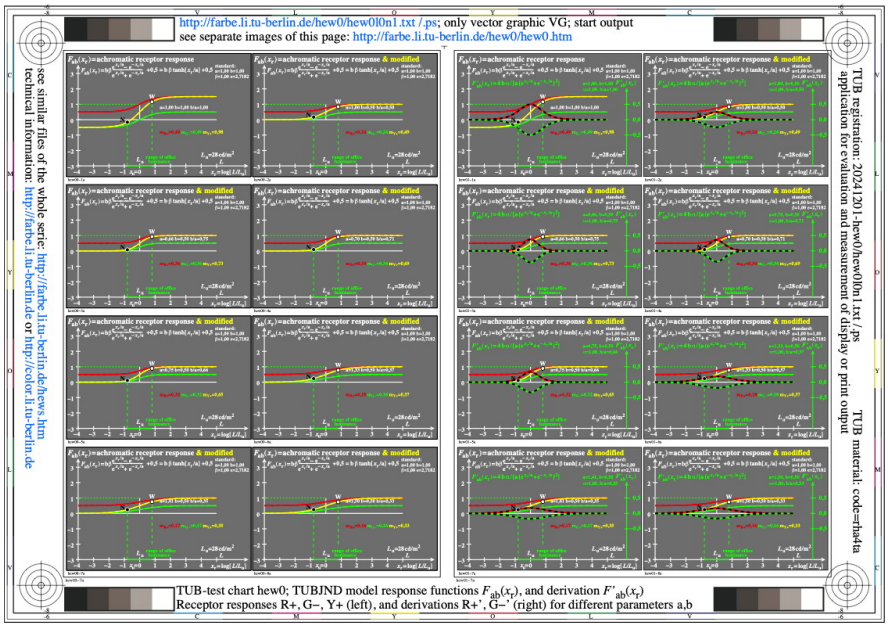

Image hew0l0n1.jpg: Output in format A6 of the file hew0l0np.pdf, see hew0l0n1. ps / txt / pdf / jpg

hew0: TUB-test chart hew0; TUBJND model with functions Fab, F'ab Receptor responses R+, G-, Y+ (left & right), and derivations R+', G-' (right) for diferent parameters a,b

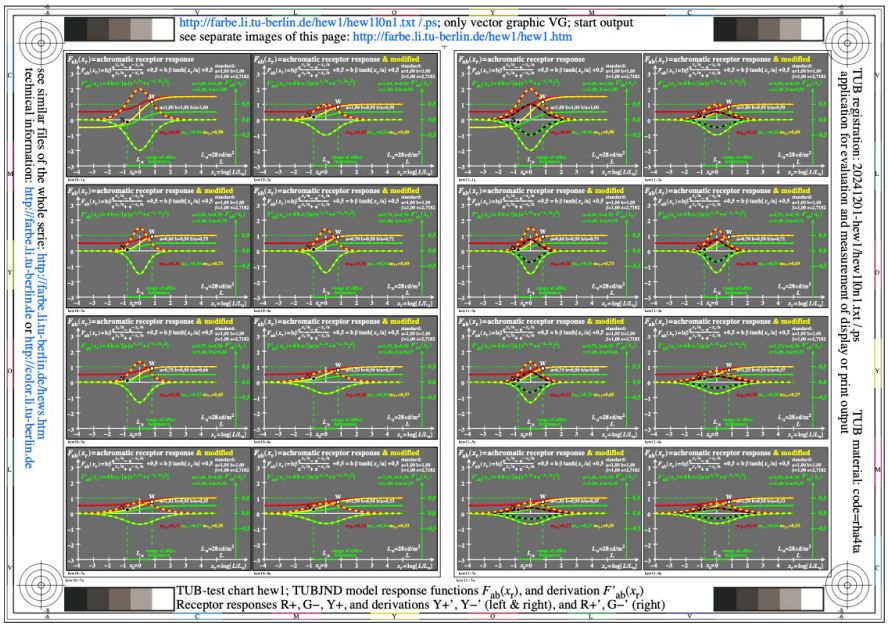

Image hew1l0n1.jpg: Output in format A6 of the file hew1l0np.pdf, see hew1l0n1. ps / txt / pdf / jpg

hew1: TUB-test chart hew1; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
Y+', Y-' (left & right), and R+'/G-' (right) for a,b

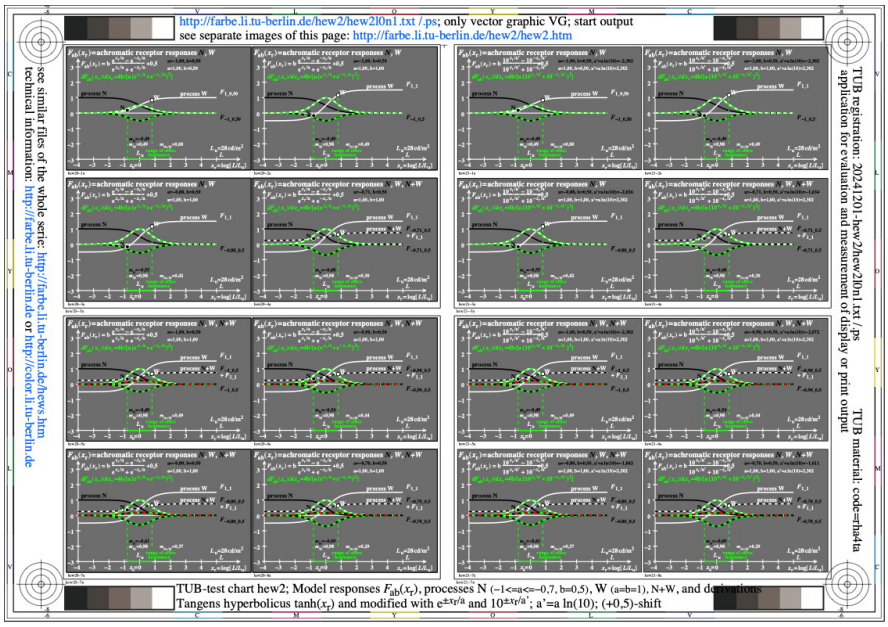

Image hew2l0n1.jpg: Output in format A6 of the file hew2l0np.pdf, see hew2l0n1. ps / txt / pdf / jpg

hew2: TUB-test chart hew2; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,5; 4 x 4 images

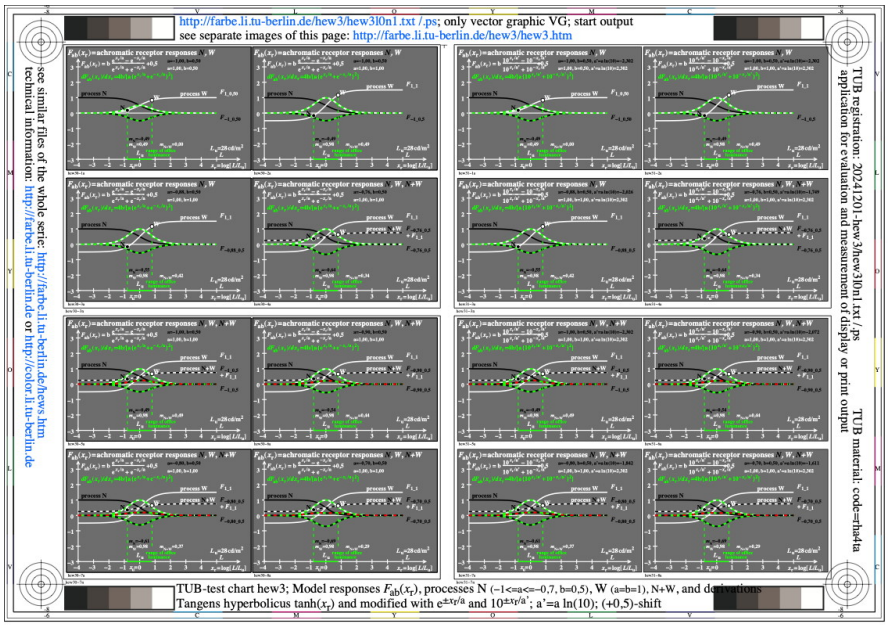

Image hew3l0n1.jpg: Output in format A6 of the file hew3l0np.pdf, see hew3l0n1. ps / txt / pdf / jpg

hew3: TUB-test chart hew3; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^1,0; 4 x 4 images

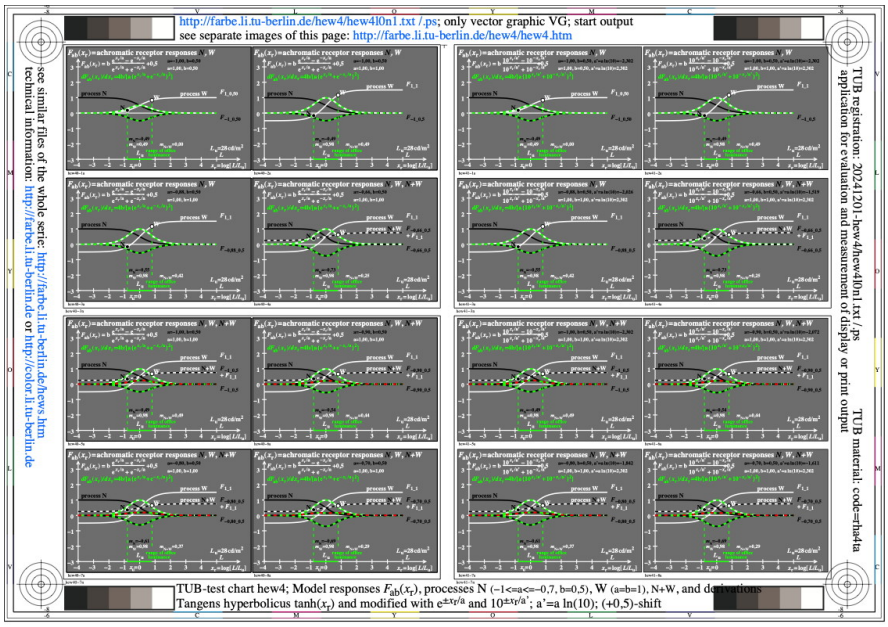

Image hew4l0n1.jpg: Output in format A6 of the file hew4l0np.pdf, see hew4l0n1. ps / txt / pdf / jpg

hew4: TUB-test chart hew4; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,7; 4 x 4 images

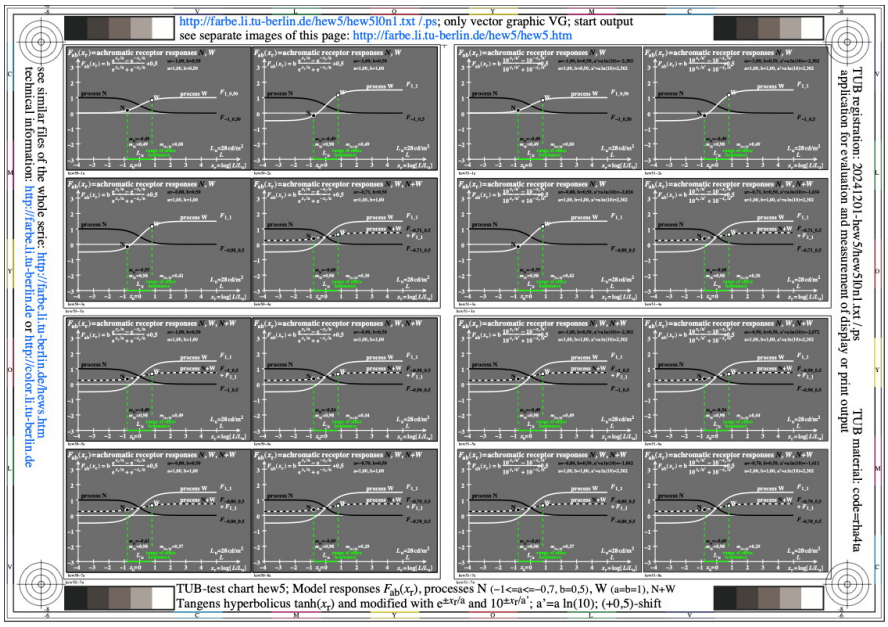

Image hew5l0n1.jpg: Output in format A6 of the file hew5l0np.pdf, see hew5l0n1. ps / txt / pdf / jpg

hew5: TUB-test chart hew5; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,5; 4 x 4 images

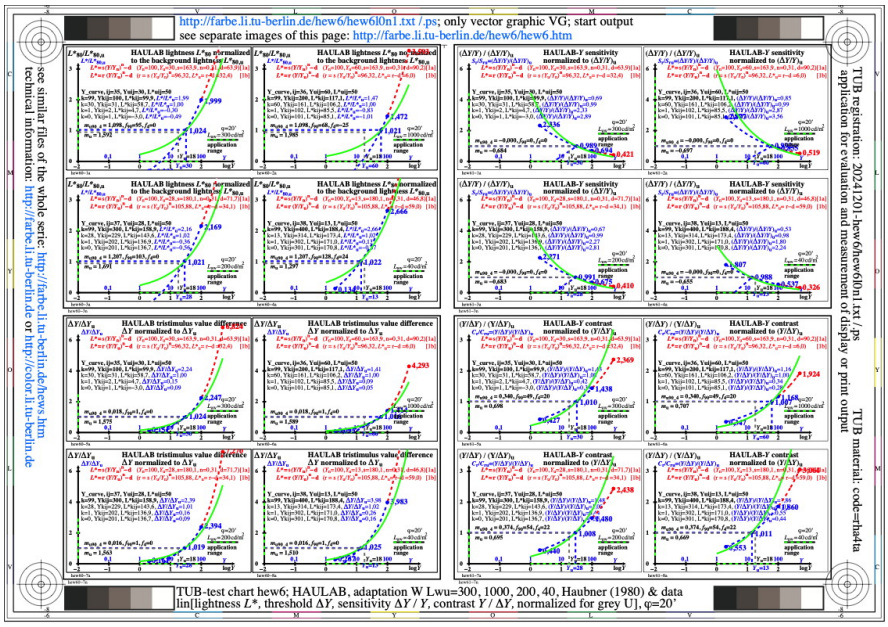

Image hew6l0n1.jpg: Output in format A6 of the file hew6l0np.pdf, see hew6l0n1. ps / txt / pdf / jpg

hew6: TUB-test chart hew6; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

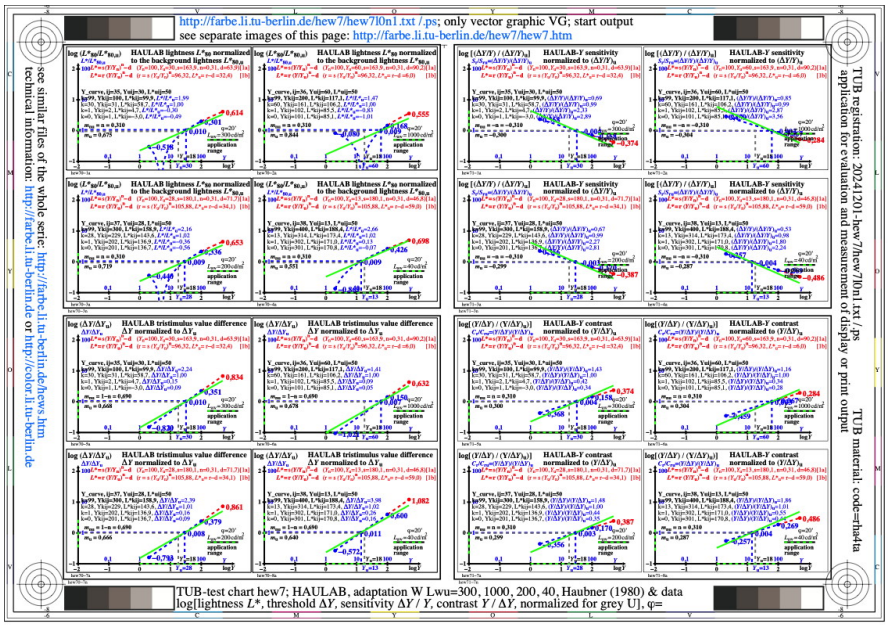

Image hew7l0n1.jpg: Output in format A6 of the file hew7l0np.pdf, see hew7l0n1. ps / txt / pdf / jpg

hew7: TUB-test chart hew7; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner, 1980) & data; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

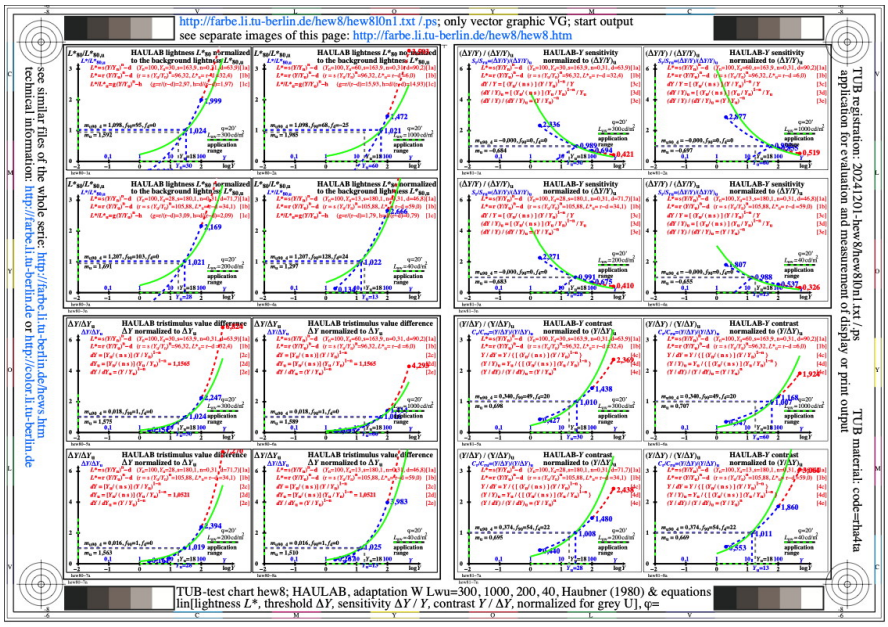

Image hew8l0n1.jpg: Output in format A6 of the file hew8l0np.pdf, see hew8l0n1. ps / txt / pdf / jpg

hew8: TUB-test chart hew8; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; lin [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

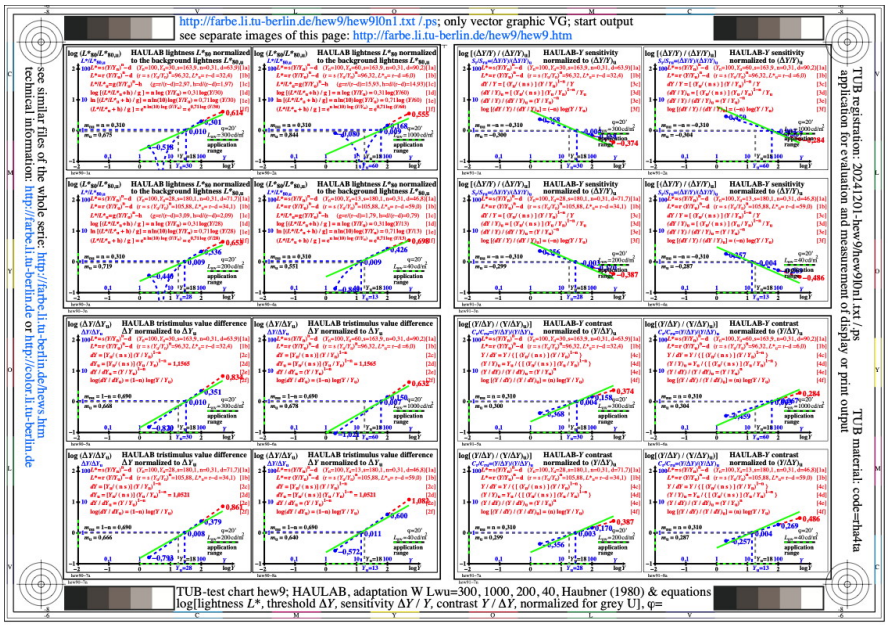

Image hew9l0n1.jpg: Output in format A6 of the file hew9l0np.pdf, see hew9l0n1. ps / txt / pdf / jpg

hew9: TUB-test chart hew9; HAULAB & IEC, Adaptations 300, 1000, 200 & 40 cd/m^2, (Haubner) & equations; log [ligtness L*, threshold delta_Y, sensitivity delta_Y/Y, contrast Y/delta_Y]

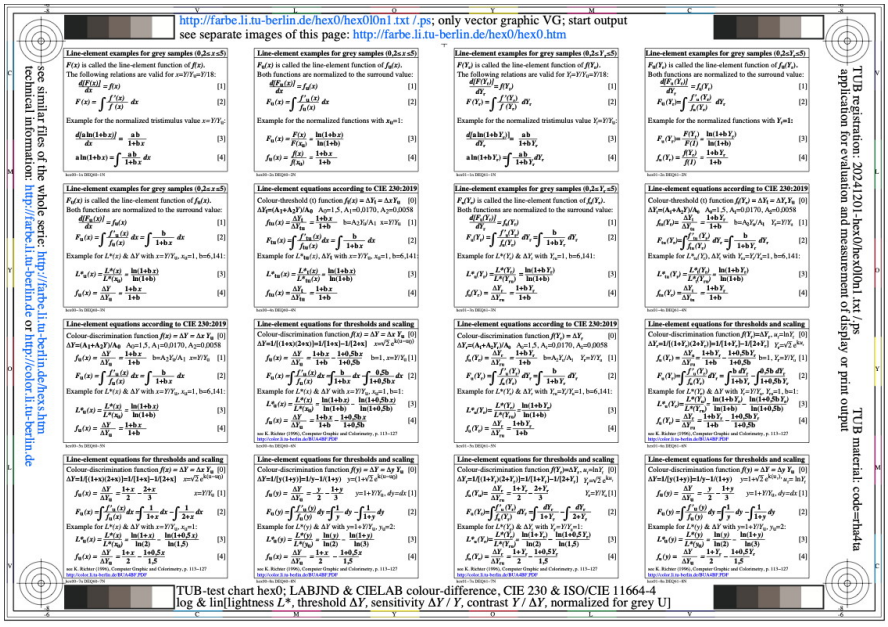

Image hex0l0n1.jpg: Output in format A6 of the file hex0l0np.pdf, see hex0l0n1. ps / txt / pdf / jpg

hex0: TUB-test chart hex0; Threshold experiments
Description of the experimental threshold delta Y
Formulae for the description of the lightness F*(Y)

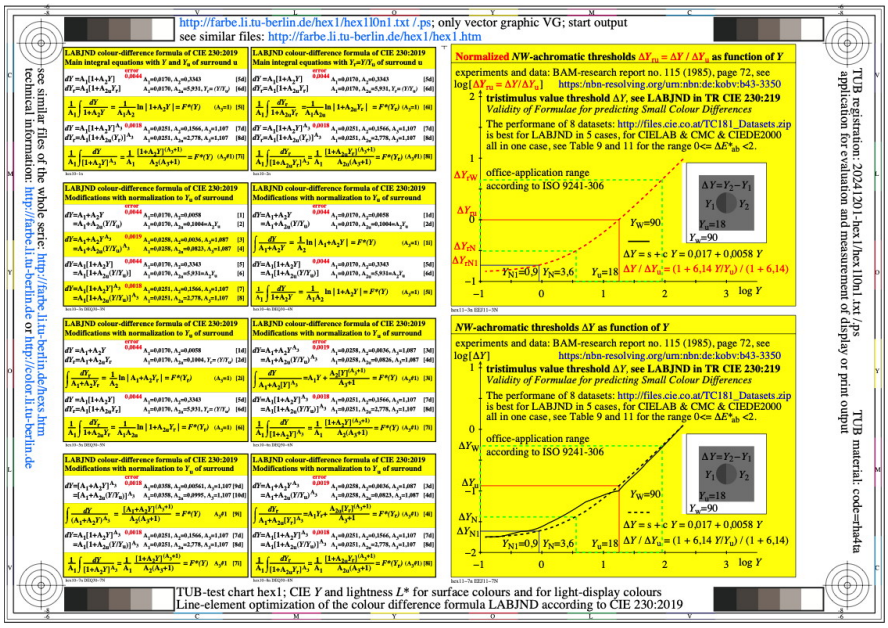

Image hex1l0n1.jpg: Output in format A6 of the file hex1l0np.pdf, see hex1l0n1. ps / txt / pdf / jpg

hex1: TUB-test chart hex1; CIE *Y* an lightness *L**
for surface colours and emissive displays
Chromaticity and chromatic values of *Ostwald*- colours

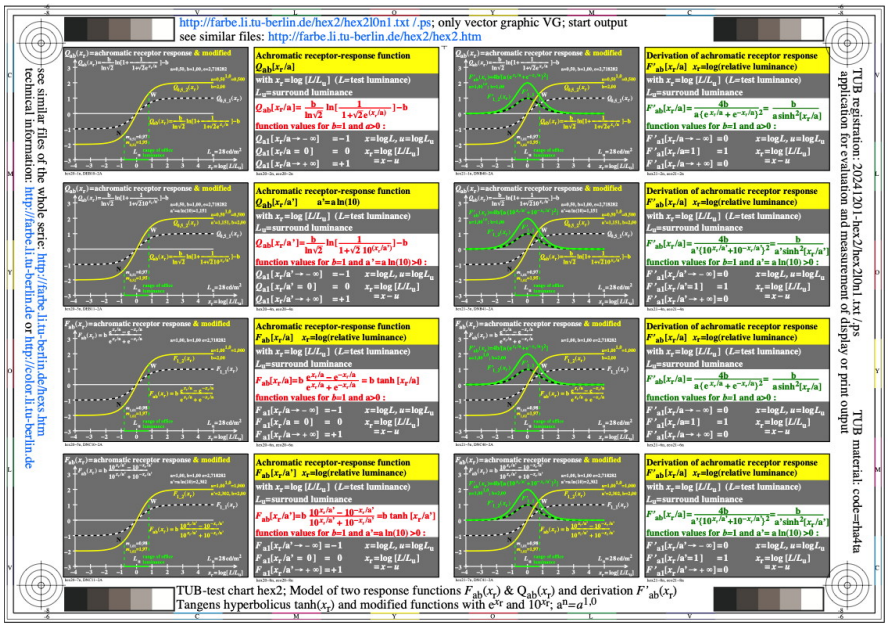

Image hex2l0n1.jpg: Output in format A6 of the file hex2l0np.pdf, see hex2l0n1. ps / txt / pdf / jpg

hex2: TUB-test chart hex2; Comparison of Qab(xr) and Fab(xr)
Line elements as integral an derivation
tanh(xr) mit e^(xr/a) und 10^(xr/a')

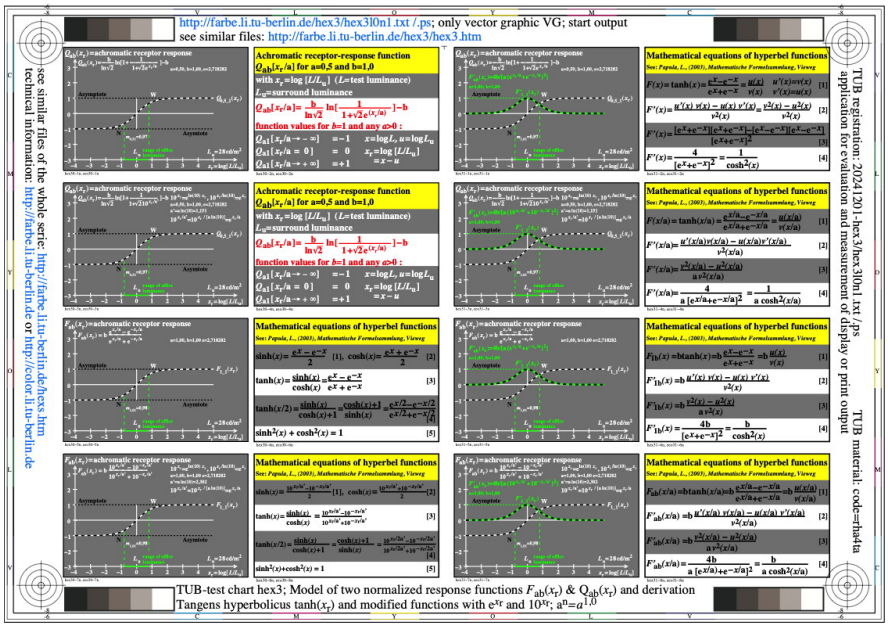

Image hex3l0n1.jpg: Output in format A6 of the file hex3l0np.pdf, see hex3l0n1. ps / txt / pdf / jpg

hex3: TUB-test chart hex3; Q/Fab(xr)-models for visual responses
Q/Fab(xr) with hyperbel functions e^(xr/a) and 10^(xr/a')
with contants a'=a ln(10) and a^n = a^1,0

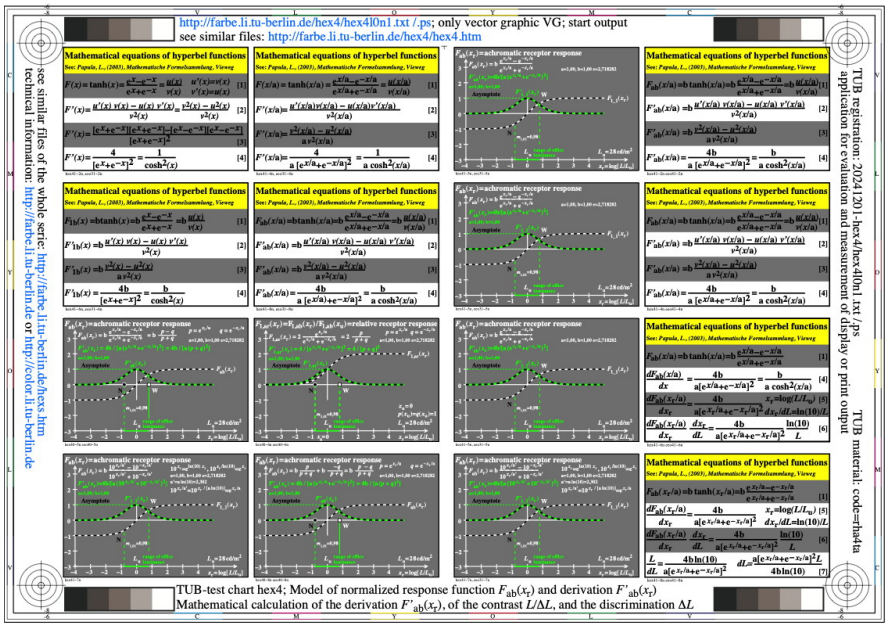

Image hex4l0n1.jpg: Output in format A6 of the file hex4l0np.pdf, see hex4l0n1. ps / txt / pdf / jpg

hex4: TUB-test chart hex4; Fab(xr)-model for visual responses
Application of hyperbel function tanh on receptor responses
Presentation of the functions and derivation for discrimination

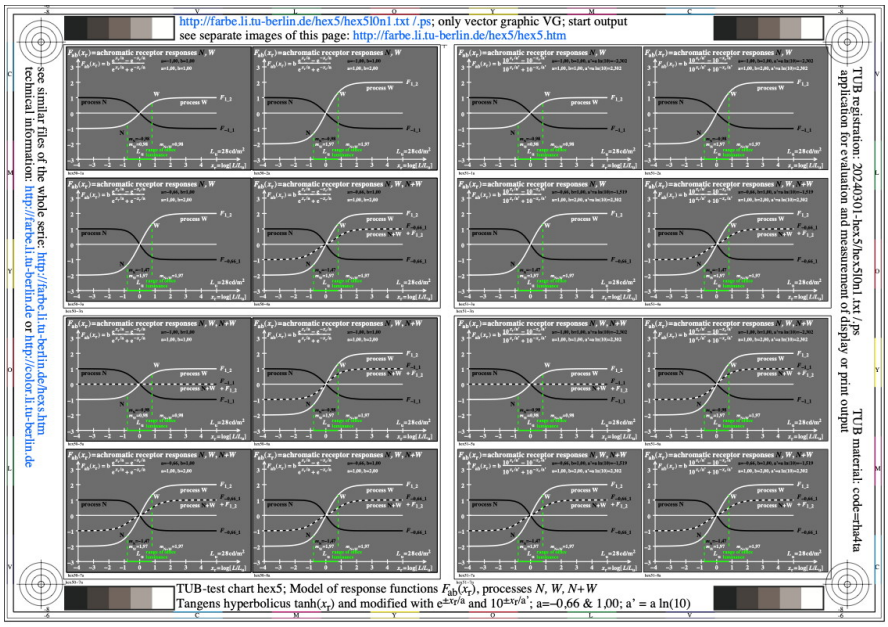

Image hex5l0n1.jpg: Output in format A6 of the file hex5l0np.pdf, see hex5l0n1. ps / txt / pdf / jpg

hex5: TUB-test chart hex5; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,7; 4 x 4 images

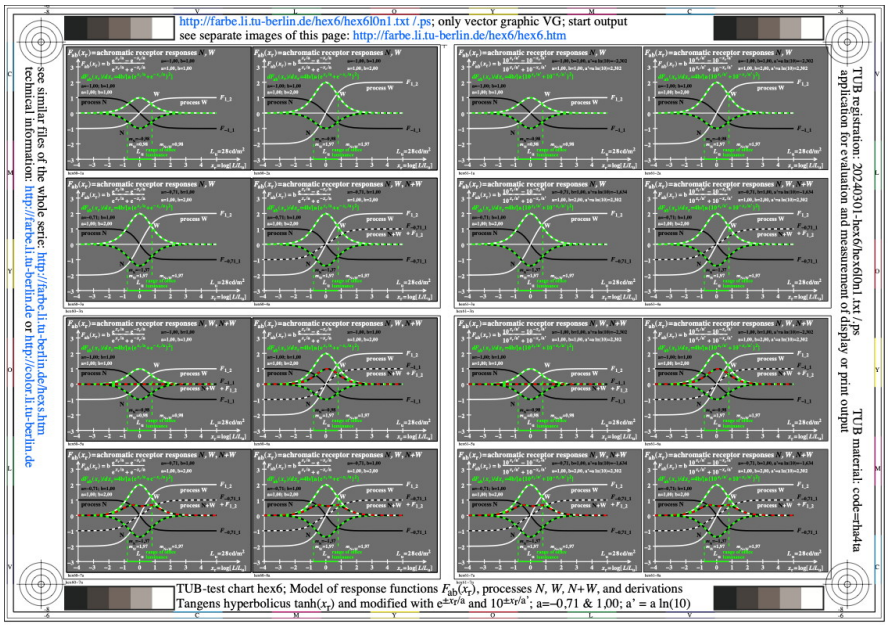

Image hex6l0n1.jpg: Output in format A6 of the file hex6l0np.pdf, see hex6l0n1. ps / txt / pdf / jpg

hex6: TUB-test chart hex6; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,5; 4 x 4 images

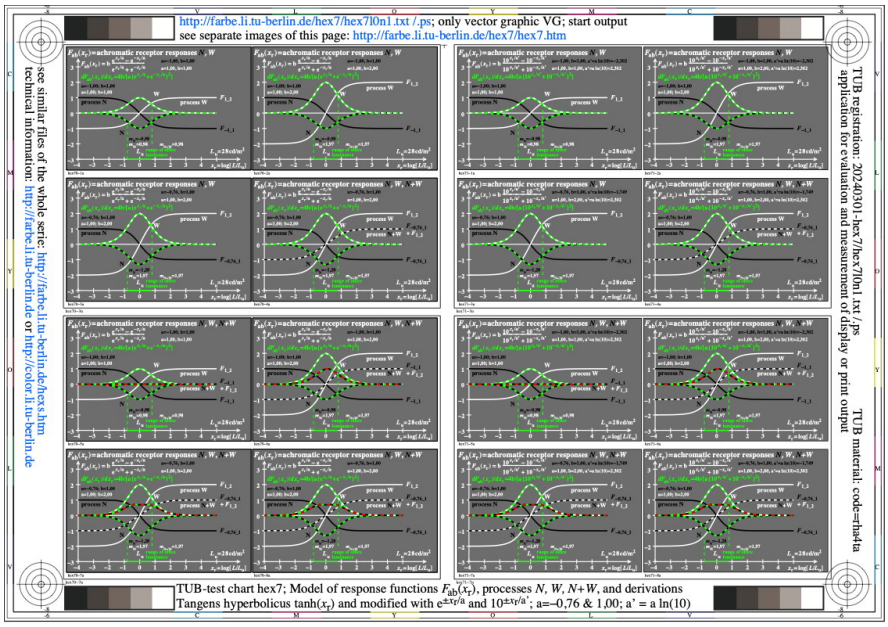

Image hex7l0n1.jpg: Output in format A6 of the file hex7l0np.pdf, see hex7l0n1. ps / txt / pdf / jpg

hex7: TUB-test chart hex7; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^1,0; 4 x 4 images

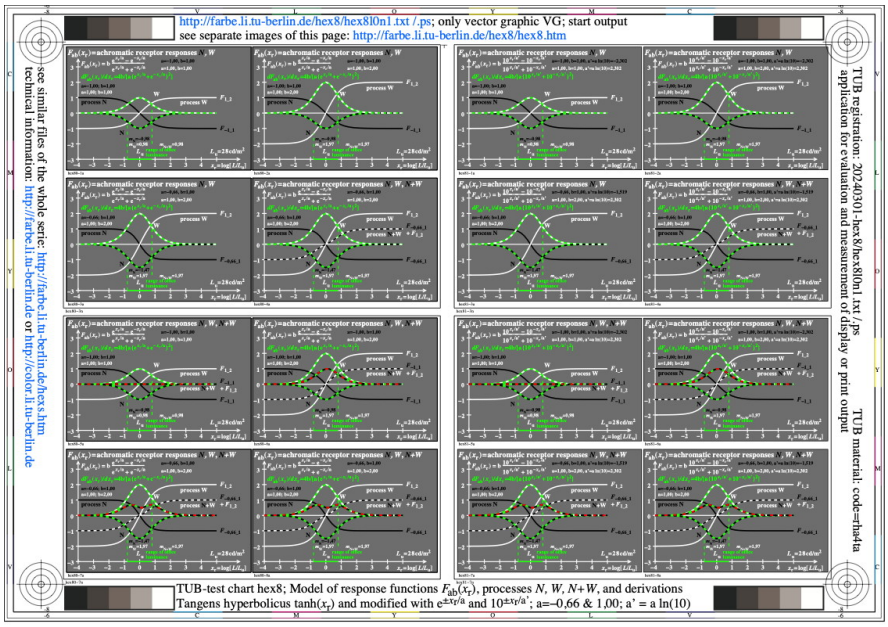

Image hex8l0n1.jpg: Output in format A6 of the file hex8l0np.pdf, see hex8l0n1. ps / txt / pdf / jpg

hex8: TUB-test chart hex8; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,7; 4 x 4 images

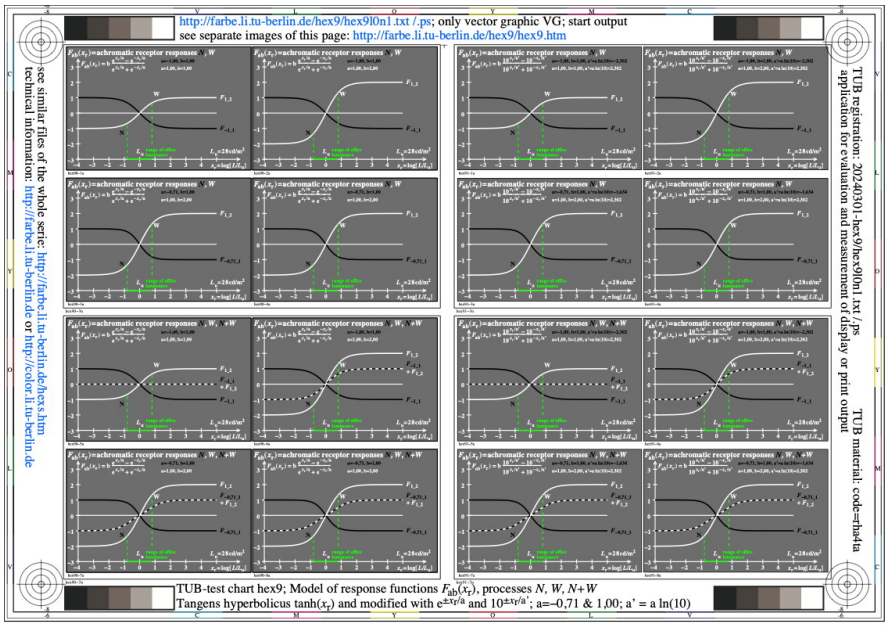

Image hex9l0n1.jpg: Output in format A6 of the file hex9l0np.pdf, see hex9l0n1. ps / txt / pdf / jpg

hex9: TUB-test chart hex9; Fab(xr)-model for visual responses derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a' a'=a ln(10); a^n = a^0,5; 4 x 4 images

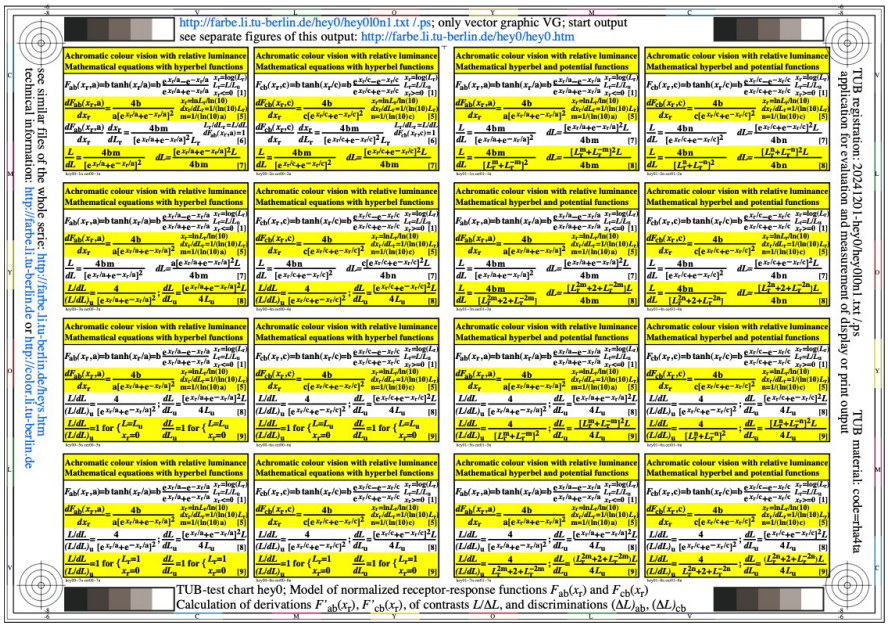

Image hey0l0n1.jpg: Output in format A6 of the file hey0l0np.pdf, see hey0l0n1. ps / txt / pdf / jpg

hey0: TUB-test chart hey0; Q/Fab(xr)-models for visual responses Q/Fab(xr) with hyperbel functions e^(xr/a) and 10^(xr/a') with contants a'=a ln(10) and a^n = a^1,0

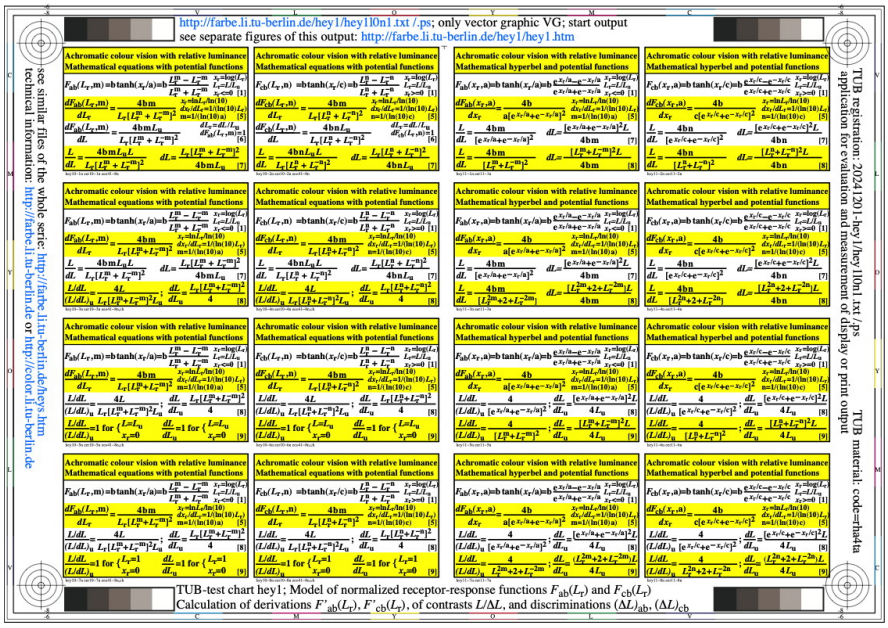

Image hey1l0n1.jpg: Output in format A6 of the file hey1l0np.pdf, see hey1l0n1. ps / txt / pdf / jpg

hey1: TUB-test chart hey1; Fab(xr)-model for visual responses
Application of hyperbel function tanh on receptor responses
Presentation of the functions and derivation for discrimination

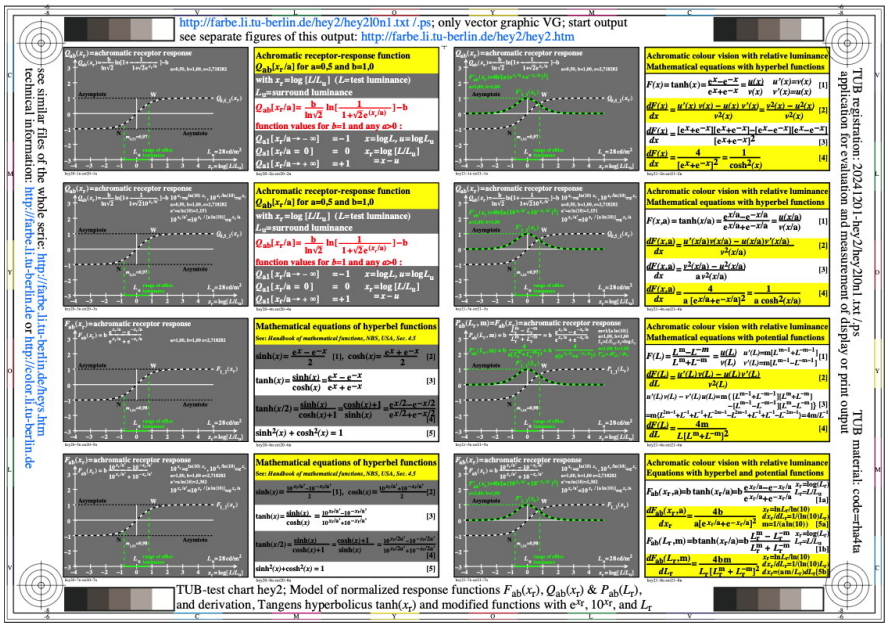

Image hey2l0n1.jpg: Output in format A6 of the file hey2l0np.pdf, see hey2l0n1. ps / txt / pdf / jpg

hey2: TUB-test chart hey2; Q/Fab(xr)-models for visual responses
Q/Fab(xr) with hyperbel functions e^(xr/a) and 10^(xr/a')
with contants a'=a ln(10) and a^n = a^1,0

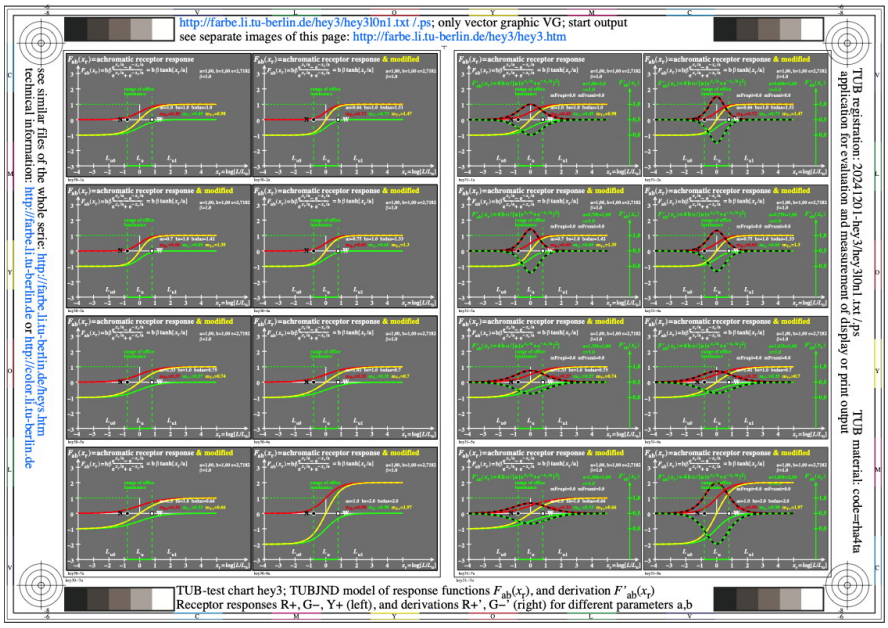

Image hey3l0n1.jpg: Output in format A6 of the file hey3l0np.pdf, see hey3l0n1. ps / txt / pdf / jpg

hey3: TUB-test chart hey3; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
R+', G-' (right) for diferent parameters a,b

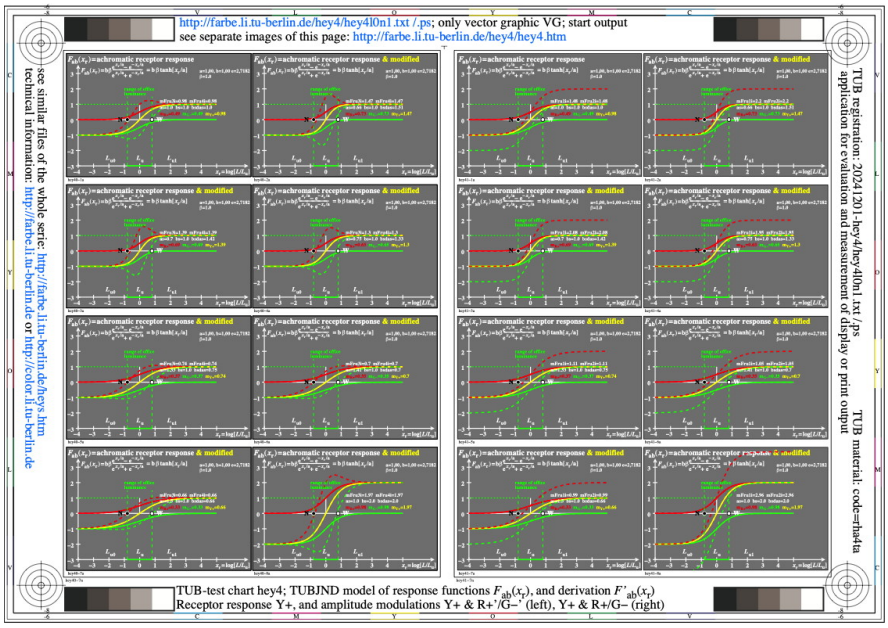

Image hey4l0n1.jpg: Output in format A6 of the file hey4l0np.pdf, see hey4l0n1. ps / txt / pdf / jpg

hey4: TUB-test chart hey4; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right) and amplitude
modulations Y+ & R+'/G-' (left), Y+ & R+/G- (right) for a,b

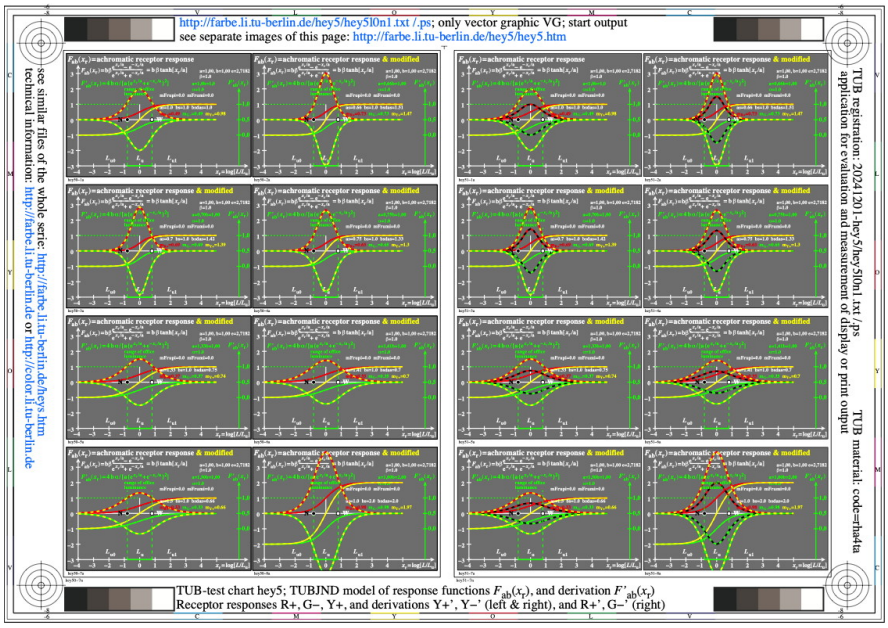

Image hey5l0n1.jpg: Output in format A6 of the file hey5l0np.pdf, see hey5l0n1. ps / txt / pdf / jpg

hey5: TUB-test chart hey5; TUBJND model with functions Fab, F'ab
Receptor responses R+, G-, Y+ (left & right), and derivations
Y+', Y-' (left & right), and R+'/G-' (right) for a,b

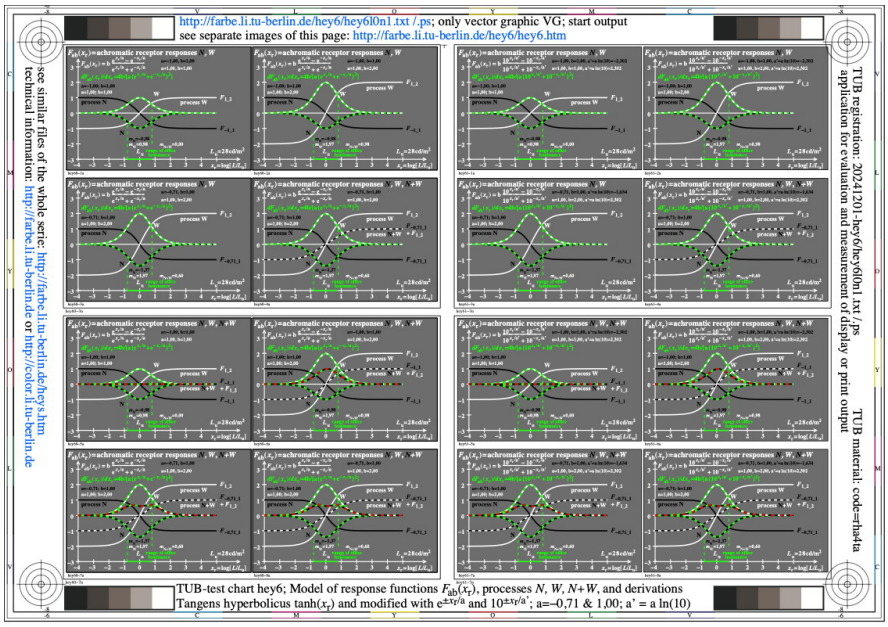

Image hey6l0n1.jpg: Output in format A6 of the file hey6l0np.pdf, see hey6l0n1. ps / txt / pdf / jpg

hey6: TUB-test chart hey6; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,5; 4 x 4 images

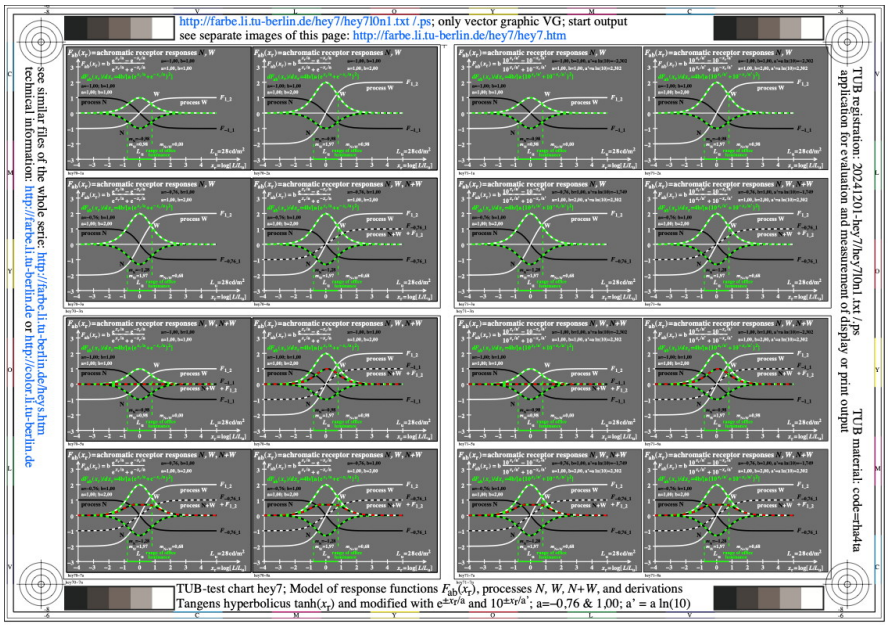

Image hey7l0n1.jpg: Output in format A6 of the file hey7l0np.pdf, see hey7l0n1. ps / txt / pdf / jpg

hey7: TUB-test chart hey7; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^1,0; 4 x 4 images

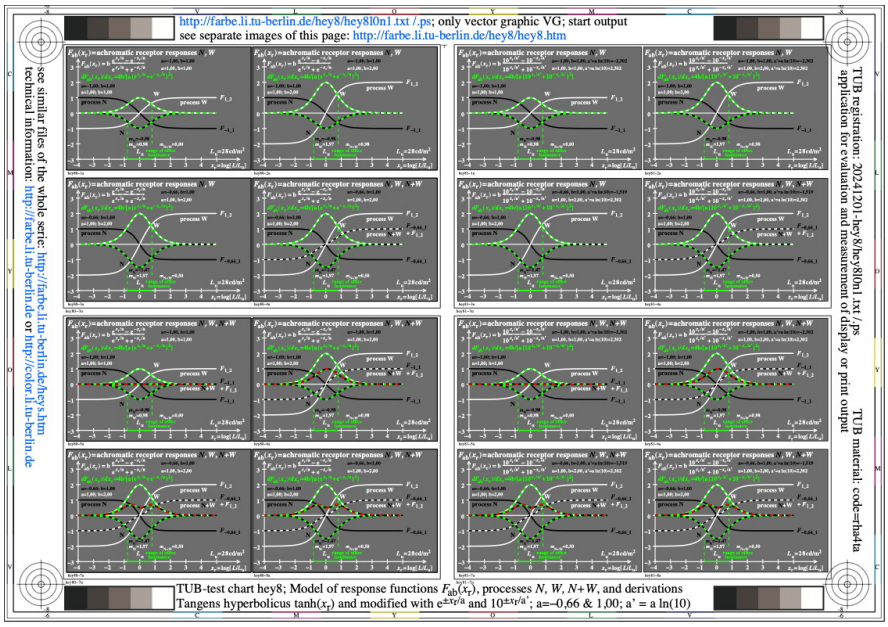

Image hey8l0n1.jpg: Output in format A6 of the file hey8l0np.pdf, see hey8l0n1. ps / txt / pdf / jpg

hey8: TUB-test chart hey8; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,7; 4 x 4 images

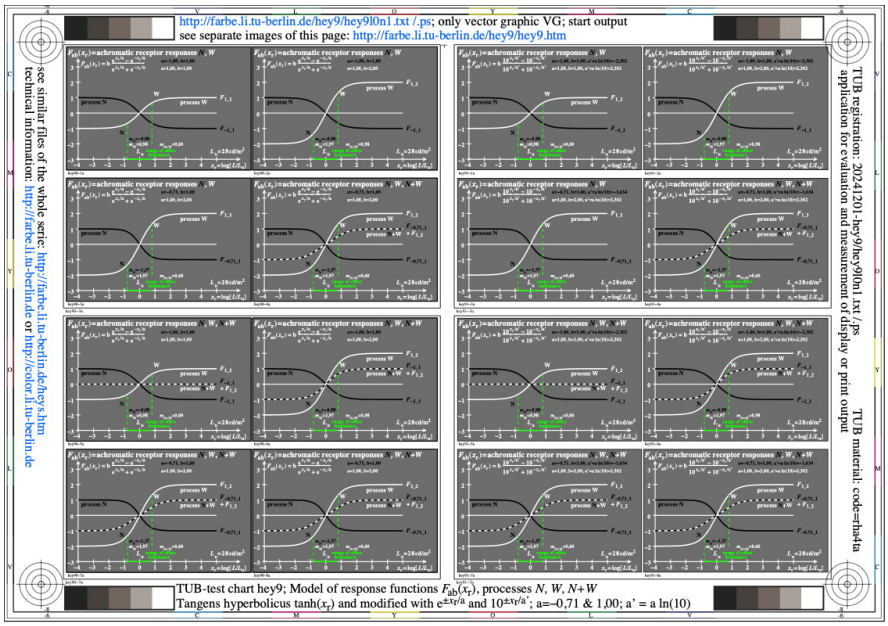

Image hey9l0n1.jpg: Output in format A6 of the file hey9l0np.pdf, see hey9l0n1. ps / txt / pdf / jpg

hey9: TUB-test chart hey9; Fab(xr)-model for visual responses
derivation of the responses; tanh(xr) with e^xr/a and 10^xr/a'
a'=a ln(10); a^n = a^0,5; 4 x 4 images

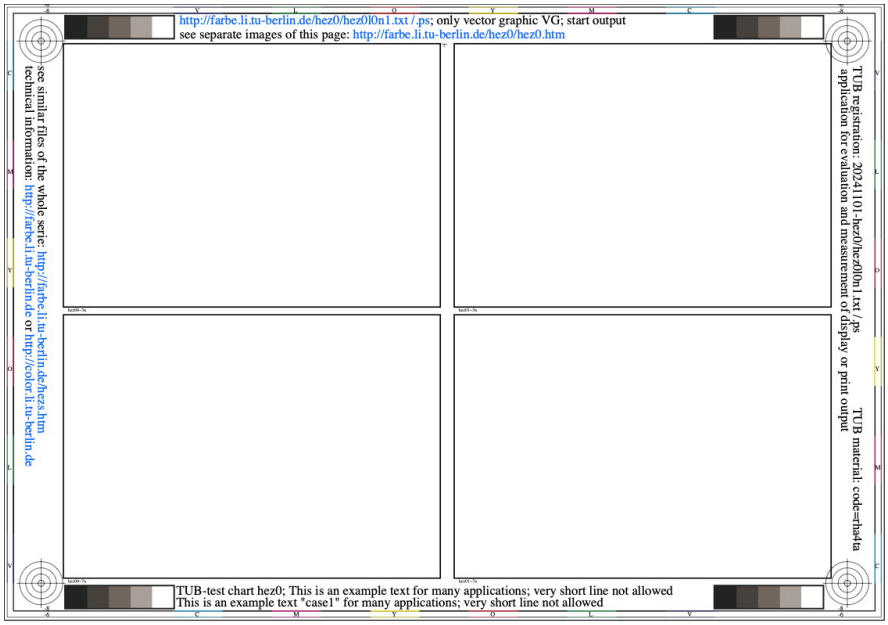

Image hez0l0n1.jpg: Output in format A6 of the file hez0l0np.pdf, see hez0l0n1. ps / txt / pdf / jpg

hez0: TUB-test chart hez0; Layout of test charts
Four single images (0/1)-(3/7)n per page
in the size 120mm x 85mm

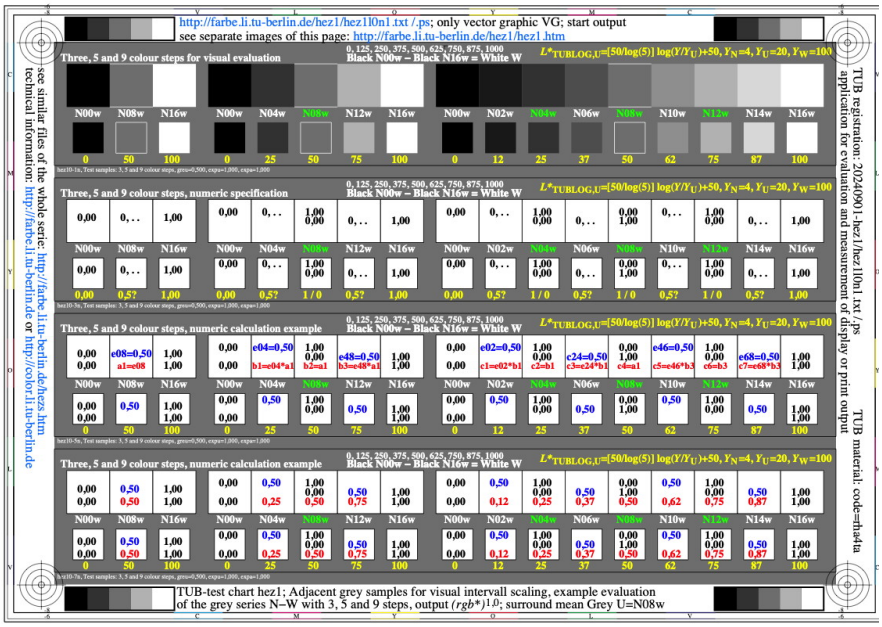

Image hez1l0n1.jpg: Output in format A6 of the file hez1l0np.pdf, see hez1l0n1. ps / txt / pdf / jpg

hez1: TUB-test chart hez1; Adjacent grey samples
for visual interval scaling, example evaluation of the
grey series N-W, output (rgb*)^1,0, surround mean grey U=N08w

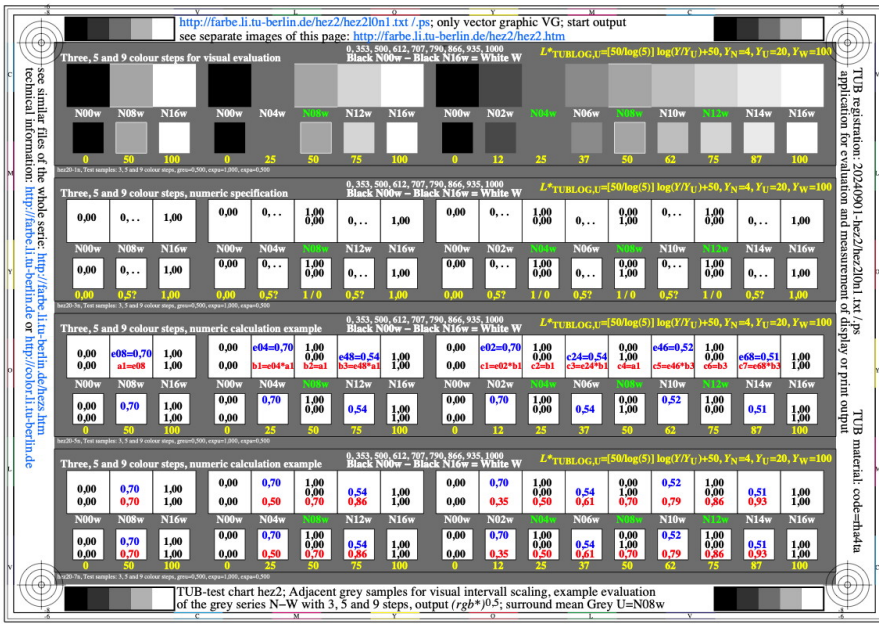

Image hez2l0n1.jpg: Output in format A6 of the file hez2l0np.pdf, see hez2l0n1. ps / txt / pdf / jpg

hez2: TUB-test chart hez2; Adjacent grey samples
for visual interval scaling, example evaluation of the
grey series N-W, output (rgb*)^0,5, surround mean grey U=N08w

Image hez3l0n1.jpg: Output in format A6 of the file hez3l0np.pdf, see hez3l0n1. ps / txt / pdf / jpg

hez3: TUB-test chart hez3; Layout of test charts
4 multi images (0/1)-(3/7)a in size 120mm x 85mm
16 sub images (0/1)-(1..8)a in size 60mm x 40mm

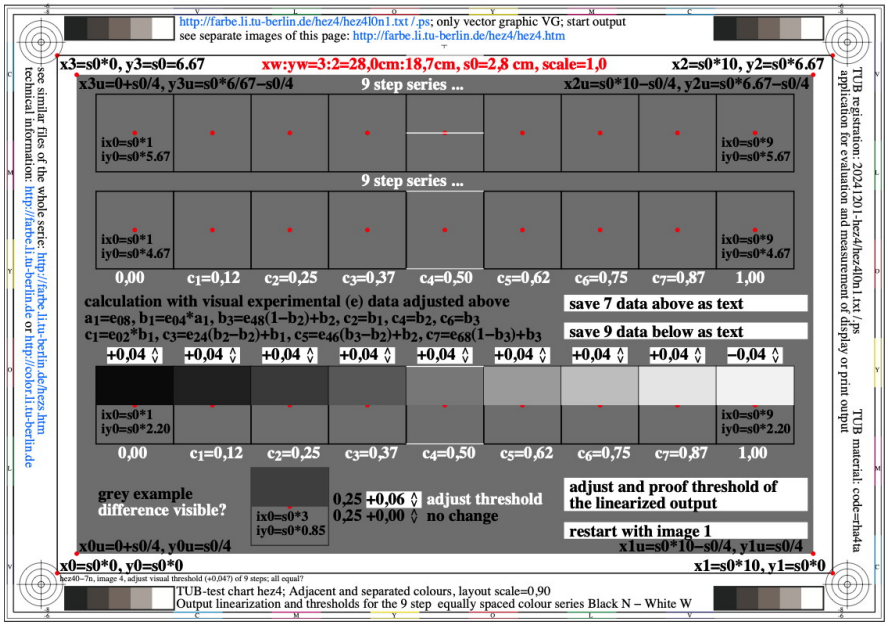

Image hez4l0n1.jpg: Output in format A6 of the file hez4l0np.pdf, see hez4l0n1. ps / txt / pdf / jpg

hez4: TUB-test chart hez4; Adjacent and separate colours of nine steps; layout scale=0,90; output linearization and thresholds for colour series Black N - White W

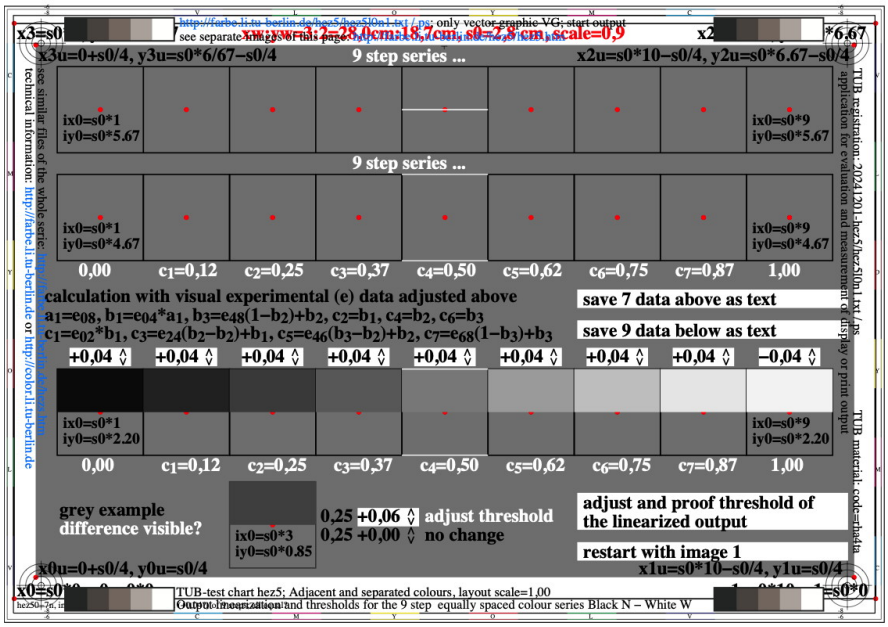

Image hez5l0n1.jpg: Output in format A6 of the file hez5l0np.pdf, see hez5l0n1. ps / txt / pdf / jpg

hez5: TUB-test chart hez5; Adjacent and separate colours of nine steps; layout scale=1,00; output linearization and thresholds for colour series Black N - White W

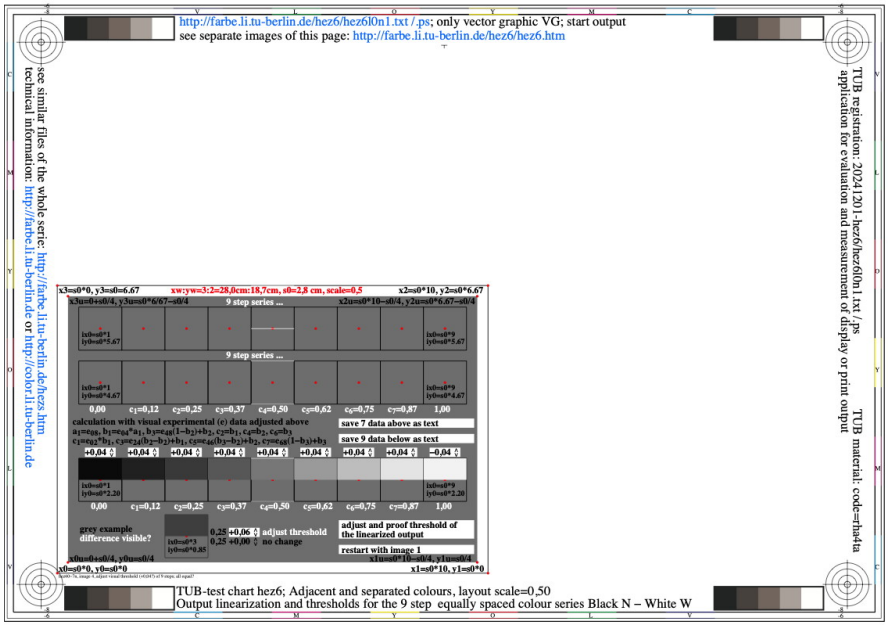

Image hez6l0n1.jpg: Output in format A6 of the file hez6l0np.pdf, see hez6l0n1. ps / txt / pdf / jpg

hez6: TUB-test chart hez6; Adjacent and separate colours of nine steps; layout scale=0,50; output linearization and thresholds for colour series Black N - White W

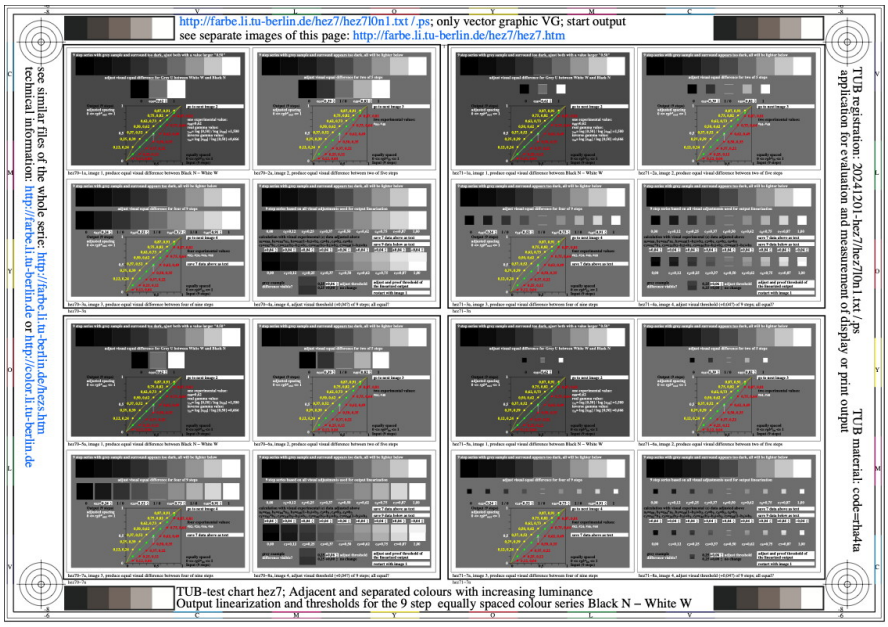

Image hez7l0n1.jpg: Output in format A6 of the file hez7l0np.pdf, see hez7l0n1. ps / txt / pdf / jpg

hez7: TUB-test chart hez7; Adjacent and separate colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - White W

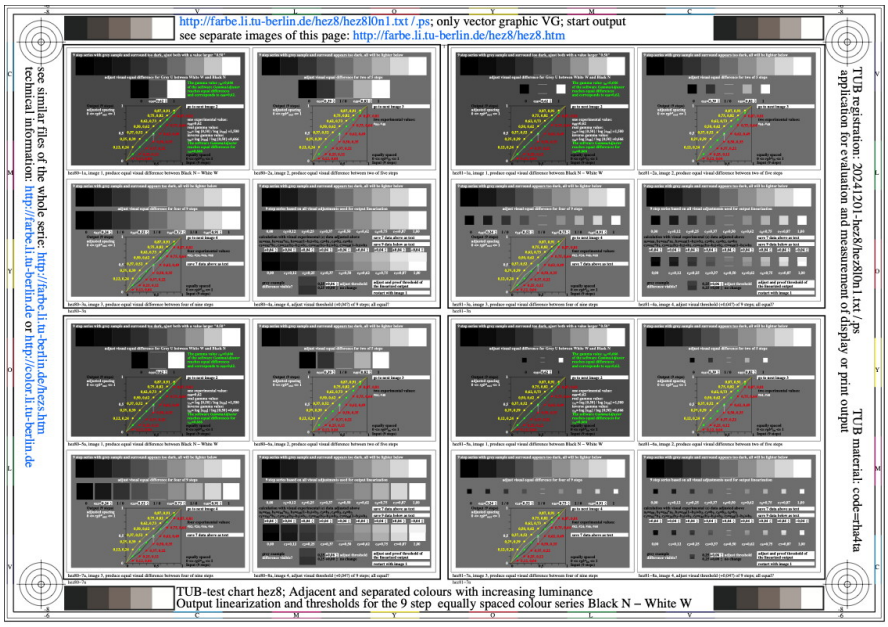

Image hez8l0n1.jpg: Output in format A6 of the file hez8l0np.pdf, see hez8l0n1. ps / txt / pdf / jpg

hez8: TUB-test chart hez8; Adjacent and separated colours of nine steps with increaing luminance; output linearization and thresholds for colour series Black N - White W

Image hez9l0n1.jpg: Output in format A6 of the file hez9l0np.pdf, see hez9l0n1. ps / txt / pdf / jpg

hez9: TUB-test chart hez9; Adjacent and separate colours of nine steps; layout scale=0,425; output linearization and thresholds for colour series Black N - White W

Section 2, Chapter H: *SDR and HDR-colour metric for optimal colour-image quality (2025)*
This image page with 260 image series: he2s in English, hg2s in German.
Previous image page: ge2s in English, gg2s in German.
Next image page, see ie2s in English, ig2s in German.
Introduction, content list and summary: feai, fea_i, fea_s in English or fgai, fga_i, fga_s in German.

Für Archiv-Information (2000-2009) des BAM servers "www.ps.bam.de" (2000-2018) über Prüfvorlagen, farbmetrische Berechnungen, Normen und Veröffentlichungen, siehe indexAE.html in englisch, indexAG.html in deutsch.

Zurück zur TUB-Hauptseite (NICHT Archiv), siehe index.html in englisch, indexDE.html. in deutsch.