

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 96/360 = 0.26$

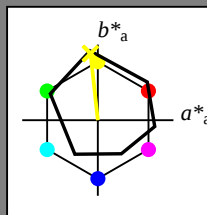
Data for any device (d) or elementary (e) colour:

HIC^*

hue text for the colours of this page:

$H^*_ = Y00G_-$

triangle lightness T^*



ORS18a; adapted (a) CIELAB data					
name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	
R _{-,Ma}	47.9	65.3	50.5	82.6	37
Y _{-,Ma}	90.3	-10.2	91.7	92.3	96
G _{-,Ma}	50.9	-62.8	34.9	71.9	150
C _{-,Ma}	58.6	-30.3	-45.0	54.2	236
B _{-,Ma}	25.7	31.0	-44.4	54.2	305
M _{-,Ma}	48.1	75.2	-8.3	75.7	353
N _{-,Ma}	18.0	0.0	0.0	0.0	0
W _{-,Ma}	95.4	0.0	0.0	0.0	0
R _{-,CIE}	39.9	58.7	27.9	65.0	25
Y _{-,CIE}	81.2	-2.8	71.5	71.6	92
G _{-,CIE}	52.2	-42.4	13.6	44.5	162
B _{-,CIE}	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{-,Ma}$: 90 -9 88 88 96

$HIC^*_{-,Ma}$: Y00G_100_100_

$rgbic^*_{-,Ma}$:

1.0 1.0 0.0 1.0 1.0

triangle lightness T^*

% Gamut

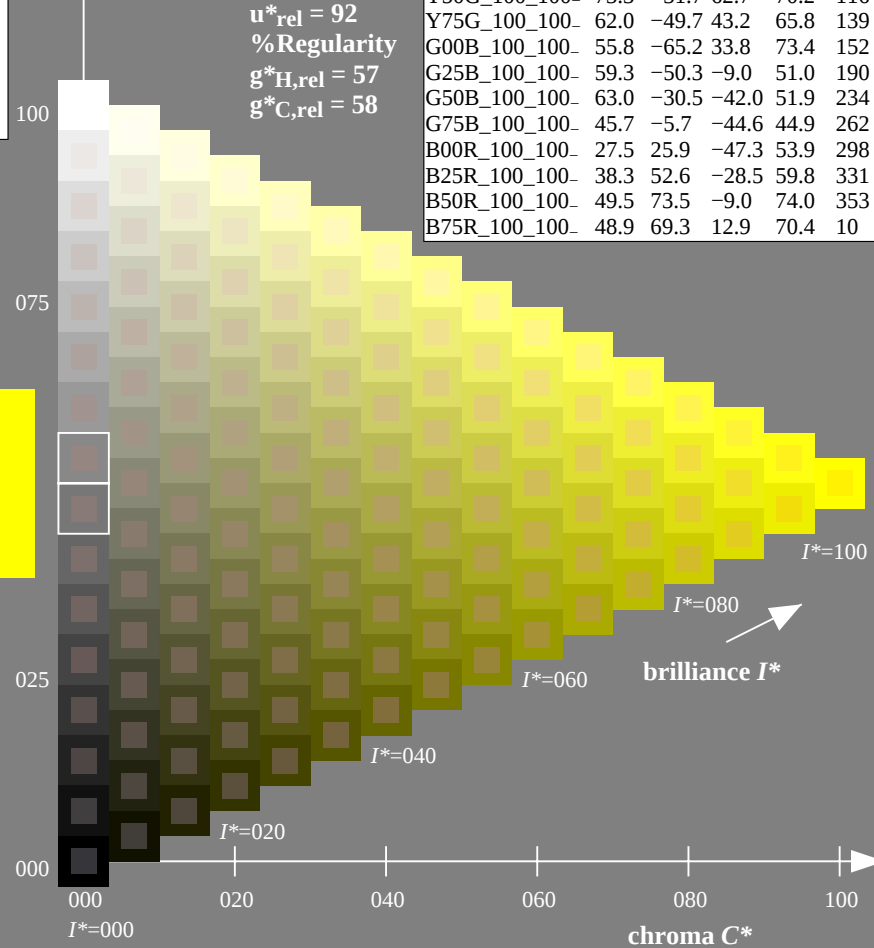
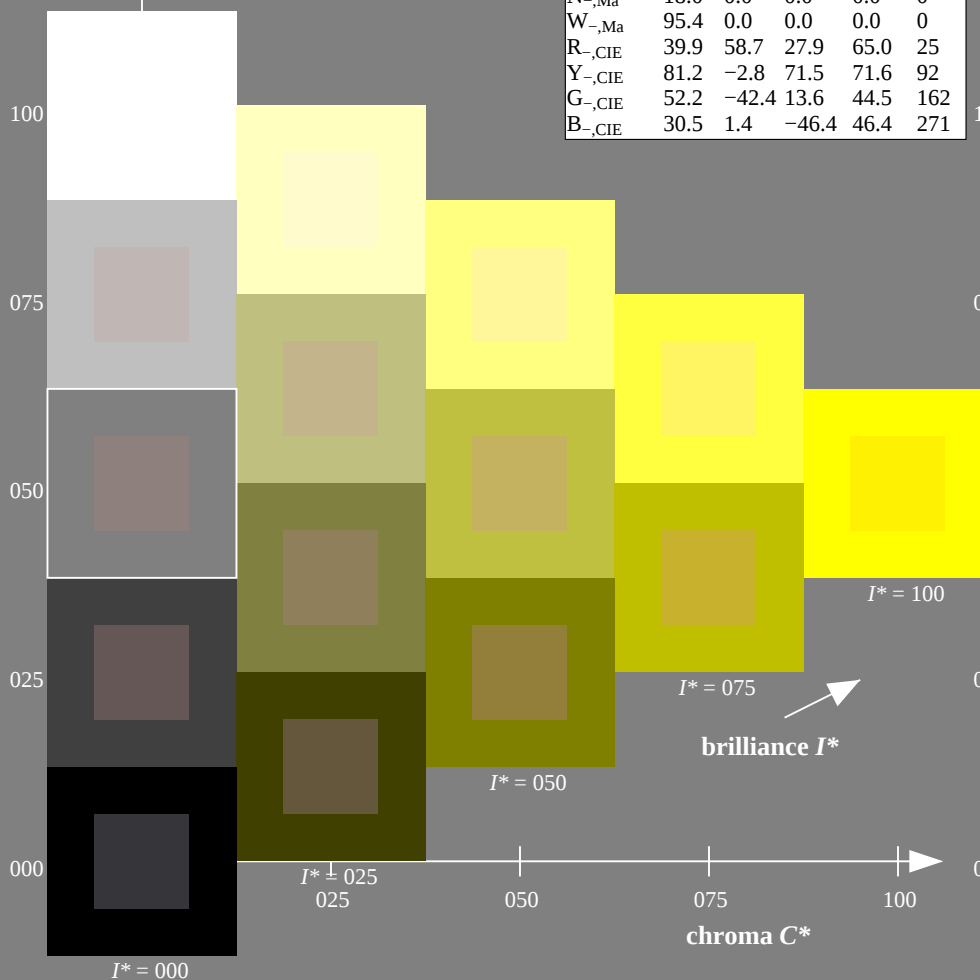
$u^*_{rel} = 92$

% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data					
$H^*_$	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	
R00Y_100_100_	48.4	66.1	40.2	77.3	31
R25Y_100_100_	56.8	48.0	50.5	69.6	46
R50Y_100_100_	68.6	25.0	63.9	68.6	68
R75Y_100_100_	80.6	4.8	77.2	77.3	86
Y00G_100_100_	90.2	-9.6	88.2	88.7	96
Y25G_100_100_	83.2	-18.4	79.9	81.9	102
Y50G_100_100_	73.3	-31.7	62.7	70.2	116
Y75G_100_100_	62.0	-49.7	43.2	65.8	139
G00B_100_100_	55.8	-65.2	33.8	73.4	152
G25B_100_100_	59.3	-50.3	-9.0	51.0	190
G50B_100_100_	63.0	-30.5	-42.0	51.9	234
G75B_100_100_	45.7	-5.7	-44.6	44.9	262
B00R_100_100_	27.5	25.9	-47.3	53.9	298
B25R_100_100_	38.3	52.6	-28.5	59.8	331
B50R_100_100_	49.5	73.5	-9.0	74.0	353
B75R_100_100_	48.9	69.3	12.9	70.4	10



TUB-test chart QE38; hue code: $H^*_ = Y00G_-$
Test chart according to DIN 33872, 3D=1, de=1, $cm y0^*$

input: $rgb/cmyk \rightarrow rgb/cmyk$
output: no change

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 92/360 = 0.25$

$H^*_e = Y00G_e$

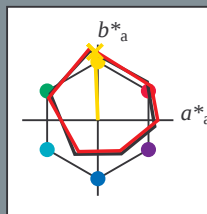
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours
of this page:

$H^*_e = Y00G_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data					
name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R_e, Ma	45.6	72.2	34.4	80.0	25
Y_e, Ma	83.6	-3.6	90.4	90.4	92
G_e, Ma	50.6	-62.1	19.9	65.2	162
C_e, Ma	55.0	-36.2	-27.2	45.3	216
B_e, Ma	40.2	1.2	-40.6	40.6	271
M_e, Ma	31.1	47.7	-29.1	55.9	328
N_e, Ma	24.3	0.0	0.0	0.0	0
W_e, Ma	95.6	0.0	0.0	0.0	0
R_e, CIE	39.9	58.7	27.9	65.0	25
Y_e, CIE	81.2	-2.8	71.5	71.6	92
G_e, CIE	52.2	-42.4	13.6	44.5	162
B_e, CIE	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_e, Ma: 83 -3 90 90 92$

$HIC^*_e, Ma: Y00G_{100_{100}_e}$

$rgbic^*_e, Ma:$

1.0 0.87 0.0 1.0 1.0

triangle lightness T^*

% Gamut

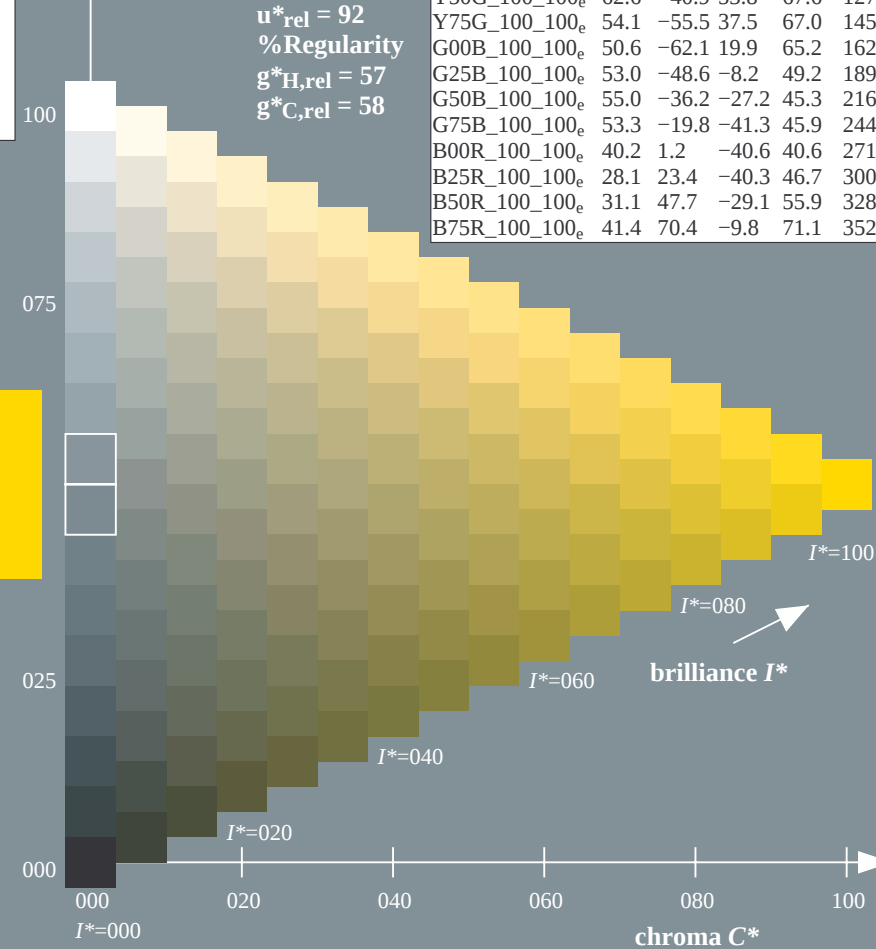
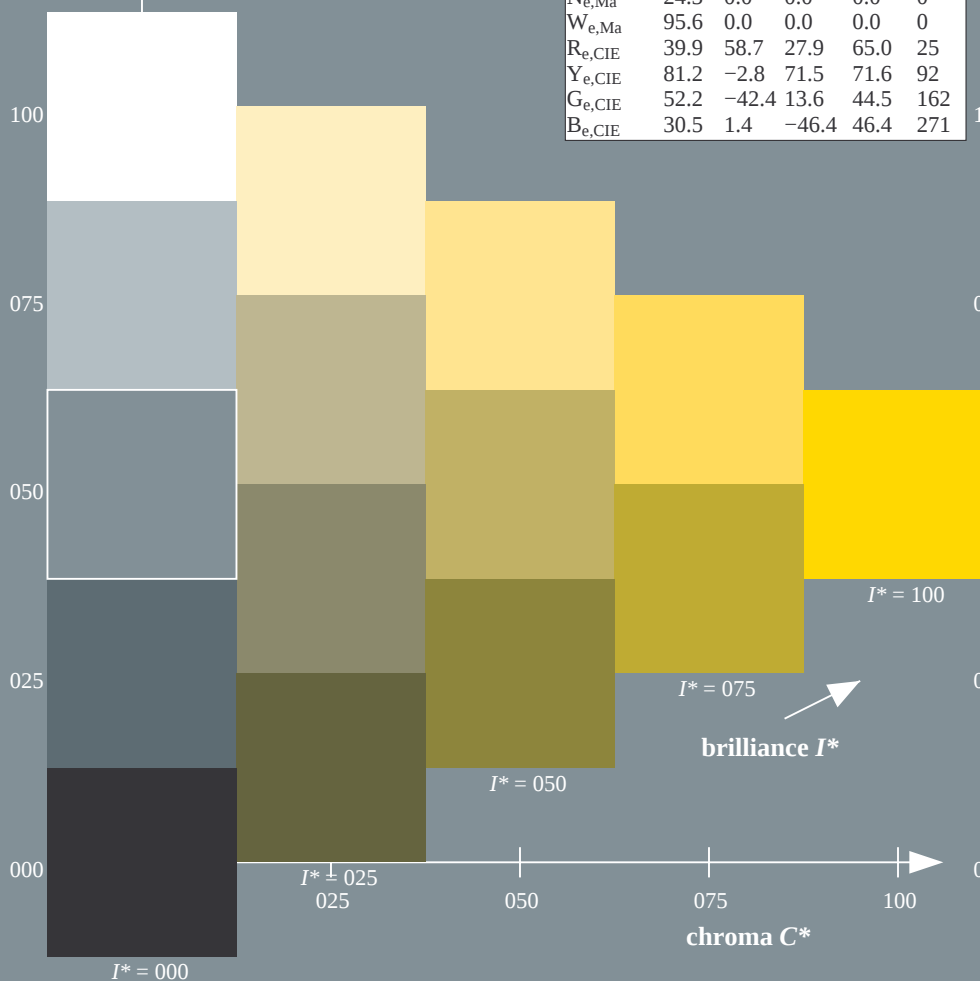
$u^*_{rel} = 92$

% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data					
H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_{100_{100}_e}$	45.6	72.2	34.4	80.0	25
$R25Y_{100_{100}_e}$	50.5	59.2	51.6	78.6	41
$R50Y_{100_{100}_e}$	60.2	38.2	63.4	74.1	58
$R75Y_{100_{100}_e}$	70.9	17.9	75.9	77.9	76
$Y00G_{100_{100}_e}$	83.6	-3.6	90.4	90.4	92
$Y25G_{100_{100}_e}$	74.5	-25.0	74.3	78.4	108
$Y50G_{100_{100}_e}$	62.6	-40.9	53.8	67.6	127
$Y75G_{100_{100}_e}$	54.1	-55.5	37.5	67.0	145
$G00B_{100_{100}_e}$	50.6	-62.1	19.9	65.2	162
$G25B_{100_{100}_e}$	53.0	-48.6	-8.2	49.2	189
$G50B_{100_{100}_e}$	55.0	-36.2	-27.2	45.3	216
$G75B_{100_{100}_e}$	53.3	-19.8	-41.3	45.9	244
$B00R_{100_{100}_e}$	40.2	1.2	-40.6	40.6	271
$B25R_{100_{100}_e}$	28.1	23.4	-40.3	46.7	300
$B50R_{100_{100}_e}$	31.1	47.7	-29.1	55.9	328
$B75R_{100_{100}_e}$	41.4	70.4	-9.8	71.1	352



TUB-test chart QE38; hue code: $H^*_e = Y00G_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmY0^*_{de}$

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 92/360 = 0.25$

$H^*_e = Y00G_e$

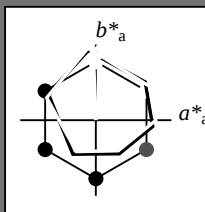
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y00G_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _e ,Ma	45.6	72.2	34.4	80.0	25
Y _e ,Ma	83.6	-3.6	90.4	90.4	92
G _e ,Ma	50.6	-62.1	19.9	65.2	162
C _e ,Ma	55.0	-36.2	-27.2	45.3	216
B _e ,Ma	40.2	1.2	-40.6	40.6	271
M _e ,Ma	31.1	47.7	-29.1	55.9	328
N _e ,Ma	24.3	0.0	0.0	0.0	0
W _e ,Ma	95.6	0.0	0.0	0.0	0
R _e ,CIE	39.9	58.7	27.9	65.0	25
Y _e ,CIE	81.2	-2.8	71.5	71.6	92
G _e ,CIE	52.2	-42.4	13.6	44.5	162
B _e ,CIE	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_e, Ma: 83 -3 90 90 92$

$HIC^*_e, Ma: Y00G_100_100_e$

$rgbic^*_e, Ma:$

1.0 0.87 0.0 1.0 1.0

triangle lightness T^*

% Gamut

$u^*_{rel} = 92$

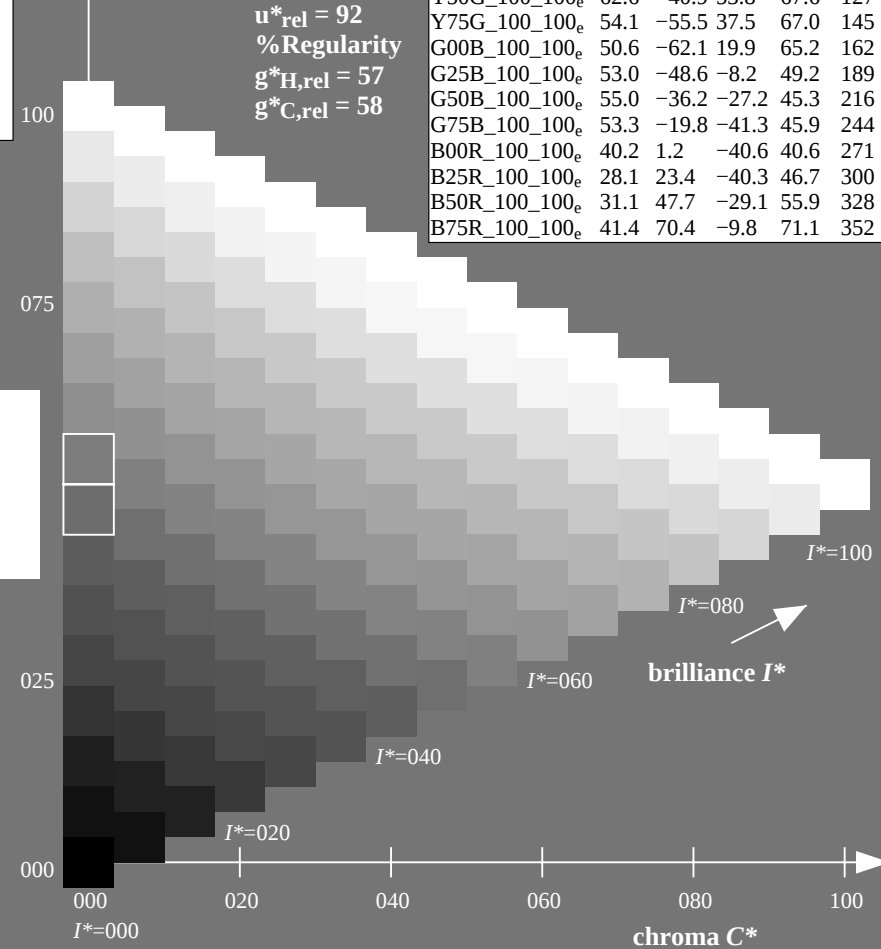
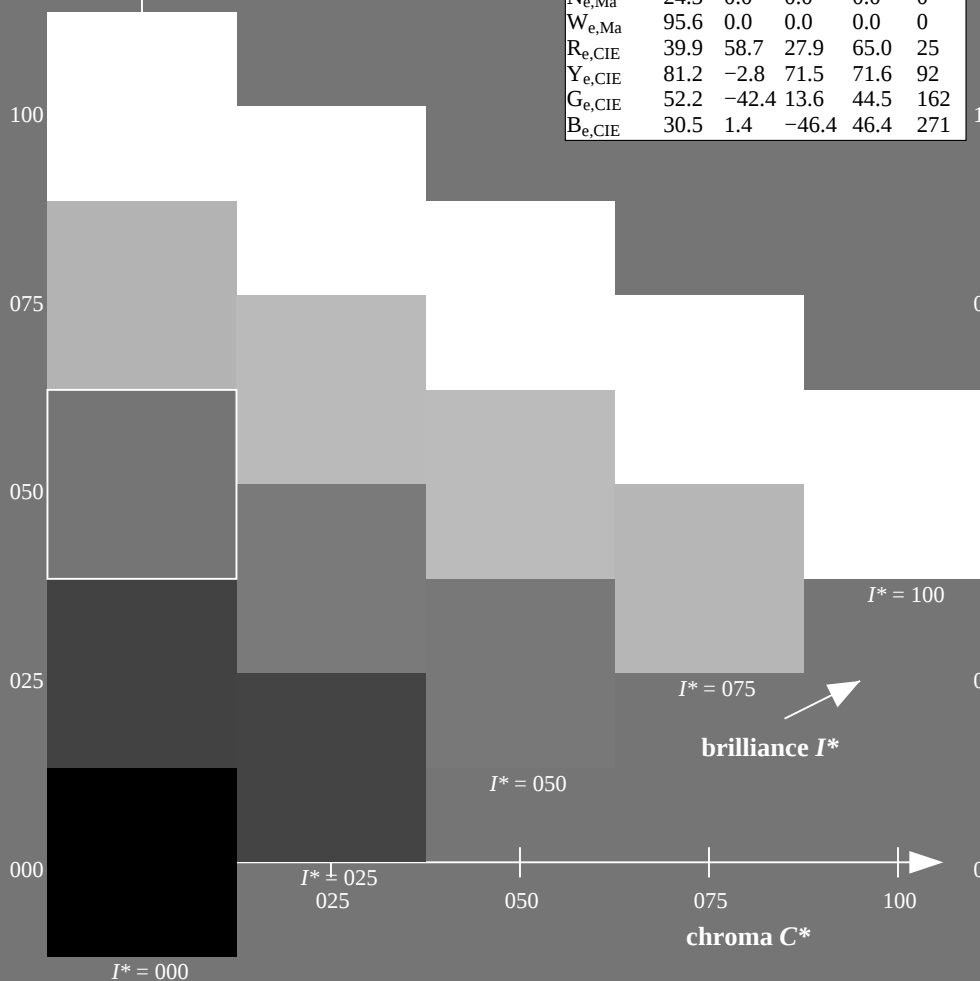
% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 _e	45.6	72.2	34.4	80.0	25
R25Y_100_100 _e	50.5	59.2	51.6	78.6	41
R50Y_100_100 _e	60.2	38.2	63.4	74.1	58
R75Y_100_100 _e	70.9	17.9	75.9	77.9	76
Y00G_100_100 _e	83.6	-3.6	90.4	90.4	92
Y25G_100_100 _e	74.5	-25.0	74.3	78.4	108
Y50G_100_100 _e	62.6	-40.9	53.8	67.6	127
Y75G_100_100 _e	54.1	-55.5	37.5	67.0	145
G00B_100_100 _e	50.6	-62.1	19.9	65.2	162
G25B_100_100 _e	53.0	-48.6	-8.2	49.2	189
G50B_100_100 _e	55.0	-36.2	-27.2	45.3	216
G75B_100_100 _e	53.3	-19.8	-41.3	45.9	244
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B25R_100_100 _e	28.1	23.4	-40.3	46.7	300
B50R_100_100 _e	31.1	47.7	-29.1	55.9	328
B75R_100_100 _e	41.4	70.4	-9.8	71.1	352



1-113231-L0 QE380-73

TUB-test chart QE38; hue code: $H^*_e = Y00G_e$
Test chart according to DIN 33872, 3D=1, de=1, $cmY0^*$

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmY0^*_{de}$

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 92/360 = 0.25$

$H^*_e = Y00G_e$

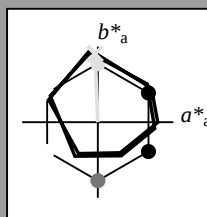
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y00G_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data					
name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R_e, Ma	45.6	72.2	34.4	80.0	25
Y_e, Ma	83.6	-3.6	90.4	90.4	92
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M_e, Ma	31.1	47.7	-29.1	55.9	328
N_e, Ma	24.3	0.0	0.0	0.0	0
W_e, Ma	95.6	0.0	0.0	0.0	0
R_e, CIE	39.9	58.7	27.9	65.0	25
Y_e, CIE	81.2	-2.8	71.5	71.6	92
G_e, CIE	52.2	-42.4	13.6	44.5	162
B_e, CIE	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_e, Ma: 83 -3 90 90 92$

$HIC^*_e, Ma: Y00G_100_100_e$

$rgbic^*_e, Ma:$

1.0 0.87 0.0 1.0 1.0

triangle lightness T^*

% Gamut

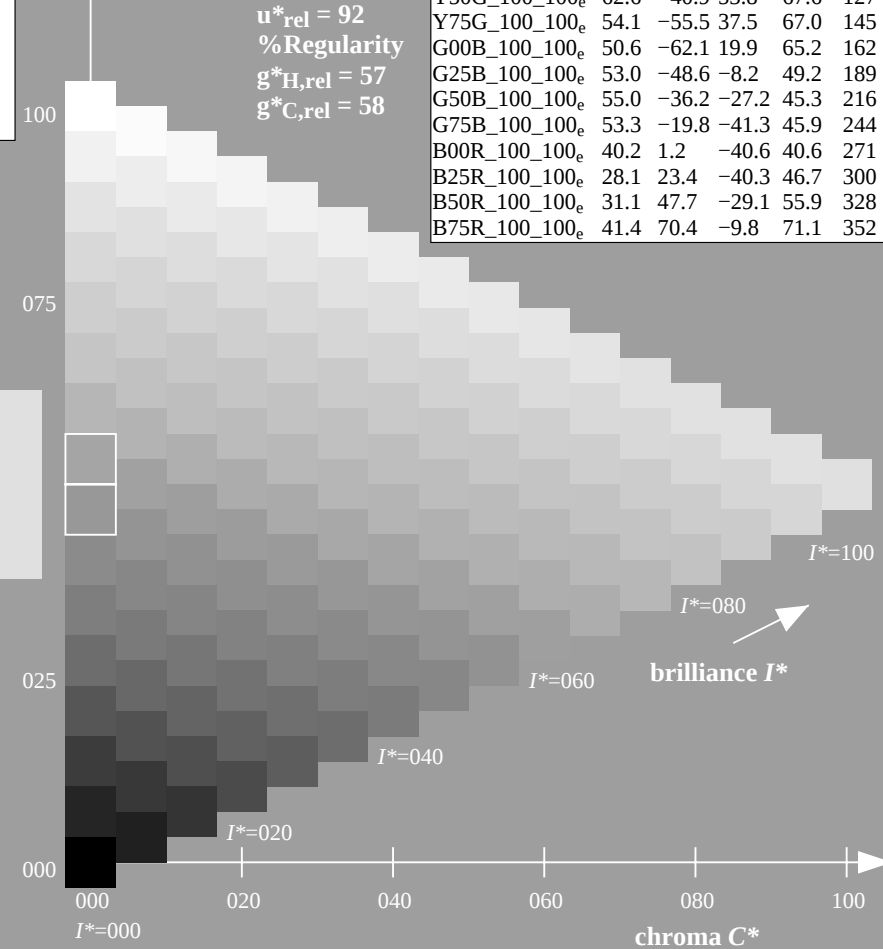
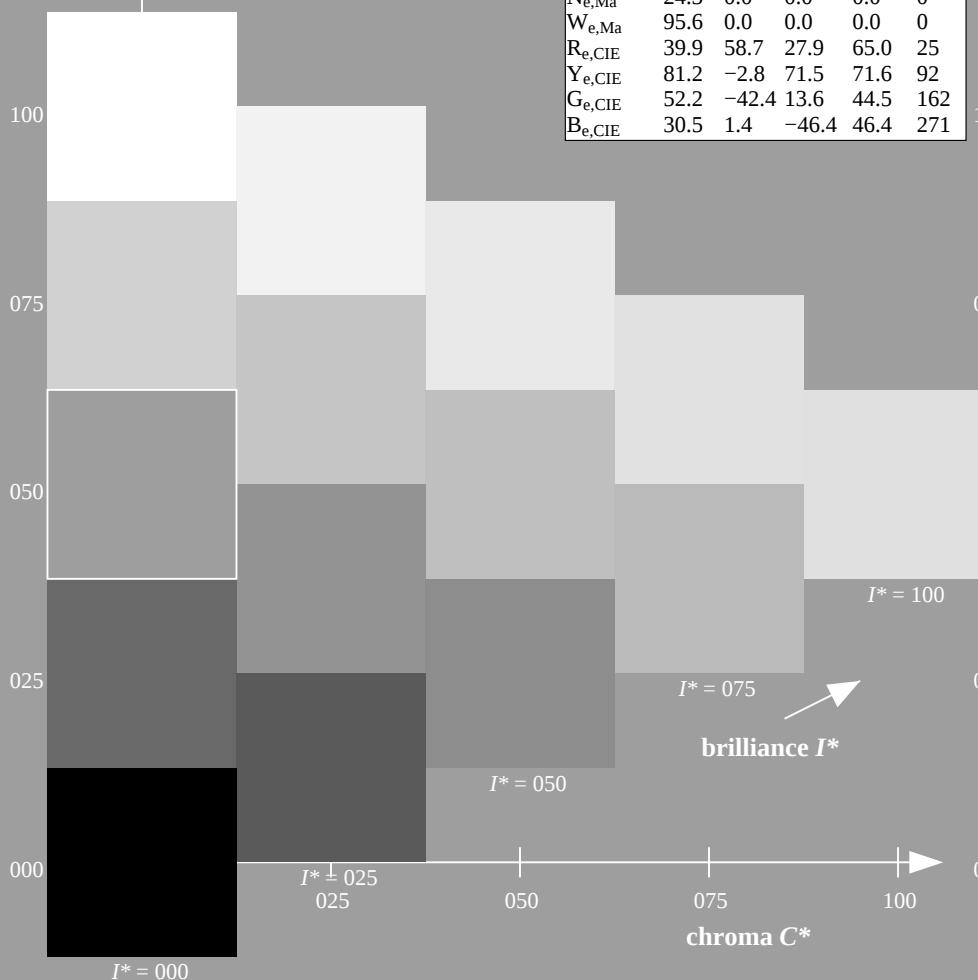
$u^*_{rel} = 92$

% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data					
H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_100_100_e$	45.6	72.2	34.4	80.0	25
$R25Y_100_100_e$	50.5	59.2	51.6	78.6	41
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$R75Y_100_100_e$	70.9	17.9	75.9	77.9	76
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$B75R_100_100_e$	41.4	70.4	-9.8	71.1	352



1-113331-L0 QE380-73

TUB-test chart QE38; hue code: $H^*_e = Y00G_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmY0^*_{de}$

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 92/360 = 0.25$

$H^*_e = Y00G_e$

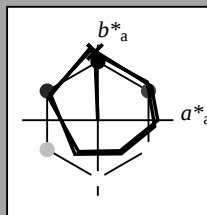
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y00G_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R_{e,Ma}$	45.6	72.2	34.4	80.0	25
$Y_{e,Ma}$	83.6	-3.6	90.4	90.4	92
$G_{e,Ma}$	50.6	-62.1	19.9	65.2	162
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$M_{e,Ma}$	31.1	47.7	-29.1	55.9	328
$N_{e,Ma}$	24.3	0.0	0.0	0.0	0
$W_{e,Ma}$	95.6	0.0	0.0	0.0	0
$R_{e,CIE}$	39.9	58.7	27.9	65.0	25
$Y_{e,CIE}$	81.2	-2.8	71.5	71.6	92
$G_{e,CIE}$	52.2	-42.4	13.6	44.5	162
$B_{e,CIE}$	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{e,Ma}$: 83 -3 90 90 92

$HIC^*_{e,Ma}$: Y00G_100_100_e

$rgbic^*_{e,Ma}$:

1.0 0.87 0.0 1.0 1.0

triangle lightness T^*

% Gamut

$u^*_{rel} = 92$

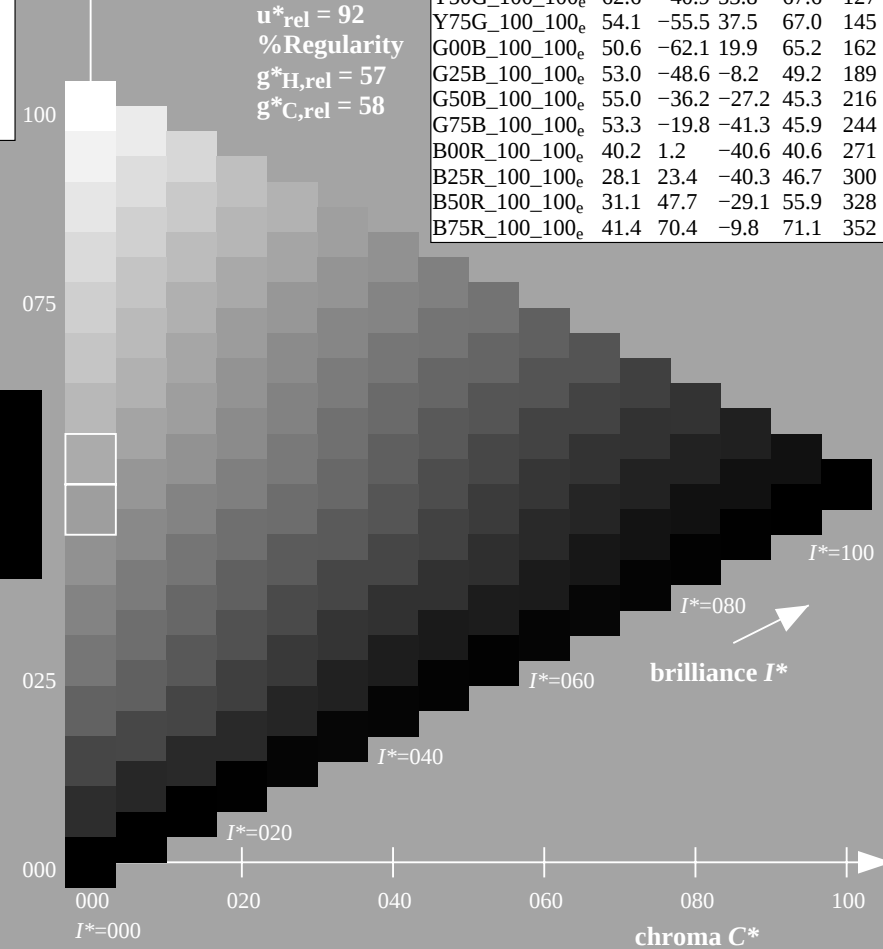
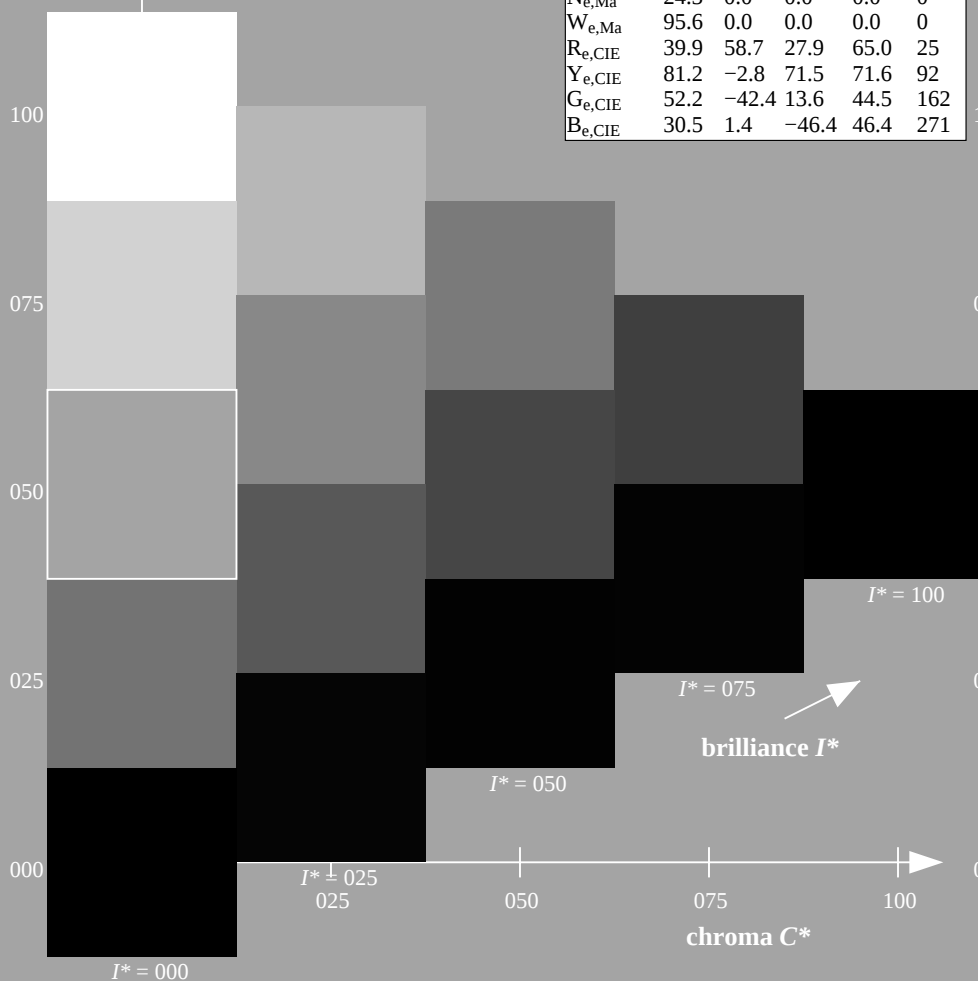
% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_{100_100_e}$	45.6	72.2	34.4	80.0	25
$R25Y_{100_100_e}$	50.5	59.2	51.6	78.6	41
$R50Y_{100_100_e}$	60.2	38.2	63.4	74.1	58
$R75Y_{100_100_e}$	70.9	17.9	75.9	77.9	76
$Y00G_{100_100_e}$	83.6	-3.6	90.4	90.4	92
$Y25G_{100_100_e}$	74.5	-25.0	74.3	78.4	108
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$G50B_{100_100_e}$	55.0	-36.2	-27.2	45.3	216
$G75B_{100_100_e}$	53.3	-19.8	-41.3	45.9	244
$B00R_{100_100_e}$	40.2	1.2	-40.6	40.6	271
$B25R_{100_100_e}$	28.1	23.4	-40.3	46.7	300
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$B75R_{100_100_e}$	41.4	70.4	-9.8	71.1	352



1-113431-L0 QE380-73

TUB-test chart QE38; hue code: $H^*_e = Y00G_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmY0^*_{de}$

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
Test chart according to DIN 33872, 3D=1, de=1, *cm*y0*

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

see similar files: <http://130.149.60.45/~farbmeterik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmeterik>

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$; Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$J=Y_d$ Yellow

$LCH^*_d = 87.8 \ 96.0 \ 96.1$
 $LAB^*_d = 87.8 \ -10.2 \ 95.4$
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

$L=G_d$ leaf-green

$LCH^*_d = 50.0 \ 71.4 \ 155.5$
 $LAB^*_d = 50.0 \ -65.0 \ 29.6$
 $rgb^*_d = 0.0 \ 1.0 \ 0.0$

$C=C_d$ cyan-blue

$LCH^*_d = 56.8 \ 48.7 \ 238.4$
 $LAB^*_d = 56.8 \ -25.5 \ -41.5$
 $rgb^*_d = 0.0 \ 1.0 \ 1.0$

$O=R_d$ orange-red

$LCH^*_d = 45.4 \ 83.9 \ 32.3$
 $LAB^*_d = 45.4 \ 70.9 \ 44.8$
 $rgb^*_d = 1.0 \ 0.0 \ 0.0$

$M=M_d$ magenta-red

$LCH^*_d = 46.1 \ 79.3 \ 359.8$
 $LAB^*_d = 46.1 \ 79.3 \ -0.2$
 $rgb^*_d = 1.0 \ 0.0 \ 1.0$

$V=B_d$ violet-blue

$LCH^*_d = 25.0 \ 50.0 \ 306.2$
 $LAB^*_d = 25.0 \ 29.5 \ -40.4$
 $rgb^*_d = 0.0 \ 0.0 \ 1.0$

Y_e yellow

$LCH^*_e = 83.6 \ 90.4 \ 92.3$
 $LAB^*_e = 83.6 \ -3.6 \ 90.4$
 $rgb^*_{de} = 1.0 \ 0.878 \ 0.0$

G_e green

$LCH^*_e = 50.6 \ 65.2 \ 162.2$
 $LAB^*_e = 50.6 \ -62.1 \ 19.9$
 $rgb^*_{de} = 0.0 \ 1.0 \ 0.151$

C_e blue-green

$LCH^*_e = 55.0 \ 45.3 \ 216.9$
 $LAB^*_e = 55.0 \ -36.2 \ -27.2$
 $rgb^*_{de} = 0.0 \ 1.0 \ 0.747$

B_e blue

$LCH^*_e = 40.2 \ 40.6 \ 271.7$
 $LAB^*_e = 40.2 \ 1.2 \ -40.6$
 $rgb^*_{de} = 0.0 \ 0.458 \ 1.0$

R_e red

$LCH^*_e = 45.6 \ 80.0 \ 25.4$
 $LAB^*_e = 45.6 \ 72.2 \ 34.4$
 $rgb^*_{de} = 1.0 \ 0.0 \ 0.254$

M_e blue-red

$LCH^*_e = 31.1 \ 55.9 \ 328.6$
 $LAB^*_e = 31.1 \ 47.7 \ -29.1$
 $rgb^*_{de} = 0.321 \ 0.0 \ 1.0$

Y_s yellow

$LCH^*_s = 81.4 \ 87.9 \ 90.0$
 $LAB^*_s = 81.4 \ 0.0 \ 87.9$
 $rgb^*_{ds} = 1.0 \ 0.828 \ 0.0$

G_s green

$LCH^*_s = 52.3 \ 68.9 \ 150.0$
 $LAB^*_s = 52.3 \ -59.6 \ 34.4$
 $rgb^*_{ds} = 0.062 \ 1.0 \ 0.0$

R_s red

$LCH^*_s = 45.5 \ 82.4 \ 30.0$
 $LAB^*_s = 45.5 \ 71.3 \ 41.2$
 $rgb^*_{ds} = 1.0 \ 0.0 \ 0.096$

C_s blue-green

$LCH^*_s = 54.5 \ 45.7 \ 210.0$
 $LAB^*_s = 54.5 \ -39.6 \ -22.8$
 $rgb^*_{ds} = 0.0 \ 1.0 \ 0.685$

M_s blue-red

$LCH^*_s = 31.6 \ 56.5 \ 330.0$
 $LAB^*_s = 31.6 \ 49.0 \ -28.2$
 $rgb^*_{ds} = 0.337 \ 0.0 \ 1.0$

B_s blue

$LCH^*_s = 40.9 \ 40.6 \ 270.0$
 $LAB^*_s = 40.9 \ 0.0 \ -40.6$
 $rgb^*_{ds} = 0.0 \ 0.479 \ 1.0$

Notes to the CIELAB chroma diagrams (a^*_d, b^*_d), (a^*_s, b^*_s), (a^*_e, b^*_e)

1. For the rgb^* -input values the CIELAB data LCH^* and LAB^* have been calculated.

2. For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^* the equation:

$$h_{ab,s} = \text{atan} [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)] \quad (1)$$

3. For the 48 or 360 equally spaced standard hue angles $h_{ab,s}$ of the colours of maximum chroma use the seven hue angles of the 60 degree colours s : $h_{ab,si} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) and the equations for a 48 and 360 step hue circle:

$$h_{48ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (2)$$

$$h_{360ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$

4. For the 48 or 360 elementary hue angles $h_{ab,e}$ of the colours of maximum chroma use the seven hue angles of the elementary colours e : $h_{ab,ei} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) and the equations for a 48 and 360 step elementary hue circle:

$$h_{48ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (4)$$

$$h_{360ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$

5. For any elementary hue angle $h_{ab,e}$ there is a well defined device hue angle $h_{ab,d}$ see the following tables, columns 1 to 5 or 1 to 4.

6. The values rgb^*_{de} produce the output of the device-independent elementary hues

1-113631-L0 QE380-73 LAB*La0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
48 step hue circles; $rgb-LabCh^*$ -tables

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

Output: Offset standard print; separation cmy0*, D65, page 7/33

see similar files: <http://130.149.60.45/~farbmetrik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE38/QE38L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)

TUB material: code=rha4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd64M}	LAB^*_{ddx64M} (x=LabCh)	$rgb^*_{dxx361M}$	$LAB^*_{dxx361M}$ (x=LabCh)	$rgb^*_{dsx361M}$	$LAB^*_{dsx361M}$ (x=LabCh)	$rgb^*_{dex361M}$	$LAB^*_{dex361M}$																
32.3	30.0	25.4	1.0	0.0	0.0	45.5	70.9	44.9	83.9	32.3	1.0	0.0	0.0	45.5	70.9	44.9	83.9	32.3	1.0	0.0	0.0	45.5	70.9	44.9	83.9	32.3
38.1	37.5	33.8	1.0	0.125	0.0	48.7	63.4	49.1	80.2	37.1	1.0	0.1	0.0	48.2	64.5	48.6	80.7	37.1	1.0	0.021	0.0	46.0	69.6	45.7	83.3	33.8
46.8	45.0	42.1	1.0	0.25	0.0	53.6	51.9	55.5	76.0	46.8	1.0	0.25	0.0	53.7	52.0	55.5	76.0	46.8	1.0	0.183	0.0	51.1	57.9	52.5	78.1	42.1
56.9	52.5	50.5	1.0	0.375	0.0	59.1	40.3	62.0	74.0	56.9	1.0	0.375	0.0	58.8	41.1	61.7	74.2	56.9	1.0	0.288	0.0	55.4	48.5	57.8	75.4	50.5
67.1	60.0	58.8	1.0	0.5	0.0	64.9	28.9	68.7	74.5	67.1	1.0	0.5	0.0	64.9	28.9	68.7	74.5	67.1	1.0	0.398	0.0	60.3	38.3	63.5	74.1	58.8
78.6	67.5	67.2	1.0	0.625	0.0	72.1	15.4	77.1	78.6	78.6	1.0	0.617	0.0	71.6	16.5	76.7	78.4	77.1	1.0	0.494	0.0	64.6	29.5	68.4	74.5	67.2
86.2	75.0	75.6	1.0	0.75	0.0	77.9	5.4	83.8	84.0	86.2	1.0	0.75	0.0	77.9	5.5	83.9	84.1	86.1	1.0	0.592	0.0	70.2	19.3	75.2	77.6	75.6
92.1	82.5	83.9	1.0	0.875	0.0	83.4	-3.4	90.2	90.2	92.1	1.0	0.867	0.0	83.1	-2.7	89.8	89.9	91	1.0	0.703	0.0	75.8	9.4	81.5	82.0	83.9
96.1	90.0	92.3	1.0	1.0	0.0	87.8	-10.2	95.4	96.0	96.1	1.0	1.0	0.0	87.8	-10.1	95.5	96.0	96	1.0	0.879	0.0	83.6	-3.6	90.4	90.5	92.3
98.8	97.5	101.0	0.875	1.0	0.0	84.3	-13.9	89.2	90.3	98.8	0.883	1.0	0.0	84.6	-13.6	89.7	90.7	98	0.959	1.0	0.0	82.4	-15.8	86.2	87.7	101.0
101.8	105.0	109.7	0.75	1.0	0.0	80.7	-17.5	83.5	85.3	101.8	0.75	1.0	0.0	80.8	-17.4	83.6	85.4	101	0.682	1.0	0.0	77.8	-21.2	79.4	82.2	109.7
107.6	112.5	118.5	0.625	1.0	0.0	75.3	-24.0	75.7	79.4	107.6	0.633	1.0	0.0	75.7	-23.6	76.3	79.9	107	0.54	1.0	0.0	72.1	-28.0	69.5	75.0	118.5
114.0	120.0	127.2	0.5	1.0	0.0	70.6	-29.7	66.5	72.8	114.0	0.5	1.0	0.0	70.6	-29.6	66.5	72.8	114	0.399	1.0	0.0	66.7	-34.5	59.9	69.2	127.2
121.4	127.5	136.0	0.375	1.0	0.0	65.7	-35.6	58.3	68.3	121.4	0.383	1.0	0.0	66.1	-35.2	58.9	68.6	120	0.325	1.0	0.0	62.8	-40.6	54.0	67.6	136.0
135.3	135.0	144.7	0.25	1.0	0.0	58.4	-47.3	46.8	66.6	135.3	0.25	1.0	0.0	58.4	-47.3	46.9	66.6	135	0.253	1.0	0.0	58.6	-47.0	47.1	66.7	144.7
144.4	142.5	153.4	0.125	1.0	0.0	54.7	-53.9	38.5	66.3	144.4	0.133	1.0	0.0	55.0	-53.5	39.2	66.4	143	0.159	1.0	0.0	55.7	-52.3	40.9	66.4	153.4
155.5	150.0	162.2	0.0	1.0	0.0	50.0	-65.0	29.6	71.4	155.5	0.0	1.0	0.0	50.1	-64.9	29.6	71.4	155	0.062	1.0	0.0	52.4	-59.6	34.5	68.9	162.2
160.7	157.5	169.0	0.0	1.0	0.125	50.5	-62.8	21.9	66.5	160.7	0.0	1.0	0.117	50.5	-62.9	22.4	66.9	160	0.0	1.0	0.035	50.2	-64.4	27.4	70.0	169.0
167.7	165.0	175.9	0.0	1.0	0.25	51.2	-58.9	12.7	60.3	167.7	0.0	1.0	0.25	51.2	-58.8	12.7	60.3	167	0.0	1.0	0.2	51.0	-60.5	16.2	62.8	175.9
176.7	172.5	182.7	0.0	1.0	0.375	52.0	-54.5	3.1	54.6	176.7	0.0	1.0	0.367	52.0	-54.8	3.7	55.1	176	0.0	1.0	0.309	51.6	-57.0	8.0	57.7	182.7
189.3	180.0	189.6	0.0	1.0	0.5	52.9	-48.6	-8.0	49.3	189.3	0.0	1.0	0.5	53.0	-48.6	-7.9	49.3	189	0.0	1.0	0.407	52.3	-53.2	0.0	53.3	189.6
203.2	187.5	196.4	0.0	1.0	0.625	54.0	-42.3	-18.1	46.1	203.2	0.0	1.0	0.617	54.0	-42.8	-17.5	46.3	202	0.0	1.0	0.477	52.8	-49.9	-6.0	50.3	196.4
217.2	195.0	203.2	0.0	1.0	0.75	55.0	-36.0	-27.4	45.3	217.2	0.0	1.0	0.75	55.0	-35.9	-27.3	45.3	217	0.0	1.0	0.551	53.4	-46.3	-12.3	48.0	203.2
228.3	202.5	210.1	0.0	1.0	0.875	55.8	-30.7	-34.5	46.2	228.3	0.0	1.0	0.867	55.8	-31.0	-34.0	46.1	227	0.0	1.0	0.614	54.0	-42.9	-17.3	46.4	210.1
238.4	210.0	216.9	0.0	1.0	1.0	56.8	-25.5	-41.5	48.7	238.4	0.0	1.0	1.0	56.8	-25.4	-41.4	48.7	238	0.0	1.0	0.685	54.5	-39.5	-22.8	45.7	216.9
242.9	217.5	223.8	0.0	0.875	1.0	54.1	-21.1	-41.3	46.4	242.9	0.0	0.883	1.0	54.3	-21.4	-41.3	46.6	242	0.0	1.0	0.747	55.0	-36.1	-27.2	45.3	223.8
249.3	225.0	230.6	0.0	0.75	1.0	50.4	-15.5	-41.1	43.9	249.3	0.0	0.75	1.0	50.4	-15.4	-41.0	44.0	249	0.0	1.0	0.837	55.6	-32.4	-32.4	45.9	230.6
256.9	232.5	237.5	0.0	0.625	1.0	46.5	-9.4	-40.8	41.9	256.9	0.0	0.633	1.0	46.8	-9.8	-40.8	42.1	256	0.0	1.0	0.92	56.2	-28.9	-37.0	47.1	237.5
268.2	240.0	244.3	0.0	0.5	1.0	41.7	-1.2	-40.6	40.7	268.2	0.0	0.5	1.0	41.7	-1.1	-40.6	40.7	268	0.0	0.956	1.0	55.9	-23.9	-41.4	48.0	244.3
278.6	247.5	251.2	0.0	0.375	1.0	37.3	6.1	-40.2	40.7	278.6	0.0	0.383	1.0	37.6	5.6	-40.2	40.7	277	0.0	0.795	1.0	51.8	-17.4	-41.2	44.9	251.2
289.6	255.0	258.0	0.0	0.25	1.0	32.8	14.3	-40.2	42.7	289.6	0.0	0.25	1.0	32.9	14.4	-40.1	42.7	289	0.0	0.657	1.0	47.5	-10.9	-40.9	42.5	258.0
299.0	262.5	264.8	0.0	0.125	1.0	28.6	22.4	-40.2	46.1	299.0	0.0	0.133	1.0	28.9	21.9	-40.2	45.9	298	0.0	0.569	1.0	44.4	-5.7	-40.9	41.4	264.8
306.2	270.0	271.7	0.0	0.0	1.0	25.0	29.5	-40.4	50.0	306.2	0.0	0.0	1.0	25.1	29.6	-40.3	50.1	306	0.0	0.479	1.0	41.0	0.0	-40.6	40.7	271.7
314.7	277.5	278.8	0.125	0.0	1.0	27.9	36.0	-36.4	51.2	314.7	0.117	0.0	1.0	27.7	35.7	-36.6	51.2	314	0.0	0.395	1.0	38.1	5.0	-40.3	40.7	278.8
322.1	285.0	285.9	0.25	0.0	1.0	28.8	41.9	-32.5	53.1	322.1	0.25	0.0	1.0	28.9	42.0	-32.5	53.2	322	0.0	0.303	1.0	34.8	10.8	-40.3	41.9	285.9
333.3	292.5	293.0	0.375	0.0	1.0	32.7	51.8	-26.0	58.0	333.3	0.367	0.0	1.0	32.5	51.3	-26.5	57.7	332	0.0	0.219	1.0	31.8	16.3	-40.3	43.6	293.0
340.5	300.0	300.1	0.5	0.0	1.0	35.6	58.6	-20.7	62.1	340.5	0.5	0.0	1.0	35.6	58.6	-20.6	62.2	340	0.0	0.109	1.0	28.2	23.3	-40.3	46.6	300.1
347.9	307.5	307.2	0.625	0.0	1.0	38.1	65.4	-14.0	66.9	347.9	0.617	0.0	1.0	37.9	65.1	-14.4	66.7	347	0.011	0.0	1.0	25.3	30.2	-40.0	50.2	307.2
352.5	315.0	314.3	0.75	0.0	1.0	41.8	71.0	-9.2	71.6	352.5	0.75	0.0	1.0	41.8	71.0	-9.2	71.6	352	0.13	0.0	1.0	27.9	36.3	-36.2	51.3	314.3
356.1	322.5	321.4	0.875	0.0	1.0	44.2	75.2	-5.0	75.3	356.1	0.867	0.0	1.0	44.1	74.9	-5.3	75.1	355	0.247	0.0	1.0	28.9	41.9	-32.6	53.1	321.4
359.8	330.0	328.6	1.0	0.0	1.0	46.1	79.3	-0.2	79.3	359.8	1.0	0.0	1.0	46.1	79.3	-0.1	79.3	359	0.337	0.0	1.0	31.6	49.0	-28.2	56.6	328.6
363.0	337.5	335.7	1.0	0.0	0.875	45.9	78.2	4.1	78.3	363.0	1.0	0.0	0.883	46.0	78.3	3.9	78.4	362	0.438	0.0	1.0	34.2	55.4	-23.4	60.1	335.7
366.4	345.0	342.8	1.0	0.0	0.75	45.9	77.1	8.6	77.6	366.4	1.0	0.0	0.75	46.0	77.2	8.7	77.7	366	0.576	0.0	1.0	37.1	62.9	-16.7	65.1	342.8
371.1	352.5	349.9	1.0	0.0	0.625	46.0	75.6	14.8	77.0	371.1	1.0	0.0	0.633	46.0	75.8	14.5	77.1	370	0.735	0.0	1.0	41.4	70.4	-9.8	71.1	349.9
375.9	360.0	357.0	1.0	0.0	0.5	45.9	74.2	21.1	77.1	375.9	1.0	0.0	0.5	45.9	74.2	21.2	77.2	375	1.0	0.0	0.994	46.1	79.3	0.0	79.3	357.0
381.2	367.5	364.1	1.0	0.0	0.375	45.8	72.9	28.3	78.3	381.2	1.0	0.0	0.383	45.8	73.1	27.9	78.8	380	1.0	0.0	0.734	46.0	77.0	9.5	77.6	364.1
385.6	375.0	371.2	1.0	0.0	0.25	45.6	72.1	34.6	80.0	385.6	1.0	0.0	0.25	45.6	72.2	34.7	80.1	385	1.0	0.0	0.524	45.9	74.5	20.0	77.2	371.2
389.3	382.5	378.3	1.0	0.0	0.125	45.5	71.4	40.1	81.9	389.3	1.0	0.0	0.133	45.6	71.5	39.8	81.8	389	1.0	0.0	0.353	45.8	72.9	29.4	78.6	

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd64M}	LAB^*_{ddx64M}	LAB^*_{ddx64M}	$rgb^*_{dex361M}$	$LAB^*_{dex361M}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
32.3	30.0	25.4	1.0	0.0	0.0	45.4	70.9	44.8	83.9	32.3
38.1	37.5	33.8	1.0	0.125	0.0	48.9	62.8	49.4	79.9	38.1
46.8	45.0	42.1	1.0	0.25	0.0	53.6	51.9	55.5	76.0	46.8
56.9	52.5	50.5	1.0	0.375	0.0	59.1	40.3	62.0	74.0	56.9
67.1	60.0	58.8	1.0	0.5	0.0	64.9	28.9	68.6	74.5	67.1
78.6	67.5	67.2	1.0	0.625	0.0	72.1	15.4	77.1	78.6	78.6
86.2	75.0	75.6	1.0	0.75	0.0	77.9	5.4	83.8	84.0	86.2
92.1	82.5	83.9	1.0	0.875	0.0	83.4	-3.4	90.2	90.2	92.1
96.1	90.0	92.3	1.0	1.0	0.0	87.8	-10.2	95.4	96.0	96.1
98.8	97.5	101.0	0.875	1.0	0.0	84.3	-13.9	89.2	90.3	98.8
101.8	105.0	109.7	0.75	1.0	0.0	80.7	-17.5	83.5	85.3	101.8
107.6	112.5	118.5	0.625	1.0	0.0	75.3	-24.0	75.7	79.4	107.6
114.0	120.0	127.2	0.5	1.0	0.0	70.6	-29.7	66.5	72.8	114.0
121.4	127.5	136.0	0.375	1.0	0.0	65.7	-35.6	58.3	68.3	121.4
135.3	135.0	144.7	0.25	1.0	0.0	58.4	-47.3	46.8	66.6	135.3
144.4	142.5	153.4	0.125	1.0	0.0	54.7	-53.9	38.5	66.3	144.4
155.5	150.0	162.2	0.0	1.0	0.0	50.0	-65.0	29.6	71.4	155.5
160.7	157.5	169.0	0.0	1.0	0.125	50.5	-62.8	21.9	66.5	160.7
167.7	165.0	175.9	0.0	1.0	0.25	51.2	-58.9	12.7	60.3	167.7
176.7	172.5	182.7	0.0	1.0	0.375	52.0	-54.5	3.1	54.6	176.7
189.3	180.0	189.6	0.0	1.0	0.5	52.9	-48.6	-8.0	49.3	189.3
203.2	187.5	196.4	0.0	1.0	0.625	54.0	-42.3	-18.1	46.1	203.2
217.2	195.0	203.2	0.0	1.0	0.75	55.0	-36.0	-27.4	45.3	217.2
228.3	202.5	210.1	0.0	1.0	0.875	55.8	-30.7	-34.5	46.2	228.3
238.4	210.0	216.9	0.0	1.0	1.0	56.8	-25.5	-41.5	48.7	238.4
242.9	217.5	223.8	0.0	0.875	1.0	54.1	-21.1	-41.3	46.4	242.9
249.3	225.0	230.6	0.0	0.75	1.0	50.4	-15.5	-41.1	43.9	249.3
256.9	232.5	237.5	0.0	0.625	1.0	46.5	-9.4	-40.8	41.9	256.9
268.2	240.0	244.3	0.0	0.5	1.0	41.7	-1.2	-40.6	40.6	268.2
278.6	247.5	251.2	0.0	0.375	1.0	37.3	6.1	-40.2	40.7	278.6
289.6	255.0	258.0	0.0	0.25	1.0	32.8	14.3	-40.2	42.7	289.6
299.0	262.5	264.8	0.0	0.125	1.0	28.6	22.4	-40.2	46.1	299.0
306.2	270.0	271.7	0.0	0.0	1.0	25.0	29.5	-40.4	50.0	306.2
314.7	277.5	278.8	0.125	0.0	1.0	27.9	36.0	-36.4	51.2	314.7
322.1	285.0	285.9	0.25	0.0	1.0	28.8	41.9	-32.5	53.1	322.1
333.3	292.5	293.0	0.375	0.0	1.0	32.7	51.8	-26.0	58.0	333.3
340.5	300.0	300.1	0.5	0.0	1.0	35.6	58.6	-20.7	62.1	340.5
347.9	307.5	307.2	0.625	0.0	1.0	38.1	65.4	-14.0	66.9	347.9
352.5	315.0	314.3	0.75	0.0	1.0	41.8	71.0	-9.2	71.6	352.5
356.1	322.5	321.4	0.875	0.0	1.0	44.2	75.2	-5.0	75.3	356.1
359.8	330.0	328.6	1.0	0.0	1.0	46.1	79.3	-0.2	79.3	359.8
363.0	337.5	335.7	1.0	0.0	0.875	45.9	78.2	4.1	78.3	363.0
366.4	345.0	342.8	1.0	0.0	0.75	45.9	77.1	8.6	77.6	366.4
371.1	352.5	349.9	1.0	0.0	0.625	46.0	75.6	14.8	77.0	371.1
375.9	360.0	357.0	1.0	0.0	0.5	45.9	74.2	21.1	77.1	375.9
381.2	367.5	364.1	1.0	0.0	0.375	45.8	72.9	28.3	78.3	381.2
385.6	375.0	371.2	1.0	0.0	0.25	45.6	72.1	34.6	80.0	385.6
389.3	382.5	378.3	1.0	0.0	0.125	45.5	71.4	40.1	81.9	389.3
392.3	390.0	385.4	1.0	0.0	0.0	45.4	70.9	44.8	83.9	392.3

1-113831-L0

QE380-73

LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 9/33

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
48 step hue circles; $rgb-LabCh^*$ tables

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

TUB registration: 20130201-QE38/QE38L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM_s: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours RYGBM_d: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours RYGBM_e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{ddx361Mi}(x=LabCh)$	R_d	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}(x=LabCh)$	R_s	$rgb^*_{dd361Mi}$	$LAB^*_{dex361Mi}(x=LabCh)$	R_e	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
32	30	25	1.0 0.0 0.0	45.4 70.9 44.8 83.9 32	R_d	1.0 0.0 0.096 45.5 71.4 41.2 82.4 30	R_s	1.0 0.0 0.0	1.0 0.0 0.255 45.7 72.2 34.4 80.0 25	R_e	1.0 0.0 0.0	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}	
33	31	26	1.0 0.016 0.0	45.9 69.8 45.5 83.4 33		1.0 0.0 0.055 45.5 71.2 42.8 83.1 31		1.0 0.017 0.0	1.0 0.0 0.218 45.6 72.0 36.1 80.6 26		1.0 0.017 0.0				
33	32	27	1.0 0.033 0.0	46.3 68.8 46.1 82.8 33		1.0 0.0 0.013 45.5 71.0 44.4 83.7 32		1.0 0.033 0.0	1.0 0.0 0.18 45.6 71.8 37.7 81.1 27		1.0 0.033 0.0				
34	33	28	1.0 0.05 0.0	46.8 67.7 46.8 82.3 34		1.0 0.015 0.0 45.9 70.0 45.5 83.5 33		1.0 0.05 0.0	1.0 0.0 0.142 45.6 71.6 39.4 81.7 28		1.0 0.05 0.0				
35	34	29	1.0 0.066 0.0	47.3 66.6 47.4 81.8 35		1.0 0.036 0.0 46.5 68.6 46.3 82.8 34		1.0 0.067 0.0	1.0 0.0 0.099 45.5 71.4 41.1 82.4 29		1.0 0.067 0.0				
36	35	31	1.0 0.083 0.0	47.7 65.5 48.0 81.2 36		1.0 0.057 0.0 47.1 67.3 47.1 82.1 35		1.0 0.083 0.0	1.0 0.0 0.053 45.5 71.2 42.9 83.1 31		1.0 0.083 0.0				
36	36	32	1.0 0.1 0.0	48.2 64.4 48.5 80.7 36		1.0 0.079 0.0 47.6 65.9 47.9 81.4 36		1.0 0.1 0.0	1.0 0.0 0.006 45.5 71.0 44.6 83.8 32		1.0 0.1 0.0				
37	37	33	1.0 0.116 0.0	48.6 63.3 49.1 80.2 37		1.0 0.1 0.0 48.2 64.5 48.6 80.7 37		1.0 0.117 0.0	1.0 0.021 0.0 46.0 69.6 45.7 83.3 33		1.0 0.117 0.0				
38	38	34	1.0 0.133 0.0	49.2 62.1 49.8 79.6 38		1.0 0.121 0.0 48.8 63.1 49.3 80.1 38		1.0 0.133 0.0	1.0 0.044 0.0 46.7 68.1 46.6 82.5 34		1.0 0.133 0.0				
39	39	35	1.0 0.15 0.0	49.8 60.7 50.7 79.1 39		1.0 0.137 0.0 49.4 61.8 50.1 79.6 39		1.0 0.15 0.0	1.0 0.068 0.0 47.4 66.6 47.5 81.8 35		1.0 0.15 0.0				
41	40	36	1.0 0.166 0.0	50.5 59.2 51.6 78.6 41		1.0 0.151 0.0 49.9 60.6 50.9 79.1 40		1.0 0.167 0.0	1.0 0.092 0.0 48.0 65.0 48.3 81.0 36		1.0 0.167 0.0				
42	41	37	1.0 0.183 0.0	51.1 57.8 52.5 78.1 42		1.0 0.166 0.0 50.5 59.4 51.6 78.7 41		1.0 0.183 0.0	1.0 0.116 0.0 48.7 63.5 49.1 80.2 37		1.0 0.183 0.0				
43	42	38	1.0 0.2 0.0	51.7 56.3 53.3 77.5 43		1.0 0.18 0.0 51.0 58.1 52.3 78.2 42		1.0 0.2 0.0	1.0 0.135 0.0 49.3 62.0 49.9 79.6 38		1.0 0.2 0.0				
44	43	39	1.0 0.216 0.0	52.4 54.9 54.0 77.0 44		1.0 0.194 0.0 51.6 56.9 53.0 77.8 43		1.0 0.217 0.0	1.0 0.151 0.0 49.9 60.7 50.8 79.1 39		1.0 0.217 0.0				
45	44	41	1.0 0.233 0.0	53.0 53.4 54.8 76.5 45		1.0 0.209 0.0 52.1 55.6 53.7 77.3 44		1.0 0.233 0.0	1.0 0.167 0.0 50.5 59.3 51.7 78.6 41		1.0 0.233 0.0				
46	45	42	1.0 0.25 0.0	53.6 51.9 55.5 76.0 46		1.0 0.223 0.0 52.7 54.4 54.4 76.9 45		1.0 0.25 0.0	1.0 0.183 0.0 51.1 57.9 52.5 78.1 42		1.0 0.25 0.0				
48	46	43	1.0 0.266 0.0	54.4 50.4 56.5 75.7 48		1.0 0.237 0.0 53.2 53.1 55.0 76.4 46		1.0 0.267 0.0	1.0 0.198 0.0 51.7 56.5 53.2 77.6 43		1.0 0.267 0.0				
49	47	44	1.0 0.283 0.0	55.1 48.9 57.4 75.4 49		1.0 0.251 0.0 53.7 51.8 55.6 76.0 47		1.0 0.283 0.0	1.0 0.214 0.0 52.3 55.1 54.0 77.1 44		1.0 0.283 0.0				
50	48	45	1.0 0.3 0.0	55.8 47.4 58.4 75.2 50		1.0 0.264 0.0 54.3 50.7 56.3 75.8 48		1.0 0.3 0.0	1.0 0.23 0.0 52.9 53.7 54.7 76.6 45		1.0 0.3 0.0				
52	49	46	1.0 0.316 0.0	56.6 45.8 59.2 74.9 52		1.0 0.276 0.0 54.8 49.6 57.1 75.6 49		1.0 0.317 0.0	1.0 0.246 0.0 53.5 52.3 55.4 76.1 46		1.0 0.317 0.0				
53	50	47	1.0 0.333 0.0	57.3 44.2 60.1 74.6 53	1.0 0.288 0.0 55.4 48.5 57.8 75.4 50	1.0 0.333 0.0	1.0 0.261 0.0 54.2 51.0 56.2 75.9 47	1.0 0.333 0.0							
54	51	48	1.0 0.35 0.0	58.0 42.7 60.9 74.4 54	1.0 0.301 0.0 55.9 47.3 58.5 75.2 51	1.0 0.35 0.0	1.0 0.274 0.0 54.8 49.8 57.0 75.6 48	1.0 0.35 0.0							
56	52	49	1.0 0.366 0.0	58.8 41.1 61.7 74.1 56	1.0 0.313 0.0 56.5 46.2 59.1 75.0 52	1.0 0.367 0.0	1.0 0.288 0.0 55.4 48.5 57.8 75.4 49	1.0 0.367 0.0							
57	53	51	1.0 0.383 0.0	59.5 39.5 62.5 74.0 57	1.0 0.326 0.0 57.0 45.0 59.8 74.8 53	1.0 0.383 0.0	1.0 0.302 0.0 56.0 47.2 58.5 75.2 51	1.0 0.383 0.0							
59	54	52	1.0 0.4 0.0	60.3 38.1 63.5 74.1 59	1.0 0.338 0.0 57.6 43.9 60.4 74.6 54	1.0 0.4 0.0	1.0 0.316 0.0 56.6 45.9 59.3 75.0 52	1.0 0.4 0.0							
60	55	53	1.0 0.416 0.0	61.0 36.6 64.5 74.1 60	1.0 0.35 0.0 58.1 42.7 61.0 74.4 55	1.0 0.417 0.0	1.0 0.33 0.0 57.2 44.6 60.0 74.8 53	1.0 0.417 0.0							
61	56	54	1.0 0.433 0.0	61.8 35.1 65.4 74.2 61	1.0 0.363 0.0 58.6 41.5 61.5 74.2 56	1.0 0.433 0.0	1.0 0.343 0.0 57.8 43.3 60.6 74.5 54	1.0 0.433 0.0							
63	57	55	1.0 0.45 0.0	62.6 33.6 66.2 74.3 63	1.0 0.375 0.0 59.2 40.3 62.1 74.0 57	1.0 0.45 0.0	1.0 0.357 0.0 58.4 42.0 61.3 74.3 55	1.0 0.45 0.0							
64	58	56	1.0 0.466 0.0	63.3 32.0 67.1 74.4 64	1.0 0.387 0.0 59.8 39.3 62.8 74.1 58	1.0 0.467 0.0	1.0 0.371 0.0 59.0 40.7 61.9 74.1 56	1.0 0.467 0.0							
65	59	57	1.0 0.483 0.0	64.1 30.5 67.9 74.4 65	1.0 0.4 0.0 60.3 38.2 63.5 74.1 59	1.0 0.483 0.0	1.0 0.385 0.0 59.6 39.5 62.7 74.1 57	1.0 0.483 0.0							
67	60	58	1.0 0.5 0.0	64.9 28.9 68.6 74.5 67	1.0 0.412 0.0 60.9 37.1 64.2 74.2 60	1.0 0.5 0.0	1.0 0.398 0.0 60.3 38.3 63.5 74.1 58	1.0 0.5 0.0							
68	61	60	1.0 0.516 0.0	65.8 27.2 69.9 75.0 68	1.0 0.424 0.0 61.4 36.0 64.9 74.2 61	1.0 0.517 0.0	1.0 0.412 0.0 60.9 37.1 64.2 74.2 60	1.0 0.517 0.0							
70	62	61	1.0 0.533 0.0	66.8 25.5 71.1 75.6 70	1.0 0.436 0.0 62.0 34.9 65.6 74.3 62	1.0 0.533 0.0	1.0 0.426 0.0 61.5 35.8 65.0 74.2 61	1.0 0.533 0.0							
71	63	62	1.0 0.55 0.0	67.7 23.8 72.3 76.1 71	1.0 0.449 0.0 62.6 33.7 66.2 74.3 63	1.0 0.55 0.0	1.0 0.439 0.0 62.1 34.6 65.7 74.3 62	1.0 0.55 0.0							
73	64	63	1.0 0.566 0.0	68.7 22.0 73.5 76.7 73	1.0 0.461 0.0 63.1 32.6 66.9 74.4 64	1.0 0.567 0.0	1.0 0.453 0.0 62.8 33.3 66.4 74.3 63	1.0 0.567 0.0							
74	65	64	1.0 0.583 0.0	69.7 20.2 74.6 77.3 74	1.0 0.473 0.0 63.7 31.5 67.5 74.4 65	1.0 0.583 0.0	1.0 0.467 0.0 63.4 32.1 67.1 74.4 64	1.0 0.583 0.0							
76	66	65	1.0 0.6 0.0	70.6 18.3 75.6 77.8 76	1.0 0.486 0.0 64.2 30.3 68.0 74.5 66	1.0 0.6 0.0	1.0 0.48 0.0 64.0 30.8 67.8 74.5 65	1.0 0.6 0.0							
77	67	66	1.0 0.616 0.0	71.6 16.4 76.6 78.4 77	1.0 0.498 0.0 64.8 29.1 68.6 74.5 67	1.0 0.617 0.0	1.0 0.494 0.0 64.6 29.5 68.4 74.5 66	1.0 0.617 0.0							
79	68	67	1.0 0.633 0.0	72.5 14.8 77.6 79.0 79	1.0 0.509 0.0 65.4 28.0 69.4 74.8 68	1.0 0.633 0.0	1.0 0.507 0.0 65.3 28.2 69.2 74.8 67	1.0 0.633 0.0							
80	69	68	1.0 0.65 0.0	73.2 13.6 78.5 79.7 80	1.0 0.52 0.0 66.1 26.9 70.2 75.2 69	1.0 0.65 0.0	1.0 0.519 0.0 66.0 27.0 70.1 75.2 68	1.0 0.65 0.0							
81	70	70	1.0 0.666 0.0	74.0 12.3 79.5 80.4 81	1.0 0.531 0.0 66.7 25.8 71.0 75.6 70	1.0 0.667 0.0	1.0 0.531 0.0 66.7 25.8 71.0 75.6 70	1.0 0.667 0.0							
82	71	71	1.0 0.683 0.0	74.8 11.0 80.4 81.1 82	1.0 0.542 0.0 67.3 24.7 71.8 75.9 71	1.0 0.683 0.0	1.0 0.543 0.0 67.4 24.6 71.9 76.0 71	1.0 0.683 0.0							
83	72	72	1.0 0.7 0.0	75.6 9.6 81.3 81.9 83	1.0 0.553 0.0 67.9 23.6 72.6 76.3 72	1.0 0.7 0.0	1.0 0.555 0.0 68.1 23.3 72.8 76.4 72	1.0 0.7 0.0							
84	73	73	1.0 0.716 0.0	76.3 8.3 82.2 82.6 84	1.0 0.564 0.0 68.6 22.4 73.3 76.6 73	1.0 0.717 0.0	1.0 0.568 0.0 68.8 22.0 73.6 76.8 73	1.0 0.717 0.0							
85	74	74	1.0 0.733 0.0	77.1 6.9 83.0 83.3 85	1.0 0.574 0.0 69.2 21.2 74.0 77.0 74	1.0 0.733 0.0	1.0 0.58 0.0 69.5 20.6 74.4 77.2 74	1.0 0.733 0.0							
86	75	75	1.0 0.75 0.0	77.9 5.4 83.8 84.0 86	1.0 0.585 0.0 69.8 20.0 74.7 77.4 75	1.0 0.75 0.0	1.0 0.592 0.0 70.2 19.3 75.2 77.6 75	1.0 0.75 0.0							

1-113931-L0 QE380-73 LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 10/33

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
48 step hue circles; $rgb-LabCh$ *tables

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

TUB registration: 20130201-QE38/QE38L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

1-1131031-L0	QE380-73	LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0
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input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

Output: Offset standard print; separation cmy0*, D65, page 11/33

1-1131131-F0

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$														
$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{dxd361Mi}$ (x=LabCh)	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}$ (x=LabCh)	$rgb^*_{dd361Mi}$	$rgb^*_{de361Mi}$	$LAB^*_{dex361Mi}$ (x=LabCh)	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}	
167	165	175	0.0	1.0	0.25	51.2	-58.9	12.7	60.3	167				
168	166	176	0.0	1.0	0.266	51.3	-58.4	11.3	59.5	168				
170	167	177	0.0	1.0	0.283	51.4	-57.9	10.0	58.8	170				
171	168	178	0.0	1.0	0.3	51.5	-57.3	8.7	58.0	171				
172	169	179	0.0	1.0	0.316	51.6	-56.8	7.4	57.3	172				
173	170	180	0.0	1.0	0.333	51.7	-56.2	6.1	56.5	173				
174	171	181	0.0	1.0	0.35	51.8	-55.5	4.9	55.8	174				
176	172	182	0.0	1.0	0.366	51.9	-54.9	3.7	55.0	176				
177	173	183	0.0	1.0	0.383	52.0	-54.2	2.3	54.3	177				
179	174	184	0.0	1.0	0.4	52.2	-53.6	0.7	53.6	179				
180	175	185	0.0	1.0	0.416	52.3	-52.8	-0.8	52.9	180				
182	176	185	0.0	1.0	0.433	52.4	-52.1	-2.3	52.1	182				
184	177	186	0.0	1.0	0.45	52.6	-51.3	-3.8	51.4	184				
185	178	187	0.0	1.0	0.466	52.7	-50.4	-5.3	50.7	185				
187	179	188	0.0	1.0	0.483	52.8	-49.6	-6.6	50.0	187				
189	180	189	0.0	1.0	0.5	52.9	-48.6	-8.0	49.3	189				
191	181	190	0.0	1.0	0.516	53.1	-47.9	-9.5	48.9	191				
193	182	191	0.0	1.0	0.533	53.2	-47.2	-10.9	48.4	193				
194	183	192	0.0	1.0	0.55	53.4	-46.4	-12.3	48.0	194				
196	184	193	0.0	1.0	0.566	53.5	-45.6	-13.7	47.6	196				
198	185	194	0.0	1.0	0.583	53.6	-44.7	-15.0	47.1	198				
200	186	195	0.0	1.0	0.6	53.8	-43.8	-16.3	46.7	200				
202	187	195	0.0	1.0	0.616	53.9	-42.8	-17.5	46.3	202				
204	188	196	0.0	1.0	0.633	54.1	-42.0	-18.8	46.0	204				
206	189	197	0.0	1.0	0.65	54.2	-41.2	-20.1	45.9	206				
207	190	198	0.0	1.0	0.666	54.3	-40.5	-21.4	45.8	207				
209	191	199	0.0	1.0	0.683	54.5	-39.7	-22.7	45.7	209				
211	192	200	0.0	1.0	0.7	54.6	-38.8	-23.9	45.6	211				
213	193	201	0.0	1.0	0.716	54.7	-37.9	-25.1	45.5	213				
215	194	202	0.0	1.0	0.733	54.9	-37.0	-26.3	45.4	215				
217	195	203	0.0	1.0	0.75	55.0	-36.0	-27.4	45.3	217				
218	196	204	0.0	1.0	0.766	55.1	-35.4	-28.4	45.4	218				
220	197	205	0.0	1.0	0.783	55.2	-34.7	-29.4	45.5	220				
221	198	206	0.0	1.0	0.8	55.3	-34.0	-30.3	45.6					

Output: Offset standard print; separation cmy0*, D65, page 13/33

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{ddx361Mi}$ (x=LabCh)	C_d	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}$ (x=LabCh)	$210C_s$	$rgb^*_{dd361Mi}$	$LAB^*_{de361Mi}$	$216C_e$	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}	
238	210	216	0.0	1.0	1.0	56.8	-25.5 -41.5 48.7	238	0.0	1.0	0.685 54.5	-39.5 -22.8 45.7	210	0.0	1.0	1.0
239	211	217	0.0	0.983 1.0	56.4	-24.9 -41.5 48.4	239	0.0	0.983 1.0	0.0	1.0	0.757 55.1	-35.7 -27.8 45.4	217	0.0	0.983 1.0
239	212	218	0.0	0.966 1.0	56.1	-24.3 -41.5 48.1	239	0.0	0.967 1.0	0.0	1.0	0.767 55.2	-35.3 -28.4 45.4	218	0.0	0.967 1.0
240	213	219	0.0	0.95 1.0	55.7	-23.7 -41.5 47.8	240	0.0	0.95 1.0	0.0	1.0	0.778 55.2	-34.9 -29.0 45.5	219	0.0	0.95 1.0
240	214	220	0.0	0.933 1.0	55.4	-23.1 -41.5 47.5	240	0.0	0.933 1.0	0.0	1.0	0.788 55.3	-34.5 -29.6 45.6	220	0.0	0.933 1.0
241	215	221	0.0	0.916 1.0	55.0	-22.5 -41.4 47.2	241	0.0	0.917 1.0	0.0	1.0	0.798 55.4	-34.1 -30.2 45.7	221	0.0	0.917 1.0
242	216	222	0.0	0.9 1.0	54.6	-22.0 -41.4 46.9	242	0.0	0.9 1.0	0.0	1.0	0.808 55.4	-33.6 -30.8 45.7	222	0.0	0.9 1.0
242	217	223	0.0	0.883 1.0	54.3	-21.4 -41.4 46.6	242	0.0	0.883 1.0	0.0	1.0	0.819 55.5	-33.2 -31.3 45.8	223	0.0	0.883 1.0
243	218	224	0.0	0.866 1.0	53.9	-20.7 -41.3 46.3	243	0.0	0.867 1.0	0.0	1.0	0.829 55.6	-32.7 -31.9 45.9	224	0.0	0.867 1.0
244	219	225	0.0	0.85 1.0	53.4	-20.0 -41.3 45.9	244	0.0	0.85 1.0	0.0	1.0	0.839 55.6	-32.3 -32.5 45.9	225	0.0	0.85 1.0
245	220	226	0.0	0.833 1.0	52.9	-19.2 -41.3 45.6	245	0.0	0.833 1.0	0.0	1.0	0.85 55.7	-31.8 -33.1 46.0	226	0.0	0.833 1.0
245	221	227	0.0	0.816 1.0	52.4	-18.5 -41.3 45.3	245	0.0	0.817 1.0	0.0	1.0	0.86 55.8	-31.3 -33.6 46.1	227	0.0	0.817 1.0
246	222	227	0.0	0.8 1.0	51.9	-17.7 -41.3 44.9	246	0.0	0.8 1.0	0.0	1.0	0.87 55.8	-30.8 -34.2 46.2	227	0.0	0.8 1.0
247	223	228	0.0	0.783 1.0	51.4	-17.0 -41.2 44.6	247	0.0	0.783 1.0	0.0	1.0	0.881 55.9	-30.4 -34.8 46.3	228	0.0	0.783 1.0
248	224	229	0.0	0.766 1.0	50.9	-16.2 -41.2 44.2	248	0.0	0.767 1.0	0.0	1.0	0.893 56.0	-30.0 -35.4 46.6	229	0.0	0.767 1.0
249	225	230	0.0	0.75 1.0	50.4	-15.5 -41.1 43.9	249	0.0	0.75 1.0	0.0	1.0	0.904 56.1	-29.6 -36.1 46.8	230	0.0	0.75 1.0
250	226	231	0.0	0.733 1.0	49.9	-14.7 -41.1 43.6	250	0.0	0.733 1.0	0.0	1.0	0.915 56.2	-29.1 -36.7 47.0	231	0.0	0.733 1.0
251	227	232	0.0	0.716 1.0	49.4	-13.8 -41.1 43.4	251	0.0	0.717 1.0	0.0	1.0	0.926 56.3	-28.7 -37.4 47.2	232	0.0	0.717 1.0
252	228	233	0.0	0.7 1.0	48.8	-13.0 -41.1 43.1	252	0.0	0.7 1.0	0.0	1.0	0.938 56.3	-28.2 -38.0 47.5	233	0.0	0.7 1.0
253	229	234	0.0	0.683 1.0	48.3	-12.2 -41.1 42.9	253	0.0	0.683 1.0	0.0	1.0	0.949 56.4	-27.7 -38.6 47.7	234	0.0	0.683 1.0
254	230	235	0.0	0.666 1.0	47.8	-11.4 -41.0 42.6	254	0.0	0.667 1.0	0.0	1.0	0.96 56.5	-27.2 -39.3 47.9	235	0.0	0.667 1.0
255	231	236	0.0	0.65 1.0	47.3	-10.6 -41.0 42.3	255	0.0	0.65 1.0	0.0	1.0	0.972 56.6	-26.7 -39.9 48.2	236	0.0	0.65 1.0
256	232	237	0.0	0.633 1.0	46.8	-9.8 -40.9 42.1	256	0.0	0.633 1.0	0.0	1.0	0.983 56.7	-26.2 -40.5 48.4	237	0.0	0.633 1.0
257	233	237	0.0	0.616 1.0	46.2	-8.9 -40.9 41.8	257	0.0	0.617 1.0	0.0	1.0	0.994 56.8	-25.7 -41.1 48.6	237	0.0	0.617 1.0
259	234	238	0.0	0.6 1.0	45.5	-7.8 -40.9 41.7	259	0.0	0.6 1.0	0.0	0.988 1.0	56.6	-25.0 -41.4 48.5	238	0.0	0.6 1.0
260	235	239	0.0	0.583 1.0	44.9	-6.6 -41.0 41.5	260	0.0	0.583 1.0	0.0	0.962 1.0	56.0	-24.1 -41.4 48.1	239	0.0	0.583 1.0
262	236	240	0.0	0.566 1.0	44.2	-5.5 -40.9 41.3	262	0.0	0.567 1.0	0.0	0.937 1.0	55.5	-23.2 -41.4 47.6	240	0.0	0.567 1.0
263	237	241	0.0	0.55 1.0	43.6	-4.4 -40.9 41.1	263	0.0	0.55 1.0	0.0	0.911 1.0	54.9	-22.3 -41.4 47.1	241	0.0	0.55 1.0
265	238	242	0.0	0.533 1.0	43.0	-3.3 -40.8 41.0	265	0.0	0.533 1.0	0.0	0.885 1.0	54.4	-21.4 -41.3 46.7	242	0.0	0.533 1.0
266	239	243	0.0	0.516 1.0	42.3	-2.3 -40.7 40.8	266	0.0	0.517 1.0	0.0	0.864 1.0	53.9	-20.6 -41.3 46.3	243	0.0	0.517 1.0
268	240	244	0.0	0.5 1.0	41.7	-1.2 -40.6 40.6	268	0.0	0.5 1.0	0.0	0.847 1.0	53.3	-19.8 -41.3 45.9	244	0.0	0.5 1.0
269	241	245	0.0	0.483 1.0	41.1	-0.2 -40.6 40.6	269	0.0	0.483 1.0	0.0	0.829 1.0	52.8	-19.0 -41.3 45.6	245	0.0	0.483 1.0
271	242	246	0.0	0.466 1.0	40.5	0.7 -40.6 40.6	271	0.0	0.467 1.0	0.0	0.811 1.0	52.3	-18.1 -41.2 45.2	246	0.0	0.467 1.0
272	243	247	0.0	0.45 1.0	39.9	1.7 -40.6 40.6	272	0.0	0.45 1.0	0.0	0.793 1.0	51.7	-17.3 -41.2 44.8	247	0.0	0.45 1.0
273	244	248	0.0	0.433 1.0	39.3	2.7 -40.6 40.6	273	0.0	0.433 1.0	0.0	0.775 1.0	51.2	-16.6 -41.1 44.5	248	0.0	0.433 1.0
275	245	248	0.0	0.416 1.0	38.8	3.6 -40.5 40.6	275	0.0	0.417 1.0	0.0	0.757 1.0	50.7	-15.8 -41.1 44.1	248	0.0	0.417 1.0
276	246	249	0.0	0.4 1.0	38.2	4.6 -40.4 40.7	276	0.0	0.4 1.0	0.0	0.741 1.0	50.2	-15.0 -41.0 43.8	249	0.0	0.4 1.0
277	247	250	0.0	0.383 1.0	37.6	5.6 -40.3 40.7	277	0.0	0.383 1.0	0.0	0.726 1.0	49.7	-14.3 -41.1 43.6	250	0.0	0.383 1.0
279	248	251	0.0	0.366 1.0	37.0	6.6 -40.2 40.8	279	0.0	0.367 1.0	0.0	0.711 1.0	49.2	-13.5 -41.0 43.4	251	0.0	0.367 1.0
280	249	252	0.0	0.35 1.0	36.4	7.7 -40.3 41.1	280	0.0	0.35 1.0	0.0	0.697 1.0	48.8	-12.8 -41.0 43.1	252	0.0	0.35 1.0
282	250	253	0.0	0.333 1.0	35.8	8.8 -40.4 41.3	282	0.0	0.333 1.0	0.0	0.682 1.0	48.3	-12.1 -41.0 42.9	253	0.0	0.333 1.0
283	251	254	0.0	0.316 1.0	35.2	9.9 -40.4 41.6	283	0.0	0.317 1.0	0.0	0.667 1.0	47.9	-11.4 -41.0 42.6	254	0.0	0.317 1.0
285	252	255	0.0	0.3 1.0	34.6	11.0 -40.4 41.9	285	0.0	0.3 1.0	0.0	0.652 1.0	47.4	-10.7 -40.9 42.4	255	0.0	0.3 1.0
286	253	256	0.0	0.283 1.0	34.0	12.1 -40.3 42.1	286	0.0	0.283 1.0	0.0	0.637 1.0	46.9	-9.9 -40.9 42.2	256	0.0	0.283 1.0
288	254	257	0.0	0.266 1.0	33.4	13.2 -40.3 42.4	288	0.0	0.267 1.0	0.0	0.623 1.0	46.5	-9.2 -40.8 42.0	257	0.0	0.267 1.0
289	255	258	0.0	0.25 1.0	32.8	14.3 -40.2 42.7	289	0.0	0.25 1.0	0.0	0.613 1.0	46.1	-8.6 -40.8 41.9	258	0.0	0.25 1.0

1-1131331-L0 QE380-73 LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 14/33

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
48 step hue circles; $rgb-LabCh$ *tables

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

TUB registration: 20130201-QE38/QE38L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{dd361Mi} (x=LabCh)$	$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mi} (x=LabCh)$	$rgb^*_{dd361Mi}$	$rgb^*_{de361Mi}$	$LAB^*_{de361Mi} (x=LabCh)$	$rgb^*_{dd361Mi}$	$rgb^*_{ds361Mi}$	$rgb^*_{de361Mi}$														
289	255	258	0.0	0.25 1.0	32.8	14.3	-40.2 42.7	289	0.0	0.657 1.0	47.5	-10.9 -40.9 42.5	255	0.0	0.25 1.0	0.0	0.613 1.0	46.1	-8.6	-40.8 41.9	258	0.0	0.25 1.0			
290	256	258	0.0	0.233 1.0	32.2	15.3	-40.3 43.1	290	0.0	0.641 1.0	47.0	-10.1 -40.9 42.2	256	0.0	0.233 1.0	0.0	0.603 1.0	45.7	-7.9	-40.9 41.7	258	0.0	0.233 1.0			
292	257	259	0.0	0.216 1.0	31.7	16.4	-40.3 43.6	292	0.0	0.624 1.0	46.5	-9.3 -40.8 42.0	257	0.0	0.217 1.0	0.0	0.593 1.0	45.3	-7.2	-40.9 41.6	259	0.0	0.217 1.0			
293	258	260	0.0	0.2 1.0	31.1	17.5	-40.4 44.0	293	0.0	0.613 1.0	46.1	-8.6 -40.8 41.9	258	0.0	0.2 1.0	0.0	0.583 1.0	44.9	-6.6	-40.9 41.5	260	0.0	0.2 1.0			
294	259	261	0.0	0.183 1.0	30.6	18.5	-40.4 44.5	294	0.0	0.602 1.0	45.7	-7.9 -40.9 41.7	259	0.0	0.183 1.0	0.0	0.573 1.0	44.5	-5.9	-40.9 41.4	261	0.0	0.183 1.0			
295	260	262	0.0	0.166 1.0	30.0	19.6	-40.4 44.9	295	0.0	0.591 1.0	45.3	-7.1 -40.9 41.6	260	0.0	0.167 1.0	0.0	0.562 1.0	44.1	-5.2	-40.9 41.3	262	0.0	0.167 1.0			
297	261	263	0.0	0.15 1.0	29.5	20.7	-40.4 45.4	297	0.0	0.58 1.0	44.8	-6.4 -40.9 41.5	261	0.0	0.15 1.0	0.0	0.552 1.0	43.7	-4.5	-40.9 41.2	263	0.0	0.15 1.0			
298	262	264	0.0	0.133 1.0	28.9	21.8	-40.3 45.8	298	0.0	0.569 1.0	44.4	-5.7 -40.9 41.4	262	0.0	0.133 1.0	0.0	0.542 1.0	43.4	-3.9	-40.8 41.1	264	0.0	0.133 1.0			
299	263	265	0.0	0.116 1.0	28.4	22.8	-40.3 46.3	299	0.0	0.558 1.0	44.0	-4.9 -40.9 41.3	263	0.0	0.117 1.0	0.0	0.532 1.0	43.0	-3.2	-40.8 41.0	265	0.0	0.117 1.0			
300	264	266	0.0	0.1 1.0	27.9	23.8	-40.4 46.9	300	0.0	0.547 1.0	43.5	-4.2 -40.8 41.2	264	0.0	0.1 1.0	0.0	0.522 1.0	42.6	-2.6	-40.7 40.9	266	0.0	0.1 1.0			
301	265	267	0.0	0.083 1.0	27.4	24.7	-40.4 47.4	301	0.0	0.536 1.0	43.1	-3.5 -40.8 41.1	265	0.0	0.083 1.0	0.0	0.512 1.0	42.2	-1.9	-40.7 40.8	267	0.0	0.083 1.0			
302	266	268	0.0	0.066 1.0	26.9	25.7	-40.4 47.9	302	0.0	0.525 1.0	42.7	-2.8 -40.7 40.9	266	0.0	0.067 1.0	0.0	0.502 1.0	41.8	-1.3	-40.6 40.7	268	0.0	0.067 1.0			
303	267	269	0.0	0.049 1.0	26.5	26.6	-40.5 48.4	303	0.0	0.514 1.0	42.3	-2.0 -40.7 40.8	267	0.0	0.05 1.0	0.0	0.491 1.0	41.4	-0.6	-40.6 40.7	269	0.0	0.05 1.0			
304	268	269	0.0	0.033 1.0	26.0	27.6	-40.4 49.0	304	0.0	0.503 1.0	41.8	-1.3 -40.6 40.7	268	0.0	0.033 1.0	0.0	0.48 1.0	41.0	0.0	-40.6 40.7	269	0.0	0.033 1.0			
305	269	270	0.0	0.016 1.0	25.5	28.6	-40.4 49.5	305	0.0	0.491 1.0	41.4	-0.6 -40.6 40.7	269	0.0	0.017 1.0	0.0	0.469 1.0	40.6	0.6	-40.6 40.7	270	0.0	0.017 1.0			
306	270	271	0.0	0.0 1.0	25.0	29.5	-40.4 50.0	306	B_d	0.0	0.479 1.0	41.0	0.0 -40.6 40.7	270	B_s	0.0	0.0 1.0	0.0	0.458 1.0	40.3	1.2	-40.6 40.7	271	B_e	0.0	0.0 1.0
307	271	272	0.016 0.0	1.0	25.4	30.4	-39.9 50.2	307	0.0	0.467 1.0	40.6	0.7 -40.6 40.7	271	0.017 0.0	1.0	0.0	0.447 1.0	39.9	1.9	-40.5 40.7	272	0.017 0.0	1.0			
308	272	273	0.033 0.0	1.0	25.8	31.3	-39.4 50.4	308	0.0	0.455 1.0	40.2	1.4 -40.6 40.7	272	0.033 0.0	1.0	0.0	0.435 1.0	39.5	2.6	-40.5 40.7	273	0.033 0.0	1.0			
309	273	274	0.05 0.0	1.0	26.2	32.2	-38.9 50.5	309	0.0	0.443 1.0	39.7	2.1 -40.5 40.7	273	0.05 0.0	1.0	0.0	0.424 1.0	39.1	3.3	-40.5 40.7	274	0.05 0.0	1.0			
310	274	275	0.066 0.0	1.0	26.5	33.1	-38.4 50.7	310	0.0	0.431 1.0	39.3	2.8 -40.5 40.7	274	0.067 0.0	1.0	0.0	0.413 1.0	38.7	3.9	-40.4 40.7	275	0.067 0.0	1.0			
311	275	276	0.083 0.0	1.0	26.9	33.9	-37.8 50.8	311	0.0	0.419 1.0	38.9	3.5 -40.4 40.7	275	0.083 0.0	1.0	0.0	0.401 1.0	38.3	4.6	-40.3 40.7	276	0.083 0.0	1.0			
313	276	277	0.1 0.0	1.0	27.3	34.8	-37.3 51.0	313	0.0	0.407 1.0	38.5	4.3 -40.4 40.7	276	0.1 0.0	1.0	0.0	0.39 1.0	37.9	5.3	-40.3 40.7	277	0.1 0.0	1.0			
314	277	278	0.116 0.0	1.0	27.7	35.6	-36.7 51.1	314	0.0	0.395 1.0	38.1	5.0 -40.3 40.7	277	0.117 0.0	1.0	0.0	0.378 1.0	37.5	5.9	-40.2 40.7	278	0.117 0.0	1.0			
315	278	279	0.133 0.0	1.0	27.9	36.4	-36.2 51.3	315	0.0	0.383 1.0	37.6	5.7 -40.2 40.7	278	0.133 0.0	1.0	0.0	0.367 1.0	37.1	6.6	-40.2 40.8	279	0.133 0.0	1.0			
316	279	280	0.15 0.0	1.0	28.1	37.2	-35.7 51.6	316	0.0	0.371 1.0	37.2	6.4 -40.2 40.8	279	0.15 0.0	1.0	0.0	0.357 1.0	36.7	7.3	-40.2 41.0	280	0.15 0.0	1.0			
317	280	281	0.166 0.0	1.0	28.2	38.0	-35.2 51.9	317	0.0	0.36 1.0	36.8	7.1 -40.2 41.0	280	0.167 0.0	1.0	0.0	0.346 1.0	36.3	8.0	-40.3 41.2	281	0.167 0.0	1.0			
318	281	282	0.183 0.0	1.0	28.3	38.8	-34.7 52.1	318	0.0	0.348 1.0	36.4	7.8 -40.3 41.1	281	0.183 0.0	1.0	0.0	0.335 1.0	35.9	8.7	-40.3 41.3	282	0.183 0.0	1.0			
319	282	283	0.2 0.0	1.0	28.5	39.6	-34.2 52.4	319	0.0	0.337 1.0	36.0	8.6 -40.3 41.3	282	0.2 0.0	1.0	0.0	0.324 1.0	35.5	9.4	-40.3 41.5	283	0.2 0.0	1.0			
320	283	284	0.216 0.0	1.0	28.6	40.4	-33.7 52.6	320	0.0	0.326 1.0	35.6	9.3 -40.3 41.5	283	0.217 0.0	1.0	0.0	0.313 1.0	35.1	10.1	-40.3 41.7	284	0.217 0.0	1.0			
321	284	285	0.233 0.0	1.0	28.7	41.2	-33.1 52.9	321	0.0	0.314 1.0	35.2	10.1 -40.3 41.7	284	0.233 0.0	1.0	0.0	0.303 1.0	34.8	10.8	-40.3 41.9	285	0.233 0.0	1.0			
322	285	285	0.25 0.0	1.0	28.8	41.9	-32.5 53.1	322	0.0	0.303 1.0	34.8	10.8 -40.3 41.9	285	0.25 0.0	1.0	0.0	0.292 1.0	34.4	11.6	-40.3 42.0	285	0.25 0.0	1.0			
323	286	286	0.266 0.0	1.0	29.4	43.3	-31.8 53.8	323	0.0	0.291 1.0	34.3	11.6 -40.3 42.0	286	0.267 0.0	1.0	0.0	0.281 1.0	34.0	12.3	-40.3 42.2	286	0.267 0.0	1.0			
325	287	287	0.283 0.0	1.0	29.9	44.7	-31.1 54.4	325	0.0	0.28 1.0	33.9	12.3 -40.3 42.2	287	0.283 0.0	1.0	0.0	0.27 1.0	33.6	13.0	-40.2 42.4	287	0.283 0.0	1.0			
326	288	288	0.3 0.0	1.0	30.4	46.0	-30.3 55.1	326	0.0	0.269 1.0	33.5	13.1 -40.2 42.4	288	0.3 0.0	1.0	0.0	0.26 1.0	33.2	13.7	-40.2 42.5	288	0.3 0.0	1.0			
328	289	289	0.316 0.0	1.0	30.9	47.3	-29.4 55.7	328	0.0	0.257 1.0	33.1	13.9 -40.2 42.6	289	0.317 0.0	1.0	0.0	0.249 1.0	32.8	14.4	-40.1 42.7	289	0.317 0.0	1.0			
329	290	290	0.333 0.0	1.0	31.4	48.6	-28.5 56.4	329	0.0	0.245 1.0	32.7	14.6 -40.1 42.8	290	0.333 0.0	1.0	0.0	0.236 1.0	32.4	15.2	-40.2 43.1	290	0.333 0.0	1.0			
331	291	291	0.35 0.0	1.0	32.0	49.9	-27.5 57.0	331	0.0	0.232 1.0	32.2	15.5 -40.2 43.2	291	0.35 0.0	1.0	0.0	0.223 1.0	32.0	16.0	-40.3 43.4	291	0.35 0.0	1.0			
332	292	292	0.366 0.0	1.0	32.5	51.2	-26.5 57.7	332	0.0	0.219 1.0	31.8	16.3 -40.3 43.6	292	0.367 0.0	1.0	0.0	0.211 1.0	31.5	16.8	-40.3 43.8	292	0.367 0.0	1.0			
333	293	293	0.383 0.0	1.0	32.9	52.3	-25.7 58.3	333	0.0	0.205 1.0	31.4	17.2 -40.3 43.9	293	0.383 0.0	1.0	0.0	0.198 1.0	31.1	17.6	-40.3 44.1	293	0.383 0.0	1.0			
334	294	294	0.4 0.0	1.0	33.3	53.2	-25.0 58.8	334	0.0	0.192 1.0	30.9	18.0 -40.3 44.3	294	0.4 0.0	1.0	0.0	0.186 1.0	30.7	18.4	-40.4 44.5	294	0.4 0.0	1.0			
335	295	295	0.416 0.0	1.0	33.7	54.1	-24.4 59.4	335	0.0	0.179 1.0	30.5	18.9 -40.4 44.6	295	0.417 0.0	1.0	0.0	0.173 1.0	30.3	19.2	-40.4 44.8	295	0.417 0.0	1.0			
336	296	296	0.433 0.0	1.0	34.0	55.0	-23.7 59.9	336	0.0	0.166 1.0	30.0	19.7 -40.3 45.0	296	0.433 0.0	1.0	0.0	0.161 1.0	29.9	20.1	-40.3 45.1	296	0.433 0.0	1.0			
337	297	297	0.45 0.0	1.0	34.4	55.9	-23.0 60.5	337	0.0	0.152 1.0	29.6	20.6 -40.3 45.4	297	0.45 0.0	1.0	0.0	0.148 1.0	29.4	20.9	-40.3 45.5	297	0.45 0.0	1.0			
338	298	298	0.466 0.0	1.0	34.8	56.8	-22.2 61.0	338	0.0	0.139 1.0	29.1	21.5 -40.3 45.7	298	0.467 0.0	1.0	0.0	0.136 1.0	29.0	21.7	-40.3 45.8	298	0.467 0.0	1.0			
339	299	299	0.483 0.0	1.0	35.2	57.7	-21.5 61.6	339	0.0	0.126 1.0	28.7	22.3 -40.2 46.1	299	0.483 0.0	1.0	0.0	0.122 1.0	28.6	22.6	-40.2 46.2	299	0.483 0.0	1.0			
340	300	300	0.5 0.0	1.0	35.6	58.6	-20.7 62.1	340	0.0	0.109 1.0	28.2	23.3 -40.3 46.6	300	0.5 0.0	1.0	0.0	0.106 1.0	28.1	23.5	-40.3 46.7	300	0.5 0.0	1.0			

1-1131431-L0 QE380-73 LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1,

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{ds361M}	LAB^*_{d361M}	$LAB^*_{ds361Mi} (x=LabCh)$	$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mi}$	$rgb^*_{ds361Mi} (x=LabCh)$	$rgb^*_{de361Mi}$	$LAB^*_{de361Mi}$	$LAB^*_{dex361Mi} (x=LabCh)$	$rgb^*_{de361Mi}$	$rgb^*_{dd361Mi}$													
340	300	300	0.5	0.0	1.0	35.6	58.6	-20.7 62.1 340	0.0	0.109 1.0	28.2	23.3	-40.3 46.6 300	0.5	0.0	1.0	0.0	0.106 1.0	28.1	23.5	-40.3 46.7 300	0.5	0.0	1.0		
341	301	301	0.516	0.0	1.0	35.9	59.5	-19.9 62.8 341	0.0	0.091 1.0	27.7	24.3	-40.3 47.2 301	0.517	0.0	1.0	0.0	0.089 1.0	27.6	24.4	-40.3 47.2 301	0.517	0.0	1.0		
342	302	302	0.533	0.0	1.0	36.2	60.5	-19.0 63.4 342	0.0	0.074 1.0	27.2	25.3	-40.4 47.7 302	0.533	0.0	1.0	0.0	0.073 1.0	27.2	25.4	-40.4 47.8 302	0.533	0.0	1.0		
343	303	303	0.55	0.0	1.0	36.6	61.4	-18.2 64.0 343	0.0	0.056 1.0	26.7	26.3	-40.4 48.3 303	0.55	0.0	1.0	0.0	0.056 1.0	26.7	26.3	-40.4 48.3 303	0.55	0.0	1.0		
344	304	303	0.566	0.0	1.0	36.9	62.3	-17.3 64.7 344	0.0	0.039 1.0	26.2	27.3	-40.4 48.9 304	0.567	0.0	1.0	0.0	0.039 1.0	26.2	27.3	-40.4 48.8 303	0.567	0.0	1.0		
345	305	304	0.583	0.0	1.0	37.2	63.2	-16.4 65.3 345	0.0	0.021 1.0	25.7	28.3	-40.4 49.4 305	0.583	0.0	1.0	0.0	0.023 1.0	25.7	28.2	-40.4 49.4 304	0.583	0.0	1.0		
346	306	305	0.6	0.0	1.0	37.6	64.1	-15.4 66.0 346	0.0	0.004 1.0	25.2	29.4	-40.3 50.0 306	0.6	0.0	1.0	0.0	0.006 1.0	25.3	29.2	-40.3 49.9 305	0.6	0.0	1.0		
347	307	306	0.616	0.0	1.0	37.9	65.0	-14.5 66.6 347	0.011	0.0	1.0	25.3	30.2	-40.0 50.2 307	0.617	0.0	1.0	0.009	0.0	1.0	25.3	30.1	-40.1 50.2 306	0.617	0.0	1.0
348	308	307	0.633	0.0	1.0	38.3	65.8	-13.7 67.2 348	0.026	0.0	1.0	25.7	31.0	-39.6 50.3 308	0.633	0.0	1.0	0.023	0.0	1.0	25.6	30.8	-39.7 50.3 307	0.633	0.0	1.0
348	309	308	0.65	0.0	1.0	38.8	66.6	-13.1 67.9 348	0.041	0.0	1.0	26.0	31.8	-39.1 50.5 309	0.65	0.0	1.0	0.036	0.0	1.0	25.9	31.5	-39.3 50.4 308	0.65	0.0	1.0
349	310	309	0.666	0.0	1.0	39.3	67.3	-12.5 68.5 349	0.056	0.0	1.0	26.3	32.5	-38.7 50.6 310	0.667	0.0	1.0	0.05	0.0	1.0	26.2	32.3	-38.8 50.6 309	0.667	0.0	1.0
350	311	310	0.683	0.0	1.0	39.8	68.1	-11.9 69.1 350	0.07	0.0	1.0	26.7	33.3	-38.2 50.8 311	0.683	0.0	1.0	0.064	0.0	1.0	26.5	33.0	-38.4 50.7 310	0.683	0.0	1.0
350	312	311	0.7	0.0	1.0	40.3	68.8	-11.2 69.7 350	0.085	0.0	1.0	27.0	34.1	-37.7 50.9 312	0.7	0.0	1.0	0.078	0.0	1.0	26.9	33.7	-37.9 50.8 311	0.7	0.0	1.0
351	313	312	0.716	0.0	1.0	40.8	69.5	-10.6 70.4 351	0.1	0.0	1.0	27.3	34.8	-37.2 51.0 313	0.717	0.0	1.0	0.092	0.0	1.0	27.2	34.4	-37.5 51.0 312	0.717	0.0	1.0
351	314	313	0.733	0.0	1.0	41.3	70.3	-9.9 71.0 351	0.114	0.0	1.0	27.7	35.5	-36.7 51.2 314	0.733	0.0	1.0	0.106	0.0	1.0	27.5	35.1	-37.0 51.1 313	0.733	0.0	1.0
352	315	314	0.75	0.0	1.0	41.8	71.0	-9.2 71.6 352	0.13	0.0	1.0	27.9	36.3	-36.2 51.3 315	0.75	0.0	1.0	0.12	0.0	1.0	27.8	35.8	-36.5 51.2 314	0.75	0.0	1.0
353	316	315	0.766	0.0	1.0	42.1	71.6	-8.7 72.1 353	0.146	0.0	1.0	28.1	37.1	-35.7 51.6 316	0.767	0.0	1.0	0.135	0.0	1.0	28.0	36.6	-36.0 51.4 315	0.767	0.0	1.0
353	317	316	0.783	0.0	1.0	42.4	72.1	-8.1 72.6 353	0.163	0.0	1.0	28.2	37.9	-35.3 51.8 317	0.783	0.0	1.0	0.151	0.0	1.0	28.1	37.3	-35.6 51.7 316	0.783	0.0	1.0
353	318	317	0.8	0.0	1.0	42.7	72.7	-7.6 73.1 353	0.18	0.0	1.0	28.3	38.7	-34.8 52.1 318	0.8	0.0	1.0	0.167	0.0	1.0	28.2	38.1	-35.1 51.9 317	0.8	0.0	1.0
354	319	318	0.816	0.0	1.0	43.1	73.2	-7.0 73.6 354	0.197	0.0	1.0	28.5	39.5	-34.2 52.4 319	0.817	0.0	1.0	0.183	0.0	1.0	28.4	38.9	-34.7 52.1 318	0.817	0.0	1.0
354	320	319	0.833	0.0	1.0	43.4	73.8	-6.5 74.1 354	0.213	0.0	1.0	28.6	40.3	-33.7 52.6 320	0.833	0.0	1.0	0.199	0.0	1.0	28.5	39.6	-34.2 52.4 319	0.833	0.0	1.0
355	321	320	0.85	0.0	1.0	43.7	74.3	-5.9 74.6 355	0.23	0.0	1.0	28.7	41.1	-33.2 52.9 321	0.85	0.0	1.0	0.215	0.0	1.0	28.6	40.4	-33.7 52.6 320	0.85	0.0	1.0
355	322	321	0.866	0.0	1.0	44.0	74.9	-5.3 75.1 355	0.247	0.0	1.0	28.9	41.9	-32.6 53.1 322	0.867	0.0	1.0	0.231	0.0	1.0	28.7	41.1	-33.2 52.9 321	0.867	0.0	1.0
356	323	321	0.883	0.0	1.0	44.3	75.4	-4.7 75.6 356	0.259	0.0	1.0	29.2	42.7	-32.1 53.5 323	0.883	0.0	1.0	0.247	0.0	1.0	28.9	41.8	-32.6 53.1 321	0.883	0.0	1.0
356	324	322	0.9	0.0	1.0	44.6	76.0	-4.1 76.1 356	0.27	0.0	1.0	29.5	43.7	-31.6 54.0 324	0.9	0.0	1.0	0.258	0.0	1.0	29.2	42.7	-32.1 53.5 322	0.9	0.0	1.0
357	325	323	0.916	0.0	1.0	44.8	76.6	-3.5 76.6 357	0.282	0.0	1.0	29.9	44.6	-31.1 54.4 325	0.917	0.0	1.0	0.269	0.0	1.0	29.5	43.5	-31.7 53.9 323	0.917	0.0	1.0
357	326	324	0.933	0.0	1.0	45.1	77.1	-2.8 77.2 357	0.293	0.0	1.0	30.2	45.5	-30.6 54.8 326	0.933	0.0	1.0	0.28	0.0	1.0	29.8	44.4	-31.2 54.3 324	0.933	0.0	1.0
358	327	325	0.95	0.0	1.0	45.3	77.7	-2.2 77.7 358	0.304	0.0	1.0	30.6	46.4	-30.0 55.3 327	0.95	0.0	1.0	0.29	0.0	1.0	30.1	45.2	-30.7 54.7 325	0.95	0.0	1.0
358	328	326	0.966	0.0	1.0	45.6	78.2	-1.5 78.2 358	0.315	0.0	1.0	30.9	47.2	-29.4 55.7 328	0.967	0.0	1.0	0.301	0.0	1.0	30.5	46.1	-30.2 55.1 326	0.967	0.0	1.0
359	329	327	0.983	0.0	1.0	45.8	78.7	-0.8 78.7 359	0.326	0.0	1.0	31.3	48.1	-28.8 56.1 329	0.983	0.0	1.0	0.311	0.0	1.0	30.8	46.9	-29.6 55.6 327	0.983	0.0	1.0
359	330	328	1.0	0.0	1.0	46.1	79.3	-0.2 79.3 359	0.337	0.0	1.0	31.6	49.0	-28.2 56.6 330	1.0	0.0	1.0	0.322	0.0	1.0	31.1	47.8	-29.1 56.0 328	1.0	0.0	1.0
360	331	329	1.0	0.0	0.983	46.1	79.1	0.3 79.1 360	0.349	0.0	1.0	32.0	49.9	-27.5 57.0 331	1.0	0.0	0.983	0.332	0.0	1.0	31.5	48.6	-28.5 56.4 329	1.0	0.0	0.983
360	332	330	1.0	0.0	0.966	46.0	79.0	0.9 79.0 360	0.36	0.0	1.0	32.3	50.7	-26.9 57.5 332	1.0	0.0	0.967	0.343	0.0	1.0	31.8	49.4	-27.9 56.8 330	1.0	0.0	0.967
361	333	331	1.0	0.0	0.95	46.0	78.9	1.5 78.9 361	0.371	0.0	1.0	32.7	51.6	-26.2 57.9 333	1.0	0.0	0.95	0.354	0.0	1.0	32.1	50.3	-27.2 57.2 331	1.0	0.0	0.95
361	334	332	1.0	0.0	0.933	46.0	78.7	2.1 78.8 361	0.386	0.0	1.0	33.0	52.5	-25.5 58.4 334	1.0	0.0	0.933	0.364	0.0	1.0	32.4	51.1	-26.6 57.6 332	1.0	0.0	0.933
361	335	333	1.0	0.0	0.916	46.0	78.6	2.7 78.6 361	0.404	0.0	1.0	33.4	53.5	-24.8 59.0 335	1.0	0.0	0.917	0.375	0.0	1.0	32.8	51.9	-25.9 58.0 333	1.0	0.0	0.917
362	336	334	1.0	0.0	0.9	46.0	78.4	3.2 78.5 362	0.421	0.0	1.0	33.8	54.4	-24.1 59.6 336	1.0	0.0	0.9	0.391	0.0	1.0	33.1	52.8	-25.3 58.6 334	1.0	0.0	0.9
362	337	335	1.0	0.0	0.883	45.9	78.3	3.8 78.4 362	0.438	0.0	1.0	34.2	55.4	-23.4 60.1 337	1.0	0.0	0.883	0.408	0.0	1.0	33.5	53.7	-24.7 59.1 335	1.0	0.0	0.883
363	338	336	1.0	0.0	0.866	45.9	78.1	4.4 78.3 363	0.456	0.0	1.0	34.6	56.3	-22.6 60.7 338	1.0	0.0	0.867	0.424	0.0	1.0	33.9	54.6	-24.0 59.7 336	1.0	0.0	0.867
363	339	337	1.0	0.0	0.85	45.9	78.0	5.0 78.2 363	0.473	0.0	1.0	35.0	57.2	-21.9 61.3 339	1.0	0.0	0.85	0.441	0.0	1.0	34.3	55.5	-23.3 60.2 337	1.0	0.0	0.85
364	340	338	1.0	0.0	0.833	45.9	77.9	5.6 78.1 364	0.491	0.0	1.0	35.4	58.1	-21.1 61.9 340	1.0	0.0	0.833	0.457	0.0	1.0	34.6	56.4	-22.6 60.8 338	1.0	0.0	0.833
364	341	339	1.0	0.0	0.816	45.9	77.7	6.2 78.0 364	0.508	0.0	1.0	35.8	59.1	-20.2 62.5 341	1.0	0.0	0.817	0.474	0.0	1.0	35.0	57.2	-21.8 61.3 339	1.0	0.0	0.817
365	342	339	1.0	0.0	0.8	45.9	77.6	6.8 77.9 365	0.525	0.0	1.0	36.1	60.0	-19.4 63.1 342	1.0	0.0	0.8	0.491	0.0	1.0	35.4	58.1	-21.1 61.8 339	1.0	0.0	0.8
365	343	340	1.0	0.0	0.783	45.9	77.4	7.4 77.8 365	0.542	0.0	1.0	36.4	61.0	-18.5 63.8 343	1.0	0.0	0.783	0.507	0.0	1.0	35.7	59.0	-20.3 62.4 340	1.0	0.0	0.783
365	344	341	1.0	0.0	0.766	45.9	77.3	8.0 77.7 365	0.559	0.0	1.0															

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see similar files: <http://130.149.60.45/~farbmetrik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB-test chart QE38; hue code: $H^*_e=Y00G_e$
 colors and differences, ΔE^*

	C	M	V
input: $rgb/cmyk \rightarrow rgb_{de}$			
output: 3D-linearization to $cmy0^*_{de}$			

input: *rgb/cmyk* $\rightarrow$ *rgb*_{de}
output: 3D-linearization to

n	HiC*File	rgb-File	Lab-File	rgb*File	LabC*File	cmyn*SepFile	rgb*File	LabC*File	delta
324	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
325	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
326	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
327	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
328	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
329	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
330	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
331	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
332	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
333	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
334	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
335	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
336	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
337	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
338	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
339	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
340	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
341	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
342	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
343	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
344	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
345	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
346	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
347	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
348	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
349	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
350	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
351	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
352	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
353	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
354	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
355	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
356	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
357	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
358	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
359	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
360	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
361	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
362	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
363	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
364	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
365	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
366	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
367	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
368	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
369	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
370	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
371	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
372	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
373	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
374	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
375	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
376	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
377	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
378	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
379	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
380	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
381	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
382	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
383	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
384	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
385	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
386	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
387	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
388	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
389	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
390	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
391	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
392	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
393	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
394	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
395	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
396	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
397	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
398	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
399	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
400	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
401	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
402	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
403	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1
404	R050_050_050de	0.5	0.5	0.5	35.0	36.1	0.127	35.0	36.1


 TUB-test chart QE38; hue code: $H^*_e = Y00G_e$
 colors and differences, ΔE^*

input: *rgb/cmyk* $\rightarrow$ *rgb*_{de}
 output: 3D-linearization to *cmy0**_{de}

1-1132431-F0 1-1132431-F0 1-1132431-F0

V L O Y M
http://130.149.60.45/~farbmertik/QE38/QE38L0FP.PDF /PS; 3D-linearization
F: 3D-linearization QE38/QE38LE30FP.DAT in file (F), page 26/33

n	HIC [†] tie	rgb [†] tie	lcr [†] tie	hna [†] tie	rgb [†] tie	LaCh [†] tie	cmym [†] sep,tie	hna [†] tie	rgb [†] tie	LaCh [†] tie	delta	
486	R35Y_075_075tie	0.75	0.0	0.75	0.75	0.0	0.191	40.3	54.1	25.8	60.0	25.4
487	R35Y_075_075tie	0.75	0.0	0.125	0.75	0.75	0.0	0.384	40.5	55.7	15.4	57.8
488	R18Y_075_075tie	0.75	0.0	0.25	0.75	0.75	0.0	0.62	40.5	58.4	4.3	58.5
489	R00Y_075_075tie	0.75	0.0	0.375	0.75	0.75	0.0	0.552	0.0	52.8	-7.3	53.3
490	B65R_075_075tie	0.75	0.0	0.5	0.75	0.75	0.343	48.2	-11.4	45.1	337.1	45.5
491	B57R_075_075tie	0.75	0.0	0.625	0.75	0.75	0.317	41.6	-17.5	49.5	328.6	32.1
492	B30R_075_075tie	0.75	0.0	0.75	0.75	0.75	0.294	35.8	-21.8	41.9	328.6	32.1
493	B43R_087_087tie	0.75	0.0	0.875	0.875	0.875	0.281	35.9	-29.0	46.2	321.0	32.1
494	B38R_100_100tie	0.75	0.0	1.0	1.0	1.0	0.279	36.5	-36.1	51.4	315.3	315.3
495	R15Y_075_075tie	0.75	0.125	0.0	0.75	0.75	0.051	0.0	41.6	49.9	35.6	61.3
496	R00Y_075_062tie	0.75	0.125	0.125	0.75	0.75	0.125	0.284	46.5	45.1	21.5	50.0
497	R31Y_075_062tie	0.75	0.125	0.25	0.75	0.625	0.437	379	0.75	0.125	0.481	46.7
498	R11Y_075_062tie	0.75	0.125	0.375	0.75	0.625	0.437	367	0.75	0.125	0.749	46.8
499	B69R_075_062tie	0.75	0.125	0.5	0.75	0.625	0.437	353	0.557	0.125	0.749	46.8
500	B59R_075_062tie	0.75	0.125	0.625	0.75	0.625	0.437	341	0.421	0.125	0.749	46.8
501	B50R_075_062tie	0.75	0.125	0.75	0.75	0.625	0.437	330	0.326	0.125	0.749	46.8
502	B42R_087_075tie	0.75	0.125	0.875	0.875	0.75	0.3	321	0.286	0.125	0.875	36.4
503	B36R_100_087tie	0.75	0.125	1.0	1.0	0.875	0.562	314	0.217	0.125	0.875	36.4
504	R31Y_075_075tie	0.75	0.25	0.0	0.75	0.75	0.375	39	0.75	0.184	0.0	46.2
505	R18Y_075_062tie	0.75	0.25	0.125	0.75	0.625	0.437	41	0.75	0.197	0.125	48.4
506	R00Y_075_050tie	0.75	0.25	0.25	0.75	0.5	0.3	390	0.75	0.25	0.177	52.8
507	B65R_075_050tie	0.75	0.25	0.375	0.75	0.5	0.3	376	0.75	0.25	0.177	52.8
508	R00Y_075_050tie	0.75	0.25	0.5	0.75	0.5	0.3	364	0.618	0.25	0.177	52.8
509	B61R_075_050tie	0.75	0.25	0.625	0.75	0.5	0.3	344	0.511	0.25	0.177	52.8
510	B50R_075_050tie	0.75	0.25	0.75	0.75	0.5	0.3	330	0.441	0.25	0.177	52.8
511	B40R_087_062tie	0.75	0.25	0.875	0.875	0.625	0.562	319	0.364	0.25	0.177	52.8
512	B34R_100_075tie	0.75	0.25	1.0	1.0	0.75	0.625	311	0.298	0.25	0.177	52.8
513	R50Y_075_075tie	0.75	0.375	0.0	0.75	0.75	0.298	0.0	51.2	43.8	24.7	-38.8
514	R38Y_075_062tie	0.75	0.375	0.125	0.75	0.625	0.437	53	0.75	0.313	0.125	53.0
515	R23Y_075_050tie	0.75	0.375	0.25	0.75	0.5	0.5	44	0.75	0.333	0.25	55.2
516	R00Y_075_050tie	0.75	0.375	0.375	0.75	0.75	0.375	0.562	390	0.75	0.375	0.562
517	R18Y_075_037tie	0.75	0.375	0.625	0.75	0.375	0.562	371	0.601	0.375	0.562	390
518	B65R_075_037tie	0.75	0.375	0.625	0.75	0.375	0.562	349	0.495	0.375	0.562	330
519	B50R_075_037tie	0.75	0.375	0.75	0.75	0.375	0.562	316	0.442	0.375	0.562	316
520	B38R_087_050tie	0.75	0.375	1.0	1.0	0.625	0.687	307	0.38	0.375	1.0	51.6
521	B68Y_075_075tie	0.75	0.5	0.0	0.75	0.75	0.375	71	0.75	0.407	0.0	56.6
522	R61Y_075_062tie	0.75	0.5	0.125	0.75	0.625	0.437	67	0.75	0.443	0.125	58.4
523	R50Y_075_050tie	0.75	0.5	0.25	0.75	0.5	0.5	60	0.75	0.449	0.25	60.1
524	R31Y_075_037tie	0.75	0.5	0.375	0.75	0.375	0.562	49	0.75	0.467	0.375	62.0
525	R00Y_075_025tie	0.75	0.5	0.5	0.75	0.25	0.625	390	0.75	0.25	0.625	390
526	B50R_075_025tie	0.75	0.5	0.625	0.75	0.25	0.625	360	0.684	0.5	0.563	65.3
527	R00Y_075_025tie	0.75	0.5	0.75	0.25	0.625	360	0.58	0.5	0.75	61.6	11.9
528	B34R_087_037tie	0.75	0.5	0.875	0.875	0.75	0.625	330	0.524	0.5	0.875	60.8
529	R25R_100_050tie	0.75	0.5	1.0	1.0	0.5	0.75	300	0.5	0.552	1.0	61.8
530	R81Y_075_075tie	0.75	0.625	0.0	0.75	0.75	0.375	81	0.75	0.513	0.0	62.2
531	R81Y_075_062tie	0.75	0.625	0.125	0.75	0.625	0.437	79	0.75	0.53	0.125	63.8
532	R68Y_075_050tie	0.75	0.625	0.25	0.75	0.5	0.5	76	0.75	0.552	0.25	65.4
533	R68Y_075_037tie	0.75	0.625	0.375	0.75	0.375	0.562	71	0.75	0.578	0.375	67.2
534	R50Y_075_025tie	0.75	0.625	0.5	0.75	0.25	0.625	60	0.75	0.599	0.5	68.9
535	R00Y_075_012tie	0.75	0.625	0.625	0.75	0.125	0.687	390	0.75	0.625	0.656	71.5
536	R50Y_075_012tie	0.75	0.625	0.75	0.75	0.125	0.687	330	0.665	0.625	0.75	69.7
537	B50R_075_012tie	0.75	0.625	0.875	0.875	0.75	0.25	0.75	0.625	0.651	0.875	69.8
538	B25R_087_025tie	0.75	0.625	1.0	1.0	0.375	0.812	289	0.625	0.718	1.0	72.0
539	R10R_075_075tie	0.75	0.75	0.0	0.75	0.75	0.375	90	0.75	0.659	0.0	68.8
540	Y00G_075_062tie	0.75	0.75	0.125	0.75	0.625	0.437	90	0.75	0.674	0.125	70.3
541	Y00G_075_050tie	0.75	0.75	0.25	0.75	0.5	0.5	90	0.75	0.689	0.25	71.8
542	Y00G_075_037tie	0.75	0.75	0.375	0.75	0.375	0.562	90	0.75	0.719	0.375	73.3
543	Y00G_075_025tie	0.75	0.75	0.5	0.75	0.25	0.625	90	0.75	0.734	0.5	74.8
544	Y00G_075_012tie	0.75	0.75	0.625	0.75	0.125	0.687	90	0.75	0.734	0.625	74.8
545	Y00G_075_012tie	0.75	0.75	0.75	0.75	0.125	0.687	90	0.75	0.734	0.625	74.8
546	NV_075_075tie	0.75	0.75	0.75	0.75	0.75	0.75	77	0.75	0.807	0.875	79.7
547	B00R_087_012tie	0.75	0.75	0.875	0.875	0.125	0.812	270	0.75	0.807	0.875	79.7
548	B00R_100_025tie	0.75	0.75	1.0	1.0	0.25	0.875	270	0.75	0.864	1.0	81.7
549	Y13G_087_087tie	0.75	0.75	0.0	0.875	0.875	0.437	98	0.663	0.864	1.0	73.9
550	Y15G_087_062tie	0.75	0.875	0.125	0.875	0.625	0.5	99	0.671	0.875	0.125	74.9
551	Y18G_087_050tie	0.75	0.875	0.25	0.875	0.625	0.562	101	0.674	0.875	0.25	75.4
552	Y23G_087_037tie	0.75	0.875	0.375	0.875	0.375	0.625	104	0.677	0.875	0.375	76.1
553	Y31G_087_025tie	0.75	0.875	0.5	0.875	0.375	0.687	109	0.685	0.875	0.5	77.2
554	Y50G_087_012tie	0.75	0.875	0.625	0.875	0.25	0.75	120	0.705	0.875	0.625	78.4
555	G50B_087_012tie	0.75	0.875	0.75	0.875	0.125	0.812	210	0.75	0.875	0.768	81.1
556	G50B_087_012tie	0.75	0.875	0.875	0.875	0.125	0.812	210	0.75	0.875	0.843	81.6
557	G75B_100_025tie	0.75	0.875	1.0	0.25	0.875	0.75	240	0.75	0.961	1.0	85.0
558	Y23G_100_087tie	0.75	1.0	0.0	1.0	0.0	1.0	104	0.605	1.0	74.5	49.9
559	Y26G_100_087tie	0.75	1.0	0.125	1.0	0.875	0.562	106	0.615	1.0	75.7	73.7
560	Y38G_100_062tie	0.75	1.0	0.25	1.0	0.75	0.625	109	0.62	1.0	76.6	76.6
561	Y38G_100_050tie	0.75	1.0	0.375	1.0	0.625	0.687	111	0.633	1.0	0.375	77.8
562	Y50G_100_050tie	0.75	1.0	0.5	1.0	0.5	0.75	120	0.661	1.0	0.5	79.1
563	Y68G_100_037tie	0.75	1.0	0.625	1.0	0.375	0.812	131	0.694	1.0	0.625	80.9
564	G00B_100_025tie	0.75	1.0	0.75	1.0	0.25	0.875	150	0.75	1.0	0.787	84.3
565	G25B_100_025tie	0.75	1.0	0.875	1.0	0.25	0.875	180	0.75	1.0	0.875	84.3
566	G50B_100_025tie	0.75	1.0	1.0	1.0	0.25	0.875	210	0.75	1.0	0.936	85.4

input: *rgb/cmyk* $\rightarrow$ *rgb*_{de}
output: 3D-linearization to *cmy0*_{de}*

TUB-test chart QE38; hue code: $H_e^* = Y00G_e$
colors and differences, ΔE^*

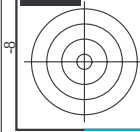
see similar files: <http://130.149.60.45/~farbmetrik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

[illegible]

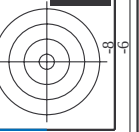
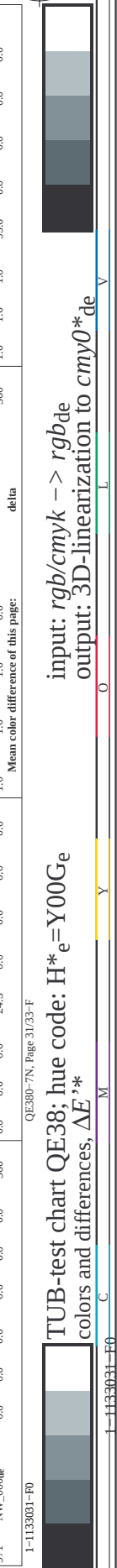
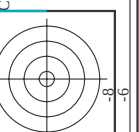
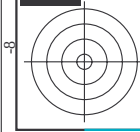
input: $rgb/cmyk \rightarrow rgb_{de}$	vector
output: 3D-linearization to $cmy0^*_{de}$	

TUB-test chart QE38; hue code: H_e^{*}=Y00G_e^{*}
colors and differences, ΔE^*

-see similar files: <http://130.149.60.45/~farbmetrik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>



n	HC*File	rgb_File	icc_File	hsa_Fat	rgb*File	LabCh*File	cmy*sep_Fat	hsv*File	LabCh*File	hsv*File	LabCh*File	hsv*File
891	NW_100de	1.0	1.0	1.0	1.0	95.6	0.0	0.0	0.0	0.0	95.6	0.0
892	B50R_100.012de	0.875	1.0	0.125	0.937	87.5	0.0	0.0	0.0	0.0	87.5	0.0
893	B50R_100.025de	0.75	1.0	0.25	0.812	75.0	0.0	0.0	0.0	0.0	75.0	0.0
894	B50R_100.037de	0.625	1.0	0.375	0.687	62.5	0.0	0.0	0.0	0.0	62.5	0.0
895	B50R_100.050de	0.5	1.0	0.5	0.562	50.0	0.0	0.0	0.0	0.0	50.0	0.0
896	B50R_100.062de	0.375	1.0	0.625	0.437	37.5	0.0	0.0	0.0	0.0	37.5	0.0
897	B50R_100.075de	0.25	1.0	0.75	0.312	25.0	0.0	0.0	0.0	0.0	25.0	0.0
898	B50R_100.087de	0.125	1.0	0.875	0.187	12.5	0.0	0.0	0.0	0.0	12.5	0.0
899	B50R_100.100de	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
900	GOB_100.012de	0.875	1.0	0.125	0.937	87.5	0.0	0.0	0.0	0.0	87.5	0.0
901	NW_087de	0.875	0.875	0.875	0.875	87.5	0.0	0.0	0.0	0.0	87.5	0.0
902	B50R_087.012de	0.875	0.75	0.875	0.812	87.5	0.0	0.0	0.0	0.0	87.5	0.0
903	B50R_087.025de	0.875	0.625	0.875	0.687	87.5	0.0	0.0	0.0	0.0	87.5	0.0
904	B50R_087.037de	0.875	0.5	0.875	0.562	87.5	0.0	0.0	0.0	0.0	87.5	0.0
905	B50R_087.050de	0.875	0.375	0.875	0.437	87.5	0.0	0.0	0.0	0.0	87.5	0.0
906	B50R_087.062de	0.875	0.25	0.875	0.312	87.5	0.0	0.0	0.0	0.0	87.5	0.0
907	B50R_087.075de	0.875	0.125	0.875	0.187	87.5	0.0	0.0	0.0	0.0	87.5	0.0
908	B50R_087.087de	0.875	0.0	0.875	0.0	87.5	0.0	0.0	0.0	0.0	87.5	0.0
909	GOB_100.025de	0.75	1.0	0.25	0.812	75.0	0.0	0.0	0.0	0.0	75.0	0.0
910	GOB_100.037de	0.625	1.0	0.375	0.687	62.5	0.0	0.0	0.0	0.0	62.5	0.0
911	NW_075de	0.75	0.75	0.75	0.75	75.0	0.0	0.0	0.0	0.0	75.0	0.0
912	B50R_075.012de	0.75	0.625	0.75	0.687	75.0	0.0	0.0	0.0	0.0	75.0	0.0
913	B50R_075.025de	0.75	0.5	0.75	0.562	75.0	0.0	0.0	0.0	0.0	75.0	0.0
914	B50R_075.037de	0.75	0.375	0.75	0.437	75.0	0.0	0.0	0.0	0.0	75.0	0.0
915	B50R_075.050de	0.75	0.25	0.75	0.312	75.0	0.0	0.0	0.0	0.0	75.0	0.0
916	B50R_075.062de	0.75	0.125	0.75	0.187	75.0	0.0	0.0	0.0	0.0	75.0	0.0
917	B50R_075.075de	0.75	0.0	0.75	0.0	75.0	0.0	0.0	0.0	0.0	75.0	0.0
918	GOB_100.037de	0.625	1.0	0.375	0.687	62.5	0.0	0.0	0.0	0.0	62.5	0.0
919	GOB_100.050de	0.5	1.0	0.5	0.562	50.0	0.0	0.0	0.0	0.0	50.0	0.0
920	GOB_075.012de	0.625	0.75	0.625	0.625	62.5	0.0	0.0	0.0	0.0	62.5	0.0
921	GOB_075.025de	0.625	0.625	0.625	0.625	62.5	0.0	0.0	0.0	0.0	62.5	0.0
922	B50R_062.012de	0.625	0.5	0.625	0.562	62.5	0.0	0.0	0.0	0.0	62.5	0.0
923	B50R_062.025de	0.625	0.375	0.625	0.437	62.5	0.0	0.0	0.0	0.0	62.5	0.0
924	B50R_062.037de	0.625	0.25	0.625	0.312	62.5	0.0	0.0	0.0	0.0	62.5	0.0
925	B50R_062.050de	0.625	0.125	0.625	0.187	62.5	0.0	0.0	0.0	0.0	62.5	0.0
926	B50R_062.062de	0.625	0.0	0.625	0.0	62.5	0.0	0.0	0.0	0.0	62.5	0.0
927	GOB_100.050de	0.5	1.0	0.5	0.562	50.0	0.0	0.0	0.0	0.0	50.0	0.0
928	GOB_087.037de	0.5	0.875	0.5	0.875	50.0	0.0	0.0	0.0	0.0	50.0	0.0
929	GOB_075.025de	0.5	0.75	0.5	0.75	50.0	0.0	0.0	0.0	0.0	50.0	0.0
930	GOB_062.012de	0.5	0.625	0.5	0.625	50.0	0.0	0.0	0.0	0.0	50.0	0.0
931	NW_050de	0.5	0.5	0.5	0.5	50.0	0.0	0.0	0.0	0.0	50.0	0.0
932	B50R_050.012de	0.5	0.375	0.5	0.437	50.0	0.0	0.0	0.0	0.0	50.0	0.0
933	B50R_050.025de	0.5	0.25	0.5	0.312	50.0	0.0	0.0	0.0	0.0	50.0	0.0
934	B50R_050.037de	0.5	0.125	0.5	0.187	50.0	0.0	0.0	0.0	0.0	50.0	0.0
935	B50R_050.050de	0.5	0.0	0.5	0.0	50.0	0.0	0.0	0.0	0.0	50.0	0.0
936	GOB_100.062de	0.375	1.0	0.625	0.687	37.5	0.0	0.0	0.0	0.0	37.5	0.0
937	GOB_087.050de	0.375	0.875	0.375	0.875	37.5	0.0	0.0	0.0	0.0	37.5	0.0
938	GOB_075.037de	0.375	0.75	0.375	0.75	37.5	0.0	0.0	0.0	0.0	37.5	0.0
939	GOB_062.025de	0.375	0.625	0.375	0.625	37.5	0.0	0.0	0.0	0.0	37.5	0.0
940	NW_037de	0.375	0.375	0.375	0.375	37.5	0.0	0.0	0.0	0.0	37.5	0.0
941	B50R_037.012de	0.375	0.25	0.375	0.312	37.5	0.0	0.0	0.0	0.0	37.5	0.0
942	B50R_037.025de	0.375	0.125	0.375	0.187	37.5	0.0	0.0	0.0	0.0	37.5	0.0
943	B50R_037.037de	0.375	0.0	0.375	0.0	37.5	0.0	0.0	0.0	0.0	37.5	0.0
944	GOB_100.075de	0.25	1.0	0.75	0.625	25.0	0.0	0.0	0.0	0.0	25.0	0.0
945	GOB_087.062de	0.25	0.875	0.25	0.875	25.0	0.0	0.0	0.0	0.0	25.0	0.0
946	GOB_075.050de	0.25	0.75	0.25	0.75	25.0	0.0	0.0	0.0	0.0	25.0	0.0
947	GOB_062.037de	0.25	0.625	0.25	0.625	25.0	0.0	0.0	0.0	0.0	25.0	0.0
948	GOB_050.025de	0.25	0.5	0.25	0.5	25.0	0.0	0.0	0.0	0.0	25.0	0.0
949	GOB_037.012de	0.25	0.375	0.25	0.375	25.0	0.0	0.0	0.0	0.0	25.0	0.0
950	NW_025de	0.25	0.25	0.25	0.25	25.0	0.0	0.0	0.0	0.0	25.0	0.0
951	B50R_025.012de	0.25	0.125	0.25	0.187	25.0	0.0	0.0	0.0	0.0	25.0	0.0
952	B50R_025.025de	0.25	0.0	0.25	0.0	25.0	0.0	0.0	0.0	0.0	25.0	0.0
953	GOB_100.087de	0.125	1.0	0.875	0.812	12.5	0.0	0.0	0.0	0.0	12.5	0.0
954	GOB_087.075de	0.125	0.875	0.125	0.875	12.5	0.0	0.0	0.0	0.0	12.5	0.0
955	GOB_075.062de	0.125	0.75	0.125	0.75	12.5	0.0	0.0	0.0	0.0	12.5	0.0
956	GOB_062.050de	0.125	0.625	0.125	0.625	12.5	0.0	0.0	0.0	0.0	12.5	0.0
957	GOB_050.037de	0.125	0.5	0.125	0.5	12.5	0.0	0.0	0.0	0.0	12.5	0.0
958	GOB_037.025de	0.125	0.375	0.125	0.375	12.5	0.0	0.0	0.0	0.0	12.5	0.0
959	GOB_025.012de	0.125	0.25	0.125	0.25	12.5	0.0	0.0	0.0	0.0	12.5	0.0
960	NW_012de	0.125	0.125	0.125	0.125	12.5	0.0	0.0	0.0	0.0	12.5	0.0
961	B50R_012.012de	0.125	0.0	0.125	0.0	12.5	0.0	0.0	0.0	0.0	12.5	0.0
962	GOB_100.100de	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
963	GOB_087.087de	0.0	0.875	0.0	0.875	0.0	0.0	0.0	0.0	0.0	0.0	0.0
964	GOB_075.075de	0.0	0.75	0.0	0.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
965	GOB_062.062de	0.0	0.625	0.0	0.625	0.0	0.0	0.0	0.0	0.0	0.0	0.0
966	GOB_050.050de	0.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
967	GOB_037.037de	0.0	0.375	0.0	0.375	0.0	0.0	0.0	0.0	0.0	0.0	0.0
968	GOB_025.025de	0.0	0.25	0.0	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
969	GOB_012.012de	0.0	0.125	0.0	0.125	0.0	0.0	0.0	0.0	0.0	0.0	0.0
970	NW_000de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



input: rgb/cmyk -> rgbde
output: 3D-linearization to cmy0*de

TUB-test chart QE38: hue code: H*=Y00Ge
colors and differences, ΔE*

I-1133031-F0

QE380-7N; Page 31/33-F

mean color difference of this page:

delta

TUB registration: 20130201-QE38/QE38L0FP.PDF /.PS TUB material: code=rha4ta
application for measurement of offset print output, separation cmy0* (CMY0)

see similar files: <http://130.149.60.45/~farbmetrik/QE38/QE38.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB-test chart QE38; hue code: H*_e=Y00Ge
colors and differences, ΔE^{*} *

input: *rgb/cmyk* -> *rgbde*
output: 3D-linearization to *cmy0*de*

n	HVC*Fide	rgb_Fide	lcr_Fide	hsa_Fide	rgb*Fide	LabCH*Fide	0	cmyn*sep_Fide	0.099	0.0	hsvM.de	rgb*Mde	LabCH*Mde	0.0	0.0
1053	NW_086de	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	86.6 86.6 86.6	0.0	0.173	0.108	0.099	0.0	1.0	1.0	95.6	0.0
1054	NW_093de	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	90.8 90.8 90.8	0.0	0.09	0.054	0.05	0.0	1.0	1.0	95.6	0.0
1055	NW_100de	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.6 95.6 95.6	0.0	1.0	1.0	1.0	0.0	1.0	1.0	95.6	0.0
1056	NW_000de	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	24.3 24.3 24.3	0.0	0.935	0.855	0.825	0.0	1.0	1.0	95.6	0.0
1057	NW_003de	0.066 0.066 0.066	0.066 0.066 0.066	0.066 0.066 0.066	0.066 0.066 0.066	29.0 29.0 29.0	0.0	0.879	0.763	0.725	0.0	1.0	1.0	95.6	0.0
1058	NW_013de	0.133 0.133 0.133	0.133 0.133 0.133	0.133 0.133 0.133	0.133 0.133 0.133	33.8 33.8 33.8	0.0	0.799	0.661	0.614	0.0	1.0	1.0	95.6	0.0
1059	NW_026de	0.2 0.2 0.2	0.2 0.2 0.2	0.2 0.2 0.2	0.2 0.2 0.2	38.6 38.6 38.6	0.0	0.731	0.571	0.537	0.0	1.0	1.0	95.6	0.0
1060	NW_026de	0.266 0.266 0.266	0.266 0.266 0.266	0.266 0.266 0.266	0.266 0.266 0.266	43.3 43.3 43.3	0.0	0.682	0.507	0.485	0.0	1.0	1.0	95.6	0.0
1061	NW_033de	0.333 0.333 0.333	0.333 0.333 0.333	0.333 0.333 0.333	0.333 0.333 0.333	48.1 48.1 48.1	0.0	0.636	0.454	0.433	0.0	1.0	1.0	95.6	0.0
1062	NW_040de	0.4 0.4 0.4	0.4 0.4 0.4	0.4 0.4 0.4	0.4 0.4 0.4	52.8 52.8 52.8	0.0	0.574	0.404	0.381	0.0	1.0	1.0	95.6	0.0
1063	NW_046de	0.466 0.466 0.466	0.466 0.466 0.466	0.466 0.466 0.466	0.466 0.466 0.466	57.5 57.5 57.5	0.0	0.509	0.354	0.33	0.0	1.0	1.0	95.6	0.0
1064	NW_053de	0.533 0.533 0.533	0.533 0.533 0.533	0.533 0.533 0.533	0.533 0.533 0.533	62.3 62.3 62.3	0.0	0.442	0.285	0.278	0.0	1.0	1.0	95.6	0.0
1065	NW_060de	0.6 0.6 0.6	0.6 0.6 0.6	0.6 0.6 0.6	0.6 0.6 0.6	67.1 67.1 67.1	0.0	0.377	0.228	0.228	0.0	1.0	1.0	95.6	0.0
1066	NW_066de	0.666 0.666 0.666	0.666 0.666 0.666	0.666 0.666 0.666	0.666 0.666 0.666	71.8 71.8 71.8	0.0	0.314	0.191	0.186	0.0	1.0	1.0	95.6	0.0
1067	NW_073de	0.734 0.734 0.734	0.734 0.734 0.734	0.734 0.734 0.734	0.734 0.734 0.734	76.6 76.6 76.6	0.0	0.252	0.153	0.146	0.0	1.0	1.0	95.6	0.0
1068	NW_080de	0.8 0.8 0.8	0.8 0.8 0.8	0.8 0.8 0.8	0.8 0.8 0.8	81.3 81.3 81.3	0.0	0.173	0.108	0.099	0.0	1.0	1.0	95.6	0.0
1069	NW_086de	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	86.0 86.0 86.0	0.0	0.09	0.054	0.05	0.0	1.0	1.0	95.6	0.0
1070	NW_093de	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	90.8 90.8 90.8	0.0	1.0	1.0	1.0	0.0	1.0	1.0	95.6	0.0
1071	NW_100de	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.6 95.6 95.6	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1072	NW_000de	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	24.3 24.3 24.3	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1073	ROY_100_100de	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.6 95.6 95.6	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1074	G50E_100_100de	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	45.6 45.6 45.6	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1075	Y00G_100_100de	0.0 1.0 1.0	0.0 1.0 1.0	0.0 1.0 1.0	0.0 1.0 1.0	55.0 55.0 55.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1076	Y00G_100_100de	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.6 95.6 95.6	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1077	B00R_100_100de	0.0 0.0 1.0	0.0 0.0 1.0	0.0 0.0 1.0	0.0 0.0 1.0	40.2 40.2 40.2	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1078	B00R_100_100de	0.0 1.0 1.0	0.0 1.0 1.0	0.0 1.0 1.0	0.0 1.0 1.0	50.6 50.6 50.6	0.0	0.0	0.0	0.0	0.0	1.0	1.0	95.6	0.0
1079	B50R_100_100de	1.0 0.0 1.0	1.0 0.0 1.0	1.0 0.0 1.0	1.0 0.0 1.0	31.1 31.1 31.1	0.0	0.677	0.999	0.0	0.0	0.321	0.0	31.1	0.0

Mean color difference of this page:

delta

