

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 46/360 = 0.12$

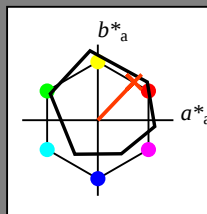
Data for any device (d) or elementary (e) colour:

HIC^*_-

hue text for the colours
of this page:

$H^*_- = R25Y_-$

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: 56 48 50 69 46

HIC^*_- ,Ma: R25Y_100_100_

$rgbic^*_-$,Ma:

1.0 0.23 0.0 1.0 1.0

triangle lightness T^*

% Gamut

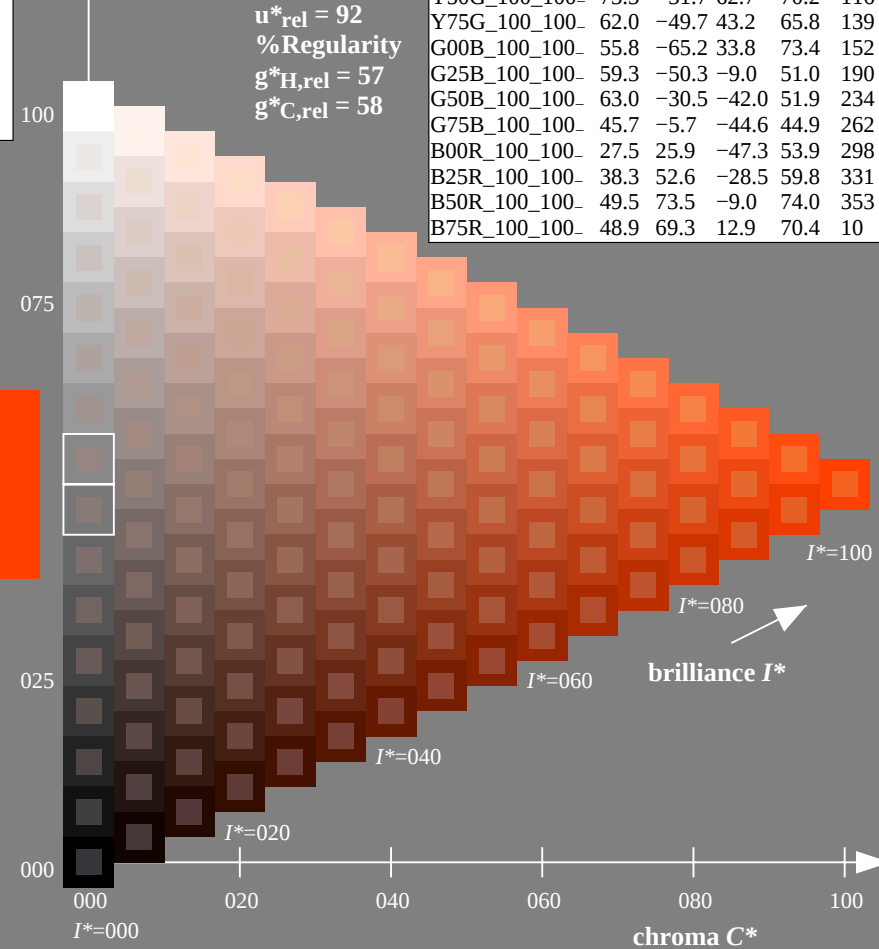
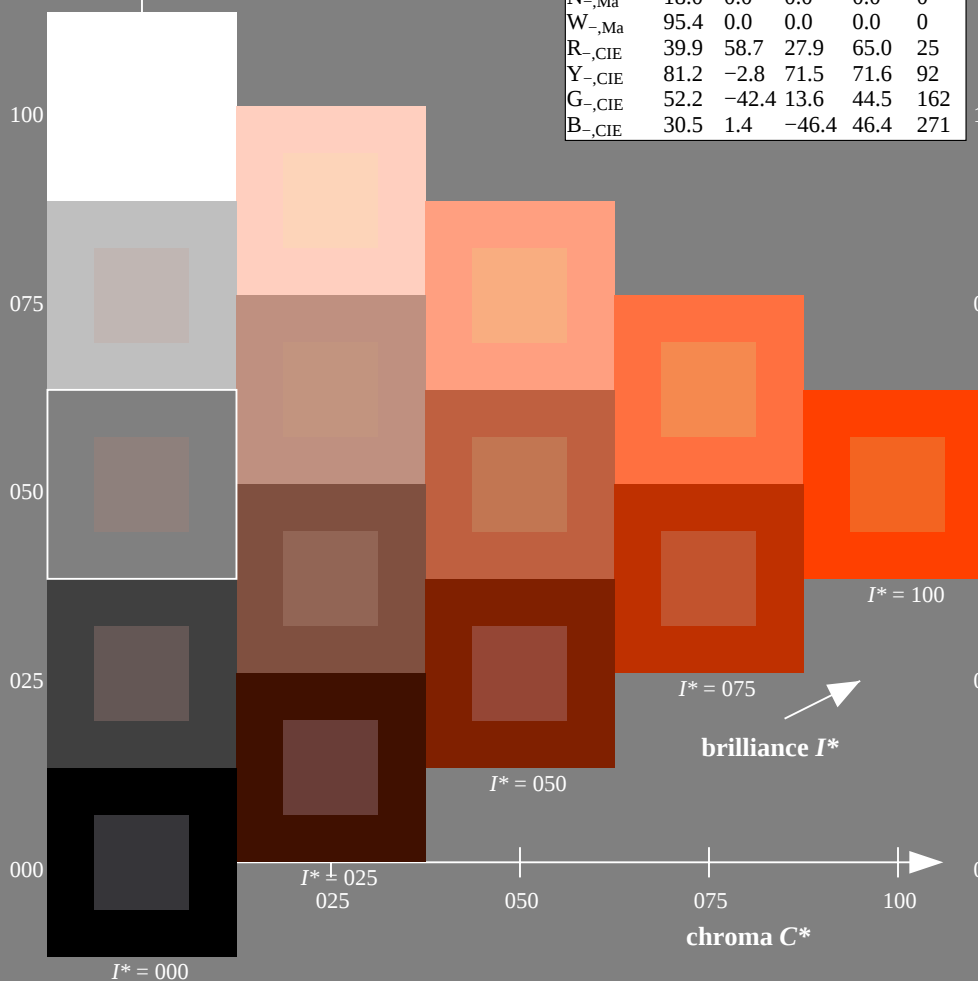
$u^*_{rel} = 92$

% 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 QE04; hue code: $H^*_- = R25Y_-$
Test chart according to DIN 33872, 3D=1, de=0, $cm\dot{y}k^*$

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

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 48/360 = 0.13$

$H^*_d = R25Y_d$

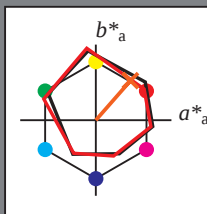
Data for any device (d) or elementary (e) colour:

HIC^*_d

hue text for the colours of this page:

$H^*_d = R25Y_d$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data					
name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R_{d,Ma}$	47.3	63.8	41.2	76.0	32
$Y_{d,Ma}$	88.3	-11.9	95.1	95.8	97
$G_{d,Ma}$	51.9	-68.8	28.1	74.3	157
$C_{d,Ma}$	58.3	-29.2	-43.7	52.6	236
$B_{d,Ma}$	25.3	23.5	-47.3	52.8	296
$M_{d,Ma}$	48.2	72.8	-8.5	73.3	353
$N_{d,Ma}$	17.7	0.0	0.0	0.0	0
$W_{d,Ma}$	95.4	0.0	0.0	0.0	0
$R_{d,CIE}$	39.9	58.7	27.9	65.0	25
$Y_{d,CIE}$	81.2	-2.8	71.5	71.6	92
$G_{d,CIE}$	52.2	-42.4	13.6	44.5	162
$B_{d,CIE}$	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{d,Ma}$: 55 45 52 69 48

$HIC^*_{d,Ma}$: R25Y_100_100d

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

1.0 0.23 0.0 1.0 1.0

triangle lightness T^*

% Gamut

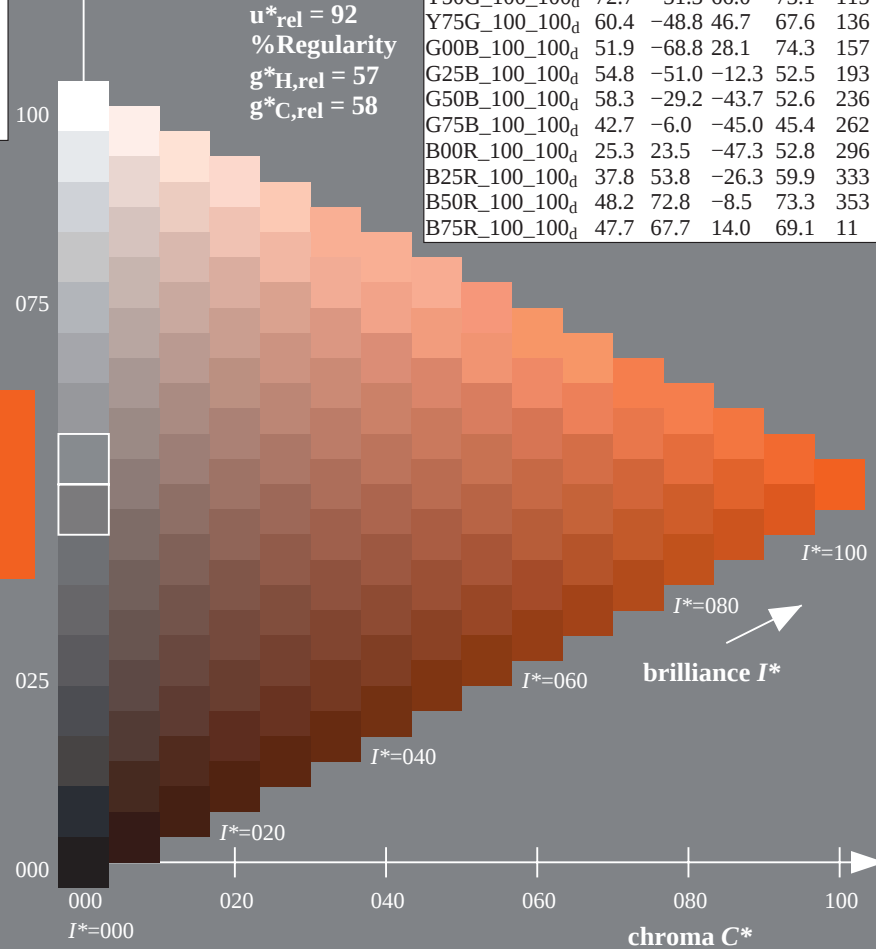
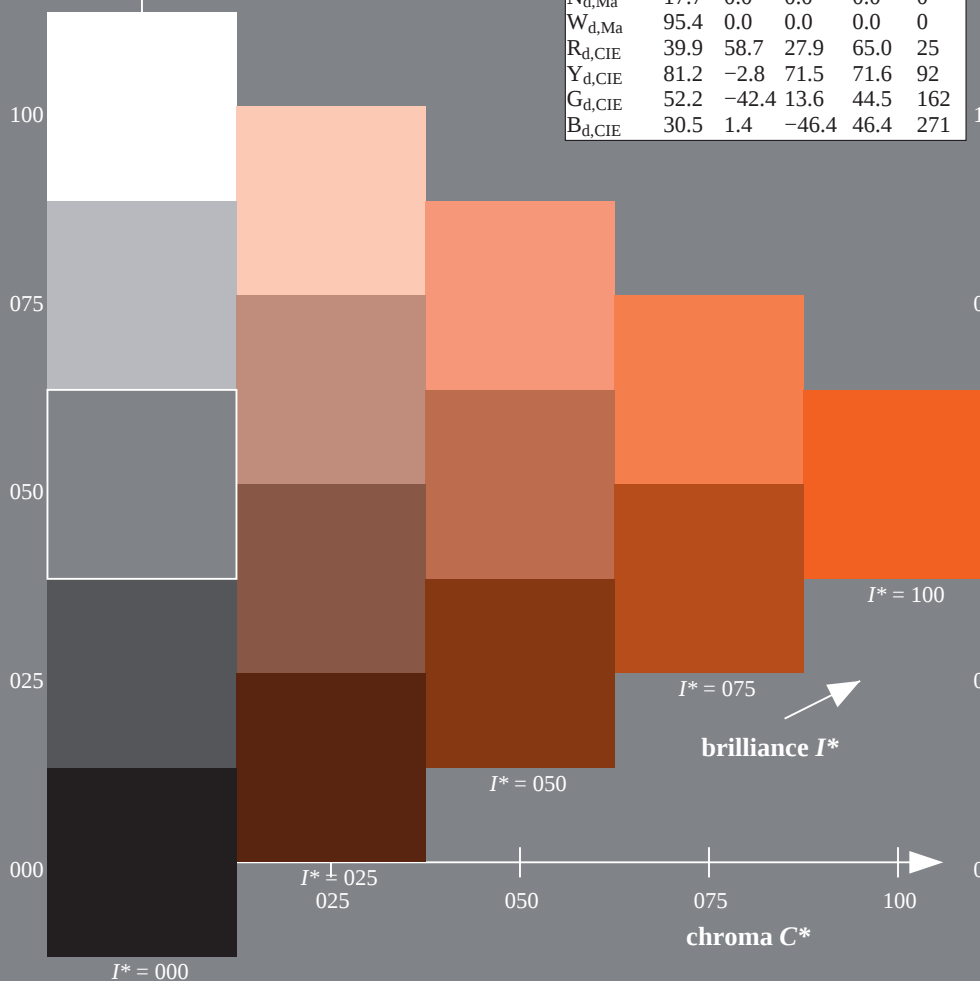
$u^*_{rel} = 92$

% Regularity

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

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

ORS20a; adapted (a) CIELAB data					
H^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_{100_100d}$	47.3	63.8	41.2	76.0	32
$R25Y_{100_100d}$	55.3	45.8	52.2	69.5	48
$R50Y_{100_100d}$	67.2	22.6	67.6	71.2	71
$R75Y_{100_100d}$	79.9	1.0	83.9	83.9	89
$Y00G_{100_100d}$	88.3	-11.9	95.1	95.8	97
$Y25G_{100_100d}$	83.3	-19.2	83.7	85.9	102
$Y50G_{100_100d}$	72.7	-31.3	66.0	73.1	115
$Y75G_{100_100d}$	60.4	-48.8	46.7	67.6	136
$G00B_{100_100d}$	51.9	-68.8	28.1	74.3	157
$G25B_{100_100d}$	54.8	-51.0	-12.3	52.5	193
$G50B_{100_100d}$	58.3	-29.2	-43.7	52.6	236
$G75B_{100_100d}$	42.7	-6.0	-45.0	45.4	262
$B00R_{100_100d}$	25.3	23.5	-47.3	52.8	296
$B25R_{100_100d}$	37.8	53.8	-26.3	59.9	333
$B50R_{100_100d}$	48.2	72.8	-8.5	73.3	353
$B75R_{100_100d}$	47.7	67.7	14.0	69.1	11

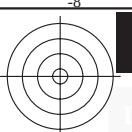


TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
Test chart according to DIN 33872, 3D=1, de=0, $cmYK^*$

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

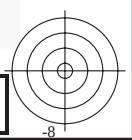
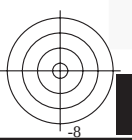
TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation $cmYK^*$ (CMYK)

TUB material: code=rha4ta



see similar files: <http://130.149.60.45/~farbmetrik/QE04/QE04L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS TUB material: code=rha4ta
application for measurement of offset print output, separation cmyk6* (CMYK)

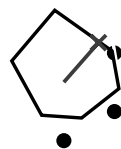


1-103230-L0 QE040-72

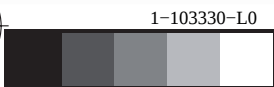
TUB-test chart QE04; hue code: $H^*_d = R25Y_d$
Test chart according to DIN 33872, 3D=1, de=0, cmyk*

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

1-103230-F0

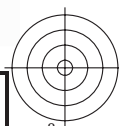


see similar files: <http://130.149.60.45/~farbmetrik/QE04/QE04L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

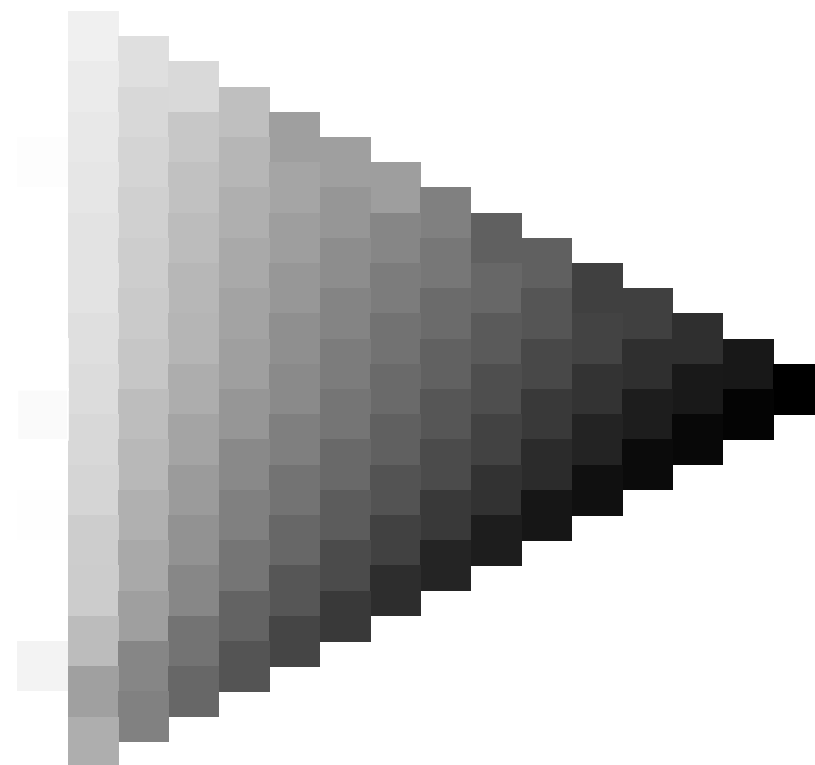
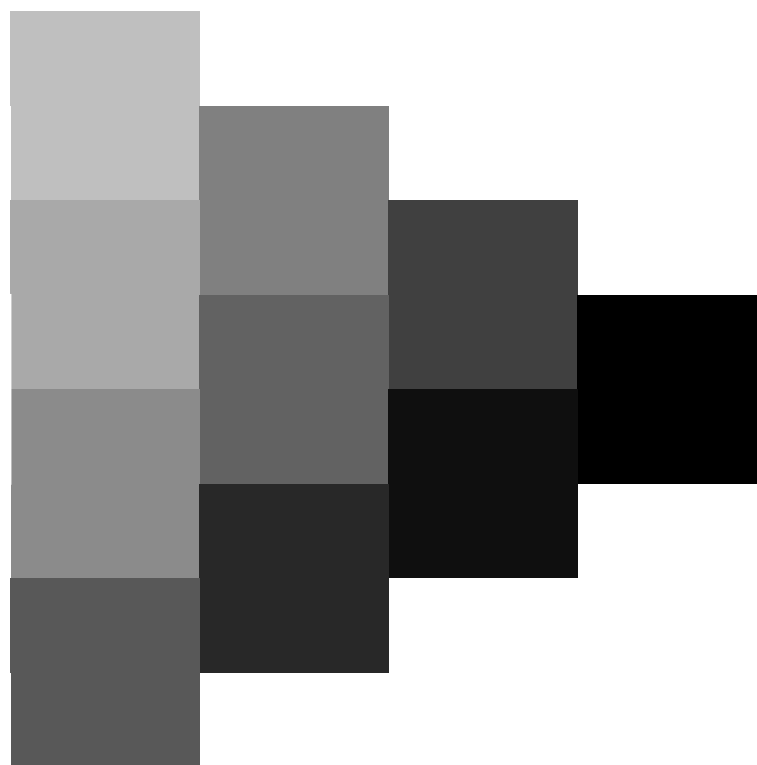
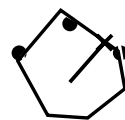


1-103330-L0 QE040-72

1-103330-F0



see similar files: <http://130.149.60.45/~farbmetrik/QE04/QE04L0FP.PDF>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>



Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 48/360 = 0.13$

$H^*_d = R25Y_d$

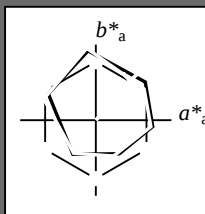
Data for any device (d) or elementary (e) colour:

HIC^*_d

hue text for the colours of this page:

$H^*_d = R25Y_d$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R_{d,Ma}$	47.3	63.8	41.2	76.0	32
$Y_{d,Ma}$	88.3	-11.9	95.1	95.8	97
$G_{d,Ma}$	51.9	-68.8	28.1	74.3	157
$C_{d,Ma}$	58.3	-29.2	-43.7	52.6	236
$B_{d,Ma}$	25.3	23.5	-47.3	52.8	296
$M_{d,Ma}$	48.2	72.8	-8.5	73.3	353
$N_{d,Ma}$	17.7	0.0	0.0	0.0	0
$W_{d,Ma}$	95.4	0.0	0.0	0.0	0
$R_{d,CIE}$	39.9	58.7	27.9	65.0	25
$Y_{d,CIE}$	81.2	-2.8	71.5	71.6	92
$G_{d,CIE}$	52.2	-42.4	13.6	44.5	162
$B_{d,CIE}$	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{d,Ma}$: 55 45 52 69 48

$HIC^*_{d,Ma}$: R25Y_100_100d

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

1.0 0.23 0.0 1.0 1.0

triangle lightness T^*

% Gamut

$u^*_{rel} = 92$

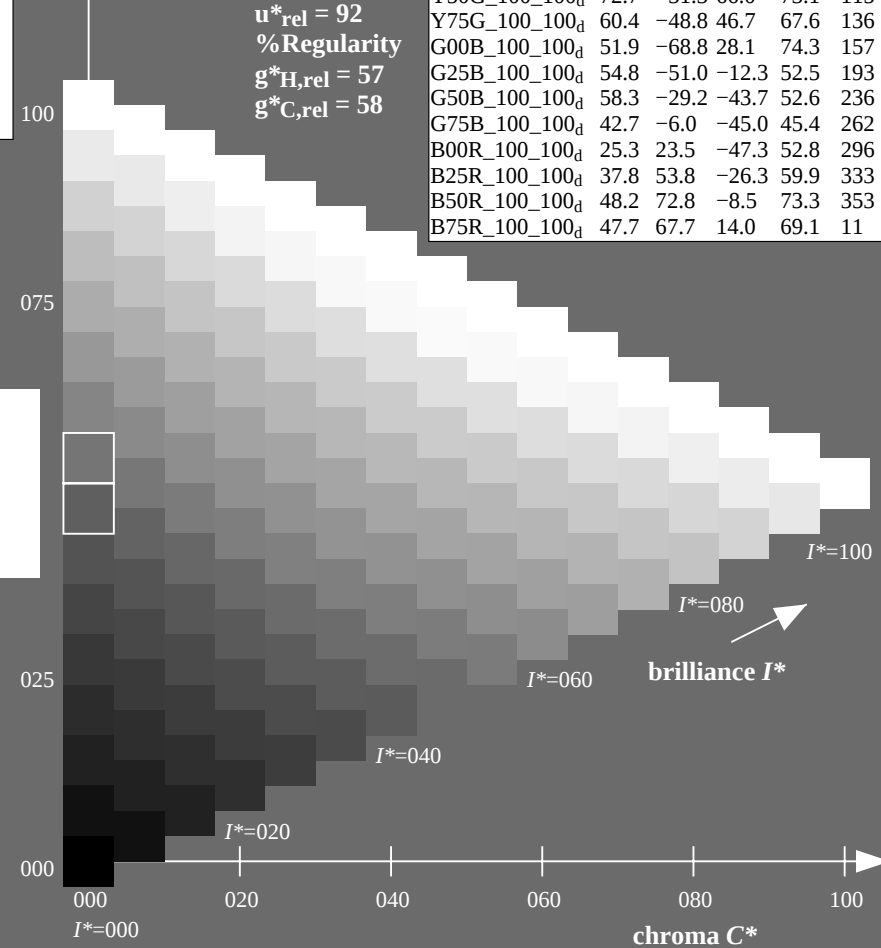
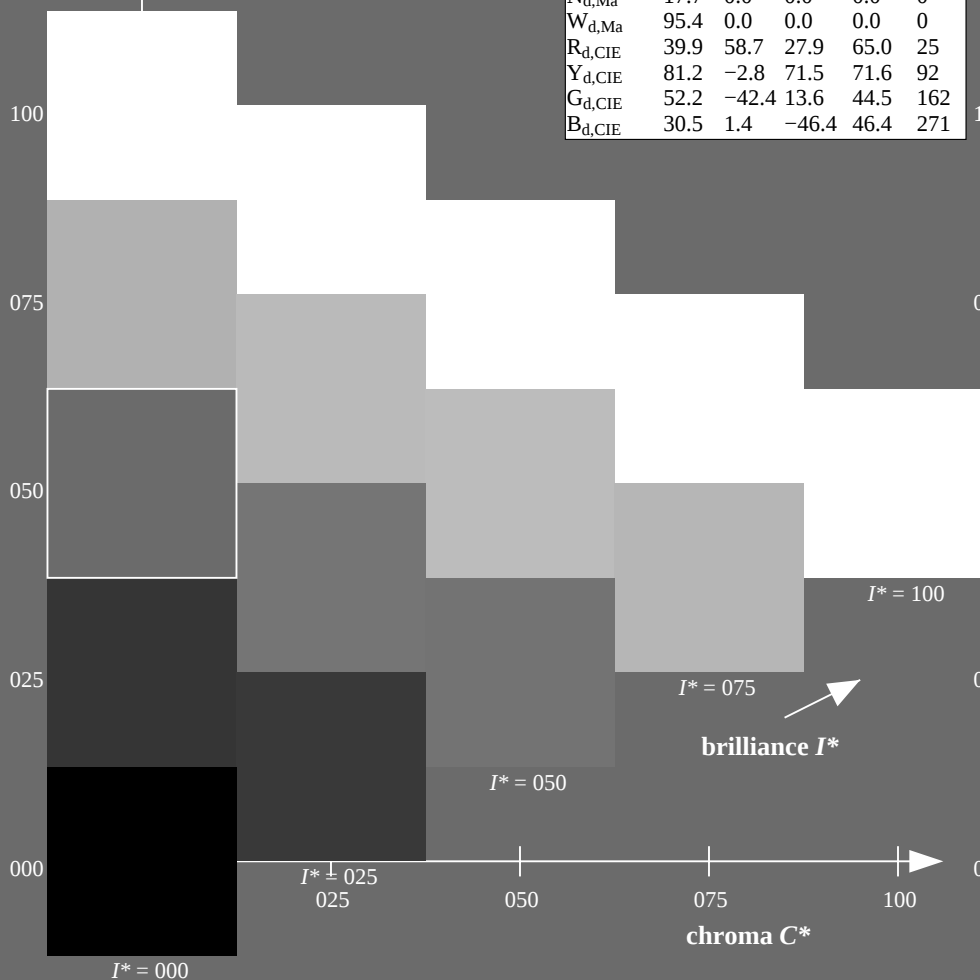
% Regularity

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

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

ORS20a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_100_100_d$	47.3	63.8	41.2	76.0	32
$R25Y_100_100_d$	55.3	45.8	52.2	69.5	48
$R50Y_100_100_d$	67.2	22.6	67.6	71.2	71
$R75Y_100_100_d$	79.9	1.0	83.9	83.9	89
$Y00G_100_100_d$	88.3	-11.9	95.1	95.8	97
$Y25G_100_100_d$	83.3	-19.2	83.7	85.9	102
$Y50G_100_100_d$	72.7	-31.3	66.0	73.1	115
$Y75G_100_100_d$	60.4	-48.8	46.7	67.6	136
$G00B_100_100_d$	51.9	-68.8	28.1	74.3	157
$G25B_100_100_d$	54.8	-51.0	-12.3	52.5	193
$G50B_100_100_d$	58.3	-29.2	-43.7	52.6	236
$G75B_100_100_d$	42.7	-6.0	-45.0	45.4	262
$B00R_100_100_d$	25.3	23.5	-47.3	52.8	296
$B25R_100_100_d$	37.8	53.8	-26.3	59.9	333
$B50R_100_100_d$	48.2	72.8	-8.5	73.3	353
$B75R_100_100_d$	47.7	67.7	14.0	69.1	11



TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
Test chart according to DIN 33872, 3D=1, de=0, $cm\dot{y}k^*$

input: $rgb/cmyk \rightarrow rgb_{dd}$
output: 3D-linearization to $cm\dot{y}k^*_{dd}$

Data of Maximum color M in colorimetric system Offset standard print; separation cmy6*, 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 $RYGCBM_d$: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; 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

$LCH^*_d = 88.3 \ 95.8 \ 97.1$
 $LAB^*_d = 88.3 \ -11.9 \ 95.1$
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

$L=G_d$ leaf-green

$LCH^*_d = 51.9 \ 74.3 \ 157.7$
 $LAB^*_d = 51.9 \ -68.8 \ 28.1$
 $rgb^*_d = 0.0 \ 1.0 \ 0.0$

$C=C_d$ cyan-blue

$LCH^*_d = 58.3 \ 52.6 \ 236.1$
 $LAB^*_d = 58.3 \ -29.2 \ -43.7$
 $rgb^*_d = 0.0 \ 1.0 \ 1.0$

$O=R_d$ orange-red

$LCH^*_d = 47.3 \ 76.0 \ 32.8$
 $LAB^*_d = 47.3 \ 63.8 \ 41.2$
 $rgb^*_d = 1.0 \ 0.0 \ 0.0$

$M=M_d$ magenta-red

$LCH^*_d = 48.2 \ 73.3 \ 353.3$
 $LAB^*_d = 48.2 \ 72.8 \ -8.5$
 $rgb^*_d = 1.0 \ 0.0 \ 1.0$

$V=B_d$ violet-blue

$LCH^*_d = 25.3 \ 52.8 \ 296.4$
 $LAB^*_d = 25.3 \ 23.5 \ -47.3$
 $rgb^*_d = 0.0 \ 0.0 \ 1.0$

Y_e yellow elementary CIELAB (a^*_e, b^*_e) chroma diagram

$LCH^*_e = 82.9 \ 87.9 \ 92.3$
 $LAB^*_e = 82.9 \ -3.5 \ 87.8$
 $rgb^*_{de} = 1.0 \ 0.841 \ 0.0$

G_e green

$LCH^*_e = 52.4 \ 70.5 \ 162.2$
 $LAB^*_e = 52.4 \ -67.1 \ 21.5$
 $rgb^*_{de} = 0.0 \ 1.0 \ 0.093$

C_e blue-green

$LCH^*_e = 56.6 \ 49.8 \ 216.9$
 $LAB^*_e = 56.6 \ -39.7 \ -29.9$
 $rgb^*_{de} = 0.0 \ 1.0 \ 0.735$

B_e blue

$LCH^*_e = 37.9 \ 45.4 \ 271.7$
 $LAB^*_e = 37.9 \ 1.3 \ -45.4$
 $rgb^*_{de} = 0.0 \ 0.374 \ 1.0$

R_e red

$LCH^*_e = 47.6 \ 71.9 \ 25.4$
 $LAB^*_e = 47.6 \ 64.9 \ 30.9$
 $rgb^*_{de} = 1.0 \ 0.0 \ 0.209$

M_e blue-red

$LCH^*_e = 34.8 \ 57.7 \ 328.6$
 $LAB^*_e = 34.8 \ 49.2 \ -30.0$
 $rgb^*_{de} = 0.407 \ 0.0 \ 1.0$

Y_s yellow standard CIELAB (a^*_s, b^*_s) chroma diagram

$LCH^*_s = 80.6 \ 84.9 \ 90.0$
 $LAB^*_s = 80.6 \ 0.0 \ 84.9$
 $rgb^*_{ds} = 1.0 \ 0.784 \ 0.0$

G_s green

$LCH^*_s = 55.1 \ 70.1 \ 150.0$
 $LAB^*_s = 55.1 \ -60.7 \ 35.0$
 $rgb^*_{ds} = 0.074 \ 1.0 \ 0.0$

R_s red

$LCH^*_s = 47.4 \ 74.2 \ 30.0$
 $LAB^*_s = 47.4 \ 64.3 \ 37.1$
 $rgb^*_{ds} = 1.0 \ 0.0 \ 0.084$

C_s blue-green

$LCH^*_s = 56.1 \ 50.0 \ 210.0$
 $LAB^*_s = 56.1 \ -43.3 \ -25.0$
 $rgb^*_{ds} = 0.0 \ 1.0 \ 0.665$

M_s blue-red

$LCH^*_s = 35.6 \ 58.3 \ 330.0$
 $LAB^*_s = 35.6 \ 50.5 \ -29.1$
 $rgb^*_{ds} = 0.431 \ 0.0 \ 1.0$

B_s blue

$LCH^*_s = 38.8 \ 45.4 \ 270.0$
 $LAB^*_s = 38.8 \ 0.0 \ -45.4$
 $rgb^*_{ds} = 0.0 \ 0.397 \ 1.0$

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

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

2. For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^*_e 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 : $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) 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 : $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) 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^*_e produce the output of the device-independent elementary hues

1-103630-L0 QE040-72 LAB*La0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
48 step hue circles; $rgb-LabCh^*$ -tables

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

Output: Offset standard print; separation cmy6*, D65, page 7/33

Data of Maximum color M in colorimetric system Offset standard print; separation cmycn6*, 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: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; Six hue angles of the elementary colours RYGBM_e: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Six hue angles of the device colours <i>RYGBCM</i> _d : $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; Six hue angles of the elementary colours <i>RYGBCM</i> _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^*	$ddx361M$	LAB^*	$ddx361M$ (x=LabCh)	rgb^*	$dsx361M$	LAB^*	$dsx361M$ (x=LabCh)	rgb^*	$dex361M$	LAB^*	$dex361M$
32.8	30.0	25.4	1.0	0.0	0.0	47.3 63.8 41.2 76.0 32.8	1.0	0.0	0.0	47.4 63.9 41.2 76.0 32	1.0	0.0	0.084 47.4 64.3 37.1 74.3 30	1.0	0.0	0.209 47.6 64.9 30.9 71.9 25		
40.4	37.5	33.8	1.0	0.125	0.0	51.2 54.9 46.7 72.1 40.4	1.0	0.117	0.0	51.0 55.5 46.5 72.4 39	1.0	0.069	0.0	49.5 59.0 44.5 73.9 37	1.0	0.007	0.0	47.6 63.4 41.6 75.8 33
50.0	45.0	42.1	1.0	0.25	0.0	56.0 44.4 53.0 69.1 50.0	1.0	0.25	0.0	56.0 44.4 53.0 69.2 50	1.0	0.185	0.0	53.5 50.0 50.0 70.7 45	1.0	0.148	0.0	52.1 53.0 48.1 71.6 42
61.1	52.5	50.5	1.0	0.375	0.0	61.4 33.2 60.3 68.8 61.1	1.0	0.367	0.0	61.1 34.0 59.9 68.9 60	1.0	0.272	0.0	57.0 42.6 54.5 69.1 52	1.0	0.25	0.0	56.0 44.5 53.0 69.2 49
71.4	60.0	58.8	1.0	0.5	0.0	67.2 22.6 67.6 71.2 71.4	1.0	0.5	0.0	67.2 22.6 67.6 71.3 71	1.0	0.362	0.0	60.9 34.5 59.7 68.9 60	1.0	0.35	0.0	60.3 35.6 59.0 69.0 58
81.7	67.5	67.2	1.0	0.625	0.0	73.6 11.0 76.1 76.9 81.7	1.0	0.617	0.0	73.2 11.9 75.7 76.6 81	1.0	0.446	0.0	64.7 27.4 64.7 70.3 67	1.0	0.442	0.0	64.5 27.8 64.5 70.2 66
88.5	75.0	75.6	1.0	0.75	0.0	79.2 2.0 83.0 83.1 88.5	1.0	0.75	0.0	79.3 2.0 83.1 83.1 88	1.0	0.543	0.0	69.4 19.0 70.7 73.2 75	1.0	0.55	0.0	69.8 18.3 71.3 73.6 75
93.6	82.5	83.9	1.0	0.875	0.0	84.2 -5.7 89.4 89.6 93.6	1.0	0.867	0.0	84.0 -5.1 89.1 89.2 93	1.0	0.629	0.0	73.8 10.7 76.5 77.2 82	1.0	0.655	0.0	75.0 9.0 77.9 78.5 83
97.1	90.0	92.3	1.0	1.0	0.0	88.3 -11.9 95.1 95.8 97.1	1.0	1.0	0.0	88.4 -11.9 95.1 95.9 97	1.0	0.785	0.0	80.7 0.0 84.9 84.9 90	1.0	0.842	0.0	83.0 -3.4 87.8 87.9 92
100.3	97.5	101.0	0.875	1.0	0.0	85.8 -16.2 88.6 90.0 100.3	0.883	1.0	0.0	86.0 -15.9 89.0 90.5 100	1.0	0.994	0.0	88.2 -11.5 94.8 95.6 97	0.871	1.0	0.0	85.8 -16.2 88.4 89.9 100
103.3	105.0	109.7	0.75	1.0	0.0	82.9 -19.7 83.0 85.3 103.3	0.75	1.0	0.0	83.0 -19.6 83.0 85.3 103	0.709	1.0	0.0	81.0 -21.6 80.9 83.7 105	0.599	1.0	0.0	76.2 -26.6 74.3 78.9 109
108.3	112.5	118.5	0.625	1.0	0.0	77.0 -25.2 76.3 80.4 108.3	0.633	1.0	0.0	77.5 -24.8 76.8 80.8 107	0.56	1.0	0.0	74.9 -28.6 71.1 76.6 112	0.455	1.0	0.0	71.4 -33.4 63.2 71.6 117
115.3	120.0	127.2	0.5	1.0	0.0	72.7 -31.3 66.0 73.1 115.3	0.5	1.0	0.0	72.8 -31.3 66.1 73.1 115	0.418	1.0	0.0	70.3 -35.1 60.9 70.3 120	0.327	1.0	0.0	65.8 -41.3 54.4 68.4 127
122.4	127.5	136.0	0.375	1.0	0.0	68.9 -36.9 58.1 68.8 122.4	0.383	1.0	0.0	69.2 -36.5 58.6 69.1 121	0.329	1.0	0.0	66.0 -41.1 54.6 68.4 127	0.244	1.0	0.0	60.7 -48.1 47.5 67.6 135
134.9	135.0	144.7	0.25	1.0	0.0	60.8 -47.8 47.8 67.6 134.9	0.25	1.0	0.0	60.9 -47.7 47.9 67.7 134	0.249	1.0	0.0	60.9 -47.7 47.8 67.7 135	0.124	1.0	0.0	57.4 -54.9 38.9 67.4 144
144.6	142.5	153.4	0.125	1.0	0.0	57.4 -54.9 38.9 67.3 144.6	0.133	1.0	0.0	57.6 -54.4 39.6 67.4 144	0.159	1.0	0.0	58.4 -53.0 41.5 67.4 142	0.047	1.0	0.0	54.0 -63.8 32.7 71.7 152
157.7	150.0	162.2	0.0	1.0	0.0	51.9 -68.8 28.1 74.3 157.7	0.0	1.0	0.0	52.0 -68.8 28.1 74.4 157	0.074	1.0	0.0	55.2 -60.7 35.1 70.2 150	0.0	1.0	0.093	52.4 -67.0 21.5 70.5 162
163.7	157.5	169.0	0.0	1.0	0.125	52.5 -66.4 19.3 69.1 163.7	0.0	1.0	0.117	52.5 -66.5 19.9 69.5 163	0.008	1.0	0.0	52.3 -68.0 28.9 73.9 157	0.0	1.0	0.209	53.1 -63.5 12.8 64.9 168
170.9	165.0	175.9	0.0	1.0	0.25	53.2 -61.9 9.8 62.7 170.9	0.0	1.0	0.25	53.3 -61.9 9.8 62.8 170	0.0	1.0	0.147	52.7 -65.7 17.6 68.1 165	0.0	1.0	0.311	53.7 -59.7 4.3 59.9 175
181.0	172.5	182.7	0.0	1.0	0.375	54.1 -56.9 -1.0 56.9 181.0	0.0	1.0	0.367	54.0 -57.3 -0.3 57.4 180	0.0	1.0	0.263	53.4 -61.5 8.7 62.2 172	0.0	1.0	0.387	54.2 -56.4 -2.2 56.5 182
193.5	180.0	189.6	0.0	1.0	0.5	54.8 -51.0 -12.3 52.5 193.5	0.0	1.0	0.5	54.8 -51.0 -12.2 52.6 193	0.0	1.0	0.362	54.0 -57.5 0.0 57.6 180	0.0	1.0	0.46	54.6 -53.1 -8.9 54.0 189
205.9	187.5	196.4	0.0	1.0	0.625	55.8 -45.1 -21.9 50.1 205.9	0.0	1.0	0.617	55.8 -45.5 -21.3 50.3 205	0.0	1.0	0.434	54.5 -54.4 -6.6 54.9 187	0.0	1.0	0.524	55.0 -50.0 -14.3 52.1 195
218.4	195.0	203.2	0.0	1.0	0.75	56.7 -38.9 -30.9 49.7 218.4	0.0	1.0	0.75	56.8 -38.9 -30.8 49.8 218	0.0	1.0	0.514	55.0 -50.4 -13.4 52.3 195	0.0	1.0	0.598	55.6 -46.5 -19.9 50.7 203
227.3	202.5	210.1	0.0	1.0	0.875	57.5 -34.3 -37.2 50.6 227.3	0.0	1.0	0.867	57.5 -34.6 -36.8 50.6 226	0.0	1.0	0.585	55.5 -47.1 -19.0 50.9 202	0.0	1.0	0.662	56.1 -43.4 -24.7 50.1 209
236.1	210.0	216.9	0.0	1.0	1.0	58.3 -29.2 -43.7 52.6 236.1	0.0	1.0	1.0	58.3 -29.2 -43.6 52.6 236	0.0	1.0	0.666	56.1 -43.2 -24.9 50.0 210	0.0	1.0	0.736	56.7 -39.7 -29.9 49.8 216
240.3	217.5	223.8	0.0	0.875	1.0	55.2 -25.0 -43.9 50.5 240.3	0.0	0.883	1.0	55.5 -25.2 -43.8 50.7 240	0.0	1.0	0.736	56.7 -39.7 -29.9 49.8 217	0.0	1.0	0.819	57.2 -36.4 -34.4 50.3 223
245.8	225.0	230.6	0.0	0.75	1.0	51.7 -19.7 -44.1 48.3 245.8	0.0	0.75	1.0	51.8 -19.7 -44.1 48.4 245	0.0	1.0	0.842	57.4 -35.6 -35.6 50.4 225	0.0	1.0	0.922	57.9 -32.5 -39.7 51.4 230
252.5	232.5	237.5	0.0	0.625	1.0	47.7 -13.9 -44.4 46.5 252.5	0.0	0.633	1.0	48.0 -14.2 -44.3 46.7 252	0.0	1.0	0.941	58.0 -31.7 -40.7 51.7 232	0.0	0.974	1.0	57.7 -28.3 -43.7 52.2 237
262.3	240.0	244.3	0.0	0.5	1.0	42.7 -6.0 -45.0 45.4 262.3	0.0	0.5	1.0	42.8 -5.9 -44.9 45.4 262	0.0	0.886	1.0	55.5 -25.3 -43.8 50.7 240	0.0	0.785	1.0	52.7 -21.1 -44.1 49.0 244
271.7	247.5	251.2	0.0	0.375	1.0	37.9 1.3 -45.4 45.4 271.7	0.0	0.383	1.0	38.3 0.9 -45.3 45.4 271	0.0	0.729	1.0	51.1 -18.7 -44.2 48.1 247	0.0	0.659	1.0	48.9 -15.4 -44.3 47.1 250
281.6	255.0	258.0	0.0	0.25	1.0	33.3 9.4 -46.0 47.0 281.6	0.0	0.25	1.0	33.3 9.5 -45.9 47.0 281	0.0	0.594	1.0	46.5 -11.9 -44.6 46.3 255	0.0	0.555	1.0	45.0 -9.4 -44.8 45.9 258
290.3	262.5	264.8	0.0	0.125	1.0	28.6 17.4 -46.9 50.1 290.3	0.0	0.133	1.0	28.9 16.9 -46.9 49.9 289	0.0	0.505	1.0	43.0 -6.2 -44.9 45.5 262	0.0	0.472	1.0	41.7 -4.3 -45.1 45.4 264
296.4	270.0	271.7	0.0	0.0	1.0	25.3 23.5 -47.3 52.8 296.4	0.0	0.0	1.0	25.3 23.5 -47.3 52.9 296	0.0	0.398	1.0	38.8 0.0 -45.3 45.4 270	0.0	0.375	1.0	37.9 1.4 -45.3 45.5 271
306.7	277.5	278.8	0.125	0.0	1.0	29.3 31.8 -42.6 53.1 306.7	0.117	0.0	1.0	29.1 31.3 -42.9 53.1 306	0.0	0.309	1.0	35.5 5.6 -45.8 46.3 277	0.0	0.291	1.0	34.9 6.8 -45.9 46.5 278
312.7	285.0	285.9	0.25	0.0	1.0	31.5 36.2 -39.2 53.4 312.7	0.25	0.0	1.0	31.6 36.3 -39.1 53.4 312	0.0	0.202	1.0	31.5 12.5 -46.5 48.2 285	0.0	0.188	1.0	31.0 13.3 -46.6 48.5 285
326.7	292.5	293.0	0.375	0.0	1.0	33.8 47.6 -31.2 56.9 326.7	0.367	0.0	1.0	33.7 46.9 -31.8 56.7 325	0.0	0.091	1.0	27.7 19.1 -47.1 50.9 292	0.0	0.079	1.0	27.4 19.6 -47.1 51.1 292
333.9	300.0	300.1	0.5	0.0	1.0	37.8 53.8 -26.3 59.9 333.9	0.5	0.0	1.0	37.9 53.8 -26.3 59.9 333	0.043	0.0	1.0	26.7 26.5 -45.8 53.0 300	0.046	0.0	1.0	26.8 26.6 -45.7 53.0 300
339.6	307.5	307.2	0.625	0.0	1.0	40.9 58.8 -21.8 62.7 339.6	0.617	0.0	1.0	40.8 58.5 -22.1 62.6 339	0.13	0.0	1.0	29.4 32.0 -42.4 53.2 307	0.126	0.0	1.0	29.4 31.9 -42.5 53.2 307
347.2	315.0	314.3	0.75	0.0	1.0	43.1 65.9 -14.9 67.6 347.2	0.75	0.0	1.0	43.1 66.0 -14.9 67.6 347	0.27	0.0	1.0	31.9 38.2 -38.1 54.0 315	0.265	0.0	1.0	31.8 37.7 -38.4 53.8 314
350.2	322.5	321.4	0.875	0.0	1.0	45.9 69.4 -11.9 70.5 350.2	0.867	0.0	1.0	45.8 69.3 -12.0 70.3 350	0.333	0.0	1.0	33.1 43.9 -34.2 55.8 322	0.324	0.0	1.0	32.9 43.2 -34.8 55.5 322
353.3	330.0	328.6	1.0	0.0	1.0	48.2 72.8 -8.5 73.3 353.3	1.0											

Data of Maximum color M in colorimetric system Offset standard print; separation cmyrn6*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; 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^* dd64M (x=LabCh)							rgb^* dex361M				LAB^* dex361M					rgb^* dd			rgb^* ds	rgb^* de
32.8	30.0	25.4	1.0	0.0	0.0	47.3	63.8	41.2	76.0	32.8	32.8			1.0	0.0	0.209	47.6	64.9	30.9	71.9	25					
40.4	37.5	33.8	1.0	0.125	0.0	51.2	54.9	46.7	72.1	40.4	40.4			1.0	0.007	0.0	47.6	63.4	41.6	75.8	33					
50.0	45.0	42.1	1.0	0.25	0.0	56.0	44.4	53.0	69.1	50.0	50.0			1.0	0.148	0.0	52.1	53.0	48.1	71.6	42					
61.1	52.5	50.5	1.0	0.375	0.0	61.4	33.2	60.3	68.8	61.1	61.1			1.0	0.25	0.0	56.0	44.5	53.0	69.2	49					
71.4	60.0	58.8	1.0	0.5	0.0	67.2	22.6	67.6	71.2	71.4	71.4			1.0	0.35	0.0	60.3	35.6	59.0	69.0	58					
81.7	67.5	67.2	1.0	0.625	0.0	73.6	11.0	76.1	76.9	81.7	81.7			1.0	0.442	0.0	64.5	27.8	64.5	70.2	66					
88.5	75.0	75.6	1.0	0.75	0.0	79.2	2.0	83.0	83.1	88.5	88.5			1.0	0.55	0.0	69.8	18.3	71.3	73.6	75					
93.6	82.5	83.9	1.0	0.875	0.0	84.2	-5.7	89.4	89.6	93.6	93.6			1.0	0.655	0.0	75.0	9.0	77.9	78.5	83					
97.1	90.0	92.3	1.0	1.0	0.0	88.3	-11.9	95.1	95.8	97.1	97.1			1.0	0.842	0.0	83.0	-3.4	87.8	87.9	92					
100.3	97.5	101.0	0.875	1.0	0.0	85.8	-16.2	88.6	90.0	100.3	100.3			0.871	1.0	0.0	85.8	-16.2	88.4	89.9	100					
103.3	105.0	109.7	0.75	1.0	0.0	82.9	-19.7	83.0	85.3	103.3	103.3			0.599	1.0	0.0	76.2	-26.6	74.3	78.9	109					
108.3	112.5	118.5	0.625	1.0	0.0	77.0	-25.2	76.3	80.4	108.3	108.3			0.455	1.0	0.0	71.4	-33.4	63.2	71.6	117					
115.3	120.0	127.2	0.5	1.0	0.0	72.7	-31.3	66.0	73.1	115.3	115.3			0.327	1.0	0.0	65.8	-41.3	54.4	68.4	127					
122.4	127.5	136.0	0.375	1.0	0.0	68.9	-36.9	58.1	68.8	122.4	122.4			0.244	1.0	0.0	60.7	-48.1	47.5	67.6	135					
134.9	135.0	144.7	0.25	1.0	0.0	60.8	-47.8	47.8	67.6	134.9	134.9			0.124	1.0	0.0	57.4	-54.9	38.9	67.4	144					
144.6	142.5	153.4	0.125	1.0	0.0	57.4	-54.9	38.9	67.3	144.6	144.6			0.047	1.0	0.0	54.0	-63.8	32.7	71.7	152					
157.7	150.0	162.2	0.0	1.0	0.0	51.9	-68.8	28.1	74.3	157.7	157.7			0.0	1.0	0.093	52.4	-67.0	21.5	70.5	162					
163.7	157.5	169.0	0.0	1.0	0.125	52.5	-66.4	19.3	69.1	163.7	163.7			0.0	1.0	0.209	53.1	-63.5	12.8	64.9	168					
170.9	165.0	175.9	0.0	1.0	0.25	53.2	-61.9	9.8	62.7	170.9	170.9			0.0	1.0	0.311	53.7	-59.7	4.3	59.9	175					
181.0	172.5	182.7	0.0	1.0	0.375	54.1	-56.9	-1.0	56.9	181.0	181.0			0.0	1.0	0.387	54.2	-56.4	-2.2	56.5	182					
193.5	180.0	189.6	0.0	1.0	0.5	54.8	-51.0	-12.3	52.5	193.5	193.5			0.0	1.0	0.46	54.6	-53.1	-8.9	54.0	189					
205.9	187.5	196.4	0.0	1.0	0.625	55.8	-45.1	-21.9	50.1	205.9	205.9			0.0	1.0	0.524	55.0	-50.0	-14.3	52.1	195					
218.4	195.0	203.2	0.0	1.0	0.75	56.7	-38.9	-30.9	49.7	218.4	218.4			0.0	1.0	0.598	55.6	-46.5	-19.9	50.7	203					
227.3	202.5	210.1	0.0	1.0	0.875	57.5	-34.3	-37.2	50.6	227.3	227.3			0.0	1.0	0.662	56.1	-43.4	-24.7	50.1	209					
236.1	210.0	216.9	0.0	1.0	1.0	58.3	-29.2	-43.7	52.6	236.1	236.1			0.0	1.0	0.736	56.7	-39.7	-29.9	49.8	216					
240.3	217.5	223.8	0.0	0.875	1.0	55.2	-25.0	-43.9	50.5	240.3	240.3			0.0	1.0	0.819	57.2	-36.4	-34.4	50.3	223					
245.8	225.0	230.6	0.0	0.75	1.0	51.7	-19.7	-44.1	48.3	245.8	245.8			0.0	1.0	0.922	57.9	-32.5	-39.7	51.4	230					
252.5	232.5	237.5	0.0	0.625	1.0	47.7	-13.9	-44.4	46.5	252.5	252.5			0.0	0.974	1.0	57.7	-28.3	-43.7	52.2	237					
262.3	240.0	244.3	0.0	0.5	1.0	42.7	-6.0	-45.0	45.4	262.3	262.3			0.0	0.785	1.0	52.7	-21.1	-44.1	49.0	244					
271.7	247.5	251.2	0.0	0.375	1.0	37.9	1.3	-45.4	45.4	271.7	271.7			0.0	0.659	1.0	48.9	-15.4	-44.3	47.1	250					
281.6	255.0	258.0	0.0	0.25	1.0	33.3	9.4	-46.0	47.0	281.6	281.6			0.0	0.555	1.0	45.0	-9.4	-44.8	45.9	258					
290.3	262.5	264.8	0.0	0.125	1.0	28.6	17.4	-46.9	50.1	290.3	290.3			0.0	0.472	1.0	41.7	-4.3	-45.1	45.4	264					
296.4	270.0	271.7	0.0	0.0	1.0	25.3	23.5	-47.3	52.8	296.4	296.4			0.0	0.375	1.0	37.9	1.4	-45.3	45.5	271					
306.7	277.5	278.8	0.125	0.0	1.0	29.3	31.8	-42.6	53.1	306.7	306.7			0.0	0.291	1.0	34.9	6.8	-45.9	46.5	278					
312.7	285.0	285.9	0.25	0.0	1.0	31.5	36.2	-39.2	53.4	312.7	312.7			0.0	0.188	1.0	31.0	13.3	-46.6	48.5	285					
326.7	292.5	293.0	0.375	0.0	1.0	33.8	47.6	-31.2	56.9	326.7	326.7			0.0	0.079	1.0	27.4	19.6	-47.1	51.1	292					
333.9	300.0	300.1	0.5	0.0	1.0	37.8	53.8	-26.3	59.9	333.9	333.9			0.0046	0.0	1.0	26.8	26.6	-45.7	53.0	300					
339.6	307.5	307.2	0.625	0.0	1.0	40.9	58.8	-21.8	62.7	339.6	339.6			0.126	0.0	1.0	29.4	31.9	-42.5	53.2	306					
347.2	315.0	314.3	0.75	0.0	1.0	43.1	65.9	-14.9	67.6	347.2	347.2			0.265	0.0	1.0	31.8	37.7	-38.4	53.8	314					
350.2	322.5	321.4	0.875	0.0	1.0	45.9	69.4	-11.9	70.5	350.2	350.2			0.324	0.0	1.0	32.9	43.2	-34.8	55.5	321					
353.3	330.0	328.6	1.0	0.0	1.0	48.2	72.8	-8.5	73.3	353.3	353.3			0.407	0.0	1.0	34.9	49.3	-30.0	57.7	328					
356.5	337.5	335.7	1.0	0.0	0.875	48.2	71.6	-4.3	71.7	356.5	356.5			0.529	0.0	1.0	38.6	55.0	-25.3	60.6	335					
360.3	345.0	342.8	1.0	0.0	0.75	48.1	70.4	0.3	70.4	360.3	360.3			0.678	0.0	1.0	41.9	61.9	-19.0	64.8	342					
365.8	352.5	349.9	1.0	0.0	0.625	48.0	68.9	7.1	69.3	365.8	365.8			0.842	0.0	1.0	45.2	68.6	-12.7	69.8	349					
371.6	360.0	357.0	1.0	0.0	0.5	47.7	67.7	14.0	69.1	371.6	371.6			0.949	0.0	1.0	47.3	71.5	-9.9	72.2	352					
378.2	367.5	364.1	1.0	0.0	0.375	47.7	66.1	21.8	69.6	378.2	378.2			1.0	0.0	0.765	48.2	70.6	-0.1	70.6	359					
383.9	375.0	371.2	1.0	0.0	0.25	47.7	65.0	28.9	71.2	383.9	383.9			1.0	0.0	0.563	47.9	68.4	10.6	69.2	368					
388.6	382.5	378.3	1.0	0.0	0.125	47.4	64.4	35.1	73.4	388.6	388.6			1.0	0.0	0.408	47.8	66.7	19.8	69.6	376					
392.8	390.0	385.4	1.0	0.0	0.0	47.3	63.8	41.2	76.0	392.8	392.8			1.0	0.0	0.209	47.6	64.9	30.9	71.9	385					

1-103830-L0

QE040-72

LAB*la0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

Output: Offset standard print; separation cmyrn6*, D65, page 9/33

TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
48 step hue circles; $rgb-LabCh^*$ tables

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

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmyrn6* (CMYK)
TUB material: code=rh4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmy6*, 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: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; 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}	$LAB^*_{dd361Mi}(x=LabCh)$	R_d	$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mi}(x=LabCh)$	R_s	$rgb^*_{dd361Mi}$	$LAB^*_{de361Mi}(x=LabCh)$	R_e	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
32	30	25	1.0 0.0 0.0	47.3 63.8 41.2 76.0 32		1.0 0.0 0.084 47.4 64.3 37.1 74.3 30		1.0 0.0 0.0	1.0 0.0 0.209 47.6 64.9 30.9 71.9 25		1.0 0.0 0.0				
33	31	26	1.0 0.016 0.0	47.8 62.7 42.0 75.4 33		1.0 0.0 0.054 47.4 64.2 38.6 74.9 31		1.0 0.017 0.0	1.0 0.0 0.18 47.6 64.8 32.4 72.5 26		1.0 0.017 0.0				
34	32	27	1.0 0.033 0.0	48.3 61.5 42.8 74.9 34		1.0 0.0 0.025 47.4 64.0 40.0 75.5 32		1.0 0.033 0.0	1.0 0.0 0.15 47.5 64.6 33.9 73.0 27		1.0 0.033 0.0				
35	33	28	1.0 0.05 0.0	48.9 60.3 43.6 74.4 35		1.0 0.003 0.0 47.5 63.7 41.3 75.9 33		1.0 0.05 0.0	1.0 0.0 0.119 47.5 64.4 35.5 73.6 28		1.0 0.05 0.0				
36	34	29	1.0 0.066 0.0	49.4 59.1 44.3 73.9 36		1.0 0.019 0.0 48.0 62.5 42.2 75.4 34		1.0 0.067 0.0	1.0 0.0 0.086 47.4 64.3 37.0 74.2 29		1.0 0.067 0.0				
37	35	31	1.0 0.083 0.0	49.9 57.9 45.1 73.4 37		1.0 0.036 0.0 48.5 61.4 43.0 74.9 35		1.0 0.083 0.0	1.0 0.0 0.053 47.4 64.2 38.6 74.9 31		1.0 0.083 0.0				
38	36	32	1.0 0.1 0.0	50.4 56.7 45.7 72.9 38		1.0 0.052 0.0 49.0 60.2 43.7 74.4 36		1.0 0.1 0.0	1.0 0.0 0.02 47.4 64.0 40.2 75.6 32		1.0 0.1 0.0				
39	37	33	1.0 0.116 0.0	50.9 55.5 46.4 72.3 39		1.0 0.069 0.0 49.5 59.0 44.5 73.9 37		1.0 0.117 0.0	1.0 0.007 0.0 47.6 63.4 41.6 75.8 33		1.0 0.117 0.0				
41	38	34	1.0 0.133 0.0	51.5 54.2 47.2 71.9 41		1.0 0.085 0.0 50.0 57.8 45.2 73.4 38		1.0 0.133 0.0	1.0 0.026 0.0 48.2 62.1 42.5 75.2 34		1.0 0.133 0.0				
42	39	35	1.0 0.15 0.0	52.1 52.8 48.1 71.5 42		1.0 0.101 0.0 50.5 56.6 45.9 72.9 39		1.0 0.15 0.0	1.0 0.044 0.0 48.7 60.8 43.4 74.6 35		1.0 0.15 0.0				
43	40	36	1.0 0.166 0.0	52.8 51.4 49.0 71.1 43		1.0 0.118 0.0 51.0 55.4 46.5 72.4 40		1.0 0.167 0.0	1.0 0.062 0.0 49.3 59.5 44.2 74.1 36		1.0 0.167 0.0				
44	41	37	1.0 0.183 0.0	53.4 50.1 49.9 70.7 44		1.0 0.132 0.0 51.5 54.3 47.2 72.0 41		1.0 0.183 0.0	1.0 0.081 0.0 49.8 58.1 45.0 73.5 37		1.0 0.183 0.0				
46	42	38	1.0 0.2 0.0	54.1 48.7 50.7 70.3 46		1.0 0.145 0.0 52.0 53.2 47.9 71.7 42		1.0 0.2 0.0	1.0 0.099 0.0 50.4 56.8 45.8 72.9 38		1.0 0.2 0.0				
47	43	39	1.0 0.216 0.0	54.7 47.3 51.5 69.9 47		1.0 0.158 0.0 52.5 52.2 48.7 71.3 43		1.0 0.217 0.0	1.0 0.117 0.0 51.0 55.5 46.5 72.4 39		1.0 0.217 0.0				
48	44	41	1.0 0.233 0.0	55.3 45.8 52.2 69.5 48		1.0 0.172 0.0 53.0 51.1 49.3 71.0 44		1.0 0.233 0.0	1.0 0.133 0.0 51.5 54.2 47.3 71.9 41		1.0 0.233 0.0				
50	45	42	1.0 0.25 0.0	56.0 44.4 53.0 69.1 50		1.0 0.185 0.0 53.5 50.0 50.0 70.7 45		1.0 0.25 0.0	1.0 0.148 0.0 52.1 53.0 48.1 71.6 42		1.0 0.25 0.0				
51	46	43	1.0 0.266 0.0	56.7 43.0 54.1 69.1 51		1.0 0.198 0.0 54.0 48.9 50.7 70.4 46		1.0 0.267 0.0	1.0 0.162 0.0 52.7 51.9 48.9 71.2 43		1.0 0.267 0.0				
52	47	44	1.0 0.283 0.0	57.4 41.5 55.1 69.1 52		1.0 0.211 0.0 54.5 47.8 51.3 70.1 47		1.0 0.283 0.0	1.0 0.177 0.0 53.2 50.6 49.6 70.9 44		1.0 0.283 0.0				
54	48	45	1.0 0.3 0.0	58.2 40.1 56.2 69.0 54		1.0 0.224 0.0 55.0 46.7 51.9 69.8 48		1.0 0.3 0.0	1.0 0.191 0.0 53.8 49.4 50.4 70.6 45		1.0 0.3 0.0				
55	49	46	1.0 0.316 0.0	58.9 38.6 57.1 69.0 55		1.0 0.237 0.0 55.5 45.6 52.4 69.5 49		1.0 0.317 0.0	1.0 0.206 0.0 54.3 48.2 51.1 70.2 46		1.0 0.317 0.0				
57	50	47	1.0 0.333 0.0	59.6 37.1 58.1 69.0 57		1.0 0.25 0.0 56.0 44.5 53.0 69.2 50		1.0 0.333 0.0	1.0 0.22 0.0 54.9 47.0 51.7 69.9 47		1.0 0.333 0.0				
58	51	48	1.0 0.35 0.0	60.3 35.5 59.0 68.9 58		1.0 0.261 0.0 56.5 43.5 53.7 69.2 51		1.0 0.35 0.0	1.0 0.235 0.0 55.5 45.7 52.4 69.5 48		1.0 0.35 0.0				
60	52	49	1.0 0.366 0.0	61.0 34.0 59.9 68.9 60		1.0 0.272 0.0 57.0 42.6 54.5 69.1 52		1.0 0.367 0.0	1.0 0.25 0.0 56.0 44.5 53.0 69.2 49		1.0 0.367 0.0				
61	53	51	1.0 0.383 0.0	61.8 32.5 60.8 69.0 61		1.0 0.283 0.0 57.5 41.6 55.2 69.1 53		1.0 0.383 0.0	1.0 0.262 0.0 56.6 43.4 53.8 69.1 51		1.0 0.383 0.0				
63	54	52	1.0 0.4 0.0	62.5 31.2 61.9 69.3 63		1.0 0.295 0.0 58.0 40.6 55.9 69.1 54		1.0 0.4 0.0	1.0 0.275 0.0 57.1 42.4 54.6 69.1 52		1.0 0.4 0.0				
64	55	53	1.0 0.416 0.0	63.3 29.8 62.9 69.6 64		1.0 0.306 0.0 58.5 39.6 56.6 69.1 55		1.0 0.417 0.0	1.0 0.287 0.0 57.6 41.3 55.4 69.1 53		1.0 0.417 0.0				
65	56	54	1.0 0.433 0.0	64.1 28.4 63.9 70.0 65		1.0 0.317 0.0 58.9 38.6 57.2 69.0 56		1.0 0.433 0.0	1.0 0.3 0.0 58.2 40.2 56.2 69.1 54		1.0 0.433 0.0				
67	57	55	1.0 0.45 0.0	64.9 27.0 64.9 70.3 67		1.0 0.328 0.0 59.4 37.6 57.9 69.0 57		1.0 0.45 0.0	1.0 0.312 0.0 58.7 39.0 56.9 69.0 55		1.0 0.45 0.0				
68	58	56	1.0 0.466 0.0	65.6 25.6 65.8 70.6 68		1.0 0.34 0.0 59.9 36.6 58.5 69.0 58		1.0 0.467 0.0	1.0 0.325 0.0 59.3 37.9 57.7 69.0 56		1.0 0.467 0.0				
70	59	57	1.0 0.483 0.0	66.4 24.1 66.7 70.9 70		1.0 0.351 0.0 60.4 35.5 59.1 69.0 59		1.0 0.483 0.0	1.0 0.337 0.0 59.8 36.8 58.4 69.0 57		1.0 0.483 0.0				
71	60	58	1.0 0.5 0.0	67.2 22.6 67.6 71.2 71		1.0 0.362 0.0 60.9 34.5 59.7 68.9 60		1.0 0.5 0.0	1.0 0.35 0.0 60.3 35.6 59.0 69.0 58		1.0 0.5 0.0				
72	61	60	1.0 0.516 0.0	68.0 21.2 68.8 72.0 72		1.0 0.373 0.0 61.4 33.4 60.3 68.9 61		1.0 0.517 0.0	1.0 0.362 0.0 60.9 34.5 59.7 68.9 60		1.0 0.517 0.0				
74	62	61	1.0 0.533 0.0	68.9 19.7 70.0 72.8 74		1.0 0.385 0.0 61.9 32.4 61.0 69.1 62		1.0 0.533 0.0	1.0 0.375 0.0 61.4 33.3 60.3 68.9 61		1.0 0.533 0.0				
75	63	62	1.0 0.55 0.0	69.7 18.2 71.2 73.5 75		1.0 0.397 0.0 62.5 31.5 61.8 69.3 63		1.0 0.55 0.0	1.0 0.388 0.0 62.0 32.2 61.2 69.1 62		1.0 0.55 0.0				
76	64	63	1.0 0.566 0.0	70.6 16.7 72.4 74.3 76		1.0 0.409 0.0 63.0 30.5 62.5 69.6 64		1.0 0.567 0.0	1.0 0.402 0.0 62.7 31.1 62.0 69.4 63		1.0 0.567 0.0				
78	65	64	1.0 0.583 0.0	71.5 15.1 73.5 75.0 78		1.0 0.421 0.0 63.6 29.5 63.2 69.8 65		1.0 0.583 0.0	1.0 0.415 0.0 63.3 30.0 62.9 69.7 64		1.0 0.583 0.0				
79	66	65	1.0 0.6 0.0	72.3 13.5 74.6 75.8 79		1.0 0.434 0.0 64.2 28.5 64.0 70.0 66		1.0 0.6 0.0	1.0 0.428 0.0 63.9 28.9 63.7 69.9 65		1.0 0.6 0.0				
81	67	66	1.0 0.616 0.0	73.2 11.8 75.6 76.6 81		1.0 0.446 0.0 64.7 27.4 64.7 70.3 67		1.0 0.617 0.0	1.0 0.442 0.0 64.5 27.8 64.5 70.2 66		1.0 0.617 0.0				
82	68	67	1.0 0.633 0.0	74.0 10.4 76.6 77.3 82		1.0 0.458 0.0 65.3 26.4 65.4 70.5 68		1.0 0.633 0.0	1.0 0.455 0.0 65.2 26.6 65.2 70.4 67		1.0 0.633 0.0				
83	69	68	1.0 0.65 0.0	74.7 9.3 77.6 78.2 83		1.0 0.47 0.0 65.8 25.3 66.0 70.7 69		1.0 0.65 0.0	1.0 0.469 0.0 65.8 25.4 66.0 70.7 68		1.0 0.65 0.0				
84	70	70	1.0 0.666 0.0	75.5 8.2 78.6 79.0 84		1.0 0.482 0.0 66.4 24.3 66.7 70.9 70		1.0 0.667 0.0	1.0 0.482 0.0 66.4 24.2 66.7 71.0 70		1.0 0.667 0.0				
84	71	71	1.0 0.683 0.0	76.2 7.0 79.5 79.8 84		1.0 0.494 0.0 66.9 23.2 67.3 71.2 71		1.0 0.683 0.0	1.0 0.496 0.0 67.0 23.0 67.4 71.2 71		1.0 0.683 0.0				
85	72	72	1.0 0.7 0.0	77.0 5.8 80.4 80.6 85		1.0 0.506 0.0 67.5 22.1 68.1 71.6 72		1.0 0.7 0.0	1.0 0.509 0.0 67.7 21.9 68.3 71.7 72		1.0 0.7 0.0				
86	73	73	1.0 0.716 0.0	77.7 4.5 81.3 81.4 86		1.0 0.518 0.0 68.2 21.1 69.0 72.1 73		1.0 0.717 0.0	1.0 0.523 0.0 68.4 20.7 69.3 72.3 73		1.0 0.717 0.0				
87	74	74	1.0 0.733 0.0	78.5 3.3 82.2 82.3 87		1.0 0.531 0.0 68.8 20.0 69.9 72.7 74		1.0 0.733 0.0	1.0 0.537 0.0 69.1 19.5 70.3 73.0 74		1.0 0.733 0.0				
88	75	75	1.0 0.75 0.0	79.2 2.0 83.0 83.1 88		1.0 0.543 0.0 69.4 19.0 70.7 73.2 75		1.0 0.75 0.0	1.0 0.55 0.0 69.8 18.3 71.3 73.6 75		1.0 0.75 0.0				

1-103930-L0

QE040-72

LAB*la0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

Output: Offset standard print; separation cmy6*, D65, page 10/33

TUB-test chart QE04; hue code: H*d=R25Yd
48 step hue circles; $rgb-LabCh$ *tables

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

1-103930-F0

see similar files: <http://130.149.60.45/~farbmetrik/QE04/QE04L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE04/QE04L0FP.PDF / .PS
application for measurement of offset print output, separation cmy6* (CMYK)
TUB material: code=rha4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmyln6*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM_c: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours RYGBM_d: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; Six hue angles of the elementary colours RYGBM_c: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	LAB^*_{d361M}	$LAB^*_{d361Mi}(x=LabCh)$	$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mi}(x=LabCh)$	$rgb^*_{dd361Mi}$	$LAB^*_{de361Mi}$	$dex361Mi(x=LabCh)$	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
88	75	75	1.0	0.75	0.0	79.2	2.0	83.0	83.1	88	1.0	0.75	0.0	88
89	76	76	1.0	0.766	0.0	79.9	1.0	83.9	83.9	89	1.0	0.767	0.0	89
89	77	77	1.0	0.783	0.0	80.6	0.0	84.8	84.8	89	1.0	0.783	0.0	89
90	78	78	1.0	0.8	0.0	81.2	-0.9	85.7	85.7	90	1.0	0.8	0.0	90
91	79	80	1.0	0.816	0.0	81.9	-1.9	86.5	86.5	91	1.0	0.817	0.0	91
91	80	81	1.0	0.833	0.0	82.6	-3.0	87.4	87.4	91	1.0	0.833	0.0	91
92	81	82	1.0	0.85	0.0	83.2	-4.0	88.2	88.3	92	1.0	0.85	0.0	92
93	82	83	1.0	0.866	0.0	83.9	-5.1	89.0	89.2	93	1.0	0.867	0.0	93
93	83	84	1.0	0.883	0.0	84.5	-6.1	89.8	90.0	93	1.0	0.883	0.0	93
94	84	85	1.0	0.9	0.0	85.1	-6.9	90.6	90.8	94	1.0	0.9	0.0	94
94	85	86	1.0	0.916	0.0	85.6	-7.7	91.3	91.7	94	1.0	0.917	0.0	94
95	86	87	1.0	0.933	0.0	86.1	-8.5	92.1	92.5	95	1.0	0.933	0.0	95
95	87	88	1.0	0.95	0.0	86.7	-9.3	92.9	93.3	95	1.0	0.95	0.0	95
96	88	90	1.0	0.966	0.0	87.2	-10.2	93.6	94.2	96	1.0	0.967	0.0	96
96	89	91	1.0	0.983	0.0	87.8	-11.1	94.3	95.0	96	1.0	0.983	0.0	96
97	90	92	1.0	1.0	0.0	88.3	-11.9	95.1	95.8	97	1.0	1.0	0.0	97
97	91	93	0.983	1.0	0.0	88.0	-12.5	94.2	95.1	97	1.0	0.983	1.0	0.0
98	92	94	0.966	1.0	0.0	87.7	-13.1	93.4	94.3	98	1.0	0.967	1.0	0.0
98	93	95	0.95	1.0	0.0	87.3	-13.7	92.5	93.5	98	1.0	0.95	1.0	0.0
98	94	96	0.933	1.0	0.0	87.0	-14.3	91.6	92.7	98	1.0	0.933	1.0	0.0
99	95	98	0.916	1.0	0.0	86.6	-14.8	90.8	92.0	99	1.0	0.917	1.0	0.0
99	96	99	0.9	1.0	0.0	86.3	-15.4	89.9	91.2	99	1.0	0.9	1.0	0.0
100	97	100	0.883	1.0	0.0	86.0	-15.9	89.0	90.4	100	1.0	0.883	1.0	0.0
100	98	101	0.866	1.0	0.0	85.6	-16.4	88.2	89.7	100	1.0	0.867	1.0	0.0
100	99	102	0.85	1.0	0.0	85.2	-16.9	87.4	89.1	100	1.0	0.85	1.0	0.0
101	100	103	0.833	1.0	0.0	84.8	-17.4	86.7	88.4	101	1.0	0.833	1.0	0.0
101	101	105	0.816	1.0	0.0	84.5	-17.9	86.0	87.8	101	1.0	0.817	1.0	0.0
102	102	106	0.8	1.0	0.0	84.1	-18.3	85.2	87.2	102	1.0	0.8	1.0	0.0
102	103	107	0.783	1.0	0.0	83.7	-18.8	84.5	86.5	102	1.0	0.783	1.0	0.0
102	104	108	0.766	1.0	0.0	83.3	-19.2	83.7	85.9	102	1.0	0.767	1.0	0.0
103	105	109	0.75	1.0	0.0	82.9	-19.7	83.0	85.3	103	1.0	0.75	1.0	0.0
104	106	110	0.733	1.0	0.0	82.2	-20.5	82.1	84.6	104	1.0	0.733	1.0	0.0
104	107	112	0.716	1.0	0.0	81.4	-21.3	81.2	84.0	104	1.0	0.717	1.0	0.0
105	108	113	0.7	1.0	0.0	80.6	-22.0	80.3	83.3	105	1.0	0.7	1.0	0.0
106	109	114	0.683	1.0	0.0	79.8	-22.8	79.5	82.7	106	1.0	0.683	1.0	0.0
106	110	115	0.666	1.0	0.0	79.0	-23.5	78.6	82.0	106	1.0	0.667	1.0	0.0
107	111	116	0.65	1.0	0.0	78.2	-24.2	77.7	81.4	107	1.0	0.65	1.0	0.0
107	112	117	0.633	1.0	0.0	77.4	-24.9	76.8	80.7	107	1.0	0.633	1.0	0.0
108	113	119	0.616	1.0	0.0	76.8	-25.7	75.6	79.9	108	1.0	0.617	1.0	0.0
109	114	120	0.6	1.0	0.0	76.2	-26.6	74.3	78.9	109	1.0	0.6	1.0	0.0
110	115	121	0.583	1.0	0.0	75.6	-27.5	72.9	78.0	110	1.0	0.583	1.0	0.0
111	116	122	0.566	1.0	0.0	75.0	-28.3	71.6	77.0	111	1.0	0.567	1.0	0.0
112	117	123	0.55	1.0	0.0	74.5	-29.1	70.2	76.0	112	1.0	0.55	1.0	0.0
113	118	124	0.533	1.0	0.0	73.9	-29.9	68.8	75.0	113	1.0	0.533	1.0	0.0
114	119	126	0.516	1.0	0.0	73.3	-30.6	67.4	74.1	114	1.0	0.517	1.0	0.0
115	120	127	0.5	1.0	0.0	72.7	-31.3	66.0	73.1	115	1.0	0.5	1.0	0.0

1-1031030-L0 QE040-72 LAB*la0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

Output: Offset standard print; separation cmyln6*, D65, page 11/33

TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
48 step hue circles; $rgb-LabCh^*$ tables

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

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmyln6* (CMYK)

TUB material: code=rha4ta

Output: Offset standard print; separation cmyn6*, D65, page 12/36

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



Data of Maximum color M in colorimetric system Offset standard print; separation cmyln6*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM_c: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours RYGBM_d: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; Six hue angles of the elementary colours RYGBM_c: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{dd361Mi}$ (x=LabCh)	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}$ (x=LabCh)	$rgb^*_{dd361Mi}$	$rgb^*_{de361Mi}$	$LAB^*_{dex361Mi}$ (x=LabCh)	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}					
170	165	175	0.0	1.0	0.25	53.2	-61.9	9.8	62.7	170	0.0	1.0	0.25	53.2	-61.9	9.8	62.7	170
172	166	176	0.0	1.0	0.266	53.4	-61.4	8.2	61.9	172	0.0	1.0	0.267	53.8	-59.2	3.3	59.4	176
173	167	177	0.0	1.0	0.283	53.5	-60.8	6.7	61.2	173	0.0	1.0	0.283	53.8	-58.7	2.3	58.9	177
175	168	178	0.0	1.0	0.3	53.6	-60.2	5.2	60.4	175	0.0	1.0	0.3	53.9	-58.3	1.4	58.4	178
176	169	179	0.0	1.0	0.316	53.7	-59.5	3.7	59.6	176	0.0	1.0	0.317	54.0	-57.7	0.4	57.8	179
177	170	180	0.0	1.0	0.333	53.8	-58.8	2.3	58.9	177	0.0	1.0	0.333	54.1	-57.2	-0.4	57.3	180
179	171	181	0.0	1.0	0.35	53.9	-58.1	0.9	58.1	179	0.0	1.0	0.35	54.1	-56.8	-1.3	56.9	181
180	172	182	0.0	1.0	0.366	54.0	-57.3	-0.4	57.3	180	0.0	1.0	0.367	54.2	-56.4	-2.2	56.5	182
181	173	183	0.0	1.0	0.383	54.1	-56.6	-1.8	56.6	181	0.0	1.0	0.383	54.2	-56.0	-3.1	56.2	183
183	174	184	0.0	1.0	0.4	54.2	-55.9	-3.5	56.0	183	0.0	1.0	0.4	54.3	-55.7	-3.9	55.9	184
185	175	185	0.0	1.0	0.416	54.3	-55.2	-5.0	55.5	185	0.0	1.0	0.417	54.3	-55.3	-4.8	55.6	185
186	176	185	0.0	1.0	0.433	54.4	-54.5	-6.6	54.9	186	0.0	1.0	0.433	54.4	-54.9	-5.6	55.3	185
188	177	186	0.0	1.0	0.45	54.5	-53.7	-8.0	54.3	188	0.0	1.0	0.45	54.4	-54.4	-6.5	54.9	186
190	178	187	0.0	1.0	0.466	54.6	-52.8	-9.5	53.7	190	0.0	1.0	0.467	54.5	-54.0	-7.3	54.6	187
191	179	188	0.0	1.0	0.483	54.7	-52.0	-10.9	53.1	191	0.0	1.0	0.483	54.6	-53.6	-8.1	54.3	188
193	180	189	0.0	1.0	0.5	54.8	-51.0	-12.3	52.5	193	0.0	1.0	0.5	54.6	-53.1	-8.9	54.0	189
195	181	190	0.0	1.0	0.516	54.9	-50.4	-13.7	52.2	195	0.0	1.0	0.517	54.7	-52.6	-9.7	53.6	190
196	182	191	0.0	1.0	0.533	55.1	-49.6	-15.0	51.9	196	0.0	1.0	0.533	54.7	-52.2	-10.5	53.3	191
198	183	192	0.0	1.0	0.55	55.2	-48.9	-16.3	51.6	198	0.0	1.0	0.55	54.8	-51.7	-11.2	53.0	192
200	184	193	0.0	1.0	0.566	55.3	-48.1	-17.6	51.2	200	0.0	1.0	0.567	54.8	-51.2	-12.0	52.7	193
201	185	194	0.0	1.0	0.583	55.5	-47.3	-18.9	50.9	201	0.0	1.0	0.583	54.9	-50.8	-12.7	52.5	194
203	186	195	0.0	1.0	0.6	55.6	-46.4	-20.1	50.6	203	0.0	1.0	0.6	55.0	-50.4	-13.5	52.3	195
205	187	195	0.0	1.0	0.616	55.7	-45.5	-21.3	50.3	205	0.0	1.0	0.617	55.0	-50.0	-14.3	52.1	195
206	188	196	0.0	1.0	0.633	55.8	-44.7	-22.5	50.1	206	0.0	1.0	0.633	55.1	-49.6	-15.0	51.9	196
208	189	197	0.0	1.0	0.65	56.0	-44.0	-23.8	50.1	208	0.0	1.0	0.65	55.2	-49.2	-15.7	51.7	197
210	190	198	0.0	1.0	0.666	56.1	-43.2	-25.0	50.0	210	0.0	1.0	0.667	55.3	-48.7	-16.5	51.6	198
211	191	199	0.0	1.0	0.683	56.2	-42.4	-26.3	49.9	211	0.0	1.0	0.683	55.3	-48.3	-17.2	51.4	199
213	192	200	0.0	1.0	0.7	56.3	-41.6	-27.5	49.9	213	0.0	1.0	0.7	55.4	-47.9	-17.9	51.2	200
215	193	201	0.0	1.0	0.716	56.5	-40.8	-28.6	49.8	215	0.0	1.0	0.717	55.5	-47.4	-18.6	51.0	201
216	194	202	0.0	1.0	0.733	56.6	-39.9	-29.8	49.8	216	0.0	1.0	0.733	55.6	-46.9	-19.3	50.9	202
218	195	203	0.0	1.0	0.75	56.7	-38.9	-30.9	49.7	218	0.0	1.0	0.75	55.6	-46.5	-19.9	50.7	203
219	196	204	0.0	1.0	0.766	56.8	-38.4	-31.7	49.8	219	0.0	1.0	0.767	55.7	-46.0	-20.6	50.5	204
220	197	205	0.0	1.0	0.783	56.9	-37.8	-32.6	49.9	220	0.0	1.0	0.783	55.8	-45.5	-21.3	50.3	205
221	198	206	0.0	1.0	0.8	57.0	-37.2	-33.5	50.1	221	0.0	1.0	0.8	55.8	-45.0	-21.9	50.2	206
223	199	206	0.0	1.0	0.816	57.1	-36.6	-34.3	50.2	223	0.0	1.0	0.817	55.9	-44.6	-22.6	50.2	206
224	200	207	0.0	1.0	0.833	57.3	-36.0	-35.2	50.3	224	0.0	1.0	0.833	56.0	-44.2	-23.3	50.1	207
225	201	208	0.0	1.0	0.85	57.4	-35.3	-36.0	50.4	225	0.0	1.0	0.85	56.0	-43.8	-24.0	50.1	208
226	202	209	0.0	1.0	0.866	57.5	-34.6	-36.8	50.6	226	0.0	1.0	0.867	56.1	-43.4	-24.7	50.1	209
227	203	210	0.0	1.0	0.883	57.6	-34.0	-37.7	50.8	227	0.0	1.0	0.883	56.2	-43.0	-25.4	50.0	210
229	204	211	0.0	1.0	0.9	57.7	-33.4	-38.6	51.0	229	0.0	1.0	0.9	56.3	-42.5	-26.0	50.0	211
230	205	212	0.0	1.0	0.916	57.8	-32.8	-39.4	51.3	230	0.0	1.0	0.917	56.3	-42.1	-26.7	50.0	212
231	206	213	0.0	1.0	0.933	57.9	-32.1	-40.3	51.6	231	0.0	1.0	0.933	56.4	-41.6	-27.3	49.9	213
232	207	214	0.0	1.0	0.95	58.0	-31.4	-41.2	51.8	232	0.0	1.0	0.95	56.5	-41.1	-28.0	49.9	214
233	208	215	0.0	1.0	0.966	58.1	-30.7	-42.0	52.1	233	0.0	1.0	0.967	56.5	-40.7	-28.6	49.9	215
235	209	216	0.0	1.0	0.983	58.2	-30.0	-42.9	52.3	235	0.0	1.0	0.983	56.6	-40.2	-29.2	49.8	216
236	210	216	0.0	1.0	1.0	58.3	-29.2	-43.7	52.6	236	0.0	1.0	1.0	56.7	-39.7	-29.9	49.8	216

1-1031230-L0 QE040-72 LAB*la0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

Output: Offset standard print; separation cmyln6*, D65, page 13/33

TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
48 step hue circles; $rgb-LabCh^*$ tables

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

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmyln6* (CMYK)
TUB material: code=rha4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmycn6*, 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 $RYGCBM_d$: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; 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}	
236	210	216	0.0	1.0	1.0	58.3	-29.2 -43.7 52.6	236	0.0	1.0	0.666 56.1	-43.2 -24.9 50.0	210	0.0	1.0	1.0
236	211	217	0.0	0.983 1.0	57.9	-28.7 -43.7 52.3	236	0.0	1.0	0.676 56.2	-42.8 -25.7 50.0	211	0.0	0.983 1.0	0.0	1.0
237	212	218	0.0	0.966 1.0	57.5	-28.1 -43.8 52.0	237	0.0	1.0	0.686 56.3	-42.3 -26.4 50.0	212	0.0	0.967 1.0	0.0	1.0
237	213	219	0.0	0.95 1.0	57.1	-27.5 -43.8 51.8	237	0.0	1.0	0.696 56.4	-41.8 -27.1 49.9	213	0.0	0.95 1.0	0.0	1.0
238	214	220	0.0	0.933 1.0	56.7	-26.9 -43.9 51.5	238	0.0	1.0	0.706 56.4	-41.3 -27.8 49.9	214	0.0	0.933 1.0	0.0	1.0
238	215	221	0.0	0.916 1.0	56.2	-26.4 -43.9 51.2	238	0.0	1.0	0.716 56.5	-40.8 -28.5 49.9	215	0.0	0.917 1.0	0.0	1.0
239	216	222	0.0	0.9 1.0	55.8	-25.8 -43.9 50.9	239	0.0	1.0	0.726 56.6	-40.2 -29.2 49.8	216	0.0	0.9 1.0	0.0	1.0
240	217	223	0.0	0.883 1.0	55.4	-25.2 -43.9 50.7	240	0.0	1.0	0.736 56.7	-39.7 -29.9 49.8	217	0.0	0.883 1.0	0.0	1.0
240	218	224	0.0	0.866 1.0	55.0	-24.6 -43.9 50.4	240	0.0	1.0	0.746 56.7	-39.1 -30.5 49.8	218	0.0	0.867 1.0	0.0	1.0
241	219	225	0.0	0.85 1.0	54.5	-23.9 -44.0 50.1	241	0.0	1.0	0.758 56.8	-38.6 -31.2 49.8	219	0.0	0.85 1.0	0.0	1.0
242	220	226	0.0	0.833 1.0	54.1	-23.2 -44.0 49.8	242	0.0	1.0	0.772 56.9	-38.1 -32.0 49.9	220	0.0	0.833 1.0	0.0	1.0
242	221	227	0.0	0.816 1.0	53.6	-22.5 -44.1 49.5	242	0.0	1.0	0.786 57.0	-37.7 -32.7 50.0	221	0.0	0.817 1.0	0.0	1.0
243	222	227	0.0	0.8 1.0	53.1	-21.8 -44.1 49.2	243	0.0	1.0	0.8 57.1	-37.2 -33.4 50.1	222	0.0	0.8 1.0	0.0	1.0
244	223	228	0.0	0.783 1.0	52.7	-21.1 -44.1 48.9	244	0.0	1.0	0.814 57.2	-36.6 -34.2 50.2	223	0.0	0.783 1.0	0.0	1.0
245	224	229	0.0	0.766 1.0	52.2	-20.4 -44.1 48.6	245	0.0	1.0	0.828 57.3	-36.1 -34.9 50.3	224	0.0	0.767 1.0	0.0	1.0
245	225	230	0.0	0.75 1.0	51.7	-19.7 -44.1 48.3	245	0.0	1.0	0.842 57.4	-35.6 -35.6 50.4	225	0.0	0.75 1.0	0.0	1.0
246	226	231	0.0	0.733 1.0	51.2	-18.9 -44.2 48.1	246	0.0	1.0	0.856 57.5	-35.0 -36.3 50.5	226	0.0	0.733 1.0	0.0	1.0
247	227	232	0.0	0.716 1.0	50.7	-18.1 -44.3 47.8	247	0.0	1.0	0.87 57.5	-34.4 -36.9 50.7	227	0.0	0.717 1.0	0.0	1.0
248	228	233	0.0	0.7 1.0	50.1	-17.4 -44.3 47.6	248	0.0	1.0	0.884 57.6	-33.9 -37.7 50.8	228	0.0	0.7 1.0	0.0	1.0
249	229	234	0.0	0.683 1.0	49.6	-16.6 -44.3 47.4	249	0.0	1.0	0.899 57.7	-33.4 -38.4 51.1	229	0.0	0.683 1.0	0.0	1.0
250	230	235	0.0	0.666 1.0	49.1	-15.8 -44.4 47.1	250	0.0	1.0	0.913 57.8	-32.9 -39.2 51.3	230	0.0	0.667 1.0	0.0	1.0
251	231	236	0.0	0.65 1.0	48.5	-15.0 -44.4 46.9	251	0.0	1.0	0.927 57.9	-32.3 -39.9 51.5	231	0.0	0.65 1.0	0.0	1.0
252	232	237	0.0	0.633 1.0	48.0	-14.3 -44.4 46.6	252	0.0	1.0	0.941 58.0	-31.7 -40.7 51.7	232	0.0	0.633 1.0	0.0	1.0
253	233	237	0.0	0.616 1.0	47.4	-13.4 -44.5 46.4	253	0.0	1.0	0.955 58.1	-31.2 -41.4 51.9	233	0.0	0.617 1.0	0.0	1.0
254	234	238	0.0	0.6 1.0	46.7	-12.3 -44.6 46.3	254	0.0	1.0	0.969 58.2	-30.6 -42.1 52.2	234	0.0	0.6 1.0	0.0	1.0
255	235	239	0.0	0.583 1.0	46.1	-11.3 -44.7 46.1	255	0.0	1.0	0.983 58.2	-29.9 -42.8 52.4	235	0.0	0.583 1.0	0.0	1.0
257	236	240	0.0	0.566 1.0	45.4	-10.2 -44.8 46.0	257	0.0	1.0	0.997 58.3	-29.3 -43.5 52.6	236	0.0	0.567 1.0	0.0	1.0
258	237	241	0.0	0.55 1.0	44.7	-9.1 -44.9 45.8	258	0.0	0.976 1.0	57.7	-28.4 -43.7 52.2	237	0.0	0.55 1.0	0.0	1.0
259	238	242	0.0	0.533 1.0	44.1	-8.1 -45.0 45.7	259	0.0	0.946 1.0	57.0	-27.3 -43.8 51.7	238	0.0	0.533 1.0	0.0	1.0
261	239	243	0.0	0.516 1.0	43.4	-7.0 -45.0 45.5	261	0.0	0.916 1.0	56.3	-26.3 -43.8 51.2	239	0.0	0.517 1.0	0.0	1.0
262	240	244	0.0	0.5 1.0	42.7	-6.0 -45.0 45.4	262	0.0	0.886 1.0	55.5	-25.3 -43.8 50.7	240	0.0	0.5 1.0	0.0	1.0
263	241	245	0.0	0.483 1.0	42.1	-5.0 -45.1 45.4	263	0.0	0.861 1.0	54.9	-24.3 -43.9 50.3	241	0.0	0.483 1.0	0.0	1.0
264	242	246	0.0	0.466 1.0	41.4	-4.0 -45.2 45.4	264	0.0	0.838 1.0	54.2	-23.3 -44.0 49.9	242	0.0	0.467 1.0	0.0	1.0
266	243	247	0.0	0.45 1.0	40.8	-3.0 -45.3 45.4	266	0.0	0.815 1.0	53.6	-22.4 -44.0 49.5	243	0.0	0.45 1.0	0.0	1.0
267	244	248	0.0	0.433 1.0	40.2	-2.1 -45.3 45.4	267	0.0	0.793 1.0	53.0	-21.4 -44.1 49.1	244	0.0	0.433 1.0	0.0	1.0
268	245	248	0.0	0.416 1.0	39.5	-1.1 -45.4 45.4	268	0.0	0.77 1.0	52.3	-20.5 -44.1 48.7	245	0.0	0.417 1.0	0.0	1.0
269	246	249	0.0	0.4 1.0	38.9	-0.1 -45.4 45.4	269	0.0	0.748 1.0	51.7	-19.6 -44.1 48.4	246	0.0	0.4 1.0	0.0	1.0
271	247	250	0.0	0.383 1.0	38.2	0.8 -45.4 45.4	271	0.0	0.729 1.0	51.1	-18.7 -44.2 48.1	247	0.0	0.383 1.0	0.0	1.0
272	248	251	0.0	0.366 1.0	37.6	1.8 -45.5 45.5	272	0.0	0.711 1.0	50.5	-17.8 -44.2 47.8	248	0.0	0.367 1.0	0.0	1.0
273	249	252	0.0	0.35 1.0	37.0	2.9 -45.6 45.7	273	0.0	0.692 1.0	49.9	-16.9 -44.3 47.5	249	0.0	0.35 1.0	0.0	1.0
275	250	253	0.0	0.333 1.0	36.4	4.0 -45.7 45.9	275	0.0	0.673 1.0	49.3	-16.1 -44.3 47.3	250	0.0	0.333 1.0	0.0	1.0
276	251	254	0.0	0.316 1.0	35.7	5.1 -45.8 46.1	276	0.0	0.654 1.0	48.7	-15.2 -44.3 47.0	251	0.0	0.317 1.0	0.0	1.0
277	252	255	0.0	0.3 1.0	35.1	6.1 -45.9 46.3	277	0.0	0.636 1.0	48.1	-14.3 -44.3 46.7	252	0.0	0.3 1.0	0.0	1.0
279	253	256	0.0	0.283 1.0	34.5	7.2 -46.0 46.5	279	0.0	0.62 1.0	47.6	-13.5 -44.4 46.5	253	0.0	0.283 1.0	0.0	1.0
280	254	257	0.0	0.266 1.0	33.9	8.3 -46.0 46.7	280	0.0	0.607 1.0	47.1	-12.7 -44.5 46.4	254	0.0	0.267 1.0	0.0	1.0
281	255	258	0.0	0.25 1.0	33.3	9.4 -46.0 47.0	281	0.0	0.594 1.0	46.5	-11.9 -44.6 46.3	255	0.0	0.25 1.0	0.0	1.0

1-1031330-L0 QE040-72 LAB*la0, YN=0%, XYZnw=2.4, 2.5, 2.6, 85.1, 88.8, 104.3, LAB*nw=17.7, 0.0, 0.0, 95.5, 0.0, 0.0

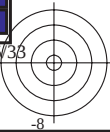
Output: Offset standard print; separation cmycn6*, D65, page 14/33

TUB-test chart QE04; hue code: $H^*_d=R25Y_d$
48 step hue circles; $rgb-LabCh$ *tables

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

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmycn6* (CMYK)
TUB material: code=rha4ta

~~1-1031430-F~~



Data of Maximum color M in colorimetric system Offset standard print; separation cmy6*, 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 $RYGCBM_d$: $h_{ab,d} = 32.8, 97.2, 157.8, 236.2, 296.4, 353.3$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

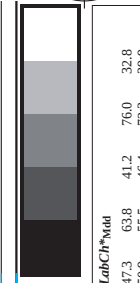
$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}			LAB^*_{d361Mi} (x=LabCh)			$rgb^*_{ds361Mi}$	$LAB^*_{ds361Mi}$ (x=LabCh)			$rgb^*_{dd361Mi}$	$rgb^*_{de361Mi}$			$LAB^*_{dex361Mi}$ (x=LabCh)			$rgb^*_{dd361Mi}$			rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}							
333	300	300	0.5	0.0	1.0	37.8	53.8	-26.3 59.9	333	0.043	0.0	1.0	26.7	26.5	-45.8 53.0	300	0.5	0.0	1.0	0.046	0.0	1.0	26.8	26.6	-45.7 53.0	300	0.5	0.0	1.0			
334	301	301	0.516	0.0	1.0	38.3	54.5	-25.7 60.3	334	0.056	0.0	1.0	27.1	27.3	-45.3 53.0	301	0.517	0.0	1.0	0.057	0.0	1.0	27.2	27.4	-45.3 53.0	301	0.517	0.0	1.0			
335	302	302	0.533	0.0	1.0	38.7	55.2	-25.2 60.6	335	0.068	0.0	1.0	27.5	28.1	-44.9 53.0	302	0.533	0.0	1.0	0.068	0.0	1.0	27.5	28.2	-44.8 53.0	302	0.533	0.0	1.0			
336	303	303	0.55	0.0	1.0	39.1	55.8	-24.6 61.0	336	0.08	0.0	1.0	27.9	28.9	-44.4 53.1	303	0.55	0.0	1.0	0.08	0.0	1.0	27.9	28.9	-44.4 53.1	303	0.55	0.0	1.0			
336	304	303	0.566	0.0	1.0	39.5	56.5	-24.0 61.4	336	0.092	0.0	1.0	28.3	29.7	-43.9 53.1	304	0.567	0.0	1.0	0.091	0.0	1.0	28.3	29.7	-43.9 53.1	303	0.567	0.0	1.0			
337	305	304	0.583	0.0	1.0	39.9	57.2	-23.4 61.8	337	0.104	0.0	1.0	28.7	30.5	-43.4 53.1	305	0.583	0.0	1.0	0.103	0.0	1.0	28.6	30.4	-43.5 53.1	304	0.583	0.0	1.0			
338	306	305	0.6	0.0	1.0	40.3	57.8	-22.8 62.2	338	0.116	0.0	1.0	29.0	31.2	-42.9 53.1	306	0.6	0.0	1.0	0.114	0.0	1.0	29.0	31.1	-43.0 53.1	305	0.6	0.0	1.0			
339	307	306	0.616	0.0	1.0	40.7	58.5	-22.1 62.5	339	0.13	0.0	1.0	29.4	32.0	-42.4 53.2	307	0.617	0.0	1.0	0.126	0.0	1.0	29.4	31.9	-42.5 53.2	306	0.617	0.0	1.0			
340	308	307	0.633	0.0	1.0	41.1	59.3	-21.4 63.0	340	0.151	0.0	1.0	29.8	32.8	-41.8 53.2	308	0.633	0.0	1.0	0.146	0.0	1.0	29.7	32.6	-42.0 53.2	307	0.633	0.0	1.0			
341	309	308	0.65	0.0	1.0	41.4	60.3	-20.5 63.7	341	0.172	0.0	1.0	30.2	33.5	-41.3 53.3	309	0.65	0.0	1.0	0.166	0.0	1.0	30.1	33.3	-41.5 53.2	308	0.65	0.0	1.0			
342	310	309	0.666	0.0	1.0	41.7	61.3	-19.7 64.3	342	0.193	0.0	1.0	30.6	34.3	-40.7 53.3	310	0.667	0.0	1.0	0.186	0.0	1.0	30.4	34.0	-40.9 53.3	309	0.667	0.0	1.0			
343	311	310	0.683	0.0	1.0	41.9	62.2	-18.8 65.0	343	0.214	0.0	1.0	30.9	35.0	-40.2 53.3	311	0.683	0.0	1.0	0.205	0.0	1.0	30.8	34.7	-40.4 53.3	310	0.683	0.0	1.0			
344	312	311	0.7	0.0	1.0	42.2	63.2	-17.8 65.6	344	0.234	0.0	1.0	31.3	35.7	-39.6 53.4	312	0.7	0.0	1.0	0.225	0.0	1.0	31.1	35.4	-39.8 53.4	311	0.7	0.0	1.0			
345	313	312	0.716	0.0	1.0	42.5	64.1	-16.9 66.3	345	0.252	0.0	1.0	31.6	36.5	-39.0 53.5	313	0.717	0.0	1.0	0.245	0.0	1.0	31.5	36.1	-39.3 53.4	312	0.717	0.0	1.0			
346	314	313	0.733	0.0	1.0	42.8	65.0	-15.9 66.9	346	0.261	0.0	1.0	31.8	37.3	-38.5 53.7	314	0.733	0.0	1.0	0.256	0.0	1.0	31.7	36.8	-38.8 53.6	313	0.733	0.0	1.0			
347	315	314	0.75	0.0	1.0	43.1	65.9	-14.9 67.6	347	0.27	0.0	1.0	31.9	38.2	-38.1 54.0	315	0.75	0.0	1.0	0.265	0.0	1.0	31.8	37.7	-38.4 53.8	314	0.75	0.0	1.0			
347	316	315	0.766	0.0	1.0	43.5	66.4	-14.5 68.0	347	0.279	0.0	1.0	32.1	39.0	-37.6 54.2	316	0.767	0.0	1.0	0.273	0.0	1.0	32.0	38.5	-37.9 54.1	315	0.767	0.0	1.0			
348	317	316	0.783	0.0	1.0	43.8	66.9	-14.1 68.4	348	0.288	0.0	1.0	32.3	39.8	-37.1 54.5	317	0.783	0.0	1.0	0.282	0.0	1.0	32.1	39.3	-37.4 54.3	316	0.783	0.0	1.0			
348	318	317	0.8	0.0	1.0	44.2	67.3	-13.7 68.7	348	0.297	0.0	1.0	32.4	40.7	-36.5 54.7	318	0.8	0.0	1.0	0.29	0.0	1.0	32.3	40.0	-36.9 54.5	317	0.8	0.0	1.0			
348	319	318	0.816	0.0	1.0	44.6	67.8	-13.3 69.1	348	0.306	0.0	1.0	32.6	41.5	-36.0 55.0	319	0.817	0.0	1.0	0.299	0.0	1.0	32.4	40.8	-36.4 54.8	318	0.817	0.0	1.0			
349	320	319	0.833	0.0	1.0	45.0	68.3	-12.9 69.5	349	0.315	0.0	1.0	32.7	42.3	-35.4 55.2	320	0.833	0.0	1.0	0.307	0.0	1.0	32.6	41.6	-35.9 55.0	319	0.833	0.0	1.0			
349	321	320	0.85	0.0	1.0	45.3	68.8	-12.5 69.9	349	0.324	0.0	1.0	32.9	43.1	-34.8 55.5	321	0.85	0.0	1.0	0.315	0.0	1.0	32.7	42.4	-35.4 55.3	320	0.85	0.0	1.0			
350	322	321	0.866	0.0	1.0	45.7	69.2	-12.1 70.3	350	0.333	0.0	1.0	33.1	43.9	-34.2 55.8	322	0.867	0.0	1.0	0.324	0.0	1.0	32.9	43.2	-34.8 55.5	321	0.867	0.0	1.0			
350	323	321	0.883	0.0	1.0	46.1	69.7	-11.7 70.7	350	0.342	0.0	1.0	33.2	44.7	-33.6 56.0	323	0.883	0.0	1.0	0.332	0.0	1.0	33.0	43.9	-34.2 55.7	321	0.883	0.0	1.0			
350	324	322	0.9	0.0	1.0	46.4	70.1	-11.2 71.0	350	0.351	0.0	1.0	33.4	45.5	-33.0 56.3	324	0.9	0.0	1.0	0.341	0.0	1.0	33.2	44.7	-33.7 56.0	322	0.9	0.0	1.0			
351	325	323	0.916	0.0	1.0	46.7	70.6	-10.8 71.4	351	0.359	0.0	1.0	33.5	46.3	-32.3 56.5	325	0.917	0.0	1.0	0.349	0.0	1.0	33.4	45.4	-33.1 56.2	323	0.917	0.0	1.0			
351	326	324	0.933	0.0	1.0	47.0	71.0	-10.3 71.8	351	0.368	0.0	1.0	33.7	47.1	-31.6 56.8	326	0.933	0.0	1.0	0.358	0.0	1.0	33.5	46.2	-32.4 56.5	324	0.933	0.0	1.0			
352	327	325	0.95	0.0	1.0	47.3	71.5	-9.9 72.2	352	0.379	0.0	1.0	34.0	47.9	-31.0 57.1	327	0.95	0.0	1.0	0.366	0.0	1.0	33.7	46.9	-31.8 56.7	325	0.95	0.0	1.0			
352	328	326	0.966	0.0	1.0	47.6	71.9	-9.4 72.5	352	0.397	0.0	1.0	34.5	48.7	-30.4 57.5	328	0.967	0.0	1.0	0.375	0.0	1.0	33.8	47.6	-31.2 57.0	326	0.967	0.0	1.0			
352	329	327	0.983	0.0	1.0	47.9	72.4	-9.0 72.9	352	0.414	0.0	1.0	35.1	49.6	-29.7 57.9	329	0.983	0.0	1.0	0.391	0.0	1.0	34.3	48.4	-30.6 57.3	327	0.983	0.0	1.0			
353	330	328	1.0	0.0	1.0	48.2	72.8	-8.5 73.3	353	M_d 0.432	0.0	1.0	35.7	50.5	-29.1 58.3	330	M_s 1.0	0.0	1.0	0.407	0.0	1.0	34.9	49.3	-30.0 57.7	328	M_e 1.0	0.0	1.0			
353	331	329	1.0	0.0	0.983	48.2	72.7	-7.9 73.1	353	0.449	0.0	1.0	36.2	51.4	-28.4 58.7	331	1.0	0.0	0.983	0.424	0.0	1.0	35.4	50.1	-29.4 58.1	329	1.0	0.0	0.983			
354	332	330	1.0	0.0	0.966	48.2	72.5	-7.4 72.9	354	0.467	0.0	1.0	36.8	52.2	-27.7 59.1	332	1.0	0.0	0.967	0.441	0.0	1.0	35.9	50.9	-28.7 58.5	330	1.0	0.0	0.967			
354	333	331	1.0	0.0	0.95	48.2	72.4	-6.8 72.7	354	0.484	0.0	1.0	37.4	53.1	-26.9 59.6	333	1.0	0.0	0.95	0.457	0.0	1.0	36.5	51.8	-28.1 58.9	331	1.0	0.0	0.95			
355	334	332	1.0	0.0	0.933	48.2	72.2	-6.2 72.5	355	0.502	0.0	1.0	37.9	53.9	-26.2 60.0	334	1.0	0.0	0.933	0.474	0.0											

Output: Offset standard print; separation cmyk6*, D65, page 17/36

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

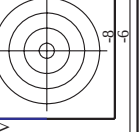
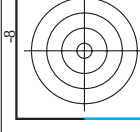
TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmyn6* (CMYK)

TUB material: code=rha4ta

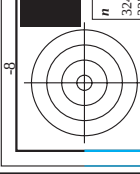
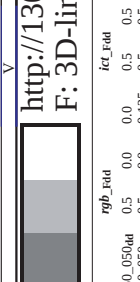
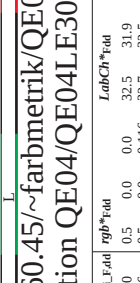
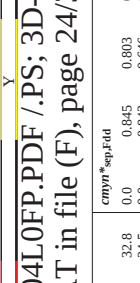
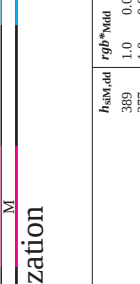
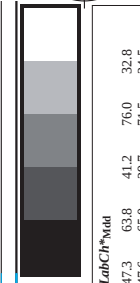


n/f	H*Ch*Fid	rgb_Fid	icr_Fid	hsa_Fid	rgb*Fid	LabCh*Fid	cmyn*_sep_Fid	rgb*Mid	hsa_Mid	LabCh*Mid	cmyn*_sep_Mid	rgb*Mid	hsa_Mid	LabCh*Mid	cmyn*_sep_Mid	delta
0/648	R00Y_100_100ad	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/648	R13Y_100_100ad	0.125	0.0	0.5	1.0	0.116	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.0
2/666	R25Y_100_100ad	0.25	0.0	1.0	0.233	0.0	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.0
3/675	R38Y_100_100ad	0.375	0.0	1.0	0.366	0.0	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.0
4/684	R50Y_100_100ad	0.5	0.0	1.0	0.5	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0
5/693	R63Y_100_100ad	0.625	0.0	1.0	0.633	0.0	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.0
6/702	R75Y_100_100ad	0.75	0.0	1.0	0.766	0.0	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.0
7/711	R88Y_100_100ad	1.0	0.0	1.0	0.883	0.0	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.0
8/720	Y00C_100_100ad	1.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/639	Y13C_100_100ad	0.875	1.0	0.0	0.883	0.0	0.0	0.883	1.0	0.883	0.0	0.883	1.0	0.883	0.0	0.0
10/658	Y25C_100_100ad	0.75	1.0	0.0	0.766	0.0	0.0	0.766	1.0	0.766	0.0	0.766	1.0	0.766	0.0	0.0
11/477	Y38C_100_100ad	0.625	1.0	0.0	0.633	0.0	0.0	0.633	1.0	0.633	0.0	0.633	1.0	0.633	0.0	0.0
12/396	Y50C_100_100ad	0.5	1.0	0.0	0.5	0.5	0.0	0.5	1.0	0.5	0.0	0.5	1.0	0.5	0.0	0.0
13/315	Y63C_100_100ad	0.375	1.0	0.0	0.366	0.0	0.0	0.366	1.0	0.366	0.0	0.366	1.0	0.366	0.0	0.0
14/234	Y75C_100_100ad	0.25	1.0	0.0	0.233	0.0	0.0	0.233	1.0	0.233	0.0	0.233	1.0	0.233	0.0	0.0
15/153	Y88C_100_100ad	0.125	1.0	0.0	0.116	0.0	0.0	0.116	1.0	0.116	0.0	0.116	1.0	0.116	0.0	0.0
16/72	G00C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17/73	G13C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18/74	G25C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19/75	G38C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20/76	G50C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21/77	G63C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22/78	G75C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23/79	G88C_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24/80	C00B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25/71	C13B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26/62	C25B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27/63	C38B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28/44	C50B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29/35	C63B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30/26	C75B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31/17	C88B_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32/8	B00M_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33/89	B13M_100_100ad	0.125	0.0	1.0	0.116	0.0	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.0
34/170	B25M_100_100ad	0.25	0.0	1.0	0.233	0.0	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.0
35/251	B38M_100_100ad	0.375	0.0	1.0	0.366	0.0	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.0
36/332	B50M_100_100ad	0.5	0.0	1.0	0.5	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0
37/413	B63M_100_100ad	0.625	0.0	1.0	0.633	0.0	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.0
38/494	B75M_100_100ad	0.75	0.0	1.0	0.766	0.0	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.0
39/575	B88M_100_100ad	0.875	0.0	1.0	0.883	0.0	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.0
40/656	M00R_100_100ad	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0
41/655	M13R_100_100ad	1.0	0.0	0.0	0.883	0.0	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.883	0.0	0.0
42/654	M25R_100_100ad	1.0	0.0	0.0	0.766	0.0	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.766	0.0	0.0
43/653	M38R_100_100ad	1.0	0.0	0.0	0.633	0.0	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.633	0.0	0.0
44/652	M50R_100_100ad	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0
45/651	M63R_100_100ad	1.0	0.0	0.0	0.366	0.0	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.366	0.0	0.0
46/650	M75R_100_100ad	1.0	0.0	0.0	0.233	0.0	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.233	0.0	0.0
47/649	M88R_100_100ad	1.0	0.0	0.0	0.116	0.0	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.116	0.0	0.0
48/648	R00Y_100_100ad	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0
49/0	NW_000ad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50/91	NW_013ad	0.125	0.0	0.0	0.125	0.0	0.0	0.125	0.0	0.125	0.0	0.125	0.0	0.125	0.0	0.0
51/182	NW_025ad	0.25	0.0	0.0	0.25	0.0	0.0	0.25	0.0	0.25	0.0	0.25	0.0	0.25	0.0	0.0
52/273	NW_038ad	0.375	0.0	0.0	0.375	0.0	0.0	0.375	0.0	0.375	0.0	0.375	0.0	0.375	0.0	0.0
53/364	NW_050ad	0.5	0.0	0.0	0.5	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0
54/455	NW_063ad	0.625	0.0	0.0	0.625	0.625	0.0	0.625	0.0	0.625	0.0	0.625	0.0	0.625	0.0	0.0
55/546	NW_075ad	0.75	0.0	0.0	0.75	0.75	0.0	0.75	0.0	0.75	0.0	0.75	0.0	0.75	0.0	0.0
56/637	NW_088ad	0.875	0.0	0.0	0.875	0.875	0.0	0.875	0.0	0.875	0.0	0.875	0.0	0.875	0.0	0.0
57/728	NW_100ad	1.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0

see similar files: <http://130.149.60.45/~farbmatrik/QE04/QE04.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmatrik>

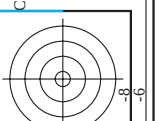


input: rgb/cmyk -> rgbd
output: 3D-linearization to cmyk*ad



TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS
application for measurement of offset print output, separation cmyn6* (CMYK)

TUB material: code=rha4ta



http://130.149.60.45/~farbmatrik/QE04/QE04L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE04/QE04LE30FP.DAT in file (F), page 24/33

n	HC*Fid	rgb_Fid	lch_Fid	hsa_Fid	rgb*Fid	LabCh*Fid	cmyn*_sep_Fid	hsv*Fid	delta
324	R050_050_050ad	0.5	0.5	0.5	0.5	32.5	0.0	0.0	0.0
325	R26Y_050_050ad	0.5	0.125	0.5	0.0	32.7	0.0	0.116	32.8
326	R050_050_050ad	0.5	0.0	0.5	0.0	32.7	0.0	0.116	32.8
327	B61R_050_050ad	0.5	0.375	0.5	0.0	32.9	0.0	0.25	33.8
328	B61R_050_050ad	0.5	0.5	0.5	0.0	32.9	0.0	0.25	33.8
329	B40R_062_062ad	0.5	0.625	0.625	0.312	31.9	0.0	0.625	34.5
330	B34R_075_075ad	0.5	0.75	0.75	0.375	31.5	0.0	0.75	35.9
331	B34R_075_075ad	0.5	0.0	0.875	0.875	30.5	0.0	0.875	37.1
332	B23R_100_100ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	37.8
333	B23R_100_100ad	0.5	0.125	0.5	0.0	32.5	0.0	0.116	39.0
334	R050_050_037ad	0.5	0.125	0.5	0.375	33.12	0.0	0.125	39.0
335	R18Y_050_037ad	0.5	0.125	0.5	0.375	33.12	0.0	0.125	39.0
336	B65R_050_037ad	0.5	0.125	0.5	0.375	33.12	0.0	0.125	39.0
337	B65R_050_037ad	0.5	0.125	0.5	0.375	33.12	0.0	0.125	39.0
338	B38R_062_050ad	0.5	0.125	0.625	0.625	31.6	0.0	0.508	33.0
339	B38R_062_050ad	0.5	0.125	0.75	0.75	30.5	0.0	0.51	33.0
340	B25R_087_075ad	0.5	0.125	0.875	0.875	29.5	0.0	0.5	33.0
341	R50Y_050_050ad	0.5	0.25	1.0	0.875	35.62	0.0	0.489	35.6
342	R31Y_050_037ad	0.5	0.25	0.5	0.375	33.12	0.0	0.5	35.6
343	R050_050_025ad	0.5	0.25	0.5	0.375	33.12	0.0	0.5	35.6
344	R050_050_025ad	0.5	0.25	0.5	0.375	33.12	0.0	0.5	35.6
345	R050_050_025ad	0.5	0.25	0.5	0.375	33.12	0.0	0.5	35.6
346	B34R_062_037ad	0.5	0.25	0.625	0.625	31.1	0.0	0.506	33.0
347	B25R_087_037ad	0.5	0.25	0.75	0.75	30.5	0.0	0.51	33.0
348	B25R_087_037ad	0.5	0.25	0.875	0.875	29.5	0.0	0.489	35.6
349	B18Y_100_025ad	0.5	0.25	1.0	0.875	35.62	0.0	0.487	35.6
350	B18Y_100_025ad	0.5	0.25	1.0	0.875	35.62	0.0	0.487	35.6
351	R65Y_050_050ad	0.5	0.375	0.5	0.5	32.5	0.0	0.381	32.5
352	R65Y_050_037ad	0.5	0.375	0.5	0.5	32.5	0.0	0.381	32.5
353	R050_050_025ad	0.5	0.375	0.5	0.5	32.5	0.0	0.375	32.5
354	R050_050_025ad	0.5	0.375	0.5	0.5	32.5	0.0	0.375	32.5
355	B25R_062_025ad	0.5	0.375	0.625	0.625	31.2	0.0	0.5	32.5
356	B18R_075_037ad	0.5	0.375	0.625	0.625	31.2	0.0	0.5	32.5
357	B18R_075_037ad	0.5	0.375	0.625	0.625	31.2	0.0	0.5	32.5
358	B11R_087_050ad	0.5	0.375	0.875	0.875	28.4	0.0	0.491	33.0
359	B09R_100_062ad	0.5	0.375	1.0	1.0	26.25	0.0	0.489	33.0
360	Y00C_050_050ad	0.5	0.5	0.5	0.5	53.0	0.0	0.5	53.0
361	Y00C_050_037ad	0.5	0.5	0.5	0.5	53.0	0.0	0.5	53.0
362	Y00C_050_025ad	0.5	0.5	0.5	0.5	53.0	0.0	0.5	53.0
363	Y00C_050_012ad	0.5	0.5	0.5	0.5	53.0	0.0	0.5	53.0
364	NW_050ad	0.5	0.5	0.5	0.5	53.0	0.0	0.5	53.0
365	B00R_062_012ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
366	B00R_075_025ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
367	B00R_087_037ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
368	B00R_100_050ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
369	Y18C_062_062ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
370	Y23C_062_050ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
371	Y31G_062_037ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
372	Y50G_062_025ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
373	G00B_062_012ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
374	G50B_062_012ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
375	G75B_075_025ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
376	G84B_087_037ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
377	G88B_100_050ad	0.5	0.625	0.625	0.625	31.2	0.0	0.5	31.2
378	Y31G_075_075ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
379	Y36C_075_062ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
380	Y36C_075_050ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
381	Y36C_075_037ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
382	G00B_075_025ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
383	G25B_075_025ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
384	G50B_075_025ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
385	G50B_087_037ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
386	G75B_100_050ad	0.5	0.75	0.75	0.75	31.2	0.0	0.75	31.2
387	Y41G_087_087ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
388	Y50C_087_075ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
389	Y66C_087_062ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
390	Y76C_087_050ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
391	G00B_087_037ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
392	G13B_087_037ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
393	G34B_087_037ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
394	G50B_087_037ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
395	G61B_100_050ad	0.5	0.875	0.875	0.875	31.2	0.0	0.875	31.2
396	Y50C_100_087ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
397	Y50C_100_087ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
398	Y66C_100_075ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
399	Y81G_100_062ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
400	G00B_100_050ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
401	G11B_100_050ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
402	G25B_100_050ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
403	G38B_100_050ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5
404	G50B_100_050ad	0.5	1.0	1.0	1.0	28.5	0.0	1.0	28.5

Mean color difference of this page: 0.597

input: rgb/cmyk -> rgbd
output: 3D-linearization to cmyk*ad

TUB-test chart QE04; hue code: H*d=R25Yd
colors and differences, ΔE*

I-1032330-F30

QE040-7N; Page 24/33-F

I-1032330-F30



n	HIC [†] _{rd}	rgb [†] _{rd}	ic [†] _{rd}	h _{ss} _{rd}	rgb [†] _{Frd}	LaCh [†] _{rd}	cmym [†] _{sep,Frd}	h _{ss} _{rd}	rgb [†] _{Frd}	LaCh [†] _{rd}	delta
405	R00Y_062_062ad	0.625	0.0	0.625	0.625	0.0	0.0	389	1.0	0.0	47.3
406	R31Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	380	1.0	0.0	76.0
407	R11Y_062_062ad	0.625	0.25	0.625	0.625	0.0	0.0	390	1.0	0.0	32.2
408	B69R_062_062ad	0.625	0.375	0.625	0.625	0.0	0.0	367	1.0	0.0	26.4
409	B59R_062_062ad	0.625	0.5	0.625	0.625	0.0	0.0	352	1.0	0.0	64.8
410	B50R_062_062ad	0.625	0.625	0.625	0.625	0.0	0.0	339	1.0	0.0	17.8
411	B42R_075_075ad	0.625	0.0	0.625	0.625	0.0	0.0	384	1.0	0.0	6.2
412	B36R_087_087ad	0.625	0.0	0.625	0.625	0.0	0.0	384	1.0	0.0	6.2
413	R18Y_100_100ad	0.625	0.0	0.625	0.625	0.0	0.0	330	1.0	0.0	358.3
414	R18Y_100_100ad	0.625	0.0	0.625	0.625	0.0	0.0	322	1.0	0.0	353.3
415	R00Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	315	1.0	0.0	71.1
416	R26Y_062_050ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	71.1
417	R00Y_062_050ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
418	B61R_062_050ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
419	B40R_075_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
420	B40R_075_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
421	B34R_087_087ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
422	B34R_087_087ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
423	B38Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
424	R23Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
425	R00Y_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
426	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
427	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
428	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
429	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
430	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
431	B59R_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
432	R61Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
433	R61Y_062_062ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
434	R31Y_062_037ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
435	R00Y_062_025ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
436	R00Y_062_025ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	346.6
437	B50R_062_025ad	0.625	0.125	0.625	0.625	0.0	0.0	308	1.0	0.0	34

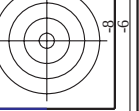
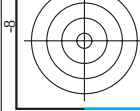
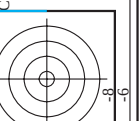
```
input: rgb/cmyk -> rgbdd  
output: 3D-linearization to cmyk*dd
```

TUB-test chart QE04; hue code: H_d^{*}=R25Y_d
colors and differences, ΔE^*

see similar files: <http://130.149.60.45/~farbmetrik/QE04/QE04.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

http://130.149.60.45/~farbmatrik/QE04/QE04L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE04/QE04LE30FP.DAT in file (F), page 26/33

n	H1C*Fid	rgb*Fid	lch*Fid	hsa*Fid	rgb*Mid	LabCh*Fid	cmym*sep,Fid	rgb*Mid	hsa*Mid	LabCh*Mid	delta
486	R35Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	390, 390, 390	0.75, 0.75, 0.75	30.9, 47.9, 47.9	0.0, 0.934, 0.285	1.0, 0.0, 0.0	389, 389, 389	47.3, 63.8, 41.2	76.0, 32.8, 32.8
487	R00Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	381, 381, 381	0.75, 0.0, 0.112	40.0, 48.4, 25.4	0.0, 0.934, 0.712	1.0, 0.0, 0.15	382, 382, 382	47.3, 64.6, 33.9	72.9, 27.6, 27.6
488	R18Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	370, 370, 370	0.75, 0.0, 0.237	40.2, 49.3, 18.8	0.0, 0.931, 0.636	1.0, 0.0, 0.316	371, 371, 371	47.3, 65.7, 25.1	70.4, 20.9, 20.9
489	R00Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	360, 360, 360	0.75, 0.0, 0.375	40.4, 50.7, 10.5	0.0, 0.933, 0.483	1.0, 0.0, 0.5	360, 360, 360	47.7, 67.7, 14.0	69.1, 11.6, 11.6
490	B65R,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	350, 350, 350	0.75, 0.0, 0.512	40.5, 52.3, 3.2	0.0, 0.928, 0.327	1.0, 0.0, 0.683	348, 348, 348	48.1, 69.7, 4.0	69.8, 3.2, 3.2
491	B57R,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	340, 340, 340	0.75, 0.0, 0.637	40.6, 53.5, -2.5	0.0, 0.926, 0.189	1.0, 0.0, 0.85	337, 337, 337	48.2, 71.4, -3.3	71.5, 357.2, 357.2
492	B43R,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	330, 330, 330	0.75, 0.0, 0.76	40.6, 54.6, -10.6	0.0, 0.929, 0.074	1.0, 0.0, 1.0	330, 330, 330	48.2, 72.8, -8.5	73.3, 353.3, 353.3
493	B30R,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	320, 320, 320	0.758, 0.0, 0.875	42.2, 56.0, -14.5	0.095, 0.959, 0.234	0.866, 0.0, 1.0	322, 322, 322	45.7, 69.2, -12.1	70.3, 350.0, 350.0
494	B38R,100,100Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	310, 310, 310	0.766, 0.0, 1.0	43.5, 56.4, -36.1	0.999, 0.0, 0.0	0.766, 0.0, 1.0	317, 317, 317	43.5, 66.4, -14.5	68.0, 347.6, 347.6
495	R15Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	300, 300, 300	0.75, 0.112, 0.0	43.5, 56.6, -14.5	0.0, 0.81, 0.936	0.766, 0.0, 1.0	317, 317, 317	43.5, 66.4, -14.5	68.0, 347.6, 347.6
496	R00Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	290, 290, 290	0.75, 0.125, 0.125	45.9, 59.9, 25.7	0.0, 0.792, 0.257	0.792, 0.0, 0.15	307, 307, 307	52.1, 52.8, 48.1	71.5, 42.3, 42.3
497	R31Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	280, 280, 280	0.75, 0.125, 0.239	46.1, 60.1, 45.2	0.0, 0.793, 0.598	0.793, 0.0, 0.0	300, 300, 300	47.3, 63.8, 41.2	76.0, 32.8, 32.8
498	R11Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	270, 270, 270	0.75, 0.125, 0.364	46.2, 61.4, 13.3	0.0, 0.797, 0.433	0.797, 0.0, 0.0	280, 280, 280	47.3, 64.8, 32.2	72.4, 26.4, 26.4
499	B69R,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	260, 260, 260	0.75, 0.125, 0.51	46.3, 62.7, 4.3	0.0, 0.797, 0.331	0.797, 0.0, 0.0	267, 267, 267	47.3, 66.3, 21.3	69.6, 17.8, 17.8
500	B59R,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	250, 250, 250	0.75, 0.125, 0.635	46.5, 64.4, -1.3	0.0, 0.8, 0.984	0.8, 0.0, 0.0	252, 252, 252	48.0, 68.8, 7.5	69.2, 6.2, 6.2
501	B50R,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	240, 240, 240	0.75, 0.125, 0.76	46.5, 65.5, -4.5	0.0, 0.802, 0.277	0.802, 0.0, 0.0	239, 239, 239	48.2, 71.1, -2.1	71.1, 358.3, 358.3
502	B42R,087,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	230, 230, 230	0.765, 0.125, 0.875	48.1, 51.6, -9.4	0.0, 0.831, 0.0	0.831, 0.0, 0.0	232, 232, 232	45.3, 68.8, -12.5	69.9, 349.6, 349.6
503	B36R,100,087Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	220, 220, 220	0.766, 0.125, 1.0	49.4, 56.9, -13.9	0.05, 0.873, 0.196	0.766, 0.0, 0.0	222, 222, 222	42.8, 65.0, -15.9	66.9, 346.2, 346.2
504	R31Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	210, 210, 210	0.75, 0.239, 0.0	48.6, 51.7, 55.9	0.0, 0.667, 0.341	0.667, 0.0, 0.0	218, 218, 218	58.9, 36.6, 57.1	69.0, 55.9, 55.9
505	R18Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	200, 200, 200	0.75, 0.239, 0.125	49.7, 51.2, 44.2	0.0, 0.663, 0.341	0.663, 0.0, 0.0	210, 210, 210	53.4, 50.1, 49.9	70.7, 44.9, 44.9
506	R00Y,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	190, 190, 190	0.75, 0.239, 0.239	50.8, 51.7, 38.0	0.0, 0.672, 0.361	0.672, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
507	R26Y,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	180, 180, 180	0.75, 0.239, 0.364	51.1, 52.8, 24.8	0.0, 0.672, 0.361	0.672, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
508	R00Y,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	170, 170, 170	0.75, 0.239, 0.512	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
509	B61R,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	160, 160, 160	0.75, 0.239, 0.635	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
510	B50R,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	150, 150, 150	0.75, 0.239, 0.76	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
511	B38R,100,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	140, 140, 140	0.75, 0.239, 0.875	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
512	B30Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	130, 130, 130	0.75, 0.239, 1.0	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
513	B38R,100,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	120, 120, 120	0.75, 0.239, 1.0	51.1, 52.8, 24.8	0.0, 0.671, 0.361	0.671, 0.0, 0.0	209, 209, 209	63.8, 41.2, 70.7	52.8, 32.8, 32.8
514	R38Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	110, 110, 110	0.75, 0.364, 0.125	55.0, 20.3, 38.0	0.0, 0.532, 0.293	0.532, 0.0, 0.0	109, 109, 109	61.8, 32.5, 60.8	69.0, 61.8, 61.8
515	R23Y,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	100, 100, 100	0.75, 0.364, 0.239	55.9, 22.9, 26.1	0.0, 0.546, 0.163	0.546, 0.0, 0.0	105, 105, 105	61.8, 32.5, 60.8	69.0, 61.8, 61.8
516	R00Y,075,037Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	90, 90, 90	0.75, 0.364, 0.364	58.1, 24.6, 9.4	0.0, 0.546, 0.163	0.546, 0.0, 0.0	105, 105, 105	61.8, 32.5, 60.8	69.0, 61.8, 61.8
517	R18Y,075,037Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	80, 80, 80	0.75, 0.364, 0.512	58.1, 24.6, 9.4	0.0, 0.546, 0.163	0.546, 0.0, 0.0	105, 105, 105	61.8, 32.5, 60.8	69.0, 61.8, 61.8
518	B65R,075,037Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	70, 70, 70	0.75, 0.364, 0.635	58.1, 24.6, 9.4	0.0, 0.546, 0.163	0.546, 0.0, 0.0	105, 105, 105	61.8, 32.5, 60.8	69.0, 61.8, 61.8
519	B50R,075,037Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	60, 60, 60	0.75, 0.364, 0.76	58.1, 24.6, 9.4	0.0, 0.546, 0.163	0.546, 0.0, 0.0	105, 105, 105	61.8, 32.5, 60.8	69.0, 61.8, 61.8
520	B38R,087,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	50, 50, 50	0.758, 0.364, 0.875	59.7, 33.2, -7.2	0.028, 0.546, 0.078	0.546, 0.0, 0.0	330, 330, 330	61.8, 32.5, 60.8	69.0, 61.8, 61.8
521	B30R,100,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	40, 40, 40	0.75, 0.364, 1.0	61.2, 36.5, -13.8	0.0, 0.594, 0.0	0.594, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
522	R68Y,075,075Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	30, 30, 30	0.75, 0.512, 0.0	61.6, 52.9, 59.8	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
523	R61Y,075,062Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	20, 20, 20	0.75, 0.512, 0.125	62.1, 7.4, 47.2	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
524	R50Y,075,050Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	10, 10, 10	0.75, 0.512, 0.239	62.1, 7.4, 47.2	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
525	R31Y,075,037Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	0, 0, 0	0.75, 0.512, 0.364	62.1, 7.4, 47.2	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
526	R00Y,075,025Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	0, 0, 0	0.75, 0.512, 0.512	62.1, 7.4, 47.2	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
527	R00Y,075,025Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	0, 0, 0	0.75, 0.512, 0.635	62.1, 7.4, 47.2	0.0, 0.633, 0.212	0.633, 0.0, 0.0	307, 307, 307	61.8, 32.5, 60.8	69.0, 61.8, 61.8
528	B50R,075,025Mid	0.75, 0.75, 0.75	0.75, 0.75, 0.75	0, 0, 0	0.7						



http://130.149.60.45/~farbmatrik/QE04/QE04L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE04/QE04LE30FP.DAT in file (F), page 29/33

input: rgb/cmyk -> rgbd
output: 3D-linearization to cmyk*dd

n	HC*Fid	rgb_Fid	icr_Fid	hsa_Fid	rgb*Fid	LabCh*Fid	cmyn*sep_Fid	hax*id	rgb*id	LabCh*id	delta
729	NW_100ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
730	G50B_100.012ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
731	G50B_100.037ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
732	G50B_100.052ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
733	G50B_100.067ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
734	G50B_100.082ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
735	G50B_100.097ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
736	G50B_100.112ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
737	G50B_100.127ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
738	ROY_100.012ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
739	ROY_100.037ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
740	ROY_100.052ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
741	ROY_100.067ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
742	ROY_100.082ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
743	ROY_100.097ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
744	ROY_100.112ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
745	ROY_100.127ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
746	ROY_100.142ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
747	ROY_100.157ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
748	ROY_100.172ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
749	ROY_100.187ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
750	ROY_100.202ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
751	ROY_100.217ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
752	ROY_100.232ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
753	ROY_100.247ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
754	ROY_100.262ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
755	ROY_100.277ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
756	ROY_100.292ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
757	ROY_100.307ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
758	ROY_100.322ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
759	ROY_100.337ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
760	ROY_100.352ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
761	ROY_100.367ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
762	ROY_100.382ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
763	ROY_100.397ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
764	ROY_100.412ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
765	ROY_100.427ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
766	ROY_100.442ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
767	ROY_100.457ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
768	ROY_100.472ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
769	ROY_100.487ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
770	ROY_100.502ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
771	ROY_100.517ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
772	ROY_100.532ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
773	ROY_100.547ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
774	ROY_100.562ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
775	ROY_100.577ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
776	ROY_100.592ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
777	ROY_100.607ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
778	ROY_100.622ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
779	ROY_100.637ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
780	ROY_100.652ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
781	ROY_100.667ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
782	ROY_100.682ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
783	ROY_100.697ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
784	ROY_100.712ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
785	ROY_100.727ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
786	ROY_100.742ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
787	ROY_100.757ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
788	ROY_100.772ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
789	ROY_100.787ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
790	ROY_100.802ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
791	ROY_100.817ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
792	ROY_100.832ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
793	ROY_100.847ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
794	ROY_100.862ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
795	ROY_100.877ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
796	ROY_100.892ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
797	ROY_100.907ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
798	ROY_100.922ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
799	ROY_100.937ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
800	ROY_100.952ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
801	ROY_100.967ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
802	ROY_100.982ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
803	ROY_100.997ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
804	ROY_101.012ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
805	ROY_101.027ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
806	ROY_101.042ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
807	ROY_101.057ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
808	ROY_101.072ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0
809	ROY_101.087ad	0.875	1.0	1.0	0.0	95.4	0.0	360	1.0	95.4	0.0

see similar files: http://130.149.60.45/~farbmatrik/QE04/QE04.HTM
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmatrik

TUB-test chart QE04; hue code: H*d=R25Yd
colors and differences, ΔE*

TUB registration: 20130201-QE04/QE04L0FP.PDF /.PS TUB material: code=rha4ta
application for measurement of offset print output, separation cmyn6* (CMYK)

n	HVC*Fid	rgb_Fid	lcr_Fid	hsa_Fid	rgb*Fid	LabCH*Fid	cmyn*sep_Fid	rgb*dd	hsa*dd	LabCH*dd	delta
1053	NW_086dd	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	85.0 0.0 0.0	0.024 0.007 0.000	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1054	NW_093dd	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	90.2 0.0 0.0	0.02 0.005 0.000	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1055	NW_100dd	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.4 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1056	NW_006dd	0.066 0.066 0.066	0.066 0.066 0.066	0.066 0.066 0.066	0.066 0.066 0.066	22.8 0.0 0.0	0.139 0.022 0.000	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1057	NW_013dd	0.133 0.133 0.133	0.133 0.133 0.133	0.133 0.133 0.133	0.133 0.133 0.133	28.0 0.0 0.0	0.057 0.043 0.048	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1058	NW_020dd	0.2 0.2 0.2	0.2 0.2 0.2	0.2 0.2 0.2	0.2 0.2 0.2	33.2 0.0 0.0	0.036 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1059	NW_026dd	0.266 0.266 0.266	0.266 0.266 0.266	0.266 0.266 0.266	0.266 0.266 0.266	38.3 0.0 0.0	0.013 0.015 0.015	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1060	NW_033dd	0.333 0.333 0.333	0.333 0.333 0.333	0.333 0.333 0.333	0.333 0.333 0.333	43.6 0.0 0.0	0.016 0.005 0.005	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1061	NW_040dd	0.4 0.4 0.4	0.4 0.4 0.4	0.4 0.4 0.4	0.4 0.4 0.4	48.8 0.0 0.0	0.019 0.018 0.018	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1062	NW_046dd	0.466 0.466 0.466	0.466 0.466 0.466	0.466 0.466 0.466	0.466 0.466 0.466	53.9 0.0 0.0	0.021 0.007 0.007	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1063	NW_053dd	0.533 0.533 0.533	0.533 0.533 0.533	0.533 0.533 0.533	0.533 0.533 0.533	59.1 0.0 0.0	0.006 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1064	NW_060dd	0.6 0.6 0.6	0.6 0.6 0.6	0.6 0.6 0.6	0.6 0.6 0.6	64.3 0.0 0.0	0.006 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1065	NW_066dd	0.666 0.666 0.666	0.666 0.666 0.666	0.666 0.666 0.666	0.666 0.666 0.666	69.5 0.0 0.0	0.021 0.011 0.011	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1066	NW_073dd	0.734 0.734 0.734	0.734 0.734 0.734	0.734 0.734 0.734	0.734 0.734 0.734	74.7 0.0 0.0	0.007 0.005 0.005	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1067	NW_080dd	0.8 0.8 0.8	0.8 0.8 0.8	0.8 0.8 0.8	0.8 0.8 0.8	79.9 0.0 0.0	0.024 0.007 0.007	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1068	NW_086dd	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	0.866 0.866 0.866	85.0 0.0 0.0	0.007 0.005 0.005	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1069	NW_093dd	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	0.933 0.933 0.933	90.2 0.0 0.0	0.02 0.005 0.005	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1070	NW_100dd	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	1.0 1.0 1.0	95.4 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1071	NW_006dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1072	NW_013dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1073	NW_020dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1074	NW_026dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1075	NW_033dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1076	NW_040dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1077	NW_046dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1078	NW_053dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0
1079	NW_060dd	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.0 1.0 1.0	360 1.0 1.0	95.4 0.0 0.0	0.0