

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 86/360 = 0.24$

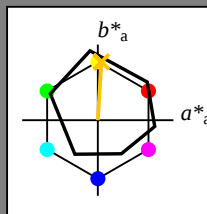
Data for any device (d) or elementary (e) colour:

HIC^*

hue text for the colours of this page:

$H^*_- = R75Y_-$

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):

$LabCh^*_{-,Ma}$: 80 4 77 77 86

$HIC^*_{-,Ma}$: R75Y_100_100_

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

1.0 0.76 0.0 1.0 1.0

triangle lightness T^*

% Gamut

$u^*_{rel} = 92$

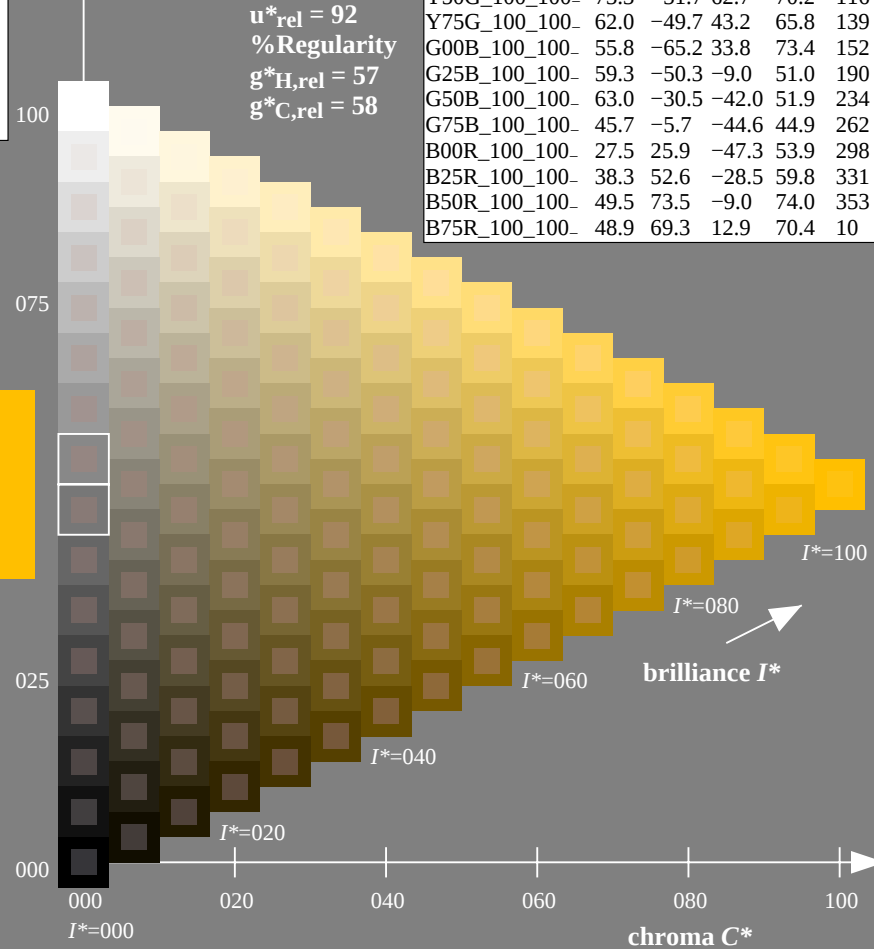
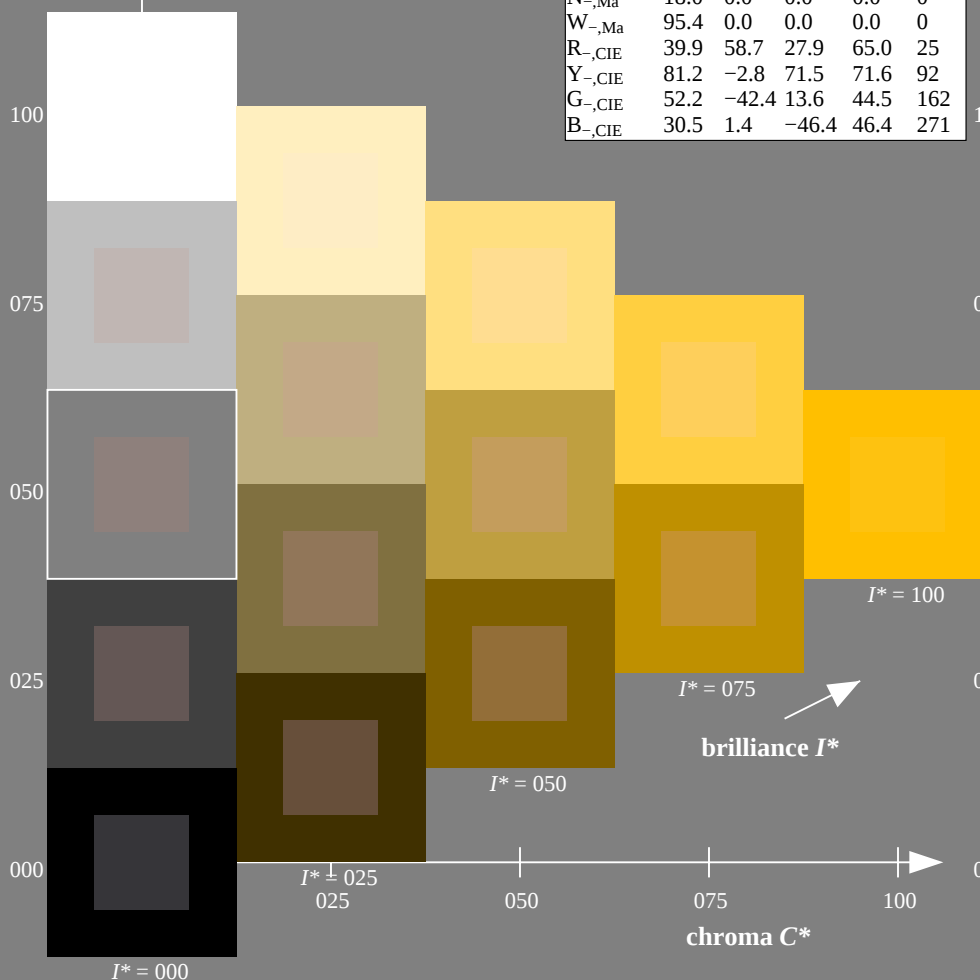
% Regularity

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

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

$H^*_- = R75Y_-$

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 QE28; hue code: $H^*_- = R75Y_-$
Test chart according to DIN 33872, 3D=1, de=1, $cmY0^*$

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

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 76/360 = 0.21$

$H^*_e = R75Y_e$

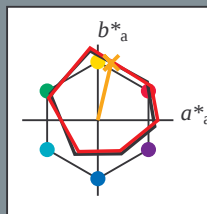
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = R75Y_e$

triangle lightness T^*



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

Data for maximum colour (Ma):

$LabCh^*_e, Ma: 70 \ 17 \ 75 \ 77 \ 76$

$HIC^*_e, Ma: R75Y_100_100_e$

$rgbic^*_e, Ma:$

1.0 0.6 0.0 1.0 1.0

triangle lightness T^*

% Gamut

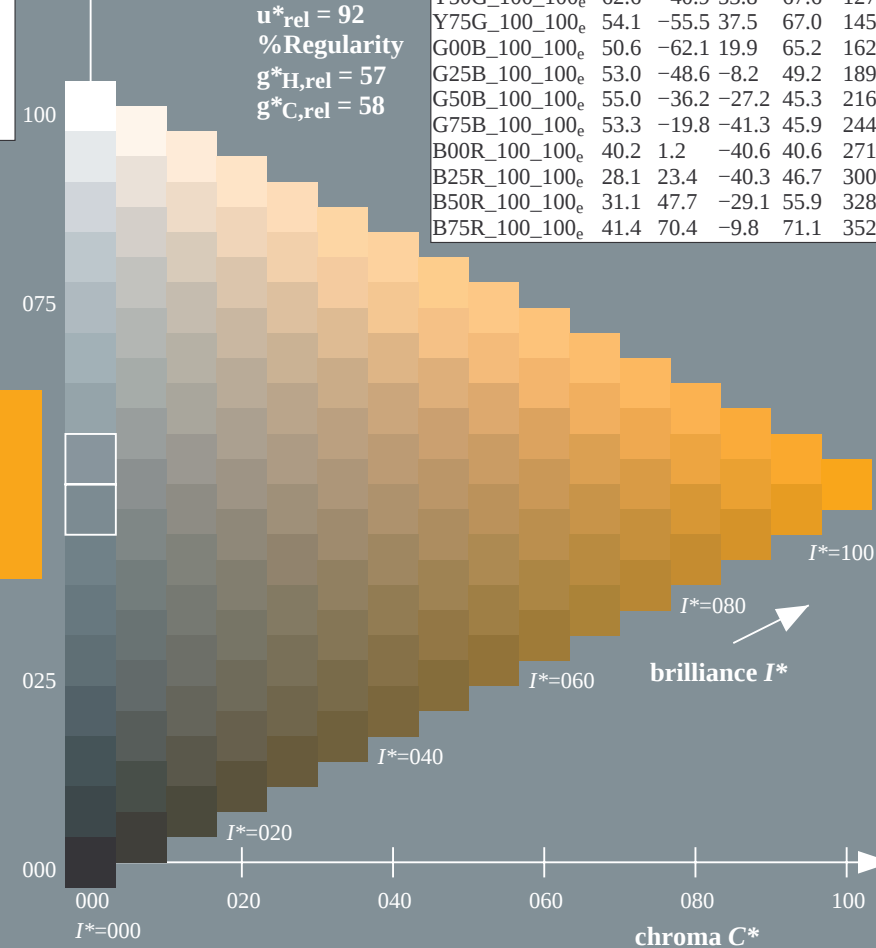
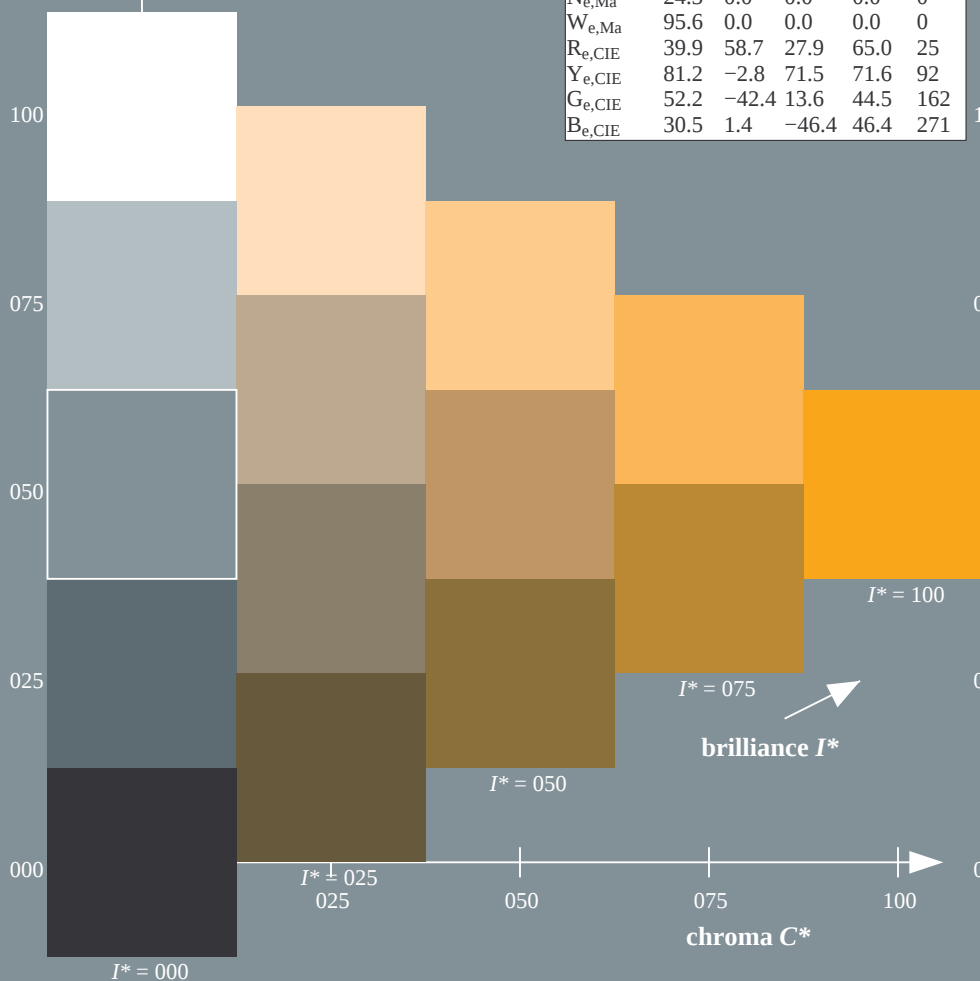
$u^*_{rel} = 92$

% Regularity

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

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

ORS20a; adapted (a) CIELAB data					
H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_100_100_e$	45.6	72.2	34.4	80.0	25
$R25Y_100_100_e$	50.5	59.2	51.6	78.6	41
$R50Y_100_100_e$	60.2	38.2	63.4	74.1	58
$R75Y_100_100_e$	70.9	17.9	75.9	77.9	76
$Y00G_100_100_e$	83.6	-3.6	90.4	90.4	92
$Y25G_100_100_e$	74.5	-25.0	74.3	78.4	108
$Y50G_100_100_e$	62.6	-40.9	53.8	67.6	127
$Y75G_100_100_e$	54.1	-55.5	37.5	67.0	145
$G00B_100_100_e$	50.6	-62.1	19.9	65.2	162
$G25B_100_100_e$	53.0	-48.6	-8.2	49.2	189
$G50B_100_100_e$	55.0	-36.2	-27.2	45.3	216
$G75B_100_100_e$	53.3	-19.8	-41.3	45.9	244
$B00R_100_100_e$	40.2	1.2	-40.6	40.6	271
$B25R_100_100_e$	28.1	23.4	-40.3	46.7	300
$B50R_100_100_e$	31.1	47.7	-29.1	55.9	328
$B75R_100_100_e$	41.4	70.4	-9.8	71.1	352



TUB-test chart QE28; hue code: $H^*_e = R75Y_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

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

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 76/360 = 0.21$

$H^*_e = R75Y_e$

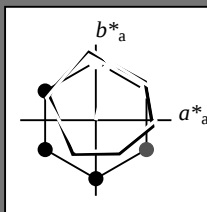
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = R75Y_e$

triangle lightness T^*



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

Data for maximum colour (Ma):

$LabCh^*_e, Ma: 70 \ 17 \ 75 \ 77 \ 76$

$HIC^*_e, Ma: R75Y_100_100_e$

$rgbic^*_e, Ma:$

1.0 0.6 0.0 1.0 1.0

triangle lightness T^*

% Gamut

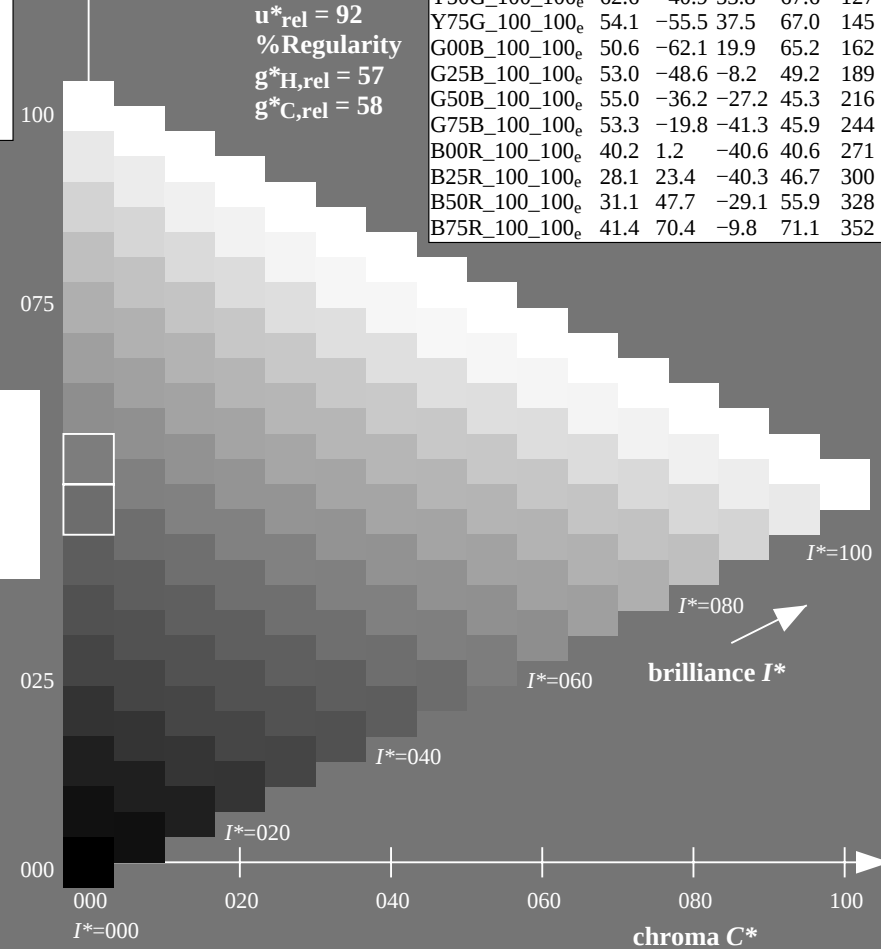
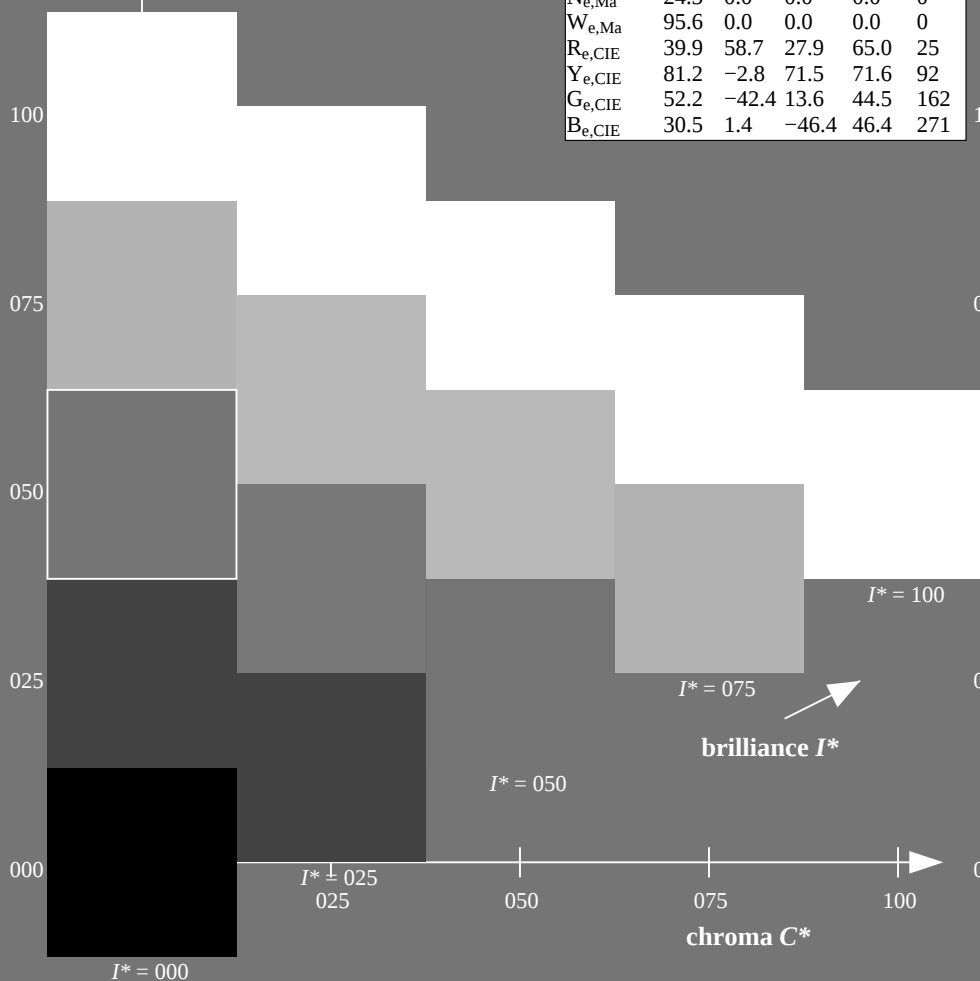
$u^*_{rel} = 92$

% Regularity

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

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

ORS20a; adapted (a) CIELAB data					
H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
$R00Y_100_100_e$	45.6	72.2	34.4	80.0	25
$R25Y_100_100_e$	50.5	59.2	51.6	78.6	41
$R50Y_100_100_e$	60.2	38.2	63.4	74.1	58
$R75Y_100_100_e$	70.9	17.9	75.9	77.9	76
$Y00G_100_100_e$	83.6	-3.6	90.4	90.4	92
$Y25G_100_100_e$	74.5	-25.0	74.3	78.4	108
$Y50G_100_100_e$	62.6	-40.9	53.8	67.6	127
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$G00B_100_100_e$	50.6	-62.1	19.9	65.2	162
$G25B_100_100_e$	53.0	-48.6	-8.2	49.2	189
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$G75B_100_100_e$	53.3	-19.8	-41.3	45.9	244
$B00R_100_100_e$	40.2	1.2	-40.6	40.6	271
$B25R_100_100_e$	28.1	23.4	-40.3	46.7	300
$B50R_100_100_e$	31.1	47.7	-29.1	55.9	328
$B75R_100_100_e$	41.4	70.4	-9.8	71.1	352



TUB-test chart QE28; hue code: $H^*_e = R75Y_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

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

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 76/360 = 0.21$

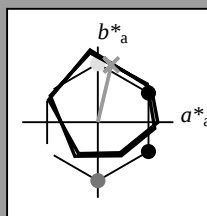
Data for any device (d) or elementary (e) colour:

HIC_e^*

hue text for the colours
of this page:

$H_e^* = R75Y_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data					
name	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
$R_{e,Ma}$	45.6	72.2	34.4	80.0	25
$Y_{e,Ma}$	83.6	-3.6	90.4	90.4	92
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$M_{e,Ma}$	31.1	47.7	-29.1	55.9	328
$N_{e,Ma}$	24.3	0.0	0.0	0.0	0
$W_{e,Ma}$	95.6	0.0	0.0	0.0	0
$R_{e,CIE}$	39.9	58.7	27.9	65.0	25
$Y_{e,CIE}$	81.2	-2.8	71.5	71.6	92
$G_{e,CIE}$	52.2	-42.4	13.6	44.5	162
$B_{e,CIE}$	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh_{e,Ma}^*$: 70 17 75 77 76

$HIC_{e,Ma}^*$: R75Y_100_100_e

$rgbic_{e,Ma}^*$:

1.0 0.6 0.0 1.0 1.0

triangle lightness T^*

% Gamut

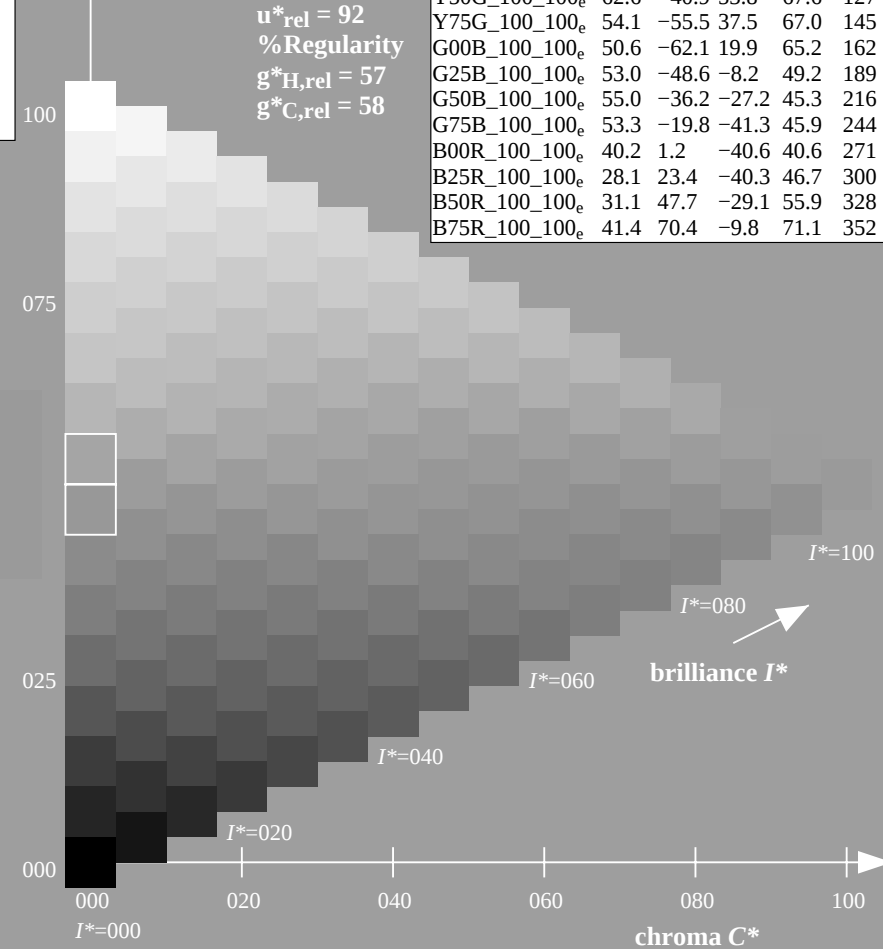
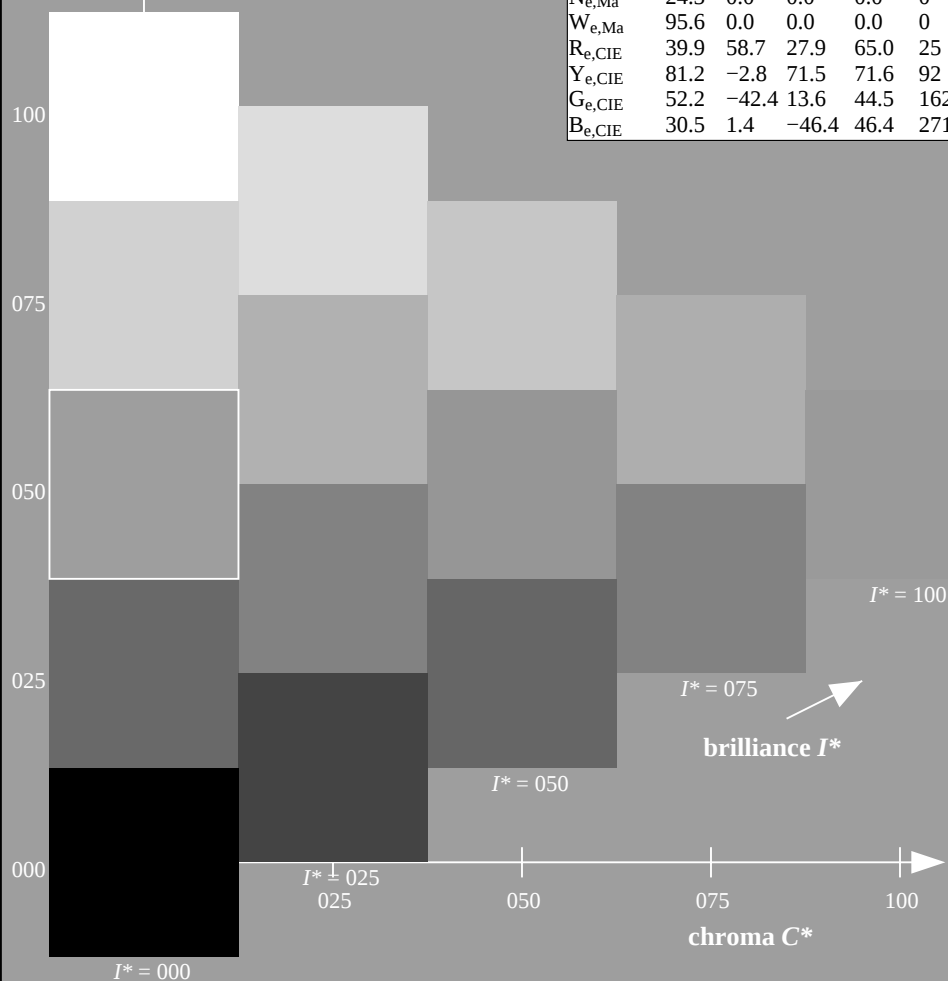
$u_{rel}^* = 92$

% Regularity

$g_{H,rel}^* = 57$

$g_{C,rel}^* = 58$

ORS20a; adapted (a) CIELAB data					
H_e^*	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
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$R25Y_{100_100_e}$	50.5	59.2	51.6	78.6	41
$R50Y_{100_100_e}$	60.2	38.2	63.4	74.1	58
$R75Y_{100_100_e}$	70.9	17.9	75.9	77.9	76
$Y00G_{100_100_e}$	83.6	-3.6	90.4	90.4	92
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1-113331-L0 QE280-73

TUB-test chart QE28; hue code: $H_e^* = R75Y_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmY0_{de}^*$

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 76/360 = 0.21$

$H^*_e = R75Y_e$

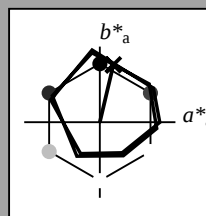
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = R75Y_e$

triangle lightness T^*



ORS20a; adapted (a) CIELAB data					
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$W_{e,Ma}$	95.6	0.0	0.0	0.0	0
$R_{e,CIE}$	39.9	58.7	27.9	65.0	25
$Y_{e,CIE}$	81.2	-2.8	71.5	71.6	92
$G_{e,CIE}$	52.2	-42.4	13.6	44.5	162
$B_{e,CIE}$	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{e,Ma}$: 70 17 75 77 76

$HIC^*_{e,Ma}$: R75Y_100_100_e

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

1.0 0.6 0.0 1.0 1.0

triangle lightness T^*

% Gamut

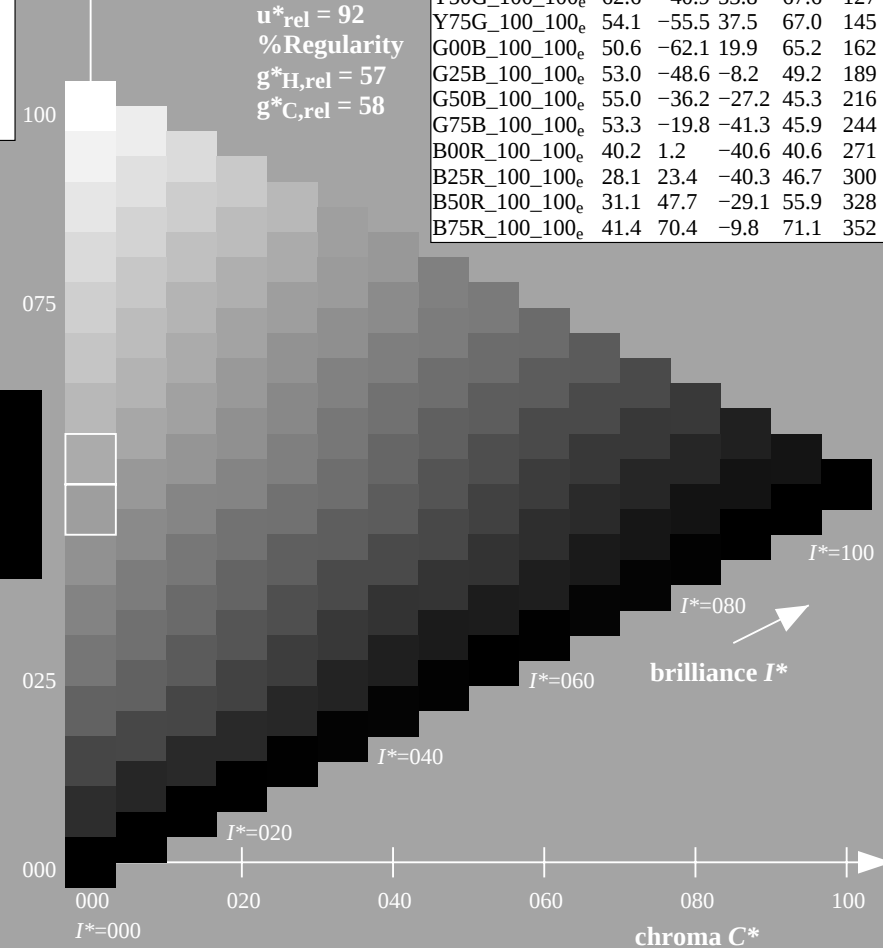
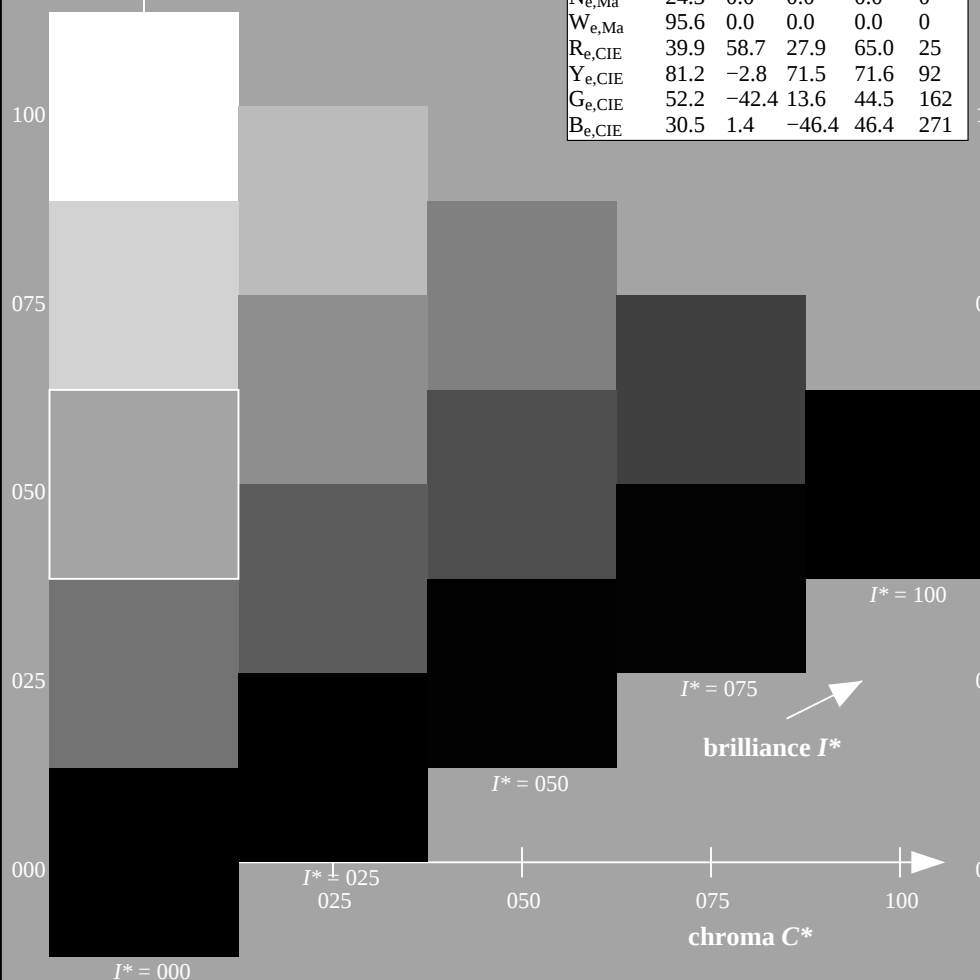
$u^*_{rel} = 92$

% Regularity

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

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

ORS20a; adapted (a) CIELAB data					
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$R25Y_100_100_e$	50.5	59.2	51.6	78.6	41
$R50Y_100_100_e$	60.2	38.2	63.4	74.1	58
$R75Y_100_100_e$	70.9	17.9	75.9	77.9	76
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$B75R_100_100_e$	41.4	70.4	-9.8	71.1	352



1-113431-L0 QE280-73

TUB-test chart QE28; hue code: $H^*_e = R75Y_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

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

TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
application for measurement of offset print output, separation $cmY0^*$ (CMY0)

TUB material: code=rha4ta

http://130.149.60.45/~farbmetrik/QE28/QE28L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE28/QE28LE30FP.DAT in file (F), page 6/33

see similar files: <http://130.149.60.45/~farbmetrik/QE28/QE28.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB-test chart QE28; hue code: $H_e^* = R75Y_e$
Test chart according to DIN 33872, 3D=1, $de=1$, $cmY0^*$

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

1-113531-L0 QE280-73

1-113531-E0

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

$J=Y_d$ Yellow

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

$L=G_d$ leaf-green

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

$C=C_d$ cyan-blue

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

$O=R_d$ orange-red

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

$M=M_d$ magenta-red

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

$V=B_d$ violet-blue

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

Y_e yellow

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

G_e green

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

C_e blue-green

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

B_e blue

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

R_e red

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

M_e blue-red

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

Y_s yellow

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

G_s green

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

R_s red

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

C_s blue-green

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

M_s blue-red

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

B_s blue

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

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

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

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

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

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

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

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

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

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

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

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

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

1-113631-L0 QE280-73 LAB*La0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; $rgb-LabCh^*$ -tables

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

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

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

The angles of the primary colours (x=LabCh)										The angles of the secondary colours (x=LabCh)										The angles of the tertiary colours (x=LabCh)														
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	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	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		
32.3	30.0	25.4	1.0	0.0	0.0	45.4	70.9	44.8	83.9	32.3	1.0	0.0	0.0	45.5	70.9	44.9	83.9	32	1.0	0.0	0.096	45.5	71.4	41.2	82.4	30	1.0	0.0	0.255	45.7	72.2	34.4	80.0	25
38.1	37.5	33.8	1.0	0.125	0.0	48.9	62.8	49.4	79.9	38.1	1.0	0.1	0.0	48.7	63.4	49.1	80.2	37	1.0	0.1	0.0	48.2	64.5	48.6	80.7	37	1.0	0.021	0.0	46.0	69.6	45.7	83.3	33
46.8	45.0	42.1	1.0	0.25	0.0	53.6	51.9	55.5	76.0	46.8	1.0	0.25	0.0	53.7	52.0	55.5	76.0	46	1.0	0.223	0.0	52.7	54.4	54.4	76.9	45	1.0	0.183	0.0	51.1	57.9	52.5	78.1	42
56.9	52.5	50.5	1.0	0.375	0.0	59.1	40.3	62.0	74.0	56.9	1.0	0.313	0.0	58.8	41.1	61.7	74.2	56	1.0	0.313	0.0	56.5	46.2	59.1	75.0	52	1.0	0.288	0.0	55.4	48.5	57.8	75.4	49
67.1	60.0	58.8	1.0	0.5	0.0	64.9	28.9	68.6	74.5	67.1	1.0	0.5	0.0	64.9	28.9	68.7	74.5	67	1.0	0.412	0.0	60.9	37.1	64.2	74.2	60	1.0	0.398	0.0	60.3	38.3	63.5	74.1	58
78.6	67.5	67.2	1.0	0.625	0.0	72.1	15.4	77.1	78.6	78.6	1.0	0.617	0.0	71.6	16.5	76.7	78.4	77	1.0	0.498	0.0	64.8	29.1	68.6	74.5	67	1.0	0.494	0.0	64.6	29.5	68.4	74.5	66
86.2	75.0	75.6	1.0	0.75	0.0	77.9	5.4	83.8	84.0	86.2	1.0	0.75	0.0	77.9	5.5	83.9	84.1	86	1.0	0.585	0.0	69.8	20.0	74.7	77.4	75	1.0	0.592	0.0	70.2	19.3	75.2	77.6	75
92.1	82.5	83.9	1.0	0.875	0.0	83.4	-3.4	90.2	90.2	92.1	1.0	0.867	0.0	83.1	-2.7	89.8	89.9	91	1.0	0.68	0.0	74.7	11.3	80.3	81.1	82	1.0	0.703	0.0	75.8	9.4	81.5	82.0	83
96.1	90.0	92.3	1.0	1.0	0.0	87.8	-10.2	95.4	96.0	96.1	1.0	1.0	0.0	87.8	-10.1	95.5	96.0	96	1.0	0.829	0.0	81.4	0.0	88.0	88.0	90	1.0	0.879	0.0	83.6	-3.6	90.4	90.5	92
98.8	97.5	101.0	0.875	1.0	0.0	84.3	-13.9	89.2	90.3	98.8	0.883	1.0	0.0	84.6	-13.6	89.7	90.7	98	0.959	1.0	0.0	86.7	-11.4	93.5	94.2	97	0.807	1.0	0.0	82.4	-15.8	86.2	87.7	100
101.8	105.0	109.7	0.75	1.0	0.0	80.7	-17.5	83.5	85.3	101.8	0.75	1.0	0.0	80.8	-17.4	83.6	85.4	101	0.682	1.0	0.0	77.8	-21.2	79.4	82.2	105	0.583	1.0	0.0	73.7	-26.1	72.7	77.3	109
107.6	112.5	118.5	0.625	1.0	0.0	75.3	-24.0	75.7	79.4	107.6	0.633	1.0	0.0	75.7	-23.6	76.3	79.9	107	0.54	1.0	0.0	72.1	-28.0	69.5	75.0	112	0.434	1.0	0.0	68.0	-32.9	62.2	70.5	117
114.0	120.0	127.2	0.5	1.0	0.0	70.6	-29.7	66.5	72.8	114.0	0.5	1.0	0.0	70.6	-29.6	66.5	72.8	114	0.399	1.0	0.0	66.7	-34.5	59.9	69.2	120	0.322	1.0	0.0	62.6	-40.8	53.8	67.6	127
121.4	127.5	136.0	0.375	1.0	0.0	65.7	-35.6	58.3	68.3	121.4	0.383	1.0	0.0	66.1	-35.2	58.9	68.6	120	0.325	1.0	0.0	62.8	-40.6	54.0	67.6	127	0.249	1.0	0.0	58.4	-47.4	46.8	66.6	135
135.3	135.0	144.7	0.25	1.0	0.0	58.4	-47.3	46.8	66.6	135.3	0.25	1.0	0.0	58.4	-47.3	46.9	66.6	135	0.253	1.0	0.0	58.6	-47.0	47.1	66.7	137	0.122	1.0	0.0	54.6	-54.2	38.4	66.5	144
144.4	142.5	153.4	0.125	1.0	0.0	54.7	-53.9	38.5	66.3	144.4	0.133	1.0	0.0	55.0	-53.5	39.2	66.4	143	0.159	1.0	0.0	55.7	-52.3	40.9	66.4	142	0.03	1.0	0.0	51.2	-62.4	32.0	70.2	152
155.5	150.0	162.2	0.0	1.0	0.0	50.0	-65.0	29.6	71.4	155.5	0.0	1.0	0.0	50.1	-64.9	29.6	71.4	155	0.062	1.0	0.0	52.4	-59.6	34.5	68.9	150	0.0	1.0	0.151	50.7	-62.0	19.9	65.2	162
160.7	157.5	169.0	0.0	1.0	0.125	50.5	-62.8	21.9	66.5	160.7	0.0	1.0	0.117	50.5	-62.9	22.4	66.9	160	0.0	1.0	0.035	50.2	-64.4	27.4	70.0	157	0.0	1.0	0.261	51.3	-58.5	11.8	59.8	168
167.7	165.0	175.9	0.0	1.0	0.25	51.2	-58.9	12.7	60.3	167.7	0.0	1.0	0.25	51.2	-58.8	12.7	60.3	167	0.0	1.0	0.2	51.0	-60.5	16.2	62.8	165	0.0	1.0	0.364	52.0	-55.0	3.9	55.2	175
176.7	172.5	182.7	0.0	1.0	0.375	52.0	-54.5	3.1	54.6	176.7	0.0	1.0	0.367	52.0	-54.8	3.7	55.1	176	0.0	1.0	0.309	51.6	-57.0	8.0	57.7	172	0.0	1.0	0.43	52.5	-52.2	-2.0	52.3	182
189.3	180.0	189.6	0.0	1.0	0.5	52.9	-48.6	-8.0	49.3	189.3	0.0	1.0	0.5	53.0	-48.6	-7.9	49.3	189	0.0	1.0	0.407	52.3	-53.2	0.0	53.3	180	0.0	1.0	0.502	53.0	-48.5	-8.1	49.3	189
203.2	187.5	196.4	0.0	1.0	0.625	54.0	-42.3	-18.1	46.1	203.2	0.0	1.0	0.617	54.0	-42.8	-17.5	46.3	202	0.0	1.0	0.477	52.8	-49.9	-6.0	50.3	187	0.0	1.0	0.56	53.5	-45.9	-13.1	47.8	195
217.2	195.0	203.2	0.0	1.0	0.75	55.0	-36.0	-27.4	45.3	217.2	0.0	1.0	0.75	55.0	-35.9	-27.3	45.3	217	0.0	1.0	0.551	53.4	-46.3	-12.3	48.0	195	0.0	1.0	0.626	54.1	-42.3	-18.1	46.1	203
228.3	202.5	210.1	0.0	1.0	0.875	55.8	-30.7	-34.5	46.2	228.3	0.0	1.0	0.867	55.8	-31.0	-34.0	46.1	227	0.0	1.0	0.614	54.0	-42.9	-17.3	46.4	202	0.0	1.0	0.682	54.5	-39.6	-22.6	45.7	209
238.4	210.0	216.9	0.0	1.0	1.0	56.8	-25.5	-41.5	48.7	238.4	0.0	1.0	1.0	56.8	-25.4	-41.4	48.7	238	0.0	1.0	0.685	54.5	-39.5	-22.8	45.7	210	0.0	1.0	0.747	55.0	-36.1	-27.2	45.3	216
242.9	217.5	223.8	0.0	0.875	1.0	54.1	-21.1	-41.3	46.4	242.9	0.0	0.883	1.0	54.3	-21.4	-41.3	46.6	242	0.0	1.0	0.747	55.0	-36.1	-27.2	45.3	217	0.0	1.0	0.819	55.5	-33.2	-31.3	45.8	223
249.3	225.0	230.6	0.0	0.75	1.0	50.4	-15.5	-41.1	43.9	249.3	0.0	0.75	1.0	50.4	-15.4	-41.0	44.0	249	0.0	1.0	0.837	55.6	-32.4	-32.4	45.9	225	0.0	1.0	0.904	56.1	-29.6	-36.1	46.8	230
256.9	232.5	237.5	0.0	0.625	1.0	46.5	-9.4	-40.8	41.9	256.9	0.0	0.633	1.0	46.8	-9.8	-40.8	42.1	256	0.0	1.0	0.92	56.2	-28.9	-37.0	47.1	232	0.0	1.0	0.983	56.7	-26.2	-40.5	48.4	237
268.2	240.0	244.3	0.0	0.5	1.0	41.7	-1.2	-40.6	40.6	268.2	0.0	0.5	1.0	41.7	-1.1	-40.6	40.7	268	0.0	0.956	1.0	55.9	-23.9	-41.4	48.0	240	0.0	0.847	1.0	53.3	-19.8	-41.3	45.9	244
278.6	247.5	251.2	0.0	0.375	1.0	37.3	6.1	-40.2	40.7	278.6	0.0	0.383	1.0	37.6	5.6	-40.2	40.7	277	0.0	0.795	1.0	51.8	-17.4	-41.2	44.9	247	0.0	0.726	1.0	49.7	-14.3	-41.1	43.6	250
289.6	255.0	258.0	0.0	0.25	1.0	32.8	14.3	-40.2	42.7	289.6	0.0	0.25	1.0	32.9	14.4	-40.1	42.7	289	0.0	0.657	1.0	47.5	-10.9	-40.9	42.5	255	0.0	0.613	1.0	46.1	-8.6	-40.8	41.9	258
299.0	262.5	264.8	0.0	0.125	1.0	28.6	22.4	-40.2	46.1	299.0	0.0	0.133	1.0	28.9	21.9	-40.2	45.9	298	0.0	0.569	1.0	44.4	-5.7	-40.9	41.4									

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

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

1-113831-L0

QE280-73

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

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

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; $rgb-LabCh^*$ tables

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

TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

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

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{ddx361Mi}(x=LabCh)$	R_d	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}(x=LabCh)$	R_s	$rgb^*_{dd361Mi}$	$LAB^*_{dex361Mi}(x=LabCh)$	R_e	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
32	30	25	1.0	0.0	0.0	45.4	70.9	44.8	83.9	32	1.0	0.0	0.0	0.0	0.0
33	31	26	1.0	0.016	0.0	45.9	69.8	45.5	83.4	33	1.0	0.0	0.017	0.0	0.0
33	32	27	1.0	0.033	0.0	46.3	68.8	46.1	82.8	33	1.0	0.0	0.033	0.0	0.0
34	33	28	1.0	0.05	0.0	46.8	67.7	46.8	82.3	34	1.0	0.0	0.05	0.0	0.0
35	34	29	1.0	0.066	0.0	47.3	66.6	47.4	81.8	35	1.0	0.0	0.067	0.0	0.0
36	35	31	1.0	0.083	0.0	47.7	65.5	48.0	81.2	36	1.0	0.0	0.083	0.0	0.0
36	36	32	1.0	0.1	0.0	48.2	64.4	48.5	80.7	36	1.0	0.0	0.1	0.0	0.0
37	37	33	1.0	0.116	0.0	48.6	63.3	49.1	80.2	37	1.0	0.0	0.117	0.0	0.0
38	38	34	1.0	0.133	0.0	49.2	62.1	49.8	79.6	38	1.0	0.0	0.133	0.0	0.0
39	39	35	1.0	0.15	0.0	49.8	60.7	50.7	79.1	39	1.0	0.0	0.15	0.0	0.0
41	40	36	1.0	0.166	0.0	50.5	59.2	51.6	78.6	41	1.0	0.0	0.167	0.0	0.0
42	41	37	1.0	0.183	0.0	51.1	57.8	52.5	78.1	42	1.0	0.0	0.183	0.0	0.0
43	42	38	1.0	0.2	0.0	51.7	56.3	53.3	77.5	43	1.0	0.0	0.2	0.0	0.0
44	43	39	1.0	0.216	0.0	52.4	54.9	54.0	77.0	44	1.0	0.0	0.217	0.0	0.0
45	44	41	1.0	0.233	0.0	53.0	53.4	54.8	76.5	45	1.0	0.0	0.233	0.0	0.0
46	45	42	1.0	0.25	0.0	53.6	51.9	55.5	76.0	46	1.0	0.0	0.25	0.0	0.0
48	46	43	1.0	0.266	0.0	54.4	50.4	56.5	75.7	48	1.0	0.0	0.267	0.0	0.0
49	47	44	1.0	0.283	0.0	55.1	48.9	57.4	75.4	49	1.0	0.0	0.283	0.0	0.0
50	48	45	1.0	0.3	0.0	55.8	47.4	58.4	75.2	50	1.0	0.0	0.3	0.0	0.0
52	49	46	1.0	0.316	0.0	56.6	45.8	59.2	74.9	52	1.0	0.0	0.317	0.0	0.0
53	50	47	1.0	0.333	0.0	57.3	44.2	60.1	74.6	53	1.0	0.0	0.333	0.0	0.0
54	51	48	1.0	0.35	0.0	58.0	42.7	60.9	74.4	54	1.0	0.0	0.35	0.0	0.0
56	52	49	1.0	0.366	0.0	58.8	41.1	61.7	74.1	56	1.0	0.0	0.367	0.0	0.0
57	53	51	1.0	0.383	0.0	59.5	39.5	62.5	74.0	57	1.0	0.0	0.383	0.0	0.0
59	54	52	1.0	0.4	0.0	60.3	38.1	63.5	74.1	59	1.0	0.0	0.4	0.0	0.0
60	55	53	1.0	0.416	0.0	61.0	36.6	64.5	74.1	60	1.0	0.0	0.417	0.0	0.0
61	56	54	1.0	0.433	0.0	61.8	35.1	65.4	74.2	61	1.0	0.0	0.433	0.0	0.0
63	57	55	1.0	0.45	0.0	62.6	33.6	66.2	74.3	63	1.0	0.0	0.45	0.0	0.0
64	58	56	1.0	0.466	0.0	63.3	32.0	67.1	74.4	64	1.0	0.0	0.467	0.0	0.0
65	59	57	1.0	0.483	0.0	64.1	30.5	67.9	74.4	65	1.0	0.0	0.483	0.0	0.0
67	60	58	1.0	0.5	0.0	64.9	28.9	68.6	74.5	67	1.0	0.0	0.5	0.0	0.0
68	61	60	1.0	0.516	0.0	65.8	27.2	69.9	75.0	68	1.0	0.0	0.517	0.0	0.0
70	62	61	1.0	0.533	0.0	66.8	25.5	71.1	75.6	70	1.0	0.0	0.533	0.0	0.0
71	63	62	1.0	0.55	0.0	67.7	23.8	72.3	76.1	71	1.0	0.0	0.55	0.0	0.0
73	64	63	1.0	0.566	0.0	68.7	22.0	73.5	76.7	73	1.0	0.0	0.567	0.0	0.0
74	65	64	1.0	0.583	0.0	69.7	20.2	74.6	77.3	74	1.0	0.0	0.583	0.0	0.0
76	66	65	1.0	0.6	0.0	70.6	18.3	75.6	77.8	76	1.0	0.0	0.6	0.0	0.0
77	67	66	1.0	0.616	0.0	71.6	16.4	76.6	78.4	77	1.0	0.0	0.617	0.0	0.0
79	68	67	1.0	0.633	0.0	72.5	14.8	77.6	79.0	79	1.0	0.0	0.633	0.0	0.0
80	69	68	1.0	0.65	0.0	73.2	13.6	78.5	79.7	80	1.0	0.0	0.65	0.0	0.0
81	70	70	1.0	0.666	0.0	74.0	12.3	79.5	80.4	81	1.0	0.0	0.667	0.0	0.0
82	71	71	1.0	0.683	0.0	74.8	11.0	80.4	81.1	82	1.0	0.0	0.683	0.0	0.0
83	72	72	1.0	0.7	0.0	75.6	9.6	81.3	81.9	83	1.0	0.0	0.7	0.0	0.0
84	73	73	1.0	0.716	0.0	76.3	8.3	82.2	82.6	84	1.0	0.0	0.717	0.0	0.0
85	74	74	1.0	0.733	0.0	77.1	6.9	83.0	83.3	85	1.0	0.0	0.733	0.0	0.0
86	75	75	1.0	0.75	0.0	77.9	5.4	83.8	84.0	86	1.0	0.0	0.75	0.0	0.0

1-113931-L0

QE280-73

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

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

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; $rgb-LabCh$ *tables

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

TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

TUB registration: 20130201-QE28/QE28LOFP.PDF /.PS
application for measurement of offset print output, separa

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

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

1-1131131-L0	QE280-73	LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0
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input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmy0^*_{de}$

Output: Offset standard print; separation cmy0*, D65, page 12/33

1-1131231-F0

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

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{ddx361Mi}$ (x=LabCh)	C_d	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}$ (x=LabCh)	$210C_s$	$rgb^*_{dd361Mi}$	$LAB^*_{de361Mi}$	$216C_e$	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}	
238	210	216	0.0	1.0	1.0	56.8	-25.5 -41.5 48.7	238	0.0	1.0	0.685 54.5	-39.5 -22.8 45.7	210	0.0	1.0	1.0
239	211	217	0.0	0.983 1.0	56.4	-24.9 -41.5 48.4	239	0.0	1.0	0.694 54.6	-39.0 -23.4 45.7	211	0.0	0.983 1.0	0.0	0.983 1.0
239	212	218	0.0	0.966 1.0	56.1	-24.3 -41.5 48.1	239	0.0	1.0	0.703 54.7	-38.6 -24.1 45.6	212	0.0	0.967 1.0	0.0	0.967 1.0
240	213	219	0.0	0.95 1.0	55.7	-23.7 -41.5 47.8	240	0.0	1.0	0.712 54.7	-38.1 -24.7 45.6	213	0.0	0.95 1.0	0.0	0.95 1.0
240	214	220	0.0	0.933 1.0	55.4	-23.1 -41.5 47.5	240	0.0	1.0	0.721 54.8	-37.6 -25.3 45.5	214	0.0	0.933 1.0	0.0	0.933 1.0
241	215	221	0.0	0.916 1.0	55.0	-22.5 -41.4 47.2	241	0.0	1.0	0.73 54.9	-37.1 -26.0 45.4	215	0.0	0.917 1.0	0.0	0.917 1.0
242	216	222	0.0	0.9 1.0	54.6	-22.0 -41.4 46.9	242	0.0	1.0	0.739 55.0	-36.6 -26.6 45.4	216	0.0	0.9 1.0	0.0	0.9 1.0
242	217	223	0.0	0.883 1.0	54.3	-21.4 -41.4 46.6	242	0.0	1.0	0.747 55.0	-36.1 -27.2 45.3	217	0.0	0.883 1.0	0.0	0.883 1.0
243	218	224	0.0	0.866 1.0	53.9	-20.7 -41.3 46.3	243	0.0	1.0	0.758 55.1	-35.6 -27.8 45.4	218	0.0	0.867 1.0	0.0	0.867 1.0
244	219	225	0.0	0.85 1.0	53.4	-20.0 -41.3 45.9	244	0.0	1.0	0.769 55.2	-35.2 -28.5 45.4	219	0.0	0.85 1.0	0.0	0.85 1.0
245	220	226	0.0	0.833 1.0	52.9	-19.2 -41.3 45.6	245	0.0	1.0	0.781 55.3	-34.8 -29.2 45.5	220	0.0	0.833 1.0	0.0	0.833 1.0
245	221	227	0.0	0.816 1.0	52.4	-18.5 -41.3 45.3	245	0.0	1.0	0.792 55.3	-34.3 -29.8 45.6	221	0.0	0.817 1.0	0.0	0.817 1.0
246	222	227	0.0	0.8 1.0	51.9	-17.7 -41.3 44.9	246	0.0	1.0	0.803 55.4	-33.9 -30.5 45.7	222	0.0	0.8 1.0	0.0	0.8 1.0
247	223	228	0.0	0.783 1.0	51.4	-17.0 -41.2 44.6	247	0.0	1.0	0.815 55.5	-33.4 -31.1 45.8	223	0.0	0.783 1.0	0.0	0.783 1.0
248	224	229	0.0	0.766 1.0	50.9	-16.2 -41.2 44.2	248	0.0	1.0	0.826 55.6	-32.9 -31.7 45.8	224	0.0	0.767 1.0	0.0	0.767 1.0
249	225	230	0.0	0.75 1.0	50.4	-15.5 -41.1 43.9	249	0.0	1.0	0.837 55.6	-32.4 -32.4 45.9	225	0.0	0.75 1.0	0.0	0.75 1.0
250	226	231	0.0	0.733 1.0	49.9	-14.7 -41.1 43.6	250	0.0	1.0	0.849 55.7	-31.9 -33.0 46.0	226	0.0	0.733 1.0	0.0	0.733 1.0
251	227	232	0.0	0.716 1.0	49.4	-13.8 -41.1 43.4	251	0.0	1.0	0.86 55.8	-31.3 -33.6 46.1	227	0.0	0.717 1.0	0.0	0.717 1.0
252	228	233	0.0	0.7 1.0	48.8	-13.0 -41.1 43.1	252	0.0	1.0	0.871 55.9	-30.8 -34.2 46.2	228	0.0	0.7 1.0	0.0	0.7 1.0
253	229	234	0.0	0.683 1.0	48.3	-12.2 -41.1 42.9	253	0.0	1.0	0.883 55.9	-30.3 -34.9 46.4	229	0.0	0.683 1.0	0.0	0.683 1.0
254	230	235	0.0	0.666 1.0	47.8	-11.4 -41.0 42.6	254	0.0	1.0	0.896 56.0	-29.9 -35.6 46.6	230	0.0	0.667 1.0	0.0	0.667 1.0
255	231	236	0.0	0.65 1.0	47.3	-10.6 -41.0 42.3	255	0.0	1.0	0.908 56.1	-29.4 -36.3 46.9	231	0.0	0.65 1.0	0.0	0.65 1.0
256	232	237	0.0	0.633 1.0	46.8	-9.8 -40.9 42.1	256	0.0	1.0	0.92 56.2	-28.9 -37.0 47.1	232	0.0	0.633 1.0	0.0	0.633 1.0
257	233	237	0.0	0.616 1.0	46.2	-8.9 -40.9 41.8	257	0.0	1.0	0.933 56.3	-28.4 -37.7 47.4	233	0.0	0.617 1.0	0.0	0.617 1.0
259	234	238	0.0	0.6 1.0	45.5	-7.8 -40.9 41.7	259	0.0	1.0	0.945 56.4	-27.9 -38.4 47.6	234	0.0	0.6 1.0	0.0	0.6 1.0
260	235	239	0.0	0.583 1.0	44.9	-6.6 -41.0 41.5	260	0.0	1.0	0.957 56.5	-27.4 -39.1 47.9	235	0.0	0.583 1.0	0.0	0.583 1.0
262	236	240	0.0	0.566 1.0	44.2	-5.5 -40.9 41.3	262	0.0	1.0	0.97 56.6	-26.8 -39.8 48.1	236	0.0	0.567 1.0	0.0	0.567 1.0
263	237	241	0.0	0.55 1.0	43.6	-4.4 -40.9 41.1	263	0.0	1.0	0.982 56.7	-26.2 -40.5 48.4	237	0.0	0.55 1.0	0.0	0.55 1.0
265	238	242	0.0	0.533 1.0	43.0	-3.3 -40.8 41.0	265	0.0	1.0	0.994 56.8	-25.7 -41.1 48.6	238	0.0	0.533 1.0	0.0	0.533 1.0
266	239	243	0.0	0.516 1.0	42.3	-2.3 -40.7 40.8	266	0.0	0.985 1.0	56.5	-24.9 -41.4 48.5	239	0.0	0.517 1.0	0.0	0.517 1.0
268	240	244	0.0	0.5 1.0	41.7	-1.2 -40.6 40.6	268	0.0	0.956 1.0	55.9	-23.9 -41.4 48.0	240	0.0	0.5 1.0	0.0	0.5 1.0
269	241	245	0.0	0.483 1.0	41.1	-0.2 -40.6 40.6	269	0.0	0.928 1.0	55.3	-22.9 -41.4 47.4	241	0.0	0.483 1.0	0.0	0.483 1.0
271	242	246	0.0	0.466 1.0	40.5	0.7 -40.6 40.6	271	0.0	0.9 1.0	54.7	-21.9 -41.3 46.9	242	0.0	0.467 1.0	0.0	0.467 1.0
272	243	247	0.0	0.45 1.0	39.9	1.7 -40.6 40.6	272	0.0	0.873 1.0	54.1	-21.0 -41.3 46.4	243	0.0	0.45 1.0	0.0	0.45 1.0
273	244	248	0.0	0.433 1.0	39.3	2.7 -40.6 40.6	273	0.0	0.854 1.0	53.5	-20.1 -41.3 46.1	244	0.0	0.433 1.0	0.0	0.433 1.0
275	245	248	0.0	0.416 1.0	38.8	3.6 -40.5 40.6	275	0.0	0.834 1.0	53.0	-19.2 -41.3 45.7	245	0.0	0.417 1.0	0.0	0.417 1.0
276	246	249	0.0	0.4 1.0	38.2	4.6 -40.4 40.7	276	0.0	0.815 1.0	52.4	-18.3 -41.3 45.3	246	0.0	0.4 1.0	0.0	0.4 1.0
277	247	250	0.0	0.383 1.0	37.6	5.6 -40.3 40.7	277	0.0	0.795 1.0	51.8	-17.4 -41.2 44.9	247	0.0	0.383 1.0	0.0	0.383 1.0
279	248	251	0.0	0.366 1.0	37.0	6.6 -40.2 40.8	279	0.0	0.775 1.0	51.2	-16.6 -41.1 44.5	248	0.0	0.367 1.0	0.0	0.367 1.0
280	249	252	0.0	0.35 1.0	36.4	7.7 -40.3 41.1	280	0.0	0.756 1.0	50.6	-15.7 -41.1 44.1	249	0.0	0.35 1.0	0.0	0.35 1.0
282	250	253	0.0	0.333 1.0	35.8	8.8 -40.4 41.3	282	0.0	0.739 1.0	50.1	-14.9 -41.0 43.8	250	0.0	0.333 1.0	0.0	0.333 1.0
283	251	254	0.0	0.316 1.0	35.2	9.9 -40.4 41.6	283	0.0	0.722 1.0	49.6	-14.1 -41.1 43.5	251	0.0	0.317 1.0	0.0	0.317 1.0
285	252	255	0.0	0.3 1.0	34.6	11.0 -40.4 41.9	285	0.0	0.706 1.0	49.1	-13.3 -41.0 43.3	252	0.0	0.3 1.0	0.0	0.3 1.0
286	253	256	0.0	0.283 1.0	34.0	12.1 -40.3 42.1	286	0.0	0.69 1.0	48.6	-12.5 -41.0 43.0	253	0.0	0.283 1.0	0.0	0.283 1.0
288	254	257	0.0	0.266 1.0	33.4	13.2 -40.3 42.4	288	0.0	0.673 1.0	48.1	-11.7 -41.0 42.7	254	0.0	0.267 1.0	0.0	0.267 1.0
289	255	258	0.0	0.25 1.0	32.8	14.3 -40.2 42.7	289	0.0	0.657 1.0	47.5	-10.9 -40.9 42.5	255	0.0	0.25 1.0	0.0	0.25 1.0

1-1131331-L0 QE280-73 LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

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

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; $rgb-LabCh$ *tables

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

TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)
TUB material: code=rha4ta

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

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

[illegible]

QE280-73	LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0
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Output: Offset standard print; separation cmy0*, D65, page 15/33

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; *rgb-LabCh** tables

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

Output: Offset standard print; separation cmy0*, D65, page 16/33

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

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

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

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	LAB^*_{d361M}	$LAB^*_{dsx361Mi} (x=LabCh)$	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi} (x=LabCh)$	$rgb^*_{dd361Mi}$	$rgb^*_{de361Mi}$	$LAB^*_{dex361Mi} (x=LabCh)$	$rgb^*_{dd361Mi}$	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
366	345	342	1.0	0.0	0.75 45.9 77.1	8.6 77.6 366	0.576 0.0 1.0	37.1 62.9 -16.7	65.1 345	1.0 0.0 0.75	0.539 0.0 1.0	36.4 60.8 -18.7	63.7 342	1.0 0.0 0.75	
367	346	343	1.0	0.0	0.733 45.9 77.0	9.4 77.5 367	0.593 0.0 1.0	37.5 63.8 -15.8	65.7 346	1.0 0.0 0.733	0.555 0.0 1.0	36.7 61.7 -17.9	64.3 343	1.0 0.0 0.733	
367	347	344	1.0	0.0	0.716 45.9 76.8	10.3 77.5 367	0.61 0.0 1.0	37.8 64.7 -14.8	66.4 347	1.0 0.0 0.717	0.571 0.0 1.0	37.0 62.6 -17.0	64.9 344	1.0 0.0 0.717	
368	348	345	1.0	0.0	0.7 45.9 76.6	11.1 77.4 368	0.627 0.0 1.0	38.2 65.6 -13.8	67.1 348	1.0 0.0 0.7	0.587 0.0 1.0	37.3 63.5 -16.1	65.5 345	1.0 0.0 0.7	
368	349	346	1.0	0.0	0.683 45.9 76.4	11.9 77.3 368	0.654 0.0 1.0	39.0 66.8 -12.9	68.1 349	1.0 0.0 0.683	0.603 0.0 1.0	37.7 64.3 -15.2	66.1 346	1.0 0.0 0.683	
369	350	347	1.0	0.0	0.666 45.9 76.2	12.8 77.2 369	0.681 0.0 1.0	39.8 68.0 -11.9	69.1 350	1.0 0.0 0.667	0.619 0.0 1.0	38.0 65.2 -14.3	66.7 347	1.0 0.0 0.667	
370	351	348	1.0	0.0	0.65 46.0 75.9	13.6 77.2 370	0.708 0.0 1.0	40.6 69.2 -10.9	70.1 351	1.0 0.0 0.65	0.641 0.0 1.0	38.6 66.2 -13.4	67.6 348	1.0 0.0 0.65	
370	352	349	1.0	0.0	0.633 46.0 75.7	14.4 77.1 370	0.735 0.0 1.0	41.4 70.4 -9.8	71.1 352	1.0 0.0 0.633	0.667 0.0 1.0	39.3 67.4 -12.4	68.5 349	1.0 0.0 0.633	
371	353	350	1.0	0.0	0.616 46.0 75.5	15.2 77.1 371	0.765 0.0 1.0	42.1 71.6 -8.7	72.1 353	1.0 0.0 0.617	0.692 0.0 1.0	40.1 68.5 -11.5	69.5 350	1.0 0.0 0.617	
372	354	351	1.0	0.0	0.6 45.9 75.4	16.1 77.1 372	0.8 0.0 1.0	42.8 72.7 -7.5	73.1 354	1.0 0.0 0.6	0.717 0.0 1.0	40.9 69.6 -10.5	70.4 351	1.0 0.0 0.6	
372	355	352	1.0	0.0	0.583 45.9 75.2	16.9 77.1 372	0.835 0.0 1.0	43.5 73.9 -6.4	74.2 355	1.0 0.0 0.583	0.743 0.0 1.0	41.6 70.7 -9.5	71.4 352	1.0 0.0 0.583	
373	356	353	1.0	0.0	0.566 45.9 75.0	17.8 77.1 373	0.87 0.0 1.0	44.2 75.0 -5.1	75.2 356	1.0 0.0 0.567	0.774 0.0 1.0	42.3 71.9 -8.4	72.4 353	1.0 0.0 0.567	
374	357	354	1.0	0.0	0.55 45.9 74.8	18.6 77.1 374	0.904 0.0 1.0	44.7 76.2 -3.9	76.3 357	1.0 0.0 0.55	0.807 0.0 1.0	42.9 73.0 -7.3	73.3 354	1.0 0.0 0.55	
374	358	355	1.0	0.0	0.533 45.9 74.6	19.5 77.1 374	0.938 0.0 1.0	45.2 77.3 -2.6	77.3 358	1.0 0.0 0.533	0.84 0.0 1.0	43.6 74.1 -6.2	74.3 355	1.0 0.0 0.533	
375	359	356	1.0	0.0	0.516 45.9 74.4	20.3 77.1 375	0.971 0.0 1.0	45.7 78.4 -1.3	78.4 359	1.0 0.0 0.517	0.873 0.0 1.0	44.2 75.1 -5.0	75.3 356	1.0 0.0 0.517	
375	360	352	1.0	0.0	0.5 45.9 74.2	21.1 77.1 375	1.0 0.0 0.994	46.1 79.3 0.0	79.3 360	1.0 0.0 0.5	0.736 0.0 1.0	41.4 70.5 -9.7	71.1 352	1.0 0.0 0.5	
376	361	353	1.0	0.0	0.483 45.8 74.1	22.1 77.3 376	1.0 0.0 0.955	46.1 79.0 1.4	79.0 361	1.0 0.0 0.483	0.771 0.0 1.0	42.2 71.8 -8.5	72.3 353	1.0 0.0 0.483	
377	362	354	1.0	0.0	0.466 45.8 73.9	23.1 77.4 377	1.0 0.0 0.916	46.0 78.6 2.7	78.7 362	1.0 0.0 0.467	0.81 0.0 1.0	43.0 73.1 -7.2	73.4 354	1.0 0.0 0.467	
378	363	355	1.0	0.0	0.45 45.8 73.8	24.0 77.6 378	1.0 0.0 0.876	46.0 78.3 4.1	78.4 363	1.0 0.0 0.45	0.849 0.0 1.0	43.8 74.4 -5.9	74.6 355	1.0 0.0 0.45	
378	364	356	1.0	0.0	0.433 45.8 73.6	25.0 77.7 378	1.0 0.0 0.839	46.0 78.0 5.5	78.2 364	1.0 0.0 0.433	0.887 0.0 1.0	44.4 75.6 -4.5	75.8 356	1.0 0.0 0.433	
379	365	357	1.0	0.0	0.416 45.8 73.4	25.9 77.9 379	1.0 0.0 0.802	46.0 77.7 6.8	78.0 365	1.0 0.0 0.417	0.925 0.0 1.0	45.0 76.9 -3.1	77.0 357	1.0 0.0 0.417	
380	366	358	1.0	0.0	0.4 45.8 73.2	26.9 78.0 380	1.0 0.0 0.765	46.0 77.3 8.1	77.8 366	1.0 0.0 0.4	0.963 0.0 1.0	45.6 78.1 -1.6	78.1 358	1.0 0.0 0.4	
380	367	359	1.0	0.0	0.383 45.8 73.0	27.8 78.2 380	1.0 0.0 0.734	46.0 77.0 9.5	77.6 367	1.0 0.0 0.383	1.0 0.0 1.0	46.1 79.3 -0.1	79.3 359	1.0 0.0 0.383	
381	368	360	1.0	0.0	0.366 45.8 72.9	28.7 78.4 381	1.0 0.0 0.708	46.0 76.7 10.8	77.5 368	1.0 0.0 0.367	1.0 0.0 0.956	46.1 79.0 1.3	79.0 360	1.0 0.0 0.367	
382	369	362	1.0	0.0	0.35 45.8 72.8	29.6 78.6 382	1.0 0.0 0.681	46.0 76.4 12.1	77.4 369	1.0 0.0 0.35	1.0 0.0 0.912	46.0 78.6 2.9	78.7 362	1.0 0.0 0.35	
382	370	363	1.0	0.0	0.333 45.7 72.7	30.4 78.8 382	1.0 0.0 0.655	46.0 76.1 13.4	77.2 370	1.0 0.0 0.333	1.0 0.0 0.869	46.0 78.2 4.4	78.3 363	1.0 0.0 0.333	
383	371	364	1.0	0.0	0.316 45.7 72.6	31.2 79.1 383	1.0 0.0 0.628	46.0 75.7 14.7	77.1 371	1.0 0.0 0.317	1.0 0.0 0.828	46.0 77.9 5.9	78.1 364	1.0 0.0 0.317	
383	372	365	1.0	0.0	0.3 45.7 72.5	32.1 79.3 383	1.0 0.0 0.602	46.0 75.4 16.0	77.1 372	1.0 0.0 0.3	1.0 0.0 0.786	46.0 77.5 7.4	77.9 365	1.0 0.0 0.3	
384	373	366	1.0	0.0	0.283 45.6 72.4	32.9 79.6 384	1.0 0.0 0.576	46.0 75.2 17.4	77.1 373	1.0 0.0 0.283	1.0 0.0 0.746	46.0 77.1 8.8	77.7 366	1.0 0.0 0.283	
385	374	367	1.0	0.0	0.266 45.6 72.3	33.8 79.8 385	1.0 0.0 0.55 45.9	74.9 18.7	77.2 374	1.0 0.0 0.267	1.0 0.0 0.717	46.0 76.8 10.3	77.5 367	1.0 0.0 0.267	
385	375	368	1.0	0.0	0.25 45.6 72.1	34.6 80.0 385	1.0 0.0 0.524	45.9 74.5 20.0	77.2 375	1.0 0.0 0.25	1.0 0.0 0.687	46.0 76.5 11.8	77.4 368	1.0 0.0 0.25	
386	376	369	1.0	0.0	0.233 45.6 72.1	35.3 80.3 386	1.0 0.0 0.498	45.9 74.2 21.3	77.2 376	1.0 0.0 0.233	1.0 0.0 0.658	46.0 76.1 13.3	77.2 369	1.0 0.0 0.233	
386	377	370	1.0	0.0	0.216 45.6 72.0	36.1 80.5 386	1.0 0.0 0.475	45.9 74.0 22.6	77.4 377	1.0 0.0 0.217	1.0 0.0 0.628	46.0 75.7 14.7	77.1 370	1.0 0.0 0.217	
387	378	372	1.0	0.0	0.2 45.6 71.9	36.8 80.8 387	1.0 0.0 0.451	45.9 73.8 24.0	77.6 378	1.0 0.0 0.2	1.0 0.0 0.599	46.0 75.4 16.2	77.1 372	1.0 0.0 0.2	
387	379	373	1.0	0.0	0.183 45.5 71.8	37.5 81.0 387	1.0 0.0 0.428	45.9 73.6 25.3	77.8 379	1.0 0.0 0.183	1.0 0.0 0.57 46.0	75.1 17.6	77.1 373	1.0 0.0 0.183	
388	380	374	1.0	0.0	0.166 45.5 71.7	38.2 81.3 388	1.0 0.0 0.404	45.9 73.3 26.7	78.0 380	1.0 0.0 0.167	1.0 0.0 0.541	45.9 74.8 19.1	77.2 374	1.0 0.0 0.167	
388	381	375	1.0	0.0	0.15 45.5 71.6	39.0 81.5 388	1.0 0.0 0.38 45.8	73.1 28.0	78.3 381	1.0 0.0 0.15	1.0 0.0 0.512	45.9 74.4 20.6	77.2 375	1.0 0.0 0.15	
389	382	376	1.0	0.0	0.133 45.5 71.5	39.7 81.8 389	1.0 0.0 0.353	45.8 72.9 29.4	78.6 382	1.0 0.0 0.133	1.0 0.0 0.485	45.9 74.1 22.0	77.3 376	1.0 0.0 0.133	
389	383	377	1.0	0.0	0.116 45.5 71.4	40.4 82.1 389	1.0 0.0 0.325	45.8 72.7 30.9	79.0 383	1.0 0.0 0.117	1.0 0.0 0.459	45.9 73.9 23.6	77.6 377	1.0 0.0 0.117	
389	384	378	1.0	0.0	0.1 45.5 71.3	41.0 82.3 389	1.0 0.0 0.297	45.7 72.5 32.3	79.4 384	1.0 0.0 0.1	1.0 0.0 0.433	45.9 73.6 25.1	77.8 378	1.0 0.0 0.1	
390	385	379	1.0	0.0	0.083 45.5 71.3	41.6 82.6 390	1.0 0.0 0.268	45.7 72.3 33.7	79.8 385	1.0 0.0 0.083	1.0 0.0 0.406	45.9 73.4 26.6	78.0 379	1.0 0.0 0.083	
390	386	381	1.0	0.0	0.066 45.5 71.2	42.3 82.8 390	1.0 0.0 0.238	45.6 72.1 35.2	80.3 386	1.0 0.0 0.067	1.0 0.0 0.38 45.8	73.1 28.1	78.3 381	1.0 0.0 0.067	
391	387	382	1.0	0.0	0.049 45.5 71.1	42.9 83.1 391	1.0 0.0 0.204	45.6 72.0 36.7	80.8 387	1.0 0.0 0.05	1.0 0.0 0.349	45.8 72.9 29.6	78.7 382	1.0 0.0 0.05	
391	388	383	1.0	0.0	0.033 45.4 71.1	43.5 83.4 391	1.0 0.0 0.17 45.6	71.8 38.2	81.3 388	1.0 0.0 0.033	1.0 0.0 0.318	45.8 72.7 31.2	79.1 383	1.0 0.0 0.033	
391	389	384	1.0	0.0	0.016 45.4 71.0	44.2 83.6 391	1.0 0.0 0.135	45.6 71.6 39.7	81.8 389	1.0 0.0 0.017	1.0 0.0 0.286	45.7 72.5 32.8	79.6 384	1.0 0.0 0.017	
392	390	385	1.0	0.0	0.0 45.4 70.9	44.8 83.9 392	R_d 1.0 0.0 0.096	45.5 71.4 41.2	82.4 390	R_s 1.0 0.0 0.0	1.0 0.0 0.255	45.7 72.2 34.4	80.0 385	R_e 1.0 0.0 0.0	

1-1131631-L0 QE280-73 LAB*la0, YN=0%, XYZnw=3.6, 4.2, 6.1, 85.4, 89.1, 104.8, LAB*nw=24.4, 0.0, 0.0, 95.6, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 17/33

TUB-test chart QE28; hue code: $H^*_e=R75Y_e$
48 step hue circles; $rgb-LabCh$ *tables

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

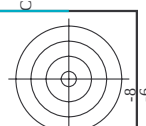
TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
application for measurement of offset print output, separation cmy0* (CMY0)

TUB material: code=rha4ta



TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
- application for measurement of offset print output, separations

TUB material: code=rha4ta
ny0* (CMY0)



http://130.149.60.45/~farbmatrik/QE28/QE28L0FP.PDF /PS; 3D-linearization F: 3D-linearization QE28/QE28LE30FP.DAT in file (F), page 19/33										input: rgb/cmyk -> rgbd output: 3D-linearization to cmy0*de																		
V										Y																		
L										M																		
O										C																		
n/j										H																		
H/C*Fde										LaCH*Fde																		
rgb_Fde										rgb_Fde																		
hsl_Fde										hsl_Fde																		
cmyn*_sep_Fde										cmyn*_sep_Fde																		
delta										delta																		
Mean color difference of this page:										Mean color difference of this page:																		
1/6648	R00Y_100_100de	1.0	0.0	1.0	0.5	1.0	0.0	0.0	0.0	72.2	34.4	80.0	25.4	0.0	1.0	0.832	1.0	0.0	0.744	0.0	0.0	0.254	45.6	72.2	34.4	80.0	25.4	
1/6648	R00Y_100_100de	1.0	0.25	1.0	0.5	1.0	0.0	0.0	0.0	50.5	59.2	51.6	78.6	41.0	0.0	0.832	1.0	0.0	0.832	1.0	0.0	0.166	0.0	50.5	59.2	51.6	78.6	
2/6648	R50Y_100_100de	1.0	0.0	1.0	0.5	1.0	0.0	0.0	0.0	60.2	38.2	63.4	74.1	58.8	0.0	0.6	1.0	0.0	1.0	0.0	0.398	0.0	60.2	38.2	63.4	74.1	58.8	
3/702	R50Y_100_100de	1.0	0.75	1.0	0.0	1.0	0.0	0.0	0.0	70.9	17.9	75.9	77.9	76.7	0.0	0.397	1.0	0.0	0.0	0.0	0.604	0.0	70.9	17.9	75.9	77.9	76.7	
4/720	Y00G_100_100de	1.0	1.0	0.0	0.5	1.0	0.0	0.0	0.0	83.6	-3.6	90.4	90.4	92.3	0.0	0.121	1.0	0.0	0.0	0.0	0.878	0.0	83.6	-3.6	90.4	90.4	92.3	
5/558	Y25G_100_100de	0.75	1.0	0.0	0.0	1.0	0.0	0.0	0.0	74.5	-25.0	74.3	78.4	108.6	0.396	0.0	0.0	0.0	0.0	0.0	0.605	1.0	0.0	74.5	-25.0	74.3	78.4	108.6
6/396	Y50G_100_100de	0.5	1.0	0.0	0.0	1.0	0.0	0.0	0.0	62.6	-40.9	53.8	67.6	127.2	0.678	0.0	1.0	0.0	0.0	0.0	0.322	1.0	0.0	62.6	-40.9	53.8	67.6	127.2
7/234	Y75G_100_100de	0.25	1.0	0.0	0.0	1.0	0.0	0.0	0.																			

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

TUB material: code=rha4ta
my0* (CMY0)

C M Y O L

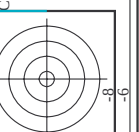
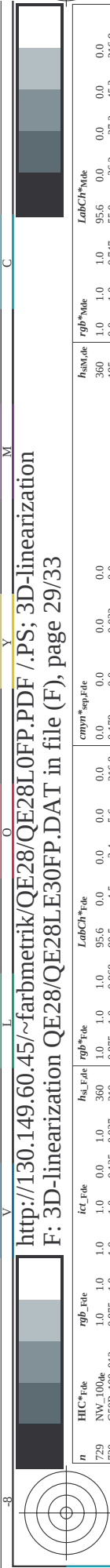
TUB-test chart QE28; hue code: $H_e^* = R75Y_e$
 colors and differences, ΔE^* ,*

[illegible]

test chart QE28; hue code: $H_e^* = R75Y_e$
and differences, ΔE^*

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

http://130.149.60.45/~farbmatrik/QE28/QE28L0FP.PDF /PS; 3D-linearization F: 3D-linearization QE28/QE28L30FP.DAT in file (F), page 26/33										TUB-test chart QE28: hue code: H*e=R75Ye colors and differences, ΔE,*									
F: 3D-linearization QE28/QE28L30FP.DAT in file (F), page 26/33										input: rgb/cmyk -> rgbd output: 3D-linearization to cmy0*de									
										Mean color difference of this page:									
										delta									



http://130.149.60.45/~farbmatrik/QE28/QE28L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE28/QE28L0FP.DAT in file (F), page 29/33

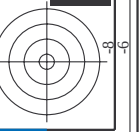
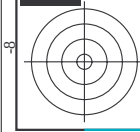
n	HC*File	rgb*File	Lab*File	rgb*File	Lab*File	cmyn*sepFile	rgb*File	Lab*File	delta
729	NW_100.00e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
730	G50B_100.0124e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
731	G50B_100.0254e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
732	G50B_100.0374e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
733	G50B_100.0504e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
734	G50B_100.0624e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
735	G50B_100.0744e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
736	G50B_100.0864e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
737	G50B_100.0984e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
738	ROY_100.1004e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
739	ROY_100.10124e	0.875	1.0	1.0	0.0	0.0	0.0	0.0	0.0
740	G50B_087.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
741	G50B_087.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
742	G50B_087.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
743	G50B_087.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
744	G50B_087.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
745	G50B_087.0744e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
746	G50B_087.0864e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
747	ROY_100.1024e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
748	ROY_100.10324e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
749	G50B_075.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
750	G50B_075.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
751	G50B_075.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
752	G50B_075.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
753	G50B_075.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
754	G50B_075.0744e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
755	G50B_075.0864e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
756	ROY_100.10324e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
757	ROY_100.10404e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
758	ROY_075.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
759	G50B_062.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
760	G50B_062.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
761	G50B_062.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
762	G50B_062.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
763	G50B_062.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
764	ROY_100.10504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
765	ROY_087.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
766	ROY_087.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
767	ROY_087.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
768	ROY_062.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
769	NW_0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
770	G50B_050.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
771	G50B_050.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
772	G50B_050.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
773	G50B_050.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
774	ROY_100.10624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
775	ROY_087.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
776	ROY_087.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
777	ROY_062.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
778	ROY_050.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
779	NW_0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
780	G50B_037.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
781	G50B_037.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
782	G50B_037.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
783	ROY_100.1074e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
784	ROY_062.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
785	G50B_062.0744e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
786	ROY_062.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
787	ROY_050.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
788	ROY_037.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
789	NW_0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
790	G50B_025.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
791	G50B_025.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
792	ROY_100.1084e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
793	ROY_087.0744e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
794	ROY_075.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
795	ROY_062.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
796	ROY_050.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
797	ROY_037.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
798	ROY_025.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
799	NW_0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
800	G50B_012.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
801	ROY_100.1094e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
802	ROY_087.0864e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
803	ROY_075.0744e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
804	ROY_062.0624e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
805	ROY_050.0504e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
806	ROY_037.0374e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
807	ROY_025.0254e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
808	ROY_012.0124e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
809	NW_0004e	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875

Mean color difference of this page:

QE280-7N; Page 29/33-F

I-1132831-F0

TUB-test chart QE28; hue code: H*=R75Ye
colors and differences, ΔE*
input: rgb/cmyk -> rgbde
output: 3D-linearization to cmy0*de



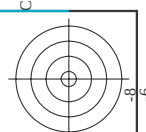
n	HIC ¹ tie	rgb ¹ tie	ic1 ¹ tie	h ₃₄ ¹ tie	rgb ¹ tie	LabCH ¹ tie	cmym ¹ sep,tie	h ₃₄ ¹ tie	rgb ¹ tie	LabCH ¹ tie	delta
891	NW_100e	1.0	1.0	1.0	360	1.0	0.0	0.0	0.0	0.0	0.0
892	B50R_100.012e	1.0	0.875	1.0	892	0.915	0.0	0.0	0.0	0.0	0.0
893	B50R_100.025e	1.0	0.875	1.0	893	0.915	0.0	0.0	0.0	0.0	0.0
894	B50R_100.037e	1.0	0.75	1.0	894	0.83	0.0	0.0	0.0	0.0	0.0
895	B50R_100.050e	1.0	0.625	1.0	895	0.745	0.0	0.0	0.0	0.0	0.0
896	B50R_100.062e	1.0	0.5	1.0	896	0.66	0.0	0.0	0.0	0.0	0.0
897	B50R_100.075e	1.0	0.375	1.0	897	0.576	0.0	0.0	0.0	0.0	0.0
898	B50R_100.075e	1.0	0.25	1.0	898	0.491	0.0	0.0	0.0	0.0	0.0
899	B50R_100.087e	1.0	0.125	1.0	899	0.406	0.0	0.0	0.0	0.0	0.0
900	B50R_100.087e	1.0	0.0	1.0	900	0.321	0.0	0.0	0.0	0.0	0.0
901	NW_087e	1.0	0.875	1.0	901	0.875	0.0	0.0	0.0	0.0	0.0
902	B50R_087.012e	0.875	0.875	0.875	902	0.875	0.0	0.0	0.0	0.0	0.0
903	B50R_087.025e	0.875	0.625	0.875	903	0.79	0.0	0.0	0.0	0.0	0.0
904	B50R_087.037e	0.875	0.5	0.875	904	0.705	0.0	0.0	0.0	0.0	0.0
905	B50R_087.050e	0.875	0.375	0.875	905	0.62	0.0	0.0	0.0	0.0	0.0
906	B50R_087.062e	0.875	0.25	0.875	906	0.535	0.0	0.0	0.0	0.0	0.0
907	B50R_087.075e	0.875	0.125	0.875	907	0.451	0.0	0.0	0.0	0.0	0.0
908	B50R_087.075e	0.875	0.0	0.875	908	0.366	0.0	0.0	0.0	0.0	0.0
909	G00B_100.025e	0.75	1.0	0.75	909	0.281	0.0	0.0	0.0	0.0	0.0
910	G00B_100.025e	0.75	0.875	0.875	910	0.2	0.0	0.0	0.0	0.0	0.0
911	NW_075e	0.75	0.875	0.875	911	0.75	0.0	0.0	0.0	0.0	0.0
912	B50R_075.012e	0.75	0.875	0.875	912	0.75	0.0	0.0	0.0	0.0	0.0
913	B50R_075.025e	0.75	0.75	0.875	913	0.65	0.0	0.0	0.0	0.0	0.0
914	B50R_075.037e	0.75	0.625	0.875	914	0.56	0.0	0.0	0.0	0.0	0.0
915	B50R_075.050e	0.75	0.5	0.875	915	0.495	0.0	0.0	0.0	0.0	0.0
916	B50R_075.062e	0.75	0.375	0.875	916	0.41	0.0	0.0	0.0	0.0	0.0
917	B50R_075.075e	0.75	0.25	0.875	917	0.326	0.0	0.0	0.0	0.0	0.0
918	G00B_100.037e	0.625	1.0	0.625	918	0.241	0.0	0.0	0.0	0.0	0.0
919	G00B_087.025e	0.625	0.875	0.875	919	0.15	0.0	0.0	0.0	0.0	0.0
920	G00B_087.025e	0.625	0.75	0.875	920	0.0625	0.0	0.0	0.0	0.0	0.0
921	NW_062e	0.625	0.625	0.625	921	0.625	0.0	0.0	0.0	0.0	0.0
922	B50R_062.012e	0.625	0.5	0.625	922	0.54	0.0	0.0	0.0	0.0	0.0
923	B50R_062.025e	0.625	0.375	0.625	923	0.455	0.0	0.0	0.0	0.0	0.0
924	B50R_062.037e	0.625	0.25	0.625	924	0.37	0.0	0.0	0.0	0.0	0.0
925	B50R_062.050e	0.625	0.125	0.625	925	0.285	0.0	0.0	0.0	0.0	0.0
926	B50R_062.062e	0.625	0.0	0.625	926	0.201	0.0	0.0	0.0	0.0	0.0
927	G00B_100.050e	0.5	1.0	0.5	927	0.5	0.0	0.0	0.0	0.0	0.0
928	G00B_087.037e	0.5	0.875	0.875	928	0.375	0.0	0.0	0.0	0.0	0.0
929	G00B_075.025e	0.5	0.75	0.875	929	0.285	0.0	0.0	0.0	0.0	0.0
930	G00B_062.012e	0.5	0.625	0.625	930	0.241	0.0	0.0	0.0	0.0	0.0
931	NW_050e	0.5	0.5	0.5	931	0.5	0.0	0.0	0.0	0.0	0.0
932	B50R_050.012e	0.5	0.375	0.5	932	0.415	0.0	0.0	0.0	0.0	0.0
933	B50R_050.025e	0.5	0.25	0.5	933	0.33	0.0	0.0	0.0	0.0	0.0
934	B50R_050.037e	0.5	0.125	0.5	934	0.245	0.0	0.0	0.0	0.0	0.0
935	B50R_050.050e	0.5	0.0	0.5	935	0.16	0.0	0.0	0.0	0.0	0.0
936	G00B_100.062e	0.375	1.0	0.375	936	0.375	0.0	0.0	0.0	0.0	0.0
937	G00B_087.050e	0.375	0.875	0.875	937	0.285	0.0	0.0	0.0	0.0	0.0
938	G00B_075.037e	0.375	0.75	0.875	938	0.201	0.0	0.0	0.0	0.0	0.0
939	G00B_062.025e	0.375	0.625	0.875	939	0.15	0.0	0.0	0.0	0.0	0.0
940	NW_037e	0.375	0.5	0.375	940	0.375	0.0	0.0	0.0	0.0	0.0
941	B50R_037e	0.375	0.375	0.375	941	0.375	0.0	0.0	0.0	0.0	0.0
942	B50R_037.025e	0.375	0.25	0.375	942	0.285	0.0	0.0	0.0	0.0	0.0
943	B50R_037.037e	0.375	0.125	0.375	943	0.201	0.0	0.0	0.0	0.0	0.0
944	G00B_100.075e	0.25	1.0	0.25	944	0.25	0.0	0.0	0.0	0.0	0.0
945	G00B_087.062e	0.25	0.875	0.875	945	0.16	0.0	0.0	0.0	0.0	0.0
946	G00B_075.050e	0.25	0.75	0.875	946	0.125	0.0	0.0	0.0	0.0	0.0
947	G00B_062.037e	0.25	0.625	0.875	947	0.09	0.0	0.0	0.0	0.0	0.0
948	G00B_050.025e	0.25	0.5	0.875	948	0.0625	0.0	0.0	0.0	0.0	0.0
949	G00B_037.012e	0.25	0.375	0.375	949	0.249	0.0	0.0	0.0	0.0	0.0
950	G00B_037.012e	0.25	0.25	0.375	950	0.165	0.0	0.0	0.0	0.0	0.0
951	NW_025e	0.25	0.25	0.25	951	0.25	0.0	0.0	0.0	0.0	0.0
952	B50R_025.012e	0.25	0.125	0.25	952	0.165	0.0	0.0	0.0	0.0	0.0
953	G00B_100.100e	0.125	1.0	0.125	953	0.125	0.0	0.0	0.0	0.0	0.0
954	G00B_100.087e	0.125	0.875	0.875	954	0.09	0.0	0.0	0.0	0.0	0.0
955	G00B_087.075e	0.125	0.75	0.875	955	0.0625	0.0	0.0	0.0	0.0	0.0
956	G00B_075.062e	0.125	0.625	0.875	956	0.04	0.0	0.0	0.0	0.0	0.0
957	G00B_062.050e	0.125	0.5	0.875	957	0.03	0.0	0.0	0.0	0.0	0.0
958	G00B_050.037e	0.125	0.375	0.875	958	0.015	0.0	0.0	0.0	0.0	0.0
959	G00B_025.012e	0.125	0.25	0.25	959	0.015	0.0	0.0	0.0	0.0	0.0
960	G00B_025.012e	0.125	0.125	0.125	960	0.015	0.0	0.0	0.0	0.0	0.0
961	NW_012e	0.125	0.125	0.125	961	0.015	0.0	0.0	0.0	0.0	0.0
962	B50R_012.012e	0.125	0.0	0.125	962	0.015	0.0	0.0	0.0	0.0	0.0
963	G00B_100.100e	0.0	1.0	0.0	963	0.015	0.0	0.0	0.0	0.0	0.0
964	G00B_087.087e	0.0	0.875	0.875	964	0.015	0.0	0.0	0.0	0.0	0.0
965	G00B_075.075e	0.0	0.75	0.875	965	0.015	0.0	0.0	0.0	0.0	0.0
966	G00B_062.062e	0.0	0.625	0.875	966	0.015	0.0	0.0	0.0	0.0	0.0
967	G00B_050.050e	0.0	0.5	0.875	967	0.015	0.0	0.0	0.0	0.0	0.0
968	G00B_037.037e	0.0	0.375	0.875	968	0.015	0.0	0.0	0.0	0.0	0.0
969	G00B_025.025e	0.0	0.25	0.25	969	0.015	0.0	0.0	0.0	0.0	0.0
970	G00B_012.012e	0.0	0.125	0.125	970	0.015	0.0	0.0	0.0	0.0	0.0
971	NW_000e	0.0	0.0	0.0	971	0.015	0.0	0.0	0.0	0.0	0.0

-see similar files: <http://130.149.60.45/~farbmetrik/QE28/QE28.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>



TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS
- application for measurement of offset print output, separations

TUB material: code=rha4ta
my0* (CMY0)



<http://130.149.60.45/~farbmatrik/QE28/QE28L0FP.PDF> /PS; 3D-linearization F: 3D-linearization QE28/QE28LE30FP.DAT in file (F), page 32/33

n	HC* τ -File	rgb-File	ict-File	I_{hs} -File	rgb* τ -File	LabCh* τ -File	$\text{cmv}\tau^{\text{sep}}_{\text{File}}$	$I_{\text{hs},\text{de}}$	rgb* τ -File	LabCh* τ -File
972	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
973	NW_012de	0.125	0.125	0.125	0.125	0.0	0.885	360	1.0	956
974	NW_025de	0.25	0.25	0.25	0.25	0.0	0.743	360	1.0	956
975	NW_037de	0.375	0.375	0.375	0.375	0.0	0.653	360	1.0	956
976	NW_050de	0.5	0.5	0.5	0.5	0.0	0.54	360	1.0	956
977	NW_062de	0.625	0.625	0.625	0.625	0.0	0.417	360	1.0	956
978	NW_075de	0.75	0.75	0.75	0.75	0.0	0.299	360	1.0	956
979	NW_087de	0.875	0.875	0.875	0.875	0.0	0.162	360	1.0	956
980	NW_100de	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	956
981	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
982	NW_012de	0.125	0.125	0.125	0.125	0.0	0.885	360	1.0	956
983	NW_025de	0.25	0.25	0.25	0.25	0.0	0.743	360	1.0	956
984	NW_037de	0.375	0.375	0.375	0.375	0.0	0.653	360	1.0	956
985	NW_050de	0.5	0.5	0.5	0.5	0.0	0.54	360	1.0	956
986	NW_062de	0.625	0.625	0.625	0.625	0.0	0.417	360	1.0	956
987	NW_075de	0.75	0.75	0.75	0.75	0.0	0.299	360	1.0	956
988	NW_087de	0.875	0.875	0.875	0.875	0.0	0.162	360	1.0	956
989	NW_100de	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	956
990	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
991	NW_012de	0.125	0.125	0.125	0.125	0.0	0.885	360	1.0	956
992	NW_025de	0.25	0.25	0.25	0.25	0.0	0.743	360	1.0	956
993	NW_037de	0.375	0.375	0.375	0.375	0.0	0.653	360	1.0	956
994	NW_050de	0.5	0.5	0.5	0.5	0.0	0.54	360	1.0	956
995	NW_062de	0.625	0.625	0.625	0.625	0.0	0.417	360	1.0	956
996	NW_075de	0.75	0.75	0.75	0.75	0.0	0.299	360	1.0	956
997	NW_087de	0.875	0.875	0.875	0.875	0.0	0.162	360	1.0	956
998	NW_100de	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	956
999	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
1000	NW_012de	0.125	0.125	0.125	0.125	0.0	0.885	360	1.0	956
1001	NW_025de	0.25	0.25	0.25	0.25	0.0	0.743	360	1.0	956
1002	NW_037de	0.375	0.375	0.375	0.375	0.0	0.653	360	1.0	956
1003	NW_050de	0.5	0.5	0.5	0.5	0.0	0.54	360	1.0	956
1004	NW_062de	0.625	0.625	0.625	0.625	0.0	0.417	360	1.0	956
1005	NW_075de	0.75	0.75	0.75	0.75	0.0	0.299	360	1.0	956
1006	NW_087de	0.875	0.875	0.875	0.875	0.0	0.162	360	1.0	956
1007	NW_100de	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	956
1008	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
1009	NW_006de	0.066	0.066	0.066	0.066	0.0	0.935	360	1.0	956
1010	NW_013de	0.133	0.133	0.133	0.133	0.0	0.879	360	1.0	956
1011	NW_020de	0.2	0.2	0.2	0.2	0.0	0.799	360	1.0	956
1012	NW_026de	0.266	0.266	0.266	0.266	0.0	0.731	360	1.0	956
1013	NW_033de	0.333	0.333	0.333	0.333	0.0	0.682	360	1.0	956
1014	NW_040de	0.4	0.4	0.4	0.4	0.0	0.636	360	1.0	956
1015	NW_046de	0.466	0.466	0.466	0.466	0.0	0.594	360	1.0	956
1016	NW_053de	0.533	0.533	0.533	0.533	0.0	0.570	360	1.0	956
1017	NW_060de	0.6	0.6	0.6	0.6	0.0	0.542	360	1.0	956
1018	NW_066de	0.666	0.666	0.666	0.666	0.0	0.509	360	1.0	956
1019	NW_073de	0.734	0.734	0.734	0.734	0.0	0.477	360	1.0	956
1020	NW_080de	0.8	0.8	0.8	0.8	0.0	0.442	360	1.0	956
1021	NW_086de	0.866	0.866	0.866	0.866	0.0	0.414	360	1.0	956
1022	NW_093de	0.933	0.933	0.933	0.933	0.0	0.377	360	1.0	956
1023	NW_100de	1.0	1.0	1.0	1.0	0.0	0.334	360	1.0	956
1024	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
1025	NW_006de	0.066	0.066	0.066	0.066	0.0	0.935	360	1.0	956
1026	NW_013de	0.133	0.133	0.133	0.133	0.0	0.879	360	1.0	956
1027	NW_020de	0.2	0.2	0.2	0.2	0.0	0.799	360	1.0	956
1028	NW_026de	0.266	0.266	0.266	0.266	0.0	0.731	360	1.0	956
1029	NW_033de	0.333	0.333	0.333	0.333	0.0	0.682	360	1.0	956
1030	NW_040de	0.4	0.4	0.4	0.4	0.0	0.636	360	1.0	956
1031	NW_046de	0.466	0.466	0.466	0.466	0.0	0.594	360	1.0	956
1032	NW_053de	0.533	0.533	0.533	0.533	0.0	0.570	360	1.0	956
1033	NW_060de	0.6	0.6	0.6	0.6	0.0	0.542	360	1.0	956
1034	NW_066de	0.666	0.666	0.666	0.666	0.0	0.509	360	1.0	956
1035	NW_073de	0.734	0.734	0.734	0.734	0.0	0.477	360	1.0	956
1036	NW_080de	0.8	0.8	0.8	0.8	0.0	0.442	360	1.0	956
1037	NW_086de	0.866	0.866	0.866	0.866	0.0	0.414	360	1.0	956
1038	NW_093de	0.933	0.933	0.933	0.933	0.0	0.377	360	1.0	956
1039	NW_100de	1.0	1.0	1.0	1.0	0.0	0.334	360	1.0	956
1040	NW_000de	0.0	0.0	0.0	0.0	0.0	1.0	360	1.0	956
1041	NW_006de	0.066	0.066	0.066	0.066	0.0	0.935	360	1.0	956
1042	NW_013de	0.133	0.133	0.133	0.133	0.0	0.879	360	1.0	956
1043	NW_020de	0.2	0.2	0.2	0.2	0.0	0.799	360	1.0	956
1044	NW_026de	0.266	0.266	0.266	0.266	0.0	0.731	360	1.0	956
1045	NW_033de	0.333	0.333	0.333	0.333	0.0	0.682	360	1.0	956
1046	NW_040de	0.4	0.4	0.4	0.4	0.0	0.636	360	1.0	956
1047	NW_046de	0.466	0.466	0.466	0.466	0.0	0.594	360	1.0	956
1048	NW_053de	0.533	0.533	0.533	0.533	0.0	0.570	360	1.0	956
1049	NW_060de	0.6	0.6	0.6	0.6	0.0	0.542	360	1.0	956
1050	NW_066de	0.666	0.666	0.666	0.666	0.0	0.509	360	1.0	956
1051	NW_073de	0.734	0.734	0.734	0.734	0.0	0.477	360	1.0	956
1052	NW_080de	0.8	0.8	0.8	0.8	0.0	0.442	360	1.0	956

Mean color difference of this row

252	0.153	0.146	0.0	delta
Mean color difference of this page:				

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

QE280-7N, Page 32/33-F

TUB-test chart QE28; hue code: H_e^{*}=R75Y_e
colors and differences. ΔE^{*}

1133131-F0

-see similar files: <http://130.149.60.45/~farbmatrik/QE28/QE28.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmatrik>

TUB registration: 20130201-QE28/QE28L0FP.PDF /.PS TUB material: code=rha4ta
application for measurement of offset print output, separation cmy0* (CMY0)

see similar files: <http://130.149.60.45/~farbmetrik/QE28/QE28.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB-test chart QE28; hue code: H*e=R75Ye
colors and differences, ΔE^*

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

n	HVC*Fide	rgb_Fide	lcr_Fide	hsa_Fide	rgb*Fide	LabCH*Fide	0	cmyn*sep_Fide	0.099	0.108	0.099	0.0	hsvM.de	rgb*Fide	LabCH*Fide	0.0	0.0
1053	NW_086de	0.866	0.866	0.866	0.866	86.6	0.0	0.173	0.108	0.099	0.0	360	1.0	1.0	95.6	0.0	0.0
1054	NW_093de	0.933	0.933	0.933	0.933	93.3	0.0	0.09	0.054	0.05	0.0	360	1.0	1.0	95.6	0.0	0.0
1055	NW_100de	1.0	1.0	1.0	1.0	100.0	0.0	1.0	1.0	1.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1056	NW_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1057	NW_003de	0.066	0.066	0.066	0.066	6.6	0.0	0.935	0.855	0.825	0.0	360	1.0	1.0	95.6	0.0	0.0
1058	NW_013de	0.133	0.133	0.133	0.133	13.3	0.0	0.879	0.763	0.725	0.0	360	1.0	1.0	95.6	0.0	0.0
1059	NW_026de	0.2	0.2	0.2	0.2	2.0	0.0	0.799	0.661	0.614	0.0	360	1.0	1.0	95.6	0.0	0.0
1060	NW_026de	0.266	0.266	0.266	0.266	26.6	0.0	0.731	0.571	0.537	0.0	360	1.0	1.0	95.6	0.0	0.0
1061	NW_033de	0.333	0.333	0.333	0.333	33.3	0.0	0.682	0.507	0.485	0.0	360	1.0	1.0	95.6	0.0	0.0
1062	NW_040de	0.4	0.4	0.4	0.4	4.0	0.0	0.636	0.454	0.433	0.0	360	1.0	1.0	95.6	0.0	0.0
1063	NW_046de	0.466	0.466	0.466	0.466	46.6	0.0	0.574	0.404	0.381	0.0	360	1.0	1.0	95.6	0.0	0.0
1064	NW_053de	0.533	0.533	0.533	0.533	53.3	0.0	0.509	0.354	0.33	0.0	360	1.0	1.0	95.6	0.0	0.0
1065	NW_060de	0.6	0.6	0.6	0.6	6.0	0.0	0.442	0.285	0.278	0.0	360	1.0	1.0	95.6	0.0	0.0
1066	NW_066de	0.666	0.666	0.666	0.666	66.6	0.0	0.377	0.228	0.228	0.0	360	1.0	1.0	95.6	0.0	0.0
1067	NW_073de	0.734	0.734	0.734	0.734	73.4	0.0	0.314	0.191	0.186	0.0	360	1.0	1.0	95.6	0.0	0.0
1068	NW_080de	0.8	0.8	0.8	0.8	8.0	0.0	0.252	0.153	0.146	0.0	360	1.0	1.0	95.6	0.0	0.0
1069	NW_086de	0.866	0.866	0.866	0.866	86.6	0.0	0.173	0.108	0.099	0.0	360	1.0	1.0	95.6	0.0	0.0
1070	NW_093de	0.933	0.933	0.933	0.933	93.3	0.0	0.09	0.054	0.05	0.0	360	1.0	1.0	95.6	0.0	0.0
1071	NW_100de	1.0	1.0	1.0	1.0	100.0	0.0	1.0	1.0	1.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1072	NW_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1073	ROY_100_100de	1.0	1.0	1.0	1.0	100.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1074	ROY_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1075	G50E_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1076	Y06E_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1077	B06E_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1078	B06E_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0
1079	B50E_100_100de	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	95.6	0.0	0.0

Mean color difference of this page:

delta