

Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 139/360 = 0.38$

$H^*_ = Y75G_$

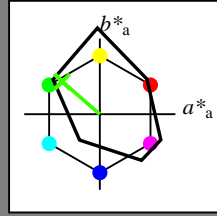
Data for any device (d) or elementary (e) colour:

$HIC^*_$

hue text for the colours of this page:

$H^*_ = Y75G_$

triangle lightness T^*



FRS06a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{-,Ma}	32.5	62.3	46.4	77.7	36
Y _{-,Ma}	82.7	-3.1	113.9	114.0	91
G _{-,Ma}	39.4	-61.8	45.8	76.9	143
C _{-,Ma}	47.8	-26.8	-34.2	43.4	231
B _{-,Ma}	10.1	55.1	-61.0	82.2	312
M _{-,Ma}	34.5	80.6	-33.9	87.5	337
N _{-,Ma}	6.2	0.0	0.0	0.0	0
W _{-,Ma}	91.9	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):

$LabCh^*_{-,Ma}$: 62 -49 43 65 139

$HIC^*_{-,Ma}$: Y75G_100_100_

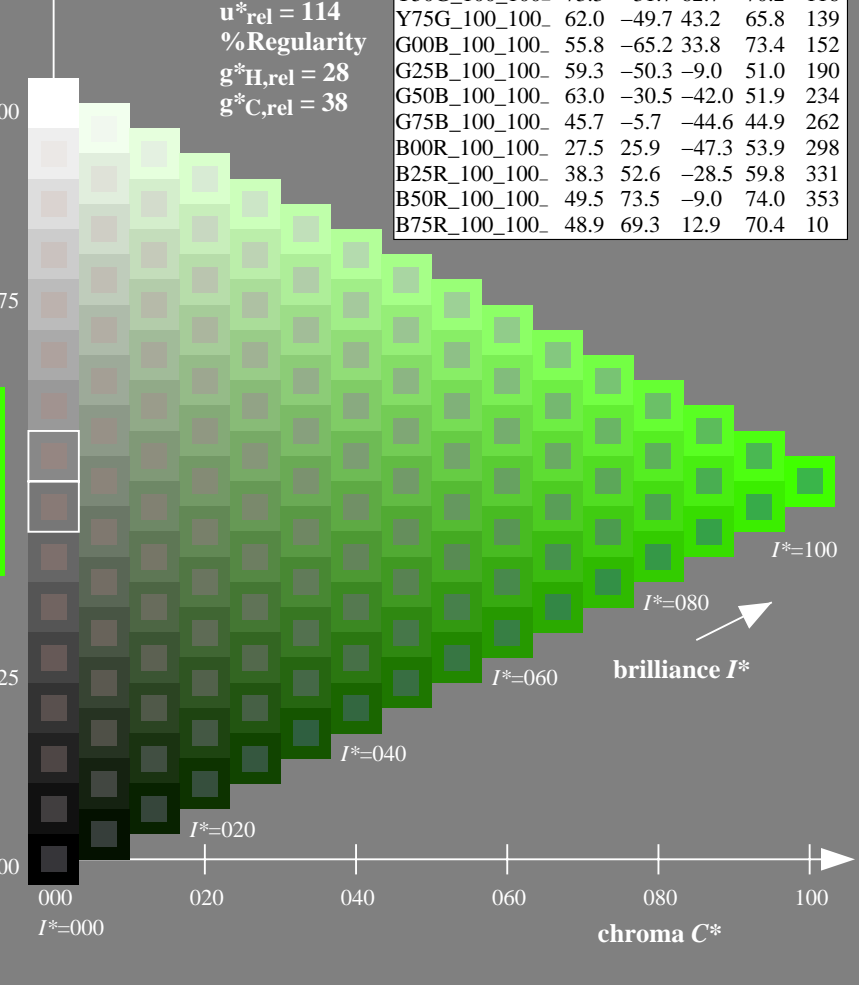
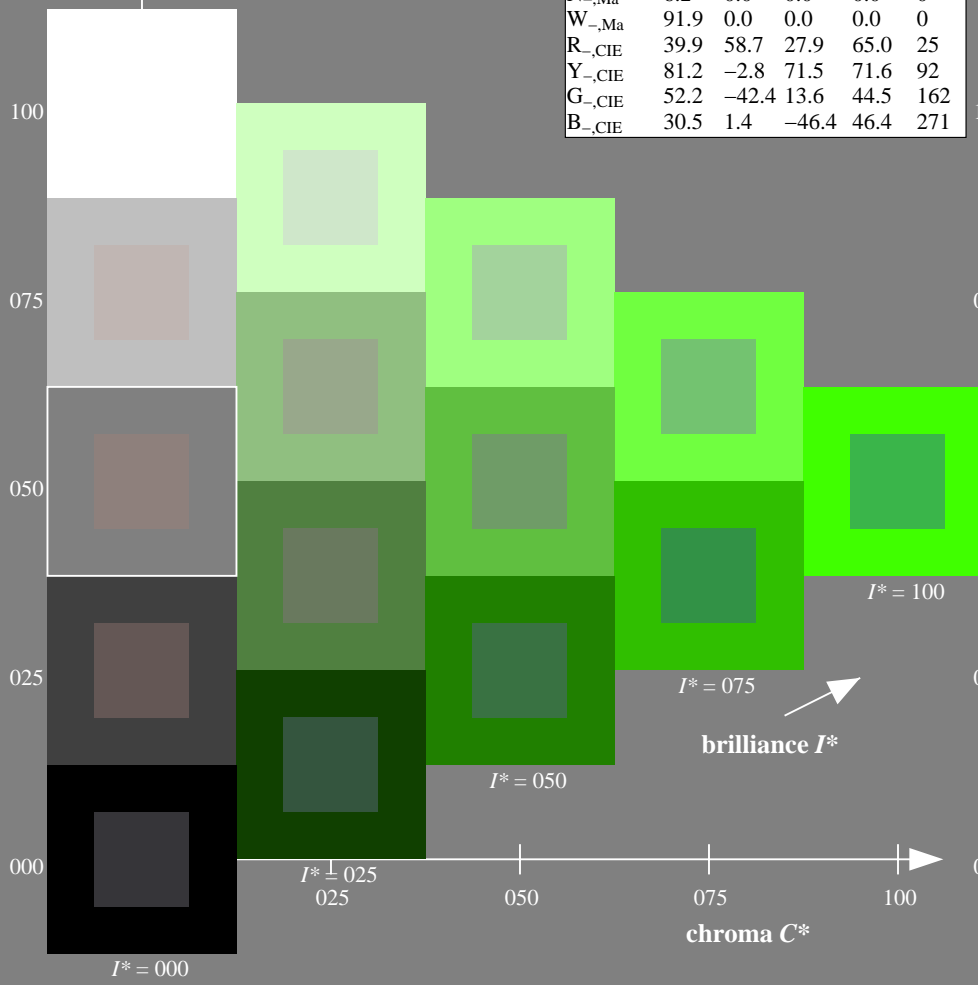
$rgbic^*_{-,Ma}$:

0.23 1.0 0.0 1.0 1.0

triangle lightness T^*

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



%Gamut
 $u^*_{rel} = 114$
 %Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 38$

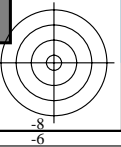
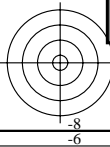
see similar files: http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; start output
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20130201-QE69/QE69L0FP.PDF /.PS
application for measurement of laser printer output

TUB material: code=rh4ta

TUB-test chart QE69; hue code: $H^*_ = Y75G_$
Test chart according to DIN 33872, 3D=1, de=0, cmk^*

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

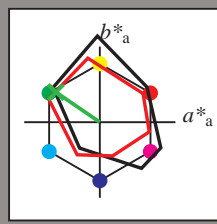


Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_d = Y75G_d$

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

HIC^*_d
hue text for the colours of this page:
 $H^*_d = Y75G_d$
triangle lightness T^*



LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	47.5	57.2	37.8	68.6	33
Y _{d, Ma}	91.5	-15.8	84.6	86.1	100
G _{d, Ma}	54.3	-67.6	30.8	74.3	155
C _{d, Ma}	53.1	-30.0	-43.1	52.5	235
B _{d, Ma}	32.5	16.9	-44.6	47.7	290
M _{d, Ma}	48.1	65.4	-12.7	66.6	348
N _{d, Ma}	23.8	0.0	0.0	0.0	0
W _{d, Ma}	95.8	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):

$LabCh^*_d, Ma$: 60 -57 39 70 145

HIC^*_d, Ma : Y75G_100_100d

$rgbic^*_d, Ma$:

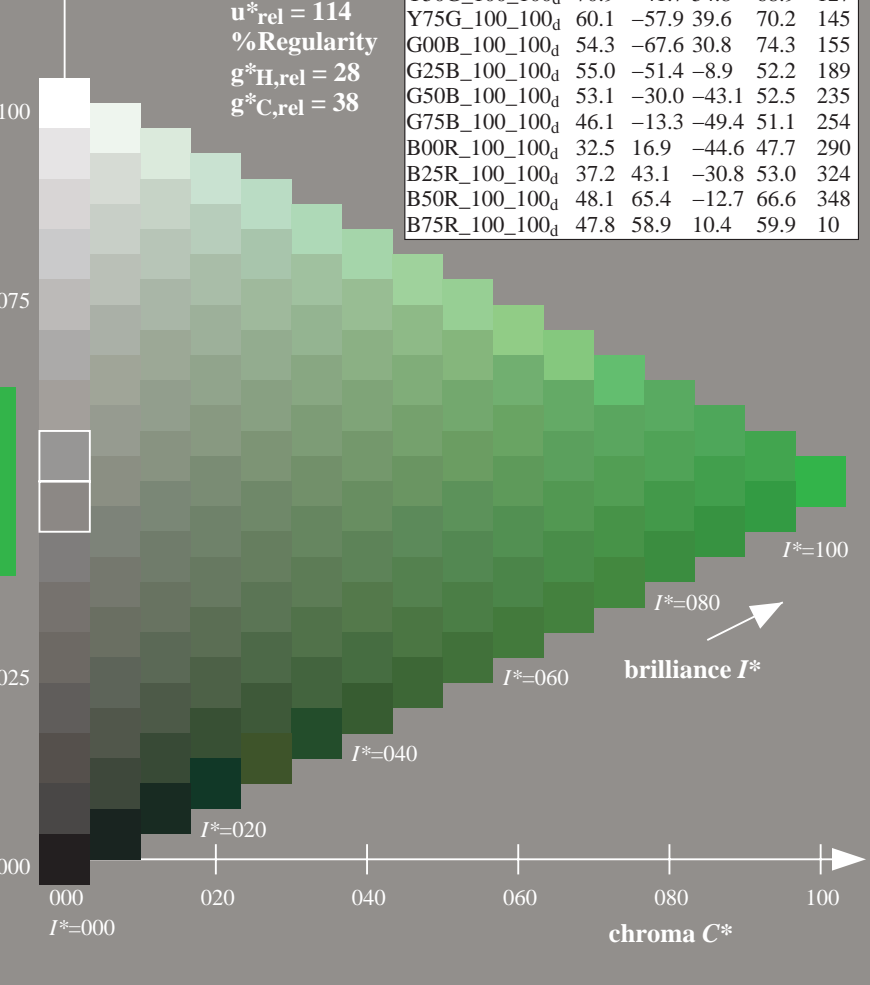
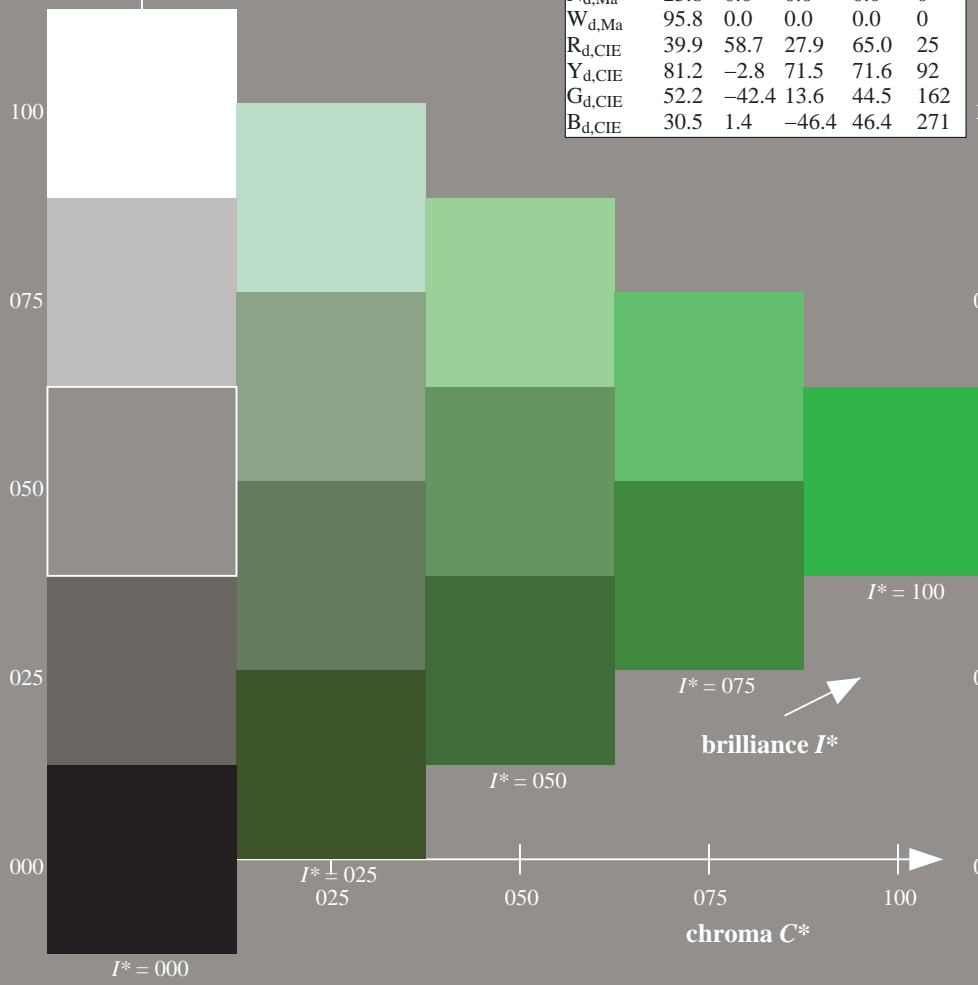
0.23 1.0 0.0 1.0 1.0

triangle lightness T^*

LRS18a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 _d	47.5	57.2	37.8	68.6	33
R25Y_100_100 _d	57.4	43.5	54.5	69.7	51
R50Y_100_100 _d	70.5	19.2	66.2	69.0	73
R75Y_100_100 _d	83.5	-2.9	76.8	76.9	92
Y00G_100_100 _d	91.5	-15.8	84.6	86.1	100
Y25G_100_100 _d	90.4	-20.9	86.5	89.0	103
Y50G_100_100 _d	70.9	-41.7	54.8	68.9	127
Y75G_100_100 _d	60.1	-57.9	39.6	70.2	145
G00B_100_100 _d	54.3	-67.6	30.8	74.3	155
G25B_100_100 _d	55.0	-51.4	-8.9	52.2	189
G50B_100_100 _d	53.1	-30.0	-43.1	52.5	235
G75B_100_100 _d	46.1	-13.3	-49.4	51.1	254
B00R_100_100 _d	32.5	16.9	-44.6	47.7	290
B25R_100_100 _d	37.2	43.1	-30.8	53.0	324
B50R_100_100 _d	48.1	65.4	-12.7	66.6	348
B75R_100_100 _d	47.8	58.9	10.4	59.9	10

%Gamut
 $u^*_{rel} = 114$
%Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 38$



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

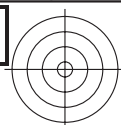
TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS
application for measurement of laser printer output, separation cmyk* (CMYK)
TUB material: code=rh4ta

1-103130-L0 QE690-72

TUB-test chart QE69; hue code: $H^*_d=Y75G_d$
Test chart according to DIN 33872, 3D=1, de=0, cmyk*

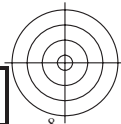
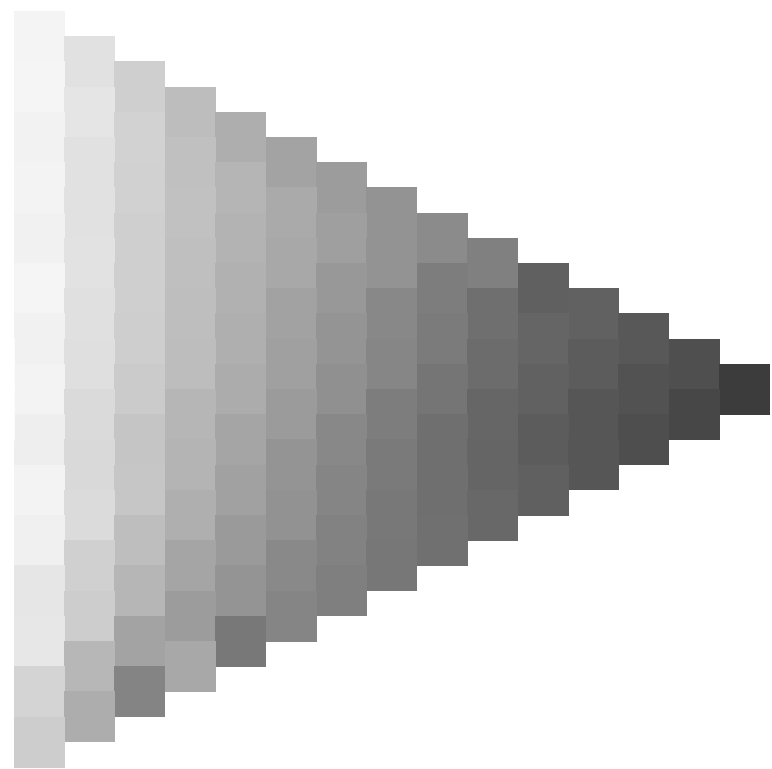
input: $rgb/cmyk \rightarrow rgb_{dd}$
output: 3D-linearization to $cmyk^*_{dd}$

1-103130-F0



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF /.PS TUB material: code=rh4ta
application for measurement of laser printer output, separation *cmyn6** (CMYK)



1-103230-L0 QE690-72

TUB-test chart QE69; hue code: $H^*_d=Y75G_d$
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/QE69/QE69L0FP.PDF> / .PS
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS
 application for measurement of laser printer output, separation cmyk* (CMYK)
 TUB material: code=rh4ta



TUB-test chart QE69; hue code: $H^*_d = Y75G_d$
 Test chart according to DIN 33872, 3D=1, de=0, cmyk*

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



Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_d = Y75G_d$

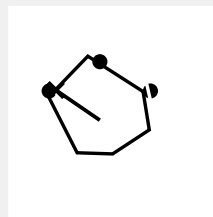
Data for any device (d) or elementary (e) colour:

HIC^*_d

hue text for the colours of this page:

$H^*_d = Y75G_d$

triangle lightness T^*



Data for maximum colour (M_a):

$LabCh^*_{d,M_a}$: 60 -57 39 70 145

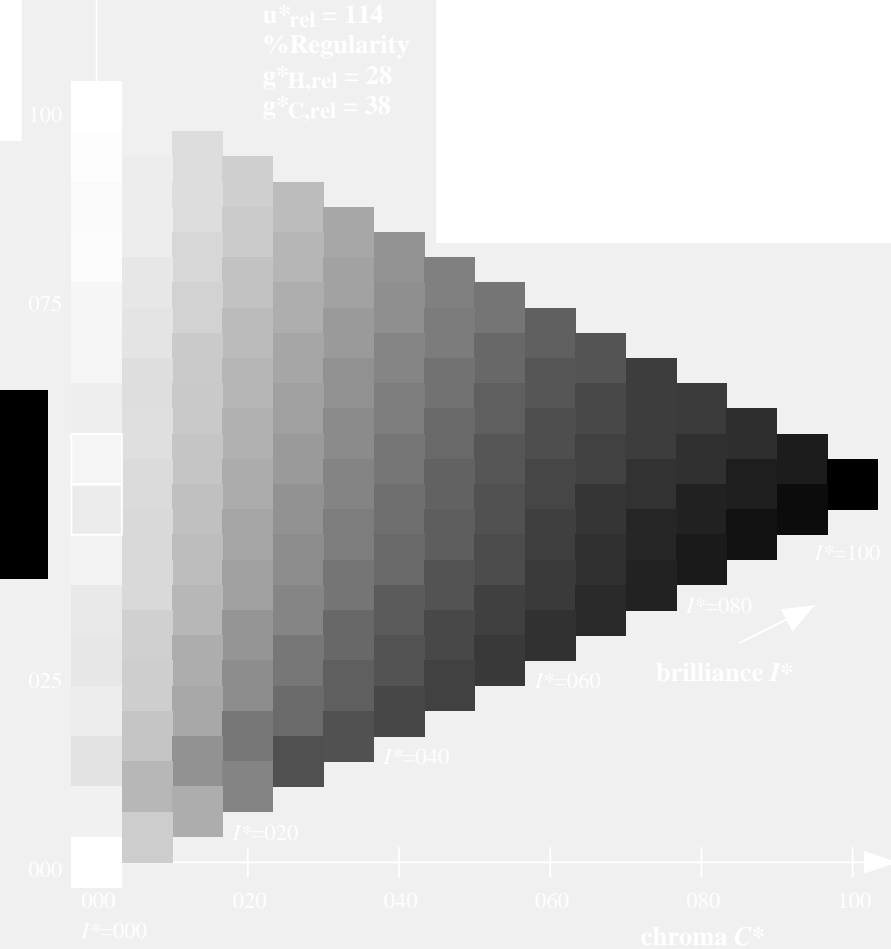
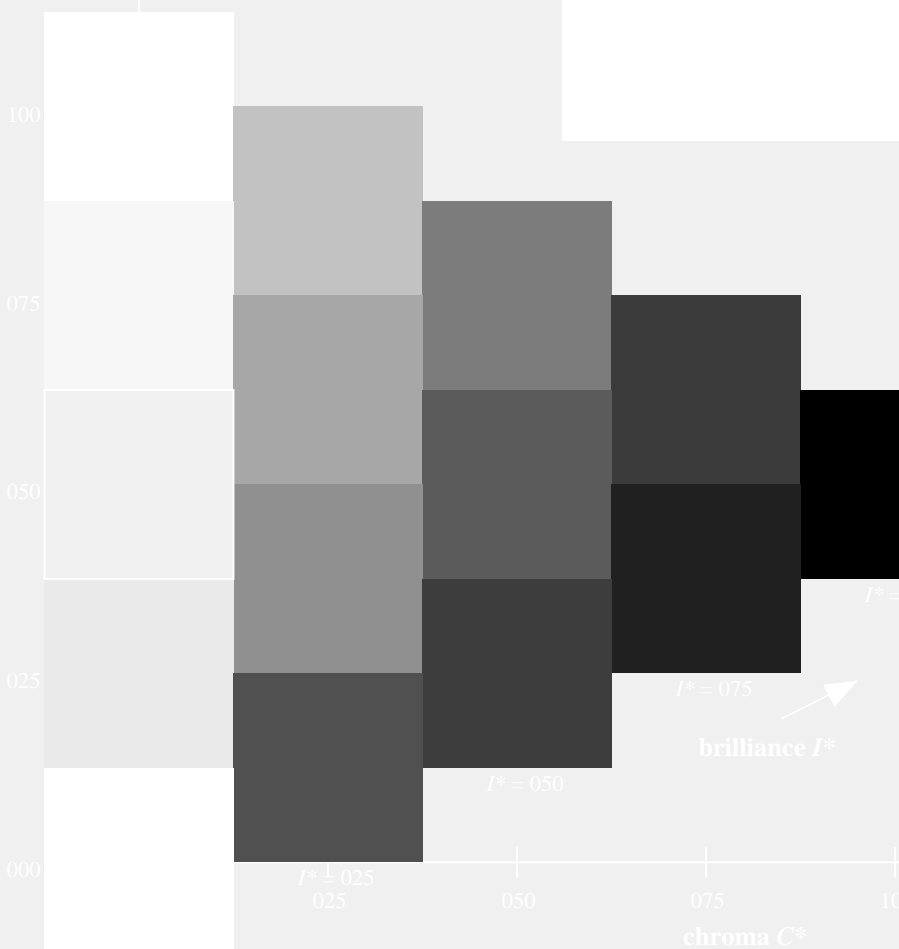
HIC^*_{d,M_a} : Y75G_100_100_d

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

0.23 1.0 0.0 1.0 1.0

triangle lightness T^*

%Gamut
 $u^*_{rel} = 114$
 %Regularity
 $g^*_H,rel = 28$
 $g^*_C,rel = 38$



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS
 application for measurement of laser printer output, separation $cmyn6^*$ (CMYK)

TUB material: code=rh4ta

Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_d = Y75G_d$

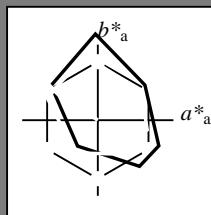
Data for any device (d) or elementary (e) colour:

HIC^*_d

hue text for the colours of this page:

$H^*_d = Y75G_d$

triangle lightness T^*



LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	47.5	57.2	37.8	68.6	33
Y _{d, Ma}	91.5	-15.8	84.6	86.1	100
G _{d, Ma}	54.3	-67.6	30.8	74.3	155
C _{d, Ma}	53.1	-30.0	-43.1	52.5	235
B _{d, Ma}	32.5	16.9	-44.6	47.7	290
M _{d, Ma}	48.1	65.4	-12.7	66.6	348
N _{d, Ma}	23.8	0.0	0.0	0.0	0
W _{d, Ma}	95.8	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):

$LabCh^*_{d, Ma}$: 60 -57 39 70 145

$HIC^*_{d, Ma}$: Y75G_100_100d

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

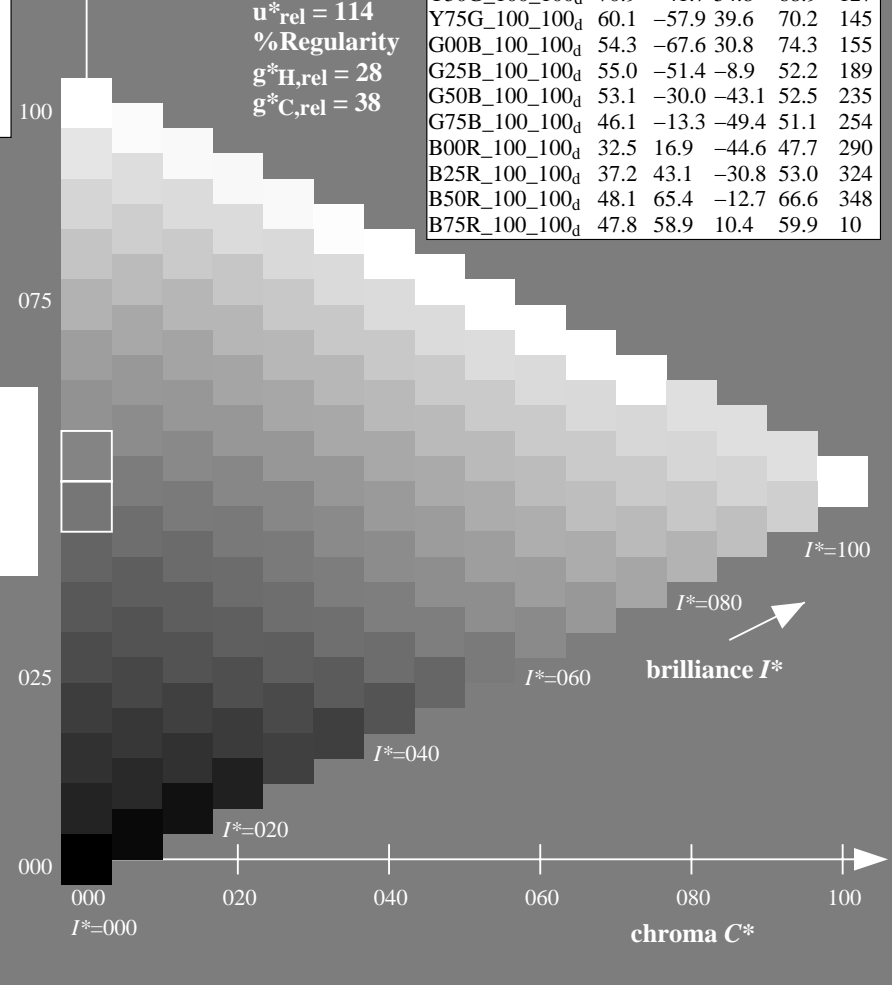
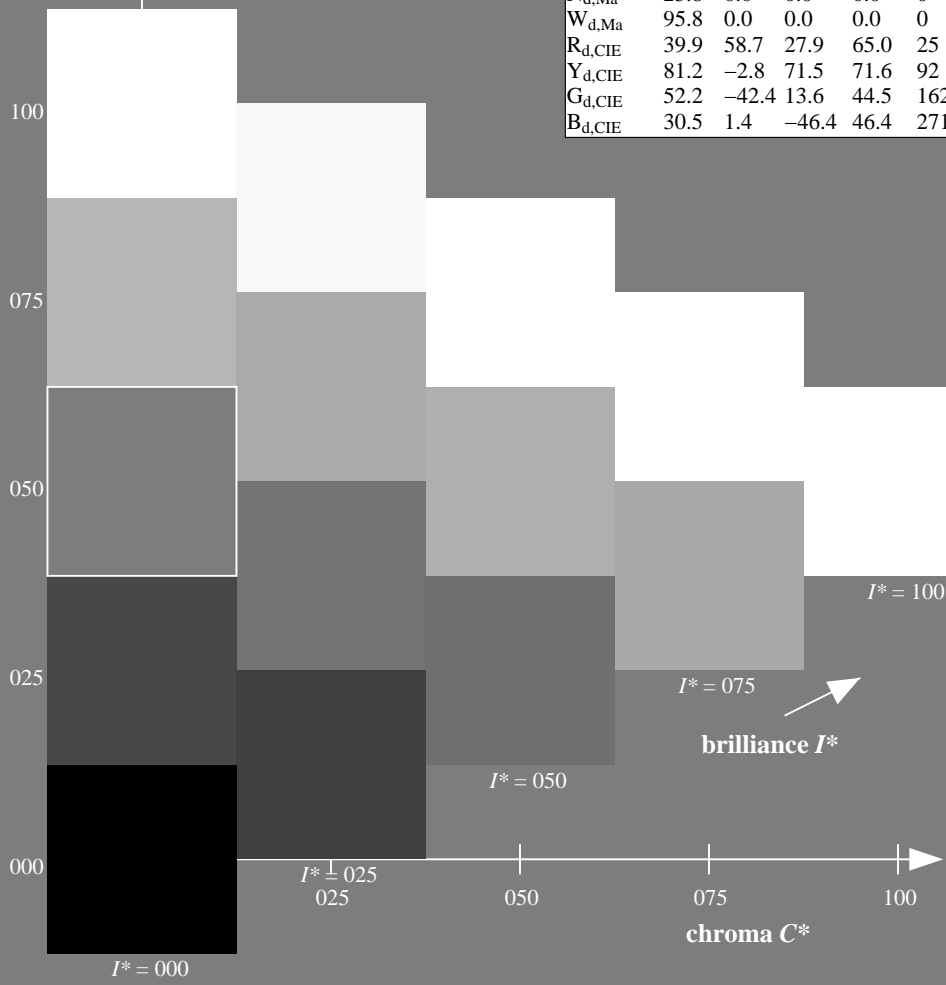
0.23 1.0 0.0 1.0 1.0

triangle lightness T^*

LRS18a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 _d	47.5	57.2	37.8	68.6	33
R25Y_100_100 _d	57.4	43.5	54.5	69.7	51
R50Y_100_100 _d	70.5	19.2	66.2	69.0	73
R75Y_100_100 _d	83.5	-2.9	76.8	76.9	92
Y00G_100_100 _d	91.5	-15.8	84.6	86.1	100
Y25G_100_100 _d	90.4	-20.9	86.5	89.0	103
Y50G_100_100 _d	70.9	-41.7	54.8	68.9	127
Y75G_100_100 _d	60.1	-57.9	39.6	70.2	145
G00B_100_100 _d	54.3	-67.6	30.8	74.3	155
G25B_100_100 _d	55.0	-51.4	-8.9	52.2	189
G50B_100_100 _d	53.1	-30.0	-43.1	52.5	235
G75B_100_100 _d	46.1	-13.3	-49.4	51.1	254
B00R_100_100 _d	32.5	16.9	-44.6	47.7	290
B25R_100_100 _d	37.2	43.1	-30.8	53.0	324
B50R_100_100 _d	48.1	65.4	-12.7	66.6	348
B75R_100_100 _d	47.8	58.9	10.4	59.9	10

%Gamut
 $u^*_{rel} = 114$
 %Regularity
 $g^*_{H, rel} = 28$
 $g^*_{C, rel} = 38$



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS; 3D-linearization
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF /.PS
 application for measurement of laser printer output, separation cmyk* (CMYK)

TUB material: code=rh4ta

1-103530-L0 QE690-72

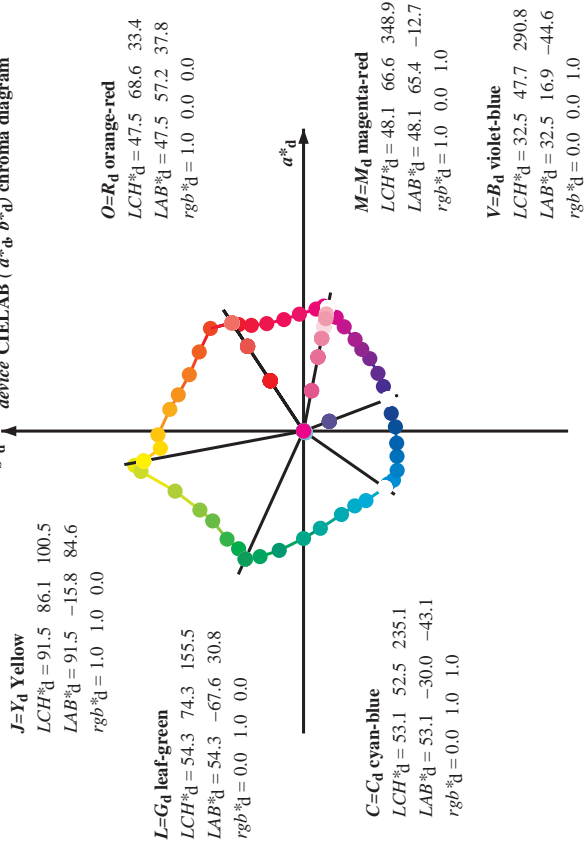
TUB-test chart QE69; hue code: $H^*_d=Y75G_d$
 Test chart according to DIN 33872, 3D=1, de=0, $cmyk^*$

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

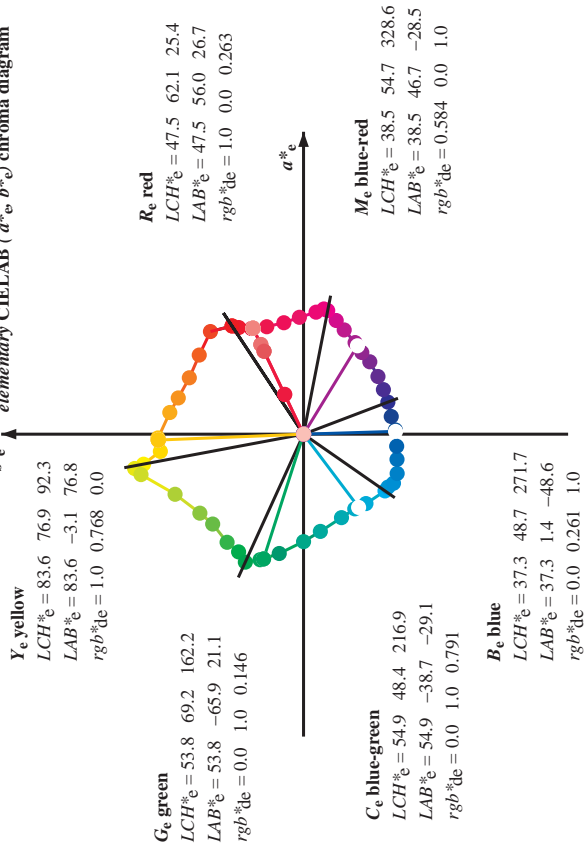
1-103530-F0

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM; $h_{abs} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
 Six hue angles of the device colours RYGBM; $h_{ab,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$; Six hue angles of the elementary colours RYGBM; $h_{abs} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

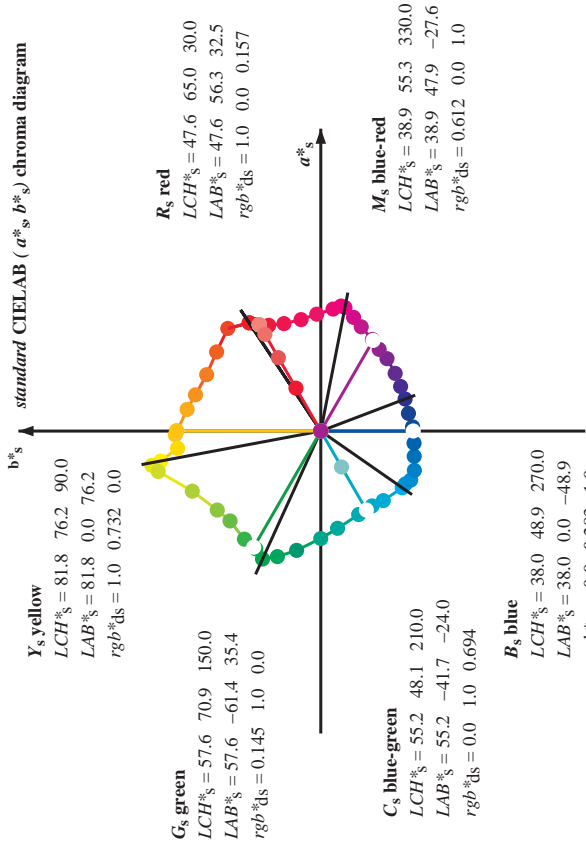
device CIELAB (a^*_d, b^*_d) chroma diagram



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



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



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

- For the rgb^*_e -input values the CIELAB data LCH^*_e and LAB^*_e have been calculated.
- For the calculation of the standard hue angle h_{abs} use for any device values rgb^*_e the equation:

$$h_{abs} = \arctan \left[\frac{r^*_e \cos(30) + g^*_e \sin(150)}{r^*_e \sin(30) + g^*_e \sin(150)} \right] + b^*_e \sin(270) \quad (1)$$
- For the 48 or 360 equally spaced standard hue angles h_{es} of the colours of maximum chroma use the seven hue angles of the 60 degree colours s : $h_{es} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) and the equations for a 48 and 360 step hue circle:

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

$$h_{360abs,ij} = h_{abs,i} + j [h_{abs,i+1} - h_{abs,i}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$
- For the 48 or 360 elementary hue angles h_{es} of the colours of maximum chroma use the seven hue angles of the elementary colours e : $h_{es} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) and the equations for a 48 and 360 step elementary hue circle:

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

$$h_{360ab,ej} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$
- For any elementary hue angle h_{es} there is a well defined device hue angle h_{ad} see the following tables, columns 1 to 5 or 1 to 4.
- The values rgb^*_e produce the output of the device-independent elementary hues

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 9/33

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM(d): $h_{ab,d} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours RYGBM(d): $h_{ab,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$; Six hue angles of the elementary colours RYGBM(c): $h_{ab,c} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{ds}	rgb^*_{de}	LAB^*_{d64M}	LAB^*_{d361M}	LAB^*_{d361M}	rgb^*_{ds}	rgb^*_{de}
33.4	30.0	25.4	1.0	0.0	47.5	57.2	37.8	68.6	33.4
42.1	37.5	33.8	1.0	0.125	0.0	51.9	54.3	49.2	73.2
52.8	45.0	42.1	1.0	0.25	0.0	58.2	41.8	55.1	69.2
63.7	52.5	50.5	1.0	0.375	0.0	64.6	29.8	60.4	67.3
73.8	60.0	58.8	1.0	0.5	0.0	70.5	19.2	66.2	69.0
80.7	67.5	67.2	1.0	0.625	0.0	74.9	11.4	70.7	71.6
91.5	75.0	75.6	1.0	0.75	0.0	82.9	-2.0	76.9	77.0
96.8	82.5	83.9	1.0	0.875	0.0	87.6	-9.0	75.7	76.3
100.5	90.0	92.3	1.0	1.0	0.0	91.5	-15.8	84.6	86.1
101.4	97.5	101.0	1.0	0.875	1.0	92.8	-18.1	89.4	91.2
103.9	105.0	109.7	1.0	0.75	1.0	90.1	-21.3	86.0	88.6
115.0	112.5	118.5	1.0	0.625	1.0	79.9	-31.7	67.9	75.0
127.3	120.0	127.2	0.5	1.0	0.0	70.9	-41.7	54.8	68.9
134.7	127.5	136.0	0.375	1.0	0.0	66.5	-47.5	48.0	67.6
144.7	135.0	144.7	0.25	1.0	0.0	60.6	-57.2	40.4	70.1
151.0	142.5	153.4	0.125	1.0	0.0	57.0	-62.2	34.4	71.1
155.5	150.0	162.2	0.0	1.0	0.0	54.3	-67.6	30.8	74.3
160.8	157.5	169.0	0.0	1.0	0.125	53.8	-66.4	23.0	70.2
168.5	165.0	175.9	0.0	1.0	0.25	53.7	-63.1	12.8	64.4
179.9	172.5	182.7	0.0	1.0	0.375	54.7	-56.8	0.0	56.8
189.8	180.0	189.6	0.0	1.0	0.5	55.0	-51.4	-8.9	52.2
204.4	187.5	196.4	0.0	1.0	0.625	55.3	-44.1	-20.0	48.5
214.4	195.0	203.2	0.0	1.0	0.75	55.2	-39.5	-27.1	47.9
221.9	202.5	210.1	0.0	1.0	0.875	54.4	-36.7	-33.0	49.4
235.1	210.0	216.9	0.0	1.0	1.0	53.1	-30.0	-43.1	52.5
237.9	217.5	223.8	0.0	0.875	1.0	53.1	-27.9	-44.7	52.7
241.3	225.0	230.6	0.0	0.75	1.0	52.9	-25.9	-47.5	54.1
247.2	232.5	237.5	0.0	0.625	1.0	50.5	-20.8	-49.5	53.7
254.9	240.0	244.3	0.0	0.5	1.0	46.1	-13.3	-49.4	51.1
262.6	247.5	251.2	0.0	0.375	1.0	41.4	-6.3	-49.2	49.6
272.6	255.0	258.0	0.0	0.25	1.0	36.8	2.2	-48.5	48.6
281.4	262.5	264.8	0.0	0.125	1.0	35.0	9.4	-46.3	47.3
290.8	270.0	271.7	0.0	0.0	1.0	32.5	16.9	-44.6	47.7
299.2	277.5	278.8	0.125	0.0	1.0	31.6	23.6	-42.2	48.4
307.8	285.0	285.9	0.25	0.0	1.0	31.0	30.5	-39.3	49.8
317.5	292.5	293.0	0.375	0.0	1.0	34.2	38.2	-35.0	51.8
324.4	300.0	300.1	0.5	0.0	1.0	37.2	43.1	-30.8	53.0
330.6	307.5	307.2	0.625	0.0	1.0	39.1	48.4	-27.2	55.6
338.7	315.0	314.3	0.75	0.0	1.0	41.8	55.1	-21.4	59.1
343.9	322.5	321.4	0.875	0.0	1.0	45.6	60.1	-17.3	62.6
348.9	330.0	328.6	1.0	0.0	1.0	48.1	65.4	-12.7	66.6
350.7	337.5	335.7	1.0	0.0	0.875	49.5	66.1	-10.7	67.0
354.2	345.0	342.8	1.0	0.0	0.75	49.3	64.5	-6.5	64.8
361.9	352.5	349.9	1.0	0.0	0.625	48.0	61.8	2.1	61.8
370.0	360.0	357.0	1.0	0.0	0.5	47.8	58.9	10.4	59.9
378.9	367.5	364.1	1.0	0.0	0.375	47.4	56.8	19.5	60.0
386.2	375.0	371.2	1.0	0.0	0.25	47.5	55.9	27.5	62.3
391.3	382.5	378.3	1.0	0.0	0.125	47.6	56.3	34.2	65.9
393.4	390.0	385.4	1.0	0.0	0.0	47.5	57.2	37.8	68.6

Input: Laser printer output; separation cmyk*
Output: 3D-linearization to cmyk*
input: rgb/cmyk -> rgbd
output: 3D-linearization to cmyk*
Output: Laser printer output; separation cmyk*, D65, page 9/36

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 13/33

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

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{ds}	$rgb^*_{ds361MI}$	$LAB^*_{ds361MI}$	$LAB^*_{ds361MI}(x=LabCh)$	$rgb^*_{ds361MI}$	$rgb^*_{ds361MI}$	$LAB^*_{ds361MI}$	$LAB^*_{ds361MI}(x=LabCh)$	rgb^*_{ds}	rgb^*_{ds}	rgb^*_{ds}
168	165	175	0.0	1.0	0.25	53.8	-64.7	17.4	67.1	165	0.0	1.0	0.25
170	166	176	0.0	1.0	0.266	53.9	-62.4	10.9	63.4	170	0.0	1.0	0.267
171	167	177	0.0	1.0	0.283	54.0	-61.7	9.1	62.4	171	0.0	1.0	0.283
173	168	178	0.0	1.0	0.3	54.1	-60.9	7.3	61.3	173	0.0	1.0	0.3
174	169	179	0.0	1.0	0.316	54.3	-60.1	5.6	60.3	174	0.0	1.0	0.317
176	170	180	0.0	1.0	0.333	54.4	-59.2	3.9	59.3	176	0.0	1.0	0.333
177	171	181	0.0	1.0	0.35	54.5	-58.2	2.3	58.3	177	0.0	1.0	0.35
179	172	182	0.0	1.0	0.366	54.7	-57.3	0.8	57.3	179	0.0	1.0	0.367
180	173	183	0.0	1.0	0.383	54.7	-56.5	-0.6	56.5	180	0.0	1.0	0.383
181	174	184	0.0	1.0	0.4	54.8	-55.8	-1.8	55.9	181	0.0	1.0	0.4
183	175	185	0.0	1.0	0.416	54.8	-55.2	-3.1	55.2	183	0.0	1.0	0.417
184	176	185	0.0	1.0	0.433	54.8	-54.5	-4.3	54.6	184	0.0	1.0	0.433
185	177	186	0.0	1.0	0.45	54.9	-53.7	-5.5	54.0	185	0.0	1.0	0.45
187	178	187	0.0	1.0	0.466	54.9	-53.0	-6.6	53.4	187	0.0	1.0	0.467
188	179	188	0.0	1.0	0.483	55.0	-52.2	-7.8	52.8	188	0.0	1.0	0.483
189	180	189	0.0	1.0	0.5	55.0	-51.4	-8.9	52.2	189	0.0	1.0	0.5
191	181	190	0.0	1.0	0.516	55.0	-50.6	-10.0	51.7	191	0.0	1.0	0.517
193	182	191	0.0	1.0	0.533	55.1	-49.7	-12.1	51.2	193	0.0	1.0	0.533
195	183	192	0.0	1.0	0.55	55.1	-48.8	-13.7	50.7	195	0.0	1.0	0.55
197	184	193	0.0	1.0	0.566	55.2	-47.8	-15.2	50.2	197	0.0	1.0	0.567
199	185	194	0.0	1.0	0.583	55.2	-46.8	-16.6	49.7	199	0.0	1.0	0.583
201	186	195	0.0	1.0	0.6	55.2	-45.8	-18.0	49.2	201	0.0	1.0	0.6
203	187	195	0.0	1.0	0.616	55.3	-44.7	-19.4	48.7	203	0.0	1.0	0.617
205	188	196	0.0	1.0	0.633	55.3	-43.8	-20.5	48.4	205	0.0	1.0	0.633
206	189	197	0.0	1.0	0.65	55.3	-43.3	-21.5	48.3	206	0.0	1.0	0.65
207	190	198	0.0	1.0	0.666	55.3	-42.7	-22.5	48.3	207	0.0	1.0	0.667
209	191	199	0.0	1.0	0.683	55.2	-42.1	-23.4	48.2	209	0.0	1.0	0.683
210	192	200	0.0	1.0	0.7	55.2	-41.5	-24.4	48.1	210	0.0	1.0	0.7
211	193	201	0.0	1.0	0.716	55.2	-40.8	-25.3	48.0	211	0.0	1.0	0.717
213	194	202	0.0	1.0	0.733	55.2	-40.2	-26.2	48.0	213	0.0	1.0	0.733
214	195	203	0.0	1.0	0.75	55.2	-39.5	-27.1	47.9	214	0.0	1.0	0.75
215	196	204	0.0	1.0	0.766	55.1	-39.2	-27.9	48.1	215	0.0	1.0	0.767
216	197	205	0.0	1.0	0.783	55.0	-38.8	-28.7	48.3	216	0.0	1.0	0.783
217	198	206	0.0	1.0	0.8	54.9	-38.5	-29.5	48.5	217	0.0	1.0	0.8
218	199	206	0.0	1.0	0.816	54.8	-38.1	-30.3	48.7	218	0.0	1.0	0.817
219	200	207	0.0	1.0	0.833	54.7	-37.7	-31.1	48.9	219	0.0	1.0	0.833
220	201	208	0.0	1.0	0.85	54.6	-37.3	-31.9	49.1	220	0.0	1.0	0.85
221	202	209	0.0	1.0	0.866	54.5	-36.9	-32.6	49.3	221	0.0	1.0	0.867
222	203	210	0.0	1.0	0.883	54.3	-36.4	-33.7	49.6	222	0.0	1.0	0.883
224	204	211	0.0	1.0	0.9	54.2	-35.6	-35.1	50.0	224	0.0	1.0	0.9
226	205	212	0.0	1.0	0.916	54.0	-34.8	-36.5	50.4	226	0.0	1.0	0.917
228	206	213	0.0	1.0	0.933	53.8	-33.9	-37.8	50.8	228	0.0	1.0	0.933
229	207	214	0.0	1.0	0.95	53.6	-33.0	-39.2	51.2	229	0.0	1.0	0.95
231	208	215	0.0	1.0	0.966	53.4	-32.0	-40.5	51.7	231	0.0	1.0	0.967
233	209	216	0.0	1.0	0.983	53.3	-31.0	-41.8	52.1	233	0.0	1.0	0.983
235	210	216	0.0	1.0	1.0	53.1	-30.0	-43.1	52.5	235	0.0	1.0	1.0

I-1031230-L0 QE690-72 LAB*lab, YN=0%, XY,Znw=3.9, 4.1, 84.7, 89.6, 93.9, LAB*mw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

TUB-test chart QE69; hue code: H*_d=Y75Gd
48 step hue circles; rgb-LabCh*tables

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

Output: Laser printer output; separation cmyk*, D65, page 13/63

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE69/QE69LE30FP.DAT in file (F), page 14/33

Data of Maximum color. M in colorimetric system Laser printer output; separation cmyk*. 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 RYGBM; $h_{ab,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$; Six hue angles of the elementary colours RYGBM; $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_d	rgb^*_s	rgb^*_e	LAB^*_d	LAB^*_s	LAB^*_e	rgb^*_d	rgb^*_s	rgb^*_e	LAB^*_d	LAB^*_s	LAB^*_e	rgb^*_d	rgb^*_s	rgb^*_e
235	210	216	0.0	1.0	1.0	53.1	-30.0	-43.1	52.5	235	235	0.0	1.0	1.0	0.0	1.0	1.0
235	211	217	0.0	0.983	1.0	53.1	-29.7	-43.3	52.5	235	235	0.0	1.0	1.0	0.0	1.0	1.0
235	212	218	0.0	0.966	1.0	53.1	-29.4	-43.5	52.5	235	235	0.0	1.0	1.0	0.0	1.0	1.0
236	213	219	0.0	0.95	1.0	53.1	-29.2	-43.7	52.6	236	236	0.0	1.0	1.0	0.0	1.0	1.0
236	214	220	0.0	0.933	1.0	53.1	-28.9	-43.9	52.6	236	236	0.0	1.0	1.0	0.0	1.0	1.0
237	215	221	0.0	0.916	1.0	53.1	-28.6	-44.2	52.6	237	237	0.0	1.0	1.0	0.0	1.0	1.0
237	216	222	0.0	0.9	1.0	53.1	-28.3	-44.4	52.7	237	237	0.0	1.0	1.0	0.0	1.0	1.0
237	217	223	0.0	0.883	1.0	53.1	-28.1	-44.6	52.7	237	237	0.0	1.0	1.0	0.0	1.0	1.0
238	218	224	0.0	0.866	1.0	53.0	-27.8	-44.9	52.8	238	238	0.0	1.0	1.0	0.0	1.0	1.0
238	219	225	0.0	0.85	1.0	53.0	-27.5	-45.3	53.0	238	238	0.0	1.0	1.0	0.0	1.0	1.0
239	220	226	0.0	0.833	1.0	53.0	-27.3	-45.6	53.2	239	239	0.0	1.0	1.0	0.0	1.0	1.0
239	221	227	0.0	0.816	1.0	53.0	-27.0	-46.0	53.4	239	239	0.0	1.0	1.0	0.0	1.0	1.0
240	222	227	0.0	0.8	1.0	52.9	-26.7	-46.4	53.6	240	240	0.0	1.0	1.0	0.0	1.0	1.0
240	223	228	0.0	0.783	1.0	52.9	-26.5	-46.8	53.8	240	240	0.0	1.0	1.0	0.0	1.0	1.0
240	224	229	0.0	0.766	1.0	52.9	-26.2	-47.2	53.9	240	240	0.0	1.0	1.0	0.0	1.0	1.0
241	225	230	0.0	0.75	1.0	52.9	-25.9	-47.5	54.1	241	241	0.0	1.0	1.0	0.0	1.0	1.0
242	226	231	0.0	0.733	1.0	52.6	-25.2	-47.8	54.1	242	242	0.0	1.0	1.0	0.0	1.0	1.0
242	227	232	0.0	0.716	1.0	52.2	-24.5	-48.1	54.0	242	242	0.0	1.0	1.0	0.0	1.0	1.0
243	228	233	0.0	0.7	1.0	51.9	-23.9	-48.4	54.0	243	243	0.0	1.0	1.0	0.0	1.0	1.0
244	229	234	0.0	0.683	1.0	51.6	-23.2	-48.6	53.9	244	244	0.0	1.0	1.0	0.0	1.0	1.0
245	230	235	0.0	0.666	1.0	51.3	-22.5	-48.9	53.8	245	245	0.0	1.0	1.0	0.0	1.0	1.0
246	231	236	0.0	0.65	1.0	51.0	-21.8	-49.1	53.8	246	246	0.0	1.0	1.0	0.0	1.0	1.0
246	232	237	0.0	0.633	1.0	50.7	-21.1	-49.4	53.7	246	246	0.0	1.0	1.0	0.0	1.0	1.0
247	233	237	0.0	0.616	1.0	50.2	-20.2	-49.5	53.5	247	247	0.0	1.0	1.0	0.0	1.0	1.0
248	234	238	0.0	0.6	1.0	49.7	-19.2	-49.6	53.2	248	248	0.0	1.0	1.0	0.0	1.0	1.0
249	235	239	0.0	0.583	1.0	49.1	-18.2	-49.6	52.8	249	249	0.0	1.0	1.0	0.0	1.0	1.0
250	236	240	0.0	0.566	1.0	48.5	-17.2	-49.6	52.5	250	250	0.0	1.0	1.0	0.0	1.0	1.0
251	237	241	0.0	0.55	1.0	47.9	-16.2	-49.5	52.2	251	251	0.0	1.0	1.0	0.0	1.0	1.0
252	238	242	0.0	0.533	1.0	47.3	-15.2	-49.5	51.8	252	252	0.0	1.0	1.0	0.0	1.0	1.0
253	239	243	0.0	0.516	1.0	46.7	-14.3	-49.4	51.5	253	253	0.0	1.0	1.0	0.0	1.0	1.0
254	240	244	0.0	0.5	1.0	46.1	-13.3	-49.4	51.1	254	254	0.0	1.0	1.0	0.0	1.0	1.0
255	241	245	0.0	0.483	1.0	45.5	-12.3	-49.4	50.9	255	255	0.0	1.0	1.0	0.0	1.0	1.0
256	242	246	0.0	0.466	1.0	44.8	-11.4	-49.4	50.7	256	256	0.0	1.0	1.0	0.0	1.0	1.0
258	243	247	0.0	0.45	1.0	44.2	-10.5	-49.4	50.5	258	258	0.0	1.0	1.0	0.0	1.0	1.0
259	244	248	0.0	0.433	1.0	43.6	-9.5	-49.4	50.3	259	259	0.0	1.0	1.0	0.0	1.0	1.0
260	245	248	0.0	0.416	1.0	42.9	-8.6	-49.4	50.1	260	260	0.0	1.0	1.0	0.0	1.0	1.0
261	246	249	0.0	0.4	1.0	42.3	-7.7	-49.3	49.9	261	261	0.0	1.0	1.0	0.0	1.0	1.0
262	247	250	0.0	0.383	1.0	41.7	-6.8	-49.3	49.7	262	262	0.0	1.0	1.0	0.0	1.0	1.0
263	248	251	0.0	0.366	1.0	41.1	-5.7	-49.2	49.6	263	263	0.0	1.0	1.0	0.0	1.0	1.0
264	249	252	0.0	0.35	1.0	40.5	-4.6	-49.2	49.4	264	264	0.0	1.0	1.0	0.0	1.0	1.0
265	250	253	0.0	0.333	1.0	39.9	-3.4	-49.2	49.3	265	265	0.0	1.0	1.0	0.0	1.0	1.0
267	251	254	0.0	0.316	1.0	39.3	-2.3	-49.1	49.1	267	267	0.0	1.0	1.0	0.0	1.0	1.0
268	252	255	0.0	0.3	1.0	38.7	-1.1	-49.0	49.0	268	268	0.0	1.0	1.0	0.0	1.0	1.0
269	253	256	0.0	0.283	1.0	38.1	0.0	-48.9	48.9	269	269	0.0	1.0	1.0	0.0	1.0	1.0
271	254	257	0.0	0.266	1.0	37.4	1.1	-48.7	48.7	271	271	0.0	1.0	1.0	0.0	1.0	1.0
272	255	258	0.0	0.25	1.0	36.8	2.2	-48.5	48.6	272	272	0.0	1.0	1.0	0.0	1.0	1.0

Input: $rgb/cmyk \rightarrow rgbdd$
Output: Laser printer output; separation cmyk*. D65, page 14/33

TUB-test chart QE69; hue code: $H^*_d = Y75Gd$
48 step hue circles; $rgb-LabCh$ *tables

$h_{ab,d}$ 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324	LAB* _d s361M			LAB* _s ds361MI			LAB* _d ds361MI			LAB* _s de361MI			LAB* _d ex361MI (x=LabCh)			LAB* _s dd361MI		
	$h_{ab,s}$	h_a	h_b	rgb* _s	rgb* _d	rgb* _{ds}	rgb* _s	rgb* _d	rgb* _{ds}	rgb* _s	rgb* _d	rgb* _{ds}	rgb* _s	rgb* _d	rgb* _{ds}	rgb* _s	rgb* _d	rgb* _{ds}
0.0	0.25	0.0	36.8	2.2	-48.5	48.6	272	0.0	0.499	1.0	46.1	-13.1	-49.3	51.2	255	0.0	0.25	1.0
0.0	0.233	1.0	36.6	3.2	-48.3	48.4	273	0.0	0.482	1.0	45.5	-12.2	-49.4	51.0	256	0.0	0.233	1.0
0.0	0.216	1.0	36.4	4.1	-48.0	48.2	274	0.0	0.466	1.0	44.9	-11.3	-49.4	50.8	257	0.0	0.217	1.0
0.0	0.183	1.0	35.9	5.1	-47.8	48.1	276	0.0	0.434	1.0	44.3	-10.4	-49.4	50.6	258	0.0	0.2	1.0
0.0	0.166	1.0	35.6	7.0	-47.5	47.9	277	0.0	0.434	1.0	43.7	-9.5	-49.5	50.4	259	0.0	0.183	1.0
0.0	0.15	1.0	35.4	8.0	-46.9	47.5	279	0.0	0.402	1.0	42.4	-7.7	-49.3	50.0	261	0.0	0.15	1.0
0.0	0.133	1.0	35.2	8.9	-46.5	47.4	280	0.0	0.386	1.0	41.8	-6.8	-49.2	49.8	262	0.0	0.133	1.0
0.0	0.116	1.0	34.9	9.9	-46.3	47.3	282	0.0	0.371	1.0	41.3	-6.0	-49.2	49.7	263	0.0	0.117	1.0
0.0	0.083	1.0	34.2	11.9	-45.9	47.4	284	0.0	0.346	1.0	40.4	-4.2	-49.2	49.4	264	0.0	0.1	1.0
0.0	0.066	1.0	33.9	12.9	-45.7	47.5	285	0.0	0.333	1.0	39.9	-3.3	-49.1	49.3	266	0.0	0.083	1.0
0.0	0.049	1.0	33.5	13.9	-45.4	47.5	287	0.0	0.321	1.0	39.5	-2.5	-49.1	49.2	267	0.0	0.05	1.0
0.0	0.033	1.0	33.2	14.9	-45.2	47.6	288	0.0	0.308	1.0	39.0	-1.6	-49.0	49.1	268	0.0	0.033	1.0
0.0	0.016	1.0	32.9	15.9	-44.9	47.6	289	0.0	0.296	1.0	38.5	-0.8	-48.9	48.9	269	0.0	0.017	1.0
0.0	0.0	1.0	32.5	16.9	-44.6	47.7	290	0.0	0.283	1.0	38.1	-0.0	-48.9	49.0	270	0.0	0.0	1.0
0.016	0.0	1.0	32.4	17.8	-44.3	47.8	291	0.0	0.271	1.0	37.6	0.9	-48.7	48.8	271	0.0	0.017	1.0
0.033	0.0	1.0	32.3	18.7	-44.0	47.9	293	0.0	0.258	1.0	37.2	1.7	-48.6	48.7	272	0.033	0.0	1.0
0.05	0.0	1.0	32.1	19.6	-43.7	47.9	294	0.0	0.245	1.0	36.8	2.5	-48.4	48.6	273	0.05	0.0	1.0
0.066	0.0	1.0	32.0	20.5	-43.4	48.0	295	0.0	0.231	1.0	36.6	3.4	-48.2	48.4	274	0.067	0.0	1.0
0.083	0.0	1.0	31.8	21.4	-43.1	48.1	296	0.0	0.217	1.0	36.4	4.2	-48.0	48.3	275	0.083	0.0	1.0
0.1	0.0	1.0	31.9	22.3	-42.7	48.2	297	0.0	0.202	1.0	36.2	5.0	-47.8	48.1	276	0.1	0.0	1.0
0.116	0.0	1.0	31.6	23.1	-42.4	48.3	298	0.0	0.188	1.0	36.0	5.8	-47.5	48.0	277	0.117	0.0	1.0
0.133	0.0	1.0	31.5	24.1	-42.0	48.4	299	0.0	0.174	1.0	35.8	6.7	-47.3	47.8	278	0.133	0.0	1.0
0.15	0.0	1.0	31.4	25.0	-41.7	48.6	300	0.0	0.16	1.0	35.6	7.5	-47.0	47.7	279	0.15	0.0	1.0
0.166	0.0	1.0	31.4	25.9	-41.4	48.8	302	0.0	0.146	1.0	35.4	8.3	-46.7	47.5	280	0.167	0.0	1.0
0.183	0.0	1.0	31.3	26.8	-41.0	49.0	303	0.0	0.132	1.0	35.2	9.0	-46.4	47.4	281	0.183	0.0	1.0
0.2	0.0	1.0	31.2	27.8	-40.6	49.2	304	0.0	0.118	1.0	34.9	9.8	-46.2	47.4	282	0.2	0.0	1.0
0.216	0.0	1.0	31.1	28.7	-40.2	49.4	305	0.0	0.104	1.0	34.7	10.7	-46.1	47.4	283	0.217	0.0	1.0
0.233	0.0	1.0	31.1	29.6	-39.8	49.6	306	0.0	0.091	1.0	34.4	11.5	-45.9	47.4	284	0.233	0.0	1.0
0.25	0.0	1.0	31.0	30.5	-39.3	49.8	307	0.0	0.078	1.0	34.1	12.3	-45.8	47.5	285	0.25	0.0	1.0
0.266	0.0	1.0	31.4	31.6	-38.8	50.1	309	0.0	0.064	1.0	33.9	13.1	-45.6	47.5	286	0.267	0.0	1.0
0.283	0.0	1.0	31.8	32.6	-38.3	50.3	310	0.0	0.051	1.0	33.6	13.9	-45.4	47.6	287	0.283	0.0	1.0
0.3	0.0	1.0	32.3	33.6	-37.8	50.6	311	0.0	0.038	1.0	33.3	14.7	-45.2	47.6	288	0.3	0.0	1.0
0.316	0.0	1.0	32.7	34.7	-37.2	50.9	312	0.0	0.024	1.0	33.1	15.5	-44.9	47.6	289	0.317	0.0	1.0
0.333	0.0	1.0	33.1	35.7	-36.6	51.2	314	0.0	0.011	1.0	32.8	16.3	-44.7	47.7	290	0.333	0.0	1.0
0.35	0.0	1.0	33.6	36.7	-36.0	51.4	315	0.003	0.0	1.0	32.5	17.1	-44.5	47.7	291	0.35	0.0	1.0
0.366	0.0	1.0	34.0	37.7	-35.3	51.7	316	0.018	0.0	1.0	32.4	17.9	-44.2	47.8	292	0.367	0.0	1.0
0.383	0.0	1.0	34.4	38.5	-34.7	51.9	317	0.033	0.0	1.0	32.3	18.7	-44.0	47.9	293	0.383	0.0	1.0
0.4	0.0	1.0	34.8	39.2	-34.2	52.1	318	0.047	0.0	1.0	32.2	19.5	-43.7	48.0	294	0.4	0.0	1.0
0.416	0.0	1.0	35.2	39.9	-33.7	52.2	319	0.062	0.0	1.0	32.1	20.3	-43.5	48.1	295	0.417	0.0	1.0
0.433	0.0	1.0	35.6	40.5	-33.1	52.4	320	0.077	0.0	1.0	32.0	21.1	-43.2	48.1	296	0.433	0.0	1.0
0.45	0.0	1.0	36.0	41.2	-32.6	52.5	321	0.092	0.0	1.0	31.9	21.9	-42.9	48.2	297	0.45	0.0	1.0
0.466	0.0	1.0	36.4	41.8	-32.0	52.7	322	0.107	0.0	1.0	31.7	22.7	-42.5	48.3	298	0.467	0.0	1.0
0.483	0.0	1.0	36.8	42.5	-31.4	52.9	323	0.122	0.0	1.0	31.6	23.5	-42.2	48.4	299	0.483	0.0	1.0
0.5	0.0	1.0	37.2	43.1	-30.8	53.0	324	0.136	0.0	1.0	31.6	24.3	-41.9	48.5	300	0.5	0.0	1.0

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

TUB-test chart QE69; hue code: H*_d=Y75Gd
48 step hue circles; rgb-LabCh*tables

nif	HC*Fid	rgp_Fid	icr_Fid	hsa_Fid	rgp*Fid	LabC*Fid	cmyk*_sep,Fid	hsa*Fid	rgp*Fid	LabC*Fid	delta
0/648	R00Y_100_100ad	1.0	0.0	0.0	1.0	0.0	0.0	390	1.0	0.0	0.0
1/657	R13Y_100_100ad	0.125	0.0	0.0	0.116	0.0	0.0	37	0.0	0.873	0.0
2/666	R25Y_100_100ad	0.25	0.0	0.0	0.233	0.0	0.0	36	0.0	0.767	0.0
3/675	R38Y_100_100ad	0.375	0.0	0.0	0.366	0.0	0.0	42	0.0	0.652	0.0
4/684	R50Y_100_100ad	0.5	0.0	0.0	0.5	0.0	0.0	51	0.0	0.5	0.0
5/693	R63Y_100_100ad	0.625	0.0	0.0	0.633	0.0	0.0	68	0.0	0.367	0.0
6/702	R75Y_100_100ad	0.75	0.0	0.0	0.766	0.0	0.0	77	0.0	0.233	0.0
7/711	R88Y_100_100ad	0.875	0.0	0.0	0.883	0.0	0.0	83	0.0	0.117	0.0
8/720	Y00G_100_100ad	1.0	0.0	0.0	1.0	0.0	0.0	89	1.0	0.0	0.0
9/639	Y13G_100_100ad	0.875	1.0	0.0	0.927	18.0	101.4	106	0.883	1.0	0.0
10/558	Y25G_100_100ad	0.75	1.0	0.0	0.766	18.0	89.1	102	0.766	1.0	0.0
11/477	Y38G_100_100ad	0.625	1.0	0.0	0.633	18.0	86.5	106	0.633	1.0	0.0
12/396	Y50G_100_100ad	0.5	1.0	0.0	0.5	18.0	69.2	111	0.5	1.0	0.0
13/315	Y63G_100_100ad	0.375	1.0	0.0	0.366	18.0	75.9	111	0.366	1.0	0.0
14/234	Y75G_100_100ad	0.25	1.0	0.0	0.233	18.0	68.2	128	0.233	1.0	0.0
15/153	Y88G_100_100ad	0.125	1.0	0.0	0.116	18.0	70.2	137	0.116	1.0	0.0
16/72	G00C_100_100ad	0.0	1.0	0.0	0.0	54.3	-67.6	143	0.0	0.999	0.0
17/73	G13C_100_100ad	0.125	1.0	0.0	0.116	53.8	-66.5	149	0.0	0.884	0.0
18/74	G25C_100_100ad	0.25	1.0	0.0	0.233	54.7	-63.6	156	0.0	0.713	0.125
19/75	G38C_100_100ad	0.375	1.0	0.0	0.366	54.7	-57.3	162	0.0	0.632	0.0
20/76	G50C_100_100ad	0.5	1.0	0.0	0.5	51.4	-48.9	171	0.0	0.5	0.0
21/77	G63C_100_100ad	0.625	1.0	0.0	0.633	53.3	-43.8	188	0.0	0.364	0.0
22/78	G75C_100_100ad	0.75	1.0	0.0	0.766	55.1	-39.2	197	0.0	0.239	0.0
23/79	G88C_100_100ad	0.875	1.0	0.0	0.883	54.3	-36.4	205	0.0	0.123	0.001
24/80	C00B_100_100ad	0.0	1.0	0.0	0.0	53.1	-30.0	210	0.0	0.0	0.0
25/81	C13B_100_100ad	0.125	1.0	0.0	0.116	53.1	-28.1	216	0.0	0.883	0.0
26/82	C25B_100_100ad	0.25	1.0	0.0	0.233	52.9	-26.2	222	0.0	0.766	0.0
27/83	C38B_100_100ad	0.375	1.0	0.0	0.366	50.7	-21.1	231	0.0	0.633	0.0
28/84	C50B_100_100ad	0.5	1.0	0.0	0.5	46.1	-13.3	240	0.0	0.5	0.0
29/85	C63B_100_100ad	0.625	1.0	0.0	0.633	46.1	-5.7	248	0.0	0.366	0.0
30/26	C75B_100_100ad	0.75	1.0	0.0	0.766	43.9	3.2	257	0.0	0.233	0.125
31/17	C88B_100_100ad	0.875	1.0	0.0	0.883	43.9	9.9	263	0.0	0.116	0.125
32/8	B00M_100_100ad	0.0	1.0	0.0	0.0	32.5	16.9	270	0.0	0.0	0.0
33/89	B13M_100_100ad	0.125	1.0	0.0	0.116	31.6	23.1	276	0.0	0.883	0.0
34/170	B25M_100_100ad	0.25	1.0	0.0	0.233	31.1	29.6	282	0.0	0.766	0.0
35/251	B38M_100_100ad	0.375	1.0	0.0	0.366	30.7	31.6	291	0.0	0.633	0.0
36/332	B50M_100_100ad	0.5	1.0	0.0	0.5	30.0	30.8	300	0.0	0.5	0.0
37/413	B63M_100_100ad	0.625	1.0	0.0	0.633	30.0	30.8	308	0.0	0.366	0.0
38/494	B75M_100_100ad	0.75	1.0	0.0	0.766	30.0	30.8	317	0.0	0.233	0.0
39/575	B88M_100_100ad	0.875	1.0	0.0	0.883	30.0	30.8	323	0.0	0.116	0.0
40/656	M00R_100_100ad	1.0	0.0	0.0	1.0	0.0	-12.7	330	1.0	0.0	0.0
41/655	M13R_100_100ad	0.875	1.0	0.0	0.883	49.4	66.1	336	1.0	0.883	0.0
42/654	M25R_100_100ad	0.75	1.0	0.0	0.766	49.3	64.7	342	1.0	0.766	0.0
43/653	M38R_100_100ad	0.625	1.0	0.0	0.633	48.0	62.0	351	1.0	0.633	0.0
44/652	M50R_100_100ad	0.5	1.0	0.0	0.5	47.8	58.9	360	1.0	0.5	0.0
45/651	M63R_100_100ad	0.375	1.0	0.0	0.366	47.4	56.8	368	1.0	0.366	0.0
46/650	M75R_100_100ad	0.25	1.0	0.0	0.233	47.5	56.0	377	1.0	0.233	0.0
47/649	M88R_100_100ad	0.125	1.0	0.0	0.116	47.6	56.4	383	1.0	0.116	0.0
48/648	R00Y_100_100ad	1.0	0.0	0.0	1.0	0.0	37.8	389	1.0	0.0	0.0
49/0	NV_000ad	0.0	0.0	0.0	0.0	0.0	33.4	360	1.0	0.0	0.0
50/91	NV_013ad	0.125	0.0	0.0	0.125	32.8	0.0	360	1.0	0.883	0.0
51/182	NV_025ad	0.25	0.0	0.0	0.25	32.5	0.0	360	1.0	0.766	0.0
52/273	NV_038ad	0.375	0.0	0.0	0.375	30.8	0.0	360	1.0	0.633	0.0
53/564	NV_050ad	0.5	0.0	0.0	0.5	30.0	0.0	360	1.0	0.5	0.0
54/455	NV_063ad	0.625	0.0	0.0	0.625	30.0	0.0	360	1.0	0.366	0.0
55/546	NV_075ad	0.75	0.0	0.0	0.75	30.0	0.0	360	1.0	0.233	0.0
56/637	NV_088ad	0.875	0.0	0.0	0.875	30.0	0.0	360	1.0	0.116	0.0
57/728	NV_100ad	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	0.0	0.0

Mean color difference of this page:

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

TUB-test chart QE69; hue code: H*_d=Y75G_d
colors and differences, ΔE*_{ab}*

Table with columns: n/f, H/C/F, r/g/b, i/c/t, h/s, r/g/b, Lab/C/M, Lab/C/M, cmyk*, cmyk* sep, r/g/b, h/s, Lab/C/M, Lab/C/M, delta. The table contains 45 rows of data, each representing a different color patch and its corresponding colorimetric values.

input: rgb/cmyk -> r/g/b/d
output: 3D-linearization to cmyk* dd

Mean color difference of this page: delta



http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 20/33

Table with 8 columns: #, H#*F, H#*F, H#*F, H#*F, H#*F, H#*F, H#*F. The table contains a grid of numerical data representing color differences and registration values for various color patches.

delta

Mean color difference of this page:

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

QE690-7N; Page 20/33-F

TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, ΔE*#

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I-1031930-F0

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 21/33

Table with 16 columns: n, H#C*F0d, r*F0d, i*F0d, Hs*F0d, r*F0d, LabC*F0d, LabM*F0d, cmyk*sep,F0d, r*F0d, Hs*F0d, r*F0d, LabC*F0d, LabM*F0d, LabC*F0d, LabM*F0d. Rows 81-161.

Mean color difference of this page: delta

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

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 22/33

Table with 24 columns: n, HHC*F0d, rpb*F0d, icr*F0d, hsa*F0d, rpb*F0d, LabC0*F0d, cmyk*sep*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, delta, LabC0*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, cmyk*sep*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, delta, LabC0*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, cmyk*sep*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, delta. Rows 162-242.

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

TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, AE*
QE690-7N; Page 22/33-F

http://130.149.60.45/~farbmatrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 25/33

Table with 15 columns: n, HHC*Fid, rpb_Fid, icr_Fid, Hrs_Fid, rpb*Fid, LabCM*Fid, cmyk*sep_Fid, rpb*Fid, rpb*Fid, LabCM*Fid, delta. Rows 405-485.

Mean color difference of this page: delta. input: rgb/cmyk -> rgbd output: 3D-linearization to cmyk*dd

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 26/33

Table with 15 columns: n, H#C*F0d, H#M*F0d, H#B*F0d, LabC0*F0d, LabM*F0d, LabB*F0d, cmyk*_sep,F0d, delta, H#X,Y,Z, LabC*Y0d, LabM*Y0d, LabB*Y0d, LabC*F0d, LabM*F0d, LabB*F0d. Rows include color patches like R00Y, R01Y, B00R, B01R, etc.

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

TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, AE*^{*}

QE690-7N; Page 26/33-F

I-103250-F0

http://130.149.60.45/~farbmatrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 27/33

Table with 15 columns: n, H#C*F0d, rpb*F0d, icr*F0d, hsa*F0d, rpb*F0d, LabC0*F0d, LabC0*F0d, cmyk*sep*F0d, rpb*F0d, hsa*F0d, LabC0*F0d, LabC0*F0d, delta. Rows 567-647.

Mean color difference of this page: delta

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

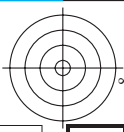
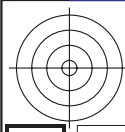
TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, AE*²

Table with 15 columns: n, H#C*Fad, r*gb*Fad, i*ct*Fad, H#s*Fad, LabC*Fad, LabM*Fad, LabY*Fad, LabK*Fad, LabC*Fad, LabM*Fad, LabY*Fad, LabK*Fad, LabC*Fad, LabM*Fad, LabY*Fad, LabK*Fad, delta. The table contains color calibration data for various color patches.

Mean color difference of this page:

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

TUB-test chart QE69; hue code: H*d=Y75Gd
colors and differences, ΔE*



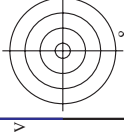
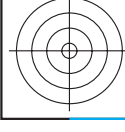
http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 31/33

Table with 15 columns: n, H#C*Fad, rpb*Fad, icr*Fad, hsa*Fad, rpb*Fad, LabC*Fad, cmyk*sep,Fad, rpb*Fad, hsa*Fad, LabC*Fad, LabC*Fad, LabC*Fad, LabC*Fad, delta. Rows represent different color patches and their measured values.

Mean color difference of this page:

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

TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, AE*
QE690-TN; Page 31/33-F



http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 32/33

Table with 18 columns: n, HC*Fid, rpb_Fid, icr_Fid, Hsa_Fid, rpb*Fid, LabC*Fid, LabC*Fid, cmyk*_sep_Fid, Hsa_did, rpb*_did, LabC*_did, LabC*_did, delta. Rows 972-1052.

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

TUB-test chart QE69; hue code: H*d=Y75Gd colors and differences, AE*.*

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
 F: 3D-linearization QE69/QE69LE30FP.DAT in file (F), page 33/33

n	HC*Fid	rgb_Fid	icr_Fid	hsa_Fid	rgb_Fid	LabC*Fid	hsa_Fid	LabC*Fid	cmyp*_sep_Fid	0.02	0.05	0.164	LabC*Fid	rgb*_Fid	hsa*_Fid	0.0	0.0	0.0
1053	NW_0860ad	0.866	0.866	0.866	0.866	0.866	0.866	0.866	0.0	0.019	0.005	0.164	95.8	1.0	360	0.0	0.0	0.0
1054	NW_0920ad	0.933	0.933	0.933	0.933	0.933	0.933	0.933	0.0	0.016	0.005	0.103	95.8	1.0	360	0.0	0.0	0.0
1055	NW_1000ad	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1056	NW_0060ad	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1057	NW_0060ad	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1058	NW_0130ad	0.133	0.133	0.133	0.133	0.133	0.133	0.133	0.0	0.016	0.054	0.865	95.8	1.0	360	0.0	0.0	0.0
1059	NW_0200ad	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.034	0.068	0.76	95.8	1.0	360	0.0	0.0	0.0
1060	NW_0260ad	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.0	0.039	0.092	0.701	95.8	1.0	360	0.0	0.0	0.0
1061	NW_0330ad	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.0	0.044	0.085	0.652	95.8	1.0	360	0.0	0.0	0.0
1062	NW_0400ad	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.038	0.078	0.608	95.8	1.0	360	0.0	0.0	0.0
1063	NW_0460ad	0.466	0.466	0.466	0.466	0.466	0.466	0.466	0.0	0.023	0.048	0.539	95.8	1.0	360	0.0	0.0	0.0
1064	NW_0530ad	0.533	0.533	0.533	0.533	0.533	0.533	0.533	0.0	0.017	0.04	0.482	95.8	1.0	360	0.0	0.0	0.0
1065	NW_0600ad	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.028	0.064	0.427	95.8	1.0	360	0.0	0.0	0.0
1066	NW_0660ad	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.0	0.015	0.038	0.381	95.8	1.0	360	0.0	0.0	0.0
1067	NW_0730ad	0.734	0.734	0.734	0.734	0.734	0.734	0.734	0.0	0.017	0.033	0.301	95.8	1.0	360	0.0	0.0	0.0
1068	NW_0800ad	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.011	0.023	0.23	95.8	1.0	360	0.0	0.0	0.0
1069	NW_0860ad	0.866	0.866	0.866	0.866	0.866	0.866	0.866	0.0	0.019	0.02	0.164	95.8	1.0	360	0.0	0.0	0.0
1070	NW_0920ad	0.933	0.933	0.933	0.933	0.933	0.933	0.933	0.0	0.016	0.005	0.103	95.8	1.0	360	0.0	0.0	0.0
1071	NW_1000ad	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1072	NW_1000ad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1073	ROY_100_100ad	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1074	ROY_100_100ad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.8	1.0	360	0.0	0.0	0.0
1075	GY00_100_100ad	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5	0.0	210	0.0	0.0	33.4
1076	Y000_100_100ad	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	53.1	0.0	210	0.0	0.0	57.2
1077	B000_100_100ad	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-30.0	0.0	210	0.0	0.0	37.8
1078	B000_100_100ad	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-15.8	0.0	210	0.0	0.0	34.6
1079	B500_100_100ad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.0	210	0.0	0.0	47.7
1079	B500_100_100ad	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.3	0.0	210	0.0	0.0	74.3
1079	B500_100_100ad	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.1	0.0	210	0.0	0.0	66.6

Mean color difference of this page:
 delta

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

TUB-test chart QE69; hue code: H*_d=Y75G_d
 colors and differences, ΔE*_{ab}*

I=103320-F0

QE690-7N; Page 33/33-F

Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 139/360 = 0.38$

$H^*_ = Y75G_ -$

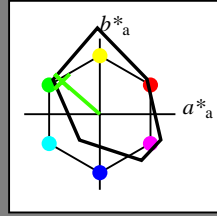
Data for any device (d) or elementary (e) colour:

$HIC^*_ -$

hue text for the colours of this page:

$H^*_ = Y75G_ -$

triangle lightness T^*



FRS06a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{-,Ma}	32.5	62.3	46.4	77.7	36
Y _{-,Ma}	82.7	-3.1	113.9	114.0	91
G _{-,Ma}	39.4	-61.8	45.8	76.9	143
C _{-,Ma}	47.8	-26.8	-34.2	43.4	231
B _{-,Ma}	10.1	55.1	-61.0	82.2	312
M _{-,Ma}	34.5	80.6	-33.9	87.5	337
N _{-,Ma}	6.2	0.0	0.0	0.0	0
W _{-,Ma}	91.9	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):

$LabCh^*_{-,Ma}$: 62 -49 43 65 139

$HIC^*_{-,Ma}$: Y75G_100_100_

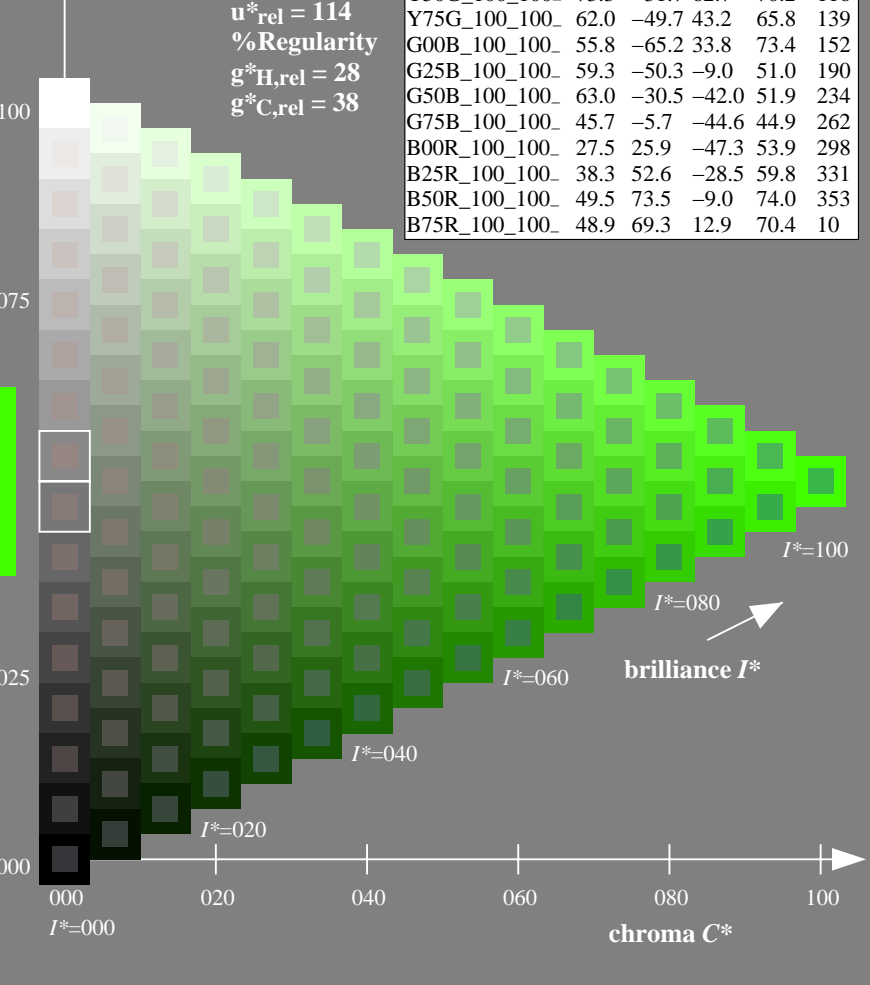
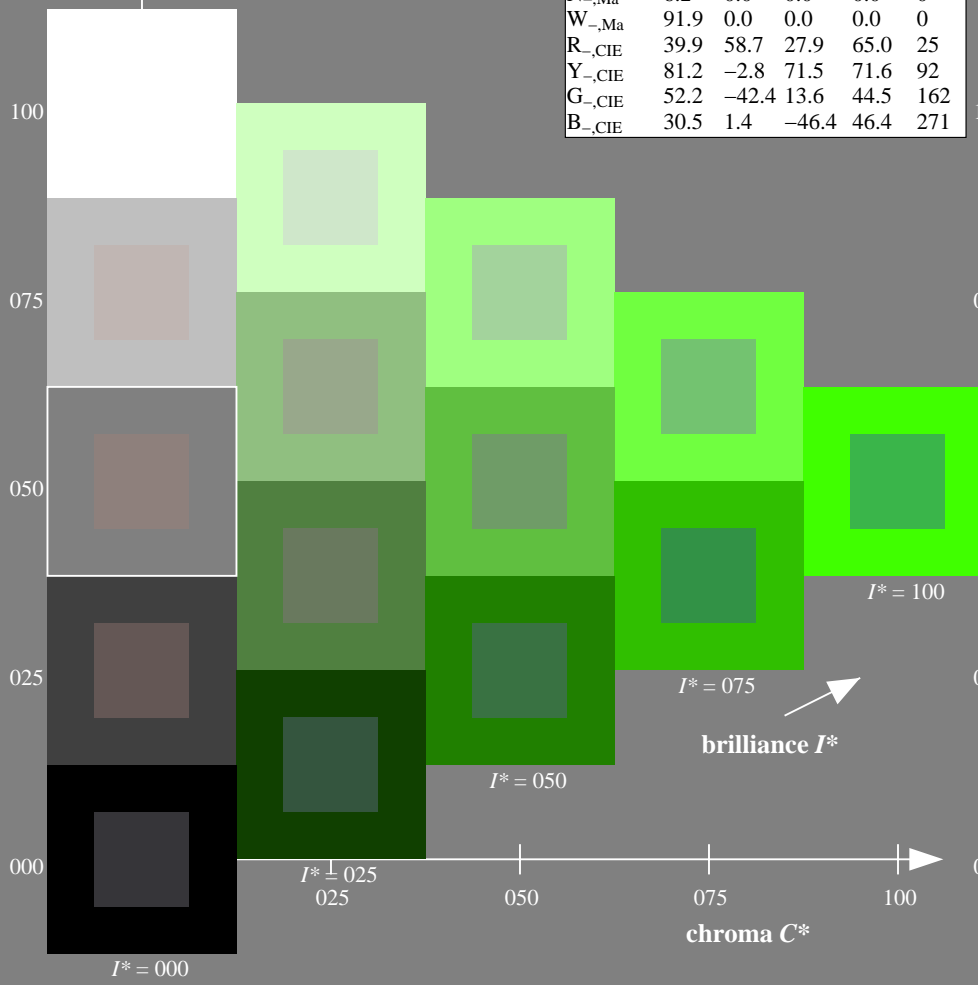
$rgbic^*_{-,Ma}$:

0.23 1.0 0.0 1.0 1.0

triangle lightness T^*

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



%Gamut
 $u^*_{rel} = 114$
 %Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 38$

see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS; start output
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

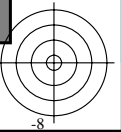
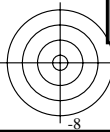
TUB registration: 20130201-QE69/QE69L0FP.PDF /.PS
application for measurement of laser printer output

TUB material: code=rh4ta

1-113030-L0 QE690-7N

TUB-test chart QE69; hue code: $H^*_ = Y75G_ -$
Test chart according to DIN 33872, 3D=1, de=1, cmk^*

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



Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_e = Y75G_e$

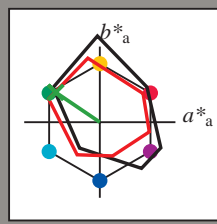
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y75G_e$

triangle lightness T^*



LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
Re,Ma	47.5	56.0	26.7	62.1	25
Ye,Ma	83.6	-3.1	76.8	76.9	92
Ge,Ma	53.8	-65.9	21.1	69.2	162
Ce,Ma	54.9	-38.7	-29.1	48.4	216
Be,Ma	37.3	1.4	-48.6	48.7	271
Me,Ma	38.5	46.7	-28.5	54.7	328
Ne,Ma	23.8	0.0	0.0	0.0	0
We,Ma	95.8	0.0	0.0	0.0	0
Re,CIE	39.9	58.7	27.9	65.0	25
Ye,CIE	81.2	-2.8	71.5	71.6	92
Ge,CIE	52.2	-42.4	13.6	44.5	162
Be,CIE	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{e, Ma}: 59 -58 39 70 145$

$HIC^*_{e, Ma}: Y75G_100_100_e$

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

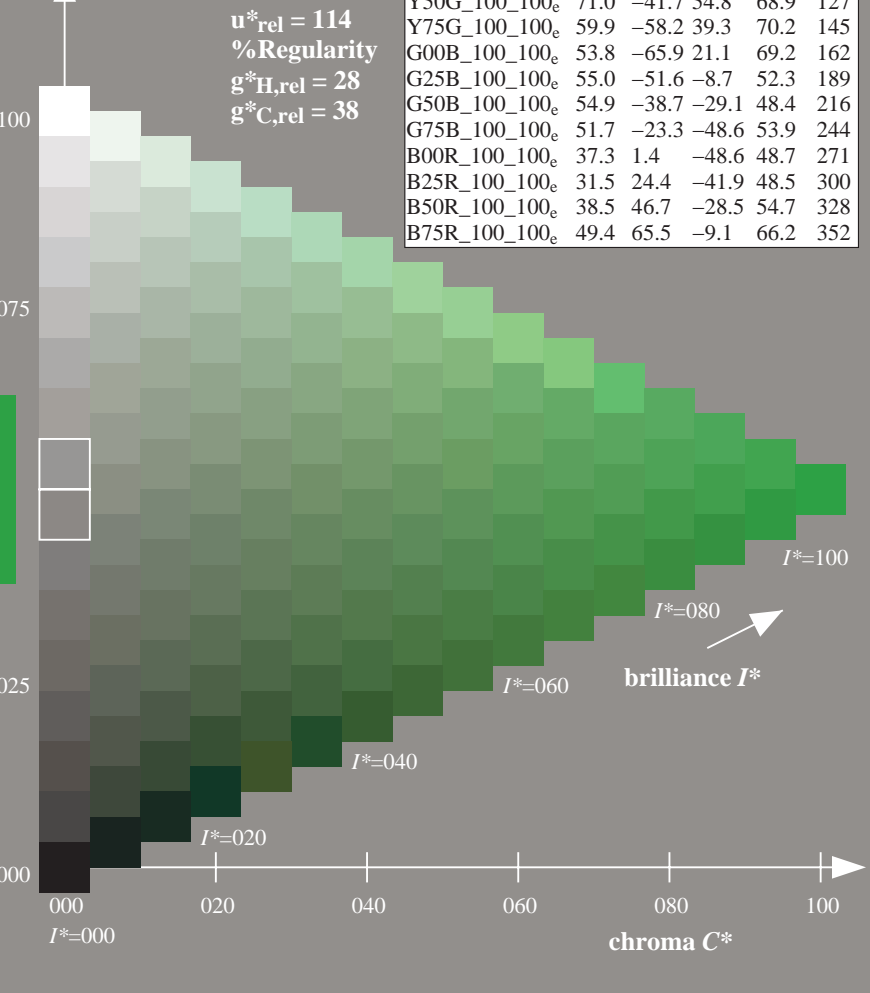
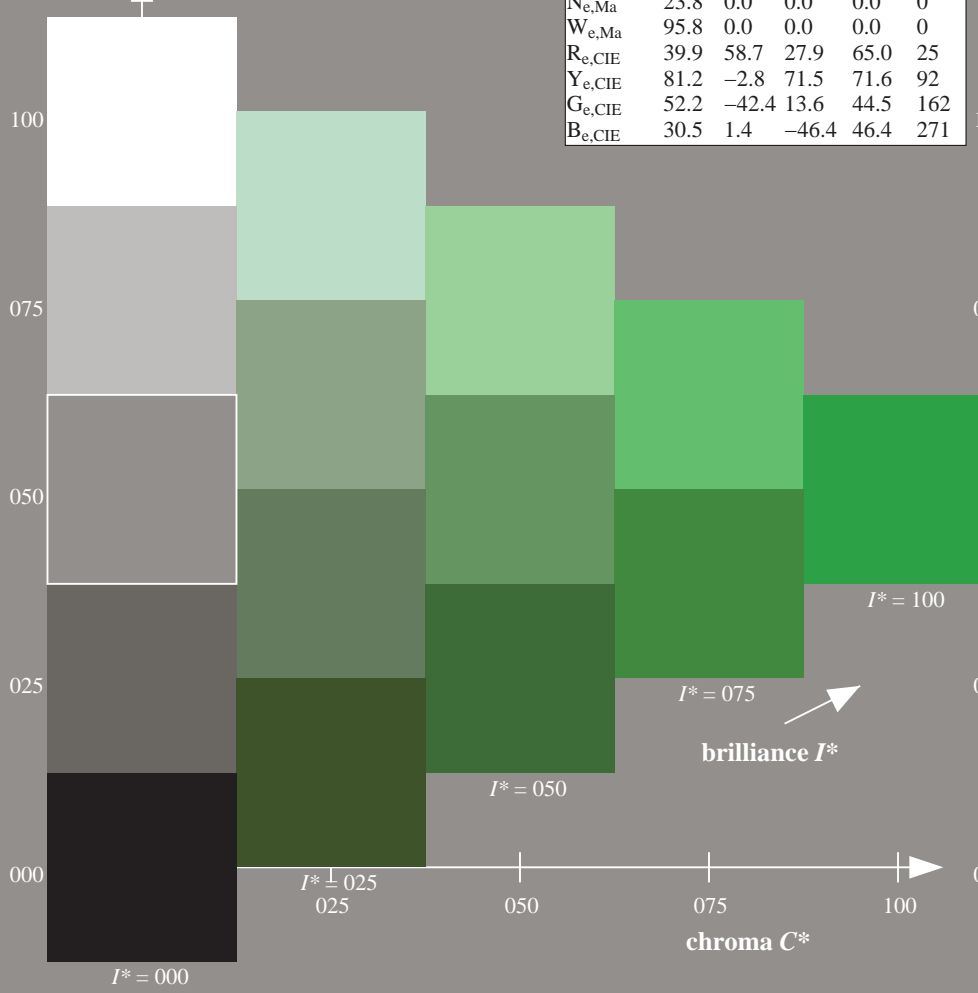
0.22 1.0 0.0 1.0 1.0

triangle lightness T^*

LRS18a; adapted (a) CIELAB data

H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_e	47.5	56.0	26.7	62.1	25
R25Y_100_100_e	51.4	54.8	47.7	72.6	41
R50Y_100_100_e	61.8	35.2	58.4	68.2	58
R75Y_100_100_e	72.3	16.1	68.2	70.1	76
Y00G_100_100_e	83.6	-3.1	76.8	76.9	92
Y25G_100_100_e	85.8	-26.4	78.5	82.9	108
Y50G_100_100_e	71.0	-41.7	54.8	68.9	127
Y75G_100_100_e	59.9	-58.2	39.3	70.2	145
G00B_100_100_e	53.8	-65.9	21.1	69.2	162
G25B_100_100_e	55.0	-51.6	-8.7	52.3	189
G50B_100_100_e	54.9	-38.7	-29.1	48.4	216
G75B_100_100_e	51.7	-23.3	-48.6	53.9	244
B00R_100_100_e	37.3	1.4	-48.6	48.7	271
B25R_100_100_e	31.5	24.4	-41.9	48.5	300
B50R_100_100_e	38.5	46.7	-28.5	54.7	328
B75R_100_100_e	49.4	65.5	-9.1	66.2	352

%Gamut
 $u^*_{rel} = 114$
%Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 38$



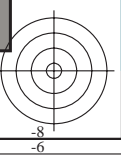
see similar files: http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

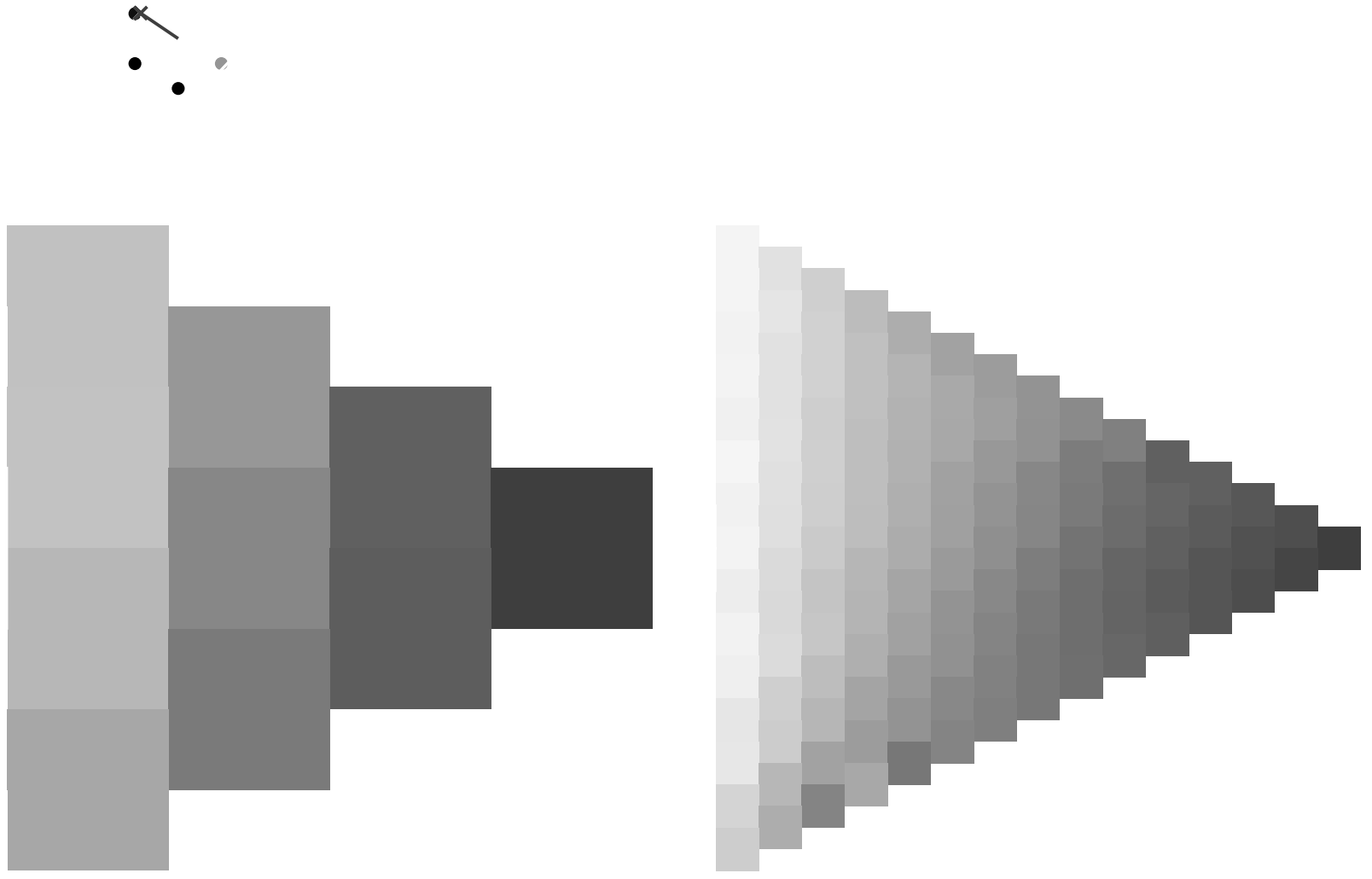
TUB registration: 20130201-QE69/QE69L0FP.PDF /.PS
application for measurement of laser printer output, separation cmyk* (CMYK)
TUB material: code=rh4ta

1-113130-L0 QE690-73

TUB-test chart QE69; hue code: $H^*_e = Y75G_e$
Test chart according to DIN 33872, 3D=1, de=1, cmyk*

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





1-113230-L0 QE690-73

TUB-test chart QE69; hue code: $H^*_e=Y75G_e$
Test chart according to DIN 33872, 3D=1, $de=1$, cmyk*

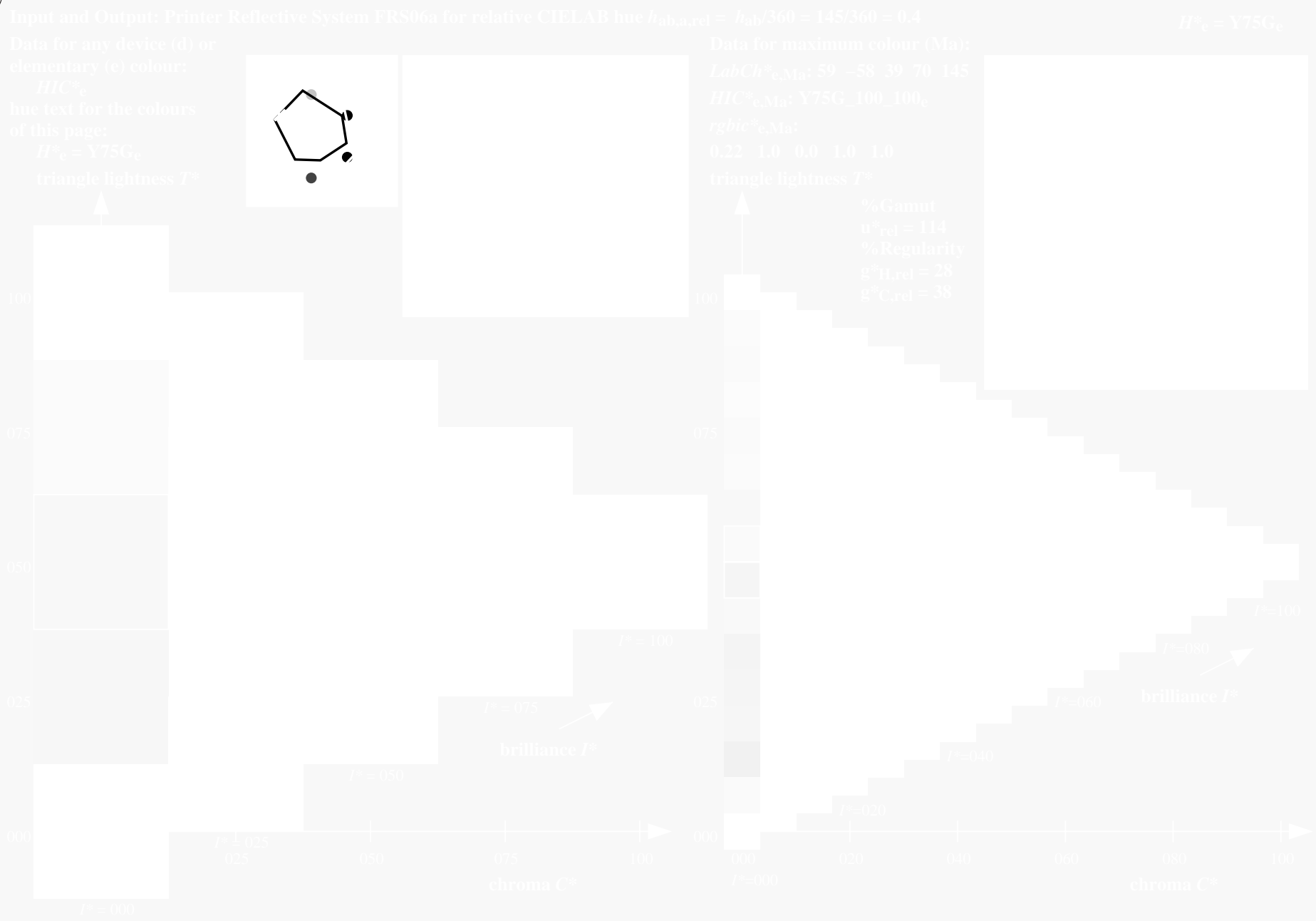
input: $rgb/cmyk \rightarrow rgb_{de}$
output: 3D-linearization to $cmyk^*_{de}$



1=113230-F0

see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS TUB material: code=rh4ta
application for measurement of laser printer output, separation cmyk* (CMYK)



TUB-test chart QE69; hue code: $H^*_e = Y75G_e$
Test chart according to DIN 33872, 3D=1, de=1, cmyk*

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



Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_e = Y75G_e$

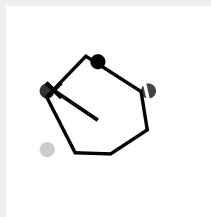
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y75G_e$

triangle lightness T^*



Data for maximum colour (M_a):

$LabCh^*_{e,Ma}$: 59 -58 39 70 145

$HIC^*_{e,Ma}$: Y75G_100_100_e

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

0.22 1.0 0.0 1.0 1.0

triangle lightness T^*

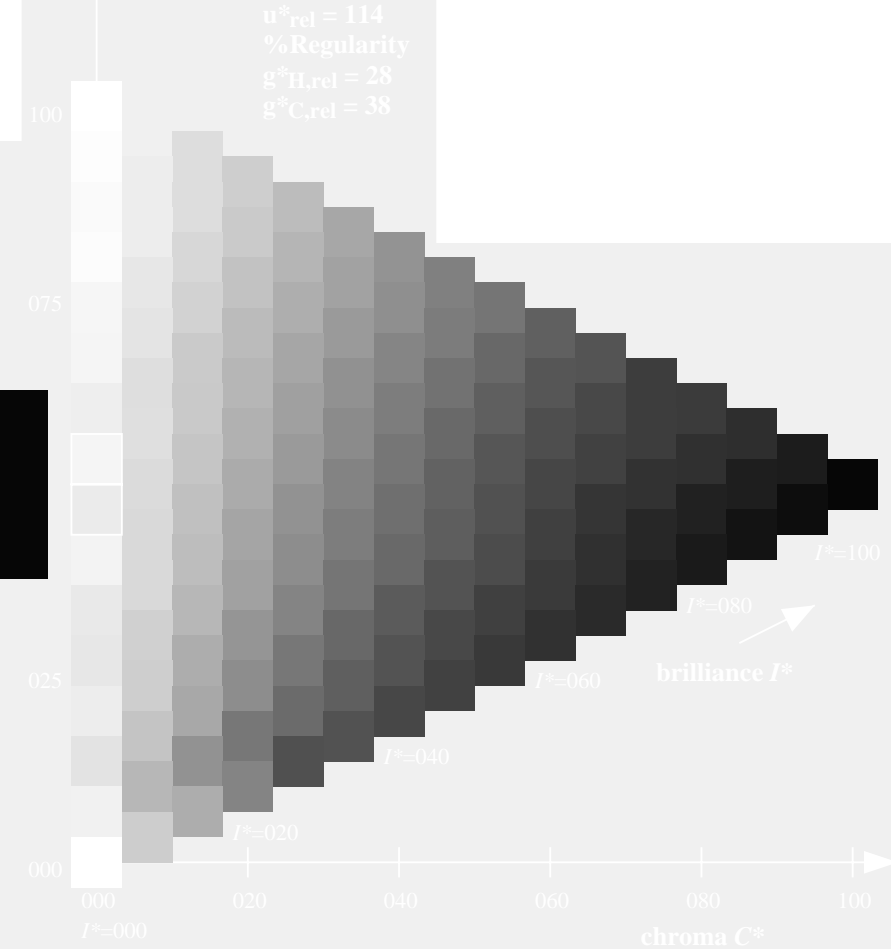
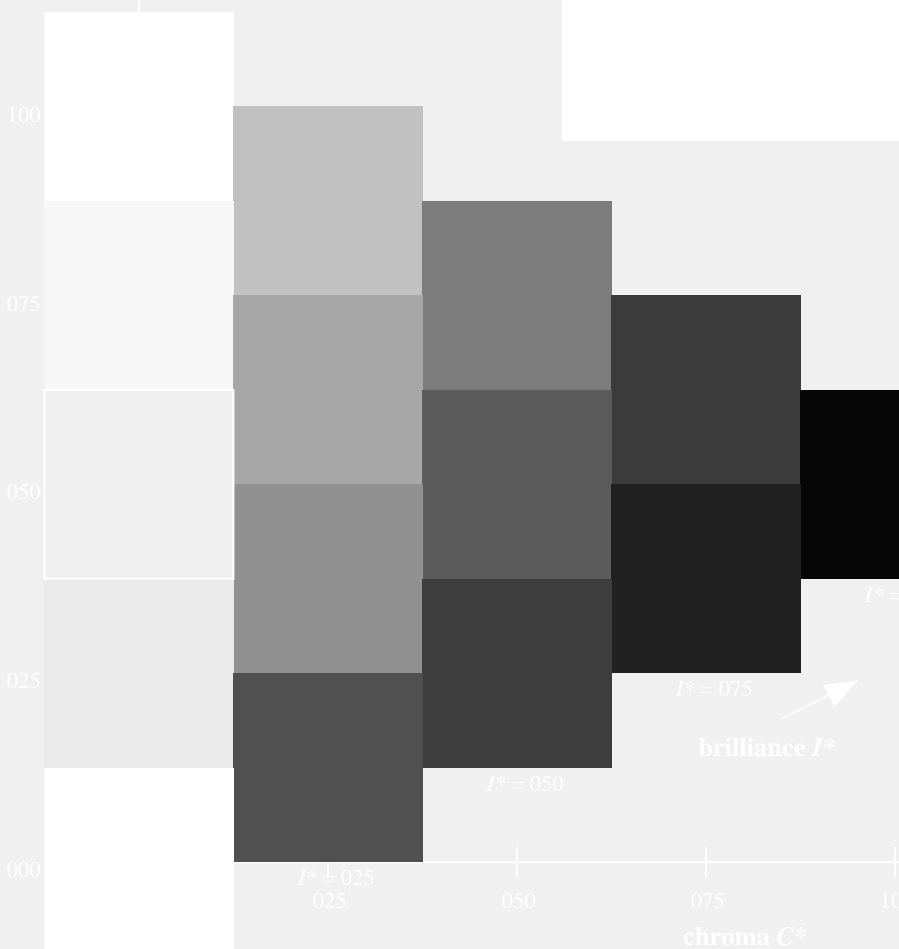
%Gamut

$u^*_{rel} = 114$

%Regularity

$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS
 application for measurement of laser printer output, separation $cmyn6^*$ (CMYK)
 TUB material: code=rh4ta

1-113430-L0 QE690-73

TUB-test chart QE69; hue code: $H^*_e = Y75G_e$
 Test chart according to DIN 33872, 3D=1, $de=1$, $cmyk^*$

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

Input and Output: Printer Reflective System FRS06a for relative CIELAB hue $h_{ab,a,rel} = h_{ab}/360 = 145/360 = 0.4$

$H^*_e = Y75G_e$

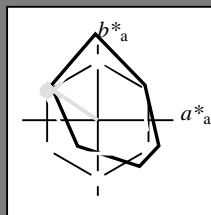
Data for any device (d) or elementary (e) colour:

HIC^*_e

hue text for the colours of this page:

$H^*_e = Y75G_e$

triangle lightness T^*



LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
Re,Ma	47.5	56.0	26.7	62.1	25
Ye,Ma	83.6	-3.1	76.8	76.9	92
Ge,Ma	53.8	-65.9	21.1	69.2	162
Ce,Ma	54.9	-38.7	-29.1	48.4	216
Be,Ma	37.3	1.4	-48.6	48.7	271
Me,Ma	38.5	46.7	-28.5	54.7	328
Ne,Ma	23.8	0.0	0.0	0.0	0
We,Ma	95.8	0.0	0.0	0.0	0
Re,CIE	39.9	58.7	27.9	65.0	25
Ye,CIE	81.2	-2.8	71.5	71.6	92
Ge,CIE	52.2	-42.4	13.6	44.5	162
Be,CIE	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{e, Ma}: 59 -58 39 70 145$

$HIC^*_{e, Ma}: Y75G_100_100_e$

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

0.22 1.0 0.0 1.0 1.0

triangle lightness T^*

LRS18a; adapted (a) CIELAB data

H^*_e	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_e	47.5	56.0	26.7	62.1	25
R25Y_100_100_e	51.4	54.8	47.7	72.6	41
R50Y_100_100_e	61.8	35.2	58.4	68.2	58
R75Y_100_100_e	72.3	16.1	68.2	70.1	76
Y00G_100_100_e	83.6	-3.1	76.8	76.9	92
Y25G_100_100_e	85.8	-26.4	78.5	82.9	108
Y50G_100_100_e	71.0	-41.7	54.8	68.9	127
Y75G_100_100_e	59.9	-58.2	39.3	70.2	145
G00B_100_100_e	53.8	-65.9	21.1	69.2	162
G25B_100_100_e	55.0	-51.6	-8.7	52.3	189
G50B_100_100_e	54.9	-38.7	-29.1	48.4	216
G75B_100_100_e	51.7	-23.3	-48.6	53.9	244
B00R_100_100_e	37.3	1.4	-48.6	48.7	271
B25R_100_100_e	31.5	24.4	-41.9	48.5	300
B50R_100_100_e	38.5	46.7	-28.5	54.7	328
B75R_100_100_e	49.4	65.5	-9.1	66.2	352

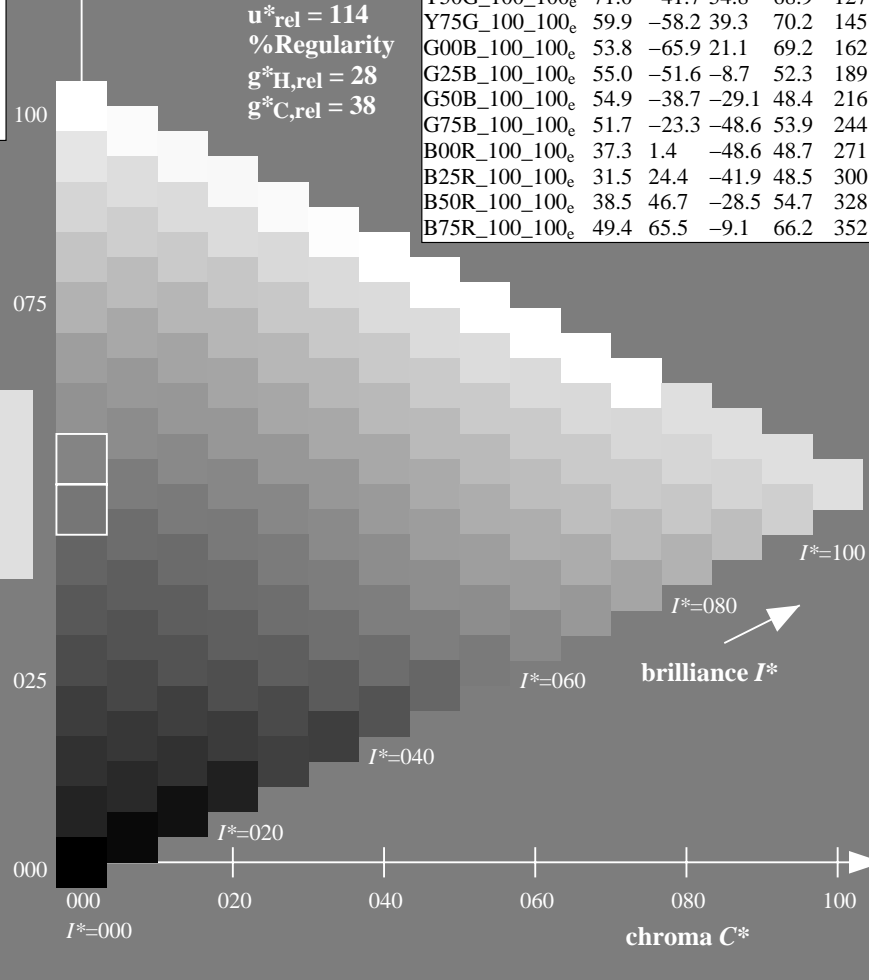
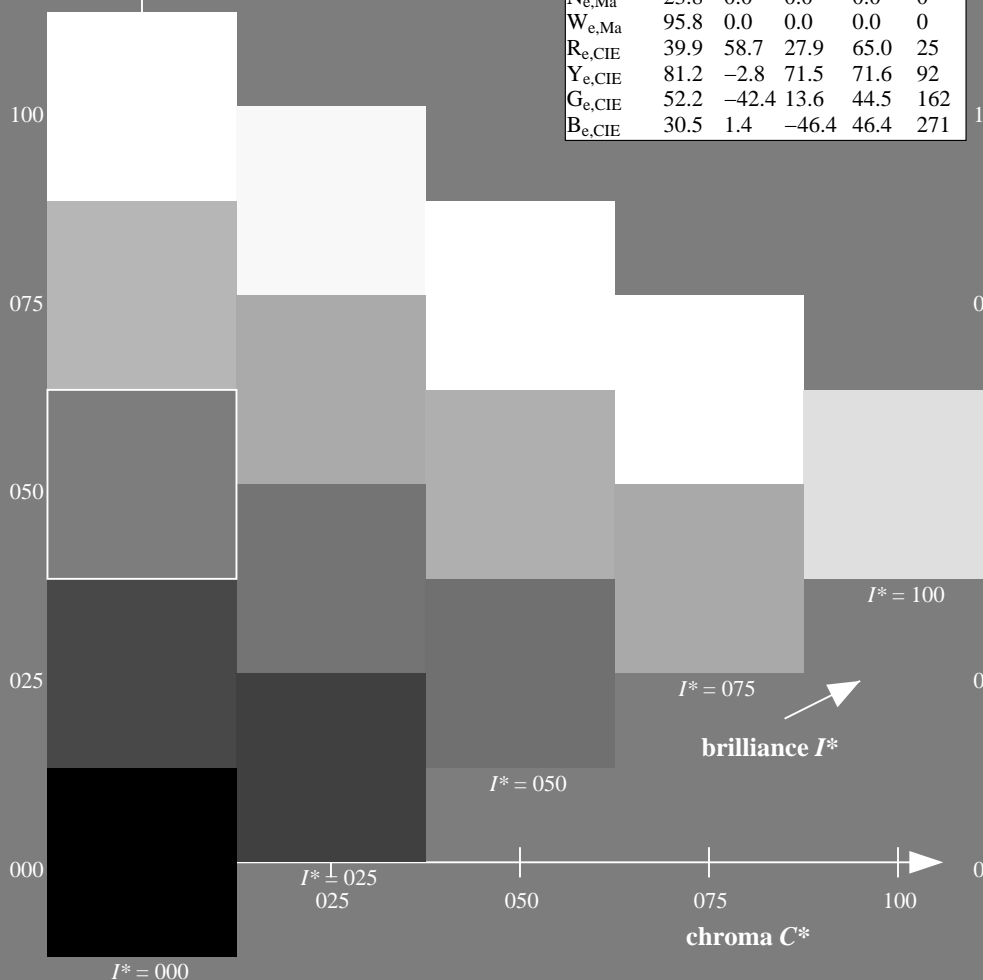
%Gamut

$u^*_{rel} = 114$

%Regularity

$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



see similar files: <http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF> / .PS
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE69/QE69L0FP.PDF / .PS
 application for measurement of laser printer output, separation cmyk* (CMYK)

TUB material: code=rh4ta

1-113530-L0 QE690-73

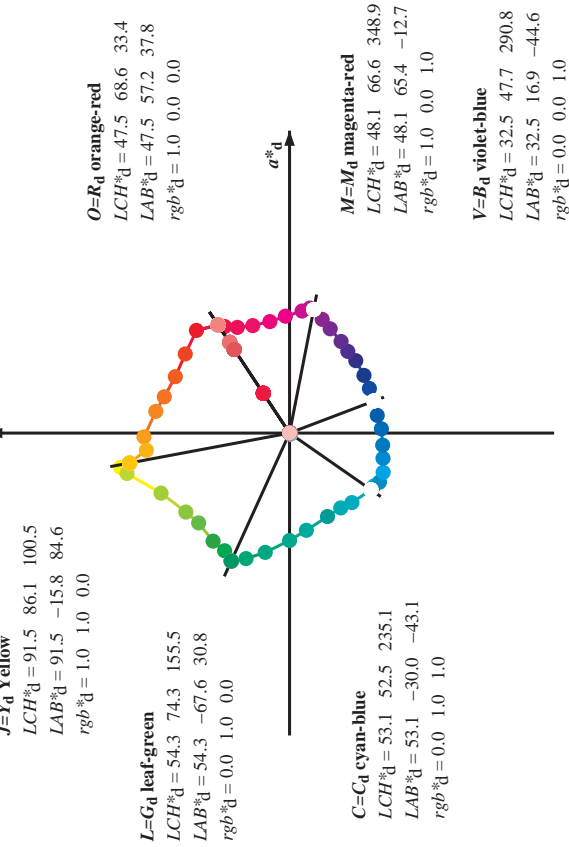
TUB-test chart QE69; hue code: $H^*_e = Y75G_e$
 Test chart according to DIN 33872, 3D=1, de=1, cmyk*

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

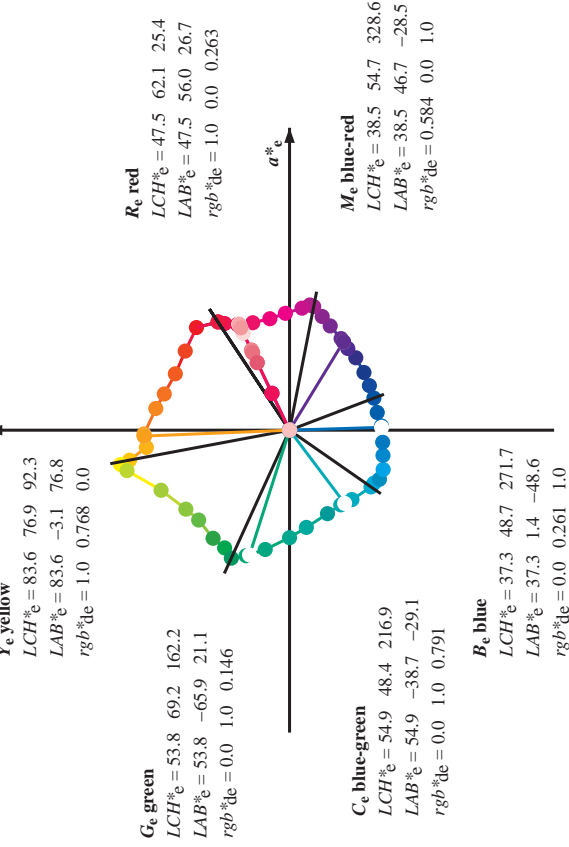
1-113530-F0

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM; $h_{abs,d} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
 Six hue angles of the device colours RYGBM; $h_{ab,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$; Six hue angles of the elementary colours RYGBM; $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

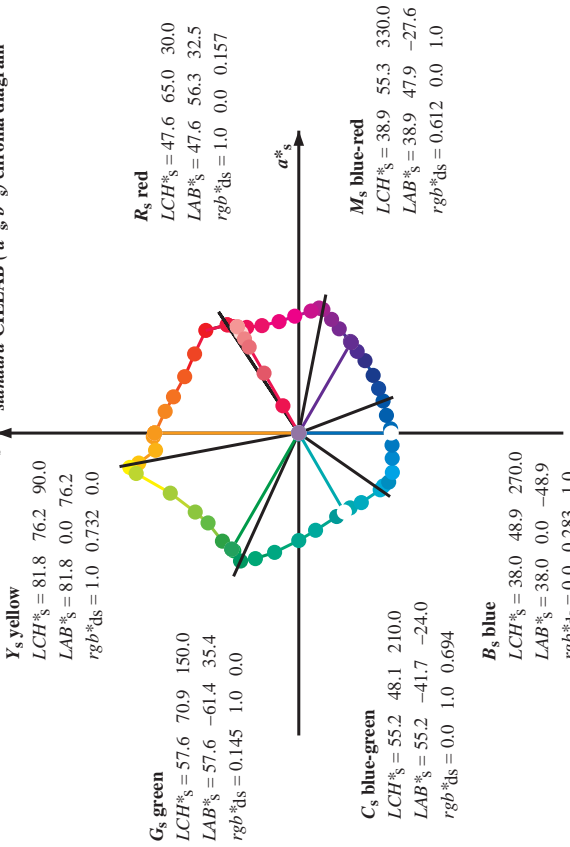
device CIELAB (a^*_d, b^*_d) chroma diagram



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



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



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

- For the rgb^*_d -input values the CIELAB data LCH^*_d and LAB^*_d have been calculated.
- For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^*_d the equation:

$$h_{ab,s} = \arctan \left[r^*_d \cos(30) + g^*_d \cos(150) \right] / \left[r^*_d \sin(30) + g^*_d \sin(150) \right] + b^*_d \sin(270) \quad (1)$$
- For the 48 or 360 equally spaced standard hue angles $h_{ab,i}$ 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 elementary hue circle:

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

$$h_{360ab,ij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$
- For the 48 or 360 elementary hue angles $h_{ab,i}$ 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:

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

$$h_{360ab,ej} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$
- For any elementary hue angle $h_{ab,i}$ there is a well defined device hue angle $h_{ab,d}$ see the following tables, columns 1 to 5 or 1 to 4.
- The values rgb^*_d produce the output of the device-independent elementary hues

TUB-test chart QE69; hue code: H*_e=Y75G_e
 48 step hue circles; $rgb-LabCh$ *tables

input: $rgb/cmyk \rightarrow rgbde$
 output: 3D-linearization to $cmyk^*_de$

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 8/33

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM; h_ab,d,s = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;

Table with columns: h_ab,d, h_ab,s, h_ab,e, Lab* d64M, Lab* d65, Lab* d66, Lab* d67, Lab* d68, Lab* d69, Lab* d70, Lab* d71, Lab* d72, Lab* d73, Lab* d74, Lab* d75, Lab* d76, Lab* d77, Lab* d78, Lab* d79, Lab* d80, Lab* d81, Lab* d82, Lab* d83, Lab* d84, Lab* d85, Lab* d86, Lab* d87, Lab* d88, Lab* d89, Lab* d90, Lab* d91, Lab* d92, Lab* d93, Lab* d94, Lab* d95, Lab* d96, Lab* d97, Lab* d98, Lab* d99, Lab* d100. Rows contain numerical data for each color and angle.

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

TUB-test chart QE69; hue code: H*_e=Y75G_e 48 step hue circles; rgb-LabCh*tables

Output: Laser printer output; separation cmyk*, D65, page 8/36

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
 F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 9/33

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*; 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 RYGBM; $h_{ab,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$; Six hue angles of the elementary colours RYGBM; $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{ds}	rgb^*_{de}	LAB^*_{dx64M}	LAB^*_{dx30IM}	$LAB^*_{dex36IM}$	rgb^*_{ds}	rgb^*_{de}
33.4	30.0	25.4	1.0	0.0	47.5	57.2	37.8	68.6	33.4
42.1	37.5	33.8	1.0	0.125	0.0	51.9	54.3	49.2	73.2
52.8	45.0	42.1	1.0	0.25	0.0	58.2	41.8	55.1	69.2
63.7	52.5	50.5	1.0	0.375	0.0	64.6	29.8	60.4	67.3
73.8	60.0	58.8	1.0	0.5	0.0	70.5	19.2	66.2	69.0
80.7	67.5	67.2	1.0	0.625	0.0	74.9	11.4	70.7	71.6
91.5	75.0	75.6	1.0	0.75	0.0	82.9	-2.0	76.9	77.0
96.8	82.5	83.9	1.0	0.875	0.0	87.6	-9.0	75.7	76.3
100.5	90.0	92.3	1.0	1.0	0.0	91.5	-15.8	84.6	86.1
101.4	97.5	101.0	1.0	0.875	1.0	92.8	-18.1	89.4	91.2
103.9	105.0	109.7	1.0	0.75	1.0	90.1	-21.3	86.0	88.6
115.0	112.5	118.5	1.0	0.625	1.0	87.9	-31.7	67.9	75.0
127.3	120.0	127.2	0.5	1.0	0.0	70.9	-41.7	54.8	68.9
134.7	127.5	136.0	0.375	1.0	0.0	66.5	-47.5	48.0	67.6
144.7	135.0	144.7	0.25	1.0	0.0	60.6	-57.2	40.4	70.1
151.0	142.5	153.4	0.125	1.0	0.0	57.0	-62.2	34.4	71.1
155.5	150.0	162.2	0.0	1.0	0.0	54.3	-67.6	30.8	74.3
160.8	157.5	169.0	0.0	1.0	0.125	53.8	-66.4	23.0	70.2
168.5	165.0	175.9	0.0	1.0	0.25	53.7	-63.1	12.8	64.4
179.9	172.5	182.7	0.0	1.0	0.375	54.7	-56.8	0.0	56.8
189.8	180.0	189.6	0.0	1.0	0.5	55.0	-51.4	-8.9	52.2
204.4	187.5	196.4	0.0	1.0	0.625	55.3	-44.1	-20.0	48.5
214.4	195.0	203.2	0.0	1.0	0.75	55.2	-39.5	-27.1	47.9
221.9	202.5	210.1	0.0	1.0	0.875	54.4	-36.7	-33.0	49.4
235.1	210.0	216.9	0.0	1.0	1.0	53.1	-30.0	-43.1	52.5
237.9	217.5	223.8	0.0	0.875	1.0	53.1	-27.9	-44.7	52.7
241.3	225.0	230.6	0.0	0.75	1.0	52.9	-25.9	-47.5	54.1
247.2	232.5	237.5	0.0	0.625	1.0	50.5	-20.8	-49.5	53.7
254.9	240.0	244.3	0.0	0.5	1.0	46.1	-13.3	-49.4	51.1
262.6	247.5	251.2	0.0	0.375	1.0	41.4	-6.3	-49.2	49.6
272.6	255.0	258.0	0.0	0.25	1.0	36.8	2.2	-48.5	48.6
281.4	262.5	264.8	0.0	0.125	1.0	35.0	9.4	-46.3	47.3
290.8	270.0	271.7	0.0	0.0	1.0	32.5	16.9	-44.6	47.7
299.2	277.5	278.8	0.125	0.0	1.0	31.6	23.6	-42.2	48.4
307.8	285.0	285.9	0.25	0.0	1.0	31.0	30.5	-39.3	49.8
317.5	292.5	293.0	0.375	0.0	1.0	34.2	38.2	-35.0	51.8
324.4	300.0	300.1	0.5	0.0	1.0	37.2	43.1	-30.8	53.0
330.6	307.5	307.2	0.625	0.0	1.0	39.1	48.4	-27.2	55.6
338.7	315.0	314.3	0.75	0.0	1.0	41.8	55.1	-21.4	59.1
343.9	322.5	321.4	0.875	0.0	1.0	45.6	60.1	-17.3	62.6
348.9	330.0	328.6	1.0	0.0	1.0	48.1	65.4	-12.7	66.6
350.7	337.5	335.7	1.0	0.0	0.875	49.5	66.1	-10.7	67.0
354.2	345.0	342.8	1.0	0.0	0.75	49.3	64.5	-6.5	64.8
361.9	352.5	349.9	1.0	0.0	0.625	48.0	61.8	2.1	61.8
370.0	360.0	357.0	1.0	0.0	0.5	47.8	58.9	10.4	59.9
378.9	367.5	364.1	1.0	0.0	0.375	47.4	56.8	19.5	60.0
386.2	375.0	371.2	1.0	0.0	0.25	47.5	55.9	27.5	62.3
391.3	382.5	378.3	1.0	0.0	0.125	47.6	56.3	34.2	65.9
393.4	390.0	385.4	1.0	0.0	0.0	47.5	57.2	37.8	68.6

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

Output: Laser printer output; separation cmyk*de, D65, page 9/36

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 11/33

Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk*, 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 RYGBM; h_{ab,d} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

Table with 14 columns: h_ab,d, h_ab,s, h_ab,e, LAB* dxs361M, LAB* dds361M, LAB* dsx361MI, LAB* ds361MI, RGB* ds361MI, RGB* dds361MI, LAB* dex361MI (x=LabCh), LAB* de361MI, RGB* dex361MI, RGB* dd361MI, RGB* ds361MI, RGB* dd361MI. Rows 1-127.

I=1131030-L0 QE690-73 LAB*at0, YN=0%, XY.Znw=3.9, 4.1, 84.7, 89.6, 93.9, LAB*mw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

TUB-test chart QE69; hue code: H*_e=Y75G_e 48 step hue circles; rgb-LabCh*tables

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

Output: Laser printer output; separation cmyk*, D65, page 11/63

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 13/33

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

Table with columns for hue angles (168 to 235), device colours (LAB*, RGB*, CMYK, LabCh), and standard colours (LAB*, RGB*, CMYK, LabCh). The table contains 17 columns of data for each hue angle.

LAB*ab0, YN=0%, XY,Znw=3.9, 4.1, 84.7, 89.6, 93.9, LAB*mw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

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

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
F: 3D-linearization QE69/QE69LE30FP.DAT in file (F), page 14/33

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

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_d	rgb^*_s	rgb^*_e	LAB^*_d	LAB^*_s	LAB^*_e	rgb^*_d	rgb^*_s	rgb^*_e	LAB^*_d	LAB^*_s	LAB^*_e	rgb^*_d	rgb^*_s	rgb^*_e
235	210	216	0.0	1.0	1.0	53.1	-29.7	43.3	52.5	235	235	0.0	1.0	1.0	0.983	1.0	1.0
235	211	217	0.0	0.983	1.0	53.1	-29.7	43.3	52.5	235	235	0.0	1.0	1.0	0.983	1.0	1.0
235	212	218	0.0	0.966	1.0	53.1	-29.4	43.5	52.5	235	235	0.0	1.0	1.0	0.967	1.0	1.0
236	213	219	0.0	0.95	1.0	53.1	-29.2	43.7	52.6	236	236	0.0	1.0	1.0	0.95	1.0	1.0
236	214	220	0.0	0.933	1.0	53.1	-28.9	43.9	52.6	236	236	0.0	1.0	1.0	0.933	1.0	1.0
237	215	221	0.0	0.916	1.0	53.1	-28.6	44.2	52.6	237	237	0.0	1.0	1.0	0.916	1.0	1.0
237	216	222	0.0	0.9	1.0	53.1	-28.3	44.4	52.7	237	237	0.0	1.0	1.0	0.9	1.0	1.0
237	217	223	0.0	0.883	1.0	53.1	-28.1	44.6	52.7	237	237	0.0	1.0	1.0	0.883	1.0	1.0
238	218	224	0.0	0.866	1.0	53.0	-27.8	44.9	52.8	238	238	0.0	1.0	1.0	0.866	1.0	1.0
238	219	225	0.0	0.85	1.0	53.0	-27.5	45.3	53.0	238	238	0.0	1.0	1.0	0.85	1.0	1.0
239	220	226	0.0	0.833	1.0	53.0	-27.3	45.6	53.2	239	239	0.0	1.0	1.0	0.833	1.0	1.0
239	221	227	0.0	0.816	1.0	53.0	-27.0	46.0	53.4	239	239	0.0	1.0	1.0	0.816	1.0	1.0
240	222	227	0.0	0.8	1.0	52.9	-26.7	46.4	53.6	240	240	0.0	1.0	1.0	0.8	1.0	1.0
240	223	228	0.0	0.783	1.0	52.9	-26.5	46.8	53.8	240	240	0.0	1.0	1.0	0.783	1.0	1.0
240	224	229	0.0	0.766	1.0	52.9	-26.2	47.2	53.9	240	240	0.0	1.0	1.0	0.766	1.0	1.0
241	225	230	0.0	0.75	1.0	52.9	-25.9	47.5	54.1	241	241	0.0	1.0	1.0	0.75	1.0	1.0
242	226	231	0.0	0.733	1.0	52.6	-25.2	47.8	54.1	242	242	0.0	1.0	1.0	0.733	1.0	1.0
242	227	232	0.0	0.716	1.0	52.2	-24.5	48.1	54.0	242	242	0.0	1.0	1.0	0.716	1.0	1.0
243	228	233	0.0	0.7	1.0	51.9	-23.9	48.4	54.0	243	243	0.0	1.0	1.0	0.7	1.0	1.0
244	229	234	0.0	0.683	1.0	51.6	-23.2	48.6	53.9	244	244	0.0	1.0	1.0	0.683	1.0	1.0
245	230	235	0.0	0.666	1.0	51.3	-22.5	48.9	53.8	245	245	0.0	1.0	1.0	0.666	1.0	1.0
246	231	236	0.0	0.65	1.0	51.0	-21.8	49.1	53.8	246	246	0.0	1.0	1.0	0.65	1.0	1.0
246	232	237	0.0	0.633	1.0	50.7	-21.1	49.4	53.7	246	246	0.0	1.0	1.0	0.633	1.0	1.0
247	233	237	0.0	0.616	1.0	50.2	-20.2	49.5	53.5	247	247	0.0	1.0	1.0	0.616	1.0	1.0
248	234	238	0.0	0.6	1.0	49.7	-19.2	49.6	53.2	248	248	0.0	1.0	1.0	0.6	1.0	1.0
249	235	239	0.0	0.583	1.0	49.1	-18.2	49.6	52.8	249	249	0.0	1.0	1.0	0.583	1.0	1.0
250	236	240	0.0	0.566	1.0	48.5	-17.2	49.6	52.5	250	250	0.0	1.0	1.0	0.566	1.0	1.0
251	237	241	0.0	0.55	1.0	47.9	-16.2	49.5	52.2	251	251	0.0	1.0	1.0	0.55	1.0	1.0
252	238	242	0.0	0.533	1.0	47.3	-15.2	49.5	51.8	252	252	0.0	1.0	1.0	0.533	1.0	1.0
253	239	243	0.0	0.516	1.0	46.7	-14.3	49.4	51.5	253	253	0.0	1.0	1.0	0.516	1.0	1.0
254	240	244	0.0	0.5	1.0	46.1	-13.3	49.4	51.1	254	254	0.0	1.0	1.0	0.5	1.0	1.0
255	241	245	0.0	0.483	1.0	45.5	-12.3	49.4	50.9	255	255	0.0	1.0	1.0	0.483	1.0	1.0
256	242	246	0.0	0.466	1.0	44.8	-11.4	49.4	50.7	256	256	0.0	1.0	1.0	0.466	1.0	1.0
258	243	247	0.0	0.45	1.0	44.2	-10.5	49.4	50.5	258	258	0.0	1.0	1.0	0.45	1.0	1.0
259	244	248	0.0	0.433	1.0	43.6	-9.5	49.4	50.3	259	259	0.0	1.0	1.0	0.433	1.0	1.0
260	245	248	0.0	0.416	1.0	42.9	-8.6	49.4	50.1	260	260	0.0	1.0	1.0	0.416	1.0	1.0
261	246	249	0.0	0.4	1.0	42.3	-7.7	49.3	49.9	261	261	0.0	1.0	1.0	0.4	1.0	1.0
262	247	250	0.0	0.383	1.0	41.7	-6.8	49.3	49.7	262	262	0.0	1.0	1.0	0.383	1.0	1.0
263	248	251	0.0	0.366	1.0	41.1	-5.7	49.2	49.6	263	263	0.0	1.0	1.0	0.366	1.0	1.0
264	249	252	0.0	0.35	1.0	40.5	-4.6	49.2	49.4	264	264	0.0	1.0	1.0	0.35	1.0	1.0
265	250	253	0.0	0.333	1.0	39.9	-3.4	49.2	49.3	265	265	0.0	1.0	1.0	0.333	1.0	1.0
267	251	254	0.0	0.316	1.0	39.3	-2.3	49.1	49.1	267	267	0.0	1.0	1.0	0.316	1.0	1.0
268	252	255	0.0	0.3	1.0	38.7	-1.1	49.0	49.0	268	268	0.0	1.0	1.0	0.3	1.0	1.0
269	253	256	0.0	0.283	1.0	38.1	0.0	48.9	48.9	269	269	0.0	1.0	1.0	0.283	1.0	1.0
271	254	257	0.0	0.266	1.0	37.4	1.1	48.7	48.7	271	271	0.0	1.0	1.0	0.266	1.0	1.0
272	255	258	0.0	0.25	1.0	36.8	2.2	48.5	48.6	272	272	0.0	1.0	1.0	0.25	1.0	1.0

I=1131330-L0 QE690-73 LAB*lab, YN=0%, XYZnw=3.9, 4.1, 4.1, 84.7, 89.6, 93.9, LAB*mnw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

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

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization
 F: 3D-linearization QE69/QE69LE30FP.DAT in file (F), page 18/33

nif	HC*File	rgb*Rate	icr*File	hsa*File	rgb*File	LabCM*File	cmyk*sep*Rate	cmyn*sep*Rate	HaM*File	rgb*File	LabCM*File	delta
0/648	R00Y_100_100de	1.0	1.0	0.5	390	0.0	0.0	0.0	375	1.0	0.0	0.0
1/657	R13Y_100_100de	0.125	1.0	0.5	37	1.0	0.0	0.0	389	1.0	0.0	0.0
2/665	R25Y_100_100de	0.25	1.0	0.5	44	1.0	0.0	0.0	389	1.0	0.0	0.0
3/675	R35Y_100_100de	0.375	1.0	0.5	52	1.0	0.0	0.0	390	1.0	0.0	0.0
4/684	R50Y_100_100de	0.5	1.0	0.5	60	1.0	0.0	0.0	390	1.0	0.0	0.0
5/693	R63Y_100_100de	0.625	1.0	0.5	68	1.0	0.0	0.0	390	1.0	0.0	0.0
6/702	R75Y_100_100de	0.75	1.0	0.5	76	1.0	0.0	0.0	390	1.0	0.0	0.0
7/711	R88Y_100_100de	0.875	1.0	0.5	83	1.0	0.0	0.0	390	1.0	0.0	0.0
8/720	Y00G_100_100de	1.0	1.0	0.5	90	1.0	0.0	0.0	390	1.0	0.0	0.0
9/639	Y13G_100_100de	0.875	1.0	0.5	97	1.0	0.0	0.0	390	1.0	0.0	0.0
10/658	Y25G_100_100de	0.75	1.0	0.5	104	1.0	0.0	0.0	390	1.0	0.0	0.0
11/477	Y38G_100_100de	0.625	1.0	0.5	112	1.0	0.0	0.0	390	1.0	0.0	0.0
12/396	Y50G_100_100de	0.5	1.0	0.5	120	1.0	0.0	0.0	390	1.0	0.0	0.0
13/315	Y63G_100_100de	0.375	1.0	0.5	128	1.0	0.0	0.0	390	1.0	0.0	0.0
14/234	Y75G_100_100de	0.25	1.0	0.5	136	1.0	0.0	0.0	390	1.0	0.0	0.0
15/153	Y88G_100_100de	0.125	1.0	0.5	143	1.0	0.0	0.0	390	1.0	0.0	0.0
16/72	G00C_100_100de	0.0	1.0	0.0	150	1.0	0.0	0.0	150	1.0	0.0	0.0
17/73	G13C_100_100de	0.125	1.0	0.0	157	1.0	0.0	0.0	157	1.0	0.0	0.0
18/74	G25C_100_100de	0.25	1.0	0.0	164	1.0	0.0	0.0	157	1.0	0.0	0.0
19/75	G38C_100_100de	0.375	1.0	0.0	172	1.0	0.0	0.0	157	1.0	0.0	0.0
20/76	G50C_100_100de	0.5	1.0	0.0	180	1.0	0.0	0.0	157	1.0	0.0	0.0
21/77	G63C_100_100de	0.625	1.0	0.0	188	1.0	0.0	0.0	157	1.0	0.0	0.0
22/78	G75C_100_100de	0.75	1.0	0.0	196	1.0	0.0	0.0	157	1.0	0.0	0.0
23/79	G88C_100_100de	0.875	1.0	0.0	203	1.0	0.0	0.0	157	1.0	0.0	0.0
24/80	C00B_100_100de	0.0	1.0	1.0	0.0	1.0	0.0	0.0	198	1.0	0.0	0.0
25/71	C13B_100_100de	0.0	1.0	1.0	217	1.0	0.0	0.0	198	1.0	0.0	0.0
26/62	C25B_100_100de	0.0	1.0	1.0	224	1.0	0.0	0.0	204	1.0	0.0	0.0
27/63	C38B_100_100de	0.0	1.0	1.0	232	1.0	0.0	0.0	210	1.0	0.0	0.0
28/44	C50B_100_100de	0.0	1.0	1.0	240	1.0	0.0	0.0	217	1.0	0.0	0.0
29/35	C63B_100_100de	0.0	1.0	1.0	248	1.0	0.0	0.0	222	1.0	0.0	0.0
30/26	C75B_100_100de	0.0	1.0	1.0	256	1.0	0.0	0.0	236	1.0	0.0	0.0
31/17	C88B_100_100de	0.0	1.0	1.0	263	1.0	0.0	0.0	244	1.0	0.0	0.0
32/8	B00M_100_100de	0.0	1.0	1.0	0.0	1.0	0.0	0.0	255	1.0	0.0	0.0
33/89	B13M_100_100de	0.125	1.0	1.0	270	1.0	0.0	0.0	260	1.0	0.0	0.0
34/170	B25M_100_100de	0.25	1.0	1.0	284	1.0	0.0	0.0	266	1.0	0.0	0.0
35/251	B38M_100_100de	0.375	1.0	1.0	292	1.0	0.0	0.0	271	1.0	0.0	0.0
36/332	B50M_100_100de	0.5	1.0	1.0	300	1.0	0.0	0.0	277	1.0	0.0	0.0
37/413	B63M_100_100de	0.625	1.0	1.0	308	1.0	0.0	0.0	283	1.0	0.0	0.0
38/494	B75M_100_100de	0.75	1.0	1.0	316	1.0	0.0	0.0	289	1.0	0.0	0.0
39/575	B88M_100_100de	0.875	1.0	1.0	323	1.0	0.0	0.0	297	1.0	0.0	0.0
40/656	M00R_100_100de	1.0	0.0	1.0	0.0	1.0	0.0	0.0	305	1.0	0.0	0.0
41/655	M13R_100_100de	0.875	1.0	0.0	330	1.0	0.0	0.0	312	1.0	0.0	0.0
42/654	M25R_100_100de	0.75	1.0	0.0	337	1.0	0.0	0.0	320	1.0	0.0	0.0
43/653	M38R_100_100de	0.625	1.0	0.0	344	1.0	0.0	0.0	331	1.0	0.0	0.0
44/652	M50R_100_100de	0.5	1.0	0.0	352	1.0	0.0	0.0	339	1.0	0.0	0.0
45/651	M63R_100_100de	0.375	1.0	0.0	360	1.0	0.0	0.0	350	1.0	0.0	0.0
46/650	M75R_100_100de	0.25	1.0	0.0	378	1.0	0.0	0.0	359	1.0	0.0	0.0
47/649	M88R_100_100de	0.125	1.0	0.0	383	1.0	0.0	0.0	367	1.0	0.0	0.0
48/648	R00Y_100_100de	1.0	0.0	0.0	390	1.0	0.0	0.0	375	1.0	0.0	0.0
49/0	N0Y_000de	0.0	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
50/91	N13Y_000de	0.125	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
51/182	N25Y_000de	0.25	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
52/273	N38Y_000de	0.375	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
53/564	N50Y_000de	0.5	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
54/455	N63Y_000de	0.625	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
55/546	N75Y_000de	0.75	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
56/637	N88Y_000de	0.875	0.0	0.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0
57/728	N0Y_000de	1.0	1.0	1.0	360	1.0	0.0	0.0	360	1.0	1.0	0.0

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

QE690-7N; Page 18/33-F

TUB-test chart QE69; hue code: H*_e=Y75G_e
 colors and differences, ΔE^*

I-1131730-F0 I-1131730-F0

Table with 18 columns: n, HHC*File, rgb*File, icr*File, Hsa*File, rgpb*File, LabC*File, cmyk*sep, cmyk*File, LabC*File, Hsa*File, rgpb*File, LabC*File, delta, and 18 unlabeled columns. It contains a large grid of numerical data for color calibration.

Mean color difference of this page:

input: rgb/cmyk -> rgbdelta output: 3D-linearization to cmyk*delta

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, AE*²

QE690-TN; Page 22/33-F

Table with 32 columns: n, HHC*File, rgb*File, icr*File, hsa*File, rgb*File, LabCIE*File, LabCIE*File, cmyk*sep, cmyk*sep, LabCIE*File, hsa*File, rgb*File, LabCIE*File, LabCIE*File, delta. Rows 243-323.

Mean color difference of this page: delta

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

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, AE*^{*}

I-113220-F0

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 24/33

Table with 40 columns: n, H#C*File, rgb*File, iet*File, H#s*File, rgb*File, LabCM*File, cmyk*sep, File, rgb*File, LabCM*File, H#m*File, LabCM*File, LabCM*File, delta. Rows include color patches like 324 R00Y_050_050, 325 R00Y_050_050, etc.

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

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 26/33

Table with 20 columns: n, HHC*File, rpb_Rate, icr_File, Hsa_Rate, rpb*File, LabCM*File, cmyp*sep_Rate, cmyp*File, rpb*File, Hsa*File, LabCM*File, delta. Rows include color names like R00Y, R35Y, R50Y, etc.

Mean color difference of this page: delta

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

QE690-7N; Page 26/33-F

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, AE*^{*}

I-1132530-F0

http://130.149.60.45/~farbmatrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 27/33

Table with 15 columns: n, HHC*File, rgb*File, iet*File, Hsa*File, rgb*File, LabCM*File, cmyk*sep, cmyk*File, LabCM*File, Hsa*File, rgb*File, LabCM*File, LabCM*File, delta. Rows contain color calibration data for various printer files.

Registration marks and technical notes: 'input: rgb/cmyk -> rgbdelta', 'output: 3D-linearization to cmyk*delta', 'Mean color difference of this page: 0.093', 'QE690-7N; Page 27/33-F', 'TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, AE*'

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 28/33

Table with 15 columns: n, HHC*File, rpb*File, icr*File, rha*File, rga*File, LabCM*File, LabCH*File, cmyk*sep, rha*File, rga*File, LabCM*File, LabCH*File, delta. Rows include color names like R00Y, R00M, R00C, etc.

input: rgb/cmyk -> rgbdelta output: 3D-linearization to cmyk*delta

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, AE*
Mean color difference of this page: delta

http://130.149.60.45/~farbmetrik/QE69/QE69L0FP.PDF /.PS; 3D-linearization F: 3D-linearization QE69/QE69L30FP.DAT in file (F), page 29/33

Table with 15 columns: n, H#C*File, rpb*File, iet*File, hsa*File, rpb*File, LabC*File, cmyk*sep, rpb*File, hsa*File, LabC*File, delta, and 15 columns of numerical data. The table lists various color patches and their corresponding colorimetric values.

Mean color difference of this page: delta

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

TUB-test chart QE69; hue code: H*e=Y75Ge
colors and differences, ΔE*

QE690-7N; Page 29/33-F

I-1132830-F0

Table with 16 columns: n, HHC*File, HHC*File, rgb*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File, LabC*File. Rows include color patches like NV, BOOR, YOCG, etc.

Mean color difference of this page: delta

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, ΔE*^a* input: rgb/cmyk -> rgbde output: 3D-linearization to cmyk*de

Table with columns: n, H#C*F, rpb*Rate, iet*Rate, H#s*Rate, rpb*F, LabC*F, LabC*F*Rate, cmyp*sep*Rate, H#s*F, H#m*de, rpb*F*de, LabC*F*de, delta. Rows include various color patches like 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971.

Mean color difference of this page: delta

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

TUB-test chart QE69; hue code: H*e=Y75Ge colors and differences, ΔE*

Table with 14 columns: n, HC*File, rpb*File, iet*File, Hsa*File, rpb*File, LabC*File, cmyk*sep, rpb*File, Hsa*File, rpb*File, LabC*File, LabC*File, delta. Rows 972-1052.

