

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

$H^*_- = R75Y_-$

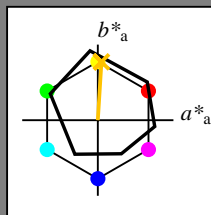
Data for any device (d) or elementary (e) colour:

$HIC^*_-$

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 <sub>-,Ma</sub>	47.9	65.3	50.5	82.6	37
Y <sub>-,Ma</sub>	90.3	-10.2	91.7	92.3	96
G <sub>-,Ma</sub>	50.9	-62.8	34.9	71.9	150
C <sub>-,Ma</sub>	58.6	-30.3	-45.0	54.2	236
B <sub>-,Ma</sub>	25.7	31.0	-44.4	54.2	305
M <sub>-,Ma</sub>	48.1	75.2	-8.3	75.7	353
N <sub>-,Ma</sub>	18.0	0.0	0.0	0.0	0
W <sub>-,Ma</sub>	95.4	0.0	0.0	0.0	0
R <sub>-,CIE</sub>	39.9	58.7	27.9	65.0	25
Y <sub>-,CIE</sub>	81.2	-2.8	71.5	71.6	92
G <sub>-,CIE</sub>	52.2	-42.4	13.6	44.5	162
B <sub>-,CIE</sub>	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

$u^*_{rel} = 92$

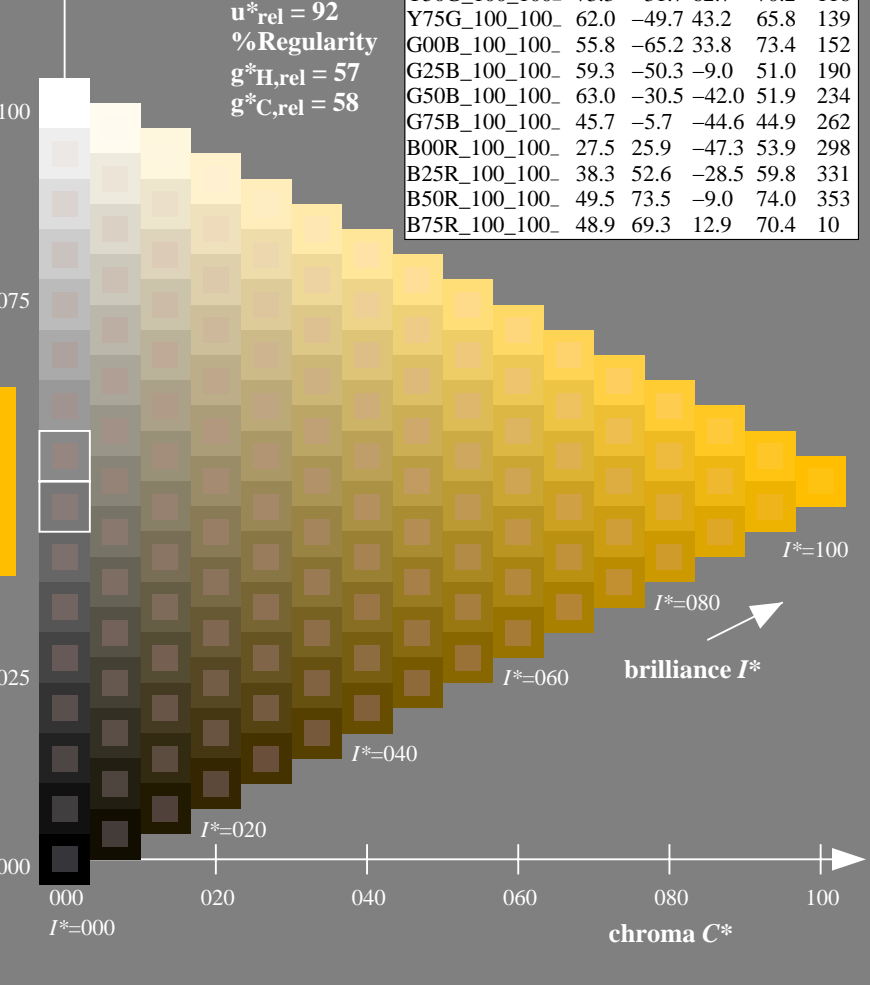
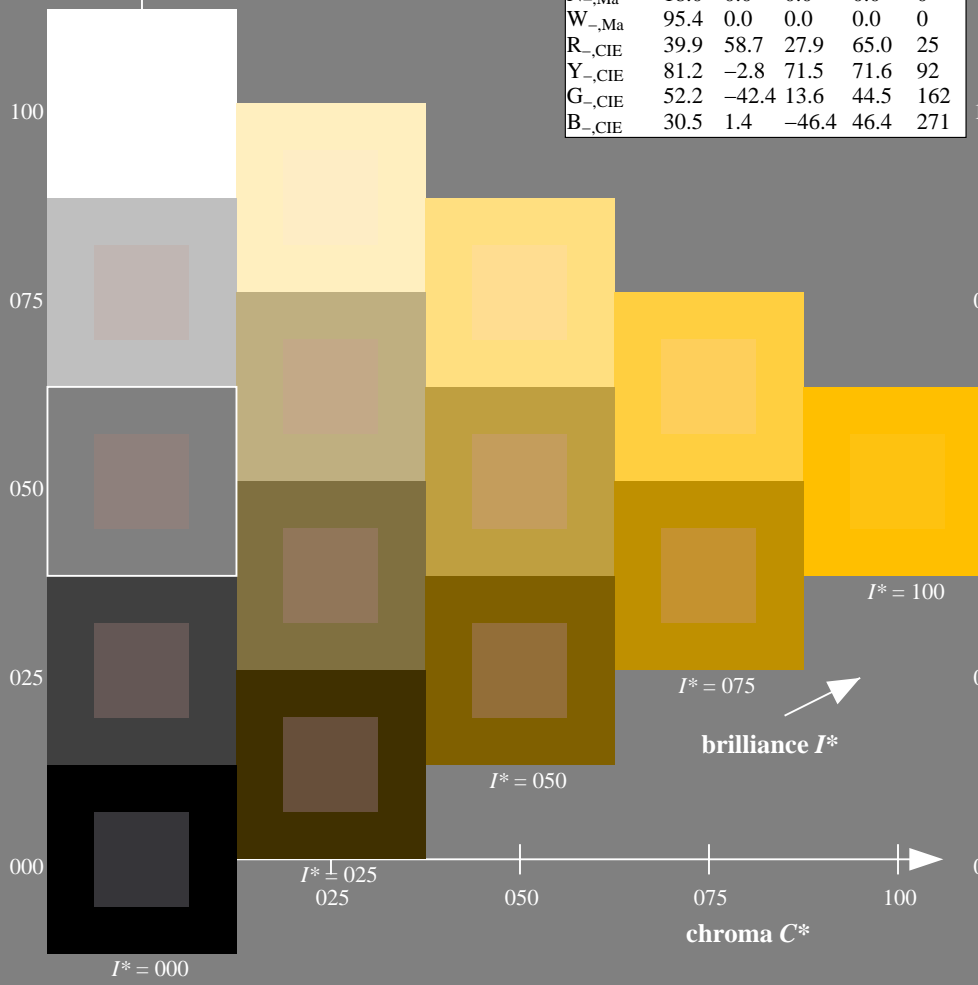
%Regularity

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

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

**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



see similar files: <http://130.149.60.45/~farbmetrik/QE27/QE27.HTM>  
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-QE27/QE27L0NP.PDF /.PS  
 application for measurement of offset print output

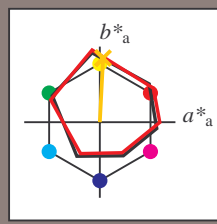
TUB material: code=rh4ta

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue  $h_{ab,a,rel} = h_{ab}/360 = 87/360 = 0.24$

$H^*_d = R75Y_d$

Data for any device (d) or elementary (e) colour:  
 $HIC^*_d$

hue text for the colours of this page:  
 $H^*_d = R75Y_d$   
triangle lightness  $T^*$



ORS20a; adapted (a) CIELAB data

name	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R <sub>d, Ma</sub>	45.4	70.9	44.8	83.9	32
Y <sub>d, Ma</sub>	87.8	-10.2	95.4	96.0	96
G <sub>d, Ma</sub>	50.0	-65.0	29.6	71.4	155
C <sub>d, Ma</sub>	56.8	-25.5	-41.5	48.7	238
B <sub>d, Ma</sub>	25.0	29.5	-40.4	50.0	306
M <sub>d, Ma</sub>	46.1	79.3	-0.2	79.3	359
N <sub>d, Ma</sub>	24.3	0.0	0.0	0.0	0
W <sub>d, Ma</sub>	95.6	0.0	0.0	0.0	0
R <sub>d, CIE</sub>	39.9	58.7	27.9	65.0	25
Y <sub>d, CIE</sub>	81.2	-2.8	71.5	71.6	92
G <sub>d, CIE</sub>	52.2	-42.4	13.6	44.5	162
B <sub>d, CIE</sub>	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{d, Ma}: 78\ 4\ 84\ 84\ 87$

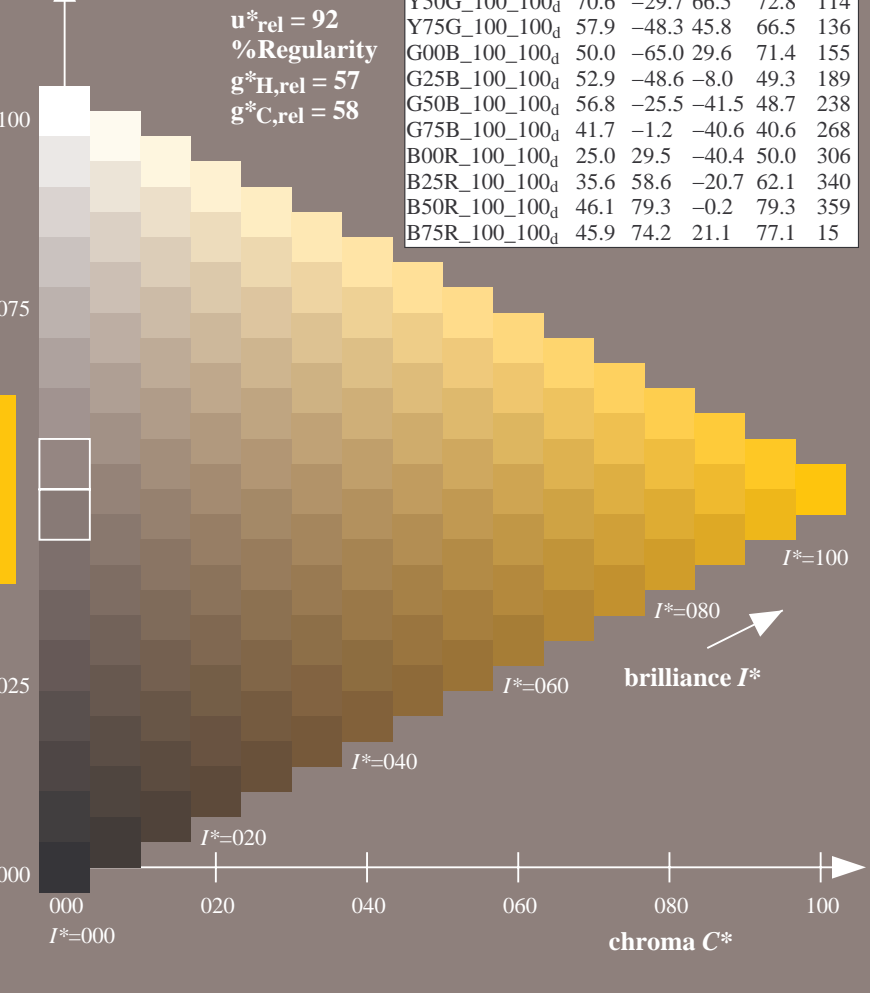
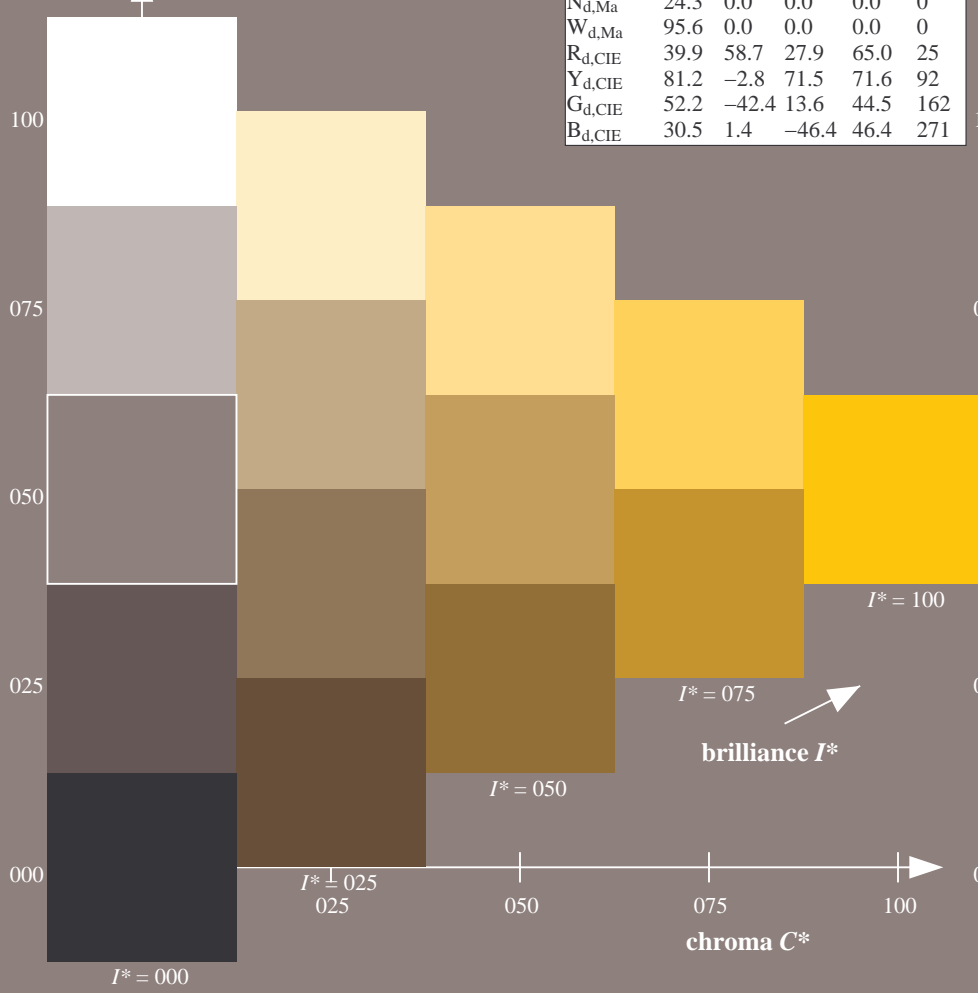
$HIC^*_{d, Ma}: R75Y\_100\_100_d$

$rgbic^*_{d, Ma}: 1.0\ 0.76\ 0.0\ 1.0\ 1.0$

triangle lightness  $T^*$

ORS20a; adapted (a) CIELAB data

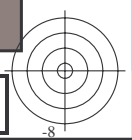
$H^*_d$	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 <sub>d</sub>	45.4	70.9	44.8	83.9	32
R25Y_100_100 <sub>d</sub>	53.0	53.4	54.8	76.5	45
R50Y_100_100 <sub>d</sub>	64.9	28.9	68.6	74.5	67
R75Y_100_100 <sub>d</sub>	78.6	4.3	84.7	84.8	87
Y00G_100_100 <sub>d</sub>	87.8	-10.2	95.4	96.0	96
Y25G_100_100 <sub>d</sub>	81.2	-17.0	84.3	86.0	101
Y50G_100_100 <sub>d</sub>	70.6	-29.7	66.5	72.8	114
Y75G_100_100 <sub>d</sub>	57.9	-48.3	45.8	66.5	136
G00B_100_100 <sub>d</sub>	50.0	-65.0	29.6	71.4	155
G25B_100_100 <sub>d</sub>	52.9	-48.6	-8.0	49.3	189
G50B_100_100 <sub>d</sub>	56.8	-25.5	-41.5	48.7	238
G75B_100_100 <sub>d</sub>	41.7	-1.2	-40.6	40.6	268
B00R_100_100 <sub>d</sub>	25.0	29.5	-40.4	50.0	306
B25R_100_100 <sub>d</sub>	35.6	58.6	-20.7	62.1	340
B50R_100_100 <sub>d</sub>	46.1	79.3	-0.2	79.3	359
B75R_100_100 <sub>d</sub>	45.9	74.2	21.1	77.1	15



%Gamut  
 $u^*_{rel} = 92$   
%Regularity  
 $g^*_H, rel = 57$   
 $g^*_C, rel = 58$

see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20130201-QE27/QE27L0NP.PDF /.PS  
application for measurement of offset print output, separation cmy0 (CMY0)  
TUB material: code=rh4ta

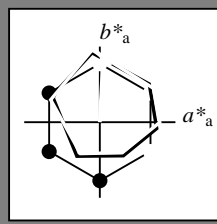


Input and Output: Offset Reflective System ORS18a for relative CIELAB hue  $h_{ab,a,rel} = h_{ab}/360 = 87/360 = 0.24$

$H^*_d = R75Y_d$

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

$HIC^*_d$   
hue text for the colours of this page:  
 $H^*_d = R75Y_d$   
triangle lightness  $T^*$



**ORS20a; adapted (a) CIELAB data**

name	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R <sub>d, Ma</sub>	45.4	70.9	44.8	83.9	32
Y <sub>d, Ma</sub>	87.8	-10.2	95.4	96.0	96
G <sub>d, Ma</sub>	50.0	-65.0	29.6	71.4	155
C <sub>d, Ma</sub>	56.8	-25.5	-41.5	48.7	238
B <sub>d, Ma</sub>	25.0	29.5	-40.4	50.0	306
M <sub>d, Ma</sub>	46.1	79.3	-0.2	79.3	359
N <sub>d, Ma</sub>	24.3	0.0	0.0	0.0	0
W <sub>d, Ma</sub>	95.6	0.0	0.0	0.0	0
R <sub>d, CIE</sub>	39.9	58.7	27.9	65.0	25
Y <sub>d, CIE</sub>	81.2	-2.8	71.5	71.6	92
G <sub>d, CIE</sub>	52.2	-42.4	13.6	44.5	162
B <sub>d, CIE</sub>	30.5	1.4	-46.4	46.4	271

Data for maximum colour (Ma):

$LabCh^*_{d, Ma}: 78\ 4\ 84\ 84\ 87$

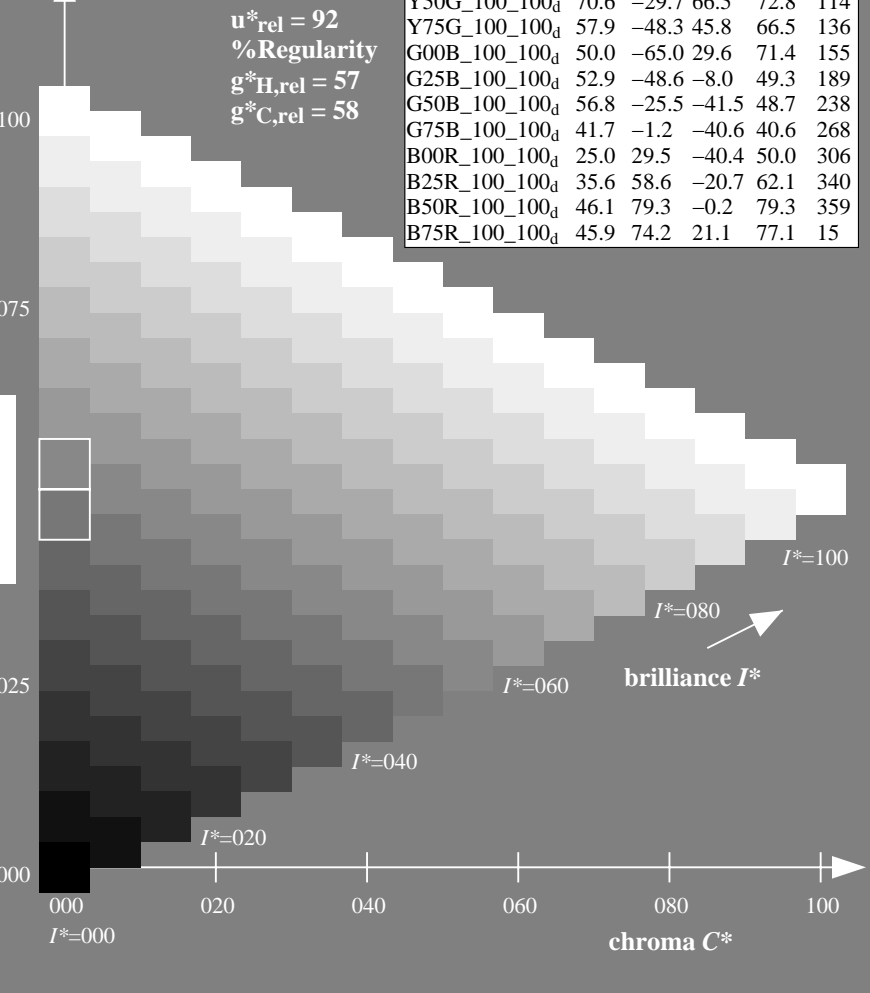
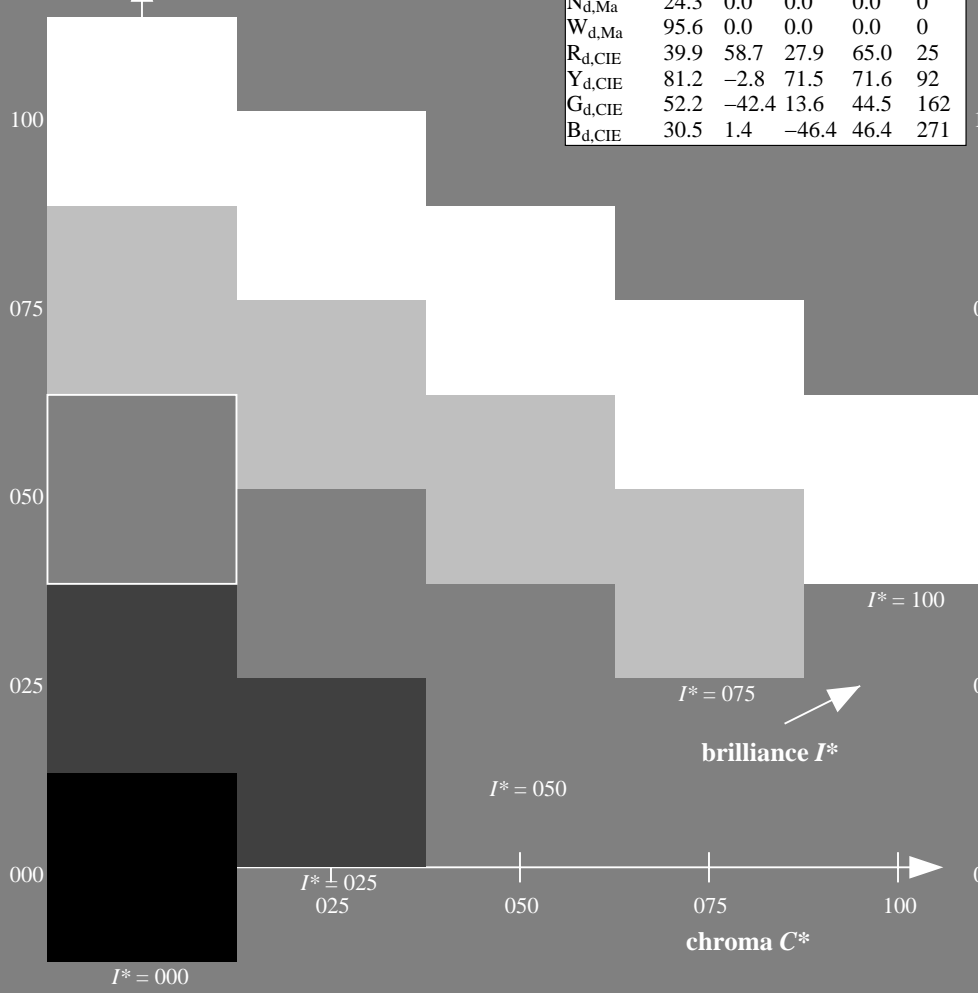
$HIC^*_{d, Ma}: R75Y\_100\_100_d$

$rgbic^*_{d, Ma}: 1.0\ 0.76\ 0.0\ 1.0\ 1.0$

triangle lightness  $T^*$

**ORS20a; adapted (a) CIELAB data**

$H^*_d$	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 <sub>d</sub>	45.4	70.9	44.8	83.9	32
R25Y_100_100 <sub>d</sub>	53.0	53.4	54.8	76.5	45
R50Y_100_100 <sub>d</sub>	64.9	28.9	68.6	74.5	67
R75Y_100_100 <sub>d</sub>	78.6	4.3	84.7	84.8	87
Y00G_100_100 <sub>d</sub>	87.8	-10.2	95.4	96.0	96
Y25G_100_100 <sub>d</sub>	81.2	-17.0	84.3	86.0	101
Y50G_100_100 <sub>d</sub>	70.6	-29.7	66.5	72.8	114
Y75G_100_100 <sub>d</sub>	57.9	-48.3	45.8	66.5	136
G00B_100_100 <sub>d</sub>	50.0	-65.0	29.6	71.4	155
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B00R_100_100 <sub>d</sub>	25.0	29.5	-40.4	50.0	306
B25R_100_100 <sub>d</sub>	35.6	58.6	-20.7	62.1	340
B50R_100_100 <sub>d</sub>	46.1	79.3	-0.2	79.3	359
B75R_100_100 <sub>d</sub>	45.9	74.2	21.1	77.1	15



see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20130201-QE27/QE27L0NP.PDF /.PS  
application for measurement of offset print output, separation cmy0 (CMY0)  
TUB material: code=rh4ta

1-003231-L0 QE270-70

TUB-test chart QE27; hue code:  $H^*_d=R75Y_d$   
Test chart according to DIN 33872, 3D=0, de=0, cmy0

input:  $rgb/cmyk \rightarrow rgb_d$   
output: transfer to  $cmy0_d$

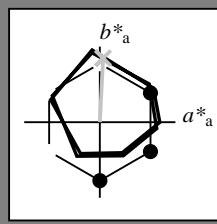
1-003231-F0

Input and Output: Offset Reflective System ORS18a for relative CIELAB hue  $h_{ab,a,rel} = h_{ab}/360 = 87/360 = 0.24$

$H^*_d = R75Y_d$

Data for any device (d) or elementary (e) colour:  
 $HIC^*_d$

hue text for the colours of this page:  
 $H^*_d = R75Y_d$   
triangle lightness  $T^*$



**ORS20a; adapted (a) CIELAB data**

name	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R <sub>d, Ma</sub>	45.4	70.9	44.8	83.9	32
Y <sub>d, Ma</sub>	87.8	-10.2	95.4	96.0	96
G <sub>d, Ma</sub>	50.0	-65.0	29.6	71.4	155
C <sub>d, Ma</sub>	56.8	-25.5	-41.5	48.7	238
B <sub>d, Ma</sub>	25.0	29.5	-40.4	50.0	306
M <sub>d, Ma</sub>	46.1	79.3	-0.2	79.3	359
N <sub>d, Ma</sub>	24.3	0.0	0.0	0.0	0
W <sub>d, Ma</sub>	95.6	0.0	0.0	0.0	0
R <sub>d, CIE</sub>	39.9	58.7	27.9	65.0	25
Y <sub>d, CIE</sub>	81.2	-2.8	71.5	71.6	92
G <sub>d, CIE</sub>	52.2	-42.4	13.6	44.5	162
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Data for maximum colour (Ma):

$LabCh^*_d, Ma: 78\ 4\ 84\ 84\ 87$

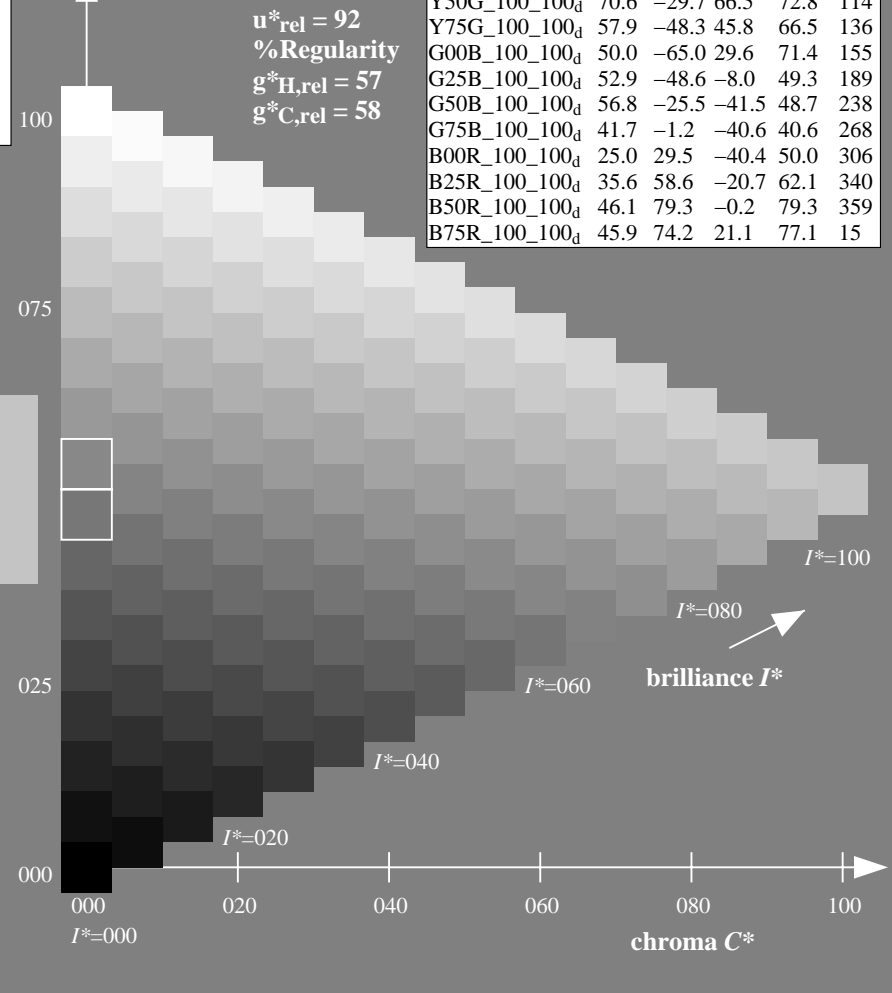
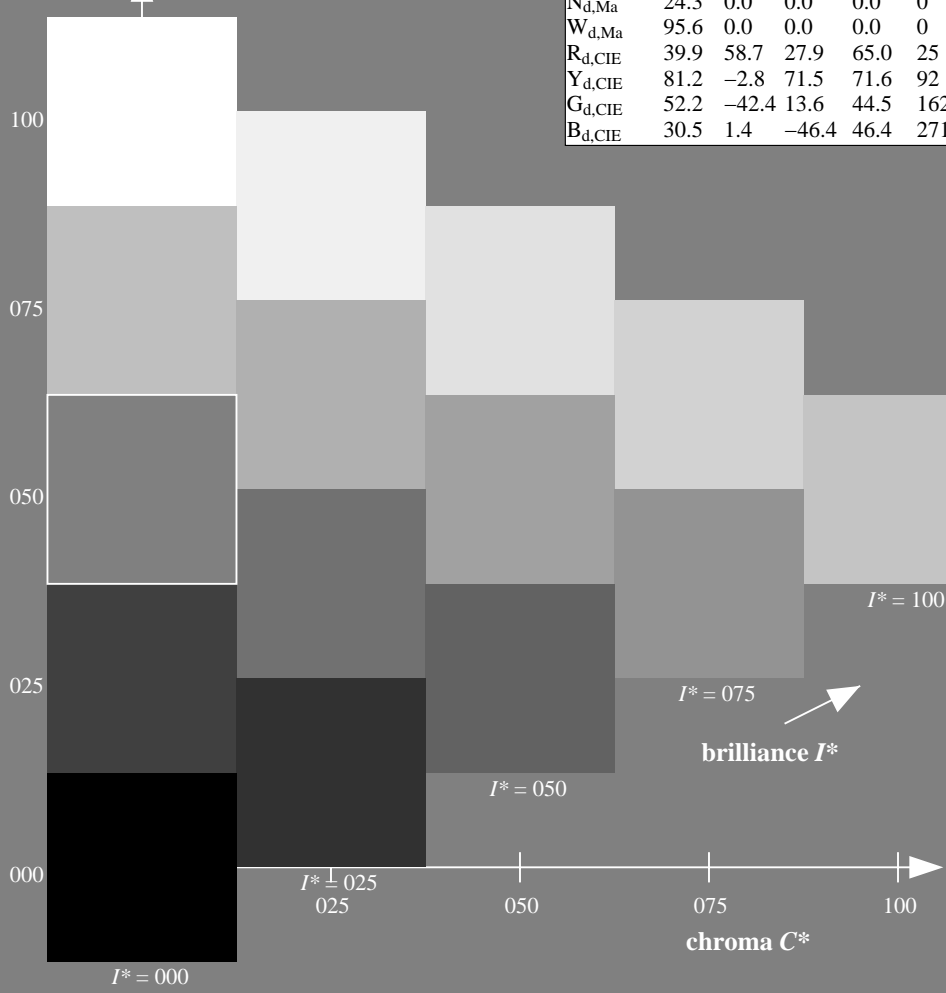
$HIC^*_d, Ma: R75Y\_100\_100_d$

$rgbic^*_d, Ma: 1.0\ 0.76\ 0.0\ 1.0\ 1.0$

triangle lightness  $T^*$

**ORS20a; adapted (a) CIELAB data**

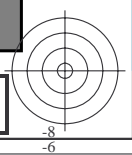
$H^*_d$	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 <sub>d</sub>	45.4	70.9	44.8	83.9	32
R25Y_100_100 <sub>d</sub>	53.0	53.4	54.8	76.5	45
R50Y_100_100 <sub>d</sub>	64.9	28.9	68.6	74.5	67
R75Y_100_100 <sub>d</sub>	78.6	4.3	84.7	84.8	87
Y00G_100_100 <sub>d</sub>	87.8	-10.2	95.4	96.0	96
Y25G_100_100 <sub>d</sub>	81.2	-17.0	84.3	86.0	101
Y50G_100_100 <sub>d</sub>	70.6	-29.7	66.5	72.8	114
Y75G_100_100 <sub>d</sub>	57.9	-48.3	45.8	66.5	136
G00B_100_100 <sub>d</sub>	50.0	-65.0	29.6	71.4	155
G25B_100_100 <sub>d</sub>	52.9	-48.6	-8.0	49.3	189
G50B_100_100 <sub>d</sub>	56.8	-25.5	-41.5	48.7	238
G75B_100_100 <sub>d</sub>	41.7	-1.2	-40.6	40.6	268
B00R_100_100 <sub>d</sub>	25.0	29.5	-40.4	50.0	306
B25R_100_100 <sub>d</sub>	35.6	58.6	-20.7	62.1	340
B50R_100_100 <sub>d</sub>	46.1	79.3	-0.2	79.3	359
B75R_100_100 <sub>d</sub>	45.9	74.2	21.1	77.1	15



%Gamut  
 $u^*_{rel} = 92$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 58$

see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20130201-QE27/QE27L0NP.PDF /.PS  
application for measurement of offset print output, separation cmy0 (CMY0)  
TUB material: code=rh4ta

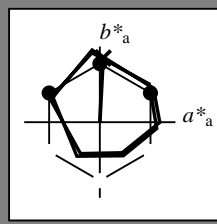


Input and Output: Offset Reflective System ORS18a for relative CIELAB hue  $h_{ab,a,rel} = h_{ab}/360 = 87/360 = 0.24$

$H^*_d = R75Y_d$

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

$HIC^*_d$   
hue text for the colours of this page:  
 $H^*_d = R75Y_d$   
triangle lightness  $T^*$



ORS20a; adapted (a) CIELAB data

name	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R <sub>d, Ma</sub>	45.4	70.9	44.8	83.9
Y <sub>d, Ma</sub>	87.8	-10.2	95.4	96.0
G <sub>d, Ma</sub>	50.0	-65.0	29.6	71.4
C <sub>d, Ma</sub>	56.8	-25.5	-41.5	48.7
B <sub>d, Ma</sub>	25.0	29.5	-40.4	50.0
M <sub>d, Ma</sub>	46.1	79.3	-0.2	79.3
N <sub>d, Ma</sub>	24.3	0.0	0.0	0.0
W <sub>d, Ma</sub>	95.6	0.0	0.0	0.0
R <sub>d, CIE</sub>	39.9	58.7	27.9	65.0
Y <sub>d, CIE</sub>	81.2	-2.8	71.5	71.6
G <sub>d, CIE</sub>	52.2	-42.4	13.6	44.5
B <sub>d, CIE</sub>	30.5	1.4	-46.4	46.4

Data for maximum colour (Ma):

$LabCh^*_{d, Ma}: 78\ 4\ 84\ 84\ 87$

$HIC^*_{d, Ma}: R75Y\_100\_100_d$

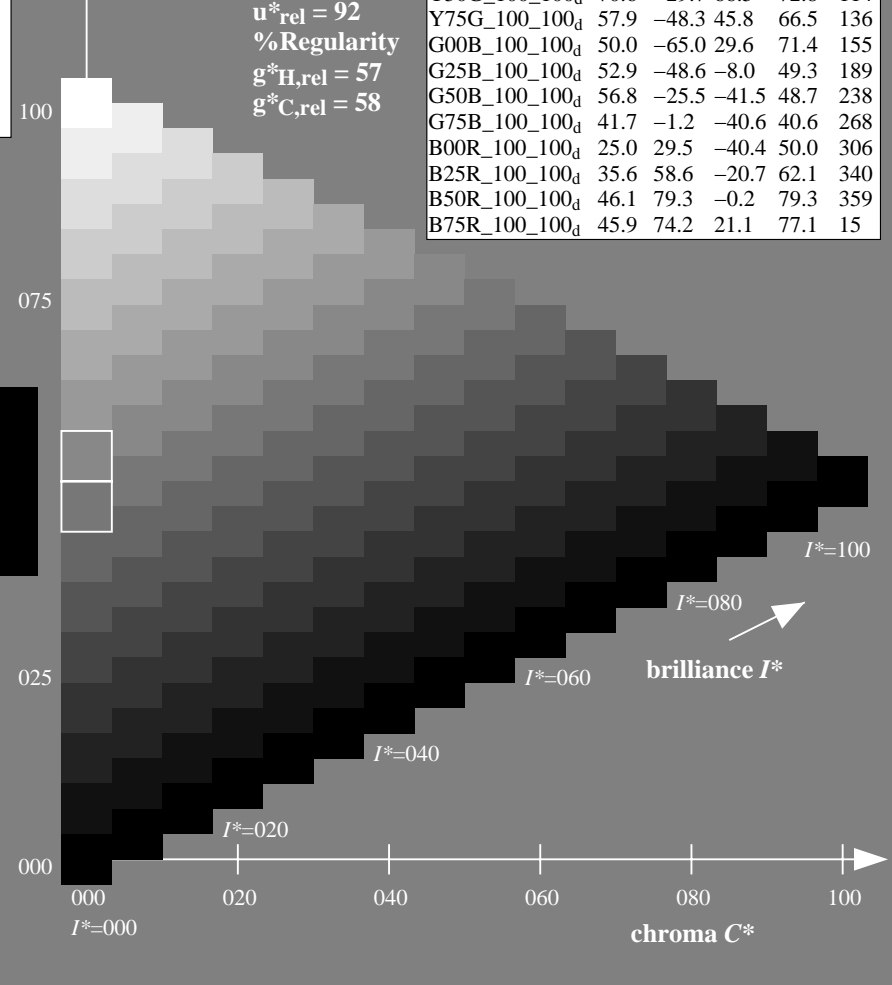
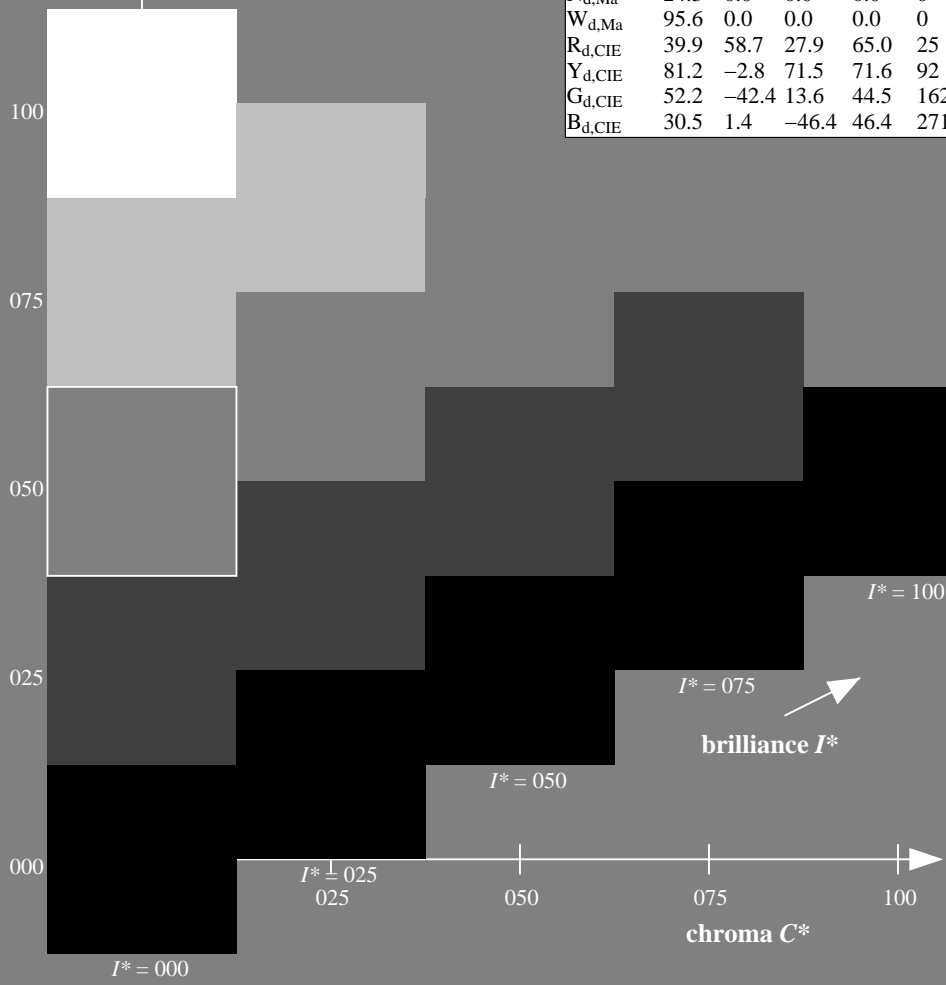
$rgbic^*_{d, Ma}: 1.0\ 0.76\ 0.0\ 1.0\ 1.0$

triangle lightness  $T^*$

ORS20a; adapted (a) CIELAB data

$H^*_d$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 <sub>d</sub>	45.4	70.9	44.8	83.9
R25Y_100_100 <sub>d</sub>	53.0	53.4	54.8	76.5
R50Y_100_100 <sub>d</sub>	64.9	28.9	68.6	74.5
R75Y_100_100 <sub>d</sub>	78.6	4.3	84.7	84.8
Y00G_100_100 <sub>d</sub>	87.8	-10.2	95.4	96.0
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G00B_100_100 <sub>d</sub>	50.0	-65.0	29.6	71.4
G25B_100_100 <sub>d</sub>	52.9	-48.6	-8.0	49.3
G50B_100_100 <sub>d</sub>	56.8	-25.5	-41.5	48.7
G75B_100_100 <sub>d</sub>	41.7	-1.2	-40.6	40.6
B00R_100_100 <sub>d</sub>	25.0	29.5	-40.4	50.0
B25R_100_100 <sub>d</sub>	35.6	58.6	-20.7	62.1
B50R_100_100 <sub>d</sub>	46.1	79.3	-0.2	79.3
B75R_100_100 <sub>d</sub>	45.9	74.2	21.1	77.1

%Gamut  
 $u^*_{rel} = 92$   
%Regularity  
 $g^*_{H, rel} = 57$   
 $g^*_{C, rel} = 58$



see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

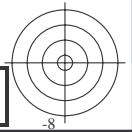
TUB registration: 20130201-QE27/QE27L0NP.PDF /.PS  
application for measurement of offset print output, separation cmy0 (CMY0)  
TUB material: code=rh4ta

1-003431-L0 QE270-70

TUB-test chart QE27; hue code:  $H^*_d=R75Y_d$   
Test chart according to DIN 33872, 3D=0, de=0, cmy0

input:  $rgb/cmyk \rightarrow rgb_d$   
output: transfer to  $cmy0_d$

1-003431-F0



1-003531-L0 QE270-70

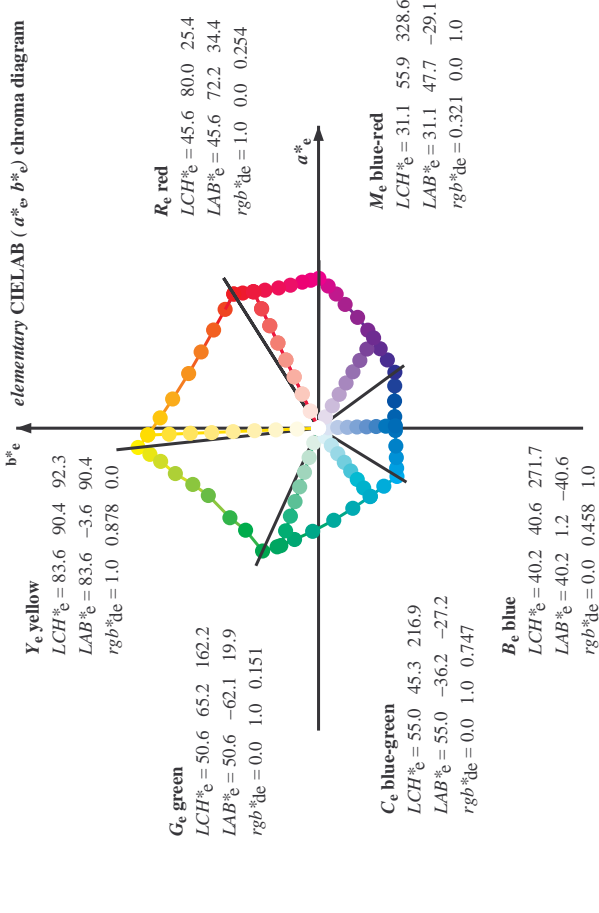
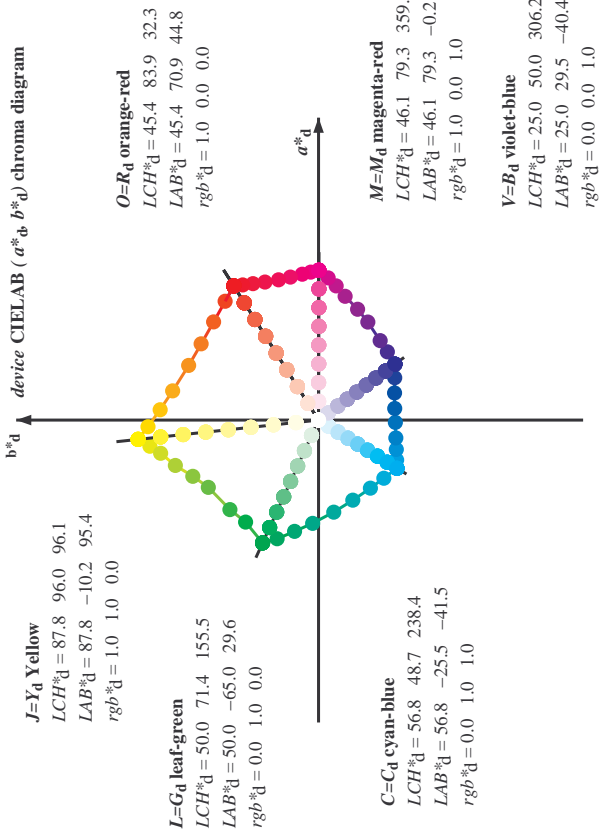
TUB-test chart QE27; hue code:  $H^*_d=R75Y_d$   
Test chart according to DIN 33872, 3D=0, de=0, cmy0

input:  $rgb/cmyk \rightarrow rgb_d$   
output: transfer to  $cmy0_d$

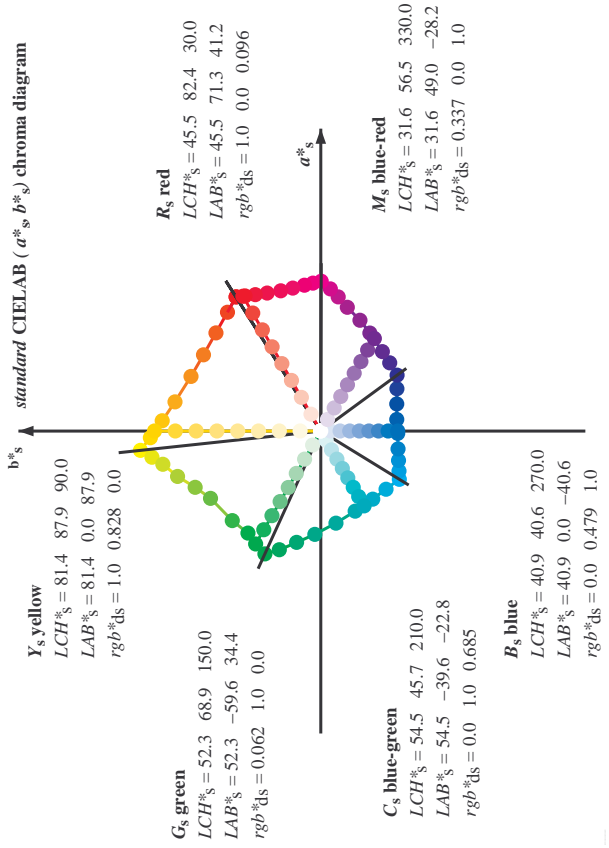




Data of Maximum color, M in colorimetric system Offset standard print; separation cmy0\*; D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM;  $h_{abs,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ; Six hue angles of the device colours RYGBM;  $h_{abs,d} = 32.3, 96.1, 155.5,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



standard CIELAB (a\*, b\*) chroma diagram



Notes to the CIELAB chroma diagrams (a\*, b\*, b\*) (a\*, b\*, b\*) (a\*, b\*, b\*)

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

$$h_{abs} = \arctan \left[ \frac{r^*_s \cos(30) + g^*_s \sin(150)}{r^*_s \sin(30) + g^*_s \sin(150)} \right] + b^*_s \sin(270) \quad (1)$$
- For the 48 or 360 equally spaced standard hue angles  $h_{abs}$  of the colours of maximum chroma use the seven hue angles of the 60 degree colours  $s$ :  $h_{abs} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$  ( $i=0,6$ ) 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  $h_{abs}$  of the colours of maximum chroma use the seven hue angles of the elementary colours  $e$ :  $h_{abs} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$  ( $i=0,6$ ) and the equations for a 48 and 360 step elementary hue circle:  

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

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





http://130.149.60.45/~farbmetrik/QE27/QE27L0NP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 9/33

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 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 = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8; 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* <sub>d</sub>	rgb* <sub>s</sub>	rgb* <sub>e</sub>	LAB* <sub>d</sub>	LAB* <sub>s</sub>	LAB* <sub>e</sub>	rgb* <sub>d</sub> - rgb* <sub>s</sub>	rgb* <sub>s</sub> - rgb* <sub>e</sub>	rgb* <sub>d</sub> - rgb* <sub>e</sub>	
32.3	30.0	25.4	1.0	0.0	0.0	45.4	70.9	44.8	83.9	32.3	32.3	
38.1	37.5	33.8	1.0	0.125	0.0	48.9	62.8	49.4	79.9	38.1	38.1	
46.8	45.0	42.1	1.0	0.25	0.0	53.6	51.9	55.5	76.0	46.8	46.8	
56.9	52.5	50.5	1.0	0.375	0.0	59.1	40.3	62.0	74.0	56.9	56.9	
67.1	60.0	58.8	1.0	0.5	0.0	64.9	28.9	68.6	74.5	67.1	67.1	
78.6	67.5	67.2	1.0	0.625	0.0	72.1	15.4	77.1	78.6	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	86.2	
92.1	82.5	83.9	1.0	0.875	0.0	83.4	-3.4	90.2	90.2	92.1	92.1	
96.1	90.0	92.3	1.0	1.0	0.0	87.8	-10.2	95.4	96.0	96.1	96.1	
98.8	97.5	101.0	1.0	0.875	1.0	84.3	-13.9	89.2	90.3	98.8	98.8	
101.8	105.0	109.7	1.0	0.75	1.0	80.7	-17.5	83.5	85.3	101.8	101.8	
107.6	112.5	118.5	1.0	0.625	1.0	75.3	-24.0	75.7	79.4	107.6	107.6	
114.0	120.0	127.2	1.0	0.5	1.0	70.6	-29.7	66.5	72.8	114.0	114.0	
121.4	127.5	136.0	1.0	0.375	1.0	65.7	-35.6	58.3	68.3	121.4	121.4	
135.3	135.0	144.7	1.0	0.25	1.0	58.4	-47.3	46.8	66.6	135.3	135.3	
144.4	142.5	153.4	1.0	0.125	1.0	54.7	-53.9	38.5	66.3	144.4	144.4	
155.5	150.0	162.2	1.0	0.0	1.0	50.0	-65.0	29.6	71.4	155.5	155.5	
160.7	157.5	169.0	1.0	0.125	0.0	51.2	-62.8	21.9	66.5	160.7	160.7	
167.7	165.0	175.9	1.0	0.25	0.5	51.2	-58.9	12.7	60.3	167.7	167.7	
176.7	172.5	182.7	1.0	0.375	0.5	54.5	-54.5	3.1	54.6	176.7	176.7	
189.3	180.0	189.6	1.0	0.5	0.5	52.9	-48.6	-8.0	49.3	189.3	189.3	
203.2	187.5	196.4	1.0	0.625	0.5	50.0	-42.3	-18.1	46.1	203.2	203.2	
217.2	195.0	203.2	1.0	0.75	0.5	46.0	-36.0	-27.4	45.3	217.2	217.2	
228.3	202.5	210.1	1.0	0.875	0.5	41.7	-30.7	-34.5	46.2	228.3	228.3	
238.4	210.0	216.9	1.0	1.0	0.5	36.8	-25.5	-41.5	48.7	238.4	238.4	
242.9	217.5	223.8	1.0	0.875	1.0	54.1	-21.1	-41.3	46.4	242.9	242.9	
249.3	225.0	230.6	1.0	0.75	1.0	50.4	-15.5	-41.1	43.9	249.3	249.3	
256.9	232.5	237.5	1.0	0.625	1.0	46.5	-9.4	-40.8	41.9	256.9	256.9	
268.2	240.0	244.3	1.0	0.5	1.0	41.7	-1.2	-40.6	40.6	268.2	268.2	
278.6	247.5	251.2	1.0	0.375	1.0	37.3	6.1	-40.2	40.7	278.6	278.6	
289.6	255.0	258.0	1.0	0.25	1.0	32.8	14.3	-40.2	42.7	289.6	289.6	
299.0	262.5	264.8	1.0	0.125	1.0	28.6	22.4	-40.2	46.1	299.0	299.0	
306.2	270.0	271.7	1.0	0.0	1.0	25.0	29.5	-40.4	50.0	306.2	306.2	
314.7	277.5	278.8	1.0	0.125	0.0	27.9	36.0	-36.4	51.2	314.7	314.7	
322.1	285.0	285.9	1.0	0.25	0.0	28.8	41.9	-32.5	53.1	322.1	322.1	
333.3	292.5	293.0	1.0	0.375	0.0	32.7	51.8	-26.0	58.0	333.3	333.3	
340.5	300.0	300.1	1.0	0.5	0.0	35.6	58.6	-20.7	62.1	340.5	340.5	
347.9	307.5	307.2	1.0	0.625	0.0	38.1	65.4	-14.0	66.9	347.9	347.9	
352.5	315.0	314.3	1.0	0.75	0.0	41.8	71.0	-9.2	71.6	352.5	352.5	
356.1	322.5	321.4	1.0	0.875	0.0	44.2	75.2	-5.0	75.3	356.1	356.1	
359.8	330.0	328.6	1.0	1.0	0.0	46.1	79.3	-0.2	79.3	359.8	359.8	
363.0	337.5	335.7	1.0	0.875	1.0	45.9	45.9	78.2	4.1	78.3	363.0	363.0
366.4	345.0	342.8	1.0	0.75	1.0	45.9	45.9	77.1	8.6	77.6	366.4	366.4
371.1	352.5	349.9	1.0	0.625	1.0	45.9	45.9	75.6	14.8	77.0	371.1	371.1
375.9	360.0	357.0	1.0	0.5	1.0	45.9	45.9	74.2	21.1	77.1	375.9	375.9
381.2	367.5	364.1	1.0	0.375	1.0	45.8	45.8	72.9	28.3	78.3	381.2	381.2
385.6	375.0	371.2	1.0	0.25	1.0	45.6	45.6	72.1	34.6	80.0	385.6	385.6
389.3	382.5	378.3	1.0	0.125	1.0	45.5	45.5	71.4	40.1	81.9	389.3	389.3
392.3	390.0	385.4	1.0	0.0	1.0	45.4	45.4	70.9	44.8	83.9	392.3	392.3

LAB\*<sub>d</sub> dex36IM LAB\*<sub>s</sub> dex36IM LAB\*<sub>e</sub> dex36IM

input: rgb/cmyk -> rgbd output: transfer to cmy0d

TUB-test chart QE27; hue code: H\*\_d=R75Y\_d 48 step hue circles; rgb-LabCh\*tables

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

http://130.149.60.45/~farbmetrik/QE27/QE27L0NP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 10/33

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 RYGBM; h\_ab,d\_s = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;

Table with 10 columns: h\_ab,d, h\_ab,s, h\_ab,e, R\_d, L\*a\*b\*, dss361MI, L\*a\*b\*, ddx361MI, L\*a\*b\*, dds361MI, R\_g, R\_b, R\_c, R\_m, R\_y, R\_c, R\_m, R\_y, R\_c, R\_m, R\_y. Rows 32-86.

Input: rgb/cmyk -> rgbd output: transfer to cmy0d



http://130.149.60.45/~farbmetrik/QE27/QE27L0NP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 12/33

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 RYGBM; h\_ab,ds = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;

Table with 16 columns: h\_ab,d, h\_ab,s, h\_ab,e, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M, L\*a\*b\*, d\*361M. Rows 114-167.

Six hue angles of the device colours RYGBM; h\_ab,d = 32.3, 96.1, 155.5, 238.4, 306.2, 359.8; Six hue angles of the elementary colours RYGBM; h\_ab,e = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

TUB-test chart QE27; hue code: H\*\_d=R75Yd input: rgb/cmyk -> rgbd output: transfer to cmy0d

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











http://130.149.60.45/~farbmetrik/QE27/QE27L0NP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 16/33

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 RYGBM; h\_ab,ds = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;

Table with columns for hue angles (h\_ab,d), device colours (RYGBM), and separation (cmy0\*). Rows 340-366. Includes sub-headers for LAB\* and RGB\* values.

Input: rgb/cmyk -> rgbd output: transfer to cmy0d



ref	HC*Fd	rgb_Fd	icr_Fd	hsa_Fd	rgb*Fd	LabC*H*Fd	LabC*H*Fd	rgb*Fd	DF*Fd	HaM*Fd	rgb*Fd	LabC*H*Fd	LabC*H*Fd
0/648	R00Y_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	44.8	83.9	44.8	70.9	83.9
1/657	R13Y_100_100a	0.0	0.125	0.0	0.0	0.0	0.0	0.0	48.6	63.3	48.6	63.3	63.3
2/666	R25Y_100_100a	0.0	0.25	0.0	0.0	0.0	0.0	0.0	53.0	54.8	53.0	54.8	54.8
3/675	R38Y_100_100a	0.0	0.375	0.0	0.0	0.0	0.0	0.0	58.8	41.1	58.8	41.1	58.8
4/684	R50Y_100_100a	0.0	0.5	0.0	0.0	0.0	0.0	0.0	64.9	28.9	64.9	28.9	64.9
5/693	R63Y_100_100a	0.0	0.625	0.0	0.0	0.0	0.0	0.0	72.5	15.4	72.5	15.4	72.5
6/702	R75Y_100_100a	0.0	0.75	0.0	0.0	0.0	0.0	0.0	83.8	8.6	83.8	8.6	83.8
7/711	R88Y_100_100a	0.0	0.875	0.0	0.0	0.0	0.0	0.0	90.2	0.0	90.2	0.0	90.2
8/720	Y00G_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	95.4	96.0	95.4	96.0	96.0
9/639	Y13C_100_100a	0.875	0.0	0.0	0.0	0.0	0.0	0.0	84.5	89.7	84.5	89.7	89.7
10/558	Y25C_100_100a	0.75	0.0	0.0	0.0	0.0	0.0	0.0	81.2	84.3	81.2	84.3	84.3
11/477	Y38C_100_100a	0.625	0.0	0.0	0.0	0.0	0.0	0.0	75.6	72.8	75.6	72.8	72.8
12/396	Y50G_100_100a	0.5	0.0	0.0	0.0	0.0	0.0	0.0	70.6	66.5	70.6	66.5	66.5
13/315	Y63G_100_100a	0.375	0.0	0.0	0.0	0.0	0.0	0.0	65.2	58.3	65.2	58.3	58.3
14/234	Y75G_100_100a	0.25	0.0	0.0	0.0	0.0	0.0	0.0	57.9	45.8	57.9	45.8	45.8
15/153	Y88C_100_100a	0.125	0.0	0.0	0.0	0.0	0.0	0.0	54.4	38.0	54.4	38.0	38.0
16/72	G00C_100_100a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	29.6	65.0	29.6	29.6
17/73	G13C_100_100a	0.0	0.125	0.0	0.0	0.0	0.0	0.0	50.5	22.4	50.5	22.4	22.4
18/74	G25C_100_100a	0.0	0.25	0.0	0.0	0.0	0.0	0.0	48.9	15.9	48.9	15.9	15.9
19/75	G38C_100_100a	0.0	0.375	0.0	0.0	0.0	0.0	0.0	51.9	5.9	51.9	5.9	5.9
20/76	G50C_100_100a	0.0	0.5	0.0	0.0	0.0	0.0	0.0	52.9	3.7	52.9	3.7	3.7
21/77	G63C_100_100a	0.0	0.625	0.0	0.0	0.0	0.0	0.0	54.1	1.8	54.1	1.8	1.8
22/78	G75C_100_100a	0.0	0.75	0.0	0.0	0.0	0.0	0.0	55.1	0.0	55.1	0.0	0.0
23/79	G88C_100_100a	0.0	0.875	0.0	0.0	0.0	0.0	0.0	55.9	0.0	55.9	0.0	0.0
24/70	C00B_100_100a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.8	25.5	56.8	25.5	25.5
25/71	C13B_100_100a	0.0	0.125	0.0	0.0	0.0	0.0	0.0	54.3	21.4	54.3	21.4	21.4
26/63	C25B_100_100a	0.0	0.25	0.0	0.0	0.0	0.0	0.0	50.9	15.5	50.9	15.5	15.5
27/63	C38B_100_100a	0.0	0.375	0.0	0.0	0.0	0.0	0.0	46.8	9.8	46.8	9.8	9.8
28/44	C50B_100_100a	0.0	0.5	0.0	0.0	0.0	0.0	0.0	41.7	4.2	41.7	4.2	4.2
29/35	C63B_100_100a	0.0	0.625	0.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	0.0	0.0
30/26	C75B_100_100a	0.0	0.75	0.0	0.0	0.0	0.0	0.0	32.2	0.0	32.2	0.0	0.0
31/17	C88B_100_100a	0.0	0.875	0.0	0.0	0.0	0.0	0.0	28.4	0.0	28.4	0.0	0.0
32/8	B00M_100_100a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	29.5	25.0	29.5	29.5
33/89	B13M_100_100a	0.125	0.0	0.0	0.0	0.0	0.0	0.0	27.7	35.6	27.7	35.6	35.6
34/170	B25M_100_100a	0.25	0.0	0.0	0.0	0.0	0.0	0.0	28.7	41.2	28.7	41.2	41.2
35/251	B38M_100_100a	0.375	0.0	0.0	0.0	0.0	0.0	0.0	32.5	51.2	32.5	51.2	51.2
36/332	B50M_100_100a	0.5	0.0	0.0	0.0	0.0	0.0	0.0	35.6	58.6	35.6	58.6	58.6
37/413	B63M_100_100a	0.625	0.0	0.0	0.0	0.0	0.0	0.0	38.3	65.8	38.3	65.8	65.8
38/494	B75M_100_100a	0.75	0.0	0.0	0.0	0.0	0.0	0.0	42.1	71.6	42.1	71.6	71.6
39/575	B88M_100_100a	0.875	0.0	0.0	0.0	0.0	0.0	0.0	44.3	75.4	44.3	75.4	75.4
40/656	M00R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	46.1	79.3	46.1	79.3	79.3
41/655	M13R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.9	78.3	45.9	78.3	78.3
42/654	M25R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.9	77.3	45.9	77.3	77.3
43/653	M38R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0	75.7	46.0	75.7	75.7
44/652	M50R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.9	74.2	45.9	74.2	74.2
45/651	M63R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.8	72.9	45.8	72.9	72.9
46/650	M75R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6	72.1	45.6	72.1	72.1
47/649	M88R_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	71.4	45.5	71.4	71.4
48/648	R00Y_100_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.4	70.9	45.4	70.9	70.9
49/0	NV_000a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	0.0	24.3	0.0	0.0
50/91	NV_013a	0.125	0.0	0.0	0.0	0.0	0.0	0.0	0.125	0.125	0.125	0.125	0.125
51/182	NV_025a	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.25	0.25	0.25	0.25	0.25
52/273	NV_038a	0.375	0.0	0.0	0.0	0.0	0.0	0.0	0.375	0.375	0.375	0.375	0.375
53/364	NV_050a	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5
54/455	NV_063a	0.625	0.0	0.0	0.0	0.0	0.0	0.0	0.625	0.625	0.625	0.625	0.625
55/546	NV_075a	0.75	0.0	0.0	0.0	0.0	0.0	0.0	0.75	0.75	0.75	0.75	0.75
56/637	NV_088a	0.875	0.0	0.0	0.0	0.0	0.0	0.0	0.875	0.875	0.875	0.875	0.875
57/728	NV_100a	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0

Mean color difference of this page: delta E\* = 4.0

input: rgb/cmyk -> rgbd  
output: transfer to cmy0d

TUB-test chart QE27; hue code: H\*\_d=R75Y\_d  
colors and differences, ΔE\*<sub>d</sub>









QE2700L

QE2700L

QE2700L

QE2700L

Table with 16 columns: n, HHC\*Fd, rpb\*Fd, icr\*Fd, hsa\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, DF\*Fd, hsa\*Fd, rpb\*Fd, LabCH\*Fd. Rows include color names like B00Y, B25K, B15K, etc.

see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

input: rgb/cmyk -> rgbd output: transfer to cmy0d

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, AE\*

QE270-TN; Page 21/33-F

I-0032031-F0

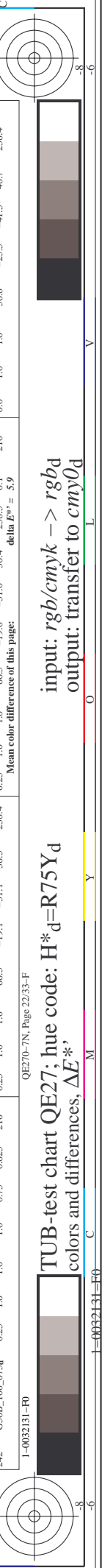
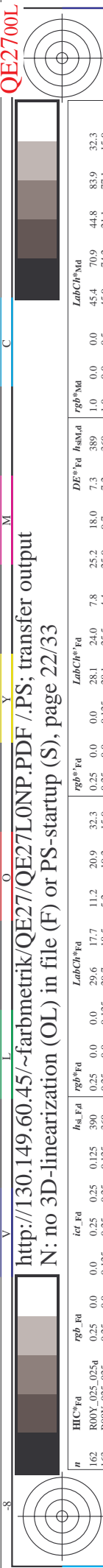
Mean color difference of this page: delta E\* = 4.2

QE2700L

QE2700L

QE2700L

QE2700L



http://130.149.60.45/~farbmetrik/QE27/QE27LONP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 22/33

Table with 24 columns: n, HHC\*Fd, rpb\*Fd, icr\*Fd, hsa\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd. The table contains numerical data for various color calibration patches.

Mean color difference of this page: delta E\* = 5.9

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, AE\* input: rgb/cmyk -> rgbd output: transfer to cmy0d

QE270-TN; Page 22/33-F

I=0032131-F0





QE2700L

QE2700L

QE2700L

QE2700L

see similar files: http://130.149.60.45/~farbmatrik/QE27/QE27.HTM technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmatrik

Table with 15 columns: n, HHC\*Fd, rpb\*Fd, icr\*Fd, hsa\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, DF\*Fd, hsa\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, delta E\* = 7.0. Rows include color names like R001, R002, R003, etc.

input: rgb/cmyk -> rgbd output: transfer to cmy0d

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, AE\*

I=0032431-F0

QE270-TN; Page 25/33-F



QE2700L

QE2700L

QE2700L

QE2700L

see similar files: http://130.149.60.45/~farbmetrik/QE27/QE27.HTM technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

http://130.149.60.45/~farbmetrik/QE27/QE27LONP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 26/33

input: rgb/cmyk -> rgbd output: transfer to cmy0d

Table with 10 columns: n, HHC\*Fd, Rgb\*Fd, iet\*Fd, Hsa\*Fd, Rgb\*Fd, LabCh\*Fd, LabCh\*Fd, DF\*Fd, Hsa\*Fd, Rgb\*Fd, LabCh\*Fd. Rows include color names like R00Y, R00M, R00C, etc.

Mean color difference of this page:

delta E\* = 5.0

QE270-TN; Page 26/33-F

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, AE\*

I=003231-F0

I=003231-F0

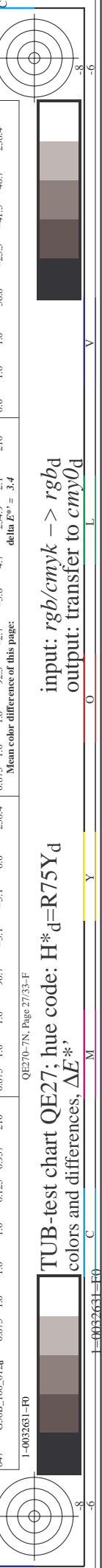
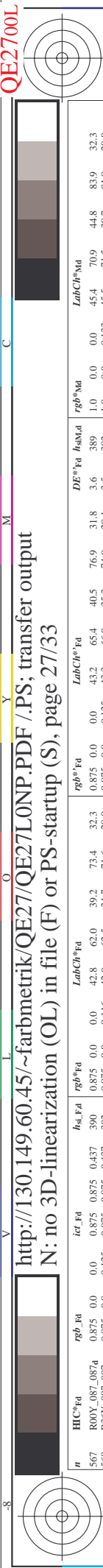


QE2700L

QE2700L

QE2700L

QE2700L



http://130.149.60.45/~farbmatrik/QE27/QE27LONP.PDF /.PS; transfer output N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 27/33

input: rgb/cmyk -> rgbd output: transfer to cmy0d

Table with 15 columns: n, HHC\*Fd, rpb\*Fd, icr\*Fd, hsa\*Fd, rpb\*Fd, LabCh\*Fd, LabCh\*Fd, rpb\*Fd, rpb\*Fd, LabCh\*Fd, DF\*Fd, rpb\*Fd, LabCh\*Fd, LabCh\*Fd. Rows contain numerical data for various color patches.

Mean color difference of this page:

delta E\* = 3.4

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, AE\* M

QE270-TN; Page 27/33-F

I-003231-F0

QE2700L

QE2700L

Table with 28 columns: n, HHC\*Fd, rpb\*Fd, icr\*Fd, Hs\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd, LabCH\*Fd, LabCH\*Fd, rpb\*Fd, rpb\*Fd. The table contains color calibration data for various color patches.

input: rgb/cmyk -> rgbd output: transfer to cmy0d

TUB-test chart QE27; hue code: H\*d=R75Yd colors and differences, ΔE\*

QE270-7N; Page:2833-F

I=0032731-F0

I=0032731-F0

n	HC*Fd	rgb*Fd	icr*Fd	hsa*Fd	rgb*Fd	LabCH*Fd	LabCH*Fd	rgb*Fd	DF*Fd	hsa*Fd	rgb*Fd	LabCH*Fd	LabCH*Fd	0.0	0.0	0.0
729	NV_100a	1.0	1.0	1.0	1.0	95.6	95.6	1.0	112.0	360	1.0	95.6	95.6	0.0	0.0	0.0
730	G50B_100.0124	0.875	1.0	1.0	0.875	1.0	1.0	1.0	0.0	360	1.0	1.0	1.0	56.8	-25.5	48.7
731	G50B_100.0254	0.75	1.0	1.0	0.75	1.0	1.0	1.0	-2.9	210	1.0	1.0	1.0	56.8	-25.5	48.7
732	G50B_100.0374	0.625	1.0	1.0	0.625	1.0	1.0	1.0	-8.6	120	1.0	1.0	1.0	56.8	-25.5	48.7
733	G50B_100.0504	0.5	1.0	1.0	0.5	1.0	1.0	1.0	-13.4	30	1.0	1.0	1.0	56.8	-25.5	48.7
734	G50B_100.0624	0.375	1.0	1.0	0.375	1.0	1.0	1.0	-19.4	210	1.0	1.0	1.0	56.8	-25.5	48.7
735	G50B_100.0754	0.25	1.0	1.0	0.25	1.0	1.0	1.0	-24.9	210	1.0	1.0	1.0	56.8	-25.5	48.7
736	G50B_100.0874	0.125	1.0	1.0	0.125	1.0	1.0	1.0	-31.1	210	1.0	1.0	1.0	56.8	-25.5	48.7
737	G50B_100.1004	0.0	1.0	1.0	0.0	1.0	1.0	1.0	-36.2	210	1.0	1.0	1.0	56.8	-25.5	48.7
738	ROY_100.0124	1.0	0.875	0.875	1.0	0.875	0.875	0.875	-42.3	360	1.0	0.875	0.875	45.4	70.9	44.8
739	NV_087a	0.875	0.875	0.875	0.875	0.875	0.875	0.875	-47.8	360	1.0	0.875	0.875	45.4	70.9	44.8
740	G50B_087.0124	0.75	0.875	0.875	0.75	0.875	0.875	0.875	-52.1	210	1.0	0.875	0.875	45.4	70.9	44.8
741	G50B_087.0254	0.625	0.875	0.875	0.625	0.875	0.875	0.875	-56.6	120	1.0	0.875	0.875	45.4	70.9	44.8
742	G50B_087.0374	0.5	0.875	0.875	0.5	0.875	0.875	0.875	-61.1	30	1.0	0.875	0.875	45.4	70.9	44.8
743	G50B_087.0504	0.375	0.875	0.875	0.375	0.875	0.875	0.875	-65.6	210	1.0	0.875	0.875	45.4	70.9	44.8
744	G50B_087.0624	0.25	0.875	0.875	0.25	0.875	0.875	0.875	-70.1	210	1.0	0.875	0.875	45.4	70.9	44.8
745	G50B_087.0754	0.125	0.875	0.875	0.125	0.875	0.875	0.875	-74.6	210	1.0	0.875	0.875	45.4	70.9	44.8
746	G50B_087.0874	0.0	0.875	0.875	0.0	0.875	0.875	0.875	-79.1	210	1.0	0.875	0.875	45.4	70.9	44.8
747	ROY_100.0254	0.875	0.75	0.75	0.875	0.75	0.75	0.75	-83.6	360	1.0	0.75	0.75	45.4	70.9	44.8
748	ROY_100.0374	0.75	0.75	0.75	0.75	0.75	0.75	0.75	-88.1	210	1.0	0.75	0.75	45.4	70.9	44.8
749	NV_075a	0.75	0.75	0.75	0.75	0.75	0.75	0.75	-92.6	120	1.0	0.75	0.75	45.4	70.9	44.8
750	G50B_075.0124	0.625	0.75	0.75	0.625	0.75	0.75	0.75	-97.1	30	1.0	0.75	0.75	45.4	70.9	44.8
751	G50B_075.0254	0.5	0.75	0.75	0.5	0.75	0.75	0.75	-101.6	210	1.0	0.75	0.75	45.4	70.9	44.8
752	G50B_075.0374	0.375	0.75	0.75	0.375	0.75	0.75	0.75	-106.1	210	1.0	0.75	0.75	45.4	70.9	44.8
753	G50B_075.0504	0.25	0.75	0.75	0.25	0.75	0.75	0.75	-110.6	210	1.0	0.75	0.75	45.4	70.9	44.8
754	G50B_075.0624	0.125	0.75	0.75	0.125	0.75	0.75	0.75	-115.1	210	1.0	0.75	0.75	45.4	70.9	44.8
755	G50B_075.0754	0.0	0.75	0.75	0.0	0.75	0.75	0.75	-119.6	210	1.0	0.75	0.75	45.4	70.9	44.8
756	ROY_100.0374	1.0	0.625	0.625	1.0	0.625	0.625	0.625	-124.1	360	1.0	0.625	0.625	45.4	70.9	44.8
757	ROY_087.0124	0.875	0.625	0.625	0.875	0.625	0.625	0.625	-128.6	210	1.0	0.625	0.625	45.4	70.9	44.8
758	ROY_087.0254	0.75	0.625	0.625	0.75	0.625	0.625	0.625	-133.1	120	1.0	0.625	0.625	45.4	70.9	44.8
759	ROY_087.0374	0.625	0.625	0.625	0.625	0.625	0.625	0.625	-137.6	30	1.0	0.625	0.625	45.4	70.9	44.8
760	G50B_062.0124	0.5	0.625	0.625	0.5	0.625	0.625	0.625	-142.1	210	1.0	0.625	0.625	45.4	70.9	44.8
761	G50B_062.0254	0.375	0.625	0.625	0.375	0.625	0.625	0.625	-146.6	210	1.0	0.625	0.625	45.4	70.9	44.8
762	G50B_062.0374	0.25	0.625	0.625	0.25	0.625	0.625	0.625	-151.1	210	1.0	0.625	0.625	45.4	70.9	44.8
763	G50B_062.0504	0.125	0.625	0.625	0.125	0.625	0.625	0.625	-155.6	210	1.0	0.625	0.625	45.4	70.9	44.8
764	G50B_062.0624	0.0	0.625	0.625	0.0	0.625	0.625	0.625	-160.1	210	1.0	0.625	0.625	45.4	70.9	44.8
765	ROY_100.0504	1.0	0.5	0.5	1.0	0.5	0.5	0.5	-164.6	360	1.0	0.5	0.5	45.4	70.9	44.8
766	ROY_087.0374	0.875	0.5	0.5	0.875	0.5	0.5	0.5	-169.1	210	1.0	0.5	0.5	45.4	70.9	44.8
767	ROY_075.0254	0.75	0.5	0.5	0.75	0.5	0.5	0.5	-173.6	120	1.0	0.5	0.5	45.4	70.9	44.8
768	ROY_062.0124	0.625	0.5	0.5	0.625	0.5	0.5	0.5	-178.1	30	1.0	0.5	0.5	45.4	70.9	44.8
769	NV_050a	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-182.6	210	1.0	0.5	0.5	45.4	70.9	44.8
770	G50B_050.0124	0.375	0.5	0.5	0.375	0.5	0.5	0.5	-187.1	210	1.0	0.5	0.5	45.4	70.9	44.8
771	G50B_050.0254	0.25	0.5	0.5	0.25	0.5	0.5	0.5	-191.6	210	1.0	0.5	0.5	45.4	70.9	44.8
772	G50B_050.0374	0.125	0.5	0.5	0.125	0.5	0.5	0.5	-196.1	210	1.0	0.5	0.5	45.4	70.9	44.8
773	G50B_050.0504	0.0	0.5	0.5	0.0	0.5	0.5	0.5	-200.6	210	1.0	0.5	0.5	45.4	70.9	44.8
774	ROY_100.0624	1.0	0.375	0.375	1.0	0.375	0.375	0.375	-205.1	360	1.0	0.375	0.375	45.4	70.9	44.8
775	ROY_087.0504	0.875	0.375	0.375	0.875	0.375	0.375	0.375	-209.6	210	1.0	0.375	0.375	45.4	70.9	44.8
776	ROY_075.0374	0.75	0.375	0.375	0.75	0.375	0.375	0.375	-214.1	120	1.0	0.375	0.375	45.4	70.9	44.8
777	ROY_062.0254	0.625	0.375	0.375	0.625	0.375	0.375	0.375	-218.6	30	1.0	0.375	0.375	45.4	70.9	44.8
778	ROY_050.0124	0.5	0.375	0.375	0.5	0.375	0.375	0.375	-223.1	210	1.0	0.375	0.375	45.4	70.9	44.8
779	NV_037a	0.375	0.375	0.375	0.375	0.375	0.375	0.375	-227.6	210	1.0	0.375	0.375	45.4	70.9	44.8
780	G50B_037.0124	0.25	0.375	0.375	0.25	0.375	0.375	0.375	-232.1	210	1.0	0.375	0.375	45.4	70.9	44.8
781	G50B_037.0254	0.125	0.375	0.375	0.125	0.375	0.375	0.375	-236.6	210	1.0	0.375	0.375	45.4	70.9	44.8
782	G50B_037.0374	0.0	0.375	0.375	0.0	0.375	0.375	0.375	-241.1	210	1.0	0.375	0.375	45.4	70.9	44.8
783	ROY_100.0754	1.0	0.25	0.25	1.0	0.25	0.25	0.25	-245.6	360	1.0	0.25	0.25	45.4	70.9	44.8
784	ROY_087.0624	0.875	0.25	0.25	0.875	0.25	0.25	0.25	-250.1	210	1.0	0.25	0.25	45.4	70.9	44.8
785	G50B_062.0374	0.75	0.25	0.25	0.75	0.25	0.25	0.25	-254.6	120	1.0	0.25	0.25	45.4	70.9	44.8
786	G50B_062.0504	0.625	0.25	0.25	0.625	0.25	0.25	0.25	-259.1	210	1.0	0.25	0.25	45.4	70.9	44.8
787	G50B_062.0624	0.5	0.25	0.25	0.5	0.25	0.25	0.25	-263.6	210	1.0	0.25	0.25	45.4	70.9	44.8
788	ROY_050.0124	0.375	0.25	0.25	0.375	0.25	0.25	0.25	-268.1	360	1.0	0.25	0.25	45.4	70.9	44.8
789	NV_025a	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-272.6	210	1.0	0.25	0.25	45.4	70.9	44.8
790	G50B_025.0124	0.125	0.25	0.25	0.125	0.25	0.25	0.25	-277.1	210	1.0	0.25	0.25	45.4	70.9	44.8
791	G50B_025.0254	0.0	0.25	0.25	0.0	0.25	0.25	0.25	-281.6	210	1.0	0.25	0.25	45.4	70.9	44.8
792	ROY_100.0874	1.0	0.125	0.125	1.0	0.125	0.125	0.125	-286.1	360	1.0	0.125	0.125	45.4	70.9	44.8
793	ROY_087.0754	0.875	0.125	0.125	0.875	0.125	0.125	0.125	-290.6	210	1.0	0.125	0.125	45.4	70.9	44.8
794	ROY_075.0624	0.75	0.125	0.125	0.75	0.125	0.125	0.1								









