

Input and Output: Printer Reflective System FRS06a

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

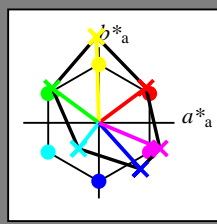
$HIC^*_-$

hue text for the colours of this page:

$H^*_-$  = R00Y\_, R25Y\_, ..., B75R\_

ORS20a; adapted (a) CIELAB data

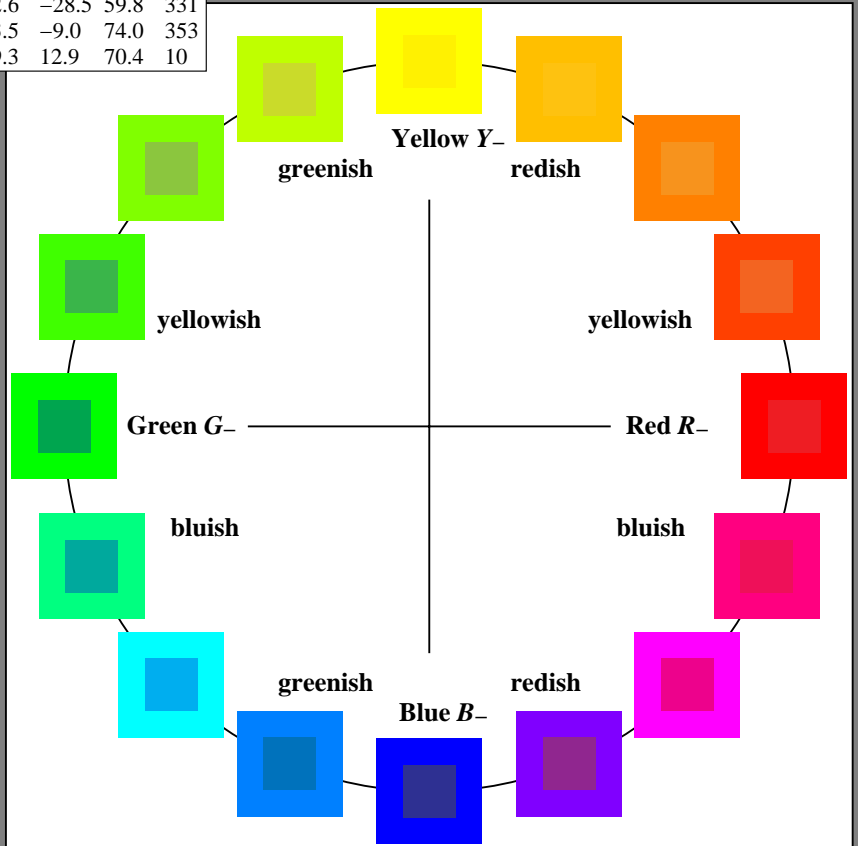
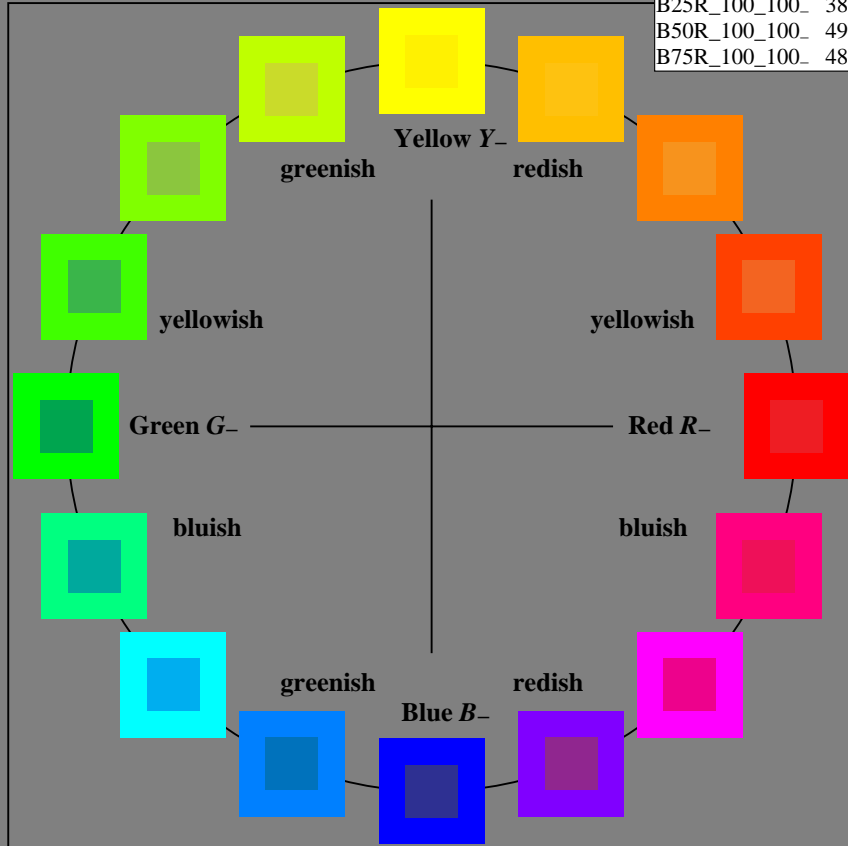
$H^*_-$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$	
R00Y_100_100_	48.4	66.1	40.2	77.3	31
R25Y_100_100_	56.8	48.0	50.5	69.6	46
R50Y_100_100_	68.6	25.0	63.9	68.6	68
R75Y_100_100_	80.6	4.8	77.2	77.3	86
Y00G_100_100_	90.2	-9.6	88.2	88.7	96
Y25G_100_100_	83.2	-18.4	79.9	81.9	102
Y50G_100_100_	73.3	-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  
 $g^*_{H,rel} = 28$   
 $g^*_{C,rel} = 38$

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



1-103030-L0 PE890-7N

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=0,  $cm\dot{y}k^*$

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

see similar files: http://130.149.60.45/~farbmetrik/PE89/PE89.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20150701-PE89/PE89LOFA.TXT /.PS  
application for measurement of laser printer output

TUB material: code=rh4ta

Input and Output: Printer Reflective System FRS06a

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

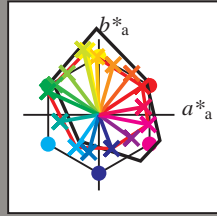
$HIC^*_d$

hue text for the colours of this page:

$H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$

LRS18a; adapted (a) CIELAB data

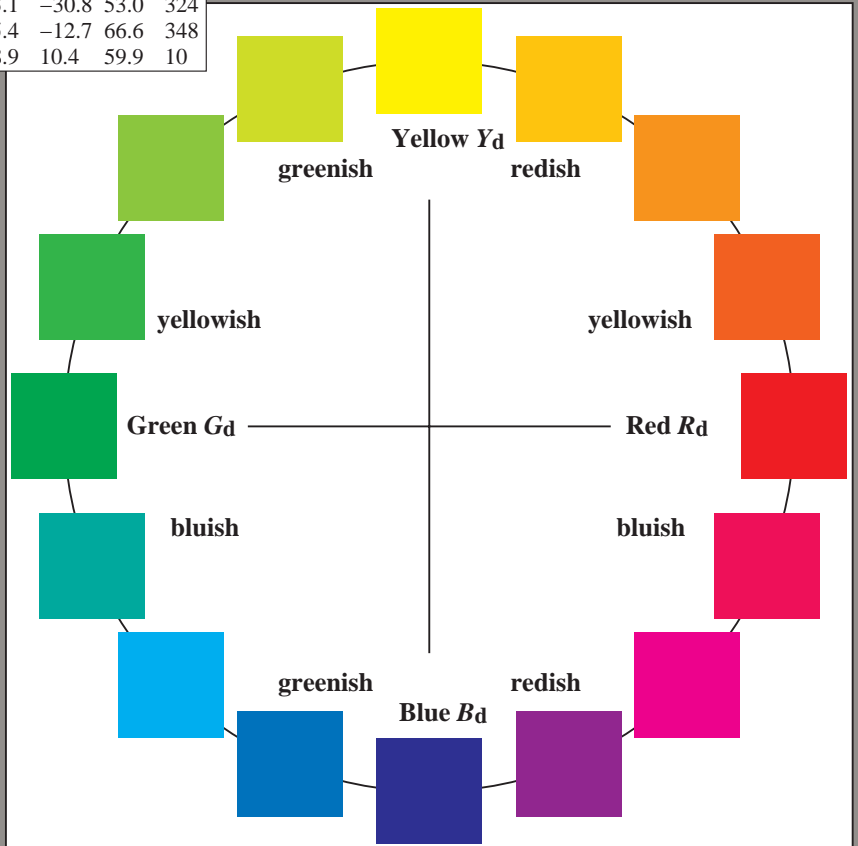
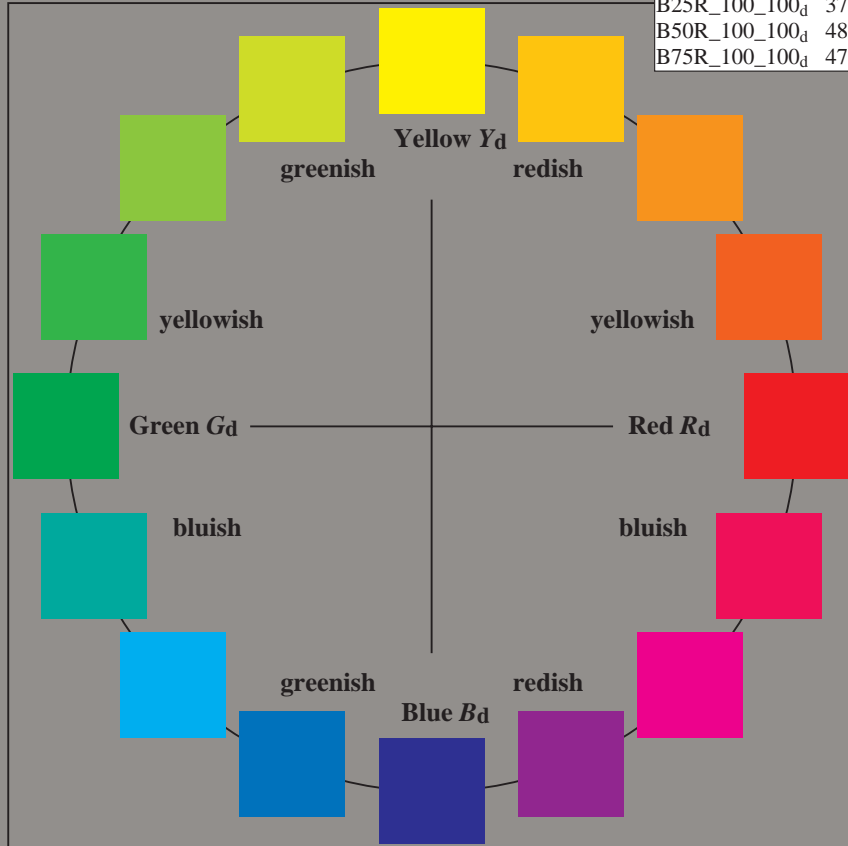
$H^*_d$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$	
R00Y_100_100_d	47.5	57.2	37.8	68.6	33
R25Y_100_100_d	57.4	43.5	54.5	69.7	51
R50Y_100_100_d	70.5	19.2	66.2	69.0	73
R75Y_100_100_d	83.5	-2.9	76.8	76.9	92
Y00G_100_100_d	91.5	-15.8	84.6	86.1	100
Y25G_100_100_d	90.4	-20.9	86.5	89.0	103
Y50G_100_100_d	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  
 $g^*_{H,rel} = 28$   
 $g^*_{C,rel} = 38$

LRS18a; adapted (a) CIELAB data

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



1-103130-L0 PE890-72

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=0, cmyk\*

input: rgb/cmyk -> rgb<sub>dd</sub>  
output: 3D-linearization to cmyk\*<sub>dd</sub>

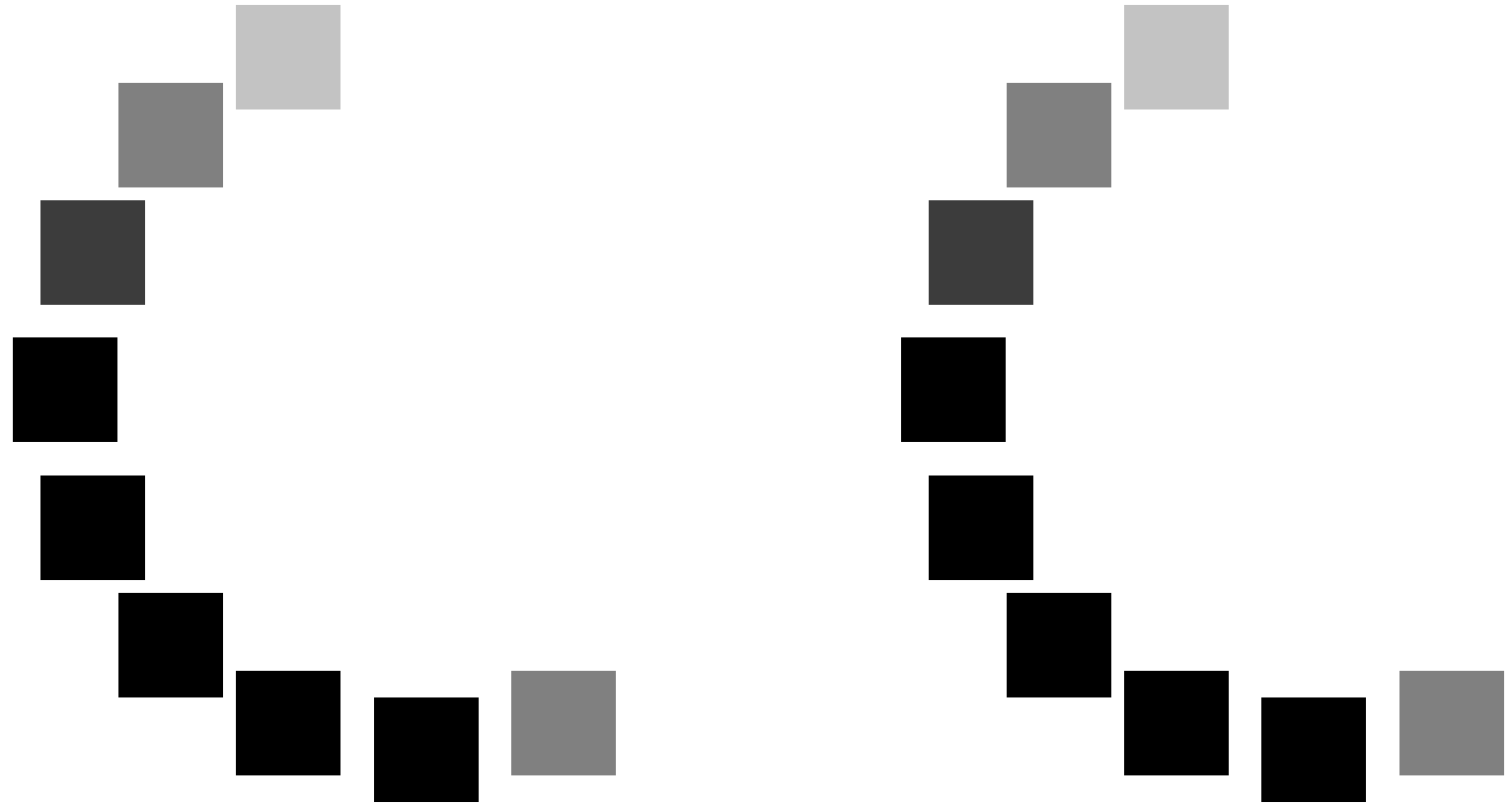
1-103130-F0

see similar files: http://130.149.60.45/~farbmetrik/PE89/PE89.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20150701-PE89/PE89LOFA.TXT /.PS  
application for measurement of laser printer output, separation cmyk\* (CMYK)  
TUB material: code=rh4ta

see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS TUB material: code=rh4ta  
application for measurement of laser printer output, separation cmyk\* (CMYK)



1-103230-L0 PE890-72

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=0, cmyk\*

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



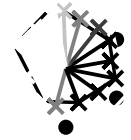
Input and Output: Printer Reflective System FRS06a

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

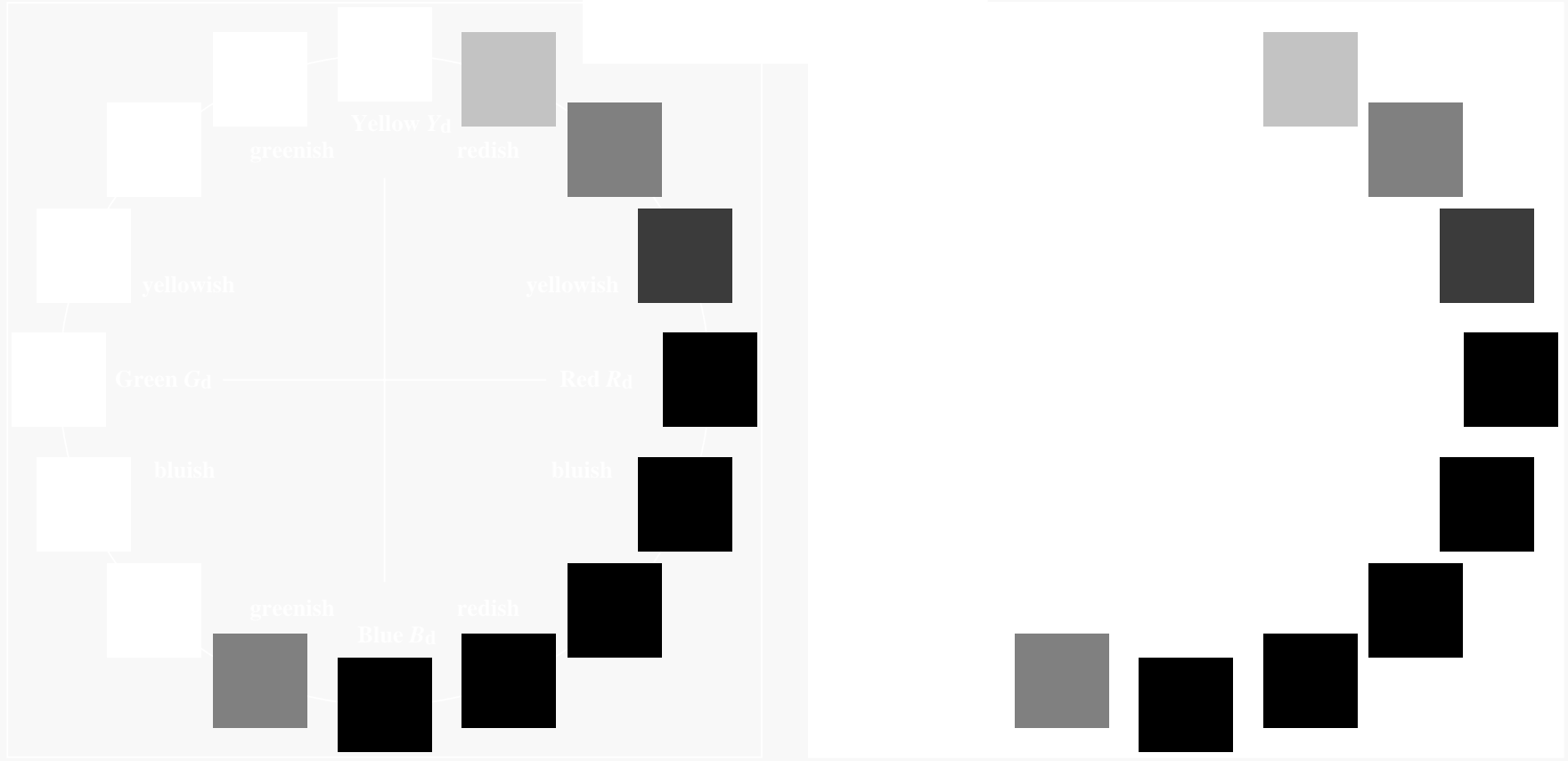
$$HIC^*_d$$

hue text for the colours of this page:

$$H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$$



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



see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS TUB material: code=rh4ta  
application for measurement of laser printer output, separation cmyk\* (CMYK)

1-103330-L0 PE890-72

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=0, cmyk\*

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

1-103330-F0

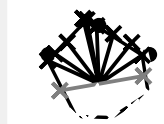
Input and Output: Printer Reflective System FRS06a

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

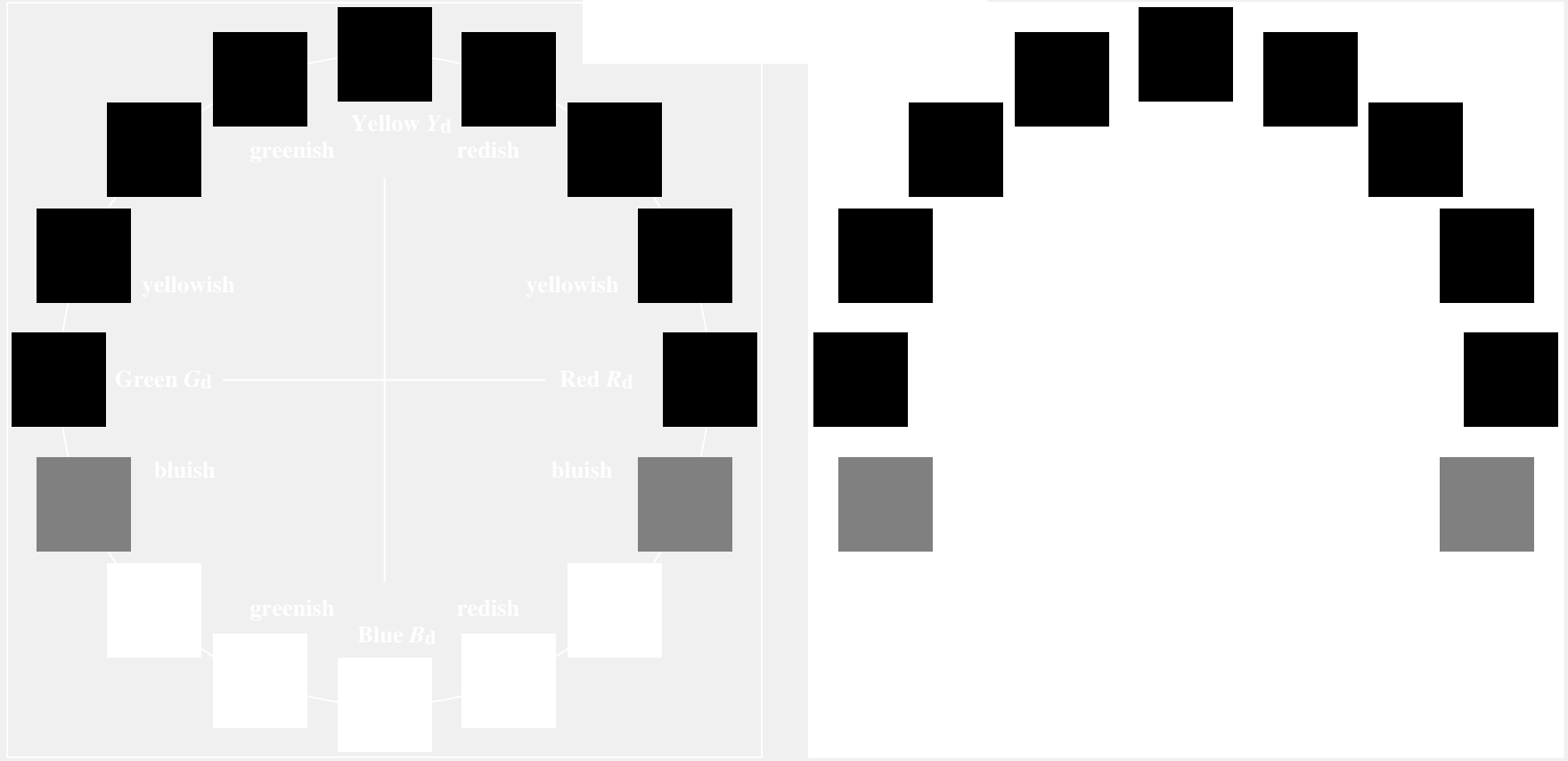
$$HIC^*_d$$

hue text for the colours of this page:

$$H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$$



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



see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS  
application for measurement of laser printer output, separation  $cmyk^*$  (CMYK)  
TUB material: code=rh4ta

1-103430-L0 PE890-72

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=0,  $cmyk^*$

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

1-103430-F0

Input and Output: Printer Reflective System FRS06a

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

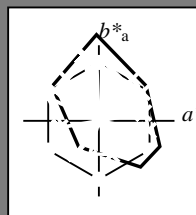
$$HIC^*_d$$

hue text for the colours of this page:

$$H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$$

LRS18a; adapted (a) CIELAB data

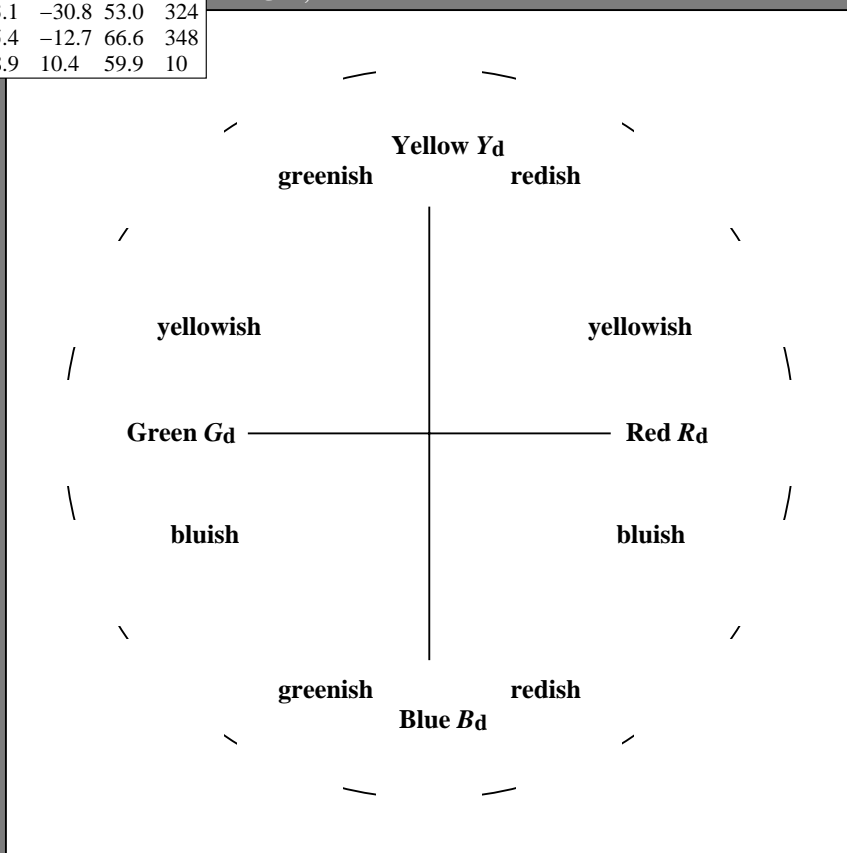
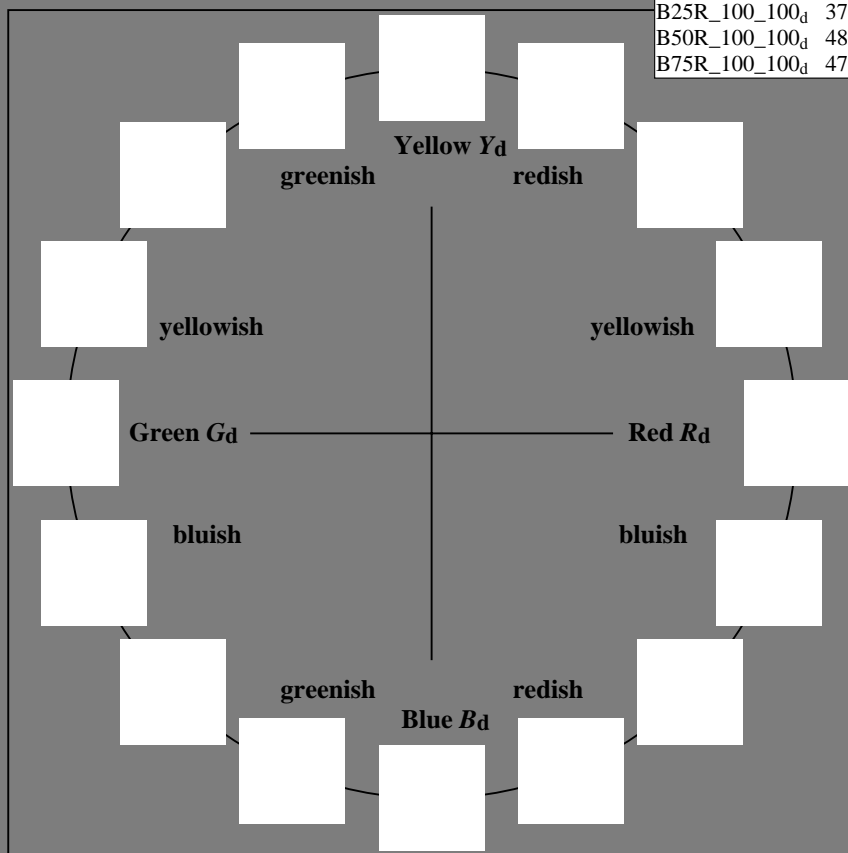
$H^*_d$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$	
R00Y_100_100_d	47.5	57.2	37.8	68.6	33
R25Y_100_100_d	57.4	43.5	54.5	69.7	51
R50Y_100_100_d	70.5	19.2	66.2	69.0	73
R75Y_100_100_d	83.5	-2.9	76.8	76.9	92
Y00G_100_100_d	91.5	-15.8	84.6	86.1	100
Y25G_100_100_d	90.4	-20.9	86.5	89.0	103
Y50G_100_100_d	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  
 $g^*_{H,rel} = 28$   
 $g^*_{C,rel} = 38$

LRS18a; adapted (a) CIELAB data

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



1-103530-L0 PE890-72

TUB-test chart PE89; 16 step hue circle  
 Test chart according to DIN 33872, 3D=1, de=0, cmyk\*

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

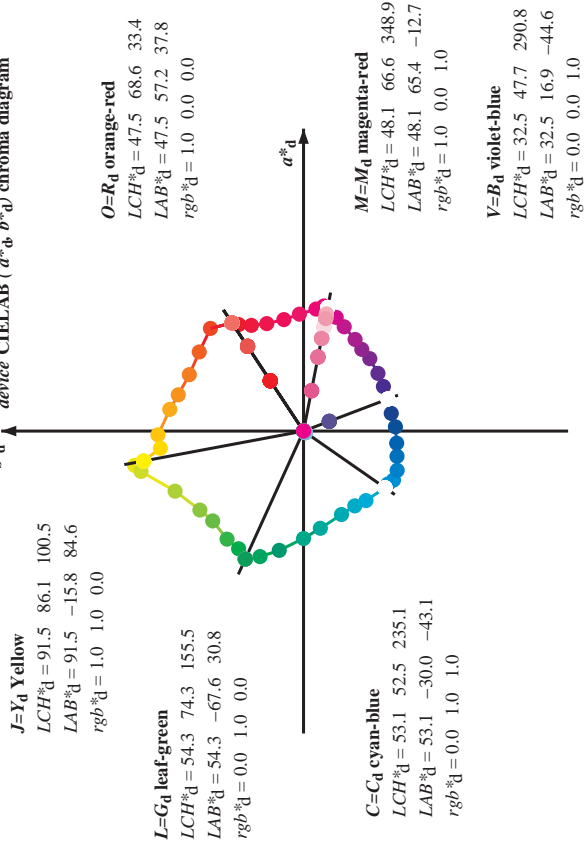
1-103530-F0

see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

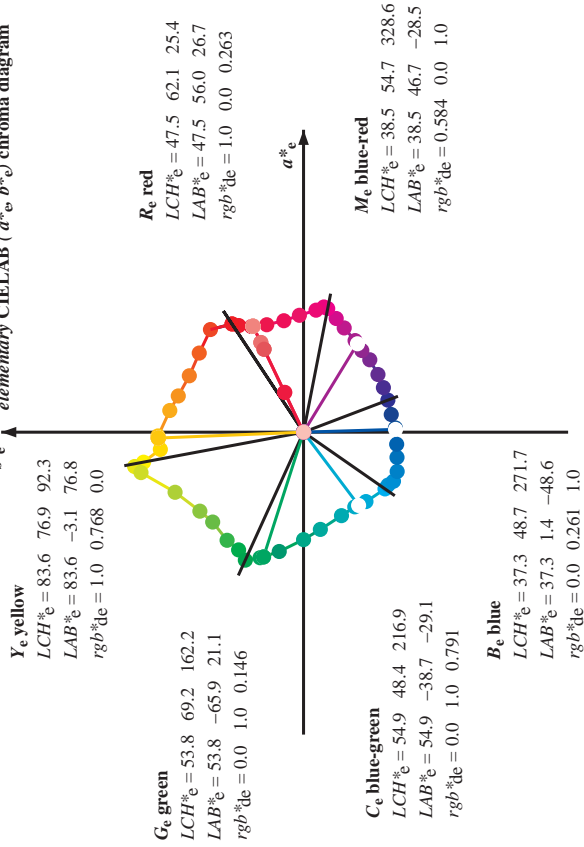
TUB registration: 20150701-PE89/PE89LOFA.TXT /.PS  
 application for measurement of laser printer output, separation cmyk\* (CMYK)  
 TUB material: code=rh4ta

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;  $h_{abs} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

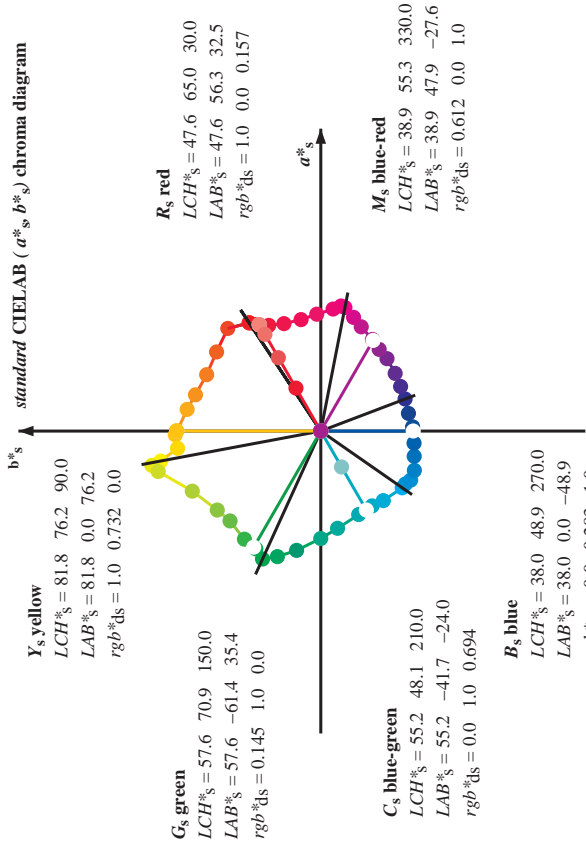
device CIELAB ( $a^*_d, b^*_d$ ) chroma diagram



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  $rgb^*_s$ -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:  

$$h_{abs} = \arctan \left[ \frac{r^*_s \cos(30) + g^*_s \sin(150)}{r^*_s \sin(30) + g^*_s \sin(270)} \right]$$
- 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:  

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

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

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

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





http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.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<sub>abs,d</sub> = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;  
Six hue angles of the device colours RYGBM(d): h<sub>ab,d</sub> = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9; Six hue angles of the elementary colours RYGBM(c): h<sub>ab,c</sub> = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

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

LAB\*<sub>lab,0</sub> PE890-72 LAB\*<sub>lab,0</sub> YN=0%, XY<sub>Znw</sub>=3.9, 4.1, 4.1, 84.7, 89.6, 93.9, LAB\*<sub>nw</sub>=23.9, 0.0, 0.0, 95.8, 0.0, 0.0  
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/PE89/PE89L0FA.TXT / PS; 3D-linearization  
 F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 10/33

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;  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	$rgb^*_d$	$rgb^*_s$	$rgb^*_e$	$LAB^*_d$	$LAB^*_s$	$LAB^*_e$	$rgb^*_d$	$rgb^*_s$	$rgb^*_e$	$LAB^*_d$	$LAB^*_s$	$LAB^*_e$	$rgb^*_d$	$rgb^*_s$	$rgb^*_e$				
$R_d$	$R_s$	$R_e$	$R_d$	$R_s$	$R_e$	$R_d$	$R_s$	$R_e$	$R_d$	$R_s$	$R_e$	$R_d$	$R_s$	$R_e$	$R_d$	$R_s$	$R_e$				
33	30	25	1.0	0.0	0.0	47.5	57.2	37.8	68.6	33	1.0	0.0	0.0	1.0	0.0	0.0	0.0				
34	31	26	1.0	0.016	0.0	48.1	56.9	39.3	69.2	34	1.0	0.0	0.0	1.0	0.0	0.0	0.0				
35	32	27	1.0	0.033	0.0	48.7	56.6	40.8	69.8	35	1.0	0.0	0.0085	47.7	56.7	35.4	66.8	32	1.0	0.033	0.0
36	33	28	1.0	0.005	0.0	49.9	56.3	42.3	70.4	36	1.0	0.0	0.0028	47.6	57.1	37.0	68.0	33	1.0	0.005	0.0
38	34	29	1.0	0.0066	0.0	49.3	55.9	43.9	71.1	38	1.0	0.0007	47.8	57.1	38.5	68.9	34	1.0	0.0067	0.0	
39	35	31	1.0	0.0083	0.0	50.5	55.5	45.4	71.7	39	1.0	0.0022	48.4	56.9	39.8	69.4	35	1.0	0.0083	0.0	
40	36	32	1.0	0.1	0.0	51.0	55.0	46.9	72.3	40	1.0	0.0036	48.9	56.6	41.1	70.0	36	1.0	0.1	0.0	
41	37	33	1.0	0.116	0.0	51.6	54.5	48.4	72.9	41	1.0	0.005	49.4	56.3	42.4	70.5	37	1.0	0.117	0.0	
42	38	34	1.0	0.133	0.0	52.3	53.4	49.7	73.0	42	1.0	0.0065	49.9	56.0	43.7	71.0	38	1.0	0.133	0.0	
44	39	35	1.0	0.15	0.0	53.2	51.8	50.6	72.4	44	1.0	0.0079	50.4	55.6	45.0	71.6	39	1.0	0.15	0.0	
45	40	36	1.0	0.166	0.0	54.0	50.2	51.5	71.9	45	1.0	0.0094	50.9	55.2	46.4	72.1	40	1.0	0.167	0.0	
47	41	37	1.0	0.183	0.0	54.9	48.5	52.3	71.4	47	1.0	0.0108	51.4	54.8	47.7	72.7	41	1.0	0.183	0.0	
48	42	38	1.0	0.2	0.0	55.7	46.8	53.1	70.8	48	1.0	0.0122	51.9	54.4	49.0	73.2	42	1.0	0.2	0.0	
50	43	39	1.0	0.216	0.0	56.6	45.2	53.8	70.3	50	1.0	0.0134	52.5	53.4	49.8	73.0	43	1.0	0.217	0.0	
51	44	41	1.0	0.233	0.0	57.4	43.5	54.5	69.7	51	1.0	0.0146	53.0	52.2	50.4	72.6	44	1.0	0.233	0.0	
52	45	42	1.0	0.25	0.0	58.2	41.8	55.1	69.2	52	1.0	0.0158	53.6	51.1	51.1	72.2	45	1.0	0.25	0.0	
54	46	43	1.0	0.266	0.0	59.1	40.2	56.0	69.0	54	1.0	0.017	54.2	49.9	51.7	71.8	46	1.0	0.267	0.0	
55	47	44	1.0	0.283	0.0	59.9	38.6	56.8	68.7	55	1.0	0.0181	54.8	48.7	52.3	71.5	47	1.0	0.283	0.0	
57	48	45	1.0	0.3	0.0	60.8	37.1	57.5	68.5	57	1.0	0.0193	55.4	47.6	52.8	71.1	48	1.0	0.3	0.0	
58	49	46	1.0	0.316	0.0	61.6	35.5	58.2	68.2	58	1.0	0.0205	56.0	46.4	53.4	70.7	49	1.0	0.317	0.0	
60	50	47	1.0	0.333	0.0	62.5	33.9	58.9	68.0	60	1.0	0.0217	56.6	45.2	53.9	70.3	50	1.0	0.333	0.0	
61	51	48	1.0	0.35	0.0	63.3	32.2	59.5	67.7	61	1.0	0.0228	57.2	44.0	54.4	69.9	51	1.0	0.35	0.0	
63	52	49	1.0	0.366	0.0	64.2	30.6	60.1	67.5	63	1.0	0.024	57.8	42.8	54.8	69.6	52	1.0	0.367	0.0	
64	53	51	1.0	0.383	0.0	65.0	29.1	60.8	67.4	64	1.0	0.0252	58.4	41.7	55.3	69.2	53	1.0	0.383	0.0	
65	54	52	1.0	0.4	0.0	65.8	27.8	61.7	67.7	65	1.0	0.0263	59.0	40.6	55.9	69.1	54	1.0	0.4	0.0	
67	55	53	1.0	0.416	0.0	66.6	26.4	62.5	67.9	67	1.0	0.0275	59.6	39.5	56.4	68.9	55	1.0	0.417	0.0	
68	56	54	1.0	0.433	0.0	67.3	25.0	63.3	68.1	68	1.0	0.0286	60.1	38.4	57.0	68.7	56	1.0	0.433	0.0	
69	57	55	1.0	0.45	0.0	68.1	23.6	64.1	68.3	69	1.0	0.0298	60.7	37.3	57.5	68.5	57	1.0	0.45	0.0	
71	58	56	1.0	0.466	0.0	68.9	22.1	64.8	68.5	71	1.0	0.0309	61.3	36.2	58.0	68.4	58	1.0	0.467	0.0	
72	59	57	1.0	0.483	0.0	69.7	20.7	65.6	68.8	72	1.0	0.0321	61.9	35.1	58.5	68.2	59	1.0	0.483	0.0	
73	60	58	1.0	0.5	0.0	70.5	19.2	66.2	69.0	73	1.0	0.0332	62.5	34.0	58.9	68.0	60	1.0	0.5	0.0	
74	61	60	1.0	0.516	0.0	71.0	18.2	66.9	69.3	74	1.0	0.0344	63.1	32.9	59.3	67.8	61	1.0	0.517	0.0	
75	62	61	1.0	0.533	0.0	71.6	17.2	67.5	69.7	75	1.0	0.0355	63.6	31.8	59.8	67.7	62	1.0	0.533	0.0	
76	63	62	1.0	0.55	0.0	72.2	16.2	68.1	70.0	76	1.0	0.0367	64.2	30.6	60.1	67.5	63	1.0	0.55	0.0	
77	64	63	1.0	0.566	0.0	72.8	15.1	68.7	70.4	77	1.0	0.0378	64.8	29.6	60.6	67.4	64	1.0	0.567	0.0	
78	65	64	1.0	0.583	0.0	73.4	14.1	69.3	70.7	78	1.0	0.0391	65.4	28.6	61.3	67.6	65	1.0	0.583	0.0	
79	66	65	1.0	0.6	0.0	74.0	13.0	69.9	71.1	79	1.0	0.0403	66.0	27.6	61.9	67.8	66	1.0	0.6	0.0	
80	67	66	1.0	0.616	0.0	74.6	12.0	70.4	71.4	80	1.0	0.0416	66.6	26.5	62.5	67.9	67	1.0	0.617	0.0	
81	68	67	1.0	0.633	0.0	75.4	10.6	71.2	72.0	81	1.0	0.0428	67.1	25.5	63.1	68.1	68	1.0	0.633	0.0	
82	69	68	1.0	0.65	0.0	76.5	8.9	72.1	72.7	82	1.0	0.044	67.7	24.5	63.7	68.2	69	1.0	0.65	0.0	
84	70	70	1.0	0.666	0.0	77.5	7.2	73.0	73.4	84	1.0	0.0453	68.3	23.4	64.3	68.4	70	1.0	0.667	0.0	
85	71	71	1.0	0.683	0.0	78.6	5.4	73.9	74.1	85	1.0	0.0465	68.9	22.3	64.8	68.6	71	1.0	0.683	0.0	
87	72	72	1.0	0.7	0.0	79.7	3.6	74.7	74.8	87	1.0	0.0477	69.5	21.2	65.4	68.7	72	1.0	0.7	0.0	
88	73	73	1.0	0.716	0.0	80.8	1.7	75.5	75.5	88	1.0	0.049	70.0	20.1	65.9	68.9	73	1.0	0.717	0.0	
-269	74	74	1.0	0.733	0.0	81.8	-0.1	76.3	76.3	-269	1.0	0.503	70.6	19.0	66.4	69.1	74	1.0	0.733	0.0	
-268	75	75	1.0	0.75	0.0	82.9	-2.0	76.9	77.0	-268	1.0	0.521	71.3	18.0	67.1	69.5	75	1.0	0.75	0.0	

I-103930-L0 PE890-72 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 PE89; 16 step hue circle  
 48 step hue circles;  $rgb-LabCh$ \*tables

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

Output: Laser printer output; separation cmyk\*, D65, page 10/63

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;  $h_{ab,d} = 33.5, 100.6, 155.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Table with 15 columns:  $h_{ab,d}$ ,  $h_{ab,s}$ ,  $h_{ab,e}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ ,  $rgb^{*}_{ds}$ . Rows 92-127.

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

TUB-test chart PE89; 16 step hue circle  
48 step hue circles; rgb-LabCh\*tables

http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT / PS; 3D-linearization  
 F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 12/33

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;  $h_{abs,d} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
 Six hue angles of the device colours RYGBM;  $h_{abs,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{abs,d} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{abs,d}$	$h_{ab,s}$	$h_{ab,e}$	$rgb^{*}_{ds}$	$rgb^{*}_{ds361M}$	$LAB^{*}_{ds361M}(x=LabCh)$	$rgb^{*}_{ds361M}$	$rgb^{*}_{ds361M}$	$LAB^{*}_{ds361M}(x=LabCh)$	$rgb^{*}_{ds361M}$	$rgb^{*}_{ds361M}$	$LAB^{*}_{de361M}$	$rgb^{*}_{de361M}$	$rgb^{*}_{de361M}$	$LAB^{*}_{de361M}(x=LabCh)$	$rgb^{*}_{de361M}$	$rgb^{*}_{de361M}$	$LAB^{*}_{de361M}$	$rgb^{*}_{de361M}$	$rgb^{*}_{de361M}$			
127	120	127	0.5	1.0	0.0	70.9	-41.7	54.8	68.9	127	0.501	1.0	0.0	71.0	-41.6	54.9	68.9	127	0.5	1.0	0.0	
128	121	128	0.483	1.0	0.0	70.4	-42.6	53.9	68.7	128	0.481	1.0	0.0	70.3	-42.6	53.8	68.7	128	0.483	1.0	0.0	
129	122	129	0.466	1.0	0.0	69.8	-43.4	53.0	68.5	129	0.462	1.0	0.0	69.6	-43.6	52.8	68.5	129	0.467	1.0	0.0	
130	123	130	0.45	1.0	0.0	69.2	-44.2	52.1	68.3	130	0.442	1.0	0.0	68.9	-44.5	51.7	68.3	130	0.45	1.0	0.0	
131	124	131	0.433	1.0	0.0	68.6	-45.0	51.2	68.2	131	0.422	1.0	0.0	68.3	-45.4	50.7	68.1	131	0.433	1.0	0.0	
132	125	132	0.416	1.0	0.0	68.0	-45.7	50.3	68.0	132	0.403	1.0	0.0	67.6	-46.3	49.6	67.9	132	0.417	1.0	0.0	
133	126	133	0.4	1.0	0.0	67.4	-46.5	49.4	67.8	133	0.383	1.0	0.0	66.9	-47.1	48.5	67.7	133	0.4	1.0	0.0	
134	127	134	0.383	1.0	0.0	66.8	-47.2	48.5	67.7	134	0.366	1.0	0.0	66.2	-48.2	47.6	67.8	135	0.383	1.0	0.0	
135	128	135	0.366	1.0	0.0	66.1	-48.2	47.5	67.7	135	0.352	1.0	0.0	65.5	-49.4	46.8	68.1	136	0.367	1.0	0.0	
136	129	136	0.35	1.0	0.0	65.4	-49.5	46.6	68.1	136	0.337	1.0	0.0	64.8	-50.5	46.0	68.4	137	0.35	1.0	0.0	
138	130	138	0.333	1.0	0.0	64.6	-50.9	45.7	68.4	138	0.323	1.0	0.0	64.1	-51.7	45.1	68.7	138	0.333	1.0	0.0	
139	131	140	0.316	1.0	0.0	63.8	-52.4	44.7	68.7	139	0.308	1.0	0.0	63.4	-52.8	44.2	68.9	140	0.317	1.0	0.0	
140	132	141	0.3	1.0	0.0	63.0	-53.5	43.7	69.1	140	0.294	1.0	0.0	62.7	-53.9	43.3	69.2	141	0.3	1.0	0.0	
142	133	142	0.283	1.0	0.0	62.2	-54.7	42.6	69.4	142	0.279	1.0	0.0	62.0	-55.0	42.4	69.5	142	0.283	1.0	0.0	
143	134	143	0.266	1.0	0.0	61.4	-56.0	41.5	69.7	143	0.265	1.0	0.0	61.3	-56.1	41.4	69.8	143	0.265	1.0	0.0	
144	135	144	0.25	1.0	0.0	60.6	-57.2	40.4	70.1	144	0.25	1.0	0.0	60.6	-57.1	40.5	70.1	144	0.25	1.0	0.0	
145	136	145	0.233	1.0	0.0	60.1	-57.9	39.6	70.2	145	0.237	1.0	0.0	60.0	-58.1	39.4	70.3	145	0.233	1.0	0.0	
146	137	147	0.216	1.0	0.0	59.6	-58.6	38.9	70.3	146	0.224	1.0	0.0	59.3	-59.1	38.3	70.5	147	0.217	1.0	0.0	
147	138	148	0.2	1.0	0.0	59.1	-59.3	38.1	70.5	147	0.21	1.0	0.0	58.6	-60.0	37.2	70.7	148	0.2	1.0	0.0	
148	139	149	0.183	1.0	0.0	58.7	-59.9	37.3	70.6	148	0.183	1.0	0.0	58.0	-60.9	36.1	70.8	149	0.183	1.0	0.0	
148	140	150	0.166	1.0	0.0	58.2	-60.6	36.4	70.7	148	0.167	1.0	0.0	57.3	-61.8	34.9	71.0	150	0.167	1.0	0.0	
149	141	151	0.15	1.0	0.0	57.7	-61.2	35.6	70.9	149	0.15	1.0	0.0	56.6	-63.0	33.9	71.6	151	0.15	1.0	0.0	
150	142	152	0.133	1.0	0.0	57.2	-61.9	34.8	71.0	150	0.133	1.0	0.0	55.9	-64.4	33.0	72.5	152	0.133	1.0	0.0	
151	143	154	0.116	1.0	0.0	56.8	-62.5	34.1	71.3	151	0.117	1.0	0.0	55.2	-65.8	32.1	73.3	154	0.117	1.0	0.0	
151	144	155	0.1	1.0	0.0	56.4	-63.3	33.7	71.7	151	0.1	1.0	0.0	54.5	-67.2	31.1	74.2	155	0.1	1.0	0.0	
152	145	156	0.083	1.0	0.0	56.1	-64.0	33.2	72.1	152	0.083	1.0	0.0	54.3	-67.4	29.5	73.7	156	0.083	1.0	0.0	
153	146	157	0.066	1.0	0.0	55.7	-64.7	32.8	72.6	153	0.067	1.0	0.0	54.1	-67.2	27.8	72.8	157	0.067	1.0	0.0	
153	147	158	0.049	1.0	0.0	55.4	-65.5	32.3	73.0	153	0.049	1.0	0.0	53.9	-66.9	26.1	71.9	158	0.049	1.0	0.0	
154	148	159	0.033	1.0	0.0	55.0	-66.2	31.8	73.5	154	0.033	1.0	0.0	53.7	-66.6	24.4	71.0	159	0.033	1.0	0.0	
154	149	161	0.016	1.0	0.0	54.7	-66.9	31.3	73.9	154	0.016	1.0	0.0	53.5	-66.3	22.8	70.2	161	0.016	1.0	0.0	
155	150	162	0.0	1.0	0.0	54.3	-67.6	30.8	74.3	155	0.0	1.0	0.0	53.3	-66.1	21.1	69.3	162	0.0	1.0	0.0	
156	151	163	0.0	1.0	0.0	0.016	54.2	-67.5	29.7	73.8	156	0.0	1.0	0.0	53.1	-65.9	19.9	68.6	163	0.0	1.0	0.0
156	152	164	0.0	1.0	0.0	0.033	54.2	-67.4	28.6	73.2	156	0.0	1.0	0.0	52.9	-65.7	18.7	67.9	164	0.0	1.0	0.0
157	153	164	0.0	1.0	0.0	0.05	54.1	-67.2	27.6	72.7	157	0.0	1.0	0.0	52.7	-65.5	17.4	67.2	164	0.0	1.0	0.05
158	154	165	0.0	1.0	0.0	0.066	54.0	-67.1	26.6	72.1	158	0.0	1.0	0.0	52.5	-65.3	16.2	66.5	165	0.0	1.0	0.067
159	155	166	0.0	1.0	0.0	0.083	53.9	-66.9	25.5	71.6	159	0.0	1.0	0.0	52.3	-65.1	15.0	65.8	166	0.0	1.0	0.083
159	156	167	0.0	1.0	0.0	0.1	53.9	-66.7	24.5	71.1	159	0.0	1.0	0.0	52.1	-64.9	13.9	65.1	167	0.0	1.0	0.1
160	157	168	0.0	1.0	0.0	0.116	53.8	-66.5	23.5	70.5	160	0.0	1.0	0.0	51.9	-64.7	12.7	64.4	168	0.0	1.0	0.117
161	158	169	0.0	1.0	0.0	0.133	53.8	-66.2	22.3	69.9	161	0.0	1.0	0.0	51.7	-64.5	11.6	63.8	169	0.0	1.0	0.133
162	159	170	0.0	1.0	0.0	0.15	53.8	-65.8	20.8	69.1	162	0.0	1.0	0.0	51.5	-64.3	10.5	63.2	170	0.0	1.0	0.15
163	160	171	0.0	1.0	0.0	0.166	53.8	-65.5	19.4	68.3	163	0.0	1.0	0.0	51.3	-64.1	9.4	62.6	171	0.0	1.0	0.167
164	161	172	0.0	1.0	0.0	0.183	53.8	-65.0	18.1	67.5	164	0.0	1.0	0.0	51.1	-63.9	8.3	61.3	172	0.0	1.0	0.183
165	162	173	0.0	1.0	0.0	0.2	53.8	-64.6	16.7	66.7	165	0.0	1.0	0.0	50.9	-63.7	7.3	60.3	173	0.0	1.0	0.2
166	163	174	0.0	1.0	0.0	0.216	53.7	-64.1	15.4	66.0	166	0.0	1.0	0.0	50.7	-63.5	6.3	60.7	174	0.0	1.0	0.217
167	164	175	0.0	1.0	0.0	0.233	53.7	-63.6	14.1	65.2	167	0.0	1.0	0.0	50.5	-63.3	5.2	60.1	175	0.0	1.0	0.233
168	165	175	0.0	1.0	0.0	0.25	53.7	-63.1	12.8	64.4	168	0.0	1.0	0.0	50.3	-63.1	4.2	59.5	175	0.0	1.0	0.25

I-1031130-L0 PE890-72 LAB\*a0, YN=0%, XY,Znw=3.9, 4.1, 84.7, 89.6, 93.9, LAB\*rw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

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

Output: Laser printer output; separation cmyk\*, D65, page 12/63



<http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization>  
[F: 3D-linearization PE89/PE89LE30FA.DAT in file \(F\), page 14/33](http://130.149.60.45/~farbmetrik/PE89/PE89LE30FA.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;  $h_{abs,d} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
Six hue angles of the device colours RYGBM;  $h_{abs,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{abs,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{abs,d}$	$h_{abs,s}$	$h_{abs,e}$	$rgb^*_{ds361MI}$	$rgb^*_{dx361MI}$	$LAB^*_{ds361MI}$	$LAB^*_{dx361MI}$	$LAB^*_{de361MI}$	$LAB^*_{dex361MI}$	$rgb^*_{ds361MI}$	$rgb^*_{dx361MI}$	$rgb^*_{de361MI}$	$rgb^*_{dex361MI}$	$rgb^*_{ds361MI}$	$rgb^*_{dx361MI}$	$rgb^*_{de361MI}$	$rgb^*_{dex361MI}$	
235	210	216	0.0	1.0	53.1	-30.0	-43.1	52.5	235	0.0	1.0	53.1	-30.0	-43.1	52.5	235	
235	211	217	0.0	0.983	1.0	53.1	-29.7	-43.3	52.5	235	0.0	1.0	53.1	-29.7	-43.3	52.5	235
235	212	218	0.0	0.966	1.0	53.1	-29.4	-43.5	52.5	235	0.0	1.0	53.1	-29.4	-43.5	52.5	235
236	213	219	0.0	0.95	1.0	53.1	-29.2	-43.7	52.6	236	0.0	1.0	53.1	-29.2	-43.7	52.6	236
236	214	220	0.0	0.933	1.0	53.1	-28.9	-43.9	52.6	236	0.0	1.0	53.1	-28.9	-43.9	52.6	236
237	215	221	0.0	0.916	1.0	53.1	-28.6	-44.2	52.6	237	0.0	1.0	53.1	-28.6	-44.2	52.6	237
237	216	222	0.0	0.9	1.0	53.1	-28.3	-44.4	52.7	237	0.0	1.0	53.1	-28.3	-44.4	52.7	237
237	217	223	0.0	0.883	1.0	53.1	-28.1	-44.6	52.7	237	0.0	1.0	53.1	-28.1	-44.6	52.7	237
238	218	224	0.0	0.866	1.0	53.0	-27.8	-44.9	52.8	238	0.0	1.0	53.0	-27.8	-44.9	52.8	238
238	219	225	0.0	0.85	1.0	53.0	-27.5	-45.3	53.0	238	0.0	1.0	53.0	-27.5	-45.3	53.0	238
239	220	226	0.0	0.833	1.0	53.0	-27.3	-45.6	53.2	239	0.0	1.0	53.0	-27.3	-45.6	53.2	239
239	221	227	0.0	0.816	1.0	53.0	-27.0	-46.0	53.4	239	0.0	1.0	53.0	-27.0	-46.0	53.4	239
240	222	227	0.0	0.8	1.0	52.9	-26.7	-46.4	53.6	240	0.0	1.0	52.9	-26.7	-46.4	53.6	240
240	223	228	0.0	0.783	1.0	52.9	-26.5	-46.8	53.8	240	0.0	1.0	52.9	-26.5	-46.8	53.8	240
240	224	229	0.0	0.766	1.0	52.9	-26.2	-47.2	53.9	240	0.0	1.0	52.9	-26.2	-47.2	53.9	240
241	225	230	0.0	0.75	1.0	52.9	-25.9	-47.5	54.1	241	0.0	1.0	52.9	-25.9	-47.5	54.1	241
242	226	231	0.0	0.733	1.0	52.6	-25.2	-47.8	54.1	242	0.0	1.0	52.6	-25.2	-47.8	54.1	242
242	227	232	0.0	0.716	1.0	52.2	-24.5	-48.1	54.0	242	0.0	1.0	52.2	-24.5	-48.1	54.0	242
243	228	233	0.0	0.7	1.0	51.9	-23.9	-48.4	54.0	243	0.0	1.0	51.9	-23.9	-48.4	54.0	243
244	229	234	0.0	0.683	1.0	51.6	-23.2	-48.6	53.9	244	0.0	1.0	51.6	-23.2	-48.6	53.9	244
245	230	235	0.0	0.666	1.0	51.3	-22.5	-48.9	53.8	245	0.0	1.0	51.3	-22.5	-48.9	53.8	245
246	231	236	0.0	0.65	1.0	51.0	-21.8	-49.1	53.8	246	0.0	1.0	51.0	-21.8	-49.1	53.8	246
246	232	237	0.0	0.633	1.0	50.7	-21.1	-49.4	53.7	246	0.0	1.0	50.7	-21.1	-49.4	53.7	246
247	233	237	0.0	0.616	1.0	50.2	-20.2	-49.5	53.5	247	0.0	1.0	50.2	-20.2	-49.5	53.5	247
248	234	238	0.0	0.6	1.0	49.7	-19.2	-49.6	53.2	248	0.0	1.0	49.7	-19.2	-49.6	53.2	248
249	235	239	0.0	0.583	1.0	49.1	-18.2	-49.6	52.8	249	0.0	1.0	49.1	-18.2	-49.6	52.8	249
250	236	240	0.0	0.566	1.0	48.5	-17.2	-49.6	52.5	250	0.0	1.0	48.5	-17.2	-49.6	52.5	250
251	237	241	0.0	0.55	1.0	47.9	-16.2	-49.5	52.2	251	0.0	1.0	47.9	-16.2	-49.5	52.2	251
252	238	242	0.0	0.533	1.0	47.3	-15.2	-49.5	51.8	252	0.0	1.0	47.3	-15.2	-49.5	51.8	252
253	239	243	0.0	0.516	1.0	46.7	-14.3	-49.4	51.5	253	0.0	1.0	46.7	-14.3	-49.4	51.5	253
254	240	244	0.0	0.5	1.0	46.1	-13.3	-49.4	51.1	254	0.0	1.0	46.1	-13.3	-49.4	51.1	254
255	241	245	0.0	0.483	1.0	45.5	-12.3	-49.4	50.9	255	0.0	1.0	45.5	-12.3	-49.4	50.9	255
256	242	246	0.0	0.466	1.0	44.8	-11.4	-49.4	50.7	256	0.0	1.0	44.8	-11.4	-49.4	50.7	256
258	243	247	0.0	0.45	1.0	44.2	-10.5	-49.4	50.5	258	0.0	1.0	44.2	-10.5	-49.4	50.5	258
259	244	248	0.0	0.433	1.0	43.6	-9.5	-49.4	50.3	259	0.0	1.0	43.6	-9.5	-49.4	50.3	259
260	245	248	0.0	0.416	1.0	42.9	-8.6	-49.4	50.1	260	0.0	1.0	42.9	-8.6	-49.4	50.1	260
261	246	249	0.0	0.4	1.0	42.3	-7.7	-49.3	49.9	261	0.0	1.0	42.3	-7.7	-49.3	49.9	261
262	247	250	0.0	0.383	1.0	41.7	-6.8	-49.3	49.7	262	0.0	1.0	41.7	-6.8	-49.3	49.7	262
263	248	251	0.0	0.366	1.0	41.1	-5.7	-49.2	49.6	263	0.0	1.0	41.1	-5.7	-49.2	49.6	263
264	249	252	0.0	0.35	1.0	40.5	-4.6	-49.2	49.4	264	0.0	1.0	40.5	-4.6	-49.2	49.4	264
265	250	253	0.0	0.333	1.0	39.9	-3.4	-49.2	49.3	265	0.0	1.0	39.9	-3.4	-49.2	49.3	265
267	251	254	0.0	0.316	1.0	39.3	-2.3	-49.1	49.1	267	0.0	1.0	39.3	-2.3	-49.1	49.1	267
268	252	255	0.0	0.3	1.0	38.7	-1.1	-49.0	49.0	268	0.0	1.0	38.7	-1.1	-49.0	49.0	268
269	253	256	0.0	0.283	1.0	38.1	0.0	-48.9	48.9	269	0.0	1.0	38.1	0.0	-48.9	48.9	269
271	254	257	0.0	0.266	1.0	37.4	1.1	-48.7	48.7	271	0.0	1.0	37.4	1.1	-48.7	48.7	271
272	255	258	0.0	0.25	1.0	36.8	2.2	-48.5	48.6	272	0.0	1.0	36.8	2.2	-48.5	48.6	272

Input:  $rgb/cmyk \rightarrow rgbbd$   
Output: 3D-linearization to  $cmyk^*dd$   
Output: Laser printer output; separation cmyk\*, D65, page 14/65







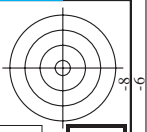
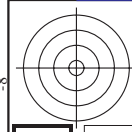


http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 18/33

nif	HC*Fid	rgp_Fid	icr_Fid	hsa_Fid	rgp*Fid	LabC*Fid	cmyk*_sep,Fid	rgp*Fid	hsa*Fid	rgp*Fid	LabC*Fid	delta
0/648	R00Y_100_100ad	1.0	0.0	1.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
1/657	R13Y_100_100ad	0.0	0.125	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
2/666	R25Y_100_100ad	0.0	0.25	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
3/675	R38Y_100_100ad	0.0	0.375	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
4/684	R50Y_100_100ad	0.0	0.5	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
5/693	R63Y_100_100ad	0.0	0.625	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
6/702	R75Y_100_100ad	0.0	0.75	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
7/711	R88Y_100_100ad	0.0	0.875	0.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
8/720	Y00C_100_100ad	1.0	0.0	1.0	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
9/639	Y13C_100_100ad	0.875	0.0	0.875	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
10/558	Y25C_100_100ad	0.75	0.0	0.75	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
11/477	Y38C_100_100ad	0.625	0.0	0.625	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
12/396	Y50C_100_100ad	0.5	0.0	0.5	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
13/315	Y63C_100_100ad	0.375	0.0	0.375	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
14/234	Y75C_100_100ad	0.25	0.0	0.25	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
15/153	Y88C_100_100ad	0.125	0.0	0.125	0.0	91.5	-15.8	84.6	86.1	100.5	0.0	0.0
16/72	G00C_100_100ad	0.0	1.0	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
17/73	G13C_100_100ad	0.0	0.125	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
18/74	G25C_100_100ad	0.0	0.25	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
19/75	G38C_100_100ad	0.0	0.375	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
20/76	G50C_100_100ad	0.0	0.5	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
21/77	G63C_100_100ad	0.0	0.625	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
22/78	G75C_100_100ad	0.0	0.75	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
23/79	G88C_100_100ad	0.0	0.875	0.0	0.0	54.3	-67.6	30.8	74.3	155.5	0.0	0.0
24/70	C00B_100_100ad	0.0	1.0	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
25/71	C13B_100_100ad	0.0	0.875	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
26/62	C25B_100_100ad	0.0	0.75	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
27/63	C38B_100_100ad	0.0	0.625	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
28/44	C50B_100_100ad	0.0	0.5	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
29/35	C63B_100_100ad	0.0	0.375	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
30/26	C75B_100_100ad	0.0	0.25	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
31/17	C88B_100_100ad	0.0	0.125	0.0	0.0	53.1	-30.0	-43.1	52.5	235.1	0.0	0.0
32/8	B00M_100_100ad	0.0	1.0	0.0	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
33/89	B13M_100_100ad	0.125	0.0	0.125	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
34/170	B25M_100_100ad	0.25	0.0	0.25	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
35/251	B38M_100_100ad	0.375	0.0	0.375	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
36/332	B50M_100_100ad	0.5	0.0	0.5	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
37/413	B63M_100_100ad	0.625	0.0	0.625	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
38/494	B75M_100_100ad	0.75	0.0	0.75	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
39/575	B88M_100_100ad	0.875	0.0	0.875	0.0	32.5	16.9	-44.6	47.7	290.8	0.0	0.0
40/656	M00R_100_100ad	1.0	0.0	1.0	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
41/655	M13R_100_100ad	0.875	0.0	0.875	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
42/654	M25R_100_100ad	0.75	0.0	0.75	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
43/653	M38R_100_100ad	0.625	0.0	0.625	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
44/652	M50R_100_100ad	0.5	0.0	0.5	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
45/651	M63R_100_100ad	0.375	0.0	0.375	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
46/650	M75R_100_100ad	0.25	0.0	0.25	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
47/649	M88R_100_100ad	0.125	0.0	0.125	0.0	48.1	65.4	-12.7	66.6	348.9	0.0	0.0
48/648	R00Y_100_100ad	1.0	0.0	1.0	0.0	47.5	57.2	37.8	68.6	33.4	0.0	0.0
49/0	NV_000ad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50/91	NV_013ad	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
51/182	NV_025ad	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
52/273	NV_038ad	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
53/564	NV_050ad	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
54/455	NV_063ad	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625
55/546	NV_075ad	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
56/637	NV_088ad	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
57/728	NV_100ad	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Mean color difference of this page:

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

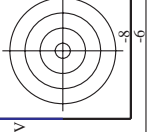
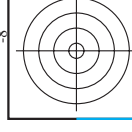


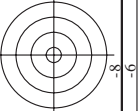
http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT / PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 19/33

ref	HC*Fid	rgp_Fid	icr_Fid	hsa_Fid	rgp*Fid	LabC*Fid	cmyk*_sep_Fid	LabC*_sep_Fid	hsa_Mid	rgp*_Mid	LabC*_Mid	delta
0/648	ROY_100_1000d	1.0	0.0	0.0	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
1/666	R25Y_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
2/684	R50Y_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
3/702	R75Y_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
4/720	Y00C_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
5/738	Y25C_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
6/756	Y50C_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
7/774	Y75C_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
8/792	COB_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
9/772	COB_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
10/776	G25B_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
11/780	G50B_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
12/444	G75B_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
13/8	B00M_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
14/332	B25R_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
15/656	B50R_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
16/652	B75R_100_1000d	0.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
17/648	ROY_100_1000d	1.0	0.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
18/688	ROY_100_0500d	1.0	0.5	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
19/706	R50Y_100_0500d	1.0	0.75	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
20/724	R75Y_100_0500d	1.0	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
21/400	G00B_100_0500d	0.5	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
22/400	G25B_100_0500d	0.5	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
23/400	G50B_100_0500d	0.5	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
24/400	G75B_100_0500d	0.5	1.0	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
25/692	B00R_100_0500d	1.0	0.5	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
26/688	R00Y_100_0500d	1.0	0.5	0.5	0.0	0.0	0.0	0.0	389	1.0	0.0	0.0
27/506	ROY_075_0500d	0.75	0.25	0.75	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
28/524	R50Y_075_0500d	0.75	0.25	0.75	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
29/542	R75Y_075_0500d	0.75	0.25	0.75	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
30/380	Y00C_075_0500d	0.5	0.75	0.25	0.75	0.5	0.0	0.0	389	1.0	0.0	0.0
31/218	G00B_075_0500d	0.25	0.75	0.25	0.75	0.5	0.0	0.0	389	1.0	0.0	0.0
32/222	G25B_075_0500d	0.25	0.75	0.25	0.75	0.5	0.0	0.0	389	1.0	0.0	0.0
33/186	B00R_075_0500d	0.25	0.75	0.25	0.75	0.5	0.0	0.0	389	1.0	0.0	0.0
34/510	B50R_075_0500d	0.75	0.25	0.75	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
35/506	R00Y_075_0500d	0.75	0.25	0.75	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
36/324	ROY_050_0500d	0.5	0.0	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
37/342	R50Y_050_0500d	0.5	0.25	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
38/360	Y00C_050_0500d	0.5	0.5	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
39/198	Y50C_050_0500d	0.25	0.5	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
40/36	G00B_050_0500d	0.0	0.5	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
41/40	G25B_050_0500d	0.0	0.5	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
42/4	B00R_050_0500d	0.0	0.5	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
43/328	B50R_050_0500d	0.5	0.0	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
44/324	R00Y_050_0500d	0.5	0.0	0.5	0.5	0.5	0.0	0.0	389	1.0	0.0	0.0
45/0	NW_0000d	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	1.0	1.0	0.0
46/91	NW_0150d	0.125	0.125	0.125	0.125	0.125	0.0	0.0	360	1.0	1.0	0.0
47/182	NW_0250d	0.25	0.25	0.25	0.25	0.25	0.0	0.0	360	1.0	1.0	0.0
48/273	NW_0350d	0.375	0.375	0.375	0.375	0.375	0.0	0.0	360	1.0	1.0	0.0
49/364	NW_0450d	0.5	0.5	0.5	0.5	0.5	0.0	0.0	360	1.0	1.0	0.0
50/455	NW_0550d	0.625	0.625	0.625	0.625	0.625	0.0	0.0	360	1.0	1.0	0.0
51/546	NW_0650d	0.75	0.75	0.75	0.75	0.75	0.0	0.0	360	1.0	1.0	0.0
52/637	NW_0750d	0.875	0.875	0.875	0.875	0.875	0.0	0.0	360	1.0	1.0	0.0
53/728	NW_1000d	1.0	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	1.0	0.0

Mean color difference of this page:

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



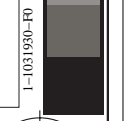


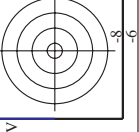
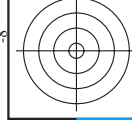
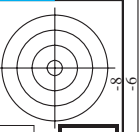
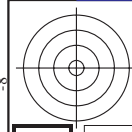
http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
 F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 20/33

n#	HC*Fid	rgp <sup>b</sup> _Fid	ieT <sup>o</sup> _Fid	hsa <sup>b</sup> _Fid	rgp <sup>b</sup> _Fid	LabCM <sup>a</sup> _Fid	cmyk <sup>a</sup> _sep_Fid	delta	rgp <sup>b</sup> _Mid	LabCM <sup>a</sup> _Mid	haN <sup>b</sup> _Mid	rgp <sup>b</sup> _Mid	LabCM <sup>a</sup> _Mid	delta
0	0	0	0	0	0	23.8	0.0	0.0	0.0	95.8	0.0	0.0	0.0	
1	0	0.125	0.125	0.062	0.0	24.9	2.1	0.0	0.38	32.5	16.9	44.6	47.7	
2	0	0.25	0.25	0.125	0.0	26.1	4.2	0.0	0.865	32.5	16.9	44.6	47.7	
3	0	0.375	0.375	0.187	0.0	27.0	6.3	0.0	0.865	32.5	16.9	44.6	47.7	
4	0	0.5	0.5	0.25	0.0	28.2	8.4	0.0	0.865	32.5	16.9	44.6	47.7	
5	0	0.625	0.625	0.312	0.0	29.0	10.5	0.0	0.865	32.5	16.9	44.6	47.7	
6	0	0.75	0.75	0.375	0.0	30.0	12.6	0.0	0.865	32.5	16.9	44.6	47.7	
7	0	0.875	0.875	0.437	0.0	31.4	14.8	0.0	0.865	32.5	16.9	44.6	47.7	
8	0	1.0	1.0	0.5	0.0	32.6	16.9	0.0	0.865	32.5	16.9	44.6	47.7	
9	0	0.125	0.125	0.062	0.0	33.2	18.8	0.0	0.865	32.5	16.9	44.6	47.7	
10	0	0.25	0.25	0.125	0.0	34.5	20.9	0.0	0.865	32.5	16.9	44.6	47.7	
11	0	0.375	0.375	0.187	0.0	35.5	23.0	0.0	0.865	32.5	16.9	44.6	47.7	
12	0	0.5	0.5	0.25	0.0	36.2	25.1	0.0	0.865	32.5	16.9	44.6	47.7	
13	0	0.625	0.625	0.312	0.0	36.8	27.2	0.0	0.865	32.5	16.9	44.6	47.7	
14	0	0.75	0.75	0.375	0.0	37.2	29.3	0.0	0.865	32.5	16.9	44.6	47.7	
15	0	0.875	0.875	0.437	0.0	37.5	31.4	0.0	0.865	32.5	16.9	44.6	47.7	
16	0	1.0	1.0	0.5	0.0	37.8	33.5	0.0	0.865	32.5	16.9	44.6	47.7	
17	0	0.125	0.125	0.062	0.0	38.0	35.6	0.0	0.865	32.5	16.9	44.6	47.7	
18	0	0.25	0.25	0.125	0.0	38.2	37.7	0.0	0.865	32.5	16.9	44.6	47.7	
19	0	0.375	0.375	0.187	0.0	38.4	39.8	0.0	0.865	32.5	16.9	44.6	47.7	
20	0	0.5	0.5	0.25	0.0	38.5	41.9	0.0	0.865	32.5	16.9	44.6	47.7	
21	0	0.625	0.625	0.312	0.0	38.6	44.0	0.0	0.865	32.5	16.9	44.6	47.7	
22	0	0.75	0.75	0.375	0.0	38.7	46.1	0.0	0.865	32.5	16.9	44.6	47.7	
23	0	0.875	0.875	0.437	0.0	38.8	48.2	0.0	0.865	32.5	16.9	44.6	47.7	
24	0	1.0	1.0	0.5	0.0	38.9	50.3	0.0	0.865	32.5	16.9	44.6	47.7	
25	0	0.125	0.125	0.062	0.0	39.0	52.4	0.0	0.865	32.5	16.9	44.6	47.7	
26	0	0.25	0.25	0.125	0.0	39.1	54.5	0.0	0.865	32.5	16.9	44.6	47.7	
27	0	0.375	0.375	0.187	0.0	39.2	56.6	0.0	0.865	32.5	16.9	44.6	47.7	
28	0	0.5	0.5	0.25	0.0	39.3	58.7	0.0	0.865	32.5	16.9	44.6	47.7	
29	0	0.625	0.625	0.312	0.0	39.4	60.8	0.0	0.865	32.5	16.9	44.6	47.7	
30	0	0.75	0.75	0.375	0.0	39.5	62.9	0.0	0.865	32.5	16.9	44.6	47.7	
31	0	0.875	0.875	0.437	0.0	39.6	65.0	0.0	0.865	32.5	16.9	44.6	47.7	
32	0	1.0	1.0	0.5	0.0	39.7	67.1	0.0	0.865	32.5	16.9	44.6	47.7	
33	0	0.125	0.125	0.062	0.0	39.8	69.2	0.0	0.865	32.5	16.9	44.6	47.7	
34	0	0.25	0.25	0.125	0.0	39.9	71.3	0.0	0.865	32.5	16.9	44.6	47.7	
35	0	0.375	0.375	0.187	0.0	40.0	73.4	0.0	0.865	32.5	16.9	44.6	47.7	
36	0	0.5	0.5	0.25	0.0	40.1	75.5	0.0	0.865	32.5	16.9	44.6	47.7	
37	0	0.625	0.625	0.312	0.0	40.2	77.6	0.0	0.865	32.5	16.9	44.6	47.7	
38	0	0.75	0.75	0.375	0.0	40.3	79.7	0.0	0.865	32.5	16.9	44.6	47.7	
39	0	0.875	0.875	0.437	0.0	40.4	81.8	0.0	0.865	32.5	16.9	44.6	47.7	
40	0	1.0	1.0	0.5	0.0	40.5	83.9	0.0	0.865	32.5	16.9	44.6	47.7	
41	0	0.125	0.125	0.062	0.0	40.6	86.0	0.0	0.865	32.5	16.9	44.6	47.7	
42	0	0.25	0.25	0.125	0.0	40.7	88.1	0.0	0.865	32.5	16.9	44.6	47.7	
43	0	0.375	0.375	0.187	0.0	40.8	90.2	0.0	0.865	32.5	16.9	44.6	47.7	
44	0	0.5	0.5	0.25	0.0	40.9	92.3	0.0	0.865	32.5	16.9	44.6	47.7	
45	0	0.625	0.625	0.312	0.0	41.0	94.4	0.0	0.865	32.5	16.9	44.6	47.7	
46	0	0.75	0.75	0.375	0.0	41.1	96.5	0.0	0.865	32.5	16.9	44.6	47.7	
47	0	0.875	0.875	0.437	0.0	41.2	98.6	0.0	0.865	32.5	16.9	44.6	47.7	
48	0	1.0	1.0	0.5	0.0	41.3	100.7	0.0	0.865	32.5	16.9	44.6	47.7	
49	0	0.125	0.125	0.062	0.0	41.4	102.8	0.0	0.865	32.5	16.9	44.6	47.7	
50	0	0.25	0.25	0.125	0.0	41.5	104.9	0.0	0.865	32.5	16.9	44.6	47.7	
51	0	0.375	0.375	0.187	0.0	41.6	107.0	0.0	0.865	32.5	16.9	44.6	47.7	
52	0	0.5	0.5	0.25	0.0	41.7	109.1	0.0	0.865	32.5	16.9	44.6	47.7	
53	0	0.625	0.625	0.312	0.0	41.8	111.2	0.0	0.865	32.5	16.9	44.6	47.7	
54	0	0.75	0.75	0.375	0.0	41.9	113.3	0.0	0.865	32.5	16.9	44.6	47.7	
55	0	0.875	0.875	0.437	0.0	42.0	115.4	0.0	0.865	32.5	16.9	44.6	47.7	
56	0	1.0	1.0	0.5	0.0	42.1	117.5	0.0	0.865	32.5	16.9	44.6	47.7	
57	0	0.125	0.125	0.062	0.0	42.2	119.6	0.0	0.865	32.5	16.9	44.6	47.7	
58	0	0.25	0.25	0.125	0.0	42.3	121.7	0.0	0.865	32.5	16.9	44.6	47.7	
59	0	0.375	0.375	0.187	0.0	42.4	123.8	0.0	0.865	32.5	16.9	44.6	47.7	
60	0	0.5	0.5	0.25	0.0	42.5	125.9	0.0	0.865	32.5	16.9	44.6	47.7	
61	0	0.625	0.625	0.312	0.0	42.6	128.0	0.0	0.865	32.5	16.9	44.6	47.7	
62	0	0.75	0.75	0.375	0.0	42.7	130.1	0.0	0.865	32.5	16.9	44.6	47.7	
63	0	0.875	0.875	0.437	0.0	42.8	132.2	0.0	0.865	32.5	16.9	44.6	47.7	
64	0	1.0	1.0	0.5	0.0	42.9	134.3	0.0	0.865	32.5	16.9	44.6	47.7	
65	0	0.125	0.125	0.062	0.0	43.0	136.4	0.0	0.865	32.5	16.9	44.6	47.7	
66	0	0.25	0.25	0.125	0.0	43.1	138.5	0.0	0.865	32.5	16.9	44.6	47.7	
67	0	0.375	0.375	0.187	0.0	43.2	140.6	0.0	0.865	32.5	16.9	44.6	47.7	
68	0	0.5	0.5	0.25	0.0	43.3	142.7	0.0	0.865	32.5	16.9	44.6	47.7	
69	0	0.625	0.625	0.312	0.0	43.4	144.8	0.0	0.865	32.5	16.9	44.6	47.7	
70	0	0.75	0.75	0.375	0.0	43.5	146.9	0.0	0.865	32.5	16.9	44.6	47.7	
71	0	0.875	0.875	0.437	0.0	43.6	149.0	0.0	0.865	32.5	16.9	44.6	47.7	
72	0	1.0	1.0	0.5	0.0	43.7	151.1	0.0	0.865	32.5	16.9	44.6	47.7	
73	0	0.125	0.125	0.062	0.0	43.8	153.2	0.0	0.865	32.5	16.9	44.6	47.7	
74	0	0.25	0.25	0.125	0.0	43.9	155.3	0.0	0.865	32.5	16.9	44.6	47.7	
75	0	0.375	0.375	0.187	0.0	44.0	157.4	0.0	0.865	32.5	16.9	44.6	47.7	
76	0	0.5	0.5	0.25	0.0	44.1	159.5	0.0	0.865	32.5	16.9	44.6	47.7	
77	0	0.625	0.625	0.312	0.0	44.2	161.6	0.0	0.865	32.5	16.9	44.6	47.7	
78	0	0.75	0.75	0.375	0.0	44.3	163.7	0.0	0.865	32.5	16.9	44.6	47.7	
79	0	0.875	0.875	0.437	0.0	44.4	165.8	0.0	0.865	32.5	16.9	44.6	47.7	
80	0	1.0	1.0	0.5	0.0	44.5	167.9	0.0	0.865	32.5	16.9	44.6	47.7	

PE890-7N; Page 20/33-F

TUB-test chart PE89; 16 step hue circle  
 colors and differences, ΔE\*  
 input: rgb/cmyk -> rgbd  
 output: 3D-linearization to cmyk\*dd





http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 21/33

Table with 16 columns: n, HHC\*Fid, rpb\_Fid, icr\_Fid, hsa\_Fid, rpb\*Fid, LabCh\*Fid, cmyk\*\_sep\_Fid, rpb\*Fid, hsa\*Fid, rpb\*\*Fid, LabCh\*\*Fid, delta, and LabCh\*\*Fid. It contains a large grid of numerical data for various color patches.

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



Table with 33 columns: n, HIC\*Foil, rgb\*Foil, icr\*Foil, hsa\*Foil, rgpb\*Foil, LabCh\*Foil, LabCh\*Sep:Foil, cmyk\*Sep:Foil, Hsa:Lab, rgpb:Lab, LabCh:Lab, LabCh:Sep:Lab, delta. Rows contain color calibration data points for various color patches and registration marks.

http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 24/33

Table with 16 columns: n, HHC\*Fid, rpb\*Fid, icr\*Fid, hsa\*Fid, rpb\*Fid, LabCH\*Fid, cmyk\*sep, Fud, rpb\*Fid, hsa\*Fid, rpb\*Fid, LabCH\*Fid, cmyk\*sep, Fud, delta. Rows list various color patches and their corresponding colorimetric and colorimetric difference values.

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*<sub>a</sub>

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

delta

I-1032330-F0

PE890-7N; Page 24/33-F3



http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 25/33

Table with 15 columns: n, HHC\*Fid, rpb\*Fid, icr\*Fid, hsa\*Fid, rpb\*Fid, LabCH\*Fid, cmyk\*sep,Fid, rpb\*Fid, hsa\*Fid, LabCH\*Fid, delta. Rows 405-485.

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

TUB-test chart PE89; 16 step hue circle colors and differences, ΔE\*<sub>a</sub>

<http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization>  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 26/33

n	HC*Fid	rgb_Fid	ier_Fid	hsa_Fid	rgb*Fid	LabCh*Fid	cmyn*sep_Fid	hsa_Mid	rgb*Mid	LabCh*Mid	delta
486	ROY0_075_0750ad	0.75	0.0	0.75	0.0	41.6	0.889	389	1.0	47.5	37.8
487	R35Y_075_0750ad	0.75	0.125	0.75	0.125	42.9	0.888	382	1.0	57.2	68.6
488	R18Y_075_0750ad	0.75	0.25	0.75	0.25	44.2	0.886	371	1.0	47.6	56.2
489	ROY0_075_0750ad	0.75	0.375	0.75	0.375	45.4	0.887	360	1.0	47.4	56.5
490	B65K_075_0750ad	0.75	0.5	0.75	0.5	46.7	0.887	348	1.0	47.8	59.9
491	B57K_075_0750ad	0.75	0.625	0.75	0.625	47.4	0.885	337	1.0	48.3	63.8
492	B50K_075_0750ad	0.75	0.75	0.75	0.75	48.1	0.863	337	1.0	48.3	63.8
493	B43K_087_0870ad	0.75	1.0	0.75	1.0	49.0	0.902	332	1.0	45.4	59.8
494	B38K_100_1000ad	0.75	1.0	1.0	1.0	49.6	0.999	317	1.0	42.4	44.3
495	R15Y_075_0750ad	0.75	0.125	0.75	0.125	45.8	0.779	317	1.0	53.2	51.8
496	ROY0_075_0620ad	0.75	0.125	0.75	0.125	47.6	0.767	380	1.0	47.5	57.2
497	R31Y_075_0620ad	0.75	0.25	0.75	0.25	48.7	0.752	380	1.0	47.6	56.2
498	R11Y_075_0620ad	0.75	0.375	0.75	0.375	49.4	0.734	380	1.0	47.6	56.2
499	B69K_075_0620ad	0.75	0.5	0.75	0.5	50.3	0.74	352	1.0	47.6	56.2
500	B59K_075_0620ad	0.75	0.625	0.75	0.625	51.1	0.737	352	1.0	47.6	56.2
501	B50K_075_0620ad	0.75	0.75	0.75	0.75	51.6	0.727	339	1.0	47.6	56.2
502	B42K_087_0870ad	0.75	1.0	0.75	1.0	52.3	0.725	330	1.0	48.1	65.4
503	B36K_100_1000ad	0.75	1.0	1.0	1.0	53.1	0.813	315	1.0	44.1	65.4
504	R18Y_075_0620ad	0.75	0.25	0.75	0.25	49.4	0.655	322	1.0	41.5	54.3
505	R07Y_075_0620ad	0.75	0.375	0.75	0.375	50.2	0.637	319	1.0	41.5	54.3
506	R26Y_075_0590ad	0.75	0.5	0.75	0.5	51.1	0.677	308	1.0	41.5	54.3
507	R26Y_075_0590ad	0.75	0.625	0.75	0.625	51.6	0.618	389	1.0	47.5	57.2
508	ROY0_075_0590ad	0.75	0.75	0.75	0.75	52.3	0.618	389	1.0	47.5	57.2
509	B01K_075_0590ad	0.75	1.0	0.75	1.0	53.0	0.623	362	1.0	47.8	58.6
510	B30K_075_0590ad	0.75	1.0	1.0	1.0	53.5	0.613	340	1.0	48.1	65.4
511	B34K_100_0750ad	0.75	1.0	0.75	1.0	54.0	0.609	340	1.0	48.1	65.4
512	B34K_100_0750ad	0.75	1.0	1.0	1.0	54.5	0.623	320	1.0	43.9	51.8
513	R38Y_075_0750ad	0.75	0.125	0.75	0.125	50.7	0.451	320	1.0	43.9	51.8
514	R38Y_075_0620ad	0.75	0.25	0.75	0.25	51.4	0.451	311	1.0	43.9	51.8
515	R23Y_075_0590ad	0.75	0.375	0.75	0.375	52.1	0.451	309	1.0	43.9	51.8
516	R18Y_075_0590ad	0.75	0.5	0.75	0.5	52.8	0.494	309	1.0	43.9	51.8
517	R18Y_075_0590ad	0.75	0.625	0.75	0.625	53.5	0.494	309	1.0	43.9	51.8
518	B65K_075_0570ad	0.75	0.375	0.75	0.375	54.2	0.512	389	1.0	47.5	57.2
519	B50K_075_0570ad	0.75	0.5	0.75	0.5	54.9	0.5	371	1.0	47.5	57.2
520	B38K_087_0570ad	0.75	0.75	0.75	0.75	55.6	0.486	348	1.0	47.5	57.2
521	B30K_100_0620ad	0.75	1.0	0.75	1.0	56.3	0.475	317	1.0	47.5	57.2
522	R68Y_075_0750ad	0.75	1.0	0.75	1.0	57.0	0.485	310	1.0	47.5	57.2
523	R68Y_075_0620ad	0.75	1.0	0.75	1.0	57.7	0.55	307	1.0	47.5	57.2
524	R30Y_075_0590ad	0.75	0.5	0.75	0.5	58.4	0.301	307	1.0	47.5	57.2
525	R30Y_075_0590ad	0.75	0.625	0.75	0.625	59.1	0.34	307	1.0	47.5	57.2
526	R31Y_075_0570ad	0.75	0.375	0.75	0.375	59.8	0.359	307	1.0	47.5	57.2
527	ROY0_075_0520ad	0.75	0.5	0.75	0.5	60.5	0.389	307	1.0	47.5	57.2
528	B50K_075_0520ad	0.75	0.625	0.75	0.625	61.2	0.367	389	1.0	47.5	57.2
529	B34K_087_0570ad	0.75	0.75	0.75	0.75	61.9	0.335	389	1.0	47.5	57.2
530	B25K_100_0590ad	0.75	1.0	0.75	1.0	62.6	0.324	330	1.0	47.5	57.2
531	R88Y_075_0750ad	0.75	1.0	0.75	1.0	63.3	0.091	300	1.0	47.5	57.2
532	R88Y_075_0620ad	0.75	1.0	0.75	1.0	64.0	0.42	311	1.0	47.5	57.2
533	R88Y_075_0590ad	0.75	1.0	0.75	1.0	64.7	0.177	300	1.0	47.5	57.2
534	R67Y_075_0590ad	0.75	0.625	0.75	0.625	65.4	0.164	81	1.0	47.5	57.2
535	ROY0_075_0520ad	0.75	0.5	0.75	0.5	66.1	0.164	77	1.0	47.5	57.2
536	B50K_075_0520ad	0.75	0.625	0.75	0.625	66.8	0.173	59	1.0	47.5	57.2
537	B23K_087_0520ad	0.75	0.75	0.75	0.75	67.5	0.212	71	1.0	47.5	57.2
538	B23K_087_0520ad	0.75	1.0	0.75	1.0	68.2	0.218	389	1.0	47.5	57.2
539	B13K_100_0570ad	0.75	1.0	0.75	1.0	68.9	0.196	359	1.0	47.5	57.2
540	Y06G_075_0750ad	0.75	0.75	0.75	0.75	69.6	0.177	389	1.0	47.5	57.2
541	Y06G_075_0620ad	0.75	0.75	0.75	0.75	70.3	0.209	300	1.0	47.5	57.2
542	Y06G_075_0590ad	0.75	0.75	0.75	0.75	71.0	0.209	288	1.0	47.5	57.2
543	Y06G_075_0520ad	0.75	0.75	0.75	0.75	71.7	0.139	88	1.0	47.5	57.2
544	Y06G_075_0520ad	0.75	1.0	0.75	1.0	72.4	0.304	88	1.0	47.5	57.2
545	Y06G_075_0520ad	0.75	1.0	1.0	1.0	73.1	0.304	88	1.0	47.5	57.2
546	Y06G_075_0520ad	0.75	1.0	1.0	1.0	73.8	0.304	88	1.0	47.5	57.2
547	Y06G_087_0120ad	0.75	0.75	0.75	0.75	74.5	0.817	270	1.0	47.5	57.2
548	Y06G_087_0120ad	0.75	1.0	0.75	1.0	75.2	0.817	270	1.0	47.5	57.2
549	Y13G_087_0570ad	0.75	0.75	0.75	0.75	75.9	0.91	97	1.0	47.5	57.2
550	Y13G_087_0570ad	0.75	1.0	0.75	1.0	76.6	0.866	97	1.0	47.5	57.2
551	Y18G_087_0620ad	0.75	0.75	0.75	0.75	77.3	0.816	99	1.0	47.5	57.2
552	Y23G_087_0590ad	0.75	0.75	0.75	0.75	78.0	0.766	99	1.0	47.5	57.2
553	Y23G_087_0590ad	0.75	1.0	0.75	1.0	78.7	0.816	99	1.0	47.5	57.2
554	Y50G_087_0520ad	0.75	0.75	0.75	0.75	79.4	0.766	108	1.0	47.5	57.2
555	Y50G_087_0520ad	0.75	1.0	0.75	1.0	80.1	0.377	108	1.0	47.5	57.2
556	G00B_087_0120ad	0.75	0.75	0.75	0.75	80.8	0.268	119	1.0	47.5	57.2
557	G00B_087_0120ad	0.75	1.0	0.75	1.0	81.5	0.148	149	1.0	47.5	57.2
558	G73B_100_0250ad	0.75	1.0	0.75	1.0	82.2	0.202	210	1.0	47.5	57.2
559	Y26G_100_0870ad	0.75	1.0	0.75	1.0	82.9	0.054	240	1.0	47.5	57.2
560	Y31G_100_0750ad	0.75	1.0	0.75	1.0	83.6	0.0	104	1.0	47.5	57.2
561	Y38G_100_0620ad	0.75	1.0	0.75	1.0	84.3	0.826	104	1.0	47.5	57.2
562	Y50G_100_0590ad	0.75	1.0	0.75	1.0	85.0	0.826	104	1.0	47.5	57.2
563	Y68G_100_0370ad	0.75	1.0	0.75	1.0	85.7	0.547	119	1.0	47.5	57.2
564	G00B_100_0250ad	0.75	1.0	0.75	1.0	86.4	0.458	131	1.0	47.5	57.2
565	G25B_100_0250ad	0.75	1.0	0.75	1.0	87.1	0.372	149	1.0	47.5	57.2
566	G50B_100_0250ad	0.75	1.0	0.75	1.0	87.8	0.304	180	1.0	47.5	57.2
567	G50B_100_0250ad	0.75	1.0	0.75	1.0	88.5	0.267	210	1.0	47.5	57.2
568	G50B_100_0250ad	0.75	1.0	0.75	1.0	89.2	0.159	210	1.0	47.5	57.2

input: *rgb/cmyk* -> *rgbd*  
output: 3D-linearization to *cmyk*\*  
Mean color difference of this page: 0.0002

TUB-test chart PE89; 16 step hue circle  
colors and differences,  $\Delta E^*$



http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 28/33

n	HC*Fid	rgb_Fid	icr_Fid	hsa_Fid	rgb*Fid	LabC*Fid	cmyp*sep_Fid	hsa*Fid	rgb*Fid	LabC*Fid	delta
648	ROY1_100_100ad	1.0	0.0	0.0	0.0	47.5	0.0	389	1.0	47.5	37.8
649	R0Y1_100_100ad	1.0	0.125	1.0	0.0	0.116	0.0	383	1.0	0.116	68.6
650	R2Y1_100_100ad	1.0	0.25	1.0	0.0	0.233	0.0	377	1.0	0.233	66.1
651	R3Y1_100_100ad	1.0	0.375	1.0	0.0	0.366	0.0	377	1.0	0.366	31.4
652	R4Y1_100_100ad	1.0	0.5	1.0	0.0	0.5	0.0	368	1.0	0.5	28.4
653	R6R1_100_100ad	1.0	0.625	1.0	0.0	0.633	0.0	360	1.0	0.633	26.9
654	B6R1_100_100ad	1.0	0.75	1.0	0.0	0.766	0.0	351	1.0	0.766	56.8
655	B5R1_100_100ad	1.0	0.875	1.0	0.0	0.883	0.0	342	1.0	0.883	58.9
656	B5R1_100_100ad	1.0	1.0	1.0	0.0	1.0	0.0	336	1.0	1.0	10.4
657	R1Y1_100_100ad	1.0	0.0	0.5	1.0	0.116	0.0	36	1.0	0.116	59.9
658	ROY1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	36	1.0	0.116	1.4
659	R3Y1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	382	1.0	0.116	65.1
660	R5Y1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	389	1.0	0.116	67.0
661	R7Y1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	382	1.0	0.116	35.0
662	B7Y1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	389	1.0	0.116	68.6
663	B6R1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	382	1.0	0.116	33.4
664	B5R1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	389	1.0	0.116	65.4
665	B5R1_100_087ad	1.0	0.875	0.562	3.00	0.125	0.005	382	1.0	0.116	72.9
666	R23Y_100_100ad	1.0	0.25	1.0	0.0	0.233	0.0	47	1.0	0.233	41.6
667	R13Y_100_100ad	1.0	0.125	1.0	0.0	0.116	0.0	42	1.0	0.116	65.4
668	ROY1_100_075ad	1.0	0.25	1.0	0.0	0.233	0.0	52	1.0	0.233	54.5
669	R33Y_100_075ad	1.0	0.375	1.0	0.0	0.366	0.0	47	1.0	0.366	69.0
670	R11Y_100_075ad	1.0	0.25	0.375	1.0	0.125	0.005	382	1.0	0.125	42.4
671	R0Y1_100_075ad	1.0	0.25	0.625	1.0	0.25	0.005	382	1.0	0.25	57.2
672	B6R1_100_075ad	1.0	0.25	0.625	1.0	0.25	0.005	389	1.0	0.25	37.8
673	B5R1_100_075ad	1.0	0.25	0.875	1.0	0.25	0.005	360	1.0	0.25	68.6
674	B5R1_100_075ad	1.0	0.25	1.0	1.0	0.25	0.005	377	1.0	0.25	33.4
675	R6Y1_100_075ad	1.0	0.375	1.0	0.0	0.366	0.0	51	1.0	0.366	66.6
676	R6Y1_100_087ad	1.0	0.375	1.0	0.0	0.366	0.0	44	1.0	0.366	63.0
677	R15Y_100_075ad	1.0	0.375	0.625	1.0	0.366	0.0	44	1.0	0.366	69.0
678	ROY1_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	38	1.0	0.375	51.8
679	R11Y_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	37	1.0	0.375	72.4
680	R31Y_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	380	1.0	0.375	44.3
681	B6R1_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	367	1.0	0.375	68.6
682	B5R1_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	352	1.0	0.375	47.1
683	B5R1_100_062ad	1.0	0.625	0.625	3.00	0.375	0.002	339	1.0	0.375	28.9
684	R50Y_100_100ad	1.0	0.5	1.0	0.0	0.5	0.0	59	1.0	0.5	61.2
685	R41Y_100_087ad	1.0	0.875	0.562	5.0	0.489	0.02	54	1.0	0.489	73.8
686	R31Y_100_075ad	1.0	0.5	0.625	4.0	0.489	0.02	54	1.0	0.489	62.5
687	R18Y_100_062ad	1.0	0.5	0.375	1.0	0.489	0.02	39	1.0	0.489	67.0
688	ROY1_100_050ad	1.0	0.5	0.375	1.0	0.489	0.02	39	1.0	0.489	58.2
689	R26Y_100_050ad	1.0	0.5	0.375	1.0	0.489	0.02	39	1.0	0.489	52.3
690	ROY1_100_050ad	1.0	0.5	0.625	1.0	0.489	0.02	377	1.0	0.489	71.4
691	B6R1_100_050ad	1.0	0.5	0.625	1.0	0.489	0.02	360	1.0	0.489	47.1
692	B5R1_100_050ad	1.0	0.5	0.875	1.0	0.489	0.02	342	1.0	0.489	68.6
693	R63Y_100_100ad	1.0	0.5	1.0	0.0	0.5	0.0	68	1.0	0.5	26.9
694	R38Y_100_087ad	1.0	0.875	0.562	6.0	0.633	0.0	68	1.0	0.633	31.4
695	R38Y_100_075ad	1.0	0.875	0.562	6.0	0.633	0.0	68	1.0	0.633	61.2
696	R38Y_100_062ad	1.0	0.625	0.625	6.0	0.633	0.0	68	1.0	0.633	78.4
697	R23Y_100_050ad	1.0	0.625	0.375	1.0	0.633	0.0	52	1.0	0.633	66.2
698	ROY1_100_037ad	1.0	0.375	0.812	3.00	0.616	0.0	52	1.0	0.616	69.0
699	R18Y_100_037ad	1.0	0.375	0.812	3.00	0.616	0.0	52	1.0	0.616	73.8
700	B5R1_100_037ad	1.0	0.375	0.812	3.00	0.616	0.0	52	1.0	0.616	69.0
701	B5R1_100_037ad	1.0	0.375	1.0	1.0	0.616	0.0	52	1.0	0.616	78.4
702	R16Y_100_100ad	1.0	0.75	1.0	0.0	0.766	0.0	77	1.0	0.766	62.5
703	R16Y_100_087ad	1.0	0.75	1.0	0.0	0.766	0.0	77	1.0	0.766	66.6
704	R16Y_100_075ad	1.0	0.75	1.0	0.0	0.766	0.0	77	1.0	0.766	92.2
705	R16Y_100_062ad	1.0	0.75	1.0	0.0	0.766	0.0	77	1.0	0.766	83.5
706	R16Y_100_050ad	1.0	0.75	1.0	0.0	0.766	0.0	77	1.0	0.766	66.6
707	R31Y_100_037ad	1.0	0.375	0.625	4.0	0.743	0.02	48	1.0	0.743	68.2
708	ROY1_100_025ad	1.0	0.25	0.875	1.0	0.75	0.02	389	1.0	0.75	58.2
709	ROY1_100_025ad	1.0	0.25	0.875	1.0	0.75	0.02	389	1.0	0.75	68.6
710	B5R1_100_025ad	1.0	0.25	0.875	1.0	0.75	0.02	389	1.0	0.75	33.4
711	R88Y_100_100ad	1.0	0.875	1.0	0.0	0.883	0.0	330	1.0	0.883	10.0
712	R88Y_100_087ad	1.0	0.875	1.0	0.0	0.883	0.0	330	1.0	0.883	66.6
713	R88Y_100_075ad	1.0	0.875	1.0	0.0	0.883	0.0	330	1.0	0.883	97.0
714	R81Y_100_062ad	1.0	0.875	0.375	1.0	0.883	0.0	82	1.0	0.883	96.4
715	R76Y_100_050ad	1.0	0.875	0.375	1.0	0.883	0.0	82	1.0	0.883	76.3
716	R68Y_100_037ad	1.0	0.875	0.625	1.0	0.883	0.0	82	1.0	0.883	95.7
717	R50Y_100_025ad	1.0	0.375	0.812	7.0	0.875	0.02	77	1.0	0.875	76.6
718	ROY1_100_025ad	1.0	0.375	0.812	7.0	0.875	0.02	77	1.0	0.875	92.2
719	ROY1_100_012ad	1.0	0.875	1.0	0.0	0.875	0.0	89	1.0	0.875	54.2
720	Y00G_100_100ad	1.0	1.0	0.5	9.0	1.0	0.0	89	1.0	1.0	73.9
721	Y00G_100_087ad	1.0	1.0	0.5	9.0	1.0	0.0	89	1.0	1.0	85.7
722	Y00G_100_075ad	1.0	1.0	0.5	9.0	1.0	0.0	89	1.0	1.0	91.5
723	Y00G_100_062ad	1.0	1.0	0.5	9.0	1.0	0.0	89	1.0	1.0	66.6
724	Y00G_100_050ad	1.0	1.0	0.5	9.0	1.0	0.0	89	1.0	1.0	37.8
725	Y00G_100_037ad	1.0	1.0	0.625	9.0	1.0	0.0	89	1.0	1.0	68.6
726	Y00G_100_025ad	1.0	1.0	0.625	9.0	1.0	0.0	89	1.0	1.0	69.0
727	Y00G_100_012ad	1.0	1.0	1.0	1.0	1.0	0.0	89	1.0	1.0	73.9
728	NW_100ad	1.0	1.0	1.0	1.0	1.0	0.0	360	1.0	1.0	95.8

Mean color difference of this page: delta

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

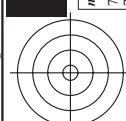


Table with columns: n, HVC\*Fad, rgb\*Fad, iet\*Fad, Hsv\*Fad, rgb\*Fad, LabCM\*Fad, cmyk\*\_sep\*Fad, LabCM\*Yad, rgb\*Yad, Hsv\*Yad, LabCM\*Yad, cmyk\*\_sep\*Yad, delta. The table contains 90 rows of color calibration data.

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

Mean color difference of this page:

9.1467



TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*<sub>ab</sub>\*

n	HC*Fid	rgb_Fid	Lab*Fid	Lab*Fid	rgb*Fid	Lab*Fid	cmyn*sep_Fid	cmyn*sep_Fid	Lab*Fid	rgb*Fid	Lab*Fid	delta
810	NV_1000	1.0	1.0	1.0	1.0	1.0	0.0	0.0	360	1.0	1.0	0.0
811	BOOR_100_012ad	0.875	0.875	1.0	0.875	0.875	0.079	0.113	360	1.0	1.0	95.8
812	BOOR_100_025ad	0.75	0.75	1.0	0.75	0.75	0.138	0.189	270	0.0	0.0	32.5
813	BOOR_100_037ad	0.625	0.625	1.0	0.625	0.625	0.262	0.347	270	0.0	0.0	32.5
814	BOOR_100_050ad	0.5	0.5	1.0	0.5	0.5	0.316	0.402	270	0.0	0.0	32.5
815	BOOR_100_062ad	0.375	0.375	1.0	0.375	0.375	0.409	0.534	270	0.0	0.0	32.5
816	BOOR_100_075ad	0.25	0.25	1.0	0.25	0.25	0.534	0.688	270	0.0	0.0	32.5
817	BOOR_100_087ad	0.125	0.125	1.0	0.125	0.125	0.688	0.909	270	0.0	0.0	32.5
818	BOOR_100_100ad	0.0	0.0	1.0	0.0	0.0	0.909	1.188	270	0.0	0.0	32.5
819	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
820	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.017	360	1.0	1.0	95.8
821	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.006	0.026	360	1.0	1.0	95.8
822	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.039	0.052	270	0.0	0.0	32.5
823	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.063	0.082	270	0.0	0.0	32.5
824	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.094	0.124	270	0.0	0.0	32.5
825	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.124	0.161	270	0.0	0.0	32.5
826	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.161	0.208	270	0.0	0.0	32.5
827	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
828	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
829	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
830	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
831	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
832	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
833	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
834	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
835	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
836	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
837	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
838	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
839	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
840	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
841	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
842	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
843	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
844	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
845	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
846	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
847	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
848	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
849	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
850	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
851	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
852	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
853	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
854	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
855	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
856	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
857	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
858	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
859	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
860	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
861	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
862	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
863	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
864	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
865	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
866	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
867	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
868	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
869	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
870	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
871	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
872	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
873	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
874	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
875	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
876	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
877	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
878	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
879	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
880	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
881	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
882	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5
883	YOOC_100_012ad	0.0	1.0	0.875	1.0	0.875	0.0	0.033	89	1.0	1.0	95.8
884	YOOC_100_025ad	0.875	0.875	0.875	0.875	0.875	0.0	0.009	360	1.0	1.0	95.8
885	YOOC_100_037ad	0.75	0.75	0.875	0.75	0.75	0.009	0.015	360	1.0	1.0	95.8
886	YOOC_100_050ad	0.625	0.625	0.875	0.625	0.625	0.009	0.015	270	0.0	0.0	32.5
887	YOOC_100_062ad	0.5	0.5	0.875	0.5	0.5	0.009	0.015	270	0.0	0.0	32.5
888	YOOC_100_075ad	0.375	0.375	0.875	0.375	0.375	0.009	0.015	270	0.0	0.0	32.5
889	YOOC_100_087ad	0.25	0.25	0.875	0.25	0.25	0.009	0.015	270	0.0	0.0	32.5
890	YOOC_100_100ad	0.125	0.125	0.875	0.125	0.125	0.009	0.015	270	0.0	0.0	32.5

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

TUB-test chart PE89; 16 step hue circle  
colors and differences,  $\Delta E^*$

Table with 13 columns: n, HIC\*Fid, rpb\_Fid, iet\_Fid, hsa\_Fid, rpb\*Fid, LabC\*Fid, cmyk\*\_sep,Fid, rpb\*Val, hsa\*Val, LabC\*Val, delta. The table contains 971 rows of numerical data representing color calibration measurements.

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

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*<sub>a</sub>

Table with 15 columns: n, HC\*Fid, rpb\_Fid, icr\_Fid, lns\_Fid, rpb\_Fid, LabCM\*Fid, LabCM\*Fid, cmyk\*\_sep\_Fid, rpb\*\_Fid, rpb\*\_Fid, LabCM\*Fid, LabCM\*Fid, delta. Rows 972-1052.

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

TUB-test chart PE89; 16 step hue circle colors and differences, ΔE\*<sub>ab</sub>





Input and Output: Printer Reflective System FRS06a

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

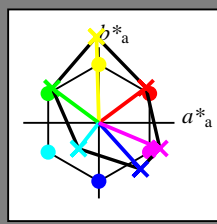
$HIC^*_-$

hue text for the colours of this page:

$H^*_-$  = R00Y\_, R25Y\_, ..., B75R\_

ORS20a; adapted (a) CIELAB data

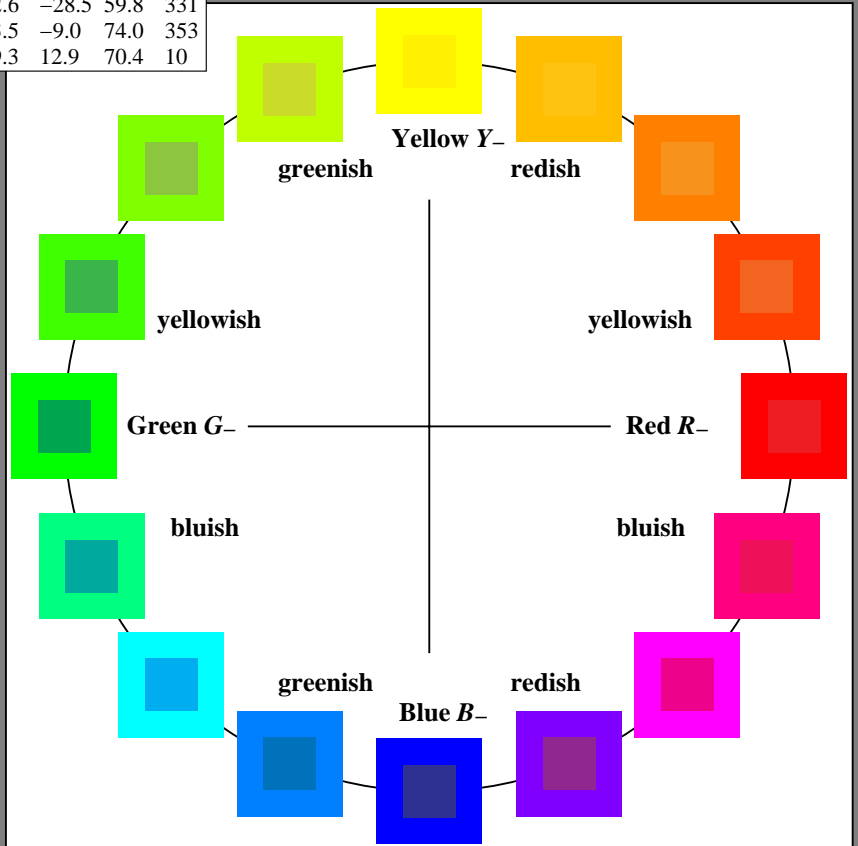
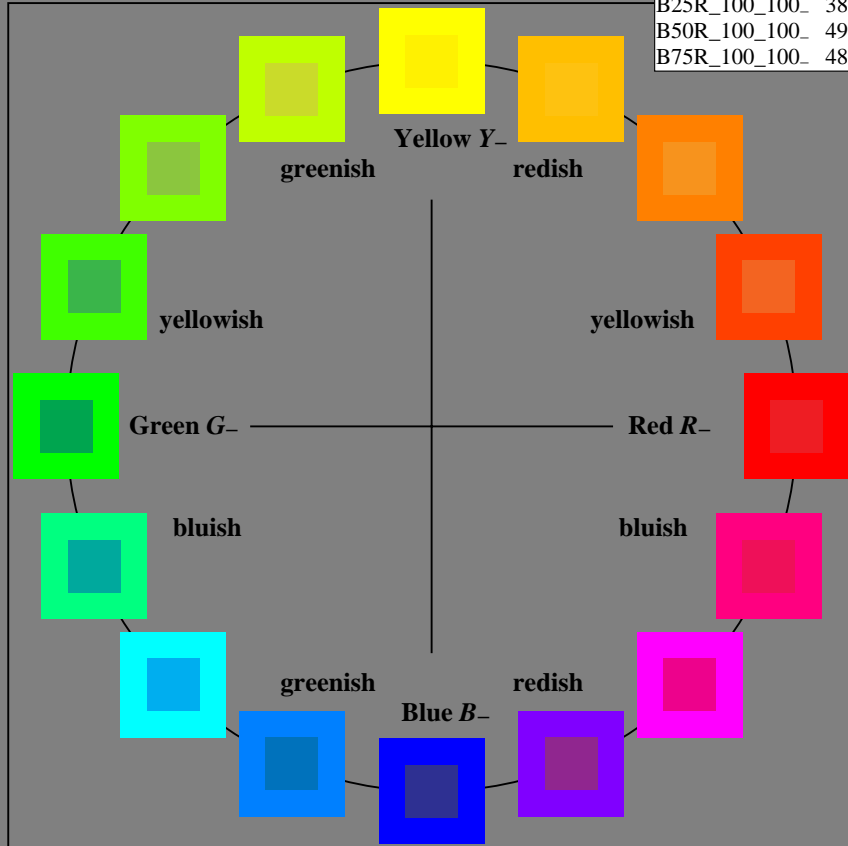
$H^*_-$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_	48.4	66.1	40.2	77.3
R25Y_100_100_	56.8	48.0	50.5	69.6
R50Y_100_100_	68.6	25.0	63.9	68.6
R75Y_100_100_	80.6	4.8	77.2	77.3
Y00G_100_100_	90.2	-9.6	88.2	88.7
Y25G_100_100_	83.2	-18.4	79.9	81.9
Y50G_100_100_	73.3	-31.7	62.7	70.2
Y75G_100_100_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



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

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
Y_.,Ma	82.7	-3.1	113.9	114.0
G_.,Ma	39.4	-61.8	45.8	76.9
C_.,Ma	47.8	-26.8	-34.2	43.4
B_.,Ma	10.1	55.1	-61.0	82.2
M_.,Ma	34.5	80.6	-33.9	87.5
N_.,Ma	6.2	0.0	0.0	0.0
W_.,Ma	91.9	0.0	0.0	0.0
R_.,CIE	39.9	58.7	27.9	65.0
Y_.,CIE	81.2	-2.8	71.5	71.6
G_.,CIE	52.2	-42.4	13.6	44.5
B_.,CIE	30.5	1.4	-46.4	46.4



1-113030-L0 PE890-7N

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=1,  $cm\dot{y}k^*$

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

see similar files: http://130.149.60.45/~farbmetrik/PE89/PE89.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20150701-PE89/PE89LOFA.TXT /.PS  
application for measurement of laser printer output

TUB material: code=rh4ta

Input and Output: Printer Reflective System FRS06a

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

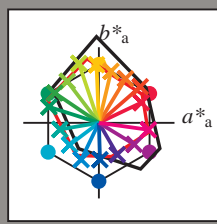
$HIC^*_e$

hue text for the colours of this page:

$H^*_e = R00Y_e, R25Y_e, \dots, B75R_e$

LRS18a; adapted (a) CIELAB data

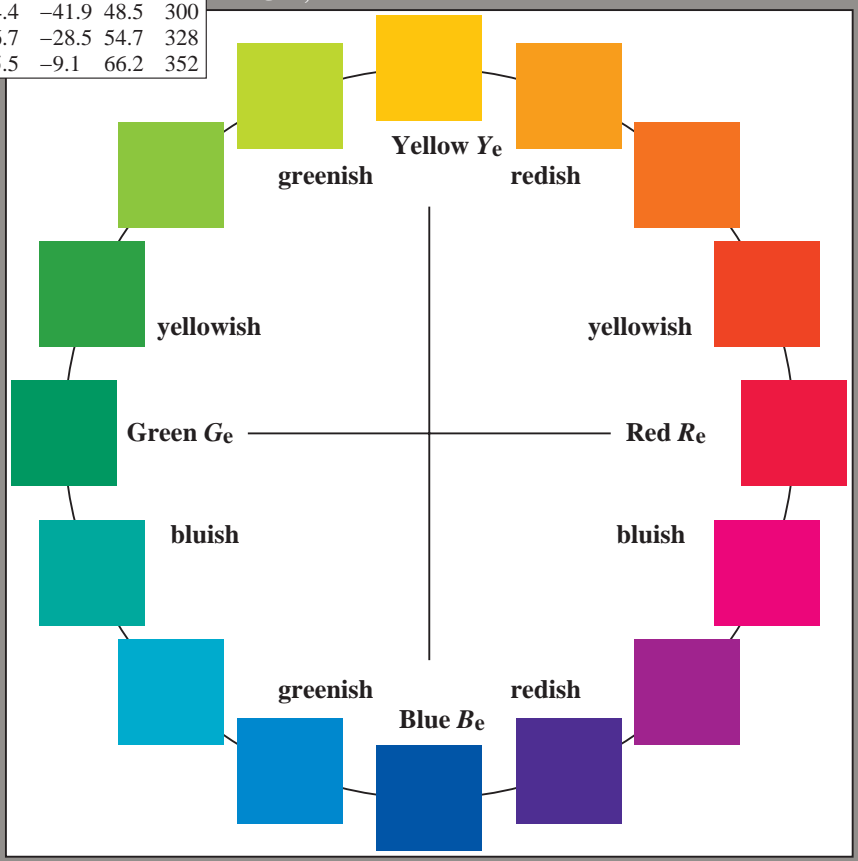
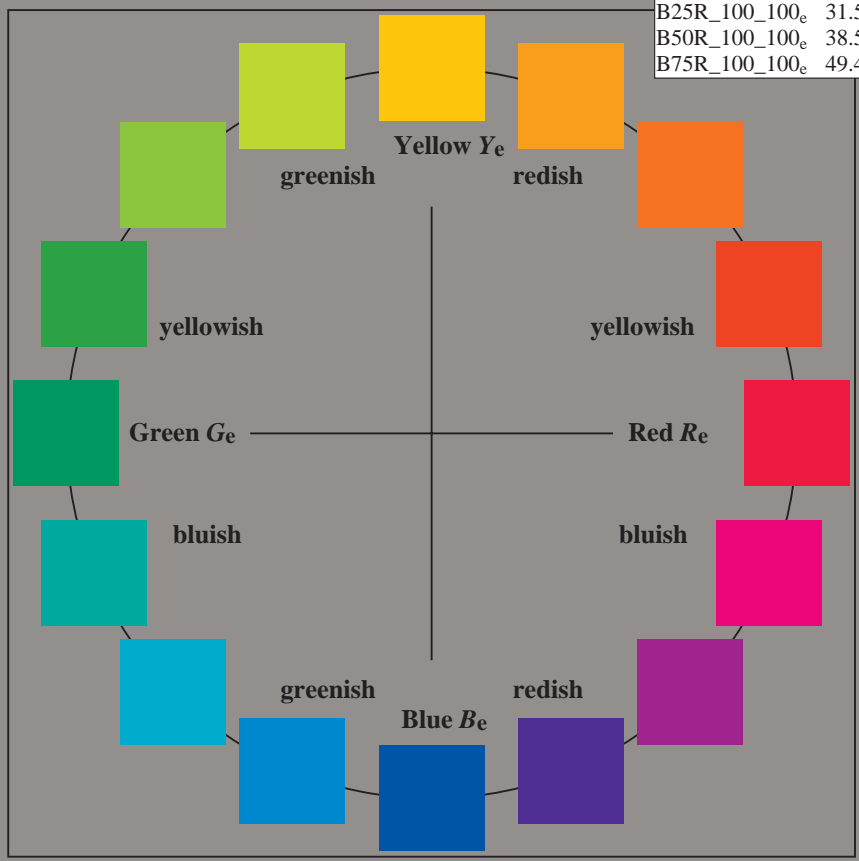
$H^*_e$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_e	47.5	56.0	26.7	62.1
R25Y_100_100_e	51.4	54.8	47.7	72.6
R50Y_100_100_e	61.8	35.2	58.4	68.2
R75Y_100_100_e	72.3	16.1	68.2	70.1
Y00G_100_100_e	83.6	-3.1	76.8	76.9
Y25G_100_100_e	85.8	-26.4	78.5	82.9
Y50G_100_100_e	71.0	-41.7	54.8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



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

LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
$R_{e, Ma}$	47.5	56.0	26.7	62.1
$Y_{e, Ma}$	83.6	-3.1	76.8	76.9
$G_{e, Ma}$	53.8	-65.9	21.1	69.2
$C_{e, Ma}$	54.9	-38.7	-29.1	48.4
$B_{e, Ma}$	37.3	1.4	-48.6	48.7
$M_{e, Ma}$	38.5	46.7	-28.5	54.7
$N_{e, Ma}$	23.8	0.0	0.0	0
$W_{e, Ma}$	95.8	0.0	0.0	0
$R_{e, CIE}$	39.9	58.7	27.9	65.0
$Y_{e, CIE}$	81.2	-2.8	71.5	71.6
$G_{e, CIE}$	52.2	-42.4	13.6	44.5
$B_{e, CIE}$	30.5	1.4	-46.4	46.4



1-113130-L0 PE890-73

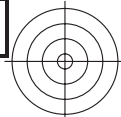
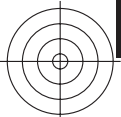
TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=1,  $cm\dot{y}k^*$

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

1-113130-F0

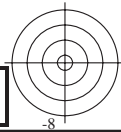
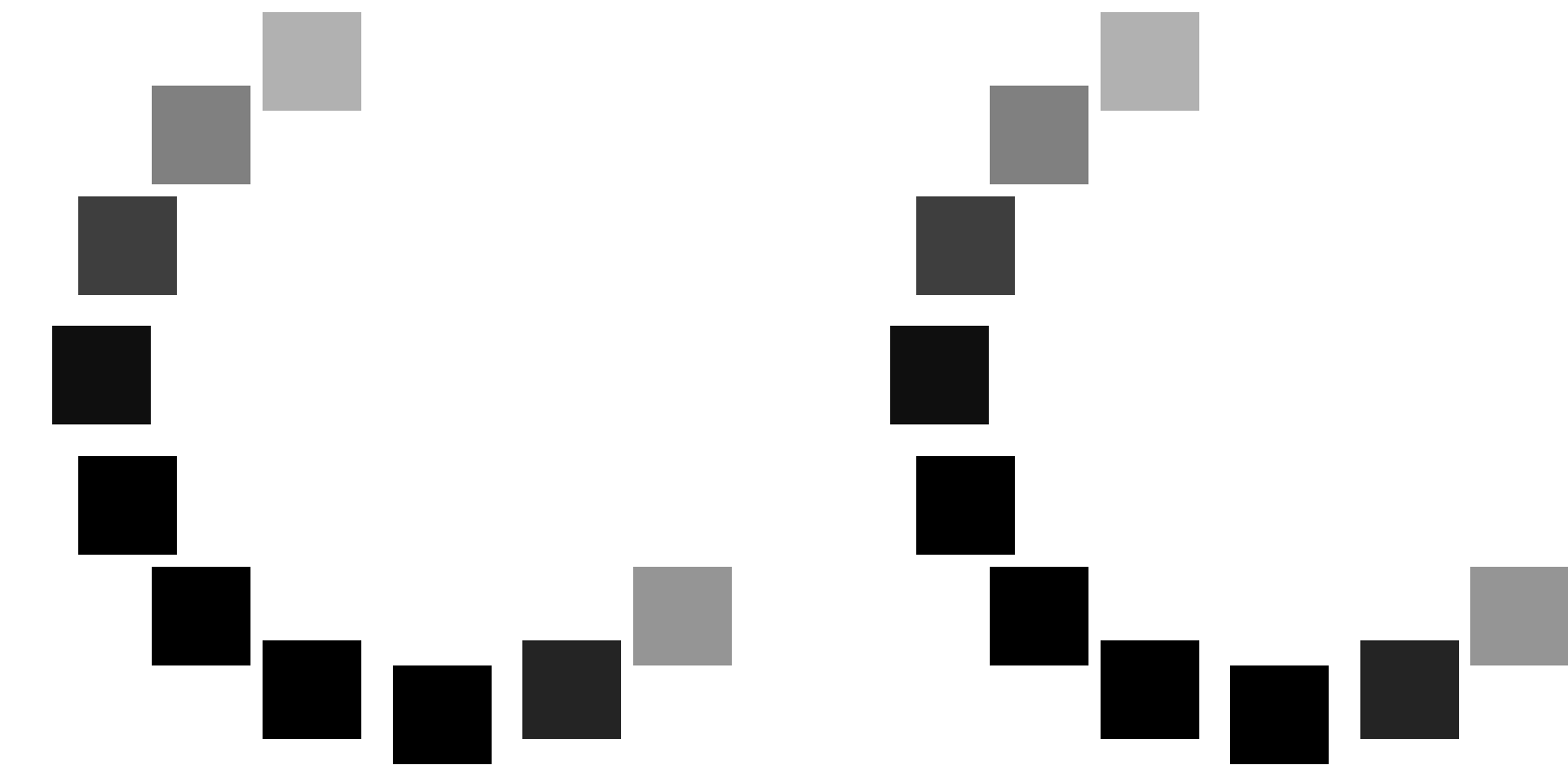
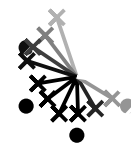
see similar files: http://130.149.60.45/~farbmetrik/PE89/PE89.HTM  
technical information: http://www.ps.bam.de or http://130.149.60.45/~farbmetrik

TUB registration: 20150701-PE89/PE89LOFA.TXT /.PS  
application for measurement of laser printer output, separation  $cm\dot{y}n6^*$  (CMYK)  
TUB material: code=rh4ta



see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS TUB material: code=rh4ta  
application for measurement of laser printer output, separation cmyk\* (CMYK)

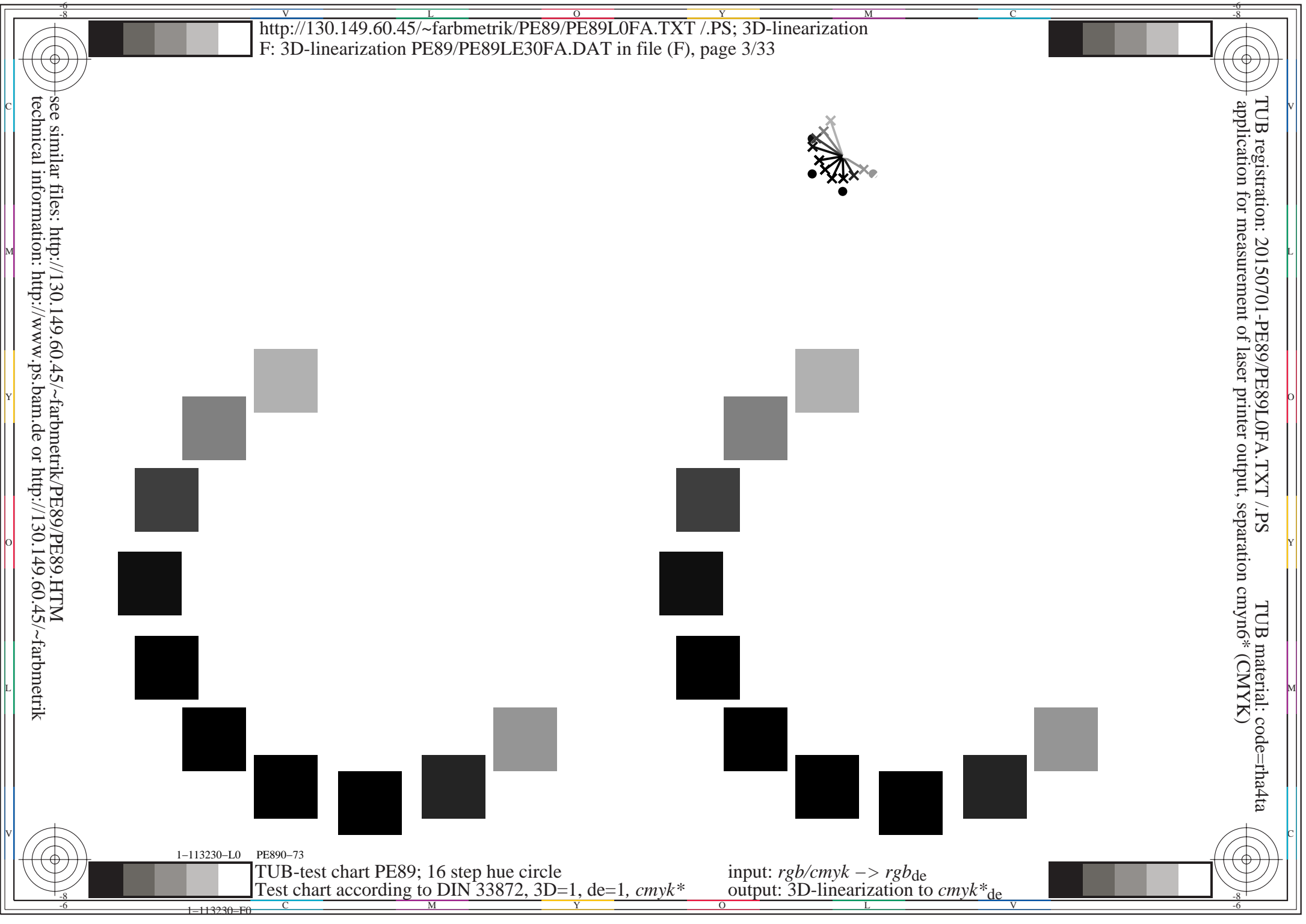


1-113230-L0 PE890-73

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

input: *rgb/cmyk* -> *rgb<sub>de</sub>*  
output: 3D-linearization to *cmyk\*<sub>de</sub>*

1=113230-F0



Input and Output: Printer Reflective System FRS06a

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

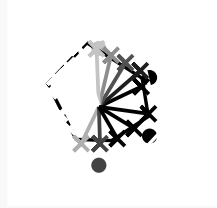
$$HIC_e^*$$

hue text for the colours of this page:

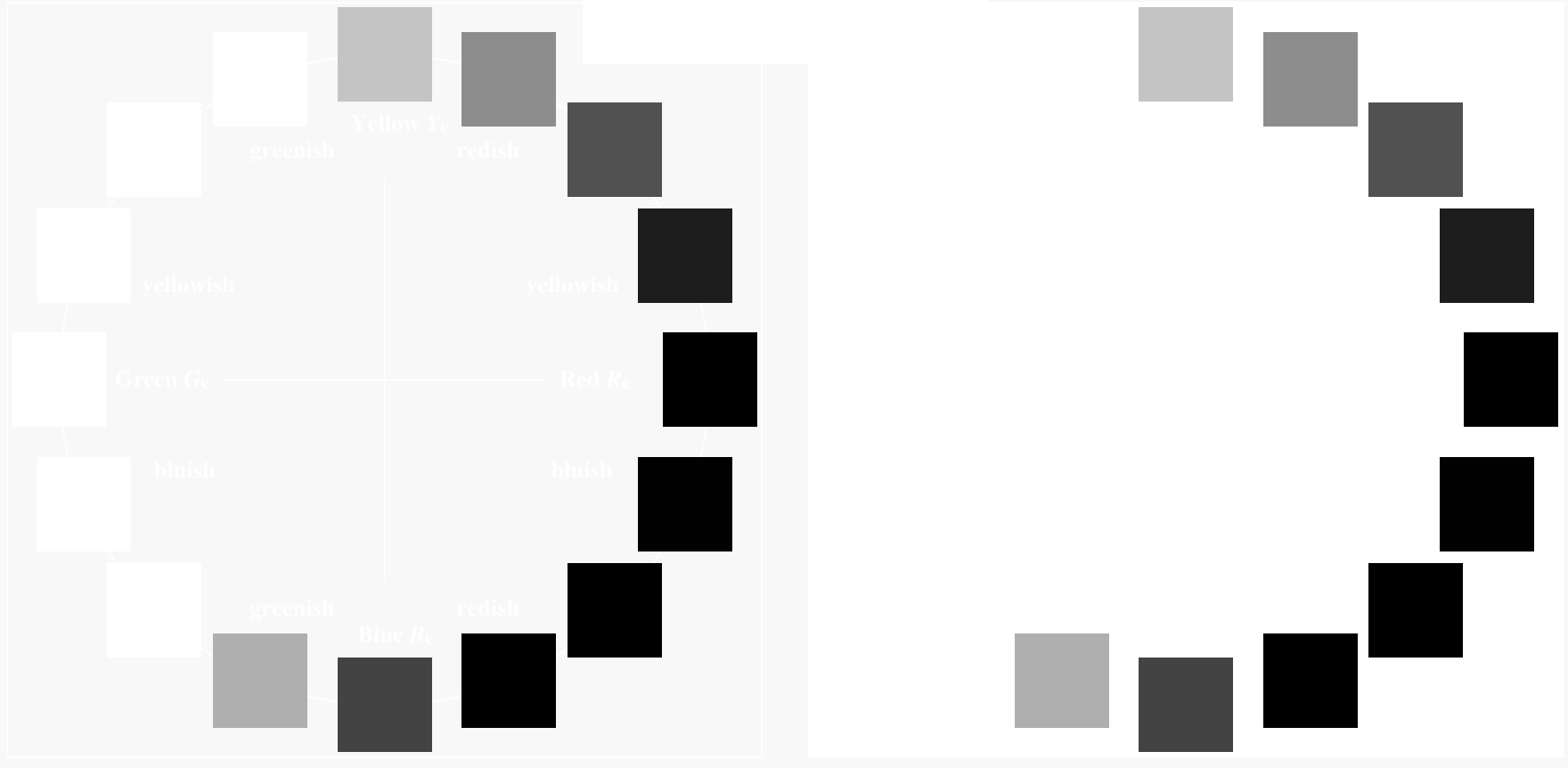
$$H_e^* = R00Y_e, R25Y_e, \dots, B75R_e$$

see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS TUB material: code=rh4ta  
application for measurement of laser printer output, separation cmyk\* (CMYK)



%Gamut  
u\*<sub>rel</sub> = 114  
%Regularity  
g\*<sub>H,rel</sub> = 28  
g\*<sub>C,rel</sub> = 38



1-113330-L0 PE890-73

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

input: *rgb/cmyk* -> *rgb<sub>de</sub>*  
output: 3D-linearization to *cmyk\*<sub>de</sub>*

1-113330-F0

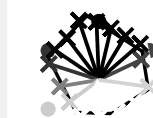
Input and Output: Printer Reflective System FRS06a

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

$$HIC^*_e$$

hue text for the colours of this page:

$$H^*_e = R00Y_e, R25Y_e, \dots, B75R_e$$



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



see similar files: <http://130.149.60.45/~farbmetrik/PE89/PE89.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20150701-PE89/PE89L0FA.TXT /.PS TUB material: code=rh4ta  
application for measurement of laser printer output, separation cmyk\* (CMYK)

1-113430-L0 PE890-73

TUB-test chart PE89; 16 step hue circle  
Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

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

1-113430-F0

Input and Output: Printer Reflective System FRS06a

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

$$HIC^*_e$$

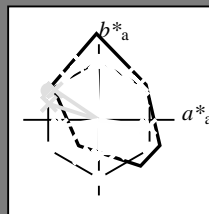
hue text for the colours

of this page:

$$H^*_e = R00Y_e, R25Y_e, \dots, B75R_e$$

LRS18a; adapted (a) CIELAB data

$H^*_e$	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100 <sub>e</sub>	47.5	56.0	26.7	62.1
R25Y_100_100 <sub>e</sub>	51.4	54.8	47.7	72.6
R50Y_100_100 <sub>e</sub>	61.8	35.2	58.4	68.2
R75Y_100_100 <sub>e</sub>	72.3	16.1	68.2	70.1
Y00G_100_100 <sub>e</sub>	83.6	-3.1	76.8	76.9
Y25G_100_100 <sub>e</sub>	85.8	-26.4	78.5	82.9
Y50G_100_100 <sub>e</sub>	71.0	-41.7	54.8	68.9
Y75G_100_100 <sub>e</sub>	59.9	-58.2	39.3	70.2
G00B_100_100 <sub>e</sub>	53.8	-65.9	21.1	69.2
G25B_100_100 <sub>e</sub>	55.0	-51.6	-8.7	52.3
G50B_100_100 <sub>e</sub>	54.9	-38.7	-29.1	48.4
G75B_100_100 <sub>e</sub>	51.7	-23.3	-48.6	53.9
B00R_100_100 <sub>e</sub>	37.3	1.4	-48.6	48.7
B25R_100_100 <sub>e</sub>	31.5	24.4	-41.9	48.5
B50R_100_100 <sub>e</sub>	38.5	46.7	-28.5	54.7
B75R_100_100 <sub>e</sub>	49.4	65.5	-9.1	66.2



%Gamut

$u^*_{rel} = 114$

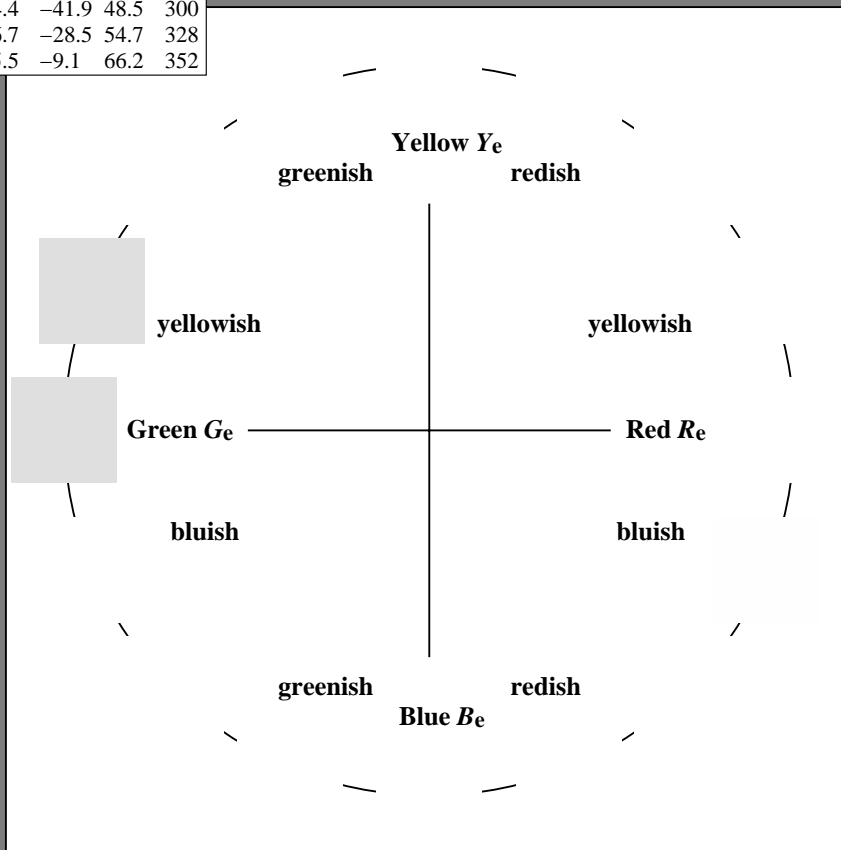
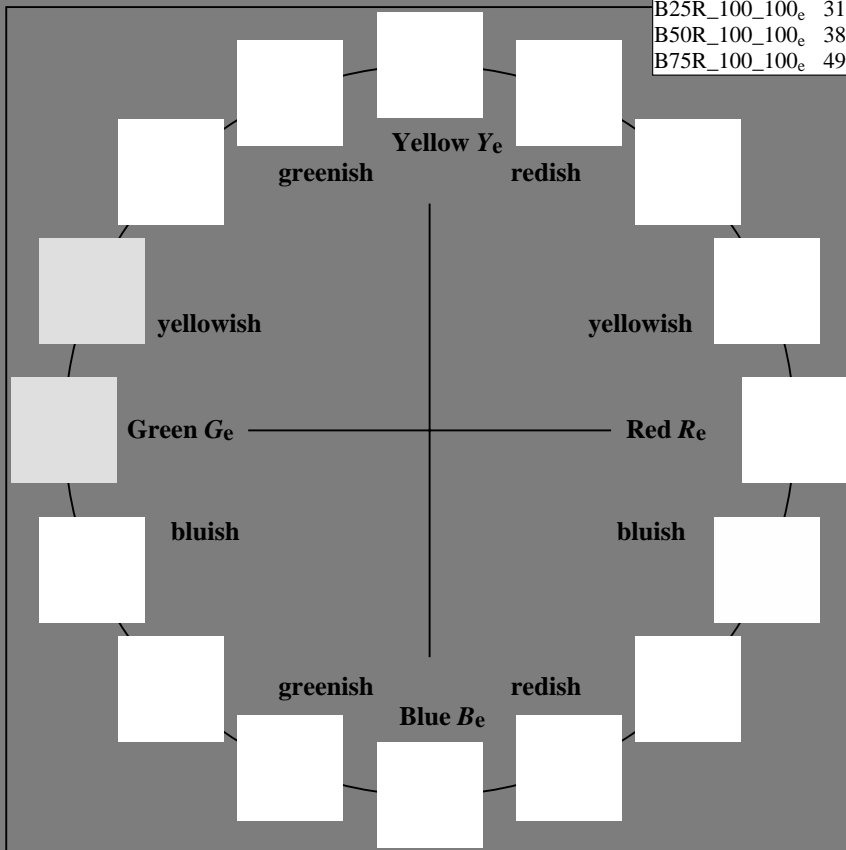
%Regularity

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

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

LRS18a; adapted (a) CIELAB data

name	$L^*=L^*_a a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
R <sub>e, Ma</sub>	47.5	56.0	26.7	62.1
Y <sub>e, Ma</sub>	83.6	-3.1	76.8	76.9
G <sub>e, Ma</sub>	53.8	-65.9	21.1	69.2
C <sub>e, Ma</sub>	54.9	-38.7	-29.1	48.4
B <sub>e, Ma</sub>	37.3	1.4	-48.6	48.7
M <sub>e, Ma</sub>	38.5	46.7	-28.5	54.7
N <sub>e, Ma</sub>	23.8	0.0	0.0	0
W <sub>e, Ma</sub>	95.8	0.0	0.0	0
R <sub>e, CIE</sub>	39.9	58.7	27.9	65.0
Y <sub>e, CIE</sub>	81.2	-2.8	71.5	71.6
G <sub>e, CIE</sub>	52.2	-42.4	13.6	44.5
B <sub>e, CIE</sub>	30.5	1.4	-46.4	46.4



1-113530-L0 PE890-73

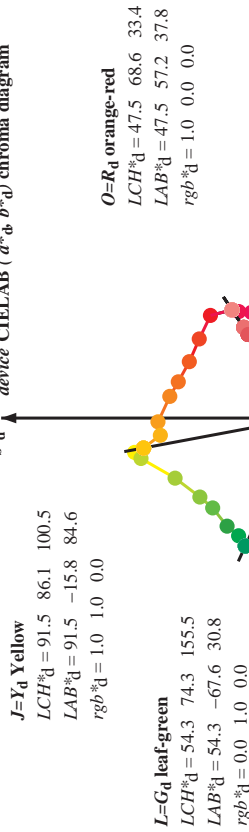
TUB-test chart PE89; 16 step hue circle  
 Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

input: rgb/cmyk -> rgb<sub>de</sub>  
 output: 3D-linearization to cmyk\*<sub>de</sub>

1-113530-F0

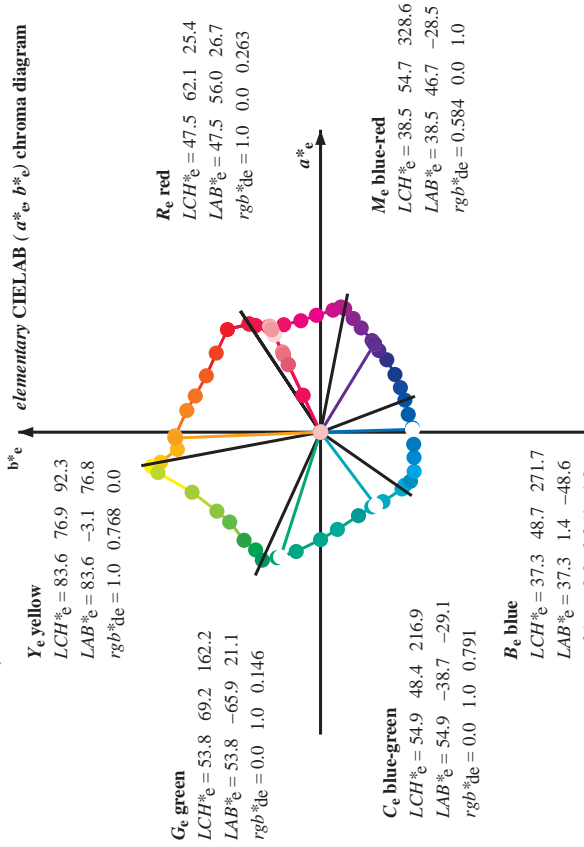
Data of Maximum color, M in colorimetric system Laser printer output; separation cmyk\*, D65 for input or output; Six hue angles of the 60 degree standard colours RYGBM;  $h_{abs} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
 Six hue angles of the device colours RYGBM;  $h_{ab,d} = 33.5, 100.6, 155.5,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

$J=Y_d$  Yellow  
 $LCH^*_d = 91.5 \ 86.1 \ 100.5$   
 $LAB^*_d = 91.5 \ -15.8 \ 84.6$   
 $rgb^*_d = 1.0 \ 1.0 \ 0.0$

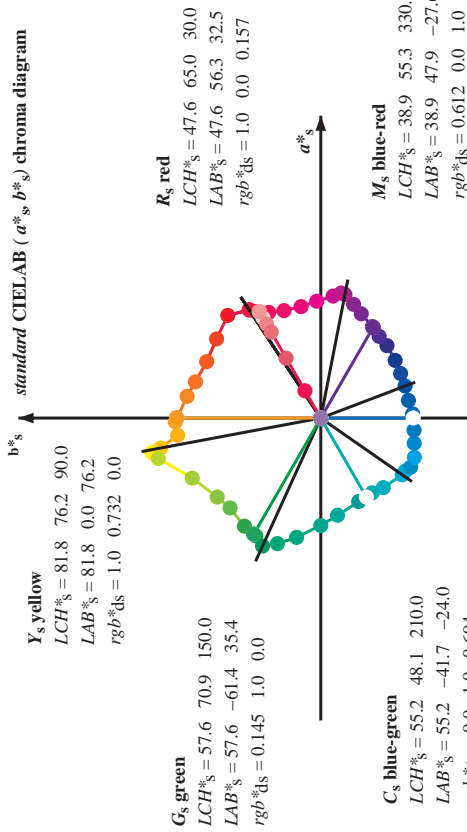


$Y_e$  yellow  
 $LCH^*_e = 83.6 \ 76.9 \ 92.3$   
 $LAB^*_e = 83.6 \ -3.1 \ 76.8$   
 $rgb^*_de = 1.0 \ 0.768 \ 0.0$

elementary CIE LAB ( $a^*_e, b^*_e$ ) chroma diagram



standard CIE LAB ( $a^*_s, b^*_s$ ) chroma diagram



TUB-test chart PE89; 16 step hue circle  
 48 step hue circles;  $rgb-LabCh$ \*tables

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

Notes to the CIE LAB chroma diagrams ( $a^*_d, b^*_d$ ), ( $a^*_s, b^*_s$ ), ( $a^*_e, b^*_e$ )

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

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

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

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

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

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





http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT / PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.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<sub>abs,d</sub> = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;  
Six hue angles of the device colours RYGBM; h<sub>abs,d</sub> = 33.5, 100.6, 155.5, 230.8, 348.9; Six hue angles of the elementary colours RYGBM; h<sub>abs,e</sub> = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

h <sub>abs,d</sub>	h <sub>abs,e</sub>	h <sub>abs</sub>	h <sub>e</sub>	LAB* <sub>d</sub> dx64M	LAB* <sub>e</sub> dx64M (x=LabCh)	rgb <sup>s</sup> dex36IM	LAB* <sup>s</sup> dex36IM	rgb <sup>b</sup> dex36IM	LAB* <sup>b</sup> dex36IM	rgb <sup>d</sup> dex36IM	LAB* <sup>d</sup> dex36IM	rgb <sup>b</sup> dex36IM	LAB* <sup>b</sup> dex36IM							
33.4	30.0	25.4	1.0	0.0	47.5	57.2	37.8	68.6	33.4	1.0	0.0	0.263	47.6	56.1	26.7	62.1	25			
42.1	37.5	33.8	1.0	0.125	0.0	51.9	54.3	49.2	73.2	42.1	1.0	0.0	0.012	47.6	57.2	37.5	68.4	33		
52.8	45.0	42.1	1.0	0.25	0.0	58.2	41.8	55.1	69.2	52.8	1.0	0.125	0.0	52.0	54.3	49.2	73.3	42		
63.7	52.5	50.5	1.0	0.375	0.0	64.6	29.8	60.4	67.3	63.7	1.0	0.216	0.0	56.6	45.2	53.9	70.3	49		
73.8	60.0	58.8	1.0	0.5	0.0	70.5	19.2	66.2	69.0	73.8	1.0	0.32	0.0	61.8	35.2	58.4	68.2	58		
80.7	67.5	67.2	1.0	0.625	0.0	74.9	11.4	70.7	71.6	80.7	1.0	0.412	0.0	66.4	26.9	62.3	67.9	66		
91.5	75.0	75.6	1.0	0.75	0.0	82.9	-2.0	76.9	77.0	91.5	1.0	0.532	0.0	71.6	17.3	67.5	69.7	75		
96.8	82.5	83.9	1.0	0.875	0.0	87.6	-9.0	75.7	76.3	96.8	1.0	0.655	0.0	76.9	8.4	72.5	73.0	83		
100.5	90.0	92.3	1.0	1.0	0.0	91.5	-15.8	84.6	86.1	100.5	1.0	0.769	0.0	83.7	-3.0	76.8	76.9	92		
101.4	97.5	101.0	1.0	0.875	1.0	92.8	-18.1	89.4	91.2	101.4	1.0	0.996	0.0	91.5	-15.5	84.4	85.8	100		
103.9	105.0	109.7	1.0	0.75	1.0	90.1	-21.3	86.0	88.6	103.9	1.0	0.684	1.0	0.0	84.7	-27.5	76.7	81.5	109	
115.0	112.5	118.5	1.0	0.625	1.0	0.0	79.9	-31.7	67.9	75.0	115.0	1.0	0.595	1.0	0.0	77.8	-34.4	65.0	73.6	117
127.3	120.0	127.2	0.5	1.0	0.0	70.9	-41.7	54.8	68.9	127.3	1.0	1.0	0.501	1.0	0.0	71.0	-41.6	54.9	68.9	127
134.7	127.5	136.0	0.375	1.0	0.0	66.5	-47.5	48.0	67.6	134.7	1.0	1.0	0.366	1.0	0.0	66.2	-48.2	47.6	67.8	135
144.7	135.0	144.7	0.25	1.0	0.0	60.6	-57.2	40.4	70.1	144.7	1.0	1.0	0.25	1.0	0.0	60.6	-57.1	40.5	70.1	144
151.0	142.5	153.4	0.125	1.0	0.0	57.0	-62.2	34.4	71.1	151.0	1.0	1.0	0.073	1.0	0.0	55.9	-64.4	33.0	72.5	152
155.5	150.0	162.2	0.0	1.0	0.0	54.3	-67.6	30.8	74.3	155.5	1.0	1.0	0.0	0.147	53.8	-65.9	21.1	69.3	162	
160.8	157.5	169.0	0.0	1.0	0.125	53.8	-66.4	23.0	70.2	160.8	1.0	1.0	0.251	53.8	-63.0	12.7	64.4	168		
168.5	165.0	175.9	0.0	1.0	0.25	53.7	-63.1	12.8	64.4	168.5	1.0	1.0	0.331	54.4	-59.3	4.2	59.5	175		
179.9	172.5	182.7	0.0	1.0	0.375	54.7	-56.8	0.0	56.8	179.9	1.0	1.0	0.405	54.8	-55.6	-2.1	55.7	182		
189.8	180.0	189.6	0.0	1.0	0.5	55.0	-51.4	-8.9	52.2	189.8	1.0	1.0	0.497	55.0	-51.5	-8.6	52.3	189		
204.4	187.5	196.4	0.0	1.0	0.625	55.2	-44.1	-20.0	48.5	204.4	1.0	1.0	0.553	55.2	-48.6	-13.9	50.7	195		
214.4	195.0	203.2	0.0	1.0	0.75	55.2	-39.5	-27.1	47.9	214.4	1.0	1.0	0.615	55.3	-44.7	-19.2	48.8	203		
221.9	202.5	210.1	0.0	1.0	0.875	54.4	-36.7	-33.0	49.4	221.9	1.0	1.0	0.69	55.3	-41.8	-23.8	48.2	209		
235.1	210.0	216.9	0.0	1.0	1.0	53.1	-30.0	-43.1	52.5	235.1	1.0	1.0	0.792	55.0	-38.6	-29.0	48.4	216		
237.9	217.5	223.8	0.0	0.875	1.0	53.1	-27.9	-44.7	52.7	237.9	1.0	1.0	0.888	54.3	-36.1	-34.1	49.8	223		
241.3	225.0	230.6	0.0	0.75	1.0	52.9	-25.9	-47.5	54.1	241.3	1.0	1.0	0.957	53.6	-32.5	-39.7	51.5	230		
247.2	232.5	237.5	0.0	0.625	1.0	50.5	-20.8	-49.5	53.7	247.2	1.0	1.0	0.916	1.0	53.1	-28.6	-44.1	52.7	237	
254.9	240.0	244.3	0.0	0.5	1.0	46.1	-13.3	-49.4	51.1	254.9	1.0	1.0	0.686	1.0	51.7	-23.3	-48.5	54.0	244	
262.6	247.5	251.2	0.0	0.375	1.0	41.4	-6.3	-49.2	49.6	262.6	1.0	1.0	0.568	1.0	48.2	-17.2	-49.5	52.6	250	
272.6	255.0	258.0	0.0	0.25	1.0	36.8	2.2	-48.5	48.6	272.6	1.0	1.0	0.449	1.0	44.2	-10.4	-49.4	50.6	258	
281.4	262.5	264.8	0.0	0.125	1.0	35.0	9.4	-46.3	47.3	281.4	1.0	1.0	0.353	1.0	40.6	-4.7	-49.2	49.5	264	
290.8	270.0	271.7	0.0	0.0	1.0	32.5	16.9	-44.6	47.7	290.8	1.0	1.0	0.261	1.0	37.3	1.5	-48.6	48.7	271	
299.2	277.5	278.8	0.125	0.0	1.0	31.6	23.6	-42.2	48.4	299.2	1.0	1.0	0.169	1.0	35.7	7.0	-47.2	47.8	278	
307.8	285.0	285.9	0.25	0.0	1.0	31.0	30.5	-39.3	49.8	307.8	1.0	1.0	0.065	1.0	33.9	13.1	-45.6	47.5	285	
317.5	292.5	293.0	0.375	0.0	1.0	34.2	38.2	-35.0	51.8	317.5	1.0	1.0	0.026	0.0	1.0	32.4	18.4	-44.1	47.9	292
324.4	300.0	300.1	0.5	0.0	1.0	37.2	43.1	-30.8	53.0	324.4	1.0	1.0	0.139	0.0	1.0	31.5	24.4	-41.9	48.6	300
330.6	307.5	307.2	0.625	0.0	1.0	39.1	48.4	-27.2	55.6	330.6	1.0	1.0	0.035	0.0	1.0	31.1	29.8	-39.7	49.7	306
338.7	315.0	314.3	0.75	0.0	1.0	41.8	55.1	-21.4	59.1	338.7	1.0	1.0	0.335	0.0	1.0	33.2	35.8	-36.5	51.2	314
343.9	322.5	321.4	0.875	0.0	1.0	45.6	60.1	-17.3	62.6	343.9	1.0	1.0	0.439	0.0	1.0	35.8	40.8	-32.9	52.5	321
348.9	330.0	328.6	1.0	0.0	1.0	48.1	65.4	-12.7	66.6	348.9	1.0	1.0	0.584	0.0	1.0	38.5	46.8	-28.4	54.8	328
350.7	337.5	335.7	1.0	0.0	0.875	49.5	66.1	-10.7	67.0	350.7	1.0	1.0	0.696	0.0	1.0	40.7	52.3	-24.0	57.6	335
354.2	345.0	342.8	1.0	0.0	0.75	49.3	64.5	-6.5	64.8	354.2	1.0	1.0	0.848	0.0	1.0	44.9	59.1	-18.2	61.9	342
361.9	352.5	349.9	1.0	0.0	0.625	48.0	61.8	2.1	61.8	361.9	1.0	1.0	0.964	48.6	65.6	-12.1	66.8	349		
370.0	360.0	357.0	1.0	0.0	0.5	47.8	58.9	10.4	59.9	370.0	1.0	1.0	0.828	49.5	65.6	-9.0	66.2	352		
378.9	367.5	364.1	1.0	0.0	0.375	47.4	56.8	19.5	60.0	378.9	1.0	1.0	0.659	48.4	62.7	-0.1	62.7	359		
386.2	375.0	371.2	1.0	0.0	0.25	47.5	55.9	27.5	62.3	386.2	1.0	1.0	0.519	47.8	59.5	9.2	60.2	368		
393.4	382.5	378.3	1.0	0.0	0.125	47.6	56.3	34.2	65.9	393.4	1.0	1.0	0.408	47.5	57.6	17.1	60.0	376		
	393.4	390.0	385.4	1.0	0.0	0.0	47.5	57.2	37.8	68.6	393.4	1.0	1.0	0.263	47.6	56.1	26.7	62.1	385	

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

http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 10/33

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;  $h_{abs,d} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;

Six hue angles of the device colours RYGBM;  $h_{abs,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{abs,d} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

	$R_d$	$LAB^*_{ds361MI}$	$LAB^*_{dss361MI}(x=LabCh)$	$rgb^*_{ds361MI}$	$rgb^*_{dss361MI}(x=LabCh)$	$rgb^*_{dd361MI}$	$LAB^*_{dex361MI}$	$LAB^*_{dex361MI}(x=LabCh)$	$rgb^*_{dd361MI}$	$rgb^*_{dd361MI}$						
33	1.0	0.0	0.0	47.5	57.2	37.8	68.6	33	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	1.0	0.016	0.0	48.1	56.9	39.3	69.2	34	1.0	0.0	0.017	0.0	0.0	0.017	0.0	0.0
35	1.0	0.033	0.0	48.7	56.6	40.8	69.8	35	1.0	0.0	0.033	0.0	0.0	0.033	0.0	0.0
36	1.0	0.005	0.0	49.3	56.3	42.3	70.4	36	1.0	0.0	0.005	0.0	0.0	0.005	0.0	0.0
38	1.0	0.006	0.0	49.9	55.9	43.9	71.1	38	1.0	0.0	0.007	0.0	0.0	0.007	0.0	0.0
39	1.0	0.083	0.0	50.5	55.5	45.4	71.7	39	1.0	0.0	0.083	0.0	0.0	0.083	0.0	0.0
40	1.0	0.1	0.0	51.0	55.0	46.9	72.3	40	1.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
41	1.0	0.116	0.0	51.6	54.5	48.4	72.9	41	1.0	0.0	0.117	0.0	0.0	0.117	0.0	0.0
42	1.0	0.133	0.0	52.3	53.4	49.7	73.0	42	1.0	0.0	0.133	0.0	0.0	0.133	0.0	0.0
44	1.0	0.15	0.0	53.2	51.8	50.6	72.4	44	1.0	0.0	0.15	0.0	0.0	0.15	0.0	0.0
45	1.0	0.166	0.0	54.0	50.2	51.5	71.9	45	1.0	0.0	0.167	0.0	0.0	0.167	0.0	0.0
47	1.0	0.183	0.0	54.9	48.5	52.3	71.4	47	1.0	0.0	0.183	0.0	0.0	0.183	0.0	0.0
48	1.0	0.2	0.0	55.7	46.8	53.1	70.8	48	1.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
50	1.0	0.216	0.0	56.6	45.2	53.8	70.3	50	1.0	0.0	0.216	0.0	0.0	0.216	0.0	0.0
51	1.0	0.233	0.0	57.4	43.5	54.5	69.7	51	1.0	0.0	0.233	0.0	0.0	0.233	0.0	0.0
52	1.0	0.25	0.0	58.2	41.8	55.1	69.2	52	1.0	0.0	0.25	0.0	0.0	0.25	0.0	0.0
54	1.0	0.266	0.0	59.1	40.2	56.0	69.0	54	1.0	0.0	0.267	0.0	0.0	0.267	0.0	0.0
55	1.0	0.283	0.0	59.9	38.6	56.8	68.7	55	1.0	0.0	0.283	0.0	0.0	0.283	0.0	0.0
57	1.0	0.3	0.0	60.8	37.1	57.5	68.5	57	1.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0
58	1.0	0.316	0.0	61.6	35.5	58.2	68.2	58	1.0	0.0	0.317	0.0	0.0	0.317	0.0	0.0
60	1.0	0.333	0.0	62.5	33.9	58.9	68.0	60	1.0	0.0	0.333	0.0	0.0	0.333	0.0	0.0
61	1.0	0.35	0.0	63.3	32.2	59.5	67.7	61	1.0	0.0	0.35	0.0	0.0	0.35	0.0	0.0
63	1.0	0.366	0.0	64.2	30.6	60.1	67.5	63	1.0	0.0	0.367	0.0	0.0	0.367	0.0	0.0
64	1.0	0.383	0.0	65.0	29.1	60.8	67.4	64	1.0	0.0	0.383	0.0	0.0	0.383	0.0	0.0
65	1.0	0.4	0.0	65.8	27.8	61.7	67.7	65	1.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0
67	1.0	0.416	0.0	66.6	26.4	62.5	67.9	67	1.0	0.0	0.417	0.0	0.0	0.417	0.0	0.0
68	1.0	0.433	0.0	67.3	25.0	63.3	68.1	68	1.0	0.0	0.433	0.0	0.0	0.433	0.0	0.0
69	1.0	0.45	0.0	68.1	23.6	64.1	68.3	69	1.0	0.0	0.45	0.0	0.0	0.45	0.0	0.0
71	1.0	0.466	0.0	68.9	22.1	64.8	68.5	71	1.0	0.0	0.467	0.0	0.0	0.467	0.0	0.0
72	1.0	0.483	0.0	69.7	20.7	65.6	68.8	72	1.0	0.0	0.483	0.0	0.0	0.483	0.0	0.0
73	1.0	0.5	0.0	70.5	19.2	66.2	69.0	73	1.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0
74	1.0	0.516	0.0	71.0	18.2	66.9	69.3	74	1.0	0.0	0.517	0.0	0.0	0.517	0.0	0.0
75	1.0	0.533	0.0	71.6	17.2	67.5	69.7	75	1.0	0.0	0.533	0.0	0.0	0.533	0.0	0.0
76	1.0	0.55	0.0	72.2	16.2	68.1	70.0	76	1.0	0.0	0.55	0.0	0.0	0.55	0.0	0.0
77	1.0	0.566	0.0	72.8	15.1	68.7	70.4	77	1.0	0.0	0.567	0.0	0.0	0.567	0.0	0.0
78	1.0	0.583	0.0	73.4	14.1	69.3	70.7	78	1.0	0.0	0.583	0.0	0.0	0.583	0.0	0.0
79	1.0	0.6	0.0	74.0	13.0	69.9	71.1	79	1.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0
80	1.0	0.616	0.0	74.6	12.0	70.4	71.4	80	1.0	0.0	0.617	0.0	0.0	0.617	0.0	0.0
81	1.0	0.633	0.0	75.4	10.6	71.2	72.0	81	1.0	0.0	0.633	0.0	0.0	0.633	0.0	0.0
82	1.0	0.65	0.0	76.5	8.9	72.1	72.7	82	1.0	0.0	0.65	0.0	0.0	0.65	0.0	0.0
84	1.0	0.666	0.0	77.5	7.2	73.0	73.4	84	1.0	0.0	0.667	0.0	0.0	0.667	0.0	0.0
85	1.0	0.683	0.0	78.6	5.4	73.9	74.1	85	1.0	0.0	0.683	0.0	0.0	0.683	0.0	0.0
87	1.0	0.7	0.0	79.7	3.6	74.7	74.8	87	1.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0
88	1.0	0.716	0.0	80.8	1.7	75.5	75.5	88	1.0	0.0	0.717	0.0	0.0	0.717	0.0	0.0
-269	1.0	0.733	0.0	81.8	-0.1	76.3	76.3	-269	1.0	0.0	0.733	0.0	0.0	0.733	0.0	0.0
-268	1.0	0.75	0.0	82.9	-2.0	76.9	77.0	-268	1.0	0.0	0.75	0.0	0.0	0.75	0.0	0.0

I=113930-L0 PE890-73 LAB\*lab, YN=0%, XY Zmw=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 PE89; 16 step hue circle  
48 step hue circles;  $rgb-LabCh$ \*tables

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

Output: Laser printer output; separation cmyk\*  
D65, page 10/33

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;  $h_{ab,d} = 33.5, 100.6, 155.5, 225.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	$rgb^{*}_{ds}$	$rgb^{*}_{ds361M}$	$LAB^{*}_{ds361MI}$	$LAB^{*}_{ds361MI}(x=LabCh)$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$LAB^{*}_{ds361MI}(x=LabCh)$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$											
-268	75	75	1.0	0.75	0.0	82.9	-2.0	76.9	77.0	-268	$R_d$	1.0	0.532	0.0	71.6	17.3	67.5	69.7	75	1.0	0.75	0.0	
92	76	76	1.0	0.766	0.0	83.5	-2.9	76.8	76.9	92		1.0	0.552	0.0	72.3	16.1	68.2	70.1	76	1.0	0.767	0.0	
92	77	77	1.0	0.783	0.0	84.2	-3.9	76.7	76.8	92		1.0	0.572	0.0	73.0	14.9	69.0	70.5	77	1.0	0.783	0.0	
93	78	78	1.0	0.8	0.0	84.8	-4.8	76.5	76.7	93		1.0	0.592	0.0	73.7	13.6	69.7	71.0	78	1.0	0.8	0.0	
94	79	80	1.0	0.816	0.0	85.4	-5.8	76.4	76.6	94		1.0	0.612	0.0	74.4	12.3	70.3	71.4	80	1.0	0.817	0.0	
95	80	81	1.0	0.833	0.0	86.0	-6.7	76.2	76.5	95		1.0	0.629	0.0	75.2	11.0	71.0	71.9	81	1.0	0.833	0.0	
95	81	82	1.0	0.85	0.0	86.6	-7.6	76.0	76.4	95		1.0	0.642	0.0	76.0	9.7	71.8	72.4	82	1.0	0.85	0.0	
96	82	83	1.0	0.866	0.0	87.3	-8.6	75.8	76.3	96		1.0	0.655	0.0	76.9	8.4	72.5	73.0	83	1.0	0.867	0.0	
97	83	84	1.0	0.883	0.0	87.8	-9.4	76.3	76.9	97		1.0	0.668	0.0	77.7	7.0	73.2	73.5	84	1.0	0.883	0.0	
97	84	85	1.0	0.9	0.0	88.4	-10.3	77.6	78.2	97		1.0	0.694	0.0	79.4	4.2	74.5	74.6	86	1.0	0.9	0.0	
98	85	86	1.0	0.916	0.0	88.9	-11.2	78.8	79.6	98		1.0	0.707	0.0	80.2	2.8	75.1	75.2	87	1.0	0.933	0.0	
98	86	87	1.0	0.933	0.0	89.4	-12.0	80.0	80.9	98		1.0	0.72	0.0	81.1	1.4	75.7	75.7	88	1.0	0.95	0.0	
99	87	88	1.0	0.95	0.0	89.9	-12.9	81.1	82.2	99		1.0	0.733	0.0	81.9	0.0	76.3	76.3	90	1.0	0.967	0.0	
99	88	90	1.0	0.966	0.0	90.5	-13.9	82.3	83.5	99		1.0	0.746	0.0	82.7	-1.5	76.8	76.9	91	1.0	0.983	0.0	
100	89	91	1.0	0.983	0.0	91.0	-14.8	83.5	84.8	100		1.0	0.752	0.0	83.7	-3.0	76.8	76.9	92	1.0	1.0	0.0	
100	90	92	1.0	1.0	0.0	91.5	-15.8	84.6	86.1	100		1.0	0.769	0.0	84.7	-4.6	76.6	76.8	93	1.0	0.983	1.0	0.0
100	91	93	0.983	1.0	0.0	91.7	-16.1	85.3	86.8	100		1.0	0.796	0.0	85.7	-6.1	76.4	76.6	94	0.967	1.0	0.0	
100	92	94	0.966	1.0	0.0	91.9	-16.4	85.9	87.5	100		1.0	0.823	0.0	86.7	-7.6	76.1	76.5	95	0.95	1.0	0.0	
100	93	95	0.95	1.0	0.0	92.0	-16.7	86.5	88.2	100		1.0	0.851	0.0	87.8	-9.2	76.1	76.7	96	0.933	1.0	0.0	
101	94	96	0.933	1.0	0.0	92.2	-17.0	87.2	88.8	101		1.0	0.879	0.0	89.0	-11.2	78.9	79.7	98	0.917	1.0	0.0	
101	95	98	0.916	1.0	0.0	92.4	-17.3	87.8	89.5	101		1.0	0.918	0.0	91.9	-13.1	81.7	82.8	99	0.9	1.0	0.0	
101	96	99	0.9	1.0	0.0	92.5	-17.6	88.4	90.2	101		1.0	0.957	0.0	90.2	-13.3	81.7	82.8	99	0.9	1.0	0.0	
101	97	100	0.883	1.0	0.0	92.7	-18.0	89.1	90.9	101		1.0	0.996	0.0	91.5	-15.5	84.4	85.8	100	0.883	1.0	0.0	
101	98	101	0.866	1.0	0.0	92.6	-18.3	89.2	91.0	101		0.867	1.0	0.0	92.6	-18.3	89.2	91.1	101	0.867	1.0	0.0	
101	99	102	0.85	1.0	0.0	92.2	-18.8	88.7	90.7	101		0.808	1.0	0.0	91.4	-19.8	87.6	89.9	102	0.85	1.0	0.0	
102	100	103	0.833	1.0	0.0	91.9	-19.2	88.3	90.3	102		0.737	1.0	0.0	90.1	-21.3	86.0	88.6	103	0.833	1.0	0.0	
102	101	105	0.816	1.0	0.0	91.5	-19.6	87.8	90.0	102		0.75	1.0	0.0	89.0	-22.7	84.2	87.2	105	0.817	1.0	0.0	
102	102	106	0.8	1.0	0.0	91.1	-20.1	87.4	89.7	102		0.724	1.0	0.0	88.0	-24.0	82.3	85.8	106	0.8	1.0	0.0	
103	103	107	0.783	1.0	0.0	90.8	-20.5	86.9	89.3	103		0.71	1.0	0.0	86.9	-25.2	80.5	84.3	107	0.783	1.0	0.0	
103	104	108	0.766	1.0	0.0	90.4	-20.9	86.5	89.0	103		0.697	1.0	0.0	85.8	-26.4	78.6	82.9	108	0.767	1.0	0.0	
103	105	109	0.75	1.0	0.0	90.1	-21.3	86.0	88.6	103		0.684	1.0	0.0	84.7	-27.5	76.7	81.5	109	0.75	1.0	0.0	
105	106	110	0.733	1.0	0.0	89.7	-21.8	83.7	86.8	105		0.671	1.0	0.0	83.7	-28.5	74.8	80.0	110	0.733	1.0	0.0	
106	107	112	0.716	1.0	0.0	89.3	-22.4	83.3	85.0	106		0.658	1.0	0.0	82.6	-29.5	72.8	78.6	112	0.717	1.0	0.0	
108	108	113	0.7	1.0	0.0	86.0	-26.2	78.9	83.2	108		0.645	1.0	0.0	81.5	-30.4	70.9	77.2	113	0.7	1.0	0.0	
109	109	114	0.683	1.0	0.0	84.6	-27.6	76.5	81.3	109		0.632	1.0	0.0	80.4	-31.3	69.0	75.7	114	0.683	1.0	0.0	
111	110	115	0.666	1.0	0.0	83.3	-28.9	74.1	79.5	111		0.619	1.0	0.0	79.5	-32.2	67.4	74.7	115	0.667	1.0	0.0	
112	111	116	0.65	1.0	0.0	81.9	-30.1	71.6	77.7	112		0.607	1.0	0.0	78.6	-33.3	66.2	74.2	116	0.65	1.0	0.0	
114	112	117	0.633	1.0	0.0	80.5	-31.2	69.2	75.9	114		0.595	1.0	0.0	77.8	-34.4	65.0	73.6	117	0.633	1.0	0.0	
115	113	119	0.616	1.0	0.0	79.3	-32.5	67.1	74.6	115		0.584	1.0	0.0	77.0	-35.4	63.8	73.0	119	0.617	1.0	0.0	
117	114	120	0.6	1.0	0.0	78.1	-34.0	65.4	73.8	117		0.572	1.0	0.0	76.1	-36.4	62.5	72.4	120	0.6	1.0	0.0	
119	115	121	0.583	1.0	0.0	76.9	-35.5	63.7	72.9	119		0.56	1.0	0.0	75.3	-37.4	61.3	71.8	121	0.583	1.0	0.0	
120	116	122	0.566	1.0	0.0	75.7	-36.9	62.0	72.1	120		0.548	1.0	0.0	74.4	-38.3	60.0	71.3	122	0.567	1.0	0.0	
122	117	123	0.55	1.0	0.0	74.5	-38.2	60.2	71.3	122		0.536	1.0	0.0	73.6	-39.2	58.8	70.7	123	0.55	1.0	0.0	
124	118	124	0.533	1.0	0.0	73.3	-39.4	58.4	70.5	124		0.524	1.0	0.0	72.7	-40.0	57.5	70.1	124	0.533	1.0	0.0	
125	119	126	0.516	1.0	0.0	72.1	-40.6	56.6	69.7	125		0.512	1.0	0.0	71.9	-40.9	56.2	69.5	126	0.517	1.0	0.0	
127	120	127	0.5	1.0	0.0	70.9	-41.7	54.8	68.9	127		0.501	1.0	0.0	71.0	-41.6	54.9	68.9	127	0.5	1.0	0.0	

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

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

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;  $h_{abs,d} = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9$ ; Six hue angles of the elementary colours RYGBM;  $h_{abs,d} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Table with 16 columns: h\_ab,d, h\_ab,s, h\_ab,e, Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b), Lab\* (L, a, b). The table contains 168 rows of numerical data representing colorimetric values for various hues and angles.

Input: rgb/cmyk -> rgbde  
Output: Laser printer output; separation cmyk\*. D65, page 12/63

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

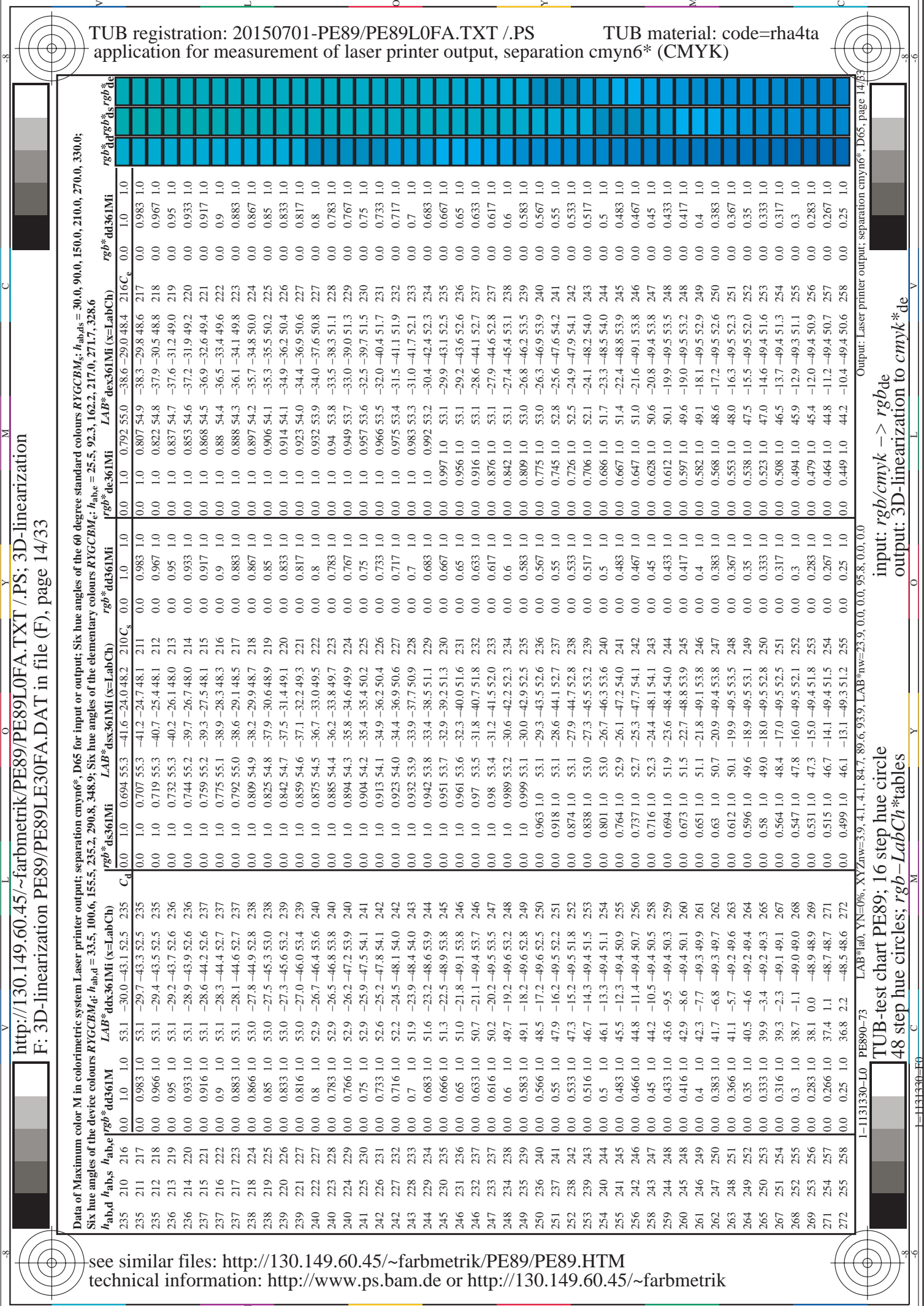


http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT / PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 14/33

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

Table with 17 columns: h\_ab,s, h\_ab,d, h\_ab,s, h\_ab,d, LAB\*, dx361MI (x=LabCh), LAB\*, ds361MI, LAB\*, ds361MI (x=LabCh), LAB\*, dx361MI (x=LabCh), LAB\*, ds361MI, LAB\*, dx361MI, LAB\*, ds361MI (x=LabCh), LAB\*, dx361MI, LAB\*, ds361MI, LAB\*, dx361MI (x=LabCh), LAB\*, ds361MI. Contains numerical data for 272 rows and 17 columns.

Input: rgb/cmyk -> rgbd output: 3D-linearization to cmyk\*de Output: Laser printer output; separation cmyk\*; D65, page 14/33



	$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	$rgb^{*}_{ds}$	$rgb^{*}_{ds361M}$	$rgb^{*}_{ds361MI}$	$LAB^{*}_{ds361MI}(x=LabCh)$	$rgb^{*}_{ds361MI}$	$LAB^{*}_{ds361MI}(x=LabCh)$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$LAB^{*}_{ds361MI}(x=LabCh)$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$	$rgb^{*}_{ds361MI}$		
272	255	258	0.0	0.25	1.0	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
273	256	258	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
274	257	259	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
276	258	260	0.0	0.2	1.0	36.1	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
277	259	261	0.0	0.183	1.0	35.9	6.1	-47.5	47.9	277	0.0	0.434	1.0	43.7	-9.5	-49.4	50.4	259	0.0	0.183	1.0
278	260	262	0.0	0.166	1.0	35.6	7.0	-47.2	47.7	278	0.0	0.418	1.0	43.0	-8.6	-49.3	50.2	260	0.0	0.167	1.0
279	261	263	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
280	262	264	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
282	263	265	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
283	264	266	0.0	0.083	1.0	34.2	11.9	-45.9	47.4	283	0.0	0.346	1.0	40.8	-5.1	-49.2	49.4	264	0.0	0.1	1.0
285	266	268	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
287	267	269	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
288	268	269	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
289	269	270	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
290	270	271	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	-48.8	49.0	270	0.0	0.017	1.0
291	271	272	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
293	272	273	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	0.0	0.033	0.0
294	273	274	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
295	274	275	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
296	275	276	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
297	276	277	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
298	277	278	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
299	278	279	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
300	279	280	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
302	280	281	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
303	281	282	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
304	282	283	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
305	283	284	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
306	284	285	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
307	285	285	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
309	286	286	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
310	287	287	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
311	288	288	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
312	289	289	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
314	290	290	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
315	291	291	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
316	292	292	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
317	293	293	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
318	294	294	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
319	295	295	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
320	296	296	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
321	297	297	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
322	298	298	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
323	299	299	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
324	300	300	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* -> *rgbde*  
 output: 3D-linearization to *cmyk\*de*

LAB\*<sub>da0</sub>, YN=0%, XY,Znw=3.9, 4.1, 84.7, 89.6, 93.9, LAB\*<sub>nw</sub>=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

Output: Laser printer output; separation cmyk\*<sub>6</sub>, D65, page 15/63



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<sub>d</sub>; h<sub>abs,d</sub> = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;  
 Six hue angles of the device colours RYGBM<sub>d</sub>; h<sub>abs,d</sub> = 33.5, 100.6, 155.5, 235.2, 290.8, 348.9; Six hue angles of the elementary colours RYGBM<sub>e</sub>; h<sub>abs,e</sub> = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

h <sub>abs,d</sub>	h <sub>abs,s</sub>	h <sub>abs,e</sub>	LAB <sup>*</sup> <sub>s</sub> d361M	LAB <sup>*</sup> <sub>s</sub> dxs361M (x=LabCh)	rgb <sup>*</sup> <sub>s</sub> ds361M	LAB <sup>*</sup> <sub>s</sub> dxs361M (x=LabCh)	rgb <sup>*</sup> <sub>s</sub> dds361M	LAB <sup>*</sup> <sub>e</sub> ds361M	LAB <sup>*</sup> <sub>e</sub> dex361M (x=LabCh)	rgb <sup>*</sup> <sub>e</sub> ds361M	rgb <sup>*</sup> <sub>e</sub> dds361M		
324	300	300	0.5	0.0	1.0	31.6	24.3	-41.9	48.5	300	0.5	0.0	1.0
325	301	301	0.516	0.0	1.0	31.5	25.1	-41.6	48.7	301	0.517	0.0	1.0
326	302	302	0.533	0.0	1.0	31.4	25.9	-41.3	48.9	302	0.533	0.0	1.0
326	303	303	0.55	0.0	1.0	31.4	26.7	-41.0	49.0	303	0.55	0.0	1.0
327	304	304	0.566	0.0	1.0	31.3	27.5	-40.7	49.2	304	0.567	0.0	1.0
328	305	305	0.583	0.0	1.0	31.2	28.3	-40.3	49.4	305	0.583	0.0	1.0
329	306	306	0.6	0.0	1.0	31.1	29.1	-40.0	49.5	306	0.6	0.0	1.0
330	307	307	0.616	0.0	1.0	31.1	29.9	-39.6	49.7	307	0.617	0.0	1.0
331	308	308	0.633	0.0	1.0	31.1	30.7	-39.2	49.9	308	0.633	0.0	1.0
332	309	309	0.65	0.0	1.0	31.0	31.5	-38.8	50.1	309	0.65	0.0	1.0
333	310	310	0.666	0.0	1.0	31.0	32.3	-38.4	50.3	310	0.667	0.0	1.0
334	311	311	0.683	0.0	1.0	32.1	33.1	-38.0	50.5	311	0.683	0.0	1.0
335	312	312	0.7	0.0	1.0	32.4	33.9	-37.6	50.7	312	0.7	0.0	1.0
336	313	313	0.716	0.0	1.0	32.8	34.7	-37.2	50.9	313	0.717	0.0	1.0
337	314	314	0.733	0.0	1.0	33.1	35.5	-36.7	51.1	314	0.733	0.0	1.0
338	315	315	0.75	0.0	1.0	33.4	36.3	-36.2	51.4	315	0.75	0.0	1.0
339	316	316	0.766	0.0	1.0	33.8	37.1	-35.7	51.6	316	0.767	0.0	1.0
340	317	317	0.783	0.0	1.0	34.1	37.9	-35.2	51.8	317	0.783	0.0	1.0
340	318	318	0.8	0.0	1.0	34.5	38.6	-34.7	52.0	318	0.8	0.0	1.0
341	319	319	0.816	0.0	1.0	34.9	39.3	-34.1	52.1	319	0.817	0.0	1.0
342	320	320	0.833	0.0	1.0	35.3	40.1	-33.5	52.3	320	0.833	0.0	1.0
342	321	321	0.85	0.0	1.0	35.8	40.8	-32.9	52.5	321	0.85	0.0	1.0
343	322	322	0.866	0.0	1.0	36.2	41.5	-32.3	52.7	322	0.867	0.0	1.0
344	323	323	0.883	0.0	1.0	36.6	42.2	-31.7	52.8	323	0.883	0.0	1.0
344	324	324	0.9	0.0	1.0	37.1	42.9	-31.1	53.0	324	0.9	0.0	1.0
345	325	325	0.916	0.0	1.0	37.4	43.7	-30.5	53.3	325	0.917	0.0	1.0
346	326	326	0.933	0.0	1.0	37.7	44.5	-29.9	53.7	326	0.933	0.0	1.0
346	327	327	0.95	0.0	1.0	38.0	45.4	-29.4	54.1	327	0.95	0.0	1.0
347	328	328	0.966	0.0	1.0	38.3	46.2	-28.8	54.5	328	0.967	0.0	1.0
348	329	329	0.983	0.0	1.0	38.6	47.1	-28.2	54.9	329	0.983	0.0	1.0
348	330	330	1.0	0.0	1.0	38.9	47.9	-27.6	55.4	330	1.0	0.0	1.0
349	331	329	0.0	0.0	0.983	48.3	65.4	-12.5	66.7	349	0.631	0.0	0.983
349	332	330	1.0	0.0	0.966	48.5	65.6	-12.2	66.7	349	0.623	0.0	0.967
349	333	331	1.0	0.0	0.95	48.7	65.7	-11.9	66.8	349	0.638	0.0	0.95
349	334	332	1.0	0.0	0.933	48.9	65.8	-11.7	66.8	349	0.652	0.0	0.933
350	335	333	1.0	0.0	0.916	49.0	65.9	-11.4	66.9	350	0.667	0.0	0.917
350	336	334	1.0	0.0	0.9	49.2	66.0	-11.1	66.9	350	0.681	0.0	0.9
350	337	335	1.0	0.0	0.883	49.4	66.1	-10.9	67.0	350	0.696	0.0	0.883
350	338	336	1.0	0.0	0.866	49.5	66.0	-10.4	66.9	350	0.711	0.0	0.867
351	339	337	1.0	0.0	0.85	49.4	65.8	-9.9	66.6	351	0.725	0.0	0.85
351	340	338	1.0	0.0	0.833	49.4	65.6	-9.3	66.3	351	0.74	0.0	0.833
352	341	339	1.0	0.0	0.816	49.4	65.4	-8.7	66.0	352	0.757	0.0	0.817
352	342	339	1.0	0.0	0.8	49.4	65.2	-8.2	65.7	352	0.78	0.0	0.8
353	343	340	1.0	0.0	0.783	49.3	65.0	-7.6	65.4	353	0.802	0.0	0.783
353	344	341	1.0	0.0	0.766	49.3	64.7	-7.1	65.1	353	0.825	0.0	0.767
354	345	342	1.0	0.0	0.75	49.3	64.5	-6.5	64.8	354	0.848	0.0	0.75

I=1131530-L0 PE890-73 LAB\*lab, YN=0%, XYZmw=3.9,4.1,4.1, 84.7, 89.6, 93.9, LAB\*mw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0

TUB-test chart PE89; 16 step hue circle  
 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 16/33

http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 17/33

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<sub>d</sub>; h<sub>ab,ds</sub> = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0;  
Six hue angles of the device colours RYGBM<sub>d</sub>; h<sub>ab,d</sub> = 255.2, 290.8, 348.9; Six hue angles of the elementary colours RYGBM<sub>e</sub>; h<sub>ab,e</sub> = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6

h <sub>ab,d</sub>	h <sub>ab,s</sub>	h <sub>ab,e</sub>	rgb <sup>s</sup> *_dd361M	LAB <sup>s</sup> *_dcs361M (x=LabCh)	rgb <sup>s</sup> *_dcs361MI	LAB <sup>s</sup> *_dcs361MI (x=LabCh)	rgb <sup>s</sup> *_dd361MI	LAB <sup>s</sup> *_dcs361MI	rgb <sup>s</sup> *_de361MI	LAB <sup>s</sup> *_dex361MI (x=LabCh)	rgb <sup>s</sup> *_dd361MI	rgb <sup>s</sup> *_dd361MI	rgb <sup>s</sup> *_dd361MI	rgb <sup>s</sup> *_dd361MI										
354	345	342	1.0	0.0	0.75	49.3	64.5	-6.5	64.8	354	1.0	0.0	0.75	0.848	0.0	1.0	44.9	59.1	-18.2	61.9	342	1.0	0.0	0.75
355	346	343	1.0	0.0	0.733	49.1	64.2	-5.3	64.4	355	1.0	0.0	0.733	0.871	0.0	1.0	45.6	60.0	-17.4	62.5	343	1.0	0.0	0.733
356	347	344	1.0	0.0	0.716	48.9	63.9	-4.1	64.0	356	1.0	0.0	0.717	0.895	0.0	1.0	46.1	61.0	-16.6	63.2	344	1.0	0.0	0.717
357	348	345	1.0	0.0	0.7	48.7	63.5	-2.9	63.6	357	1.0	0.0	0.7	0.918	0.0	1.0	46.5	62.0	-15.7	64.0	345	1.0	0.0	0.7
358	349	346	1.0	0.0	0.683	48.6	63.2	-1.8	63.2	358	1.0	0.0	0.683	0.942	0.0	1.0	47.0	63.0	-14.9	64.8	346	1.0	0.0	0.683
359	350	347	1.0	0.0	0.666	48.4	62.8	-0.6	62.8	359	1.0	0.0	0.667	0.966	0.0	1.0	47.5	64.0	-14.0	65.5	347	1.0	0.0	0.667
360	351	348	1.0	0.0	0.65	48.2	62.4	0.4	62.4	360	1.0	0.0	0.65	0.989	0.0	1.0	48.0	65.0	-13.1	66.3	348	1.0	0.0	0.65
361	352	349	1.0	0.0	0.633	48.0	62.0	1.5	62.0	361	1.0	0.0	0.633	1.0	0.0	0.964	48.6	65.6	-12.1	66.8	349	1.0	0.0	0.633
362	353	350	1.0	0.0	0.616	47.9	61.6	2.7	61.7	362	1.0	0.0	0.617	1.0	0.0	0.899	49.3	66.0	-11.1	67.0	350	1.0	0.0	0.617
363	354	351	1.0	0.0	0.6	47.9	61.3	3.8	61.4	363	1.0	0.0	0.6	1.0	0.0	0.851	49.5	65.9	-9.9	66.7	351	1.0	0.0	0.6
364	355	352	1.0	0.0	0.583	47.9	60.9	4.9	61.1	364	1.0	0.0	0.583	1.0	0.0	0.819	49.4	65.5	-8.7	66.1	352	1.0	0.0	0.583
365	356	353	1.0	0.0	0.566	47.9	60.6	6.0	60.9	365	1.0	0.0	0.567	1.0	0.0	0.785	49.4	65.0	-7.6	65.5	353	1.0	0.0	0.567
366	357	354	1.0	0.0	0.55	47.8	60.2	7.1	60.6	366	1.0	0.0	0.55	1.0	0.0	0.75	49.3	64.6	-6.5	64.9	354	1.0	0.0	0.55
367	358	355	1.0	0.0	0.533	47.8	59.8	8.2	60.4	367	1.0	0.0	0.533	1.0	0.0	0.735	49.2	64.3	-5.4	64.5	355	1.0	0.0	0.533
368	359	356	1.0	0.0	0.516	47.8	59.4	9.3	60.1	368	1.0	0.0	0.517	1.0	0.0	0.72	49.0	64.0	-4.3	64.1	356	1.0	0.0	0.517
370	360	352	1.0	0.0	0.5	47.8	58.9	10.4	59.9	370	1.0	0.0	0.5	1.0	0.0	0.828	49.5	65.6	-9.0	66.2	352	1.0	0.0	0.5
371	361	353	1.0	0.0	0.483	47.7	58.7	11.6	59.9	371	1.0	0.0	0.483	1.0	0.0	0.787	49.4	65.1	-7.7	65.5	353	1.0	0.0	0.483
372	362	354	1.0	0.0	0.466	47.7	58.5	12.8	59.9	372	1.0	0.0	0.467	1.0	0.0	0.749	49.3	64.5	-6.4	64.8	354	1.0	0.0	0.467
373	363	355	1.0	0.0	0.45	47.6	58.3	14.0	59.9	373	1.0	0.0	0.45	1.0	0.0	0.731	49.1	64.2	-5.1	64.4	355	1.0	0.0	0.45
374	364	356	1.0	0.0	0.433	47.5	58.0	15.2	60.0	374	1.0	0.0	0.433	1.0	0.0	0.713	48.9	63.9	-3.8	64.0	356	1.0	0.0	0.433
375	365	357	1.0	0.0	0.416	47.5	57.7	16.5	60.0	375	1.0	0.0	0.417	1.0	0.0	0.695	48.7	63.5	-2.5	63.5	357	1.0	0.0	0.417
377	366	358	1.0	0.0	0.4	47.4	57.3	17.7	60.0	377	1.0	0.0	0.4	1.0	0.0	0.677	48.6	63.1	-1.3	63.1	358	1.0	0.0	0.4
378	367	359	1.0	0.0	0.383	47.4	57.0	18.9	60.0	378	1.0	0.0	0.383	1.0	0.0	0.659	48.4	62.7	-0.1	62.7	359	1.0	0.0	0.383
379	368	360	1.0	0.0	0.366	47.4	56.8	20.0	60.2	379	1.0	0.0	0.367	1.0	0.0	0.641	48.2	62.2	1.1	62.2	360	1.0	0.0	0.367
380	369	362	1.0	0.0	0.35	47.4	56.7	21.1	60.5	380	1.0	0.0	0.35	1.0	0.0	0.624	48.0	61.8	2.3	61.8	362	1.0	0.0	0.35
381	370	363	1.0	0.0	0.333	47.4	56.6	22.1	60.8	381	1.0	0.0	0.333	1.0	0.0	0.606	48.0	61.5	3.4	61.5	363	1.0	0.0	0.333
382	371	364	1.0	0.0	0.316	47.4	56.5	23.2	61.1	382	1.0	0.0	0.317	1.0	0.0	0.589	47.9	61.1	4.6	61.3	364	1.0	0.0	0.317
383	372	365	1.0	0.0	0.3	47.5	56.4	24.3	61.4	383	1.0	0.0	0.3	1.0	0.0	0.571	47.9	60.7	5.8	61.0	365	1.0	0.0	0.3
384	373	366	1.0	0.0	0.283	47.5	56.2	25.4	61.7	384	1.0	0.0	0.283	1.0	0.0	0.554	47.9	60.3	6.9	60.7	366	1.0	0.0	0.283
385	374	367	1.0	0.0	0.266	47.5	56.1	26.5	62.0	385	1.0	0.0	0.267	1.0	0.0	0.537	47.9	59.9	8.1	60.5	367	1.0	0.0	0.267
386	375	368	1.0	0.0	0.25	47.5	55.9	27.5	62.3	386	1.0	0.0	0.25	1.0	0.0	0.519	47.8	59.5	9.2	60.2	368	1.0	0.0	0.25
386	376	369	1.0	0.0	0.233	47.5	56.0	28.4	62.8	386	1.0	0.0	0.233	1.0	0.0	0.502	47.8	59.1	10.3	59.9	369	1.0	0.0	0.233
387	377	370	1.0	0.0	0.216	47.6	56.1	29.3	63.3	387	1.0	0.0	0.217	1.0	0.0	0.486	47.8	58.8	11.4	59.9	370	1.0	0.0	0.217
388	378	372	1.0	0.0	0.2	47.6	56.1	30.2	63.8	388	1.0	0.0	0.2	1.0	0.0	0.471	47.7	58.6	12.6	60.0	372	1.0	0.0	0.2
388	379	373	1.0	0.0	0.183	47.6	56.2	31.1	64.2	388	1.0	0.0	0.183	1.0	0.0	0.455	47.7	58.4	13.7	60.0	373	1.0	0.0	0.183
389	380	374	1.0	0.0	0.166	47.6	56.3	32.0	64.7	389	1.0	0.0	0.167	1.0	0.0	0.439	47.6	58.1	14.9	60.0	374	1.0	0.0	0.167
390	381	375	1.0	0.0	0.15	47.6	56.3	32.9	65.2	390	1.0	0.0	0.15	1.0	0.0	0.424	47.6	57.9	16.0	60.0	375	1.0	0.0	0.15
390	382	376	1.0	0.0	0.133	47.6	56.3	33.8	65.7	390	1.0	0.0	0.133	1.0	0.0	0.408	47.5	57.6	17.1	60.0	376	1.0	0.0	0.133
391	383	377	1.0	0.0	0.116	47.6	56.4	34.5	66.1	391	1.0	0.0	0.117	1.0	0.0	0.393	47.5	57.2	18.2	60.1	377	1.0	0.0	0.117
391	384	378	1.0	0.0	0.1	47.6	56.5	34.9	66.5	391	1.0	0.0	0.1	1.0	0.0	0.377	47.4	56.9	19.4	60.1	378	1.0	0.0	0.1
392	385	379	1.0	0.0	0.083	47.6	56.6	35.4	66.8	392	1.0	0.0	0.083	1.0	0.0	0.358	47.4	56.8	20.6	60.4	379	1.0	0.0	0.083
392	386	381	1.0	0.0	0.066	47.6	56.7	35.9	67.2	392	1.0	0.0	0.067	1.0	0.0	0.339	47.5	56.7	21.8	60.7	381	1.0	0.0	0.067
392	387	382	1.0	0.0	0.049	47.6	56.9	36.4	67.5	392	1.0	0.0	0.05	1.0	0.0	0.32	47.5	56.6	23.0	61.1	382	1.0	0.0	0.05
392	388	383	1.0	0.0	0.033	47.6	57.0	36.8	67.9	392	1.0	0.0	0.033	1.0	0.0	0.301	47.5	56.4	24.2	61.4	383	1.0	0.0	0.033
393	389	384	1.0	0.0	0.016	47.6	57.1	37.3	68.2	393	1.0	0.0	0.017	1.0	0.0	0.282	47.5	56.3	25.5	61.8	384	1.0	0.0	0.017
393	390	385	1.0	0.0	0.0	47.5	57.2	37.8	68.6	393	1.0	0.0	0.0	1.0	0.0	0.263	47.6	56.1	26.7	62.1	385	1.0	0.0	0.0

I=1131630-L0 PE890-73 LAB\*lab, YN=0%, XY Zmw=3.9, 4.1, 84.7, 89.6, 93.9, LAB\*mw=23.9, 0.0, 0.0, 95.8, 0.0, 0.0  
Output: Laser printer output; separation cmyk\*, D65, page 17/33

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

nif	HC*File	rgb*File	icr*File	hsa*File	rgb*File	LabC*File	cmyk*sep*File	hsa*File	rgb*File	LabC*File	delta
0/648	R00Y_100_100de	1.0	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
1/657	R13Y_100_100de	0.125	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
2/666	R25Y_100_100de	0.25	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
3/675	R35Y_100_100de	0.375	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4/684	R50Y_100_100de	0.5	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
5/693	R63Y_100_100de	0.625	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
6/702	R75Y_100_100de	0.75	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
7/711	R88Y_100_100de	0.875	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
8/720	Y00G_100_100de	1.0	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
9/639	Y13G_100_100de	0.875	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
10/558	Y25G_100_100de	0.75	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
11/477	Y38G_100_100de	0.625	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
12/396	Y50G_100_100de	0.5	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
13/315	Y63G_100_100de	0.375	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
14/234	Y75G_100_100de	0.25	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
15/153	Y88G_100_100de	0.125	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
16/72	G00C_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
17/73	G13C_100_100de	0.125	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
18/74	G25C_100_100de	0.25	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
19/75	G38C_100_100de	0.375	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
20/76	G50C_100_100de	0.5	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
21/77	G63C_100_100de	0.625	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
22/78	G75C_100_100de	0.75	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
23/79	G88C_100_100de	0.875	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
24/80	C00B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
25/71	C13B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
26/62	C25B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
27/53	C38B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
28/44	C50B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
29/35	C63B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
30/26	C75B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
31/17	C88B_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
32/8	B00M_100_100de	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
33/89	B13M_100_100de	0.125	0.0	0.5	270	0.0	0.0	0.0	0.0	0.0	0.0
34/170	B25M_100_100de	0.25	0.0	0.5	284	0.0	0.0	0.0	0.0	0.0	0.0
35/251	B38M_100_100de	0.375	0.0	0.5	292	0.0	0.0	0.0	0.0	0.0	0.0
36/332	B50M_100_100de	0.5	0.0	0.5	300	0.0	0.0	0.0	0.0	0.0	0.0
37/413	B63M_100_100de	0.625	0.0	0.5	308	0.0	0.0	0.0	0.0	0.0	0.0
38/494	B75M_100_100de	0.75	0.0	0.5	316	0.0	0.0	0.0	0.0	0.0	0.0
39/575	B88M_100_100de	0.875	0.0	0.5	323	0.0	0.0	0.0	0.0	0.0	0.0
40/656	M00R_100_100de	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41/655	M13R_100_100de	0.0	0.0	0.875	1.0	0.0	0.0	0.0	0.0	0.0	0.0
42/654	M25R_100_100de	1.0	0.0	0.75	1.0	0.0	0.0	0.0	0.0	0.0	0.0
43/653	M38R_100_100de	1.0	0.0	0.625	1.0	0.0	0.0	0.0	0.0	0.0	0.0
44/652	M50R_100_100de	1.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
45/651	M63R_100_100de	1.0	0.0	0.375	1.0	0.0	0.0	0.0	0.0	0.0	0.0
46/650	M75R_100_100de	1.0	0.0	0.25	1.0	0.0	0.0	0.0	0.0	0.0	0.0
47/649	M88R_100_100de	1.0	0.0	0.125	1.0	0.0	0.0	0.0	0.0	0.0	0.0
48/648	R00Y_100_100de	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
49/0	NV_000de	0.0	0.0	0.0	330	0.0	0.0	0.0	0.0	0.0	0.0
50/91	NV_012de	0.125	0.125	0.125	360	0.0	0.0	0.0	0.0	0.0	0.0
51/182	NV_025de	0.25	0.25	0.25	360	0.0	0.0	0.0	0.0	0.0	0.0
52/273	NV_038de	0.375	0.375	0.375	360	0.0	0.0	0.0	0.0	0.0	0.0
53/564	NV_050de	0.5	0.5	0.5	360	0.0	0.0	0.0	0.0	0.0	0.0
54/455	NV_063de	0.625	0.625	0.625	360	0.0	0.0	0.0	0.0	0.0	0.0
55/546	NV_075de	0.75	0.75	0.75	360	0.0	0.0	0.0	0.0	0.0	0.0
56/637	NV_088de	0.875	0.875	0.875	360	0.0	0.0	0.0	0.0	0.0	0.0
57/728	NV_100de	1.0	1.0	1.0	360	0.0	0.0	0.0	0.0	0.0	0.0

Mean color difference of this page:

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

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*<sub>a</sub>

I-1131730-F0  
I-1131730-F0

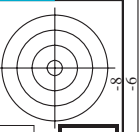
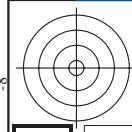
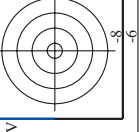
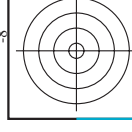


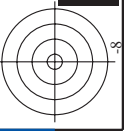
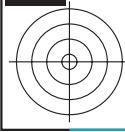
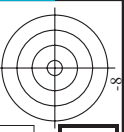
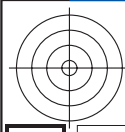
Table with columns: nif, HHC\*File, rpb\*File, icr\*File, hsa\*File, rpb\*File, LabC\*File, cmyk\*sep\*File, LabC\*File, hsa\*File, rpb\*File, LabC\*File. Rows include file names like R00Y\_100\_100de and numerical values.

Mean color difference of this page: delta

http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 19/33

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





http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT / PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 20/33

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

Table with 80 columns: n=#, HHC\*File, rpb\_Rate, iet\_Rate, hsa\_Rate, rgpb\_Rate, LabCm\*File, rpb\_Rate, cmyk\*\_sep\_Rate, hsa\_Rate, rgpb\_Rate, LabCm\*File, iet\_Rate, hsa\_Rate, rpb\_Rate, LabCm\*File, delta. Each row represents a specific color patch and its measured and target values.

http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 21/33

Table with 16 columns: n, HHC\*File, rgb\*File, iet\*File, ihs\*File, iab\*File, iuv\*File, ixy\*File, iab\*File, iuv\*File, ixy\*File, iab\*File, iuv\*File, ixy\*File, iab\*File, iuv\*File, ixy\*File. Rows 81-161.

Mean color difference of this page:

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

PE890-7N, Page 21/33-F

TUB-test chart PE89; 16 step hue circle colors and differences, ΔE\*<sub>a</sub>

Table with 24 columns: n, HHC\*File, rgb\*File, icr\*File, hsa\*File, rgb\*File, LabCIE\*File, cmyk\*sep, cmyk\*File, LabCIE\*File, hsa\*File, rgb\*File, LabCIE\*File, delta. Rows 162-242.

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





http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT / PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 24/33

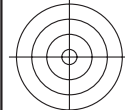
Table with 40 columns: n, HHC\*File, rgb\*File, iet\*File, Hsa\*File, rgb\*File, LabC\*File, cmyk\*sep, File, LabC\*File, Hsa\*File, rgb\*File, LabC\*File, delta. It contains registration data for various color patches.

Mean color difference of this page: delta

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







http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 27/33

n	HC#File	rgb_0	LabCH#File	cmym#sep_0	LabCH#File	rgb#_0	LabCH#File	delta
567	R00Y_087.087de	0.875	0.0	0.0	0.928	0.7	0.147	0.928
568	R00Y_087.087de	0.875	0.0	0.0	0.927	0.568	0.148	0.927
569	R23Y_087.087de	0.875	0.0	0.0	0.923	0.446	0.148	0.923
570	R23Y_087.087de	0.875	0.0	0.0	0.905	0.289	0.151	0.905
571	B70K_087.087de	0.875	0.0	0.0	0.905	0.196	0.149	0.905
572	B63K_087.087de	0.875	0.0	0.0	0.903	0.004	0.25	0.903
573	B56K_087.087de	0.875	0.0	0.0	0.918	0.0	0.271	0.918
574	B50K_087.087de	0.875	0.0	0.0	0.933	0.921	0.0	0.933
575	B44K_100.100de	0.875	0.0	0.0	0.945	0.0	0.542	0.945
576	R00Y_087.087de	0.875	0.0	0.0	0.93	0.924	0.141	0.93
577	R00Y_087.087de	0.875	0.0	0.0	0.778	0.527	0.16	0.778
578	R35Y_087.075de	0.875	0.125	0.0	0.774	0.416	0.167	0.774
579	R18Y_087.075de	0.875	0.125	0.0	0.769	0.298	0.17	0.769
580	R18Y_087.075de	0.875	0.125	0.0	0.764	0.148	0.163	0.764
581	B65K_087.075de	0.875	0.125	0.0	0.756	0.054	0.215	0.756
582	B57K_087.075de	0.875	0.125	0.0	0.751	0.0	0.271	0.751
583	B50K_087.075de	0.875	0.125	0.0	0.738	0.0	0.262	0.738
584	B43K_100.100de	0.875	0.125	0.0	0.729	0.757	0.0	0.729
585	R26Y_087.087de	0.875	0.25	0.0	0.819	0.929	0.156	0.819
586	R15Y_087.075de	0.875	0.125	0.0	0.803	0.693	0.141	0.803
587	R00Y_087.087de	0.875	0.25	0.0	0.792	0.466	0.144	0.792
588	R31Y_087.062de	0.875	0.25	0.0	0.667	0.339	0.154	0.667
589	R11Y_087.062de	0.875	0.25	0.0	0.667	0.224	0.154	0.667
590	B09K_087.062de	0.875	0.25	0.0	0.657	0.0	0.156	0.657
591	B02K_087.062de	0.875	0.25	0.0	0.655	0.0	0.261	0.655
592	R20Y_100.100de	0.875	0.25	0.0	0.659	0.0	0.38	0.659
593	R20Y_100.100de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
594	R18Y_087.075de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
595	R18Y_087.075de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
596	R18Y_087.075de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
597	R26Y_087.050de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
598	R26Y_087.050de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
599	R26Y_087.050de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
600	B61K_087.050de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
601	B58K_087.050de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
602	B40K_100.100de	0.875	0.25	0.0	0.639	0.0	0.38	0.639
603	R38Y_087.087de	0.875	0.5	0.0	0.528	0.246	0.154	0.528
604	R30Y_087.075de	0.875	0.5	0.0	0.578	0.932	0.154	0.578
605	R23Y_087.050de	0.875	0.5	0.0	0.583	0.0	0.154	0.583
606	R23Y_087.050de	0.875	0.5	0.0	0.583	0.0	0.154	0.583
607	R18Y_087.037de	0.875	0.5	0.0	0.530	0.084	0.142	0.530
608	R18Y_087.037de	0.875	0.5	0.0	0.433	0.28	0.129	0.433
609	B68K_087.037de	0.875	0.5	0.0	0.417	0.18	0.144	0.417
610	B58K_100.100de	0.875	0.5	0.0	0.395	0.0	0.157	0.395
611	B50K_087.037de	0.875	0.5	0.0	0.342	0.0	0.254	0.342
612	R38Y_087.087de	0.875	0.5	0.0	0.407	0.407	0.157	0.407
613	R68Y_087.075de	0.875	0.5	0.0	0.455	0.782	0.128	0.455
614	R61Y_087.062de	0.875	0.5	0.0	0.449	0.666	0.11	0.449
615	R31Y_087.050de	0.875	0.5	0.0	0.436	0.53	0.088	0.436
616	R00Y_087.025de	0.875	0.5	0.0	0.423	0.0	0.084	0.423
617	R00Y_087.025de	0.875	0.5	0.0	0.302	0.201	0.127	0.302
618	R00Y_087.025de	0.875	0.5	0.0	0.289	0.085	0.134	0.289
619	B34K_100.100de	0.875	0.5	0.0	0.289	0.0	0.143	0.289
620	R34K_100.100de	0.875	0.5	0.0	0.301	0.163	0.143	0.301
621	R86Y_087.107de	0.875	0.75	0.0	0.34	0.916	0.164	0.34
622	R83Y_087.107de	0.875	0.75	0.0	0.334	0.773	0.145	0.334
623	R83Y_087.107de	0.875	0.75	0.0	0.334	0.684	0.118	0.334
624	R83Y_087.107de	0.875	0.75	0.0	0.334	0.588	0.118	0.334
625	R83Y_087.107de	0.875	0.75	0.0	0.334	0.482	0.118	0.334
626	R83Y_087.107de	0.875	0.75	0.0	0.284	0.138	0.107	0.284
627	R83Y_087.107de	0.875	0.75	0.0	0.284	0.03	0.107	0.284
628	B50K_087.012de	0.875	0.75	0.0	0.161	0.272	0.107	0.161
629	B50K_087.012de	0.875	0.75	0.0	0.161	0.121	0.139	0.161
630	B50K_087.012de	0.875	0.75	0.0	0.112	0.002	0.196	0.112
631	Y00G_087.050de	0.875	0.75	0.0	0.195	0.0	0.104	0.195
632	Y00G_087.050de	0.875	0.75	0.0	0.194	0.844	0.192	0.194
633	Y00G_087.050de	0.875	0.75	0.0	0.193	0.75	0.15	0.193
634	Y00G_087.050de	0.875	0.75	0.0	0.159	0.522	0.143	0.159
635	Y00G_087.050de	0.875	0.75	0.0	0.134	0.394	0.142	0.134
636	Y00G_087.050de	0.875	0.75	0.0	0.084	0.262	0.148	0.084
637	NW_087de	0.875	0.75	0.0	0.055	0.15	0.149	0.055
638	B00K_100.100de	0.875	0.75	0.0	0.017	0.018	0.158	0.017
639	Y11G_100.100de	0.875	1.0	0.0	0.104	0.0	0.045	0.104
640	Y11G_100.100de	0.875	1.0	0.0	0.0	0.0	0.0	0.0
641	Y18G_100.075de	0.875	1.0	0.0	0.867	0.0	0.0	0.867
642	Y18G_100.075de	0.875	1.0	0.0	0.808	0.0	0.0	0.808
643	Y23G_100.050de	0.875	1.0	0.0	0.736	0.0	0.0	0.736
644	Y23G_100.050de	0.875	1.0	0.0	0.691	0.0	0.0	0.691
645	Y30G_100.025de	0.875	1.0	0.0	0.651	0.0	0.0	0.651
646	G00B_100.012de	0.875	1.0	0.0	0.519	0.0	0.0	0.519
647	G50B_100.012de	0.875	1.0	0.0	0.123	0.0	0.0	0.123

Mean color difference of this page:

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

PE890-7N, Page 27/33-F

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*

I-1132630-F0

http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 28/33

Table with 16 columns: n, HHC\*File, rpb\*File, icr\*File, Hs\*File, rpb\*File, LabCH\*File, cmyk\*sep, cmyk\*File, LabCH\*File, Hs\*File, rpb\*File, LabCH\*File, delta. Rows include color names like R00Y, R00M, R00C, etc.

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

TUB-test chart PE89; 16 step hue circle colors and differences, ΔE\*<sub>a</sub>





http://130.149.60.45/~farbmetrik/PE89/PE89LOFA.TXT /.PS; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 31/33

n	HC*File	rgb*File	Lab*File	Lab*File	cmyp*sep*File	rgb*File	Lab*File	rgb*File	Lab*File	delta
891	NW_1000e	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
892	NW_0875e	1.0	0.875	1.0	0.0	0.0	0.0	0.0	0.0	0.0
893	B50R_100_012de	1.0	0.125	0.937	330	330	330	330	330	0.0
894	B50R_100_025de	1.0	0.25	0.75	330	330	330	330	330	0.0
895	B50R_100_037de	1.0	0.375	0.562	330	330	330	330	330	0.0
896	B50R_100_050de	1.0	0.5	0.375	330	330	330	330	330	0.0
897	B50R_100_062de	1.0	0.625	0.188	330	330	330	330	330	0.0
898	B50R_100_075de	1.0	0.75	0.0	330	330	330	330	330	0.0
899	B50R_100_087de	1.0	0.875	0.0	330	330	330	330	330	0.0
900	B50R_100_100de	1.0	1.0	0.0	330	330	330	330	330	0.0
901	NW_0875e	0.875	1.0	0.125	0.937	330	330	330	330	0.0
902	B50R_087_012de	0.875	0.75	0.875	330	330	330	330	330	0.0
903	B50R_087_025de	0.875	0.625	0.75	330	330	330	330	330	0.0
904	B50R_087_037de	0.875	0.5	0.625	330	330	330	330	330	0.0
905	B50R_087_050de	0.875	0.375	0.5	330	330	330	330	330	0.0
906	B50R_087_062de	0.875	0.25	0.375	330	330	330	330	330	0.0
907	B50R_087_075de	0.875	0.125	0.25	330	330	330	330	330	0.0
908	B50R_087_087de	0.875	0.0	0.125	0.875	330	330	330	330	0.0
909	GOB1_100_025de	0.75	1.0	0.25	0.875	150	150	150	150	0.0
910	GOB1_100_050de	0.75	0.75	0.75	0.875	150	150	150	150	0.0
911	GOB1_100_075de	0.75	0.5	0.625	150	150	150	150	150	0.0
912	GOB1_100_100de	0.75	0.25	0.5	150	150	150	150	150	0.0
913	B50R_075_012de	0.75	0.625	0.75	0.875	330	330	330	330	0.0
914	B50R_075_025de	0.75	0.5	0.625	330	330	330	330	330	0.0
915	B50R_075_037de	0.75	0.375	0.562	330	330	330	330	330	0.0
916	B50R_075_050de	0.75	0.25	0.437	330	330	330	330	330	0.0
917	B50R_075_062de	0.75	0.125	0.312	330	330	330	330	330	0.0
918	B50R_075_075de	0.75	0.0	0.188	330	330	330	330	330	0.0
919	GOB1_100_012de	0.625	1.0	0.625	150	150	150	150	150	0.0
920	GOB1_100_025de	0.625	0.875	0.75	150	150	150	150	150	0.0
921	GOB1_100_050de	0.625	0.75	0.625	150	150	150	150	150	0.0
922	GOB1_100_075de	0.625	0.625	0.5	150	150	150	150	150	0.0
923	GOB1_100_100de	0.625	0.5	0.375	150	150	150	150	150	0.0
924	B50R_062_012de	0.625	0.375	0.625	150	150	150	150	150	0.0
925	B50R_062_025de	0.625	0.25	0.5	150	150	150	150	150	0.0
926	B50R_062_037de	0.625	0.125	0.375	150	150	150	150	150	0.0
927	B50R_062_050de	0.625	0.0	0.25	150	150	150	150	150	0.0
928	GOB1_100_012de	0.5	1.0	0.5	150	150	150	150	150	0.0
929	GOB1_100_025de	0.5	0.875	0.375	150	150	150	150	150	0.0
930	GOB1_100_050de	0.5	0.75	0.25	150	150	150	150	150	0.0
931	GOB1_100_075de	0.5	0.625	0.125	150	150	150	150	150	0.0
932	GOB1_100_100de	0.5	0.5	0.0	150	150	150	150	150	0.0
933	B50R_050_012de	0.5	0.375	0.5	150	150	150	150	150	0.0
934	B50R_050_025de	0.5	0.25	0.375	150	150	150	150	150	0.0
935	B50R_050_037de	0.5	0.125	0.25	150	150	150	150	150	0.0
936	B50R_050_050de	0.5	0.0	0.125	150	150	150	150	150	0.0
937	GOB1_100_012de	0.375	1.0	0.375	150	150	150	150	150	0.0
938	GOB1_100_025de	0.375	0.875	0.375	150	150	150	150	150	0.0
939	GOB1_100_050de	0.375	0.75	0.25	150	150	150	150	150	0.0
940	GOB1_100_075de	0.375	0.625	0.125	150	150	150	150	150	0.0
941	GOB1_100_100de	0.375	0.5	0.0	150	150	150	150	150	0.0
942	NW_037de	0.375	0.375	0.375	150	150	150	150	150	0.0
943	B50R_037_012de	0.375	0.25	0.375	150	150	150	150	150	0.0
944	B50R_037_025de	0.375	0.125	0.25	150	150	150	150	150	0.0
945	B50R_037_037de	0.375	0.0	0.125	150	150	150	150	150	0.0
946	GOB1_100_012de	0.25	1.0	0.25	150	150	150	150	150	0.0
947	GOB1_100_025de	0.25	0.875	0.25	150	150	150	150	150	0.0
948	GOB1_100_050de	0.25	0.75	0.125	150	150	150	150	150	0.0
949	GOB1_100_075de	0.25	0.625	0.0	150	150	150	150	150	0.0
950	GOB1_100_100de	0.25	0.5	0.0	150	150	150	150	150	0.0
951	NW_025de	0.25	0.375	0.375	150	150	150	150	150	0.0
952	B50R_025_012de	0.25	0.25	0.25	150	150	150	150	150	0.0
953	B50R_025_025de	0.25	0.125	0.125	150	150	150	150	150	0.0
954	B50R_025_037de	0.25	0.0	0.0	150	150	150	150	150	0.0
955	GOB1_100_012de	0.125	1.0	0.125	150	150	150	150	150	0.0
956	GOB1_100_025de	0.125	0.875	0.125	150	150	150	150	150	0.0
957	GOB1_100_050de	0.125	0.75	0.0	150	150	150	150	150	0.0
958	GOB1_100_075de	0.125	0.625	0.0	150	150	150	150	150	0.0
959	GOB1_100_100de	0.125	0.5	0.0	150	150	150	150	150	0.0
960	NW_012de	0.125	0.375	0.375	150	150	150	150	150	0.0
961	B50R_012_012de	0.125	0.25	0.25	150	150	150	150	150	0.0
962	B50R_012_025de	0.125	0.125	0.125	150	150	150	150	150	0.0
963	B50R_012_037de	0.125	0.0	0.0	150	150	150	150	150	0.0
964	GOB1_100_012de	0.0	1.0	0.0	150	150	150	150	150	0.0
965	GOB1_100_025de	0.0	0.875	0.0	150	150	150	150	150	0.0
966	GOB1_100_050de	0.0	0.75	0.0	150	150	150	150	150	0.0
967	GOB1_100_075de	0.0	0.625	0.0	150	150	150	150	150	0.0
968	GOB1_100_100de	0.0	0.5	0.0	150	150	150	150	150	0.0
969	GOB1_050_012de	0.0	0.375	0.375	150	150	150	150	150	0.0
970	GOB1_050_025de	0.0	0.25	0.25	150	150	150	150	150	0.0
971	GOB1_050_037de	0.0	0.125	0.125	150	150	150	150	150	0.0
972	GOB1_050_050de	0.0	0.0	0.0	150	150	150	150	150	0.0

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

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*  
PE890-7N, Page 31/33-F



<http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT /.PS>; 3D-linearization  
F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 32/33

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

n	HC*File	rgb*File	icr*File	hsa*File	rgb*File	LabCM*File	cmyk*sep*File	hsa*File	rgb*File	LabCM*File	delta
972	NW_000de	0.125	0.125	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
973	NW_012de	0.125	0.125	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
974	NW_025de	0.25	0.25	0.0	0.0	47.6	0.0	360	1.0	1.0	0.0
975	NW_037de	0.375	0.375	0.0	0.0	71.4	0.0	360	1.0	1.0	0.0
976	NW_050de	0.5	0.5	0.0	0.0	95.2	0.0	360	1.0	1.0	0.0
977	NW_062de	0.625	0.625	0.0	0.0	119.0	0.0	360	1.0	1.0	0.0
978	NW_075de	0.75	0.75	0.0	0.0	142.8	0.0	360	1.0	1.0	0.0
979	NW_087de	0.875	0.875	0.0	0.0	166.6	0.0	360	1.0	1.0	0.0
980	NW_100de	1.0	1.0	0.0	0.0	190.4	0.0	360	1.0	1.0	0.0
981	NW_000de	0.0	0.0	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
982	NW_012de	0.125	0.125	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
983	NW_025de	0.25	0.25	0.0	0.0	47.6	0.0	360	1.0	1.0	0.0
984	NW_037de	0.375	0.375	0.0	0.0	71.4	0.0	360	1.0	1.0	0.0
985	NW_050de	0.5	0.5	0.0	0.0	95.2	0.0	360	1.0	1.0	0.0
986	NW_062de	0.625	0.625	0.0	0.0	119.0	0.0	360	1.0	1.0	0.0
987	NW_075de	0.75	0.75	0.0	0.0	142.8	0.0	360	1.0	1.0	0.0
988	NW_087de	0.875	0.875	0.0	0.0	166.6	0.0	360	1.0	1.0	0.0
989	NW_100de	1.0	1.0	0.0	0.0	190.4	0.0	360	1.0	1.0	0.0
990	NW_000de	0.0	0.0	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
991	NW_012de	0.125	0.125	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
992	NW_025de	0.25	0.25	0.0	0.0	47.6	0.0	360	1.0	1.0	0.0
993	NW_037de	0.375	0.375	0.0	0.0	71.4	0.0	360	1.0	1.0	0.0
994	NW_050de	0.5	0.5	0.0	0.0	95.2	0.0	360	1.0	1.0	0.0
995	NW_062de	0.625	0.625	0.0	0.0	119.0	0.0	360	1.0	1.0	0.0
996	NW_075de	0.75	0.75	0.0	0.0	142.8	0.0	360	1.0	1.0	0.0
997	NW_087de	0.875	0.875	0.0	0.0	166.6	0.0	360	1.0	1.0	0.0
998	NW_100de	1.0	1.0	0.0	0.0	190.4	0.0	360	1.0	1.0	0.0
999	NW_000de	0.0	0.0	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
1000	NW_012de	0.125	0.125	0.0	0.0	23.8	0.0	360	1.0	1.0	0.0
1001	NW_025de	0.25	0.25	0.0	0.0	47.6	0.0	360	1.0	1.0	0.0
1002	NW_037de	0.375	0.375	0.0	0.0	71.4	0.0	360	1.0	1.0	0.0
1003	NW_050de	0.5	0.5	0.0	0.0	95.2	0.0	360	1.0	1.0	0.0
1004	NW_062de	0.625	0.625	0.0	0.0	119.0	0.0	360	1.0	1.0	0.0
1005	NW_075de	0.75	0.75	0.0	0.0	142.8	0.0	360	1.0	1.0	0.0
1006	NW_087de	0.875	0.875	0.0	0.0	166.6	0.0	360	1.0	1.0	0.0
1007	NW_100de	1.0	1.0	0.0	0.0	190.4	0.0	360	1.0	1.0	0.0
1008	NW_000de	0.066	0.066	0.066	0.066	28.6	0.0	360	1.0	1.0	0.0
1009	NW_006de	0.133	0.133	0.133	0.133	33.4	0.0	360	1.0	1.0	0.0
1010	NW_013de	0.2	0.2	0.2	0.2	38.2	0.0	360	1.0	1.0	0.0
1011	NW_020de	0.266	0.266	0.266	0.266	42.9	0.0	360	1.0	1.0	0.0
1012	NW_026de	0.333	0.333	0.333	0.333	47.6	0.0	360	1.0	1.0	0.0
1013	NW_033de	0.4	0.4	0.4	0.4	52.4	0.0	360	1.0	1.0	0.0
1014	NW_040de	0.466	0.466	0.466	0.466	57.1	0.0	360	1.0	1.0	0.0
1015	NW_046de	0.533	0.533	0.533	0.533	61.8	0.0	360	1.0	1.0	0.0
1016	NW_053de	0.6	0.6	0.6	0.6	66.6	0.0	360	1.0	1.0	0.0
1017	NW_060de	0.666	0.666	0.666	0.666	71.4	0.0	360	1.0	1.0	0.0
1018	NW_066de	0.734	0.734	0.734	0.734	76.1	0.0	360	1.0	1.0	0.0
1019	NW_073de	0.8	0.8	0.8	0.8	80.8	0.0	360	1.0	1.0	0.0
1020	NW_080de	0.866	0.866	0.866	0.866	85.5	0.0	360	1.0	1.0	0.0
1021	NW_086de	0.933	0.933	0.933	0.933	90.2	0.0	360	1.0	1.0	0.0
1022	NW_093de	1.0	1.0	1.0	1.0	95.0	0.0	360	1.0	1.0	0.0
1023	NW_100de	0.066	0.066	0.066	0.066	28.6	0.0	360	1.0	1.0	0.0
1024	NW_006de	0.133	0.133	0.133	0.133	33.4	0.0	360	1.0	1.0	0.0
1025	NW_013de	0.2	0.2	0.2	0.2	38.2	0.0	360	1.0	1.0	0.0
1026	NW_020de	0.266	0.266	0.266	0.266	42.9	0.0	360	1.0	1.0	0.0
1027	NW_026de	0.333	0.333	0.333	0.333	47.6	0.0	360	1.0	1.0	0.0
1028	NW_033de	0.4	0.4	0.4	0.4	52.4	0.0	360	1.0	1.0	0.0
1029	NW_040de	0.466	0.466	0.466	0.466	57.1	0.0	360	1.0	1.0	0.0
1030	NW_046de	0.533	0.533	0.533	0.533	61.8	0.0	360	1.0	1.0	0.0
1031	NW_053de	0.6	0.6	0.6	0.6	66.6	0.0	360	1.0	1.0	0.0
1032	NW_060de	0.666	0.666	0.666	0.666	71.4	0.0	360	1.0	1.0	0.0
1033	NW_066de	0.734	0.734	0.734	0.734	76.1	0.0	360	1.0	1.0	0.0
1034	NW_073de	0.8	0.8	0.8	0.8	80.8	0.0	360	1.0	1.0	0.0
1035	NW_080de	0.866	0.866	0.866	0.866	85.5	0.0	360	1.0	1.0	0.0
1036	NW_086de	0.933	0.933	0.933	0.933	90.2	0.0	360	1.0	1.0	0.0
1037	NW_093de	1.0	1.0	1.0	1.0	95.0	0.0	360	1.0	1.0	0.0
1038	NW_100de	0.066	0.066	0.066	0.066	28.6	0.0	360	1.0	1.0	0.0
1039	NW_006de	0.133	0.133	0.133	0.133	33.4	0.0	360	1.0	1.0	0.0
1040	NW_013de	0.2	0.2	0.2	0.2	38.2	0.0	360	1.0	1.0	0.0
1041	NW_020de	0.266	0.266	0.266	0.266	42.9	0.0	360	1.0	1.0	0.0
1042	NW_026de	0.333	0.333	0.333	0.333	47.6	0.0	360	1.0	1.0	0.0
1043	NW_033de	0.4	0.4	0.4	0.4	52.4	0.0	360	1.0	1.0	0.0
1044	NW_040de	0.466	0.466	0.466	0.466	57.1	0.0	360	1.0	1.0	0.0
1045	NW_046de	0.533	0.533	0.533	0.533	61.8	0.0	360	1.0	1.0	0.0
1046	NW_053de	0.6	0.6	0.6	0.6	66.6	0.0	360	1.0	1.0	0.0
1047	NW_060de	0.666	0.666	0.666	0.666	71.4	0.0	360	1.0	1.0	0.0
1048	NW_066de	0.734	0.734	0.734	0.734	76.1	0.0	360	1.0	1.0	0.0
1049	NW_073de	0.8	0.8	0.8	0.8	80.8	0.0	360	1.0	1.0	0.0
1050	NW_080de	0.866	0.866	0.866	0.866	85.5	0.0	360	1.0	1.0	0.0
1051	NW_086de	0.933	0.933	0.933	0.933	90.2	0.0	360	1.0	1.0	0.0
1052	NW_093de	1.0	1.0	1.0	1.0	95.0	0.0	360	1.0	1.0	0.0

Mean color difference of this page:

PE890-7N, Page 32/33-F

TUB-test chart PE89; 16 step hue circle  
colors and differences, ΔE\*<sub>ab</sub>



http://130.149.60.45/~farbmetrik/PE89/PE89L0FA.TXT /.PS; 3D-linearization  
 F: 3D-linearization PE89/PE89LE30FA.DAT in file (F), page 33/33

n	HC*File	rgb*File	icr*File	hsa*File	rgbl*File	LabCP*File	cmym*sepFile	cmyp*sepFile	delta
1053	NW_086de	0.866	0.866	0.866	0.866	86.1	0.019	0.02	0.164
1054	NW_093de	0.933	0.933	0.933	0.933	91.0	0.016	0.005	0.103
1055	NW_100de	1.0	1.0	1.0	1.0	95.8	0.0	0.0	0.0
1056	NW_006de	0.066	0.066	0.066	0.066	28.6	0.0	0.0	0.0
1057	NW_013de	0.133	0.133	0.133	0.133	33.4	0.0016	0.054	0.865
1058	NW_020de	0.2	0.2	0.2	0.2	38.2	0.0053	0.109	0.809
1059	NW_026de	0.266	0.266	0.266	0.266	42.9	0.0039	0.082	0.761
1060	NW_033de	0.333	0.333	0.333	0.333	47.8	0.0044	0.088	0.652
1061	NW_040de	0.4	0.4	0.4	0.4	52.6	0.0038	0.078	0.608
1062	NW_046de	0.466	0.466	0.466	0.466	57.3	0.0028	0.064	0.482
1063	NW_053de	0.533	0.533	0.533	0.533	62.2	0.017	0.04	0.427
1064	NW_060de	0.6	0.6	0.6	0.6	67.0	0.015	0.038	0.381
1065	NW_066de	0.666	0.666	0.666	0.666	71.7	0.017	0.033	0.301
1066	NW_073de	0.734	0.734	0.734	0.734	76.4	0.019	0.02	0.23
1067	NW_080de	0.8	0.8	0.8	0.8	81.4	0.0011	0.011	0.164
1068	NW_086de	0.866	0.866	0.866	0.866	86.1	0.0016	0.005	0.103
1069	NW_093de	0.933	0.933	0.933	0.933	91.0	0.0	0.0	0.0
1070	NW_100de	1.0	1.0	1.0	1.0	95.8	0.0	0.0	0.0
1071	NW_000de	0.0	0.0	0.0	0.0	23.8	0.0	0.0	0.0
1072	NW_100de	1.0	1.0	1.0	1.0	95.8	0.0	0.0	0.0
1073	ROY_100_100de	1.0	1.0	1.0	1.0	95.8	0.0	0.0	0.0
1074	ROY_100_100de	1.0	1.0	1.0	1.0	95.8	0.0	0.0	0.0
1075	GS0L_100_100de	1.0	1.0	1.0	1.0	26.7	0.0	0.0	0.0
1076	Y06C_100_100de	1.0	1.0	1.0	1.0	56.0	0.0	0.0	0.0
1077	BY0C_100_100de	1.0	1.0	1.0	1.0	29.1	0.0	0.0	0.0
1078	BS0L_100_100de	1.0	1.0	1.0	1.0	54.9	0.0	0.0	0.0
1079	BS0R_100_100de	1.0	1.0	1.0	1.0	76.8	0.0	0.0	0.0
1078	BS0R_100_100de	1.0	1.0	1.0	1.0	53.6	0.0	0.0	0.0
1079	BS0R_100_100de	1.0	1.0	1.0	1.0	58.3	0.0	0.0	0.0
1079	BS0R_100_100de	1.0	1.0	1.0	1.0	46.7	0.0	0.0	0.0
1079	BS0R_100_100de	1.0	1.0	1.0	1.0	38.5	0.584	0.0	0.146
1079	BS0R_100_100de	1.0	1.0	1.0	1.0	38.5	0.584	0.0	0.146

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

TUB-test chart PE89; 16 step hue circle  
 colors and differences, ΔE\*\*