

# Input and Output: Offset Reflective System ORS18a

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

$HIC^*$

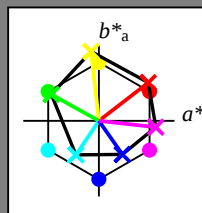
hue text for the colours

of this page:

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

## ORS20a; adapted (a) CIELAB data

| $H^*_e$       | $L^*=L^*_a a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------------|-------------------|---------|--------------|--------------|
| 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

$u^*_{rel} = 92$

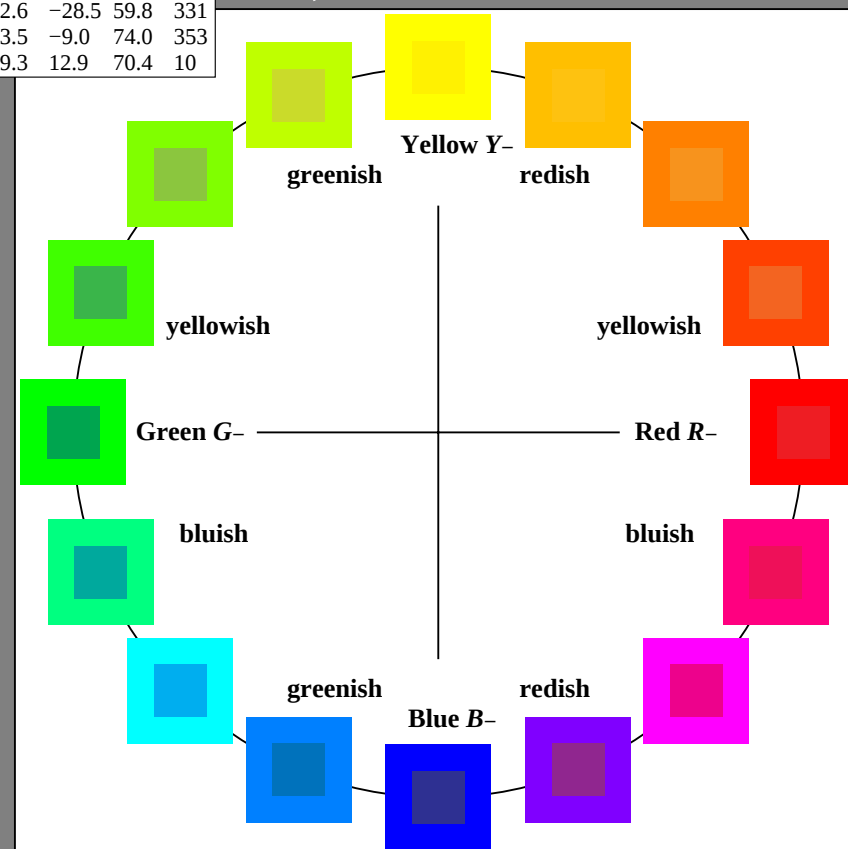
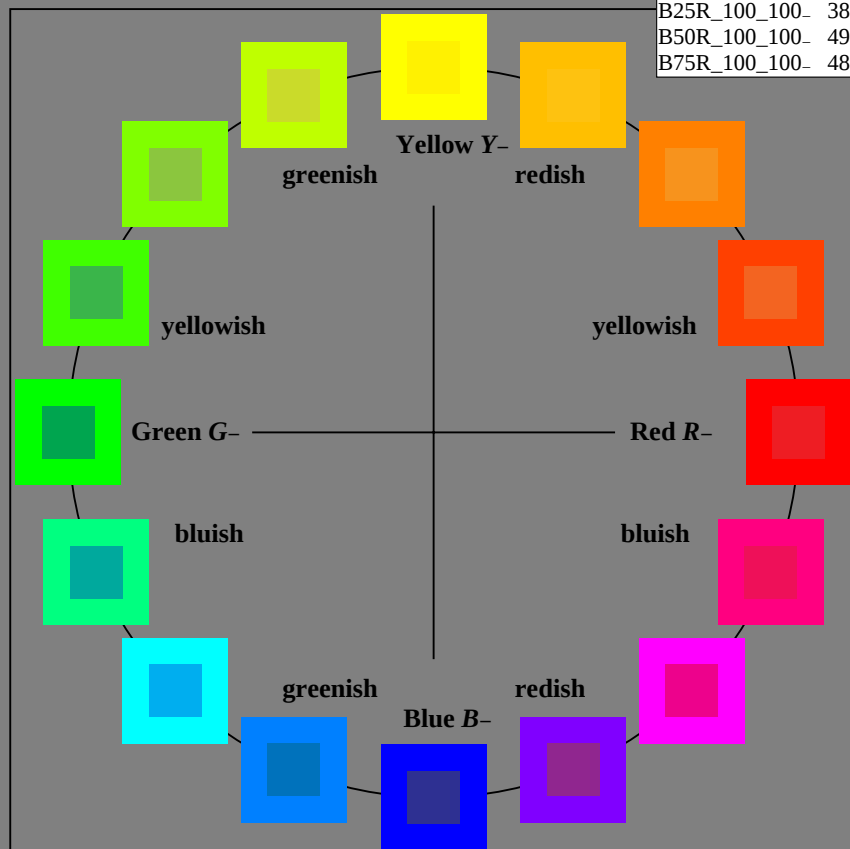
% Regularity

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

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

## ORS18a; adapted (a) CIELAB data

| Name    | $L^*=L^*_a a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------|-------------------|---------|--------------|--------------|
| R_.,Ma  | 47.9              | 65.3    | 50.5         | 82.6         |
| Y_.,Ma  | 90.3              | -10.2   | 91.7         | 92.3         |
| G_.,Ma  | 50.9              | -62.8   | 34.9         | 71.9         |
| C_.,Ma  | 58.6              | -30.3   | -45.0        | 54.2         |
| B_.,Ma  | 25.7              | 31.0    | -44.4        | 54.2         |
| M_.,Ma  | 48.1              | 75.2    | -8.3         | 75.7         |
| N_.,Ma  | 18.0              | 0.0     | 0.0          | 0.0          |
| W_.,Ma  | 95.4              | 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

SE050-7N

TUB-test chart SE05; 16 hues, offset standard paper APCO  
Test chart according to DIN 33872

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

## Input and Output: Offset Reflective System ORS18a

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

$$HIC_e^*$$

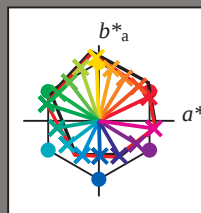
hue text for the colours

of this page:

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

## ORS20a; adapted (a) CIELAB data

| $H_e^*$        | $L^*=L_a^* a_a^*$ | $b_a^*$ | $C_{ab,a}^*$ | $h_{ab,a}^*$ |
|----------------|-------------------|---------|--------------|--------------|
| R00Y_100_100_e | 47.6              | 66.3    | 31.6         | 73.4         |
| R25Y_100_100_e | 53.4              | 52.6    | 45.8         | 69.7         |
| R50Y_100_100_e | 62.5              | 34.1    | 56.6         | 66.1         |
| R75Y_100_100_e | 72.7              | 16.2    | 69.0         | 70.9         |
| Y00G_100_100_e | 85.1              | -3.3    | 83.7         | 83.7         |
| Y25G_100_100_e | 77.6              | -23.7   | 70.5         | 74.4         |
| Y50G_100_100_e | 67.2              | -38.9   | 51.1         | 64.2         |
| Y75G_100_100_e | 57.9              | -53.6   | 36.3         | 64.8         |
| G00B_100_100_e | 51.7              | -69.1   | 22.1         | 72.6         |
| G25B_100_100_e | 54.0              | -55.4   | -9.3         | 56.2         |
| G50B_100_100_e | 56.3              | -41.9   | -31.5        | 52.4         |
| G75B_100_100_e | 51.1              | -21.9   | -45.6        | 50.6         |
| B00R_100_100_e | 36.7              | 1.4     | -46.6        | 46.6         |
| B25R_100_100_e | 26.2              | 26.8    | -46.1        | 53.3         |
| B50R_100_100_e | 34.9              | 50.0    | -30.5        | 58.6         |
| B75R_100_100_e | 47.3              | 72.7    | -10.1        | 73.5         |



% Gamut

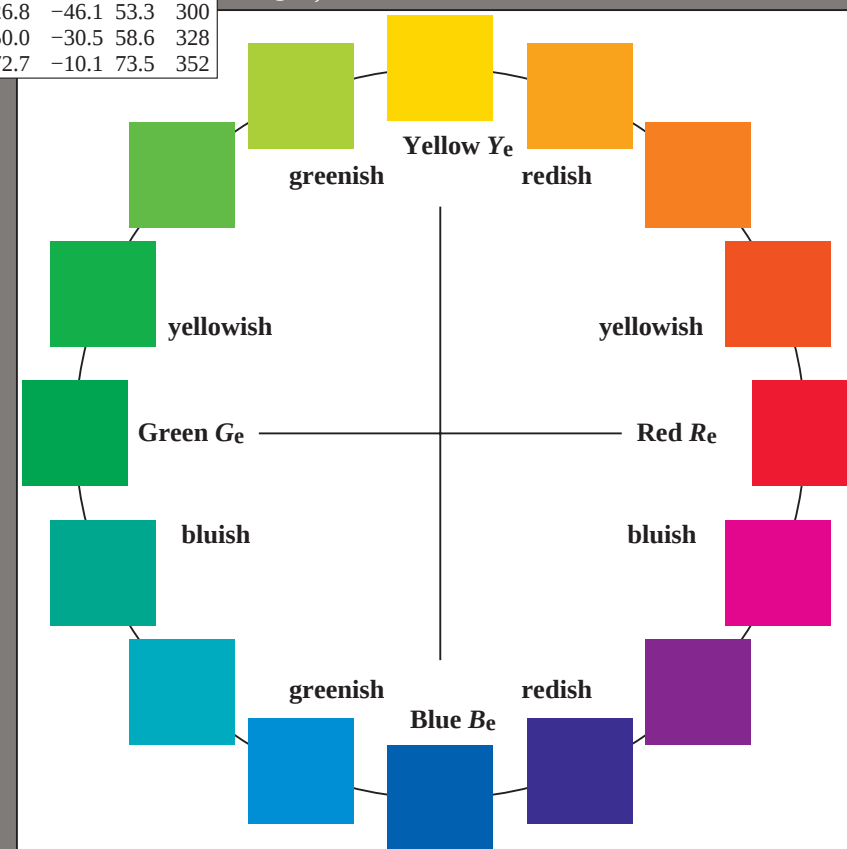
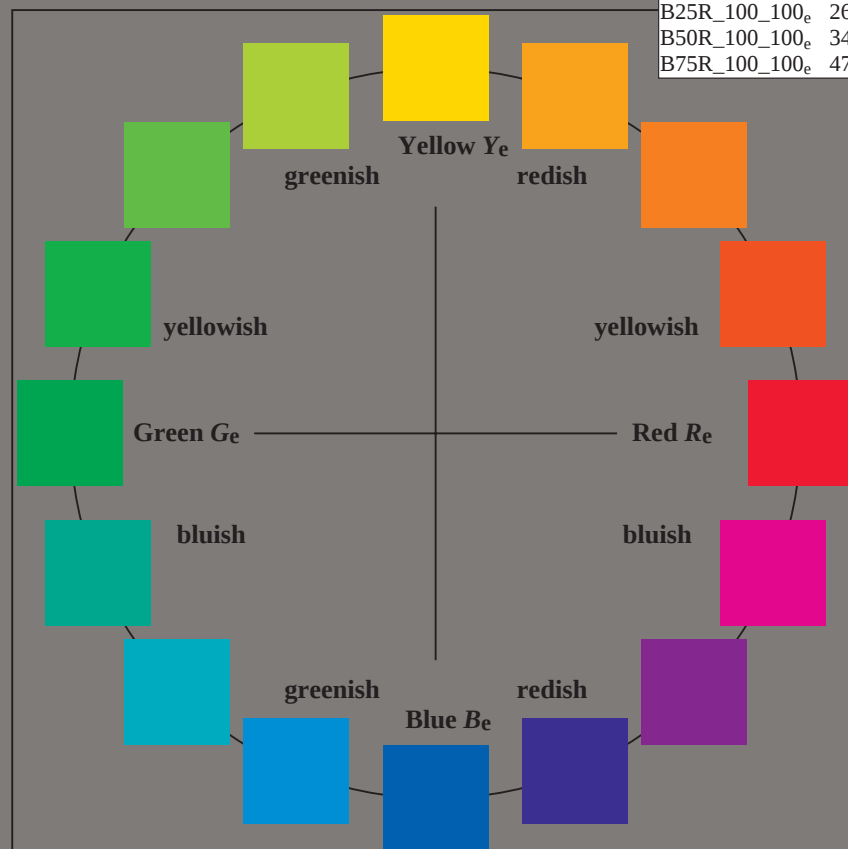
 $u^*_{rel} = 92$ 

% Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 58$ 

## ORS20a; adapted (a) CIELAB data

| Name                | $L^*=L_a^* a_a^*$ | $b_a^*$ | $C_{ab,a}^*$ | $h_{ab,a}^*$ |
|---------------------|-------------------|---------|--------------|--------------|
| R <sub>e</sub> ,Ma  | 47.6              | 66.3    | 31.6         | 73.4         |
| Y <sub>e</sub> ,Ma  | 85.1              | -3.3    | 83.7         | 83.7         |
| G <sub>e</sub> ,Ma  | 51.7              | -69.1   | 22.1         | 72.6         |
| C <sub>e</sub> ,Ma  | 56.3              | -41.9   | -31.5        | 52.4         |
| B <sub>e</sub> ,Ma  | 36.7              | 1.4     | -46.6        | 46.6         |
| M <sub>e</sub> ,Ma  | 34.9              | 50.0    | -30.5        | 58.6         |
| N <sub>e</sub> ,Ma  | 18.5              | 0.0     | 0.0          | 0            |
| W <sub>e</sub> ,Ma  | 96.3              | 0.0     | 0.0          | 0            |
| R <sub>e</sub> ,CIE | 39.9              | 58.7    | 27.9         | 65.0         |
| Y <sub>e</sub> ,CIE | 81.2              | -2.8    | 71.5         | 71.6         |
| G <sub>e</sub> ,CIE | 52.2              | -42.4   | 13.6         | 44.5         |
| B <sub>e</sub> ,CIE | 30.5              | 1.4     | -46.4        | 46.4         |



1-113130-L0

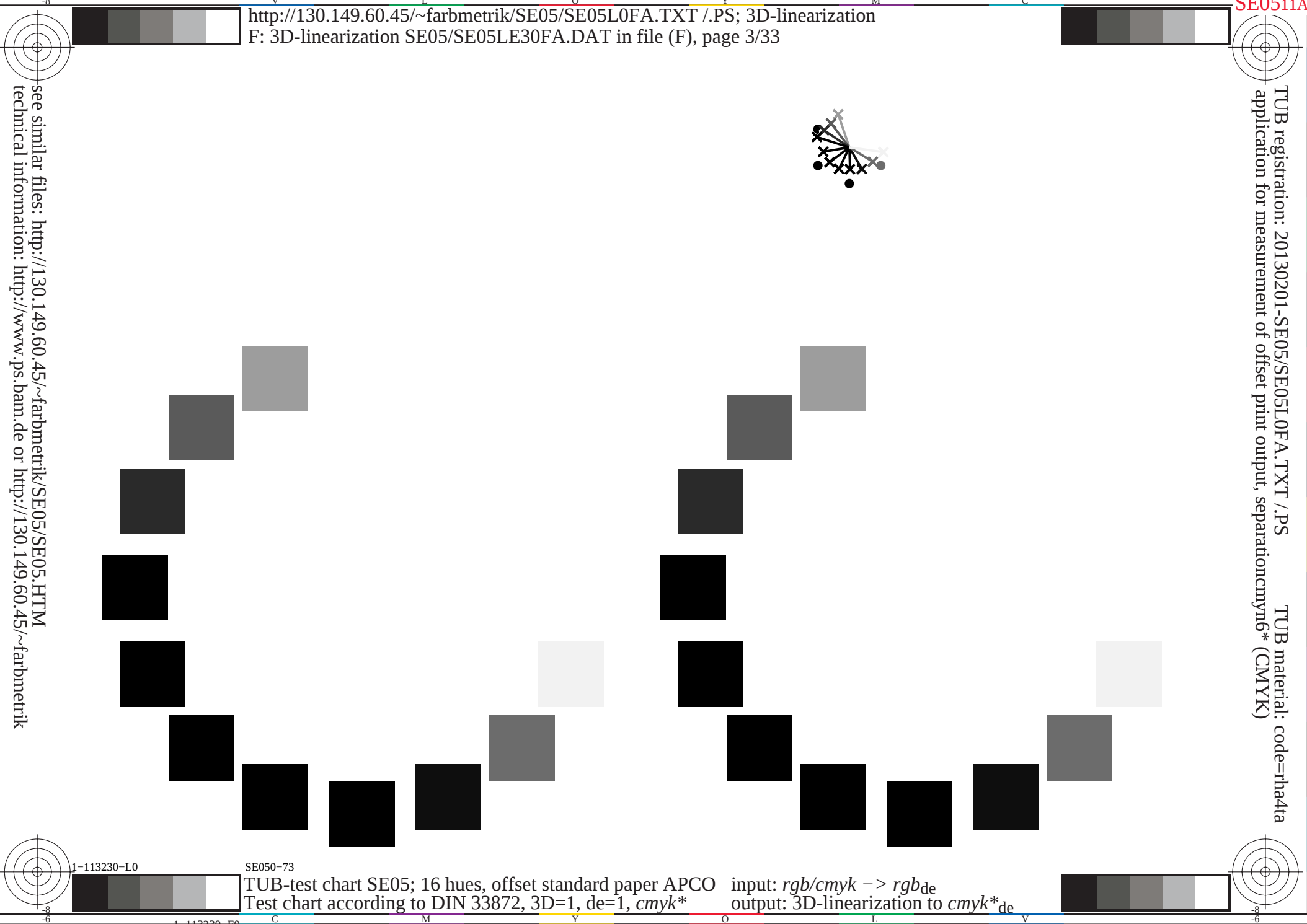
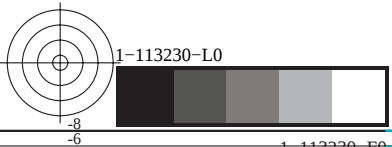
SE050-73

TUB-test chart SE05; 16 hues, offset standard paper APCO  
Test chart according to DIN 33872, 3D=1, de=1,  $cm\dot{y}k^*$

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



see similar files: <http://130.149.60.45/~farbmetrik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>



Input and Output: Offset Reflective System ORS18a

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

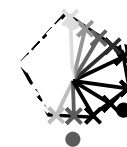
$$HIC^*_e$$

hue text for the colours  
 of this page:

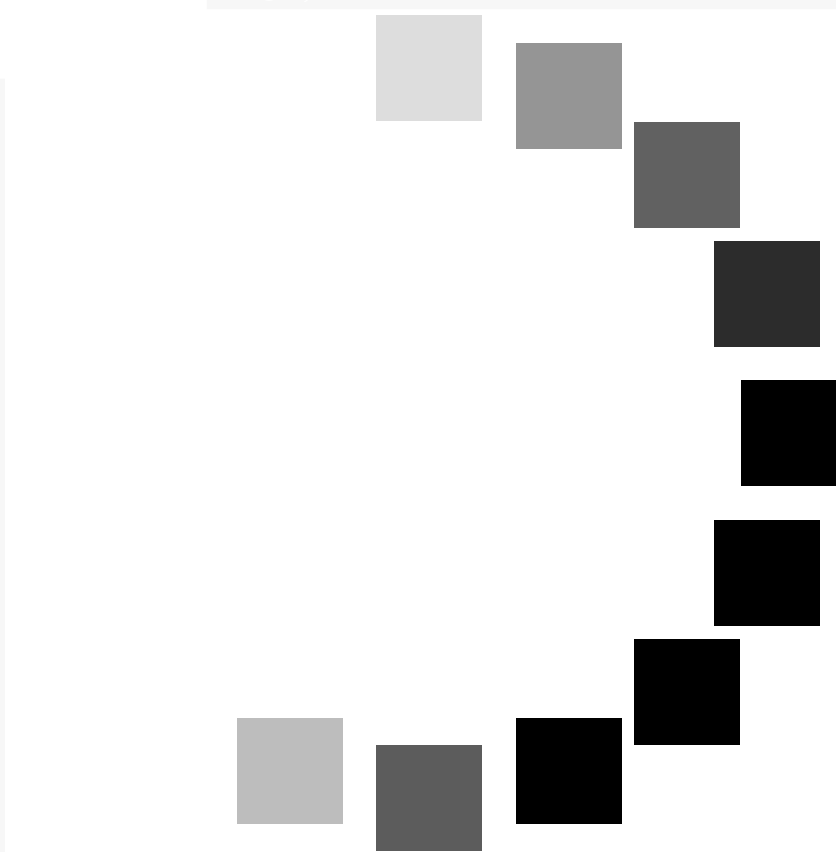
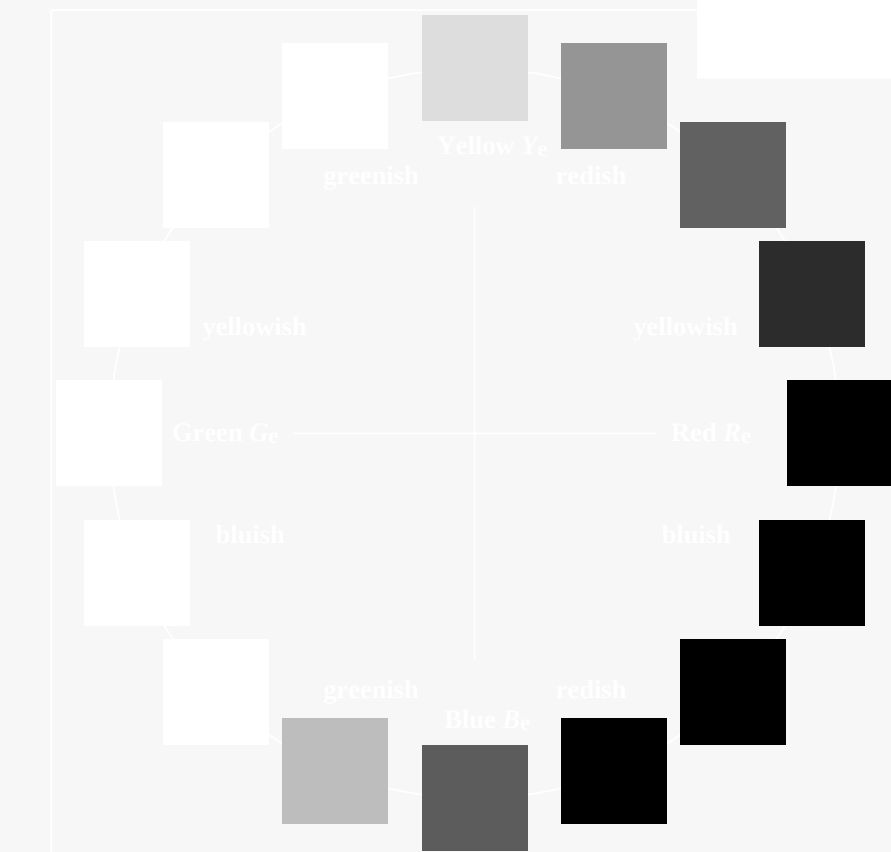
$$H^*_e = R00Y_e, R25Y_e, \dots, B75R_e$$

see similar files: <http://130.149.60.45/~farbmetrik/SE05/SE05.HTM>  
 technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
 application for measurement of offset print output, separationcmykn6\* (CMYK)  
 TUB material: code=rha4ta



% Gamut  
 $u^*_{rel} = 92$   
 % Regularity  
 $g^*H_{rel} = 57$   
 $g^*C_{rel} = 58$



SE050-73  
 TUB-test chart SE05; 16 hues, offset standard paper APCO  
 Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

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



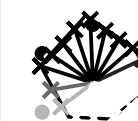
Input and Output: Offset Reflective System ORS18a

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

$u^*_{rel} = 92$

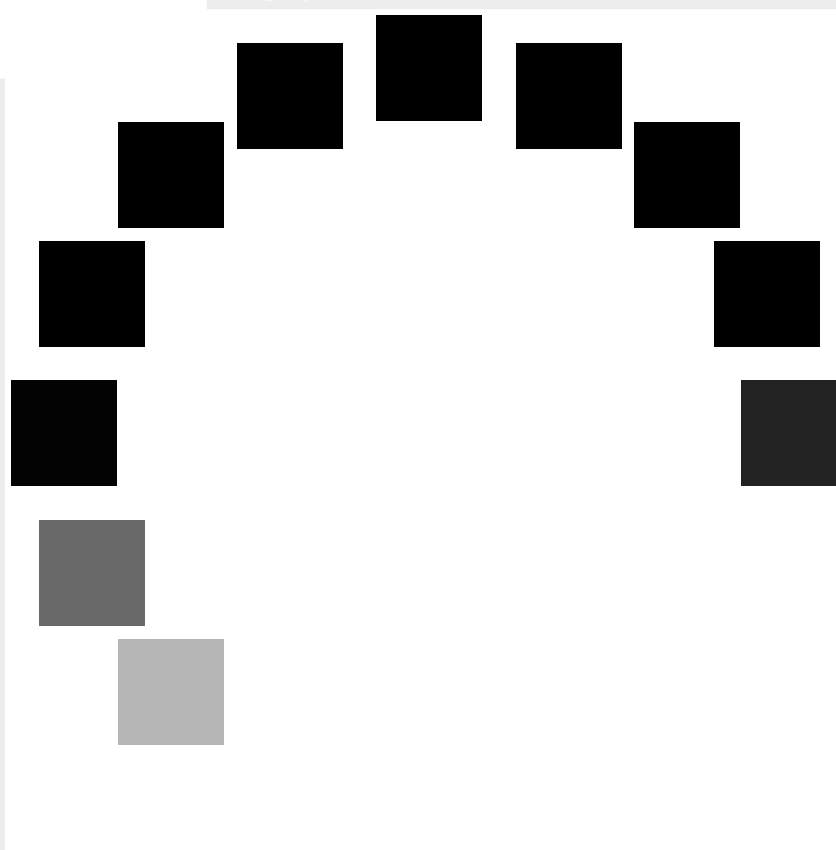
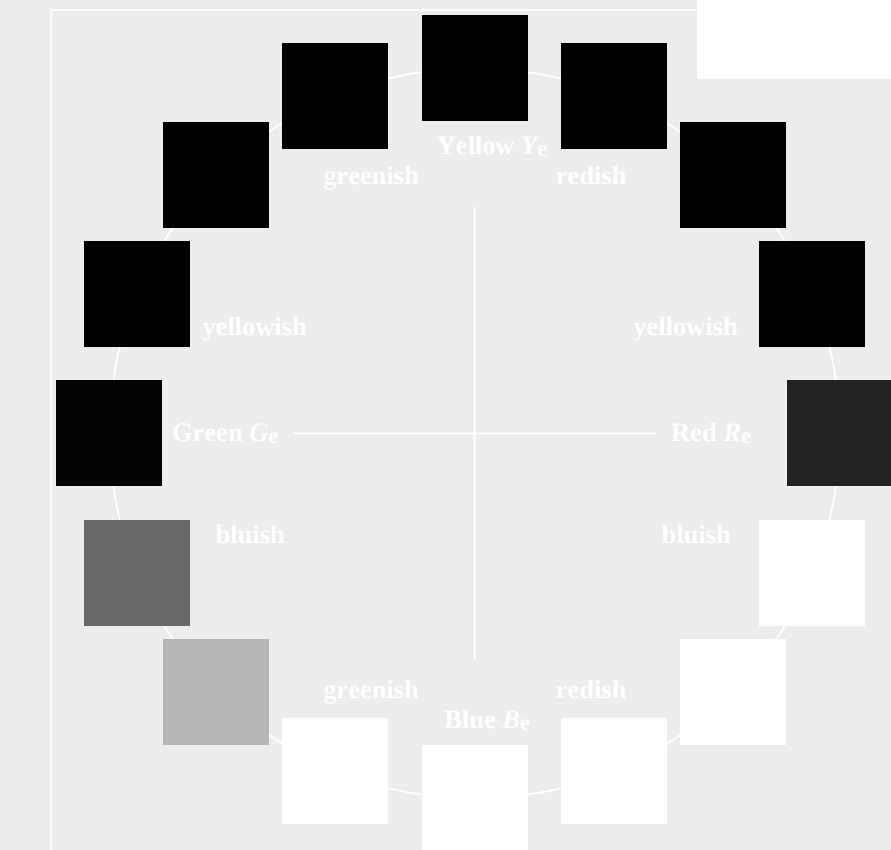
% Regularity

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

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

see similar files: <http://130.149.60.45/~farbmetrik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
application for measurement of offset print output, separationcmykn6\* (CMYK)  
TUB material: code=rha4ta



SE050-73

TUB-test chart SE05; 16 hues, offset standard paper APCO  
Test chart according to DIN 33872, 3D=1, de=1, cmyk\*

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



## Input and Output: Offset Reflective System ORS18a

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

 $HIC_e^*$ 

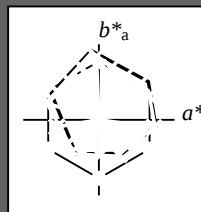
hue text for the colours

of this page:

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

## ORS20a; adapted (a) CIELAB data

| $H_e^*$        | $L^*=L_a^* a_a^*$ | $b_a^*$ | $C_{ab,a}^*$ | $h_{ab,a}^*$ |
|----------------|-------------------|---------|--------------|--------------|
| R00Y_100_100_e | 47.6              | 66.3    | 31.6         | 73.4         |
| R25Y_100_100_e | 53.4              | 52.6    | 45.8         | 69.7         |
| R50Y_100_100_e | 62.5              | 34.1    | 56.6         | 66.1         |
| R75Y_100_100_e | 72.7              | 16.2    | 69.0         | 70.9         |
| Y00G_100_100_e | 85.1              | -3.3    | 83.7         | 83.7         |
| Y25G_100_100_e | 77.6              | -23.7   | 70.5         | 74.4         |
| Y50G_100_100_e | 67.2              | -38.9   | 51.1         | 64.2         |
| Y75G_100_100_e | 57.9              | -53.6   | 36.3         | 64.8         |
| G00B_100_100_e | 51.7              | -69.1   | 22.1         | 72.6         |
| G25B_100_100_e | 54.0              | -55.4   | -9.3         | 56.2         |
| G50B_100_100_e | 56.3              | -41.9   | -31.5        | 52.4         |
| G75B_100_100_e | 51.1              | -21.9   | -45.6        | 50.6         |
| B00R_100_100_e | 36.7              | 1.4     | -46.6        | 46.6         |
| B25R_100_100_e | 26.2              | 26.8    | -46.1        | 53.3         |
| B50R_100_100_e | 34.9              | 50.0    | -30.5        | 58.6         |
| B75R_100_100_e | 47.3              | 72.7    | -10.1        | 73.5         |



% Gamut

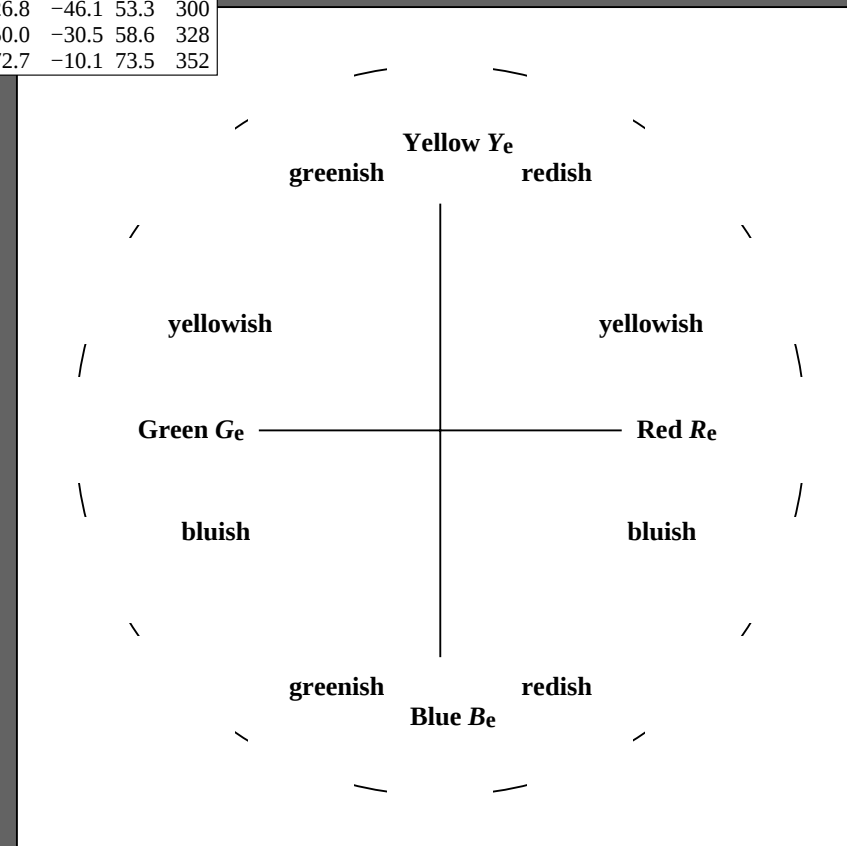
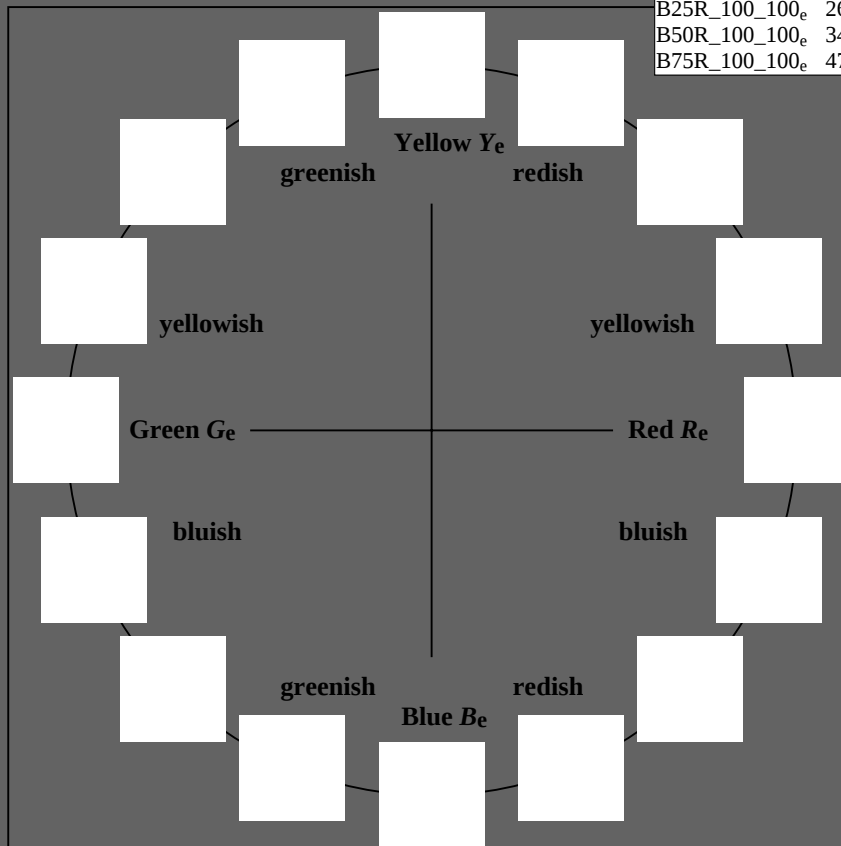
 $u^*_{rel} = 92$ 

% Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 58$ 

## ORS20a; adapted (a) CIELAB data

| Name                | $L^*=L_a^* a_a^*$ | $b_a^*$ | $C_{ab,a}^*$ | $h_{ab,a}^*$ |
|---------------------|-------------------|---------|--------------|--------------|
| R <sub>e</sub> ,Ma  | 47.6              | 66.3    | 31.6         | 73.4         |
| Y <sub>e</sub> ,Ma  | 85.1              | -3.3    | 83.7         | 83.7         |
| G <sub>e</sub> ,Ma  | 51.7              | -69.1   | 22.1         | 72.6         |
| C <sub>e</sub> ,Ma  | 56.3              | -41.9   | -31.5        | 52.4         |
| B <sub>e</sub> ,Ma  | 36.7              | 1.4     | -46.6        | 46.6         |
| M <sub>e</sub> ,Ma  | 34.9              | 50.0    | -30.5        | 58.6         |
| N <sub>e</sub> ,Ma  | 18.5              | 0.0     | 0.0          | 0            |
| W <sub>e</sub> ,Ma  | 96.3              | 0.0     | 0.0          | 0            |
| R <sub>e</sub> ,CIE | 39.9              | 58.7    | 27.9         | 65.0         |
| Y <sub>e</sub> ,CIE | 81.2              | -2.8    | 71.5         | 71.6         |
| G <sub>e</sub> ,CIE | 52.2              | -42.4   | 13.6         | 44.5         |
| B <sub>e</sub> ,CIE | 30.5              | 1.4     | -46.4        | 46.4         |



1-113530-L0

SE050-73

TUB-test chart SE05; 16 hues, offset standard paper APCO  
Test chart according to DIN 33872, 3D=1, de=1,  $cm\dot{y}k^*$

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

Data of Maximum color M in colorimetric system Offset standard print; separation cmy6\*, D65 for input or output; Six hue angles of the 60 degree standard colours  $RYGCBM_s$ :  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$J=Y_d$  Yellow

$LCH^*_d = 89.4 \ 89.6 \ 96.0$

$LAB^*_d = 89.4 \ -9.5 \ 89.0$

$rgb^*_d = 1.0 \ 1.0 \ 0.0$

$L=G_d$  leaf-green

$LCH^*_d = 51.6 \ 73.1 \ 161.6$

$LAB^*_d = 51.6 \ -69.3 \ 23.0$

$rgb^*_d = 0.0 \ 1.0 \ 0.0$

$C=C_d$  cyan-blue

$LCH^*_d = 57.8 \ 55.3 \ 234.6$

$LAB^*_d = 57.8 \ -31.9 \ -45.1$

$rgb^*_d = 0.0 \ 1.0 \ 1.0$

$O=R_d$  orange-red

$LCH^*_d = 47.5 \ 76.0 \ 30.4$

$LAB^*_d = 47.5 \ 65.5 \ 38.4$

$rgb^*_d = 1.0 \ 0.0 \ 0.0$

$M=M_d$  magenta-red

$LCH^*_d = 48.2 \ 74.7 \ 353.2$

$LAB^*_d = 48.2 \ 74.2 \ -8.7$

$rgb^*_d = 1.0 \ 0.0 \ 1.0$

$V=B_d$  violet-blue

$LCH^*_d = 24.9 \ 53.0 \ 295.6$

$LAB^*_d = 24.9 \ 22.9 \ -47.8$

$rgb^*_d = 0.0 \ 0.0 \ 1.0$

$Y_e$  yellow

$LCH^*_e = 85.1 \ 83.7 \ 92.3$

$LAB^*_e = 85.1 \ -3.3 \ 83.7$

$rgb^*_{de} = 1.0 \ 0.868 \ 0.0$

$G_e$  green

$LCH^*_e = 51.7 \ 72.6 \ 162.2$

$LAB^*_e = 51.7 \ -69.1 \ 22.1$

$rgb^*_{de} = 0.0 \ 1.0 \ 0.011$

$C_e$  blue-green

$LCH^*_e = 56.3 \ 52.4 \ 216.9$

$LAB^*_e = 56.3 \ -41.9 \ -31.5$

$rgb^*_{de} = 0.0 \ 1.0 \ 0.712$

$B_e$  blue

$LCH^*_e = 36.7 \ 46.6 \ 271.7$

$LAB^*_e = 36.7 \ 1.4 \ -46.6$

$rgb^*_{de} = 0.0 \ 0.358 \ 1.0$

$R_e$  red

$LCH^*_e = 47.6 \ 73.4 \ 25.4$

$LAB^*_e = 47.6 \ 66.3 \ 31.6$

$rgb^*_{de} = 1.0 \ 0.0 \ 0.131$

$M_e$  blue-red

$LCH^*_e = 34.9 \ 58.6 \ 328.6$

$LAB^*_e = 34.9 \ 50.0 \ -30.5$

$rgb^*_{de} = 0.42 \ 0.0 \ 1.0$

$Y_s$  yellow

$LCH^*_s = 82.9 \ 81.0 \ 90.0$

$LAB^*_s = 82.9 \ 0.0 \ 81.0$

$rgb^*_{ds} = 1.0 \ 0.812 \ 0.0$

$G_s$  green

$LCH^*_s = 56.4 \ 65.7 \ 150.0$

$LAB^*_s = 56.4 \ -56.9 \ 32.8$

$rgb^*_{ds} = 0.117 \ 1.0 \ 0.0$

$R_s$  red

$LCH^*_s = 47.5 \ 75.8 \ 30.0$

$LAB^*_s = 47.5 \ 65.6 \ 37.9$

$rgb^*_{ds} = 1.0 \ 0.0 \ 0.01$

$M_s$  blue-red

$LCH^*_s = 35.6 \ 59.1 \ 330.0$

$LAB^*_s = 35.6 \ 51.2 \ -29.5$

$rgb^*_{ds} = 0.443 \ 0.0 \ 1.0$

$C_s$  blue-green

$LCH^*_s = 55.5 \ 52.6 \ 210.0$

$LAB^*_s = 55.5 \ -45.6 \ -26.3$

$rgb^*_{ds} = 0.0 \ 1.0 \ 0.63$

$B_s$  blue

$LCH^*_s = 37.5 \ 46.4 \ 270.0$

$LAB^*_s = 37.5 \ 0.0 \ -46.4$

$rgb^*_{ds} = 0.0 \ 0.38 \ 1.0$

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

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

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

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

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

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

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

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

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

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

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

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

1-113630-L0

SE050-73

LAB\*la0, YN=0%, XYZnw=2.5, 2.6, 2.7, 86.0, 90.9, 95.9, LAB\*nw=18.5, 0.0, 0.0, 96.4, 0.0, 0.0

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

TUB-test chart SE05; 16 hues, offset standard paper APCO input:  $rgb/cmyk \rightarrow rgb_{de}$   
48 step hue circles;  $rgb-LabCh^*$  tables, 3D=1, de=1,  $cmyk^*$  output: 3D-linearization to  $cmyk^*_{de}$

1-113630-F0

1-113630-F0



Data of Maximum color M in colorimetric system Offset standard print; separation cmy6\*, D65 for input or output; Six hue angles of the 60 degree standard colours  $RYGCBM_d$ :  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_c$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ | $h_{ab,s}$ | $h_{ab,e}$ | $rgb^*_{dd64M}$ | $LAB^*_{dd64M}(x=LabCh)$ | $rgb^*_{dex361M}$ | $LAB^*_{dex361M}$ | $rgb^*_{dd}$ | $rgb^*_{ds}$ | $rgb^*_{de}$ |       |
|------------|------------|------------|-----------------|--------------------------|-------------------|-------------------|--------------|--------------|--------------|-------|
| 30.4       | 30.0       | 25.4       | 1.0             | 0.0                      | 0.0               | 47.5              | 65.5         | 38.4         | 76.0         | 30.4  |
| 37.2       | 37.5       | 33.8       | 1.0             | 0.125                    | 0.0               | 51.5              | 56.6         | 43.1         | 71.2         | 37.2  |
| 47.2       | 45.0       | 42.1       | 1.0             | 0.25                     | 0.0               | 56.6              | 45.8         | 49.4         | 67.4         | 47.2  |
| 58.6       | 52.5       | 50.5       | 1.0             | 0.375                    | 0.0               | 62.3              | 34.4         | 56.4         | 66.1         | 58.6  |
| 69.1       | 60.0       | 58.8       | 1.0             | 0.5                      | 0.0               | 68.1              | 24.0         | 63.0         | 67.4         | 69.1  |
| 80.3       | 67.5       | 67.2       | 1.0             | 0.625                    | 0.0               | 74.9              | 12.1         | 71.5         | 72.5         | 80.3  |
| 87.4       | 75.0       | 75.6       | 1.0             | 0.75                     | 0.0               | 80.5              | 3.4          | 78.0         | 78.1         | 87.4  |
| 92.5       | 82.5       | 83.9       | 1.0             | 0.875                    | 0.0               | 85.4              | -3.7         | 84.0         | 84.0         | 92.5  |
| 96.0       | 90.0       | 92.3       | 1.0             | 1.0                      | 0.0               | 89.4              | -9.5         | 89.0         | 89.6         | 96.0  |
| 99.5       | 97.5       | 101.0      | 0.875           | 1.0                      | 0.0               | 86.7              | -13.9        | 82.7         | 83.8         | 99.5  |
| 102.9      | 105.0      | 109.7      | 0.75            | 1.0                      | 0.0               | 83.7              | -17.7        | 77.1         | 79.2         | 102.9 |
| 107.9      | 112.5      | 118.5      | 0.625           | 1.0                      | 0.0               | 77.9              | -23.1        | 71.3         | 75.0         | 107.9 |
| 116.4      | 120.0      | 127.2      | 0.5             | 1.0                      | 0.0               | 73.1              | -30.2        | 60.8         | 67.9         | 116.4 |
| 124.5      | 127.5      | 136.0      | 0.375           | 1.0                      | 0.0               | 68.8              | -36.5        | 53.0         | 64.4         | 124.5 |
| 138.2      | 135.0      | 144.7      | 0.25            | 1.0                      | 0.0               | 60.8              | -47.5        | 42.4         | 63.7         | 138.2 |
| 149.2      | 142.5      | 153.4      | 0.125           | 1.0                      | 0.0               | 56.7              | -56.1        | 33.3         | 65.2         | 149.2 |
| 161.6      | 150.0      | 162.2      | 0.0             | 1.0                      | 0.0               | 51.6              | -69.3        | 23.0         | 73.1         | 161.6 |
| 168.3      | 157.5      | 169.0      | 0.0             | 1.0                      | 0.125             | 52.3              | -66.1        | 13.6         | 67.5         | 168.3 |
| 176.2      | 165.0      | 175.9      | 0.0             | 1.0                      | 0.25              | 53.0              | -61.8        | 4.0          | 61.9         | 176.2 |
| 186.9      | 172.5      | 182.7      | 0.0             | 1.0                      | 0.375             | 53.8              | -56.5        | -6.8         | 56.9         | 186.9 |
| 198.8      | 180.0      | 189.6      | 0.0             | 1.0                      | 0.5               | 54.6              | -50.8        | -17.3        | 53.7         | 198.8 |
| 209.5      | 187.5      | 196.4      | 0.0             | 1.0                      | 0.625             | 55.4              | -45.8        | -25.9        | 52.6         | 209.5 |
| 220.1      | 195.0      | 203.2      | 0.0             | 1.0                      | 0.75              | 56.6              | -40.0        | -33.7        | 52.4         | 220.1 |
| 227.6      | 202.5      | 210.1      | 0.0             | 1.0                      | 0.875             | 57.2              | -36.1        | -39.6        | 53.6         | 227.6 |
| 234.6      | 210.0      | 216.9      | 0.0             | 1.0                      | 1.0               | 57.8              | -31.9        | -45.1        | 55.3         | 234.6 |
| 238.7      | 217.5      | 223.8      | 0.0             | 0.875                    | 1.0               | 54.9              | -27.5        | -45.3        | 53.0         | 238.7 |
| 244.0      | 225.0      | 230.6      | 0.0             | 0.75                     | 1.0               | 51.3              | -22.1        | -45.6        | 50.7         | 244.0 |
| 250.7      | 232.5      | 237.5      | 0.0             | 0.625                    | 1.0               | 47.2              | -16.0        | -45.9        | 48.7         | 250.7 |
| 260.4      | 240.0      | 244.3      | 0.0             | 0.5                      | 1.0               | 42.3              | -7.7         | -46.3        | 46.9         | 260.4 |
| 270.4      | 247.5      | 251.2      | 0.0             | 0.375                    | 1.0               | 37.3              | 0.3          | -46.4        | 46.4         | 270.4 |
| 280.2      | 255.0      | 258.0      | 0.0             | 0.25                     | 1.0               | 32.7              | 8.5          | -47.0        | 47.8         | 280.2 |
| 289.3      | 262.5      | 264.8      | 0.0             | 0.125                    | 1.0               | 28.1              | 16.7         | -47.6        | 50.4         | 289.3 |
| 295.6      | 270.0      | 271.7      | 0.0             | 0.0                      | 1.0               | 24.9              | 22.9         | -47.8        | 53.0         | 295.6 |
| 305.9      | 277.5      | 278.8      | 0.125           | 0.0                      | 1.0               | 27.8              | 31.4         | -43.4        | 53.6         | 305.9 |
| 311.7      | 285.0      | 285.9      | 0.25            | 0.0                      | 1.0               | 29.9              | 36.0         | -40.4        | 54.1         | 311.7 |
| 325.9      | 292.5      | 293.0      | 0.375           | 0.0                      | 1.0               | 33.7              | 47.7         | -32.2        | 57.5         | 325.9 |
| 333.2      | 300.0      | 300.1      | 0.5             | 0.0                      | 1.0               | 37.0              | 53.9         | -27.1        | 60.4         | 333.2 |
| 339.6      | 307.5      | 307.2      | 0.625           | 0.0                      | 1.0               | 40.2              | 59.7         | -22.1        | 63.7         | 339.6 |
| 346.7      | 315.0      | 314.3      | 0.75            | 0.0                      | 1.0               | 43.3              | 66.7         | -15.7        | 68.5         | 346.7 |
| 350.3      | 322.5      | 321.4      | 0.875           | 0.0                      | 1.0               | 45.9              | 70.7         | -12.0        | 71.7         | 350.3 |
| 353.2      | 330.0      | 328.6      | 1.0             | 0.0                      | 1.0               | 48.2              | 74.2         | -8.7         | 74.7         | 353.2 |
| 356.1      | 337.5      | 335.7      | 1.0             | 0.0                      | 0.875             | 48.2              | 73.1         | -4.9         | 73.3         | 356.1 |
| 359.3      | 345.0      | 342.8      | 1.0             | 0.0                      | 0.75              | 48.1              | 72.1         | -0.7         | 72.1         | 359.3 |
| 364.0      | 352.5      | 349.9      | 1.0             | 0.0                      | 0.625             | 48.0              | 70.7         | 4.9          | 70.9         | 364.0 |
| 369.2      | 360.0      | 357.0      | 1.0             | 0.0                      | 0.5               | 47.8              | 69.7         | 11.3         | 70.6         | 369.2 |
| 375.0      | 367.5      | 364.1      | 1.0             | 0.0                      | 0.375             | 47.8              | 68.2         | 18.3         | 70.6         | 375.0 |
| 380.8      | 375.0      | 371.2      | 1.0             | 0.0                      | 0.25              | 47.8              | 67.0         | 25.4         | 71.7         | 380.8 |
| 385.7      | 382.5      | 378.3      | 1.0             | 0.0                      | 0.125             | 47.6              | 66.2         | 31.9         | 73.5         | 385.7 |
| 390.4      | 390.0      | 385.4      | 1.0             | 0.0                      | 0.0               | 47.5              | 65.5         | 38.4         | 76.0         | 390.4 |

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
application for measurement of offset print output, separationcmy6\* (CMYK)  
TUB material: code=rh4ta

Data of Maximum color M in colorimetric system Offset standard print; separation cmycn6\*, D65 for input or output; Six hue angles of the 60 degree standard colours  $RYGCBM_s$ :  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;

Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ | $h_{ab,s}$ | $h_{ab,e}$ | $rgb^*_{dd361M}$ | $LAB^*_{ddx361Mi}(x=LabCh)$ | $R_d$ | $rgb^*_{ds361Mi}$ | $LAB^*_{dsx361Mi}(x=LabCh)$ | $R_s$ | $rgb^*_{dd361Mi}$ | $LAB^*_{dex361Mi}(x=LabCh)$ | $R_e$ | $rgb^*_{dd361Mi}$ | $rgb^*_{dd}$ | $rgb^*_{ds}$ | $rgb^*_{de}$ |
|------------|------------|------------|------------------|-----------------------------|-------|-------------------|-----------------------------|-------|-------------------|-----------------------------|-------|-------------------|--------------|--------------|--------------|
| 30         | 30         | 25         | 1.0              | 0.0                         | 0.0   | 47.5              | 65.5                        | 38.4  | 76.0              | 30                          | 1.0   | 0.0               | 0.0          | 0.0          | 0.0          |
| 31         | 31         | 26         | 1.0              | 0.016                       | 0.0   | 48.0              | 64.4                        | 39.2  | 75.4              | 31                          | 1.0   | 0.017             | 0.0          |              |              |
| 32         | 32         | 27         | 1.0              | 0.033                       | 0.0   | 48.5              | 63.2                        | 39.8  | 74.7              | 32                          | 1.0   | 0.033             | 0.0          |              |              |
| 33         | 33         | 28         | 1.0              | 0.05                        | 0.0   | 49.1              | 62.0                        | 40.5  | 74.1              | 33                          | 1.0   | 0.05              | 0.0          |              |              |
| 34         | 34         | 29         | 1.0              | 0.066                       | 0.0   | 49.6              | 60.8                        | 41.1  | 73.4              | 34                          | 1.0   | 0.067             | 0.0          |              |              |
| 34         | 35         | 31         | 1.0              | 0.083                       | 0.0   | 50.2              | 59.6                        | 41.7  | 72.8              | 34                          | 1.0   | 0.083             | 0.0          |              |              |
| 35         | 36         | 32         | 1.0              | 0.1                         | 0.0   | 50.7              | 58.4                        | 42.3  | 72.1              | 35                          | 1.0   | 0.1               | 0.0          |              |              |
| 36         | 37         | 33         | 1.0              | 0.116                       | 0.0   | 51.2              | 57.2                        | 42.8  | 71.5              | 36                          | 1.0   | 0.117             | 0.0          |              |              |
| 37         | 38         | 34         | 1.0              | 0.133                       | 0.0   | 51.8              | 55.9                        | 43.6  | 70.9              | 37                          | 1.0   | 0.133             | 0.0          |              |              |
| 39         | 39         | 35         | 1.0              | 0.15                        | 0.0   | 52.5              | 54.5                        | 44.5  | 70.4              | 39                          | 1.0   | 0.15              | 0.0          |              |              |
| 40         | 40         | 36         | 1.0              | 0.166                       | 0.0   | 53.2              | 53.1                        | 45.5  | 69.9              | 40                          | 1.0   | 0.167             | 0.0          |              |              |
| 41         | 41         | 37         | 1.0              | 0.183                       | 0.0   | 53.9              | 51.7                        | 46.3  | 69.4              | 41                          | 1.0   | 0.183             | 0.0          |              |              |
| 43         | 42         | 38         | 1.0              | 0.2                         | 0.0   | 54.5              | 50.2                        | 47.2  | 68.9              | 43                          | 1.0   | 0.2               | 0.0          |              |              |
| 44         | 43         | 39         | 1.0              | 0.216                       | 0.0   | 55.2              | 48.7                        | 48.0  | 68.4              | 44                          | 1.0   | 0.217             | 0.0          |              |              |
| 45         | 44         | 41         | 1.0              | 0.233                       | 0.0   | 55.9              | 47.3                        | 48.7  | 67.9              | 45                          | 1.0   | 0.233             | 0.0          |              |              |
| 47         | 45         | 42         | 1.0              | 0.25                        | 0.0   | 56.6              | 45.8                        | 49.4  | 67.4              | 47                          | 1.0   | 0.25              | 0.0          |              |              |
| 48         | 46         | 43         | 1.0              | 0.266                       | 0.0   | 57.3              | 44.3                        | 50.5  | 67.2              | 48                          | 1.0   | 0.267             | 0.0          |              |              |
| 50         | 47         | 44         | 1.0              | 0.283                       | 0.0   | 58.1              | 42.8                        | 51.5  | 67.0              | 50                          | 1.0   | 0.283             | 0.0          |              |              |
| 51         | 48         | 45         | 1.0              | 0.3                         | 0.0   | 58.9              | 41.4                        | 52.5  | 66.9              | 51                          | 1.0   | 0.3               | 0.0          |              |              |
| 53         | 49         | 46         | 1.0              | 0.316                       | 0.0   | 59.6              | 39.8                        | 53.5  | 66.7              | 53                          | 1.0   | 0.317             | 0.0          |              |              |
| 54         | 50         | 47         | 1.0              | 0.333                       | 0.0   | 60.4              | 38.3                        | 54.3  | 66.5              | 54                          | 1.0   | 0.333             | 0.0          |              |              |
| 56         | 51         | 48         | 1.0              | 0.35                        | 0.0   | 61.2              | 36.7                        | 55.2  | 66.3              | 56                          | 1.0   | 0.35              | 0.0          |              |              |
| 57         | 52         | 49         | 1.0              | 0.366                       | 0.0   | 62.0              | 35.2                        | 56.0  | 66.2              | 57                          | 1.0   | 0.367             | 0.0          |              |              |
| 59         | 53         | 51         | 1.0              | 0.383                       | 0.0   | 62.7              | 33.7                        | 56.9  | 66.2              | 59                          | 1.0   | 0.383             | 0.0          |              |              |
| 60         | 54         | 52         | 1.0              | 0.4                         | 0.0   | 63.5              | 32.4                        | 57.9  | 66.3              | 60                          | 1.0   | 0.4               | 0.0          |              |              |
| 62         | 55         | 53         | 1.0              | 0.416                       | 0.0   | 64.2              | 31.1                        | 58.8  | 66.5              | 62                          | 1.0   | 0.417             | 0.0          |              |              |
| 63         | 56         | 54         | 1.0              | 0.433                       | 0.0   | 65.0              | 29.7                        | 59.7  | 66.7              | 63                          | 1.0   | 0.433             | 0.0          |              |              |
| 64         | 57         | 55         | 1.0              | 0.45                        | 0.0   | 65.8              | 28.3                        | 60.6  | 66.9              | 64                          | 1.0   | 0.45              | 0.0          |              |              |
| 66         | 58         | 56         | 1.0              | 0.466                       | 0.0   | 66.5              | 26.9                        | 61.4  | 67.0              | 66                          | 1.0   | 0.467             | 0.0          |              |              |
| 67         | 59         | 57         | 1.0              | 0.483                       | 0.0   | 67.3              | 25.4                        | 62.2  | 67.2              | 67                          | 1.0   | 0.483             | 0.0          |              |              |
| 69         | 60         | 58         | 1.0              | 0.5                         | 0.0   | 68.1              | 24.0                        | 63.0  | 67.4              | 69                          | 1.0   | 0.5               | 0.0          |              |              |
| 70         | 61         | 60         | 1.0              | 0.516                       | 0.0   | 69.0              | 22.5                        | 64.2  | 68.1              | 70                          | 1.0   | 0.517             | 0.0          |              |              |
| 72         | 62         | 61         | 1.0              | 0.533                       | 0.0   | 69.9              | 21.1                        | 65.5  | 68.8              | 72                          | 1.0   | 0.533             | 0.0          |              |              |
| 73         | 63         | 62         | 1.0              | 0.55                        | 0.0   | 70.8              | 19.6                        | 66.6  | 69.5              | 73                          | 1.0   | 0.55              | 0.0          |              |              |
| 75         | 64         | 63         | 1.0              | 0.566                       | 0.0   | 71.7              | 18.0                        | 67.8  | 70.1              | 75                          | 1.0   | 0.567             | 0.0          |              |              |
| 76         | 65         | 64         | 1.0              | 0.583                       | 0.0   | 72.6              | 16.4                        | 68.9  | 70.8              | 76                          | 1.0   | 0.583             | 0.0          |              |              |
| 78         | 66         | 65         | 1.0              | 0.6                         | 0.0   | 73.6              | 14.7                        | 70.0  | 71.5              | 78                          | 1.0   | 0.6               | 0.0          |              |              |
| 79         | 67         | 66         | 1.0              | 0.616                       | 0.0   | 74.5              | 13.0                        | 71.0  | 72.2              | 79                          | 1.0   | 0.617             | 0.0          |              |              |
| 80         | 68         | 67         | 1.0              | 0.633                       | 0.0   | 75.3              | 11.6                        | 72.0  | 72.9              | 80                          | 1.0   | 0.633             | 0.0          |              |              |
| 81         | 69         | 68         | 1.0              | 0.65                        | 0.0   | 76.0              | 10.5                        | 72.9  | 73.6              | 81                          | 1.0   | 0.65              | 0.0          |              |              |
| 82         | 70         | 70         | 1.0              | 0.666                       | 0.0   | 76.8              | 9.4                         | 73.8  | 74.4              | 82                          | 1.0   | 0.667             | 0.0          |              |              |
| 83         | 71         | 71         | 1.0              | 0.683                       | 0.0   | 77.5              | 8.3                         | 74.7  | 75.1              | 83                          | 1.0   | 0.683             | 0.0          |              |              |
| 84         | 72         | 72         | 1.0              | 0.7                         | 0.0   | 78.3              | 7.1                         | 75.5  | 75.9              | 84                          | 1.0   | 0.7               | 0.0          |              |              |
| 85         | 73         | 73         | 1.0              | 0.716                       | 0.0   | 79.0              | 5.9                         | 76.4  | 76.6              | 85                          | 1.0   | 0.717             | 0.0          |              |              |
| 86         | 74         | 74         | 1.0              | 0.733                       | 0.0   | 79.8              | 4.7                         | 77.2  | 77.3              | 86                          | 1.0   | 0.733             | 0.0          |              |              |
| 87         | 75         | 75         | 1.0              | 0.75                        | 0.0   | 80.5              | 3.4                         | 78.0  | 78.1              | 87                          | 1.0   | 0.75              | 0.0          |              |              |

1-113930-L0

SE050-73

LAB\*la0, YN=0%, XYZnw=2.5, 2.6, 2.7, 86.0, 90.9, 95.9, LAB\*nw=18.5, 0.0, 0.0, 96.4, 0.0, 0.0

Output: Offset standard print; separation cmycn6\*, D65, page 10/33

TUB-test chart SE05; 16 hues, offset standard paper APCO input:  $rgb/cmyk \rightarrow rgb_{de}$   
48 step hue circles;  $rgb-LabCh^*$  tables, 3D=1, de=1,  $cmyk^*$  output: 3D-linearization to  $cmyk^*_{de}$

1-113930-F0

see similar files: <http://130.149.60.45/~farbmetrik/SE05/SE05L0FA.TXT> / .PS  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
application for measurement of offset print output, separation cmycn6\* (CMYK)  
TUB material: code=rha4ta

F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 11/33

see similar files: <http://130.149.60.45/~farbmeterik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmeterik>

TUB registration: 20130201-SE05/SE05L0FA.TXT/.PS      TUB material:  
+ application for measurement of offset print output, separationcmy6\* (CMYK)

Data of Maximum color M in colorimetric system Offset standard print; separation cmyn\*, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGCBM*<sub>s</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  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ | $h_{ab,s}$ | $h_{ab,c}$ | $rgb^*_{dd361M}$ | $LAB^*_{dsx361Mi}$ (x=LabCh) | $rgb^*_{ds361Mi}$ | $LAB^*_{dsx361Mi}$ (x=LabCh) | $rgb^*_{dd361Mi}$ | $rgb^*_{de361Mi}$ | $LAB^*_{dex361Mi}$ (x=LabCh) | $rgb^*_{dd361Mi}$ | $rgb^*_{ds}$ | $rgb^*_{de}$ |     |     |  |  |
|------------|------------|------------|------------------|------------------------------|-------------------|------------------------------|-------------------|-------------------|------------------------------|-------------------|--------------|--------------|-----|-----|--|--|
| 87         | 75         | 75         | 1.0              | 0.75                         | 0.0               | 80.5                         | 3.4               | 78.0              | 78.1                         | 87                | 1.0          | 0.75         | 0.0 |     |  |  |
| 88         | 76         | 76         | 1.0              | 0.766                        | 0.0               | 81.2                         | 2.5               | 78.8              | 78.9                         | 88                | 1.0          | 0.767        | 0.0 |     |  |  |
| 88         | 77         | 77         | 1.0              | 0.783                        | 0.0               | 81.8                         | 1.6               | 79.7              | 79.7                         | 88                | 1.0          | 0.783        | 0.0 |     |  |  |
| 89         | 78         | 78         | 1.0              | 0.8                          | 0.0               | 82.4                         | 0.6               | 80.5              | 80.5                         | 89                | 1.0          | 0.8          | 0.0 |     |  |  |
| 90         | 79         | 80         | 1.0              | 0.816                        | 0.0               | 83.1                         | -0.2              | 81.3              | 81.3                         | 90                | 1.0          | 0.817        | 0.0 |     |  |  |
| 90         | 80         | 81         | 1.0              | 0.833                        | 0.0               | 83.7                         | -1.2              | 82.0              | 82.1                         | 90                | 1.0          | 0.833        | 0.0 |     |  |  |
| 91         | 81         | 82         | 1.0              | 0.85                         | 0.0               | 84.4                         | -2.2              | 82.8              | 82.8                         | 91                | 1.0          | 0.85         | 0.0 |     |  |  |
| 92         | 82         | 83         | 1.0              | 0.866                        | 0.0               | 85.0                         | -3.2              | 83.6              | 83.6                         | 92                | 1.0          | 0.867        | 0.0 |     |  |  |
| 92         | 83         | 84         | 1.0              | 0.883                        | 0.0               | 85.6                         | -4.1              | 84.3              | 84.4                         | 92                | 1.0          | 0.883        | 0.0 |     |  |  |
| 93         | 84         | 85         | 1.0              | 0.9                          | 0.0               | 86.2                         | -4.8              | 85.0              | 85.1                         | 93                | 1.0          | 0.9          | 0.0 |     |  |  |
| 93         | 85         | 86         | 1.0              | 0.916                        | 0.0               | 86.7                         | -5.6              | 85.7              | 85.9                         | 93                | 1.0          | 0.917        | 0.0 |     |  |  |
| 94         | 86         | 87         | 1.0              | 0.933                        | 0.0               | 87.2                         | -6.3              | 86.4              | 86.6                         | 94                | 1.0          | 0.933        | 0.0 |     |  |  |
| 94         | 87         | 88         | 1.0              | 0.95                         | 0.0               | 87.8                         | -7.1              | 87.1              | 87.3                         | 94                | 1.0          | 0.95         | 0.0 |     |  |  |
| 95         | 88         | 90         | 1.0              | 0.966                        | 0.0               | 88.3                         | -7.9              | 87.7              | 88.1                         | 95                | 1.0          | 0.967        | 0.0 |     |  |  |
| 95         | 89         | 91         | 1.0              | 0.983                        | 0.0               | 88.8                         | -8.7              | 88.4              | 88.8                         | 95                | 1.0          | 0.983        | 0.0 |     |  |  |
| 96         | 90         | 92         | 1.0              | 1.0                          | 0.0               | 89.4                         | -9.5              | 89.0              | 89.6                         | 96                | 1.0          | 1.0          | 0.0 |     |  |  |
| 96         | 91         | 93         | 0.983            | 1.0                          | 0.0               | 89.0                         | -10.1             | 88.2              | 88.8                         | 96                | 1.0          | 0.983        | 1.0 | 0.0 |  |  |
| 97         | 92         | 94         | 0.966            | 1.0                          | 0.0               | 88.6                         | -10.7             | 87.4              | 88.0                         | 97                | 1.0          | 0.967        | 1.0 | 0.0 |  |  |
| 97         | 93         | 95         | 0.95             | 1.0                          | 0.0               | 88.3                         | -11.3             | 86.5              | 87.3                         | 97                | 1.0          | 0.95         | 1.0 | 0.0 |  |  |
| 97         | 94         | 96         | 0.933            | 1.0                          | 0.0               | 87.9                         | -11.9             | 85.7              | 86.5                         | 97                | 1.0          | 0.933        | 1.0 | 0.0 |  |  |
| 98         | 95         | 98         | 0.916            | 1.0                          | 0.0               | 87.6                         | -12.5             | 84.8              | 85.7                         | 98                | 1.0          | 0.917        | 1.0 | 0.0 |  |  |
| 98         | 96         | 99         | 0.9              | 1.0                          | 0.0               | 87.2                         | -13.0             | 84.0              | 85.0                         | 98                | 1.0          | 0.9          | 1.0 | 0.0 |  |  |
| 99         | 97         | 100        | 0.883            | 1.0                          | 0.0               | 86.9                         | -13.6             | 83.1              | 84.2                         | 99                | 1.0          | 0.883        | 1.0 | 0.0 |  |  |
| 99         | 98         | 101        | 0.866            | 1.0                          | 0.0               | 86.5                         | -14.2             | 82.3              | 83.5                         | 99                | 1.0          | 0.867        | 1.0 | 0.0 |  |  |
| 100        | 99         | 102        | 0.85             | 1.0                          | 0.0               | 86.1                         | -14.7             | 81.6              | 82.9                         | 100               | 1.0          | 0.85         | 1.0 | 0.0 |  |  |
| 100        | 100        | 103        | 0.833            | 1.0                          | 0.0               | 85.7                         | -15.2             | 80.8              | 82.3                         | 100               | 1.0          | 0.833        | 1.0 | 0.0 |  |  |
| 101        | 101        | 105        | 0.816            | 1.0                          | 0.0               | 85.3                         | -15.8             | 80.1              | 81.6                         | 101               | 1.0          | 0.817        | 1.0 | 0.0 |  |  |
| 101        | 102        | 106        | 0.8              | 1.0                          | 0.0               | 84.9                         | -16.3             | 79.4              | 81.0                         | 101               | 1.0          | 0.8          | 1.0 | 0.0 |  |  |
| 102        | 103        | 107        | 0.783            | 1.0                          | 0.0               | 84.5                         | -16.8             | 78.6              | 80.4                         | 102               | 1.0          | 0.783        | 1.0 | 0.0 |  |  |
|            |            |            |                  |                              |                   |                              |                   |                   |                              |                   |              |              |     |     |  |  |

|              |          |                                                                                              |
|--------------|----------|----------------------------------------------------------------------------------------------|
| 1-1131030-L0 | SE050-73 | LAB*la0, YN=0%, XYZnw=2.5, 2.6, 2.7, 86.0, 90.9, 95.9, LAB*nw=18.5, 0.0, 0.0, 96.4, 0.0, 0.0 |
|--------------|----------|----------------------------------------------------------------------------------------------|

Output: Offset standard print; separation cmyn6\*, D65, page 11/33

TUB-test chart SE05; 16 hues, offset standard paper APCO input:  $rgb/cmyk \rightarrow rgb_{de}$ 

48 step hue circles; *rgb-LabCh\** tables, 3D=1, de=1, *cmyk\** output: 3D-linearization to *cmyk\**<sub>de</sub>

1-1131030-F0

F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 12/33

Data of Maximum color M in colorimetric system Offset standard print; separation cmyn\*<sub>6</sub>, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGCBM*<sub>s</sub>;  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;

Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ |     |     | $h_{ab,s}$ |     |     | $h_{ab,e}$ |       |        | $rgb^*_{dd361M}$ |     |       | $LAB^*_{d361Mi}$ |     |      | $rgb^*_{ds361Mi}$ |      |      | $LAB^*_{dsx361Mi}$ |       |     | $rgb^*_{dd361Mi}$ |       |     | $rgb^*_{de361Mi}$ |      |       | $LAB^*_{dex361Mi}$ |      |     | $rgb^*_{dd361Mi}$ |     |     | $rgb^*_{dd}$ |  |  | $rgb^*_{ds}$ |  |  | $rgb^*_{de}$ |  |  |
|------------|-----|-----|------------|-----|-----|------------|-------|--------|------------------|-----|-------|------------------|-----|------|-------------------|------|------|--------------------|-------|-----|-------------------|-------|-----|-------------------|------|-------|--------------------|------|-----|-------------------|-----|-----|--------------|--|--|--------------|--|--|--------------|--|--|
| 116        | 120 | 127 | 0.5        | 1.0 | 0.0 | 73.1       | -30.2 | 60.8   | 67.9             | 116 | 0.445 | 1.0              | 0.0 | 71.3 | -33.1             | 57.5 | 66.4 | 120                | 0.5   | 1.0 | 0.0               | 0.35  | 1.0 | 0.0               | 67.3 | -38.8 | 51.1               | 64.3 | 127 | 0.5               | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 117        | 121 | 128 | 0.483      | 1.0 | 0.0 | 72.6       | -31.1 | 59.8   | 67.4             | 117 | 0.43  | 1.0              | 0.0 | 70.8 | -33.9             | 56.5 | 65.9 | 121                | 0.483 | 1.0 | 0.0               | 0.34  | 1.0 | 0.0               | 66.6 | -39.8 | 50.3               | 64.2 | 128 | 0.483             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 118        | 122 | 129 | 0.466      | 1.0 | 0.0 | 72.0       | -32.0 | 58.8   | 66.9             | 118 | 0.415 | 1.0              | 0.0 | 70.2 | -34.6             | 55.6 | 65.5 | 122                | 0.467 | 1.0 | 0.0               | 0.329 | 1.0 | 0.0               | 65.9 | -40.8 | 49.4               | 64.2 | 129 | 0.467             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 119        | 123 | 130 | 0.45       | 1.0 | 0.0 | 71.4       | -32.9 | 57.7   | 66.5             | 119 | 0.399 | 1.0              | 0.0 | 69.7 | -35.3             | 54.6 | 65.1 | 123                | 0.45  | 1.0 | 0.0               | 0.319 | 1.0 | 0.0               | 65.2 | -41.7 | 48.5               | 64.1 | 130 | 0.45              | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 120        | 124 | 131 | 0.433      | 1.0 | 0.0 | 70.8       | -33.7 | 56.7   | 66.0             | 120 | 0.384 | 1.0              | 0.0 | 69.2 | -36.1             | 53.6 | 64.7 | 124                | 0.433 | 1.0 | 0.0               | 0.308 | 1.0 | 0.0               | 64.6 | -42.7 | 47.6               | 64.0 | 131 | 0.433             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 121        | 125 | 133 | 0.416      | 1.0 | 0.0 | 70.2       | -34.6 | 55.6   | 65.5             | 121 | 0.371 | 1.0              | 0.0 | 68.6 | -36.8             | 52.7 | 64.4 | 125                | 0.417 | 1.0 | 0.0               | 0.297 | 1.0 | 0.0               | 63.9 | -43.6 | 46.7               | 64.0 | 133 | 0.417             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 122        | 126 | 134 | 0.4        | 1.0 | 0.0 | 69.7       | -35.4 | 54.6   | 65.1             | 122 | 0.362 | 1.0              | 0.0 | 68.0 | -37.7             | 52.0 | 64.3 | 126                | 0.4   | 1.0 | 0.0               | 0.287 | 1.0 | 0.0               | 63.2 | -44.5 | 45.8               | 63.9 | 134 | 0.4               | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 124        | 127 | 135 | 0.383      | 1.0 | 0.0 | 69.1       | -36.1 | 53.5   | 64.6             | 124 | 0.353 | 1.0              | 0.0 | 67.4 | -38.6             | 51.3 | 64.3 | 127                | 0.383 | 1.0 | 0.0               | 0.276 | 1.0 | 0.0               | 62.5 | -45.4 | 44.8               | 63.9 | 135 | 0.383             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 125        | 128 | 136 | 0.366      | 1.0 | 0.0 | 68.3       | -37.3 | 52.3   | 64.3             | 125 | 0.344 | 1.0              | 0.0 | 66.9 | -39.4             | 50.6 | 64.2 | 128                | 0.367 | 1.0 | 0.0               | 0.265 | 1.0 | 0.0               | 61.8 | -46.2 | 43.8               | 63.8 | 136 | 0.367             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 127        | 129 | 137 | 0.35       | 1.0 | 0.0 | 67.2       | -38.9 | 51.1   | 64.2             | 127 | 0.335 | 1.0              | 0.0 | 66.3 | -40.3             | 49.9 | 64.2 | 129                | 0.35  | 1.0 | 0.0               | 0.255 | 1.0 | 0.0               | 61.2 | -47.1 | 42.9               | 63.7 | 137 | 0.35              | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 129        | 130 | 138 | 0.333      | 1.0 | 0.0 | 66.1       | -40.5 | 49.7   | 64.1             | 129 | 0.326 | 1.0              | 0.0 | 65.7 | -41.1             | 49.1 | 64.1 | 130                | 0.333 | 1.0 | 0.0               | 0.243 | 1.0 | 0.0               | 60.6 | -48.0 | 41.9               | 63.8 | 138 | 0.333             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 130        | 131 | 140 | 0.316      | 1.0 | 0.0 | 65.1       | -42.0 | 48.3   | 64.0             | 130 | 0.316 | 1.0              | 0.0 | 65.1 | -41.9             | 48.4 | 64.1 | 131                | 0.317 | 1.0 | 0.0               | 0.229 | 1.0 | 0.0               | 60.2 | -49.0 | 41.0               | 64.0 | 140 | 0.317             | 1.0 | 0.0 |              |  |  |              |  |  |              |  |  |
| 132        | 132 | 141 | 0.3        | 1.0 | 0.0 | 64.0       | -43.4 | 46.9</ |                  |     |       |                  |     |      |                   |      |      |                    |       |     |                   |       |     |                   |      |       |                    |      |     |                   |     |     |              |  |  |              |  |  |              |  |  |

1-1131130-L0

SE050-73

LAB\*la0, Y

W=0%, XYZ

 $\tau=2.5, 2.6, 2$ 

86.0, 90.9,

.9, LAB\*nw

18.5, 0.0, 0.0

96.4, 0.0, 0.0

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Output: O

et standard p

ent; separation

cmyn6\*, D6

page 12/33

TUB-test chart SE05; 16 hues, offset standard paper APCO    input: *rgb/cmyk*  $\rightarrow$  *rgb<sub>dev</sub>*

48 step hue circles; *rgb-LabCh\** tables, 3D=1, de=1, *cmyk\** output: 3D-linearization to *cmyk\**<sub>de</sub>

Output: Offset standard print; separation cmyn6\*, D65, page 12/33

~~1-1131130-E0~~

C

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M

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Y



L

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V

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TUB registration: 20130201-SE05/SE05L0FA.TXT/.PS  
application for measurement of offset print output, separa-

TUB material: code=rh4ta  
yn6\* (CMYK)

metric system Offset standard print; separation cmyn6\*, D65 for input or output; Six hue angles of the 60 degree standard colours  $RYGBM_s$ :  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  $h_{ab,ds} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGBM$ :  $h_{ab,s} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

Output: Offset standard print; separation cmyn6\*, D65, page 13/38

1-1131230-F0

http://130.149.60.45/~farbmatrik/SE05/SE05L0FA.TXT /.PS; 3D-linearization

F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 14/33

Data of Maximum color M in colorimetric system Offset standard print; separation cmycn6\*, D65 for input or output; Six hue angles of the 60 degree standard colours  $RYGCBM_s$ :  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;  
 Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ | $h_{ab,s}$ | $h_{ab,e}$ | $rgb^*_{dd361M}$ | $LAB^*_{dd361Mi}(x=LabCh)$ | $rgb^*_{ds361Mi}$ | $LAB^*_{dsx361Mi}(x=LabCh)$ | $rgb^*_{dd361Mi}$ | $LAB^*_{de361Mi}$ | $rgb^*_{de361Mi}$ | $LAB^*_{dex361Mi}(x=LabCh)$ | $rgb^*_{dd361Mi}$ | $rgb^*_{dd}$ | $rgb^*_{ds}$ | $rgb^*_{de}$ |
|------------|------------|------------|------------------|----------------------------|-------------------|-----------------------------|-------------------|-------------------|-------------------|-----------------------------|-------------------|--------------|--------------|--------------|
| 234        | 210        | 216        | 0.0              | 1.0                        | 1.0               | 57.8                        | -31.9             | -45.1             | 55.3              | 234                         | 0.0               | 1.0          | 1.0          | 1.0          |
| 235        | 211        | 217        | 0.0              | 0.983                      | 1.0               | 57.4                        | -31.3             | -45.1             | 55.0              | 235                         | 0.0               | 1.0          | 0.983        | 1.0          |
| 235        | 212        | 218        | 0.0              | 0.966                      | 1.0               | 57.0                        | -30.7             | -45.2             | 54.7              | 235                         | 0.0               | 1.0          | 0.967        | 1.0          |
| 236        | 213        | 219        | 0.0              | 0.95                       | 1.0               | 56.6                        | -30.1             | -45.2             | 54.4              | 236                         | 0.0               | 1.0          | 0.95         | 1.0          |
| 236        | 214        | 220        | 0.0              | 0.933                      | 1.0               | 56.2                        | -29.6             | -45.3             | 54.1              | 236                         | 0.0               | 1.0          | 0.933        | 1.0          |
| 237        | 215        | 221        | 0.0              | 0.916                      | 1.0               | 55.9                        | -29.0             | -45.3             | 53.8              | 237                         | 0.0               | 1.0          | 0.917        | 1.0          |
| 237        | 216        | 222        | 0.0              | 0.9                        | 1.0               | 55.5                        | -28.4             | -45.3             | 53.5              | 237                         | 0.0               | 1.0          | 0.9          | 1.0          |
| 238        | 217        | 223        | 0.0              | 0.883                      | 1.0               | 55.1                        | -27.8             | -45.3             | 53.2              | 238                         | 0.0               | 1.0          | 0.883        | 1.0          |
| 239        | 218        | 224        | 0.0              | 0.866                      | 1.0               | 54.6                        | -27.2             | -45.4             | 52.9              | 239                         | 0.0               | 1.0          | 0.867        | 1.0          |
| 239        | 219        | 225        | 0.0              | 0.85                       | 1.0               | 54.1                        | -26.4             | -45.4             | 52.6              | 239                         | 0.0               | 1.0          | 0.85         | 1.0          |
| 240        | 220        | 226        | 0.0              | 0.833                      | 1.0               | 53.7                        | -25.7             | -45.5             | 52.3              | 240                         | 0.0               | 1.0          | 0.833        | 1.0          |
| 241        | 221        | 227        | 0.0              | 0.816                      | 1.0               | 53.2                        | -25.0             | -45.5             | 51.9              | 241                         | 0.0               | 1.0          | 0.817        | 1.0          |
| 241        | 222        | 227        | 0.0              | 0.8                        | 1.0               | 52.7                        | -24.3             | -45.5             | 51.6              | 241                         | 0.0               | 1.0          | 0.8          | 1.0          |
| 242        | 223        | 228        | 0.0              | 0.783                      | 1.0               | 52.2                        | -23.5             | -45.6             | 51.3              | 242                         | 0.0               | 1.0          | 0.783        | 1.0          |
| 243        | 224        | 229        | 0.0              | 0.766                      | 1.0               | 51.8                        | -22.8             | -45.6             | 51.0              | 243                         | 0.0               | 1.0          | 0.767        | 1.0          |
| 244        | 225        | 230        | 0.0              | 0.75                       | 1.0               | 51.3                        | -22.1             | -45.6             | 50.7              | 244                         | 0.0               | 1.0          | 0.75         | 1.0          |
| 244        | 226        | 231        | 0.0              | 0.733                      | 1.0               | 50.7                        | -21.3             | -45.7             | 50.4              | 244                         | 0.0               | 1.0          | 0.733        | 1.0          |
| 245        | 227        | 232        | 0.0              | 0.716                      | 1.0               | 50.2                        | -20.5             | -45.7             | 50.1              | 245                         | 0.0               | 1.0          | 0.717        | 1.0          |
| 246        | 228        | 233        | 0.0              | 0.7                        | 1.0               | 49.7                        | -19.6             | -45.8             | 49.9              | 246                         | 0.0               | 1.0          | 0.7          | 1.0          |
| 247        | 229        | 234        | 0.0              | 0.683                      | 1.0               | 49.1                        | -18.8             | -45.9             | 49.6              | 247                         | 0.0               | 1.0          | 0.683        | 1.0          |
| 248        | 230        | 235        | 0.0              | 0.666                      | 1.0               | 48.6                        | -18.0             | -45.9             | 49.3              | 248                         | 0.0               | 1.0          | 0.667        | 1.0          |
| 249        | 231        | 236        | 0.0              | 0.65                       | 1.0               | 48.0                        | -17.2             | -45.9             | 49.1              | 249                         | 0.0               | 1.0          | 0.65         | 1.0          |
| 250        | 232        | 237        | 0.0              | 0.633                      | 1.0               | 47.5                        | -16.4             | -45.9             | 48.8              | 250                         | 0.0               | 1.0          | 0.633        | 1.0          |
| 251        | 233        | 237        | 0.0              | 0.616                      | 1.0               | 46.9                        | -15.4             | -46.0             | 48.5              | 251                         | 0.0               | 1.0          | 0.617        | 1.0          |
| 252        | 234        | 238        | 0.0              | 0.6                        | 1.0               | 46.2                        | -14.3             | -46.1             | 48.3              | 252                         | 0.0               | 1.0          | 0.6          | 1.0          |
| 253        | 235        | 239        | 0.0              | 0.583                      | 1.0               | 45.6                        | -13.2             | -46.2             | 48.1              | 253                         | 0.0               | 1.0          | 0.583        | 1.0          |
| 255        | 236        | 240        | 0.0              | 0.566                      | 1.0               | 44.9                        | -12.1             | -46.3             | 47.8              | 255                         | 0.0               | 1.0          | 0.567        | 1.0          |
| 256        | 237        | 241        | 0.0              | 0.55                       | 1.0               | 44.3                        | -11.0             | -46.3             | 47.6              | 256                         | 0.0               | 1.0          | 0.55         | 1.0          |
| 257        | 238        | 242        | 0.0              | 0.533                      | 1.0               | 43.6                        | -9.9              | -46.3             | 47.4              | 257                         | 0.0               | 1.0          | 0.533        | 1.0          |
| 259        | 239        | 243        | 0.0              | 0.516                      | 1.0               | 43.0                        | -8.8              | -46.3             | 47.2              | 259                         | 0.0               | 1.0          | 0.517        | 1.0          |
| 260        | 240        | 244        | 0.0              | 0.5                        | 1.0               | 42.3                        | -7.7              | -46.3             | 46.9              | 260                         | 0.0               | 1.0          | 0.5          | 1.0          |
| 261        | 241        | 245        | 0.0              | 0.483                      | 1.0               | 41.6                        | -6.7              | -46.4             | 46.9              | 261                         | 0.0               | 1.0          | 0.483        | 1.0          |
| 263        | 242        | 246        | 0.0              | 0.466                      | 1.0               | 41.0                        | -5.6              | -46.4             | 46.8              | 263                         | 0.0               | 1.0          | 0.467        | 1.0          |
| 264        | 243        | 247        | 0.0              | 0.45                       | 1.0               | 40.3                        | -4.5              | -46.5             | 46.7              | 264                         | 0.0               | 1.0          | 0.45         | 1.0          |
| 265        | 244        | 248        | 0.0              | 0.433                      | 1.0               | 39.6                        | -3.4              | -46.5             | 46.7              | 265                         | 0.0               | 1.0          | 0.433        | 1.0          |
| 267        | 245        | 248        | 0.0              | 0.416                      | 1.0               | 38.9                        | -2.3              | -46.5             | 46.6              | 267                         | 0.0               | 1.0          | 0.417        | 1.0          |
| 268        | 246        | 249        | 0.0              | 0.4                        | 1.0               | 38.3                        | -1.2              | -46.5             | 46.5              | 268                         | 0.0               | 1.0          | 0.4          | 1.0          |
| 269        | 247        | 250        | 0.0              | 0.383                      | 1.0               | 37.6                        | -0.2              | -46.5             | 46.5              | 269                         | 0.0               | 1.0          | 0.383        | 1.0          |
| 271        | 248        | 251        | 0.0              | 0.366                      | 1.0               | 37.0                        | 0.8               | -46.5             | 46.5              | 271                         | 0.0               | 1.0          | 0.367        | 1.0          |
| 272        | 249        | 252        | 0.0              | 0.35                       | 1.0               | 36.4                        | 1.9               | -46.7             | 46.7              | 272                         | 0.0               | 1.0          | 0.35         | 1.0          |
| 273        | 250        | 253        | 0.0              | 0.333                      | 1.0               | 35.8                        | 3.0               | -46.8             | 46.9              | 273                         | 0.0               | 1.0          | 0.333        | 1.0          |
| 275        | 251        | 254        | 0.0              | 0.316                      | 1.0               | 35.1                        | 4.1               | -46.9             | 47.1              | 275                         | 0.0               | 1.0          | 0.317        | 1.0          |
| 276        | 252        | 255        | 0.0              | 0.3                        | 1.0               | 34.5                        | 5.2               | -46.9             | 47.2              | 276                         | 0.0               | 1.0          | 0.3          | 1.0          |
| 277        | 253        | 256        | 0.0              | 0.283                      | 1.0               | 33.9                        | 6.3               | -47.0             | 47.4              | 277                         | 0.0               | 1.0          | 0.283        | 1.0          |
| 278        | 254        | 257        | 0.0              | 0.266                      | 1.0               | 33.3                        | 7.4               | -47.0             | 47.6              | 278                         | 0.0               | 1.0          | 0.267        | 1.0          |
| 280        | 255        | 258        | 0.0              | 0.25                       | 1.0               | 32.7                        | 8.5               | -47.0             | 47.8              | 280                         | 0.0               | 1.0          | 0.25         | 1.0          |

1-1131330-L0 SE050-73 LAB\*la0, YN=0%, XYZnw=2.5, 2.6, 2.7, 86.0, 90.9, 95.9, LAB\*nw=18.5, 0.0, 0.0, 96.4, 0.0, 0.0

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

TUB-test chart SE05; 16 hues, offset standard paper APCO input:  $rgb/cmyk \rightarrow rgb_{de}$   
 48 step hue circles;  $rgb-LabCh^*$  tables, 3D=1,  $de=1$ ,  $cmyk^*$  output: 3D-linearization to  $cmyk^*_{de}$

1-1131330-F0

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
 application for measurement of offset print output, separation cmycn6\* (CMYK)

TUB material: code=rha4ta

see similar files: <http://130.149.60.45/~farmmetrik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farmmetrik>

TUB registration: 20130201-SE05/SE05L0FA.TXT / PS      TUB material: code=rh4ta  
 application for measurement of offset print output, separationcmvn6\* (CMYK)

Data of Maximum color M in colorimetric system Offset standard print; separation cmyn6\*, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGCBM<sub>s</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  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ |     |     | $h_{ab,s}$ |       |     | $h_{ab,e}$ |      |       | $rgb^*_{dd361M}$ |     |       | $LAB^*_{ddx361Mi} (x=LabCh)$ |      |      | $rgb^*_{ds361Mi}$ |       |       | $LAB^*_{dsx361Mi} (x=LabCh)$ |          |       | $rgb^*_{dd361Mi}$ |     |       | $rgb^*_{de361Mi}$ |      |      | $LAB^*_{dex361Mi} (x=LabCh)$ |       |      | $rgb^*_{dd361Mi}$ |       |     | $rgb^*_{ds361Mi}$ |  |  | $rgb^*_{de361Mi}$ |  |  |
|------------|-----|-----|------------|-------|-----|------------|------|-------|------------------|-----|-------|------------------------------|------|------|-------------------|-------|-------|------------------------------|----------|-------|-------------------|-----|-------|-------------------|------|------|------------------------------|-------|------|-------------------|-------|-----|-------------------|--|--|-------------------|--|--|
| 280        | 255 | 258 | 0.0        | 0.25  | 1.0 | 32.7       | 8.5  | -47.0 | 47.8             | 280 | 0.0   | 0.57                         | 1.0  | 45.1 | -12.3             | -46.2 | 47.9  | 255                          | 0.0      | 0.25  | 1.0               | 0.0 | 0.531 | 1.0               | 43.6 | -9.7 | -46.3                        | 47.4  | 258  | 0.0               | 0.25  | 1.0 |                   |  |  |                   |  |  |
| 281        | 256 | 258 | 0.0        | 0.233 | 1.0 | 32.1       | 9.5  | -47.2 | 48.1             | 281 | 0.0   | 0.557                        | 1.0  | 44.6 | -11.5             | -46.2 | 47.8  | 256                          | 0.0      | 0.233 | 1.0               | 0.0 | 0.519 | 1.0               | 43.1 | -8.9 | -46.3                        | 47.2  | 258  | 0.0               | 0.233 | 1.0 |                   |  |  |                   |  |  |
| 282        | 257 | 259 | 0.0        | 0.216 | 1.0 | 31.5       | 10.6 | -47.3 | 48.5             | 282 | 0.0   | 0.545                        | 1.0  | 44.1 | -10.6             | -46.3 | 47.6  | 257                          | 0.0      | 0.217 | 1.0               | 0.0 | 0.507 | 1.0               | 42.7 | -8.2 | -46.2                        | 47.1  | 259  | 0.0               | 0.217 | 1.0 |                   |  |  |                   |  |  |
| 283        | 258 | 260 | 0.0        | 0.2   | 1.0 | 30.9       | 11.7 | -47.4 | 48.8             | 283 | 0.0   | 0.532                        | 1.0  | 43.6 | -9.8              | -46.3 | 47.4  | 258                          | 0.0      | 0.2   | 1.0               | 0.0 | 0.496 | 1.0               | 42.2 | -7.4 | -46.2                        | 47.0  | 260  | 0.0               | 0.2   | 1.0 |                   |  |  |                   |  |  |
| 285        | 259 | 261 | 0.0        | 0.183 | 1.0 | 30.2       | 12.8 | -47.5 | 49.2             | 285 | 0.0   | 0.519                        | 1.0  | 43.1 | -8.9              | -46.3 | 47.2  | 259                          | 0.0      | 0.183 | 1.0               | 0.0 | 0.484 | 1.0               | 41.7 | -6.7 | -46.3                        | 46.9  | 261  | 0.0               | 0.183 | 1.0 |                   |  |  |                   |  |  |
| 286        | 260 | 262 | 0.0        | 0.166 | 1.0 | 29.6       | 13.9 | -47.5 | 49.5             | 286 | 0.0   | 0.506                        | 1.0  | 42.6 | -8.1              | -46.2 | 47.1  | 260                          | 0.0      | 0.167 | 1.0               | 0.0 | 0.473 | 1.0               | 41.3 | -5.9 | -46.4                        | 46.9  | 262  | 0.0               | 0.167 | 1.0 |                   |  |  |                   |  |  |
| 287        | 261 | 263 | 0.0        | 0.15  | 1.0 | 29.0       | 15.0 | -47.6 | 49.9             | 287 | 0.0   | 0.493                        | 1.0  | 42.1 | -7.2              | -46.3 | 46.9  | 261                          | 0.0      | 0.15  | 1.0               | 0.0 | 0.461 | 1.0               | 40.8 | -5.2 | -46.4                        | 46.8  | 263  | 0.0               | 0.15  | 1.0 |                   |  |  |                   |  |  |
| 288        | 262 | 264 | 0.0        | 0.133 | 1.0 | 28.4       | 16.1 | -47.6 | 50.3             | 288 | 0.0   | 0.481                        | 1.0  | 41.6 | -6.4              | -46.3 | 46.9  | 262                          | 0.0      | 0.133 | 1.0               | 0.0 | 0.45  | 1.0               | 40.3 | -4.4 | -46.5                        | 46.8  | 264  | 0.0               | 0.133 | 1.0 |                   |  |  |                   |  |  |
| 289        | 263 | 265 | 0.0        | 0.116 | 1.0 | 27.8       | 17.1 | -47.6 | 50.6             | 289 | 0.0   | 0.468                        | 1.0  | 41.1 | -5.6              | -46.4 | 46.8  | 263                          | 0.0      | 0.117 | 1.0               | 0.0 | 0.439 | 1.0               | 39.9 | -3.7 | -46.5                        | 46.7  | 265  | 0.0               | 0.117 | 1.0 |                   |  |  |                   |  |  |
| 290        | 264 | 266 | 0.0        | 0.1   | 1.0 | 27.4       | 17.9 | -47.7 | 50.9             | 290 | 0.0   | 0.455                        | 1.0  | 40.6 | -4.8              | -46.4 | 46.8  | 264                          | 0.0      | 0.1   | 1.0               | 0.0 | 0.427 | 1.0               | 39.4 | -2.9 | -46.5                        | 46.7  | 266  | 0.0               | 0.1   | 1.0 |                   |  |  |                   |  |  |
| 291        | 265 | 267 | 0.0        | 0.083 | 1.0 | 27.0       | 18.8 | -47.7 | 51.3             | 291 | 0.0   | 0.443                        | 1.0  | 40.1 | -4.0              | -46.5 | 46.7  | 265                          | 0.0      | 0.083 | 1.0               | 0.0 | 0.416 | 1.0               | 39.0 | -2.2 | -46.5                        | 46.6  | 267  | 0.0               | 0.083 | 1.0 |                   |  |  |                   |  |  |
| 292        | 266 | 268 | 0.0        | 0.066 | 1.0 | 26.6       | 19.6 | -47.8 | 51.6             | 292 | 0.0   | 0.43                         | 1.0  | 39.6 | -3.2              | -46.5 | 46.7  | 266                          | 0.0      | 0.067 | 1.0               | 0.0 | 0.404 | 1.0               | 38.5 | -1.5 | -46.5                        | 46.6  | 268  | 0.0               | 0.067 | 1.0 |                   |  |  |                   |  |  |
| 293        | 267 | 269 | 0.0        | 0.049 | 1.0 | 26.2       | 20.4 | -47.8 | 52.0             | 293 | 0.0   | 0.418                        | 1.0  | 39.0 | -2.3              | -46.5 | 46.6  | 267                          | 0.0      | 0.05  | 1.0               | 0.0 | 0.393 | 1.0               | 38.0 | -0.7 | -46.4                        | 46.5  | 269  | 0.0               | 0.05  | 1.0 |                   |  |  |                   |  |  |
| 293        | 268 | 269 | 0.0        | 0.033 | 1.0 | 25.8       | 21.2 | -47.8 | 52.3             | 293 | 0.0   | 0.405                        | 1.0  | 38.5 | -1.5              | -46.5 | 46.6  | 268                          | 0.0      | 0.033 | 1.0               | 0.0 | 0.381 | 1.0               | 37.6 | 0.0  | -46.4                        | 46.5  | 269  | 0.0               | 0.033 | 1.0 |                   |  |  |                   |  |  |
| 294        | 269 | 270 | 0.0        | 0.016 | 1.0 | 25.4       | 22.1 | -47.8 | 52.7             | 294 | 0.0   | 0.393                        | 1.0  | 38.0 | -0.7              | -46.4 | 46.5  | 269                          | 0.0      | 0.017 | 1.0               | 0.0 | 0.37  | 1.0               | 37.1 | 0.7  | -46.4                        | 46.5  | 270  | 0.0               | 0.017 | 1.0 |                   |  |  |                   |  |  |
| 295        | 270 | 271 | 0.0        | 0.0   | 1.0 | 24.9       | 22.9 | -47.8 | 53.0             | 295 | $B_d$ | 0.0                          | 0.38 | 1.0  | 37.5              | 0.0   | -46.4 | 46.5                         | $270B_s$ | 0.0   | 0.0               | 1.0 | 0.0   | 0.358             | 1.0  | 36.7 | 1.4                          | -46.5 | 46.7 | $271B_e$          | 0.0   | 0.0 | 1.0               |  |  |                   |  |  |
| 297        | 271 | 272 | 0.016      | 0.0   | 1.0 | 25.3       | 24.1 | -47.8 | 53.1             | 297 | 0.0   | 0.368                        | 1.0  | 37.0 | 0.8               | -46.4 | 46.6  | 271                          | 0.017    | 0.0   | 1.0               | 0.0 | 0.346 | 1.0               | 36.3 | 2.2  | -46.6                        | 46.8  | 272  | 0.017             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 298        | 272 | 273 | 0.033      | 0.0   | 1.0 | 25.7       | 25.3 | -46.8 | 53.2             | 298 | 0.0   | 0.355                        | 1.0  | 36.6 | 1.6               | -46.6 | 46.7  | 272                          | 0.033    | 0.0   | 1.0               | 0.0 | 0.334 | 1.0               | 35.8 | 3.0  | -46.7                        | 46.9  | 273  | 0.033             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 299        | 273 | 274 | 0.05       | 0.0   | 1.0 | 26.1       | 26.4 | -46.2 | 53.3             | 299 | 0.0   | 0.342                        | 1.0  | 36.1 | 2.5               | -46.7 | 46.8  | 273                          | 0.05     | 0.0   | 1.0               | 0.0 | 0.322 | 1.0               | 35.4 | 3.8  | -46.8                        | 47.0  | 274  | 0.05              | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 301        | 274 | 275 | 0.066      | 0.0   | 1.0 | 26.5       | 27.6 | -45.7 | 53.3             | 301 | 0.0   | 0.33                         | 1.0  | 35.7 | 3.3               | -46.7 | 47.0  | 274                          | 0.067    | 0.0   | 1.0               | 0.0 | 0.31  | 1.0               | 35.0 | 4.5  | -46.9                        | 47.2  | 275  | 0.067             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 302        | 275 | 276 | 0.083      | 0.0   | 1.0 | 26.9       | 28.7 | -45.1 | 53.4             | 302 | 0.0   | 0.317                        | 1.0  | 35.2 | 4.1               | -46.8 | 47.1  | 275                          | 0.083    | 0.0   | 1.0               | 0.0 | 0.298 | 1.0               | 34.5 | 5.3  | -46.9                        | 47.3  | 276  | 0.083             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 303        | 276 | 277 | 0.1        | 0.0   | 1.0 | 27.2       | 29.8 | -44.4 | 53.5             | 303 | 0.0   | 0.304                        | 1.0  | 34.7 | 4.9               | -46.9 | 47.2  | 276                          | 0.1      | 0.0   | 1.0               | 0.0 | 0.286 | 1.0               | 34.1 | 6.1  | -46.9                        | 47.4  | 277  | 0.1               | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 305        | 277 | 278 | 0.116      | 0.0   | 1.0 | 27.6       | 30.9 | -43.8 | 53.6             | 305 | 0.0   | 0.291                        | 1.0  | 34.3 | 5.8               | -46.9 | 47.4  | 277                          | 0.117    | 0.0   | 1.0               | 0.0 | 0.274 | 1.0               | 33.7 | 6.9  | -47.0                        | 47.6  | 278  | 0.117             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 306        | 278 | 279 | 0.133      | 0.0   | 1.0 | 28.0       | 31.7 | -43.2 | 53.7             | 306 | 0.0   | 0.279                        | 1.0  | 33.8 | 6.6               | -46.9 | 47.5  | 278                          | 0.133    | 0.0   | 1.0               | 0.0 | 0.262 | 1.0               | 33.2 | 7.7  | -47.0                        | 47.7  | 279  | 0.133             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 307        | 279 | 280 | 0.15       | 0.0   | 1.0 | 28.2       | 32.4 | -42.8 | 53.7             | 307 | 0.0   | 0.266                        | 1.0  | 33.4 | 7.5               | -47.0 | 47.6  | 279                          | 0.15     | 0.0   | 1.0               | 0.0 | 0.25  | 1.0               | 32.8 | 8.5  | -47.0                        | 47.8  | 280  | 0.15              | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 307        | 280 | 281 | 0.166      | 0.0   | 1.0 | 28.5       | 33.0 | -42.5 | 53.8             | 307 | 0.0   | 0.253                        | 1.0  | 32.9 | 8.3               | -47.0 | 47.8  | 280                          | 0.167    | 0.0   | 1.0               | 0.0 | 0.237 | 1.0               | 32.3 | 9.4  | -47.1                        | 48.1  | 281  | 0.167             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 308        | 281 | 282 | 0.183      | 0.0   | 1.0 | 28.8       | 33.6 | -42.1 | 53.9             | 308 | 0.0   | 0.24                         | 1.0  | 32.4 | 9.2               | -47.0 | 48.0  | 281                          | 0.183    | 0.0   | 1.0               | 0.0 | 0.224 | 1.0               | 31.8 | 10.2 | -47.2                        | 48.4  | 282  | 0.183             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 309        | 282 | 283 | 0.2        | 0.0   | 1.0 | 29.1       | 34.2 | -41.6 | 53.9             | 309 | 0.0   | 0.226                        | 1.0  | 31.9 | 10.0              | -47.2 | 48.3  | 282                          | 0.2      | 0.0   | 1.0               | 0.0 | 0.211 | 1.0               | 31.3 | 11.0 | -47.3                        | 48.6  | 283  | 0.2               | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 310        | 283 | 284 | 0.216      | 0.0   | 1.0 | 29.4       | 34.8 | -41.2 | 54.0             | 310 | 0.0   | 0.213                        | 1.0  | 31.4 | 10.9              | -47.3 | 48.6  | 283                          | 0.217    | 0.0   | 1.0               | 0.0 | 0.198 | 1.0               | 30.8 | 11.9 | -47.4                        | 48.9  | 284  | 0.217             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 310        | 284 | 285 | 0.233      | 0.0   | 1.0 | 29.6       | 35.4 | -40.8 | 54.1             | 310 | 0.0   | 0.199                        | 1.0  | 30.9 | 11.8              | -47.4 | 48.9  | 284                          | 0.233    | 0.0   | 1.0               | 0.0 | 0.185 | 1.0               | 30.4 | 12.7 | -47.4                        | 49.2  | 285  | 0.233             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 311        | 285 | 285 | 0.25       | 0.0   | 1.0 | 29.9       | 36.0 | -40.4 | 54.1             | 311 | 0.0   | 0.185                        | 1.0  | 30.4 | 12.7              | -47.4 | 49.2  | 285                          | 0.25     | 0.0   | 1.0               | 0.0 | 0.172 | 1.0               | 29.9 | 13.6 | -47.5                        | 49.5  | 285  | 0.25              | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 313        | 286 | 286 | 0.266      | 0.0   | 1.0 | 30.4       | 37.7 | -39.5 | 54.6             | 313 | 0.0   | 0.172                        | 1.0  | 29.8 | 13.6              | -47.5 | 49.5  | 286                          | 0.267    | 0.0   | 1.0               | 0.0 | 0.159 | 1.0               | 29.4 | 14.5 | -47.5                        | 49.8  | 286  | 0.267             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 315        | 287 | 287 | 0.283      | 0.0   | 1.0 | 30.9       | 39.3 | -38.5 | 55.0             | 315 | 0.0   | 0.158                        | 1.0  | 29.3 | 14.6              | -47.5 | 49.8  | 287                          | 0.283    | 0.0   | 1.0               | 0.0 | 0.146 | 1.0               | 28.9 | 15.3 | -47.5                        | 50.0  | 287  | 0.283             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 317        | 288 | 288 | 0.3        | 0.0   | 1.0 | 31.5       | 40.9 | -37.5 | 55.5             | 317 | 0.0   | 0.144                        | 1.0  | 28.8 | 15.5              | -47.5 | 50.1  | 288                          | 0.3      | 0.0   | 1.0               | 0.0 | 0.133 | 1.0               | 28.4 | 16.2 | -47.5                        | 50.3  | 288  | 0.3               | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 319        | 289 | 289 | 0.316      | 0.0   | 1.0 | 32.0       | 42.4 | -36.4 | 55.9             | 319 | 0.0   | 0.13                         | 1.0  | 28.3 | 16.4              | -47.5 | 50.4  | 289                          | 0.317    | 0.0   | 1.0               | 0.0 | 0.118 | 1.0               | 27.9 | 17.1 | -47.5                        | 50.6  | 289  | 0.317             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 321        | 290 | 290 | 0.333      | 0.0   | 1.0 | 32.5       | 44.0 | -35.3 | 56.4             | 321 | 0.0   | 0.113                        | 1.0  | 27.8 | 17.4              | -47.6 | 50.7  | 290                          | 0.333    | 0.0   | 1.0               | 0.0 | 0.099 | 1.0               | 27.5 | 18.0 | -47.6                        | 51.0  | 290  | 0.333             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 323        | 291 | 291 | 0.35       | 0.0   | 1.0 | 33.0       | 45.5 | -34.1 | 56.9             | 323 | 0.0   | 0.093                        | 1.0  | 27.3 | 18.3              | -47.6 | 51.1  | 291                          | 0.35     | 0.0   | 1.0               | 0.0 | 0.08  | 1.0               | 27.0 | 19.0 | -47.7                        | 51.4  | 291  | 0.35              | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 325        | 292 | 292 | 0.366      | 0.0   | 1.0 | 33.5       | 47.0 | -32.8 | 57.3             | 325 | 0.0   | 0.073                        | 1.0  | 26.8 | 19.3              | -47.7 | 51.6  | 292                          | 0.367    | 0.0   | 1.0               | 0.0 | 0.061 | 1.0               | 26.5 | 19.9 | -47.7                        | 51.8  | 292  | 0.367             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 326        | 293 | 293 | 0.383      | 0.0   | 1.0 | 34.0       | 48.1 | -31.9 | 57.7             | 326 | 0.0   | 0.053                        | 1.0  | 26.3 | 20.3              | -47.7 | 52.0  | 293                          | 0.383    | 0.0   | 1.0               | 0.0 | 0.042 | 1.0               | 26.0 | 20.8 | -47.8                        | 52.2  | 293  | 0.383             | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 327        | 294 | 294 | 0.4        | 0.0   | 1.0 | 34.4       | 49.0 | -31.3 | 58.1             | 327 | 0.0   | 0.033                        | 1.0  | 25.8 | 21.3              | -47.8 | 52.4  | 294                          | 0.4      | 0.0   | 1.0               | 0.0 | 0.023 | 1.0               | 25.6 | 21.8 | -47.8                        | 52.6  | 294  | 0.4               | 0.0   | 1.0 |                   |  |  |                   |  |  |
| 328        | 295 | 295 | 0.416      | 0.0   | 1.0 | 34.8       | 49.8 | -30.6 | 58.5             | 328 | 0.0   | 0.013                        | 1.0  |      |                   |       |       |                              |          |       |                   |     |       |                   |      |      |                              |       |      |                   |       |     |                   |  |  |                   |  |  |

1-1131430-L0

SE050-73

LAB\*la0, YN=0%,

nw=2.5, 2.6, 2.7, 86.0, 90.9, 95.9, LAB\*nw=18.5, 0.0, 0.0, 96.4, 0.0, 0.0

Output: Offset standard print; separation cmyn6\*, D65, page 15/38

TUB-test chart SE05; 16 hues, offset standard paper APCO    input: *rgb/cmyk*  $\rightarrow$  *rgb<sub>de</sub>*

48 step hue circles; *rgb-LabCh\** tables, 3D=1, de=1, *cmYk\** output: 3D-linearization to *cmYk\**<sub>de</sub>

1-1131430-F0



F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 17/33

Data of Maximum color M in colorimetric system Offset standard print; separation cmyn\*<sub>6</sub>, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGCBM*<sub>S</sub>;  $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$ ;

Six hue angles of the device colours  $RYGCBM_d$ :  $h_{ab,d} = 30.4, 96.1, 161.6, 234.7, 295.7, 353.2$ ; Six hue angles of the elementary colours  $RYGCBM_e$ :  $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

| $h_{ab,d}$ | $h_{ab,s}$ | $h_{ab,e}$ | $rgb^*_{dd361M}$ | $LAB^*_{dsx361Mi}$ (x=LabCh) | $rgb^*_{ds361Mi}$ | $LAB^*_{dsx361Mi}$ (x=LabCh) | $rgb^*_{dd361Mi}$ | $rgb^*_{de361Mi}$ | $LAB^*_{dex361Mi}$ (x=LabCh) | $rgb^*_{dd361Mi}$ | $rgb^*_{ddrgb^*_{ds}}$ | $rgb^*_{de}$ |       |      |      |       |      |     |     |     |       |  |  |  |
|------------|------------|------------|------------------|------------------------------|-------------------|------------------------------|-------------------|-------------------|------------------------------|-------------------|------------------------|--------------|-------|------|------|-------|------|-----|-----|-----|-------|--|--|--|
| 359        | 345        | 342        | 1.0              | 0.0                          | 0.75              | 48.1                         | 72.1              | -0.7              | 72.1                         | 359               | 0.719                  | 0.0          | 1.0   | 42.6 | 65.1 | -17.3 | 67.4 | 345 | 1.0 | 0.0 | 0.75  |  |  |  |
| 359        | 346        | 343        | 1.0              | 0.0                          | 0.733             | 48.1                         | 71.9              | 0.0               | 71.9                         | 359               | 0.737                  | 0.0          | 1.0   | 43.0 | 66.1 | -16.4 | 68.1 | 346 | 1.0 | 0.0 | 0.733 |  |  |  |
| 360        | 347        | 344        | 1.0              | 0.0                          | 0.716             | 48.1                         | 71.7              | 0.7               | 71.7                         | 360               | 0.759                  | 0.0          | 1.0   | 43.5 | 67.0 | -15.4 | 68.8 | 347 | 1.0 | 0.0 | 0.717 |  |  |  |
| 361        | 348        | 345        | 1.0              | 0.0                          | 0.7               | 48.1                         | 71.6              | 1.5               | 71.6                         | 361               | 0.793                  | 0.0          | 1.0   | 44.2 | 68.2 | -14.4 | 69.7 | 348 | 1.0 | 0.0 | 0.7   |  |  |  |
| 361        | 349        | 346        | 1.0              | 0.0                          | 0.683             | 48.1                         | 71.4              | 2.3               | 71.4                         | 361               | 0.828                  | 0.0          | 1.0   | 45.0 | 69.2 | -13.4 | 70.5 | 349 | 1.0 | 0.0 | 0.683 |  |  |  |
| 362        | 350        | 347        | 1.0              | 0.0                          | 0.666             | 48.1                         | 71.2              | 3.0               | 71.3                         | 362               | 0.863                  | 0.0          | 1.0   | 45.7 | 70.3 | -12.3 | 71.4 | 350 | 1.0 | 0.0 | 0.667 |  |  |  |
| 363        | 351        | 348        | 1.0              | 0.0                          | 0.65              | 48.0                         | 71.0              | 3.8               | 71.1                         | 363               | 0.903                  | 0.0          | 1.0   | 46.4 | 71.5 | -11.2 | 72.4 | 351 | 1.0 | 0.0 | 0.65  |  |  |  |
| 363        | 352        | 349        | 1.0              | 0.0                          | 0.633             | 48.0                         | 70.8              | 4.5               | 71.0                         | 363               | 0.946                  | 0.0          | 1.0   | 47.3 | 72.7 | -10.1 | 73.4 | 352 | 1.0 | 0.0 | 0.633 |  |  |  |
| 364        | 353        | 350        | 1.0              | 0.0                          | 0.616             | 48.0                         | 70.7              | 5.3               | 70.9                         | 364               | 0.99                   | 0.0          | 1.0   | 48.1 | 73.9 | -9.0  | 74.5 | 353 | 1.0 | 0.0 | 0.617 |  |  |  |
| 365        | 354        | 351        | 1.0              | 0.0                          | 0.6               | 48.0                         | 70.5              | 6.2               | 70.8                         | 365               | 1.0                    | 0.0          | 0.967 | 48.2 | 74.0 | -7.7  | 74.4 | 354 | 1.0 | 0.0 | 0.6   |  |  |  |
| 365        | 355        | 352        | 1.0              | 0.0                          | 0.583             | 48.0                         | 70.4              | 7.1               | 70.8                         | 365               | 1.0                    | 0.0          | 0.924 | 48.2 | 73.6 | -6.3  | 73.9 | 355 | 1.0 | 0.0 | 0.583 |  |  |  |
| 366        | 356        | 353        | 1.0              | 0.0                          | 0.566             | 47.9                         | 70.3              | 7.9               | 70.7                         | 366               | 1.0                    | 0.0          | 0.881 | 48.2 | 73.2 | -5.0  | 73.4 | 356 | 1.0 | 0.0 | 0.567 |  |  |  |
| 367        | 357        | 354        | 1.0              | 0.0                          | 0.55              | 47.9                         | 70.1              | 8.8               | 70.7                         | 367               | 1.0                    | 0.0          | 0.842 | 48.2 | 72.9 | -3.7  | 73.0 | 357 | 1.0 | 0.0 | 0.55  |  |  |  |
| 367        | 358        | 355        | 1.0              | 0.0                          | 0.533             | 47.9                         | 70.0              | 9.6               | 70.7                         | 367               | 1.0                    | 0.0          | 0.803 | 48.2 | 72.6 | -2.4  | 72.6 | 358 | 1.0 | 0.0 | 0.533 |  |  |  |
| 368        | 359        | 356        | 1.0              | 0.0                          | 0.516             | 47.8                         | 69.8              | 10.5              | 70.6                         | 368               | 1.0                    | 0.0          | 0.765 | 48.1 | 72.2 | -1.2  | 72.2 | 359 | 1.0 | 0.0 | 0.517 |  |  |  |
| 369        | 360        | 352        | 1.0              | 0.0                          | 0.5               | 47.8                         | 69.7              | 11.3              | 70.6                         | 369               | 1.0                    | 0.0          | 0.733 | 48.1 | 71.9 | 0.0   | 71.9 | 360 | 1.0 | 0.0 | 0.5   |  |  |  |
| 370        | 361        | 353        | 1.0              | 0.0                          | 0.483             | 47.8                         | 69.5              | 12.3              | 70.6                         | 370               | 1.0                    | 0.0          | 0.706 | 48.1 | 71.7 | 1.3   | 71.7 | 361 | 1.0 | 0.0 | 0.483 |  |  |  |
| 370        | 362        | 354        | 1.0              | 0.0                          | 0.466             | 47.8                         | 69.3              | 13.2              | 70.6                         | 370               | 1.0                    | 0.0          | 0.679 | 48.1 | 71.4 | 2.5   | 71.4 | 362 | 1.0 | 0.0 | 0.467 |  |  |  |
| 371        | 363        | 355        | 1.0              | 0.0                          | 0.45              | 47.8                         | 69.1              | 14.1              | 70.6                         | 371               | 1.0                    | 0.0          | 0.652 | 48.1 | 71.1 | 3.7   | 71.2 | 363 | 1.0 | 0.0 | 0.45  |  |  |  |

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS  
application for measurement of offset print output, separa-

TUB material: code=rh4ta  
yn6\* (CMYK)

Output: Offset standard print; separation cmyn6\*, D65, page 17/36

TUB-test chart SE05; 16 hues, offset standard paper APCO input: *rgb/cmyk*  $\rightarrow$  *rgb<sub>de</sub>*  
48 step hue circles; *rgb-LabCh*\*tables, 3D=1, *de*=1, *cmyk*\* output: 3D-linearization to *cmyk*\*<sub>de</sub>

~~1-1131630-F0~~





http://130.149.60.45/~farbmetrik/SE05/SE05L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 20/33

|    |                | HIC*Fde |       | rgb_Fde |       | iCl_Fde |       | hsi_Fde |     | rgb*Fde |       | LabCh*Fde |      | cmyn*sep_Fde |       | hsi_Mde |       | rgb*Mde |       | LabCh*Mde |       |      |       |       |      |       |       |       |       |       |      |
|----|----------------|---------|-------|---------|-------|---------|-------|---------|-----|---------|-------|-----------|------|--------------|-------|---------|-------|---------|-------|-----------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|------|
| 0  | NW_000de       | 0.0     | 0.0   | 0.0     | 0.0   | 0.0     | 0.0   | 0.0     | 360 | 0.0     | 0.0   | 0.0       | 18.5 | 0.0          | 0.0   | 0.0     | 0.0   | 1.0     | 96.3  | 0.0       | 0.0   | 0.0  |       |       |      |       |       |       |       |       |      |
| 1  | B00R_012_012de | 0.0     | 0.0   | 0.125   | 0.125 | 0.125   | 0.125 | 0.062   | 270 | 0.0     | 0.044 | 0.125     | 20.8 | 0.1          | -5.8  | 5.8     | 271.7 | 0.38    | 0.242 | 0.0       | 0.914 | 360  | 1.0   | 1.0   | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 2  | B00R_025_025de | 0.0     | 0.0   | 0.25    | 0.25  | 0.25    | 0.25  | 0.125   | 270 | 0.0     | 0.089 | 0.25      | 23.0 | 0.3          | -11.6 | 11.6    | 271.7 | 0.569   | 0.37  | 0.0       | 0.832 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 3  | B00R_037_037de | 0.0     | 0.0   | 0.375   | 0.375 | 0.375   | 0.375 | 0.187   | 270 | 0.0     | 0.134 | 0.375     | 25.3 | 0.5          | -17.4 | 17.4    | 271.7 | 0.684   | 0.479 | 0.0       | 0.751 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 4  | B00R_050_050de | 0.0     | 0.0   | 0.5     | 0.5   | 0.5     | 0.5   | 0.25    | 270 | 0.0     | 0.179 | 0.5       | 27.6 | 0.7          | -23.3 | 23.3    | 271.7 | 0.797   | 0.531 | 0.0       | 0.625 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 5  | B00R_062_062de | 0.0     | 0.0   | 0.625   | 0.625 | 0.625   | 0.625 | 0.312   | 270 | 0.0     | 0.223 | 0.625     | 29.8 | 0.8          | -29.1 | 29.1    | 271.7 | 0.868   | 0.567 | 0.0       | 0.498 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 6  | B00R_075_075de | 0.0     | 0.0   | 0.75    | 0.75  | 0.75    | 0.75  | 0.375   | 270 | 0.0     | 0.268 | 0.75      | 32.1 | 1.0          | -34.9 | 34.9    | 271.7 | 0.915   | 0.602 | 0.0       | 0.376 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 7  | B00R_087_087de | 0.0     | 0.0   | 0.875   | 0.875 | 0.875   | 0.875 | 0.437   | 270 | 0.0     | 0.313 | 0.875     | 34.4 | 1.2          | -40.8 | 40.8    | 271.7 | 0.958   | 0.608 | 0.0       | 0.221 | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 8  | B00R_100_100de | 0.0     | 0.0   | 1.0     | 1.0   | 1.0     | 1.0   | 0.5     | 270 | 0.0     | 0.358 | 1.0       | 36.7 | 1.4          | -46.6 | 46.6    | 271.7 | 1.0     | 0.639 | 0.0       | 0.0   | 249  | 0.0   | 0.358 | 1.0  | 36.7  | 1.4   | -46.6 | 46.6  | 271.7 |      |
| 9  | G00B_012_012de | 0.0     | 0.125 | 0.0     | 0.125 | 0.125   | 0.062 | 150     | 0.0 | 0.001   | 22.6  | -8.6      | -2.9 | 9.0          | 162.6 | 150.7   | 0.417 | 0.041   | 0.0   | 0.011     | 51.7  | 69.1 | 51.7  | 69.1  | 51.7 | 69.1  | 51.7  | 69.1  | 51.7  | 69.1  | 51.7 |
| 10 | G50B_012_012de | 0.0     | 0.125 | 0.125   | 0.125 | 0.125   | 0.062 | 210     | 0.0 | 0.125   | 0.089 | 23.2      | -5.2 | -3.9         | 6.5   | 216.9   | 0.401 | 0.0     | 0.122 | 0.907     | 193   | 0.0  | 1.0   | 0.712 | 56.3 | -41.9 | -31.5 | 52.4  | 216.9 |       |      |
| 11 | G75B_025_025de | 0.0     | 0.125 | 0.25    | 0.25  | 0.25    | 0.125 | 240     | 0.0 | 0.186   | 0.25  | 26.6      | -5.4 | -11.4        | 12.6  | 244.3   | 0.574 | 0.135   | 0.0   | 0.828     | 224   | 0.0  | 0.744 | 1.0   | 55.1 | -21.9 | -45.6 | 50.6  | 244.3 |       |      |
| 12 | G84B_037_037de | 0.0     | 0.125 | 0.375   | 0.375 | 0.375   | 0.187 | 251     | 0.0 | 0.216   | 0.375 | 28.6      | -4.8 | -17.3        | 18.0  | 254.3   | 0.688 | 0.333   | 0.0   | 0.747     | 234   | 0.0  | 0.578 | 1.0   | 45.4 | -12.9 | -46.2 | 48.0  | 254.3 |       |      |
| 13 | G88B_050_050de | 0.0     | 0.125 | 0.5     | 0.5   | 0.5     | 0.25  | 256     | 0.0 | 0.259   | 0.5   | 30.8      | -4.5 | -23.1        | 23.6  | 258.9   | 0.78  | 0.389   | 0.0   | 0.648     | 238   | 0.0  | 0.519 | 1.0   | 43.1 | -9.0  | -46.3 | 47.2  | 258.9 |       |      |
| 14 | G90B_062_062de | 0.0     | 0.125 | 0.625   | 0.625 |         |       |         |     |         |       |           |      |              |       |         |       |         |       |           |       |      |       |       |      |       |       |       |       |       |      |

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1, *cmYk*\*

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

TUB material: code=rh4ta





<http://130.149.60.45/~farbmatrik/SE05/SE05L0FA.TXT> /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 23/33

|     | HIC*Fde        | rgb_Fde           | ict_Fde               | hsi_Fde                | rgb*Fde                     | LabCh*Fde                  | cmyn*sep_Fde          | hsi_Mde       | rgb*Mde                     | LabCh*Mde                  |
|-----|----------------|-------------------|-----------------------|------------------------|-----------------------------|----------------------------|-----------------------|---------------|-----------------------------|----------------------------|
| 243 | R00Y_037_037de | 0.375 0.0 0.0     | 0.375 0.375 0.187     | 390                    | 0.375 0.0 0.049             | 29.4 24.8 11.8 27.5 25.4   | 0.0 0.751 0.674 0.683 | 382           | 1.0 0.0 0.131               | 47.6 66.3 31.6 73.4 25.4   |
| 244 | R18Y_037_037de | 0.375 0.0 0.125   | 0.375 0.375 0.187     | 371                    | 0.375 0.0 0.231             | 29.6 26.5 2.0 26.5 4.3     | 0.0 0.745 0.363 0.691 | 353           | 1.0 0.0 0.617               | 48.0 70.7 5.3 70.9 4.3     |
| 245 | B65R_037_037de | 0.375 0.0 0.25    | 0.375 0.375 0.187     | 349                    | 0.28 0.0 0.375              | 27.8 24.9 -5.9 25.6 346.6  | 0.0 0.688 0.0 0.747   | 315           | 0.747 0.0 1.0               | 43.2 66.6 -15.8 68.5 346.6 |
| 246 | B50R_037_037de | 0.375 0.0 0.375   | 0.375 0.375 0.187     | 330                    | 0.157 0.0 0.375             | 24.7 18.7 -11.4 21.9 328.6 | 0.343 0.686 0.0 0.745 | 294           | 0.42 0.0 1.0                | 34.9 50.0 -30.5 58.6 328.6 |
| 247 | B38R_050_050de | 0.375 0.0 0.5     | 0.5 0.5 0.25 316      | 0.14 0.0 0.5           | 24.7 19.5 -19.3 27.5 315.3  | 0.642 0.798 0.0 0.623      | 285                   | 0.281 0.0 1.0 | 30.9 39.1 -38.6 55.0 315.3  |                            |
| 248 | B30R_062_062de | 0.375 0.0 0.625   | 0.625 0.625 0.312 307 | 0.09 0.0 0.625         | 24.5 20.1 -26.8 33.5 306.8  | 0.778 0.855 0.0 0.499      | 277                   | 0.144 0.0 1.0 | 28.1 32.2 -43.0 53.7 306.8  |                            |
| 249 | B25R_075_075de | 0.375 0.0 0.75    | 0.75 0.75 0.375 300   | 0.041 0.0 0.75         | 24.3 20.1 -34.5 40.0 300.1  | 0.895 0.904 0.0 0.363      | 272                   | 0.055 0.0 1.0 | 26.2 26.6 -46.1 53.3 300.1  |                            |
| 250 | B20R_087_087de | 0.375 0.0 0.875   | 0.875 0.875 0.437 295 | 0.0 0.003 0.875        | 24.2 19.9 -41.8 46.3 295.4  | 0.961 0.942 0.0 0.207      | 269                   | 0.0 0.004 1.0 | 25.0 22.7 -47.8 52.9 295.4  |                            |
| 251 | B16R_100_100de | 0.375 0.0 1.0     | 1.0 1.0 0.5 292       | 0.0 0.061 1.0          | 26.5 19.9 -47.8 51.8 292.5  | 0.0 0.938 0.0 0.0          | 266                   | 0.0 0.061 1.0 | 26.5 19.9 -47.8 51.8 292.5  |                            |
| 252 | R31Y_037_037de | 0.375 0.125 0.0   | 0.375 0.375 0.187 309 | 0.375 0.0 0.0          | 17.4 18.4 45.6 1.0          | 0.327 0.477 0.747 0.688    | 467.1 0.0 0.0         | 148           | 0.374 0.0 0.131             | 56.3 46.4 49.6 45.3 148.0  |
| 253 | R00Y_037_025de | 0.375 0.125 0.125 | 0.375 0.25 0.25 390   | 0.375 0.124 0.157      | 35.5 16.5 7.9 15.3 25.4     | 0.0 0.617 0.747 0.688      | 283                   | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |                            |
| 254 | R00Y_037_025de | 0.375 0.125 0.25  | 0.375 0.25 0.25 360   | 0.362 0.124 0.375      | 35.4 18.1 -2.5 18.3 352.0   | 0.0 0.608 0.135 0.699      | 327                   | 0.948 0.0 1.0 | 47.3 72.7 -10.1 73.5 352.0  |                            |
| 255 | B50R_037_025de | 0.375 0.125 0.375 | 0.375 0.25 0.25 330   | 0.23 0.124 0.375       | 32.3 12.5 -7.6 14.6 328.6   | 0.189 0.559 0.0 0.749      | 294                   | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |                            |
| 256 | B34R_050_037de | 0.375 0.125 0.5   | 0.5 0.375 0.312 311   | 0.209 0.124 0.5        | 32.4 13.1 -15.3 20.2 310.5  | 0.499 0.635 0.0 0.637      | 282                   | 0.225 0.0 1.0 | 29.5 35.1 -41.0 54.0 310.5  |                            |
| 257 | B25R_062_050de | 0.375 0.125 0.625 | 0.625 0.5 0.375 300   | 0.152 0.125 0.625      | 32.1 13.4 -23.0 26.6 300.1  | 0.675 0.683 0.0 0.506      | 272                   | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |                            |
| 258 | B19R_075_062de | 0.375 0.125 0.75  | 0.75 0.625 0.437 293  | 0.125 0.151 0.75       | 32.9 13.0 -29.9 32.6 293.5  | 0.781 0.709 0.0 0.371      | 267                   | 0.0 0.042 1.0 | 26.0 20.8 -47.8 52.2 293.5  |                            |
| 259 | B15R_087_075de | 0.375 0.125 0.875 | 0.875 0.75 0.5 289    | 0.125 0.213 0.875      | 35.3 12.8 -35.7 37.9 289.7  | 0.832 0.706 0.0 0.213      | 263                   | 0.0 0.117 1.0 | 27.9 17.1 -47.6 50.6 289.7  |                            |
| 260 | B13R_100_087de | 0.375 0.125 1.0   | 1.0 0.875 0.562 286   | 0.125 0.264 1.0        | 37.7 12.6 -41.6 43.5 286.9  | 0.877 0.715 0.0 0.008      | 261                   | 0.0 0.159 1.0 | 29.3 14.4 -47.6 49.7 286.9  |                            |
| 261 | R68Y_037_037de | 0.375 0.25 0.0    | 0.375 0.375 0.187 71  | 0.375 0.195 0.0        | 37.5 8.2 24.2 25.6 71.1     | 0.0 0.452 0.751 0.684      | 61                    | 1.0 0.522 0.0 | 69.3 22.0 64.7 68.3 71.1    |                            |
| 262 | R50Y_037_025de | 0.375 0.25 0.125  | 0.375 0.25 0.25 60    | 0.375 0.219 0.124      | 39.2 8.5 14.1 16.1 58.8     | 0.0 0.442 0.597 0.69       | 51                    | 1.0 0.378 0.0 | 62.5 34.1 56.6 66.1 58.8    |                            |
| 263 | R00Y_037_012de | 0.375 0.25 0.25   | 0.375 0.125 0.312 390 | 0.375 0.249 0.266      | 41.6 8.2 3.9 9.1 25.4       | 0.0 0.384 0.3 0.693        | 383                   | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |                            |
| 264 | B50R_037_012de | 0.375 0.25 0.375  | 0.375 0.125 0.312 330 | 0.302 0.249 0.375      | 40.0 6.2 -3.8 7.3 328.6     | 0.009 0.291 0.0 0.749      | 294                   | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |                            |
| 265 | B25R_050_025de | 0.375 0.25 0.5    | 0.5 0.25 0.375 300    | 0.263 0.249 0.5        | 39.9 6.7 -11.5 13.3 300.1   | 0.382 0.434 0.0 0.638      | 272                   | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |                            |
| 266 | B15R_062_037de | 0.375 0.25 0.625  | 0.625 0.375 0.437 289 | 0.25 0.294 0.625       | 41.5 6.4 -17.8 18.9 289.7   | 0.53 0.485 0.0 0.507       | 263                   | 0.0 0.117 1.0 | 27.9 17.1 -47.6 50.6 289.7  |                            |
| 267 | B11R_075_050de | 0.375 0.25 0.75   | 0.75 0.5 0.5 284      | 0.25 0.342 0.75        | 43.9 6.3 -23.7 24.5 285.0   | 0.631 0.517 0.0 0.363      | 259                   | 0.0 0.185 1.0 | 30.3 12.7 -47.5 49.1 285.0  |                            |
| 268 | B09R_087_062de | 0.375 0.25 0.875  | 0.875 0.625 0.562 281 | 0.25 0.39 0.875        | 46.2 6.3 -29.5 30.2 282.1   | 0.689 0.531 0.0 0.211      | 257                   | 0.0 0.224 1.0 | 31.8 10.1 -47.2 48.3 282.1  |                            |
| 269 | B07R_100_075de | 0.375 0.25 1.0    | 1.0 0.75 0.625 279    | 0.25 0.437 1.0         | 48.6 6.3 -35.2 35.8 280.2   | 0.73 0.539 0.0 0.024       | 256                   | 0.0 0.25 1.0  | 32.7 8.5 -47.0 47.8 280.2   |                            |
| 270 | Y00G_037_037de | 0.375 0.375 0.0   | 0.375 0.375 0.187 90  | 0.375 0.325 0.0        | 43.5 -1.2 31.3 31.4 92.3    | 0.0 0.15 0.75 0.685        | 83                    | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |                            |
| 271 | Y00G_037_025de | 0.375 0.375 0.125 | 0.375 0.25 0.25 90    | 0.375 0.342 0.124      | 44.9 -0.8 20.9 20.9 92.3    | 0.0 0.172 0.658 0.694      | 83                    | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |                            |
| 272 | Y00G_037_012de | 0.375 0.375 0.25  | 0.375 0.125 0.312 90  | 0.375 0.358 0.249      | 46.3 -0.4 10.4 10.4 92.3    | 0.0 0.122 0.415 0.701      | 83                    | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |                            |
| 273 | NW_037de       | 0.375 0.375 0.375 | 0.375 0.0 0.375 360   | 0.375 0.375 0.375 47.7 | 0.0 0.0 0.0 0.0 0.0         | 0.0 0.016 0.067 0.714      | 360                   | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0 0.0        |                            |
| 274 | B00R_050_012de | 0.375 0.375 0.5   | 0.5 0.125 0.437 270   | 0.375 0.419 0.5        | 50.0 0.1 -5.8 5.8 271.7     | 0.187 0.111 0.0 0.641      | 249                   | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |                            |
| 275 | B00R_062_025de | 0.375 0.375 0.625 | 0.625 0.25 0.5 270    | 0.375 0.464 0.625      | 52.2 0.3 -11.6 11.6 271.7   | 0.367 0.222 0.0 0.517      | 249                   | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |                            |
| 276 | B00R_075_037de | 0.375 0.375 0.75  | 0.75 0.375 0.562 270  | 0.375 0.509 0.75       | 54.5 0.5 -17.4 17.4 271.7   | 0.49 0.295 0.0 0.38        | 249                   | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |                            |
| 277 | B00R_087_050de | 0.375 0.375 0.875 | 0.875 0.5 0.625 270   | 0.375 0.554 0.875      | 56.8 0.7 -23.3 23.3 271.7   | 0.58 0.345 0.0 0.221       | 249                   | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |                            |
| 278 | B00R_100_062de | 0.375 0.375 1.0   | 1.0 0.625 0.687 270   | 0.375 0.598 1.0        | 59.0 0.8 -29.1 29.1 271.7   | 0.654 0.383 0.0 0.03       | 249                   | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |                            |
| 279 | Y23G_050_050de | 0.375 0.5 0.0     | 0.5 0.5 0.25 184      | 0.307 0.5 0.0          | 48.0 -11.8 35.2 35.2 108.0  | 0.265 0.0 0.706 0.623      | 112                   | 0.615 1.0 0.0 | 72.6 -23.7 70.5 74.4 108.6  |                            |
| 280 | Y31G_050_037de | 0.375 0.5 0.125   | 0.5 0.25 0.312 109    | 0.375 0.323 0.124      | 49.0 11.4 23.7 26.0 114.4   | 0.258 0.0 0.797 0.625      | 104                   | 0.529 1.0 0.0 | 74.3 -28.7 63.3 69.1 114.4  |                            |
| 281 | Y50G_050_025de | 0.375 0.5 0.25    | 0.5 0.25 0.375 120    | 0.337 0.5 0.249        | 50.1 -9.7 12.7 16.0 127.2   | 0.282 0.0 0.515 0.615      | 129                   | 0.35 1.0 0.0  | 67.2 -38.9 51.1 64.2 127.2  |                            |
| 282 | G00B_050_012de | 0.375 0.5 0.375   | 0.5 0.125 0.437 150   | 0.375 0.5 0.376 51.8   | -8.6 2.7 9.0 162.2          | 0.322 0.0 0.316 0.589      | 150                   | 0.0 1.0 0.011 | 51.7 -69.1 22.1 72.6 162.2  |                            |
| 283 | G50B_050_012de | 0.375 0.5 0.5     | 0.5 0.125 0.437 210   | 0.375 0.5 0.464 52.4   | -5.2 -3.9 6.5 216.9         | 0.268 0.0 0.1 0.614        | 193                   | 0.0 1.0 0.712 | 56.3 -41.9 -31.5 52.4 216.9 |                            |
| 284 | G75B_062_025de | 0.375 0.5 0.625   | 0.625 0.25 0.5 240    | 0.375 0.561 0.625 55.8 | -4.5 -11.4 12.6 244.3       | 0.394 0.054 0.0 0.508      | 224                   | 0.0 0.744 1.0 | 51.1 -21.9 -45.6 50.6 244.3 |                            |
| 285 | G84B_075_037de | 0.375 0.5 0.75    | 0.75 0.375 0.562 251  | 0.375 0.591 0.75       | 57.8 -4.8 -17.3 18.0 254.3  | 0.509 0.184 0.0 0.376      | 234                   | 0.0 0.578 1.0 | 45.4 -12.9 -46.2 48.0 254.3 |                            |
| 286 | G88B_087_050de | 0.375 0.5 0.875   | 0.875 0.5 0.625 256   | 0.375 0.634 0.875      | 60.0 -4.5 -23.1 23.6 258.9  | 0.593 0.253 0.0 0.215      | 238                   | 0.0 0.519 1.0 | 43.1 -9.0 -46.3 47.2 258.9  |                            |
| 287 | G90B_100_062de | 0.375 0.5 1.0     | 1.0 0.625 0.687 259   | 0.375 0.677 1.0        | 62.2 -4.2 -29.0 29.3 261.6  | 0.661 0.308 0.0 0.022      | 241                   | 0.0 0.484 1.0 | 41.7 -6.7 -46.4 46.9 261.6  |                            |
| 288 | Y38G_062_062de | 0.375 0.625 0.0   | 0.625 0.625 0.312 113 | 0.286 0.625 0.0        | 51.8 -20.2 36.4 41.7 119.1  | 0.444 0.0 0.872 0.488      | 122                   | 0.458 1.0 0.0 | 71.7 -32.4 58.3 66.7 119.1  |                            |
| 289 | Y50G_062_050de | 0.375 0.625 0.125 | 0.625 0.5 0.375 120   | 0.3 0.625 0.125        | 52.6 -19.4 25.5 32.1 127.2  | 0.461 0.0 0.76 0.478       | 129                   | 0.35 1.0 0.0  | 67.2 -38.9 51.1 64.2 127.2  |                            |
| 290 | Y68G_062_037de | 0.375 0.625 0.25  | 0.625 0.375 0.437 131 | 0.335 0.625 0.25       | 53.6 -18.4 15.3 23.9 140.0  | 0.481 0.0 0.613 0.465      | 137                   | 0.229 1.0 0.0 | 60.1 -49.0 41.0 63.9 140.0  |                            |
| 291 | G00B_062_025de | 0.375 0.625 0.375 | 0.625 0.25 0.5 180    | 0.375 0.625 0.377      | 56.0 -17.2 5.5 18.1 162.2   | 0.512 0.0 0.453 0.43       | 150                   | 0.0 1.0 0.011 | 51.7 -69.1 22.1 72.6 162.2  |                            |
| 292 | G25B_062_025de | 0.375 0.625 0.5   | 0.625 0.25 0.5 180    | 0.375 0.625 0.475      | 56.6 -13.8 -2.3 14.0 189.6  | 0.489 0.0 0.29 0.45        | 173                   | 0.0 1.0 0.403 | 54.0 -55.4 -9.3 56.2 189.6  |                            |
| 293 | G50B_062_025de | 0.375 0.625 0.625 | 0.625 0.25 0.5 210    | 0.375 0.625 0.553      | 57.1 -10.4 -7.8 13.1 216.9  | 0.451 0.0 0.135 0.473      | 193                   | 0.0 1.0 0.712 | 56.3 -41.9 -31.5 52.4 216.9 |                            |
| 294 | G65B_075_037de | 0.375 0.625 0.75  | 0.75 0.375 0.562 229  | 0.375 0.75 0.747       | 62.4 -10.2 -16.8 20.7 234.3 | 0.533 0.0 0.011 0.344      | 209                   | 0.0 1.0 0.993 | 57.8 -32.2 -44.8 55.2 234.3 |                            |
| 295 | G75B_087_050de | 0.375 0.625 0.875 | 0.875 0.5 0.625 240   | 0.375 0.747 0.875      | 64.0 -10.9 -22.8 25.3 244.3 | 0.607 0.117 0.0 0.208      | 224                   | 0.0 0.744 1.0 | 51.1 -21.9 -45.6 50.6 244.3 |                            |
| 296 | G80B_100_062de | 0.375 0.625 1.0   | 1.0 0.625 0.687 247   | 0.375 0.765 1.0        | 65.6 -10.0 -28.7 30.4 250.7 | 0.669 0.208 0.0 0.022      | 231                   | 0.0 0.625 1.0 | 47.2 -16.0 -45.9 48.7 250.7 |                            |
| 297 | Y50G_075_075de | 0.375 0.75 0.0    | 0.75 0.75 0.375 120   | 0.262 0.75 0.0         | 55.0 -29.1 38.3 48.2 127.2  | 0.573 0.0 0.926 0.341      | 129                   | 0.35 1.0 0.0  | 67.2 -38.9 51.1 64.2 127.2  |                            |
| 298 | Y61G_075_062de | 0.375 0.75 0.125  | 0.75 0.625 0.437 127  | 0.297 0.75 0.125       | 55.7 -28.4 28.0 39.9 135.4  | 0.596 0.0 0.819 0.331      | 134                   | 0.275 1.0 0.0 | 62.5 -45.4 44.8 63.8 135.4  |                            |
| 299 | Y76G_075_050de | 0.375 0.75 0.25   | 0.75 0.5 0.5 136      | 0.331 0.75 0.25        | 57.7 -26.8 18.1 32.4 145.9  | 0.603 0.0 0.683 0.306      | 141                   | 0.163 1.0 0.0 | 57.9 -53.6 36.3 64.8 145.9  |                            |
| 300 | G00B_075_037de | 0.375 0.75 0.375  | 0.75 0.375 0.562 150  | 0.375 0.75 0.379       | 60.1 -25.9 8.3 27.2 162.2   | 0.628 0.0 0.54 0.261       | 150                   | 0.0 1.0 0.011 | 51.7 -69.1 22.1 72.6 162.2  |                            |
| 301 | G15B_075_037de | 0.375 0.75 0.5    | 0.75 0.375 0.562 169  | 0.375 0.75 0.483       | 60.7 -22.6 0.1 22.6 179.5   | 0.616 0.0 0.41 0.277       | 166                   | 0.0 1.0 0.288 | 53.2 -60.4 0.4 60.4 179.5   |                            |
| 302 | G34B_075_037de | 0.375 0.75 0.625  | 0.75 0.375 0.562 191  | 0.375 0.75 0.566       | 61.3 -18.9 -6.7 20.1 199.6  | 0.59 0.0 0.283 0.3         | 180                   | 0.0 1.0 0.509 | 54.7 -50.5 -18.0 53.6 199.6 |                            |
| 303 | G50B_          |                   |                       |                        |                             |                            |                       |               |                             |                            |

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1, *cmYk*\*

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

TUB material: code=rha4ta

http://130.149.60.45/~farbmatrik/SE05/SE05L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 24/33

|     | HIC*Fde        | rgb_Fde         | ict_Fde           | hsi_Fde | rgb*Fde           | LabCh*Fde       | cmynn*ep,Fde |             |             |     | hsiMde        | rgb*Mde                     | LabCh*Mde |
|-----|----------------|-----------------|-------------------|---------|-------------------|-----------------|--------------|-------------|-------------|-----|---------------|-----------------------------|-----------|
| 324 | R00Y_050_050de | 0.5 0.0 0.0     | 0.5 0.5 0.25      | 390     | 0.5 0.0 0.065     | 33.1 33.1 15.8  | 36.7 25.4    | 0.0 0.831   | 0.734 0.569 | 383 | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |           |
| 325 | R26Y_050_050de | 0.5 0.0 0.125   | 0.5 0.5 0.25      | 376     | 0.5 0.0 0.243     | 33.1 34.7 6.0   | 35.3 9.8     | 0.0 0.828   | 0.478 0.576 | 360 | 1.0 0.0 0.486 | 47.8 69.5 12.1 70.6 9.8     |           |
| 326 | R00Y_050_050de | 0.5 0.0 0.25    | 0.5 0.5 0.25      | 360     | 0.474 0.0 0.5     | 32.9 36.3 -5.0  | 36.7 352.0   | 0.0 0.82    | 0.068 0.589 | 327 | 0.948 0.0 1.0 | 47.3 72.7 -10.1 73.5 352.0  |           |
| 327 | B61R_050_050de | 0.5 0.0 0.375   | 0.5 0.5 0.25      | 344     | 0.331 0.0 0.5     | 29.8 31.0 -10.1 | 32.6 341.8   | 0.225 0.798 | 0.0 0.623   | 310 | 0.663 0.0 1.0 | 41.2 62.0 -20.3 65.2 341.8  |           |
| 328 | B50R_050_050de | 0.5 0.0 0.5     | 0.5 0.5 0.25      | 330     | 0.21 0.0 0.5      | 26.7 25.0 -15.2 | 29.3 328.6   | 0.476 0.798 | 0.0 0.623   | 294 | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |           |
| 329 | B40R_062_062de | 0.5 0.0 0.625   | 0.625 0.625 0.312 | 319     | 0.191 0.0 0.625   | 26.7 25.9 -23.2 | 34.8 318.1   | 0.632 0.868 | 0.0 0.498   | 287 | 0.306 0.0 1.0 | 31.7 41.5 -37.1 55.7 318.1  |           |
| 330 | B34R_075_075de | 0.5 0.0 0.75    | 0.75 0.75 0.375   | 311     | 0.169 0.0 0.75    | 26.8 26.3 -30.7 | 40.5 310.5   | 0.748 0.908 | 0.0 0.365   | 282 | 0.225 0.0 1.0 | 29.5 35.1 -41.0 54.0 310.5  |           |
| 331 | B29R_087_087de | 0.5 0.0 0.875   | 0.875 0.875 0.437 | 305     | 0.098 0.0 0.875   | 26.4 26.8 -38.4 | 46.9 304.9   | 0.861 0.954 | 0.0 0.206   | 275 | 0.112 0.0 1.0 | 27.5 30.6 -43.9 53.6 304.9  |           |
| 332 | B25R_100_100de | 0.5 0.0 1.0     | 1.0 1.0 0.5       | 300     | 0.055 0.0 1.0     | 26.2 26.8 -46.1 | 53.3 300.1   | 0.944 1.9   | 0.0 0.0     | 272 | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |           |
| 333 | R23R_050_050de | 0.5 0.125 0.0   | 0.5 0.5 0.25      | 325     | 0.086 0.0 0.25    | 36.0 26.3 22.9  | 34.8 44.3    | 0.299 0.571 | 0.0 0.571   | 289 | 1.0 0.172 0.0 | 53.2 66.3 69.7 41.0         |           |
| 334 | R00Y_050_037de | 0.5 0.125 0.125 | 0.5 0.75 0.312    | 390     | 0.5 0.124 0.174   | 39.1 24.8 11.8  | 27.5 25.4    | 0.0 0.696   | 0.565 0.561 | 373 | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |           |
| 335 | R18Y_050_037de | 0.5 0.125 0.25  | 0.5 0.375 0.312   | 371     | 0.5 0.124 0.356   | 39.3 26.5 2.0   | 26.5 4.3     | 0.0 0.693   | 0.316 0.569 | 352 | 1.0 0.0 0.617 | 48.0 70.7 5.3 70.9 4.3      |           |
| 336 | B65R_050_037de | 0.5 0.125 0.375 | 0.5 0.375 0.312   | 349     | 0.405 0.124 0.5   | 37.5 24.9 -5.9  | 25.6 346.6   | 0.0 0.668   | 0.02 0.629  | 315 | 0.747 0.0 1.0 | 43.2 66.6 -15.8 68.5 346.6  |           |
| 337 | B50R_050_037de | 0.5 0.125 0.5   | 0.5 0.375 0.312   | 330     | 0.282 0.124 0.5   | 34.4 18.7 -11.4 | 21.9 328.6   | 0.31 0.67   | 0.0 0.633   | 294 | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |           |
| 338 | B38R_062_050de | 0.5 0.125 0.625 | 0.625 0.5 0.375   | 316     | 0.265 0.125 0.625 | 34.4 19.5 -19.3 | 27.5 315.3   | 0.512 0.719 | 0.0 0.491   | 285 | 0.281 0.0 1.0 | 30.9 39.1 -38.6 55.0 315.3  |           |
| 339 | B30R_075_062de | 0.5 0.125 0.75  | 0.75 0.625 0.437  | 307     | 0.215 0.125 0.75  | 34.3 20.1 -26.8 | 33.5 306.8   | 0.655 0.768 | 0.0 0.356   | 277 | 0.144 0.0 1.0 | 28.1 32.2 -43.0 53.7 306.8  |           |
| 340 | B25R_087_075de | 0.5 0.125 0.875 | 0.875 0.75 0.5    | 300     | 0.166 0.125 0.875 | 34.0 20.1 -34.5 | 40.0 300.1   | 0.773 0.793 | 0.0 0.205   | 272 | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |           |
| 341 | B20R_100_087de | 0.5 0.125 1.0   | 1.0 0.875 0.562   | 295     | 0.125 0.128 1.0   | 34.0 19.9 -41.8 | 46.3 295.4   | 0.869 0.821 | 0.0 0.021   | 269 | 0.0 0.004 1.0 | 25.0 22.7 -47.8 52.9 295.4  |           |
| 342 | R50Y_050_050de | 0.5 0.25 0.0    | 0.5 0.5 0.25      | 60      | 0.5 0.189 0.0     | 40.5 17.0 28.3  | 33.0 58.8    | 0.0 0.587   | 0.83 0.571  | 51  | 1.0 0.378 0.0 | 62.5 34.1 56.6 66.1 58.8    |           |
| 343 | R31Y_050_037de | 0.5 0.25 0.125  | 0.5 0.375 0.312   | 49      | 0.5 0.216 0.124   | 42.4 17.4 18.4  | 25.3 46.6    | 0.0 0.577   | 0.671 0.567 | 43  | 1.0 0.242 0.0 | 56.3 46.4 49.1 67.6 46.6    |           |
| 344 | R00Y_050_025de | 0.5 0.25 0.25   | 0.5 0.25 0.375    | 390     | 0.5 0.249 0.282   | 45.2 16.5 7.9   | 18.3 25.4    | 0.0 0.529   | 0.417 0.563 | 383 | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |           |
| 345 | R00Y_050_025de | 0.5 0.25 0.375  | 0.5 0.25 0.375    | 360     | 0.487 0.249 0.5   | 45.1 18.1 -2.5  | 18.3 352.0   | 0.0 0.522   | 0.126 0.581 | 327 | 0.948 0.0 1.0 | 47.3 72.7 -10.1 73.5 352.0  |           |
| 346 | B50R_050_025de | 0.5 0.25 0.5    | 0.5 0.25 0.375    | 330     | 0.355 0.249 0.5   | 42.1 12.5 -7.6  | 14.6 328.6   | 0.15 0.473  | 0.0 0.637   | 294 | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |           |
| 347 | B34R_062_037de | 0.5 0.25 0.625  | 0.625 0.375 0.437 | 311     | 0.334 0.25 0.625  | 42.1 13.1 -15.3 | 20.2 310.5   | 0.405 0.553 | 0.0 0.498   | 282 | 0.225 0.0 1.0 | 29.5 35.1 -41.0 54.0 310.5  |           |
| 348 | B25R_075_050de | 0.5 0.25 0.75   | 0.75 0.5 0.5      | 300     | 0.277 0.25 0.75   | 41.8 13.4 -23.0 | 26.6 300.1   | 0.58 0.625  | 0.0 0.354   | 272 | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |           |
| 349 | B19R_087_062de | 0.5 0.25 0.875  | 0.875 0.625 0.562 | 293     | 0.25 0.276 0.875  | 42.6 13.0 -29.9 | 32.6 293.5   | 0.678 0.64  | 0.0 0.21    | 267 | 0.0 0.042 1.0 | 26.0 20.8 -47.8 52.2 293.5  |           |
| 350 | B15R_100_075de | 0.5 0.25 1.0    | 1.0 0.75 0.625    | 289     | 0.25 0.338 1.0    | 45.0 12.8 -35.7 | 37.9 289.7   | 0.724 0.637 | 0.0 0.019   | 263 | 0.0 0.117 1.0 | 27.9 17.1 -47.6 50.6 289.7  |           |
| 351 | R76Y_050_050de | 0.5 0.375 0.0   | 0.5 0.5 0.25      | 76      | 0.5 0.292 0.0     | 45.6 8.1 34.5   | 35.4 76.7    | 0.0 0.433   | 0.867 0.5   | 65  | 1.0 0.584 0.0 | 72.7 16.2 69.0 70.9 76.7    |           |
| 352 | R68Y_050_037de | 0.5 0.375 0.125 | 0.5 0.375 0.312   | 71      | 0.5 0.32 0.124    | 47.3 8.2 24.2   | 25.6 71.1    | 0.0 0.409   | 0.715 0.577 | 61  | 1.0 0.522 0.0 | 69.3 22.0 64.7 68.3 71.1    |           |
| 353 | R50Y_050_025de | 0.5 0.375 0.25  | 0.5 0.25 0.375    | 60      | 0.5 0.344 0.249   | 49.0 8.5 14.1   | 16.5 58.8    | 0.0 0.385   | 0.513 0.576 | 51  | 1.0 0.378 0.0 | 62.5 34.1 56.6 66.1 58.8    |           |
| 354 | R00Y_050_012de | 0.5 0.375 0.375 | 0.5 0.125 0.437   | 390     | 0.5 0.375 0.391   | 51.3 8.2 3.9    | 9.1 25.4     | 0.0 0.327   | 0.557 0.582 | 383 | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |           |
| 355 | B50R_050_012de | 0.5 0.375 0.5   | 0.5 0.125 0.437   | 330     | 0.427 0.375 0.5   | 49.7 6.2 -3.8   | 7.3 328.6    | 0.024 0.239 | 0.0 0.644   | 294 | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |           |
| 356 | B25R_062_025de | 0.5 0.375 0.625 | 0.625 0.25 0.5    | 300     | 0.388 0.375 0.625 | 49.6 6.7 -11.5  | 13.3 300.1   | 0.316 0.359 | 0.0 0.516   | 272 | 0.055 0.0 1.0 | 26.2 26.8 -46.1 53.3 300.1  |           |
| 357 | B15R_075_037de | 0.5 0.375 0.75  | 0.75 0.375 0.562  | 289     | 0.375 0.419 0.75  | 51.2 6.4 -17.8  | 18.9 289.7   | 0.476 0.411 | 0.0 0.378   | 263 | 0.0 0.117 1.0 | 27.9 17.1 -47.6 50.6 289.7  |           |
| 358 | B11R_087_050de | 0.5 0.375 0.875 | 0.875 0.5 0.625   | 284     | 0.375 0.467 0.875 | 53.6 6.3 -23.7  | 24.5 285.0   | 0.571 0.437 | 0.0 0.218   | 259 | 0.0 0.185 1.0 | 30.3 12.7 -47.5 49.1 285.0  |           |
| 359 | B09R_100_062de | 0.5 0.375 1.0   | 1.0 0.625 0.687   | 281     | 0.375 0.515 1.0   | 56.0 6.3 -29.5  | 30.2 282.1   | 0.649 0.456 | 0.0 0.024   | 257 | 0.0 0.224 1.0 | 31.8 10.1 -47.2 48.3 282.1  |           |
| 360 | Y00G_050_050de | 0.5 0.5 0.0     | 0.5 0.5 0.25      | 90      | 0.5 0.434 0.0     | 51.8 -1.6 41.8  | 41.8 92.3    | 0.0 0.216   | 0.867 0.5   | 83  | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |           |
| 361 | Y00G_050_037de | 0.5 0.5 0.125   | 0.5 0.375 0.312   | 90      | 0.5 0.45 0.124    | 53.2 -1.2 31.3  | 31.4 92.3    | 0.0 0.182   | 0.755 0.579 | 83  | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |           |
| 362 | Y00C_050_025de | 0.5 0.5 0.25    | 0.5 0.25 0.375    | 90      | 0.5 0.467 0.249   | 56.0 0.9 20.9   | 20.9 92.3    | 0.0 0.149   | 0.976 0.582 | 83  | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |           |
| 363 | Y00G_050_012de | 0.5 0.5 0.375   | 0.5 0.125 0.437   | 90      | 0.5 0.483 0.375   | 56.0 -0.4 10.4  | 92.3 0.0     | 0.103 0.364 | 0.59 0.378  | 83  | 1.0 0.868 0.0 | 85.1 -3.3 83.7 83.7 92.3    |           |
| 364 | NW_050de       | 0.5 0.5 0.5     | 0.5 0.0 0.5       | 360     | 0.5 0.5 0.5       | 57.4 0.0 0.0    | 0.0 0.0      | 0.0 0.033   | 0.072 0.612 | 360 | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0 0.0        |           |
| 365 | B00R_062_012de | 0.5 0.5 0.625   | 0.625 0.125 0.562 | 270     | 0.5 0.544 0.625   | 59.7 0.1 -5.8   | 5.8 271.7    | 0.176 0.085 | 0.0 0.519   | 249 | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |           |
| 366 | B00R_075_025de | 0.5 0.5 0.75    | 0.75 0.25 0.625   | 270     | 0.5 0.589 0.75    | 62.0 0.3 -11.6  | 11.6 271.7   | 0.332 0.183 | 0.0 0.388   | 249 | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |           |
| 367 | B00R_087_037de | 0.5 0.5 0.875   | 0.875 0.375 0.687 | 270     | 0.5 0.634 0.875   | 64.2 0.5 -17.4  | 17.4 271.7   | 0.456 0.251 | 0.0 0.223   | 249 | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |           |
| 368 | B00R_100_050de | 0.5 0.5 1.0     | 1.0 0.5 0.75      | 270     | 0.5 0.679 1.0     | 66.5 0.7 -23.3  | 23.3 271.7   | 0.541 0.302 | 0.0 0.029   | 249 | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |           |
| 369 | Y18G_062_062de | 0.5 0.625 0.0   | 0.625 0.625 0.312 | 101     | 0.435 0.625 0.0   | 57.7 -12.6 46.7 | 48.3 105.1   | 0.216 0.0   | 0.867 0.5   | 107 | 0.696 1.0 0.0 | 81.7 -20.2 74.7 77.4 105.1  |           |
| 370 | Y23G_062_050de | 0.5 0.625 0.125 | 0.625 0.5 0.375   | 104     | 0.432 0.625 0.125 | 57.8 -11.8 35.2 | 37.2 108.6   | 0.225 0.0   | 0.786 0.513 | 112 | 0.615 1.0 0.0 | 74.6 -23.7 70.5 74.4 108.6  |           |
| 371 | Y31G_062_037de | 0.5 0.625 0.25  | 0.625 0.375 0.437 | 109     | 0.448 0.625 0.25  | 58.9 -10.7 23.7 | 26.0 114.4   | 0.241 0.0   | 0.623 0.503 | 118 | 0.529 1.0 0.0 | 77.3 -28.7 63.3 69.5 114.4  |           |
| 372 | Y50G_062_025de | 0.5 0.625 0.375 | 0.625 0.25 0.5    | 120     | 0.462 0.625 0.375 | 59.9 -9.7 12.7  | 16.0 127.2   | 0.266 0.0   | 0.46 0.491  | 129 | 0.35 1.0 0.0  | 67.2 -38.9 51.1 64.2 127.2  |           |
| 373 | G00B_062_012de | 0.5 0.625 0.5   | 0.625 0.125 0.562 | 150     | 0.5 0.625 0.501   | 61.6 -8.6 2.7   | 9.0 162.2    | 0.305 0.0   | 0.279 0.465 | 150 | 0.0 1.0 0.011 | 51.7 -69.1 22.1 72.6 162.2  |           |
| 374 | G50B_062_012de | 0.5 0.625 0.625 | 0.625 0.125 0.562 | 210     | 0.5 0.625 0.589   | 62.1 -5.2 -3.9  | 6.5 216.9    | 0.258 0.0   | 0.085 0.491 | 193 | 0.0 1.0 0.712 | 56.3 -41.9 -31.5 52.4 216.9 |           |
| 375 | G75B_075_025de | 0.5 0.625 0.75  | 0.75 0.25 0.625   | 240     | 0.5 0.686 0.75    | 65.6 -5.4 -11.4 | 12.6 244.3   | 0.369 0.043 | 0.0 0.373   | 224 | 0.0 0.744 1.0 | 51.1 -21.9 -45.6 50.6 244.3 |           |
| 376 | G84B_087_037de | 0.5 0.625 0.875 | 0.875 0.375 0.687 | 251     | 0.5 0.716 0.875   | 67.5 -4.8 -17.3 | 18.0 254.3   | 0.477 0.152 | 0.0 0.214   | 234 | 0.0 0.578 1.0 | 45.4 -12.9 -46.2 48.0 254.3 |           |
| 377 | G88B_100_050de | 0.5 0.625 1.0   | 1.0 0.5 0.75      | 256     | 0.5 0.759 1.0     | 69.7 -4.5 -23.1 | 23.6 258.9   | 0.555 0.22  | 0.0 0.023   | 238 | 0.0 0.519 1.0 | 43.1 -9.0 -46.3 47.2 258.9  |           |
| 378 | Y31G_075_075de | 0.5 0.75 0.0    | 0.75 0.75 0.375   | 109     | 0.396 0.75 0.0    | 60.3 -21.5 47.4 | 52.1 114.4   | 0.434 0.0   | 0.921 0.358 | 118 | 0.529 1.0 0.0 | 74.3 -28.7 63.3 69.5 114.4  |           |
| 379 | Y38G_075_062de | 0.5 0.75 0.125  | 0.75 0.625 0.437  | 113     | 0.411 0.75 0.125  | 61.5 -20.2 36.4 | 41.7 119.1   | 0.428 0.0   | 0.821 0.347 | 122 | 0.458 1.0 0.0 | 71.7 -32.4 58.3 66.7 119.1  |           |
| 380 | Y50G_075_050de | 0.5 0.75 0.25   | 0.75 0.5 0.5      | 120     | 0.425 0.75 0.25   | 62.3 -19.4 25.5 | 32.1 127.2   | 0.438 0.0   | 0.691 0.335 | 129 | 0.35 1.0 0.0  | 67.2 -38.9 51.1 64.2 127.2  |           |
| 381 | Y68G_075_037de | 0.5 0.75 0.375  | 0.75 0.375 0.562  | 131     | 0.46 0.75 0.375   | 63.3 -18.4 15.3 | 23.9 140.0   | 0.457 0.0   | 0.559 0.322 | 137 | 0.229 1.0 0.0 | 60.1 -49.0 41.0 6           |           |

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1, *cm* *y* *k*\*

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

TIID material: code=phs44a





http://130.149.60.45/~farbmetrik/SE05/SE05L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 27/33

| n   | HIC*Fde        | rgb_Fde           | ict_Fde           | hsa_Fde | rgb*Fde           | LabCh*Fde       | cmyn*sep.Fde | hsaMde                | rgb*Mde | LabCh*Mde                                |
|-----|----------------|-------------------|-------------------|---------|-------------------|-----------------|--------------|-----------------------|---------|------------------------------------------|
| 567 | R00Y_087_087de | 0.875 0.0 0.0     | 0.875 0.875 0.437 | 390     | 0.875 0.0 0.115   | 44.0 58.0 27.6  | 64.3 25.4    | 0.0 0.965 0.85 0.173  | 373     | 1.0 0.0 0.131 47.6 66.3 31.6 73.4 25.4   |
| 568 | R36Y_087_087de | 0.875 0.0 0.125   | 0.875 0.875 0.437 | 382     | 0.875 0.0 0.298   | 44.2 59.4 17.6  | 62.0 16.5    | 0.0 0.966 0.647 0.174 | 380     | 1.0 0.0 0.341 47.8 67.9 20.2 70.9 16.5   |
| 569 | R23Y_087_087de | 0.875 0.0 0.25    | 0.875 0.875 0.437 | 374     | 0.875 0.0 0.471   | 44.2 61.3 8.2   | 61.8 7.6     | 0.0 0.965 0.471 0.175 | 357     | 1.0 0.0 0.538 47.9 70.0 9.4 70.7 7.6     |
| 570 | R08Y_087_087de | 0.875 0.0 0.375   | 0.875 0.875 0.437 | 365     | 0.875 0.0 0.715   | 44.4 63.6 -2.6  | 63.6 357.6   | 0.0 0.963 0.228 0.174 | 339     | 1.0 0.0 0.817 48.1 72.7 -3.0 72.7 357.6  |
| 571 | B70R_087_087de | 0.875 0.0 0.5     | 0.875 0.875 0.437 | 355     | 0.839 0.0 0.875   | 43.8 63.9 -8.6  | 64.5 352.3   | 0.0 0.958 0.024 0.203 | 327     | 0.959 0.0 1.0 47.4 73.0 -9.8 73.7 352.3  |
| 572 | B63R_087_087de | 0.875 0.0 0.625   | 0.875 0.875 0.437 | 346     | 0.61 0.0 0.875    | 39.1 55.9 -16.2 | 58.2 343.7   | 0.26 0.959 0.0 0.217  | 312     | 0.697 0.0 1.0 42.0 63.9 -18.6 66.5 343.7 |
| 573 | B56R_087_087de | 0.875 0.0 0.75    | 0.875 0.875 0.437 | 338     | 0.487 0.0 0.875   | 36.0 49.5 -21.8 | 54.1 336.1   | 0.424 0.957 0.0 0.207 | 303     | 0.556 0.0 1.0 38.5 56.6 -25.0 61.9 336.1 |
| 574 | B50R_087_087de | 0.875 0.0 0.875   | 0.875 0.875 0.437 | 330     | 0.367 0.0 0.875   | 32.9 43.7 -26.7 | 51.2 328.6   | 0.541 0.962 0.0 0.205 | 294     | 0.42 0.0 1.0 34.9 50.0 -30.5 58.6 328.6  |
| 575 | B44R_100_100de | 0.875 0.0 1.0     | 1.0 1.0 0.5       | 323     | 0.339 0.0 1.0     | 32.7 44.6 -34.8 | 56.6 321.9   | 0.657 1.0 0.0 0.0     | 289     | 0.339 0.0 1.0 32.7 44.6 -34.8 56.6 321.9 |
| 576 | R13Y_087_087de | 0.875 0.125 0.0   | 0.875 0.875 0.437 | 38      | 0.875 0.063 0.0   | 45.9 52.8 36.2  | 64.0 34.3    | 0.0 0.899 0.969 0.17  | 33      | 1.0 0.072 0.0 49.8 60.4 41.3 73.2 34.3   |
| 577 | R00Y_087_075de | 0.875 0.125 0.125 | 0.875 0.75 0.5    | 390     | 0.875 0.125 0.223 | 50.1 49.7 23.7  | 55.1 25.4    | 0.0 0.833 0.704 0.145 | 383     | 1.0 0.0 0.131 47.6 66.3 31.6 73.4 25.4   |
| 578 | R35Y_087_075de | 0.875 0.125 0.25  | 0.875 0.75 0.5    | 381     | 0.875 0.125 0.399 | 50.2 51.1 14.1  | 53.0 15.4    | 0.0 0.836 0.54 0.148  | 378     | 1.0 0.0 0.365 47.8 68.1 18.8 70.7 15.4   |
| 579 | R18Y_087_075de | 0.875 0.125 0.375 | 0.875 0.75 0.5    | 371     | 0.875 0.125 0.588 | 50.4 53.0 4.0   | 53.1 4.3     | 0.0 0.836 0.359 0.151 | 352     | 1.0 0.0 0.617 48.0 70.7 5.3 70.9 4.3     |
| 580 | R00Y_087_075de | 0.875 0.125 0.5   | 0.875 0.75 0.5    | 360     | 0.836 0.125 0.875 | 49.8 54.5 -7.6  | 55.1 352.0   | 0.0 0.837 0.065 0.178 | 327     | 0.948 0.0 1.0 47.3 72.7 -10.1 73.5 352.0 |
| 581 | B65R_087_075de | 0.875 0.125 0.625 | 0.875 0.75 0.5    | 349     | 0.685 0.125 0.875 | 46.8 49.9 -11.8 | 51.3 346.6   | 0.106 0.837 0.0 0.218 | 315     | 0.747 0.0 1.0 43.2 66.6 -15.8 68.5 346.6 |
| 582 | B57R_087_075de | 0.875 0.125 0.75  | 0.875 0.75 0.5    | 339     | 0.556 0.125 0.875 | 43.6 43.1 -18.1 | 46.8 337.1   | 0.324 0.83 0.0 0.209  | 304     | 0.575 0.0 1.0 38.9 57.5 -24.2 62.4 337.1 |
| 583 | B50R_087_075de | 0.875 0.125 0.875 | 0.875 0.75 0.5    | 330     | 0.44 0.125 0.875  | 40.5 37.5 -22.8 | 43.9 328.6   | 0.457 0.819 0.0 0.201 | 294     | 0.42 0.0 1.0 34.9 50.0 -30.5 58.6 328.6  |
| 584 | B43R_100_087de | 0.875 0.125 1.0   | 1.0 0.875 0.562   | 322     | 0.415 0.125 1.0   | 40.4 38.3 -31.0 | 49.3 321.0   | 0.578 0.855 0.0 0.0   | 288     | 0.331 0.0 1.0 32.4 43.8 -35.4 56.4 321.0 |
| 585 | R26Y_087_087de | 0.875 0.25 0.0    | 0.875 0.875 0.437 | 46      | 0.875 0.175 0.0   | 50.1 43.8 41.3  | 60.3 43.3    | 0.0 0.779 0.969 0.17  | 40      | 1.0 0.2 0.0 54.6 50.1 47.2 68.9 43.3     |
| 586 | R15Y_087_075de | 0.875 0.25 0.125  | 0.8               |         |                   |                 |              |                       |         |                                          |

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1, *cmYk*\*

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

see similar files: <http://130.149.60.45/~farbmatrik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmatrik>







<http://130.149.60.45/~farbmatrik/SE05/SE05L0FA.TXT> /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 31/33

| n   | HIC*Fde        | rgb_Fde | ict_Fde | hsl_Fde | rgb*Fde | LabCh*Fde | cmyn*sep.Fde | hslMde | rgb*Mde | LabCh*Mde |
|-----|----------------|---------|---------|---------|---------|-----------|--------------|--------|---------|-----------|
| 891 | NW_100de       | 1.0     | 1.0     | 1.0     | 0.0     | 1.0       | 360          | 0.0    | 0.0     | 0.0       |
| 892 | B50R_100_012de | 1.0     | 0.875   | 1.0     | 0.125   | 0.937     | 330          | 0.053  | 0.149   | 0.0       |
| 893 | B50R_100_025de | 1.0     | 0.75    | 1.0     | 0.25    | 0.875     | 330          | 0.121  | 0.285   | 0.0       |
| 894 | B50R_100_037de | 1.0     | 0.625   | 1.0     | 0.375   | 0.812     | 330          | 0.198  | 0.409   | 0.0       |
| 895 | B50R_100_050de | 1.0     | 0.5     | 1.0     | 0.5     | 0.75      | 330          | 0.272  | 0.517   | 0.0       |
| 896 | B50R_100_062de | 1.0     | 0.375   | 1.0     | 0.625   | 0.687     | 330          | 0.33   | 0.641   | 0.0       |
| 897 | B50R_100_075de | 1.0     | 0.25    | 1.0     | 0.75    | 0.625     | 330          | 0.405  | 0.764   | 0.0       |
| 898 | B50R_100_087de | 1.0     | 0.125   | 1.0     | 0.875   | 0.562     | 330          | 0.48   | 0.869   | 0.0       |
| 899 | B50R_100_100de | 1.0     | 0.0     | 1.0     | 1.0     | 0.5       | 330          | 0.577  | 1.0     | 0.0       |
| 900 | GO0B_100_012de | 0.875   | 1.0     | 0.875   | 0.125   | 0.937     | 150          | 0.206  | 0.0     | 0.147     |
| 901 | NW_087de       | 0.875   | 0.875   | 0.875   | 0.0     | 0.875     | 360          | 0.014  | 0.0     | 0.008     |
| 902 | B50R_087_012de | 0.875   | 0.75    | 0.875   | 0.125   | 0.812     | 330          | 0.037  | 0.162   | 0.0       |
| 903 | B50R_087_025de | 0.875   | 0.625   | 0.875   | 0.25    | 0.75      | 330          | 0.109  | 0.322   | 0.0       |
| 904 | B50R_087_037de | 0.875   | 0.5     | 0.875   | 0.375   | 0.687     | 330          | 0.19   | 0.458   | 0.0       |
| 905 | B50R_087_050de | 0.875   | 0.375   | 0.875   | 0.5     | 0.625     | 330          | 0.275  | 0.58    | 0.0       |
| 906 | B50R_087_062de | 0.875   | 0.25    | 0.875   | 0.625   | 0.562     | 330          | 0.364  | 0.699   | 0.0       |
| 907 | B50R_087_075de | 0.875   | 0.125   | 0.875   | 0.75    | 0.5       | 330          | 0.444  | 0.819   | 0.0       |
| 908 | B50R_087_087de | 0.875   | 0.0     | 0.875   | 0.875   | 0.437     | 330          | 0.541  | 0.962   | 0.0       |
| 909 | GO0B_100_025de | 0.75    | 1.0     | 0.75    | 1.0     | 0.25      | 875          | 0.347  | 0.0     | 0.25      |
| 910 | GO0B_087_012de | 0.75    | 0.875   | 0.75    | 0.125   | 0.812     | 150          | 0.255  | 0.0     | 0.198     |
| 911 | NW_075de       | 0.75    | 0.75    | 0.75    | 0.0     | 0.75      | 360          | 0.0    | 0.0     | 0.02      |
| 912 | B50R_075_012de | 0.75    | 0.625   | 0.75    | 0.125   | 0.687     | 330          | 0.008  | 0.176   | 0.0       |
| 913 | B50R_075_025de | 0.75    | 0.5     | 0.75    | 0.25    | 0.625     | 330          | 0.098  | 0.359   | 0.0       |
| 914 | B50R_075_037de | 0.75    | 0.375   | 0.75    | 0.375   | 0.562     | 330          | 0.21   | 0.502   | 0.0       |
| 915 | B50R_075_050de | 0.75    | 0.25    | 0.75    | 0.5     | 0.5       | 330          | 0.309  | 0.635   | 0.0       |
| 916 | B50R_075_062de | 0.75    | 0.125   | 0.75    | 0.625   | 0.437     | 330          | 0.418  | 0.777   | 0.0       |
| 917 | B50R_075_075de | 0.75    | 0.0     | 0.75    | 0.75    | 0.375     | 330          | 0.507  | 0.92    | 0.0       |
| 918 | GO0B_100_037de | 0.625   | 1.0     | 0.625   | 1.0     | 0.375     | 812          | 0.498  | 0.0     | 0.498     |
| 919 | GO0B_087_025de | 0.625   | 0.875   | 0.625   | 0.875   | 0.25      | 75           | 0.432  | 0.0     | 0.365     |
| 920 | GO0B_075_012de | 0.625   | 0.75    | 0.625   | 0.75    | 0.125     | 687          | 0.272  | 0.0     | 0.235     |
| 921 | NW_062de       | 0.625   | 0.625   | 0.625   | 0.0     | 0.625     | 360          | 0.0    | 0.014   | 0.045     |
| 922 | B50R_062_012de | 0.625   | 0.5     | 0.625   | 0.125   | 0.562     | 330          | 0.052  | 0.197   | 0.0       |
| 923 | B50R_062_025de | 0.625   | 0.375   | 0.625   | 0.25    | 0.5       | 330          | 0.12   | 0.39    | 0.0       |
| 924 | B50R_062_037de | 0.625   | 0.25    | 0.625   | 0.375   | 0.437     | 330          | 0.244  | 0.56    | 0.0       |
| 925 | B50R_062_050de | 0.625   | 0.125   | 0.625   | 0.5     | 0.375     | 330          | 0.335  | 0.726   | 0.0       |
| 926 | B50R_062_062de | 0.625   | 0.0     | 0.625   | 0.625   | 0.312     | 330          | 0.262  | 0.868   | 0.0       |
| 927 | GO0B_100_050de | 0       |         |         |         |           |              |        |         |           |

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1, *cmYk*\*

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

see similar files: <http://130.149.60.45/~farbmeterik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmeterik>

TUB material: code=rh4ta  
vn6\* (CMYK)



http://130.149.60.45/~farbmetrik/SE05/SE05L0FA.TXT /.PS; 3D-linearization  
F: 3D-linearization SE05/SE05LE30FA.DAT in file (F), page 33/33

see similar files: <http://130.149.60.45/~farbmetrik/SE05/SE05.HTM>  
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20130201-SE05/SE05L0FA.TXT /.PS TUB material: code=rha4ta  
application for measurement of offset print output, separationcyan\* (CMYK)

| n                                   | HlC*Fde        | rgb_Fde           | ict_Fde       | hsi_Fde   | rgb*Fde           | LabCh*Fde                   | cmyn*sep.Fde          | hsiM.de | rgb*Mde       | LabCh*Mde                   |
|-------------------------------------|----------------|-------------------|---------------|-----------|-------------------|-----------------------------|-----------------------|---------|---------------|-----------------------------|
| 1053                                | NW_086de       | 0.866 0.866 0.866 | 0.866 0.0 0.0 | 0.866 360 | 0.866 0.866 0.866 | 85.9 0.0 0.0                | 0.014 0.0 0.009 0.191 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1054                                | NW_093de       | 0.933 0.933 0.933 | 0.933 0.0 0.0 | 0.933 360 | 0.933 0.933 0.933 | 91.1 0.0 0.0                | 0.01 0.0 0.003 0.095  | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1055                                | NW_100de       | 1.0 1.0 1.0       | 1.0 0.0 0.0   | 1.0 360   | 1.0 1.0 1.0       | 96.3 0.0 0.0                | 0.0 0.0 0.0 0.0       | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1056                                | NW_000de       | 0.0 0.0 0.0       | 0.0 0.0 0.0   | 0.0 360   | 0.0 0.0 0.0       | 18.5 0.0 0.0                | 0.0 0.0 0.0 1.0       | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1057                                | NW_006de       | 0.066 0.066 0.066 | 0.066 0.0 0.0 | 0.066 360 | 0.066 0.066 0.066 | 23.6 0.0 0.0                | 0.124 0.0 0.13 0.947  | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1058                                | NW_013de       | 0.133 0.133 0.133 | 0.133 0.0 0.0 | 0.133 360 | 0.133 0.133 0.133 | 28.8 0.0 0.0                | 0.0 0.027 0.109 0.893 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1059                                | NW_020de       | 0.2 0.2 0.2       | 0.2 0.0 0.0   | 0.2 360   | 0.2 0.2 0.2       | 34.1 0.0 0.0                | 0.0 0.015 0.068 0.844 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1060                                | NW_026de       | 0.266 0.266 0.266 | 0.266 0.0 0.0 | 0.266 360 | 0.266 0.266 0.266 | 39.2 0.0 0.0                | 0.0 0.008 0.057 0.798 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1061                                | NW_033de       | 0.333 0.333 0.333 | 0.333 0.0 0.0 | 0.333 360 | 0.333 0.333 0.333 | 44.4 0.0 0.0                | 0.0 0.045 0.091 0.747 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1062                                | NW_040de       | 0.4 0.4 0.4       | 0.4 0.0 0.0   | 0.4 360   | 0.4 0.4 0.4       | 49.6 0.0 0.0                | 0.0 0.0 0.046 0.695   | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1063                                | NW_046de       | 0.466 0.466 0.466 | 0.466 0.0 0.0 | 0.466 360 | 0.466 0.466 0.466 | 54.8 0.0 0.0                | 0.0 0.017 0.058 0.643 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1064                                | NW_053de       | 0.533 0.533 0.533 | 0.533 0.0 0.0 | 0.533 360 | 0.533 0.533 0.533 | 60.0 0.0 0.0                | 0.007 0.0 0.042 0.568 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1065                                | NW_060de       | 0.6 0.6 0.6       | 0.6 0.0 0.0   | 0.6 360   | 0.6 0.6 0.6       | 65.2 0.0 0.0                | 0.0 0.025 0.058 0.493 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1066                                | NW_066de       | 0.666 0.666 0.666 | 0.666 0.0 0.0 | 0.666 360 | 0.666 0.666 0.666 | 70.3 0.0 0.0                | 0.0 0.0 0.025 0.427   | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1067                                | NW_073de       | 0.734 0.734 0.734 | 0.734 0.0 0.0 | 0.734 360 | 0.734 0.734 0.734 | 75.6 0.0 0.0                | 0.0 0.014 0.038 0.354 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1068                                | NW_080de       | 0.8 0.8 0.8       | 0.8 0.0 0.0   | 0.8 360   | 0.8 0.8 0.8       | 80.8 0.0 0.0                | 0.0 0.004 0.021 0.272 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1069                                | NW_086de       | 0.866 0.866 0.866 | 0.866 0.0 0.0 | 0.866 360 | 0.866 0.866 0.866 | 85.9 0.0 0.0                | 0.014 0.0 0.009 0.191 | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1070                                | NW_093de       | 0.933 0.933 0.933 | 0.933 0.0 0.0 | 0.933 360 | 0.933 0.933 0.933 | 91.1 0.0 0.0                | 0.01 0.0 0.003 0.095  | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1071                                | NW_100de       | 1.0 1.0 1.0       | 1.0 0.0 0.0   | 1.0 360   | 1.0 1.0 1.0       | 96.3 0.0 0.0                | 0.0 0.0 0.0 0.0       | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1072                                | NW_000de       | 0.0 0.0 0.0       | 0.0 0.0 0.0   | 0.0 360   | 0.0 0.0 0.0       | 18.5 0.0 0.0                | 0.0 0.0 0.0 1.0       | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1073                                | NW_100de       | 1.0 1.0 1.0       | 1.0 0.0 0.0   | 1.0 360   | 1.0 1.0 1.0       | 96.3 0.0 0.0                | 0.0 0.0 0.0 0.0       | 360     | 1.0 1.0 1.0   | 96.3 0.0 0.0 0.0            |
| 1074                                | R00Y_100_100de | 1.0 0.0 0.0       | 1.0 1.0 0.5   | 390       | 1.0 0.0 0.131     | 47.6 66.3 31.6 73.4 25.4    | 0.0 1.0 0.867 0.0     | 383     | 1.0 0.0 0.131 | 47.6 66.3 31.6 73.4 25.4    |
| 1075                                | G50B_100_100de | 0.0 1.0 1.0       | 1.0 1.0 0.5   | 210       | 0.0 1.0 0.712     | 56.3 -41.9 -31.5 52.4 216.9 | 1.0 0.0 0.286 0.0     | 193     | 0.0 1.0 0.712 | 56.3 -41.9 -31.5 52.4 216.9 |
| 1076                                | Y00G_100_100de | 1.0 1.0 0.0       | 1.0 1.0 0.5   | 90        | 1.0 0.868 0.0     | 85.1 -3.3 83.7 92.3         | 0.0 0.132 1.0 0.0     | 83      | 1.0 0.868 0.0 | 85.1 -3.3 83.7 92.3         |
| 1077                                | B00R_100_100de | 0.0 0.0 1.0       | 1.0 1.0 0.5   | 270       | 0.0 0.358 1.0     | 36.7 1.4 -46.6 46.6 271.7   | 1.0 0.639 0.0 0.0     | 249     | 0.0 0.358 1.0 | 36.7 1.4 -46.6 46.6 271.7   |
| 1078                                | G00B_100_100de | 0.0 1.0 0.0       | 1.0 1.0 0.5   | 150       | 0.0 1.0 0.011     | 51.7 -69.1 22.1 72.6 162.2  | 1.0 0.0 0.988 0.0     | 150     | 0.0 1.0 0.011 | 51.7 -69.1 22.1 72.6 162.2  |
| 1079                                | B50R_100_100de | 1.0 0.0 1.0       | 1.0 1.0 0.5   | 330       | 0.42 0.0 1.0      | 34.9 50.0 -30.5 58.6 328.6  | 0.577 1.0 0.0 0.0     | 294     | 0.42 0.0 1.0  | 34.9 50.0 -30.5 58.6 328.6  |
| Mean color difference of this page: |                |                   |               |           |                   |                             | delta                 |         |               |                             |

1-1133230-F0

SE050-7N, Page 33/33-F

TUB-test chart SE05; 16 hues, offset standard paper APCO  
colors and differences,  $\Delta E^*$ , 3D=1, de=1,  $cm\dot{y}k^*$

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

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