

**Input: Colorimetric Natural Reflective System CNS18**

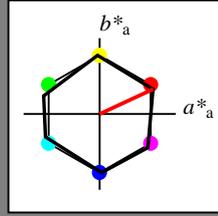
for hue  $h^* = lab^*h = 25/360 = 0.069$

$lab^*tch$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 57 77 25

olv\*Ma: 1.0 0.0 0.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

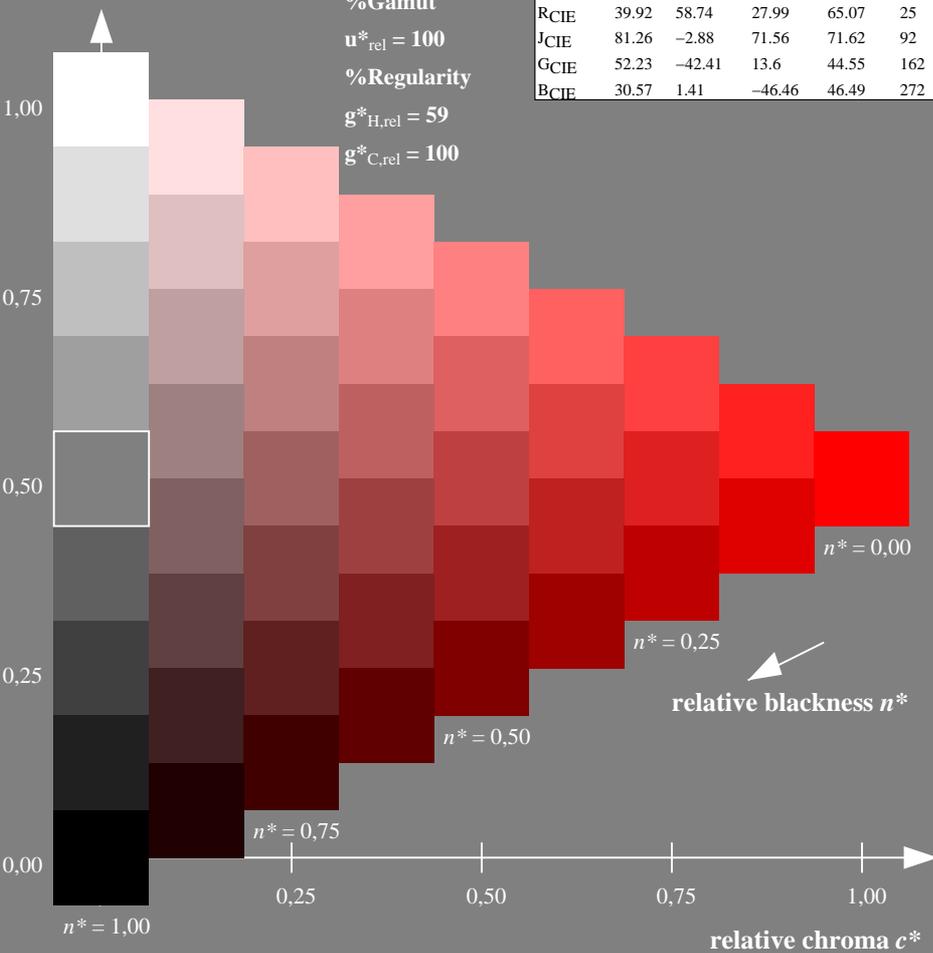
$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

triangle lightness  $t^*$



**Output: Colorimetric Printer Reflective System FRS06**

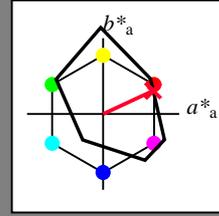
for hue  $h^* = lab^*h = 25/360 = 0.069$

$lab^*tch$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 33 73 25

olv\*Ma: 1.0 0.0 0.2



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

%Gamut

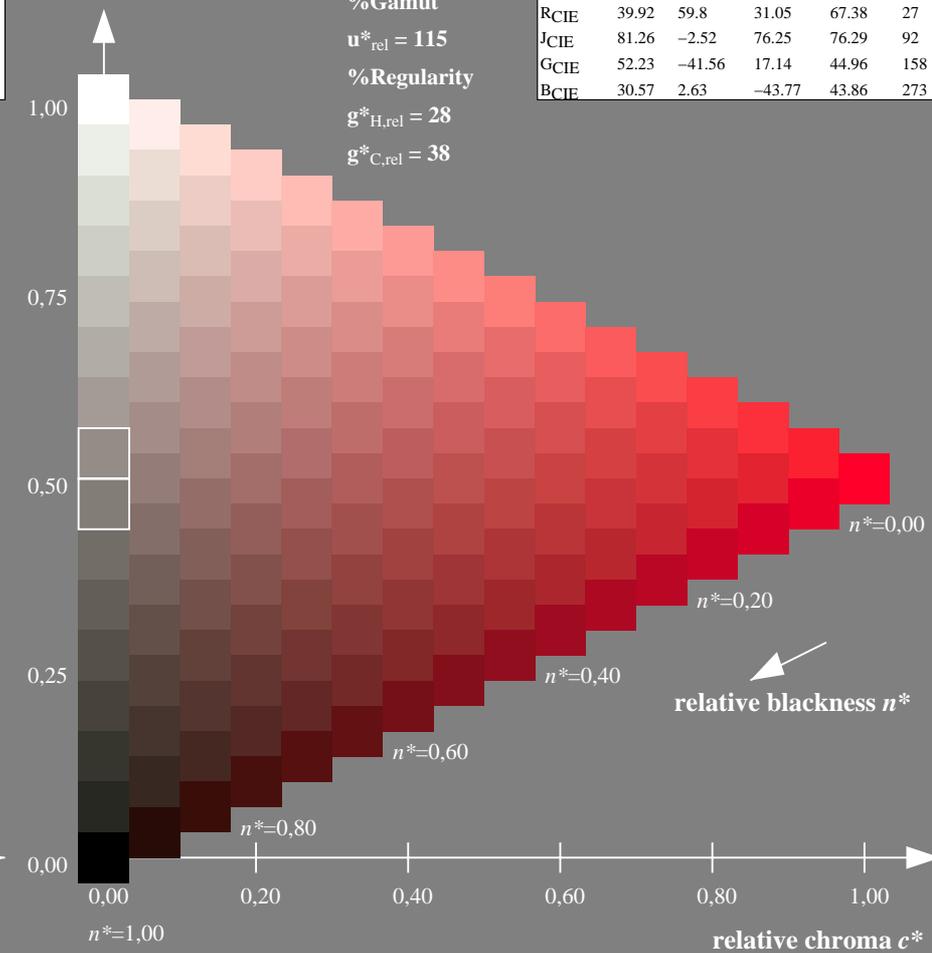
$u^*_{rel} = 115$

%Regularity

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

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

triangle lightness  $t^*$



VE390-7, 9 step scales for constant CIELAB hue 25/360 = 0.069 (left)

16 step scales for constant CIELAB hue 25/360 = 0.069 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

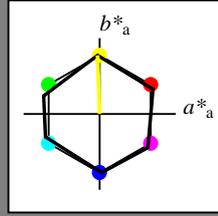
for hue  $h^* = lab^*h = 92/360 = 0.256$

$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 57 77 92

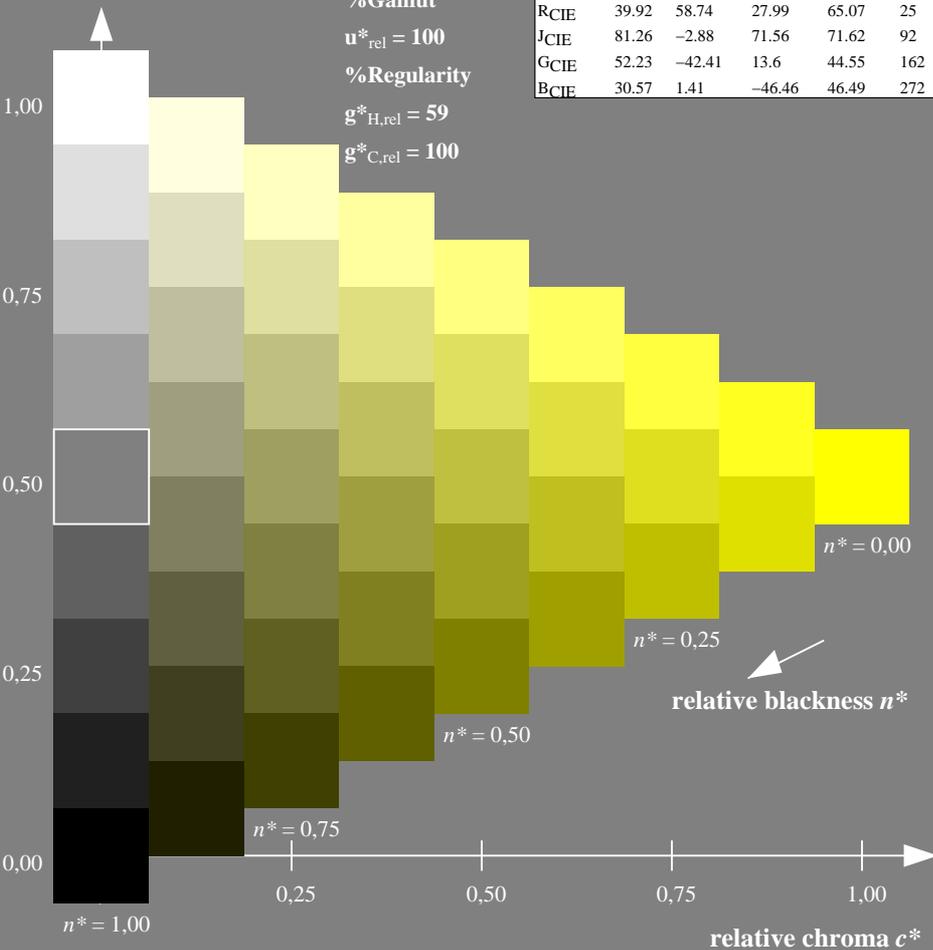
olv\*Ma: 1.0 1.0 0.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 100$   
 %Regularity  
 $g^*_{H,rel} = 59$   
 $g^*_{C,rel} = 100$

**Output: Colorimetric Printer Reflective System FRS06**

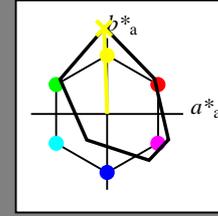
for hue  $h^* = lab^*h = 92/360 = 0.256$

$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 82 113 92

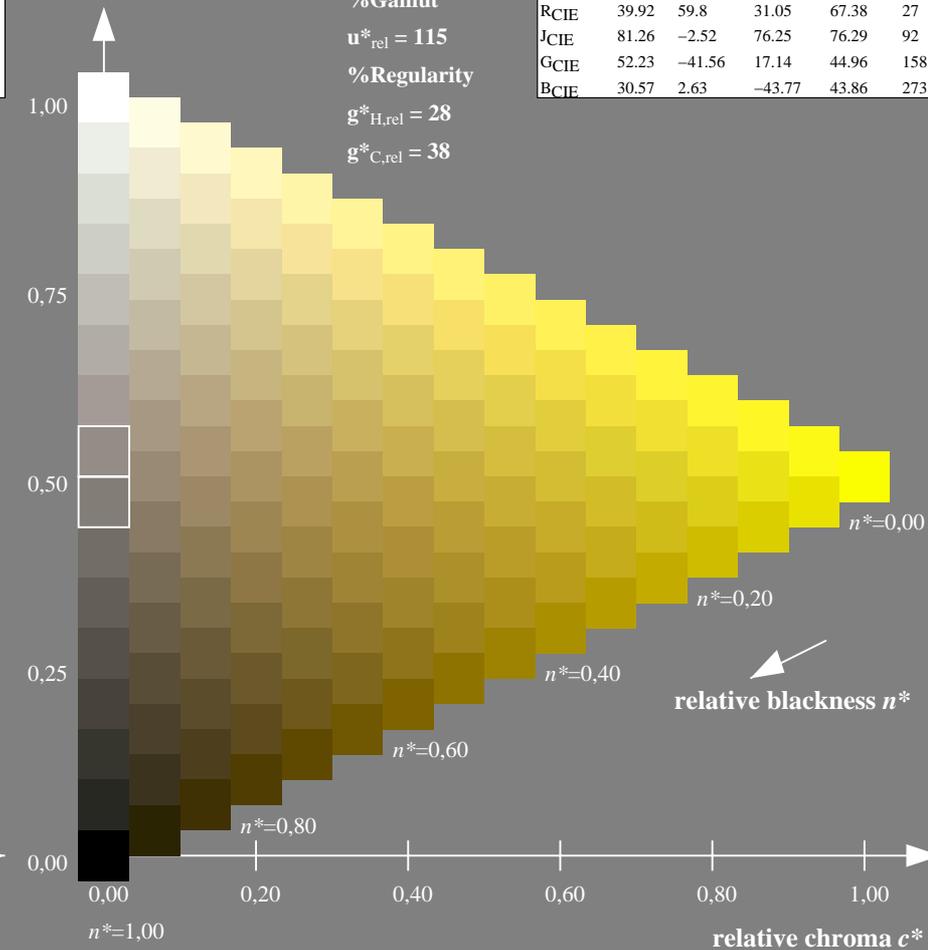
olv\*Ma: 0.99 1.0 0.0



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 115$   
 %Regularity  
 $g^*_{H,rel} = 28$   
 $g^*_{C,rel} = 38$

VE390-7, 9 step scales for constant CIELAB hue 92/360 = 0.256 (left)

16 step scales for constant CIELAB hue 92/360 = 0.256 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06  
 D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor  
 output: olv\*' (TRI9) setrgbcolor

See for similar files: <http://www.ps.bam.de/VE39/>  
 Technical information: <http://www.ps.bam.de>  
 Version 2.1, io=1,1, CIELAB

BAM registration: 20080101-VE39/10L/L39E01FP.PS/.PDF BAM material: code=rhadata  
 application for evaluation and measurement of printer or monitor systems  
 /VE39/ Form: 2/10, Serie: 1/1, Page: 2 Page count: 1

**Input: Colorimetric Natural Reflective System CNS18**

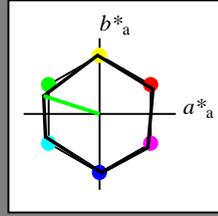
for hue  $h^* = lab^*h = 162/360 = 0.45$

$lab^*tch$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 57 77 162

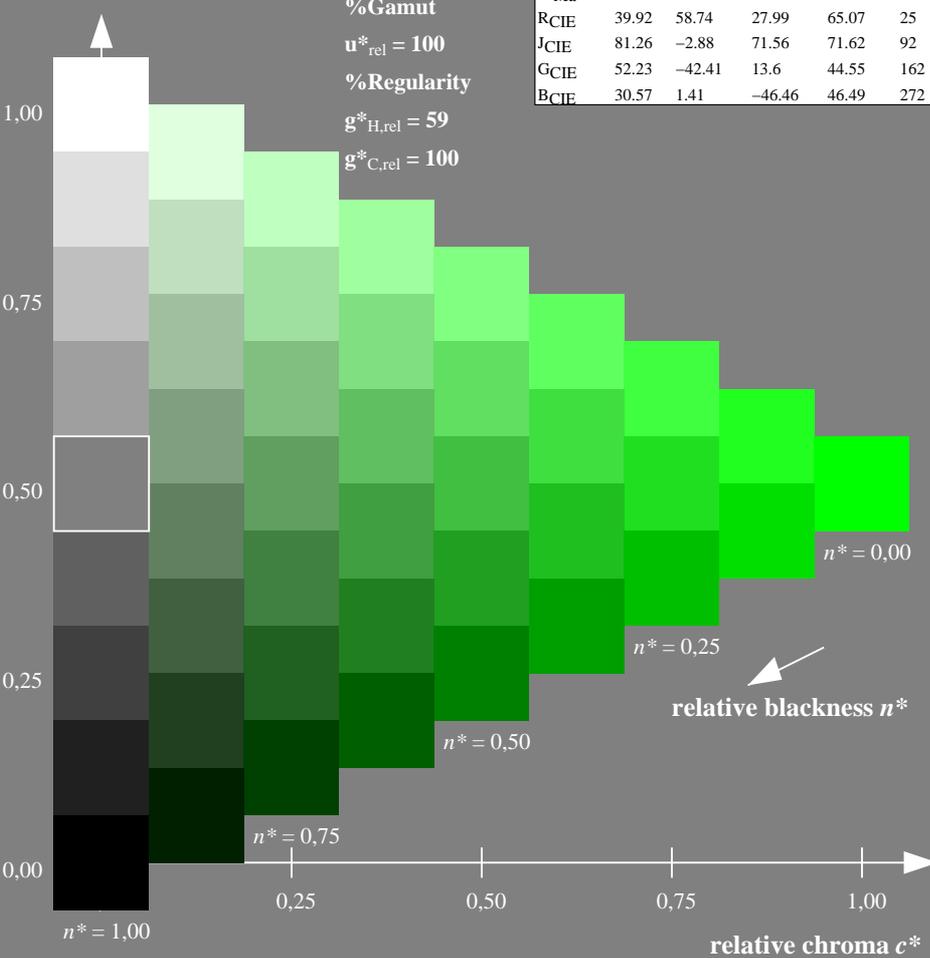
olv\*Ma: 0.0 1.0 0.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

**Output: Colorimetric Printer Reflective System FRS06**

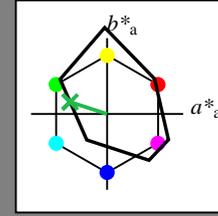
for hue  $h^* = lab^*h = 162/360 = 0.45$

$lab^*tch$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 43 51 162

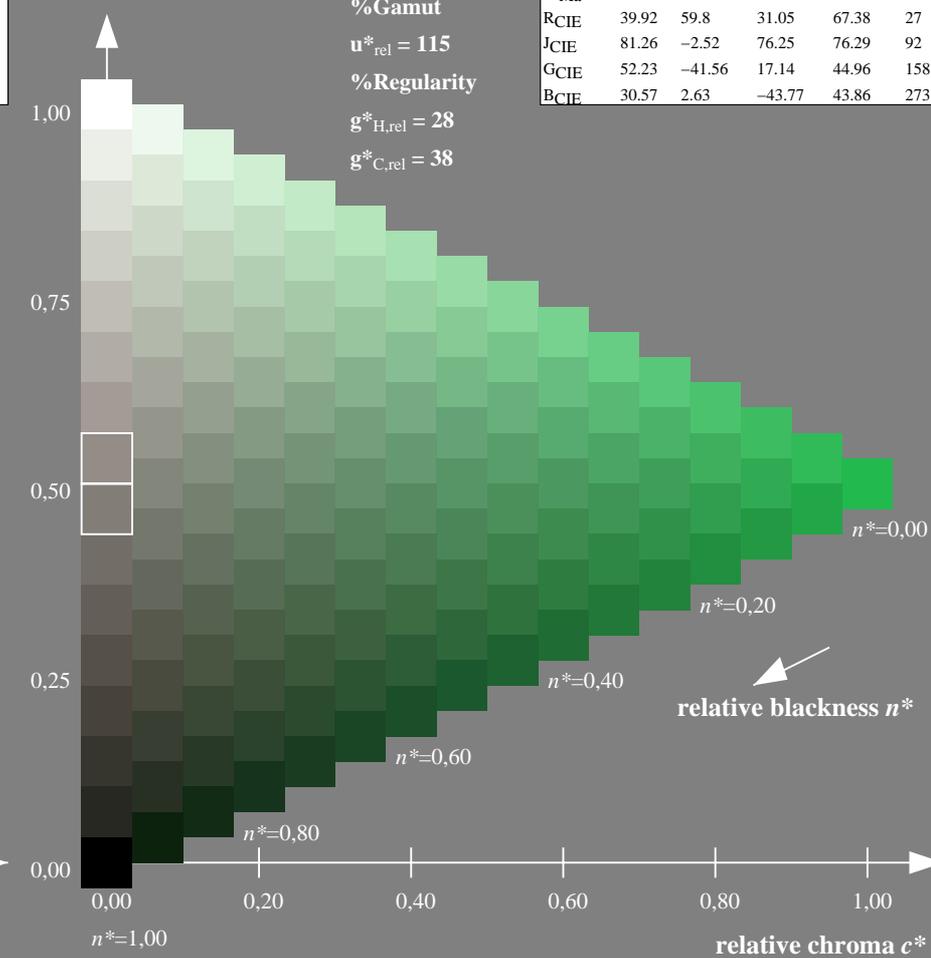
olv\*Ma: 0.0 1.0 0.37



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 115$

%Regularity

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

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

VE390-7, 9 step scales for constant CIELAB hue 162/360 = 0.45 (left)

16 step scales for constant CIELAB hue 162/360 = 0.45 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

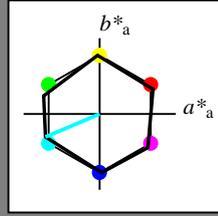
for hue  $h^* = lab^*h = 203/360 = 0.564$

$lab^*tch$  and  $lab^*nch$

D65: hue G50B

LCH\*Ma: 57 77 203

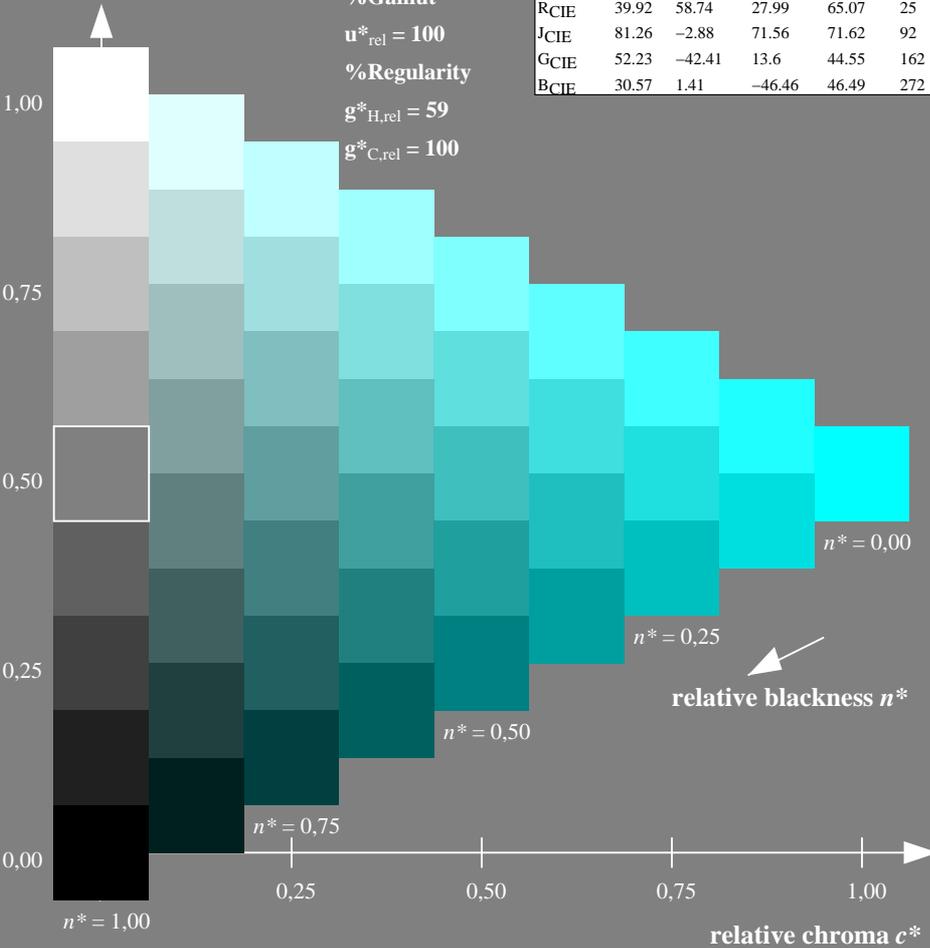
olv\*Ma: 0.0 1.0 1.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



**Output: Colorimetric Printer Reflective System FRS06**

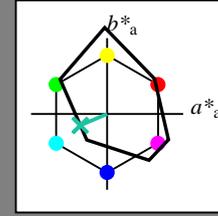
for hue  $h^* = lab^*h = 203/360 = 0.564$

$lab^*tch$  and  $lab^*nch$

D65: hue G50B

LCH\*Ma: 46 38 203

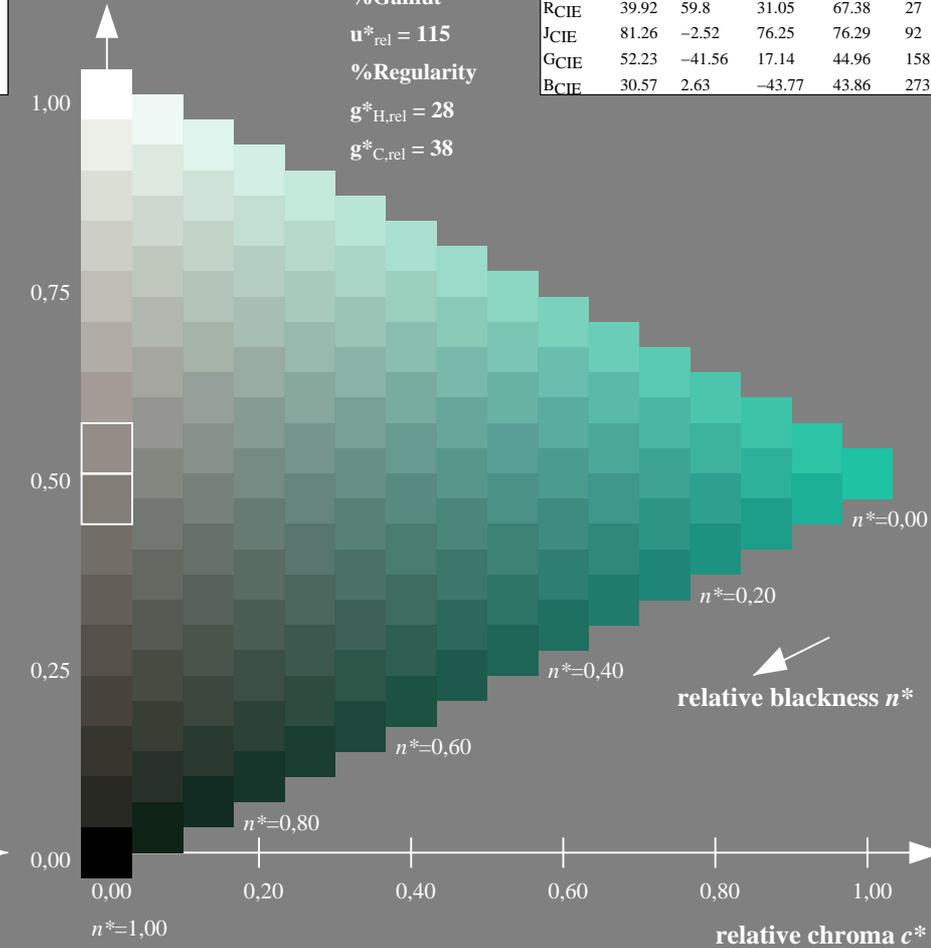
olv\*Ma: 0.0 1.0 0.76



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



VE390-7, 9 step scales for constant CIELAB hue 203/360 = 0.564 (left)

16 step scales for constant CIELAB hue 203/360 = 0.564 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

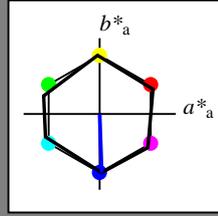
for hue  $h^* = lab^*h = 272/360 = 0.756$

$lab^*tch$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 57 77 272

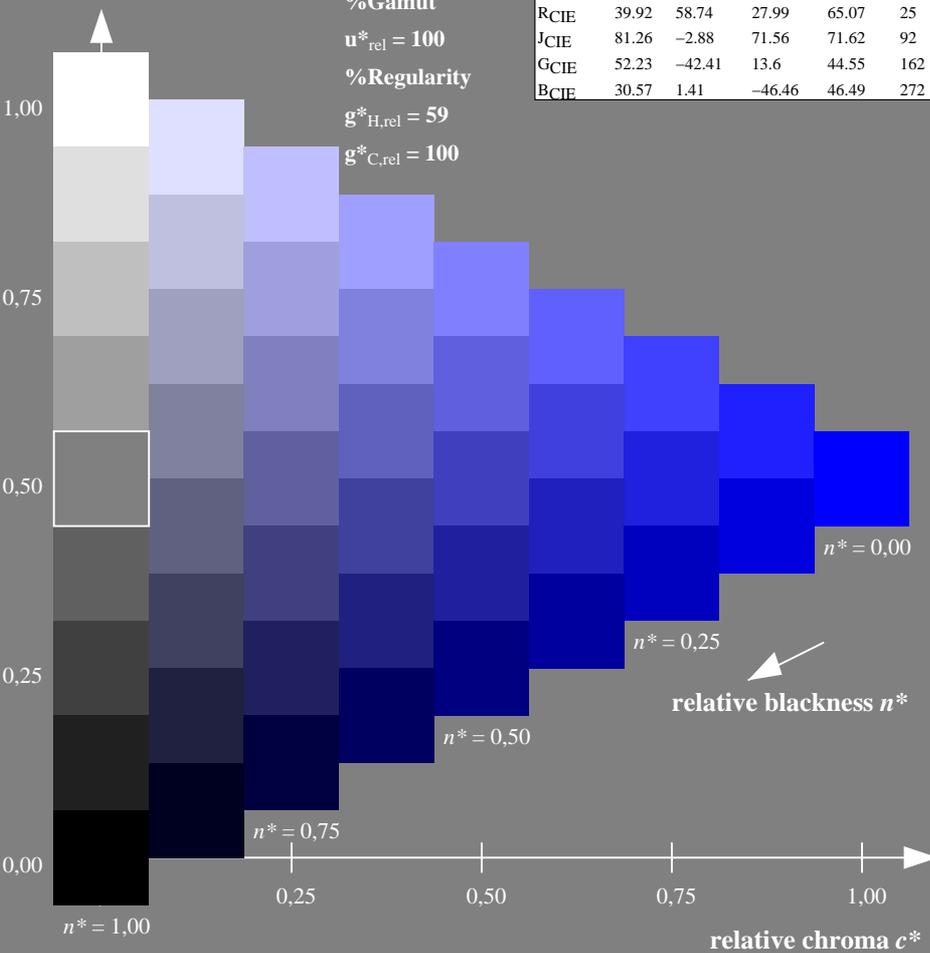
olv\*Ma: 0.0 0.0 1.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

**Output: Colorimetric Printer Reflective System FRS06**

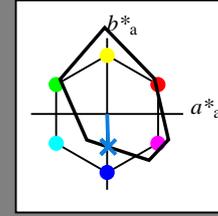
for hue  $h^* = lab^*h = 272/360 = 0.756$

$lab^*tch$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 35 44 272

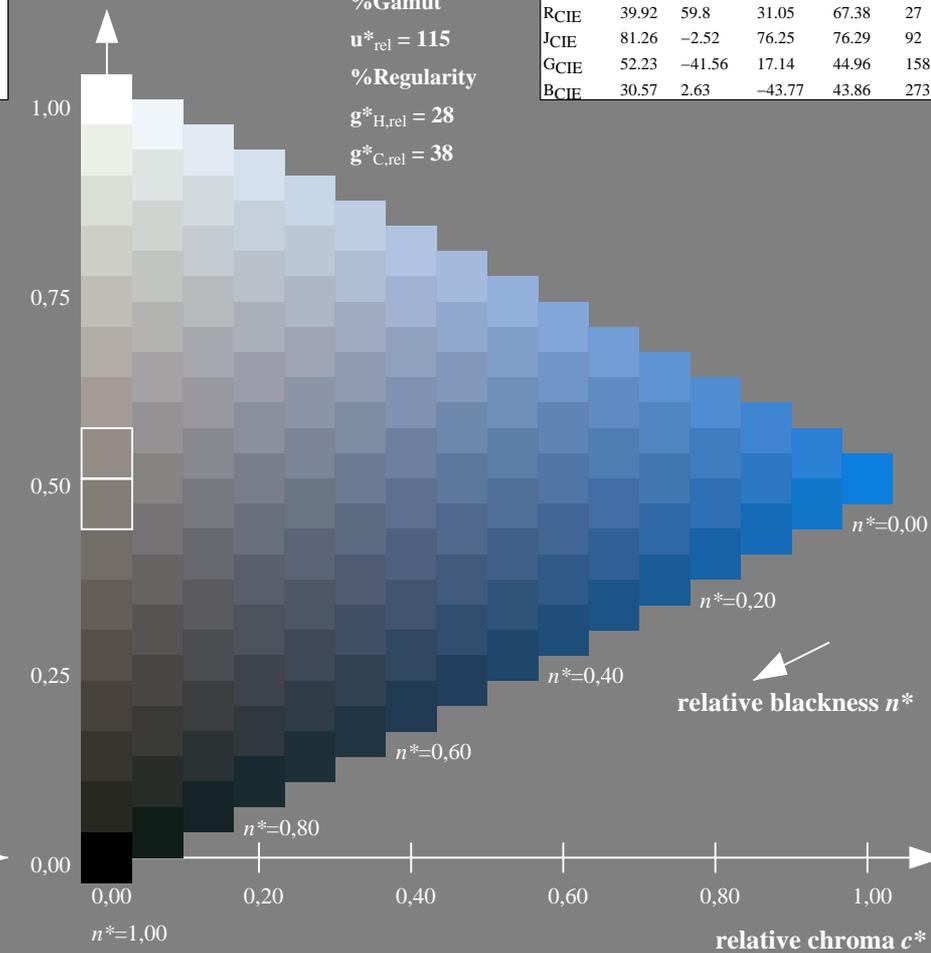
olv\*Ma: 0.0 0.65 1.0



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 115$

%Regularity

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

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

VE390-7, 9 step scales for constant CIELAB hue 272/360 = 0.756 (left)

16 step scales for constant CIELAB hue 272/360 = 0.756 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

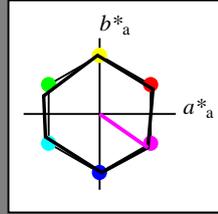
for hue  $h^* = lab^*h = 325/360 = 0.903$

$lab^*tch$  and  $lab^*nch$

D65: hue B50R

LCH\*Ma: 57 77 325

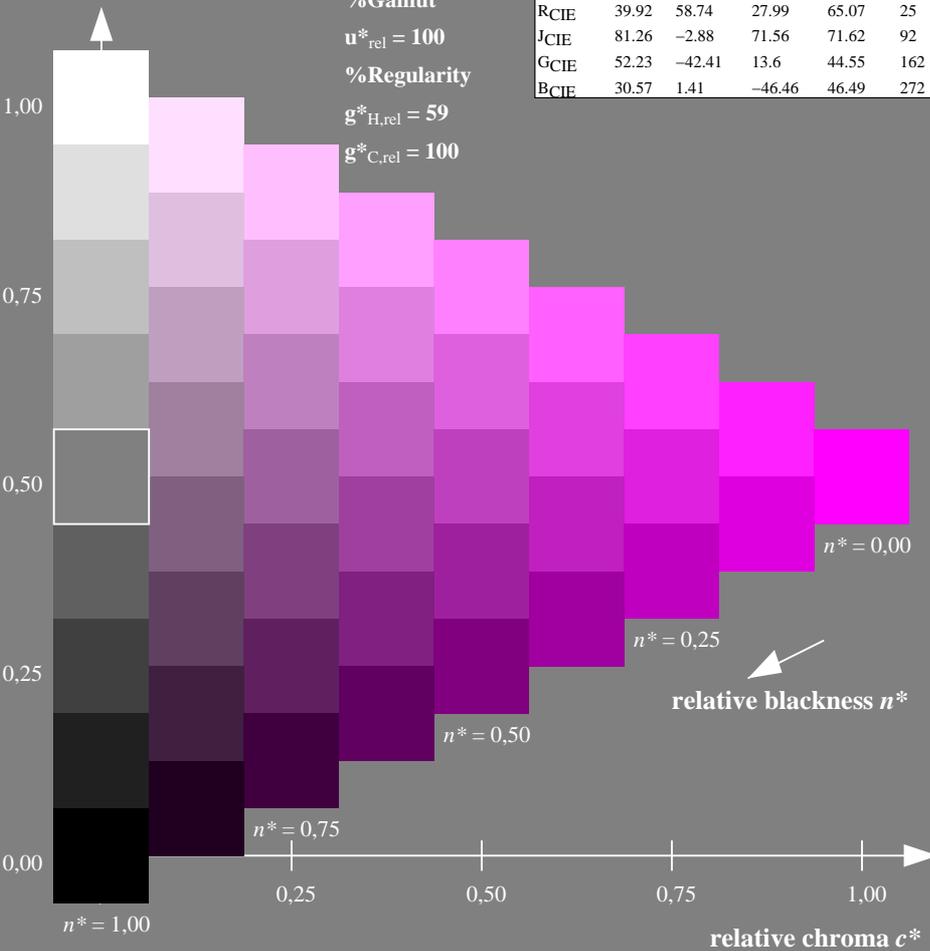
olv\*Ma: 1.0 0.0 1.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



**Output: Colorimetric Printer Reflective System FRS06**

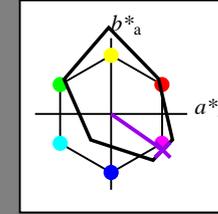
for hue  $h^* = lab^*h = 325/360 = 0.903$

$lab^*tch$  and  $lab^*nch$

D65: hue B50R

LCH\*Ma: 22 83 325

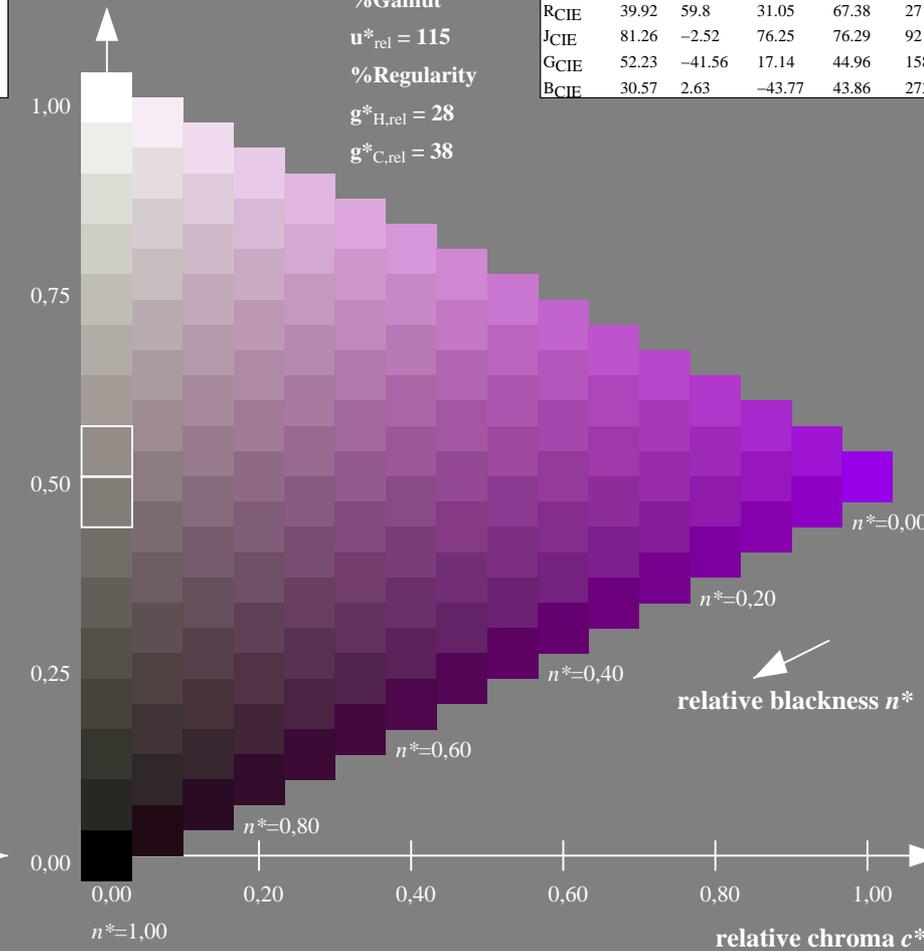
olv\*Ma: 0.5 0.0 1.0



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



VE390-7, 9 step scales for constant CIELAB hue 325/360 = 0.903 (left)

16 step scales for constant CIELAB hue 325/360 = 0.903 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06  
 D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor  
 output: olv\*' (TRI9) setrgbcolor

See for similar files: <http://www.ps.bam.de/VE39/>  
 Technical information: <http://www.ps.bam.de>  
 Version 2.1, io=1,1, CIELAB

BAM registration: 20080101-VE39/10L/L39E05FP.PS/.PDF BAM material: code=rhadata  
 application for evaluation and measurement of printer or monitor systems  
 /VE39/ Form: 6/10, Serie: 1/1, Page: 6 Page count: 1

**Input: Colorimetric Natural Reflective System CNS18**

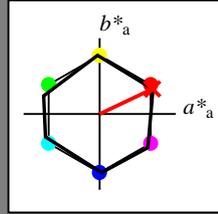
for hue  $h^* = lab^*h = 25/360 = 0.071$

$lab^*tch$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 57 77 25

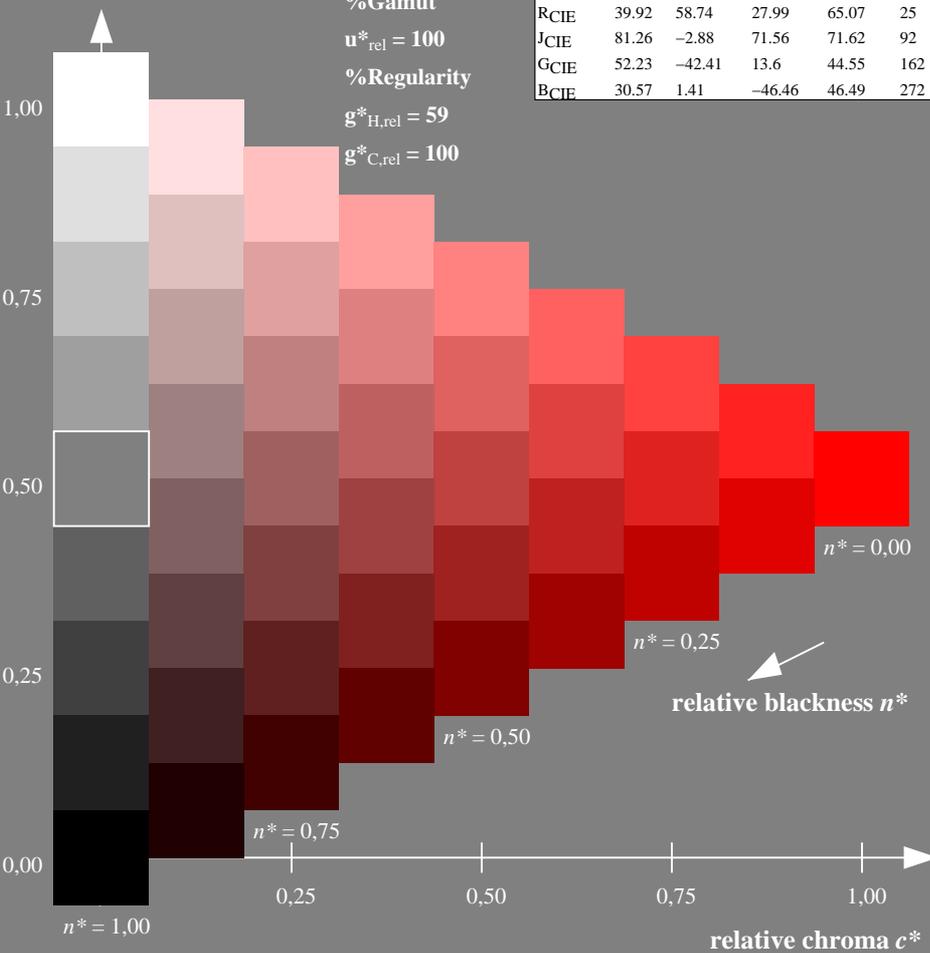
olv\*Ma: 1.0 0.01 0.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

**Output: Colorimetric Printer Reflective System FRS06**

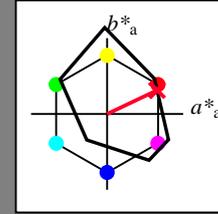
for hue  $h^* = lab^*h = 25/360 = 0.071$

$lab^*tch$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 33 73 25

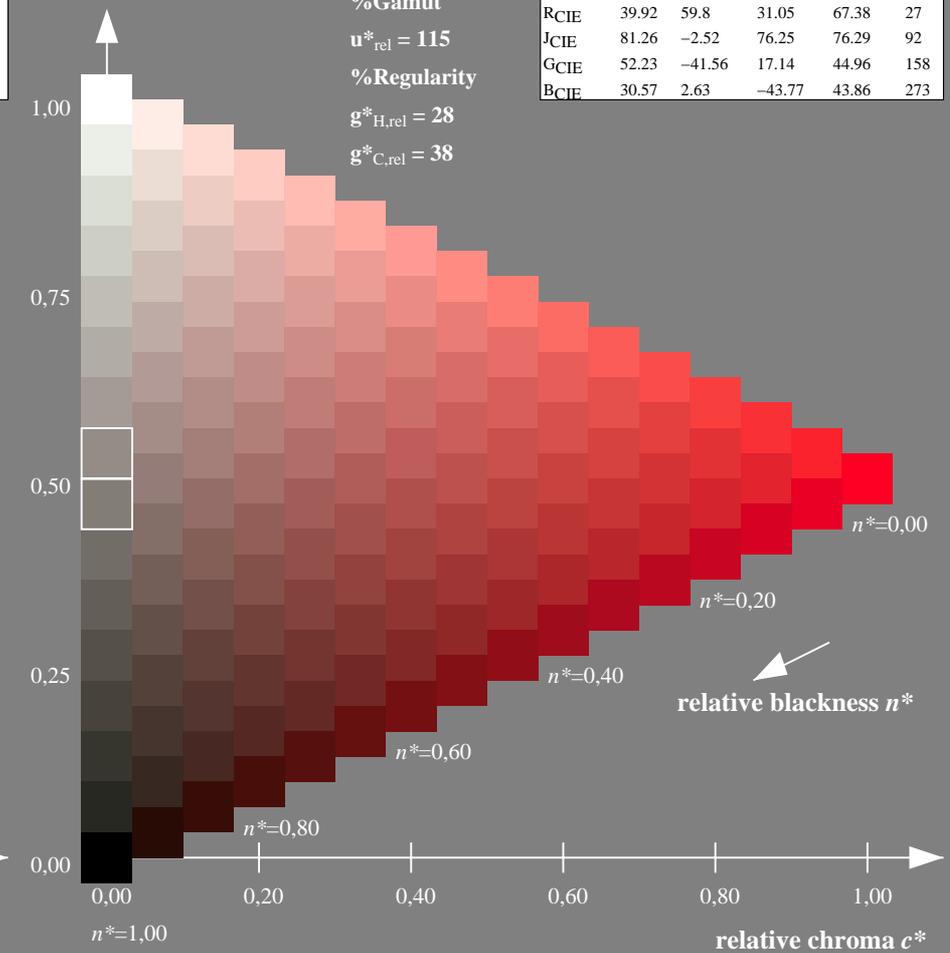
olv\*Ma: 1.0 0.0 0.19



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 115$

%Regularity

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

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

See for similar files: <http://www.ps.bam.de/VE39/>  
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1, CIELAB

BAM registration: 20080101-VE39/10L/L39E06FP.PS/.PDF BAM material: code=rhadata  
 application for evaluation and measurement of printer or monitor systems  
 /VE39/ Form: 7/10, Serie: 1/1, Page: 7 Page count: 1

VE390-7, 9 step scales for constant CIELAB hue 25/360 = 0.071 (left)

16 step scales for constant CIELAB hue 25/360 = 0.071 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

input: olv\* setrgbcolor

D65: 9 and 16 step colour scales for 10 hues

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

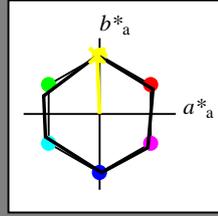
for hue  $h^* = lab^*h = 92/360 = 0.256$

$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 57 77 92

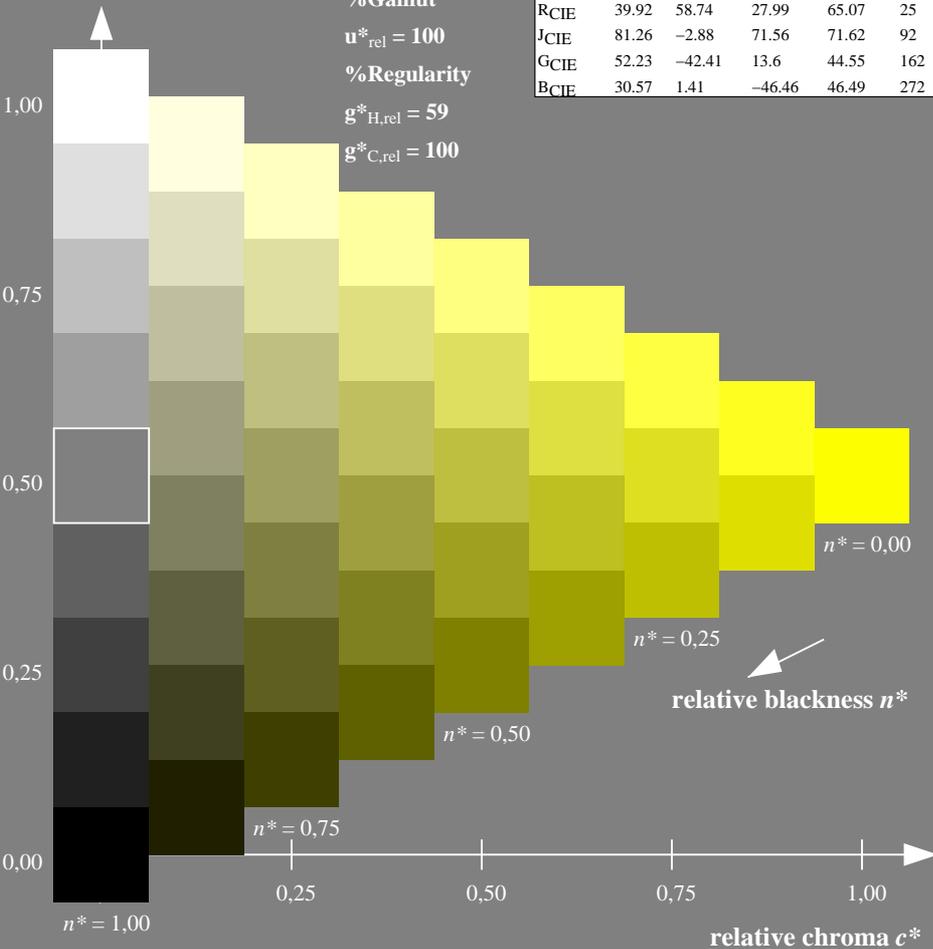
olv\*Ma: 0.99 1.0 0.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

**Output: Colorimetric Printer Reflective System FRS06**

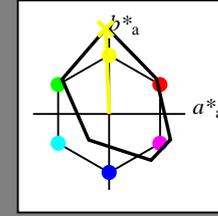
for hue  $h^* = lab^*h = 92/360 = 0.256$

$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 82 112 92

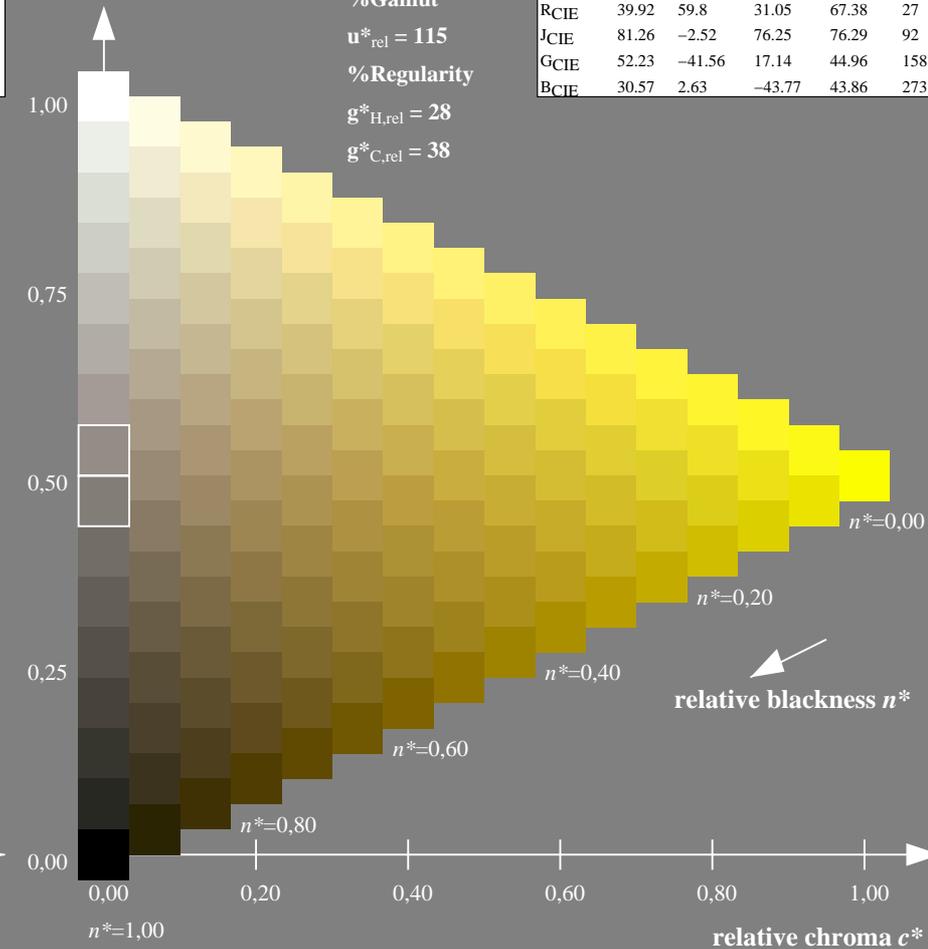
olv\*Ma: 0.98 1.0 0.0



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 115$

%Regularity

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

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

See for similar files: <http://www.ps.bam.de/VE39/>  
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1, CIELAB

BAM registration: 20080101-VE39/10L/L39E07FP.PS/.PDF BAM material: code=rhadata  
 application for evaluation and measurement of printer or monitor systems  
 /VE39/ Form: 8/10, Serie: 1/1, Page: 8 Page count: 1

VE390-7, 9 step scales for constant CIELAB hue 92/360 = 0.256 (left)

16 step scales for constant CIELAB hue 92/360 = 0.256 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06

D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor

output: olv\*' (TRI9) setrgbcolor

**Input: Colorimetric Natural Reflective System CNS18**

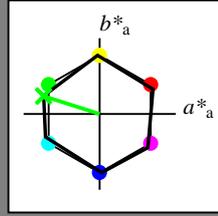
for hue  $h^* = lab^*h = 162/360 = 0.451$

$lab^*tch$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 57 77 162

olv\*Ma: 0.0 1.0 0.01



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

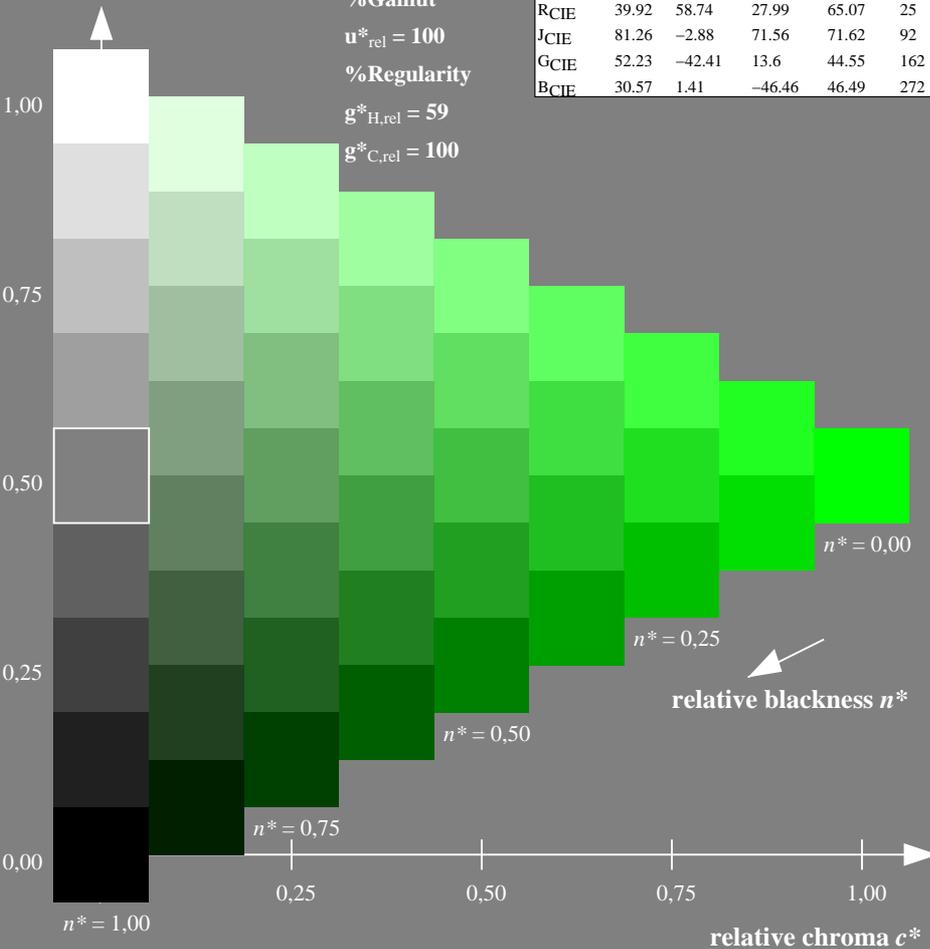
$u^*_{rel} = 100$

%Regularity

$g^*_{H,rel} = 59$

$g^*_{C,rel} = 100$

triangle lightness  $t^*$



VE390-7, 9 step scales for constant CIELAB hue 162/360 = 0.451 (left)

**Output: Colorimetric Printer Reflective System FRS06**

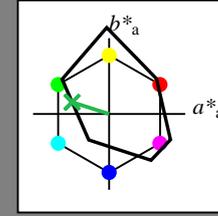
for hue  $h^* = lab^*h = 162/360 = 0.451$

$lab^*tch$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 43 51 162

olv\*Ma: 0.0 1.0 0.38



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

%Gamut

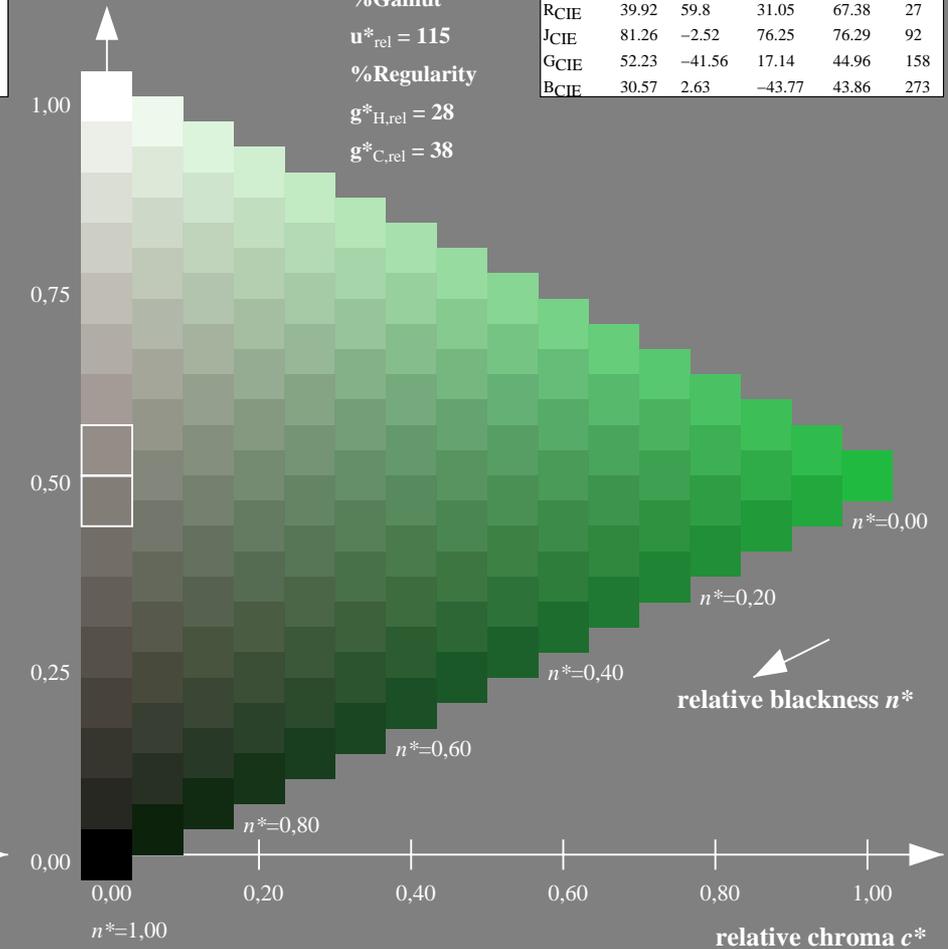
$u^*_{rel} = 115$

%Regularity

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

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

triangle lightness  $t^*$



16 step scales for constant CIELAB hue 162/360 = 0.451 (right)

Input: Colorimetric Natural Reflective System CNS18

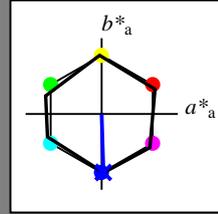
for hue  $h^* = lab^*h = 272/360 = 0.755$

$lab^*tch$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 57 77 272

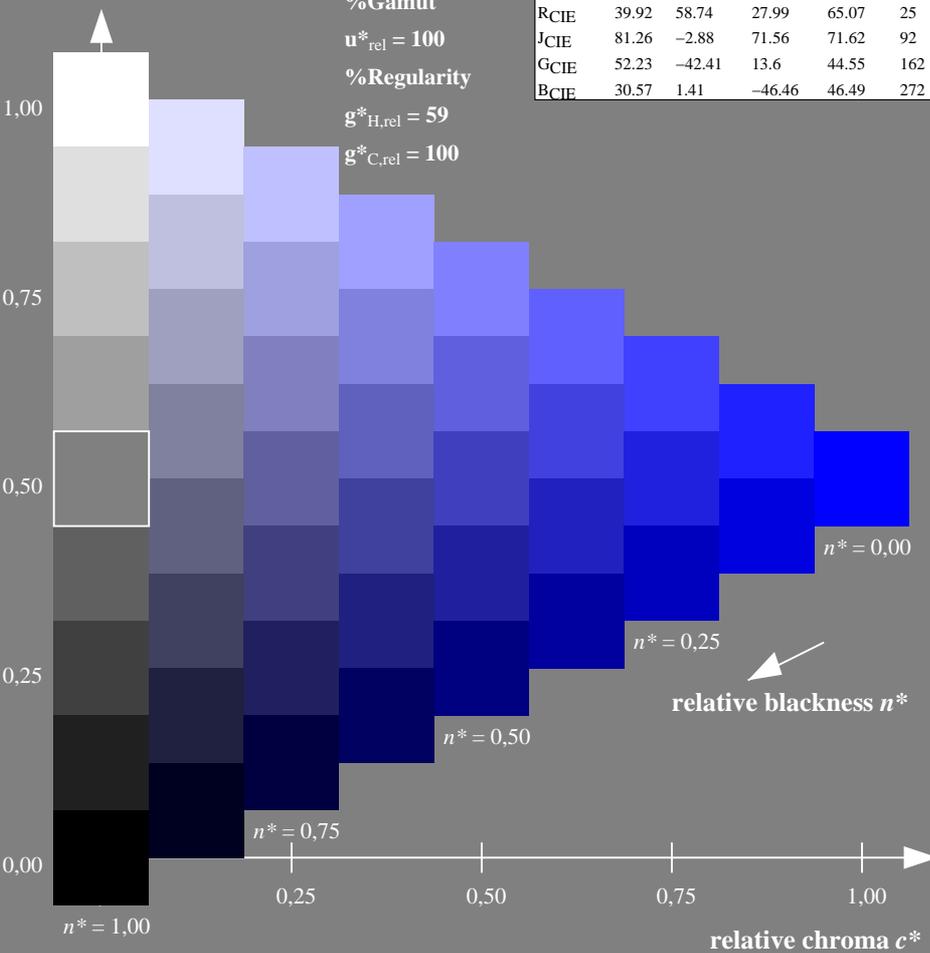
olv\*Ma: 0.0 0.0 1.0



**CNS18; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

triangle lightness  $t^*$



Output: Colorimetric Printer Reflective System FRS06

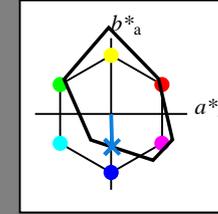
for hue  $h^* = lab^*h = 272/360 = 0.755$

$lab^*tch$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 35 43 272

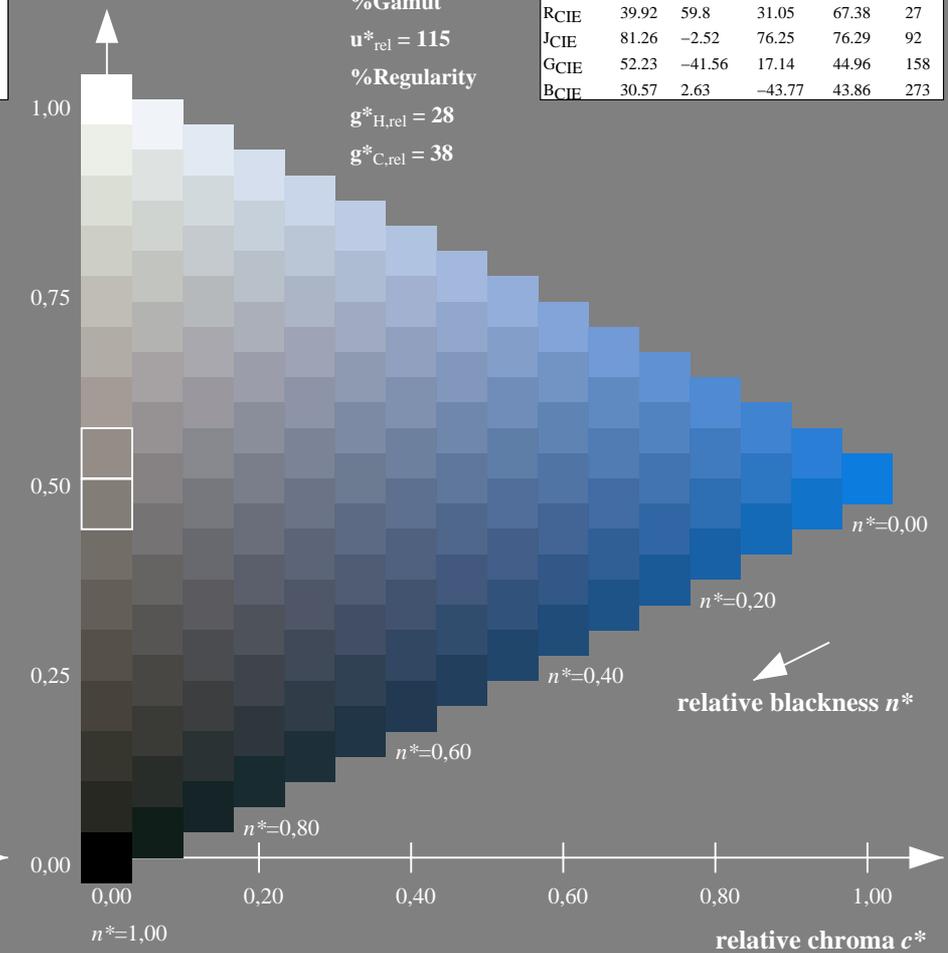
olv\*Ma: 0.0 0.66 1.0



**FRS06; adapted (a) CIELAB data**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
LMa	39.43	-61.79	45.84	76.95	143
CMa	47.86	-26.79	-34.24	43.49	232
VMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCIE	39.92	59.8	31.05	67.38	27
JCIE	81.26	-2.52	76.25	76.29	92
GCIE	52.23	-41.56	17.14	44.96	158
BCIE	30.57	2.63	-43.77	43.86	273

triangle lightness  $t^*$



VE390-7, 9 step scales for constant CIELAB hue 272/360 = 0.755 (left)

16 step scales for constant CIELAB hue 272/360 = 0.755 (right)

BAM-test chart VE39; Colorimetric systems CNS18 & FRS06  
 D65: 9 and 16 step colour scales for 10 hues

input: olv\* setrgbcolor  
 output: olv\*' (TRI9) setrgbcolor