

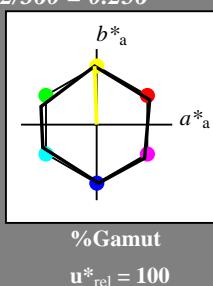
Input: Colorimetric Natural Reflective System CNS18
for hue $h^* = lab^*h = 92/360 = 0.256$
 lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 57 77 92

olv*Ma: 1.0 1.0 0.0

triangle lightness



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

See for similar files: <http://www.ps.bam.de/VE64/>

Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1

Output: Colorimetric Television Luminous System TLS18
for hue $h^* = lab^*h = 92/360 = 0.256$

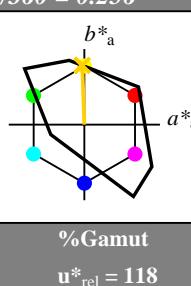
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 85 78 92

olv*Ma: 1.0 0.81 0.0

triangle lightness



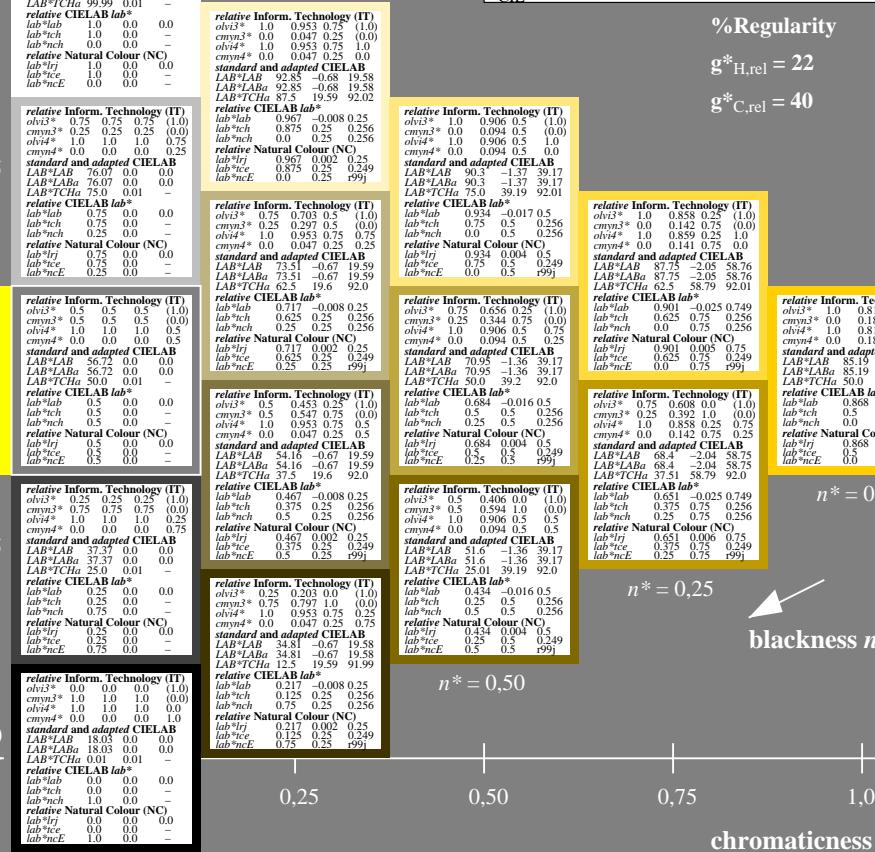
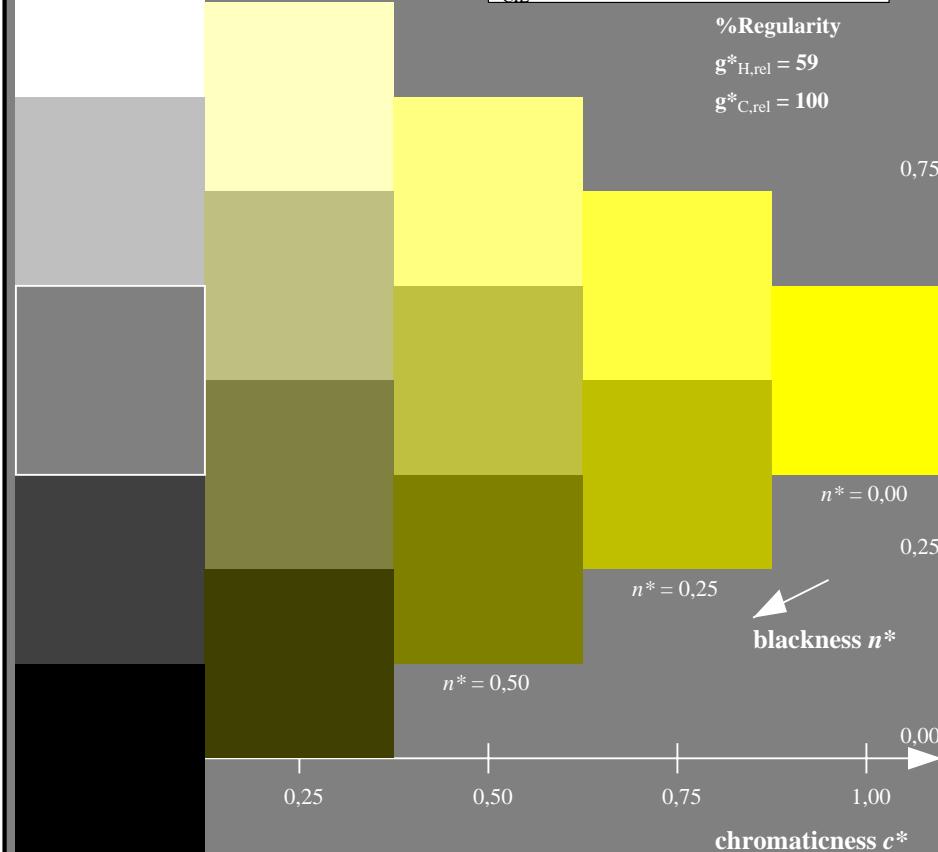
TLS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	52.76	71.63	49.88	87.29	35
YMa	92.74	-20.02	84.97	87.3	103
LMa	84.0	-78.98	73.94	108.2	137
CMa	87.14	-44.41	-13.11	46.32	196
VMa	35.47	64.92	-95.06	115.12	304
MMa	59.01	89.33	-55.67	105.26	328
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

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$



VE640-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

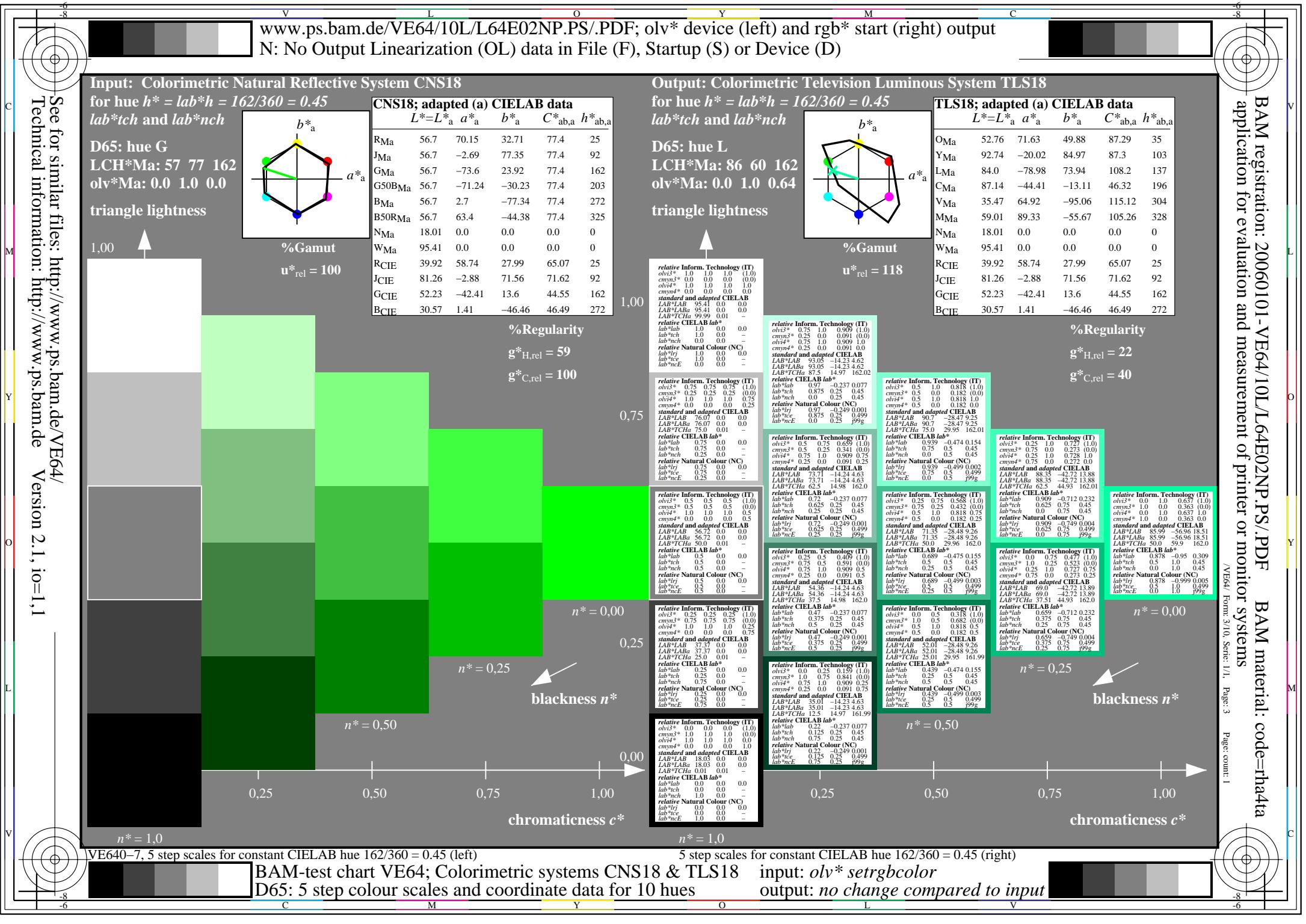
5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

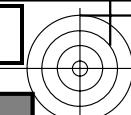
BAM-test chart VE64; Colorimetric systems CNS18 & TLS18
D65: 5 step colour scales and coordinate data for 10 hues

input: $olv^* setrgbcolor$
output: no change compared to input

BAM registration: 20060101-VE64/10L/L64E01NP.PS./PDF
application for evaluation and measurement of printer or monitor systems

N/VE64 Form 2/10, Serie: 1/1, Page: 2
Page: count: 1





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Input: Colorimetric Natural Reflective System CNS18

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

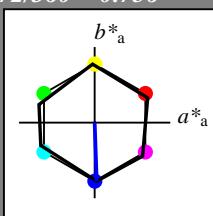
lab^*tch and lab^*nch

D65: hue B

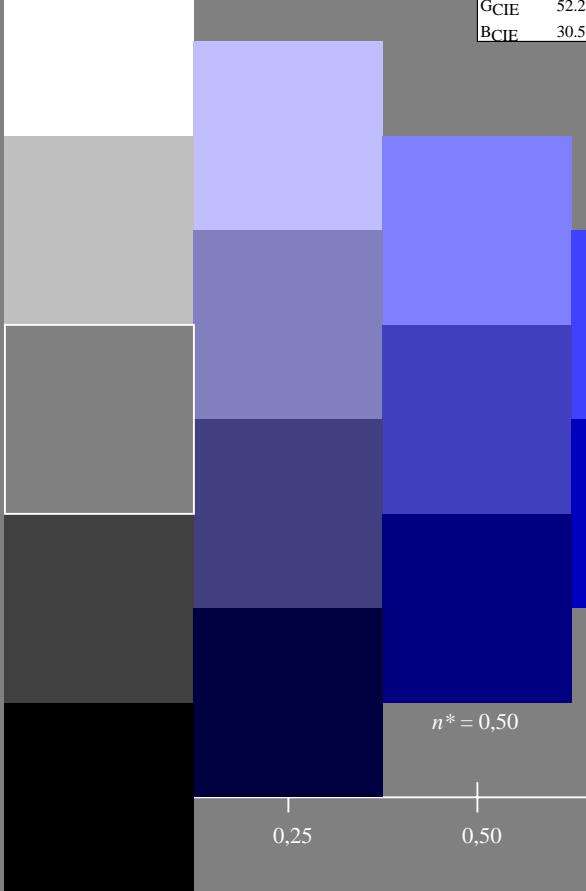
LCH*Ma: 57 77 272

olv*Ma: 0.0 0.0 1.0

triangle lightness



1,00



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

%Regularity

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

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

Output: Colorimetric Television Luminous System TLS18

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

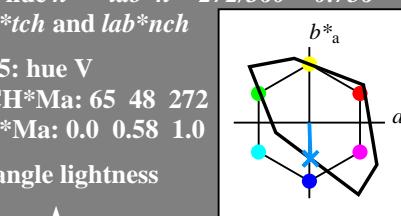
lab^*tch and lab^*nch

D65: hue V

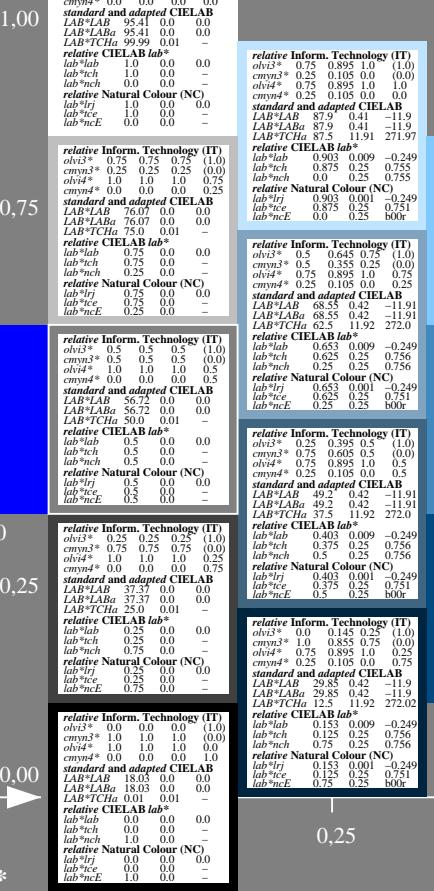
LCH*Ma: 65 48 272

olv*Ma: 0.0 0.58 1.0

triangle lightness



1,00



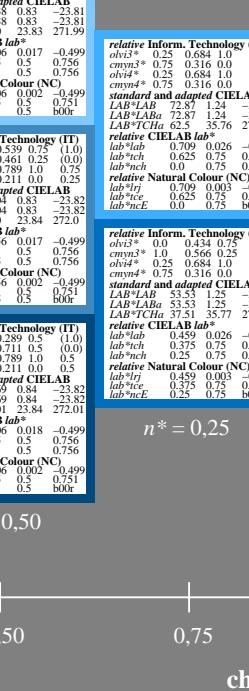
TLS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_{-a}	b^*_{-a}	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	52.76	71.63	49.88	87.29	35
YMa	92.74	-20.02	84.97	87.3	103
LMa	84.0	-78.98	73.94	108.2	137
CMa	87.14	-44.41	-13.11	46.32	196
VMa	35.47	64.92	-95.06	115.12	304
MMa	59.01	89.33	-55.67	105.26	328
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

%Regularity

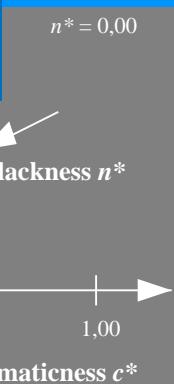
$g^*_{H,rel} = 22$

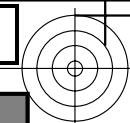
$g^*_{C,rel} = 40$



	$L^* = L^*_a$	a^*_{-a}	b^*_{-a}	$C^*_{ab,a}$	$h^*_{ab,a}$
olv3* ^a	0.5	0.895	1.0	(1.0)	
cmy3* ^a	0.5	0.211	0.0	(0.0)	
olv4* ^a	1.0	1.0	1.0	1.0	
cmy4* ^a	0.0	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB*LAB	67.07	0.0	0.0		
LAB*LaBa	67.07	0.0	0.0		
LAB*TChMa	75.81	0.01	-0.01		
relative CIELAB lab*					
lab*lab	0.75	0.75	0.75		
lab*tch	0.25	0.25	0.25		
lab*nch	0.0	0.0	0.0		
relative Inform. Technology (IT)					
olv3* ^a	0.5	0.895	1.0	(1.0)	
cmy3* ^a	0.5	0.211	0.0	(0.0)	
olv4* ^a	1.0	1.0	1.0	1.0	
cmy4* ^a	0.0	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB*LAB	67.07	0.0	0.0		
LAB*LaBa	67.07	0.0	0.0		
LAB*TChMa	75.81	0.01	-0.01		
relative CIELAB lab*					
lab*lab	0.75	0.75	0.75		
lab*tch	0.25	0.25	0.25		
lab*nch	0.0	0.0	0.0		
relative Inform. Technology (IT)					
olv3* ^a	0.5	0.645	0.75	(1.0)	
cmy3* ^a	0.5	0.355	0.25	(0.0)	
olv4* ^a	1.0	1.0	0.75	1.0	
cmy4* ^a	0.0	0.0	0.5	0.0	
standard and adapted CIELAB					
LAB*LAB	67.07	0.0	0.0		
LAB*LaBa	67.07	0.0	0.0		
LAB*TChMa	75.81	0.01	-0.01		
relative CIELAB lab*					
lab*lab	0.75	0.75	0.75		
lab*tch	0.25	0.25	0.25		
lab*nch	0.0	0.0	0.0		
relative Natural Colour (NC)					
lab*lrj	0.75	0.0	0.0		
lab*ice	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		
relative Inform. Technology (IT)					
olv3* ^a	0.5	0.5	0.5	(1.0)	
cmy3* ^a	0.5	0.5	0.5	(0.0)	
olv4* ^a	1.0	1.0	0.75	1.0	
cmy4* ^a	0.0	0.0	0.5	0.0	
standard and adapted CIELAB					
LAB*LAB	56.70	0.0	0.0		
LAB*LaBa	56.70	0.0	0.0		
LAB*TChMa	50.00	0.01	-0.01		
relative CIELAB lab*					
lab*lab	0.653	0.009	-0.249		
lab*tch	0.375	0.25	0.756		
lab*nch	0.25	0.25	0.756		
relative Inform. Technology (IT)					
olv3* ^a	0.5	0.359	0.75	(1.0)	
cmy3* ^a	0.75	0.461	0.25	(0.0)	
olv4* ^a	1.0	1.0	0.75	1.0	
cmy4* ^a	0.0	0.0	0.5	0.0	
standard and adapted CIELAB					
LAB*LAB	61.04	0.83	-23.83		
LAB*LaBa	68.55	0.83	-23.83		
LAB*TChMa	53.84	0.38	-27.02		
relative CIELAB lab*					
lab*lab	0.403	0.009	-0.249		
lab*tch	0.375	0.25	0.756		
lab*nch	0.25	0.25	0.756		
relative Natural Colour (NC)					
lab*lrj	0.5	0.895	1.0	0.25	
lab*ice	0.5	0.211	0.0	0.75	
lab*nce	0.25	0.0	0.0	0.0	
relative Inform. Technology (IT)					
olv3* ^a	0.25	0.539	0.75	(1.0)	
cmy3* ^a	0.75	0.461	0.25	(0.0)	
olv4* ^a	1.0	1.0	0.75	1.0	
cmy4* ^a	0.0	0.0	0.5	0.0	
standard and adapted CIELAB					
LAB*LAB	41.69	0.84	-23.82		
LAB*LaBa	41.69	0.84	-23.82		
LAB*TChMa	37.51	0.35	-27.01		
relative CIELAB lab*					
lab*lab	0.458	0.026	-0.748		
lab*tch	0.375	0.25	0.756		
lab*nch	0.25	0.25	0.756		
relative Natural Colour (NC)					
lab*lrj	0.459	0.009	-0.749		
lab*ice	0.375	0.25	0.751		
lab*nce	0.25	0.25	0.00		

	$L^* = L^*_a$	a^*_{-a}	b^*_{-a}	$C^*_{ab,a}$	$h^*_{ab,a}$
olv3* ^a	0.0	0.579	1.0	(1.0)	
cmy3* ^a	1.0	0.421	0.0	(0.0)	
olv4* ^a	0.5	0.759	1.0	1.0	
cmy4* ^a	0.5	0.316	0.0	0.0	
standard and adapted CIELAB					
LAB*LAB	65.36	1.66	-47.64		
LAB*LaBa	65.36	1.66	-47.64		
LAB*TChMa	50.00	47.68	27.02		
relative CIELAB lab*					
lab*lab	0.709	0.026	-0.748		
lab*tch	0.375	0.25	0.756		
lab*nch	0.25	0.25	0.756		
relative Natural Colour (NC)					
lab*lrj	0.709	0.003	-0.749		
lab*ice	0.375	0.25	0.756		
lab*nce	0.25	0.25	0.00		





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See for similar files: <http://www.ps.bam.de/VE64/>
Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1

Input: Colorimetric Natural Reflective System CNS18

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

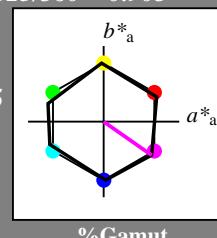
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 57 77 325

olv*Ma: 1.0 0.0 1.0

triangle lightness



CNS18; adapted (a) CIELAB data

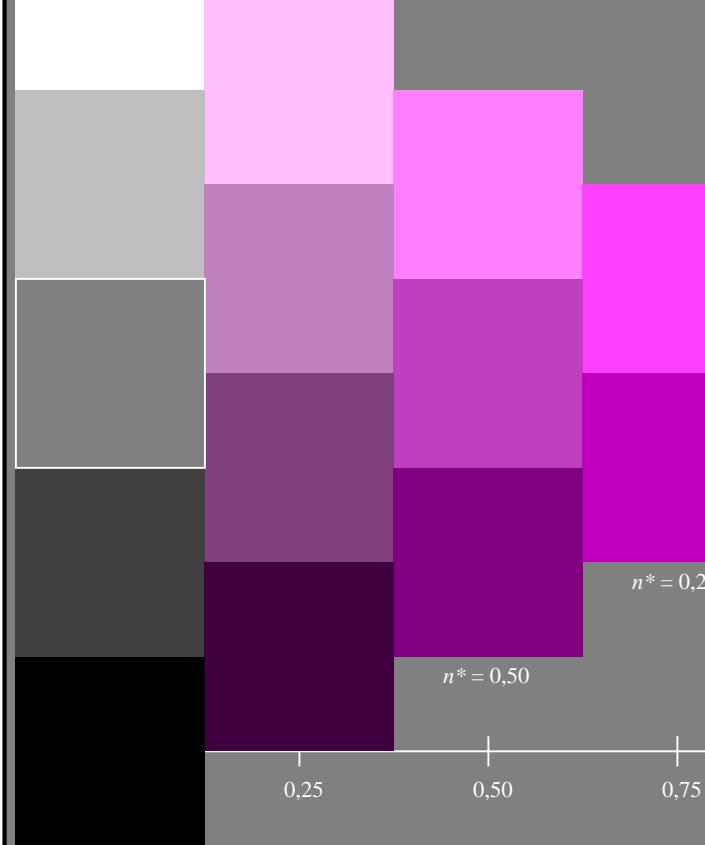
	$L^*=L_a^*$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	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

$g^*_{H,rel} = 59$
 $g^*_{C,rel} = 100$



$n^* = 0,50$

$n^* = 0,25$

blackness n^*

$n^* = 0,00$

chromaticness c^*

$n^* = 1,0$

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

Output: Colorimetric Television Luminous System TLS18

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

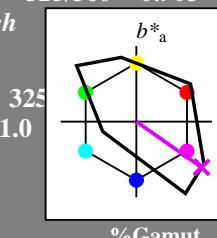
lab^*tch and lab^*nch

D65: hue M

LCH*Ma: 56 105 325

olv*Ma: 0.88 0.0 1.0

triangle lightness



%Gamut
 $u^*_{rel} = 118$

1,00

0,75

0,50

0,25

0,00

-0,25

-0,50

-0,75

-1,00

-1,25

-1,50

-1,75

-2,00

-2,25

-2,50

-2,75

-3,00

-3,25

-3,50

-3,75

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-47,75

-48,00

-48,25

-48,50

-48,75

-49,00

-49,25

-49,50

-49,75

-50,00

Output: Colorimetric Television Luminous System TLS18

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

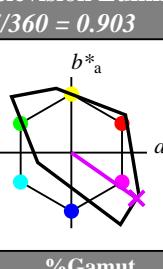
lab^*tch and lab^*nch

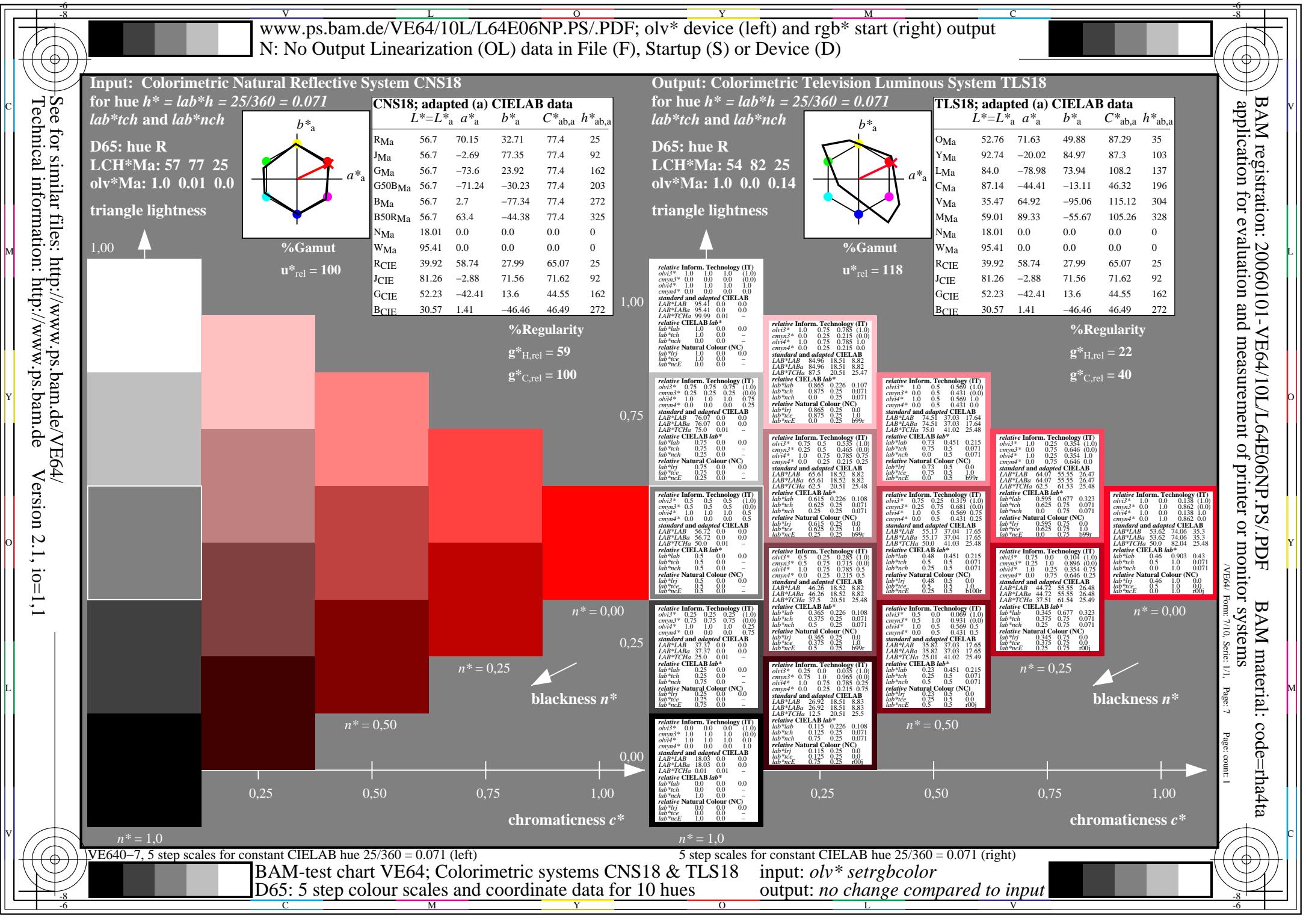
D65: hue M

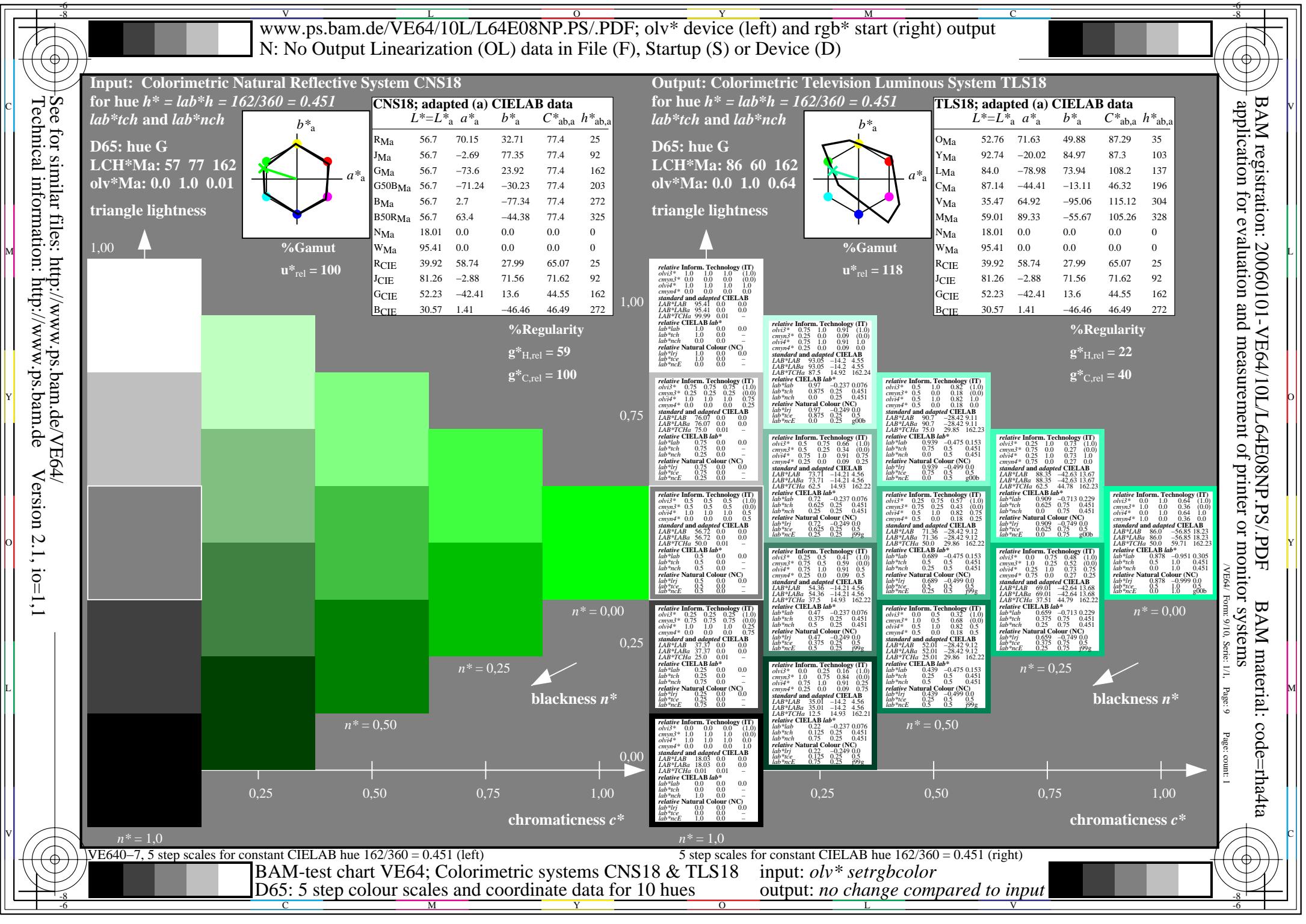
LCH*Ma: 56 105 325

olv*Ma: 0.88 0.0 1.0

triangle lightness







See for similar files: <http://www.ps.bam.de/VE64/>
Technical information: <http://www.ps.bam.de>

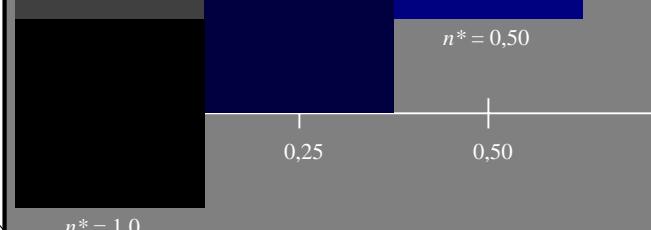
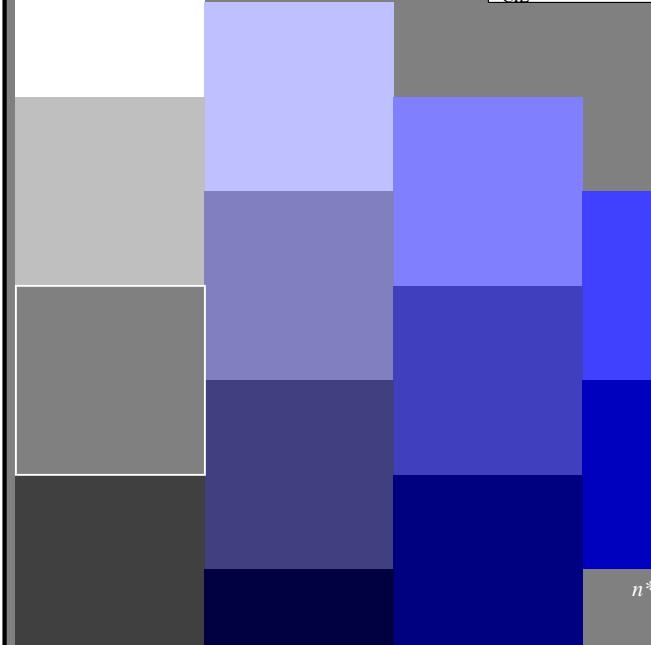
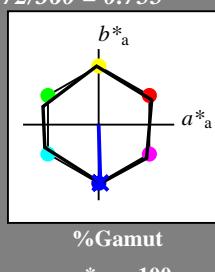
Version 2.1, io=1,1

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

triangle lightness



VE640-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

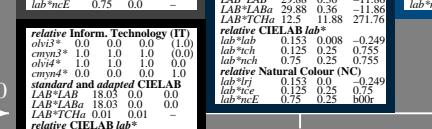
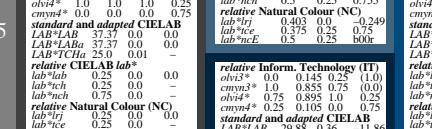
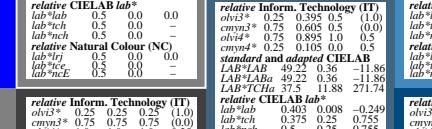
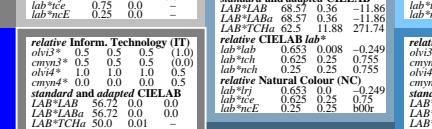
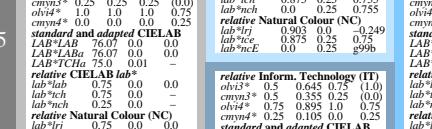
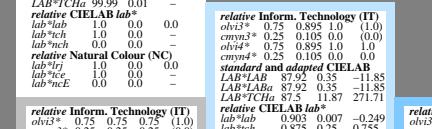
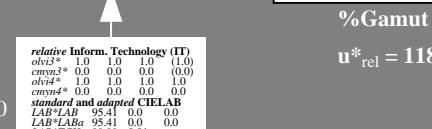
BAM-test chart VE64; Colorimetric systems CNS18 & TLS18
D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Television Luminous System TLS18

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

D65: hue B
LCH*Ma: 65 48 272
olv*Ma: 0.0 0.58 1.0

triangle lightness



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

input: olv* setrgbcolor
output: no change compared to input

TLS18; adapted (a) CIELAB data

	L^*	a^*	b^*	C^*	h^*
OMa	52.76	71.63	49.88	87.29	35
YMa	92.74	-20.02	84.97	87.3	103
LMa	84.0	-78.98	73.94	108.2	137
CMa	87.14	-44.41	-13.11	46.32	196
VMa	35.47	64.92	-95.06	115.12	304
MMa	59.01	89.33	-55.67	105.26	328
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	1.0	1.0	1.0	(0.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	1.0	1.0	1.0	(0.0)	
cmy4* ⁴	0.0	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	0.75	0.0	0.0		
LAB* _{LCh}	95.41	0.0	0.0		
LAB* _{TCh}	99.99	0.01	0.0		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	87.9	0.25	0.0		
LAB* _{LCh}	87.92	0.35	-11.85		
LAB* _{TCh}	87.15	11.87	271.71		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	80.44	0.71	-23.73		
LAB* _{LCh}	80.44	0.71	-23.73		
LAB* _{TCh}	82.35	13.75	271.72		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	72.95	1.07	-35.56		
LAB* _{LCh}	72.95	1.07	-35.56		
LAB* _{TCh}	52.00	35.63	271.73		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	61.00	0.72	-23.24		
LAB* _{LCh}	61.00	0.72	-23.24		
LAB* _{TCh}	53.66	1.09	-35.61		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	41.74	0.72	-23.74		
LAB* _{LCh}	41.74	0.72	-23.74		
LAB* _{TCh}	33.71	35.63	271.75		

	L^*	a^*	b^*	C^*	h^*
relative Inform. Technology (IT)	0.75	0.895	1.0	(1.0)	
olv3* ³	0.75	0.895	1.0	(1.0)	
cmy3* ³	0.5	0.21	0.0	(0.0)	
olv4* ⁴	0.5	0.79	1.0	1.0	
cmy4* ⁴	0.21	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB* _{LAB}	65.47	1.42	-47.47		
LAB* _{LCh}	65.47	1.42	-47.47		
LAB* _{TCh}	50.00	47.45	271.74		

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 0,75$

$n^* = 1,00$

chromaticness c^*

v

c

y

o

l

v

v

c

y

o

l

v