

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 24/360 = 0.066$

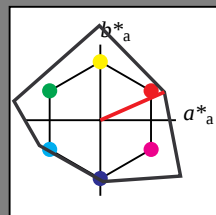
$lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 47 92 24

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

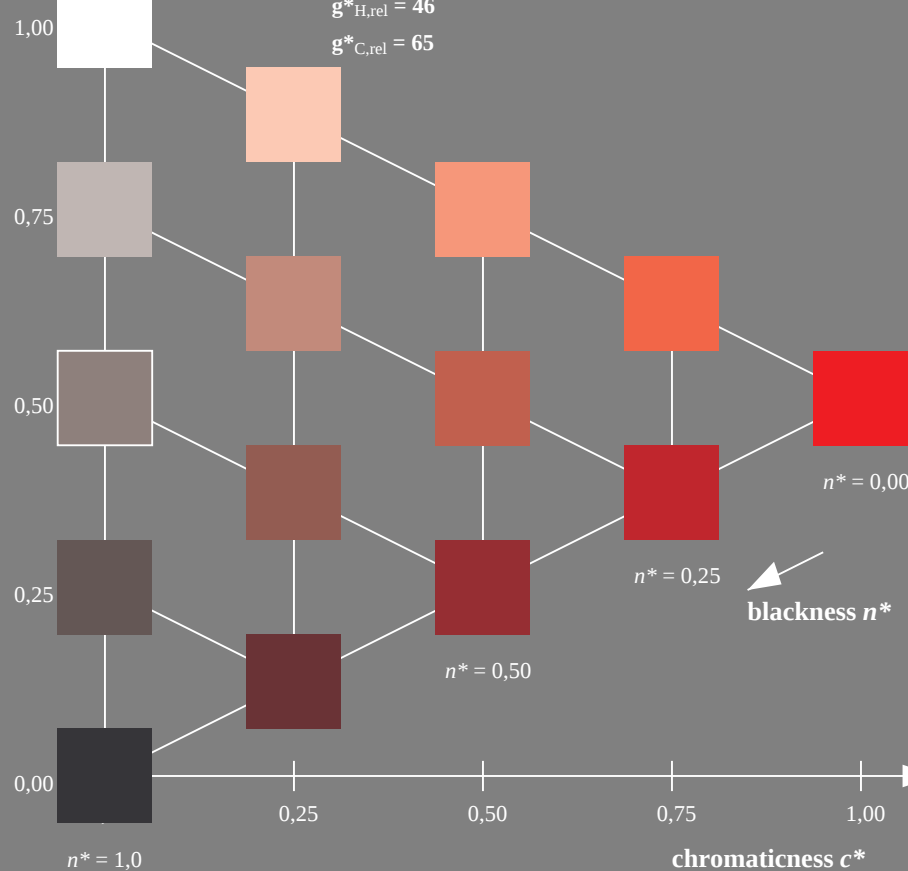
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 24/360 = 0.066 (left)

Output: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 24/360 = 0.066$

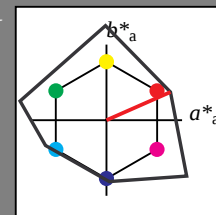
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue R

LCH*Ma: 47 92 24

rgb*Ma: 1.0 0.0 0.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

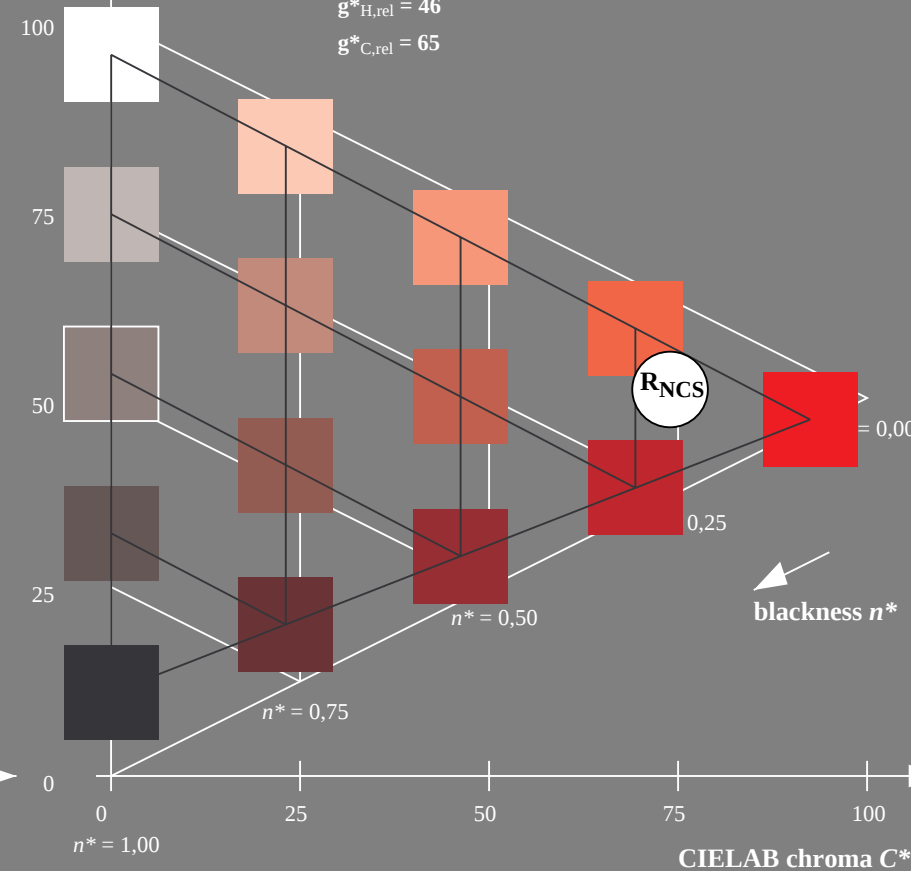
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



5 step scales for constant CIELAB hue 24/360 = 0.066 (right)

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmy0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

-See for similar files: <http://www.ps.bam.de/UE29/>
 Technical information: <http://www.ps.bam.de> Version 2.1, io=0,0

BAM registration: 20060101-UE29/105/S29E01NP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

/UE29/ Form 2/10, Serie: 1/1, Page: 2 Page: count: 2

FF BAM material: code=rh4ta
onitor systems

/UE9Z/ Form: 2/10, Serie: 1/1, Page: 2 Page: count: 2

Input: Colorimetric Reflective System NCS11

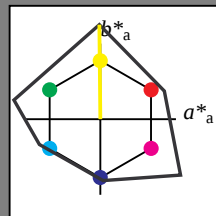
for hue $h^* = lab^*h = 91/360 = 0.252$

lab*tch* and *lab*nch

D65: hue J

LCH*Ma: 91 125 91

rgb*Ma: 1.0 1.0 0.0



NCS11; adapted (a) CIELAB data

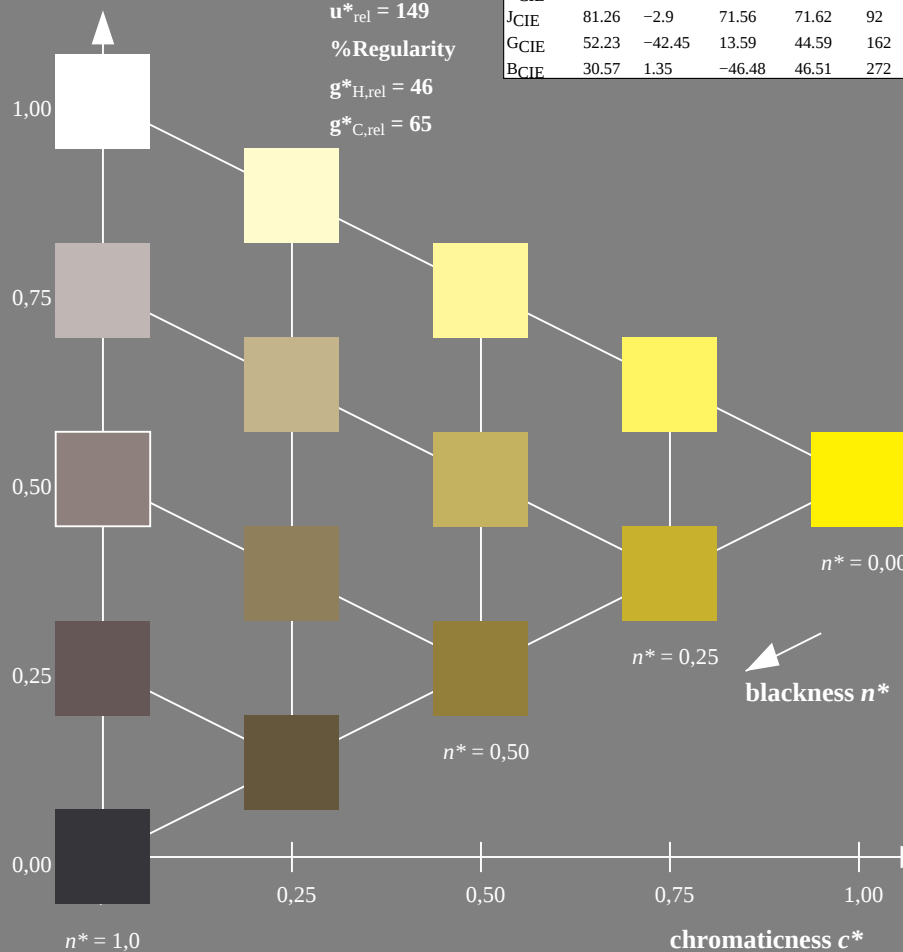
	$L^*=L_a^* a_a^*$	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$	
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

triangle lightness t^*

%Gamut

$$\mathbf{u}_{\text{rel}}^* = 149$$

%Regularity

$$g^*_{H,rel} = 46$$
$$g^*_{C,rel} = 65$$


UE290-7, 5 step scales for constant CIELAB hue 91/360 = 0.252 (left)

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: *cmy0* setcmykcolor*

D65: Coordinate systems of 5 step colour scales for 10 hues

output: *no change compared to input*

Output: Colorimetric Reflective System NCS11

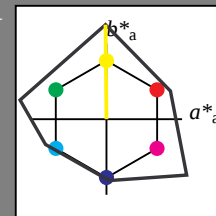
for hue $h^* = lab^*h = 91/360 = 0.252$

*LAB*LCH, LAB*NCH*

D65: hue J

LCH*Ma: 91 125 91

rgb*Ma: 1.0 1.0 0.0

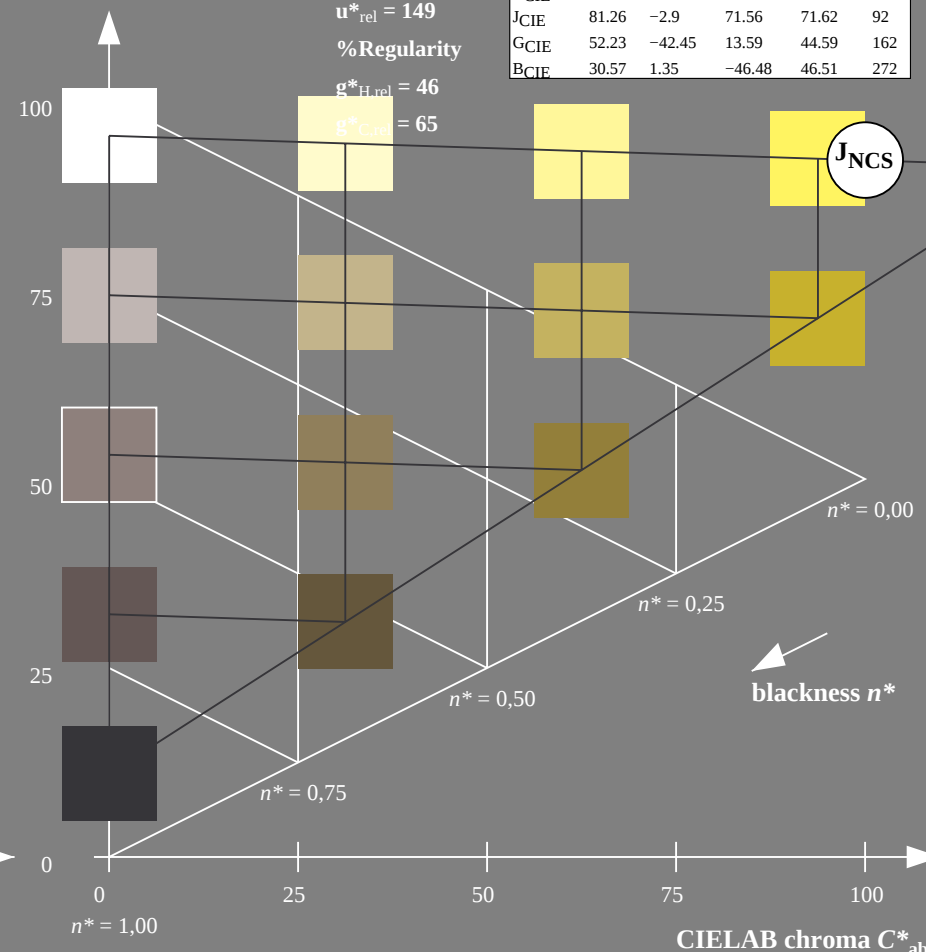


CIELAB lightness L^*

%Gamut

$$\mathbf{u}_{\text{rel}}^* = 149$$

%Regularity

$$g^*_{H,rel} = 46$$


5 step scales for constant CIELAB hue 91/360 = 0.252 (right)

CIELAB chroma C^*_{ab}

FF BAM material: code=rh4ta
onitor systems

/UE9Z/ Form: 2/10, Serie: 1/1, Page: 2 Page: count: 2

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 167/360 = 0.465$

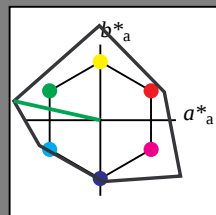
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 63 117 167

rgb*Ma: 0.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

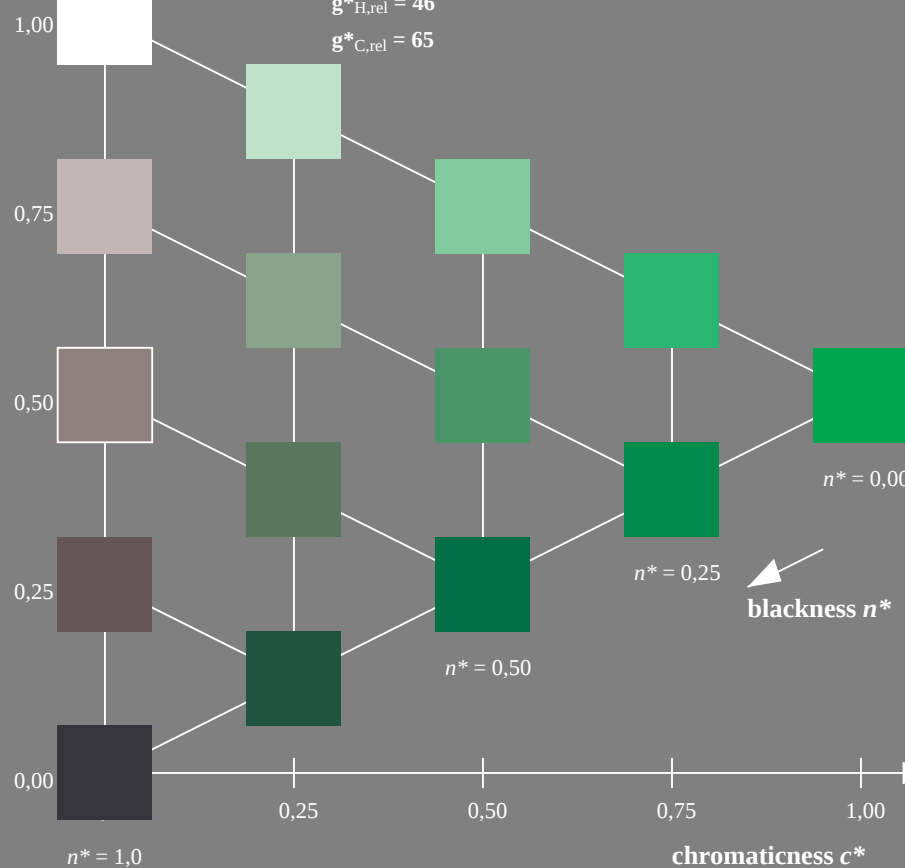
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 167/360 = 0.465 (left)

Output: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 167/360 = 0.465$

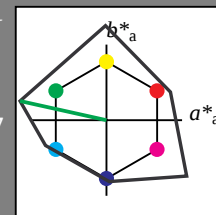
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G

LCH*Ma: 63 117 167

rgb*Ma: 0.0 1.0 0.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

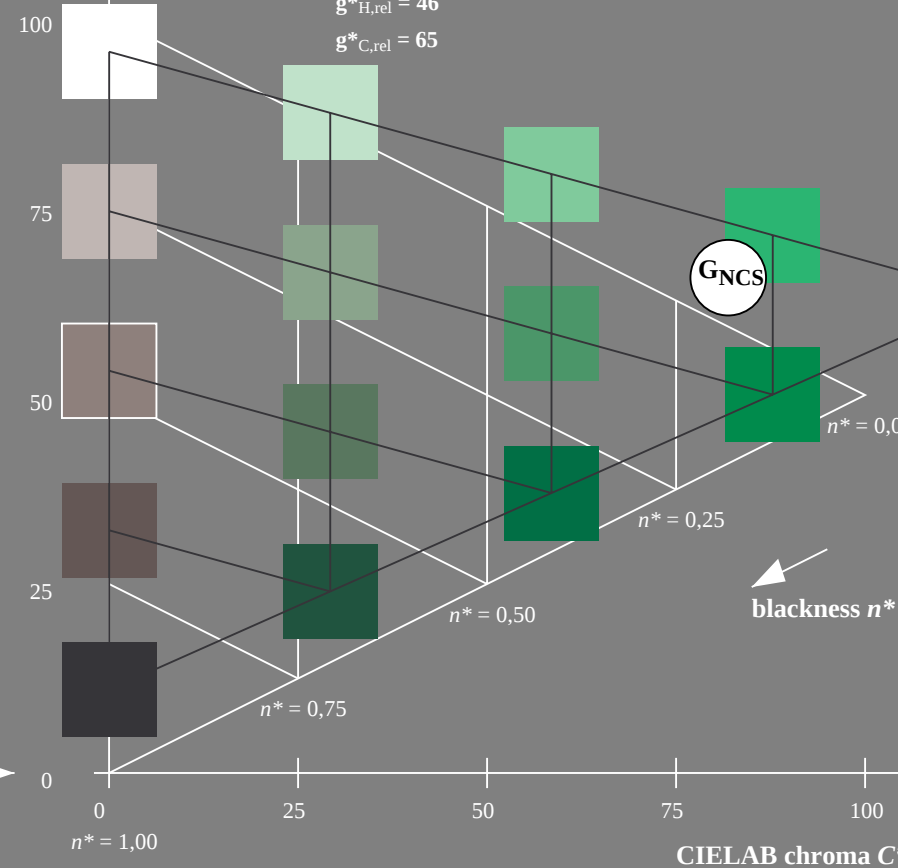
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



5 step scales for constant CIELAB hue 167/360 = 0.465 (right)

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 203/360 = 0.563$

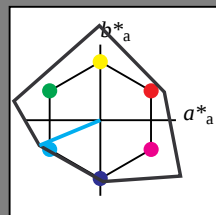
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G50B

LCH*Ma: 59 87 203

rgb*Ma: 0.0 1.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

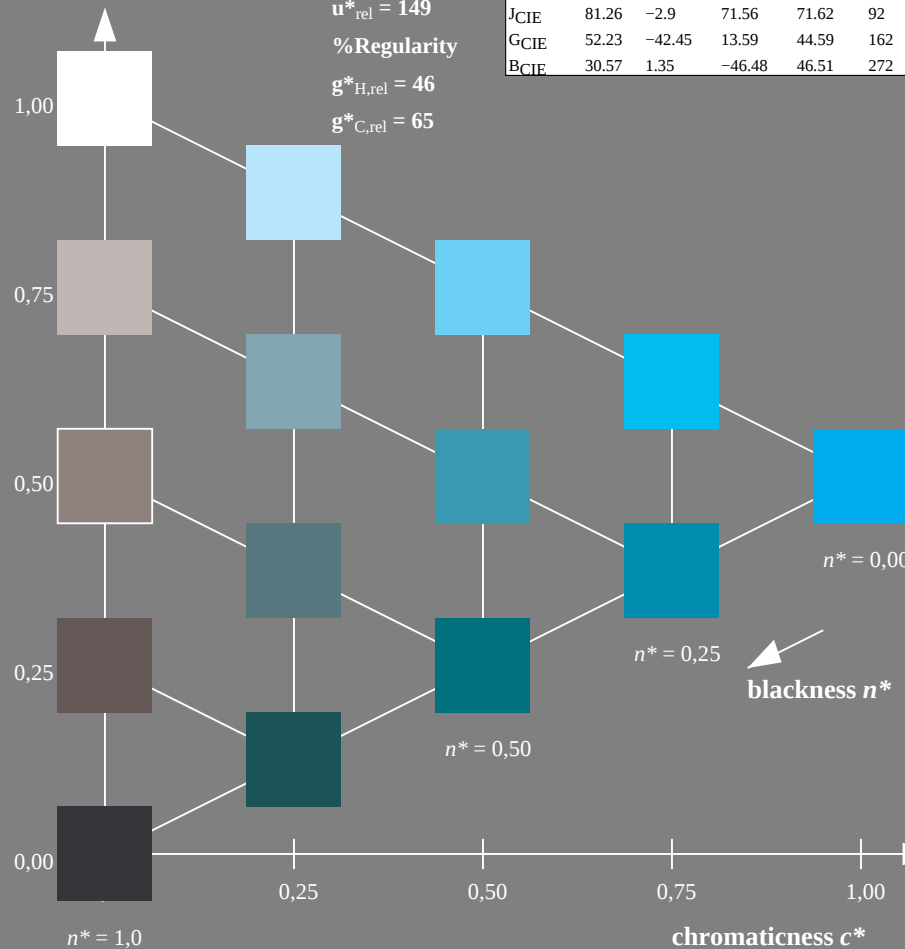
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 203/360 = 0.563 (left)

Output: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 203/360 = 0.563$

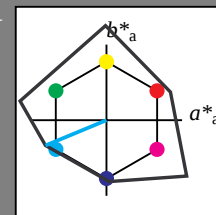
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G50B

LCH*Ma: 59 87 203

rgb*Ma: 0.0 1.0 1.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

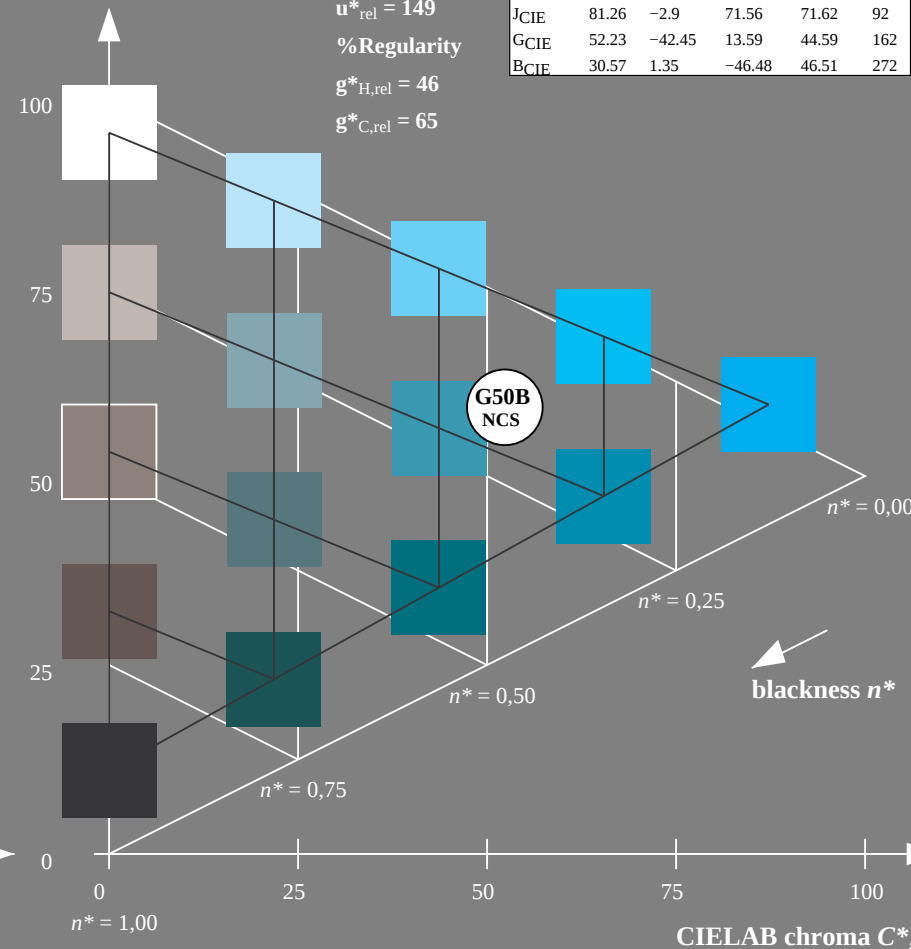
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



5 step scales for constant CIELAB hue 203/360 = 0.563 (right)

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

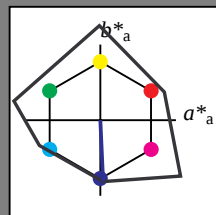
```
for hue  $h^* = lab^*h = 273/360 = 0.757$ 
```

lab*tch and lab*nch

D65: hue B

LCH*Ma: 49 81 273

rgb*Ma: 0.0 0.0 1.0



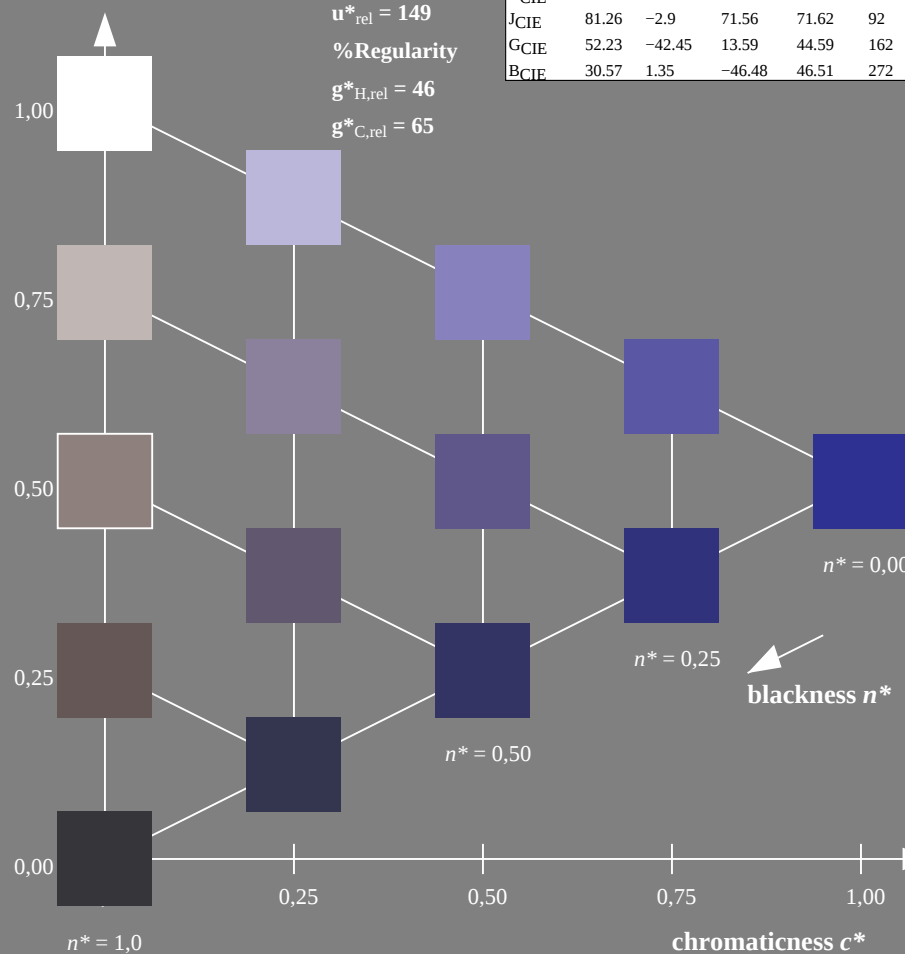
NCS11; adapted (a) CIELAB data					
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	47.15	84.64	37.25	92.48	24
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.69	27.98	65.01	25
J _{CIE}	81.26	-2.9	71.56	71.62	92
G _{CIE}	52.23	-42.45	13.59	44.59	162
B _{CIE}	30.57	1.35	-46.48	46.51	272

triangle lightness t^*

%Gamut

$$u^*_{rel} = 149$$

%Regularity

$$g^*_{H,rel} = 46$$
$$g^*_{C,rel} = 65$$


UE290-7, 5 step scales for constant CIELAB hue 273/360 = 0.757 (left)

Output: Colorimetric Reflective System NCS11

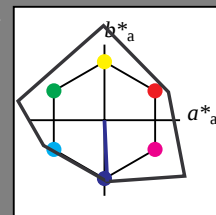
for hue $h^* = lab^*h = 273/360 = 0.757$

*LAB*LCH, LAB*NCH*

D65: hue B

LCH*Ma: 49 81 273

rgb*Ma: 0.0 0.0 1.0



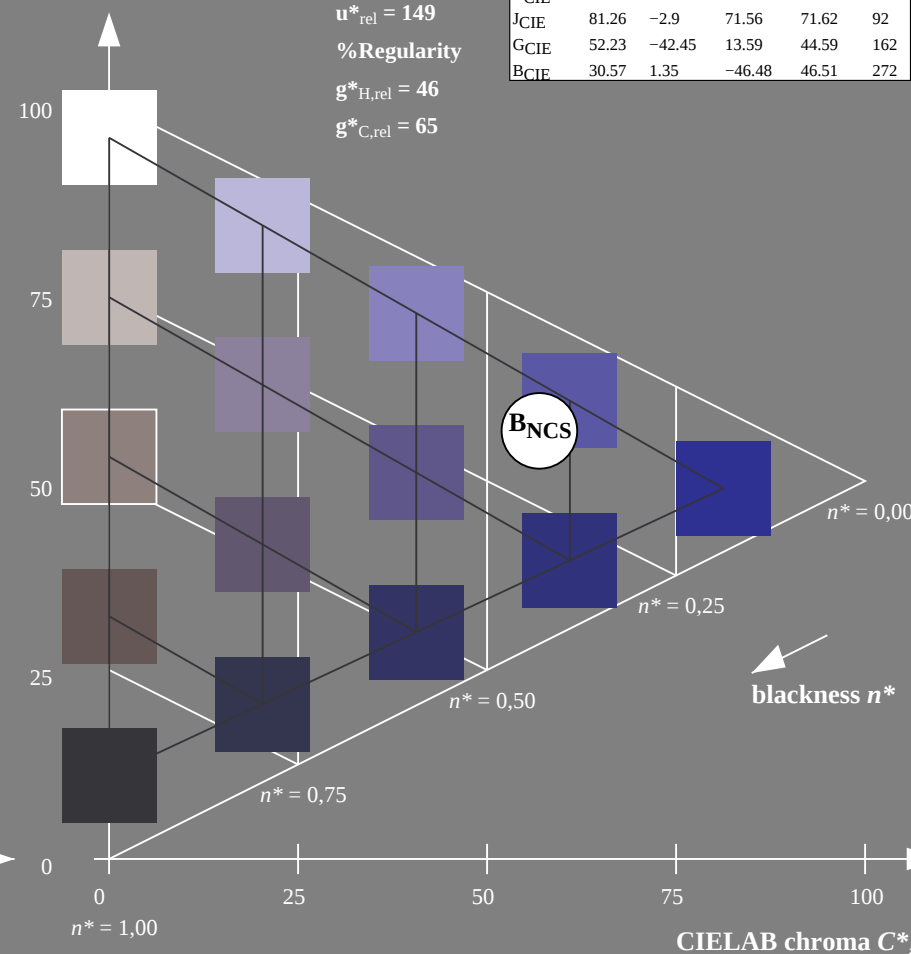
NCS11; adapted (a) CIELAB data					
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	47.15	84.64	37.25	92.48	24
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.69	27.98	65.01	25
J _{CIE}	81.26	-2.9	71.56	71.62	92
G _{CIE}	52.23	-42.45	13.59	44.59	162
B _{CIE}	30.57	1.35	-46.48	46.51	272

CIELAB lightness L^*

%Gamut

$$u_{rel}^* = 149$$

%Regularity

$$g^*_{H,rel} = 46$$
$$g^*_{C,rel} = 65$$


5 step scales for constant CIELAB hue 273/360 = 0.757 (right)

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11a input: *cmy0* setcmykcolor*

D65: Coordinate systems of 5 step colour scales for 10 hues

output: *no change compared to input*

Input: Colorimetric Reflective System NCS11

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

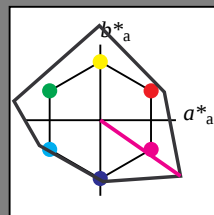
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B50R

LCH*Ma: 44 129 325

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

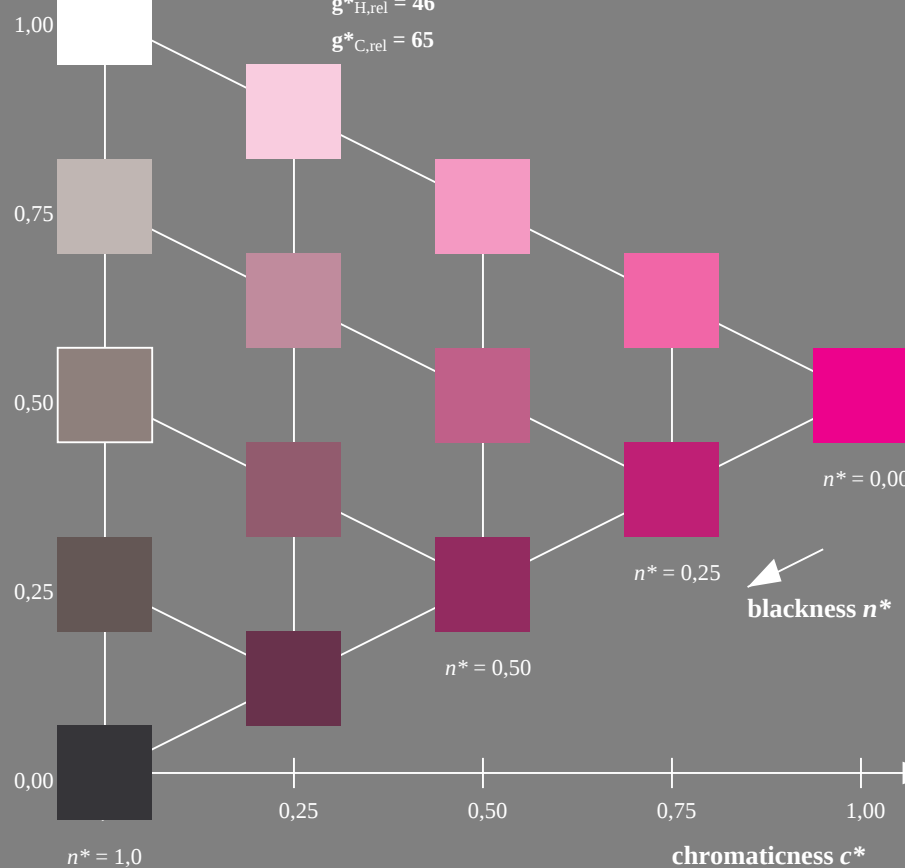
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 325/360 = 0.903 (left)

Output: Colorimetric Reflective System NCS11

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

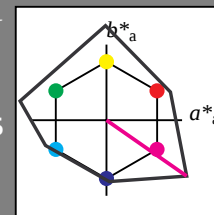
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue B50R

LCH*Ma: 44 129 325

rgb*Ma: 1.0 0.0 1.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

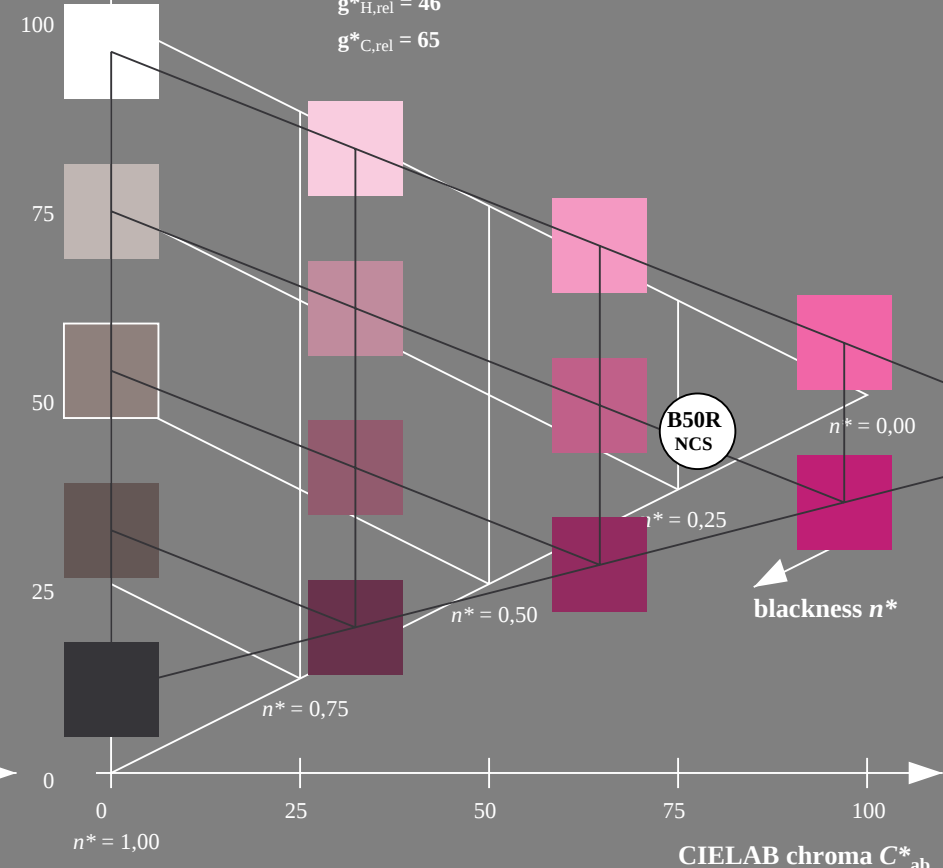
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



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

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmy0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

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

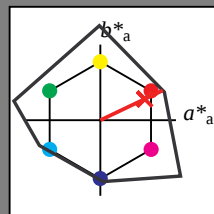
$lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 48 91 25

rgb*Ma: 1.0 0.02 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

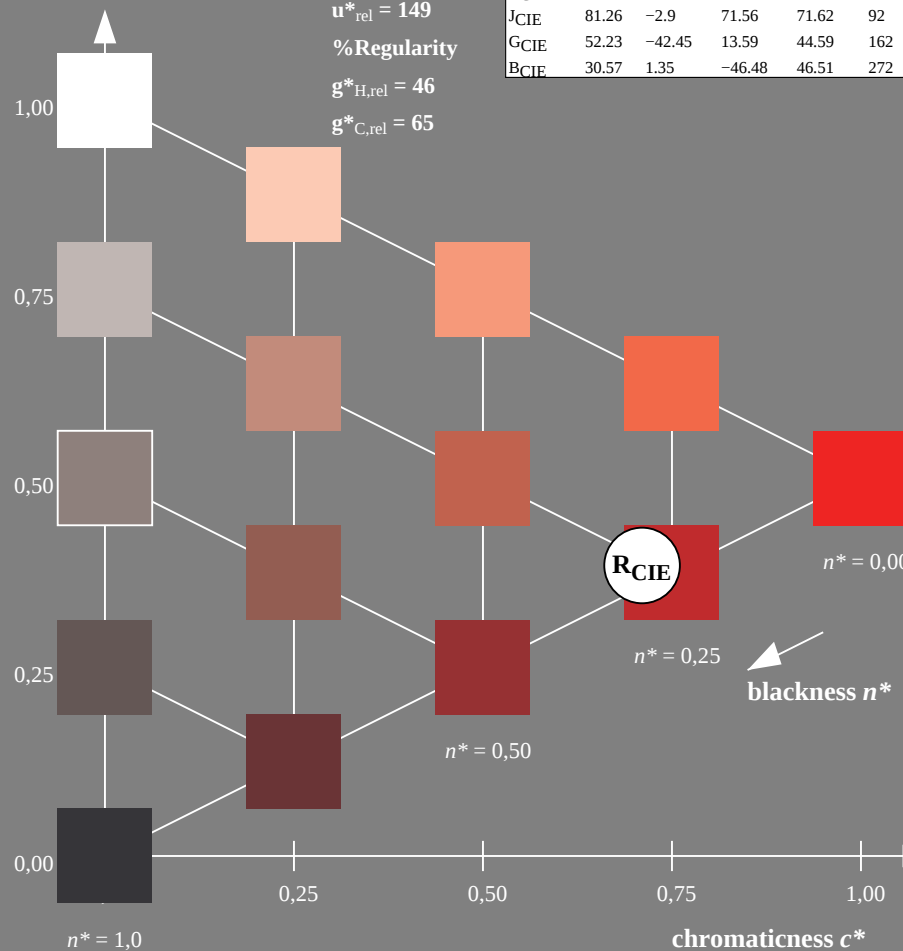
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

Output: Colorimetric Reflective System NCS11

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

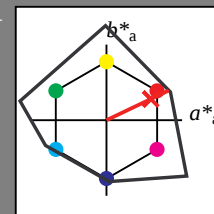
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue R

LCH*Ma: 48 91 25

rgb*Ma: 1.0 0.02 0.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

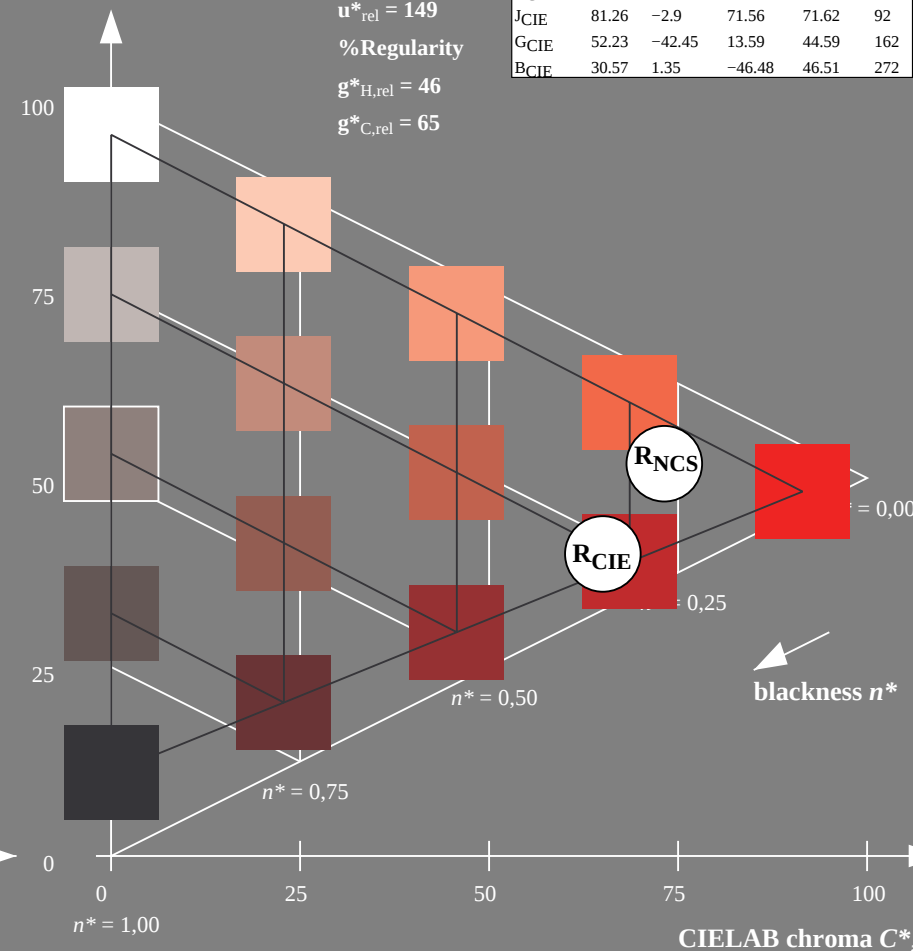
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



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

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

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

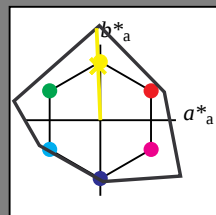
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 90 122 92

rgb*Ma: 0.97 1.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 149$

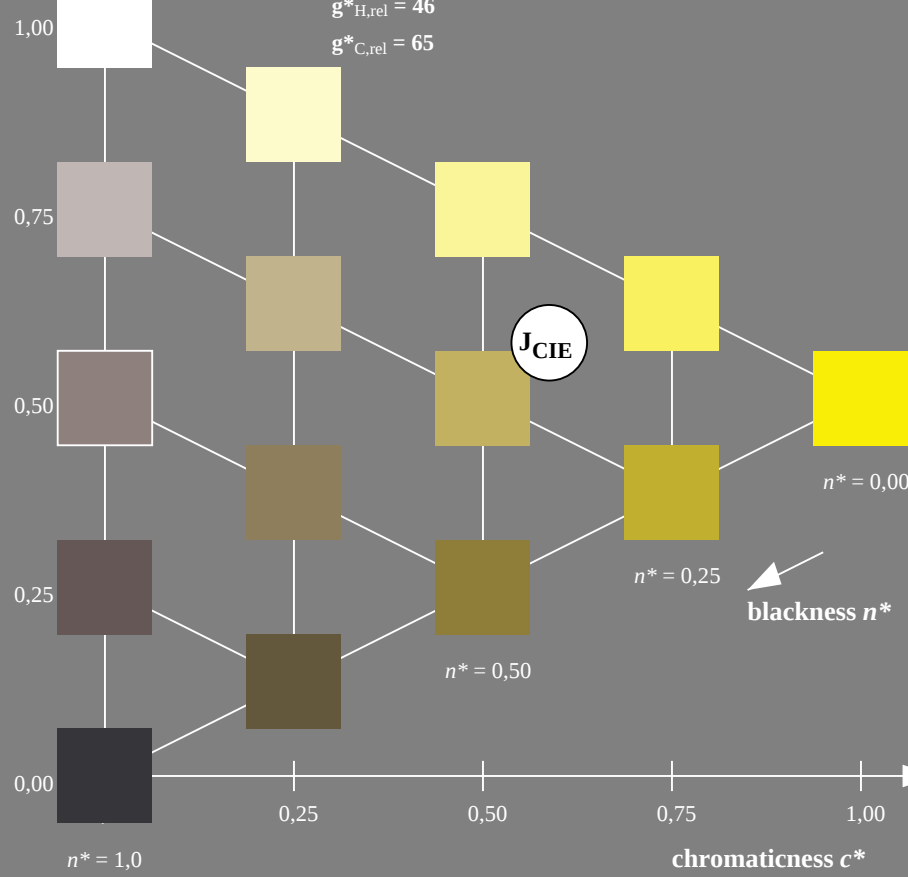
%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

Output: Colorimetric Reflective System NCS11

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

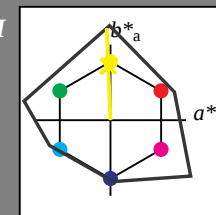
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue J

LCH*Ma: 90 122 92

rgb*Ma: 0.97 1.0 0.0

CIELAB lightness L^*



%Gamut

$u^*_{rel} = 149$

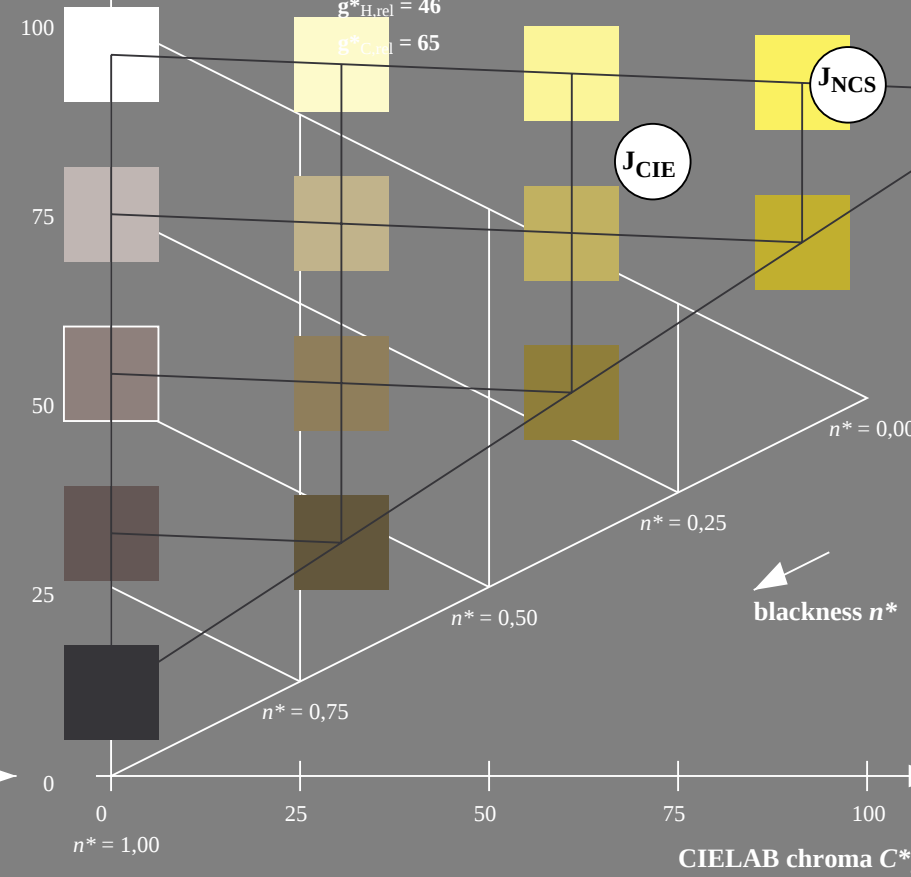
%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



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

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

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

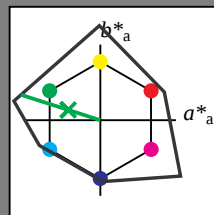
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 65 110 162

rgb*Ma: 0.08 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

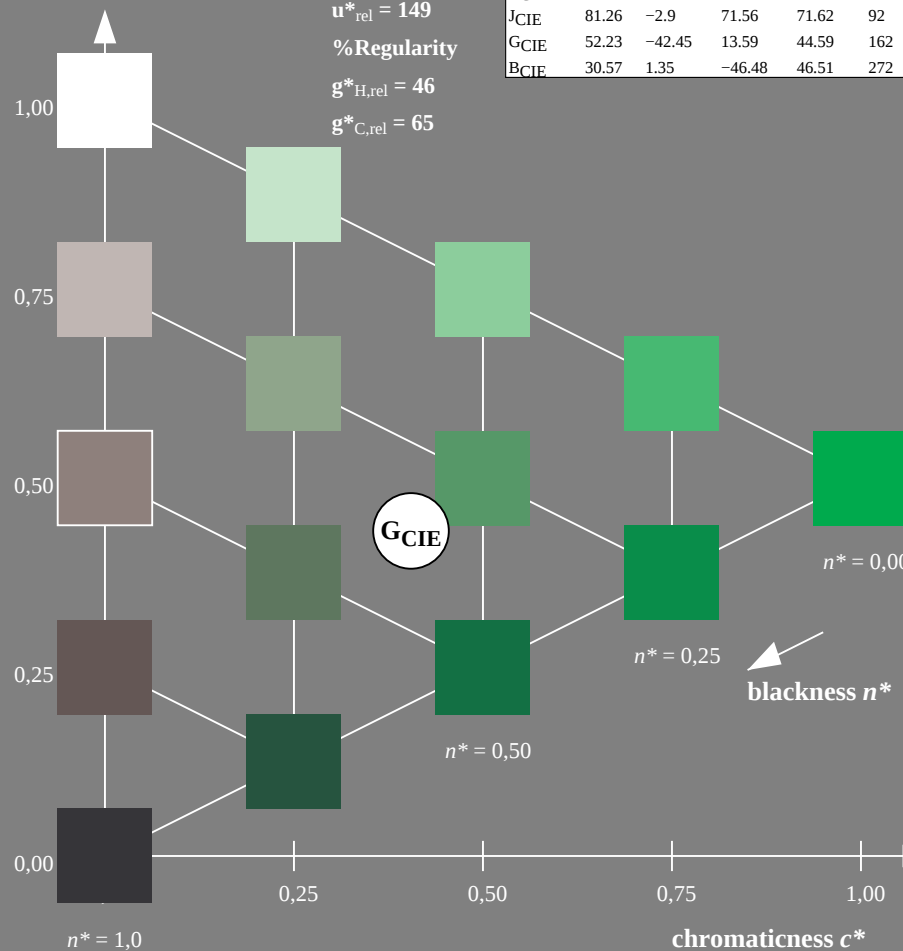
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



UE290-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

Output: Colorimetric Reflective System NCS11

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

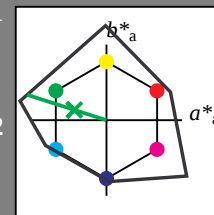
$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G

LCH*Ma: 65 110 162

rgb*Ma: 0.08 1.0 0.0

CIELAB lightness L^*



% Gamut

$u^*_{rel} = 149$

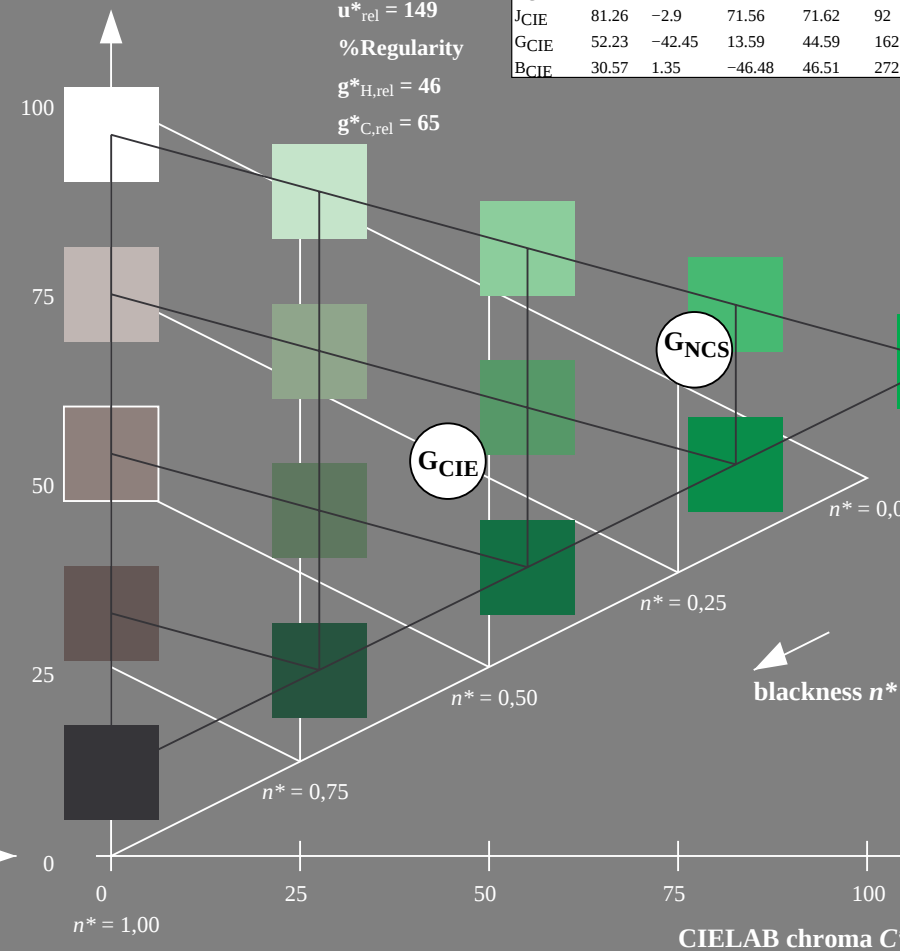
% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272



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

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System NCS11

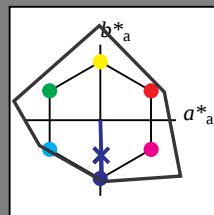
for hue $h^* = lab \cdot h = 272/360 = 0.755$

$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 49 80 272

rgb*Ma: 0.0 0.02 1.0



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

triangle lightness t^*

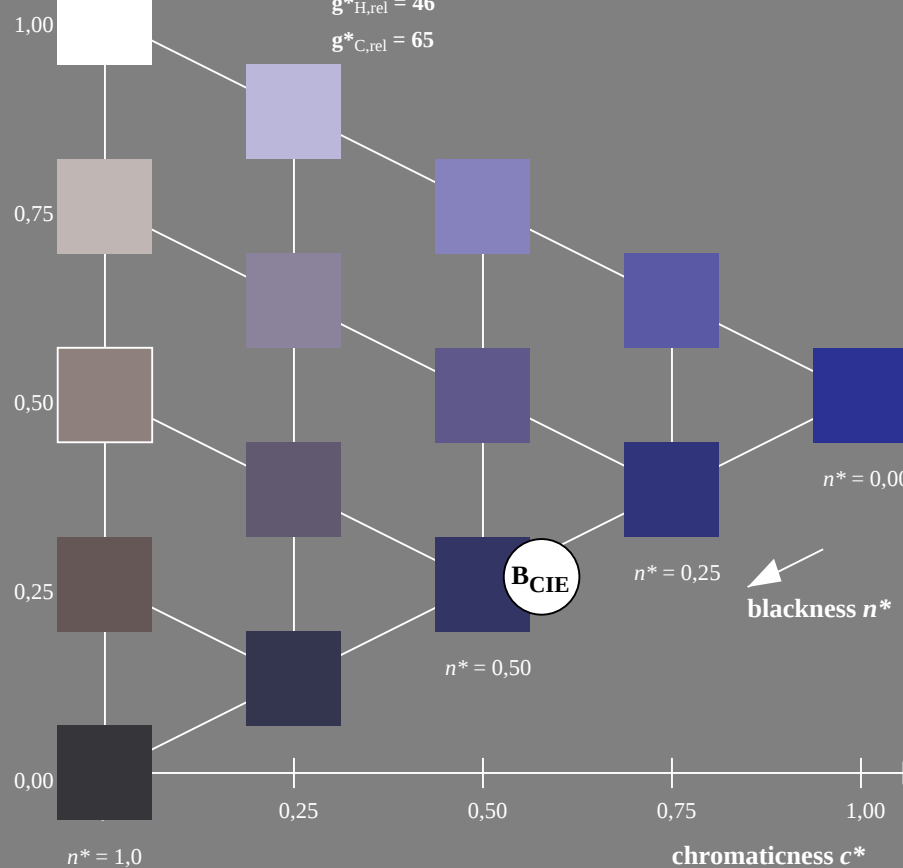
% Gamut

$u^*_{rel} = 149$

% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$



UE290-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

Output: Colorimetric Reflective System NCS11

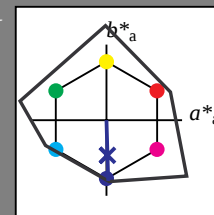
for hue $h^* = lab \cdot h = 272/360 = 0.755$

$LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue B

LCH*Ma: 49 80 272

rgb*Ma: 0.0 0.02 1.0



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

triangle lightness t^*

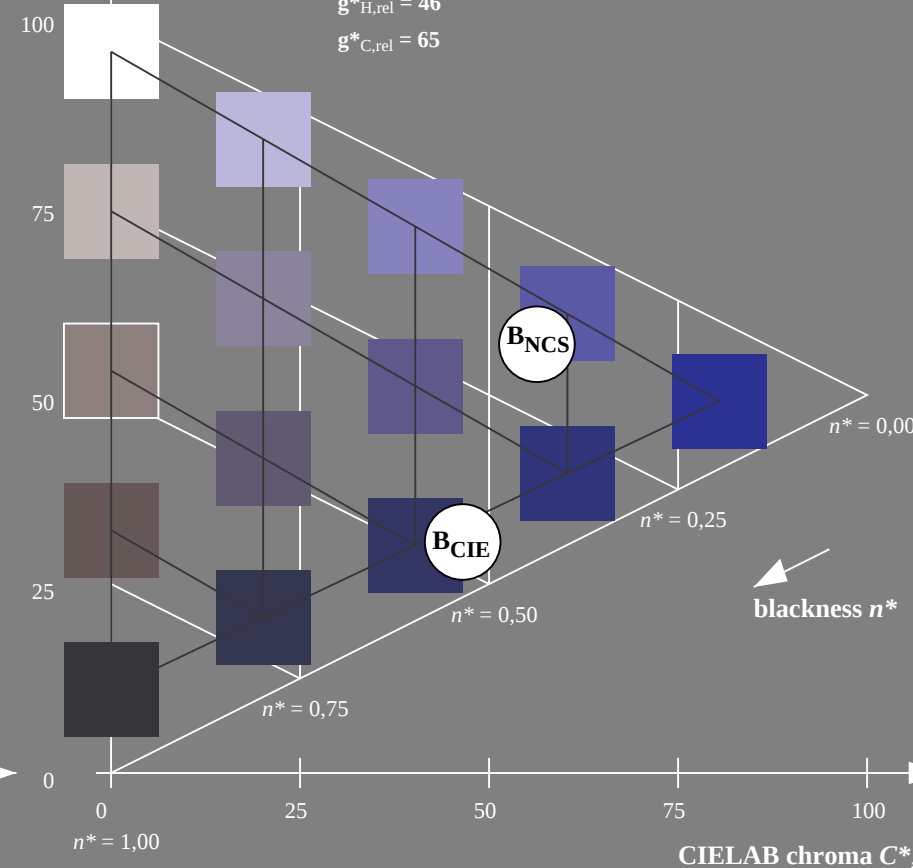
% Gamut

$u^*_{rel} = 149$

% Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$



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

BAM-test chart UE29; Colorimetric systems NCS11a & NCS11ainput: $cmY0^* setcmykcolor$

D65: Coordinate systems of 5 step colour scales for 10 hues

output: no change compared to input