

Input: Colorimetric Reflective System NCS11

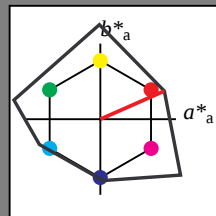
for hue $h^* = lab \cdot h = 24/360 = 0.066$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 47 92 24

olv*Ma: 1.0 0.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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^*

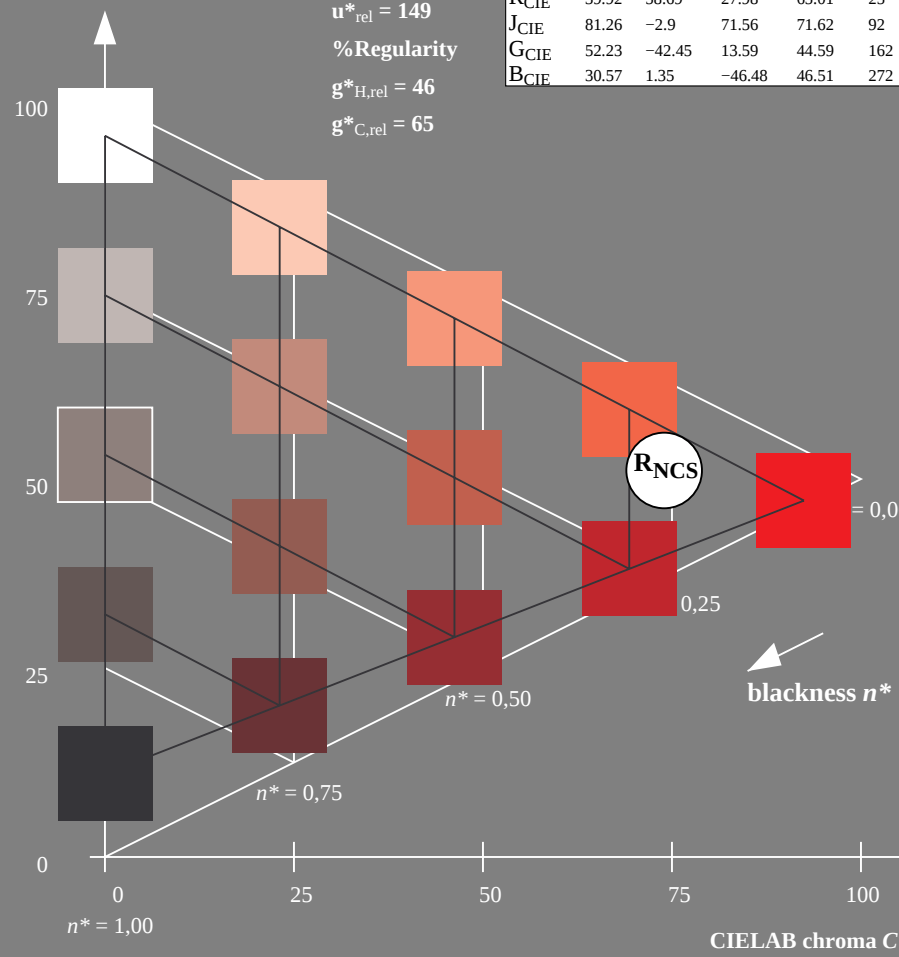
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 24/360 = 0.066 (left)

Output: Colorimetric Reflective System NCS11

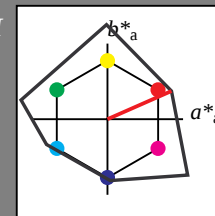
for hue $h^* = lab \cdot h = 24/360 = 0.066$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 47 92 24

olv*Ma: 1.0 0.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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^*

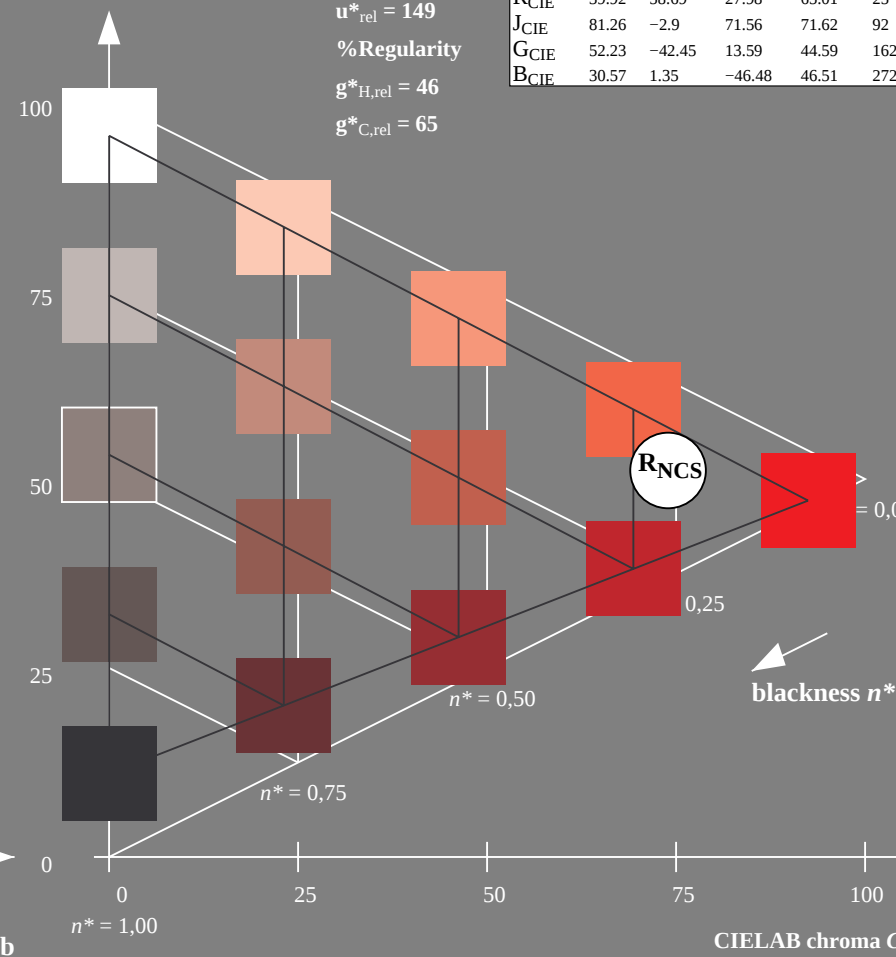
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



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

BAM-test chart UE39; 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

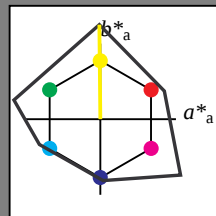
for hue $h^* = lab \cdot h = 91/360 = 0.252$

LAB*LCH, LAB*NCH

D65: hue J

LCH*Ma: 91 125 91

olv*Ma: 1.0 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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^*

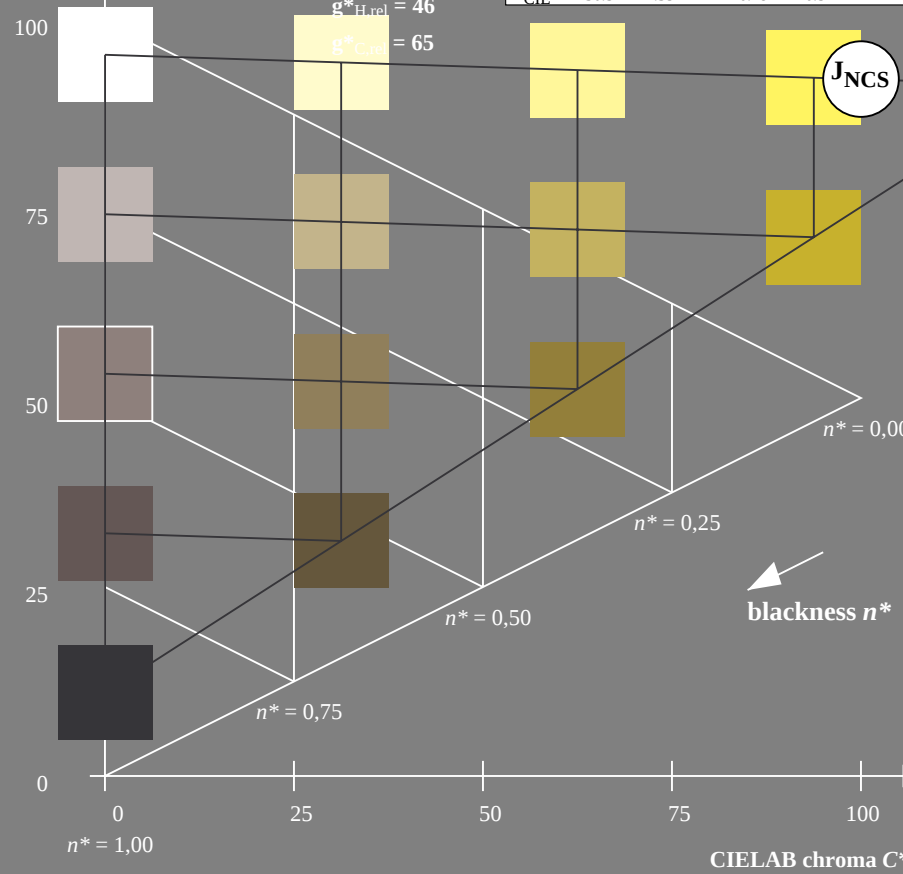
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 91/360 = 0.252 (left)

Output: Colorimetric Reflective System NCS11

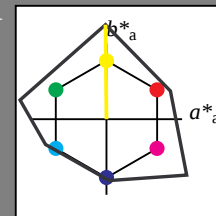
for hue $h^* = lab \cdot h = 91/360 = 0.252$

LAB*LCH, LAB*NCH

D65: hue J

LCH*Ma: 91 125 91

olv*Ma: 1.0 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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
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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^*

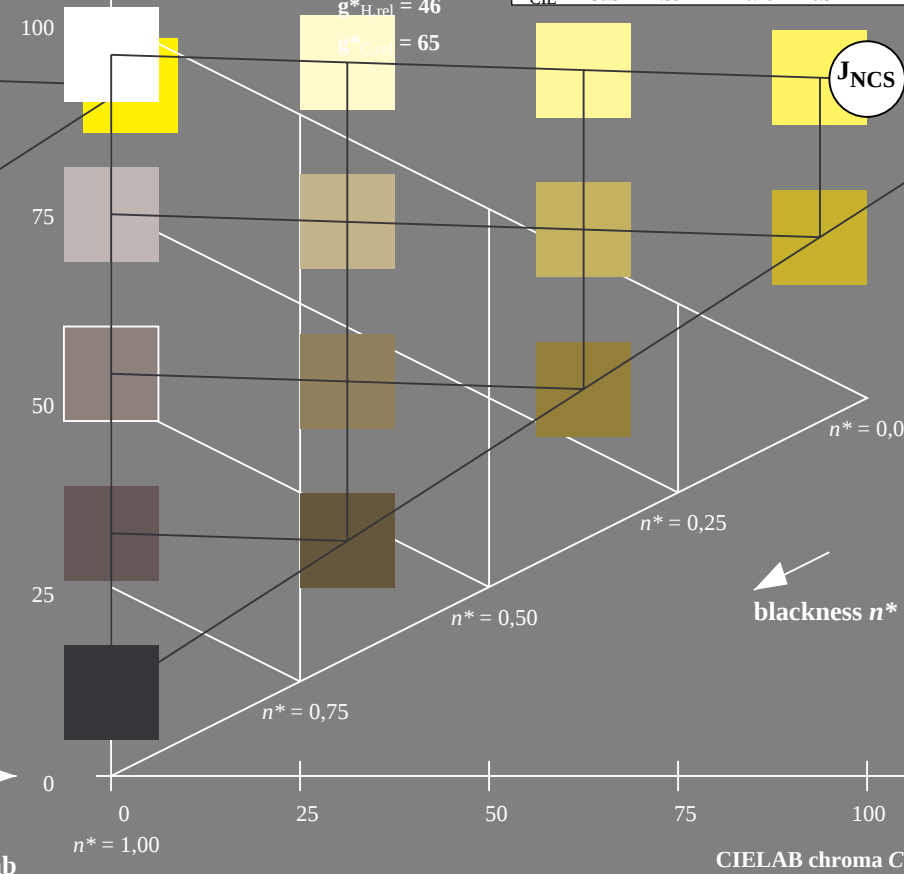
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



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

BAM-test chart UE39; 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

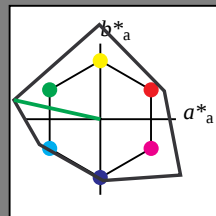
for hue $h^* = lab \cdot h = 167/360 = 0.465$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 63 117 167

olv*Ma: 0.0 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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
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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^*

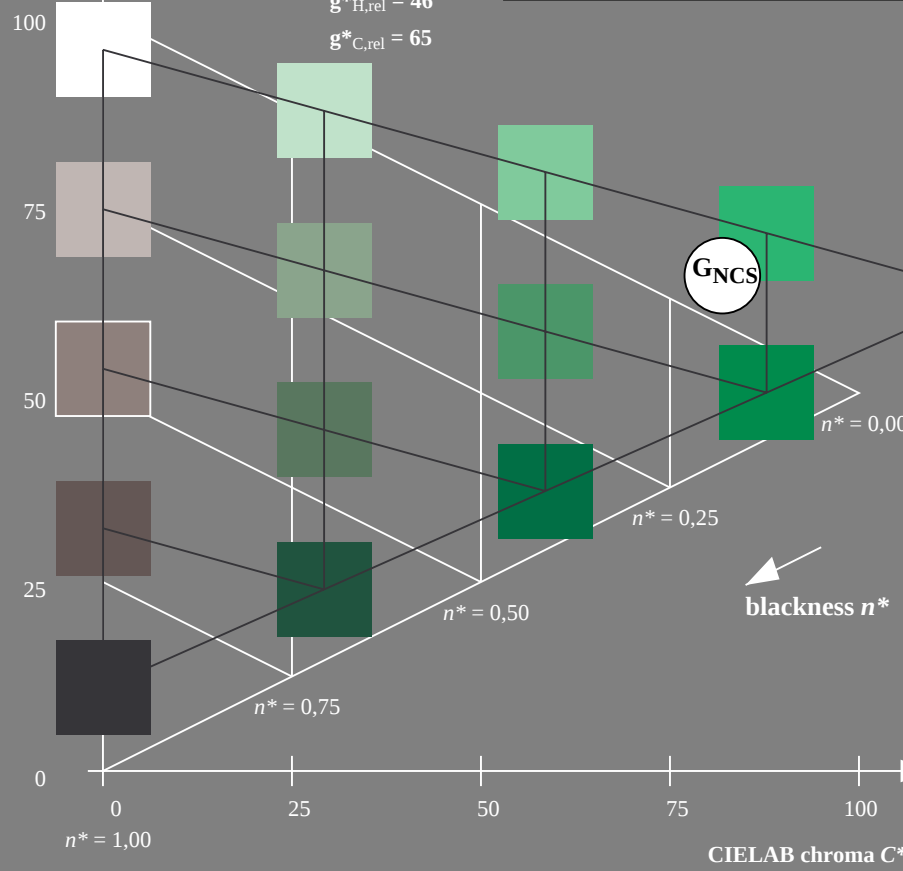
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 167/360 = 0.465 (left)

Output: Colorimetric Reflective System NCS11

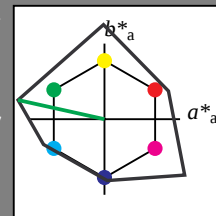
for hue $h^* = lab \cdot h = 167/360 = 0.465$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 63 117 167

olv*Ma: 0.0 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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
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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^*

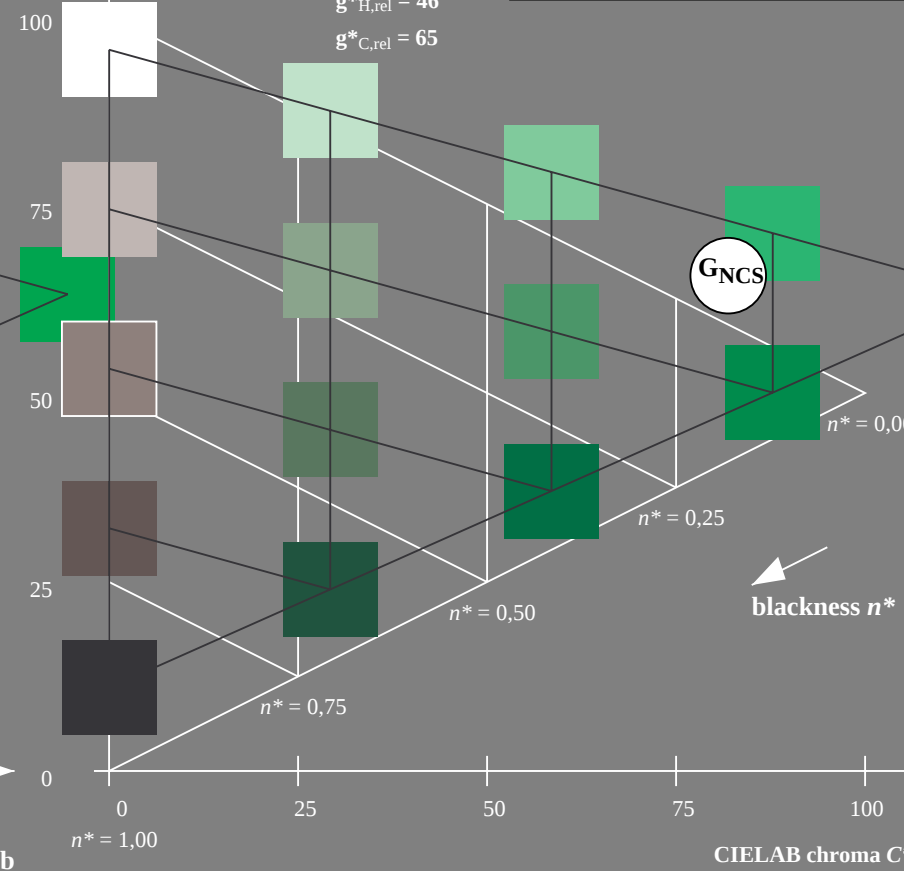
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



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

BAM-test chart UE39; 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

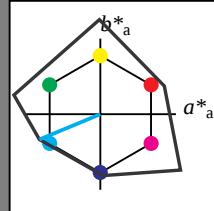
for hue $h^* = lab^*h = 203/360 = 0.563$

*LAB*LCH, LAB*NCH*

D65: hue G50B

LCH*Ma: 59 87 203

olv*Ma: 0.0 1.0 1.0



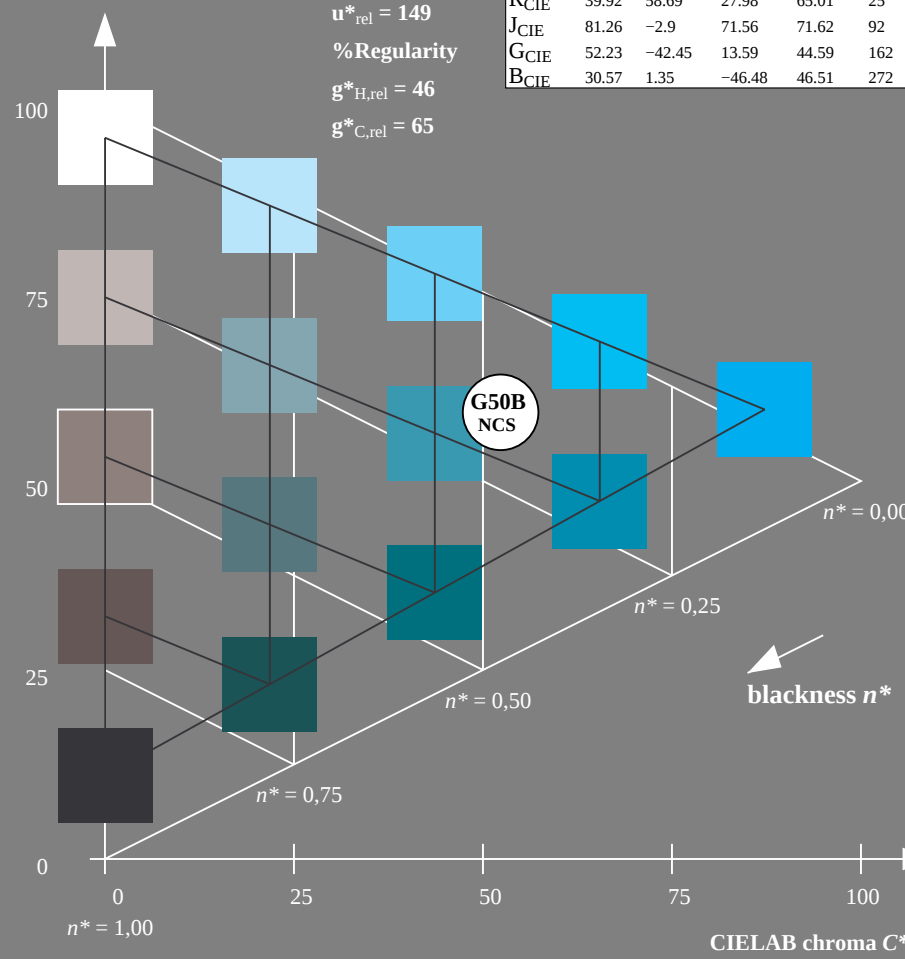
NCS11; adapted (a)		CIELAB data			
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	47.15	84.64	37.25	92.48	24
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	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

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

%Regularity

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


UE390-7, 5 step scales for constant CIELAB hue 203/360 = 0.563 (left)

BAM-test chart UE39; Colorimetric systems NCS11a & NCS11a input: *cmy0* setcmykcolor*

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

Output: Colorimetric Reflective System NCS11

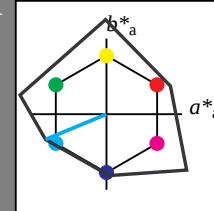
for hue $h^* = lab^*h = 203/360 = 0.563$

*LAB*LCH, LAB*NCH*

D65: hue G50B

LCH*Ma: 59 87 203

olv*Ma: 0.0 1.0 1.0



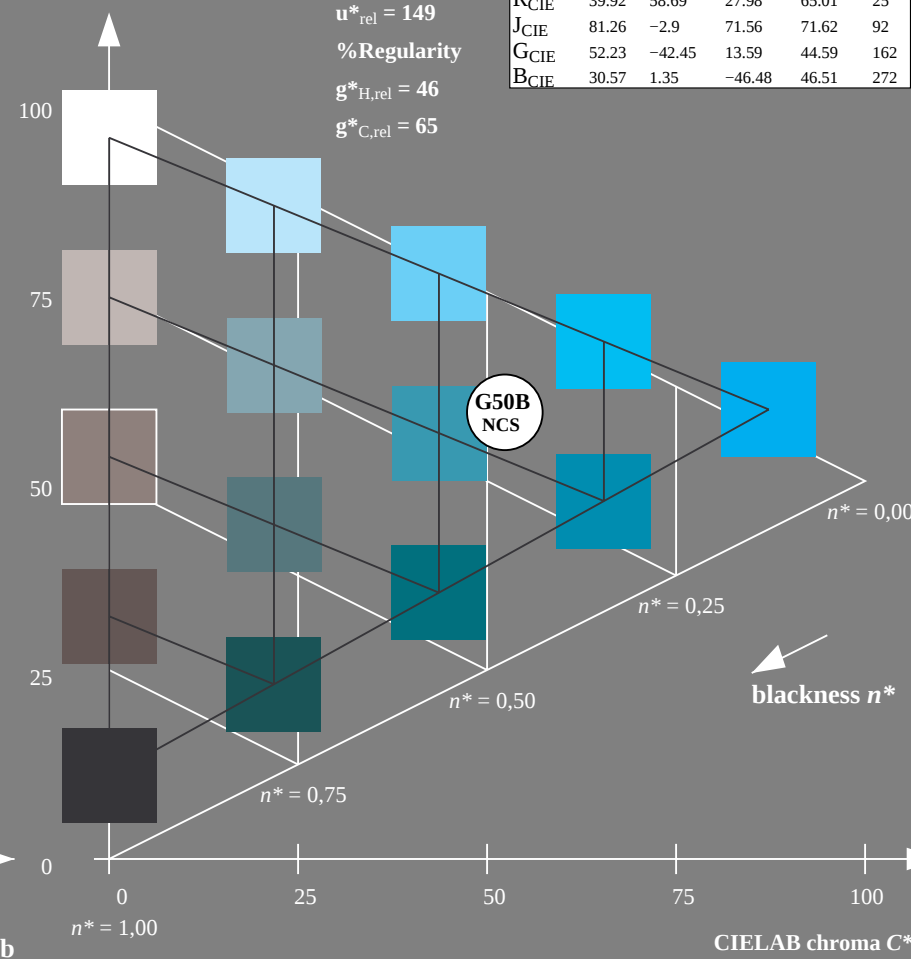
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	h^*_{ab}
R _{Ma}	47.15	84.64	37.25	92.48	24
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	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

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

%Regularity

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


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

input: *cmy0* setcmykcolor*
output: *no change compared to input*

Input: Colorimetric Reflective System NCS11

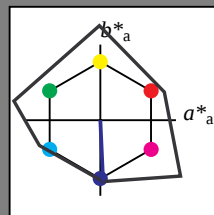
for hue $h^* = lab^*h = 273/360 = 0.757$

LAB*LCH, LAB*NCH

D65: hue B

LCH*Ma: 49 81 273

olv*Ma: 0.0 0.0 1.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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
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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^*

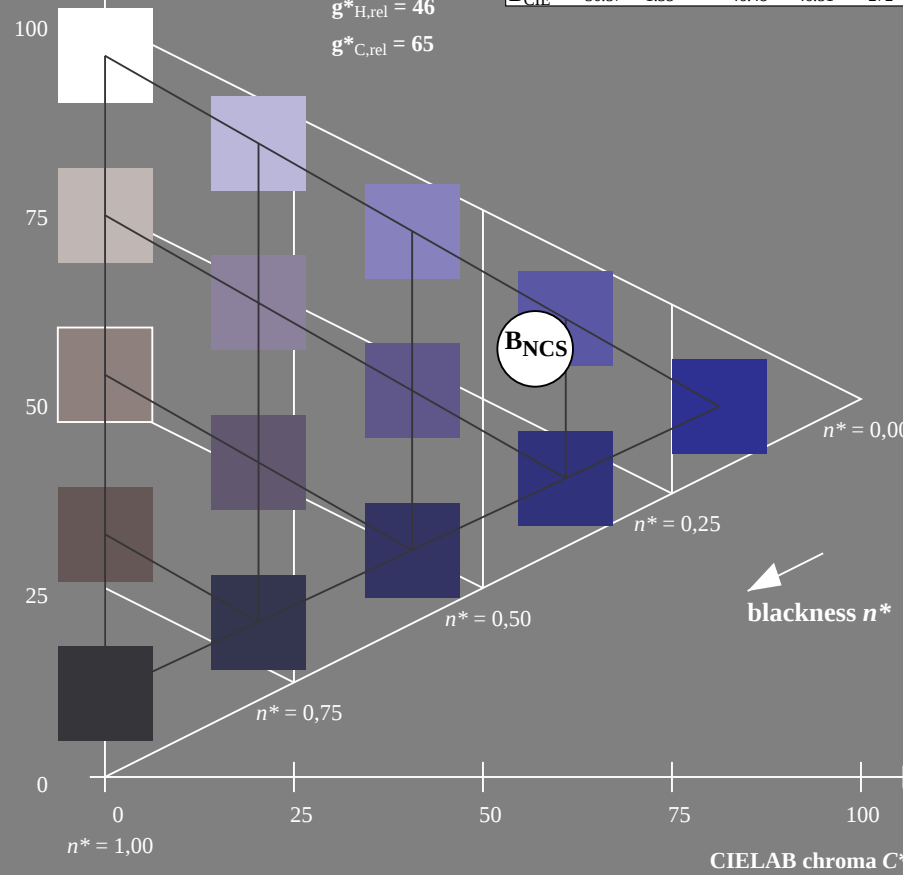
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 273/360 = 0.757 (left)

Output: Colorimetric Reflective System NCS11

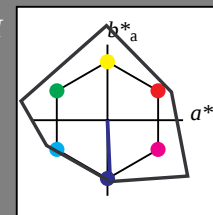
for hue $h^* = lab^*h = 273/360 = 0.757$

LAB*LCH, LAB*NCH

D65: hue B

LCH*Ma: 49 81 273

olv*Ma: 0.0 0.0 1.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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
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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
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B _{CIE}	30.57	1.35	-46.48	46.51	272

CIELAB lightness L^*

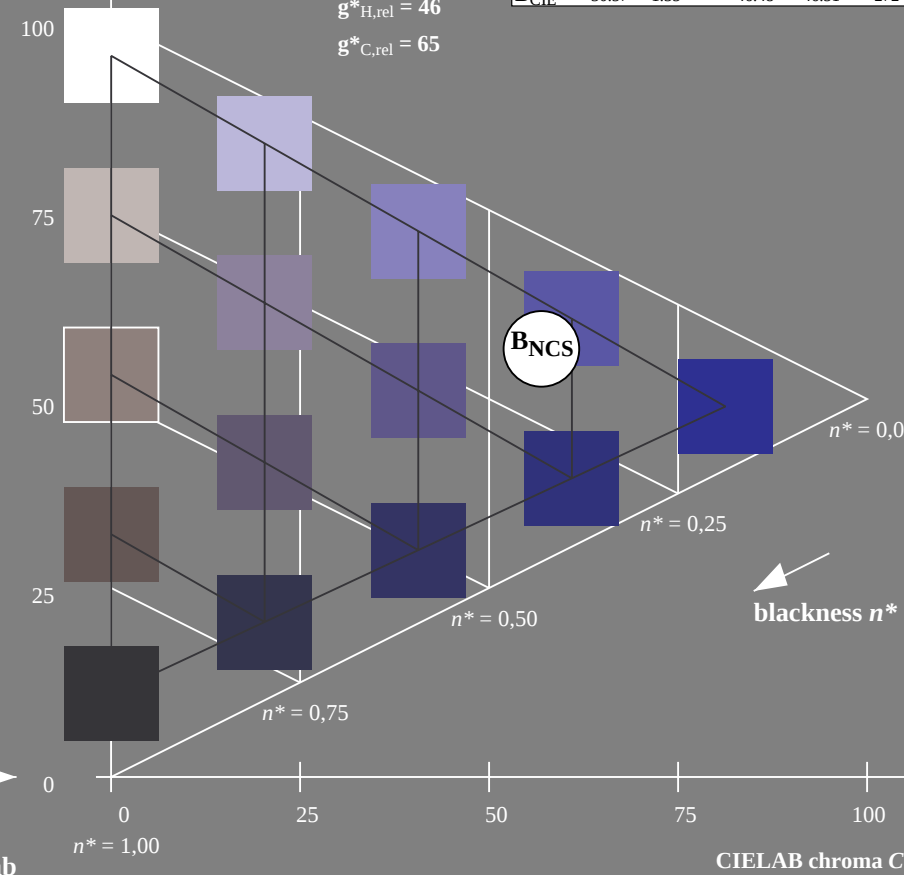
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



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

BAM-test chart UE39; 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

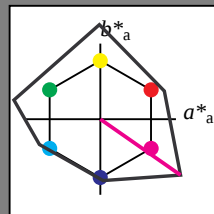
for hue $h^* = lab \cdot h = 325/360 = 0.903$

LAB*LCH, LAB*NCH

D65: hue B50R

LCH*Ma: 44 129 325

olv*Ma: 1.0 0.0 1.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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
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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^*

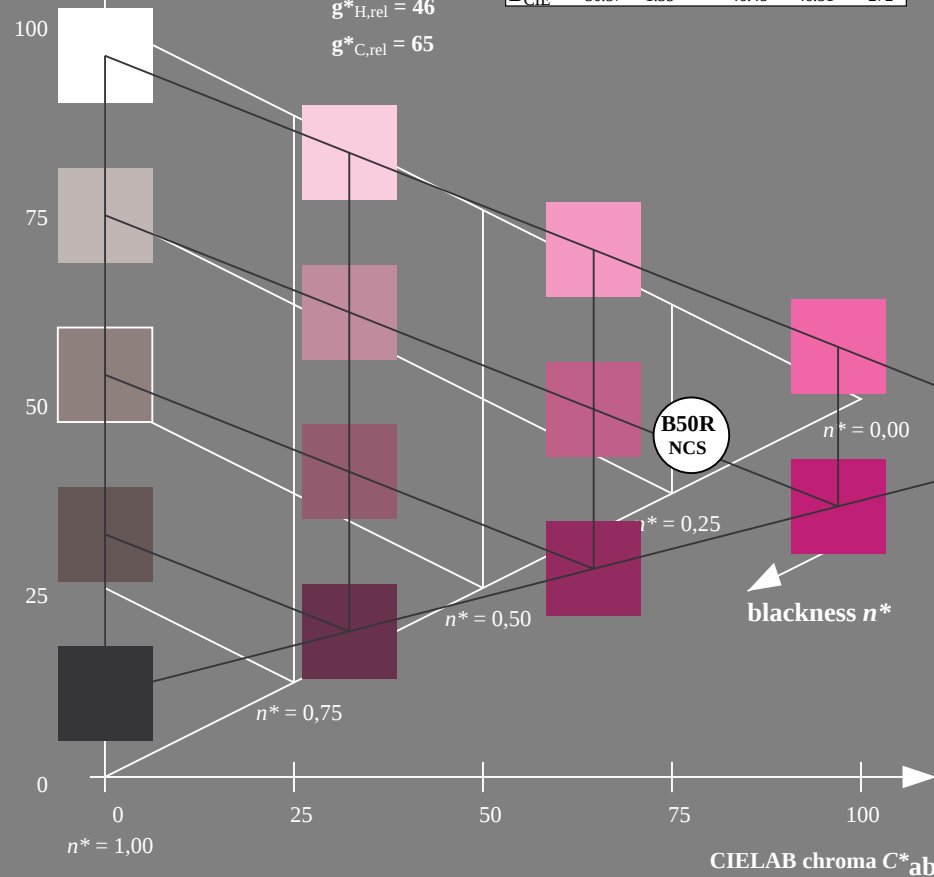
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



Output: Colorimetric Reflective System NCS11

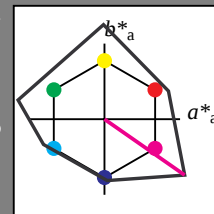
for hue $h^* = lab \cdot h = 325/360 = 0.903$

LAB*LCH, LAB*NCH

D65: hue B50R

LCH*Ma: 44 129 325

olv*Ma: 1.0 0.0 1.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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^*

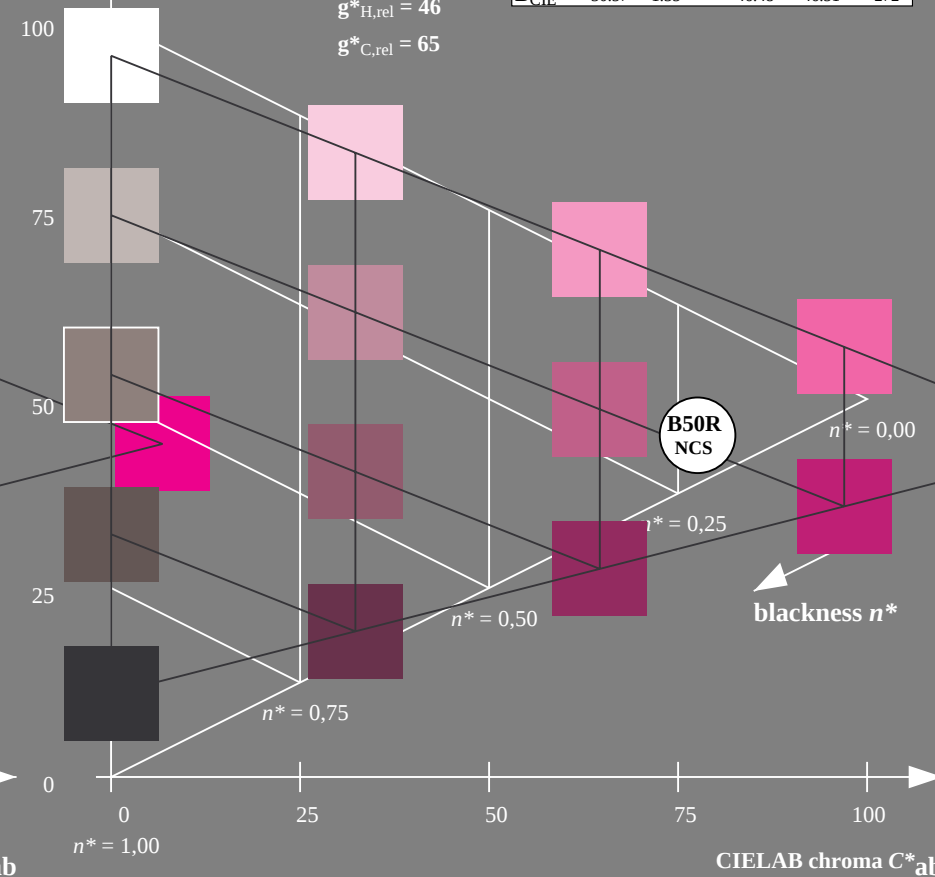
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 325/360 = 0.903 (left)

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

BAM-test chart UE39; 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

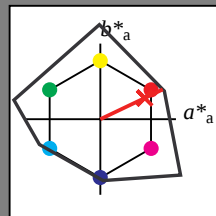
for hue $h^* = lab \cdot h = 25/360 = 0.071$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 48 91 25

olv*Ma: 1.0 0.02 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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^*

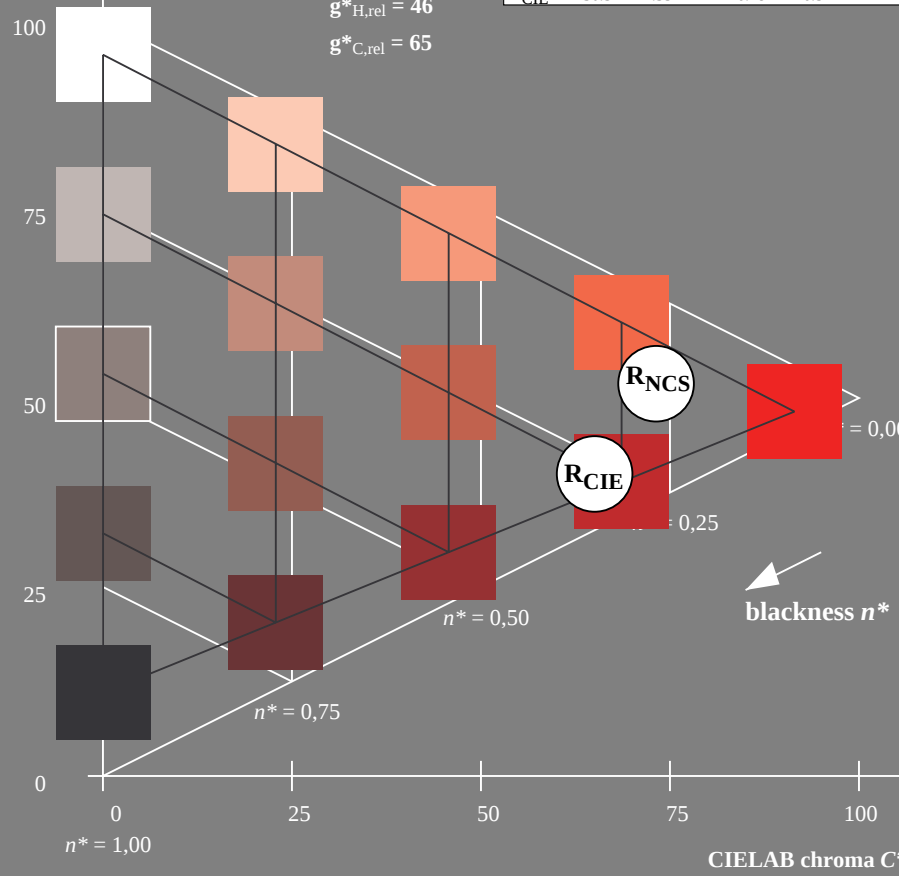
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



UE390-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

Output: Colorimetric Reflective System NCS11

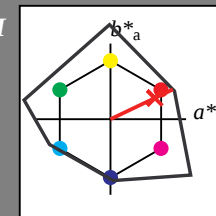
for hue $h^* = lab \cdot h = 25/360 = 0.071$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 48 91 25

olv*Ma: 1.0 0.02 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	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^*

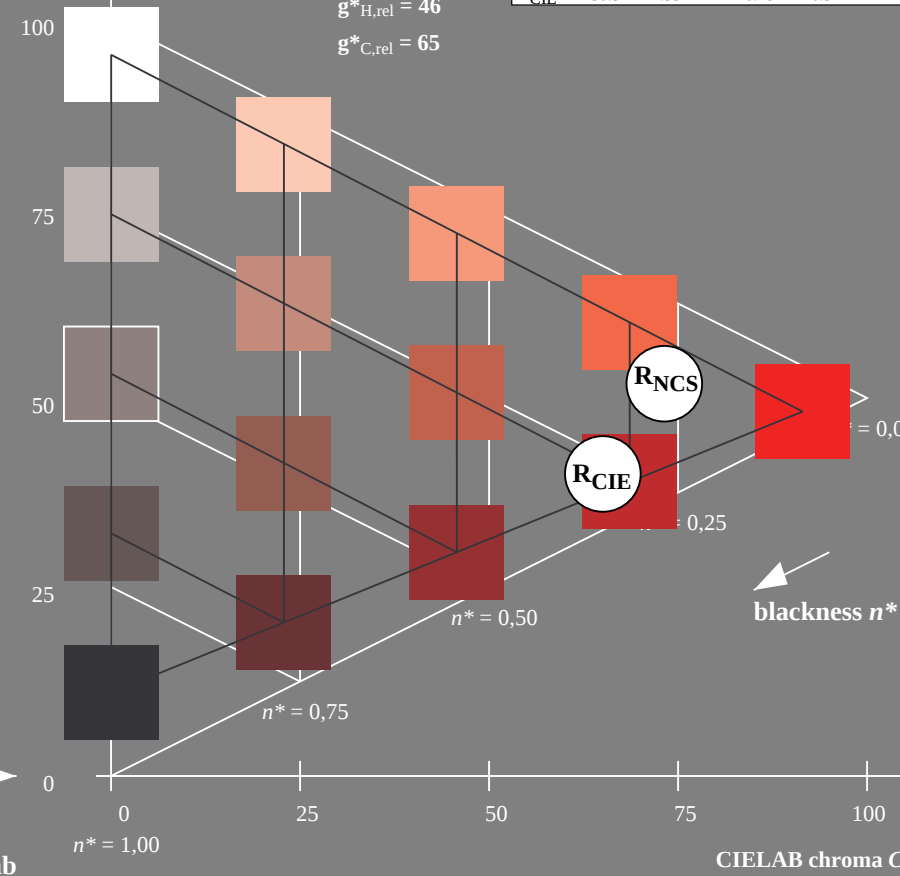
% Gamut

$u^*_{rel} = 149$

% Regularity

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

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



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

BAM-test chart UE39; 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

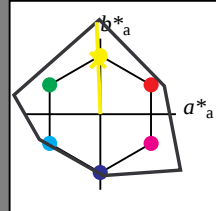
for hue $h^* = lab^*h = 92/360 = 0.256$

*LAB*LCH, LAB*NCH*

D65: hue J

LCH*Ma: 90 122 92

olv*Ma: 0.97 1.0 0.0



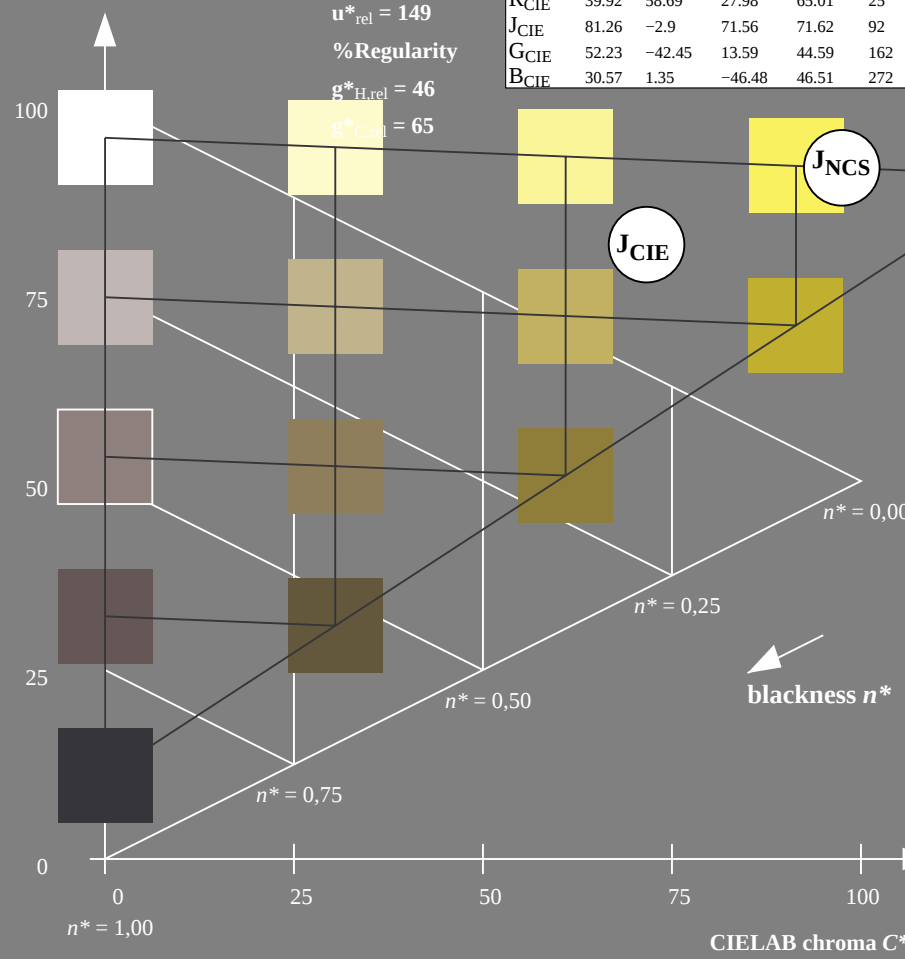
NCS11; adapted (a)		CIELAB data			
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	47.15	84.64	37.25	92.48	24.0
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-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	-82.45	13.59	44.59	162
B _{CIE}	30.57	1.35	-46.48	46.51	272

CIELAB lightness L^*

%Gamut

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

%Regularity

$$g^*_{H,rel} = 40$$
 $g^*_{C_{rel}} = 65$ 

UE390-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

BAM-test chart UE39; Colorimetric systems NCS11a & NCS11a input: *cmy0* setcmykcolor*

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

output: *no change compared to input*

Output: Colorimetric Reflective System NCS11

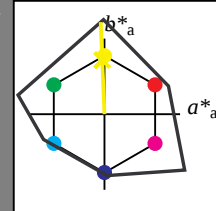
for hue $h^* = lab^*h = 92/360 = 0.256$

*LAB*LCH, LAB*NCH*

D65: hue J

LCH*Ma: 90 122 92

olv*Ma: 0.97 1.0 0.0



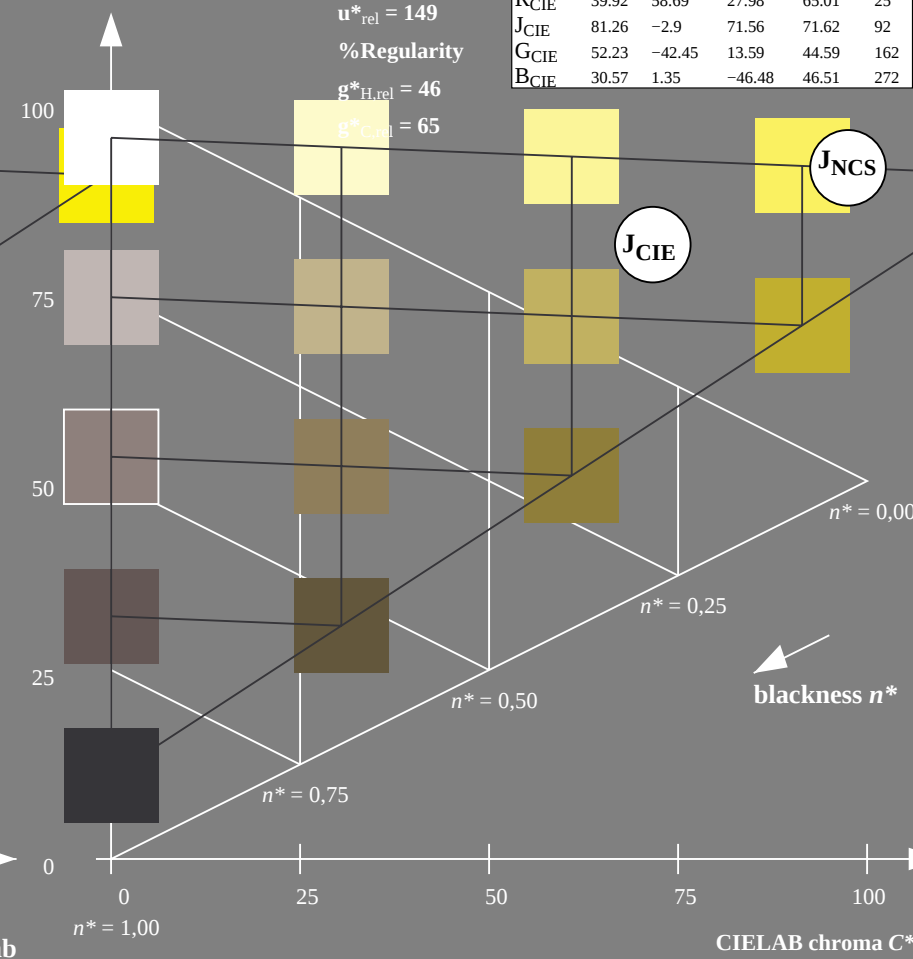
NCS11; adapted (a) CIELAB data					
	L^*_{*a}	a^*_{*a}	b^*_{*a}	$C^*_{ab,a}$	h^*_{ab}
R _{Ma}	47.15	84.64	37.25	92.48	24
J _{Ma}	91.37	-1.27	125.03	125.03	91
G _{Ma}	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	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

$$g^*_{H,rel} = 40$$
 $g^*_{C_{rel}} = 65$ 5 step scales for constant CIELAB hue $92/360 = 0.256$ (right)

BAM-test chart UE39; 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

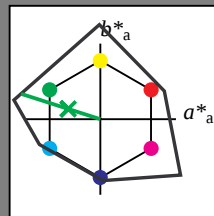
for hue $h^* = lab \cdot h = 162/360 = 0.451$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 65 110 162

olv*Ma: 0.08 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L_a^*$	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^*

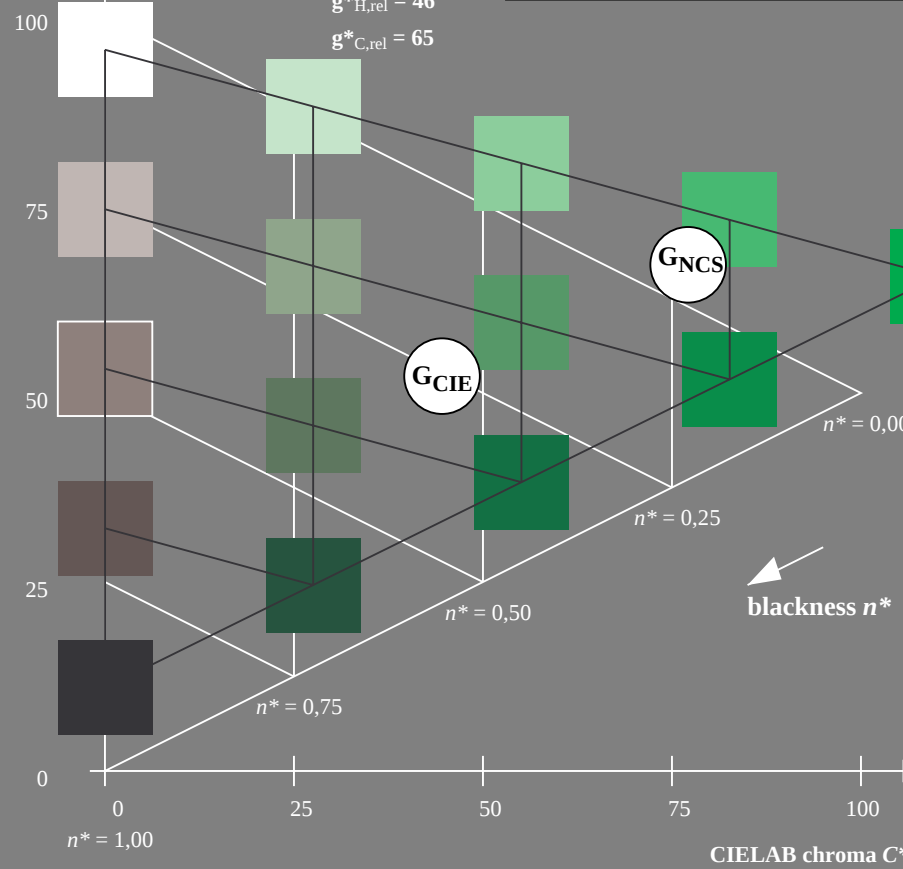
% Gamut

$u_{rel}^* = 149$

% Regularity

$g_{H,rel}^* = 46$

$g_{C,rel}^* = 65$



UE390-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

Output: Colorimetric Reflective System NCS11

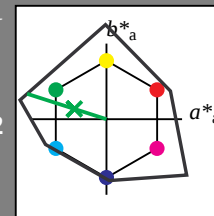
for hue $h^* = lab \cdot h = 162/360 = 0.451$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 65 110 162

olv*Ma: 0.08 1.0 0.0



NCS11; adapted (a) CIELAB data

	$L^*=L_a^*$	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^*

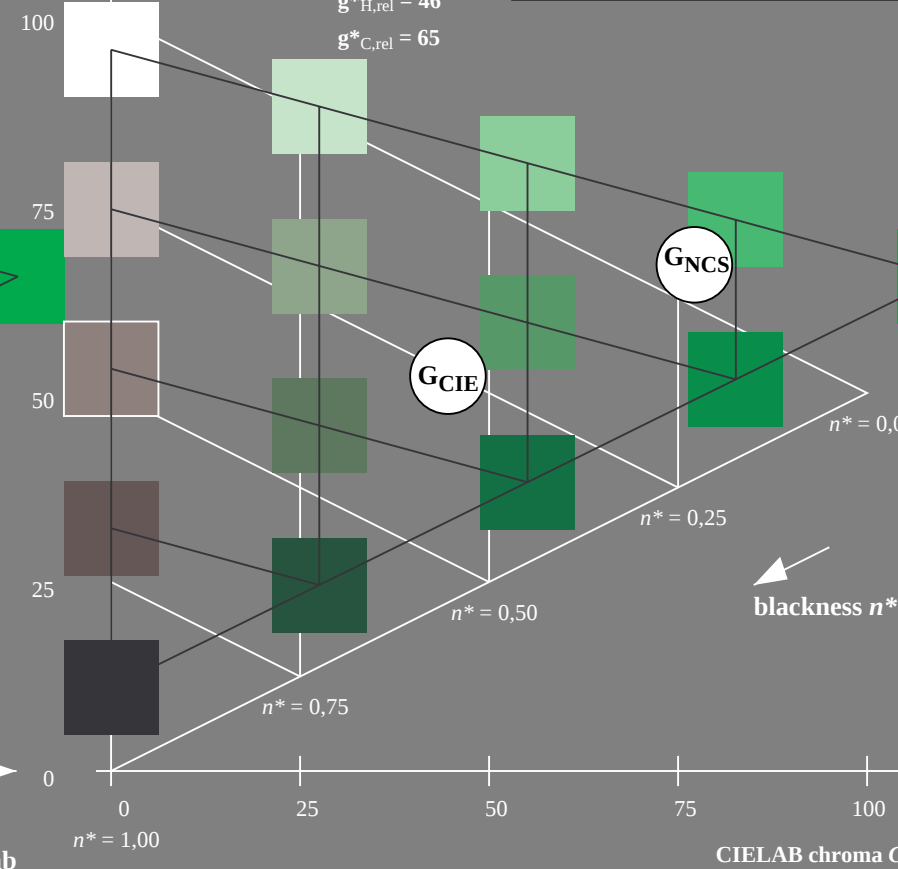
% Gamut

$u_{rel}^* = 149$

% Regularity

$g_{H,rel}^* = 46$

$g_{C,rel}^* = 65$



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

BAM-test chart UE39; 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

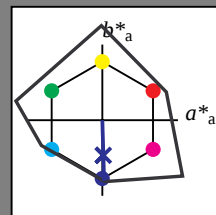
for hue $h^* = lab^*h = 272/360 = 0.755$

LAB*LCH, LAB*NCH

D65: hue B

LCH*Ma: 49 80 272

olv*Ma: 0.0 0.02 1.0



NCS11; adapted (a) CIE LAB data

	$L^*=L_a^*$	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

CIE LAB lightness L^*

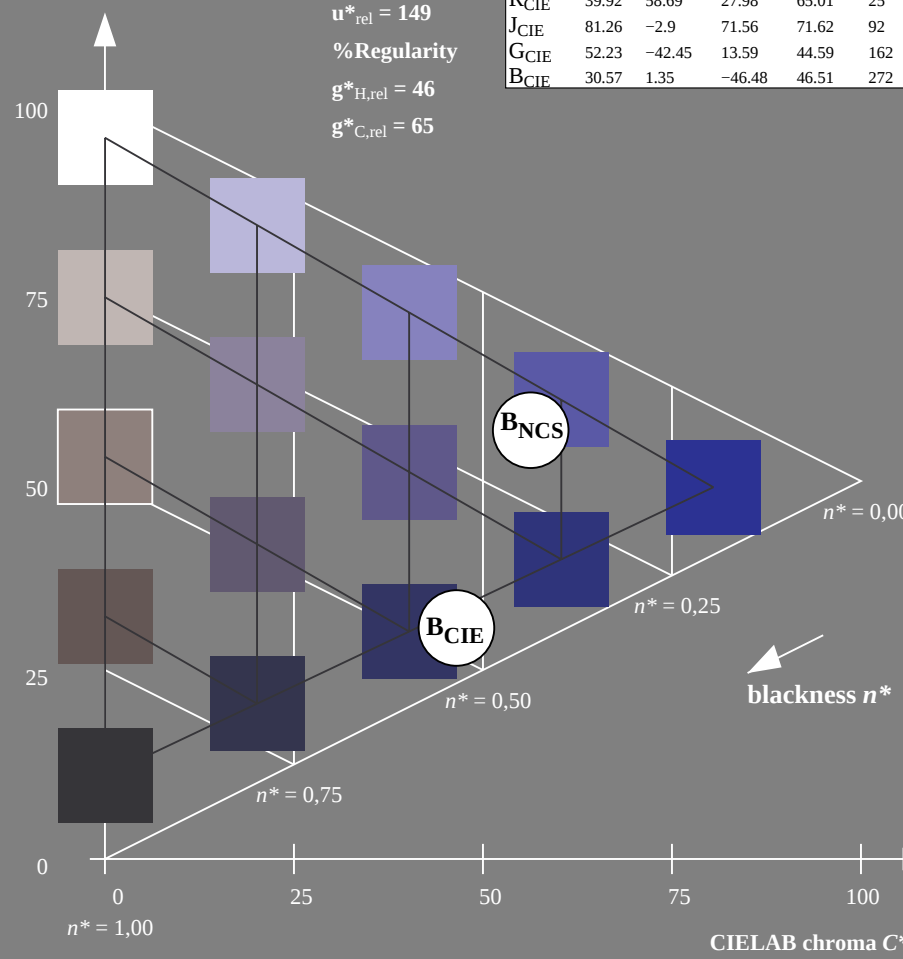
% Gamut

$u_{rel}^* = 149$

% Regularity

$g_{H,rel}^* = 46$

$g_{C,rel}^* = 65$



UE390-7, 5 step scales for constant CIE LAB hue 272/360 = 0.755 (left)

Output: Colorimetric Reflective System NCS11

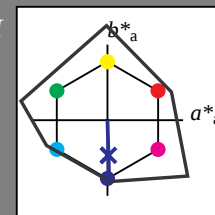
for hue $h^* = lab^*h = 272/360 = 0.755$

LAB*LCH, LAB*NCH

D65: hue B

LCH*Ma: 49 80 272

olv*Ma: 0.0 0.02 1.0



NCS11; adapted (a) CIE LAB data

	$L^*=L_a^*$	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

CIE LAB lightness L^*

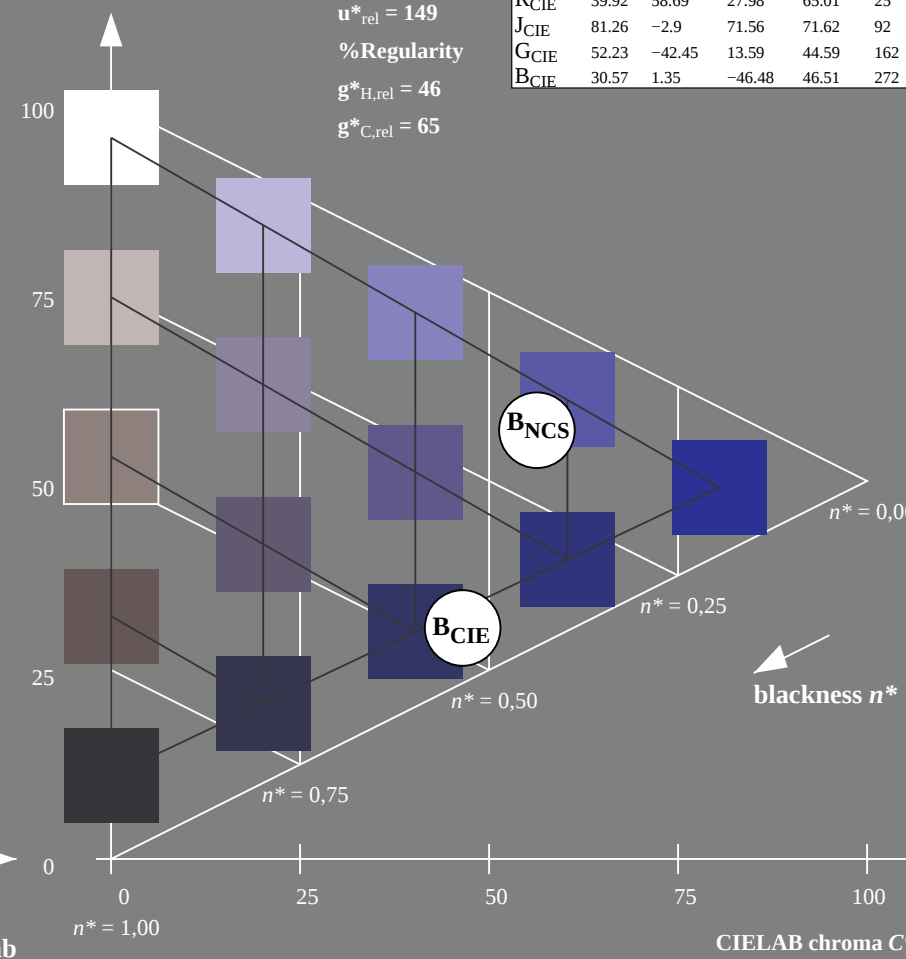
% Gamut

$u_{rel}^* = 149$

% Regularity

$g_{H,rel}^* = 46$

$g_{C,rel}^* = 65$



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

BAM-test chart UE39; Colorimetric systems NCS11a & NCS11ainput: *cmY0* setcmykcolor*

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

output: *no change compared to input*