

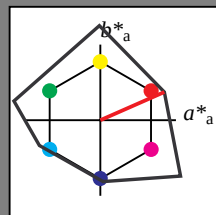
Input: Colorimetric Reflective System NCS11

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

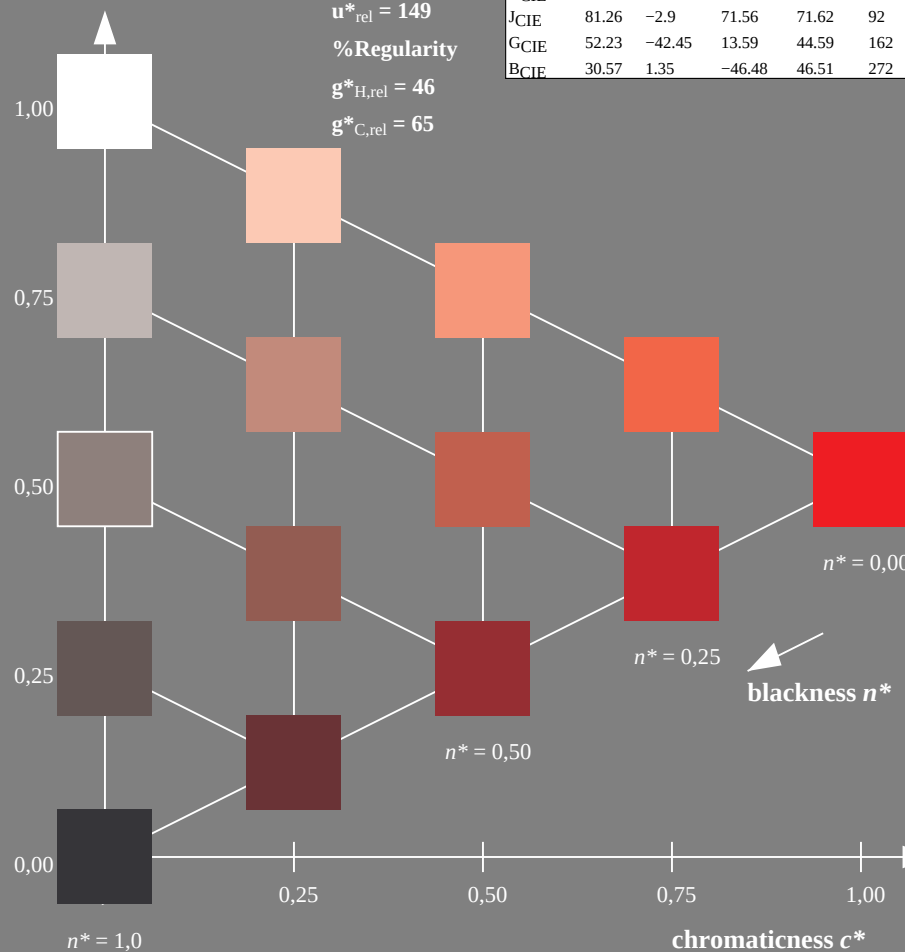
 $u^*_{rel} = 149$

%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



UE280-7, 5 step scales for constant CIELAB hue 24/360 = 0.066 (left)

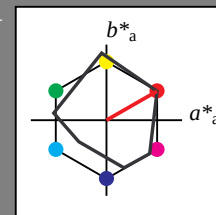
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 30/360 = 0.083$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue R

LCH*Ma: 50 77 30

rgb*Ma: 1.0 0.0 0.0

CIELAB lightness L^* 

%Gamut

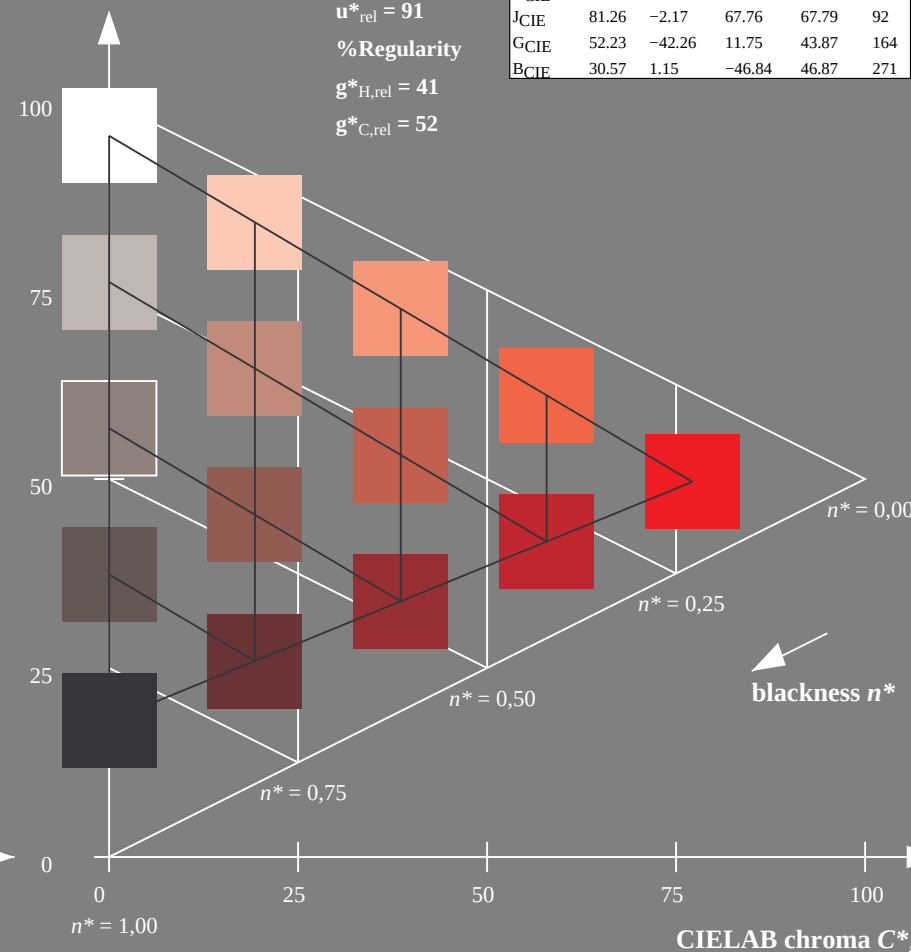
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 30/360 = 0.083 (right)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend

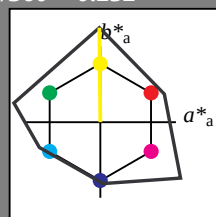
Input: Colorimetric Reflective System NCS11

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

D65: hue J

LCH*Ma: 91 125 91

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^* 

%Gamut

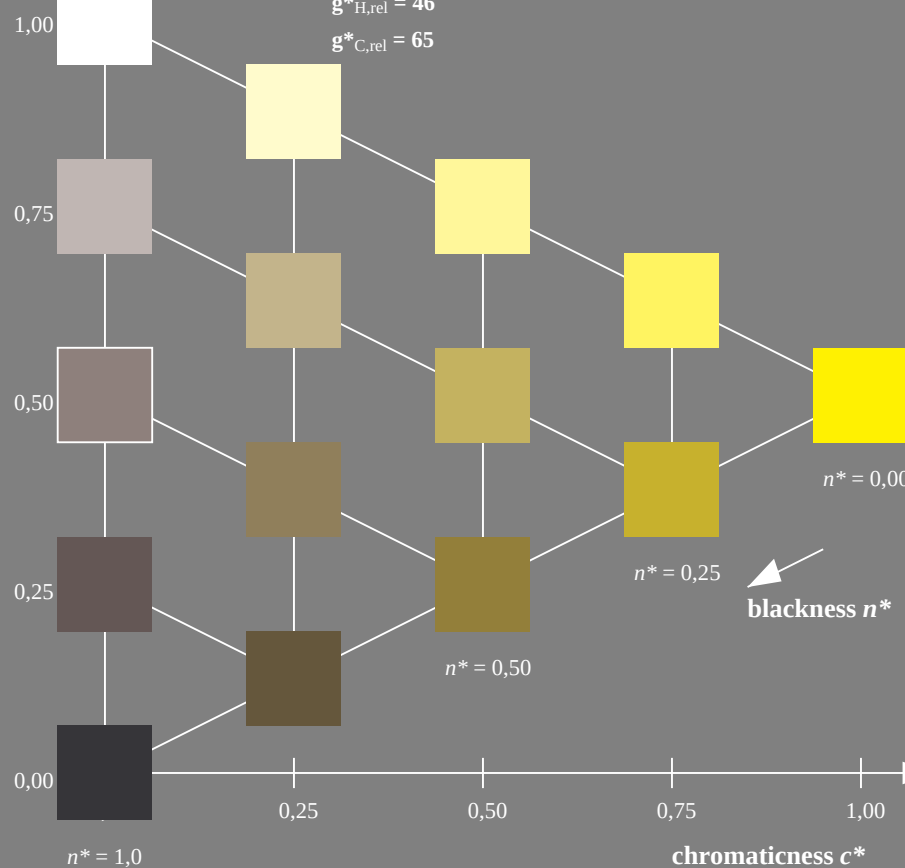
 $u^*_{rel} = 149$

%Regularity

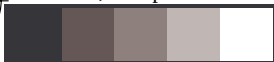
 $g^*_{H,rel} = 46$ $g^*_{C,rel} = 65$

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



UE280-7, 5 step scales for constant CIELAB hue 91/360 = 0.252 (left)



BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

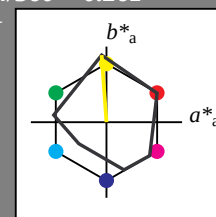
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 94/360 = 0.261$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue J

LCH*Ma: 91 89 94

rgb*Ma: 1.0 1.0 0.0

CIELAB lightness L^* 

%Gamut

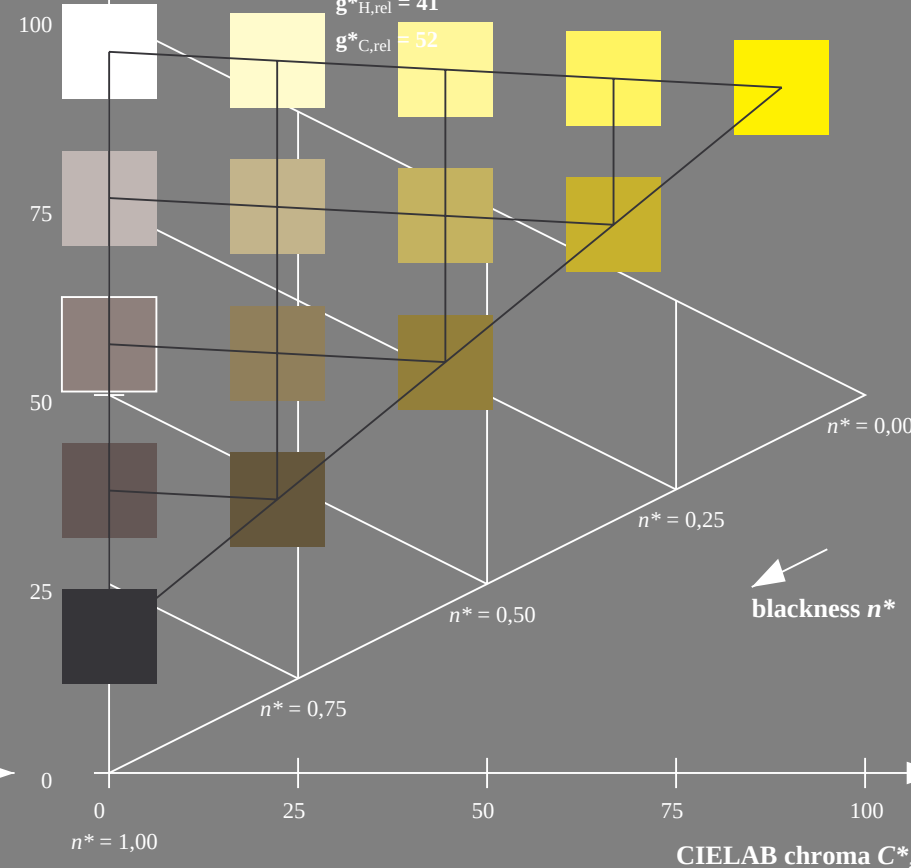
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 94/360 = 0.261 (right)

input: $cmy0^*$ setcmykcolor

output: Startup (S) data dependend



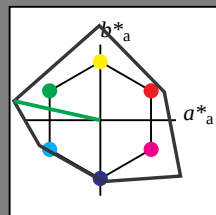
Input: Colorimetric Reflective System NCS11

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

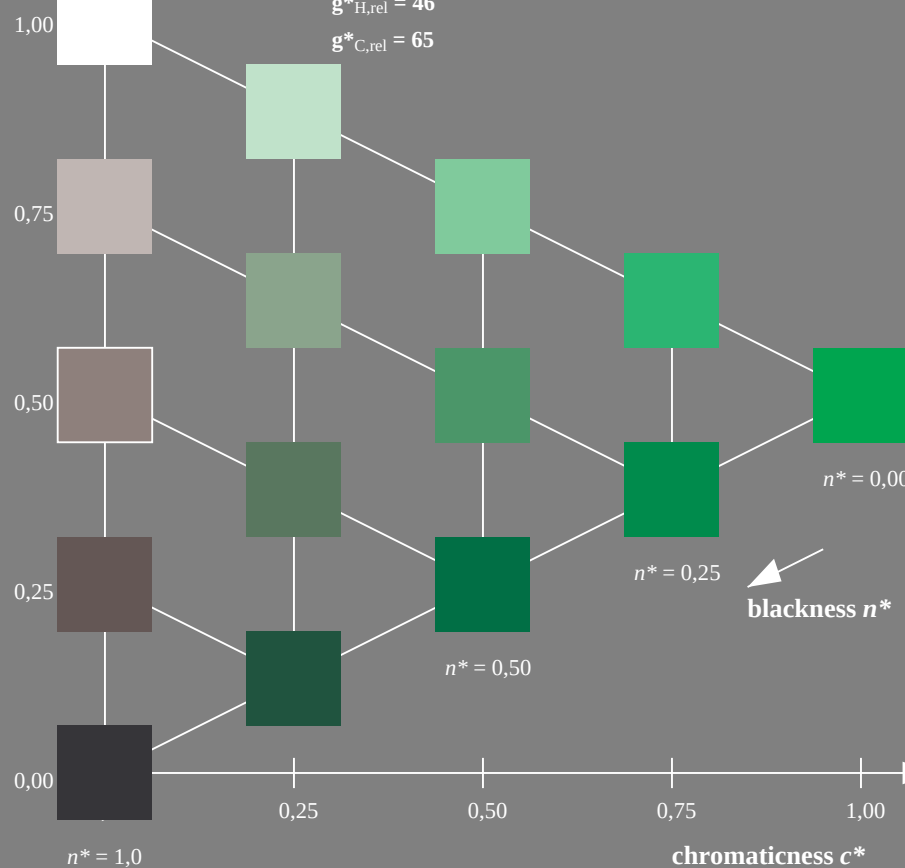
 $u^*_{rel} = 149$

%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
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



UE280-7, 5 step scales for constant CIELAB hue 167/360 = 0.465 (left)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

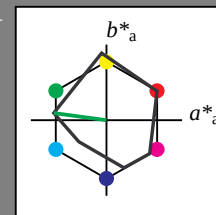
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 172/360 = 0.479$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G

LCH*Ma: 52 70 172

rgb*Ma: 0.0 1.0 0.0

CIELAB lightness L^* 

%Gamut

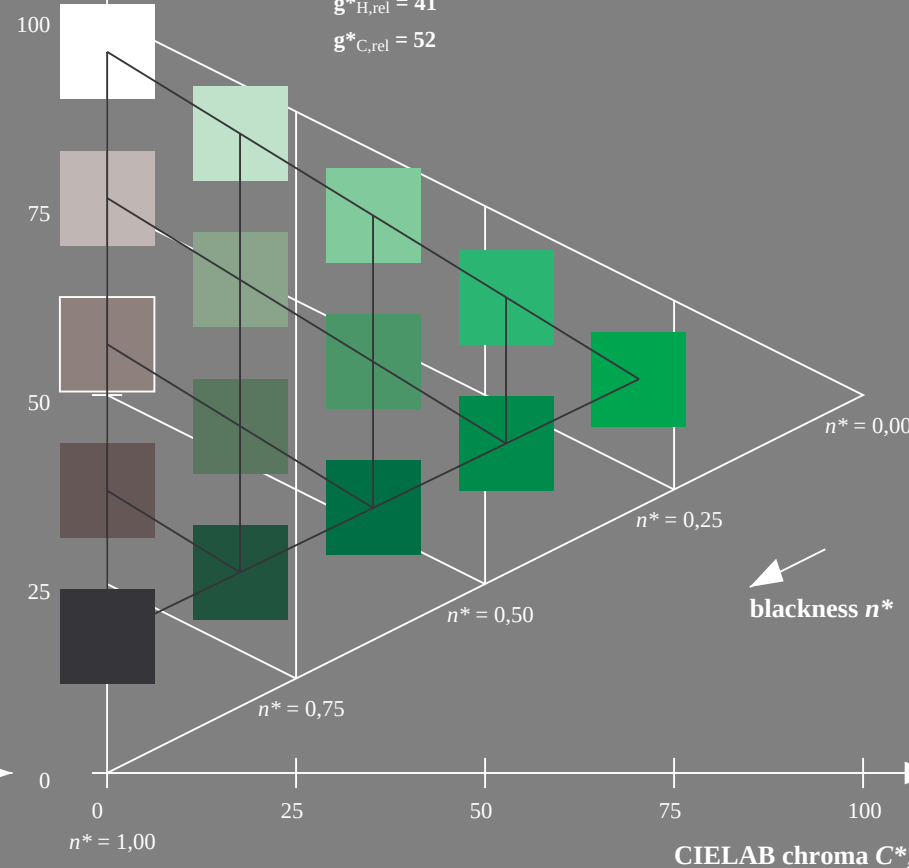
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 172/360 = 0.479 (right)

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend

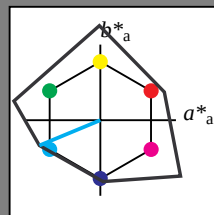
Input: Colorimetric Reflective System NCS11

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

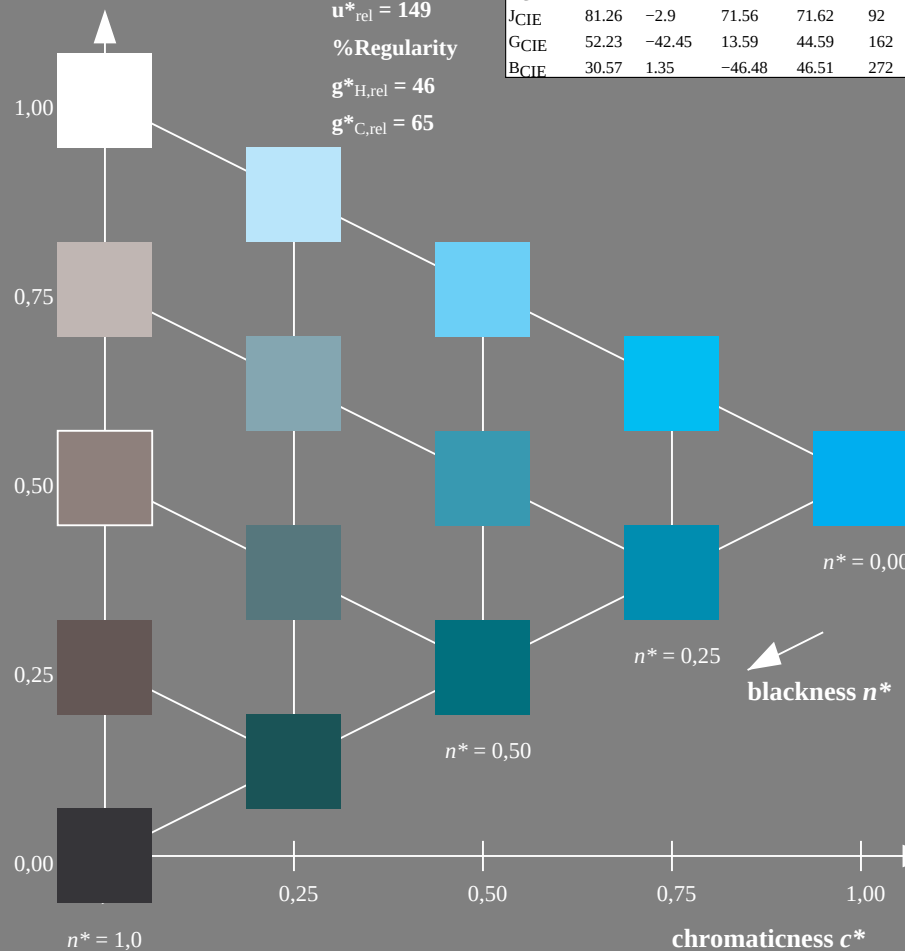
 $u^*_{rel} = 149$

%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



UE280-7, 5 step scales for constant CIELAB hue 203/360 = 0.563 (left)

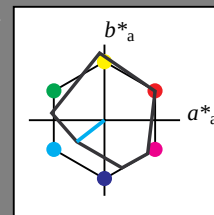
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 218/360 = 0.605$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G50B

LCH*Ma: 45 46 218

rgb*Ma: 0.0 1.0 1.0

CIELAB lightness L^* 

%Gamut

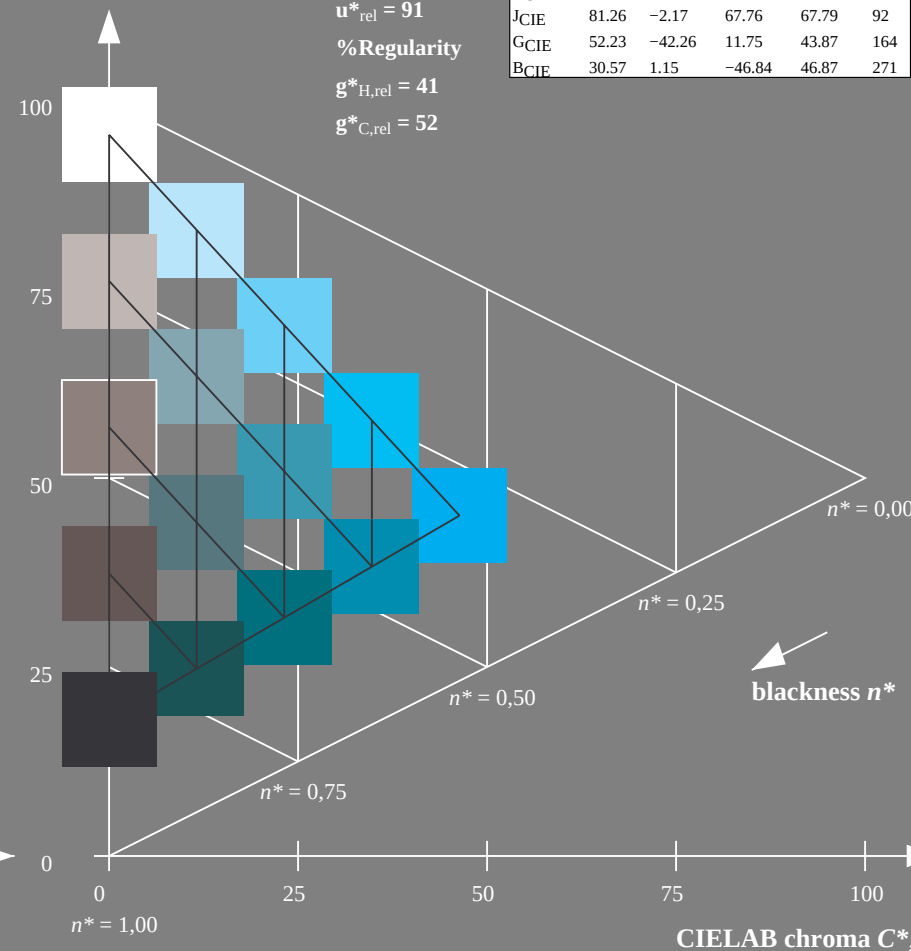
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 218/360 = 0.605 (right)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

input: *cmY0* setcmykcolor*output: *Startup (S) data dependend*

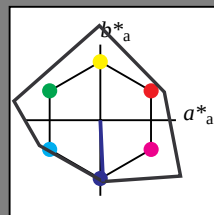
Input: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 273/360 = 0.757$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 49 81 273

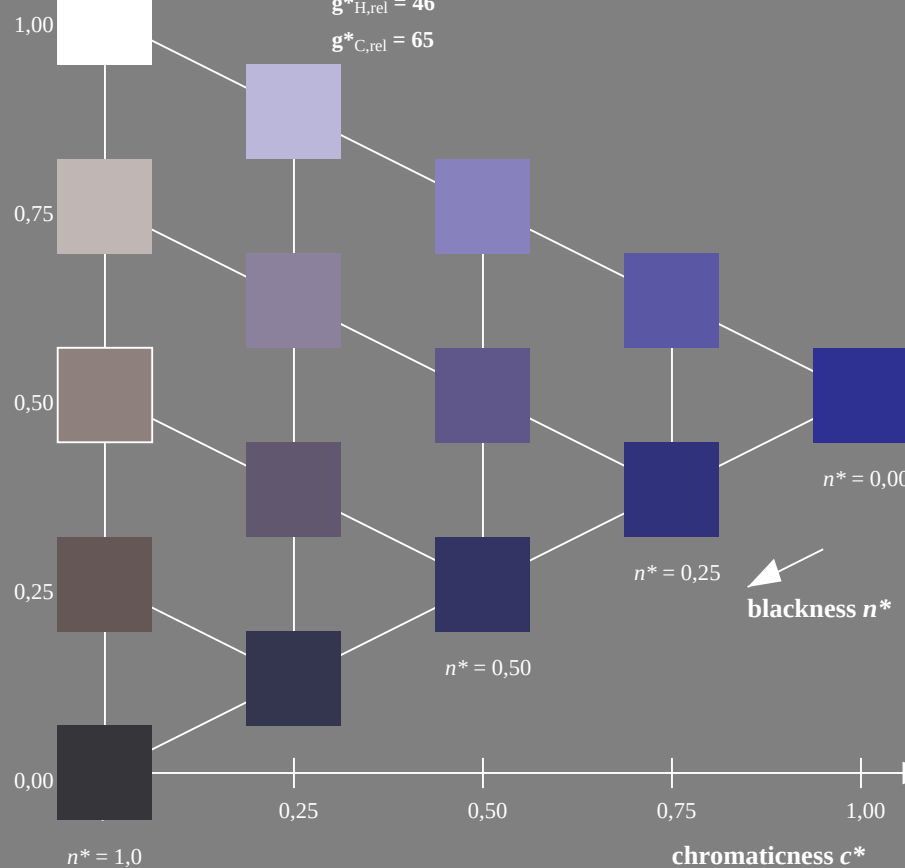
rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*

%Gamut

 $u^*_{rel} = 149$

%Regularity

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

UE280-7, 5 step scales for constant CIELAB hue 273/360 = 0.757 (left)

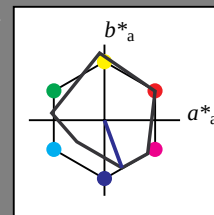
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 290/360 = 0.806$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue B

LCH*Ma: 37 67 290

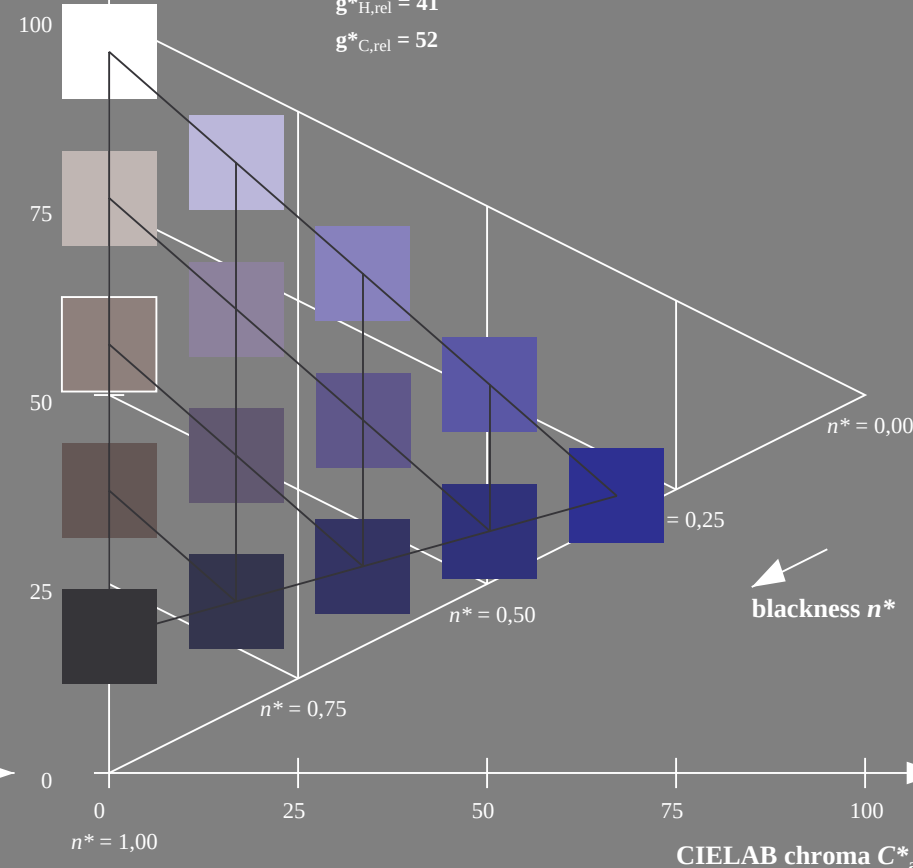
rgb*Ma: 0.0 0.0 1.0

CIELAB lightness L^*

%Gamut

 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$ 

5 step scales for constant CIELAB hue 290/360 = 0.806 (right)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^* setcmykcolor$

output: Startup (S) data dependend

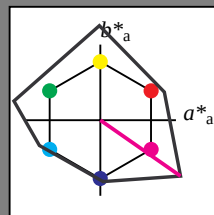
Input: Colorimetric Reflective System NCS11

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

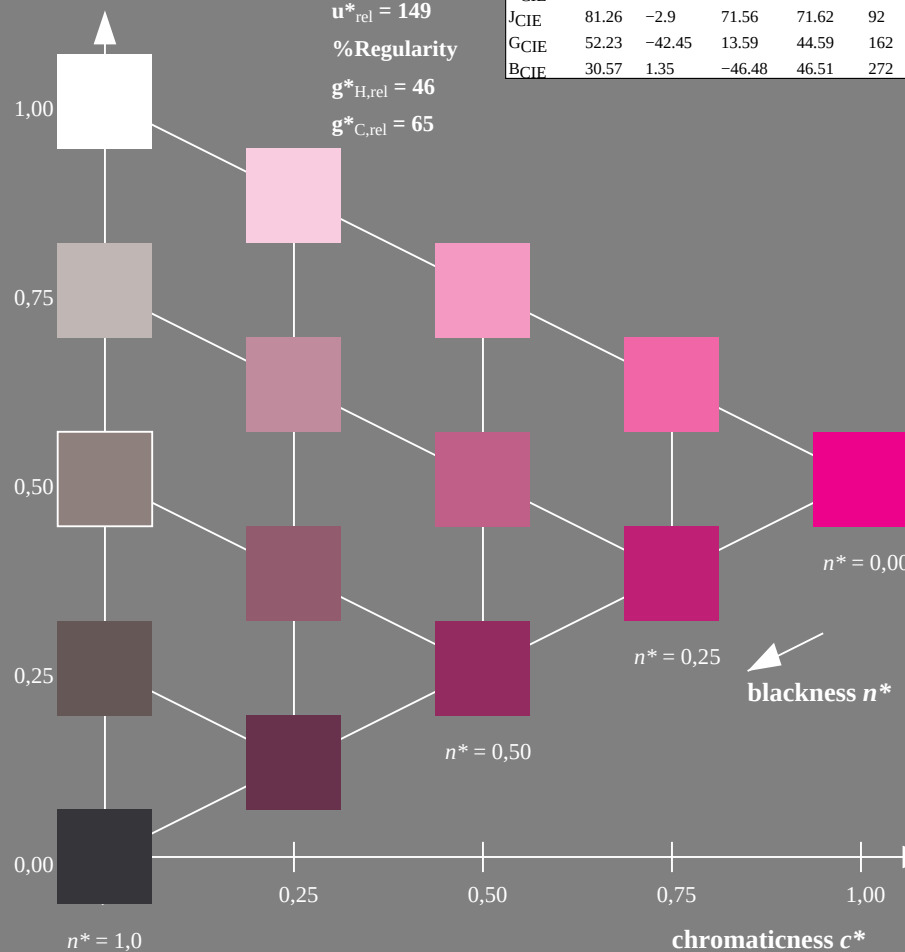
 $u^*_{rel} = 149$

%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
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



UE280-7, 5 step scales for constant CIELAB hue 325/360 = 0.903 (left)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

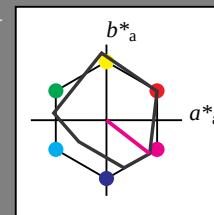
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 322/360 = 0.895$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue B50R

LCH*Ma: 35 72 322

rgb*Ma: 1.0 0.0 1.0

CIELAB lightness L^*

%Gamut

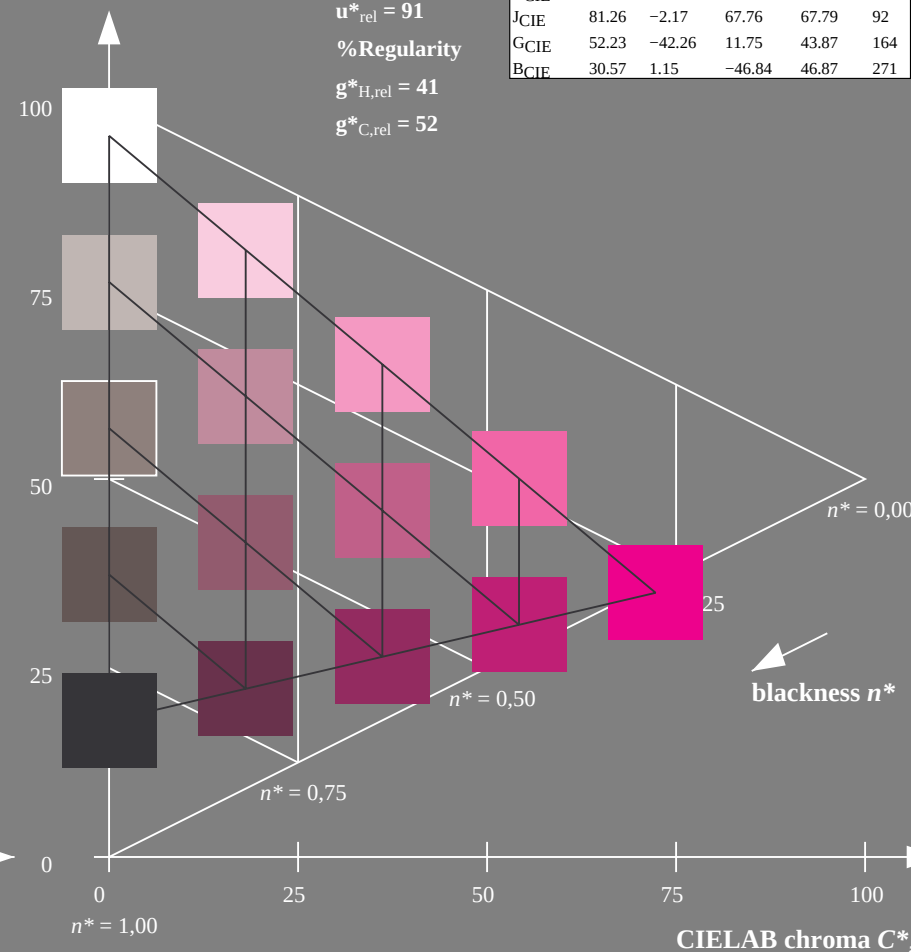
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 322/360 = 0.895 (right)

input: $cmY0^* setcmykcolor$

output: Startup (S) data dependend

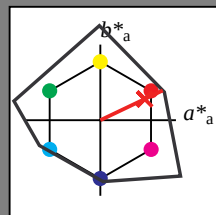
Input: Colorimetric Reflective System NCS11

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

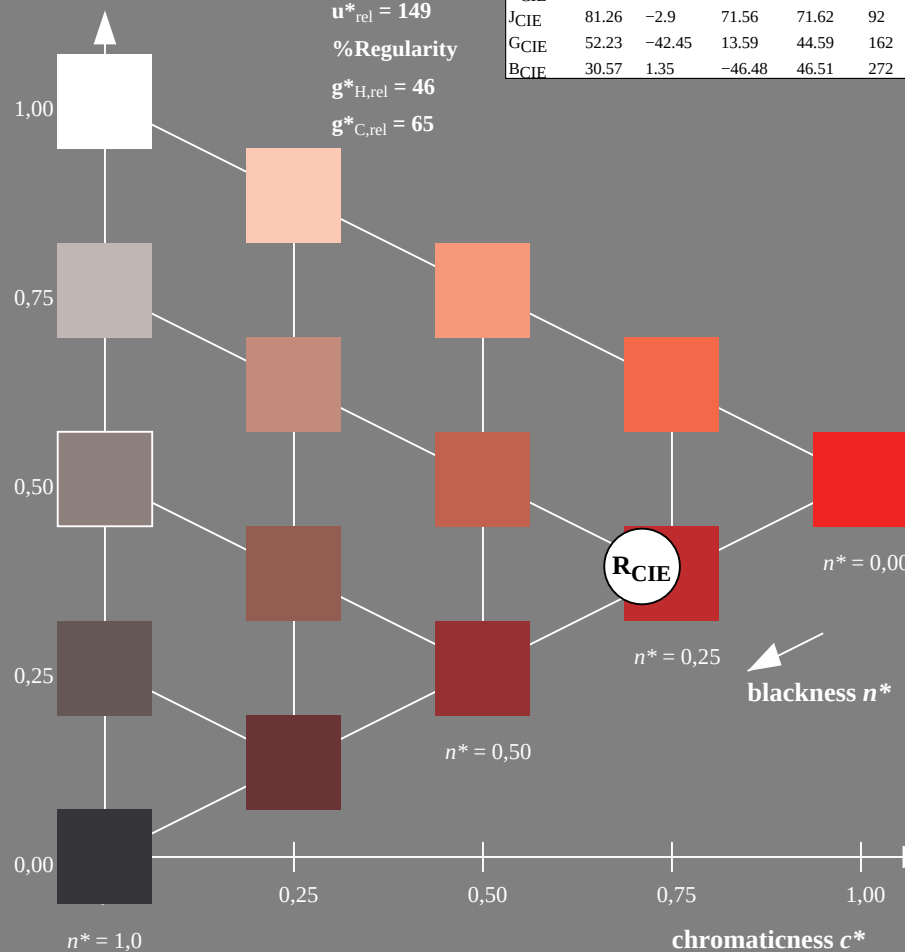
 $u^*_{rel} = 149$

%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



UE280-7, 5 step scales for constant CIE hue 25/360 = 0.071 (left)

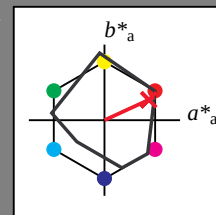
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 25/360 = 0.069$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue R

LCH*Ma: 48 73 25

rgb*Ma: 1.0 0.0 0.1

CIELAB lightness L^* 

%Gamut

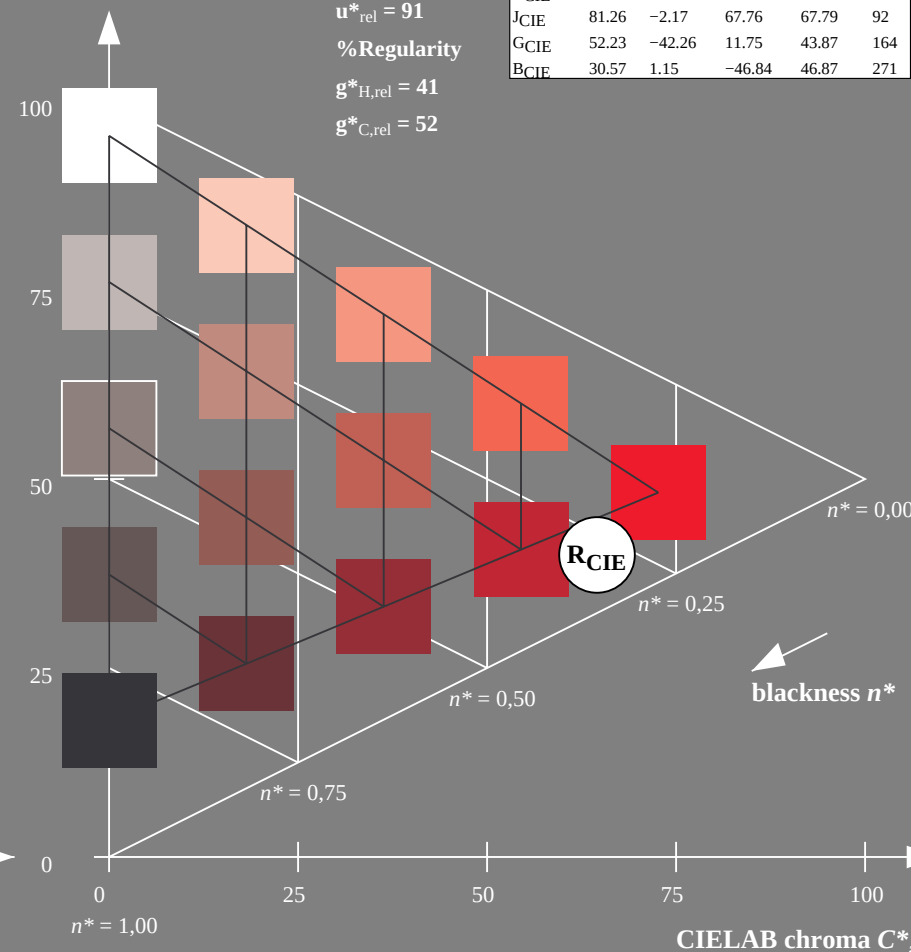
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIE hue 25/360 = 0.069 (right)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend

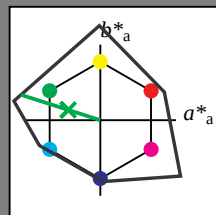
Input: Colorimetric Reflective System NCS11

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

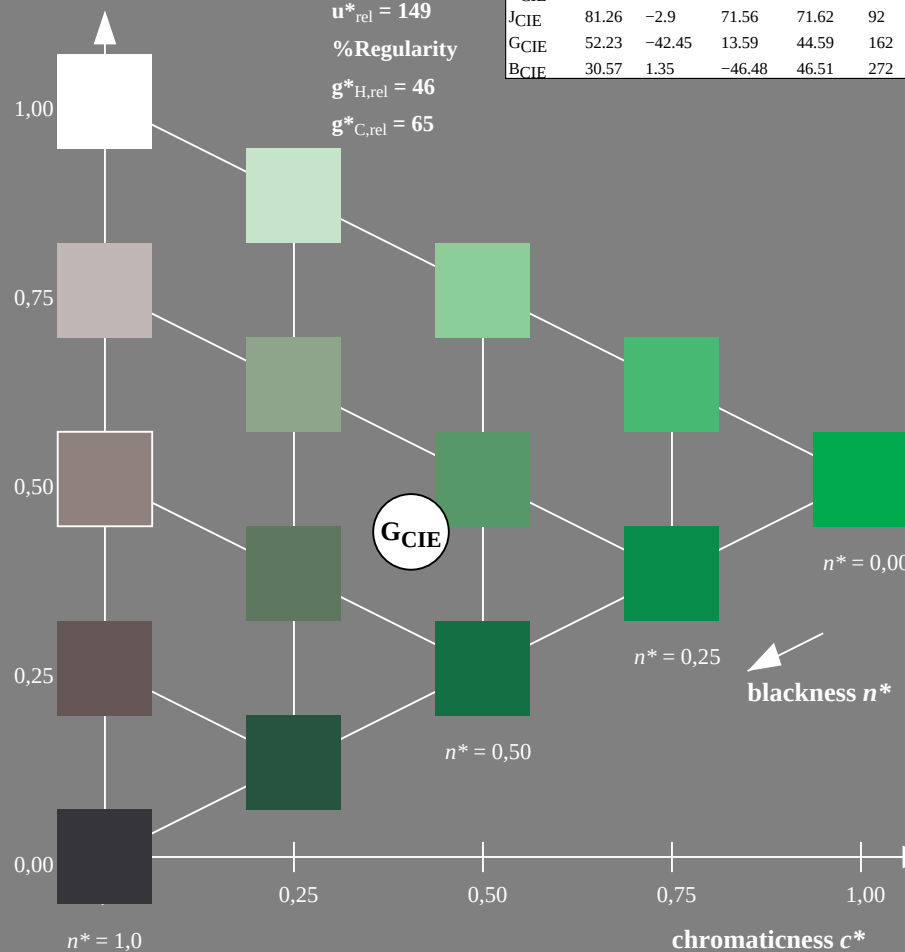
 $u^*_{rel} = 149$

%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



UE280-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

BAM-test chart UE28; Colorimetric systems ORS18 & ORS18

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

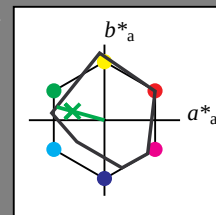
Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 164/360 = 0.457$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue G

LCH*Ma: 56 66 164

rgb*Ma: 0.1 1.0 0.0

CIELAB lightness L^* 

%Gamut

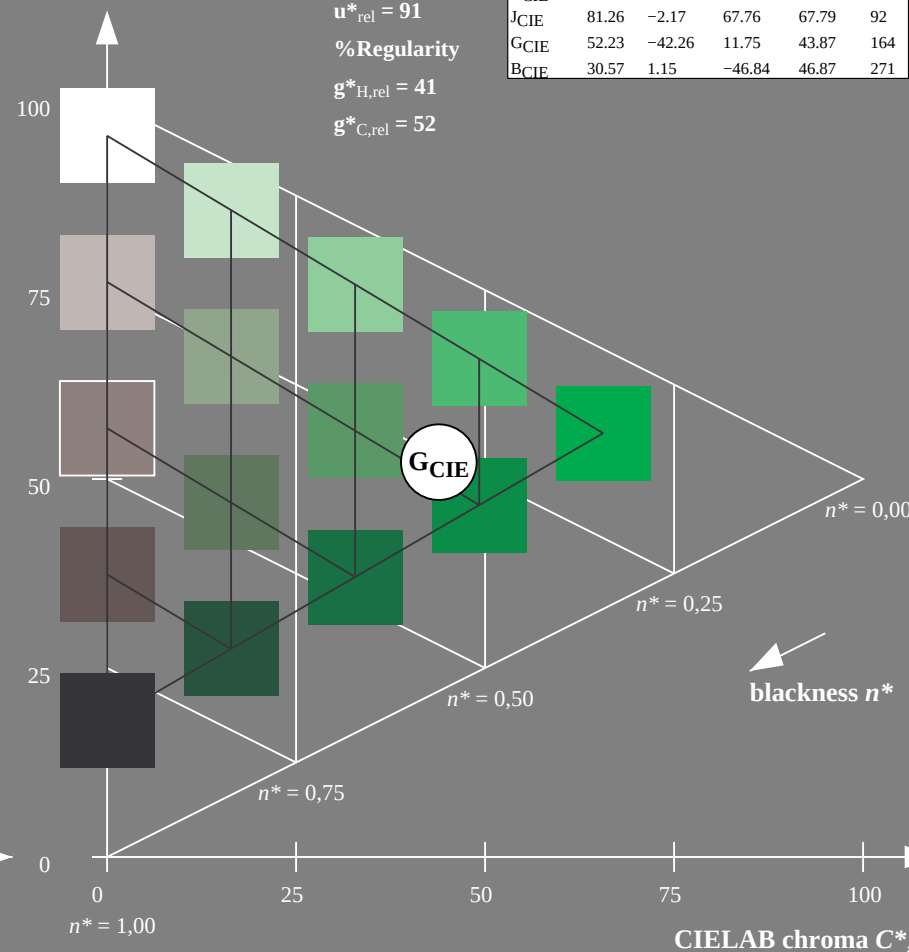
 $u^*_{rel} = 91$

%Regularity

 $g^*_{H,rel} = 41$ $g^*_{C,rel} = 52$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 164/360 = 0.457 (right)

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend

