

Input: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 30/360 = 0.083$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 50 77 30

olv*Ma: 1.0 0.0 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

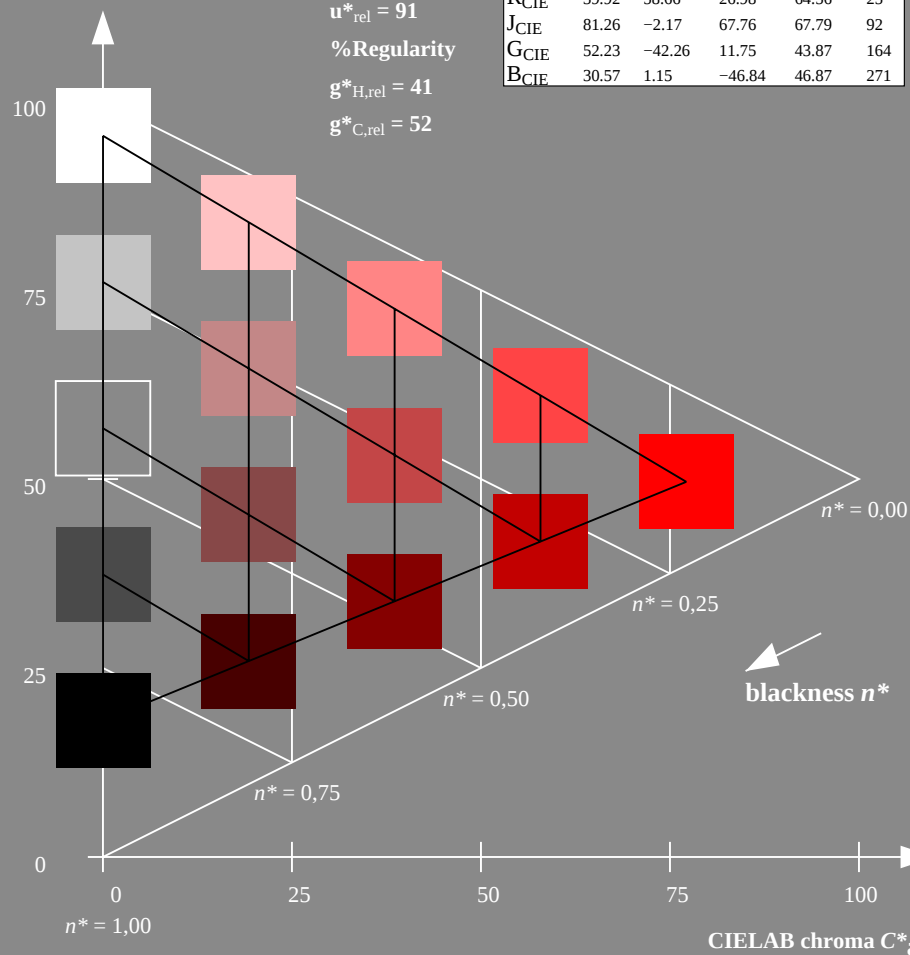
% Regularity

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

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

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R_{Ma}	49.63	66.96	38.37	77.18	30
J_{Ma}	90.7	-6.36	88.75	88.98	94
G_{Ma}	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
R_{CIE}	39.92	58.66	26.98	64.56	25
J_{CIE}	81.26	-2.17	67.76	67.79	92
G_{CIE}	52.23	-42.26	11.75	43.87	164
B_{CIE}	30.57	1.15	-46.84	46.87	271



UE340-7, 5 step scales for constant CIELAB hue 30/360 = 0.083 (left)

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 30/360 = 0.083$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 50 77 30

olv*Ma: 1.0 0.0 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

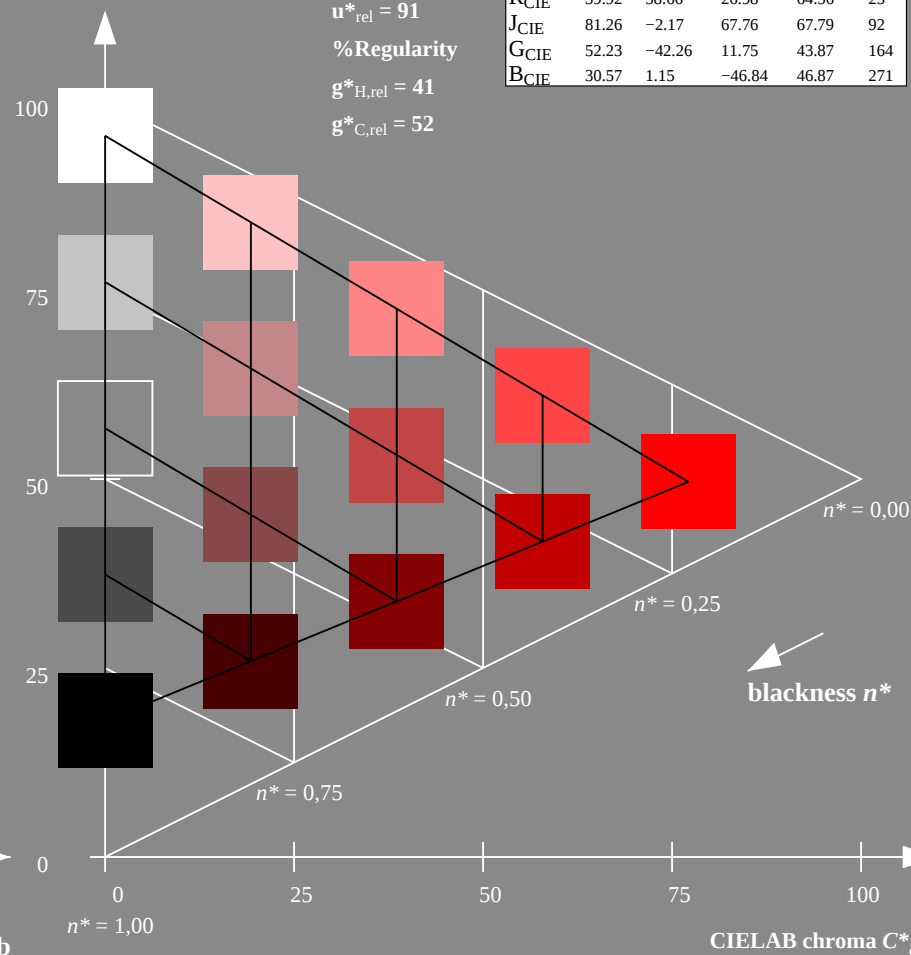
% Regularity

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

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

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R_{Ma}	49.63	66.96	38.37	77.18	30
J_{Ma}	90.7	-6.36	88.75	88.98	94
G_{Ma}	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
R_{CIE}	39.92	58.66	26.98	64.56	25
J_{CIE}	81.26	-2.17	67.76	67.79	92
G_{CIE}	52.23	-42.26	11.75	43.87	164
B_{CIE}	30.57	1.15	-46.84	46.87	271



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

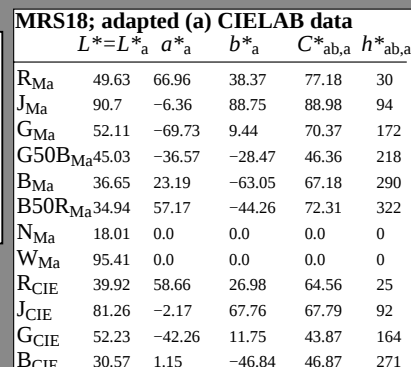
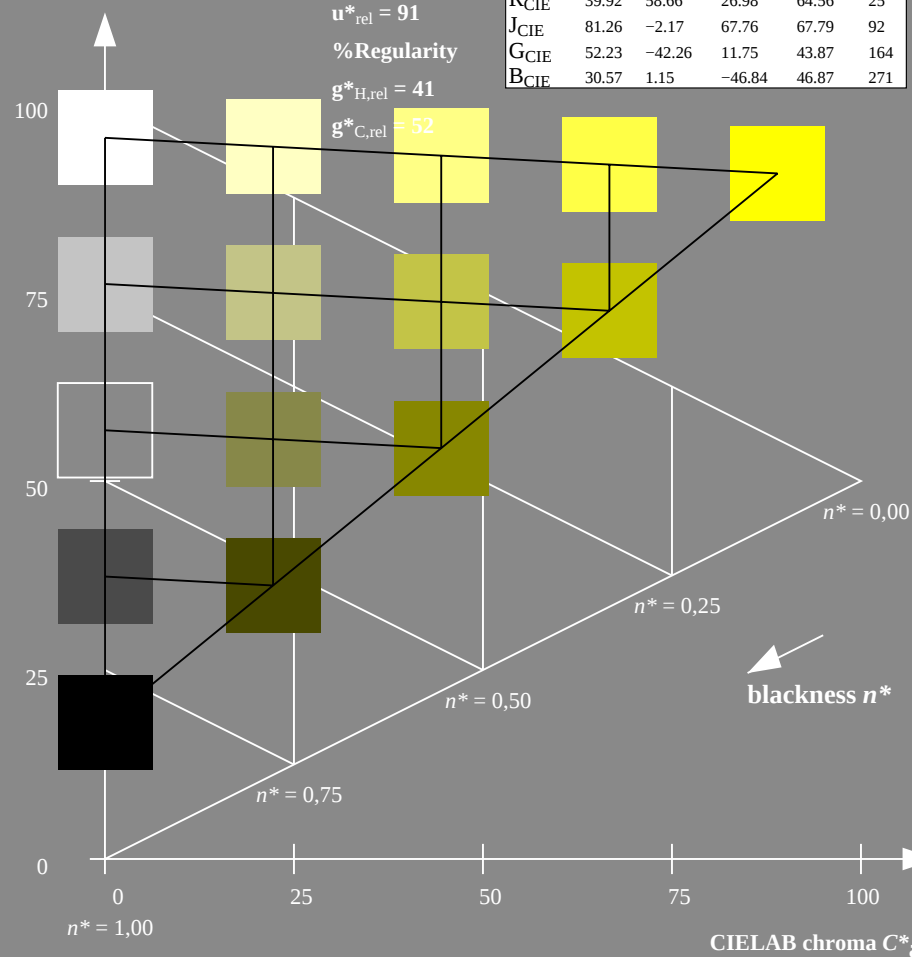
BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: $cmY0^* setcmykcolor$

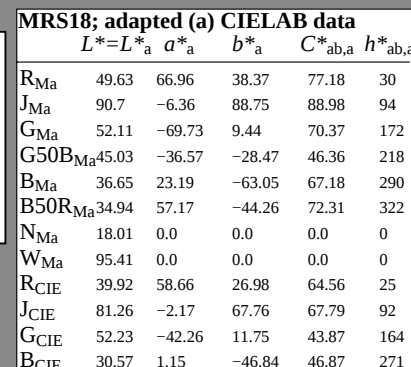
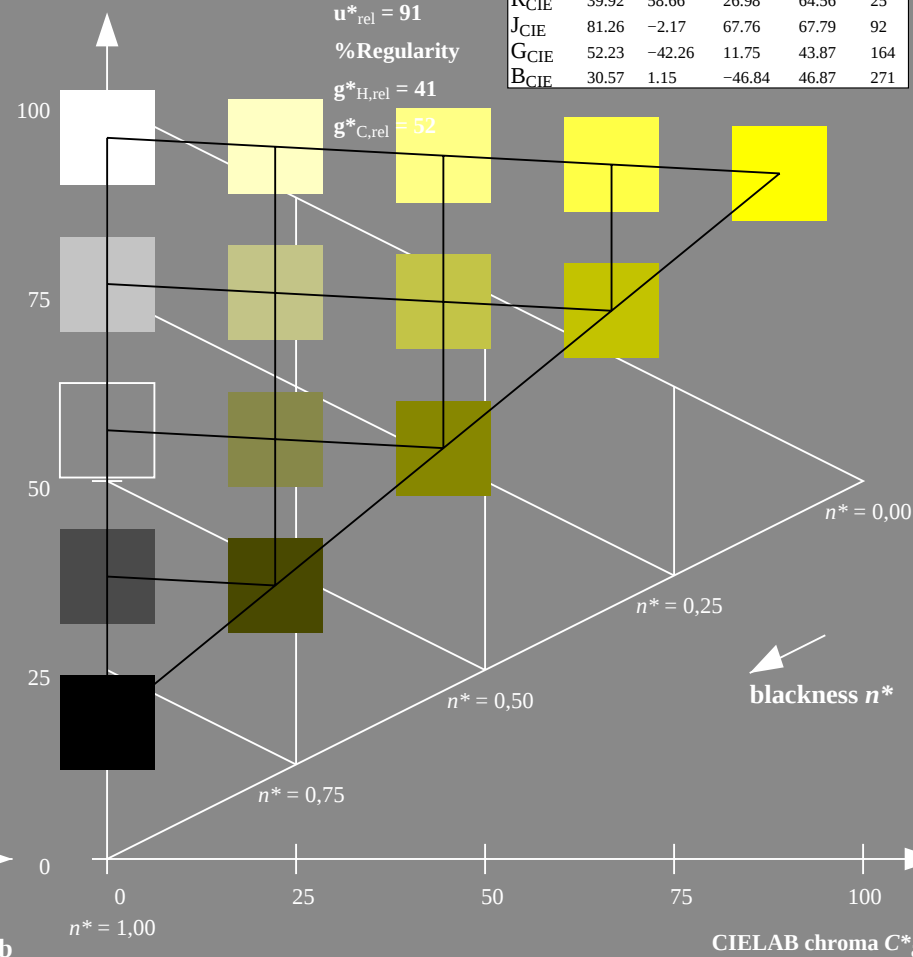
output: $olv^* setrgbcolor / w^* setgray$

olv*Ma: 1.0 1.0 0.0


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


UE340-7, 5 step scales for constant CIELAB hue 94/360 = 0.261 (left)

olv*Ma: 1.0 1.0 0.0


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


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

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

output: *olv** *setrgbcolor* / *w** *setgray*

Input: Colorimetric Reflective System MRS18

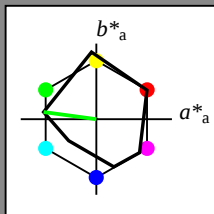
for hue $h^* = lab \cdot h = 172/360 = 0.479$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 52 70 172

olv*Ma: 0.0 1.0 0.0



MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

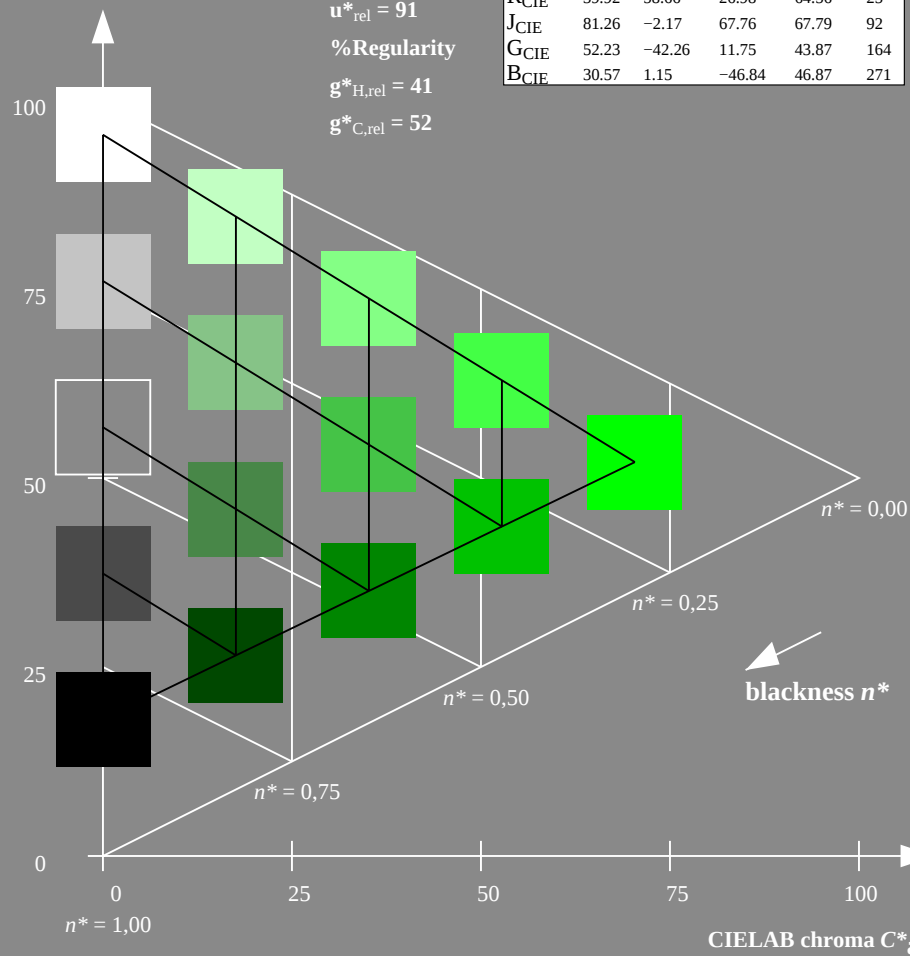
% Gamut

$u^*_{rel} = 91$

% Regularity

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

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



UE340-7, 5 step scales for constant CIELAB hue 172/360 = 0.479 (left)

Output: Colorimetric Reflective System MRS18

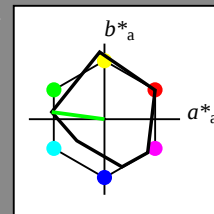
for hue $h^* = lab \cdot h = 172/360 = 0.479$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 52 70 172

olv*Ma: 0.0 1.0 0.0



MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
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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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

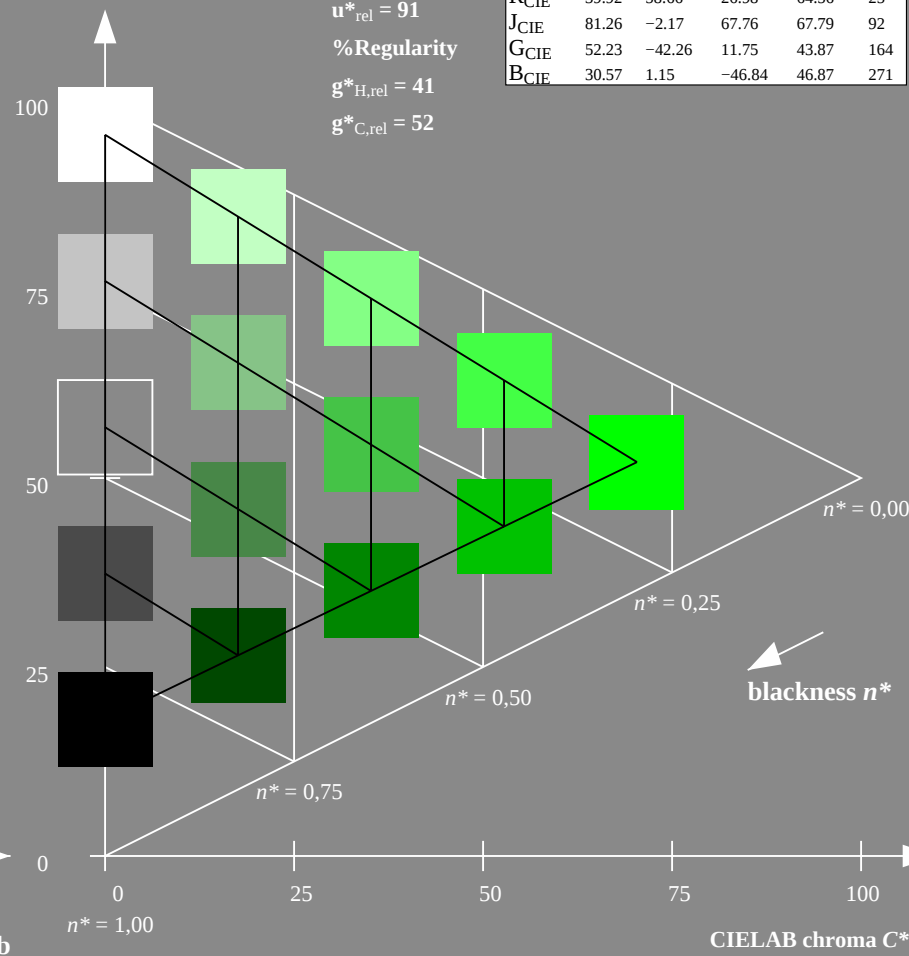
% Gamut

$u^*_{rel} = 91$

% Regularity

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

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



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

BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: $cmY0^* setcmykcolor$

output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System MRS18

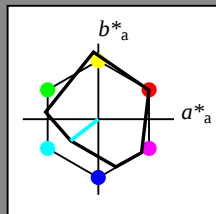
for hue $h^* = lab \cdot h = 218/360 = 0.605$

LAB*LCH, LAB*NCH

D65: hue G50B

LCH*Ma: 45 46 218

olv*Ma: 0.0 1.0 1.0



MRS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
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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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

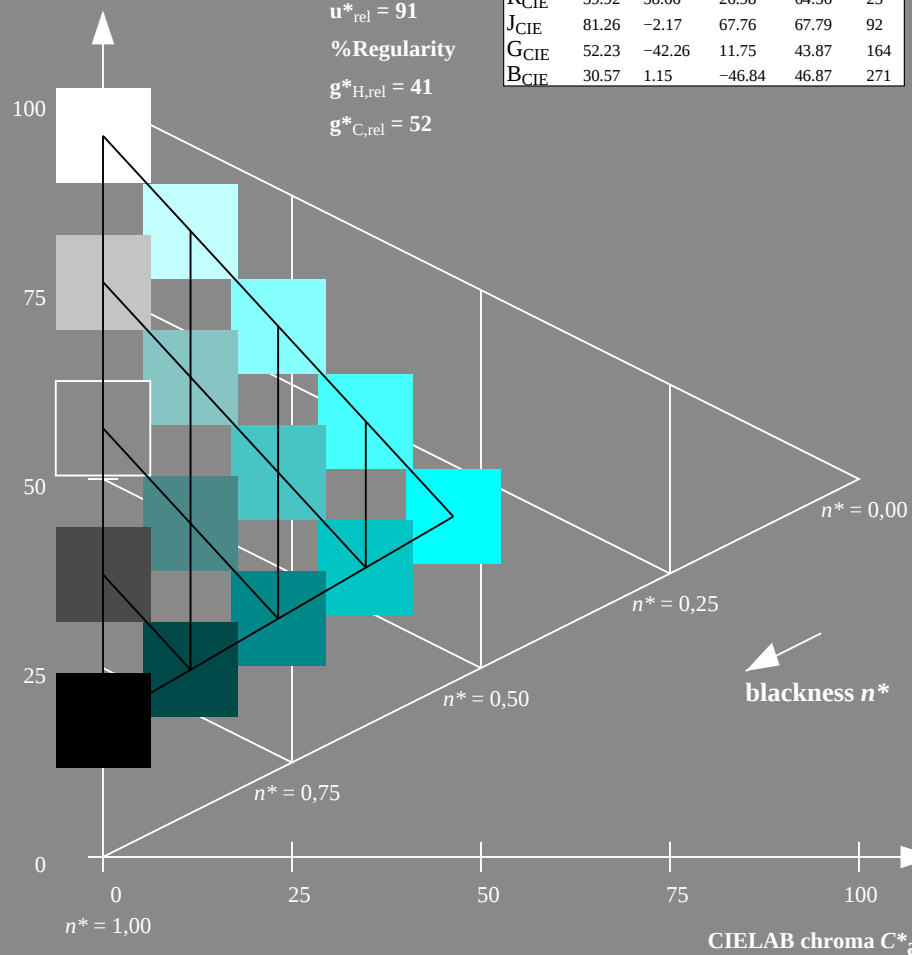
% Gamut

$u_{rel}^* = 91$

% Regularity

$g_{H,rel}^* = 41$

$g_{C,rel}^* = 52$



UE340-7, 5 step scales for constant CIELAB hue 218/360 = 0.605 (left)

Output: Colorimetric Reflective System MRS18

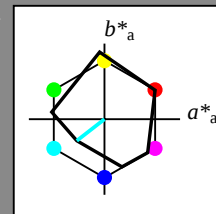
for hue $h^* = lab \cdot h = 218/360 = 0.605$

LAB*LCH, LAB*NCH

D65: hue G50B

LCH*Ma: 45 46 218

olv*Ma: 0.0 1.0 1.0



MRS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

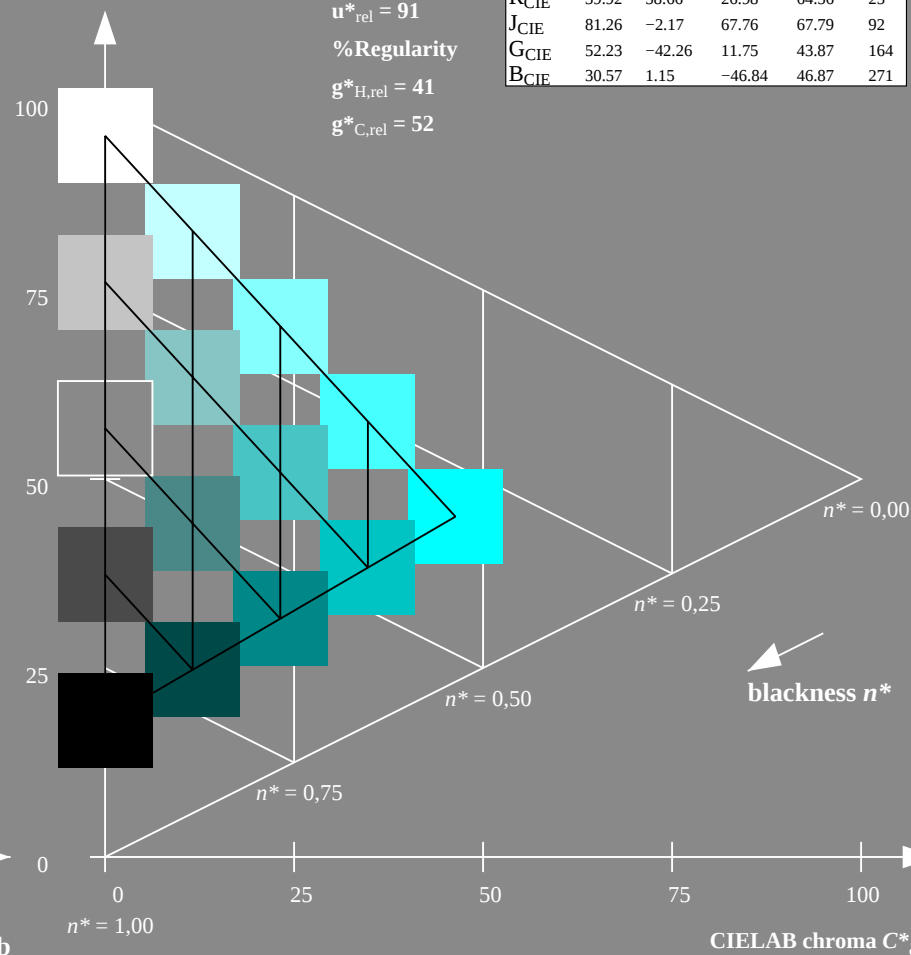
% Gamut

$u_{rel}^* = 91$

% Regularity

$g_{H,rel}^* = 41$

$g_{C,rel}^* = 52$



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

BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: *cmY0* setcmykcolor*

output: *olv* setrgbcolor / w* setgray*

output: *olv** *setrgbcolor* / *w** *setgray*

Input: Colorimetric Reflective System MRS18

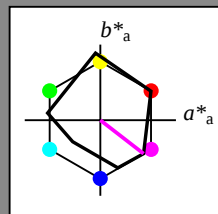
for hue $h^* = lab \cdot h = 322/360 = 0.895$

LAB*LCH, LAB*NCH

D65: hue B50R

LCH*Ma: 35 72 322

olv*Ma: 1.0 0.0 1.0



MRS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

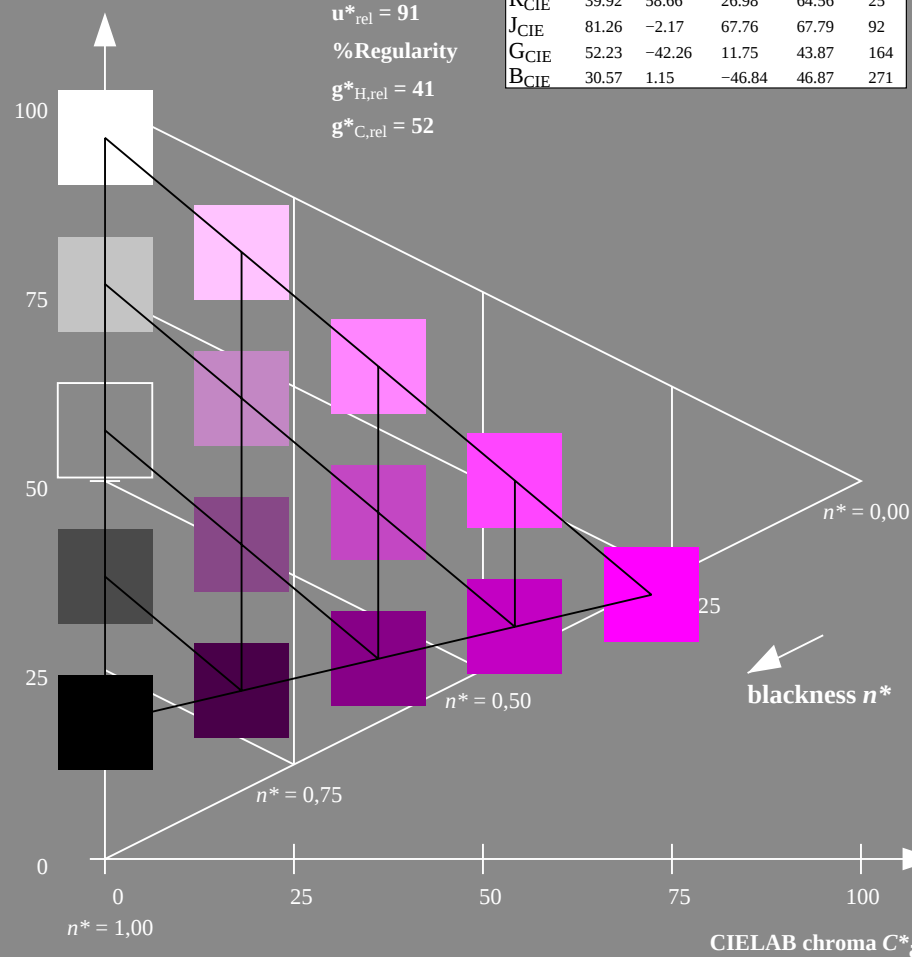
% Gamut

$u_{rel}^* = 91$

% Regularity

$g_{H,rel}^* = 41$

$g_{C,rel}^* = 52$



UE340-7, 5 step scales for constant CIELAB hue 322/360 = 0.895 (left)

Output: Colorimetric Reflective System MRS18

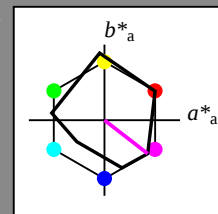
for hue $h^* = lab \cdot h = 322/360 = 0.895$

LAB*LCH, LAB*NCH

D65: hue B50R

LCH*Ma: 35 72 322

olv*Ma: 1.0 0.0 1.0



MRS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

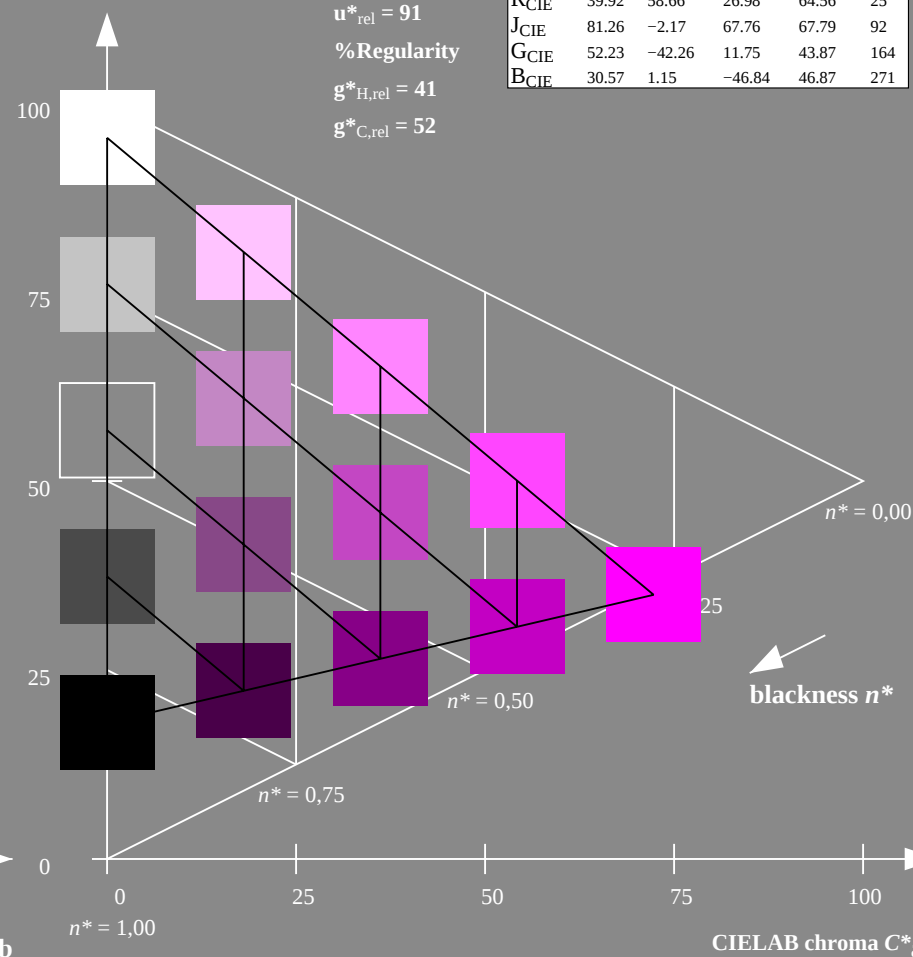
% Gamut

$u_{rel}^* = 91$

% Regularity

$g_{H,rel}^* = 41$

$g_{C,rel}^* = 52$



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

BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: $cmY0^* setcmykcolor$

output: $olv^* setrgbcolor / w^* setgray$



Input: Colorimetric Reflective System MRS18

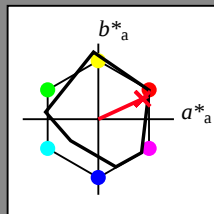
for hue $h^* = lab \cdot h = 25/360 = 0.069$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 48 73 25

olv*Ma: 1.0 0.0 0.1



MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

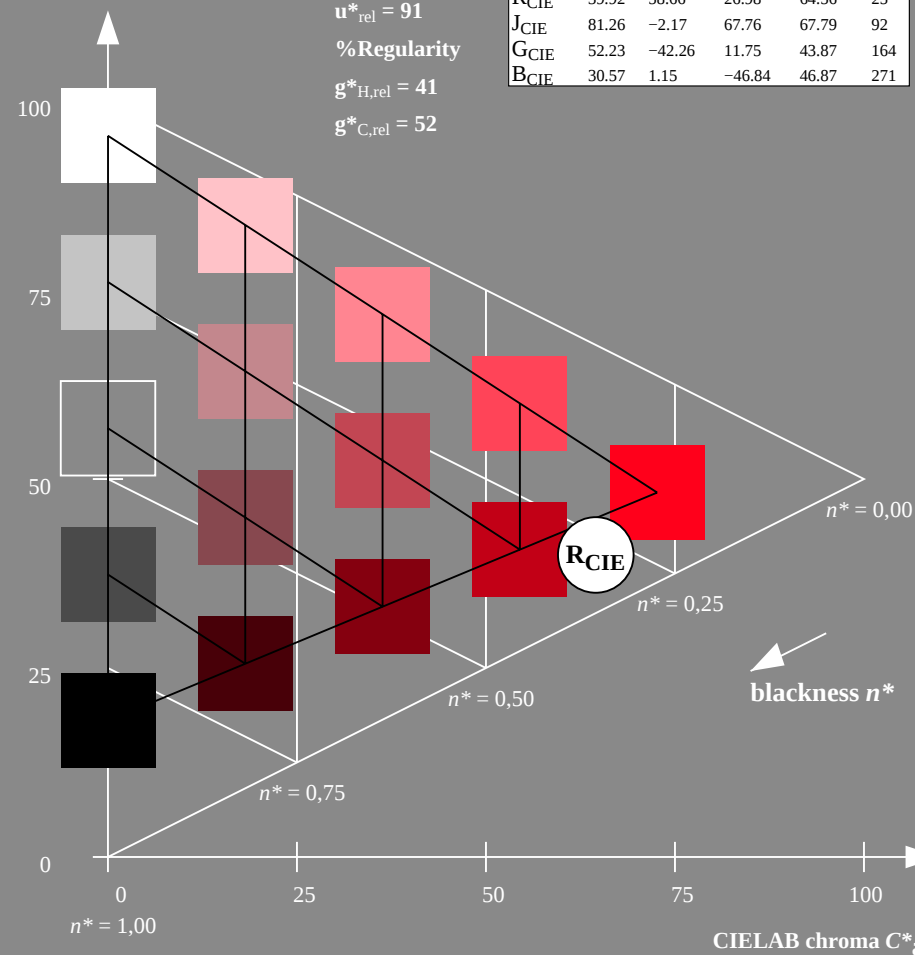
% Gamut

$u^*_{rel} = 91$

% Regularity

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

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



UE340-7, 5 step scales for constant CIELAB hue 25/360 = 0.069 (left)



BAM-test chart UE34; Colorimetric systems MRS18 & MRS18
D65: Coordinate systems of 5 step colour scales for 10 hues

Output: Colorimetric Reflective System MRS18

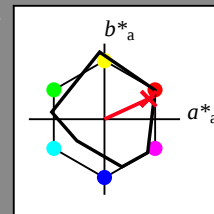
for hue $h^* = lab \cdot h = 25/360 = 0.069$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 48 73 25

olv*Ma: 1.0 0.0 0.1



MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	52.11	-69.73	9.44	70.37	172
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N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

CIELAB lightness L^*

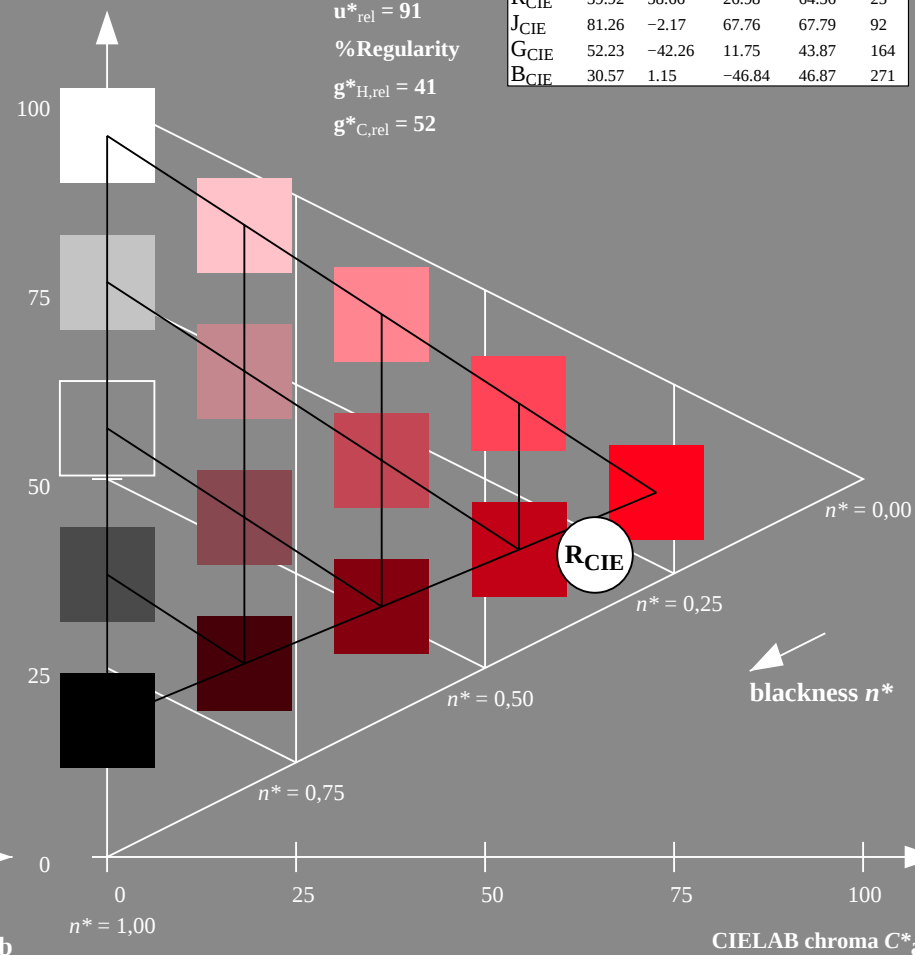
% Gamut

$u^*_{rel} = 91$

% Regularity

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

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



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



input: $cmY0^* \text{ setcmYcolor}$
output: $olv^* \text{ setrgbcolor} / w^* \text{ setgray}$

Input: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 92/360 = 0.255$

LAB*LCH, LAB*NCH

D65: hue J

LCH*Ma: 89 86 92

olv*Ma: 1.0 0.95 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

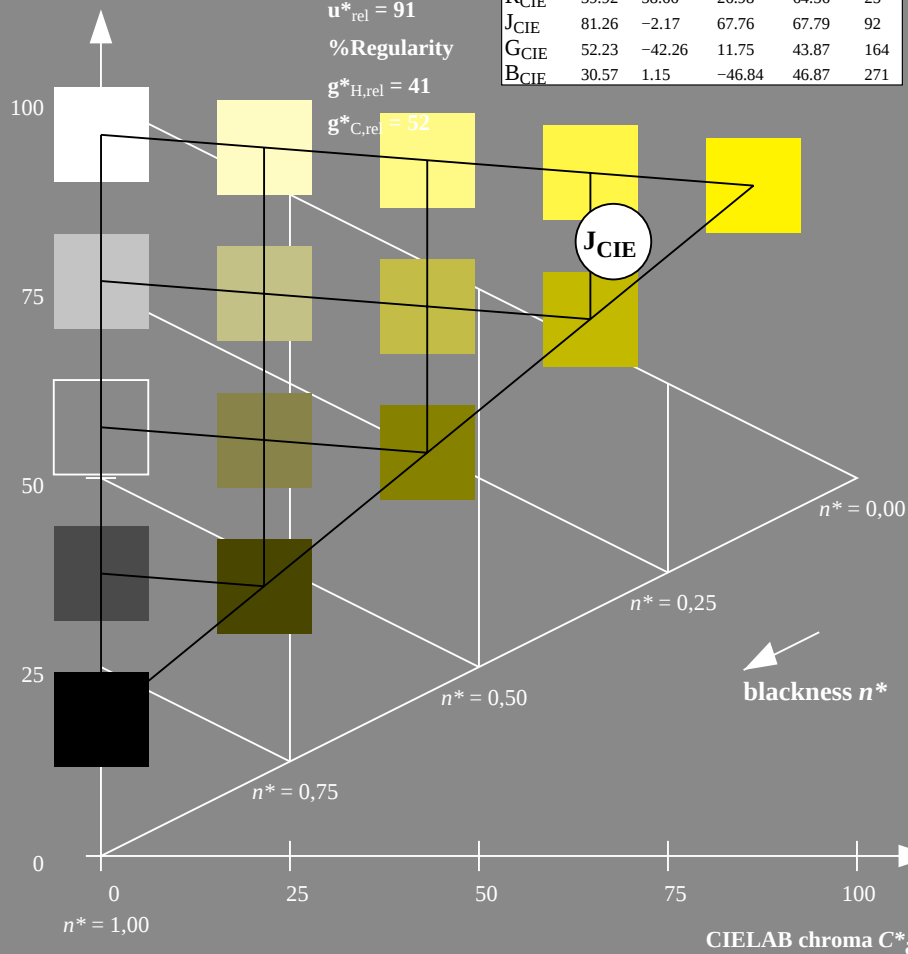
% Regularity

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

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

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	52.11	-69.73	9.44	70.37	172
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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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271



UE340-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 92/360 = 0.255$

LAB*LCH, LAB*NCH

D65: hue J

LCH*Ma: 89 86 92

olv*Ma: 1.0 0.95 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

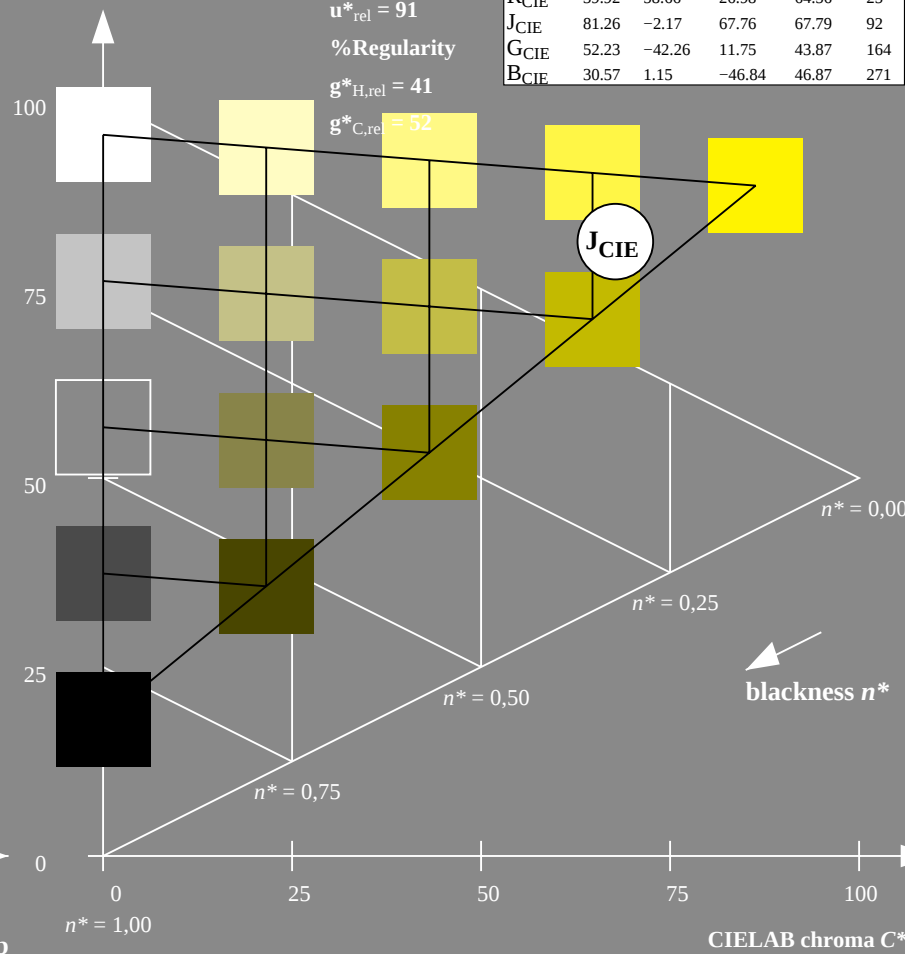
% Regularity

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

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

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{Ma}	49.63	66.96	38.37	77.18	30
J _{Ma}	90.7	-6.36	88.75	88.98	94
G _{Ma}	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
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271



5 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: $cmY0^* setcmykcolor$

output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 164/360 = 0.457$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 56 66 164

olv*Ma: 0.1 1.0 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

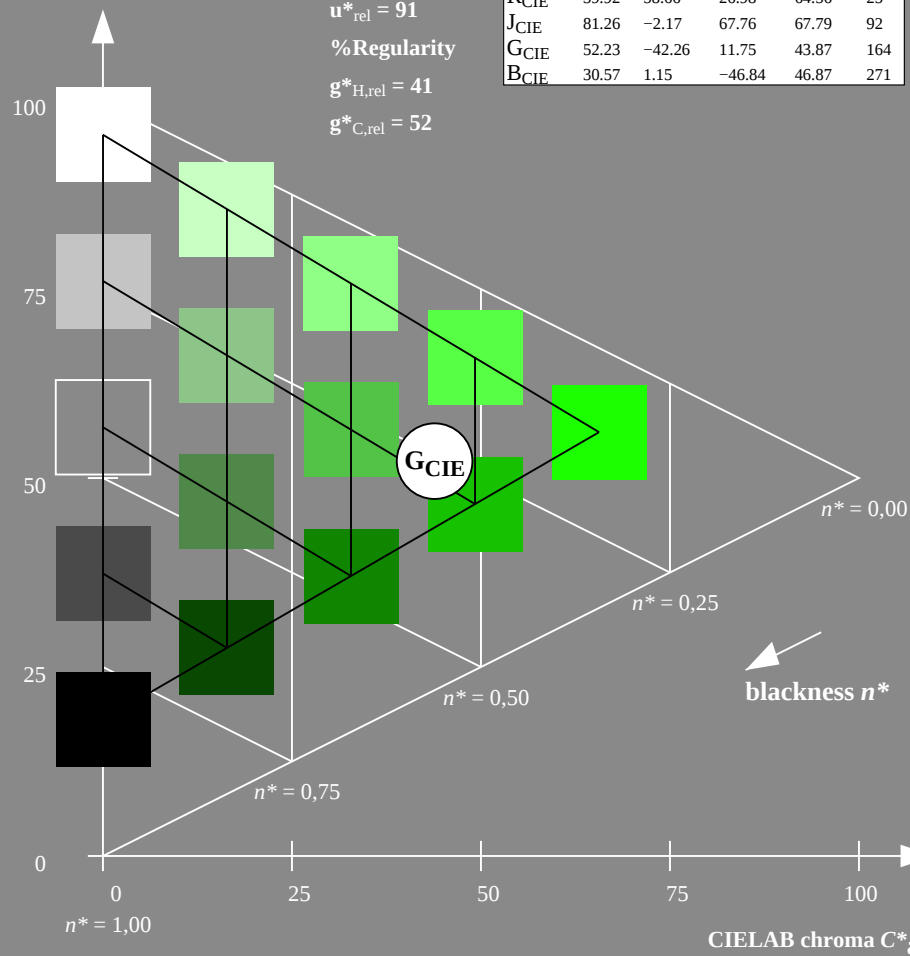
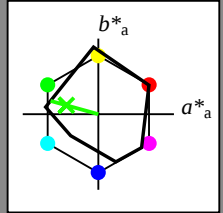
% Regularity

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

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

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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J_{Ma}	90.7	-6.36	88.75	88.98	94
G_{Ma}	52.11	-69.73	9.44	70.37	172
$G50B_{Ma}$	45.03	-36.57	-28.47	46.36	218
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$B50R_{Ma}$	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
R_{CIE}	39.92	58.66	26.98	64.56	25
J_{CIE}	81.26	-2.17	67.76	67.79	92
G_{CIE}	52.23	-42.26	11.75	43.87	164
B_{CIE}	30.57	1.15	-46.84	46.87	271



UE340-7, 5 step scales for constant CIELAB hue 164/360 = 0.457 (left)

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab \cdot h = 164/360 = 0.457$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 56 66 164

olv*Ma: 0.1 1.0 0.0

CIELAB lightness L^*

% Gamut

$u^*_{rel} = 91$

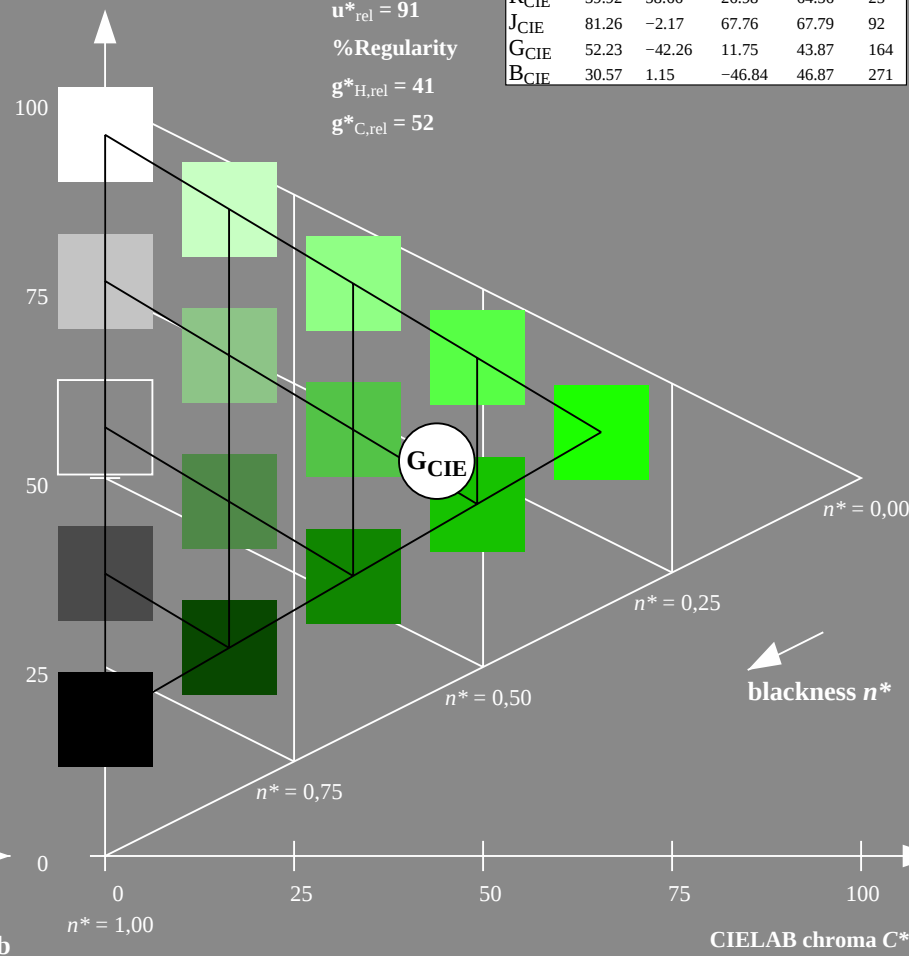
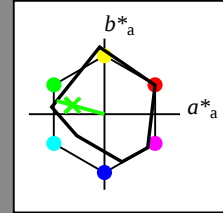
% Regularity

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

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

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J_{Ma}	90.7	-6.36	88.75	88.98	94
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$G50B_{Ma}$	45.03	-36.57	-28.47	46.36	218
B_{Ma}	36.65	23.19	-63.05	67.18	290
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N_{Ma}	18.01	0.0	0.0	0.0	0
W_{Ma}	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.66	26.98	64.56	25
J_{CIE}	81.26	-2.17	67.76	67.79	92
G_{CIE}	52.23	-42.26	11.75	43.87	164
B_{CIE}	30.57	1.15	-46.84	46.87	271



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

BAM-test chart UE34; Colorimetric systems MRS18 & MRS18

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

input: $cmY0^* \text{ set } cmYcolor$

output: $olv^* \text{ set } rgBcolor / w^* \text{ set } gray$

output: *olv** *setrgbcolor* / *w** *setgray*