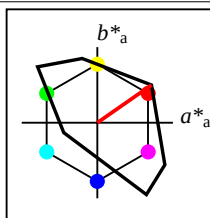


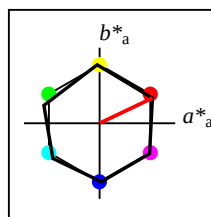
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

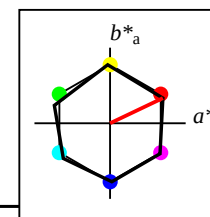
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

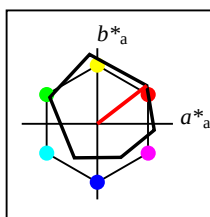
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



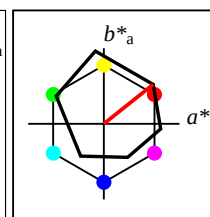
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 93$
%Regularity
 $g^*_{H,rel} = 57$
 $g^*_{C,rel} = 59$

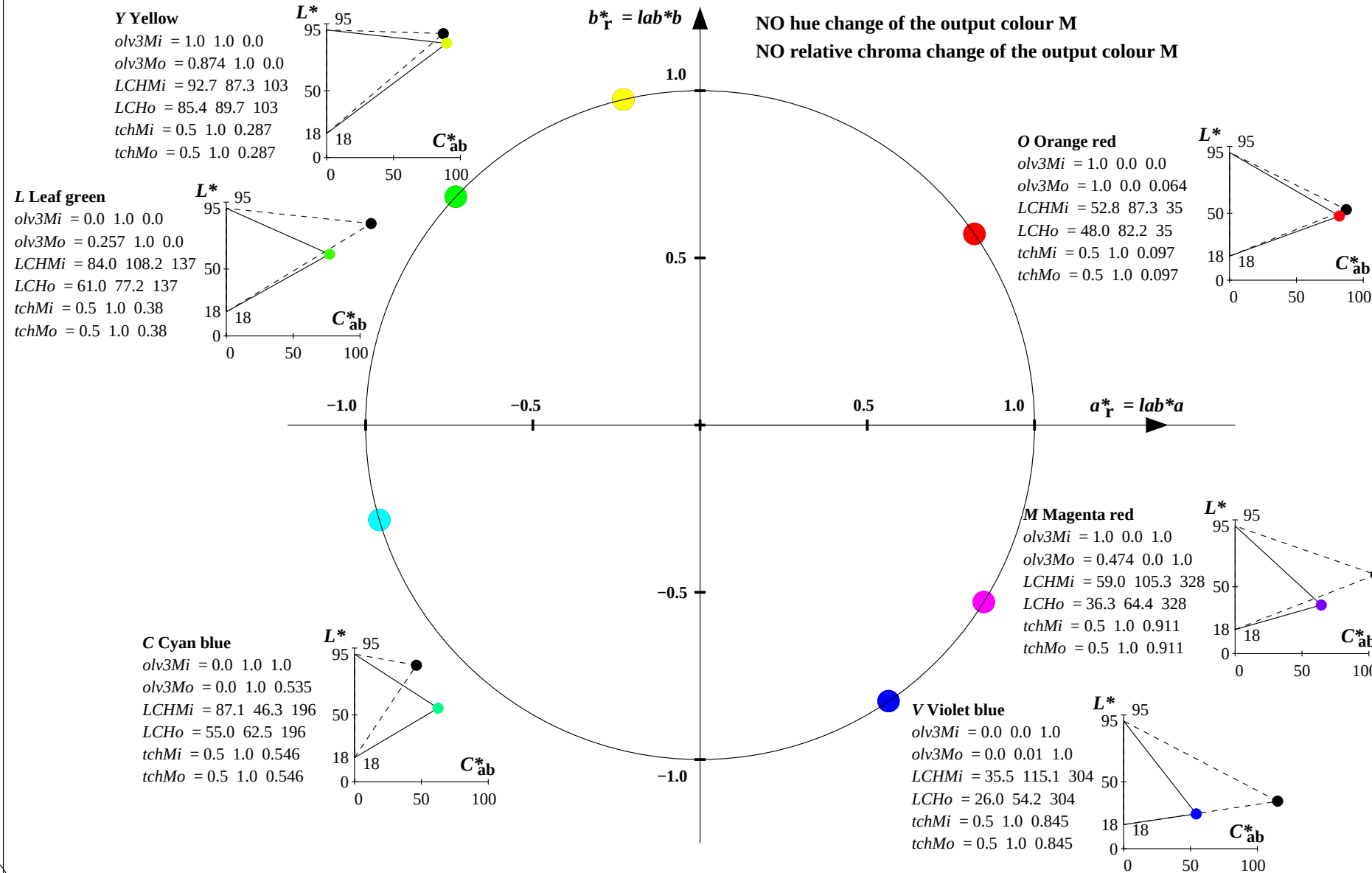
ORS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	47.94	65.39	50.52	82.63	38
Y _{Ma}	90.37	-10.26	91.75	92.32	96
L _{Ma}	50.9	-62.83	34.96	71.91	151
C _{Ma}	58.62	-30.34	-45.01	54.3	236
V _{Ma}	25.72	31.1	-44.4	54.22	305
M _{Ma}	48.13	75.28	-8.36	75.74	354
N _{Ma}	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	64.57	25
J _{CIE}	81.26	-2.16	67.76	67.79	92
G _{CIE}	52.23	-42.25	11.76	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.86	271



%Gamut
 $u^*_{rel} = 94$
%Regularity
 $g^*_{H,rel} = 58$
 $g^*_{C,rel} = 54$

ORS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	47.94	65.31	52.07	83.53	39
Y _M	90.37	-11.15	96.17	96.82	97
L _M	50.9	-62.96	36.71	72.89	150
C _M	58.62	-30.62	-42.74	52.59	234
V _M	25.72	31.45	-44.35	54.38	305
M _M	48.13	75.2	-6.79	75.51	355
N _M	18.01	0.5	-0.46	0.69	317
W _M	95.41	-0.98	4.76	4.86	102
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

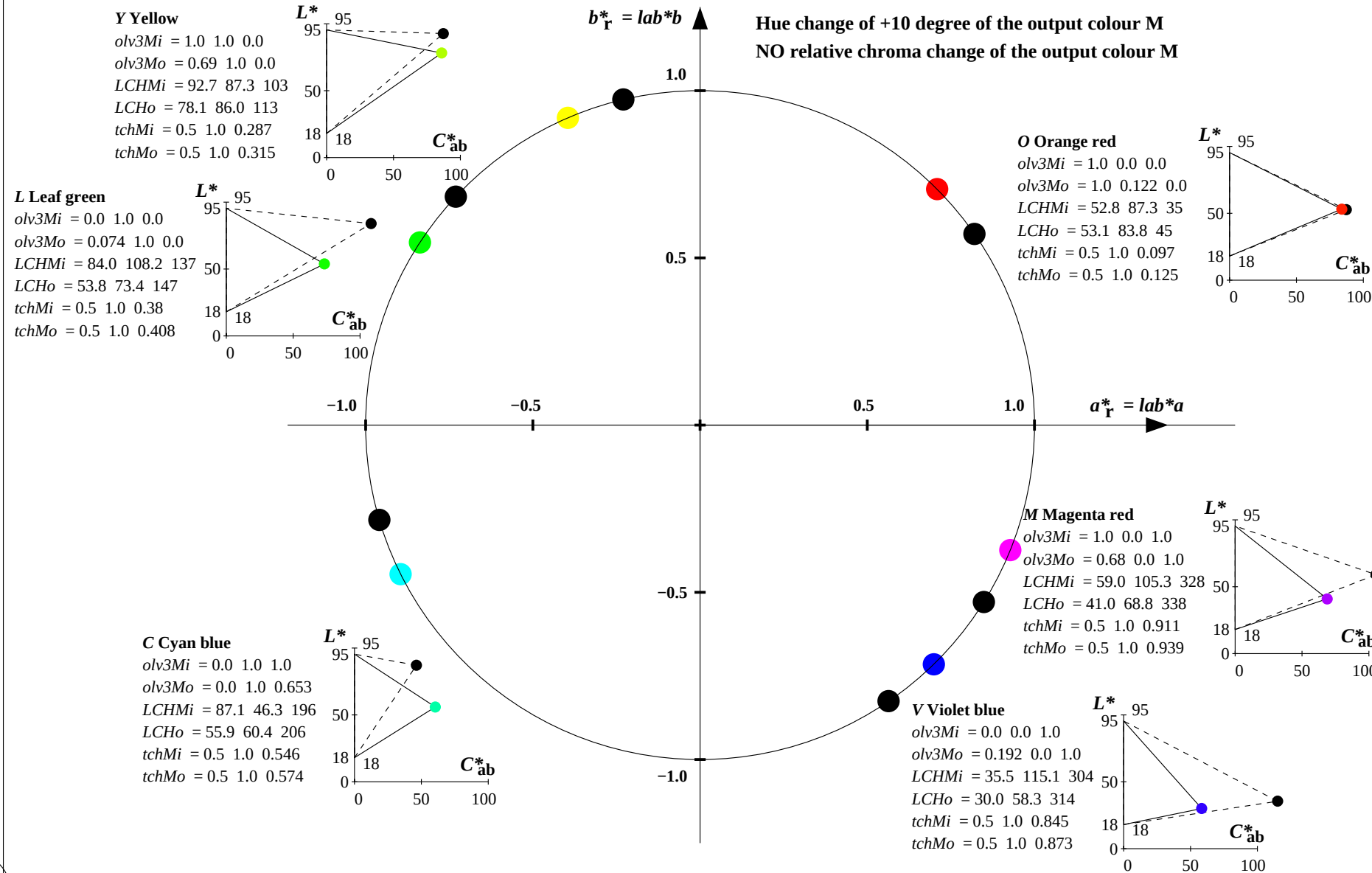
Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
ORS18: Output (o) colorimetric system; Six hue angles of the colour device: (37.7, 96.4, 150.9, 236.0, 305.0, 353.7); Four hue angles of the elementary colours: (24.7, 91.8, 164.5, 271.4)



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space ORS18, page 2/32

BAM-test chart YE63; Colorimetric workflow TLS18->ORS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 2/32 output: no change compared to input

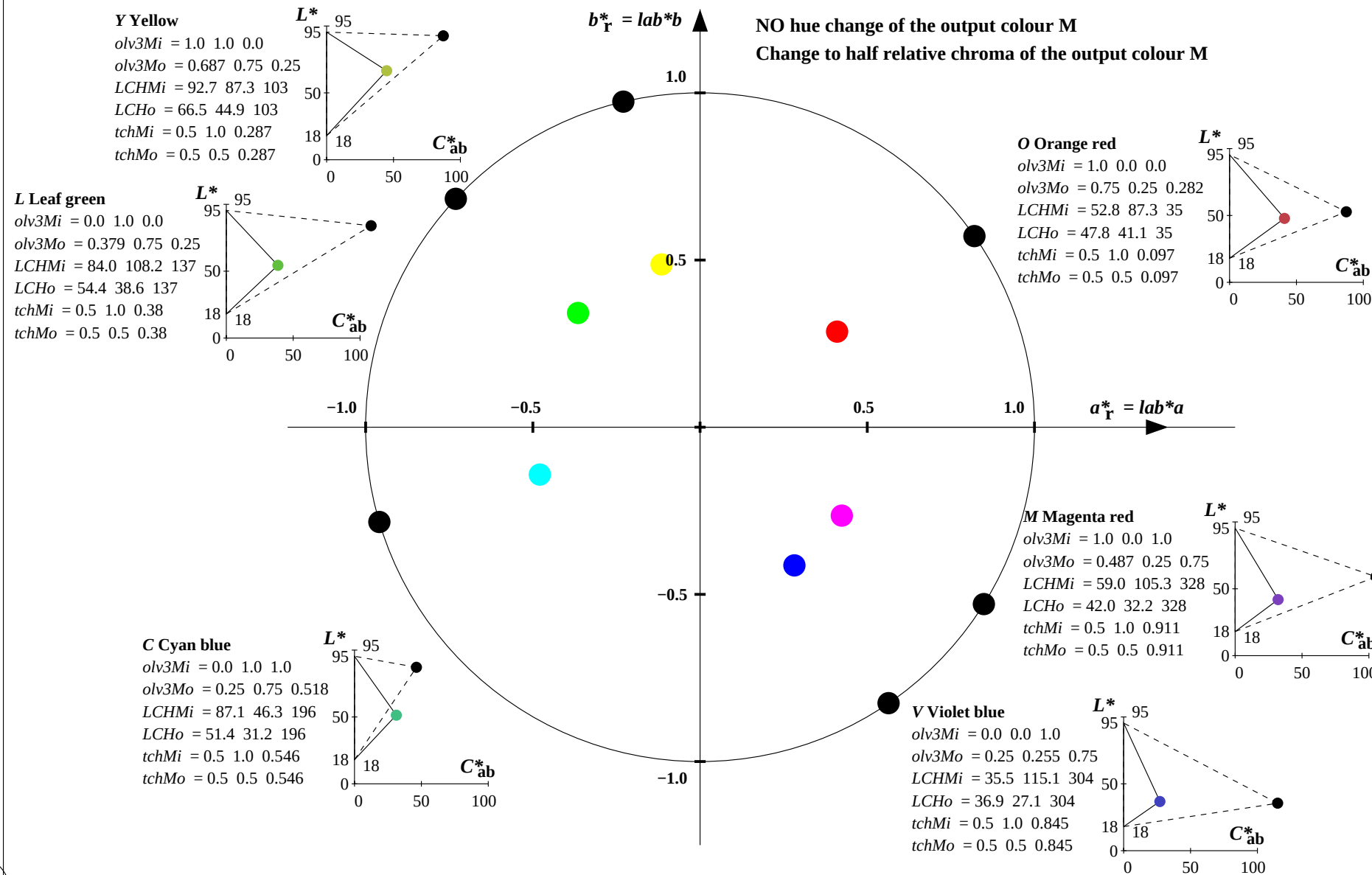
Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
ORS18: Output (o) colorimetric system; Six hue angles of the colour device: (37.7, 96.4, 150.9, 236.0, 305.0, 353.7); Four hue angles of the elementary colours: (24.7, 91.8, 164.5, 271.4)



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space ORS18, page 3/32

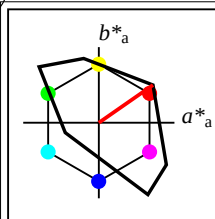
BAM-test chart YE63; Colorimetric workflow TLS18->ORS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 3/32 output: no change compared to input

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
ORS18: Output (o) colorimetric system; Six hue angles of the colour device: (37.7, 96.4, 150.9, 236.0, 305.0, 353.7); Four hue angles of the elementary colours: (24.7, 91.8, 164.5, 271.4)



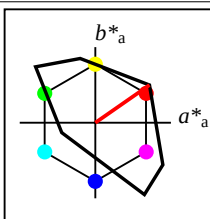
YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space ORS18, page 4/32

BAM-test chart YE63; Colorimetric workflow TLS18->ORS18 input: $olv^* setrgbcolor$
D65: 6 basic colours; Device and sample data; page 4/32 output: no change compared to input



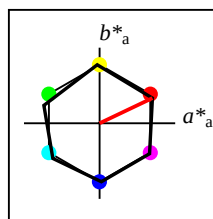
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

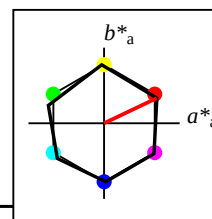
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

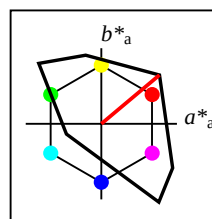
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



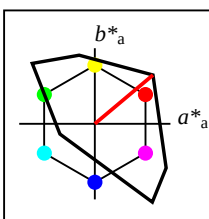
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 158$
%Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

TLS00a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	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



%Gamut
 $u^*_{rel} = 158$
%Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

TLS00	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	50.5	76.92	64.55	100.42	40
Y _M	92.66	-20.69	90.75	93.08	103
L _M	83.63	-82.75	79.9	115.04	136
C _M	86.88	-46.16	-13.55	48.12	196
V _M	30.39	76.06	-103.59	128.52	306
M _M	57.3	94.35	-58.41	110.97	328
N _M	0.01	0.0	0.0	0.0	0
W _M	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

YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space TLS00, page 5/32

BAM-test chart YE63; Colorimetric workflow TLS18->TLS00
D65: 6 basic colours; Device and sample data; page 5/32

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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS00: Output (o) colorimetric system; Six hue angles of the colour device: (40.0, 102.8, 136.0, 196.4, 306.3, 328.2); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.987 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 92.5 93.4 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.015
LCHMi = 84.0 108.2 137
LCHo = 83.7 114.1 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.999 1.0
LCHMi = 87.1 46.3 196
LCHo = 86.8 48.2 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.072
LCHMi = 52.8 87.3 35
LCHo = 51.0 101.2 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.097

M Magenta red

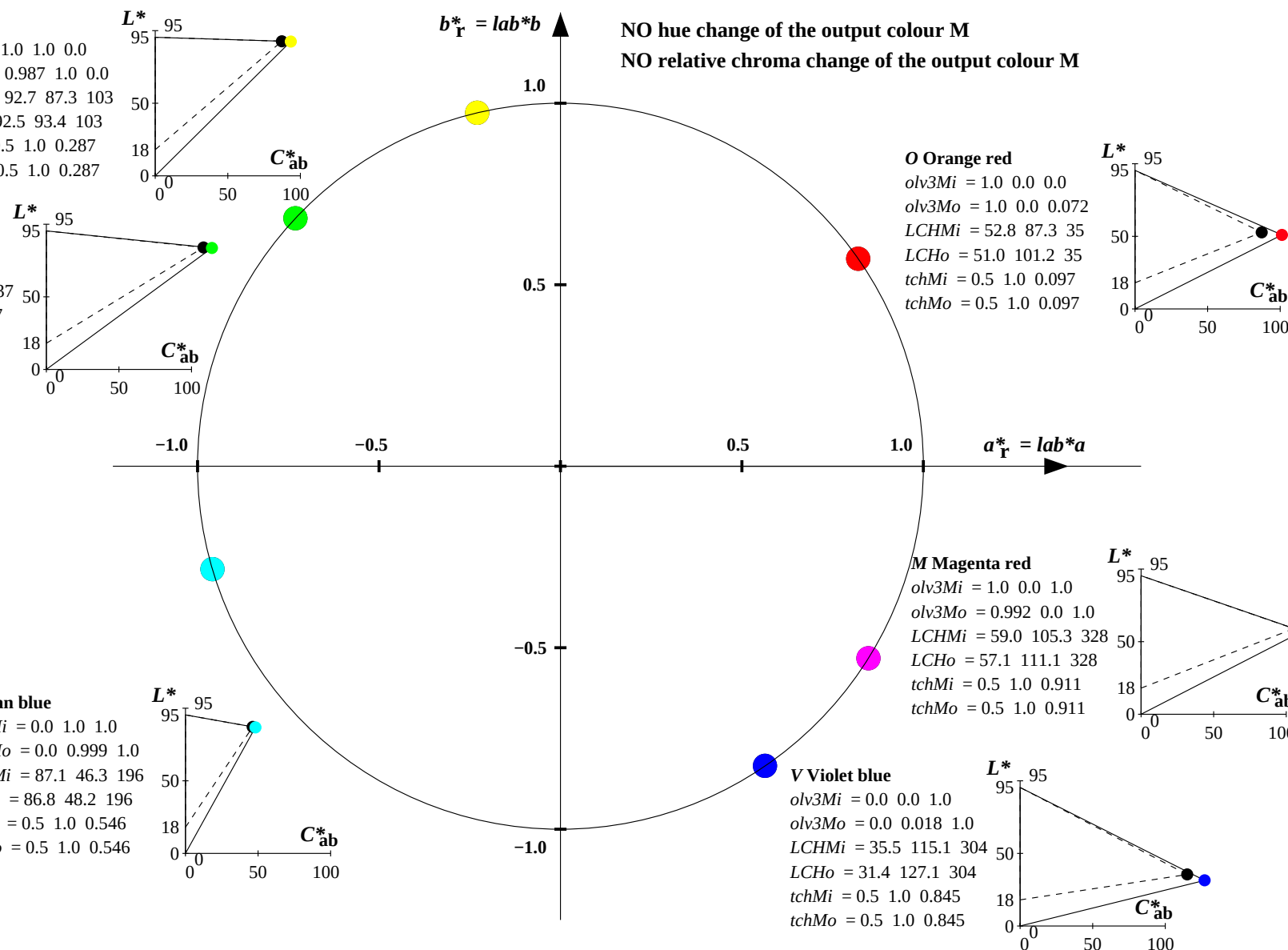
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.992 0.0 1.0
LCHMi = 59.0 105.3 328
LCHo = 57.1 111.1 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.018 1.0
LCHMi = 35.5 115.1 304
LCHo = 31.4 127.1 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.845

NO hue change of the output colour M

NO relative chroma change of the output colour M



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space TLS00, page 6/32

BAM-test chart YE63; Colorimetric workflow TLS18->TLS00

D65: 6 basic colours; Device and sample data; page 6/32

input: olv* setrgbcolor

output: no change compared to input

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS00: Output (o) colorimetric system; Six hue angles of the colour device: (40.0, 102.8, 136.0, 196.4, 306.3, 328.2); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.686 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 89.8 100.0 113
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.315

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.18
LCHMi = 84.0 108.2 137
LCHo = 84.2 103.0 147
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.408

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.908 1.0
LCHMi = 87.1 46.3 196
LCHo = 81.7 55.5 206
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.574

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.077 0.0
LCHMi = 52.8 87.3 35
LCHo = 53.8 99.8 45
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.125

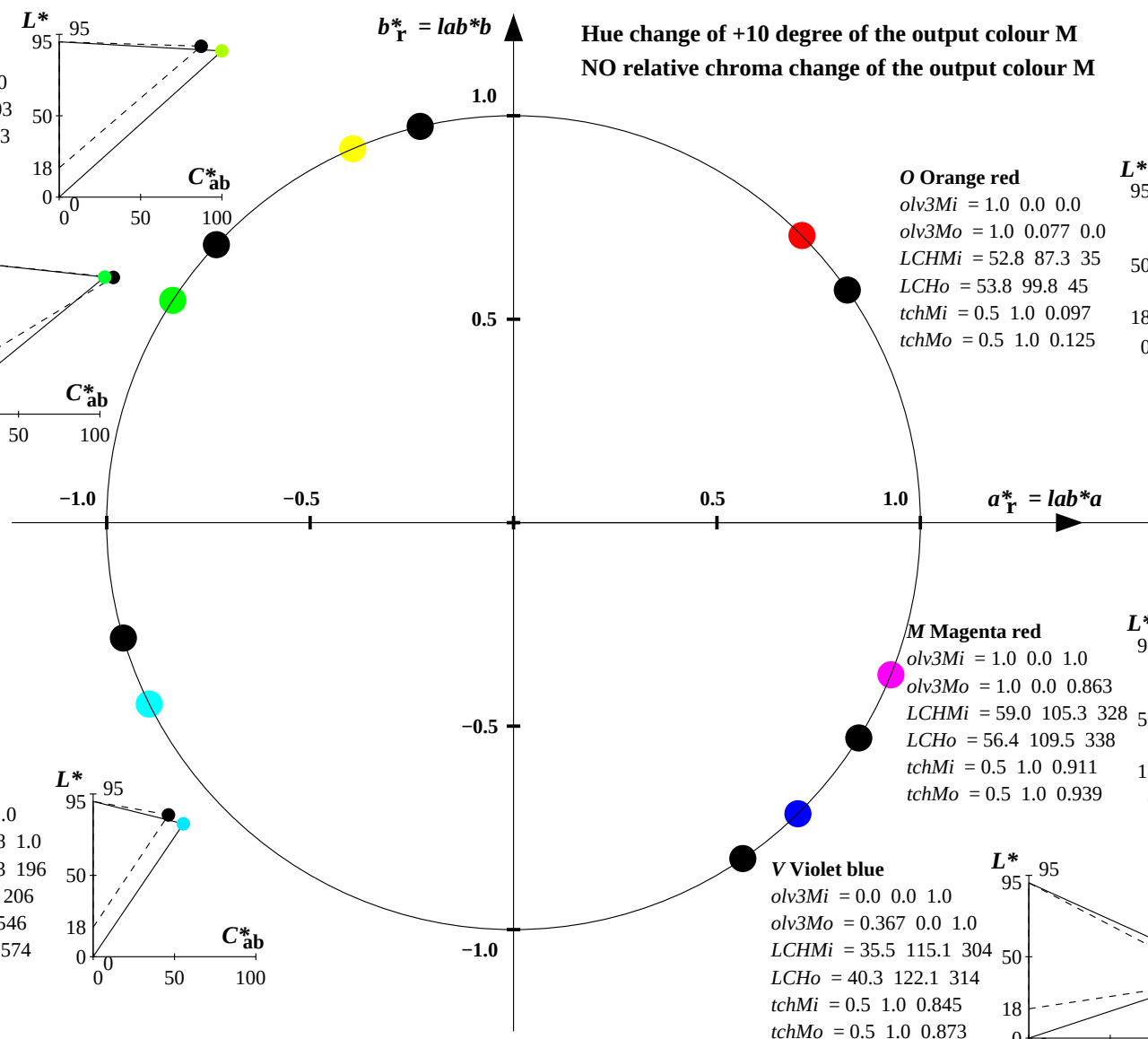
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.863
LCHMi = 59.0 105.3 328
LCHo = 56.4 109.5 338
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.939

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.367 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 40.3 122.1 314
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.873

Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS00: Output (o) colorimetric system; Six hue angles of the colour device: (40.0, 102.8, 136.0, 196.4, 306.3, 328.2); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.744 0.75 0.25
LCHMi = 92.7 87.3 103
LCHo = 70.1 46.7 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 0.5 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.25 0.75 0.257
LCHMi = 84.0 108.2 137
LCHo = 65.7 57.0 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 0.5 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.25 0.75 0.75
LCHMi = 87.1 46.3 196
LCHo = 67.3 24.1 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 0.5 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 0.75 0.25 0.286
LCHMi = 52.8 87.3 35
LCHo = 49.3 50.6 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 0.5 0.097

M Magenta red

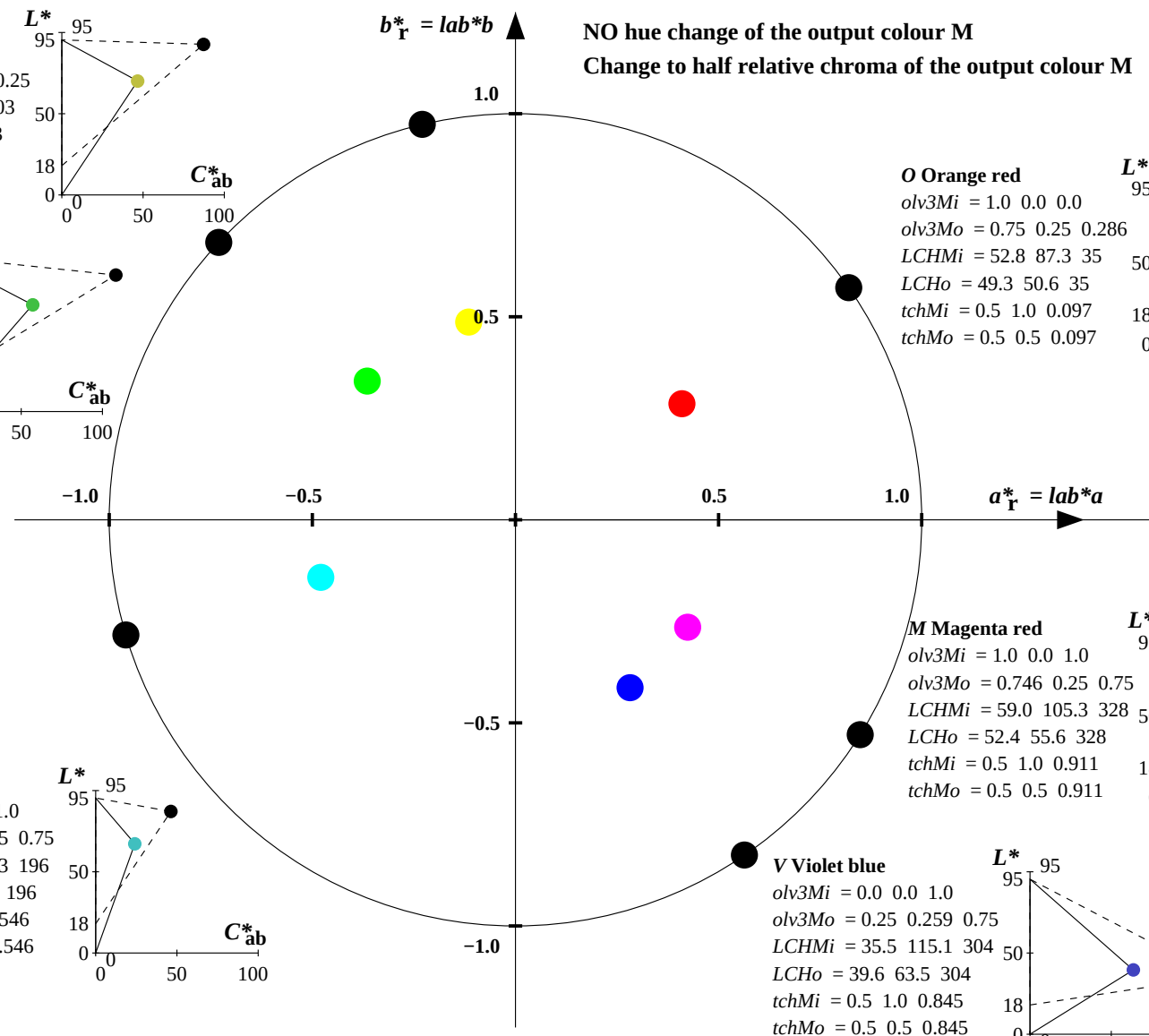
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.746 0.25 0.75
LCHMi = 59.0 105.3 328
LCHo = 52.4 55.6 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 0.5 0.911

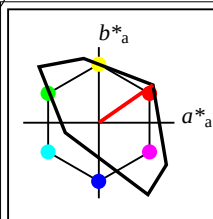
V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.25 0.259 0.75
LCHMi = 35.5 115.1 304
LCHo = 39.6 63.5 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 0.5 0.845

NO hue change of the output colour M

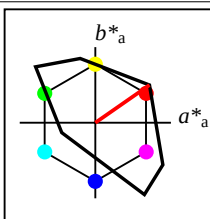
Change to half relative chroma of the output colour M





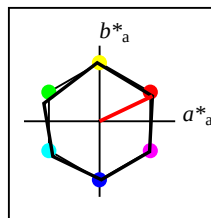
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

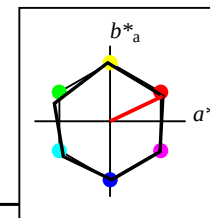
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

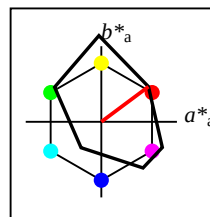
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



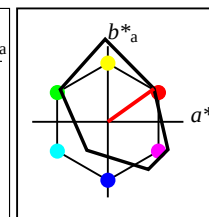
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 115$
%Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 38$

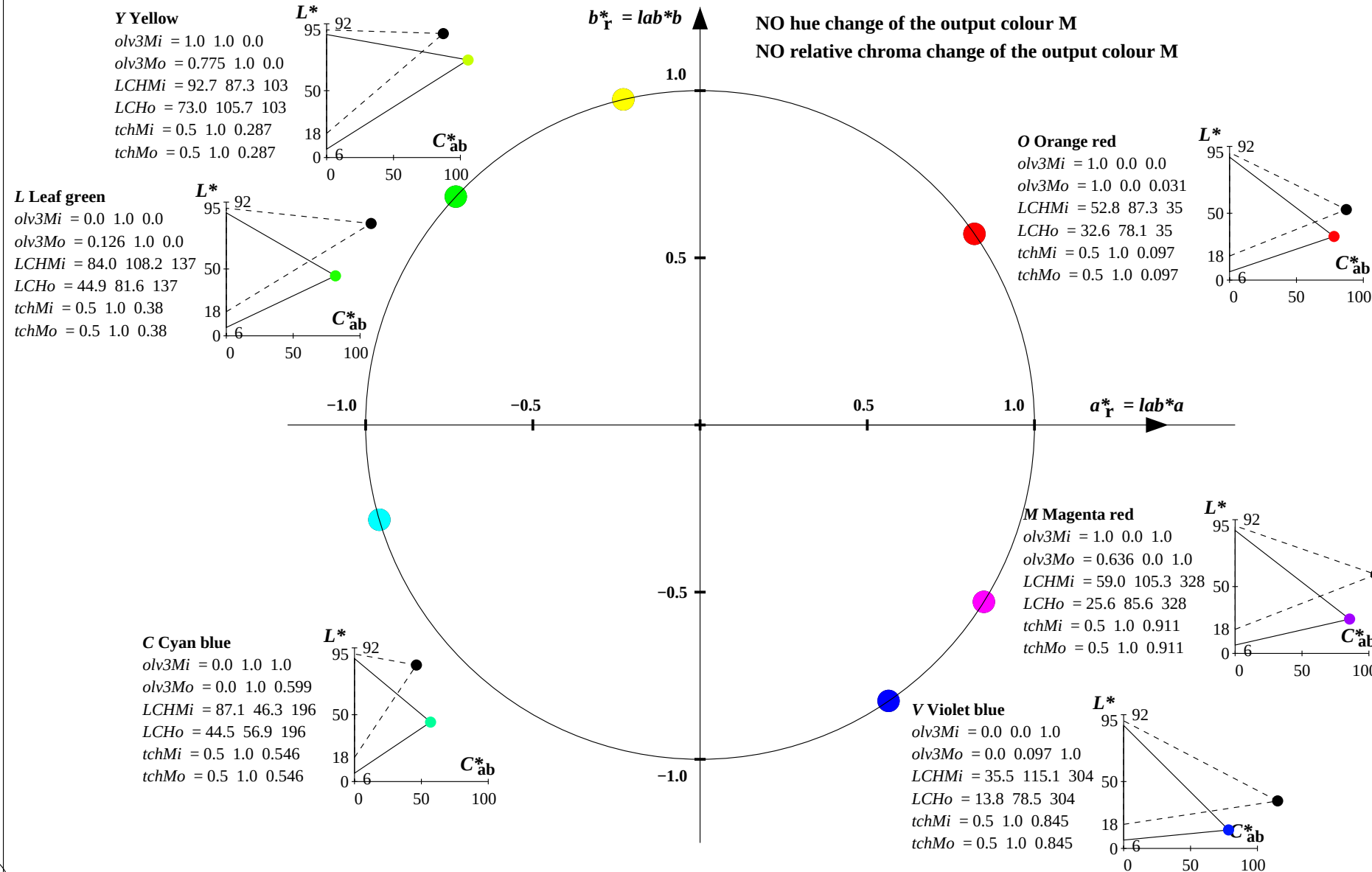
FRS06a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



%Gamut
 $u^*_{rel} = 114$
%Regularity
 $g^*_{H,rel} = 28$
 $g^*_{C,rel} = 43$

FRS06	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	32.57	61.14	43.72	75.16	36
Y _M	82.73	-3.5	109.24	109.3	92
L _M	39.43	-62.86	42.8	76.06	146
C _M	47.86	-27.72	-37.61	46.74	234
V _M	10.16	53.56	-62.91	82.63	310
M _M	34.5	79.53	-36.76	87.62	335
N _M	6.25	-1.62	-1.72	2.38	227
W _M	91.97	-0.17	-5.1	5.11	268
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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
FRS06: Output (o) colorimetric system; Six hue angles of the colour device: (36.7, 91.6, 143.4, 232.0, 312.1, 337.2); Four hue angles of the elementary colours: (27.4, 91.9, 157.6, 273.4)

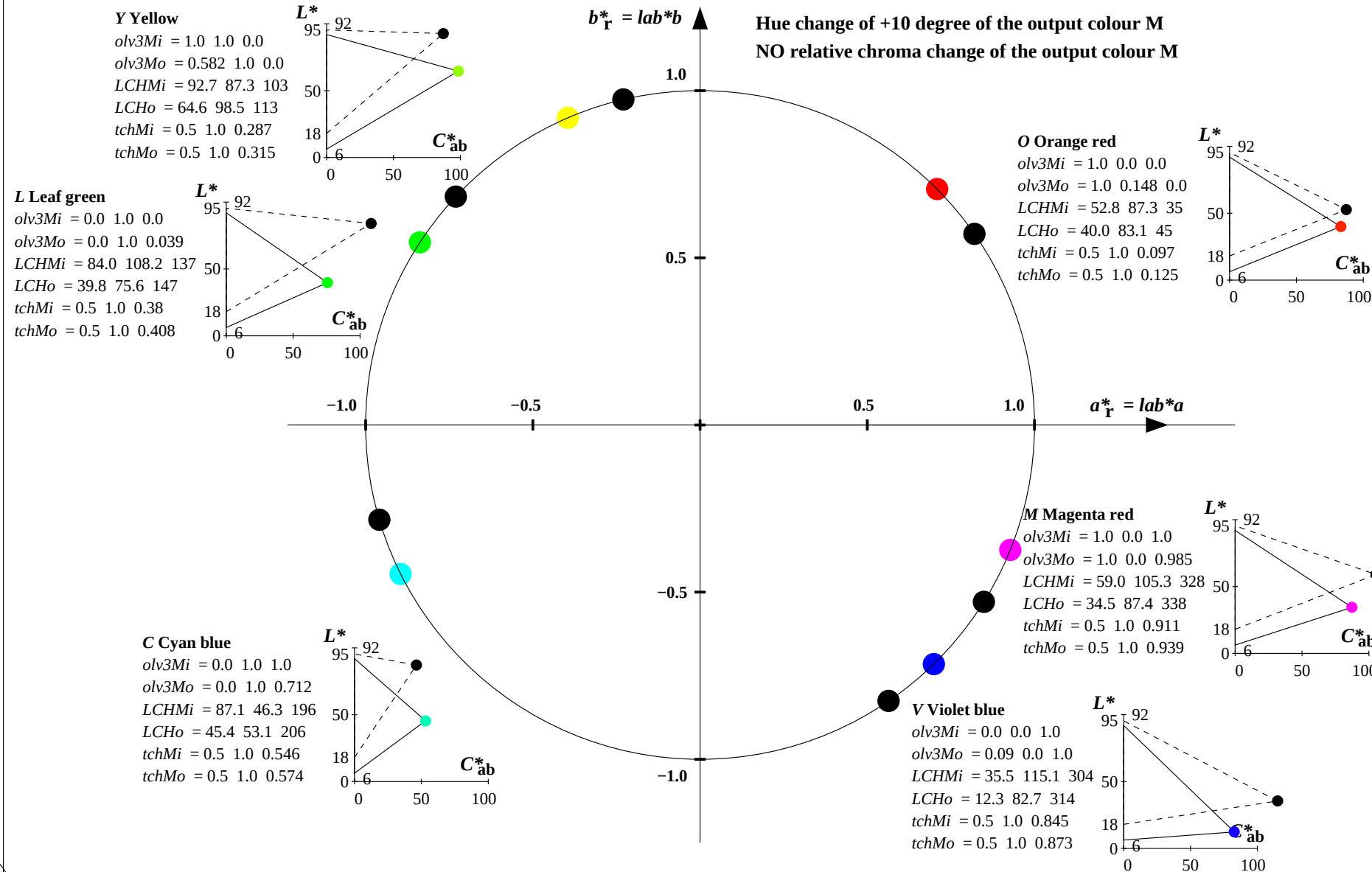


YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space FRS06, page 10/32

BAM-test chart YE63; Colorimetric workflow TLS18->FRS06
D65: 6 basic colours; Device and sample data; page 10/32

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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
FRS06: Output (o) colorimetric system; Six hue angles of the colour device: (36.7, 91.6, 143.4, 232.0, 312.1, 337.2); Four hue angles of the elementary colours: (27.4, 91.9, 157.6, 273.4)

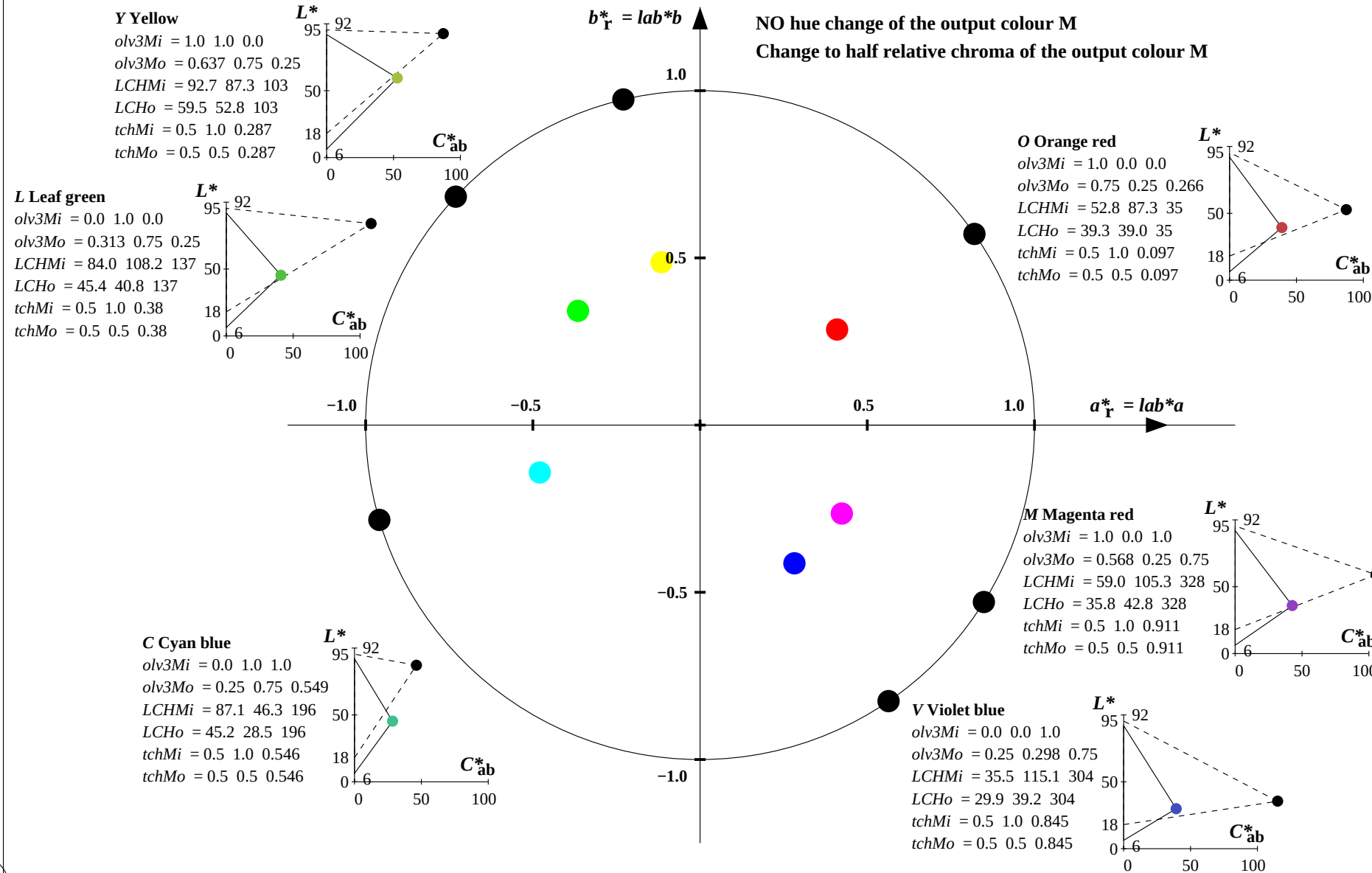


YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space FRS06, page 11/32

BAM-test chart YE63; Colorimetric workflow TLS18->FRS06
D65: 6 basic colours; Device and sample data; page 11/32

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

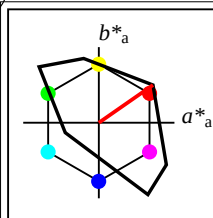
Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
FRS06: Output (o) colorimetric system; Six hue angles of the colour device: (36.7, 91.6, 143.4, 232.0, 312.1, 337.2); Four hue angles of the elementary colours: (27.4, 91.9, 157.6, 273.4)



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space FRS06, page 12/32

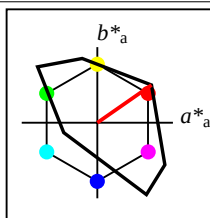
BAM-test chart YE63; Colorimetric workflow TLS18->FRS06
D65: 6 basic colours; Device and sample data; page 12/32

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



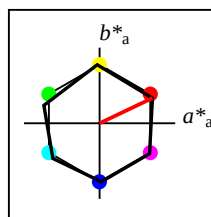
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

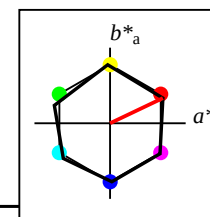
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

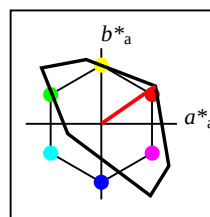
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



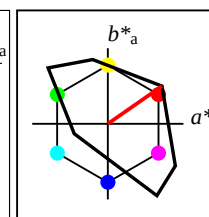
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
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	58.74	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS18: Output (o) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 1.0 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 92.7 87.3 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 84.0 108.2 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 1.0
LCHMi = 87.1 46.3 196
LCHo = 87.1 46.3 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.0
LCHMi = 52.8 87.3 35
LCHo = 52.8 87.3 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.097

M Magenta red

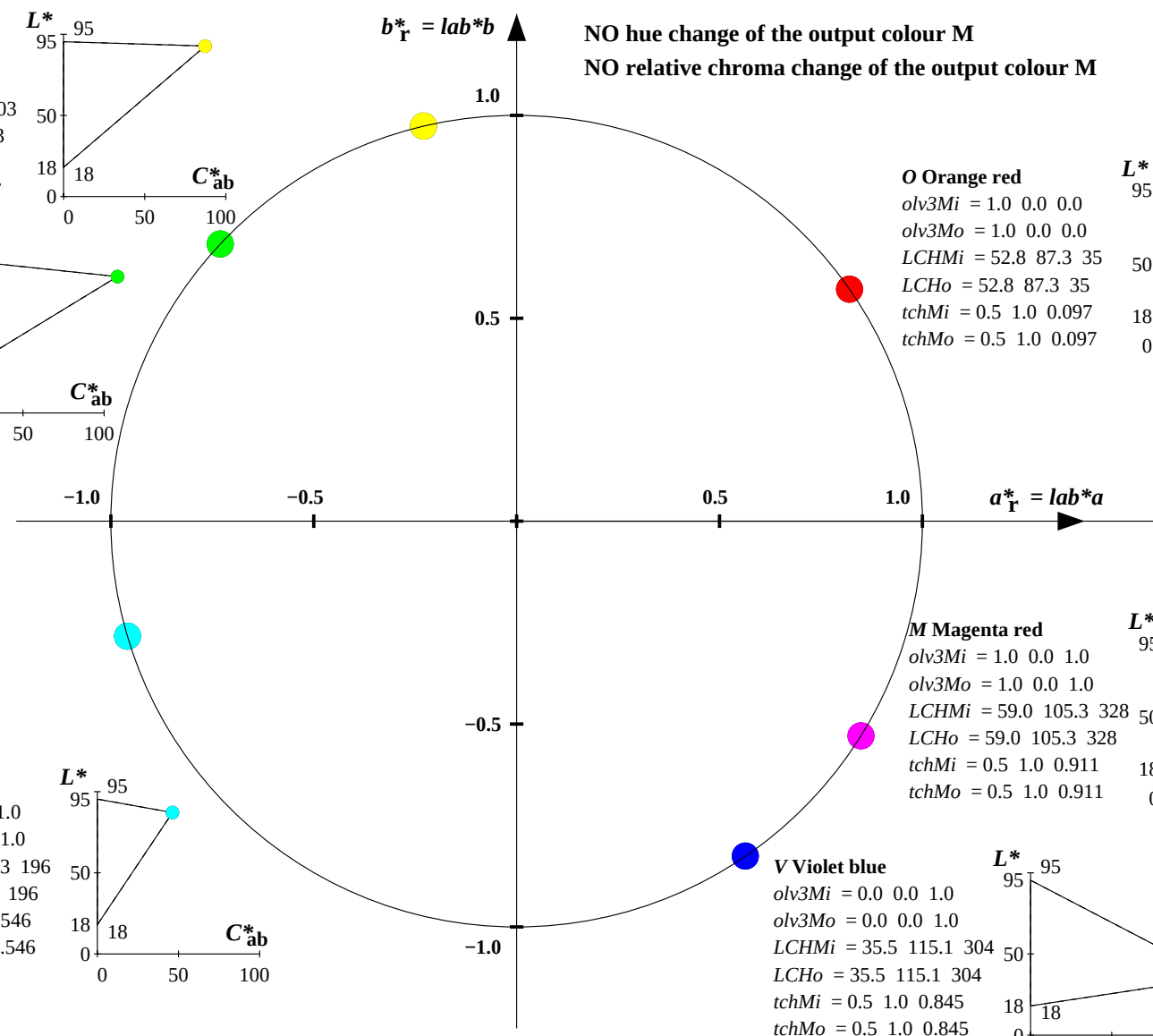
olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 1.0
LCHMi = 59.0 105.3 328
LCHo = 59.0 105.3 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 35.5 115.1 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.845

NO hue change of the output colour M

NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS18: Output (o) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.702 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 90.1 93.5 113
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.315

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.168
LCHMi = 84.0 108.2 137
LCHo = 84.5 97.8 147
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.408

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.907 1.0
LCHMi = 87.1 46.3 196
LCHo = 82.3 52.7 206
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.574

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.146 0.0
LCHMi = 52.8 87.3 35
LCHo = 58.6 87.3 45
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.125

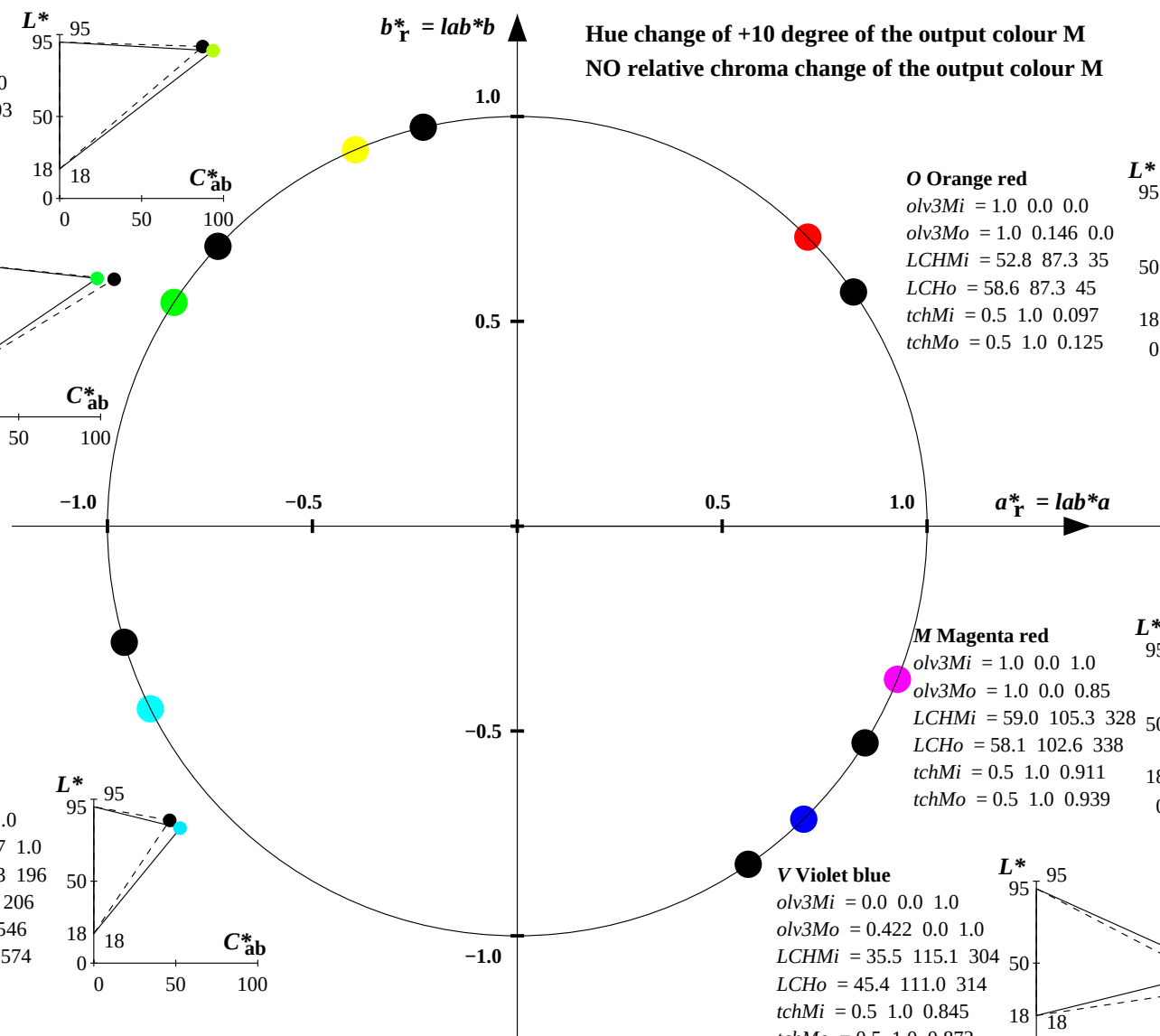
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.85
LCHMi = 59.0 105.3 328
LCHo = 58.1 102.6 338
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.939

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.422 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 45.4 111.0 314
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.873

Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS18: Output (o) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.75 0.75 0.25
LCHMi = 92.7 87.3 103
LCHo = 70.2 43.6 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 0.5 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.25 0.75 0.25
LCHMi = 84.0 108.2 137
LCHo = 65.9 54.1 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 0.5 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.25 0.75 0.75
LCHMi = 87.1 46.3 196
LCHo = 67.4 23.2 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 0.5 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 0.75 0.25 0.25
LCHMi = 52.8 87.3 35
LCHo = 50.2 43.6 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 0.5 0.097

M Magenta red

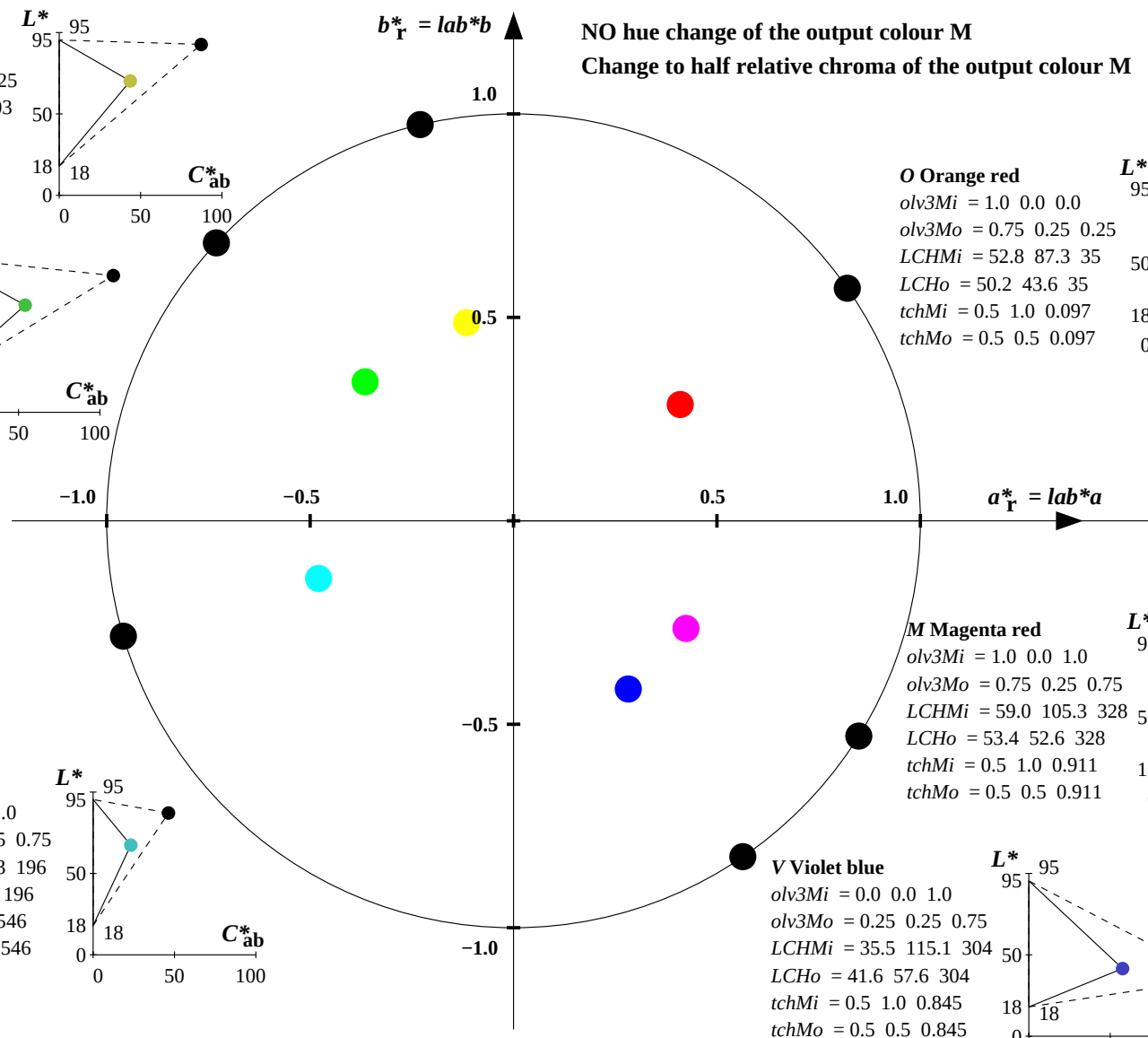
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.75 0.25 0.75
LCHMi = 59.0 105.3 328
LCHo = 53.4 52.6 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 0.5 0.911

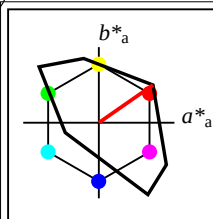
V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.25 0.25 0.75
LCHMi = 35.5 115.1 304
LCHo = 41.6 57.6 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 0.5 0.845

NO hue change of the output colour M

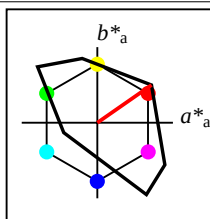
Change to half relative chroma of the output colour M





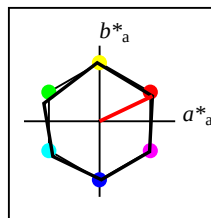
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

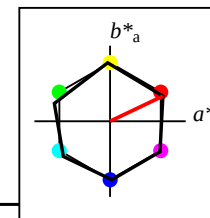
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

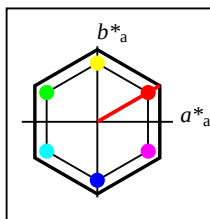
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



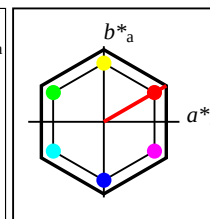
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 152$
%Regularity
 $g^*_{H,rel} = 100$
 $g^*_{C,rel} = 100$

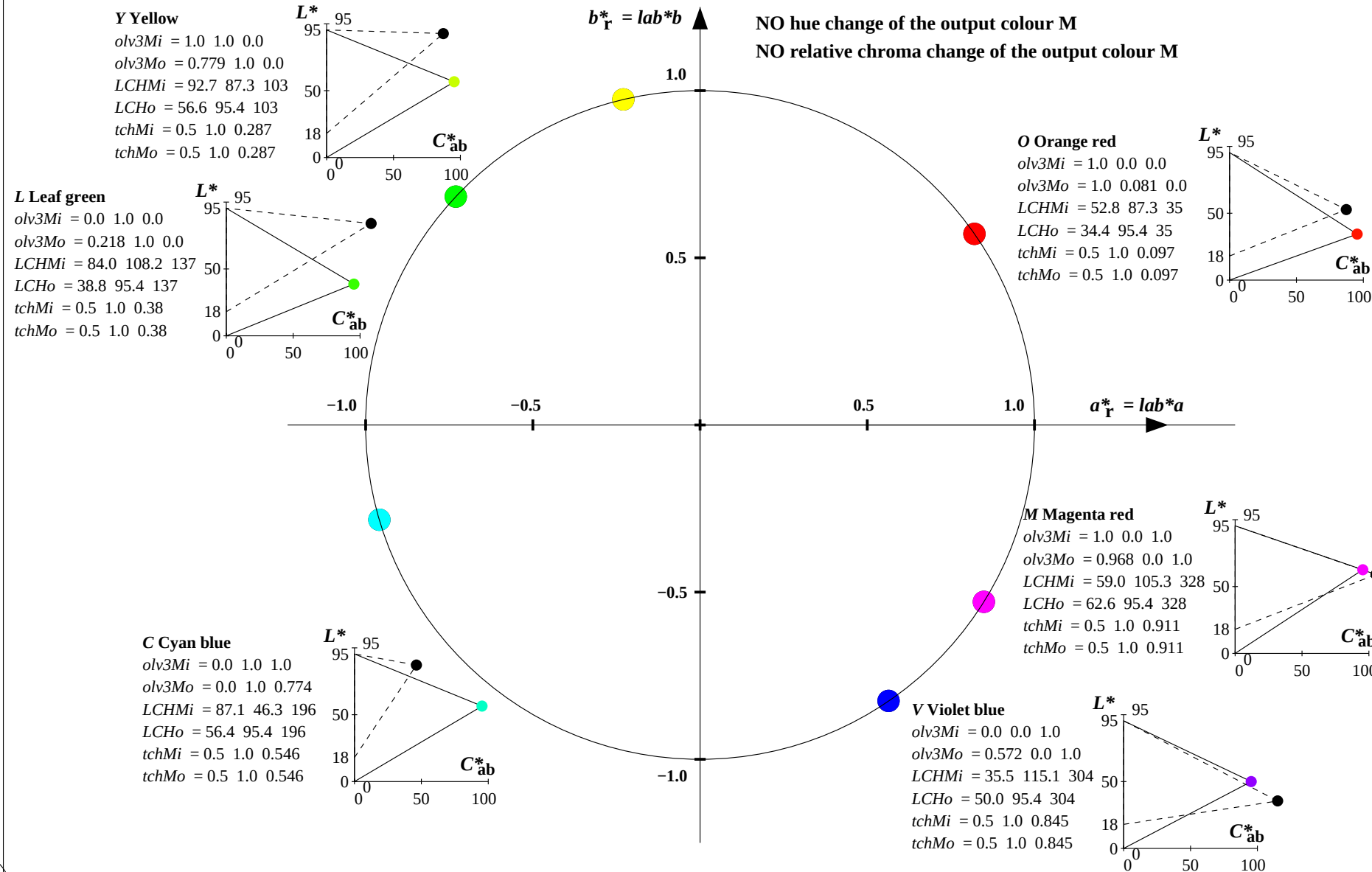
NLS00a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	31.81	82.62	47.7	95.4	30
Y _{Ma}	63.61	0.0	95.4	95.4	90
L _{Ma}	31.81	-82.61	47.7	95.4	150
C _{Ma}	63.61	-82.61	-47.69	95.4	210
V _{Ma}	31.81	0.0	-95.39	95.4	270
M _{Ma}	63.61	82.62	-47.69	95.4	330
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	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



%Gamut
 $u^*_{rel} = 152$
%Regularity
 $g^*_{H,rel} = 100$
 $g^*_{C,rel} = 100$

NLS00	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	31.81	82.62	47.7	95.4	30
Y _M	63.61	0.0	95.4	95.4	90
L _M	31.81	-82.61	47.7	95.4	150
C _M	63.61	-82.61	-47.69	95.4	210
V _M	31.81	0.0	-95.39	95.4	270
M _M	63.61	82.62	-47.69	95.4	330
N _M	0.01	0.0	0.0	0.0	0
W _M	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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
NLS00: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

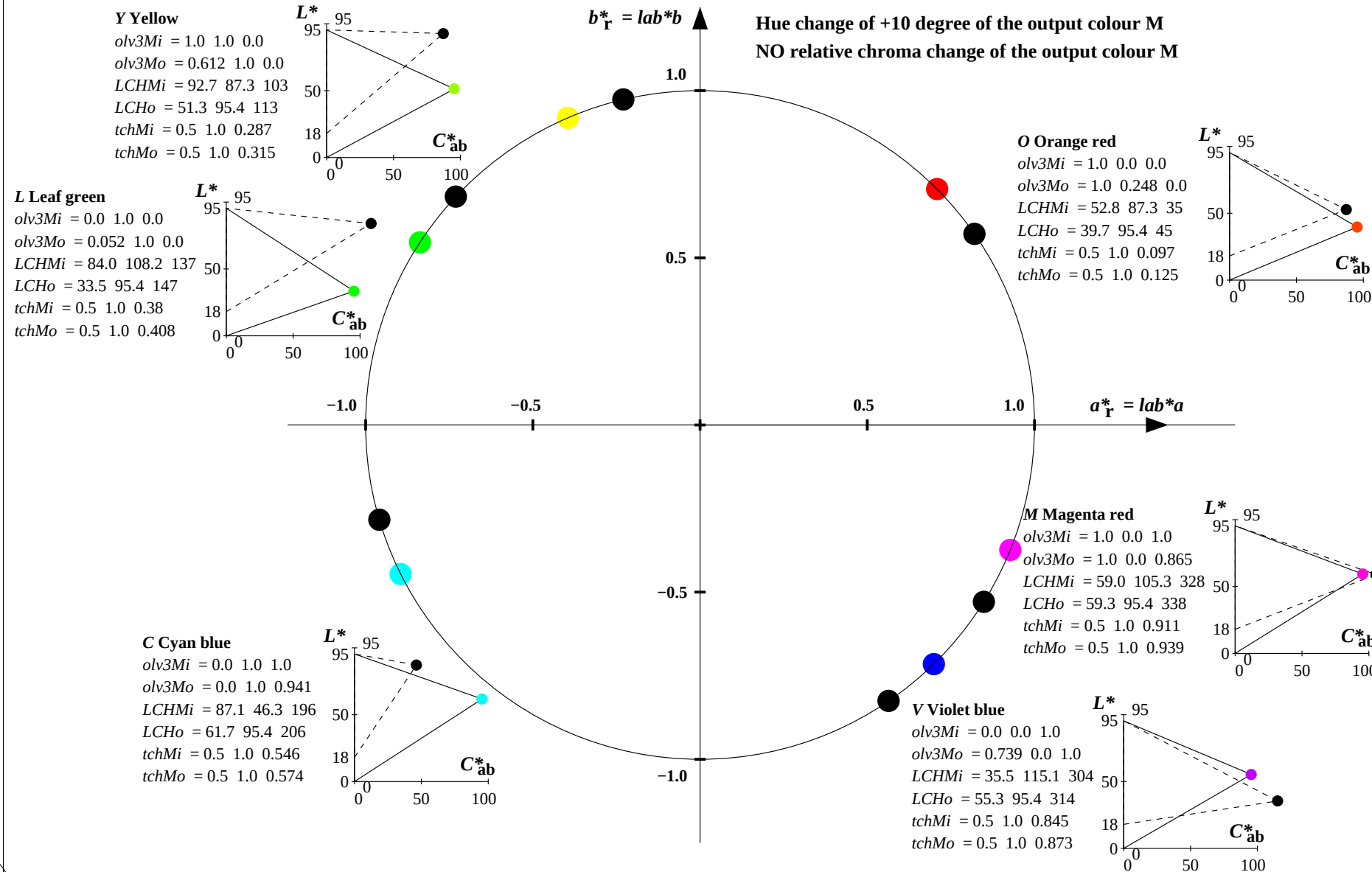


YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space NLS00, page 18/32

BAM-test chart YE63; Colorimetric workflow TLS18->NLS00
D65: 6 basic colours; Device and sample data; page 18/32

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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
NLS00: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

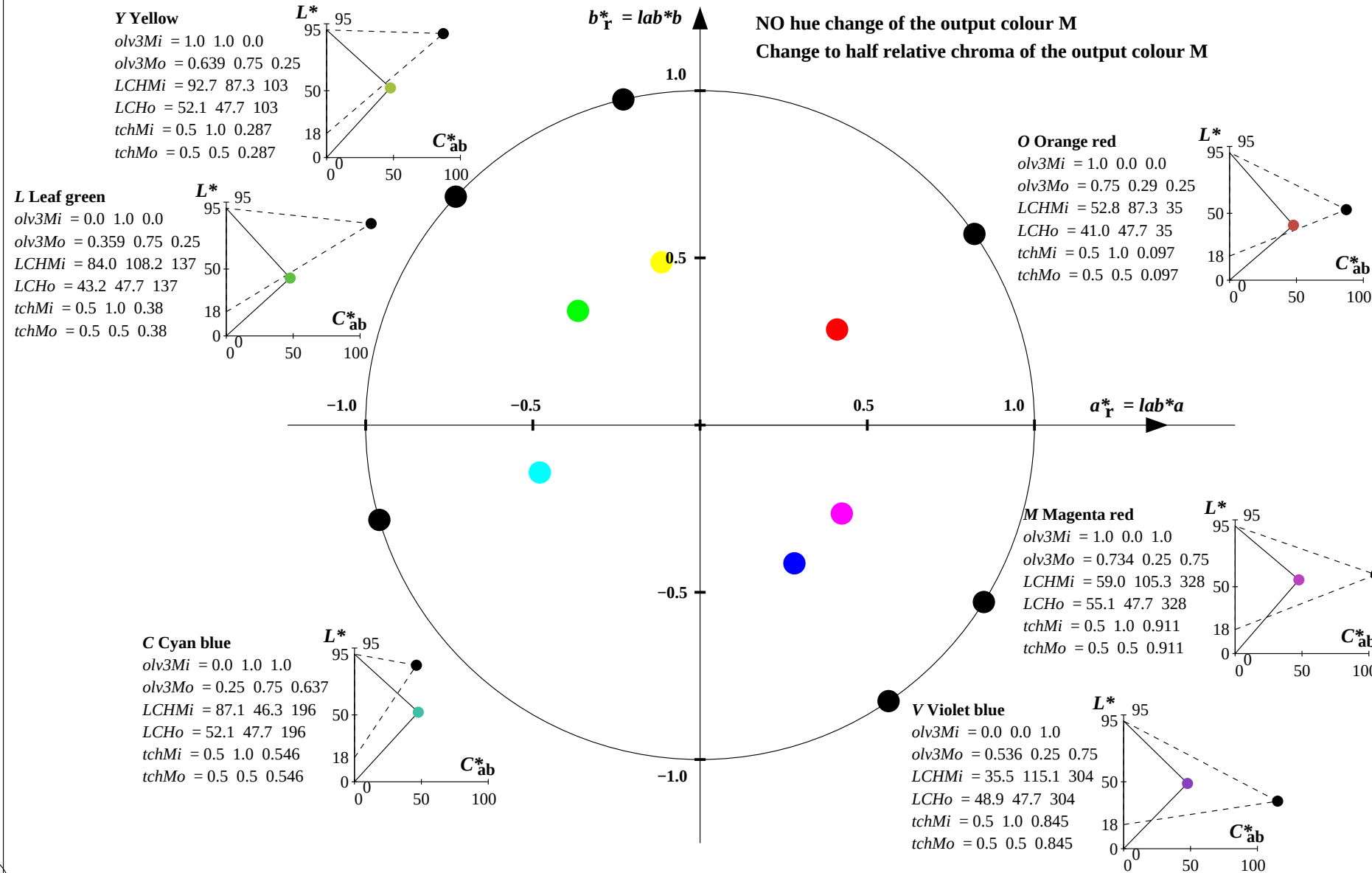


YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space NLS00, page 19/32

BAM-test chart YE63; Colorimetric workflow TLS18->NLS00
D65: 6 basic colours; Device and sample data; page 19/32

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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)
TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
NLS00: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)



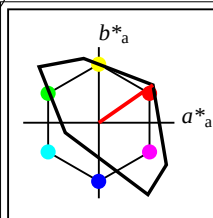
YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space NLS00, page 20/32

BAM-test chart YE63; Colorimetric workflow TLS18->NLS00

D65: 6 basic colours; Device and sample data; page 20/32

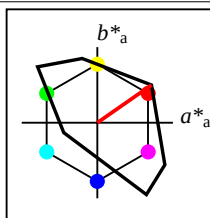
input: olv* setrgbcolor

output: no change compared to input



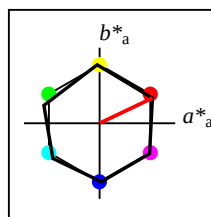
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

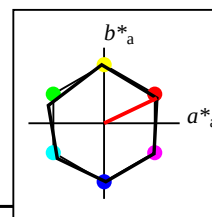
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

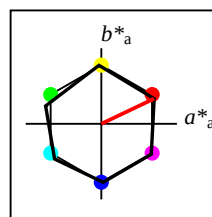
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



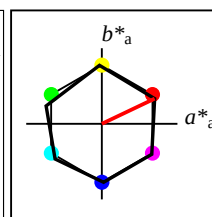
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	56.71	69.87	33.29	77.4	25
Y _M	56.71	-3.1	77.34	77.4	92
L _M	56.71	-73.68	23.63	77.39	162
C _M	56.71	-61.81	-46.54	77.39	217
V _M	56.71	2.35	-77.34	77.39	272
M _M	56.71	66.07	-40.3	77.4	329
N _M	18.01	0.0	0.0	0.0	0
W _M	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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

NRS18: Output (o) colorimetric system; Six hue angles of the colour device: (25.5, 92.3, 162.2, 217.0, 271.7, 328.6); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.843 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 56.7 77.4 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.362 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 56.7 77.4 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.625
LCHMi = 87.1 46.3 196
LCHo = 56.7 77.4 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.14 0.0
LCHMi = 52.8 87.3 35
LCHo = 56.7 77.4 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.097

M Magenta red

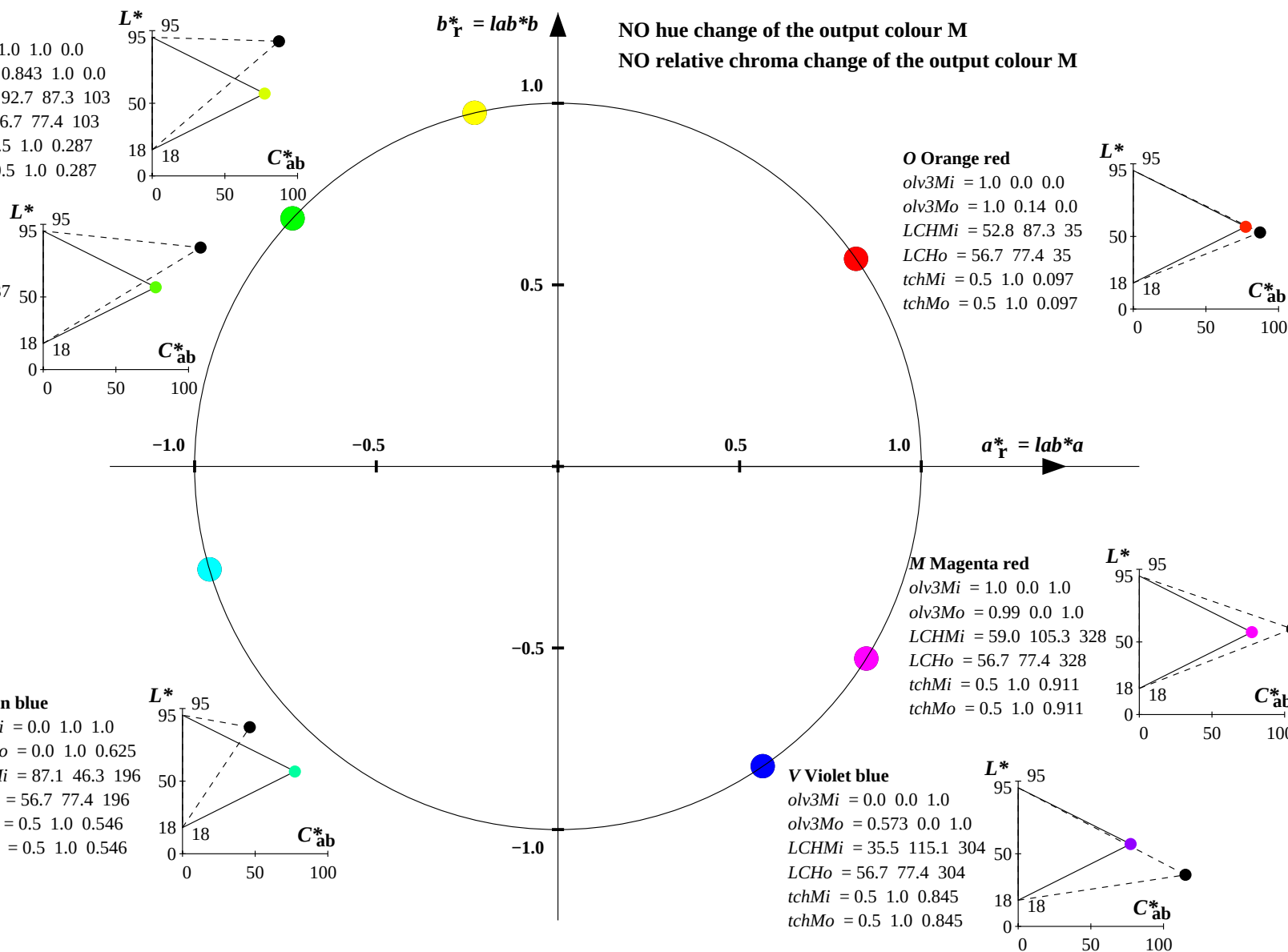
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.99 0.0 1.0
LCHMi = 59.0 105.3 328
LCHo = 56.7 77.4 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.573 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 56.7 77.4 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.845

NO hue change of the output colour M

NO relative chroma change of the output colour M



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space NRS18, page 22/32

BAM-test chart YE63; Colorimetric workflow TLS18->NRS18

D65: 6 basic colours; Device and sample data; page 22/32

input: olv* setrgbcolor

output: no change compared to input

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

NRS18: Output (o) colorimetric system; Six hue angles of the colour device: (25.5, 92.3, 162.2, 217.0, 271.7, 328.6); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.7 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 56.7 77.4 113
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.315

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.219 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 56.7 77.4 147
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.408

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.808
LCHMi = 87.1 46.3 196
LCHo = 56.7 77.4 206
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.574

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.29 0.0
LCHMi = 52.8 87.3 35
LCHo = 56.7 77.4 45
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.125

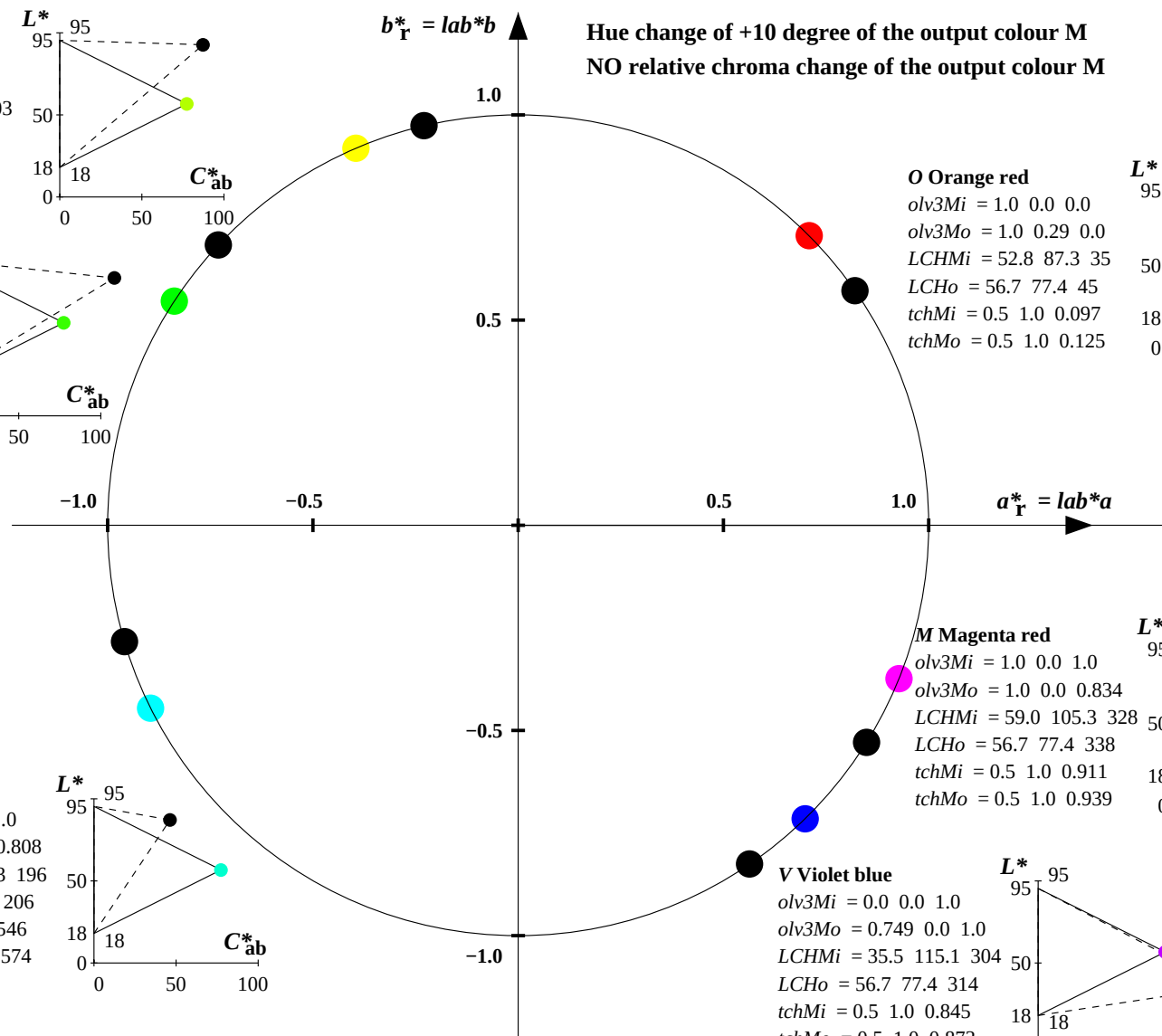
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.834
LCHMi = 59.0 105.3 328
LCHo = 56.7 77.4 338
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.939

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.749 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 56.7 77.4 314
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.873

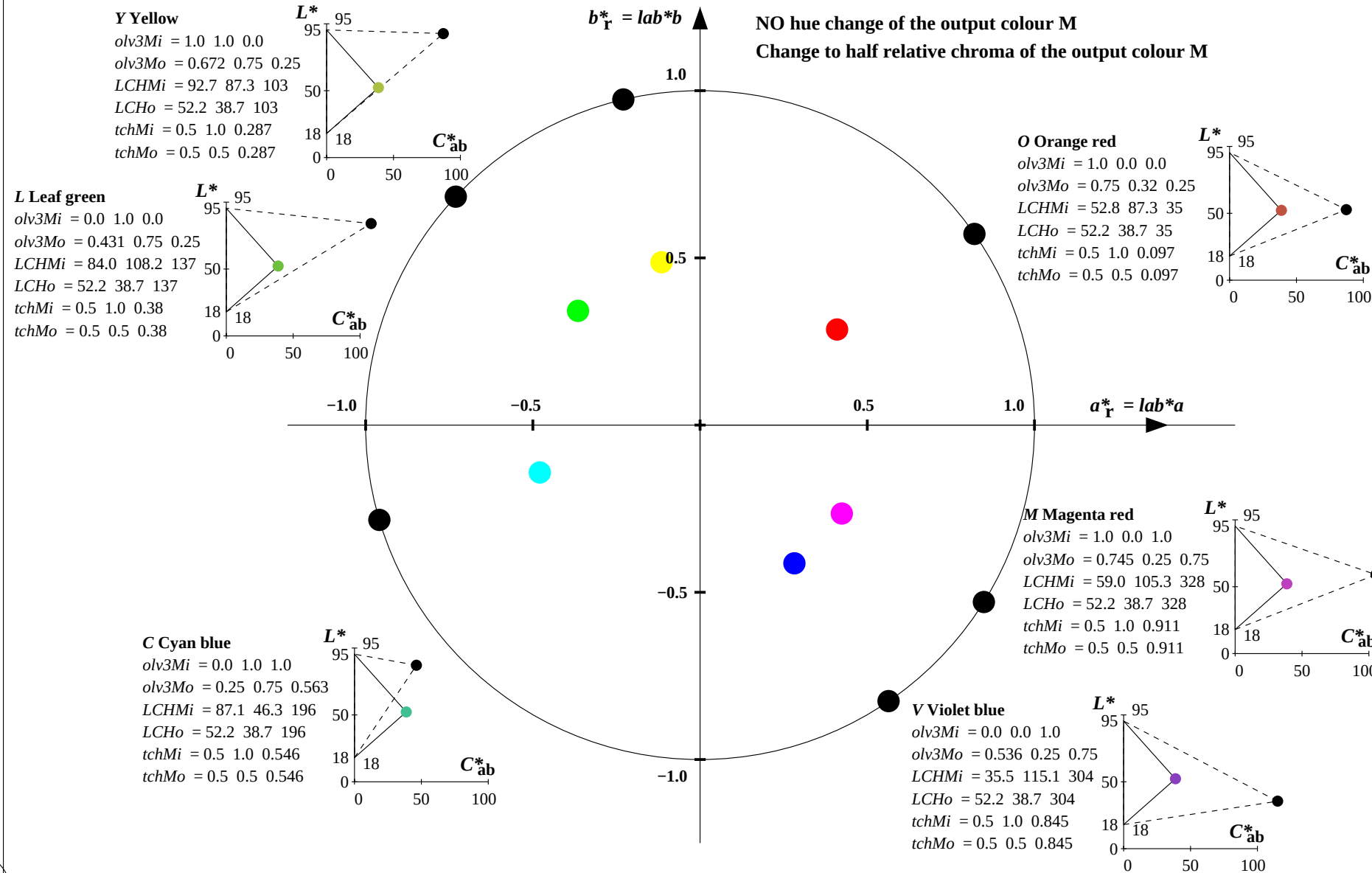
Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

NRS18: Output (o) colorimetric system; Six hue angles of the colour device: (25.5, 92.3, 162.2, 217.0, 271.7, 328.6); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

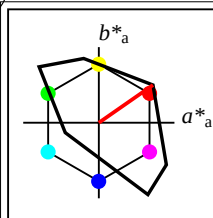


YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space NRS18, page 24/32

BAM-test chart YE63; Colorimetric workflow TLS18->NRS18 input: olv* setrgbcolor

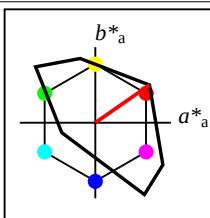
D65: 6 basic colours; Device and sample data; page 24/32

output: no change compared to input



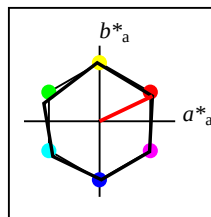
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

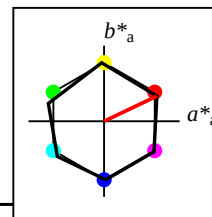
TLS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

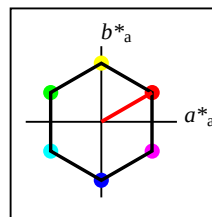
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



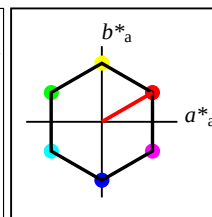
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 100$
 $g^*_{C,rel} = 100$

SRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	67.03	38.7	77.4	30
Y _{Ma}	56.71	0.0	77.4	77.4	90
L _{Ma}	56.71	-67.02	38.7	77.4	150
C _{Ma}	56.71	-67.02	-38.69	77.4	210
V _{Ma}	56.71	0.0	-77.39	77.4	270
M _{Ma}	56.71	67.03	-38.69	77.4	330
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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 100$
 $g^*_{C,rel} = 100$

SRS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	56.71	67.03	38.7	77.4	30
Y _M	56.71	0.0	77.4	77.4	90
L _M	56.71	-67.02	38.7	77.4	150
C _M	56.71	-67.02	-38.69	77.4	210
V _M	56.71	0.0	-77.39	77.4	270
M _M	56.71	67.03	-38.69	77.4	330
N _M	18.01	0.0	0.0	0.0	0
W _M	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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

SRS18: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.779 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 56.7 77.4 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.218 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 56.7 77.4 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.774
LCHMi = 87.1 46.3 196
LCHo = 56.7 77.4 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.081 0.0
LCHMi = 52.8 87.3 35
LCHo = 56.7 77.4 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.097

M Magenta red

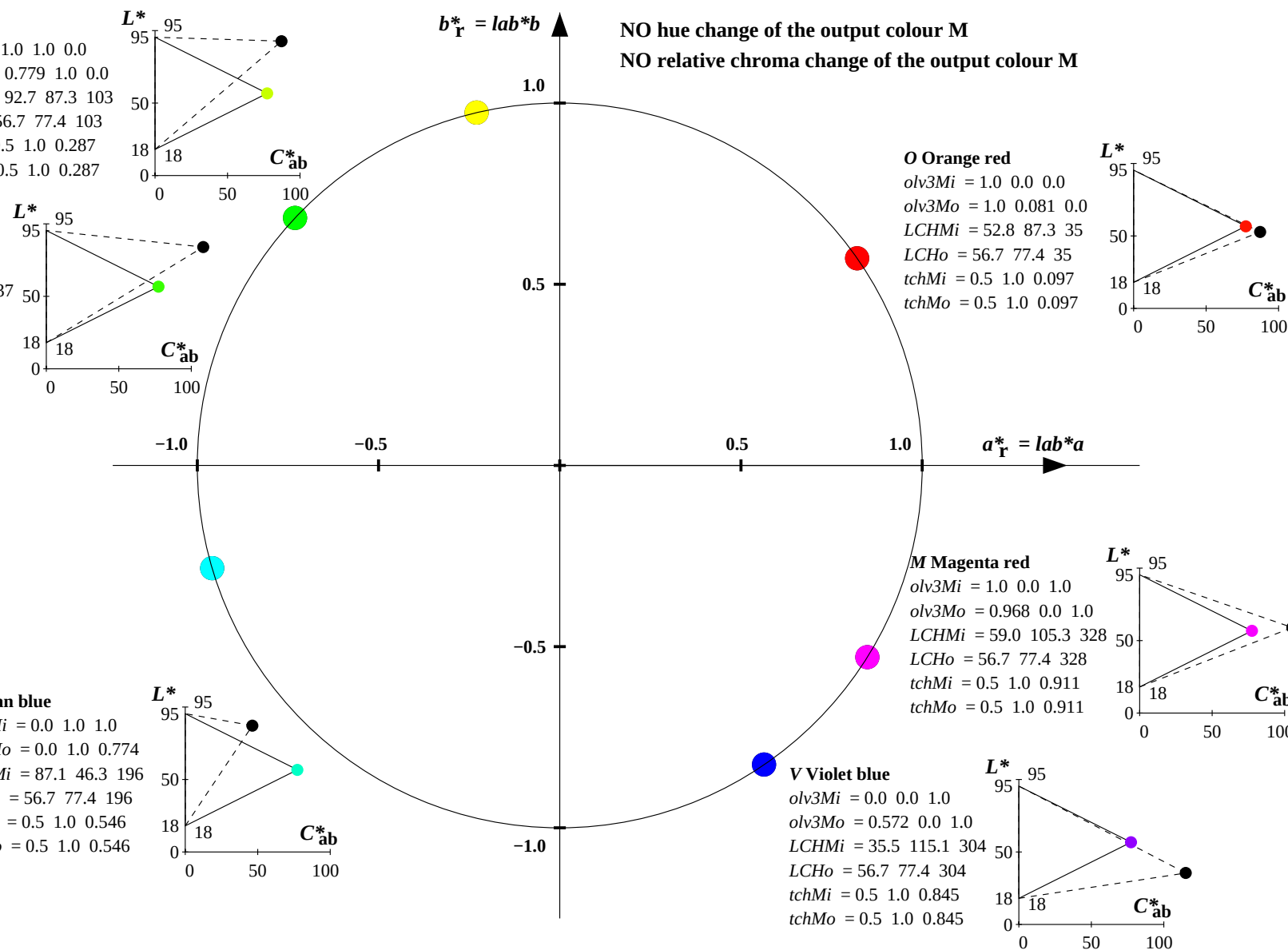
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.968 0.0 1.0
LCHMi = 59.0 105.3 328
LCHo = 56.7 77.4 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.572 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 56.7 77.4 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.845

NO hue change of the output colour M

NO relative chroma change of the output colour M



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space SRS18, page 26/32

BAM-test chart YE63; Colorimetric workflow TLS18->SRS18

D65: 6 basic colours; Device and sample data; page 26/32

input: olv* setrgbcolor

output: no change compared to input

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

SRS18: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.612 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 56.7 77.4 113
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.315

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.052 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 56.7 77.4 147
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.408

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.941
LCHMi = 87.1 46.3 196
LCHo = 56.7 77.4 206
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.574

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.248 0.0
LCHMi = 52.8 87.3 35
LCHo = 56.7 77.4 45
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.125

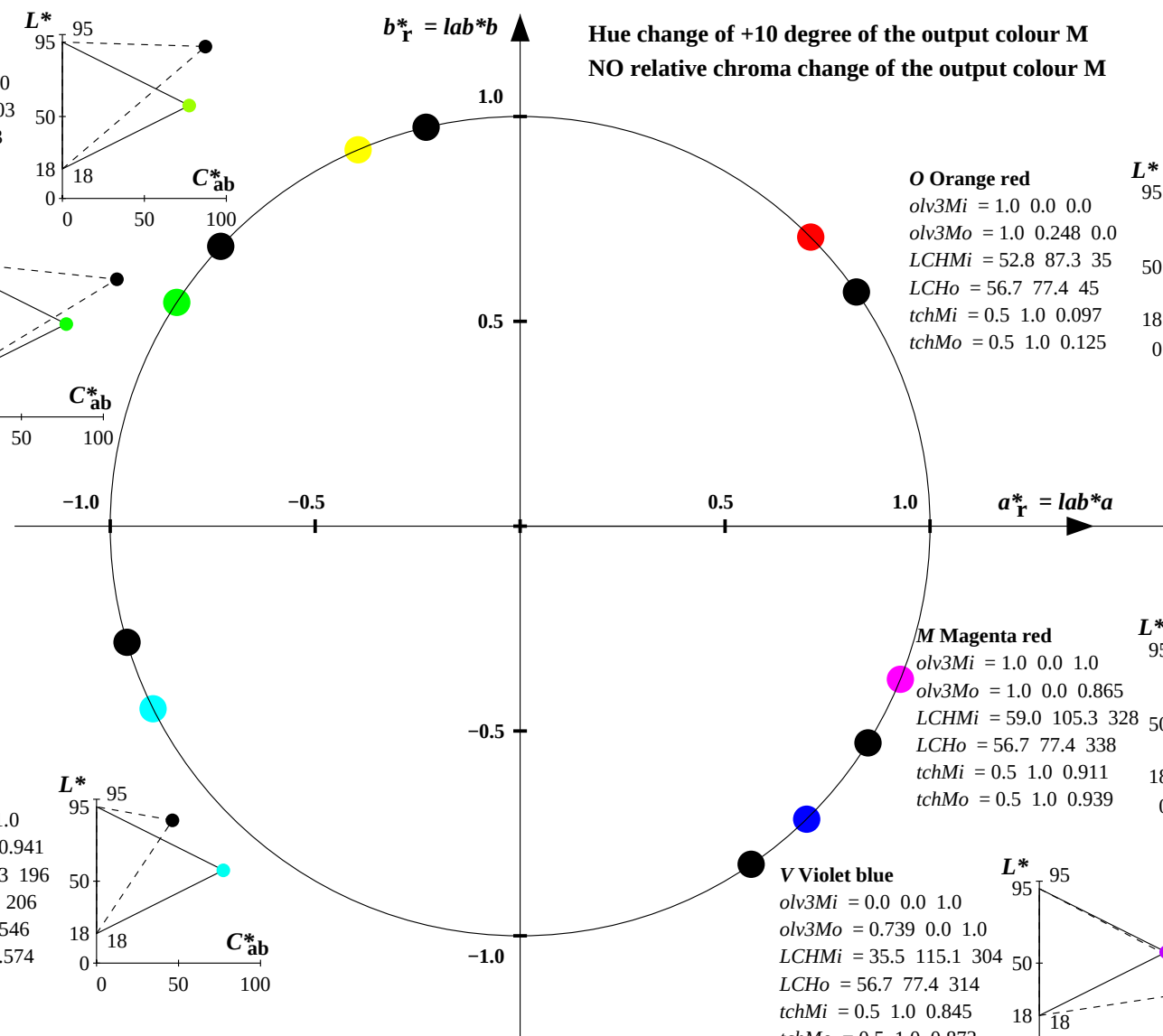
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.865
LCHMi = 59.0 105.3 328
LCHo = 56.7 77.4 338
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.939

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.739 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 56.7 77.4 314
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.873

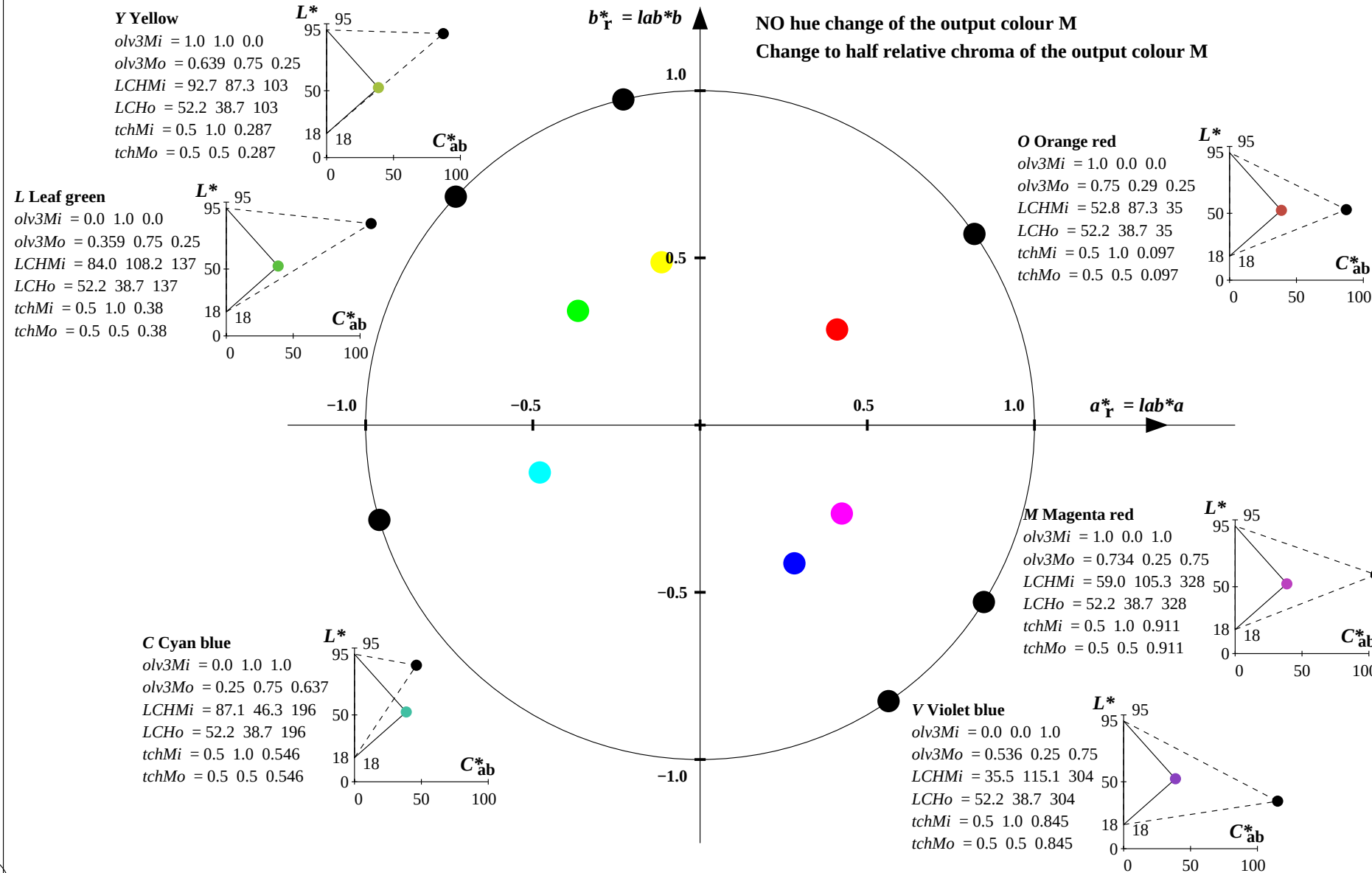
Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

SRS18: Output (o) colorimetric system; Six hue angles of the colour device: (30.0, 90.0, 150.0, 210.0, 270.0, 330.0); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)



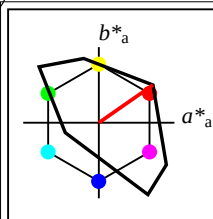
YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space SRS18, page 28/32

BAM-test chart YE63; Colorimetric workflow TLS18->SRS18

D65: 6 basic colours; Device and sample data; page 28/32

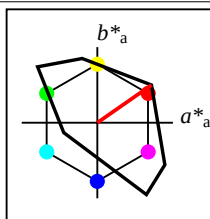
input: olv* setrgbcolor

output: no change compared to input



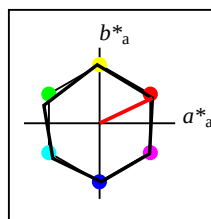
%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

TLS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	52.76	71.63	49.88	87.29	35
Y _M	92.74	-20.02	84.97	87.3	103
L _M	84.0	-78.98	73.94	108.2	137
C _M	87.14	-44.41	-13.11	46.32	196
V _M	35.47	64.92	-95.06	115.12	304
M _M	59.01	89.33	-55.67	105.26	328
N _M	18.01	0.0	0.0	0.0	0
W _M	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



%Gamut
 $u^*_{rel} = 118$
%Regularity
 $g^*_{H,rel} = 22$
 $g^*_{C,rel} = 40$

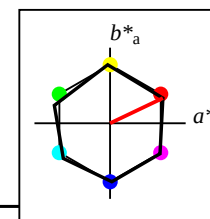
TLS18a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{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	58.74	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



%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

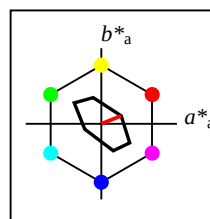
NRS18a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	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

Workflow choices
for colour samples:
1. No colour change
2. Hue change
3. Chroma change



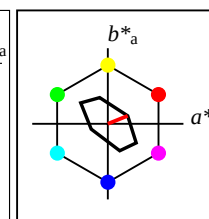
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

NRS18a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
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	58.74	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



%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

TLS70a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

TLS70	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	76.43	26.27	10.57	28.32	22
Y _M	93.93	-10.76	34.63	36.27	107
L _M	89.32	-35.8	27.64	45.24	142
C _M	90.93	-21.95	-7.07	23.07	198
V _M	72.1	15.76	-35.63	38.97	294
M _M	78.5	37.52	-25.23	45.22	326
N _M	69.7	0.0	0.0	0.0	0
W _M	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

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS70: Output (o) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 1.0 0.953 0.0
LCHMi = 92.7 87.3 103
LCHo = 93.1 35.9 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.155 1.0 0.0
LCHMi = 84.0 108.2 137
LCHo = 90.0 43.8 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.975
LCHMi = 87.1 46.3 196
LCHo = 90.9 23.6 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.152 0.0
LCHMi = 52.8 87.3 35
LCHo = 79.1 29.5 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.097

M Magenta red

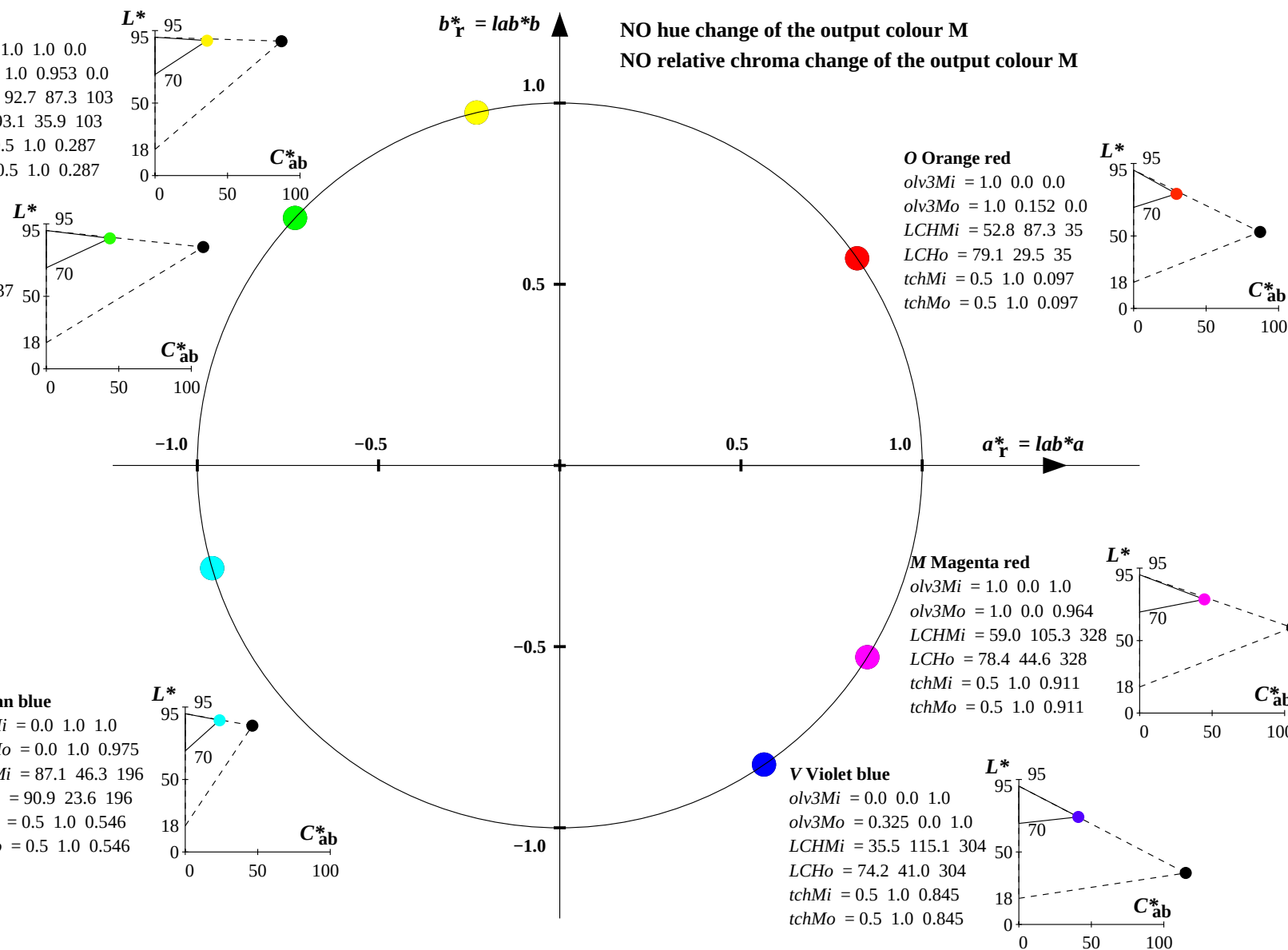
olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.964
LCHMi = 59.0 105.3 328
LCHo = 78.4 44.6 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.325 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 74.2 41.0 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.845

NO hue change of the output colour M

NO relative chroma change of the output colour M



YE630-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS18 -> Device Colour Output Data of Output Space TLS70, page 30/32

BAM-test chart YE63; Colorimetric workflow TLS18->TLS70

D65: 6 basic colours; Device and sample data; page 30/32

input: olv* setrgbcolor

output: no change compared to input

Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (--) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS70: Output (o) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.829 1.0 0.0
LCHMi = 92.7 87.3 103
LCHo = 93.1 37.8 113
tchMi = 0.5 1.0 0.287
tchMo = 0.5 1.0 0.315

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.082
LCHMi = 84.0 108.2 137
LCHo = 89.5 43.4 147
tchMi = 0.5 1.0 0.38
tchMo = 0.5 1.0 0.408

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.91 1.0
LCHMi = 87.1 46.3 196
LCHo = 89.2 24.5 206
tchMi = 0.5 1.0 0.546
tchMo = 0.5 1.0 0.574

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.269 0.0
LCHMi = 52.8 87.3 35
LCHo = 81.1 30.5 45
tchMi = 0.5 1.0 0.097
tchMo = 0.5 1.0 0.125

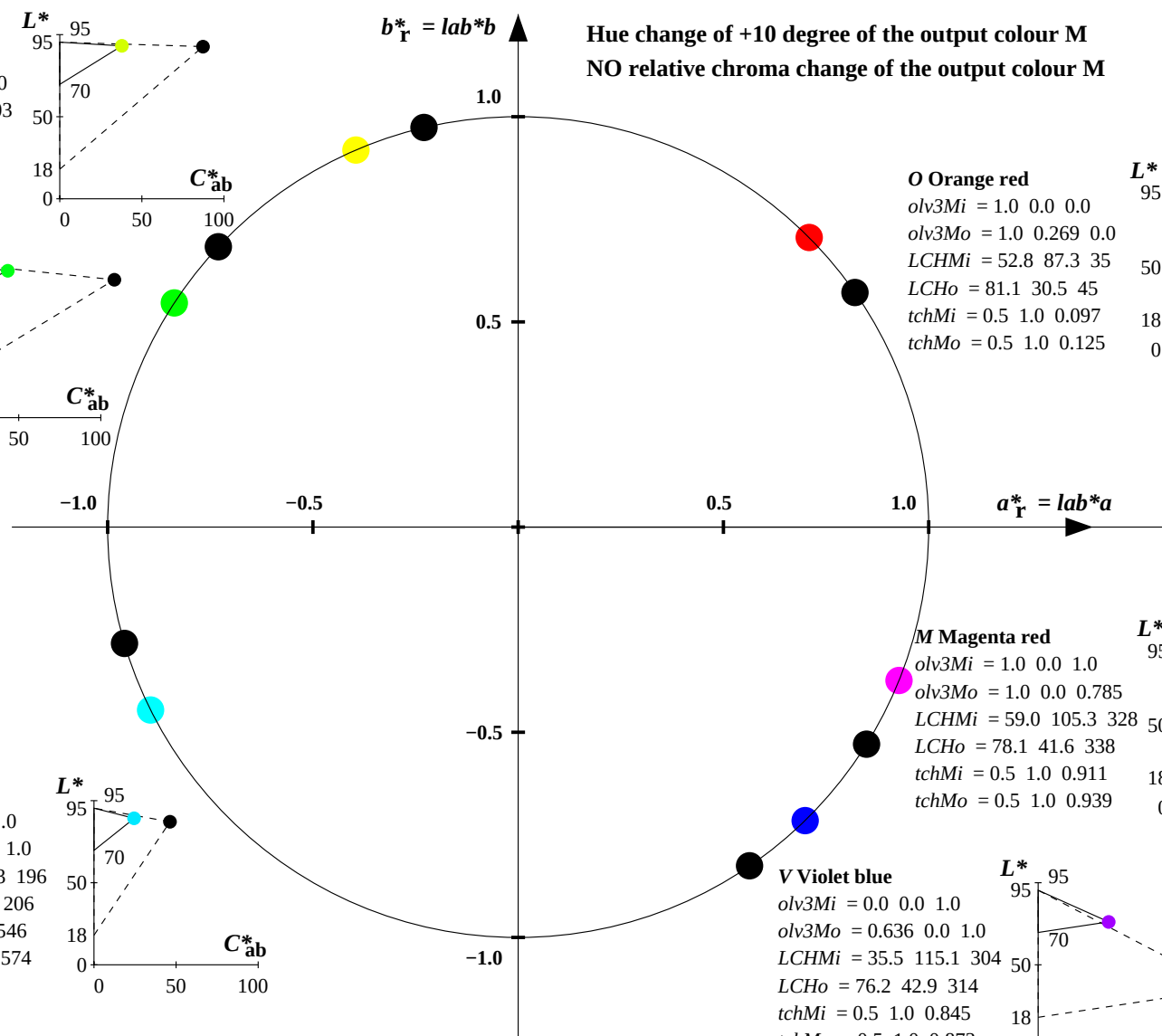
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.785
LCHMi = 59.0 105.3 328
LCHo = 78.1 41.6 338
tchMi = 0.5 1.0 0.911
tchMo = 0.5 1.0 0.939

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.636 0.0 1.0
LCHMi = 35.5 115.1 304
LCHo = 76.2 42.9 314
tchMi = 0.5 1.0 0.845
tchMo = 0.5 1.0 0.873

Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)

TLS18: Input (i) colorimetric system; Six hue angles of the colour device: (34.9, 103.3, 136.9, 196.5, 304.3, 328.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

TLS70: Output (o) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.75 0.726 0.25
LCHMi = 92.7 87.3 103
LCHo = 70.4 17.9 103
tchMi = 0.5 1.0 0.287
tchMo = 0.5 0.5 0.287

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.328 0.75 0.25
LCHMi = 84.0 108.2 137
LCHo = 68.9 21.9 137
tchMi = 0.5 1.0 0.38
tchMo = 0.5 0.5 0.38

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.25 0.75 0.737
LCHMi = 87.1 46.3 196
LCHo = 69.3 11.8 196
tchMi = 0.5 1.0 0.546
tchMo = 0.5 0.5 0.546

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 0.75 0.326 0.25
LCHMi = 52.8 87.3 35
LCHo = 63.4 14.8 35
tchMi = 0.5 1.0 0.097
tchMo = 0.5 0.5 0.097

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.75 0.25 0.732
LCHMi = 59.0 105.3 328
LCHo = 63.1 22.3 328
tchMi = 0.5 1.0 0.911
tchMo = 0.5 0.5 0.911

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.413 0.25 0.75
LCHMi = 35.5 115.1 304
LCHo = 60.9 20.5 304
tchMi = 0.5 1.0 0.845
tchMo = 0.5 0.5 0.845

NO hue change of the output colour M

Change to half relative chroma of the output colour M

