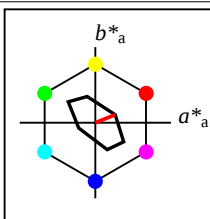


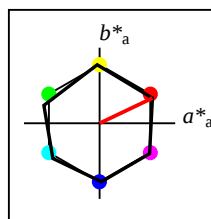
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

TLS70	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	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



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

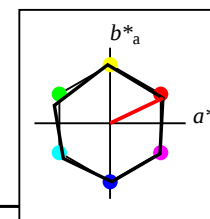
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _M	93.93	-10.76	34.63	36.27	107
L _M	89.32	-35.8	27.64	45.24	142
C _M	90.93	-21.95	-7.07	23.07	198
V _M	72.1	15.76	-35.63	38.97	294
M _M	78.5	37.52	-25.23	45.22	326
N _M	69.7	0.0	0.0	0.0	0
W _{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
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

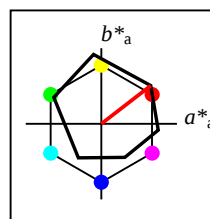
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



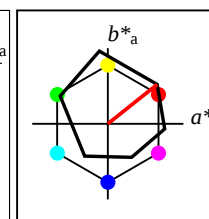
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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
 $g^*_{H,rel} = 58$
 $g^*_{C,rel} = 54$

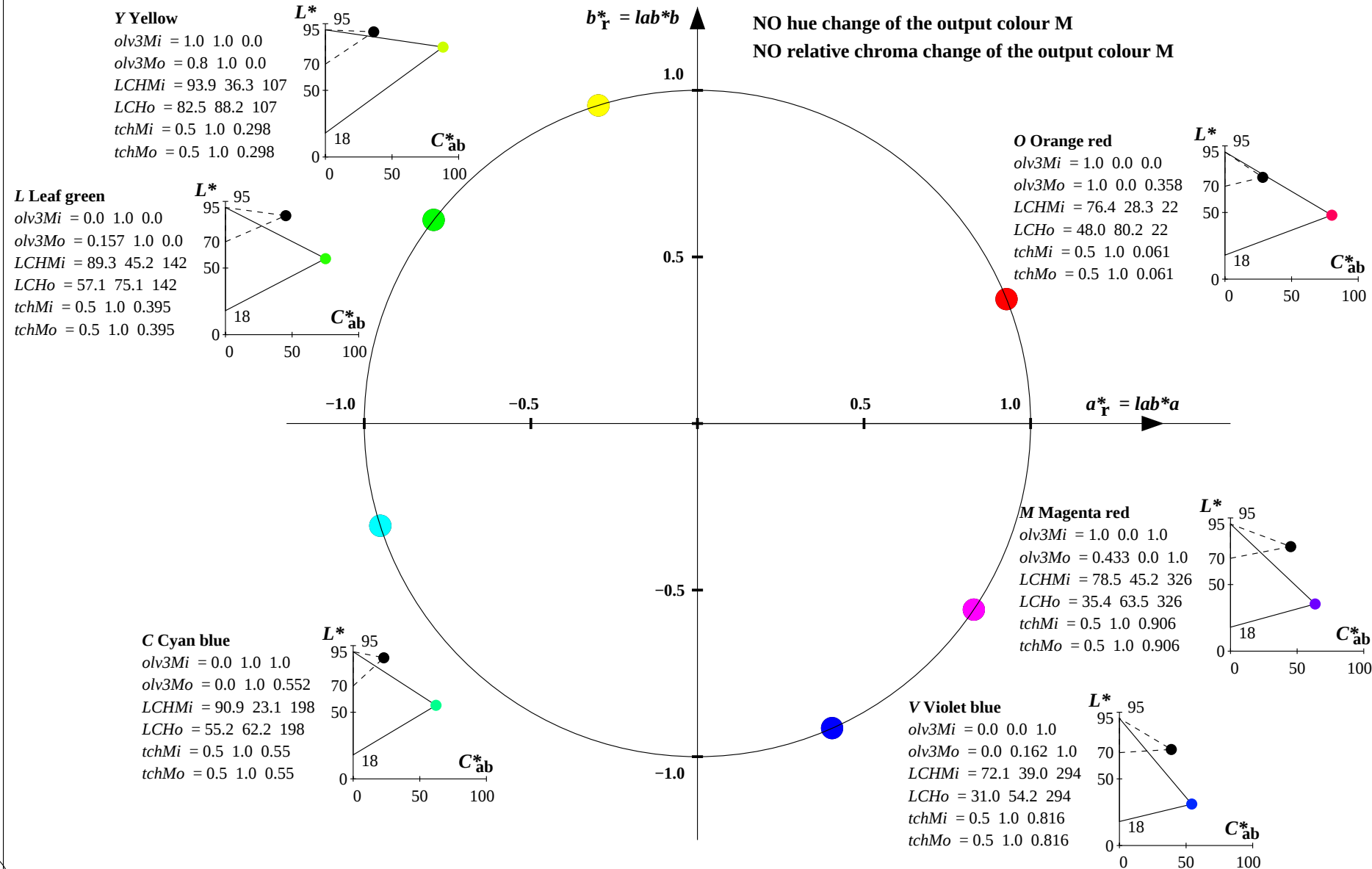
ORS18	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _M	47.94	65.31	52.07	83.53	39
Y _M	90.37	-11.15	96.17	96.82	97
L _M	50.9	-62.96	36.71	72.89	150
C _M	58.62	-30.62	-42.74	52.59	234
V _M	25.72	31.45	-44.35	54.38	305
M _M	48.13	75.2	-6.79	75.51	355
N _M	18.01	0.5	-0.46	0.69	317
W _M	95.41	-0.98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

BAM-test chart YE67; Colorimetric workflow TLS70->ORS18 input: olv* setrgbcolor

D65: 6 basic colours; Device and sample data; page 1/32

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 (---)
TLS70: Input (i) 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)
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)

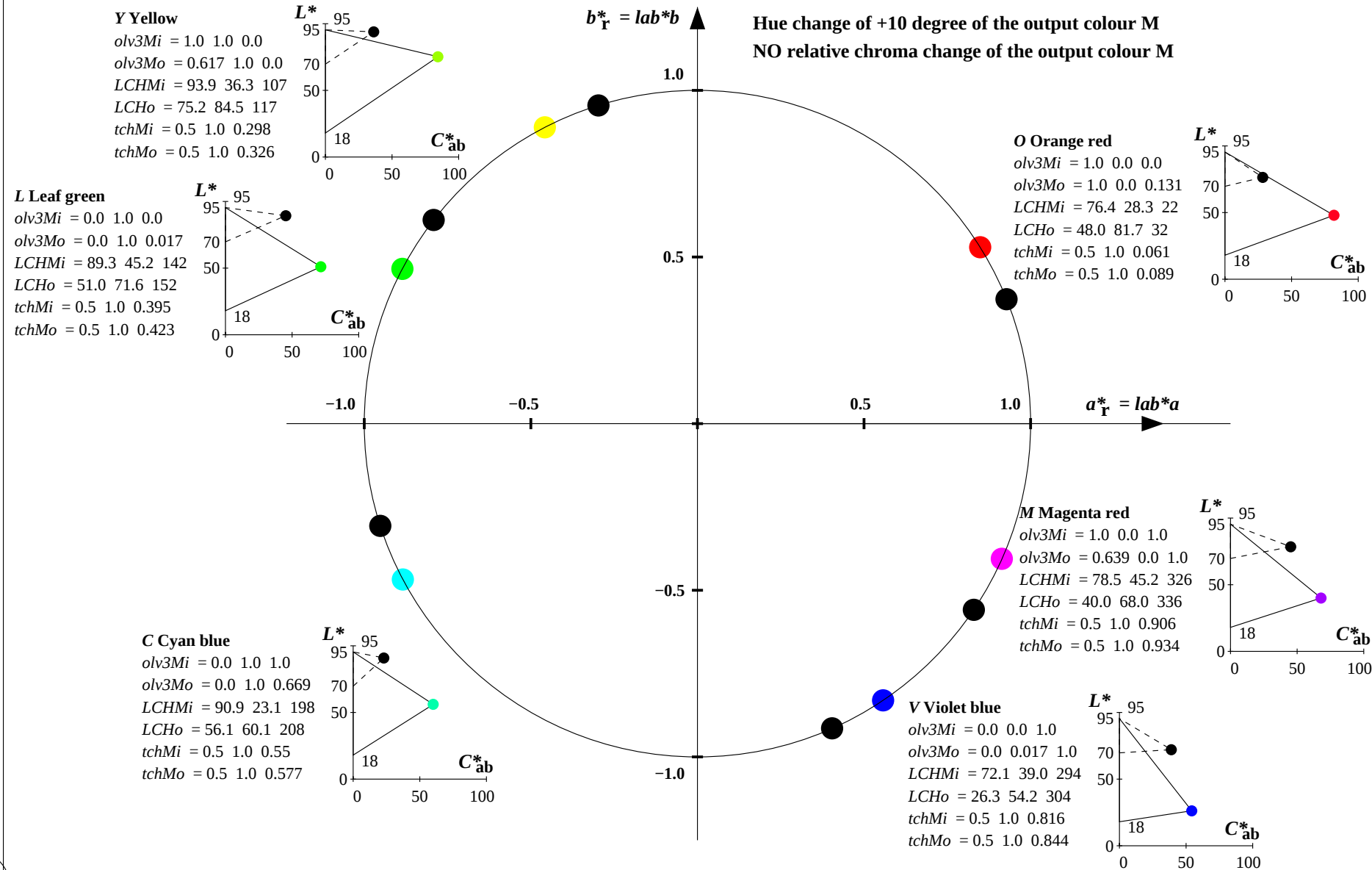


YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space ORS18, page 2/32

BAM-test chart YE67; Colorimetric workflow TLS70->ORS18
D65: 6 basic colours; Device and sample data; page 2/32

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

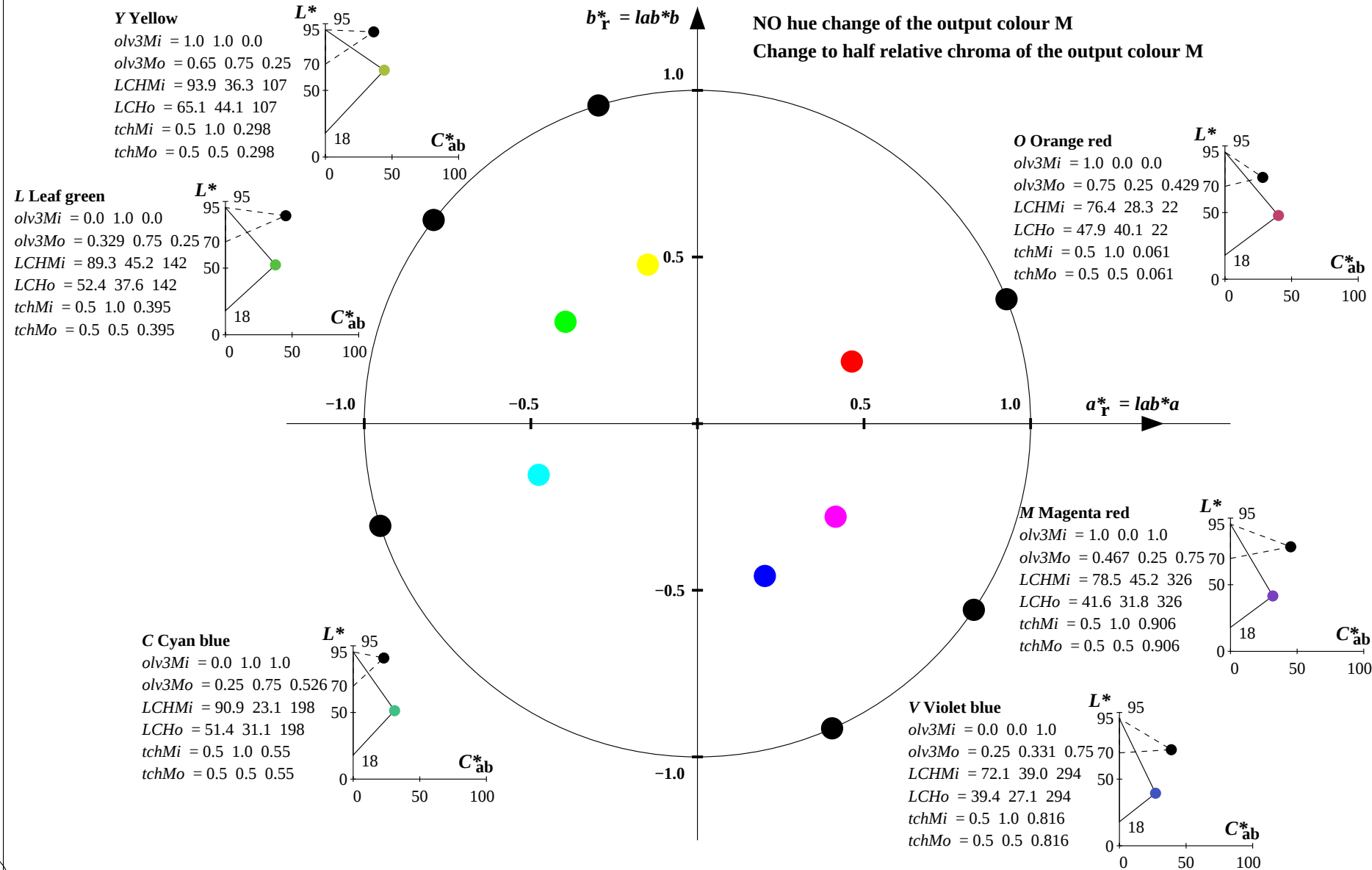
Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS70: Input (i) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
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)



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space ORS18, page 3/32

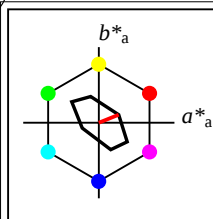
BAM-test chart YE67; Colorimetric workflow TLS70->ORS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 3/32 output: no change compared to input

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 (---)
TLS70: Input (i) 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)
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)



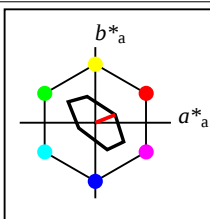
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space ORS18, page 4/32

BAM-test chart YE67; Colorimetric workflow TLS70->ORS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 4/32 output: no change compared to input



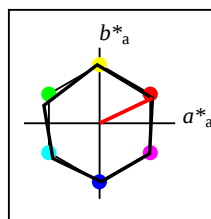
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

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



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

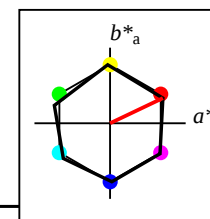
TLS70a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

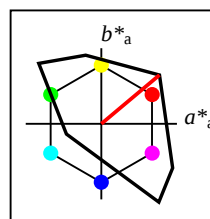
NRS18a; adapted CIE LAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



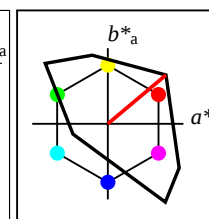
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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

TLS00a; adapted CIE LAB 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

YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS00, page 5/32

BAM-test chart YE67; Colorimetric workflow TLS70->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 (---)

TLS70: Input (i) 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)

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 = 0.867 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 91.5 96.0 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.105
LCHMi = 89.3 45.2 142
LCHo = 84.0 108.0 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.986 1.0
LCHMi = 90.9 23.1 198
LCHo = 86.1 49.2 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.252
LCHMi = 76.4 28.3 22
LCHo = 52.2 103.1 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

M Magenta red

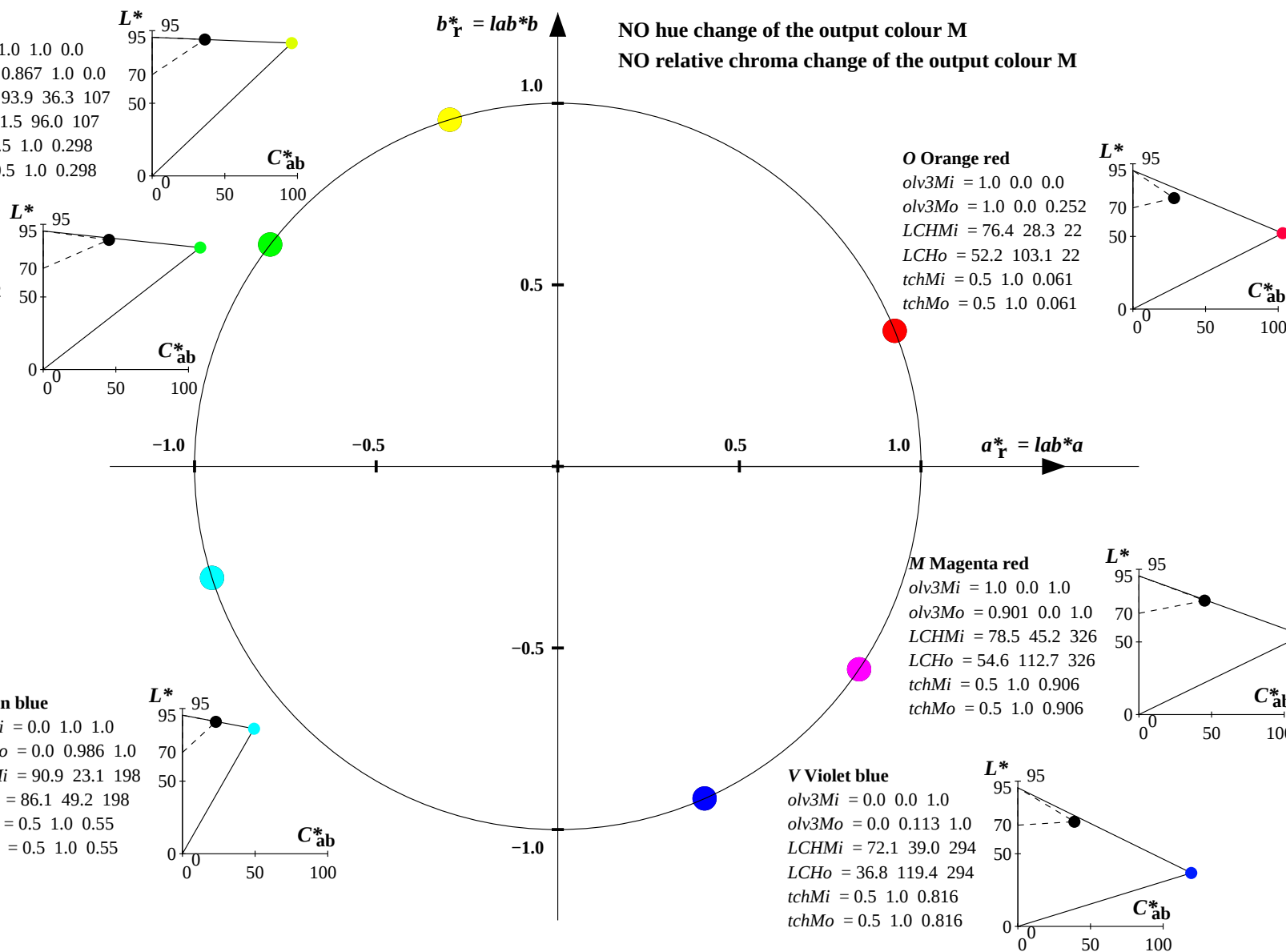
olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.901 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 54.6 112.7 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.113 1.0
LCHMi = 72.1 39.0 294
LCHo = 36.8 119.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816

NO hue change of the output colour M

NO relative chroma change of the output colour M



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS00, page 6/32

BAM-test chart YE67; Colorimetric workflow TLS70->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 (---)

TLS70: Input (i) 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)

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 = 0.565 1.0 0.0

LCHMi = 93.9 36.3 107

LCHo = 88.7 102.6 117

tchMi = 0.5 1.0 0.298

tchMo = 0.5 1.0 0.326

L Leaf green

olv3Mi = 0.0 1.0 0.0

olv3Mo = 0.0 1.0 0.271

LCHMi = 89.3 45.2 142

LCHo = 84.5 96.9 152

tchMi = 0.5 1.0 0.395

tchMo = 0.5 1.0 0.423

C Cyan blue

olv3Mi = 0.0 1.0 1.0

olv3Mo = 0.0 0.895 1.0

LCHMi = 90.9 23.1 198

LCHo = 81.0 56.5 208

tchMi = 0.5 1.0 0.55

tchMo = 0.5 1.0 0.577

M Magenta red

olv3Mi = 1.0 0.0 1.0

olv3Mo = 1.0 0.0 0.891

LCHMi = 78.5 45.2 326

LCHo = 56.6 109.8 336

tchMi = 0.5 1.0 0.906

tchMo = 0.5 1.0 0.934

V Violet blue

olv3Mi = 0.0 0.0 1.0

olv3Mo = 0.0 0.022 1.0

LCHMi = 72.1 39.0 294

LCHo = 31.6 126.8 304

tchMi = 0.5 1.0 0.816

tchMo = 0.5 1.0 0.844

O Orange red

olv3Mi = 1.0 0.0 0.0

olv3Mo = 1.0 0.0 0.113

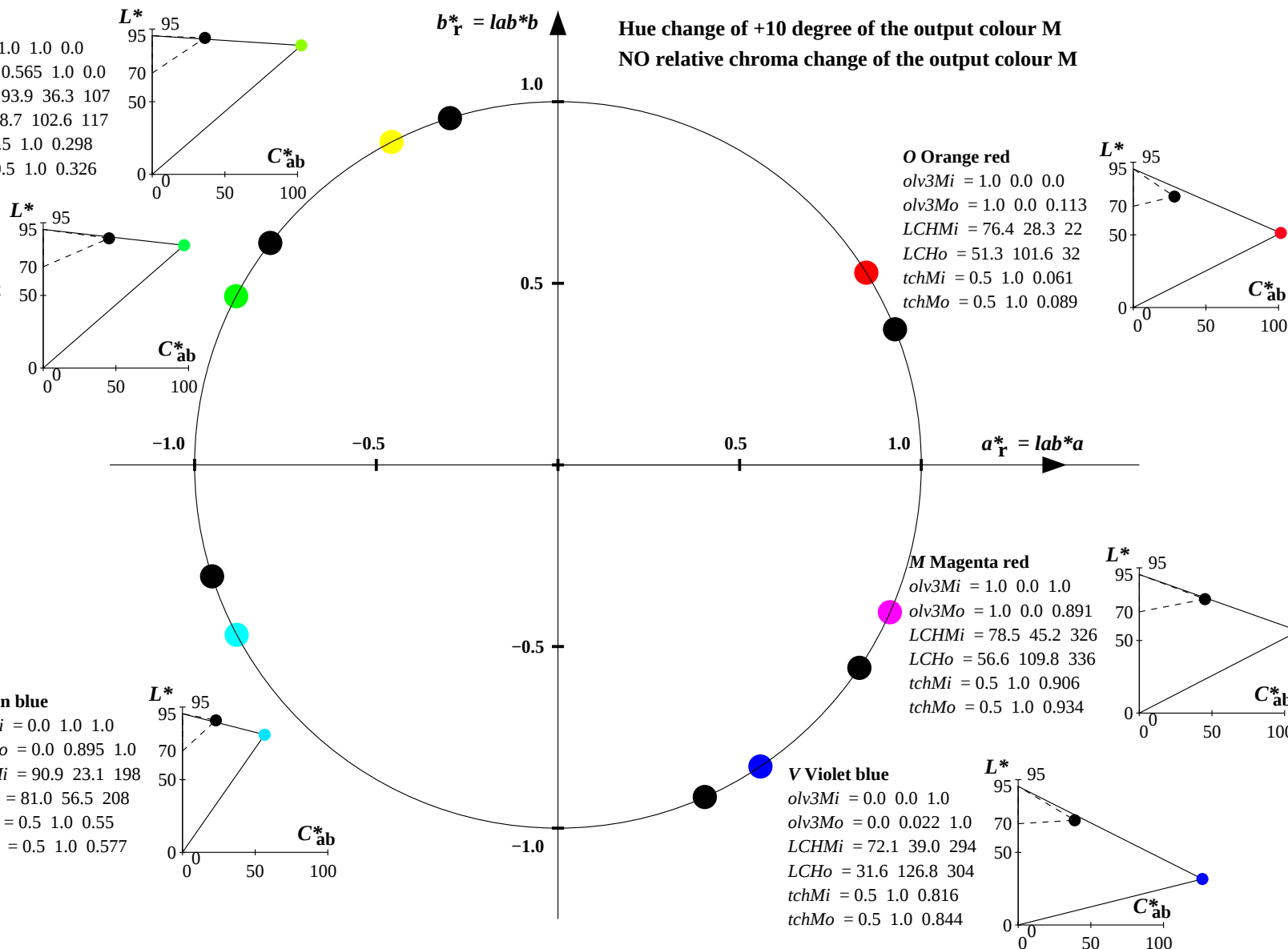
LCHMi = 76.4 28.3 22

LCHo = 51.3 101.6 32

tchMi = 0.5 1.0 0.061

tchMo = 0.5 1.0 0.089

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



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS00, page 7/32

BAM-test chart YE67; Colorimetric workflow TLS70->TLS00

D65: 6 basic colours; Device and sample data; page 7/32

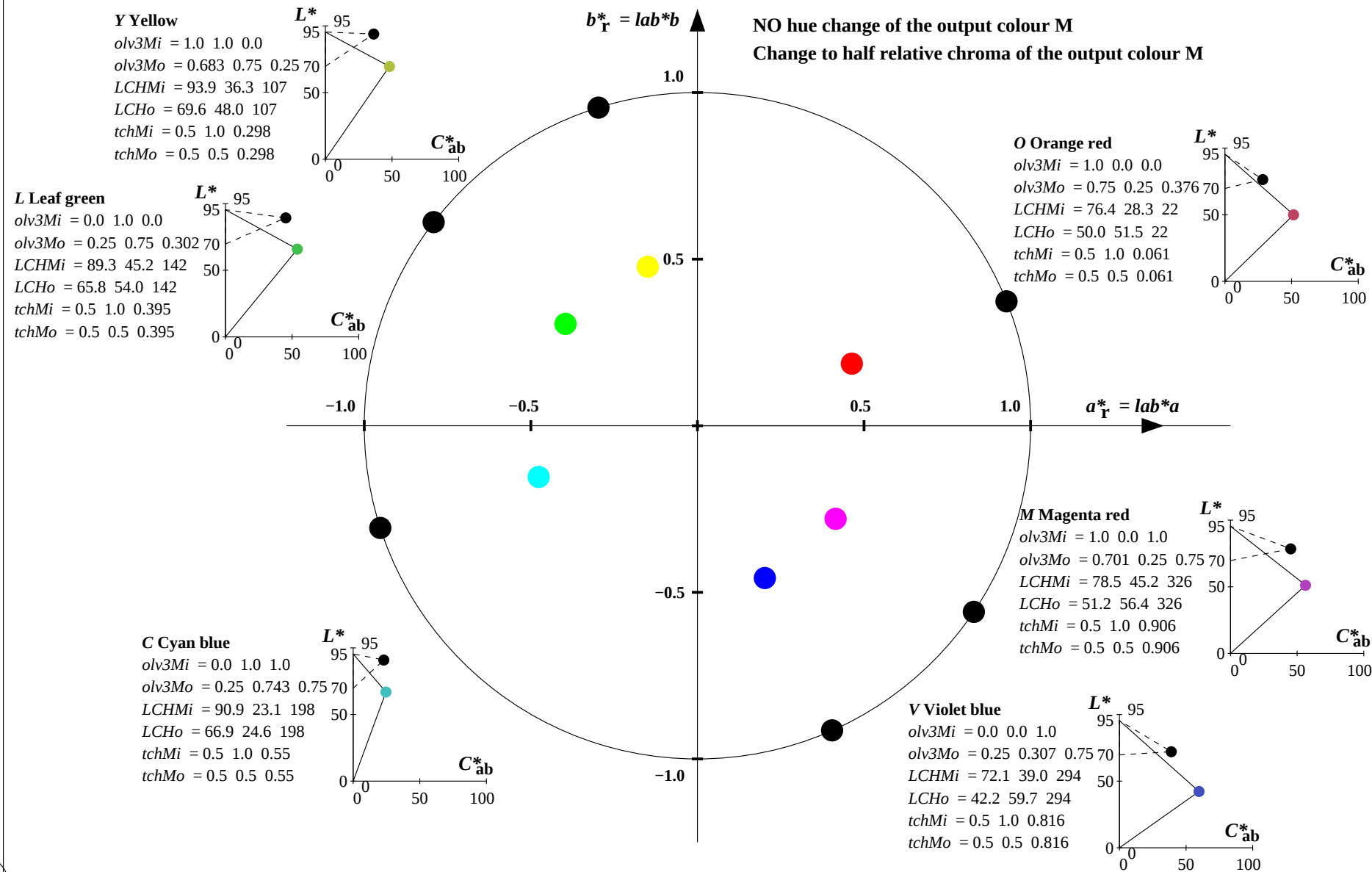
input: olv* setrgbcolor

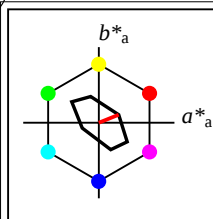
output: no change compared to input

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 (---)

TLS70: Input (i) 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)

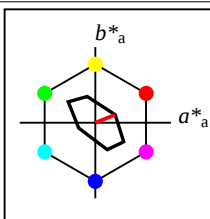
TLS00: Output (o) colorimetric system; Six hue angles of the colour device: (40.0, 102.8, 136.0, 196.4, 306.3, 328.2); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)





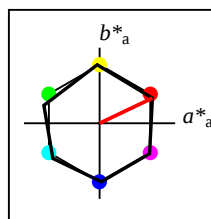
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

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



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

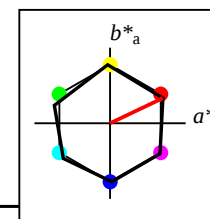
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

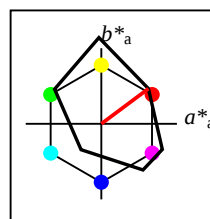
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



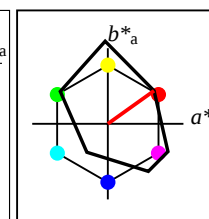
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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 (---)
TLS70: Input (i) 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)
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)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.698 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 69.6 102.8 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.021 1.0 0.0
LCHMi = 89.3 45.2 142
LCHo = 40.3 77.7 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.615
LCHMi = 90.9 23.1 198
LCHo = 44.6 56.4 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

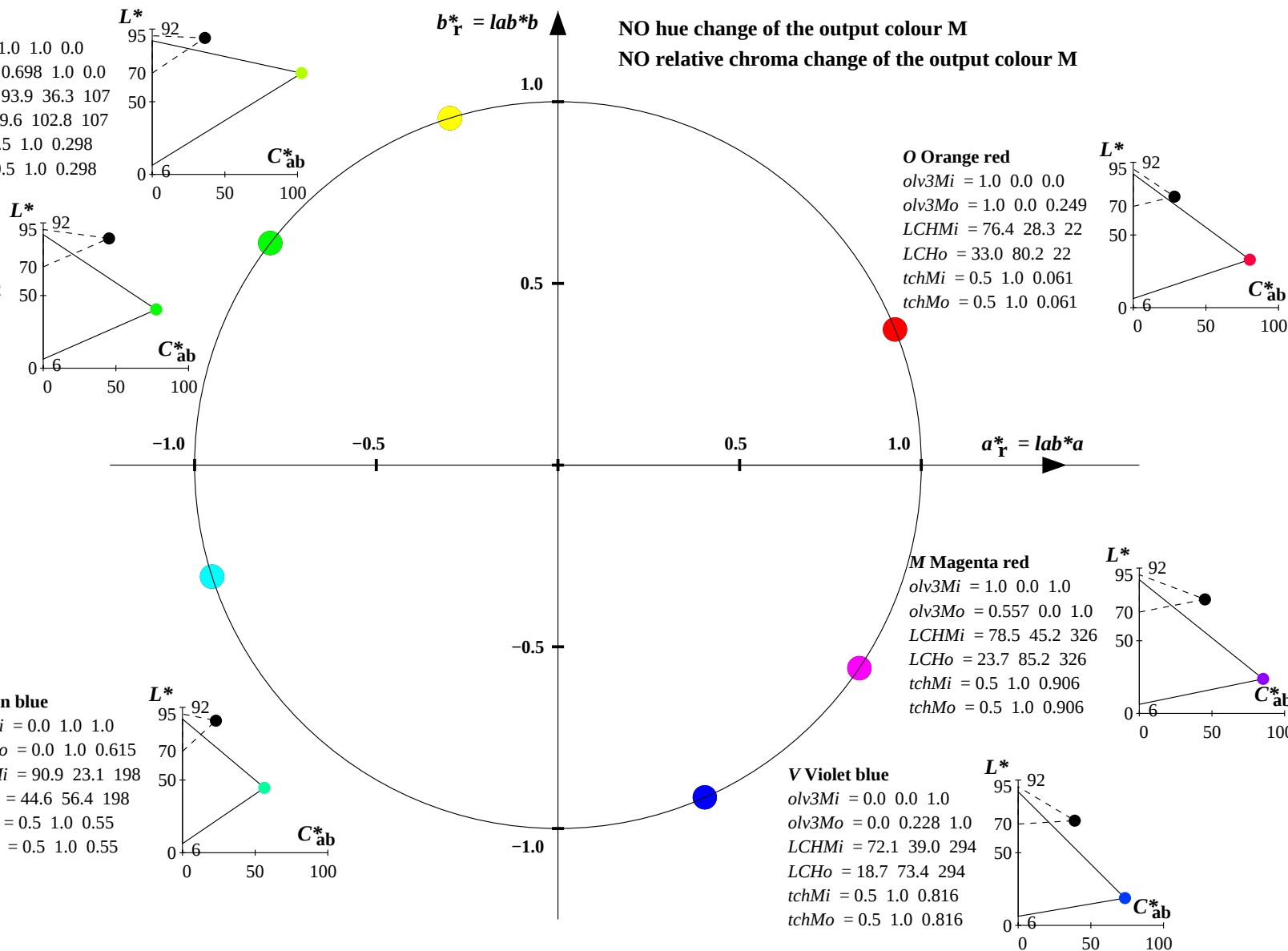
olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.249
LCHMi = 76.4 28.3 22
LCHo = 33.0 80.2 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.557 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 23.7 85.2 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.228 1.0
LCHMi = 72.1 39.0 294
LCHo = 18.7 73.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816



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 (---)
TLS70: Input (i) 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)
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)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.504 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 61.3 95.7 117
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.326

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.101
LCHMi = 89.3 45.2 142
LCHo = 40.3 73.6 152
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.423

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.728
LCHMi = 90.9 23.1 198
LCHo = 45.6 52.6 208
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.577

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.081
LCHMi = 76.4 28.3 22
LCHo = 32.7 78.5 32
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.089

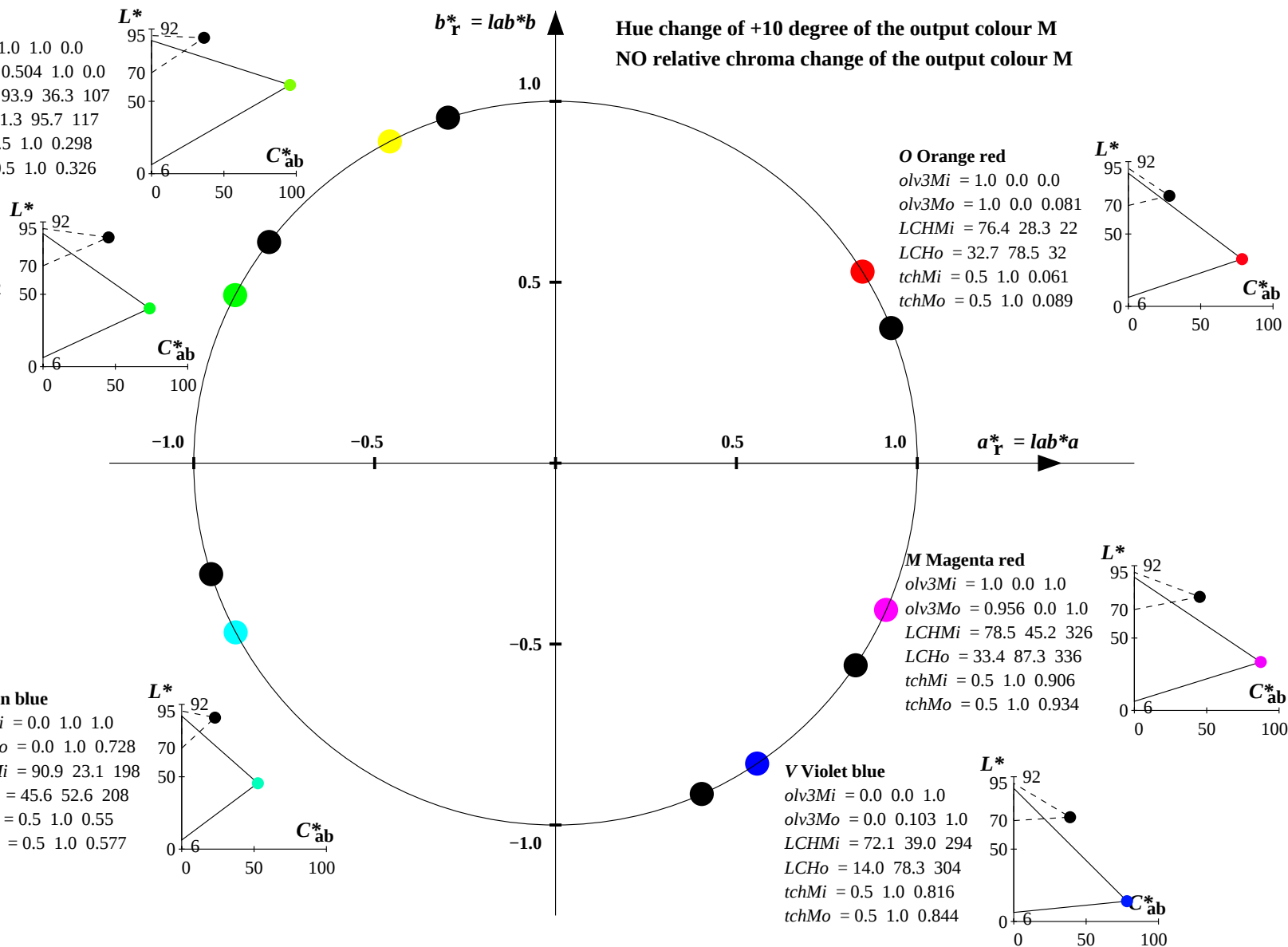
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.956 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 33.4 87.3 336
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.934

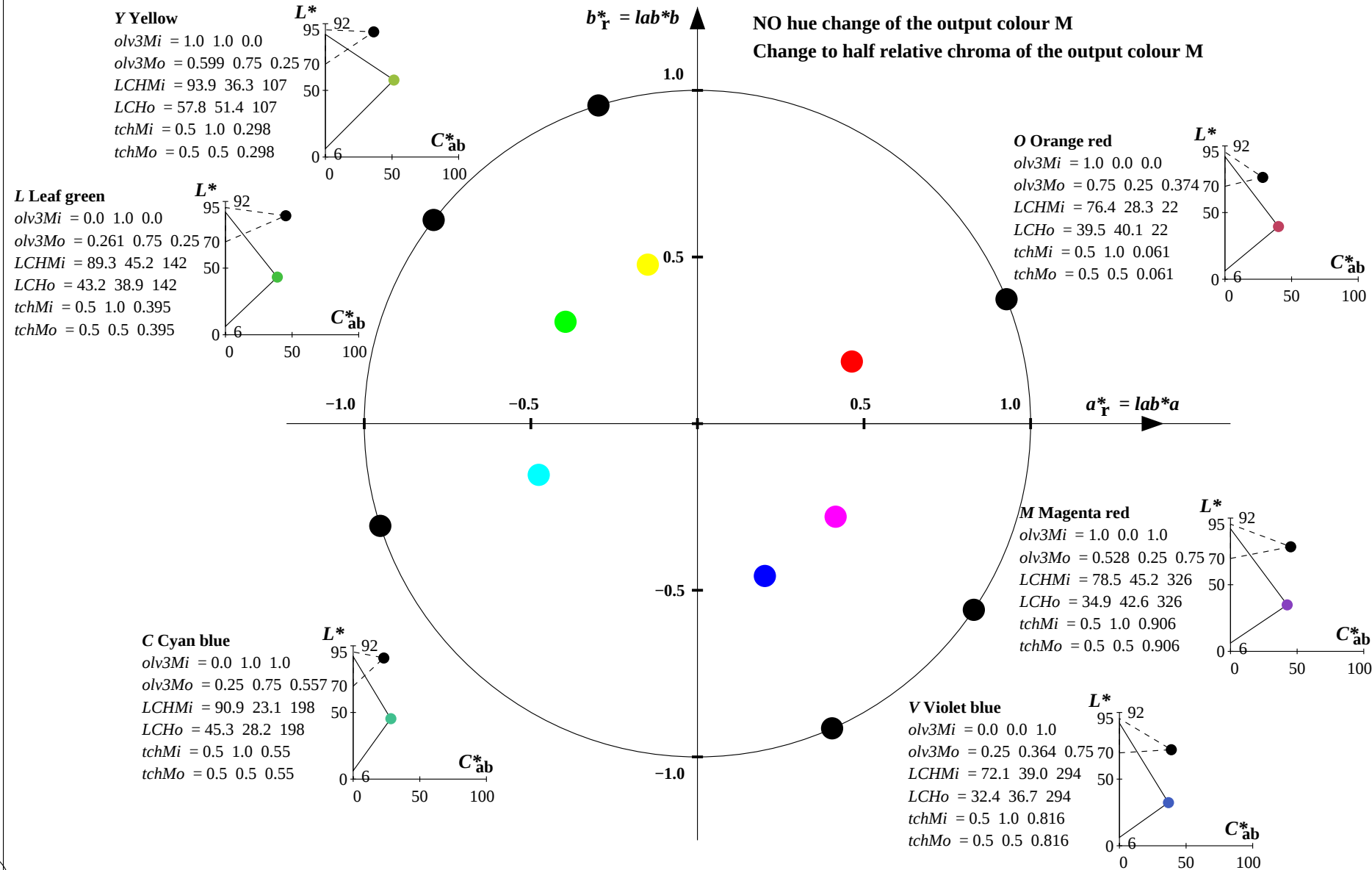
V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.103 1.0
LCHMi = 72.1 39.0 294
LCHo = 14.0 78.3 304
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.844

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



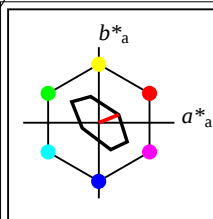
Relative CIELAB chroma diagram: ($a_r^* = lab^*a$, $b_r^* = lab^*b$) and absolute CIELAB hue triangle diagram: (L^* , C_{ab}^*) for input (---) and output (---)
TLS70: Input (i) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)
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)



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space FRS06, page 12/32

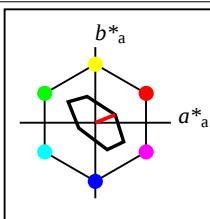
BAM-test chart YE67; Colorimetric workflow TLS70->FRS06
D65: 6 basic colours; Device and sample data; page 12/32

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



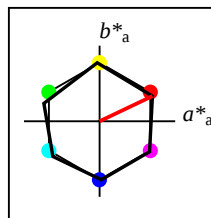
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

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



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

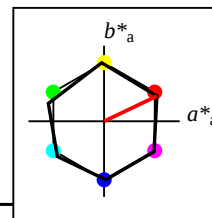
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

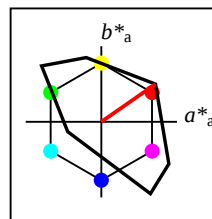
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



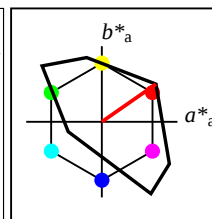
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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 (---)

TLS70: Input (i) 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)

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 = 0.881 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 91.7 89.8 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.091
LCHMi = 89.3 45.2 142
LCHo = 84.3 102.5 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.987 1.0
LCHMi = 90.9 23.1 198
LCHo = 86.5 47.2 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

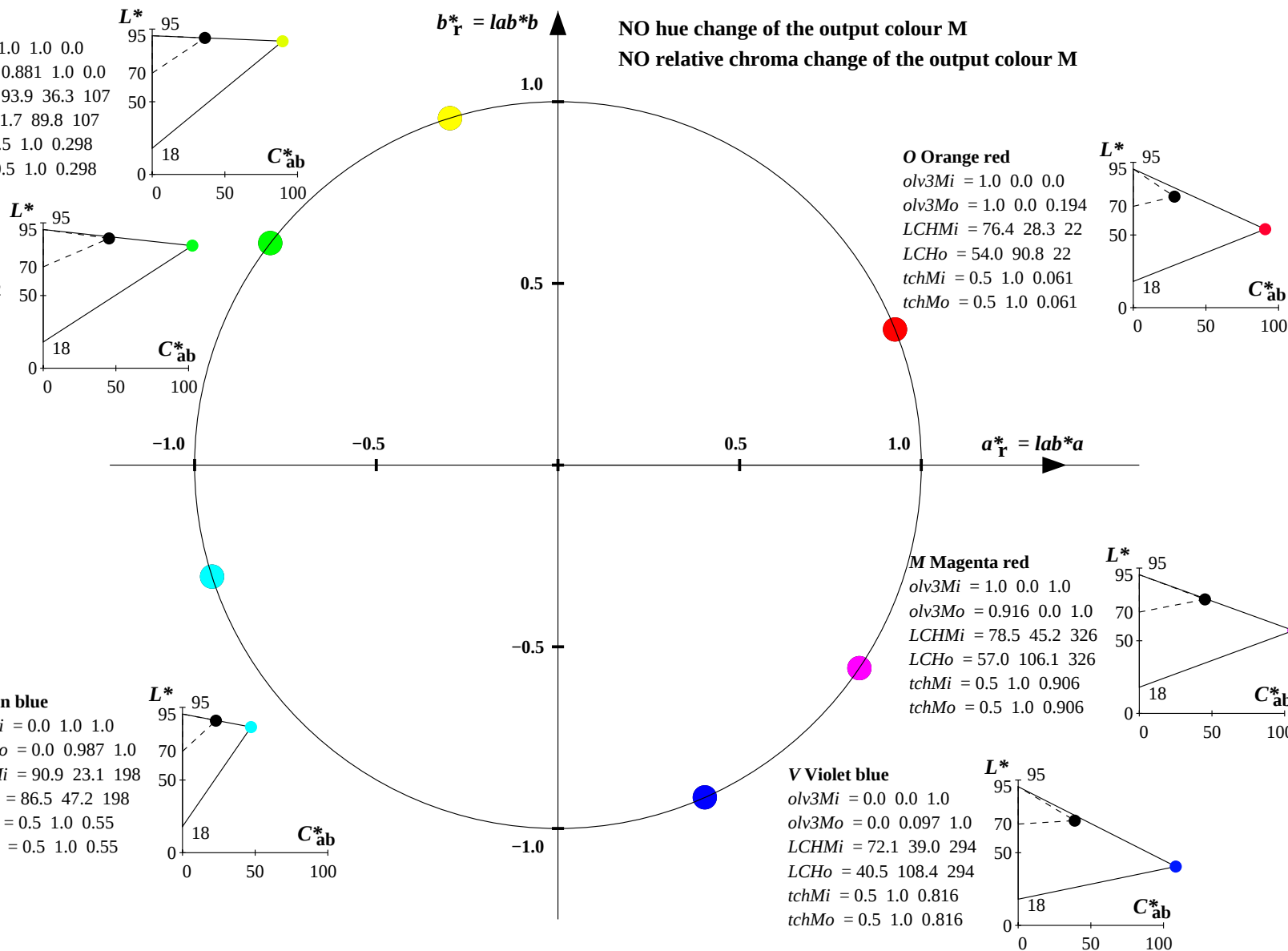
olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.194
LCHMi = 76.4 28.3 22
LCHo = 54.0 90.8 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.916 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 57.0 106.1 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.097 1.0
LCHMi = 72.1 39.0 294
LCHo = 40.5 108.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS18, page 14/32

BAM-test chart YE67; Colorimetric workflow TLS70->TLS18

D65: 6 basic colours; Device and sample data; page 14/32

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 (---)

TLS70: Input (i) 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)

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 = 0.583 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 89.1 96.0 117
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.326

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.259
LCHMi = 89.3 45.2 142
LCHo = 84.8 92.1 152
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.423

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.894 1.0
LCHMi = 90.9 23.1 198
LCHo = 81.7 53.6 208
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.577

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.044
LCHMi = 76.4 28.3 22
LCHo = 53.0 88.1 32
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.089

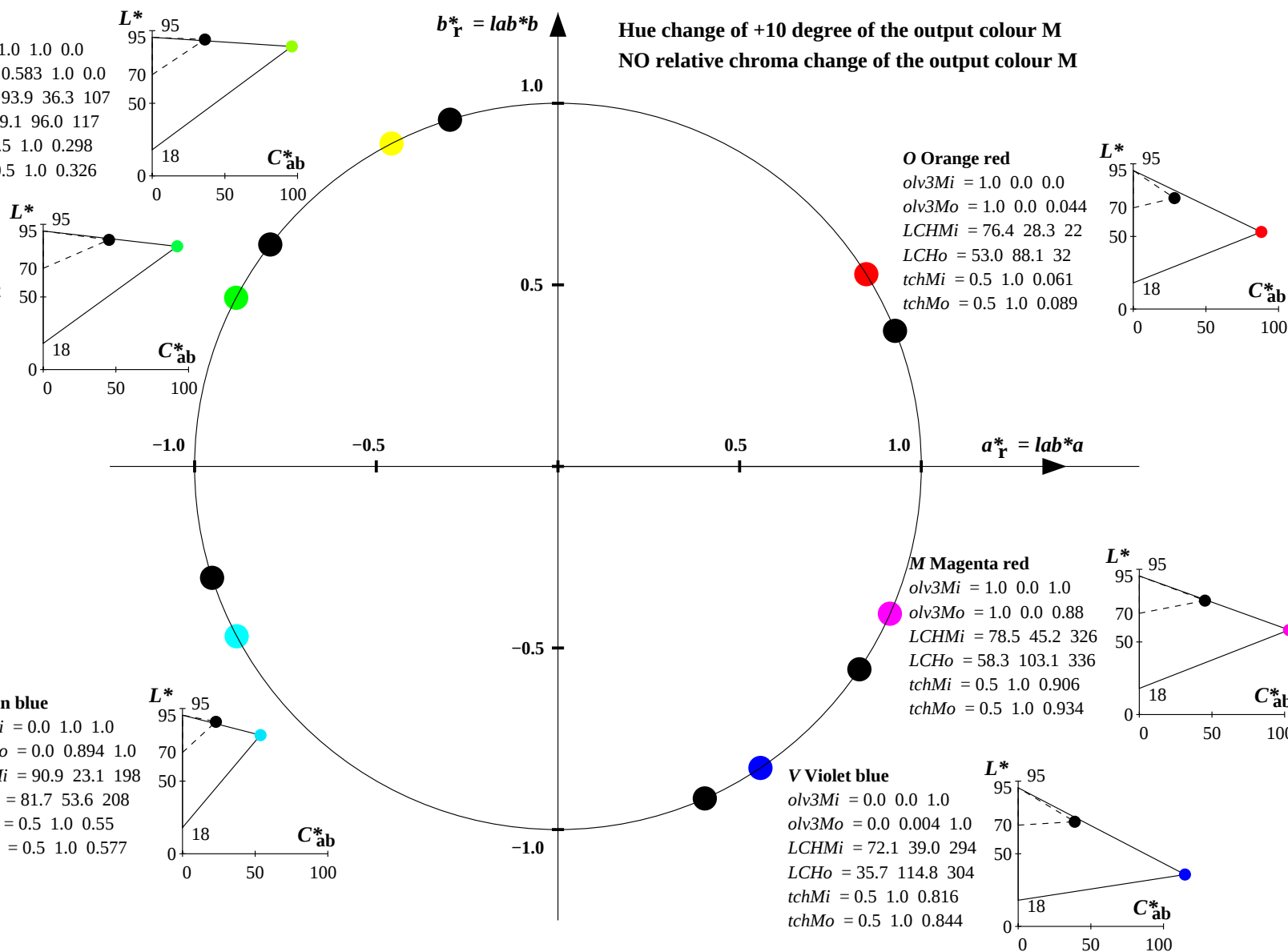
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.88
LCHMi = 78.5 45.2 326
LCHo = 58.3 103.1 336
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.934

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.004 1.0
LCHMi = 72.1 39.0 294
LCHo = 35.7 114.8 304
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.844

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 (---)

TLS70: Input (i) 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)

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 = 0.69 0.75 0.25
LCHMi = 93.9 36.3 107
LCHo = 69.7 44.9 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 0.5 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.25 0.75 0.296
LCHMi = 89.3 45.2 142
LCHo = 66.0 51.3 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 0.5 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.25 0.743 0.75
LCHMi = 90.9 23.1 198
LCHo = 67.1 23.6 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 0.5 0.55

O Orange red

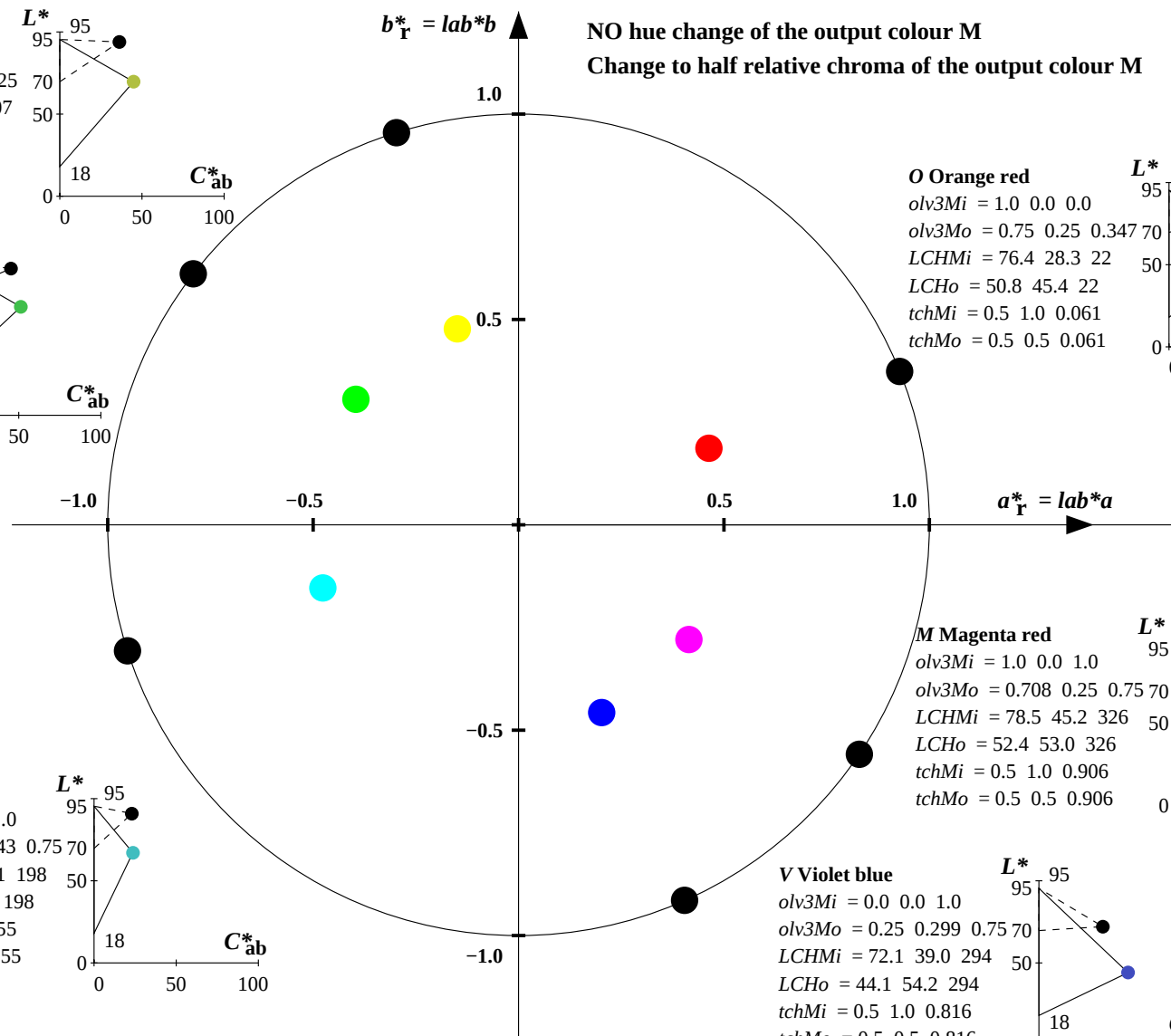
olv3Mi = 1.0 0.0 0.0
olv3Mo = 0.75 0.25 0.347
LCHMi = 76.4 28.3 22
LCHo = 50.8 45.4 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 0.5 0.061

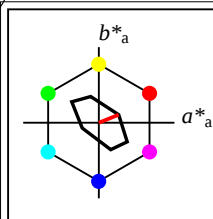
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.708 0.25 0.75
LCHMi = 78.5 45.2 326
LCHo = 52.4 53.0 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 0.5 0.906

V Violet blue

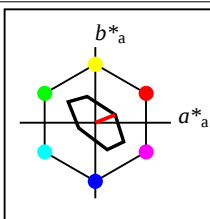
olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.25 0.299 0.75
LCHMi = 72.1 39.0 294
LCHo = 44.1 54.2 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 0.5 0.816





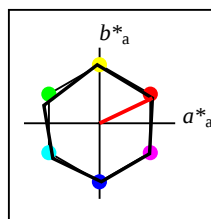
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

TLS70	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{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
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

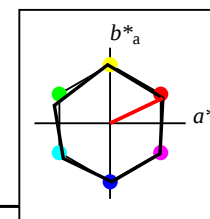
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

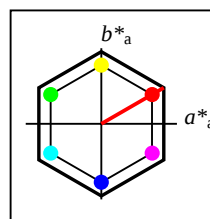
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



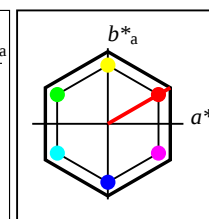
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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 (---)
TLS70: Input (i) 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)
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)

Y Yellow

olv3Mi = 1.0 1.0 0.0
olv3Mo = 0.712 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 54.5 95.4 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.128 1.0 0.0
LCHMi = 89.3 45.2 142
LCHo = 35.9 95.4 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.798
LCHMi = 90.9 23.1 198
LCHo = 57.2 95.4 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.135
LCHMi = 76.4 28.3 22
LCHo = 36.1 95.4 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

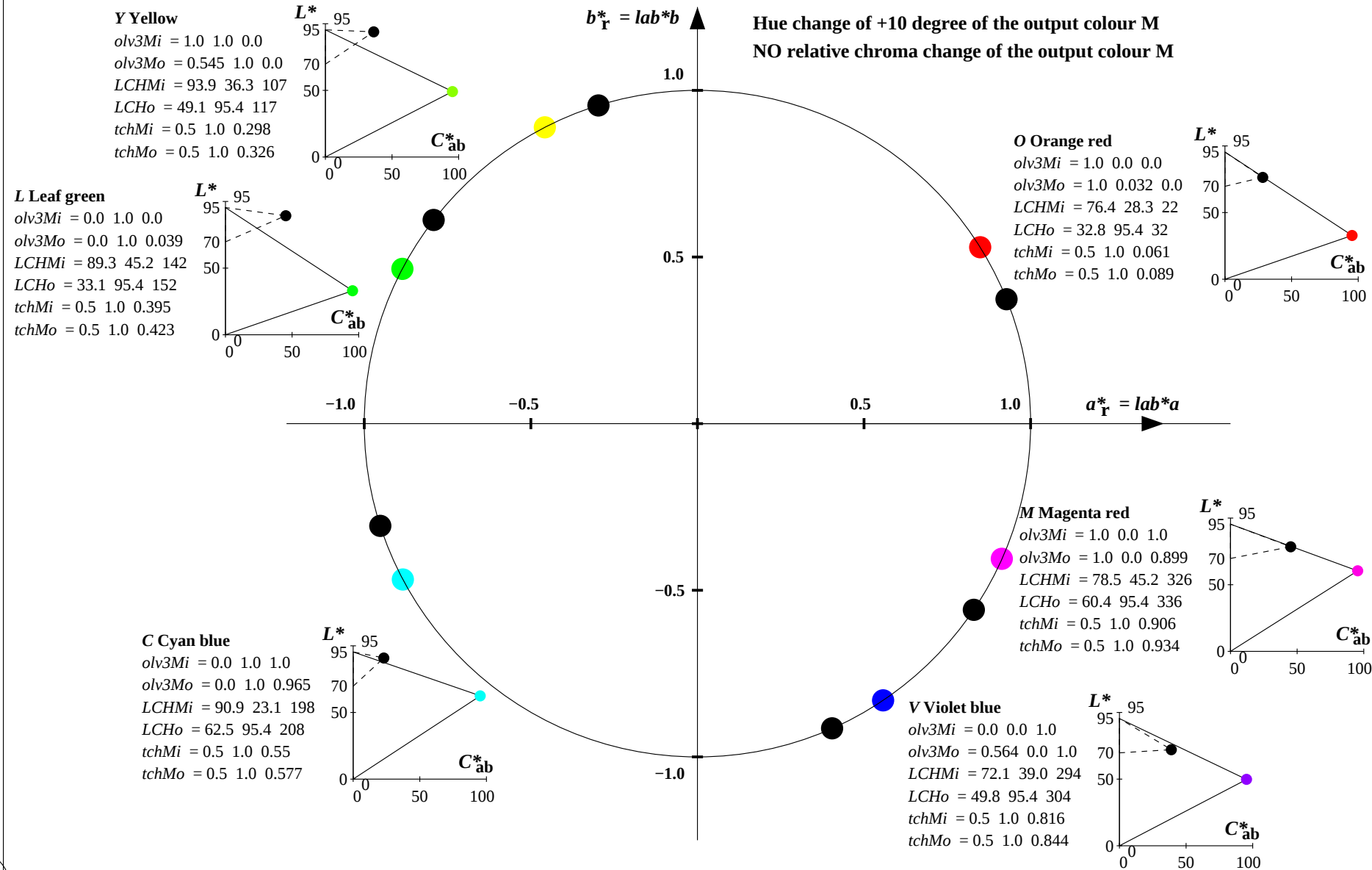
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.934 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 61.5 95.4 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.398 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 44.5 95.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816

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 (---)
TLS70: Input (i) 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)
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)



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space NLS00, page 19/32

BAM-test chart YE67; Colorimetric workflow TLS70->NLS00

D65: 6 basic colours; Device and sample data; page 19/32

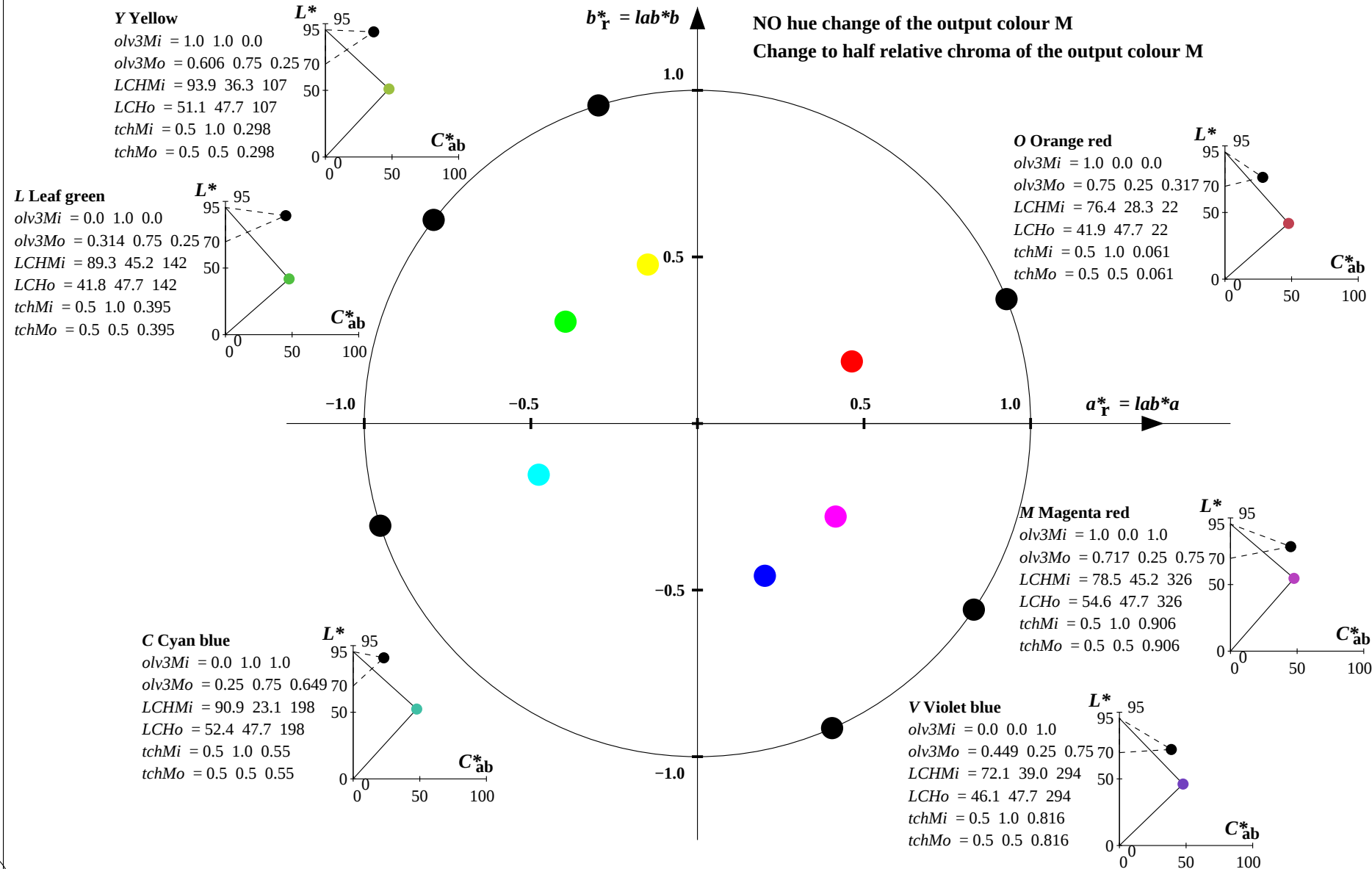
input: olv* setrgbcolor

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 (---)

TLS70: Input (i) 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)

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)



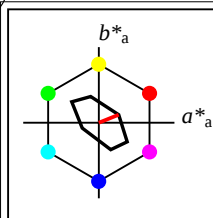
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space NLS00, page 20/32

BAM-test chart YE67; Colorimetric workflow TLS70->NLS00

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

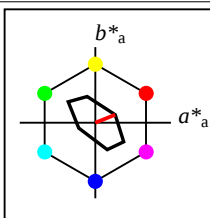
input: olv* setrgbcolor

output: no change compared to input



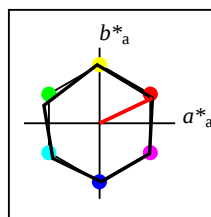
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

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



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

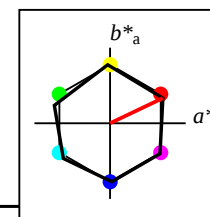
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

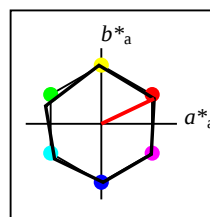
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



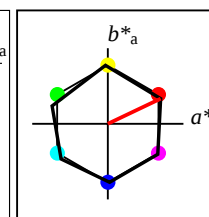
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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 (---)

TLS70: Input (i) 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)

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 = 0.786 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 56.7 77.4 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.284 1.0 0.0
LCHMi = 89.3 45.2 142
LCHo = 56.7 77.4 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.651
LCHMi = 90.9 23.1 198
LCHo = 56.7 77.4 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

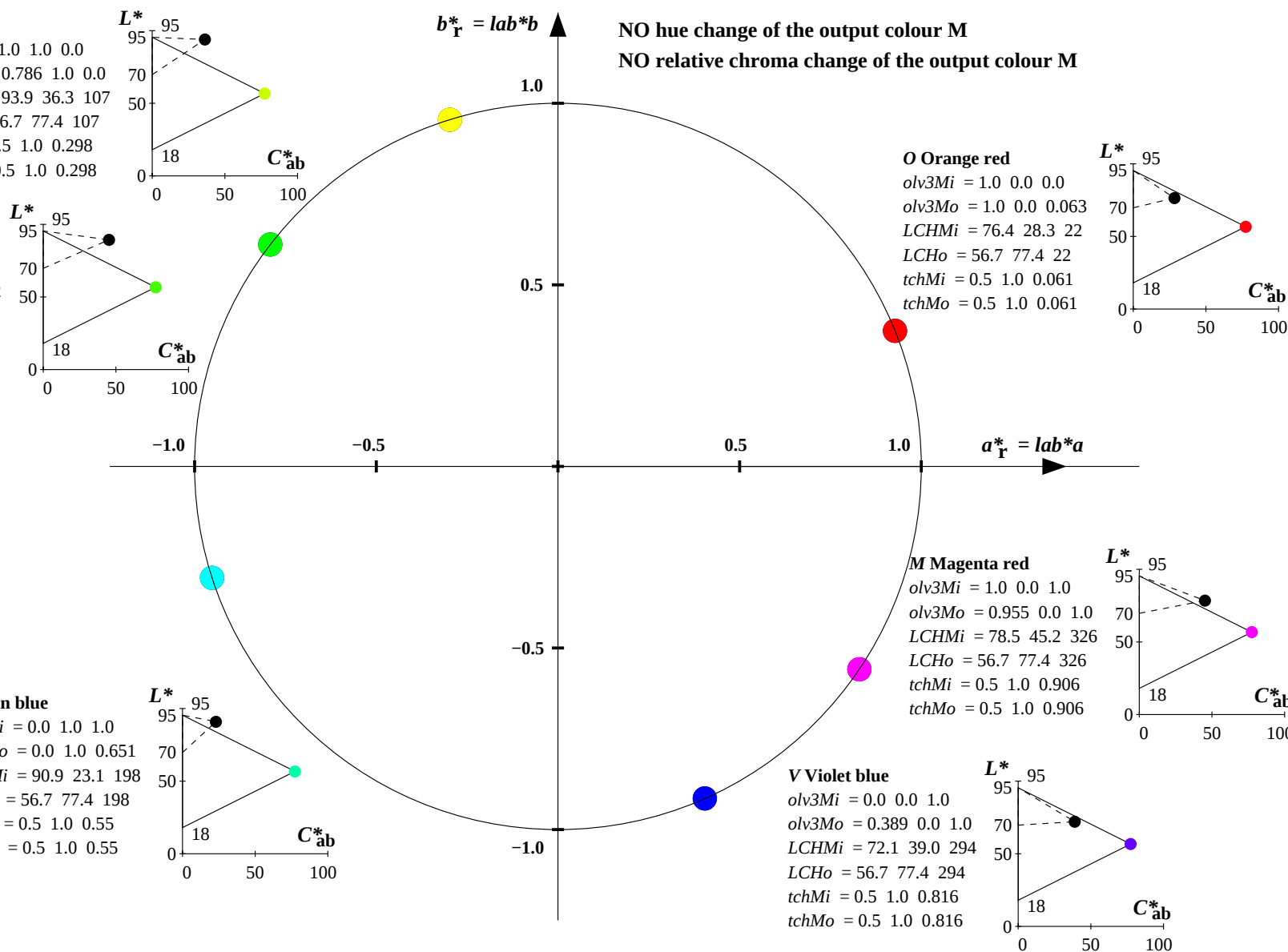
olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.063
LCHMi = 76.4 28.3 22
LCHo = 56.7 77.4 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.955 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 56.7 77.4 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.389 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 56.7 77.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816



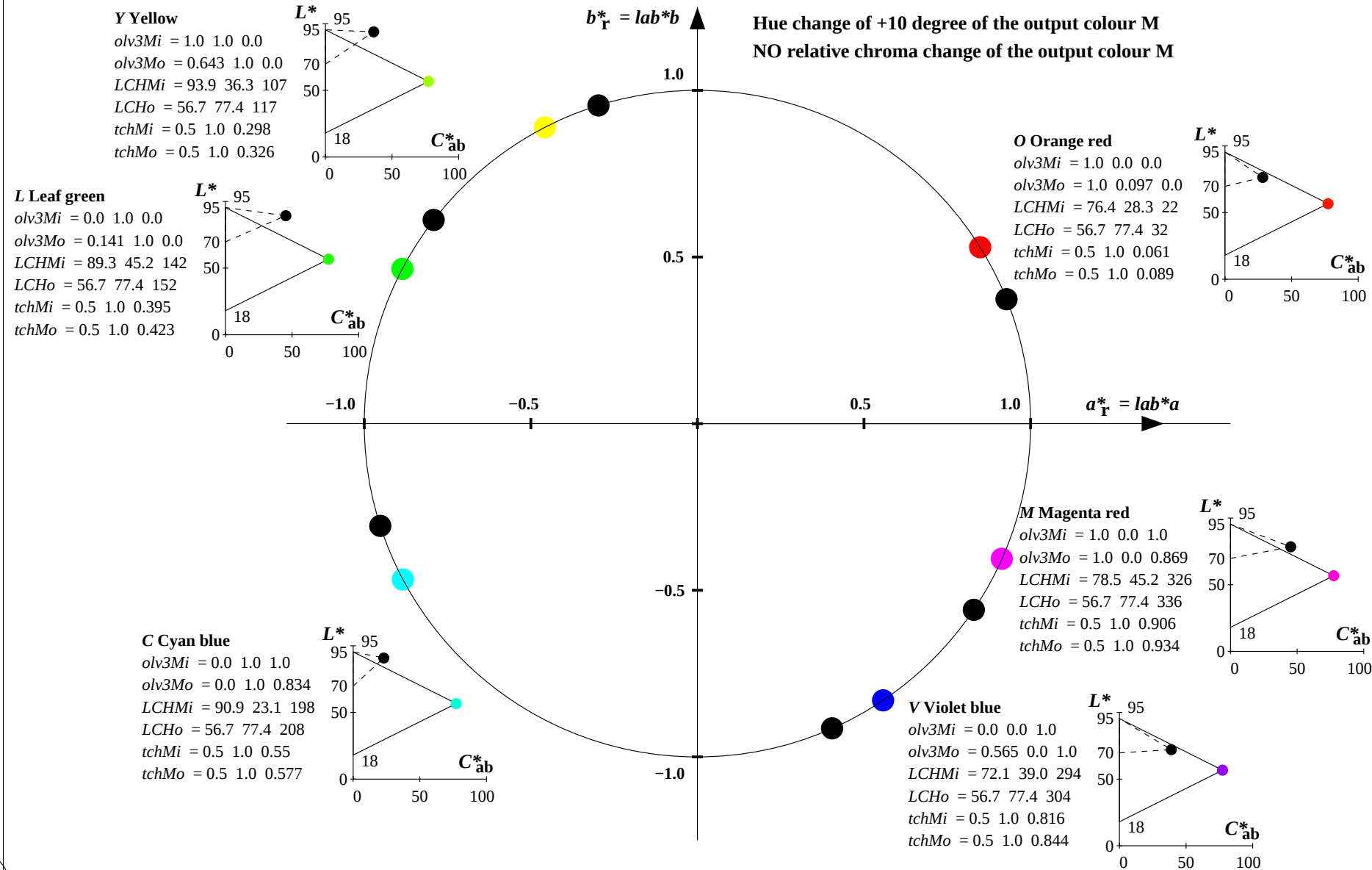
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space NRS18, page 22/32

BAM-test chart YE67; Colorimetric workflow TLS70->NRS18 input: olv* setrgbcolor

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

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 (---)
TLS70: Input (i) 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)
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)



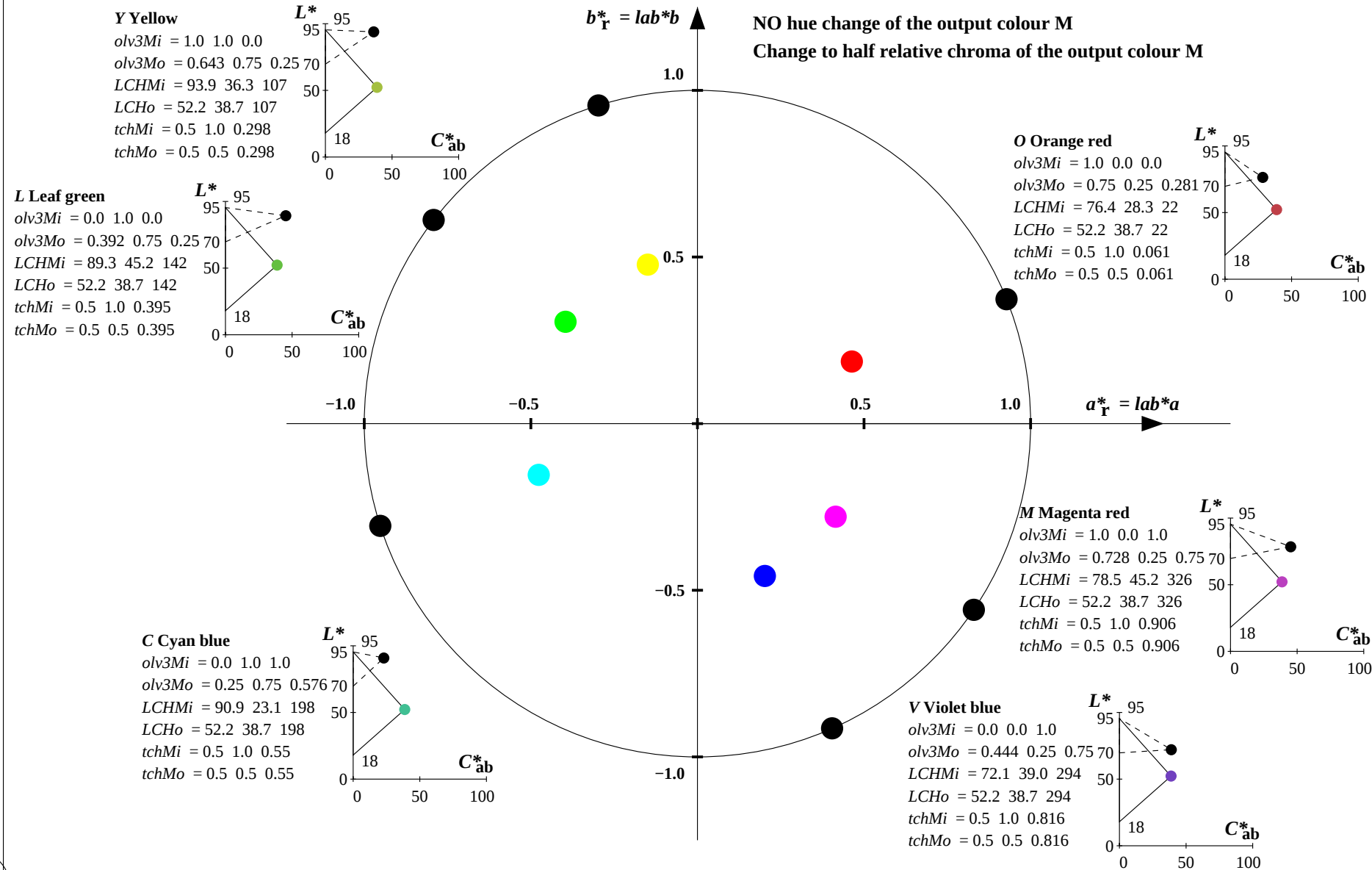
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space NRS18, page 23/32

BAM-test chart YE67; Colorimetric workflow TLS70->NRS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 23/32 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 (---)

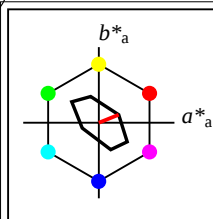
TLS70: Input (i) colorimetric system; Six hue angles of the colour device: (21.9, 107.3, 142.3, 197.9, 293.9, 326.1); Four hue angles of the elementary colours: (25.5, 92.3, 162.2, 271.7)

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)



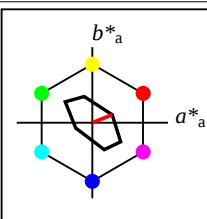
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space NRS18, page 24/32

BAM-test chart YE67; Colorimetric workflow TLS70->NRS18 input: olv* setrgbcolor
D65: 6 basic colours; Device and sample data; page 24/32 output: no change compared to input



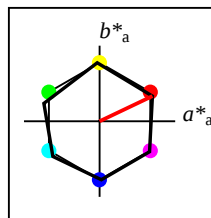
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

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



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

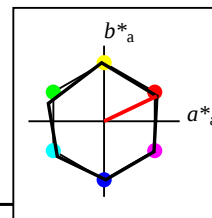
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

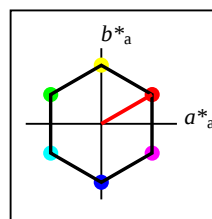
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



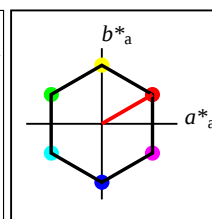
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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 (---)

TLS70: Input (i) 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)

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 = 0.712 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 56.7 77.4 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.128 1.0 0.0
LCHMi = 89.3 45.2 142
LCHo = 56.7 77.4 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.798
LCHMi = 90.9 23.1 198
LCHo = 56.7 77.4 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

O Orange red

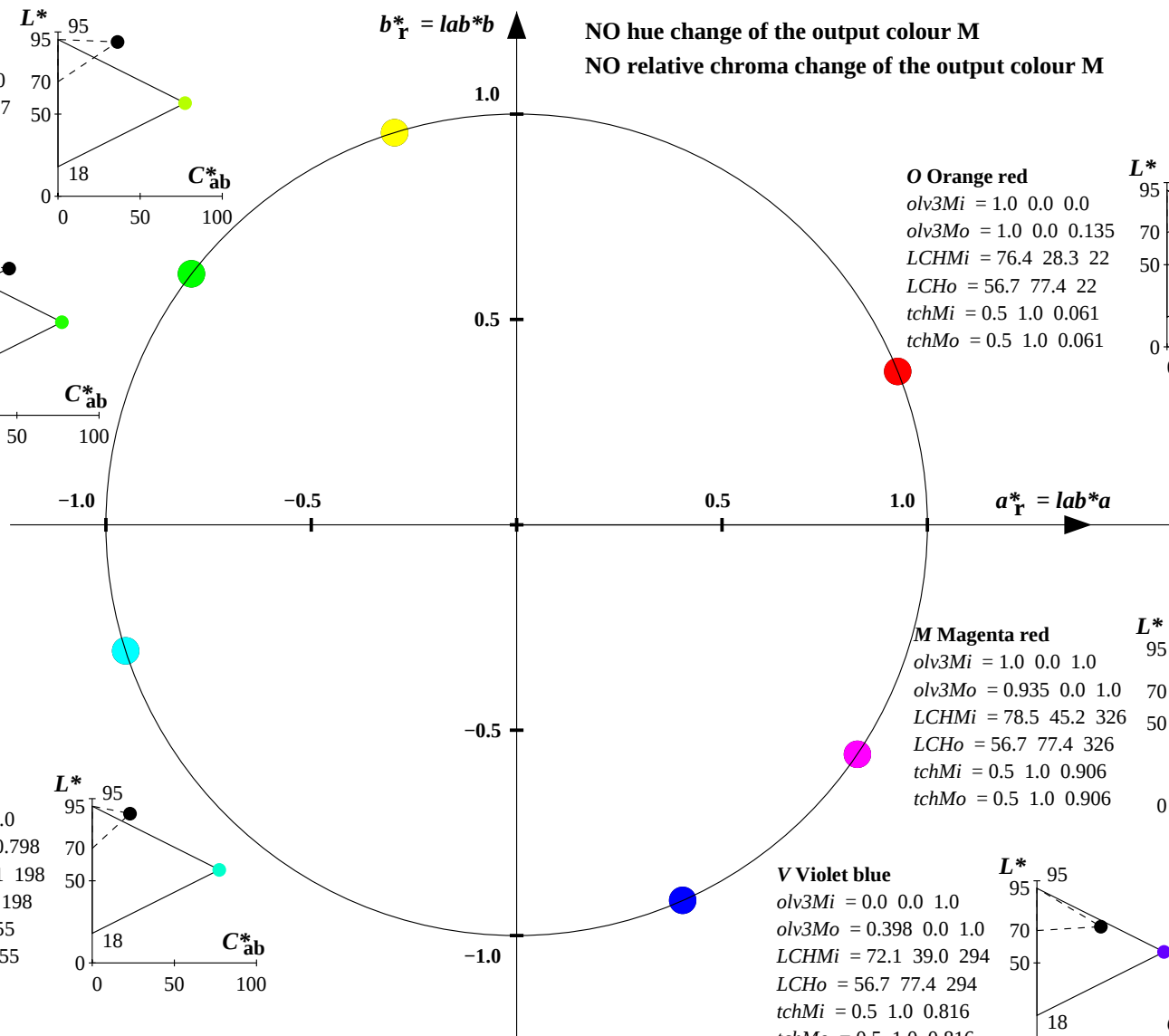
olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.135
LCHMi = 76.4 28.3 22
LCHo = 56.7 77.4 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 0.935 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 56.7 77.4 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.398 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 56.7 77.4 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816



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 (---)

TLS70: Input (i) 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)

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 = 0.545 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 56.7 77.4 117
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.326

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.039
LCHMi = 89.3 45.2 142
LCHo = 56.7 77.4 152
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.423

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 0.965
LCHMi = 90.9 23.1 198
LCHo = 56.7 77.4 208
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.577

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.032 0.0
LCHMi = 76.4 28.3 22
LCHo = 56.7 77.4 32
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.089

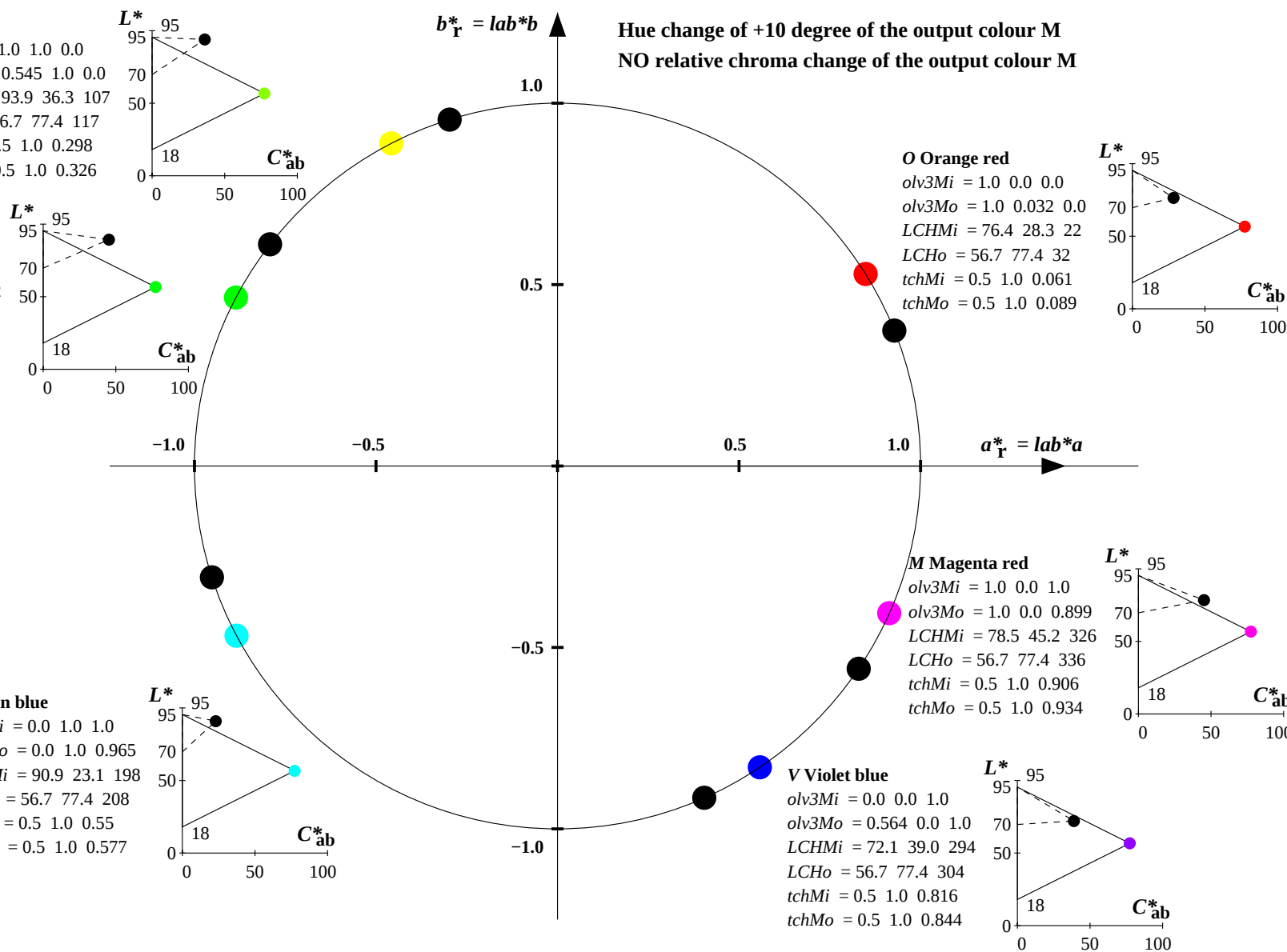
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.899
LCHMi = 78.5 45.2 326
LCHo = 56.7 77.4 336
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.934

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.564 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 56.7 77.4 304
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.844

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



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space SRS18, page 27/32

BAM-test chart YE67; Colorimetric workflow TLS70->SRS18

D65: 6 basic colours; Device and sample data; page 27/32

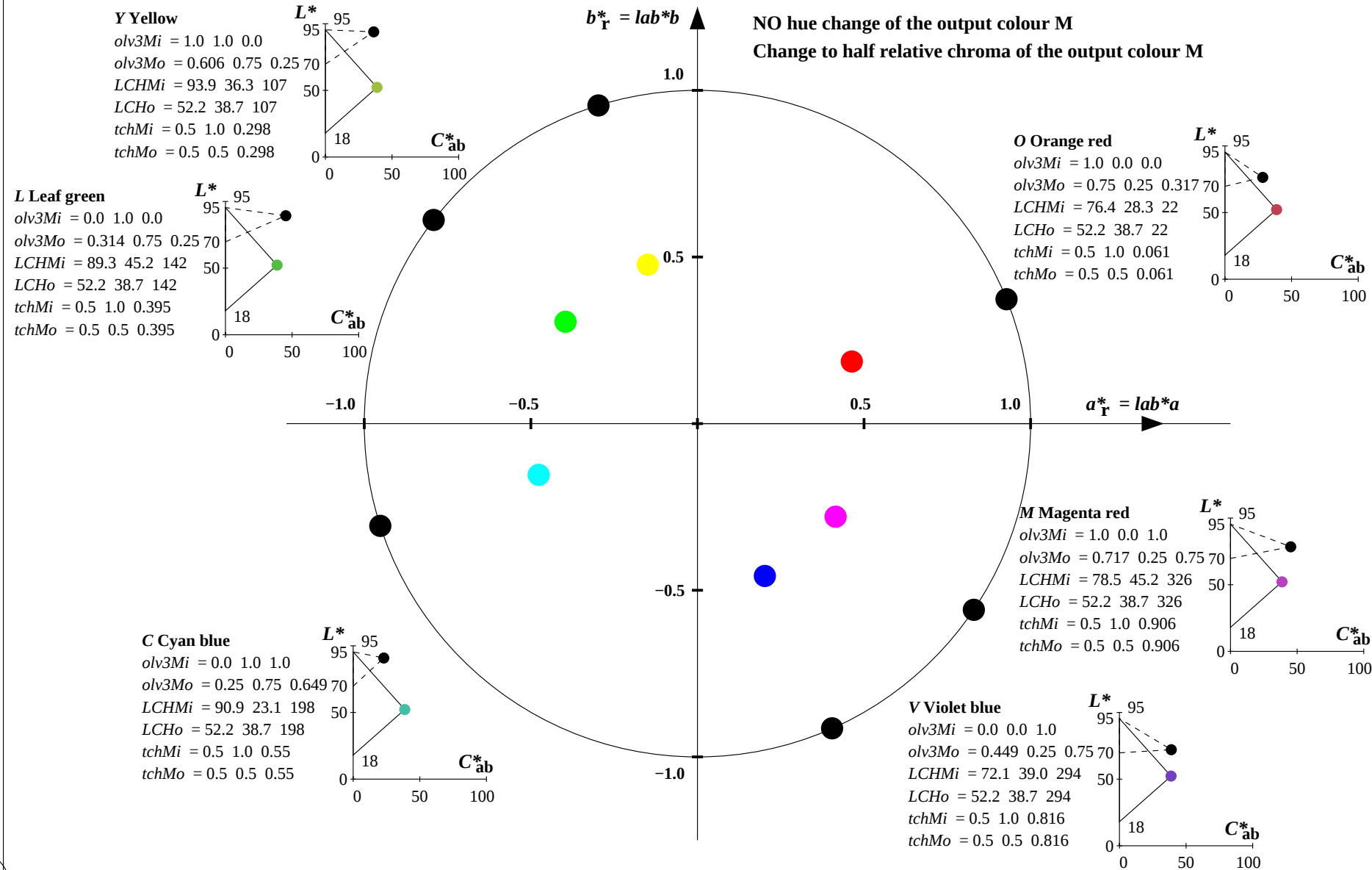
input: olv* setrgbcolor

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 (---)

TLS70: Input (i) 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)

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)



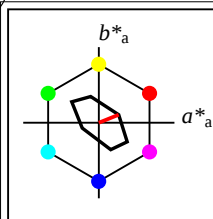
YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space SRS18, page 28/32

BAM-test chart YE67; Colorimetric workflow TLS70->SRS18

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

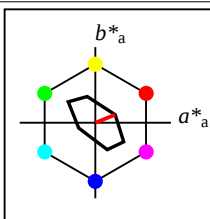
input: olv* setrgbcolor

output: no change compared to input



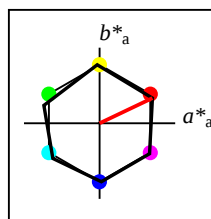
%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

TLS70	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{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
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

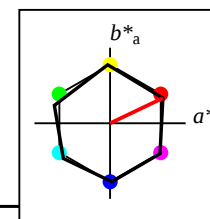
TLS70a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	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
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

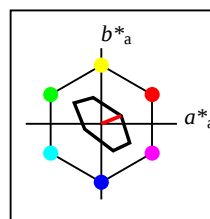
NRS18a; adapted CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	56.71	69.87	33.29	77.4	25
Y _{Ma}	56.71	-3.1	77.34	77.4	92
L _{Ma}	56.71	-73.68	23.63	77.39	162
C _{Ma}	56.71	-61.81	-46.54	77.39	217
V _{Ma}	56.71	2.35	-77.34	77.39	272
M _{Ma}	56.71	66.07	-40.3	77.4	329
N _{Ma}	18.01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



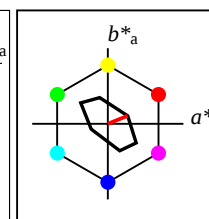
%Gamut
 $u^*_{rel} = 100$
%Regularity
 $g^*_{H,rel} = 78$
 $g^*_{C,rel} = 100$

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

TLS70a; adapted CIELAB 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

YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS70, page 29/32

BAM-test chart YE67; Colorimetric workflow TLS70->TLS70
D65: 6 basic colours; Device and sample data; page 29/32

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 (---)

TLS70: Input (i) 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)

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 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 93.9 36.3 107
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.298

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.0
LCHMi = 89.3 45.2 142
LCHo = 89.3 45.2 142
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.395

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 1.0 1.0
LCHMi = 90.9 23.1 198
LCHo = 90.9 23.1 198
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.55

V Violet blue

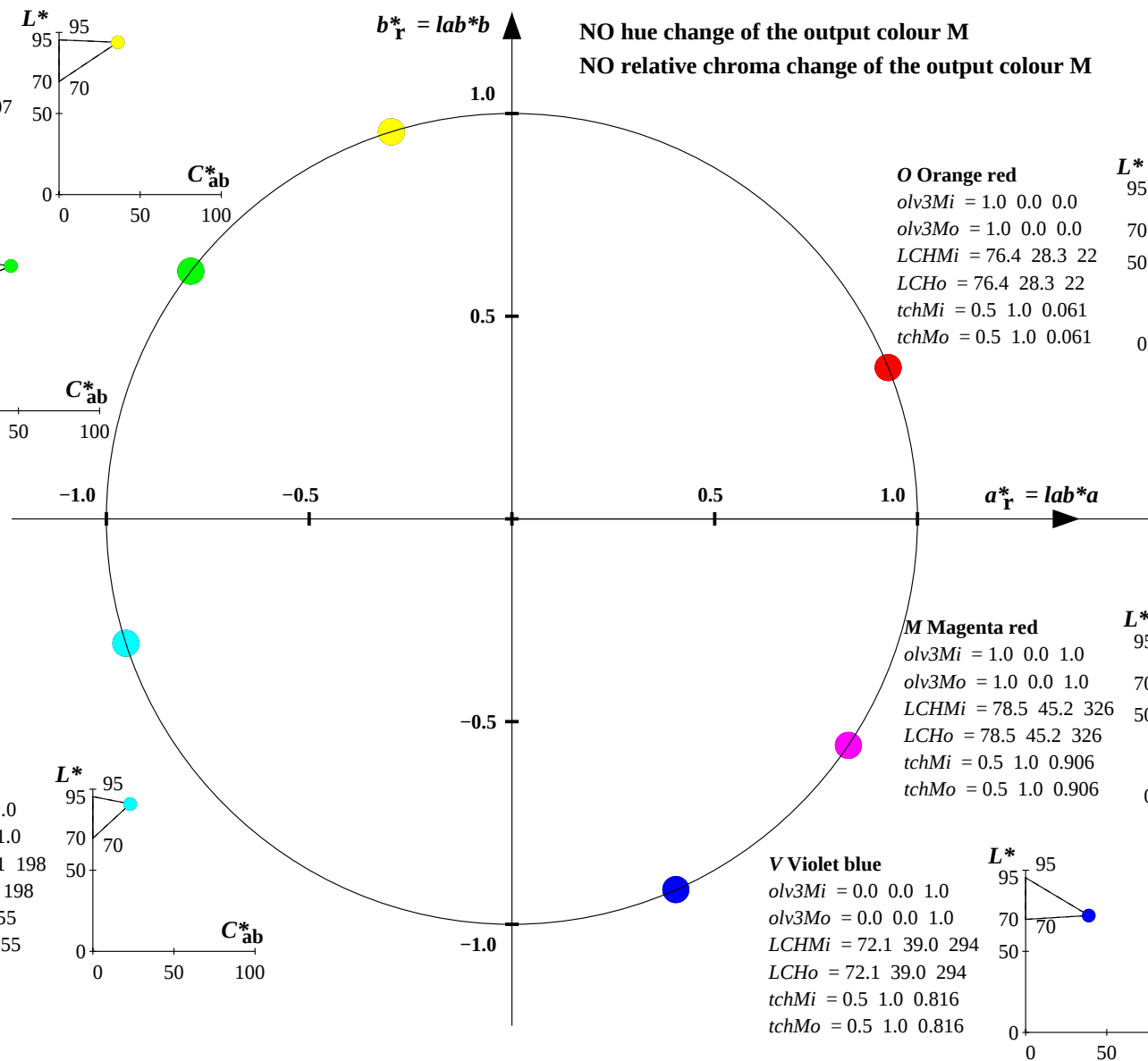
olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.0 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 72.1 39.0 294
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.816

M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 1.0
LCHMi = 78.5 45.2 326
LCHo = 78.5 45.2 326
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.906

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.0 0.0
LCHMi = 76.4 28.3 22
LCHo = 76.4 28.3 22
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.061



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS70, page 30/32

BAM-test chart YE67; Colorimetric workflow TLS70->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 (---)

TLS70: Input (i) 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)

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 = 0.715 1.0 0.0
LCHMi = 93.9 36.3 107
LCHo = 92.6 38.8 117
tchMi = 0.5 1.0 0.298
tchMo = 0.5 1.0 0.326

L Leaf green

olv3Mi = 0.0 1.0 0.0
olv3Mo = 0.0 1.0 0.18
LCHMi = 89.3 45.2 142
LCHo = 89.6 41.2 152
tchMi = 0.5 1.0 0.395
tchMo = 0.5 1.0 0.423

C Cyan blue

olv3Mi = 0.0 1.0 1.0
olv3Mo = 0.0 0.896 1.0
LCHMi = 90.9 23.1 198
LCHo = 89.0 24.7 208
tchMi = 0.5 1.0 0.55
tchMo = 0.5 1.0 0.577

O Orange red

olv3Mi = 1.0 0.0 0.0
olv3Mo = 1.0 0.117 0.0
LCHMi = 76.4 28.3 22
LCHo = 78.5 29.2 32
tchMi = 0.5 1.0 0.061
tchMo = 0.5 1.0 0.089

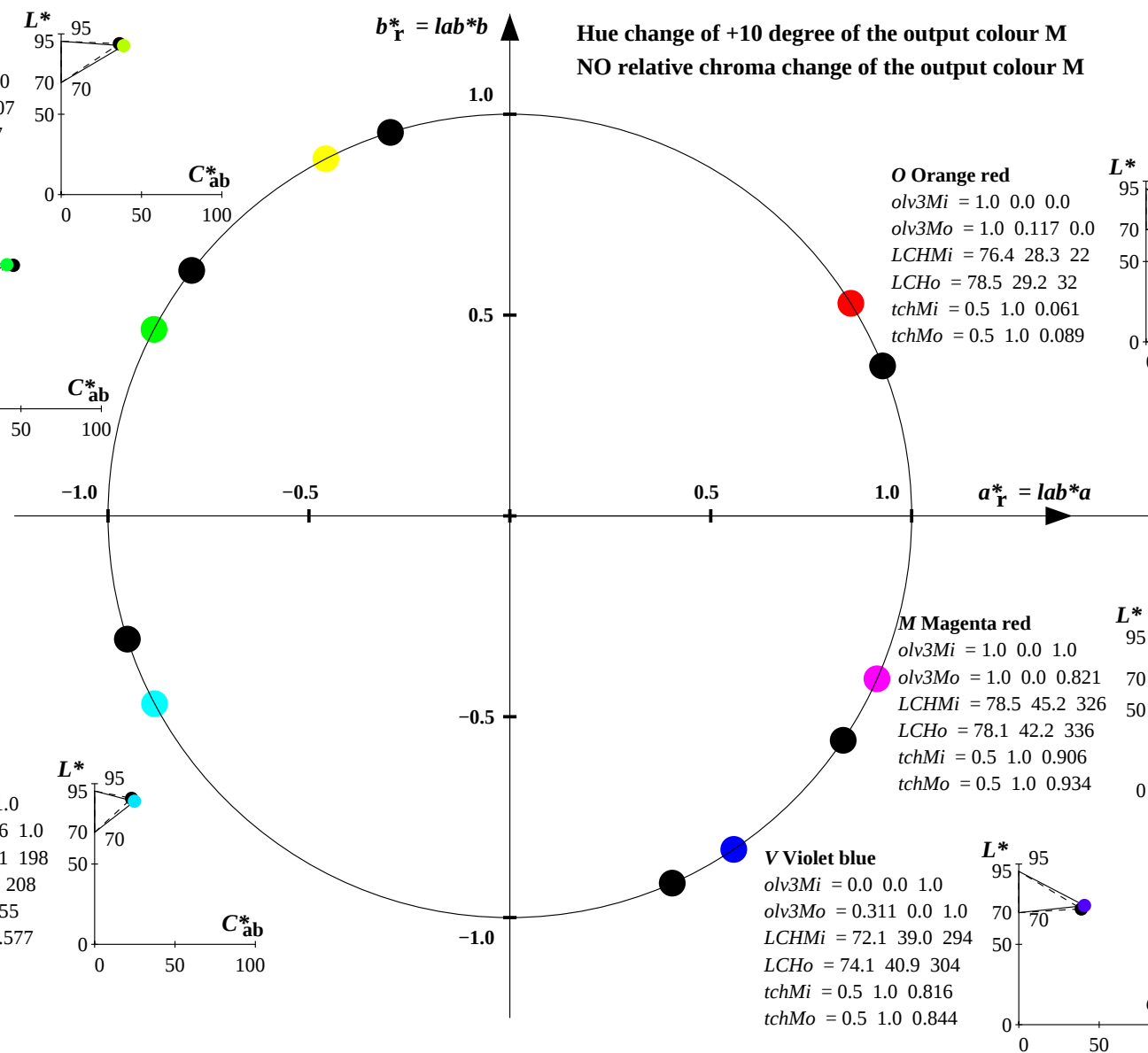
M Magenta red

olv3Mi = 1.0 0.0 1.0
olv3Mo = 1.0 0.0 0.821
LCHMi = 78.5 45.2 326
LCHo = 78.1 42.2 336
tchMi = 0.5 1.0 0.906
tchMo = 0.5 1.0 0.934

V Violet blue

olv3Mi = 0.0 0.0 1.0
olv3Mo = 0.311 0.0 1.0
LCHMi = 72.1 39.0 294
LCHo = 74.1 40.9 304
tchMi = 0.5 1.0 0.816
tchMo = 0.5 1.0 0.844

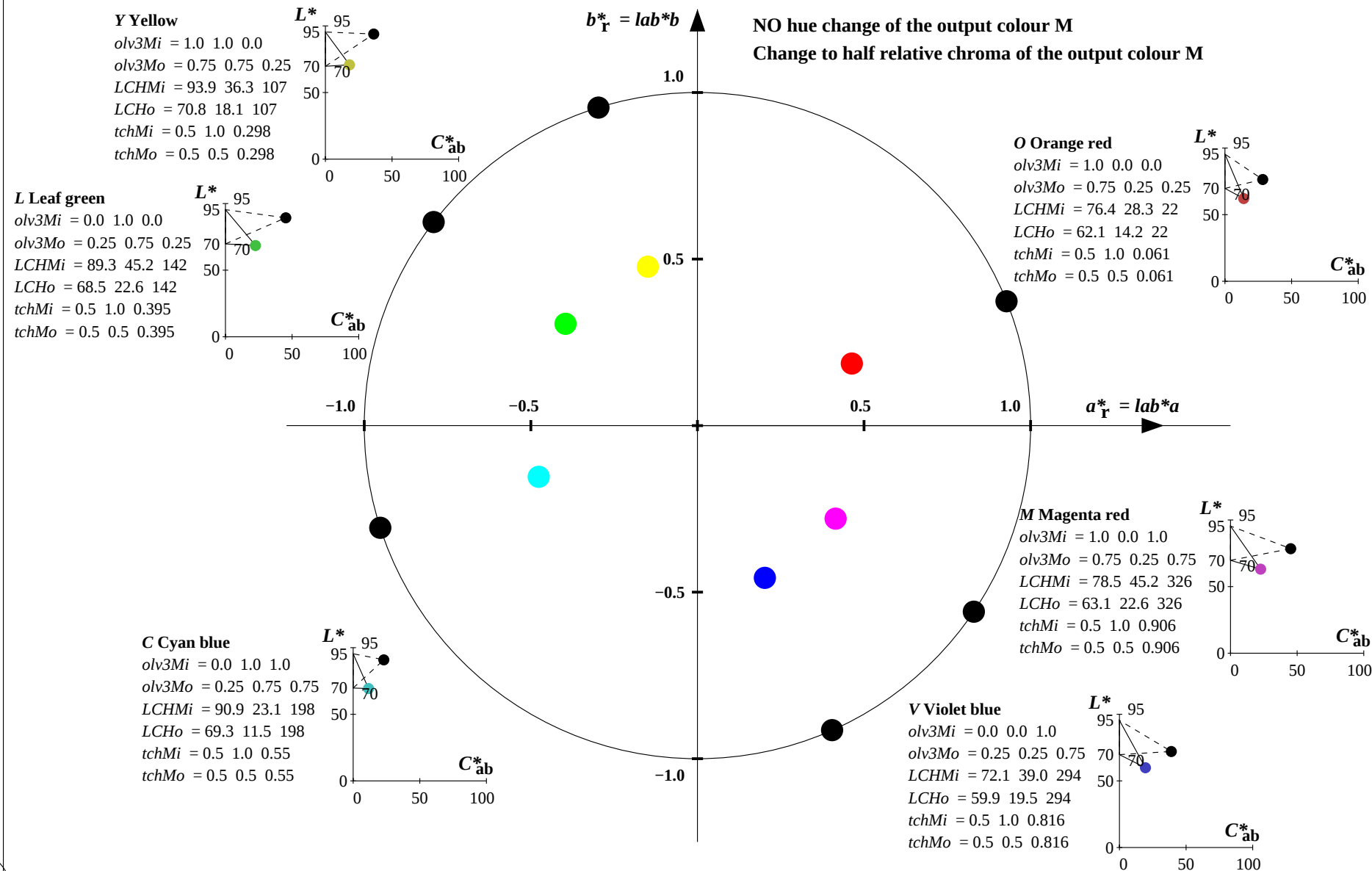
Hue change of +10 degree of the output colour M
NO relative chroma change of the output colour M



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 (---)

TLS70: Input (i) 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)

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)



YE670-7, Colour Management Workflow: Device Colour Input Data of the Colour Space TLS70 -> Device Colour Output Data of Output Space TLS70, page 32/32

BAM-test chart YE67; Colorimetric workflow TLS70->TLS70 input: olv* setrgbcolor

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

output: no change compared to input