

See for similar files: <http://www.ps.bam.de/ZE91/>; www.ps.bam.de/ZE.HTM
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM registration: 20071001-ZEE9110/L91E00NP.PS/.PDF BAM material: code=rh4ta
application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Offset Reflective System ORS18

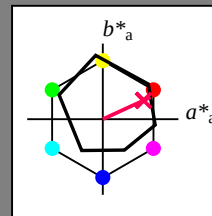
for hue $h^* = lab^*h = 25/360 = 0.069$

*lab*tch* and *lab*nch*

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32



%Gamut

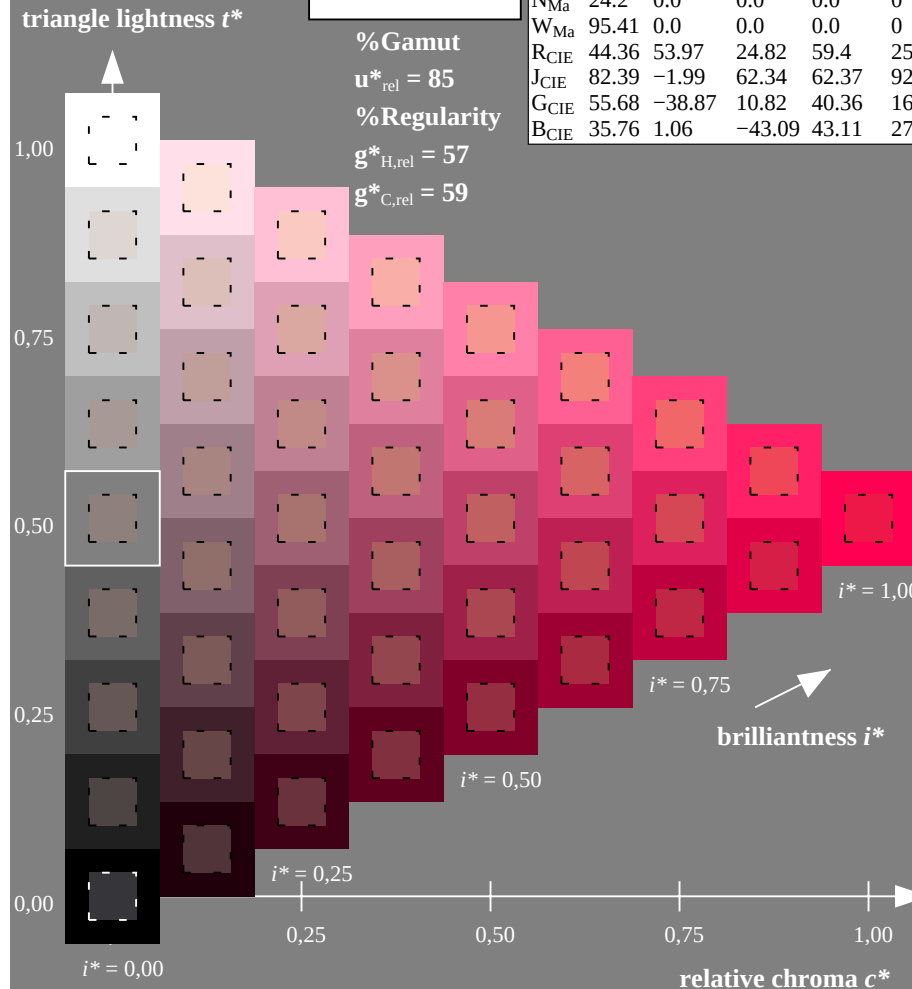
$$\mathbf{u}_{\text{rel}}^* = 85$$

%Regularity

$$g^*_{H,rel} = 57$$

g*_{C rel} = 59

ORS18; adapted (a) CIELAB data						
	L^*_{*a}	a^*_{*a}	b^*_{*a}	$C^*_{ab,a}$	$h^*_{ab,a}$	
O _{Ma}	51.74	60.16	46.48	76.02	38	
Y _{Ma}	90.77	-9.44	84.41	84.94	96	
L _{Ma}	54.46	-57.8	32.16	66.15	15	
C _{Ma}	61.56	-27.91	-41.41	49.95	230	
V _{Ma}	31.3	28.61	-40.85	49.88	303	
M _{Ma}	51.91	69.26	-7.69	69.68	354	
N _{Ma}	24.2	0.0	0.0	0.0	0	
W _{Ma}	95.41	0.0	0.0	0.0	0	
R _{CIE}	44.36	53.97	24.82	59.4	25	
J _{CIE}	82.39	-1.99	62.34	62.37	92	
G _{CIE}	55.68	-38.87	10.82	40.36	164	
B _{CIE}	35.76	1.06	-43.09	43.11	277	



ZE910-7N, 9 step scales for constant CIELAB hue 25/360 = 0.069 (left)

BAM-test chart ZE91; Colorimetric systems, Page 1/24
D65: 9 and 16 step colour scales for 4 elementary hues

Output: Colorimetric Offset Reflective System ORS18

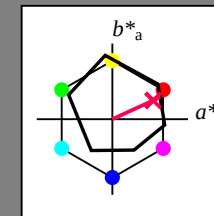
for hue $h^* = lab^*h = 25/360 = 0.069$

lab*tch and

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32



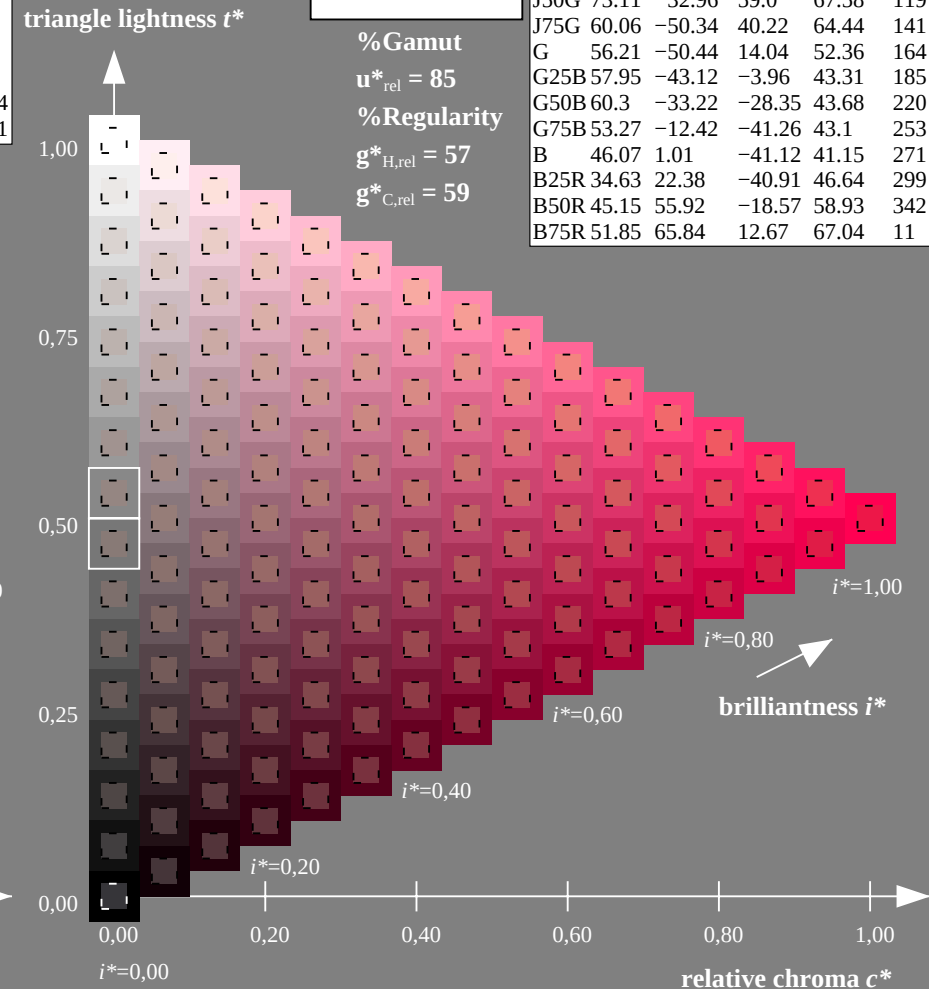
%Gamut

$$\mathbf{u}_{rel}^* = 85$$

%Regularity

$$g_{\text{H,rel}}^* = 5$$
$$g^*_{C_{rel}} = 59$$

ORS18; adapted (a) CIELAB data						
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	
R	51.79	63.09	29.02	69.44	25	
R25J	53.73	56.6	48.42	74.48	41	
R50J	65.47	35.67	59.82	69.65	59	
R75J	76.51	15.98	70.55	72.34	77	
J	86.93	-2.58	80.67	80.71	92	
J25G	84.92	-17.23	75.99	77.92	103	
J50G	73.11	-32.96	59.0	67.58	119	
J75G	60.06	-50.34	40.22	64.44	141	
G	56.21	-50.44	14.04	52.36	164	
G25B	57.95	-43.12	-3.96	43.31	185	
G50B	60.3	-33.22	-28.35	43.68	220	
G75B	53.27	-12.42	-41.26	43.1	253	
B	46.07	1.01	-41.12	41.15	271	
B25R	34.63	22.38	-40.91	46.64	299	
B50R	45.15	55.92	-18.57	58.93	342	
B75R	51.85	65.84	12.67	67.04	11	



ZE910-7N, 16 step scales for constant CIELAB hue 25/360 = 0.069 (right)

input: *rgb / cmy0* set(*rgb/cmyk*)color
output: no change compared to input

Input: Colorimetric Offset Reflective System ORS18

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

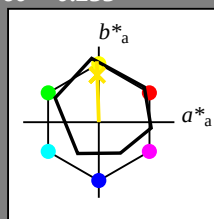
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

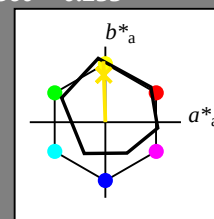
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

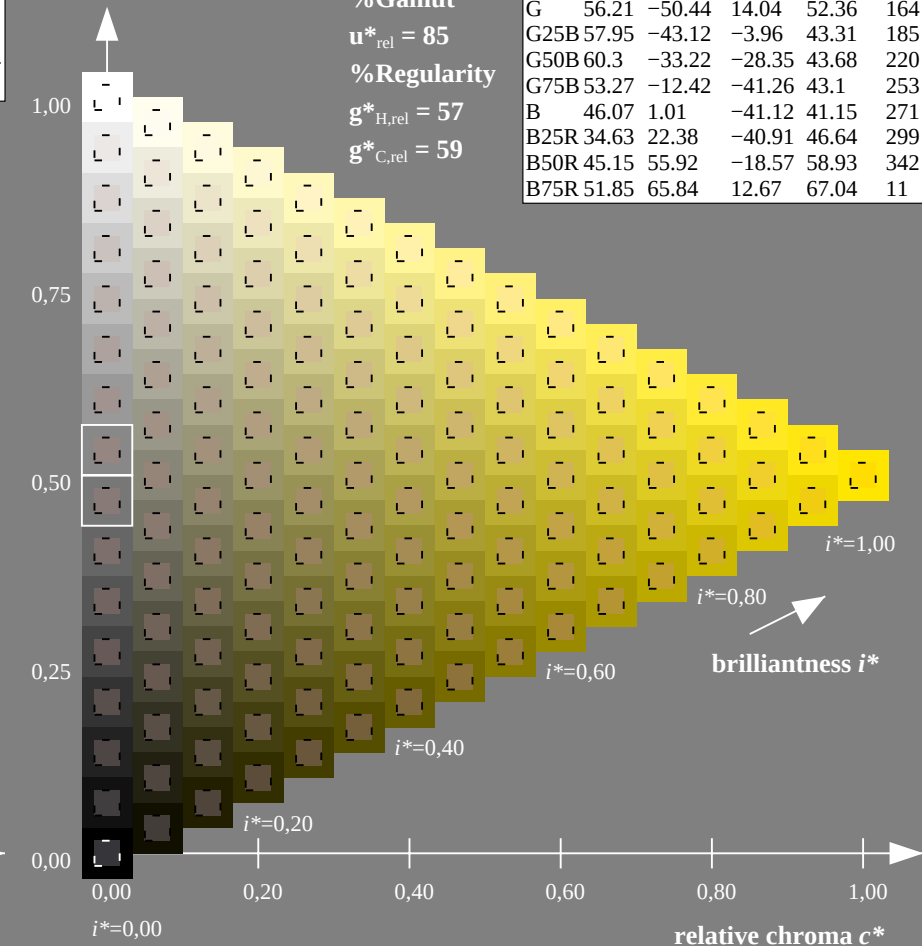
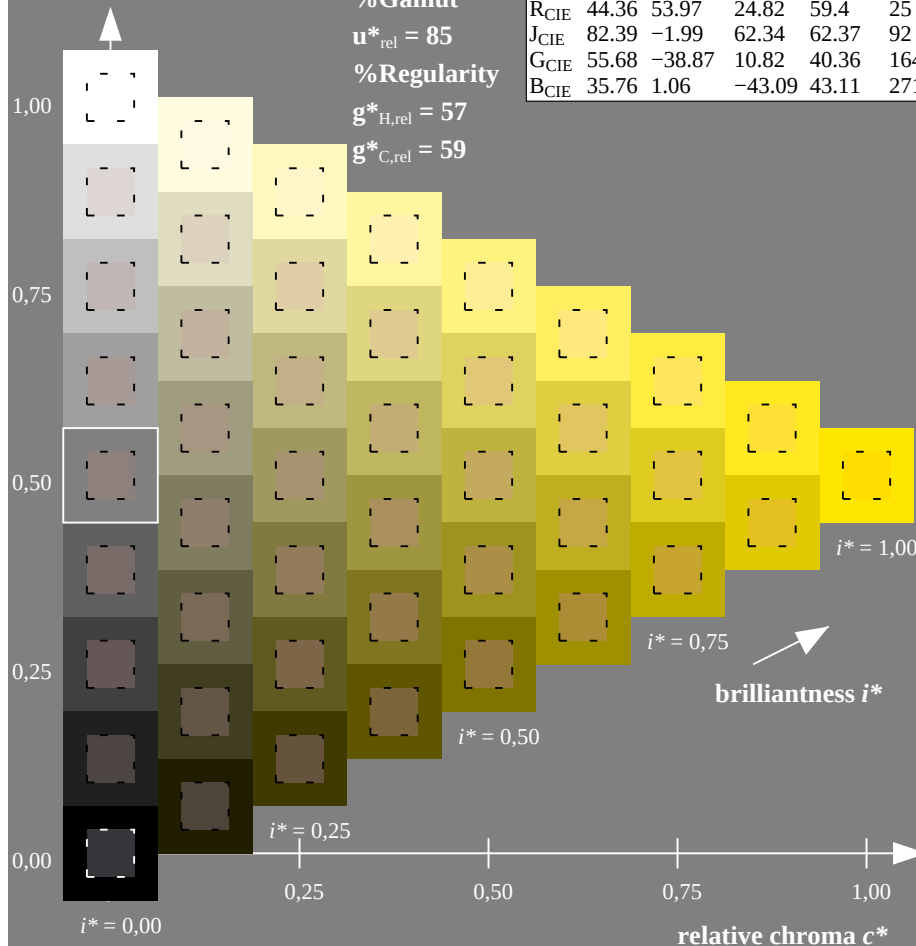
%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11



ZE910-7N, 9 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart ZE91; Colorimetric systems, Page 2/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmY0 set(rgb/cmyk)color$

output: no change compared to input

See for similar files: <http://www.ps.bam.de/ZE91/>; www.ps.bam.de/ZE.HTM
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM registration: 20071001-ZE91/10L/L91E00NP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Offset Reflective System ORS18

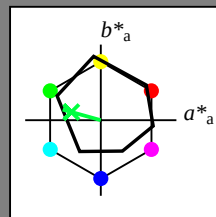
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for hue  $h^* = lab^*h = 164/360 = 0.457$ 
```

lab*tch and lab*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25



%Gamut

$$\mathbf{u}_{rel}^* = 85$$

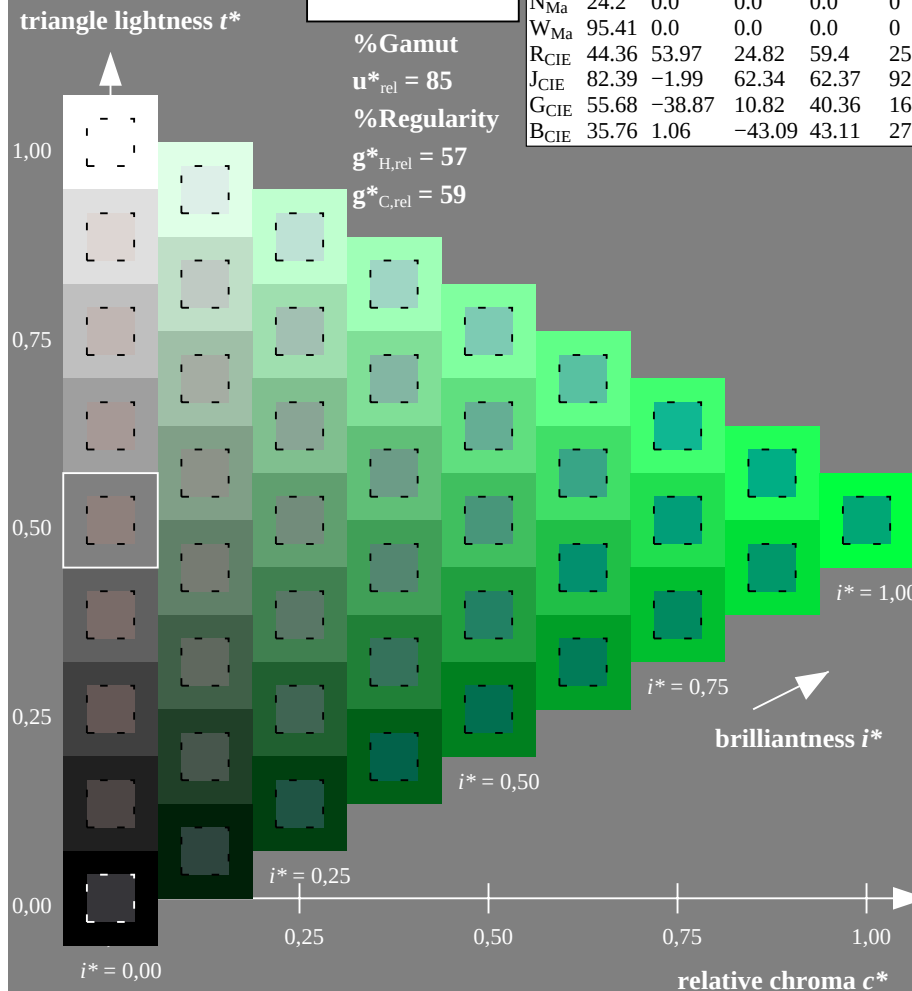
%Regularity

$$g^*_{H_{rel}} = 57$$

g*_{C,rel} = 59

ORS18; adapted (a) CIELAB data

	$L^* = L_a$	a_a^*	b_a^*	$C_{ab,a}$	$h_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271



ZE910-7N, 9 step scales for constant CIELAB hue $164/360 = 0.457$ (left)

BAM-test chart ZE91; Colorimetric systems, Page 3/24
D65: 9 and 16 step colour scales for 4 elementary hues

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Output: Colorimetric Offset Reflective System ORS18

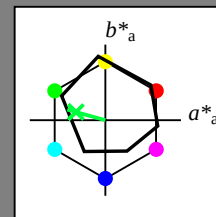
for hue $h^* = lab^*h = 164/360 = 0.457$

lab*tch and lab*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25



% Gamut

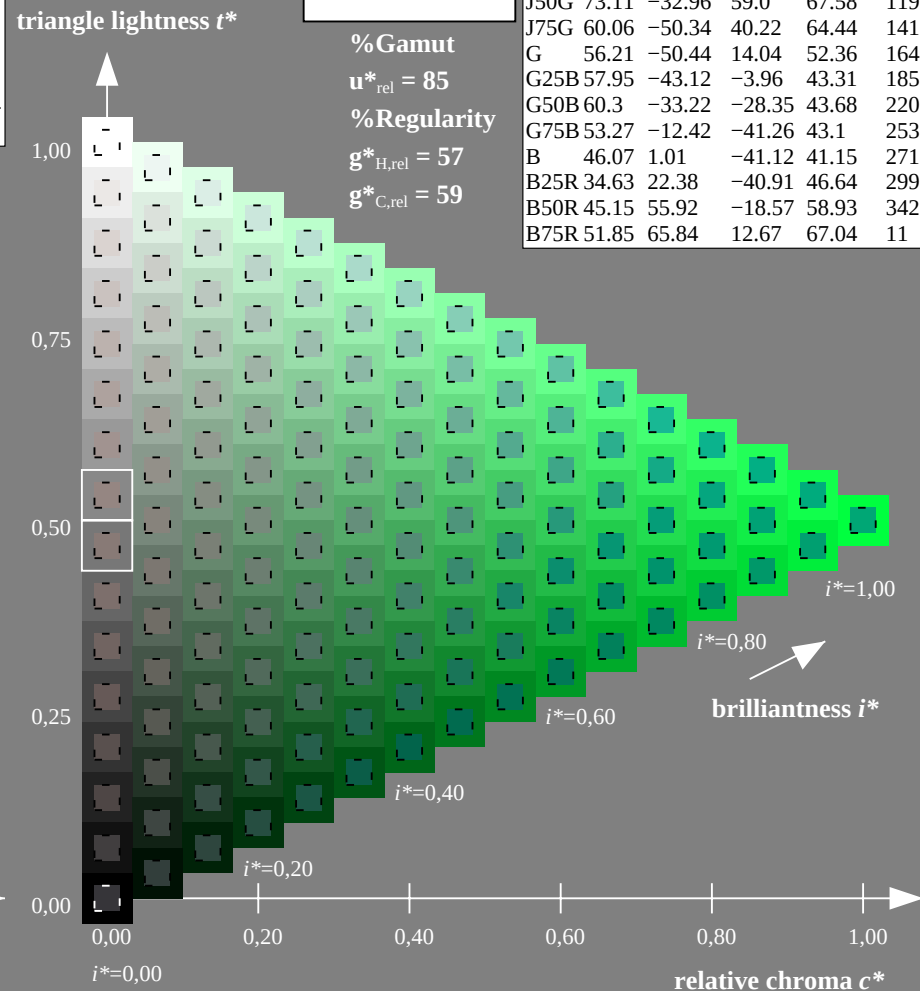
$$\mathbf{u}_{rel}^* = 85$$

%Regularity

$$g^*_{H_{rel}} = 57$$
$$g^*_{C_{rel}} = 59$$

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	411



ZE910-7N, 16 step scales for constant CIELAB hue $164/360 = 0.457$ (right)

input: *rgb / cmy0 set(rgb/cmyk)color*
output: no change compared to input

2

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$

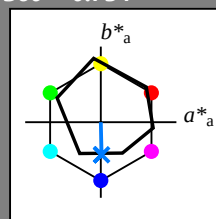
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$

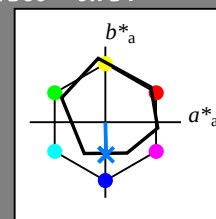
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
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B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

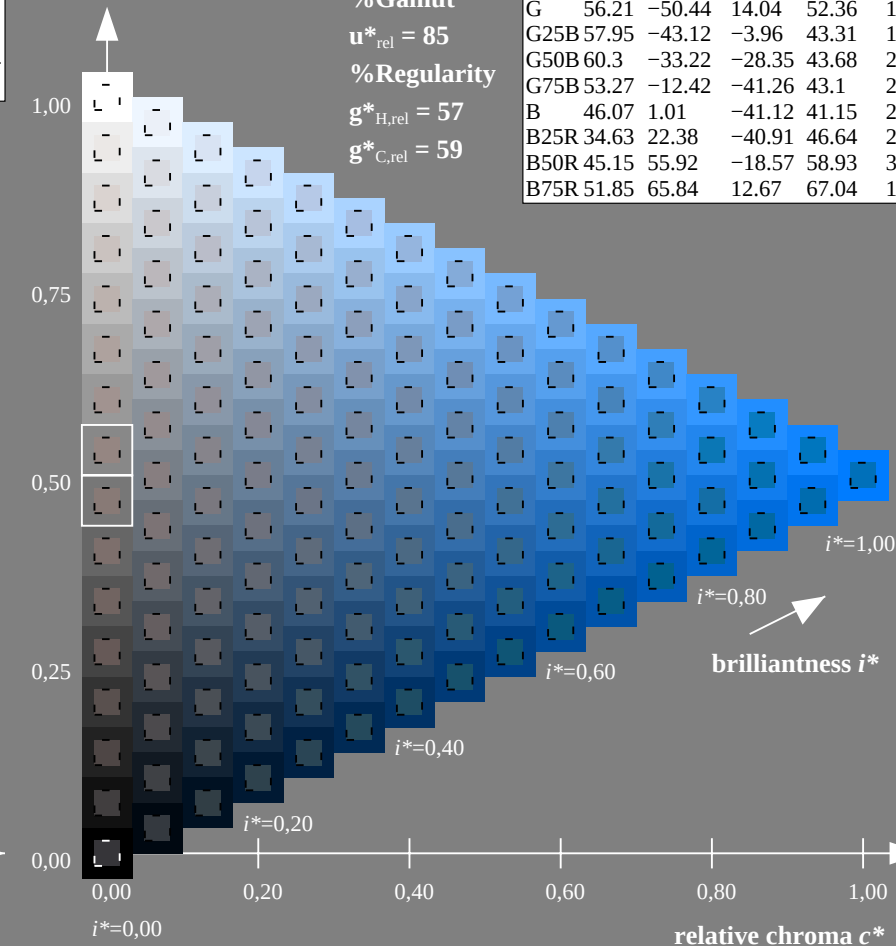
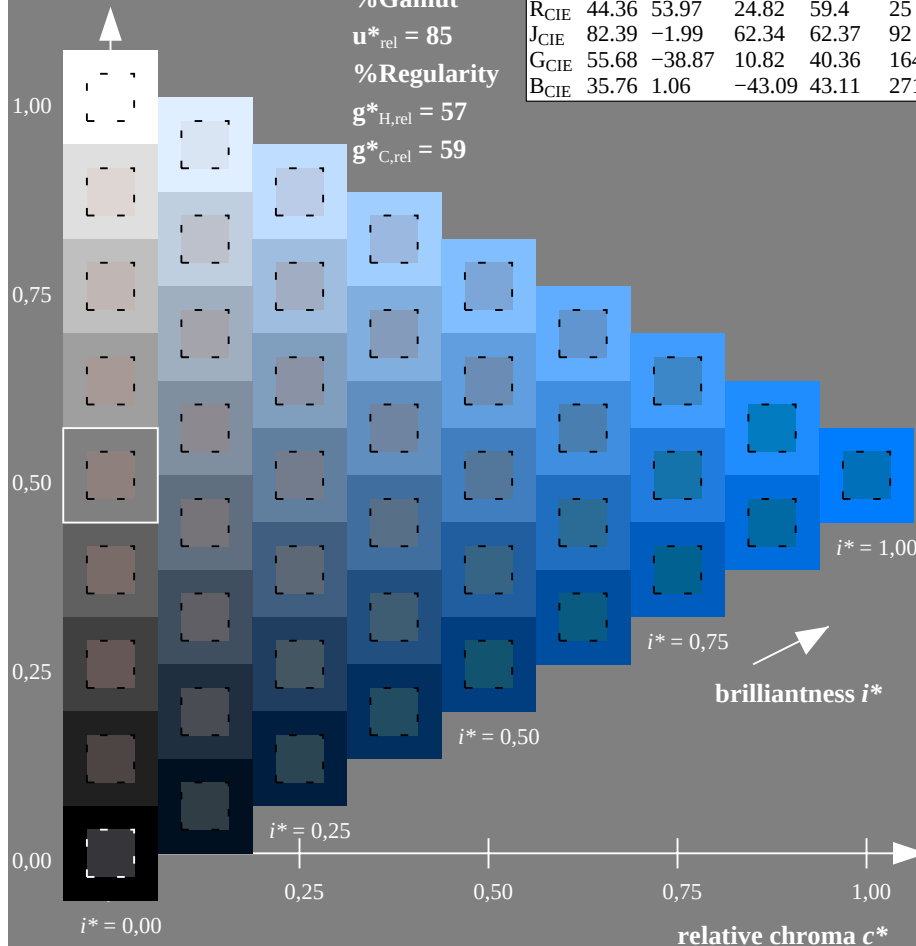
%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$



ZE910-7N, 9 step scales for constant CIELAB hue 271/360 = 0.754 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 271/360 = 0.754 (right)

BAM-test chart ZE91; Colorimetric systems, Page 4/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmY0 set(rgb/cmyk)color$

output: no change compared to input

Input: Colorimetric Offset Reflective System ORS18

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

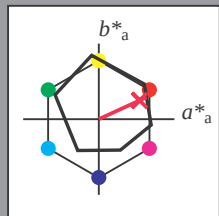
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

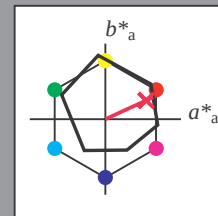
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

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%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ZE910-7N, 9 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 25/360 = 0.069 (right)

BAM-test chart ZE91; Colorimetric systems, Page 5/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmy0$ set($rgb/cmyk$)color

output: $\rightarrow cmy5^*$ setcmykcolor

Input: Colorimetric Offset Reflective System ORS18

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

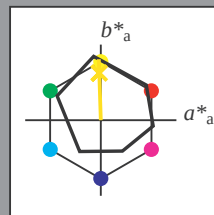
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

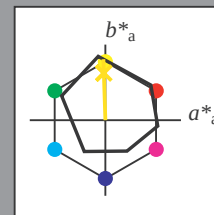
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

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$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

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$u^*_{rel} = 85$

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$g^*_{H,rel} = 57$

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$u^*_{rel} = 85$

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$u^*_{rel} = 85$

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$g^*_{H,rel} = 57$

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$g^*_{H,rel} = 57$

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%Gamut

$u^*_{rel} = 85$

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$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

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$g^*_{C,rel} = 59$

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$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

%Gamut

Input: Colorimetric Offset Reflective System ORS18

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

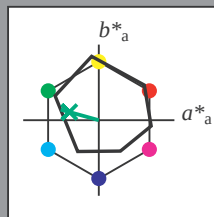
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

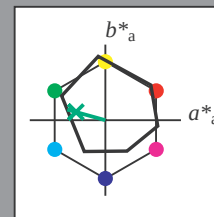
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

$i^*=0,80$

$i^*=0,60$

$i^*=0,40$

$i^*=0,20$

brilliantness i^*

$i^*=0,50$

$i^*=0,75$

$i^*=1,00$

relative chroma c^*

relative chroma c^*

ZE910-7N, 9 step scales for constant CIELAB hue 164/360 = 0.457 (left)

Page 7/24

ZE910-7N, 16 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart ZE91; Colorimetric systems, Page 7/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: `rgb / cmy0 set(rgb/cmyk)color`

output: `->cmy5* setcmykcolor`

See for similar files: <http://www.ps.bam.de/ZE91/>; www.ps.bam.de/ZE.HTM
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM registration: 20071001-ZE91/10/L/91E00NP.PS/.PDF BAM material: code=rh4ta
- application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Offset Reflective System ORS18

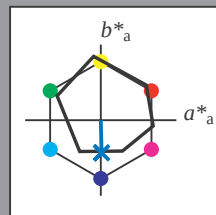
for hue $h^* = lab^*h = 271/360 = 0.754$

*lab*tch* and *lab*nch*

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*

% Gamut

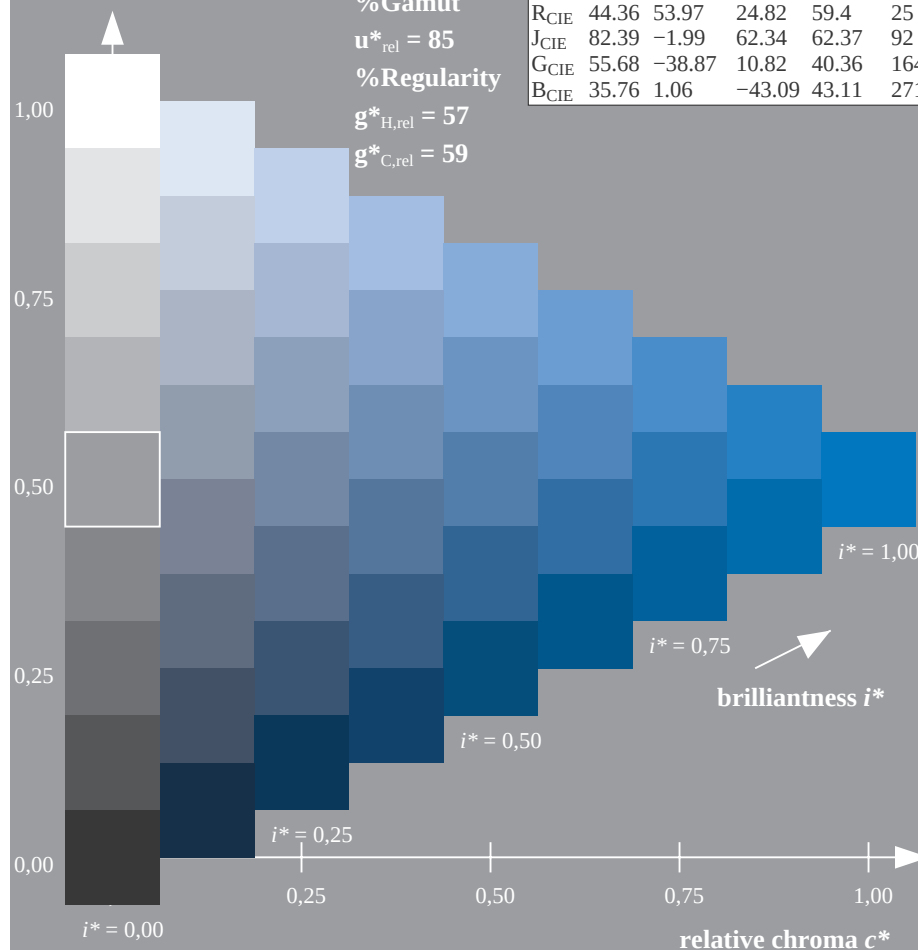
$$\mathbf{u}_{\text{rel}}^* = 85$$

%Regularity

$$g^*_{H,rel} = 57$$
$$g^*_{C,rel} = 59$$

ORS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271



ZE910-7N, 9 step scales for constant CIELAB hue 271/360 = 0.754 (left)

BAM-test chart ZE91; Colorimetric systems, Page 8/24
D65: 9 and 16 step colour scales for 4 elementary hues

Output: Colorimetric Offset Reflective System ORS18

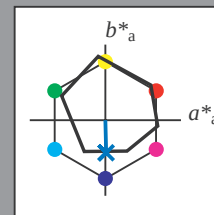
for hue $h^* = lab^*h = 271/360 = 0.754$

lab*tch and lab*nch

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*

%Gamut

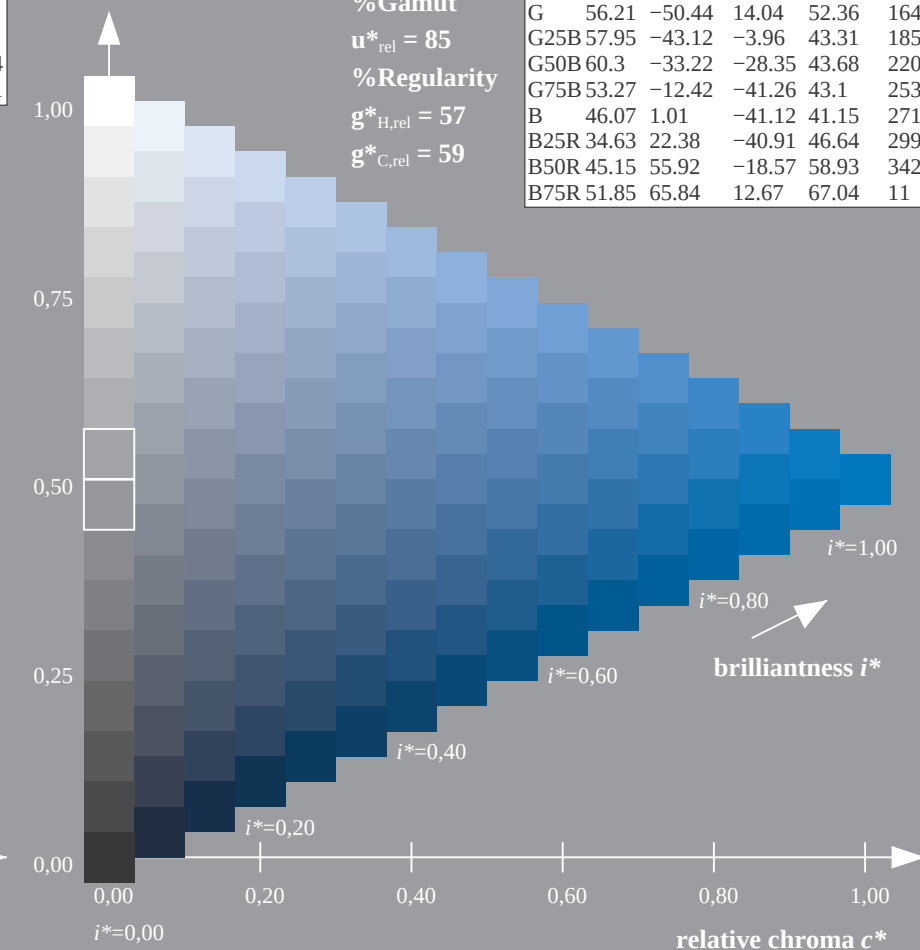
$$\mathbf{u}_{\text{rel}}^* = 85$$

%Regularity

$$g^*_{H,rel} = 57$$

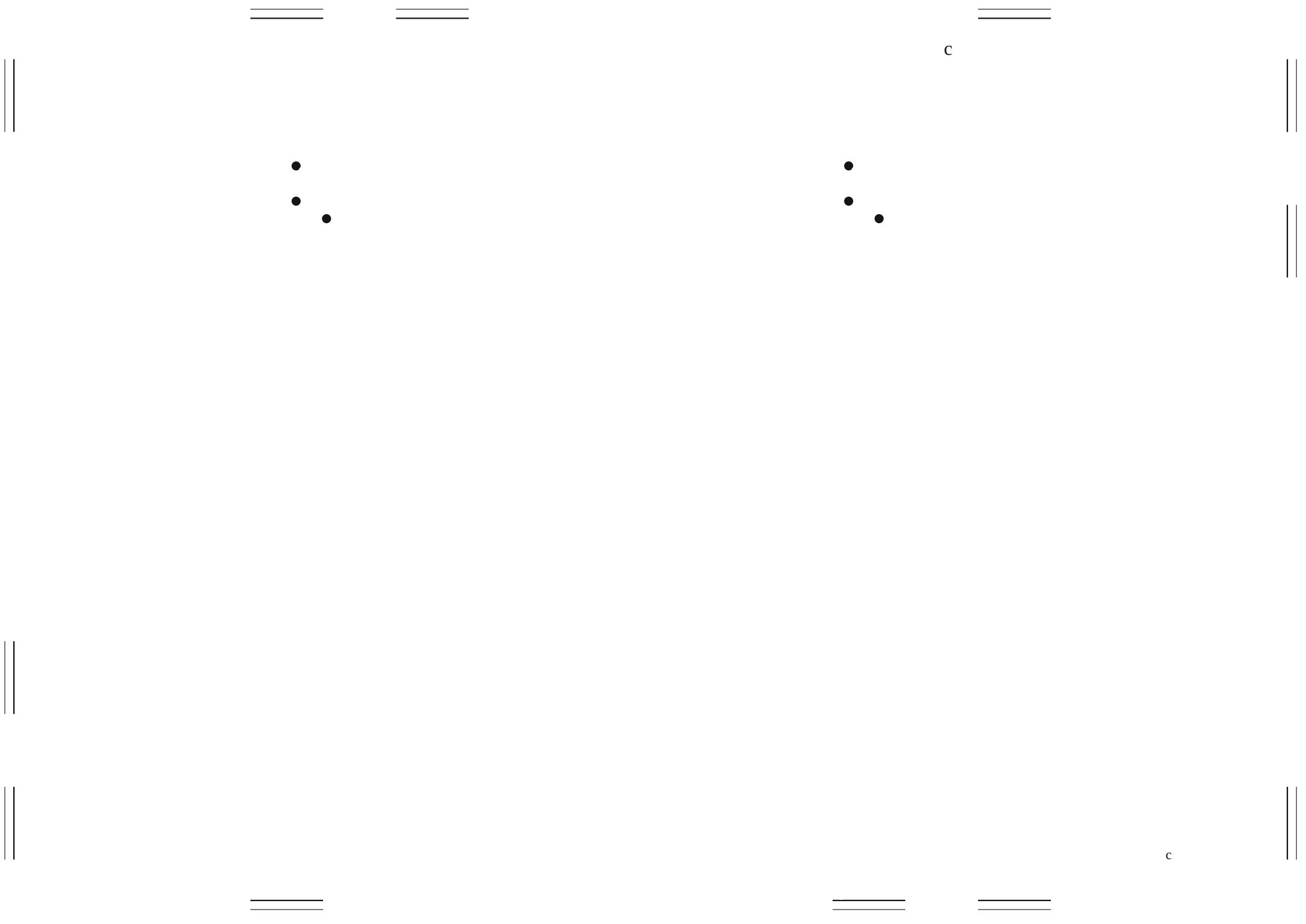
ORS18; adapted (a) CIELAB data

	$L^* = L^*_{\text{a}}$	a^*_{a}	b^*_{a}	$C^*_{\text{ab,a}}$	$h^*_{\text{ab,a}}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	411



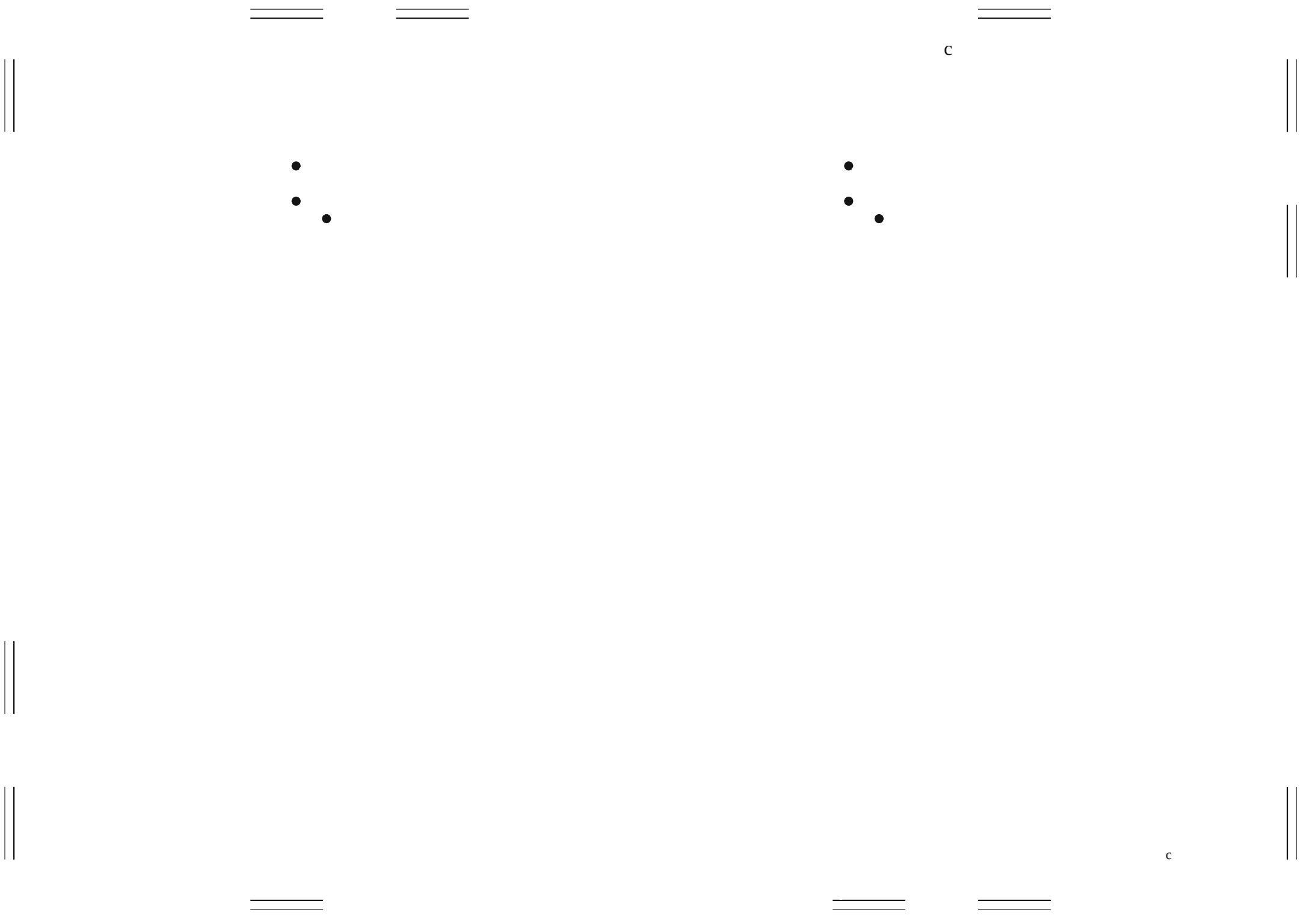
ZE910-7N, 16 step scales for constant CIELAB hue 271/360 = 0.754 (right)

```
input: rgb / cmy0 set(rgb/cmyk)color
output: ->cmy5* setcmykcolor
```

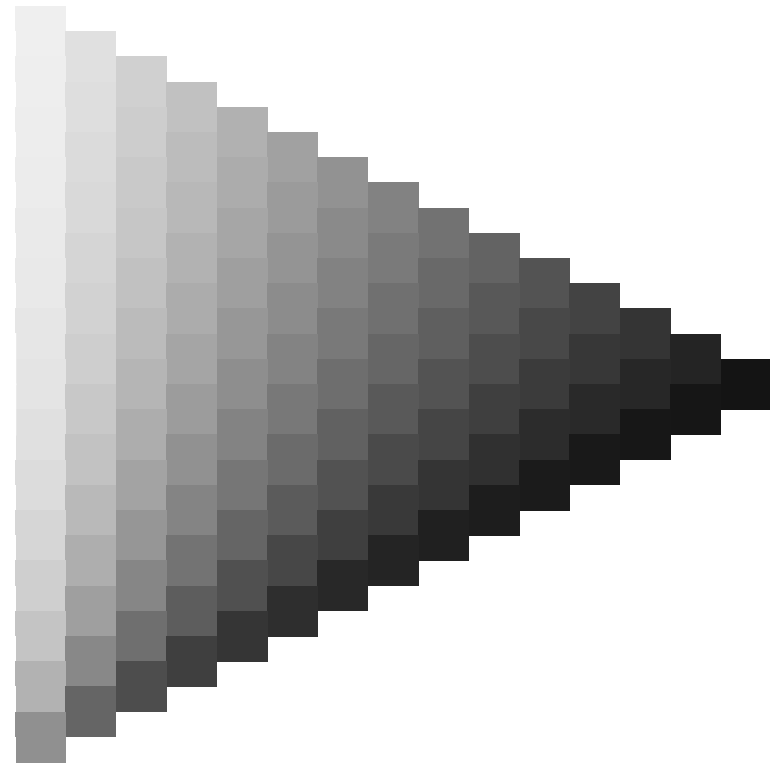
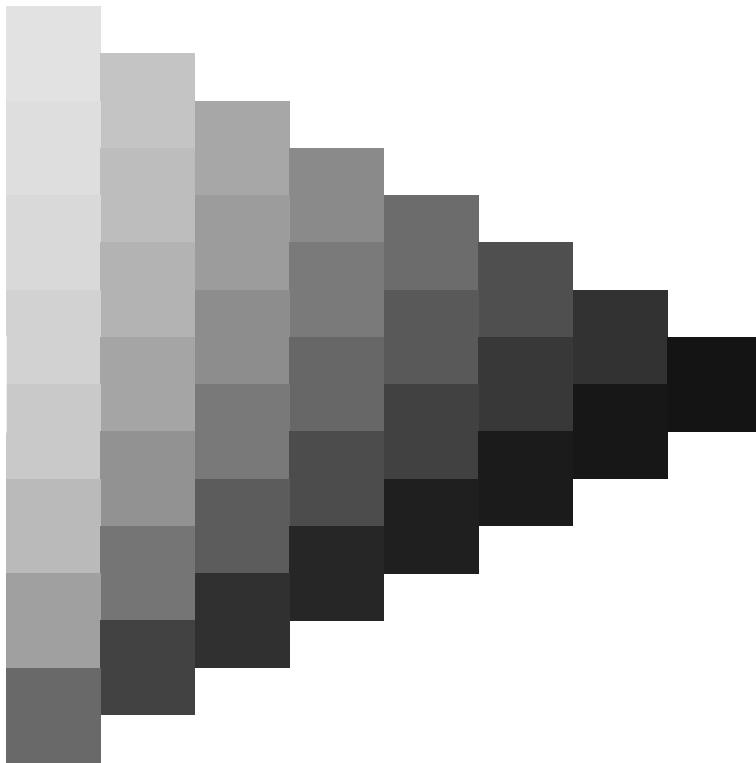



c

c

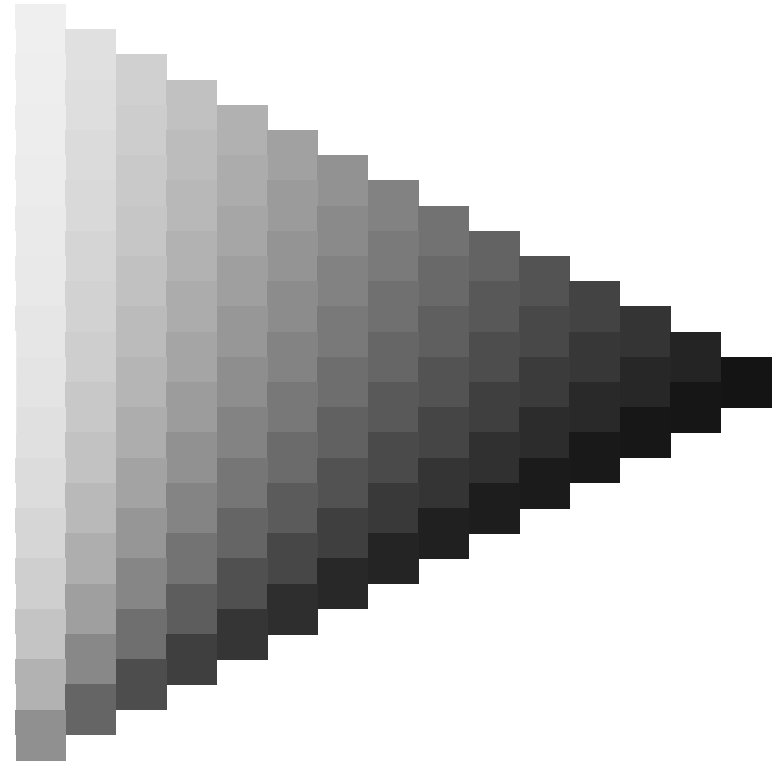
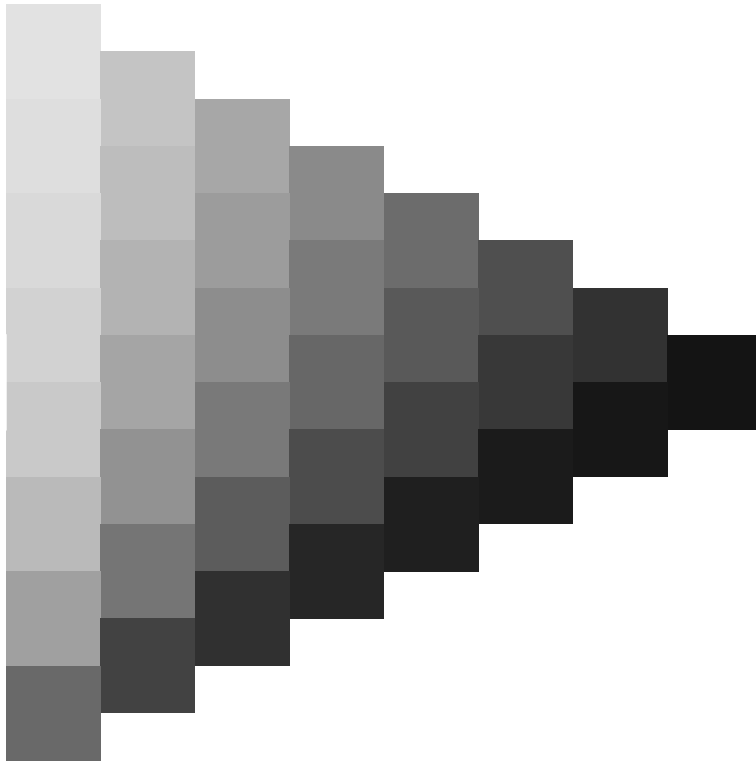


c

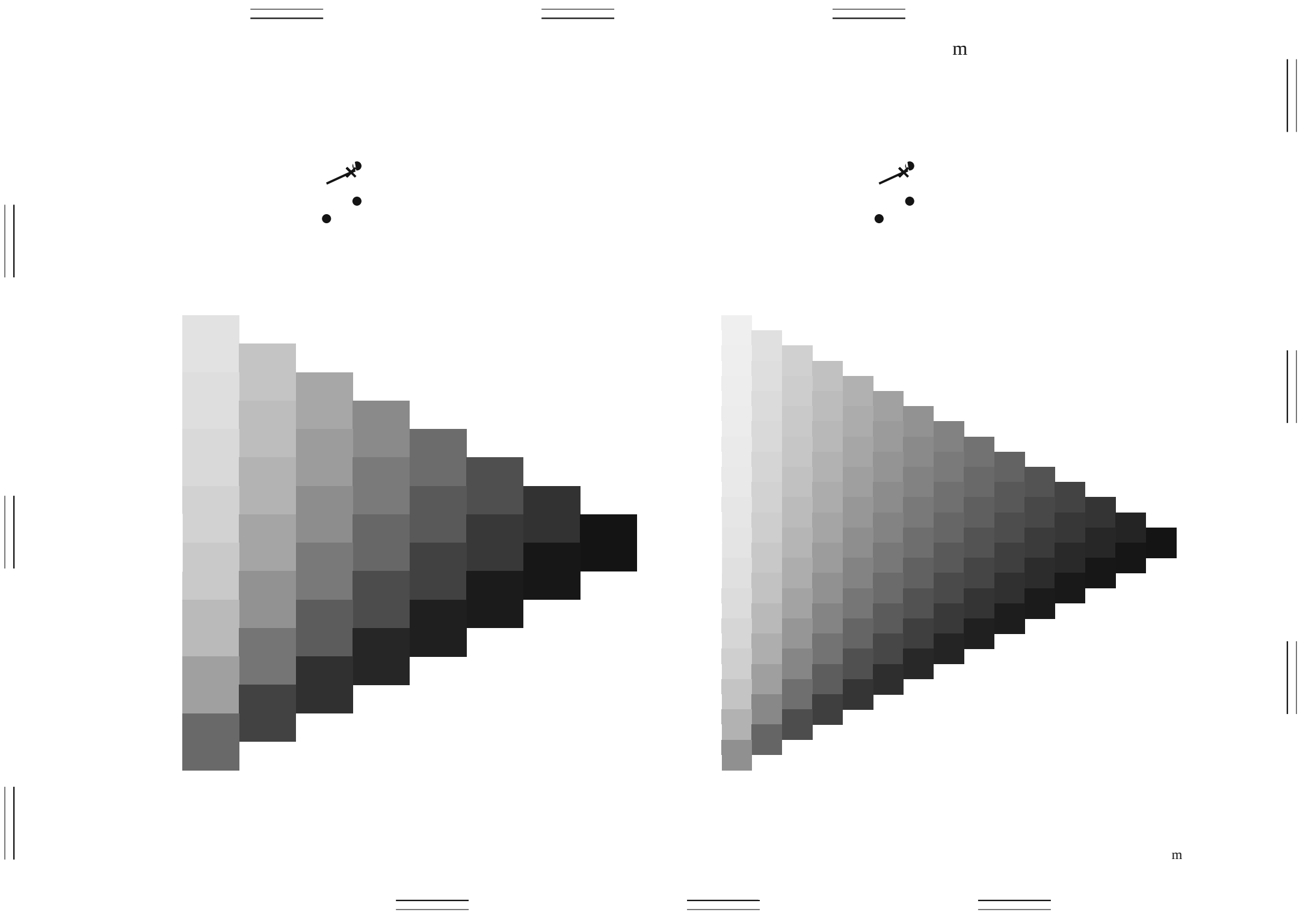


c

c

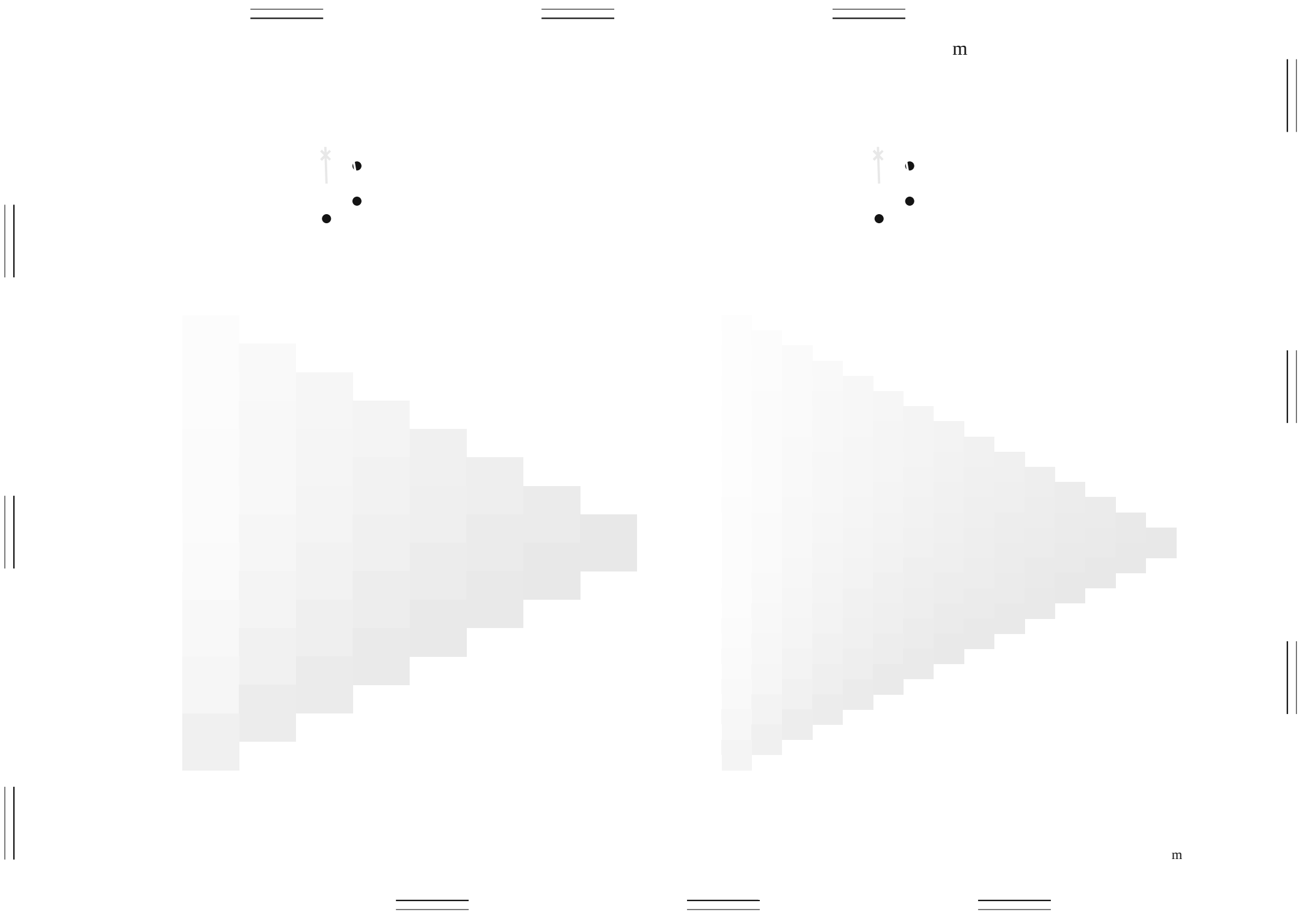


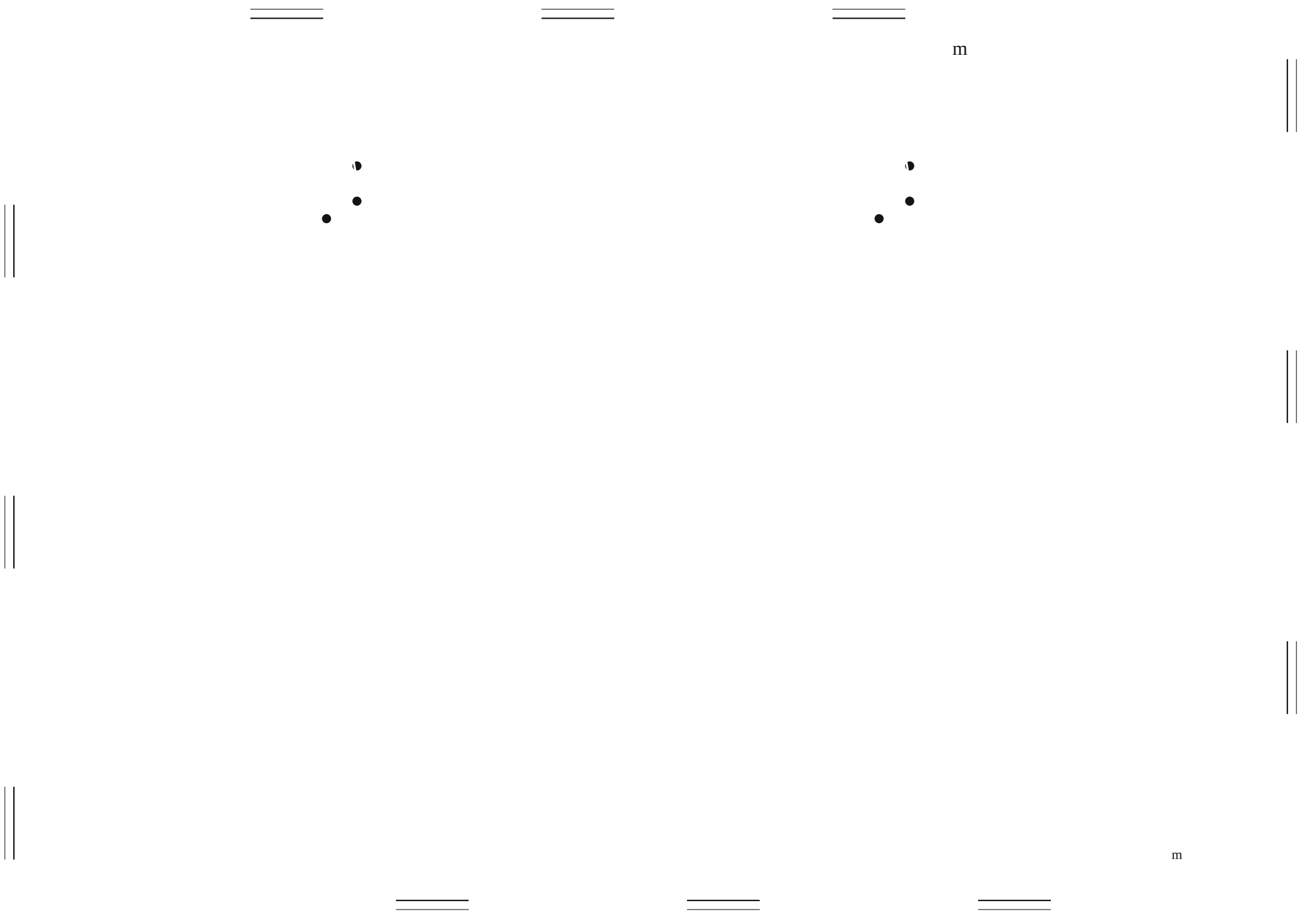
c

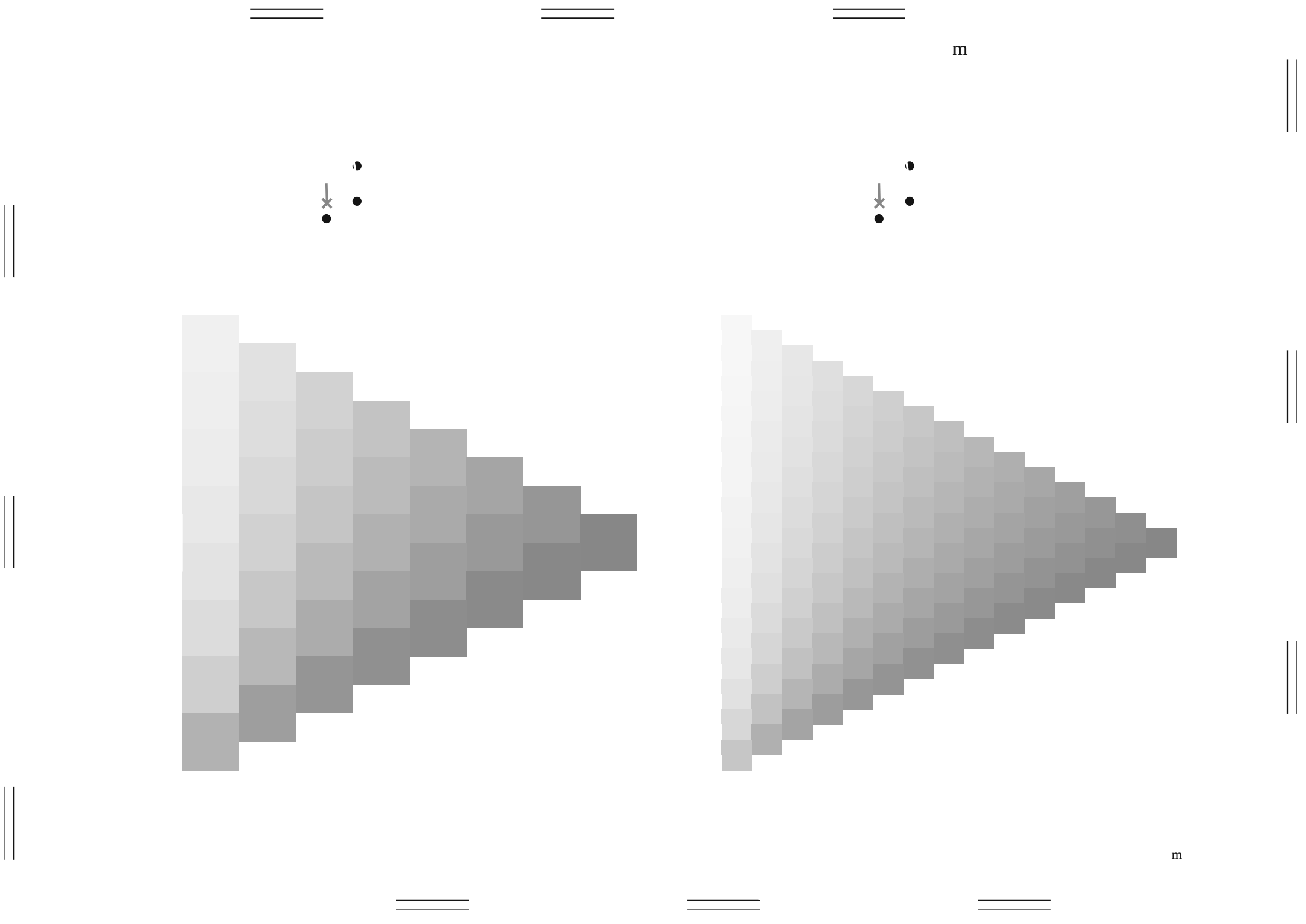


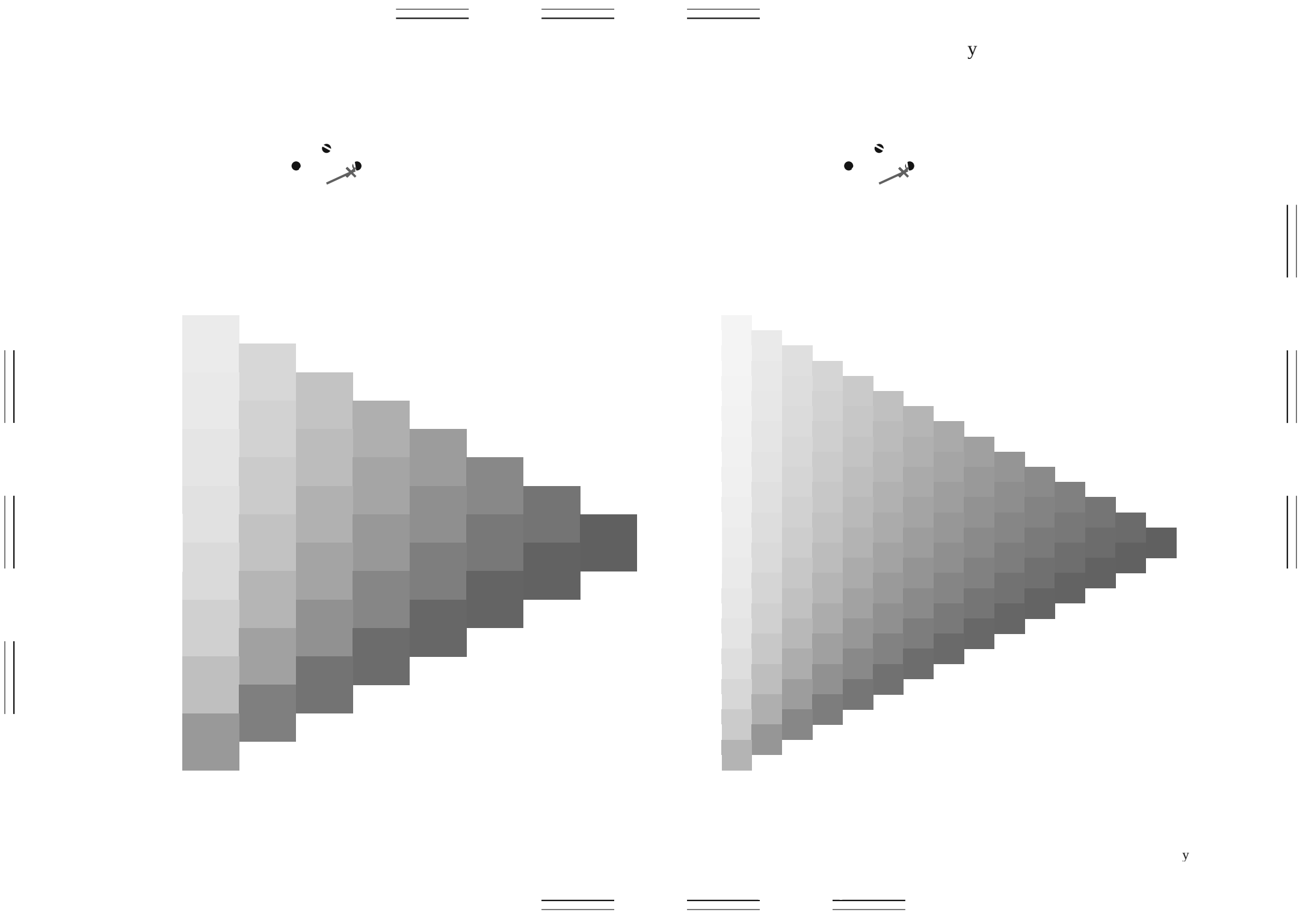
m

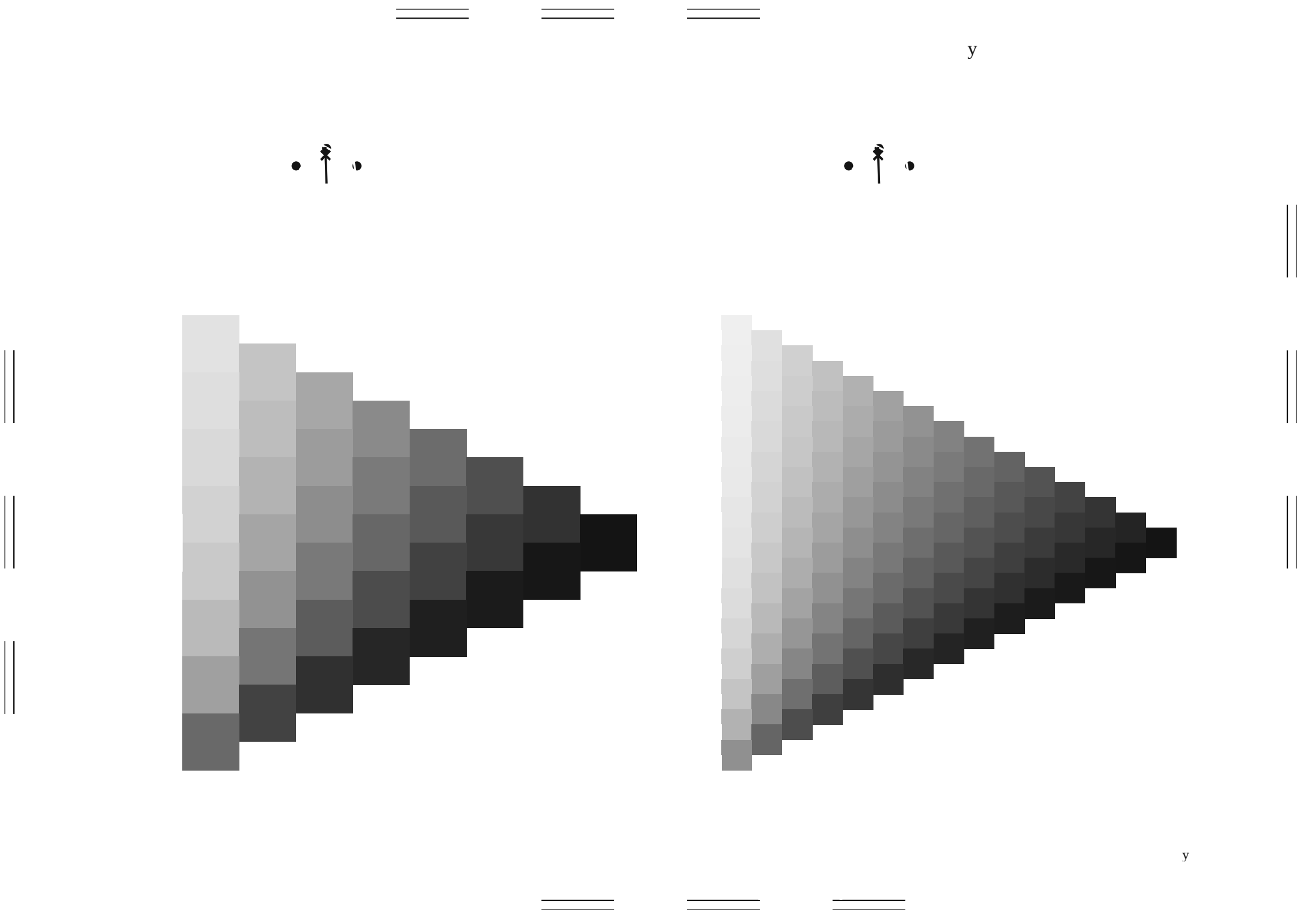
m

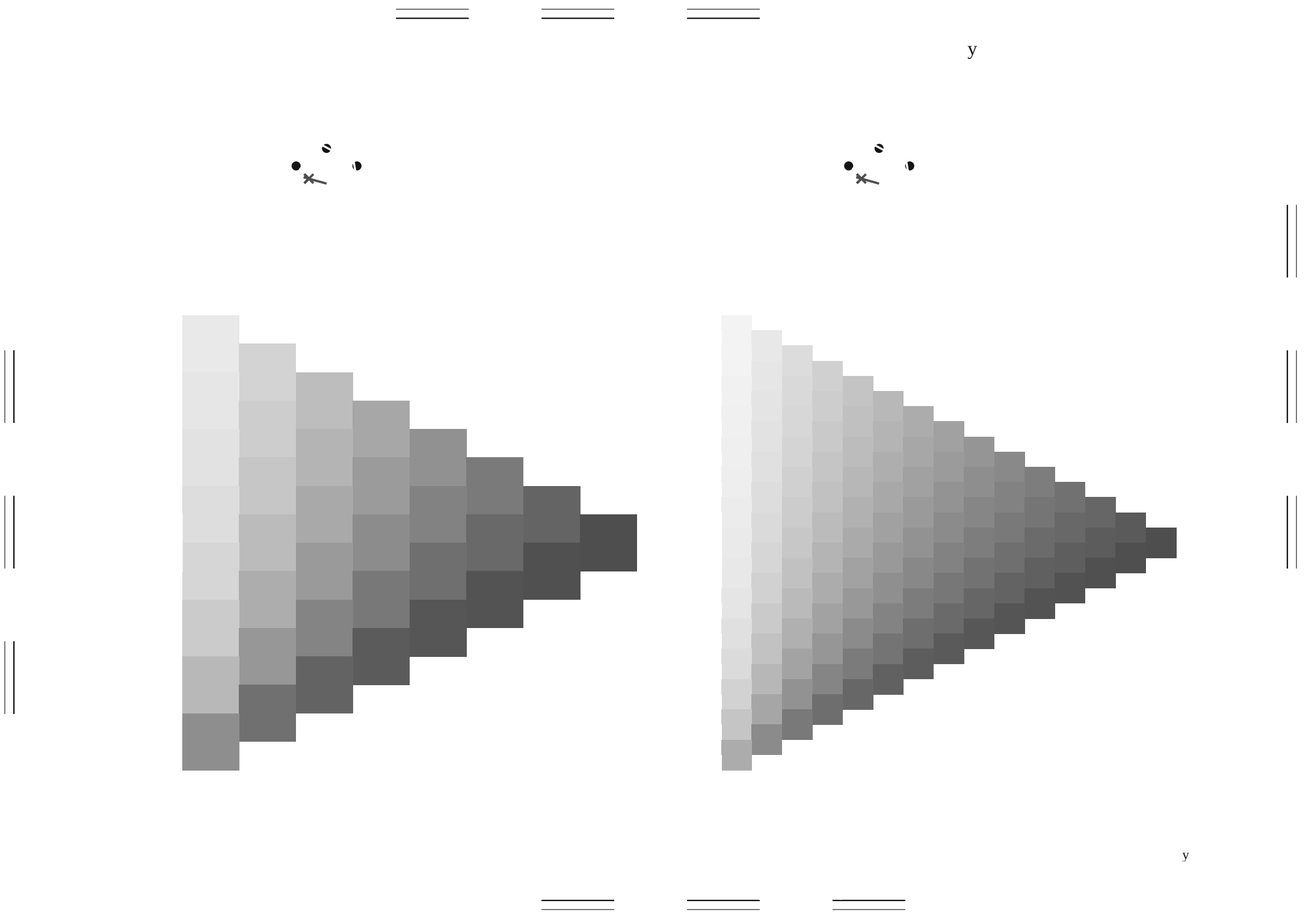


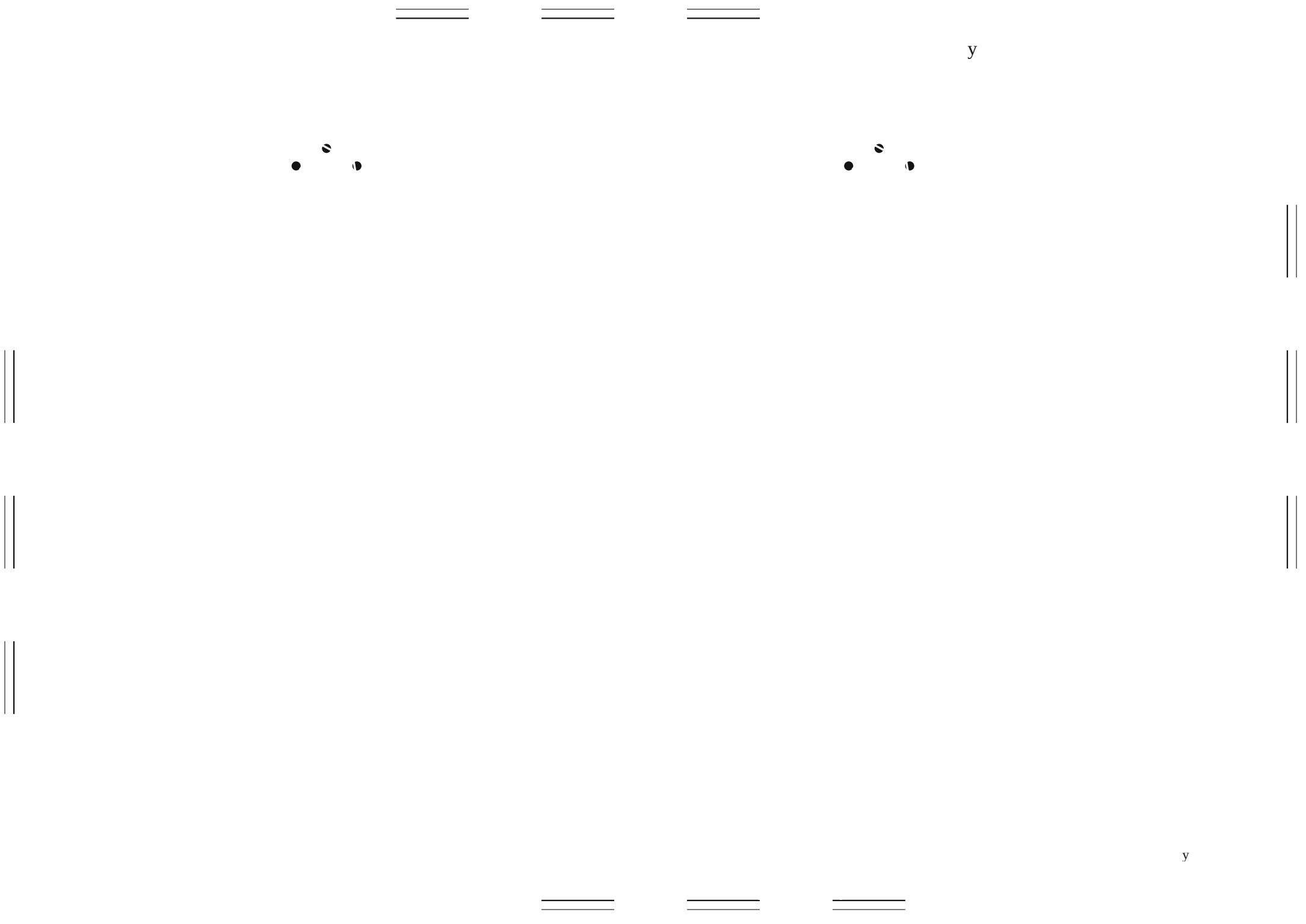












Input: Colorimetric Offset Reflective System ORS18

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

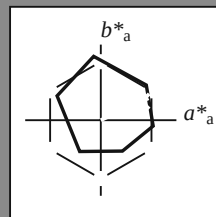
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

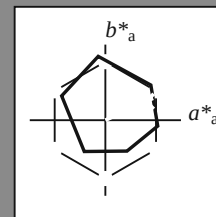
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 69 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

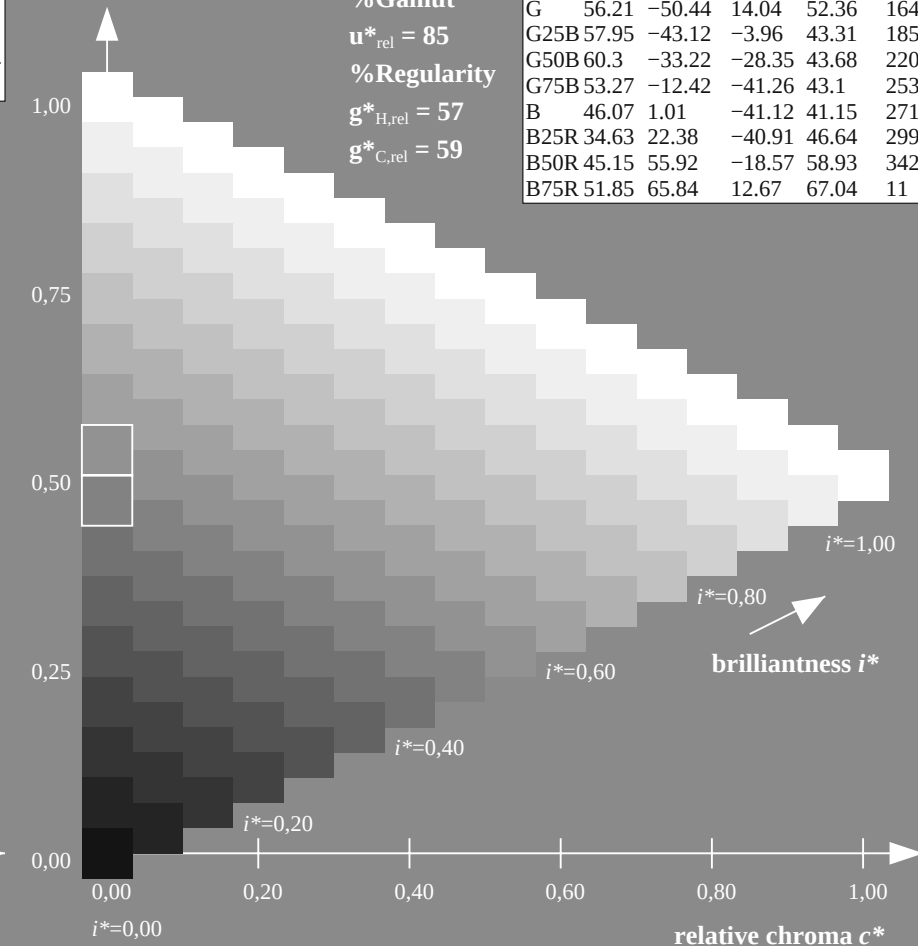
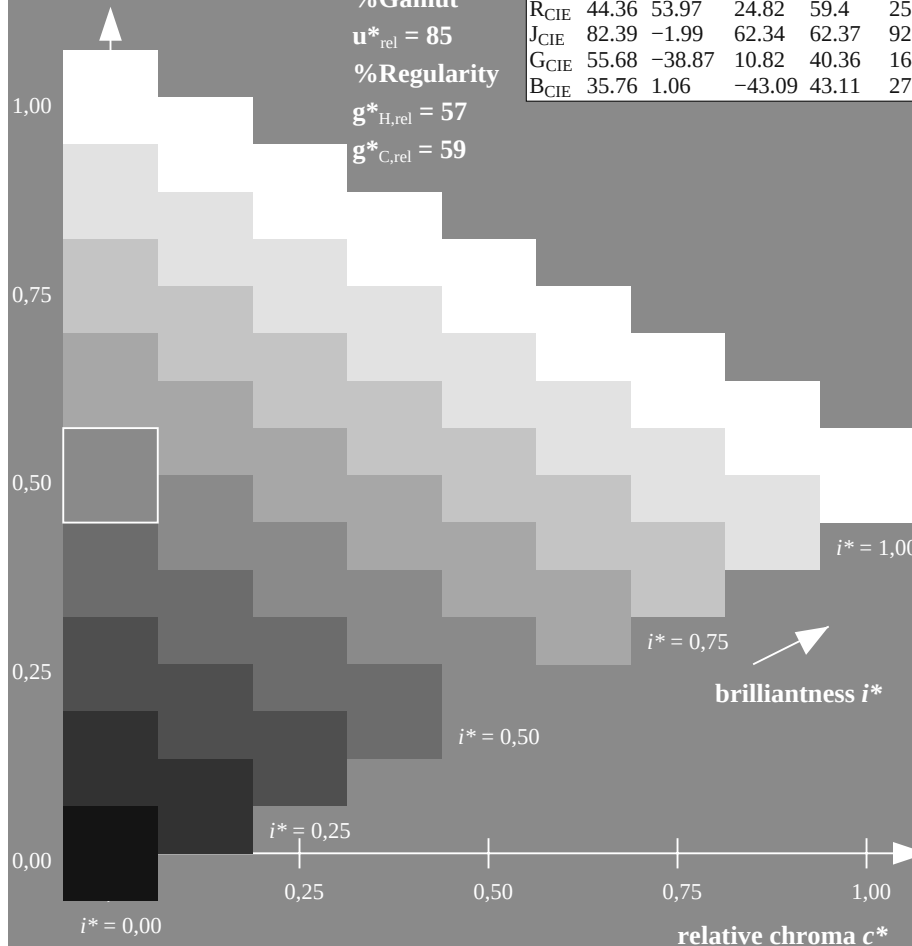
%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$



ZE910-7N, 9 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 25/360 = 0.069 (right)

n

BAM-test chart ZE91; Colorimetric systems, Page 21/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmy0$ set($rgb/cmyk$)color

output: $-> cmy5^*$ set($cmyk$)color

Input: Colorimetric Offset Reflective System ORS18

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

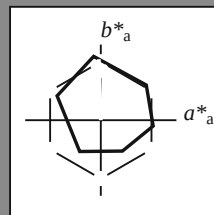
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

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

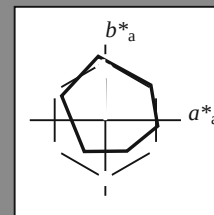
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 87 81 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

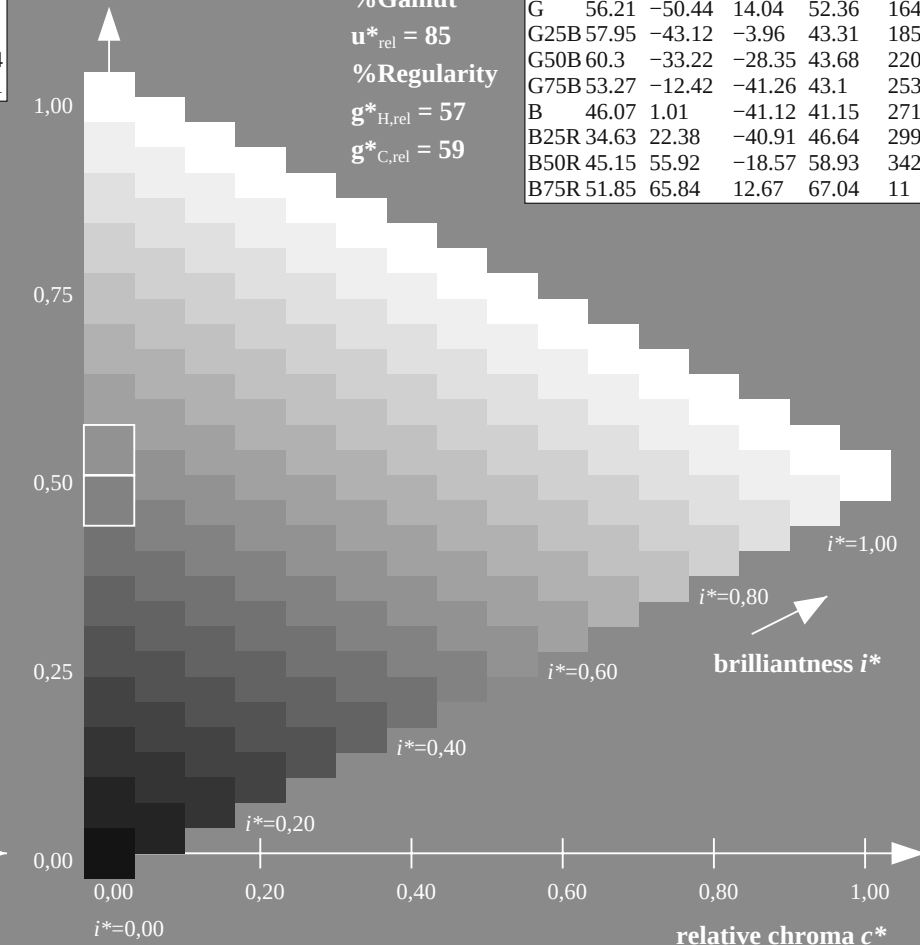
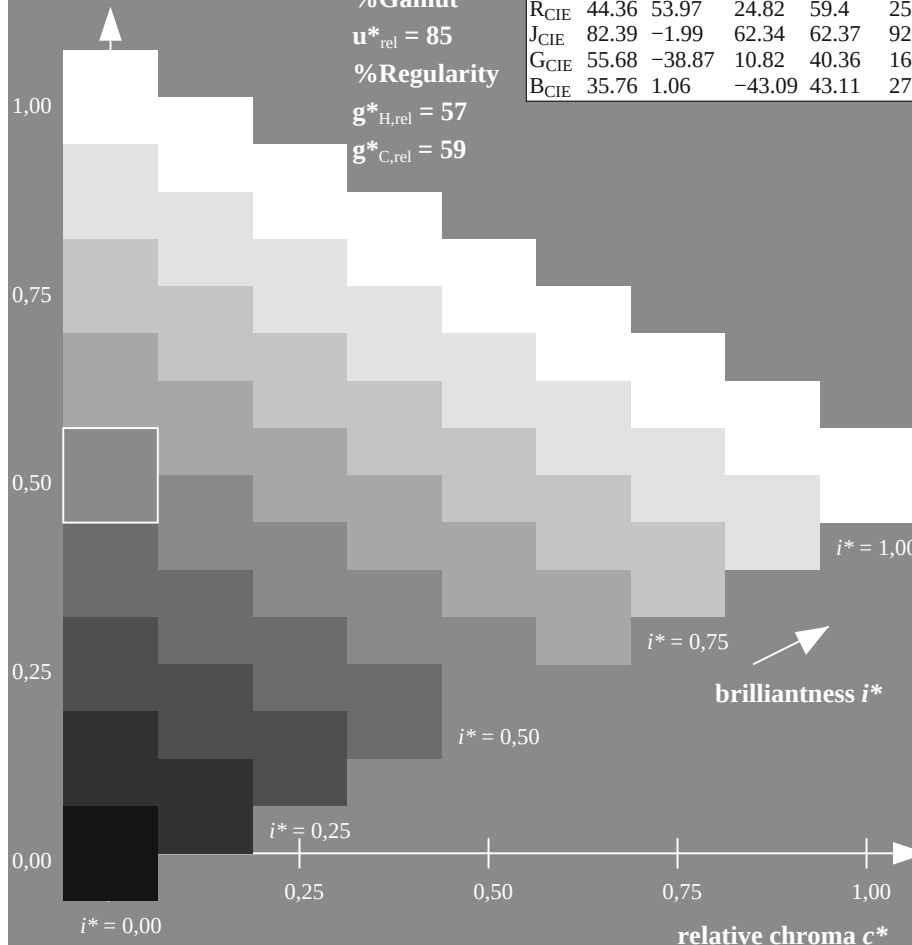
%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11



ZE910-7N, 9 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart ZE91; Colorimetric systems, Page 22/24

D65: 9 and 16 step colour scales for 4 elementary hues

input: `rgb / cmy0 set(rgb/cmyk)color`

output: `->cmy5* setcmykcolor`

Input: Colorimetric Offset Reflective System ORS18

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

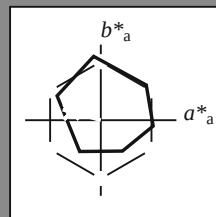
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

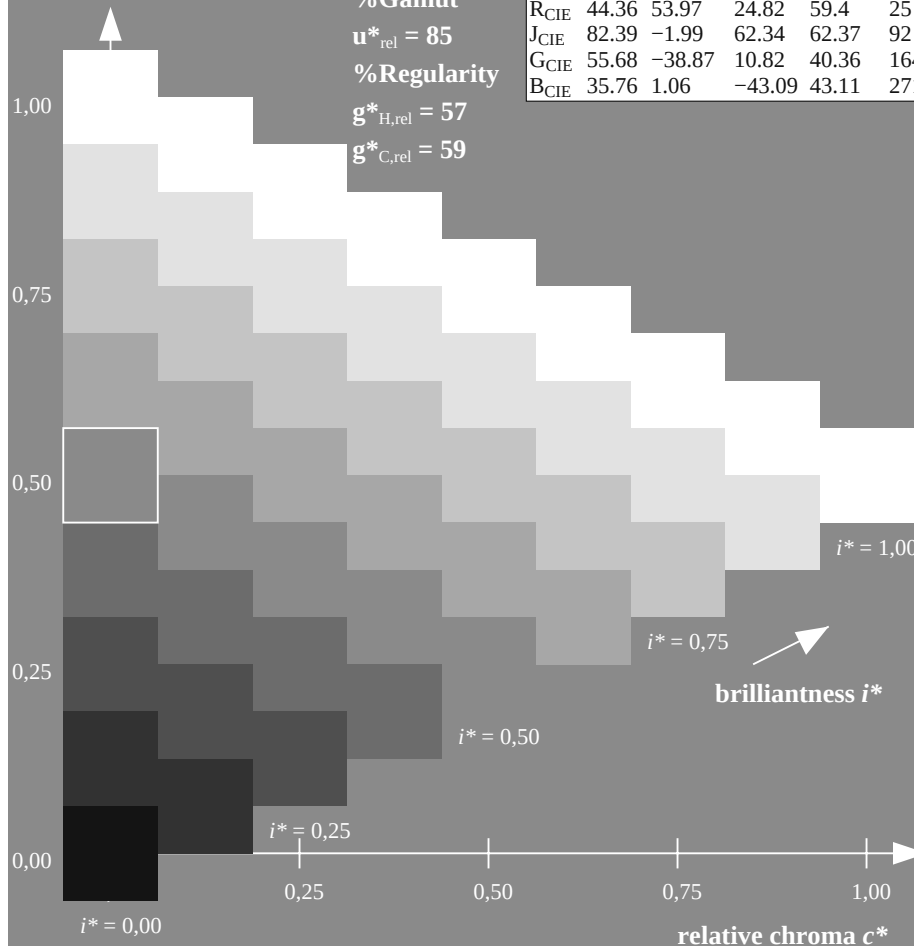
%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271



Output: Colorimetric Offset Reflective System ORS18

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

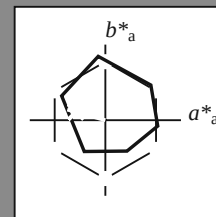
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 56 52 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

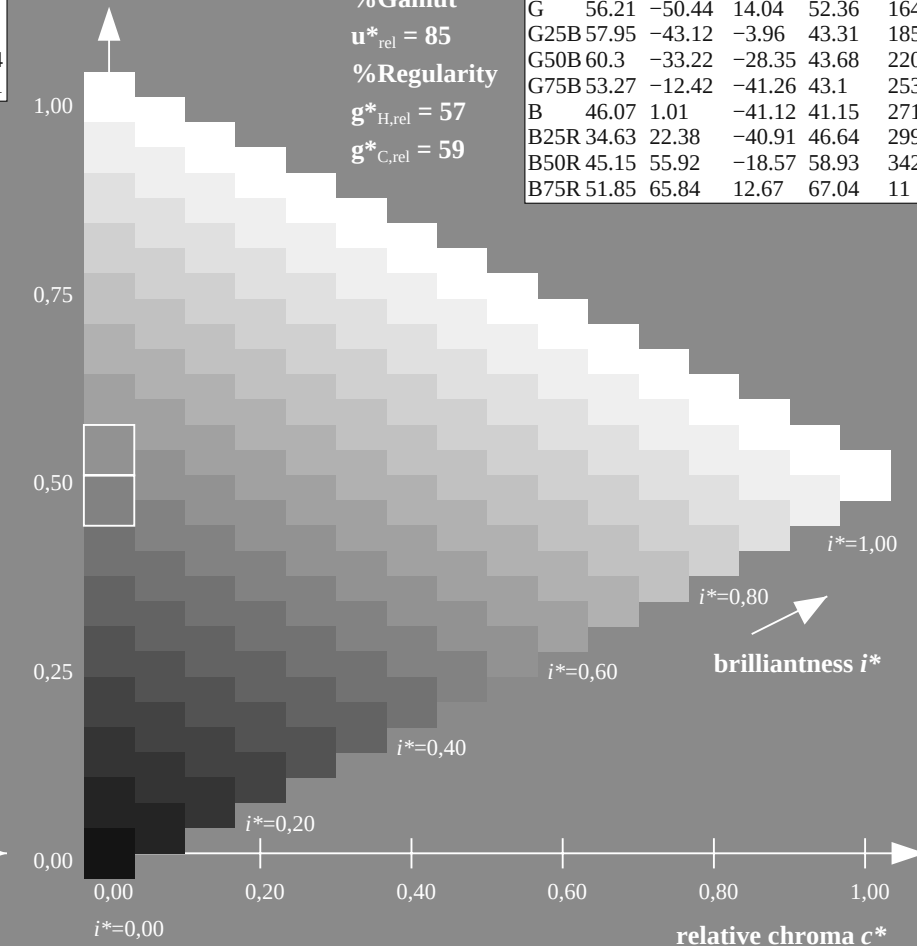
%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11



ZE910-7N, 9 step scales for constant CIELAB hue 164/360 = 0.457 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart ZE91; Colorimetric systems, Page 23/24
D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmy0$ set($rgb/cmyk$)color
output: $->cmy5^*$ set($cmyk$)color

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$

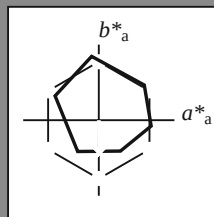
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	51.74	60.16	46.48	76.02	38
Y _{Ma}	90.77	-9.44	84.41	84.94	96
L _{Ma}	54.46	-57.8	32.16	66.15	151
C _{Ma}	61.56	-27.91	-41.41	49.95	236
V _{Ma}	31.3	28.61	-40.85	49.88	305
M _{Ma}	51.91	69.26	-7.69	69.68	354
N _{Ma}	24.2	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	44.36	53.97	24.82	59.4	25
J _{CIE}	82.39	-1.99	62.34	62.37	92
G _{CIE}	55.68	-38.87	10.82	40.36	164
B _{CIE}	35.76	1.06	-43.09	43.11	271

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$

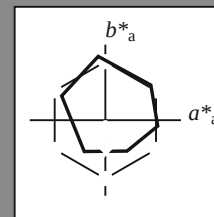
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 46 41 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R	51.79	63.09	29.02	69.44	25
R25J	53.73	56.6	48.42	74.48	41
R50J	65.47	35.67	59.82	69.65	59
R75J	76.51	15.98	70.55	72.34	77
J	86.93	-2.58	80.67	80.71	92
J25G	84.92	-17.23	75.99	77.92	103
J50G	73.11	-32.96	59.0	67.58	119
J75G	60.06	-50.34	40.22	64.44	141
G	56.21	-50.44	14.04	52.36	164
G25B	57.95	-43.12	-3.96	43.31	185
G50B	60.3	-33.22	-28.35	43.68	220
G75B	53.27	-12.42	-41.26	43.1	253
B	46.07	1.01	-41.12	41.15	271
B25R	34.63	22.38	-40.91	46.64	299
B50R	45.15	55.92	-18.57	58.93	342
B75R	51.85	65.84	12.67	67.04	11

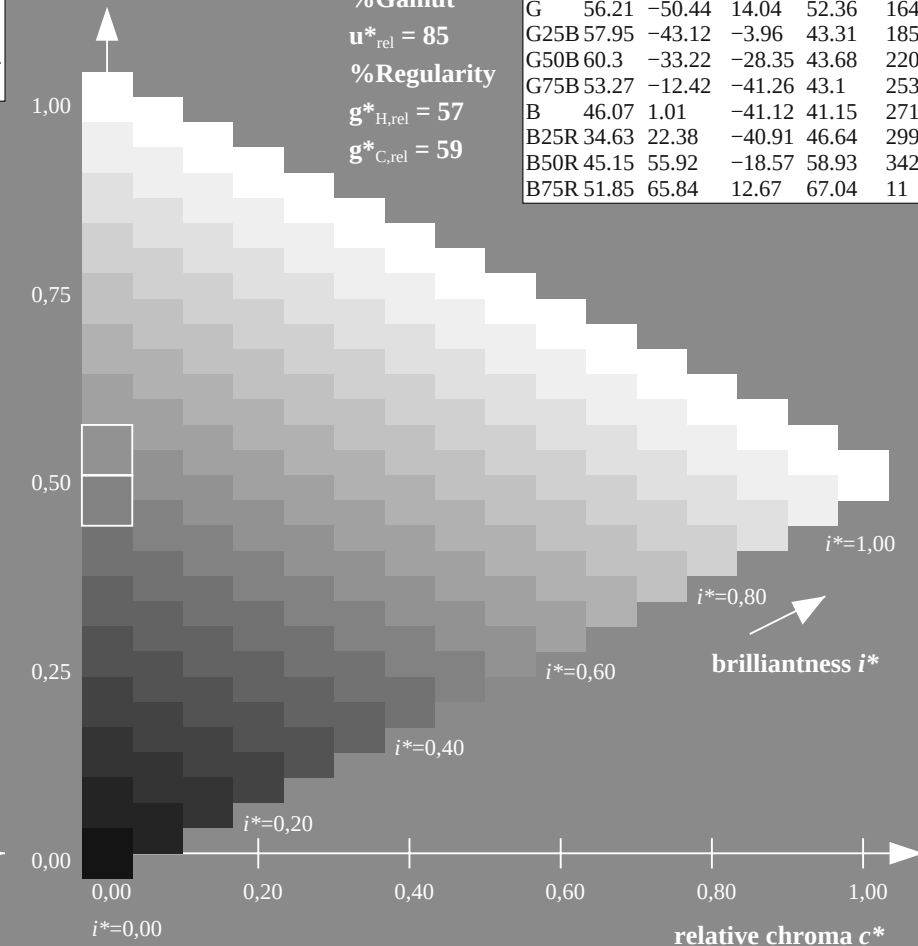
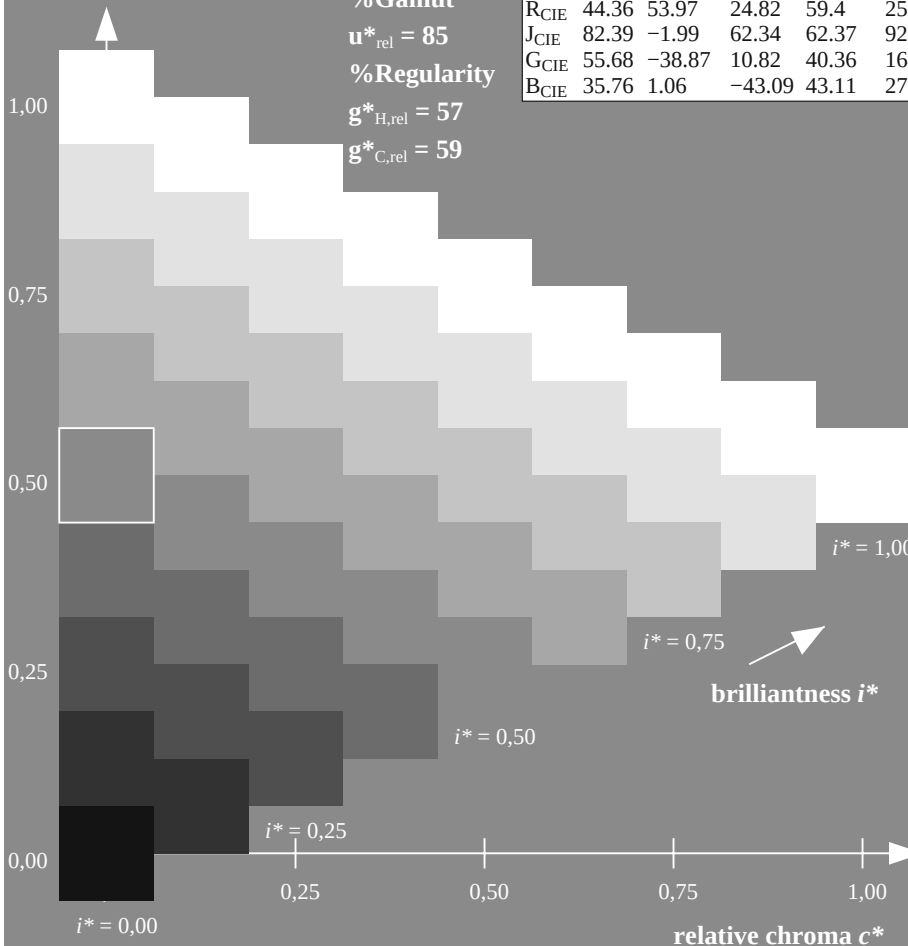
%Gamut

$u^*_{rel} = 85$

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$



ZE910-7N, 9 step scales for constant CIELAB hue 271/360 = 0.754 (left)

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ZE910-7N, 16 step scales for constant CIELAB hue 271/360 = 0.754 (right)

BAM-test chart ZE91; Colorimetric systems, Page 24/24
D65: 9 and 16 step colour scales for 4 elementary hues

input: $rgb / cmy0$ set($rgb/cmyk$)color
output: $-> cmy5^*$ set($cmyk$)color