

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 96/360 = 0.268$

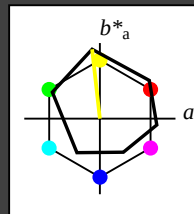
lab^*tch and lab^*nch

A: hue Y

LCH*Ma: 90 92 96

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 47.5
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*LABb 50.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.36 -0.24 0.68
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.75 0.75 0.75 (1.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.75 0.75 0.75 (1.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 1.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 1.0 0.0 0.0 (0.0)

$n^* = 1.0$

ORS18; adapted (a) 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

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 92.88 -6.06 50.46
LAB*LABa 92.88 -6.06 50.46
LAB*LABb 94.14 -2.56 22.93

relative CIELAB lab*
lab*lab 1.0 1.0 1.0 (1.0)
lab*tch 0.984 -0.024 0.248
lab*nch 0.875 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.248
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 74.8 -3.15 26.3
LAB*LABa 74.8 -3.15 26.3
LAB*LABb 74.8 -3.15 26.3

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 54.19 -5.22 47.64
LAB*LABa 54.19 -5.22 47.64
LAB*LABb 50.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.5 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 36.1 -2.56 22.93
LAB*LABa 36.1 -2.56 22.93
LAB*LABb 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.75 0.75 0.75 (1.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.75 0.75 0.75 (1.0)

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 91.62 -8.61 73.31
LAB*LABa 91.62 -8.61 73.31
LAB*LABb 92.88 -6.06 50.46

relative CIELAB lab*
lab*lab 1.0 1.0 1.0 (1.0)
lab*tch 0.984 -0.024 0.248
lab*nch 0.875 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.248
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.54 -5.12 45.88
LAB*LABa 73.54 -5.12 45.88
LAB*LABb 73.54 -5.12 45.88

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.00 0.01 0.0
LAB*LABa 50.00 0.01 0.0
LAB*LABb 50.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.5 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.75 0.75 0.75 (1.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.75 0.75 0.75 (1.0)

$n^* = 0.00$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 103/360 = 0.286$

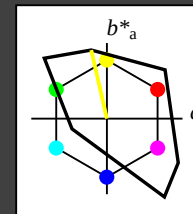
lab^*tch and lab^*nch

A: hue Y

LCH*Ma: 93 93 103

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 70.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 47.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.5 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.75 0.75 0.75 (1.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.75 0.75 0.75 (1.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 1.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 1.0 0.0 0.0 (0.0)

$n^* = 1.0$

TLS00; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 94.71 -5.16 22.68
LAB*LABa 94.71 -5.16 22.68
LAB*LABb 94.71 -5.16 22.68

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 0.984 -0.024 0.248
lab*nch 0.875 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.248
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 70.87 -5.17 22.69
LAB*LABa 70.87 -5.17 22.69
LAB*LABb 70.87 -5.17 22.69

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 -5.17 22.69
LAB*LABa 47.72 -5.17 22.69
LAB*LABb 47.72 -5.17 22.69

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.5 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 -5.16 22.68
LAB*LABa 23.87 -5.16 22.68
LAB*LABb 23.87 -5.16 22.68

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.75 0.75 0.75 (1.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.75 0.75 0.75 (1.0)

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 93.34 -15.51 68.05
LAB*LABa 93.34 -15.51 68.05
LAB*LABb 93.34 -15.51 68.05

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 0.984 -0.024 0.248
lab*nch 0.875 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.248
lab*tce 0.875 0.25 0.

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 151/360 = 0.419$

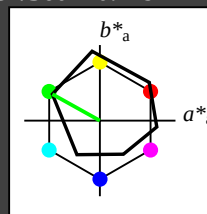
lab^*tch and lab^*nch

A: hue L

LCH*Ma: 51 72 151

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



ORS18; adapted (a) 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

%Regularity

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

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

1.00

0.75

$n^* = 0.00$

0.25

0.00

chromaticness c^*

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 136/360 = 0.378$

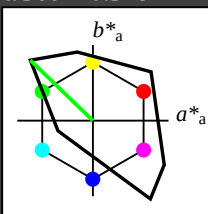
lab^*tch and lab^*nch

A: hue L

LCH*Ma: 84 115 136

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L_a^*$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

1.00

0.75

$n^* = 0.00$

0.25

0.00

chromaticness c^*

$n^* = 1.0$

BAM-test chart RE50; Colorimetric systems ORS18 & TLS00

A: 2 coordinate data of 5 step colour scales for 10 hues

input: `olv* setrgbcolor`

output: `olv* setrgbcolor / w* setgray`

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 236/360 = 0.656$

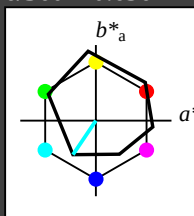
lab^*tch and lab^*nch

A: hue C

LCH*Ma: 59 54 236

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

ORS18; adapted (a) 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

% Regularity

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

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

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 196/360 = 0.545$

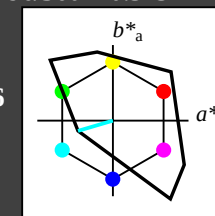
lab^*tch and lab^*nch

A: hue C

LCH*Ma: 87 48 196

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

relative Inform. Technology (IT)	
olv3*	0.75 0.75 0.75 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	59.41 -0.98 47.5
LAB*LAB	95.41 0.0 0.0
LAB*LAB	99.99 0.01 0.0
relative CIELAB lab*	
lab*lab	1.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.75 0.75 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	76.06 -0.61 3.44
LAB*LAB	76.06 0.0 0.0
LAB*LAB	75.00 0.01 0.0
relative CIELAB lab*	
lab*lab	0.881 -0.139 -0.206
lab*tch	0.875 0.25 0.656
lab*nch	0.0 0.25 0.656
relative Natural Colour (NC)	
lab*trj	0.881 -0.123 -0.216
lab*tce	0.875 0.25 0.656
lab*nce	0.0 0.25 0.656

relative Inform. Technology (IT)	
olv3*	0.5 0.5 0.5 (1.0)
olv4*	0.5 0.5 0.5 (1.0)
olv5*	0.5 0.5 0.5 (1.0)
standard and adapted CIELAB	
LAB*LAB	77.01 -15.8 -19.98
LAB*LAB	77.01 -15.16 -22.5
LAB*LAB	75.00 27.14 236.02
relative CIELAB lab*	
lab*lab	0.762 -0.278 -0.414
lab*tch	0.75 0.5 0.656
lab*nch	0.0 0.5 0.656
relative Natural Colour (NC)	
lab*trj	0.762 -0.247 -0.433
lab*tce	0.75 0.5 0.656
lab*nce	0.0 0.5 0.656

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	67.81 -23.21 -30.86
LAB*LAB	67.81 -23.75 -33.75
LAB*LAB	62.5 40.72 236.02
relative CIELAB lab*	
lab*lab	0.642 -0.418 -0.621
lab*tch	0.625 0.75 0.656
lab*nch	0.0 0.75 0.656
relative Natural Colour (NC)	
lab*trj	0.642 -0.371 -0.65
lab*tce	0.625 0.75 0.656
lab*nce	0.0 0.75 0.656

relative Inform. Technology (IT)	
olv3*	0.0 1.0 1.0 (1.0)
olv4*	0.0 1.0 1.0 (0.0)
olv5*	0.0 1.0 1.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	58.62 -30.33 -45.01
LAB*LAB	58.62 -30.33 -45.01
LAB*LAB	50.0 54.29 236.02
relative CIELAB lab*	
lab*lab	0.525 -0.558 -0.828
lab*tch	0.5 1.0 0.656
lab*nch	0.0 1.0 0.656
relative Natural Colour (NC)	
lab*trj	0.525 -0.496 -0.867
lab*tce	0.5 1.0 0.656
lab*nce	0.0 1.0 0.656

relative Inform. Technology (IT)	
olv3*	0.5 0.5 0.5 (1.0)
olv4*	0.5 0.5 0.5 (1.0)
olv5*	0.5 0.5 0.5 (1.0)
standard and adapted CIELAB	
LAB*LAB	47.72 0.0 0.0
LAB*LAB	47.72 0.0 0.0
LAB*LAB	50.0 0.0 0.0
relative CIELAB lab*	
lab*lab	0.5 0.5 0.0
lab*tch	0.5 0.5 0.0
lab*nch	0.5 0.5 0.0
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.5 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.75 0.75 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	56.71 -0.24 2.14
LAB*LAB	56.71 0.0 0.0
LAB*LAB	50.0 0.01 0.0
relative CIELAB lab*	
lab*lab	0.5 0.5 0.0
lab*tch	0.5 0.5 0.0
lab*nch	0.5 0.5 0.0
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.5 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	47.51 -7.64 -9.72
LAB*LAB	47.51 -7.64 -9.72
LAB*LAB	37.5 13.57 236.02
relative CIELAB lab*	
lab*lab	0.381 -0.139 -0.206
lab*tch	0.375 0.25 0.656
lab*nch	0.0 0.25 0.656
relative Natural Colour (NC)	
lab*trj	0.381 -0.123 -0.216
lab*tce	0.375 0.25 0.656
lab*nce	0.0 0.25 0.656

relative Inform. Technology (IT)	
olv3*	0.0 0.5 0.5 (1.0)
olv4*	0.0 0.5 0.5 (0.0)
olv5*	0.0 0.5 0.5 (0.0)
standard and adapted CIELAB	
LAB*LAB	38.32 -15.16 -22.5
LAB*LAB	38.32 -15.16 -22.5
LAB*LAB	25.01 27.14 236.02
relative CIELAB lab*	
lab*lab	0.262 -0.278 -0.414
lab*tch	0.25 0.5 0.656
lab*nch	0.0 0.5 0.656
relative Natural Colour (NC)	
lab*trj	0.262 -0.247 -0.433
lab*tce	0.25 0.5 0.656
lab*nce	0.0 0.5 0.656

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	48.47 -22.83 -32.17
LAB*LAB	48.47 -22.75 -33.75
LAB*LAB	37.51 40.72 236.02
relative CIELAB lab*	
lab*lab	0.394 -0.418 -0.621
lab*tch	0.375 0.75 0.656
lab*nch	0.0 0.75 0.656
relative Natural Colour (NC)	
lab*trj	0.394 -0.371 -0.65
lab*tce	0.375 0.75 0.656
lab*nce	0.0 0.75 0.656

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	47.72 0.0 0.0
LAB*LAB	47.72 0.0 0.0
LAB*LAB	50.0 0.0 0.0
relative CIELAB lab*	
lab*lab	0.5 0.5 0.0
lab*tch	0.5 0.5 0.0
lab*nch	0.5 0.5 0.0
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.5 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	47.72 0.0 0.0
LAB*LAB	47.72 0.0 0.0
LAB*LAB	50.0 0.0 0.0
relative CIELAB lab*	
lab*lab	0.5 0.5 0.0
lab*tch	0.5 0.5 0.0
lab*nch	0.5 0.5 0.0
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.5 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.25 0.25 0.25 (1.0)
olv4*	0.25 0.25 0.25 (0.0)
olv5*	0.25 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	18.02 0.0 0.0
LAB*LAB	18.02 0.0 0.0
LAB*LAB	0.01 0.01 0.0
relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*trj	0.0 0.0 0.0
lab*tce	0.0 0.0 0.0
lab*nce	0.0 0.0 0.0

RE500-7, 5 step scales for constant CIELAB hue 236/360 = 0.656 (left)

5 step scales for constant CIELAB hue 196/360 = 0.545 (right)

BAM-test chart RE50; Colorimetric systems ORS18 & TLS00

A: 2 coordinate data of 5 step colour scales for 10 hues

input: $olv^* setrgbcolor$

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

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 305/360 = 0.847$

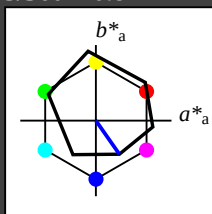
lab^*tch and lab^*nch

A: hue V

LCH*Ma: 26 54 305

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



ORS18; adapted (a) 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

%Regularity

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

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

relative Inform. Technology (IT)

olv3*	1.0	1.0	1.0	(1.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	1.0	1.0	1.0	(1.0)
olv6*	0.0	0.0	0.0	(0.0)
olv7*	1.0	1.0	1.0	(1.0)
olv8*	0.0	0.0	0.0	(0.0)
olv9*	1.0	1.0	1.0	(1.0)
olv10*	0.0	0.0	0.0	(0.0)
olv11*	1.0	1.0	1.0	(1.0)
olv12*	0.0	0.0	0.0	(0.0)
olv13*	1.0	1.0	1.0	(1.0)
olv14*	0.0	0.0	0.0	(0.0)
olv15*	1.0	1.0	1.0	(1.0)
olv16*	0.0	0.0	0.0	(0.0)
olv17*	1.0	1.0	1.0	(1.0)
olv18*	0.0	0.0	0.0	(0.0)
olv19*	1.0	1.0	1.0	(1.0)
olv20*	0.0	0.0	0.0	(0.0)
olv21*	1.0	1.0	1.0	(1.0)
olv22*	0.0	0.0	0.0	(0.0)
olv23*	1.0	1.0	1.0	(1.0)
olv24*	0.0	0.0	0.0	(0.0)
olv25*	1.0	1.0	1.0	(1.0)
olv26*	0.0	0.0	0.0	(0.0)
olv27*	1.0	1.0	1.0	(1.0)
olv28*	0.0	0.0	0.0	(0.0)
olv29*	1.0	1.0	1.0	(1.0)
olv30*	0.0	0.0	0.0	(0.0)
olv31*	1.0	1.0	1.0	(1.0)
olv32*	0.0	0.0	0.0	(0.0)
olv33*	1.0	1.0	1.0	(1.0)
olv34*	0.0	0.0	0.0	(0.0)
olv35*	1.0	1.0	1.0	(1.0)
olv36*	0.0	0.0	0.0	(0.0)
olv37*	1.0	1.0	1.0	(1.0)
olv38*	0.0	0.0	0.0	(0.0)
olv39*	1.0	1.0	1.0	(1.0)
olv40*	0.0	0.0	0.0	(0.0)
olv41*	1.0	1.0	1.0	(1.0)
olv42*	0.0	0.0	0.0	(0.0)
olv43*	1.0	1.0	1.0	(1.0)
olv44*	0.0	0.0	0.0	(0.0)
olv45*	1.0	1.0	1.0	(1.0)
olv46*	0.0	0.0	0.0	(0.0)
olv47*	1.0	1.0	1.0	(1.0)
olv48*	0.0	0.0	0.0	(0.0)
olv49*	1.0	1.0	1.0	(1.0)
olv50*	0.0	0.0	0.0	(0.0)
olv51*	1.0	1.0	1.0	(1.0)
olv52*	0.0	0.0	0.0	(0.0)
olv53*	1.0	1.0	1.0	(1.0)
olv54*	0.0	0.0	0.0	(0.0)
olv55*	1.0	1.0	1.0	(1.0)
olv56*	0.0	0.0	0.0	(0.0)
olv57*	1.0	1.0	1.0	(1.0)
olv58*	0.0	0.0	0.0	(0.0)
olv59*	1.0	1.0	1.0	(1.0)
olv60*	0.0	0.0	0.0	(0.0)
olv61*	1.0	1.0	1.0	(1.0)
olv62*	0.0	0.0	0.0	(0.0)
olv63*	1.0	1.0	1.0	(1.0)
olv64*	0.0	0.0	0.0	(0.0)
olv65*	1.0	1.0	1.0	(1.0)
olv66*	0.0	0.0	0.0	(0.0)
olv67*	1.0	1.0	1.0	(1.0)
olv68*	0.0	0.0	0.0	(0.0)
olv69*	1.0	1.0	1.0	(1.0)
olv70*	0.0	0.0	0.0	(0.0)
olv71*	1.0	1.0	1.0	(1.0)
olv72*	0.0	0.0	0.0	(0.0)
olv73*	1.0	1.0	1.0	(1.0)
olv74*	0.0	0.0	0.0	(0.0)
olv75*	1.0	1.0	1.0	(1.0)
olv76*	0.0	0.0	0.0	(0.0)
olv77*	1.0	1.0	1.0	(1.0)
olv78*	0.0	0.0	0.0	(0.0)
olv79*	1.0	1.0	1.0	(1.0)
olv80*	0.0	0.0	0.0	(0.0)
olv81*	1.0	1.0	1.0	(1.0)
olv82*	0.0	0.0	0.0	(0.0)
olv83*	1.0	1.0	1.0	(1.0)
olv84*	0.0	0.0	0.0	(0.0)
olv85*	1.0	1.0	1.0	(1.0)
olv86*	0.0	0.0	0.0	(0.0)
olv87*	1.0	1.0	1.0	(1.0)
olv88*	0.0	0.0	0.0	(0.0)
olv89*	1.0	1.0	1.0	(1.0)
olv90*	0.0	0.0	0.0	(0.0)
olv91*	1.0	1.0	1.0	(1.0)
olv92*	0.0	0.0	0.0	(0.0)
olv93*	1.0	1.0	1.0	(1.0)
olv94*	0.0	0.0	0.0	(0.0)
olv95*	1.0	1.0	1.0	(1.0)
olv96*	0.0	0.0	0.0	(0.0)
olv97*	1.0	1.0	1.0	(1.0)
olv98*	0.0	0.0	0.0	(0.0)
olv99*	1.0	1.0	1.0	(1.0)
olv100*	0.0	0.0	0.0	(0.0)

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv4*	0.25	0.25	0.25	(0.0)
olv5*	0.75	0.75	0.75	(1.0)
olv6*	0.25	0.25	0.25	(0.0)
olv7*	0.75	0.75	0.75	(1.0)
olv8*	0.25	0.25	0.25	(0.0)
olv9*	0.75	0.75	0.75	(1.0)
olv10*	0.25	0.25	0.25	(0.0)
olv11*	0.75	0.75	0.75	(1.0)
olv12*	0.25	0.25	0.25	(0.0)
olv13*	0.75	0.75	0.75	(1.0)
olv14*	0.25	0.25	0.25	(0.0)
olv15*	0.75	0.75	0.75	(1.0)
olv16*	0.25	0.25	0.25	(0.0)
olv17*	0.75	0.75	0.75	(1.0)
olv18*	0.25	0.25	0.25	(0.0)
olv19*	0.75	0.75	0.75	(1.0)
olv20*	0.25	0.25	0.25	(0.0)
olv21*	0.75	0.75	0.75	(1.0)
olv22*	0.25	0.25	0.25	(0.0)
olv23*	0.75	0.75	0.75	(1.0)
olv24*	0.25	0.25	0.25	(0.0)
olv25*	0.75	0.75	0.75	(1.0)
olv26*	0.25	0.25	0.25	(0.0)
olv27*	0.75	0.75	0.75	(1.0)
olv28*	0.25	0.25	0.25	(0.0)
olv29*	0.75	0.75	0.75	(1.0)
olv30*	0.25	0.25	0.25	(0.0)
olv31*	0.75	0.75	0.75	(1.0)
olv32*	0.25	0.25	0.25	(0.0)
olv33*	0.75	0.75	0.75	(1.0)
olv34*	0.25	0.25	0.25	(0.0)
olv35*	0.75	0.75	0.75	(1.0)
olv36*	0.25	0.25	0.25	(0.0)
olv37*	0.75	0.75	0.75	(1.0)
olv38*	0.25	0.25	0.25	(0.0)
olv39*	0.75	0.75	0.75	(1.0)
olv40*	0.25	0.25	0.25	(0.0)
olv41*	0.75	0.75	0.75	(1.0)
olv42*	0.25	0.25	0.25	(0.0)
olv43*	0.75	0.75	0.75	(1.0)
olv44*	0.25	0.25	0.25	(0.0)
olv45*	0.75	0.75	0.75	(1.0)
olv46*	0.25	0.25	0.25	(0.0)
olv47*	0.75	0.75	0.75	(1.0)
olv48*	0.25	0.25	0.25	(0.0)
olv49*	0.75	0.75	0.75	(1.0)
olv50*	0.25	0.25	0.25	(0.0)
olv51*	0.75	0.75	0.75	(1.0)
olv52*	0.25	0.25	0.25	(0.0)
olv53*	0.75	0.75	0.75	(1.0)
olv54*	0.25	0.25	0.25	(0.0)
olv55*	0.75	0.75	0.75	(1.0)
olv56*	0.25	0.25	0.25	(0.0)
olv57*	0.75	0.75	0.75	(1.0)
olv58*	0.25	0.25	0.25	(0.0)
olv59*	0.75	0.75	0.75	(1.0)
olv60*	0.25	0.25	0.25	(0.0)
olv61*	0.75	0.75	0.75	(1.0)
olv62*	0.25	0.25	0.25	(0.0)
olv63*	0.75	0.75	0.75	(1.0)
olv64*	0.25	0.25	0.25	(0.0)
olv65*	0.75	0.75	0.75	(1.0)
olv66*	0.25	0.25	0.25	(0.0)
olv67*	0.75	0.75	0.75	(1.0)
olv68*	0.25	0.25	0.25	(0.0)
olv69*	0.75	0.75	0.75	(1.0)
olv70*	0.25	0.25	0.25	(0.0)
olv71*	0.75	0.75	0.75	(1.0)
olv72*	0.25	0.25	0.25	(0.0)
olv73*	0.75	0.75	0.75	(1.0)
olv74*	0.25	0.25	0.25	(0.0)
olv75*	0.75	0.75	0.75	(1.0)
olv76*	0.25	0.25	0.25	(0.0)
olv77*	0.75	0.75	0.75	(1.0)
olv78*	0.25	0.25	0.25	(0.0)
olv79*	0.75	0.75	0.75	(1.0)
olv80*	0.25	0.25	0.25	(0.0)
olv81*	0.75	0.75	0.75	(1.0)
olv82*	0.25	0.25	0.25	(0.0)
olv83*	0.75	0.75	0.75	(1.0)
olv84*	0.25	0.25	0.25	(0.0)
olv85*	0.75	0.75	0.75	(1.0)
olv86*	0.25	0.25	0.25	(0.0)
olv87*	0.75	0.75	0.75	(1.0)
olv88*	0.25	0.25	0.25	(0.0)
olv89*	0.75	0.75	0.75	(1.0)
olv90*	0.25	0.25	0.25	(0.0)
olv91*	0.75	0.75	0.75	(1.0)
olv92*	0.25	0.25	0.25	(0.0)
olv93*	0.75	0.75	0.75	(1.0)
olv94*	0.25	0.25	0.25	(0.0)
olv95*	0.75	0.75	0.75	(1.0)
olv96*	0.25	0.25	0.25	(0.0)
olv97*	0.75	0.75	0.75	(1.0)
olv98*	0.25	0.25	0.25	(0.0)
olv99*	0.75	0.75	0.75	(1.0)
olv100*	0.25	0.25	0.25	(0.0)

LAB*ICHd 87.5 13.33 303.0

relative CIELAB lab*

lab*lab	0.775	0.143	-0.204
lab*tch	0.875	0.25	0.847
lab*ncb	0.0	0.25	0.847

relative Natural Colour (NC)

lab*lrj	0.775	0.112	-0.222
lab*tce	0.875	0.25	0.824
lab*nce	0.0	0.25	0.824

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 354/360 = 0.982$

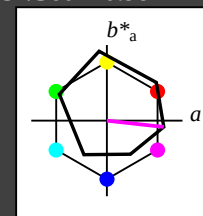
lab^*tch and lab^*nch

A: hue M

LCH*Ma: 48 76 354

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



ORS18; adapted (a) 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

%Regularity

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

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

$n^* = 0.00$

$n^* = 0.25$

blackness n^*

$n^* = 0.50$

$n^* = 1.0$

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 328/360 = 0.912$

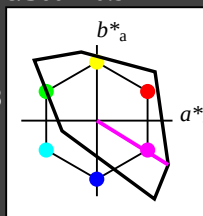
lab^*tch and lab^*nch

A: hue M

LCH*Ma: 57 111 328

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L_a^*$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

$n^* = 0.00$

$n^* = 0.25$

blackness n^*

$n^* = 0.50$

$n^* = 1.0$

chromaticness c^*

RE500-7, 5 step scales for constant CIELAB hue 354/360 = 0.982 (left)

5 step scales for constant CIELAB hue 328/360 = 0.912 (right)

BAM-test chart RE50; Colorimetric systems ORS18 & TLS00

A: 2 coordinate data of 5 step colour scales for 10 hues

input: $olv^* setrgbcolor$

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

Input: Colorimetric Offset Reflective System ORS18

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

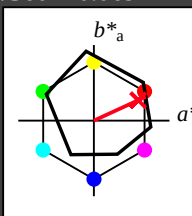
lab^*tch and lab^*nch

A: hue R

LCH*Ma: 48 75 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

ORS18; adapted (a) 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

%Regularity

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

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

1.00

0.75

$n^* = 0.00$

0.25

$n^* = 0.25$

blackness n^*

$n^* = 0.50$

0.75

1.00

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 25/360 = 0.071$

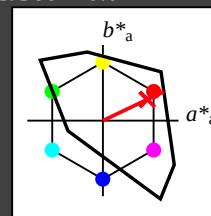
lab^*tch and lab^*nch

A: hue R

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

1.00

0.75

$n^* = 0.00$

0.25

$n^* = 0.25$

blackness n^*

$n^* = 0.50$

0.75

1.00

chromaticness c^*

RE500-7, 5 step scales for constant CIELAB hue 25/360 = 0.069 (left)

5 step scales for constant CIELAB hue 25/360 = 0.071 (right)

BAM-test chart RE50; Colorimetric systems ORS18 & TLS00

A: 2 coordinate data of 5 step colour scales for 10 hues

input: `olv* setrgbcolor`

output: `olv* setrgbcolor / w* setgray`

BAM material: code=rh4ta

Input: Colorimetric Offset Reflective System ORS18

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

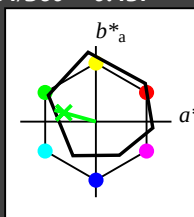
lab^*tch and lab^*nch

A: hue G

LCH*Ma: 53 57 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

ORS18; adapted (a) 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

% Regularity

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

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

relative Inform. Technology (IT)				
olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0
standard and adapted CIELAB				
LAB*LAB	95.41	-0.98	4.75	
LAB*LABa	95.41	0.0	0.0	

relative Inform. Technology (IT)				
olvi3*	0.75	1.0	0.812	(1.0)
cmyn3*	0.25	0.0	0.188	(0.0)
olvi4*	0.75	1.0	0.812	1.0
cmyn4*	0.25	0.0	0.188	0.0
standard and adapted CIELAB				
LAB*LAB	84.75	-14.48	7.85	
LAB*LABa	84.75	-13.69	3.81	

LAB*TCHa	87.5	14.22	164.46
relative CIELAB lab*			
lab*lab	0.862	-0.24	0.067
lab*tch	0.875	0.25	0.457
lab*ncb	0.0	0.25	0.457
relative Natural Colour (NC)			
lab*lrj	0.862	-0.249	0.0
lab*tce	0.875	0.25	0.5
lab*nce	0.0	0.25	g00b

Input: Colorimetric Offset Reflective System ORS18

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

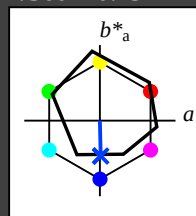
lab^*tch and lab^*nch

A: hue B

LCH*Ma: 42 45 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

ORS18; adapted (a) 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

% Regularity

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

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

relative Inform. Technology (IT)		
olv3*	1.0	1.0
olv4*	0.0	0.0
olv5*	0.0	0.0
olv6*	0.0	0.0
olv7*	0.0	0.0
olv8*	0.0	0.0
olv9*	0.0	0.0
olv10*	0.0	0.0
olv11*	0.0	0.0
olv12*	0.0	0.0
olv13*	0.0	0.0
olv14*	0.0	0.0
olv15*	0.0	0.0
olv16*	0.0	0.0
olv17*	0.0	0.0
olv18*	0.0	0.0
olv19*	0.0	0.0
olv20*	0.0	0.0
olv21*	0.0	0.0
olv22*	0.0	0.0
olv23*	0.0	0.0
olv24*	0.0	0.0
olv25*	0.0	0.0
olv26*	0.0	0.0
olv27*	0.0	0.0
olv28*	0.0	0.0
olv29*	0.0	0.0
olv30*	0.0	0.0
olv31*	0.0	0.0
olv32*	0.0	0.0
olv33*	0.0	0.0
olv34*	0.0	0.0
olv35*	0.0	0.0
olv36*	0.0	0.0
olv37*	0.0	0.0
olv38*	0.0	0.0
olv39*	0.0	0.0
olv40*	0.0	0.0
olv41*	0.0	0.0
olv42*	0.0	0.0
olv43*	0.0	0.0
olv44*	0.0	0.0
olv45*	0.0	0.0
olv46*	0.0	0.0
olv47*	0.0	0.0
olv48*	0.0	0.0
olv49*	0.0	0.0
olv50*	0.0	0.0
olv51*	0.0	0.0
olv52*	0.0	0.0
olv53*	0.0	0.0
olv54*	0.0	0.0
olv55*	0.0	0.0
olv56*	0.0	0.0
olv57*	0.0	0.0
olv58*	0.0	0.0
olv59*	0.0	0.0
olv60*	0.0	0.0
olv61*	0.0	0.0
olv62*	0.0	0.0
olv63*	0.0	0.0
olv64*	0.0	0.0
olv65*	0.0	0.0
olv66*	0.0	0.0
olv67*	0.0	0.0
olv68*	0.0	0.0
olv69*	0.0	0.0
olv70*	0.0	0.0
olv71*	0.0	0.0
olv72*	0.0	0.0
olv73*	0.0	0.0
olv74*	0.0	0.0
olv75*	0.0	0.0
olv76*	0.0	0.0
olv77*	0.0	0.0
olv78*	0.0	0.0
olv79*	0.0	0.0
olv80*	0.0	0.0
olv81*	0.0	0.0
olv82*	0.0	0.0
olv83*	0.0	0.0
olv84*	0.0	0.0
olv85*	0.0	0.0
olv86*	0.0	0.0
olv87*	0.0	0.0
olv88*	0.0	0.0
olv89*	0.0	0.0
olv90*	0.0	0.0
olv91*	0.0	0.0
olv92*	0.0	0.0
olv93*	0.0	0.0
olv94*	0.0	0.0
olv95*	0.0	0.0
olv96*	0.0	0.0
olv97*	0.0	0.0
olv98*	0.0	0.0
olv99*	0.0	0.0
olv100*	0.0	0.0

relative Inform. Technology (IT)		
olv3*	0.75	0.75
olv4*	0.25	0.25
olv5*	0.0	0.0
olv6*	0.0	0.0
olv7*	0.0	0.0
olv8*	0.0	0.0
olv9*	0.0	0.0
olv10*	0.0	0.0
olv11*	0.0	0.0
olv12*	0.0	0.0
olv13*	0.0	0.0
olv14*	0.0	0.0
olv15*	0.0	0.0
olv16*	0.0	0.0
olv17*	0.0	0.0
olv18*	0.0	0.0
olv19*	0.0	0.0
olv20*	0.0	0.0
olv21*	0.0	0.0
olv22*	0.0	0.0
olv23*	0.0	0.0
olv24*	0.0	0.0
olv25*	0.0	0.0
olv26*	0.0	0.0
olv27*	0.0	0.0
olv28*	0.0	0.0
olv29*	0.0	0.0
olv30*	0.0	0.0
olv31*	0.0	0.0
olv32*	0.0	0.0
olv33*	0.0	0.0
olv34*	0.0	0.0
olv35*	0.0	0.0
olv36*	0.0	0.0
olv37*	0.0	0.0
olv38*	0.0	0.0
olv39*	0.0	0.0
olv40*	0.0	0.0
olv41*	0.0	0.0
olv42*	0.0	0.0
olv43*	0.0	0.0
olv44*	0.0	0.0
olv45*	0.0	0.0
olv46*	0.0	0.0
olv47*	0.0	0.0
olv48*	0.0	0.0
olv49*	0.0	0.0
olv50*	0.0	0.0
olv51*	0.0	0.0
olv52*	0.0	0.0
olv53*	0.0	0.0
olv54*	0.0	0.0
olv55*	0.0	0.0
olv56*	0.0	0.0
olv57*	0.0	0.0
olv58*	0.0	0.0
olv59*	0.0	0.0
olv60*	0.0	0.0
olv61*	0.0	0.0
olv62*	0.0	0.0
olv63*	0.0	0.0
olv64*	0.0	0.0
olv65*	0.0	0.0
olv66*	0.0	0.0
olv67*	0.0	0.0
olv68*	0.0	0.0
olv69*	0.0	0.0
olv70*	0.0	0.0
olv71*	0.0	0.0
olv72*	0.0	0.0
olv73*	0.0	0.0
olv74*	0.0	0.0
olv75*	0.0	0.0
olv76*	0.0	0.0
olv77*	0.0	0.0
olv78*	0.0	0.0
olv79*	0.0	0.0
olv80*	0.0	0.0
olv81*	0.0	0.0
olv82*	0.0	0.0
olv83*	0.0	0.0
olv84*	0.0	0.0
olv85*	0.0	0.0
olv86*	0.0	0.0
olv87*	0.0	0.0
olv88*	0.0	0.0
olv89*	0.0	0.0
olv90*	0.0	0.0
olv91*	0.0	0.0
olv92*	0.0	0.0
olv93*	0.0	0.0
olv94*	0.0	0.0
olv95*	0.0	0.0
olv96*	0.0	0.0
olv97*	0.0	0.0
olv98*	0.0	0.0
olv99*	0.0	0.0
olv100*	0.0	0.0

relative Inform. Technology (IT)		
olv3*	0.75	0.75
olv4*	0.25	0.25
olv5*	0.0	0.0
olv6*	0.0	0.0
olv7*	0.0	0.0
olv8*	0.0	0.0
olv9*	0.0	0.0
olv10*	0.0	0.0
olv11*	0.0	0.0
olv12*	0.0	0.0
olv13*	0.0	0.0
olv14*	0.0	0.0
olv15*	0.0	0.0
olv16*	0.0	0.0
olv17*	0.0	0.0
olv18*	0.0	0.0
olv19*	0.0	0.0
olv20*	0.0	0.0
olv21*	0.0	0.0
olv22*	0.0	0.0
olv23*	0.0	0.0
olv24*	0.0	0.0
olv25*	0.0	0.0
olv26*	0.0	0.0
olv27*	0.0	0.0
olv28*	0.0	0.0
olv29*	0.0	0.0
olv30*	0.0	0.0
olv31*	0.0	0.0
olv32*	0.0	0.0
olv33*	0.0	0.0
olv34*	0.0	0.0
olv35*	0.0	0.0
olv36*	0.0	0.0
olv37*	0.0	0.0
olv38*	0.0	0.0
olv39*	0.0	0.0
olv40*	0.0	0.0
olv41*	0.0	0.0
olv42*	0.0	0.0
olv43*	0.0	0.0
olv44*	0.0	0.0
olv45*	0.0	0.0
olv46*	0.0	0.0
olv47*	0.0	0.0
olv48*	0.0	0.0
olv49*	0.0	0.0
olv50*	0.0	0.0
olv51*	0.0	0.0
olv52*	0.0	0.0
olv53*	0.0	0.0
olv54*	0.0	0.0
olv55*	0.0	0.0
olv56*	0.0	0.0
olv57*	0.0	0.0
olv58*	0.0	0.0
olv59*	0.0	0.0
olv60*	0.0	0.0
olv61*	0.0	0.0
olv62*	0.0	0.0
olv63*	0.0	0.0
olv64*	0.0	0.0
olv65*	0.0	0.0
olv66*	0.0	0.0
olv67*	0.0	0.0
olv68*	0.0	0.0
olv69*	0.0	0.0
olv70*	0.0	0.0
olv71*	0.0	0.0
olv72*	0.0	0.0
olv73*	0.0	0.0
olv74*	0.0	0.0
olv75*	0.0	0.0
olv76*	0.0	0.0
olv77*	0.0	0.0
olv78*	0.0	0.0
olv79*	0.0	0.0
olv80*	0.0	0.0
olv81*	0.0	0.0
olv82*	0.0	0.0
olv83*	0.0	0.0
olv84*	0.0	0.0
olv85*	0.0	0.0
olv86*	0.0	0.0
olv87*	0.0	0.0
olv88*	0.0	0.0
olv89*	0.0	0.0
olv90*	0.0	0.0
olv91*	0.0	0.0
olv92*	0.0	0.0
olv93*	0.0	0.0
olv94*	0.0	0.0
olv95*	0.0	0.0
olv96*	0.0	0.0
olv97*	0.0	0.0
olv98*	0.0	0.0
olv99*	0.0	0.0
olv100*	0.0	0.0

relative Inform. Technology (IT)		
olv3*	0.5	0.622 0.75 (1.0)
cmyn3*	0.5	0.378 0.25 (0.0)
olv4*	0.75	0.872 1.0 0.75
cmyn4*	0.25	0.128 0.0 0.25
standard and adapted CIELAB		
LAB*LAB	62.65	-0.07 -8.62
LAB*LABa	62.65	0.27 -11.17