

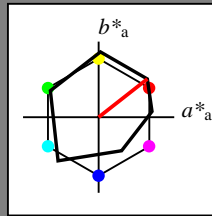
Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 38/360 = 0.106$

lab^*tch and lab^*nch

A: hue O
LCH*Ma: 48 82 38
olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut
 $u^*_{rel} = 96$
%Regularity
 $g^*_{H,rel} = -385$
 $g^*_{C,rel} = 62$

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 95.6 0.43 4.65
LAB*LABa 95.6 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 56.86 0.8 2.08
LAB*LABa 56.86 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 18.12 1.18 -0.49
LAB*LABa 18.12 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

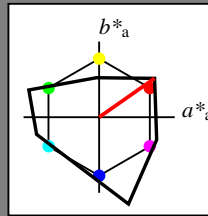
Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 35/360 = 0.097$

lab^*tch and lab^*nch

A: hue O
LCH*Ma: 66 90 35
olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut
 $u^*_{rel} = 141$
%Regularity
 $g^*_{H,rel} = 39$
 $g^*_{C,rel} = 43$

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 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 1.0
cmyn4* 0.0 0.5 0.5 0.0

standard and adapted CIELAB
LAB*LAB 71.77 32.86 28.36
LAB*LABa 71.77 32.2 25.28
LAB*TCHa 75.0 40.94 38.14

relative CIELAB lab*
lab*lab 0.692 0.393 0.309
lab*tch 0.75 0.5 0.106
lab*nch 0.0 0.5 0.106

relative Natural Colour (NC)
lab*lrj 0.692 0.496 0.064
lab*tce 0.75 0.5 0.02
lab*nce 0.0 0.5 r08j

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 1.0 (0.0)
olvi4* 1.0 0.5 0.5 0.5
cmyn4* 0.0 0.5 0.5 0.5

standard and adapted CIELAB
LAB*LAB 33.03 33.24 25.79
LAB*LABa 33.03 32.2 25.28
LAB*TCHa 25.01 40.94 38.14

relative CIELAB lab*
lab*lab 0.193 0.393 0.309
lab*tch 0.25 0.5 0.106
lab*nch 0.5 0.5 0.106

relative Natural Colour (NC)
lab*lrj 0.193 0.496 0.064
lab*tce 0.25 0.5 0.02
lab*nce 0.5 0.5 r08j

$n^* = 0.50$

$n^* = 0.00$
blackness n^*

chromaticness c^*

0.25 0.50 0.75 1.00

relative Inform. Technology (IT)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 1.0
cmyn4* 0.0 0.5 0.5 0.0

standard and adapted CIELAB
LAB*LAB 80.48 36.66 25.69
LAB*LABa 80.48 36.66 25.69
LAB*TCHa 75.0 44.77 35.02

relative CIELAB lab*
lab*lab 0.843 0.409 0.287
lab*tch 0.75 0.5 0.097
lab*nch 0.0 0.5 0.097

relative Natural Colour (NC)
lab*lrj 0.843 0.5 0.007
lab*tce 0.75 0.5 0.002
lab*nce 0.0 0.5 r00j

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 1.0 (0.0)
olvi4* 1.0 0.5 0.5 0.5
cmyn4* 0.0 0.5 0.5 0.5

standard and adapted CIELAB
LAB*LAB 32.79 36.66 25.69
LAB*LABa 32.79 36.66 25.69
LAB*TCHa 25.01 44.77 35.02

relative CIELAB lab*
lab*lab 0.344 0.409 0.287
lab*tch 0.25 0.5 0.097
lab*nch 0.5 0.5 0.097

relative Natural Colour (NC)
lab*lrj 0.344 0.5 0.007
lab*tce 0.25 0.5 0.002
lab*nce 0.5 0.5 r00j

$n^* = 0.00$

blackness n^*

chromaticness c^*

0.25 0.50 0.75 1.00

RE100-7, 3 step scales for constant CIELAB hue 38/360 = 0.106 (left)

3 step scales for constant CIELAB hue 35/360 = 0.097 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$

output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 88/360 = 0.246$

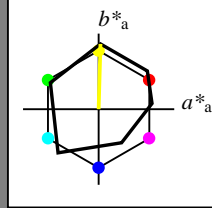
lab^*tch and lab^*nch

A: hue Y

LCH*Ma: 93 86 88

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 95.6, 0.43, 4.65, 95.6, 0.0, 0.0, 99.99, 0.01.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 1.0, 0.0, 0.0, 1.0, 0.0, 0.0, 0.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 1.0, 0.0, 0.0, 1.0, 0.0, 0.0, 1.0, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.5, 1.0, 0.5, 1.0, 0.5, 1.0, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 94.1, 1.65, 47.73, 94.1, 1.21, 43.17, 75.0, 43.19, 88.4.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.981, 0.014, 0.5, 0.75, 0.5, 0.246, 0.0, 0.5, 0.246.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.981, -0.033, 0.499, 0.75, 0.5, 0.261, 0.0, 0.5, j04g.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 1.0, 0.5, 1.0, 0.5, 0.5, 0.0, 0.0, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 56.86, 0.8, 2.08, 56.86, 0.0, 0.0, 50.0, 0.01.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.5, 0.0, 0.0, 0.5, 0.0, 0.0, 0.5, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.5, 0.0, 0.0, 0.5, 0.0, 0.0, 0.5, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.0, 1.0, 0.5, 1.0, 0.5, 0.5, 0.0, 0.0, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 55.37, 2.02, 45.16, 55.37, 1.21, 43.17, 25.01, 43.19, 88.4.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.481, 0.014, 0.5, 0.25, 0.5, 0.246, 0.5, 0.5, 0.246.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.481, -0.033, 0.499, 0.25, 0.5, 0.261, 0.5, 0.5, j04g.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 0.0, 1.0, 1.0, 1.0, 0.0, 0.0, 0.0, 0.0, 1.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 18.12, 1.18, -0.49, 18.12, 0.0, 0.0, 0.01, 0.01.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 1.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 1.0, 0.0, 0.0.

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 94/360 = 0.261$

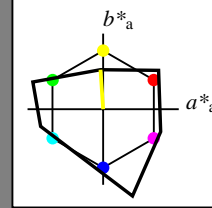
lab^*tch and lab^*nch

A: hue Y

LCH*Ma: 95 52 94

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 95.41, 0.0, 0.0, 95.41, 0.0, 0.0, 99.99, 0.01.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 1.0, 0.0, 0.0, 1.0, 0.0, 0.0, 0.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 1.0, 0.0, 0.0, 1.0, 0.0, 0.0, 1.0, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.5, 1.0, 0.5, 1.0, 0.5, 1.0, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 95.09, -1.74, 26.11, 95.09, -1.74, 26.11, 75.0, 26.17, 93.83.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.997, -0.032, 0.499, 0.75, 0.5, 0.261, 0.0, 0.5, 0.261.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.997, -0.083, 0.493, 0.75, 0.5, 0.277, 0.0, 0.5, j10g.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 1.0, 0.5, 1.0, 0.5, 0.5, 0.0, 0.0, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 47.72, 0.0, 0.0, 47.72, 0.0, 0.0, 50.0, 0.01.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.5, 0.0, 0.0, 0.5, 0.0, 0.0, 0.5, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.5, 0.0, 0.0, 0.5, 0.0, 0.0, 0.5, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 1.0, 0.0, 1.0, 0.0, 1.0, 0.0, 1.0, 0.0, 0.0, 1.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 94.77, -3.49, 52.23, 94.77, -3.49, 52.23, 50.0, 52.35, 93.83.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.993, -0.066, 0.998, 0.5, 1.0, 0.261, 0.0, 1.0, 0.261.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*ncE and values 0.993, -0.167, 0.986, 0.5, 1.0, 0.277, 0.0, 1.0, j10g.

$n^* = 0.00$

$n^* = 0.00$
blackness n^*

chromaticness c^*

$n^* = 0.00$
blackness n^*

chromaticness c^*

RE10-7, 3 step scales for constant CIELAB hue 88/360 = 0.246 (left)

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

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: olv* setrgbcolor

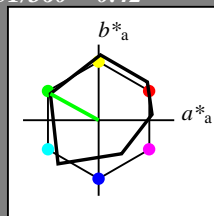
output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 151/360 = 0.42$
 lab^*tch and lab^*nch

A: hue L
LCH*Ma: 51 73 151
olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	64.42	50.58	81.9	38
YMa	92.62	2.41	86.36	86.39	88
LMa	50.9	-63.82	35.02	72.81	151
CMa	51.25	-53.68	-57.69	78.82	227
VMa	25.72	30.34	-44.37	53.76	304
MMa	56.25	70.59	7.57	70.99	6
NMa	18.11	0.0	0.0	0.0	0
WMa	95.6	0.0	0.0	0.0	0
RCIE	47.79	60.85	41.08	73.41	34
JCIE	83.82	6.52	66.9	67.22	84
GCIE	49.0	-36.83	2.78	36.95	176
BCIE	25.14	-18.35	-56.22	59.15	252

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

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 95.6 0.43 4.65
LAB*LABa 95.6 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 1.0 0.5 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olvi4* 0.5 1.0 0.5 1.0
cmyn4* 0.5 0.0 0.5 0.0

standard and adapted CIELAB
LAB*LAB 73.25 -31.25 20.68
LAB*LABa 73.25 -31.9 17.51
LAB*TCHa 75.0 36.4 151.25

relative CIELAB lab*
lab*lab 0.712 -0.437 0.24
lab*tch 0.75 0.5 0.42
lab*nch 0.0 0.5 0.42

relative Natural Colour (NC)
lab*lrj 0.712 -0.455 0.204
lab*tce 0.75 0.5 0.433
lab*nce 0.0 0.5 0.173g

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 56.86 0.8 2.08
LAB*LABa 56.86 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olvi4* 0.5 1.0 0.5 0.5
cmyn4* 0.5 0.0 0.5 0.5

standard and adapted CIELAB
LAB*LAB 34.51 -30.88 18.11
LAB*LABa 34.51 -31.9 17.51
LAB*TCHa 25.01 36.4 151.25

relative CIELAB lab*
lab*lab 0.212 -0.437 0.24
lab*tch 0.25 0.5 0.42
lab*nch 0.5 0.5 0.42

relative Natural Colour (NC)
lab*lrj 0.212 -0.455 0.204
lab*tce 0.25 0.5 0.433
lab*nce 0.5 0.5 0.173g

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 18.12 1.18 -0.49
LAB*LABa 18.12 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

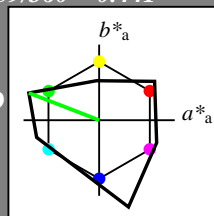
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 159/360 = 0.441$
 lab^*tch and lab^*nch

A: hue L
LCH*Ma: 77 100 159
olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	65.56	73.34	51.39	89.55	35
YMa	94.78	-3.49	52.24	52.36	94
LMa	77.48	-92.97	36.0	99.71	159
CMa	78.36	-82.69	-22.74	85.77	195
VMa	12.55	38.81	-114.81	121.2	289
MMa	66.71	76.08	-29.8	81.71	339
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	47.79	61.74	42.56	74.99	35
JCIE	83.82	7.06	70.78	71.13	84
GCIE	49.0	-35.95	4.34	36.22	173
BCIE	25.14	-17.24	-56.24	58.84	253

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

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 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 1.0 0.5 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olvi4* 0.5 1.0 0.5 1.0
cmyn4* 0.5 0.0 0.5 0.0

standard and adapted CIELAB
LAB*LAB 86.44 -46.47 18.0
LAB*LABa 86.44 -46.47 18.0
LAB*TCHa 75.0 49.84 158.83

relative CIELAB lab*
lab*lab 0.906 -0.465 0.18
lab*tch 0.75 0.5 0.441
lab*nch 0.0 0.5 0.441

relative Natural Colour (NC)
lab*lrj 0.906 -0.483 0.125
lab*tce 0.75 0.5 0.46
lab*nce 0.0 0.5 0.183g

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olvi4* 0.5 1.0 0.5 0.5
cmyn4* 0.5 0.0 0.5 0.5

standard and adapted CIELAB
LAB*LAB 38.75 -46.47 18.0
LAB*LABa 38.75 -46.47 18.0
LAB*TCHa 25.01 49.84 158.83

relative CIELAB lab*
lab*lab 0.406 -0.465 0.18
lab*tch 0.25 0.5 0.441
lab*nch 0.5 0.5 0.441

relative Natural Colour (NC)
lab*lrj 0.406 -0.483 0.125
lab*tce 0.25 0.5 0.46
lab*nce 0.5 0.5 0.183g

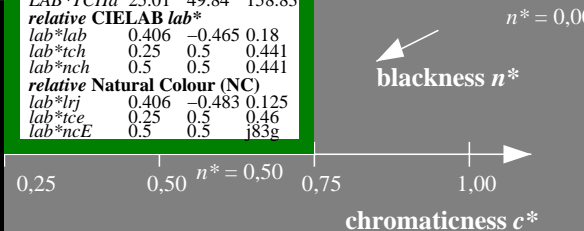
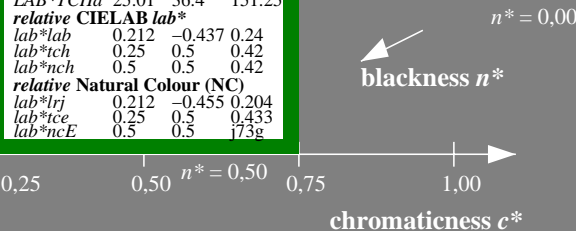
relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$



RE10-7, 3 step scales for constant CIELAB hue 151/360 = 0.42 (left)

3 step scales for constant CIELAB hue 159/360 = 0.441 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*

output: *Startup (S) data dependend*

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 227/360 = 0.631$

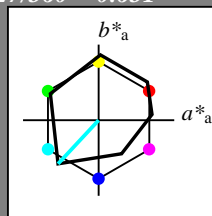
lab^*tch and lab^*nch

A: hue C

LCH*Ma: 51 79 227

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 95.6 0.43 4.65 LAB*LABa 95.6 0.0 0.0 LAB*TCHa 99.99 0.01 -

relative CIELAB lab* lab*lab 1.0 0.0 0.0 lab*tch 1.0 0.0 - lab*nch 0.0 0.0 -

relative Natural Colour (NC) lab*lrj 1.0 0.0 0.0 lab*tce 1.0 0.0 - lab*nce 0.0 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 0.5.

standard and adapted CIELAB LAB*LAB 56.86 0.8 2.08 LAB*LABa 56.86 0.0 0.0 LAB*TCHa 50.0 0.01 -

relative CIELAB lab* lab*lab 0.5 0.0 0.0 lab*tch 0.5 0.0 - lab*nch 0.5 0.0 -

relative Natural Colour (NC) lab*lrj 0.5 0.0 0.0 lab*tce 0.5 0.0 - lab*nce 0.5 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 0.0, 0.0.

standard and adapted CIELAB LAB*LAB 18.12 1.18 -0.49 LAB*LABa 18.12 0.0 0.0 LAB*TCHa 0.01 0.01 -

relative CIELAB lab* lab*lab 0.0 0.0 0.0 lab*tch 0.0 0.0 - lab*nch 1.0 0.0 -

relative Natural Colour (NC) lab*lrj 0.0 0.0 0.0 lab*tce 0.0 0.0 - lab*nce 1.0 0.0 -

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 195/360 = 0.543$

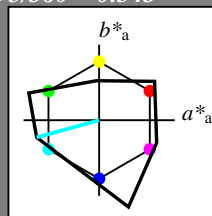
lab^*tch and lab^*nch

A: hue C

LCH*Ma: 78 86 195

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 95.41 0.0 0.0 LAB*LABa 95.41 0.0 0.0 LAB*TCHa 99.99 0.01 -

relative CIELAB lab* lab*lab 1.0 0.0 0.0 lab*tch 1.0 0.0 - lab*nch 0.0 0.0 -

relative Natural Colour (NC) lab*lrj 1.0 0.0 0.0 lab*tce 1.0 0.0 - lab*nce 0.0 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 0.5.

standard and adapted CIELAB LAB*LAB 47.72 0.0 0.0 LAB*LABa 47.72 0.0 0.0 LAB*TCHa 50.0 0.01 -

relative CIELAB lab* lab*lab 0.5 0.0 0.0 lab*tch 0.5 0.0 - lab*nch 0.5 0.0 -

relative Natural Colour (NC) lab*lrj 0.5 0.0 0.0 lab*tce 0.5 0.0 - lab*nce 0.5 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 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*TCHa 0.01 0.01 -

relative CIELAB lab* lab*lab 0.0 0.0 0.0 lab*tch 0.0 0.0 - lab*nch 1.0 0.0 -

relative Natural Colour (NC) lab*lrj 0.0 0.0 0.0 lab*tce 0.0 0.0 - lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 1.0, 1.0, 1.0.

standard and adapted CIELAB LAB*LAB 73.42 -26.18 -25.65 LAB*LABa 73.42 -26.83 -28.84 LAB*TCHa 75.0 39.4 227.06

relative CIELAB lab* lab*lab 0.714 -0.34 -0.365 lab*tch 0.75 0.5 0.631 lab*nch 0.0 0.5 0.631

relative Natural Colour (NC) lab*lrj 0.714 -0.244 -0.435 lab*tce 0.75 0.5 0.668 lab*nce 0.0 0.5 0.676

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.5, 0.5, 0.5.

standard and adapted CIELAB LAB*LAB 34.68 -25.81 -28.22 LAB*LABa 34.68 -26.83 -28.84 LAB*TCHa 25.01 39.4 227.06

relative CIELAB lab* lab*lab 0.214 -0.34 -0.365 lab*tch 0.25 0.5 0.631 lab*nch 0.5 0.5 0.631

relative Natural Colour (NC) lab*lrj 0.214 -0.244 -0.435 lab*tce 0.25 0.5 0.668 lab*nce 0.5 0.5 0.676

$n^* = 0.50$

blackness n^*

chromaticness c^*

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 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*TCHa 50.0 0.01 -

relative CIELAB lab* lab*lab 0.5 0.0 0.0 lab*tch 0.5 0.0 - lab*nch 0.5 0.0 -

relative Natural Colour (NC) lab*lrj 0.5 0.0 0.0 lab*tce 0.5 0.0 - lab*nce 0.5 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 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*TCHa 0.01 0.01 -

relative CIELAB lab* lab*lab 0.0 0.0 0.0 lab*tch 0.0 0.0 - lab*nch 1.0 0.0 -

relative Natural Colour (NC) lab*lrj 0.0 0.0 0.0 lab*tce 0.0 0.0 - lab*nce 1.0 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 1.0, 1.0, 1.0.

standard and adapted CIELAB LAB*LAB 86.88 -41.33 -11.36 LAB*LABa 86.88 -41.33 -11.36 LAB*TCHa 75.0 42.88 195.38

relative CIELAB lab* lab*lab 0.911 -0.481 -0.132 lab*tch 0.75 0.5 0.543 lab*nch 0.0 0.5 0.543

relative Natural Colour (NC) lab*lrj 0.911 -0.452 -0.211 lab*tce 0.75 0.5 0.57 lab*nce 0.0 0.5 0.276

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.5, 0.5, 0.5.

standard and adapted CIELAB LAB*LAB 39.19 -41.33 -11.36 LAB*LABa 39.19 -41.33 -11.36 LAB*TCHa 25.01 42.88 195.38

relative CIELAB lab* lab*lab 0.411 -0.481 -0.132 lab*tch 0.25 0.5 0.543 lab*nch 0.5 0.5 0.543

relative Natural Colour (NC) lab*lrj 0.411 -0.452 -0.211 lab*tce 0.25 0.5 0.57 lab*nce 0.5 0.5 0.276

$n^* = 0.00$

blackness n^*

chromaticness c^*

RE10-7, 3 step scales for constant CIELAB hue 227/360 = 0.631 (left)

3 step scales for constant CIELAB hue 195/360 = 0.543 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$

output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 304/360 = 0.845$

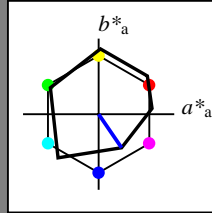
lab^*tch and lab^*nch

A: hue V

LCH*Ma: 26 54 304

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 95.6 0.43 4.65 LAB*LABa 95.6 0.0 0.0 LAB*TCHa 99.99 0.01 -

relative CIELAB lab* lab*lab 1.0 0.0 0.0 lab*tch 1.0 0.0 - lab*nch 0.0 0.0 -

relative Natural Colour (NC) lab*lrj 1.0 0.0 0.0 lab*tce 1.0 0.0 - lab*nce 0.0 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 1.0, 0.5.

standard and adapted CIELAB LAB*LAB 56.86 0.8 2.08 LAB*LABa 56.86 0.0 0.0 LAB*TCHa 50.0 0.01 -

relative CIELAB lab* lab*lab 0.5 0.0 0.0 lab*tch 0.5 0.0 - lab*nch 0.5 0.0 -

relative Natural Colour (NC) lab*lrj 0.5 0.0 0.0 lab*tce 0.5 0.0 - lab*nce 0.5 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 18.12 1.18 -0.49 LAB*LABa 18.12 0.0 0.0 LAB*TCHa 0.01 0.01 -

relative CIELAB lab* lab*lab 0.0 0.0 0.0 lab*tch 0.0 0.0 - lab*nch 1.0 0.0 -

relative Natural Colour (NC) lab*lrj 0.0 0.0 0.0 lab*tce 0.0 0.0 - lab*nce 1.0 0.0 -

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 289/360 = 0.802$

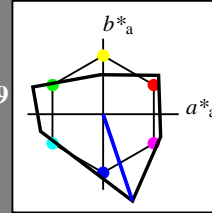
lab^*tch and lab^*nch

A: hue V

LCH*Ma: 13 121 289

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 95.41 0.0 0.0 LAB*LABa 95.41 0.0 0.0 LAB*TCHa 99.99 0.01 -

relative CIELAB lab* lab*lab 1.0 0.0 0.0 lab*tch 1.0 0.0 - lab*nch 0.0 0.0 -

relative Natural Colour (NC) lab*lrj 1.0 0.0 0.0 lab*tce 1.0 0.0 - lab*nce 0.0 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 1.0, 0.5.

standard and adapted CIELAB LAB*LAB 47.72 0.0 0.0 LAB*LABa 47.72 0.0 0.0 LAB*TCHa 50.0 0.01 -

relative CIELAB lab* lab*lab 0.5 0.0 0.0 lab*tch 0.5 0.0 - lab*nch 0.5 0.0 -

relative Natural Colour (NC) lab*lrj 0.5 0.0 0.0 lab*tce 0.5 0.0 - lab*nce 0.5 0.0 -

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 0.03 0.0 0.0 LAB*LABa 0.03 0.0 0.0 LAB*TCHa 0.01 0.01 -

relative CIELAB lab* lab*lab 0.0 0.0 0.0 lab*tch 0.0 0.0 - lab*nch 1.0 0.0 -

relative Natural Colour (NC) lab*lrj 0.0 0.0 0.0 lab*tce 0.0 0.0 - lab*nce 1.0 0.0 -

$n^* = 1.0$

TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 53.98 19.4 -57.39 LAB*LABa 53.98 19.4 -57.39 LAB*TCHa 75.0 60.59 288.68

relative CIELAB lab* lab*lab 0.566 0.16 -0.473 lab*tch 0.75 0.5 0.802 lab*nch 0.0 0.5 0.802

relative Natural Colour (NC) lab*lrj 0.566 0.193 -0.46 lab*tce 0.75 0.5 0.813 lab*nce 0.0 0.5 b25r

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB 12.56 38.8 -114.79 LAB*LABa 12.56 38.8 -114.79 LAB*TCHa 50.0 121.18 288.68

relative CIELAB lab* lab*lab 0.132 0.32 -0.946 lab*tch 0.5 1.0 0.802 lab*nch 0.0 1.0 0.802

relative Natural Colour (NC) lab*lrj 0.132 0.386 -0.921 lab*tce 0.5 1.0 0.813 lab*nce 0.0 1.0 b25r

$n^* = 0.00$

RE100-7, 3 step scales for constant CIELAB hue 304/360 = 0.845 (left)

3 step scales for constant CIELAB hue 289/360 = 0.802 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: olv* setrgbcolor

output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 6/360 = 0.017$

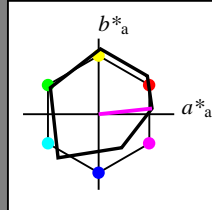
lab^*tch and lab^*nch

A: hue M

LCH*Ma: 56 71 6

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 1.0, 0.5.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 339/360 = 0.941$

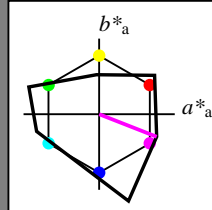
lab^*tch and lab^*nch

A: hue M

LCH*Ma: 67 82 339

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 1.0, 0.5.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

$n^* = 1.0$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.5, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.0, 0.5, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 1.0, 0.5, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.0, 0.5, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.5, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.0, 0.5, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.0, 0.5, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB LAB*LAB, LAB*LABa, LAB*TCHa

relative CIELAB lab* lab*lab, lab*tch, lab*nch

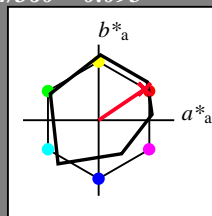
relative Natural Colour (NC) lab*lrj, lab*tce, lab*nce

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 34/360 = 0.095$
 lab^*tch and lab^*nch

A: hue R
LCH*Ma: 49 79 34
olv*Ma: 1.0 0.0 0.15

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	64.42	50.58	81.9	38
YMa	92.62	2.41	86.36	86.39	88
LMa	50.9	-63.82	35.02	72.81	151
CMa	51.25	-53.68	-57.69	78.82	227
VMa	25.72	30.34	-44.37	53.76	304
MMa	56.25	70.59	7.57	70.99	6
NMa	18.11	0.0	0.0	0.0	0
WMa	95.6	0.0	0.0	0.0	0
RCIE	47.79	60.85	41.08	73.41	34
JCIE	83.82	6.52	66.9	67.22	84
GCIE	49.0	-36.83	2.78	36.95	176
BCIE	25.14	-18.35	-56.22	59.15	252

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

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	95.6	0.43	4.65
LAB*LABa	95.6	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	56.86	0.8	2.08
LAB*LABa	56.86	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.12	1.18	-0.49
LAB*LABa	18.12	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.5	0.575	(1.0)
cmyn3*	0.0	0.5	0.425	(0.0)
olvi4*	1.0	0.5	0.575	1.0
cmyn4*	0.0	0.5	0.425	0.0

standard and adapted CIELAB

LAB*LAB	72.39	33.32	25.17
LAB*LABa	72.39	32.67	22.05
LAB*TCHa	75.0	39.41	34.02

relative CIELAB lab*

lab*lab	0.7	0.414	0.28
lab*tch	0.75	0.5	0.095
lab*nch	0.0	0.5	0.095

relative Natural Colour (NC)

lab*lrj	0.7	0.5	0.0
lab*tce	0.75	0.5	1.0
lab*nce	0.0	0.5	b99r

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.075	(1.0)
cmyn3*	0.5	1.0	0.925	(0.0)
olvi4*	1.0	0.5	0.575	0.5
cmyn4*	0.0	0.5	0.425	0.5

standard and adapted CIELAB

LAB*LAB	33.65	33.7	22.6
LAB*LABa	33.65	32.67	22.06
LAB*TCHa	25.01	39.42	34.03

relative CIELAB lab*

lab*lab	0.201	0.414	0.28
lab*tch	0.25	0.5	0.095
lab*nch	0.5	0.5	0.095

relative Natural Colour (NC)

lab*lrj	0.201	0.5	0.0
lab*tce	0.25	0.5	0.0
lab*nce	0.5	0.5	r00j

$n^* = 0.50$



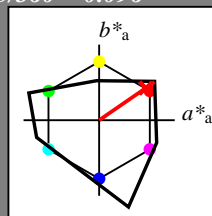
$n^* = 0.00$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 35/360 = 0.096$
 lab^*tch and lab^*nch

A: hue R
LCH*Ma: 66 89 35
olv*Ma: 1.0 0.0 0.01

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	65.56	73.34	51.39	89.55	35
YMa	94.78	-3.49	52.24	52.36	94
LMa	77.48	-92.97	36.0	99.71	159
CMa	78.36	-82.69	-22.74	85.77	195
VMa	12.55	38.81	-114.81	121.2	289
MMa	66.71	76.08	-29.8	81.71	339
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	47.79	61.74	42.56	74.99	35
JCIE	83.82	7.06	70.78	71.13	84
GCIE	49.0	-35.95	4.34	36.22	173
BCIE	25.14	-17.24	-56.24	58.84	253

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

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	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

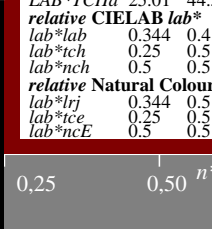
relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$



$n^* = 0.00$

RE10-7, 3 step scales for constant CIELAB hue 34/360 = 0.095 (left)

3 step scales for constant CIELAB hue 35/360 = 0.096 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$

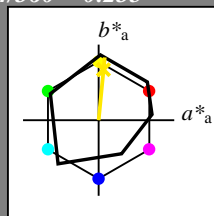
output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 84/360 = 0.235$
 lab^*tch and lab^*nch

A: hue J
LCH*Ma: 89 83 84
olv*Ma: 1.0 0.91 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	64.42	50.58	81.9	38
YMa	92.62	2.41	86.36	86.39	88
LMa	50.9	-63.82	35.02	72.81	151
CMa	51.25	-53.68	-57.69	78.82	227
VMa	25.72	30.34	-44.37	53.76	304
MMa	56.25	70.59	7.57	70.99	6
NMa	18.11	0.0	0.0	0.0	0
WMa	95.6	0.0	0.0	0.0	0
RCIE	47.79	60.85	41.08	73.41	34
JCIE	83.82	6.52	66.9	67.22	84
GCIE	49.0	-36.83	2.78	36.95	176
BCIE	25.14	-18.35	-56.22	59.15	252

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

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	95.6	0.43	4.65
LAB*LABa	95.6	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	56.86	0.8	2.08
LAB*LABa	56.86	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.12	1.18	-0.49
LAB*LABa	18.12	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.954	0.5	(1.0)
cmyn3*	0.0	0.046	0.5	(0.0)
olvi4*	1.0	0.954	0.5	1.0
cmyn4*	0.0	0.046	0.5	0.0

standard and adapted CIELAB

LAB*LAB	92.06	4.5	45.96
LAB*LABa	92.06	4.04	41.54
LAB*TCHa	75.0	41.73	84.45

relative CIELAB lab*

lab*lab	0.954	0.048	0.498
lab*tch	0.75	0.5	0.235
lab*nch	0.0	0.5	0.235

relative Natural Colour (NC)

lab*lrj	0.954	0.0	0.5
lab*tce	0.75	0.5	0.25
lab*nce	0.0	0.5	j00g

relative Inform. Technology (IT)

olvi3*	0.5	0.454	0.0	(1.0)
cmyn3*	0.5	0.546	1.0	(0.0)
olvi4*	1.0	0.954	0.5	0.5
cmyn4*	0.0	0.046	0.5	0.5

standard and adapted CIELAB

LAB*LAB	53.32	4.88	43.38
LAB*LABa	53.32	4.05	41.53
LAB*TCHa	25.01	41.73	84.44

relative CIELAB lab*

lab*lab	0.454	0.048	0.498
lab*tch	0.25	0.5	0.235
lab*nch	0.5	0.5	0.235

relative Natural Colour (NC)

lab*lrj	0.454	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	r99j

$n^* = 0.50$

chromaticness c^*

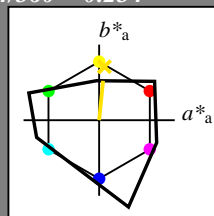
blackness n^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 84/360 = 0.234$
 lab^*tch and lab^*nch

A: hue J
LCH*Ma: 91 52 84
olv*Ma: 1.0 0.89 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	65.56	73.34	51.39	89.55	35
YMa	94.78	-3.49	52.24	52.36	94
LMa	77.48	-92.97	36.0	99.71	159
CMa	78.36	-82.69	-22.74	85.77	195
VMa	12.55	38.81	-114.81	121.2	289
MMa	66.71	76.08	-29.8	81.71	339
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	47.79	61.74	42.56	74.99	35
JCIE	83.82	7.06	70.78	71.13	84
GCIE	49.0	-35.95	4.34	36.22	173
BCIE	25.14	-17.24	-56.24	58.84	253

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

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	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

chromaticness c^*

blackness n^*

RE100-7, 3 step scales for constant CIELAB hue 84/360 = 0.235 (left)

3 step scales for constant CIELAB hue 84/360 = 0.234 (right)

BAM-test chart RE10; Colorimetric systems ORS18 & ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$

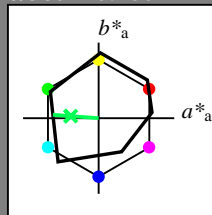
output: Startup (S) data dependend

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 176/360 = 0.488$
 lab^*tch and lab^*nch

A: hue G
 LCH*Ma: 51 61 176
 olv*Ma: 0.0 1.0 0.33

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	64.42	50.58	81.9	38
YMa	92.62	2.41	86.36	86.39	88
LMa	50.9	-63.82	35.02	72.81	151
CMa	51.25	-53.68	-57.69	78.82	227
VMa	25.72	30.34	-44.37	53.76	304
MMa	56.25	70.59	7.57	70.99	6
NMa	18.11	0.0	0.0	0.0	0
WMa	95.6	0.0	0.0	0.0	0
RCIE	47.79	60.85	41.08	73.41	34
JCIE	83.82	6.52	66.9	67.22	84
GCIE	49.0	-36.83	2.78	36.95	176
BCIE	25.14	-18.35	-56.22	59.15	252

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

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 95.6 0.43 4.65
 LAB*LABa 95.6 0.0 0.0
 LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
 lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.5 1.0 0.664 (1.0)
 cmyn3* 0.5 0.0 0.336 (0.0)
 olvi4* 0.5 1.0 0.664 1.0
 cmyn4* 0.5 0.0 0.336 0.0

standard and adapted CIELAB
 LAB*LAB 73.3 -29.59 5.45
 LAB*LABa 73.3 -30.23 2.28
 LAB*TCHa 75.0 30.33 175.69

relative CIELAB lab*
 lab*lab 0.712 -0.497 0.038
 lab*tch 0.75 0.5 0.488
 lab*nch 0.0 0.5 0.488

relative Natural Colour (NC)
 lab*lrj 0.712 -0.499 0.0
 lab*tce 0.75 0.5 0.5
 lab*nce 0.0 0.5 g00b

relative Inform. Technology (IT)
 olvi3* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)
 olvi4* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
 LAB*LAB 56.86 0.8 2.08
 LAB*LABa 56.86 0.0 0.0
 LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
 lab*lab 0.5 0.0 0.0
 lab*tch 0.5 0.0 -
 lab*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.0 0.5 0.164 (1.0)
 cmyn3* 1.0 0.5 0.836 (0.0)
 olvi4* 0.5 1.0 0.664 0.5
 cmyn4* 0.5 0.0 0.336 0.5

standard and adapted CIELAB
 LAB*LAB 34.57 -29.21 2.89
 LAB*LABa 34.57 -30.23 2.29
 LAB*TCHa 25.01 30.33 175.68

relative CIELAB lab*
 lab*lab 0.212 -0.497 0.038
 lab*tch 0.25 0.5 0.488
 lab*nch 0.5 0.5 0.488

relative Natural Colour (NC)
 lab*lrj 0.212 -0.499 0.0
 lab*tce 0.25 0.5 0.5
 lab*nce 0.5 0.5 199g

relative Inform. Technology (IT)
 olvi3* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)
 olvi4* 1.0 1.0 1.0 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
 LAB*LAB 18.12 1.18 -0.49
 LAB*LABa 18.12 0.0 0.0
 LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
 lab*lab 0.0 0.0 0.0
 lab*tch 0.0 0.0 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*nce 1.0 0.0 -

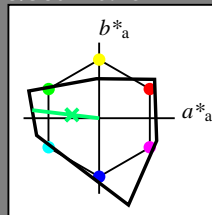
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 173/360 = 0.481$
 lab^*tch and lab^*nch

A: hue G
 LCH*Ma: 78 89 173
 olv*Ma: 0.0 1.0 0.43

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	65.56	73.34	51.39	89.55	35
YMa	94.78	-3.49	52.24	52.36	94
LMa	77.48	-92.97	36.0	99.71	159
CMa	78.36	-82.69	-22.74	85.77	195
VMa	12.55	38.81	-114.81	121.2	289
MMa	66.71	76.08	-29.8	81.71	339
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	47.79	61.74	42.56	74.99	35
JCIE	83.82	7.06	70.78	71.13	84
GCIE	49.0	-35.95	4.34	36.22	173
BCIE	25.14	-17.24	-56.24	58.84	253

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

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 0.0 0.0
 LAB*LABa 95.41 0.0 0.0
 LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
 lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.5 1.0 0.715 (1.0)
 cmyn3* 0.5 0.0 0.285 (0.0)
 olvi4* 0.5 1.0 0.716 1.0
 cmyn4* 0.5 0.0 0.284 0.0

standard and adapted CIELAB
 LAB*LAB 86.63 -44.26 5.34
 LAB*LABa 86.63 -44.26 5.34
 LAB*TCHa 75.0 44.59 173.12

relative CIELAB lab*
 lab*lab 0.908 -0.495 0.06
 lab*tch 0.75 0.5 0.481
 lab*nch 0.0 0.5 0.481

relative Natural Colour (NC)
 lab*lrj 0.908 -0.499 0.0
 lab*tce 0.75 0.5 0.5
 lab*nce 0.0 0.5 g00b

relative Inform. Technology (IT)
 olvi3* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)
 olvi4* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
 LAB*LAB 47.72 0.0 0.0
 LAB*LABa 47.72 0.0 0.0
 LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
 lab*lab 0.5 0.0 0.0
 lab*tch 0.5 0.0 -
 lab*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.0 0.5 0.215 (1.0)
 cmyn3* 1.0 0.5 0.785 (0.0)
 olvi4* 0.5 1.0 0.715 0.5
 cmyn4* 0.5 0.0 0.285 0.5

standard and adapted CIELAB
 LAB*LAB 38.94 -44.26 5.35
 LAB*LABa 38.94 -44.26 5.35
 LAB*TCHa 25.01 44.59 173.11

relative CIELAB lab*
 lab*lab 0.408 -0.495 0.06
 lab*tch 0.25 0.5 0.481
 lab*nch 0.5 0.5 0.481

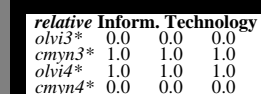
relative Natural Colour (NC)
 lab*lrj 0.408 -0.499 0.0
 lab*tce 0.25 0.5 0.5
 lab*nce 0.5 0.5 199g

$n^* = 0,00$



blackness n^*

chromaticness c^*



blackness n^*

chromaticness c^*

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 252/360 = 0.7$

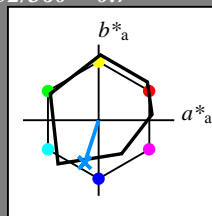
lab^*tch and lab^*nch

A: hue B

LCH*Ma: 40 55 252

olv*Ma: 0.0 0.56 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 95.6, 0.43, 4.65.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 1.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 1.0, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 56.86, 0.8, 2.08.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.5, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.5, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 1.0, 0.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 18.12, 1.18, -0.49.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.0, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.781, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 67.84, -7.76, -23.11.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.642, -0.154, -0.474.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.642, 0.0, -0.499.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.281, 0.5, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 29.1, -7.38, -25.68.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.142, -0.154, -0.474.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.142, 0.0, -0.499.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.563, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 40.09, -15.96, -50.88.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.284, -0.309, -0.949.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.284, 0.0, -0.999.

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 253/360 = 0.703$

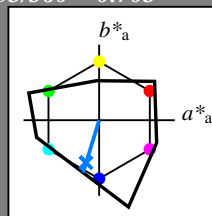
lab^*tch and lab^*nch

A: hue B

LCH*Ma: 45 72 253

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

Table with 6 columns: L*, a*, b*, C*ab,a, h*ab,a. Rows include OMa, YMa, LMa, CMa, VMa, MMa, NMa, WMa, RCIE, JCIE, GCIE, BCIE.

%Gamut

$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 1.0, 0.0, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 95.41, 0.0, 0.0.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 1.0, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 1.0, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.5, 0.5, 0.5.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 47.72, 0.0, 0.0.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.5, 0.0, 0.0.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.5, 0.0, 0.0.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.5, 0.747, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 70.24, -10.62, -34.63.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.736, -0.146, -0.477.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.736, 0.0, -0.499.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.494, 1.0, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 45.08, -21.24, -69.28.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.472, -0.292, -0.955.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.472, 0.0, -0.999.

relative Inform. Technology (IT) table with columns olvi3*, cmyn3*, olvi4*, cmyn4* and values 0.0, 0.247, 0.5, 0.0.

standard and adapted CIELAB table with columns LAB*LAB, LAB*LABa, LAB*TCHa and values 22.55, -10.61, -34.64.

relative CIELAB lab* table with columns lab*lab, lab*tch, lab*nch and values 0.236, -0.145, -0.477.

relative Natural Colour (NC) table with columns lab*lrj, lab*tce, lab*nce and values 0.236, 0.0, -0.499.

