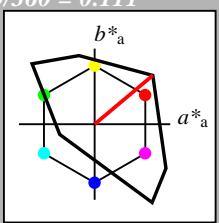


Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 40/360 = 0.111$
 lab^*tch and lab^*nch

D65: hue O
 LCH*Ma: 51 100 40
 olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

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
 $LAB^*LAB 72.95 38.45 32.27$
 $LAB^*LABa 72.95 38.45 32.27$
 $LAB^*TCHa 75.0 50.2 40.0$

relative CIELAB lab*
 $lab^*lab 0.765 0.383 0.321$
 $lab^*tch 0.75 0.5 0.111$
 $lab^*nch 0.0 0.5 0.111$

relative Natural Colour (NC)
 $lab^*lrj 0.765 0.471 0.167$
 $lab^*tce 0.75 0.5 0.054$
 $lab^*nce 0.0 0.5 r21j$

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
 $LAB^*LAB 25.26 38.45 32.27$
 $LAB^*LABa 25.26 38.45 32.27$
 $LAB^*TCHa 25.01 50.2 40.0$

relative CIELAB lab*
 $lab^*lab 0.265 0.383 0.321$
 $lab^*tch 0.25 0.5 0.111$
 $lab^*nch 0.5 0.5 0.111$

relative Natural Colour (NC)
 $lab^*lrj 0.265 0.471 0.167$
 $lab^*tce 0.25 0.5 0.054$
 $lab^*nce 0.5 0.5 r21j$

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

standard and adapted CIELAB
 $LAB^*LAB 50.5 76.9 64.54$
 $LAB^*LABa 50.5 76.9 64.54$
 $LAB^*TCHa 50.0 100.4 40.0$

relative CIELAB lab*
 $lab^*lab 0.529 0.766 0.643$
 $lab^*tch 0.5 1.0 0.111$
 $lab^*nch 0.0 1.0 0.111$

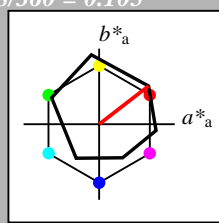
relative Natural Colour (NC)
 $lab^*lrj 0.529 0.942 0.335$
 $lab^*tce 0.5 1.0 0.054$
 $lab^*nce 0.0 1.0 r21j$

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 38/360 = 0.105$
 lab^*tch and lab^*nch

D65: hue O
 LCH*Ma: 48 83 38
 olv*Ma: 1.0 0.0 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	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB 95.41 -0.98 4.75$
 $LAB^*LABa 95.41 0.0 0.0$
 $LAB^*TCHa 99.99 0.01 -$

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
 $LAB^*LAB 56.71 -0.24 2.14$
 $LAB^*LABa 56.71 0.0 0.0$
 $LAB^*TCHa 50.0 0.01 -$

relative CIELAB lab*
 $lab^*lab 0.693 0.396 0.306$
 $lab^*tch 0.75 0.5 0.105$
 $lab^*nch 0.0 0.5 0.105$

relative Natural Colour (NC)
 $lab^*lrj 0.693 0.477 0.15$
 $lab^*tce 0.75 0.5 0.048$
 $lab^*nce 0.0 0.5 r19j$

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
 $LAB^*LAB 32.98 32.9 25.8$
 $LAB^*LABa 32.98 32.69 25.25$
 $LAB^*TCHa 25.01 41.31 37.69$

relative CIELAB lab*
 $lab^*lab 0.193 0.396 0.306$
 $lab^*tch 0.25 0.5 0.105$
 $lab^*nch 0.5 0.5 0.105$

relative Natural Colour (NC)
 $lab^*lrj 0.193 0.477 0.15$
 $lab^*tce 0.25 0.5 0.048$
 $lab^*nce 0.5 0.5 r19j$

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
 $LAB^*LAB 71.67 32.15 28.41$
 $LAB^*LABa 71.67 32.69 25.25$
 $LAB^*TCHa 75.0 41.31 37.69$

relative CIELAB lab*
 $lab^*lab 0.693 0.396 0.306$
 $lab^*tch 0.75 0.5 0.105$
 $lab^*nch 0.0 0.5 0.105$

relative Natural Colour (NC)
 $lab^*lrj 0.693 0.477 0.15$
 $lab^*tce 0.75 0.5 0.048$
 $lab^*nce 0.0 0.5 r19j$

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

standard and adapted CIELAB
 $LAB^*LAB 47.94 65.3 52.06$
 $LAB^*LABa 47.94 65.37 50.51$
 $LAB^*TCHa 50.0 82.61 37.69$

relative CIELAB lab*
 $lab^*lab 0.387 0.791 0.611$
 $lab^*tch 0.5 1.0 0.105$
 $lab^*nch 0.0 1.0 0.105$

relative Natural Colour (NC)
 $lab^*lrj 0.387 0.954 0.299$
 $lab^*tce 0.5 1.0 0.048$
 $lab^*nce 0.0 1.0 r19j$

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
 $LAB^*LAB 32.98 32.9 25.8$
 $LAB^*LABa 32.98 32.69 25.25$
 $LAB^*TCHa 25.01 41.31 37.69$

relative CIELAB lab*
 $lab^*lab 0.193 0.396 0.306$
 $lab^*tch 0.25 0.5 0.105$
 $lab^*nch 0.5 0.5 0.105$

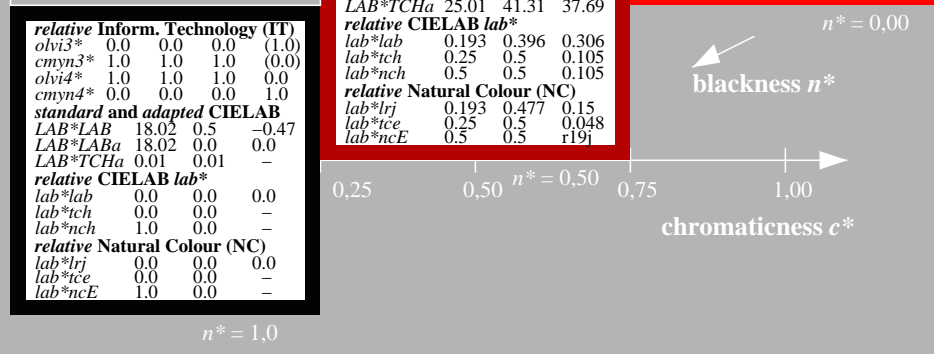
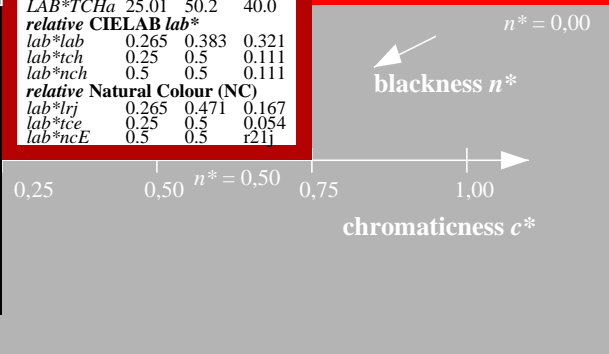
relative Natural Colour (NC)
 $lab^*lrj 0.193 0.477 0.15$
 $lab^*tce 0.25 0.5 0.048$
 $lab^*nce 0.5 0.5 r19j$

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

standard and adapted CIELAB
 $LAB^*LAB 47.94 65.3 52.06$
 $LAB^*LABa 47.94 65.37 50.51$
 $LAB^*TCHa 50.0 82.61 37.69$

relative CIELAB lab*
 $lab^*lab 0.387 0.791 0.611$
 $lab^*tch 0.5 1.0 0.105$
 $lab^*nch 0.0 1.0 0.105$

relative Natural Colour (NC)
 $lab^*lrj 0.387 0.954 0.299$
 $lab^*tce 0.5 1.0 0.048$
 $lab^*nce 0.0 1.0 r19j$



NE150-7, 3 step scales for constant CIELAB hue 40/360 = 0.111 (left)

3 step scales for constant CIELAB hue 38/360 = 0.105 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

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

See for similar files: <http://www.ps.bam.de/NE15/>
 Technical information: <http://www.ps.bam.de>
 Version 2.1, io=1,1, CIELAB

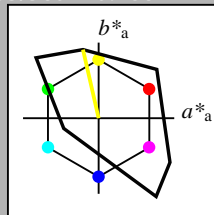
BAM registration: 20060101-NE15/10Q/Q15E00FP.PS/.PDF BAM material: code=rh4ta
 application for evaluation and measurement of printer or monitor systems
 /NE15/ Form: 1/10, Serie: 1/1, Page: 1 Page count: 1

Input: Colorimetric Television Luminous System TLS00

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

D65: hue Y
 LCH*Ma: 93 93 103
 olv*Ma: 1.0 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	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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

standard and adapted CIELAB
 $LAB^*LAB 94.03 -10.34 45.37$
 $LAB^*LABa 94.03 -10.34 45.37$
 $LAB^*TCHa 75.0 46.53 102.85$

relative CIELAB lab*
 $lab^*lab 0.985 -0.11 0.487$
 $lab^*tch 0.75 0.5 0.286$
 $lab^*nch 0.0 0.5 0.286$

relative Natural Colour (NC)
 $lab^*lrj 0.985 -0.116 0.486$
 $lab^*tce 0.75 0.5 0.288$
 $lab^*nce 0.0 0.5 0.15g$

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

standard and adapted CIELAB
 $LAB^*LAB 46.34 -10.34 45.37$
 $LAB^*LABa 46.34 -10.34 45.37$
 $LAB^*TCHa 25.01 46.53 102.85$

relative CIELAB lab*
 $lab^*lab 0.486 -0.11 0.487$
 $lab^*tch 0.25 0.5 0.286$
 $lab^*nch 0.5 0.5 0.286$

relative Natural Colour (NC)
 $lab^*lrj 0.486 -0.116 0.486$
 $lab^*tce 0.25 0.5 0.288$
 $lab^*nce 0.5 0.5 0.15g$

$n^* = 0.50$

$n^* = 0.00$
 blackness n^*

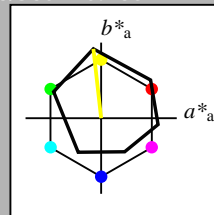
chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue Y
 LCH*Ma: 90 92 96
 olv*Ma: 1.0 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	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB 95.41 -0.98 4.75$
 $LAB^*LABa 95.41 0.0 0.0$
 $LAB^*TCHa 99.99 0.01 -$

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
 $LAB^*LAB 56.71 -0.24 2.14$
 $LAB^*LABa 56.71 0.0 0.0$
 $LAB^*TCHa 50.0 0.01 -$

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

standard and adapted CIELAB
 $LAB^*LAB 92.88 -6.06 50.46$
 $LAB^*LABa 92.88 -5.12 45.87$
 $LAB^*TCHa 75.0 46.15 96.38$

relative CIELAB lab*
 $lab^*lab 0.967 -0.055 0.497$
 $lab^*tch 0.75 0.5 0.268$
 $lab^*nch 0.0 0.5 0.268$

relative Natural Colour (NC)
 $lab^*lrj 0.967 -0.048 0.497$
 $lab^*tce 0.75 0.5 0.266$
 $lab^*nce 0.0 0.5 0.06g$

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

standard and adapted CIELAB
 $LAB^*LAB 54.19 -5.32 47.84$
 $LAB^*LABa 54.19 -5.12 45.87$
 $LAB^*TCHa 25.01 46.15 96.38$

relative CIELAB lab*
 $lab^*lab 0.467 -0.055 0.497$
 $lab^*tch 0.25 0.5 0.268$
 $lab^*nch 0.5 0.5 0.268$

relative Natural Colour (NC)
 $lab^*lrj 0.467 -0.048 0.497$
 $lab^*tce 0.25 0.5 0.266$
 $lab^*nce 0.5 0.5 0.06g$

$n^* = 0.50$

$n^* = 0.00$
 blackness n^*

chromaticness c^*

$n^* = 0.00$
 blackness n^*

chromaticness c^*

$n^* = 1.0$

NE150-7, 3 step scales for constant CIELAB hue 103/360 = 0.286 (left)

3 step scales for constant CIELAB hue 96/360 = 0.268 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

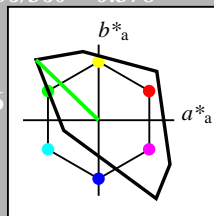
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Television Luminous System TLS00

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

D65: hue L
 LCH*Ma: 84 115 136
 olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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

standard and adapted CIELAB
 $LAB^*LAB 89.51 -41.36 39.94$
 $LAB^*LABa 89.51 -41.36 39.94$
 $LAB^*TCHa 75.0 57.51 136.01$

relative CIELAB lab*
 $lab^*lab 0.938 -0.359 0.347$
 $lab^*tch 0.75 0.5 0.378$
 $lab^*nch 0.0 0.5 0.378$

relative Natural Colour (NC)
 $lab^*lrj 0.938 -0.415 0.278$
 $lab^*tce 0.75 0.5 0.406$
 $lab^*nce 0.0 0.5 0.62g$

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
 $LAB^*LAB 41.82 -41.36 39.94$
 $LAB^*LABa 41.82 -41.36 39.94$
 $LAB^*TCHa 25.01 57.51 136.01$

relative CIELAB lab*
 $lab^*lab 0.438 -0.359 0.347$
 $lab^*tch 0.25 0.5 0.378$
 $lab^*nch 0.5 0.5 0.378$

relative Natural Colour (NC)
 $lab^*lrj 0.438 -0.415 0.278$
 $lab^*tce 0.25 0.5 0.406$
 $lab^*nce 0.5 0.5 0.62g$

$n^* = 0.50$

$n^* = 0.00$

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

standard and adapted CIELAB
 $LAB^*LAB 83.62 -82.73 79.88$
 $LAB^*LABa 83.62 -82.73 79.88$
 $LAB^*TCHa 50.0 115.01 136.01$

relative CIELAB lab*
 $lab^*lab 0.876 -0.718 0.694$
 $lab^*tch 0.5 1.0 0.378$
 $lab^*nch 0.0 1.0 0.378$

relative Natural Colour (NC)
 $lab^*lrj 0.876 -0.83 0.555$
 $lab^*tce 0.5 1.0 0.406$
 $lab^*nce 0.0 1.0 0.62g$

$n^* = 0.00$

$n^* = 0.50$

$n^* = 1.00$

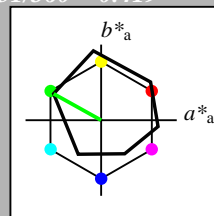
$n^* = 1.0$

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue L
 LCH*Ma: 51 72 151
 olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB 95.41 -0.98 4.75$
 $LAB^*LABa 95.41 0.0 0.0$
 $LAB^*TCHa 99.99 0.01 -$

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
 $LAB^*LAB 56.71 -0.24 2.14$
 $LAB^*LABa 56.71 0.0 0.0$
 $LAB^*TCHa 50.0 0.01 -$

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
 $LAB^*LAB 18.02 0.5 -0.47$
 $LAB^*LABa 18.02 0.0 0.0$
 $LAB^*TCHa 0.01 0.01 -$

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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

$n^* = 1.0$

$n^* = 0.50$

$n^* = 0.00$

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
 $LAB^*LAB 73.15 -31.96 20.73$
 $LAB^*LABa 73.15 -31.4 17.48$
 $LAB^*TCHa 75.0 35.95 150.91$

relative CIELAB lab*
 $lab^*lab 0.712 -0.436 0.243$
 $lab^*tch 0.75 0.5 0.419$
 $lab^*nch 0.0 0.5 0.419$

relative Natural Colour (NC)
 $lab^*lrj 0.712 -0.478 0.144$
 $lab^*tce 0.75 0.5 0.453$
 $lab^*nce 0.0 0.5 0.81g$

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
 $LAB^*LAB 34.46 -31.22 18.12$
 $LAB^*LABa 34.46 -31.4 17.48$
 $LAB^*TCHa 25.01 35.95 150.91$

relative CIELAB lab*
 $lab^*lab 0.213 -0.436 0.243$
 $lab^*tch 0.25 0.5 0.419$
 $lab^*nch 0.5 0.5 0.419$

relative Natural Colour (NC)
 $lab^*lrj 0.213 -0.478 0.144$
 $lab^*tce 0.25 0.5 0.453$
 $lab^*nce 0.5 0.5 0.81g$

$n^* = 0.50$

$n^* = 0.00$

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

standard and adapted CIELAB
 $LAB^*LAB 50.9 -62.95 36.7$
 $LAB^*LABa 50.9 -62.81 34.95$
 $LAB^*TCHa 50.0 71.89 150.91$

relative CIELAB lab*
 $lab^*lab 0.425 -0.873 0.486$
 $lab^*tch 0.5 1.0 0.419$
 $lab^*nch 0.0 1.0 0.419$

relative Natural Colour (NC)
 $lab^*lrj 0.425 -0.956 0.289$
 $lab^*tce 0.5 1.0 0.453$
 $lab^*nce 0.0 1.0 0.81g$

$n^* = 0.00$

$n^* = 0.50$

$n^* = 1.00$

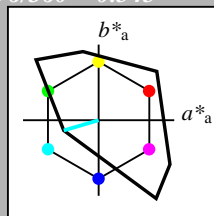
$n^* = 1.0$

Input: Colorimetric Television Luminous System TLS00

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

D65: hue C
 LCH*Ma: 87 48 196
 olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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)
 $olvi3^* \ 0.5 \ 1.0 \ 1.0 \ (1.0)$
 $cmyn3^* \ 0.5 \ 0.0 \ 0.0 \ (0.0)$
 $olvi4^* \ 0.5 \ 1.0 \ 1.0 \ 1.0$
 $cmyn4^* \ 0.5 \ 0.0 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB \ 91.14 \ -23.07 \ -6.77$
 $LAB^*LABa \ 91.14 \ -23.07 \ -6.77$
 $LAB^*TCHa \ 75.0 \ 24.06 \ 196.37$

relative CIELAB lab*
 $lab^*lab \ 0.955 \ -0.479 \ -0.14$
 $lab^*tch \ 0.75 \ 0.5 \ 0.545$
 $lab^*nch \ 0.0 \ 0.5 \ 0.545$

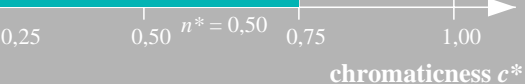
relative Natural Colour (NC)
 $lab^*lrj \ 0.955 \ -0.44 \ -0.234$
 $lab^*tce \ 0.75 \ 0.5 \ 0.578$
 $lab^*nce \ 0.0 \ 0.5 \ g31b$

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

standard and adapted CIELAB
 $LAB^*LAB \ 43.45 \ -23.07 \ -6.77$
 $LAB^*LABa \ 43.45 \ -23.07 \ -6.77$
 $LAB^*TCHa \ 25.01 \ 24.06 \ 196.37$

relative CIELAB lab*
 $lab^*lab \ 0.455 \ -0.479 \ -0.14$
 $lab^*tch \ 0.25 \ 0.5 \ 0.545$
 $lab^*nch \ 0.5 \ 0.5 \ 0.545$

relative Natural Colour (NC)
 $lab^*lrj \ 0.455 \ -0.44 \ -0.234$
 $lab^*tce \ 0.25 \ 0.5 \ 0.578$
 $lab^*nce \ 0.5 \ 0.5 \ g31b$



$n^* = 0.50$

chromaticness c^*

blackness n^*

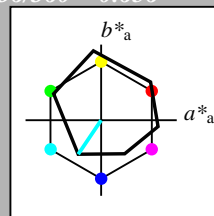
$n^* = 0.00$

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue C
 LCH*Ma: 59 54 236
 olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB \ 95.41 \ -0.98 \ 4.75$
 $LAB^*LABa \ 95.41 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 99.99 \ 0.01 \ -$

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
 $LAB^*LAB \ 56.71 \ -0.24 \ 2.14$
 $LAB^*LABa \ 56.71 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 50.0 \ 0.01 \ -$

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)
 $lab^*lrj \ 0.5 \ 0.0 \ 0.0$
 $lab^*tce \ 0.5 \ 0.0 \ -$
 $lab^*nce \ 0.5 \ 0.0 \ -$

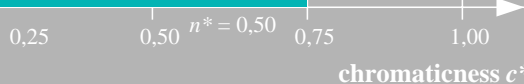
relative Inform. Technology (IT)
 $olvi3^* \ 0.0 \ 0.0 \ 0.0 \ (1.0)$
 $cmyn3^* \ 1.0 \ 1.0 \ 1.0 \ (0.0)$
 $olvi4^* \ 1.0 \ 1.0 \ 1.0 \ 0.0$
 $cmyn4^* \ 0.0 \ 0.0 \ 0.0 \ 1.0$

standard and adapted CIELAB
 $LAB^*LAB \ 18.02 \ 0.5 \ -0.47$
 $LAB^*LABa \ 18.02 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 0.01 \ 0.01 \ -$

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)
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$
 $lab^*tce \ 0.0 \ 0.0 \ -$
 $lab^*nce \ 1.0 \ 0.0 \ -$

$n^* = 1.0$



$n^* = 0.50$

chromaticness c^*

blackness n^*

$n^* = 0.00$

NE150-7, 3 step scales for constant CIELAB hue 196/360 = 0.545 (left)

3 step scales for constant CIELAB hue 236/360 = 0.656 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

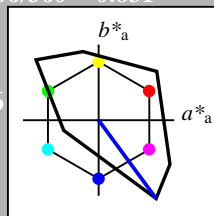
input: $olv^* \ setrgbcolor$
 output: $olv^* \ setrgbcolor / w^* \ setgray$

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 306/360 = 0.851$
 lab^*tch and lab^*nch

D65: hue V
 LCH*Ma: 30 129 306
 olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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

standard and adapted CIELAB

LAB*LAB	62.9	38.02	-51.78
LAB*LABa	62.9	38.02	-51.78
LAB*TCHa	75.0	64.25	306.29

relative CIELAB lab*

lab*lab	0.659	0.296	-0.402
lab*tch	0.75	0.5	0.851
lab*nch	0.0	0.5	0.851

relative Natural Colour (NC)

lab*lrj	0.659	0.23	-0.443
lab*tce	0.75	0.5	0.826
lab*nce	0.0	0.5	b30r

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	15.21	38.02	-51.78
LAB*LABa	15.21	38.02	-51.78
LAB*TCHa	25.01	64.25	306.29

relative CIELAB lab*

lab*lab	0.159	0.296	-0.402
lab*tch	0.25	0.5	0.851
lab*nch	0.5	0.5	0.851

relative Natural Colour (NC)

lab*lrj	0.159	0.23	-0.443
lab*tce	0.25	0.5	0.826
lab*nce	0.5	0.5	b30r

$n^* = 0.50$

$n^* = 1.0$

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	30.39	76.04	-103.5
LAB*LABa	30.39	76.04	-103.5
LAB*TCHa	50.0	128.5	306.29

relative CIELAB lab*

lab*lab	0.318	0.592	-0.805
lab*tch	0.5	1.0	0.851
lab*nch	0.0	1.0	0.851

relative Natural Colour (NC)

lab*lrj	0.318	0.459	-0.887
lab*tce	0.5	1.0	0.826
lab*nce	0.0	1.0	b30r

$n^* = 0.00$

blackness n^*

chromaticness c^*

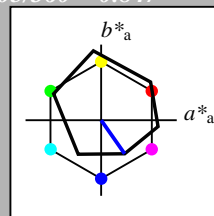
$n^* = 1.0$

Output: Colorimetric Offset Reflective System ORS18

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

D65: 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	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
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	56.71	-0.24	2.14
LAB*LABa	56.71	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	18.02	0.5	-0.47
LAB*LABa	18.02	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*	0.5	0.5	1.0	(1.0)
cmyn3*	0.5	0.5	0.0	(0.0)
olvi4*	0.5	0.5	1.0	1.0
cmyn4*	0.5	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	60.56	15.23	-19.79
LAB*LABa	60.56	15.55	-22.19
LAB*TCHa	75.0	27.1	305.0

relative CIELAB lab*

lab*lab	0.55	0.287	-0.408
lab*tch	0.75	0.5	0.847
lab*nch	0.0	0.5	0.847

relative Natural Colour (NC)

lab*lrj	0.55	0.225	-0.446
lab*tce	0.75	0.5	0.824
lab*nce	0.0	0.5	b29r

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	21.87	15.97	-22.4
LAB*LABa	21.87	15.55	-22.19
LAB*TCHa	25.01	27.1	305.0

relative CIELAB lab*

lab*lab	0.05	0.287	-0.408
lab*tch	0.25	0.5	0.847
lab*nch	0.5	0.5	0.847

relative Natural Colour (NC)

lab*lrj	0.05	0.225	-0.446
lab*tce	0.25	0.5	0.824
lab*nce	0.5	0.5	b29r

$n^* = 0.50$

blackness n^*

chromaticness c^*

$n^* = 1.0$

NE150-7, 3 step scales for constant CIELAB hue 306/360 = 0.851 (left)

3 step scales for constant CIELAB hue 305/360 = 0.847 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

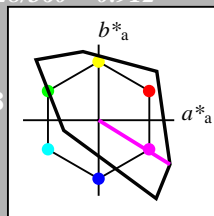
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Television Luminous System TLS00

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

D65: 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	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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)
 $olvi3^* \ 1.0 \ 0.5 \ 1.0 \ (1.0)$
 $cmyn3^* \ 0.0 \ 0.5 \ 0.0 \ (0.0)$
 $olvi4^* \ 1.0 \ 0.5 \ 1.0 \ 1.0$
 $cmyn4^* \ 0.0 \ 0.5 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB \ 76.35 \ 47.17 \ -29.19$
 $LAB^*LABa \ 76.35 \ 47.17 \ -29.19$
 $LAB^*TCHa \ 75.0 \ 55.47 \ 328.23$

relative CIELAB lab*
 $lab^*lab \ 0.8 \ 0.425 \ -0.262$
 $lab^*tch \ 0.75 \ 0.5 \ 0.912$
 $lab^*nch \ 0.0 \ 0.5 \ 0.912$

relative Natural Colour (NC)
 $lab^*lrj \ 0.8 \ 0.352 \ -0.354$
 $lab^*tce \ 0.75 \ 0.5 \ 0.874$
 $lab^*nce \ 0.0 \ 0.5 \ b49r$

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

standard and adapted CIELAB
 $LAB^*LAB \ 28.66 \ 47.17 \ -29.19$
 $LAB^*LABa \ 28.66 \ 47.17 \ -29.19$
 $LAB^*TCHa \ 25.01 \ 55.47 \ 328.23$

relative CIELAB lab*
 $lab^*lab \ 0.3 \ 0.425 \ -0.262$
 $lab^*tch \ 0.25 \ 0.5 \ 0.912$
 $lab^*nch \ 0.5 \ 0.5 \ 0.912$

relative Natural Colour (NC)
 $lab^*lrj \ 0.3 \ 0.352 \ -0.354$
 $lab^*tce \ 0.25 \ 0.5 \ 0.874$
 $lab^*nce \ 0.5 \ 0.5 \ b49r$

$n^* = 0.50$
 $n^* = 0.75$
 $n^* = 1.00$

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

standard and adapted CIELAB
 $LAB^*LAB \ 57.3 \ 94.33 \ -58.4$
 $LAB^*LABa \ 57.3 \ 94.33 \ -58.4$
 $LAB^*TCHa \ 50.0 \ 110.95 \ 328.23$

relative CIELAB lab*
 $lab^*lab \ 0.601 \ 0.85 \ -0.525$
 $lab^*tch \ 0.5 \ 1.0 \ 0.912$
 $lab^*nch \ 0.0 \ 1.0 \ 0.912$

relative Natural Colour (NC)
 $lab^*lrj \ 0.601 \ 0.703 \ -0.71$
 $lab^*tce \ 0.5 \ 1.0 \ 0.874$
 $lab^*nce \ 0.0 \ 1.0 \ b49r$

$n^* = 0.00$
 blackness n^*

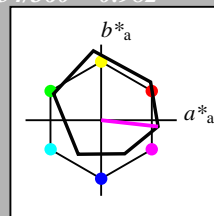
chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

D65: 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	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB \ 95.41 \ -0.98 \ 4.75$
 $LAB^*LABa \ 95.41 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 99.99 \ 0.01 \ -$

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
 $LAB^*LAB \ 56.71 \ -0.24 \ 2.14$
 $LAB^*LABa \ 56.71 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 50.0 \ 0.01 \ -$

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)
 $olvi3^* \ 0.0 \ 0.0 \ 0.0 \ (1.0)$
 $cmyn3^* \ 1.0 \ 1.0 \ 1.0 \ (0.0)$
 $olvi4^* \ 1.0 \ 1.0 \ 1.0 \ 0.0$
 $cmyn4^* \ 0.0 \ 1.0 \ 0.0 \ 1.0$

standard and adapted CIELAB
 $LAB^*LAB \ 18.02 \ 0.5 \ -0.47$
 $LAB^*LABa \ 18.02 \ 0.0 \ 0.0$
 $LAB^*TCHa \ 18.01 \ 0.01 \ -$

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)
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$
 $lab^*tce \ 0.0 \ 0.0 \ -$
 $lab^*nce \ 1.0 \ 0.0 \ -$

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

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

standard and adapted CIELAB
 $LAB^*LAB \ 71.77 \ 37.1 \ -1.01$
 $LAB^*LABa \ 71.77 \ 37.63 \ -4.17$
 $LAB^*TCHa \ 75.0 \ 37.86 \ 353.66$

relative CIELAB lab*
 $lab^*lab \ 0.695 \ 0.497 \ -0.054$
 $lab^*tch \ 0.75 \ 0.5 \ 0.982$
 $lab^*nch \ 0.0 \ 0.5 \ 0.982$

relative Natural Colour (NC)
 $lab^*lrj \ 0.695 \ 0.454 \ -0.208$
 $lab^*tce \ 0.75 \ 0.5 \ 0.932$
 $lab^*nce \ 0.0 \ 0.5 \ b72r$

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

standard and adapted CIELAB
 $LAB^*LAB \ 33.07 \ 37.84 \ -3.62$
 $LAB^*LABa \ 33.07 \ 37.63 \ -4.17$
 $LAB^*TCHa \ 25.01 \ 37.86 \ 353.66$

relative CIELAB lab*
 $lab^*lab \ 0.195 \ 0.497 \ -0.054$
 $lab^*tch \ 0.25 \ 0.5 \ 0.982$
 $lab^*nch \ 0.5 \ 0.5 \ 0.982$

relative Natural Colour (NC)
 $lab^*lrj \ 0.195 \ 0.454 \ -0.208$
 $lab^*tce \ 0.25 \ 0.5 \ 0.932$
 $lab^*nce \ 0.5 \ 0.5 \ b72r$

$n^* = 0.50$
 $n^* = 0.75$
 $n^* = 1.00$

blackness n^*

chromaticness c^*

$n^* = 1.0$

NE150-7, 3 step scales for constant CIELAB hue 328/360 = 0.912 (left)

3 step scales for constant CIELAB hue 354/360 = 0.982 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

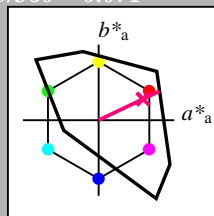
input: $olv^* \ setrgbcolor$
 output: $olv^* \ setrgbcolor / w^* \ setgray$

Input: Colorimetric Television Luminous System TLS00

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

D65: hue R
 LCH*Ma: 52 89 25
 olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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	0.606	(1.0)
cmyn3*	0.0	0.5	0.394	(0.0)
olvi4*	1.0	0.5	0.606	1.0
cmyn4*	0.0	0.5	0.394	0.0

standard and adapted CIELAB

LAB*LAB	73.67	40.3	19.2
LAB*LABa	73.67	40.3	19.2
LAB*TCHa	75.0	44.64	25.47

relative CIELAB lab*

lab*lab	0.772	0.451	0.215
lab*tch	0.75	0.5	0.071
lab*nch	0.0	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.772	0.5	0.0
lab*tce	0.75	0.5	1.0
lab*nce	0.0	0.5	0.999

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.106	(1.0)
cmyn3*	0.5	1.0	0.894	(0.0)
olvi4*	1.0	0.5	0.606	0.5
cmyn4*	0.0	0.5	0.394	0.5

standard and adapted CIELAB

LAB*LAB	25.98	40.3	19.21
LAB*LABa	25.98	40.3	19.21
LAB*TCHa	25.01	44.65	25.49

relative CIELAB lab*

lab*lab	0.272	0.451	0.215
lab*tch	0.25	0.5	0.071
lab*nch	0.5	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.272	0.5	0.0
lab*tce	0.25	0.5	0.0
lab*nce	0.5	0.5	0.009

$n^* = 0.50$

0.25 0.50 0.75 1.00

relative Inform. Technology (IT)

olvi3*	1.0	0.0	0.213	(1.0)
cmyn3*	0.0	1.0	0.787	(0.0)
olvi4*	1.0	0.0	0.213	1.0
cmyn4*	0.0	1.0	0.787	0.0

standard and adapted CIELAB

LAB*LAB	51.94	80.61	38.42
LAB*LABa	51.94	80.61	38.42
LAB*TCHa	50.0	89.29	25.48

relative CIELAB lab*

lab*lab	0.544	0.903	0.43
lab*tch	0.5	1.0	0.071
lab*nch	0.0	1.0	0.071

relative Natural Colour (NC)

lab*lrj	0.544	1.0	0.0
lab*tce	0.5	1.0	0.0
lab*nce	0.0	1.0	0.009

$n^* = 0.00$

blackness n^*

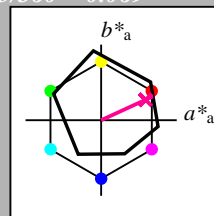
chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue R
 LCH*Ma: 48 75 25
 olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut

$u^*_{rel} = 93$

%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
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	56.71	-0.24	2.14
LAB*LABa	56.71	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*	1.0	0.5	0.661	(1.0)
cmyn3*	0.0	0.5	0.339	(0.0)
olvi4*	1.0	0.5	0.661	1.0
cmyn4*	0.0	0.5	0.339	0.0

standard and adapted CIELAB

LAB*LAB	71.7	33.75	18.92
LAB*LABa	71.7	34.28	15.76
LAB*TCHa	75.0	37.73	24.7

relative CIELAB lab*

lab*lab	0.694	0.454	0.209
lab*tch	0.75	0.5	0.069
lab*nch	0.0	0.5	0.069

relative Natural Colour (NC)

lab*lrj	0.694	0.5	0.0
lab*tce	0.75	0.5	1.0
lab*nce	0.0	0.5	0.999

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.161	(1.0)
cmyn3*	0.5	1.0	0.839	(0.0)
olvi4*	1.0	0.5	0.661	0.5
cmyn4*	0.0	0.5	0.339	0.5

standard and adapted CIELAB

LAB*LAB	33.01	34.49	16.31
LAB*LABa	33.01	34.28	15.77
LAB*TCHa	25.01	37.73	24.7

relative CIELAB lab*

lab*lab	0.194	0.454	0.209
lab*tch	0.25	0.5	0.069
lab*nch	0.5	0.5	0.069

relative Natural Colour (NC)

lab*lrj	0.194	0.5	0.0
lab*tce	0.25	0.5	0.0
lab*nce	0.5	0.5	0.009

$n^* = 0.00$

blackness n^*

chromaticness c^*

$n^* = 1.0$

3 step scales for constant CIELAB hue 25/360 = 0.069 (right)

input: $olv^* setrgbcolor$

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

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18

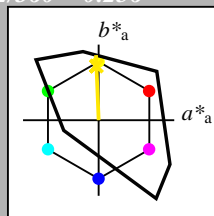
D65: 2 coordinate data of 3 step colour scales for 10 hues

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 92/360 = 0.256$
 lab^*tch and lab^*nch

D65: hue J
 LCH*Ma: 85 86 92
 olv*Ma: 1.0 0.82 0.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 -

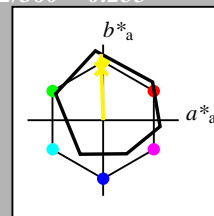
$n^* = 1.0$

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue J
 LCH*Ma: 86 88 92
 olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut

$u^*_{rel} = 93$

%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
 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 56.71 -0.24 2.14
 LAB*LABa 56.71 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* 1.0 0.951 0.5 (1.0)
 cmyn3* 0.0 0.049 0.5 (0.0)
 olvi4* 1.0 0.951 0.5 1.0
 cmyn4* 0.0 0.049 0.5 0.0

standard and adapted CIELAB
 LAB*LAB 90.8 -2.3 48.29
 LAB*LABa 90.8 -1.4 43.84
 LAB*TCHa 75.0 43.86 91.85

relative CIELAB lab*
 lab*lab 0.94 -0.015 0.5
 lab*tch 0.75 0.5 0.255
 lab*nch 0.0 0.5 0.255

relative Natural Colour (NC)
 lab*lrj 0.94 0.0 0.5
 lab*tce 0.75 0.5 0.25
 lab*nce 0.0 0.5 j00g

relative Inform. Technology (IT)
 olvi3* 1.0 0.901 0.0 (1.0)
 cmyn3* 0.0 0.099 1.0 (0.0)
 olvi4* 1.0 0.902 0.0 1.0
 cmyn4* 0.0 0.098 1.0 0.0

standard and adapted CIELAB
 LAB*LAB 86.19 -3.62 91.81
 LAB*LABa 86.19 -2.81 87.67
 LAB*TCHa 50.0 87.72 91.84

relative CIELAB lab*
 lab*lab 0.881 -0.031 0.999
 lab*tch 0.5 1.0 0.255
 lab*nch 0.0 1.0 0.255

relative Natural Colour (NC)
 lab*lrj 0.881 0.0 1.0
 lab*tce 0.5 1.0 0.25
 lab*nce 0.0 1.0 j00g

relative Inform. Technology (IT)
 olvi3* 0.5 0.451 0.0 (1.0)
 cmyn3* 0.5 0.549 1.0 (0.0)
 olvi4* 1.0 0.951 0.5 0.5
 cmyn4* 0.0 0.049 0.5 0.5

standard and adapted CIELAB
 LAB*LAB 52.1 -1.55 45.67
 LAB*LABa 52.1 -1.39 43.83
 LAB*TCHa 25.01 43.86 91.84

relative CIELAB lab*
 lab*lab 0.44 -0.015 0.5
 lab*tch 0.25 0.5 0.255
 lab*nch 0.5 0.5 0.255

relative Natural Colour (NC)
 lab*lrj 0.44 0.0 0.5
 lab*tce 0.25 0.5 0.25
 lab*nce 0.5 0.5 j99j

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 18.02 0.5 -0.47
 LAB*LABa 18.02 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 -

$n^* = 0.00$

blackness n^*

$n^* = 0.50$

$n^* = 1.0$

chromaticness c^*

$n^* = 1.0$

NE150-7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)

3 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

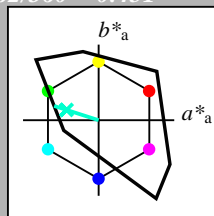
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 162/360 = 0.451$
 lab^*tch and lab^*nch

D65: hue G
 LCH*Ma: 86 62 162
 olv*Ma: 0.0 1.0 0.65

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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)
 $olvi3^* = 0.5 \ 1.0 \ 0.826 \ (1.0)$
 $cmyn3^* = 0.5 \ 0.0 \ 0.174 \ (0.0)$
 $olvi4^* = 0.5 \ 1.0 \ 0.827 \ 1.0$
 $cmyn4^* = 0.5 \ 0.0 \ 0.173 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 90.57 \ -29.42 \ 9.43$
 $LAB^*LABa = 90.57 \ -29.42 \ 9.43$
 $LAB^*TCHa = 75.0 \ 30.9 \ 162.23$

relative CIELAB lab*
 $lab^*lab = 0.949 \ -0.475 \ 0.153$
 $lab^*tch = 0.75 \ 0.5 \ 0.451$
 $lab^*nch = 0.0 \ 0.5 \ 0.451$

relative Natural Colour (NC)
 $lab^*lrj = 0.949 \ -0.499 \ 0.0$
 $lab^*tce = 0.75 \ 0.5 \ 0.5$
 $lab^*nce = 0.0 \ 0.5 \ g00b$

relative Inform. Technology (IT)
 $olvi3^* = 0.0 \ 0.5 \ 0.326 \ (1.0)$
 $cmyn3^* = 1.0 \ 0.5 \ 0.674 \ (0.0)$
 $olvi4^* = 0.5 \ 1.0 \ 0.826 \ 0.5$
 $cmyn4^* = 0.5 \ 0.0 \ 0.174 \ 0.5$

standard and adapted CIELAB
 $LAB^*LAB = 42.88 \ -29.42 \ 9.44$
 $LAB^*LABa = 42.88 \ -29.42 \ 9.44$
 $LAB^*TCHa = 25.01 \ 30.91 \ 162.22$

relative CIELAB lab*
 $lab^*lab = 0.449 \ -0.475 \ 0.153$
 $lab^*tch = 0.25 \ 0.5 \ 0.451$
 $lab^*nch = 0.5 \ 0.5 \ 0.451$

relative Natural Colour (NC)
 $lab^*lrj = 0.449 \ -0.499 \ 0.0$
 $lab^*tce = 0.25 \ 0.5 \ 0.5$
 $lab^*nce = 0.5 \ 0.5 \ j99g$

$n^* = 0.50$
 chromaticness c^*

relative Inform. Technology (IT)
 $olvi3^* = 0.0 \ 1.0 \ 0.653 \ (1.0)$
 $cmyn3^* = 1.0 \ 0.0 \ 0.347 \ (0.0)$
 $olvi4^* = 0.0 \ 1.0 \ 0.653 \ 1.0$
 $cmyn4^* = 1.0 \ 0.0 \ 0.347 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 85.74 \ -58.84 \ 18.87$
 $LAB^*LABa = 85.74 \ -58.84 \ 18.87$
 $LAB^*TCHa = 50.0 \ 61.8 \ 162.23$

relative CIELAB lab*
 $lab^*lab = 0.899 \ -0.951 \ 0.305$
 $lab^*tch = 0.5 \ 1.0 \ 0.451$
 $lab^*nch = 0.0 \ 1.0 \ 0.451$

relative Natural Colour (NC)
 $lab^*lrj = 0.899 \ -0.999 \ 0.0$
 $lab^*tce = 0.5 \ 1.0 \ 0.5$
 $lab^*nce = 0.0 \ 1.0 \ g00b$

$n^* = 0.00$
 blackness n^*

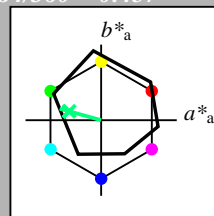
$n^* = 1.0$
 chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue G
 LCH*Ma: 53 57 164
 olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*LAB = 95.41 \ -0.98 \ 4.75$
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

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
 $LAB^*LAB = 56.71 \ -0.24 \ 2.14$
 $LAB^*LABa = 56.71 \ 0.0 \ 0.0$
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

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
 $LAB^*LAB = 18.02 \ 0.5 \ -0.47$
 $LAB^*LABa = 18.02 \ 0.0 \ 0.0$
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

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)
 $olvi3^* = 0.5 \ 1.0 \ 0.623 \ (1.0)$
 $cmyn3^* = 0.5 \ 0.0 \ 0.377 \ (0.0)$
 $olvi4^* = 0.5 \ 1.0 \ 0.623 \ 1.0$
 $cmyn4^* = 0.5 \ 0.0 \ 0.377 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 74.1 \ -27.98 \ 10.94$
 $LAB^*LABa = 74.1 \ -27.4 \ 7.62$
 $LAB^*TCHa = 75.0 \ 28.45 \ 164.46$

relative CIELAB lab*
 $lab^*lab = 0.725 \ -0.481 \ 0.134$
 $lab^*tch = 0.75 \ 0.5 \ 0.457$
 $lab^*nch = 0.0 \ 0.5 \ 0.457$

relative Natural Colour (NC)
 $lab^*lrj = 0.725 \ -0.499 \ 0.0$
 $lab^*tce = 0.75 \ 0.5 \ 0.5$
 $lab^*nce = 0.0 \ 0.5 \ g00b$

relative Inform. Technology (IT)
 $olvi3^* = 0.0 \ 0.5 \ 0.123 \ (1.0)$
 $cmyn3^* = 1.0 \ 0.5 \ 0.877 \ (0.0)$
 $olvi4^* = 0.5 \ 1.0 \ 0.623 \ 0.5$
 $cmyn4^* = 0.5 \ 0.0 \ 0.377 \ 0.5$

standard and adapted CIELAB
 $LAB^*LAB = 35.41 \ -27.24 \ 8.34$
 $LAB^*LABa = 35.41 \ -27.4 \ 7.63$
 $LAB^*TCHa = 25.01 \ 28.46 \ 164.44$

relative CIELAB lab*
 $lab^*lab = 0.225 \ -0.481 \ 0.134$
 $lab^*tch = 0.25 \ 0.5 \ 0.457$
 $lab^*nch = 0.5 \ 0.5 \ 0.457$

relative Natural Colour (NC)
 $lab^*lrj = 0.225 \ -0.499 \ 0.0$
 $lab^*tce = 0.25 \ 0.5 \ 0.5$
 $lab^*nce = 0.5 \ 0.5 \ j99g$

$n^* = 0.50$
 chromaticness c^*

relative Inform. Technology (IT)
 $olvi3^* = 0.0 \ 1.0 \ 0.246 \ (1.0)$
 $cmyn3^* = 1.0 \ 0.0 \ 0.754 \ (0.0)$
 $olvi4^* = 0.0 \ 1.0 \ 0.246 \ 1.0$
 $cmyn4^* = 1.0 \ 0.0 \ 0.754 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 52.8 \ -54.98 \ 17.14$
 $LAB^*LABa = 52.8 \ -54.81 \ 15.26$
 $LAB^*TCHa = 50.0 \ 56.91 \ 164.45$

relative CIELAB lab*
 $lab^*lab = 0.45 \ -0.962 \ 0.268$
 $lab^*tch = 0.5 \ 1.0 \ 0.457$
 $lab^*nch = 0.0 \ 1.0 \ 0.457$

relative Natural Colour (NC)
 $lab^*lrj = 0.45 \ -0.999 \ 0.0$
 $lab^*tce = 0.5 \ 1.0 \ 0.5$
 $lab^*nce = 0.0 \ 1.0 \ j99g$

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^*

NE150-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

3 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

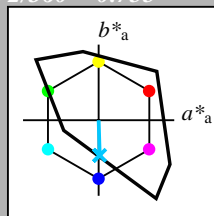
input: $olv^* \ setrgbcolor$
 output: $olv^* \ setrgbcolor / w^* \ setgray$

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 272/360 = 0.755$
 lab^*tch and lab^*nch

D65: hue B
 LCH*Ma: 65 49 272
 olv*Ma: 0.0 0.61 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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

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)
 $olvi3^* = 0.5$ 0.805 1.0 (1.0)
 $cmyn3^* = 0.5$ 0.195 0.0 (0.0)
 $olvi4^* = 0.5$ 0.805 1.0 1.0
 $cmyn4^* = 0.5$ 0.195 0.0 0.0

standard and adapted CIELAB
 $LAB^*LAB = 80.13$ 0.73 -24.31
 $LAB^*LABa = 80.13$ 0.73 -24.31
 $LAB^*TCHa = 75.0$ 24.33 271.72

relative CIELAB lab*
 $lab^*lab = 0.84$ 0.015 -0.499
 $lab^*tch = 0.75$ 0.5 0.755
 $lab^*nch = 0.0$ 0.5 0.755

relative Natural Colour (NC)
 $lab^*lrj = 0.84$ 0.0 -0.499
 $lab^*tce = 0.75$ 0.5 0.75
 $lab^*nce = 0.0$ 0.5 g99b

relative Inform. Technology (IT)
 $olvi3^* = 0.0$ 0.305 0.5 (1.0)
 $cmyn3^* = 1.0$ 0.695 0.5 (0.0)
 $olvi4^* = 0.5$ 0.805 1.0 0.5
 $cmyn4^* = 0.5$ 0.195 0.0 0.5

standard and adapted CIELAB
 $LAB^*LAB = 32.44$ 0.74 -24.32
 $LAB^*LABa = 32.44$ 0.74 -24.32
 $LAB^*TCHa = 25.01$ 24.34 271.75

relative CIELAB lab*
 $lab^*lab = 0.34$ 0.015 -0.499
 $lab^*tch = 0.25$ 0.5 0.755
 $lab^*nch = 0.5$ 0.5 0.755

relative Natural Colour (NC)
 $lab^*lrj = 0.34$ 0.0 -0.499
 $lab^*tce = 0.25$ 0.5 0.75
 $lab^*nce = 0.5$ 0.5 600r

$n^* = 0.50$

$n^* = 0.00$

relative Inform. Technology (IT)
 $olvi3^* = 0.0$ 0.61 1.0 (1.0)
 $cmyn3^* = 1.0$ 0.39 0.0 (0.0)
 $olvi4^* = 0.0$ 0.61 1.0 1.0
 $cmyn4^* = 1.0$ 0.39 0.0 0.0

standard and adapted CIELAB
 $LAB^*LAB = 64.86$ 1.47 -48.64
 $LAB^*LABa = 64.86$ 1.47 -48.64
 $LAB^*TCHa = 50.0$ 48.67 271.74

relative CIELAB lab*
 $lab^*lab = 0.68$ 0.03 -0.998
 $lab^*tch = 0.5$ 1.0 0.755
 $lab^*nch = 0.0$ 1.0 0.755

relative Natural Colour (NC)
 $lab^*lrj = 0.68$ 0.0 -0.999
 $lab^*tce = 0.5$ 1.0 0.75
 $lab^*nce = 0.0$ 1.0 g99b

$n^* = 0.00$

blackness n^*

chromaticness c^*

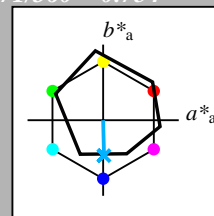
$n^* = 1.0$

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue B
 LCH*Ma: 42 45 271
 olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Gamut
 $u^*_{rel} = 93$
 %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
 $LAB^*TCHa = 99.99$ 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
 $LAB^*LAB = 56.71$ -0.24 2.14
 $LAB^*LABa = 56.71$ 0.0 0.0
 $LAB^*TCHa = 50.0$ 0.01 -

relative CIELAB lab*
 $lab^*lab = 0.654$ 0.012 -0.499
 $lab^*tch = 0.75$ 0.5 0.754
 $lab^*nch = 0.0$ 0.5 0.754

relative Natural Colour (NC)
 $lab^*lrj = 0.654$ 0.0 -0.499
 $lab^*tce = 0.75$ 0.5 0.75
 $lab^*nce = 0.0$ 0.5 g99b

relative Inform. Technology (IT)
 $olvi3^* = 0.0$ 0.244 0.5 (1.0)
 $cmyn3^* = 1.0$ 0.756 0.5 (0.0)
 $olvi4^* = 0.5$ 0.744 1.0 0.5
 $cmyn4^* = 0.5$ 0.256 0.0 0.5

standard and adapted CIELAB
 $LAB^*LAB = 29.9$ 0.82 -22.01
 $LAB^*LABa = 29.9$ 0.55 -22.34
 $LAB^*TCHa = 25.01$ 22.36 271.42

relative CIELAB lab*
 $lab^*lab = 0.154$ 0.012 -0.499
 $lab^*tch = 0.25$ 0.5 0.754
 $lab^*nch = 0.5$ 0.5 0.754

relative Natural Colour (NC)
 $lab^*lrj = 0.154$ 0.0 -0.499
 $lab^*tce = 0.25$ 0.5 0.75
 $lab^*nce = 0.5$ 0.5 600r

$n^* = 0.00$

blackness n^*

chromaticness c^*

$n^* = 1.0$