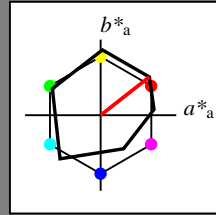


Input: Colorimetric Offset Reflective System ORS18

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

	$L^* = L^*_a$	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*	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	0.5	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*	0.5	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

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)

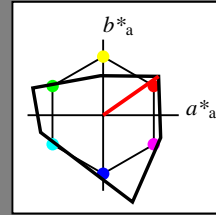
lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

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

	$L^* = L^*_a$	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*	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	0.5	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	1.0	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)

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

$n^* = 0.00$

$n^* = 0.00$
 blackness n^*

chromaticness c^*

$n^* = 1.0$

$n^* = 0.00$
 blackness n^*

chromaticness c^*

RE10-7, 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 & TLS00
 A: 2 coordinate data of 3 step colour scales for 10 hues

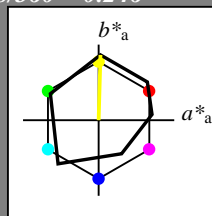
input: $olv^* setrgbcolor$
 output: no change compared to input

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

	$L^*=L^*_a$	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*	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	94.1	1.65	47.73
LAB*LABa	94.1	1.21	43.17
LAB*TCHa	75.0	43.19	88.4

relative CIELAB lab*

lab*lab	0.981	0.014	0.5
lab*tch	0.75	0.5	0.246
lab*nch	0.0	0.5	0.246

relative Natural Colour (NC)

lab*lrj	0.981	-0.033	0.499
lab*tce	0.75	0.5	0.261
lab*nce	0.0	0.5	0.246

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*	0.5	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	55.37	2.02	45.16
LAB*LABa	55.37	1.21	43.17
LAB*TCHa	25.01	43.19	88.4

relative CIELAB lab*

lab*lab	0.481	0.014	0.5
lab*tch	0.25	0.5	0.246
lab*nch	0.5	0.5	0.246

relative Natural Colour (NC)

lab*lrj	0.481	-0.033	0.499
lab*tce	0.25	0.5	0.261
lab*nce	0.5	0.5	0.246

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	-

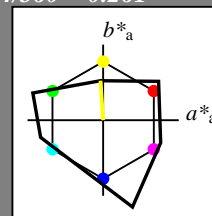
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

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

	$L^*=L^*_a$	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	74.48	-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*	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	95.09	-1.74	26.11
LAB*LABa	95.09	-1.74	26.11
LAB*TCHa	75.0	26.17	93.83

relative CIELAB lab*

lab*lab	0.997	-0.032	0.499
lab*tch	0.75	0.5	0.261
lab*nch	0.0	0.5	0.261

relative Natural Colour (NC)

lab*lrj	0.997	-0.083	0.493
lab*tce	0.75	0.5	0.277
lab*nce	0.0	0.5	0.261

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*	0.5	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	47.4	-1.74	26.11
LAB*LABa	47.4	-1.74	26.11
LAB*TCHa	25.01	26.17	93.83

relative CIELAB lab*

lab*lab	0.497	-0.032	0.499
lab*tch	0.25	0.5	0.261
lab*nch	0.5	0.5	0.261

relative Natural Colour (NC)

lab*lrj	0.497	-0.083	0.493
lab*tce	0.25	0.5	0.277
lab*nce	0.5	0.5	0.261

$n^* = 0.00$

$n^* = 0.00$
 blackness n^*

chromaticness c^*

$n^* = 1.0$

$n^* = 0.00$
 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)

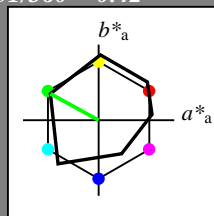
BAM-test chart RE10; Colorimetric systems ORS18 & TLS00
 A: 2 coordinate data of 3 step colour scales for 10 hues

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

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	0.433

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	0.433

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	-

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.0	(1.0)
cmyn3*	1.0	0.5	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	-

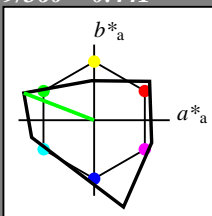
relative Natural Colour (NC)

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

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	0.46

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	0.46

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*	0.0	0.5	0.0	(1.0)
cmyn3*	1.0	0.5	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

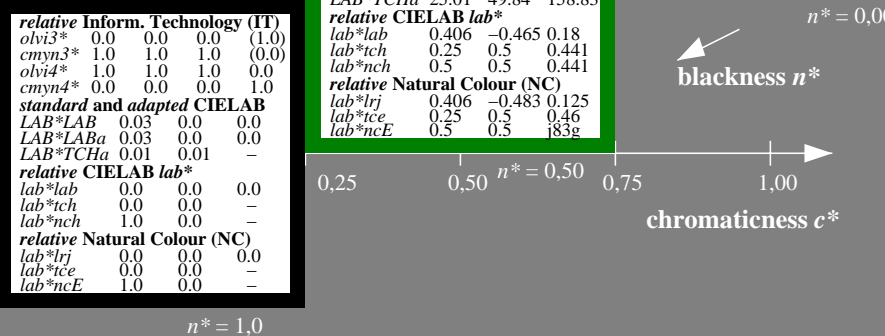
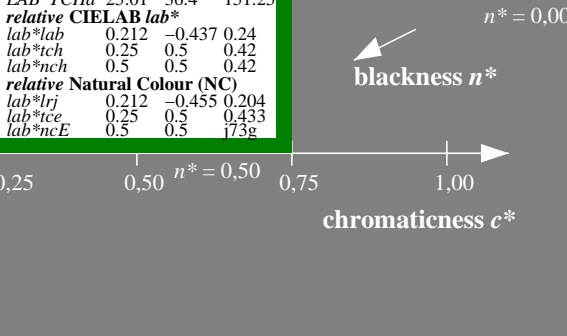
LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

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	-



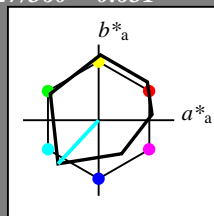
RE10-7, 3 step scales for constant CIELAB hue 151/360 = 0.42 (left)

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

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

	$L^*=L^*_a$	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)
 olv_i3^* 1.0 1.0 1.0 (1.0)
 $cmyn3^*$ 0.0 0.0 0.0 (0.0)
 olv_i4^* 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)
 olv_i3^* 0.5 1.0 1.0 (1.0)
 $cmyn3^*$ 0.5 0.0 0.0 (0.0)
 olv_i4^* 0.5 1.0 1.0 1.0
 $cmyn4^*$ 0.5 0.0 0.0 0.0

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 g67b

relative Inform. Technology (IT)
 olv_i3^* 0.0 1.0 1.0 (1.0)
 $cmyn3^*$ 1.0 0.0 0.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 1.0
 $cmyn4^*$ 1.0 0.0 0.0 0.5

standard and adapted CIELAB
 LAB^*LAB 51.25 -52.81 -55.97
 LAB^*LABa 51.25 -53.67 -57.68
 LAB^*TCHa 50.0 78.8 227.06

relative CIELAB lab*
 lab^*lab 0.428 -0.68 -0.731
 lab^*tch 0.5 1.0 0.631
 lab^*nch 0.0 1.0 0.631

relative Natural Colour (NC)
 lab^*lrj 0.428 -0.489 -0.871
 lab^*tce 0.5 1.0 0.668
 lab^*nce 0.0 1.0 g67b

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.5 0.5 (1.0)
 $cmyn3^*$ 1.0 0.5 0.5 (0.0)
 olv_i4^* 0.5 1.0 1.0 0.5
 $cmyn4^*$ 0.5 0.0 0.0 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 g67b

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.0 0.0 (1.0)
 $cmyn3^*$ 1.0 1.0 1.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 0.0
 $cmyn4^*$ 1.0 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)
 olv_i3^* 0.0 0.5 0.5 (1.0)
 $cmyn3^*$ 1.0 0.5 0.5 (0.0)
 olv_i4^* 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 -

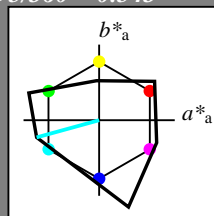
relative CIELAB lab*
 lab^*lab 0.0 0.0 0.0
 lab^*tch 0.0 0.0 -
 lab^*nch 1.0 0.0 -

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

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

	$L^*=L^*_a$	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)
 olv_i3^* 1.0 1.0 1.0 (1.0)
 $cmyn3^*$ 0.0 0.0 0.0 (0.0)
 olv_i4^* 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)
 olv_i3^* 0.5 1.0 1.0 (1.0)
 $cmyn3^*$ 0.5 0.0 0.0 (0.0)
 olv_i4^* 0.5 1.0 1.0 1.0
 $cmyn4^*$ 0.5 0.0 0.0 0.0

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 g27b

relative Inform. Technology (IT)
 olv_i3^* 0.0 1.0 1.0 (1.0)
 $cmyn3^*$ 1.0 0.0 0.0 (0.0)
 olv_i4^* 0.0 1.0 1.0 1.0
 $cmyn4^*$ 1.0 0.0 0.0 0.0

standard and adapted CIELAB
 LAB^*LAB 78.35 -82.67 -22.74
 LAB^*LABa 78.35 -82.67 -22.74
 LAB^*TCHa 50.0 85.75 195.38

relative CIELAB lab*
 lab^*lab 0.821 -0.963 -0.264
 lab^*tch 0.5 1.0 0.543
 lab^*nch 0.0 1.0 0.543

relative Natural Colour (NC)
 lab^*lrj 0.821 -0.904 -0.423
 lab^*tce 0.5 1.0 0.57
 lab^*nce 0.0 1.0 g27b

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.5 0.5 (1.0)
 $cmyn3^*$ 1.0 0.5 0.5 (0.0)
 olv_i4^* 0.5 1.0 1.0 0.5
 $cmyn4^*$ 0.5 0.0 0.0 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

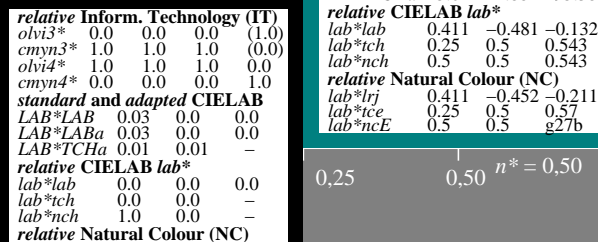
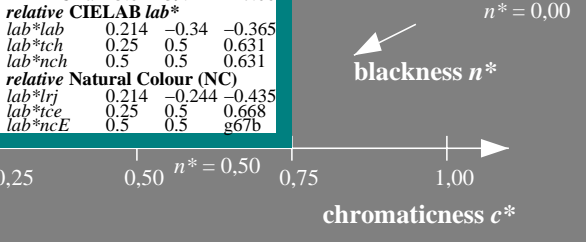
relative Natural Colour (NC)
 lab^*lrj 0.411 -0.452 -0.211
 lab^*tce 0.25 0.5 0.57
 lab^*nce 0.5 0.5 g27b

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.0 0.0 (1.0)
 $cmyn3^*$ 1.0 1.0 1.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 0.0
 $cmyn4^*$ 1.0 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 -



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)

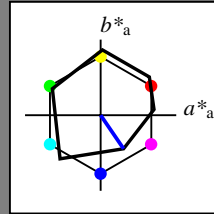
BAM-test chart RE10; Colorimetric systems ORS18 & TLS00
 A: 2 coordinate data of 3 step colour scales for 10 hues

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

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

	$L^*=L^*_a$	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	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	60.66	15.94	-19.84
LAB*LABa	60.66	15.17	-22.17
LAB*TCHa	75.0	26.87	304.36

relative CIELAB lab*

lab*lab	0.549	0.282	-0.412
lab*tch	0.75	0.5	0.845
lab*nch	0.0	0.5	0.845

relative Natural Colour (NC)

lab*lrj	0.549	0.274	-0.417
lab*tce	0.75	0.5	0.842
lab*nce	0.0	0.5	b36r

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	0.5	(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	21.92	16.31	-22.41
LAB*LABa	21.92	15.17	-22.17
LAB*TCHa	25.01	26.87	304.36

relative CIELAB lab*

lab*lab	0.049	0.282	-0.412
lab*tch	0.25	0.5	0.845
lab*nch	0.5	0.5	0.845

relative Natural Colour (NC)

lab*lrj	0.049	0.274	-0.417
lab*tce	0.25	0.5	0.842
lab*nce	0.5	0.5	b36r

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	-

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	-

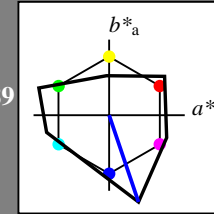
relative Natural Colour (NC)

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

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^*



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	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	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)

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	0.5	(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	6.29	19.4	-57.39
LAB*LABa	6.29	19.4	-57.39
LAB*TCHa	25.01	60.59	288.68

relative CIELAB lab*

lab*lab	0.066	0.16	-0.473
lab*tch	0.25	0.5	0.802
lab*nch	0.5	0.5	0.802

relative Natural Colour (NC)

lab*lrj	0.066	0.193	-0.46
lab*tce	0.25	0.5	0.813
lab*nce	0.5	0.5	b25r

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*	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	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

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 & TLS00
 A: 2 coordinate data of 3 step colour scales for 10 hues

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

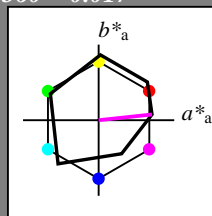
Input: Colorimetric Offset Reflective System ORS18

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

	$L^*=L^*_a$	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*	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	75.92	35.91	7.13
LAB*LABa	75.92	35.29	3.78
LAB*TCHa	75.0	35.49	6.12

relative CIELAB lab*

lab*lab	0.746	0.497	0.053
lab*tch	0.75	0.5	0.017
lab*nch	0.0	0.5	0.017

relative Natural Colour (NC)

lab*lrj	0.746	0.476	-0.151
lab*tce	0.75	0.5	0.951
lab*nce	0.0	0.5	b80r

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*	0.5	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	37.18	36.28	4.56
LAB*LABa	37.18	35.29	3.78
LAB*TCHa	25.01	35.49	6.12

relative CIELAB lab*

lab*lab	0.246	0.497	0.053
lab*tch	0.25	0.5	0.017
lab*nch	0.5	0.5	0.017

relative Natural Colour (NC)

lab*lrj	0.246	0.476	-0.151
lab*tce	0.25	0.5	0.951
lab*nce	0.5	0.5	b80r

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	-

$n^* = 1.0$

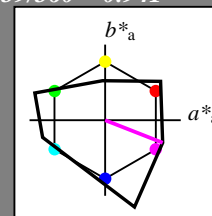
Output: Colorimetric Television Luminous System TLS00

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

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

	$L^*=L^*_a$	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*	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	81.05	38.03	-14.89
LAB*LABa	81.05	38.03	-14.89
LAB*TCHa	75.0	40.85	338.6

relative CIELAB lab*

lab*lab	0.85	0.465	-0.181
lab*tch	0.75	0.5	0.941
lab*nch	0.0	0.5	0.941

relative Natural Colour (NC)

lab*lrj	0.85	0.407	-0.29
lab*tce	0.75	0.5	0.901
lab*nce	0.0	0.5	b60r

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*	0.5	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	33.36	38.03	-14.89
LAB*LABa	33.36	38.03	-14.89
LAB*TCHa	25.01	40.85	338.6

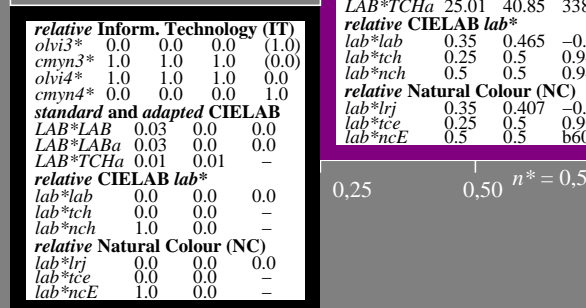
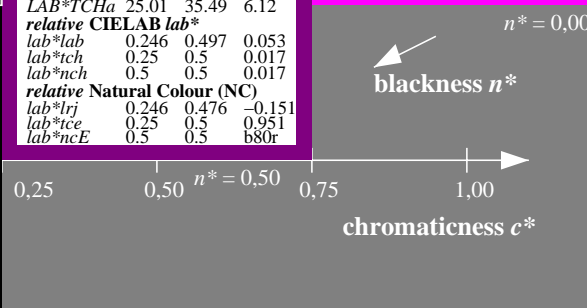
relative CIELAB lab*

lab*lab	0.35	0.465	-0.181
lab*tch	0.25	0.5	0.941
lab*nch	0.5	0.5	0.941

relative Natural Colour (NC)

lab*lrj	0.35	0.407	-0.29
lab*tce	0.25	0.5	0.901
lab*nce	0.5	0.5	b60r

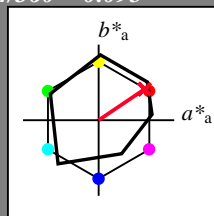
$n^* = 0.00$



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
M _{Ma}	56.25	70.59	7.57	70.99	6
N _{Ma}	18.11	0.0	0.0	0.0	0
W _{Ma}	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*	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	0.5	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	-

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

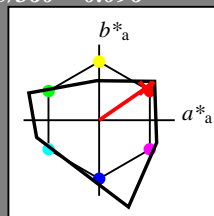
blackness $n^* = 0.00$

chromaticness $c^* = 0.25$ to 1.00

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
M _{Ma}	66.71	76.08	-29.8	81.71	339
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	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*	1.0	0.5	0.505	(1.0)
cmyn3*	0.0	0.5	0.495	(0.0)
olvi4*	1.0	0.5	0.505	1.0
cmyn4*	0.0	0.5	0.495	0.0

standard and adapted CIELAB

LAB*LAB	80.48	36.68	25.28
LAB*LABa	80.48	36.68	25.28
LAB*TCHa	75.0	44.55	34.58

relative CIELAB lab*

lab*lab	0.844	0.412	0.284
lab*tch	0.75	0.5	0.096
lab*nch	0.0	0.5	0.096

relative Natural Colour (NC)

lab*lrj	0.844	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	0.5	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*	0.5	0.0	0.005	(1.0)
cmyn3*	0.5	1.0	0.995	(0.0)
olvi4*	1.0	0.5	0.505	0.5
cmyn4*	0.0	0.5	0.495	0.5

standard and adapted CIELAB

LAB*LAB	32.79	36.68	25.29
LAB*LABa	32.79	36.68	25.29
LAB*TCHa	25.01	44.55	34.59

relative CIELAB lab*

lab*lab	0.344	0.412	0.284
lab*tch	0.25	0.5	0.096
lab*nch	0.5	0.5	0.096

relative Natural Colour (NC)

lab*lrj	0.344	0.5	0.0
lab*tce	0.25	0.5	0.0
lab*nce	0.5	0.5	r00j

blackness $n^* = 0.00$

chromaticness $c^* = 0.25$ to 1.00

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	-

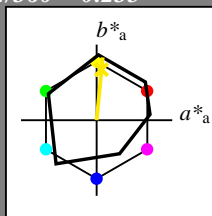
blackness $n^* = 1.0$

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*	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	0.5	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*	0.5	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

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	-

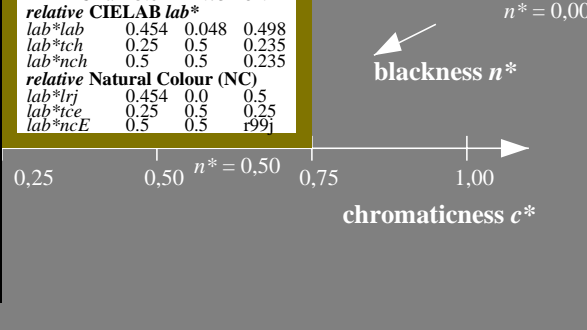
relative CIELAB lab*

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	-

$n^* = 1.0$

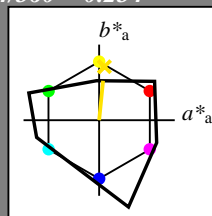


Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 84/360 = 0.234$
 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*	1.0	0.943	0.5	(1.0)
cmyn3*	0.0	0.057	0.5	(0.0)
olvi4*	1.0	0.943	0.5	1.0
cmyn4*	0.0	0.057	0.5	0.0

standard and adapted CIELAB

LAB*LAB	93.43	2.59	26.07
LAB*LABa	93.43	2.59	26.07
LAB*TCHa	75.0	26.2	84.32

relative CIELAB lab*

lab*lab	0.979	0.049	0.497
lab*tch	0.75	0.5	0.234
lab*nch	0.0	0.5	0.234

relative Natural Colour (NC)

lab*lrj	0.979	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	0.5	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*	0.5	0.443	0.0	(1.0)
cmyn3*	0.5	0.557	1.0	(0.0)
olvi4*	1.0	0.943	0.5	0.5
cmyn4*	0.0	0.057	0.5	0.5

standard and adapted CIELAB

LAB*LAB	45.74	2.6	26.07
LAB*LABa	45.74	2.6	26.07
LAB*TCHa	25.01	26.2	84.3

relative CIELAB lab*

lab*lab	0.479	0.05	0.497
lab*tch	0.25	0.5	0.234
lab*nch	0.5	0.5	0.234

relative Natural Colour (NC)

lab*lrj	0.479	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	r99j

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

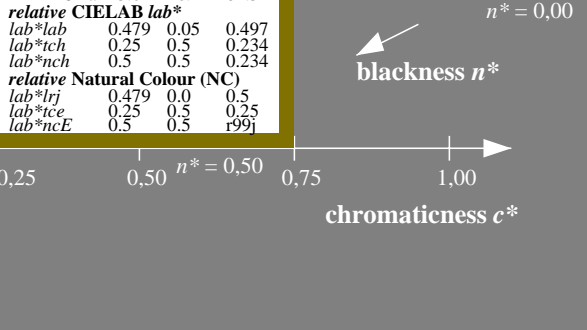
LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

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 84/360 = 0.235 (left)

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

BAM-test chart RE10; Colorimetric systems ORS18 & TLS00

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

input: olv* setrgbcolor

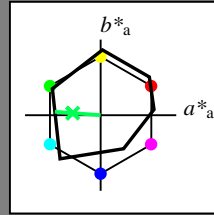
output: no change compared to input

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

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)
 $olvi3^* 0.5 1.0 0.664 (1.0)$
 $cmyn3^* 0.5 0.0 0.336 (0.0)$
 $olvi4^* 0.5 1.0 0.664 1.0$
 $cmyn4^* 0.5 0.0 0.336 0.0$

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)
 $olvi3^* 0.0 0.5 0.164 (1.0)$
 $cmyn3^* 1.0 0.5 0.836 (0.0)$
 $olvi4^* 0.5 1.0 0.664 0.5$
 $cmyn4^* 0.5 0.0 0.336 0.5$

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)
 $lab^*lrj 0.212 -0.499 0.0$
 $lab^*tce 0.25 0.5 0.5$
 $lab^*nce 0.5 0.5 199g$

$n^* = 0.50$



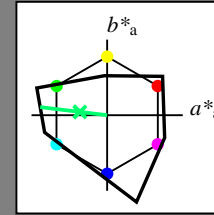
chromaticness c^*

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

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)
 $olvi3^* 0.5 1.0 0.715 (1.0)$
 $cmyn3^* 0.5 0.0 0.285 (0.0)$
 $olvi4^* 0.5 1.0 0.716 1.0$
 $cmyn4^* 0.5 0.0 0.284 0.0$

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)
 $lab^*lrj 0.908 -0.499 0.0$
 $lab^*tce 0.75 0.5 0.5$
 $lab^*nce 0.0 0.5 g00b$

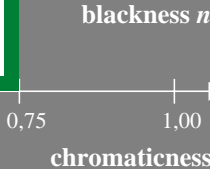
relative Inform. Technology (IT)
 $olvi3^* 0.0 0.5 0.215 (1.0)$
 $cmyn3^* 1.0 0.5 0.785 (0.0)$
 $olvi4^* 0.5 1.0 0.715 0.5$
 $cmyn4^* 0.5 0.0 0.285 0.5$

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)
 $lab^*lrj 0.408 -0.499 0.0$
 $lab^*tce 0.25 0.5 0.5$
 $lab^*nce 0.5 0.5 199g$

$n^* = 0.00$



chromaticness c^*

Input: Colorimetric Offset Reflective System ORS18

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

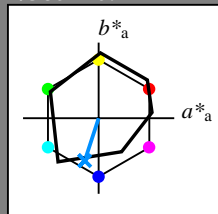
lab^*tch and lab^*nch

A: hue B

LCH*Ma: 40 55 252

olv*Ma: 0.0 0.56 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	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	0.781	1.0	(1.0)
cmyn3*	0.5	0.219	0.0	(0.0)
olvi4*	0.5	0.781	1.0	1.0
cmyn4*	0.5	0.219	0.0	0.0

standard and adapted CIELAB

LAB*LAB	67.84	-7.76	-23.11
LAB*LABa	67.84	-8.46	-25.92
LAB*TCHa	75.0	27.28	251.91

relative CIELAB lab*

lab*lab	0.642	-0.154	-0.474
lab*tch	0.75	0.5	0.7
lab*nch	0.0	0.5	0.7

relative Natural Colour (NC)

lab*lrj	0.642	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	0.563	1.0	(1.0)
cmyn3*	1.0	0.437	0.0	(0.0)
olvi4*	1.0	0.563	1.0	1.0
cmyn4*	1.0	0.437	0.0	0.0

standard and adapted CIELAB

LAB*LAB	40.09	-15.96	-50.88
LAB*LABa	40.09	-16.93	-51.85
LAB*TCHa	50.0	54.56	251.91

relative CIELAB lab*

lab*lab	0.284	-0.309	-0.949
lab*tch	0.5	1.0	0.7
lab*nch	0.0	1.0	0.7

relative Natural Colour (NC)

lab*lrj	0.284	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	g99b

relative Inform. Technology (IT)

olvi3*	0.0	0.281	0.5	(1.0)
cmyn3*	1.0	0.719	0.5	(0.0)
olvi4*	0.5	0.781	1.0	0.5
cmyn4*	0.5	0.219	0.0	0.5

standard and adapted CIELAB

LAB*LAB	29.1	-7.38	-25.68
LAB*LABa	29.1	-8.45	-25.92
LAB*TCHa	25.01	27.28	251.92

relative CIELAB lab*

lab*lab	0.142	-0.154	-0.474
lab*tch	0.25	0.5	0.7
lab*nch	0.5	0.5	0.7

relative Natural Colour (NC)

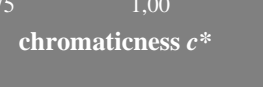
lab*lrj	0.142	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	600r

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	-



Output: Colorimetric Television Luminous System TLS00

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

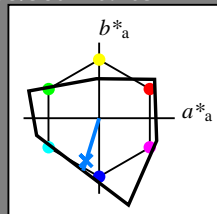
lab^*tch and lab^*nch

A: hue B

LCH*Ma: 45 72 253

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	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	0.747	1.0	(1.0)
cmyn3*	0.5	0.253	0.0	(0.0)
olvi4*	0.5	0.747	1.0	1.0
cmyn4*	0.5	0.253	0.0	0.0

standard and adapted CIELAB

LAB*LAB	70.24	-10.62	-34.63
LAB*LABa	70.24	-10.62	-34.63
LAB*TCHa	75.0	36.24	252.94

relative CIELAB lab*

lab*lab	0.736	-0.146	-0.477
lab*tch	0.75	0.5	0.703
lab*nch	0.0	0.5	0.703

relative Natural Colour (NC)

lab*lrj	0.736	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	0.494	1.0	(1.0)
cmyn3*	1.0	0.506	0.0	(0.0)
olvi4*	0.0	0.494	1.0	1.0
cmyn4*	1.0	0.506	0.0	0.0

standard and adapted CIELAB

LAB*LAB	45.08	-21.24	-69.28
LAB*LABa	45.08	-21.24	-69.28
LAB*TCHa	50.0	72.48	252.95

relative CIELAB lab*

lab*lab	0.472	-0.292	-0.955
lab*tch	0.5	1.0	0.703
lab*nch	0.0	1.0	0.703

relative Natural Colour (NC)

lab*lrj	0.472	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	600r

relative Inform. Technology (IT)

olvi3*	0.0	0.247	0.5	(1.0)
cmyn3*	1.0	0.753	0.5	(0.0)
olvi4*	0.5	0.747	1.0	0.5
cmyn4*	0.5	0.253	0.0	0.5

standard and adapted CIELAB

LAB*LAB	22.55	-10.61	-34.64
LAB*LABa	22.55	-10.61	-34.64
LAB*TCHa	25.01	36.24	252.96

relative CIELAB lab*

lab*lab	0.236	-0.145	-0.477
lab*tch	0.25	0.5	0.703
lab*nch	0.5	0.5	0.703

relative Natural Colour (NC)

lab*lrj	0.236	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	600r

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	-

