

Input: Colorimetric Television Luminous System TLS00

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

D65: hue 0
LCH^{*}Ma: 51 100 40
olv^{*}Ma: 1.0 0.0 0.0

triangle lightness l^*



%Gamut

$u^*_{rel} = 158$

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125
standard and adapted CIE LAB
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125
relative Natural Colour (NC)
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125

relative Inform. Technology (IT)
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625
standard and adapted CIE LAB
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625
relative Natural Colour (NC)
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625

TLS00; adapted (a) CIELAB data

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

%Regularity

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

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

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

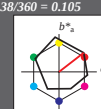
relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

Output: Colorimetric Offset Reflective System ORS18

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

D65: hue 0
LCH^{*}Ma: 48 83 38
olv^{*}Ma: 1.0 0.0 0.0

triangle lightness l^*



%Gamut

$u^*_{rel} = 93$

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125
standard and adapted CIE LAB
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125
relative Natural Colour (NC)
Lab^{*}tch 0.125 0.125 0.125
Lab^{*}nch 0.125 0.125 0.125

relative Inform. Technology (IT)
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625
standard and adapted CIE LAB
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625
relative Natural Colour (NC)
Lab^{*}tch 0.0625 0.0625 0.0625
Lab^{*}nch 0.0625 0.0625 0.0625

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
Q _{Ma}	47.94	65.39	50.52	82.63	38
Y _{Ma}	90.37	-10.26	91.75	92.32	96
L _{Ma}	50.9	-62.83	34.96	71.91	151
C _{Ma}	58.62	-30.34	-45.01	54.3	236
V _{Ma}	25.72	31.1	-44.4	54.22	305
M _{Ma}	48.13	75.28	-8.36	75.74	354
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CE}	39.92	58.66	26.98	64.57	25
J _{CE}	81.26	-2.16	67.76	67.79	92
C _{CE}	52.23	-42.25	11.76	43.87	164
B _{CE}	30.57	1.15	-46.84	46.86	271

%Regularity

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

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

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.5 0.5
Lab^{*}nch 1.0 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.25 0.25
Lab^{*}nch 1.0 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

relative Inform. Technology (IT)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
standard and adapted CIE LAB
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0
relative Natural Colour (NC)
Lab^{*}tch 1.0 0.0 0.0
Lab^{*}nch 1.0 0.0 0.0

relative Inform. Technology (IT)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
standard and adapted CIE LAB
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75
relative Natural Colour (NC)
Lab^{*}tch 0.75 0.75 0.75
Lab^{*}nch 0.75 0.75 0.75

relative Inform. Technology (IT)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
standard and adapted CIE LAB
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5
relative Natural Colour (NC)
Lab^{*}tch 0.5 0.5 0.5
Lab^{*}nch 0.5 0.5 0.5

relative Inform. Technology (IT)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
standard and adapted CIE LAB
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25
relative Natural Colour (NC)
Lab^{*}tch 0.25 0.25 0.25
Lab^{*}nch 0.25 0.25 0.25

OE550-7, 5 step scales for constant CIELAB hue 40/360 = 0.111 (left)

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

BAM-test chart OE55; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 5 step colour scales for 10 hues

input: $cmY0^* setcmYcolor$
output: $cmY0^* / 000n^* setcmYcolor$