

Input: Colorimetric Television Luminous System TLS18

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

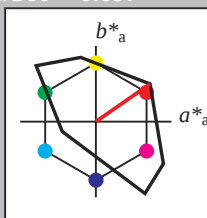
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 53 87 35

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



$u^*_{rel} = 118$

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*LABb	99.99	0.01	0.0

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0

relative Natural Colour (NC)

lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0

relative Inform. Technology (IT)

olvi3*	1.0	0.75	0.75	(1.0)
cmyn3*	0.0	0.25	0.25	(0.0)
olvi4*	1.0	0.75	0.75	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	84.74	17.9	12.47
LAB*LABa	84.74	17.9	12.47
LAB*LABb	87.5	21.81	34.85

relative CIELAB lab*

lab*lab	0.862	0.205	0.143
lab*lab	0.875	0.25	0.097
lab*lab	0.875	0.25	0.097
lab*lab	0.875	0.25	0.097

relative Natural Colour (NC)

lab*lab	0.862	0.244	0.055
lab*lab	0.875	0.25	0.035
lab*lab	0.875	0.25	0.035
lab*lab	0.875	0.25	0.035

TLS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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	74.08	35.81	24.94
LAB*LABa	74.08	35.81	24.94
LAB*LABb	75.0	43.63	34.85

relative CIELAB lab*

lab*lab	0.724	0.41	0.286
lab*lab	0.75	0.5	0.097
lab*lab	0.75	0.5	0.097
lab*lab	0.75	0.5	0.097

relative Natural Colour (NC)

lab*lab	0.724	0.488	0.109
lab*lab	0.75	0.5	0.035
lab*lab	0.75	0.5	0.035
lab*lab	0.75	0.5	0.035

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	63.42	33.72	37.41
LAB*LABa	63.42	33.72	37.41
LAB*LABb	62.5	65.46	34.85

relative CIELAB lab*

lab*lab	0.587	0.615	0.429
lab*lab	0.625	0.75	0.097
lab*lab	0.625	0.75	0.097
lab*lab	0.625	0.75	0.097

relative Natural Colour (NC)

lab*lab	0.587	0.732	0.164
lab*lab	0.625	0.75	0.035
lab*lab	0.625	0.75	0.035
lab*lab	0.625	0.75	0.035

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	52.76	71.62	49.87
LAB*LABa	52.76	71.62	49.87
LAB*LABb	50.0	87.27	34.85

relative CIELAB lab*

lab*lab	0.449	0.82	0.571
lab*lab	0.5	1.0	0.097
lab*lab	0.5	1.0	0.097
lab*lab	0.5	1.0	0.097

relative Natural Colour (NC)

lab*lab	0.449	0.976	0.218
lab*lab	0.5	1.0	0.035
lab*lab	0.5	1.0	0.035
lab*lab	0.5	1.0	0.035

$n^* = 0.00$

relative Inform. Technology (IT)

olvi3*	0.75	0.0	0.0	(1.0)
cmyn3*	0.25	0.75	0.75	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	54.74	35.82	24.94
LAB*LABa	54.74	35.82	24.94
LAB*LABb	50.0	43.64	34.85

relative CIELAB lab*

lab*lab	0.474	0.41	0.286
lab*lab	0.5	0.5	0.097
lab*lab	0.5	0.5	0.097
lab*lab	0.5	0.5	0.097

relative Natural Colour (NC)

lab*lab	0.474	0.488	0.109
lab*lab	0.5	0.5	0.035
lab*lab	0.5	0.5	0.035
lab*lab	0.5	0.5	0.035

relative Inform. Technology (IT)

olvi3*	0.75	0.0	0.0	(1.0)
cmyn3*	0.25	0.75	0.75	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	44.08	33.72	37.41
LAB*LABa	44.08	33.72	37.41
LAB*LABb	37.51	65.46	34.85

relative CIELAB lab*

lab*lab	0.337	0.615	0.429
lab*lab	0.375	0.75	0.097
lab*lab	0.375	0.75	0.097
lab*lab	0.375	0.75	0.097

relative Natural Colour (NC)

lab*lab	0.337	0.732	0.164
lab*lab	0.375	0.75	0.035
lab*lab	0.375	0.75	0.035
lab*lab	0.375	0.75	0.035

$n^* = 0.25$

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	0.0	0.0	1.0
cmyn4*	0.0	0.5	0.5	0.0

standard and adapted CIELAB

LAB*LAB	35.39	35.81	24.94
LAB*LABa	35.39	35.81	24.94
LAB*LABb	25.01	43.63	34.85

relative CIELAB lab*

lab*lab	0.225	0.41	0.286
lab*lab	0.25	0.5	0.097
lab*lab	0.25	0.5	0.097
lab*lab	0.25	0.5	0.097

relative Natural Colour (NC)

lab*lab	0.225	0.488	0.109
lab*lab	0.25	0.5	0.035
lab*lab	0.25	0.5	0.035
lab*lab	0.25	0.5	0.035

$n^* = 0.50$

relative Inform. Technology (IT)

olvi3*	0.25	0.0	0.0	(1.0)
cmyn3*	0.75	1.0	1.0	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	26.7	17.9	12.47
LAB*LABa	26.7	17.9	12.47
LAB*LABb	12.5	21.81	34.85

relative CIELAB lab*

lab*lab	0.112	0.205	0.143
lab*lab	0.125	0.25	0.097
lab*lab	0.125	0.25	0.097
lab*lab	0.125	0.25	0.097

relative Natural Colour (NC)

lab*lab	0.112	0.244	0.055
lab*lab	0.125	0.25	0.035
lab*lab	0.125	0.25	0.035
lab*lab	0.125	0.25	0.035

$n^* = 0.75$

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	0.0	0.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	18.03	18.03	0.0
LAB*LABa	18.03	18.03	0.0
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

relative Natural Colour (NC)

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

$n^* = 1.0$

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	0.0	0.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	18.03	18.03	0.0
LAB*LABa	18.03	18.03	0.0
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

relative Natural Colour (NC)

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

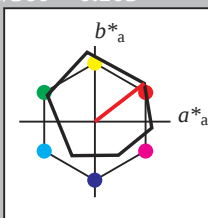
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



$u^*_{rel} = 93$

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	-0.98	4.75
LAB*LABb	99.99	0.01	0.0

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0

relative Natural Colour (NC)

lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0
lab*lab	1.0	0.0	0.0

relative Inform. Technology (IT)

olvi3*	1.0	0.75	0.75	(1.0)
cmyn3*	0.0	0.25	0.25	(0.0)
olvi4*	1.0	0.75	0.75	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	83.54	16.34	12.62
LAB*LABa	83.54	16.34	12.62
LAB*LABb	87.5	20.65	37.69

relative CIELAB lab*

lab*lab	0.847	0.198	0.153
lab*lab	0.875	0.25	0.105
lab*lab	0.875	0.25	0.105
lab*lab	0.875	0.25	0.105

relative Natural Colour (NC)

lab*lab	0.847	0.238	0.075
lab*lab	0.875	0.25	0.048
lab*lab	0.875	0.25	0.048
lab*lab	0.875	0.25	0.048

relative Inform. Technology (IT)

olvi3*	0.75	0.75	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	(0.0)
olvi4*	1.0	0.75	0.75	1.0
cmyn4*	0.0	0.25	0.25	0.0

standard and adapted CIELAB

LAB*LAB	76.06	-0.61	3.44
LAB*LABa	76.06	-0.61	3.44
LAB*LABb	75.0	0.01	0.0

relative CIELAB lab*

lab*lab	0.725	0.0	0.0
lab*lab	0.75	0.0	0.0
lab*lab	0.75	0.0	0.0
lab*lab	0.75	0.0	0.0

relative Natural Colour (NC)

lab*lab	0.725	0.0	0.0
lab*lab	0.75	0.0	0.0
lab*lab	0.75	0.0	0.0
lab*lab	0.75	0.0	0.0

relative Inform. Technology (IT)

olvi3*	0.75	0.0	0.0	(1.0)
cmyn3*	0.25	0.75	0.75	(0



Material: code=rh4ta

100

<i>lab*⁺ccE</i>	0.0	0.0	-
<i>lab*⁺ncE</i>	1.0	0.0	-

$n^* = 1,0$

OE560-7, 5 step scale

<i>LAB*LAB</i>	18.02	0.5	-0.47
<i>LAB*LABa</i>	18.02	0.0	0.0
<i>LAB*TCHa</i>	0.01	0.01	-
relative CIELAB lab*			
<i>lab*lab</i>	0.0	0.0	0.0
<i>lab*tch</i>	0.0	0.0	-
<i>lab*nch</i>	1.0	0.0	-
relative Natural Colour (NC)			
<i>lab*lrj</i>	0.0	0.0	0.0

D65: 2 coordinate data of 5 step colour scales for 10 hues

output: *cmv0** / *000n** *setcmykcolor*

Input: Colorimetric Television Luminous System TLS18

for hue $h^* = \text{lab}^*h = 304/360 = 0.845$

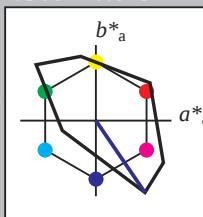
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 35 115 304

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



TLS18; adapted (a) CIELAB data					
	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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

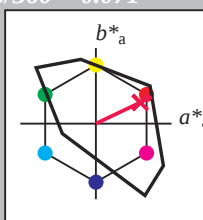
relative Inform. Technology (IT)					
olv3*	0.75	0.75	0.75	1.0	1.0
olv4*	0.25	0.25	0.25	0.0	0.0
olv5*	0.0	0.0	0.0	0.0	0.0
olv6*	0.0	0.0	0.0	0.0	0.0
olv7*	0.0	0.0	0.0	0.0	0.0
olv8*	0.0	0.0	0.0	0.0	0.0
olv9*	0.0	0.0	0.0	0.0	0.0
olv10*	0.0	0.0	0.0	0.0	0.0
olv11*	0.0	0.0	0.0	0.0	0.0
olv12*	0.0	0.0	0.0	0.0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

relative CIELAB lab*			
lab*lab	0.806	0.141	-0.205
lab*tch	0.875	0.25	0.845
lab*nc	0.0	0.25	0.845
relative Natural Colour (NC)			
lab*lrj	0.806	0.109	-0.224
lab*tce	0.875	0.25	0.822
lab*nce	0.0	0.25	b28r

Input: Colorimetric Television Luminous System TLS18

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

D65: hue R
LCH*Ma: 54 82 25
olv*Ma: 1.0 0.0 0.14
triangle lightness t^*



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

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*trc 1.0 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*trc 0.75 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 50.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.5 0.0 0.0
lab*trc 0.5 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*trc 0.25 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

TLS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 74.51 37.03 17.64
LAB*LABa 74.51 37.03 17.64
LAB*LABb 75.00 41.02 25.48

relative CIELAB lab*
lab*lab 0.75 0.5 0.5 (1.0)
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*trc 0.75 0.5 0.5 (1.0)
lab*ncc 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 55.17 37.04 17.65
LAB*LABa 55.17 37.04 17.65
LAB*LABb 50.00 41.03 25.48

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (1.0)
lab*tch 0.5 0.5 0.5 (1.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (1.0)
lab*trc 0.5 0.5 0.5 (1.0)
lab*ncc 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 35.82 37.03 17.65
LAB*LABa 35.82 37.03 17.65
LAB*LABb 25.01 41.02 25.48

relative CIELAB lab*
lab*lab 0.25 0.0 0.0 (1.0)
lab*tch 0.25 0.0 0.0 (1.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0 (1.0)
lab*trc 0.25 0.0 0.0 (1.0)
lab*ncc 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 26.92 18.51 8.83
LAB*LABa 26.92 18.51 8.83
LAB*LABb 12.5 20.51 25.5

relative CIELAB lab*
lab*lab 0.115 0.226 0.108
lab*tch 0.125 0.225 0.071
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.115 0.225 0.0
lab*trc 0.125 0.225 0.0
lab*ncc 0.0 0.0 0.0

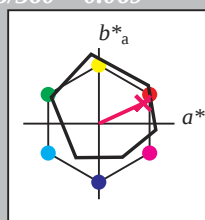
relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

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^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*trc 1.0 0.0 0.0
lab*ncc 0.0 0.0 0.0

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

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*trc 0.75 0.0 0.0
lab*ncc 0.0 0.0 0.0

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

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.5 0.0 0.0
lab*trc 0.5 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.36 0.13 1.08
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*trc 0.25 0.0 0.0
lab*ncc 0.0 0.0 0.0

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

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

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

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

ORS18; adapted (a) CIELAB data

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

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 71.7 34.29 15.76
LAB*LABa 71.7 34.29 15.76
LAB*LABb 75.00 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 0.0 0.069
relative Natural Colour (NC)
lab*trj 0.694 0.5 0.0
lab*trc 0.75 0.5 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.411 (1.0)
cmyn3* 0.25 0.75 0.589 (0.0)
olv4* 1.0 0.5 0.661 (0.75)
cmyn4* 0.0 0.5 0.339 (0.25)
standard and adapted CIELAB
LAB*LAB 52.36 34.29 15.77
LAB*LABa 52.36 34.29 15.77
LAB*LABb 50.00 37.74 24.7

relative CIELAB lab*
lab*lab 0.444 0.454 0.209
lab*tch 0.5 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*trj 0.444 0.5 0.0
lab*trc 0.5 0.5 0.069
lab*ncc 0.0 0.5 0.069

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 33.01 34.29 15.77
LAB*LABa 33.01 34.29 15.77
LAB*LABb 25.01 37.73 24.7

relative CIELAB lab*
lab*lab 0.291 0.681 0.313
lab*tch 0.375 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.291 0.75 0.0
lab*trc 0.375 0.75 0.069
lab*ncc 0.0 0.75 0.069

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 25.51 17.14 7.88
LAB*LABa 25.51 17.14 7.88
LAB*LABb 12.5 18.86 24.71

relative CIELAB lab*
lab*lab 0.194 0.54 0.209
lab*tch 0.25 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.5 0.0
lab*trc 0.25 0.5 0.069
lab*ncc 0.0 0.5 0.069

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

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.411 (1.0)
cmyn3* 0.25 0.75 0.589 (0.0)
olv4* 1.0 0.5 0.661 (0.75)
cmyn4* 0.0 0.5 0.339 (0.25)
standard and adapted CIELAB
LAB*LAB 52.36 34.29 15.77
LAB*LABa 52.36 34.29 15.77
LAB*LABb 50.00 37.74 24.7

relative CIELAB lab*
lab*lab 0.444 0.454 0.209
lab*tch 0.5 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*trj 0.444 0.5 0.0
lab*trc 0.5 0.5 0.069
lab*ncc 0.0 0.5 0.069

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 33.01 34.29 15.77
LAB*LABa 33.01 34.29 15.77
LAB*LABb 25.01 37.73 24.7

relative CIELAB lab*
lab*lab 0.291 0.681 0.313
lab*tch 0.375 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.291 0.75 0.0
lab*trc 0.375 0.75 0.069
lab*ncc 0.0 0.75 0.069

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 25.51 17.14 7.88
LAB*LABa 25.51 17.14 7.88
LAB*LABb 12.5 18.86 24.71

relative CIELAB lab*
lab*lab 0.194 0.54 0.209
lab*tch 0.25 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.5 0.0
lab*trc 0.25 0.5 0.069
lab*ncc 0.0 0.5 0.069

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

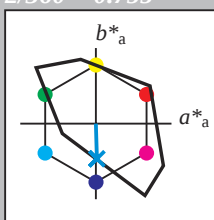
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.

Input: Colorimetric Television Luminous System TLS18

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

D65: hue B
LCH*Ma: 65 48 272
olv*Ma: 0.0 0.58 1.0
triangle lightness t^*



TLS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.74	27.99	65.07	25
J _{CIE}	81.26	-2.88	71.56	71.62	92
G _{CIE}	52.23	-42.41	13.6	44.55	162
B _{CIE}	30.57	1.41	-46.46	46.49	272

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 55.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 35.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 0.01 0.0

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

$n^* = 1.0$

relative Inform. Technology (IT)
olv3* 0.75 0.895 1.0 (1.0)
cmyn3* 0.25 0.105 0.0 (0.0)
olv4* 0.75 0.895 1.0 (1.0)
cmyn4* 0.25 0.105 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 87.52 0.35 -11.85
LAB*LABa 87.52 0.35 -11.85
LAB*LABb 87.5 11.87 271.71

relative CIELAB lab*
lab*lab 0.903 0.007 -0.249
lab*tch 0.875 0.25 0.755
lab*nch 0.0 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.903 0.0 -0.249
lab*tce 0.875 0.25 0.755
lab*nce 0.0 0.25 0.755

relative Inform. Technology (IT)
olv3* 0.5 0.645 0.75 (1.0)
cmyn3* 0.5 0.355 0.25 (0.0)
olv4* 0.75 0.895 1.0 (1.0)
cmyn4* 0.25 0.105 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 68.57 0.36 -11.86
LAB*LABa 68.57 0.36 -11.86
LAB*LABb 68.5 11.87 271.74

relative CIELAB lab*
lab*lab 0.653 0.008 -0.249
lab*tch 0.625 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.653 0.0 -0.249
lab*tce 0.625 0.25 0.755
lab*nce 0.25 0.25 0.755

relative Inform. Technology (IT)
olv3* 0.25 0.395 0.5 (1.0)
cmyn3* 0.75 0.605 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.25 0.105 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 49.25 0.36 -11.86
LAB*LABa 49.25 0.36 -11.86
LAB*LABb 49.25 11.87 271.74

relative CIELAB lab*
lab*lab 0.403 0.008 -0.249
lab*tch 0.375 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.403 0.0 -0.249
lab*tce 0.375 0.25 0.755
lab*nce 0.25 0.25 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.5 (1.0)
cmyn3* 1.0 0.75 0.5 (0.0)
olv4* 0.75 0.895 1.0 (1.0)
cmyn4* 0.25 0.105 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.74 0.72 -23.74
LAB*LABa 41.74 0.72 -23.74
LAB*LABb 41.74 23.76 271.75

relative CIELAB lab*
lab*lab 0.307 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.25 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.307 0.0 -0.499
lab*tce 0.25 0.5 0.755
lab*nce 0.25 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 0.01 0.0

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

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 0.5 0.79 1.0 (1.0)
cmyn3* 0.5 0.21 0.0 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.4 23.75 271.72

relative CIELAB lab*
lab*lab 0.807 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*trj 0.807 0.0 -0.499
lab*tce 0.75 0.5 0.755
lab*nce 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.25 0.581 1.0 (1.0)
cmyn3* 0.75 0.419 0.0 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 1.07 -35.6
LAB*LABa 72.95 1.07 -35.6
LAB*LABb 72.9 35.63 271.73

relative CIELAB lab*
lab*lab 0.71 0.023 -0.749
lab*tch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.71 0.0 -0.749
lab*tce 0.625 0.75 0.755
lab*nce 0.0 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.435 0.75 (1.0)
cmyn3* 1.0 0.565 0.25 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.6 1.09 -35.61
LAB*LABa 53.6 1.09 -35.61
LAB*LABb 53.5 35.63 271.75

relative CIELAB lab*
lab*lab 0.46 0.023 -0.749
lab*tch 0.375 0.75 0.755
lab*nch 0.25 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.46 0.0 -0.749
lab*tce 0.375 0.75 0.755
lab*nce 0.25 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.29 0.5 (1.0)
cmyn3* 1.0 0.71 0.5 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 61.0 23.76 271.74

relative CIELAB lab*
lab*lab 0.557 0.0 -0.499
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.557 0.0 -0.499
lab*tce 0.5 0.5 0.755
lab*nce 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.5 (1.0)
cmyn3* 1.0 0.75 0.5 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.74 0.72 -23.74
LAB*LABa 41.74 0.72 -23.74
LAB*LABb 41.74 23.76 271.75

relative CIELAB lab*
lab*lab 0.307 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.25 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.307 0.0 -0.499
lab*tce 0.25 0.5 0.755
lab*nce 0.25 0.5 0.755

$n^* = 0.25$

relative Inform. Technology (IT)
olv3* 0.25 0.581 1.0 (1.0)
cmyn3* 0.75 0.419 0.0 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 1.07 -35.6
LAB*LABa 72.95 1.07 -35.6
LAB*LABb 72.9 35.63 271.73

relative CIELAB lab*
lab*lab 0.71 0.023 -0.749
lab*tch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.71 0.0 -0.749
lab*tce 0.625 0.75 0.755
lab*nce 0.0 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.435 0.75 (1.0)
cmyn3* 1.0 0.565 0.25 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.6 1.09 -35.61
LAB*LABa 53.6 1.09 -35.61
LAB*LABb 53.5 35.63 271.75

relative CIELAB lab*
lab*lab 0.46 0.023 -0.749
lab*tch 0.375 0.75 0.755
lab*nch 0.25 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.46 0.0 -0.749
lab*tce 0.375 0.75 0.755
lab*nce 0.25 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.29 0.5 (1.0)
cmyn3* 1.0 0.71 0.5 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 61.0 23.76 271.74

relative CIELAB lab*
lab*lab 0.557 0.0 -0.499
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.557 0.0 -0.499
lab*tce 0.5 0.5 0.755
lab*nce 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.25 0.581 1.0 (1.0)
cmyn3* 0.75 0.419 0.0 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 1.07 -35.6
LAB*LABa 72.95 1.07 -35.6
LAB*LABb 72.9 35.63 271.73

relative CIELAB lab*
lab*lab 0.71 0.023 -0.749
lab*tch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.71 0.0 -0.749
lab*tce 0.625 0.75 0.755
lab*nce 0.0 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.435 0.75 (1.0)
cmyn3* 1.0 0.565 0.25 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.6 1.09 -35.61
LAB*LABa 53.6 1.09 -35.61
LAB*LABb 53.5 35.63 271.75

relative CIELAB lab*
lab*lab 0.46 0.023 -0.749
lab*tch 0.375 0.75 0.755
lab*nch 0.25 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.46 0.0 -0.749
lab*tce 0.375 0.75 0.755
lab*nce 0.25 0.75 0.755

$n^* = 0.00$

relative Inform. Technology (IT)
olv3* 0.5 0.79 1.0 (1.0)
cmyn3* 0.5 0.21 0.0 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.4 23.75 271.72

relative CIELAB lab*
lab*lab 0.807 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*trj 0.807 0.0 -0.499
lab*tce 0.75 0.5 0.755
lab*nce 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.25 0.581 1.0 (1.0)
cmyn3* 0.75 0.419 0.0 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 1.07 -35.6
LAB*LABa 72.95 1.07 -35.6
LAB*LABb 72.9 35.63 271.73

relative CIELAB lab*
lab*lab 0.71 0.023 -0.749
lab*tch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.71 0.0 -0.749
lab*tce 0.625 0.75 0.755
lab*nce 0.0 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.435 0.75 (1.0)
cmyn3* 1.0 0.565 0.25 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.6 1.09 -35.61
LAB*LABa 53.6 1.09 -35.61
LAB*LABb 53.5 35.63 271.75

relative CIELAB lab*
lab*lab 0.46 0.023 -0.749
lab*tch 0.375 0.75 0.755
lab*nch 0.25 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.46 0.0 -0.749
lab*tce 0.375 0.75 0.755
lab*nce 0.25 0.75 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.29 0.5 (1.0)
cmyn3* 1.0 0.71 0.5 (0.0)
olv4* 0.5 0.79 1.0 (1.0)
cmyn4* 0.5 0.21 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 61.0 23.76 271.74

relative CIELAB lab*
lab*lab 0.557 0.0 -0.499
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.557 0.0 -0.499
lab*tce 0.5 0.5 0.755
lab*nce 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.25 0.581 1.0 (1.0)
cmyn3* 0.75 0.419 0.0 (0.0)
olv4* 0.25 0.581 1.0 (1.0)
cmyn4* 0.75 0.419 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 1.07 -35.6
LAB*LABa 72.95 1.07 -35.6
LAB*LABb 72.9 35.63 271.73

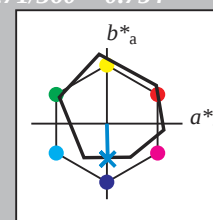
relative CIELAB lab*
lab*lab 0.71 0.023 -0.749
lab*tch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755
relative Natural Colour (NC)
lab*trj 0.71 0.0 -0.749
lab*tce 0.625 0.75 0.755
lab*nce 0.0 0.75 0.755

$n^* = 0.25$

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