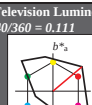
Input: Colorimetric Television Luminous System TLS00

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

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

triangle lightness t^*



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

TLS00; adapted (a) CIELAB data	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{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_{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	

relative **Inform. Technology (IT)**

*olv13**	1.0	1.0	(1.0)
*cmyn3**	0.0	0.0	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	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*rCe*	1.0	0.0	–
*lab*nCE*	0.0	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.5	(1.0)
*cmyn3**	0.5	0.5	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	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*rCe*	0.5	0.0	–
*lab*nCE*	0.5	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.0	0.0	(1.0)
*cmyn3**	1.0	1.0	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	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	–
*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*rCe*	0.0	0.0	–
*lab*nCE*	1.0	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.5	(1.0)
*cmyn3**	0.0	0.5	(0.0)
*olv14**	1.0	0.5	1.0
*cmyn4**	0.0	0.5	0.0

***standard and adapted* CIELAB**

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

***relative* CIELAB *lab**

*lab*lab*	0.765	0.383	0.321
*lab*tch*	0.75	0.5	0.111
*lab*nch*	0.75	0.5	0.111

***relative* Natural Colour (NC)**

*lab*lrj*	0.765	0.471	0.167
*lab*rCe*	0.75	0.5	0.054
*lab*nCE*	0.0	0.5	r21]

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.0	(1.0)
*cmyn3**	0.5	1.0	(0.0)
*olv14**	1.0	0.5	0.5
*cmyn4**	0.0	0.5	0.5

***standard and adapted* CIELAB**

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

***relative* CIELAB *lab**

*lab*lab*	0.265	0.383	0.321
*lab*tch*	0.25	0.5	0.111
*lab*nch*	0.25	0.5	0.111

***relative* Natural Colour (NC)**

*lab*lrj*	0.265	0.471	0.167
*lab*rCe*	0.25	0.5	0.054
*lab*nCE*	0.5	0.5	r21]

***relative* Inform. Technology (IT)**

*olv13**	0.0	0.0	(1.0)
*cmyn3**	1.0	1.0	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	0.0	1.0	0.0

***standard and adapted* CIELAB**

*LAB*LAB*	50.5	76.9	64.54
*LAB*LABa*	50.5	76.9	64.54
*LAB*TCHa*	50.0	100.4	40.0

***relative* CIELAB *lab**

*lab*lab*	0.529	0.766	0.643
*lab*tch*	0.5	1.0	0.111
*lab*nch*	0.0	1.0	0.111

***relative* Natural Colour (NC)**

*lab*lrj*	0.529	0.942	0.335
*lab*rCe*	0.5	1.0	0.054
*lab*nCE*	0.0	1.0	r21]

$n^* = 0,00$

blackness n^*

0,25 0,50 $n^* = 0,50$ 0,75 1,00

chromaticness c^*

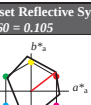
$n^* = 1,0$

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^*



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

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	

relative **Inform. Technology (IT)**

*olv13**	1.0	1.0	(1.0)
*cmyn3**	0.0	0.0	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	0.0	0.0	0.0

***standard and adapted* CIELAB**

*LAB*LAB*	95.41	−0.98	4.75
*LAB*LABa*	95.41	0.0	0.0
*LAB*TCHa*	99.99	0.01	–

***relative* CIELAB *lab**

*lab*lab*	1.0	0.0	0.0
*lab*tch*	1.0	0.0	–
*lab*nch*	0.0	0.0	–

***relative* Natural Colour (NC)**

*lab*lrj*	1.0	0.0	0.0
*lab*rCe*	1.0	0.0	–
*lab*nCE*	0.0	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.5	(1.0)
*cmyn3**	0.5	0.5	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	0.0	0.0	0.5

***standard and adapted* CIELAB**

*LAB*LAB*	56.71	−0.24	2.14
*LAB*LABa*	56.71	0.0	0.0
*LAB*TCHa*	50.0	0.01	–

***relative* CIELAB *lab**

*lab*lab*	0.5	0.0	0.0
*lab*tch*	0.5	0.0	–
*lab*nch*	0.5	0.0	–

***relative* Natural Colour (NC)**

*lab*lrj*	0.5	0.0	0.0
*lab*rCe*	0.5	0.0	–
*lab*nCE*	0.5	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.0	0.0	(1.0)
*cmyn3**	1.0	1.0	(0.0)
*olv14**	1.0	1.0	1.0
*cmyn4**	0.0	0.0	1.0

***standard and adapted* CIELAB**

*LAB*LAB*	18.02	0.5	−0.47
*LAB*LABa*	18.02	0.5	0.0
*LAB*TCHa*	0.01	0.01	–

***relative* CIELAB *lab**

*lab*lab*	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*rCe*	0.0	0.0	–
*lab*nCE*	1.0	0.0	–

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.5	(1.0)
*cmyn3**	0.0	0.5	(0.0)
*olv14**	1.0	0.5	1.0
*cmyn4**	0.0	0.5	0.0

***standard and adapted* CIELAB**

*LAB*LAB*	47.94	65.3	52.06
*LAB*LABa*	47.94	65.37	50.51
*LAB*TCHa*	50.0	82.61	37.69

***relative* CIELAB *lab**

*lab*lab*	0.387	0.791	0.611
*lab*tch*	0.5	1.0	0.105
*lab*nch*	0.0	1.0	0.105

***relative* Natural Colour (NC)**

*lab*lrj*	0.387	0.954	0.299
*lab*rCe*	0.5	1.0	0.048
*lab*nCE*	0.0	1.0	r19]

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.0	(1.0)
*cmyn3**	0.5	1.0	(0.0)
*olv14**	1.0	0.5	0.5
*cmyn4**	0.0	0.5	0.5

***standard and adapted* CIELAB**

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

***relative* CIELAB *lab**

*lab*lab*	0.193	0.396	0.306
*lab*tch*	0.25	0.5	0.105
*lab*nch*	0.5	0.5	0.105

***relative* Natural Colour (NC)**

*lab*lrj*	0.193	0.477	0.15
*lab*rCe*	0.25	0.5	0.048
*lab*nCE*	0.5	0.5	r19]

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.0	(1.0)
*cmyn3**	0.0	1.0	(0.0)
*olv14**	1.0	0.0	1.0
*cmyn4**	0.0	1.0	0.0

***standard and adapted* CIELAB**

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

***relative* CIELAB *lab**

*lab*lab*	0.693	0.396	0.306
*lab*tch*	0.75	0.5	0.105
*lab*nch*	0.75	0.5	0.105

***relative* Natural Colour (NC)**

*lab*lrj*	0.693	0.477	0.15
*lab*rCe*	0.75	0.5	0.048
*lab*nCE*	0.0	0.5	r19]

***relative* Inform. Technology (IT)**

*olv13**	0.5	0.0	(1.0)
*cmyn3**	0.0	1.0	(0.0)
*olv14**	1.0	0.0	1.0
*cmyn4**	0.0	1.0	0.0

***standard and adapted* CIELAB**

*LAB*LAB*	47.94	65.3	52.06
*LAB*LABa*	47.94	65.37	50.51
*LAB*TCHa*	50.0	82.61	37.69

***relative* CIELAB *lab**

*lab*lab*	0.387	0.791	0.611
*lab*tch*	0.5	1.0	0.105
*lab*nch*	0.0	1.0	0.105

***relative* Natural Colour (NC)**

*lab*lrj*	0.387	0.954	0.299
*lab*rCe*	0.5	1.0	0.048
*lab*nCE*	0.0	1.0	r19]

$n^* = 0,00$

blackness n^*

0,25 0,50 $n^* = 0,50$ 0,75 1,00

chromaticness c^*

$n^* = 1,0$

OE150−7, 3 step scales for constant CIELAB hue 40/360 = 0.111 (left) 3 step scales for constant CIELAB hue 38/360 = 0.105 (right)

BAM-test chart OE15; Colorimetric systems TLS00 & ORS18 input: *cmy0* setcmykcolor*
D65: 2 coordinate data of 3 step colour scales for 10 hues output: *cmy0* / 000n* setcmykcolor*