

Input: 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

$g^*_{Hrel} = 57$

$g^*_{Crel} = 59$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABo 95.41 0.0 0.0
LAB*TCHo 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.5 0.0 (1.0)
lab*tch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0 (1.0)
lab*tce 1.0 0.0 0.0 (1.0)
lab*nce 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (1.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABo 56.71 0.0 0.0
LAB*TCHo 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0 (1.0)
lab*tch 0.5 0.0 - (0.0)
lab*nch 0.5 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0 (1.0)
lab*tce 0.5 0.0 0.0 (1.0)
lab*nce 0.5 0.0 - (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 1.0 1.0 (0.0)
cmyn3* 1.0 1.0 1.0 (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 18.02 0.5 -0.47
LAB*LABo 18.02 0.0 0.0
LAB*TCHo 18.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 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*lrj 0.0 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)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 71.67 32.15 28.41
LAB*LABo 71.67 32.69 25.25
LAB*TCHo 75.0 41.31 37.69

relative CIELAB lab*
lab*lab 0.693 0.396 0.306
lab*tch 0.75 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*lrj 0.693 0.477 0.15
lab*tce 0.75 0.5 0.048
lab*nce 0.0 0.5 r19

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (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 32.98 32.9 25.8
LAB*LABo 32.98 32.69 25.25
LAB*TCHo 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 1.0 0.105
relative Natural Colour (NC)
lab*lrj 0.193 0.477 0.15
lab*tce 0.25 0.5 0.048
lab*nce 0.5 0.5 r19

blackness n^*

chromaticness c^*

ORS18; adapted (a) CIELAB data					
$L^*a^*b^*$	a^*	b^*	C^*_{ab}	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} 50.39	-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	

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: 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

$g^*_{Hrel} = 20$

$g^*_{Crel} = 37$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABo 95.41 0.0 0.0
LAB*TCHo 99.99 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (1.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 1.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABo 47.72 0.0 0.0
LAB*TCHo 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0 (1.0)
lab*tch 0.5 0.0 - (0.0)
lab*nch 0.5 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0 (1.0)
lab*tce 0.5 0.0 0.0 (1.0)
lab*nce 0.5 0.0 - (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (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 0.03 0.0 0.0
LAB*LABo 0.03 0.0 0.0
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 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*lrj 0.0 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)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 72.95 38.45 32.27
LAB*LABo 72.95 38.45 32.27
LAB*TCHo 75.0 50.2 40.0

relative CIELAB lab*
lab*lab 0.765 0.383 0.321
lab*tch 0.75 0.5 0.111
lab*nch 0.0 0.5 0.111
relative Natural Colour (NC)
lab*lrj 0.765 0.471 0.167
lab*tce 0.75 0.5 0.054
lab*nce 0.0 0.5 r21

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 0.0 (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 25.26 38.45 32.27
LAB*LABo 25.26 38.45 32.27
LAB*TCHo 25.01 40.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*tch 0.25 0.5 0.111
lab*nch 0.5 1.0 0.111
relative Natural Colour (NC)
lab*lrj 0.265 0.471 0.167
lab*tce 0.25 0.5 0.054
lab*nce 0.5 0.5 r21

$n^* = 0.50$

chromaticness c^*

TLS00; adapted (a) CIELAB data					
$L^*a^*b^*$	a^*	b^*	C^*_{ab}	h^*_{ab}	
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)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 1.0 1.0 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.5 76.9 64.54
LAB*LABo 50.5 76.9 64.54
LAB*TCHo 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 0.325
lab*tce 0.5 1.0 0.054
lab*nce 0.0 1.0 r21

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 0.0 (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 25.26 38.45 32.27
LAB*LABo 25.26 38.45 32.27
LAB*TCHo 25.01 40.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*tch 0.25 0.5 0.111
lab*nch 0.5 1.0 0.111
relative Natural Colour (NC)
lab*lrj 0.265 0.471 0.167
lab*tce 0.25 0.5 0.054
lab*nce 0.5 0.5 r21

$n^* = 0.50$

chromaticness c^*