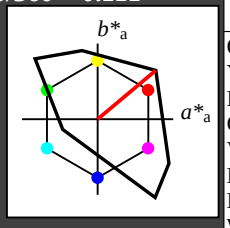
Input: Colorimetric Television Luminous System TLS00

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)**
*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* 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* 0.0 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 r21j

***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* 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*tce* 0.5 1.0 0.054
*lab*ncE* 0.0 1.0 r21j

***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 0.0 (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* 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* 0.5 0.5 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 r21j

***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 –

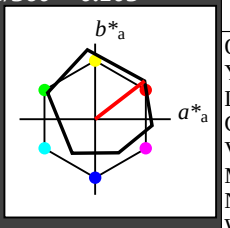
*n** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

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)**
*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 0.0 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* 71.67 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* 0.0 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 r19j

***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* 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*tce* 0.5 1.0 0.048
*lab*ncE* 0.0 1.0 r19j

***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* 56.71 −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*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* 32.98 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*tce* 0.25 0.5 0.048
*lab*ncE* 0.5 0.5 r19j

***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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

NE150−7, 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 NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

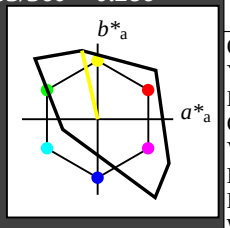
BAM registration: 20060101-NE15/10S/S15E00FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 103/360 = 0.286**
lab*tch* and *lab*nch

D65: hue Y
LCH*Ma: 93 93 103
olv*Ma: 1.0 1.0 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)**
*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* 94.03 −10.34 45.37
*LAB*LABa* 94.03 −10.34 45.37
*LAB*TCHa* 75.0 46.53 102.85
relative* CIELAB *lab*
*lab*lab* 0.985 −0.11 0.487
*lab*tch* 0.75 0.5 0.286
*lab*nch* 0.0 0.5 0.286
***relative* Natural Colour (NC)**
*lab*lrj* 0.985 −0.116 0.486
*lab*tce* 0.75 0.5 0.288
*lab*ncE* 0.0 0.5 j15g

***relative* Inform. Technology (IT)**
*olvi3** 1.0 1.0 0.0 (1.0)
*cmyn3** 0.0 0.0 1.0 (0.0)
*olvi4** 1.0 1.0 0.0 1.0
*cmyn4** 0.0 0.0 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 92.65 −20.69 90.73
*LAB*LABa* 92.65 −20.69 90.73
*LAB*TCHa* 50.0 93.06 102.85
relative* CIELAB *lab*
*lab*lab* 0.971 −0.221 0.975
*lab*tch* 0.5 1.0 0.286
*lab*nch* 0.0 1.0 0.286
***relative* Natural Colour (NC)**
*lab*lrj* 0.971 −0.233 0.972
*lab*tce* 0.5 1.0 0.288
*lab*ncE* 0.0 1.0 j15g

***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 0.5 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* 46.34 −10.34 45.37
*LAB*LABa* 46.34 −10.34 45.37
*LAB*TCHa* 25.01 46.53 102.85
relative* CIELAB *lab*
*lab*lab* 0.486 −0.11 0.487
*lab*tch* 0.25 0.5 0.286
*lab*nch* 0.5 0.5 0.286
***relative* Natural Colour (NC)**
*lab*lrj* 0.486 −0.116 0.486
*lab*tce* 0.25 0.5 0.288
*lab*ncE* 0.5 0.5 j15g

***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 –

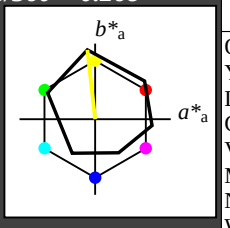
*n** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 96/360 = 0.268**
lab*tch* and *lab*nch

D65: hue Y
LCH*Ma: 90 92 96
olv*Ma: 1.0 1.0 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)**
*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 0.0 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* 92.88 −6.06 50.46
*LAB*LABa* 92.88 −5.12 45.87
*LAB*TCHa* 75.0 46.15 96.38
relative* CIELAB *lab*
*lab*lab* 0.967 −0.055 0.497
*lab*tch* 0.75 0.5 0.268
*lab*nch* 0.0 0.5 0.268
***relative* Natural Colour (NC)**
*lab*lrj* 0.967 −0.048 0.497
*lab*tce* 0.75 0.5 0.266
*lab*ncE* 0.0 0.5 j06g

***relative* Inform. Technology (IT)**
*olvi3** 1.0 1.0 0.0 (1.0)
*cmyn3** 0.0 0.0 1.0 (0.0)
*olvi4** 1.0 1.0 0.0 1.0
*cmyn4** 0.0 0.0 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 90.36 −11.15 96.15
*LAB*LABa* 90.36 −10.25 91.73
*LAB*TCHa* 50.0 92.3 96.38
relative* CIELAB *lab*
*lab*lab* 0.935 −0.11 0.994
*lab*tch* 0.5 1.0 0.268
*lab*nch* 0.0 1.0 0.268
***relative* Natural Colour (NC)**
*lab*lrj* 0.935 −0.097 0.995
*lab*tce* 0.5 1.0 0.266
*lab*ncE* 0.0 1.0 j06g

***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 0.5 0.5
*cmyn4** 0.0 0.0 0.0 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 47.71 −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*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* 54.19 −5.32 47.84
*LAB*LABa* 54.19 −5.12 45.87
*LAB*TCHa* 25.01 46.15 96.38
relative* CIELAB *lab*
*lab*lab* 0.467 −0.055 0.497
*lab*tch* 0.25 0.5 0.268
*lab*nch* 0.5 0.5 0.268
***relative* Natural Colour (NC)**
*lab*lrj* 0.467 −0.048 0.497
*lab*tce* 0.25 0.5 0.266
*lab*ncE* 0.5 0.5 j06g

***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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

NE150−7, 3 step scales for constant CIELAB hue 103/360 = 0.286 (left)
3 step scales for constant CIELAB hue 96/360 = 0.268 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

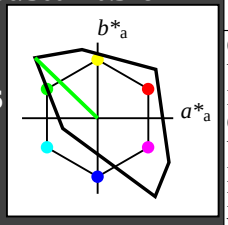
BAM registration: 20060101-NE15/10S/S15E01FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems
/NE15/ Form: 2/10, Serie: 1/1, Page: 2 Page: count: 2

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 136/360 = 0.378**
lab*tch* and *lab*nch

D65: hue L
LCH*Ma: 84 115 136
olv*Ma: 0.0 1.0 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)**
*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** 0.0 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*

***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* 89.51 −41.36 39.94
*LAB*LABa* 89.51 −41.36 39.94
*LAB*TCHa* 75.0 57.51 136.01
relative* CIELAB *lab*
*lab*lab* 0.938 −0.359 0.347
*lab*tch* 0.75 0.5 0.378
*lab*nch* 0.0 0.5 0.378
***relative* Natural Colour (NC)**
*lab*lrj* 0.938 −0.415 0.278
*lab*tce* 0.75 0.5 0.406
*lab*ncE* 0.0 0.5 j62g

***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* 41.82 −41.36 39.94
*LAB*LABa* 41.82 −41.36 39.94
*LAB*TCHa* 25.01 57.51 136.01
relative* CIELAB *lab*
*lab*lab* 0.438 −0.359 0.347
*lab*tch* 0.25 0.5 0.378
*lab*nch* 0.5 0.5 0.378
***relative* Natural Colour (NC)**
*lab*lrj* 0.438 −0.415 0.278
*lab*tce* 0.25 0.5 0.406
*lab*ncE* 0.5 0.5 j62g

***relative* Inform. Technology (IT)**
*olvi3** 0.0 1.0 0.0 (1.0)
*cmyn3** 1.0 0.0 1.0 (0.0)
*olvi4** 0.0 1.0 0.0 1.0
*cmyn4** 1.0 0.0 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 83.62 −82.73 79.88
*LAB*LABa* 83.62 −82.73 79.88
*LAB*TCHa* 50.0 115.01 136.01
relative* CIELAB *lab*
*lab*lab* 0.876 −0.718 0.694
*lab*tch* 0.5 1.0 0.378
*lab*nch* 0.0 1.0 0.378
***relative* Natural Colour (NC)**
*lab*lrj* 0.876 −0.83 0.555
*lab*tce* 0.5 1.0 0.406
*lab*ncE* 0.0 1.0 j62g

***n** = 0,00*

blackness *n**

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

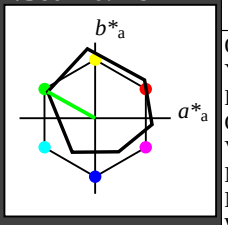
chromaticness *c**

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 151/360 = 0.419**
lab*tch* and *lab*nch

D65: hue L
LCH*Ma: 51 72 151
olv*Ma: 0.0 1.0 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)**
*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 0.0 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* 56.71 −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*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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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 0.5 (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* 73.15 −31.96 20.73
*LAB*LABa* 73.15 −31.4 17.48
*LAB*TCHa* 75.0 35.95 150.91
relative* CIELAB *lab*
*lab*lab* 0.712 −0.436 0.243
*lab*tch* 0.75 0.5 0.419
*lab*nch* 0.0 0.5 0.419
***relative* Natural Colour (NC)**
*lab*lrj* 0.712 −0.478 0.144
*lab*tce* 0.75 0.5 0.453
*lab*ncE* 0.0 0.5 j81g

***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* 34.46 −31.22 18.12
*LAB*LABa* 34.46 −31.4 17.48
*LAB*TCHa* 25.01 35.95 150.91
relative* CIELAB *lab*
*lab*lab* 0.213 −0.436 0.243
*lab*tch* 0.25 0.5 0.419
*lab*nch* 0.5 0.5 0.419
***relative* Natural Colour (NC)**
*lab*lrj* 0.213 −0.478 0.144
*lab*tce* 0.25 0.5 0.453
*lab*ncE* 0.5 0.5 j81g

***relative* Inform. Technology (IT)**
*olvi3** 0.0 1.0 0.0 (1.0)
*cmyn3** 1.0 0.0 1.0 (0.0)
*olvi4** 0.0 1.0 0.0 1.0
*cmyn4** 1.0 0.0 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 50.9 −62.95 36.7
*LAB*LABa* 50.9 −62.81 34.95
*LAB*TCHa* 50.0 71.89 150.91
relative* CIELAB *lab*
*lab*lab* 0.425 −0.873 0.486
*lab*tch* 0.5 1.0 0.419
*lab*nch* 0.0 1.0 0.419
***relative* Natural Colour (NC)**
*lab*lrj* 0.425 −0.956 0.289
*lab*tce* 0.5 1.0 0.453
*lab*ncE* 0.0 1.0 j81g

***n** = 0,00*

blackness *n**

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

chromaticness *c**

NE150−7, 3 step scales for constant CIELAB hue 136/360 = 0.378 (left)

3 step scales for constant CIELAB hue 151/360 = 0.419 (right)

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE15/10S/S15E02FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

/NE15/ Form: 3/10, Serie: 1/1, Page: 3 Page: count: 3

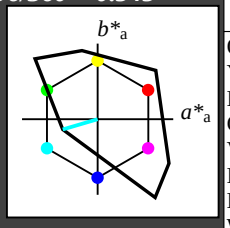
BAM-test chart NE15; Colorimetric systems TLS00 & ORS18 input: *olv* setrgbcolor*
D65: 2 coordinate data of 3 step colour scales for 10 hues output: *olv* setrgbcolor / w* setgray*

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 196/360 = 0.545**
lab*tch* and *lab*nch

D65: hue C
LCH*Ma: 87 48 196
olv*Ma: 0.0 1.0 1.0

triangle lightness *t**



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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

%Gamut
u^*_{rel} = 158
%Regularity
$g^*_{H,rel}$ = 20
$g^*_{C,rel}$ = 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*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	1.0	(1.0)
*cmyn3**	0.5	0.0	0.0	(0.0)
*olvi4**	0.5	1.0	1.0	1.0
*cmyn4**	0.5	0.0	0.0	0.0

***standard* and *adapted* CIELAB**

*LAB*LAB*	91.14	−23.07	−6.77
*LAB*LABa*	91.14	−23.07	−6.77
*LAB*TCHa*	75.0	24.06	196.37

relative* CIELAB *lab*

*lab*lab*	0.955	−0.479	−0.14
*lab*tch*	0.75	0.5	0.545
*lab*nch*	0.0	0.5	0.545

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

*lab*lrj*	0.955	−0.44	−0.234
*lab*tce*	0.75	0.5	0.578
*lab*ncE*	0.0	0.5	g31b

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

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

***standard* and *adapted* CIELAB**

*LAB*LAB*	86.87	−46.15	−13.55
*LAB*LABa*	86.87	−46.15	−13.55
*LAB*TCHa*	50.0	48.11	196.37

relative* CIELAB *lab*

*lab*lab*	0.911	−0.958	−0.281
*lab*tch*	0.5	1.0	0.545
*lab*nch*	0.0	1.0	0.545

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

*lab*lrj*	0.911	−0.881	−0.469
*lab*tce*	0.5	1.0	0.578
*lab*ncE*	0.0	1.0	g31b

***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	0.5	(1.0)
*cmyn3**	1.0	0.5	0.5	(0.0)
*olvi4**	0.5	1.0	1.0	0.5
*cmyn4**	0.5	0.0	0.0	0.5

***standard* and *adapted* CIELAB**

*LAB*LAB*	43.45	−23.07	−6.77
*LAB*LABa*	43.45	−23.07	−6.77
*LAB*TCHa*	25.01	24.06	196.37

relative* CIELAB *lab*

*lab*lab*	0.455	−0.479	−0.14
*lab*tch*	0.25	0.5	0.545
*lab*nch*	0.5	0.5	0.545

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

*lab*lrj*	0.455	−0.44	−0.234
*lab*tce*	0.25	0.5	0.578
*lab*ncE*	0.5	0.5	g31b

***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** = 0,00

blackness *n**

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

chromaticness *c**

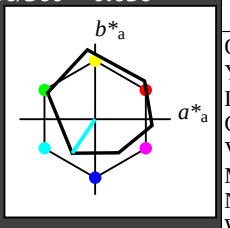
*n** = 1,0

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 236/360 = 0.656**
lab*tch* and *lab*nch

D65: hue C
LCH*Ma: 59 54 236
olv*Ma: 0.0 1.0 1.0

triangle lightness *t**



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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

%Gamut
u^*_{rel} = 93
%Regularity
$g^*_{H,rel}$ = 57
$g^*_{C,rel}$ = 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*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	1.0	(1.0)
*cmyn3**	0.5	0.0	0.0	(0.0)
*olvi4**	0.5	1.0	1.0	1.0
*cmyn4**	0.5	0.0	0.0	0.0

***standard* and *adapted* CIELAB**

*LAB*LAB*	77.01	−15.8	−18.98
*LAB*LABa*	77.01	−15.16	−22.5
*LAB*TCHa*	75.0	27.14	236.02

relative* CIELAB *lab*

*lab*lab*	0.762	−0.278	−0.414
*lab*tch*	0.75	0.5	0.656
*lab*nch*	0.0	0.5	0.656

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

*lab*lrj*	0.762	−0.247	−0.433
*lab*tce*	0.75	0.5	0.667
*lab*ncE*	0.0	0.5	g66b

***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*	56.71	−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*tce*	0.5	0.0	–
*lab*ncE*	0.5	0.0	–

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

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

***standard* and *adapted* CIELAB**

*LAB*LAB*	38.32	−15.05	−21.6
*LAB*LABa*	38.32	−15.16	−22.5
*LAB*TCHa*	25.01	27.14	236.02

relative* CIELAB *lab*

*lab*lab*	0.262	−0.278	−0.414
*lab*tch*	0.25	0.5	0.656
*lab*nch*	0.5	0.5	0.656

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

*lab*lrj*	0.262	−0.247	−0.433
*lab*tce*	0.25	0.5	0.667
*lab*ncE*	0.5	0.5	g66b

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

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

***standard* and *adapted* CIELAB**

*LAB*LAB*	58.62	−30.61	−42.73
*LAB*LABa*	58.62	−30.33	−45.01
*LAB*TCHa*	50.0	54.29	236.02

relative* CIELAB *lab*

*lab*lab*	0.525	−0.558	−0.828
*lab*tch*	0.5	1.0	0.656
*lab*nch*	0.0	1.0	0.656

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

*lab*lrj*	0.525	−0.496	−0.867
*lab*tce*	0.5	1.0	0.667
*lab*ncE*	0.0	1.0	g66b

*n** = 0,00

blackness *n**

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

chromaticness *c**

*n** = 1,0

NE150−7, 3 step scales for constant CIELAB hue 196/360 = 0.545 (left)

3 step scales for constant CIELAB hue 236/360 = 0.656 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

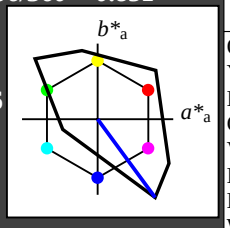
BAM registration: 20060101-NE15/10S/S15E03FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems
/NE15/ Form: 4/10, Serie: 1/1, Page: 4 Page: count: 4

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 306/360 = 0.851**
lab*tch* and *lab*nch

D65: hue V
LCH*Ma: 30 129 306
olv*Ma: 0.0 0.0 1.0

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)**
*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* 62.9 38.02 −51.78
*LAB*LABa* 62.9 38.02 −51.78
*LAB*TCHa* 75.0 64.25 306.29
relative* CIELAB *lab*
*lab*lab* 0.659 0.296 −0.402
*lab*tch* 0.75 0.5 0.851
*lab*nch* 0.0 0.5 0.851
***relative* Natural Colour (NC)**
*lab*lrj* 0.659 0.23 −0.443
*lab*tce* 0.75 0.5 0.826
*lab*ncE* 0.0 0.5 b30r

***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* 30.39 76.04 −103.57
*LAB*LABa* 30.39 76.04 −103.57
*LAB*TCHa* 50.0 128.5 306.29
relative* CIELAB *lab*
*lab*lab* 0.318 0.592 −0.805
*lab*tch* 0.5 1.0 0.851
*lab*nch* 0.0 1.0 0.851
***relative* Natural Colour (NC)**
*lab*lrj* 0.318 0.459 −0.887
*lab*tce* 0.5 1.0 0.826
*lab*ncE* 0.0 1.0 b30r

***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* 15.21 38.02 −51.78
*LAB*LABa* 15.21 38.02 −51.78
*LAB*TCHa* 25.01 64.25 306.29
relative* CIELAB *lab*
*lab*lab* 0.159 0.296 −0.402
*lab*tch* 0.25 0.5 0.851
*lab*nch* 0.5 0.5 0.851
***relative* Natural Colour (NC)**
*lab*lrj* 0.159 0.23 −0.443
*lab*tce* 0.25 0.5 0.826
*lab*ncE* 0.5 0.5 b30r

***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** = 0,00

blackness *n**

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

chromaticness *c**

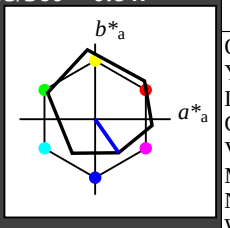
*n** = 1,0

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 305/360 = 0.847**
lab*tch* and *lab*nch

D65: hue V
LCH*Ma: 26 54 305
olv*Ma: 0.0 0.0 1.0

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)**
*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 0.0 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* 60.56 15.23 −19.79
*LAB*LABa* 60.56 15.55 −22.19
*LAB*TCHa* 75.0 27.1 305.0
relative* CIELAB *lab*
*lab*lab* 0.55 0.287 −0.408
*lab*tch* 0.75 0.5 0.847
*lab*nch* 0.0 0.5 0.847
***relative* Natural Colour (NC)**
*lab*lrj* 0.55 0.225 −0.446
*lab*tce* 0.75 0.5 0.824
*lab*ncE* 0.0 0.5 b29r

***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* 25.73 31.44 −44.34
*LAB*LABa* 25.73 31.09 −44.39
*LAB*TCHa* 50.0 54.21 305.0
relative* CIELAB *lab*
*lab*lab* 0.1 0.573 −0.818
*lab*tch* 0.5 1.0 0.847
*lab*nch* 0.0 1.0 0.847
***relative* Natural Colour (NC)**
*lab*lrj* 0.1 0.449 −0.892
*lab*tce* 0.5 1.0 0.824
*lab*ncE* 0.0 1.0 b29r

***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* 56.71 −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*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* 21.87 15.97 −22.4
*LAB*LABa* 21.87 15.55 −22.19
*LAB*TCHa* 25.01 27.1 305.0
relative* CIELAB *lab*
*lab*lab* 0.05 0.287 −0.408
*lab*tch* 0.25 0.5 0.847
*lab*nch* 0.5 0.5 0.847
***relative* Natural Colour (NC)**
*lab*lrj* 0.05 0.225 −0.446
*lab*tce* 0.25 0.5 0.824
*lab*ncE* 0.5 0.5 b29r

***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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** = 0,00

blackness *n**

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

chromaticness *c**

*n** = 1,0

NE150−7, 3 step scales for constant CIELAB hue 306/360 = 0.851 (left)

3 step scales for constant CIELAB hue 305/360 = 0.847 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

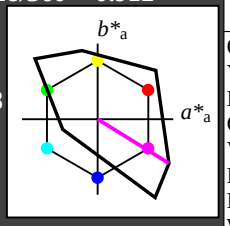
BAM registration: 20060101-NE15/10S/S15E04FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems
/NE15/ Form: 5/10, Serie: 1/1, Page: 5 Page: count: 5

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 328/360 = 0.912$
lab*tch* and *lab*nch

D65: hue M
LCH*Ma: 57 111 328
olv*Ma: 1.0 0.0 1.0

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)**
*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** 0.0 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**

***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* 76.35 47.17 −29.19
*LAB*LABa* 76.35 47.17 −29.19
*LAB*TCHa* 75.0 55.47 328.23
relative* CIELAB *lab*
*lab*lab* 0.8 0.425 −0.262
*lab*tch* 0.75 0.5 0.912
*lab*nch* 0.0 0.5 0.912
***relative* Natural Colour (NC)**
*lab*lrj* 0.8 0.352 −0.354
*lab*tce* 0.75 0.5 0.874
*lab*ncE* 0.0 0.5 b49r

***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* 28.66 47.17 −29.19
*LAB*LABa* 28.66 47.17 −29.19
*LAB*TCHa* 25.01 55.47 328.23
relative* CIELAB *lab*
*lab*lab* 0.3 0.425 −0.262
*lab*tch* 0.25 0.5 0.912
*lab*nch* 0.5 0.5 0.912
***relative* Natural Colour (NC)**
*lab*lrj* 0.3 0.352 −0.354
*lab*tce* 0.25 0.5 0.874
*lab*ncE* 0.5 0.5 b49r

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.0 1.0 (1.0)
*cmyn3** 0.0 1.0 0.0 (0.0)
*olvi4** 1.0 0.0 1.0 1.0
*cmyn4** 0.0 1.0 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 57.3 94.33 −58.4
*LAB*LABa* 57.3 94.33 −58.4
*LAB*TCHa* 50.0 110.95 328.23
relative* CIELAB *lab*
*lab*lab* 0.601 0.85 −0.525
*lab*tch* 0.5 1.0 0.912
*lab*nch* 0.0 1.0 0.912
***relative* Natural Colour (NC)**
*lab*lrj* 0.601 0.703 −0.71
*lab*tce* 0.5 1.0 0.874
*lab*ncE* 0.0 1.0 b49r

***n** = 0,00**

blackness n^*

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

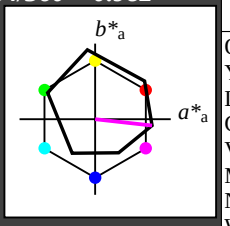
chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 354/360 = 0.982$
lab*tch* and *lab*nch

D65: hue M
LCH*Ma: 48 76 354
olv*Ma: 1.0 0.0 1.0

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)**
*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 0.0 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* 56.71 −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*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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** 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* 71.77 37.1 −1.01
*LAB*LABa* 71.77 37.63 −4.17
*LAB*TCHa* 75.0 37.86 353.66
relative* CIELAB *lab*
*lab*lab* 0.695 0.497 −0.054
*lab*tch* 0.75 0.5 0.982
*lab*nch* 0.0 0.5 0.982
***relative* Natural Colour (NC)**
*lab*lrj* 0.695 0.454 −0.208
*lab*tce* 0.75 0.5 0.932
*lab*ncE* 0.0 0.5 b72r

***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* 33.07 37.84 −3.62
*LAB*LABa* 33.07 37.63 −4.17
*LAB*TCHa* 25.01 37.86 353.66
relative* CIELAB *lab*
*lab*lab* 0.195 0.497 −0.054
*lab*tch* 0.25 0.5 0.982
*lab*nch* 0.5 0.5 0.982
***relative* Natural Colour (NC)**
*lab*lrj* 0.195 0.454 −0.208
*lab*tce* 0.25 0.5 0.932
*lab*ncE* 0.5 0.5 b72r

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.0 1.0 (1.0)
*cmyn3** 0.0 1.0 0.0 (0.0)
*olvi4** 1.0 0.0 1.0 1.0
*cmyn4** 0.0 1.0 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 48.13 75.18 −6.79
*LAB*LABa* 48.13 75.26 −8.35
*LAB*TCHa* 50.0 75.73 353.66
relative* CIELAB *lab*
*lab*lab* 0.389 0.994 −0.109
*lab*tch* 0.5 1.0 0.982
*lab*nch* 0.0 1.0 0.982
***relative* Natural Colour (NC)**
*lab*lrj* 0.389 0.909 −0.416
*lab*tce* 0.5 1.0 0.932
*lab*ncE* 0.0 1.0 b72r

***n** = 0,00**

blackness n^*

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

chromaticness c^*

NE150−7, 3 step scales for constant CIELAB hue 328/360 = 0.912 (left)

3 step scales for constant CIELAB hue 354/360 = 0.982 (right)

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE15/10S/S15E05FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

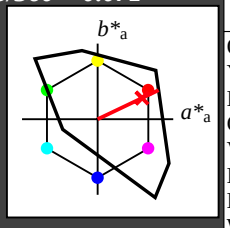
/NE15/ Form: 6/10, Serie: 1/1, Page: 6 Page: count: 6

Input: Colorimetric Television Luminous System TLS00

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

D65: hue R
LCH*Ma: 52 89 25
olv*Ma: 1.0 0.0 0.21

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)**
*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** 0.0 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*

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.5 0.606 (1.0)
*cmyn3** 0.0 0.5 0.394 (0.0)
*olvi4** 1.0 0.5 0.606 1.0
*cmyn4** 0.0 0.5 0.394 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 73.67 40.3 19.2
*LAB*LABa* 73.67 40.3 19.2
*LAB*TCHa* 75.0 44.64 25.47
relative* CIELAB *lab*
*lab*lab* 0.772 0.451 0.215
*lab*tch* 0.75 0.5 0.071
*lab*nch* 0.0 0.5 0.071
***relative* Natural Colour (NC)**
*lab*lrj* 0.772 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 0.0 0.106 (1.0)
*cmyn3** 0.5 1.0 0.894 (0.0)
*olvi4** 1.0 0.5 0.606 0.5
*cmyn4** 0.0 0.5 0.394 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 25.98 40.3 19.21
*LAB*LABa* 25.98 40.3 19.21
*LAB*TCHa* 25.01 44.65 25.49
relative* CIELAB *lab*
*lab*lab* 0.272 0.451 0.215
*lab*tch* 0.25 0.5 0.071
*lab*nch* 0.5 0.5 0.071
***relative* Natural Colour (NC)**
*lab*lrj* 0.272 0.5 0.0
*lab*tce* 0.25 0.5 0.0
*lab*ncE* 0.5 0.5 r00j

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.0 0.213 (1.0)
*cmyn3** 0.0 1.0 0.787 (0.0)
*olvi4** 1.0 0.0 0.213 1.0
*cmyn4** 0.0 1.0 0.787 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 51.94 80.61 38.42
*LAB*LABa* 51.94 80.61 38.42
*LAB*TCHa* 50.0 89.29 25.48
relative* CIELAB *lab*
*lab*lab* 0.544 0.903 0.43
*lab*tch* 0.5 1.0 0.071
*lab*nch* 0.0 1.0 0.071
***relative* Natural Colour (NC)**
*lab*lrj* 0.544 1.0 0.0
*lab*tce* 0.5 1.0 0.0
*lab*ncE* 0.0 1.0 r00j

***n** = 0,00*

blackness *n**

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

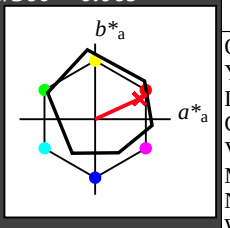
chromaticness *c**

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**



%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)**
*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 0.0 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* 56.71 −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*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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** 1.0 0.5 0.661 (1.0)
*cmyn3** 0.0 0.5 0.339 (0.0)
*olvi4** 1.0 0.5 0.661 1.0
*cmyn4** 0.0 0.5 0.339 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 71.7 33.75 18.92
*LAB*LABa* 71.7 34.28 15.76
*LAB*TCHa* 75.0 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 0.5 0.069
***relative* Natural Colour (NC)**
*lab*lrj* 0.694 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 0.0 0.161 (1.0)
*cmyn3** 0.5 1.0 0.839 (0.0)
*olvi4** 1.0 0.5 0.661 0.5
*cmyn4** 0.0 0.5 0.339 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 33.01 34.49 16.31
*LAB*LABa* 33.01 34.28 15.77
*LAB*TCHa* 25.01 37.73 24.7
relative* CIELAB *lab*
*lab*lab* 0.194 0.454 0.209
*lab*tch* 0.25 0.5 0.069
*lab*nch* 0.5 0.5 0.069
***relative* Natural Colour (NC)**
*lab*lrj* 0.194 0.5 0.0
*lab*tce* 0.25 0.5 0.0
*lab*ncE* 0.5 0.5 r00j

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.0 0.322 (1.0)
*cmyn3** 0.0 1.0 0.678 (0.0)
*olvi4** 1.0 0.0 0.322 1.0
*cmyn4** 0.0 1.0 0.678 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 48.0 68.48 33.09
*LAB*LABa* 48.0 68.56 31.53
*LAB*TCHa* 50.0 75.47 24.7
relative* CIELAB *lab*
*lab*lab* 0.388 0.908 0.418
*lab*tch* 0.5 1.0 0.069
*lab*nch* 0.0 1.0 0.069
***relative* Natural Colour (NC)**
*lab*lrj* 0.388 1.0 0.0
*lab*tce* 0.5 1.0 0.0
*lab*ncE* 0.0 1.0 r00j

***n** = 0,00*

blackness *n**

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

chromaticness *c**

NE150−7, 3 step scales for constant CIELAB hue 25/360 = 0.071 (left)

3 step scales for constant CIELAB hue 25/360 = 0.069 (right)

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE15/10S/S15E06FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

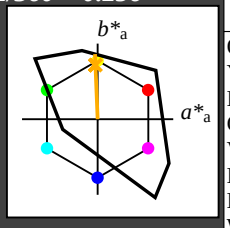
/NE15/ Form: 7/10, Serie: 1/1, Page: 7 Page: count: 7

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 92/360 = 0.256**
lab*tch* and *lab*nch

D65: hue J
LCH*Ma: 85 86 92
olv*Ma: 1.0 0.82 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)**
*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 0.912 0.5 (1.0)
*cmyn3** 0.0 0.088 0.5 (0.0)
*olvi4** 1.0 0.912 0.5 1.0
*cmyn4** 0.0 0.088 0.5 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 90.31 −1.74 43.06
*LAB*LABa* 90.31 −1.74 43.06
*LAB*TCHa* 75.0 43.09 92.32
relative* CIELAB *lab*
*lab*lab* 0.947 −0.019 0.499
*lab*tch* 0.75 0.5 0.256
*lab*nch* 0.0 0.5 0.256
***relative* Natural Colour (NC)**
*lab*lrj* 0.947 0.0 0.5
*lab*tce* 0.75 0.5 0.25
*lab*ncE* 0.0 0.5 j00g

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.824 0.0 (1.0)
*cmyn3** 0.0 0.176 1.0 (0.0)
*olvi4** 1.0 0.824 0.0 1.0
*cmyn4** 0.0 0.176 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 85.22 −3.47 86.11
*LAB*LABa* 85.22 −3.47 86.11
*LAB*TCHa* 50.0 86.18 92.32
relative* CIELAB *lab*
*lab*lab* 0.893 −0.039 0.999
*lab*tch* 0.5 1.0 0.256
*lab*nch* 0.0 1.0 0.256
***relative* Natural Colour (NC)**
*lab*lrj* 0.893 0.0 1.0
*lab*tce* 0.5 1.0 0.25
*lab*ncE* 0.0 1.0 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 0.412 0.0 (1.0)
*cmyn3** 0.5 0.588 1.0 (0.0)
*olvi4** 1.0 0.912 0.5 0.5
*cmyn4** 0.0 0.088 0.5 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 42.62 −1.73 43.05
*LAB*LABa* 42.62 −1.73 43.05
*LAB*TCHa* 25.01 43.09 92.31
relative* CIELAB *lab*
*lab*lab* 0.447 −0.019 0.499
*lab*tch* 0.25 0.5 0.256
*lab*nch* 0.5 0.5 0.256
***relative* Natural Colour (NC)**
*lab*lrj* 0.447 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 –

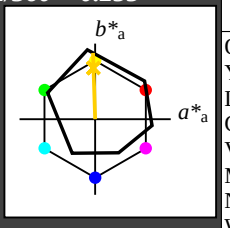
*n** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 92/360 = 0.255**
lab*tch* and *lab*nch

D65: hue J
LCH*Ma: 86 88 92
olv*Ma: 1.0 0.9 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)**
*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 0.0 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 0.951 0.5 (1.0)
*cmyn3** 0.0 0.049 0.5 (0.0)
*olvi4** 1.0 0.951 0.5 1.0
*cmyn4** 0.0 0.049 0.5 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 90.8 −2.3 48.29
*LAB*LABa* 90.8 −1.4 43.84
*LAB*TCHa* 75.0 43.86 91.85
relative* CIELAB *lab*
*lab*lab* 0.94 −0.015 0.5
*lab*tch* 0.75 0.5 0.255
*lab*nch* 0.0 0.5 0.255
***relative* Natural Colour (NC)**
*lab*lrj* 0.94 0.0 0.5
*lab*tce* 0.75 0.5 0.25
*lab*ncE* 0.0 0.5 j00g

***relative* Inform. Technology (IT)**
*olvi3** 1.0 0.901 0.0 (1.0)
*cmyn3** 0.0 0.099 1.0 (0.0)
*olvi4** 1.0 0.902 0.0 1.0
*cmyn4** 0.0 0.098 1.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 86.19 −3.62 91.81
*LAB*LABa* 86.19 −2.81 87.67
*LAB*TCHa* 50.0 87.72 91.84
relative* CIELAB *lab*
*lab*lab* 0.881 −0.031 0.999
*lab*tch* 0.5 1.0 0.255
*lab*nch* 0.0 1.0 0.255
***relative* Natural Colour (NC)**
*lab*lrj* 0.881 0.0 1.0
*lab*tce* 0.5 1.0 0.25
*lab*ncE* 0.0 1.0 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* 56.71 −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*tce* 0.5 0.0 –
*lab*ncE* 0.5 0.0 –

***relative* Inform. Technology (IT)**
*olvi3** 0.5 0.451 0.0 (1.0)
*cmyn3** 0.5 0.549 1.0 (0.0)
*olvi4** 1.0 0.951 0.5 0.5
*cmyn4** 0.0 0.049 0.5 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 52.1 −1.55 45.67
*LAB*LABa* 52.1 −1.39 43.83
*LAB*TCHa* 25.01 43.86 91.84
relative* CIELAB *lab*
*lab*lab* 0.44 −0.015 0.5
*lab*tch* 0.25 0.5 0.255
*lab*nch* 0.5 0.5 0.255
***relative* Natural Colour (NC)**
*lab*lrj* 0.44 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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

NE150−7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)
3 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

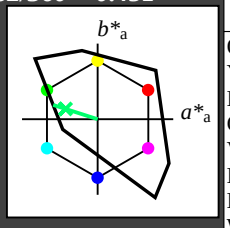
BAM registration: 20060101-NE15/10S/S15E07FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Television Luminous System TLS00

for hue *h = lab*h = 162/360 = 0.451**
lab*tch* and *lab*nch

D65: hue G
LCH*Ma: 86 62 162
olv*Ma: 0.0 1.0 0.65

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)**
*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 0.826 (1.0)
*cmyn3** 0.5 0.0 0.174 (0.0)
*olvi4** 0.5 1.0 0.827 1.0
*cmyn4** 0.5 0.0 0.173 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 90.57 −29.42 9.43
*LAB*LABa* 90.57 −29.42 9.43
*LAB*TCHa* 75.0 30.9 162.23
relative* CIELAB *lab*
*lab*lab* 0.949 −0.475 0.153
*lab*tch* 0.75 0.5 0.451
*lab*nch* 0.0 0.5 0.451
***relative* Natural Colour (NC)**
*lab*lrj* 0.949 −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 1.0 0.653 (1.0)
*cmyn3** 1.0 0.0 0.347 (0.0)
*olvi4** 0.0 1.0 0.653 1.0
*cmyn4** 1.0 0.0 0.347 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 85.74 −58.84 18.87
*LAB*LABa* 85.74 −58.84 18.87
*LAB*TCHa* 50.0 61.8 162.23
relative* CIELAB *lab*
*lab*lab* 0.899 −0.951 0.305
*lab*tch* 0.5 1.0 0.451
*lab*nch* 0.0 1.0 0.451
***relative* Natural Colour (NC)**
*lab*lrj* 0.899 −0.999 0.0
*lab*tce* 0.5 1.0 0.5
*lab*ncE* 0.0 1.0 g00b

***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 0.326 (1.0)
*cmyn3** 1.0 0.5 0.674 (0.0)
*olvi4** 0.5 1.0 0.826 0.5
*cmyn4** 0.5 0.0 0.174 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 42.88 −29.42 9.44
*LAB*LABa* 42.88 −29.42 9.44
*LAB*TCHa* 25.01 30.91 162.22
relative* CIELAB *lab*
*lab*lab* 0.449 −0.475 0.153
*lab*tch* 0.25 0.5 0.451
*lab*nch* 0.5 0.5 0.451
***relative* Natural Colour (NC)**
*lab*lrj* 0.449 −0.499 0.0
*lab*tce* 0.25 0.5 0.5
*lab*ncE* 0.5 0.5 j99g

***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 –

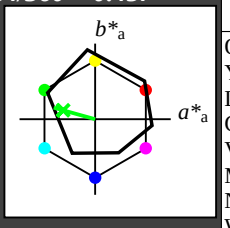
*n** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

Output: Colorimetric Offset Reflective System ORS18

for hue *h = lab*h = 164/360 = 0.457**
lab*tch* and *lab*nch

D65: hue G
LCH*Ma: 53 57 164
olv*Ma: 0.0 1.0 0.25

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)**
*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 0.0 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 0.623 (1.0)
*cmyn3** 0.5 0.0 0.377 (0.0)
*olvi4** 0.5 1.0 0.623 1.0
*cmyn4** 0.5 0.0 0.377 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 74.1 −27.98 10.94
*LAB*LABa* 74.1 −27.4 7.62
*LAB*TCHa* 75.0 28.45 164.46
relative* CIELAB *lab*
*lab*lab* 0.725 −0.481 0.134
*lab*tch* 0.75 0.5 0.457
*lab*nch* 0.0 0.5 0.457
***relative* Natural Colour (NC)**
*lab*lrj* 0.725 −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 1.0 0.246 (1.0)
*cmyn3** 1.0 0.0 0.754 (0.0)
*olvi4** 0.0 1.0 0.246 1.0
*cmyn4** 1.0 0.0 0.754 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 52.8 −54.98 17.14
*LAB*LABa* 52.8 −54.81 15.26
*LAB*TCHa* 50.0 56.91 164.45
relative* CIELAB *lab*
*lab*lab* 0.45 −0.962 0.268
*lab*tch* 0.5 1.0 0.457
*lab*nch* 0.0 1.0 0.457
***relative* Natural Colour (NC)**
*lab*lrj* 0.45 −0.999 0.0
*lab*tce* 0.5 1.0 0.5
*lab*ncE* 0.0 1.0 j99g

***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* 56.71 −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*tce* 0.5 0.0 –
*lab*ncE* 0.5 0.0 –

***relative* Inform. Technology (IT)**
*olvi3** 0.0 0.5 0.123 (1.0)
*cmyn3** 1.0 0.5 0.877 (0.0)
*olvi4** 0.5 1.0 0.623 0.5
*cmyn4** 0.5 0.0 0.377 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 35.41 −27.24 8.34
*LAB*LABa* 35.41 −27.4 7.63
*LAB*TCHa* 25.01 28.46 164.44
relative* CIELAB *lab*
*lab*lab* 0.225 −0.481 0.134
*lab*tch* 0.25 0.5 0.457
*lab*nch* 0.5 0.5 0.457
***relative* Natural Colour (NC)**
*lab*lrj* 0.225 −0.499 0.0
*lab*tce* 0.25 0.5 0.5
*lab*ncE* 0.5 0.5 j99g

***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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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** = 0,00
blackness *n**
0,25 0,50 *n** = 0,50 0,75 1,00
chromaticness *c**
*n** = 1,0

NE150−7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)
3 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

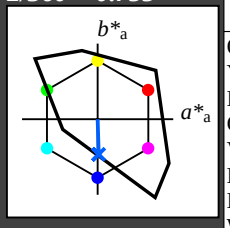
BAM registration: 20060101-NE15/10S/S15E08FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

Input: Colorimetric Television Luminous System TLS00

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

D65: hue B
LCH*Ma: 65 49 272
olv*Ma: 0.0 0.61 1.0

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)**
*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 0.805 1.0 (1.0)
*cmyn3** 0.5 0.195 0.0 (0.0)
*olvi4** 0.5 0.805 1.0 1.0
*cmyn4** 0.5 0.195 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 80.13 0.73 −24.31
*LAB*LABa* 80.13 0.73 −24.31
*LAB*TCHa* 75.0 24.33 271.72
relative* CIELAB *lab*
*lab*lab* 0.84 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*lrj* 0.84 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 0.61 1.0 (1.0)
*cmyn3** 1.0 0.39 0.0 (0.0)
*olvi4** 0.0 0.61 1.0 1.0
*cmyn4** 1.0 0.39 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 64.86 1.47 −48.64
*LAB*LABa* 64.86 1.47 −48.64
*LAB*TCHa* 50.0 48.67 271.74
relative* CIELAB *lab*
*lab*lab* 0.68 0.03 −0.998
*lab*tch* 0.5 1.0 0.755
*lab*nch* 0.0 1.0 0.755
***relative* Natural Colour (NC)**
*lab*lrj* 0.68 0.0 −0.999
*lab*tce* 0.5 1.0 0.75
*lab*ncE* 0.0 1.0 g99b

***relative* Inform. Technology (IT)**
*olvi3** 0.5 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 0.305 0.5 (1.0)
*cmyn3** 1.0 0.695 0.5 (0.0)
*olvi4** 0.5 0.805 1.0 0.5
*cmyn4** 0.5 0.195 0.0 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 32.44 0.74 −24.32
*LAB*LABa* 32.44 0.74 −24.32
*LAB*TCHa* 25.01 24.34 271.75
relative* CIELAB *lab*
*lab*lab* 0.34 0.015 −0.499
*lab*tch* 0.25 0.5 0.755
*lab*nch* 0.5 0.5 0.755
***relative* Natural Colour (NC)**
*lab*lrj* 0.34 0.0 −0.499
*lab*tce* 0.25 0.5 0.75
*lab*ncE* 0.5 0.5 b00r

***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 –

$n^* = 0{,}00$

blackness n^*

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

chromaticness c^*

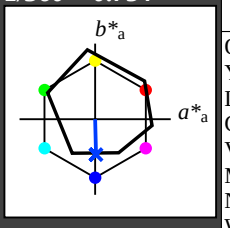
$n^* = 1{,}0$

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$
lab*tch* and *lab*nch

D65: hue B
LCH*Ma: 42 45 271
olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



%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)**
*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 0.0 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 0.744 1.0 (1.0)
*cmyn3** 0.5 0.256 0.0 (0.0)
*olvi4** 0.5 0.744 1.0 1.0
*cmyn4** 0.5 0.256 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 68.6 0.07 −19.39
*LAB*LABa* 68.6 0.55 −22.34
*LAB*TCHa* 75.0 22.36 271.4
relative* CIELAB *lab*
*lab*lab* 0.654 0.012 −0.499
*lab*tch* 0.75 0.5 0.754
*lab*nch* 0.0 0.5 0.754
***relative* Natural Colour (NC)**
*lab*lrj* 0.654 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 0.488 1.0 (1.0)
*cmyn3** 1.0 0.512 0.0 (0.0)
*olvi4** 0.0 0.488 1.0 1.0
*cmyn4** 1.0 0.512 0.0 0.0
***standard* and *adapted* CIELAB**
*LAB*LAB* 41.79 1.14 −43.55
*LAB*LABa* 41.79 1.1 −44.69
*LAB*TCHa* 50.0 44.71 271.41
relative* CIELAB *lab*
*lab*lab* 0.307 0.025 −0.998
*lab*tch* 0.5 1.0 0.754
*lab*nch* 0.0 1.0 0.754
***relative* Natural Colour (NC)**
*lab*lrj* 0.307 0.0 −0.999
*lab*tce* 0.5 1.0 0.75
*lab*ncE* 0.0 1.0 b00r

***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* 18.02 0.5 −0.47
*LAB*LABa* 18.02 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 0.244 0.5 (1.0)
*cmyn3** 1.0 0.756 0.5 (0.0)
*olvi4** 0.5 0.744 1.0 0.5
*cmyn4** 0.5 0.256 0.0 0.5
***standard* and *adapted* CIELAB**
*LAB*LAB* 29.9 0.82 −22.01
*LAB*LABa* 29.9 0.55 −22.34
*LAB*TCHa* 25.01 22.36 271.42
relative* CIELAB *lab*
*lab*lab* 0.154 0.012 −0.499
*lab*tch* 0.25 0.5 0.754
*lab*nch* 0.5 0.5 0.754
***relative* Natural Colour (NC)**
*lab*lrj* 0.154 0.0 −0.499
*lab*tce* 0.25 0.5 0.75
*lab*ncE* 0.5 0.5 b00r

$n^* = 0{,}00$

blackness n^*

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

chromaticness c^*

$n^* = 1{,}0$

NE150−7, 3 step scales for constant CIELAB hue 272/360 = 0.755 (left)

3 step scales for constant CIELAB hue 271/360 = 0.754 (right)

BAM-test chart NE15; Colorimetric systems TLS00 & ORS18
D65: 2 coordinate data of 3 step colour scales for 10 hues

input: *olv* setrgbcolor*
output: *olv* setrgbcolor / w* setgray*

See for similar files: http://www.ps.bam.de/NE15/
Technical information: http://www.ps.bam.de Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE15/10S/S15E09FP.PS/.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems