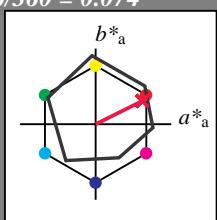


BAM registration: 20060101-QE00/10S/S00E06NP.PS/.PDF BAM material: code=rha4ta  
application for evaluation and measurement of printer or monitor Systems  
(0500) Form 7/10 Series: 1/1 Page: 7 Page: cont: 7

**Input: Colorimetric Offset Reflective System ORS18**

for hue  $h^* = lab^*h = 26/360 = 0.074$   
 $lab^*tch$  and  $lab^*nch$

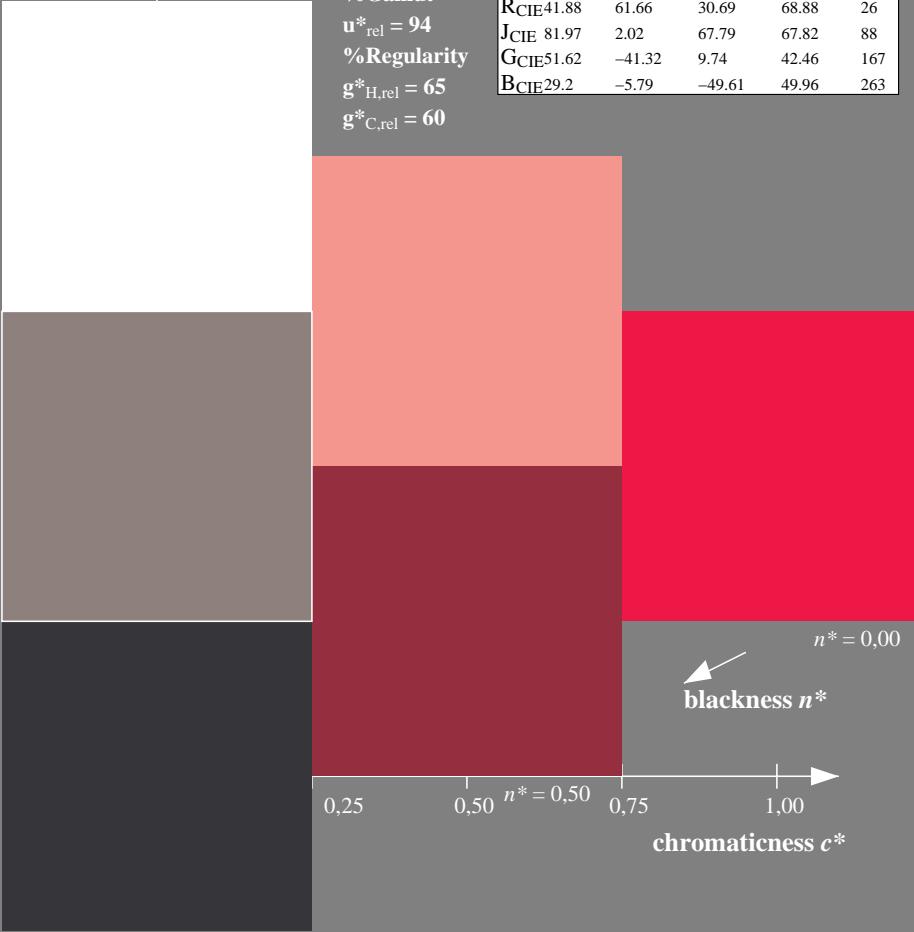
D50: hue R  
LCH\*Ma: 49 76 26  
olv\*Ma: 1.0 0.0 0.3  
triangle lightness  $t^*$



ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	$a^* = a^*_a$	$b^* = b^*_a$	$C^*_{ab,a}$	$h^*_{ab}$
O <sub>Ma</sub>	47.94	65.05	50.54	82.38	38
Y <sub>Ma</sub>	91.0	-4.72	90.58	90.7	93
L <sub>Ma</sub>	50.9	-63.18	34.98	72.22	151
C <sub>Ma</sub>	56.99	-39.34	-48.1	62.16	231
V <sub>Ma</sub>	25.72	30.89	-44.4	54.09	305
M <sub>Ma</sub>	49.99	75.76	-4.64	75.9	356
N <sub>Ma</sub>	18.09	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.46	0.0	0.0	0.0	0
R <sub>CIE</sub>	41.88	61.66	30.69	68.88	26
J <sub>CIE</sub>	81.97	2.02	67.79	67.82	88
G <sub>CIE</sub>	51.62	-41.32	9.74	42.46	167
B <sub>CIE</sub>	29.2	-5.79	-49.61	49.96	263

%Gamut

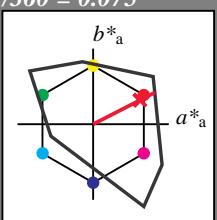
$u^*_{\text{rel}} = 94$   
**%Regularity**  
 $g^*_{H,\text{rel}} = 65$   
 $g^*_{C,\text{rel}} = 60$



Output: Colorimetric Television Luminous System TLS00

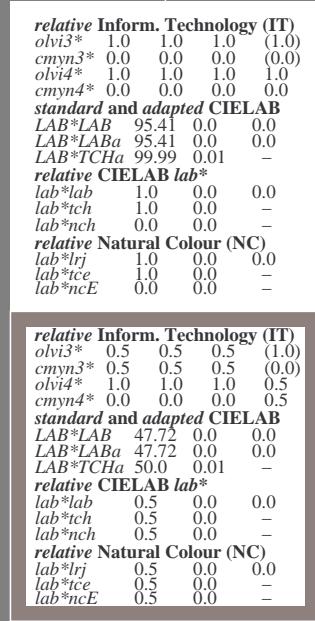
for hue  $h^* = lab^*h = 27/360 = 0.075$   
 $lab^*tch$  and  $lab^*nch$

D50: hue R  
LCH\*Ma: 55 92 27  
olv\*Ma: 1.0 0.0 0.18

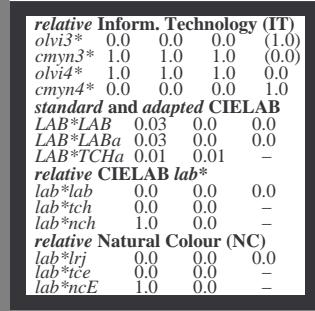


TLS00; adapted (a) CIELAB data				
	$L^* = L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$
O <sub>Ma</sub>	54.19	79.36	63.0	101.33
Y <sub>Ma</sub>	93.44	-14.18	82.59	83.8
L <sub>Ma</sub>	82.82	-83.73	70.41	109.41
C <sub>Ma</sub>	85.22	-55.9	-15.78	58.1
V <sub>Ma</sub>	25.61	67.05	-108.87	127.87
M <sub>Ma</sub>	58.76	91.18	-53.69	105.82
N <sub>Ma</sub>	0.01	0.0	0.0	0.0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0
RCIE	41.88	62.0	31.82	69.69
JCIE	81.97	1.81	71.59	71.61
G <sub>CIE</sub>	51.62	-41.11	11.52	42.7
B <sub>CIE</sub>	29.2	-5.27	-49.33	49.62

**%Gamut**  
 $u^*_{\text{rel}} = 156$   
**%Regularity**  
 $g^*_{H,\text{rel}} = 26$   
 $g^*_{C,\text{rel}} = 45$



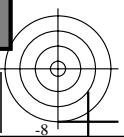
<b>relative Inform. Technology (IT)</b>
$olvi3^*$ 0.5 0.5 0.5 (1.0)
$cmyn3^*$ 0.5 0.5 0.5 (0.0)
$olvi4^*$ 1.0 1.0 1.0 0.5
$cmyn4^*$ 0.0 0.0 0.0 0.5
<b>standard and adapted CIELAB</b>
$LAB^*LAB$ 47.72 0.0 0.0
$LAB^*LAb$ 47.72 0.0 0.0
$LAB^*TCh$ 50.0 0.0 0.0
<b>relative CIELAB lab*</b>
$lab^*lab$ 0.5 0.0 0.0
$lab^*tch$ 0.5 0.0 0.0
$lab^*nch$ 0.5 0.0 0.0
<b>relative Natural Colour (NC)</b>
$lab^*lrj$ 0.5 0.0 0.0
$lab^*ice$ 0.5 0.0 0.0
$lab^*ncE$ 0.5 0.0 0.0

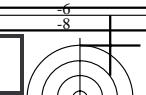


3 step scales for constant CIELAB hue  $27/360 = 0.075$  (right)

& TLS00 input: *cmy0\** *setcmykcolor*

& TLS00  
hues      input: *cmy0\* setcmykcolor*  
              output: *no change compared to input*



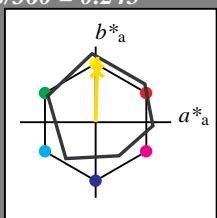


BAM registration: 20060101-QE00/10S/S00E07NP.PS/.PDF BAM material: code=rha4ta  
application for evaluation and measurement of printer or monitor Systems  
(05/00) Form 8/10 Series: 1/1 Page: 8 Page: cont: 8

Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 88/360 = 0.245$   
 $lab^*tch$  and  $lab^*nch$

D50: hue J  
 LCH\*Ma: 86 86 88  
 olv\*Ma: 1.0 0.9 0.0  
 triangle lightness  $t^*$



ORS18; adapted (a)		CIELAB data		
$L^*$	$a^*$	$b^*$	$C^*$	$h^*$
O <sub>Ma</sub> 47.94	65.05	50.54	82.38	38
Y <sub>Ma</sub> 91.0	-4.72	90.58	90.7	93
L <sub>Ma</sub> 50.9	-63.18	34.98	72.22	151
C <sub>Ma</sub> 56.99	-39.34	-48.1	62.16	231
V <sub>Ma</sub> 25.72	30.89	-44.4	54.09	305
M <sub>Ma</sub> 49.99	75.76	-4.64	75.9	356
N <sub>Ma</sub> 18.09	0.0	0.0	0.0	0
W <sub>Ma</sub> 95.46	0.0	0.0	0.0	0
R <sub>CIE</sub> 41.88	61.66	30.69	68.88	26
J <sub>CIE</sub> 81.97	2.02	67.79	67.82	88
G <sub>CIE</sub> 51.62	-41.32	9.74	42.46	167
B <sub>CIE</sub> 29.2	-5.79	-49.61	49.96	263

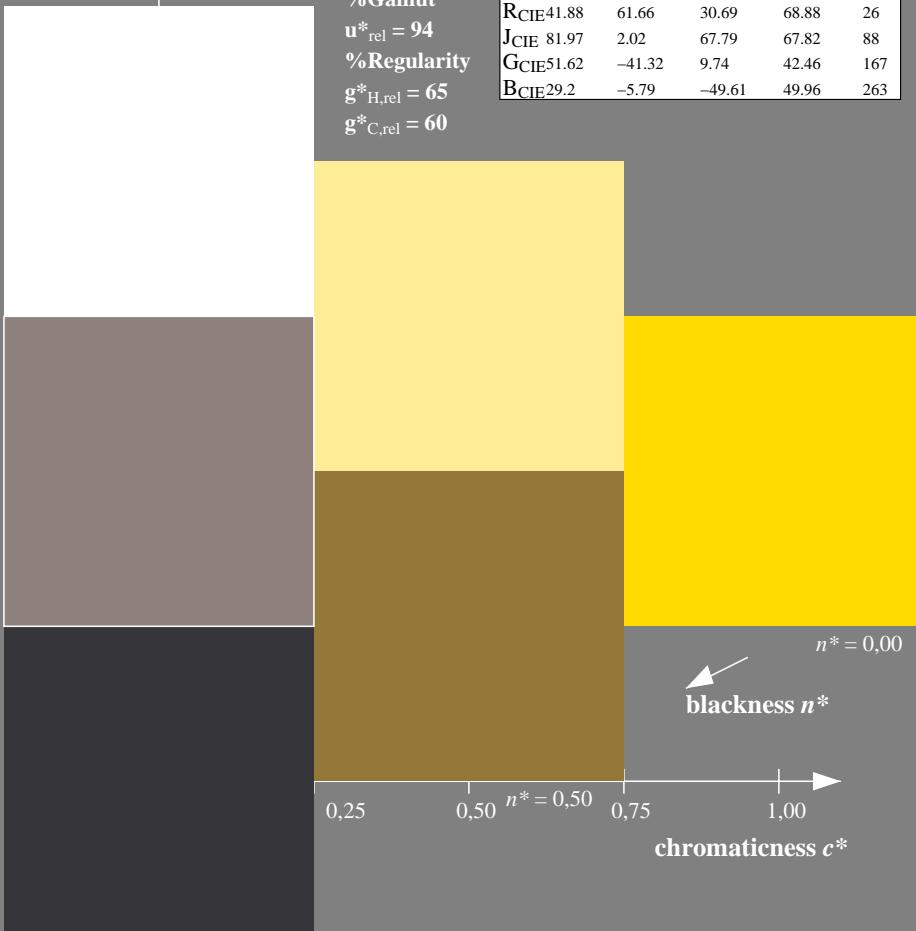
%Gamut

$u^*_{\text{rel}} = 94$

### %Regularity

$$g^*_{\text{H,rel}} = 65$$

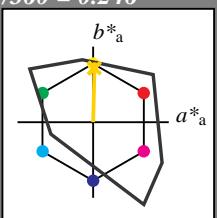
$g^*_{C,\text{rel}} = 60$



**Output: Colorimetric Television Luminous System TLS00**

for hue  $h^* = lab^*h = 89/360 = 0.246$   
 $lab^*tch$  and  $lab^*nch$

D50: hue J  
LCH\*Ma: 87 79 89  
L\* \*M\* -1.6 -0.22 -0.2



TLS00; adapted (a) CIELAB data					
	$L^* = L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	54.19	79.36	63.0	101.33	38
Y <sub>Ma</sub>	93.44	-14.18	82.59	83.8	100
L <sub>Ma</sub>	82.82	-83.73	70.41	109.41	140
C <sub>Ma</sub>	85.22	-55.9	-15.78	58.1	196
V <sub>Ma</sub>	25.61	67.05	-108.87	127.87	302
M <sub>Ma</sub>	58.76	91.18	-53.69	105.82	330
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
RCIE	41.88	62.0	31.82	69.69	27
JCIE	81.97	1.81	71.59	71.61	89
G <sub>CIE</sub>	51.62	-41.11	11.52	42.7	164
B <sub>CIE</sub>	29.2	-5.27	-49.33	49.62	264

%Gamut

$u^*_{\text{rel}} = 156$

### %Regularity

$g^*_{H,\text{rel}} = 26$

$g^*_{C,\text{rel}} = 45$

relative Inform. Technology (IT)				
<i>olvi3*</i>	1.0	1.0	1.0	(1.0)
<i>cmyn3*</i>	0.0	0.0	0.0	(0.0)
<i>olvi4*</i>	1.0	1.0	1.0	(1.0)
<i>cmyn4*</i>	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB				
<i>LAB*LAB</i>	95.41	0.0	0.0	
<i>LAB*Laba</i>	95.41	0.0	0.0	
<i>LAB*Tcha</i>	99.99	0.01	—	
relative CIELAB lab*				
<i>lab*lab</i>	1.0	0.0	0.0	
<i>lab*tch</i>	1.0	0.0	—	
<i>lab*nch</i>	0.0	0.0	—	
relative Natural Colour (NC)				
<i>lab*lrj</i>	1.0	0.0	0.0	
<i>lab*ice</i>	1.0	0.0	—	
<i>lab*nCE</i>	0.0	0.0	—	

<b>relative</b>	<b>Inform.</b>	<b>Technology</b>	<b>(IT)</b>
$oliv3^*$	0.5	0.5	0.5
$cmyn3^*$	0.5	0.5	0.5
$oliv4^*$	1.0	1.0	1.0
$cmyn4^*$	0.0	0.0	0.0
<b>standard and adapted CIELAB</b>			
$LAB^*LAB$	47.72	0.0	0.0
$LAB^*LAb$	47.72	0.0	0.0
$LAB^*TCh$	50.0	0.01	-
<b>relative CIELAB lab*</b>			
$lab^*lab$	0.5	0.0	0.0
$lab^*tch$	0.5	0.0	-
$lab^*ncb$	0.5	0.0	-
<b>relative Natural Colour (NC)</b>			
$lab^*lrj$	0.5	0.0	0.0
$lab^*tce$	0.5	0.0	-
$lab^*ncE$	0.5	0.0	-

<i>relative</i>	<i>Inform.</i>	<i>Technology</i>	<i>(IT)</i>
<i>olvi3*</i>	0.0	0.0	(1.0)
<i>cmyn3*</i>	1.0	1.0	(0.0)
<i>olvi4*</i>	1.0	1.0	0.0
<i>cmyn4*</i>	0.0	0.0	0.0
<b>standard and adapted CIELAB</b>			
<i>LAB*LAB</i>	0.03	0.0	0.0
<i>LAB*LAbA</i>	0.03	0.0	0.0
<i>LAB*TChA</i>	0.01	0.01	—
<b>relative CIELAB labs*</b>			
<i>lab*lab</i>	0.0	0.0	0.0
<i>lab*tch</i>	0.0	0.0	—
<i>lab*nch</i>	1.0	0.0	—
<b>relative Natural Colour (NC)</b>			
<i>lab*lrj</i>	0.0	0.0	0.0
<i>lab*tce</i>	0.0	0.0	—
<i>lab*nCE</i>	1.0	0.0	—

3 step scales for constant CIELAB hue 89/360 = 0.246 (right)

## BAM-test chart QE00; Colorimetric systems ORS18 & TLS D50; 3 step colour scales and coordinate data for 10 hues

D input: *cmy0\** *setcmykcolor*  
output: *no change compared to input*

