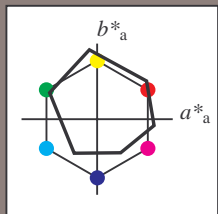


**Input: Colorimetric Offset Reflective System ORS18a**

with *rgb* data of the  
 four elementary hues

- 1 0 0 = Red *R*
- 1 1 0 = Yellow *J*
- 0 1 0 = Green *G*
- 0 0 1 = Blue *B*



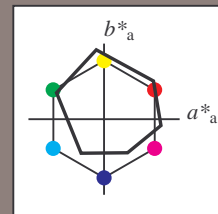
**ORS18a; adapted (a) CIELAB data**

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

**Output: Colorimetric Offset Reflective System ORS18a**

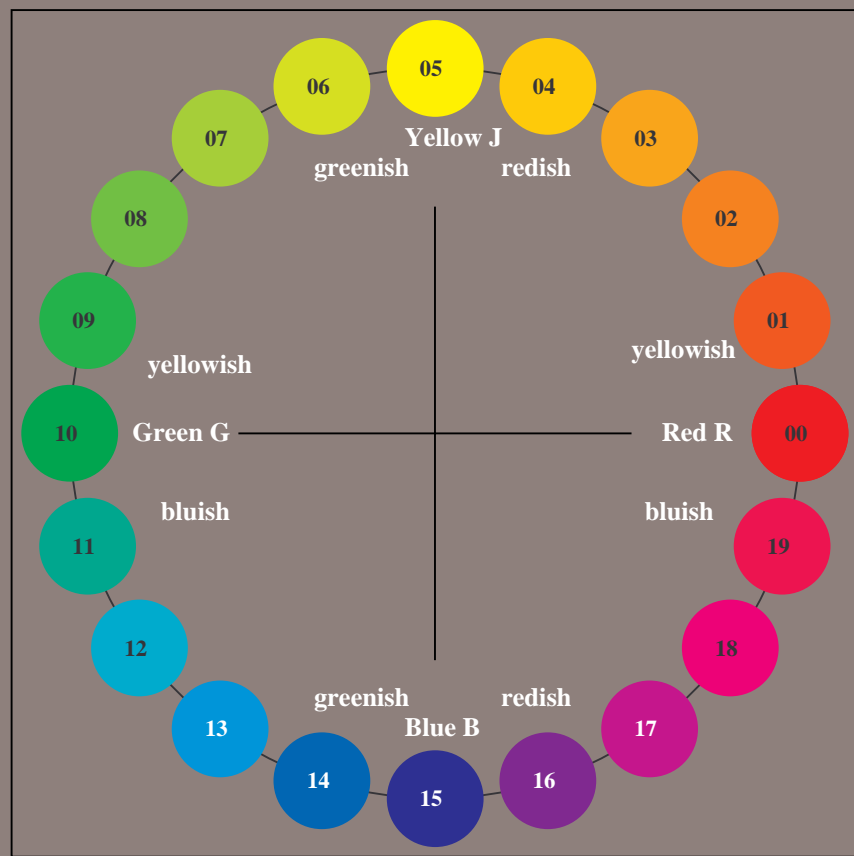
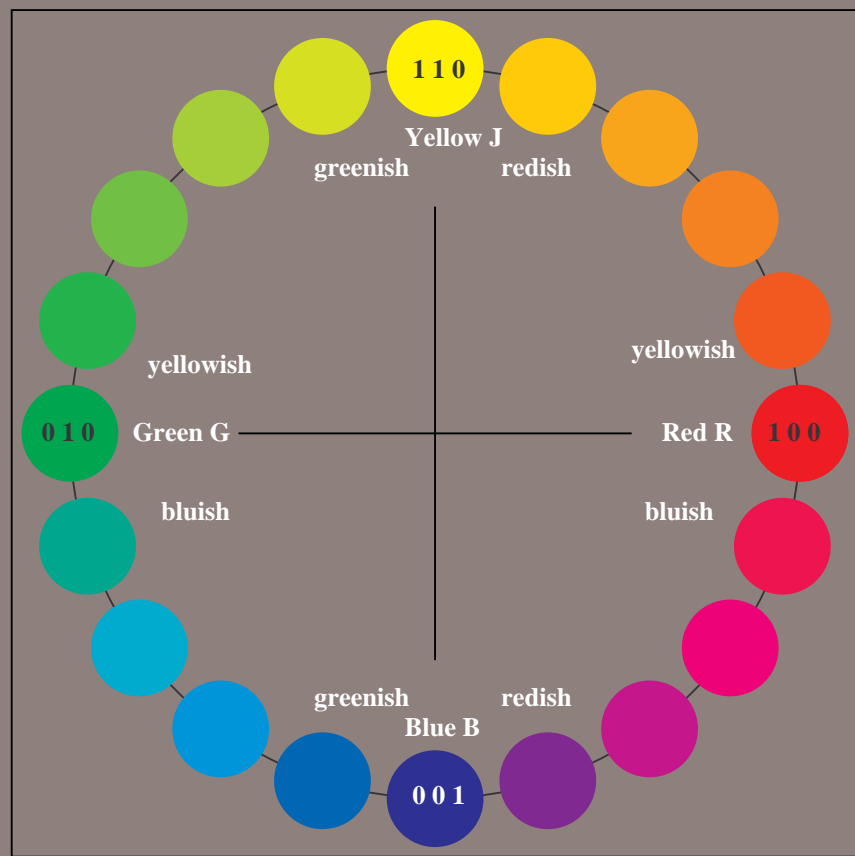
with hue number  
 $n = 00$  to  $19$

- 00 = Red *R*
- 05 = Yellow *J*
- 10 = Green *G*
- 15 = Blue *B*



**ORS18a; 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
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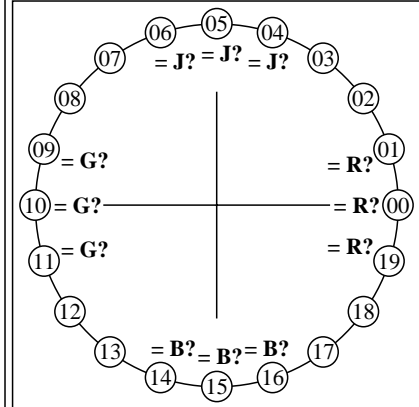
XE830-7N, 20 step hue circle with elementary colours *R, J, G, B* (left)

20 step hue circle with elementary colours *R, J, G, B* (right)

See for similar files: <http://www.ps.bam.de/XE83/>; [www.ps.bam.de/XE83/10P/P83E00NP.PS/.PDF](http://www.ps.bam.de/XE83/10P/P83E00NP.PS/.PDF)  
 Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM registration: 20070301-XE83/10P/P83E00NP.PS/.PDF BAM material: code=rh4t4  
 application for output of monitor, data projector, or printer systems

**Agreement with elementary hues (Yes/No decision)**



There are four elementary hues on each page: Red R, Yellow J (=french Jaune), Green G, and Blue B.  
Input data 1 0 0 should produce Red R.  
Input data 0 1 0 should produce Green G.  
Input data 0 0 1 should produce Blue B.  
Input data 1 1 0 should produce Yellow J.  
The elementary hues Red R and Green G should locate on the horizontal axis.  
The elementary hues Yellow J and Blue B should locate on the vertical axis.  
This test uses a hue circle with 20 hues.  
No. 00 and 10 should be Red R and Green G.  
No. 05 and 15 should be Yellow J and Blue B.

Are no. 00, 05, 10, and 15 the four elementary hues R, J, G and B? underline: Yes/No  
Only in case of "No":

- Elementary Red R is hue step no. (e. g. 00, 01, 19) ..... (neither yellowish nor blueish)
- Elementary Yellow J is hue step no. (e. g. 05, 04, 06) ..... (neither reddish nor greenish)
- Elementary Green G is hue step no. (e. g. 10, 09, 11) ..... (neither yellowish nor blueish)
- Elementary Blue B is hue step no. (e. g. 15, 14, 16) ..... (neither reddish nor greenish)
- Result: Of the 4 elementary hues (e.g. three) ..... are at the intended location

Part 1

XE830-3

**Documentation of file format, hardware and software for this test:**

**PDF-File:** either www.ps.bam.de/XE83/10L/L83E00NP.PDF underline Yes/No  
or www.ps.bam.de/XE83/10P/P83E00NP.PDF or underline Yes/No  
**PS-File:** either www.ps.bam.de/XE83/10L/L83E00NA.PS or underline Yes/No  
or www.ps.bam.de/XE83/10P/P83E00NA.PS or underline Yes/No

**Used computer operating system:**

either one of Windows/Mac/Unix/other and version:.....

**This evaluation is for the device output:** underline monitor/data projector/printer

Device model, driver and version:.....

**Device output with PDF/PS-file:** underline PDF/PS-file

**For device output with PDF-file (L/P)83E00NP.PDF:**

- either PDF-file transfer "download, copy" to PDF device.....
- or with computer system interpretation by "Display-PDF":.....
- or with software. e. g. Adobe-Reader-/Acrobat and version:.....
- or with software e. g. Ghostscript and version:.....

**For device output with PS-file (L/P)83E00NA.PS:**

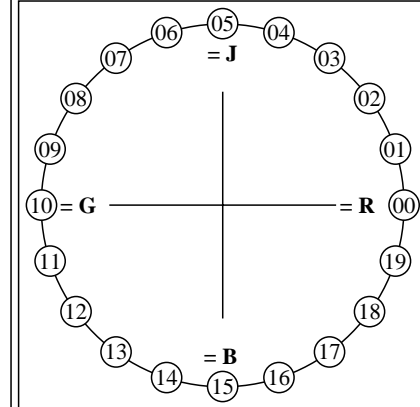
- either PS-file transfer "download, copy" to PS device.....
- or with computer system interpretation by "Display-PS":.....
- or with software e. g. Ghostscript and version:.....
- or with software e. g. Mac-Yap and version:.....

Special remarks, e. g. output of Landscape (L) file L83E00NA.PS was cutted,  
Portrait (P) file P83E00NA.PS was used:.....

Part 3

XE830-5

**Discriminability of colours with 20 hues (Yes/No decision)**



There are four elementary hues on each page: Red R, Yellow J (=french Jaune), Green G, and Blue B.  
Input data 1 0 0 should produce Red R.  
Input data 0 1 0 should produce Green G.  
Input data 0 0 1 should produce Blue B.  
Input data 1 1 0 should produce Yellow J.  
Four hue steps are between:  
Red R and Yellow J, Yellow J and Green G,  
Green G and Blue B, and Blue B and Red R.  
This test uses a hue circle with 20 hues.  
All 20 hues should be distinguishable.  
For this test it is **not** necessary:  
1. All 19 differences are visually equal.  
2. Elementary hues locate at 00, 05, 10, and 15.

Are all 20 colours of the 20 hues distinguishable? underline: Yes/No  
Only in case of "No":

- The colours of the two hue steps no. (e. g. 00 and 01) ..... are not distinguishable
- The colours of the two hue steps no. (e. g. 14 and 15) ..... are not distinguishable
- The colours of the two hue steps no. (e. g. 15 and 16) ..... are not distinguishable
- List other pairs: .....
- Result: Of the 19 hue differences are (e.g. 18) ..... differences visible

Part 2

XE831-3

**Documentation of assessor colour vision properties for visual assessment**

The assessor has **normal** colour vision according to one test: underline Yes/No  
either according to DIN 6160 with Anomaloskop of Nagel underline Yes/unknown  
or with test charts using colour points according to Ishihara underline Yes/unknown  
or tested with, please specify: ..... underline Yes/unknown

**Only for display (monitor, data projector) output:**

Office workplace illumination is daylight (clouded/north sky) underline Yes/No  
PDF-file output with www.ps.bam.de/XE75/10L/L75E00NP.PDF underline Yes/No  
Comparison of contrast range of 16 steps F to 0 with test chart no. 3 of DIN 33866-1  
give contrast range: (>F:0) (F:0) (E:0) (D:0) (C:0) (A:0) (9:0) (7:0) (5:0) (3:0) (<3:0)  
*Remark: In daylighted offices the contrast range is in many cases:  
on paper between: >F:0 (highly glossy), F:0 (silk glossy) and E:0 (matte)  
on display between: >F:0 and E:0 (monitor), D:0 and 3:0 (data projector)*

**Only for optional colorimetric specification with PDF/PS file output**

**PDF-File:** either www.ps.bam.de/XE27/10L/L27E00NP.PDF underline Yes/No  
or www.ps.bam.de/XE27/10P/P27E00NP.PDF or underline Yes/No  
**PS-File:** either www.ps.bam.de/XE27/10L/L27E00NA.PS or underline Yes/No  
or www.ps.bam.de/XE27/10P/P27E00NA.PS or underline Yes/No

**colour measurement and specification for:**

CIE standard illuminant D65, 2 degree observer, CIE 45/0 geometry: underline Yes/No  
If No, please give other parameters: .....

**Colorimetric specification with PS file for colours in the columns A to T**

Exchange of CIELAB data in file www.ps.bam.de/XE30/10L/L30E00NP.PS and transfer  
of the PS-file L30E00NP.PS in PDF-file L30E00NP.PDF underline Yes/No  
If No, please describe other method: .....

Part 4

XE831-5

See for similar files: <http://www.ps.bam.de/XE83/>; [www.ps.bam.de/XE83/](http://www.ps.bam.de/XE83/); [www.ps.bam.de/XE83/](http://www.ps.bam.de/XE83/)  
Technical information: <http://www.ps.bam.de>  
Version 2.1, io=1,1

BAM registration: 20070301-XE83/10P/P83E01NP.PS/.PDF  
application for output of monitor, data projector, or printer systems  
BAM material: code=rhadtA