

Agreement with elementary hues (Yes/No decision) Example PostScript Printer

Layout Example: agreement with elementary hues **Test chart 1 (rgb) according to DIN 33872-5**

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 $R=R_e$.

Input data 0 1 0 should produce Green $G=G_e$.

Input data 0 0 1 should produce Blue $B=B_e$.

Input data 1 1 0 should produce Yellow $J=Y_e$.

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": **inapplicable**

Elementary Red R is hue step no. (e. g. 00, 01, 19) (neither yellowish nor bluish)

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 bluish)

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

VE650-3, De150-3

Discriminability of colours with 20 hues (Yes/No decision) Example PostScript Printer

Layout example: discriminability of 20 hues **Test chart 1 (rgb) according to DIN 33872-5**

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 $R=R_e$.

Input data 0 1 0 should produce Green $G=G_e$.

Input data 0 0 1 should produce Blue $B=B_e$.

Input data 1 1 0 should produce Yellow $J=Y_e$.

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 20 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)00,01. are not distinguishable

The colours of the two hue steps no. (e. g. 14 and 15)10,11. are not distinguishable

The colours of the two hue steps no. (e. g. 15 and 16)15,16. are not distinguishable

List other pairs:

Result: Of the 20 hue differences (e.g. 18)17..... differences are visible.

VE650-7, De151-3

Discriminability of 16 step colour series (Yes/No decision)

Layout example: three 16 step colour series

Example PostScript printer

There are three basic colours on each page:

Black N, White W and Chromatic X.

Ten pages include 10 hue planes

$X=OYLVCVM=(RYGCBM)_d$ and $RJGB=(RYGB)_e$

There are at maximum 45 distinguishable steps.

PDF test chart 1 (rgb ->rgb*a or ->rgb*e)

according to DIN 33872-2, file -> PS printer

All steps of the three series N-W, W-X and X-N should be distinguishable on all pages.

Are the three 16step series distinguishable on all pages? underline: **Yes/No**

In case of No: Are the three 16 step series on Page x of 10 pages distinguishable?

Underline Yes/No and give in case of No the number of distinguishable steps?

Page 1: Yes/No, if No 40/45 step differences are distinguishable of O = Orange Red

Page 2: Yes/No, if No 40/45 step differences are distinguishable of Y = Yellow

Page 3: Yes/No, if No 38/45 step differences are distinguishable of L = Leaf green

Page 4: Yes/No, if No 40/45 step differences are distinguishable of C = Cyan blue

Page 5: Yes/No, if No 36/45 step differences are distinguishable of V = Violet blue

Page 6: Yes/No, if No 40/45 step differences are distinguishable of M = Magenta Red

Page 7: Yes/No, if No 40/45 step differences are distinguishable of R = Elementary Red

Page 8: Yes/No, if No 40/45 step differences are distinguishable of J = Elementary yellow

Page 9: Yes/No, if No 39/45 step differences are distinguishable of G = Elementary Green

Page 10: Yes/No, if No 39/45 step differences are distinguishable of B = Elementary blue

Sum: 0/10 Yes-Pages and 392/450 step differences are distinguishable.

VE651-3, De121-3

Discriminability of 16 step colour series (Yes/No decision)

Layout example: three 16 step colour series

RECS colour atlas, RS-09 linearized offset print

There are three basic colours on each page:

Black N, White W and Chromatic X.

Ten pages include 10 hue planes

$X=OYLVCVM=(RYGCBM)_d$ and $RJGB=(RYGB)_e$

There are at maximum 45 distinguishable steps.

PDF test chart 1 (rgb ->rgb*a or ->rgb*e)

according to DIN 33872-2, file -> offset print

All steps of the three series N-W, W-X and X-N should be distinguishable on all pages.

Are the three 16step series distinguishable on all pages? underline: **Yes/No**

In case of No: Are the three 16 step series on Page x of 10 pages distinguishable?

Underline Yes/No and give in case of No the number of distinguishable steps?

Page 1: Yes/No, if No 45 step differences are distinguishable of O = Orange Red

Page 2: Yes/No, if No 45 step differences are distinguishable of Y = Yellow

Page 3: Yes/No, if No 45 step differences are distinguishable of L = Leaf green

Page 4: Yes/No, if No 45 step differences are distinguishable of C = Cyan blue

Page 5: Yes/No, if No 45 step differences are distinguishable of V = Violet blue

Page 6: Yes/No, if No 45 step differences are distinguishable of M = Magenta Red

Page 7: Yes/No, if No 45 step differences are distinguishable of R = Elementary Red

Page 8: Yes/No, if No 45 step differences are distinguishable of J = Elementary yellow

Page 9: Yes/No, if No 45 step differences are distinguishable of G = Elementary green

Page 10: Yes/No, if No 45 step differences are distinguishable of B = Elementary blue

Sum: 10/10 Yes-Pages and 450 step differences are distinguishable

VE651-7, De121-3