

# Input: Colorimetric Television Luminous System TLS18a

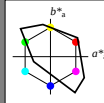
with *rgb* data of the  
four elementary hues

1 0 0 = Red R

1 1 0 = Yellow J

0 1 0 = Green G

0 0 1 = Blue B



| TLS18a; adapted (a) CIELAB data |           |           |              |              |  |  |
|---------------------------------|-----------|-----------|--------------|--------------|--|--|
| $L^* = L^*_{a}$                 | $a^*_{a}$ | $b^*_{a}$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |  |  |
| $O_{Ma}$ 52.76                  | 71.63     | 49.88     | 87.29        | 35           |  |  |
| $Y_{Ma}$ 92.74                  | -20.02    | 84.97     | 87.3         | 103          |  |  |
| $L_{Ma}$ 84.0                   | -78.98    | 73.94     | 108.2        | 137          |  |  |
| $C_{Ma}$ 87.14                  | -44.41    | -13.11    | 46.32        | 196          |  |  |
| $V_{Ma}$ 35.47                  | 64.92     | -95.06    | 115.12       | 304          |  |  |
| $M_{Ma}$ 59.01                  | 89.33     | -55.67    | 105.26       | 328          |  |  |
| $N_{Ma}$ 18.01                  | 0.0       | 0.0       | 0.0          | 0            |  |  |
| $W_{Ma}$ 95.41                  | 0.0       | 0.0       | 0.0          | 0            |  |  |
| $R_{CIE}$ 39.92                 | 58.74     | 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          |  |  |

# Output: Colorimetric Television Luminous System TLS18a

with hue number

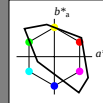
$n = 00$  to 19

00 = Red R

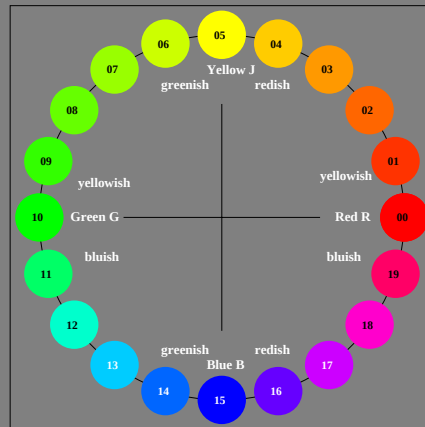
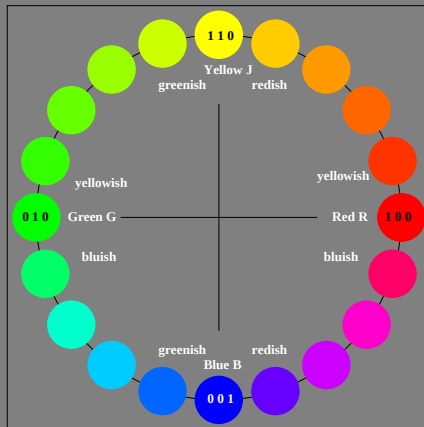
05 = Yellow J

10 = Green G

15 = Blue B



| TLS18a; adapted (a) CIELAB data |           |           |              |              |  |  |
|---------------------------------|-----------|-----------|--------------|--------------|--|--|
| $L^* = L^*_{a}$                 | $a^*_{a}$ | $b^*_{a}$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |  |  |
| $O_{Ma}$ 52.76                  | 71.63     | 49.88     | 87.29        | 35           |  |  |
| $Y_{Ma}$ 92.74                  | -20.02    | 84.97     | 87.3         | 103          |  |  |
| $L_{Ma}$ 84.0                   | -78.98    | 73.94     | 108.2        | 137          |  |  |
| $C_{Ma}$ 87.14                  | -44.41    | -13.11    | 46.32        | 196          |  |  |
| $V_{Ma}$ 35.47                  | 64.92     | -95.06    | 115.12       | 304          |  |  |
| $M_{Ma}$ 59.01                  | 89.33     | -55.67    | 105.26       | 328          |  |  |
| $N_{Ma}$ 18.01                  | 0.0       | 0.0       | 0.0          | 0            |  |  |
| $W_{Ma}$ 95.41                  | 0.0       | 0.0       | 0.0          | 0            |  |  |
| $R_{CIE}$ 39.92                 | 58.74     | 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          |  |  |



IE45-7N, 20 step hue circle with elementary colours R, J, G, B (left)

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

TUB-test chart IE45 for visual displays, Page 1/2  
Elementary hue agreement and discrimination, TLS18a

input: *rgb* ( $\rightarrow$  *olv\**) *setrgbcolor*  
output: no change compared to input