

**rgb\*<sub>e</sub> and CIE data of a elementary hue circle according to CIE R1-47:2009 for offset print****XYZ, YAB<sub>a</sub>, and Lab\*<sub>a</sub> data for relative spacing of elementary hue  $h_{AB,a}$  of YAB<sub>a</sub>****16 step elementary hue circle with intended elementary hues:  $h_{AB,a} = 17.8, 93.1, 159.3, 270.5$** 

| <b>Code</b>   | <b>X</b> | <b>Y</b> | <b>Z</b> | <b>a</b> | <b>b</b> | <b>A<sub>a</sub></b> | <b>B<sub>a</sub></b> | <b>C<sub>AB,a</sub></b> | <b>h<sub>AB,a</sub></b> | <b>L*<sub>a</sub></b> | <b>a*<sub>a</sub></b> | <b>b*<sub>a</sub></b> | <b>C*<sub>ab,a</sub></b> | <b>h<sub>ab,a</sub></b> | <b>rgb -&gt; rgb*<sub>e</sub></b> |
|---------------|----------|----------|----------|----------|----------|----------------------|----------------------|-------------------------|-------------------------|-----------------------|-----------------------|-----------------------|--------------------------|-------------------------|-----------------------------------|
| <b>R00Y=R</b> | 31.3     | 17.3     | 6.3      | 1.805    | -0.145   | 14.9                 | 4.7                  | 15.6                    | <b>17.8</b>             | 48.7                  | 66.6                  | 33.0                  | 74.3                     | 26.3                    | <b>1.00 0.00 0.00</b>             |
| <b>R25Y</b>   | 37.1     | 26.5     | 5.6      | 1.398    | -0.085   | 12.0                 | 8.9                  | 14.9                    | <b>36.6</b>             | 58.5                  | 44.4                  | 52.6                  | 68.8                     | 49.7                    | <b>1.00 0.25 0.00</b>             |
| <b>R50Y</b>   | 43.6     | 36.8     | 6.8      | 1.184    | -0.074   | 8.8                  | 12.8                 | 15.5                    | <b>55.5</b>             | 67.1                  | 27.7                  | 62.4                  | 68.3                     | 66.0                    | <b>1.00 0.50 0.00</b>             |
| <b>R75Y</b>   | 51.1     | 48.9     | 8.1      | 1.045    | -0.066   | 4.8                  | 17.3                 | 18.0                    | <b>74.2</b>             | 75.3                  | 13.2                  | 71.7                  | 72.9                     | 79.5                    | <b>1.00 0.75 0.00</b>             |
| <b>Y00G=Y</b> | 62.9     | 68.0     | 10.2     | 0.925    | -0.06    | -1.3                 | 24.6                 | 24.6                    | <b>93.1</b>             | 86.0                  | -3.2                  | 83.1                  | 83.2                     | 92.2                    | <b>1.00 1.00 0.00</b>             |
| <b>Y25G</b>   | 49.0     | 59.9     | 9.6      | 0.817    | -0.064   | -7.6                 | 21.4                 | 22.8                    | <b>109.7</b>            | 81.8                  | -20.0                 | 77.8                  | 80.4                     | 104.4                   | <b>0.75 1.00 0.00</b>             |
| <b>Y50G</b>   | 29.4     | 41.9     | 9.3      | 0.701    | -0.089   | -10.2                | 13.9                 | 17.3                    | <b>126.2</b>            | 70.8                  | -35.5                 | 59.8                  | 69.6                     | 120.7                   | <b>0.50 1.00 0.00</b>             |
| <b>Y75G</b>   | 16.6     | 29.3     | 9.9      | 0.568    | -0.135   | -11.0                | 8.3                  | 13.8                    | <b>142.7</b>            | 61.0                  | -51.9                 | 41.4                  | 66.4                     | 141.4                   | <b>0.25 1.00 0.00</b>             |
| <b>G00B=G</b> | 12.2     | 24.9     | 15.6     | 0.493    | -0.251   | -11.2                | 4.2                  | 12.0                    | <b>159.3</b>            | 56.9                  | -61.5                 | 19.7                  | 64.6                     | 162.1                   | <b>0.00 1.00 0.00</b>             |
| <b>G25B</b>   | 15.1     | 27.0     | 31.8     | 0.558    | -0.47    | -10.4                | -1.3                 | 10.5                    | <b>187.1</b>            | 59.0                  | -52.2                 | -4.7                  | 52.4                     | 185.1                   | <b>0.00 1.00 0.50</b>             |
| <b>G50B</b>   | 17.4     | 28.5     | 46.6     | 0.612    | -0.654   | -9.5                 | -6.6                 | 11.5                    | <b>214.8</b>            | 60.3                  | -44.5                 | -20.4                 | 49.0                     | 204.7                   | <b>0.00 1.00 1.00</b>             |
| <b>G75B</b>   | 21.9     | 31.4     | 71.0     | 0.697    | -0.904   | -7.8                 | -15.1                | 17.0                    | <b>242.7</b>            | 62.8                  | -33.0                 | -38.9                 | 51.0                     | 229.6                   | <b>0.00 0.50 1.00</b>             |
| <b>B00R=B</b> | 11.8     | 12.4     | 40.3     | 0.954    | -1.301   | 0.1                  | -10.9                | 10.9                    | <b>270.5</b>            | 41.8                  | 0.4                   | -44.9                 | 44.9                     | 270.5                   | <b>0.00 0.00 1.00</b>             |
| <b>B25R</b>   | 9.4      | 6.1      | 23.9     | 1.537    | -1.564   | 3.6                  | -6.9                 | 7.8                     | <b>297.3</b>            | 29.7                  | 34.1                  | -42.6                 | 54.6                     | 308.6                   | <b>0.50 0.00 1.00</b>             |
| <b>B50R</b>   | 17.2     | 9.9      | 24.5     | 1.725    | -0.984   | 7.7                  | -5.6                 | 9.5                     | <b>324.2</b>            | 37.8                  | 51.0                  | -29.9                 | 59.1                     | 329.6                   | <b>1.00 0.00 1.00</b>             |
| <b>B75R</b>   | 32.4     | 17.2     | 24.6     | 1.88     | -0.57    | 16.1                 | -2.5                 | 16.3                    | <b>350.9</b>            | 48.6                  | 71.2                  | -11.6                 | 72.2                     | 350.7                   | <b>1.00 0.00 0.50</b>             |

**5 step equidistant grey scale with intended lightness:  $L^* = 22.2, 40.7, 59.3, 77.8, 96.3$** 

| <b>Code</b>    | <b>X</b> | <b>Y</b> | <b>Z</b> | <b>a</b> | <b>b</b> | <b>A<sub>a</sub></b> | <b>B<sub>a</sub></b> | <b>C<sub>AB,a</sub></b> | <b>h<sub>AB,a</sub></b> | <b>L*<sub>a</sub></b> | <b>a*<sub>a</sub></b> | <b>b*<sub>a</sub></b> | <b>C*<sub>ab,a</sub></b> | <b>h<sub>ab,a</sub></b> | <b>rgb -&gt; rgb*<sub>e</sub></b> |
|----------------|----------|----------|----------|----------|----------|----------------------|----------------------|-------------------------|-------------------------|-----------------------|-----------------------|-----------------------|--------------------------|-------------------------|-----------------------------------|
| <b>n000w=N</b> | 3.5      | 3.6      | 3.8      | 0.955    | -0.421   | 0.0                  | 0.0                  | 0.0                     | 0.5                     | <b>22.5</b>           | 0.0                   | 0.0                   | 0.0                      | 37.9                    | <b>0.00 0.00 0.00</b>             |
| <b>n025w</b>   | 11.1     | 11.7     | 12.9     | 0.946    | -0.441   | 0.0                  | -0.2                 | 0.2                     | 271.5                   | <b>40.8</b>           | -0.3                  | -1.4                  | 1.4                      | 256.8                   | <b>0.25 0.25 0.25</b>             |
| <b>n050w</b>   | 25.7     | 27.2     | 30.0     | 0.944    | -0.44    | 0.0                  | -0.4                 | 0.5                     | 266.5                   | <b>59.2</b>           | -0.3                  | -1.8                  | 1.8                      | 258.1                   | <b>0.50 0.50 0.50</b>             |
| <b>n075w</b>   | 49.9     | 52.9     | 57.3     | 0.944    | -0.433   | 0.0                  | -0.6                 | 0.6                     | 264.9                   | <b>77.8</b>           | -0.2                  | -1.4                  | 1.4                      | 259.2                   | <b>0.75 0.75 0.75</b>             |
| <b>n100w=W</b> | 86.0     | 91.0     | 95.9     | 0.945    | -0.421   | 0.0                  | 0.0                  | 0.0                     | 99.2                    | <b>96.4</b>           | 0.0                   | 0.0                   | 0.0                      | 100.0                   | <b>1.00 1.00 1.00</b>             |