

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=5\%$**

16-stufiger Elementar-Bunttonkreis: Buntton  $h_{ab,a,e} = 25, 92, 162, 271$

| Code           | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$ | 55.0        | 67.6        | 32.2        | 74.9           | 25.5       | 1.00 0.00 0.00 |
| $R25Y_e$       | 60.1        | 52.4        | 47.5        | 70.7           | 42.1       | 1.00 0.25 0.00 |
| $R50Y_e$       | 67.7        | 33.4        | 55.4        | 64.7           | 58.9       | 1.00 0.50 0.00 |
| $R75Y_e$       | 75.2        | 16.1        | 63.0        | 65.0           | 75.6       | 1.00 0.75 0.00 |
| $Y00G_e = Y_e$ | 84.2        | -2.8        | 71.7        | 71.7           | 92.2       | 1.00 1.00 0.00 |
| $Y25G_e$       | 91.6        | -28.1       | 78.1        | 83.0           | 109.7      | 0.75 1.00 0.00 |
| $Y50G_e$       | 86.9        | -54.9       | 72.2        | 90.7           | 127.2      | 0.50 1.00 0.00 |
| $Y75G_e$       | 84.7        | -70.4       | 49.7        | 86.2           | 144.7      | 0.25 1.00 0.00 |
| $G00B_e = G_e$ | 85.8        | -58.9       | 18.8        | 61.9           | 162.2      | 0.00 1.00 0.00 |
| $G25B_e$       | 87.6        | -45.9       | -7.8        | 46.5           | 189.6      | 0.00 1.00 0.50 |
| $G50B_e$       | 80.4        | -31.3       | -23.3       | 39.2           | 216.9      | 0.00 1.00 1.00 |
| $G75B_e$       | 72.1        | -17.3       | -35.9       | 39.8           | 244.2      | 0.00 0.50 1.00 |
| $B00R_e = B_e$ | 62.4        | 1.5         | -51.1       | 51.1           | 271.6      | 0.00 0.00 1.00 |
| $B25R_e$       | 42.7        | 48.3        | -83.0       | 96.1           | 300.1      | 0.50 0.00 1.00 |
| $B50R_e$       | 60.6        | 84.4        | -51.4       | 98.8           | 328.6      | 1.00 0.00 1.00 |
| $B75R_e$       | 56.5        | 72.3        | -73.7       | 72.4           | 357.0      | 1.00 0.00 0.50 |

5-stufige gleichabständige Graureihe:  $L^*_e = 26.8, 43.9, 61.1, 78.2, 95.4$

| Code            | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $N000W_e = N_e$ | 26.8        | 0.0         | 0.0         | 0.0            | 0.0        | 0.00 0.00 0.00 |
| $N025W_e$       | 43.9        | 0.0         | 0.0         | 0.0            | 325.3      | 0.25 0.25 0.25 |
| $N050W_e$       | 61.1        | 0.0         | 0.0         | 0.0            | 325.1      | 0.50 0.50 0.50 |
| $N075W_e$       | 78.1        | 0.0         | 0.0         | 0.0            | 323.7      | 0.75 0.75 0.75 |
| $N100W_e = W_e$ | 95.4        | 0.0         | 0.0         | 0.0            | 0.0        | 1.00 1.00 1.00 |

SG310-3N, LAB\*la4, adapted=not adapted

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=5\%$**

3 Farben der Elementar-Bunttöne  $RYGB_e$ :  $h_{ab,a,e} = 25, 92, 162, 271$

| Code              | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-------------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$    | 55.0        | 67.6        | 32.2        | 74.9           | 25.5       | 1.00 0.00 0.00 |
| $0.5R_e + 0.5N_e$ | 40.9        | 33.8        | 16.1        | 37.4           | 25.5       | 0.50 0.00 0.00 |
| $0.5R_e + 0.5W_e$ | 75.2        | 33.8        | 16.1        | 37.4           | 25.5       | 1.00 0.50 0.50 |
| $Y00G_e = Y_e$    | 84.2        | -2.8        | 71.7        | 71.7           | 92.2       | 1.00 1.00 0.00 |
| $0.5Y_e + 0.5N_e$ | 55.5        | -1.4        | 35.8        | 35.8           | 92.2       | 0.50 0.50 0.00 |
| $0.5Y_e + 0.5W_e$ | 89.8        | -1.4        | 35.8        | 35.8           | 92.2       | 1.00 1.00 0.50 |
| $G00B_e = G_e$    | 85.8        | -58.9       | 18.8        | 61.9           | 162.2      | 0.00 1.00 0.00 |
| $0.5G_e + 0.5N_e$ | 56.3        | -29.4       | 9.4         | 30.9           | 162.2      | 0.00 0.50 0.00 |
| $0.5G_e + 0.5W_e$ | 90.6        | -29.4       | 9.4         | 30.9           | 162.2      | 0.50 1.00 0.50 |
| $B00R_e = B_e$    | 62.4        | 1.5         | -51.1       | 51.1           | 271.6      | 0.00 0.00 1.00 |
| $0.5B_e + 0.5N_e$ | 44.6        | 0.7         | -25.5       | 25.5           | 271.6      | 0.00 0.00 0.50 |
| $0.5B_e + 0.5W_e$ | 78.9        | 0.7         | -25.5       | 25.5           | 271.6      | 0.50 0.50 1.00 |

5-stufige gleichabständige Graureihe:  $L^*_e = 26.8, 43.9, 61.1, 78.2, 95.4$

| Code            | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $N000W_e = N_e$ | 26.8        | 0.0         | 0.0         | 0.0            | 0.0        | 0.00 0.00 0.00 |
| $N025W_e$       | 43.9        | 0.0         | 0.0         | 0.0            | 325.3      | 0.25 0.25 0.25 |
| $N050W_e$       | 61.1        | 0.0         | 0.0         | 0.0            | 325.1      | 0.50 0.50 0.50 |
| $N075W_e$       | 78.1        | 0.0         | 0.0         | 0.0            | 323.7      | 0.75 0.75 0.75 |
| $N100W_e = W_e$ | 95.4        | 0.0         | 0.0         | 0.0            | 0.0        | 1.00 1.00 1.00 |

SG310-4N, LAB\*la4, adapted=not adapted

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=20\%$**

16-stufiger Elementar-Bunttonkreis: Buntton  $h_{ab,a,e} = 25, 92, 162, 271$

| Code           | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$ | 65.6        | 44.6        | 21.2        | 49.4           | 25.4       | 1.00 0.00 0.00 |
| $R25Y_e$       | 71.1        | 31.3        | 28.4        | 42.3           | 42.2       | 1.00 0.25 0.00 |
| $R50Y_e$       | 75.6        | 20.7        | 34.4        | 40.2           | 58.9       | 1.00 0.50 0.00 |
| $R75Y_e$       | 80.3        | 10.3        | 40.4        | 41.7           | 75.6       | 1.00 0.75 0.00 |
| $Y00G_e = Y_e$ | 86.2        | -1.9        | 47.8        | 47.8           | 92.3       | 1.00 1.00 0.00 |
| $Y25G_e$       | 92.9        | -20.0       | 55.7        | 59.2           | 109.7      | 0.75 1.00 0.00 |
| $Y50G_e$       | 89.2        | -38.3       | 50.4        | 63.3           | 127.2      | 0.50 1.00 0.00 |
| $Y75G_e$       | 86.8        | -53.7       | 37.9        | 65.7           | 144.7      | 0.25 1.00 0.00 |
| $G00B_e = G_e$ | 87.6        | -44.9       | 14.4        | 47.1           | 162.1      | 0.00 1.00 0.00 |
| $G25B_e$       | 89.1        | -35.7       | -6.0        | 36.2           | 189.6      | 0.00 1.00 0.50 |
| $G50B_e$       | 83.8        | -24.2       | -18.2       | 30.3           | 217.0      | 0.00 1.00 1.00 |
| $G75B_e$       | 77.6        | -13.1       | -27.3       | 30.3           | 244.2      | 0.00 0.50 1.00 |
| $B00R_e = B_e$ | 70.3        | 1.1         | -38.5       | 38.6           | 271.7      | 0.00 0.00 1.00 |
| $B25R_e$       | 58.1        | 33.5        | -57.7       | 66.8           | 300.1      | 0.50 0.00 1.00 |
| $B50R_e$       | 69.1        | 60.4        | -36.9       | 70.8           | 328.5      | 1.00 0.00 1.00 |
| $B75R_e$       | 66.5        | 49.8        | -2.6        | 49.9           | 357.0      | 1.00 0.00 0.50 |

5-stufige gleichabständige Graureihe:  $L^*_e = 52.0, 62.8, 73.7, 84.5, 95.4$

| Code            | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $N000W_e = N_e$ | 52.0        | 0.0         | 0.0         | 0.0            | 0.0        | 0.00 0.00 0.00 |
| $N025W_e$       | 62.8        | 0.0         | 0.0         | 0.0            | 325.1      | 0.25 0.25 0.25 |
| $N050W_e$       | 73.7        | 0.0         | 0.0         | 0.0            | 324.7      | 0.50 0.50 0.50 |
| $N075W_e$       | 84.5        | 0.0         | 0.0         | 0.0            | 323.8      | 0.75 0.75 0.75 |
| $N100W_e = W_e$ | 95.4        | 0.0         | 0.0         | 0.0            | 0.0        | 1.00 1.00 1.00 |

SG311-3N, LAB\*la6, adapted=not adapted

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=20\%$**

3 Farben der Elementar-Bunttöne  $RYGB_e$ :  $h_{ab,a,e} = 25, 92, 162, 271$

| Code              | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-------------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$    | 65.6        | 44.6        | 21.2        | 49.4           | 25.4       | 1.00 0.00 0.00 |
| $0.5R_e + 0.5N_e$ | 58.8        | 22.3        | 10.6        | 24.7           | 25.4       | 0.50 0.00 0.00 |
| $0.5R_e + 0.5W_e$ | 80.5        | 22.3        | 10.6        | 24.7           | 25.4       | 1.00 0.50 0.50 |
| $Y00G_e = Y_e$    | 86.2        | -1.9        | 47.8        | 47.8           | 92.3       | 1.00 1.00 0.00 |
| $0.5Y_e + 0.5N_e$ | 69.1        | -0.9        | 23.9        | 23.9           | 92.3       | 0.50 0.50 0.00 |
| $0.5Y_e + 0.5W_e$ | 90.8        | -0.9        | 23.9        | 23.9           | 92.3       | 1.00 1.00 0.50 |
| $G00B_e = G_e$    | 87.6        | -44.9       | 14.4        | 47.1           | 162.1      | 0.00 1.00 0.00 |
| $0.5G_e + 0.5N_e$ | 69.8        | -22.4       | 7.2         | 23.5           | 162.1      | 0.00 0.50 0.00 |
| $0.5G_e + 0.5W_e$ | 91.5        | -22.4       | 7.2         | 23.5           | 162.1      | 0.50 1.00 0.50 |
| $B00R_e = B_e$    | 70.3        | 1.1         | -38.5       | 38.6           | 271.7      | 0.00 0.00 1.00 |
| $0.5B_e + 0.5N_e$ | 61.1        | 0.5         | -19.2       | 19.3           | 271.7      | 0.00 0.00 0.50 |
| $0.5B_e + 0.5W_e$ | 82.8        | 0.5         | -19.2       | 19.3           | 271.7      | 0.50 0.50 1.00 |

5-stufige gleichabständige Graureihe:  $L^*_e = 52.0, 62.8, 73.7, 84.5, 95.4$

| Code            | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $N000W_e = N_e$ | 52.0        | 0.0         | 0.0         | 0.0            | 0.0        | 0.00 0.00 0.00 |
| $N025W_e$       | 62.8        | 0.0         | 0.0         | 0.0            | 325.1      | 0.25 0.25 0.25 |
| $N050W_e$       | 73.7        | 0.0         | 0.0         | 0.0            | 324.7      | 0.50 0.50 0.50 |
| $N075W_e$       | 84.5        | 0.0         | 0.0         | 0.0            | 323.8      | 0.75 0.75 0.75 |
| $N100W_e = W_e$ | 95.4        | 0.0         | 0.0         | 0.0            | 0.0        | 1.00 1.00 1.00 |

SG311-4N, LAB\*la6, adapted=not adapted

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=10\%$**

16-stufiger Elementar-Bunttonkreis: Buntton  $h_{ab,a,e} = 25, 92, 162, 271$

| Code           | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$ | 58.8        | 58.8        | 28.0        | 65.2           | 25.4       | 1.00 0.00 0.00 |
| $R25Y_e$       | 64.6        | 43.1        | 39.0        | 58.1           | 42.1       | 1.00 0.25 0.00 |
| $R50Y_e$       | 70.8        | 27.9        | 46.4        | 54.2           | 58.9       | 1.00 0.50 0.00 |
| $R75Y_e$       | 77.1        | 13.7        | 53.6        | 55.3           | 75.6       | 1.00 0.75 0.00 |
| $Y00G_e = Y_e$ | 84.9        | -2.5        | 62.2        | 62.2           | 92.3       | 1.00 1.00 0.00 |
| $Y25G_e$       | 92.1        | -25.0       | 69.6        | 74.0           | 109.7      | 0.75 1.00 0.00 |
| $Y50G_e$       | 87.8        | -48.5       | 63.7        | 80.1           | 127.2      | 0.50 1.00 0.00 |
| $Y75G_e$       | 85.4        | -64.6       | 45.6        | 79.1           | 144.7      | 0.25 1.00 0.00 |
| $G00B_e = G_e$ | 86.4        | -54.0       | 17.3        | 56.7           | 162.2      | 0.00 1.00 0.00 |
| $G25B_e$       | 88.1        | -42.4       | -7.2        | 43.0           | 189.6      | 0.00 1.00 0.50 |
| $G50B_e$       | 81.5        | -28.8       | -21.7       | 36.1           | 216.9      | 0.00 1.00 1.00 |
| $G75B_e$       | 74.1        | -15.8       | -32.8       | 36.5           | 244.2      | 0.00 0.50 1.00 |
| $B00R_e = B_e$ | 65.2        | 1.4         | -46.7       | 46.7           | 271.7      | 0.00 0.00 1.00 |
| $B25R_e$       | 46.8        | 44.3        | -76.2       | 88.2           | 300.1      | 0.50 0.00 1.00 |
| $B50R_e$       | 63.6        | 75.6        | -46.1       | 88.6           | 328.5      | 1.00 0.00 1.00 |
| $B75R_e$       | 60.2        | 63.8        | -3.2        | 63.9           | 357.0      | 1.00 0.00 0.50 |

5-stufige gleichabständige Graureihe:  $L^*_e = 37.9, 52.3, 66.6, 81.0, 95.4$

| Code            | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-----------------|-------------|-------------|-------------|----------------|------------|----------------|
| $N000W_e = N_e$ | 37.9        | 0.0         | 0.0         | 0.0            | 0.0        | 0.00 0.00 0.00 |
| $N025W_e$       | 52.2        | 0.0         | 0.0         | 0.0            | 325.5      | 0.25 0.25 0.25 |
| $N050W_e$       | 66.7        | 0.0         | 0.0         | 0.0            | 324.4      | 0.50 0.50 0.50 |
| $N075W_e$       | 81.1        | 0.0         | 0.0         | 0.0            | 324.7      | 0.75 0.75 0.75 |
| $N100W_e = W_e$ | 95.4        | 0.0         | 0.0         | 0.0            | 0.0        | 1.00 1.00 1.00 |

SG310-7N, LAB\*la5, adapted=not adapted

**rgb\*- und CIE-Daten von Elementar-Bunttonkreis  
nach CIE R1-47:2009 für sRGB-Display  $L_r=10\%$**

3 Farben der Elementar-Bunttöne  $RYGB_e$ :  $h_{ab,a,e} = 25, 92, 162, 271$

| Code              | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ | $C^*_{ab,a,e}$ | $h_{ab,e}$ | $rgb^*_{a,e}$  |
|-------------------|-------------|-------------|-------------|----------------|------------|----------------|
| $R00Y_e = R_e$    | 58.8        | 58.8        | 28.0        | 65.2           | 25.4       | 1.00 0.00 0.00 |
| $0.5R_e + 0.5N_e$ | 48.4        | 29.4        | 14.0        | 32.6           | 25.4       | 0.50 0.00 0.00 |
| $0.5R_e + 0.5W_e$ | 77.1        | 29.4        | 14.0        | 32.6           | 25.4       | 1.00 0.50 0.50 |
| $Y00G_e = Y_e$    | 84.9        | -2.5        | 62.2        | 62.2           | 92.3       | 1.00 1.00 0.00 |
| $0.5Y_e + 0.5N_e$ | 61.4        | -1.2        | 31.1        | 31.1           | 92.3       | 0.50 0.50 0.00 |
| $0.5Y_e + 0.5W_e$ | 90.1        | -1.2        | 31.1        | 31.1           | 92.3       | 1.00 1.00 0.50 |
| $G00B_e = G_e$    | 86.4        | -54.0       | 17.3        | 56.7           | 162.2      | 0.00 1.00 0.00 |
| $0.5G_e + 0.5N_e$ | 62.2        | -27.0       | 8.6         | 28.3           | 162.2      | 0.00 0.50 0.00 |
| $0.5G_e + 0.5W_e$ | 90.9        | -27.0       | 8.6         | 28.3           | 162.2      | 0.50 1.00 0.50 |
| $B00R_e = B_e$    | 65.2        | 1.4         | -46.7       | 46.7           | 271.7      | 0.00 0.00 1.00 |
| $0.5B_e + 0.5N_e$ | 51.6        | 0.7         | -23.3       | 23.3           | 271.7      | 0.00 0.00 0.50 |
| $0.5B_e + 0.5W_e$ | 80.3        | 0.7         | -23.3       | 23.3           | 271.7      | 0.50 0.50 1.00 |

5-stufige gleichabständige Graureihe:  $L^*_e = 37.9, 52.3, 66.6, 81.0, 95.4$

| Code | $L^*_{a,e}$ | $a^*_{a,e}$ | $b^*_{a,e}$ |  |
|------|-------------|-------------|-------------|--|
|------|-------------|-------------|-------------|--|