

| X | Y | Z | x | y | L* | a* | b* | a' | b' | OYLCVM_ONW_0 | |
|-----------------------------|-------|--------|-------|-------|-------|--------|--------|--------|---------|---------------|--------------------|
| CIE Illuminant E | | | | | | | | | | | |
| 61.49 | 35.75 | 0.03 | 0.632 | 0.367 | 66.3 | 70.3 | 113.7 | 0.2581 | -0.0089 | %O=JR | 00 575_770 |
| 83.16 | 86.74 | 1.54 | 0.485 | 0.505 | 94.6 | -6.6 | 140.9 | 0.2124 | -0.0224 | %Y=J=JG+JR | 01 515_770 |
| 21.66 | 50.98 | 1.5 | 0.292 | 0.687 | 76.6 | -99.1 | 110.4 | 0.1619 | -0.0266 | %L=JG | 02 515_575 |
| 8.5 | 25.04 | 11.07 | 0.19 | 0.561 | 57.1 | -95.3 | 30.0 | 0.1502 | -0.0656 | %Gs | 03 0,35*JG+0,65*BG |
| 1.41 | 11.08 | 16.22 | 0.049 | 0.385 | 39.7 | -119.2 | -13.0 | 0.1084 | -0.0978 | %Cs=BG | 04 475_515 |
| 16.83 | 13.25 | 98.45 | 0.13 | 0.103 | 43.1 | 21.1 | -96.9 | 0.2333 | -0.1681 | %V=B=BR+BG | 05 380_515 |
| 15.41 | 2.17 | 82.23 | 0.154 | 0.021 | 16.3 | 128.5 | -131.5 | 0.4139 | -0.2892 | %Ms=BR | 06 380_475 |
| 55.04 | 31.05 | 11.54 | 0.563 | 0.318 | 62.5 | 71.1 | 38.0 | 0.2607 | -0.0619 | %Rs | 07 0,14*BR+0,86*JR |
| 61.49 | 35.75 | 0.03 | 0.632 | 0.367 | 66.3 | 70.3 | 113.7 | 0.2581 | -0.0089 | %O=JR | 08 575_770 |
| 0.1 | 0.1 | 0.1 | 0.332 | 0.332 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) | 09 380_770 |
| 100.0 | 100.0 | 100.0 | 0.333 | 0.333 | 100.0 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) | 10 380_770 |
| CIE Standard Illuminant D65 | | | | | | | | | | | |
| 54.81 | 32.31 | 0.03 | 0.628 | 0.37 | 63.6 | 73.0 | 109.1 | 0.2613 | -0.0087 | %O=JR | 00 575_770 |
| 76.89 | 85.27 | 1.63 | 0.469 | 0.52 | 94.0 | -8.2 | 140.2 | 0.2116 | -0.0224 | %Y=J=JG+JR | 01 515_770 |
| 22.07 | 52.96 | 1.6 | 0.288 | 0.69 | 77.8 | -97.1 | 112.7 | 0.1636 | -0.0261 | %L=JG | 02 515_575 |
| 8.78 | 26.49 | 12.51 | 0.183 | 0.554 | 58.5 | -95.0 | 31.2 | 0.1516 | -0.0652 | %Gs | 03 0,35*JG+0,65*BG |
| 1.61 | 12.23 | 18.38 | 0.05 | 0.379 | 41.5 | -119.5 | -11.2 | 0.1116 | -0.0959 | %Cs=BG | 04 475_515 |
| 18.14 | 14.72 | 107.25 | 0.129 | 0.105 | 45.2 | 23.9 | -93.3 | 0.2349 | -0.1623 | %V=B=BR+BG | 05 380_515 |
| 16.52 | 2.48 | 88.86 | 0.153 | 0.023 | 17.8 | 133.2 | -128.5 | 0.4121 | -0.276 | %Ms=BR | 06 380_475 |
| 49.45 | 28.13 | 12.47 | 0.549 | 0.312 | 60.0 | 74.5 | 33.9 | 0.2644 | -0.0638 | %Rs | 07 0,14*BR+0,86*JR |
| 54.81 | 32.31 | 0.03 | 0.628 | 0.37 | 63.6 | 73.0 | 109.1 | 0.2613 | -0.0087 | %O=JR | 08 575_770 |
| 0.09 | 0.1 | 0.1 | 0.311 | 0.327 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) | 09 380_770 |
| 95.04 | 100.0 | 108.89 | 0.312 | 0.329 | 100.0 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) | 10 380_770 |
| CIE Illuminant A | | | | | | | | | | | |
| 83.51 | 46.75 | 0.04 | 0.64 | 0.358 | 74.0 | 68.2 | 125.5 | 0.2533 | -0.0122 | %O=JR | 00 575_770 |
| 104.38 | 92.56 | 1.2 | 0.526 | 0.467 | 97.0 | 4.2 | 130.1 | 0.2173 | -0.0286 | %Y=J=JG+JR | 01 515_770 |
| 20.87 | 45.8 | 1.15 | 0.307 | 0.675 | 73.4 | -97.9 | 90.3 | 0.1606 | -0.0356 | %L=JG | 02 515_575 |
| 7.77 | 20.34 | 5.93 | 0.228 | 0.597 | 52.2 | -87.2 | 7.5 | 0.1515 | -0.0806 | %Gs | 03 0,35*JG+0,65*BG |
| 0.71 | 6.63 | 8.5 | 0.045 | 0.418 | 30.9 | -108.0 | -43.1 | 0.0993 | -0.1321 | %Cs=BG | 04 475_515 |
| 5.45 | 7.43 | 34.37 | 0.115 | 0.157 | 32.7 | -26.3 | -113.6 | 0.1883 | -0.2026 | %V=B=BR+BG | 05 380_515 |
| 4.74 | 0.8 | 25.87 | 0.151 | 0.025 | 7.2 | 75.2 | -139.7 | 0.3775 | -0.387 | %Ms=BR | 06 380_475 |
| 72.48 | 40.32 | 3.66 | 0.622 | 0.346 | 69.7 | 65.9 | 54.0 | 0.2538 | -0.0546 | %Rs | 07 0,14*BR+0,86*JR |
| 83.51 | 46.75 | 0.04 | 0.64 | 0.358 | 74.0 | 68.2 | 125.5 | 0.2533 | -0.0122 | %O=JR | 08 575_770 |
| 0.1 | 0.09 | 0.03 | 0.445 | 0.405 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) | 09 380_770 |
| 109.84 | 99.99 | 35.58 | 0.447 | 0.407 | 99.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) | 10 380_770 |

$$\begin{aligned} a^* &= 500 \left[\left(X/X_n \right)^{1/3} - \left(Y/Y_n \right)^{1/3} \right] & b^* &= 200 \left[\left(Y/Y_n \right)^{1/3} - \left(Z/Z_n \right)^{1/3} \right] & a' &= \left(1/X_n \right)^{1/3} (x/y)^{1/3} & b' &= -0,4 \left(1/Z_n \right)^{1/3} (z/y)^{1/3} & (X, Y, Z \geq 0,89) \\ &= 500 (a' - a'_n) Y^{1/3} & &= 500 (b' - b'_n) Y^{1/3} & &= 0,2191 (x/y)^{1/3} & &= -0,08376 (z/y)^{1/3} & CIELAB \text{ für } n=D65 \end{aligned}$$

| X | Y | Z | x | y | L* | a* | b* | a' | b' | OYLCVM_ONW_1 |
|-----------------------------|-------|--------|-------|-------|-------|-------|--------|--------|---------|---------------------------|
| CIE Illuminant E | | | | | | | | | | |
| 61.49 | 35.75 | 0.03 | 0.632 | 0.367 | 66.3 | 70.3 | 113.7 | 0.2581 | -0.0089 | %O=JR 00 575_770 |
| 83.16 | 86.74 | 1.54 | 0.485 | 0.505 | 94.6 | -6.6 | 140.9 | 0.2124 | -0.0224 | %Y=J=JG+JR 01 515_770 |
| 21.66 | 50.98 | 1.5 | 0.292 | 0.687 | 76.6 | -99.1 | 110.4 | 0.1619 | -0.0266 | %L=JG 02 515_575 |
| 26.71 | 54.96 | 31.04 | 0.237 | 0.487 | 79.0 | -87.5 | 28.4 | 0.1693 | -0.0712 | %G 03 0,70*L+0,30*C |
| 38.5 | 64.24 | 99.96 | 0.189 | 0.316 | 84.0 | -67.6 | -27.4 | 0.1816 | -0.0998 | %C=L+V 04 380_575 |
| 16.83 | 13.25 | 98.45 | 0.13 | 0.103 | 43.1 | 21.1 | -96.9 | 0.2333 | -0.1681 | %V=B=BR+BG 05 380_515 |
| 78.33 | 49.01 | 98.49 | 0.346 | 0.217 | 75.4 | 66.6 | -41.3 | 0.2518 | -0.1087 | %M=V+O 06 380_515+575_770 |
| 64.52 | 38.14 | 17.76 | 0.535 | 0.316 | 68.1 | 69.4 | 32.6 | 0.2567 | -0.0667 | %R 07 0,18*M+0,82*O |
| 61.49 | 35.75 | 0.03 | 0.632 | 0.367 | 66.3 | 70.3 | 113.7 | 0.2581 | -0.0089 | %O=JR 08 575_770 |
| 0.1 | 0.1 | 0.1 | 0.332 | 0.332 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) 09 380_770 |
| 100.0 | 100.0 | 100.0 | 0.333 | 0.333 | 100.0 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) 10 380_770 |
| CIE Standard Illuminant D65 | | | | | | | | | | |
| 54.81 | 32.31 | 0.03 | 0.628 | 0.37 | 63.6 | 73.0 | 109.1 | 0.2613 | -0.0087 | %O=JR 00 575_770 |
| 76.89 | 85.27 | 1.63 | 0.469 | 0.52 | 94.0 | -8.2 | 140.2 | 0.2116 | -0.0224 | %Y=J=JG+JR 01 515_770 |
| 22.07 | 52.96 | 1.6 | 0.288 | 0.69 | 77.8 | -97.1 | 112.7 | 0.1636 | -0.0261 | %L=JG 02 515_575 |
| 27.52 | 57.37 | 33.77 | 0.231 | 0.483 | 80.3 | -84.6 | 30.8 | 0.1715 | -0.0702 | %G 03 0,70*L+0,30*C |
| 40.22 | 67.68 | 108.85 | 0.185 | 0.312 | 85.8 | -63.5 | -24.3 | 0.1842 | -0.0981 | %C=L+V 04 380_575 |
| 18.14 | 14.72 | 107.25 | 0.129 | 0.105 | 45.2 | 23.9 | -93.3 | 0.2349 | -0.1623 | %V=B=BR+BG 05 380_515 |
| 72.96 | 47.03 | 107.28 | 0.321 | 0.206 | 74.2 | 68.9 | -43.4 | 0.2536 | -0.1102 | %M=V+O 06 380_515+575_770 |
| 58.08 | 34.96 | 19.34 | 0.516 | 0.311 | 65.7 | 72.0 | 28.4 | 0.2595 | -0.0687 | %R 07 0,18*M+0,82*O |
| 54.81 | 32.31 | 0.03 | 0.628 | 0.37 | 63.6 | 73.0 | 109.1 | 0.2613 | -0.0087 | %O=JR 08 575_770 |
| 0.09 | 0.1 | 0.1 | 0.311 | 0.327 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) 09 380_770 |
| 95.04 | 100.0 | 108.89 | 0.312 | 0.329 | 100.0 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) 10 380_770 |
| CIE Illuminant A | | | | | | | | | | |
| 83.51 | 46.75 | 0.04 | 0.64 | 0.358 | 74.0 | 68.2 | 125.5 | 0.2533 | -0.0122 | %O=JR 00 575_770 |
| 104.38 | 92.56 | 1.2 | 0.526 | 0.467 | 97.0 | 4.2 | 130.1 | 0.2173 | -0.0286 | %Y=J=JG+JR 01 515_770 |
| 20.87 | 45.8 | 1.15 | 0.307 | 0.675 | 73.4 | -97.9 | 90.3 | 0.1606 | -0.0356 | %L=JG 02 515_575 |
| 22.51 | 48.03 | 11.47 | 0.274 | 0.585 | 74.8 | -96.7 | 19.4 | 0.1621 | -0.0754 | %G 03 0,70*L+0,30*C |
| 26.33 | 53.24 | 35.53 | 0.228 | 0.462 | 78.0 | -94.6 | -37.8 | 0.1651 | -0.1062 | %C=L+V 04 380_575 |
| 5.45 | 7.43 | 34.37 | 0.115 | 0.157 | 32.7 | -26.3 | -113.6 | 0.1883 | -0.2026 | %V=B=BR+BG 05 380_515 |
| 88.97 | 54.19 | 34.42 | 0.501 | 0.305 | 78.5 | 58.4 | -34.7 | 0.2463 | -0.1045 | %M=V+O 06 380_515+575_770 |
| 84.49 | 48.09 | 6.23 | 0.608 | 0.346 | 74.8 | 66.3 | 44.7 | 0.2519 | -0.0615 | %R 07 0,18*M+0,82*O |
| 83.51 | 46.75 | 0.04 | 0.64 | 0.358 | 74.0 | 68.2 | 125.5 | 0.2533 | -0.0122 | %O=JR 08 575_770 |
| 0.1 | 0.09 | 0.03 | 0.445 | 0.405 | 0.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %N0 (β=0,001) 09 380_770 |
| 109.84 | 99.99 | 35.58 | 0.447 | 0.407 | 99.9 | 0.0 | 0.0 | 0.2154 | -0.0861 | %W1 (β=1,000) 10 380_770 |

$$\begin{aligned} a^* &= 500 \left[\left(\frac{X}{X_n} \right)^{1/3} - \left(\frac{Y}{Y_n} \right)^{1/3} \right] & b^* &= 200 \left[\left(\frac{Y}{Y_n} \right)^{1/3} - \left(\frac{Z}{Z_n} \right)^{1/3} \right] & a' &= \left(\frac{1}{X_n} \right)^{1/3} (x/y)^{1/3} & b' &= -0,4 \left(\frac{1}{Z_n} \right)^{1/3} (z/y)^{1/3} & (X, Y, Z \geq 0,89) \\ &= 500 (a' - a'_n) Y^{1/3} & &= 500 (b' - b'_n) Y^{1/3} & &= 0,2191 (x/y)^{1/3} & &= -0,08376 (z/y)^{1/3} & \text{CIELAB für } n=D65 \end{aligned}$$