

Achromatic colours white for eight illuminants; colour space CIEXYZ; K>256:1

| Code                   | X      | Y     | Z      | x      | y      | z      | $h_{xy}$ | illuminant |
|------------------------|--------|-------|--------|--------|--------|--------|----------|------------|
| W <sub>1</sub> 380_770 | 97.06  | 99.99 | 104.57 | 0.3218 | 0.3315 | 0.3466 | 0.0      | P60        |
| W <sub>1</sub> 380_770 | 97.45  | 100.0 | 95.98  | 0.3321 | 0.3407 | 0.327  | 0.0      | P55        |
| W <sub>1</sub> 380_770 | 98.12  | 100.0 | 86.5   | 0.3447 | 0.3513 | 0.3039 | 0.0      | P50        |
| W <sub>1</sub> 380_770 | 99.2   | 100.0 | 76.07  | 0.3603 | 0.3632 | 0.2763 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.93 | 100.0 | 64.68  | 0.3799 | 0.3764 | 0.2435 | 0.0      | P40        |
| W <sub>1</sub> 380_770 | 103.66 | 99.99 | 52.43  | 0.4047 | 0.3904 | 0.2047 | 0.0      | P35        |
| W <sub>1</sub> 380_770 | 108.04 | 100.0 | 39.55  | 0.4363 | 0.4038 | 0.1597 | 0.0      | P30        |
| W <sub>1</sub> 380_770 | 115.18 | 100.0 | 26.59  | 0.4764 | 0.4136 | 0.1099 | 0.0      | P25        |

1-000130-L0

BE930-1N\_2

Achromatic colours white for eight illuminants; colour space YAB\_77; K>256:1

| Code                   | Y     | A   | B   | $C_{AB}$ | a      | b       | $h_{AB}$ | illuminant |
|------------------------|-------|-----|-----|----------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 99.99 | 0.0 | 0.0 | 0.01     | 0.9706 | -0.4182 | 0.0      | P60        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9745 | -0.3839 | 0.0      | P55        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9812 | -0.346  | 0.0      | P50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.992  | -0.3042 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 1.0093 | -0.2587 | 0.0      | P40        |
| W <sub>1</sub> 380_770 | 99.99 | 0.0 | 0.0 | 0.01     | 1.0366 | -0.2097 | 0.0      | P35        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 1.0804 | -0.1582 | 0.0      | P30        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 1.1518 | -0.1063 | 0.0      | P25        |

1-000130-L0

BE930-3N\_2

Achromatic colours white for eight illuminants; colour space CIELAB; K>256:1

| Code                   | $L^*$ | $a^*$ | $b^*$ | $C^*_{ab}$ | $a'$   | $b'$    | $h_{ab}$ | illuminant |
|------------------------|-------|-------|-------|------------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P60        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P55        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P40        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P35        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P30        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P25        |

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BE930-5N\_2

Achromatic colours white for eight illuminants; colour space LABHNU1\_79; K>256:1

| CodeD65                | $L^*$ | $a^*$ | $b^*$ | $C^*_{ab}$ | $a'$   | $b'$    | $h_{ab}$ | illuminant |
|------------------------|-------|-------|-------|------------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1313 | -0.0888 | 0.0      | P60        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1316 | -0.0867 | 0.0      | P55        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.132  | -0.0842 | 0.0      | P50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1328 | -0.0812 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1339 | -0.0777 | 0.0      | P40        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1357 | -0.0736 | 0.0      | P35        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1386 | -0.0687 | 0.0      | P30        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1434 | -0.063  | 0.0      | P25        |

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BE930-7N\_2

Achromatic colours white for eight illuminants; colour space CIEXYZ; K>256:1

| Code                   | X      | Y     | Z      | x      | y      | z      | $h_{xy}$ | illuminant |
|------------------------|--------|-------|--------|--------|--------|--------|----------|------------|
| W <sub>1</sub> 380_770 | 95.04  | 100.0 | 108.89 | 0.3127 | 0.329  | 0.3582 | 0.0      | D65        |
| W <sub>1</sub> 380_770 | 96.42  | 100.0 | 82.49  | 0.3457 | 0.3585 | 0.2957 | 0.0      | D50        |
| W <sub>1</sub> 380_770 | 99.2   | 100.0 | 76.07  | 0.3603 | 0.3632 | 0.2763 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 109.84 | 99.99 | 35.58  | 0.4475 | 0.4074 | 0.1449 | 0.0      | A00        |
| W <sub>1</sub> 380_770 | 100.0  | 100.0 | 100.0  | 0.3333 | 0.3333 | 0.3333 | 0.0      | E00        |
| W <sub>1</sub> 380_770 | 98.07  | 100.0 | 118.22 | 0.31   | 0.3161 | 0.3737 | 0.0      | C00        |
| W <sub>1</sub> 380_770 | 102.06 | 100.0 | 81.06  | 0.3604 | 0.3531 | 0.2863 | 0.0      | P00        |
| W <sub>1</sub> 380_770 | 97.93  | 100.0 | 118.95 | 0.309  | 0.3155 | 0.3753 | 0.0      | Q00        |

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BE930-1N\_2

Achromatic colours white for eight illuminants; colour space YAB\_77; K>256:1

| Code                   | Y     | A   | B   | $C_{AB}$ | a      | b       | $h_{AB}$ | illuminant |
|------------------------|-------|-----|-----|----------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9504 | -0.4355 | 0.0      | D65        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9642 | -0.3299 | 0.0      | D50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.992  | -0.3042 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 99.99 | 0.0 | 0.0 | 0.01     | 1.0984 | -0.1423 | 0.0      | A00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 1.0    | -0.4    | 0.0      | E00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9807 | -0.4729 | 0.0      | C00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 1.0206 | -0.3242 | 0.0      | P00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0 | 0.0 | 0.01     | 0.9793 | -0.4758 | 0.0      | Q00        |

1-000130-L0

BE930-3N\_2

Achromatic colours white for eight illuminants; colour space CIELAB; K>256:1

| Code                   | $L^*$ | $a^*$ | $b^*$ | $C^*_{ab}$ | $a'$   | $b'$    | $h_{ab}$ | illuminant |
|------------------------|-------|-------|-------|------------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | D65        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | D50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | A00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | E00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | C00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | P00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.2154 | -0.0861 | 0.0      | Q00        |

1-000130-L0

BE930-5N\_2

Achromatic colours white for eight illuminants; colour space LABHNU1\_79; K>256:1

| CodeD65                | $L^*$ | $a^*$ | $b^*$ | $C^*_{ab}$ | $a'$   | $b'$    | $h_{ab}$ | illuminant |
|------------------------|-------|-------|-------|------------|--------|---------|----------|------------|
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.13   | -0.0899 | 0.0      | D65        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1309 | -0.0831 | 0.0      | D50        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1328 | -0.0812 | 0.0      | P45        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1398 | -0.0671 | 0.0      | A00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1333 | -0.0877 | 0.0      | E00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.132  | -0.092  | 0.0      | C00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1347 | -0.0826 | 0.0      | P00        |
| W <sub>1</sub> 380_770 | 100.0 | 0.0   | 0.0   | 0.0        | 0.1319 | -0.0922 | 0.0      | Q00        |

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BE930-7N\_2

TUB-test chart BE93; Achromatic colorimetric data; K>256:1

colour spaces CIEXYZ, YAB\_77, CIELAB, LABHNU1\_79; 16 illuminants; 2 degree observer

input: w/rgb/cmyk -> rgb

see similar files: <http://farbe.li.tu-berlin.de/BE93/BE93.HTM>  
technical information: <http://farbe.li.tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20170801-BE93/BE93L0NA.TXT /PS  
application for measurement of display output

TUB material: code=rha4ta