

Light efficiency:

**60 Lumen/Watt**

Light quality:

**CRI: 80.2**

Color temperature:

**2954 K**

**Output: 2649 lm**

**Peak: 4832 cd**

**Power: 44.1 W**

**PF: 1.0**

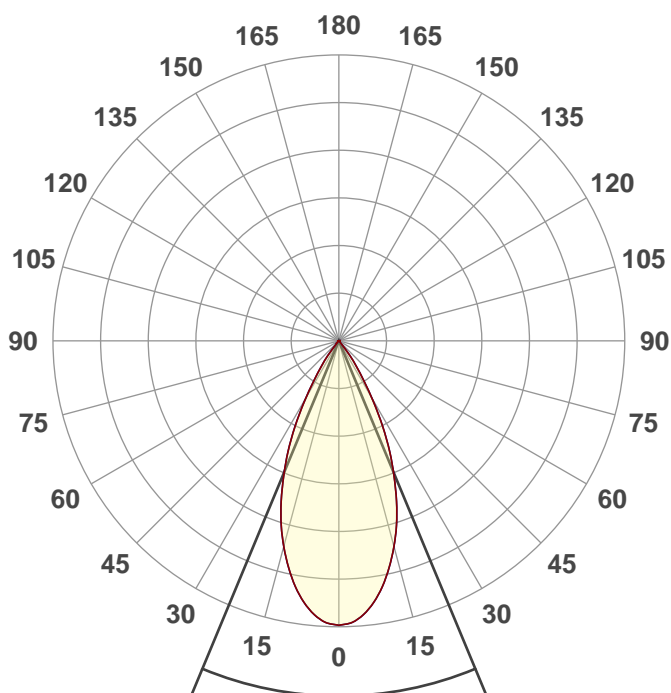


Product name:

**NU4-RH-XTM19-40LM-30K-83-BKS45-120-DIM10-NC-WH**

Date and time:

**6/25/2018 11:53:36 AM**



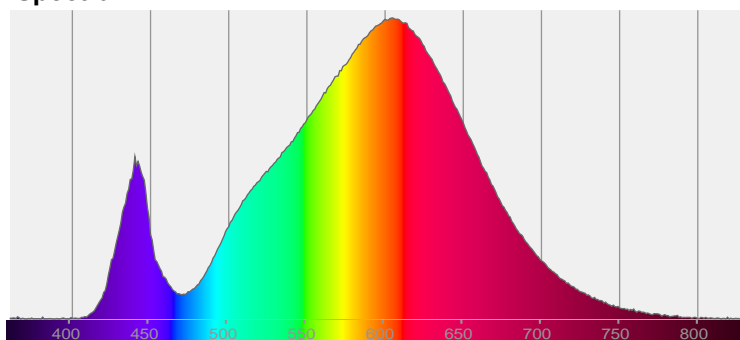
Beam angle

**45.2°**

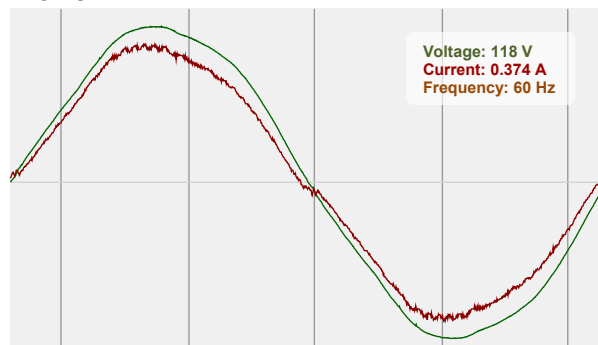


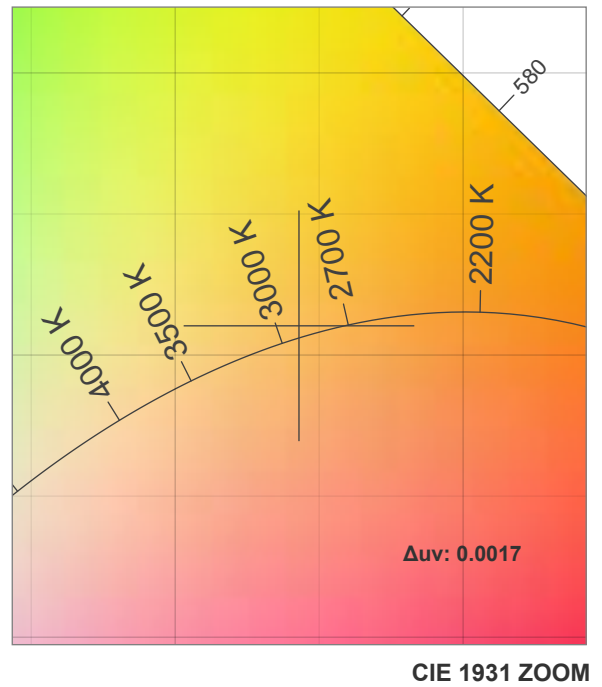
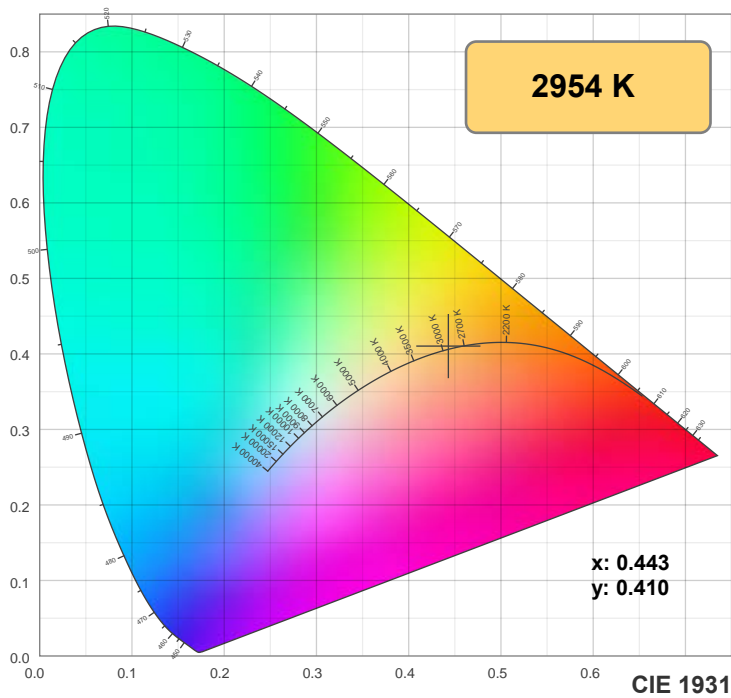
CIE 1931  
x: 0.443  
y: 0.410

Spectra

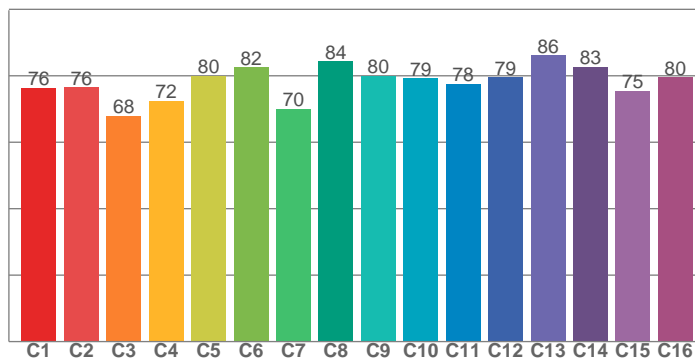


Power

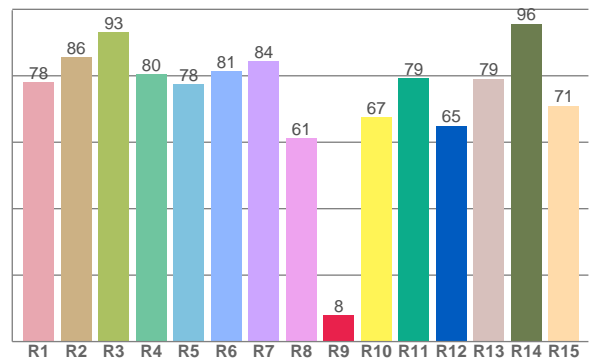




TM30: 77.8



CRI: 80.2 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9  | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|
| 78.1 | 85.6 | 93.1 | 80.4 | 77.5 | 81.3 | 84.3 | 61.1 | 7.9 | 67.5 | 79.2 | 65.0 | 79.1 | 95.7 | 71.0 |

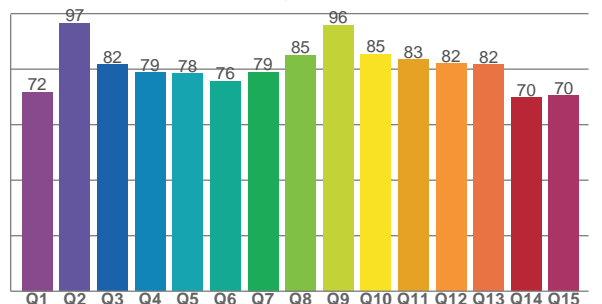
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 76.4 | 76.5 | 68.0 | 72.4 | 80.0 | 82.5 | 70.0 | 84.4 | 80.0 | 79.3 | 77.5 | 79.5 | 86.2 | 82.6 | 75.5 | 79.5 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 71.8 | 96.5 | 81.7 | 78.8 | 78.3 | 75.6 | 78.9 | 85.1 | 95.8 | 85.3 | 83.5 | 82.0 | 81.7 | 69.8 | 70.5 |

CQS: 79.4



## Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | $\Delta uv$                     |
| 2954 K            | 80.2                  | 7.9           | 77.8           | 99.1        | 79.4                | 0.443                     | 0.410                     | 0.252            | 0.350            | 0.0017                          |

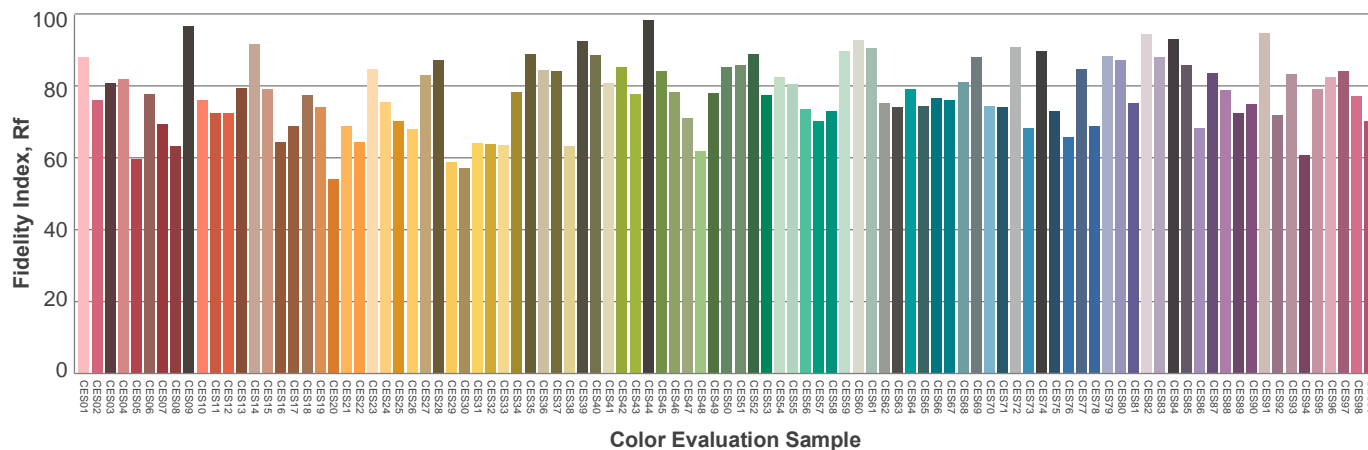
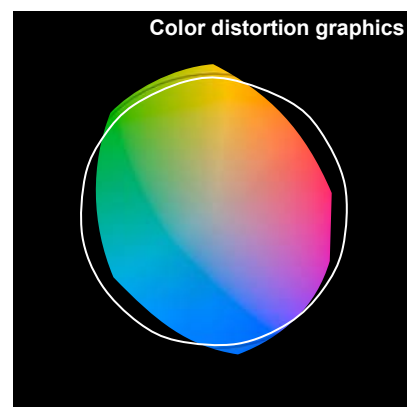
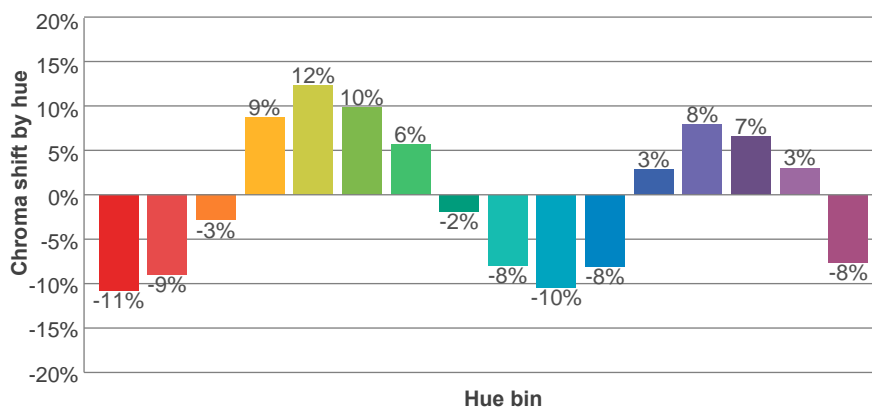
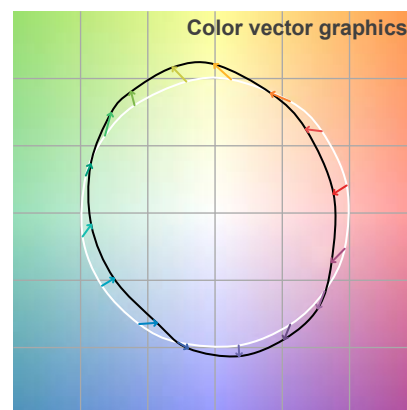
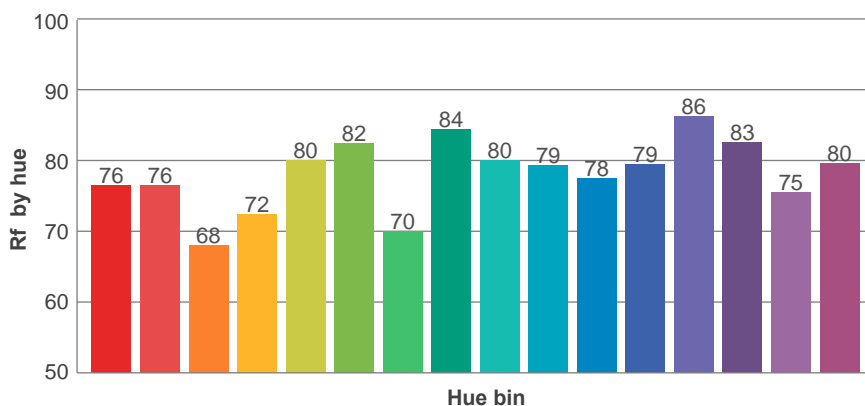
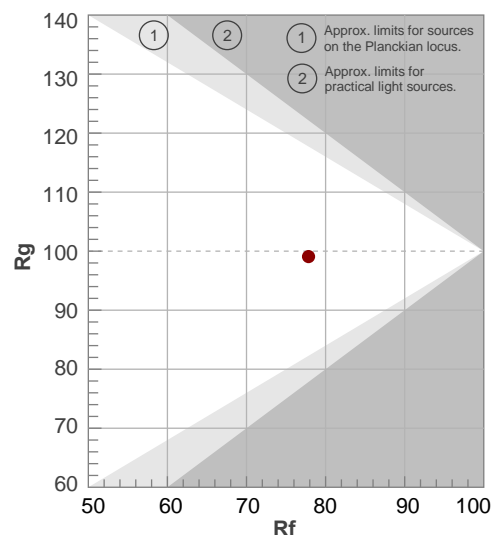
**Rf 77.8**

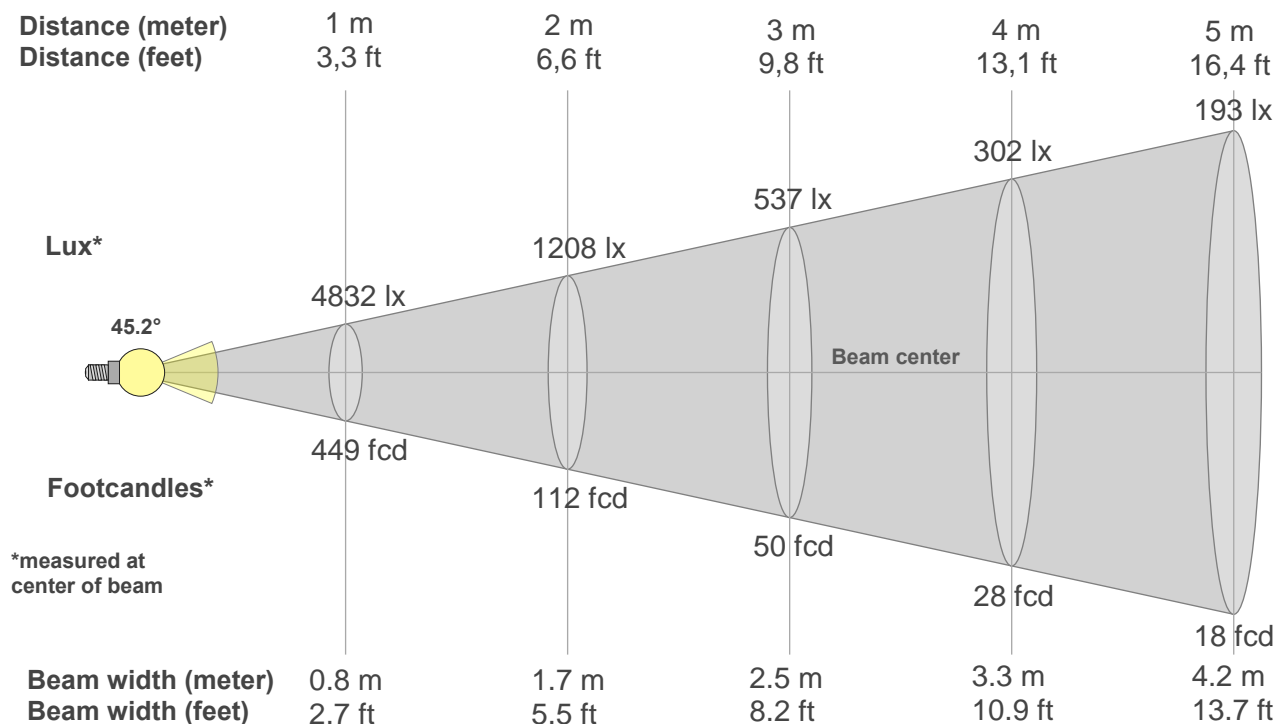
Fidelity index Rf

**Rg 99.1**

Gamut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 76             | -11%               | -4%  |
| 2       | 76             | -9%                | 8%   |
| 3       | 68             | -3%                | 15%  |
| 4       | 72             | 9%                 | 14%  |
| 5       | 80             | 12%                | 8%   |
| 6       | 82             | 10%                | -3%  |
| 7       | 70             | 6%                 | -16% |
| 8       | 84             | -2%                | -9%  |
| 9       | 80             | -8%                | -7%  |
| 10      | 79             | -10%               | 0%   |
| 11      | 78             | -8%                | 10%  |
| 12      | 79             | 3%                 | 8%   |
| 13      | 86             | 8%                 | -1%  |
| 14      | 83             | 7%                 | -10% |
| 15      | 75             | 3%                 | -13% |
| 16      | 80             | -8%                | -12% |





### Beam intensities from 1-20m

| 1m       | 2m       | 3m      | 4m      | 5m     | 6m      | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|----------|----------|---------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft    | 6.6ft    | 9.8ft   | 13.1ft  | 16.4ft | 19.7ft  | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 4832lx   | 1208lx   | 537lx   | 302lx   | 193lx  | 134lx   | 99lx   | 75lx   | 60lx   | 48lx   | 40lx   | 34lx   | 29lx   | 25lx   | 21lx   | 19lx   | 17lx   | 15lx   | 13lx   | 12lx   |
| 448.9fcd | 112.2fcd | 49.9fcd | 28.1fcd | 18fcd  | 12.5fcd | 9.2fcd | 7fcd   | 5.5fcd | 4.5fcd | 3.7fcd | 3.1fcd | 2.7fcd | 2.3fcd | 2fcd   | 1.8fcd | 1.6fcd | 1.4fcd | 1.2fcd | 1.1fcd |

### Intensities in 0° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26°  | 28°  | 30°  | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 4832 | 4804 | 4730 | 4608 | 4446 | 4248 | 4009 | 3751 | 3477 | 3182 | 2860 | 2516 | 2182 | 1833 | 1476 | 1127 | 808 | 576 | 388 | 200 |
| 100% | 99%  | 98%  | 95%  | 92%  | 88%  | 83%  | 78%  | 72%  | 66%  | 59%  | 52%  | 45%  | 38%  | 31%  | 23%  | 17% | 12% | 8%  | 4%  |

### Intensities in 90° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26°  | 28°  | 30°  | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 4832 | 4804 | 4730 | 4608 | 4446 | 4248 | 4009 | 3751 | 3477 | 3182 | 2860 | 2516 | 2182 | 1833 | 1476 | 1127 | 808 | 576 | 388 | 200 |
| 100% | 99%  | 98%  | 95%  | 92%  | 88%  | 83%  | 78%  | 72%  | 66%  | 59%  | 52%  | 45%  | 38%  | 31%  | 23%  | 17% | 12% | 8%  | 4%  |

### Intensities in 180° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26°  | 28°  | 30°  | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 4832 | 4804 | 4730 | 4608 | 4446 | 4248 | 4009 | 3751 | 3477 | 3182 | 2860 | 2516 | 2182 | 1833 | 1476 | 1127 | 808 | 576 | 388 | 200 |
| 100% | 99%  | 98%  | 95%  | 92%  | 88%  | 83%  | 78%  | 72%  | 66%  | 59%  | 52%  | 45%  | 38%  | 31%  | 23%  | 17% | 12% | 8%  | 4%  |

### Intensities in 270° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26°  | 28°  | 30°  | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 4832 | 4804 | 4730 | 4608 | 4446 | 4248 | 4009 | 3751 | 3477 | 3182 | 2860 | 2516 | 2182 | 1833 | 1476 | 1127 | 808 | 576 | 388 | 200 |
| 100% | 99%  | 98%  | 95%  | 92%  | 88%  | 83%  | 78%  | 72%  | 66%  | 59%  | 52%  | 45%  | 38%  | 31%  | 23%  | 17% | 12% | 8%  | 4%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 45.2°          | 69.8°           | 77.6°             | 99.7%                        | 99.7%                       |