

Light efficiency:

89 Lumen/Watt

Light quality:

CRI: 83.1

Color temperature:

3014 K

Output: 12027 lm

Peak: 37784 cd

Power: 135 W

PF: 1.0

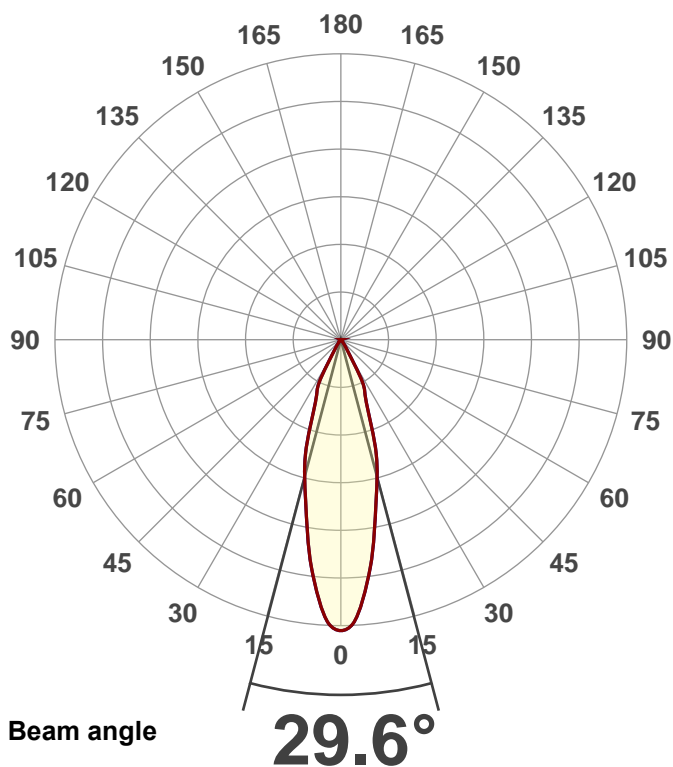


Product name:

680XK-9-CXB-120LM-30K-80-
SA30-10V-MC-S-A16

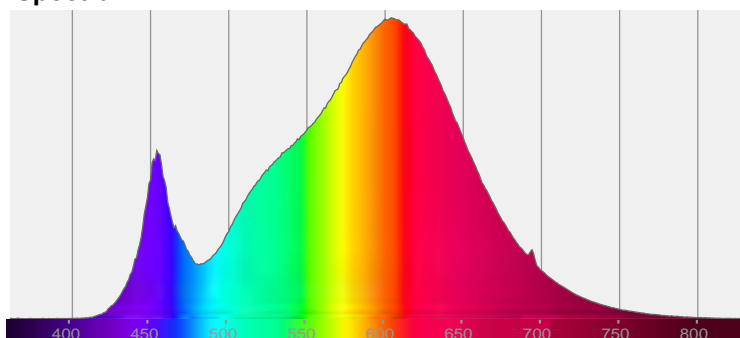
Date and time:

1/26/2018 9:01:07 AM

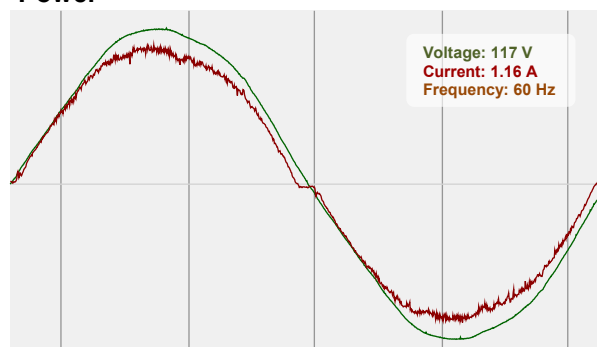


CIE 1931
x: 0.437
y: 0.405

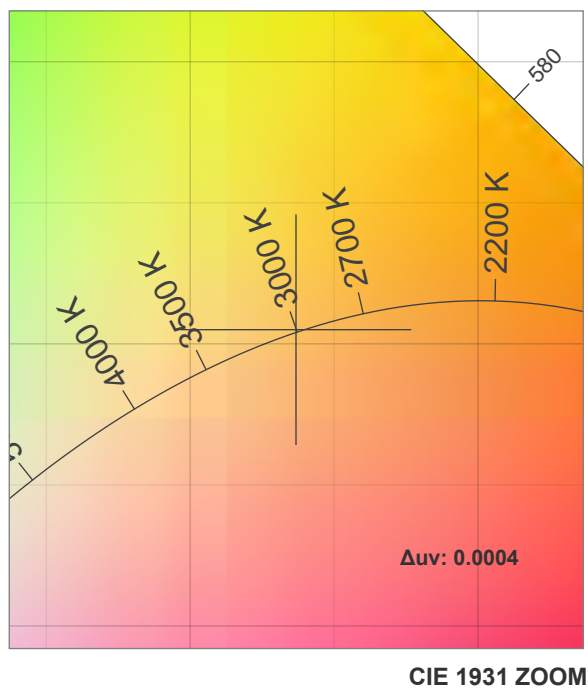
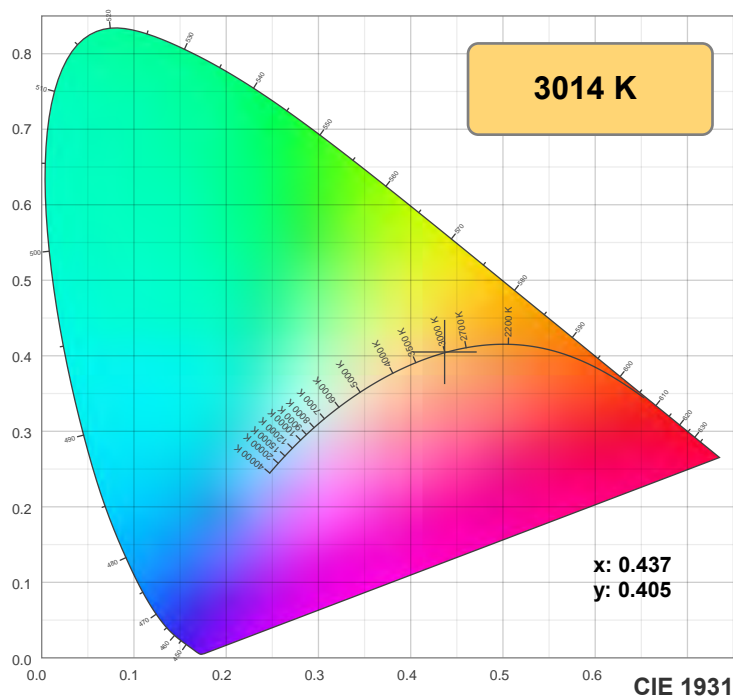
Spectra



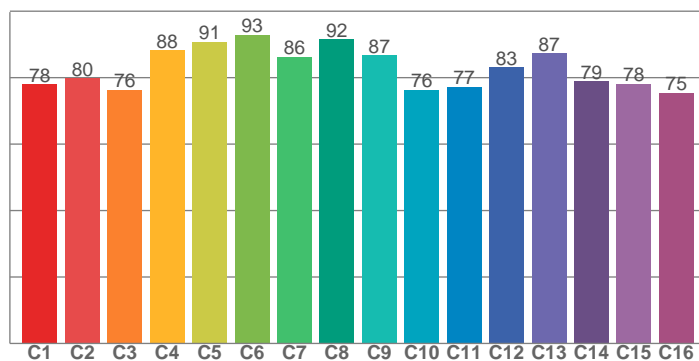
Power



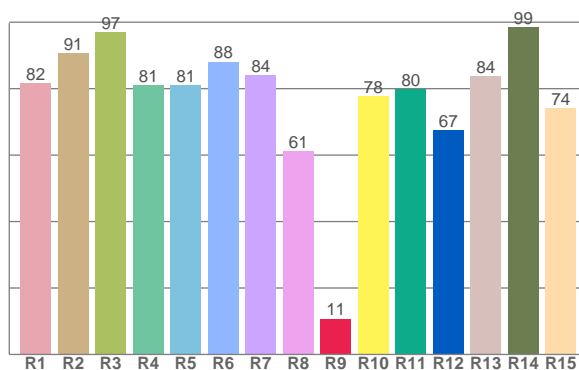
Color details



TM30: 82.9



CRI: 83.1 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 81.6 | 90.7 | 96.9 | 81.1 | 81.0 | 88.1 | 84.0 | 61.1 | 10.8 | 77.8 | 79.9 | 67.5 | 83.8 | 98.6 | 74.0 |

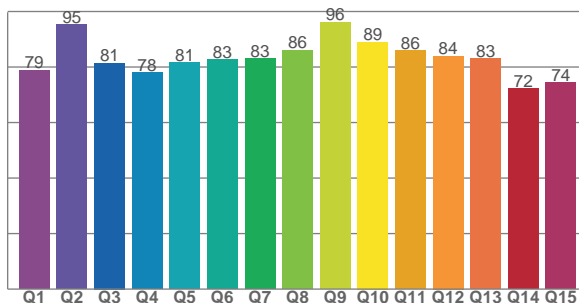
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.0 | 79.8 | 76.4 | 88.2 | 90.7 | 92.9 | 86.2 | 91.5 | 86.7 | 76.4 | 77.3 | 83.1 | 87.3 | 78.8 | 78.0 | 75.4 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.8 | 95.2 | 81.4 | 78.0 | 81.5 | 82.6 | 83.0 | 86.1 | 96.1 | 89.0 | 86.0 | 84.0 | 83.1 | 72.2 | 74.4 |

CQS: 82.1



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 | Δuv |
| 3014 K | 83.1 | 10.8 | 82.9 | 95.7 | 82.1 | 0.437 | 0.405 | 0.250 | 0.348 | 0.0004 |

TM30 details

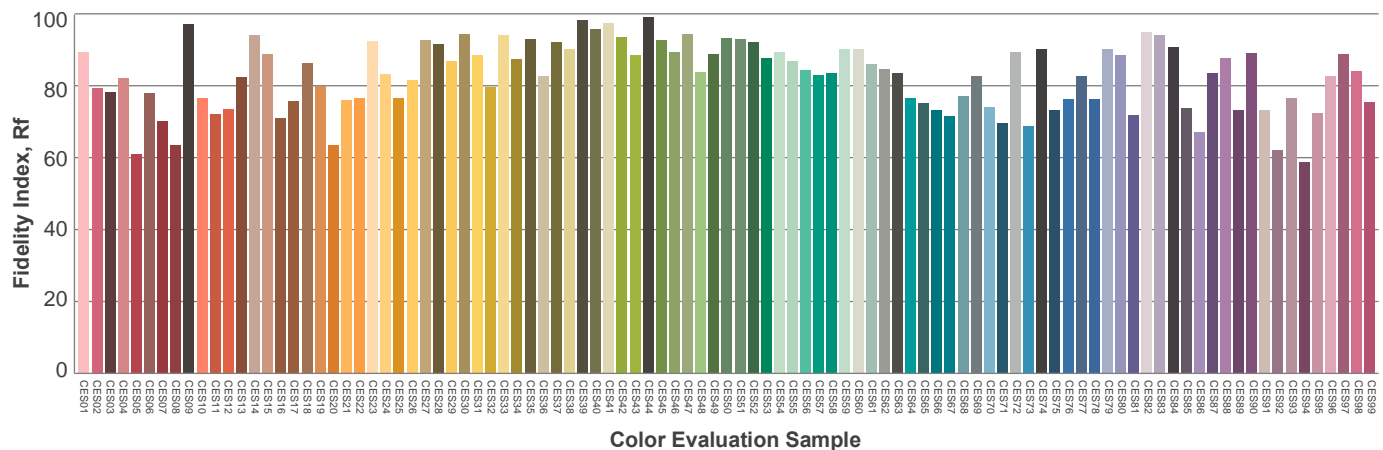
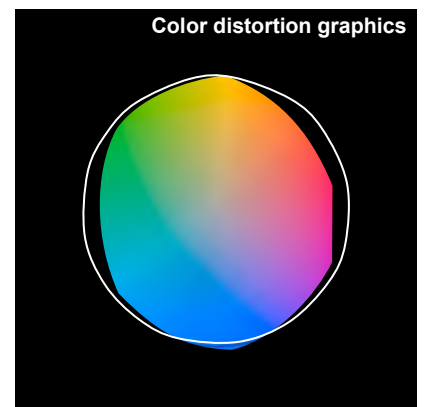
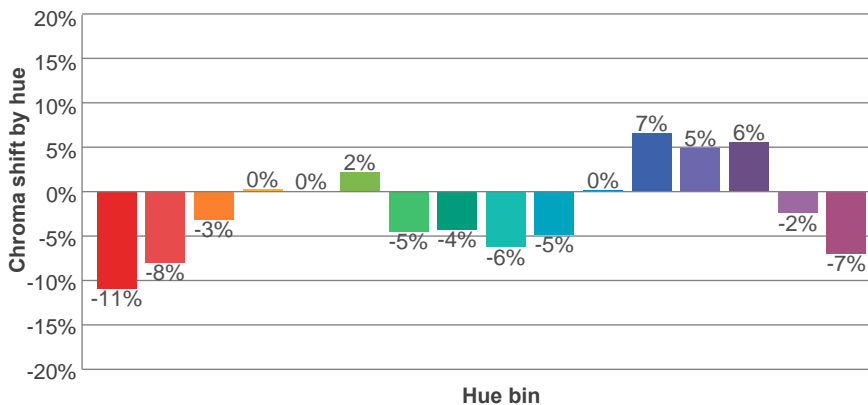
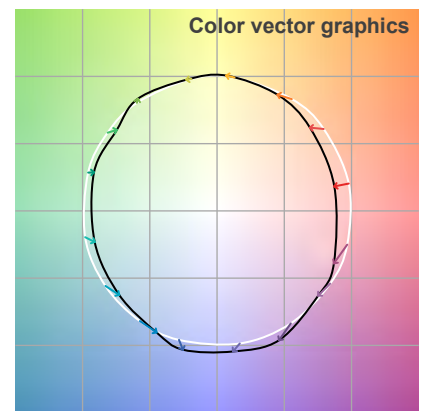
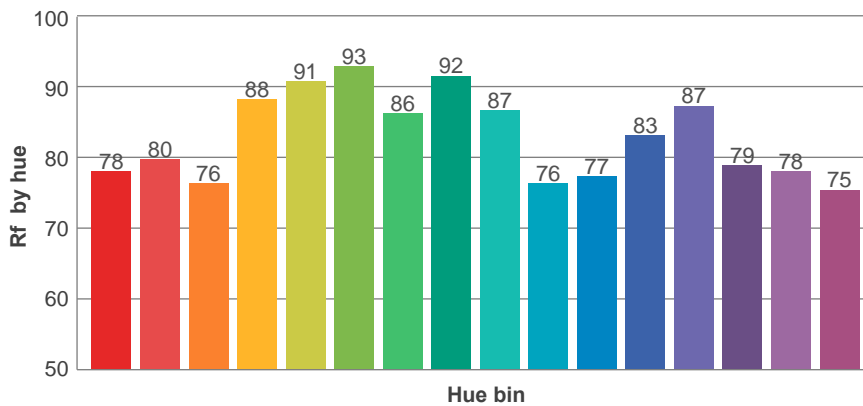
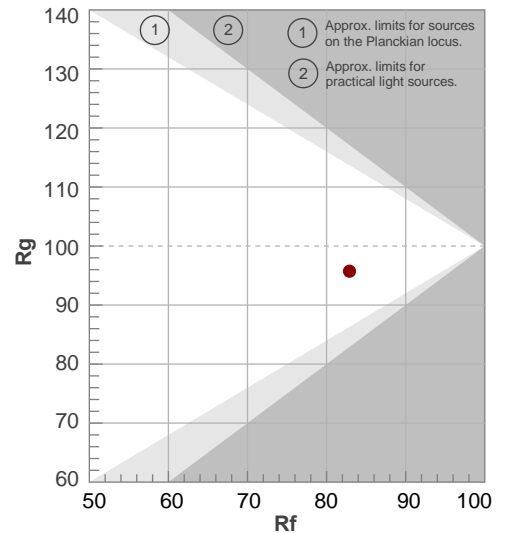
Rf 82.9

Fidelity index Rf

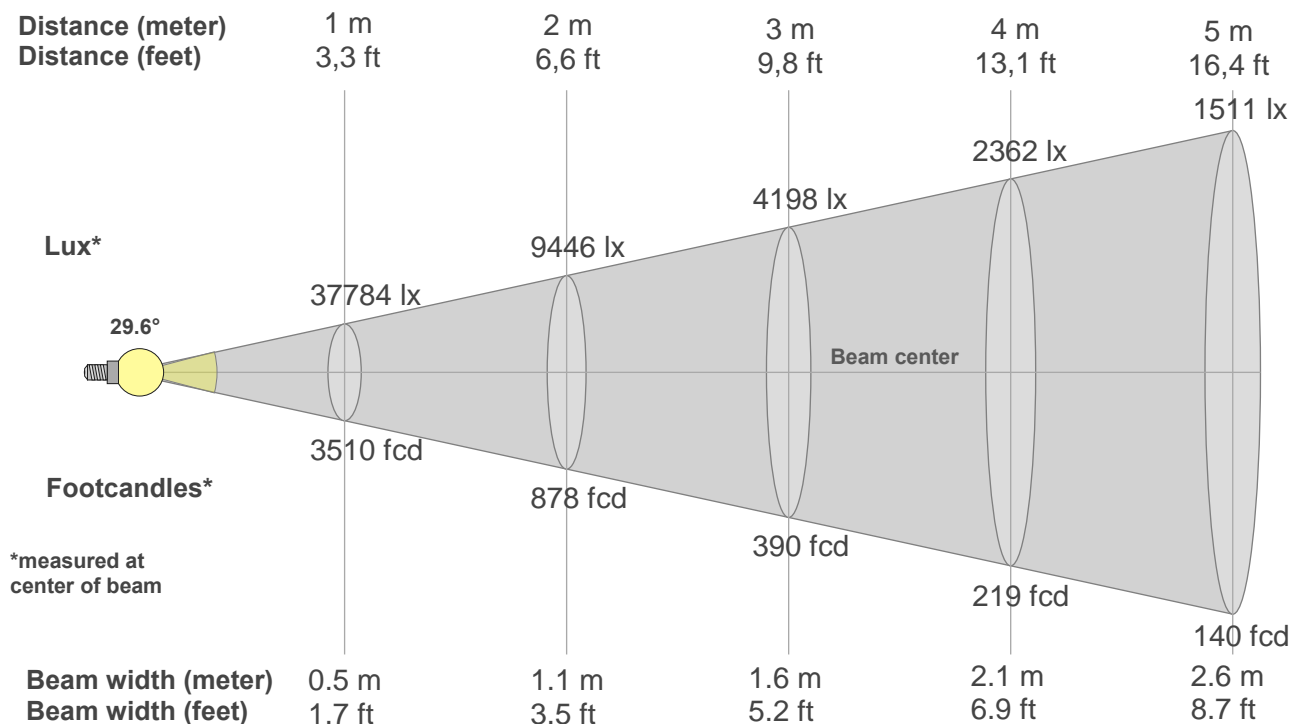
Rg 95.7

Gammut index Rg

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 78 | -11% | 0% |
| 2 | 80 | -8% | 7% |
| 3 | 76 | -3% | 11% |
| 4 | 88 | 0% | 6% |
| 5 | 91 | 0% | 4% |
| 6 | 93 | 2% | -2% |
| 7 | 86 | -5% | -6% |
| 8 | 92 | -4% | -1% |
| 9 | 87 | -6% | 5% |
| 10 | 76 | -5% | 11% |
| 11 | 77 | 0% | 15% |
| 12 | 83 | 7% | 4% |
| 13 | 87 | 5% | -6% |
| 14 | 79 | 6% | -14% |
| 15 | 78 | -2% | -12% |
| 16 | 75 | -7% | -16% |



Beam details



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 |
| 37784lx | 9446lx | 4198lx | 2362lx | 1511lx | 1050lx | 771lx | 590lx | 466lx | 378lx | 312lx | 262lx | 224lx | 193lx | 168lx | 148lx | 131lx | 117lx | 105lx | 94lx |
| 3510.3fcd | 877.6fcd | 390fcd | 219.4fcd | 140.4fcd | 97.5fcd | 71.6fcd | 54.8fcd | 43.3fcd | 35.1fcd | 29fcd | 24.4fcd | 20.8fcd | 17.9fcd | 15.6fcd | 13.7fcd | 12.1fcd | 10.8fcd | 9.7fcd | 8.8fcd |

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° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 37.8K | 37.8K | 35.5K | 32.5K | 29.4K | 26.0K | 22.5K | 19.9K | 17.4K | 14.8K | 12.0K | 9.1K | 7.9K | 6.9K | 5.3K | 3.4K | 1.4K | 1.0K | 0.5K | 0.3K |
| 100% | 100% | 94% | 86% | 78% | 69% | 60% | 53% | 46% | 39% | 32% | 24% | 21% | 18% | 14% | 9% | 4% | 3% | 1% | 1% |

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° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 37.8K | 37.8K | 35.5K | 32.5K | 29.4K | 26.0K | 22.5K | 19.9K | 17.4K | 14.8K | 12.0K | 9.1K | 7.9K | 6.9K | 5.3K | 3.4K | 1.4K | 1.0K | 0.5K | 0.3K |
| 100% | 100% | 94% | 86% | 78% | 69% | 60% | 53% | 46% | 39% | 32% | 24% | 21% | 18% | 14% | 9% | 4% | 3% | 1% | 1% |

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° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 37.8K | 37.8K | 35.5K | 32.5K | 29.4K | 26.0K | 22.5K | 19.9K | 17.4K | 14.8K | 12.0K | 9.1K | 7.9K | 6.9K | 5.3K | 3.4K | 1.4K | 1.0K | 0.5K | 0.3K |
| 100% | 100% | 94% | 86% | 78% | 69% | 60% | 53% | 46% | 39% | 32% | 24% | 21% | 18% | 14% | 9% | 4% | 3% | 1% | 1% |

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° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 37.8K | 37.8K | 35.5K | 32.5K | 29.4K | 26.0K | 22.5K | 19.9K | 17.4K | 14.8K | 12.0K | 9.1K | 7.9K | 6.9K | 5.3K | 3.4K | 1.4K | 1.0K | 0.5K | 0.3K |
| 100% | 100% | 94% | 86% | 78% | 69% | 60% | 53% | 46% | 39% | 32% | 24% | 21% | 18% | 14% | 9% | 4% | 3% | 1% | 1% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 29.6° | 59.1° | 68.3° | 99.5% | 99.2% |