

Light efficiency:

92 Lumen/Watt

Light quality:

CRI: 84.9

Color temperature:

2998 K

Output: 1498 lm

Peak: 1903 cd

Power: 16.3 W

PF: 0.97

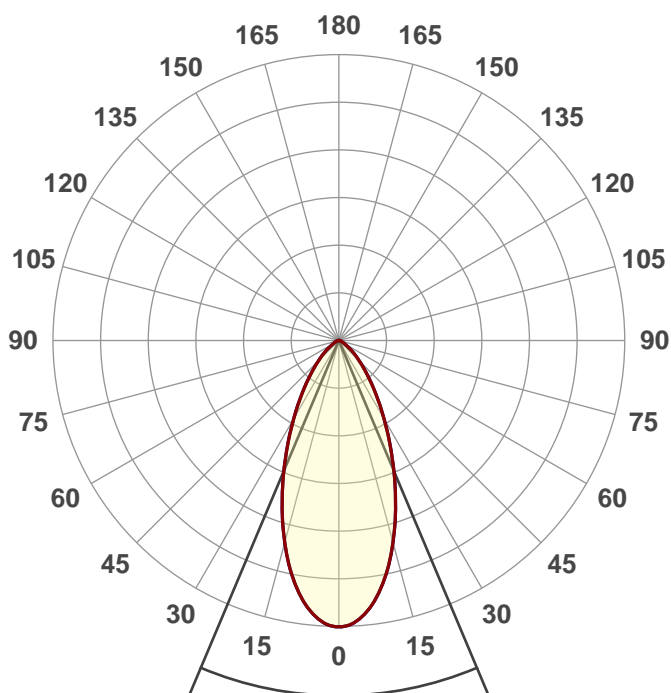


Product name:

NU4-RD-SW-20LM-30K-80-
HE40-120-DIM10-NC-WH-WH

Date and time:

8/21/2018 9:33:32 AM



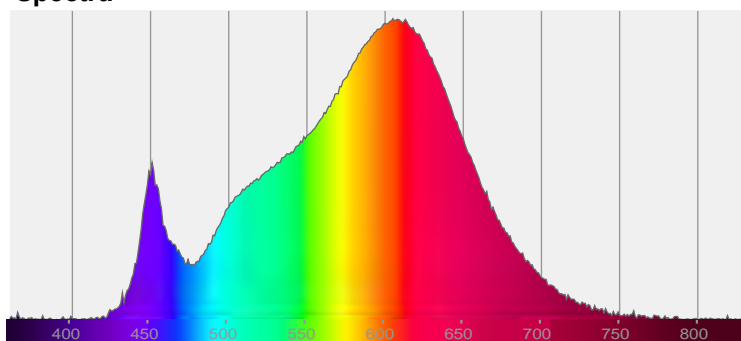
Beam angle

45.7°

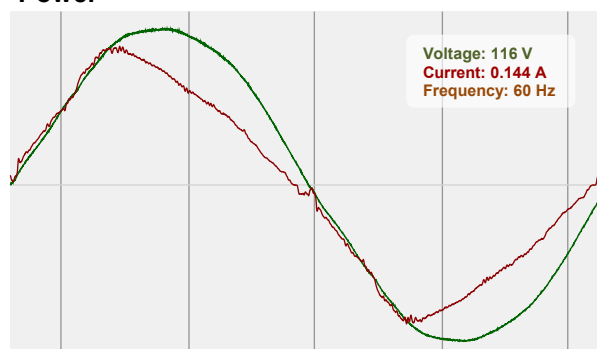


CIE 1931
x: 0.441
y: 0.412

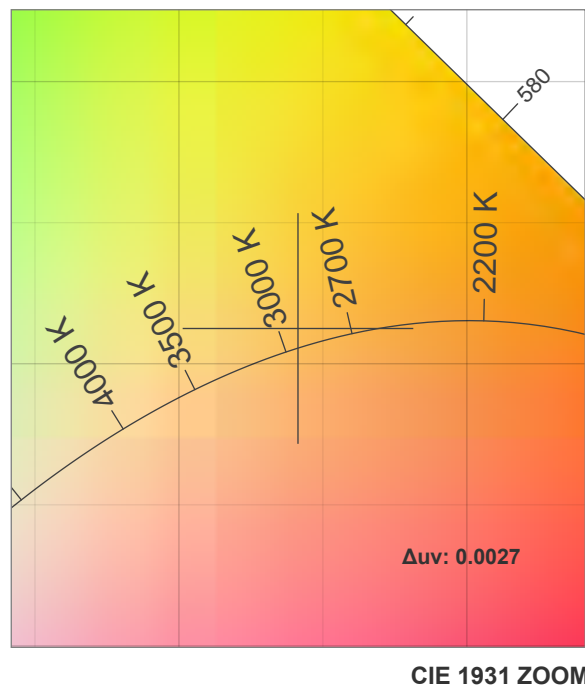
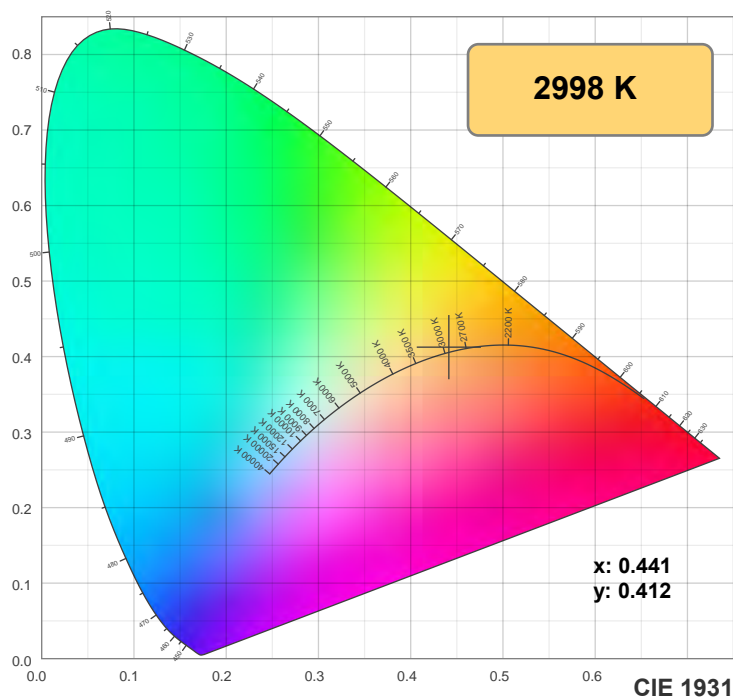
Spectra



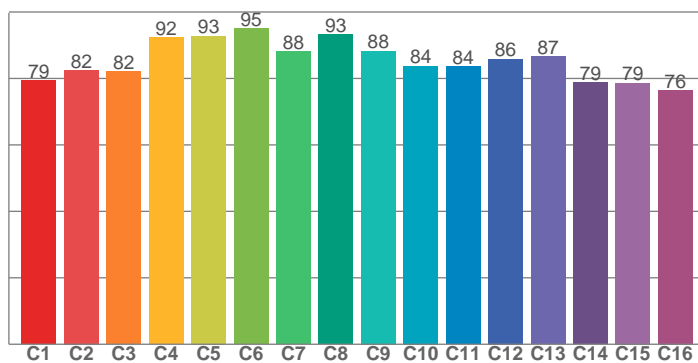
Power



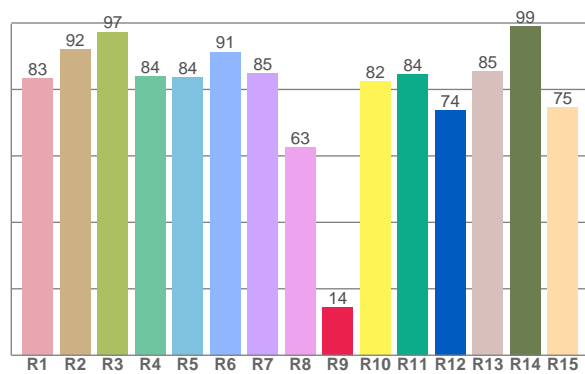
Color details



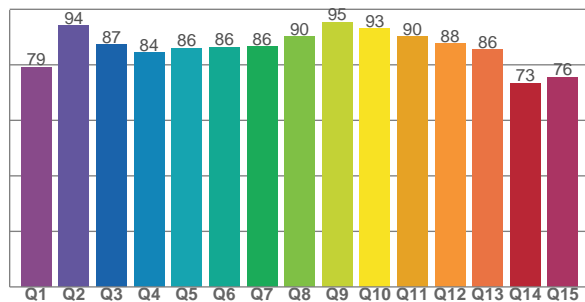
TM30: 85.6



CRI: 84.9 (R1-R8)



CQS: 84.8



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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 83.3 | 92.1 | 97.4 | 83.9 | 83.5 | 91.3 | 84.8 | 62.6 | 14.3 | 82.3 | 84.4 | 73.8 | 85.4 | 99.1 | 74.7 |

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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 79.3 | 82.5 | 82.0 | 92.3 | 92.8 | 95.0 | 88.1 | 93.2 | 88.3 | 83.7 | 83.6 | 85.9 | 86.6 | 78.8 | 78.6 | 76.5 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 79.2 | 94.2 | 87.3 | 84.5 | 86.0 | 86.3 | 86.5 | 90.1 | 95.4 | 92.9 | 90.1 | 87.6 | 85.5 | 73.3 | 75.5 |

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 |
| 2998 K | 84.9 | 14.3 | 85.6 | 94.8 | 84.8 | 0.441 | 0.412 | 0.250 | 0.350 | 0.0027 |

TM30 details

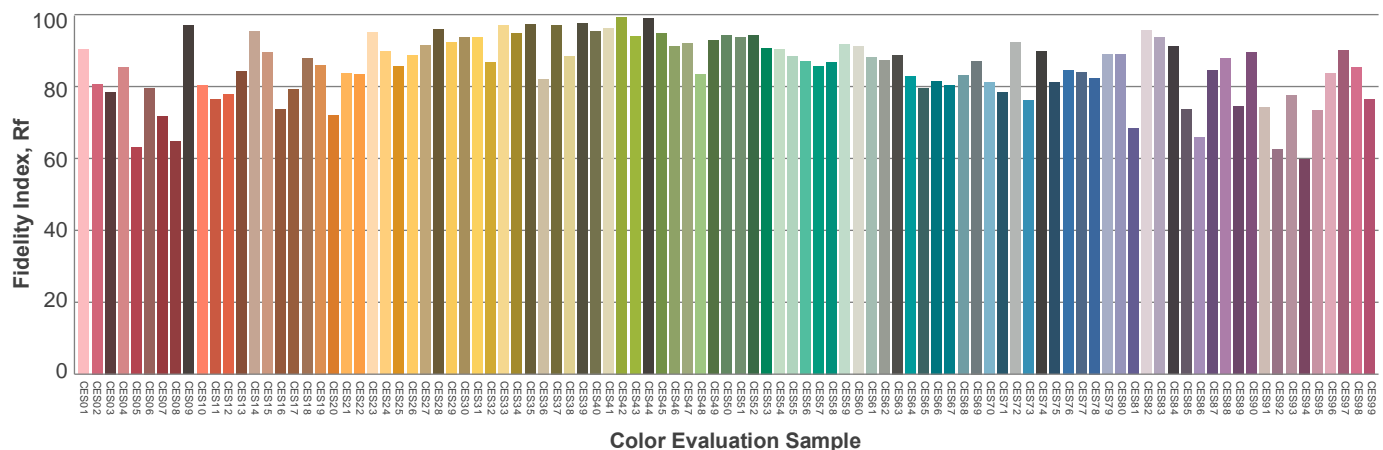
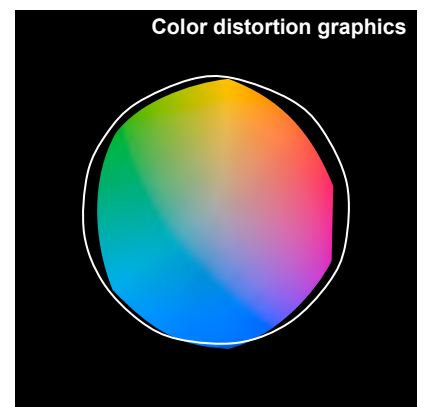
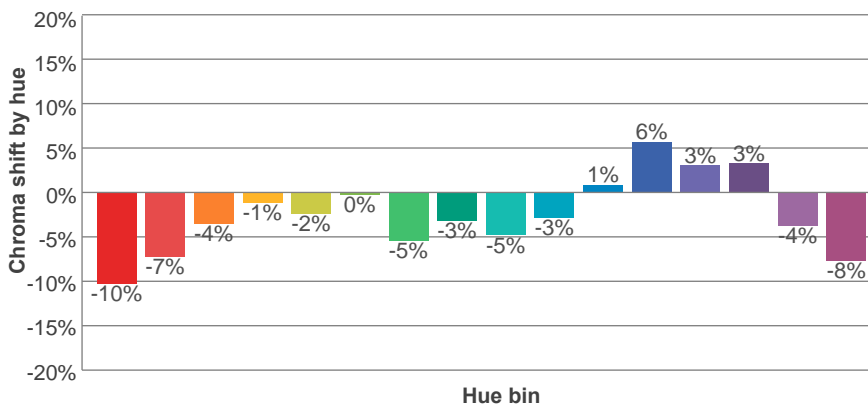
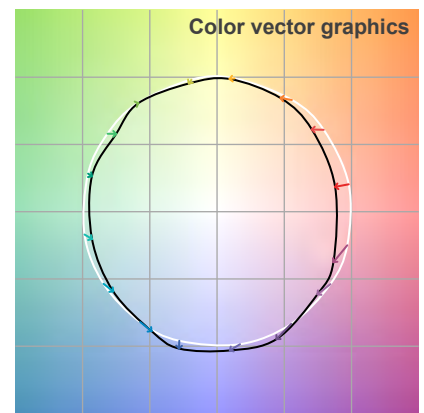
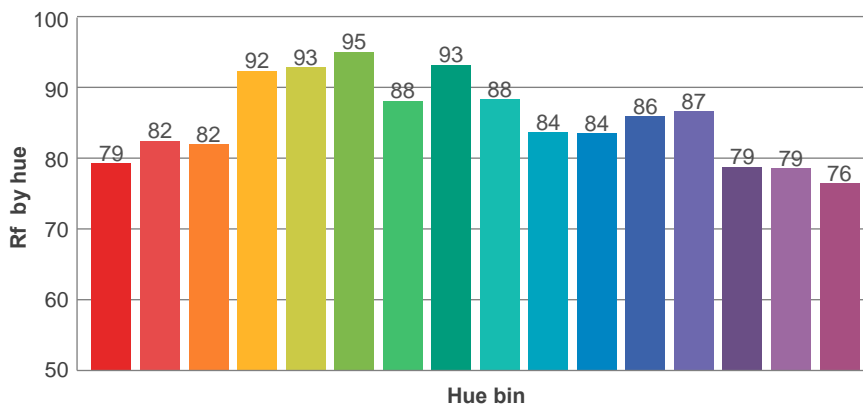
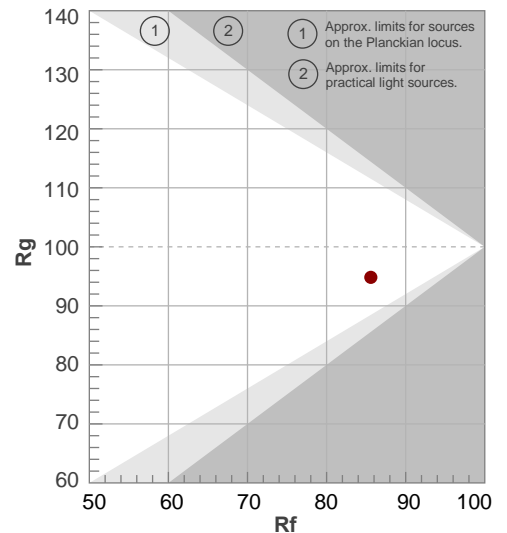
Rf 85.6

Fidelity index Rf

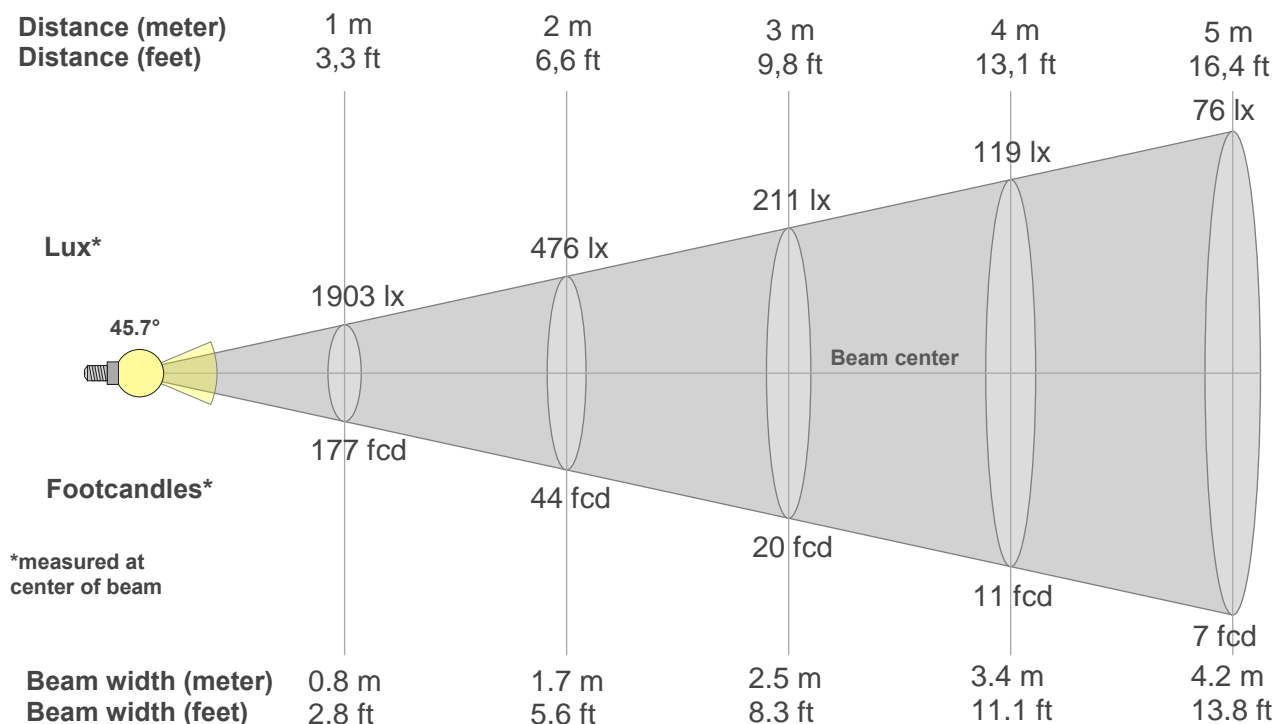
Rg 94.8

Gammut index Rg

| Hue Bin | Rf | Graphic shifts (%) | |
|---------|----|--------------------|------|
| | | Chroma | Hue |
| 1 | 79 | -10% | 0% |
| 2 | 82 | -7% | 5% |
| 3 | 82 | -4% | 8% |
| 4 | 92 | -1% | 4% |
| 5 | 93 | -2% | 2% |
| 6 | 95 | 0% | -1% |
| 7 | 88 | -5% | -4% |
| 8 | 93 | -3% | 1% |
| 9 | 88 | -5% | 4% |
| 10 | 84 | -3% | 9% |
| 11 | 84 | 1% | 11% |
| 12 | 86 | 6% | 1% |
| 13 | 87 | 3% | -8% |
| 14 | 79 | 3% | -15% |
| 15 | 79 | -4% | -12% |
| 16 | 76 | -8% | -14% |



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 |
| 1903lx | 476lx | 211lx | 119lx | 76lx | 53lx | 39lx | 30lx | 23lx | 19lx | 16lx | 13lx | 11lx | 10lx | 8lx | 7lx | 7lx | 6lx | 5lx | 5lx |
| 176.8fcd | 44.2fcd | 19.6fcd | 11fcd | 7.1fcd | 4.9fcd | 3.6fcd | 2.8fcd | 2.2fcd | 1.8fcd | 1.5fcd | 1.2fcd | 1fcd | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.5fcd | 0.4fcd |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1903 | 1903 | 1862 | 1812 | 1746 | 1656 | 1567 | 1454 | 1341 | 1226 | 1111 | 997 | 892 | 787 | 696 | 609 | 530 | 462 | 395 | 344 |
| 100% | 100% | 98% | 95% | 92% | 87% | 82% | 76% | 70% | 64% | 58% | 52% | 47% | 41% | 37% | 32% | 28% | 24% | 21% | 18% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1903 | 1903 | 1862 | 1812 | 1746 | 1656 | 1567 | 1454 | 1341 | 1226 | 1111 | 997 | 892 | 787 | 696 | 609 | 530 | 462 | 395 | 344 |
| 100% | 100% | 98% | 95% | 92% | 87% | 82% | 76% | 70% | 64% | 58% | 52% | 47% | 41% | 37% | 32% | 28% | 24% | 21% | 18% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1903 | 1903 | 1862 | 1812 | 1746 | 1656 | 1567 | 1454 | 1341 | 1226 | 1111 | 997 | 892 | 787 | 696 | 609 | 530 | 462 | 395 | 344 |
| 100% | 100% | 98% | 95% | 92% | 87% | 82% | 76% | 70% | 64% | 58% | 52% | 47% | 41% | 37% | 32% | 28% | 24% | 21% | 18% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1903 | 1903 | 1862 | 1812 | 1746 | 1656 | 1567 | 1454 | 1341 | 1226 | 1111 | 997 | 892 | 787 | 696 | 609 | 530 | 462 | 395 | 344 |
| 100% | 100% | 98% | 95% | 92% | 87% | 82% | 76% | 70% | 64% | 58% | 52% | 47% | 41% | 37% | 32% | 28% | 24% | 21% | 18% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 45.7° | 90.5° | 118.4° | 95.6% | 86.6% |