

Light efficiency:

94 Lumen/Watt

Light quality:

CRI: 84.5

Color temperature:

3001 K

Output: 1530 lm

Peak: 1419 cd

Power: 16.2 W

PF: 0.97

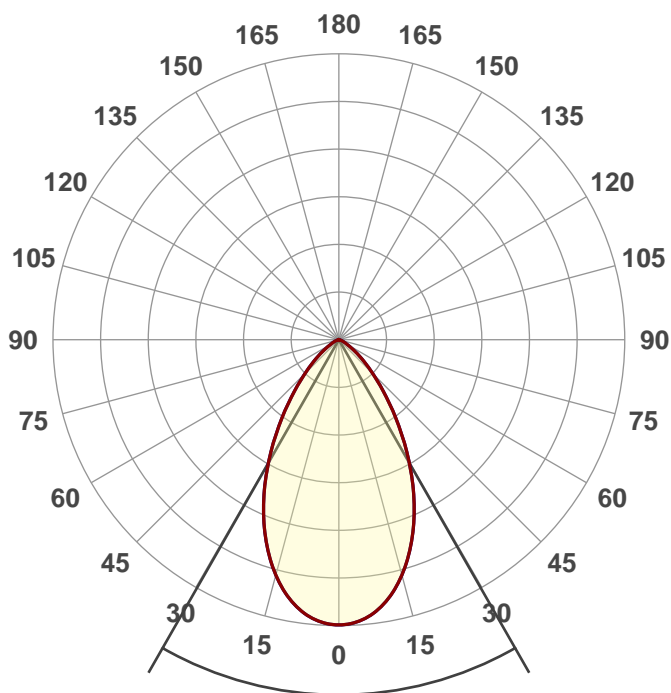


Product name:

NU4-RD-SW-20LM-30K-80-  
HE60-120-DIM10-NC-WH-WH

Date and time:

8/21/2018 9:38:47 AM



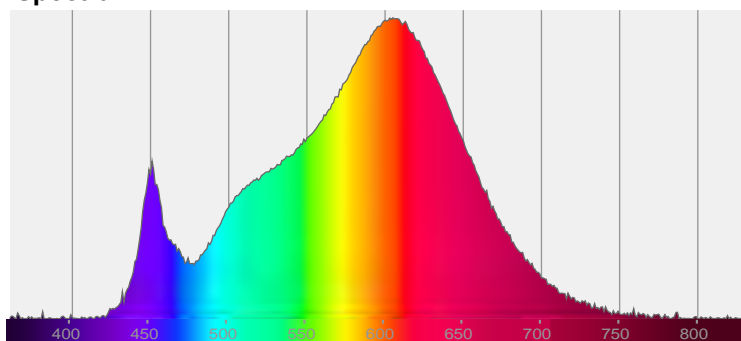
Beam angle

59.5°

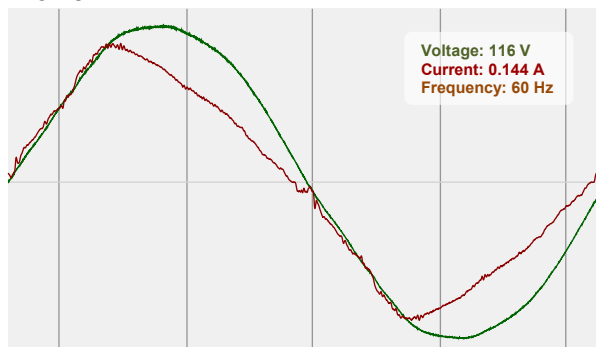


CIE 1931  
x: 0.441  
y: 0.411

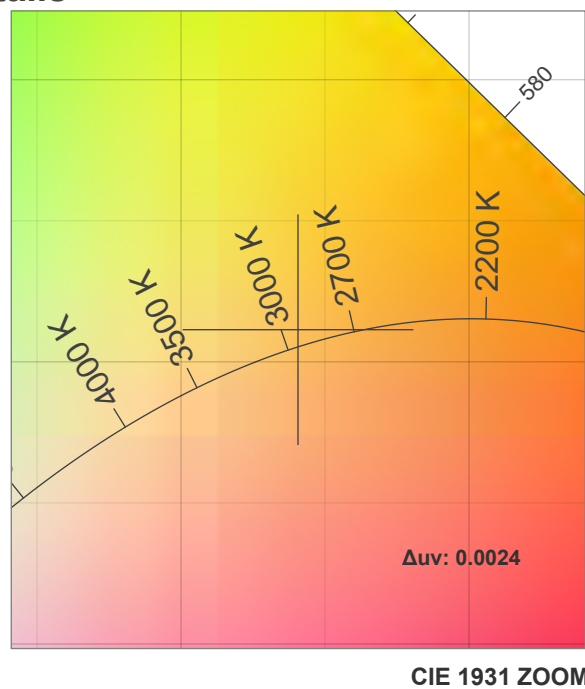
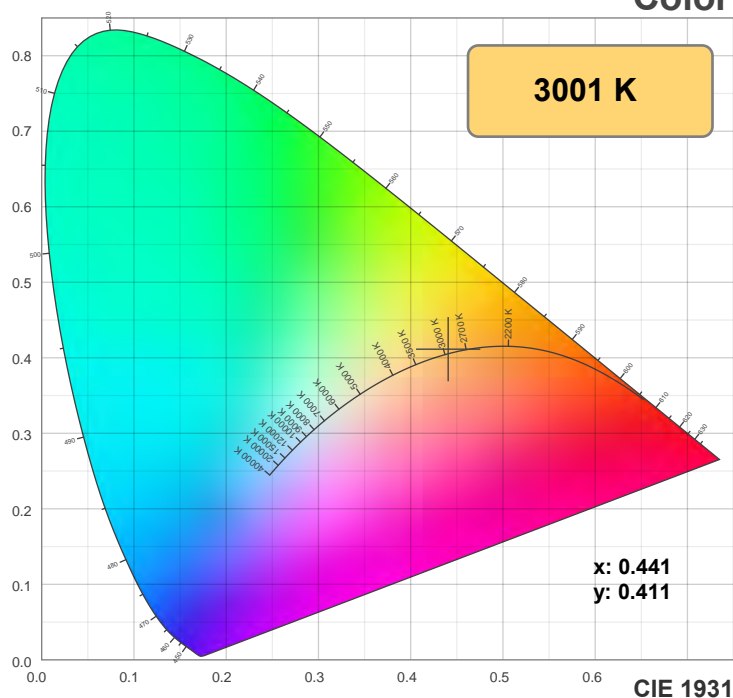
Spectra



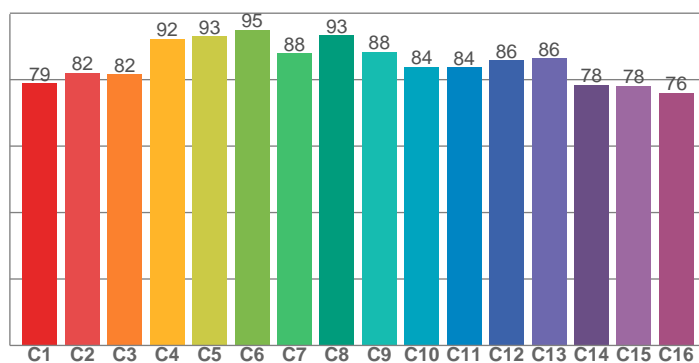
Power



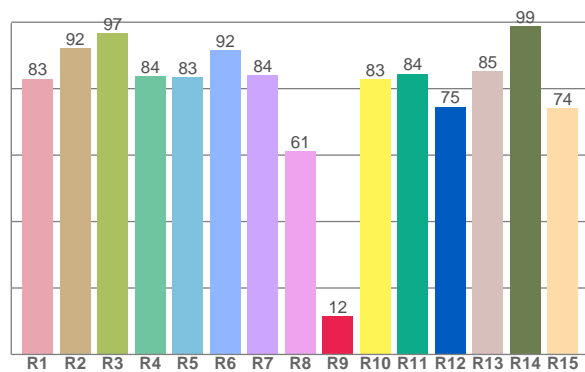
## Color details



TM30: 85.5



CRI: 84.5 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 83.0 | 92.2 | 96.8 | 83.7 | 83.5 | 91.6 | 84.1 | 61.2 | 11.6 | 82.8 | 84.4 | 74.5 | 85.3 | 98.7 | 74.1 |

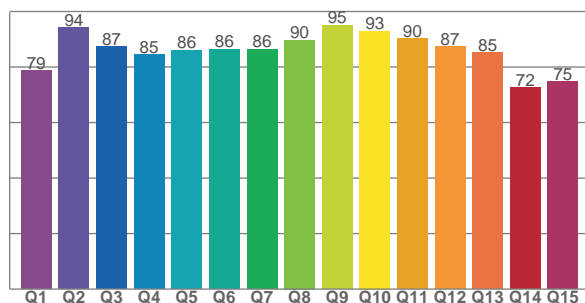
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.9 | 82.0 | 81.6 | 92.3 | 93.0 | 94.9 | 87.9 | 93.4 | 88.4 | 83.9 | 83.7 | 85.8 | 86.5 | 78.4 | 78.1 | 76.1 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.6 | 94.2 | 87.3 | 84.5 | 86.1 | 86.4 | 86.4 | 89.7 | 95.1 | 93.0 | 90.1 | 87.3 | 85.1 | 72.5 | 74.8 |

CQS: 84.6



## 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                             |
| 3001 K            | 84.5                  | 11.6          | 85.5           | 94.8        | 84.6                | 0.441                     | 0.411                     | 0.250            | 0.350            | 0.0024                          |

## TM30 details

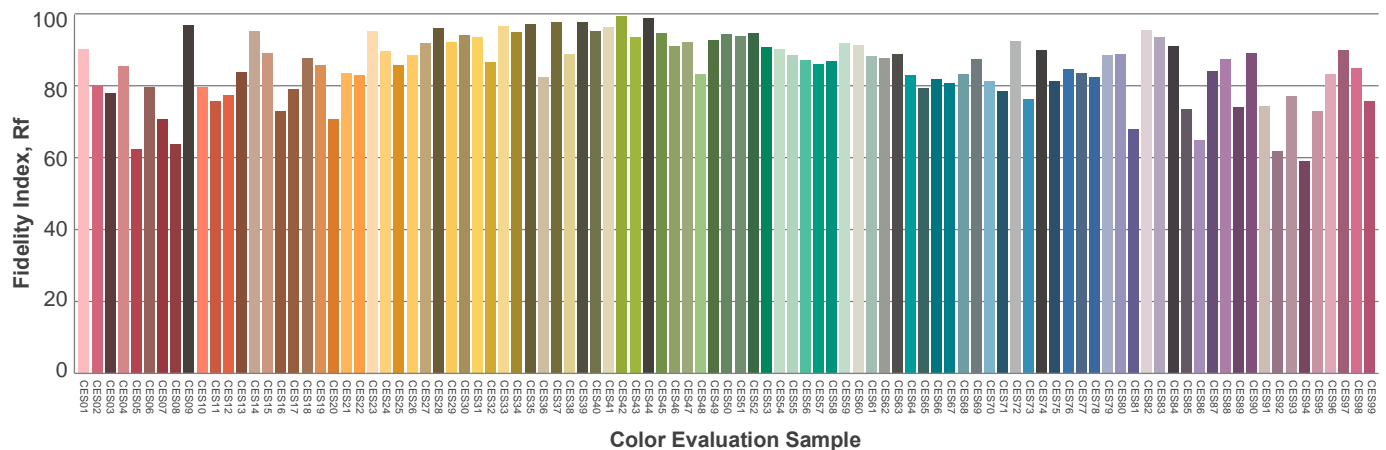
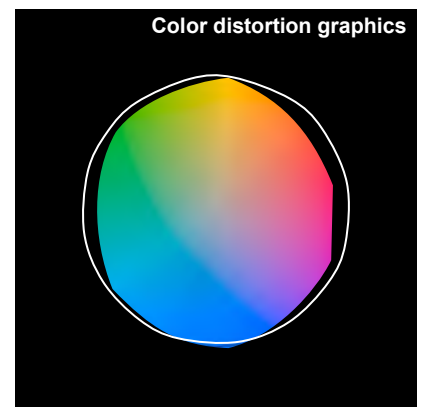
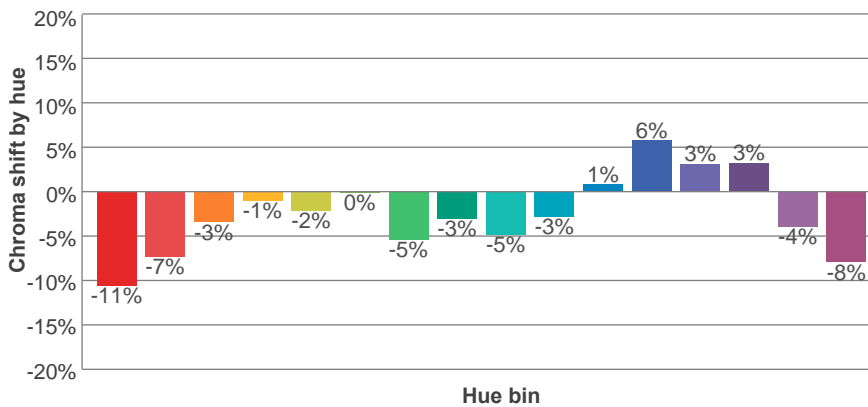
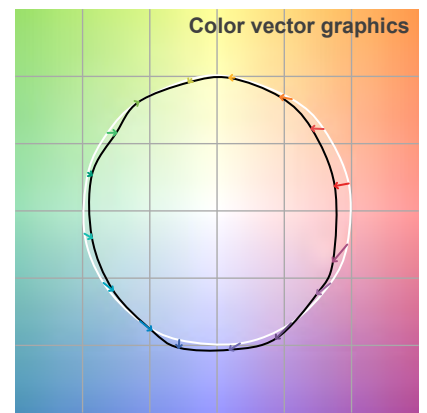
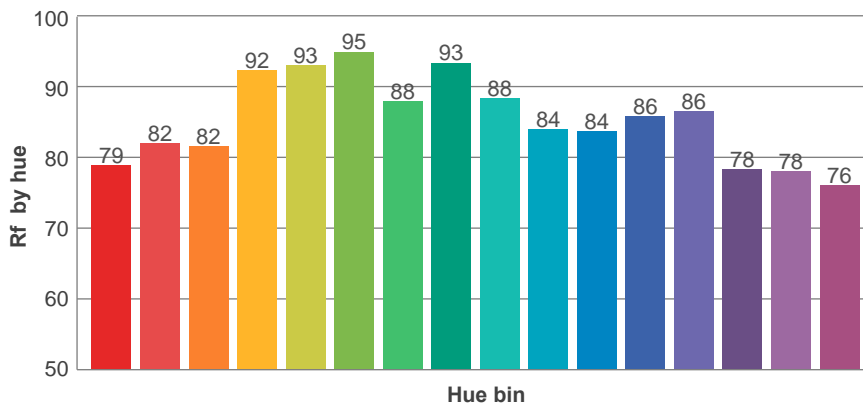
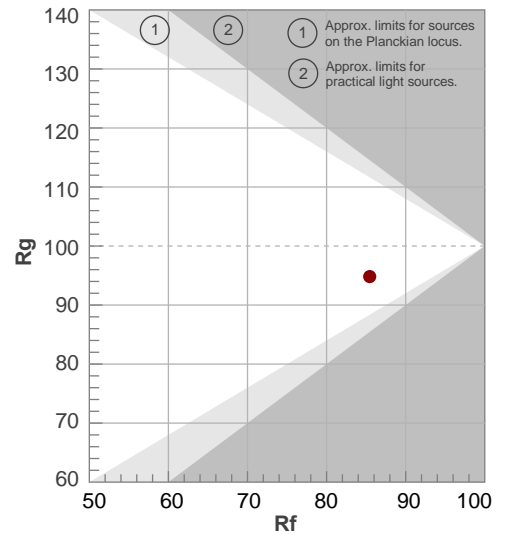
**Rf 85.5**

Fidelity index Rf

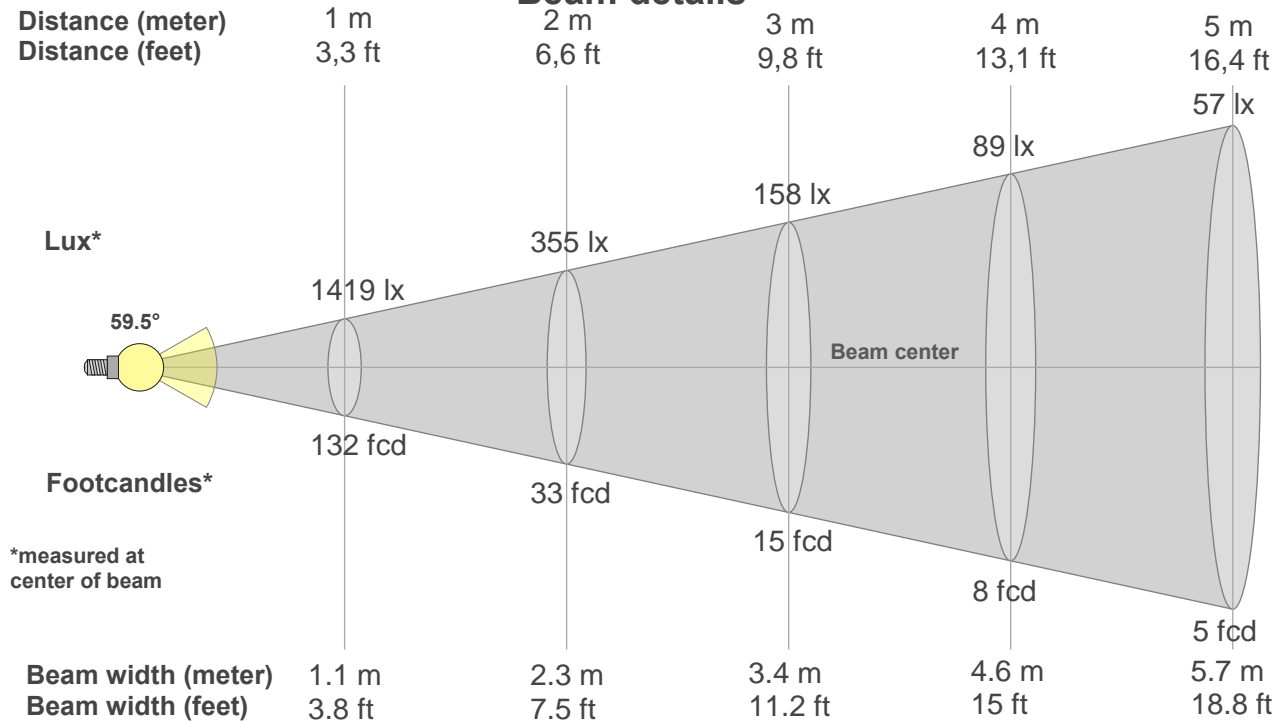
**Rg 94.8**

Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 79             | -11%               | 0%   |
| 2       | 82             | -7%                | 5%   |
| 3       | 82             | -3%                | 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      | 86             | 3%                 | -8%  |
| 14      | 78             | 3%                 | -16% |
| 15      | 78             | -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 |
| 1419lx   | 355lx | 158lx   | 89lx   | 57lx   | 39lx   | 29lx   | 22lx   | 18lx   | 14lx   | 12lx   | 10lx   | 8lx    | 7lx    | 6lx    | 6lx    | 5lx    | 4lx    | 4lx    | 4lx    |
| 131.8fcd | 33fcd | 14.6fcd | 8.2fcd | 5.3fcd | 3.7fcd | 2.7fcd | 2.1fcd | 1.6fcd | 1.3fcd | 1.1fcd | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.5fcd | 0.4fcd | 0.4fcd | 0.3fcd |

### Intensities in 0° c-plane

| 0°   | 5°   | 10°  | 15°  | 20°  | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1419 | 1396 | 1327 | 1213 | 1062 | 887 | 700 | 520 | 363 | 241 | 154 | 90  | 49  | 29  | 18  | 10  | 5   | 6   | 5   | 4   |
| 100% | 98%  | 94%  | 85%  | 75%  | 63% | 49% | 37% | 26% | 17% | 11% | 6%  | 3%  | 2%  | 1%  | 1%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 90° c-plane

| 0°   | 5°   | 10°  | 15°  | 20°  | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1419 | 1396 | 1327 | 1213 | 1062 | 887 | 700 | 520 | 363 | 241 | 154 | 90  | 49  | 29  | 18  | 10  | 5   | 6   | 5   | 4   |
| 100% | 98%  | 94%  | 85%  | 75%  | 63% | 49% | 37% | 26% | 17% | 11% | 6%  | 3%  | 2%  | 1%  | 1%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 180° c-plane

| 0°   | 5°   | 10°  | 15°  | 20°  | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1419 | 1396 | 1327 | 1213 | 1062 | 887 | 700 | 520 | 363 | 241 | 154 | 90  | 49  | 29  | 18  | 10  | 5   | 6   | 5   | 4   |
| 100% | 98%  | 94%  | 85%  | 75%  | 63% | 49% | 37% | 26% | 17% | 11% | 6%  | 3%  | 2%  | 1%  | 1%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 270° c-plane

| 0°   | 5°   | 10°  | 15°  | 20°  | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1419 | 1396 | 1327 | 1213 | 1062 | 887 | 700 | 520 | 363 | 241 | 154 | 90  | 49  | 29  | 18  | 10  | 5   | 6   | 5   | 4   |
| 100% | 98%  | 94%  | 85%  | 75%  | 63% | 49% | 37% | 26% | 17% | 11% | 6%  | 3%  | 2%  | 1%  | 1%  | 0%  | 0%  | 0%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 59.5°          | 101.7°          | 126.8°            | 96.1%                        | 85.5%                       |