

Light efficiency:

57 Lumen/Watt

Light quality:

CRI: 91.9

Color temperature:

3089 K

Output: 791 lm

Peak: 3527 cd

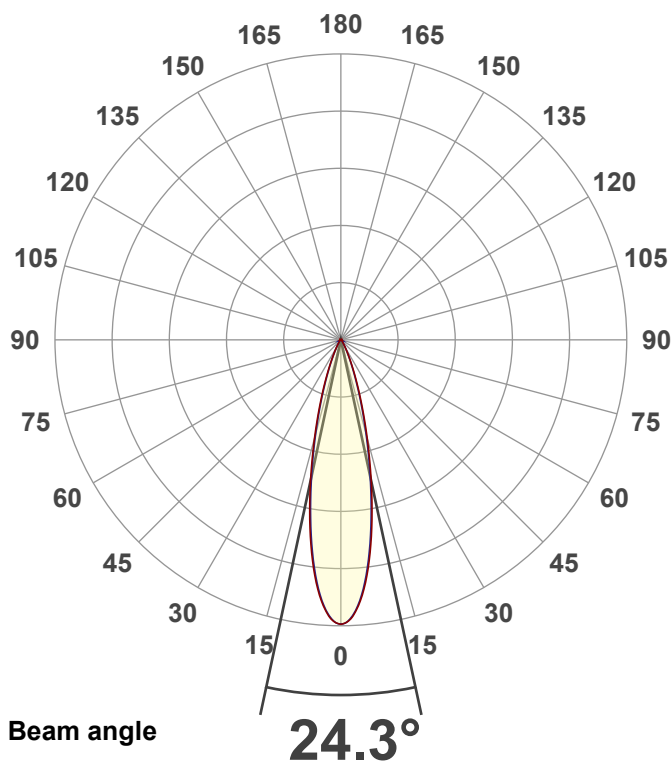
Power: 13.8 W

PF: 0.96



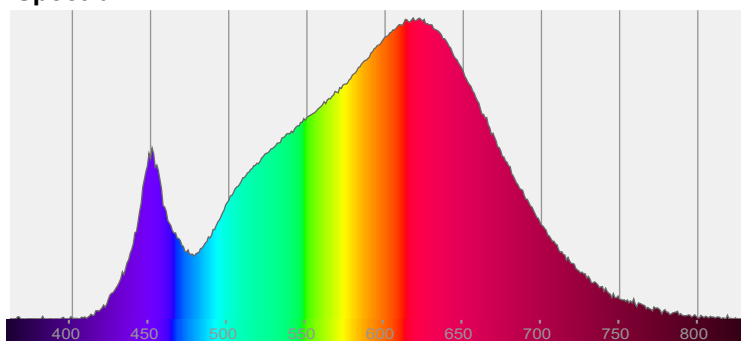
NU1-RA-SW-13LM-30K-90-22D-NA-HET-WH-WH

Date and time:  
12/20/2024 8:35:41 AM

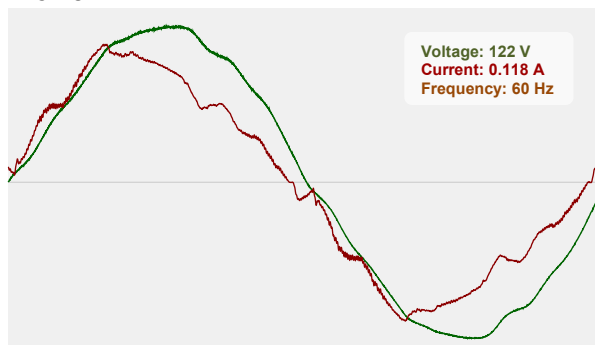


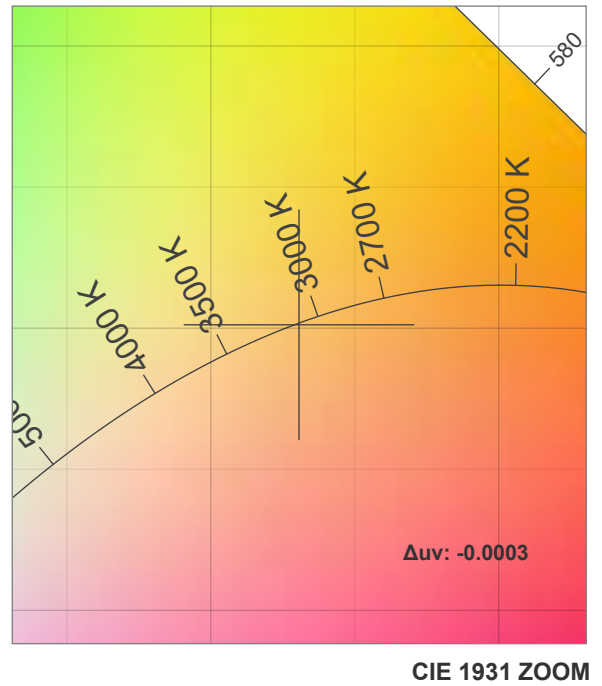
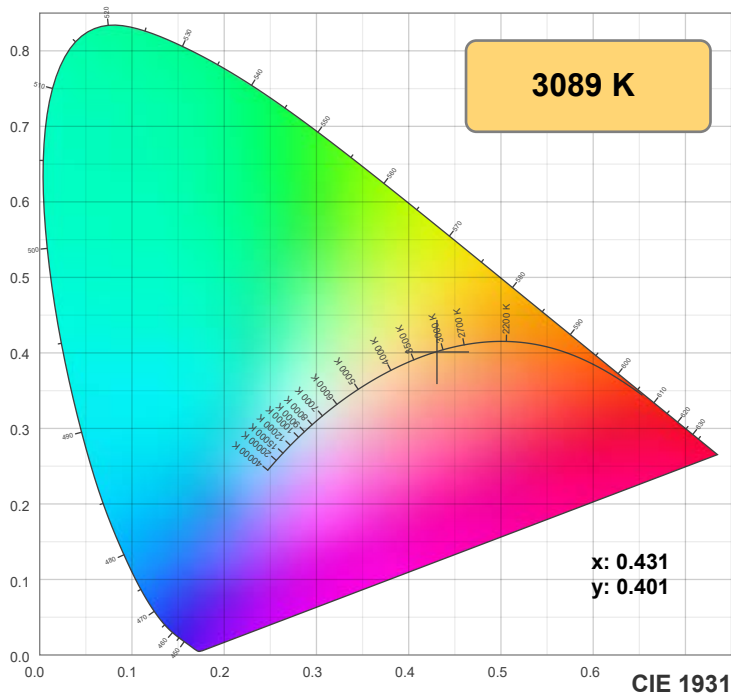
CIE 1931  
x: 0.431  
y: 0.401

Spectra

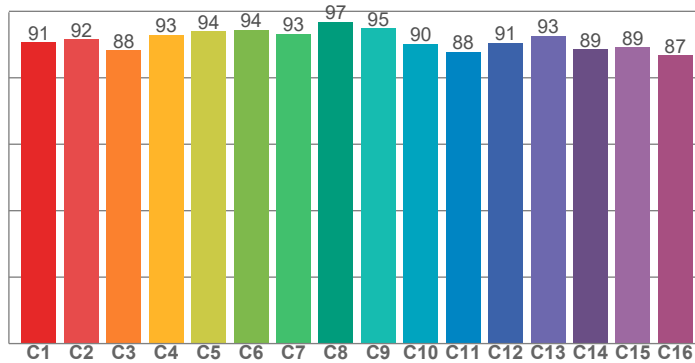


Power

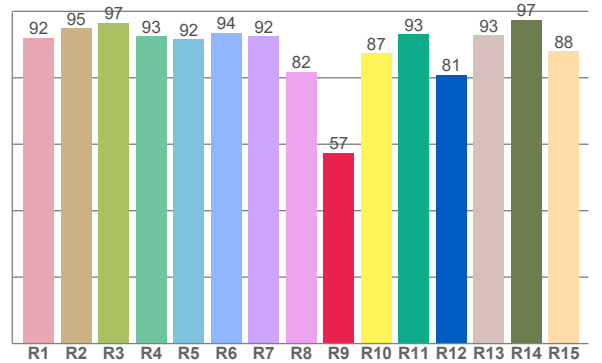




**TM30: 91.4**



**CRI: 91.9 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.0 | 95.0 | 96.5 | 92.6 | 91.6 | 93.6 | 92.4 | 81.8 | 57.4 | 87.4 | 93.2 | 80.9 | 92.7 | 97.5 | 88.1 |

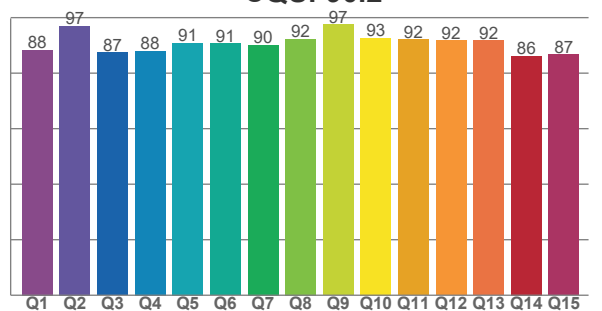
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90.7 | 91.6 | 88.2 | 93.0 | 94.0 | 94.4 | 93.2 | 96.9 | 94.9 | 90.3 | 87.8 | 90.6 | 92.7 | 88.6 | 89.1 | 86.7 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 88.3 | 97.0 | 87.4 | 88.0 | 90.9 | 90.6 | 90.2 | 92.3 | 97.5 | 92.7 | 92.0 | 91.7 | 91.7 | 86.1 | 86.7 |

**CQS: 90.2**



## 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                             |
| 3089 K            | 91.9                  | 57.4          | 91.4           | 100.2       | 90.2                | 0.431                     | 0.401                     | 0.248            | 0.346            | -0.0003                         |

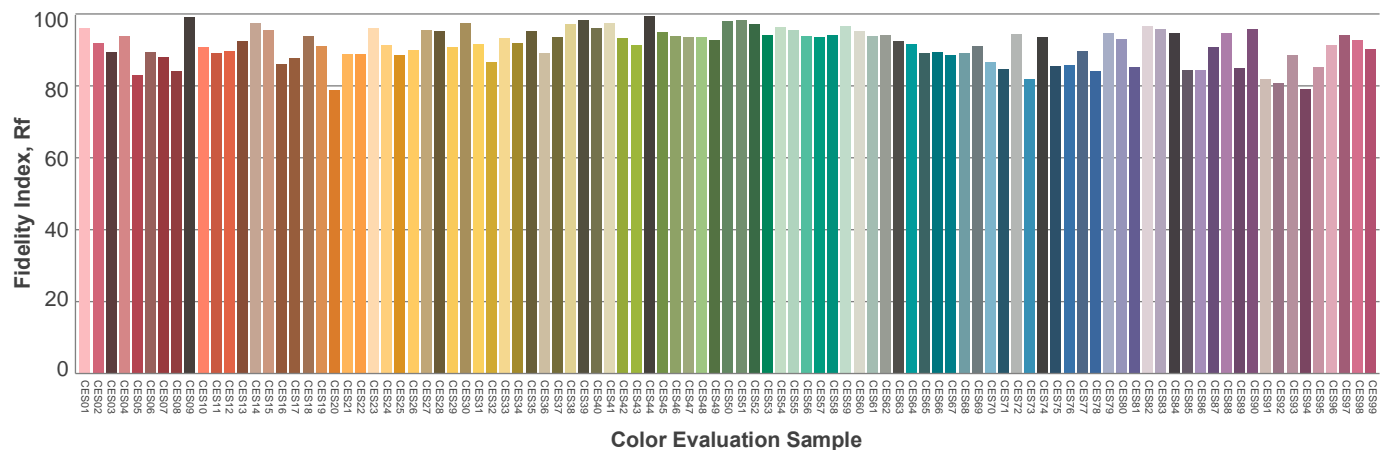
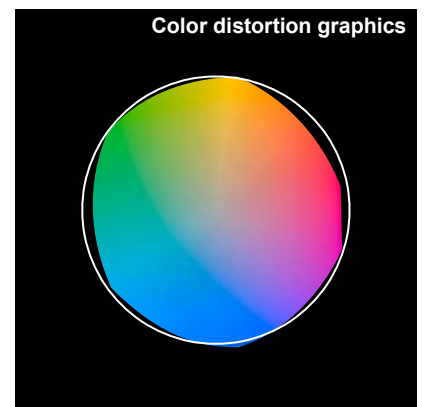
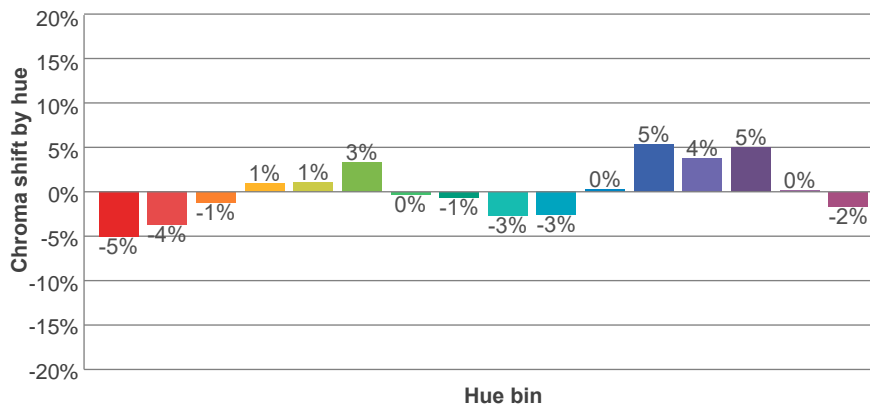
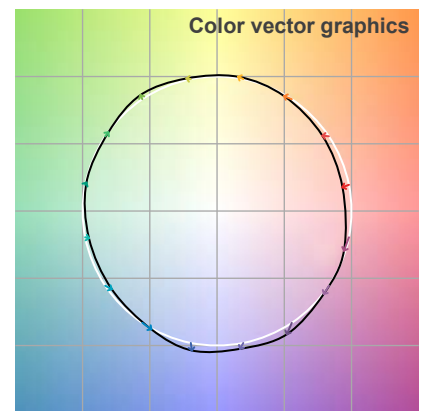
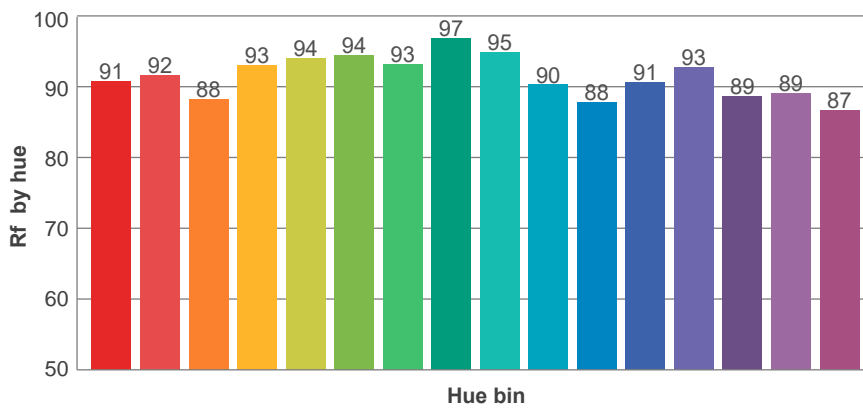
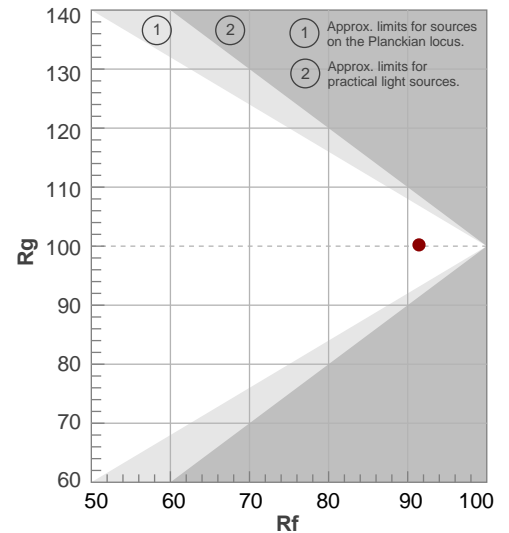
**Rf 91.4**

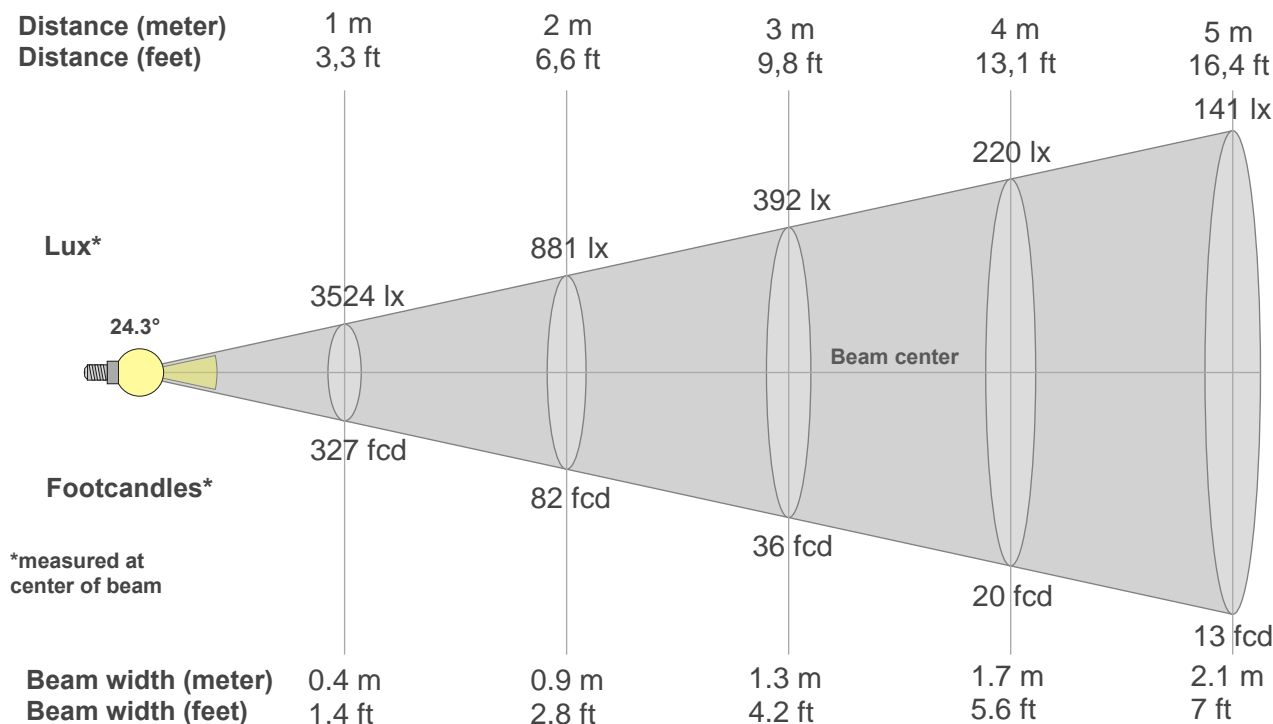
Fidelity index Rf

**Rg 100.2**

Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 91             | -5%                | -1%  |
| 2       | 92             | -4%                | 3%   |
| 3       | 88             | -1%                | 6%   |
| 4       | 93             | 1%                 | 4%   |
| 5       | 94             | 1%                 | 3%   |
| 6       | 94             | 3%                 | -1%  |
| 7       | 93             | 0%                 | -4%  |
| 8       | 97             | -1%                | -2%  |
| 9       | 95             | -3%                | 1%   |
| 10      | 90             | -3%                | 5%   |
| 11      | 88             | 0%                 | 8%   |
| 12      | 91             | 5%                 | 2%   |
| 13      | 93             | 4%                 | -3%  |
| 14      | 89             | 5%                 | -8%  |
| 15      | 89             | 0%                 | -7%  |
| 16      | 87             | -2%                | -11% |





#### 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 |
| 3524lx   | 881lx   | 392lx   | 220lx   | 141lx   | 98lx   | 72lx   | 55lx   | 44lx   | 35lx   | 29lx   | 24lx   | 21lx   | 18lx   | 16lx   | 14lx   | 12lx   | 11lx   | 10lx   | 9lx    |
| 327.4fcd | 81.8fcd | 36.4fcd | 20.5fcd | 13.1fcd | 9.1fcd | 6.7fcd | 5.1fcd | 4fcd   | 3.3fcd | 2.7fcd | 2.3fcd | 1.9fcd | 1.7fcd | 1.5fcd | 1.3fcd | 1.1fcd | 1fcd   | 0.9fcd | 0.8fcd |

#### 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3524 | 3462 | 3277 | 2992 | 2628 | 2224 | 1817 | 1436 | 1106 | 831 | 612 | 441 | 313 | 220 | 156 | 110 | 80  | 60  | 46  | 37  |
| 100% | 98%  | 93%  | 85%  | 75%  | 63%  | 52%  | 41%  | 31%  | 24% | 17% | 13% | 9%  | 6%  | 4%  | 3%  | 2%  | 2%  | 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3524 | 3452 | 3257 | 2956 | 2578 | 2164 | 1754 | 1377 | 1049 | 778 | 565 | 402 | 282 | 196 | 135 | 95  | 69  | 51  | 40  | 32  |
| 100% | 98%  | 92%  | 84%  | 73%  | 61%  | 50%  | 39%  | 30%  | 22% | 16% | 11% | 8%  | 6%  | 4%  | 3%  | 2%  | 1%  | 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3524 | 3462 | 3277 | 2992 | 2628 | 2224 | 1817 | 1436 | 1106 | 831 | 612 | 441 | 313 | 220 | 156 | 110 | 80  | 60  | 46  | 37  |
| 100% | 98%  | 93%  | 85%  | 75%  | 63%  | 52%  | 41%  | 31%  | 24% | 17% | 13% | 9%  | 6%  | 4%  | 3%  | 2%  | 2%  | 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3524 | 3452 | 3257 | 2956 | 2578 | 2164 | 1754 | 1377 | 1049 | 778 | 565 | 402 | 282 | 196 | 135 | 95  | 69  | 51  | 40  | 32  |
| 100% | 98%  | 92%  | 84%  | 73%  | 61%  | 50%  | 39%  | 30%  | 22% | 16% | 11% | 8%  | 6%  | 4%  | 3%  | 2%  | 1%  | 1%  | 1%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 24.3°          | 46.1°           | 61.9°             | 99.5%                        | 97.8%                       |