

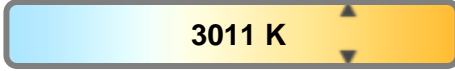
Light efficiency:



Light quality:



Color temperature:

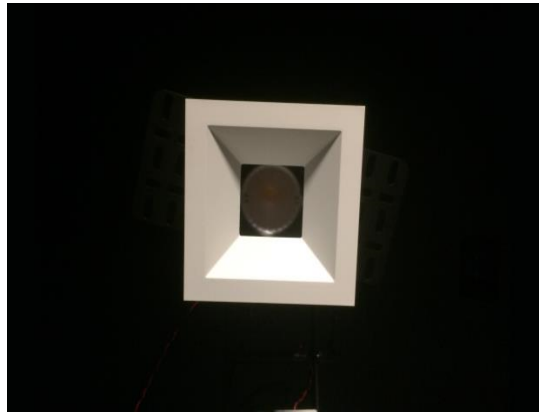


Output: 633 lm

Peak: 957 cd

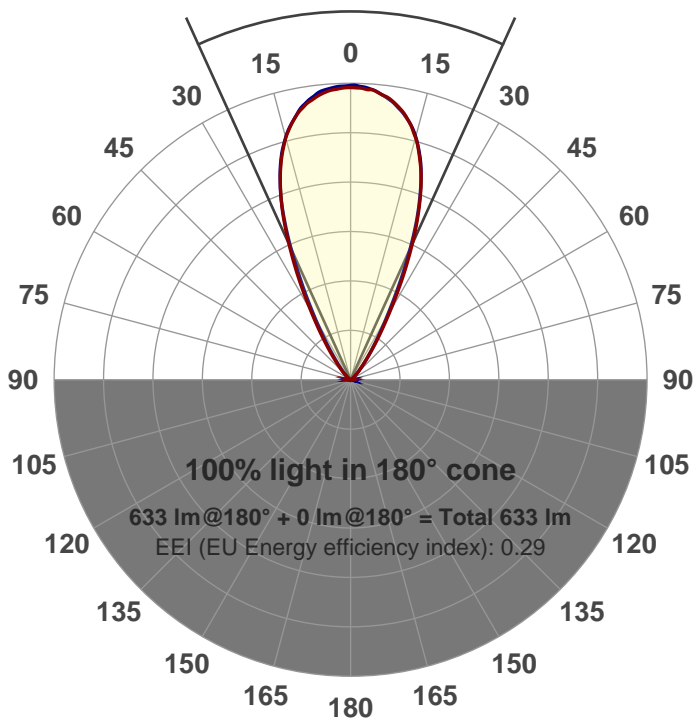
Power: 15.1 W

PF: 0.98



Beam angle

48.9°



Product name:

GR-AD-WF-SQ-91A

Item number:

GR-AD-WF-SQ-91A

Date and time:

5/1/2017 2:44:20 PM

Description:

LUM: 633

PPF: 10.7

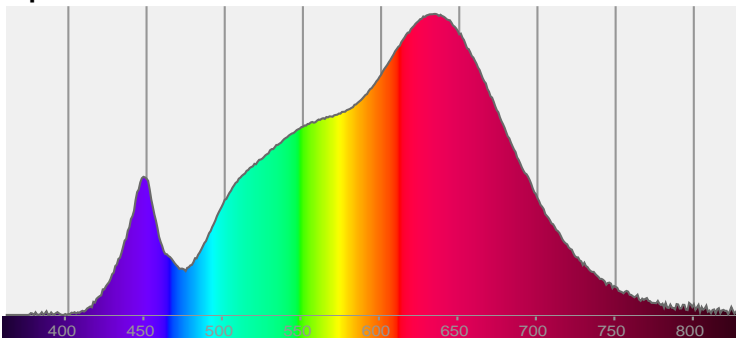


CIE 1931

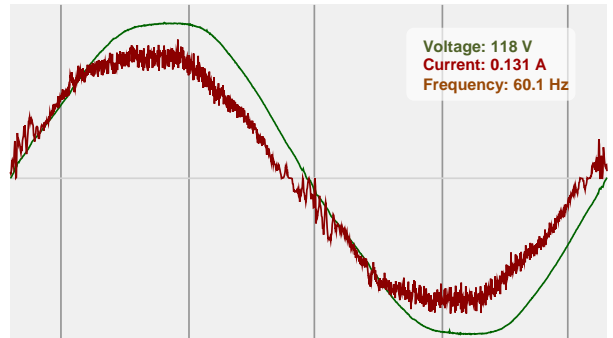
x: 0.436

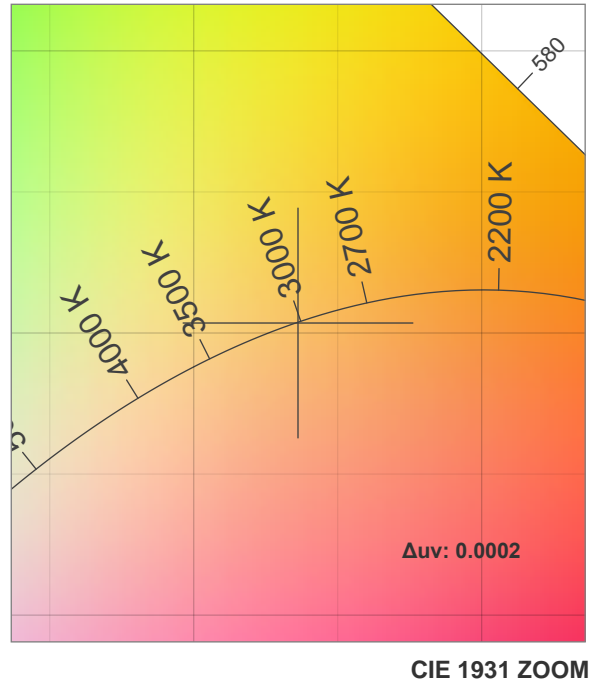
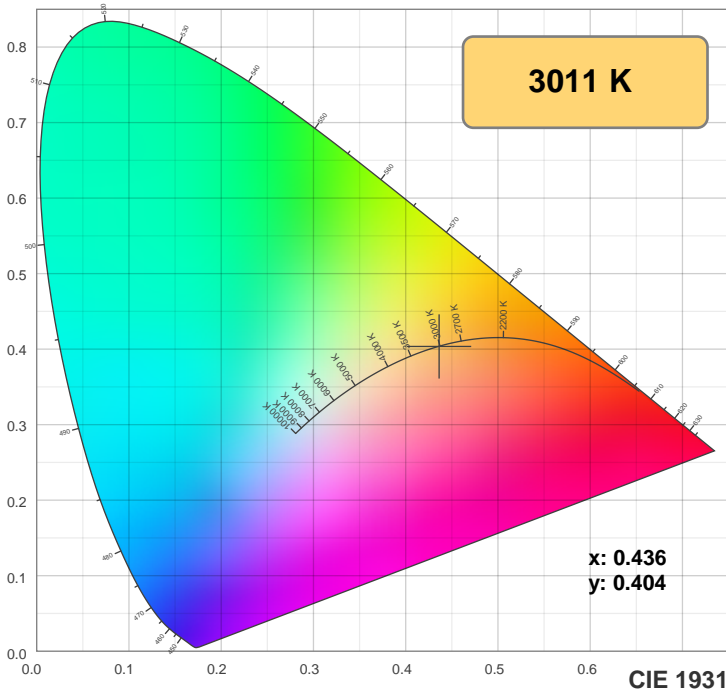
y: 0.404

Spectra

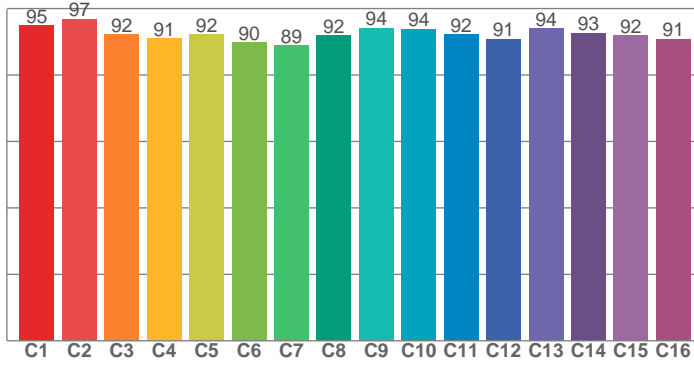


Power

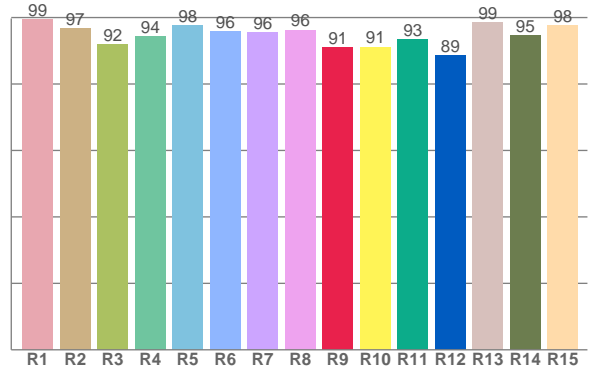




TM30: 92.7



CRI: 96.0 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 99.4 | 96.8 | 92.0 | 94.3 | 97.7 | 95.9 | 95.6 | 96.3 | 91.1 | 91.2 | 93.4 | 88.6 | 98.6 | 94.6 | 97.8 |

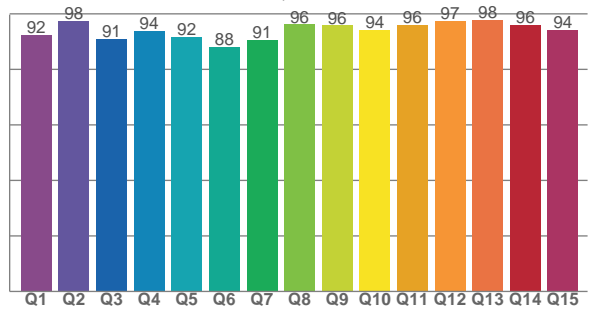
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94.8 | 96.8 | 92.2 | 91.0 | 92.1 | 89.8 | 88.8 | 91.9 | 94.2 | 93.9 | 92.2 | 90.8 | 94.0 | 92.6 | 91.9 | 90.9 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.4 | 97.5 | 90.9 | 93.8 | 91.6 | 88.0 | 90.6 | 96.2 | 95.8 | 94.1 | 96.1 | 97.4 | 97.9 | 95.8 | 94.2 |

CQS: 93.3



Color parameters

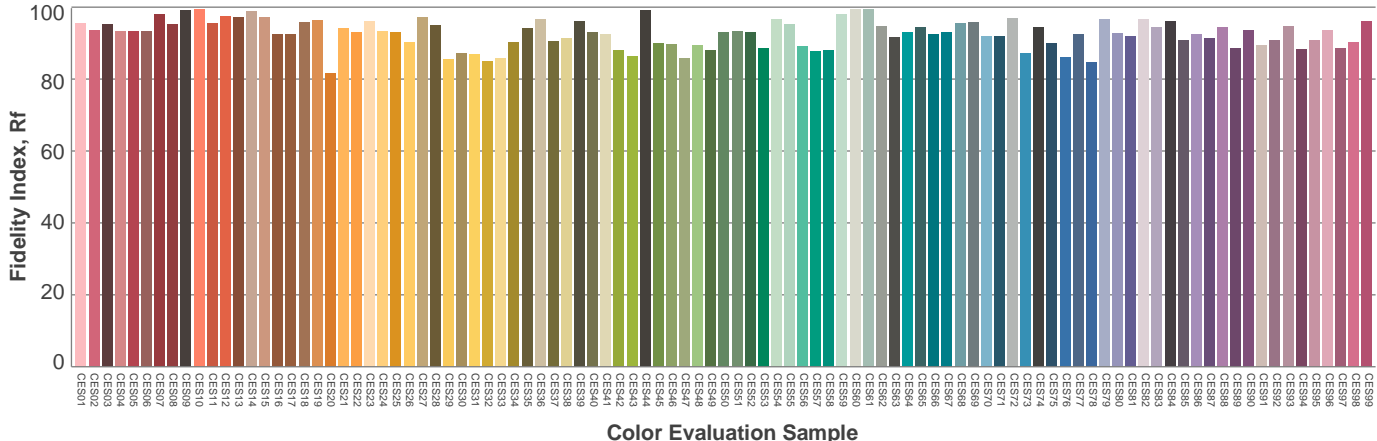
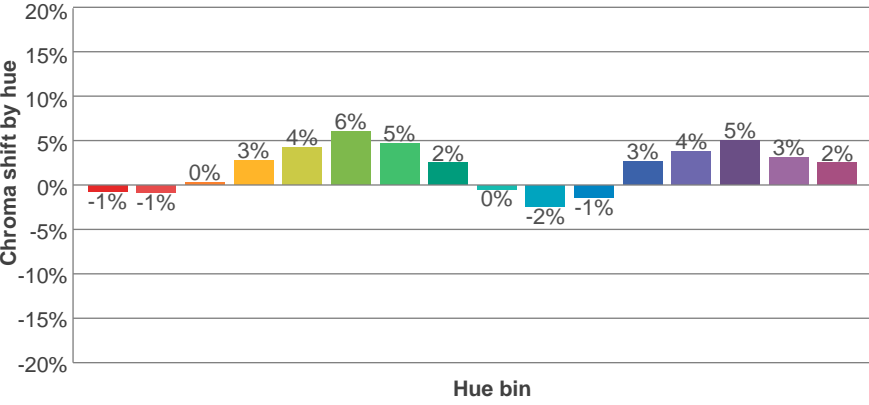
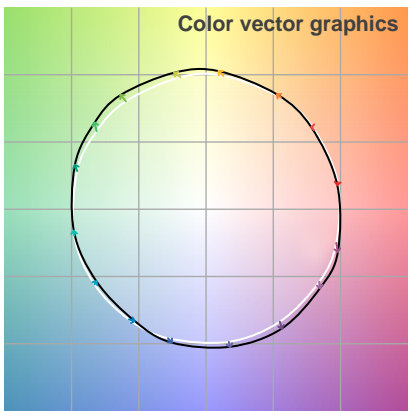
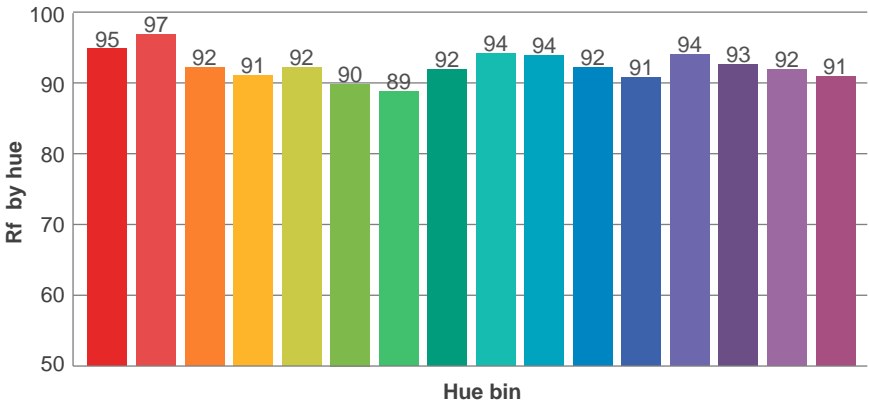
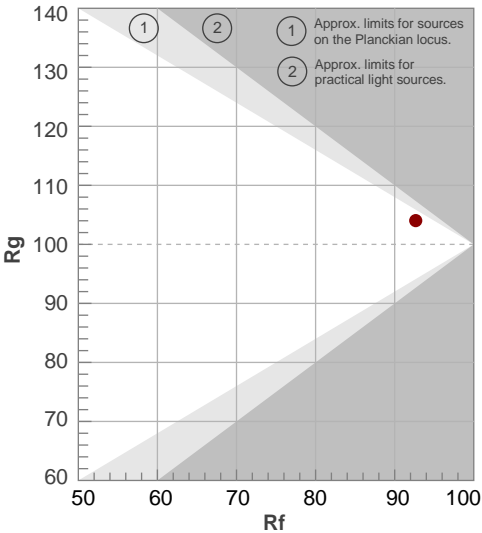
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 3011 K | 96.0 | 91.1 | 92.7 | 104.0 | 93.3 | 0.436 | 0.404 | 0.250 | 0.347 | 0.0002 |

TM30 details

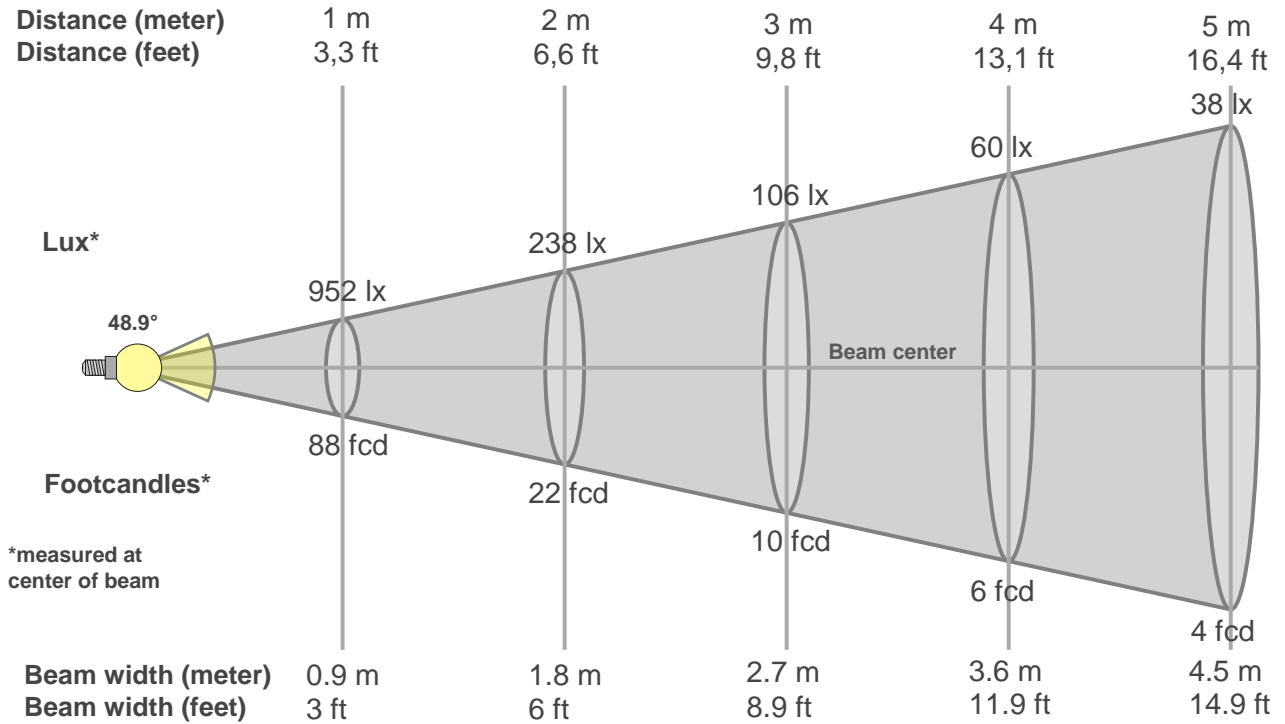
Rf 92.7
Fidelity index Rf

Rg 104.0
Gammut index Rg

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



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 |
| 952lx | 238lx | 106lx | 60lx | 38lx | 26lx | 19lx | 15lx | 12lx | 10lx | 8lx | 7lx | 6lx | 5lx | 4lx | 4lx | 3lx | 3lx | 3lx | 2lx |
| 88.5fcd | 22.1fcd | 9.8fcd | 5.5fcd | 3.5fcd | 2.5fcd | 1.8fcd | 1.4fcd | 1.1fcd | 0.9fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.5fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.3fcd | 0.2fcd | 0.2fcd |

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° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 952 | 947 | 942 | 932 | 916 | 897 | 870 | 834 | 788 | 733 | 667 | 591 | 504 | 416 | 334 | 259 | 200 | 152 | 115 | 87 |
| 100% | 99% | 99% | 98% | 96% | 94% | 91% | 88% | 83% | 77% | 70% | 62% | 53% | 44% | 35% | 27% | 21% | 16% | 12% | 9% |

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° |
|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 952 | 954 | 949 | 941 | 923 | 902 | 870 | 836 | 791 | 736 | 667 | 585 | 489 | 389 | 303 | 229 | 171 | 127 | 93 | 69 |
| 100% | 100% | 100% | 99% | 97% | 95% | 91% | 88% | 83% | 77% | 70% | 61% | 51% | 41% | 32% | 24% | 18% | 13% | 10% | 7% |

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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 952 | 948 | 944 | 933 | 920 | 899 | 872 | 835 | 790 | 734 | 668 | 590 | 504 | 415 | 330 | 255 | 196 | 149 | 111 | 83 |
| 100% | 100% | 99% | 98% | 97% | 94% | 92% | 88% | 83% | 77% | 70% | 62% | 53% | 44% | 35% | 27% | 21% | 16% | 12% | 9% |

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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 952 | 953 | 946 | 934 | 918 | 896 | 870 | 838 | 792 | 737 | 665 | 583 | 489 | 393 | 305 | 234 | 179 | 138 | 104 | 79 |
| 100% | 100% | 99% | 98% | 96% | 94% | 91% | 88% | 83% | 77% | 70% | 61% | 51% | 41% | 32% | 25% | 19% | 14% | 11% | 8% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 48.9° | 73.4° | 92.6° | 1.0% | 1.0% |

