

Light efficiency:



Light quality:



Color temperature:



Output: 807 lm

Peak: 5888 cd

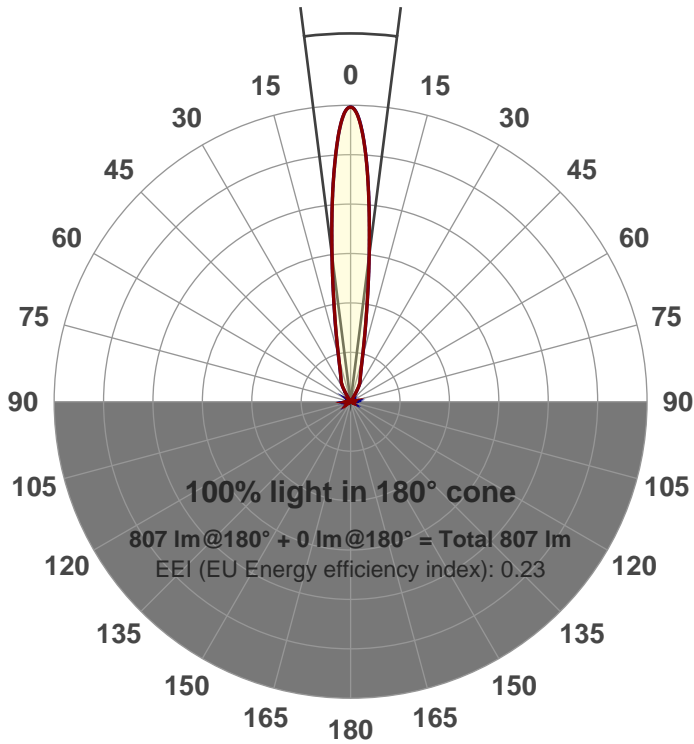
Power: 15.1 W

PF: 0.97



Beam angle

14.5°



Product name:

GRO-AD-SP-SQ

Item number:

GRO-AD-SP-SQ

Date and time:

3/2/2017 12:17:37 PM

Description:

LUM: 807

PPF: 13.7

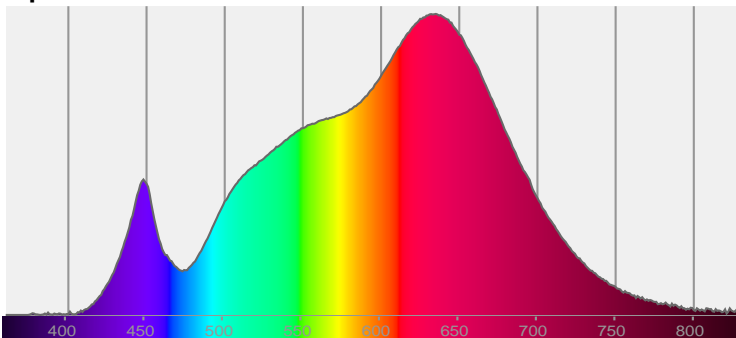


CIE 1931

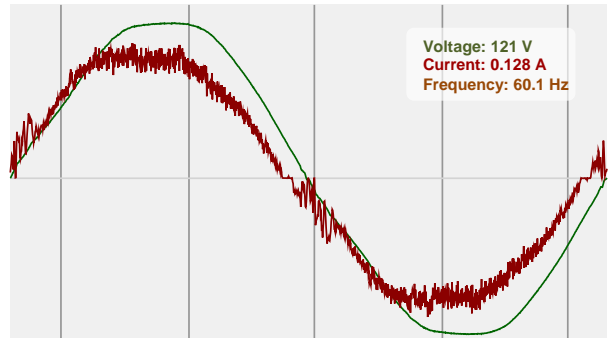
x: 0.438

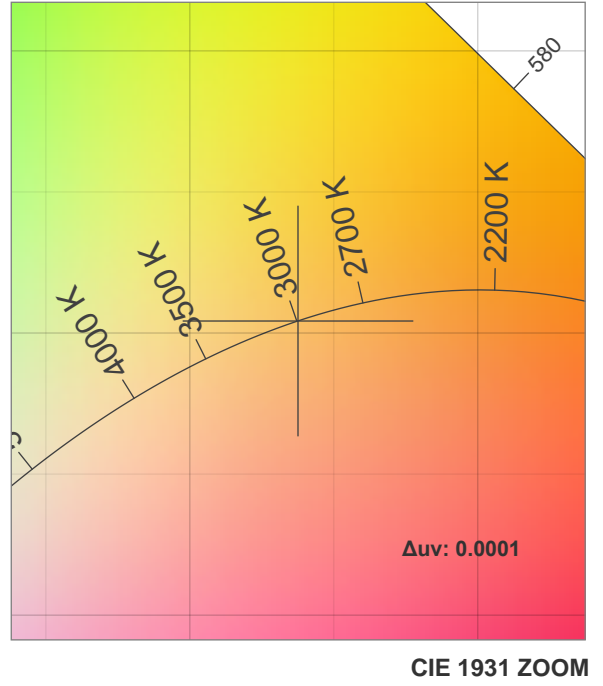
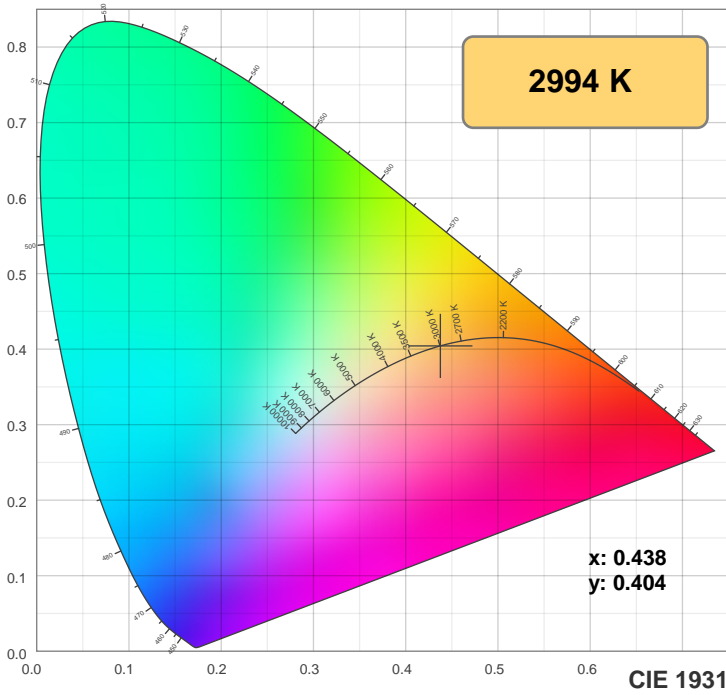
y: 0.404

Spectra

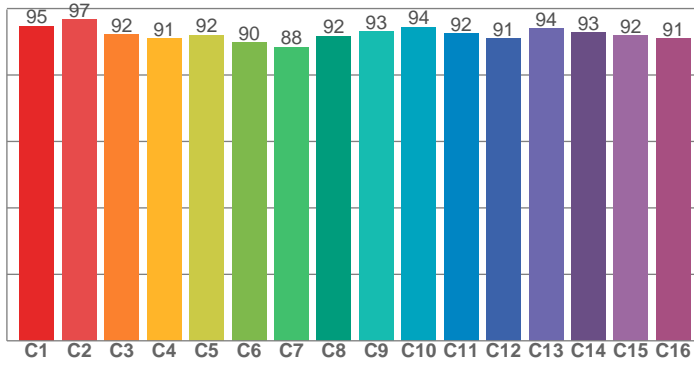


Power

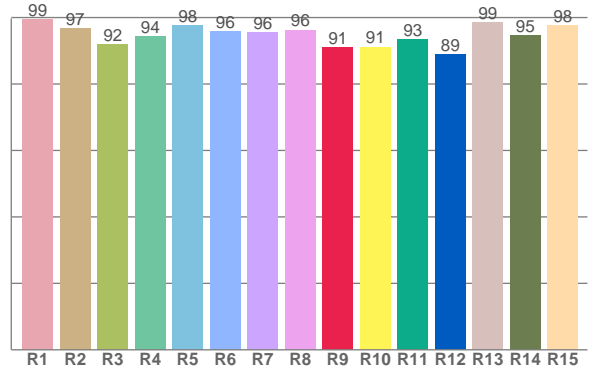




TM30: 92.6



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 | 94.2 | 97.6 | 95.9 | 95.5 | 96.3 | 91.1 | 91.2 | 93.3 | 88.9 | 98.6 | 94.6 | 97.7 |

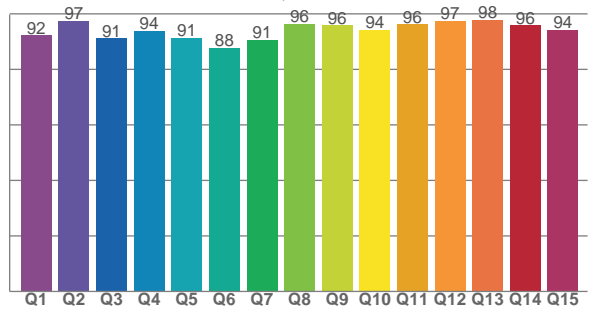
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94.7 | 96.8 | 92.3 | 90.9 | 92.1 | 89.7 | 88.5 | 91.7 | 93.1 | 94.5 | 92.4 | 90.9 | 94.0 | 92.7 | 91.8 | 91.0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.2 | 97.5 | 91.1 | 93.8 | 91.4 | 87.7 | 90.6 | 96.3 | 95.8 | 94.1 | 96.2 | 97.4 | 97.7 | 95.8 | 94.1 |

CQS: 93.2



Color parameters

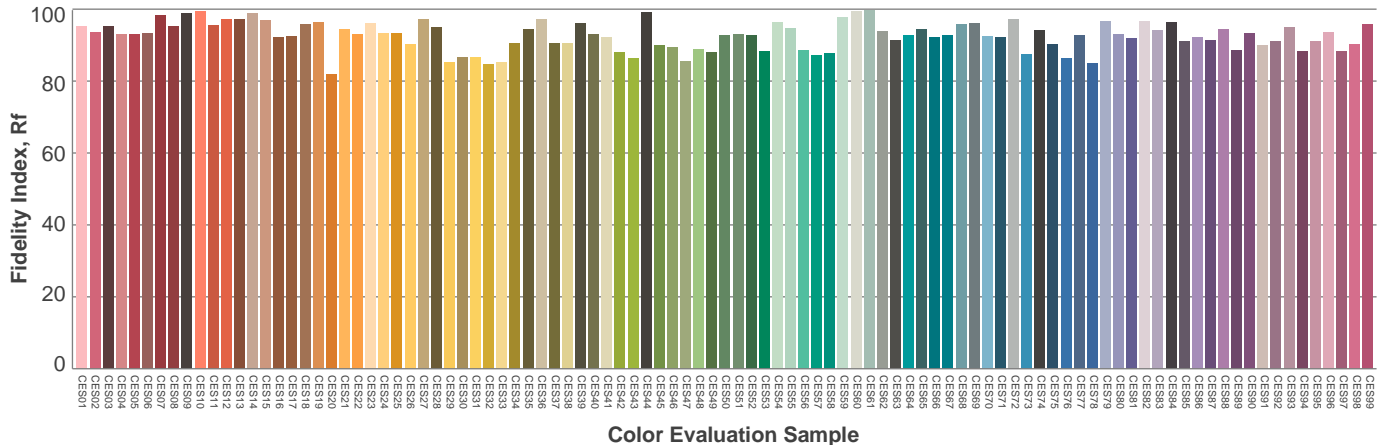
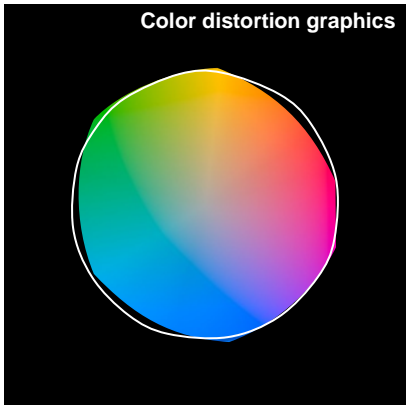
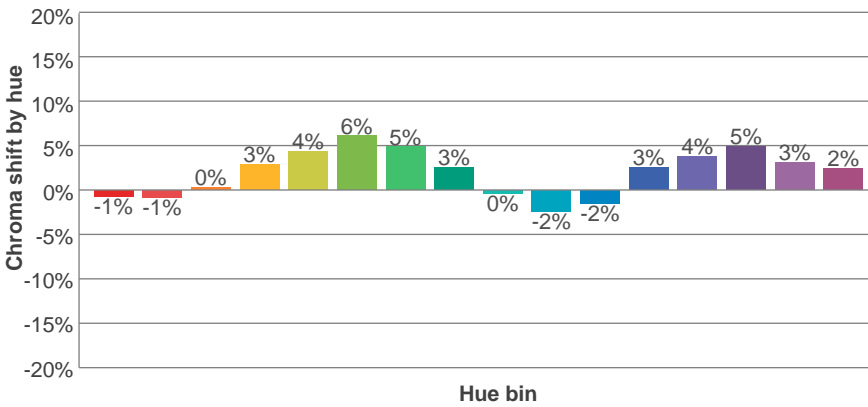
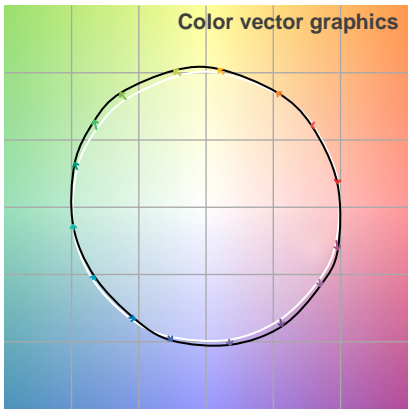
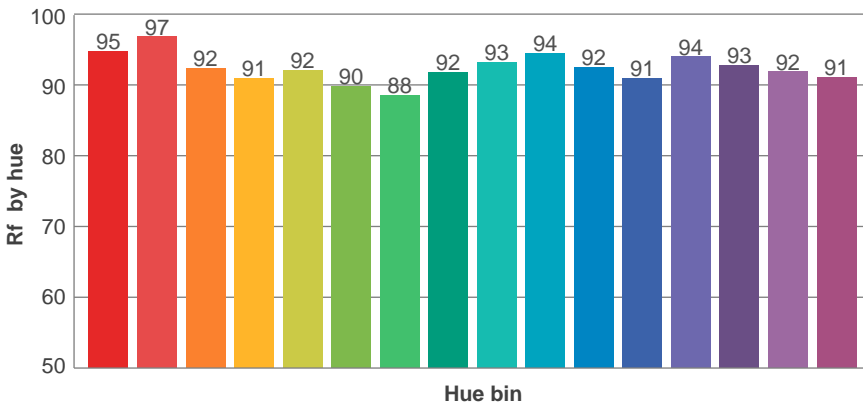
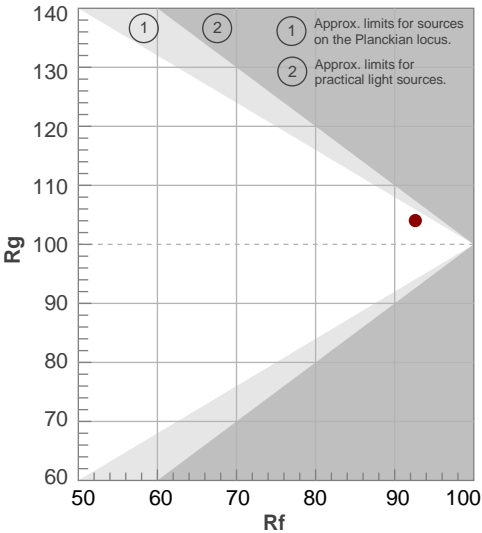
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 2994 K | 96.0 | 91.1 | 92.6 | 104.0 | 93.2 | 0.438 | 0.404 | 0.251 | 0.348 | 0.0001 |

TM30 details

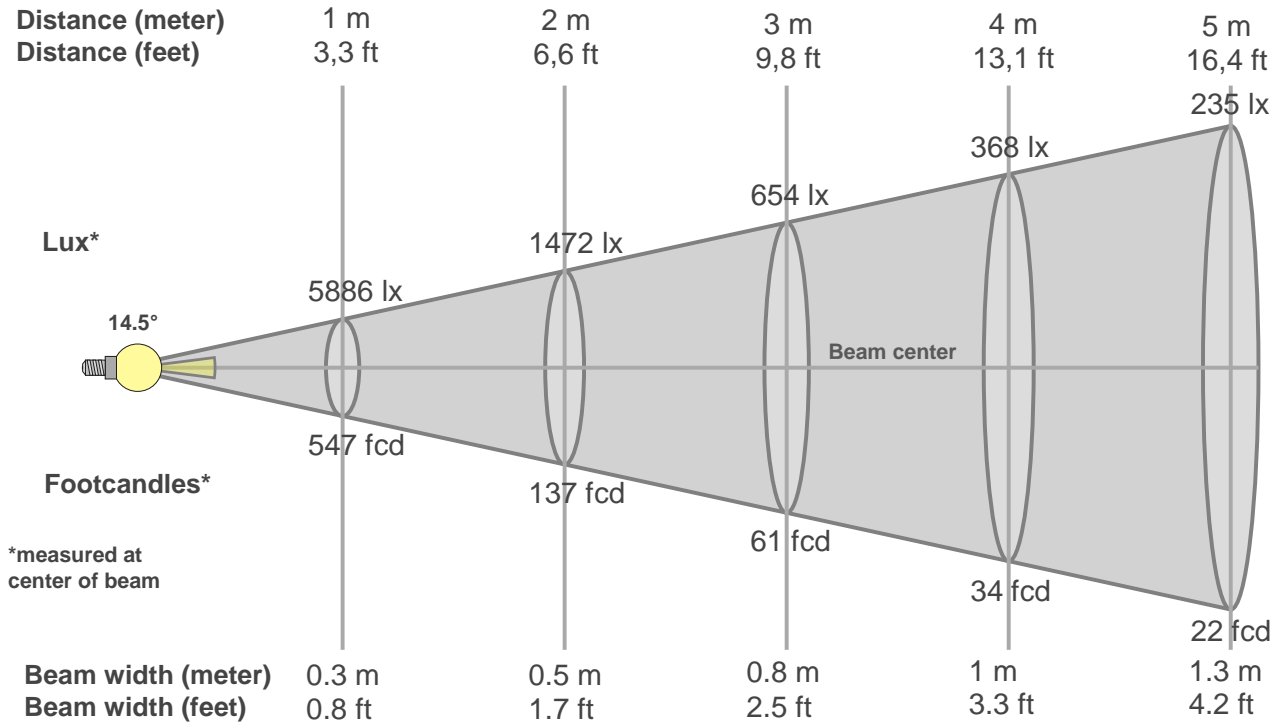
Rf 92.6
Fidelity index Rf

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 | 88 | 5% | -5% |
| 8 | 92 | 3% | -4% |
| 9 | 93 | 0% | -4% |
| 10 | 94 | -2% | -1% |
| 11 | 92 | -2% | 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 |
| 5886lx | 1472lx | 654lx | 368lx | 235lx | 164lx | 120lx | 92lx | 73lx | 59lx | 49lx | 41lx | 35lx | 30lx | 26lx | 23lx | 20lx | 18lx | 16lx | 15lx |
| 546.8fc | 136.7fc | 60.8fcd | 34.2fcd | 21.9fcd | 15.2fcd | 11.2fcd | 8.5fcd | 6.8fcd | 5.5fcd | 4.5fcd | 3.8fcd | 3.2fcd | 2.8fcd | 2.4fcd | 2.1fcd | 1.9fcd | 1.7fcd | 1.5fcd | 1.4fcd |

Intensities in 0° c-plane

| 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 5886 | 5812 | 5565 | 5165 | 4673 | 4139 | 3594 | 3065 | 2602 | 2198 | 1868 | 1600 | 1379 | 1193 | 1043 | 925 | 828 | 750 | 683 | 631 |
| 100% | 99% | 95% | 88% | 79% | 70% | 61% | 52% | 44% | 37% | 32% | 27% | 23% | 20% | 18% | 16% | 14% | 13% | 12% | 11% |

Intensities in 90° c-plane

| 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 5886 | 5811 | 5561 | 5150 | 4663 | 4124 | 3580 | 3062 | 2606 | 2203 | 1871 | 1611 | 1384 | 1197 | 1046 | 929 | 830 | 751 | 687 | 632 |
| 100% | 99% | 94% | 87% | 79% | 70% | 61% | 52% | 44% | 37% | 32% | 27% | 24% | 20% | 18% | 16% | 14% | 13% | 12% | 11% |

Intensities in 180° c-plane

| 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 5886 | 5800 | 5555 | 5170 | 4692 | 4135 | 3574 | 3062 | 2594 | 2187 | 1848 | 1577 | 1354 | 1175 | 1030 | 912 | 816 | 739 | 679 | 627 |
| 100% | 99% | 94% | 88% | 80% | 70% | 61% | 52% | 44% | 37% | 31% | 27% | 23% | 20% | 17% | 15% | 14% | 13% | 12% | 11% |

Intensities in 270° c-plane

| 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 5886 | 5806 | 5565 | 5179 | 4705 | 4145 | 3581 | 3054 | 2594 | 2189 | 1844 | 1572 | 1354 | 1177 | 1029 | 914 | 817 | 741 | 680 | 628 |
| 100% | 99% | 95% | 88% | 80% | 70% | 61% | 52% | 44% | 37% | 31% | 27% | 23% | 20% | 17% | 16% | 14% | 13% | 12% | 11% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 14.5° | 39.8° | 61.2° | 1.0% | 1.0% |

