

Light efficiency:



Light quality:



Color temperature:



Output: 1190 lm

Peak: 1202 cd

Power: 18.4 W

PF: 0.90



Product name:

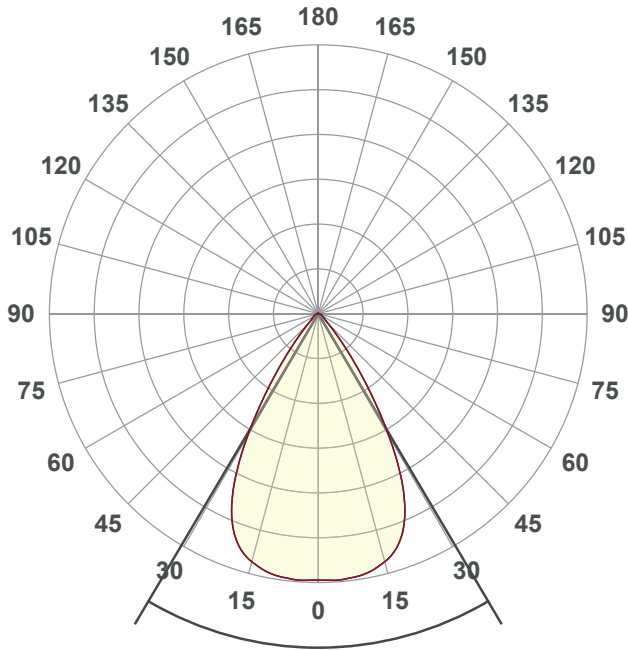
**SORAA VIVID PAR30S**

Item number:

**SP30SW-18-60D-930-03-S3**

Date and time:

**5/4/2021 3:23:23 PM**



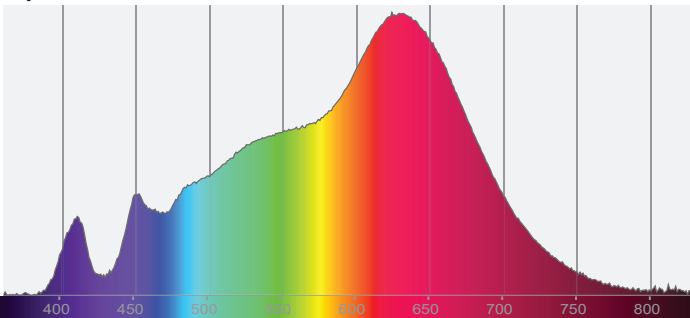
Beam angle

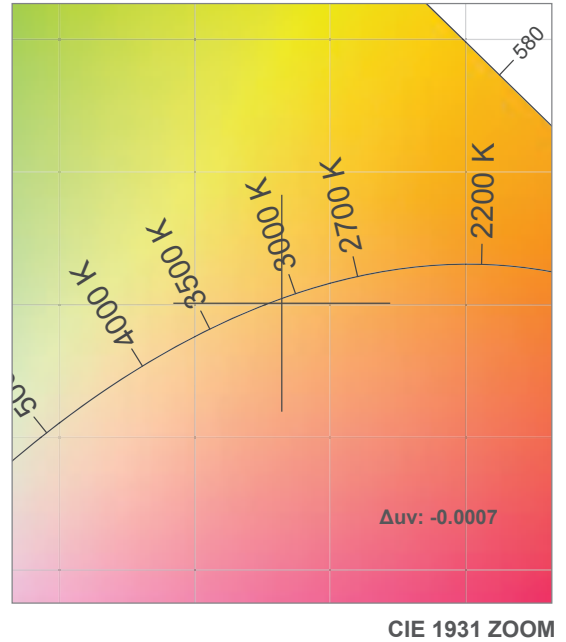
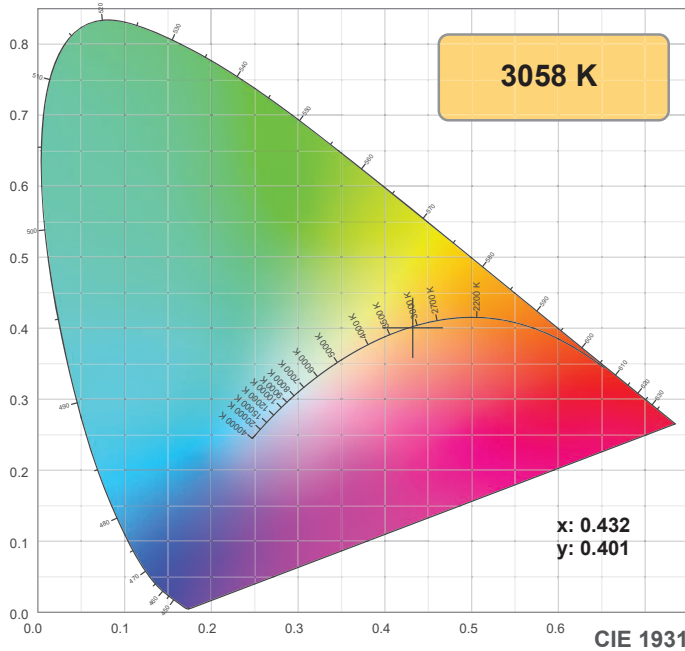
**61.1°**



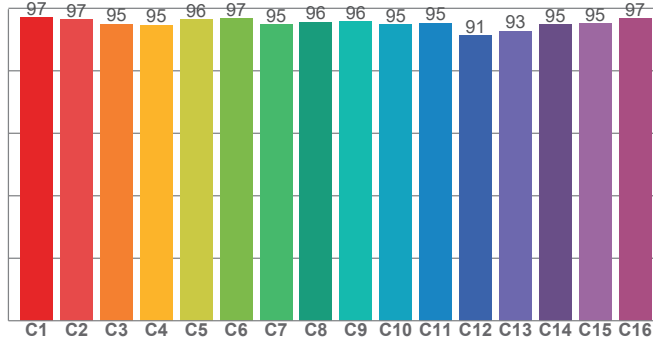
CIE 1931  
x: 0.432  
y: 0.401

Spectra

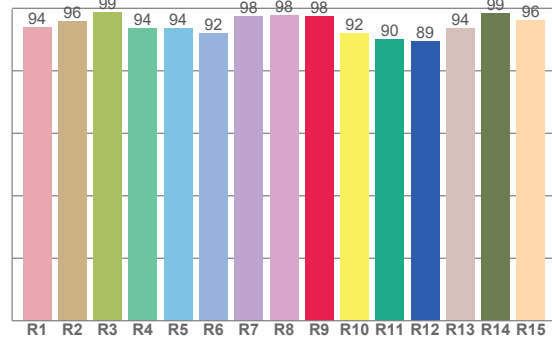




**TM30: 95.5**



**CRI: 95.4 (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  |
| 93.8 | 95.7 | 98.8 | 93.7 | 93.5 | 91.9 | 97.5 | 97.9 | 97.5 | 92.0 | 90.1 | 89.3 | 93.7 | 98.5 | 96.2 |

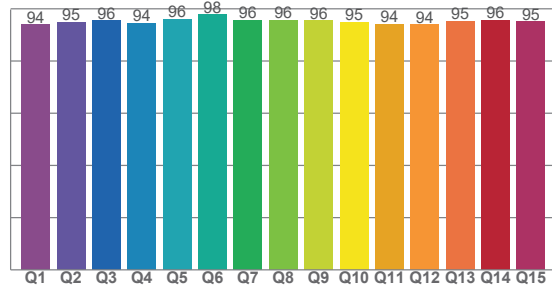
TM30 C values, 16 binned values out of total of 99 C values

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
| 97.1 | 96.5 | 95.0 | 94.7 | 96.4 | 96.7 | 94.8 | 95.7 | 95.8 | 95.0 | 95.4 | 91.2 | 92.8 | 94.8 | 95.2 | 96.8 |

CQS Q values

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
| 94.0 | 95.0 | 95.6 | 94.5 | 96.0 | 97.8 | 95.6 | 95.6 | 95.6 | 94.9 | 94.2 | 93.9 | 95.4 | 95.7 | 95.2 |

**CQS: 95.1**



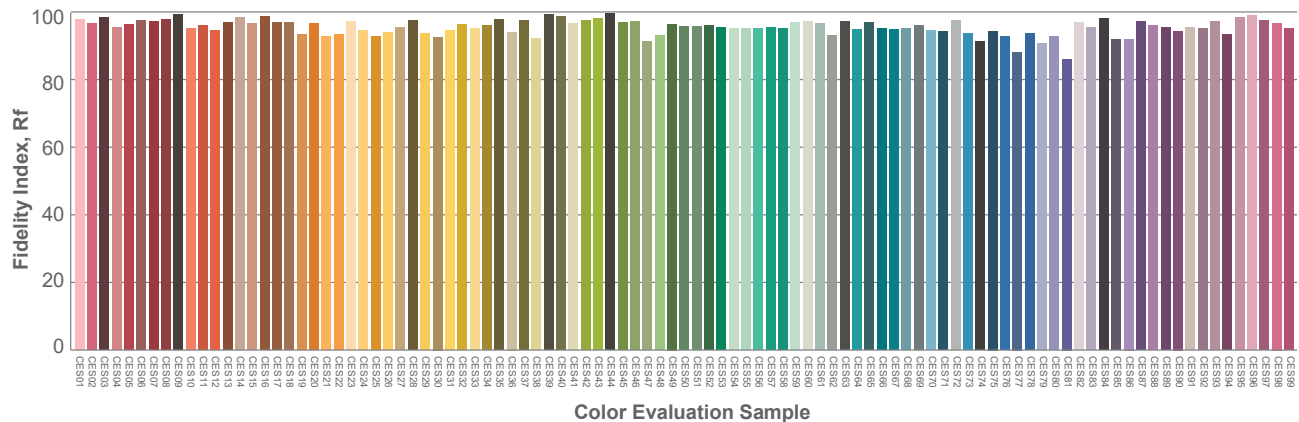
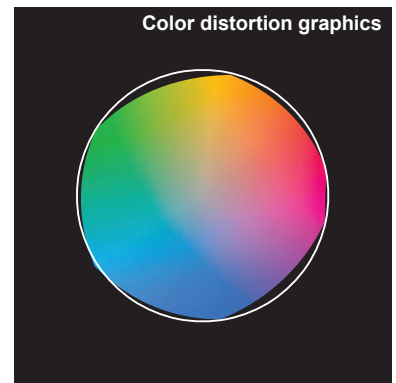
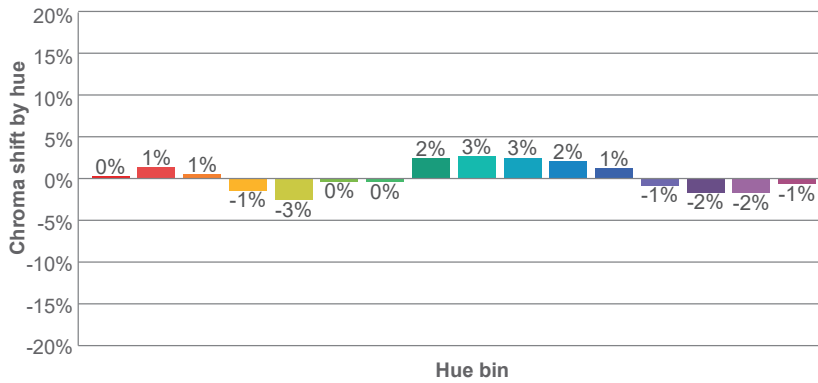
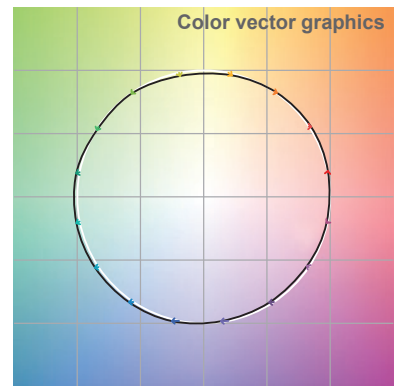
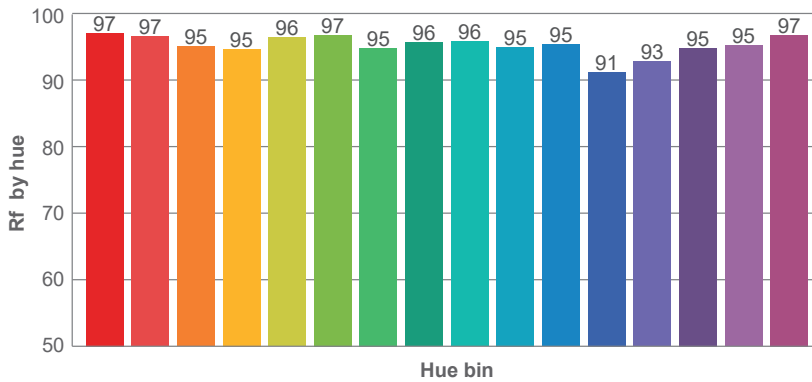
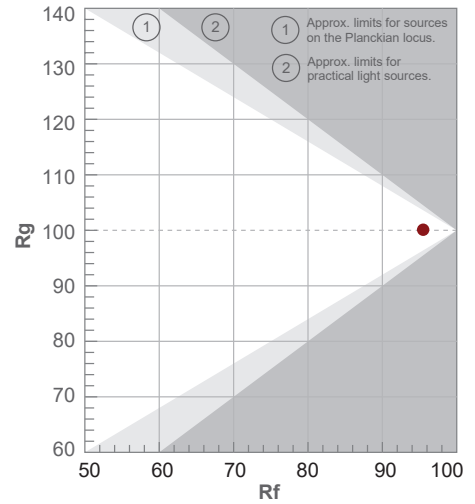
**Color parameters**

|                   |                       |               |                |             |                     |                           |                           |                  |                  |                                 |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| 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                             |
| 3058 K            | 95.4                  | 97.5          | 95.5           | 100.1       | 95.1                | 0.432                     | 0.401                     | 0.249            | 0.346            | -0.0007                         |

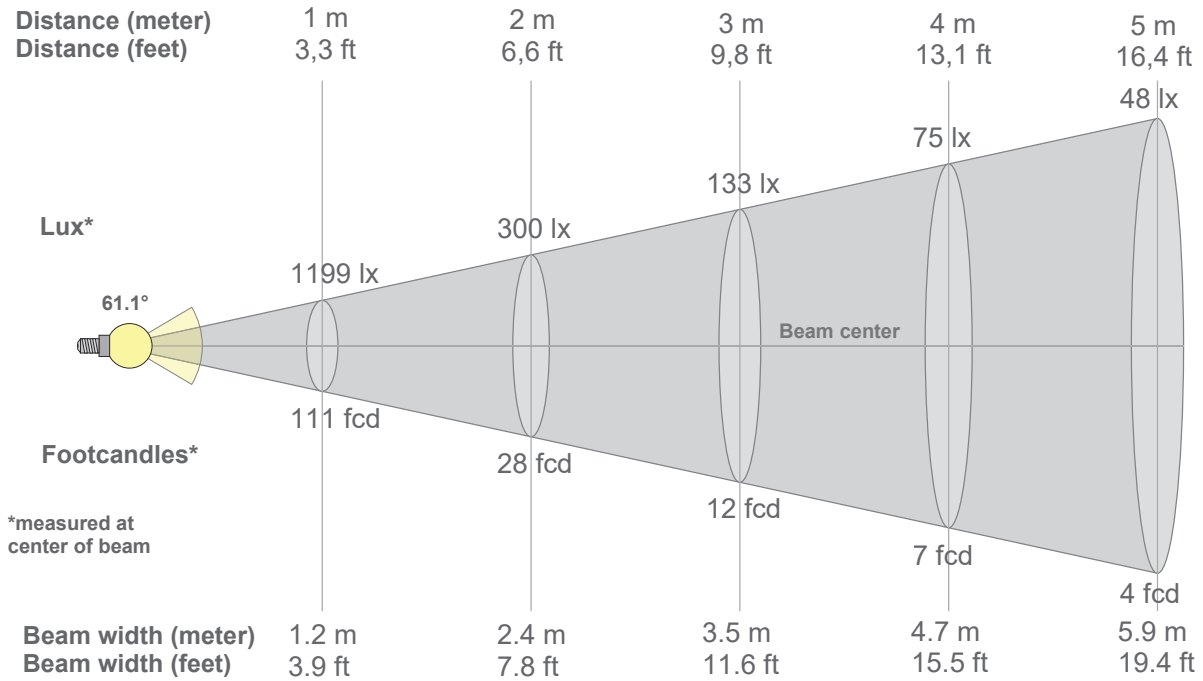
**Rf 95.5**  
Fidelity index Rf

**Rg 100.1**  
Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |     |
|---------|----------------|--------------------|-----|
|         |                | Chroma             | Hue |
| 1       | 97             | 0%                 | 1%  |
| 2       | 97             | 1%                 | -1% |
| 3       | 95             | 1%                 | -2% |
| 4       | 95             | -1%                | -3% |
| 5       | 96             | -3%                | 0%  |
| 6       | 97             | 0%                 | 2%  |
| 7       | 95             | 0%                 | 3%  |
| 8       | 96             | 2%                 | 1%  |
| 9       | 96             | 3%                 | 1%  |
| 10      | 95             | 3%                 | -1% |
| 11      | 95             | 2%                 | -3% |
| 12      | 91             | 1%                 | -5% |
| 13      | 93             | -1%                | -6% |
| 14      | 95             | -2%                | -3% |
| 15      | 95             | -2%                | 0%  |
| 16      | 97             | -1%                | -1% |



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 |
| 1199lx   | 300lx   | 133lx   | 75lx   | 48lx   | 33lx   | 24lx   | 19lx   | 15lx   | 12lx   | 10lx   | 8lx    | 7lx    | 6lx    | 5lx    | 5lx    | 4lx    | 4lx    | 3lx    | 3lx    |
| 111.4fcd | 27.9fcd | 12.4fcd | 7fcd   | 4.5fcd | 3.1fcd | 2.3fcd | 1.7fcd | 1.4fcd | 1.1fcd | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.4fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.3fcd |

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° |
| 1199 | 1200 | 1202 | 1199 | 1195 | 1189 | 1179 | 1163 | 1145 | 1117 | 1078 | 1025 | 957 | 867 | 757 | 636 | 514 | 399 | 298 | 218 |
| 100% | 100% | 100% | 100% | 100% | 99%  | 98%  | 97%  | 95%  | 93%  | 90%  | 86%  | 80% | 72% | 63% | 53% | 43% | 33% | 25% | 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° |
| 1199 | 1200 | 1202 | 1199 | 1195 | 1189 | 1179 | 1163 | 1145 | 1117 | 1078 | 1025 | 957 | 867 | 757 | 636 | 514 | 399 | 298 | 218 |
| 100% | 100% | 100% | 100% | 100% | 99%  | 98%  | 97%  | 95%  | 93%  | 90%  | 86%  | 80% | 72% | 63% | 53% | 43% | 33% | 25% | 18% |

Intensities in 180° c-plane

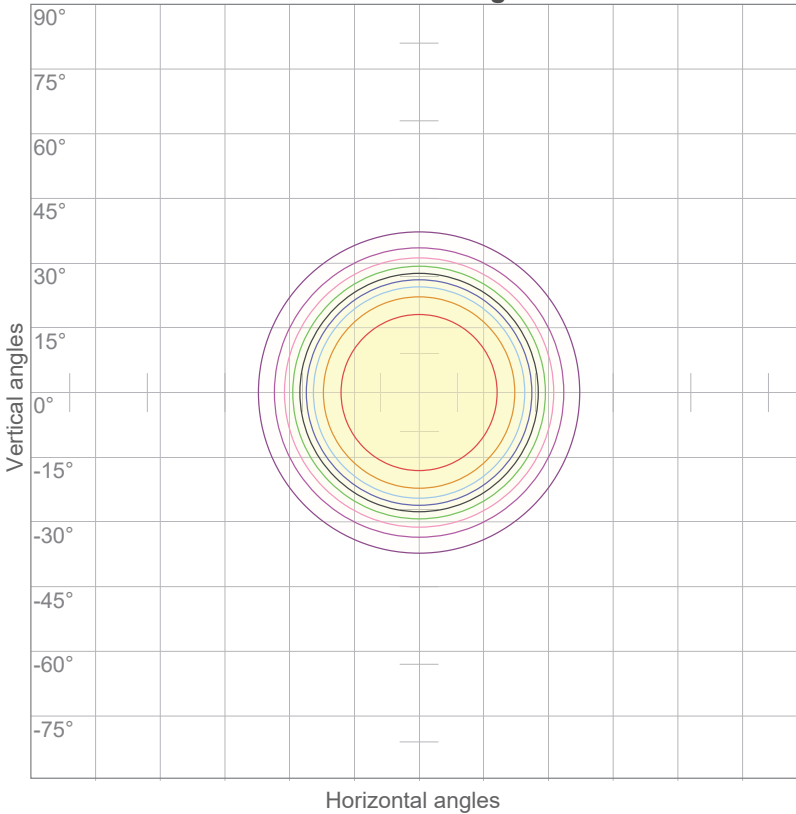
|      |      |      |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
| 1199 | 1200 | 1202 | 1199 | 1195 | 1189 | 1179 | 1163 | 1145 | 1117 | 1078 | 1025 | 957 | 867 | 757 | 636 | 514 | 399 | 298 | 218 |
| 100% | 100% | 100% | 100% | 100% | 99%  | 98%  | 97%  | 95%  | 93%  | 90%  | 86%  | 80% | 72% | 63% | 53% | 43% | 33% | 25% | 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° |
| 1199 | 1200 | 1202 | 1199 | 1195 | 1189 | 1179 | 1163 | 1145 | 1117 | 1078 | 1025 | 957 | 867 | 757 | 636 | 514 | 399 | 298 | 218 |
| 100% | 100% | 100% | 100% | 100% | 99%  | 98%  | 97%  | 95%  | 93%  | 90%  | 86%  | 80% | 72% | 63% | 53% | 43% | 33% | 25% | 18% |

|                |                 |                   |                              |                             |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
| 61.1°          | 82.8°           | 109.2°            | 96.7%                        | 92.9%                       |

ISO candela diagram

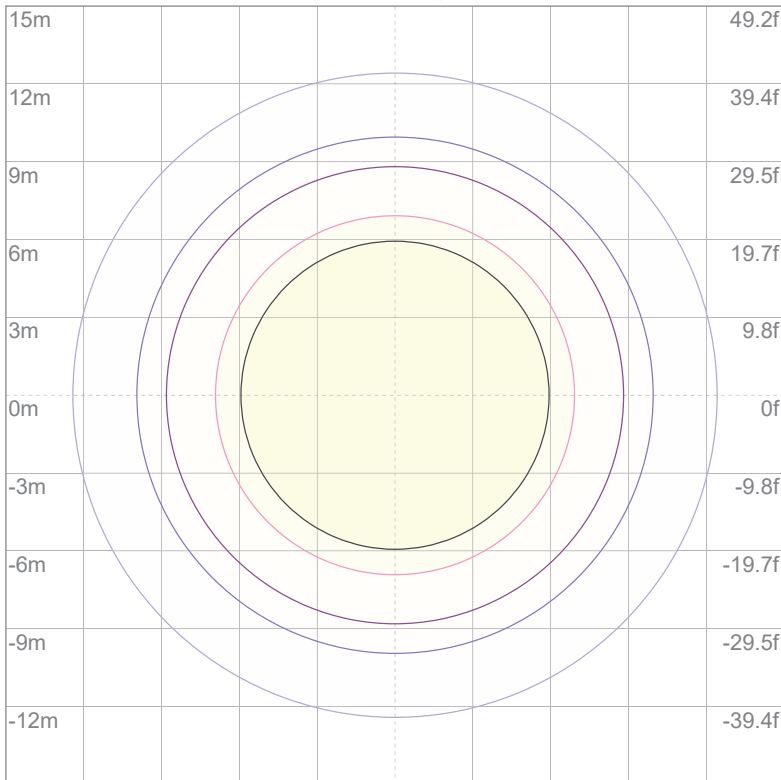


|     |         |
|-----|---------|
| 10% | 120 cd  |
| 20% | 240 cd  |
| 30% | 360 cd  |
| 40% | 480 cd  |
| 50% | 600 cd  |
| 60% | 720 cd  |
| 70% | 840 cd  |
| 80% | 959 cd  |
| 90% | 1079 cd |

Conditions:

Number of c-planes: 16  
Candela at center: 1199 cd

ISO lux diagram



|     |          |
|-----|----------|
| 3%  | 0.360 lx |
| 5%  | 0.600 lx |
| 10% | 1.20 lx  |
| 30% | 3.60 lx  |
| 50% | 6.00 lx  |

Conditions:

Number of c-planes: 16  
Lux at center: 12.0 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

Mounting height: 10 meters (33 feet)