

Light efficiency:



Output: 1488 lm

Light quality:

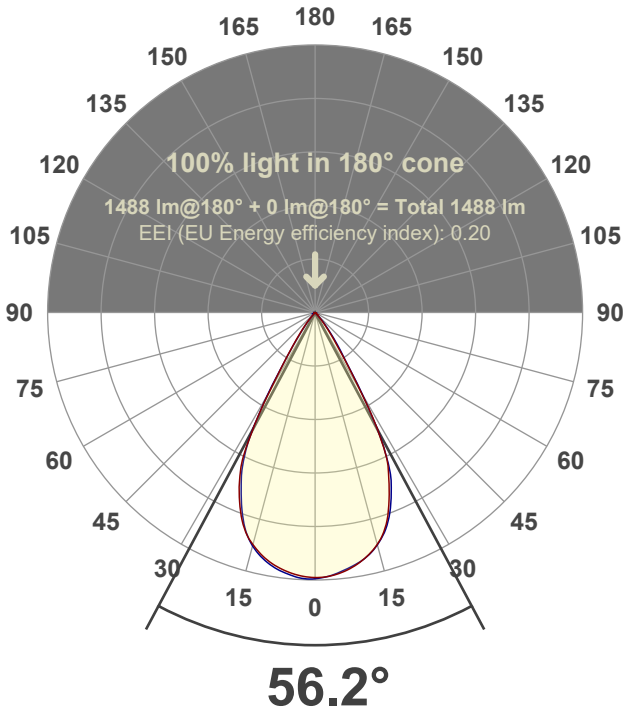


Peak: 2003 cd

Power: 21.4 W



Beam angle



Test number:

GR-O-F-A20-3019-WF-SQ-Rev2

Luminaire Model:

Graffiti Open Square Fixed Downlight-A20-3019 60° Optic

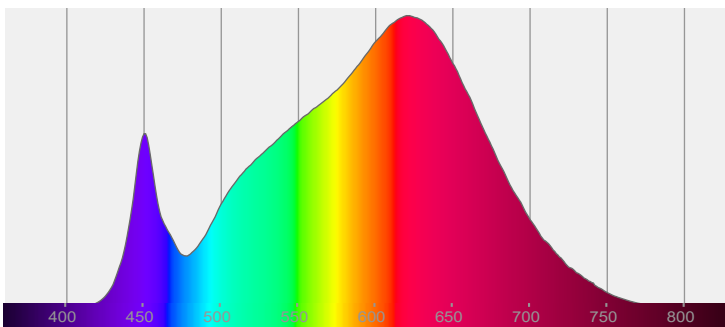
Date and time:

6/21/2022 7:47:24 PM

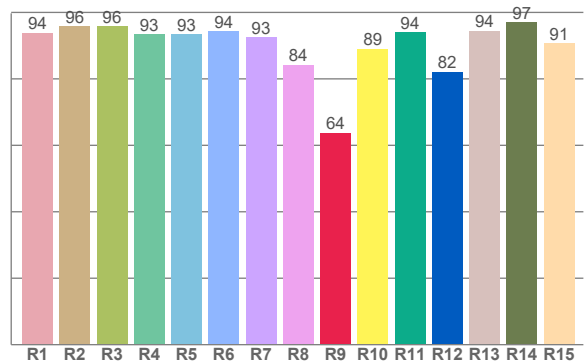
Delivered Lumens

1488

Spectra



CRI: 92.9 (R1-R8)



Color parameters

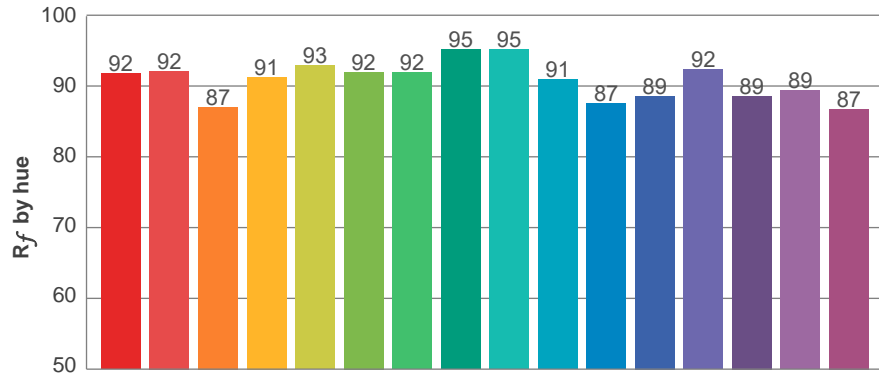
| | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|--|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| | CRI | CRI R9 | TM30 R _f | TM30 R _g | CQS | x | y | u | v | Δuv |
| | 92.9 | 63.8 | 91.0 | 101.9 | 89.9 | 0.432 | 0.397 | 0.251 | 0.345 | -0.0024 |

R_f 91.0
Fidelity index R_f

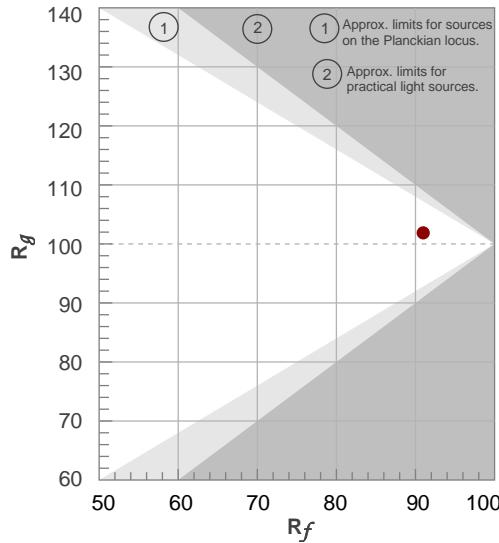
R_g 101.9
Gammut index R_g

TM30: 91.0

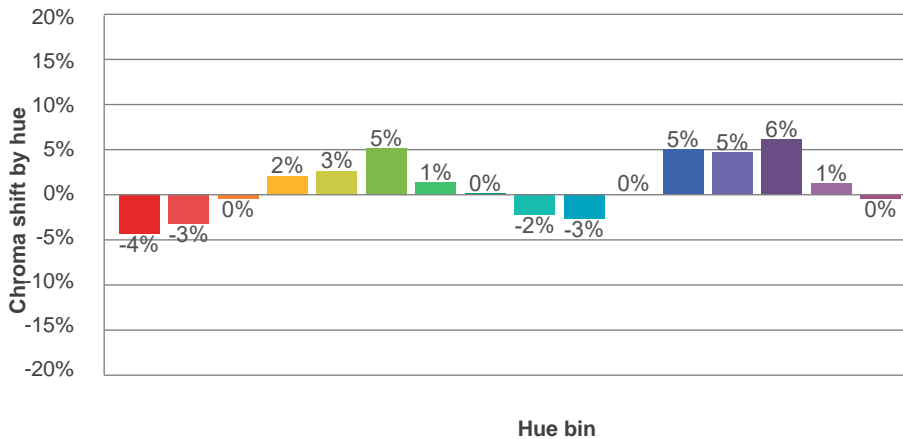
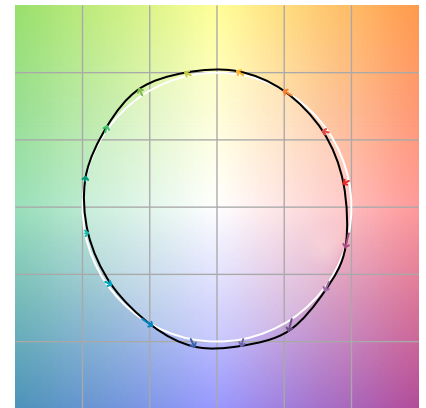
TM-30Color



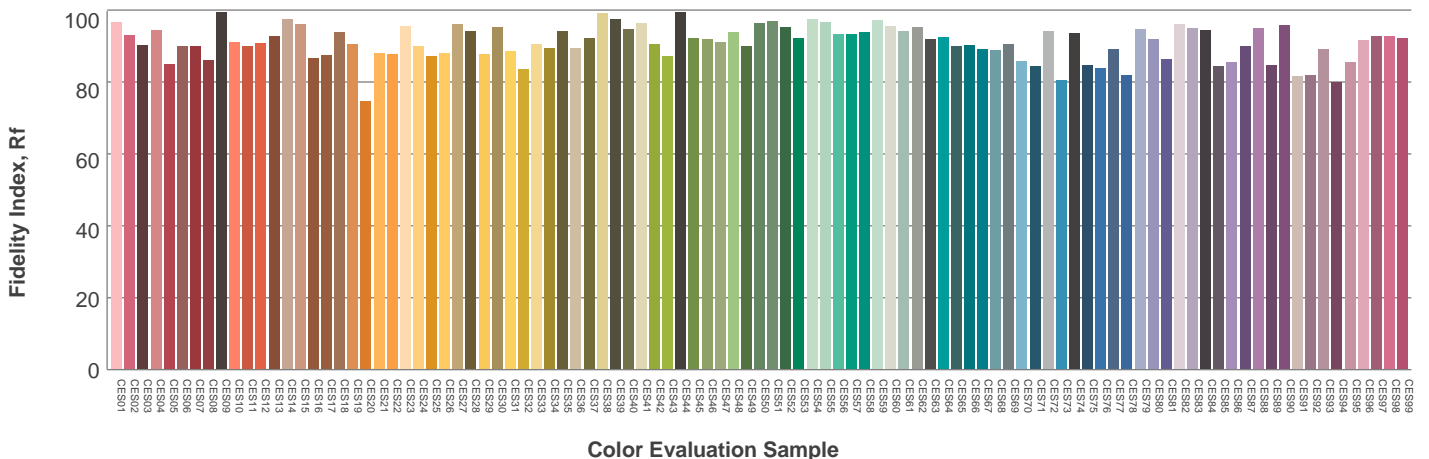
| Hue Bin | R_f | Graphic shifts (%) | |
|---------|-------|--------------------|------|
| | | Chroma | Hue |
| 1 | 92 | -4% | -1% |
| 2 | 92 | -3% | 3% |
| 3 | 87 | 0% | 7% |
| 4 | 91 | 2% | 5% |
| 5 | 93 | 3% | 4% |
| 6 | 92 | 5% | -1% |
| 7 | 92 | 1% | -5% |
| 8 | 95 | 0% | -3% |
| 9 | 95 | -2% | 0% |
| 10 | 91 | -3% | 4% |
| 11 | 87 | 0% | 9% |
| 12 | 89 | 5% | 4% |
| 13 | 92 | 5% | -2% |
| 14 | 89 | 6% | -7% |
| 15 | 89 | 1% | -7% |
| 16 | 87 | 0% | -11% |



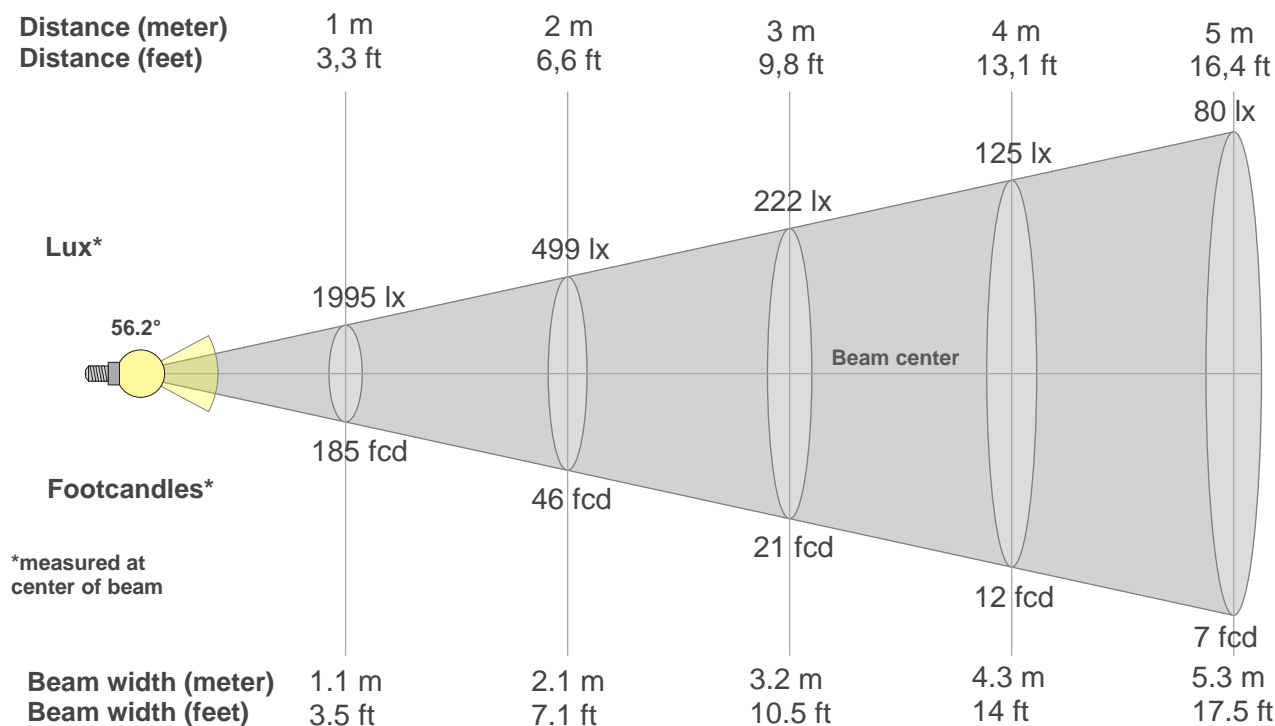
Color vector graphics



Color distortion



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 |
| 1995lx | 499lx | 222lx | 125lx | 80lx | 55lx | 41lx | 31lx | 25lx | 20lx | 16lx | 14lx | 12lx | 10lx | 9lx | 8lx | 7lx | 6lx | 6lx | 5lx |
| 185.4fcd | 46.3fcd | 20.6fcd | 11.6fcd | 7.4fcd | 5.1fcd | 3.8fcd | 2.9fcd | 2.3fcd | 1.9fcd | 1.5fcd | 1.3fcd | 1.1fcd | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.6fcd | 0.5fcd | 0.5fcd |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 1995 | 1989 | 1978 | 1961 | 1939 | 1909 | 1874 | 1830 | 1774 | 1700 | 1605 | 1489 | 1365 | 1231 | 1010 | 728 | 467 | 299 | 211 | 144 |
| 100% | 100% | 99% | 98% | 97% | 96% | 94% | 92% | 89% | 85% | 80% | 75% | 68% | 62% | 51% | 36% | 23% | 15% | 11% | 7% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 1995 | 1990 | 1975 | 1953 | 1931 | 1906 | 1874 | 1832 | 1780 | 1716 | 1629 | 1524 | 1403 | 1245 | 1018 | 730 | 491 | 346 | 250 | 173 |
| 100% | 100% | 99% | 98% | 97% | 96% | 94% | 92% | 89% | 86% | 82% | 76% | 70% | 62% | 51% | 37% | 25% | 17% | 13% | 9% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 1995 | 1986 | 1975 | 1959 | 1937 | 1910 | 1875 | 1830 | 1778 | 1711 | 1625 | 1520 | 1402 | 1251 | 1012 | 724 | 462 | 304 | 209 | 143 |
| 100% | 100% | 99% | 98% | 97% | 96% | 94% | 92% | 89% | 86% | 81% | 76% | 70% | 63% | 51% | 36% | 23% | 15% | 10% | 7% |

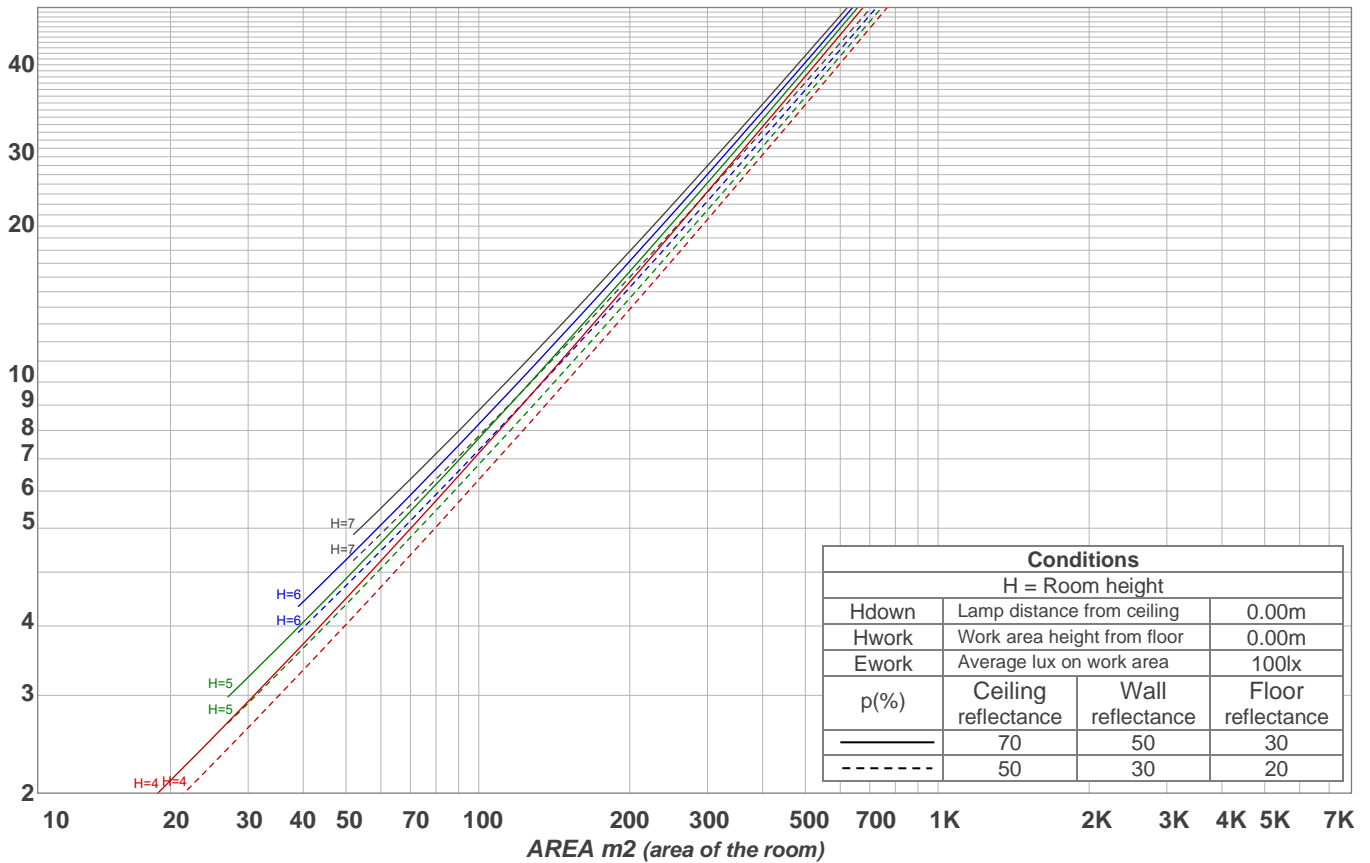
Intensities in 270° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 1995 | 2001 | 1993 | 1975 | 1954 | 1925 | 1889 | 1842 | 1783 | 1707 | 1602 | 1485 | 1363 | 1217 | 1018 | 734 | 467 | 293 | 185 | 117 |
| 100% | 100% | 100% | 99% | 98% | 97% | 95% | 92% | 89% | 86% | 80% | 74% | 68% | 61% | 51% | 37% | 23% | 15% | 9% | 6% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 56.2° | 72.6° | 85.6° | 99.3% | 98.7% |

LAMPS (number of lamps)
50

Light planning Luminaire budgetary diagram



Luminaire budgetary diagram AREA m2 (area of the room) Coefficients of Utilization

| Ceiling reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 | | | |
|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| Wall reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Floor reflectance | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 |
| RCR | (RCR: Room Cavity Ratio) | | | | | | | | | | | | | | | | | | | | |
| | Room Values are expressed as percentage of Lumens delivered to the task surface | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | |
| 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | 94 | 94 | |
| 2 | 109 | 104 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 97 | 94 | 96 | 94 | 92 | 94 | 92 | 90 | 89 | 89 | 89 | |
| 3 | 104 | 98 | 93 | 90 | 102 | 97 | 92 | 89 | 94 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 | 83 | 83 | |
| 4 | 99 | 92 | 87 | 83 | 98 | 91 | 87 | 83 | 89 | 85 | 82 | 87 | 84 | 81 | 85 | 83 | 80 | 79 | 79 | 79 | |
| 5 | 95 | 87 | 82 | 78 | 93 | 86 | 81 | 78 | 85 | 80 | 77 | 83 | 79 | 76 | 81 | 78 | 76 | 74 | 74 | 74 | |
| 6 | 91 | 83 | 77 | 73 | 89 | 82 | 77 | 73 | 80 | 76 | 72 | 79 | 75 | 72 | 78 | 74 | 71 | 70 | 70 | 70 | |
| 7 | 87 | 78 | 73 | 69 | 85 | 78 | 72 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 74 | 70 | 68 | 66 | 66 | 66 | |
| 8 | 83 | 74 | 69 | 65 | 82 | 74 | 68 | 65 | 73 | 68 | 65 | 72 | 67 | 64 | 71 | 67 | 64 | 63 | 63 | 63 | |
| 9 | 79 | 71 | 65 | 62 | 78 | 70 | 65 | 61 | 69 | 65 | 61 | 68 | 64 | 61 | 68 | 64 | 61 | 60 | 60 | 60 | |
| 10 | 76 | 67 | 62 | 58 | 75 | 67 | 62 | 58 | 66 | 61 | 58 | 65 | 61 | 58 | 65 | 61 | 58 | 57 | 57 | 57 | |

Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 186 lm | 504 lm | 575 lm | 182 lm | 26.3 lm | 3.30 lm | 2.88 lm | 4.02 lm | 3.52 lm |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm |