

Light efficiency:

101 Lumen/Watt

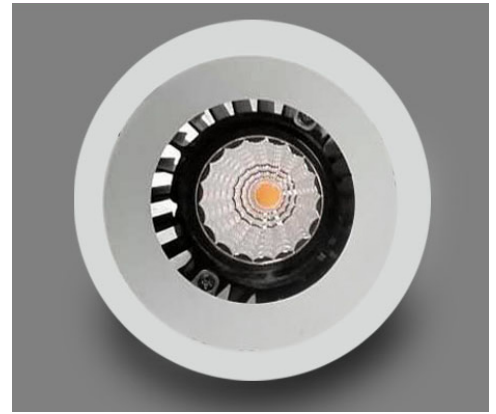
Output: 1431 lm

Light quality:

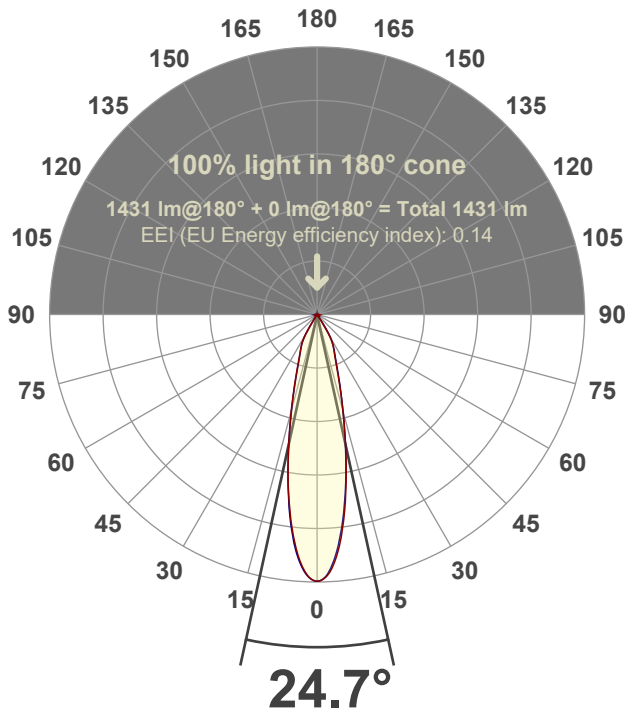
CRI: 94.5

Peak: 5283 cd

Power: 14.1 W



Beam angle



Test number:

GR-O-F-CZ14-30k-NF-RD-Rev2

Luminaire Model:

Graffiti Open Round Fixed Downlight-CZ14 30k 24° Optic

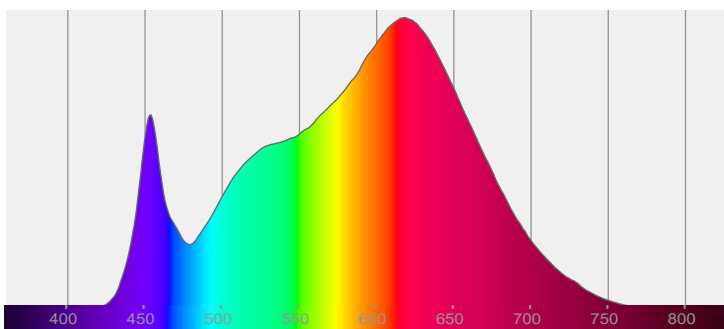
Date and time:

3/2/2022 11:08:28 PM

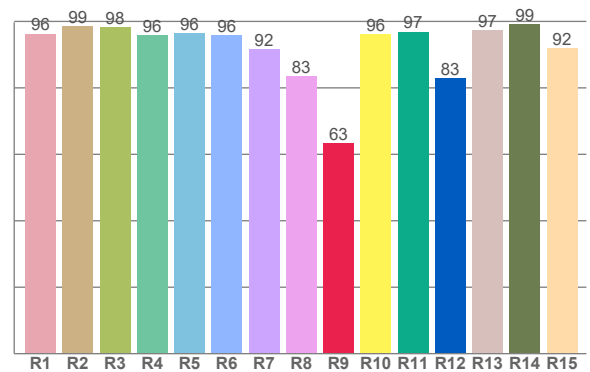
Delivered Lumens

1431

Spectra



CRI: 94.5 (R1-R8)



Color parameters

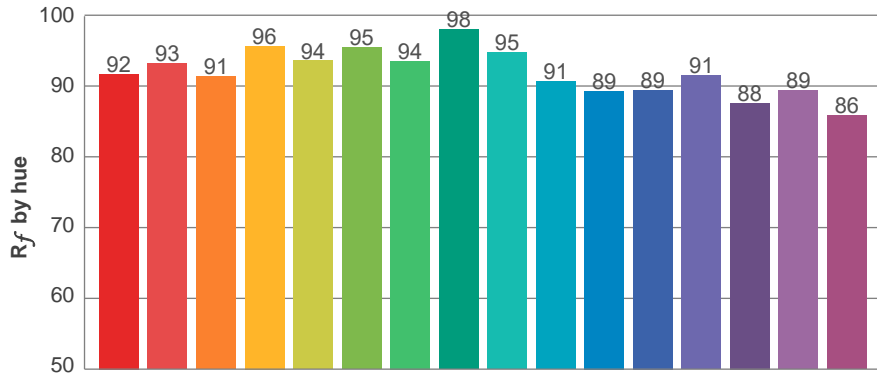
| | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|--|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| | CRI | CRI R9 | TM30 R _f | TM30 R _g | CQS | x | y | u | v | Δuv |
| | 94.5 | 63.3 | 92.1 | 100.4 | 91.8 | 0.425 | 0.393 | 0.247 | 0.343 | -0.0027 |

R_f 92.1
Fidelity index R_f

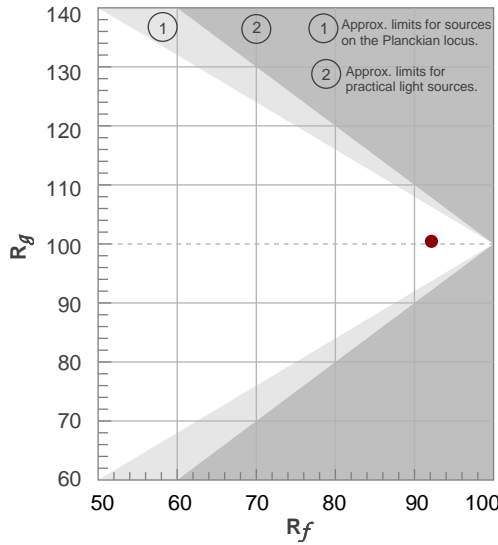
R_g 100.4
Gammut index R_g

TM30: 92.1

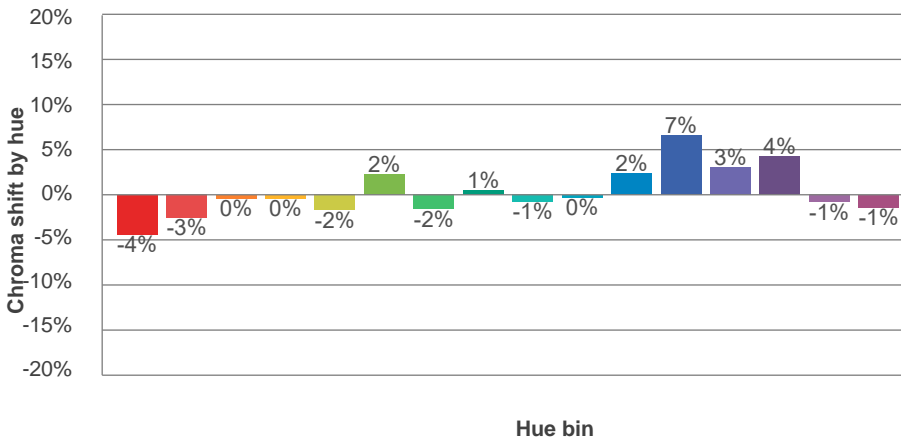
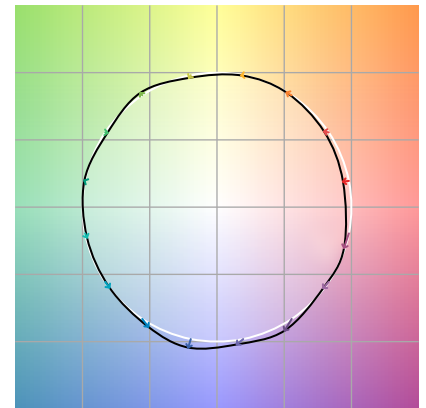
TM-30Color



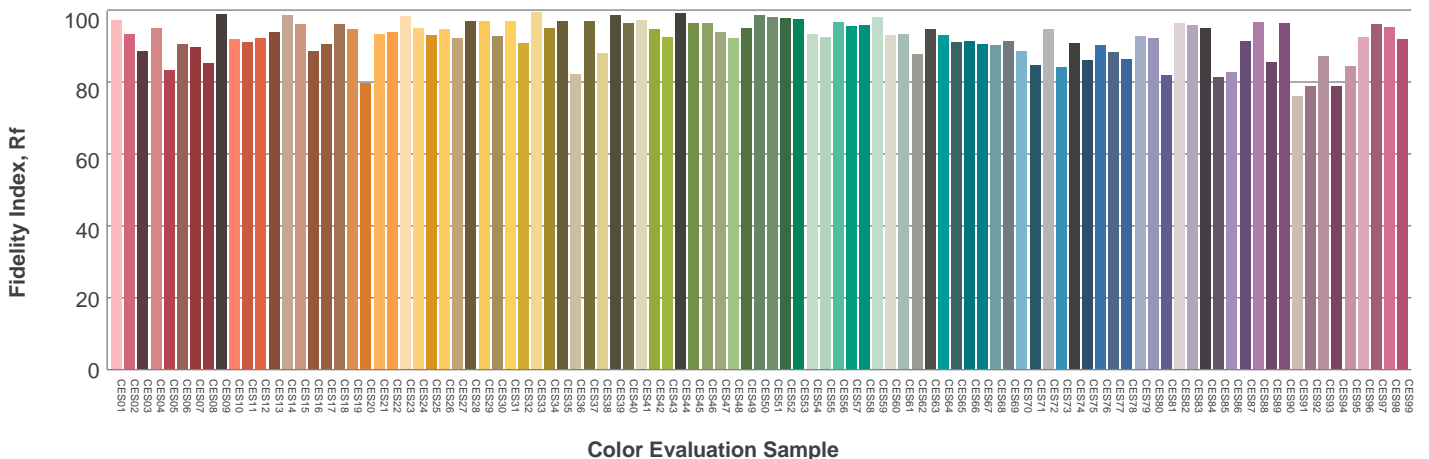
| Hue Bin | R_f | Graphic shifts (%) | |
|---------|-------|--------------------|------|
| | | Chroma | Hue |
| 1 | 92 | -4% | 0% |
| 2 | 93 | -3% | 3% |
| 3 | 91 | 0% | 4% |
| 4 | 96 | 0% | 1% |
| 5 | 94 | -2% | 2% |
| 6 | 95 | 2% | 0% |
| 7 | 94 | -2% | -1% |
| 8 | 98 | 1% | 0% |
| 9 | 95 | -1% | 3% |
| 10 | 91 | 0% | 5% |
| 11 | 89 | 2% | 7% |
| 12 | 89 | 7% | -1% |
| 13 | 91 | 3% | -5% |
| 14 | 88 | 4% | -9% |
| 15 | 89 | -1% | -6% |
| 16 | 86 | -1% | -11% |



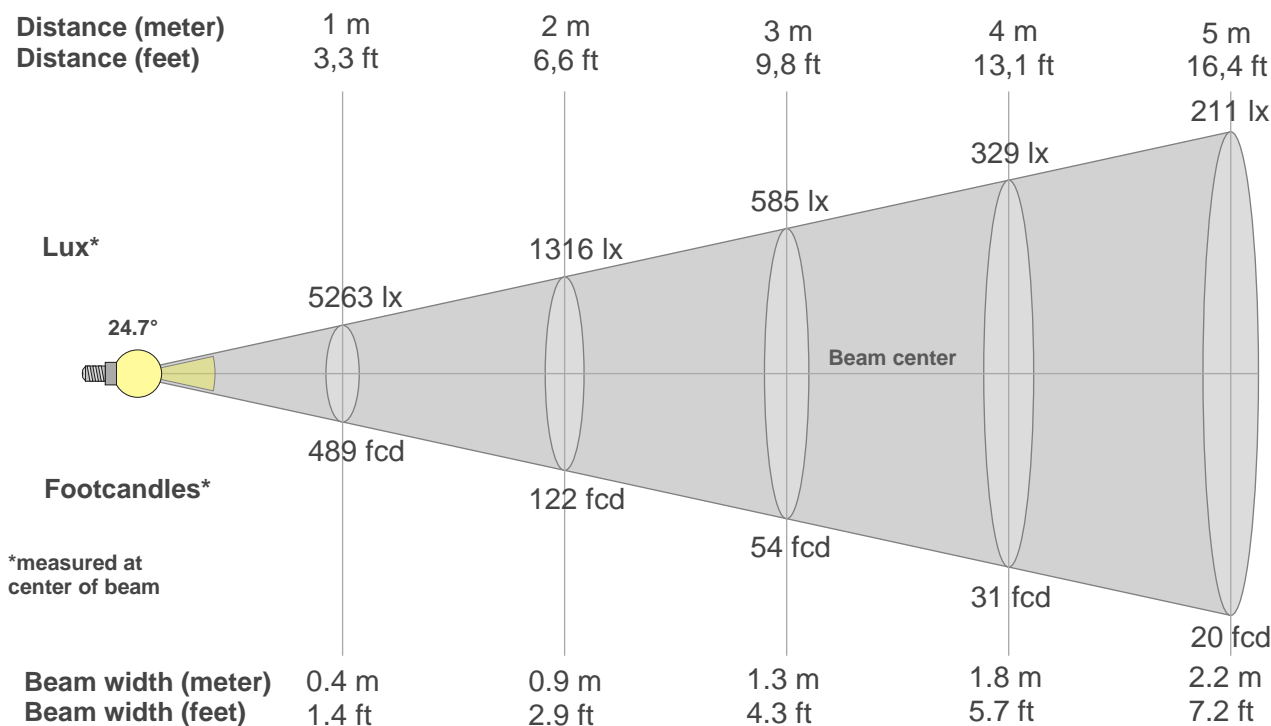
Color vector graphics



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 |
| 5263lx | 1316lx | 585lx | 329lx | 211lx | 146lx | 107lx | 82lx | 65lx | 53lx | 43lx | 37lx | 31lx | 27lx | 23lx | 21lx | 18lx | 16lx | 15lx | 13lx |
| 488.9fcd | 122.2fcd | 54.3fcd | 30.6fcd | 19.6fcd | 13.6fcd | 10fcd | 7.6fcd | 6fcd | 4.9fcd | 4fcd | 3.4fcd | 2.9fcd | 2.5fcd | 2.2fcd | 1.9fcd | 1.7fcd | 1.5fcd | 1.4fcd | 1.2fcd |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5263 | 5165 | 4899 | 4475 | 3927 | 3325 | 2752 | 2237 | 1798 | 1442 | 1178 | 991 | 856 | 752 | 654 | 535 | 345 | 160 | 46 | 12 |
| 100% | 98% | 93% | 85% | 75% | 63% | 52% | 43% | 34% | 27% | 22% | 19% | 16% | 14% | 12% | 10% | 7% | 3% | 1% | 0% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 5263 | 5172 | 4844 | 4390 | 3857 | 3288 | 2719 | 2220 | 1810 | 1478 | 1214 | 1011 | 875 | 769 | 666 | 549 | 401 | 201 | 60 | 13 |
| 100% | 98% | 92% | 83% | 73% | 62% | 52% | 42% | 34% | 28% | 23% | 19% | 17% | 15% | 13% | 10% | 8% | 4% | 1% | 0% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5263 | 5175 | 4880 | 4428 | 3894 | 3319 | 2743 | 2221 | 1794 | 1452 | 1186 | 985 | 841 | 737 | 637 | 505 | 330 | 133 | 26 | 13 |
| 100% | 98% | 93% | 84% | 74% | 63% | 52% | 42% | 34% | 28% | 23% | 19% | 16% | 14% | 12% | 10% | 6% | 3% | 0% | 0% |

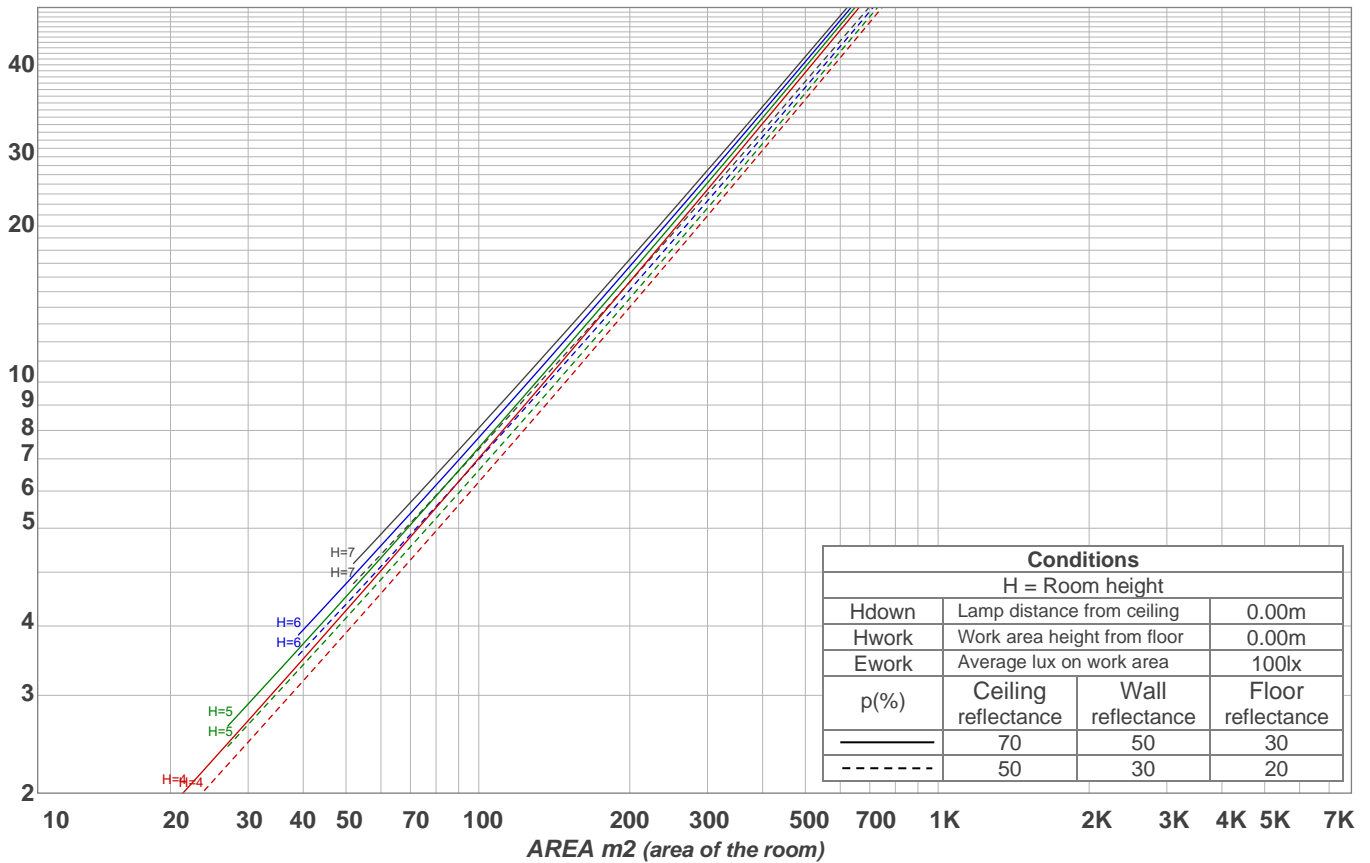
Intensities in 270° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5263 | 5164 | 4896 | 4480 | 3942 | 3330 | 2734 | 2209 | 1769 | 1414 | 1139 | 957 | 829 | 726 | 621 | 482 | 272 | 102 | 28 | 11 |
| 100% | 98% | 93% | 85% | 75% | 63% | 52% | 42% | 34% | 27% | 22% | 18% | 16% | 14% | 12% | 9% | 5% | 2% | 1% | 0% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 24.7° | 59.8° | 68.5° | 99.3% | 99.1% |

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 | | |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 96 | | |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 102 | 99 | 97 | 99 | 97 | 95 | 96 | 95 | 93 | 92 | 92 | | |
| 3 | 106 | 101 | 97 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 92 | 95 | 93 | 91 | 93 | 91 | 89 | 88 | 88 | | |
| 4 | 103 | 97 | 92 | 89 | 101 | 96 | 92 | 89 | 94 | 90 | 88 | 92 | 89 | 87 | 90 | 88 | 86 | 84 | 84 | | |
| 5 | 99 | 93 | 88 | 85 | 98 | 92 | 88 | 84 | 90 | 87 | 84 | 89 | 85 | 83 | 87 | 84 | 82 | 81 | 81 | | |
| 6 | 96 | 89 | 84 | 81 | 95 | 88 | 84 | 81 | 87 | 83 | 80 | 86 | 82 | 80 | 84 | 81 | 79 | 78 | 78 | | |
| 7 | 93 | 86 | 81 | 78 | 91 | 85 | 81 | 77 | 84 | 80 | 77 | 83 | 79 | 77 | 82 | 79 | 76 | 75 | 75 | | |
| 8 | 90 | 82 | 78 | 75 | 89 | 82 | 78 | 75 | 81 | 77 | 74 | 80 | 76 | 74 | 79 | 76 | 74 | 73 | 73 | | |
| 9 | 87 | 79 | 75 | 72 | 86 | 79 | 75 | 72 | 78 | 74 | 72 | 77 | 74 | 71 | 77 | 73 | 71 | 70 | 70 | | |
| 10 | 84 | 77 | 72 | 69 | 83 | 76 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 74 | 71 | 69 | 68 | 68 | | |

Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 401 lm | 556 lm | 368 lm | 90.7 lm | 2.75 lm | 2.22 lm | 2.37 lm | 3.09 lm | 3.81 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 |