

Light efficiency:



Output: 912 lm

Light quality:

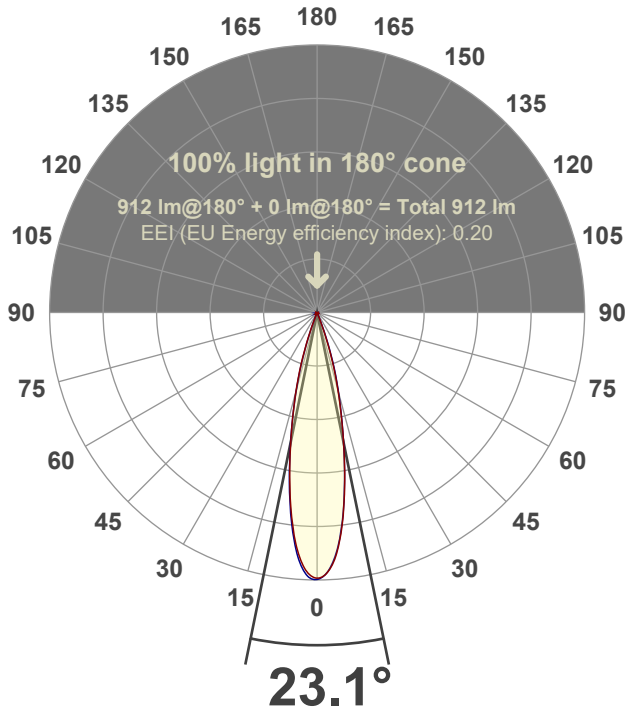


Peak: 5372 cd

Power: 14.2 W



Beam angle



Test number:

GR-F-F-CZ14-30k-NF-SQ-Rev2

Luminaire Model:

Graffiti Flat Square Fixed Downlight-CZ14 30k 24° Optic

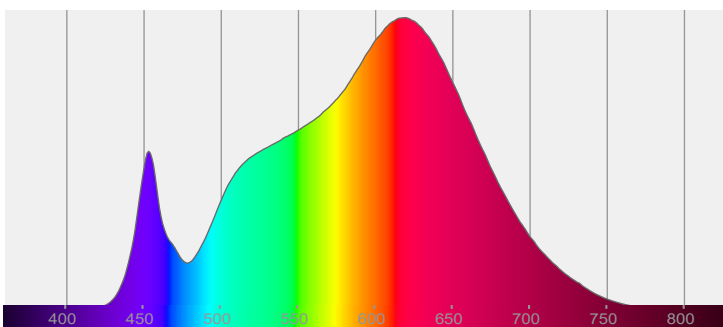
Date and time:

6/30/2022 8:41:52 PM

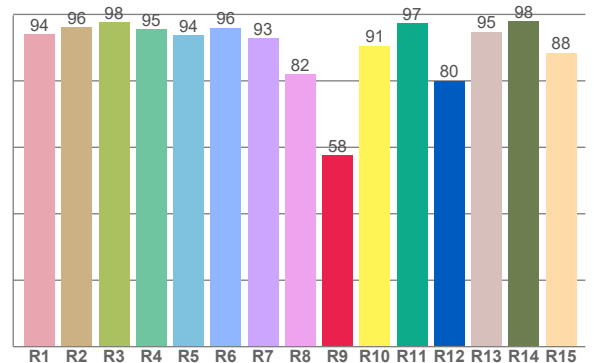
Delivered Lumens

912

Spectra



CRI: 93.5 (R1-R8)



Color parameters

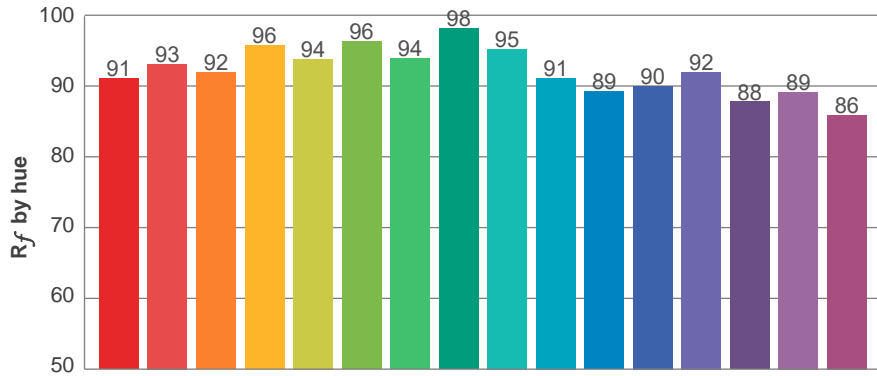
| | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|--|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| | CRI | CRI R9 | TM30 R _f | TM30 R _g | CQS | x | y | u | v | Δuv |
| | 93.5 | 57.6 | 92.3 | 99.2 | 91.8 | 0.438 | 0.408 | 0.250 | 0.349 | 0.0014 |

R_f 92.3
Fidelity index R_f

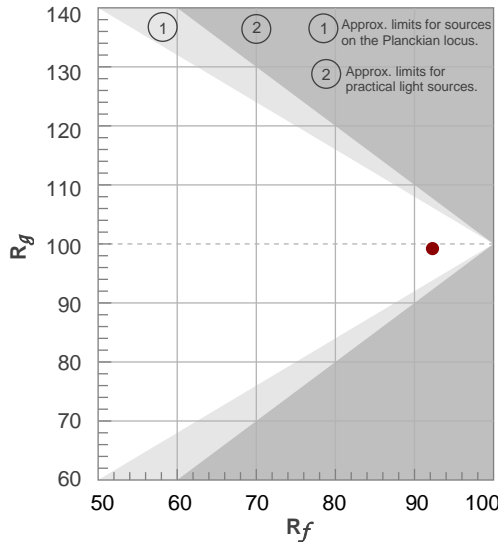
R_g 99.2
Gammut index R_g

TM30: 92.3

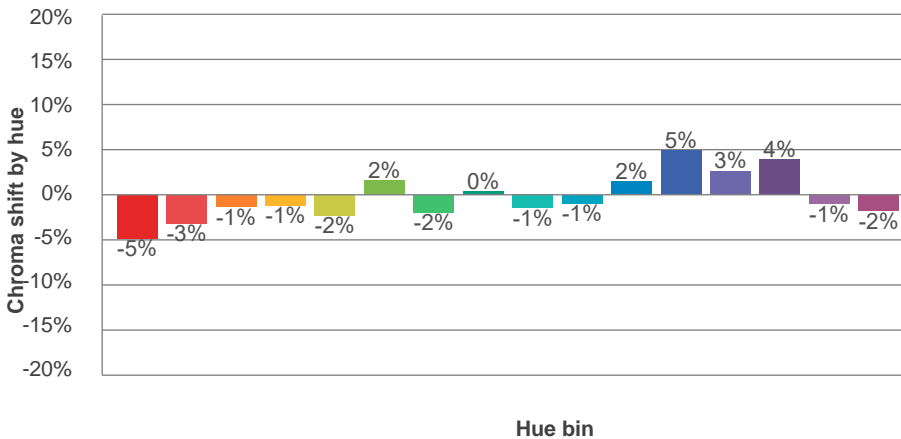
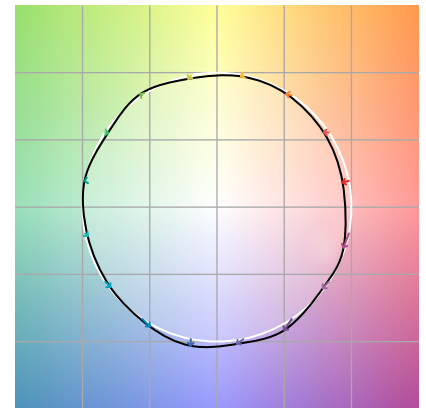
TM-30Color



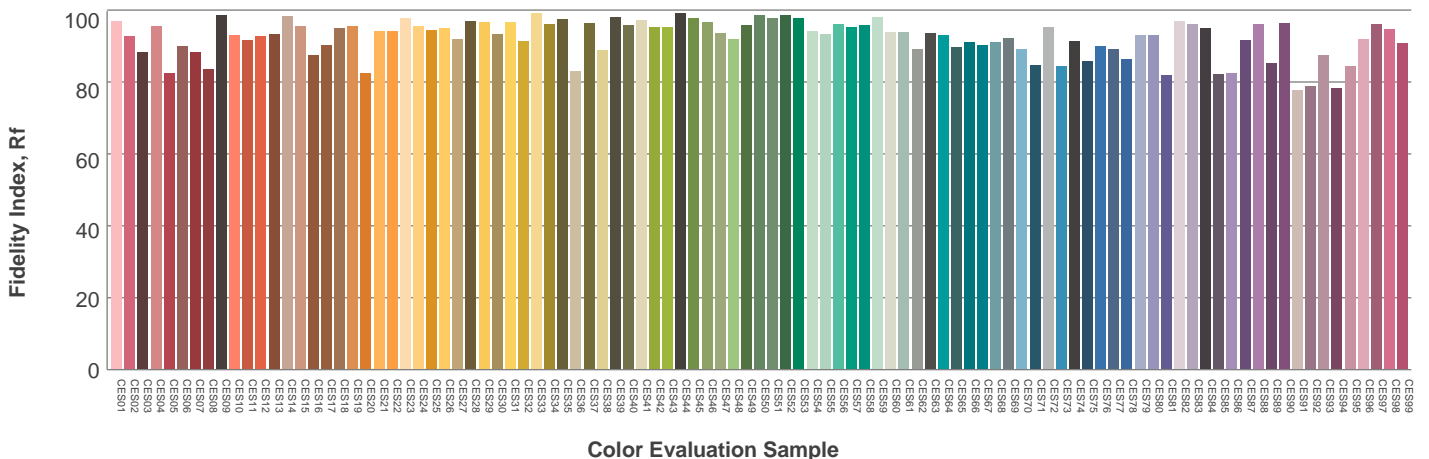
| Hue Bin | R_f | Graphic shifts (%) | |
|---------|-------|--------------------|------|
| | | Chroma | Hue |
| 1 | 91 | -5% | 0% |
| 2 | 93 | -3% | 2% |
| 3 | 92 | -1% | 4% |
| 4 | 96 | -1% | 1% |
| 5 | 94 | -2% | 2% |
| 6 | 96 | 2% | 1% |
| 7 | 94 | -2% | -1% |
| 8 | 98 | 0% | 0% |
| 9 | 95 | -1% | 2% |
| 10 | 91 | -1% | 5% |
| 11 | 89 | 2% | 8% |
| 12 | 90 | 5% | 1% |
| 13 | 92 | 3% | -5% |
| 14 | 88 | 4% | -9% |
| 15 | 89 | -1% | -6% |
| 16 | 86 | -2% | -11% |



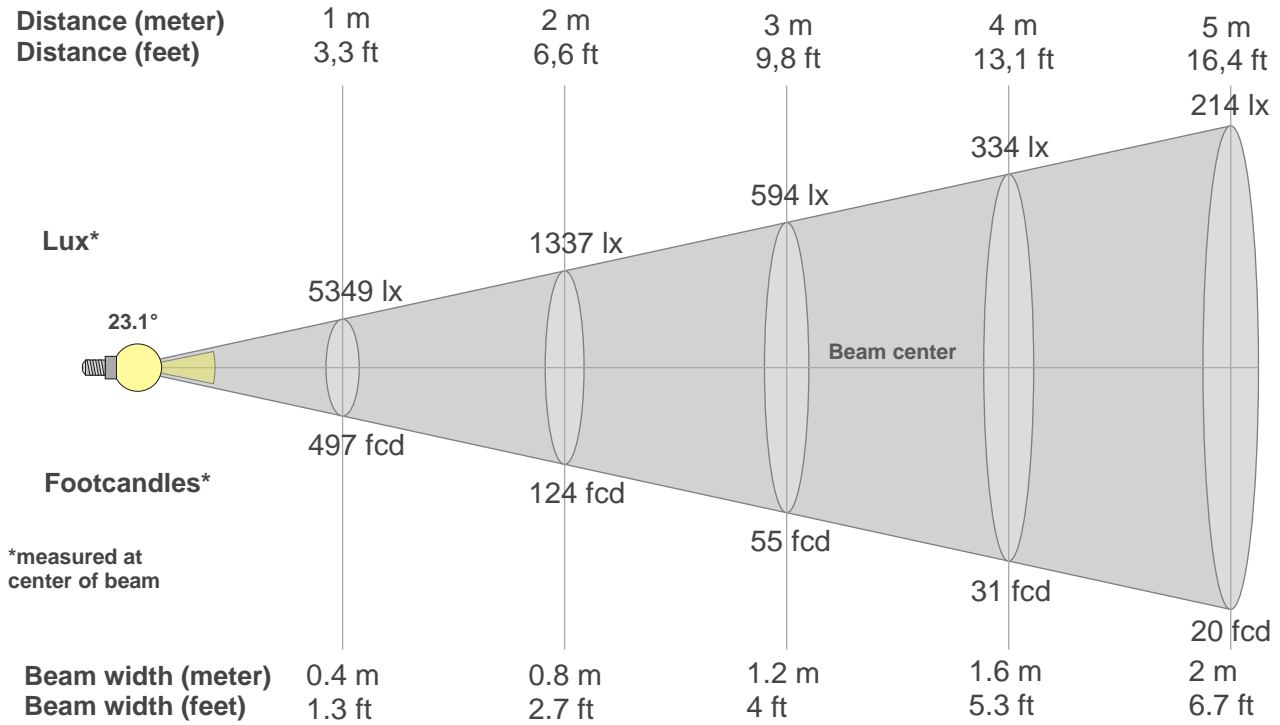
Color vector graphics



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 |
| 5349lx | 1337lx | 594lx | 334lx | 214lx | 149lx | 109lx | 84lx | 66lx | 53lx | 44lx | 37lx | 32lx | 27lx | 24lx | 21lx | 19lx | 17lx | 15lx | 13lx |
| 496.9fcd | 124.2fcd | 55.2fcd | 31.1fcd | 19.9fcd | 13.8fcd | 10.1fcd | 7.8fcd | 6.1fcd | 5fcd | 4.1fcd | 3.5fcd | 2.9fcd | 2.5fcd | 2.2fcd | 1.9fcd | 1.7fcd | 1.5fcd | 1.4fcd | 1.2fcd |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| 5349 | 5302 | 5266 | 5124 | 4983 | 4765 | 4504 | 4226 | 3891 | 3555 | 3211 | 2864 | 2533 | 2225 | 1916 | 1660 | 1403 | 1157 | 918 | 688 |
| 100% | 99% | 98% | 96% | 93% | 89% | 84% | 79% | 73% | 66% | 60% | 54% | 47% | 42% | 36% | 31% | 26% | 22% | 17% | 13% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| 5349 | 5316 | 5237 | 5126 | 4940 | 4753 | 4478 | 4190 | 3877 | 3533 | 3190 | 2861 | 2531 | 2236 | 1958 | 1690 | 1453 | 1216 | 988 | 761 |
| 100% | 99% | 98% | 96% | 92% | 89% | 84% | 78% | 72% | 66% | 60% | 53% | 47% | 42% | 37% | 32% | 27% | 23% | 18% | 14% |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| 5349 | 5304 | 5223 | 5127 | 4929 | 4731 | 4464 | 4169 | 3861 | 3521 | 3182 | 2853 | 2526 | 2222 | 1942 | 1664 | 1416 | 1168 | 933 | 704 |
| 100% | 99% | 98% | 96% | 92% | 88% | 83% | 78% | 72% | 66% | 59% | 53% | 47% | 42% | 36% | 31% | 26% | 22% | 17% | 13% |

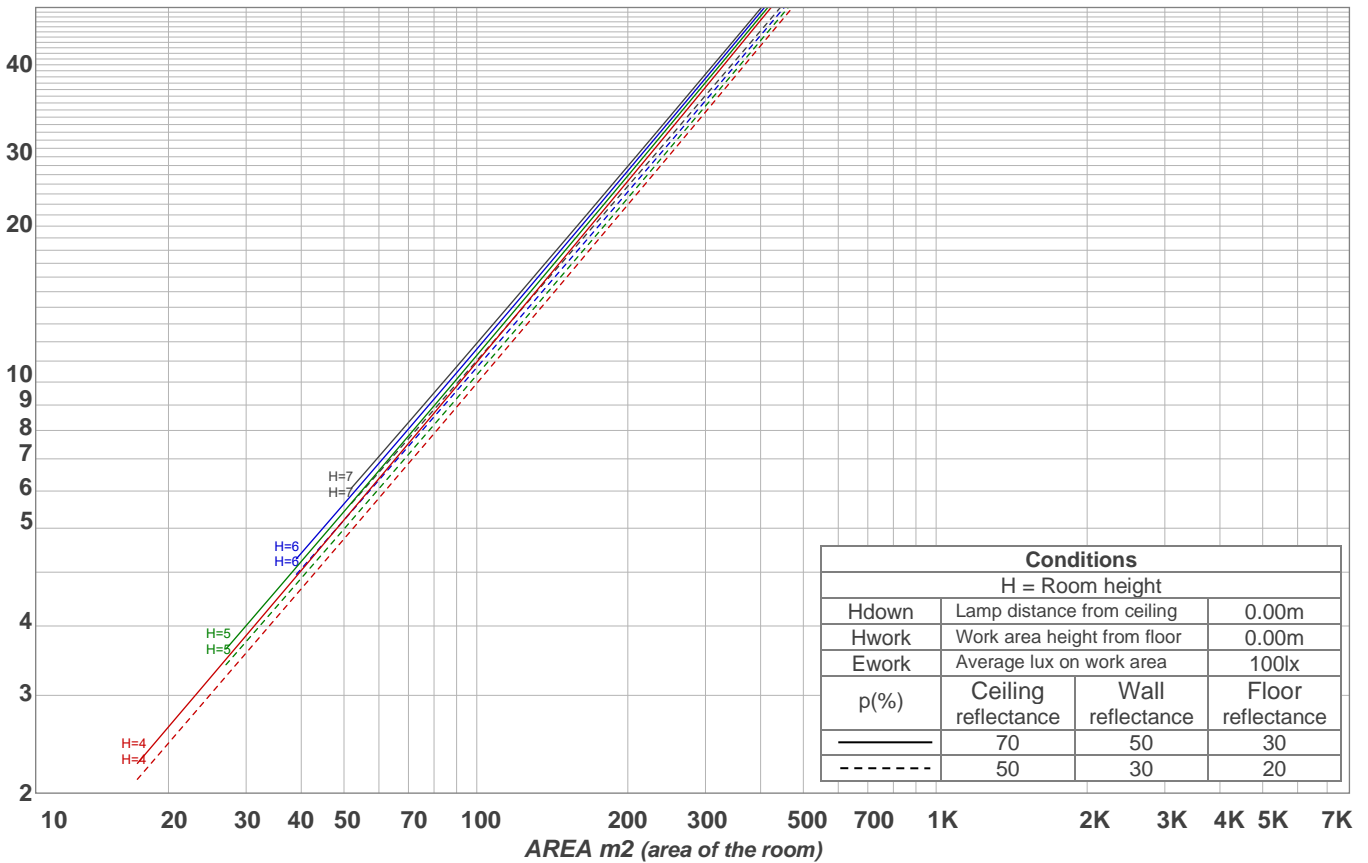
Intensities in 270° c-plane

| 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| 5349 | 5340 | 5314 | 5174 | 5018 | 4804 | 4528 | 4247 | 3909 | 3572 | 3225 | 2873 | 2531 | 2222 | 1913 | 1639 | 1372 | 1114 | 867 | 621 |
| 100% | 100% | 99% | 97% | 94% | 90% | 85% | 79% | 73% | 67% | 60% | 54% | 47% | 42% | 36% | 31% | 26% | 21% | 16% | 12% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 23.1° | 39.5° | 45.2° | 98.7% | 98.3% |

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 | 115 | 113 | 111 | 110 | 113 | 111 | 109 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 99 | 97 | 97 | 97 | |
| 2 | 112 | 108 | 105 | 103 | 110 | 107 | 104 | 102 | 104 | 102 | 100 | 101 | 99 | 98 | 98 | 97 | 96 | 94 | 94 | 94 | |
| 3 | 109 | 104 | 101 | 98 | 107 | 103 | 100 | 98 | 101 | 98 | 96 | 98 | 96 | 95 | 96 | 95 | 93 | 92 | 92 | 92 | |
| 4 | 106 | 101 | 97 | 95 | 104 | 100 | 97 | 94 | 98 | 95 | 93 | 96 | 94 | 92 | 95 | 93 | 91 | 90 | 90 | 90 | |
| 5 | 103 | 98 | 94 | 92 | 102 | 97 | 94 | 91 | 96 | 93 | 90 | 94 | 92 | 90 | 93 | 91 | 89 | 88 | 88 | 88 | |
| 6 | 101 | 95 | 92 | 89 | 100 | 95 | 91 | 89 | 93 | 90 | 88 | 92 | 90 | 88 | 91 | 89 | 87 | 86 | 86 | 86 | |
| 7 | 99 | 93 | 89 | 87 | 98 | 92 | 89 | 86 | 91 | 88 | 86 | 90 | 88 | 86 | 89 | 87 | 85 | 84 | 84 | 84 | |
| 8 | 96 | 91 | 87 | 85 | 96 | 90 | 87 | 84 | 89 | 86 | 84 | 89 | 86 | 84 | 88 | 85 | 83 | 83 | 83 | 83 | |
| 9 | 94 | 89 | 85 | 83 | 94 | 88 | 85 | 83 | 87 | 84 | 82 | 87 | 84 | 82 | 86 | 84 | 82 | 81 | 81 | 81 | |
| 10 | 93 | 87 | 83 | 81 | 92 | 86 | 83 | 81 | 86 | 83 | 81 | 85 | 82 | 80 | 85 | 82 | 80 | 79 | 79 | 79 | |

Zonal Lumen Summary

| | | | | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
| 403 lm | 448 lm | 39.5 lm | 6.03 lm | 2.65 lm | 2.45 lm | 3.07 lm | 3.92 lm | 4.53 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 |