

Light efficiency:



Output: 782 lm

Light quality:

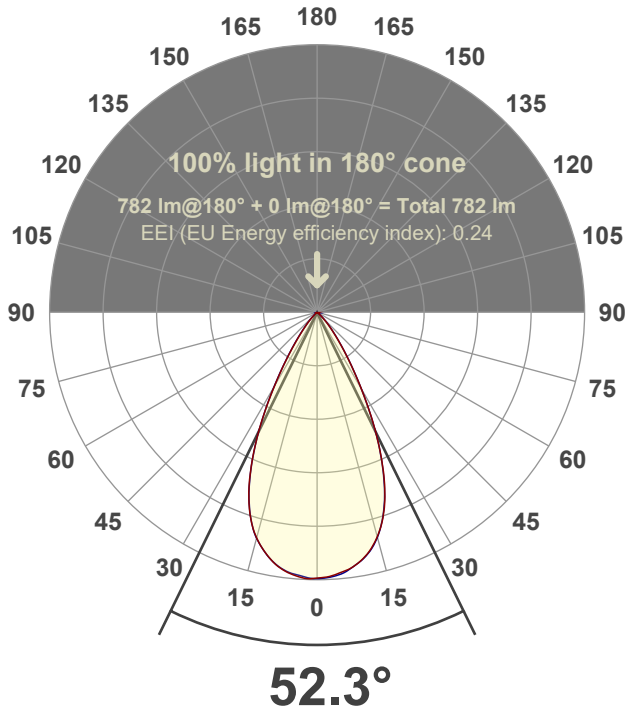


Peak: 1052 cd

Power: 14.6 W



Beam angle



Test number:

GR-F-A14-3019-WF-RD-91A-Rev2

Luminaire Model:

Graffiti Regress Round Fixed Downlight-A14-3019 60° Optic-Solite

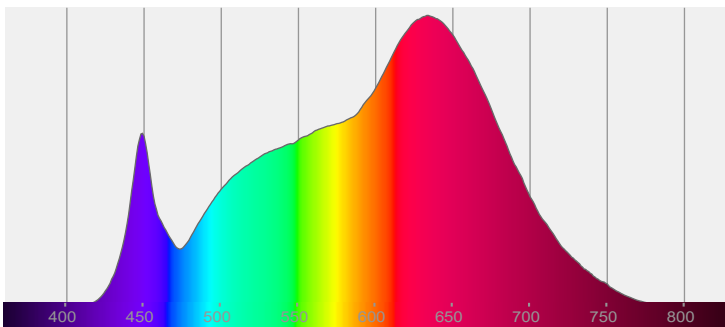
Date and time:

3/24/2022 10:12:05 PM

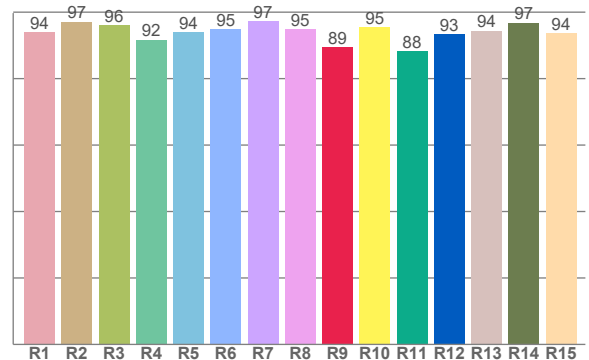
Delivered Lumens

782

Spectra



CRI: 94.9 (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 divition from black body |
|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|--------------------------------|
| CRI                   | CRI R9        | TM30 R <sub>f</sub> | TM30 R <sub>g</sub> | CQS                 | x                         | y                         | u                | v                | Δuv                            |
| 94.9                  | 89.4          | 94.8                | 105.5               | 95.0                | 0.423                     | 0.387                     | 0.249            | 0.342            | -0.0049                        |

# $R_f$ 94.8

Fidelity index  $R_f$

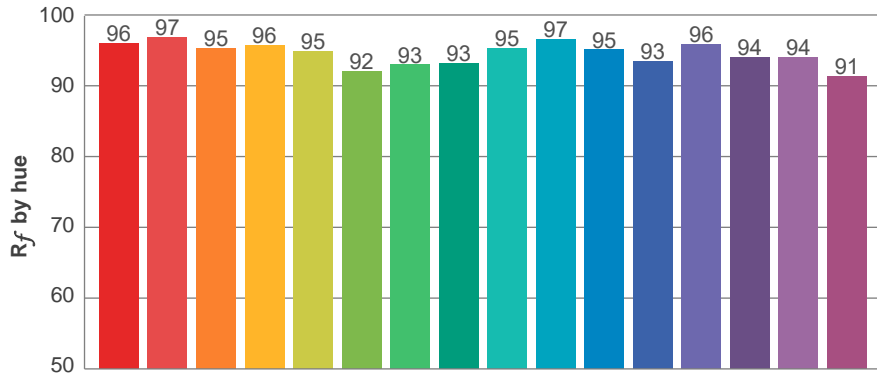
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# $R_g$ 105.5

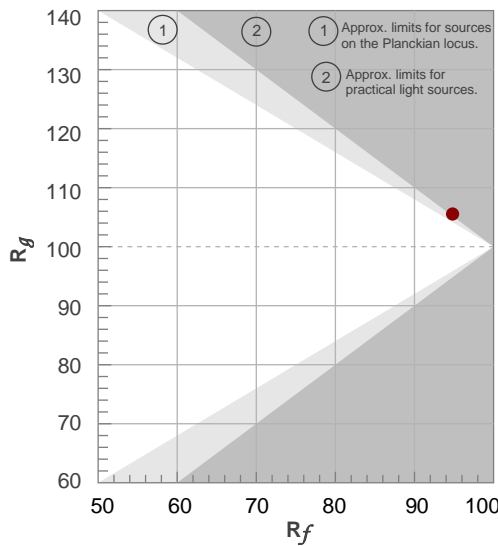
Gammut index  $R_g$

TM30: 94.8

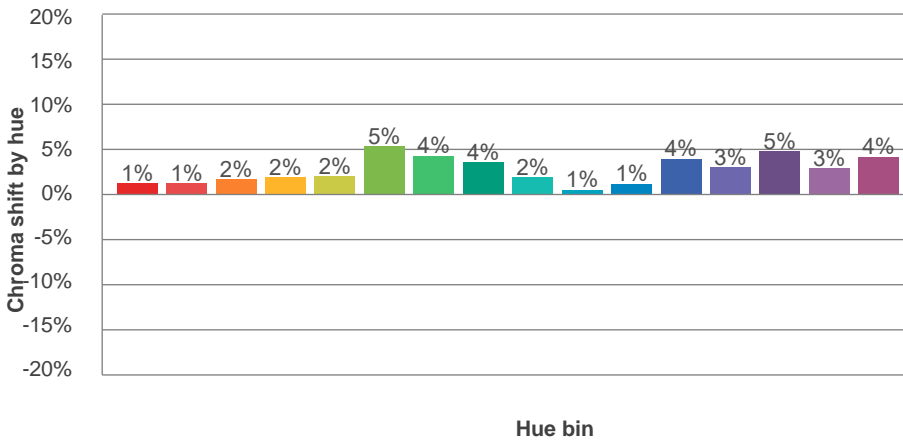
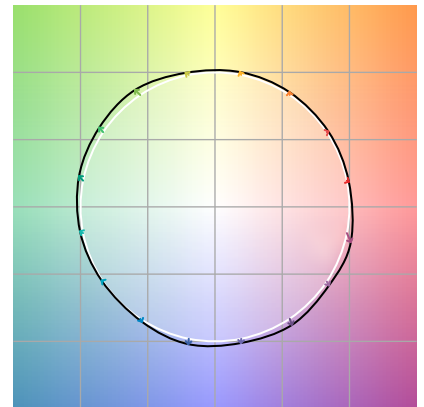
TM-30Color



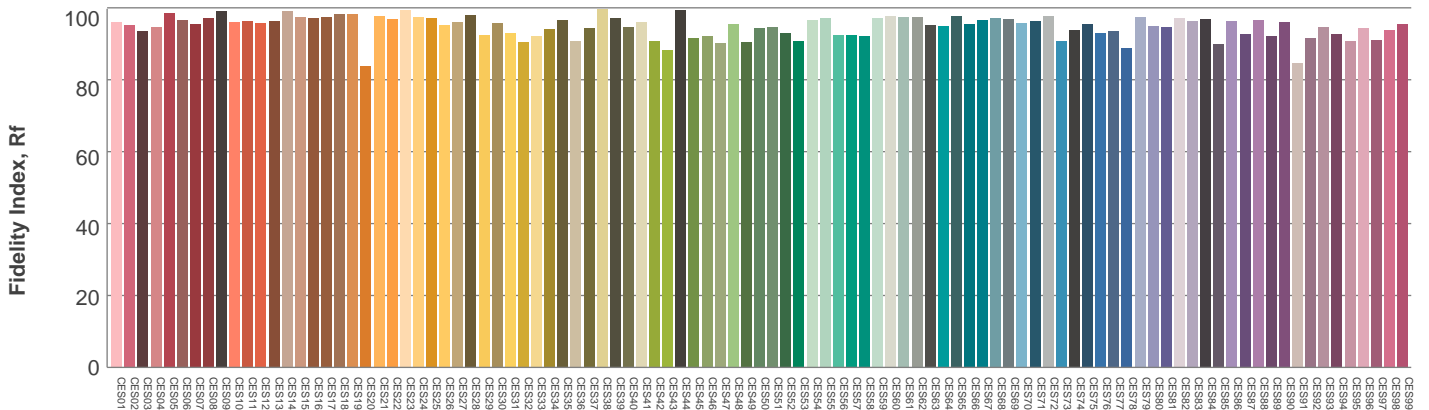
| Hue Bin | $R_f$ | Graphic shifts (%) |     |
|---------|-------|--------------------|-----|
|         |       | Chroma             | Hue |
| 1       | 96    | 1%                 | -1% |
| 2       | 97    | 1%                 | 0%  |
| 3       | 95    | 2%                 | 1%  |
| 4       | 96    | 2%                 | 1%  |
| 5       | 95    | 2%                 | 2%  |
| 6       | 92    | 5%                 | 1%  |
| 7       | 93    | 4%                 | -1% |
| 8       | 93    | 4%                 | -3% |
| 9       | 95    | 2%                 | -2% |
| 10      | 97    | 1%                 | -1% |
| 11      | 95    | 1%                 | 2%  |
| 12      | 93    | 4%                 | 0%  |
| 13      | 96    | 3%                 | -1% |
| 14      | 94    | 5%                 | -1% |
| 15      | 94    | 3%                 | -1% |
| 16      | 91    | 4%                 | -6% |



Color vector graphics

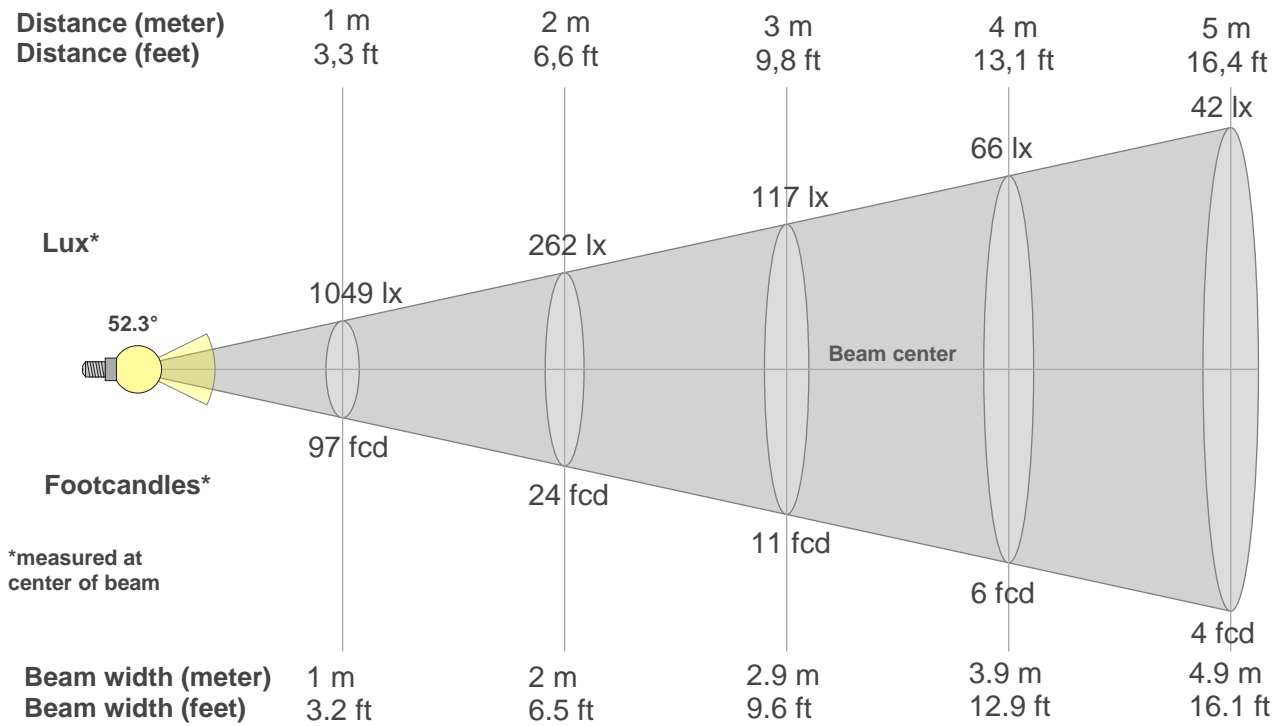


Color distortion



Color Evaluation Sample

**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 |
| 1049lx  | 262lx   | 117lx   | 66lx   | 42lx   | 29lx   | 21lx | 16lx   | 13lx   | 10lx   | 9lx    | 7lx    | 6lx    | 5lx    | 5lx    | 4lx    | 4lx    | 3lx    | 3lx    | 3lx    |
| 97.5fcd | 24.4fcd | 10.8fcd | 6.1fcd | 3.9fcd | 2.7fcd | 2fcd | 1.5fcd | 1.2fcd | 1fcd   | 0.8fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.4fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.3fcd | 0.2fcd |

**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° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1049 | 1045 | 1037 | 1027 | 1014 | 995 | 970 | 936 | 895 | 844 | 783 | 708 | 622 | 533 | 443 | 357 | 280 | 218 | 169 | 129 |
| 100% | 100% | 99%  | 98%  | 97%  | 95% | 92% | 89% | 85% | 80% | 75% | 68% | 59% | 51% | 42% | 34% | 27% | 21% | 16% | 12% |

**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° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1049 | 1048 | 1042 | 1032 | 1015 | 996 | 971 | 938 | 896 | 843 | 779 | 703 | 620 | 531 | 440 | 354 | 282 | 220 | 170 | 129 |
| 100% | 100% | 99%  | 98%  | 97%  | 95% | 93% | 89% | 85% | 80% | 74% | 67% | 59% | 51% | 42% | 34% | 27% | 21% | 16% | 12% |

**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° |
|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1049 | 1052 | 1045 | 1035 | 1021 | 1000 | 973 | 941 | 901 | 850 | 787 | 713 | 626 | 533 | 438 | 347 | 266 | 199 | 146 | 108 |
| 100% | 100% | 100% | 99%  | 97%  | 95%  | 93% | 90% | 86% | 81% | 75% | 68% | 60% | 51% | 42% | 33% | 25% | 19% | 14% | 10% |

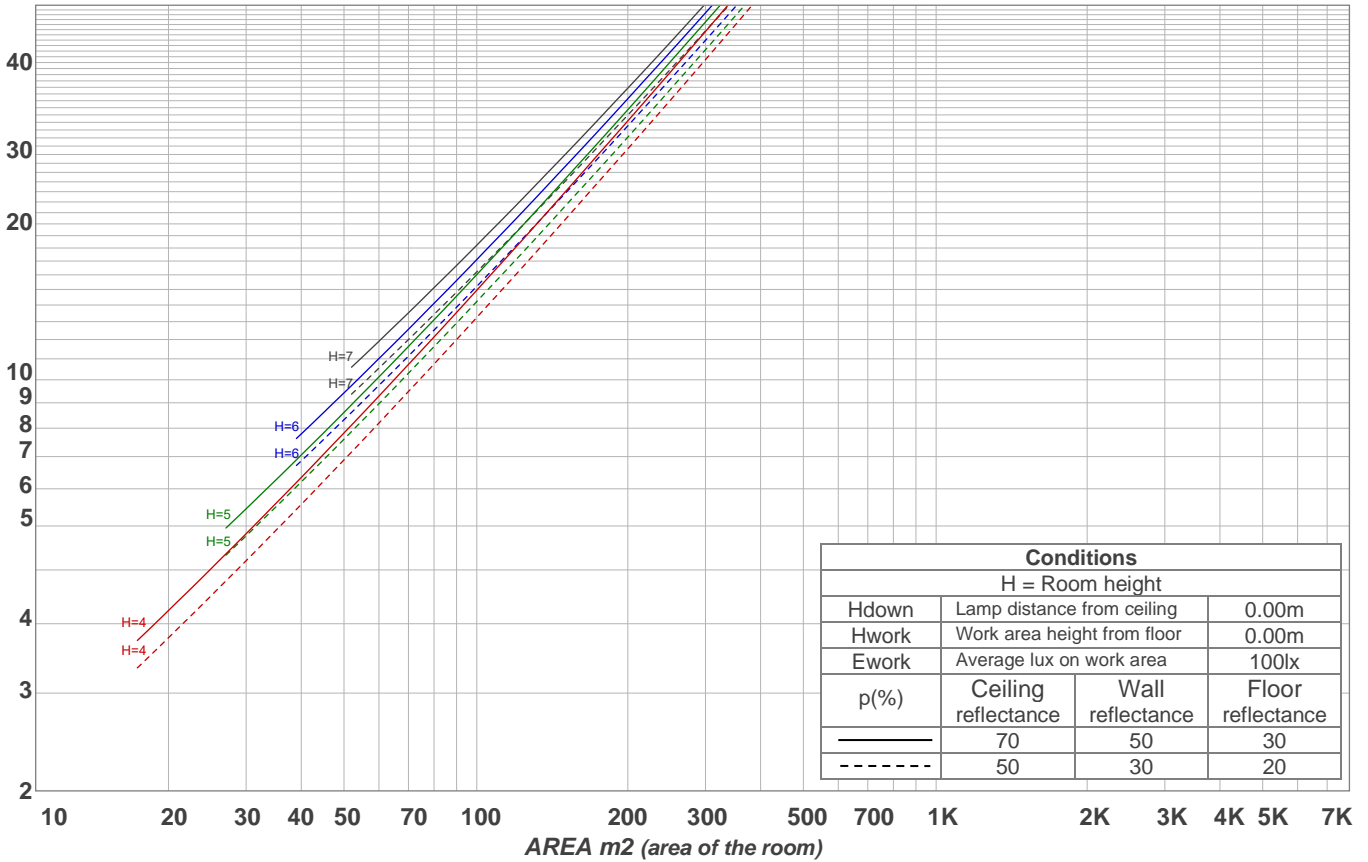
**Intensities in 270° c-plane**

| 0°   | 2°   | 4°   | 6°   | 8°   | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1049 | 1048 | 1040 | 1033 | 1019 | 999 | 972 | 940 | 903 | 850 | 785 | 709 | 623 | 531 | 436 | 346 | 268 | 204 | 152 | 111 |
| 100% | 100% | 99%  | 98%  | 97%  | 95% | 93% | 90% | 86% | 81% | 75% | 68% | 59% | 51% | 42% | 33% | 26% | 19% | 14% | 11% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| <b>52.3°</b>   | <b>77.7°</b>    | <b>95.2°</b>      | <b>98.9%</b>                 | <b>96.4%</b>                |

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  | 0   |
| Floor reflectance   | 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 |
| 1                   | 114  | 111 | 108 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 101 | 101 | 100 | 98  | 98  | 97  | 96  | 94  |
| 2                   | 108  | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 99  | 96  | 93  | 96  | 93  | 91  | 93  | 91  | 89  | 88  |
| 3                   | 103  | 97  | 92  | 88  | 101 | 96  | 91  | 88  | 93  | 89  | 86  | 91  | 88  | 85  | 88  | 86  | 84  | 82  |
| 4                   | 98   | 91  | 86  | 82  | 97  | 90  | 85  | 81  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 81  | 79  | 77  |
| 5                   | 94   | 86  | 80  | 76  | 92  | 85  | 80  | 76  | 83  | 79  | 75  | 81  | 78  | 74  | 80  | 77  | 74  | 72  |
| 6                   | 89   | 81  | 75  | 71  | 88  | 80  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 70  | 76  | 72  | 69  | 68  |
| 7                   | 85   | 76  | 71  | 67  | 84  | 76  | 70  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 72  | 68  | 66  | 64  |
| 8                   | 81   | 72  | 67  | 63  | 80  | 72  | 66  | 63  | 71  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 61  |
| 9                   | 78   | 69  | 63  | 59  | 77  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 59  | 66  | 62  | 59  | 57  |
| 10                  | 75   | 65  | 60  | 56  | 74  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 56  | 63  | 59  | 56  | 54  |

### Zonal Lumen Summary

| 0°-10°   | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 97.8 lm  | 255 lm    | 260 lm    | 119 lm    | 34.1 lm   | 8.38 lm   | 3.94 lm   | 2.21 lm   | 2.10 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  |

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