

Light efficiency:



Output: 1070 lm

Light quality:

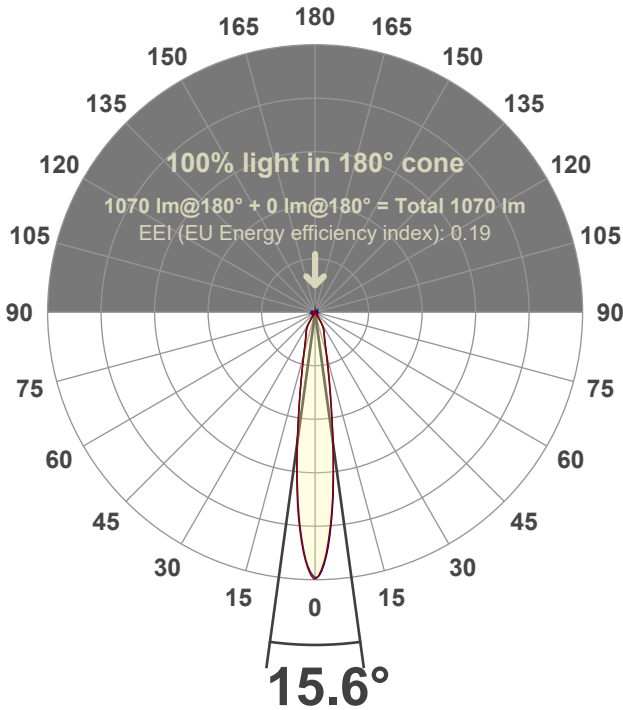


Peak: 7046 cd

Power: 15.0 W



Beam angle



Test number:

GR-O-F-A14-3022-SP-RD-Rev2

Luminaire Model:

Graffiti Open Round Fixed Downlight-A14-3022 15° Optic-No Solite

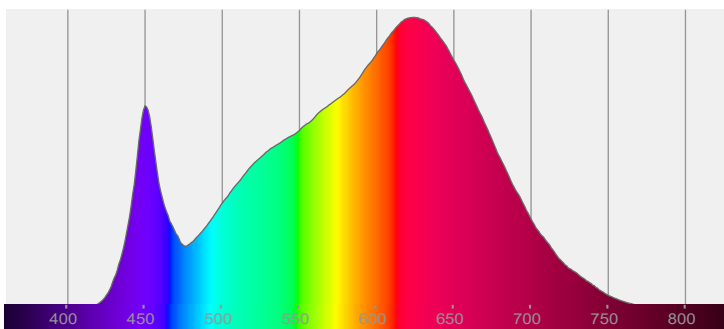
Date and time:

3/24/2022 4:07:03 PM

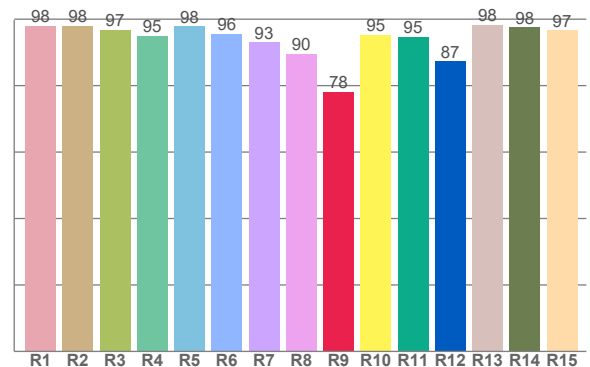
Delivered Lumens

1070

Spectra



CRI: 95.5 (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 divition from black body |
|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|--------------------------------|
| CRI                   | CRI R9        | TM30 R <sub>f</sub> | TM30 R <sub>g</sub> | CQS                 | x                         | y                         | u                | v                | Δuv                            |
| 95.5                  | 78.1          | 91.8                | 103.9               | 90.7                | 0.422                     | 0.383                     | 0.250            | 0.340            | -0.0066                        |

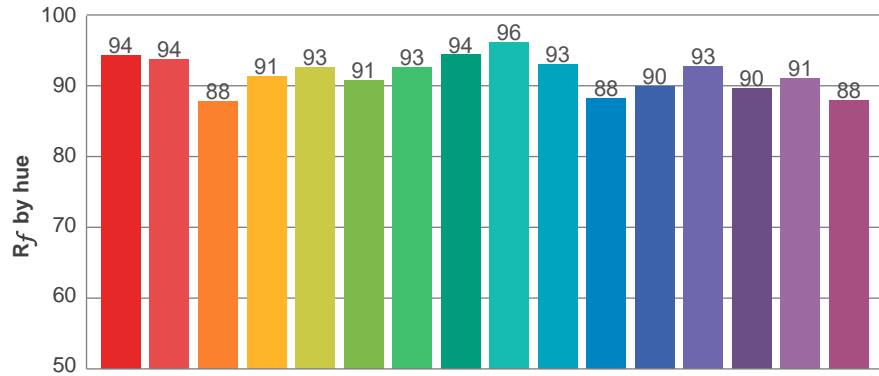
**$R_f$  91.8**  
Fidelity index  $R_f$

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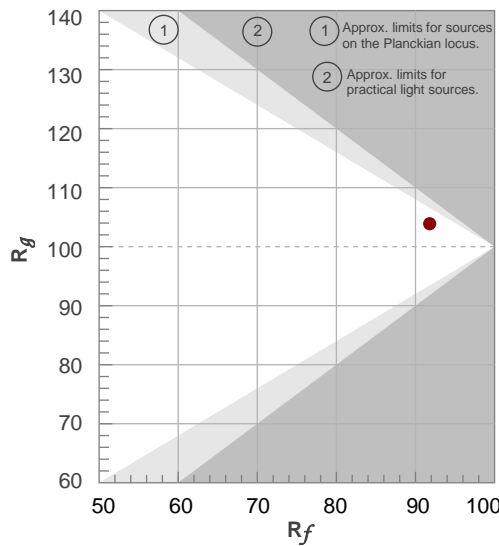
**$R_g$  103.9**  
Gammut index  $R_g$

TM30: 91.8

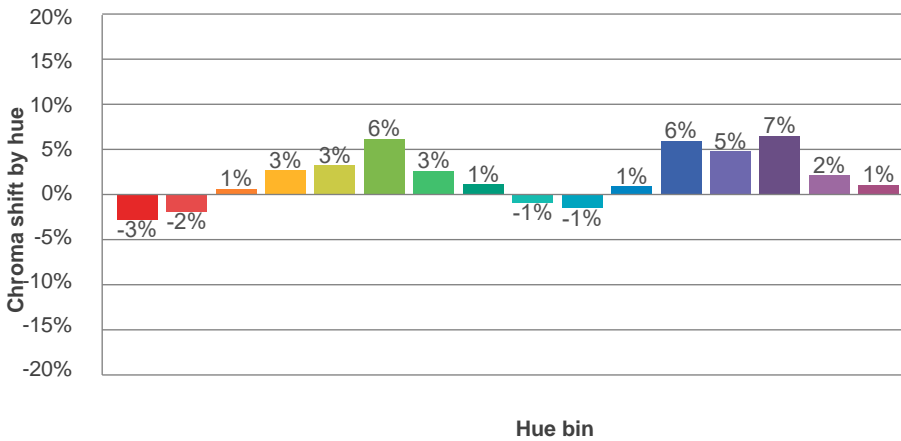
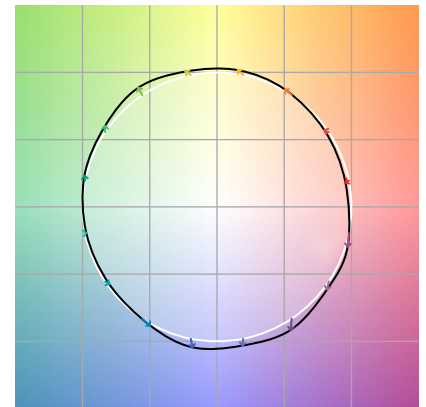
TM-30Color



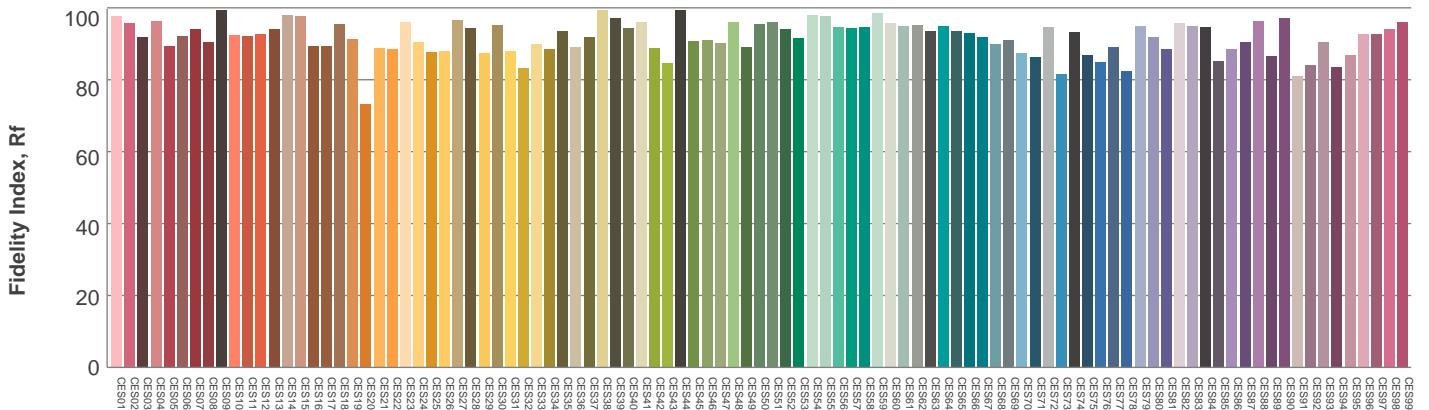
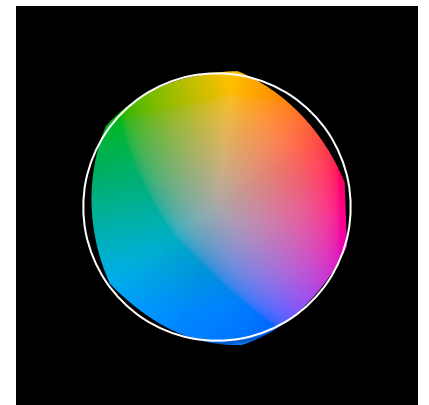
| Hue Bin | $R_f$ | Graphic shifts (%) |      |
|---------|-------|--------------------|------|
|         |       | Chroma             | Hue  |
| 1       | 94    | -3%                | -1%  |
| 2       | 94    | -2%                | 3%   |
| 3       | 88    | 1%                 | 6%   |
| 4       | 91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



Color vector graphics



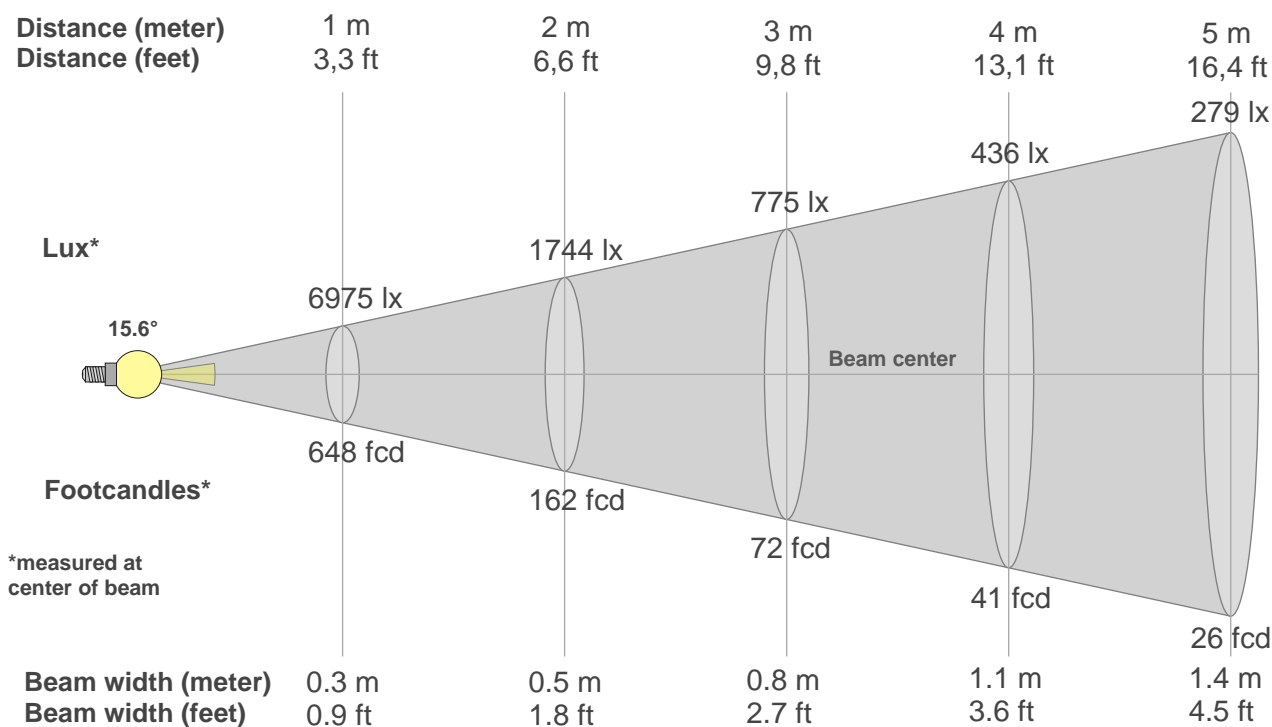
Color distortion



Color Evaluation Sample

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### 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 |
| 6975lx | 1744lx | 775lx | 436lx   | 279lx   | 194lx  | 142lx   | 109lx   | 86lx   | 70lx   | 58lx   | 48lx   | 41lx   | 36lx   | 31lx   | 27lx   | 24lx   | 22lx   | 19lx   | 17lx   |
| 648fcd | 162fcd | 72fcd | 40.5fcd | 25.9fcd | 18fcd  | 13.2fcd | 10.1fcd | 8fcd   | 6.5fcd | 5.4fcd | 4.5fcd | 3.8fcd | 3.3fcd | 2.9fcd | 2.5fcd | 2.2fcd | 2fcd   | 1.8fcd | 1.6fcd |

#### 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6975 | 6576 | 5678 | 4565 | 3438 | 2473 | 1802 | 1376 | 1086 | 888 | 752 | 656 | 584 | 529 | 464 | 384 | 277 | 144 | 23  | 7   |
| 100% | 94%  | 81%  | 65%  | 49%  | 35%  | 26%  | 20%  | 16%  | 13% | 11% | 9%  | 8%  | 8%  | 7%  | 5%  | 4%  | 2%  | 0%  | 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6975 | 6588 | 5755 | 4621 | 3393 | 2400 | 1768 | 1336 | 1045 | 852 | 726 | 641 | 574 | 515 | 450 | 359 | 222 | 69  | 17  | 4   |
| 100% | 94%  | 83%  | 66%  | 49%  | 34%  | 25%  | 19%  | 15%  | 12% | 10% | 9%  | 8%  | 7%  | 6%  | 5%  | 3%  | 1%  | 0%  | 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° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6975 | 6588 | 5729 | 4611 | 3434 | 2412 | 1736 | 1321 | 1037 | 846 | 719 | 632 | 568 | 514 | 448 | 340 | 193 | 51  | 10  | 5   |
| 100% | 94%  | 82%  | 66%  | 49%  | 35%  | 25%  | 19%  | 15%  | 12% | 10% | 9%  | 8%  | 7%  | 6%  | 5%  | 3%  | 1%  | 0%  | 0%  |

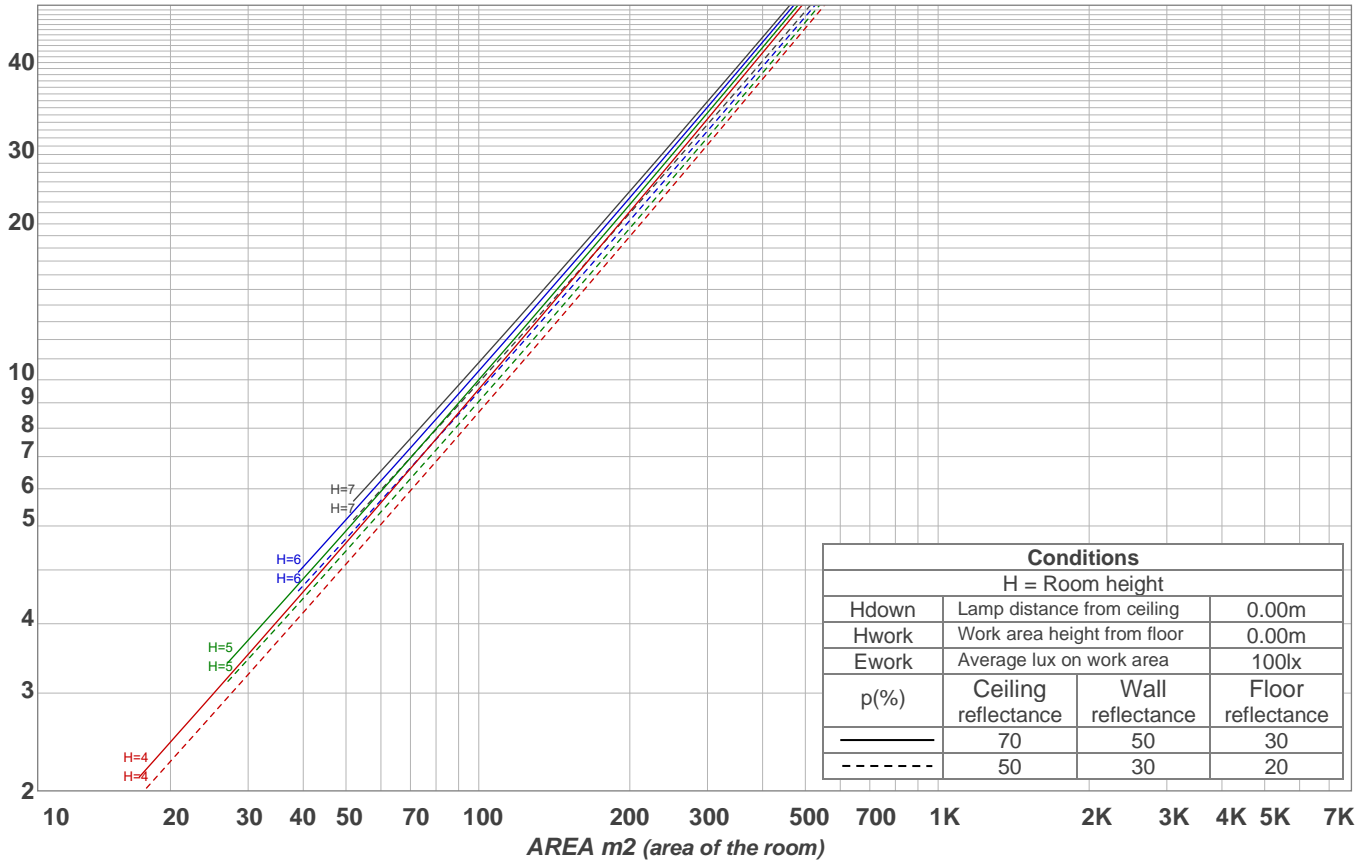
#### Intensities in 270° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6975 | 6580 | 5663 | 4521 | 3379 | 2430 | 1763 | 1321 | 1056 | 877 | 751 | 661 | 596 | 542 | 474 | 394 | 266 | 120 | 15  | 4   |
| 100% | 94%  | 81%  | 65%  | 48%  | 35%  | 25%  | 19%  | 15%  | 13% | 11% | 9%  | 9%  | 8%  | 7%  | 6%  | 4%  | 2%  | 0%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 15.6°          | 41.4°           | 65.7°             | 99.2%                        | 98.8%                       |

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  | 112 | 110 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99  | 98  | 98  | 96  | 96  | 96  |   |
| 2                   | 111  | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  | 99  | 97  | 96  | 97  | 95  | 94  | 92  | 92  | 92  |   |
| 3                   | 107  | 102 | 98  | 95  | 105 | 101 | 97  | 95  | 98  | 96  | 93  | 96  | 94  | 92  | 94  | 92  | 90  | 89  | 89  | 89  |   |
| 4                   | 104  | 98  | 94  | 91  | 102 | 97  | 93  | 90  | 95  | 92  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 86  | 86  | 86  |   |
| 5                   | 100  | 94  | 90  | 87  | 99  | 93  | 89  | 86  | 92  | 88  | 86  | 90  | 87  | 85  | 89  | 86  | 84  | 83  | 83  | 83  |   |
| 6                   | 97   | 91  | 86  | 83  | 96  | 90  | 86  | 83  | 89  | 85  | 82  | 87  | 84  | 82  | 86  | 84  | 81  | 80  | 80  | 80  |   |
| 7                   | 94   | 88  | 83  | 80  | 93  | 87  | 83  | 80  | 86  | 82  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 78  | 78  | 78  |   |
| 8                   | 92   | 85  | 80  | 78  | 91  | 84  | 80  | 77  | 83  | 80  | 77  | 82  | 79  | 77  | 82  | 79  | 77  | 75  | 75  | 75  |   |
| 9                   | 89   | 82  | 78  | 75  | 88  | 82  | 78  | 75  | 81  | 77  | 75  | 80  | 77  | 75  | 79  | 76  | 74  | 73  | 73  | 73  |   |
| 10                  | 87   | 80  | 76  | 73  | 86  | 79  | 75  | 73  | 79  | 75  | 73  | 78  | 75  | 72  | 77  | 74  | 72  | 71  | 71  | 71  |   |

### Zonal Lumen Summary

| 0°-10°   | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 397 lm   | 346 lm    | 252 lm    | 61.2 lm   | 2.53 lm   | 2.22 lm   | 2.41 lm   | 3.02 lm   | 3.41 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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