

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number:

Luminaire Tested: SQ4-PP3-100U-050D-927-1D-UNV-STD-W-4

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number:  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-PP3-100U-050D-927-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

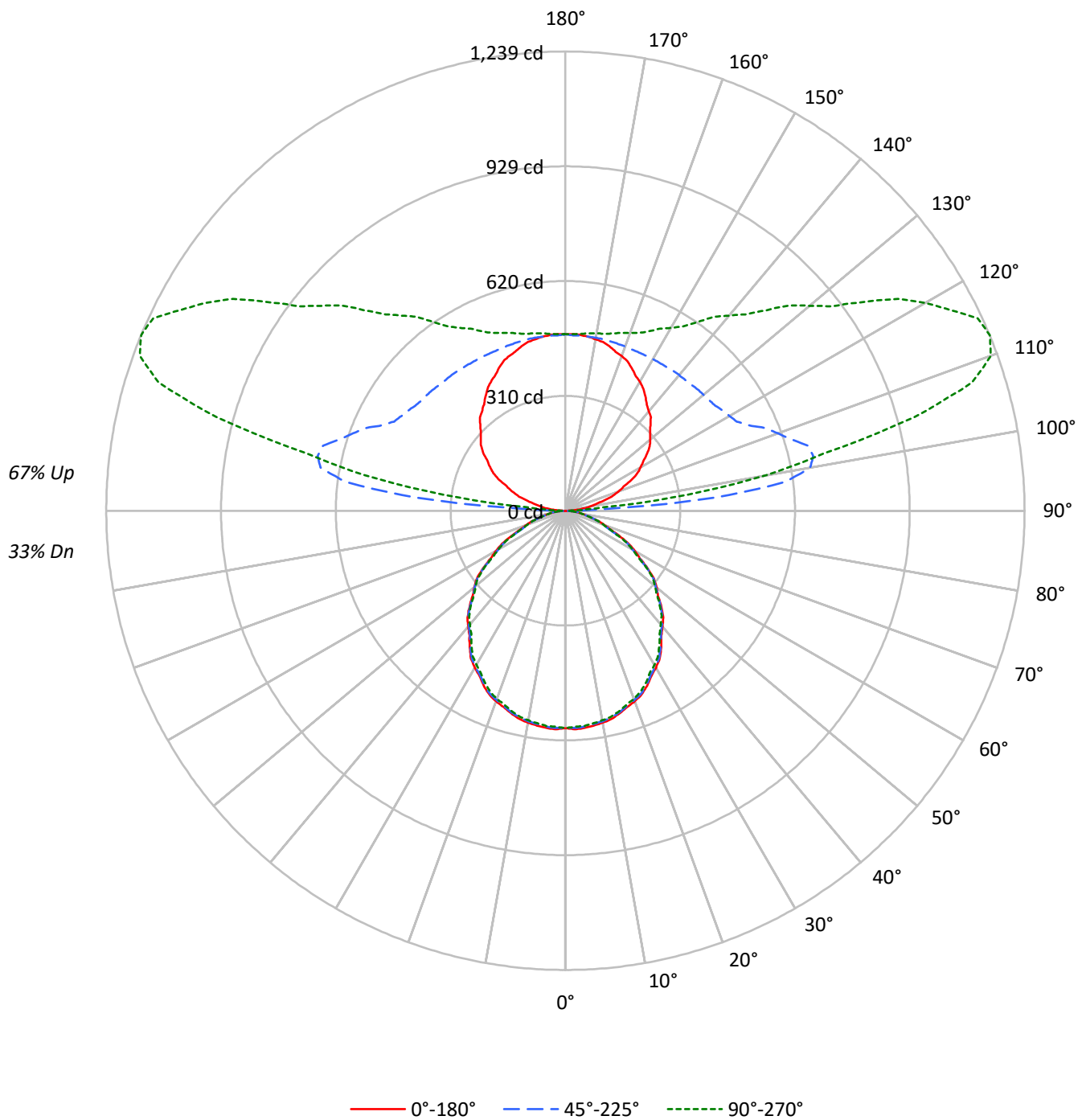
Lumens per Lamp: N/A  
Luminaire Lumens: 4594.6 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 41.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER:

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### Luminous Intensity Polar Plot



TEST NUMBER:

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 56 | 56 | 56 | 40 | 40 | 40 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 48 | 47 | 36 | 35 | 34 |
| 2   | 86  | 79  | 73  | 68  | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 44 | 41 | 39 | 32 | 30 | 29 |
| 3   | 78  | 69  | 62  | 56  | 70 | 63 | 57 | 52 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 |
| 4   | 71  | 61  | 53  | 48  | 64 | 55 | 49 | 44 | 45 | 40 | 36 | 34 | 31 | 29 | 25 | 23 | 21 |
| 5   | 66  | 54  | 47  | 41  | 59 | 49 | 43 | 37 | 40 | 35 | 31 | 31 | 27 | 25 | 23 | 20 | 19 |
| 6   | 60  | 49  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 24 | 22 | 20 | 18 | 16 |
| 7   | 56  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 32 | 27 | 24 | 25 | 22 | 19 | 19 | 16 | 15 |
| 8   | 52  | 40  | 32  | 27  | 46 | 36 | 30 | 25 | 29 | 24 | 21 | 23 | 20 | 17 | 17 | 15 | 13 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 27 | 22 | 27 | 22 | 19 | 21 | 18 | 15 | 16 | 13 | 12 |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 17 | 19 | 16 | 14 | 15 | 12 | 11 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5411 | 5411 | 5411 |
| 5°  | 5450 | 5417 | 5398 |
| 10° | 5441 | 5403 | 5378 |
| 15° | 5405 | 5376 | 5346 |
| 20° | 5370 | 5339 | 5299 |
| 25° | 5306 | 5269 | 5217 |
| 30° | 5207 | 5180 | 5115 |
| 35° | 5072 | 5037 | 4973 |
| 40° | 4909 | 4878 | 4822 |
| 45° | 4776 | 4742 | 4695 |
| 50° | 4603 | 4574 | 4530 |
| 55° | 4366 | 4308 | 4274 |
| 60° | 3975 | 3860 | 3842 |
| 65° | 3502 | 3355 | 3345 |
| 70° | 3024 | 2897 | 2897 |
| 75° | 2602 | 2567 | 2527 |
| 80° | 2295 | 2322 | 2269 |
| 85° | 1800 | 1958 | 1958 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4776 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 55.5   | 1.2       |
| 10°-20°   | 158.3  | 3.4       |
| 20°-30°   | 237.2  | 5.2       |
| 30°-40°   | 278.2  | 6.1       |
| 40°-50°   | 279.1  | 6.1       |
| 50°-60°   | 238.1  | 5.2       |
| 60°-70°   | 155.3  | 3.4       |
| 70°-80°   | 77.9   | 1.7       |
| 80°-90°   | 22.6   | 0.5       |
| 90°-100°  | 222.9  | 4.9       |
| 100°-110° | 615.3  | 13.4      |
| 110°-120° | 634.6  | 13.8      |
| 120°-130° | 510.0  | 11.1      |
| 130°-140° | 400.8  | 8.7       |
| 140°-150° | 307.4  | 6.7       |
| 150°-160° | 220.9  | 4.8       |
| 160°-170° | 135.1  | 2.9       |
| 170°-180° | 45.5   | 1.0       |
| 0°-30°    | 451.0  | 9.8       |
| 0°-40°    | 729.2  | 15.9      |
| 0°-60°    | 1246.3 | 27.1      |
| 0°-90°    | 1502.1 | 32.7      |
| 90°-120°  | 1472.8 | 32.1      |
| 90°-150°  | 2691.0 | 58.6      |
| 90°-180°  | 3093.0 | 67.3      |
| 0°-180°   | 4594.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 586 | 586   | 586 | 586   | 586  |      |
| 5°   | 588 | 583   | 585 | 583   | 583  | 56   |
| 15°  | 566 | 560   | 563 | 561   | 560  | 160  |
| 25°  | 521 | 515   | 518 | 513   | 512  | 240  |
| 35°  | 450 | 446   | 447 | 442   | 442  | 281  |
| 45°  | 366 | 364   | 363 | 360   | 360  | 282  |
| 55°  | 271 | 270   | 268 | 266   | 266  | 241  |
| 65°  | 160 | 157   | 154 | 153   | 153  | 160  |
| 75°  | 73  | 73    | 72  | 71    | 71   | 79   |
| 85°  | 17  | 18    | 18  | 18    | 18   | 20   |
| 90°  | 2   | 3     | 6   | 7     | 8    | 3    |
| 95°  | 33  | 121   | 404 | 166   | 108  | 35   |
| 105° | 110 | 169   | 677 | 1034  | 973  | 117  |
| 115° | 196 | 237   | 545 | 1079  | 1228 | 193  |
| 125° | 270 | 307   | 494 | 836   | 982  | 240  |
| 135° | 324 | 359   | 480 | 677   | 764  | 251  |
| 145° | 376 | 402   | 474 | 577   | 621  | 236  |
| 155° | 424 | 438   | 471 | 518   | 534  | 195  |
| 165° | 459 | 465   | 473 | 491   | 495  | 129  |
| 175° | 476 | 477   | 474 | 480   | 479  | 45   |
| 180° | 476 | 476   | 476 | 476   | 476  |      |

TEST NUMBER:

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 0°     | 586.5 | 586.5 | 586.5 | 586.5  | 586.5  |
| 2.5°   | 590.2 | 585.4 | 586.5 | 585.6  | 583.2  |
| 5°     | 588.5 | 583.0 | 584.9 | 582.9  | 582.9  |
| 7.5°   | 584.5 | 578.5 | 580.4 | 578.4  | 578.3  |
| 10°    | 580.8 | 574.8 | 576.7 | 574.6  | 574.1  |
| 12.5°  | 575.5 | 569.4 | 571.8 | 569.3  | 569.2  |
| 15°    | 565.9 | 560.4 | 562.8 | 560.8  | 559.7  |
| 17.5°  | 555.1 | 549.1 | 552.0 | 549.2  | 548.7  |
| 20°    | 546.9 | 540.9 | 543.8 | 539.7  | 539.7  |
| 22.5°  | 537.0 | 531.0 | 534.4 | 529.0  | 529.0  |
| 25°    | 521.2 | 515.2 | 517.6 | 513.0  | 512.5  |
| 27.5°  | 502.4 | 496.5 | 499.0 | 493.7  | 493.6  |
| 30°    | 488.8 | 483.3 | 486.2 | 480.6  | 480.1  |
| 32.5°  | 474.0 | 468.9 | 471.0 | 465.4  | 464.9  |
| 35°    | 450.3 | 445.7 | 447.2 | 442.0  | 441.5  |
| 37.5°  | 425.3 | 420.7 | 422.3 | 417.9  | 417.7  |
| 40°    | 407.6 | 404.6 | 405.0 | 401.4  | 400.4  |
| 42.5°  | 391.2 | 387.7 | 388.2 | 384.6  | 384.4  |
| 45°    | 366.0 | 363.5 | 363.4 | 359.8  | 359.8  |
| 47.5°  | 339.2 | 337.3 | 336.8 | 333.8  | 333.7  |
| 50°    | 320.7 | 319.2 | 318.7 | 316.1  | 315.6  |
| 52.5°  | 301.4 | 300.7 | 298.9 | 296.8  | 296.7  |
| 55°    | 271.4 | 270.4 | 267.8 | 266.2  | 265.7  |
| 57.5°  | 238.8 | 236.8 | 233.9 | 231.6  | 232.0  |
| 60°    | 215.4 | 213.4 | 209.2 | 208.2  | 208.2  |
| 62.5°  | 192.8 | 190.3 | 186.2 | 184.8  | 185.6  |
| 65°    | 160.4 | 157.4 | 153.7 | 152.7  | 153.2  |
| 67.5°  | 131.0 | 128.3 | 124.3 | 124.3  | 123.9  |
| 70°    | 112.1 | 110.5 | 107.4 | 107.4  | 107.4  |
| 72.5°  | 95.2  | 94.5  | 92.2  | 92.2   | 91.8   |
| 75°    | 73.0  | 73.0  | 72.0  | 71.4   | 70.9   |
| 77.5°  | 54.7  | 54.9  | 54.4  | 53.8   | 52.9   |
| 80°    | 43.2  | 44.2  | 43.7  | 43.2   | 42.7   |
| 82.5°  | 32.5  | 33.5  | 33.4  | 32.5   | 32.4   |
| 85°    | 17.0  | 18.5  | 18.5  | 18.5   | 18.5   |
| 87.5°  | 4.8   | 6.7   | 7.8   | 8.0    | 8.5    |
| 90°    | 1.5   | 3.0   | 6.1   | 6.9    | 7.6    |
| 92.5°  | 13.7  | 56.9  | 101.7 | 37.1   | 28.9   |
| 95°    | 32.7  | 120.6 | 404.4 | 166.2  | 108.1  |
| 97.5°  | 54.2  | 135.1 | 599.0 | 461.2  | 334.0  |
| 100°   | 70.1  | 143.8 | 670.9 | 675.7  | 549.1  |
| 102.5° | 85.3  | 153.6 | 684.9 | 834.8  | 714.8  |
| 105°   | 109.7 | 169.2 | 677.0 | 1033.6 | 973.2  |
| 107.5° | 135.6 | 188.6 | 639.2 | 1129.4 | 1151.4 |
| 110°   | 153.8 | 201.5 | 610.0 | 1150.0 | 1221.5 |

TEST NUMBER:

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 170.3 | 216.1 | 582.6 | 1133.7 | 1239.2 |
| 115°   | 196.5 | 237.4 | 545.3 | 1079.4 | 1227.6 |
| 117.5° | 219.3 | 260.1 | 520.7 | 1003.0 | 1171.6 |
| 120°   | 234.6 | 274.8 | 511.0 | 951.2  | 1121.0 |
| 122.5° | 249.2 | 287.6 | 503.1 | 902.9  | 1063.7 |
| 125°   | 269.6 | 306.8 | 494.2 | 836.4  | 981.6  |
| 127.5° | 286.9 | 324.2 | 489.1 | 780.2  | 905.5  |
| 130°   | 298.5 | 335.8 | 486.6 | 745.9  | 859.8  |
| 132.5° | 309.5 | 344.9 | 484.2 | 717.0  | 820.2  |
| 135°   | 324.4 | 359.4 | 480.5 | 677.4  | 763.8  |
| 137.5° | 341.2 | 373.0 | 478.7 | 644.3  | 718.0  |
| 140°   | 350.3 | 381.6 | 477.5 | 622.1  | 686.9  |
| 142.5° | 360.7 | 389.6 | 476.3 | 602.5  | 659.5  |
| 145°   | 376.2 | 402.3 | 474.4 | 576.7  | 620.7  |
| 147.5° | 391.1 | 413.9 | 472.8 | 555.0  | 589.1  |
| 150°   | 402.1 | 420.7 | 472.2 | 542.1  | 569.6  |
| 152.5° | 410.6 | 428.0 | 471.5 | 531.0  | 553.8  |
| 155°   | 424.2 | 438.3 | 470.6 | 517.5  | 533.8  |
| 157.5° | 436.7 | 447.5 | 470.8 | 507.6  | 518.8  |
| 160°   | 444.0 | 453.7 | 471.4 | 502.0  | 510.2  |
| 162.5° | 450.1 | 458.6 | 472.0 | 497.1  | 503.5  |
| 165°   | 459.2 | 465.2 | 472.9 | 491.3  | 495.0  |
| 167.5° | 466.2 | 469.8 | 473.7 | 487.7  | 488.9  |
| 170°   | 469.9 | 472.8 | 473.7 | 485.9  | 485.9  |
| 172.5° | 472.9 | 474.7 | 473.7 | 483.4  | 482.8  |
| 175°   | 476.0 | 476.7 | 473.7 | 480.5  | 479.0  |
| 177.5° | 477.2 | 476.6 | 473.5 | 477.8  | 476.6  |
| 180°   | 476.0 | 476.0 | 476.0 | 476.0  | 476.0  |

(END OF REPORT)