

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-F-050U-050D-927-1D-UNV-STD-W-6

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number:  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-050U-050D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

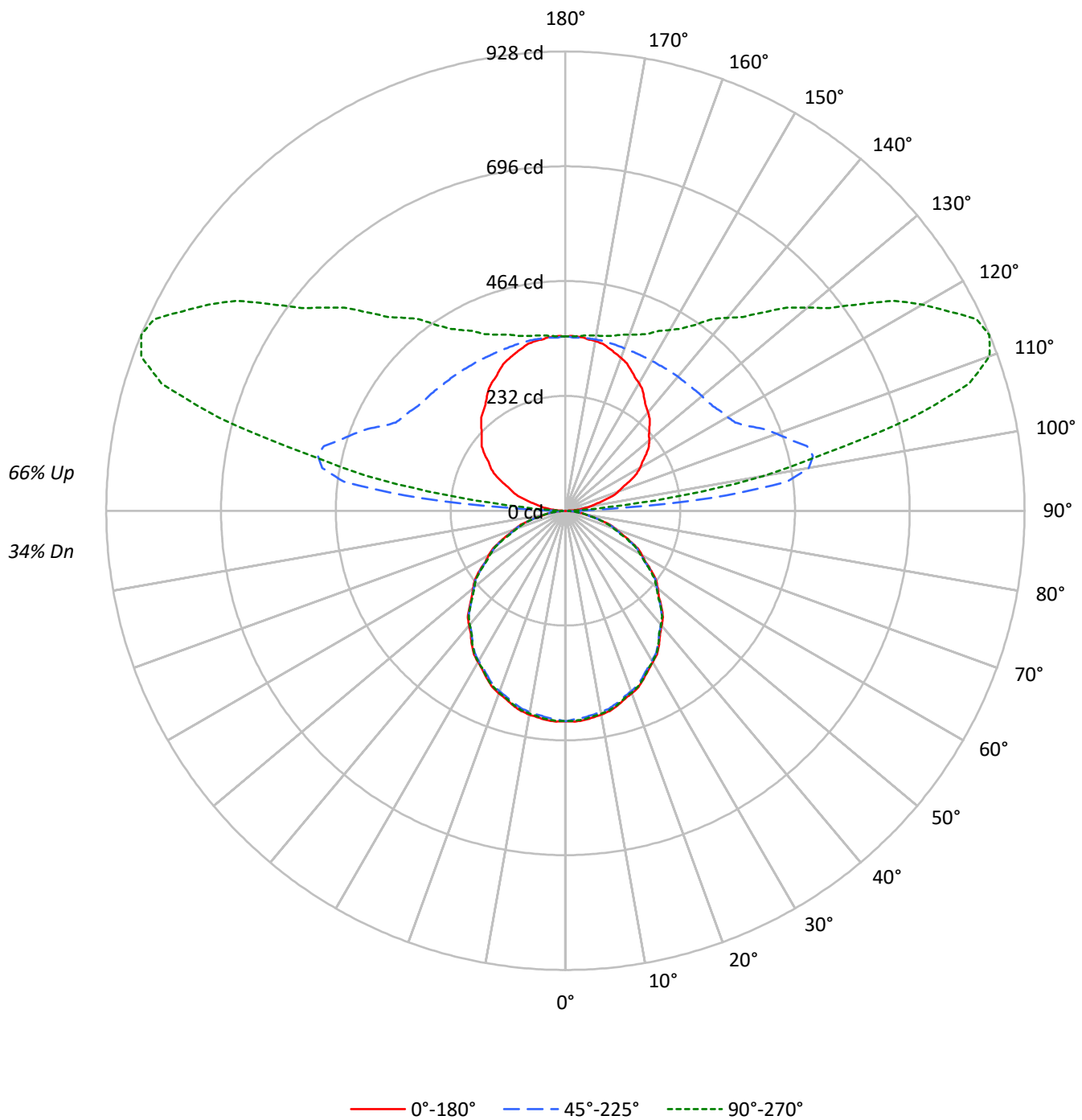
Lumens per Lamp: N/A  
Luminaire Lumens: 3463.0 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 44.8  
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:

CATALOG NUMBER: SQ4-F-050U-050D-927-1D-UNV-STD-W-6

### Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-F-050U-050D-927-1D-UNV-STD-W-6

**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 | 57 | 57 | 57 | 41 | 41 | 41 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 49 | 47 | 36 | 35 | 35 |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 61 | 57 | 53 | 50 | 44 | 41 | 39 | 32 | 30 | 29 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 48 | 43 | 44 | 39 | 36 | 34 | 31 | 28 | 25 | 23 | 21 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 40 | 34 | 31 | 31 | 27 | 24 | 22 | 20 | 18 |
| 6   | 60  | 48  | 40  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 28 | 24 | 21 | 20 | 18 | 16 |
| 7   | 55  | 43  | 36  | 30  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 19 | 16 | 14 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 13 |
| 9   | 48  | 36  | 28  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 17 | 15 | 16 | 13 | 11 |
| 10  | 44  | 33  | 26  | 21  | 40 | 30 | 24 | 19 | 24 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2617 | 2617 | 2617 |
| 5°  | 2623 | 2591 | 2612 |
| 10° | 2614 | 2582 | 2600 |
| 15° | 2596 | 2564 | 2585 |
| 20° | 2572 | 2542 | 2561 |
| 25° | 2543 | 2512 | 2535 |
| 30° | 2508 | 2487 | 2504 |
| 35° | 2480 | 2450 | 2463 |
| 40° | 2432 | 2410 | 2414 |
| 45° | 2383 | 2363 | 2363 |
| 50° | 2332 | 2310 | 2299 |
| 55° | 2278 | 2248 | 2235 |
| 60° | 2192 | 2158 | 2144 |
| 65° | 2089 | 2048 | 2022 |
| 70° | 1946 | 1904 | 1863 |
| 75° | 1747 | 1692 | 1652 |
| 80° | 1413 | 1392 | 1353 |
| 85° | 847  | 967  | 1002 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 2388 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-F-050U-050D-927-1D-UNV-STD-W-6

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 40.1   | 1.2       |
| 10°-20°   | 114.3  | 3.3       |
| 20°-30°   | 171.7  | 5.0       |
| 30°-40°   | 204.9  | 5.9       |
| 40°-50°   | 210.0  | 6.1       |
| 50°-60°   | 187.3  | 5.4       |
| 60°-70°   | 139.5  | 4.0       |
| 70°-80°   | 75.7   | 2.2       |
| 80°-90°   | 18.9   | 0.5       |
| 90°-100°  | 169.1  | 4.9       |
| 100°-110° | 459.5  | 13.3      |
| 110°-120° | 472.4  | 13.6      |
| 120°-130° | 377.7  | 10.9      |
| 130°-140° | 296.8  | 8.6       |
| 140°-150° | 227.6  | 6.6       |
| 150°-160° | 163.7  | 4.7       |
| 160°-170° | 100.1  | 2.9       |
| 170°-180° | 33.7   | 1.0       |
| 0°-30°    | 326.1  | 9.4       |
| 0°-40°    | 531.0  | 15.3      |
| 0°-60°    | 928.3  | 26.8      |
| 0°-90°    | 1162.4 | 33.6      |
| 90°-120°  | 1101.1 | 31.8      |
| 90°-150°  | 2003.2 | 57.8      |
| 90°-180°  | 2301.0 | 66.4      |
| 0°-180°   | 3463.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 425 | 425   | 425 | 425   | 425 |      |
| 5°   | 425 | 424   | 420 | 424   | 423 | 40   |
| 15°  | 408 | 407   | 403 | 406   | 406 | 115  |
| 25°  | 375 | 374   | 370 | 372   | 374 | 173  |
| 35°  | 330 | 329   | 326 | 326   | 328 | 206  |
| 45°  | 274 | 274   | 272 | 271   | 272 | 211  |
| 55°  | 212 | 212   | 210 | 208   | 208 | 189  |
| 65°  | 144 | 143   | 141 | 139   | 139 | 142  |
| 75°  | 74  | 73    | 71  | 70    | 70  | 78   |
| 85°  | 12  | 13    | 14  | 14    | 14  | 17   |
| 90°  | 1   | 4     | 8   | 10    | 10  | 2    |
| 95°  | 25  | 92    | 295 | 128   | 86  | 26   |
| 105° | 82  | 127   | 505 | 769   | 724 | 87   |
| 115° | 145 | 176   | 404 | 805   | 917 | 143  |
| 125° | 199 | 227   | 366 | 617   | 727 | 178  |
| 135° | 240 | 267   | 356 | 502   | 566 | 186  |
| 145° | 278 | 298   | 351 | 427   | 459 | 174  |
| 155° | 314 | 325   | 349 | 383   | 394 | 145  |
| 165° | 340 | 344   | 350 | 365   | 366 | 96   |
| 175° | 352 | 354   | 351 | 356   | 355 | 33   |
| 180° | 352 | 352   | 352 | 352   | 352 |      |

TEST NUMBER:

CATALOG NUMBER: SQ4-F-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 425.4 | 425.4 | 425.4 | 425.4 | 425.4 |
| 2.5°   | 426.7 | 425.9 | 422.2 | 425.4 | 424.9 |
| 5°     | 424.8 | 424.3 | 419.7 | 423.7 | 423.1 |
| 7.5°   | 421.7 | 420.6 | 416.2 | 420.0 | 419.5 |
| 10°    | 418.5 | 417.4 | 413.4 | 416.8 | 416.3 |
| 12.5°  | 414.4 | 413.8 | 409.3 | 412.7 | 412.6 |
| 15°    | 407.7 | 406.6 | 402.6 | 406.0 | 406.0 |
| 17.5°  | 398.8 | 398.2 | 394.3 | 397.6 | 397.1 |
| 20°    | 392.9 | 391.8 | 388.4 | 391.2 | 391.2 |
| 22.5°  | 385.6 | 385.0 | 381.5 | 383.9 | 384.4 |
| 25°    | 374.7 | 373.6 | 370.1 | 372.4 | 373.6 |
| 27.5°  | 362.6 | 361.7 | 358.9 | 360.4 | 361.1 |
| 30°    | 353.1 | 353.1 | 350.2 | 350.8 | 352.5 |
| 32.5°  | 344.4 | 344.4 | 341.1 | 341.7 | 342.5 |
| 35°    | 330.3 | 329.2 | 326.3 | 326.3 | 328.0 |
| 37.5°  | 313.9 | 313.3 | 311.5 | 311.2 | 311.6 |
| 40°    | 302.9 | 302.4 | 300.1 | 300.7 | 300.7 |
| 42.5°  | 292.0 | 291.5 | 289.2 | 288.4 | 289.3 |
| 45°    | 273.9 | 274.5 | 271.6 | 271.1 | 271.6 |
| 47.5°  | 256.0 | 256.0 | 253.7 | 252.2 | 253.1 |
| 50°    | 243.7 | 243.7 | 241.4 | 240.3 | 240.3 |
| 52.5°  | 231.0 | 231.4 | 228.7 | 227.1 | 227.6 |
| 55°    | 212.4 | 212.4 | 209.6 | 207.9 | 208.4 |
| 57.5°  | 191.9 | 191.9 | 189.1 | 187.4 | 188.4 |
| 60°    | 178.2 | 178.2 | 175.4 | 173.7 | 174.3 |
| 62.5°  | 164.6 | 164.6 | 161.7 | 160.0 | 160.1 |
| 65°    | 143.5 | 142.9 | 140.7 | 138.9 | 138.9 |
| 67.5°  | 123.2 | 121.8 | 120.0 | 117.8 | 117.8 |
| 70°    | 108.2 | 107.6 | 105.9 | 103.6 | 103.6 |
| 72.5°  | 94.5  | 93.5  | 91.8  | 90.0  | 90.0  |
| 75°    | 73.5  | 72.9  | 71.2  | 70.0  | 69.5  |
| 77.5°  | 52.6  | 52.2  | 52.0  | 50.5  | 50.9  |
| 80°    | 39.9  | 39.9  | 39.3  | 38.2  | 38.2  |
| 82.5°  | 28.5  | 28.9  | 27.9  | 27.7  | 27.2  |
| 85°    | 12.0  | 13.1  | 13.7  | 14.2  | 14.2  |
| 87.5°  | 2.5   | 4.5   | 4.8   | 5.7   | 5.7   |
| 90°    | 1.1   | 4.5   | 7.9   | 10.2  | 10.2  |
| 92.5°  | 10.2  | 46.3  | 80.4  | 34.5  | 29.2  |
| 95°    | 24.9  | 92.5  | 294.6 | 128.2 | 86.1  |
| 97.5°  | 41.2  | 102.2 | 451.6 | 351.3 | 246.8 |
| 100°   | 52.1  | 108.6 | 499.6 | 506.5 | 409.0 |
| 102.5° | 63.0  | 115.1 | 512.3 | 626.4 | 540.4 |
| 105°   | 81.6  | 127.0 | 505.3 | 769.4 | 724.0 |
| 107.5° | 100.8 | 140.9 | 476.1 | 843.2 | 855.9 |
| 110°   | 114.4 | 151.0 | 454.3 | 857.8 | 912.1 |

TEST NUMBER:

CATALOG NUMBER: SQ4-F-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 126.2 | 161.0 | 432.6 | 845.7 | 927.5 |
| 115°   | 145.0 | 176.0 | 404.5 | 804.7 | 916.6 |
| 117.5° | 162.7 | 192.4 | 386.6 | 746.6 | 872.6 |
| 120°   | 174.5 | 203.3 | 378.4 | 707.6 | 832.7 |
| 122.5° | 184.5 | 213.3 | 373.0 | 668.5 | 789.2 |
| 125°   | 199.4 | 227.1 | 366.0 | 616.6 | 727.4 |
| 127.5° | 212.8 | 240.2 | 362.1 | 577.3 | 672.3 |
| 130°   | 220.9 | 247.5 | 360.3 | 552.6 | 637.9 |
| 132.5° | 229.1 | 255.7 | 358.5 | 531.5 | 607.1 |
| 135°   | 240.2 | 266.8 | 355.8 | 502.2 | 566.5 |
| 137.5° | 252.2 | 276.4 | 354.4 | 476.4 | 530.5 |
| 140°   | 259.5 | 282.7 | 353.5 | 460.0 | 508.7 |
| 142.5° | 266.7 | 288.2 | 352.6 | 447.1 | 487.9 |
| 145°   | 277.6 | 297.5 | 351.2 | 426.7 | 458.9 |
| 147.5° | 289.8 | 306.9 | 350.1 | 410.7 | 436.0 |
| 150°   | 298.0 | 312.4 | 350.1 | 401.5 | 421.5 |
| 152.5° | 304.3 | 317.0 | 349.2 | 393.3 | 409.7 |
| 155°   | 313.8 | 324.9 | 349.0 | 383.2 | 394.3 |
| 157.5° | 323.1 | 331.8 | 349.0 | 376.3 | 384.8 |
| 160°   | 328.6 | 336.3 | 349.0 | 371.8 | 378.4 |
| 162.5° | 334.0 | 340.0 | 349.9 | 368.1 | 373.0 |
| 165°   | 339.9 | 344.3 | 350.1 | 364.8 | 366.0 |
| 167.5° | 346.0 | 348.2 | 351.2 | 361.0 | 361.9 |
| 170°   | 347.8 | 350.0 | 351.2 | 359.2 | 359.2 |
| 172.5° | 349.6 | 351.0 | 351.2 | 357.3 | 357.3 |
| 175°   | 352.4 | 353.5 | 351.2 | 355.7 | 354.6 |
| 177.5° | 353.3 | 353.3 | 350.5 | 354.1 | 352.4 |
| 180°   | 352.4 | 352.4 | 352.4 | 352.4 | 352.4 |

(END OF REPORT)