

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-075U-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 (G3-1910-536-22, G3-1910-536-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-075U-050D-927-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

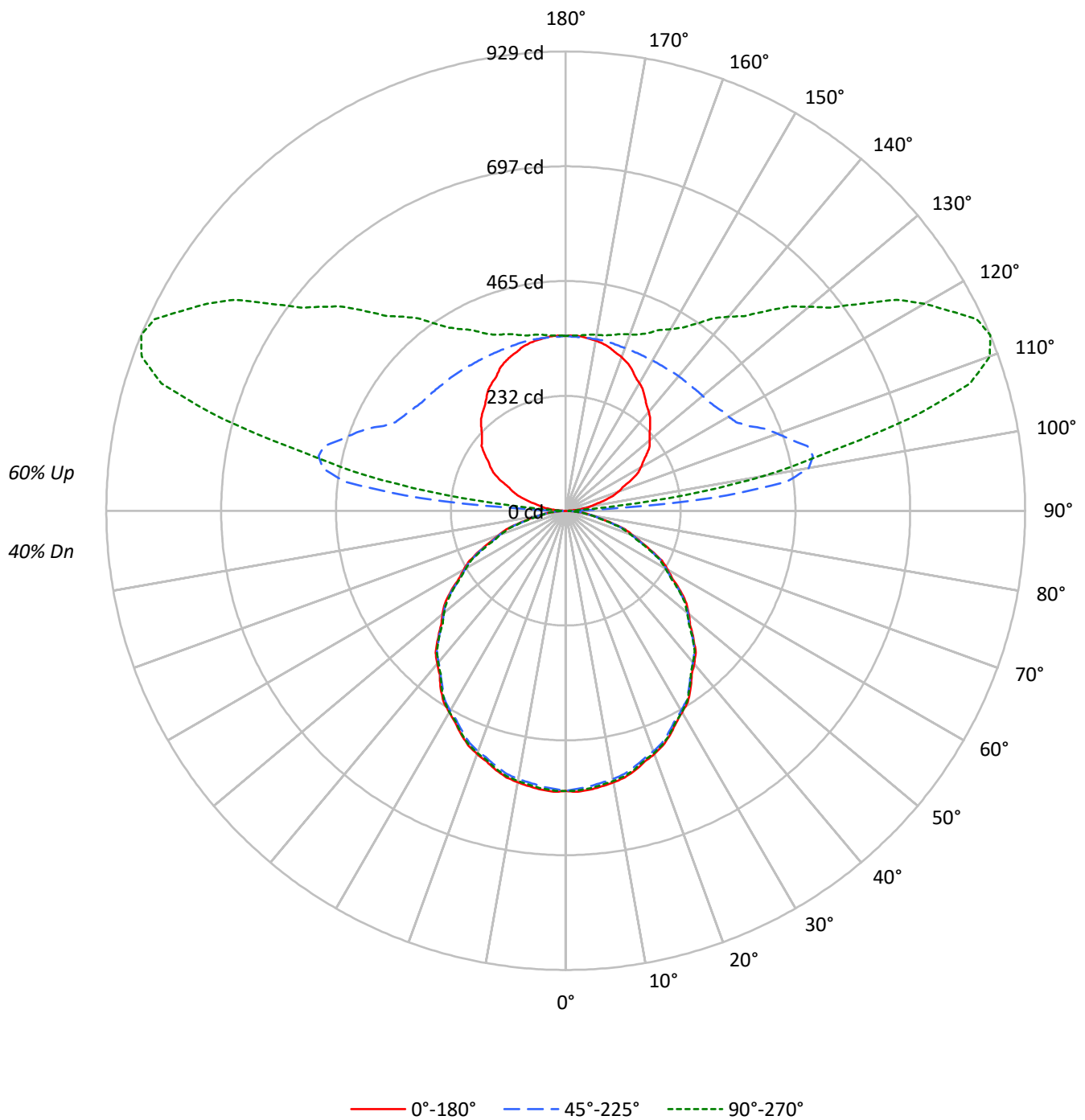
Lumens per Lamp: N/A  
Luminaire Lumens: 3854.1 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 34.7  
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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 |
| 1   | 96  | 91  | 87  | 84  | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 54 | 53 | 51 | 42 | 41 | 40 |
| 2   | 87  | 80  | 74  | 68  | 79 | 73 | 68 | 63 | 60 | 56 | 53 | 48 | 45 | 43 | 37 | 35 | 33 |
| 3   | 79  | 70  | 63  | 57  | 72 | 64 | 58 | 53 | 53 | 48 | 44 | 42 | 39 | 36 | 32 | 30 | 28 |
| 4   | 72  | 62  | 54  | 48  | 66 | 56 | 50 | 44 | 47 | 42 | 38 | 37 | 34 | 31 | 29 | 26 | 24 |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 42 | 36 | 32 | 33 | 30 | 27 | 26 | 23 | 21 |
| 6   | 61  | 49  | 41  | 35  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 21 | 19 |
| 7   | 56  | 44  | 36  | 31  | 51 | 41 | 34 | 29 | 34 | 28 | 25 | 27 | 23 | 20 | 21 | 19 | 16 |
| 8   | 52  | 40  | 32  | 27  | 47 | 37 | 30 | 25 | 31 | 25 | 22 | 25 | 21 | 18 | 20 | 17 | 15 |
| 9   | 49  | 37  | 29  | 24  | 44 | 34 | 27 | 23 | 28 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 |
| 10  | 45  | 33  | 26  | 22  | 41 | 31 | 24 | 20 | 26 | 21 | 17 | 21 | 17 | 15 | 17 | 14 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5233 | 5233 | 5233 |
| 5°  | 5246 | 5183 | 5224 |
| 10° | 5229 | 5164 | 5200 |
| 15° | 5192 | 5127 | 5171 |
| 20° | 5144 | 5084 | 5121 |
| 25° | 5086 | 5024 | 5071 |
| 30° | 5015 | 4975 | 5007 |
| 35° | 4960 | 4901 | 4925 |
| 40° | 4865 | 4819 | 4828 |
| 45° | 4765 | 4726 | 4726 |
| 50° | 4665 | 4620 | 4599 |
| 55° | 4555 | 4494 | 4470 |
| 60° | 4386 | 4316 | 4286 |
| 65° | 4176 | 4093 | 4045 |
| 70° | 3893 | 3809 | 3728 |
| 75° | 3490 | 3383 | 3301 |
| 80° | 2821 | 2784 | 2704 |
| 85° | 1683 | 1927 | 2011 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 4776 cd/sqm

TEST NUMBER:

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.5   | 1.4       |
| 10°-20°   | 152.4  | 4.0       |
| 20°-30°   | 228.9  | 5.9       |
| 30°-40°   | 273.2  | 7.1       |
| 40°-50°   | 280.0  | 7.3       |
| 50°-60°   | 249.7  | 6.5       |
| 60°-70°   | 186.0  | 4.8       |
| 70°-80°   | 101.0  | 2.6       |
| 80°-90°   | 24.3   | 0.6       |
| 90°-100°  | 166.9  | 4.3       |
| 100°-110° | 459.2  | 11.9      |
| 110°-120° | 473.9  | 12.3      |
| 120°-130° | 379.7  | 9.9       |
| 130°-140° | 298.2  | 7.7       |
| 140°-150° | 228.6  | 5.9       |
| 150°-160° | 164.3  | 4.3       |
| 160°-170° | 100.5  | 2.6       |
| 170°-180° | 33.9   | 0.9       |
| 0°-30°    | 434.8  | 11.3      |
| 0°-40°    | 708.0  | 18.4      |
| 0°-60°    | 1237.7 | 32.1      |
| 0°-90°    | 1548.9 | 40.2      |
| 90°-120°  | 1100.0 | 28.5      |
| 90°-150°  | 2006.5 | 52.1      |
| 90°-180°  | 2305.0 | 59.8      |
| 0°-180°   | 3854.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 567 | 567   | 567 | 567   | 567 |      |
| 5°   | 566 | 566   | 560 | 565   | 564 | 54   |
| 15°  | 544 | 542   | 537 | 541   | 541 | 153  |
| 25°  | 500 | 498   | 494 | 497   | 498 | 230  |
| 35°  | 440 | 439   | 435 | 435   | 437 | 275  |
| 45°  | 365 | 366   | 362 | 361   | 362 | 282  |
| 55°  | 283 | 283   | 279 | 277   | 278 | 252  |
| 65°  | 191 | 191   | 188 | 185   | 185 | 189  |
| 75°  | 98  | 97    | 95  | 93    | 93  | 104  |
| 85°  | 16  | 17    | 18  | 19    | 19  | 22   |
| 90°  | 1   | 3     | 5   | 7     | 7   | 2    |
| 95°  | 25  | 91    | 295 | 126   | 81  | 26   |
| 105° | 82  | 126   | 506 | 770   | 719 | 87   |
| 115° | 145 | 177   | 406 | 808   | 917 | 143  |
| 125° | 200 | 228   | 368 | 623   | 730 | 179  |
| 135° | 242 | 268   | 358 | 504   | 570 | 186  |
| 145° | 279 | 298   | 352 | 429   | 462 | 175  |
| 155° | 316 | 326   | 350 | 386   | 397 | 145  |
| 165° | 342 | 346   | 352 | 366   | 368 | 96   |
| 175° | 354 | 355   | 352 | 357   | 356 | 34   |
| 180° | 354 | 354   | 354 | 354   | 354 |      |

TEST NUMBER:

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 567.2 | 567.2 | 567.2 | 567.2 | 567.2 |
| 2.5°   | 569.0 | 567.8 | 562.9 | 567.2 | 566.6 |
| 5°     | 566.4 | 565.7 | 559.6 | 564.9 | 564.1 |
| 7.5°   | 562.3 | 560.8 | 554.9 | 560.0 | 559.3 |
| 10°    | 558.1 | 556.6 | 551.2 | 555.8 | 555.0 |
| 12.5°  | 552.6 | 551.7 | 545.8 | 550.3 | 550.2 |
| 15°    | 543.6 | 542.2 | 536.8 | 541.4 | 541.4 |
| 17.5°  | 531.8 | 530.9 | 525.7 | 530.1 | 529.5 |
| 20°    | 523.9 | 522.4 | 517.8 | 521.6 | 521.6 |
| 22.5°  | 514.2 | 513.3 | 508.7 | 511.9 | 512.5 |
| 25°    | 499.6 | 498.1 | 493.5 | 496.6 | 498.1 |
| 27.5°  | 483.5 | 482.3 | 478.5 | 480.5 | 481.5 |
| 30°    | 470.7 | 470.7 | 467.0 | 467.8 | 470.0 |
| 32.5°  | 459.2 | 459.2 | 454.8 | 455.6 | 456.6 |
| 35°    | 440.4 | 438.9 | 435.1 | 435.1 | 437.3 |
| 37.5°  | 418.5 | 417.8 | 415.3 | 414.9 | 415.5 |
| 40°    | 403.9 | 403.2 | 400.1 | 400.9 | 400.9 |
| 42.5°  | 389.4 | 388.6 | 385.6 | 384.5 | 385.7 |
| 45°    | 365.2 | 366.0 | 362.2 | 361.4 | 362.2 |
| 47.5°  | 341.4 | 341.4 | 338.3 | 336.2 | 337.4 |
| 50°    | 325.0 | 325.0 | 321.9 | 320.4 | 320.4 |
| 52.5°  | 308.0 | 308.6 | 304.9 | 302.8 | 303.4 |
| 55°    | 283.2 | 283.2 | 279.4 | 277.2 | 277.9 |
| 57.5°  | 255.9 | 255.9 | 252.1 | 249.8 | 251.2 |
| 60°    | 237.7 | 237.7 | 233.9 | 231.6 | 232.3 |
| 62.5°  | 219.4 | 219.4 | 215.6 | 213.4 | 213.5 |
| 65°    | 191.3 | 190.6 | 187.5 | 185.3 | 185.3 |
| 67.5°  | 164.3 | 162.4 | 160.1 | 157.0 | 157.0 |
| 70°    | 144.3 | 143.5 | 141.2 | 138.2 | 138.2 |
| 72.5°  | 126.0 | 124.7 | 122.4 | 120.0 | 120.0 |
| 75°    | 97.9  | 97.2  | 94.9  | 93.4  | 92.6  |
| 77.5°  | 70.2  | 69.6  | 69.4  | 67.3  | 67.9  |
| 80°    | 53.1  | 53.1  | 52.4  | 50.9  | 50.9  |
| 82.5°  | 38.0  | 38.6  | 37.2  | 36.9  | 36.3  |
| 85°    | 15.9  | 17.4  | 18.2  | 19.0  | 19.0  |
| 87.5°  | 3.2   | 5.4   | 5.3   | 6.2   | 6.2   |
| 90°    | 0.8   | 3.0   | 5.3   | 6.8   | 6.8   |
| 92.5°  | 10.4  | 44.4  | 76.9  | 29.5  | 24.2  |
| 95°    | 24.8  | 91.1  | 295.1 | 126.2 | 80.6  |
| 97.5°  | 40.5  | 101.0 | 450.4 | 347.0 | 244.8 |
| 100°   | 51.9  | 107.2 | 499.2 | 503.8 | 411.1 |
| 102.5° | 62.8  | 114.5 | 511.8 | 625.1 | 540.0 |
| 105°   | 82.1  | 126.2 | 505.9 | 770.5 | 719.0 |
| 107.5° | 100.4 | 140.8 | 477.2 | 841.8 | 857.1 |
| 110°   | 113.7 | 150.5 | 455.5 | 859.5 | 912.5 |

TEST NUMBER:

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 125.7 | 161.4 | 433.8 | 848.1 | 928.8 |
| 115°   | 145.3 | 177.0 | 405.8 | 808.1 | 917.0 |
| 117.5° | 164.0 | 193.1 | 388.0 | 751.9 | 875.1 |
| 120°   | 175.4 | 203.4 | 380.2 | 709.8 | 837.2 |
| 122.5° | 185.7 | 213.6 | 374.8 | 673.0 | 793.8 |
| 125°   | 200.3 | 228.2 | 368.2 | 622.8 | 729.5 |
| 127.5° | 214.1 | 240.8 | 363.8 | 580.9 | 674.6 |
| 130°   | 221.3 | 248.6 | 361.4 | 556.1 | 641.5 |
| 132.5° | 229.8 | 257.0 | 359.6 | 534.2 | 611.3 |
| 135°   | 241.7 | 268.2 | 357.6 | 503.7 | 569.9 |
| 137.5° | 252.8 | 277.4 | 356.0 | 479.0 | 533.6 |
| 140°   | 261.2 | 284.1 | 355.4 | 462.6 | 512.0 |
| 142.5° | 268.5 | 289.5 | 354.2 | 448.0 | 490.3 |
| 145°   | 279.3 | 298.5 | 352.3 | 429.1 | 462.3 |
| 147.5° | 290.9 | 307.4 | 351.4 | 412.4 | 438.9 |
| 150°   | 298.1 | 312.9 | 350.8 | 403.3 | 423.9 |
| 152.5° | 304.8 | 318.3 | 350.2 | 395.3 | 412.4 |
| 155°   | 316.2 | 326.5 | 350.1 | 385.7 | 396.8 |
| 157.5° | 324.5 | 332.9 | 350.1 | 377.8 | 385.5 |
| 160°   | 330.5 | 337.1 | 350.1 | 373.6 | 379.5 |
| 162.5° | 335.3 | 340.8 | 350.7 | 369.9 | 374.6 |
| 165°   | 341.8 | 346.2 | 351.6 | 365.9 | 368.2 |
| 167.5° | 346.3 | 349.7 | 352.3 | 362.6 | 363.2 |
| 170°   | 349.3 | 351.5 | 352.3 | 361.4 | 361.4 |
| 172.5° | 351.7 | 352.8 | 352.3 | 359.6 | 359.0 |
| 175°   | 353.9 | 354.6 | 352.3 | 356.8 | 356.1 |
| 177.5° | 354.5 | 354.5 | 352.0 | 355.6 | 354.5 |
| 180°   | 353.9 | 353.9 | 353.9 | 353.9 | 353.9 |

(END OF REPORT)