

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1036230

Luminaire Tested: SQ4R-PC3-050D-B2750-1D-UNV-W2A\_3500K

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036230  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P562810)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-PC3-050D-B2750-1D-UNV-W2A\_3500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -  
Ballast/Driver: -

**Summary**

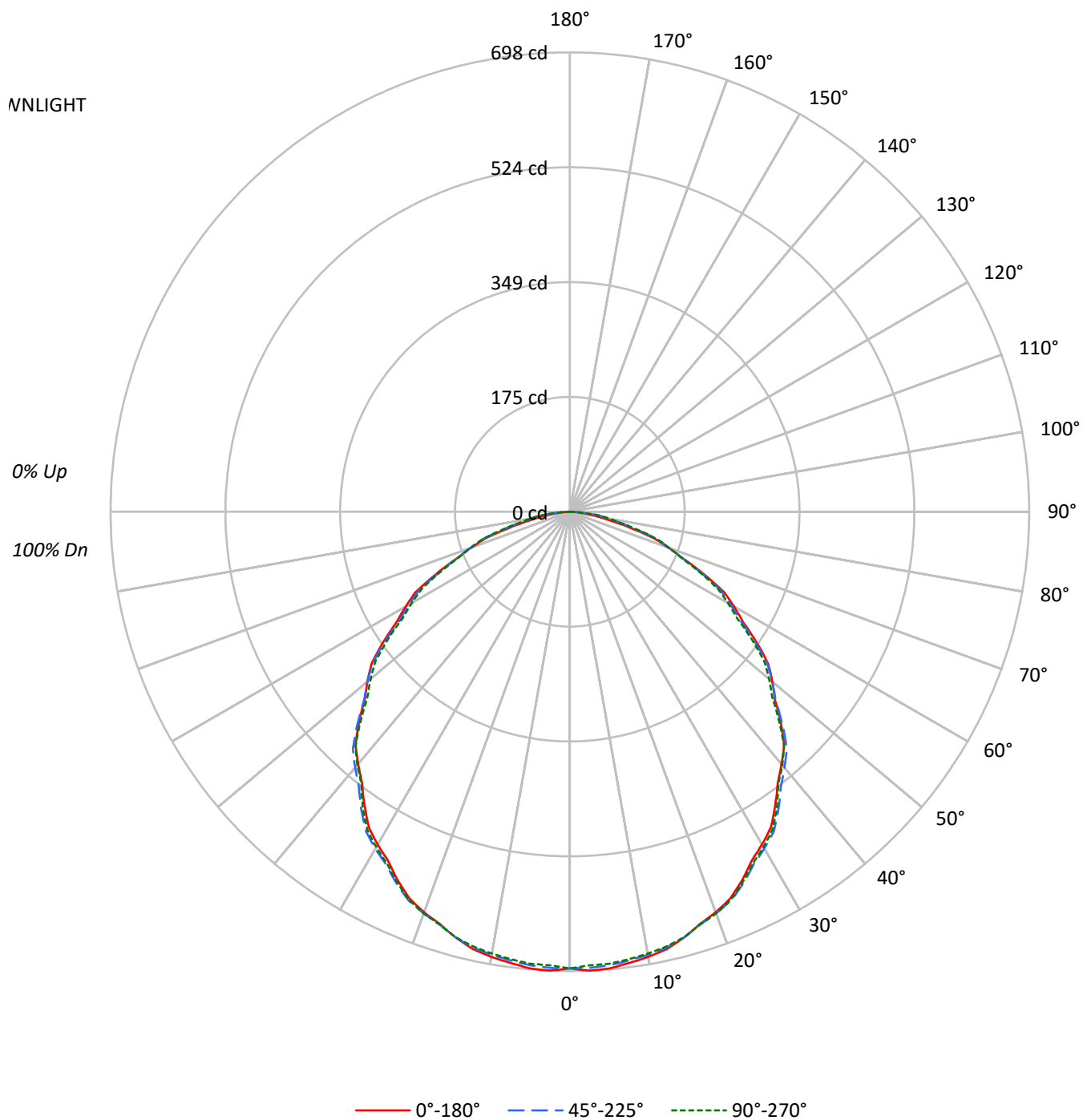
Lumens per Lamp: N/A  
Luminaire Lumens: 1893.5 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.8  
Input Voltage (V): NR  
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

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### Luminous Intensity Polar Plot



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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 105 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  |  | 94  | 92  | 89  |  | 91  |
| 2   | 99  | 91  | 85  | 79  | 97  | 90  | 83  | 78  | 86  | 81  | 76  |  | 83  | 78  | 75  |  | 80  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 70  | 64  |  | 73  | 68  | 63  |  | 71  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  |  | 65  | 59  | 54  |  | 63  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  |  | 59  | 52  | 47  |  | 57  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  |  | 53  | 46  | 41  |  | 52  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  |  | 48  | 42  | 37  |  | 47  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  |  | 44  | 38  | 33  |  | 43  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  |  | 41  | 34  | 30  |  | 40  |
| 10  | 54  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  |  | 38  | 31  | 27  |  | 37  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6400 | 6400 | 6400 |
| 5°  | 6450 | 6407 | 6384 |
| 10° | 6434 | 6403 | 6386 |
| 15° | 6400 | 6400 | 6394 |
| 20° | 6358 | 6377 | 6377 |
| 25° | 6297 | 6344 | 6324 |
| 30° | 6221 | 6296 | 6269 |
| 35° | 6129 | 6223 | 6179 |
| 40° | 6027 | 6112 | 6051 |
| 45° | 5918 | 5960 | 5868 |
| 50° | 5763 | 5763 | 5671 |
| 55° | 5580 | 5508 | 5426 |
| 60° | 5311 | 5204 | 5121 |
| 65° | 4908 | 4812 | 4768 |
| 70° | 4297 | 4332 | 4316 |
| 75° | 3458 | 3825 | 3846 |
| 80° | 2460 | 3246 | 3273 |
| 85° | 1503 | 2721 | 2721 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 5960 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.7   | 3.5       |
| 10°-20°   | 188.4  | 10.0      |
| 20°-30°   | 285.4  | 15.1      |
| 30°-40°   | 342.1  | 18.1      |
| 40°-50°   | 348.8  | 18.4      |
| 50°-60°   | 304.5  | 16.1      |
| 60°-70°   | 218.0  | 11.5      |
| 70°-80°   | 112.3  | 5.9       |
| 80°-90°   | 28.4   | 1.5       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 539.4  | 28.5      |
| 0°-40°    | 881.5  | 46.6      |
| 0°-60°    | 1534.9 | 81.1      |
| 0°-90°    | 1893.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1893.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 694 | 694   | 694 | 694   | 694 |      |
| 5°  | 696 | 689   | 692 | 690   | 689 | 66   |
| 15° | 670 | 664   | 670 | 670   | 669 | 189  |
| 25° | 619 | 614   | 623 | 621   | 621 | 285  |
| 35° | 544 | 543   | 552 | 549   | 549 | 340  |
| 45° | 454 | 452   | 457 | 451   | 450 | 349  |
| 55° | 347 | 342   | 342 | 337   | 337 | 309  |
| 65° | 225 | 220   | 220 | 218   | 218 | 222  |
| 75° | 97  | 102   | 107 | 108   | 108 | 105  |
| 85° | 14  | 22    | 26  | 26    | 26  | 20   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 693.7 | 693.7 | 693.7 | 693.7 | 693.7 |
| 2.5°  | 697.9 | 691.8 | 693.7 | 692.2 | 689.7 |
| 5°    | 696.4 | 689.4 | 691.8 | 689.9 | 689.3 |
| 7.5°  | 691.4 | 684.4 | 687.6 | 686.4 | 685.7 |
| 10°   | 686.8 | 679.8 | 683.5 | 682.3 | 681.6 |
| 12.5° | 680.6 | 674.1 | 678.3 | 677.2 | 676.9 |
| 15°   | 670.0 | 664.4 | 670.0 | 670.0 | 669.4 |
| 17.5° | 656.8 | 651.6 | 657.7 | 658.1 | 657.7 |
| 20°   | 647.6 | 641.9 | 649.5 | 648.8 | 649.5 |
| 22.5° | 636.3 | 631.7 | 639.7 | 638.0 | 638.7 |
| 25°   | 618.6 | 614.2 | 623.2 | 621.2 | 621.2 |
| 27.5° | 597.9 | 594.7 | 604.4 | 602.3 | 602.3 |
| 30°   | 583.9 | 580.8 | 591.0 | 588.4 | 588.4 |
| 32.5° | 568.5 | 566.4 | 576.2 | 573.0 | 573.0 |
| 35°   | 544.2 | 542.8 | 552.5 | 548.6 | 548.6 |
| 37.5° | 518.9 | 517.8 | 526.6 | 521.9 | 520.3 |
| 40°   | 500.4 | 499.9 | 507.5 | 502.4 | 502.4 |
| 42.5° | 481.9 | 481.3 | 488.0 | 481.8 | 481.8 |
| 45°   | 453.6 | 452.2 | 456.8 | 450.9 | 449.7 |
| 47.5° | 422.5 | 421.4 | 424.1 | 417.8 | 417.2 |
| 50°   | 401.5 | 400.2 | 401.5 | 395.6 | 395.1 |
| 52.5° | 380.0 | 377.6 | 377.8 | 372.1 | 372.0 |
| 55°   | 346.9 | 342.5 | 342.4 | 337.3 | 337.3 |
| 57.5° | 312.0 | 306.2 | 306.8 | 302.3 | 301.6 |
| 60°   | 287.8 | 281.5 | 282.0 | 278.2 | 277.5 |
| 62.5° | 264.1 | 256.9 | 258.3 | 254.0 | 253.9 |
| 65°   | 224.8 | 219.8 | 220.4 | 218.4 | 218.4 |
| 67.5° | 187.0 | 182.4 | 185.8 | 184.3 | 184.2 |
| 70°   | 159.3 | 156.2 | 160.6 | 160.6 | 160.0 |
| 72.5° | 133.7 | 133.6 | 139.0 | 139.0 | 139.4 |
| 75°   | 97.0  | 101.5 | 107.3 | 107.9 | 107.9 |
| 77.5° | 64.8  | 72.5  | 79.1  | 79.3  | 79.2  |
| 80°   | 46.3  | 55.0  | 61.1  | 62.3  | 61.6  |
| 82.5° | 31.3  | 40.6  | 45.6  | 46.9  | 46.3  |
| 85°   | 14.2  | 21.7  | 25.7  | 26.3  | 25.7  |
| 87.5° | 4.1   | 8.6   | 10.3  | 10.3  | 9.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 17.92            | 19.53 | 18.28 | 19.85 | 20.16 | 17.80          | 19.42 | 18.17 | 19.73 | 20.05 |
|                 | 3H   | 19.46            | 20.92 | 19.84 | 21.24 | 21.61 | 19.40          | 20.86 | 19.78 | 21.19 | 21.55 |
|                 | 4H   | 19.97            | 21.34 | 20.37 | 21.69 | 22.07 | 20.00          | 21.37 | 20.40 | 21.72 | 22.10 |
|                 | 6H   | 20.21            | 21.48 | 20.62 | 21.84 | 22.23 | 20.37          | 21.64 | 20.78 | 22.00 | 22.39 |
|                 | 8H   | 20.27            | 21.48 | 20.70 | 21.87 | 22.27 | 20.51          | 21.72 | 20.93 | 22.11 | 22.51 |
|                 | 12H  | 20.30            | 21.46 | 20.73 | 21.84 | 22.27 | 20.59          | 21.75 | 21.02 | 22.14 | 22.56 |
| 4H              | 2H   | 18.51            | 19.88 | 18.91 | 20.23 | 20.61 | 18.42          | 19.79 | 18.82 | 20.14 | 20.51 |
|                 | 3H   | 20.27            | 21.41 | 20.68 | 21.81 | 22.21 | 20.24          | 21.39 | 20.65 | 21.79 | 22.19 |
|                 | 4H   | 20.88            | 21.91 | 21.31 | 22.32 | 22.76 | 20.95          | 21.98 | 21.38 | 22.39 | 22.83 |
|                 | 6H   | 21.22            | 22.12 | 21.67 | 22.56 | 23.02 | 21.42          | 22.32 | 21.88 | 22.77 | 23.22 |
|                 | 8H   | 21.32            | 22.16 | 21.78 | 22.60 | 23.07 | 21.61          | 22.45 | 22.07 | 22.89 | 23.36 |
|                 | 12H  | 21.37            | 22.13 | 21.85 | 22.60 | 23.07 | 21.74          | 22.49 | 22.22 | 22.97 | 23.44 |
| 8H              | 4H   | 21.13            | 21.98 | 21.59 | 22.42 | 22.88 | 21.19          | 22.04 | 21.66 | 22.48 | 22.94 |
|                 | 6H   | 21.58            | 22.28 | 22.07 | 22.76 | 23.24 | 21.78          | 22.48 | 22.28 | 22.97 | 23.45 |
|                 | 8H   | 21.74            | 22.37 | 22.25 | 22.88 | 23.36 | 22.04          | 22.67 | 22.55 | 23.18 | 23.66 |
|                 | 12H  | 21.85            | 22.40 | 22.35 | 22.89 | 23.45 | 22.24          | 22.79 | 22.75 | 23.28 | 23.85 |
| 12H             | 4H   | 21.16            | 21.91 | 21.64 | 22.39 | 22.86 | 21.21          | 21.97 | 21.69 | 22.44 | 22.91 |
|                 | 6H   | 21.62            | 22.25 | 22.13 | 22.76 | 23.25 | 21.82          | 22.45 | 22.33 | 22.96 | 23.44 |
|                 | 8H   | 21.85            | 22.40 | 22.35 | 22.89 | 23.45 | 22.14          | 22.69 | 22.64 | 23.18 | 23.74 |