

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: P1036259

Luminaire Tested: SQ4R-PC3-125D-B50-1D-UNV

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036259  
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-PC3-125D-B50-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1250 LUMENS PER FOOT DC

Light Source: -  
Ballast/Driver: -

**Summary**

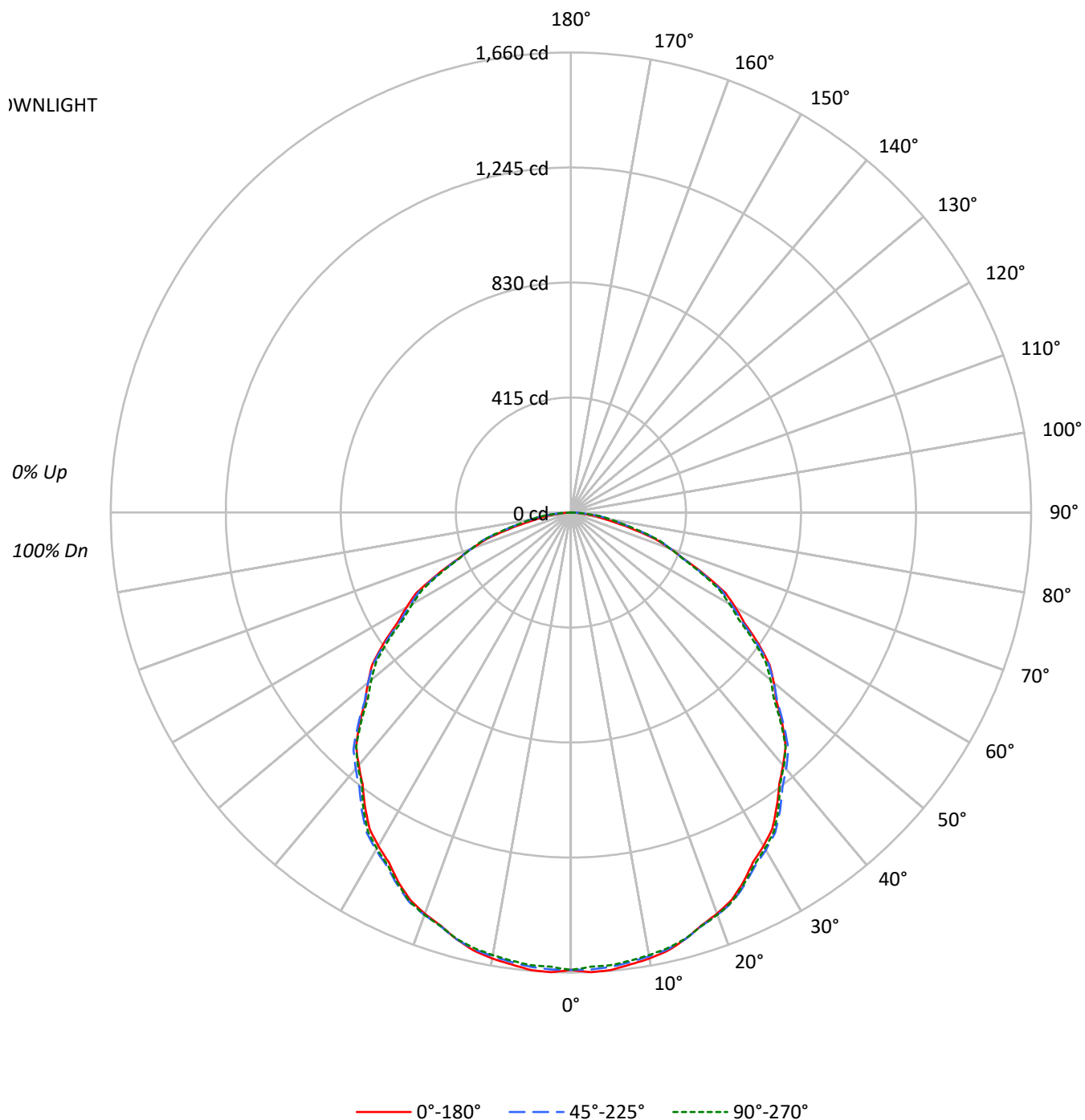
Lumens per Lamp: N/A  
Luminaire Lumens: 4505.0 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 45.8  
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°  | 15228 | 15228 | 15228 |
| 5°  | 15345 | 15245 | 15189 |
| 10° | 15308 | 15236 | 15192 |
| 15° | 15227 | 15227 | 15211 |
| 20° | 15127 | 15170 | 15170 |
| 25° | 14984 | 15092 | 15046 |
| 30° | 14800 | 14979 | 14915 |
| 35° | 14582 | 14804 | 14699 |
| 40° | 14338 | 14543 | 14396 |
| 45° | 14080 | 14179 | 13960 |
| 50° | 13712 | 13712 | 13492 |
| 55° | 13277 | 13103 | 12909 |
| 60° | 12634 | 12382 | 12182 |
| 65° | 11675 | 11446 | 11341 |
| 70° | 10226 | 10305 | 10270 |
| 75° | 8227  | 9101  | 9158  |
| 80° | 5850  | 7715  | 7794  |
| 85° | 3567  | 6468  | 6468  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 14179 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 156.2  | 3.5       |
| 10°-20°   | 448.3  | 10.0      |
| 20°-30°   | 678.9  | 15.1      |
| 30°-40°   | 813.9  | 18.1      |
| 40°-50°   | 829.9  | 18.4      |
| 50°-60°   | 724.4  | 16.1      |
| 60°-70°   | 518.6  | 11.5      |
| 70°-80°   | 267.2  | 5.9       |
| 80°-90°   | 67.6   | 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°    | 1283.4 | 28.5      |
| 0°-40°    | 2097.3 | 46.6      |
| 0°-60°    | 3651.6 | 81.1      |
| 0°-90°    | 4505.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4505.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1650 | 1650  | 1650 | 1650  | 1650 |      |
| 5°  | 1657 | 1640  | 1646 | 1641  | 1640 | 157  |
| 15° | 1594 | 1581  | 1594 | 1594  | 1592 | 449  |
| 25° | 1472 | 1461  | 1482 | 1478  | 1478 | 677  |
| 35° | 1295 | 1291  | 1314 | 1305  | 1305 | 810  |
| 45° | 1079 | 1076  | 1087 | 1073  | 1070 | 831  |
| 55° | 825  | 815   | 815  | 802   | 802  | 736  |
| 65° | 535  | 523   | 524  | 520   | 520  | 529  |
| 75° | 231  | 241   | 255  | 257   | 257  | 249  |
| 85° | 34   | 52    | 61   | 63    | 61   | 47   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1650.5 | 1650.5 | 1650.5 | 1650.5 | 1650.5 |
| 2.5°  | 1660.5 | 1646.1 | 1650.5 | 1646.8 | 1640.8 |
| 5°    | 1656.9 | 1640.2 | 1646.1 | 1641.3 | 1640.0 |
| 7.5°  | 1644.7 | 1628.4 | 1636.1 | 1632.9 | 1631.3 |
| 10°   | 1634.0 | 1617.3 | 1626.3 | 1623.1 | 1621.6 |
| 12.5° | 1619.2 | 1603.9 | 1614.0 | 1611.0 | 1610.5 |
| 15°   | 1594.2 | 1580.7 | 1594.2 | 1594.2 | 1592.5 |
| 17.5° | 1562.6 | 1550.5 | 1564.7 | 1565.7 | 1564.7 |
| 20°   | 1540.7 | 1527.2 | 1545.1 | 1543.6 | 1545.1 |
| 22.5° | 1513.8 | 1502.8 | 1522.0 | 1518.0 | 1519.6 |
| 25°   | 1471.9 | 1461.4 | 1482.5 | 1478.0 | 1478.0 |
| 27.5° | 1422.4 | 1414.7 | 1437.9 | 1432.9 | 1432.9 |
| 30°   | 1389.2 | 1381.9 | 1406.0 | 1400.0 | 1400.0 |
| 32.5° | 1352.5 | 1347.6 | 1370.7 | 1363.4 | 1363.4 |
| 35°   | 1294.7 | 1291.4 | 1314.4 | 1305.1 | 1305.1 |
| 37.5° | 1234.6 | 1231.9 | 1252.8 | 1241.6 | 1238.0 |
| 40°   | 1190.5 | 1189.3 | 1207.5 | 1195.3 | 1195.3 |
| 42.5° | 1146.5 | 1145.0 | 1161.1 | 1146.3 | 1146.3 |
| 45°   | 1079.1 | 1076.0 | 1086.7 | 1072.7 | 1069.9 |
| 47.5° | 1005.3 | 1002.5 | 1009.1 | 994.0  | 992.4  |
| 50°   | 955.3  | 952.1  | 955.3  | 941.4  | 940.0  |
| 52.5° | 903.9  | 898.4  | 898.9  | 885.2  | 884.9  |
| 55°   | 825.4  | 814.8  | 814.6  | 802.5  | 802.5  |
| 57.5° | 742.1  | 728.5  | 729.7  | 719.3  | 717.6  |
| 60°   | 684.7  | 669.7  | 671.0  | 661.8  | 660.2  |
| 62.5° | 628.3  | 611.2  | 614.6  | 604.3  | 604.1  |
| 65°   | 534.8  | 522.9  | 524.3  | 519.5  | 519.5  |
| 67.5° | 445.0  | 433.9  | 442.1  | 438.4  | 438.1  |
| 70°   | 379.1  | 371.5  | 382.0  | 382.0  | 380.7  |
| 72.5° | 318.0  | 317.7  | 330.6  | 330.6  | 331.7  |
| 75°   | 230.8  | 241.3  | 255.3  | 256.9  | 256.9  |
| 77.5° | 154.1  | 172.6  | 188.1  | 188.6  | 188.4  |
| 80°   | 110.1  | 130.9  | 145.2  | 148.3  | 146.7  |
| 82.5° | 74.5   | 96.7   | 108.5  | 111.5  | 110.1  |
| 85°   | 33.7   | 51.6   | 61.1   | 62.7   | 61.1   |
| 87.5° | 9.7    | 20.6   | 24.5   | 24.5   | 22.1   |
| 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 | 20.93            | 22.54 | 21.29 | 22.86 | 23.17 | 20.81          | 22.43 | 21.18 | 22.74 | 23.06 |
|                 | 3H   | 22.47            | 23.93 | 22.85 | 24.26 | 24.62 | 22.42          | 23.87 | 22.79 | 24.20 | 24.56 |
|                 | 4H   | 22.98            | 24.35 | 23.38 | 24.70 | 25.08 | 23.02          | 24.39 | 23.41 | 24.73 | 25.11 |
|                 | 6H   | 23.22            | 24.49 | 23.63 | 24.85 | 25.24 | 23.38          | 24.65 | 23.79 | 25.02 | 25.41 |
|                 | 8H   | 23.28            | 24.49 | 23.71 | 24.88 | 25.28 | 23.52          | 24.73 | 23.94 | 25.12 | 25.52 |
|                 | 12H  | 23.31            | 24.47 | 23.74 | 24.85 | 25.28 | 23.61          | 24.77 | 24.04 | 25.15 | 25.58 |
| 4H              | 2H   | 21.52            | 22.89 | 21.92 | 23.24 | 23.62 | 21.43          | 22.80 | 21.83 | 23.15 | 23.53 |
|                 | 3H   | 23.28            | 24.42 | 23.69 | 24.82 | 25.22 | 23.25          | 24.40 | 23.66 | 24.80 | 25.20 |
|                 | 4H   | 23.89            | 24.92 | 24.32 | 25.33 | 25.77 | 23.96          | 24.99 | 24.39 | 25.41 | 25.84 |
|                 | 6H   | 24.23            | 25.13 | 24.68 | 25.57 | 26.03 | 24.44          | 25.34 | 24.89 | 25.78 | 26.23 |
|                 | 8H   | 24.33            | 25.17 | 24.79 | 25.61 | 26.08 | 24.62          | 25.46 | 25.08 | 25.91 | 26.37 |
|                 | 12H  | 24.38            | 25.14 | 24.86 | 25.61 | 26.08 | 24.75          | 25.50 | 25.23 | 25.98 | 26.45 |
| 8H              | 4H   | 24.14            | 24.99 | 24.60 | 25.43 | 25.89 | 24.21          | 25.05 | 24.67 | 25.49 | 25.96 |
|                 | 6H   | 24.59            | 25.29 | 25.08 | 25.78 | 26.25 | 24.79          | 25.49 | 25.29 | 25.98 | 26.46 |
|                 | 8H   | 24.75            | 25.38 | 25.26 | 25.89 | 26.37 | 25.05          | 25.68 | 25.57 | 26.19 | 26.68 |
|                 | 12H  | 24.86            | 25.41 | 25.36 | 25.90 | 26.46 | 25.25          | 25.80 | 25.76 | 26.30 | 26.86 |
| 12H             | 4H   | 24.17            | 24.92 | 24.65 | 25.40 | 25.87 | 24.22          | 24.98 | 24.70 | 25.45 | 25.92 |
|                 | 6H   | 24.63            | 25.26 | 25.14 | 25.77 | 26.26 | 24.83          | 25.46 | 25.34 | 25.97 | 26.45 |
|                 | 8H   | 24.86            | 25.41 | 25.36 | 25.90 | 26.46 | 25.15          | 25.70 | 25.66 | 26.19 | 26.76 |

END OF REPORT