

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: P1036318

Luminaire Tested: SQ4R-PR1-125D-B2750-1D-UNV-W2A\_3500K

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036318  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P564154)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-PR1-125D-B2750-1D-UNV-W2A\_3500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1250 LUMENS PER FOOT DC

Light Source: -  
Ballast/Driver: -

**Summary**

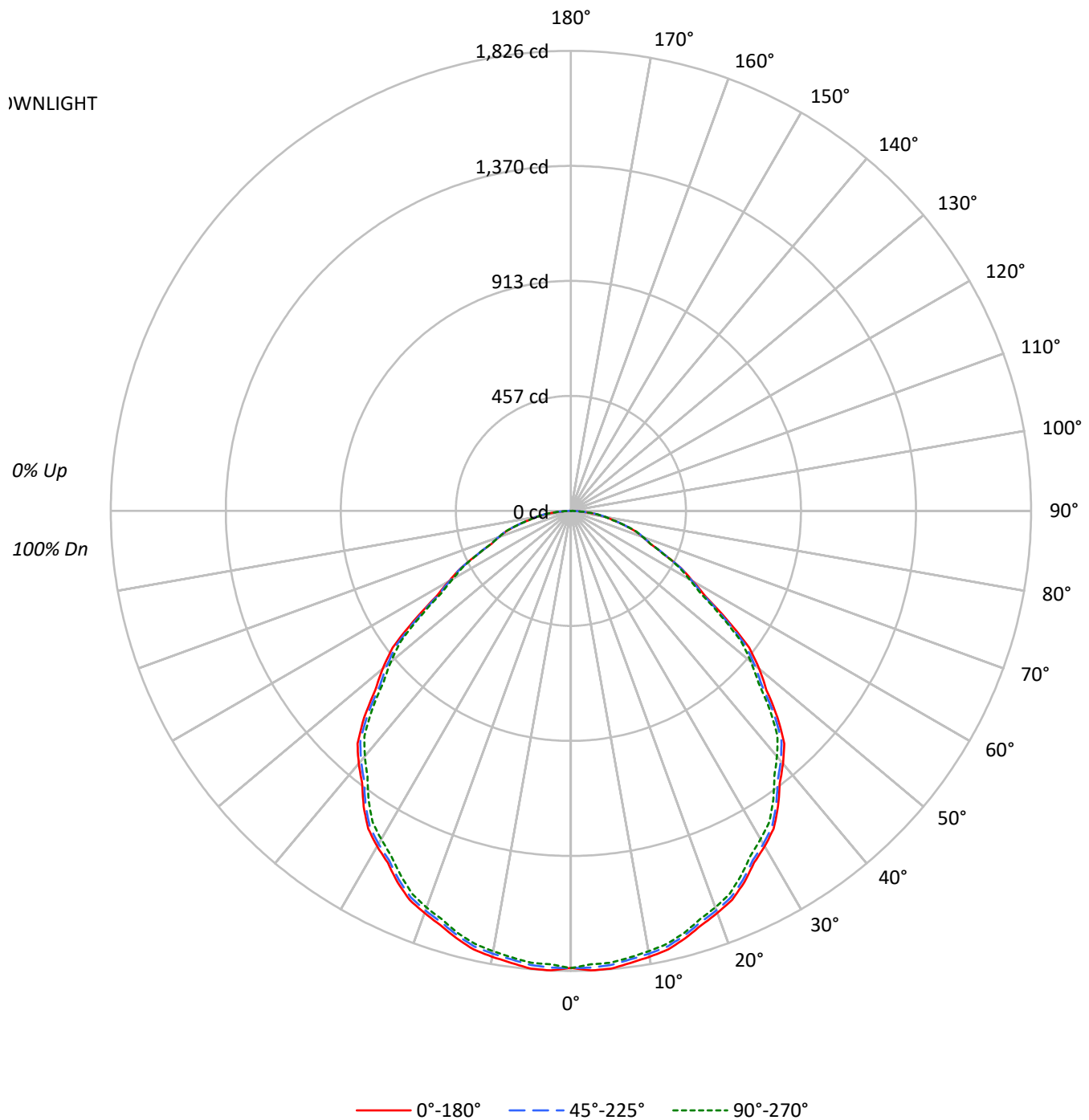
Lumens per Lamp: N/A  
Luminaire Lumens: 4535.6 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

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  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 72  |    |    |
| 3   | 92  | 82  | 74  | 68  | 90  | 80  | 73  | 68  | 78  | 71  | 66  | 75  | 70  | 65  | 72  | 68  | 64  | 62  |    |    |
| 4   | 85  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 63  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 50  | 63  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 47  |    |    |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  | 55  | 49  | 44  | 53  | 48  | 43  | 41  |    |    |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 39  | 52  | 44  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 37  |    |    |
| 8   | 63  | 49  | 41  | 35  | 61  | 49  | 41  | 35  | 47  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 33  |    |    |
| 9   | 58  | 45  | 37  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 31  | 30  |    |    |
| 10  | 55  | 42  | 34  | 29  | 54  | 41  | 34  | 29  | 40  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 27  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16739 | 16739 | 16739 |
| 5°  | 16891 | 16760 | 16673 |
| 10° | 16835 | 16719 | 16631 |
| 15° | 16764 | 16658 | 16567 |
| 20° | 16678 | 16569 | 16449 |
| 25° | 16561 | 16451 | 16258 |
| 30° | 16381 | 16267 | 16034 |
| 35° | 16141 | 15999 | 15771 |
| 40° | 15770 | 15602 | 15320 |
| 45° | 15132 | 14864 | 14559 |
| 50° | 13996 | 13662 | 13390 |
| 55° | 12215 | 11942 | 11691 |
| 60° | 10295 | 10210 | 10005 |
| 65° | 8905  | 8938  | 8868  |
| 70° | 8176  | 8217  | 8217  |
| 75° | 7857  | 7857  | 7910  |
| 80° | 7385  | 7470  | 7385  |
| 85° | 5960  | 6616  | 6616  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15132 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 171.6  | 3.8       |
| 10°-20°   | 490.9  | 10.8      |
| 20°-30°   | 740.4  | 16.3      |
| 30°-40°   | 882.2  | 19.5      |
| 40°-50°   | 869.8  | 19.2      |
| 50°-60°   | 664.7  | 14.7      |
| 60°-70°   | 411.3  | 9.1       |
| 70°-80°   | 233.6  | 5.2       |
| 80°-90°   | 71.0   | 1.6       |
| 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°    | 1402.9 | 30.9      |
| 0°-40°    | 2285.1 | 50.4      |
| 0°-60°    | 3819.6 | 84.2      |
| 0°-90°    | 4535.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4535.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1814 | 1814  | 1814 | 1814  | 1814 |      |
| 5°  | 1824 | 1804  | 1810 | 1803  | 1800 | 173  |
| 15° | 1755 | 1737  | 1744 | 1738  | 1734 | 495  |
| 25° | 1627 | 1607  | 1616 | 1599  | 1597 | 749  |
| 35° | 1433 | 1416  | 1420 | 1402  | 1400 | 894  |
| 45° | 1160 | 1144  | 1139 | 1119  | 1116 | 888  |
| 55° | 759  | 747   | 742  | 730   | 727  | 680  |
| 65° | 408  | 405   | 409  | 406   | 406  | 413  |
| 75° | 220  | 220   | 220  | 222   | 222  | 233  |
| 85° | 56   | 59    | 62   | 62    | 62   | 68   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1814.3 | 1814.3 | 1814.3 | 1814.3 | 1814.3 |
| 2.5°  | 1825.6 | 1809.7 | 1814.3 | 1810.5 | 1801.9 |
| 5°    | 1823.8 | 1803.8 | 1809.7 | 1803.2 | 1800.3 |
| 7.5°  | 1809.7 | 1790.1 | 1796.0 | 1789.5 | 1787.8 |
| 10°   | 1797.0 | 1778.7 | 1784.6 | 1778.4 | 1775.2 |
| 12.5° | 1783.3 | 1763.9 | 1770.9 | 1763.4 | 1760.4 |
| 15°   | 1755.1 | 1736.7 | 1744.0 | 1737.7 | 1734.5 |
| 17.5° | 1723.7 | 1704.1 | 1711.6 | 1704.4 | 1700.4 |
| 20°   | 1698.7 | 1680.4 | 1687.6 | 1676.9 | 1675.3 |
| 22.5° | 1671.3 | 1652.9 | 1660.2 | 1645.7 | 1645.4 |
| 25°   | 1626.8 | 1606.9 | 1616.0 | 1598.8 | 1597.1 |
| 27.5° | 1574.0 | 1555.7 | 1563.0 | 1545.4 | 1543.8 |
| 30°   | 1537.6 | 1519.3 | 1526.9 | 1508.0 | 1505.0 |
| 32.5° | 1496.4 | 1479.5 | 1485.7 | 1466.8 | 1464.9 |
| 35°   | 1433.1 | 1416.2 | 1420.5 | 1401.9 | 1400.2 |
| 37.5° | 1360.9 | 1345.5 | 1348.0 | 1327.2 | 1325.9 |
| 40°   | 1309.4 | 1294.3 | 1295.4 | 1273.6 | 1272.0 |
| 42.5° | 1253.4 | 1238.1 | 1236.7 | 1214.9 | 1213.3 |
| 45°   | 1159.7 | 1144.3 | 1139.2 | 1118.7 | 1115.8 |
| 47.5° | 1052.7 | 1037.4 | 1028.0 | 1011.3 | 1009.1 |
| 50°   | 975.1  | 959.8  | 951.8  | 937.5  | 932.9  |
| 52.5° | 891.4  | 876.0  | 869.3  | 856.3  | 851.7  |
| 55°   | 759.4  | 747.2  | 742.4  | 729.7  | 726.8  |
| 57.5° | 634.1  | 626.1  | 624.4  | 612.3  | 610.9  |
| 60°   | 557.9  | 553.3  | 553.3  | 542.2  | 542.2  |
| 62.5° | 493.0  | 489.5  | 491.9  | 484.6  | 483.5  |
| 65°   | 407.9  | 404.8  | 409.4  | 406.2  | 406.2  |
| 67.5° | 340.7  | 340.7  | 343.5  | 342.1  | 342.1  |
| 70°   | 303.1  | 303.1  | 304.6  | 304.6  | 304.6  |
| 72.5° | 269.4  | 268.3  | 272.3  | 272.0  | 271.0  |
| 75°   | 220.4  | 220.4  | 220.4  | 221.9  | 221.9  |
| 77.5° | 171.6  | 171.8  | 173.2  | 172.9  | 171.6  |
| 80°   | 139.0  | 140.6  | 140.6  | 139.0  | 139.0  |
| 82.5° | 106.7  | 108.0  | 108.0  | 107.7  | 106.7  |
| 85°   | 56.3   | 59.3   | 62.5   | 62.5   | 62.5   |
| 87.5° | 16.1   | 21.0   | 25.1   | 25.1   | 23.7   |
| 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 | 19.89            | 21.46 | 20.26 | 21.77 | 22.08 | 19.72          | 21.28 | 20.09 | 21.60 | 21.91 |
|                 | 3H   | 21.23            | 22.63 | 21.60 | 22.96 | 23.32 | 21.13          | 22.53 | 21.50 | 22.86 | 23.22 |
|                 | 4H   | 21.83            | 23.15 | 22.23 | 23.50 | 23.87 | 21.76          | 23.07 | 22.15 | 23.42 | 23.80 |
|                 | 6H   | 22.28            | 23.50 | 22.69 | 23.86 | 24.25 | 22.21          | 23.43 | 22.62 | 23.80 | 24.19 |
|                 | 8H   | 22.46            | 23.62 | 22.89 | 24.01 | 24.41 | 22.40          | 23.56 | 22.83 | 23.95 | 24.35 |
|                 | 12H  | 22.57            | 23.68 | 23.00 | 24.06 | 24.49 | 22.53          | 23.64 | 22.96 | 24.02 | 24.45 |
| 4H              | 2H   | 20.37            | 21.68 | 20.77 | 22.03 | 22.41 | 20.23          | 21.54 | 20.62 | 21.89 | 22.27 |
|                 | 3H   | 21.97            | 23.06 | 22.38 | 23.46 | 23.86 | 21.89          | 22.99 | 22.31 | 23.39 | 23.79 |
|                 | 4H   | 22.70            | 23.69 | 23.14 | 24.11 | 24.54 | 22.66          | 23.65 | 23.09 | 24.06 | 24.50 |
|                 | 6H   | 23.29            | 24.15 | 23.75 | 24.60 | 25.05 | 23.25          | 24.11 | 23.71 | 24.56 | 25.01 |
|                 | 8H   | 23.54            | 24.34 | 24.00 | 24.79 | 25.25 | 23.50          | 24.30 | 23.96 | 24.75 | 25.21 |
|                 | 12H  | 23.69            | 24.42 | 24.17 | 24.89 | 25.36 | 23.68          | 24.40 | 24.16 | 24.87 | 25.35 |
| 8H              | 4H   | 22.98            | 23.79 | 23.44 | 24.23 | 24.70 | 22.94          | 23.74 | 23.40 | 24.19 | 24.65 |
|                 | 6H   | 23.71            | 24.38 | 24.20 | 24.87 | 25.34 | 23.67          | 24.34 | 24.16 | 24.83 | 25.31 |
|                 | 8H   | 24.04            | 24.64 | 24.55 | 25.15 | 25.64 | 24.01          | 24.61 | 24.52 | 25.12 | 25.60 |
|                 | 12H  | 24.27            | 24.81 | 24.78 | 25.30 | 25.86 | 24.27          | 24.80 | 24.77 | 25.29 | 25.86 |
| 12H             | 4H   | 23.01            | 23.73 | 23.49 | 24.21 | 24.68 | 22.97          | 23.69 | 23.45 | 24.17 | 24.64 |
|                 | 6H   | 23.77            | 24.37 | 24.28 | 24.88 | 25.37 | 23.73          | 24.34 | 24.25 | 24.85 | 25.33 |
|                 | 8H   | 24.17            | 24.70 | 24.67 | 25.19 | 25.76 | 24.13          | 24.67 | 24.64 | 25.16 | 25.72 |