

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-FB-0U-125D-835-1D-UNV-STD-W-8

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number:  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-0U-125D-835-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

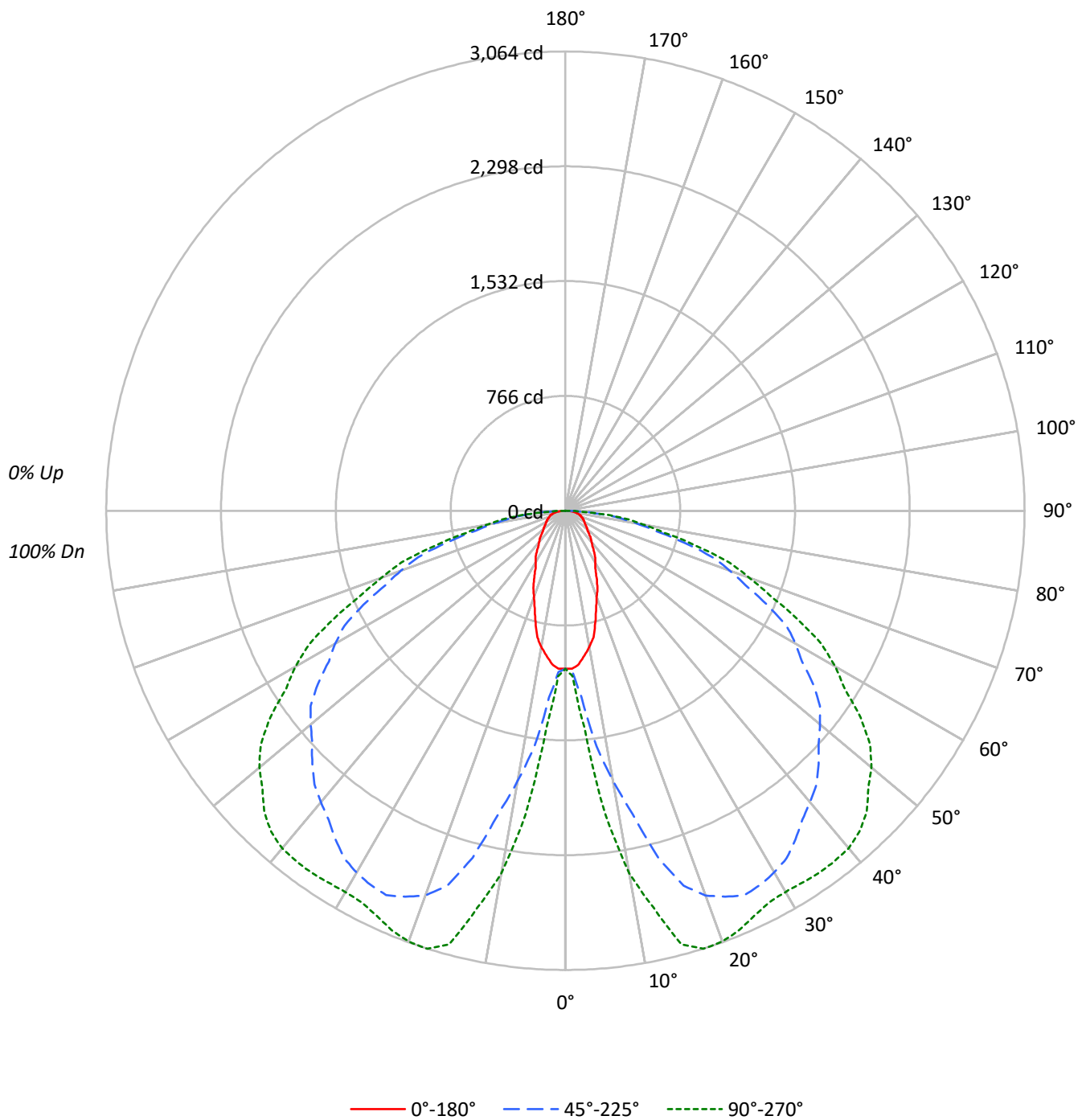
Lumens per Lamp: N/A  
Luminaire Lumens: 8162.1 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 91.1  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 89  |  | 92  | 89  | 87  |  | 89  |
| 2   | 97  | 88  | 81  | 75  | 95  | 87  | 80  | 74  | 83  | 77  | 72  |  | 80  | 75  | 71  |  | 77  |
| 3   | 88  | 77  | 68  | 61  | 86  | 75  | 67  | 61  | 72  | 65  | 59  |  | 69  | 63  | 58  |  | 67  |
| 4   | 80  | 67  | 58  | 51  | 78  | 66  | 57  | 51  | 63  | 56  | 50  |  | 61  | 54  | 49  |  | 59  |
| 5   | 73  | 60  | 50  | 43  | 71  | 58  | 50  | 43  | 56  | 48  | 42  |  | 54  | 47  | 42  |  | 52  |
| 6   | 67  | 53  | 44  | 37  | 65  | 52  | 43  | 37  | 50  | 42  | 36  |  | 49  | 42  | 36  |  | 47  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 45  | 38  | 32  |  | 44  | 37  | 32  |  | 43  |
| 8   | 58  | 43  | 34  | 28  | 56  | 43  | 34  | 28  | 41  | 34  | 28  |  | 40  | 33  | 28  |  | 39  |
| 9   | 54  | 40  | 31  | 25  | 52  | 39  | 31  | 25  | 38  | 30  | 25  |  | 37  | 30  | 25  |  | 36  |
| 10  | 50  | 36  | 28  | 23  | 49  | 36  | 28  | 22  | 35  | 27  | 22  |  | 34  | 27  | 22  |  | 33  |

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

|     | 0°   | 45°   | 90°   |
|-----|------|-------|-------|
| 0°  | 4865 | 4865  | 4865  |
| 5°  | 4759 | 5787  | 6737  |
| 10° | 4321 | 8562  | 11501 |
| 15° | 3676 | 11443 | 14301 |
| 20° | 2997 | 13410 | 15017 |
| 25° | 2503 | 14405 | 15173 |
| 30° | 2114 | 14849 | 15644 |
| 35° | 1871 | 15068 | 16615 |
| 40° | 1634 | 15286 | 17706 |
| 45° | 1482 | 15587 | 18540 |
| 50° | 1363 | 15917 | 19130 |
| 55° | 1309 | 16215 | 19338 |
| 60° | 1345 | 16364 | 19179 |
| 65° | 1407 | 16232 | 18620 |
| 70° | 1509 | 15734 | 17610 |
| 75° | 1693 | 14598 | 16139 |
| 80° | 1891 | 12612 | 14053 |
| 85° | 1794 | 10501 | 12026 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 19417 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 138.3  | 1.7       |
| 10°-20°   | 602.5  | 7.4       |
| 20°-30°   | 1055.9 | 12.9      |
| 30°-40°   | 1359.6 | 16.7      |
| 40°-50°   | 1517.9 | 18.6      |
| 50°-60°   | 1455.6 | 17.8      |
| 60°-70°   | 1158.4 | 14.2      |
| 70°-80°   | 682.5  | 8.4       |
| 80°-90°   | 191.3  | 2.3       |
| 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°    | 1796.7 | 22.0      |
| 0°-40°    | 3156.3 | 38.7      |
| 0°-60°    | 6129.9 | 75.1      |
| 0°-90°    | 8162.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8162.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1055 | 1055  | 1055 | 1055  | 1055 |      |
| 5°  | 1028 | 1101  | 1250 | 1410  | 1455 | 94   |
| 15° | 770  | 1414  | 2396 | 2897  | 2994 | 214  |
| 25° | 492  | 1604  | 2830 | 2976  | 2981 | 227  |
| 35° | 332  | 1505  | 2676 | 2838  | 2950 | 207  |
| 45° | 227  | 1181  | 2389 | 2715  | 2842 | 176  |
| 55° | 163  | 788   | 2016 | 2331  | 2404 | 148  |
| 65° | 129  | 516   | 1487 | 1679  | 1706 | 128  |
| 75° | 95   | 325   | 819  | 893   | 906  | 99   |
| 85° | 34   | 88    | 198  | 223   | 227  | 38   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 30°    | 40°    | 50°    | 60°    | 70°    | 80°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 | 1054.7 |
| 2.5°  | 1054.7 | 1054.7 | 1060.1 | 1068.2 | 1071.0 | 1081.8 | 1098.1 | 1106.2 | 1111.7 | 1106.2 |
| 5°    | 1027.6 | 1041.1 | 1085.2 | 1149.6 | 1214.1 | 1285.3 | 1376.9 | 1420.9 | 1448.1 | 1454.9 |
| 7.5°  | 974.0  | 1011.3 | 1136.8 | 1305.0 | 1492.2 | 1678.0 | 1838.7 | 1969.0 | 2044.9 | 2048.3 |
| 10°   | 922.4  | 986.9  | 1180.2 | 1437.9 | 1695.6 | 1960.2 | 2180.6 | 2316.2 | 2424.8 | 2455.3 |
| 12.5° | 865.5  | 962.4  | 1226.3 | 1570.8 | 1923.5 | 2220.6 | 2465.4 | 2614.7 | 2701.5 | 2713.0 |
| 15°   | 769.8  | 912.3  | 1292.1 | 1780.4 | 2217.9 | 2574.0 | 2808.0 | 2926.7 | 2980.9 | 2994.5 |
| 17.5° | 681.0  | 867.5  | 1349.7 | 1944.6 | 2462.7 | 2783.6 | 2961.3 | 3035.9 | 3063.0 | 3064.3 |
| 20°   | 610.4  | 824.1  | 1376.9 | 2058.5 | 2587.5 | 2875.8 | 3004.7 | 3052.1 | 3065.7 | 3058.9 |
| 22.5° | 558.9  | 778.0  | 1393.1 | 2134.5 | 2663.5 | 2911.1 | 3007.4 | 3030.4 | 3035.9 | 3029.1 |
| 25°   | 491.7  | 702.0  | 1393.8 | 2234.8 | 2740.1 | 2919.9 | 2970.7 | 2977.5 | 2984.3 | 2980.9 |
| 27.5° | 432.0  | 617.2  | 1373.5 | 2301.3 | 2751.0 | 2878.5 | 2902.2 | 2919.2 | 2940.2 | 2945.0 |
| 30°   | 396.8  | 562.9  | 1346.3 | 2323.0 | 2740.1 | 2835.1 | 2858.8 | 2889.4 | 2926.7 | 2936.8 |
| 32.5° | 369.6  | 511.4  | 1305.6 | 2325.7 | 2713.0 | 2783.6 | 2815.4 | 2873.1 | 2926.7 | 2942.3 |
| 35°   | 332.3  | 434.1  | 1237.8 | 2306.1 | 2652.0 | 2699.4 | 2767.3 | 2862.2 | 2933.4 | 2950.4 |
| 37.5° | 295.7  | 378.5  | 1145.6 | 2266.0 | 2571.9 | 2621.4 | 2733.4 | 2848.0 | 2927.3 | 2948.4 |
| 40°   | 271.3  | 345.9  | 1075.0 | 2228.1 | 2509.5 | 2567.2 | 2706.2 | 2831.7 | 2916.5 | 2940.2 |
| 42.5° | 252.3  | 318.8  | 999.1  | 2179.2 | 2439.0 | 2518.4 | 2673.7 | 2807.3 | 2886.6 | 2905.0 |
| 45°   | 227.2  | 278.1  | 878.3  | 2089.0 | 2329.8 | 2448.5 | 2618.1 | 2746.9 | 2821.5 | 2841.9 |
| 47.5° | 203.5  | 249.6  | 752.2  | 1985.9 | 2218.6 | 2363.7 | 2537.3 | 2659.4 | 2727.9 | 2741.5 |
| 50°   | 189.9  | 230.6  | 668.1  | 1912.7 | 2139.9 | 2295.9 | 2472.2 | 2594.3 | 2652.0 | 2665.5 |
| 52.5° | 179.1  | 214.3  | 589.4  | 1828.6 | 2058.5 | 2225.3 | 2393.6 | 2504.8 | 2557.0 | 2562.4 |
| 55°   | 162.8  | 193.3  | 485.0  | 1699.0 | 1929.6 | 2102.6 | 2265.4 | 2353.5 | 2390.8 | 2404.4 |
| 57.5° | 154.0  | 177.7  | 402.9  | 1558.6 | 1784.5 | 1958.1 | 2106.0 | 2174.5 | 2204.3 | 2209.1 |
| 60°   | 145.8  | 169.6  | 359.5  | 1458.2 | 1692.2 | 1855.0 | 1983.9 | 2041.5 | 2068.7 | 2078.8 |
| 62.5° | 137.7  | 164.1  | 326.9  | 1355.1 | 1583.7 | 1741.1 | 1853.7 | 1903.2 | 1924.9 | 1926.9 |
| 65°   | 128.9  | 156.0  | 288.3  | 1197.1 | 1414.2 | 1560.0 | 1648.2 | 1688.8 | 1699.0 | 1705.8 |
| 67.5° | 120.1  | 147.9  | 260.4  | 1037.7 | 1239.2 | 1359.9 | 1425.0 | 1460.3 | 1462.3 | 1476.6 |
| 70°   | 111.9  | 142.4  | 244.2  | 929.2  | 1108.9 | 1224.2 | 1278.5 | 1305.6 | 1302.2 | 1305.6 |
| 72.5° | 106.5  | 134.3  | 233.3  | 818.0  | 984.1  | 1075.0 | 1123.9 | 1142.9 | 1144.9 | 1145.6 |
| 75°   | 95.0   | 118.7  | 217.0  | 647.7  | 780.0  | 858.0  | 895.3  | 891.9  | 902.1  | 905.5  |
| 77.5° | 82.1   | 102.4  | 178.4  | 477.5  | 584.7  | 636.2  | 666.0  | 675.5  | 672.1  | 672.8  |
| 80°   | 71.2   | 91.6   | 145.8  | 366.3  | 454.4  | 495.1  | 522.3  | 529.0  | 525.6  | 529.0  |
| 82.5° | 57.7   | 75.3   | 113.3  | 271.3  | 340.5  | 373.0  | 392.0  | 393.4  | 395.4  | 401.5  |
| 85°   | 33.9   | 44.1   | 67.8   | 149.2  | 189.9  | 206.9  | 220.4  | 223.8  | 227.2  | 227.2  |
| 87.5° | 13.6   | 19.0   | 35.3   | 62.4   | 78.7   | 84.1   | 84.1   | 78.7   | 84.1   | 76.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)