

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-075D-840-1D-UNV-STD-W-12

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-075D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

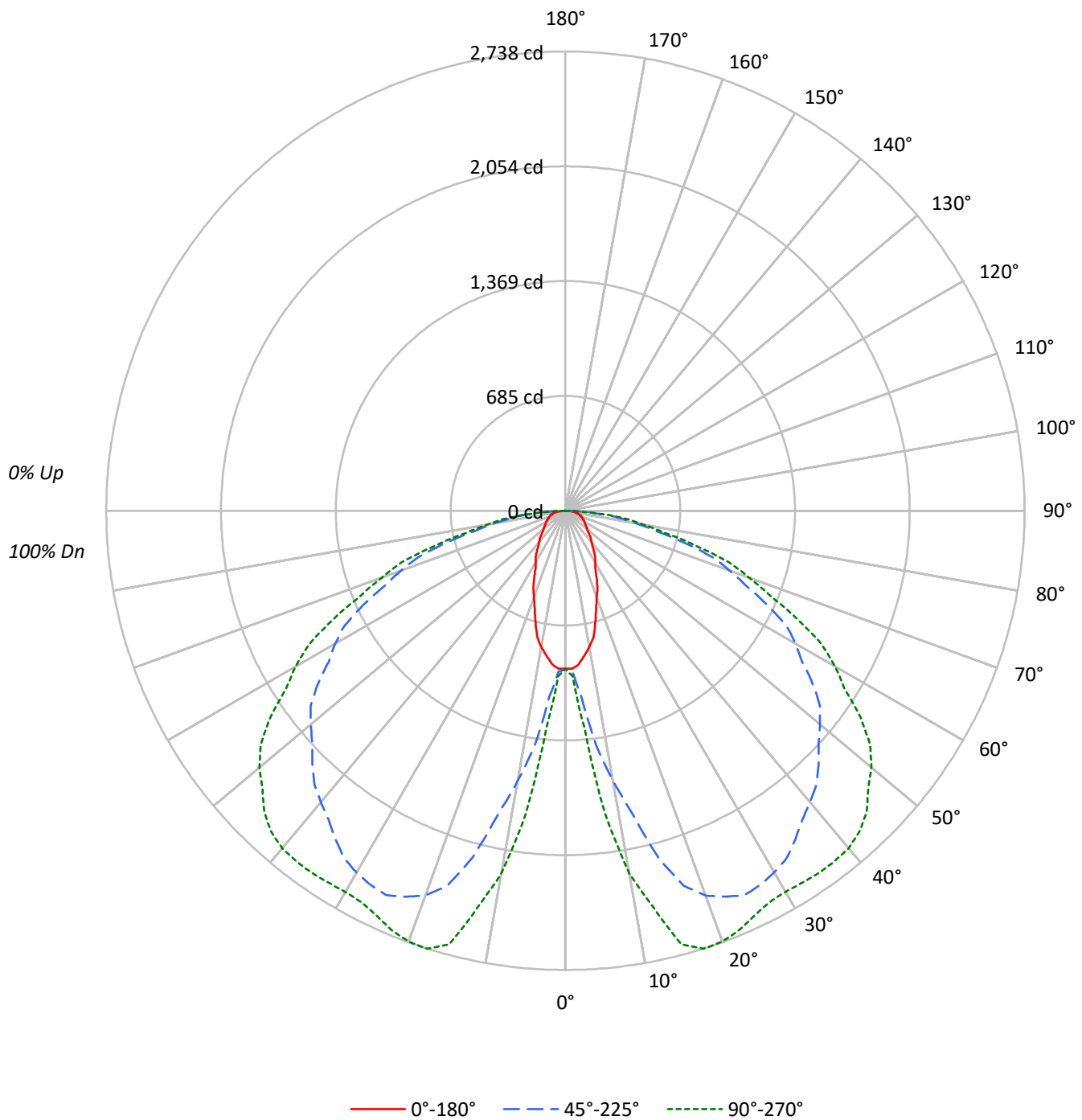
Lumens per Lamp: N/A  
Luminaire Lumens: 7293.1 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Direct

Input Watts (W): 79.4  
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°  | 2898 | 2898 | 2898  |
| 5°  | 2834 | 3447 | 4013  |
| 10° | 2574 | 5100 | 6851  |
| 15° | 2190 | 6816 | 8519  |
| 20° | 1785 | 7988 | 8945  |
| 25° | 1491 | 8581 | 9038  |
| 30° | 1259 | 8845 | 9319  |
| 35° | 1115 | 8976 | 9898  |
| 40° | 973  | 9105 | 10547 |
| 45° | 883  | 9285 | 11044 |
| 50° | 812  | 9481 | 11395 |
| 55° | 780  | 9659 | 11519 |
| 60° | 801  | 9748 | 11425 |
| 65° | 838  | 9669 | 11092 |
| 70° | 899  | 9373 | 10490 |
| 75° | 1008 | 8695 | 9614  |
| 80° | 1126 | 7513 | 8372  |
| 85° | 1069 | 6254 | 7163  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 11567 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 123.6  | 1.7       |
| 10°-20°   | 538.4  | 7.4       |
| 20°-30°   | 943.4  | 12.9      |
| 30°-40°   | 1214.8 | 16.7      |
| 40°-50°   | 1356.3 | 18.6      |
| 50°-60°   | 1300.6 | 17.8      |
| 60°-70°   | 1035.1 | 14.2      |
| 70°-80°   | 609.8  | 8.4       |
| 80°-90°   | 170.9  | 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°    | 1605.4 | 22.0      |
| 0°-40°    | 2820.2 | 38.7      |
| 0°-60°    | 5477.2 | 75.1      |
| 0°-90°    | 7293.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7293.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|-----|-------|------|-------|------|------|
| 0°  | 942 | 942   | 942  | 942   | 942  |      |
| 5°  | 918 | 984   | 1117 | 1260  | 1300 | 84   |
| 15° | 688 | 1264  | 2141 | 2588  | 2676 | 191  |
| 25° | 439 | 1433  | 2529 | 2659  | 2664 | 203  |
| 35° | 297 | 1345  | 2391 | 2536  | 2636 | 185  |
| 45° | 203 | 1055  | 2135 | 2426  | 2539 | 157  |
| 55° | 145 | 704   | 1801 | 2083  | 2148 | 133  |
| 65° | 115 | 461   | 1329 | 1500  | 1524 | 114  |
| 75° | 85  | 290   | 732  | 798   | 809  | 88   |
| 85° | 30  | 79    | 177  | 199   | 203  | 34   |
| 90° | 0   | 0     | 0    | 0     | 0    |      |

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-075D-840-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 10°   | 20°    | 30°    | 40°    | 50°    | 60°    | 70°    | 80°    | 90°    |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 942.4 | 942.4 | 942.4  | 942.4  | 942.4  | 942.4  | 942.4  | 942.4  | 942.4  | 942.4  |
| 2.5°  | 942.4 | 942.4 | 947.2  | 954.5  | 956.9  | 966.6  | 981.2  | 988.4  | 993.3  | 988.4  |
| 5°    | 918.1 | 930.3 | 969.7  | 1027.2 | 1084.8 | 1148.4 | 1230.3 | 1269.6 | 1293.9 | 1299.9 |
| 7.5°  | 870.3 | 903.6 | 1015.7 | 1166.0 | 1333.3 | 1499.3 | 1643.0 | 1759.3 | 1827.2 | 1830.2 |
| 10°   | 824.2 | 881.8 | 1054.5 | 1284.8 | 1515.1 | 1751.4 | 1948.4 | 2069.6 | 2166.6 | 2193.9 |
| 12.5° | 773.3 | 860.0 | 1095.7 | 1403.6 | 1718.7 | 1984.2 | 2202.9 | 2336.3 | 2413.8 | 2424.1 |
| 15°   | 687.9 | 815.1 | 1154.5 | 1590.8 | 1981.7 | 2299.9 | 2509.0 | 2615.0 | 2663.5 | 2675.7 |
| 17.5° | 608.5 | 775.1 | 1206.0 | 1737.5 | 2200.5 | 2487.2 | 2646.0 | 2712.6 | 2736.9 | 2738.1 |
| 20°   | 545.4 | 736.3 | 1230.3 | 1839.3 | 2312.0 | 2569.6 | 2684.7 | 2727.2 | 2739.3 | 2733.2 |
| 22.5° | 499.4 | 695.1 | 1244.8 | 1907.2 | 2379.9 | 2601.1 | 2687.2 | 2707.8 | 2712.6 | 2706.6 |
| 25°   | 439.4 | 627.2 | 1245.4 | 1996.9 | 2448.4 | 2609.0 | 2654.4 | 2660.5 | 2666.6 | 2663.5 |
| 27.5° | 386.0 | 551.5 | 1227.2 | 2056.3 | 2458.1 | 2572.0 | 2593.2 | 2608.4 | 2627.2 | 2631.4 |
| 30°   | 354.5 | 503.0 | 1203.0 | 2075.7 | 2448.4 | 2533.2 | 2554.4 | 2581.7 | 2615.0 | 2624.1 |
| 32.5° | 330.3 | 457.0 | 1166.6 | 2078.1 | 2424.1 | 2487.2 | 2515.7 | 2567.2 | 2615.0 | 2629.0 |
| 35°   | 297.0 | 387.9 | 1106.0 | 2060.5 | 2369.6 | 2412.0 | 2472.6 | 2557.5 | 2621.1 | 2636.3 |
| 37.5° | 264.2 | 338.2 | 1023.6 | 2024.8 | 2298.1 | 2342.3 | 2442.3 | 2544.7 | 2615.7 | 2634.4 |
| 40°   | 242.4 | 309.1 | 960.6  | 1990.8 | 2242.3 | 2293.8 | 2418.1 | 2530.2 | 2606.0 | 2627.2 |
| 42.5° | 225.4 | 284.8 | 892.7  | 1947.2 | 2179.3 | 2250.2 | 2389.0 | 2508.4 | 2579.3 | 2595.7 |
| 45°   | 203.0 | 248.5 | 784.8  | 1866.6 | 2081.7 | 2187.8 | 2339.3 | 2454.4 | 2521.1 | 2539.3 |
| 47.5° | 181.8 | 223.0 | 672.1  | 1774.5 | 1982.3 | 2112.0 | 2267.2 | 2376.3 | 2437.5 | 2449.6 |
| 50°   | 169.7 | 206.1 | 596.9  | 1709.0 | 1912.0 | 2051.4 | 2209.0 | 2318.1 | 2369.6 | 2381.7 |
| 52.5° | 160.0 | 191.5 | 526.6  | 1633.9 | 1839.3 | 1988.4 | 2138.7 | 2238.1 | 2284.8 | 2289.6 |
| 55°   | 145.4 | 172.7 | 433.3  | 1518.1 | 1724.2 | 1878.7 | 2024.2 | 2102.9 | 2136.3 | 2148.4 |
| 57.5° | 137.6 | 158.8 | 360.0  | 1392.7 | 1594.5 | 1749.6 | 1881.7 | 1943.0 | 1969.6 | 1973.9 |
| 60°   | 130.3 | 151.5 | 321.2  | 1303.0 | 1512.1 | 1657.5 | 1772.7 | 1824.2 | 1848.4 | 1857.5 |
| 62.5° | 123.0 | 146.7 | 292.1  | 1210.9 | 1415.1 | 1555.7 | 1656.3 | 1700.5 | 1719.9 | 1721.7 |
| 65°   | 115.1 | 139.4 | 257.6  | 1069.7 | 1263.6 | 1393.9 | 1472.7 | 1509.0 | 1518.1 | 1524.2 |
| 67.5° | 107.3 | 132.1 | 232.7  | 927.2  | 1107.2 | 1215.1 | 1273.3 | 1304.8 | 1306.6 | 1319.3 |
| 70°   | 100.0 | 127.3 | 218.2  | 830.3  | 990.9  | 1093.9 | 1142.4 | 1166.6 | 1163.6 | 1166.6 |
| 72.5° | 95.1  | 120.0 | 208.5  | 730.9  | 879.4  | 960.6  | 1004.2 | 1021.2 | 1023.0 | 1023.6 |
| 75°   | 84.8  | 106.1 | 193.9  | 578.8  | 696.9  | 766.6  | 800.0  | 796.9  | 806.0  | 809.1  |
| 77.5° | 73.3  | 91.5  | 159.4  | 426.6  | 522.4  | 568.5  | 595.1  | 603.6  | 600.6  | 601.2  |
| 80°   | 63.6  | 81.8  | 130.3  | 327.3  | 406.0  | 442.4  | 466.6  | 472.7  | 469.7  | 472.7  |
| 82.5° | 51.5  | 67.3  | 101.2  | 242.4  | 304.2  | 333.3  | 350.3  | 351.5  | 353.3  | 358.8  |
| 85°   | 30.3  | 39.4  | 60.6   | 133.3  | 169.7  | 184.8  | 197.0  | 200.0  | 203.0  | 203.0  |
| 87.5° | 12.1  | 17.0  | 31.5   | 55.8   | 70.3   | 75.1   | 75.1   | 70.3   | 75.1   | 67.9   |
| 90°   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)