

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520102

Luminaire Tested: **SQ4-F-0U-075D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520102  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-0U-075D-830-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

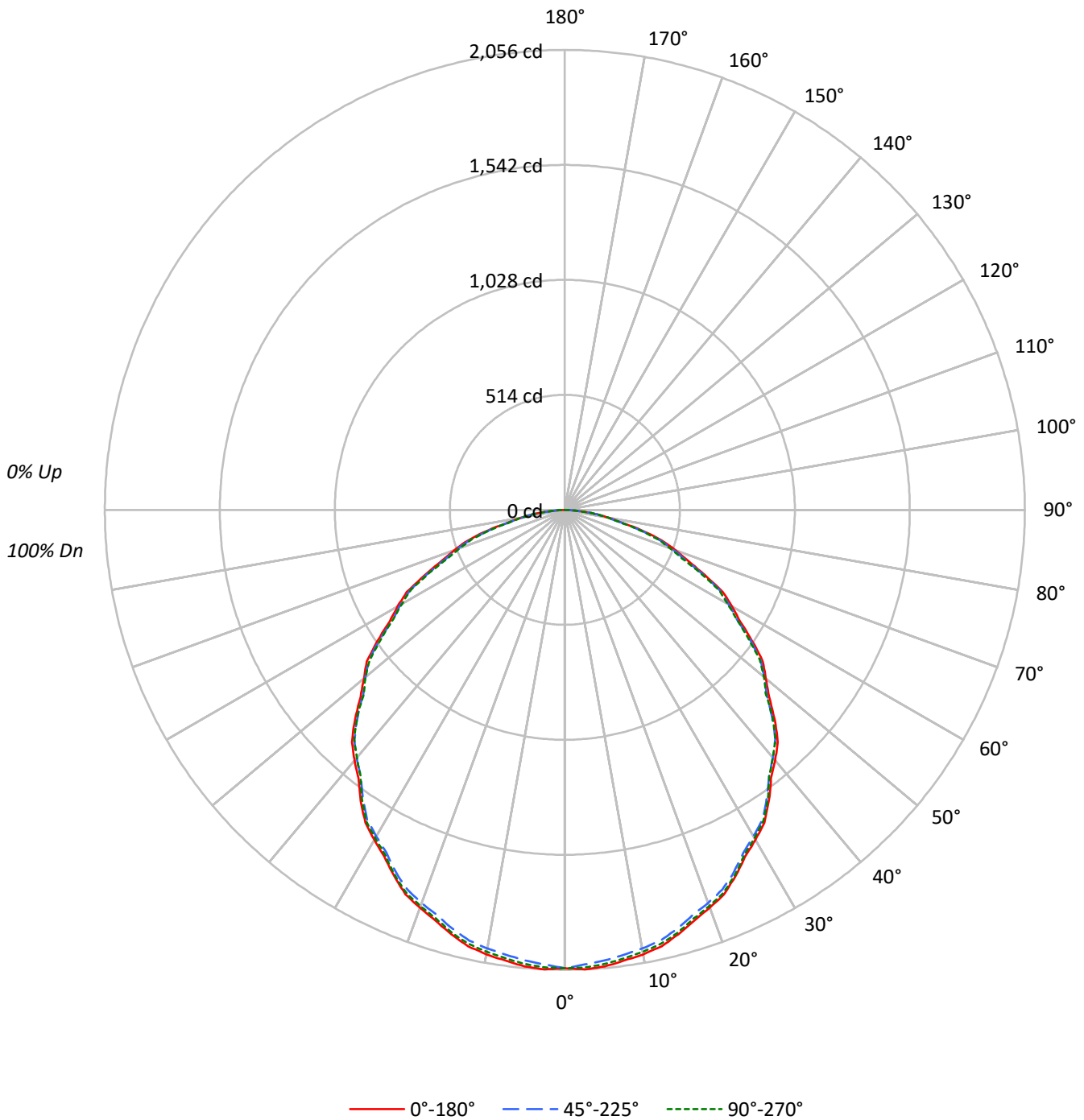
Lumens per Lamp: N/A  
Luminaire Lumens: 5593.7 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 51.5  
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



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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  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 70  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 67  | 63  | 70  | 65  | 61  | 59  |
| 4   | 83  | 71  | 62  | 55  | 81  | 70  | 61  | 55  | 67  | 60  | 54  | 65  | 59  | 54  | 63  | 57  | 53  | 51  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 46  | 56  | 51  | 46  | 44  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 38  |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 34  |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 30  |
| 9   | 57  | 43  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9452 | 9452 | 9452 |
| 5°  | 9488 | 9368 | 9437 |
| 10° | 9450 | 9328 | 9398 |
| 15° | 9378 | 9262 | 9342 |
| 20° | 9293 | 9184 | 9257 |
| 25° | 9191 | 9097 | 9162 |
| 30° | 9074 | 8975 | 9025 |
| 35° | 8955 | 8861 | 8903 |
| 40° | 8804 | 8715 | 8704 |
| 45° | 8653 | 8544 | 8569 |
| 50° | 8413 | 8347 | 8347 |
| 55° | 8218 | 8113 | 8038 |
| 60° | 7952 | 7816 | 7747 |
| 65° | 7523 | 7381 | 7280 |
| 70° | 7066 | 6890 | 6714 |
| 75° | 6358 | 6124 | 5994 |
| 80° | 5082 | 4986 | 4936 |
| 85° | 3049 | 3440 | 3541 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 193.4  | 3.5       |
| 10°-20°   | 550.6  | 9.8       |
| 20°-30°   | 827.2  | 14.8      |
| 30°-40°   | 987.1  | 17.6      |
| 40°-50°   | 1012.3 | 18.1      |
| 50°-60°   | 902.0  | 16.1      |
| 60°-70°   | 672.6  | 12.0      |
| 70°-80°   | 364.7  | 6.5       |
| 80°-90°   | 83.8   | 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°    | 1571.3 | 28.1      |
| 0°-40°    | 2558.3 | 45.7      |
| 0°-60°    | 4472.7 | 80.0      |
| 0°-90°    | 5593.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5593.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2049 | 2049  | 2049 | 2049  | 2049 |      |
| 5°  | 2049 | 2045  | 2023 | 2040  | 2038 | 194  |
| 15° | 1964 | 1960  | 1939 | 1954  | 1956 | 554  |
| 25° | 1806 | 1804  | 1787 | 1796  | 1800 | 832  |
| 35° | 1590 | 1587  | 1574 | 1574  | 1581 | 993  |
| 45° | 1326 | 1321  | 1310 | 1310  | 1313 | 1021 |
| 55° | 1022 | 1020  | 1009 | 999   | 999  | 913  |
| 65° | 689  | 689   | 676  | 669   | 667  | 686  |
| 75° | 357  | 349   | 344  | 338   | 336  | 375  |
| 85° | 58   | 61    | 65   | 65    | 67   | 81   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2049.0 | 2049.0 | 2049.0 | 2049.0 | 2049.0 |
| 2.5°  | 2056.5 | 2052.1 | 2034.2 | 2049.0 | 2047.5 |
| 5°    | 2049.0 | 2045.4 | 2023.0 | 2039.7 | 2037.9 |
| 7.5°  | 2032.3 | 2028.3 | 2006.3 | 2023.0 | 2022.6 |
| 10°   | 2017.4 | 2012.0 | 1991.4 | 2008.2 | 2006.3 |
| 12.5° | 1998.1 | 1992.7 | 1972.2 | 1988.8 | 1987.0 |
| 15°   | 1963.6 | 1960.0 | 1939.4 | 1954.3 | 1956.1 |
| 17.5° | 1924.2 | 1917.3 | 1898.9 | 1913.5 | 1915.3 |
| 20°   | 1893.0 | 1887.5 | 1870.7 | 1883.8 | 1885.6 |
| 22.5° | 1860.3 | 1854.9 | 1838.0 | 1851.0 | 1852.9 |
| 25°   | 1805.7 | 1803.9 | 1787.2 | 1796.5 | 1800.1 |
| 27.5° | 1746.6 | 1741.5 | 1728.0 | 1735.2 | 1738.8 |
| 30°   | 1703.5 | 1699.9 | 1684.9 | 1690.6 | 1694.3 |
| 32.5° | 1658.9 | 1656.8 | 1643.3 | 1646.0 | 1651.2 |
| 35°   | 1590.1 | 1586.6 | 1573.5 | 1573.6 | 1580.9 |
| 37.5° | 1514.0 | 1510.0 | 1499.1 | 1497.3 | 1500.3 |
| 40°   | 1462.0 | 1456.6 | 1447.2 | 1445.3 | 1445.3 |
| 42.5° | 1408.5 | 1404.6 | 1392.2 | 1388.9 | 1393.2 |
| 45°   | 1326.4 | 1320.9 | 1309.7 | 1309.8 | 1313.4 |
| 47.5° | 1237.6 | 1235.4 | 1222.4 | 1216.5 | 1217.9 |
| 50°   | 1172.2 | 1175.9 | 1163.0 | 1155.7 | 1163.0 |
| 52.5° | 1115.7 | 1113.6 | 1102.0 | 1094.7 | 1097.5 |
| 55°   | 1021.8 | 1019.9 | 1008.8 | 999.4  | 999.4  |
| 57.5° | 927.4  | 922.7  | 911.0  | 904.1  | 909.6  |
| 60°   | 861.9  | 860.2  | 847.1  | 834.2  | 839.7  |
| 62.5° | 796.6  | 793.4  | 780.3  | 771.8  | 775.7  |
| 65°   | 689.2  | 689.2  | 676.2  | 668.8  | 666.9  |
| 67.5° | 595.2  | 586.5  | 579.2  | 570.3  | 567.7  |
| 70°   | 523.9  | 516.6  | 510.8  | 503.3  | 497.8  |
| 72.5° | 454.0  | 449.6  | 441.1  | 433.6  | 432.5  |
| 75°   | 356.7  | 349.4  | 343.6  | 338.0  | 336.3  |
| 77.5° | 253.8  | 252.3  | 247.1  | 244.1  | 245.2  |
| 80°   | 191.3  | 191.3  | 187.7  | 187.6  | 185.8  |
| 82.5° | 134.9  | 136.3  | 135.6  | 132.7  | 132.3  |
| 85°   | 57.6   | 61.2   | 65.0   | 65.0   | 66.9   |
| 87.5° | 10.4   | 17.7   | 16.3   | 16.3   | 16.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)