

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: P520238

Luminaire Tested: **SQ4-F-100U-100D-935-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520238
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-100D-935-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

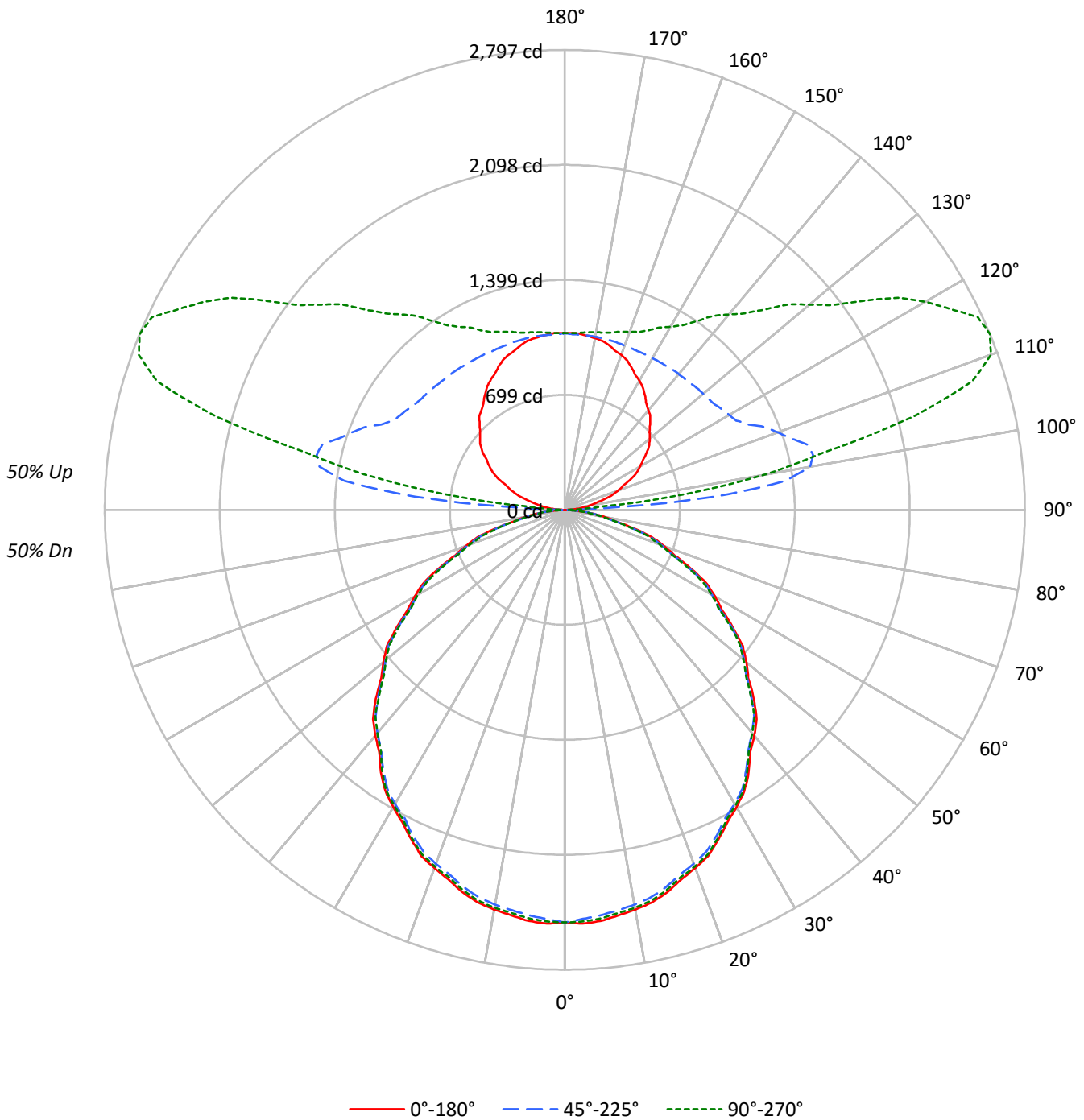
Lumens per Lamp: N/A
Luminaire Lumens: 13824.1 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 119.8
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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 |
| 1 | 98 | 93 | 89 | 86 | 90 | 86 | 83 | 80 | 73 | 70 | 68 | 61 | 59 | 57 | 49 | 48 | 47 | 42 |
| 2 | 89 | 81 | 75 | 70 | 82 | 75 | 70 | 65 | 64 | 60 | 56 | 53 | 50 | 48 | 43 | 41 | 39 | 35 |
| 3 | 81 | 71 | 64 | 58 | 74 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 43 | 40 | 38 | 36 | 33 | 29 |
| 4 | 74 | 63 | 55 | 49 | 68 | 59 | 52 | 46 | 50 | 44 | 40 | 42 | 38 | 34 | 34 | 31 | 29 | 25 |
| 5 | 68 | 56 | 48 | 42 | 62 | 52 | 45 | 40 | 44 | 39 | 35 | 37 | 33 | 30 | 31 | 27 | 25 | 22 |
| 6 | 63 | 50 | 42 | 36 | 57 | 47 | 40 | 34 | 40 | 34 | 30 | 34 | 29 | 26 | 28 | 24 | 22 | 19 |
| 7 | 58 | 45 | 37 | 32 | 53 | 42 | 35 | 30 | 36 | 31 | 26 | 31 | 26 | 23 | 25 | 22 | 19 | 17 |
| 8 | 54 | 41 | 33 | 28 | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 28 | 24 | 20 | 23 | 20 | 17 | 15 |
| 9 | 50 | 38 | 30 | 25 | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 16 | 14 |
| 10 | 47 | 34 | 27 | 22 | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 19 | 17 | 20 | 17 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11573 | 11573 | 11573 |
| 5° | 11625 | 11466 | 11554 |
| 10° | 11566 | 11421 | 11509 |
| 15° | 11496 | 11340 | 11430 |
| 20° | 11377 | 11242 | 11335 |
| 25° | 11253 | 11122 | 11209 |
| 30° | 11116 | 10997 | 11052 |
| 35° | 10976 | 10841 | 10899 |
| 40° | 10794 | 10670 | 10680 |
| 45° | 10604 | 10458 | 10425 |
| 50° | 10331 | 10207 | 10182 |
| 55° | 10027 | 9916 | 9847 |
| 60° | 9722 | 9547 | 9515 |
| 65° | 9248 | 9040 | 8965 |
| 70° | 8593 | 8383 | 8222 |
| 75° | 7671 | 7425 | 7274 |
| 80° | 6312 | 6084 | 5810 |
| 85° | 3732 | 4102 | 4192 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 236.8 | 1.7 |
| 10°-20° | 674.3 | 4.9 |
| 20°-30° | 1012.6 | 7.3 |
| 30°-40° | 1208.4 | 8.7 |
| 40°-50° | 1238.6 | 9.0 |
| 50°-60° | 1103.0 | 8.0 |
| 60°-70° | 822.2 | 5.9 |
| 70°-80° | 445.2 | 3.2 |
| 80°-90° | 103.5 | 0.7 |
| 90°-100° | 503.1 | 3.6 |
| 100°-110° | 1388.8 | 10.0 |
| 110°-120° | 1432.3 | 10.4 |
| 120°-130° | 1150.9 | 8.3 |
| 130°-140° | 904.5 | 6.5 |
| 140°-150° | 693.7 | 5.0 |
| 150°-160° | 498.6 | 3.6 |
| 160°-170° | 304.9 | 2.2 |
| 170°-180° | 102.8 | 0.7 |
| 0°-30° | 1923.6 | 13.9 |
| 0°-40° | 3132.0 | 22.7 |
| 0°-60° | 5473.7 | 39.6 |
| 0°-90° | 6844.6 | 49.5 |
| 90°-120° | 3324.1 | 24.0 |
| 90°-150° | 6073.3 | 43.9 |
| 90°-180° | 6980.0 | 50.5 |
| 0°-180° | 13824.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2509 | 2509 | 2509 | 2509 | 2509 | |
| 5° | 2510 | 2505 | 2476 | 2498 | 2495 | 238 |
| 15° | 2407 | 2399 | 2374 | 2393 | 2393 | 678 |
| 25° | 2211 | 2206 | 2185 | 2197 | 2202 | 1019 |
| 35° | 1949 | 1941 | 1925 | 1929 | 1935 | 1217 |
| 45° | 1625 | 1617 | 1603 | 1594 | 1598 | 1251 |
| 55° | 1247 | 1248 | 1233 | 1221 | 1224 | 1116 |
| 65° | 847 | 844 | 828 | 820 | 821 | 838 |
| 75° | 430 | 425 | 417 | 408 | 408 | 458 |
| 85° | 70 | 77 | 78 | 79 | 79 | 99 |
| 90° | 4 | 7 | 14 | 16 | 17 | 7 |
| 95° | 74 | 272 | 913 | 375 | 244 | 79 |
| 105° | 248 | 382 | 1528 | 2333 | 2196 | 263 |
| 115° | 444 | 536 | 1231 | 2436 | 2770 | 436 |
| 125° | 608 | 692 | 1115 | 1888 | 2215 | 541 |
| 135° | 732 | 811 | 1084 | 1529 | 1724 | 566 |
| 145° | 849 | 908 | 1071 | 1302 | 1401 | 532 |
| 155° | 957 | 989 | 1062 | 1168 | 1205 | 441 |
| 165° | 1036 | 1050 | 1067 | 1109 | 1117 | 292 |
| 175° | 1074 | 1076 | 1069 | 1084 | 1081 | 102 |
| 180° | 1074 | 1074 | 1074 | 1074 | 1074 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2508.8 | 2508.8 | 2508.8 | 2508.8 | 2508.8 |
| 2.5° | 2518.4 | 2512.9 | 2490.8 | 2508.7 | 2506.0 |
| 5° | 2510.4 | 2505.4 | 2476.0 | 2498.4 | 2495.0 |
| 7.5° | 2487.1 | 2482.0 | 2456.1 | 2476.7 | 2473.6 |
| 10° | 2469.1 | 2464.1 | 2438.1 | 2458.7 | 2457.0 |
| 12.5° | 2445.7 | 2440.7 | 2414.7 | 2435.3 | 2433.7 |
| 15° | 2407.1 | 2398.7 | 2374.4 | 2393.3 | 2393.3 |
| 17.5° | 2356.2 | 2349.7 | 2327.2 | 2343.1 | 2343.4 |
| 20° | 2317.6 | 2312.6 | 2290.1 | 2307.3 | 2309.0 |
| 22.5° | 2279.0 | 2273.9 | 2248.7 | 2264.6 | 2267.7 |
| 25° | 2210.8 | 2205.8 | 2185.1 | 2197.1 | 2202.2 |
| 27.5° | 2140.6 | 2133.1 | 2112.7 | 2123.4 | 2127.2 |
| 30° | 2086.9 | 2083.5 | 2064.5 | 2069.7 | 2074.8 |
| 32.5° | 2030.4 | 2027.0 | 2010.8 | 2013.4 | 2022.5 |
| 35° | 1949.1 | 1940.7 | 1925.0 | 1928.6 | 1935.4 |
| 37.5° | 1853.0 | 1849.0 | 1833.7 | 1831.8 | 1838.3 |
| 40° | 1792.4 | 1785.7 | 1771.8 | 1768.4 | 1773.5 |
| 42.5° | 1726.3 | 1719.6 | 1702.9 | 1699.6 | 1706.0 |
| 45° | 1625.4 | 1617.0 | 1603.1 | 1594.5 | 1597.9 |
| 47.5° | 1512.5 | 1512.5 | 1498.0 | 1488.1 | 1493.2 |
| 50° | 1439.5 | 1439.5 | 1422.2 | 1413.7 | 1418.8 |
| 52.5° | 1363.7 | 1365.1 | 1346.4 | 1342.0 | 1340.3 |
| 55° | 1246.7 | 1248.3 | 1232.9 | 1220.9 | 1224.3 |
| 57.5° | 1133.7 | 1129.9 | 1112.0 | 1104.1 | 1105.8 |
| 60° | 1053.7 | 1048.7 | 1034.8 | 1022.9 | 1031.3 |
| 62.5° | 972.5 | 970.1 | 956.3 | 942.9 | 941.9 |
| 65° | 847.2 | 843.8 | 828.2 | 819.6 | 821.3 |
| 67.5° | 722.5 | 718.4 | 704.3 | 691.9 | 696.4 |
| 70° | 637.1 | 637.1 | 621.5 | 614.6 | 609.6 |
| 72.5° | 558.5 | 551.8 | 540.3 | 530.6 | 526.9 |
| 75° | 430.4 | 425.4 | 416.6 | 408.1 | 408.1 |
| 77.5° | 313.4 | 309.0 | 303.4 | 297.5 | 295.9 |
| 80° | 237.6 | 235.9 | 229.0 | 227.1 | 218.7 |
| 82.5° | 167.3 | 167.1 | 162.9 | 158.4 | 158.0 |
| 85° | 70.5 | 77.3 | 77.5 | 79.2 | 79.2 |
| 87.5° | 13.1 | 21.8 | 22.0 | 19.6 | 20.0 |
| 90° | 3.5 | 6.8 | 13.8 | 15.5 | 17.2 |
| 92.5° | 31.0 | 128.4 | 229.6 | 83.8 | 65.3 |
| 95° | 73.9 | 272.2 | 912.7 | 375.1 | 244.0 |
| 97.5° | 122.4 | 304.9 | 1352.0 | 1040.9 | 753.8 |
| 100° | 158.1 | 324.5 | 1514.2 | 1524.9 | 1239.2 |
| 102.5° | 192.5 | 346.7 | 1545.8 | 1884.1 | 1613.2 |
| 105° | 247.5 | 381.9 | 1527.9 | 2332.6 | 2196.5 |
| 107.5° | 306.0 | 425.6 | 1442.7 | 2548.9 | 2598.7 |
| 110° | 347.2 | 454.7 | 1376.7 | 2595.5 | 2756.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 384.3 | 487.8 | 1314.8 | 2558.7 | 2796.6 |
| 115° | 443.5 | 535.9 | 1230.6 | 2436.1 | 2770.5 |
| 117.5° | 495.0 | 587.1 | 1175.3 | 2263.5 | 2644.1 |
| 120° | 529.3 | 620.1 | 1153.2 | 2146.8 | 2529.9 |
| 122.5° | 562.4 | 649.0 | 1135.3 | 2037.7 | 2400.6 |
| 125° | 608.5 | 692.5 | 1115.4 | 1887.7 | 2215.4 |
| 127.5° | 647.6 | 731.6 | 1103.8 | 1760.9 | 2043.5 |
| 130° | 673.8 | 757.7 | 1098.2 | 1683.3 | 1940.5 |
| 132.5° | 698.5 | 778.5 | 1092.8 | 1618.2 | 1851.0 |
| 135° | 732.1 | 811.2 | 1084.5 | 1528.9 | 1723.8 |
| 137.5° | 770.0 | 841.9 | 1080.3 | 1454.1 | 1620.3 |
| 140° | 790.6 | 861.2 | 1077.7 | 1404.1 | 1550.3 |
| 142.5° | 813.9 | 879.2 | 1074.9 | 1359.7 | 1488.4 |
| 145° | 849.0 | 907.8 | 1070.7 | 1301.6 | 1400.7 |
| 147.5° | 882.7 | 934.1 | 1067.0 | 1252.6 | 1329.6 |
| 150° | 907.5 | 949.5 | 1065.6 | 1223.4 | 1285.6 |
| 152.5° | 926.7 | 966.1 | 1064.2 | 1198.4 | 1249.9 |
| 155° | 957.3 | 989.2 | 1062.1 | 1167.9 | 1204.8 |
| 157.5° | 985.5 | 1010.0 | 1062.5 | 1145.6 | 1170.7 |
| 160° | 1002.0 | 1023.8 | 1063.9 | 1133.1 | 1151.5 |
| 162.5° | 1015.7 | 1034.9 | 1065.3 | 1122.0 | 1136.4 |
| 165° | 1036.4 | 1049.9 | 1067.3 | 1108.7 | 1117.1 |
| 167.5° | 1052.2 | 1060.2 | 1069.0 | 1100.7 | 1103.4 |
| 170° | 1060.4 | 1067.2 | 1069.0 | 1096.5 | 1096.5 |
| 172.5° | 1067.3 | 1071.3 | 1069.0 | 1091.0 | 1089.6 |
| 175° | 1074.2 | 1075.9 | 1069.0 | 1084.4 | 1081.0 |
| 177.5° | 1077.0 | 1075.6 | 1068.7 | 1078.2 | 1075.6 |
| 180° | 1074.2 | 1074.2 | 1074.2 | 1074.2 | 1074.2 |

(END OF REPORT)