

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: P520234

Luminaire Tested: **SQ4-F-100U-100D-930-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520234
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-930-1D-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

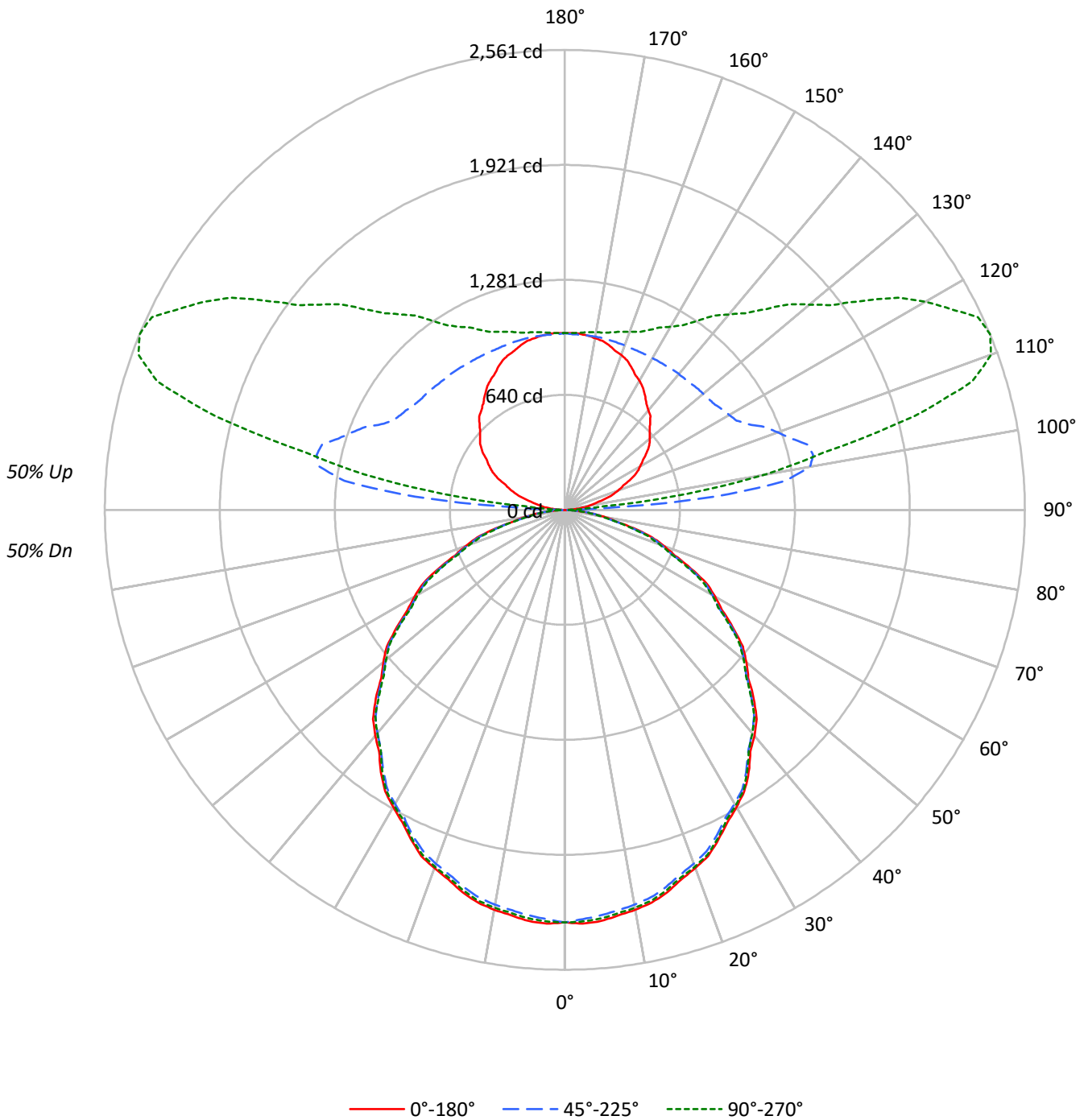
Lumens per Lamp: N/A
Luminaire Lumens: 12660.5 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

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° | 10599 | 10599 | 10599 |
| 5° | 10646 | 10501 | 10581 |
| 10° | 10593 | 10459 | 10541 |
| 15° | 10528 | 10386 | 10468 |
| 20° | 10420 | 10296 | 10381 |
| 25° | 10306 | 10186 | 10265 |
| 30° | 10180 | 10071 | 10122 |
| 35° | 10053 | 9928 | 9982 |
| 40° | 9886 | 9772 | 9781 |
| 45° | 9711 | 9578 | 9546 |
| 50° | 9461 | 9348 | 9325 |
| 55° | 9182 | 9080 | 9017 |
| 60° | 8904 | 8744 | 8715 |
| 65° | 8468 | 8279 | 8211 |
| 70° | 7870 | 7677 | 7529 |
| 75° | 7026 | 6802 | 6661 |
| 80° | 5781 | 5574 | 5318 |
| 85° | 3425 | 3753 | 3837 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 216.8 | 1.7 |
| 10°-20° | 617.5 | 4.9 |
| 20°-30° | 927.3 | 7.3 |
| 30°-40° | 1106.7 | 8.7 |
| 40°-50° | 1134.4 | 9.0 |
| 50°-60° | 1010.2 | 8.0 |
| 60°-70° | 753.0 | 5.9 |
| 70°-80° | 407.7 | 3.2 |
| 80°-90° | 94.8 | 0.7 |
| 90°-100° | 460.7 | 3.6 |
| 100°-110° | 1271.9 | 10.0 |
| 110°-120° | 1311.7 | 10.4 |
| 120°-130° | 1054.1 | 8.3 |
| 130°-140° | 828.4 | 6.5 |
| 140°-150° | 635.3 | 5.0 |
| 150°-160° | 456.6 | 3.6 |
| 160°-170° | 279.2 | 2.2 |
| 170°-180° | 94.1 | 0.7 |
| 0°-30° | 1761.7 | 13.9 |
| 0°-40° | 2868.4 | 22.7 |
| 0°-60° | 5012.9 | 39.6 |
| 0°-90° | 6268.5 | 49.5 |
| 90°-120° | 3044.3 | 24.0 |
| 90°-150° | 5562.0 | 43.9 |
| 90°-180° | 6392.0 | 50.5 |
| 0°-180° | 12660.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2298 | 2298 | 2298 | 2298 | 2298 | |
| 5° | 2299 | 2294 | 2268 | 2288 | 2285 | 218 |
| 15° | 2204 | 2197 | 2175 | 2192 | 2192 | 621 |
| 25° | 2025 | 2020 | 2001 | 2012 | 2017 | 933 |
| 35° | 1785 | 1777 | 1763 | 1766 | 1772 | 1114 |
| 45° | 1489 | 1481 | 1468 | 1460 | 1463 | 1145 |
| 55° | 1142 | 1143 | 1129 | 1118 | 1121 | 1022 |
| 65° | 776 | 773 | 758 | 751 | 752 | 767 |
| 75° | 394 | 390 | 382 | 374 | 374 | 420 |
| 85° | 65 | 71 | 71 | 72 | 72 | 90 |
| 90° | 3 | 6 | 13 | 14 | 16 | 6 |
| 95° | 68 | 249 | 836 | 344 | 224 | 72 |
| 105° | 227 | 350 | 1399 | 2136 | 2012 | 241 |
| 115° | 406 | 491 | 1127 | 2231 | 2537 | 399 |
| 125° | 557 | 634 | 1022 | 1729 | 2029 | 496 |
| 135° | 670 | 743 | 993 | 1400 | 1579 | 519 |
| 145° | 778 | 831 | 981 | 1192 | 1283 | 487 |
| 155° | 877 | 906 | 973 | 1070 | 1103 | 404 |
| 165° | 949 | 961 | 977 | 1015 | 1023 | 268 |
| 175° | 984 | 985 | 979 | 993 | 990 | 93 |
| 180° | 984 | 984 | 984 | 984 | 984 | |

TEST NUMBER: P520234

CATALOG NUMBER: SQ4-F-100U-100D-930-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2297.5 | 2297.5 | 2297.5 | 2297.5 | 2297.5 |
| 2.5° | 2306.3 | 2301.5 | 2281.2 | 2297.5 | 2295.0 |
| 5° | 2299.1 | 2294.5 | 2267.6 | 2288.0 | 2284.9 |
| 7.5° | 2277.7 | 2273.0 | 2249.3 | 2268.2 | 2265.4 |
| 10° | 2261.3 | 2256.7 | 2232.9 | 2251.7 | 2250.3 |
| 12.5° | 2239.9 | 2235.2 | 2211.4 | 2230.3 | 2228.8 |
| 15° | 2204.5 | 2196.9 | 2174.6 | 2191.9 | 2191.9 |
| 17.5° | 2157.8 | 2152.0 | 2131.4 | 2145.8 | 2146.1 |
| 20° | 2122.5 | 2117.9 | 2097.3 | 2113.1 | 2114.6 |
| 22.5° | 2087.2 | 2082.6 | 2059.4 | 2074.0 | 2076.8 |
| 25° | 2024.7 | 2020.1 | 2001.1 | 2012.3 | 2016.8 |
| 27.5° | 1960.4 | 1953.6 | 1934.9 | 1944.7 | 1948.2 |
| 30° | 1911.2 | 1908.1 | 1890.7 | 1895.5 | 1900.2 |
| 32.5° | 1859.5 | 1856.4 | 1841.5 | 1843.9 | 1852.2 |
| 35° | 1785.1 | 1777.3 | 1763.0 | 1766.2 | 1772.5 |
| 37.5° | 1697.1 | 1693.3 | 1679.4 | 1677.7 | 1683.5 |
| 40° | 1641.6 | 1635.4 | 1622.7 | 1619.6 | 1624.3 |
| 42.5° | 1581.0 | 1574.8 | 1559.6 | 1556.6 | 1562.4 |
| 45° | 1488.6 | 1480.9 | 1468.1 | 1460.3 | 1463.3 |
| 47.5° | 1385.2 | 1385.2 | 1371.9 | 1362.9 | 1367.5 |
| 50° | 1318.3 | 1318.3 | 1302.5 | 1294.7 | 1299.4 |
| 52.5° | 1248.9 | 1250.1 | 1233.2 | 1229.0 | 1227.4 |
| 55° | 1141.7 | 1143.2 | 1129.0 | 1118.1 | 1121.2 |
| 57.5° | 1038.3 | 1034.8 | 1018.4 | 1011.1 | 1012.7 |
| 60° | 965.1 | 960.4 | 947.7 | 936.8 | 944.6 |
| 62.5° | 890.7 | 888.5 | 875.8 | 863.5 | 862.6 |
| 65° | 775.8 | 772.7 | 758.5 | 750.6 | 752.2 |
| 67.5° | 661.7 | 658.0 | 644.9 | 633.7 | 637.7 |
| 70° | 583.5 | 583.5 | 569.2 | 562.9 | 558.2 |
| 72.5° | 511.6 | 505.4 | 494.8 | 485.9 | 482.5 |
| 75° | 394.2 | 389.6 | 381.6 | 373.7 | 373.7 |
| 77.5° | 287.0 | 283.0 | 277.8 | 272.5 | 270.9 |
| 80° | 217.6 | 216.1 | 209.8 | 208.0 | 200.2 |
| 82.5° | 153.3 | 153.0 | 149.2 | 145.1 | 144.8 |
| 85° | 64.7 | 70.8 | 70.9 | 72.5 | 72.5 |
| 87.5° | 12.0 | 20.0 | 20.2 | 17.9 | 18.3 |
| 90° | 3.2 | 6.2 | 12.6 | 14.2 | 15.7 |
| 92.5° | 28.3 | 117.6 | 210.3 | 76.8 | 59.8 |
| 95° | 67.7 | 249.3 | 835.8 | 343.6 | 223.5 |
| 97.5° | 112.1 | 279.3 | 1238.1 | 953.2 | 690.4 |
| 100° | 144.8 | 297.2 | 1386.7 | 1396.5 | 1134.8 |
| 102.5° | 176.3 | 317.5 | 1415.7 | 1725.5 | 1477.4 |
| 105° | 226.6 | 349.8 | 1399.3 | 2136.3 | 2011.6 |
| 107.5° | 280.1 | 389.8 | 1321.2 | 2334.4 | 2380.0 |
| 110° | 317.9 | 416.5 | 1260.8 | 2377.0 | 2524.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 352.0 | 446.7 | 1204.2 | 2343.4 | 2561.3 |
| 115° | 406.1 | 490.8 | 1127.0 | 2231.1 | 2537.3 |
| 117.5° | 453.4 | 537.6 | 1076.4 | 2073.0 | 2421.5 |
| 120° | 484.8 | 567.9 | 1056.2 | 1966.1 | 2316.9 |
| 122.5° | 515.0 | 594.4 | 1039.8 | 1866.2 | 2198.6 |
| 125° | 557.2 | 634.2 | 1021.6 | 1728.9 | 2028.9 |
| 127.5° | 593.1 | 670.0 | 1010.9 | 1612.6 | 1871.5 |
| 130° | 617.0 | 693.9 | 1005.8 | 1541.6 | 1777.0 |
| 132.5° | 639.7 | 712.9 | 1000.8 | 1481.9 | 1695.2 |
| 135° | 670.5 | 742.9 | 993.2 | 1400.2 | 1578.8 |
| 137.5° | 705.2 | 771.0 | 989.4 | 1331.6 | 1484.0 |
| 140° | 724.0 | 788.7 | 986.9 | 1285.9 | 1419.7 |
| 142.5° | 745.5 | 805.2 | 984.4 | 1245.2 | 1363.1 |
| 145° | 777.5 | 831.4 | 980.6 | 1192.0 | 1282.8 |
| 147.5° | 808.4 | 855.5 | 977.1 | 1147.2 | 1217.6 |
| 150° | 831.0 | 869.5 | 975.9 | 1120.4 | 1177.4 |
| 152.5° | 848.7 | 884.8 | 974.7 | 1097.5 | 1144.6 |
| 155° | 876.7 | 906.0 | 972.8 | 1069.5 | 1103.4 |
| 157.5° | 902.6 | 925.0 | 973.1 | 1049.2 | 1072.2 |
| 160° | 917.7 | 937.7 | 974.3 | 1037.7 | 1054.6 |
| 162.5° | 930.3 | 947.8 | 975.6 | 1027.5 | 1040.8 |
| 165° | 949.2 | 961.4 | 977.4 | 1015.4 | 1023.1 |
| 167.5° | 963.6 | 971.0 | 979.0 | 1008.1 | 1010.5 |
| 170° | 971.2 | 977.3 | 979.0 | 1004.3 | 1004.3 |
| 172.5° | 977.4 | 981.2 | 979.0 | 999.2 | 997.9 |
| 175° | 983.8 | 985.3 | 979.0 | 993.2 | 990.1 |
| 177.5° | 986.3 | 985.1 | 978.7 | 987.5 | 985.1 |
| 180° | 983.8 | 983.8 | 983.8 | 983.8 | 983.8 |

(END OF REPORT)