

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: P520031

Luminaire Tested: **SQ4-F-075U-100D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520031
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, 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-075U-100D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

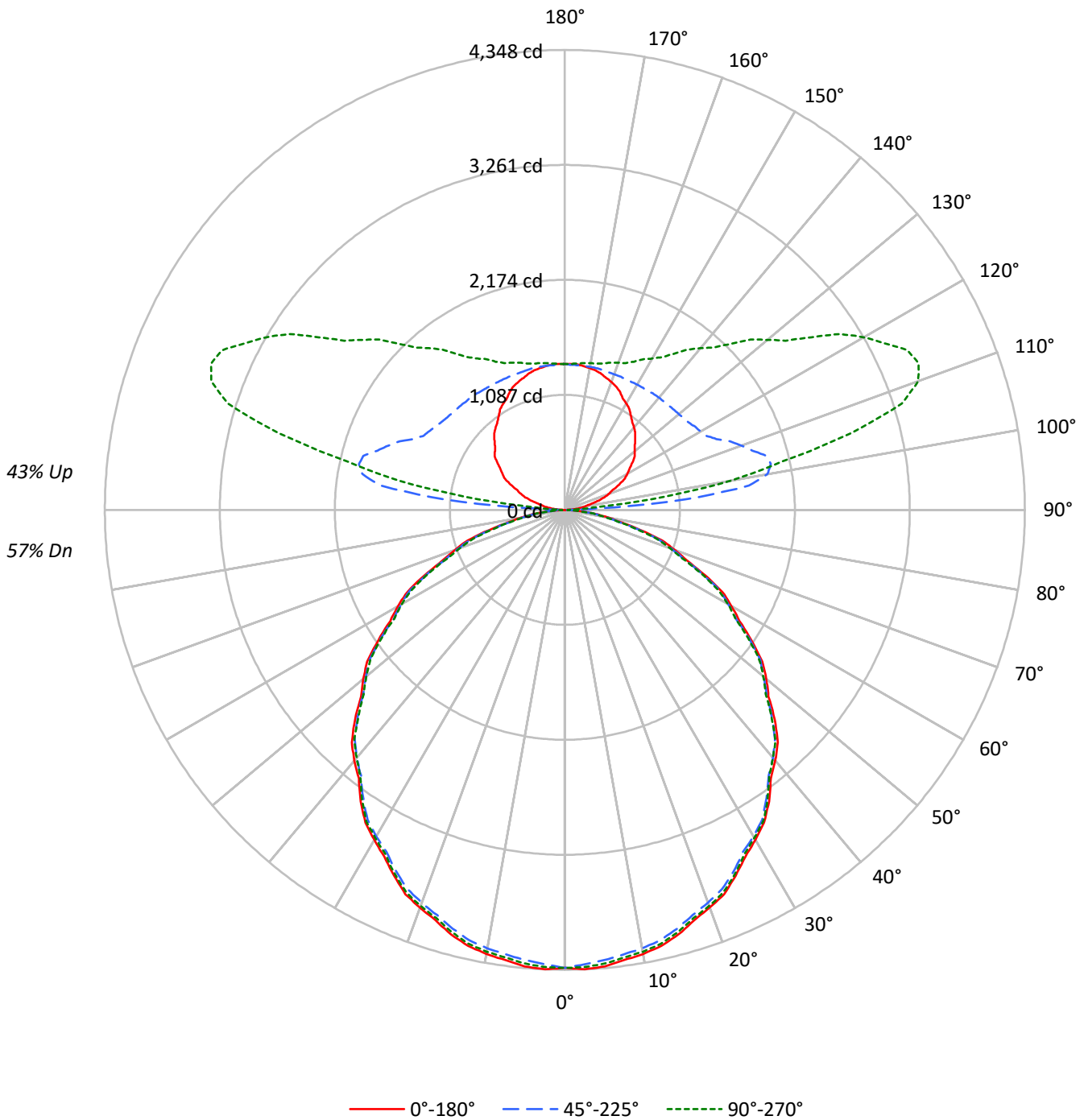
Lumens per Lamp: N/A
Luminaire Lumens: 20797.1 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 162.1
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



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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 | 57 | | | | 57 |
| 1 | 99 | 95 | 91 | 87 | 92 | 88 | 85 | 82 | 76 | 74 | 72 | 65 | 64 | 62 | 55 | 54 | 53 | 48 | | | | 48 |
| 2 | 90 | 83 | 77 | 71 | 84 | 77 | 72 | 67 | 67 | 63 | 59 | 57 | 54 | 52 | 48 | 46 | 44 | 40 | | | | 40 |
| 3 | 82 | 73 | 65 | 59 | 76 | 68 | 61 | 56 | 59 | 54 | 50 | 51 | 47 | 43 | 43 | 40 | 38 | 34 | | | | 34 |
| 4 | 75 | 64 | 56 | 50 | 70 | 60 | 53 | 47 | 52 | 47 | 42 | 45 | 41 | 37 | 38 | 35 | 32 | 29 | | | | 29 |
| 5 | 69 | 57 | 49 | 43 | 64 | 54 | 46 | 41 | 47 | 41 | 36 | 40 | 36 | 32 | 34 | 31 | 28 | 25 | | | | 25 |
| 6 | 64 | 51 | 43 | 37 | 59 | 48 | 41 | 35 | 42 | 36 | 32 | 36 | 32 | 28 | 31 | 27 | 25 | 22 | | | | 22 |
| 7 | 59 | 46 | 38 | 33 | 55 | 44 | 36 | 31 | 38 | 32 | 28 | 33 | 28 | 25 | 28 | 25 | 22 | 19 | | | | 19 |
| 8 | 55 | 42 | 34 | 29 | 51 | 40 | 32 | 27 | 35 | 29 | 25 | 30 | 26 | 22 | 26 | 22 | 20 | 17 | | | | 17 |
| 9 | 51 | 38 | 31 | 26 | 47 | 36 | 29 | 24 | 32 | 26 | 22 | 28 | 23 | 20 | 24 | 20 | 18 | 15 | | | | 15 |
| 10 | 48 | 35 | 28 | 23 | 44 | 33 | 27 | 22 | 29 | 24 | 20 | 26 | 21 | 18 | 22 | 19 | 16 | 14 | | | | 14 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13319 | 13319 | 13319 |
| 5° | 13379 | 13196 | 13297 |
| 10° | 13311 | 13144 | 13246 |
| 15° | 13231 | 13051 | 13155 |
| 20° | 13094 | 12939 | 13046 |
| 25° | 12951 | 12800 | 12901 |
| 30° | 12793 | 12656 | 12720 |
| 35° | 12633 | 12477 | 12544 |
| 40° | 12423 | 12280 | 12291 |
| 45° | 12204 | 12036 | 11997 |
| 50° | 11889 | 11747 | 11719 |
| 55° | 11539 | 11412 | 11332 |
| 60° | 11190 | 10988 | 10952 |
| 65° | 10643 | 10405 | 10318 |
| 70° | 9889 | 9649 | 9462 |
| 75° | 8830 | 8547 | 8371 |
| 80° | 7265 | 7001 | 6686 |
| 85° | 4301 | 4721 | 4824 |



TEST NUMBER: P520031

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 408.8 | 2.0 |
| 10°-20° | 1164.0 | 5.6 |
| 20°-30° | 1748.0 | 8.4 |
| 30°-40° | 2086.1 | 10.0 |
| 40°-50° | 2138.3 | 10.3 |
| 50°-60° | 1904.1 | 9.2 |
| 60°-70° | 1419.4 | 6.8 |
| 70°-80° | 768.5 | 3.7 |
| 80°-90° | 178.4 | 0.9 |
| 90°-100° | 650.2 | 3.1 |
| 100°-110° | 1789.0 | 8.6 |
| 110°-120° | 1846.5 | 8.9 |
| 120°-130° | 1479.4 | 7.1 |
| 130°-140° | 1162.0 | 5.6 |
| 140°-150° | 890.5 | 4.3 |
| 150°-160° | 640.2 | 3.1 |
| 160°-170° | 391.5 | 1.9 |
| 170°-180° | 132.0 | 0.6 |
| 0°-30° | 3320.8 | 16.0 |
| 0°-40° | 5406.9 | 26.0 |
| 0°-60° | 9449.4 | 45.4 |
| 0°-90° | 11815.8 | 56.8 |
| 90°-120° | 4285.7 | 20.6 |
| 90°-150° | 7817.7 | 37.6 |
| 90°-180° | 8981.0 | 43.2 |
| 0°-180° | 20797.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4331 | 4331 | 4331 | 4331 | 4331 | |
| 5° | 4334 | 4325 | 4274 | 4313 | 4307 | 411 |
| 15° | 4156 | 4141 | 4099 | 4132 | 4132 | 1171 |
| 25° | 3817 | 3808 | 3772 | 3793 | 3802 | 1759 |
| 35° | 3365 | 3350 | 3323 | 3330 | 3341 | 2100 |
| 45° | 2806 | 2791 | 2767 | 2753 | 2758 | 2159 |
| 55° | 2152 | 2155 | 2128 | 2108 | 2113 | 1926 |
| 65° | 1462 | 1457 | 1430 | 1415 | 1418 | 1446 |
| 75° | 743 | 734 | 719 | 704 | 704 | 791 |
| 85° | 122 | 134 | 134 | 137 | 137 | 170 |
| 90° | 3 | 12 | 20 | 26 | 26 | 9 |
| 95° | 97 | 355 | 1150 | 492 | 314 | 102 |
| 105° | 320 | 492 | 1971 | 3002 | 2801 | 337 |
| 115° | 566 | 690 | 1581 | 3148 | 3573 | 559 |
| 125° | 780 | 889 | 1434 | 2426 | 2842 | 696 |
| 135° | 942 | 1045 | 1393 | 1962 | 2220 | 727 |
| 145° | 1088 | 1163 | 1373 | 1672 | 1801 | 682 |
| 155° | 1232 | 1272 | 1364 | 1503 | 1546 | 566 |
| 165° | 1332 | 1349 | 1370 | 1426 | 1434 | 375 |
| 175° | 1379 | 1382 | 1373 | 1390 | 1388 | 131 |
| 180° | 1379 | 1379 | 1379 | 1379 | 1379 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4330.9 | 4330.9 | 4330.9 | 4330.9 | 4330.9 |
| 2.5° | 4347.5 | 4338.2 | 4300.0 | 4330.8 | 4326.1 |
| 5° | 4333.9 | 4325.1 | 4274.4 | 4313.0 | 4307.1 |
| 7.5° | 4293.4 | 4284.7 | 4239.9 | 4275.5 | 4270.2 |
| 10° | 4262.5 | 4253.8 | 4209.0 | 4244.6 | 4241.7 |
| 12.5° | 4222.1 | 4213.4 | 4168.6 | 4204.2 | 4201.3 |
| 15° | 4155.5 | 4140.9 | 4099.0 | 4131.7 | 4131.7 |
| 17.5° | 4067.5 | 4056.5 | 4017.6 | 4044.9 | 4045.5 |
| 20° | 4000.9 | 3992.2 | 3953.4 | 3983.2 | 3986.1 |
| 22.5° | 3934.4 | 3925.6 | 3882.0 | 3909.5 | 3914.7 |
| 25° | 3816.6 | 3807.9 | 3772.1 | 3793.1 | 3801.8 |
| 27.5° | 3695.4 | 3682.6 | 3647.2 | 3665.7 | 3672.2 |
| 30° | 3602.6 | 3596.8 | 3564.0 | 3573.1 | 3581.8 |
| 32.5° | 3505.1 | 3499.3 | 3471.2 | 3475.8 | 3491.5 |
| 35° | 3364.8 | 3350.3 | 3323.2 | 3329.5 | 3341.1 |
| 37.5° | 3199.0 | 3192.0 | 3165.7 | 3162.4 | 3173.4 |
| 40° | 3094.3 | 3082.7 | 3058.7 | 3052.9 | 3061.6 |
| 42.5° | 2980.2 | 2968.6 | 2939.8 | 2934.1 | 2945.1 |
| 45° | 2806.0 | 2791.4 | 2767.4 | 2752.6 | 2758.5 |
| 47.5° | 2611.0 | 2611.0 | 2586.0 | 2569.0 | 2577.7 |
| 50° | 2485.0 | 2485.0 | 2455.3 | 2440.6 | 2449.3 |
| 52.5° | 2354.2 | 2356.5 | 2324.5 | 2316.6 | 2313.8 |
| 55° | 2152.1 | 2154.9 | 2128.3 | 2107.6 | 2113.4 |
| 57.5° | 1957.1 | 1950.6 | 1919.6 | 1906.0 | 1908.9 |
| 60° | 1819.2 | 1810.4 | 1786.5 | 1765.9 | 1780.5 |
| 62.5° | 1678.8 | 1674.8 | 1650.9 | 1627.7 | 1625.9 |
| 65° | 1462.5 | 1456.6 | 1429.8 | 1415.0 | 1417.9 |
| 67.5° | 1247.2 | 1240.3 | 1215.7 | 1194.5 | 1202.1 |
| 70° | 1099.8 | 1099.8 | 1073.1 | 1061.0 | 1052.3 |
| 72.5° | 964.3 | 952.7 | 932.8 | 916.0 | 909.6 |
| 75° | 743.1 | 734.4 | 719.3 | 704.5 | 704.5 |
| 77.5° | 541.0 | 533.5 | 523.7 | 513.5 | 510.7 |
| 80° | 410.2 | 407.3 | 395.3 | 392.1 | 377.5 |
| 82.5° | 288.9 | 288.3 | 281.2 | 273.5 | 272.9 |
| 85° | 121.9 | 133.5 | 133.8 | 136.7 | 136.7 |
| 87.5° | 22.0 | 37.7 | 37.5 | 33.9 | 33.9 |
| 90° | 2.9 | 11.5 | 20.5 | 26.4 | 26.4 |
| 92.5° | 40.5 | 173.0 | 299.8 | 115.1 | 94.5 |
| 95° | 96.8 | 355.0 | 1149.9 | 491.7 | 313.9 |
| 97.5° | 157.8 | 393.6 | 1754.7 | 1352.0 | 953.9 |
| 100° | 202.4 | 417.5 | 1944.8 | 1963.0 | 1601.6 |
| 102.5° | 244.6 | 446.0 | 1994.1 | 2435.3 | 2103.7 |
| 105° | 319.7 | 491.8 | 1971.2 | 3002.0 | 2801.3 |
| 107.5° | 391.3 | 548.4 | 1859.1 | 3279.6 | 3339.3 |
| 110° | 442.9 | 586.4 | 1774.6 | 3348.7 | 3555.2 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 489.8 | 628.6 | 1690.2 | 3304.2 | 3618.6 |
| 115° | 566.1 | 689.5 | 1581.0 | 3148.3 | 3572.8 |
| 117.5° | 638.9 | 752.5 | 1511.8 | 2929.6 | 3409.6 |
| 120° | 683.4 | 792.5 | 1481.4 | 2765.6 | 3261.8 |
| 122.5° | 723.3 | 832.4 | 1460.2 | 2621.9 | 3092.9 |
| 125° | 780.2 | 889.2 | 1434.4 | 2426.5 | 2842.4 |
| 127.5° | 834.2 | 938.0 | 1417.4 | 2263.4 | 2628.2 |
| 130° | 862.4 | 968.5 | 1408.0 | 2166.4 | 2499.2 |
| 132.5° | 895.3 | 1001.4 | 1401.0 | 2081.2 | 2381.8 |
| 135° | 941.6 | 1044.8 | 1393.3 | 1962.4 | 2220.5 |
| 137.5° | 985.0 | 1080.8 | 1386.9 | 1866.3 | 2079.1 |
| 140° | 1017.8 | 1106.7 | 1384.5 | 1802.5 | 1994.7 |
| 142.5° | 1046.0 | 1128.1 | 1379.8 | 1745.6 | 1910.2 |
| 145° | 1088.3 | 1162.8 | 1372.8 | 1672.0 | 1801.0 |
| 147.5° | 1133.4 | 1197.7 | 1369.3 | 1606.9 | 1710.1 |
| 150° | 1161.6 | 1218.9 | 1366.9 | 1571.2 | 1651.5 |
| 152.5° | 1187.4 | 1240.2 | 1364.6 | 1540.3 | 1606.9 |
| 155° | 1231.9 | 1272.1 | 1364.0 | 1502.8 | 1545.8 |
| 157.5° | 1264.2 | 1297.0 | 1364.0 | 1472.0 | 1501.8 |
| 160° | 1287.7 | 1313.5 | 1364.0 | 1455.4 | 1478.4 |
| 162.5° | 1306.5 | 1327.7 | 1366.3 | 1441.3 | 1459.6 |
| 165° | 1331.7 | 1348.9 | 1369.9 | 1425.8 | 1434.4 |
| 167.5° | 1349.3 | 1362.5 | 1372.8 | 1412.7 | 1415.0 |
| 170° | 1361.1 | 1369.7 | 1372.8 | 1408.0 | 1408.0 |
| 172.5° | 1370.4 | 1374.5 | 1372.8 | 1400.9 | 1398.6 |
| 175° | 1378.7 | 1381.5 | 1372.8 | 1390.3 | 1387.5 |
| 177.5° | 1381.0 | 1381.0 | 1371.6 | 1385.6 | 1381.0 |
| 180° | 1378.7 | 1378.7 | 1378.7 | 1378.7 | 1378.7 |

(END OF REPORT)