

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: P520034

Luminaire Tested: **SQ4-F-075U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520034
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-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

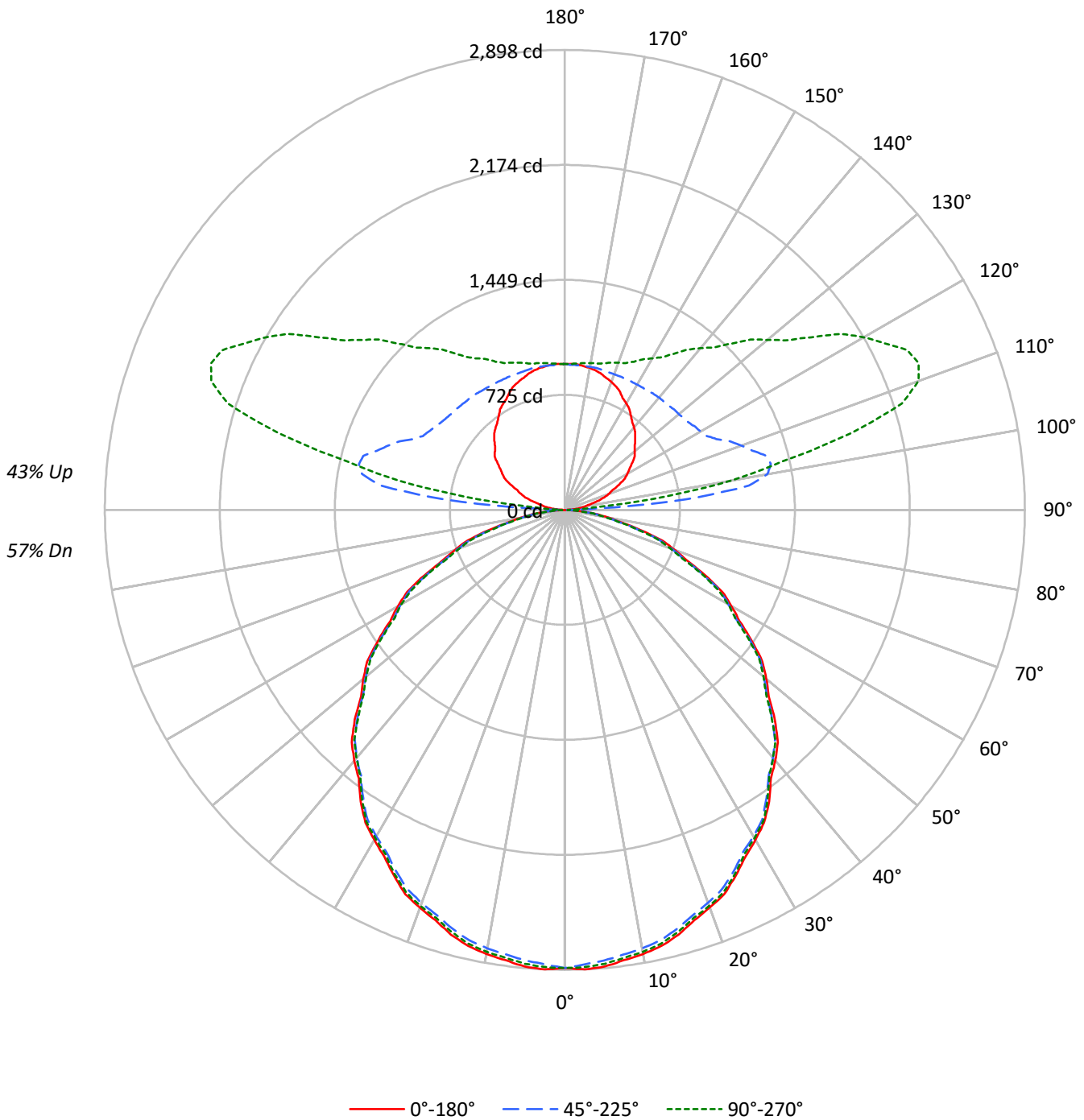
Lumens per Lamp: N/A
Luminaire Lumens: 13864.8 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 106.3
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° | 13230 | 13051 | 13155 |
| 20° | 13094 | 12939 | 13046 |
| 25° | 12951 | 12800 | 12901 |
| 30° | 12794 | 12656 | 12720 |
| 35° | 12633 | 12477 | 12544 |
| 40° | 12423 | 12279 | 12291 |
| 45° | 12204 | 12036 | 11997 |
| 50° | 11890 | 11747 | 11719 |
| 55° | 11539 | 11412 | 11331 |
| 60° | 11190 | 10988 | 10952 |
| 65° | 10643 | 10405 | 10317 |
| 70° | 9889 | 9649 | 9462 |
| 75° | 8830 | 8548 | 8370 |
| 80° | 7266 | 7003 | 6687 |
| 85° | 4298 | 4721 | 4827 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 272.5 | 2.0 |
| 10°-20° | 776.0 | 5.6 |
| 20°-30° | 1165.4 | 8.4 |
| 30°-40° | 1390.7 | 10.0 |
| 40°-50° | 1425.5 | 10.3 |
| 50°-60° | 1269.4 | 9.2 |
| 60°-70° | 946.3 | 6.8 |
| 70°-80° | 512.3 | 3.7 |
| 80°-90° | 119.0 | 0.9 |
| 90°-100° | 433.5 | 3.1 |
| 100°-110° | 1192.7 | 8.6 |
| 110°-120° | 1231.0 | 8.9 |
| 120°-130° | 986.3 | 7.1 |
| 130°-140° | 774.7 | 5.6 |
| 140°-150° | 593.7 | 4.3 |
| 150°-160° | 426.8 | 3.1 |
| 160°-170° | 261.0 | 1.9 |
| 170°-180° | 88.0 | 0.6 |
| 0°-30° | 2213.9 | 16.0 |
| 0°-40° | 3604.6 | 26.0 |
| 0°-60° | 6299.6 | 45.4 |
| 0°-90° | 7877.2 | 56.8 |
| 90°-120° | 2857.1 | 20.6 |
| 90°-150° | 5211.8 | 37.6 |
| 90°-180° | 5988.0 | 43.2 |
| 0°-180° | 13864.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2887 | 2887 | 2887 | 2887 | 2887 | |
| 5° | 2889 | 2883 | 2850 | 2875 | 2871 | 274 |
| 15° | 2770 | 2761 | 2733 | 2754 | 2754 | 780 |
| 25° | 2544 | 2539 | 2515 | 2529 | 2534 | 1172 |
| 35° | 2243 | 2234 | 2216 | 2220 | 2227 | 1400 |
| 45° | 1871 | 1861 | 1845 | 1835 | 1839 | 1439 |
| 55° | 1435 | 1437 | 1419 | 1405 | 1409 | 1284 |
| 65° | 975 | 971 | 953 | 943 | 945 | 964 |
| 75° | 495 | 490 | 480 | 470 | 470 | 528 |
| 85° | 81 | 89 | 89 | 91 | 91 | 114 |
| 90° | 2 | 8 | 14 | 18 | 18 | 6 |
| 95° | 65 | 237 | 767 | 328 | 209 | 68 |
| 105° | 213 | 328 | 1314 | 2001 | 1868 | 225 |
| 115° | 378 | 460 | 1054 | 2099 | 2382 | 372 |
| 125° | 520 | 593 | 956 | 1618 | 1895 | 464 |
| 135° | 628 | 696 | 929 | 1308 | 1480 | 484 |
| 145° | 726 | 775 | 915 | 1115 | 1201 | 455 |
| 155° | 821 | 848 | 909 | 1002 | 1030 | 377 |
| 165° | 888 | 899 | 913 | 950 | 956 | 250 |
| 175° | 919 | 921 | 915 | 927 | 925 | 87 |
| 180° | 919 | 919 | 919 | 919 | 919 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2887.3 | 2887.3 | 2887.3 | 2887.3 | 2887.3 |
| 2.5° | 2898.4 | 2892.1 | 2866.6 | 2887.2 | 2884.1 |
| 5° | 2889.2 | 2883.4 | 2849.6 | 2875.3 | 2871.4 |
| 7.5° | 2862.3 | 2856.4 | 2826.6 | 2850.3 | 2846.8 |
| 10° | 2841.7 | 2835.8 | 2806.0 | 2829.8 | 2827.8 |
| 12.5° | 2814.7 | 2808.9 | 2779.1 | 2802.8 | 2800.9 |
| 15° | 2770.3 | 2760.6 | 2732.7 | 2754.5 | 2754.5 |
| 17.5° | 2711.7 | 2704.4 | 2678.4 | 2696.6 | 2697.0 |
| 20° | 2667.3 | 2661.4 | 2635.6 | 2655.4 | 2657.4 |
| 22.5° | 2622.9 | 2617.1 | 2588.0 | 2606.4 | 2609.8 |
| 25° | 2544.4 | 2538.6 | 2514.7 | 2528.7 | 2534.5 |
| 27.5° | 2463.6 | 2455.1 | 2431.5 | 2443.9 | 2448.1 |
| 30° | 2401.8 | 2397.9 | 2376.0 | 2382.0 | 2387.9 |
| 32.5° | 2336.8 | 2332.9 | 2314.2 | 2317.1 | 2327.6 |
| 35° | 2243.2 | 2233.5 | 2215.5 | 2219.6 | 2227.4 |
| 37.5° | 2132.6 | 2128.0 | 2110.5 | 2108.3 | 2115.6 |
| 40° | 2062.9 | 2055.2 | 2039.1 | 2035.2 | 2041.1 |
| 42.5° | 1986.8 | 1979.1 | 1959.8 | 1956.1 | 1963.4 |
| 45° | 1870.7 | 1861.0 | 1844.9 | 1835.1 | 1839.0 |
| 47.5° | 1740.7 | 1740.7 | 1724.0 | 1712.6 | 1718.5 |
| 50° | 1656.7 | 1656.7 | 1636.8 | 1627.0 | 1632.9 |
| 52.5° | 1569.5 | 1571.0 | 1549.6 | 1544.5 | 1542.5 |
| 55° | 1434.7 | 1436.7 | 1418.9 | 1405.1 | 1408.9 |
| 57.5° | 1304.7 | 1300.5 | 1279.7 | 1270.6 | 1272.6 |
| 60° | 1212.8 | 1206.9 | 1191.0 | 1177.3 | 1187.0 |
| 62.5° | 1119.2 | 1116.6 | 1100.6 | 1085.1 | 1084.0 |
| 65° | 975.0 | 971.1 | 953.2 | 943.3 | 945.2 |
| 67.5° | 831.5 | 826.8 | 810.5 | 796.3 | 801.4 |
| 70° | 733.2 | 733.2 | 715.4 | 707.3 | 701.5 |
| 72.5° | 642.8 | 635.1 | 621.8 | 610.6 | 606.4 |
| 75° | 495.4 | 489.6 | 479.6 | 469.6 | 469.6 |
| 77.5° | 360.7 | 355.6 | 349.2 | 342.4 | 340.4 |
| 80° | 273.5 | 271.5 | 263.6 | 261.4 | 251.7 |
| 82.5° | 192.6 | 192.2 | 187.5 | 182.3 | 181.9 |
| 85° | 81.2 | 89.0 | 89.2 | 91.2 | 91.2 |
| 87.5° | 14.7 | 25.2 | 25.0 | 22.6 | 22.6 |
| 90° | 2.0 | 7.7 | 13.7 | 17.6 | 17.6 |
| 92.5° | 27.0 | 115.3 | 199.8 | 76.8 | 63.0 |
| 95° | 64.6 | 236.6 | 766.6 | 327.8 | 209.2 |
| 97.5° | 105.2 | 262.3 | 1169.8 | 901.3 | 636.0 |
| 100° | 135.0 | 278.4 | 1296.5 | 1308.6 | 1067.7 |
| 102.5° | 163.1 | 297.3 | 1329.4 | 1623.6 | 1402.5 |
| 105° | 213.1 | 327.9 | 1314.1 | 2001.3 | 1867.5 |
| 107.5° | 260.9 | 365.6 | 1239.4 | 2186.4 | 2226.2 |
| 110° | 295.3 | 390.9 | 1183.1 | 2232.5 | 2370.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 326.6 | 419.1 | 1126.8 | 2202.8 | 2412.3 |
| 115° | 377.5 | 459.6 | 1054.0 | 2098.8 | 2381.8 |
| 117.5° | 425.9 | 501.7 | 1007.9 | 1953.0 | 2273.1 |
| 120° | 455.6 | 528.3 | 987.5 | 1843.8 | 2174.6 |
| 122.5° | 482.2 | 554.9 | 973.4 | 1748.0 | 2061.9 |
| 125° | 520.2 | 592.8 | 956.2 | 1617.6 | 1894.9 |
| 127.5° | 556.2 | 625.4 | 945.0 | 1508.9 | 1752.2 |
| 130° | 574.9 | 645.7 | 938.7 | 1444.3 | 1666.1 |
| 132.5° | 596.8 | 667.6 | 934.0 | 1387.5 | 1587.9 |
| 135° | 627.8 | 696.5 | 928.9 | 1308.2 | 1480.4 |
| 137.5° | 656.7 | 720.5 | 924.6 | 1244.2 | 1386.1 |
| 140° | 678.5 | 737.8 | 923.1 | 1201.6 | 1329.8 |
| 142.5° | 697.3 | 752.1 | 919.9 | 1163.7 | 1273.4 |
| 145° | 725.5 | 775.3 | 915.2 | 1114.7 | 1200.7 |
| 147.5° | 755.6 | 798.4 | 912.9 | 1071.2 | 1140.1 |
| 150° | 774.4 | 812.6 | 911.3 | 1047.5 | 1101.0 |
| 152.5° | 791.6 | 826.8 | 909.7 | 1026.9 | 1071.2 |
| 155° | 821.3 | 848.1 | 909.4 | 1001.9 | 1030.5 |
| 157.5° | 842.8 | 864.7 | 909.4 | 981.3 | 1001.2 |
| 160° | 858.5 | 875.7 | 909.4 | 970.3 | 985.6 |
| 162.5° | 871.0 | 885.1 | 910.9 | 960.8 | 973.0 |
| 165° | 887.8 | 899.3 | 913.3 | 950.5 | 956.2 |
| 167.5° | 899.6 | 908.4 | 915.2 | 941.8 | 943.4 |
| 170° | 907.4 | 913.1 | 915.2 | 938.7 | 938.7 |
| 172.5° | 913.7 | 916.3 | 915.2 | 933.9 | 932.4 |
| 175° | 919.1 | 921.0 | 915.2 | 926.9 | 925.0 |
| 177.5° | 920.7 | 920.7 | 914.4 | 923.7 | 920.7 |
| 180° | 919.1 | 919.1 | 919.1 | 919.1 | 919.1 |

(END OF REPORT)