

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: P520442

Luminaire Tested: **SQ4-F-150U-125D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520442
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G3-1910-536-20)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-150U-125D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

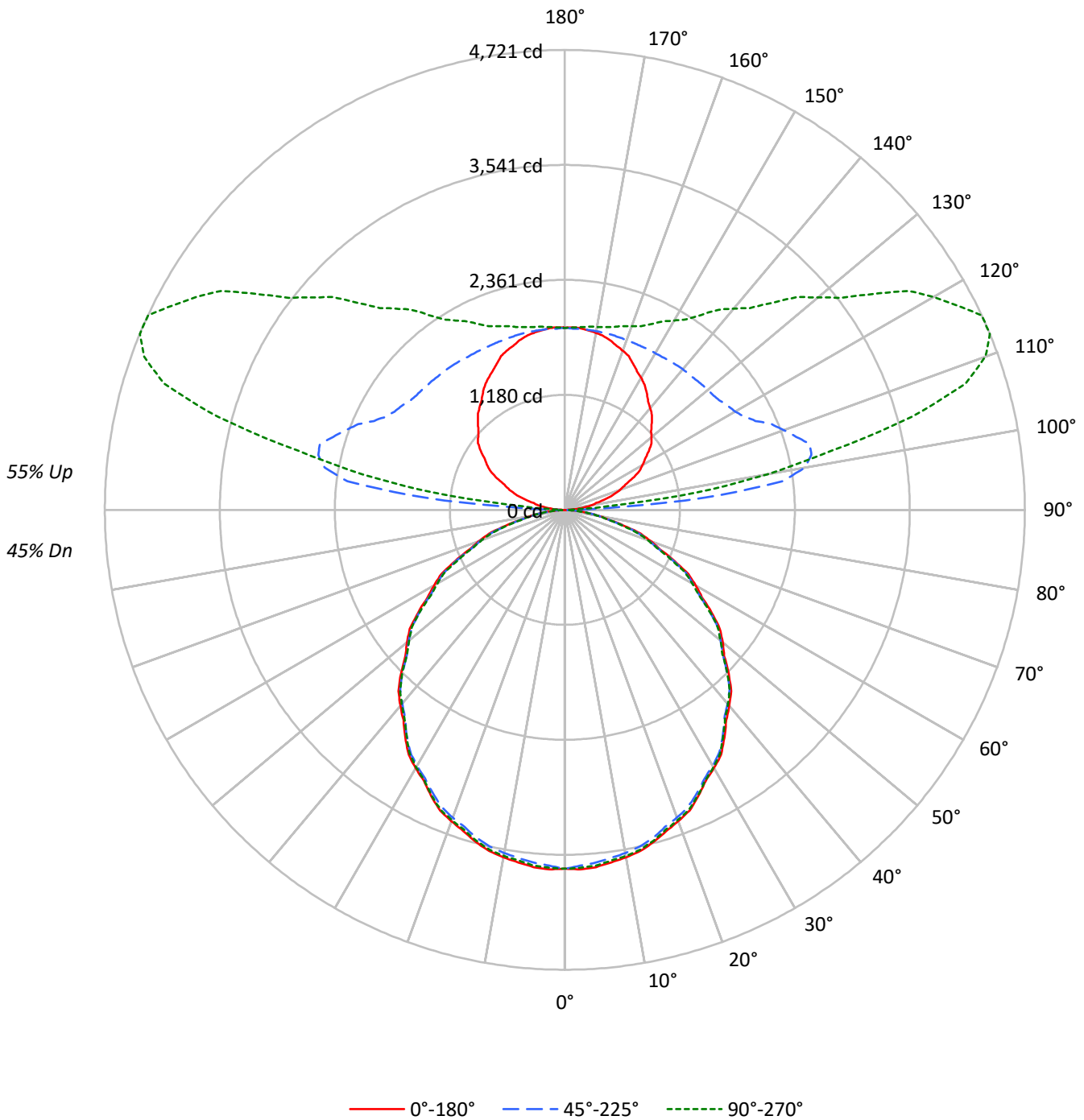
Lumens per Lamp: N/A
Luminaire Lumens: 22100.4 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 167.3
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 66 | 66 | 66 | 52 | 52 | 52 | 45 |
| 1 | 97 | 92 | 89 | 85 | 89 | 85 | 82 | 79 | 71 | 68 | 66 | 58 | 56 | 55 | 46 | 45 | 44 | 38 |
| 2 | 88 | 81 | 75 | 69 | 80 | 74 | 69 | 64 | 62 | 58 | 55 | 51 | 48 | 46 | 40 | 38 | 37 | 32 |
| 3 | 80 | 71 | 63 | 58 | 73 | 65 | 59 | 54 | 55 | 50 | 46 | 45 | 41 | 38 | 36 | 33 | 31 | 27 |
| 4 | 73 | 63 | 55 | 49 | 67 | 58 | 51 | 45 | 48 | 43 | 39 | 40 | 36 | 33 | 32 | 29 | 27 | 23 |
| 5 | 67 | 56 | 48 | 42 | 61 | 51 | 44 | 39 | 43 | 38 | 34 | 36 | 32 | 28 | 29 | 26 | 23 | 20 |
| 6 | 62 | 50 | 42 | 36 | 57 | 46 | 39 | 34 | 39 | 33 | 29 | 32 | 28 | 25 | 26 | 23 | 20 | 17 |
| 7 | 57 | 45 | 37 | 31 | 52 | 42 | 35 | 29 | 35 | 30 | 26 | 29 | 25 | 22 | 24 | 20 | 18 | 15 |
| 8 | 53 | 41 | 33 | 28 | 48 | 38 | 31 | 26 | 32 | 27 | 23 | 27 | 22 | 19 | 22 | 19 | 16 | 14 |
| 9 | 49 | 37 | 30 | 25 | 45 | 34 | 28 | 23 | 29 | 24 | 20 | 24 | 20 | 17 | 20 | 17 | 15 | 12 |
| 10 | 46 | 34 | 27 | 22 | 42 | 32 | 25 | 21 | 27 | 22 | 18 | 23 | 19 | 16 | 18 | 15 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16991 | 16991 | 16991 |
| 5° | 17046 | 16830 | 16971 |
| 10° | 16968 | 16759 | 16892 |
| 15° | 16854 | 16651 | 16787 |
| 20° | 16698 | 16509 | 16638 |
| 25° | 16508 | 16333 | 16467 |
| 30° | 16304 | 16164 | 16250 |
| 35° | 16073 | 15936 | 15947 |
| 40° | 15808 | 15637 | 15685 |
| 45° | 15512 | 15340 | 15366 |
| 50° | 15173 | 14999 | 14955 |
| 55° | 14786 | 14575 | 14542 |
| 60° | 14307 | 13989 | 13914 |
| 65° | 13564 | 13275 | 13099 |
| 70° | 12631 | 12304 | 12139 |
| 75° | 11236 | 10983 | 10659 |
| 80° | 9155 | 8886 | 8830 |
| 85° | 5473 | 6224 | 6224 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 347.5 | 1.6 |
| 10°-20° | 989.7 | 4.5 |
| 20°-30° | 1487.0 | 6.7 |
| 30°-40° | 1774.2 | 8.0 |
| 40°-50° | 1818.6 | 8.2 |
| 50°-60° | 1621.0 | 7.3 |
| 60°-70° | 1206.7 | 5.5 |
| 70°-80° | 653.8 | 3.0 |
| 80°-90° | 154.0 | 0.7 |
| 90°-100° | 868.4 | 3.9 |
| 100°-110° | 2348.1 | 10.6 |
| 110°-120° | 2468.7 | 11.2 |
| 120°-130° | 2005.2 | 9.1 |
| 130°-140° | 1572.9 | 7.1 |
| 140°-150° | 1207.2 | 5.5 |
| 150°-160° | 868.2 | 3.9 |
| 160°-170° | 530.4 | 2.4 |
| 170°-180° | 178.8 | 0.8 |
| 0°-30° | 2824.2 | 12.8 |
| 0°-40° | 4598.5 | 20.8 |
| 0°-60° | 8038.1 | 36.4 |
| 0°-90° | 10052.6 | 45.5 |
| 90°-120° | 5685.2 | 25.7 |
| 90°-150° | 10470.5 | 47.4 |
| 90°-180° | 12048.0 | 54.5 |
| 0°-180° | 22100.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3683 | 3683 | 3683 | 3683 | 3683 | |
| 5° | 3681 | 3675 | 3634 | 3667 | 3665 | 349 |
| 15° | 3529 | 3521 | 3486 | 3517 | 3515 | 995 |
| 25° | 3243 | 3237 | 3209 | 3227 | 3235 | 1494 |
| 35° | 2854 | 2852 | 2830 | 2830 | 2832 | 1785 |
| 45° | 2378 | 2372 | 2351 | 2348 | 2355 | 1832 |
| 55° | 1838 | 1832 | 1812 | 1798 | 1808 | 1642 |
| 65° | 1243 | 1235 | 1216 | 1208 | 1200 | 1230 |
| 75° | 630 | 630 | 616 | 604 | 598 | 669 |
| 85° | 103 | 117 | 118 | 120 | 118 | 143 |
| 90° | 4 | 12 | 26 | 28 | 26 | 11 |
| 95° | 135 | 473 | 1444 | 747 | 444 | 141 |
| 105° | 436 | 674 | 2605 | 3842 | 3685 | 460 |
| 115° | 768 | 940 | 2160 | 4182 | 4721 | 759 |
| 125° | 1052 | 1205 | 1947 | 3286 | 3860 | 938 |
| 135° | 1261 | 1411 | 1895 | 2653 | 3003 | 975 |
| 145° | 1466 | 1576 | 1869 | 2271 | 2444 | 917 |
| 155° | 1656 | 1720 | 1852 | 2037 | 2104 | 764 |
| 165° | 1802 | 1820 | 1861 | 1933 | 1943 | 508 |
| 175° | 1871 | 1869 | 1863 | 1887 | 1883 | 178 |
| 180° | 1869 | 1869 | 1869 | 1869 | 1869 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3683.1 | 3683.1 | 3683.1 | 3683.1 | 3683.1 |
| 2.5° | 3694.5 | 3688.1 | 3655.6 | 3683.0 | 3678.3 |
| 5° | 3681.1 | 3675.1 | 3634.5 | 3666.9 | 3664.9 |
| 7.5° | 3649.9 | 3642.4 | 3605.3 | 3635.6 | 3632.0 |
| 10° | 3622.3 | 3616.3 | 3577.7 | 3608.1 | 3606.1 |
| 12.5° | 3588.3 | 3582.3 | 3543.7 | 3574.1 | 3573.7 |
| 15° | 3529.1 | 3521.2 | 3486.5 | 3516.9 | 3514.9 |
| 17.5° | 3458.1 | 3449.0 | 3414.7 | 3438.8 | 3442.7 |
| 20° | 3401.4 | 3395.4 | 3362.9 | 3385.3 | 3389.2 |
| 22.5° | 3343.0 | 3335.5 | 3301.2 | 3326.9 | 3330.8 |
| 25° | 3243.3 | 3237.3 | 3208.8 | 3227.2 | 3235.1 |
| 27.5° | 3133.8 | 3133.8 | 3107.4 | 3120.5 | 3125.3 |
| 30° | 3060.8 | 3060.8 | 3034.5 | 3042.8 | 3050.7 |
| 32.5° | 2983.0 | 2976.6 | 2951.8 | 2958.5 | 2966.4 |
| 35° | 2854.1 | 2852.0 | 2829.7 | 2829.7 | 2831.8 |
| 37.5° | 2720.7 | 2715.1 | 2690.7 | 2692.5 | 2702.0 |
| 40° | 2625.0 | 2621.1 | 2596.6 | 2596.8 | 2604.7 |
| 42.5° | 2527.7 | 2523.8 | 2502.6 | 2499.4 | 2502.6 |
| 45° | 2377.7 | 2371.7 | 2351.4 | 2347.5 | 2355.4 |
| 47.5° | 2218.0 | 2219.6 | 2195.3 | 2189.7 | 2194.1 |
| 50° | 2114.2 | 2114.2 | 2089.9 | 2077.8 | 2083.8 |
| 52.5° | 2005.5 | 2002.4 | 1978.0 | 1964.5 | 1978.4 |
| 55° | 1838.5 | 1832.5 | 1812.2 | 1798.2 | 1808.1 |
| 57.5° | 1667.4 | 1658.3 | 1637.8 | 1622.5 | 1628.1 |
| 60° | 1550.7 | 1536.8 | 1516.2 | 1504.2 | 1508.1 |
| 62.5° | 1429.1 | 1421.6 | 1399.5 | 1381.0 | 1389.7 |
| 65° | 1242.6 | 1234.7 | 1216.2 | 1207.9 | 1200.0 |
| 67.5° | 1059.7 | 1054.6 | 1033.8 | 1025.2 | 1020.0 |
| 70° | 936.5 | 926.6 | 912.2 | 902.0 | 900.0 |
| 72.5° | 816.5 | 805.0 | 790.5 | 781.9 | 776.8 |
| 75° | 630.4 | 630.4 | 616.2 | 604.0 | 598.0 |
| 77.5° | 453.2 | 454.9 | 443.1 | 439.0 | 436.2 |
| 80° | 344.6 | 344.6 | 334.5 | 330.4 | 332.4 |
| 82.5° | 240.8 | 245.6 | 242.0 | 236.3 | 233.5 |
| 85° | 103.4 | 117.3 | 117.6 | 119.6 | 117.6 |
| 87.5° | 18.6 | 31.3 | 36.1 | 33.1 | 29.6 |
| 90° | 4.0 | 11.9 | 26.2 | 28.1 | 26.2 |
| 92.5° | 57.1 | 208.1 | 410.7 | 178.3 | 129.2 |
| 95° | 134.8 | 473.0 | 1444.2 | 747.4 | 444.5 |
| 97.5° | 216.4 | 542.5 | 2251.2 | 1863.1 | 1368.2 |
| 100° | 277.6 | 570.6 | 2502.3 | 2609.6 | 2110.1 |
| 102.5° | 333.9 | 609.6 | 2590.8 | 3175.7 | 2802.0 |
| 105° | 436.5 | 674.5 | 2604.9 | 3842.4 | 3685.0 |
| 107.5° | 531.5 | 748.6 | 2491.0 | 4258.2 | 4310.6 |
| 110° | 605.4 | 802.2 | 2389.6 | 4369.9 | 4592.2 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 671.4 | 855.5 | 2296.3 | 4347.7 | 4720.9 |
| 115° | 768.4 | 939.5 | 2160.4 | 4182.0 | 4720.9 |
| 117.5° | 863.3 | 1023.8 | 2070.6 | 3929.0 | 4539.9 |
| 120° | 921.3 | 1078.6 | 2017.5 | 3747.5 | 4370.9 |
| 122.5° | 976.0 | 1130.1 | 1985.3 | 3552.8 | 4181.1 |
| 125° | 1052.0 | 1205.4 | 1947.1 | 3285.8 | 3860.0 |
| 127.5° | 1122.0 | 1272.7 | 1924.6 | 3067.7 | 3572.8 |
| 130° | 1160.6 | 1316.0 | 1914.9 | 2933.1 | 3389.4 |
| 132.5° | 1200.8 | 1354.7 | 1905.2 | 2811.5 | 3231.6 |
| 135° | 1261.2 | 1410.7 | 1894.8 | 2653.0 | 3003.2 |
| 137.5° | 1322.0 | 1463.1 | 1885.9 | 2524.4 | 2809.6 |
| 140° | 1363.8 | 1495.5 | 1882.7 | 2441.6 | 2695.3 |
| 142.5° | 1404.0 | 1527.9 | 1876.3 | 2366.9 | 2589.2 |
| 145° | 1466.3 | 1576.5 | 1868.6 | 2270.8 | 2443.9 |
| 147.5° | 1523.1 | 1620.6 | 1859.8 | 2183.9 | 2316.8 |
| 150° | 1564.9 | 1651.4 | 1856.5 | 2136.6 | 2242.7 |
| 152.5° | 1603.5 | 1679.1 | 1854.9 | 2092.8 | 2180.1 |
| 155° | 1655.5 | 1720.3 | 1852.5 | 2037.1 | 2104.0 |
| 157.5° | 1709.4 | 1754.5 | 1852.9 | 1998.4 | 2042.5 |
| 160° | 1740.0 | 1777.3 | 1854.5 | 1973.9 | 2005.4 |
| 162.5° | 1764.1 | 1795.2 | 1856.1 | 1954.4 | 1978.1 |
| 165° | 1802.3 | 1819.9 | 1860.6 | 1933.2 | 1943.1 |
| 167.5° | 1828.4 | 1840.7 | 1861.0 | 1915.0 | 1919.7 |
| 170° | 1844.5 | 1850.4 | 1862.6 | 1906.8 | 1906.8 |
| 172.5° | 1857.4 | 1858.6 | 1862.6 | 1897.2 | 1895.6 |
| 175° | 1870.6 | 1868.7 | 1862.6 | 1886.6 | 1882.7 |
| 177.5° | 1875.1 | 1870.3 | 1862.2 | 1878.2 | 1873.4 |
| 180° | 1868.6 | 1868.6 | 1868.6 | 1868.6 | 1868.6 |

(END OF REPORT)