

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: P564257

Luminaire Tested: **SQ4-PR1-100U-075D-830-1D-UNV-STD-W-12**

Issue Date: 7/30/2021

Test Information

Test Method: LM-79-2019
Report Number: P564257
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2106-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/30/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-PR1-100U-075D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS.
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

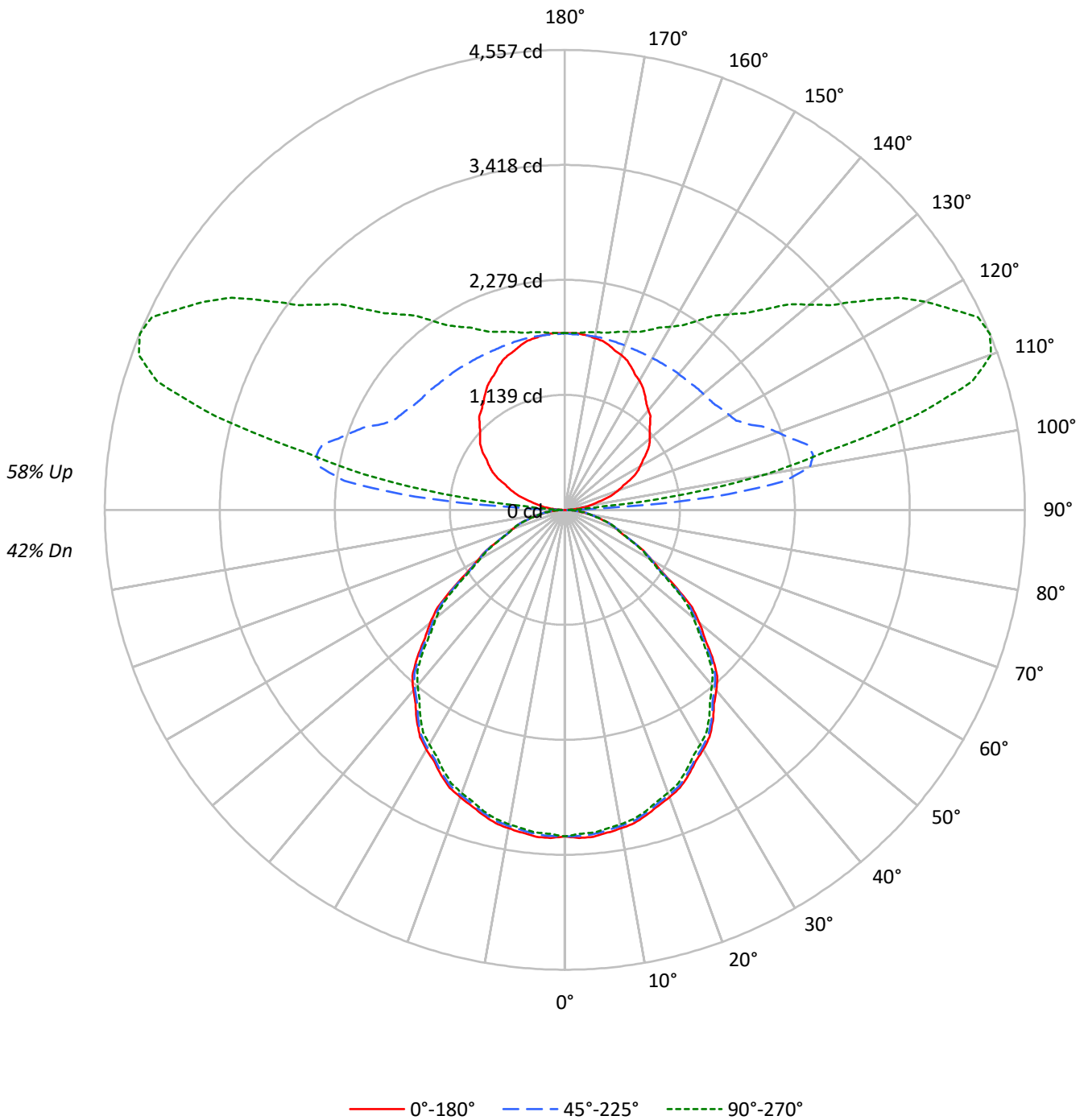
Lumens per Lamp: N/A
Luminaire Lumens: 19464.1 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 153.4
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 | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 79 | 79 | 79 | 63 | 63 | 63 | 48 | 48 | 48 | 42 |
| 1 | 96 | 92 | 88 | 85 | 88 | 84 | 81 | 78 | 69 | 67 | 65 | 56 | 54 | 53 | 43 | 42 | 41 | 35 |
| 2 | 88 | 81 | 75 | 70 | 80 | 74 | 69 | 64 | 61 | 57 | 54 | 49 | 47 | 44 | 38 | 37 | 35 | 30 |
| 3 | 80 | 71 | 64 | 58 | 73 | 65 | 59 | 54 | 54 | 49 | 46 | 44 | 40 | 38 | 34 | 32 | 30 | 26 |
| 4 | 73 | 63 | 55 | 49 | 67 | 58 | 51 | 46 | 48 | 43 | 39 | 39 | 35 | 33 | 31 | 28 | 26 | 22 |
| 5 | 67 | 56 | 48 | 42 | 61 | 52 | 45 | 39 | 43 | 38 | 34 | 35 | 31 | 28 | 28 | 25 | 23 | 19 |
| 6 | 62 | 50 | 42 | 37 | 56 | 46 | 39 | 34 | 39 | 33 | 29 | 32 | 28 | 25 | 25 | 22 | 20 | 17 |
| 7 | 57 | 45 | 38 | 32 | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 29 | 25 | 22 | 23 | 20 | 18 | 15 |
| 8 | 53 | 41 | 34 | 28 | 48 | 38 | 31 | 27 | 32 | 27 | 23 | 26 | 22 | 20 | 21 | 18 | 16 | 14 |
| 9 | 49 | 38 | 30 | 25 | 45 | 35 | 28 | 24 | 29 | 24 | 21 | 24 | 20 | 18 | 19 | 17 | 15 | 12 |
| 10 | 46 | 34 | 27 | 23 | 42 | 32 | 25 | 21 | 27 | 22 | 19 | 22 | 19 | 16 | 18 | 15 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|------|------|
| 0° | 9950 | 9950 | 9950 |
| 5° | 10039 | 9962 | 9910 |
| 10° | 10007 | 9938 | 9885 |
| 15° | 9963 | 9901 | 9848 |
| 20° | 9913 | 9849 | 9776 |
| 25° | 9843 | 9777 | 9664 |
| 30° | 9737 | 9668 | 9529 |
| 35° | 9594 | 9510 | 9374 |
| 40° | 9375 | 9274 | 9106 |
| 45° | 8993 | 8835 | 8653 |
| 50° | 8319 | 8119 | 7959 |
| 55° | 7261 | 7097 | 6947 |
| 60° | 6119 | 6067 | 5947 |
| 65° | 5293 | 5313 | 5272 |
| 70° | 4861 | 4886 | 4886 |
| 75° | 4669 | 4669 | 4702 |
| 80° | 4392 | 4442 | 4392 |
| 85° | 3539 | 3934 | 3934 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 305.9 | 1.6 |
| 10°-20° | 875.3 | 4.5 |
| 20°-30° | 1320.2 | 6.8 |
| 30°-40° | 1573.1 | 8.1 |
| 40°-50° | 1550.9 | 8.0 |
| 50°-60° | 1185.3 | 6.1 |
| 60°-70° | 733.5 | 3.8 |
| 70°-80° | 416.6 | 2.1 |
| 80°-90° | 130.4 | 0.7 |
| 90°-100° | 819.7 | 4.2 |
| 100°-110° | 2262.9 | 11.6 |
| 110°-120° | 2333.8 | 12.0 |
| 120°-130° | 1875.4 | 9.6 |
| 130°-140° | 1473.9 | 7.6 |
| 140°-150° | 1130.4 | 5.8 |
| 150°-160° | 812.4 | 4.2 |
| 160°-170° | 496.8 | 2.6 |
| 170°-180° | 167.5 | 0.9 |
| 0°-30° | 2501.5 | 12.9 |
| 0°-40° | 4074.6 | 20.9 |
| 0°-60° | 6810.8 | 35.0 |
| 0°-90° | 8091.2 | 41.6 |
| 90°-120° | 5416.4 | 27.8 |
| 90°-150° | 9896.1 | 50.8 |
| 90°-180° | 11373.0 | 58.4 |
| 0°-180° | 19464.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3235 | 3235 | 3235 | 3235 | 3235 | |
| 5° | 3252 | 3216 | 3227 | 3216 | 3210 | 309 |
| 15° | 3129 | 3097 | 3110 | 3098 | 3093 | 883 |
| 25° | 2901 | 2865 | 2881 | 2851 | 2848 | 1335 |
| 35° | 2555 | 2525 | 2533 | 2500 | 2497 | 1595 |
| 45° | 2068 | 2040 | 2031 | 1995 | 1990 | 1584 |
| 55° | 1354 | 1332 | 1324 | 1301 | 1296 | 1213 |
| 65° | 727 | 722 | 730 | 724 | 724 | 737 |
| 75° | 393 | 393 | 393 | 396 | 396 | 415 |
| 85° | 100 | 106 | 112 | 112 | 112 | 117 |
| 90° | 6 | 11 | 22 | 25 | 28 | 13 |
| 95° | 120 | 444 | 1487 | 611 | 398 | 129 |
| 105° | 403 | 622 | 2490 | 3801 | 3579 | 429 |
| 115° | 722 | 873 | 2005 | 3970 | 4514 | 710 |
| 125° | 991 | 1128 | 1818 | 3076 | 3610 | 882 |
| 135° | 1193 | 1322 | 1767 | 2491 | 2809 | 923 |
| 145° | 1384 | 1479 | 1745 | 2121 | 2282 | 866 |
| 155° | 1560 | 1612 | 1731 | 1903 | 1963 | 719 |
| 165° | 1689 | 1711 | 1739 | 1807 | 1820 | 476 |
| 175° | 1750 | 1753 | 1742 | 1767 | 1762 | 166 |
| 180° | 1750 | 1750 | 1750 | 1750 | 1750 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3235.2 | 3235.2 | 3235.2 | 3235.2 | 3235.2 |
| 2.5° | 3255.2 | 3226.9 | 3235.2 | 3228.1 | 3212.9 |
| 5° | 3251.9 | 3216.5 | 3226.8 | 3215.5 | 3210.1 |
| 7.5° | 3226.8 | 3191.9 | 3202.3 | 3191.1 | 3187.8 |
| 10° | 3204.5 | 3171.8 | 3182.2 | 3171.0 | 3165.5 |
| 12.5° | 3180.0 | 3145.1 | 3157.7 | 3144.2 | 3138.8 |
| 15° | 3129.3 | 3096.6 | 3109.8 | 3098.5 | 3093.1 |
| 17.5° | 3073.6 | 3038.7 | 3051.8 | 3038.8 | 3031.8 |
| 20° | 3029.0 | 2996.3 | 3009.5 | 2989.9 | 2987.2 |
| 22.5° | 2979.9 | 2947.2 | 2960.4 | 2934.2 | 2933.7 |
| 25° | 2900.8 | 2865.4 | 2881.3 | 2850.6 | 2847.8 |
| 27.5° | 2806.6 | 2773.9 | 2787.1 | 2755.8 | 2752.5 |
| 30° | 2742.0 | 2709.3 | 2722.4 | 2688.9 | 2683.4 |
| 32.5° | 2668.4 | 2637.9 | 2648.9 | 2615.4 | 2612.1 |
| 35° | 2555.3 | 2525.3 | 2533.0 | 2499.5 | 2496.7 |
| 37.5° | 2426.5 | 2399.3 | 2403.7 | 2366.8 | 2364.1 |
| 40° | 2335.1 | 2307.9 | 2310.0 | 2271.0 | 2268.2 |
| 42.5° | 2234.8 | 2207.6 | 2205.3 | 2166.2 | 2163.5 |
| 45° | 2067.6 | 2040.4 | 2031.4 | 1995.0 | 1989.6 |
| 47.5° | 1877.0 | 1849.8 | 1833.0 | 1803.4 | 1799.5 |
| 50° | 1738.8 | 1711.6 | 1697.0 | 1671.7 | 1663.6 |
| 52.5° | 1589.4 | 1562.2 | 1549.9 | 1526.8 | 1518.7 |
| 55° | 1354.3 | 1332.5 | 1323.6 | 1301.2 | 1295.7 |
| 57.5° | 1130.8 | 1116.1 | 1113.5 | 1091.7 | 1089.5 |
| 60° | 994.8 | 986.6 | 986.4 | 966.9 | 966.9 |
| 62.5° | 878.9 | 872.9 | 877.2 | 864.3 | 862.2 |
| 65° | 727.3 | 721.8 | 730.1 | 724.5 | 724.5 |
| 67.5° | 607.5 | 607.5 | 612.5 | 610.3 | 610.3 |
| 70° | 540.6 | 540.6 | 543.4 | 543.4 | 543.4 |
| 72.5° | 480.4 | 478.2 | 485.4 | 485.4 | 483.2 |
| 75° | 392.9 | 392.9 | 392.9 | 395.7 | 395.7 |
| 77.5° | 306.0 | 306.5 | 308.7 | 308.1 | 306.0 |
| 80° | 248.0 | 250.7 | 250.8 | 248.0 | 248.0 |
| 82.5° | 190.0 | 192.8 | 192.8 | 192.2 | 190.0 |
| 85° | 100.3 | 105.8 | 111.5 | 111.5 | 111.5 |
| 87.5° | 30.1 | 39.9 | 49.1 | 49.6 | 48.0 |
| 90° | 5.6 | 11.1 | 22.4 | 25.3 | 28.0 |
| 92.5° | 50.4 | 209.2 | 374.2 | 136.5 | 106.4 |
| 95° | 120.4 | 443.5 | 1487.1 | 611.3 | 397.7 |
| 97.5° | 199.4 | 496.8 | 2202.9 | 1696.0 | 1228.3 |
| 100° | 257.7 | 528.7 | 2467.3 | 2484.7 | 2019.2 |
| 102.5° | 313.7 | 565.0 | 2518.8 | 3070.0 | 2628.6 |
| 105° | 403.3 | 622.3 | 2489.7 | 3800.9 | 3579.1 |
| 107.5° | 498.5 | 693.5 | 2350.8 | 4153.4 | 4234.5 |
| 110° | 565.7 | 741.0 | 2243.3 | 4229.2 | 4492.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 626.2 | 794.9 | 2142.4 | 4169.3 | 4557.1 |
| 115° | 722.5 | 873.2 | 2005.2 | 3969.6 | 4514.5 |
| 117.5° | 806.6 | 956.6 | 1915.0 | 3688.4 | 4308.4 |
| 120° | 862.6 | 1010.4 | 1879.2 | 3498.1 | 4122.4 |
| 122.5° | 916.3 | 1057.6 | 1850.1 | 3320.4 | 3911.8 |
| 125° | 991.4 | 1128.3 | 1817.6 | 3076.0 | 3609.9 |
| 127.5° | 1055.3 | 1192.2 | 1798.5 | 2869.3 | 3329.9 |
| 130° | 1097.8 | 1234.7 | 1789.6 | 2742.9 | 3161.8 |
| 132.5° | 1138.2 | 1268.5 | 1780.6 | 2636.7 | 3016.2 |
| 135° | 1193.0 | 1321.7 | 1767.2 | 2491.3 | 2809.0 |
| 137.5° | 1254.7 | 1371.9 | 1760.4 | 2369.3 | 2640.4 |
| 140° | 1288.3 | 1403.3 | 1756.0 | 2287.9 | 2526.1 |
| 142.5° | 1326.4 | 1432.6 | 1751.5 | 2215.5 | 2425.3 |
| 145° | 1383.5 | 1479.3 | 1744.8 | 2120.9 | 2282.5 |
| 147.5° | 1438.4 | 1522.2 | 1738.6 | 2041.1 | 2166.5 |
| 150° | 1478.7 | 1547.2 | 1736.4 | 1993.5 | 2094.8 |
| 152.5° | 1510.1 | 1574.1 | 1734.1 | 1952.8 | 2036.6 |
| 155° | 1559.9 | 1611.9 | 1730.8 | 1903.0 | 1963.2 |
| 157.5° | 1605.8 | 1645.8 | 1731.3 | 1866.7 | 1907.8 |
| 160° | 1632.7 | 1668.3 | 1733.6 | 1846.3 | 1876.4 |
| 162.5° | 1655.1 | 1686.4 | 1735.8 | 1828.2 | 1851.7 |
| 165° | 1688.7 | 1710.7 | 1739.2 | 1806.7 | 1820.4 |
| 167.5° | 1714.5 | 1727.7 | 1742.0 | 1793.6 | 1798.0 |
| 170° | 1728.0 | 1738.9 | 1742.0 | 1786.8 | 1786.8 |
| 172.5° | 1739.2 | 1745.7 | 1742.0 | 1777.8 | 1775.6 |
| 175° | 1750.4 | 1753.1 | 1742.0 | 1767.0 | 1761.6 |
| 177.5° | 1754.8 | 1752.6 | 1741.4 | 1757.0 | 1752.6 |
| 180° | 1750.4 | 1750.4 | 1750.4 | 1750.4 | 1750.4 |

(END OF REPORT)