

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: P519359

Luminaire Tested: **SQ4-WB-100U-050D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P519359  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

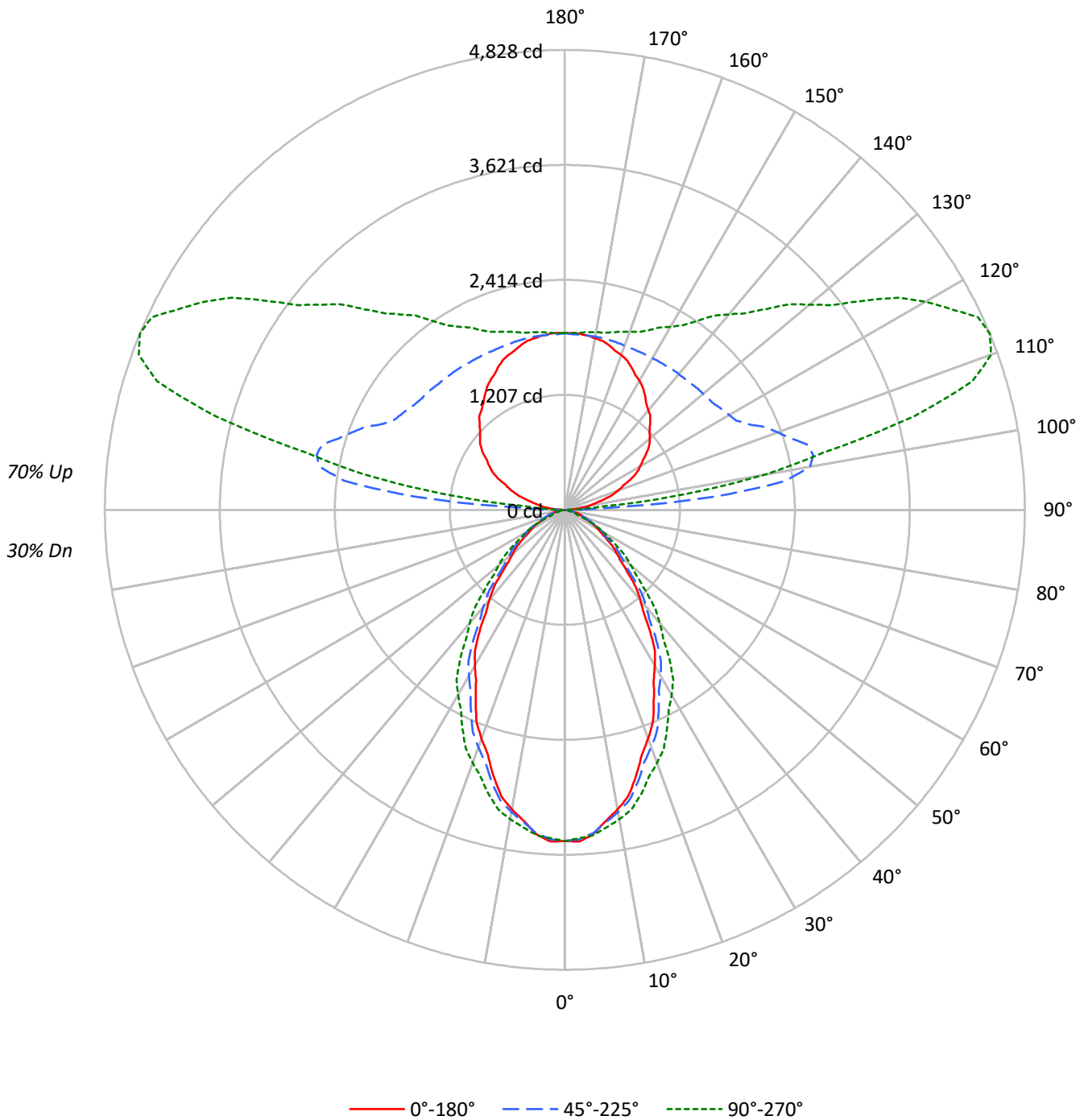
Lumens per Lamp: N/A  
Luminaire Lumens: 17117.7 lumens  
Efficiency: N/A  
Efficacy: 134.4 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 127.4  
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



TEST NUMBER: P519359  
CATALOG NUMBER: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12

### Luminous Intensity Polar Plot





TEST NUMBER: P519359

CATALOG NUMBER: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12

**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   | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 37 | 37 | 37 | 30 |
| 1   | 94  | 90  | 86  | 83  | 84 | 81 | 78 | 75 | 64 | 62 | 60 | 48 | 47 | 46 | 34 | 33 | 33 | 26 |
| 2   | 86  | 79  | 74  | 69  | 77 | 72 | 67 | 63 | 57 | 54 | 51 | 43 | 41 | 40 | 31 | 30 | 29 | 23 |
| 3   | 79  | 70  | 64  | 58  | 71 | 64 | 58 | 53 | 51 | 47 | 44 | 39 | 36 | 34 | 28 | 27 | 25 | 20 |
| 4   | 72  | 63  | 55  | 50  | 65 | 57 | 51 | 46 | 46 | 41 | 38 | 35 | 32 | 30 | 25 | 24 | 22 | 18 |
| 5   | 67  | 56  | 49  | 43  | 60 | 51 | 44 | 40 | 41 | 36 | 33 | 32 | 29 | 26 | 23 | 21 | 20 | 16 |
| 6   | 62  | 50  | 43  | 38  | 55 | 46 | 39 | 35 | 37 | 33 | 29 | 29 | 26 | 23 | 21 | 19 | 18 | 15 |
| 7   | 57  | 46  | 38  | 33  | 51 | 42 | 35 | 31 | 34 | 29 | 26 | 27 | 23 | 21 | 20 | 18 | 16 | 13 |
| 8   | 53  | 42  | 34  | 29  | 48 | 38 | 32 | 27 | 31 | 26 | 23 | 24 | 21 | 19 | 18 | 16 | 15 | 12 |
| 9   | 49  | 38  | 31  | 26  | 44 | 35 | 29 | 24 | 28 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 14 | 11 |
| 10  | 46  | 35  | 28  | 24  | 42 | 32 | 26 | 22 | 26 | 22 | 19 | 21 | 18 | 16 | 16 | 14 | 12 | 10 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10689 | 10689 | 10689 |
| 5°  | 10556 | 10519 | 10580 |
| 10° | 9973  | 10064 | 10297 |
| 15° | 9207  | 9420  | 9843  |
| 20° | 8361  | 8675  | 9249  |
| 25° | 7499  | 7908  | 8617  |
| 30° | 6705  | 7144  | 7962  |
| 35° | 5864  | 6287  | 7186  |
| 40° | 4935  | 5327  | 6221  |
| 45° | 4073  | 4425  | 5194  |
| 50° | 3400  | 3707  | 4327  |
| 55° | 2887  | 3181  | 3574  |
| 60° | 2467  | 2758  | 2852  |
| 65° | 1965  | 2320  | 1843  |
| 70° | 1742  | 1810  | 1125  |
| 75° | 1612  | 1467  | 689   |
| 80° | 1486  | 1351  | 595   |
| 85° | 1344  | 1239  | 483   |



TEST NUMBER: P519359

CATALOG NUMBER: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 318.8   | 1.9       |
| 10°-20°   | 829.2   | 4.8       |
| 20°-30°   | 1074.1  | 6.3       |
| 30°-40°   | 1051.8  | 6.1       |
| 40°-50°   | 805.1   | 4.7       |
| 50°-60°   | 536.5   | 3.1       |
| 60°-70°   | 292.8   | 1.7       |
| 70°-80°   | 122.0   | 0.7       |
| 80°-90°   | 38.4    | 0.2       |
| 90°-100°  | 868.4   | 5.1       |
| 100°-110° | 2397.4  | 14.0      |
| 110°-120° | 2472.6  | 14.4      |
| 120°-130° | 1986.9  | 11.6      |
| 130°-140° | 1561.5  | 9.1       |
| 140°-150° | 1197.6  | 7.0       |
| 150°-160° | 860.7   | 5.0       |
| 160°-170° | 526.4   | 3.1       |
| 170°-180° | 177.5   | 1.0       |
| 0°-30°    | 2222.2  | 13.0      |
| 0°-40°    | 3274.0  | 19.1      |
| 0°-60°    | 4615.6  | 27.0      |
| 0°-90°    | 5068.8  | 29.6      |
| 90°-120°  | 5738.4  | 33.5      |
| 90°-150°  | 10484.4 | 61.2      |
| 90°-180°  | 12049.0 | 70.4      |
| 0°-180°   | 17117.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 3476 | 3476  | 3476 | 3476  | 3476 |      |
| 5°   | 3419 | 3385  | 3407 | 3415  | 3427 | 318  |
| 15°  | 2892 | 2881  | 2959 | 3039  | 3092 | 808  |
| 25°  | 2210 | 2216  | 2330 | 2432  | 2539 | 1016 |
| 35°  | 1562 | 1569  | 1675 | 1787  | 1914 | 971  |
| 45°  | 936  | 954   | 1017 | 1094  | 1194 | 730  |
| 55°  | 538  | 561   | 593  | 616   | 666  | 488  |
| 65°  | 270  | 292   | 319  | 278   | 253  | 281  |
| 75°  | 136  | 136   | 124  | 85    | 58   | 145  |
| 85°  | 38   | 38    | 35   | 23    | 14   | 42   |
| 90°  | 6    | 12    | 24   | 27    | 30   | 11   |
| 95°  | 128  | 470   | 1576 | 648   | 421  | 137  |
| 105° | 427  | 659   | 2638 | 4027  | 3792 | 455  |
| 115° | 766  | 925   | 2124 | 4206  | 4783 | 752  |
| 125° | 1050 | 1195  | 1926 | 3259  | 3824 | 935  |
| 135° | 1264 | 1400  | 1872 | 2639  | 2976 | 978  |
| 145° | 1466 | 1567  | 1848 | 2247  | 2418 | 918  |
| 155° | 1653 | 1708  | 1834 | 2016  | 2080 | 762  |
| 165° | 1789 | 1812  | 1842 | 1914  | 1929 | 504  |
| 175° | 1854 | 1857  | 1846 | 1872  | 1866 | 176  |
| 180° | 1854 | 1854  | 1854 | 1854  | 1854 |      |



TEST NUMBER: P519359

CATALOG NUMBER: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 3475.8 | 3475.8 | 3475.8 | 3475.8 | 3475.8 |
| 2.5°   | 3484.4 | 3453.3 | 3461.2 | 3461.0 | 3451.4 |
| 5°     | 3419.4 | 3385.1 | 3407.2 | 3415.1 | 3427.0 |
| 7.5°   | 3292.5 | 3266.5 | 3306.8 | 3336.7 | 3360.8 |
| 10°    | 3193.7 | 3171.3 | 3222.6 | 3266.1 | 3297.4 |
| 12.5°  | 3079.0 | 3060.2 | 3123.8 | 3182.1 | 3223.0 |
| 15°    | 2891.7 | 2881.2 | 2958.8 | 3039.3 | 3091.5 |
| 17.5°  | 2691.3 | 2686.2 | 2775.2 | 2869.1 | 2935.9 |
| 20°    | 2554.6 | 2553.1 | 2650.7 | 2748.6 | 2826.1 |
| 22.5°  | 2416.8 | 2420.0 | 2522.6 | 2624.4 | 2712.6 |
| 25°    | 2209.9 | 2215.9 | 2330.4 | 2432.0 | 2539.4 |
| 27.5°  | 2018.7 | 2021.4 | 2139.8 | 2247.0 | 2361.5 |
| 30°    | 1888.1 | 1895.6 | 2011.7 | 2122.7 | 2242.0 |
| 32.5°  | 1757.6 | 1766.2 | 1879.9 | 1994.6 | 2116.3 |
| 35°    | 1561.8 | 1569.2 | 1674.6 | 1787.3 | 1914.1 |
| 37.5°  | 1359.8 | 1370.0 | 1463.5 | 1570.1 | 1694.7 |
| 40°    | 1229.3 | 1244.2 | 1326.9 | 1427.3 | 1549.6 |
| 42.5°  | 1103.6 | 1122.1 | 1198.8 | 1294.0 | 1404.4 |
| 45°    | 936.4  | 954.3  | 1017.3 | 1094.3 | 1194.2 |
| 47.5°  | 792.5  | 813.0  | 861.4  | 927.7  | 1013.0 |
| 50°    | 710.7  | 730.1  | 774.8  | 823.9  | 904.4  |
| 52.5°  | 638.7  | 658.1  | 697.9  | 735.8  | 804.4  |
| 55°    | 538.4  | 560.7  | 593.3  | 615.8  | 666.5  |
| 57.5°  | 456.0  | 477.5  | 503.3  | 513.5  | 544.2  |
| 60°    | 401.1  | 425.0  | 448.4  | 447.2  | 463.6  |
| 62.5°  | 351.1  | 371.4  | 394.7  | 378.6  | 379.5  |
| 65°    | 270.0  | 292.3  | 318.8  | 278.5  | 253.2  |
| 67.5°  | 218.1  | 222.9  | 250.1  | 194.2  | 164.1  |
| 70°    | 193.7  | 193.7  | 201.3  | 150.4  | 125.1  |
| 72.5°  | 170.5  | 170.5  | 163.5  | 122.3  | 95.8   |
| 75°    | 135.7  | 135.7  | 123.5  | 84.8   | 58.0   |
| 77.5°  | 104.6  | 103.4  | 94.6   | 63.3   | 42.1   |
| 80°    | 83.9   | 83.9   | 76.3   | 50.0   | 33.6   |
| 82.5°  | 65.6   | 65.6   | 59.2   | 39.0   | 25.0   |
| 85°    | 38.1   | 38.1   | 35.1   | 22.7   | 13.7   |
| 87.5°  | 14.6   | 15.8   | 16.9   | 12.6   | 12.0   |
| 90°    | 5.9    | 11.7   | 23.7   | 26.8   | 29.7   |
| 92.5°  | 53.4   | 221.7  | 396.4  | 144.7  | 112.7  |
| 95°    | 127.6  | 469.9  | 1575.5 | 647.6  | 421.3  |
| 97.5°  | 211.3  | 526.3  | 2333.9 | 1796.9 | 1301.3 |
| 100°   | 273.0  | 560.2  | 2614.0 | 2632.4 | 2139.2 |
| 102.5° | 332.3  | 598.6  | 2668.6 | 3252.5 | 2784.9 |
| 105°   | 427.3  | 659.3  | 2637.7 | 4026.9 | 3791.9 |
| 107.5° | 528.1  | 734.7  | 2490.5 | 4400.3 | 4486.2 |
| 110°   | 599.3  | 785.0  | 2376.6 | 4480.6 | 4759.1 |

TEST NUMBER: P519359

CATALOG NUMBER: SQ4-WB-100U-050D-835-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 663.4  | 842.1  | 2269.8 | 4417.2 | 4828.0 |
| 115°   | 765.5  | 925.1  | 2124.4 | 4205.6 | 4782.9 |
| 117.5° | 854.5  | 1013.5 | 2028.9 | 3907.7 | 4564.5 |
| 120°   | 913.9  | 1070.5 | 1990.9 | 3706.0 | 4367.5 |
| 122.5° | 970.8  | 1120.5 | 1960.0 | 3517.7 | 4144.4 |
| 125°   | 1050.3 | 1195.4 | 1925.6 | 3258.8 | 3824.5 |
| 127.5° | 1118.0 | 1263.0 | 1905.4 | 3039.9 | 3527.8 |
| 130°   | 1163.1 | 1308.1 | 1895.9 | 2905.9 | 3349.8 |
| 132.5° | 1205.8 | 1343.9 | 1886.4 | 2793.4 | 3195.5 |
| 135°   | 1264.0 | 1400.3 | 1872.2 | 2639.4 | 2975.9 |
| 137.5° | 1329.2 | 1453.4 | 1865.1 | 2510.1 | 2797.3 |
| 140°   | 1364.8 | 1486.7 | 1860.3 | 2423.9 | 2676.3 |
| 142.5° | 1405.2 | 1517.8 | 1855.6 | 2347.2 | 2569.5 |
| 145°   | 1465.7 | 1567.3 | 1848.5 | 2247.0 | 2418.1 |
| 147.5° | 1523.9 | 1612.6 | 1841.9 | 2162.4 | 2295.3 |
| 150°   | 1566.6 | 1639.1 | 1839.6 | 2112.0 | 2219.4 |
| 152.5° | 1599.8 | 1667.7 | 1837.2 | 2068.9 | 2157.6 |
| 155°   | 1652.6 | 1707.8 | 1833.6 | 2016.1 | 2079.9 |
| 157.5° | 1701.3 | 1743.7 | 1834.2 | 1977.6 | 2021.2 |
| 160°   | 1729.8 | 1767.5 | 1836.6 | 1956.0 | 1987.9 |
| 162.5° | 1753.5 | 1786.6 | 1839.0 | 1936.9 | 1961.8 |
| 165°   | 1789.1 | 1812.3 | 1842.5 | 1914.1 | 1928.6 |
| 167.5° | 1816.4 | 1830.4 | 1845.5 | 1900.2 | 1904.8 |
| 170°   | 1830.7 | 1842.3 | 1845.5 | 1893.0 | 1893.0 |
| 172.5° | 1842.5 | 1849.5 | 1845.5 | 1883.4 | 1881.1 |
| 175°   | 1854.4 | 1857.3 | 1845.5 | 1872.1 | 1866.3 |
| 177.5° | 1859.2 | 1856.8 | 1844.9 | 1861.4 | 1856.8 |
| 180°   | 1854.4 | 1854.4 | 1854.4 | 1854.4 | 1854.4 |

(END OF REPORT)