

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: P519604

Luminaire Tested: **SQ4-WB-150U-100D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519604
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, 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-150U-100D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

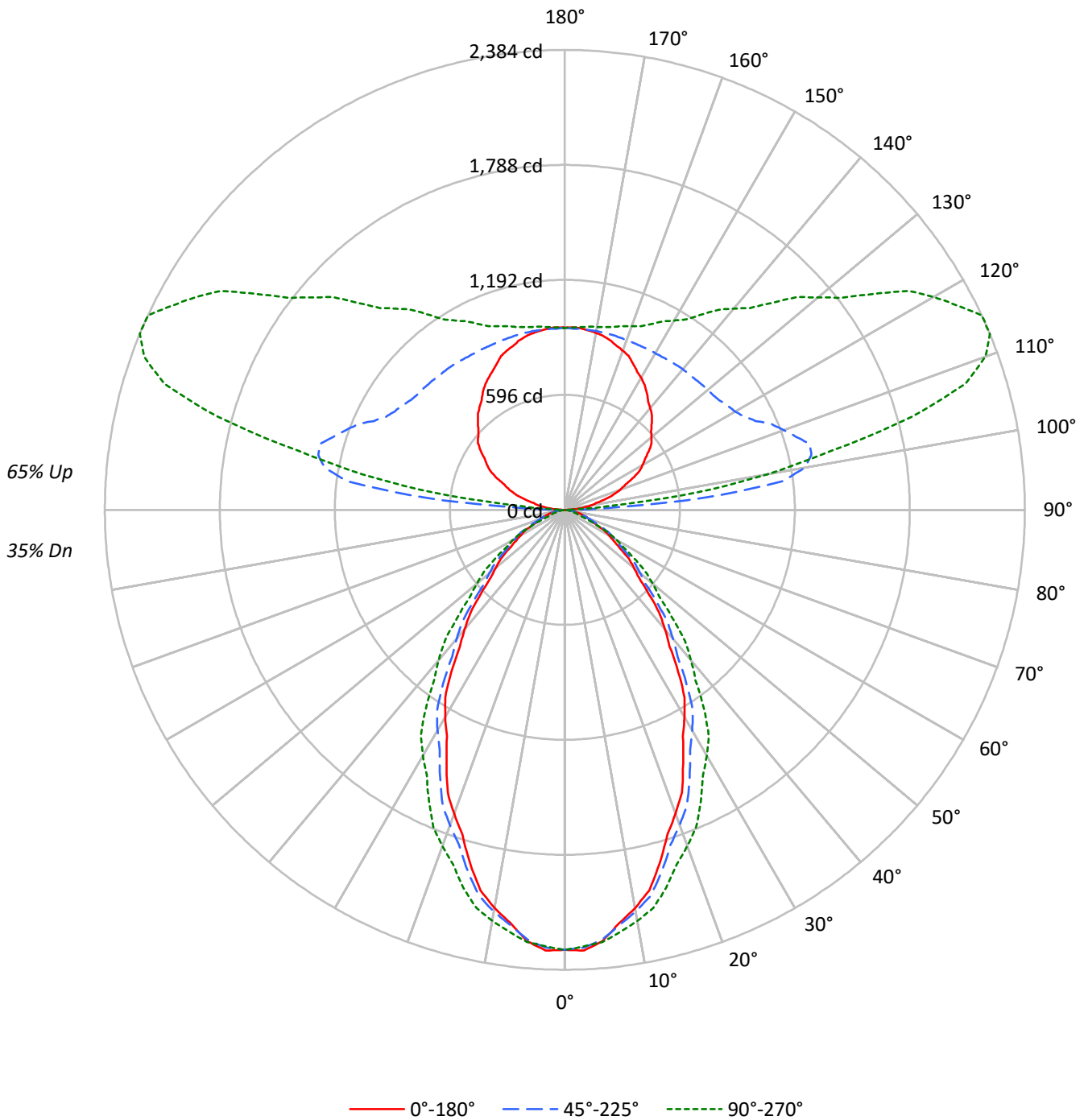
Lumens per Lamp: N/A
Luminaire Lumens: 9410.0 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 72.3
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 | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 75 | 75 | 75 | 58 | 58 | 58 | 43 | 43 | 43 | 35 |
| 1 | 95 | 91 | 88 | 85 | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 52 | 51 | 50 | 39 | 38 | 38 | 31 |
| 2 | 87 | 81 | 75 | 71 | 79 | 73 | 69 | 65 | 60 | 56 | 54 | 47 | 45 | 43 | 35 | 34 | 33 | 28 |
| 3 | 80 | 72 | 65 | 60 | 73 | 65 | 60 | 55 | 53 | 49 | 46 | 42 | 40 | 37 | 32 | 30 | 29 | 24 |
| 4 | 74 | 64 | 57 | 51 | 67 | 58 | 52 | 47 | 48 | 44 | 40 | 38 | 35 | 33 | 29 | 27 | 26 | 22 |
| 5 | 68 | 57 | 50 | 44 | 62 | 53 | 46 | 41 | 43 | 39 | 35 | 35 | 31 | 29 | 27 | 25 | 23 | 20 |
| 6 | 63 | 52 | 44 | 39 | 57 | 47 | 41 | 36 | 39 | 35 | 31 | 32 | 28 | 26 | 25 | 22 | 21 | 18 |
| 7 | 58 | 47 | 40 | 34 | 53 | 43 | 37 | 32 | 36 | 31 | 28 | 29 | 26 | 23 | 23 | 20 | 19 | 16 |
| 8 | 54 | 43 | 36 | 31 | 49 | 39 | 33 | 29 | 33 | 28 | 25 | 27 | 23 | 21 | 21 | 19 | 17 | 15 |
| 9 | 51 | 39 | 32 | 27 | 46 | 36 | 30 | 26 | 30 | 26 | 22 | 25 | 21 | 19 | 20 | 17 | 16 | 13 |
| 10 | 47 | 36 | 29 | 25 | 43 | 33 | 27 | 23 | 28 | 23 | 20 | 23 | 20 | 17 | 18 | 16 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 21043 | 21043 | 21043 |
| 5° | 20780 | 20706 | 20826 |
| 10° | 19633 | 19811 | 20271 |
| 15° | 18124 | 18545 | 19377 |
| 20° | 16458 | 17078 | 18207 |
| 25° | 14762 | 15567 | 16963 |
| 30° | 13200 | 14063 | 15672 |
| 35° | 11542 | 12377 | 14146 |
| 40° | 9715 | 10487 | 12246 |
| 45° | 8018 | 8709 | 10224 |
| 50° | 6694 | 7297 | 8519 |
| 55° | 5683 | 6262 | 7034 |
| 60° | 4857 | 5429 | 5613 |
| 65° | 3866 | 4567 | 3626 |
| 70° | 3429 | 3563 | 2215 |
| 75° | 3176 | 2891 | 1355 |
| 80° | 2922 | 2657 | 1169 |
| 85° | 2646 | 2435 | 953 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 209.2 | 2.2 |
| 10°-20° | 544.1 | 5.8 |
| 20°-30° | 704.8 | 7.5 |
| 30°-40° | 690.2 | 7.3 |
| 40°-50° | 528.3 | 5.6 |
| 50°-60° | 352.0 | 3.7 |
| 60°-70° | 192.1 | 2.0 |
| 70°-80° | 80.0 | 0.9 |
| 80°-90° | 24.6 | 0.3 |
| 90°-100° | 438.6 | 4.7 |
| 100°-110° | 1185.8 | 12.6 |
| 110°-120° | 1246.8 | 13.2 |
| 120°-130° | 1012.7 | 10.8 |
| 130°-140° | 794.4 | 8.4 |
| 140°-150° | 609.7 | 6.5 |
| 150°-160° | 438.5 | 4.7 |
| 160°-170° | 267.9 | 2.8 |
| 170°-180° | 90.3 | 1.0 |
| 0°-30° | 1458.2 | 15.5 |
| 0°-40° | 2148.4 | 22.8 |
| 0°-60° | 3028.7 | 32.2 |
| 0°-90° | 3325.5 | 35.3 |
| 90°-120° | 2871.2 | 30.5 |
| 90°-150° | 5287.9 | 56.2 |
| 90°-180° | 6085.0 | 64.7 |
| 0°-180° | 9410.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2281 | 2281 | 2281 | 2281 | 2281 | |
| 5° | 2244 | 2221 | 2236 | 2241 | 2249 | 209 |
| 15° | 1898 | 1891 | 1942 | 1994 | 2029 | 530 |
| 25° | 1450 | 1454 | 1529 | 1596 | 1666 | 667 |
| 35° | 1025 | 1030 | 1099 | 1173 | 1256 | 637 |
| 45° | 614 | 626 | 668 | 718 | 784 | 479 |
| 55° | 353 | 368 | 389 | 404 | 437 | 320 |
| 65° | 177 | 192 | 209 | 183 | 166 | 184 |
| 75° | 89 | 89 | 81 | 56 | 38 | 95 |
| 85° | 25 | 25 | 23 | 15 | 9 | 27 |
| 90° | 2 | 6 | 13 | 14 | 13 | 6 |
| 95° | 68 | 239 | 729 | 378 | 224 | 71 |
| 105° | 220 | 341 | 1316 | 1940 | 1861 | 232 |
| 115° | 388 | 474 | 1091 | 2112 | 2384 | 383 |
| 125° | 531 | 609 | 983 | 1659 | 1949 | 474 |
| 135° | 637 | 712 | 957 | 1340 | 1517 | 492 |
| 145° | 741 | 796 | 944 | 1147 | 1234 | 463 |
| 155° | 836 | 869 | 936 | 1029 | 1063 | 386 |
| 165° | 910 | 919 | 940 | 976 | 981 | 256 |
| 175° | 945 | 944 | 941 | 953 | 951 | 90 |
| 180° | 944 | 944 | 944 | 944 | 944 | |

TEST NUMBER: P519604

CATALOG NUMBER: SQ4-WB-150U-100D-840-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2280.8 | 2280.8 | 2280.8 | 2280.8 | 2280.8 |
| 2.5° | 2286.4 | 2266.0 | 2271.2 | 2271.0 | 2264.8 |
| 5° | 2243.7 | 2221.2 | 2235.7 | 2240.9 | 2248.7 |
| 7.5° | 2160.5 | 2143.5 | 2169.9 | 2189.5 | 2205.3 |
| 10° | 2095.6 | 2080.9 | 2114.6 | 2143.1 | 2163.7 |
| 12.5° | 2020.4 | 2008.0 | 2049.8 | 2088.0 | 2114.8 |
| 15° | 1897.5 | 1890.6 | 1941.5 | 1994.3 | 2028.6 |
| 17.5° | 1766.0 | 1762.6 | 1821.0 | 1882.7 | 1926.5 |
| 20° | 1676.3 | 1675.3 | 1739.4 | 1803.6 | 1854.4 |
| 22.5° | 1585.8 | 1588.0 | 1655.3 | 1722.1 | 1780.0 |
| 25° | 1450.1 | 1454.0 | 1529.2 | 1595.8 | 1666.3 |
| 27.5° | 1324.6 | 1326.4 | 1404.1 | 1474.5 | 1549.6 |
| 30° | 1239.0 | 1243.9 | 1320.0 | 1392.9 | 1471.1 |
| 32.5° | 1153.3 | 1159.0 | 1233.6 | 1308.8 | 1388.7 |
| 35° | 1024.8 | 1029.7 | 1098.9 | 1172.8 | 1256.0 |
| 37.5° | 892.3 | 898.9 | 960.3 | 1030.3 | 1112.1 |
| 40° | 806.6 | 816.4 | 870.7 | 936.5 | 1016.8 |
| 42.5° | 724.2 | 736.3 | 786.6 | 849.1 | 921.5 |
| 45° | 614.5 | 626.2 | 667.5 | 718.0 | 783.6 |
| 47.5° | 520.0 | 533.5 | 565.2 | 608.7 | 664.7 |
| 50° | 466.4 | 479.1 | 508.4 | 540.6 | 593.5 |
| 52.5° | 419.1 | 431.8 | 458.0 | 482.8 | 527.8 |
| 55° | 353.3 | 368.0 | 389.3 | 404.1 | 437.3 |
| 57.5° | 299.2 | 313.3 | 330.3 | 336.9 | 357.1 |
| 60° | 263.2 | 278.9 | 294.2 | 293.5 | 304.2 |
| 62.5° | 230.4 | 243.7 | 259.0 | 248.4 | 249.0 |
| 65° | 177.1 | 191.8 | 209.2 | 182.8 | 166.1 |
| 67.5° | 143.1 | 146.2 | 164.1 | 127.5 | 107.7 |
| 70° | 127.1 | 127.1 | 132.1 | 98.7 | 82.1 |
| 72.5° | 111.9 | 111.9 | 107.3 | 80.3 | 62.8 |
| 75° | 89.1 | 89.1 | 81.1 | 55.6 | 38.0 |
| 77.5° | 68.7 | 67.9 | 62.0 | 41.5 | 27.6 |
| 80° | 55.0 | 55.0 | 50.0 | 32.8 | 22.0 |
| 82.5° | 43.0 | 43.0 | 38.8 | 25.6 | 16.4 |
| 85° | 25.0 | 25.0 | 23.0 | 14.9 | 9.0 |
| 87.5° | 9.2 | 10.0 | 10.6 | 7.6 | 6.6 |
| 90° | 2.0 | 6.0 | 13.2 | 14.2 | 13.2 |
| 92.5° | 28.9 | 105.1 | 207.4 | 90.0 | 65.2 |
| 95° | 68.1 | 238.9 | 729.4 | 377.5 | 224.5 |
| 97.5° | 109.3 | 274.0 | 1136.9 | 940.9 | 691.0 |
| 100° | 140.2 | 288.2 | 1263.7 | 1317.9 | 1065.6 |
| 102.5° | 168.6 | 307.9 | 1308.4 | 1603.8 | 1415.1 |
| 105° | 220.4 | 340.6 | 1315.5 | 1940.5 | 1861.0 |
| 107.5° | 268.4 | 378.0 | 1258.0 | 2150.6 | 2177.0 |
| 110° | 305.8 | 405.1 | 1206.8 | 2207.0 | 2319.2 |



TEST NUMBER: P519604

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 339.1 | 432.1 | 1159.7 | 2195.7 | 2384.2 |
| 115° | 388.1 | 474.5 | 1091.0 | 2112.1 | 2384.2 |
| 117.5° | 436.0 | 517.1 | 1045.7 | 1984.3 | 2292.8 |
| 120° | 465.3 | 544.7 | 1018.9 | 1892.6 | 2207.5 |
| 122.5° | 492.9 | 570.8 | 1002.6 | 1794.3 | 2111.6 |
| 125° | 531.3 | 608.8 | 983.3 | 1659.4 | 1949.4 |
| 127.5° | 566.6 | 642.7 | 972.0 | 1549.3 | 1804.4 |
| 130° | 586.1 | 664.6 | 967.1 | 1481.3 | 1711.7 |
| 132.5° | 606.5 | 684.1 | 962.2 | 1419.9 | 1632.1 |
| 135° | 636.9 | 712.4 | 956.9 | 1339.9 | 1516.7 |
| 137.5° | 667.6 | 738.9 | 952.5 | 1274.9 | 1418.9 |
| 140° | 688.7 | 755.3 | 950.8 | 1233.1 | 1361.2 |
| 142.5° | 709.1 | 771.6 | 947.6 | 1195.4 | 1307.6 |
| 145° | 740.6 | 796.2 | 943.7 | 1146.9 | 1234.3 |
| 147.5° | 769.2 | 818.5 | 939.3 | 1102.9 | 1170.1 |
| 150° | 790.3 | 834.0 | 937.6 | 1079.0 | 1132.7 |
| 152.5° | 809.8 | 848.0 | 936.8 | 1056.9 | 1101.0 |
| 155° | 836.0 | 868.8 | 935.6 | 1028.8 | 1062.6 |
| 157.5° | 863.3 | 886.1 | 935.8 | 1009.2 | 1031.5 |
| 160° | 878.7 | 897.6 | 936.6 | 996.9 | 1012.8 |
| 162.5° | 890.9 | 906.6 | 937.4 | 987.1 | 999.0 |
| 165° | 910.2 | 919.1 | 939.7 | 976.3 | 981.3 |
| 167.5° | 923.4 | 929.6 | 939.9 | 967.1 | 969.5 |
| 170° | 931.5 | 934.5 | 940.7 | 963.0 | 963.0 |
| 172.5° | 938.0 | 938.6 | 940.7 | 958.1 | 957.3 |
| 175° | 944.7 | 943.8 | 940.7 | 952.8 | 950.8 |
| 177.5° | 947.0 | 944.6 | 940.5 | 948.6 | 946.2 |
| 180° | 943.7 | 943.7 | 943.7 | 943.7 | 943.7 |

(END OF REPORT)