

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: P519411

Luminaire Tested: **SQ4-WB-100U-100D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519411
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-100D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22144.6 lumens
Efficiency: N/A
Efficacy: 121.5 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: General Diffuse

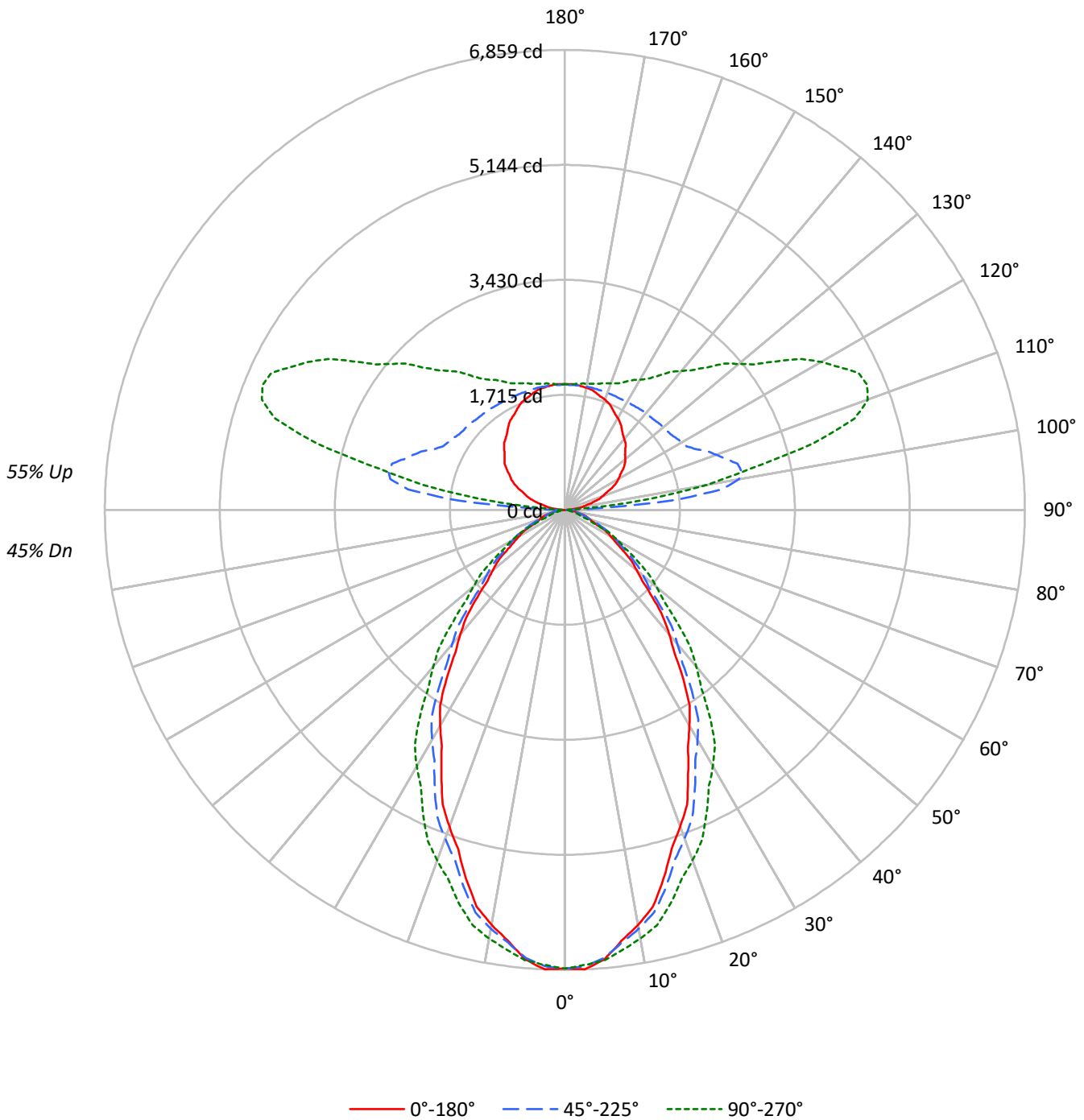
Input Watts (W): 182.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 65 | 65 | 65 | 52 | 52 | 52 | 45 | | | | 45 |
| 1 | 98 | 94 | 90 | 87 | 89 | 86 | 83 | 81 | 72 | 70 | 68 | 59 | 58 | 56 | 47 | 46 | 46 | 40 | | | | 40 |
| 2 | 90 | 83 | 78 | 73 | 82 | 77 | 72 | 68 | 64 | 61 | 58 | 53 | 51 | 49 | 43 | 41 | 40 | 35 | | | | 35 |
| 3 | 83 | 74 | 67 | 62 | 76 | 68 | 63 | 58 | 58 | 54 | 50 | 48 | 45 | 43 | 39 | 37 | 35 | 31 | | | | 31 |
| 4 | 76 | 66 | 59 | 54 | 70 | 61 | 55 | 50 | 52 | 47 | 44 | 44 | 40 | 37 | 36 | 33 | 31 | 28 | | | | 28 |
| 5 | 70 | 60 | 52 | 47 | 65 | 55 | 49 | 44 | 47 | 42 | 39 | 40 | 36 | 33 | 33 | 30 | 28 | 25 | | | | 25 |
| 6 | 65 | 54 | 46 | 41 | 60 | 50 | 44 | 39 | 43 | 38 | 34 | 36 | 33 | 30 | 30 | 27 | 25 | 22 | | | | 22 |
| 7 | 61 | 49 | 42 | 36 | 56 | 46 | 39 | 34 | 39 | 34 | 31 | 33 | 30 | 27 | 28 | 25 | 23 | 20 | | | | 20 |
| 8 | 56 | 45 | 38 | 33 | 52 | 42 | 35 | 31 | 36 | 31 | 28 | 31 | 27 | 24 | 26 | 23 | 21 | 19 | | | | 19 |
| 9 | 53 | 41 | 34 | 29 | 49 | 39 | 32 | 28 | 33 | 28 | 25 | 29 | 25 | 22 | 24 | 21 | 19 | 17 | | | | 17 |
| 10 | 49 | 38 | 31 | 27 | 46 | 36 | 29 | 25 | 31 | 26 | 23 | 27 | 23 | 20 | 22 | 20 | 18 | 16 | | | | 16 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 21043 | 21043 | 21043 |
| 5° | 20780 | 20706 | 20827 |
| 10° | 19633 | 19811 | 20270 |
| 15° | 18124 | 18545 | 19376 |
| 20° | 16458 | 17078 | 18207 |
| 25° | 14762 | 15567 | 16963 |
| 30° | 13199 | 14063 | 15673 |
| 35° | 11542 | 12377 | 14146 |
| 40° | 9715 | 10486 | 12246 |
| 45° | 8017 | 8710 | 10224 |
| 50° | 6694 | 7297 | 8518 |
| 55° | 5682 | 6262 | 7035 |
| 60° | 4857 | 5429 | 5614 |
| 65° | 3867 | 4566 | 3627 |
| 70° | 3429 | 3563 | 2214 |
| 75° | 3175 | 2890 | 1356 |
| 80° | 2924 | 2658 | 1171 |
| 85° | 2650 | 2438 | 953 |



TEST NUMBER: P519411

CATALOG NUMBER: SQ4-WB-100U-100D-840-1D-UNV-STD-W-12

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 627.6 | 2.8 |
| 10°-20° | 1632.4 | 7.4 |
| 20°-30° | 2114.5 | 9.5 |
| 30°-40° | 2070.6 | 9.4 |
| 40°-50° | 1584.9 | 7.2 |
| 50°-60° | 1056.1 | 4.8 |
| 60°-70° | 576.3 | 2.6 |
| 70°-80° | 240.1 | 1.1 |
| 80°-90° | 71.9 | 0.3 |
| 90°-100° | 877.2 | 4.0 |
| 100°-110° | 2421.6 | 10.9 |
| 110°-120° | 2497.4 | 11.3 |
| 120°-130° | 2006.9 | 9.1 |
| 130°-140° | 1577.2 | 7.1 |
| 140°-150° | 1209.7 | 5.5 |
| 150°-160° | 869.4 | 3.9 |
| 160°-170° | 531.7 | 2.4 |
| 170°-180° | 179.2 | 0.8 |
| 0°-30° | 4374.5 | 19.8 |
| 0°-40° | 6445.1 | 29.1 |
| 0°-60° | 9086.1 | 41.0 |
| 0°-90° | 9974.4 | 45.0 |
| 90°-120° | 5796.2 | 26.2 |
| 90°-150° | 10589.9 | 47.8 |
| 90°-180° | 12170.0 | 55.0 |
| 0°-180° | 22144.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6842 | 6842 | 6842 | 6842 | 6842 | |
| 5° | 6731 | 6664 | 6707 | 6723 | 6746 | 626 |
| 15° | 5692 | 5672 | 5824 | 5983 | 6086 | 1590 |
| 25° | 4350 | 4362 | 4588 | 4788 | 4999 | 2001 |
| 35° | 3074 | 3089 | 3297 | 3518 | 3768 | 1911 |
| 45° | 1843 | 1879 | 2003 | 2154 | 2351 | 1438 |
| 55° | 1060 | 1104 | 1168 | 1212 | 1312 | 961 |
| 65° | 531 | 575 | 628 | 548 | 498 | 552 |
| 75° | 267 | 267 | 243 | 167 | 114 | 285 |
| 85° | 75 | 75 | 69 | 45 | 27 | 82 |
| 90° | 6 | 12 | 24 | 27 | 30 | 13 |
| 95° | 129 | 475 | 1591 | 654 | 426 | 138 |
| 105° | 432 | 666 | 2664 | 4067 | 3830 | 459 |
| 115° | 773 | 934 | 2146 | 4248 | 4831 | 760 |
| 125° | 1061 | 1207 | 1945 | 3292 | 3863 | 944 |
| 135° | 1277 | 1414 | 1891 | 2666 | 3006 | 988 |
| 145° | 1480 | 1583 | 1867 | 2270 | 2442 | 927 |
| 155° | 1669 | 1725 | 1852 | 2036 | 2101 | 769 |
| 165° | 1807 | 1831 | 1861 | 1933 | 1948 | 509 |
| 175° | 1873 | 1876 | 1864 | 1891 | 1885 | 178 |
| 180° | 1873 | 1873 | 1873 | 1873 | 1873 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6842.3 | 6842.3 | 6842.3 | 6842.3 | 6842.3 |
| 2.5° | 6859.1 | 6798.1 | 6813.5 | 6813.1 | 6794.3 |
| 5° | 6731.2 | 6663.7 | 6707.2 | 6722.8 | 6746.2 |
| 7.5° | 6481.4 | 6430.4 | 6509.7 | 6568.4 | 6615.9 |
| 10° | 6286.9 | 6242.8 | 6343.9 | 6429.4 | 6491.0 |
| 12.5° | 6061.1 | 6024.1 | 6149.4 | 6264.1 | 6344.5 |
| 15° | 5692.4 | 5671.9 | 5824.5 | 5983.0 | 6085.7 |
| 17.5° | 5297.9 | 5287.9 | 5463.0 | 5648.0 | 5779.5 |
| 20° | 5028.9 | 5026.0 | 5218.1 | 5410.7 | 5563.3 |
| 22.5° | 4757.5 | 4764.0 | 4965.9 | 5166.2 | 5339.9 |
| 25° | 4350.4 | 4362.1 | 4587.6 | 4787.5 | 4998.9 |
| 27.5° | 3973.9 | 3979.2 | 4212.3 | 4423.4 | 4648.8 |
| 30° | 3716.9 | 3731.6 | 3960.1 | 4178.6 | 4413.4 |
| 32.5° | 3459.9 | 3476.9 | 3700.7 | 3926.5 | 4166.0 |
| 35° | 3074.4 | 3089.1 | 3296.6 | 3518.4 | 3767.9 |
| 37.5° | 2676.9 | 2696.8 | 2881.0 | 3090.8 | 3336.2 |
| 40° | 2419.9 | 2449.2 | 2612.0 | 2809.6 | 3050.4 |
| 42.5° | 2172.5 | 2208.9 | 2359.8 | 2547.3 | 2764.5 |
| 45° | 1843.4 | 1878.7 | 2002.6 | 2154.1 | 2350.8 |
| 47.5° | 1560.0 | 1600.5 | 1695.7 | 1826.2 | 1994.1 |
| 50° | 1399.1 | 1437.2 | 1525.2 | 1621.9 | 1780.4 |
| 52.5° | 1257.4 | 1295.5 | 1373.9 | 1448.4 | 1583.4 |
| 55° | 1059.8 | 1103.9 | 1167.9 | 1212.2 | 1312.0 |
| 57.5° | 897.7 | 940.0 | 990.8 | 1010.8 | 1071.2 |
| 60° | 789.6 | 836.6 | 882.7 | 880.4 | 912.7 |
| 62.5° | 691.1 | 731.1 | 777.0 | 745.2 | 747.0 |
| 65° | 531.4 | 575.4 | 627.5 | 548.3 | 498.4 |
| 67.5° | 429.3 | 438.7 | 492.4 | 382.4 | 323.1 |
| 70° | 381.3 | 381.3 | 396.3 | 296.1 | 246.2 |
| 72.5° | 335.7 | 335.7 | 321.8 | 240.8 | 188.5 |
| 75° | 267.2 | 267.2 | 243.2 | 166.9 | 114.1 |
| 77.5° | 206.0 | 203.6 | 186.1 | 124.6 | 82.9 |
| 80° | 165.1 | 165.1 | 150.1 | 98.3 | 66.1 |
| 82.5° | 129.1 | 129.1 | 116.5 | 76.8 | 49.2 |
| 85° | 75.1 | 75.1 | 69.1 | 44.6 | 27.0 |
| 87.5° | 27.6 | 28.8 | 28.8 | 19.8 | 18.0 |
| 90° | 6.0 | 11.9 | 24.0 | 27.0 | 30.0 |
| 92.5° | 53.9 | 223.9 | 400.4 | 146.1 | 113.9 |
| 95° | 128.9 | 474.6 | 1591.4 | 654.1 | 425.6 |
| 97.5° | 213.4 | 531.6 | 2357.4 | 1814.9 | 1314.4 |
| 100° | 275.7 | 565.8 | 2640.3 | 2658.9 | 2160.8 |
| 102.5° | 335.7 | 604.7 | 2695.4 | 3285.3 | 2812.9 |
| 105° | 431.6 | 666.0 | 2664.2 | 4067.4 | 3830.0 |
| 107.5° | 533.4 | 742.1 | 2515.6 | 4444.6 | 4531.3 |
| 110° | 605.4 | 792.9 | 2400.5 | 4525.7 | 4807.0 |

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CATALOG NUMBER: SQ4-WB-100U-100D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 670.1 | 850.6 | 2292.6 | 4461.6 | 4876.6 |
| 115° | 773.2 | 934.4 | 2145.8 | 4247.9 | 4831.0 |
| 117.5° | 863.1 | 1023.7 | 2049.3 | 3947.0 | 4610.4 |
| 120° | 923.0 | 1081.3 | 2010.9 | 3743.3 | 4411.4 |
| 122.5° | 980.6 | 1131.8 | 1979.8 | 3553.1 | 4186.1 |
| 125° | 1060.9 | 1207.4 | 1945.0 | 3291.6 | 3863.0 |
| 127.5° | 1129.2 | 1275.7 | 1924.6 | 3070.4 | 3563.3 |
| 130° | 1174.8 | 1321.3 | 1915.0 | 2935.2 | 3383.5 |
| 132.5° | 1217.9 | 1357.4 | 1905.4 | 2821.5 | 3227.7 |
| 135° | 1276.7 | 1414.4 | 1891.0 | 2666.0 | 3005.9 |
| 137.5° | 1342.6 | 1468.0 | 1883.9 | 2535.4 | 2825.5 |
| 140° | 1378.6 | 1501.6 | 1879.1 | 2448.3 | 2703.2 |
| 142.5° | 1419.3 | 1533.0 | 1874.3 | 2370.9 | 2595.3 |
| 145° | 1480.5 | 1583.0 | 1867.1 | 2269.6 | 2442.5 |
| 147.5° | 1539.2 | 1628.9 | 1860.5 | 2184.2 | 2318.4 |
| 150° | 1582.4 | 1655.6 | 1858.1 | 2133.3 | 2241.7 |
| 152.5° | 1615.9 | 1684.5 | 1855.7 | 2089.7 | 2179.3 |
| 155° | 1669.3 | 1725.0 | 1852.1 | 2036.4 | 2100.8 |
| 157.5° | 1718.4 | 1761.2 | 1852.7 | 1997.5 | 2041.5 |
| 160° | 1747.2 | 1785.3 | 1855.1 | 1975.7 | 2007.9 |
| 162.5° | 1771.2 | 1804.6 | 1857.5 | 1956.4 | 1981.6 |
| 165° | 1807.1 | 1830.6 | 1861.1 | 1933.3 | 1948.0 |
| 167.5° | 1834.7 | 1848.8 | 1864.1 | 1919.3 | 1924.0 |
| 170° | 1849.1 | 1860.8 | 1864.1 | 1912.0 | 1912.0 |
| 172.5° | 1861.1 | 1868.1 | 1864.1 | 1902.4 | 1900.0 |
| 175° | 1873.1 | 1876.0 | 1864.1 | 1890.9 | 1885.1 |
| 177.5° | 1877.9 | 1875.5 | 1863.5 | 1880.2 | 1875.5 |
| 180° | 1873.1 | 1873.1 | 1873.1 | 1873.1 | 1873.1 |

(END OF REPORT)