

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: P518758

Luminaire Tested: **SQ4-BB-100U-125D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518758
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-BB-100U-125D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

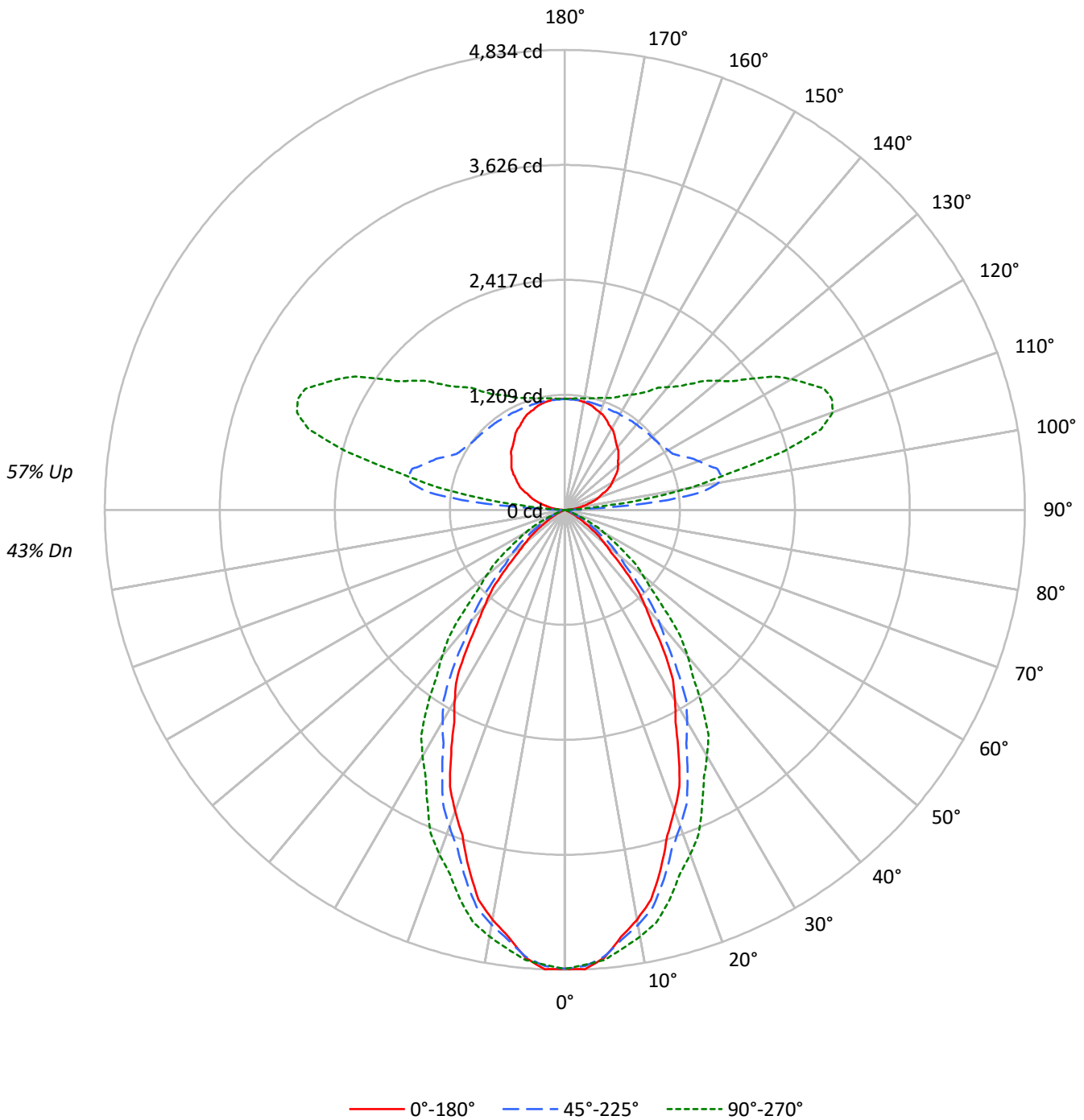
Lumens per Lamp: N/A
Luminaire Lumens: 13337.6 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 140.6
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 | 96 | 96 | 96 | 96 | 80 | 80 | 80 | 64 | 64 | 64 | 50 | 50 | 50 | 43 |
| 1 | 98 | 94 | 91 | 88 | 89 | 86 | 84 | 81 | 72 | 70 | 68 | 59 | 57 | 56 | 46 | 46 | 45 | 39 |
| 2 | 90 | 84 | 79 | 74 | 83 | 77 | 73 | 69 | 65 | 62 | 59 | 53 | 51 | 50 | 43 | 42 | 40 | 36 |
| 3 | 83 | 75 | 69 | 64 | 76 | 70 | 64 | 60 | 59 | 55 | 52 | 49 | 46 | 44 | 39 | 38 | 36 | 32 |
| 4 | 77 | 68 | 61 | 56 | 71 | 63 | 57 | 52 | 53 | 49 | 45 | 44 | 41 | 39 | 36 | 34 | 33 | 29 |
| 5 | 71 | 61 | 54 | 49 | 66 | 57 | 51 | 46 | 49 | 44 | 40 | 41 | 38 | 35 | 34 | 31 | 30 | 26 |
| 6 | 66 | 56 | 48 | 43 | 61 | 52 | 45 | 41 | 44 | 40 | 36 | 38 | 34 | 31 | 31 | 29 | 27 | 24 |
| 7 | 62 | 51 | 44 | 39 | 57 | 47 | 41 | 37 | 41 | 36 | 32 | 35 | 31 | 29 | 29 | 27 | 25 | 22 |
| 8 | 58 | 46 | 39 | 35 | 53 | 43 | 37 | 33 | 38 | 33 | 29 | 32 | 29 | 26 | 27 | 24 | 23 | 20 |
| 9 | 54 | 43 | 36 | 31 | 50 | 40 | 34 | 30 | 35 | 30 | 27 | 30 | 26 | 24 | 25 | 23 | 21 | 19 |
| 10 | 51 | 40 | 33 | 29 | 47 | 37 | 31 | 27 | 32 | 28 | 25 | 28 | 24 | 22 | 24 | 21 | 19 | 17 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22249 | 22249 | 22249 |
| 5° | 21890 | 21836 | 21998 |
| 10° | 20482 | 20756 | 21334 |
| 15° | 18620 | 19211 | 20281 |
| 20° | 16529 | 17388 | 18911 |
| 25° | 14394 | 15534 | 17375 |
| 30° | 12329 | 13684 | 15921 |
| 35° | 10223 | 11616 | 14165 |
| 40° | 7854 | 9288 | 12070 |
| 45° | 5678 | 7033 | 9711 |
| 50° | 3868 | 5241 | 7703 |
| 55° | 2515 | 3791 | 5986 |
| 60° | 1442 | 2669 | 4327 |
| 65° | 382 | 1630 | 2191 |
| 70° | 189 | 503 | 630 |
| 75° | 84 | 41 | 0 |
| 80° | 61 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 440.1 | 3.3 |
| 10°-20° | 1125.6 | 8.4 |
| 20°-30° | 1409.1 | 10.6 |
| 30°-40° | 1301.6 | 9.8 |
| 40°-50° | 874.6 | 6.6 |
| 50°-60° | 451.7 | 3.4 |
| 60°-70° | 141.5 | 1.1 |
| 70°-80° | 8.9 | 0.1 |
| 80°-90° | 2.6 | 0.0 |
| 90°-100° | 546.5 | 4.1 |
| 100°-110° | 1508.6 | 11.3 |
| 110°-120° | 1555.9 | 11.7 |
| 120°-130° | 1250.3 | 9.4 |
| 130°-140° | 982.6 | 7.4 |
| 140°-150° | 753.6 | 5.7 |
| 150°-160° | 541.6 | 4.1 |
| 160°-170° | 331.2 | 2.5 |
| 170°-180° | 111.7 | 0.8 |
| 0°-30° | 2974.8 | 22.3 |
| 0°-40° | 4276.4 | 32.1 |
| 0°-60° | 5602.7 | 42.0 |
| 0°-90° | 5755.7 | 43.2 |
| 90°-120° | 3611.0 | 27.1 |
| 90°-150° | 6597.5 | 49.5 |
| 90°-180° | 7582.0 | 56.8 |
| 0°-180° | 13337.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4823 | 4823 | 4823 | 4823 | 4823 | |
| 5° | 4727 | 4679 | 4716 | 4732 | 4750 | 438 |
| 15° | 3899 | 3885 | 4022 | 4158 | 4246 | 1086 |
| 25° | 2828 | 2851 | 3052 | 3261 | 3414 | 1296 |
| 35° | 1815 | 1861 | 2063 | 2305 | 2515 | 1125 |
| 45° | 870 | 923 | 1078 | 1288 | 1489 | 684 |
| 55° | 313 | 365 | 471 | 605 | 744 | 292 |
| 65° | 35 | 67 | 149 | 180 | 201 | 59 |
| 75° | 5 | 5 | 2 | 0 | 0 | 7 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 4 | 7 | 15 | 17 | 19 | 6 |
| 95° | 80 | 296 | 991 | 408 | 265 | 86 |
| 105° | 269 | 415 | 1660 | 2534 | 2386 | 286 |
| 115° | 482 | 582 | 1337 | 2646 | 3010 | 473 |
| 125° | 661 | 752 | 1212 | 2051 | 2407 | 588 |
| 135° | 795 | 881 | 1178 | 1661 | 1873 | 615 |
| 145° | 922 | 986 | 1163 | 1414 | 1522 | 577 |
| 155° | 1040 | 1075 | 1154 | 1269 | 1309 | 479 |
| 165° | 1126 | 1140 | 1159 | 1204 | 1214 | 317 |
| 175° | 1167 | 1169 | 1161 | 1178 | 1174 | 111 |
| 180° | 1167 | 1167 | 1167 | 1167 | 1167 | |

TEST NUMBER: P518758

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4822.9 | 4822.9 | 4822.9 | 4822.9 | 4822.9 |
| 2.5° | 4834.1 | 4788.4 | 4800.5 | 4800.2 | 4787.4 |
| 5° | 4727.2 | 4679.3 | 4715.5 | 4732.3 | 4750.5 |
| 7.5° | 4527.5 | 4490.0 | 4559.7 | 4611.9 | 4649.7 |
| 10° | 4372.5 | 4340.6 | 4430.9 | 4502.1 | 4554.5 |
| 12.5° | 4193.3 | 4168.7 | 4277.8 | 4375.5 | 4442.5 |
| 15° | 3898.9 | 3885.2 | 4022.5 | 4157.6 | 4246.5 |
| 17.5° | 3583.4 | 3583.0 | 3739.8 | 3907.4 | 4014.6 |
| 20° | 3366.9 | 3373.7 | 3541.9 | 3726.7 | 3852.2 |
| 22.5° | 3150.4 | 3166.3 | 3345.9 | 3538.6 | 3682.4 |
| 25° | 2827.9 | 2850.7 | 3051.9 | 3260.7 | 3413.6 |
| 27.5° | 2518.1 | 2551.4 | 2763.0 | 2980.1 | 3166.2 |
| 30° | 2314.6 | 2353.4 | 2568.9 | 2797.3 | 2988.9 |
| 32.5° | 2114.9 | 2161.0 | 2371.1 | 2612.6 | 2807.8 |
| 35° | 1815.3 | 1860.9 | 2062.6 | 2305.4 | 2515.3 |
| 37.5° | 1505.9 | 1550.6 | 1747.6 | 1986.6 | 2213.3 |
| 40° | 1304.3 | 1354.5 | 1542.3 | 1773.9 | 2004.3 |
| 42.5° | 1121.4 | 1171.6 | 1348.2 | 1575.7 | 1793.3 |
| 45° | 870.3 | 922.8 | 1078.0 | 1287.9 | 1488.6 |
| 47.5° | 662.2 | 719.2 | 855.4 | 1045.3 | 1228.2 |
| 50° | 539.0 | 596.0 | 730.3 | 897.6 | 1073.3 |
| 52.5° | 440.1 | 495.3 | 616.4 | 774.1 | 935.2 |
| 55° | 312.7 | 365.1 | 471.3 | 605.1 | 744.3 |
| 57.5° | 216.1 | 261.2 | 356.5 | 468.2 | 577.2 |
| 60° | 156.3 | 199.7 | 289.3 | 380.0 | 469.0 |
| 62.5° | 104.1 | 143.8 | 231.5 | 300.9 | 360.7 |
| 65° | 35.0 | 66.9 | 149.3 | 180.1 | 200.7 |
| 67.5° | 17.7 | 21.4 | 78.4 | 82.8 | 89.6 |
| 70° | 14.0 | 14.0 | 37.3 | 39.8 | 46.7 |
| 72.5° | 10.3 | 10.3 | 14.9 | 19.2 | 20.5 |
| 75° | 4.7 | 4.7 | 2.3 | 0.0 | 0.0 |
| 77.5° | 2.3 | 2.3 | 1.9 | 0.0 | 0.0 |
| 80° | 2.3 | 2.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.7 | 1.5 | 3.0 | 3.4 | 3.7 |
| 90° | 3.7 | 7.4 | 14.9 | 16.8 | 18.7 |
| 92.5° | 33.6 | 139.5 | 249.4 | 91.0 | 70.9 |
| 95° | 80.3 | 295.7 | 991.4 | 407.5 | 265.1 |
| 97.5° | 132.9 | 331.2 | 1468.6 | 1130.7 | 818.9 |
| 100° | 171.8 | 352.5 | 1644.9 | 1656.5 | 1346.1 |
| 102.5° | 209.1 | 376.7 | 1679.2 | 2046.7 | 1752.4 |
| 105° | 268.9 | 414.9 | 1659.8 | 2534.0 | 2386.1 |
| 107.5° | 332.3 | 462.3 | 1567.2 | 2768.9 | 2823.0 |
| 110° | 377.1 | 494.0 | 1495.5 | 2819.5 | 2994.7 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 417.5 | 529.9 | 1428.3 | 2779.6 | 3038.1 |
| 115° | 481.7 | 582.1 | 1336.8 | 2646.4 | 3009.7 |
| 117.5° | 537.7 | 637.8 | 1276.7 | 2459.0 | 2872.3 |
| 120° | 575.1 | 673.6 | 1252.8 | 2332.1 | 2748.3 |
| 122.5° | 610.9 | 705.1 | 1233.4 | 2213.6 | 2607.9 |
| 125° | 660.9 | 752.2 | 1211.7 | 2050.6 | 2406.6 |
| 127.5° | 703.5 | 794.8 | 1199.0 | 1912.9 | 2219.9 |
| 130° | 731.9 | 823.2 | 1193.0 | 1828.6 | 2107.9 |
| 132.5° | 758.8 | 845.7 | 1187.1 | 1757.8 | 2010.8 |
| 135° | 795.4 | 881.2 | 1178.1 | 1660.9 | 1872.7 |
| 137.5° | 836.4 | 914.6 | 1173.6 | 1579.5 | 1760.3 |
| 140° | 858.8 | 935.5 | 1170.6 | 1525.3 | 1684.1 |
| 142.5° | 884.2 | 955.1 | 1167.7 | 1477.0 | 1616.9 |
| 145° | 922.3 | 986.2 | 1163.2 | 1413.9 | 1521.6 |
| 147.5° | 958.9 | 1014.8 | 1159.1 | 1360.7 | 1444.3 |
| 150° | 985.8 | 1031.4 | 1157.6 | 1329.0 | 1396.6 |
| 152.5° | 1006.7 | 1049.4 | 1156.1 | 1301.9 | 1357.7 |
| 155° | 1039.9 | 1074.6 | 1153.8 | 1268.6 | 1308.8 |
| 157.5° | 1070.6 | 1097.2 | 1154.2 | 1244.5 | 1271.8 |
| 160° | 1088.5 | 1112.2 | 1155.7 | 1230.8 | 1250.9 |
| 162.5° | 1103.4 | 1124.2 | 1157.2 | 1218.8 | 1234.5 |
| 165° | 1125.8 | 1140.4 | 1159.4 | 1204.5 | 1213.6 |
| 167.5° | 1143.0 | 1151.8 | 1161.3 | 1195.7 | 1198.6 |
| 170° | 1152.0 | 1159.3 | 1161.3 | 1191.2 | 1191.2 |
| 172.5° | 1159.4 | 1163.8 | 1161.3 | 1185.2 | 1183.7 |
| 175° | 1166.9 | 1168.7 | 1161.3 | 1178.0 | 1174.4 |
| 177.5° | 1169.9 | 1168.4 | 1160.9 | 1171.3 | 1168.4 |
| 180° | 1166.9 | 1166.9 | 1166.9 | 1166.9 | 1166.9 |

(END OF REPORT)