

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: P518515

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518515
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, 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-075U-075D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

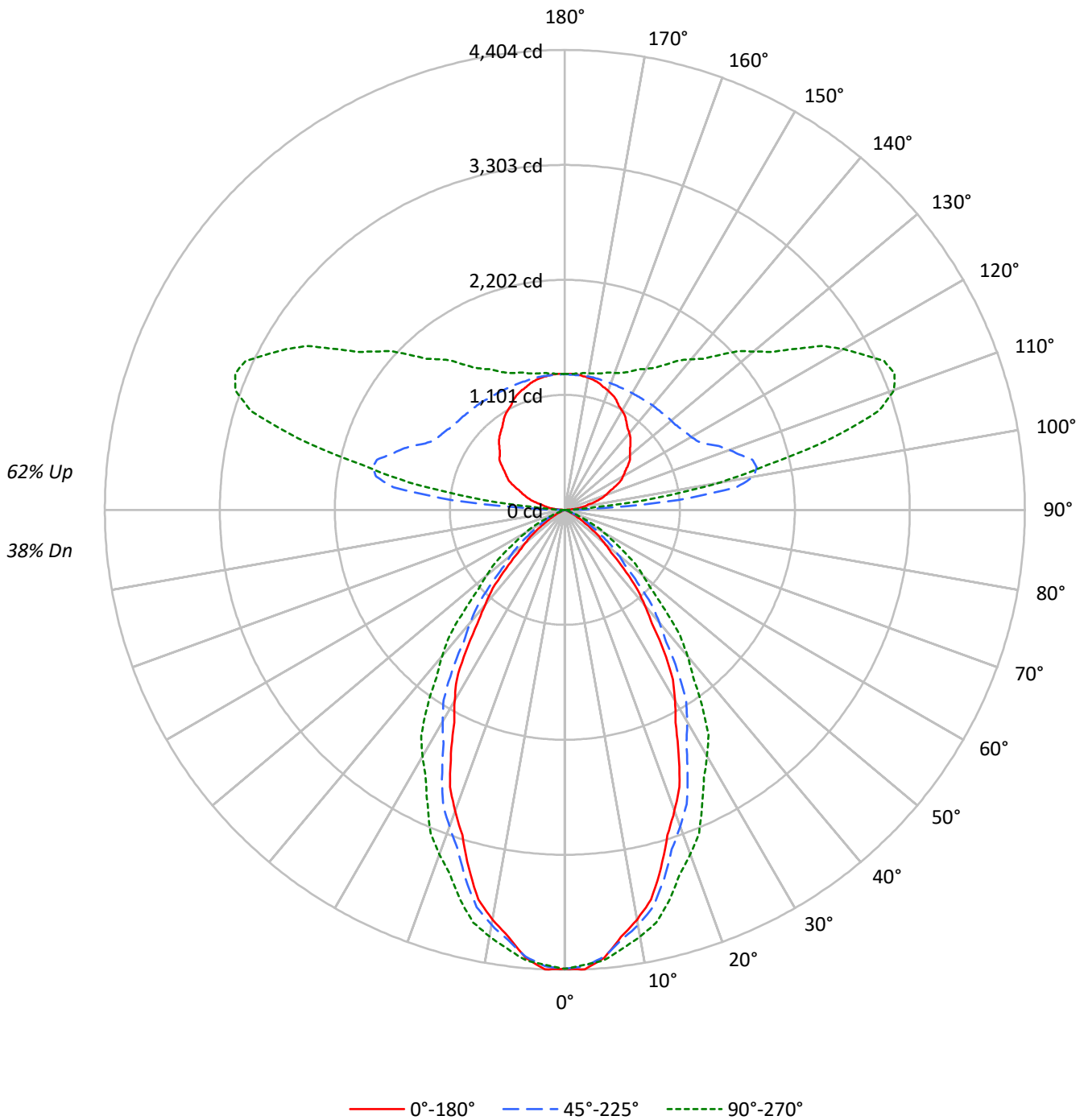
Lumens per Lamp: N/A
Luminaire Lumens: 13722.7 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 133.4
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 | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 60 | 60 | 60 | 45 | 45 | 45 | 38 |
| 1 | 96 | 93 | 89 | 86 | 88 | 85 | 82 | 79 | 69 | 67 | 66 | 55 | 54 | 53 | 42 | 41 | 41 | 35 |
| 2 | 89 | 83 | 77 | 73 | 81 | 76 | 71 | 67 | 62 | 59 | 57 | 50 | 48 | 46 | 39 | 38 | 37 | 32 |
| 3 | 82 | 74 | 68 | 62 | 75 | 68 | 62 | 58 | 56 | 52 | 49 | 46 | 43 | 41 | 36 | 34 | 33 | 28 |
| 4 | 76 | 66 | 59 | 54 | 69 | 61 | 55 | 50 | 51 | 47 | 43 | 42 | 39 | 36 | 33 | 31 | 30 | 26 |
| 5 | 70 | 60 | 53 | 47 | 64 | 55 | 49 | 44 | 46 | 42 | 38 | 38 | 35 | 32 | 30 | 28 | 27 | 23 |
| 6 | 65 | 54 | 47 | 42 | 59 | 50 | 44 | 39 | 42 | 38 | 34 | 35 | 32 | 29 | 28 | 26 | 24 | 21 |
| 7 | 60 | 49 | 42 | 37 | 55 | 46 | 39 | 35 | 39 | 34 | 31 | 32 | 29 | 26 | 26 | 24 | 22 | 20 |
| 8 | 56 | 45 | 38 | 33 | 52 | 42 | 36 | 31 | 36 | 31 | 28 | 30 | 26 | 24 | 24 | 22 | 20 | 18 |
| 9 | 53 | 42 | 35 | 30 | 48 | 39 | 33 | 28 | 33 | 28 | 25 | 28 | 24 | 22 | 23 | 20 | 19 | 17 |
| 10 | 49 | 38 | 32 | 27 | 45 | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 23 | 20 | 21 | 19 | 17 | 15 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13514 | 13514 | 13514 |
| 5° | 13296 | 13264 | 13362 |
| 10° | 12441 | 12607 | 12959 |
| 15° | 11310 | 11669 | 12319 |
| 20° | 10040 | 10562 | 11487 |
| 25° | 8743 | 9436 | 10554 |
| 30° | 7489 | 8312 | 9671 |
| 35° | 6209 | 7056 | 8604 |
| 40° | 4771 | 5641 | 7331 |
| 45° | 3449 | 4272 | 5899 |
| 50° | 2350 | 3184 | 4679 |
| 55° | 1528 | 2302 | 3636 |
| 60° | 876 | 1621 | 2628 |
| 65° | 232 | 990 | 1330 |
| 70° | 115 | 306 | 382 |
| 75° | 51 | 25 | 0 |
| 80° | 37 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 401.0 | 2.9 |
| 10°-20° | 1025.5 | 7.5 |
| 20°-30° | 1283.9 | 9.4 |
| 30°-40° | 1185.9 | 8.6 |
| 40°-50° | 796.8 | 5.8 |
| 50°-60° | 411.6 | 3.0 |
| 60°-70° | 128.9 | 0.9 |
| 70°-80° | 8.2 | 0.1 |
| 80°-90° | 3.5 | 0.0 |
| 90°-100° | 613.7 | 4.5 |
| 100°-110° | 1688.6 | 12.3 |
| 110°-120° | 1742.9 | 12.7 |
| 120°-130° | 1396.4 | 10.2 |
| 130°-140° | 1096.8 | 8.0 |
| 140°-150° | 840.5 | 6.1 |
| 150°-160° | 604.3 | 4.4 |
| 160°-170° | 369.5 | 2.7 |
| 170°-180° | 124.6 | 0.9 |
| 0°-30° | 2710.4 | 19.8 |
| 0°-40° | 3896.3 | 28.4 |
| 0°-60° | 5104.7 | 37.2 |
| 0°-90° | 5245.2 | 38.2 |
| 90°-120° | 4045.3 | 29.5 |
| 90°-150° | 7379.0 | 53.8 |
| 90°-180° | 8477.0 | 61.8 |
| 0°-180° | 13722.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4394 | 4394 | 4394 | 4394 | 4394 | |
| 5° | 4307 | 4263 | 4296 | 4312 | 4328 | 399 |
| 15° | 3552 | 3540 | 3665 | 3788 | 3869 | 989 |
| 25° | 2577 | 2597 | 2781 | 2971 | 3110 | 1181 |
| 35° | 1654 | 1696 | 1879 | 2100 | 2292 | 1025 |
| 45° | 793 | 841 | 982 | 1173 | 1356 | 623 |
| 55° | 285 | 333 | 429 | 551 | 678 | 266 |
| 65° | 32 | 61 | 136 | 164 | 183 | 54 |
| 75° | 4 | 4 | 2 | 0 | 0 | 6 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 3 | 11 | 19 | 25 | 25 | 6 |
| 95° | 91 | 335 | 1085 | 464 | 296 | 97 |
| 105° | 302 | 464 | 1861 | 2834 | 2644 | 318 |
| 115° | 534 | 651 | 1492 | 2972 | 3372 | 527 |
| 125° | 736 | 839 | 1354 | 2290 | 2683 | 657 |
| 135° | 889 | 986 | 1315 | 1852 | 2096 | 686 |
| 145° | 1027 | 1098 | 1296 | 1578 | 1700 | 644 |
| 155° | 1163 | 1201 | 1288 | 1418 | 1459 | 534 |
| 165° | 1257 | 1273 | 1293 | 1346 | 1354 | 354 |
| 175° | 1301 | 1304 | 1296 | 1312 | 1310 | 124 |
| 180° | 1301 | 1301 | 1301 | 1301 | 1301 | |



TEST NUMBER: P518515

CATALOG NUMBER: SQ4-BB-075U-075D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4394.2 | 4394.2 | 4394.2 | 4394.2 | 4394.2 |
| 2.5° | 4404.4 | 4362.8 | 4373.8 | 4373.5 | 4361.9 |
| 5° | 4307.0 | 4263.4 | 4296.4 | 4311.7 | 4328.3 |
| 7.5° | 4125.1 | 4091.0 | 4154.4 | 4202.0 | 4236.5 |
| 10° | 3983.9 | 3954.8 | 4037.1 | 4101.9 | 4149.7 |
| 12.5° | 3820.6 | 3798.2 | 3897.6 | 3986.6 | 4047.7 |
| 15° | 3552.4 | 3539.9 | 3665.0 | 3788.0 | 3869.1 |
| 17.5° | 3264.9 | 3264.5 | 3407.4 | 3560.1 | 3657.8 |
| 20° | 3067.7 | 3073.9 | 3227.1 | 3395.5 | 3509.8 |
| 22.5° | 2870.4 | 2884.9 | 3048.5 | 3224.1 | 3355.1 |
| 25° | 2576.6 | 2597.4 | 2780.7 | 2970.9 | 3110.2 |
| 27.5° | 2294.3 | 2324.6 | 2517.5 | 2715.2 | 2884.8 |
| 30° | 2108.9 | 2144.2 | 2340.6 | 2548.7 | 2723.3 |
| 32.5° | 1926.9 | 1968.9 | 2160.3 | 2380.4 | 2558.3 |
| 35° | 1653.9 | 1695.5 | 1879.3 | 2100.5 | 2291.7 |
| 37.5° | 1372.0 | 1412.8 | 1592.3 | 1810.0 | 2016.6 |
| 40° | 1188.4 | 1234.1 | 1405.2 | 1616.2 | 1826.1 |
| 42.5° | 1021.7 | 1067.4 | 1228.3 | 1435.7 | 1634.0 |
| 45° | 793.0 | 840.8 | 982.2 | 1173.4 | 1356.3 |
| 47.5° | 603.3 | 655.3 | 779.4 | 952.4 | 1119.1 |
| 50° | 491.1 | 543.0 | 665.4 | 817.9 | 977.9 |
| 52.5° | 400.9 | 451.2 | 561.7 | 705.3 | 852.1 |
| 55° | 284.9 | 332.7 | 429.4 | 551.4 | 678.2 |
| 57.5° | 196.9 | 238.0 | 324.8 | 426.6 | 525.9 |
| 60° | 142.4 | 181.9 | 263.6 | 346.2 | 427.3 |
| 62.5° | 94.8 | 131.0 | 210.9 | 274.2 | 328.7 |
| 65° | 31.9 | 61.0 | 136.1 | 164.1 | 182.8 |
| 67.5° | 16.2 | 19.5 | 71.4 | 75.4 | 81.6 |
| 70° | 12.8 | 12.8 | 34.0 | 36.3 | 42.5 |
| 72.5° | 9.4 | 9.4 | 13.6 | 17.5 | 18.7 |
| 75° | 4.3 | 4.3 | 2.1 | 0.0 | 0.0 |
| 77.5° | 2.1 | 2.1 | 1.7 | 0.0 | 0.0 |
| 80° | 2.1 | 2.1 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.6 | 2.2 | 3.9 | 5.0 | 5.0 |
| 90° | 2.8 | 10.9 | 19.4 | 24.9 | 24.9 |
| 92.5° | 38.2 | 163.3 | 283.0 | 108.6 | 89.2 |
| 95° | 91.4 | 335.0 | 1085.3 | 464.1 | 296.3 |
| 97.5° | 149.0 | 371.5 | 1656.2 | 1276.1 | 900.4 |
| 100° | 191.0 | 394.1 | 1835.7 | 1852.8 | 1511.7 |
| 102.5° | 230.9 | 421.0 | 1882.2 | 2298.7 | 1985.7 |
| 105° | 301.8 | 464.2 | 1860.6 | 2833.6 | 2644.1 |
| 107.5° | 369.3 | 517.7 | 1754.8 | 3095.6 | 3151.9 |
| 110° | 418.1 | 553.4 | 1675.1 | 3160.8 | 3355.7 |



TEST NUMBER: P518515

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 462.4 | 593.4 | 1595.3 | 3118.8 | 3415.5 |
| 115° | 534.4 | 650.8 | 1492.3 | 2971.6 | 3372.3 |
| 117.5° | 603.0 | 710.2 | 1427.0 | 2765.2 | 3218.4 |
| 120° | 645.1 | 748.0 | 1398.2 | 2610.5 | 3078.8 |
| 122.5° | 682.8 | 785.6 | 1378.3 | 2474.8 | 2919.3 |
| 125° | 736.5 | 839.4 | 1353.9 | 2290.3 | 2682.9 |
| 127.5° | 787.4 | 885.4 | 1337.8 | 2136.4 | 2480.8 |
| 130° | 814.0 | 914.2 | 1329.0 | 2044.9 | 2358.9 |
| 132.5° | 845.0 | 945.2 | 1322.3 | 1964.5 | 2248.2 |
| 135° | 888.8 | 986.2 | 1315.1 | 1852.3 | 2095.9 |
| 137.5° | 929.7 | 1020.2 | 1309.0 | 1761.6 | 1962.5 |
| 140° | 960.7 | 1044.7 | 1306.8 | 1701.3 | 1882.7 |
| 142.5° | 987.3 | 1064.7 | 1302.4 | 1647.6 | 1803.0 |
| 145° | 1027.2 | 1097.6 | 1295.8 | 1578.2 | 1700.0 |
| 147.5° | 1069.8 | 1130.5 | 1292.4 | 1516.7 | 1614.2 |
| 150° | 1096.4 | 1150.6 | 1290.2 | 1483.0 | 1558.8 |
| 152.5° | 1120.8 | 1170.6 | 1288.0 | 1453.9 | 1516.7 |
| 155° | 1162.9 | 1200.8 | 1287.5 | 1418.5 | 1459.1 |
| 157.5° | 1193.3 | 1224.2 | 1287.5 | 1389.4 | 1417.6 |
| 160° | 1215.5 | 1239.8 | 1287.5 | 1373.8 | 1395.4 |
| 162.5° | 1233.2 | 1253.2 | 1289.7 | 1360.4 | 1377.7 |
| 165° | 1257.0 | 1273.2 | 1293.0 | 1345.8 | 1353.9 |
| 167.5° | 1273.6 | 1286.1 | 1295.8 | 1333.5 | 1335.6 |
| 170° | 1284.7 | 1292.8 | 1295.8 | 1329.0 | 1329.0 |
| 172.5° | 1293.5 | 1297.3 | 1295.8 | 1322.3 | 1320.1 |
| 175° | 1301.3 | 1304.0 | 1295.8 | 1312.3 | 1309.6 |
| 177.5° | 1303.5 | 1303.5 | 1294.7 | 1307.8 | 1303.5 |
| 180° | 1301.3 | 1301.3 | 1301.3 | 1301.3 | 1301.3 |

(END OF REPORT)