

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: P520297

Luminaire Tested: **SQ4-F-125U-075D-835-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520297
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-24, G3-1910-536-18)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-125U-075D-835-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

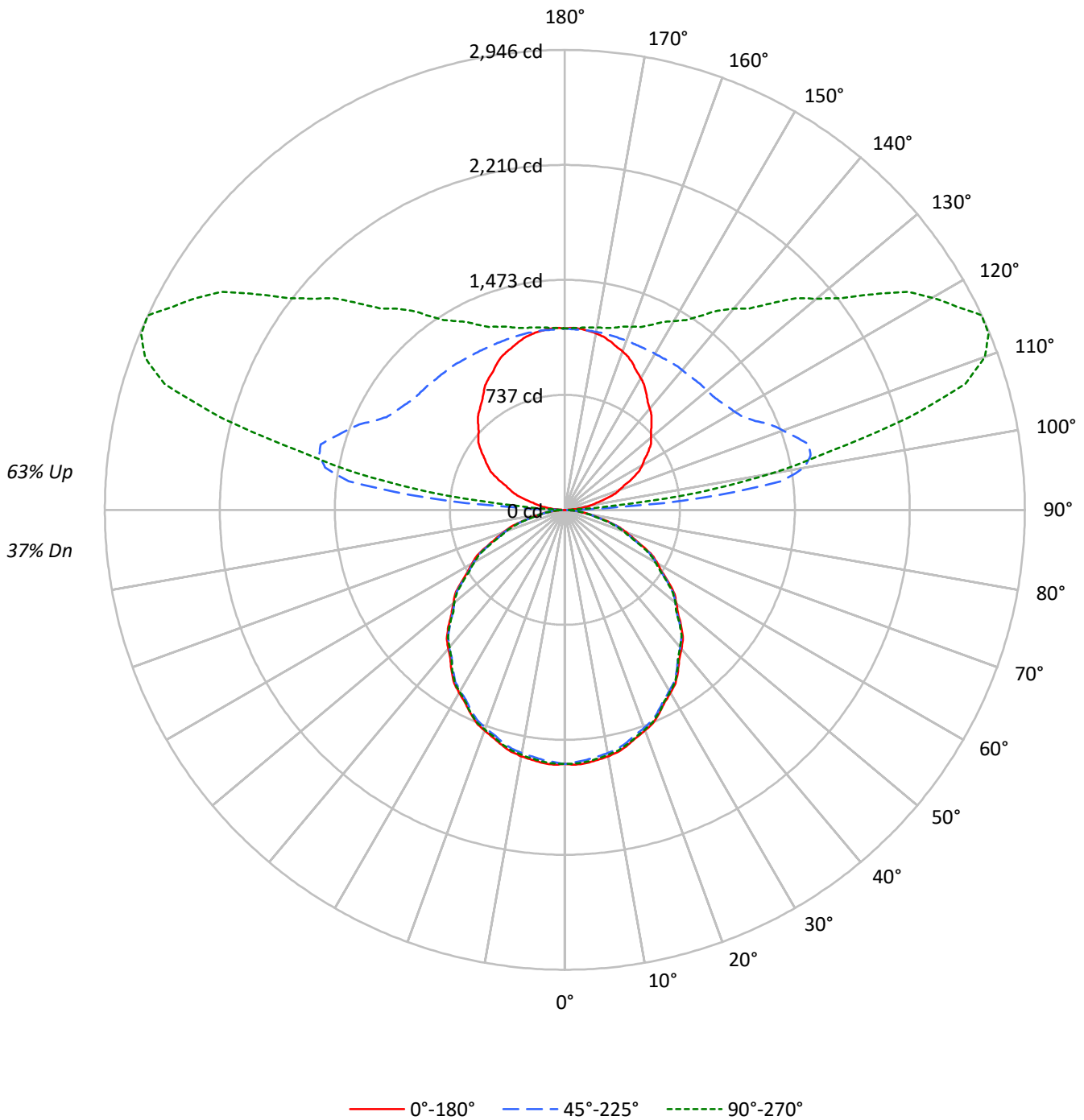
Lumens per Lamp: N/A
Luminaire Lumens: 11946.4 lumens
Efficiency: N/A
Efficacy: 137.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 87.1
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 | 76 | 76 | 76 | 60 | 60 | 60 | 44 | 44 | 44 | 37 |
| 1 | 95 | 91 | 87 | 83 | 86 | 82 | 79 | 76 | 67 | 64 | 62 | 52 | 51 | 50 | 39 | 38 | 37 | 31 |
| 2 | 86 | 79 | 73 | 68 | 78 | 72 | 67 | 62 | 58 | 55 | 52 | 46 | 43 | 41 | 34 | 33 | 31 | 26 |
| 3 | 79 | 69 | 62 | 56 | 71 | 63 | 57 | 52 | 51 | 47 | 43 | 41 | 37 | 35 | 30 | 28 | 27 | 22 |
| 4 | 72 | 61 | 54 | 48 | 65 | 56 | 49 | 44 | 46 | 41 | 37 | 36 | 33 | 30 | 27 | 25 | 23 | 19 |
| 5 | 66 | 54 | 47 | 41 | 59 | 50 | 43 | 38 | 41 | 35 | 32 | 32 | 29 | 26 | 24 | 22 | 20 | 16 |
| 6 | 61 | 49 | 41 | 35 | 55 | 45 | 38 | 32 | 37 | 31 | 27 | 29 | 25 | 22 | 22 | 19 | 17 | 14 |
| 7 | 56 | 44 | 36 | 31 | 51 | 40 | 33 | 28 | 33 | 28 | 24 | 26 | 23 | 20 | 20 | 17 | 15 | 13 |
| 8 | 52 | 40 | 32 | 27 | 47 | 36 | 30 | 25 | 30 | 25 | 21 | 24 | 20 | 17 | 18 | 16 | 14 | 11 |
| 9 | 48 | 36 | 29 | 24 | 44 | 33 | 27 | 22 | 27 | 22 | 19 | 22 | 18 | 16 | 17 | 14 | 12 | 10 |
| 10 | 45 | 33 | 26 | 21 | 41 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 17 | 14 | 16 | 13 | 11 | 9 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10014 | 10014 | 10014 |
| 5° | 10052 | 9925 | 9998 |
| 10° | 10012 | 9883 | 9957 |
| 15° | 9935 | 9813 | 9897 |
| 20° | 9845 | 9729 | 9807 |
| 25° | 9737 | 9637 | 9707 |
| 30° | 9614 | 9509 | 9561 |
| 35° | 9487 | 9387 | 9432 |
| 40° | 9328 | 9233 | 9221 |
| 45° | 9167 | 9052 | 9078 |
| 50° | 8913 | 8842 | 8842 |
| 55° | 8706 | 8595 | 8516 |
| 60° | 8425 | 8280 | 8208 |
| 65° | 7970 | 7820 | 7712 |
| 70° | 7487 | 7300 | 7114 |
| 75° | 6735 | 6490 | 6350 |
| 80° | 5384 | 5281 | 5228 |
| 85° | 3232 | 3649 | 3747 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 153.7 | 1.3 |
| 10°-20° | 437.5 | 3.7 |
| 20°-30° | 657.3 | 5.5 |
| 30°-40° | 784.3 | 6.6 |
| 40°-50° | 804.3 | 6.7 |
| 50°-60° | 716.7 | 6.0 |
| 60°-70° | 534.4 | 4.5 |
| 70°-80° | 289.8 | 2.4 |
| 80°-90° | 69.3 | 0.6 |
| 90°-100° | 543.4 | 4.5 |
| 100°-110° | 1463.8 | 12.3 |
| 110°-120° | 1536.2 | 12.9 |
| 120°-130° | 1246.6 | 10.4 |
| 130°-140° | 977.7 | 8.2 |
| 140°-150° | 750.6 | 6.3 |
| 150°-160° | 539.7 | 4.5 |
| 160°-170° | 329.7 | 2.8 |
| 170°-180° | 111.2 | 0.9 |
| 0°-30° | 1248.5 | 10.5 |
| 0°-40° | 2032.8 | 17.0 |
| 0°-60° | 3553.9 | 29.7 |
| 0°-90° | 4447.4 | 37.2 |
| 90°-120° | 3543.5 | 29.7 |
| 90°-150° | 6518.4 | 54.6 |
| 90°-180° | 7499.0 | 62.8 |
| 0°-180° | 11946.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1628 | 1628 | 1628 | 1628 | 1628 | |
| 5° | 1628 | 1625 | 1608 | 1621 | 1619 | 154 |
| 15° | 1560 | 1557 | 1541 | 1553 | 1554 | 440 |
| 25° | 1435 | 1433 | 1420 | 1428 | 1430 | 661 |
| 35° | 1264 | 1261 | 1250 | 1250 | 1256 | 789 |
| 45° | 1054 | 1050 | 1041 | 1041 | 1044 | 811 |
| 55° | 812 | 810 | 802 | 794 | 794 | 725 |
| 65° | 548 | 548 | 537 | 531 | 530 | 545 |
| 75° | 283 | 278 | 273 | 269 | 267 | 298 |
| 85° | 46 | 49 | 52 | 52 | 53 | 63 |
| 90° | 3 | 9 | 18 | 19 | 19 | 7 |
| 95° | 83 | 296 | 891 | 456 | 315 | 87 |
| 105° | 271 | 421 | 1619 | 2422 | 2273 | 285 |
| 115° | 478 | 585 | 1348 | 2605 | 2946 | 470 |
| 125° | 653 | 750 | 1210 | 2046 | 2408 | 583 |
| 135° | 786 | 877 | 1176 | 1650 | 1869 | 606 |
| 145° | 909 | 980 | 1162 | 1411 | 1515 | 570 |
| 155° | 1031 | 1069 | 1151 | 1266 | 1307 | 475 |
| 165° | 1119 | 1132 | 1156 | 1202 | 1208 | 315 |
| 175° | 1163 | 1162 | 1157 | 1173 | 1170 | 110 |
| 180° | 1162 | 1162 | 1162 | 1162 | 1162 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1628.1 | 1628.1 | 1628.1 | 1628.1 | 1628.1 |
| 2.5° | 1634.0 | 1630.6 | 1616.3 | 1628.1 | 1626.9 |
| 5° | 1628.1 | 1625.3 | 1607.5 | 1620.7 | 1619.3 |
| 7.5° | 1614.8 | 1611.7 | 1594.2 | 1607.5 | 1607.2 |
| 10° | 1603.0 | 1598.7 | 1582.4 | 1595.7 | 1594.2 |
| 12.5° | 1587.7 | 1583.4 | 1567.0 | 1580.3 | 1578.8 |
| 15° | 1560.2 | 1557.4 | 1541.0 | 1552.8 | 1554.3 |
| 17.5° | 1528.9 | 1523.4 | 1508.9 | 1520.4 | 1521.9 |
| 20° | 1504.1 | 1499.8 | 1486.4 | 1496.8 | 1498.2 |
| 22.5° | 1478.2 | 1473.8 | 1460.4 | 1470.8 | 1472.3 |
| 25° | 1434.8 | 1433.3 | 1420.0 | 1427.5 | 1430.3 |
| 27.5° | 1387.8 | 1383.8 | 1373.1 | 1378.8 | 1381.6 |
| 30° | 1353.6 | 1350.7 | 1338.8 | 1343.3 | 1346.2 |
| 32.5° | 1318.1 | 1316.4 | 1305.8 | 1307.9 | 1312.0 |
| 35° | 1263.5 | 1260.7 | 1250.2 | 1250.3 | 1256.2 |
| 37.5° | 1203.0 | 1199.9 | 1191.2 | 1189.8 | 1192.1 |
| 40° | 1161.7 | 1157.4 | 1149.9 | 1148.4 | 1148.4 |
| 42.5° | 1119.2 | 1116.0 | 1106.2 | 1103.6 | 1107.1 |
| 45° | 1053.9 | 1049.6 | 1040.6 | 1040.7 | 1043.6 |
| 47.5° | 983.4 | 981.6 | 971.3 | 966.5 | 967.7 |
| 50° | 931.4 | 934.3 | 924.0 | 918.2 | 924.0 |
| 52.5° | 886.5 | 884.8 | 875.6 | 869.8 | 872.1 |
| 55° | 811.9 | 810.4 | 801.5 | 794.1 | 794.1 |
| 57.5° | 736.9 | 733.1 | 723.9 | 718.4 | 722.7 |
| 60° | 684.9 | 683.4 | 673.1 | 662.9 | 667.2 |
| 62.5° | 632.9 | 630.4 | 620.0 | 613.3 | 616.4 |
| 65° | 547.6 | 547.6 | 537.3 | 531.4 | 529.9 |
| 67.5° | 472.9 | 466.1 | 460.2 | 453.2 | 451.1 |
| 70° | 416.3 | 410.5 | 405.9 | 399.9 | 395.6 |
| 72.5° | 360.8 | 357.3 | 350.4 | 344.5 | 343.6 |
| 75° | 283.4 | 277.6 | 273.1 | 268.6 | 267.2 |
| 77.5° | 201.6 | 200.5 | 196.3 | 194.0 | 194.8 |
| 80° | 152.0 | 152.0 | 149.1 | 149.1 | 147.6 |
| 82.5° | 107.2 | 108.3 | 107.8 | 105.4 | 105.1 |
| 85° | 45.8 | 48.6 | 51.7 | 51.7 | 53.1 |
| 87.5° | 8.9 | 15.7 | 16.5 | 16.8 | 16.8 |
| 90° | 3.0 | 8.8 | 17.8 | 19.2 | 19.2 |
| 92.5° | 36.1 | 127.6 | 252.1 | 121.4 | 84.4 |
| 95° | 82.9 | 295.5 | 890.8 | 455.6 | 315.2 |
| 97.5° | 132.3 | 338.3 | 1397.2 | 1167.3 | 880.2 |
| 100° | 170.2 | 355.4 | 1558.2 | 1630.4 | 1352.5 |
| 102.5° | 206.9 | 379.4 | 1611.5 | 1977.1 | 1749.1 |
| 105° | 270.8 | 421.2 | 1618.9 | 2422.0 | 2272.9 |
| 107.5° | 331.1 | 465.4 | 1549.9 | 2650.6 | 2689.1 |
| 110° | 371.4 | 498.8 | 1487.2 | 2721.6 | 2861.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 414.0 | 532.1 | 1426.8 | 2705.9 | 2936.5 |
| 115° | 478.0 | 585.0 | 1348.1 | 2604.7 | 2946.2 |
| 117.5° | 536.3 | 636.7 | 1287.1 | 2443.5 | 2823.7 |
| 120° | 574.2 | 671.1 | 1256.3 | 2327.7 | 2718.4 |
| 122.5° | 607.3 | 703.1 | 1233.9 | 2209.3 | 2598.8 |
| 125° | 652.6 | 749.5 | 1210.5 | 2045.9 | 2407.6 |
| 127.5° | 696.1 | 791.5 | 1195.7 | 1901.8 | 2224.7 |
| 130° | 722.2 | 817.6 | 1189.8 | 1819.2 | 2102.8 |
| 132.5° | 748.1 | 842.6 | 1183.9 | 1746.4 | 2006.9 |
| 135° | 785.7 | 876.9 | 1176.5 | 1650.5 | 1868.9 |
| 137.5° | 821.5 | 909.0 | 1172.6 | 1569.1 | 1748.5 |
| 140° | 846.4 | 930.4 | 1169.1 | 1519.0 | 1681.1 |
| 142.5° | 872.5 | 950.6 | 1166.7 | 1472.3 | 1608.8 |
| 145° | 908.6 | 979.5 | 1161.7 | 1411.1 | 1515.3 |
| 147.5° | 947.6 | 1009.3 | 1156.6 | 1359.7 | 1441.6 |
| 150° | 973.7 | 1027.3 | 1154.3 | 1327.4 | 1395.4 |
| 152.5° | 997.4 | 1043.9 | 1153.1 | 1301.1 | 1356.3 |
| 155° | 1031.4 | 1069.0 | 1151.3 | 1266.2 | 1306.6 |
| 157.5° | 1061.3 | 1090.5 | 1151.6 | 1241.6 | 1268.7 |
| 160° | 1080.3 | 1104.8 | 1152.8 | 1227.2 | 1247.4 |
| 162.5° | 1096.8 | 1116.8 | 1154.0 | 1215.2 | 1229.7 |
| 165° | 1118.7 | 1131.8 | 1155.7 | 1201.7 | 1207.5 |
| 167.5° | 1136.5 | 1144.0 | 1157.2 | 1191.3 | 1193.6 |
| 170° | 1148.3 | 1151.2 | 1157.2 | 1185.3 | 1185.3 |
| 172.5° | 1155.4 | 1156.0 | 1158.4 | 1179.4 | 1179.4 |
| 175° | 1163.1 | 1161.7 | 1157.2 | 1173.4 | 1170.5 |
| 177.5° | 1166.4 | 1164.0 | 1158.1 | 1167.5 | 1165.2 |
| 180° | 1161.7 | 1161.7 | 1161.7 | 1161.7 | 1161.7 |

(END OF REPORT)