

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

Brand: CORELITE

Report Number: P521679

Luminaire Tested: SQ4-F-150U-100D-92765-1D-UNV-STD-W-4\_3000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521679  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-100D-92765-1D-UNV-STD-W-4\_3000K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10472.4 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

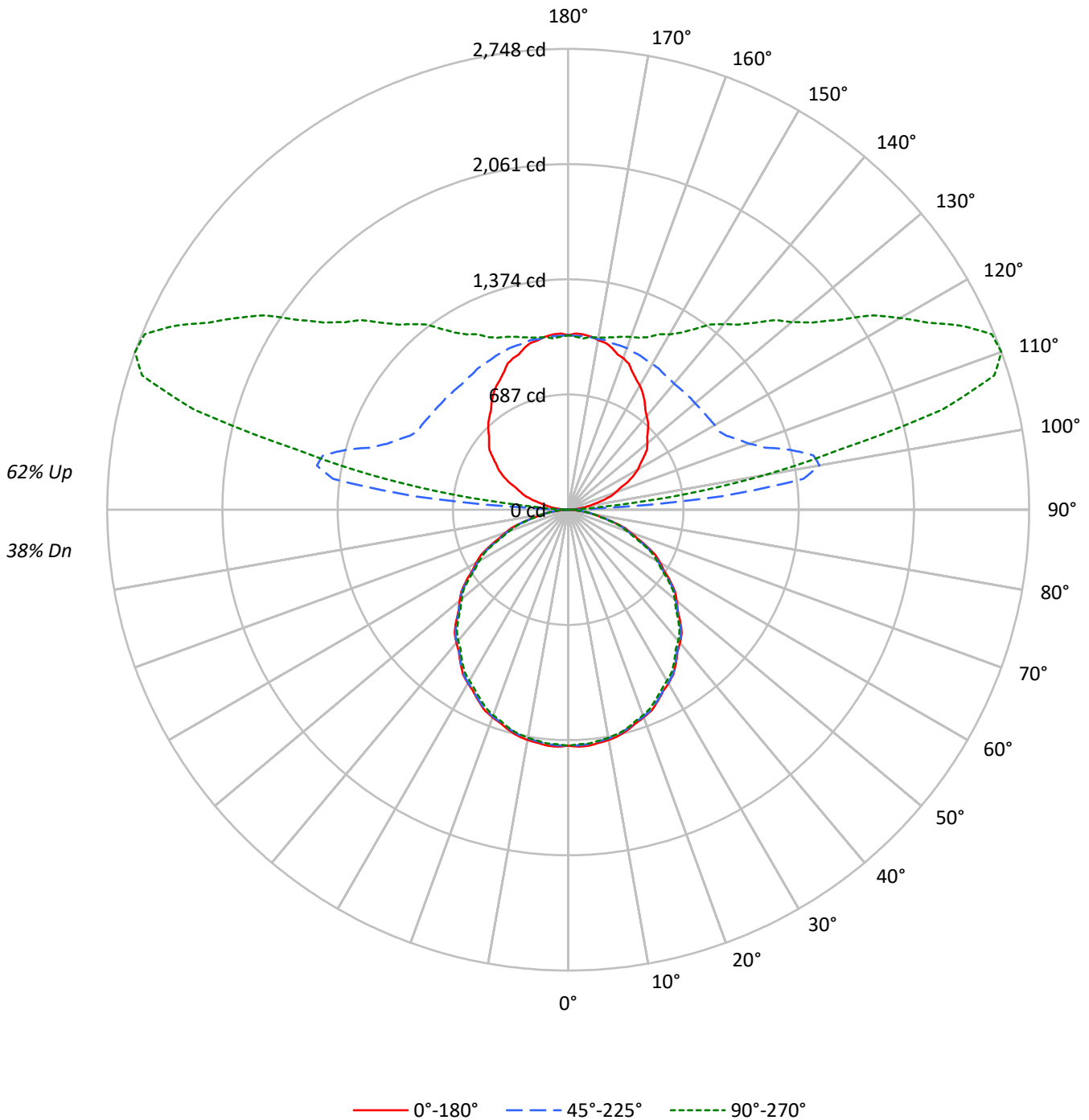
Input Watts (W): 93.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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 | 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   | 95  | 91  | 87  | 83  | 86 | 83 | 79 | 76 | 67 | 65 | 63 | 53 | 51 | 50 | 40 | 39 | 38 | 32 |    |    |    |   |
| 2   | 86  | 79  | 73  | 68  | 78 | 72 | 67 | 62 | 59 | 55 | 52 | 46 | 44 | 42 | 35 | 33 | 32 | 27 |    |    |    |   |
| 3   | 79  | 69  | 62  | 56  | 71 | 63 | 57 | 52 | 52 | 47 | 43 | 41 | 38 | 35 | 31 | 29 | 27 | 22 |    |    |    |   |
| 4   | 72  | 61  | 53  | 47  | 65 | 56 | 49 | 44 | 46 | 41 | 37 | 36 | 33 | 30 | 27 | 25 | 23 | 19 |    |    |    |   |
| 5   | 66  | 54  | 46  | 40  | 60 | 50 | 43 | 37 | 41 | 35 | 31 | 32 | 29 | 26 | 25 | 22 | 20 | 16 |    |    |    |   |
| 6   | 61  | 49  | 41  | 35  | 55 | 44 | 37 | 32 | 37 | 31 | 27 | 29 | 25 | 22 | 22 | 20 | 18 | 14 |    |    |    |   |
| 7   | 56  | 44  | 36  | 30  | 51 | 40 | 33 | 28 | 33 | 28 | 24 | 26 | 23 | 20 | 20 | 18 | 15 | 13 |    |    |    |   |
| 8   | 52  | 40  | 32  | 27  | 47 | 36 | 30 | 25 | 30 | 25 | 21 | 24 | 20 | 17 | 19 | 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°  | 12975 | 12975 | 12975 |
| 5°  | 13078 | 12997 | 12960 |
| 10° | 13064 | 12974 | 12937 |
| 15° | 13003 | 12928 | 12900 |
| 20° | 12944 | 12887 | 12810 |
| 25° | 12844 | 12794 | 12656 |
| 30° | 12734 | 12703 | 12547 |
| 35° | 12605 | 12561 | 12429 |
| 40° | 12479 | 12432 | 12279 |
| 45° | 12334 | 12232 | 12093 |
| 50° | 12124 | 12041 | 11900 |
| 55° | 11955 | 11781 | 11639 |
| 60° | 11677 | 11442 | 11280 |
| 65° | 11300 | 10979 | 10809 |
| 70° | 10642 | 10299 | 10116 |
| 75° | 9607  | 9365  | 9226  |
| 80° | 7938  | 7938  | 7837  |
| 85° | 5579  | 6404  | 6616  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12334 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 133.1   | 1.3       |
| 10°-20°   | 381.4   | 3.6       |
| 20°-30°   | 576.7   | 5.5       |
| 30°-40°   | 694.5   | 6.6       |
| 40°-50°   | 721.2   | 6.9       |
| 50°-60°   | 653.8   | 6.2       |
| 60°-70°   | 497.9   | 4.8       |
| 70°-80°   | 278.2   | 2.7       |
| 80°-90°   | 72.2    | 0.7       |
| 90°-100°  | 474.1   | 4.5       |
| 100°-110° | 1349.1  | 12.9      |
| 110°-120° | 1292.6  | 12.3      |
| 120°-130° | 1023.0  | 9.8       |
| 130°-140° | 821.1   | 7.8       |
| 140°-150° | 642.8   | 6.1       |
| 150°-160° | 470.4   | 4.5       |
| 160°-170° | 291.4   | 2.8       |
| 170°-180° | 98.9    | 0.9       |
| 0°-30°    | 1091.2  | 10.4      |
| 0°-40°    | 1785.7  | 17.1      |
| 0°-60°    | 3160.8  | 30.2      |
| 0°-90°    | 4009.1  | 38.3      |
| 90°-120°  | 3115.8  | 29.8      |
| 90°-150°  | 5602.8  | 53.5      |
| 90°-180°  | 6463.0  | 61.7      |
| 0°-180°   | 10472.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1406 | 1406  | 1406 | 1406  | 1406 |      |
| 5°   | 1412 | 1399  | 1403 | 1399  | 1399 | 134  |
| 15°  | 1361 | 1349  | 1354 | 1351  | 1351 | 384  |
| 25°  | 1262 | 1251  | 1257 | 1247  | 1243 | 581  |
| 35°  | 1119 | 1112  | 1115 | 1104  | 1104 | 700  |
| 45°  | 945  | 940   | 938  | 928   | 927  | 728  |
| 55°  | 743  | 740   | 732  | 724   | 724  | 663  |
| 65°  | 518  | 512   | 503  | 496   | 495  | 510  |
| 75°  | 270  | 266   | 263  | 259   | 259  | 285  |
| 85°  | 53   | 57    | 60   | 62    | 62   | 66   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 4    |
| 95°  | 51   | 204   | 918  | 318   | 196  | 59   |
| 105° | 210  | 318   | 1375 | 2428  | 2308 | 222  |
| 115° | 390  | 471   | 1042 | 2208  | 2593 | 384  |
| 125° | 550  | 610   | 995  | 1651  | 1974 | 492  |
| 135° | 673  | 729   | 983  | 1395  | 1577 | 519  |
| 145° | 793  | 834   | 991  | 1207  | 1316 | 496  |
| 155° | 906  | 927   | 1015 | 1091  | 1136 | 419  |
| 165° | 1001 | 1005  | 1027 | 1049  | 1064 | 281  |
| 175° | 1048 | 1043  | 1038 | 1032  | 1025 | 99   |
| 180° | 1040 | 1040  | 1040 | 1040  | 1040 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1406.3 | 1406.3 | 1406.3 | 1406.3 | 1406.3 |
| 2.5°   | 1414.8 | 1403.4 | 1407.0 | 1404.6 | 1400.0 |
| 5°     | 1412.1 | 1398.7 | 1403.3 | 1399.4 | 1399.4 |
| 7.5°   | 1402.3 | 1389.6 | 1392.6 | 1390.2 | 1390.2 |
| 10°    | 1394.5 | 1380.2 | 1384.8 | 1380.9 | 1380.9 |
| 12.5°  | 1382.0 | 1369.2 | 1373.8 | 1369.9 | 1369.1 |
| 15°    | 1361.3 | 1348.9 | 1353.5 | 1350.6 | 1350.6 |
| 17.5°  | 1336.3 | 1324.5 | 1330.5 | 1325.8 | 1324.2 |
| 20°    | 1318.4 | 1305.0 | 1312.5 | 1304.7 | 1304.7 |
| 22.5°  | 1296.5 | 1284.6 | 1291.4 | 1282.0 | 1280.5 |
| 25°    | 1261.7 | 1251.2 | 1256.8 | 1247.0 | 1243.2 |
| 27.5°  | 1222.7 | 1211.4 | 1219.7 | 1208.7 | 1206.6 |
| 30°    | 1195.3 | 1184.8 | 1192.4 | 1180.6 | 1177.7 |
| 32.5°  | 1165.6 | 1156.7 | 1161.9 | 1150.9 | 1148.8 |
| 35°    | 1119.1 | 1112.5 | 1115.2 | 1104.5 | 1103.5 |
| 37.5°  | 1069.7 | 1063.2 | 1065.8 | 1053.9 | 1053.1 |
| 40°    | 1036.1 | 1030.4 | 1032.2 | 1019.5 | 1019.5 |
| 42.5°  | 1001.8 | 995.3  | 995.5  | 983.6  | 982.8  |
| 45°    | 945.3  | 939.6  | 937.5  | 927.7  | 926.8  |
| 47.5°  | 885.4  | 882.7  | 879.5  | 869.7  | 869.7  |
| 50°    | 844.7  | 842.8  | 838.9  | 829.1  | 829.1  |
| 52.5°  | 803.3  | 802.2  | 796.7  | 788.4  | 786.9  |
| 55°    | 743.2  | 740.3  | 732.4  | 723.6  | 723.6  |
| 57.5°  | 677.3  | 675.1  | 666.2  | 659.1  | 657.4  |
| 60°    | 632.8  | 629.0  | 620.1  | 612.3  | 611.3  |
| 62.5°  | 586.7  | 583.7  | 574.0  | 567.0  | 565.2  |
| 65°    | 517.6  | 511.9  | 502.9  | 496.1  | 495.1  |
| 67.5°  | 444.5  | 438.0  | 430.3  | 424.6  | 422.7  |
| 70°    | 394.5  | 388.8  | 381.8  | 376.9  | 375.0  |
| 72.5°  | 345.3  | 339.6  | 333.4  | 330.1  | 329.7  |
| 75°    | 269.5  | 265.7  | 262.7  | 258.8  | 258.8  |
| 77.5°  | 195.5  | 193.2  | 191.6  | 189.6  | 189.6  |
| 80°    | 149.4  | 149.4  | 149.4  | 147.5  | 147.5  |
| 82.5°  | 107.2  | 109.5  | 111.1  | 110.0  | 110.0  |
| 85°    | 52.7   | 56.6   | 60.5   | 61.5   | 62.5   |
| 87.5°  | 14.8   | 19.4   | 24.2   | 25.0   | 25.8   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 15.8   | 83.9   | 194.7  | 56.7   | 42.7   |
| 95°    | 51.4   | 204.2  | 917.9  | 317.7  | 195.8  |
| 97.5°  | 94.6   | 239.2  | 1413.6 | 1011.5 | 693.2  |
| 100°   | 124.6  | 260.0  | 1521.2 | 1540.9 | 1186.9 |
| 102.5° | 157.9  | 282.4  | 1497.5 | 1972.3 | 1663.2 |
| 105°   | 209.7  | 318.0  | 1374.8 | 2428.4 | 2308.5 |
| 107.5° | 262.3  | 359.4  | 1231.6 | 2557.0 | 2663.8 |
| 110°   | 298.7  | 389.6  | 1149.3 | 2507.8 | 2747.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 333.5  | 419.8  | 1093.9 | 2391.5 | 2733.4 |
| 115°   | 389.7  | 470.9  | 1042.5 | 2208.5 | 2593.4 |
| 117.5° | 439.2  | 515.4  | 1012.0 | 2008.4 | 2416.1 |
| 120°   | 478.7  | 542.5  | 1008.9 | 1894.1 | 2284.8 |
| 122.5° | 510.4  | 574.2  | 1001.0 | 1793.7 | 2156.6 |
| 125°   | 549.9  | 609.9  | 995.0  | 1651.2 | 1974.2 |
| 127.5° | 593.1  | 649.1  | 991.9  | 1566.0 | 1832.2 |
| 130°   | 615.2  | 671.3  | 987.1  | 1506.7 | 1738.8 |
| 132.5° | 638.9  | 693.5  | 987.1  | 1460.4 | 1673.9 |
| 135°   | 672.6  | 728.7  | 983.2  | 1394.8 | 1576.6 |
| 137.5° | 704.2  | 758.8  | 982.8  | 1339.2 | 1496.3 |
| 140°   | 728.0  | 784.1  | 981.2  | 1293.2 | 1444.1 |
| 142.5° | 754.9  | 801.7  | 985.9  | 1256.4 | 1391.8 |
| 145°   | 793.2  | 833.9  | 991.1  | 1207.2 | 1315.5 |
| 147.5° | 826.1  | 865.5  | 999.8  | 1157.4 | 1251.0 |
| 150°   | 854.6  | 881.6  | 1002.9 | 1140.9 | 1206.7 |
| 152.5° | 876.7  | 905.4  | 1006.1 | 1118.7 | 1179.8 |
| 155°   | 906.0  | 927.3  | 1014.8 | 1091.0 | 1135.5 |
| 157.5° | 942.4  | 955.2  | 1016.8 | 1078.4 | 1110.1 |
| 160°   | 961.4  | 971.1  | 1024.7 | 1068.8 | 1095.9 |
| 162.5° | 972.5  | 983.7  | 1026.3 | 1060.8 | 1081.7 |
| 165°   | 1001.0 | 1004.8 | 1026.7 | 1048.8 | 1064.3 |
| 167.5° | 1020.3 | 1016.9 | 1035.8 | 1045.8 | 1052.0 |
| 170°   | 1026.7 | 1024.7 | 1032.6 | 1034.8 | 1042.5 |
| 172.5° | 1040.9 | 1034.3 | 1037.4 | 1031.6 | 1037.7 |
| 175°   | 1048.4 | 1042.6 | 1038.5 | 1032.4 | 1024.7 |
| 177.5° | 1051.6 | 1042.3 | 1037.4 | 1031.1 | 1032.6 |
| 180°   | 1040.5 | 1040.5 | 1040.5 | 1040.5 | 1040.5 |

(END OF REPORT)