

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: P520194

Luminaire Tested: **SQ4-F-100U-050D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520194  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-100U-050D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

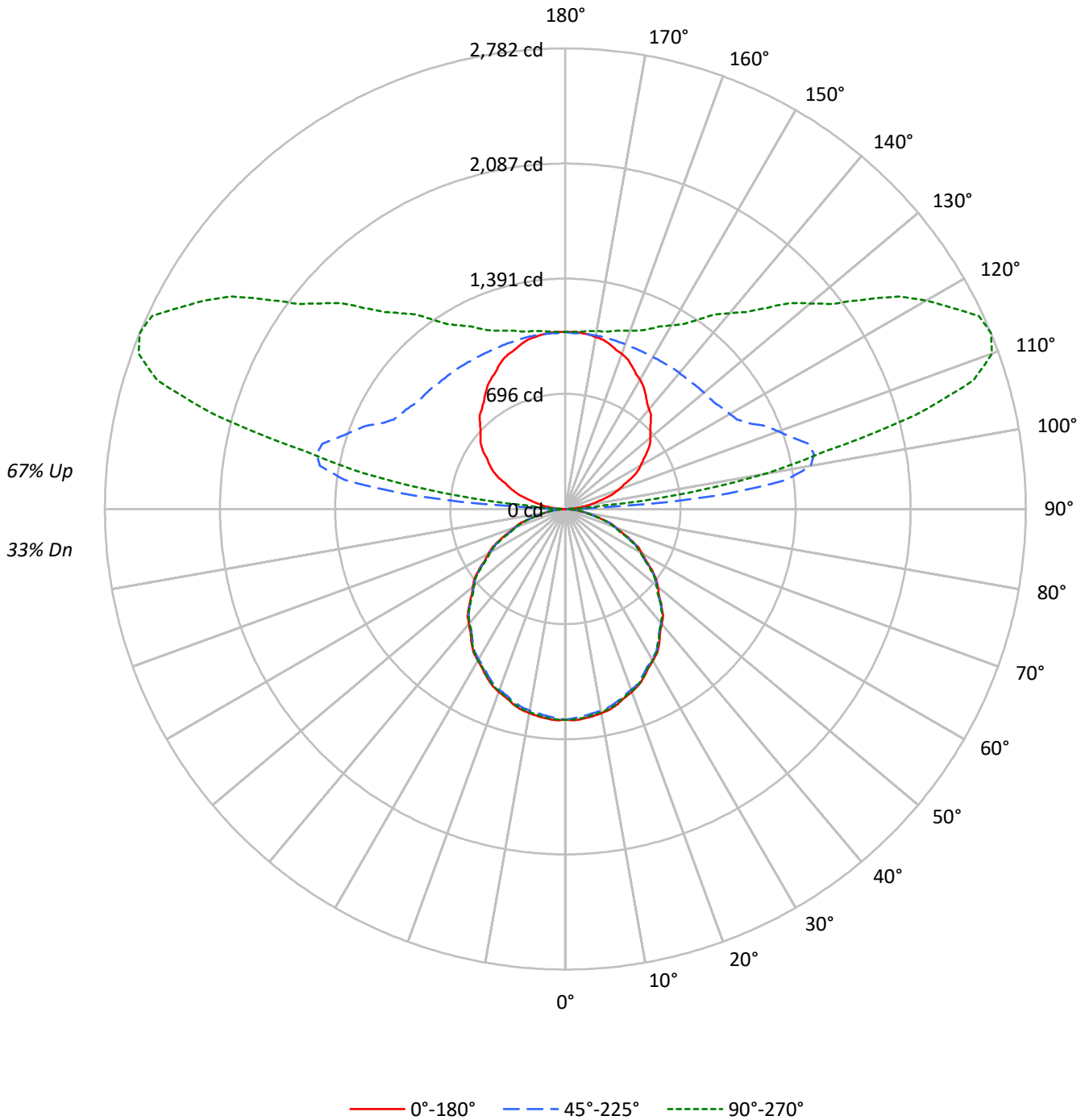
Lumens per Lamp: N/A  
Luminaire Lumens: 10422.1 lumens  
Efficiency: N/A  
Efficacy: 121.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 85.7  
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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 41 | 41 | 41 | 33 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 48 | 47 | 36 | 35 | 34 | 28 |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 61 | 57 | 53 | 50 | 44 | 41 | 39 | 32 | 30 | 29 | 23 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 | 20 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 48 | 43 | 44 | 39 | 36 | 34 | 31 | 28 | 25 | 23 | 21 | 17 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 39 | 34 | 31 | 31 | 27 | 24 | 22 | 20 | 18 | 15 |
| 6   | 60  | 48  | 40  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 28 | 24 | 21 | 20 | 18 | 16 | 13 |
| 7   | 55  | 43  | 36  | 30  | 50 | 39 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 18 | 16 | 14 | 11 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 20 | 23 | 19 | 17 | 17 | 14 | 13 | 10 |
| 9   | 48  | 36  | 28  | 23  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 17 | 15 | 16 | 13 | 11 | 9  |
| 10  | 44  | 33  | 26  | 21  | 40 | 30 | 24 | 19 | 24 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 | 8  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5875 | 5875 | 5875 |
| 5°  | 5889 | 5818 | 5866 |
| 10° | 5870 | 5798 | 5838 |
| 15° | 5829 | 5757 | 5805 |
| 20° | 5775 | 5708 | 5750 |
| 25° | 5710 | 5640 | 5693 |
| 30° | 5631 | 5585 | 5621 |
| 35° | 5568 | 5501 | 5530 |
| 40° | 5462 | 5411 | 5421 |
| 45° | 5350 | 5305 | 5305 |
| 50° | 5237 | 5188 | 5163 |
| 55° | 5114 | 5046 | 5019 |
| 60° | 4924 | 4845 | 4813 |
| 65° | 4689 | 4597 | 4541 |
| 70° | 4369 | 4277 | 4185 |
| 75° | 3919 | 3798 | 3707 |
| 80° | 3169 | 3124 | 3034 |
| 85° | 1895 | 2165 | 2255 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 120.2   | 1.2       |
| 10°-20°   | 342.2   | 3.3       |
| 20°-30°   | 513.9   | 4.9       |
| 30°-40°   | 613.5   | 5.9       |
| 40°-50°   | 628.7   | 6.0       |
| 50°-60°   | 560.7   | 5.4       |
| 60°-70°   | 417.5   | 4.0       |
| 70°-80°   | 226.7   | 2.2       |
| 80°-90°   | 54.7    | 0.5       |
| 90°-100°  | 500.5   | 4.8       |
| 100°-110° | 1381.7  | 13.3      |
| 110°-120° | 1425.0  | 13.7      |
| 120°-130° | 1145.1  | 11.0      |
| 130°-140° | 899.9   | 8.6       |
| 140°-150° | 690.2   | 6.6       |
| 150°-160° | 496.0   | 4.8       |
| 160°-170° | 303.4   | 2.9       |
| 170°-180° | 102.3   | 1.0       |
| 0°-30°    | 976.3   | 9.4       |
| 0°-40°    | 1589.8  | 15.3      |
| 0°-60°    | 2779.1  | 26.7      |
| 0°-90°    | 3478.0  | 33.4      |
| 90°-120°  | 3307.2  | 31.7      |
| 90°-150°  | 6042.4  | 58.0      |
| 90°-180°  | 6944.0  | 66.6      |
| 0°-180°   | 10422.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1274 | 1274  | 1274 | 1274  | 1274 |      |
| 5°   | 1272 | 1270  | 1256 | 1268  | 1267 | 121  |
| 15°  | 1221 | 1217  | 1205 | 1216  | 1216 | 344  |
| 25°  | 1122 | 1118  | 1108 | 1115  | 1118 | 517  |
| 35°  | 989  | 986   | 977  | 977   | 982  | 617  |
| 45°  | 820  | 822   | 813  | 812   | 813  | 633  |
| 55°  | 636  | 636   | 627  | 622   | 624  | 566  |
| 65°  | 430  | 428   | 421  | 416   | 416  | 425  |
| 75°  | 220  | 218   | 213  | 210   | 208  | 232  |
| 85°  | 36   | 39    | 41   | 43    | 43   | 50   |
| 90°  | 4    | 7     | 14   | 15    | 17   | 6    |
| 95°  | 74   | 271   | 908  | 373   | 243  | 79   |
| 105° | 246  | 380   | 1520 | 2321  | 2185 | 262  |
| 115° | 441  | 533   | 1224 | 2424  | 2756 | 434  |
| 125° | 605  | 689   | 1110 | 1878  | 2204 | 539  |
| 135° | 728  | 807   | 1079 | 1521  | 1715 | 564  |
| 145° | 845  | 903   | 1065 | 1295  | 1394 | 529  |
| 155° | 952  | 984   | 1057 | 1162  | 1199 | 439  |
| 165° | 1031 | 1044  | 1062 | 1103  | 1112 | 291  |
| 175° | 1069 | 1070  | 1064 | 1079  | 1076 | 102  |
| 180° | 1069 | 1069  | 1069 | 1069  | 1069 |      |

TEST NUMBER: P520194

CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1273.5 | 1273.5 | 1273.5 | 1273.5 | 1273.5 |
| 2.5°   | 1277.6 | 1275.0 | 1264.0 | 1273.5 | 1272.1 |
| 5°     | 1271.8 | 1270.1 | 1256.4 | 1268.4 | 1266.7 |
| 7.5°   | 1262.6 | 1259.3 | 1245.9 | 1257.4 | 1255.8 |
| 10°    | 1253.1 | 1249.7 | 1237.7 | 1248.0 | 1246.3 |
| 12.5°  | 1240.8 | 1238.8 | 1225.5 | 1235.6 | 1235.3 |
| 15°    | 1220.6 | 1217.4 | 1205.4 | 1215.5 | 1215.5 |
| 17.5°  | 1194.1 | 1192.0 | 1180.4 | 1190.3 | 1189.0 |
| 20°    | 1176.4 | 1173.0 | 1162.8 | 1171.2 | 1171.2 |
| 22.5°  | 1154.6 | 1152.5 | 1142.2 | 1149.4 | 1150.7 |
| 25°    | 1121.8 | 1118.5 | 1108.1 | 1115.0 | 1118.4 |
| 27.5°  | 1085.6 | 1083.0 | 1074.4 | 1078.8 | 1081.2 |
| 30°    | 1057.1 | 1057.1 | 1048.5 | 1050.3 | 1055.3 |
| 32.5°  | 1031.1 | 1031.1 | 1021.2 | 1022.9 | 1025.3 |
| 35°    | 988.8  | 985.5  | 976.9  | 977.0  | 982.0  |
| 37.5°  | 939.7  | 938.0  | 932.5  | 931.5  | 932.9  |
| 40°    | 907.0  | 905.3  | 898.5  | 900.2  | 900.2  |
| 42.5°  | 874.2  | 872.6  | 865.8  | 863.4  | 866.1  |
| 45°    | 820.0  | 821.7  | 813.2  | 811.5  | 813.2  |
| 47.5°  | 766.5  | 766.5  | 759.7  | 754.9  | 757.6  |
| 50°    | 729.7  | 729.7  | 722.9  | 719.4  | 719.4  |
| 52.5°  | 691.5  | 692.8  | 684.6  | 679.9  | 681.3  |
| 55°    | 635.9  | 635.9  | 627.4  | 622.3  | 624.0  |
| 57.5°  | 574.6  | 574.6  | 566.0  | 561.0  | 563.9  |
| 60°    | 533.7  | 533.7  | 525.1  | 520.0  | 521.7  |
| 62.5°  | 492.7  | 492.7  | 484.2  | 479.0  | 479.4  |
| 65°    | 429.6  | 427.9  | 421.1  | 416.0  | 416.0  |
| 67.5°  | 368.9  | 364.6  | 359.4  | 352.5  | 352.5  |
| 70°    | 323.9  | 322.2  | 317.1  | 310.3  | 310.3  |
| 72.5°  | 283.0  | 280.0  | 274.8  | 269.4  | 269.4  |
| 75°    | 219.9  | 218.2  | 213.1  | 209.6  | 208.0  |
| 77.5°  | 157.6  | 156.2  | 155.8  | 151.1  | 152.4  |
| 80°    | 119.3  | 119.3  | 117.6  | 114.2  | 114.2  |
| 82.5°  | 85.2   | 86.6   | 83.5   | 82.8   | 81.4   |
| 85°    | 35.8   | 39.1   | 40.9   | 42.6   | 42.6   |
| 87.5°  | 7.5    | 12.1   | 12.2   | 14.0   | 14.3   |
| 90°    | 3.5    | 6.7    | 13.7   | 15.4   | 17.1   |
| 92.5°  | 30.8   | 127.7  | 228.4  | 83.4   | 65.0   |
| 95°    | 73.5   | 270.8  | 908.0  | 373.2  | 242.9  |
| 97.5°  | 121.8  | 303.3  | 1345.0 | 1035.6 | 750.0  |
| 100°   | 157.3  | 322.9  | 1506.5 | 1517.2 | 1232.9 |
| 102.5° | 191.5  | 345.0  | 1537.9 | 1874.5 | 1605.0 |
| 105°   | 246.2  | 380.0  | 1520.1 | 2320.8 | 2185.4 |
| 107.5° | 304.4  | 423.4  | 1435.4 | 2536.0 | 2585.5 |
| 110°   | 345.4  | 452.5  | 1369.7 | 2582.3 | 2742.8 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 382.3  | 485.3  | 1308.1 | 2545.8 | 2782.5 |
| 115°   | 441.2  | 533.1  | 1224.4 | 2423.8 | 2756.5 |
| 117.5° | 492.4  | 584.1  | 1169.3 | 2252.1 | 2630.6 |
| 120°   | 526.7  | 617.0  | 1147.4 | 2135.8 | 2517.1 |
| 122.5° | 559.5  | 645.8  | 1129.6 | 2027.3 | 2388.5 |
| 125°   | 605.3  | 688.9  | 1109.8 | 1878.1 | 2204.2 |
| 127.5° | 644.3  | 727.9  | 1098.1 | 1751.9 | 2033.1 |
| 130°   | 670.3  | 753.9  | 1092.7 | 1674.7 | 1930.6 |
| 132.5° | 694.9  | 774.6  | 1087.2 | 1609.9 | 1841.6 |
| 135°   | 728.5  | 807.0  | 1079.0 | 1521.1 | 1715.1 |
| 137.5° | 766.1  | 837.7  | 1074.9 | 1446.6 | 1612.1 |
| 140°   | 786.6  | 856.8  | 1072.1 | 1397.0 | 1542.4 |
| 142.5° | 809.9  | 874.7  | 1069.4 | 1352.8 | 1480.9 |
| 145°   | 844.7  | 903.3  | 1065.3 | 1295.0 | 1393.6 |
| 147.5° | 878.2  | 929.4  | 1061.5 | 1246.2 | 1322.9 |
| 150°   | 902.9  | 944.7  | 1060.1 | 1217.2 | 1279.1 |
| 152.5° | 922.1  | 961.1  | 1058.9 | 1192.3 | 1243.4 |
| 155°   | 952.4  | 984.2  | 1056.8 | 1161.9 | 1198.7 |
| 157.5° | 980.5  | 1004.9 | 1057.1 | 1139.8 | 1164.8 |
| 160°   | 996.9  | 1018.7 | 1058.5 | 1127.3 | 1145.7 |
| 162.5° | 1010.6 | 1029.7 | 1059.8 | 1116.2 | 1130.7 |
| 165°   | 1031.2 | 1044.5 | 1061.9 | 1103.1 | 1111.5 |
| 167.5° | 1046.9 | 1054.9 | 1063.6 | 1095.2 | 1097.8 |
| 170°   | 1055.1 | 1061.7 | 1063.6 | 1091.0 | 1091.0 |
| 172.5° | 1061.9 | 1065.9 | 1063.6 | 1085.5 | 1084.1 |
| 175°   | 1068.8 | 1070.4 | 1063.6 | 1078.9 | 1075.6 |
| 177.5° | 1071.4 | 1070.1 | 1063.2 | 1072.8 | 1070.1 |
| 180°   | 1068.8 | 1068.8 | 1068.8 | 1068.8 | 1068.8 |

(END OF REPORT)