

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: P520181

Luminaire Tested: **SQ4-F-100U-050D-840-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520181
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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

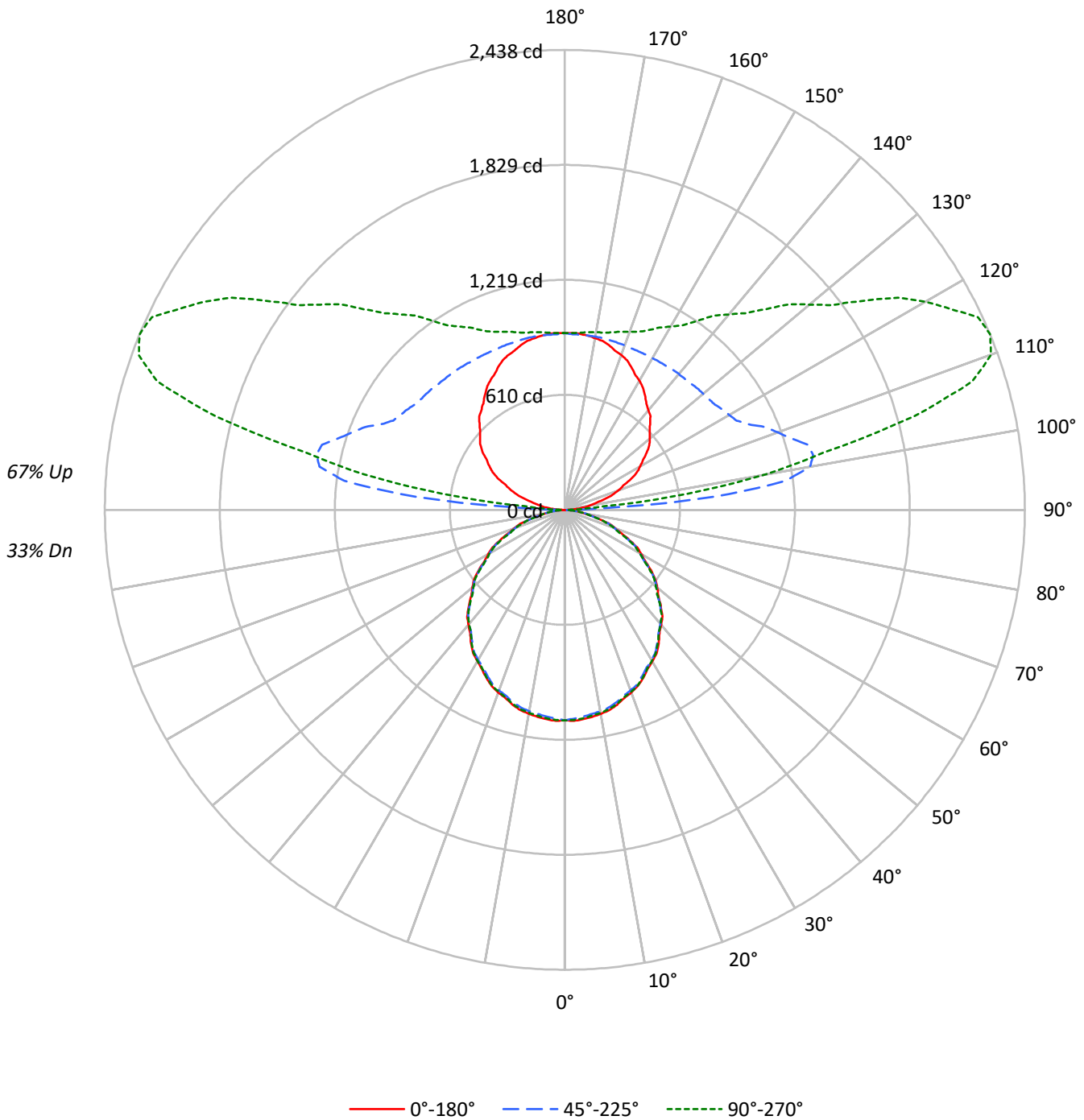
Lumens per Lamp: N/A
Luminaire Lumens: 9132.9 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 64
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° | 6864 | 6864 | 6864 |
| 5° | 6881 | 6798 | 6853 |
| 10° | 6858 | 6775 | 6821 |
| 15° | 6812 | 6726 | 6783 |
| 20° | 6747 | 6669 | 6718 |
| 25° | 6671 | 6591 | 6651 |
| 30° | 6579 | 6526 | 6568 |
| 35° | 6506 | 6427 | 6461 |
| 40° | 6382 | 6322 | 6334 |
| 45° | 6251 | 6199 | 6199 |
| 50° | 6119 | 6061 | 6033 |
| 55° | 5975 | 5896 | 5864 |
| 60° | 5752 | 5660 | 5623 |
| 65° | 5480 | 5370 | 5305 |
| 70° | 5106 | 4998 | 4890 |
| 75° | 4579 | 4439 | 4330 |
| 80° | 3705 | 3648 | 3546 |
| 85° | 2216 | 2534 | 2639 |



TEST NUMBER: P520181

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 105.3 | 1.2 |
| 10°-20° | 299.9 | 3.3 |
| 20°-30° | 450.4 | 4.9 |
| 30°-40° | 537.6 | 5.9 |
| 40°-50° | 550.9 | 6.0 |
| 50°-60° | 491.3 | 5.4 |
| 60°-70° | 365.9 | 4.0 |
| 70°-80° | 198.6 | 2.2 |
| 80°-90° | 47.9 | 0.5 |
| 90°-100° | 438.6 | 4.8 |
| 100°-110° | 1210.8 | 13.3 |
| 110°-120° | 1248.7 | 13.7 |
| 120°-130° | 1003.5 | 11.0 |
| 130°-140° | 788.6 | 8.6 |
| 140°-150° | 604.8 | 6.6 |
| 150°-160° | 434.7 | 4.8 |
| 160°-170° | 265.8 | 2.9 |
| 170°-180° | 89.6 | 1.0 |
| 0°-30° | 855.5 | 9.4 |
| 0°-40° | 1393.1 | 15.3 |
| 0°-60° | 2435.3 | 26.7 |
| 0°-90° | 3047.8 | 33.4 |
| 90°-120° | 2898.1 | 31.7 |
| 90°-150° | 5295.0 | 58.0 |
| 90°-180° | 6085.0 | 66.6 |
| 0°-180° | 9132.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1116 | 1116 | 1116 | 1116 | 1116 | |
| 5° | 1114 | 1113 | 1101 | 1112 | 1110 | 106 |
| 15° | 1070 | 1067 | 1056 | 1065 | 1065 | 301 |
| 25° | 983 | 980 | 971 | 977 | 980 | 453 |
| 35° | 866 | 864 | 856 | 856 | 860 | 541 |
| 45° | 719 | 720 | 713 | 711 | 713 | 555 |
| 55° | 557 | 557 | 550 | 545 | 547 | 496 |
| 65° | 376 | 375 | 369 | 364 | 364 | 373 |
| 75° | 193 | 191 | 187 | 184 | 182 | 204 |
| 85° | 31 | 34 | 36 | 37 | 37 | 44 |
| 90° | 3 | 6 | 12 | 14 | 15 | 5 |
| 95° | 64 | 237 | 796 | 327 | 213 | 69 |
| 105° | 216 | 333 | 1332 | 2034 | 1915 | 230 |
| 115° | 387 | 467 | 1073 | 2124 | 2416 | 380 |
| 125° | 530 | 604 | 972 | 1646 | 1932 | 472 |
| 135° | 638 | 707 | 946 | 1333 | 1503 | 494 |
| 145° | 740 | 792 | 934 | 1135 | 1221 | 463 |
| 155° | 835 | 862 | 926 | 1018 | 1050 | 385 |
| 165° | 904 | 915 | 931 | 967 | 974 | 255 |
| 175° | 936 | 938 | 932 | 946 | 942 | 89 |
| 180° | 936 | 936 | 936 | 936 | 936 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1116.0 | 1116.0 | 1116.0 | 1116.0 | 1116.0 |
| 2.5° | 1119.6 | 1117.2 | 1107.6 | 1115.9 | 1114.8 |
| 5° | 1114.5 | 1113.1 | 1101.0 | 1111.5 | 1110.0 |
| 7.5° | 1106.5 | 1103.5 | 1091.8 | 1101.9 | 1100.4 |
| 10° | 1098.1 | 1095.1 | 1084.7 | 1093.5 | 1092.1 |
| 12.5° | 1087.3 | 1085.5 | 1073.8 | 1082.8 | 1082.5 |
| 15° | 1069.7 | 1066.7 | 1056.3 | 1065.2 | 1065.2 |
| 17.5° | 1046.4 | 1044.6 | 1034.4 | 1043.1 | 1041.9 |
| 20° | 1030.8 | 1028.0 | 1018.9 | 1026.4 | 1026.4 |
| 22.5° | 1011.7 | 1009.9 | 1000.9 | 1007.3 | 1008.4 |
| 25° | 983.0 | 980.1 | 971.1 | 977.1 | 980.0 |
| 27.5° | 951.3 | 949.0 | 941.5 | 945.4 | 947.5 |
| 30° | 926.3 | 926.3 | 918.8 | 920.4 | 924.7 |
| 32.5° | 903.5 | 903.5 | 894.8 | 896.4 | 898.5 |
| 35° | 866.5 | 863.6 | 856.0 | 856.1 | 860.5 |
| 37.5° | 823.5 | 822.0 | 817.2 | 816.4 | 817.5 |
| 40° | 794.8 | 793.3 | 787.4 | 788.8 | 788.8 |
| 42.5° | 766.1 | 764.7 | 758.7 | 756.6 | 759.0 |
| 45° | 718.6 | 720.0 | 712.6 | 711.1 | 712.6 |
| 47.5° | 671.7 | 671.7 | 665.7 | 661.5 | 663.9 |
| 50° | 639.5 | 639.5 | 633.4 | 630.5 | 630.5 |
| 52.5° | 605.9 | 607.1 | 600.0 | 595.8 | 597.0 |
| 55° | 557.2 | 557.2 | 549.8 | 545.3 | 546.8 |
| 57.5° | 503.5 | 503.5 | 496.0 | 491.5 | 494.2 |
| 60° | 467.6 | 467.6 | 460.1 | 455.7 | 457.1 |
| 62.5° | 431.8 | 431.8 | 424.3 | 419.8 | 420.1 |
| 65° | 376.5 | 375.0 | 369.0 | 364.5 | 364.5 |
| 67.5° | 323.3 | 319.5 | 314.9 | 308.9 | 308.9 |
| 70° | 283.9 | 282.4 | 277.9 | 271.9 | 271.9 |
| 72.5° | 248.0 | 245.3 | 240.8 | 236.1 | 236.1 |
| 75° | 192.7 | 191.3 | 186.8 | 183.7 | 182.2 |
| 77.5° | 138.0 | 136.9 | 136.6 | 132.4 | 133.5 |
| 80° | 104.6 | 104.6 | 103.0 | 100.1 | 100.1 |
| 82.5° | 74.7 | 75.8 | 73.2 | 72.6 | 71.4 |
| 85° | 31.4 | 34.3 | 35.9 | 37.4 | 37.4 |
| 87.5° | 6.6 | 10.6 | 10.7 | 12.2 | 12.5 |
| 90° | 3.0 | 5.9 | 12.0 | 13.6 | 14.9 |
| 92.5° | 27.0 | 112.0 | 200.2 | 73.1 | 57.0 |
| 95° | 64.4 | 237.3 | 795.7 | 327.0 | 212.8 |
| 97.5° | 106.7 | 265.8 | 1178.7 | 907.5 | 657.2 |
| 100° | 137.9 | 282.9 | 1320.1 | 1329.4 | 1080.4 |
| 102.5° | 167.9 | 302.3 | 1347.7 | 1642.6 | 1406.5 |
| 105° | 215.7 | 333.0 | 1332.1 | 2033.7 | 1915.0 |
| 107.5° | 266.7 | 371.1 | 1257.8 | 2222.3 | 2265.7 |
| 110° | 302.7 | 396.5 | 1200.2 | 2262.8 | 2403.5 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 335.0 | 425.3 | 1146.3 | 2230.8 | 2438.3 |
| 115° | 386.6 | 467.2 | 1072.9 | 2124.0 | 2415.5 |
| 117.5° | 431.6 | 511.8 | 1024.6 | 1973.5 | 2305.2 |
| 120° | 461.6 | 540.6 | 1005.4 | 1871.7 | 2205.8 |
| 122.5° | 490.3 | 565.9 | 989.9 | 1776.5 | 2093.1 |
| 125° | 530.4 | 603.7 | 972.5 | 1645.8 | 1931.5 |
| 127.5° | 564.6 | 637.8 | 962.3 | 1535.3 | 1781.7 |
| 130° | 587.4 | 660.7 | 957.5 | 1467.6 | 1691.8 |
| 132.5° | 609.0 | 678.7 | 952.7 | 1410.7 | 1613.8 |
| 135° | 638.3 | 707.2 | 945.5 | 1333.0 | 1502.9 |
| 137.5° | 671.3 | 734.0 | 941.9 | 1267.7 | 1412.7 |
| 140° | 689.3 | 750.8 | 939.6 | 1224.2 | 1351.6 |
| 142.5° | 709.7 | 766.5 | 937.1 | 1185.4 | 1297.7 |
| 145° | 740.2 | 791.5 | 933.5 | 1134.8 | 1221.2 |
| 147.5° | 769.6 | 814.4 | 930.3 | 1092.1 | 1159.2 |
| 150° | 791.2 | 827.8 | 929.1 | 1066.7 | 1120.9 |
| 152.5° | 808.0 | 842.2 | 927.9 | 1044.8 | 1089.7 |
| 155° | 834.6 | 862.5 | 926.0 | 1018.2 | 1050.5 |
| 157.5° | 859.2 | 880.6 | 926.3 | 998.8 | 1020.8 |
| 160° | 873.6 | 892.7 | 927.6 | 987.8 | 1004.0 |
| 162.5° | 885.5 | 902.3 | 928.8 | 978.1 | 990.8 |
| 165° | 903.6 | 915.3 | 930.6 | 966.7 | 974.0 |
| 167.5° | 917.4 | 924.4 | 932.0 | 959.6 | 962.0 |
| 170° | 924.5 | 930.4 | 932.0 | 956.0 | 956.0 |
| 172.5° | 930.6 | 934.0 | 932.0 | 951.2 | 950.0 |
| 175° | 936.5 | 938.0 | 932.0 | 945.5 | 942.5 |
| 177.5° | 939.0 | 937.8 | 931.7 | 940.1 | 937.8 |
| 180° | 936.5 | 936.5 | 936.5 | 936.5 | 936.5 |

(END OF REPORT)