

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: P520378

Luminaire Tested: **SQ4-F-150U-050D-930-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520378
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, 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-150U-050D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

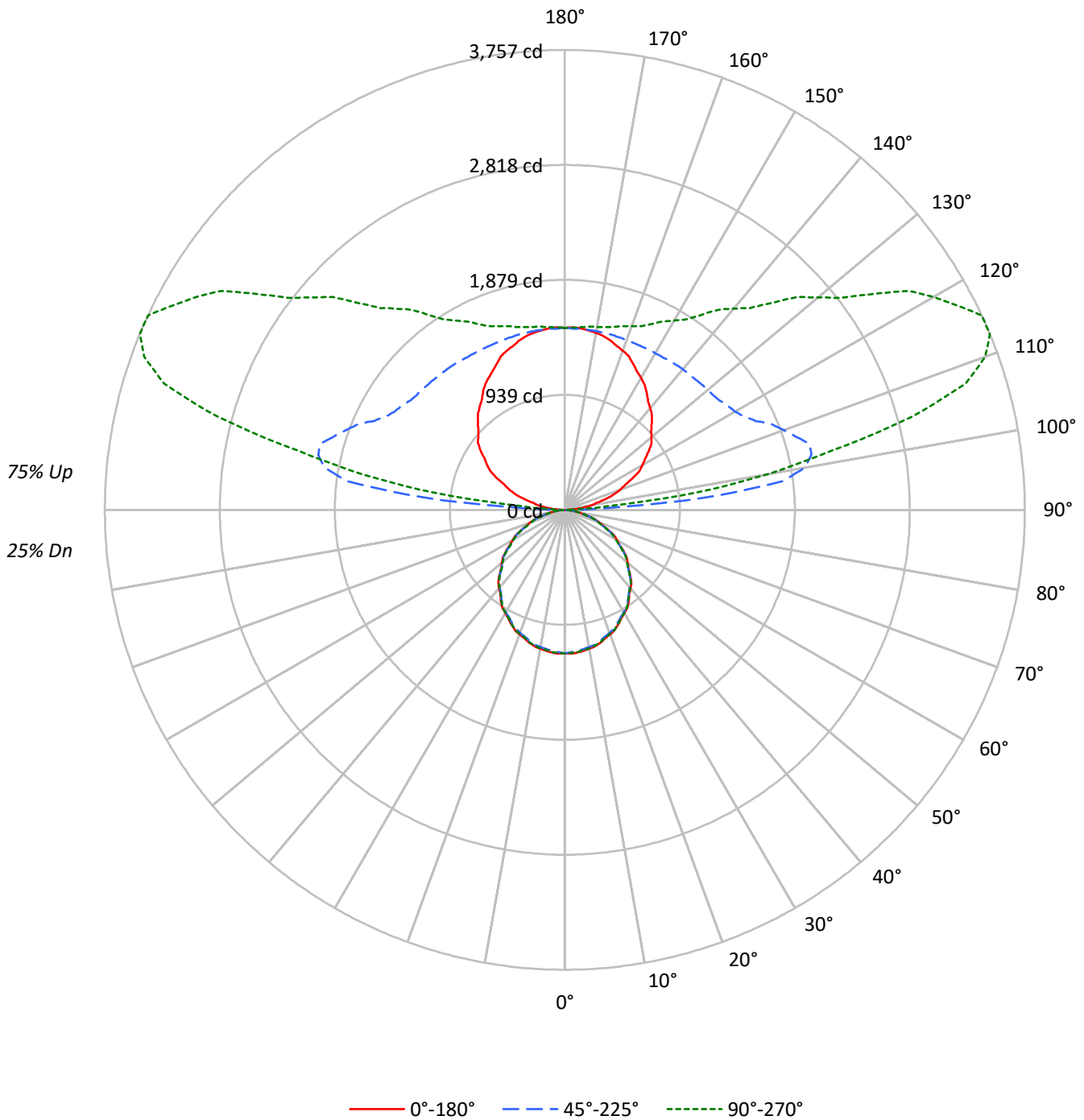
Lumens per Lamp: N/A
Luminaire Lumens: 12789.7 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 114.4
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 | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 51 | 51 | 51 | 33 | 33 | 33 | 25 |
| 1 | 92 | 88 | 84 | 81 | 82 | 79 | 75 | 73 | 61 | 59 | 57 | 44 | 43 | 42 | 29 | 29 | 28 | 21 |
| 2 | 84 | 77 | 71 | 66 | 74 | 69 | 64 | 59 | 53 | 50 | 47 | 39 | 37 | 35 | 26 | 25 | 23 | 18 |
| 3 | 76 | 67 | 60 | 55 | 68 | 60 | 54 | 49 | 47 | 43 | 39 | 34 | 32 | 29 | 23 | 21 | 20 | 15 |
| 4 | 70 | 59 | 52 | 46 | 62 | 53 | 47 | 42 | 41 | 37 | 33 | 30 | 27 | 25 | 20 | 18 | 17 | 13 |
| 5 | 64 | 53 | 45 | 39 | 57 | 47 | 41 | 36 | 37 | 32 | 29 | 27 | 24 | 22 | 18 | 16 | 15 | 11 |
| 6 | 59 | 47 | 39 | 34 | 52 | 42 | 36 | 31 | 33 | 28 | 25 | 24 | 21 | 19 | 16 | 14 | 13 | 10 |
| 7 | 54 | 42 | 35 | 29 | 48 | 38 | 31 | 27 | 30 | 25 | 22 | 22 | 19 | 16 | 15 | 13 | 11 | 8 |
| 8 | 50 | 38 | 31 | 26 | 44 | 34 | 28 | 23 | 27 | 22 | 19 | 20 | 17 | 15 | 14 | 12 | 10 | 8 |
| 9 | 47 | 35 | 28 | 23 | 41 | 31 | 25 | 21 | 25 | 20 | 17 | 18 | 15 | 13 | 13 | 11 | 9 | 7 |
| 10 | 43 | 32 | 25 | 20 | 39 | 29 | 23 | 18 | 23 | 18 | 15 | 17 | 14 | 12 | 12 | 10 | 8 | 6 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5408 | 5408 | 5408 |
| 5° | 5421 | 5355 | 5399 |
| 10° | 5403 | 5337 | 5374 |
| 15° | 5366 | 5299 | 5344 |
| 20° | 5316 | 5254 | 5293 |
| 25° | 5256 | 5192 | 5240 |
| 30° | 5182 | 5141 | 5174 |
| 35° | 5126 | 5064 | 5090 |
| 40° | 5028 | 4980 | 4990 |
| 45° | 4924 | 4883 | 4883 |
| 50° | 4821 | 4775 | 4752 |
| 55° | 4707 | 4645 | 4620 |
| 60° | 4532 | 4460 | 4430 |
| 65° | 4317 | 4231 | 4180 |
| 70° | 4022 | 3937 | 3853 |
| 75° | 3608 | 3495 | 3413 |
| 80° | 2917 | 2877 | 2792 |
| 85° | 1741 | 1995 | 2075 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 110.6 | 0.9 |
| 10°-20° | 315.0 | 2.5 |
| 20°-30° | 473.1 | 3.7 |
| 30°-40° | 564.7 | 4.4 |
| 40°-50° | 578.7 | 4.5 |
| 50°-60° | 516.1 | 4.0 |
| 60°-70° | 384.4 | 3.0 |
| 70°-80° | 208.7 | 1.6 |
| 80°-90° | 51.4 | 0.4 |
| 90°-100° | 691.0 | 5.4 |
| 100°-110° | 1868.5 | 14.6 |
| 110°-120° | 1964.4 | 15.4 |
| 120°-130° | 1595.7 | 12.5 |
| 130°-140° | 1251.7 | 9.8 |
| 140°-150° | 960.7 | 7.5 |
| 150°-160° | 690.9 | 5.4 |
| 160°-170° | 422.1 | 3.3 |
| 170°-180° | 142.3 | 1.1 |
| 0°-30° | 898.7 | 7.0 |
| 0°-40° | 1463.4 | 11.4 |
| 0°-60° | 2558.2 | 20.0 |
| 0°-90° | 3202.6 | 25.0 |
| 90°-120° | 4524.0 | 35.4 |
| 90°-150° | 8331.9 | 65.1 |
| 90°-180° | 9587.0 | 75.0 |
| 0°-180° | 12789.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1172 | 1172 | 1172 | 1172 | 1172 | |
| 5° | 1171 | 1169 | 1156 | 1168 | 1166 | 111 |
| 15° | 1124 | 1121 | 1110 | 1119 | 1119 | 317 |
| 25° | 1033 | 1030 | 1020 | 1026 | 1029 | 475 |
| 35° | 910 | 907 | 899 | 899 | 904 | 568 |
| 45° | 755 | 756 | 748 | 747 | 748 | 583 |
| 55° | 585 | 585 | 578 | 573 | 574 | 521 |
| 65° | 396 | 394 | 388 | 383 | 383 | 392 |
| 75° | 202 | 201 | 196 | 193 | 192 | 214 |
| 85° | 33 | 36 | 38 | 39 | 39 | 46 |
| 90° | 3 | 10 | 21 | 22 | 21 | 8 |
| 95° | 107 | 376 | 1149 | 595 | 354 | 112 |
| 105° | 347 | 537 | 2073 | 3058 | 2932 | 366 |
| 115° | 611 | 748 | 1719 | 3328 | 3757 | 604 |
| 125° | 837 | 959 | 1549 | 2615 | 3072 | 746 |
| 135° | 1004 | 1123 | 1508 | 2111 | 2390 | 776 |
| 145° | 1167 | 1254 | 1487 | 1807 | 1945 | 730 |
| 155° | 1317 | 1369 | 1474 | 1621 | 1674 | 608 |
| 165° | 1434 | 1448 | 1481 | 1538 | 1546 | 404 |
| 175° | 1489 | 1487 | 1482 | 1501 | 1498 | 141 |
| 180° | 1487 | 1487 | 1487 | 1487 | 1487 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1172.3 | 1172.3 | 1172.3 | 1172.3 | 1172.3 |
| 2.5° | 1176.1 | 1173.6 | 1163.4 | 1172.2 | 1171.0 |
| 5° | 1170.7 | 1169.2 | 1156.5 | 1167.5 | 1166.0 |
| 7.5° | 1162.3 | 1159.2 | 1146.9 | 1157.5 | 1156.0 |
| 10° | 1153.5 | 1150.3 | 1139.3 | 1148.7 | 1147.2 |
| 12.5° | 1142.1 | 1140.3 | 1128.0 | 1137.4 | 1137.1 |
| 15° | 1123.6 | 1120.6 | 1109.5 | 1118.9 | 1118.9 |
| 17.5° | 1099.2 | 1097.3 | 1086.6 | 1095.7 | 1094.4 |
| 20° | 1082.8 | 1079.7 | 1070.3 | 1078.2 | 1078.2 |
| 22.5° | 1062.8 | 1060.9 | 1051.4 | 1058.0 | 1059.3 |
| 25° | 1032.6 | 1029.5 | 1020.1 | 1026.4 | 1029.4 |
| 27.5° | 999.4 | 996.9 | 989.0 | 993.2 | 995.2 |
| 30° | 972.9 | 972.9 | 965.2 | 966.8 | 971.4 |
| 32.5° | 949.1 | 949.1 | 940.0 | 941.7 | 943.8 |
| 35° | 910.2 | 907.2 | 899.2 | 899.3 | 903.9 |
| 37.5° | 865.0 | 863.5 | 858.5 | 857.5 | 858.8 |
| 40° | 834.9 | 833.3 | 827.0 | 828.6 | 828.6 |
| 42.5° | 804.7 | 803.2 | 796.9 | 794.8 | 797.2 |
| 45° | 754.8 | 756.4 | 748.5 | 747.0 | 748.5 |
| 47.5° | 705.5 | 705.5 | 699.3 | 695.0 | 697.4 |
| 50° | 671.7 | 671.7 | 665.4 | 662.2 | 662.2 |
| 52.5° | 636.5 | 637.8 | 630.2 | 625.9 | 627.1 |
| 55° | 585.3 | 585.3 | 577.5 | 572.8 | 574.4 |
| 57.5° | 528.8 | 528.8 | 521.0 | 516.4 | 519.2 |
| 60° | 491.2 | 491.2 | 483.4 | 478.6 | 480.2 |
| 62.5° | 453.5 | 453.5 | 445.7 | 441.0 | 441.3 |
| 65° | 395.5 | 393.9 | 387.6 | 382.9 | 382.9 |
| 67.5° | 339.6 | 335.7 | 330.8 | 324.5 | 324.5 |
| 70° | 298.2 | 296.6 | 291.9 | 285.7 | 285.7 |
| 72.5° | 260.5 | 257.8 | 253.0 | 248.0 | 248.0 |
| 75° | 202.4 | 200.9 | 196.1 | 193.0 | 191.5 |
| 77.5° | 145.0 | 143.8 | 143.5 | 139.0 | 140.3 |
| 80° | 109.8 | 109.8 | 108.3 | 105.1 | 105.1 |
| 82.5° | 78.5 | 79.7 | 76.9 | 76.2 | 75.0 |
| 85° | 32.9 | 36.0 | 37.7 | 39.2 | 39.2 |
| 87.5° | 6.9 | 11.8 | 12.8 | 14.4 | 14.1 |
| 90° | 3.2 | 9.5 | 20.8 | 22.3 | 20.8 |
| 92.5° | 45.5 | 165.7 | 326.8 | 141.8 | 102.7 |
| 95° | 107.2 | 376.4 | 1149.2 | 594.7 | 353.7 |
| 97.5° | 172.2 | 431.7 | 1791.5 | 1482.5 | 1088.8 |
| 100° | 220.9 | 454.1 | 1991.1 | 2076.6 | 1679.1 |
| 102.5° | 265.7 | 485.1 | 2061.7 | 2527.0 | 2229.7 |
| 105° | 347.4 | 536.7 | 2072.8 | 3057.6 | 2932.3 |
| 107.5° | 422.9 | 595.6 | 1982.2 | 3388.6 | 3430.2 |
| 110° | 481.8 | 638.3 | 1901.5 | 3477.4 | 3654.2 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 534.3 | 680.8 | 1827.3 | 3459.7 | 3756.7 |
| 115° | 611.4 | 747.6 | 1719.1 | 3327.9 | 3756.7 |
| 117.5° | 687.0 | 814.7 | 1647.7 | 3126.5 | 3612.6 |
| 120° | 733.1 | 858.3 | 1605.5 | 2982.0 | 3478.2 |
| 122.5° | 776.6 | 899.4 | 1579.8 | 2827.2 | 3327.1 |
| 125° | 837.2 | 959.2 | 1549.4 | 2614.7 | 3071.6 |
| 127.5° | 892.8 | 1012.7 | 1531.5 | 2441.1 | 2843.0 |
| 130° | 923.6 | 1047.2 | 1523.8 | 2334.0 | 2697.0 |
| 132.5° | 955.6 | 1078.0 | 1516.1 | 2237.3 | 2571.6 |
| 135° | 1003.6 | 1122.6 | 1507.8 | 2111.2 | 2389.7 |
| 137.5° | 1052.0 | 1164.3 | 1500.7 | 2008.9 | 2235.8 |
| 140° | 1085.3 | 1190.1 | 1498.2 | 1943.0 | 2144.9 |
| 142.5° | 1117.2 | 1215.8 | 1493.1 | 1883.5 | 2060.4 |
| 145° | 1166.8 | 1254.5 | 1486.9 | 1807.1 | 1944.8 |
| 147.5° | 1212.0 | 1289.7 | 1479.9 | 1737.8 | 1843.6 |
| 150° | 1245.3 | 1314.1 | 1477.4 | 1700.2 | 1784.7 |
| 152.5° | 1276.0 | 1336.2 | 1476.1 | 1665.3 | 1734.7 |
| 155° | 1317.3 | 1368.9 | 1474.2 | 1621.0 | 1674.3 |
| 157.5° | 1360.2 | 1396.2 | 1474.5 | 1590.3 | 1625.3 |
| 160° | 1384.5 | 1414.3 | 1475.8 | 1570.7 | 1595.8 |
| 162.5° | 1403.8 | 1428.5 | 1477.1 | 1555.3 | 1574.1 |
| 165° | 1434.1 | 1448.2 | 1480.6 | 1538.4 | 1546.2 |
| 167.5° | 1455.0 | 1464.7 | 1480.9 | 1523.9 | 1527.7 |
| 170° | 1467.7 | 1472.5 | 1482.2 | 1517.4 | 1517.4 |
| 172.5° | 1478.0 | 1479.0 | 1482.2 | 1509.7 | 1508.5 |
| 175° | 1488.6 | 1487.0 | 1482.2 | 1501.3 | 1498.2 |
| 177.5° | 1492.1 | 1488.4 | 1481.9 | 1494.6 | 1490.9 |
| 180° | 1486.9 | 1486.9 | 1486.9 | 1486.9 | 1486.9 |

(END OF REPORT)