

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: P519450

Luminaire Tested: **SQ4-WB-100U-125D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519450
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-WB-100U-125D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

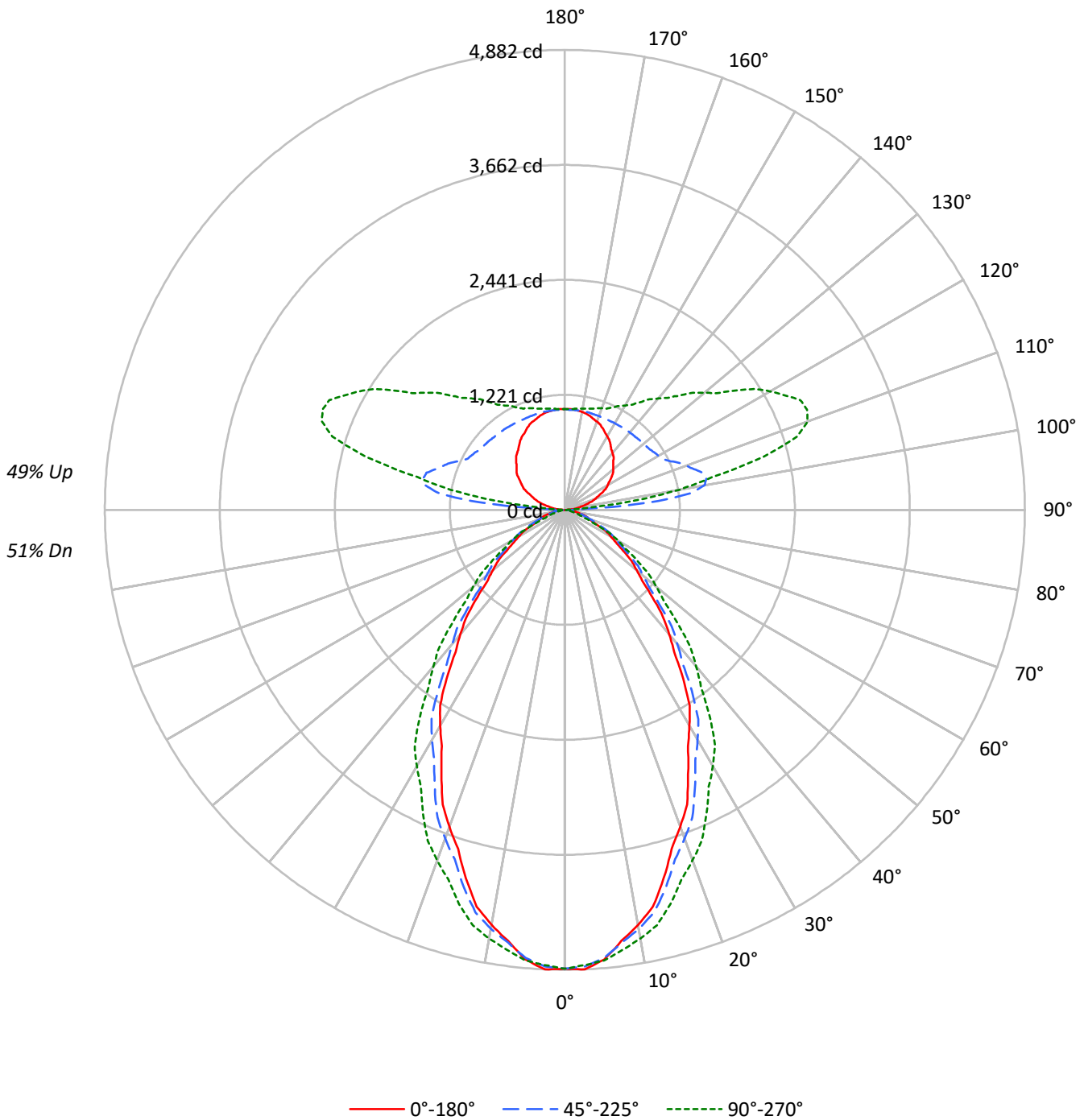
Lumens per Lamp: N/A
Luminaire Lumens: 14043.6 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 140.6
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





TEST NUMBER: P519450

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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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 70 | 70 | 70 | 57 | 57 | 57 | 51 | | | | 51 |
| 1 | 99 | 95 | 92 | 89 | 91 | 88 | 85 | 83 | 75 | 73 | 71 | 63 | 62 | 60 | 52 | 51 | 50 | | | | 45 | |
| 2 | 91 | 84 | 79 | 74 | 84 | 78 | 74 | 70 | 67 | 64 | 61 | 57 | 54 | 52 | 47 | 45 | 44 | | | | 40 | |
| 3 | 84 | 75 | 69 | 63 | 78 | 70 | 64 | 60 | 60 | 56 | 53 | 51 | 48 | 46 | 43 | 41 | 39 | | | | 35 | |
| 4 | 77 | 68 | 60 | 55 | 72 | 63 | 57 | 52 | 54 | 50 | 46 | 47 | 43 | 40 | 39 | 37 | 35 | | | | 31 | |
| 5 | 72 | 61 | 53 | 48 | 66 | 57 | 50 | 45 | 49 | 44 | 40 | 42 | 39 | 36 | 36 | 33 | 31 | | | | 28 | |
| 6 | 66 | 55 | 48 | 42 | 61 | 52 | 45 | 40 | 45 | 40 | 36 | 39 | 35 | 32 | 33 | 30 | 28 | | | | 25 | |
| 7 | 62 | 50 | 43 | 38 | 57 | 47 | 41 | 36 | 41 | 36 | 32 | 36 | 32 | 29 | 31 | 28 | 25 | | | | 23 | |
| 8 | 58 | 46 | 39 | 34 | 53 | 43 | 37 | 32 | 38 | 33 | 29 | 33 | 29 | 26 | 28 | 25 | 23 | | | | 21 | |
| 9 | 54 | 42 | 35 | 30 | 50 | 40 | 33 | 29 | 35 | 30 | 27 | 31 | 27 | 24 | 27 | 24 | 21 | | | | 19 | |
| 10 | 50 | 39 | 32 | 28 | 47 | 37 | 31 | 27 | 33 | 28 | 24 | 29 | 25 | 22 | 25 | 22 | 20 | | | | 18 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22469 | 22469 | 22469 |
| 5° | 22188 | 22109 | 22238 |
| 10° | 20963 | 21153 | 21644 |
| 15° | 19352 | 19801 | 20689 |
| 20° | 17573 | 18235 | 19441 |
| 25° | 15762 | 16622 | 18112 |
| 30° | 14094 | 15016 | 16735 |
| 35° | 12324 | 13215 | 15104 |
| 40° | 10373 | 11197 | 13076 |
| 45° | 8561 | 9300 | 10917 |
| 50° | 7147 | 7792 | 9095 |
| 55° | 6067 | 6687 | 7511 |
| 60° | 5186 | 5797 | 5994 |
| 65° | 4129 | 4876 | 3873 |
| 70° | 3661 | 3805 | 2363 |
| 75° | 3390 | 3085 | 1447 |
| 80° | 3121 | 2840 | 1249 |
| 85° | 2826 | 2604 | 1016 |



TEST NUMBER: P519450

CATALOG NUMBER: SQ4-WB-100U-125D-940-1D-UNV-STD-W-8

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 446.7 | 3.2 |
| 10°-20° | 1162.0 | 8.3 |
| 20°-30° | 1505.1 | 10.7 |
| 30°-40° | 1473.9 | 10.5 |
| 40°-50° | 1128.2 | 8.0 |
| 50°-60° | 751.8 | 5.4 |
| 60°-70° | 410.2 | 2.9 |
| 70°-80° | 170.9 | 1.2 |
| 80°-90° | 50.6 | 0.4 |
| 90°-100° | 500.5 | 3.6 |
| 100°-110° | 1381.7 | 9.8 |
| 110°-120° | 1425.0 | 10.1 |
| 120°-130° | 1145.1 | 8.2 |
| 130°-140° | 899.9 | 6.4 |
| 140°-150° | 690.2 | 4.9 |
| 150°-160° | 496.0 | 3.5 |
| 160°-170° | 303.4 | 2.2 |
| 170°-180° | 102.3 | 0.7 |
| 0°-30° | 3113.9 | 22.2 |
| 0°-40° | 4587.8 | 32.7 |
| 0°-60° | 6467.7 | 46.1 |
| 0°-90° | 7099.5 | 50.6 |
| 90°-120° | 3307.2 | 23.5 |
| 90°-150° | 6042.4 | 43.0 |
| 90°-180° | 6944.0 | 49.4 |
| 0°-180° | 14043.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4871 | 4871 | 4871 | 4871 | 4871 | |
| 5° | 4792 | 4743 | 4774 | 4786 | 4802 | 446 |
| 15° | 4052 | 4037 | 4146 | 4259 | 4332 | 1132 |
| 25° | 3097 | 3105 | 3266 | 3408 | 3558 | 1424 |
| 35° | 2188 | 2199 | 2347 | 2504 | 2682 | 1361 |
| 45° | 1312 | 1337 | 1426 | 1533 | 1673 | 1023 |
| 55° | 754 | 786 | 831 | 863 | 934 | 684 |
| 65° | 378 | 410 | 447 | 390 | 355 | 393 |
| 75° | 190 | 190 | 173 | 119 | 81 | 203 |
| 85° | 53 | 53 | 49 | 32 | 19 | 58 |
| 90° | 3 | 7 | 14 | 15 | 17 | 8 |
| 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: P519450

CATALOG NUMBER: SQ4-WB-100U-125D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4870.6 | 4870.6 | 4870.6 | 4870.6 | 4870.6 |
| 2.5° | 4882.5 | 4839.1 | 4850.0 | 4849.7 | 4836.4 |
| 5° | 4791.5 | 4743.4 | 4774.4 | 4785.5 | 4802.2 |
| 7.5° | 4613.7 | 4577.3 | 4633.8 | 4675.6 | 4709.4 |
| 10° | 4475.2 | 4443.8 | 4515.8 | 4576.6 | 4620.5 |
| 12.5° | 4314.5 | 4288.1 | 4377.3 | 4459.0 | 4516.2 |
| 15° | 4052.0 | 4037.4 | 4146.1 | 4258.9 | 4332.0 |
| 17.5° | 3771.2 | 3764.1 | 3888.8 | 4020.4 | 4114.0 |
| 20° | 3579.7 | 3577.6 | 3714.4 | 3851.5 | 3960.1 |
| 22.5° | 3386.5 | 3391.1 | 3534.8 | 3677.4 | 3801.1 |
| 25° | 3096.7 | 3105.1 | 3265.6 | 3407.9 | 3558.4 |
| 27.5° | 2828.7 | 2832.5 | 2998.4 | 3148.7 | 3309.2 |
| 30° | 2645.8 | 2656.2 | 2818.9 | 2974.4 | 3141.6 |
| 32.5° | 2462.9 | 2475.0 | 2634.3 | 2795.0 | 2965.5 |
| 35° | 2188.4 | 2198.9 | 2346.6 | 2504.5 | 2682.1 |
| 37.5° | 1905.5 | 1919.7 | 2050.8 | 2200.1 | 2374.8 |
| 40° | 1722.5 | 1743.4 | 1859.3 | 2000.0 | 2171.3 |
| 42.5° | 1546.4 | 1572.4 | 1679.8 | 1813.3 | 1967.9 |
| 45° | 1312.2 | 1337.3 | 1425.5 | 1533.4 | 1673.4 |
| 47.5° | 1110.5 | 1139.3 | 1207.1 | 1300.0 | 1419.5 |
| 50° | 995.9 | 1023.1 | 1085.7 | 1154.5 | 1267.3 |
| 52.5° | 895.0 | 922.2 | 978.0 | 1031.0 | 1127.1 |
| 55° | 754.4 | 785.8 | 831.4 | 862.9 | 933.9 |
| 57.5° | 639.0 | 669.1 | 705.3 | 719.5 | 762.5 |
| 60° | 562.1 | 595.5 | 628.3 | 626.7 | 649.7 |
| 62.5° | 492.0 | 520.4 | 553.1 | 530.5 | 531.7 |
| 65° | 378.3 | 409.6 | 446.7 | 390.3 | 354.8 |
| 67.5° | 305.6 | 312.3 | 350.5 | 272.2 | 230.0 |
| 70° | 271.4 | 271.4 | 282.1 | 210.8 | 175.2 |
| 72.5° | 238.9 | 238.9 | 229.1 | 171.4 | 134.2 |
| 75° | 190.2 | 190.2 | 173.1 | 118.8 | 81.2 |
| 77.5° | 146.6 | 144.9 | 132.5 | 88.7 | 59.0 |
| 80° | 117.5 | 117.5 | 106.9 | 70.0 | 47.0 |
| 82.5° | 91.9 | 91.9 | 82.9 | 54.7 | 35.0 |
| 85° | 53.4 | 53.4 | 49.2 | 31.8 | 19.2 |
| 87.5° | 19.5 | 20.2 | 19.8 | 13.3 | 12.0 |
| 90° | 3.4 | 6.8 | 13.7 | 15.4 | 17.1 |
| 92.5° | 30.8 | 127.8 | 228.5 | 83.4 | 65.0 |
| 95° | 73.5 | 270.8 | 908.0 | 373.2 | 242.8 |
| 97.5° | 121.7 | 303.3 | 1345.1 | 1035.6 | 750.0 |
| 100° | 157.3 | 322.8 | 1506.5 | 1517.1 | 1232.9 |
| 102.5° | 191.5 | 345.0 | 1537.9 | 1874.5 | 1605.0 |
| 105° | 246.2 | 380.0 | 1520.2 | 2320.8 | 2185.3 |
| 107.5° | 304.4 | 423.4 | 1435.3 | 2536.0 | 2585.5 |
| 110° | 345.4 | 452.4 | 1369.7 | 2582.3 | 2742.8 |

TEST NUMBER: P519450

CATALOG NUMBER: SQ4-WB-100U-125D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 382.3 | 485.3 | 1308.1 | 2545.7 | 2782.5 |
| 115° | 441.2 | 533.1 | 1224.3 | 2423.8 | 2756.5 |
| 117.5° | 492.5 | 584.1 | 1169.3 | 2252.1 | 2630.6 |
| 120° | 526.7 | 617.0 | 1147.4 | 2135.9 | 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 | 2033.2 |
| 130° | 670.3 | 753.9 | 1092.7 | 1674.7 | 1930.6 |
| 132.5° | 694.9 | 774.5 | 1087.2 | 1609.9 | 1841.6 |
| 135° | 728.4 | 807.0 | 1079.0 | 1521.2 | 1715.1 |
| 137.5° | 766.1 | 837.6 | 1074.9 | 1446.6 | 1612.2 |
| 140° | 786.6 | 856.8 | 1072.2 | 1396.9 | 1542.4 |
| 142.5° | 809.8 | 874.7 | 1069.4 | 1352.8 | 1480.8 |
| 145° | 844.7 | 903.2 | 1065.3 | 1295.0 | 1393.6 |
| 147.5° | 878.2 | 929.4 | 1061.5 | 1246.3 | 1322.8 |
| 150° | 902.9 | 944.7 | 1060.2 | 1217.2 | 1279.1 |
| 152.5° | 922.0 | 961.1 | 1058.8 | 1192.3 | 1243.5 |
| 155° | 952.5 | 984.2 | 1056.8 | 1161.9 | 1198.7 |
| 157.5° | 980.5 | 1004.9 | 1057.1 | 1139.8 | 1164.8 |
| 160° | 996.9 | 1018.6 | 1058.5 | 1127.3 | 1145.7 |
| 162.5° | 1010.6 | 1029.7 | 1059.8 | 1116.3 | 1130.6 |
| 165° | 1031.1 | 1044.5 | 1061.9 | 1103.1 | 1111.5 |
| 167.5° | 1046.8 | 1054.9 | 1063.6 | 1095.1 | 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° | 1068.7 | 1070.4 | 1063.6 | 1078.9 | 1075.6 |
| 177.5° | 1071.5 | 1070.1 | 1063.3 | 1072.8 | 1070.1 |
| 180° | 1068.7 | 1068.7 | 1068.7 | 1068.7 | 1068.7 |

(END OF REPORT)