

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: P522048

Luminaire Tested: SQ4-WB-150U-100D-92765-1D-UNV-STD-W-4_5700K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P522048
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-WB-150U-100D-92765-1D-UNV-STD-W-4_5700K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10663.9 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

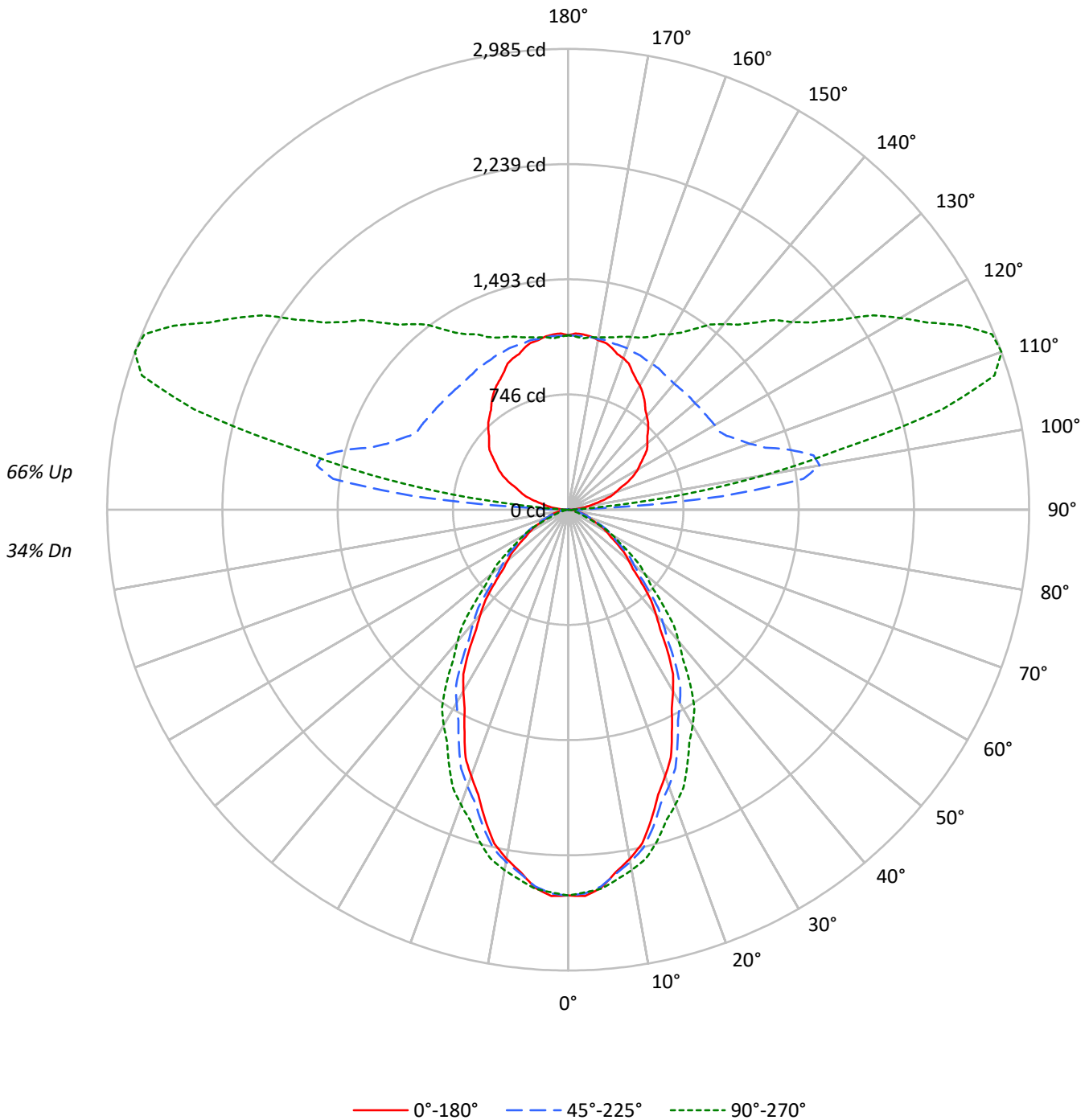
Input Watts (W): 93.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P522048

CATALOG NUMBER: SQ4-WB-150U-100D-92765-1D-UNV-STD-W-4_5700K

Luminous Intensity Polar Plot



TEST NUMBER: P522048

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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 | 75 | 75 | 75 | | 57 | 57 | 57 | | 42 | 42 | 42 | 34 |
| 1 | 95 | 91 | 88 | 84 | 86 | 82 | 80 | 77 | 66 | 64 | 63 | | 52 | 50 | 49 | | 38 | 37 | 37 | 30 |
| 2 | 87 | 80 | 75 | 70 | 79 | 73 | 68 | 64 | 59 | 56 | 53 | | 46 | 44 | 42 | | 34 | 33 | 32 | 27 |
| 3 | 80 | 71 | 65 | 59 | 72 | 65 | 59 | 55 | 53 | 49 | 46 | | 42 | 39 | 37 | | 31 | 30 | 28 | 24 |
| 4 | 74 | 64 | 56 | 51 | 66 | 58 | 52 | 47 | 47 | 43 | 40 | | 38 | 35 | 32 | | 28 | 27 | 25 | 21 |
| 5 | 68 | 57 | 50 | 44 | 61 | 52 | 46 | 41 | 43 | 38 | 35 | | 34 | 31 | 28 | | 26 | 24 | 22 | 19 |
| 6 | 63 | 51 | 44 | 39 | 57 | 47 | 41 | 36 | 39 | 34 | 31 | | 31 | 28 | 25 | | 24 | 22 | 20 | 17 |
| 7 | 58 | 47 | 39 | 34 | 53 | 43 | 36 | 32 | 35 | 31 | 27 | | 29 | 25 | 23 | | 22 | 20 | 18 | 15 |
| 8 | 54 | 43 | 35 | 30 | 49 | 39 | 33 | 28 | 32 | 28 | 24 | | 26 | 23 | 20 | | 20 | 18 | 17 | 14 |
| 9 | 50 | 39 | 32 | 27 | 46 | 36 | 30 | 25 | 30 | 25 | 22 | | 24 | 21 | 19 | | 19 | 17 | 15 | 13 |
| 10 | 47 | 36 | 29 | 25 | 43 | 33 | 27 | 23 | 28 | 23 | 20 | | 23 | 19 | 17 | | 18 | 16 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 23054 | 23054 | 23054 |
| 5° | 22766 | 22686 | 22817 |
| 10° | 21510 | 21705 | 22208 |
| 15° | 19857 | 20317 | 21229 |
| 20° | 18032 | 18710 | 19948 |
| 25° | 16174 | 17056 | 18585 |
| 30° | 14461 | 15407 | 17171 |
| 35° | 12646 | 13560 | 15498 |
| 40° | 10643 | 11489 | 13417 |
| 45° | 8784 | 9542 | 11202 |
| 50° | 7333 | 7995 | 9333 |
| 55° | 6225 | 6860 | 7707 |
| 60° | 5322 | 5949 | 6150 |
| 65° | 4237 | 5004 | 3973 |
| 70° | 3755 | 3903 | 2425 |
| 75° | 3479 | 3165 | 1486 |
| 80° | 3204 | 2912 | 1280 |
| 85° | 2901 | 2668 | 1048 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11202 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 229.2 | 2.1 |
| 10°-20° | 596.2 | 5.6 |
| 20°-30° | 772.2 | 7.2 |
| 30°-40° | 756.2 | 7.1 |
| 40°-50° | 578.8 | 5.4 |
| 50°-60° | 385.7 | 3.6 |
| 60°-70° | 210.5 | 2.0 |
| 70°-80° | 87.7 | 0.8 |
| 80°-90° | 24.8 | 0.2 |
| 90°-100° | 515.2 | 4.8 |
| 100°-110° | 1465.8 | 13.7 |
| 110°-120° | 1404.4 | 13.2 |
| 120°-130° | 1111.5 | 10.4 |
| 130°-140° | 892.2 | 8.4 |
| 140°-150° | 698.5 | 6.5 |
| 150°-160° | 511.1 | 4.8 |
| 160°-170° | 316.6 | 3.0 |
| 170°-180° | 107.4 | 1.0 |
| 0°-30° | 1597.6 | 15.0 |
| 0°-40° | 2353.7 | 22.1 |
| 0°-60° | 3318.2 | 31.1 |
| 0°-90° | 3641.2 | 34.1 |
| 90°-120° | 3385.4 | 31.7 |
| 90°-150° | 6087.6 | 57.1 |
| 90°-180° | 7023.0 | 65.9 |
| 0°-180° | 10663.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2499 | 2499 | 2499 | 2499 | 2499 | |
| 5° | 2458 | 2434 | 2450 | 2455 | 2464 | 229 |
| 15° | 2079 | 2071 | 2127 | 2185 | 2222 | 581 |
| 25° | 1589 | 1593 | 1675 | 1748 | 1826 | 731 |
| 35° | 1123 | 1128 | 1204 | 1285 | 1376 | 698 |
| 45° | 673 | 686 | 731 | 787 | 858 | 525 |
| 55° | 387 | 403 | 426 | 443 | 479 | 351 |
| 65° | 194 | 210 | 229 | 200 | 182 | 202 |
| 75° | 98 | 98 | 89 | 61 | 42 | 104 |
| 85° | 27 | 27 | 25 | 16 | 10 | 30 |
| 90° | 0 | 0 | 0 | 0 | 0 | 4 |
| 95° | 56 | 222 | 997 | 345 | 213 | 64 |
| 105° | 228 | 346 | 1494 | 2639 | 2508 | 241 |
| 115° | 423 | 512 | 1133 | 2400 | 2818 | 417 |
| 125° | 598 | 663 | 1081 | 1794 | 2145 | 535 |
| 135° | 731 | 792 | 1068 | 1516 | 1713 | 564 |
| 145° | 862 | 906 | 1077 | 1312 | 1429 | 538 |
| 155° | 984 | 1008 | 1103 | 1185 | 1234 | 455 |
| 165° | 1088 | 1092 | 1116 | 1140 | 1156 | 306 |
| 175° | 1139 | 1133 | 1128 | 1122 | 1113 | 108 |
| 180° | 1131 | 1131 | 1131 | 1131 | 1131 | |

TEST NUMBER: P522048

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2498.8 | 2498.8 | 2498.8 | 2498.8 | 2498.8 |
| 2.5° | 2504.9 | 2482.7 | 2488.3 | 2488.1 | 2481.3 |
| 5° | 2458.2 | 2433.6 | 2449.5 | 2455.1 | 2463.7 |
| 7.5° | 2367.0 | 2348.4 | 2377.3 | 2398.8 | 2416.1 |
| 10° | 2296.0 | 2279.9 | 2316.8 | 2348.0 | 2370.5 |
| 12.5° | 2213.5 | 2200.0 | 2245.7 | 2287.6 | 2317.0 |
| 15° | 2078.9 | 2071.4 | 2127.1 | 2185.0 | 2222.5 |
| 17.5° | 1934.8 | 1931.2 | 1995.1 | 2062.6 | 2110.7 |
| 20° | 1836.6 | 1835.5 | 1905.6 | 1976.0 | 2031.7 |
| 22.5° | 1737.4 | 1739.8 | 1813.5 | 1886.7 | 1950.1 |
| 25° | 1588.8 | 1593.0 | 1675.4 | 1748.4 | 1825.6 |
| 27.5° | 1451.3 | 1453.2 | 1538.3 | 1615.4 | 1697.7 |
| 30° | 1357.4 | 1362.8 | 1446.2 | 1526.0 | 1611.8 |
| 32.5° | 1263.5 | 1269.8 | 1351.5 | 1434.0 | 1521.4 |
| 35° | 1122.8 | 1128.1 | 1203.9 | 1284.9 | 1376.0 |
| 37.5° | 977.6 | 984.9 | 1052.2 | 1128.7 | 1218.4 |
| 40° | 883.7 | 894.5 | 953.9 | 1026.1 | 1114.0 |
| 42.5° | 793.4 | 806.7 | 861.8 | 930.3 | 1009.6 |
| 45° | 673.2 | 686.1 | 731.3 | 786.7 | 858.5 |
| 47.5° | 569.7 | 584.5 | 619.3 | 666.9 | 728.3 |
| 50° | 510.9 | 524.9 | 557.0 | 592.3 | 650.2 |
| 52.5° | 459.2 | 473.1 | 501.7 | 529.0 | 578.3 |
| 55° | 387.0 | 403.1 | 426.5 | 442.7 | 479.1 |
| 57.5° | 327.8 | 343.3 | 361.8 | 369.1 | 391.2 |
| 60° | 288.4 | 305.5 | 322.4 | 321.5 | 333.3 |
| 62.5° | 252.4 | 267.0 | 283.8 | 272.2 | 272.8 |
| 65° | 194.1 | 210.2 | 229.2 | 200.2 | 182.0 |
| 67.5° | 156.8 | 160.2 | 179.8 | 139.6 | 118.0 |
| 70° | 139.2 | 139.2 | 144.7 | 108.1 | 89.9 |
| 72.5° | 122.6 | 122.6 | 117.5 | 87.9 | 68.9 |
| 75° | 97.6 | 97.6 | 88.8 | 61.0 | 41.7 |
| 77.5° | 75.2 | 74.4 | 68.0 | 45.5 | 30.3 |
| 80° | 60.3 | 60.3 | 54.8 | 35.9 | 24.1 |
| 82.5° | 47.1 | 47.1 | 42.5 | 28.1 | 18.0 |
| 85° | 27.4 | 27.4 | 25.2 | 16.3 | 9.9 |
| 87.5° | 9.6 | 9.6 | 8.8 | 5.2 | 4.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 17.2 | 91.2 | 211.5 | 61.6 | 46.4 |
| 95° | 55.9 | 221.9 | 997.3 | 345.2 | 212.8 |
| 97.5° | 102.7 | 259.9 | 1535.9 | 1099.1 | 753.1 |
| 100° | 135.4 | 282.5 | 1652.8 | 1674.2 | 1289.6 |
| 102.5° | 171.5 | 306.9 | 1627.1 | 2143.0 | 1807.2 |
| 105° | 227.8 | 345.5 | 1493.8 | 2638.6 | 2508.3 |
| 107.5° | 285.0 | 390.5 | 1338.2 | 2778.3 | 2894.3 |
| 110° | 324.6 | 423.3 | 1248.8 | 2724.8 | 2985.4 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 362.4 | 456.1 | 1188.6 | 2598.4 | 2970.0 |
| 115° | 423.4 | 511.7 | 1132.7 | 2399.6 | 2817.8 |
| 117.5° | 477.2 | 560.0 | 1099.6 | 2182.2 | 2625.2 |
| 120° | 520.1 | 589.5 | 1096.2 | 2058.0 | 2482.5 |
| 122.5° | 554.5 | 623.9 | 1087.6 | 1949.0 | 2343.2 |
| 125° | 597.5 | 662.7 | 1081.1 | 1794.1 | 2145.0 |
| 127.5° | 644.4 | 705.3 | 1077.7 | 1701.5 | 1990.7 |
| 130° | 668.4 | 729.4 | 1072.5 | 1637.1 | 1889.3 |
| 132.5° | 694.2 | 753.5 | 1072.5 | 1586.8 | 1818.8 |
| 135° | 730.8 | 791.7 | 1068.2 | 1515.5 | 1713.0 |
| 137.5° | 765.2 | 824.4 | 1067.8 | 1455.1 | 1625.8 |
| 140° | 791.0 | 851.9 | 1066.1 | 1405.1 | 1569.0 |
| 142.5° | 820.2 | 871.0 | 1071.2 | 1365.2 | 1512.3 |
| 145° | 861.9 | 906.0 | 1076.8 | 1311.6 | 1429.3 |
| 147.5° | 897.6 | 940.4 | 1086.3 | 1257.5 | 1359.2 |
| 150° | 928.5 | 957.9 | 1089.7 | 1239.6 | 1311.1 |
| 152.5° | 952.6 | 983.7 | 1093.2 | 1215.5 | 1281.9 |
| 155° | 984.4 | 1007.5 | 1102.6 | 1185.4 | 1233.7 |
| 157.5° | 1023.9 | 1037.8 | 1104.8 | 1171.7 | 1206.2 |
| 160° | 1044.6 | 1055.1 | 1113.4 | 1161.3 | 1190.7 |
| 162.5° | 1056.6 | 1068.8 | 1115.1 | 1152.6 | 1175.3 |
| 165° | 1087.6 | 1091.8 | 1115.5 | 1139.5 | 1156.3 |
| 167.5° | 1108.6 | 1104.8 | 1125.4 | 1136.3 | 1143.0 |
| 170° | 1115.5 | 1113.4 | 1122.0 | 1124.3 | 1132.7 |
| 172.5° | 1131.0 | 1123.8 | 1127.1 | 1120.8 | 1127.5 |
| 175° | 1139.2 | 1132.8 | 1128.4 | 1121.8 | 1113.4 |
| 177.5° | 1142.6 | 1132.5 | 1127.1 | 1120.3 | 1122.0 |
| 180° | 1130.6 | 1130.6 | 1130.6 | 1130.6 | 1130.6 |

(END OF REPORT)