

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: P521292

Luminaire Tested: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521292
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8187.5 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

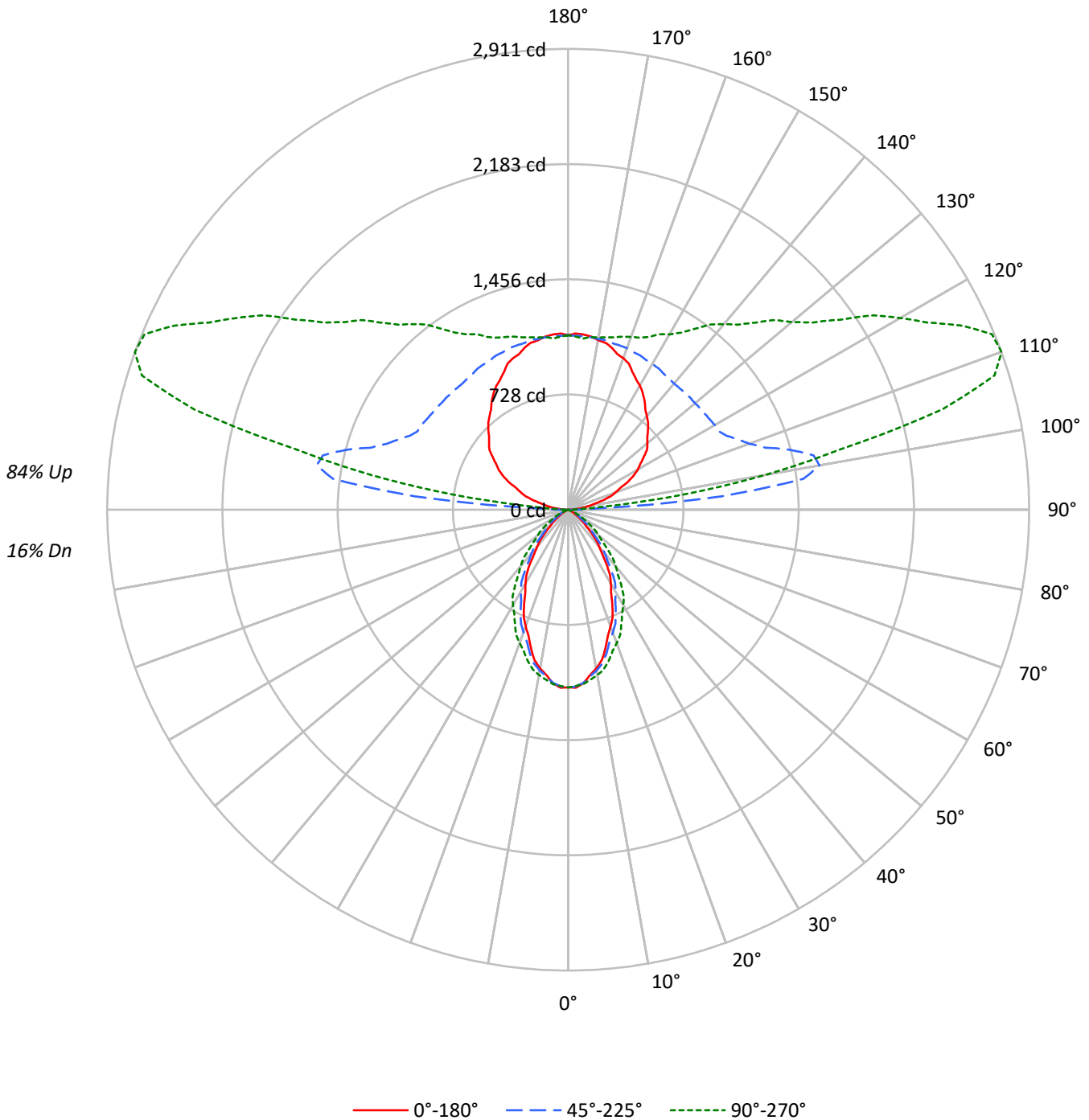
Input Watts (W): 71.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521292

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

Luminous Intensity Polar Plot



TEST NUMBER: P521292

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 99 | 99 | 99 | 99 | 87 | 87 | 87 | 87 | 65 | 65 | 65 | 44 | 44 | 44 | 25 | 25 | 25 | 16 | | | | | | | | | | | | | | | | | | | |
| 1 | 91 | 87 | 83 | 80 | 80 | 77 | 74 | 71 | 57 | 56 | 54 | 40 | 39 | 38 | 23 | 23 | 22 | 15 | | | | | | | | | | | | | | | | | | | |
| 2 | 83 | 77 | 71 | 67 | 73 | 68 | 63 | 59 | 51 | 48 | 46 | 35 | 34 | 32 | 21 | 20 | 20 | 13 | | | | | | | | | | | | | | | | | | | |
| 3 | 76 | 68 | 61 | 56 | 67 | 60 | 55 | 50 | 45 | 42 | 39 | 32 | 30 | 28 | 19 | 18 | 17 | 12 | | | | | | | | | | | | | | | | | | | |
| 4 | 70 | 60 | 53 | 48 | 61 | 53 | 48 | 43 | 41 | 37 | 34 | 29 | 26 | 24 | 18 | 16 | 16 | 11 | | | | | | | | | | | | | | | | | | | |
| 5 | 64 | 54 | 46 | 41 | 56 | 48 | 42 | 37 | 36 | 32 | 29 | 26 | 23 | 21 | 16 | 15 | 14 | 10 | | | | | | | | | | | | | | | | | | | |
| 6 | 59 | 48 | 41 | 36 | 52 | 43 | 37 | 32 | 33 | 29 | 26 | 24 | 21 | 19 | 15 | 14 | 13 | 9 | | | | | | | | | | | | | | | | | | | |
| 7 | 55 | 44 | 36 | 31 | 48 | 39 | 33 | 28 | 30 | 26 | 23 | 22 | 19 | 17 | 14 | 12 | 11 | 8 | | | | | | | | | | | | | | | | | | | |
| 8 | 51 | 40 | 32 | 28 | 45 | 35 | 29 | 25 | 27 | 23 | 20 | 20 | 17 | 15 | 13 | 11 | 10 | 8 | | | | | | | | | | | | | | | | | | | |
| 9 | 47 | 36 | 29 | 25 | 42 | 32 | 26 | 22 | 25 | 21 | 18 | 18 | 16 | 14 | 12 | 10 | 9 | 7 | | | | | | | | | | | | | | | | | | | |
| 10 | 44 | 33 | 26 | 22 | 39 | 30 | 24 | 20 | 23 | 19 | 16 | 17 | 14 | 12 | 11 | 10 | 9 | 7 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10357 | 10357 | 10357 |
| 5° | 10190 | 10165 | 10240 |
| 10° | 9535 | 9662 | 9932 |
| 15° | 8668 | 8943 | 9441 |
| 20° | 7695 | 8094 | 8804 |
| 25° | 6700 | 7232 | 8089 |
| 30° | 5740 | 6371 | 7412 |
| 35° | 4759 | 5407 | 6595 |
| 40° | 3657 | 4324 | 5619 |
| 45° | 2643 | 3274 | 4521 |
| 50° | 1801 | 2440 | 3585 |
| 55° | 1171 | 1765 | 2786 |
| 60° | 672 | 1242 | 2015 |
| 65° | 177 | 760 | 1020 |
| 70° | 89 | 235 | 294 |
| 75° | 39 | 18 | 0 |
| 80° | 27 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4521 cd/sqm

TEST NUMBER: P521292

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.4 | 1.3 |
| 10°-20° | 262.0 | 3.2 |
| 20°-30° | 328.0 | 4.0 |
| 30°-40° | 303.0 | 3.7 |
| 40°-50° | 203.6 | 2.5 |
| 50°-60° | 105.2 | 1.3 |
| 60°-70° | 32.9 | 0.4 |
| 70°-80° | 2.1 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 90°-100° | 502.4 | 6.1 |
| 100°-110° | 1429.4 | 17.5 |
| 110°-120° | 1369.6 | 16.7 |
| 120°-130° | 1083.9 | 13.2 |
| 130°-140° | 870.0 | 10.6 |
| 140°-150° | 681.1 | 8.3 |
| 150°-160° | 498.4 | 6.1 |
| 160°-170° | 308.7 | 3.8 |
| 170°-180° | 104.8 | 1.3 |
| 0°-30° | 692.4 | 8.5 |
| 0°-40° | 995.4 | 12.2 |
| 0°-60° | 1304.1 | 15.9 |
| 0°-90° | 1339.2 | 16.4 |
| 90°-120° | 3301.4 | 40.3 |
| 90°-150° | 5936.5 | 72.5 |
| 90°-180° | 6848.0 | 83.6 |
| 0°-180° | 8187.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1123 | 1123 | 1123 | 1123 | 1123 | |
| 5° | 1100 | 1089 | 1098 | 1102 | 1106 | 102 |
| 15° | 908 | 904 | 936 | 968 | 988 | 253 |
| 25° | 658 | 664 | 710 | 759 | 795 | 302 |
| 35° | 422 | 433 | 480 | 537 | 586 | 262 |
| 45° | 203 | 215 | 251 | 300 | 346 | 159 |
| 55° | 73 | 85 | 110 | 141 | 173 | 68 |
| 65° | 8 | 16 | 35 | 42 | 47 | 14 |
| 75° | 1 | 1 | 0 | 0 | 0 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 2 |
| 95° | 54 | 216 | 972 | 337 | 208 | 62 |
| 105° | 222 | 337 | 1457 | 2573 | 2446 | 235 |
| 115° | 413 | 499 | 1105 | 2340 | 2748 | 407 |
| 125° | 583 | 646 | 1054 | 1750 | 2092 | 522 |
| 135° | 713 | 772 | 1042 | 1478 | 1670 | 550 |
| 145° | 840 | 884 | 1050 | 1279 | 1394 | 525 |
| 155° | 960 | 982 | 1075 | 1156 | 1203 | 444 |
| 165° | 1061 | 1065 | 1088 | 1111 | 1128 | 298 |
| 175° | 1111 | 1105 | 1100 | 1094 | 1086 | 105 |
| 180° | 1102 | 1102 | 1102 | 1102 | 1102 | |

TEST NUMBER: P521292

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1122.6 | 1122.6 | 1122.6 | 1122.6 | 1122.6 |
| 2.5° | 1125.2 | 1114.6 | 1117.4 | 1117.3 | 1114.3 |
| 5° | 1100.3 | 1089.2 | 1097.6 | 1101.5 | 1105.7 |
| 7.5° | 1053.8 | 1045.1 | 1061.3 | 1073.5 | 1082.3 |
| 10° | 1017.8 | 1010.3 | 1031.3 | 1047.9 | 1060.1 |
| 12.5° | 976.1 | 970.3 | 995.7 | 1018.4 | 1034.1 |
| 15° | 907.5 | 904.3 | 936.3 | 967.7 | 988.4 |
| 17.5° | 834.1 | 834.0 | 870.5 | 909.5 | 934.5 |
| 20° | 783.7 | 785.3 | 824.4 | 867.4 | 896.7 |
| 22.5° | 733.3 | 737.0 | 778.8 | 823.7 | 857.1 |
| 25° | 658.2 | 663.5 | 710.4 | 759.0 | 794.6 |
| 27.5° | 586.1 | 593.9 | 643.1 | 693.7 | 737.0 |
| 30° | 538.8 | 547.8 | 598.0 | 651.1 | 695.7 |
| 32.5° | 492.3 | 503.0 | 551.9 | 608.1 | 653.6 |
| 35° | 422.5 | 433.2 | 480.1 | 536.6 | 585.5 |
| 37.5° | 350.5 | 360.9 | 406.8 | 462.4 | 515.2 |
| 40° | 303.6 | 315.3 | 359.0 | 412.9 | 466.5 |
| 42.5° | 261.0 | 272.7 | 313.8 | 366.8 | 417.4 |
| 45° | 202.6 | 214.8 | 250.9 | 299.8 | 346.5 |
| 47.5° | 154.1 | 167.4 | 199.1 | 243.3 | 285.9 |
| 50° | 125.5 | 138.7 | 170.0 | 208.9 | 249.8 |
| 52.5° | 102.4 | 115.3 | 143.5 | 180.2 | 217.7 |
| 55° | 72.8 | 85.0 | 109.7 | 140.9 | 173.2 |
| 57.5° | 50.3 | 60.8 | 83.0 | 109.0 | 134.4 |
| 60° | 36.4 | 46.5 | 67.3 | 88.5 | 109.2 |
| 62.5° | 24.2 | 33.5 | 53.9 | 70.1 | 84.0 |
| 65° | 8.1 | 15.6 | 34.8 | 41.9 | 46.7 |
| 67.5° | 4.1 | 5.0 | 18.2 | 19.3 | 20.9 |
| 70° | 3.3 | 3.3 | 8.7 | 9.3 | 10.9 |
| 72.5° | 2.4 | 2.4 | 3.5 | 4.5 | 4.8 |
| 75° | 1.1 | 1.1 | 0.5 | 0.0 | 0.0 |
| 77.5° | 0.5 | 0.5 | 0.4 | 0.0 | 0.0 |
| 80° | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 16.8 | 88.9 | 206.2 | 60.0 | 45.3 |
| 95° | 54.5 | 216.4 | 972.5 | 336.6 | 207.5 |
| 97.5° | 100.2 | 253.5 | 1497.8 | 1071.8 | 734.4 |
| 100° | 132.0 | 275.5 | 1611.8 | 1632.6 | 1257.6 |
| 102.5° | 167.3 | 299.2 | 1586.6 | 2089.8 | 1762.3 |
| 105° | 222.2 | 336.9 | 1456.7 | 2573.1 | 2446.0 |
| 107.5° | 277.9 | 380.8 | 1305.0 | 2709.3 | 2822.4 |
| 110° | 316.5 | 412.8 | 1217.8 | 2657.2 | 2911.3 |

TEST NUMBER: P521292

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4_4500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 353.4 | 444.8 | 1159.1 | 2533.9 | 2896.2 |
| 115° | 412.9 | 499.0 | 1104.6 | 2340.0 | 2747.8 |
| 117.5° | 465.3 | 546.1 | 1072.3 | 2128.0 | 2560.0 |
| 120° | 507.2 | 574.9 | 1068.9 | 2006.9 | 2420.8 |
| 122.5° | 540.8 | 608.4 | 1060.6 | 1900.6 | 2285.0 |
| 125° | 582.7 | 646.2 | 1054.3 | 1749.5 | 2091.8 |
| 127.5° | 628.4 | 687.8 | 1050.9 | 1659.3 | 1941.3 |
| 130° | 651.8 | 711.3 | 1045.9 | 1596.4 | 1842.4 |
| 132.5° | 677.0 | 734.8 | 1045.9 | 1547.4 | 1773.6 |
| 135° | 712.6 | 772.1 | 1041.7 | 1477.8 | 1670.5 |
| 137.5° | 746.2 | 804.0 | 1041.3 | 1419.0 | 1585.4 |
| 140° | 771.3 | 830.7 | 1039.6 | 1370.2 | 1530.1 |
| 142.5° | 799.8 | 849.4 | 1044.6 | 1331.3 | 1474.7 |
| 145° | 840.5 | 883.5 | 1050.1 | 1279.1 | 1393.8 |
| 147.5° | 875.3 | 917.1 | 1059.3 | 1226.3 | 1325.5 |
| 150° | 905.5 | 934.2 | 1062.7 | 1208.9 | 1278.5 |
| 152.5° | 928.9 | 959.3 | 1066.0 | 1185.3 | 1250.0 |
| 155° | 960.0 | 982.5 | 1075.2 | 1156.0 | 1203.1 |
| 157.5° | 998.5 | 1012.0 | 1077.3 | 1142.6 | 1176.3 |
| 160° | 1018.6 | 1028.9 | 1085.7 | 1132.5 | 1161.2 |
| 162.5° | 1030.4 | 1042.3 | 1087.4 | 1123.9 | 1146.1 |
| 165° | 1060.6 | 1064.7 | 1087.8 | 1111.2 | 1127.6 |
| 167.5° | 1081.1 | 1077.4 | 1097.4 | 1108.1 | 1114.6 |
| 170° | 1087.8 | 1085.8 | 1094.1 | 1096.4 | 1104.6 |
| 172.5° | 1102.9 | 1095.9 | 1099.1 | 1093.0 | 1099.5 |
| 175° | 1110.9 | 1104.7 | 1100.4 | 1093.9 | 1085.7 |
| 177.5° | 1114.2 | 1104.4 | 1099.1 | 1092.5 | 1094.1 |
| 180° | 1102.5 | 1102.5 | 1102.5 | 1102.5 | 1102.5 |

(END OF REPORT)