

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: P521670

Luminaire Tested: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521670
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-37)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10191.2 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

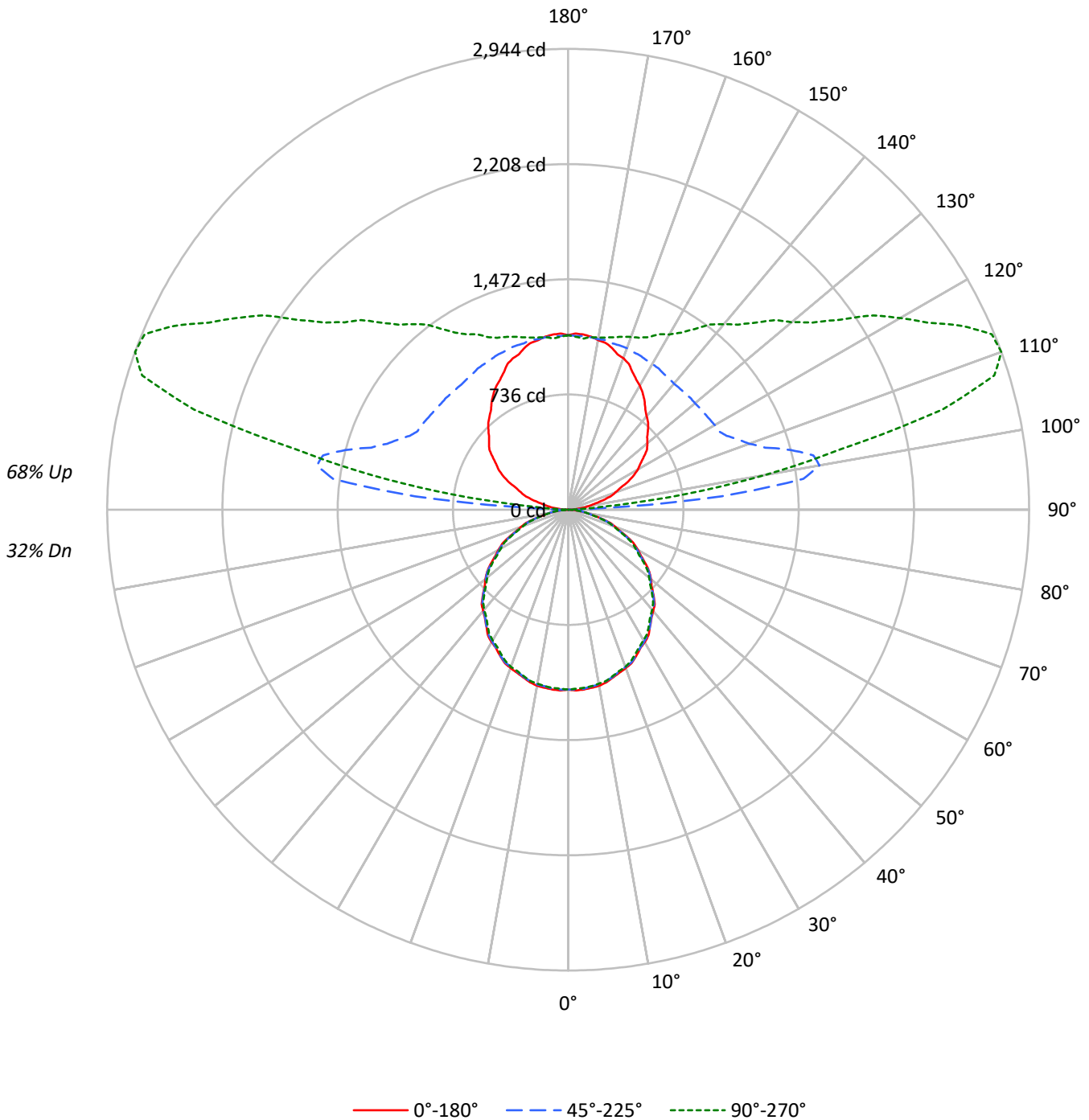
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521670

CATALOG NUMBER: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K

Luminous Intensity Polar Plot



TEST NUMBER: P521670

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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 | 73 | 73 | 73 | | 56 | 56 | 56 | | 40 | 40 | 40 | 32 |
| 1 | 94 | 89 | 86 | 82 | 84 | 81 | 77 | 75 | 64 | 62 | 60 | | 49 | 47 | 46 | | 35 | 34 | 33 | 27 |
| 2 | 85 | 78 | 72 | 67 | 76 | 70 | 65 | 61 | 56 | 52 | 49 | | 43 | 40 | 38 | | 31 | 29 | 28 | 22 |
| 3 | 78 | 68 | 61 | 56 | 70 | 62 | 56 | 51 | 49 | 45 | 41 | | 38 | 35 | 32 | | 27 | 25 | 24 | 19 |
| 4 | 71 | 60 | 53 | 47 | 63 | 55 | 48 | 43 | 44 | 39 | 35 | | 33 | 30 | 27 | | 24 | 22 | 20 | 16 |
| 5 | 65 | 54 | 46 | 40 | 58 | 48 | 42 | 36 | 39 | 34 | 30 | | 30 | 26 | 24 | | 22 | 19 | 17 | 14 |
| 6 | 60 | 48 | 40 | 34 | 53 | 43 | 37 | 31 | 35 | 30 | 26 | | 27 | 23 | 21 | | 19 | 17 | 15 | 12 |
| 7 | 55 | 43 | 35 | 30 | 49 | 39 | 32 | 27 | 31 | 26 | 23 | | 24 | 21 | 18 | | 18 | 15 | 14 | 11 |
| 8 | 51 | 39 | 31 | 26 | 46 | 35 | 29 | 24 | 29 | 24 | 20 | | 22 | 19 | 16 | | 16 | 14 | 12 | 10 |
| 9 | 47 | 35 | 28 | 23 | 43 | 32 | 26 | 21 | 26 | 21 | 18 | | 20 | 17 | 14 | | 15 | 13 | 11 | 9 |
| 10 | 44 | 32 | 25 | 21 | 40 | 29 | 23 | 19 | 24 | 19 | 16 | | 19 | 15 | 13 | | 14 | 11 | 10 | 8 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10598 | 10598 | 10598 |
| 5° | 10678 | 10639 | 10580 |
| 10° | 10703 | 10624 | 10575 |
| 15° | 10592 | 10553 | 10502 |
| 20° | 10569 | 10498 | 10487 |
| 25° | 10479 | 10458 | 10341 |
| 30° | 10410 | 10342 | 10265 |
| 35° | 10263 | 10252 | 10122 |
| 40° | 10169 | 10118 | 10054 |
| 45° | 10047 | 9992 | 9882 |
| 50° | 9911 | 9835 | 9700 |
| 55° | 9727 | 9609 | 9474 |
| 60° | 9497 | 9342 | 9169 |
| 65° | 9182 | 8975 | 8815 |
| 70° | 8608 | 8411 | 8211 |
| 75° | 7757 | 7532 | 7422 |
| 80° | 6339 | 6392 | 6280 |
| 85° | 4541 | 5208 | 5208 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10047 cd/sqm

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CATALOG NUMBER: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 108.8 | 1.1 |
| 10°-20° | 311.3 | 3.1 |
| 20°-30° | 471.0 | 4.6 |
| 30°-40° | 566.5 | 5.6 |
| 40°-50° | 588.1 | 5.8 |
| 50°-60° | 532.8 | 5.2 |
| 60°-70° | 405.3 | 4.0 |
| 70°-80° | 225.3 | 2.2 |
| 80°-90° | 58.0 | 0.6 |
| 90°-100° | 507.9 | 5.0 |
| 100°-110° | 1445.2 | 14.2 |
| 110°-120° | 1384.7 | 13.6 |
| 120°-130° | 1095.9 | 10.8 |
| 130°-140° | 879.7 | 8.6 |
| 140°-150° | 688.7 | 6.8 |
| 150°-160° | 503.9 | 4.9 |
| 160°-170° | 312.1 | 3.1 |
| 170°-180° | 105.9 | 1.0 |
| 0°-30° | 891.1 | 8.7 |
| 0°-40° | 1457.6 | 14.3 |
| 0°-60° | 2578.5 | 25.3 |
| 0°-90° | 3267.2 | 32.1 |
| 90°-120° | 3337.9 | 32.8 |
| 90°-150° | 6002.1 | 58.9 |
| 90°-180° | 6924.0 | 67.9 |
| 0°-180° | 10191.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1149 | 1149 | 1149 | 1149 | 1149 | |
| 5° | 1153 | 1143 | 1149 | 1143 | 1142 | 110 |
| 15° | 1109 | 1100 | 1105 | 1104 | 1100 | 314 |
| 25° | 1029 | 1020 | 1027 | 1017 | 1016 | 474 |
| 35° | 911 | 907 | 910 | 900 | 899 | 571 |
| 45° | 770 | 765 | 766 | 757 | 757 | 594 |
| 55° | 605 | 604 | 597 | 592 | 589 | 540 |
| 65° | 421 | 414 | 411 | 405 | 404 | 414 |
| 75° | 218 | 214 | 211 | 209 | 208 | 230 |
| 85° | 43 | 46 | 49 | 49 | 49 | 53 |
| 90° | 0 | 0 | 0 | 0 | 0 | 4 |
| 95° | 55 | 219 | 983 | 340 | 210 | 63 |
| 105° | 225 | 341 | 1473 | 2602 | 2473 | 238 |
| 115° | 418 | 504 | 1117 | 2366 | 2778 | 411 |
| 125° | 589 | 653 | 1066 | 1769 | 2115 | 527 |
| 135° | 720 | 781 | 1053 | 1494 | 1689 | 556 |
| 145° | 850 | 893 | 1062 | 1293 | 1409 | 531 |
| 155° | 971 | 993 | 1087 | 1169 | 1216 | 449 |
| 165° | 1072 | 1076 | 1100 | 1124 | 1140 | 302 |
| 175° | 1123 | 1117 | 1113 | 1106 | 1098 | 106 |
| 180° | 1115 | 1115 | 1115 | 1115 | 1115 | |

TEST NUMBER: P521670

CATALOG NUMBER: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1148.7 | 1148.7 | 1148.7 | 1148.7 | 1148.7 |
| 2.5° | 1156.2 | 1146.4 | 1149.5 | 1147.0 | 1144.5 |
| 5° | 1152.9 | 1142.7 | 1148.7 | 1143.4 | 1142.4 |
| 7.5° | 1147.4 | 1135.4 | 1138.2 | 1137.2 | 1137.2 |
| 10° | 1142.4 | 1127.1 | 1134.0 | 1128.8 | 1128.8 |
| 12.5° | 1129.0 | 1116.1 | 1121.5 | 1118.8 | 1120.4 |
| 15° | 1108.9 | 1099.7 | 1104.8 | 1103.6 | 1099.5 |
| 17.5° | 1091.6 | 1080.5 | 1084.3 | 1082.3 | 1080.7 |
| 20° | 1076.5 | 1066.3 | 1069.2 | 1064.0 | 1068.1 |
| 22.5° | 1059.8 | 1049.5 | 1055.0 | 1046.4 | 1046.4 |
| 25° | 1029.4 | 1020.2 | 1027.3 | 1016.9 | 1015.8 |
| 27.5° | 997.2 | 991.3 | 996.0 | 988.1 | 985.3 |
| 30° | 977.1 | 967.9 | 970.8 | 965.6 | 963.5 |
| 32.5° | 953.7 | 944.5 | 947.4 | 938.0 | 939.3 |
| 35° | 911.2 | 907.1 | 910.2 | 899.7 | 898.7 |
| 37.5° | 872.7 | 864.5 | 869.4 | 860.8 | 860.0 |
| 40° | 844.3 | 836.1 | 840.1 | 834.8 | 834.8 |
| 42.5° | 818.3 | 809.3 | 811.6 | 804.7 | 802.2 |
| 45° | 770.0 | 764.9 | 765.8 | 757.4 | 757.4 |
| 47.5° | 722.3 | 718.6 | 717.0 | 708.5 | 710.1 |
| 50° | 690.5 | 684.3 | 685.2 | 675.8 | 675.8 |
| 52.5° | 653.6 | 654.1 | 650.1 | 643.9 | 639.0 |
| 55° | 604.7 | 603.7 | 597.4 | 592.1 | 589.0 |
| 57.5° | 552.4 | 547.7 | 543.2 | 536.0 | 535.4 |
| 60° | 514.7 | 511.6 | 506.3 | 500.0 | 496.9 |
| 62.5° | 476.2 | 473.1 | 467.8 | 462.4 | 461.8 |
| 65° | 420.6 | 414.4 | 411.1 | 404.8 | 403.8 |
| 67.5° | 360.1 | 355.2 | 351.1 | 346.1 | 345.4 |
| 70° | 319.1 | 315.0 | 311.8 | 307.5 | 304.4 |
| 72.5° | 281.4 | 274.9 | 271.6 | 268.2 | 265.9 |
| 75° | 217.6 | 214.5 | 211.3 | 209.2 | 208.2 |
| 77.5° | 156.1 | 156.3 | 156.3 | 153.6 | 152.5 |
| 80° | 119.3 | 120.3 | 120.3 | 119.2 | 118.2 |
| 82.5° | 86.6 | 88.5 | 89.3 | 88.3 | 88.1 |
| 85° | 42.9 | 46.0 | 49.2 | 49.2 | 49.2 |
| 87.5° | 11.7 | 15.8 | 19.2 | 20.1 | 19.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 17.0 | 89.9 | 208.5 | 60.7 | 45.8 |
| 95° | 55.1 | 218.8 | 983.3 | 340.3 | 209.8 |
| 97.5° | 101.3 | 256.3 | 1514.4 | 1083.6 | 742.6 |
| 100° | 133.5 | 278.6 | 1629.6 | 1650.7 | 1271.5 |
| 102.5° | 169.1 | 302.6 | 1604.2 | 2112.9 | 1781.8 |
| 105° | 224.6 | 340.7 | 1472.8 | 2601.5 | 2473.1 |
| 107.5° | 281.0 | 385.0 | 1319.4 | 2739.3 | 2853.7 |
| 110° | 320.0 | 417.4 | 1231.2 | 2686.6 | 2943.5 |

TEST NUMBER: P521670

CATALOG NUMBER: SQ4-F-150U-075D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 357.3 | 449.7 | 1171.9 | 2561.9 | 2928.3 |
| 115° | 417.5 | 504.5 | 1116.8 | 2365.9 | 2778.2 |
| 117.5° | 470.5 | 552.1 | 1084.2 | 2151.6 | 2588.3 |
| 120° | 512.8 | 581.2 | 1080.8 | 2029.1 | 2447.6 |
| 122.5° | 546.7 | 615.1 | 1072.3 | 1921.6 | 2310.3 |
| 125° | 589.1 | 653.4 | 1065.9 | 1768.9 | 2114.9 |
| 127.5° | 635.3 | 695.4 | 1062.5 | 1677.6 | 1962.8 |
| 130° | 659.1 | 719.1 | 1057.5 | 1614.1 | 1862.7 |
| 132.5° | 684.5 | 742.9 | 1057.5 | 1564.5 | 1793.2 |
| 135° | 720.5 | 780.6 | 1053.2 | 1494.2 | 1689.0 |
| 137.5° | 754.4 | 812.9 | 1052.8 | 1434.7 | 1602.9 |
| 140° | 779.9 | 839.9 | 1051.1 | 1385.4 | 1547.0 |
| 142.5° | 808.7 | 858.8 | 1056.2 | 1346.0 | 1491.0 |
| 145° | 849.8 | 893.3 | 1061.7 | 1293.2 | 1409.2 |
| 147.5° | 885.0 | 927.2 | 1071.0 | 1239.9 | 1340.2 |
| 150° | 915.5 | 944.5 | 1074.4 | 1222.2 | 1292.7 |
| 152.5° | 939.2 | 969.9 | 1077.8 | 1198.4 | 1263.9 |
| 155° | 970.6 | 993.4 | 1087.1 | 1168.7 | 1216.4 |
| 157.5° | 1009.6 | 1023.2 | 1089.2 | 1155.3 | 1189.3 |
| 160° | 1029.9 | 1040.3 | 1097.7 | 1145.0 | 1174.0 |
| 162.5° | 1041.8 | 1053.8 | 1099.4 | 1136.4 | 1158.8 |
| 165° | 1072.3 | 1076.4 | 1099.8 | 1123.5 | 1140.1 |
| 167.5° | 1093.1 | 1089.3 | 1109.6 | 1120.3 | 1127.0 |
| 170° | 1099.8 | 1097.8 | 1106.2 | 1108.5 | 1116.8 |
| 172.5° | 1115.1 | 1108.1 | 1111.3 | 1105.1 | 1111.7 |
| 175° | 1123.2 | 1116.9 | 1112.6 | 1106.0 | 1097.7 |
| 177.5° | 1126.5 | 1116.6 | 1111.3 | 1104.5 | 1106.2 |
| 180° | 1114.7 | 1114.7 | 1114.7 | 1114.7 | 1114.7 |

(END OF REPORT)