

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: P853866

Luminaire Tested: SQ2-FB-0U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853866  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-0U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

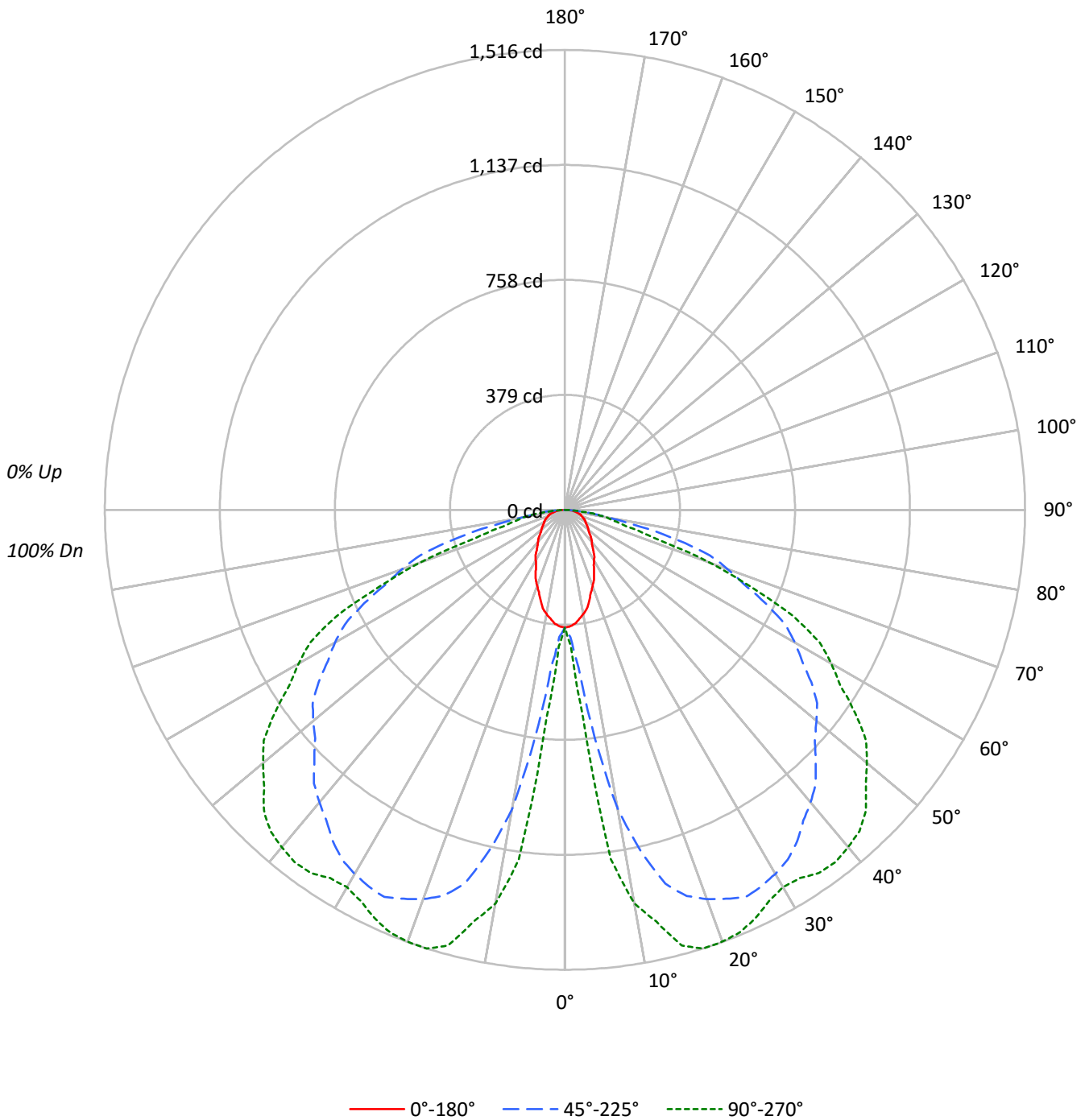
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3834.1 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
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





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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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |   |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 84  |    |    |    |   |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |    |    |    |   |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 61  | 71  | 65  | 60  | 68  | 63  | 59  | 57  |    |    |    |   |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 52  | 65  | 57  | 52  | 63  | 56  | 51  | 60  | 55  | 50  | 48  |    |    |    |   |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 45  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 41  |    |    |    |   |
| 6   | 68  | 54  | 45  | 39  | 66  | 53  | 45  | 38  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 35  |    |    |    |   |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 33  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 37  | 33  | 31  |    |    |    |   |
| 8   | 58  | 44  | 36  | 30  | 57  | 44  | 35  | 29  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |    |    |    |   |
| 9   | 54  | 40  | 32  | 26  | 53  | 40  | 32  | 26  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 24  |    |    |    |   |
| 10  | 51  | 37  | 29  | 23  | 49  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 23  | 34  | 28  | 23  | 21  |    |    |    |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°   | 90°   |
|-----|------|-------|-------|
| 0°  | 6265 | 6265  | 6265  |
| 5°  | 6107 | 8465  | 11096 |
| 10° | 5719 | 16393 | 21592 |
| 15° | 5177 | 21329 | 24852 |
| 20° | 4584 | 23462 | 26027 |
| 25° | 4055 | 25091 | 26453 |
| 30° | 3581 | 25840 | 26780 |
| 35° | 3199 | 26290 | 28791 |
| 40° | 2909 | 26540 | 30589 |
| 45° | 2683 | 26665 | 32031 |
| 50° | 2529 | 27178 | 32614 |
| 55° | 2469 | 27885 | 32873 |
| 60° | 2528 | 28252 | 32708 |
| 65° | 2636 | 27866 | 31786 |
| 70° | 2729 | 26946 | 24043 |
| 75° | 3026 | 24205 | 13269 |
| 80° | 3124 | 12487 | 12311 |
| 85° | 3112 | 8633  | 5187  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 33169 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.0   | 1.7       |
| 10°-20°   | 296.7  | 7.7       |
| 20°-30°   | 522.1  | 13.6      |
| 30°-40°   | 675.8  | 17.6      |
| 40°-50°   | 745.3  | 19.4      |
| 50°-60°   | 695.9  | 18.1      |
| 60°-70°   | 537.9  | 14.0      |
| 70°-80°   | 248.1  | 6.5       |
| 80°-90°   | 47.4   | 1.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 883.8  | 23.1      |
| 0°-40°    | 1559.6 | 40.7      |
| 0°-60°    | 3000.8 | 78.3      |
| 0°-90°    | 3834.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3834.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|-----|-------|------|-------|------|------|
| 0°  | 388 | 388   | 388  | 388   | 388  |      |
| 5°  | 377 | 432   | 522  | 637   | 685  | 35   |
| 15° | 310 | 611   | 1276 | 1428  | 1487 | 86   |
| 25° | 228 | 820   | 1408 | 1470  | 1485 | 105  |
| 35° | 162 | 792   | 1334 | 1380  | 1461 | 102  |
| 45° | 118 | 606   | 1168 | 1341  | 1403 | 91   |
| 55° | 88  | 361   | 991  | 1139  | 1168 | 79   |
| 65° | 69  | 204   | 729  | 817   | 832  | 68   |
| 75° | 48  | 125   | 388  | 209   | 213  | 50   |
| 85° | 17  | 37    | 47   | 32    | 28   | 18   |
| 90° | 0   | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|-------|-------|-------|--------|--------|--------|
| 0°    | 388.0 | 388.0 | 388.0  | 388.0  | 388.0  |
| 2.5°  | 385.0 | 401.1 | 419.4  | 440.4  | 449.2  |
| 5°    | 376.8 | 431.5 | 522.3  | 637.2  | 684.6  |
| 7.5°  | 362.3 | 473.5 | 759.6  | 1067.0 | 1161.8 |
| 10°   | 348.8 | 503.9 | 999.9  | 1265.9 | 1317.0 |
| 12.5° | 333.9 | 544.4 | 1150.6 | 1337.6 | 1390.1 |
| 15°   | 309.7 | 610.6 | 1276.0 | 1428.4 | 1486.8 |
| 17.5° | 284.7 | 685.2 | 1334.2 | 1484.5 | 1516.3 |
| 20°   | 266.8 | 737.4 | 1365.5 | 1494.7 | 1514.8 |
| 22.5° | 250.3 | 776.4 | 1387.9 | 1485.8 | 1507.3 |
| 25°   | 227.6 | 820.4 | 1408.4 | 1470.3 | 1484.9 |
| 27.5° | 205.6 | 831.9 | 1399.5 | 1440.1 | 1454.3 |
| 30°   | 192.1 | 828.7 | 1386.0 | 1416.3 | 1436.4 |
| 32.5° | 180.2 | 819.7 | 1366.6 | 1396.0 | 1439.4 |
| 35°   | 162.3 | 791.6 | 1333.8 | 1380.4 | 1460.7 |
| 37.5° | 147.0 | 746.4 | 1290.5 | 1385.9 | 1463.3 |
| 40°   | 138.0 | 712.6 | 1259.2 | 1385.7 | 1451.3 |
| 42.5° | 129.1 | 673.0 | 1223.4 | 1370.7 | 1436.4 |
| 45°   | 117.5 | 606.4 | 1167.8 | 1340.8 | 1402.8 |
| 47.5° | 106.7 | 531.3 | 1116.3 | 1299.4 | 1344.6 |
| 50°   | 100.7 | 480.1 | 1082.0 | 1261.9 | 1298.4 |
| 52.5° | 94.8  | 430.4 | 1047.6 | 1217.0 | 1250.6 |
| 55°   | 87.7  | 361.3 | 990.6  | 1138.6 | 1167.8 |
| 57.5° | 81.3  | 302.0 | 925.6  | 1051.9 | 1075.6 |
| 60°   | 78.3  | 269.9 | 874.9  | 989.2  | 1012.9 |
| 62.5° | 73.9  | 240.6 | 818.2  | 923.5  | 945.8  |
| 65°   | 69.0  | 204.0 | 729.4  | 817.4  | 832.0  |
| 67.5° | 62.3  | 176.9 | 635.0  | 688.9  | 661.5  |
| 70°   | 57.8  | 163.6 | 570.8  | 587.7  | 509.3  |
| 72.5° | 54.8  | 149.0 | 500.7  | 456.3  | 307.8  |
| 75°   | 48.5  | 125.1 | 388.0  | 209.0  | 212.7  |
| 77.5° | 39.5  | 96.8  | 255.2  | 160.5  | 163.8  |
| 80°   | 33.6  | 79.2  | 134.3  | 130.6  | 132.4  |
| 82.5° | 27.6  | 61.5  | 92.5   | 96.2   | 93.6   |
| 85°   | 16.8  | 36.9  | 46.6   | 31.6   | 28.0   |
| 87.5° | 6.0   | 13.3  | 7.5    | 7.5    | 7.5    |
| 90°   | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 17.20            | 18.88 | 17.56 | 19.20 | 19.51 | 25.93          | 27.62 | 26.30 | 27.93 | 28.25 |
|                 | 3H   | 17.99            | 19.51 | 18.36 | 19.84 | 20.20 | 27.62          | 29.14 | 27.99 | 29.47 | 29.82 |
|                 | 4H   | 18.32            | 19.76 | 18.72 | 20.11 | 20.48 | 27.83          | 29.27 | 28.23 | 29.62 | 29.99 |
|                 | 6H   | 18.58            | 19.91 | 18.99 | 20.28 | 20.67 | 27.96          | 29.29 | 28.37 | 29.65 | 30.04 |
|                 | 8H   | 18.66            | 19.94 | 19.09 | 20.32 | 20.72 | 27.99          | 29.26 | 28.41 | 29.65 | 30.05 |
|                 | 12H  | 18.72            | 19.94 | 19.15 | 20.32 | 20.75 | 27.99          | 29.20 | 28.42 | 29.59 | 30.01 |
| 4H              | 2H   | 21.69            | 23.13 | 22.09 | 23.48 | 23.85 | 26.47          | 27.91 | 26.87 | 28.26 | 28.63 |
|                 | 3H   | 22.70            | 23.90 | 23.11 | 24.30 | 24.70 | 28.37          | 29.58 | 28.78 | 29.97 | 30.37 |
|                 | 4H   | 23.02            | 24.10 | 23.45 | 24.52 | 24.95 | 28.65          | 29.73 | 29.08 | 30.15 | 30.58 |
|                 | 6H   | 23.20            | 24.15 | 23.65 | 24.59 | 25.04 | 28.84          | 29.79 | 29.29 | 30.23 | 30.68 |
|                 | 8H   | 23.24            | 24.13 | 23.70 | 24.57 | 25.03 | 28.89          | 29.77 | 29.35 | 30.21 | 30.68 |
|                 | 12H  | 23.27            | 24.07 | 23.75 | 24.54 | 25.01 | 28.90          | 29.70 | 29.38 | 30.17 | 30.64 |
| 8H              | 4H   | 24.26            | 25.15 | 24.72 | 25.59 | 26.05 | 28.84          | 29.72 | 29.29 | 30.16 | 30.63 |
|                 | 6H   | 24.54            | 25.27 | 25.03 | 25.76 | 26.23 | 29.08          | 29.81 | 29.57 | 30.30 | 30.77 |
|                 | 8H   | 24.62            | 25.28 | 25.13 | 25.78 | 26.27 | 29.15          | 29.81 | 29.66 | 30.31 | 30.80 |
|                 | 12H  | 24.69            | 25.27 | 25.19 | 25.76 | 26.32 | 29.18          | 29.76 | 29.69 | 30.25 | 30.81 |
| 12H             | 4H   | 24.32            | 25.12 | 24.80 | 25.59 | 26.06 | 28.83          | 29.62 | 29.31 | 30.10 | 30.56 |
|                 | 6H   | 24.64            | 25.30 | 25.15 | 25.81 | 26.29 | 29.07          | 29.73 | 29.58 | 30.23 | 30.72 |
|                 | 8H   | 24.79            | 25.37 | 25.29 | 25.86 | 26.42 | 29.18          | 29.76 | 29.68 | 30.25 | 30.81 |