

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-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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

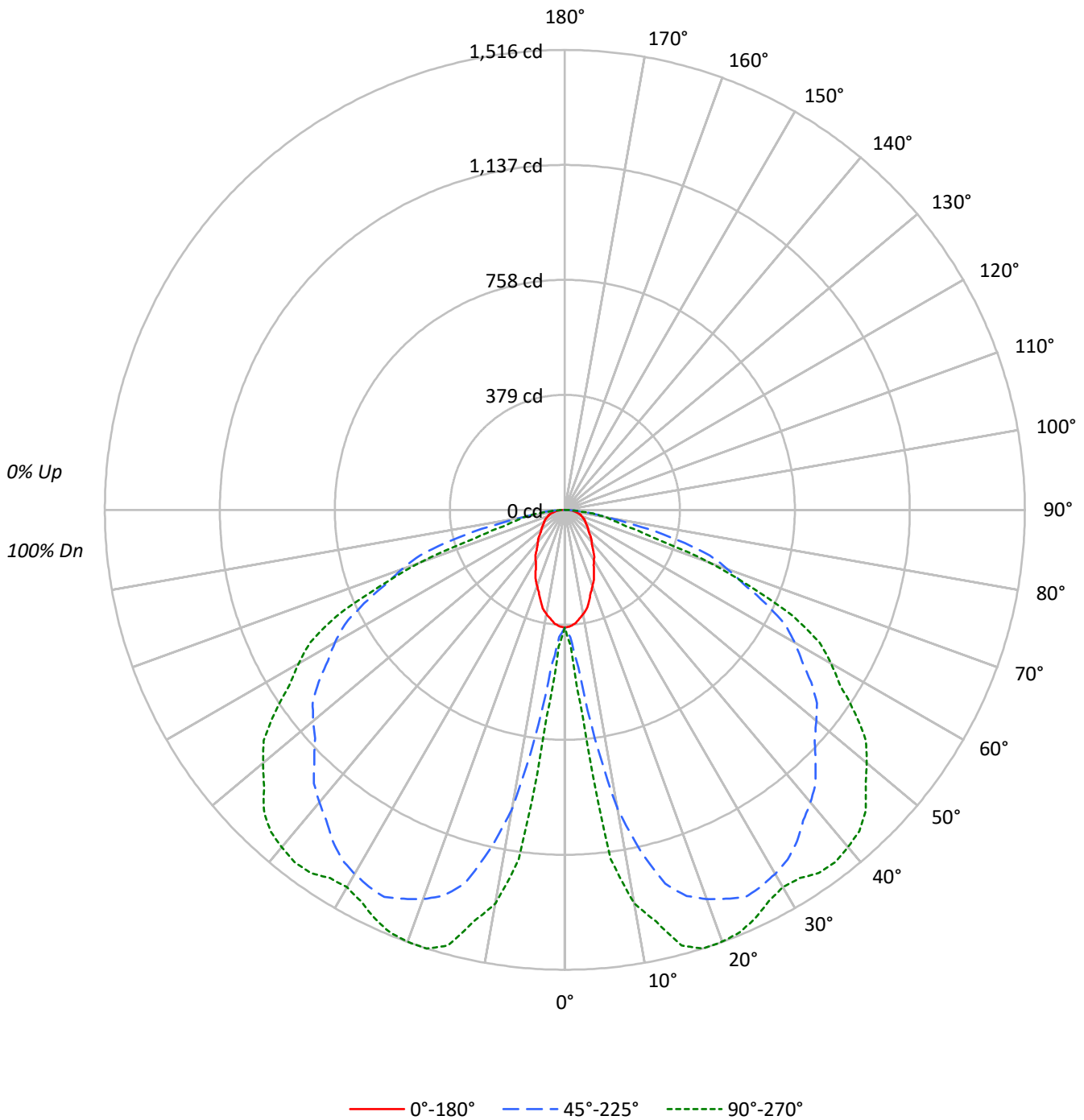
Summary

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





TEST NUMBER: P853866

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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 | |



TEST NUMBER: P853866

CATALOG NUMBER: SQ2-FB-100D-930-UNV-STD-W-4

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 |