

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P845257

Luminaire Tested: **SQ4P-PW1-075U-075D-B50-1D-UNV**

Issue Date: 8/14/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P845257  
REPORT IS A COMBINATION OF REPORTS P700236 AND P700245  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4P-PW1-075U-075D-B50-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 750 LUMENS PER FOOT UPLIGHT, 750 LUMENS PER FOOT DOWNLIGHT  
  
Light Source: -  
Ballast/Driver: -

**Summary**

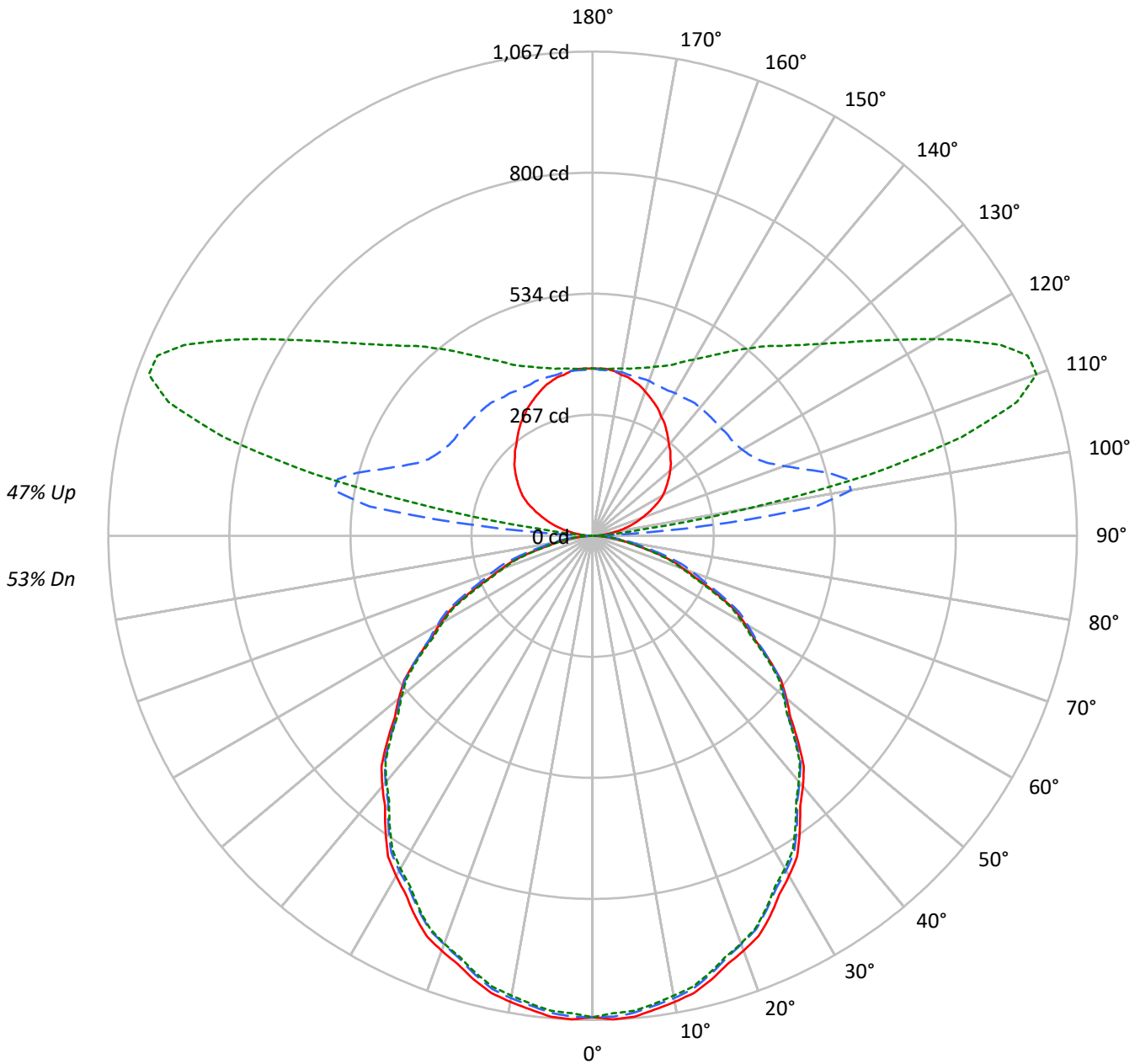
Lumens per Lamp: N/A  
Luminaire Lumens: 5093.6 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 44.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 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 |    |    |    | 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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 | 53 |    |    |    | 53 |
| 1   | 99  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 75 | 72 | 70 | 63 | 61 | 60 | 52 | 51 | 50 | 45 |    |    |    | 45 |
| 2   | 90  | 82  | 76  | 71  | 83  | 77  | 71  | 67  | 66 | 62 | 58 | 55 | 53 | 50 | 46 | 44 | 42 | 38 |    |    |    | 38 |
| 3   | 82  | 73  | 65  | 59  | 76  | 67  | 61  | 56  | 58 | 53 | 49 | 49 | 45 | 42 | 41 | 38 | 36 | 32 |    |    |    | 32 |
| 4   | 75  | 64  | 56  | 50  | 69  | 60  | 53  | 47  | 51 | 46 | 42 | 44 | 40 | 36 | 37 | 34 | 31 | 28 |    |    |    | 28 |
| 5   | 69  | 57  | 49  | 43  | 64  | 53  | 46  | 41  | 46 | 40 | 36 | 39 | 35 | 32 | 33 | 30 | 27 | 24 |    |    |    | 24 |
| 6   | 63  | 51  | 43  | 37  | 59  | 48  | 41  | 35  | 42 | 36 | 31 | 36 | 31 | 28 | 30 | 27 | 24 | 21 |    |    |    | 21 |
| 7   | 59  | 46  | 38  | 33  | 54  | 43  | 36  | 31  | 38 | 32 | 28 | 32 | 28 | 24 | 27 | 24 | 21 | 19 |    |    |    | 19 |
| 8   | 54  | 42  | 34  | 29  | 50  | 39  | 32  | 28  | 34 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 | 17 |    |    |    | 17 |
| 9   | 51  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 32 | 26 | 22 | 27 | 23 | 20 | 23 | 20 | 17 | 15 |    |    |    | 15 |
| 10  | 47  | 35  | 28  | 23  | 44  | 33  | 27  | 22  | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 16 | 14 |    |    |    | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9786 | 9786 | 9786 |
| 5°  | 9850 | 9773 | 9730 |
| 10° | 9771 | 9694 | 9640 |
| 15° | 9669 | 9561 | 9525 |
| 20° | 9553 | 9405 | 9388 |
| 25° | 9420 | 9249 | 9219 |
| 30° | 9221 | 9081 | 9021 |
| 35° | 8959 | 8831 | 8778 |
| 40° | 8680 | 8544 | 8510 |
| 45° | 8341 | 8232 | 8194 |
| 50° | 7996 | 7930 | 7874 |
| 55° | 7621 | 7621 | 7502 |
| 60° | 7160 | 7296 | 7038 |
| 65° | 6549 | 6875 | 6388 |
| 70° | 5770 | 6328 | 5624 |
| 75° | 4934 | 5664 | 4795 |
| 80° | 3825 | 4771 | 3879 |
| 85° | 2467 | 3673 | 3260 |



TEST NUMBER: P845257

CATALOG NUMBER: SQ4P-PW1-075U-075D-B50-1D-UNV

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.9   | 2.0       |
| 10°-20°   | 282.0  | 5.5       |
| 20°-30°   | 418.3  | 8.2       |
| 30°-40°   | 489.5  | 9.6       |
| 40°-50°   | 487.3  | 9.6       |
| 50°-60°   | 420.8  | 8.3       |
| 60°-70°   | 302.9  | 5.9       |
| 70°-80°   | 158.8  | 3.1       |
| 80°-90°   | 40.3   | 0.8       |
| 90°-100°  | 146.8  | 2.9       |
| 100°-110° | 510.8  | 10.0      |
| 110°-120° | 494.8  | 9.7       |
| 120°-130° | 388.1  | 7.6       |
| 130°-140° | 307.2  | 6.0       |
| 140°-150° | 237.1  | 4.7       |
| 150°-160° | 169.9  | 3.3       |
| 160°-170° | 103.9  | 2.0       |
| 170°-180° | 35.2   | 0.7       |
| 0°-30°    | 800.3  | 15.7      |
| 0°-40°    | 1289.7 | 25.3      |
| 0°-60°    | 2197.9 | 43.1      |
| 0°-90°    | 2699.9 | 53.0      |
| 90°-120°  | 1152.3 | 22.6      |
| 90°-150°  | 2084.7 | 40.9      |
| 90°-180°  | 2394.0 | 47.0      |
| 0°-180°   | 5093.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1061 | 1061  | 1061 | 1061  | 1061 |      |
| 5°   | 1064 | 1052  | 1055 | 1052  | 1051 | 101  |
| 15°  | 1012 | 999   | 1001 | 999   | 997  | 285  |
| 25°  | 925  | 910   | 908  | 903   | 906  | 425  |
| 35°  | 795  | 784   | 784  | 777   | 779  | 497  |
| 45°  | 639  | 634   | 631  | 629   | 628  | 493  |
| 55°  | 474  | 473   | 474  | 467   | 466  | 423  |
| 65°  | 300  | 309   | 315  | 303   | 293  | 297  |
| 75°  | 138  | 151   | 159  | 148   | 134  | 148  |
| 85°  | 23   | 31    | 35   | 33    | 31   | 31   |
| 90°  | 6    | 8     | 8    | 6     | 3    | 4    |
| 95°  | 25   | 85    | 248  | 63    | 39   | 26   |
| 105° | 85   | 121   | 537  | 906   | 842  | 90   |
| 115° | 149  | 179   | 399  | 842   | 994  | 147  |
| 125° | 201  | 248   | 372  | 628   | 749  | 180  |
| 135° | 242  | 272   | 369  | 523   | 592  | 188  |
| 145° | 284  | 303   | 366  | 452   | 490  | 177  |
| 155° | 322  | 333   | 360  | 402   | 416  | 148  |
| 165° | 352  | 355   | 363  | 380   | 383  | 99   |
| 175° | 369  | 369   | 366  | 372   | 369  | 35   |
| 180° | 369  | 369   | 369  | 369   | 369  |      |



TEST NUMBER: P845257

CATALOG NUMBER: SQ4P-PW1-075U-075D-B50-1D-UNV

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1060.7 | 1060.7 | 1060.7 | 1060.7 | 1060.7 |
| 2.5°   | 1066.8 | 1058.0 | 1060.7 | 1058.5 | 1053.3 |
| 5°     | 1063.6 | 1051.7 | 1055.2 | 1052.4 | 1050.6 |
| 7.5°   | 1052.8 | 1041.9 | 1044.3 | 1041.4 | 1040.3 |
| 10°    | 1043.0 | 1032.1 | 1034.7 | 1030.9 | 1029.0 |
| 12.5°  | 1031.9 | 1020.1 | 1022.8 | 1018.9 | 1017.9 |
| 15°    | 1012.3 | 999.3  | 1001.0 | 999.1  | 997.2  |
| 17.5°  | 989.3  | 976.5  | 976.7  | 973.7  | 973.3  |
| 20°    | 973.0  | 959.3  | 957.9  | 954.2  | 956.2  |
| 22.5°  | 955.1  | 940.6  | 939.3  | 934.1  | 936.7  |
| 25°    | 925.3  | 909.8  | 908.5  | 902.9  | 905.6  |
| 27.5°  | 890.9  | 875.7  | 875.7  | 867.8  | 870.6  |
| 30°    | 865.5  | 850.8  | 852.4  | 843.1  | 846.8  |
| 32.5°  | 838.5  | 825.4  | 826.2  | 817.0  | 820.6  |
| 35°    | 795.4  | 784.5  | 784.1  | 776.7  | 779.4  |
| 37.5°  | 751.2  | 741.6  | 740.0  | 735.8  | 736.4  |
| 40°    | 720.7  | 712.4  | 709.4  | 706.6  | 706.6  |
| 42.5°  | 688.4  | 681.0  | 677.9  | 675.8  | 675.2  |
| 45°    | 639.3  | 633.8  | 630.9  | 629.0  | 628.0  |
| 47.5°  | 590.6  | 585.6  | 583.0  | 581.8  | 580.8  |
| 50°    | 557.1  | 553.4  | 552.5  | 549.5  | 548.6  |
| 52.5°  | 523.4  | 521.2  | 520.2  | 516.7  | 515.7  |
| 55°    | 473.8  | 473.1  | 473.8  | 467.3  | 466.4  |
| 57.5°  | 422.2  | 423.7  | 426.8  | 417.9  | 415.7  |
| 60°    | 388.0  | 391.5  | 395.4  | 385.1  | 381.4  |
| 62.5°  | 352.6  | 358.6  | 364.0  | 352.1  | 346.8  |
| 65°    | 300.0  | 309.1  | 314.9  | 302.6  | 292.6  |
| 67.5°  | 249.2  | 260.5  | 267.4  | 254.2  | 242.8  |
| 70°    | 213.9  | 226.9  | 234.6  | 221.2  | 208.5  |
| 72.5°  | 183.4  | 197.6  | 203.9  | 191.3  | 178.5  |
| 75°    | 138.4  | 151.1  | 158.9  | 148.2  | 134.5  |
| 77.5°  | 98.2   | 110.2  | 116.6  | 107.5  | 96.1   |
| 80°    | 72.0   | 84.7   | 89.8   | 82.0   | 73.0   |
| 82.5°  | 51.0   | 61.7   | 65.1   | 60.5   | 54.2   |
| 85°    | 23.3   | 30.7   | 34.7   | 32.7   | 30.8   |
| 87.5°  | 6.0    | 11.1   | 14.2   | 14.2   | 14.9   |
| 90°    | 5.5    | 8.3    | 8.3    | 5.5    | 2.8    |
| 92.5°  | 13.8   | 41.3   | 38.6   | 16.5   | 13.8   |
| 95°    | 24.8   | 85.3   | 247.7  | 63.3   | 38.6   |
| 97.5°  | 38.6   | 96.3   | 495.4  | 225.7  | 121.1  |
| 100°   | 52.3   | 101.9  | 578.0  | 542.3  | 349.6  |
| 102.5° | 68.8   | 110.1  | 575.3  | 762.5  | 627.6  |
| 105°   | 85.3   | 121.1  | 536.8  | 905.6  | 842.3  |



TEST NUMBER: P845257

CATALOG NUMBER: SQ4P-PW1-075U-075D-B50-1D-UNV

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°    |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 132.1 | 162.4 | 418.4 | 911.1 | 1037.7 |
| 115°   | 148.6 | 178.9 | 399.1 | 842.3 | 993.6  |
| 117.5° | 165.2 | 198.2 | 388.1 | 778.9 | 930.3  |
| 120°   | 178.9 | 214.7 | 379.9 | 718.4 | 867.0  |
| 122.5° | 189.9 | 231.2 | 374.3 | 668.9 | 803.7  |
| 125°   | 201.0 | 247.7 | 371.6 | 627.6 | 748.7  |
| 127.5° | 211.9 | 258.8 | 371.6 | 597.3 | 699.2  |
| 130°   | 223.0 | 264.3 | 368.8 | 567.0 | 657.8  |
| 132.5° | 233.9 | 266.9 | 368.8 | 545.0 | 622.1  |
| 135°   | 242.2 | 272.5 | 368.8 | 522.9 | 591.8  |
| 137.5° | 253.2 | 278.0 | 368.8 | 503.7 | 567.0  |
| 140°   | 261.5 | 286.3 | 368.8 | 484.4 | 539.5  |
| 142.5° | 272.5 | 294.6 | 368.8 | 465.2 | 514.7  |
| 145°   | 283.5 | 302.7 | 366.1 | 451.5 | 489.9  |
| 147.5° | 294.6 | 311.0 | 363.3 | 437.6 | 467.9  |
| 150°   | 302.7 | 319.3 | 363.3 | 423.8 | 448.7  |
| 152.5° | 313.8 | 327.5 | 360.5 | 410.1 | 432.1  |
| 155°   | 322.1 | 333.0 | 360.5 | 401.8 | 415.7  |
| 157.5° | 330.3 | 341.3 | 360.5 | 393.6 | 404.6  |
| 160°   | 338.5 | 346.8 | 363.3 | 388.1 | 396.3  |
| 162.5° | 346.8 | 352.3 | 363.3 | 382.6 | 388.1  |
| 165°   | 352.3 | 355.1 | 363.3 | 379.9 | 382.6  |
| 167.5° | 357.9 | 360.5 | 363.3 | 377.1 | 377.1  |
| 170°   | 360.5 | 363.3 | 366.1 | 374.3 | 374.3  |
| 172.5° | 366.1 | 366.1 | 366.1 | 371.6 | 371.6  |
| 175°   | 368.8 | 368.8 | 366.1 | 371.6 | 368.8  |
| 177.5° | 368.8 | 368.8 | 366.1 | 371.6 | 368.8  |
| 180°   | 368.8 | 368.8 | 368.8 | 368.8 | 368.8  |



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







|        |              |       |       |       |        |
|--------|--------------|-------|-------|-------|--------|
| 107.5° | <i>101.9</i> | 134.9 | 487.2 | 968.9 | 979.9  |
| 110°   | <i>115.6</i> | 148.6 | 448.7 | 960.6 | 1040.5 |



(END OF REPORT)