

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: P844836

Luminaire Tested: **SQ4P-BB-075U-075D-B40-1D-UNV**

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P844836  
REPORT IS A COMBINATION OF REPORTS P700216 AND P700245  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4P-BB-075U-075D-B40-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 750 LUMENS PER FOOT UPLIGHT, 750 LUMENS PER FOOT DOWNLIGHT  
  
Light Source: -  
Ballast/Driver: -

**Summary**

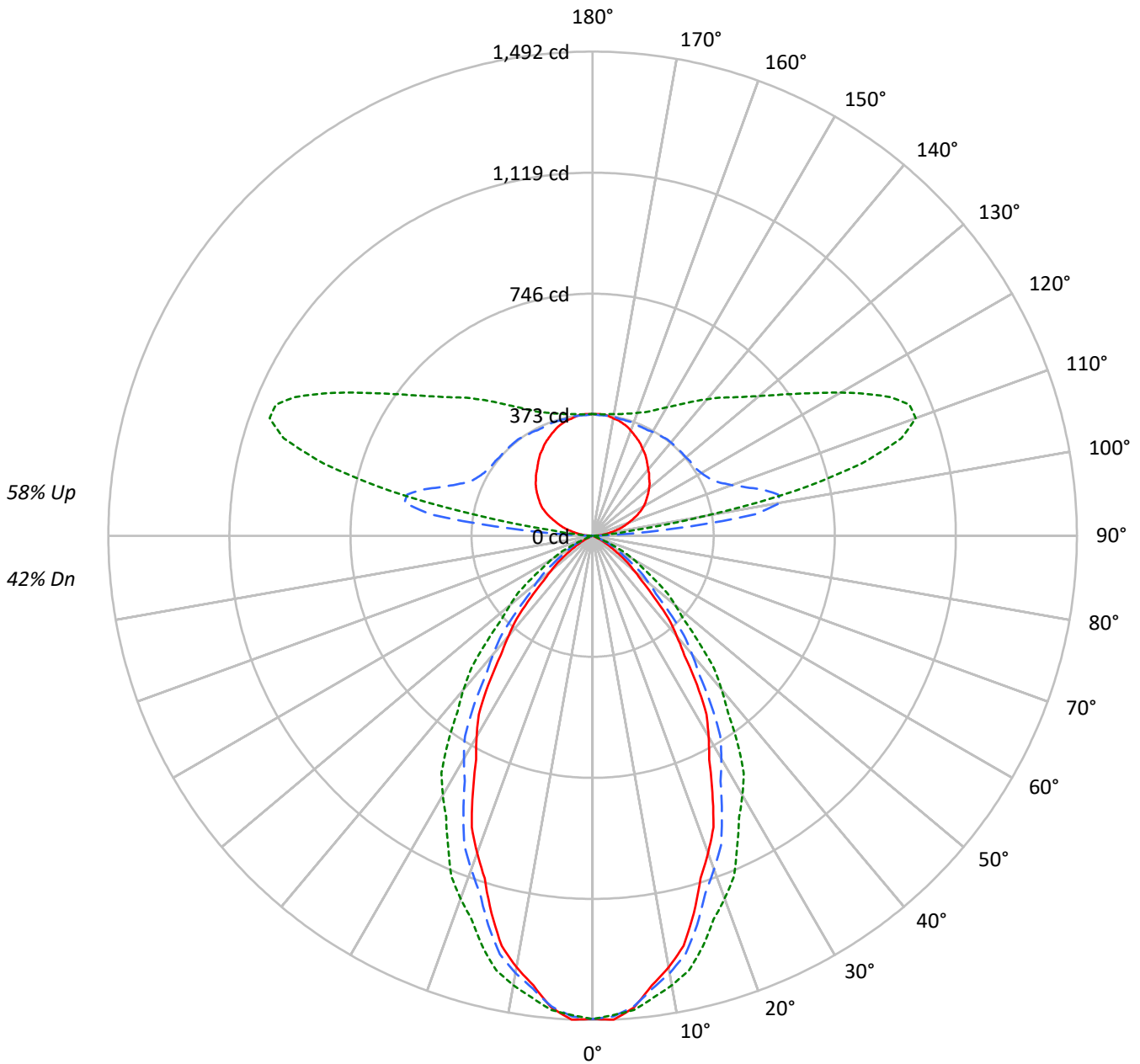
Lumens per Lamp: N/A  
Luminaire Lumens: 4213.8 lumens  
Efficiency: N/A  
Efficacy: 94.5 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

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 |  |  |  |  |  |  |  |  |   |
| 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 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 79 | 79 | 79 | 63 | 63 | 63 | 49 | 49 | 49 | 42 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 98  | 94  | 91  | 88  | 89 | 86 | 83 | 81 | 71 | 70 | 68 | 58 | 57 | 56 | 46 | 45 | 44 | 39 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 90  | 84  | 78  | 74  | 82 | 77 | 73 | 69 | 64 | 61 | 59 | 53 | 51 | 49 | 42 | 41 | 40 | 35 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 83  | 75  | 69  | 64  | 76 | 69 | 64 | 59 | 58 | 54 | 51 | 48 | 45 | 43 | 39 | 37 | 36 | 31 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 77  | 67  | 61  | 55  | 70 | 62 | 56 | 52 | 53 | 48 | 45 | 44 | 41 | 38 | 36 | 34 | 32 | 28 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 71  | 61  | 54  | 48  | 65 | 56 | 50 | 46 | 48 | 43 | 40 | 40 | 37 | 34 | 33 | 31 | 29 | 26 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 66  | 55  | 48  | 43  | 61 | 51 | 45 | 40 | 44 | 39 | 36 | 37 | 34 | 31 | 31 | 28 | 26 | 24 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 62  | 50  | 43  | 38  | 57 | 47 | 41 | 36 | 40 | 36 | 32 | 34 | 31 | 28 | 28 | 26 | 24 | 22 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 57  | 46  | 39  | 34  | 53 | 43 | 37 | 33 | 37 | 32 | 29 | 32 | 28 | 26 | 26 | 24 | 22 | 20 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 54  | 43  | 36  | 31  | 49 | 40 | 34 | 30 | 34 | 30 | 26 | 29 | 26 | 23 | 25 | 22 | 20 | 18 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 50  | 39  | 33  | 28  | 46 | 37 | 31 | 27 | 32 | 27 | 24 | 27 | 24 | 22 | 23 | 21 | 19 | 17 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13739 | 13739 | 13739 |
| 5°  | 13517 | 13484 | 13585 |
| 10° | 12647 | 12816 | 13174 |
| 15° | 11498 | 11863 | 12523 |
| 20° | 10207 | 10737 | 11677 |
| 25° | 8887  | 9592  | 10730 |
| 30° | 7614  | 8450  | 9831  |
| 35° | 6312  | 7173  | 8746  |
| 40° | 4849  | 5735  | 7452  |
| 45° | 3507  | 4344  | 5997  |
| 50° | 2388  | 3235  | 4757  |
| 55° | 1552  | 2340  | 3696  |
| 60° | 891   | 1648  | 2674  |
| 65° | 236   | 1006  | 1354  |
| 70° | 119   | 310   | 386   |
| 75° | 53    | 25    | 0     |
| 80° | 37    | 0     | 0     |
| 85° | 0     | 0     | 0     |



TEST NUMBER: P844836

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 135.9  | 3.2       |
| 10°-20°   | 347.5  | 8.2       |
| 20°-30°   | 435.1  | 10.3      |
| 30°-40°   | 401.8  | 9.5       |
| 40°-50°   | 270.0  | 6.4       |
| 50°-60°   | 139.5  | 3.3       |
| 60°-70°   | 43.7   | 1.0       |
| 70°-80°   | 2.8    | 0.1       |
| 80°-90°   | 1.0    | 0.0       |
| 90°-100°  | 149.4  | 3.5       |
| 100°-110° | 519.9  | 12.3      |
| 110°-120° | 503.6  | 12.0      |
| 120°-130° | 395.1  | 9.4       |
| 130°-140° | 312.7  | 7.4       |
| 140°-150° | 241.3  | 5.7       |
| 150°-160° | 173.0  | 4.1       |
| 160°-170° | 105.8  | 2.5       |
| 170°-180° | 35.8   | 0.8       |
| 0°-30°    | 918.5  | 21.8      |
| 0°-40°    | 1320.3 | 31.3      |
| 0°-60°    | 1729.8 | 41.1      |
| 0°-90°    | 1777.2 | 42.2      |
| 90°-120°  | 1172.9 | 27.8      |
| 90°-150°  | 2122.0 | 50.4      |
| 90°-180°  | 2437.0 | 57.8      |
| 0°-180°   | 4213.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1489 | 1489  | 1489 | 1489  | 1489 |      |
| 5°   | 1460 | 1445  | 1456 | 1461  | 1467 | 135  |
| 15°  | 1204 | 1200  | 1242 | 1284  | 1311 | 335  |
| 25°  | 873  | 880   | 942  | 1007  | 1054 | 400  |
| 35°  | 560  | 575   | 637  | 712   | 776  | 347  |
| 45°  | 269  | 285   | 333  | 398   | 460  | 211  |
| 55°  | 96   | 113   | 146  | 187   | 230  | 90   |
| 65°  | 11   | 21    | 46   | 56    | 62   | 18   |
| 75°  | 2    | 2     | 1    | 0     | 0    | 2    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 6    | 8     | 8    | 6     | 3    | 3    |
| 95°  | 25   | 87    | 252  | 64    | 39   | 27   |
| 105° | 87   | 123   | 546  | 922   | 857  | 91   |
| 115° | 151  | 182   | 406  | 857   | 1011 | 149  |
| 125° | 205  | 252   | 378  | 639   | 762  | 183  |
| 135° | 246  | 277   | 375  | 532   | 602  | 191  |
| 145° | 289  | 308   | 373  | 460   | 499  | 181  |
| 155° | 328  | 339   | 367  | 409   | 423  | 151  |
| 165° | 359  | 362   | 370  | 387   | 390  | 101  |
| 175° | 375  | 375   | 373  | 378   | 375  | 36   |
| 180° | 375  | 375   | 375  | 375   | 375  |      |



TEST NUMBER: P844836

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1489.1 | 1489.1 | 1489.1 | 1489.1 | 1489.1 |
| 2.5°   | 1492.5 | 1478.5 | 1482.1 | 1482.1 | 1478.1 |
| 5°     | 1459.5 | 1444.7 | 1455.9 | 1461.1 | 1466.8 |
| 7.5°   | 1397.9 | 1386.3 | 1407.9 | 1423.8 | 1435.6 |
| 10°    | 1349.9 | 1340.1 | 1368.0 | 1389.9 | 1406.2 |
| 12.5°  | 1294.7 | 1287.0 | 1320.7 | 1351.0 | 1371.6 |
| 15°    | 1203.8 | 1199.6 | 1242.0 | 1283.5 | 1311.1 |
| 17.5°  | 1106.5 | 1106.3 | 1154.5 | 1206.4 | 1239.5 |
| 20°    | 1039.6 | 1041.7 | 1093.6 | 1150.7 | 1189.3 |
| 22.5°  | 972.7  | 977.6  | 1033.0 | 1092.6 | 1136.9 |
| 25°    | 873.0  | 880.1  | 942.2  | 1006.8 | 1054.0 |
| 27.5°  | 777.5  | 787.8  | 853.2  | 920.0  | 977.6  |
| 30°    | 714.7  | 726.6  | 793.2  | 863.6  | 922.8  |
| 32.5°  | 652.9  | 667.2  | 731.9  | 806.6  | 866.8  |
| 35°    | 560.4  | 574.6  | 636.9  | 711.8  | 776.5  |
| 37.5°  | 465.0  | 478.7  | 539.5  | 613.4  | 683.4  |
| 40°    | 402.6  | 418.2  | 476.2  | 547.7  | 618.7  |
| 42.5°  | 346.2  | 361.8  | 416.2  | 486.5  | 553.7  |
| 45°    | 268.8  | 284.9  | 332.9  | 397.6  | 459.6  |
| 47.5°  | 204.6  | 222.0  | 264.1  | 322.8  | 379.2  |
| 50°    | 166.4  | 183.9  | 225.4  | 277.1  | 331.4  |
| 52.5°  | 135.9  | 153.0  | 190.3  | 239.0  | 288.7  |
| 55°    | 96.5   | 112.7  | 145.5  | 186.9  | 229.8  |
| 57.5°  | 66.7   | 80.7   | 110.1  | 144.5  | 178.3  |
| 60°    | 48.3   | 61.6   | 89.3   | 117.3  | 144.9  |
| 62.5°  | 32.2   | 44.4   | 71.4   | 92.9   | 111.4  |
| 65°    | 10.8   | 20.7   | 46.1   | 55.6   | 62.0   |
| 67.5°  | 5.5    | 6.5    | 24.1   | 25.6   | 27.7   |
| 70°    | 4.4    | 4.4    | 11.5   | 12.2   | 14.3   |
| 72.5°  | 3.1    | 3.1    | 4.6    | 5.9    | 6.4    |
| 75°    | 1.5    | 1.5    | 0.7    | 0.0    | 0.0    |
| 77.5°  | 0.7    | 0.7    | 0.7    | 0.0    | 0.0    |
| 80°    | 0.7    | 0.7    | 0.0    | 0.0    | 0.0    |
| 82.5°  | 0.2    | 0.2    | 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°    | 5.6    | 8.4    | 8.4    | 5.6    | 2.8    |
| 92.5°  | 14.1   | 42.1   | 39.2   | 16.8   | 14.1   |
| 95°    | 25.2   | 86.8   | 252.2  | 64.4   | 39.2   |
| 97.5°  | 39.2   | 98.1   | 504.3  | 229.8  | 123.3  |
| 100°   | 53.2   | 103.7  | 588.3  | 552.0  | 355.8  |
| 102.5° | 70.1   | 112.0  | 585.6  | 776.1  | 638.8  |
| 105°   | 86.8   | 123.3  | 546.4  | 921.8  | 857.3  |



TEST NUMBER: P844836

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°    |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 134.5 | 165.3 | 425.9 | 927.4 | 1056.3 |
| 115°   | 151.3 | 182.1 | 406.2 | 857.3 | 1011.4 |
| 117.5° | 168.1 | 201.8 | 395.1 | 792.9 | 947.0  |
| 120°   | 182.1 | 218.5 | 386.7 | 731.3 | 882.5  |
| 122.5° | 193.3 | 235.4 | 381.0 | 680.9 | 818.1  |
| 125°   | 204.6 | 252.2 | 378.2 | 638.8 | 762.1  |
| 127.5° | 215.7 | 263.4 | 378.2 | 608.0 | 711.7  |
| 130°   | 227.0 | 269.0 | 375.4 | 577.2 | 669.6  |
| 132.5° | 238.1 | 271.7 | 375.4 | 554.8 | 633.2  |
| 135°   | 246.5 | 277.3 | 375.4 | 532.3 | 602.4  |
| 137.5° | 257.8 | 283.0 | 375.4 | 512.7 | 577.2  |
| 140°   | 266.2 | 291.4 | 375.4 | 493.1 | 549.2  |
| 142.5° | 277.3 | 299.8 | 375.4 | 473.5 | 523.9  |
| 145°   | 288.6 | 308.2 | 372.6 | 459.5 | 498.7  |
| 147.5° | 299.8 | 316.6 | 369.8 | 445.5 | 476.3  |
| 150°   | 308.2 | 325.0 | 369.8 | 431.4 | 456.7  |
| 152.5° | 319.4 | 333.4 | 367.0 | 417.5 | 439.9  |
| 155°   | 327.8 | 339.0 | 367.0 | 409.0 | 423.1  |
| 157.5° | 336.2 | 347.4 | 367.0 | 400.6 | 411.9  |
| 160°   | 344.6 | 353.0 | 369.8 | 395.1 | 403.4  |
| 162.5° | 353.0 | 358.7 | 369.8 | 389.5 | 395.1  |
| 165°   | 358.7 | 361.5 | 369.8 | 386.7 | 389.5  |
| 167.5° | 364.3 | 367.0 | 369.8 | 383.8 | 383.8  |
| 170°   | 367.0 | 369.8 | 372.6 | 381.0 | 381.0  |
| 172.5° | 372.6 | 372.6 | 372.6 | 378.2 | 378.2  |
| 175°   | 375.4 | 375.4 | 372.6 | 378.2 | 375.4  |
| 177.5° | 375.4 | 375.4 | 372.6 | 378.2 | 375.4  |
| 180°   | 375.4 | 375.4 | 375.4 | 375.4 | 375.4  |



Report Generated By 670246072 / DESKTOP-50001EG







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







|        |       |       |       |       |        |
|--------|-------|-------|-------|-------|--------|
| 107.5° | 103.7 | 137.3 | 495.9 | 986.2 | 997.5  |
| 110°   | 117.6 | 151.3 | 456.7 | 977.8 | 1059.1 |



(END OF REPORT)