

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: P701255

Luminaire Tested: SQ4P-WB-025U-050D-B50-1D-UNV-

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P701255  
REPORT IS A COMBINATION OF REPORTS P700183 AND P700243  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4P-WB-025U-050D-B50-1D-UNV-  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 250 LUMENS PER FOOT UPLIGHT, 500 LUN  
FOOT DOWNLIGHT

Light Source: -  
Ballast/Driver: -

**Summary**

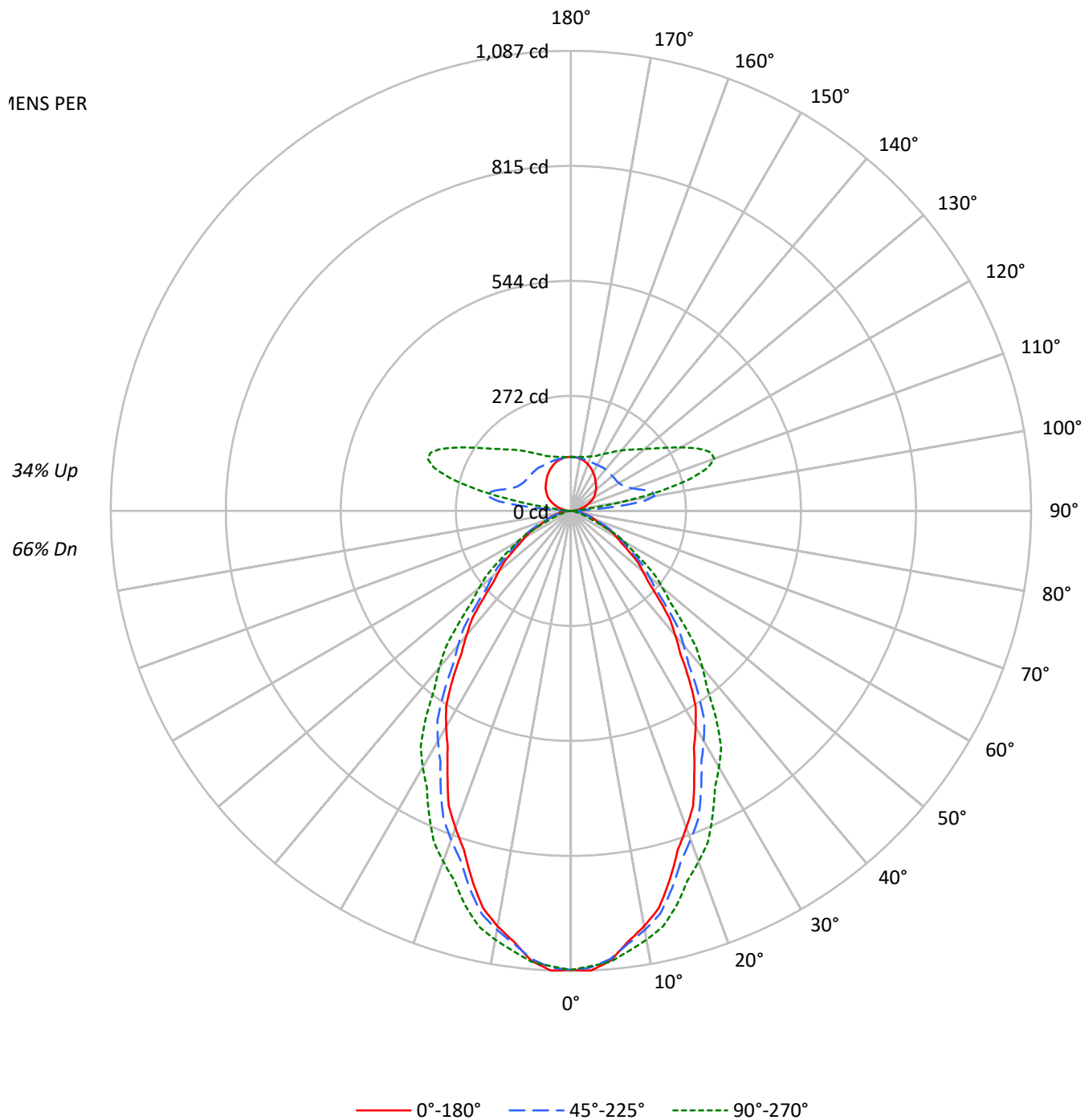
Lumens per Lamp: N/A  
Luminaire Lumens: 2408.7 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 23.8  
Input Voltage (V): NR  
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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 70 | 70 | 70 |
| 1   | 103 | 99  | 95  | 92  | 97  | 93  | 90  | 88  | 83 | 81 | 79 | 73 | 72 | 70 | 65 | 63 | 62 |
| 2   | 95  | 88  | 83  | 78  | 89  | 83  | 79  | 75  | 75 | 71 | 68 | 66 | 64 | 61 | 59 | 57 | 55 |
| 3   | 88  | 79  | 72  | 67  | 82  | 75  | 69  | 64  | 67 | 63 | 59 | 60 | 57 | 54 | 54 | 51 | 49 |
| 4   | 81  | 71  | 64  | 58  | 76  | 68  | 61  | 56  | 61 | 56 | 52 | 55 | 51 | 48 | 49 | 46 | 43 |
| 5   | 75  | 64  | 57  | 51  | 71  | 61  | 55  | 49  | 55 | 50 | 46 | 50 | 46 | 42 | 45 | 42 | 39 |
| 6   | 70  | 59  | 51  | 46  | 66  | 56  | 49  | 44  | 51 | 45 | 41 | 46 | 42 | 38 | 42 | 38 | 35 |
| 7   | 65  | 54  | 46  | 41  | 61  | 51  | 44  | 40  | 47 | 41 | 37 | 42 | 38 | 34 | 38 | 35 | 32 |
| 8   | 61  | 49  | 42  | 37  | 58  | 47  | 40  | 36  | 43 | 38 | 34 | 39 | 35 | 31 | 36 | 32 | 29 |
| 9   | 57  | 45  | 38  | 33  | 54  | 44  | 37  | 33  | 40 | 34 | 31 | 37 | 32 | 29 | 33 | 30 | 27 |
| 10  | 54  | 42  | 35  | 31  | 51  | 40  | 34  | 30  | 37 | 32 | 28 | 34 | 30 | 26 | 31 | 28 | 25 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10006 | 10006 | 10006 |
| 5°  | 9881  | 9846  | 9903  |
| 10° | 9336  | 9420  | 9639  |
| 15° | 8618  | 8819  | 9214  |
| 20° | 7826  | 8120  | 8658  |
| 25° | 7020  | 7403  | 8067  |
| 30° | 6277  | 6687  | 7452  |
| 35° | 5487  | 5885  | 6727  |
| 40° | 4619  | 4986  | 5823  |
| 45° | 3813  | 4141  | 4862  |
| 50° | 3182  | 3469  | 4051  |
| 55° | 2701  | 2977  | 3344  |
| 60° | 2310  | 2581  | 2670  |
| 65° | 1840  | 2170  | 1722  |
| 70° | 1632  | 1694  | 1052  |
| 75° | 1511  | 1376  | 645   |
| 80° | 1392  | 1265  | 558   |
| 85° | 1249  | 1154  | 455   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4862 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.5   | 4.1       |
| 10°-20°   | 258.8  | 10.7      |
| 20°-30°   | 335.1  | 13.9      |
| 30°-40°   | 328.2  | 13.6      |
| 40°-50°   | 251.2  | 10.4      |
| 50°-60°   | 167.4  | 6.9       |
| 60°-70°   | 91.3   | 3.8       |
| 70°-80°   | 38.1   | 1.6       |
| 80°-90°   | 11.1   | 0.5       |
| 90°-100°  | 50.8   | 2.1       |
| 100°-110° | 176.7  | 7.3       |
| 110°-120° | 171.2  | 7.1       |
| 120°-130° | 134.2  | 5.6       |
| 130°-140° | 106.3  | 4.4       |
| 140°-150° | 82.0   | 3.4       |
| 150°-160° | 58.8   | 2.4       |
| 160°-170° | 36.0   | 1.5       |
| 170°-180° | 12.2   | 0.5       |
| 0°-30°    | 693.4  | 28.8      |
| 0°-40°    | 1021.6 | 42.4      |
| 0°-60°    | 1440.2 | 59.8      |
| 0°-90°    | 1580.7 | 65.6      |
| 90°-120°  | 398.6  | 16.5      |
| 90°-150°  | 721.1  | 29.9      |
| 90°-180°  | 828.0  | 34.4      |
| 0°-180°   | 2408.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1084 | 1084  | 1084 | 1084  | 1084 |      |
| 5°   | 1067 | 1056  | 1063 | 1066  | 1069 | 99   |
| 15°  | 902  | 899   | 923  | 948   | 965  | 252  |
| 25°  | 690  | 692   | 727  | 759   | 792  | 317  |
| 35°  | 487  | 490   | 522  | 558   | 597  | 303  |
| 45°  | 292  | 298   | 317  | 341   | 373  | 228  |
| 55°  | 168  | 175   | 185  | 192   | 208  | 152  |
| 65°  | 84   | 91    | 99   | 87    | 79   | 88   |
| 75°  | 42   | 42    | 39   | 26    | 18   | 45   |
| 85°  | 12   | 12    | 11   | 7     | 4    | 13   |
| 90°  | 2    | 3     | 3    | 2     | 1    | 2    |
| 95°  | 9    | 30    | 86   | 22    | 13   | 9    |
| 105° | 30   | 42    | 186  | 313   | 291  | 31   |
| 115° | 51   | 62    | 138  | 291   | 344  | 51   |
| 125° | 70   | 86    | 128  | 217   | 259  | 62   |
| 135° | 84   | 94    | 128  | 181   | 205  | 65   |
| 145° | 98   | 105   | 127  | 156   | 170  | 61   |
| 155° | 111  | 115   | 125  | 139   | 144  | 51   |
| 165° | 122  | 123   | 126  | 131   | 132  | 34   |
| 175° | 128  | 128   | 127  | 128   | 128  | 12   |
| 180° | 128  | 128   | 128  | 128   | 128  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1084.5 | 1084.5 | 1084.5 | 1084.5 | 1084.5 |
| 2.5°   | 1087.2 | 1077.5 | 1080.0 | 1079.9 | 1076.8 |
| 5°     | 1066.9 | 1056.2 | 1063.1 | 1065.6 | 1069.3 |
| 7.5°   | 1027.3 | 1019.2 | 1031.8 | 1041.1 | 1048.7 |
| 10°    | 996.5  | 989.5  | 1005.5 | 1019.1 | 1028.9 |
| 12.5°  | 960.8  | 954.8  | 974.8  | 992.9  | 1005.6 |
| 15°    | 902.2  | 899.0  | 923.3  | 948.3  | 964.6  |
| 17.5°  | 839.8  | 838.2  | 866.0  | 895.3  | 916.0  |
| 20°    | 797.1  | 796.7  | 827.0  | 857.7  | 881.8  |
| 22.5°  | 754.1  | 755.1  | 787.0  | 818.8  | 846.4  |
| 25°    | 689.6  | 691.5  | 727.2  | 758.9  | 792.4  |
| 27.5°  | 629.9  | 630.7  | 667.6  | 701.1  | 736.9  |
| 30°    | 589.2  | 591.4  | 627.7  | 662.3  | 699.5  |
| 32.5°  | 548.5  | 551.1  | 586.6  | 622.3  | 660.3  |
| 35°    | 487.2  | 489.6  | 522.5  | 557.7  | 597.3  |
| 37.5°  | 424.2  | 427.5  | 456.7  | 489.8  | 528.8  |
| 40°    | 383.5  | 388.2  | 414.0  | 445.4  | 483.5  |
| 42.5°  | 344.3  | 350.2  | 374.1  | 403.8  | 438.1  |
| 45°    | 292.2  | 297.8  | 317.4  | 341.4  | 372.6  |
| 47.5°  | 247.2  | 253.7  | 268.8  | 289.5  | 316.1  |
| 50°    | 221.7  | 227.8  | 241.7  | 257.0  | 282.2  |
| 52.5°  | 199.3  | 205.4  | 217.7  | 229.5  | 251.0  |
| 55°    | 167.9  | 175.0  | 185.1  | 192.2  | 207.9  |
| 57.5°  | 142.3  | 149.0  | 157.1  | 160.2  | 169.7  |
| 60°    | 125.2  | 132.6  | 139.9  | 139.5  | 144.7  |
| 62.5°  | 109.6  | 116.0  | 123.1  | 118.1  | 118.4  |
| 65°    | 84.3   | 91.2   | 99.4   | 86.9   | 78.9   |
| 67.5°  | 68.1   | 69.5   | 78.0   | 60.6   | 51.2   |
| 70°    | 60.5   | 60.5   | 62.8   | 46.9   | 39.0   |
| 72.5°  | 53.2   | 53.2   | 51.0   | 38.2   | 29.8   |
| 75°    | 42.4   | 42.4   | 38.6   | 26.5   | 18.1   |
| 77.5°  | 32.7   | 32.3   | 29.5   | 19.7   | 13.1   |
| 80°    | 26.2   | 26.2   | 23.8   | 15.6   | 10.5   |
| 82.5°  | 20.5   | 20.5   | 18.5   | 12.2   | 7.7    |
| 85°    | 11.8   | 11.8   | 10.9   | 7.1    | 4.3    |
| 87.5°  | 4.2    | 4.2    | 3.8    | 2.3    | 1.9    |
| 90°    | 1.9    | 2.9    | 2.9    | 1.9    | 1.0    |
| 92.5°  | 4.8    | 14.3   | 13.3   | 5.7    | 4.8    |
| 95°    | 8.6    | 29.5   | 85.7   | 21.9   | 13.3   |
| 97.5°  | 13.3   | 33.3   | 171.4  | 78.1   | 41.9   |
| 100°   | 18.1   | 35.2   | 199.9  | 187.5  | 120.9  |
| 102.5° | 23.8   | 38.1   | 199.0  | 263.7  | 217.1  |
| 105°   | 29.5   | 41.9   | 185.6  | 313.3  | 291.4  |
| 107.5° | 35.2   | 46.6   | 168.5  | 335.2  | 339.0  |
| 110°   | 40.0   | 51.4   | 155.2  | 332.4  | 360.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 45.7  | 56.2  | 144.7 | 315.2 | 359.0 |
| 115°   | 51.4  | 61.9  | 138.0 | 291.4 | 343.8 |
| 117.5° | 57.1  | 68.5  | 134.2 | 269.4 | 321.9 |
| 120°   | 61.9  | 74.3  | 131.4 | 248.5 | 300.0 |
| 122.5° | 65.7  | 80.0  | 129.5 | 231.3 | 278.1 |
| 125°   | 69.5  | 85.7  | 128.5 | 217.1 | 259.0 |
| 127.5° | 73.3  | 89.5  | 128.5 | 206.6 | 241.8 |
| 130°   | 77.1  | 91.4  | 127.6 | 196.1 | 227.5 |
| 132.5° | 80.9  | 92.3  | 127.6 | 188.5 | 215.2 |
| 135°   | 83.8  | 94.3  | 127.6 | 180.9 | 204.7 |
| 137.5° | 87.6  | 96.2  | 127.6 | 174.2 | 196.1 |
| 140°   | 90.4  | 99.0  | 127.6 | 167.6 | 186.6 |
| 142.5° | 94.3  | 101.9 | 127.6 | 160.9 | 178.0 |
| 145°   | 98.1  | 104.7 | 126.6 | 156.1 | 169.5 |
| 147.5° | 101.9 | 107.6 | 125.7 | 151.4 | 161.8 |
| 150°   | 104.7 | 110.4 | 125.7 | 146.6 | 155.2 |
| 152.5° | 108.5 | 113.3 | 124.7 | 141.9 | 149.5 |
| 155°   | 111.4 | 115.2 | 124.7 | 139.0 | 143.8 |
| 157.5° | 114.2 | 118.1 | 124.7 | 136.1 | 139.9 |
| 160°   | 117.1 | 120.0 | 125.7 | 134.2 | 137.1 |
| 162.5° | 120.0 | 121.9 | 125.7 | 132.3 | 134.2 |
| 165°   | 121.9 | 122.8 | 125.7 | 131.4 | 132.3 |
| 167.5° | 123.8 | 124.7 | 125.7 | 130.4 | 130.4 |
| 170°   | 124.7 | 125.7 | 126.6 | 129.5 | 129.5 |
| 172.5° | 126.6 | 126.6 | 126.6 | 128.5 | 128.5 |
| 175°   | 127.6 | 127.6 | 126.6 | 128.5 | 127.6 |
| 177.5° | 127.6 | 127.6 | 126.6 | 128.5 | 127.6 |
| 180°   | 127.6 | 127.6 | 127.6 | 127.6 | 127.6 |

(END OF REPORT)