

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:

Luminaire Tested: SQ4-F-025U-100D-927-1D-UNV-STD-W-4

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number:  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-025U-100D-927-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

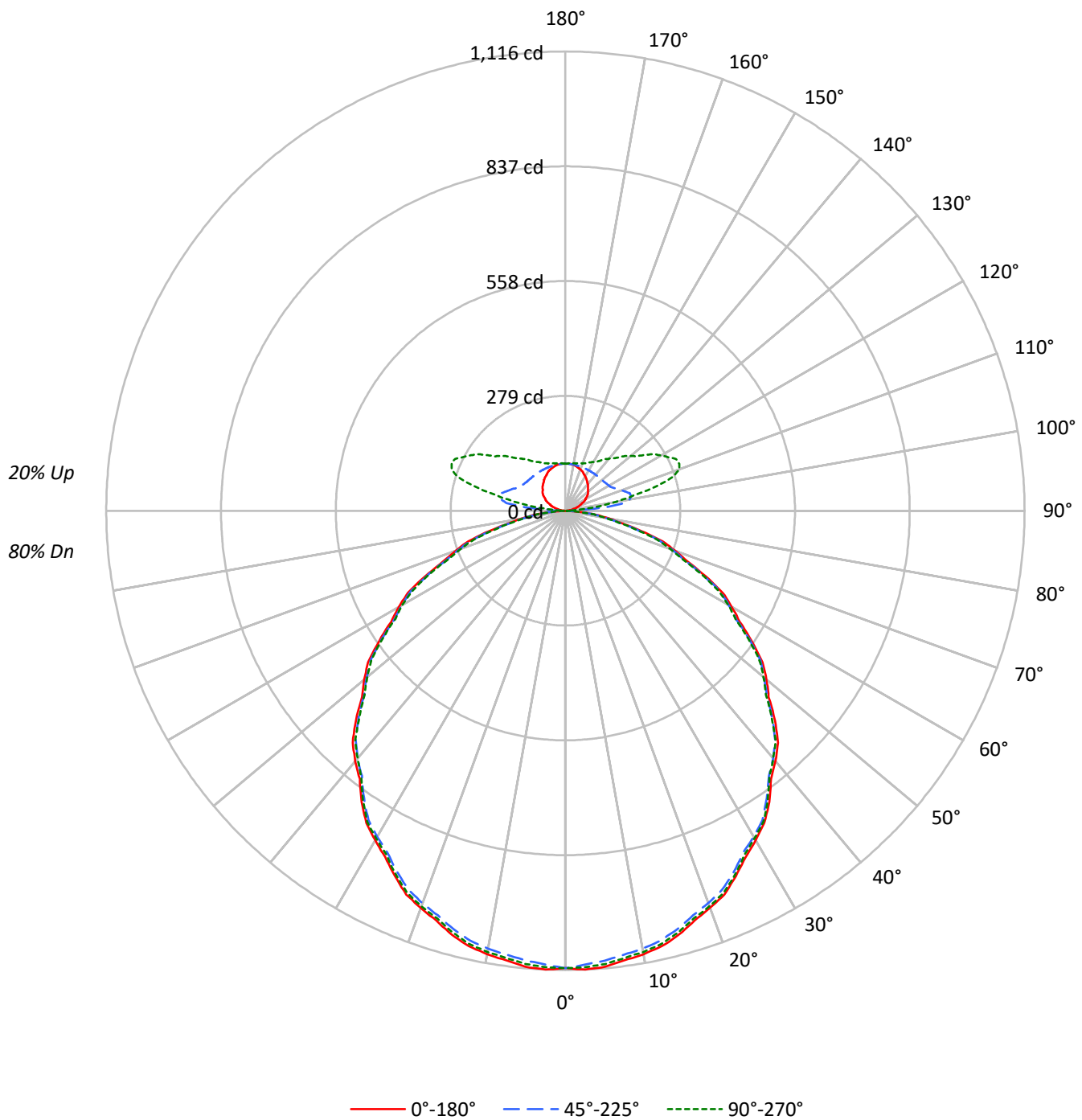
Lumens per Lamp: N/A  
Luminaire Lumens: 3776.6 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 38.7  
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

TEST NUMBER:

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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   | 114 | 114 | 114 | 114 | 109 | 109 | 109 | 109 | 100 | 100 | 100 | 92 | 92 | 92 | 84 | 84 | 84 |
| 1   | 105 | 100 | 96  | 92  | 100 | 96  | 92  | 89  | 88  | 85  | 83  | 81 | 79 | 77 | 74 | 73 | 71 |
| 2   | 95  | 87  | 81  | 75  | 91  | 84  | 78  | 73  | 77  | 72  | 68  | 71 | 67 | 64 | 65 | 62 | 60 |
| 3   | 87  | 77  | 69  | 63  | 83  | 74  | 67  | 61  | 68  | 62  | 57  | 63 | 58 | 54 | 58 | 54 | 51 |
| 4   | 79  | 68  | 59  | 53  | 76  | 65  | 58  | 52  | 60  | 54  | 49  | 56 | 50 | 46 | 51 | 47 | 43 |
| 5   | 73  | 61  | 52  | 46  | 70  | 58  | 50  | 44  | 54  | 47  | 42  | 50 | 44 | 40 | 46 | 42 | 38 |
| 6   | 67  | 54  | 46  | 40  | 64  | 52  | 45  | 39  | 49  | 42  | 37  | 45 | 39 | 35 | 42 | 37 | 33 |
| 7   | 62  | 49  | 41  | 35  | 59  | 48  | 40  | 34  | 44  | 38  | 33  | 41 | 35 | 31 | 38 | 33 | 30 |
| 8   | 58  | 45  | 37  | 31  | 55  | 43  | 36  | 30  | 40  | 34  | 29  | 38 | 32 | 28 | 35 | 30 | 26 |
| 9   | 54  | 41  | 33  | 28  | 52  | 40  | 32  | 27  | 37  | 31  | 26  | 35 | 29 | 25 | 32 | 28 | 24 |
| 10  | 51  | 38  | 30  | 25  | 48  | 37  | 29  | 25  | 34  | 28  | 24  | 32 | 27 | 23 | 30 | 25 | 22 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10257 | 10257 | 10257 |
| 5°  | 10303 | 10162 | 10239 |
| 10° | 10251 | 10123 | 10200 |
| 15° | 10189 | 10050 | 10130 |
| 20° | 10083 | 9964  | 10046 |
| 25° | 9973  | 9857  | 9935  |
| 30° | 9852  | 9747  | 9796  |
| 35° | 9729  | 9609  | 9659  |
| 40° | 9567  | 9457  | 9465  |
| 45° | 9398  | 9269  | 9239  |
| 50° | 9156  | 9047  | 9024  |
| 55° | 8886  | 8787  | 8726  |
| 60° | 8617  | 8462  | 8435  |
| 65° | 8195  | 8012  | 7947  |
| 70° | 7615  | 7432  | 7286  |
| 75° | 6802  | 6584  | 6445  |
| 80° | 5595  | 5393  | 5148  |
| 85° | 3313  | 3631  | 3716  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9398 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 104.9  | 2.8       |
| 10°-20°   | 298.8  | 7.9       |
| 20°-30°   | 448.7  | 11.9      |
| 30°-40°   | 535.5  | 14.2      |
| 40°-50°   | 548.9  | 14.5      |
| 50°-60°   | 488.8  | 12.9      |
| 60°-70°   | 364.4  | 9.6       |
| 70°-80°   | 197.3  | 5.2       |
| 80°-90°   | 45.5   | 1.2       |
| 90°-100°  | 55.9   | 1.5       |
| 100°-110° | 147.0  | 3.9       |
| 110°-120° | 152.5  | 4.0       |
| 120°-130° | 122.3  | 3.2       |
| 130°-140° | 95.9   | 2.5       |
| 140°-150° | 73.6   | 2.0       |
| 150°-160° | 53.0   | 1.4       |
| 160°-170° | 32.5   | 0.9       |
| 170°-180° | 11.0   | 0.3       |
| 0°-30°    | 852.4  | 22.6      |
| 0°-40°    | 1388.0 | 36.8      |
| 0°-60°    | 2425.6 | 64.2      |
| 0°-90°    | 3032.8 | 80.3      |
| 90°-120°  | 355.4  | 9.4       |
| 90°-150°  | 647.3  | 17.1      |
| 90°-180°  | 744.0  | 19.7      |
| 0°-180°   | 3776.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1112 | 1112  | 1112 | 1112  | 1112 |      |
| 5°   | 1112 | 1110  | 1097 | 1107  | 1106 | 105  |
| 15°  | 1067 | 1063  | 1052 | 1061  | 1061 | 301  |
| 25°  | 980  | 978   | 968  | 974   | 976  | 451  |
| 35°  | 864  | 860   | 853  | 855   | 858  | 539  |
| 45°  | 720  | 717   | 710  | 707   | 708  | 554  |
| 55°  | 552  | 553   | 546  | 541   | 542  | 494  |
| 65°  | 375  | 374   | 367  | 363   | 364  | 371  |
| 75°  | 191  | 188   | 185  | 181   | 181  | 203  |
| 85°  | 31   | 34    | 34   | 35    | 35   | 44   |
| 90°  | 1    | 2     | 6    | 3     | 3    | 1    |
| 95°  | 7    | 29    | 96   | 50    | 34   | 8    |
| 105° | 26   | 40    | 163  | 247   | 230  | 28   |
| 115° | 47   | 57    | 130  | 260   | 296  | 46   |
| 125° | 66   | 73    | 118  | 200   | 236  | 58   |
| 135° | 78   | 86    | 115  | 162   | 183  | 60   |
| 145° | 90   | 96    | 113  | 138   | 149  | 57   |
| 155° | 102  | 105   | 113  | 124   | 128  | 47   |
| 165° | 110  | 112   | 113  | 118   | 119  | 31   |
| 175° | 115  | 115   | 114  | 116   | 116  | 11   |
| 180° | 115  | 115   | 115  | 115   | 115  |      |

TEST NUMBER:

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1111.7 | 1111.7 | 1111.7 | 1111.7 | 1111.7 |
| 2.5°   | 1116.0 | 1113.6 | 1103.8 | 1111.7 | 1110.5 |
| 5°     | 1112.5 | 1110.3 | 1097.2 | 1107.1 | 1105.6 |
| 7.5°   | 1102.1 | 1099.9 | 1088.4 | 1097.5 | 1096.2 |
| 10°    | 1094.2 | 1091.9 | 1080.5 | 1089.6 | 1088.8 |
| 12.5°  | 1083.8 | 1081.6 | 1070.1 | 1079.2 | 1078.5 |
| 15°    | 1066.7 | 1063.0 | 1052.2 | 1060.6 | 1060.6 |
| 17.5°  | 1044.1 | 1041.3 | 1031.3 | 1038.3 | 1038.5 |
| 20°    | 1027.0 | 1024.8 | 1014.8 | 1022.5 | 1023.2 |
| 22.5°  | 1009.9 | 1007.7 | 996.5  | 1003.6 | 1004.9 |
| 25°    | 979.7  | 977.5  | 968.3  | 973.7  | 975.9  |
| 27.5°  | 948.6  | 945.3  | 936.2  | 941.0  | 942.6  |
| 30°    | 924.8  | 923.3  | 914.9  | 917.2  | 919.5  |
| 32.5°  | 899.8  | 898.3  | 891.1  | 892.2  | 896.3  |
| 35°    | 863.8  | 860.0  | 853.1  | 854.7  | 857.6  |
| 37.5°  | 821.2  | 819.4  | 812.6  | 811.8  | 814.6  |
| 40°    | 794.3  | 791.3  | 785.2  | 783.7  | 785.9  |
| 42.5°  | 765.0  | 762.0  | 754.6  | 753.2  | 756.0  |
| 45°    | 720.3  | 716.6  | 710.4  | 706.6  | 708.1  |
| 47.5°  | 670.2  | 670.2  | 663.8  | 659.5  | 661.7  |
| 50°    | 637.9  | 637.9  | 630.3  | 626.5  | 628.7  |
| 52.5°  | 604.3  | 604.9  | 596.7  | 594.7  | 593.9  |
| 55°    | 552.4  | 553.2  | 546.3  | 541.0  | 542.5  |
| 57.5°  | 502.4  | 500.7  | 492.8  | 489.3  | 490.0  |
| 60°    | 467.0  | 464.7  | 458.6  | 453.3  | 457.1  |
| 62.5°  | 431.0  | 429.9  | 423.8  | 417.8  | 417.4  |
| 65°    | 375.4  | 373.9  | 367.0  | 363.2  | 364.0  |
| 67.5°  | 320.2  | 318.4  | 312.1  | 306.6  | 308.6  |
| 70°    | 282.3  | 282.3  | 275.5  | 272.4  | 270.1  |
| 72.5°  | 247.5  | 244.5  | 239.4  | 235.1  | 233.5  |
| 75°    | 190.8  | 188.5  | 184.7  | 180.8  | 180.8  |
| 77.5°  | 138.9  | 136.9  | 134.4  | 131.8  | 131.1  |
| 80°    | 105.3  | 104.6  | 101.5  | 100.6  | 96.9   |
| 82.5°  | 74.2   | 74.0   | 72.2   | 70.2   | 70.0   |
| 85°    | 31.3   | 34.3   | 34.3   | 35.1   | 35.1   |
| 87.5°  | 5.6    | 9.5    | 9.7    | 7.9    | 7.9    |
| 90°    | 0.7    | 2.2    | 5.9    | 2.9    | 2.9    |
| 92.5°  | 3.1    | 14.9   | 33.0   | 14.6   | 9.4    |
| 95°    | 7.4    | 28.9   | 96.4   | 49.7   | 33.8   |
| 97.5°  | 12.8   | 31.8   | 144.2  | 114.7  | 84.4   |
| 100°   | 16.9   | 34.2   | 158.9  | 161.0  | 125.0  |
| 102.5° | 20.4   | 36.6   | 163.0  | 200.6  | 169.8  |
| 105°   | 26.5   | 40.1   | 162.6  | 246.8  | 230.2  |
| 107.5° | 32.7   | 45.3   | 153.3  | 270.8  | 274.8  |
| 110°   | 36.8   | 48.3   | 145.6  | 277.0  | 294.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 40.9  | 51.8  | 138.6 | 273.1 | 299.5 |
| 115°   | 47.1  | 57.1  | 130.2 | 259.8 | 296.4 |
| 117.5° | 53.1  | 62.3  | 124.5 | 241.3 | 282.0 |
| 120°   | 56.6  | 65.3  | 122.1 | 228.9 | 268.5 |
| 122.5° | 60.2  | 68.8  | 120.3 | 216.6 | 255.5 |
| 125°   | 65.5  | 73.4  | 118.4 | 200.2 | 236.1 |
| 127.5° | 69.7  | 77.8  | 116.8 | 186.9 | 217.3 |
| 130°   | 72.1  | 80.7  | 116.2 | 178.6 | 206.7 |
| 132.5° | 74.4  | 83.1  | 115.6 | 171.5 | 196.7 |
| 135°   | 78.0  | 85.9  | 114.7 | 161.6 | 183.2 |
| 137.5° | 81.6  | 89.4  | 114.6 | 154.1 | 171.8 |
| 140°   | 84.6  | 91.8  | 114.0 | 148.2 | 164.8 |
| 142.5° | 86.9  | 93.6  | 114.0 | 144.1 | 158.3 |
| 145°   | 90.5  | 96.2  | 113.3 | 137.8 | 148.6 |
| 147.5° | 94.0  | 99.6  | 113.3 | 132.6 | 141.5 |
| 150°   | 96.4  | 101.4 | 113.3 | 129.6 | 136.8 |
| 152.5° | 98.7  | 102.6 | 113.3 | 127.2 | 132.7 |
| 155°   | 102.2 | 105.1 | 113.3 | 124.4 | 128.0 |
| 157.5° | 104.9 | 107.6 | 113.3 | 121.9 | 124.5 |
| 160°   | 106.7 | 108.8 | 113.3 | 120.7 | 122.1 |
| 162.5° | 108.4 | 110.0 | 113.3 | 119.5 | 120.9 |
| 165°   | 110.3 | 111.8 | 113.3 | 117.7 | 119.2 |
| 167.5° | 112.1 | 112.8 | 114.0 | 117.0 | 117.5 |
| 170°   | 113.3 | 114.0 | 114.0 | 117.0 | 117.0 |
| 172.5° | 113.9 | 114.0 | 114.0 | 116.4 | 115.8 |
| 175°   | 114.7 | 114.7 | 114.0 | 115.5 | 115.5 |
| 177.5° | 114.7 | 114.7 | 114.2 | 115.3 | 114.7 |
| 180°   | 114.7 | 114.7 | 114.7 | 114.7 | 114.7 |

(END OF REPORT)