

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: P686068

Luminaire Tested: SQ4R-F-075D-835-1-UNV-STD-W-4

Issue Date: 11/18/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P686068  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-F-075D-835-1-UNV-STD-W-4  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS.  
750 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

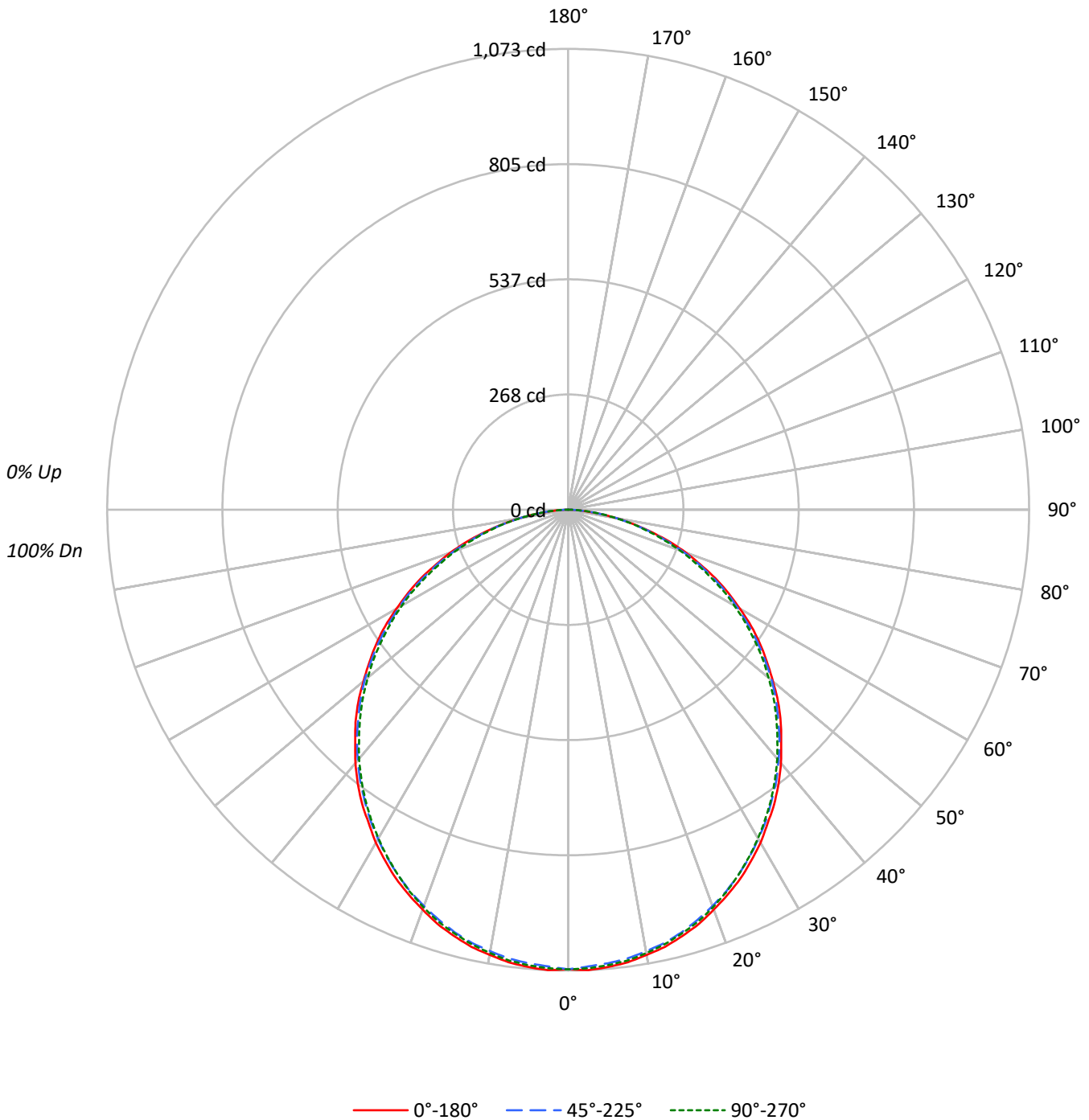
Lumens per Lamp: N/A  
Luminaire Lumens: 2983.2 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.8  
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



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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 |    |    |    | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 88  | 90  | 88  | 86  | 84  |    |    |    | 84  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 74  | 79  | 75  | 72  | 70  |    |    |    | 70  |
| 3   | 90  | 80  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 67  | 62  | 70  | 65  | 61  | 59  |    |    |    | 59  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |    |    |    | 50  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |    | 43  |
| 6   | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 38  |    |    |    | 38  |
| 7   | 65  | 51  | 43  | 36  | 63  | 51  | 42  | 36  | 49  | 41  | 36  | 48  | 41  | 36  | 46  | 40  | 35  | 33  |    |    |    | 33  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 32  | 42  | 36  | 32  | 30  |    |    |    | 30  |
| 9   | 56  | 43  | 35  | 29  | 55  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |    |    |    | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |    |    |    | 24  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10304 | 10304 | 10304 |
| 5°  | 10329 | 10244 | 10286 |
| 10° | 10290 | 10204 | 10247 |
| 15° | 10242 | 10154 | 10183 |
| 20° | 10152 | 10061 | 10092 |
| 25° | 10072 | 9963  | 9963  |
| 30° | 9953  | 9838  | 9822  |
| 35° | 9831  | 9710  | 9676  |
| 40° | 9681  | 9570  | 9515  |
| 45° | 9528  | 9408  | 9328  |
| 50° | 9314  | 9270  | 9115  |
| 55° | 9154  | 9032  | 8882  |
| 60° | 8888  | 8747  | 8605  |
| 65° | 8606  | 8406  | 8205  |
| 70° | 8194  | 7946  | 7780  |
| 75° | 7436  | 7272  | 7108  |
| 80° | 6359  | 6359  | 6276  |
| 85° | 4551  | 4871  | 4871  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9528 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 101.2  | 3.4       |
| 10°-20°   | 288.7  | 9.7       |
| 20°-30°   | 433.9  | 14.5      |
| 30°-40°   | 518.5  | 17.4      |
| 40°-50°   | 534.3  | 17.9      |
| 50°-60°   | 480.8  | 16.1      |
| 60°-70°   | 365.5  | 12.3      |
| 70°-80°   | 207.8  | 7.0       |
| 80°-90°   | 52.5   | 1.8       |
| 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°    | 823.8  | 27.6      |
| 0°-40°    | 1342.3 | 45.0      |
| 0°-60°    | 2357.4 | 79.0      |
| 0°-90°    | 2983.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2983.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1070 | 1070  | 1070 | 1070  | 1070 |      |
| 5°  | 1069 | 1067  | 1060 | 1069  | 1064 | 102  |
| 15° | 1028 | 1026  | 1019 | 1025  | 1022 | 290  |
| 25° | 948  | 945   | 938  | 941   | 938  | 436  |
| 35° | 836  | 834   | 826  | 826   | 823  | 523  |
| 45° | 700  | 700   | 691  | 686   | 685  | 539  |
| 55° | 545  | 544   | 538  | 534   | 529  | 487  |
| 65° | 378  | 376   | 369  | 365   | 360  | 373  |
| 75° | 200  | 198   | 196  | 194   | 191  | 213  |
| 85° | 41   | 43    | 44   | 44    | 44   | 51   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1070.3 | 1070.3 | 1070.3 | 1070.3 | 1070.3 |
| 2.5°  | 1073.2 | 1070.3 | 1064.4 | 1071.7 | 1068.8 |
| 5°    | 1068.8 | 1067.3 | 1060.0 | 1068.8 | 1064.4 |
| 7.5°  | 1062.9 | 1061.4 | 1054.1 | 1061.4 | 1058.5 |
| 10°   | 1052.6 | 1051.1 | 1043.8 | 1051.1 | 1048.2 |
| 12.5° | 1042.3 | 1040.9 | 1033.5 | 1039.4 | 1036.4 |
| 15°   | 1027.6 | 1026.1 | 1018.8 | 1024.7 | 1021.7 |
| 17.5° | 1011.4 | 1010.0 | 1001.2 | 1007.0 | 1005.6 |
| 20°   | 990.9  | 989.4  | 982.0  | 986.5  | 985.0  |
| 22.5° | 970.3  | 968.8  | 961.5  | 965.9  | 962.9  |
| 25°   | 948.2  | 945.3  | 937.9  | 940.9  | 937.9  |
| 27.5° | 921.8  | 920.3  | 912.9  | 914.4  | 911.5  |
| 30°   | 895.3  | 893.8  | 885.0  | 886.5  | 883.5  |
| 32.5° | 864.4  | 864.4  | 857.1  | 857.1  | 854.1  |
| 35°   | 836.5  | 833.6  | 826.2  | 826.2  | 823.3  |
| 37.5° | 804.2  | 801.2  | 795.3  | 793.9  | 790.9  |
| 40°   | 770.3  | 768.9  | 761.5  | 760.1  | 757.1  |
| 42.5° | 733.6  | 735.1  | 727.7  | 723.3  | 720.4  |
| 45°   | 699.8  | 699.8  | 691.0  | 686.5  | 685.1  |
| 47.5° | 663.0  | 663.0  | 655.7  | 651.3  | 648.3  |
| 50°   | 621.9  | 624.8  | 618.9  | 611.6  | 608.6  |
| 52.5° | 583.6  | 585.1  | 577.8  | 573.3  | 570.4  |
| 55°   | 545.4  | 543.9  | 538.1  | 533.7  | 529.2  |
| 57.5° | 505.7  | 504.3  | 495.4  | 491.0  | 488.1  |
| 60°   | 461.6  | 461.6  | 454.3  | 449.9  | 446.9  |
| 62.5° | 420.5  | 419.0  | 413.1  | 407.2  | 405.8  |
| 65°   | 377.8  | 376.4  | 369.0  | 364.6  | 360.2  |
| 67.5° | 332.2  | 330.8  | 326.4  | 320.5  | 317.5  |
| 70°   | 291.1  | 286.7  | 282.3  | 277.9  | 276.4  |
| 72.5° | 247.0  | 242.6  | 238.2  | 235.2  | 232.3  |
| 75°   | 199.9  | 198.5  | 195.5  | 194.1  | 191.1  |
| 77.5° | 157.3  | 157.3  | 154.4  | 152.9  | 152.9  |
| 80°   | 114.7  | 114.7  | 114.7  | 113.2  | 113.2  |
| 82.5° | 75.0   | 76.4   | 76.4   | 75.0   | 76.4   |
| 85°   | 41.2   | 42.6   | 44.1   | 44.1   | 44.1   |
| 87.5° | 13.2   | 17.6   | 16.2   | 17.6   | 17.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)