

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: P688516

Luminaire Tested: SQ4R-PH1-100D-935-1-UNV-STD-W-4

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688516  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-36)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-PH1-100D-935-1-UNV-STD-W-4  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.  
1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3088.7 lumens  
Efficiency: N/A  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.22 / 1.28  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

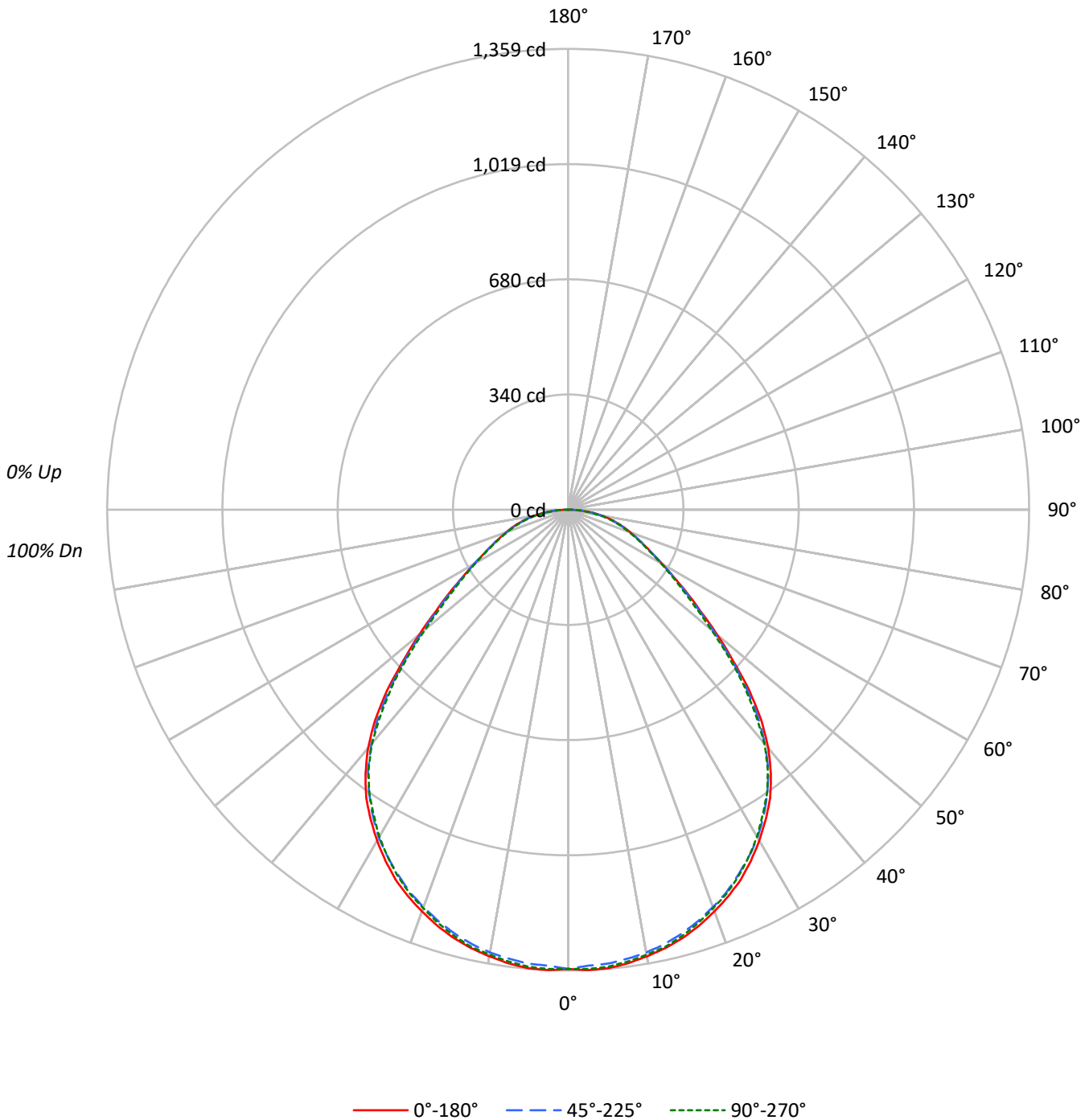
Input Watts (W): 37  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 110 | 105 | 102 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  |  | 95  | 93  | 91  |  | 92  | 90  | 88  | 86  |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 77  |  | 82  | 79  | 76  | 74  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 73  | 69  | 66  | 64  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  |  | 69  | 63  | 58  |  | 66  | 62  | 57  | 55  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  | 55  | 51  | 49  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  | 50  | 45  | 43  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  | 45  | 41  | 39  |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  |  | 48  | 42  | 37  |  | 47  | 41  | 37  | 35  |
| 9   | 60  | 47  | 39  | 34  | 58  | 47  | 39  | 34  | 45  | 39  | 34  |  | 44  | 38  | 34  |  | 43  | 38  | 33  | 32  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  |  | 41  | 35  | 31  |  | 40  | 35  | 31  | 29  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13036 | 13036 | 13036 |
| 5°  | 13118 | 12989 | 13070 |
| 10° | 13074 | 12960 | 13024 |
| 15° | 13030 | 12896 | 12963 |
| 20° | 12914 | 12777 | 12811 |
| 25° | 12785 | 12608 | 12644 |
| 30° | 12525 | 12414 | 12377 |
| 35° | 12201 | 12024 | 12004 |
| 40° | 11535 | 11345 | 11303 |
| 45° | 10288 | 10083 | 9969  |
| 50° | 8588  | 8413  | 8238  |
| 55° | 7155  | 7071  | 6902  |
| 60° | 6148  | 6181  | 6052  |
| 65° | 5636  | 5597  | 5522  |
| 70° | 5458  | 5410  | 5317  |
| 75° | 5535  | 5408  | 5286  |
| 80° | 5561  | 5467  | 5284  |
| 85° | 5357  | 5357  | 4982  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10288 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.4  | 4.2       |
| 10°-20°   | 366.9  | 11.9      |
| 20°-30°   | 549.6  | 17.8      |
| 30°-40°   | 639.5  | 20.7      |
| 40°-50°   | 568.8  | 18.4      |
| 50°-60°   | 381.9  | 12.4      |
| 60°-70°   | 246.9  | 8.0       |
| 70°-80°   | 153.9  | 5.0       |
| 80°-90°   | 52.7   | 1.7       |
| 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°    | 1045.0 | 33.8      |
| 0°-40°    | 1684.5 | 54.5      |
| 0°-60°    | 2635.3 | 85.3      |
| 0°-90°    | 3088.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3088.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1354 | 1354  | 1354 | 1354  | 1354 |      |
| 5°  | 1357 | 1354  | 1344 | 1354  | 1352 | 129  |
| 15° | 1307 | 1304  | 1294 | 1302  | 1301 | 369  |
| 25° | 1204 | 1199  | 1187 | 1194  | 1190 | 553  |
| 35° | 1038 | 1033  | 1023 | 1023  | 1021 | 645  |
| 45° | 756  | 752   | 741  | 730   | 732  | 578  |
| 55° | 426  | 426   | 421  | 415   | 411  | 386  |
| 65° | 247  | 249   | 246  | 244   | 242  | 248  |
| 75° | 149  | 147   | 145  | 145   | 142  | 157  |
| 85° | 48   | 50    | 48   | 47    | 45   | 54   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1354.1 | 1354.1 | 1354.1 | 1354.1 | 1354.1 |
| 2.5°  | 1359.1 | 1355.7 | 1345.7 | 1357.4 | 1355.7 |
| 5°    | 1357.4 | 1354.1 | 1344.0 | 1354.1 | 1352.4 |
| 7.5°  | 1349.1 | 1347.4 | 1335.7 | 1347.4 | 1344.0 |
| 10°   | 1337.4 | 1337.4 | 1325.7 | 1335.7 | 1332.3 |
| 12.5° | 1324.0 | 1322.3 | 1312.3 | 1322.3 | 1320.6 |
| 15°   | 1307.3 | 1303.9 | 1293.9 | 1302.3 | 1300.6 |
| 17.5° | 1285.5 | 1283.9 | 1272.2 | 1280.5 | 1277.2 |
| 20°   | 1260.5 | 1257.1 | 1247.1 | 1253.8 | 1250.4 |
| 22.5° | 1233.7 | 1230.4 | 1220.3 | 1225.4 | 1223.7 |
| 25°   | 1203.6 | 1198.6 | 1186.9 | 1193.6 | 1190.3 |
| 27.5° | 1166.8 | 1165.2 | 1153.5 | 1156.8 | 1153.5 |
| 30°   | 1126.7 | 1125.1 | 1116.7 | 1116.7 | 1113.4 |
| 32.5° | 1083.3 | 1084.9 | 1071.6 | 1073.2 | 1066.5 |
| 35°   | 1038.1 | 1033.1 | 1023.1 | 1023.1 | 1021.4 |
| 37.5° | 981.3  | 977.9  | 969.6  | 967.9  | 966.2  |
| 40°   | 917.8  | 914.4  | 902.7  | 899.4  | 899.4  |
| 42.5° | 842.5  | 839.2  | 827.5  | 822.5  | 815.8  |
| 45°   | 755.6  | 752.3  | 740.6  | 730.5  | 732.2  |
| 47.5° | 658.7  | 662.0  | 650.3  | 641.9  | 640.3  |
| 50°   | 573.4  | 571.7  | 561.7  | 556.7  | 550.0  |
| 52.5° | 491.5  | 493.2  | 484.8  | 481.4  | 473.1  |
| 55°   | 426.3  | 426.3  | 421.3  | 414.6  | 411.2  |
| 57.5° | 367.8  | 371.1  | 366.1  | 362.8  | 359.4  |
| 60°   | 319.3  | 321.0  | 321.0  | 314.3  | 314.3  |
| 62.5° | 279.2  | 280.8  | 279.2  | 275.8  | 275.8  |
| 65°   | 247.4  | 249.1  | 245.7  | 244.1  | 242.4  |
| 67.5° | 219.0  | 220.7  | 219.0  | 217.3  | 214.0  |
| 70°   | 193.9  | 193.9  | 192.2  | 192.2  | 188.9  |
| 72.5° | 172.2  | 170.5  | 168.8  | 168.8  | 167.2  |
| 75°   | 148.8  | 147.1  | 145.4  | 145.4  | 142.1  |
| 77.5° | 125.4  | 123.7  | 123.7  | 120.4  | 118.7  |
| 80°   | 100.3  | 100.3  | 98.6   | 97.0   | 95.3   |
| 82.5° | 76.9   | 75.2   | 73.6   | 71.9   | 70.2   |
| 85°   | 48.5   | 50.2   | 48.5   | 46.8   | 45.1   |
| 87.5° | 21.7   | 23.4   | 23.4   | 23.4   | 21.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)