

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: P688513

Luminaire Tested: SQ4R-PH1-100D-835-1-UNV-STD-W-4

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688513
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-835-1-UNV-STD-W-4
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3597.5 lumens
Efficiency: N/A
Efficacy: 97.2 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

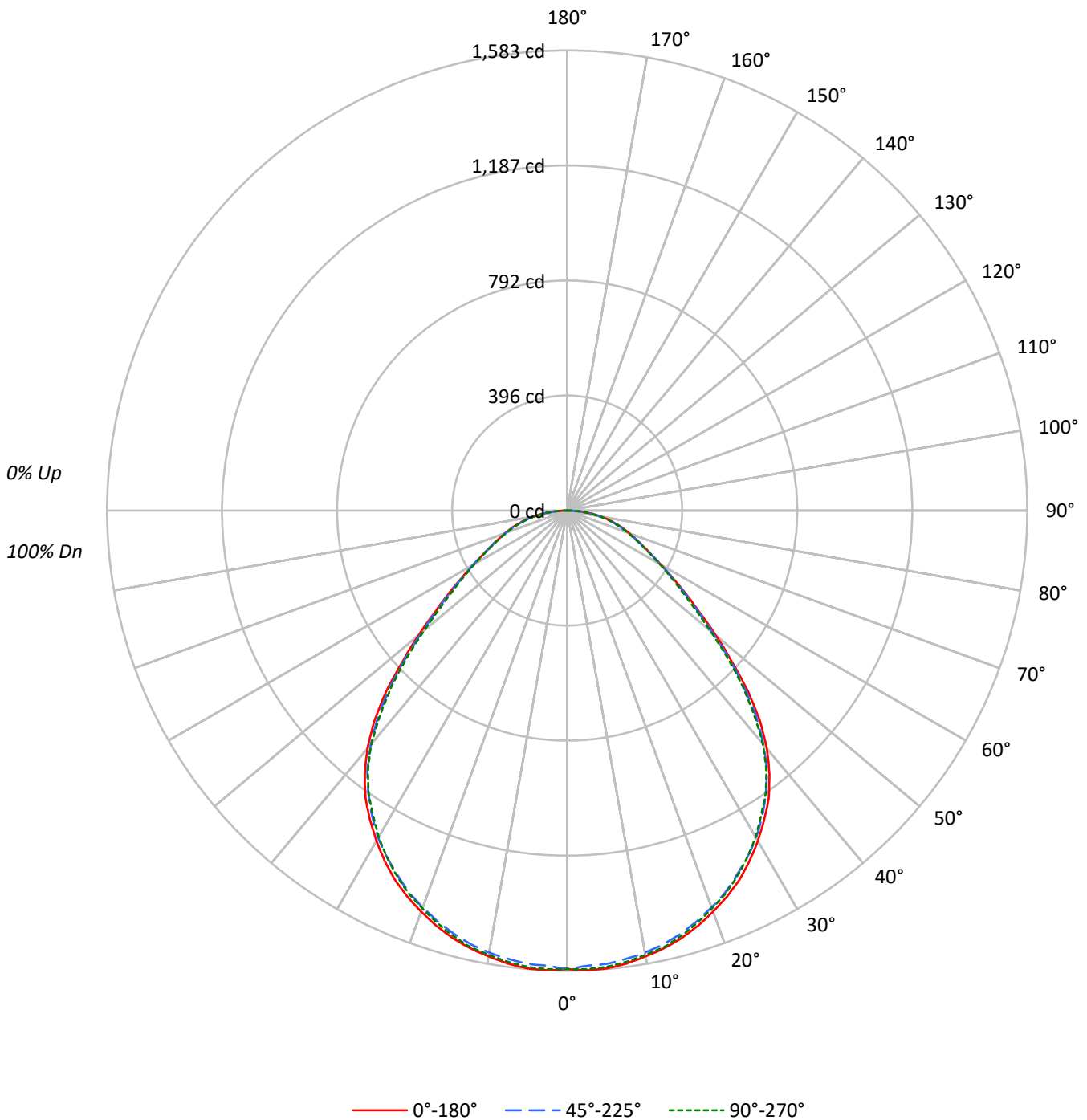
Input Watts (W): 37
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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° | 15183 | 15183 | 15183 |
| 5° | 15279 | 15128 | 15223 |
| 10° | 15227 | 15094 | 15170 |
| 15° | 15176 | 15020 | 15098 |
| 20° | 15041 | 14881 | 14921 |
| 25° | 14892 | 14685 | 14726 |
| 30° | 14588 | 14458 | 14415 |
| 35° | 14210 | 14005 | 13982 |
| 40° | 13434 | 13214 | 13165 |
| 45° | 11983 | 11743 | 11611 |
| 50° | 10002 | 9798 | 9595 |
| 55° | 8334 | 8236 | 8040 |
| 60° | 7161 | 7197 | 7047 |
| 65° | 6565 | 6520 | 6431 |
| 70° | 6359 | 6302 | 6193 |
| 75° | 6446 | 6301 | 6156 |
| 80° | 6476 | 6370 | 6154 |
| 85° | 6241 | 6241 | 5810 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11983 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 149.6 | 4.2 |
| 10°-20° | 427.3 | 11.9 |
| 20°-30° | 640.2 | 17.8 |
| 30°-40° | 744.9 | 20.7 |
| 40°-50° | 662.5 | 18.4 |
| 50°-60° | 444.8 | 12.4 |
| 60°-70° | 287.5 | 8.0 |
| 70°-80° | 179.2 | 5.0 |
| 80°-90° | 61.4 | 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° | 1217.1 | 33.8 |
| 0°-40° | 1962.0 | 54.5 |
| 0°-60° | 3069.3 | 85.3 |
| 0°-90° | 3597.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3597.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1577 | 1577 | 1577 | 1577 | 1577 | |
| 5° | 1581 | 1577 | 1565 | 1577 | 1575 | 150 |
| 15° | 1523 | 1519 | 1507 | 1517 | 1515 | 429 |
| 25° | 1402 | 1396 | 1382 | 1390 | 1386 | 645 |
| 35° | 1209 | 1203 | 1192 | 1192 | 1190 | 752 |
| 45° | 880 | 876 | 862 | 851 | 853 | 673 |
| 55° | 496 | 496 | 491 | 483 | 479 | 450 |
| 65° | 288 | 290 | 286 | 284 | 282 | 289 |
| 75° | 173 | 171 | 169 | 169 | 166 | 182 |
| 85° | 56 | 58 | 56 | 54 | 53 | 63 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688513

CATALOG NUMBER: SQ4R-PH1-100D-835-1-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1577.1 | 1577.1 | 1577.1 | 1577.1 | 1577.1 |
| 2.5° | 1583.0 | 1579.1 | 1567.4 | 1581.0 | 1579.1 |
| 5° | 1581.0 | 1577.1 | 1565.4 | 1577.1 | 1575.2 |
| 7.5° | 1571.3 | 1569.3 | 1555.7 | 1569.3 | 1565.4 |
| 10° | 1557.6 | 1557.6 | 1544.0 | 1555.7 | 1551.8 |
| 12.5° | 1542.1 | 1540.1 | 1528.4 | 1540.1 | 1538.2 |
| 15° | 1522.6 | 1518.7 | 1507.0 | 1516.8 | 1514.8 |
| 17.5° | 1497.3 | 1495.3 | 1481.7 | 1491.4 | 1487.6 |
| 20° | 1468.1 | 1464.2 | 1452.5 | 1460.3 | 1456.4 |
| 22.5° | 1436.9 | 1433.0 | 1421.4 | 1427.2 | 1425.2 |
| 25° | 1401.9 | 1396.0 | 1382.4 | 1390.2 | 1386.3 |
| 27.5° | 1359.0 | 1357.1 | 1343.5 | 1347.4 | 1343.5 |
| 30° | 1312.3 | 1310.4 | 1300.6 | 1300.6 | 1296.7 |
| 32.5° | 1261.7 | 1263.6 | 1248.1 | 1250.0 | 1242.2 |
| 35° | 1209.1 | 1203.3 | 1191.6 | 1191.6 | 1189.7 |
| 37.5° | 1142.9 | 1139.0 | 1129.3 | 1127.3 | 1125.4 |
| 40° | 1068.9 | 1065.0 | 1051.4 | 1047.5 | 1047.5 |
| 42.5° | 981.3 | 977.4 | 963.8 | 958.0 | 950.2 |
| 45° | 880.1 | 876.2 | 862.5 | 850.9 | 852.8 |
| 47.5° | 767.1 | 771.0 | 757.4 | 747.7 | 745.7 |
| 50° | 667.8 | 665.9 | 654.2 | 648.4 | 640.6 |
| 52.5° | 572.4 | 574.4 | 564.6 | 560.8 | 551.0 |
| 55° | 496.5 | 496.5 | 490.7 | 482.9 | 479.0 |
| 57.5° | 428.4 | 432.2 | 426.4 | 422.5 | 418.6 |
| 60° | 371.9 | 373.8 | 373.8 | 366.0 | 366.0 |
| 62.5° | 325.2 | 327.1 | 325.2 | 321.3 | 321.3 |
| 65° | 288.2 | 290.1 | 286.2 | 284.3 | 282.3 |
| 67.5° | 255.1 | 257.0 | 255.1 | 253.1 | 249.2 |
| 70° | 225.9 | 225.9 | 223.9 | 223.9 | 220.0 |
| 72.5° | 200.5 | 198.6 | 196.7 | 196.7 | 194.7 |
| 75° | 173.3 | 171.3 | 169.4 | 169.4 | 165.5 |
| 77.5° | 146.0 | 144.1 | 144.1 | 140.2 | 138.2 |
| 80° | 116.8 | 116.8 | 114.9 | 112.9 | 111.0 |
| 82.5° | 89.6 | 87.6 | 85.7 | 83.7 | 81.8 |
| 85° | 56.5 | 58.4 | 56.5 | 54.5 | 52.6 |
| 87.5° | 25.3 | 27.3 | 27.3 | 27.3 | 25.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)