

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: P688742

Luminaire Tested: SQ4R-PH1-075D-92765-1-UNV-STD-W-4_6500K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688742
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-PH1-075D-92765-1-UNV-STD-W-4_6500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.
750 LUMENS PER FOOT
Light Source: 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3103.0 lumens
Efficiency: N/A
Efficacy: 94.6 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

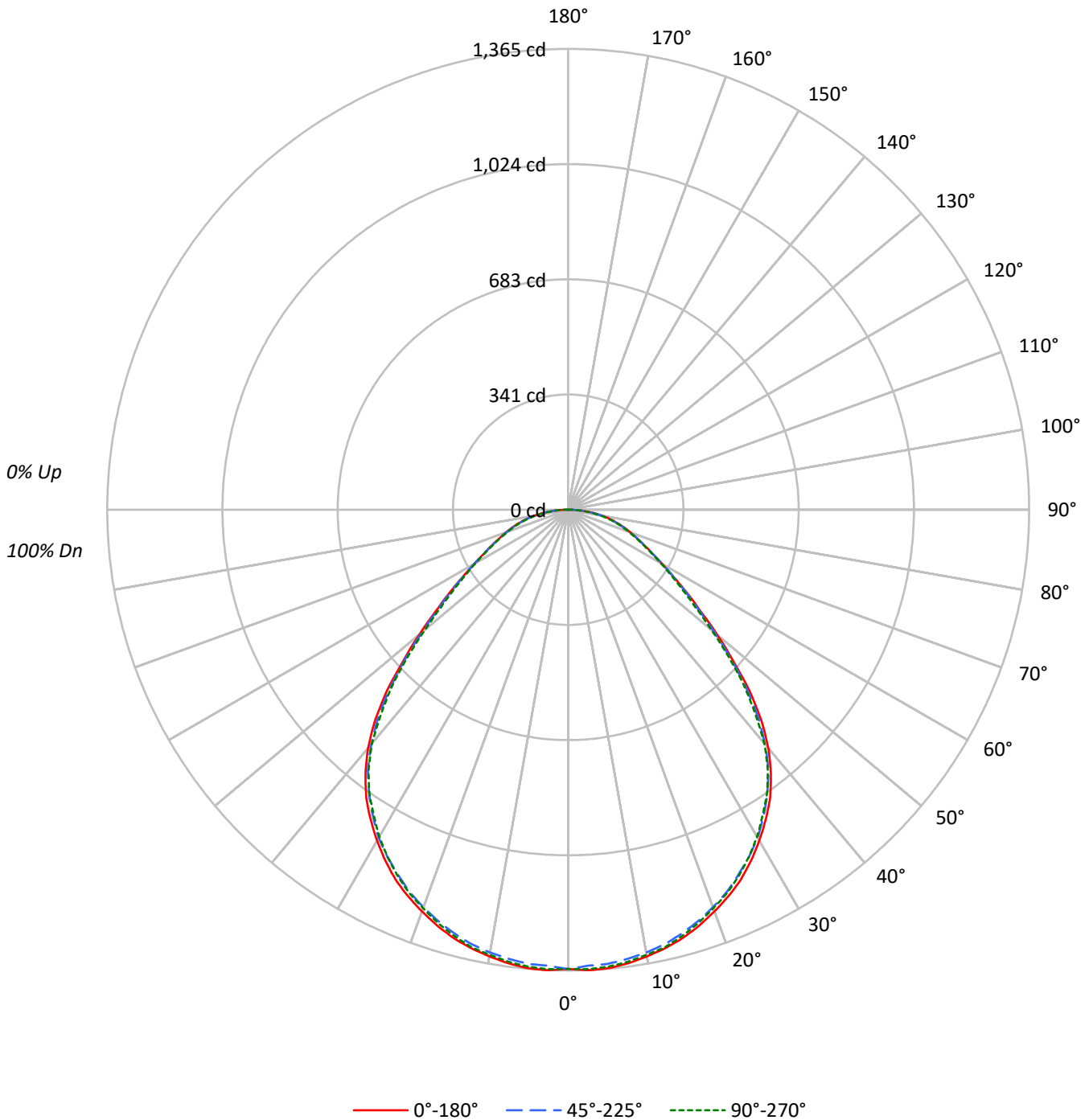
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P688742

CATALOG NUMBER: SQ4R-PH1-075D-92765-1-UNV-STD-W-4_6500K

Luminous Intensity Polar Plot



TEST NUMBER: P688742

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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° | 13096 | 13096 | 13096 |
| 5° | 13179 | 13049 | 13131 |
| 10° | 13134 | 13019 | 13085 |
| 15° | 13090 | 12956 | 13023 |
| 20° | 12974 | 12836 | 12870 |
| 25° | 12845 | 12666 | 12703 |
| 30° | 12583 | 12472 | 12434 |
| 35° | 12257 | 12080 | 12060 |
| 40° | 11587 | 11398 | 11355 |
| 45° | 10335 | 10130 | 10015 |
| 50° | 8627 | 8452 | 8275 |
| 55° | 7189 | 7103 | 6934 |
| 60° | 6177 | 6210 | 6079 |
| 65° | 5663 | 5624 | 5547 |
| 70° | 5483 | 5435 | 5343 |
| 75° | 5561 | 5435 | 5312 |
| 80° | 5589 | 5494 | 5306 |
| 85° | 5379 | 5379 | 5004 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10335 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 129.0 | 4.2 |
| 10°-20° | 368.6 | 11.9 |
| 20°-30° | 552.2 | 17.8 |
| 30°-40° | 642.5 | 20.7 |
| 40°-50° | 571.4 | 18.4 |
| 50°-60° | 383.7 | 12.4 |
| 60°-70° | 248.0 | 8.0 |
| 70°-80° | 154.6 | 5.0 |
| 80°-90° | 53.0 | 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° | 1049.8 | 33.8 |
| 0°-40° | 1692.3 | 54.5 |
| 0°-60° | 2647.4 | 85.3 |
| 0°-90° | 3103.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3103.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1360 | 1360 | 1360 | 1360 | 1360 | |
| 5° | 1364 | 1360 | 1350 | 1360 | 1359 | 129 |
| 15° | 1313 | 1310 | 1300 | 1308 | 1307 | 370 |
| 25° | 1209 | 1204 | 1192 | 1199 | 1196 | 556 |
| 35° | 1043 | 1038 | 1028 | 1028 | 1026 | 648 |
| 45° | 759 | 756 | 744 | 734 | 736 | 580 |
| 55° | 428 | 428 | 423 | 416 | 413 | 388 |
| 65° | 249 | 250 | 247 | 245 | 244 | 249 |
| 75° | 150 | 148 | 146 | 146 | 143 | 157 |
| 85° | 49 | 50 | 49 | 47 | 45 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1360.3 | 1360.3 | 1360.3 | 1360.3 | 1360.3 |
| 2.5° | 1365.4 | 1362.0 | 1351.9 | 1363.7 | 1362.0 |
| 5° | 1363.7 | 1360.3 | 1350.3 | 1360.3 | 1358.7 |
| 7.5° | 1355.3 | 1353.6 | 1341.9 | 1353.6 | 1350.3 |
| 10° | 1343.5 | 1343.5 | 1331.8 | 1341.9 | 1338.5 |
| 12.5° | 1330.1 | 1328.4 | 1318.4 | 1328.4 | 1326.8 |
| 15° | 1313.3 | 1310.0 | 1299.9 | 1308.3 | 1306.6 |
| 17.5° | 1291.5 | 1289.8 | 1278.0 | 1286.4 | 1283.1 |
| 20° | 1266.3 | 1262.9 | 1252.9 | 1259.6 | 1256.2 |
| 22.5° | 1239.4 | 1236.1 | 1226.0 | 1231.0 | 1229.3 |
| 25° | 1209.2 | 1204.2 | 1192.4 | 1199.1 | 1195.8 |
| 27.5° | 1172.2 | 1170.6 | 1158.8 | 1162.2 | 1158.8 |
| 30° | 1131.9 | 1130.3 | 1121.9 | 1121.9 | 1118.5 |
| 32.5° | 1088.3 | 1090.0 | 1076.5 | 1078.2 | 1071.5 |
| 35° | 1042.9 | 1037.9 | 1027.8 | 1027.8 | 1026.1 |
| 37.5° | 985.8 | 982.5 | 974.1 | 972.4 | 970.7 |
| 40° | 922.0 | 918.6 | 906.9 | 903.5 | 903.5 |
| 42.5° | 846.4 | 843.1 | 831.3 | 826.3 | 819.6 |
| 45° | 759.1 | 755.7 | 744.0 | 733.9 | 735.6 |
| 47.5° | 661.7 | 665.1 | 653.3 | 644.9 | 643.2 |
| 50° | 576.0 | 574.4 | 564.3 | 559.3 | 552.5 |
| 52.5° | 493.8 | 495.4 | 487.0 | 483.7 | 475.3 |
| 55° | 428.3 | 428.3 | 423.2 | 416.5 | 413.1 |
| 57.5° | 369.5 | 372.8 | 367.8 | 364.4 | 361.1 |
| 60° | 320.8 | 322.5 | 322.5 | 315.7 | 315.7 |
| 62.5° | 280.5 | 282.1 | 280.5 | 277.1 | 277.1 |
| 65° | 248.6 | 250.2 | 246.9 | 245.2 | 243.5 |
| 67.5° | 220.0 | 221.7 | 220.0 | 218.3 | 215.0 |
| 70° | 194.8 | 194.8 | 193.1 | 193.1 | 189.8 |
| 72.5° | 173.0 | 171.3 | 169.6 | 169.6 | 167.9 |
| 75° | 149.5 | 147.8 | 146.1 | 146.1 | 142.8 |
| 77.5° | 126.0 | 124.3 | 124.3 | 120.9 | 119.2 |
| 80° | 100.8 | 100.8 | 99.1 | 97.4 | 95.7 |
| 82.5° | 77.3 | 75.6 | 73.9 | 72.2 | 70.5 |
| 85° | 48.7 | 50.4 | 48.7 | 47.0 | 45.3 |
| 87.5° | 21.8 | 23.5 | 23.5 | 23.5 | 21.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)