

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: P688974

Luminaire Tested: SQ4R-PW1-075D-92765-1-UNV-STD-W-4_5000K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688974
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-35)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PW1-075D-92765-1-UNV-STD-W-4_5000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS.
750 LUMENS PER FOOT
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3004.6 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

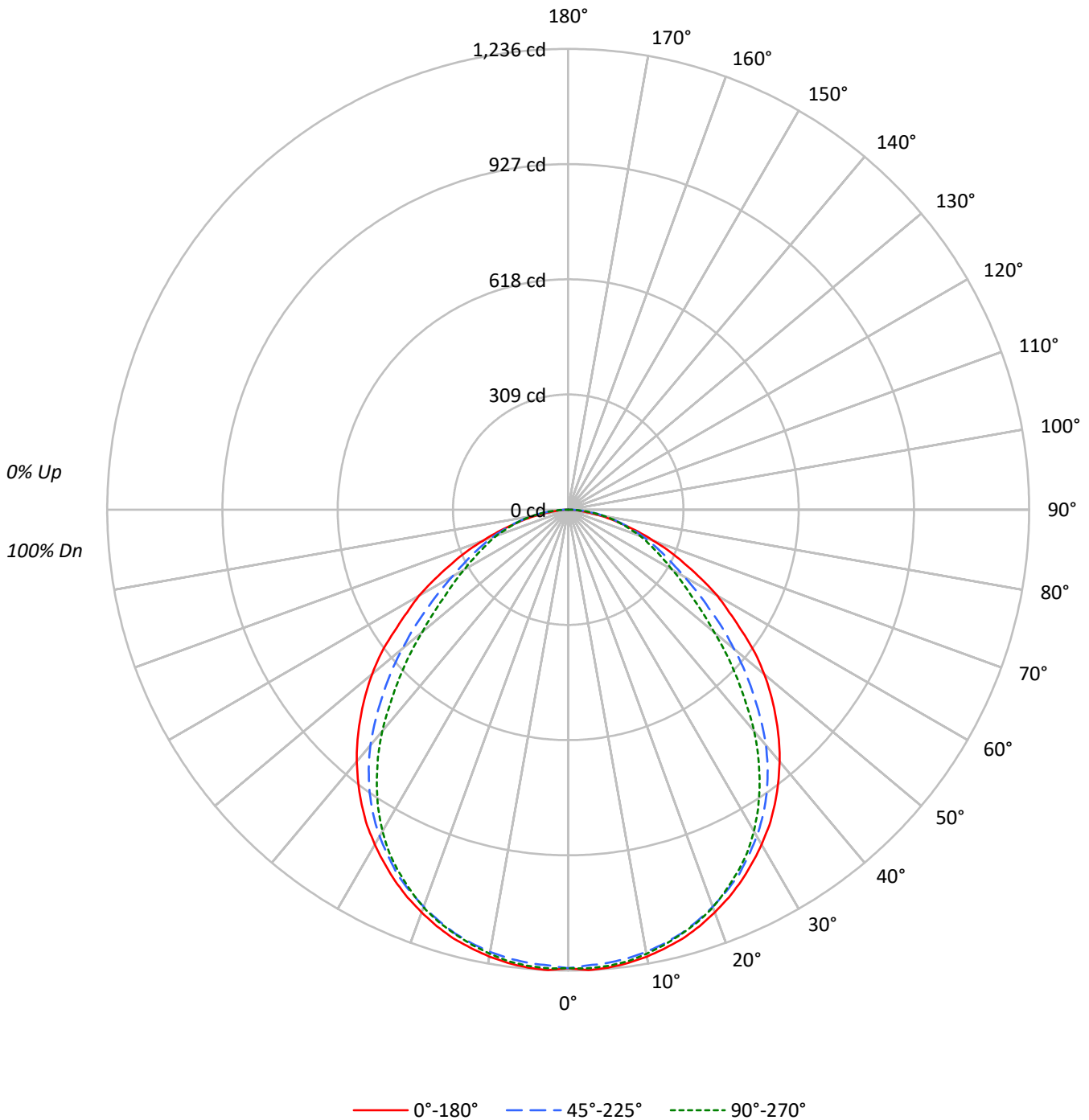
Input Watts (W): 32.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P688974

CATALOG NUMBER: SQ4R-PW1-075D-92765-1-UNV-STD-W-4_5000K

Luminous Intensity Polar Plot



TEST NUMBER: P688974

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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 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | 85 |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 77 | 74 | 72 | | | | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 | | | | 62 |
| 4 | 85 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 63 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 54 | | | | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 50 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 | | | | 47 |
| 6 | 72 | 59 | 51 | 45 | 70 | 59 | 50 | 44 | 57 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 43 | 41 | | | | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | 37 |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | 33 |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 30 | | | | 30 |
| 10 | 55 | 42 | 34 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11839 | 11839 | 11839 |
| 5° | 11915 | 11792 | 11869 |
| 10° | 11898 | 11774 | 11821 |
| 15° | 11863 | 11721 | 11737 |
| 20° | 11773 | 11611 | 11627 |
| 25° | 11669 | 11484 | 11400 |
| 30° | 11527 | 11246 | 11070 |
| 35° | 11351 | 10904 | 10514 |
| 40° | 11085 | 10370 | 9754 |
| 45° | 10718 | 9577 | 8737 |
| 50° | 10275 | 8688 | 7646 |
| 55° | 9551 | 7721 | 6766 |
| 60° | 8886 | 6909 | 6208 |
| 65° | 7887 | 6410 | 5868 |
| 70° | 6851 | 6094 | 5785 |
| 75° | 5643 | 5762 | 5528 |
| 80° | 4469 | 5433 | 5433 |
| 85° | 3314 | 4893 | 5059 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10718 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 116.7 | 3.9 |
| 10°-20° | 333.2 | 11.1 |
| 20°-30° | 499.2 | 16.6 |
| 30°-40° | 580.0 | 19.3 |
| 40°-50° | 547.2 | 18.2 |
| 50°-60° | 426.9 | 14.2 |
| 60°-70° | 289.8 | 9.6 |
| 70°-80° | 163.2 | 5.4 |
| 80°-90° | 48.5 | 1.6 |
| 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° | 949.1 | 31.6 |
| 0°-40° | 1529.0 | 50.9 |
| 0°-60° | 2503.1 | 83.3 |
| 0°-90° | 3004.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3004.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1230 | 1230 | 1230 | 1230 | 1230 | |
| 5° | 1233 | 1230 | 1220 | 1230 | 1228 | 117 |
| 15° | 1190 | 1186 | 1176 | 1182 | 1178 | 336 |
| 25° | 1098 | 1094 | 1081 | 1078 | 1073 | 506 |
| 35° | 966 | 956 | 928 | 907 | 895 | 603 |
| 45° | 787 | 763 | 703 | 659 | 642 | 607 |
| 55° | 569 | 536 | 460 | 416 | 403 | 511 |
| 65° | 346 | 314 | 281 | 264 | 258 | 346 |
| 75° | 152 | 158 | 155 | 149 | 149 | 165 |
| 85° | 30 | 43 | 44 | 44 | 46 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688974

CATALOG NUMBER: SQ4R-PW1-075D-92765-1-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1229.7 | 1229.7 | 1229.7 | 1229.7 | 1229.7 |
| 2.5° | 1236.0 | 1232.9 | 1223.4 | 1232.9 | 1231.3 |
| 5° | 1232.9 | 1229.7 | 1220.2 | 1229.7 | 1228.1 |
| 7.5° | 1226.6 | 1225.0 | 1213.9 | 1223.4 | 1221.8 |
| 10° | 1217.1 | 1215.5 | 1204.4 | 1212.3 | 1209.2 |
| 12.5° | 1204.4 | 1202.9 | 1191.8 | 1198.1 | 1195.0 |
| 15° | 1190.2 | 1185.5 | 1176.0 | 1182.3 | 1177.6 |
| 17.5° | 1171.2 | 1166.5 | 1155.4 | 1160.2 | 1158.6 |
| 20° | 1149.1 | 1144.4 | 1133.3 | 1138.0 | 1134.9 |
| 22.5° | 1125.4 | 1120.7 | 1108.0 | 1109.6 | 1104.9 |
| 25° | 1098.5 | 1093.8 | 1081.1 | 1078.0 | 1073.2 |
| 27.5° | 1068.5 | 1065.3 | 1046.4 | 1043.2 | 1038.5 |
| 30° | 1036.9 | 1032.1 | 1011.6 | 1005.3 | 995.8 |
| 32.5° | 1003.7 | 994.2 | 972.1 | 959.4 | 948.4 |
| 35° | 965.8 | 956.3 | 927.8 | 907.3 | 894.6 |
| 37.5° | 924.7 | 910.4 | 878.8 | 850.4 | 837.7 |
| 40° | 882.0 | 866.2 | 825.1 | 787.2 | 776.1 |
| 42.5° | 836.2 | 817.2 | 765.0 | 725.5 | 706.5 |
| 45° | 787.2 | 763.4 | 703.4 | 659.1 | 641.7 |
| 47.5° | 738.2 | 708.1 | 643.3 | 595.9 | 576.9 |
| 50° | 686.0 | 649.6 | 580.1 | 529.5 | 510.5 |
| 52.5° | 632.2 | 592.7 | 521.6 | 469.4 | 455.2 |
| 55° | 569.0 | 535.8 | 460.0 | 415.7 | 403.1 |
| 57.5° | 512.1 | 475.8 | 409.4 | 371.4 | 362.0 |
| 60° | 461.5 | 417.3 | 358.8 | 330.4 | 322.4 |
| 62.5° | 403.1 | 363.5 | 317.7 | 295.6 | 287.7 |
| 65° | 346.2 | 314.5 | 281.4 | 264.0 | 257.6 |
| 67.5° | 297.2 | 270.3 | 248.2 | 233.9 | 230.8 |
| 70° | 243.4 | 229.2 | 216.5 | 205.5 | 205.5 |
| 72.5° | 197.6 | 192.8 | 184.9 | 178.6 | 173.9 |
| 75° | 151.7 | 158.1 | 154.9 | 148.6 | 148.6 |
| 77.5° | 115.4 | 124.9 | 126.4 | 123.3 | 124.9 |
| 80° | 80.6 | 94.8 | 98.0 | 96.4 | 98.0 |
| 82.5° | 50.6 | 68.0 | 71.1 | 71.1 | 72.7 |
| 85° | 30.0 | 42.7 | 44.3 | 44.3 | 45.8 |
| 87.5° | 12.6 | 20.5 | 22.1 | 22.1 | 22.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)