

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: P855077

Luminaire Tested: SQ2-PW1-0U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855077
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-0U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

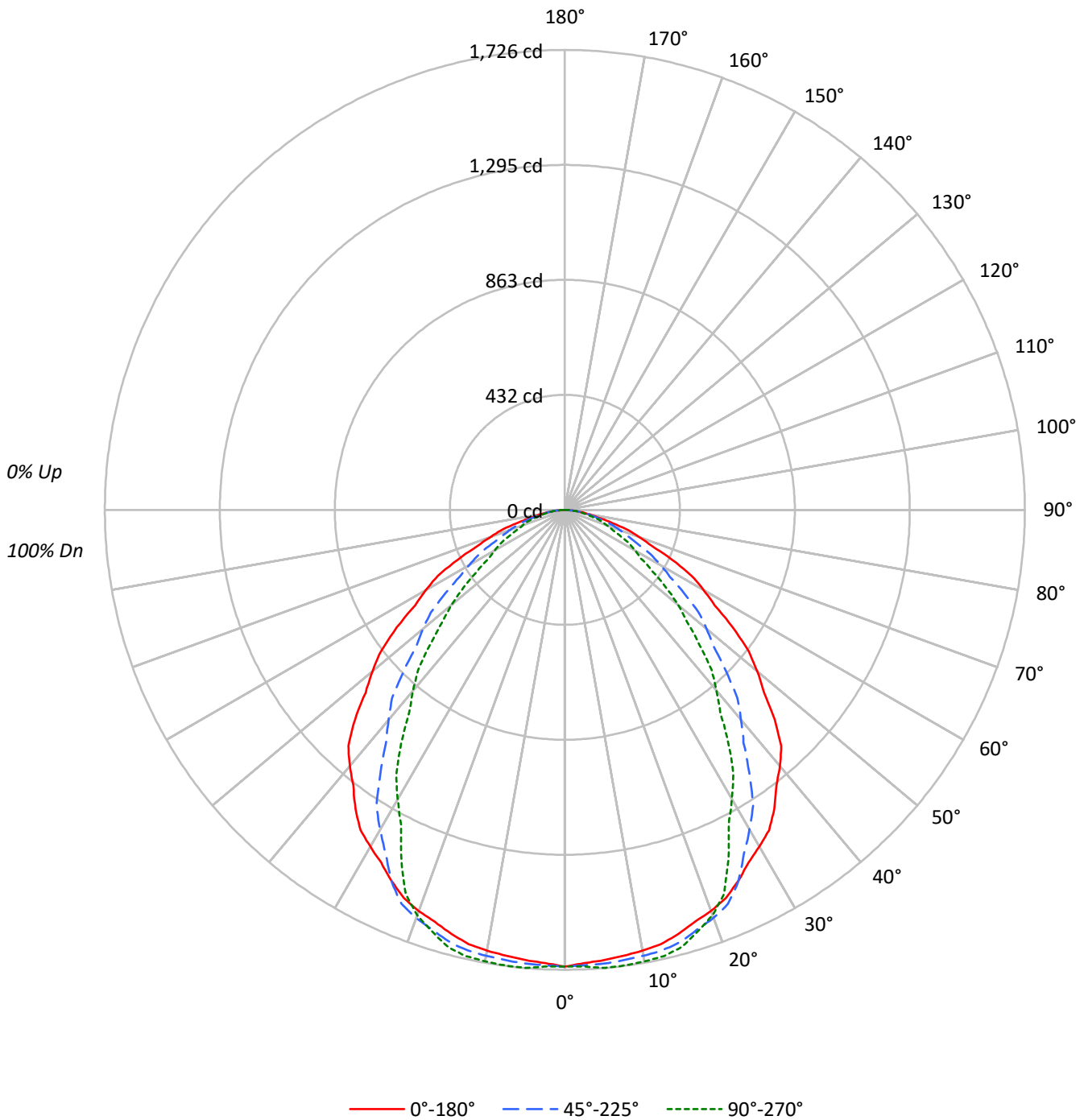
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3803.4 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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: P855077
CATALOG NUMBER: SQ2-PW1-0U-075D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855077

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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 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 85 | 82 | 78 | 82 | 79 | 76 | 74 | | | | 74 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 | | | | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 61 | 71 | 65 | 60 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | | | 56 |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | 49 |
| 6 | 74 | 62 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 | | | | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 46 | 41 | 39 | | | | 39 |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 47 | 42 | 37 | 35 | | | | 35 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 27676 | 27676 | 27676 |
| 5° | 27490 | 27704 | 27968 |
| 10° | 27540 | 27862 | 28211 |
| 15° | 27534 | 28053 | 28379 |
| 20° | 27545 | 28020 | 27825 |
| 25° | 27396 | 27426 | 25857 |
| 30° | 27210 | 25842 | 23375 |
| 35° | 26997 | 23781 | 21108 |
| 40° | 26460 | 21678 | 18649 |
| 45° | 25421 | 19495 | 16290 |
| 50° | 23662 | 17427 | 13943 |
| 55° | 21647 | 15395 | 11305 |
| 60° | 19401 | 13388 | 9752 |
| 65° | 16967 | 11538 | 8669 |
| 70° | 13874 | 10253 | 7860 |
| 75° | 10792 | 8858 | 7230 |
| 80° | 8052 | 7587 | 6378 |
| 85° | 5446 | 5743 | 3631 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25421 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 163.2 | 4.3 |
| 10°-20° | 472.9 | 12.4 |
| 20°-30° | 696.0 | 18.3 |
| 30°-40° | 760.9 | 20.0 |
| 40°-50° | 682.6 | 17.9 |
| 50°-60° | 509.2 | 13.4 |
| 60°-70° | 321.8 | 8.5 |
| 70°-80° | 159.4 | 4.2 |
| 80°-90° | 37.3 | 1.0 |
| 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° | 1332.1 | 35.0 |
| 0°-40° | 2093.0 | 55.0 |
| 0°-60° | 3284.9 | 86.4 |
| 0°-90° | 3803.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3803.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1714 | 1714 | 1714 | 1714 | 1714 | |
| 5° | 1696 | 1723 | 1709 | 1711 | 1726 | 161 |
| 15° | 1647 | 1679 | 1678 | 1690 | 1698 | 465 |
| 25° | 1538 | 1571 | 1540 | 1475 | 1451 | 708 |
| 35° | 1370 | 1355 | 1206 | 1101 | 1071 | 854 |
| 45° | 1113 | 1024 | 854 | 747 | 713 | 854 |
| 55° | 769 | 696 | 547 | 429 | 402 | 687 |
| 65° | 444 | 407 | 302 | 243 | 227 | 440 |
| 75° | 173 | 186 | 142 | 119 | 116 | 191 |
| 85° | 29 | 37 | 31 | 21 | 20 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P855077

CATALOG NUMBER: SQ2-PW1-0U-075D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1714.1 | 1714.1 | 1714.1 | 1714.1 | 1714.1 |
| 2.5° | 1702.4 | 1724.1 | 1710.3 | 1711.6 | 1715.5 |
| 5° | 1696.1 | 1723.3 | 1709.3 | 1711.2 | 1725.6 |
| 7.5° | 1687.7 | 1715.1 | 1704.6 | 1710.5 | 1724.5 |
| 10° | 1679.8 | 1708.6 | 1699.4 | 1707.9 | 1720.7 |
| 12.5° | 1669.4 | 1699.4 | 1693.0 | 1702.7 | 1715.5 |
| 15° | 1647.2 | 1679.2 | 1678.3 | 1689.8 | 1697.8 |
| 17.5° | 1621.4 | 1653.4 | 1651.8 | 1654.8 | 1658.7 |
| 20° | 1603.1 | 1635.0 | 1630.8 | 1619.4 | 1619.4 |
| 22.5° | 1577.0 | 1611.5 | 1600.9 | 1569.6 | 1559.4 |
| 25° | 1537.8 | 1571.3 | 1539.5 | 1475.2 | 1451.4 |
| 27.5° | 1492.1 | 1519.3 | 1455.2 | 1364.0 | 1330.8 |
| 30° | 1459.5 | 1480.2 | 1386.1 | 1285.7 | 1253.8 |
| 32.5° | 1425.6 | 1433.5 | 1315.4 | 1211.2 | 1176.7 |
| 35° | 1369.7 | 1355.3 | 1206.5 | 1101.2 | 1070.9 |
| 37.5° | 1303.7 | 1260.9 | 1101.7 | 991.5 | 958.0 |
| 40° | 1255.4 | 1194.7 | 1028.5 | 918.3 | 884.8 |
| 42.5° | 1201.8 | 1125.9 | 959.3 | 849.1 | 814.3 |
| 45° | 1113.3 | 1024.0 | 853.8 | 746.9 | 713.4 |
| 47.5° | 1013.7 | 925.0 | 755.2 | 651.7 | 623.0 |
| 50° | 942.0 | 855.8 | 693.8 | 590.2 | 555.1 |
| 52.5° | 868.8 | 791.6 | 633.7 | 527.2 | 479.3 |
| 55° | 769.0 | 695.5 | 546.9 | 428.8 | 401.6 |
| 57.5° | 666.1 | 602.5 | 468.2 | 360.9 | 338.6 |
| 60° | 600.8 | 544.9 | 414.6 | 324.3 | 302.0 |
| 62.5° | 538.1 | 488.5 | 362.5 | 290.5 | 271.9 |
| 65° | 444.1 | 407.3 | 302.0 | 242.9 | 226.9 |
| 67.5° | 352.6 | 332.1 | 251.1 | 199.3 | 188.8 |
| 70° | 293.9 | 287.4 | 217.2 | 174.5 | 166.5 |
| 72.5° | 243.0 | 245.5 | 184.5 | 151.1 | 145.6 |
| 75° | 173.0 | 185.8 | 142.0 | 119.1 | 115.9 |
| 77.5° | 117.9 | 137.0 | 105.1 | 88.0 | 85.6 |
| 80° | 86.6 | 105.7 | 81.6 | 68.6 | 68.6 |
| 82.5° | 60.4 | 75.7 | 58.2 | 51.6 | 51.6 |
| 85° | 29.4 | 37.3 | 31.0 | 21.2 | 19.6 |
| 87.5° | 7.8 | 11.7 | 5.2 | 4.0 | 4.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 22.51 | 24.01 | 22.87 | 24.32 | 24.64 | 18.99 | 20.50 | 19.36 | 20.81 | 21.12 |
| | 3H | 23.88 | 25.22 | 24.25 | 25.55 | 25.91 | 20.24 | 21.59 | 20.62 | 21.92 | 22.28 |
| | 4H | 24.28 | 25.54 | 24.68 | 25.89 | 26.27 | 20.72 | 21.98 | 21.12 | 22.33 | 22.71 |
| | 6H | 24.51 | 25.68 | 24.92 | 26.04 | 26.43 | 21.07 | 22.23 | 21.48 | 22.60 | 22.99 |
| | 8H | 24.56 | 25.67 | 24.99 | 26.06 | 26.46 | 21.16 | 22.27 | 21.59 | 22.66 | 23.06 |
| | 12H | 24.58 | 25.64 | 25.01 | 26.02 | 26.45 | 21.19 | 22.25 | 21.62 | 22.63 | 23.06 |
| 4H | 2H | 22.69 | 23.95 | 23.09 | 24.30 | 24.67 | 19.75 | 21.01 | 20.15 | 21.36 | 21.74 |
| | 3H | 24.29 | 25.33 | 24.70 | 25.73 | 26.13 | 21.19 | 22.24 | 21.60 | 22.64 | 23.04 |
| | 4H | 24.82 | 25.76 | 25.25 | 26.17 | 26.61 | 21.76 | 22.70 | 22.20 | 23.12 | 23.56 |
| | 6H | 25.18 | 26.00 | 25.64 | 26.44 | 26.90 | 22.20 | 23.02 | 22.66 | 23.46 | 23.92 |
| | 8H | 25.27 | 26.03 | 25.74 | 26.48 | 26.95 | 22.32 | 23.08 | 22.78 | 23.52 | 23.99 |
| | 12H | 25.32 | 26.00 | 25.80 | 26.47 | 26.95 | 22.37 | 23.05 | 22.85 | 23.53 | 24.00 |
| 8H | 4H | 24.90 | 25.66 | 25.36 | 26.11 | 26.57 | 22.13 | 22.90 | 22.60 | 23.34 | 23.81 |
| | 6H | 25.36 | 25.99 | 25.86 | 26.48 | 26.96 | 22.66 | 23.29 | 23.16 | 23.78 | 24.26 |
| | 8H | 25.50 | 26.07 | 26.02 | 26.58 | 27.07 | 22.83 | 23.39 | 23.34 | 23.90 | 24.39 |
| | 12H | 25.60 | 26.10 | 26.11 | 26.59 | 27.15 | 22.91 | 23.41 | 23.42 | 23.91 | 24.47 |
| 12H | 4H | 24.89 | 25.57 | 25.37 | 26.05 | 26.52 | 22.18 | 22.86 | 22.66 | 23.34 | 23.81 |
| | 6H | 25.35 | 25.91 | 25.86 | 26.42 | 26.91 | 22.73 | 23.29 | 23.24 | 23.80 | 24.29 |
| | 8H | 25.54 | 26.04 | 26.05 | 26.53 | 27.10 | 22.94 | 23.44 | 23.45 | 23.93 | 24.50 |