

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: P853527

Luminaire Tested: SQ2-BBM-0U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853527
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-0U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

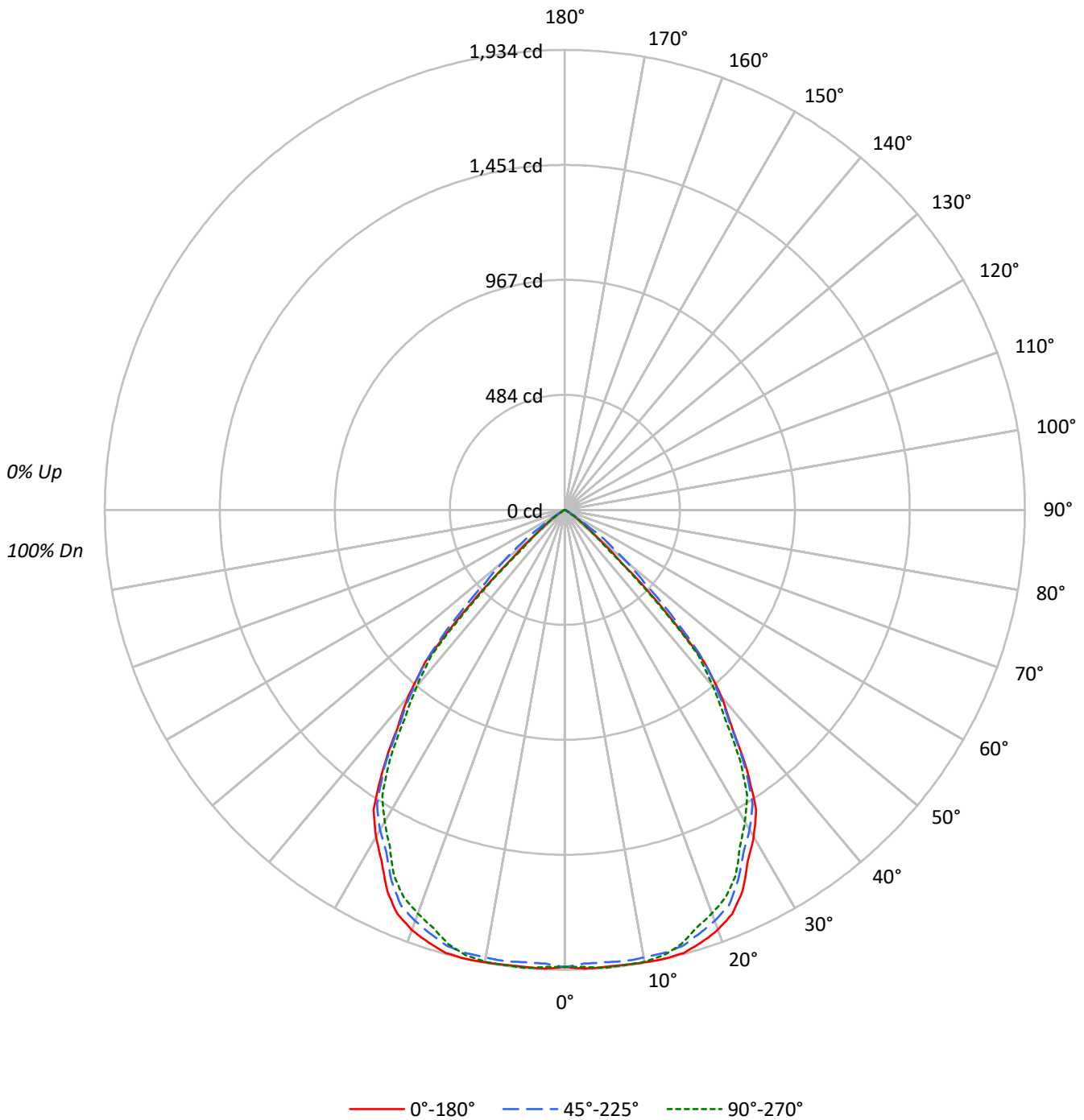
Lumens per Lamp: N/A
Luminaire Lumens: 2873.9 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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

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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 | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 |
| 2 | 106 | 101 | 96 | 93 | 104 | 99 | 95 | 92 | 96 | 92 | 90 | 93 | 90 | 88 | 90 | 88 | 86 | 84 |
| 3 | 100 | 93 | 87 | 83 | 98 | 91 | 86 | 82 | 89 | 84 | 81 | 86 | 82 | 79 | 84 | 81 | 78 | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 70 |
| 5 | 88 | 79 | 72 | 67 | 86 | 78 | 72 | 67 | 76 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 63 |
| 6 | 83 | 73 | 66 | 61 | 81 | 72 | 66 | 61 | 70 | 65 | 60 | 69 | 64 | 60 | 67 | 63 | 60 | 58 |
| 7 | 78 | 67 | 61 | 56 | 76 | 67 | 60 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 53 |
| 8 | 73 | 63 | 56 | 51 | 72 | 62 | 55 | 51 | 61 | 55 | 51 | 60 | 54 | 51 | 59 | 54 | 50 | 49 |
| 9 | 69 | 58 | 52 | 47 | 68 | 58 | 51 | 47 | 57 | 51 | 47 | 56 | 50 | 47 | 55 | 50 | 46 | 45 |
| 10 | 65 | 54 | 48 | 43 | 64 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 47 | 43 | 42 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 31042 | 31042 | 31042 |
| 5° | 31285 | 30943 | 31332 |
| 10° | 31678 | 31349 | 31632 |
| 15° | 32251 | 31768 | 31607 |
| 20° | 32292 | 31613 | 31036 |
| 25° | 31493 | 30688 | 30259 |
| 30° | 29604 | 28959 | 28225 |
| 35° | 26276 | 26067 | 25288 |
| 40° | 21549 | 21184 | 20394 |
| 45° | 12849 | 15109 | 12056 |
| 50° | 4011 | 8382 | 3793 |
| 55° | 1517 | 2978 | 1517 |
| 60° | 94 | 840 | 32 |
| 65° | 0 | 38 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15109 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 183.8 | 6.4 |
| 10°-20° | 538.5 | 18.7 |
| 20°-30° | 792.2 | 27.6 |
| 30°-40° | 809.7 | 28.2 |
| 40°-50° | 466.5 | 16.2 |
| 50°-60° | 80.4 | 2.8 |
| 60°-70° | 2.9 | 0.1 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 1514.5 | 52.7 |
| 0°-40° | 2324.2 | 80.9 |
| 0°-60° | 2871.0 | 99.9 |
| 0°-90° | 2873.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2873.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1923 | 1923 | 1923 | 1923 | 1923 | |
| 5° | 1930 | 1926 | 1909 | 1935 | 1933 | 184 |
| 15° | 1929 | 1945 | 1900 | 1903 | 1891 | 543 |
| 25° | 1768 | 1784 | 1723 | 1705 | 1698 | 807 |
| 35° | 1333 | 1343 | 1322 | 1297 | 1283 | 823 |
| 45° | 563 | 646 | 662 | 625 | 528 | 435 |
| 55° | 54 | 61 | 106 | 60 | 54 | 57 |
| 65° | 0 | 0 | 1 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1922.6 | 1922.6 | 1922.6 | 1922.6 | 1922.6 |
| 2.5° | 1931.1 | 1925.8 | 1910.3 | 1927.9 | 1924.2 |
| 5° | 1930.3 | 1925.6 | 1909.2 | 1935.1 | 1933.2 |
| 7.5° | 1929.2 | 1926.0 | 1914.4 | 1935.6 | 1930.9 |
| 10° | 1932.2 | 1931.3 | 1912.1 | 1934.1 | 1929.4 |
| 12.5° | 1933.8 | 1939.6 | 1909.7 | 1927.1 | 1918.6 |
| 15° | 1929.4 | 1945.4 | 1900.5 | 1903.1 | 1890.9 |
| 17.5° | 1907.8 | 1930.4 | 1870.7 | 1859.7 | 1842.4 |
| 20° | 1879.4 | 1905.7 | 1839.9 | 1821.3 | 1806.3 |
| 22.5° | 1839.3 | 1863.4 | 1800.7 | 1777.5 | 1765.5 |
| 25° | 1767.8 | 1783.8 | 1722.6 | 1705.1 | 1698.5 |
| 27.5° | 1666.4 | 1670.9 | 1624.9 | 1603.1 | 1594.7 |
| 30° | 1587.9 | 1587.9 | 1553.3 | 1529.9 | 1513.9 |
| 32.5° | 1496.4 | 1494.1 | 1469.4 | 1443.7 | 1427.7 |
| 35° | 1333.1 | 1343.4 | 1322.5 | 1297.1 | 1283.0 |
| 37.5° | 1156.3 | 1160.2 | 1144.3 | 1117.1 | 1105.3 |
| 40° | 1022.4 | 1023.3 | 1005.1 | 985.4 | 967.6 |
| 42.5° | 866.2 | 885.2 | 868.1 | 837.2 | 829.8 |
| 45° | 562.7 | 646.3 | 661.7 | 624.9 | 528.0 |
| 47.5° | 282.8 | 387.0 | 452.2 | 351.2 | 248.7 |
| 50° | 159.7 | 221.7 | 333.7 | 185.8 | 151.0 |
| 52.5° | 106.6 | 134.0 | 231.4 | 121.5 | 101.8 |
| 55° | 53.9 | 61.4 | 105.8 | 59.5 | 53.9 |
| 57.5° | 18.3 | 28.4 | 46.0 | 29.4 | 20.2 |
| 60° | 2.9 | 12.3 | 26.0 | 9.4 | 1.0 |
| 62.5° | 0.6 | 3.2 | 16.0 | 2.6 | 0.2 |
| 65° | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 3.96 | 5.09 | 4.32 | 5.40 | 5.72 | 3.57 | 4.70 | 3.94 | 5.01 | 5.33 |
| | 3H | 3.79 | 4.78 | 4.17 | 5.11 | 5.48 | 3.40 | 4.39 | 3.79 | 4.73 | 5.09 |
| | 4H | 3.70 | 4.62 | 4.11 | 4.97 | 5.36 | 3.32 | 4.23 | 3.72 | 4.58 | 4.97 |
| | 6H | 3.60 | 4.44 | 4.02 | 4.81 | 5.21 | 3.22 | 4.05 | 3.64 | 4.43 | 4.82 |
| | 8H | 3.55 | 4.34 | 3.99 | 4.73 | 5.14 | 3.17 | 3.95 | 3.60 | 4.34 | 4.75 |
| | 12H | 3.50 | 4.25 | 3.93 | 4.63 | 5.07 | 3.11 | 3.86 | 3.55 | 4.25 | 4.68 |
| 4H | 2H | 3.71 | 4.62 | 4.11 | 4.97 | 5.36 | 3.32 | 4.24 | 3.73 | 4.59 | 4.98 |
| | 3H | 3.53 | 4.27 | 3.95 | 4.68 | 5.08 | 3.15 | 3.88 | 3.56 | 4.29 | 4.69 |
| | 4H | 3.42 | 4.08 | 3.86 | 4.50 | 4.95 | 3.04 | 3.69 | 3.48 | 4.11 | 4.56 |
| | 6H | 3.32 | 3.88 | 3.79 | 4.33 | 4.80 | 2.94 | 3.50 | 3.41 | 3.94 | 4.42 |
| | 8H | 3.25 | 3.78 | 3.73 | 4.23 | 4.70 | 2.87 | 3.39 | 3.34 | 3.84 | 4.31 |
| | 12H | 3.19 | 3.65 | 3.68 | 4.14 | 4.61 | 2.81 | 3.26 | 3.30 | 3.75 | 4.23 |
| 8H | 4H | 3.25 | 3.78 | 3.73 | 4.23 | 4.70 | 2.87 | 3.39 | 3.34 | 3.84 | 4.31 |
| | 6H | 3.13 | 3.55 | 3.64 | 4.06 | 4.54 | 2.75 | 3.17 | 3.26 | 3.67 | 4.15 |
| | 8H | 3.06 | 3.44 | 3.59 | 3.96 | 4.45 | 2.67 | 3.05 | 3.20 | 3.57 | 4.07 |
| | 12H | 3.00 | 3.34 | 3.52 | 3.83 | 4.41 | 2.62 | 2.95 | 3.14 | 3.45 | 4.03 |
| 12H | 4H | 3.19 | 3.65 | 3.68 | 4.14 | 4.61 | 2.81 | 3.26 | 3.30 | 3.75 | 4.23 |
| | 6H | 3.06 | 3.44 | 3.59 | 3.96 | 4.45 | 2.67 | 3.05 | 3.20 | 3.57 | 4.07 |
| | 8H | 3.00 | 3.34 | 3.52 | 3.83 | 4.41 | 2.62 | 2.95 | 3.14 | 3.45 | 4.03 |