

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520014

Luminaire Tested: **SQ4-F-075U-075D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520014
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, G3-1910-536-18)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-075U-075D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

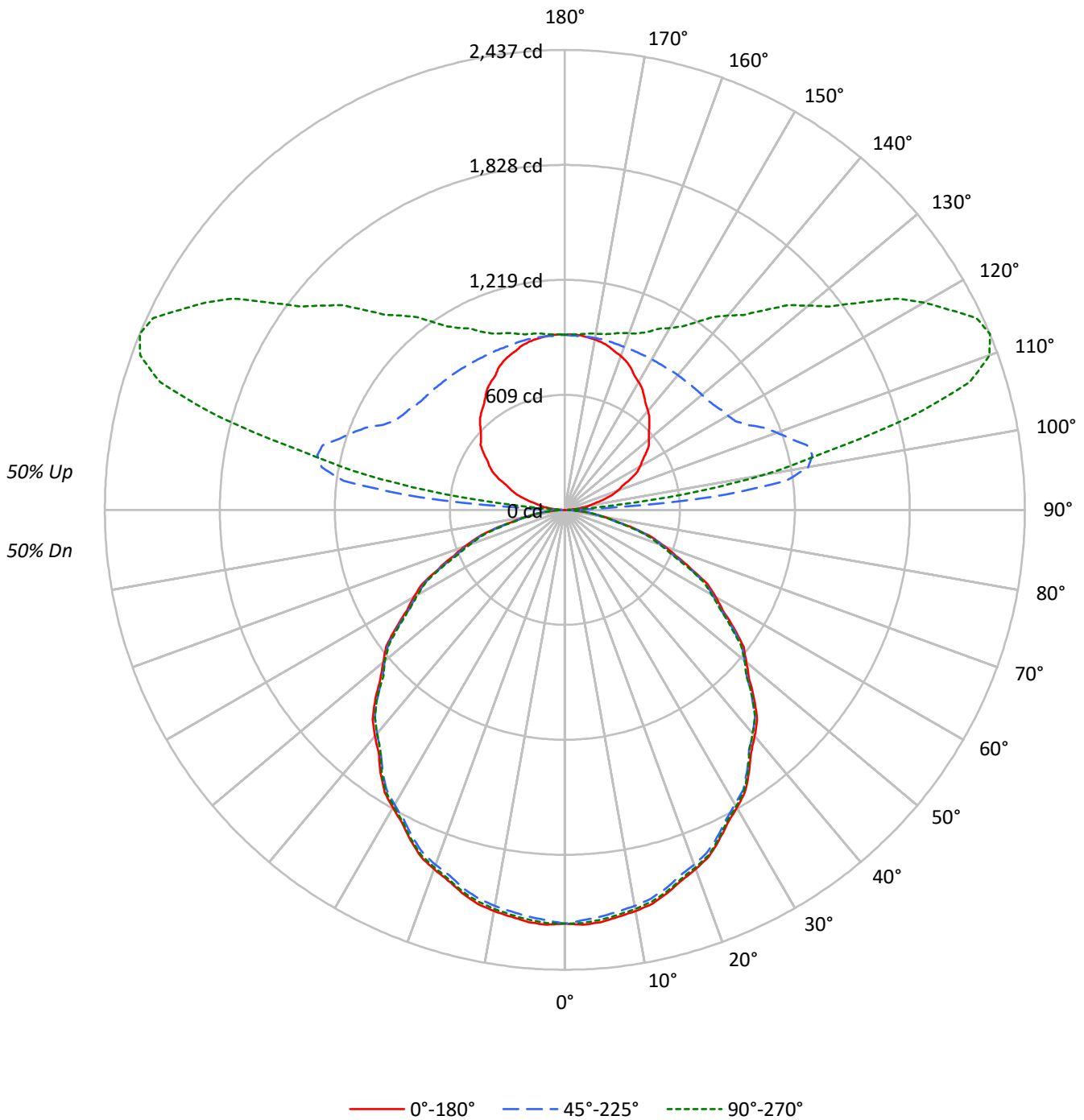
Lumens per Lamp: N/A
Luminaire Lumens: 12036.0 lumens
Efficiency: N/A
Efficacy: 133.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 90.2
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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 |
| 1 | 98 | 93 | 89 | 86 | 90 | 86 | 83 | 80 | 73 | 71 | 68 | 61 | 59 | 57 | 49 | 48 | 47 | 42 |
| 2 | 89 | 81 | 75 | 70 | 82 | 75 | 70 | 65 | 64 | 60 | 56 | 53 | 50 | 48 | 43 | 41 | 40 | 35 |
| 3 | 81 | 72 | 64 | 58 | 74 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 43 | 40 | 38 | 36 | 34 | 29 |
| 4 | 74 | 63 | 55 | 49 | 68 | 59 | 52 | 46 | 50 | 44 | 40 | 42 | 38 | 34 | 34 | 31 | 29 | 25 |
| 5 | 68 | 56 | 48 | 42 | 62 | 52 | 45 | 40 | 45 | 39 | 35 | 37 | 33 | 30 | 31 | 28 | 25 | 22 |
| 6 | 63 | 50 | 42 | 36 | 57 | 47 | 40 | 34 | 40 | 34 | 30 | 34 | 29 | 26 | 28 | 25 | 22 | 19 |
| 7 | 58 | 45 | 37 | 32 | 53 | 42 | 35 | 30 | 36 | 31 | 26 | 31 | 26 | 23 | 25 | 22 | 20 | 17 |
| 8 | 54 | 41 | 33 | 28 | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 28 | 24 | 20 | 23 | 20 | 17 | 15 |
| 9 | 50 | 38 | 30 | 25 | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 16 | 14 |
| 10 | 47 | 34 | 27 | 22 | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10115 | 10115 | 10115 |
| 5° | 10154 | 10025 | 10099 |
| 10° | 10113 | 9983 | 10057 |
| 15° | 10035 | 9912 | 9997 |
| 20° | 9944 | 9828 | 9905 |
| 25° | 9835 | 9734 | 9805 |
| 30° | 9711 | 9605 | 9657 |
| 35° | 9583 | 9482 | 9527 |
| 40° | 9421 | 9326 | 9314 |
| 45° | 9260 | 9143 | 9169 |
| 50° | 9002 | 8931 | 8931 |
| 55° | 8794 | 8681 | 8602 |
| 60° | 8510 | 8364 | 8290 |
| 65° | 8051 | 7898 | 7789 |
| 70° | 7561 | 7372 | 7186 |
| 75° | 6803 | 6554 | 6413 |
| 80° | 5441 | 5332 | 5281 |
| 85° | 3260 | 3684 | 3784 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 207.0 | 1.7 |
| 10°-20° | 589.2 | 4.9 |
| 20°-30° | 885.2 | 7.4 |
| 30°-40° | 1056.3 | 8.8 |
| 40°-50° | 1083.3 | 9.0 |
| 50°-60° | 965.2 | 8.0 |
| 60°-70° | 719.7 | 6.0 |
| 70°-80° | 390.3 | 3.2 |
| 80°-90° | 92.0 | 0.8 |
| 90°-100° | 437.8 | 3.6 |
| 100°-110° | 1204.7 | 10.0 |
| 110°-120° | 1243.4 | 10.3 |
| 120°-130° | 996.2 | 8.3 |
| 130°-140° | 782.5 | 6.5 |
| 140°-150° | 599.6 | 5.0 |
| 150°-160° | 431.1 | 3.6 |
| 160°-170° | 263.6 | 2.2 |
| 170°-180° | 88.9 | 0.7 |
| 0°-30° | 1681.4 | 14.0 |
| 0°-40° | 2737.7 | 22.7 |
| 0°-60° | 4786.1 | 39.8 |
| 0°-90° | 5988.2 | 49.8 |
| 90°-120° | 2885.9 | 24.0 |
| 90°-150° | 5264.2 | 43.7 |
| 90°-180° | 6048.0 | 50.2 |
| 0°-180° | 12036.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2193 | 2193 | 2193 | 2193 | 2193 | |
| 5° | 2193 | 2189 | 2165 | 2183 | 2181 | 208 |
| 15° | 2101 | 2097 | 2075 | 2091 | 2093 | 593 |
| 25° | 1932 | 1930 | 1912 | 1922 | 1926 | 890 |
| 35° | 1702 | 1698 | 1684 | 1684 | 1692 | 1063 |
| 45° | 1419 | 1414 | 1402 | 1402 | 1405 | 1092 |
| 55° | 1093 | 1091 | 1079 | 1070 | 1070 | 977 |
| 65° | 738 | 738 | 724 | 716 | 714 | 734 |
| 75° | 382 | 374 | 368 | 362 | 360 | 401 |
| 85° | 62 | 66 | 70 | 70 | 72 | 85 |
| 90° | 2 | 8 | 14 | 18 | 18 | 6 |
| 95° | 65 | 239 | 774 | 331 | 211 | 69 |
| 105° | 215 | 331 | 1327 | 2022 | 1886 | 227 |
| 115° | 381 | 464 | 1065 | 2120 | 2406 | 376 |
| 125° | 525 | 599 | 966 | 1634 | 1914 | 469 |
| 135° | 634 | 704 | 938 | 1321 | 1495 | 489 |
| 145° | 733 | 783 | 924 | 1126 | 1213 | 460 |
| 155° | 830 | 857 | 918 | 1012 | 1041 | 381 |
| 165° | 897 | 908 | 922 | 960 | 966 | 253 |
| 175° | 928 | 930 | 924 | 936 | 934 | 88 |
| 180° | 928 | 928 | 928 | 928 | 928 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2192.7 | 2192.7 | 2192.7 | 2192.7 | 2192.7 |
| 2.5° | 2200.7 | 2195.9 | 2176.7 | 2192.7 | 2191.1 |
| 5° | 2192.7 | 2188.8 | 2164.8 | 2182.7 | 2180.8 |
| 7.5° | 2174.8 | 2170.5 | 2146.9 | 2164.8 | 2164.4 |
| 10° | 2158.9 | 2153.0 | 2131.1 | 2148.9 | 2146.9 |
| 12.5° | 2138.2 | 2132.4 | 2110.4 | 2128.2 | 2126.3 |
| 15° | 2101.3 | 2097.3 | 2075.4 | 2091.3 | 2093.3 |
| 17.5° | 2059.0 | 2051.7 | 2032.1 | 2047.6 | 2049.6 |
| 20° | 2025.7 | 2019.9 | 2001.9 | 2015.8 | 2017.7 |
| 22.5° | 1990.8 | 1984.9 | 1966.8 | 1980.8 | 1982.8 |
| 25° | 1932.3 | 1930.3 | 1912.4 | 1922.5 | 1926.3 |
| 27.5° | 1869.0 | 1863.6 | 1849.1 | 1856.8 | 1860.7 |
| 30° | 1823.0 | 1819.0 | 1803.1 | 1809.1 | 1813.0 |
| 32.5° | 1775.2 | 1772.9 | 1758.5 | 1761.5 | 1766.9 |
| 35° | 1701.6 | 1697.8 | 1683.7 | 1683.9 | 1691.7 |
| 37.5° | 1620.2 | 1615.9 | 1604.2 | 1602.3 | 1605.5 |
| 40° | 1564.5 | 1558.7 | 1548.6 | 1546.6 | 1546.6 |
| 42.5° | 1507.3 | 1503.0 | 1489.8 | 1486.3 | 1491.0 |
| 45° | 1419.4 | 1413.5 | 1401.5 | 1401.6 | 1405.4 |
| 47.5° | 1324.3 | 1322.0 | 1308.0 | 1301.7 | 1303.3 |
| 50° | 1254.4 | 1258.3 | 1244.4 | 1236.7 | 1244.4 |
| 52.5° | 1194.0 | 1191.6 | 1179.2 | 1171.3 | 1174.5 |
| 55° | 1093.4 | 1091.4 | 1079.4 | 1069.5 | 1069.5 |
| 57.5° | 992.3 | 987.3 | 974.9 | 967.4 | 973.3 |
| 60° | 922.4 | 920.5 | 906.5 | 892.7 | 898.5 |
| 62.5° | 852.4 | 848.9 | 835.0 | 825.9 | 830.2 |
| 65° | 737.6 | 737.6 | 723.6 | 715.6 | 713.6 |
| 67.5° | 636.9 | 627.6 | 619.9 | 610.2 | 607.6 |
| 70° | 560.6 | 552.8 | 546.6 | 538.6 | 532.8 |
| 72.5° | 485.8 | 481.2 | 472.0 | 464.0 | 462.8 |
| 75° | 381.7 | 373.9 | 367.7 | 361.7 | 359.8 |
| 77.5° | 271.5 | 270.0 | 264.4 | 261.3 | 262.4 |
| 80° | 204.8 | 204.8 | 200.7 | 200.7 | 198.8 |
| 82.5° | 144.4 | 145.8 | 145.1 | 141.9 | 141.5 |
| 85° | 61.6 | 65.5 | 69.6 | 69.6 | 71.5 |
| 87.5° | 11.5 | 20.5 | 20.3 | 21.1 | 21.1 |
| 90° | 2.0 | 7.7 | 13.8 | 17.8 | 17.8 |
| 92.5° | 27.3 | 116.5 | 201.9 | 77.5 | 63.6 |
| 95° | 65.1 | 239.0 | 774.3 | 331.1 | 211.4 |
| 97.5° | 106.2 | 265.0 | 1181.6 | 910.4 | 642.3 |
| 100° | 136.3 | 281.1 | 1309.6 | 1321.8 | 1078.5 |
| 102.5° | 164.7 | 300.3 | 1342.8 | 1639.9 | 1416.6 |
| 105° | 215.3 | 331.2 | 1327.3 | 2021.5 | 1886.3 |
| 107.5° | 263.5 | 369.3 | 1251.9 | 2208.4 | 2248.6 |
| 110° | 298.2 | 394.9 | 1195.0 | 2254.9 | 2393.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 329.8 | 423.3 | 1138.1 | 2224.9 | 2436.6 |
| 115° | 381.2 | 464.2 | 1064.7 | 2120.0 | 2405.8 |
| 117.5° | 430.2 | 506.7 | 1018.0 | 1972.7 | 2295.9 |
| 120° | 460.2 | 533.7 | 997.5 | 1862.3 | 2196.5 |
| 122.5° | 487.1 | 560.5 | 983.3 | 1765.5 | 2082.7 |
| 125° | 525.4 | 598.8 | 965.9 | 1633.9 | 1914.0 |
| 127.5° | 561.7 | 631.7 | 954.4 | 1524.1 | 1769.8 |
| 130° | 580.7 | 652.2 | 948.1 | 1458.9 | 1682.9 |
| 132.5° | 602.8 | 674.3 | 943.4 | 1401.4 | 1603.8 |
| 135° | 634.0 | 703.6 | 938.2 | 1321.4 | 1495.3 |
| 137.5° | 663.3 | 727.8 | 933.9 | 1256.7 | 1400.0 |
| 140° | 685.4 | 745.2 | 932.3 | 1213.7 | 1343.2 |
| 142.5° | 704.3 | 759.6 | 929.1 | 1175.4 | 1286.2 |
| 145° | 732.8 | 783.0 | 924.4 | 1125.9 | 1212.8 |
| 147.5° | 763.2 | 806.5 | 922.1 | 1082.0 | 1151.5 |
| 150° | 782.2 | 820.8 | 920.4 | 1057.9 | 1112.0 |
| 152.5° | 799.6 | 835.1 | 918.8 | 1037.2 | 1082.0 |
| 155° | 829.5 | 856.6 | 918.5 | 1012.0 | 1040.9 |
| 157.5° | 851.4 | 873.4 | 918.5 | 991.2 | 1011.3 |
| 160° | 867.1 | 884.5 | 918.5 | 980.1 | 995.5 |
| 162.5° | 879.7 | 894.1 | 920.0 | 970.5 | 982.9 |
| 165° | 896.7 | 908.4 | 922.5 | 960.1 | 965.9 |
| 167.5° | 908.6 | 917.5 | 924.4 | 951.3 | 952.9 |
| 170° | 916.5 | 922.3 | 924.4 | 948.1 | 948.1 |
| 172.5° | 922.9 | 925.5 | 924.4 | 943.3 | 941.7 |
| 175° | 928.3 | 930.3 | 924.4 | 936.2 | 934.3 |
| 177.5° | 929.9 | 929.9 | 923.6 | 933.0 | 929.9 |
| 180° | 928.3 | 928.3 | 928.3 | 928.3 | 928.3 |

(END OF REPORT)