

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: P519922

Luminaire Tested: **SQ4-F-050U-075D-930-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519922
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-075D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

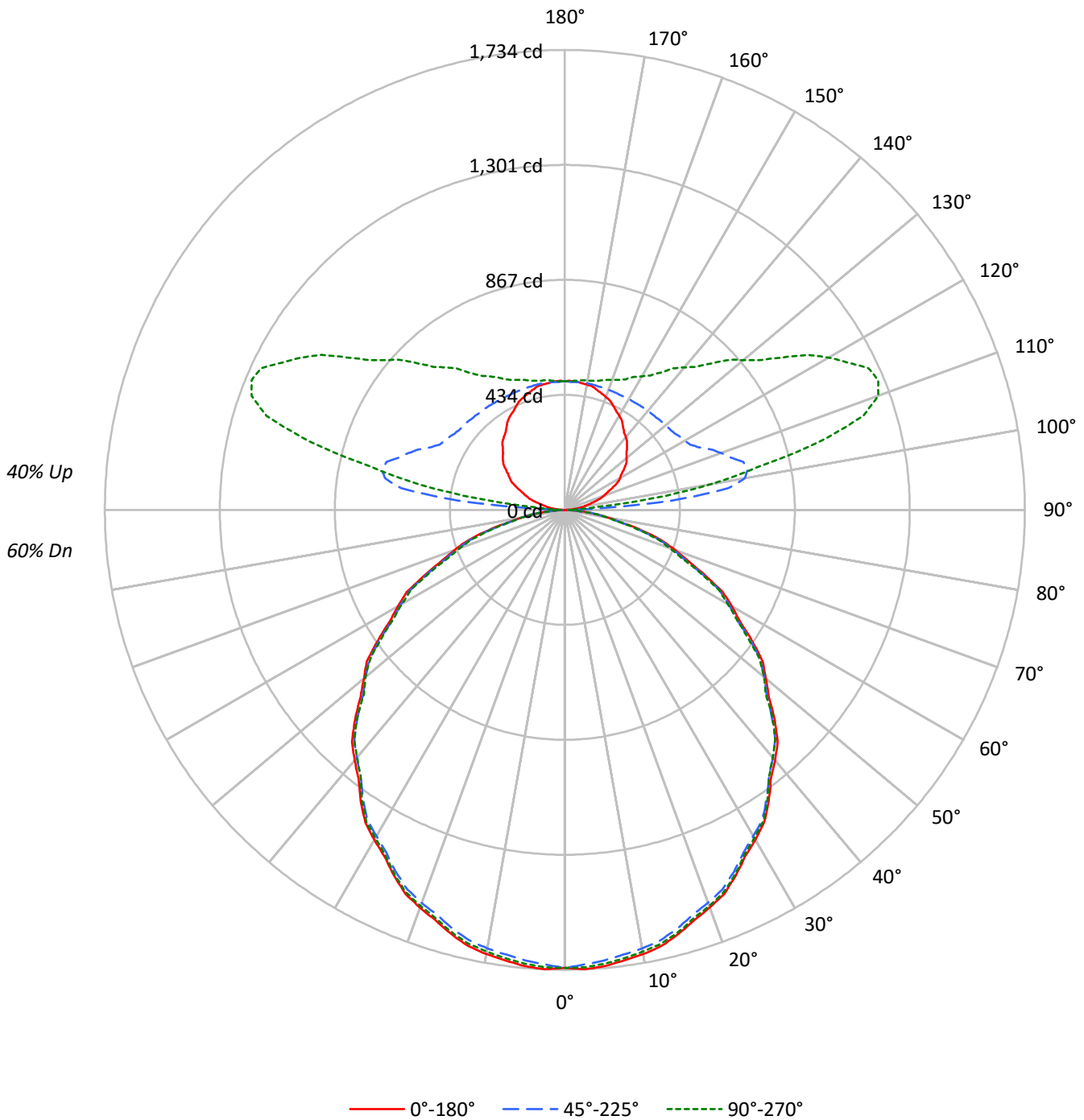
Lumens per Lamp: N/A
Luminaire Lumens: 7887.8 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 76.5
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 | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 76 | 76 | 76 | 65 | 65 | 65 | 60 |
| 1 | 100 | 96 | 92 | 88 | 93 | 89 | 86 | 83 | 78 | 75 | 73 | 67 | 65 | 64 | 58 | 56 | 55 | 50 |
| 2 | 91 | 83 | 77 | 72 | 85 | 78 | 73 | 68 | 68 | 64 | 60 | 59 | 56 | 53 | 51 | 48 | 46 | 42 |
| 3 | 83 | 73 | 66 | 60 | 77 | 69 | 62 | 57 | 60 | 55 | 51 | 52 | 48 | 45 | 45 | 42 | 39 | 35 |
| 4 | 76 | 65 | 57 | 50 | 71 | 61 | 54 | 48 | 53 | 48 | 43 | 46 | 42 | 38 | 40 | 36 | 34 | 30 |
| 5 | 70 | 58 | 49 | 43 | 65 | 54 | 47 | 41 | 48 | 42 | 37 | 42 | 37 | 33 | 36 | 32 | 29 | 26 |
| 6 | 64 | 52 | 43 | 37 | 60 | 49 | 41 | 36 | 43 | 37 | 32 | 38 | 33 | 29 | 32 | 29 | 26 | 23 |
| 7 | 59 | 47 | 39 | 33 | 55 | 44 | 37 | 31 | 39 | 33 | 28 | 34 | 29 | 26 | 30 | 26 | 23 | 20 |
| 8 | 55 | 42 | 35 | 29 | 51 | 40 | 33 | 28 | 35 | 30 | 25 | 31 | 26 | 23 | 27 | 23 | 20 | 18 |
| 9 | 51 | 39 | 31 | 26 | 48 | 37 | 30 | 25 | 33 | 27 | 23 | 29 | 24 | 21 | 25 | 21 | 18 | 16 |
| 10 | 48 | 36 | 28 | 23 | 45 | 34 | 27 | 22 | 30 | 24 | 20 | 27 | 22 | 19 | 23 | 19 | 17 | 15 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7969 | 7969 | 7969 |
| 5° | 7999 | 7898 | 7956 |
| 10° | 7967 | 7864 | 7923 |
| 15° | 7906 | 7808 | 7876 |
| 20° | 7835 | 7743 | 7804 |
| 25° | 7748 | 7669 | 7725 |
| 30° | 7650 | 7567 | 7609 |
| 35° | 7550 | 7470 | 7506 |
| 40° | 7422 | 7347 | 7338 |
| 45° | 7295 | 7203 | 7224 |
| 50° | 7092 | 7036 | 7036 |
| 55° | 6927 | 6840 | 6777 |
| 60° | 6705 | 6588 | 6531 |
| 65° | 6343 | 6223 | 6138 |
| 70° | 5956 | 5809 | 5661 |
| 75° | 5360 | 5164 | 5053 |
| 80° | 4285 | 4200 | 4163 |
| 85° | 2567 | 2901 | 2985 |



TEST NUMBER: P519922

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 163.1 | 2.1 |
| 10°-20° | 464.2 | 5.9 |
| 20°-30° | 697.4 | 8.8 |
| 30°-40° | 832.2 | 10.5 |
| 40°-50° | 853.4 | 10.8 |
| 50°-60° | 760.5 | 9.6 |
| 60°-70° | 567.0 | 7.2 |
| 70°-80° | 307.5 | 3.9 |
| 80°-90° | 72.5 | 0.9 |
| 90°-100° | 233.1 | 3.0 |
| 100°-110° | 633.2 | 8.0 |
| 110°-120° | 651.0 | 8.3 |
| 120°-130° | 520.5 | 6.6 |
| 130°-140° | 409.0 | 5.2 |
| 140°-150° | 313.6 | 4.0 |
| 150°-160° | 225.5 | 2.9 |
| 160°-170° | 137.9 | 1.7 |
| 170°-180° | 46.5 | 0.6 |
| 0°-30° | 1324.7 | 16.8 |
| 0°-40° | 2156.8 | 27.3 |
| 0°-60° | 3770.7 | 47.8 |
| 0°-90° | 4717.7 | 59.8 |
| 90°-120° | 1517.2 | 19.2 |
| 90°-150° | 2760.3 | 35.0 |
| 90°-180° | 3170.0 | 40.2 |
| 0°-180° | 7887.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1727 | 1727 | 1727 | 1727 | 1727 | |
| 5° | 1727 | 1724 | 1706 | 1720 | 1718 | 164 |
| 15° | 1655 | 1652 | 1635 | 1648 | 1649 | 467 |
| 25° | 1522 | 1521 | 1507 | 1515 | 1518 | 701 |
| 35° | 1341 | 1338 | 1326 | 1327 | 1333 | 837 |
| 45° | 1118 | 1114 | 1104 | 1104 | 1107 | 861 |
| 55° | 861 | 860 | 850 | 843 | 843 | 769 |
| 65° | 581 | 581 | 570 | 564 | 562 | 578 |
| 75° | 301 | 294 | 290 | 285 | 284 | 316 |
| 85° | 48 | 52 | 55 | 55 | 56 | 67 |
| 90° | 2 | 6 | 11 | 14 | 14 | 4 |
| 95° | 34 | 128 | 406 | 177 | 119 | 36 |
| 105° | 112 | 175 | 696 | 1060 | 998 | 119 |
| 115° | 200 | 243 | 557 | 1109 | 1263 | 197 |
| 125° | 275 | 313 | 504 | 850 | 1002 | 245 |
| 135° | 331 | 368 | 490 | 692 | 781 | 256 |
| 145° | 382 | 410 | 484 | 588 | 632 | 240 |
| 155° | 432 | 448 | 481 | 528 | 543 | 199 |
| 165° | 468 | 474 | 482 | 503 | 504 | 132 |
| 175° | 486 | 487 | 484 | 490 | 489 | 46 |
| 180° | 486 | 486 | 486 | 486 | 486 | |

TEST NUMBER: P519922

CATALOG NUMBER: SQ4-F-050U-075D-930-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 |
| 2.5° | 1733.7 | 1730.1 | 1714.9 | 1727.4 | 1726.2 |
| 5° | 1727.4 | 1724.4 | 1705.6 | 1719.5 | 1718.1 |
| 7.5° | 1713.3 | 1710.0 | 1691.4 | 1705.5 | 1705.2 |
| 10° | 1700.9 | 1696.2 | 1678.9 | 1693.0 | 1691.4 |
| 12.5° | 1684.5 | 1680.0 | 1662.6 | 1676.6 | 1675.2 |
| 15° | 1655.4 | 1652.3 | 1635.0 | 1647.6 | 1649.2 |
| 17.5° | 1622.2 | 1616.4 | 1600.9 | 1613.2 | 1614.6 |
| 20° | 1596.0 | 1591.3 | 1577.2 | 1588.1 | 1589.7 |
| 22.5° | 1568.3 | 1563.8 | 1549.5 | 1560.5 | 1562.1 |
| 25° | 1522.2 | 1520.8 | 1506.6 | 1514.6 | 1517.6 |
| 27.5° | 1472.5 | 1468.2 | 1456.8 | 1462.8 | 1466.0 |
| 30° | 1436.1 | 1433.1 | 1420.5 | 1425.2 | 1428.4 |
| 32.5° | 1398.5 | 1396.8 | 1385.5 | 1387.7 | 1392.0 |
| 35° | 1340.6 | 1337.5 | 1326.5 | 1326.7 | 1332.8 |
| 37.5° | 1276.4 | 1273.1 | 1263.8 | 1262.4 | 1264.8 |
| 40° | 1232.5 | 1228.0 | 1220.0 | 1218.5 | 1218.5 |
| 42.5° | 1187.5 | 1184.1 | 1173.7 | 1170.9 | 1174.6 |
| 45° | 1118.2 | 1113.7 | 1104.1 | 1104.2 | 1107.3 |
| 47.5° | 1043.4 | 1041.5 | 1030.5 | 1025.6 | 1026.8 |
| 50° | 988.2 | 991.3 | 980.4 | 974.3 | 980.4 |
| 52.5° | 940.7 | 938.8 | 929.1 | 922.9 | 925.3 |
| 55° | 861.3 | 859.9 | 850.4 | 842.6 | 842.6 |
| 57.5° | 781.8 | 777.8 | 768.1 | 762.2 | 766.8 |
| 60° | 726.7 | 725.2 | 714.1 | 703.3 | 707.9 |
| 62.5° | 671.5 | 668.8 | 657.7 | 650.7 | 654.0 |
| 65° | 581.1 | 581.1 | 570.1 | 563.8 | 562.3 |
| 67.5° | 501.8 | 494.5 | 488.3 | 480.7 | 478.6 |
| 70° | 441.6 | 435.5 | 430.7 | 424.3 | 419.7 |
| 72.5° | 382.8 | 379.1 | 371.8 | 365.5 | 364.6 |
| 75° | 300.7 | 294.5 | 289.7 | 285.0 | 283.5 |
| 77.5° | 213.9 | 212.8 | 208.3 | 205.8 | 206.8 |
| 80° | 161.3 | 161.3 | 158.1 | 158.1 | 156.7 |
| 82.5° | 113.7 | 114.9 | 114.3 | 111.8 | 111.5 |
| 85° | 48.5 | 51.6 | 54.8 | 54.8 | 56.4 |
| 87.5° | 9.1 | 16.1 | 15.9 | 16.6 | 16.6 |
| 90° | 1.6 | 6.2 | 10.9 | 14.0 | 14.0 |
| 92.5° | 14.0 | 63.8 | 110.9 | 47.6 | 40.2 |
| 95° | 34.3 | 127.5 | 405.9 | 176.6 | 118.6 |
| 97.5° | 56.8 | 140.8 | 622.3 | 484.2 | 340.0 |
| 100° | 71.8 | 149.6 | 688.5 | 697.9 | 563.6 |
| 102.5° | 86.8 | 158.6 | 705.9 | 863.1 | 744.7 |
| 105° | 112.4 | 175.0 | 696.3 | 1060.2 | 997.6 |
| 107.5° | 139.0 | 194.2 | 656.0 | 1161.9 | 1179.3 |
| 110° | 157.7 | 208.0 | 626.1 | 1182.0 | 1256.7 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 173.9 | 221.9 | 596.0 | 1165.4 | 1278.0 |
| 115° | 199.8 | 242.6 | 557.4 | 1108.9 | 1263.0 |
| 117.5° | 224.2 | 265.1 | 532.6 | 1028.7 | 1202.5 |
| 120° | 240.4 | 280.2 | 521.5 | 975.0 | 1147.5 |
| 122.5° | 254.2 | 293.9 | 513.9 | 921.1 | 1087.6 |
| 125° | 274.8 | 312.9 | 504.3 | 849.6 | 1002.3 |
| 127.5° | 293.2 | 331.1 | 499.0 | 795.4 | 926.4 |
| 130° | 304.4 | 341.1 | 496.4 | 761.4 | 878.9 |
| 132.5° | 315.7 | 352.3 | 494.0 | 732.3 | 836.4 |
| 135° | 331.0 | 367.6 | 490.3 | 692.1 | 780.6 |
| 137.5° | 347.5 | 380.8 | 488.4 | 656.5 | 731.0 |
| 140° | 357.5 | 389.6 | 487.1 | 633.8 | 700.9 |
| 142.5° | 367.5 | 397.1 | 485.8 | 616.1 | 672.3 |
| 145° | 382.5 | 410.0 | 484.0 | 588.0 | 632.2 |
| 147.5° | 399.4 | 422.8 | 482.4 | 565.9 | 600.7 |
| 150° | 410.6 | 430.4 | 482.4 | 553.2 | 580.7 |
| 152.5° | 419.3 | 436.8 | 481.1 | 542.0 | 564.5 |
| 155° | 432.5 | 447.8 | 480.8 | 528.0 | 543.3 |
| 157.5° | 445.2 | 457.2 | 480.8 | 518.6 | 530.2 |
| 160° | 452.8 | 463.5 | 480.8 | 512.2 | 521.5 |
| 162.5° | 460.2 | 468.5 | 482.1 | 507.2 | 513.9 |
| 165° | 468.4 | 474.5 | 482.4 | 502.7 | 504.3 |
| 167.5° | 476.8 | 479.8 | 484.0 | 497.4 | 498.7 |
| 170° | 479.3 | 482.3 | 484.0 | 494.9 | 494.9 |
| 172.5° | 481.8 | 483.6 | 484.0 | 492.4 | 492.4 |
| 175° | 485.5 | 487.0 | 484.0 | 490.2 | 488.7 |
| 177.5° | 486.8 | 486.8 | 483.0 | 488.0 | 485.5 |
| 180° | 485.5 | 485.5 | 485.5 | 485.5 | 485.5 |

(END OF REPORT)