

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: P519811

Luminaire Tested: **SQ4-F-025U-075D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519811
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, 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-025U-075D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

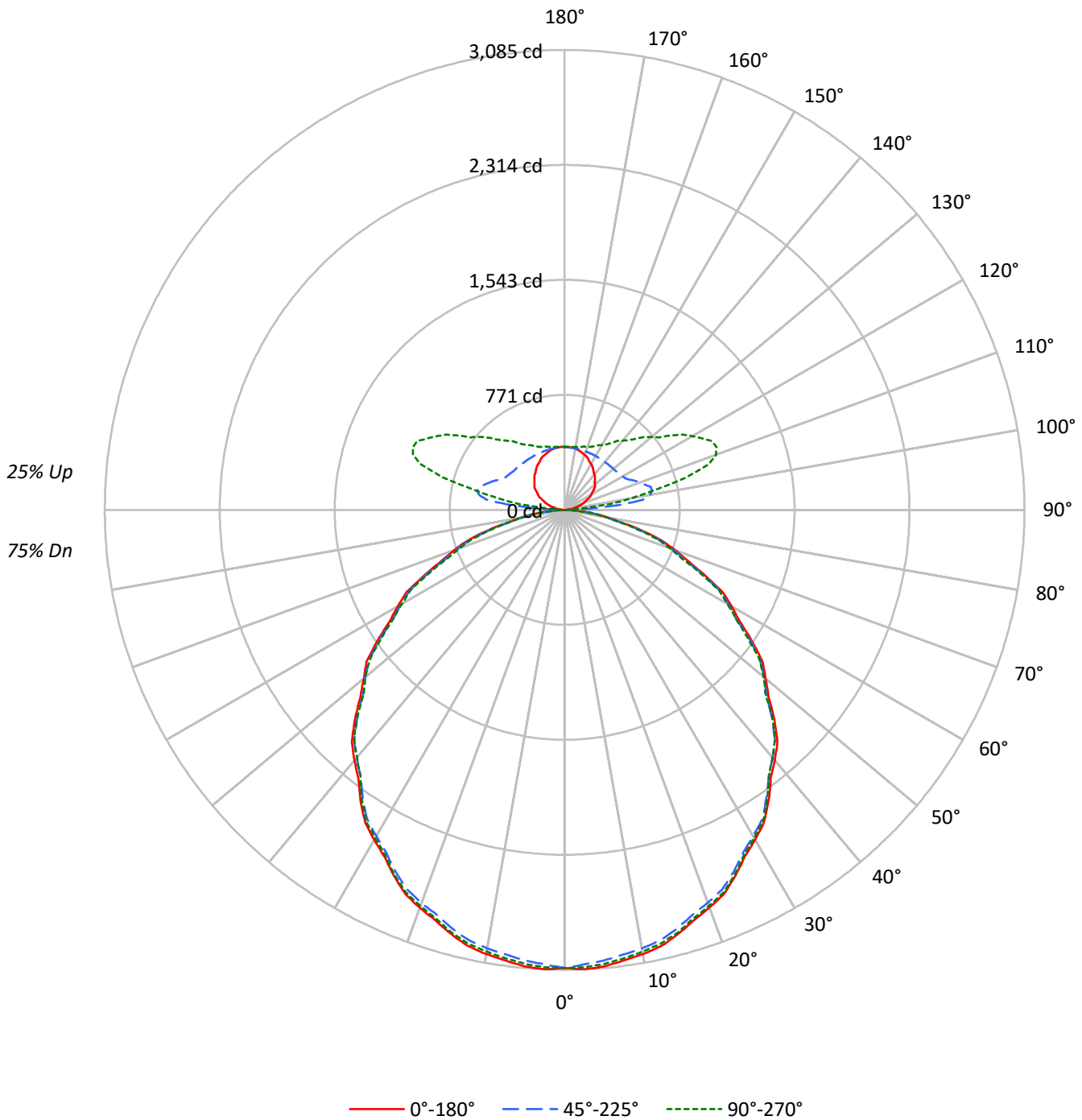
Lumens per Lamp: N/A
Luminaire Lumens: 11128.0 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 94.4
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 | 113 | 113 | 113 | 113 | 108 | 108 | 108 | 108 | 97 | 97 | 97 | 88 | 88 | 88 | 79 | 79 | 79 | 75 |
| 1 | 103 | 99 | 95 | 91 | 98 | 94 | 91 | 87 | 86 | 83 | 80 | 78 | 75 | 73 | 70 | 69 | 67 | 63 |
| 2 | 94 | 86 | 80 | 74 | 89 | 82 | 77 | 72 | 75 | 70 | 66 | 68 | 64 | 61 | 62 | 59 | 56 | 53 |
| 3 | 86 | 76 | 68 | 62 | 81 | 72 | 65 | 60 | 66 | 60 | 56 | 60 | 56 | 52 | 55 | 51 | 48 | 45 |
| 4 | 79 | 67 | 59 | 52 | 74 | 64 | 57 | 51 | 59 | 52 | 47 | 53 | 48 | 44 | 49 | 45 | 41 | 38 |
| 5 | 72 | 60 | 51 | 45 | 68 | 57 | 49 | 44 | 52 | 46 | 41 | 48 | 43 | 38 | 44 | 39 | 36 | 33 |
| 6 | 67 | 54 | 45 | 39 | 63 | 52 | 44 | 38 | 47 | 41 | 36 | 43 | 38 | 34 | 40 | 35 | 31 | 29 |
| 7 | 62 | 49 | 40 | 34 | 58 | 47 | 39 | 33 | 43 | 36 | 32 | 39 | 34 | 30 | 36 | 32 | 28 | 26 |
| 8 | 57 | 44 | 36 | 31 | 54 | 43 | 35 | 30 | 39 | 33 | 28 | 36 | 31 | 27 | 33 | 29 | 25 | 23 |
| 9 | 53 | 41 | 33 | 27 | 51 | 39 | 32 | 27 | 36 | 30 | 25 | 33 | 28 | 24 | 31 | 26 | 23 | 21 |
| 10 | 50 | 37 | 30 | 25 | 48 | 36 | 29 | 24 | 33 | 27 | 23 | 31 | 25 | 22 | 28 | 24 | 20 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9452 | 9452 | 9452 |
| 5° | 9488 | 9368 | 9437 |
| 10° | 9450 | 9329 | 9398 |
| 15° | 9378 | 9263 | 9342 |
| 20° | 9293 | 9184 | 9257 |
| 25° | 9191 | 9096 | 9163 |
| 30° | 9074 | 8975 | 9025 |
| 35° | 8955 | 8861 | 8903 |
| 40° | 8804 | 8715 | 8703 |
| 45° | 8653 | 8544 | 8569 |
| 50° | 8413 | 8346 | 8346 |
| 55° | 8217 | 8113 | 8038 |
| 60° | 7953 | 7815 | 7747 |
| 65° | 7524 | 7381 | 7280 |
| 70° | 7066 | 6890 | 6715 |
| 75° | 6357 | 6125 | 5992 |
| 80° | 5085 | 4984 | 4936 |
| 85° | 3049 | 3440 | 3539 |



TEST NUMBER: P519811

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 290.1 | 2.6 |
| 10°-20° | 825.9 | 7.4 |
| 20°-30° | 1240.9 | 11.2 |
| 30°-40° | 1480.6 | 13.3 |
| 40°-50° | 1518.4 | 13.6 |
| 50°-60° | 1353.0 | 12.2 |
| 60°-70° | 1008.8 | 9.1 |
| 70°-80° | 547.1 | 4.9 |
| 80°-90° | 128.0 | 1.2 |
| 90°-100° | 205.7 | 1.8 |
| 100°-110° | 540.7 | 4.9 |
| 110°-120° | 560.7 | 5.0 |
| 120°-130° | 449.7 | 4.0 |
| 130°-140° | 352.9 | 3.2 |
| 140°-150° | 270.8 | 2.4 |
| 150°-160° | 195.1 | 1.8 |
| 160°-170° | 119.3 | 1.1 |
| 170°-180° | 40.3 | 0.4 |
| 0°-30° | 2356.9 | 21.2 |
| 0°-40° | 3837.5 | 34.5 |
| 0°-60° | 6708.9 | 60.3 |
| 0°-90° | 8392.8 | 75.4 |
| 90°-120° | 1307.1 | 11.7 |
| 90°-150° | 2380.5 | 21.4 |
| 90°-180° | 2735.0 | 24.6 |
| 0°-180° | 11128.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3074 | 3074 | 3074 | 3074 | 3074 | |
| 5° | 3074 | 3068 | 3034 | 3060 | 3057 | 292 |
| 15° | 2945 | 2940 | 2909 | 2932 | 2934 | 831 |
| 25° | 2708 | 2706 | 2681 | 2695 | 2700 | 1247 |
| 35° | 2385 | 2380 | 2360 | 2360 | 2371 | 1490 |
| 45° | 1990 | 1981 | 1964 | 1965 | 1970 | 1531 |
| 55° | 1533 | 1530 | 1513 | 1499 | 1499 | 1369 |
| 65° | 1034 | 1034 | 1014 | 1003 | 1000 | 1029 |
| 75° | 535 | 524 | 516 | 507 | 504 | 562 |
| 85° | 86 | 92 | 98 | 98 | 100 | 120 |
| 90° | 3 | 8 | 22 | 11 | 11 | 5 |
| 95° | 27 | 106 | 354 | 183 | 124 | 30 |
| 105° | 97 | 148 | 598 | 908 | 847 | 103 |
| 115° | 173 | 210 | 479 | 955 | 1090 | 171 |
| 125° | 241 | 270 | 436 | 736 | 868 | 214 |
| 135° | 287 | 316 | 422 | 594 | 674 | 222 |
| 145° | 333 | 354 | 417 | 507 | 546 | 208 |
| 155° | 376 | 386 | 417 | 458 | 471 | 173 |
| 165° | 406 | 411 | 417 | 433 | 438 | 115 |
| 175° | 422 | 422 | 419 | 425 | 425 | 40 |
| 180° | 422 | 422 | 422 | 422 | 422 | |



TEST NUMBER: P519811

CATALOG NUMBER: SQ4-F-025U-075D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3073.5 | 3073.5 | 3073.5 | 3073.5 | 3073.5 |
| 2.5° | 3084.7 | 3078.1 | 3051.3 | 3073.5 | 3071.4 |
| 5° | 3073.5 | 3068.1 | 3034.5 | 3059.5 | 3056.9 |
| 7.5° | 3048.5 | 3042.5 | 3009.5 | 3034.5 | 3034.0 |
| 10° | 3026.2 | 3018.0 | 2987.2 | 3012.2 | 3009.5 |
| 12.5° | 2997.3 | 2989.0 | 2958.2 | 2983.2 | 2980.5 |
| 15° | 2945.4 | 2939.9 | 2909.2 | 2931.5 | 2934.3 |
| 17.5° | 2886.3 | 2875.9 | 2848.4 | 2870.2 | 2873.0 |
| 20° | 2839.5 | 2831.3 | 2806.1 | 2825.6 | 2828.4 |
| 22.5° | 2790.4 | 2782.2 | 2757.0 | 2776.5 | 2779.3 |
| 25° | 2708.5 | 2705.8 | 2680.7 | 2694.8 | 2700.2 |
| 27.5° | 2619.9 | 2612.3 | 2592.0 | 2602.7 | 2608.3 |
| 30° | 2555.3 | 2549.8 | 2527.4 | 2535.9 | 2541.3 |
| 32.5° | 2488.4 | 2485.1 | 2465.0 | 2469.0 | 2476.7 |
| 35° | 2385.3 | 2379.9 | 2360.2 | 2360.5 | 2371.4 |
| 37.5° | 2271.0 | 2265.0 | 2248.8 | 2246.0 | 2250.4 |
| 40° | 2193.0 | 2184.8 | 2170.7 | 2167.9 | 2167.9 |
| 42.5° | 2112.8 | 2106.8 | 2088.3 | 2083.4 | 2089.9 |
| 45° | 1989.6 | 1981.4 | 1964.5 | 1964.7 | 1970.1 |
| 47.5° | 1856.4 | 1853.1 | 1833.5 | 1824.6 | 1826.8 |
| 50° | 1758.3 | 1763.7 | 1744.3 | 1733.5 | 1744.3 |
| 52.5° | 1673.6 | 1670.3 | 1653.0 | 1641.9 | 1646.3 |
| 55° | 1532.6 | 1529.9 | 1513.1 | 1499.1 | 1499.1 |
| 57.5° | 1391.1 | 1384.0 | 1366.6 | 1356.1 | 1364.3 |
| 60° | 1293.0 | 1290.2 | 1270.6 | 1251.3 | 1259.5 |
| 62.5° | 1194.8 | 1189.9 | 1170.3 | 1157.6 | 1163.7 |
| 65° | 1033.9 | 1033.9 | 1014.3 | 1003.1 | 1000.4 |
| 67.5° | 892.8 | 879.8 | 868.8 | 855.3 | 851.6 |
| 70° | 785.8 | 774.9 | 766.3 | 755.0 | 746.8 |
| 72.5° | 681.1 | 674.5 | 661.5 | 650.4 | 648.7 |
| 75° | 535.0 | 524.1 | 515.5 | 507.1 | 504.3 |
| 77.5° | 380.6 | 378.5 | 370.6 | 366.2 | 367.8 |
| 80° | 287.1 | 287.1 | 281.4 | 281.3 | 278.7 |
| 82.5° | 202.3 | 204.5 | 203.4 | 199.0 | 198.4 |
| 85° | 86.4 | 91.8 | 97.5 | 97.6 | 100.3 |
| 87.5° | 16.1 | 28.1 | 28.9 | 26.8 | 26.8 |
| 90° | 2.7 | 8.0 | 21.6 | 10.8 | 10.8 |
| 92.5° | 11.4 | 54.8 | 121.2 | 53.6 | 34.6 |
| 95° | 27.1 | 106.4 | 354.3 | 182.7 | 124.5 |
| 97.5° | 47.0 | 116.9 | 530.2 | 421.6 | 310.6 |
| 100° | 62.2 | 125.7 | 584.3 | 592.2 | 459.9 |
| 102.5° | 75.2 | 134.5 | 599.4 | 737.5 | 624.4 |
| 105° | 97.4 | 147.7 | 597.8 | 907.5 | 846.7 |
| 107.5° | 120.2 | 166.7 | 563.8 | 995.8 | 1010.6 |
| 110° | 135.3 | 177.6 | 535.6 | 1018.6 | 1082.0 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 150.4 | 190.6 | 509.7 | 1004.1 | 1101.5 |
| 115° | 173.1 | 210.2 | 478.8 | 955.3 | 1090.2 |
| 117.5° | 195.3 | 229.1 | 457.7 | 887.4 | 1037.1 |
| 120° | 208.3 | 240.0 | 449.1 | 841.9 | 987.3 |
| 122.5° | 221.3 | 253.0 | 442.6 | 796.4 | 939.7 |
| 125° | 240.8 | 269.8 | 435.5 | 736.1 | 868.3 |
| 127.5° | 256.5 | 286.1 | 429.6 | 687.5 | 799.1 |
| 130° | 265.1 | 296.8 | 427.4 | 657.0 | 760.1 |
| 132.5° | 273.8 | 305.5 | 425.3 | 630.8 | 723.3 |
| 135° | 286.8 | 315.8 | 422.0 | 594.3 | 673.6 |
| 137.5° | 300.2 | 328.8 | 421.4 | 566.8 | 631.9 |
| 140° | 311.0 | 337.5 | 419.2 | 545.1 | 605.9 |
| 142.5° | 319.7 | 344.1 | 419.2 | 529.7 | 582.1 |
| 145° | 332.7 | 353.9 | 416.6 | 506.7 | 546.5 |
| 147.5° | 345.7 | 366.4 | 416.6 | 487.7 | 520.5 |
| 150° | 354.3 | 372.9 | 416.6 | 476.7 | 503.2 |
| 152.5° | 363.0 | 377.3 | 416.6 | 467.9 | 488.0 |
| 155° | 376.0 | 386.5 | 416.6 | 457.5 | 470.7 |
| 157.5° | 385.8 | 395.8 | 416.6 | 448.2 | 457.7 |
| 160° | 392.2 | 400.1 | 416.6 | 443.7 | 449.1 |
| 162.5° | 398.7 | 404.5 | 416.6 | 439.4 | 444.7 |
| 165° | 405.8 | 411.0 | 416.6 | 432.9 | 438.3 |
| 167.5° | 412.3 | 414.9 | 419.2 | 430.1 | 432.2 |
| 170° | 416.6 | 419.2 | 419.2 | 430.1 | 430.1 |
| 172.5° | 418.8 | 419.2 | 419.2 | 427.9 | 425.7 |
| 175° | 422.0 | 422.0 | 419.2 | 424.7 | 424.7 |
| 177.5° | 422.0 | 422.0 | 419.8 | 424.1 | 422.0 |
| 180° | 422.0 | 422.0 | 422.0 | 422.0 | 422.0 |

(END OF REPORT)