

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: P519846

Luminaire Tested: **SQ4-F-025U-100D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519846
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-025U-100D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

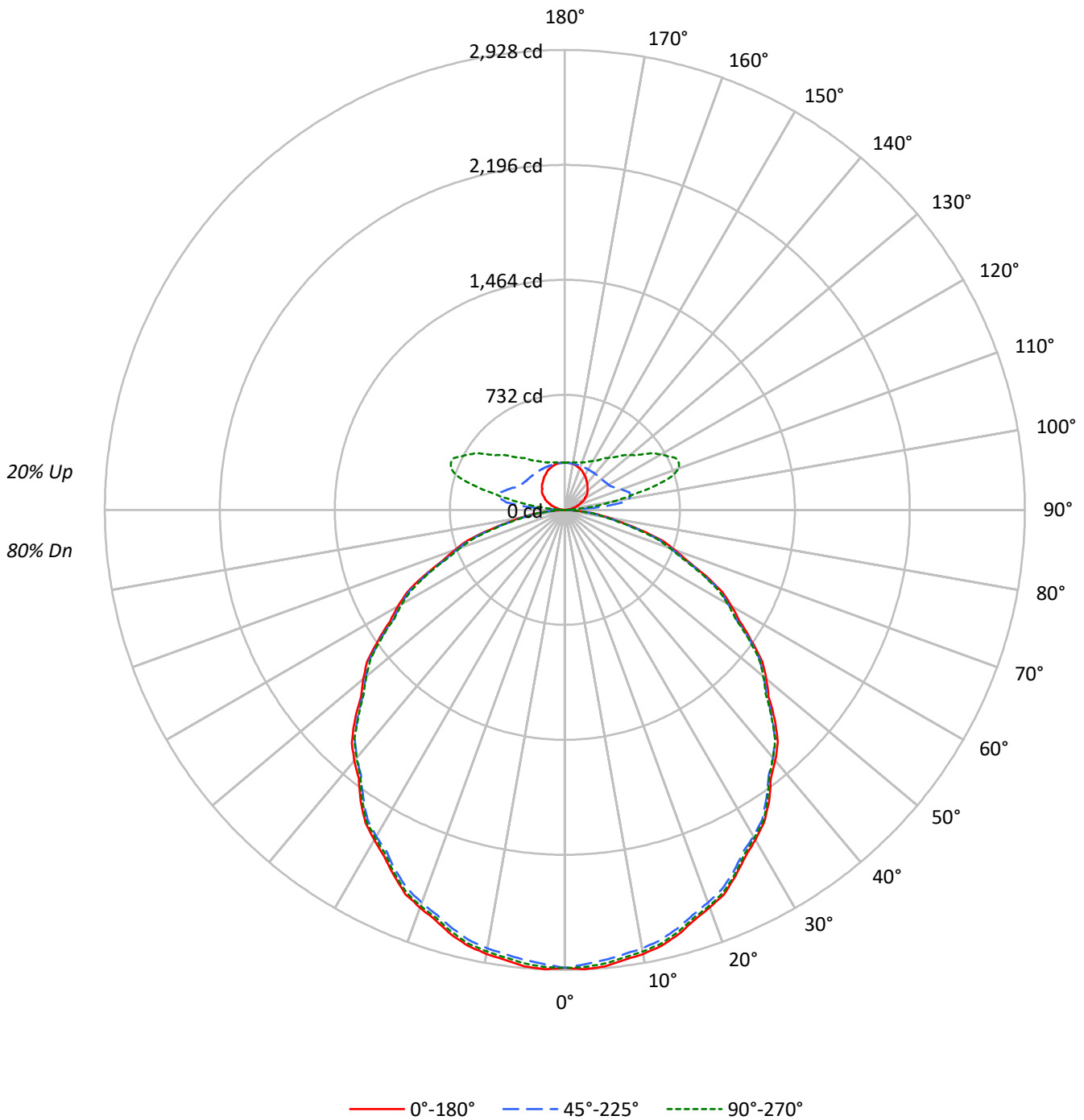
Lumens per Lamp: N/A
Luminaire Lumens: 9906.9 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 79.3
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 | 114 | 114 | 114 | 114 | 109 | 109 | 109 | 109 | 100 | 100 | 100 | 92 | 92 | 92 | 84 | 84 | 84 | 80 |
| 1 | 105 | 100 | 96 | 92 | 100 | 96 | 92 | 89 | 88 | 85 | 83 | 81 | 79 | 77 | 74 | 73 | 71 | 68 |
| 2 | 95 | 87 | 81 | 75 | 91 | 84 | 78 | 73 | 77 | 72 | 68 | 71 | 67 | 64 | 65 | 62 | 60 | 56 |
| 3 | 87 | 77 | 69 | 63 | 83 | 74 | 67 | 61 | 68 | 62 | 57 | 63 | 58 | 54 | 58 | 54 | 51 | 48 |
| 4 | 79 | 68 | 59 | 53 | 76 | 65 | 58 | 52 | 60 | 54 | 49 | 56 | 50 | 46 | 51 | 47 | 43 | 41 |
| 5 | 73 | 61 | 52 | 46 | 70 | 58 | 50 | 44 | 54 | 47 | 42 | 50 | 44 | 40 | 46 | 42 | 38 | 35 |
| 6 | 67 | 54 | 46 | 40 | 64 | 52 | 45 | 39 | 49 | 42 | 37 | 45 | 39 | 35 | 42 | 37 | 33 | 31 |
| 7 | 62 | 49 | 41 | 35 | 59 | 48 | 40 | 34 | 44 | 38 | 33 | 41 | 35 | 31 | 38 | 33 | 30 | 27 |
| 8 | 58 | 45 | 37 | 31 | 55 | 43 | 36 | 30 | 40 | 34 | 29 | 38 | 32 | 28 | 35 | 30 | 26 | 24 |
| 9 | 54 | 41 | 33 | 28 | 52 | 40 | 32 | 27 | 37 | 31 | 26 | 35 | 29 | 25 | 32 | 28 | 24 | 22 |
| 10 | 51 | 38 | 30 | 25 | 48 | 37 | 29 | 25 | 34 | 28 | 24 | 32 | 27 | 23 | 30 | 25 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13453 | 13453 | 13453 |
| 5° | 13514 | 13328 | 13430 |
| 10° | 13445 | 13276 | 13379 |
| 15° | 13364 | 13182 | 13287 |
| 20° | 13226 | 13069 | 13177 |
| 25° | 13081 | 12929 | 13030 |
| 30° | 12922 | 12784 | 12848 |
| 35° | 12760 | 12602 | 12670 |
| 40° | 12548 | 12403 | 12415 |
| 45° | 12327 | 12157 | 12118 |
| 50° | 12009 | 11865 | 11837 |
| 55° | 11655 | 11526 | 11446 |
| 60° | 11302 | 11099 | 11062 |
| 65° | 10750 | 10509 | 10422 |
| 70° | 9988 | 9746 | 9556 |
| 75° | 8919 | 8634 | 8456 |
| 80° | 7337 | 7072 | 6753 |
| 85° | 4340 | 4769 | 4870 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 275.2 | 2.8 |
| 10°-20° | 783.8 | 7.9 |
| 20°-30° | 1177.1 | 11.9 |
| 30°-40° | 1404.7 | 14.2 |
| 40°-50° | 1439.9 | 14.5 |
| 50°-60° | 1282.2 | 12.9 |
| 60°-70° | 955.8 | 9.6 |
| 70°-80° | 517.5 | 5.2 |
| 80°-90° | 119.4 | 1.2 |
| 90°-100° | 146.7 | 1.5 |
| 100°-110° | 385.7 | 3.9 |
| 110°-120° | 400.0 | 4.0 |
| 120°-130° | 320.8 | 3.2 |
| 130°-140° | 251.7 | 2.5 |
| 140°-150° | 193.2 | 2.0 |
| 150°-160° | 139.2 | 1.4 |
| 160°-170° | 85.1 | 0.9 |
| 170°-180° | 28.8 | 0.3 |
| 0°-30° | 2236.2 | 22.6 |
| 0°-40° | 3640.9 | 36.8 |
| 0°-60° | 6363.0 | 64.2 |
| 0°-90° | 7955.7 | 80.3 |
| 90°-120° | 932.4 | 9.4 |
| 90°-150° | 1698.2 | 17.1 |
| 90°-180° | 1951.0 | 19.7 |
| 0°-180° | 9906.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2916 | 2916 | 2916 | 2916 | 2916 | |
| 5° | 2918 | 2912 | 2878 | 2904 | 2900 | 277 |
| 15° | 2798 | 2788 | 2760 | 2782 | 2782 | 788 |
| 25° | 2570 | 2564 | 2540 | 2554 | 2560 | 1184 |
| 35° | 2266 | 2256 | 2238 | 2242 | 2250 | 1414 |
| 45° | 1890 | 1880 | 1863 | 1854 | 1858 | 1454 |
| 55° | 1449 | 1451 | 1433 | 1419 | 1423 | 1297 |
| 65° | 985 | 981 | 963 | 953 | 955 | 974 |
| 75° | 500 | 494 | 484 | 474 | 474 | 533 |
| 85° | 82 | 90 | 90 | 92 | 92 | 115 |
| 90° | 2 | 6 | 16 | 8 | 8 | 4 |
| 95° | 19 | 76 | 253 | 130 | 89 | 22 |
| 105° | 70 | 105 | 426 | 647 | 604 | 74 |
| 115° | 124 | 150 | 342 | 681 | 778 | 122 |
| 125° | 172 | 192 | 311 | 525 | 620 | 152 |
| 135° | 205 | 225 | 301 | 424 | 480 | 158 |
| 145° | 237 | 252 | 297 | 362 | 390 | 149 |
| 155° | 268 | 276 | 297 | 326 | 336 | 123 |
| 165° | 289 | 293 | 297 | 309 | 313 | 82 |
| 175° | 301 | 301 | 299 | 303 | 303 | 29 |
| 180° | 301 | 301 | 301 | 301 | 301 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2916.3 | 2916.3 | 2916.3 | 2916.3 | 2916.3 |
| 2.5° | 2927.5 | 2921.2 | 2895.5 | 2916.3 | 2913.1 |
| 5° | 2918.3 | 2912.4 | 2878.2 | 2904.2 | 2900.3 |
| 7.5° | 2891.1 | 2885.2 | 2855.1 | 2879.0 | 2875.5 |
| 10° | 2870.3 | 2864.4 | 2834.2 | 2858.2 | 2856.2 |
| 12.5° | 2843.1 | 2837.2 | 2807.0 | 2831.0 | 2829.0 |
| 15° | 2798.2 | 2788.5 | 2760.2 | 2782.2 | 2782.2 |
| 17.5° | 2738.9 | 2731.5 | 2705.3 | 2723.8 | 2724.2 |
| 20° | 2694.1 | 2688.3 | 2662.1 | 2682.2 | 2684.1 |
| 22.5° | 2649.3 | 2643.4 | 2614.1 | 2632.6 | 2636.1 |
| 25° | 2570.0 | 2564.1 | 2540.0 | 2554.1 | 2560.0 |
| 27.5° | 2488.4 | 2479.7 | 2456.0 | 2468.4 | 2472.8 |
| 30° | 2425.9 | 2422.0 | 2399.9 | 2406.0 | 2412.0 |
| 32.5° | 2360.2 | 2356.4 | 2337.4 | 2340.5 | 2351.0 |
| 35° | 2265.8 | 2256.0 | 2237.8 | 2241.9 | 2249.8 |
| 37.5° | 2154.1 | 2149.4 | 2131.7 | 2129.5 | 2136.9 |
| 40° | 2083.7 | 2075.9 | 2059.6 | 2055.8 | 2061.6 |
| 42.5° | 2006.8 | 1999.0 | 1979.6 | 1975.7 | 1983.1 |
| 45° | 1889.5 | 1879.7 | 1863.4 | 1853.5 | 1857.5 |
| 47.5° | 1758.2 | 1758.2 | 1741.4 | 1729.9 | 1735.8 |
| 50° | 1673.3 | 1673.3 | 1653.3 | 1643.5 | 1649.3 |
| 52.5° | 1585.2 | 1586.8 | 1565.2 | 1560.0 | 1558.1 |
| 55° | 1449.2 | 1451.1 | 1433.1 | 1419.3 | 1423.1 |
| 57.5° | 1317.9 | 1313.5 | 1292.6 | 1283.4 | 1285.4 |
| 60° | 1225.0 | 1219.1 | 1203.0 | 1189.2 | 1199.0 |
| 62.5° | 1130.5 | 1127.8 | 1111.7 | 1096.0 | 1094.9 |
| 65° | 984.8 | 980.9 | 962.8 | 952.8 | 954.8 |
| 67.5° | 839.8 | 835.2 | 818.6 | 804.3 | 809.4 |
| 70° | 740.5 | 740.5 | 722.6 | 714.5 | 708.5 |
| 72.5° | 649.3 | 641.5 | 628.1 | 616.8 | 612.5 |
| 75° | 500.4 | 494.5 | 484.4 | 474.4 | 474.4 |
| 77.5° | 364.3 | 359.2 | 352.6 | 345.8 | 343.9 |
| 80° | 276.2 | 274.3 | 266.2 | 264.0 | 254.2 |
| 82.5° | 194.6 | 194.2 | 189.3 | 184.1 | 183.7 |
| 85° | 82.0 | 89.9 | 90.1 | 92.0 | 92.0 |
| 87.5° | 14.8 | 25.0 | 25.7 | 20.8 | 20.8 |
| 90° | 1.9 | 5.7 | 15.5 | 7.7 | 7.7 |
| 92.5° | 8.1 | 39.1 | 86.4 | 38.3 | 24.7 |
| 95° | 19.3 | 75.9 | 252.8 | 130.3 | 88.8 |
| 97.5° | 33.6 | 83.4 | 378.2 | 300.8 | 221.6 |
| 100° | 44.4 | 89.7 | 416.9 | 422.4 | 328.1 |
| 102.5° | 53.6 | 95.9 | 427.7 | 526.2 | 445.4 |
| 105° | 69.5 | 105.3 | 426.5 | 647.4 | 604.0 |
| 107.5° | 85.6 | 118.9 | 402.1 | 710.4 | 721.0 |
| 110° | 96.4 | 126.7 | 382.1 | 726.6 | 772.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 107.3 | 136.0 | 363.6 | 716.4 | 785.8 |
| 115° | 123.5 | 149.9 | 341.5 | 681.4 | 777.7 |
| 117.5° | 139.4 | 163.5 | 326.5 | 633.1 | 739.9 |
| 120° | 148.6 | 171.2 | 320.3 | 600.6 | 704.4 |
| 122.5° | 157.8 | 180.5 | 315.7 | 568.2 | 670.4 |
| 125° | 171.8 | 192.5 | 310.7 | 525.1 | 619.5 |
| 127.5° | 183.0 | 204.1 | 306.4 | 490.5 | 570.1 |
| 130° | 189.2 | 211.7 | 304.9 | 468.7 | 542.3 |
| 132.5° | 195.3 | 217.9 | 303.4 | 450.0 | 516.1 |
| 135° | 204.6 | 225.3 | 301.1 | 423.9 | 480.5 |
| 137.5° | 214.2 | 234.6 | 300.6 | 404.4 | 450.8 |
| 140° | 222.0 | 240.8 | 299.1 | 388.8 | 432.2 |
| 142.5° | 228.1 | 245.5 | 299.1 | 377.9 | 415.3 |
| 145° | 237.3 | 252.4 | 297.2 | 361.5 | 389.8 |
| 147.5° | 246.6 | 261.3 | 297.2 | 347.9 | 371.3 |
| 150° | 252.8 | 266.0 | 297.2 | 340.1 | 358.9 |
| 152.5° | 258.9 | 269.2 | 297.2 | 333.8 | 348.1 |
| 155° | 268.2 | 275.8 | 297.2 | 326.3 | 335.8 |
| 157.5° | 275.2 | 282.4 | 297.2 | 319.7 | 326.5 |
| 160° | 279.8 | 285.5 | 297.2 | 316.6 | 320.3 |
| 162.5° | 284.5 | 288.6 | 297.2 | 313.5 | 317.2 |
| 165° | 289.4 | 293.3 | 297.2 | 308.8 | 312.7 |
| 167.5° | 294.1 | 296.0 | 299.1 | 306.8 | 308.4 |
| 170° | 297.2 | 299.1 | 299.1 | 306.8 | 306.8 |
| 172.5° | 298.7 | 299.1 | 299.1 | 305.3 | 303.8 |
| 175° | 301.1 | 301.1 | 299.1 | 303.0 | 303.0 |
| 177.5° | 301.1 | 301.1 | 299.5 | 302.5 | 301.1 |
| 180° | 301.1 | 301.1 | 301.1 | 301.1 | 301.1 |

(END OF REPORT)