

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: P519130

Luminaire Tested: **SQ4-WB-050U-100D-930-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519130
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-100D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

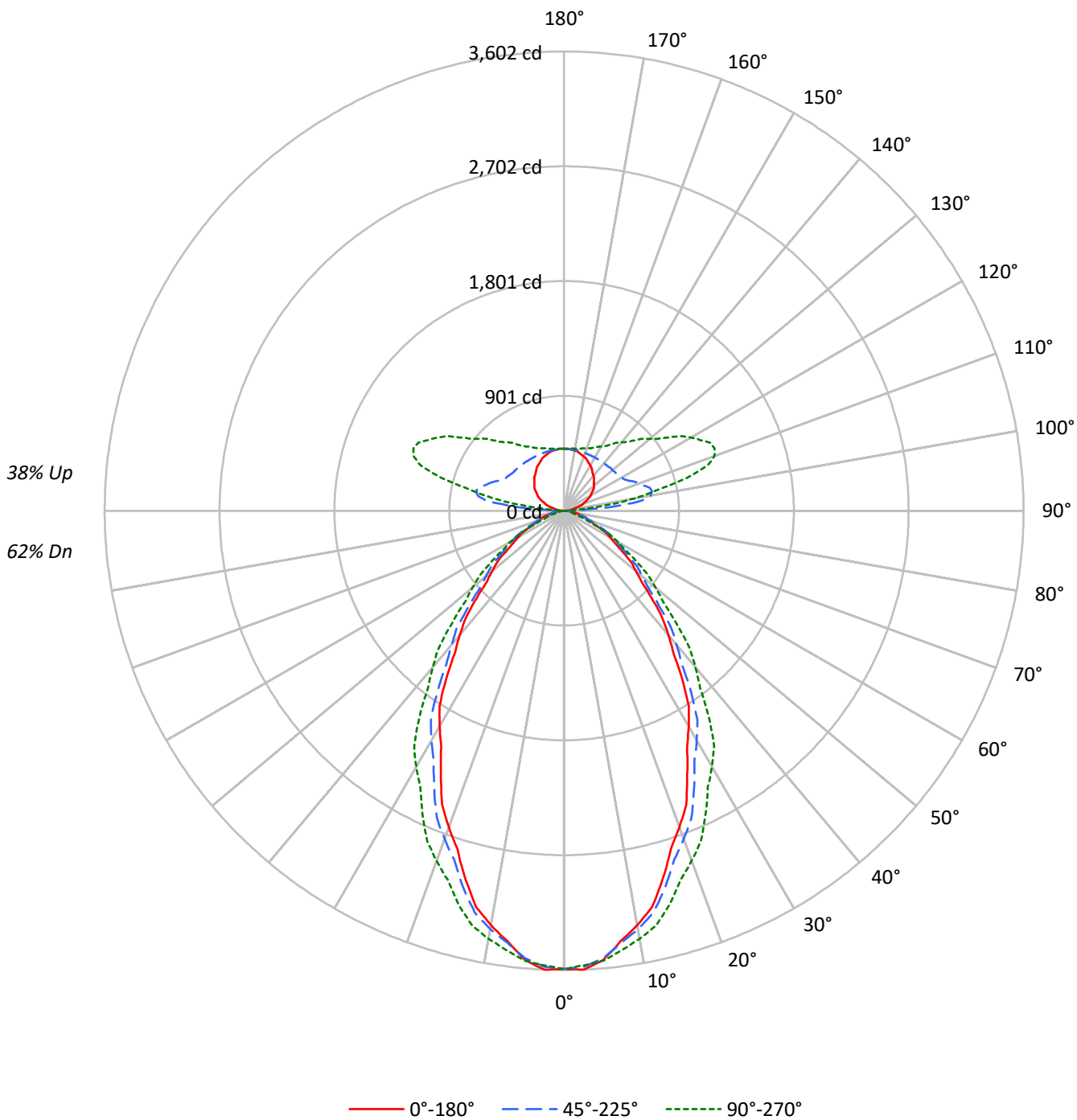
Lumens per Lamp: N/A
Luminaire Lumens: 8408.7 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 95.4
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 | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 | 62 |
| 1 | 102 | 98 | 95 | 92 | 95 | 92 | 89 | 87 | 81 | 79 | 77 | 71 | 70 | 68 | 62 | 61 | 60 | 55 |
| 2 | 94 | 87 | 82 | 77 | 88 | 82 | 78 | 73 | 73 | 69 | 66 | 64 | 62 | 59 | 56 | 54 | 53 | 49 |
| 3 | 87 | 78 | 72 | 66 | 81 | 74 | 68 | 63 | 66 | 61 | 57 | 58 | 55 | 52 | 51 | 49 | 47 | 43 |
| 4 | 80 | 70 | 63 | 58 | 75 | 67 | 60 | 55 | 60 | 54 | 50 | 53 | 49 | 46 | 47 | 44 | 41 | 38 |
| 5 | 74 | 64 | 56 | 51 | 70 | 60 | 54 | 49 | 54 | 49 | 45 | 48 | 44 | 41 | 43 | 40 | 37 | 34 |
| 6 | 69 | 58 | 50 | 45 | 65 | 55 | 48 | 43 | 50 | 44 | 40 | 44 | 40 | 37 | 40 | 36 | 34 | 31 |
| 7 | 64 | 53 | 45 | 40 | 61 | 50 | 44 | 39 | 45 | 40 | 36 | 41 | 37 | 33 | 37 | 33 | 31 | 28 |
| 8 | 60 | 49 | 41 | 36 | 57 | 46 | 40 | 35 | 42 | 36 | 33 | 38 | 33 | 30 | 34 | 31 | 28 | 26 |
| 9 | 56 | 45 | 38 | 33 | 53 | 43 | 36 | 32 | 39 | 33 | 30 | 35 | 31 | 28 | 32 | 28 | 26 | 24 |
| 10 | 53 | 41 | 35 | 30 | 50 | 40 | 33 | 29 | 36 | 31 | 27 | 33 | 29 | 25 | 30 | 26 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16578 | 16578 | 16578 |
| 5° | 16371 | 16313 | 16408 |
| 10° | 15467 | 15608 | 15970 |
| 15° | 14279 | 14610 | 15265 |
| 20° | 12967 | 13454 | 14345 |
| 25° | 11630 | 12264 | 13364 |
| 30° | 10399 | 11079 | 12347 |
| 35° | 9093 | 9750 | 11145 |
| 40° | 7654 | 8262 | 9648 |
| 45° | 6316 | 6862 | 8055 |
| 50° | 5273 | 5749 | 6711 |
| 55° | 4477 | 4933 | 5542 |
| 60° | 3826 | 4277 | 4423 |
| 65° | 3047 | 3598 | 2858 |
| 70° | 2702 | 2807 | 1744 |
| 75° | 2501 | 2276 | 1068 |
| 80° | 2303 | 2093 | 922 |
| 85° | 2085 | 1921 | 752 |



TEST NUMBER: P519130

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 329.6 | 3.9 |
| 10°-20° | 857.4 | 10.2 |
| 20°-30° | 1110.6 | 13.2 |
| 30°-40° | 1087.5 | 12.9 |
| 40°-50° | 832.4 | 9.9 |
| 50°-60° | 554.7 | 6.6 |
| 60°-70° | 302.7 | 3.6 |
| 70°-80° | 126.1 | 1.5 |
| 80°-90° | 37.6 | 0.4 |
| 90°-100° | 233.1 | 2.8 |
| 100°-110° | 633.2 | 7.5 |
| 110°-120° | 651.0 | 7.7 |
| 120°-130° | 520.5 | 6.2 |
| 130°-140° | 409.0 | 4.9 |
| 140°-150° | 313.6 | 3.7 |
| 150°-160° | 225.5 | 2.7 |
| 160°-170° | 137.9 | 1.6 |
| 170°-180° | 46.5 | 0.6 |
| 0°-30° | 2297.6 | 27.3 |
| 0°-40° | 3385.1 | 40.3 |
| 0°-60° | 4772.2 | 56.8 |
| 0°-90° | 5238.6 | 62.3 |
| 90°-120° | 1517.2 | 18.0 |
| 90°-150° | 2760.3 | 32.8 |
| 90°-180° | 3170.0 | 37.7 |
| 0°-180° | 8408.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3594 | 3594 | 3594 | 3594 | 3594 | |
| 5° | 3535 | 3500 | 3523 | 3531 | 3543 | 329 |
| 15° | 2990 | 2979 | 3059 | 3142 | 3196 | 835 |
| 25° | 2285 | 2291 | 2410 | 2514 | 2626 | 1051 |
| 35° | 1615 | 1622 | 1731 | 1848 | 1979 | 1004 |
| 45° | 968 | 987 | 1052 | 1131 | 1235 | 755 |
| 55° | 557 | 580 | 613 | 637 | 689 | 505 |
| 65° | 279 | 302 | 330 | 288 | 262 | 290 |
| 75° | 140 | 140 | 128 | 88 | 60 | 150 |
| 85° | 39 | 39 | 36 | 23 | 14 | 43 |
| 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: P519130

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3593.7 | 3593.7 | 3593.7 | 3593.7 | 3593.7 |
| 2.5° | 3602.5 | 3570.5 | 3578.6 | 3578.3 | 3568.5 |
| 5° | 3535.4 | 3499.9 | 3522.7 | 3530.9 | 3543.2 |
| 7.5° | 3404.2 | 3377.3 | 3419.0 | 3449.8 | 3474.8 |
| 10° | 3302.0 | 3278.9 | 3331.9 | 3376.8 | 3409.2 |
| 12.5° | 3183.4 | 3164.0 | 3229.8 | 3290.0 | 3332.3 |
| 15° | 2989.8 | 2979.0 | 3059.1 | 3142.4 | 3196.3 |
| 17.5° | 2782.6 | 2777.3 | 2869.3 | 2966.4 | 3035.5 |
| 20° | 2641.3 | 2639.7 | 2740.6 | 2841.8 | 2922.0 |
| 22.5° | 2498.7 | 2502.1 | 2608.2 | 2713.4 | 2804.6 |
| 25° | 2284.9 | 2291.1 | 2409.5 | 2514.5 | 2625.5 |
| 27.5° | 2087.2 | 2089.9 | 2212.4 | 2323.2 | 2441.6 |
| 30° | 1952.2 | 1959.9 | 2079.9 | 2194.7 | 2318.0 |
| 32.5° | 1817.2 | 1826.1 | 1943.7 | 2062.3 | 2188.1 |
| 35° | 1614.7 | 1622.4 | 1731.4 | 1847.9 | 1979.0 |
| 37.5° | 1405.9 | 1416.4 | 1513.2 | 1623.3 | 1752.2 |
| 40° | 1271.0 | 1286.4 | 1371.9 | 1475.7 | 1602.1 |
| 42.5° | 1141.0 | 1160.1 | 1239.4 | 1337.9 | 1452.0 |
| 45° | 968.2 | 986.7 | 1051.8 | 1131.4 | 1234.7 |
| 47.5° | 819.3 | 840.6 | 890.6 | 959.2 | 1047.4 |
| 50° | 734.8 | 754.9 | 801.1 | 851.8 | 935.1 |
| 52.5° | 660.4 | 680.4 | 721.6 | 760.7 | 831.6 |
| 55° | 556.6 | 579.8 | 613.4 | 636.7 | 689.1 |
| 57.5° | 471.5 | 493.7 | 520.4 | 530.9 | 562.6 |
| 60° | 414.7 | 439.4 | 463.6 | 462.4 | 479.4 |
| 62.5° | 363.0 | 384.0 | 408.1 | 391.4 | 392.3 |
| 65° | 279.1 | 302.2 | 329.6 | 288.0 | 261.8 |
| 67.5° | 225.5 | 230.4 | 258.6 | 200.8 | 169.7 |
| 70° | 200.3 | 200.3 | 208.1 | 155.5 | 129.3 |
| 72.5° | 176.3 | 176.3 | 169.0 | 126.5 | 99.0 |
| 75° | 140.3 | 140.3 | 127.7 | 87.7 | 59.9 |
| 77.5° | 108.2 | 106.9 | 97.8 | 65.4 | 43.5 |
| 80° | 86.7 | 86.7 | 78.8 | 51.7 | 34.7 |
| 82.5° | 67.8 | 67.8 | 61.2 | 40.4 | 25.9 |
| 85° | 39.4 | 39.4 | 36.3 | 23.4 | 14.2 |
| 87.5° | 14.2 | 15.1 | 14.8 | 10.4 | 9.1 |
| 90° | 1.6 | 6.1 | 10.9 | 14.1 | 14.1 |
| 92.5° | 14.1 | 63.8 | 110.8 | 47.6 | 40.3 |
| 95° | 34.3 | 127.5 | 405.9 | 176.7 | 118.7 |
| 97.5° | 56.8 | 140.8 | 622.3 | 484.1 | 340.0 |
| 100° | 71.8 | 149.7 | 688.5 | 697.9 | 563.6 |
| 102.5° | 86.8 | 158.5 | 706.0 | 863.1 | 744.7 |
| 105° | 112.4 | 175.0 | 696.3 | 1060.2 | 997.6 |
| 107.5° | 138.9 | 194.2 | 656.0 | 1161.9 | 1179.3 |
| 110° | 157.7 | 208.1 | 626.0 | 1182.0 | 1256.8 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 173.9 | 221.8 | 596.1 | 1165.3 | 1278.0 |
| 115° | 199.8 | 242.6 | 557.3 | 1108.8 | 1263.0 |
| 117.5° | 224.2 | 265.1 | 532.7 | 1028.7 | 1202.4 |
| 120° | 240.4 | 280.1 | 521.4 | 975.0 | 1147.5 |
| 122.5° | 254.2 | 293.8 | 513.9 | 921.1 | 1087.5 |
| 125° | 274.8 | 312.9 | 504.3 | 849.6 | 1002.3 |
| 127.5° | 293.2 | 331.0 | 499.0 | 795.4 | 926.4 |
| 130° | 304.4 | 341.1 | 496.5 | 761.4 | 878.9 |
| 132.5° | 315.7 | 352.3 | 494.0 | 732.4 | 836.5 |
| 135° | 331.0 | 367.6 | 490.2 | 692.1 | 780.6 |
| 137.5° | 347.5 | 380.8 | 488.3 | 656.5 | 730.9 |
| 140° | 357.5 | 389.6 | 487.1 | 633.8 | 701.0 |
| 142.5° | 367.5 | 397.1 | 485.8 | 616.1 | 672.2 |
| 145° | 382.5 | 410.0 | 484.0 | 588.0 | 632.3 |
| 147.5° | 399.4 | 422.9 | 482.4 | 565.9 | 600.7 |
| 150° | 410.6 | 430.4 | 482.4 | 553.3 | 580.8 |
| 152.5° | 419.3 | 436.7 | 481.2 | 541.9 | 564.5 |
| 155° | 432.4 | 447.7 | 480.8 | 528.0 | 543.3 |
| 157.5° | 445.3 | 457.2 | 480.8 | 518.6 | 530.2 |
| 160° | 452.7 | 463.4 | 480.8 | 512.3 | 521.4 |
| 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 | 498.6 |
| 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 | 487.1 | 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)