

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: P519901

Luminaire Tested: **SQ4-F-050U-050D-935-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519901
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-17)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-050U-050D-935-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

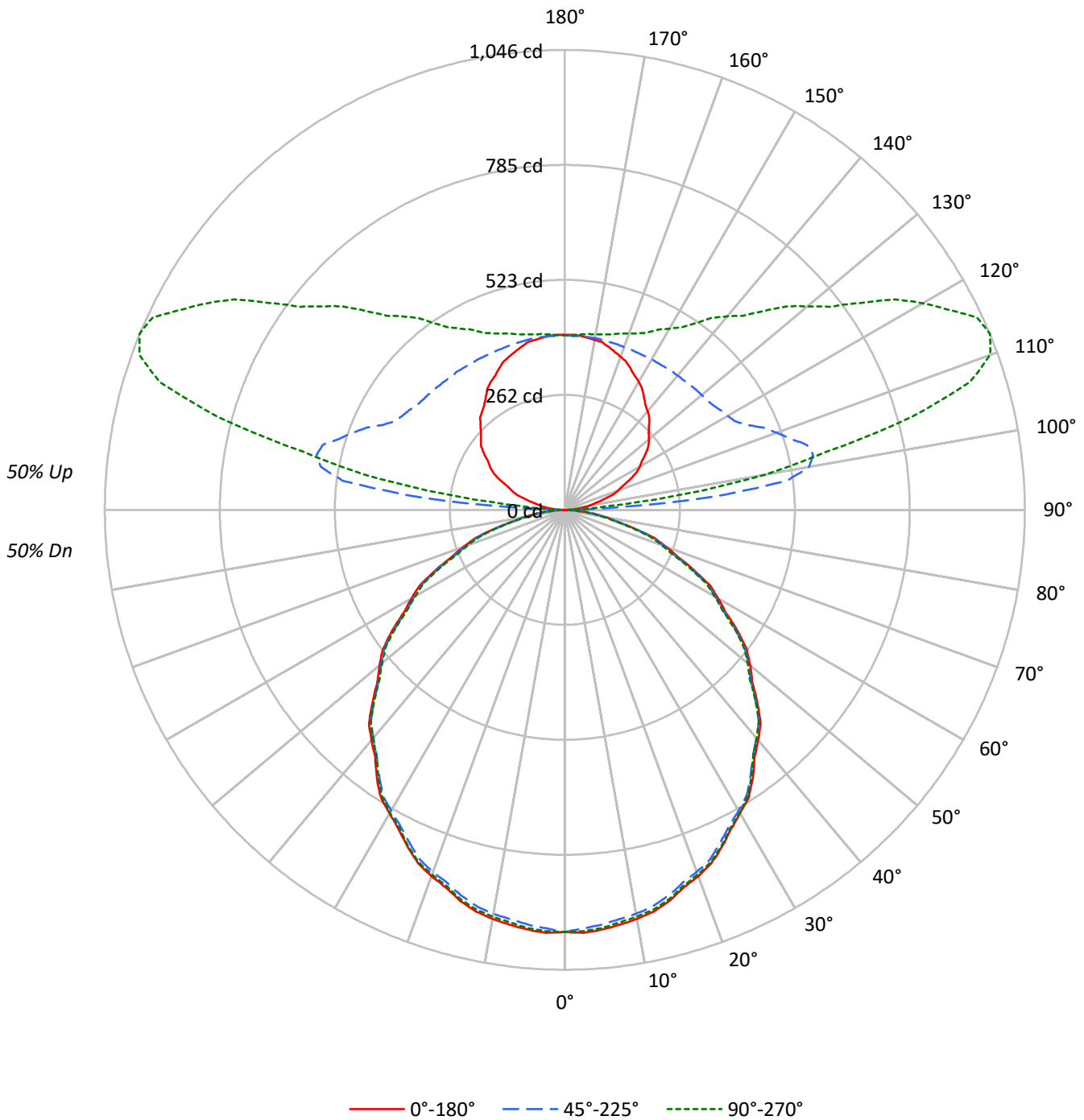
Lumens per Lamp: N/A
Luminaire Lumens: 5217.8 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 43.8
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



TEST NUMBER: P519901
CATALOG NUMBER: SQ4-F-050U-050D-935-1D-UNV-STD-W-6

Luminous Intensity Polar Plot





TEST NUMBER: P519901

CATALOG NUMBER: SQ4-F-050U-050D-935-1D-UNV-STD-W-6

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5905 | 5905 | 5905 |
| 5° | 5919 | 5848 | 5896 |
| 10° | 5900 | 5827 | 5867 |
| 15° | 5860 | 5786 | 5835 |
| 20° | 5805 | 5737 | 5779 |
| 25° | 5739 | 5670 | 5722 |
| 30° | 5659 | 5614 | 5651 |
| 35° | 5597 | 5529 | 5558 |
| 40° | 5490 | 5438 | 5449 |
| 45° | 5377 | 5332 | 5332 |
| 50° | 5263 | 5214 | 5189 |
| 55° | 5140 | 5071 | 5043 |
| 60° | 4948 | 4869 | 4837 |
| 65° | 4713 | 4619 | 4564 |
| 70° | 4390 | 4298 | 4206 |
| 75° | 3940 | 3817 | 3726 |
| 80° | 3184 | 3138 | 3050 |
| 85° | 1905 | 2181 | 2265 |



TEST NUMBER: P519901

CATALOG NUMBER: SQ4-F-050U-050D-935-1D-UNV-STD-W-6

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 90.6 | 1.7 |
| 10°-20° | 257.9 | 4.9 |
| 20°-30° | 387.4 | 7.4 |
| 30°-40° | 462.5 | 8.9 |
| 40°-50° | 473.9 | 9.1 |
| 50°-60° | 422.6 | 8.1 |
| 60°-70° | 314.7 | 6.0 |
| 70°-80° | 170.9 | 3.3 |
| 80°-90° | 41.1 | 0.8 |
| 90°-100° | 190.9 | 3.7 |
| 100°-110° | 518.5 | 9.9 |
| 110°-120° | 533.1 | 10.2 |
| 120°-130° | 426.2 | 8.2 |
| 130°-140° | 334.9 | 6.4 |
| 140°-150° | 256.8 | 4.9 |
| 150°-160° | 184.7 | 3.5 |
| 160°-170° | 112.9 | 2.2 |
| 170°-180° | 38.1 | 0.7 |
| 0°-30° | 735.9 | 14.1 |
| 0°-40° | 1198.4 | 23.0 |
| 0°-60° | 2095.0 | 40.2 |
| 0°-90° | 2621.7 | 50.2 |
| 90°-120° | 1242.5 | 23.8 |
| 90°-150° | 2260.4 | 43.3 |
| 90°-180° | 2596.0 | 49.8 |
| 0°-180° | 5217.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|------|------|
| 0° | 960 | 960 | 960 | 960 | 960 | |
| 5° | 959 | 958 | 947 | 956 | 955 | 91 |
| 15° | 920 | 918 | 909 | 916 | 916 | 259 |
| 25° | 846 | 843 | 835 | 840 | 843 | 389 |
| 35° | 745 | 743 | 736 | 736 | 740 | 465 |
| 45° | 618 | 619 | 613 | 612 | 613 | 477 |
| 55° | 479 | 479 | 473 | 469 | 470 | 427 |
| 65° | 324 | 323 | 317 | 314 | 314 | 321 |
| 75° | 166 | 165 | 161 | 158 | 157 | 175 |
| 85° | 27 | 30 | 31 | 32 | 32 | 38 |
| 90° | 1 | 5 | 9 | 12 | 12 | 3 |
| 95° | 28 | 104 | 332 | 145 | 97 | 30 |
| 105° | 92 | 143 | 570 | 868 | 817 | 98 |
| 115° | 164 | 199 | 456 | 908 | 1034 | 161 |
| 125° | 225 | 256 | 413 | 696 | 821 | 201 |
| 135° | 271 | 301 | 401 | 567 | 639 | 210 |
| 145° | 313 | 336 | 396 | 482 | 518 | 197 |
| 155° | 354 | 367 | 394 | 432 | 445 | 163 |
| 165° | 384 | 389 | 395 | 412 | 413 | 108 |
| 175° | 398 | 399 | 396 | 401 | 400 | 38 |
| 180° | 398 | 398 | 398 | 398 | 398 | |

TEST NUMBER: P519901

CATALOG NUMBER: SQ4-F-050U-050D-935-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|--------|
| 0° | 960.0 | 960.0 | 960.0 | 960.0 | 960.0 |
| 2.5° | 963.1 | 961.1 | 952.8 | 960.0 | 959.0 |
| 5° | 958.7 | 957.5 | 947.2 | 956.2 | 954.9 |
| 7.5° | 951.8 | 949.3 | 939.2 | 947.9 | 946.6 |
| 10° | 944.6 | 942.1 | 933.0 | 940.7 | 939.4 |
| 12.5° | 935.4 | 933.8 | 923.7 | 931.5 | 931.2 |
| 15° | 920.2 | 917.6 | 908.7 | 916.3 | 916.3 |
| 17.5° | 900.2 | 898.6 | 889.8 | 897.3 | 896.2 |
| 20° | 886.8 | 884.3 | 876.5 | 882.9 | 882.9 |
| 22.5° | 870.3 | 868.8 | 861.0 | 866.4 | 867.5 |
| 25° | 845.6 | 843.1 | 835.4 | 840.5 | 843.1 |
| 27.5° | 818.4 | 816.4 | 809.9 | 813.3 | 815.1 |
| 30° | 796.8 | 796.8 | 790.4 | 791.7 | 795.6 |
| 32.5° | 777.3 | 777.3 | 769.8 | 771.1 | 772.9 |
| 35° | 745.4 | 742.9 | 736.4 | 736.5 | 740.2 |
| 37.5° | 708.4 | 707.1 | 703.0 | 702.3 | 703.3 |
| 40° | 683.7 | 682.4 | 677.3 | 678.6 | 678.6 |
| 42.5° | 659.1 | 657.8 | 652.6 | 650.9 | 652.9 |
| 45° | 618.2 | 619.4 | 613.0 | 611.7 | 613.0 |
| 47.5° | 577.8 | 577.8 | 572.7 | 569.2 | 571.1 |
| 50° | 550.0 | 550.0 | 544.9 | 542.3 | 542.3 |
| 52.5° | 521.2 | 522.3 | 516.1 | 512.6 | 513.5 |
| 55° | 479.3 | 479.3 | 472.9 | 469.1 | 470.3 |
| 57.5° | 433.1 | 433.1 | 426.7 | 422.9 | 425.1 |
| 60° | 402.2 | 402.2 | 395.8 | 392.0 | 393.2 |
| 62.5° | 371.4 | 371.4 | 364.9 | 361.1 | 361.4 |
| 65° | 323.8 | 322.6 | 317.4 | 313.6 | 313.6 |
| 67.5° | 278.1 | 274.8 | 270.9 | 265.7 | 265.7 |
| 70° | 244.1 | 243.0 | 239.0 | 233.9 | 233.9 |
| 72.5° | 213.4 | 211.1 | 207.2 | 203.0 | 203.0 |
| 75° | 165.8 | 164.6 | 160.6 | 158.1 | 156.8 |
| 77.5° | 118.7 | 117.7 | 117.4 | 113.9 | 114.9 |
| 80° | 89.9 | 89.9 | 88.6 | 86.1 | 86.1 |
| 82.5° | 64.3 | 65.3 | 63.0 | 62.4 | 61.4 |
| 85° | 27.0 | 29.5 | 30.9 | 32.1 | 32.1 |
| 87.5° | 5.4 | 9.2 | 9.0 | 10.6 | 10.6 |
| 90° | 1.3 | 5.0 | 8.9 | 11.5 | 11.5 |
| 92.5° | 11.5 | 52.3 | 90.8 | 39.0 | 33.0 |
| 95° | 28.2 | 104.4 | 332.5 | 144.6 | 97.1 |
| 97.5° | 46.5 | 115.3 | 509.6 | 396.4 | 278.5 |
| 100° | 58.8 | 122.6 | 563.8 | 571.5 | 461.5 |
| 102.5° | 71.0 | 129.8 | 578.2 | 706.8 | 609.9 |
| 105° | 92.0 | 143.3 | 570.2 | 868.2 | 816.9 |
| 107.5° | 113.8 | 159.1 | 537.3 | 951.6 | 965.8 |
| 110° | 129.1 | 170.4 | 512.7 | 967.9 | 1029.2 |



TEST NUMBER: P519901

CATALOG NUMBER: SQ4-F-050U-050D-935-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 142.4 | 181.6 | 488.1 | 954.3 | 1046.5 |
| 115° | 163.7 | 198.6 | 456.4 | 908.1 | 1034.3 |
| 117.5° | 183.6 | 217.1 | 436.2 | 842.4 | 984.7 |
| 120° | 196.8 | 229.4 | 427.1 | 798.5 | 939.7 |
| 122.5° | 208.1 | 240.6 | 420.9 | 754.3 | 890.6 |
| 125° | 225.0 | 256.3 | 412.9 | 695.8 | 820.8 |
| 127.5° | 240.1 | 271.1 | 408.6 | 651.4 | 758.6 |
| 130° | 249.3 | 279.3 | 406.5 | 623.5 | 719.8 |
| 132.5° | 258.5 | 288.5 | 404.5 | 599.8 | 685.0 |
| 135° | 271.0 | 301.1 | 401.4 | 566.8 | 639.2 |
| 137.5° | 284.6 | 311.9 | 399.9 | 537.5 | 598.6 |
| 140° | 292.8 | 319.0 | 398.9 | 519.0 | 574.1 |
| 142.5° | 301.0 | 325.2 | 397.9 | 504.5 | 550.5 |
| 145° | 313.2 | 335.7 | 396.3 | 481.5 | 517.8 |
| 147.5° | 327.1 | 346.3 | 395.1 | 463.5 | 492.0 |
| 150° | 336.3 | 352.5 | 395.1 | 453.1 | 475.6 |
| 152.5° | 343.5 | 357.7 | 394.1 | 443.8 | 462.3 |
| 155° | 354.1 | 366.6 | 393.8 | 432.5 | 444.9 |
| 157.5° | 364.6 | 374.4 | 393.8 | 424.7 | 434.2 |
| 160° | 370.7 | 379.6 | 393.8 | 419.5 | 427.1 |
| 162.5° | 376.9 | 383.7 | 394.8 | 415.4 | 420.9 |
| 165° | 383.6 | 388.6 | 395.1 | 411.7 | 412.9 |
| 167.5° | 390.5 | 393.0 | 396.3 | 407.3 | 408.3 |
| 170° | 392.5 | 395.0 | 396.3 | 405.3 | 405.3 |
| 172.5° | 394.6 | 396.0 | 396.3 | 403.2 | 403.2 |
| 175° | 397.6 | 398.9 | 396.3 | 401.4 | 400.2 |
| 177.5° | 398.6 | 398.6 | 395.6 | 399.6 | 397.6 |
| 180° | 397.6 | 397.6 | 397.6 | 397.6 | 397.6 |

(END OF REPORT)