

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: P519924

Luminaire Tested: **SQ4-F-050U-075D-935-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519924
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-935-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

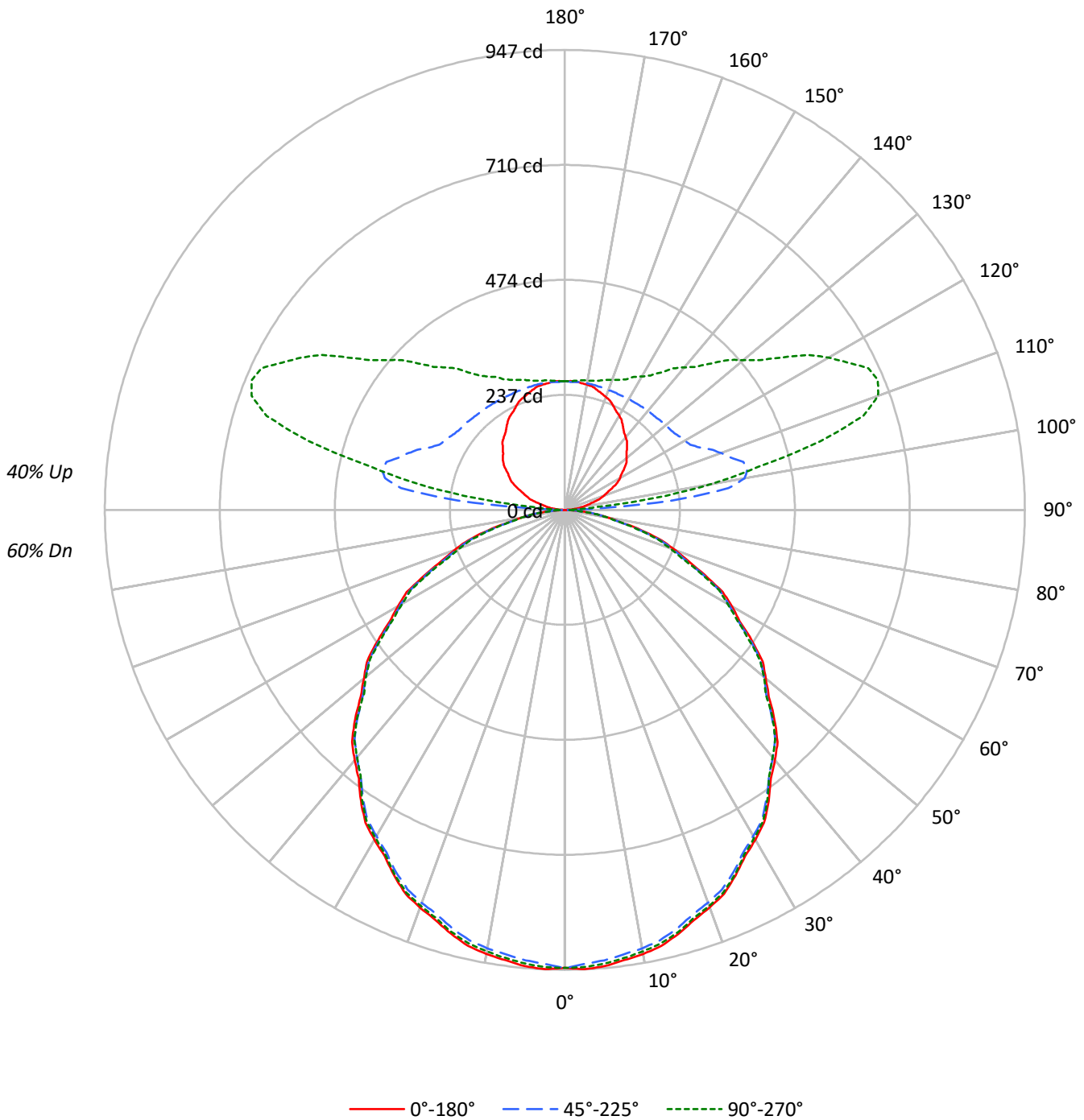
Lumens per Lamp: N/A
Luminaire Lumens: 4306.4 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 36.3
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 | 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° | 8701 | 8701 | 8701 |
| 5° | 8734 | 8623 | 8687 |
| 10° | 8700 | 8588 | 8651 |
| 15° | 8633 | 8526 | 8599 |
| 20° | 8555 | 8455 | 8520 |
| 25° | 8461 | 8374 | 8435 |
| 30° | 8353 | 8262 | 8308 |
| 35° | 8243 | 8158 | 8195 |
| 40° | 8104 | 8022 | 8012 |
| 45° | 7966 | 7865 | 7887 |
| 50° | 7745 | 7682 | 7682 |
| 55° | 7565 | 7468 | 7399 |
| 60° | 7322 | 7195 | 7130 |
| 65° | 6927 | 6796 | 6700 |
| 70° | 6504 | 6342 | 6183 |
| 75° | 5850 | 5636 | 5518 |
| 80° | 4681 | 4591 | 4543 |
| 85° | 2805 | 3165 | 3260 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 89.0 | 2.1 |
| 10°-20° | 253.4 | 5.9 |
| 20°-30° | 380.8 | 8.8 |
| 30°-40° | 454.3 | 10.5 |
| 40°-50° | 465.9 | 10.8 |
| 50°-60° | 415.2 | 9.6 |
| 60°-70° | 309.6 | 7.2 |
| 70°-80° | 167.9 | 3.9 |
| 80°-90° | 39.6 | 0.9 |
| 90°-100° | 127.3 | 3.0 |
| 100°-110° | 345.7 | 8.0 |
| 110°-120° | 355.4 | 8.3 |
| 120°-130° | 284.2 | 6.6 |
| 130°-140° | 223.3 | 5.2 |
| 140°-150° | 171.2 | 4.0 |
| 150°-160° | 123.1 | 2.9 |
| 160°-170° | 75.3 | 1.7 |
| 170°-180° | 25.4 | 0.6 |
| 0°-30° | 723.2 | 16.8 |
| 0°-40° | 1177.5 | 27.3 |
| 0°-60° | 2058.6 | 47.8 |
| 0°-90° | 2575.6 | 59.8 |
| 90°-120° | 828.4 | 19.2 |
| 90°-150° | 1507.0 | 35.0 |
| 90°-180° | 1731.0 | 40.2 |
| 0°-180° | 4306.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 943 | 943 | 943 | 943 | 943 | |
| 5° | 943 | 942 | 931 | 939 | 938 | 89 |
| 15° | 904 | 902 | 893 | 900 | 900 | 255 |
| 25° | 831 | 830 | 823 | 827 | 829 | 383 |
| 35° | 732 | 730 | 724 | 724 | 728 | 457 |
| 45° | 610 | 608 | 603 | 603 | 604 | 470 |
| 55° | 470 | 469 | 464 | 460 | 460 | 420 |
| 65° | 317 | 317 | 311 | 308 | 307 | 316 |
| 75° | 164 | 161 | 158 | 156 | 155 | 172 |
| 85° | 26 | 28 | 30 | 30 | 31 | 37 |
| 90° | 1 | 3 | 6 | 8 | 8 | 2 |
| 95° | 19 | 70 | 222 | 96 | 65 | 20 |
| 105° | 61 | 96 | 380 | 579 | 545 | 65 |
| 115° | 109 | 132 | 304 | 605 | 690 | 108 |
| 125° | 150 | 171 | 275 | 464 | 547 | 134 |
| 135° | 181 | 201 | 268 | 378 | 426 | 140 |
| 145° | 209 | 224 | 264 | 321 | 345 | 131 |
| 155° | 236 | 244 | 262 | 288 | 297 | 109 |
| 165° | 256 | 259 | 263 | 274 | 275 | 72 |
| 175° | 265 | 266 | 264 | 268 | 267 | 25 |
| 180° | 265 | 265 | 265 | 265 | 265 | |

TEST NUMBER: P519924

CATALOG NUMBER: SQ4-F-050U-075D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 943.1 | 943.1 | 943.1 | 943.1 | 943.1 |
| 2.5° | 946.6 | 944.5 | 936.2 | 943.1 | 942.4 |
| 5° | 943.1 | 941.5 | 931.1 | 938.8 | 938.0 |
| 7.5° | 935.4 | 933.6 | 923.4 | 931.1 | 931.0 |
| 10° | 928.6 | 926.1 | 916.7 | 924.3 | 923.4 |
| 12.5° | 919.7 | 917.1 | 907.7 | 915.4 | 914.6 |
| 15° | 903.8 | 902.1 | 892.6 | 899.5 | 900.3 |
| 17.5° | 885.7 | 882.5 | 874.0 | 880.7 | 881.5 |
| 20° | 871.3 | 868.8 | 861.1 | 867.1 | 867.8 |
| 22.5° | 856.2 | 853.8 | 846.0 | 852.0 | 852.8 |
| 25° | 831.1 | 830.3 | 822.6 | 826.9 | 828.6 |
| 27.5° | 803.9 | 801.6 | 795.3 | 798.7 | 800.3 |
| 30° | 784.1 | 782.4 | 775.5 | 778.1 | 779.8 |
| 32.5° | 763.5 | 762.5 | 756.3 | 757.6 | 760.0 |
| 35° | 731.9 | 730.3 | 724.3 | 724.3 | 727.6 |
| 37.5° | 696.8 | 695.0 | 690.0 | 689.2 | 690.5 |
| 40° | 672.9 | 670.4 | 666.1 | 665.2 | 665.2 |
| 42.5° | 648.3 | 646.4 | 640.7 | 639.2 | 641.3 |
| 45° | 610.5 | 608.0 | 602.8 | 602.8 | 604.5 |
| 47.5° | 569.7 | 568.6 | 562.6 | 559.9 | 560.5 |
| 50° | 539.6 | 541.2 | 535.2 | 531.9 | 535.2 |
| 52.5° | 513.6 | 512.5 | 507.2 | 503.8 | 505.1 |
| 55° | 470.3 | 469.4 | 464.3 | 460.0 | 460.0 |
| 57.5° | 426.9 | 424.6 | 419.3 | 416.2 | 418.6 |
| 60° | 396.8 | 395.9 | 389.9 | 384.0 | 386.4 |
| 62.5° | 366.7 | 365.2 | 359.1 | 355.2 | 357.1 |
| 65° | 317.3 | 317.3 | 311.3 | 307.8 | 306.9 |
| 67.5° | 274.0 | 269.9 | 266.6 | 262.4 | 261.3 |
| 70° | 241.1 | 237.7 | 235.1 | 231.6 | 229.2 |
| 72.5° | 209.0 | 206.9 | 203.0 | 199.6 | 199.1 |
| 75° | 164.1 | 160.8 | 158.1 | 155.6 | 154.8 |
| 77.5° | 116.8 | 116.1 | 113.8 | 112.4 | 112.9 |
| 80° | 88.1 | 88.1 | 86.4 | 86.3 | 85.5 |
| 82.5° | 62.1 | 62.8 | 62.4 | 61.0 | 60.9 |
| 85° | 26.5 | 28.1 | 29.9 | 29.9 | 30.8 |
| 87.5° | 4.9 | 8.8 | 8.8 | 9.1 | 9.1 |
| 90° | 0.9 | 3.3 | 6.0 | 7.7 | 7.7 |
| 92.5° | 7.7 | 34.8 | 60.5 | 26.0 | 22.0 |
| 95° | 18.7 | 69.6 | 221.6 | 96.5 | 64.8 |
| 97.5° | 31.0 | 76.8 | 339.7 | 264.4 | 185.7 |
| 100° | 39.3 | 81.7 | 375.8 | 381.0 | 307.7 |
| 102.5° | 47.4 | 86.5 | 385.4 | 471.2 | 406.5 |
| 105° | 61.3 | 95.6 | 380.2 | 578.9 | 544.6 |
| 107.5° | 75.9 | 106.0 | 358.2 | 634.4 | 643.8 |
| 110° | 86.1 | 113.6 | 341.8 | 645.3 | 686.1 |



TEST NUMBER: P519924

CATALOG NUMBER: SQ4-F-050U-075D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 95.0 | 121.1 | 325.4 | 636.3 | 697.7 |
| 115° | 109.1 | 132.5 | 304.3 | 605.4 | 689.5 |
| 117.5° | 122.4 | 144.7 | 290.9 | 561.6 | 656.5 |
| 120° | 131.3 | 152.9 | 284.7 | 532.2 | 626.5 |
| 122.5° | 138.8 | 160.4 | 280.5 | 502.9 | 593.8 |
| 125° | 150.0 | 170.8 | 275.3 | 463.9 | 547.2 |
| 127.5° | 160.0 | 180.8 | 272.4 | 434.3 | 505.8 |
| 130° | 166.2 | 186.2 | 271.0 | 415.7 | 479.8 |
| 132.5° | 172.3 | 192.3 | 269.7 | 399.9 | 456.7 |
| 135° | 180.7 | 200.7 | 267.6 | 377.8 | 426.2 |
| 137.5° | 189.7 | 207.9 | 266.6 | 358.4 | 399.1 |
| 140° | 195.2 | 212.6 | 265.9 | 346.0 | 382.7 |
| 142.5° | 200.7 | 216.8 | 265.2 | 336.4 | 367.0 |
| 145° | 208.8 | 223.8 | 264.3 | 321.1 | 345.2 |
| 147.5° | 218.0 | 230.9 | 263.4 | 309.0 | 327.9 |
| 150° | 224.1 | 235.0 | 263.4 | 302.0 | 317.1 |
| 152.5° | 228.9 | 238.5 | 262.7 | 295.9 | 308.2 |
| 155° | 236.1 | 244.4 | 262.5 | 288.3 | 296.6 |
| 157.5° | 243.1 | 249.5 | 262.5 | 283.1 | 289.5 |
| 160° | 247.2 | 253.0 | 262.5 | 279.7 | 284.7 |
| 162.5° | 251.3 | 255.7 | 263.2 | 276.9 | 280.5 |
| 165° | 255.7 | 259.1 | 263.4 | 274.5 | 275.3 |
| 167.5° | 260.3 | 262.0 | 264.3 | 271.5 | 272.2 |
| 170° | 261.7 | 263.4 | 264.3 | 270.1 | 270.1 |
| 172.5° | 263.0 | 264.1 | 264.3 | 268.9 | 268.9 |
| 175° | 265.0 | 265.9 | 264.3 | 267.6 | 266.8 |
| 177.5° | 265.7 | 265.7 | 263.7 | 266.4 | 265.0 |
| 180° | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 |

(END OF REPORT)