

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: P520188

Luminaire Tested: **SQ4-F-100U-050D-935-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520188
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-050D-935-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

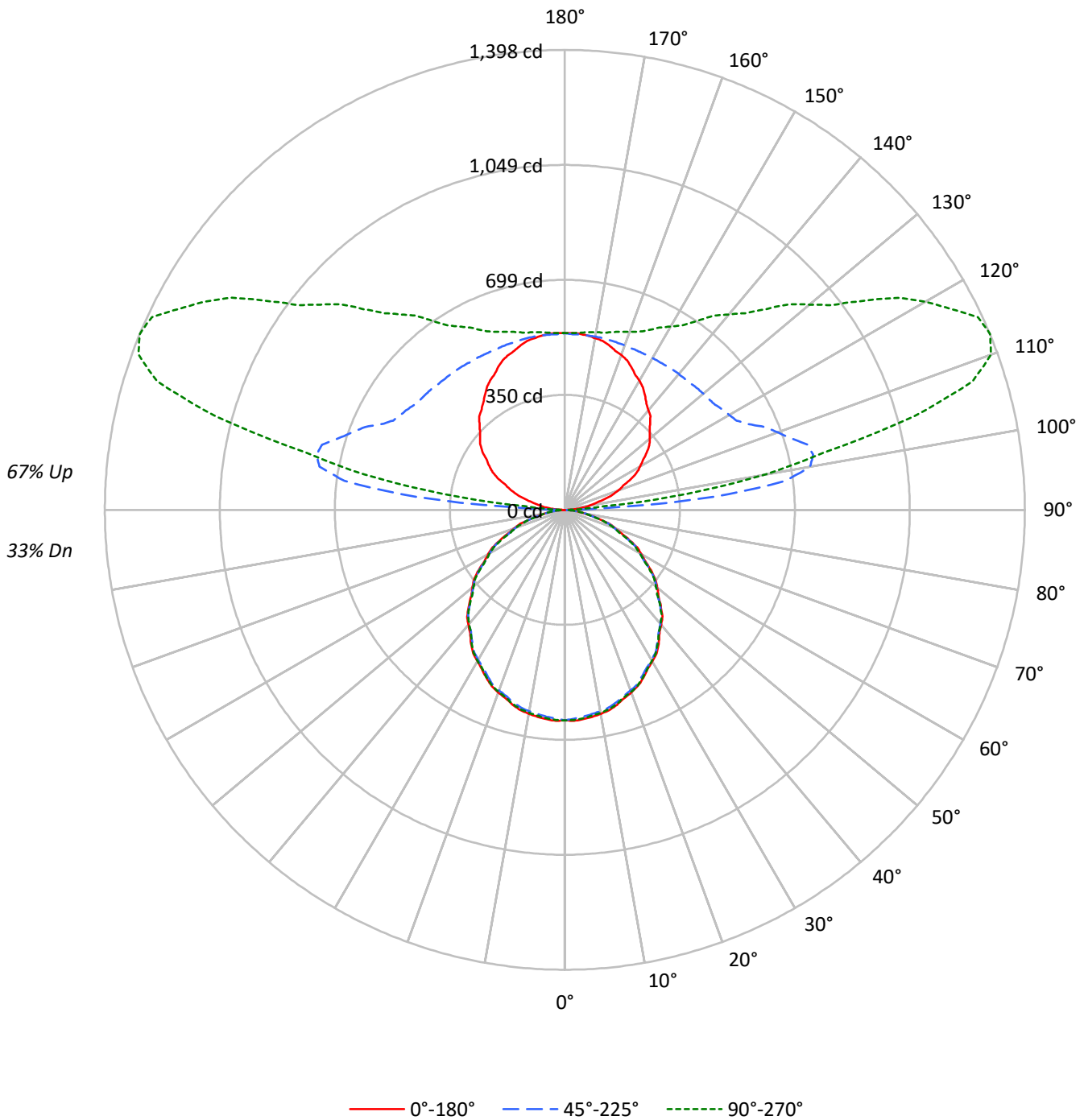
Lumens per Lamp: N/A
Luminaire Lumens: 5237.6 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 41.3
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



TEST NUMBER: P520188
CATALOG NUMBER: SQ4-F-100U-050D-935-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P520188

CATALOG NUMBER: SQ4-F-100U-050D-935-1D-UNV-STD-W-4

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 | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 41 | 41 | 41 | 33 |
| 1 | 94 | 90 | 86 | 83 | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 48 | 47 | 36 | 35 | 34 | 28 |
| 2 | 86 | 78 | 72 | 67 | 77 | 71 | 66 | 61 | 57 | 53 | 50 | 44 | 41 | 39 | 32 | 30 | 29 | 23 |
| 3 | 78 | 69 | 62 | 56 | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 | 20 |
| 4 | 71 | 61 | 53 | 47 | 64 | 55 | 48 | 43 | 44 | 39 | 36 | 34 | 31 | 28 | 25 | 23 | 21 | 17 |
| 5 | 65 | 54 | 46 | 40 | 59 | 49 | 42 | 37 | 39 | 34 | 31 | 31 | 27 | 24 | 22 | 20 | 18 | 15 |
| 6 | 60 | 48 | 40 | 35 | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 28 | 24 | 21 | 20 | 18 | 16 | 13 |
| 7 | 55 | 43 | 36 | 30 | 50 | 39 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 18 | 16 | 14 | 11 |
| 8 | 51 | 39 | 32 | 27 | 46 | 36 | 29 | 25 | 29 | 24 | 20 | 23 | 19 | 17 | 17 | 14 | 13 | 10 |
| 9 | 48 | 36 | 28 | 23 | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 17 | 15 | 16 | 13 | 11 | 9 |
| 10 | 44 | 33 | 26 | 21 | 40 | 30 | 24 | 19 | 24 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 | 8 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5905 | 5905 | 5905 |
| 5° | 5920 | 5849 | 5896 |
| 10° | 5899 | 5827 | 5868 |
| 15° | 5859 | 5785 | 5835 |
| 20° | 5804 | 5737 | 5779 |
| 25° | 5738 | 5669 | 5722 |
| 30° | 5659 | 5613 | 5650 |
| 35° | 5598 | 5530 | 5558 |
| 40° | 5491 | 5438 | 5449 |
| 45° | 5377 | 5333 | 5333 |
| 50° | 5263 | 5215 | 5190 |
| 55° | 5141 | 5072 | 5044 |
| 60° | 4949 | 4870 | 4838 |
| 65° | 4713 | 4619 | 4563 |
| 70° | 4392 | 4297 | 4205 |
| 75° | 3939 | 3818 | 3725 |
| 80° | 3188 | 3145 | 3050 |
| 85° | 1895 | 2181 | 2265 |



TEST NUMBER: P520188

CATALOG NUMBER: SQ4-F-100U-050D-935-1D-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.4 | 1.2 |
| 10°-20° | 172.0 | 3.3 |
| 20°-30° | 258.3 | 4.9 |
| 30°-40° | 308.3 | 5.9 |
| 40°-50° | 315.9 | 6.0 |
| 50°-60° | 281.8 | 5.4 |
| 60°-70° | 209.8 | 4.0 |
| 70°-80° | 113.9 | 2.2 |
| 80°-90° | 27.5 | 0.5 |
| 90°-100° | 251.5 | 4.8 |
| 100°-110° | 694.4 | 13.3 |
| 110°-120° | 716.1 | 13.7 |
| 120°-130° | 575.5 | 11.0 |
| 130°-140° | 452.3 | 8.6 |
| 140°-150° | 346.9 | 6.6 |
| 150°-160° | 249.3 | 4.8 |
| 160°-170° | 152.5 | 2.9 |
| 170°-180° | 51.4 | 1.0 |
| 0°-30° | 490.6 | 9.4 |
| 0°-40° | 799.0 | 15.3 |
| 0°-60° | 1396.7 | 26.7 |
| 0°-90° | 1747.9 | 33.4 |
| 90°-120° | 1662.0 | 31.7 |
| 90°-150° | 3036.6 | 58.0 |
| 90°-180° | 3490.0 | 66.6 |
| 0°-180° | 5237.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|------|------|
| 0° | 640 | 640 | 640 | 640 | 640 | |
| 5° | 639 | 638 | 632 | 637 | 637 | 61 |
| 15° | 613 | 612 | 606 | 611 | 611 | 173 |
| 25° | 564 | 562 | 557 | 560 | 562 | 260 |
| 35° | 497 | 495 | 491 | 491 | 494 | 310 |
| 45° | 412 | 413 | 409 | 408 | 409 | 318 |
| 55° | 320 | 320 | 315 | 313 | 314 | 285 |
| 65° | 216 | 215 | 212 | 209 | 209 | 214 |
| 75° | 110 | 110 | 107 | 105 | 104 | 117 |
| 85° | 18 | 20 | 21 | 21 | 21 | 25 |
| 90° | 2 | 3 | 7 | 8 | 9 | 3 |
| 95° | 37 | 136 | 456 | 188 | 122 | 40 |
| 105° | 124 | 191 | 764 | 1166 | 1098 | 132 |
| 115° | 222 | 268 | 615 | 1218 | 1385 | 218 |
| 125° | 304 | 346 | 558 | 944 | 1108 | 271 |
| 135° | 366 | 406 | 542 | 764 | 862 | 283 |
| 145° | 424 | 454 | 535 | 651 | 700 | 266 |
| 155° | 479 | 495 | 531 | 584 | 602 | 221 |
| 165° | 518 | 525 | 534 | 554 | 559 | 146 |
| 175° | 537 | 538 | 534 | 542 | 540 | 51 |
| 180° | 537 | 537 | 537 | 537 | 537 | |

TEST NUMBER: P520188

CATALOG NUMBER: SQ4-F-100U-050D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 0° | 640.0 | 640.0 | 640.0 | 640.0 | 640.0 |
| 2.5° | 642.0 | 640.7 | 635.2 | 640.0 | 639.4 |
| 5° | 639.2 | 638.3 | 631.5 | 637.4 | 636.6 |
| 7.5° | 634.5 | 632.9 | 626.1 | 632.0 | 631.1 |
| 10° | 629.7 | 628.0 | 622.0 | 627.1 | 626.3 |
| 12.5° | 623.6 | 622.6 | 615.9 | 621.0 | 620.8 |
| 15° | 613.4 | 611.7 | 605.7 | 610.9 | 610.9 |
| 17.5° | 600.1 | 599.1 | 593.2 | 598.1 | 597.6 |
| 20° | 591.1 | 589.5 | 584.3 | 588.6 | 588.6 |
| 22.5° | 580.2 | 579.2 | 574.1 | 577.6 | 578.3 |
| 25° | 563.7 | 562.1 | 556.9 | 560.4 | 562.1 |
| 27.5° | 545.6 | 544.3 | 540.0 | 542.2 | 543.4 |
| 30° | 531.2 | 531.2 | 526.9 | 527.8 | 530.3 |
| 32.5° | 518.2 | 518.2 | 513.2 | 514.1 | 515.3 |
| 35° | 497.0 | 495.3 | 491.0 | 491.0 | 493.5 |
| 37.5° | 472.2 | 471.4 | 468.7 | 468.2 | 468.9 |
| 40° | 455.9 | 455.0 | 451.5 | 452.4 | 452.4 |
| 42.5° | 439.4 | 438.5 | 435.0 | 433.9 | 435.2 |
| 45° | 412.1 | 413.0 | 408.7 | 407.8 | 408.7 |
| 47.5° | 385.3 | 385.3 | 381.8 | 379.4 | 380.7 |
| 50° | 366.7 | 366.7 | 363.3 | 361.6 | 361.6 |
| 52.5° | 347.5 | 348.2 | 344.0 | 341.7 | 342.4 |
| 55° | 319.6 | 319.6 | 315.3 | 312.8 | 313.6 |
| 57.5° | 288.7 | 288.7 | 284.5 | 281.9 | 283.4 |
| 60° | 268.2 | 268.2 | 263.9 | 261.3 | 262.2 |
| 62.5° | 247.6 | 247.6 | 243.4 | 240.8 | 240.9 |
| 65° | 215.9 | 215.1 | 211.6 | 209.0 | 209.0 |
| 67.5° | 185.4 | 183.2 | 180.6 | 177.2 | 177.2 |
| 70° | 162.8 | 161.9 | 159.3 | 155.9 | 155.9 |
| 72.5° | 142.2 | 140.7 | 138.1 | 135.4 | 135.4 |
| 75° | 110.5 | 109.6 | 107.1 | 105.4 | 104.5 |
| 77.5° | 79.2 | 78.5 | 78.3 | 75.9 | 76.6 |
| 80° | 60.0 | 60.0 | 59.2 | 57.4 | 57.4 |
| 82.5° | 42.8 | 43.5 | 42.0 | 41.6 | 40.9 |
| 85° | 17.9 | 19.6 | 20.6 | 21.4 | 21.4 |
| 87.5° | 3.7 | 6.1 | 6.2 | 7.0 | 7.2 |
| 90° | 1.7 | 3.4 | 6.8 | 7.7 | 8.6 |
| 92.5° | 15.4 | 64.2 | 114.8 | 41.9 | 32.6 |
| 95° | 37.0 | 136.1 | 456.3 | 187.6 | 122.1 |
| 97.5° | 61.2 | 152.4 | 675.9 | 520.4 | 376.9 |
| 100° | 79.0 | 162.2 | 757.0 | 762.4 | 619.5 |
| 102.5° | 96.3 | 173.4 | 772.9 | 942.0 | 806.6 |
| 105° | 123.8 | 190.9 | 764.0 | 1166.3 | 1098.2 |
| 107.5° | 152.9 | 212.8 | 721.3 | 1274.5 | 1299.3 |
| 110° | 173.6 | 227.3 | 688.3 | 1297.8 | 1378.4 |



TEST NUMBER: P520188

CATALOG NUMBER: SQ4-F-100U-050D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 192.1 | 243.9 | 657.4 | 1279.4 | 1398.4 |
| 115° | 221.7 | 267.9 | 615.3 | 1218.0 | 1385.3 |
| 117.5° | 247.5 | 293.5 | 587.6 | 1131.8 | 1322.0 |
| 120° | 264.7 | 310.0 | 576.6 | 1073.4 | 1264.9 |
| 122.5° | 281.1 | 324.6 | 567.7 | 1018.8 | 1200.3 |
| 125° | 304.2 | 346.2 | 557.7 | 943.8 | 1107.7 |
| 127.5° | 323.8 | 365.8 | 551.9 | 880.4 | 1021.8 |
| 130° | 336.8 | 378.9 | 549.1 | 841.6 | 970.2 |
| 132.5° | 349.2 | 389.3 | 546.3 | 809.1 | 925.5 |
| 135° | 366.1 | 405.6 | 542.3 | 764.5 | 861.9 |
| 137.5° | 385.0 | 420.9 | 540.2 | 727.0 | 810.2 |
| 140° | 395.3 | 430.6 | 538.8 | 702.0 | 775.2 |
| 142.5° | 407.0 | 439.6 | 537.4 | 679.8 | 744.2 |
| 145° | 424.5 | 454.0 | 535.4 | 650.8 | 700.4 |
| 147.5° | 441.4 | 467.1 | 533.5 | 626.3 | 664.8 |
| 150° | 453.8 | 474.7 | 532.8 | 611.7 | 642.8 |
| 152.5° | 463.3 | 483.0 | 532.1 | 599.2 | 624.9 |
| 155° | 478.7 | 494.6 | 531.1 | 583.9 | 602.4 |
| 157.5° | 492.7 | 505.0 | 531.2 | 572.8 | 585.4 |
| 160° | 501.0 | 511.9 | 531.9 | 566.5 | 575.7 |
| 162.5° | 507.9 | 517.5 | 532.6 | 561.0 | 568.2 |
| 165° | 518.2 | 524.9 | 533.7 | 554.4 | 558.6 |
| 167.5° | 526.1 | 530.1 | 534.5 | 550.4 | 551.7 |
| 170° | 530.2 | 533.6 | 534.5 | 548.2 | 548.2 |
| 172.5° | 533.7 | 535.7 | 534.5 | 545.5 | 544.9 |
| 175° | 537.0 | 537.9 | 534.5 | 542.2 | 540.5 |
| 177.5° | 538.4 | 537.8 | 534.4 | 539.1 | 537.7 |
| 180° | 537.0 | 537.0 | 537.0 | 537.0 | 537.0 |

(END OF REPORT)