

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

Brand: CORELITE

Report Number: P521445

Luminaire Tested: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521445
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-36)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5227.2 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

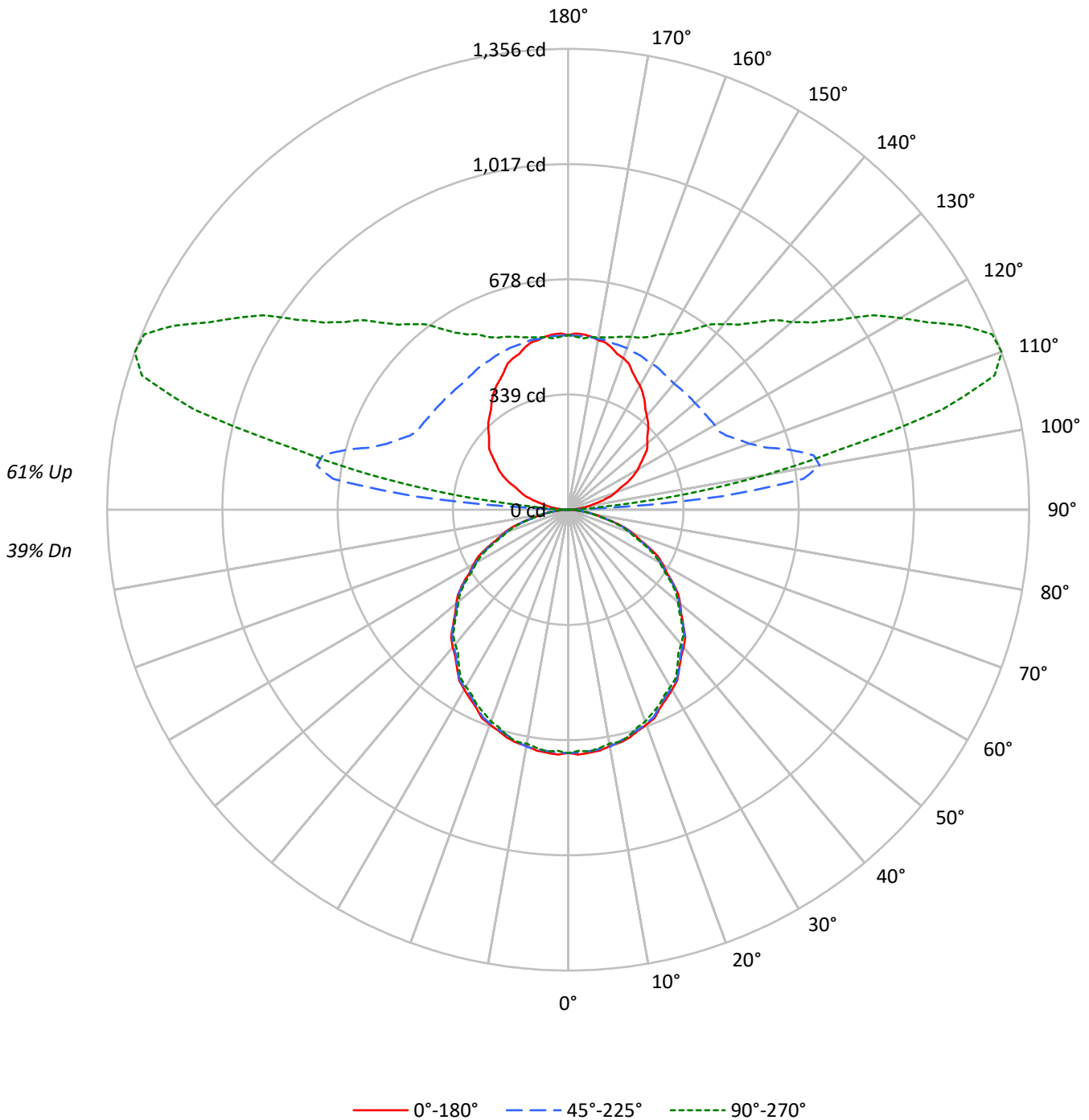
Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521445

CATALOG NUMBER: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K

Luminous Intensity Polar Plot



TEST NUMBER: P521445

CATALOG NUMBER: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|----|---|
| RF | 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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 | | | | | | | | | | | | | | | | | | | | |
| 1 | 95 | 91 | 87 | 84 | 86 | 83 | 79 | 77 | 67 | 65 | 63 | 53 | 52 | 50 | 40 | 40 | 39 | 33 | | | | | | | | | | | | | | | | | | | | |
| 2 | 87 | 79 | 73 | 68 | 78 | 72 | 67 | 63 | 59 | 55 | 52 | 47 | 44 | 42 | 35 | 34 | 32 | 27 | | | | | | | | | | | | | | | | | | | | |
| 3 | 79 | 69 | 62 | 56 | 71 | 63 | 57 | 52 | 52 | 47 | 44 | 41 | 38 | 35 | 31 | 29 | 27 | 23 | | | | | | | | | | | | | | | | | | | | |
| 4 | 72 | 61 | 54 | 48 | 65 | 56 | 49 | 44 | 46 | 41 | 37 | 37 | 33 | 30 | 28 | 25 | 23 | 19 | | | | | | | | | | | | | | | | | | | | |
| 5 | 66 | 54 | 46 | 41 | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 25 | 22 | 20 | 17 | | | | | | | | | | | | | | | | | | | | |
| 6 | 61 | 49 | 41 | 35 | 55 | 45 | 38 | 32 | 37 | 31 | 27 | 29 | 26 | 23 | 23 | 20 | 18 | 15 | | | | | | | | | | | | | | | | | | | | |
| 7 | 56 | 44 | 36 | 31 | 51 | 40 | 33 | 28 | 33 | 28 | 24 | 27 | 23 | 20 | 21 | 18 | 16 | 13 | | | | | | | | | | | | | | | | | | | | |
| 8 | 52 | 40 | 32 | 27 | 47 | 36 | 30 | 25 | 30 | 25 | 21 | 24 | 20 | 18 | 19 | 16 | 14 | 12 | | | | | | | | | | | | | | | | | | | | |
| 9 | 48 | 36 | 29 | 24 | 44 | 33 | 27 | 22 | 28 | 23 | 19 | 22 | 19 | 16 | 17 | 15 | 13 | 10 | | | | | | | | | | | | | | | | | | | | |
| 10 | 45 | 33 | 26 | 21 | 41 | 30 | 24 | 20 | 25 | 20 | 17 | 21 | 17 | 14 | 16 | 13 | 11 | 9 | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6604 | 6604 | 6604 |
| 5° | 6648 | 6602 | 6612 |
| 10° | 6615 | 6633 | 6550 |
| 15° | 6632 | 6567 | 6594 |
| 20° | 6607 | 6577 | 6511 |
| 25° | 6531 | 6492 | 6452 |
| 30° | 6512 | 6471 | 6409 |
| 35° | 6412 | 6412 | 6313 |
| 40° | 6363 | 6304 | 6222 |
| 45° | 6243 | 6243 | 6155 |
| 50° | 6168 | 6126 | 6041 |
| 55° | 6064 | 6000 | 5907 |
| 60° | 5929 | 5820 | 5729 |
| 65° | 5691 | 5565 | 5458 |
| 70° | 5427 | 5241 | 5112 |
| 75° | 4837 | 4698 | 4631 |
| 80° | 3995 | 3942 | 3889 |
| 85° | 2890 | 3208 | 3208 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6243 cd/sqm

TEST NUMBER: P521445

CATALOG NUMBER: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 67.8 | 1.3 |
| 10°-20° | 194.2 | 3.7 |
| 20°-30° | 293.4 | 5.6 |
| 30°-40° | 353.3 | 6.8 |
| 40°-50° | 366.3 | 7.0 |
| 50°-60° | 332.1 | 6.4 |
| 60°-70° | 252.5 | 4.8 |
| 70°-80° | 140.6 | 2.7 |
| 80°-90° | 36.2 | 0.7 |
| 90°-100° | 234.1 | 4.5 |
| 100°-110° | 666.0 | 12.7 |
| 110°-120° | 638.1 | 12.2 |
| 120°-130° | 505.0 | 9.7 |
| 130°-140° | 405.4 | 7.8 |
| 140°-150° | 317.4 | 6.1 |
| 150°-160° | 232.2 | 4.4 |
| 160°-170° | 143.8 | 2.8 |
| 170°-180° | 48.8 | 0.9 |
| 0°-30° | 555.3 | 10.6 |
| 0°-40° | 908.6 | 17.4 |
| 0°-60° | 1607.1 | 30.7 |
| 0°-90° | 2036.4 | 39.0 |
| 90°-120° | 1538.2 | 29.4 |
| 90°-150° | 2766.0 | 52.9 |
| 90°-180° | 3191.0 | 61.0 |
| 0°-180° | 5227.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|------|------|
| 0° | 716 | 716 | 716 | 716 | 716 | |
| 5° | 718 | 709 | 713 | 714 | 714 | 68 |
| 15° | 694 | 688 | 688 | 688 | 690 | 196 |
| 25° | 642 | 637 | 638 | 634 | 634 | 297 |
| 35° | 569 | 564 | 569 | 562 | 560 | 357 |
| 45° | 478 | 476 | 478 | 470 | 472 | 370 |
| 55° | 377 | 376 | 373 | 369 | 367 | 336 |
| 65° | 261 | 260 | 255 | 252 | 250 | 258 |
| 75° | 136 | 134 | 132 | 130 | 130 | 144 |
| 85° | 27 | 29 | 30 | 31 | 30 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | 2 |
| 95° | 25 | 101 | 453 | 157 | 97 | 29 |
| 105° | 104 | 157 | 679 | 1199 | 1140 | 110 |
| 115° | 192 | 232 | 515 | 1090 | 1280 | 189 |
| 125° | 272 | 301 | 491 | 815 | 975 | 243 |
| 135° | 332 | 360 | 485 | 689 | 778 | 256 |
| 145° | 392 | 412 | 489 | 596 | 649 | 245 |
| 155° | 447 | 458 | 501 | 539 | 560 | 207 |
| 165° | 494 | 496 | 507 | 518 | 525 | 139 |
| 175° | 518 | 515 | 513 | 510 | 506 | 49 |
| 180° | 514 | 514 | 514 | 514 | 514 | |

TEST NUMBER: P521445

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 0° | 715.8 | 715.8 | 715.8 | 715.8 | 715.8 |
| 2.5° | 721.3 | 713.7 | 715.0 | 715.7 | 710.4 |
| 5° | 717.8 | 709.2 | 712.9 | 713.9 | 713.9 |
| 7.5° | 714.6 | 708.0 | 710.4 | 707.4 | 707.0 |
| 10° | 706.1 | 703.2 | 708.0 | 701.1 | 699.2 |
| 12.5° | 702.1 | 697.8 | 698.6 | 697.3 | 699.2 |
| 15° | 694.3 | 687.7 | 687.5 | 687.6 | 690.4 |
| 17.5° | 682.2 | 673.6 | 679.3 | 673.2 | 672.5 |
| 20° | 672.9 | 664.3 | 669.9 | 663.1 | 663.1 |
| 22.5° | 663.5 | 653.4 | 659.0 | 649.8 | 647.5 |
| 25° | 641.6 | 636.8 | 637.7 | 633.8 | 633.8 |
| 27.5° | 626.2 | 615.7 | 619.1 | 613.7 | 614.1 |
| 30° | 611.3 | 600.8 | 607.4 | 599.7 | 601.6 |
| 32.5° | 596.5 | 589.8 | 593.4 | 584.8 | 588.3 |
| 35° | 569.3 | 563.6 | 569.3 | 562.5 | 560.5 |
| 37.5° | 545.5 | 539.6 | 541.4 | 537.0 | 532.2 |
| 40° | 528.3 | 521.6 | 523.4 | 517.6 | 516.6 |
| 42.5° | 509.6 | 505.2 | 505.5 | 500.4 | 501.0 |
| 45° | 478.5 | 475.7 | 478.5 | 469.8 | 471.7 |
| 47.5° | 450.8 | 447.3 | 447.1 | 441.3 | 443.6 |
| 50° | 429.7 | 427.8 | 426.8 | 420.9 | 420.9 |
| 52.5° | 407.8 | 405.9 | 404.9 | 400.6 | 399.8 |
| 55° | 377.0 | 376.0 | 373.0 | 369.1 | 367.2 |
| 57.5° | 343.2 | 341.3 | 339.6 | 335.5 | 334.0 |
| 60° | 321.3 | 319.4 | 315.4 | 310.5 | 310.5 |
| 62.5° | 297.1 | 295.2 | 290.4 | 288.6 | 285.5 |
| 65° | 260.7 | 259.8 | 254.9 | 251.9 | 250.0 |
| 67.5° | 224.6 | 221.6 | 219.3 | 215.6 | 213.7 |
| 70° | 201.2 | 197.4 | 194.3 | 191.4 | 189.5 |
| 72.5° | 175.4 | 172.3 | 169.3 | 167.9 | 165.2 |
| 75° | 135.7 | 133.8 | 131.8 | 129.9 | 129.9 |
| 77.5° | 98.6 | 98.1 | 96.1 | 96.1 | 95.1 |
| 80° | 75.2 | 76.2 | 74.2 | 74.2 | 73.2 |
| 82.5° | 54.1 | 55.1 | 54.7 | 55.4 | 54.5 |
| 85° | 27.3 | 29.3 | 30.3 | 31.2 | 30.3 |
| 87.5° | 7.8 | 10.1 | 11.7 | 12.5 | 12.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 7.8 | 41.4 | 96.1 | 28.0 | 21.1 |
| 95° | 25.4 | 100.8 | 453.1 | 156.8 | 96.7 |
| 97.5° | 46.7 | 118.1 | 697.9 | 499.4 | 342.2 |
| 100° | 61.5 | 128.4 | 751.0 | 760.7 | 585.9 |
| 102.5° | 77.9 | 139.4 | 739.3 | 973.7 | 821.1 |
| 105° | 103.5 | 157.0 | 678.7 | 1198.9 | 1139.7 |
| 107.5° | 129.5 | 177.4 | 608.0 | 1262.3 | 1315.0 |
| 110° | 147.5 | 192.3 | 567.4 | 1238.0 | 1356.5 |

TEST NUMBER: P521445

CATALOG NUMBER: SQ4-F-075U-050D-92765-1D-UNV-STD-W-4_3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 164.6 | 207.2 | 540.0 | 1180.6 | 1349.4 |
| 115° | 192.4 | 232.5 | 514.7 | 1090.3 | 1280.3 |
| 117.5° | 216.8 | 254.4 | 499.6 | 991.5 | 1192.8 |
| 120° | 236.3 | 267.8 | 498.0 | 935.1 | 1127.9 |
| 122.5° | 252.0 | 283.5 | 494.1 | 885.5 | 1064.7 |
| 125° | 271.5 | 301.1 | 491.2 | 815.2 | 974.6 |
| 127.5° | 292.8 | 320.5 | 489.7 | 773.1 | 904.5 |
| 130° | 303.7 | 331.4 | 487.3 | 743.8 | 858.4 |
| 132.5° | 315.4 | 342.4 | 487.3 | 721.0 | 826.4 |
| 135° | 332.0 | 359.7 | 485.4 | 688.6 | 778.3 |
| 137.5° | 347.7 | 374.6 | 485.2 | 661.1 | 738.7 |
| 140° | 359.4 | 387.1 | 484.4 | 638.4 | 712.9 |
| 142.5° | 372.7 | 395.8 | 486.7 | 620.3 | 687.1 |
| 145° | 391.6 | 411.7 | 489.3 | 595.9 | 649.4 |
| 147.5° | 407.8 | 427.3 | 493.6 | 571.4 | 617.6 |
| 150° | 421.9 | 435.2 | 495.1 | 563.2 | 595.7 |
| 152.5° | 432.8 | 446.9 | 496.7 | 552.3 | 582.4 |
| 155° | 447.3 | 457.8 | 501.0 | 538.6 | 560.5 |
| 157.5° | 465.2 | 471.5 | 502.0 | 532.4 | 548.0 |
| 160° | 474.6 | 479.4 | 505.9 | 527.6 | 541.0 |
| 162.5° | 480.1 | 485.6 | 506.6 | 523.7 | 534.0 |
| 165° | 494.1 | 496.1 | 506.8 | 517.8 | 525.4 |
| 167.5° | 503.7 | 502.0 | 511.3 | 516.3 | 519.3 |
| 170° | 506.8 | 505.9 | 509.8 | 510.8 | 514.7 |
| 172.5° | 513.9 | 510.6 | 512.1 | 509.3 | 512.3 |
| 175° | 517.6 | 514.7 | 512.7 | 509.7 | 505.9 |
| 177.5° | 519.1 | 514.6 | 512.1 | 509.0 | 509.8 |
| 180° | 513.7 | 513.7 | 513.7 | 513.7 | 513.7 |

(END OF REPORT)