

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: P519122

Luminaire Tested: **SQ4-WB-050U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519122
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-835-1D-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

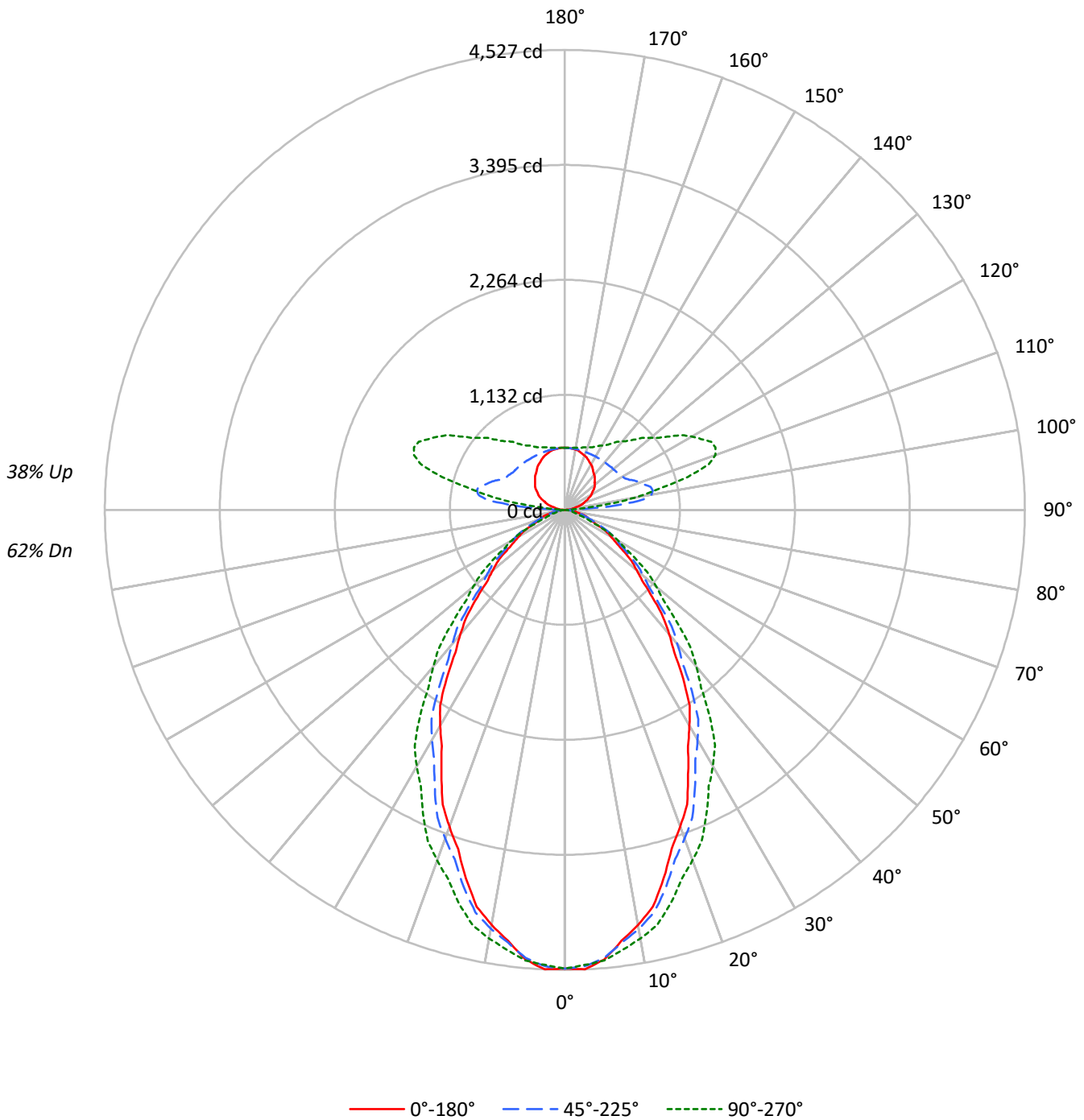
Lumens per Lamp: N/A
Luminaire Lumens: 10567.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

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° | 20833 | 20833 | 20833 |
| 5° | 20573 | 20500 | 20619 |
| 10° | 19437 | 19613 | 20068 |
| 15° | 17943 | 18360 | 19183 |
| 20° | 16294 | 16907 | 18026 |
| 25° | 14615 | 15412 | 16794 |
| 30° | 13068 | 13923 | 15517 |
| 35° | 11428 | 12253 | 14005 |
| 40° | 9618 | 10382 | 12124 |
| 45° | 7938 | 8623 | 10122 |
| 50° | 6627 | 7225 | 8433 |
| 55° | 5626 | 6199 | 6965 |
| 60° | 4809 | 5375 | 5558 |
| 65° | 3828 | 4521 | 3590 |
| 70° | 3395 | 3528 | 2192 |
| 75° | 3144 | 2861 | 1342 |
| 80° | 2896 | 2633 | 1158 |
| 85° | 2620 | 2414 | 942 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 414.2 | 3.9 |
| 10°-20° | 1077.4 | 10.2 |
| 20°-30° | 1395.6 | 13.2 |
| 30°-40° | 1366.6 | 12.9 |
| 40°-50° | 1046.1 | 9.9 |
| 50°-60° | 697.1 | 6.6 |
| 60°-70° | 380.4 | 3.6 |
| 70°-80° | 158.5 | 1.5 |
| 80°-90° | 47.2 | 0.4 |
| 90°-100° | 292.9 | 2.8 |
| 100°-110° | 795.7 | 7.5 |
| 110°-120° | 818.1 | 7.7 |
| 120°-130° | 654.1 | 6.2 |
| 130°-140° | 513.9 | 4.9 |
| 140°-150° | 394.1 | 3.7 |
| 150°-160° | 283.4 | 2.7 |
| 160°-170° | 173.3 | 1.6 |
| 170°-180° | 58.4 | 0.6 |
| 0°-30° | 2887.3 | 27.3 |
| 0°-40° | 4253.9 | 40.3 |
| 0°-60° | 5997.0 | 56.8 |
| 0°-90° | 6583.1 | 62.3 |
| 90°-120° | 1906.7 | 18.0 |
| 90°-150° | 3468.7 | 32.8 |
| 90°-180° | 3984.0 | 37.7 |
| 0°-180° | 10567.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4516 | 4516 | 4516 | 4516 | 4516 | |
| 5° | 4443 | 4398 | 4427 | 4437 | 4453 | 413 |
| 15° | 3757 | 3744 | 3844 | 3949 | 4017 | 1049 |
| 25° | 2871 | 2879 | 3028 | 3160 | 3299 | 1320 |
| 35° | 2029 | 2039 | 2176 | 2322 | 2487 | 1262 |
| 45° | 1217 | 1240 | 1322 | 1422 | 1552 | 949 |
| 55° | 700 | 729 | 771 | 800 | 866 | 634 |
| 65° | 351 | 380 | 414 | 362 | 329 | 365 |
| 75° | 176 | 176 | 160 | 110 | 75 | 188 |
| 85° | 50 | 50 | 46 | 30 | 18 | 54 |
| 90° | 2 | 8 | 14 | 18 | 18 | 5 |
| 95° | 43 | 160 | 510 | 222 | 149 | 46 |
| 105° | 141 | 220 | 875 | 1332 | 1254 | 150 |
| 115° | 251 | 305 | 700 | 1393 | 1587 | 248 |
| 125° | 345 | 393 | 634 | 1068 | 1260 | 308 |
| 135° | 416 | 462 | 616 | 870 | 981 | 322 |
| 145° | 481 | 515 | 608 | 739 | 795 | 302 |
| 155° | 543 | 563 | 604 | 664 | 683 | 251 |
| 165° | 589 | 596 | 606 | 632 | 634 | 166 |
| 175° | 610 | 612 | 608 | 616 | 614 | 58 |
| 180° | 610 | 610 | 610 | 610 | 610 | |

TEST NUMBER: P519122

CATALOG NUMBER: SQ4-WB-050U-100D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4516.1 | 4516.1 | 4516.1 | 4516.1 | 4516.1 |
| 2.5° | 4527.2 | 4486.9 | 4497.1 | 4496.8 | 4484.4 |
| 5° | 4442.8 | 4398.2 | 4426.9 | 4437.2 | 4452.7 |
| 7.5° | 4277.9 | 4244.2 | 4296.5 | 4335.3 | 4366.7 |
| 10° | 4149.5 | 4120.4 | 4187.1 | 4243.6 | 4284.2 |
| 12.5° | 4000.5 | 3976.1 | 4058.7 | 4134.5 | 4187.5 |
| 15° | 3757.1 | 3743.6 | 3844.3 | 3948.9 | 4016.7 |
| 17.5° | 3496.8 | 3490.2 | 3605.7 | 3727.8 | 3814.6 |
| 20° | 3319.2 | 3317.3 | 3444.0 | 3571.2 | 3671.9 |
| 22.5° | 3140.1 | 3144.3 | 3277.6 | 3409.8 | 3524.5 |
| 25° | 2871.4 | 2879.1 | 3027.9 | 3159.9 | 3299.4 |
| 27.5° | 2622.9 | 2626.4 | 2780.2 | 2919.5 | 3068.3 |
| 30° | 2453.2 | 2462.9 | 2613.7 | 2758.0 | 2913.0 |
| 32.5° | 2283.6 | 2294.8 | 2442.5 | 2591.6 | 2749.7 |
| 35° | 2029.2 | 2038.9 | 2175.8 | 2322.2 | 2486.9 |
| 37.5° | 1766.8 | 1780.0 | 1901.6 | 2040.0 | 2202.0 |
| 40° | 1597.2 | 1616.6 | 1724.0 | 1854.4 | 2013.3 |
| 42.5° | 1433.9 | 1457.9 | 1557.5 | 1681.3 | 1824.7 |
| 45° | 1216.7 | 1240.0 | 1321.7 | 1421.8 | 1551.6 |
| 47.5° | 1029.6 | 1056.4 | 1119.2 | 1205.4 | 1316.2 |
| 50° | 923.4 | 948.6 | 1006.7 | 1070.5 | 1175.1 |
| 52.5° | 829.9 | 855.1 | 906.8 | 956.0 | 1045.1 |
| 55° | 699.5 | 728.6 | 770.8 | 800.1 | 866.0 |
| 57.5° | 592.5 | 620.4 | 653.9 | 667.1 | 707.0 |
| 60° | 521.2 | 552.2 | 582.6 | 581.1 | 602.4 |
| 62.5° | 456.2 | 482.5 | 512.8 | 491.9 | 493.0 |
| 65° | 350.7 | 379.8 | 414.2 | 361.9 | 328.9 |
| 67.5° | 283.4 | 289.6 | 325.0 | 252.4 | 213.2 |
| 70° | 251.7 | 251.7 | 261.6 | 195.4 | 162.5 |
| 72.5° | 221.5 | 221.5 | 212.4 | 158.9 | 124.4 |
| 75° | 176.4 | 176.4 | 160.5 | 110.2 | 75.3 |
| 77.5° | 135.9 | 134.4 | 122.9 | 82.2 | 54.7 |
| 80° | 109.0 | 109.0 | 99.1 | 64.9 | 43.6 |
| 82.5° | 85.2 | 85.2 | 76.9 | 50.7 | 32.5 |
| 85° | 49.5 | 49.5 | 45.6 | 29.5 | 17.8 |
| 87.5° | 17.8 | 19.0 | 18.6 | 13.0 | 11.5 |
| 90° | 2.0 | 7.7 | 13.7 | 17.7 | 17.7 |
| 92.5° | 17.7 | 80.2 | 139.3 | 59.8 | 50.6 |
| 95° | 43.2 | 160.2 | 510.1 | 222.0 | 149.1 |
| 97.5° | 71.4 | 176.9 | 782.0 | 608.4 | 427.3 |
| 100° | 90.2 | 188.1 | 865.2 | 877.1 | 708.2 |
| 102.5° | 109.1 | 199.2 | 887.2 | 1084.7 | 935.8 |
| 105° | 141.3 | 219.9 | 875.0 | 1332.3 | 1253.6 |
| 107.5° | 174.6 | 244.1 | 824.4 | 1460.1 | 1482.0 |
| 110° | 198.2 | 261.5 | 786.7 | 1485.3 | 1579.3 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 218.6 | 278.8 | 749.1 | 1464.4 | 1606.0 |
| 115° | 251.1 | 304.8 | 700.4 | 1393.4 | 1587.2 |
| 117.5° | 281.7 | 333.1 | 669.4 | 1292.7 | 1511.0 |
| 120° | 302.1 | 352.0 | 655.3 | 1225.2 | 1442.0 |
| 122.5° | 319.4 | 369.3 | 645.9 | 1157.6 | 1366.7 |
| 125° | 345.3 | 393.3 | 633.7 | 1067.7 | 1259.5 |
| 127.5° | 368.4 | 416.0 | 627.0 | 999.6 | 1164.2 |
| 130° | 382.6 | 428.6 | 623.9 | 956.8 | 1104.5 |
| 132.5° | 396.7 | 442.7 | 620.7 | 920.4 | 1051.2 |
| 135° | 415.9 | 462.0 | 616.0 | 869.7 | 980.9 |
| 137.5° | 436.7 | 478.5 | 613.7 | 824.9 | 918.6 |
| 140° | 449.3 | 489.6 | 612.1 | 796.5 | 880.9 |
| 142.5° | 461.8 | 499.0 | 610.5 | 774.2 | 844.8 |
| 145° | 480.7 | 515.2 | 608.2 | 738.9 | 794.6 |
| 147.5° | 501.9 | 531.4 | 606.2 | 711.2 | 754.9 |
| 150° | 516.0 | 540.9 | 606.2 | 695.3 | 729.8 |
| 152.5° | 527.0 | 548.8 | 604.7 | 681.0 | 709.4 |
| 155° | 543.4 | 562.6 | 604.3 | 663.6 | 682.7 |
| 157.5° | 559.5 | 574.5 | 604.3 | 651.7 | 666.3 |
| 160° | 568.9 | 582.4 | 604.3 | 643.8 | 655.3 |
| 162.5° | 578.4 | 588.7 | 605.8 | 637.4 | 645.9 |
| 165° | 588.6 | 596.2 | 606.2 | 631.8 | 633.7 |
| 167.5° | 599.2 | 603.0 | 608.2 | 625.1 | 626.6 |
| 170° | 602.3 | 606.1 | 608.2 | 621.9 | 621.9 |
| 172.5° | 605.4 | 607.7 | 608.2 | 618.8 | 618.8 |
| 175° | 610.1 | 612.1 | 608.2 | 616.0 | 614.1 |
| 177.5° | 611.7 | 611.7 | 607.0 | 613.2 | 610.1 |
| 180° | 610.1 | 610.1 | 610.1 | 610.1 | 610.1 |

(END OF REPORT)