

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: P564665

Luminaire Tested: **SQ4-PW1-050U-100D-830-1D-UNV-STD-W-12**

Issue Date: 7/30/2021

Test Information

Test Method: LM-79-2019
Report Number: P564665
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G2-2106-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/30/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-PW1-050U-100D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS.
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16335.7 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.19 / 1.31
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Direct

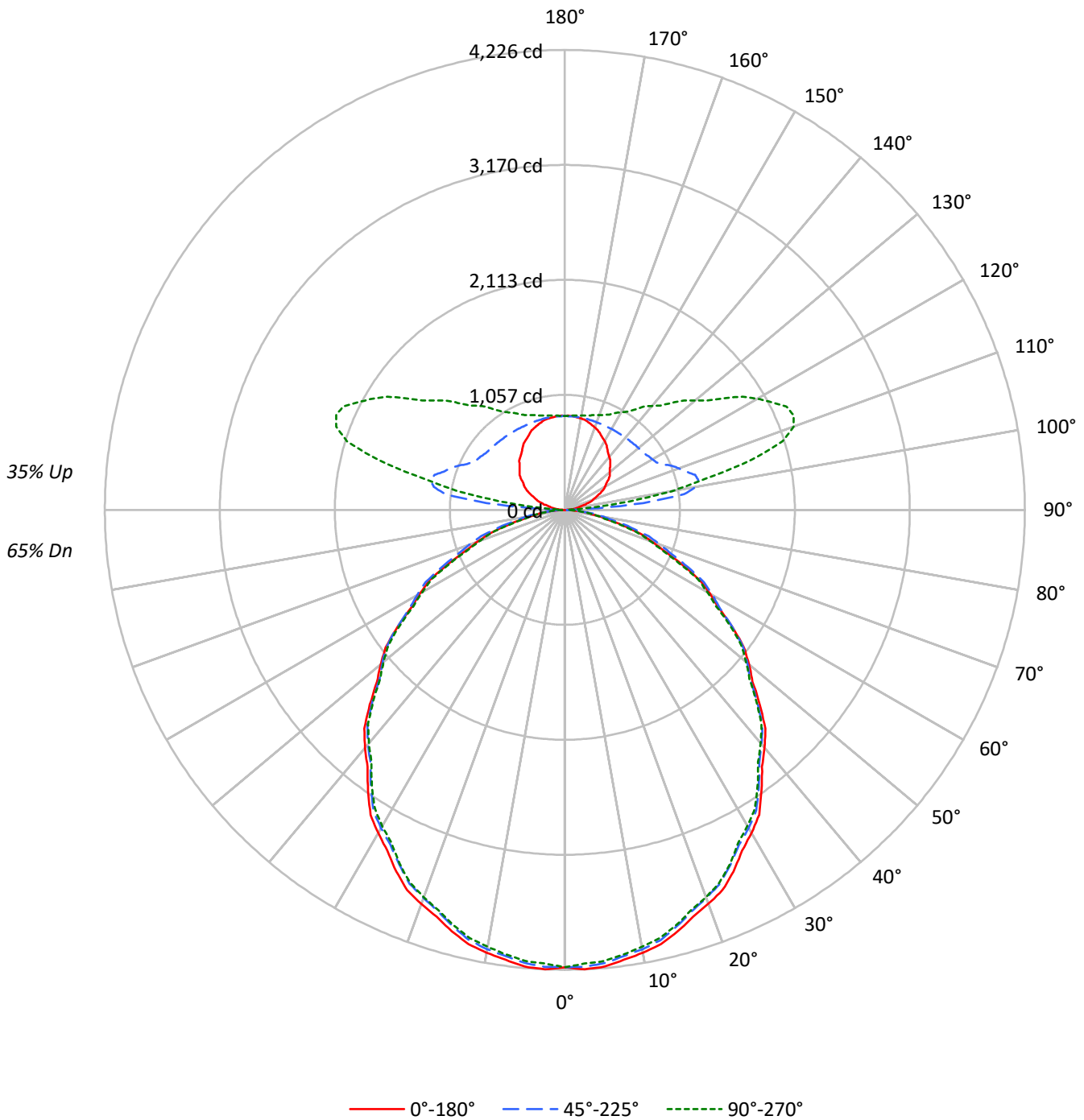
Input Watts (W): 134.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P564665

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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 | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 70 | 70 | 70 | 65 |
| 1 | 101 | 97 | 93 | 90 | 95 | 91 | 88 | 85 | 81 | 78 | 76 | 71 | 69 | 68 | 62 | 61 | 60 | 55 |
| 2 | 92 | 85 | 79 | 73 | 87 | 80 | 75 | 70 | 71 | 67 | 63 | 63 | 59 | 57 | 55 | 53 | 50 | 47 |
| 3 | 84 | 75 | 67 | 61 | 79 | 71 | 64 | 59 | 63 | 58 | 53 | 56 | 51 | 48 | 49 | 46 | 43 | 40 |
| 4 | 77 | 66 | 58 | 52 | 72 | 63 | 55 | 50 | 56 | 50 | 45 | 50 | 45 | 41 | 44 | 40 | 37 | 34 |
| 5 | 71 | 59 | 51 | 45 | 67 | 56 | 48 | 43 | 50 | 44 | 39 | 45 | 40 | 36 | 39 | 36 | 32 | 30 |
| 6 | 66 | 53 | 45 | 39 | 61 | 50 | 43 | 37 | 45 | 39 | 34 | 40 | 35 | 31 | 36 | 32 | 29 | 26 |
| 7 | 61 | 48 | 40 | 34 | 57 | 46 | 38 | 33 | 41 | 35 | 30 | 37 | 32 | 28 | 33 | 29 | 25 | 23 |
| 8 | 56 | 44 | 36 | 30 | 53 | 42 | 34 | 29 | 38 | 31 | 27 | 34 | 29 | 25 | 30 | 26 | 23 | 21 |
| 9 | 53 | 40 | 32 | 27 | 49 | 38 | 31 | 26 | 34 | 29 | 24 | 31 | 26 | 22 | 28 | 24 | 21 | 19 |
| 10 | 49 | 37 | 29 | 24 | 46 | 35 | 28 | 24 | 32 | 26 | 22 | 29 | 24 | 20 | 26 | 22 | 19 | 17 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12924 | 12924 | 12924 |
| 5° | 13007 | 12905 | 12847 |
| 10° | 12904 | 12800 | 12730 |
| 15° | 12767 | 12625 | 12578 |
| 20° | 12614 | 12421 | 12396 |
| 25° | 12438 | 12212 | 12174 |
| 30° | 12175 | 11991 | 11912 |
| 35° | 11829 | 11663 | 11593 |
| 40° | 11460 | 11282 | 11237 |
| 45° | 11015 | 10870 | 10821 |
| 50° | 10558 | 10469 | 10399 |
| 55° | 10065 | 10065 | 9906 |
| 60° | 9451 | 9633 | 9291 |
| 65° | 8649 | 9080 | 8433 |
| 70° | 7624 | 8356 | 7425 |
| 75° | 6512 | 7479 | 6336 |
| 80° | 5049 | 6294 | 5115 |
| 85° | 3268 | 4834 | 4312 |



TEST NUMBER: P564665

CATALOG NUMBER: SQ4-PW1-050U-100D-830-1D-UNV-STD-W-12

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 395.7 | 2.4 |
| 10°-20° | 1117.2 | 6.8 |
| 20°-30° | 1657.2 | 10.1 |
| 30°-40° | 1939.1 | 11.9 |
| 40°-50° | 1930.4 | 11.8 |
| 50°-60° | 1667.0 | 10.2 |
| 60°-70° | 1199.9 | 7.3 |
| 70°-80° | 629.3 | 3.9 |
| 80°-90° | 159.3 | 1.0 |
| 90°-100° | 414.7 | 2.5 |
| 100°-110° | 1126.6 | 6.9 |
| 110°-120° | 1158.3 | 7.1 |
| 120°-130° | 926.1 | 5.7 |
| 130°-140° | 727.6 | 4.5 |
| 140°-150° | 557.9 | 3.4 |
| 150°-160° | 401.2 | 2.5 |
| 160°-170° | 245.4 | 1.5 |
| 170°-180° | 82.7 | 0.5 |
| 0°-30° | 3170.1 | 19.4 |
| 0°-40° | 5109.2 | 31.3 |
| 0°-60° | 8706.7 | 53.3 |
| 0°-90° | 10695.2 | 65.5 |
| 90°-120° | 2699.5 | 16.5 |
| 90°-150° | 4911.2 | 30.1 |
| 90°-180° | 5640.0 | 34.5 |
| 0°-180° | 16335.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4202 | 4202 | 4202 | 4202 | 4202 | |
| 5° | 4213 | 4166 | 4180 | 4169 | 4162 | 399 |
| 15° | 4010 | 3959 | 3965 | 3958 | 3951 | 1130 |
| 25° | 3666 | 3604 | 3599 | 3577 | 3588 | 1685 |
| 35° | 3151 | 3107 | 3106 | 3077 | 3088 | 1970 |
| 45° | 2532 | 2511 | 2499 | 2492 | 2488 | 1954 |
| 55° | 1877 | 1874 | 1877 | 1851 | 1848 | 1675 |
| 65° | 1188 | 1225 | 1248 | 1199 | 1159 | 1178 |
| 75° | 548 | 599 | 629 | 588 | 533 | 587 |
| 85° | 93 | 122 | 137 | 129 | 122 | 122 |
| 90° | 3 | 11 | 19 | 25 | 25 | 8 |
| 95° | 61 | 227 | 722 | 314 | 211 | 65 |
| 105° | 200 | 311 | 1239 | 1886 | 1775 | 212 |
| 115° | 356 | 432 | 992 | 1973 | 2247 | 351 |
| 125° | 489 | 557 | 897 | 1512 | 1783 | 436 |
| 135° | 589 | 654 | 872 | 1231 | 1389 | 455 |
| 145° | 680 | 729 | 861 | 1046 | 1125 | 427 |
| 155° | 769 | 797 | 856 | 940 | 967 | 355 |
| 165° | 833 | 844 | 858 | 894 | 897 | 235 |
| 175° | 864 | 867 | 861 | 872 | 869 | 82 |
| 180° | 864 | 864 | 864 | 864 | 864 | |

TEST NUMBER: P564665

CATALOG NUMBER: SQ4-PW1-050U-100D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4202.3 | 4202.3 | 4202.3 | 4202.3 | 4202.3 |
| 2.5° | 4226.0 | 4191.3 | 4202.3 | 4193.0 | 4172.7 |
| 5° | 4213.4 | 4166.4 | 4180.1 | 4168.8 | 4161.6 |
| 7.5° | 4170.5 | 4127.0 | 4137.2 | 4125.2 | 4120.9 |
| 10° | 4132.0 | 4088.5 | 4098.7 | 4083.7 | 4076.4 |
| 12.5° | 4087.6 | 4041.2 | 4051.3 | 4036.4 | 4032.0 |
| 15° | 4009.8 | 3959.1 | 3965.4 | 3957.8 | 3950.6 |
| 17.5° | 3919.5 | 3868.1 | 3869.1 | 3857.2 | 3855.8 |
| 20° | 3854.3 | 3800.0 | 3795.1 | 3780.4 | 3787.7 |
| 22.5° | 3783.2 | 3726.0 | 3721.0 | 3700.5 | 3710.6 |
| 25° | 3665.5 | 3603.9 | 3598.8 | 3576.9 | 3587.7 |
| 27.5° | 3529.2 | 3468.4 | 3468.5 | 3437.7 | 3449.2 |
| 30° | 3428.5 | 3370.6 | 3376.7 | 3340.0 | 3354.5 |
| 32.5° | 3321.9 | 3269.7 | 3273.0 | 3236.3 | 3250.8 |
| 35° | 3150.8 | 3107.4 | 3106.4 | 3077.0 | 3087.9 |
| 37.5° | 2976.1 | 2937.7 | 2931.6 | 2914.7 | 2917.6 |
| 40° | 2854.6 | 2822.0 | 2810.2 | 2799.1 | 2799.1 |
| 42.5° | 2727.3 | 2697.6 | 2685.8 | 2677.6 | 2674.7 |
| 45° | 2532.5 | 2510.8 | 2499.2 | 2491.7 | 2488.1 |
| 47.5° | 2340.0 | 2319.7 | 2309.6 | 2304.3 | 2300.7 |
| 50° | 2206.7 | 2192.2 | 2188.2 | 2177.0 | 2173.4 |
| 52.5° | 2073.4 | 2064.7 | 2060.8 | 2046.7 | 2043.0 |
| 55° | 1877.2 | 1873.5 | 1877.2 | 1851.2 | 1847.5 |
| 57.5° | 1672.8 | 1678.6 | 1690.6 | 1655.6 | 1646.9 |
| 60° | 1536.5 | 1551.0 | 1566.2 | 1525.1 | 1510.6 |
| 62.5° | 1397.3 | 1420.5 | 1441.8 | 1394.6 | 1374.4 |
| 65° | 1188.5 | 1224.7 | 1247.7 | 1198.7 | 1158.9 |
| 67.5° | 987.1 | 1032.0 | 1059.7 | 1006.8 | 961.9 |
| 70° | 847.9 | 898.6 | 929.3 | 876.3 | 825.7 |
| 72.5° | 726.4 | 782.9 | 807.9 | 757.9 | 707.2 |
| 75° | 548.0 | 598.7 | 629.4 | 587.5 | 533.2 |
| 77.5° | 388.8 | 436.5 | 462.1 | 425.5 | 380.6 |
| 80° | 285.1 | 335.8 | 355.4 | 325.0 | 288.8 |
| 82.5° | 202.2 | 244.2 | 257.7 | 239.4 | 214.7 |
| 85° | 92.6 | 121.5 | 137.0 | 129.4 | 122.2 |
| 87.5° | 24.3 | 46.2 | 60.2 | 61.3 | 64.2 |
| 90° | 2.8 | 10.9 | 19.4 | 25.0 | 25.0 |
| 92.5° | 25.0 | 113.5 | 197.2 | 84.7 | 71.7 |
| 95° | 61.1 | 226.8 | 722.2 | 314.3 | 211.1 |
| 97.5° | 101.1 | 250.5 | 1107.2 | 861.4 | 605.0 |
| 100° | 127.8 | 266.3 | 1225.0 | 1241.8 | 1002.8 |
| 102.5° | 154.4 | 282.1 | 1256.1 | 1535.7 | 1325.0 |
| 105° | 200.0 | 311.4 | 1238.9 | 1886.3 | 1775.0 |
| 107.5° | 247.2 | 345.5 | 1167.2 | 2067.3 | 2098.3 |
| 110° | 280.6 | 370.2 | 1113.9 | 2103.0 | 2236.1 |

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CATALOG NUMBER: SQ4-PW1-050U-100D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 309.4 | 394.7 | 1060.5 | 2073.4 | 2273.8 |
| 115° | 355.5 | 431.6 | 991.6 | 1972.9 | 2247.2 |
| 117.5° | 398.9 | 471.7 | 947.8 | 1830.3 | 2139.4 |
| 120° | 427.8 | 498.4 | 927.8 | 1734.7 | 2041.6 |
| 122.5° | 452.2 | 522.8 | 914.4 | 1638.9 | 1935.0 |
| 125° | 488.9 | 556.8 | 897.2 | 1511.7 | 1783.3 |
| 127.5° | 521.7 | 589.0 | 887.8 | 1415.3 | 1648.3 |
| 130° | 541.7 | 606.8 | 883.3 | 1354.7 | 1563.9 |
| 132.5° | 561.7 | 626.8 | 878.9 | 1303.1 | 1488.3 |
| 135° | 588.9 | 654.1 | 872.2 | 1231.3 | 1388.9 |
| 137.5° | 618.3 | 677.5 | 868.9 | 1168.0 | 1300.5 |
| 140° | 636.1 | 693.1 | 866.6 | 1127.7 | 1247.2 |
| 142.5° | 653.9 | 706.6 | 864.4 | 1096.1 | 1196.1 |
| 145° | 680.5 | 729.4 | 861.1 | 1046.2 | 1125.0 |
| 147.5° | 710.5 | 752.4 | 858.3 | 1006.9 | 1068.9 |
| 150° | 730.5 | 765.8 | 858.3 | 984.4 | 1033.3 |
| 152.5° | 746.1 | 777.1 | 856.1 | 964.2 | 1004.4 |
| 155° | 769.4 | 796.6 | 855.5 | 939.5 | 966.6 |
| 157.5° | 792.2 | 813.4 | 855.5 | 922.7 | 943.3 |
| 160° | 805.5 | 824.6 | 855.5 | 911.5 | 927.8 |
| 162.5° | 818.9 | 833.5 | 857.8 | 902.5 | 914.4 |
| 165° | 833.3 | 844.2 | 858.3 | 894.5 | 897.2 |
| 167.5° | 848.3 | 853.7 | 861.1 | 885.0 | 887.2 |
| 170° | 852.8 | 858.2 | 861.1 | 880.5 | 880.5 |
| 172.5° | 857.2 | 860.5 | 861.1 | 876.1 | 876.1 |
| 175° | 863.9 | 866.6 | 861.1 | 872.1 | 869.4 |
| 177.5° | 866.1 | 866.1 | 859.4 | 868.2 | 863.9 |
| 180° | 863.9 | 863.9 | 863.9 | 863.9 | 863.9 |

(END OF REPORT)