

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: P518566

Luminaire Tested: **SQ4-BB-075U-125D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518566
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-BB-075U-125D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

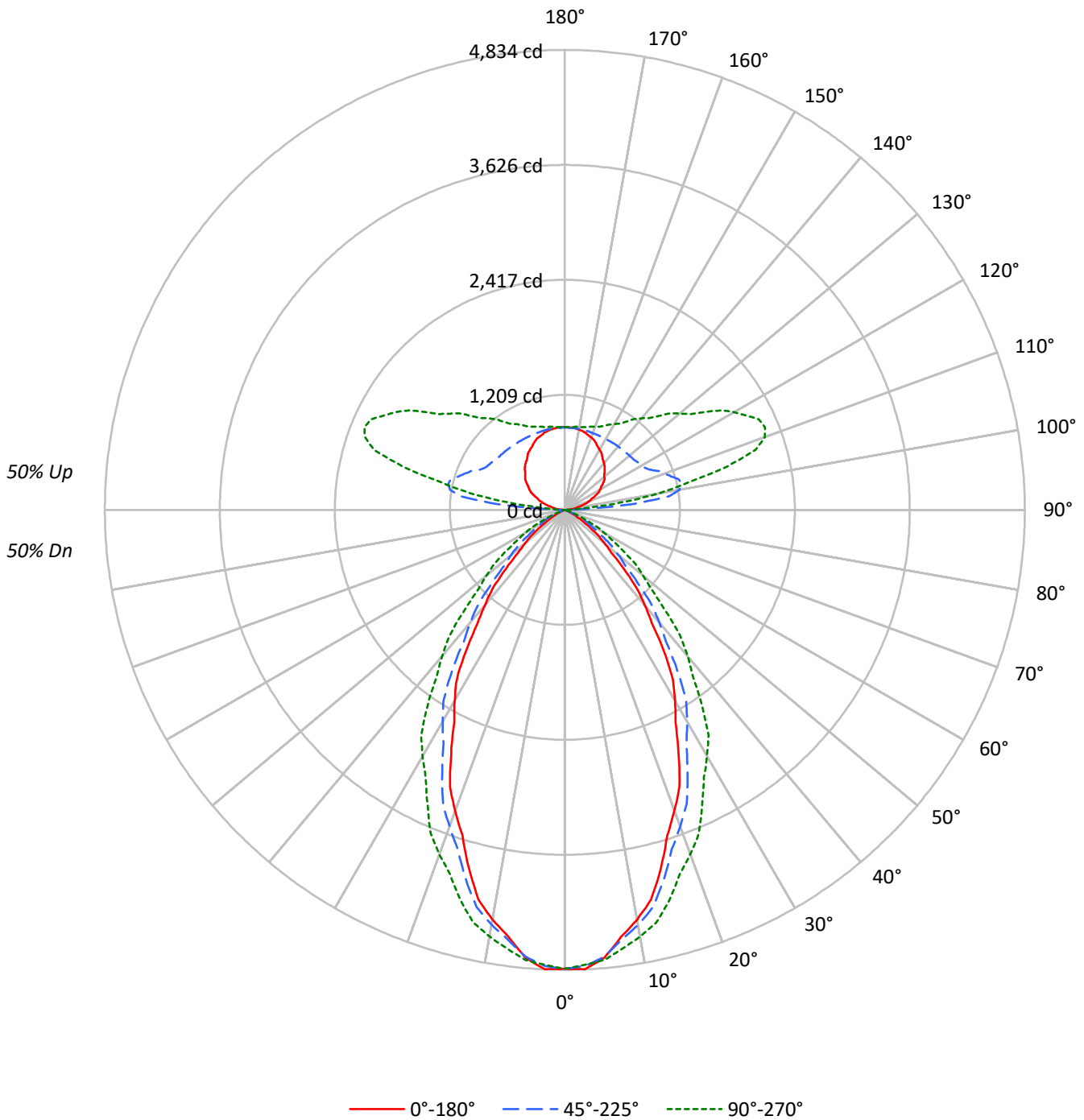
Lumens per Lamp: N/A
Luminaire Lumens: 11407.1 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 127.7
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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 69 | 69 | 69 | 57 | 57 | 57 | 50 |
| 1 | 100 | 96 | 93 | 90 | 92 | 89 | 86 | 84 | 76 | 74 | 72 | 64 | 63 | 61 | 53 | 52 | 51 | 46 |
| 2 | 92 | 86 | 81 | 77 | 85 | 80 | 76 | 72 | 69 | 66 | 63 | 58 | 56 | 54 | 49 | 47 | 46 | 42 |
| 3 | 85 | 77 | 71 | 66 | 79 | 72 | 67 | 62 | 62 | 58 | 55 | 53 | 51 | 48 | 45 | 43 | 41 | 38 |
| 4 | 79 | 70 | 63 | 58 | 73 | 65 | 59 | 55 | 57 | 52 | 49 | 49 | 46 | 43 | 41 | 39 | 37 | 34 |
| 5 | 73 | 63 | 56 | 51 | 68 | 59 | 53 | 48 | 52 | 47 | 43 | 45 | 41 | 39 | 38 | 36 | 34 | 31 |
| 6 | 68 | 58 | 50 | 45 | 63 | 54 | 48 | 43 | 47 | 43 | 39 | 41 | 38 | 35 | 36 | 33 | 31 | 28 |
| 7 | 64 | 53 | 46 | 41 | 59 | 50 | 43 | 39 | 44 | 39 | 35 | 38 | 34 | 32 | 33 | 30 | 28 | 26 |
| 8 | 60 | 48 | 41 | 37 | 55 | 46 | 39 | 35 | 40 | 35 | 32 | 35 | 32 | 29 | 31 | 28 | 26 | 24 |
| 9 | 56 | 45 | 38 | 33 | 52 | 42 | 36 | 32 | 37 | 33 | 29 | 33 | 29 | 27 | 29 | 26 | 24 | 22 |
| 10 | 52 | 41 | 35 | 30 | 49 | 39 | 33 | 29 | 35 | 30 | 27 | 31 | 27 | 25 | 27 | 24 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22249 | 22249 | 22249 |
| 5° | 21890 | 21836 | 21998 |
| 10° | 20482 | 20756 | 21334 |
| 15° | 18620 | 19211 | 20281 |
| 20° | 16529 | 17388 | 18911 |
| 25° | 14394 | 15534 | 17375 |
| 30° | 12329 | 13684 | 15921 |
| 35° | 10223 | 11616 | 14165 |
| 40° | 7854 | 9288 | 12070 |
| 45° | 5678 | 7033 | 9711 |
| 50° | 3868 | 5241 | 7703 |
| 55° | 2515 | 3791 | 5986 |
| 60° | 1442 | 2669 | 4327 |
| 65° | 382 | 1630 | 2191 |
| 70° | 189 | 503 | 630 |
| 75° | 84 | 41 | 0 |
| 80° | 61 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 440.1 | 3.9 |
| 10°-20° | 1125.6 | 9.9 |
| 20°-30° | 1409.1 | 12.4 |
| 30°-40° | 1301.6 | 11.4 |
| 40°-50° | 874.6 | 7.7 |
| 50°-60° | 451.7 | 4.0 |
| 60°-70° | 141.5 | 1.2 |
| 70°-80° | 8.9 | 0.1 |
| 80°-90° | 2.4 | 0.0 |
| 90°-100° | 409.2 | 3.6 |
| 100°-110° | 1125.7 | 9.9 |
| 110°-120° | 1161.9 | 10.2 |
| 120°-130° | 931.0 | 8.2 |
| 130°-140° | 731.2 | 6.4 |
| 140°-150° | 560.3 | 4.9 |
| 150°-160° | 402.9 | 3.5 |
| 160°-170° | 246.4 | 2.2 |
| 170°-180° | 83.0 | 0.7 |
| 0°-30° | 2974.8 | 26.1 |
| 0°-40° | 4276.4 | 37.5 |
| 0°-60° | 5602.7 | 49.1 |
| 0°-90° | 5755.5 | 50.5 |
| 90°-120° | 2696.8 | 23.6 |
| 90°-150° | 4919.3 | 43.1 |
| 90°-180° | 5652.0 | 49.5 |
| 0°-180° | 11407.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4823 | 4823 | 4823 | 4823 | 4823 | |
| 5° | 4727 | 4679 | 4716 | 4732 | 4750 | 438 |
| 15° | 3899 | 3885 | 4022 | 4158 | 4246 | 1086 |
| 25° | 2828 | 2851 | 3052 | 3261 | 3414 | 1296 |
| 35° | 1815 | 1861 | 2063 | 2305 | 2515 | 1125 |
| 45° | 870 | 923 | 1078 | 1288 | 1489 | 684 |
| 55° | 313 | 365 | 471 | 605 | 744 | 292 |
| 65° | 35 | 67 | 149 | 180 | 201 | 59 |
| 75° | 5 | 5 | 2 | 0 | 0 | 7 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 2 | 7 | 13 | 17 | 17 | 4 |
| 95° | 61 | 223 | 724 | 309 | 198 | 64 |
| 105° | 201 | 310 | 1240 | 1889 | 1763 | 212 |
| 115° | 356 | 434 | 995 | 1981 | 2248 | 352 |
| 125° | 491 | 560 | 903 | 1527 | 1789 | 438 |
| 135° | 592 | 658 | 877 | 1235 | 1397 | 457 |
| 145° | 685 | 732 | 864 | 1052 | 1133 | 429 |
| 155° | 775 | 800 | 858 | 946 | 973 | 356 |
| 165° | 838 | 849 | 862 | 897 | 903 | 236 |
| 175° | 868 | 869 | 864 | 875 | 873 | 82 |
| 180° | 868 | 868 | 868 | 868 | 868 | |



TEST NUMBER: P518566

CATALOG NUMBER: SQ4-BB-075U-125D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4822.9 | 4822.9 | 4822.9 | 4822.9 | 4822.9 |
| 2.5° | 4834.1 | 4788.4 | 4800.5 | 4800.2 | 4787.4 |
| 5° | 4727.2 | 4679.3 | 4715.5 | 4732.3 | 4750.5 |
| 7.5° | 4527.5 | 4490.0 | 4559.7 | 4611.9 | 4649.7 |
| 10° | 4372.5 | 4340.6 | 4430.9 | 4502.1 | 4554.5 |
| 12.5° | 4193.3 | 4168.7 | 4277.8 | 4375.5 | 4442.5 |
| 15° | 3898.9 | 3885.2 | 4022.5 | 4157.6 | 4246.5 |
| 17.5° | 3583.4 | 3583.0 | 3739.8 | 3907.4 | 4014.6 |
| 20° | 3366.9 | 3373.7 | 3541.9 | 3726.7 | 3852.2 |
| 22.5° | 3150.4 | 3166.3 | 3345.9 | 3538.6 | 3682.4 |
| 25° | 2827.9 | 2850.7 | 3051.9 | 3260.7 | 3413.6 |
| 27.5° | 2518.1 | 2551.4 | 2763.0 | 2980.1 | 3166.2 |
| 30° | 2314.6 | 2353.4 | 2568.9 | 2797.3 | 2988.9 |
| 32.5° | 2114.9 | 2161.0 | 2371.1 | 2612.6 | 2807.8 |
| 35° | 1815.3 | 1860.9 | 2062.6 | 2305.4 | 2515.3 |
| 37.5° | 1505.9 | 1550.6 | 1747.6 | 1986.6 | 2213.3 |
| 40° | 1304.3 | 1354.5 | 1542.3 | 1773.9 | 2004.3 |
| 42.5° | 1121.4 | 1171.6 | 1348.2 | 1575.7 | 1793.3 |
| 45° | 870.3 | 922.8 | 1078.0 | 1287.9 | 1488.6 |
| 47.5° | 662.2 | 719.2 | 855.4 | 1045.3 | 1228.2 |
| 50° | 539.0 | 596.0 | 730.3 | 897.6 | 1073.3 |
| 52.5° | 440.1 | 495.3 | 616.4 | 774.1 | 935.2 |
| 55° | 312.7 | 365.1 | 471.3 | 605.1 | 744.3 |
| 57.5° | 216.1 | 261.2 | 356.5 | 468.2 | 577.2 |
| 60° | 156.3 | 199.7 | 289.3 | 380.0 | 469.0 |
| 62.5° | 104.1 | 143.8 | 231.5 | 300.9 | 360.7 |
| 65° | 35.0 | 66.9 | 149.3 | 180.1 | 200.7 |
| 67.5° | 17.7 | 21.4 | 78.4 | 82.8 | 89.6 |
| 70° | 14.0 | 14.0 | 37.3 | 39.8 | 46.7 |
| 72.5° | 10.3 | 10.3 | 14.9 | 19.2 | 20.5 |
| 75° | 4.7 | 4.7 | 2.3 | 0.0 | 0.0 |
| 77.5° | 2.3 | 2.3 | 1.9 | 0.0 | 0.0 |
| 80° | 2.3 | 2.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.4 | 1.5 | 2.6 | 3.3 | 3.3 |
| 90° | 1.8 | 7.3 | 12.9 | 16.6 | 16.6 |
| 92.5° | 25.5 | 108.9 | 188.6 | 72.4 | 59.4 |
| 95° | 60.9 | 223.3 | 723.6 | 309.4 | 197.5 |
| 97.5° | 99.3 | 247.7 | 1104.2 | 850.8 | 600.3 |
| 100° | 127.4 | 262.7 | 1223.8 | 1235.2 | 1007.8 |
| 102.5° | 153.9 | 280.6 | 1254.8 | 1532.4 | 1323.8 |
| 105° | 201.2 | 309.5 | 1240.4 | 1889.1 | 1762.7 |
| 107.5° | 246.2 | 345.1 | 1169.9 | 2063.7 | 2101.3 |
| 110° | 278.7 | 369.0 | 1116.7 | 2107.2 | 2237.1 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 308.3 | 395.6 | 1063.6 | 2079.2 | 2277.0 |
| 115° | 356.2 | 433.8 | 994.9 | 1981.1 | 2248.2 |
| 117.5° | 402.0 | 473.5 | 951.3 | 1843.4 | 2145.6 |
| 120° | 430.1 | 498.7 | 932.1 | 1740.3 | 2052.5 |
| 122.5° | 455.2 | 523.8 | 918.8 | 1649.9 | 1946.2 |
| 125° | 491.0 | 559.6 | 902.6 | 1526.9 | 1788.6 |
| 127.5° | 524.9 | 590.3 | 891.9 | 1424.3 | 1653.8 |
| 130° | 542.7 | 609.4 | 886.0 | 1363.3 | 1572.6 |
| 132.5° | 563.3 | 630.1 | 881.6 | 1309.7 | 1498.8 |
| 135° | 592.5 | 657.5 | 876.8 | 1234.8 | 1397.3 |
| 137.5° | 619.8 | 680.1 | 872.7 | 1174.4 | 1308.3 |
| 140° | 640.5 | 696.4 | 871.2 | 1134.2 | 1255.2 |
| 142.5° | 658.2 | 709.8 | 868.3 | 1098.4 | 1202.0 |
| 145° | 684.8 | 731.7 | 863.8 | 1052.1 | 1133.3 |
| 147.5° | 713.2 | 753.6 | 861.6 | 1011.1 | 1076.1 |
| 150° | 730.9 | 767.0 | 860.1 | 988.7 | 1039.2 |
| 152.5° | 747.2 | 780.4 | 858.7 | 969.3 | 1011.1 |
| 155° | 775.2 | 800.5 | 858.3 | 945.7 | 972.7 |
| 157.5° | 795.5 | 816.1 | 858.3 | 926.3 | 945.1 |
| 160° | 810.3 | 826.6 | 858.3 | 915.9 | 930.3 |
| 162.5° | 822.1 | 835.5 | 859.8 | 906.9 | 918.5 |
| 165° | 838.0 | 848.8 | 862.0 | 897.2 | 902.6 |
| 167.5° | 849.1 | 857.4 | 863.8 | 889.0 | 890.4 |
| 170° | 856.5 | 861.9 | 863.8 | 886.0 | 886.0 |
| 172.5° | 862.4 | 864.9 | 863.8 | 881.5 | 880.1 |
| 175° | 867.5 | 869.3 | 863.8 | 874.9 | 873.1 |
| 177.5° | 869.0 | 869.0 | 863.1 | 871.9 | 869.0 |
| 180° | 867.5 | 867.5 | 867.5 | 867.5 | 867.5 |

(END OF REPORT)