

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: P518831

Luminaire Tested: **SQ4-BB-125U-100D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518831
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-24, 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-125U-100D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

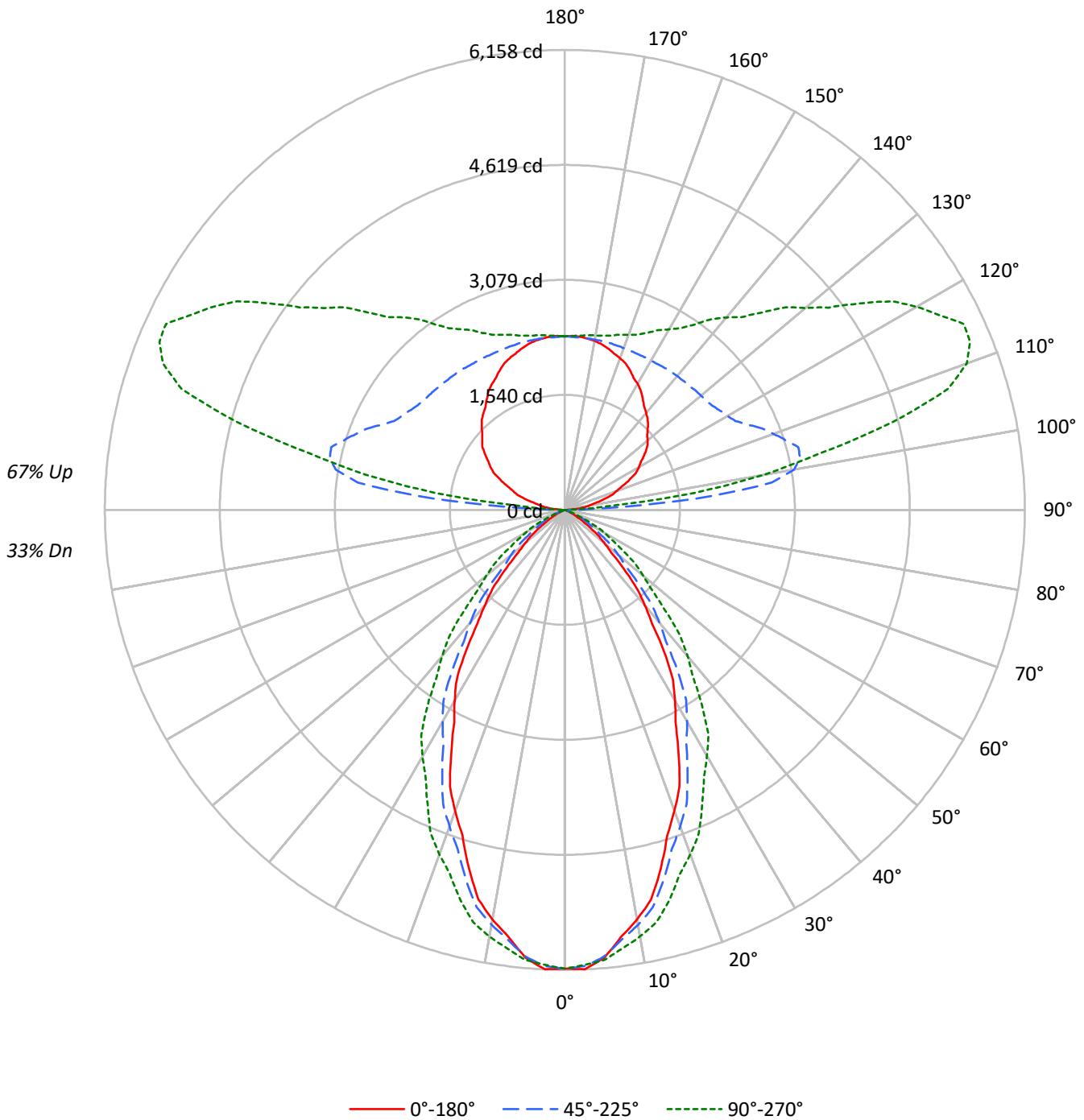
Lumens per Lamp: N/A
Luminaire Lumens: 22332.1 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 201.2
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 | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 56 | 56 | 56 | 40 | 40 | 40 | 33 |
| 1 | 95 | 91 | 88 | 85 | 86 | 83 | 80 | 77 | 66 | 64 | 63 | 51 | 50 | 49 | 37 | 37 | 36 | 30 |
| 2 | 88 | 81 | 76 | 71 | 79 | 74 | 69 | 65 | 59 | 56 | 54 | 46 | 45 | 43 | 34 | 33 | 32 | 27 |
| 3 | 81 | 72 | 66 | 61 | 73 | 66 | 60 | 56 | 54 | 50 | 47 | 42 | 40 | 38 | 32 | 30 | 29 | 24 |
| 4 | 74 | 65 | 58 | 53 | 67 | 59 | 53 | 49 | 48 | 44 | 41 | 38 | 36 | 33 | 29 | 27 | 26 | 22 |
| 5 | 69 | 58 | 51 | 46 | 62 | 53 | 47 | 42 | 44 | 39 | 36 | 35 | 32 | 30 | 27 | 25 | 24 | 20 |
| 6 | 64 | 53 | 45 | 40 | 58 | 48 | 42 | 38 | 40 | 35 | 32 | 32 | 29 | 27 | 25 | 23 | 21 | 18 |
| 7 | 59 | 48 | 41 | 36 | 53 | 44 | 38 | 33 | 37 | 32 | 29 | 30 | 26 | 24 | 23 | 21 | 20 | 17 |
| 8 | 55 | 44 | 37 | 32 | 50 | 40 | 34 | 30 | 34 | 29 | 26 | 27 | 24 | 22 | 21 | 19 | 18 | 15 |
| 9 | 51 | 40 | 33 | 29 | 47 | 37 | 31 | 27 | 31 | 27 | 23 | 25 | 22 | 20 | 20 | 18 | 16 | 14 |
| 10 | 48 | 37 | 30 | 26 | 44 | 34 | 28 | 24 | 29 | 24 | 21 | 24 | 20 | 18 | 19 | 17 | 15 | 13 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 18893 | 18893 | 18893 |
| 5° | 18590 | 18544 | 18681 |
| 10° | 17394 | 17626 | 18117 |
| 15° | 15813 | 16314 | 17223 |
| 20° | 14036 | 14766 | 16059 |
| 25° | 12224 | 13192 | 14755 |
| 30° | 10470 | 11620 | 13520 |
| 35° | 8681 | 9864 | 12029 |
| 40° | 6670 | 7887 | 10250 |
| 45° | 4822 | 5972 | 8247 |
| 50° | 3285 | 4451 | 6541 |
| 55° | 2136 | 3219 | 5084 |
| 60° | 1225 | 2267 | 3674 |
| 65° | 325 | 1384 | 1860 |
| 70° | 160 | 428 | 534 |
| 75° | 70 | 36 | 0 |
| 80° | 53 | 0 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P518831

CATALOG NUMBER: SQ4-BB-125U-100D-835-1D-UNV-STD-W-12

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 560.7 | 2.5 |
| 10°-20° | 1433.8 | 6.4 |
| 20°-30° | 1794.9 | 8.0 |
| 30°-40° | 1657.9 | 7.4 |
| 40°-50° | 1114.0 | 5.0 |
| 50°-60° | 575.4 | 2.6 |
| 60°-70° | 180.2 | 0.8 |
| 70°-80° | 11.4 | 0.1 |
| 80°-90° | 5.7 | 0.0 |
| 90°-100° | 1086.8 | 4.9 |
| 100°-110° | 2927.6 | 13.1 |
| 110°-120° | 3072.5 | 13.8 |
| 120°-130° | 2493.2 | 11.2 |
| 130°-140° | 1955.4 | 8.8 |
| 140°-150° | 1501.2 | 6.7 |
| 150°-160° | 1079.4 | 4.8 |
| 160°-170° | 659.4 | 3.0 |
| 170°-180° | 222.4 | 1.0 |
| 0°-30° | 3789.4 | 17.0 |
| 0°-40° | 5447.3 | 24.4 |
| 0°-60° | 7136.8 | 32.0 |
| 0°-90° | 7334.1 | 32.8 |
| 90°-120° | 7086.9 | 31.7 |
| 90°-150° | 13036.8 | 58.4 |
| 90°-180° | 14998.0 | 67.2 |
| 0°-180° | 22332.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6143 | 6143 | 6143 | 6143 | 6143 | |
| 5° | 6022 | 5961 | 6007 | 6028 | 6051 | 558 |
| 15° | 4966 | 4949 | 5124 | 5296 | 5409 | 1383 |
| 25° | 3602 | 3631 | 3888 | 4154 | 4348 | 1651 |
| 35° | 2312 | 2370 | 2627 | 2937 | 3204 | 1432 |
| 45° | 1109 | 1176 | 1373 | 1640 | 1896 | 871 |
| 55° | 398 | 465 | 600 | 771 | 948 | 372 |
| 65° | 45 | 85 | 190 | 230 | 256 | 75 |
| 75° | 6 | 6 | 3 | 0 | 0 | 9 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 6 | 18 | 36 | 38 | 38 | 12 |
| 95° | 166 | 591 | 1782 | 911 | 630 | 173 |
| 105° | 542 | 843 | 3238 | 4844 | 4546 | 569 |
| 115° | 956 | 1170 | 2696 | 5210 | 5892 | 941 |
| 125° | 1305 | 1499 | 2421 | 4092 | 4815 | 1165 |
| 135° | 1572 | 1754 | 2353 | 3301 | 3738 | 1213 |
| 145° | 1817 | 1959 | 2323 | 2822 | 3031 | 1140 |
| 155° | 2063 | 2138 | 2302 | 2532 | 2613 | 950 |
| 165° | 2237 | 2264 | 2311 | 2403 | 2415 | 631 |
| 175° | 2326 | 2323 | 2314 | 2347 | 2341 | 221 |
| 180° | 2323 | 2323 | 2323 | 2323 | 2323 | |

TEST NUMBER: P518831

CATALOG NUMBER: SQ4-BB-125U-100D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6143.4 | 6143.4 | 6143.4 | 6143.4 | 6143.4 |
| 2.5° | 6157.7 | 6099.6 | 6114.9 | 6114.5 | 6098.3 |
| 5° | 6021.6 | 5960.6 | 6006.7 | 6028.1 | 6051.3 |
| 7.5° | 5767.2 | 5719.5 | 5808.2 | 5874.7 | 5922.9 |
| 10° | 5569.8 | 5529.1 | 5644.1 | 5734.8 | 5801.6 |
| 12.5° | 5341.6 | 5310.2 | 5449.2 | 5573.5 | 5659.0 |
| 15° | 4966.5 | 4949.0 | 5124.0 | 5296.0 | 5409.3 |
| 17.5° | 4564.6 | 4564.1 | 4763.8 | 4977.3 | 5113.9 |
| 20° | 4288.8 | 4297.5 | 4511.7 | 4747.2 | 4907.0 |
| 22.5° | 4013.0 | 4033.3 | 4262.1 | 4507.6 | 4690.7 |
| 25° | 3602.3 | 3631.3 | 3887.6 | 4153.6 | 4348.3 |
| 27.5° | 3207.6 | 3250.0 | 3519.6 | 3796.1 | 4033.2 |
| 30° | 2948.4 | 2997.8 | 3272.3 | 3563.2 | 3807.3 |
| 32.5° | 2694.0 | 2752.7 | 3020.3 | 3327.9 | 3576.7 |
| 35° | 2312.3 | 2370.5 | 2627.4 | 2936.6 | 3204.0 |
| 37.5° | 1918.2 | 1975.2 | 2226.1 | 2530.5 | 2819.4 |
| 40° | 1661.4 | 1725.4 | 1964.6 | 2259.6 | 2553.1 |
| 42.5° | 1428.4 | 1492.4 | 1717.3 | 2007.2 | 2284.4 |
| 45° | 1108.6 | 1175.5 | 1373.1 | 1640.5 | 1896.2 |
| 47.5° | 843.5 | 916.2 | 1089.6 | 1331.5 | 1564.5 |
| 50° | 686.6 | 759.2 | 930.3 | 1143.4 | 1367.2 |
| 52.5° | 560.5 | 630.9 | 785.2 | 986.1 | 1191.2 |
| 55° | 398.3 | 465.1 | 600.4 | 770.8 | 948.1 |
| 57.5° | 275.2 | 332.8 | 454.1 | 596.4 | 735.3 |
| 60° | 199.1 | 254.4 | 368.5 | 484.1 | 597.4 |
| 62.5° | 132.6 | 183.1 | 294.8 | 383.4 | 459.5 |
| 65° | 44.6 | 85.3 | 190.2 | 229.5 | 255.6 |
| 67.5° | 22.6 | 27.2 | 99.9 | 105.4 | 114.1 |
| 70° | 17.8 | 17.8 | 47.6 | 50.7 | 59.4 |
| 72.5° | 13.1 | 13.1 | 19.0 | 24.4 | 26.2 |
| 75° | 5.9 | 5.9 | 3.0 | 0.0 | 0.0 |
| 77.5° | 3.0 | 3.0 | 2.4 | 0.0 | 0.0 |
| 80° | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.2 | 3.5 | 7.1 | 7.7 | 7.7 |
| 90° | 5.9 | 17.5 | 35.5 | 38.5 | 38.5 |
| 92.5° | 72.2 | 255.1 | 504.3 | 242.8 | 168.7 |
| 95° | 165.7 | 591.1 | 1781.7 | 911.1 | 630.4 |
| 97.5° | 264.6 | 676.7 | 2794.4 | 2334.5 | 1760.3 |
| 100° | 340.3 | 710.8 | 3116.4 | 3260.6 | 2705.0 |
| 102.5° | 413.7 | 758.7 | 3223.0 | 3954.3 | 3498.2 |
| 105° | 541.6 | 842.6 | 3237.8 | 4843.9 | 4545.9 |
| 107.5° | 662.3 | 930.9 | 3099.8 | 5301.1 | 5378.1 |
| 110° | 742.8 | 997.5 | 2974.4 | 5443.1 | 5723.8 |



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CATALOG NUMBER: SQ4-BB-125U-100D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 828.1 | 1064.2 | 2853.6 | 5411.7 | 5873.0 |
| 115° | 955.9 | 1170.1 | 2696.2 | 5209.5 | 5892.5 |
| 117.5° | 1072.5 | 1273.4 | 2574.2 | 4886.9 | 5647.4 |
| 120° | 1148.3 | 1342.2 | 2512.7 | 4655.4 | 5436.7 |
| 122.5° | 1214.6 | 1406.2 | 2467.7 | 4418.6 | 5197.6 |
| 125° | 1305.2 | 1499.1 | 2420.9 | 4091.8 | 4815.2 |
| 127.5° | 1392.2 | 1583.2 | 2391.3 | 3803.5 | 4449.4 |
| 130° | 1444.3 | 1635.3 | 2379.5 | 3638.4 | 4205.5 |
| 132.5° | 1496.4 | 1685.0 | 2367.6 | 3492.9 | 4013.8 |
| 135° | 1571.5 | 1753.8 | 2352.9 | 3301.0 | 3737.9 |
| 137.5° | 1643.1 | 1817.9 | 2345.2 | 3138.2 | 3497.0 |
| 140° | 1692.9 | 1860.7 | 2338.1 | 3038.0 | 3362.1 |
| 142.5° | 1745.0 | 1901.2 | 2333.3 | 2944.5 | 3217.6 |
| 145° | 1817.2 | 1959.0 | 2323.3 | 2822.2 | 3030.6 |
| 147.5° | 1895.3 | 2018.6 | 2313.2 | 2719.4 | 2883.2 |
| 150° | 1947.4 | 2054.5 | 2308.5 | 2654.9 | 2790.9 |
| 152.5° | 1994.7 | 2087.9 | 2306.1 | 2602.2 | 2712.7 |
| 155° | 2062.8 | 2138.1 | 2302.5 | 2532.3 | 2613.3 |
| 157.5° | 2122.6 | 2181.1 | 2303.1 | 2483.1 | 2537.5 |
| 160° | 2160.5 | 2209.7 | 2305.5 | 2454.4 | 2494.9 |
| 162.5° | 2193.6 | 2233.6 | 2307.9 | 2430.5 | 2459.4 |
| 165° | 2237.4 | 2263.5 | 2311.4 | 2403.4 | 2415.0 |
| 167.5° | 2272.9 | 2288.0 | 2314.4 | 2382.6 | 2387.2 |
| 170° | 2296.6 | 2302.4 | 2314.4 | 2370.6 | 2370.6 |
| 172.5° | 2310.8 | 2312.0 | 2316.7 | 2358.8 | 2358.8 |
| 175° | 2326.2 | 2323.3 | 2314.4 | 2346.8 | 2341.0 |
| 177.5° | 2332.7 | 2328.1 | 2316.2 | 2335.0 | 2330.4 |
| 180° | 2323.3 | 2323.3 | 2323.3 | 2323.3 | 2323.3 |

(END OF REPORT)