

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: P518834

Luminaire Tested: **SQ4-BB-125U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518834
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-8
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

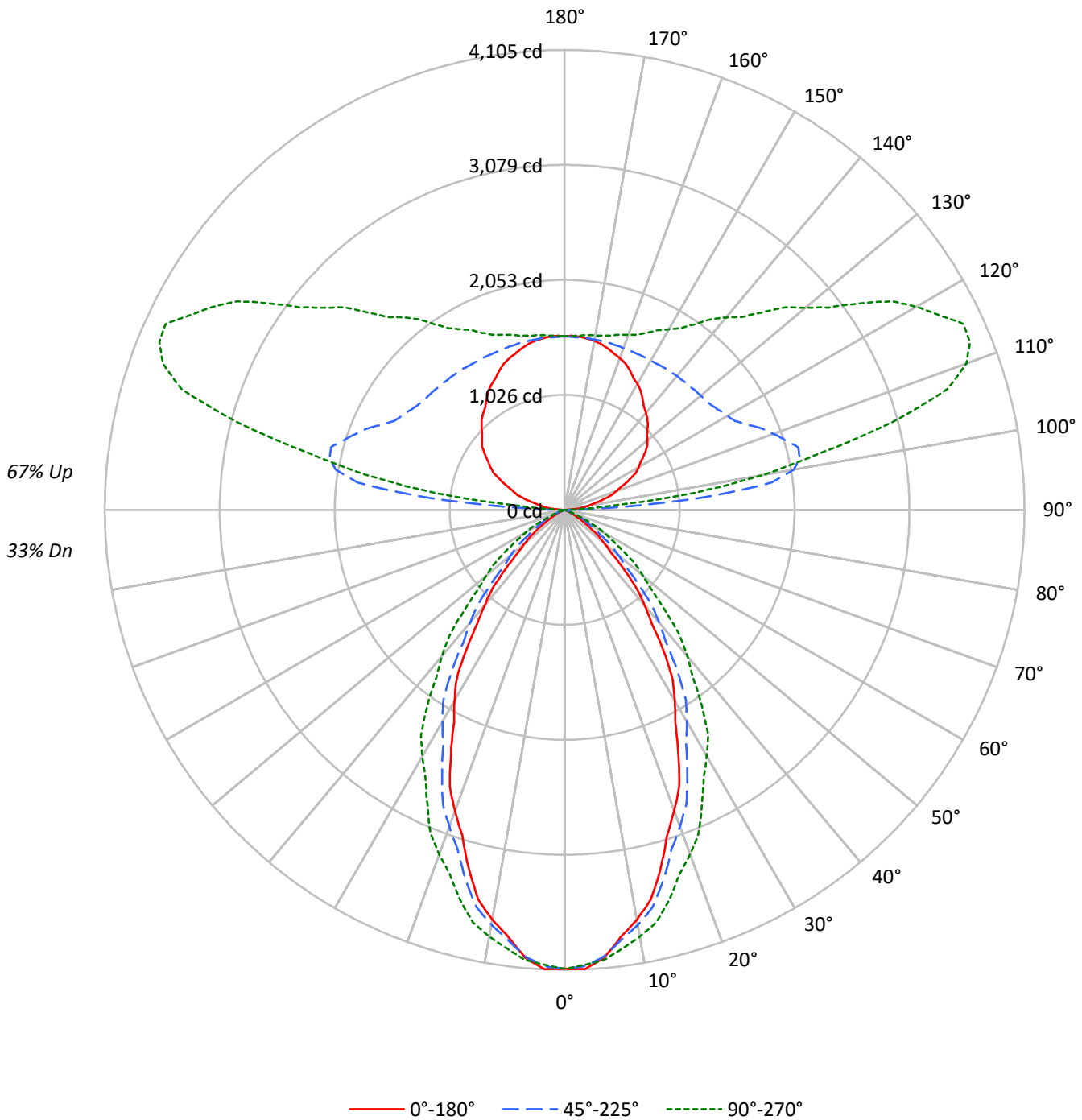
Lumens per Lamp: N/A
Luminaire Lumens: 14888.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 133.3
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 | 18118 |
| 15° | 15813 | 16314 | 17223 |
| 20° | 14036 | 14766 | 16060 |
| 25° | 12224 | 13192 | 14755 |
| 30° | 10470 | 11621 | 13520 |
| 35° | 8682 | 9864 | 12029 |
| 40° | 6670 | 7887 | 10250 |
| 45° | 4822 | 5972 | 8248 |
| 50° | 3285 | 4451 | 6542 |
| 55° | 2135 | 3219 | 5084 |
| 60° | 1225 | 2267 | 3675 |
| 65° | 324 | 1384 | 1860 |
| 70° | 161 | 428 | 534 |
| 75° | 71 | 36 | 0 |
| 80° | 53 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 373.8 | 2.5 |
| 10°-20° | 955.9 | 6.4 |
| 20°-30° | 1196.6 | 8.0 |
| 30°-40° | 1105.3 | 7.4 |
| 40°-50° | 742.7 | 5.0 |
| 50°-60° | 383.6 | 2.6 |
| 60°-70° | 120.2 | 0.8 |
| 70°-80° | 7.6 | 0.1 |
| 80°-90° | 3.8 | 0.0 |
| 90°-100° | 724.6 | 4.9 |
| 100°-110° | 1951.8 | 13.1 |
| 110°-120° | 2048.3 | 13.8 |
| 120°-130° | 1662.1 | 11.2 |
| 130°-140° | 1303.6 | 8.8 |
| 140°-150° | 1000.8 | 6.7 |
| 150°-160° | 719.6 | 4.8 |
| 160°-170° | 439.6 | 3.0 |
| 170°-180° | 148.3 | 1.0 |
| 0°-30° | 2526.3 | 17.0 |
| 0°-40° | 3631.5 | 24.4 |
| 0°-60° | 4757.9 | 32.0 |
| 0°-90° | 4889.4 | 32.8 |
| 90°-120° | 4724.6 | 31.7 |
| 90°-150° | 8691.2 | 58.4 |
| 90°-180° | 9999.0 | 67.2 |
| 0°-180° | 14888.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4096 | 4096 | 4096 | 4096 | 4096 | |
| 5° | 4014 | 3974 | 4004 | 4019 | 4034 | 372 |
| 15° | 3311 | 3299 | 3416 | 3531 | 3606 | 922 |
| 25° | 2402 | 2421 | 2592 | 2769 | 2899 | 1101 |
| 35° | 1542 | 1580 | 1752 | 1958 | 2136 | 955 |
| 45° | 739 | 784 | 915 | 1094 | 1264 | 580 |
| 55° | 266 | 310 | 400 | 514 | 632 | 248 |
| 65° | 30 | 57 | 127 | 153 | 170 | 50 |
| 75° | 4 | 4 | 2 | 0 | 0 | 6 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 4 | 12 | 24 | 26 | 26 | 8 |
| 95° | 110 | 394 | 1188 | 607 | 420 | 115 |
| 105° | 361 | 562 | 2158 | 3229 | 3031 | 380 |
| 115° | 637 | 780 | 1797 | 3473 | 3928 | 627 |
| 125° | 870 | 999 | 1614 | 2728 | 3210 | 777 |
| 135° | 1048 | 1169 | 1569 | 2201 | 2492 | 809 |
| 145° | 1211 | 1306 | 1549 | 1882 | 2020 | 760 |
| 155° | 1375 | 1425 | 1535 | 1688 | 1742 | 633 |
| 165° | 1492 | 1509 | 1541 | 1602 | 1610 | 421 |
| 175° | 1551 | 1549 | 1543 | 1564 | 1561 | 147 |
| 180° | 1549 | 1549 | 1549 | 1549 | 1549 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4095.6 | 4095.6 | 4095.6 | 4095.6 | 4095.6 |
| 2.5° | 4105.1 | 4066.4 | 4076.6 | 4076.4 | 4065.5 |
| 5° | 4014.4 | 3973.7 | 4004.5 | 4018.7 | 4034.2 |
| 7.5° | 3844.8 | 3813.0 | 3872.1 | 3916.4 | 3948.6 |
| 10° | 3713.2 | 3686.1 | 3762.8 | 3823.2 | 3867.8 |
| 12.5° | 3561.0 | 3540.1 | 3632.8 | 3715.7 | 3772.7 |
| 15° | 3311.0 | 3299.4 | 3416.0 | 3530.7 | 3606.2 |
| 17.5° | 3043.1 | 3042.7 | 3175.8 | 3318.2 | 3409.3 |
| 20° | 2859.2 | 2865.0 | 3007.8 | 3164.8 | 3271.4 |
| 22.5° | 2675.3 | 2688.9 | 2841.4 | 3005.0 | 3127.1 |
| 25° | 2401.5 | 2420.9 | 2591.7 | 2769.0 | 2898.8 |
| 27.5° | 2138.4 | 2166.7 | 2346.4 | 2530.7 | 2688.8 |
| 30° | 1965.6 | 1998.5 | 2181.6 | 2375.5 | 2538.2 |
| 32.5° | 1796.0 | 1835.1 | 2013.5 | 2218.6 | 2384.5 |
| 35° | 1541.6 | 1580.3 | 1751.6 | 1957.7 | 2136.0 |
| 37.5° | 1278.8 | 1316.8 | 1484.1 | 1687.0 | 1879.6 |
| 40° | 1107.6 | 1150.2 | 1309.7 | 1506.4 | 1702.1 |
| 42.5° | 952.3 | 994.9 | 1144.9 | 1338.1 | 1522.9 |
| 45° | 739.1 | 783.6 | 915.4 | 1093.7 | 1264.2 |
| 47.5° | 562.3 | 610.8 | 726.4 | 887.6 | 1043.0 |
| 50° | 457.7 | 506.1 | 620.2 | 762.3 | 911.5 |
| 52.5° | 373.7 | 420.6 | 523.5 | 657.4 | 794.2 |
| 55° | 265.5 | 310.1 | 400.3 | 513.9 | 632.1 |
| 57.5° | 183.5 | 221.8 | 302.8 | 397.6 | 490.2 |
| 60° | 132.8 | 169.6 | 245.7 | 322.7 | 398.3 |
| 62.5° | 88.4 | 122.1 | 196.6 | 255.6 | 306.3 |
| 65° | 29.7 | 56.8 | 126.8 | 153.0 | 170.4 |
| 67.5° | 15.1 | 18.2 | 66.6 | 70.3 | 76.1 |
| 70° | 11.9 | 11.9 | 31.7 | 33.8 | 39.6 |
| 72.5° | 8.7 | 8.7 | 12.7 | 16.3 | 17.4 |
| 75° | 4.0 | 4.0 | 2.0 | 0.0 | 0.0 |
| 77.5° | 2.0 | 2.0 | 1.6 | 0.0 | 0.0 |
| 80° | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.8 | 2.3 | 4.7 | 5.1 | 5.1 |
| 90° | 3.9 | 11.7 | 23.7 | 25.6 | 25.6 |
| 92.5° | 48.1 | 170.1 | 336.2 | 161.9 | 112.5 |
| 95° | 110.5 | 394.1 | 1187.8 | 607.4 | 420.3 |
| 97.5° | 176.4 | 451.1 | 1862.9 | 1556.3 | 1173.6 |
| 100° | 226.9 | 473.8 | 2077.6 | 2173.8 | 1803.4 |
| 102.5° | 275.8 | 505.8 | 2148.6 | 2636.2 | 2332.1 |
| 105° | 361.1 | 561.7 | 2158.5 | 3229.3 | 3030.6 |
| 107.5° | 441.6 | 620.6 | 2066.6 | 3534.1 | 3585.4 |
| 110° | 495.2 | 665.0 | 1982.9 | 3628.7 | 3815.9 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 552.1 | 709.5 | 1902.4 | 3607.8 | 3915.3 |
| 115° | 637.3 | 780.1 | 1797.4 | 3473.0 | 3928.3 |
| 117.5° | 715.0 | 848.9 | 1716.2 | 3258.0 | 3765.0 |
| 120° | 765.5 | 894.8 | 1675.1 | 3103.6 | 3624.5 |
| 122.5° | 809.7 | 937.4 | 1645.1 | 2945.7 | 3465.1 |
| 125° | 870.1 | 999.4 | 1613.9 | 2727.8 | 3210.1 |
| 127.5° | 928.1 | 1055.4 | 1594.2 | 2535.7 | 2966.3 |
| 130° | 962.8 | 1090.2 | 1586.3 | 2425.6 | 2803.7 |
| 132.5° | 997.6 | 1123.4 | 1578.4 | 2328.6 | 2675.8 |
| 135° | 1047.7 | 1169.2 | 1568.6 | 2200.6 | 2491.9 |
| 137.5° | 1095.4 | 1212.0 | 1563.4 | 2092.1 | 2331.3 |
| 140° | 1128.6 | 1240.5 | 1558.7 | 2025.3 | 2241.4 |
| 142.5° | 1163.3 | 1267.5 | 1555.5 | 1963.0 | 2145.1 |
| 145° | 1211.4 | 1306.0 | 1548.8 | 1881.5 | 2020.4 |
| 147.5° | 1263.5 | 1345.7 | 1542.1 | 1812.9 | 1922.1 |
| 150° | 1298.3 | 1369.6 | 1539.0 | 1769.9 | 1860.6 |
| 152.5° | 1329.8 | 1391.9 | 1537.4 | 1734.8 | 1808.5 |
| 155° | 1375.2 | 1425.4 | 1535.0 | 1688.2 | 1742.2 |
| 157.5° | 1415.1 | 1454.0 | 1535.4 | 1655.4 | 1691.7 |
| 160° | 1440.3 | 1473.1 | 1537.0 | 1636.3 | 1663.3 |
| 162.5° | 1462.4 | 1489.0 | 1538.6 | 1620.3 | 1639.6 |
| 165° | 1491.6 | 1509.0 | 1540.9 | 1602.3 | 1610.0 |
| 167.5° | 1515.3 | 1525.3 | 1542.9 | 1588.4 | 1591.5 |
| 170° | 1531.1 | 1534.9 | 1542.9 | 1580.4 | 1580.4 |
| 172.5° | 1540.5 | 1541.3 | 1544.5 | 1572.5 | 1572.5 |
| 175° | 1550.8 | 1548.9 | 1542.9 | 1564.5 | 1560.7 |
| 177.5° | 1555.2 | 1552.1 | 1544.1 | 1556.7 | 1553.6 |
| 180° | 1548.8 | 1548.8 | 1548.8 | 1548.8 | 1548.8 |

(END OF REPORT)