

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: P518484

Luminaire Tested: **SQ4-BB-050U-125D-935-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518484
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-125D-935-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

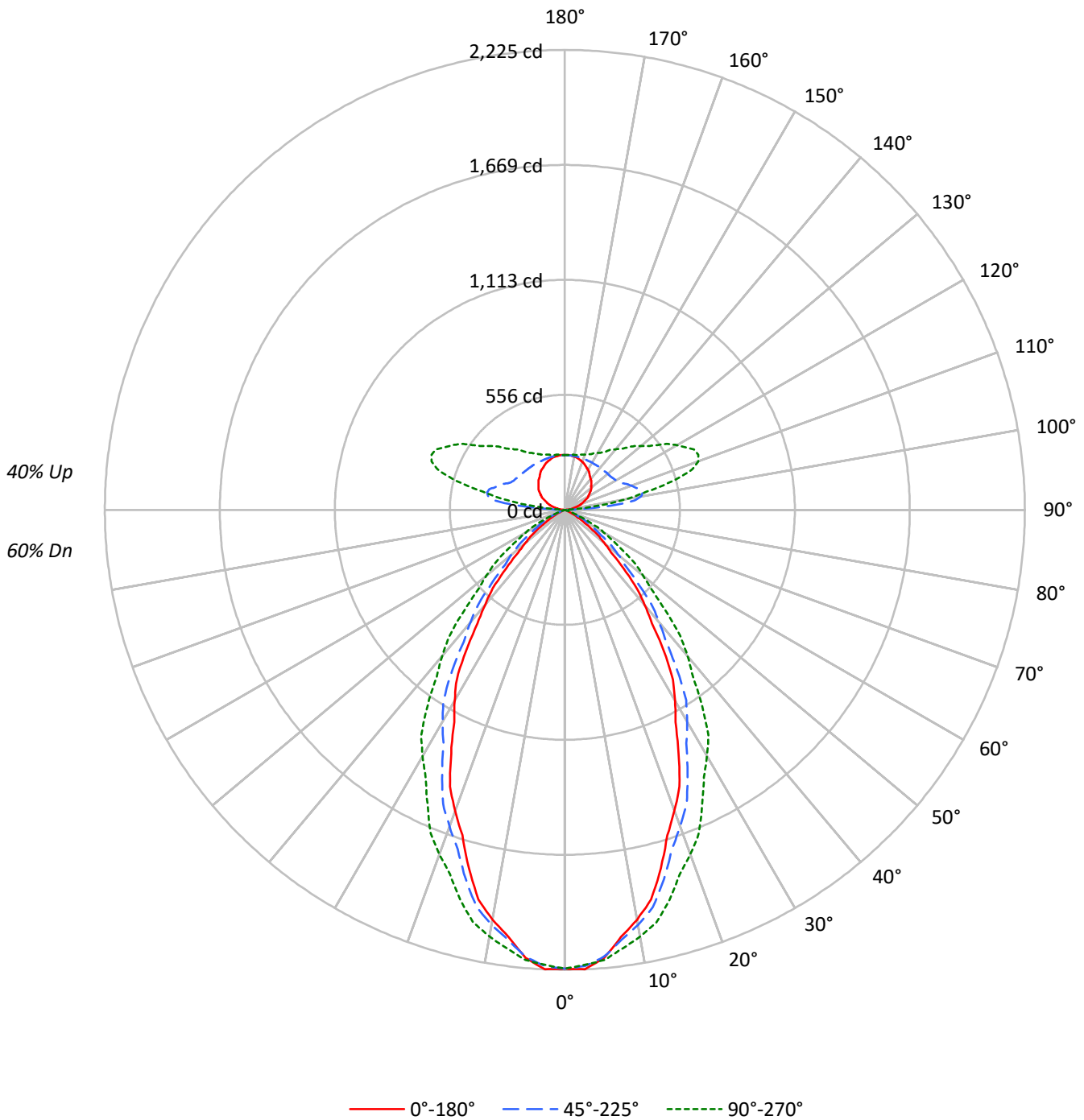
Lumens per Lamp: N/A
Luminaire Lumens: 4379.8 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 55.9
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 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 77 | 77 | 77 | 66 | 66 | 66 | 60 |
| 1 | 102 | 99 | 96 | 93 | 96 | 93 | 90 | 88 | 81 | 79 | 78 | 71 | 70 | 68 | 61 | 61 | 60 | 55 |
| 2 | 95 | 89 | 84 | 79 | 89 | 84 | 79 | 76 | 74 | 71 | 68 | 65 | 63 | 61 | 57 | 55 | 54 | 50 |
| 3 | 88 | 80 | 74 | 69 | 83 | 76 | 70 | 66 | 67 | 63 | 60 | 60 | 57 | 54 | 52 | 50 | 48 | 45 |
| 4 | 82 | 73 | 66 | 61 | 77 | 69 | 63 | 58 | 61 | 57 | 53 | 55 | 51 | 48 | 48 | 46 | 44 | 41 |
| 5 | 76 | 66 | 59 | 54 | 72 | 63 | 56 | 52 | 56 | 51 | 48 | 50 | 47 | 44 | 45 | 42 | 40 | 37 |
| 6 | 71 | 60 | 53 | 48 | 67 | 57 | 51 | 46 | 52 | 47 | 43 | 47 | 43 | 40 | 42 | 39 | 36 | 34 |
| 7 | 66 | 55 | 48 | 43 | 62 | 53 | 46 | 42 | 48 | 43 | 39 | 43 | 39 | 36 | 39 | 36 | 33 | 31 |
| 8 | 62 | 51 | 44 | 39 | 59 | 49 | 42 | 38 | 44 | 39 | 35 | 40 | 36 | 33 | 36 | 33 | 31 | 29 |
| 9 | 58 | 47 | 40 | 36 | 55 | 45 | 39 | 35 | 41 | 36 | 33 | 37 | 33 | 30 | 34 | 31 | 28 | 26 |
| 10 | 55 | 44 | 37 | 33 | 52 | 42 | 36 | 32 | 38 | 33 | 30 | 35 | 31 | 28 | 32 | 29 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 20480 | 20480 | 20480 |
| 5° | 20151 | 20101 | 20250 |
| 10° | 18855 | 19106 | 19639 |
| 15° | 17140 | 17685 | 18670 |
| 20° | 15215 | 16006 | 17409 |
| 25° | 13250 | 14300 | 15995 |
| 30° | 11349 | 12597 | 14656 |
| 35° | 9410 | 10693 | 13039 |
| 40° | 7230 | 8550 | 11111 |
| 45° | 5227 | 6474 | 8940 |
| 50° | 3561 | 4824 | 7091 |
| 55° | 2315 | 3489 | 5511 |
| 60° | 1329 | 2458 | 3984 |
| 65° | 351 | 1500 | 2017 |
| 70° | 173 | 464 | 580 |
| 75° | 75 | 39 | 0 |
| 80° | 58 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 202.6 | 4.6 |
| 10°-20° | 518.1 | 11.8 |
| 20°-30° | 648.6 | 14.8 |
| 30°-40° | 599.1 | 13.7 |
| 40°-50° | 402.5 | 9.2 |
| 50°-60° | 207.9 | 4.7 |
| 60°-70° | 65.1 | 1.5 |
| 70°-80° | 4.1 | 0.1 |
| 80°-90° | 1.1 | 0.0 |
| 90°-100° | 127.2 | 2.9 |
| 100°-110° | 345.7 | 7.9 |
| 110°-120° | 355.4 | 8.1 |
| 120°-130° | 284.2 | 6.5 |
| 130°-140° | 223.3 | 5.1 |
| 140°-150° | 171.2 | 3.9 |
| 150°-160° | 123.1 | 2.8 |
| 160°-170° | 75.3 | 1.7 |
| 170°-180° | 25.4 | 0.6 |
| 0°-30° | 1369.2 | 31.3 |
| 0°-40° | 1968.3 | 44.9 |
| 0°-60° | 2578.7 | 58.9 |
| 0°-90° | 2649.1 | 60.5 |
| 90°-120° | 828.3 | 18.9 |
| 90°-150° | 1507.0 | 34.4 |
| 90°-180° | 1731.0 | 39.5 |
| 0°-180° | 4379.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2220 | 2220 | 2220 | 2220 | 2220 | |
| 5° | 2176 | 2154 | 2170 | 2178 | 2186 | 202 |
| 15° | 1794 | 1788 | 1852 | 1914 | 1955 | 500 |
| 25° | 1302 | 1312 | 1405 | 1501 | 1571 | 597 |
| 35° | 836 | 856 | 949 | 1061 | 1158 | 518 |
| 45° | 401 | 425 | 496 | 593 | 685 | 315 |
| 55° | 144 | 168 | 217 | 278 | 343 | 134 |
| 65° | 16 | 31 | 69 | 83 | 92 | 27 |
| 75° | 2 | 2 | 1 | 0 | 0 | 3 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 1 | 3 | 6 | 8 | 8 | 1 |
| 95° | 19 | 70 | 222 | 96 | 65 | 20 |
| 105° | 61 | 96 | 380 | 579 | 545 | 65 |
| 115° | 109 | 132 | 304 | 605 | 690 | 108 |
| 125° | 150 | 171 | 275 | 464 | 547 | 134 |
| 135° | 181 | 201 | 268 | 378 | 426 | 140 |
| 145° | 209 | 224 | 264 | 321 | 345 | 131 |
| 155° | 236 | 244 | 262 | 288 | 297 | 109 |
| 165° | 256 | 259 | 263 | 274 | 275 | 72 |
| 175° | 265 | 266 | 264 | 268 | 267 | 25 |
| 180° | 265 | 265 | 265 | 265 | 265 | |



TEST NUMBER: P518484

CATALOG NUMBER: SQ4-BB-050U-125D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2219.8 | 2219.8 | 2219.8 | 2219.8 | 2219.8 |
| 2.5° | 2225.0 | 2204.0 | 2209.5 | 2209.4 | 2203.5 |
| 5° | 2175.8 | 2153.7 | 2170.4 | 2178.1 | 2186.5 |
| 7.5° | 2083.9 | 2066.6 | 2098.7 | 2122.7 | 2140.1 |
| 10° | 2012.6 | 1997.9 | 2039.4 | 2072.2 | 2096.3 |
| 12.5° | 1930.1 | 1918.7 | 1968.9 | 2013.9 | 2044.8 |
| 15° | 1794.5 | 1788.2 | 1851.5 | 1913.6 | 1954.6 |
| 17.5° | 1649.3 | 1649.1 | 1721.3 | 1798.5 | 1847.8 |
| 20° | 1549.7 | 1552.8 | 1630.2 | 1715.3 | 1773.1 |
| 22.5° | 1450.0 | 1457.4 | 1540.0 | 1628.7 | 1694.9 |
| 25° | 1301.6 | 1312.1 | 1404.7 | 1500.8 | 1571.2 |
| 27.5° | 1159.0 | 1174.3 | 1271.8 | 1371.6 | 1457.3 |
| 30° | 1065.3 | 1083.2 | 1182.4 | 1287.5 | 1375.7 |
| 32.5° | 973.4 | 994.6 | 1091.3 | 1202.5 | 1292.4 |
| 35° | 835.5 | 856.5 | 949.4 | 1061.1 | 1157.7 |
| 37.5° | 693.1 | 713.7 | 804.4 | 914.4 | 1018.7 |
| 40° | 600.3 | 623.4 | 709.9 | 816.5 | 922.5 |
| 42.5° | 516.1 | 539.2 | 620.5 | 725.2 | 825.4 |
| 45° | 400.6 | 424.7 | 496.2 | 592.8 | 685.2 |
| 47.5° | 304.8 | 331.0 | 393.7 | 481.1 | 565.3 |
| 50° | 248.1 | 274.3 | 336.1 | 413.2 | 494.0 |
| 52.5° | 202.5 | 228.0 | 283.7 | 356.3 | 430.4 |
| 55° | 143.9 | 168.1 | 216.9 | 278.5 | 342.6 |
| 57.5° | 99.4 | 120.2 | 164.1 | 215.5 | 265.7 |
| 60° | 72.0 | 91.9 | 133.2 | 174.9 | 215.9 |
| 62.5° | 47.9 | 66.2 | 106.5 | 138.5 | 166.0 |
| 65° | 16.1 | 30.8 | 68.7 | 82.9 | 92.4 |
| 67.5° | 8.2 | 9.8 | 36.1 | 38.1 | 41.2 |
| 70° | 6.4 | 6.4 | 17.2 | 18.3 | 21.5 |
| 72.5° | 4.7 | 4.7 | 6.9 | 8.8 | 9.5 |
| 75° | 2.1 | 2.1 | 1.1 | 0.0 | 0.0 |
| 77.5° | 1.1 | 1.1 | 0.9 | 0.0 | 0.0 |
| 80° | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.2 | 0.7 | 1.2 | 1.5 | 1.5 |
| 90° | 0.9 | 3.4 | 6.0 | 7.7 | 7.7 |
| 92.5° | 7.7 | 34.8 | 60.5 | 26.0 | 22.0 |
| 95° | 18.8 | 69.6 | 221.6 | 96.4 | 64.8 |
| 97.5° | 31.0 | 76.9 | 339.7 | 264.3 | 185.6 |
| 100° | 39.2 | 81.7 | 375.9 | 381.0 | 307.7 |
| 102.5° | 47.4 | 86.6 | 385.4 | 471.2 | 406.6 |
| 105° | 61.4 | 95.5 | 380.1 | 578.8 | 544.6 |
| 107.5° | 75.9 | 106.0 | 358.2 | 634.4 | 643.9 |
| 110° | 86.1 | 113.6 | 341.8 | 645.3 | 686.1 |



TEST NUMBER: P518484

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 95.0 | 121.1 | 325.4 | 636.2 | 697.7 |
| 115° | 109.1 | 132.4 | 304.3 | 605.4 | 689.5 |
| 117.5° | 122.4 | 144.7 | 290.8 | 561.6 | 656.5 |
| 120° | 131.3 | 152.9 | 284.7 | 532.3 | 626.5 |
| 122.5° | 138.8 | 160.4 | 280.6 | 502.9 | 593.7 |
| 125° | 150.0 | 170.8 | 275.3 | 463.9 | 547.2 |
| 127.5° | 160.1 | 180.7 | 272.4 | 434.3 | 505.8 |
| 130° | 166.2 | 186.2 | 271.0 | 415.7 | 479.9 |
| 132.5° | 172.3 | 192.3 | 269.7 | 399.8 | 456.7 |
| 135° | 180.7 | 200.7 | 267.6 | 377.8 | 426.2 |
| 137.5° | 189.7 | 207.9 | 266.6 | 358.4 | 399.1 |
| 140° | 195.2 | 212.7 | 265.9 | 346.0 | 382.7 |
| 142.5° | 200.6 | 216.8 | 265.2 | 336.3 | 367.0 |
| 145° | 208.8 | 223.8 | 264.2 | 321.0 | 345.2 |
| 147.5° | 218.0 | 230.9 | 263.4 | 309.0 | 328.0 |
| 150° | 224.2 | 235.0 | 263.4 | 302.1 | 317.1 |
| 152.5° | 228.9 | 238.4 | 262.7 | 295.9 | 308.2 |
| 155° | 236.1 | 244.4 | 262.5 | 288.3 | 296.6 |
| 157.5° | 243.1 | 249.6 | 262.5 | 283.1 | 289.5 |
| 160° | 247.2 | 253.0 | 262.5 | 279.7 | 284.7 |
| 162.5° | 251.3 | 255.8 | 263.2 | 276.9 | 280.6 |
| 165° | 255.7 | 259.0 | 263.4 | 274.5 | 275.3 |
| 167.5° | 260.3 | 262.0 | 264.2 | 271.6 | 272.2 |
| 170° | 261.7 | 263.3 | 264.2 | 270.2 | 270.2 |
| 172.5° | 263.0 | 264.0 | 264.2 | 268.8 | 268.8 |
| 175° | 265.1 | 265.9 | 264.2 | 267.6 | 266.8 |
| 177.5° | 265.8 | 265.8 | 263.7 | 266.4 | 265.1 |
| 180° | 265.1 | 265.1 | 265.1 | 265.1 | 265.1 |

(END OF REPORT)