

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: P518299

Luminaire Tested: **SQ4-BB-025U-050D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518299
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, 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-025U-050D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

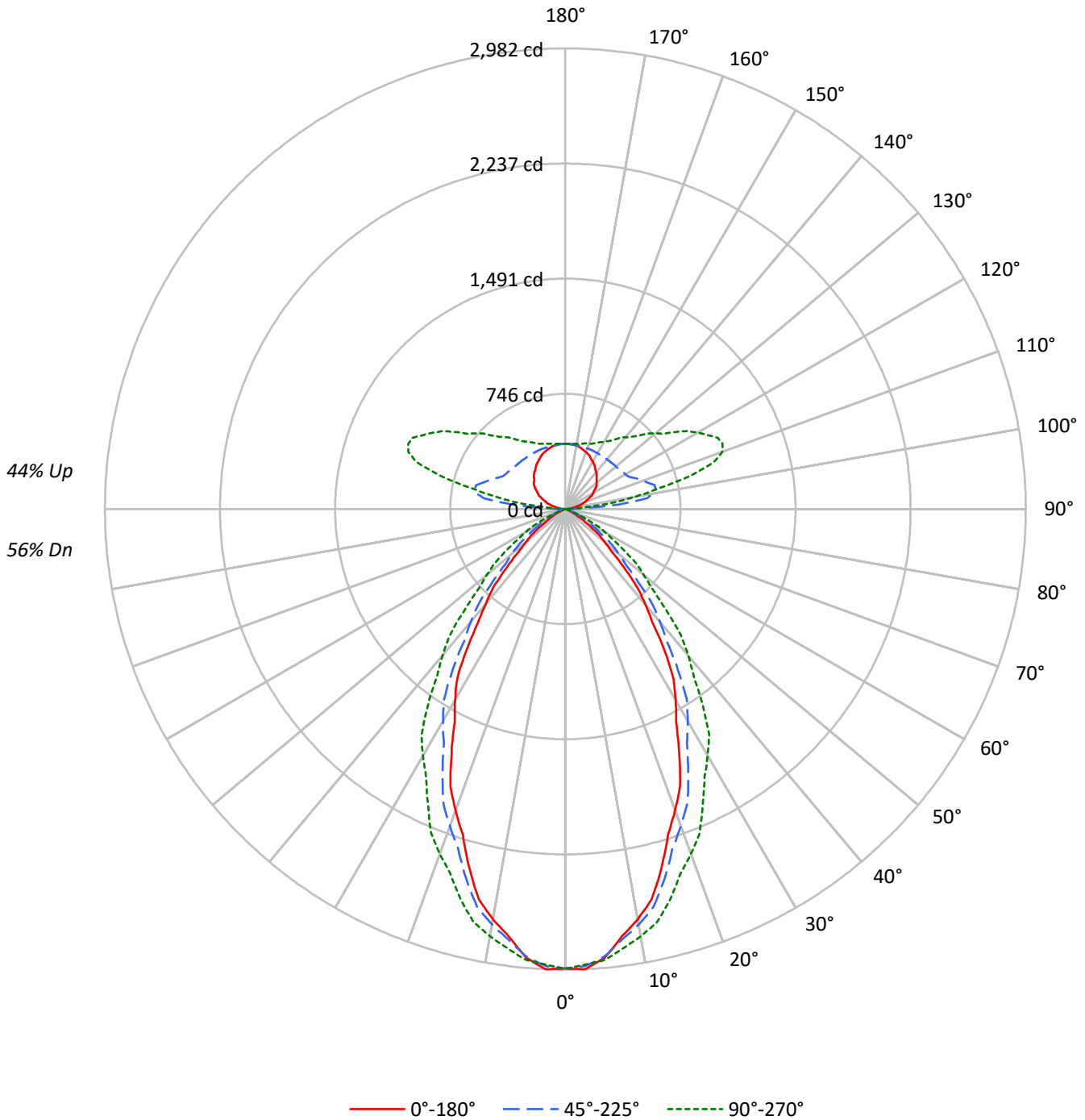
Lumens per Lamp: N/A
Luminaire Lumens: 6286.7 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 68.8
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 | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 | 56 |
| 1 | 101 | 98 | 94 | 92 | 94 | 91 | 89 | 86 | 79 | 77 | 76 | 68 | 67 | 66 | 58 | 57 | 56 | 52 |
| 2 | 94 | 88 | 83 | 78 | 87 | 82 | 78 | 74 | 72 | 69 | 66 | 62 | 60 | 58 | 54 | 52 | 51 | 47 |
| 3 | 87 | 79 | 73 | 68 | 81 | 74 | 69 | 64 | 65 | 61 | 58 | 57 | 54 | 52 | 49 | 47 | 46 | 42 |
| 4 | 81 | 71 | 65 | 59 | 75 | 67 | 61 | 57 | 60 | 55 | 51 | 52 | 49 | 46 | 46 | 43 | 41 | 38 |
| 5 | 75 | 65 | 58 | 53 | 70 | 61 | 55 | 50 | 55 | 50 | 46 | 48 | 45 | 42 | 42 | 40 | 37 | 35 |
| 6 | 70 | 59 | 52 | 47 | 65 | 56 | 50 | 45 | 50 | 45 | 41 | 44 | 41 | 38 | 39 | 36 | 34 | 32 |
| 7 | 65 | 54 | 47 | 42 | 61 | 51 | 45 | 41 | 46 | 41 | 37 | 41 | 37 | 34 | 37 | 34 | 31 | 29 |
| 8 | 61 | 50 | 43 | 38 | 57 | 47 | 41 | 37 | 43 | 38 | 34 | 38 | 34 | 31 | 34 | 31 | 29 | 27 |
| 9 | 57 | 46 | 39 | 35 | 54 | 44 | 38 | 34 | 40 | 35 | 31 | 36 | 32 | 29 | 32 | 29 | 27 | 25 |
| 10 | 54 | 43 | 36 | 32 | 51 | 41 | 35 | 31 | 37 | 32 | 29 | 33 | 29 | 27 | 30 | 27 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9150 | 9150 | 9150 |
| 5° | 9003 | 8981 | 9048 |
| 10° | 8424 | 8536 | 8775 |
| 15° | 7658 | 7901 | 8341 |
| 20° | 6798 | 7151 | 7778 |
| 25° | 5920 | 6389 | 7146 |
| 30° | 5071 | 5628 | 6548 |
| 35° | 4205 | 4777 | 5826 |
| 40° | 3231 | 3820 | 4964 |
| 45° | 2335 | 2892 | 3994 |
| 50° | 1591 | 2155 | 3168 |
| 55° | 1034 | 1559 | 2462 |
| 60° | 593 | 1098 | 1779 |
| 65° | 157 | 670 | 901 |
| 70° | 77 | 207 | 259 |
| 75° | 34 | 17 | 0 |
| 80° | 25 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 271.5 | 4.3 |
| 10°-20° | 694.4 | 11.0 |
| 20°-30° | 869.3 | 13.8 |
| 30°-40° | 803.0 | 12.8 |
| 40°-50° | 539.5 | 8.6 |
| 50°-60° | 278.7 | 4.4 |
| 60°-70° | 87.3 | 1.4 |
| 70°-80° | 5.5 | 0.1 |
| 80°-90° | 2.4 | 0.0 |
| 90°-100° | 205.7 | 3.3 |
| 100°-110° | 540.7 | 8.6 |
| 110°-120° | 560.7 | 8.9 |
| 120°-130° | 449.7 | 7.2 |
| 130°-140° | 352.9 | 5.6 |
| 140°-150° | 270.8 | 4.3 |
| 150°-160° | 195.1 | 3.1 |
| 160°-170° | 119.3 | 1.9 |
| 170°-180° | 40.3 | 0.6 |
| 0°-30° | 1835.2 | 29.2 |
| 0°-40° | 2638.2 | 42.0 |
| 0°-60° | 3456.4 | 55.0 |
| 0°-90° | 3551.6 | 56.5 |
| 90°-120° | 1307.0 | 20.8 |
| 90°-150° | 2380.4 | 37.9 |
| 90°-180° | 2735.0 | 43.5 |
| 0°-180° | 6286.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2975 | 2975 | 2975 | 2975 | 2975 | |
| 5° | 2916 | 2887 | 2909 | 2920 | 2931 | 270 |
| 15° | 2405 | 2397 | 2482 | 2565 | 2620 | 670 |
| 25° | 1745 | 1759 | 1883 | 2012 | 2106 | 800 |
| 35° | 1120 | 1148 | 1272 | 1422 | 1552 | 694 |
| 45° | 537 | 569 | 665 | 794 | 918 | 422 |
| 55° | 193 | 225 | 291 | 373 | 459 | 180 |
| 65° | 22 | 41 | 92 | 111 | 124 | 36 |
| 75° | 3 | 3 | 1 | 0 | 0 | 4 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 3 | 8 | 22 | 11 | 11 | 2 |
| 95° | 27 | 106 | 354 | 183 | 124 | 30 |
| 105° | 97 | 148 | 598 | 908 | 847 | 103 |
| 115° | 173 | 210 | 479 | 955 | 1090 | 171 |
| 125° | 241 | 270 | 436 | 736 | 868 | 214 |
| 135° | 287 | 316 | 422 | 594 | 674 | 222 |
| 145° | 333 | 354 | 417 | 507 | 546 | 208 |
| 155° | 376 | 387 | 417 | 458 | 471 | 173 |
| 165° | 406 | 411 | 417 | 433 | 438 | 115 |
| 175° | 422 | 422 | 419 | 425 | 425 | 40 |
| 180° | 422 | 422 | 422 | 422 | 422 | |



TEST NUMBER: P518299

CATALOG NUMBER: SQ4-BB-025U-050D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2975.3 | 2975.3 | 2975.3 | 2975.3 | 2975.3 |
| 2.5° | 2982.3 | 2954.1 | 2961.5 | 2961.3 | 2953.5 |
| 5° | 2916.3 | 2886.8 | 2909.1 | 2919.5 | 2930.7 |
| 7.5° | 2793.1 | 2770.0 | 2813.0 | 2845.2 | 2868.5 |
| 10° | 2697.5 | 2677.8 | 2733.5 | 2777.4 | 2809.8 |
| 12.5° | 2587.0 | 2571.8 | 2639.1 | 2699.3 | 2740.7 |
| 15° | 2405.3 | 2396.9 | 2481.6 | 2564.9 | 2619.8 |
| 17.5° | 2210.7 | 2210.4 | 2307.2 | 2410.6 | 2476.7 |
| 20° | 2077.1 | 2081.4 | 2185.1 | 2299.1 | 2376.5 |
| 22.5° | 1943.5 | 1953.4 | 2064.2 | 2183.1 | 2271.7 |
| 25° | 1744.6 | 1758.7 | 1882.8 | 2011.6 | 2105.9 |
| 27.5° | 1553.5 | 1574.0 | 1704.6 | 1838.5 | 1953.3 |
| 30° | 1427.9 | 1451.9 | 1584.8 | 1725.7 | 1843.9 |
| 32.5° | 1304.7 | 1333.1 | 1462.8 | 1611.8 | 1732.2 |
| 35° | 1119.9 | 1148.0 | 1272.5 | 1422.2 | 1551.7 |
| 37.5° | 929.0 | 956.6 | 1078.1 | 1225.6 | 1365.5 |
| 40° | 804.7 | 835.6 | 951.5 | 1094.3 | 1236.5 |
| 42.5° | 691.8 | 722.8 | 831.7 | 972.1 | 1106.4 |
| 45° | 536.9 | 569.3 | 665.0 | 794.5 | 918.4 |
| 47.5° | 408.5 | 443.7 | 527.7 | 644.8 | 757.7 |
| 50° | 332.5 | 367.7 | 450.5 | 553.8 | 662.1 |
| 52.5° | 271.5 | 305.5 | 380.3 | 477.6 | 576.9 |
| 55° | 192.9 | 225.3 | 290.8 | 373.3 | 459.2 |
| 57.5° | 133.3 | 161.2 | 219.9 | 288.8 | 356.1 |
| 60° | 96.4 | 123.2 | 178.5 | 234.4 | 289.3 |
| 62.5° | 64.2 | 88.7 | 142.8 | 185.7 | 222.5 |
| 65° | 21.6 | 41.3 | 92.1 | 111.1 | 123.8 |
| 67.5° | 10.9 | 13.2 | 48.4 | 51.1 | 55.3 |
| 70° | 8.6 | 8.6 | 23.0 | 24.6 | 28.8 |
| 72.5° | 6.3 | 6.3 | 9.2 | 11.8 | 12.7 |
| 75° | 2.9 | 2.9 | 1.4 | 0.0 | 0.0 |
| 77.5° | 1.4 | 1.4 | 1.2 | 0.0 | 0.0 |
| 80° | 1.4 | 1.4 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.5 | 1.6 | 4.3 | 2.2 | 2.2 |
| 90° | 2.7 | 8.0 | 21.6 | 10.8 | 10.8 |
| 92.5° | 11.4 | 54.7 | 121.2 | 53.7 | 34.6 |
| 95° | 27.1 | 106.4 | 354.4 | 182.6 | 124.4 |
| 97.5° | 47.1 | 116.9 | 530.2 | 421.6 | 310.5 |
| 100° | 62.2 | 125.7 | 584.3 | 592.1 | 459.9 |
| 102.5° | 75.2 | 134.4 | 599.4 | 737.5 | 624.3 |
| 105° | 97.4 | 147.6 | 597.8 | 907.5 | 846.7 |
| 107.5° | 120.1 | 166.7 | 563.7 | 995.8 | 1010.6 |
| 110° | 135.3 | 177.6 | 535.6 | 1018.5 | 1082.0 |

TEST NUMBER: P518299

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 150.4 | 190.6 | 509.6 | 1004.2 | 1101.5 |
| 115° | 173.1 | 210.2 | 478.8 | 955.2 | 1090.1 |
| 117.5° | 195.3 | 229.2 | 457.7 | 887.4 | 1037.1 |
| 120° | 208.3 | 240.0 | 449.0 | 841.9 | 987.3 |
| 122.5° | 221.3 | 253.0 | 442.5 | 796.4 | 939.7 |
| 125° | 240.8 | 269.8 | 435.5 | 736.1 | 868.3 |
| 127.5° | 256.4 | 286.1 | 429.6 | 687.5 | 799.1 |
| 130° | 265.1 | 296.8 | 427.4 | 657.0 | 760.1 |
| 132.5° | 273.8 | 305.5 | 425.2 | 630.8 | 723.3 |
| 135° | 286.7 | 315.8 | 422.0 | 594.2 | 673.6 |
| 137.5° | 300.3 | 328.8 | 421.4 | 566.8 | 631.9 |
| 140° | 311.1 | 337.5 | 419.3 | 545.1 | 605.9 |
| 142.5° | 319.7 | 344.1 | 419.3 | 529.8 | 582.1 |
| 145° | 332.7 | 353.9 | 416.6 | 506.7 | 546.4 |
| 147.5° | 345.7 | 366.3 | 416.6 | 487.7 | 520.5 |
| 150° | 354.4 | 372.9 | 416.6 | 476.7 | 503.1 |
| 152.5° | 363.0 | 377.3 | 416.6 | 467.9 | 488.0 |
| 155° | 376.0 | 386.6 | 416.6 | 457.5 | 470.7 |
| 157.5° | 385.7 | 395.8 | 416.6 | 448.2 | 457.7 |
| 160° | 392.2 | 400.2 | 416.6 | 443.8 | 449.0 |
| 162.5° | 398.7 | 404.5 | 416.6 | 439.4 | 444.7 |
| 165° | 405.8 | 411.0 | 416.6 | 432.9 | 438.2 |
| 167.5° | 412.3 | 414.9 | 419.3 | 430.2 | 432.3 |
| 170° | 416.6 | 419.2 | 419.3 | 430.1 | 430.1 |
| 172.5° | 418.7 | 419.3 | 419.3 | 427.9 | 425.8 |
| 175° | 422.0 | 422.0 | 419.3 | 424.7 | 424.7 |
| 177.5° | 422.0 | 422.0 | 419.8 | 424.1 | 422.0 |
| 180° | 422.0 | 422.0 | 422.0 | 422.0 | 422.0 |

(END OF REPORT)