

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: P518455

Luminaire Tested: **SQ4-BB-050U-100D-930-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518455
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-100D-930-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

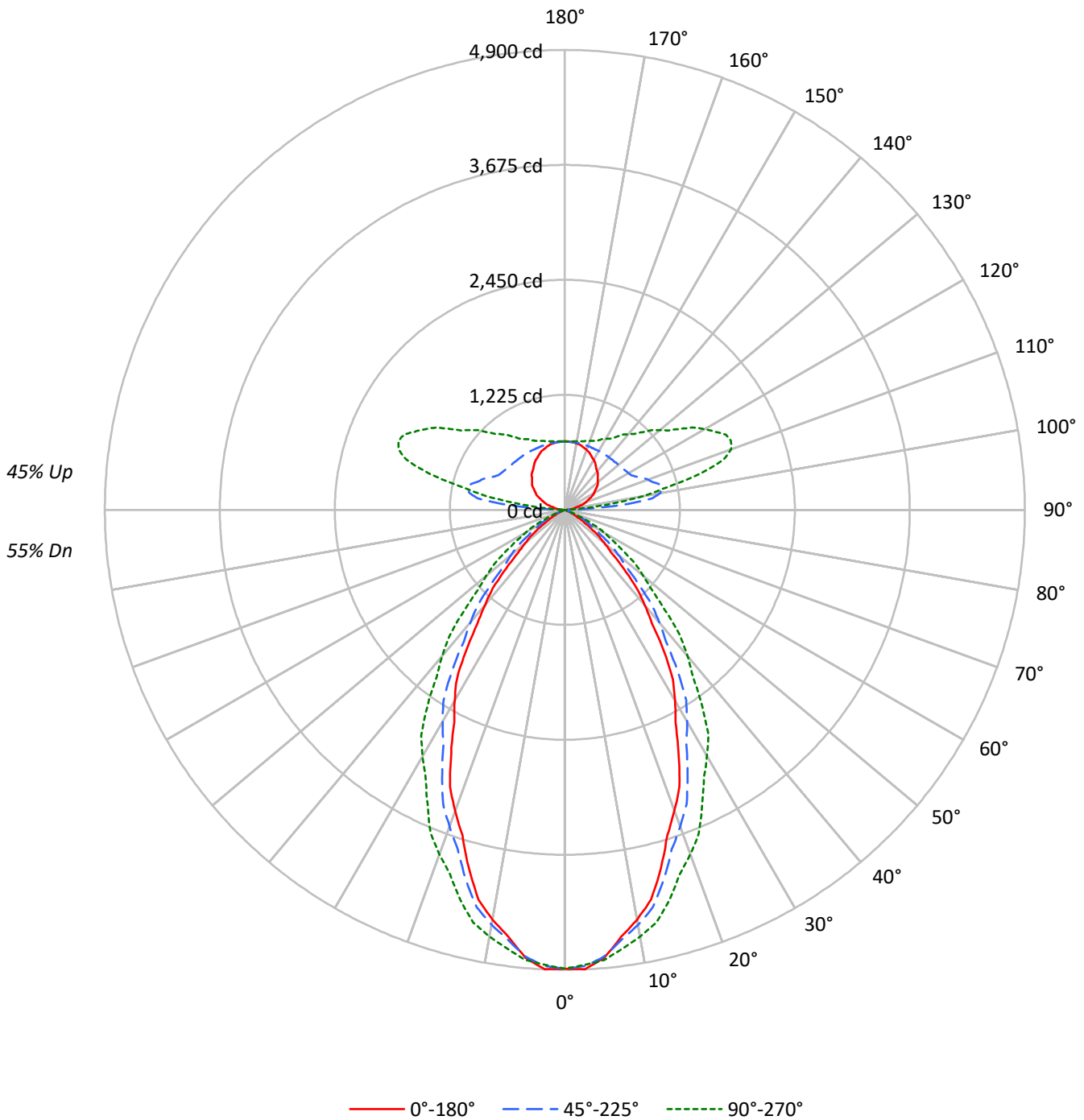
Lumens per Lamp: N/A
Luminaire Lumens: 10589.8 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 134.4
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 | 108 | 108 | 108 | 108 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 | 55 |
| 1 | 101 | 97 | 94 | 91 | 94 | 91 | 88 | 86 | 78 | 77 | 75 | 67 | 66 | 65 | 57 | 56 | 55 | 50 |
| 2 | 94 | 87 | 82 | 78 | 87 | 82 | 77 | 74 | 71 | 68 | 65 | 61 | 59 | 57 | 52 | 51 | 50 | 45 |
| 3 | 87 | 79 | 72 | 67 | 81 | 74 | 68 | 64 | 65 | 61 | 57 | 56 | 53 | 51 | 48 | 46 | 45 | 41 |
| 4 | 80 | 71 | 64 | 59 | 75 | 67 | 61 | 56 | 59 | 54 | 51 | 52 | 48 | 46 | 45 | 42 | 40 | 37 |
| 5 | 75 | 65 | 57 | 52 | 70 | 61 | 55 | 50 | 54 | 49 | 45 | 47 | 44 | 41 | 41 | 39 | 37 | 34 |
| 6 | 70 | 59 | 52 | 46 | 65 | 56 | 49 | 45 | 49 | 44 | 41 | 44 | 40 | 37 | 38 | 36 | 33 | 31 |
| 7 | 65 | 54 | 47 | 42 | 61 | 51 | 45 | 40 | 46 | 41 | 37 | 41 | 37 | 34 | 36 | 33 | 31 | 28 |
| 8 | 61 | 50 | 43 | 38 | 57 | 47 | 41 | 36 | 42 | 37 | 34 | 38 | 34 | 31 | 33 | 30 | 28 | 26 |
| 9 | 57 | 46 | 39 | 34 | 53 | 44 | 37 | 33 | 39 | 34 | 31 | 35 | 31 | 28 | 31 | 28 | 26 | 24 |
| 10 | 54 | 42 | 36 | 31 | 50 | 40 | 34 | 30 | 36 | 32 | 28 | 33 | 29 | 26 | 29 | 26 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15035 | 15035 | 15035 |
| 5° | 14793 | 14756 | 14866 |
| 10° | 13841 | 14026 | 14417 |
| 15° | 12583 | 12982 | 13705 |
| 20° | 11170 | 11750 | 12780 |
| 25° | 9727 | 10498 | 11742 |
| 30° | 8332 | 9247 | 10759 |
| 35° | 6908 | 7850 | 9572 |
| 40° | 5308 | 6276 | 8156 |
| 45° | 3837 | 4752 | 6563 |
| 50° | 2614 | 3542 | 5205 |
| 55° | 1699 | 2562 | 4045 |
| 60° | 975 | 1804 | 2924 |
| 65° | 258 | 1102 | 1480 |
| 70° | 128 | 340 | 425 |
| 75° | 56 | 29 | 0 |
| 80° | 43 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 446.1 | 4.2 |
| 10°-20° | 1140.9 | 10.8 |
| 20°-30° | 1428.3 | 13.5 |
| 30°-40° | 1319.3 | 12.5 |
| 40°-50° | 886.5 | 8.4 |
| 50°-60° | 457.9 | 4.3 |
| 60°-70° | 143.4 | 1.4 |
| 70°-80° | 9.1 | 0.1 |
| 80°-90° | 3.0 | 0.0 |
| 90°-100° | 349.6 | 3.3 |
| 100°-110° | 949.7 | 9.0 |
| 110°-120° | 976.5 | 9.2 |
| 120°-130° | 780.7 | 7.4 |
| 130°-140° | 613.5 | 5.8 |
| 140°-150° | 470.4 | 4.4 |
| 150°-160° | 338.3 | 3.2 |
| 160°-170° | 206.9 | 2.0 |
| 170°-180° | 69.7 | 0.7 |
| 0°-30° | 3015.4 | 28.5 |
| 0°-40° | 4334.7 | 40.9 |
| 0°-60° | 5679.1 | 53.6 |
| 0°-90° | 5834.6 | 55.1 |
| 90°-120° | 2275.9 | 21.5 |
| 90°-150° | 4140.4 | 39.1 |
| 90°-180° | 4755.0 | 44.9 |
| 0°-180° | 10589.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4889 | 4889 | 4889 | 4889 | 4889 | |
| 5° | 4792 | 4743 | 4780 | 4797 | 4815 | 444 |
| 15° | 3952 | 3938 | 4077 | 4214 | 4304 | 1101 |
| 25° | 2866 | 2890 | 3094 | 3305 | 3460 | 1314 |
| 35° | 1840 | 1886 | 2091 | 2337 | 2550 | 1140 |
| 45° | 882 | 935 | 1093 | 1305 | 1509 | 693 |
| 55° | 317 | 370 | 478 | 613 | 754 | 296 |
| 65° | 36 | 68 | 151 | 183 | 203 | 60 |
| 75° | 5 | 5 | 2 | 0 | 0 | 7 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 2 | 9 | 16 | 21 | 21 | 4 |
| 95° | 52 | 191 | 609 | 265 | 178 | 55 |
| 105° | 169 | 262 | 1044 | 1590 | 1496 | 179 |
| 115° | 300 | 364 | 836 | 1663 | 1894 | 296 |
| 125° | 412 | 469 | 756 | 1274 | 1503 | 367 |
| 135° | 496 | 551 | 735 | 1038 | 1171 | 384 |
| 145° | 574 | 615 | 726 | 882 | 948 | 360 |
| 155° | 649 | 672 | 721 | 792 | 815 | 299 |
| 165° | 702 | 712 | 724 | 754 | 756 | 198 |
| 175° | 728 | 731 | 726 | 735 | 733 | 69 |
| 180° | 728 | 728 | 728 | 728 | 728 | |



TEST NUMBER: P518455

CATALOG NUMBER: SQ4-BB-050U-100D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4888.7 | 4888.7 | 4888.7 | 4888.7 | 4888.7 |
| 2.5° | 4900.0 | 4853.8 | 4866.0 | 4865.7 | 4852.7 |
| 5° | 4791.7 | 4743.1 | 4779.9 | 4796.9 | 4815.4 |
| 7.5° | 4589.3 | 4551.3 | 4621.9 | 4674.8 | 4713.2 |
| 10° | 4432.2 | 4399.8 | 4491.3 | 4563.5 | 4616.7 |
| 12.5° | 4250.6 | 4225.6 | 4336.2 | 4435.2 | 4503.2 |
| 15° | 3952.1 | 3938.2 | 4077.4 | 4214.3 | 4304.5 |
| 17.5° | 3632.3 | 3631.9 | 3790.8 | 3960.7 | 4069.4 |
| 20° | 3412.9 | 3419.8 | 3590.2 | 3777.6 | 3904.8 |
| 22.5° | 3193.4 | 3209.6 | 3391.6 | 3586.9 | 3732.6 |
| 25° | 2866.5 | 2889.6 | 3093.6 | 3305.2 | 3460.2 |
| 27.5° | 2552.4 | 2586.2 | 2800.8 | 3020.7 | 3209.5 |
| 30° | 2346.2 | 2385.5 | 2604.0 | 2835.4 | 3029.7 |
| 32.5° | 2143.7 | 2190.4 | 2403.4 | 2648.2 | 2846.2 |
| 35° | 1840.1 | 1886.3 | 2090.8 | 2336.8 | 2549.6 |
| 37.5° | 1526.4 | 1571.8 | 1771.5 | 2013.7 | 2243.5 |
| 40° | 1322.1 | 1373.0 | 1563.3 | 1798.1 | 2031.6 |
| 42.5° | 1136.7 | 1187.5 | 1366.6 | 1597.2 | 1817.8 |
| 45° | 882.2 | 935.4 | 1092.7 | 1305.4 | 1508.9 |
| 47.5° | 671.2 | 729.0 | 867.0 | 1059.5 | 1245.0 |
| 50° | 546.3 | 604.2 | 740.3 | 909.9 | 1087.9 |
| 52.5° | 446.1 | 502.0 | 624.9 | 784.7 | 947.9 |
| 55° | 316.9 | 370.1 | 477.8 | 613.4 | 754.5 |
| 57.5° | 219.0 | 264.8 | 361.4 | 474.6 | 585.1 |
| 60° | 158.5 | 202.4 | 293.3 | 385.2 | 475.4 |
| 62.5° | 105.5 | 145.7 | 234.6 | 305.1 | 365.6 |
| 65° | 35.5 | 67.9 | 151.4 | 182.6 | 203.4 |
| 67.5° | 18.0 | 21.7 | 79.5 | 83.9 | 90.8 |
| 70° | 14.2 | 14.2 | 37.8 | 40.4 | 47.3 |
| 72.5° | 10.4 | 10.4 | 15.1 | 19.4 | 20.8 |
| 75° | 4.7 | 4.7 | 2.4 | 0.0 | 0.0 |
| 77.5° | 2.4 | 2.4 | 1.9 | 0.0 | 0.0 |
| 80° | 2.4 | 2.4 | 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° | 0.5 | 1.8 | 3.3 | 4.2 | 4.2 |
| 90° | 2.3 | 9.2 | 16.4 | 21.1 | 21.1 |
| 92.5° | 21.1 | 95.7 | 166.3 | 71.4 | 60.4 |
| 95° | 51.5 | 191.2 | 608.9 | 265.0 | 178.0 |
| 97.5° | 85.2 | 211.2 | 933.4 | 726.2 | 510.0 |
| 100° | 107.7 | 224.5 | 1032.7 | 1046.9 | 845.4 |
| 102.5° | 130.2 | 237.8 | 1059.0 | 1294.7 | 1117.0 |
| 105° | 168.6 | 262.5 | 1044.4 | 1590.3 | 1496.4 |
| 107.5° | 208.4 | 291.3 | 984.0 | 1742.9 | 1769.0 |
| 110° | 236.5 | 312.1 | 939.1 | 1772.9 | 1885.1 |



TEST NUMBER: P518455

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 260.9 | 332.8 | 894.1 | 1748.0 | 1917.0 |
| 115° | 299.7 | 363.9 | 836.0 | 1663.2 | 1894.5 |
| 117.5° | 336.3 | 397.6 | 799.0 | 1543.1 | 1803.6 |
| 120° | 360.6 | 420.2 | 782.2 | 1462.5 | 1721.2 |
| 122.5° | 381.2 | 440.8 | 770.9 | 1381.7 | 1631.3 |
| 125° | 412.2 | 469.4 | 756.4 | 1274.4 | 1503.4 |
| 127.5° | 439.8 | 496.6 | 748.4 | 1193.2 | 1389.6 |
| 130° | 456.6 | 511.6 | 744.7 | 1142.1 | 1318.4 |
| 132.5° | 473.5 | 528.5 | 740.9 | 1098.6 | 1254.7 |
| 135° | 496.5 | 551.4 | 735.3 | 1038.1 | 1170.9 |
| 137.5° | 521.3 | 571.2 | 732.5 | 984.7 | 1096.4 |
| 140° | 536.3 | 584.4 | 730.6 | 950.7 | 1051.5 |
| 142.5° | 551.3 | 595.7 | 728.8 | 924.1 | 1008.4 |
| 145° | 573.7 | 615.0 | 726.0 | 882.0 | 948.4 |
| 147.5° | 599.0 | 634.3 | 723.6 | 848.9 | 901.1 |
| 150° | 615.9 | 645.7 | 723.6 | 829.9 | 871.1 |
| 152.5° | 629.0 | 655.1 | 721.7 | 812.9 | 846.8 |
| 155° | 648.7 | 671.6 | 721.3 | 792.0 | 814.9 |
| 157.5° | 667.9 | 685.7 | 721.3 | 777.9 | 795.3 |
| 160° | 679.1 | 695.1 | 721.3 | 768.4 | 782.2 |
| 162.5° | 690.4 | 702.7 | 723.1 | 760.8 | 770.9 |
| 165° | 702.5 | 711.7 | 723.6 | 754.1 | 756.4 |
| 167.5° | 715.2 | 719.8 | 726.0 | 746.1 | 748.0 |
| 170° | 718.9 | 723.5 | 726.0 | 742.3 | 742.3 |
| 172.5° | 722.7 | 725.4 | 726.0 | 738.6 | 738.6 |
| 175° | 728.3 | 730.6 | 726.0 | 735.3 | 733.0 |
| 177.5° | 730.2 | 730.2 | 724.5 | 732.0 | 728.3 |
| 180° | 728.3 | 728.3 | 728.3 | 728.3 | 728.3 |

(END OF REPORT)