

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: P518471

Luminaire Tested: **SQ4-BB-050U-125D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518471
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-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

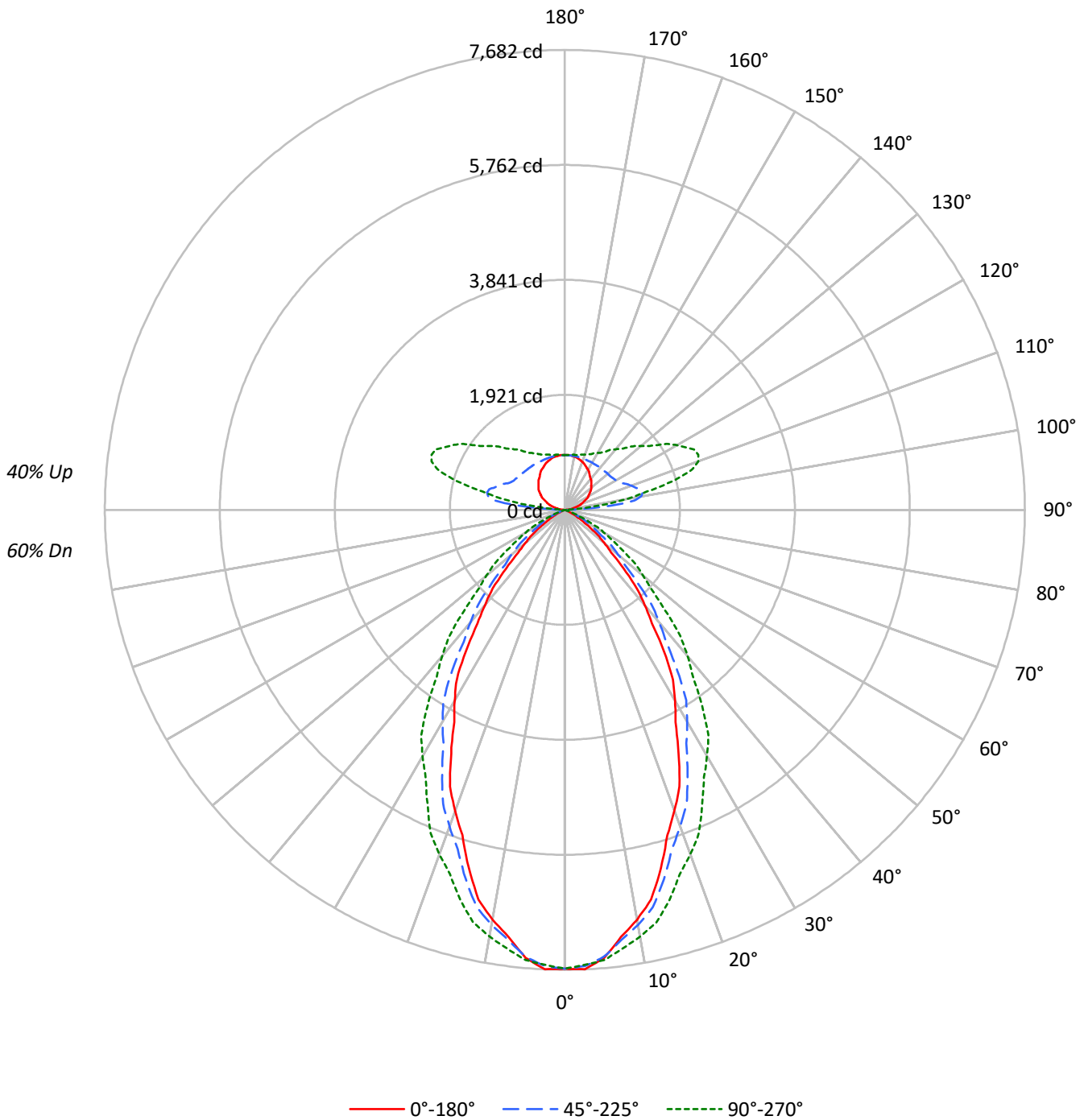
Lumens per Lamp: N/A
Luminaire Lumens: 15122.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 167
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° | 23571 | 23571 | 23571 |
| 5° | 23192 | 23134 | 23306 |
| 10° | 21700 | 21989 | 22603 |
| 15° | 19727 | 20353 | 21486 |
| 20° | 17511 | 18421 | 20035 |
| 25° | 15250 | 16458 | 18408 |
| 30° | 13062 | 14497 | 16868 |
| 35° | 10831 | 12306 | 15007 |
| 40° | 8321 | 9840 | 12787 |
| 45° | 6015 | 7451 | 10289 |
| 50° | 4098 | 5553 | 8161 |
| 55° | 2664 | 4016 | 6342 |
| 60° | 1528 | 2828 | 4584 |
| 65° | 405 | 1727 | 2321 |
| 70° | 200 | 533 | 667 |
| 75° | 88 | 44 | 0 |
| 80° | 66 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 699.5 | 4.6 |
| 10°-20° | 1788.7 | 11.8 |
| 20°-30° | 2239.3 | 14.8 |
| 30°-40° | 2068.4 | 13.7 |
| 40°-50° | 1389.8 | 9.2 |
| 50°-60° | 717.9 | 4.7 |
| 60°-70° | 224.8 | 1.5 |
| 70°-80° | 14.2 | 0.1 |
| 80°-90° | 3.8 | 0.0 |
| 90°-100° | 439.4 | 2.9 |
| 100°-110° | 1193.5 | 7.9 |
| 110°-120° | 1227.1 | 8.1 |
| 120°-130° | 981.1 | 6.5 |
| 130°-140° | 770.9 | 5.1 |
| 140°-150° | 591.1 | 3.9 |
| 150°-160° | 425.1 | 2.8 |
| 160°-170° | 260.0 | 1.7 |
| 170°-180° | 87.6 | 0.6 |
| 0°-30° | 4727.5 | 31.3 |
| 0°-40° | 6795.8 | 44.9 |
| 0°-60° | 8903.5 | 58.9 |
| 0°-90° | 9146.4 | 60.5 |
| 90°-120° | 2860.0 | 18.9 |
| 90°-150° | 5203.1 | 34.4 |
| 90°-180° | 5976.0 | 39.5 |
| 0°-180° | 15122.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 7664 | 7664 | 7664 | 7664 | 7664 | |
| 5° | 7512 | 7436 | 7494 | 7520 | 7549 | 696 |
| 15° | 6196 | 6174 | 6392 | 6607 | 6748 | 1726 |
| 25° | 4494 | 4530 | 4850 | 5182 | 5425 | 2060 |
| 35° | 2885 | 2957 | 3278 | 3664 | 3997 | 1787 |
| 45° | 1383 | 1466 | 1713 | 2047 | 2366 | 1086 |
| 55° | 497 | 580 | 749 | 962 | 1183 | 464 |
| 65° | 56 | 106 | 237 | 286 | 319 | 94 |
| 75° | 7 | 7 | 4 | 0 | 0 | 11 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 3 | 12 | 21 | 26 | 26 | 5 |
| 95° | 65 | 240 | 765 | 333 | 224 | 69 |
| 105° | 212 | 330 | 1312 | 1998 | 1880 | 225 |
| 115° | 377 | 457 | 1051 | 2090 | 2381 | 372 |
| 125° | 518 | 590 | 950 | 1602 | 1889 | 462 |
| 135° | 624 | 693 | 924 | 1304 | 1471 | 482 |
| 145° | 721 | 773 | 912 | 1108 | 1192 | 453 |
| 155° | 815 | 844 | 906 | 995 | 1024 | 376 |
| 165° | 883 | 894 | 909 | 948 | 950 | 249 |
| 175° | 915 | 918 | 912 | 924 | 921 | 87 |
| 180° | 915 | 915 | 915 | 915 | 915 | |



TEST NUMBER: P518471

CATALOG NUMBER: SQ4-BB-050U-125D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 7664.3 | 7664.3 | 7664.3 | 7664.3 | 7664.3 |
| 2.5° | 7682.1 | 7609.6 | 7628.7 | 7628.3 | 7607.9 |
| 5° | 7512.3 | 7436.1 | 7493.7 | 7520.4 | 7549.4 |
| 7.5° | 7194.9 | 7135.4 | 7246.1 | 7329.0 | 7389.2 |
| 10° | 6948.7 | 6897.9 | 7041.4 | 7154.5 | 7237.9 |
| 12.5° | 6663.9 | 6624.8 | 6798.1 | 6953.3 | 7059.9 |
| 15° | 6196.0 | 6174.2 | 6392.5 | 6607.1 | 6748.4 |
| 17.5° | 5694.7 | 5693.9 | 5943.1 | 6209.5 | 6379.9 |
| 20° | 5350.6 | 5361.4 | 5628.7 | 5922.4 | 6121.8 |
| 22.5° | 5006.5 | 5031.8 | 5317.2 | 5623.5 | 5851.9 |
| 25° | 4494.0 | 4530.3 | 4850.0 | 5181.8 | 5424.7 |
| 27.5° | 4001.6 | 4054.5 | 4390.9 | 4735.8 | 5031.7 |
| 30° | 3678.3 | 3739.9 | 4082.4 | 4445.3 | 4749.9 |
| 32.5° | 3360.9 | 3434.1 | 3768.0 | 4151.8 | 4462.1 |
| 35° | 2884.8 | 2957.3 | 3277.8 | 3663.6 | 3997.2 |
| 37.5° | 2393.1 | 2464.2 | 2777.2 | 3157.0 | 3517.4 |
| 40° | 2072.7 | 2152.5 | 2450.9 | 2818.9 | 3185.1 |
| 42.5° | 1782.0 | 1861.8 | 2142.4 | 2504.0 | 2849.9 |
| 45° | 1383.1 | 1466.4 | 1713.1 | 2046.6 | 2365.7 |
| 47.5° | 1052.3 | 1143.0 | 1359.3 | 1661.1 | 1951.9 |
| 50° | 856.5 | 947.2 | 1160.6 | 1426.5 | 1705.7 |
| 52.5° | 699.3 | 787.1 | 979.6 | 1230.2 | 1486.1 |
| 55° | 496.9 | 580.3 | 749.0 | 961.7 | 1182.8 |
| 57.5° | 343.4 | 415.1 | 566.6 | 744.0 | 917.3 |
| 60° | 248.4 | 317.3 | 459.8 | 603.9 | 745.3 |
| 62.5° | 165.4 | 228.5 | 367.8 | 478.3 | 573.2 |
| 65° | 55.6 | 106.4 | 237.3 | 286.3 | 318.9 |
| 67.5° | 28.2 | 34.0 | 124.6 | 131.5 | 142.4 |
| 70° | 22.2 | 22.2 | 59.3 | 63.3 | 74.2 |
| 72.5° | 16.3 | 16.3 | 23.7 | 30.5 | 32.6 |
| 75° | 7.4 | 7.4 | 3.7 | 0.0 | 0.0 |
| 77.5° | 3.7 | 3.7 | 3.0 | 0.0 | 0.0 |
| 80° | 3.7 | 3.7 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.7 | 0.7 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.6 | 2.3 | 4.1 | 5.3 | 5.3 |
| 90° | 2.9 | 11.6 | 20.6 | 26.5 | 26.5 |
| 92.5° | 26.5 | 120.3 | 208.9 | 89.7 | 75.9 |
| 95° | 64.7 | 240.3 | 765.1 | 333.0 | 223.7 |
| 97.5° | 107.1 | 265.4 | 1173.0 | 912.6 | 641.0 |
| 100° | 135.4 | 282.1 | 1297.8 | 1315.6 | 1062.4 |
| 102.5° | 163.6 | 298.9 | 1330.8 | 1627.0 | 1403.7 |
| 105° | 211.9 | 329.9 | 1312.5 | 1998.4 | 1880.5 |
| 107.5° | 261.9 | 366.1 | 1236.6 | 2190.2 | 2223.0 |
| 110° | 297.2 | 392.2 | 1180.1 | 2228.0 | 2369.0 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 327.8 | 418.2 | 1123.6 | 2196.7 | 2409.0 |
| 115° | 376.7 | 457.3 | 1050.6 | 2090.1 | 2380.8 |
| 117.5° | 422.6 | 499.7 | 1004.1 | 1939.1 | 2266.6 |
| 120° | 453.2 | 528.0 | 982.9 | 1837.8 | 2163.0 |
| 122.5° | 479.1 | 553.9 | 968.8 | 1736.3 | 2050.0 |
| 125° | 517.9 | 589.9 | 950.5 | 1601.6 | 1889.3 |
| 127.5° | 552.7 | 624.0 | 940.5 | 1499.4 | 1746.3 |
| 130° | 573.9 | 642.9 | 935.8 | 1435.3 | 1656.8 |
| 132.5° | 595.0 | 664.1 | 931.1 | 1380.5 | 1576.8 |
| 135° | 623.9 | 692.9 | 924.1 | 1304.5 | 1471.4 |
| 137.5° | 655.1 | 717.8 | 920.5 | 1237.4 | 1377.8 |
| 140° | 673.9 | 734.3 | 918.2 | 1194.7 | 1321.3 |
| 142.5° | 692.7 | 748.6 | 915.8 | 1161.3 | 1267.2 |
| 145° | 721.0 | 772.8 | 912.3 | 1108.4 | 1191.8 |
| 147.5° | 752.8 | 797.1 | 909.3 | 1066.8 | 1132.4 |
| 150° | 774.0 | 811.4 | 909.3 | 1042.9 | 1094.7 |
| 152.5° | 790.4 | 823.2 | 907.0 | 1021.5 | 1064.1 |
| 155° | 815.2 | 843.9 | 906.4 | 995.3 | 1024.1 |
| 157.5° | 839.3 | 861.7 | 906.4 | 977.5 | 999.4 |
| 160° | 853.4 | 873.6 | 906.4 | 965.6 | 982.9 |
| 162.5° | 867.5 | 883.1 | 908.7 | 956.1 | 968.8 |
| 165° | 882.9 | 894.4 | 909.3 | 947.7 | 950.5 |
| 167.5° | 898.7 | 904.5 | 912.3 | 937.6 | 939.9 |
| 170° | 903.5 | 909.2 | 912.3 | 932.9 | 932.9 |
| 172.5° | 908.2 | 911.6 | 912.3 | 928.2 | 928.2 |
| 175° | 915.2 | 918.1 | 912.3 | 924.0 | 921.1 |
| 177.5° | 917.6 | 917.6 | 910.5 | 919.8 | 915.2 |
| 180° | 915.2 | 915.2 | 915.2 | 915.2 | 915.2 |

(END OF REPORT)