

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: P518642

Luminaire Tested: **SQ4-BB-0U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518642
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (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-0U-100D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

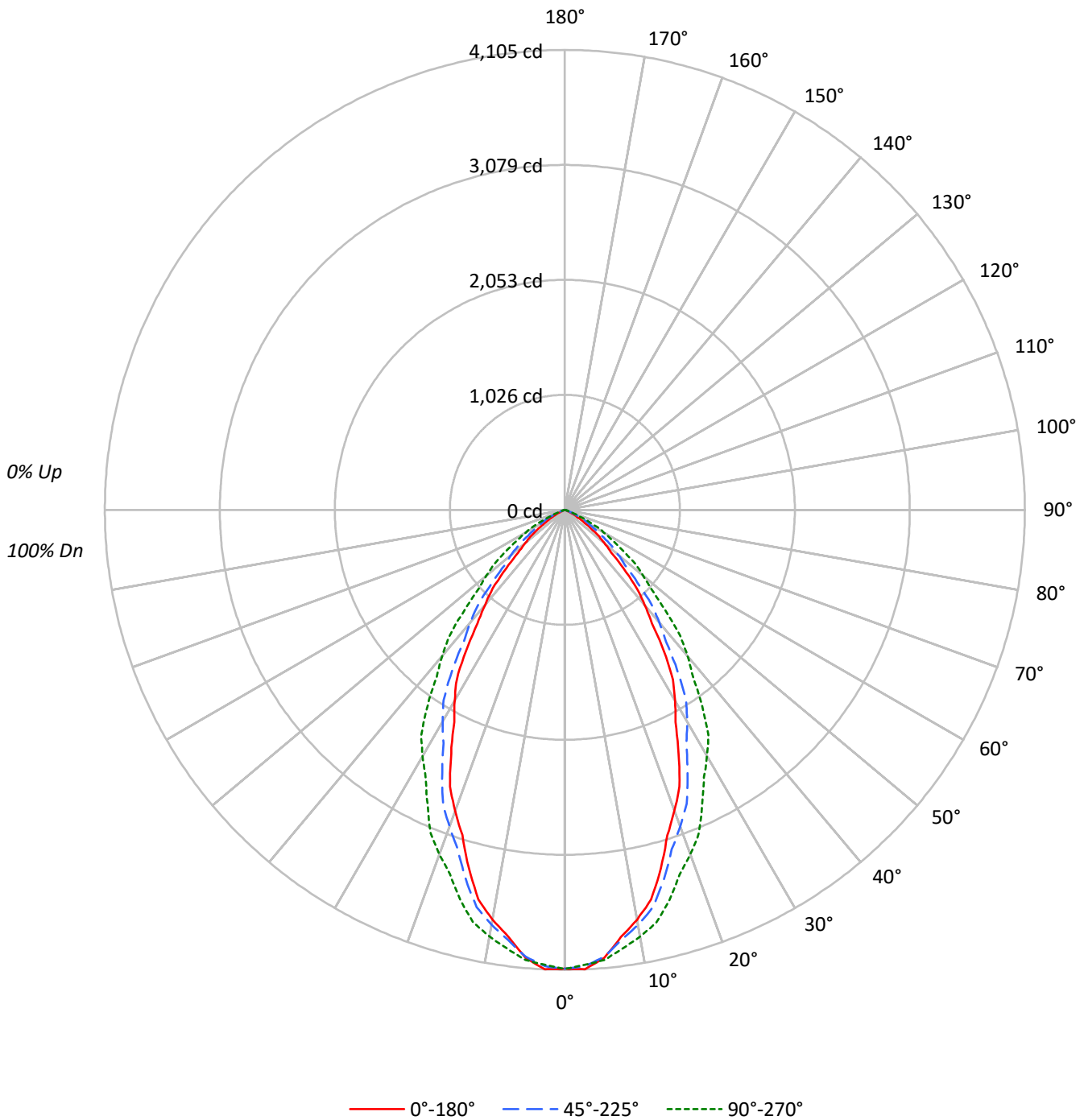
Lumens per Lamp: N/A
Luminaire Lumens: 4885.8 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 71.7
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 | | | | 91 |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 86 | 84 | 82 | | | | 82 |
| 3 | 99 | 91 | 85 | 81 | 97 | 90 | 84 | 80 | 87 | 82 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | | | | 74 |
| 4 | 93 | 84 | 77 | 72 | 91 | 83 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 67 | | | | 67 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 68 | 64 | 72 | 67 | 64 | 71 | 66 | 63 | 61 | | | | 61 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | | | | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 51 | | | | 51 |
| 8 | 72 | 61 | 54 | 50 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 | | | | 47 |
| 9 | 68 | 57 | 50 | 46 | 67 | 57 | 50 | 46 | 56 | 50 | 46 | 55 | 49 | 45 | 54 | 49 | 45 | 44 | | | | 44 |
| 10 | 65 | 54 | 47 | 42 | 63 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 51 | 46 | 42 | 41 | | | | 41 |

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 | 7.7 |
| 10°-20° | 955.9 | 19.6 |
| 20°-30° | 1196.6 | 24.5 |
| 30°-40° | 1105.3 | 22.6 |
| 40°-50° | 742.7 | 15.2 |
| 50°-60° | 383.6 | 7.9 |
| 60°-70° | 120.2 | 2.5 |
| 70°-80° | 7.6 | 0.2 |
| 80°-90° | 0.1 | 0.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 2526.3 | 51.7 |
| 0°-40° | 3631.5 | 74.3 |
| 0°-60° | 4757.9 | 97.4 |
| 0°-90° | 4885.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4885.8 | 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° | 0 | 0 | 0 | 0 | 0 | 0 |



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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° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)