

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: P518643

Luminaire Tested: **SQ4-BB-0U-100D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518643
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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

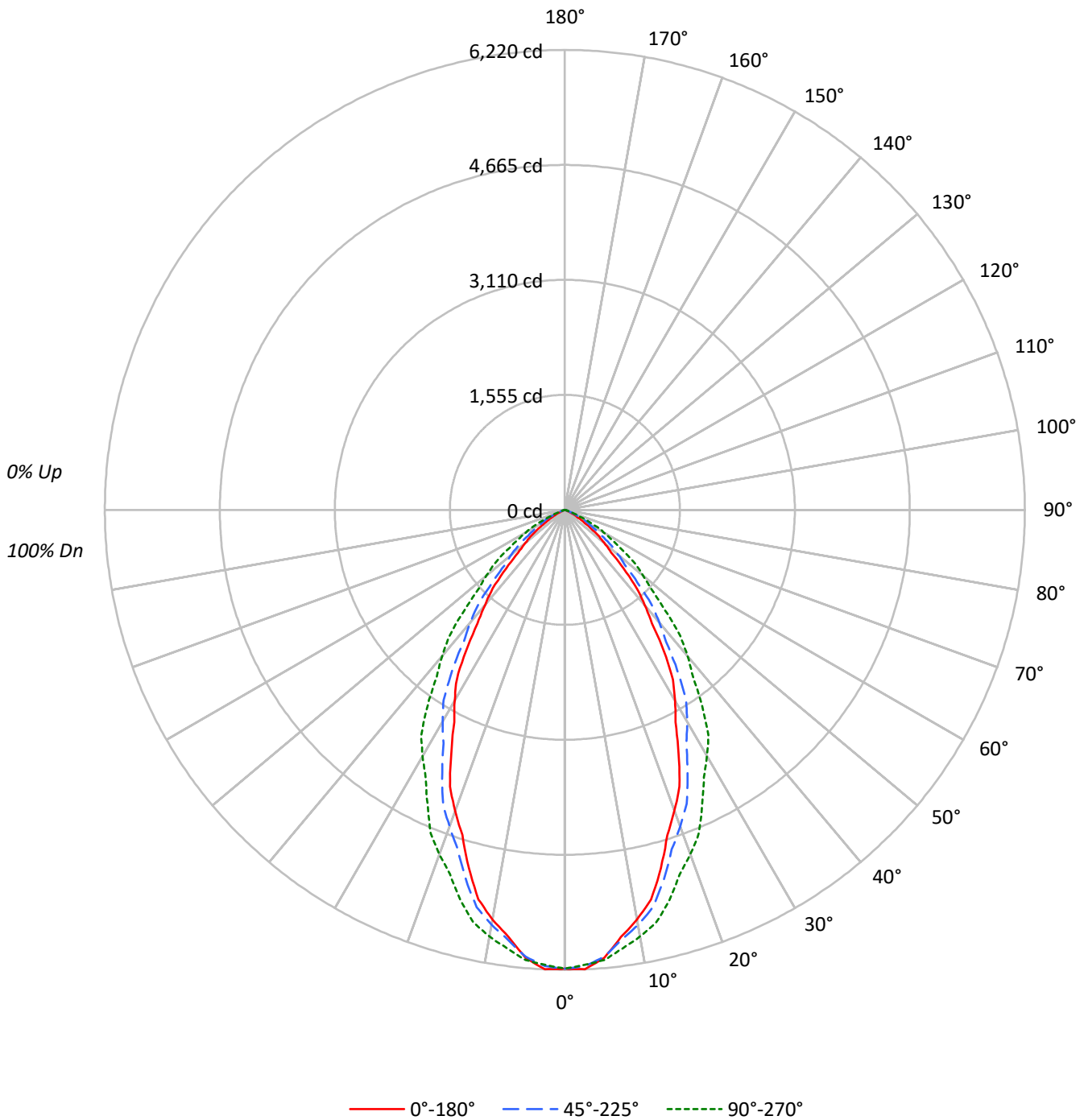
Lumens per Lamp: N/A
Luminaire Lumens: 7402.4 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 108.2
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° | 19084 | 19084 | 19084 |
| 5° | 18777 | 18730 | 18869 |
| 10° | 17569 | 17803 | 18300 |
| 15° | 15972 | 16479 | 17396 |
| 20° | 14178 | 14914 | 16221 |
| 25° | 12347 | 13325 | 14904 |
| 30° | 10575 | 11738 | 13656 |
| 35° | 8769 | 9963 | 12150 |
| 40° | 6737 | 7967 | 10353 |
| 45° | 4870 | 6032 | 8330 |
| 50° | 3318 | 4495 | 6607 |
| 55° | 2157 | 3251 | 5135 |
| 60° | 1237 | 2290 | 3711 |
| 65° | 327 | 1398 | 1879 |
| 70° | 162 | 432 | 540 |
| 75° | 71 | 36 | 0 |
| 80° | 53 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 566.3 | 7.7 |
| 10°-20° | 1448.2 | 19.6 |
| 20°-30° | 1813.0 | 24.5 |
| 30°-40° | 1674.6 | 22.6 |
| 40°-50° | 1125.3 | 15.2 |
| 50°-60° | 581.2 | 7.9 |
| 60°-70° | 182.0 | 2.5 |
| 70°-80° | 11.5 | 0.2 |
| 80°-90° | 0.2 | 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° | 3827.5 | 51.7 |
| 0°-40° | 5502.1 | 74.3 |
| 0°-60° | 7208.6 | 97.4 |
| 0°-90° | 7402.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7402.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 6205 | 6205 | 6205 | 6205 | 6205 | |
| 5° | 6082 | 6020 | 6067 | 6089 | 6112 | 564 |
| 15° | 5016 | 4999 | 5176 | 5349 | 5464 | 1397 |
| 25° | 3638 | 3668 | 3927 | 4195 | 4392 | 1668 |
| 35° | 2336 | 2394 | 2654 | 2966 | 3236 | 1447 |
| 45° | 1120 | 1187 | 1387 | 1657 | 1915 | 879 |
| 55° | 402 | 470 | 606 | 779 | 958 | 375 |
| 65° | 45 | 86 | 192 | 232 | 258 | 76 |
| 75° | 6 | 6 | 3 | 0 | 0 | 9 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P518643

CATALOG NUMBER: SQ4-BB-0U-100D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 6205.3 | 6205.3 | 6205.3 | 6205.3 | 6205.3 |
| 2.5° | 6219.7 | 6161.0 | 6176.4 | 6176.1 | 6159.6 |
| 5° | 6082.2 | 6020.5 | 6067.2 | 6088.7 | 6112.2 |
| 7.5° | 5825.2 | 5777.1 | 5866.6 | 5933.8 | 5982.5 |
| 10° | 5625.9 | 5584.8 | 5700.9 | 5792.5 | 5860.0 |
| 12.5° | 5395.3 | 5363.6 | 5504.0 | 5629.6 | 5715.9 |
| 15° | 5016.4 | 4998.8 | 5175.6 | 5349.3 | 5463.8 |
| 17.5° | 4610.6 | 4610.0 | 4811.7 | 5027.4 | 5165.4 |
| 20° | 4332.0 | 4340.8 | 4557.1 | 4795.0 | 4956.4 |
| 22.5° | 4053.4 | 4073.9 | 4305.0 | 4552.9 | 4737.9 |
| 25° | 3638.5 | 3667.9 | 3926.7 | 4195.4 | 4392.0 |
| 27.5° | 3239.8 | 3282.7 | 3555.0 | 3834.3 | 4073.8 |
| 30° | 2978.0 | 3027.9 | 3305.3 | 3599.1 | 3845.6 |
| 32.5° | 2721.1 | 2780.4 | 3050.7 | 3361.4 | 3612.7 |
| 35° | 2335.6 | 2394.3 | 2653.8 | 2966.2 | 3236.2 |
| 37.5° | 1937.5 | 1995.1 | 2248.5 | 2556.0 | 2847.8 |
| 40° | 1678.2 | 1742.7 | 1984.4 | 2282.3 | 2578.8 |
| 42.5° | 1442.8 | 1507.4 | 1734.6 | 2027.4 | 2307.4 |
| 45° | 1119.8 | 1187.3 | 1387.0 | 1657.0 | 1915.3 |
| 47.5° | 852.0 | 925.4 | 1100.6 | 1344.9 | 1580.3 |
| 50° | 693.5 | 766.9 | 939.6 | 1154.9 | 1380.9 |
| 52.5° | 566.2 | 637.2 | 793.1 | 996.0 | 1203.2 |
| 55° | 402.3 | 469.8 | 606.4 | 778.6 | 957.7 |
| 57.5° | 278.0 | 336.1 | 458.7 | 602.4 | 742.7 |
| 60° | 201.1 | 256.9 | 372.3 | 488.9 | 603.4 |
| 62.5° | 133.9 | 185.0 | 297.8 | 387.2 | 464.1 |
| 65° | 45.0 | 86.1 | 192.1 | 231.8 | 258.2 |
| 67.5° | 22.8 | 27.5 | 100.9 | 106.5 | 115.3 |
| 70° | 18.0 | 18.0 | 48.0 | 51.2 | 60.0 |
| 72.5° | 13.2 | 13.2 | 19.2 | 24.7 | 26.4 |
| 75° | 6.0 | 6.0 | 3.0 | 0.0 | 0.0 |
| 77.5° | 3.0 | 3.0 | 2.4 | 0.0 | 0.0 |
| 80° | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.6 | 0.6 | 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)