

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: P520347

Luminaire Tested: **SQ4-F-125U-125D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520347  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-24, G3-1910-536-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-125U-125D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

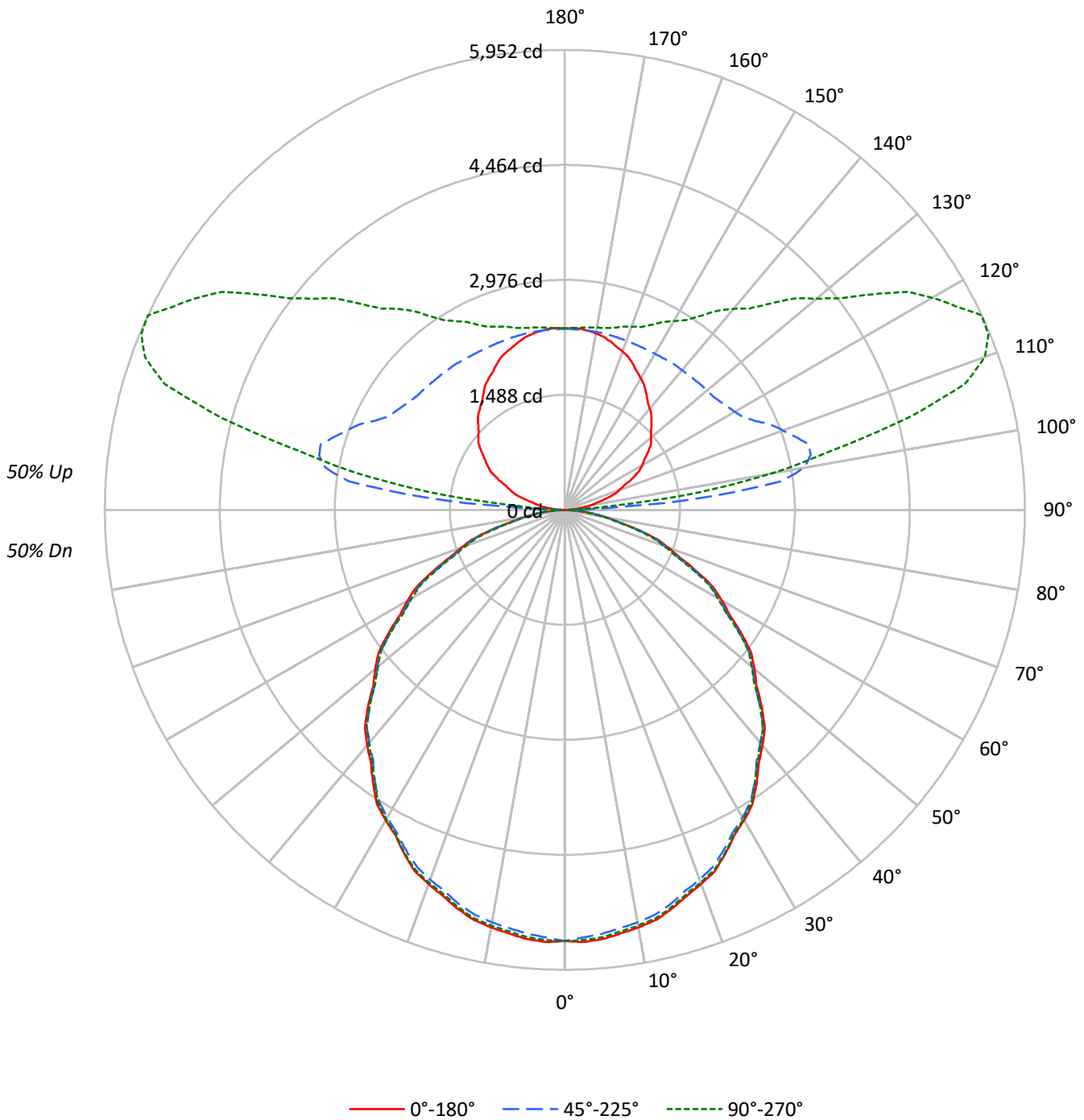
Lumens per Lamp: N/A  
Luminaire Lumens: 30379.0 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 237.2  
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 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 |
| 1   | 98  | 93  | 90  | 86  | 90 | 86 | 83 | 80 | 73 | 71 | 68 | 61 | 59 | 58 | 50 | 49 | 47 | 42 |
| 2   | 89  | 82  | 75  | 70  | 82 | 75 | 70 | 66 | 64 | 60 | 57 | 53 | 51 | 48 | 44 | 42 | 40 | 35 |
| 3   | 81  | 72  | 64  | 58  | 75 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 44 | 41 | 39 | 36 | 34 | 30 |
| 4   | 74  | 63  | 55  | 49  | 68 | 59 | 52 | 46 | 50 | 45 | 40 | 42 | 38 | 35 | 34 | 31 | 29 | 25 |
| 5   | 68  | 56  | 48  | 42  | 62 | 52 | 45 | 40 | 45 | 39 | 35 | 38 | 33 | 30 | 31 | 28 | 25 | 22 |
| 6   | 63  | 50  | 42  | 36  | 58 | 47 | 40 | 34 | 40 | 34 | 30 | 34 | 30 | 26 | 28 | 25 | 22 | 19 |
| 7   | 58  | 46  | 38  | 32  | 53 | 42 | 35 | 30 | 36 | 31 | 27 | 31 | 26 | 23 | 26 | 22 | 20 | 17 |
| 8   | 54  | 41  | 33  | 28  | 49 | 38 | 31 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 15 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 26 | 22 | 18 | 22 | 18 | 16 | 14 |
| 10  | 47  | 35  | 27  | 22  | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 14 | 12 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17161 | 17161 | 17161 |
| 5°  | 17218 | 16999 | 17142 |
| 10° | 17138 | 16928 | 17062 |
| 15° | 17024 | 16819 | 16955 |
| 20° | 16866 | 16675 | 16806 |
| 25° | 16674 | 16497 | 16633 |
| 30° | 16469 | 16326 | 16413 |
| 35° | 16235 | 16096 | 16108 |
| 40° | 15967 | 15794 | 15843 |
| 45° | 15668 | 15494 | 15521 |
| 50° | 15326 | 15149 | 15105 |
| 55° | 14936 | 14721 | 14688 |
| 60° | 14451 | 14130 | 14055 |
| 65° | 13700 | 13409 | 13230 |
| 70° | 12758 | 12427 | 12261 |
| 75° | 11349 | 11095 | 10765 |
| 80° | 9247  | 8976  | 8921  |
| 85° | 5526  | 6288  | 6288  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 526.5   | 1.7       |
| 10°-20°   | 1499.5  | 4.9       |
| 20°-30°   | 2252.9  | 7.4       |
| 30°-40°   | 2688.1  | 8.8       |
| 40°-50°   | 2755.4  | 9.1       |
| 50°-60°   | 2456.0  | 8.1       |
| 60°-70°   | 1828.3  | 6.0       |
| 70°-80°   | 990.5   | 3.3       |
| 80°-90°   | 233.0   | 0.8       |
| 90°-100°  | 1097.8  | 3.6       |
| 100°-110° | 2957.1  | 9.7       |
| 110°-120° | 3103.4  | 10.2      |
| 120°-130° | 2518.3  | 8.3       |
| 130°-140° | 1975.0  | 6.5       |
| 140°-150° | 1516.3  | 5.0       |
| 150°-160° | 1090.2  | 3.6       |
| 160°-170° | 666.1   | 2.2       |
| 170°-180° | 224.6   | 0.7       |
| 0°-30°    | 4279.0  | 14.1      |
| 0°-40°    | 6967.1  | 22.9      |
| 0°-60°    | 12178.5 | 40.1      |
| 0°-90°    | 15230.2 | 50.1      |
| 90°-120°  | 7158.2  | 23.6      |
| 90°-150°  | 13167.9 | 43.3      |
| 90°-180°  | 15149.0 | 49.9      |
| 0°-180°   | 30379.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 5580 | 5580  | 5580 | 5580  | 5580 |      |
| 5°   | 5577 | 5568  | 5506 | 5556  | 5553 | 529  |
| 15°  | 5347 | 5335  | 5282 | 5328  | 5325 | 1507 |
| 25°  | 4914 | 4905  | 4862 | 4890  | 4902 | 2263 |
| 35°  | 4324 | 4321  | 4287 | 4287  | 4290 | 2704 |
| 45°  | 3602 | 3593  | 3562 | 3557  | 3569 | 2776 |
| 55°  | 2786 | 2776  | 2746 | 2724  | 2739 | 2488 |
| 65°  | 1883 | 1871  | 1843 | 1830  | 1818 | 1864 |
| 75°  | 955  | 955   | 934  | 915   | 906  | 1014 |
| 85°  | 157  | 178   | 178  | 181   | 178  | 217  |
| 90°  | 6    | 18    | 36   | 39    | 39   | 16   |
| 95°  | 167  | 597   | 1800 | 920   | 637  | 175  |
| 105° | 547  | 851   | 3270 | 4893  | 4592 | 575  |
| 115° | 966  | 1182  | 2723 | 5262  | 5952 | 950  |
| 125° | 1318 | 1514  | 2445 | 4133  | 4864 | 1177 |
| 135° | 1587 | 1772  | 2376 | 3334  | 3776 | 1225 |
| 145° | 1836 | 1979  | 2347 | 2851  | 3061 | 1151 |
| 155° | 2084 | 2160  | 2326 | 2558  | 2640 | 959  |
| 165° | 2260 | 2286  | 2335 | 2428  | 2439 | 637  |
| 175° | 2350 | 2347  | 2338 | 2370  | 2365 | 223  |
| 180° | 2347 | 2347  | 2347 | 2347  | 2347 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 5580.2 | 5580.2 | 5580.2 | 5580.2 | 5580.2 |
| 2.5°   | 5597.5 | 5587.8 | 5538.5 | 5580.1 | 5572.9 |
| 5°     | 5577.2 | 5568.2 | 5506.5 | 5555.6 | 5552.7 |
| 7.5°   | 5530.0 | 5518.5 | 5462.4 | 5508.3 | 5502.9 |
| 10°    | 5488.1 | 5479.2 | 5420.6 | 5466.6 | 5463.6 |
| 12.5°  | 5436.5 | 5427.5 | 5369.0 | 5415.0 | 5414.4 |
| 15°    | 5346.9 | 5334.9 | 5282.4 | 5328.4 | 5325.3 |
| 17.5°  | 5239.4 | 5225.6 | 5173.7 | 5210.0 | 5216.1 |
| 20°    | 5153.4 | 5144.4 | 5095.1 | 5128.9 | 5135.0 |
| 22.5°  | 5065.0 | 5053.5 | 5001.7 | 5040.5 | 5046.5 |
| 25°    | 4913.8 | 4904.8 | 4861.6 | 4889.5 | 4901.6 |
| 27.5°  | 4748.0 | 4748.0 | 4708.1 | 4727.9 | 4735.1 |
| 30°    | 4637.5 | 4637.5 | 4597.5 | 4610.1 | 4622.0 |
| 32.5°  | 4519.5 | 4509.8 | 4472.2 | 4482.3 | 4494.3 |
| 35°    | 4324.2 | 4321.1 | 4287.3 | 4287.4 | 4290.4 |
| 37.5°  | 4122.1 | 4113.7 | 4076.7 | 4079.4 | 4093.8 |
| 40°    | 3977.1 | 3971.2 | 3934.2 | 3934.4 | 3946.4 |
| 42.5°  | 3829.7 | 3823.7 | 3791.7 | 3786.8 | 3791.7 |
| 45°    | 3602.4 | 3593.4 | 3562.5 | 3556.6 | 3568.7 |
| 47.5°  | 3360.4 | 3362.9 | 3326.1 | 3317.6 | 3324.2 |
| 50°    | 3203.2 | 3203.2 | 3166.3 | 3148.1 | 3157.1 |
| 52.5°  | 3038.6 | 3033.8 | 2996.9 | 2976.4 | 2997.5 |
| 55°    | 2785.6 | 2776.5 | 2745.6 | 2724.4 | 2739.4 |
| 57.5°  | 2526.3 | 2512.5 | 2481.5 | 2458.3 | 2466.7 |
| 60°    | 2349.4 | 2328.5 | 2297.2 | 2278.9 | 2285.0 |
| 62.5°  | 2165.2 | 2153.7 | 2120.3 | 2092.4 | 2105.6 |
| 65°    | 1882.6 | 1870.6 | 1842.7 | 1830.1 | 1818.1 |
| 67.5°  | 1605.6 | 1597.8 | 1566.3 | 1553.2 | 1545.4 |
| 70°    | 1418.8 | 1403.8 | 1382.0 | 1366.6 | 1363.6 |
| 72.5°  | 1237.1 | 1219.7 | 1197.8 | 1184.7 | 1176.9 |
| 75°    | 955.1  | 955.1  | 933.7  | 915.0  | 906.0  |
| 77.5°  | 686.7  | 689.1  | 671.4  | 665.1  | 660.9  |
| 80°    | 522.1  | 522.1  | 506.8  | 500.7  | 503.7  |
| 82.5°  | 364.9  | 372.1  | 366.7  | 358.0  | 353.8  |
| 85°    | 156.6  | 177.7  | 178.2  | 181.1  | 178.2  |
| 87.5°  | 28.3   | 47.4   | 54.0   | 49.7   | 44.8   |
| 90°    | 6.0    | 17.7   | 35.9   | 38.9   | 38.9   |
| 92.5°  | 72.9   | 257.6  | 509.3  | 245.2  | 170.4  |
| 95°    | 167.4  | 597.1  | 1799.6 | 920.2  | 636.7  |
| 97.5°  | 267.2  | 683.5  | 2822.5 | 2358.0 | 1778.1 |
| 100°   | 343.8  | 717.9  | 3147.8 | 3293.5 | 2732.2 |
| 102.5° | 417.9  | 766.3  | 3255.4 | 3994.0 | 3533.4 |
| 105°   | 547.0  | 851.0  | 3270.4 | 4892.7 | 4591.6 |
| 107.5° | 669.0  | 940.2  | 3131.0 | 5354.5 | 5432.3 |
| 110°   | 750.3  | 1007.5 | 3004.3 | 5497.9 | 5781.4 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 836.4  | 1074.9 | 2882.3 | 5466.1 | 5932.0 |
| 115°   | 965.6  | 1181.9 | 2723.3 | 5262.0 | 5951.8 |
| 117.5° | 1083.3 | 1286.2 | 2600.1 | 4936.1 | 5704.3 |
| 120°   | 1159.9 | 1355.7 | 2537.9 | 4702.2 | 5491.4 |
| 122.5° | 1226.8 | 1420.3 | 2492.5 | 4463.0 | 5249.9 |
| 125°   | 1318.3 | 1514.1 | 2445.3 | 4133.0 | 4863.6 |
| 127.5° | 1406.2 | 1599.1 | 2415.4 | 3841.8 | 4494.2 |
| 130°   | 1458.8 | 1651.7 | 2403.4 | 3674.9 | 4247.8 |
| 132.5° | 1511.5 | 1702.0 | 2391.5 | 3528.0 | 4054.1 |
| 135°   | 1587.3 | 1771.5 | 2376.5 | 3334.2 | 3775.6 |
| 137.5° | 1659.7 | 1836.2 | 2368.7 | 3169.7 | 3532.2 |
| 140°   | 1709.9 | 1879.4 | 2361.6 | 3068.5 | 3395.9 |
| 142.5° | 1762.5 | 1920.3 | 2356.8 | 2974.1 | 3250.0 |
| 145°   | 1835.5 | 1978.7 | 2346.6 | 2850.6 | 3061.1 |
| 147.5° | 1914.3 | 2038.9 | 2336.4 | 2746.8 | 2912.2 |
| 150°   | 1967.0 | 2075.2 | 2331.7 | 2681.6 | 2818.9 |
| 152.5° | 2014.8 | 2108.9 | 2329.3 | 2628.4 | 2740.0 |
| 155°   | 2083.5 | 2159.5 | 2325.7 | 2557.8 | 2639.6 |
| 157.5° | 2143.9 | 2203.0 | 2326.3 | 2508.1 | 2563.1 |
| 160°   | 2182.2 | 2232.0 | 2328.7 | 2479.1 | 2520.0 |
| 162.5° | 2215.7 | 2256.0 | 2331.1 | 2454.9 | 2484.2 |
| 165°   | 2260.0 | 2286.2 | 2334.7 | 2427.6 | 2439.3 |
| 167.5° | 2295.8 | 2311.0 | 2337.6 | 2406.5 | 2411.2 |
| 170°   | 2319.8 | 2325.6 | 2337.6 | 2394.5 | 2394.5 |
| 172.5° | 2334.1 | 2335.3 | 2340.1 | 2382.5 | 2382.5 |
| 175°   | 2349.7 | 2346.7 | 2337.6 | 2370.4 | 2364.6 |
| 177.5° | 2356.2 | 2351.5 | 2339.5 | 2358.4 | 2353.8 |
| 180°   | 2346.6 | 2346.6 | 2346.6 | 2346.6 | 2346.6 |

(END OF REPORT)