

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: P520062

Luminaire Tested: **SQ4-F-075U-125D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520062
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, 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-075U-125D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

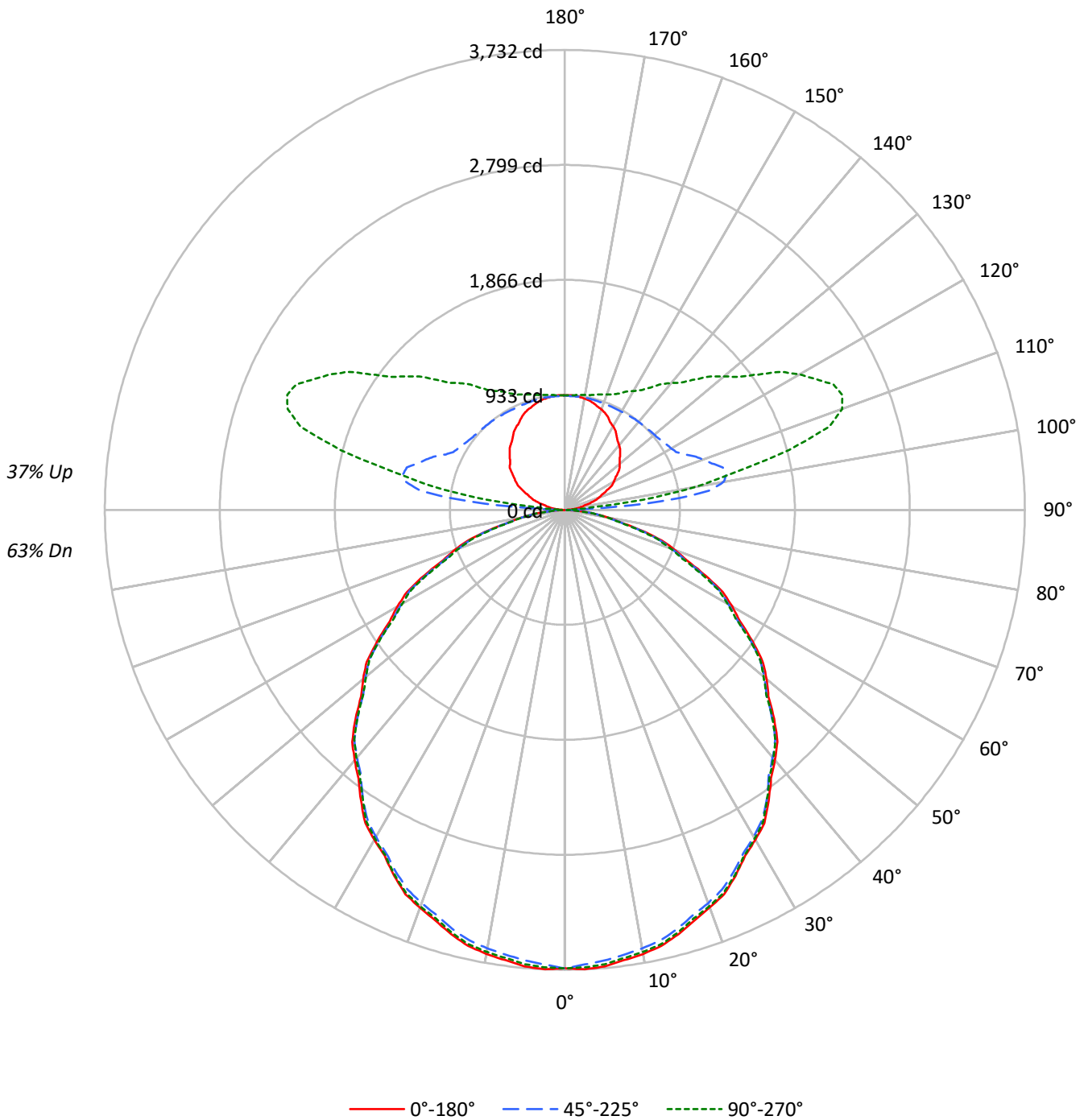
Lumens per Lamp: N/A
Luminaire Lumens: 16199.9 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 125.1
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 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 79 | 79 | 79 | 68 | 68 | 68 | 63 |
| 1 | 101 | 96 | 92 | 89 | 94 | 90 | 87 | 84 | 79 | 77 | 74 | 69 | 67 | 66 | 60 | 59 | 57 | 53 |
| 2 | 92 | 84 | 78 | 72 | 86 | 79 | 73 | 69 | 69 | 65 | 61 | 61 | 57 | 55 | 53 | 50 | 48 | 44 |
| 3 | 83 | 74 | 66 | 60 | 78 | 69 | 63 | 57 | 61 | 56 | 52 | 54 | 49 | 46 | 47 | 43 | 41 | 37 |
| 4 | 76 | 65 | 57 | 51 | 71 | 61 | 54 | 48 | 54 | 48 | 44 | 48 | 43 | 39 | 41 | 38 | 35 | 32 |
| 5 | 70 | 58 | 50 | 44 | 65 | 55 | 47 | 42 | 49 | 42 | 38 | 43 | 38 | 34 | 37 | 34 | 30 | 27 |
| 6 | 65 | 52 | 44 | 38 | 60 | 49 | 42 | 36 | 44 | 38 | 33 | 39 | 34 | 30 | 34 | 30 | 27 | 24 |
| 7 | 60 | 47 | 39 | 33 | 56 | 45 | 37 | 32 | 40 | 34 | 29 | 35 | 30 | 26 | 31 | 27 | 24 | 21 |
| 8 | 55 | 43 | 35 | 29 | 52 | 41 | 33 | 28 | 36 | 30 | 26 | 32 | 27 | 24 | 28 | 24 | 21 | 19 |
| 9 | 52 | 39 | 31 | 26 | 48 | 37 | 30 | 25 | 33 | 27 | 23 | 30 | 25 | 21 | 26 | 22 | 19 | 17 |
| 10 | 48 | 36 | 28 | 24 | 45 | 34 | 27 | 23 | 31 | 25 | 21 | 27 | 23 | 19 | 24 | 20 | 17 | 15 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17162 | 17162 | 17162 |
| 5° | 17217 | 17000 | 17142 |
| 10° | 17139 | 16928 | 17062 |
| 15° | 17023 | 16819 | 16956 |
| 20° | 16866 | 16675 | 16806 |
| 25° | 16674 | 16497 | 16633 |
| 30° | 16468 | 16326 | 16414 |
| 35° | 16234 | 16096 | 16107 |
| 40° | 15967 | 15794 | 15844 |
| 45° | 15668 | 15494 | 15521 |
| 50° | 15326 | 15149 | 15106 |
| 55° | 14936 | 14721 | 14689 |
| 60° | 14451 | 14130 | 14054 |
| 65° | 13699 | 13410 | 13231 |
| 70° | 12758 | 12428 | 12260 |
| 75° | 11350 | 11093 | 10765 |
| 80° | 9245 | 8974 | 8921 |
| 85° | 5526 | 6288 | 6288 |



TEST NUMBER: P520062

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 351.0 | 2.2 |
| 10°-20° | 999.7 | 6.2 |
| 20°-30° | 1501.9 | 9.3 |
| 30°-40° | 1792.1 | 11.1 |
| 40°-50° | 1836.9 | 11.3 |
| 50°-60° | 1637.3 | 10.1 |
| 60°-70° | 1218.9 | 7.5 |
| 70°-80° | 660.3 | 4.1 |
| 80°-90° | 154.0 | 1.0 |
| 90°-100° | 437.8 | 2.7 |
| 100°-110° | 1204.7 | 7.4 |
| 110°-120° | 1243.4 | 7.7 |
| 120°-130° | 996.2 | 6.1 |
| 130°-140° | 782.5 | 4.8 |
| 140°-150° | 599.6 | 3.7 |
| 150°-160° | 431.1 | 2.7 |
| 160°-170° | 263.6 | 1.6 |
| 170°-180° | 88.9 | 0.5 |
| 0°-30° | 2852.6 | 17.6 |
| 0°-40° | 4644.7 | 28.7 |
| 0°-60° | 8119.0 | 50.1 |
| 0°-90° | 10152.1 | 62.7 |
| 90°-120° | 2885.9 | 17.8 |
| 90°-150° | 5264.2 | 32.5 |
| 90°-180° | 6048.0 | 37.3 |
| 0°-180° | 16199.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3720 | 3720 | 3720 | 3720 | 3720 | |
| 5° | 3718 | 3712 | 3671 | 3704 | 3702 | 353 |
| 15° | 3564 | 3556 | 3522 | 3552 | 3550 | 1005 |
| 25° | 3276 | 3270 | 3241 | 3260 | 3268 | 1509 |
| 35° | 2883 | 2881 | 2858 | 2858 | 2860 | 1803 |
| 45° | 2402 | 2396 | 2375 | 2371 | 2379 | 1851 |
| 55° | 1857 | 1851 | 1830 | 1816 | 1826 | 1659 |
| 65° | 1255 | 1247 | 1228 | 1220 | 1212 | 1243 |
| 75° | 637 | 637 | 622 | 610 | 604 | 676 |
| 85° | 104 | 118 | 119 | 121 | 119 | 144 |
| 90° | 2 | 8 | 14 | 18 | 18 | 7 |
| 95° | 65 | 239 | 774 | 331 | 211 | 69 |
| 105° | 215 | 331 | 1327 | 2022 | 1886 | 227 |
| 115° | 381 | 464 | 1065 | 2120 | 2406 | 376 |
| 125° | 525 | 599 | 966 | 1634 | 1914 | 469 |
| 135° | 634 | 704 | 938 | 1321 | 1495 | 489 |
| 145° | 733 | 783 | 924 | 1126 | 1213 | 460 |
| 155° | 830 | 857 | 918 | 1012 | 1041 | 381 |
| 165° | 897 | 908 | 922 | 960 | 966 | 253 |
| 175° | 928 | 930 | 924 | 936 | 934 | 88 |
| 180° | 928 | 928 | 928 | 928 | 928 | |

TEST NUMBER: P520062

CATALOG NUMBER: SQ4-F-075U-125D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3720.2 | 3720.2 | 3720.2 | 3720.2 | 3720.2 |
| 2.5° | 3731.7 | 3725.3 | 3692.3 | 3720.1 | 3715.3 |
| 5° | 3718.1 | 3712.1 | 3671.1 | 3703.8 | 3701.8 |
| 7.5° | 3686.6 | 3679.0 | 3641.6 | 3672.2 | 3668.6 |
| 10° | 3658.8 | 3652.7 | 3613.7 | 3644.4 | 3642.4 |
| 12.5° | 3624.3 | 3618.4 | 3579.3 | 3610.0 | 3609.6 |
| 15° | 3564.5 | 3556.5 | 3521.6 | 3552.3 | 3550.3 |
| 17.5° | 3492.9 | 3483.7 | 3449.1 | 3473.3 | 3477.4 |
| 20° | 3435.6 | 3429.5 | 3396.7 | 3419.3 | 3423.3 |
| 22.5° | 3376.6 | 3369.0 | 3334.5 | 3360.3 | 3364.4 |
| 25° | 3275.9 | 3269.9 | 3241.1 | 3259.7 | 3267.7 |
| 27.5° | 3165.3 | 3165.3 | 3138.7 | 3151.9 | 3156.7 |
| 30° | 3091.6 | 3091.6 | 3065.0 | 3073.4 | 3081.4 |
| 32.5° | 3013.0 | 3006.6 | 2981.5 | 2988.2 | 2996.2 |
| 35° | 2882.7 | 2880.8 | 2858.2 | 2858.2 | 2860.2 |
| 37.5° | 2748.1 | 2742.5 | 2717.7 | 2719.6 | 2729.2 |
| 40° | 2651.5 | 2647.4 | 2622.8 | 2623.0 | 2631.0 |
| 42.5° | 2553.2 | 2549.1 | 2527.7 | 2524.6 | 2527.7 |
| 45° | 2401.6 | 2395.7 | 2375.0 | 2371.1 | 2379.1 |
| 47.5° | 2240.3 | 2241.9 | 2217.4 | 2211.7 | 2216.2 |
| 50° | 2135.5 | 2135.5 | 2110.9 | 2098.8 | 2104.8 |
| 52.5° | 2025.7 | 2022.6 | 1997.8 | 1984.3 | 1998.3 |
| 55° | 1857.1 | 1851.0 | 1830.4 | 1816.3 | 1826.4 |
| 57.5° | 1684.3 | 1675.0 | 1654.4 | 1638.9 | 1644.5 |
| 60° | 1566.3 | 1552.3 | 1531.5 | 1519.3 | 1523.3 |
| 62.5° | 1443.5 | 1435.9 | 1413.6 | 1394.9 | 1403.7 |
| 65° | 1255.0 | 1247.0 | 1228.5 | 1220.1 | 1212.1 |
| 67.5° | 1070.4 | 1065.2 | 1044.2 | 1035.5 | 1030.2 |
| 70° | 945.9 | 935.9 | 921.4 | 911.1 | 909.0 |
| 72.5° | 824.7 | 813.0 | 798.4 | 789.7 | 784.6 |
| 75° | 636.8 | 636.8 | 622.4 | 610.0 | 604.0 |
| 77.5° | 457.8 | 459.4 | 447.6 | 443.4 | 440.6 |
| 80° | 348.0 | 348.0 | 337.8 | 333.8 | 335.8 |
| 82.5° | 243.2 | 248.0 | 244.5 | 238.7 | 235.8 |
| 85° | 104.4 | 118.5 | 118.8 | 120.7 | 118.8 |
| 87.5° | 18.4 | 30.8 | 34.0 | 31.4 | 28.3 |
| 90° | 2.0 | 7.7 | 13.8 | 17.8 | 17.8 |
| 92.5° | 27.3 | 116.5 | 201.9 | 77.5 | 63.6 |
| 95° | 65.1 | 239.0 | 774.3 | 331.1 | 211.4 |
| 97.5° | 106.2 | 265.0 | 1181.6 | 910.4 | 642.3 |
| 100° | 136.3 | 281.1 | 1309.6 | 1321.8 | 1078.5 |
| 102.5° | 164.7 | 300.3 | 1342.8 | 1639.9 | 1416.6 |
| 105° | 215.3 | 331.2 | 1327.3 | 2021.5 | 1886.3 |
| 107.5° | 263.5 | 369.3 | 1251.9 | 2208.4 | 2248.6 |
| 110° | 298.2 | 394.9 | 1195.0 | 2254.9 | 2393.9 |

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CATALOG NUMBER: SQ4-F-075U-125D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 329.8 | 423.3 | 1138.1 | 2224.9 | 2436.6 |
| 115° | 381.2 | 464.2 | 1064.7 | 2120.0 | 2405.8 |
| 117.5° | 430.2 | 506.7 | 1018.0 | 1972.7 | 2295.9 |
| 120° | 460.2 | 533.7 | 997.5 | 1862.3 | 2196.5 |
| 122.5° | 487.1 | 560.5 | 983.3 | 1765.5 | 2082.7 |
| 125° | 525.4 | 598.8 | 965.9 | 1633.9 | 1914.0 |
| 127.5° | 561.7 | 631.7 | 954.4 | 1524.1 | 1769.8 |
| 130° | 580.7 | 652.2 | 948.1 | 1458.9 | 1682.9 |
| 132.5° | 602.8 | 674.3 | 943.4 | 1401.4 | 1603.8 |
| 135° | 634.0 | 703.6 | 938.2 | 1321.4 | 1495.3 |
| 137.5° | 663.3 | 727.8 | 933.9 | 1256.7 | 1400.0 |
| 140° | 685.4 | 745.2 | 932.3 | 1213.7 | 1343.2 |
| 142.5° | 704.3 | 759.6 | 929.1 | 1175.4 | 1286.2 |
| 145° | 732.8 | 783.0 | 924.4 | 1125.9 | 1212.8 |
| 147.5° | 763.2 | 806.5 | 922.1 | 1082.0 | 1151.5 |
| 150° | 782.2 | 820.8 | 920.4 | 1057.9 | 1112.0 |
| 152.5° | 799.6 | 835.1 | 918.8 | 1037.2 | 1082.0 |
| 155° | 829.5 | 856.6 | 918.5 | 1012.0 | 1040.9 |
| 157.5° | 851.4 | 873.4 | 918.5 | 991.2 | 1011.3 |
| 160° | 867.1 | 884.5 | 918.5 | 980.1 | 995.5 |
| 162.5° | 879.7 | 894.1 | 920.0 | 970.5 | 982.9 |
| 165° | 896.7 | 908.4 | 922.5 | 960.1 | 965.9 |
| 167.5° | 908.6 | 917.5 | 924.4 | 951.3 | 952.9 |
| 170° | 916.5 | 922.3 | 924.4 | 948.1 | 948.1 |
| 172.5° | 922.9 | 925.5 | 924.4 | 943.3 | 941.7 |
| 175° | 928.3 | 930.3 | 924.4 | 936.2 | 934.3 |
| 177.5° | 929.9 | 929.9 | 923.6 | 933.0 | 929.9 |
| 180° | 928.3 | 928.3 | 928.3 | 928.3 | 928.3 |

(END OF REPORT)