

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P844816

Luminaire Tested: **SQ4P-BB-025U-100D-B50-1D-UNV**

Issue Date: 8/14/2023



Test Information

Test Method: LM-79-08
Report Number: P844816
REPORT IS A COMBINATION OF REPORTS P700161 AND P700243
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4P-BB-025U-100D-B50-1D-UNV
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 250 LUMENS PER FOOT UPLIGHT, 1000 LUMENS PER FOOT DOWNLIGHT

Light Source: -
Ballast/Driver: -

Summary

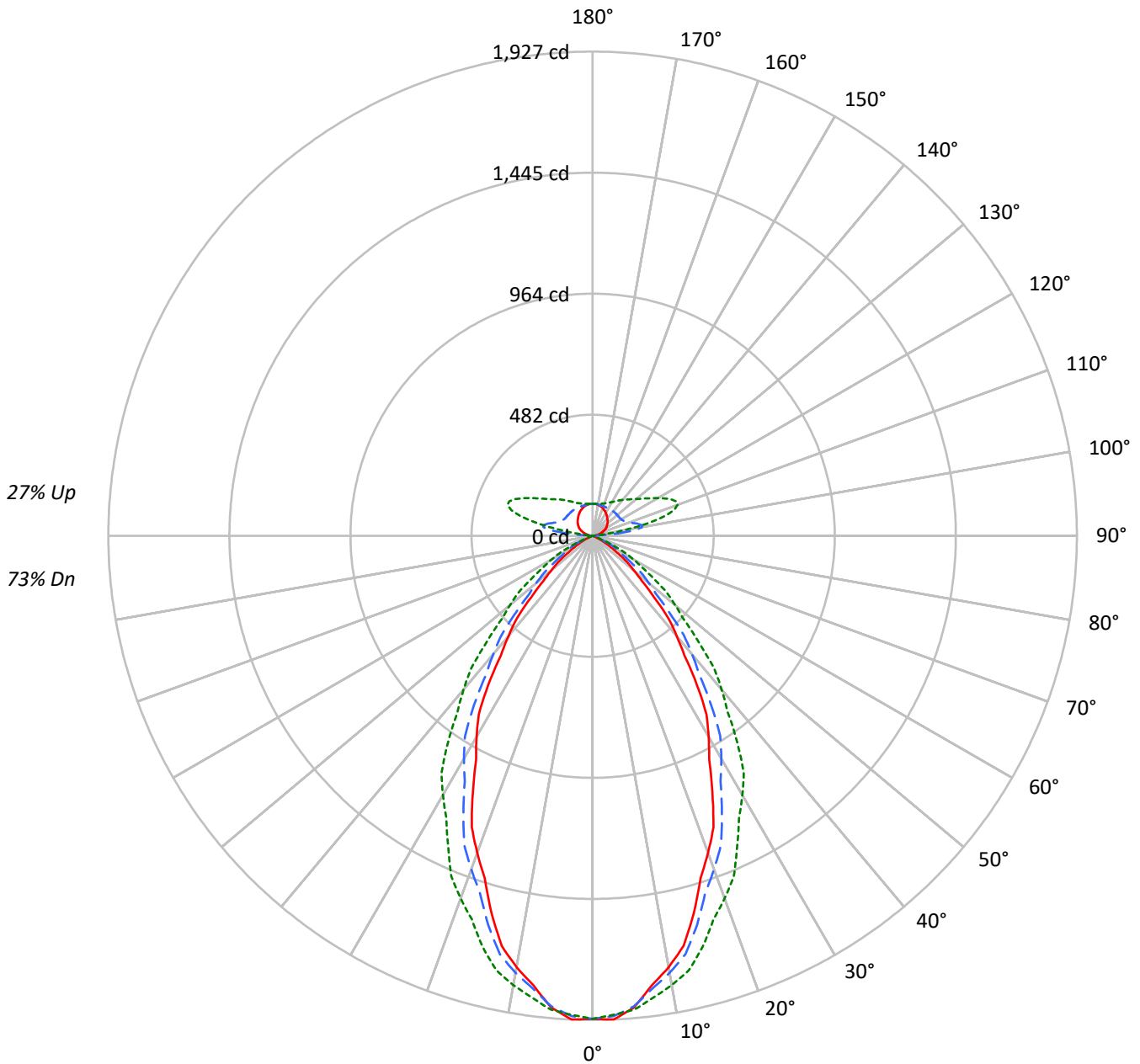
Lumens per Lamp: N/A
Luminaire Lumens: 3121.7 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.9
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P844816

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF | 20 | | | | 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 | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 107 | 96 | 96 | 96 | 87 | 87 | 87 | 78 | 78 | 78 | 73 | 73 | 73 | 73 |
| 1 | 106 | 102 | 99 | 96 | 100 | 97 | 95 | 92 | 88 | 87 | 85 | 80 | 79 | 77 | 73 | 72 | 71 | 67 | 67 | 67 | 67 |
| 2 | 98 | 92 | 87 | 83 | 94 | 88 | 84 | 80 | 81 | 77 | 75 | 74 | 71 | 69 | 67 | 65 | 64 | 61 | 61 | 61 | 61 |
| 3 | 92 | 84 | 78 | 73 | 87 | 80 | 75 | 71 | 74 | 70 | 66 | 68 | 65 | 62 | 62 | 60 | 58 | 55 | 55 | 55 | 55 |
| 4 | 85 | 76 | 70 | 64 | 81 | 73 | 67 | 63 | 68 | 63 | 59 | 62 | 59 | 56 | 58 | 55 | 52 | 50 | 50 | 50 | 50 |
| 5 | 80 | 70 | 63 | 57 | 76 | 67 | 61 | 56 | 62 | 57 | 53 | 58 | 53 | 50 | 53 | 50 | 47 | 45 | 45 | 45 | 45 |
| 6 | 74 | 64 | 57 | 52 | 71 | 62 | 55 | 50 | 57 | 52 | 48 | 53 | 49 | 46 | 50 | 46 | 43 | 41 | 41 | 41 | 41 |
| 7 | 70 | 59 | 52 | 47 | 67 | 57 | 50 | 46 | 53 | 48 | 44 | 50 | 45 | 42 | 46 | 43 | 40 | 38 | 38 | 38 | 38 |
| 8 | 65 | 54 | 47 | 43 | 63 | 53 | 46 | 42 | 49 | 44 | 40 | 46 | 42 | 38 | 43 | 39 | 37 | 35 | 35 | 35 | 35 |
| 9 | 62 | 50 | 44 | 39 | 59 | 49 | 43 | 38 | 46 | 41 | 37 | 43 | 39 | 35 | 40 | 37 | 34 | 32 | 32 | 32 | 32 |
| 10 | 58 | 47 | 40 | 36 | 56 | 46 | 39 | 35 | 43 | 38 | 34 | 40 | 36 | 33 | 38 | 34 | 31 | 30 | 30 | 30 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17738 | 17738 | 17738 |
| 5° | 17452 | 17411 | 17539 |
| 10° | 16329 | 16548 | 17010 |
| 15° | 14846 | 15317 | 16170 |
| 20° | 13179 | 13862 | 15076 |
| 25° | 11475 | 12384 | 13852 |
| 30° | 9831 | 10909 | 12694 |
| 35° | 8149 | 9262 | 11292 |
| 40° | 6262 | 7406 | 9622 |
| 45° | 4528 | 5607 | 7743 |
| 50° | 3083 | 4177 | 6142 |
| 55° | 2004 | 3021 | 4773 |
| 60° | 1151 | 2129 | 3451 |
| 65° | 303 | 1301 | 1749 |
| 70° | 154 | 402 | 502 |
| 75° | 68 | 32 | 0 |
| 80° | 48 | 0 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P844816

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 175.5 | 5.6 |
| 10°-20° | 448.7 | 14.4 |
| 20°-30° | 561.7 | 18.0 |
| 30°-40° | 518.8 | 16.6 |
| 40°-50° | 348.6 | 11.2 |
| 50°-60° | 180.1 | 5.8 |
| 60°-70° | 56.4 | 1.8 |
| 70°-80° | 3.6 | 0.1 |
| 80°-90° | 0.4 | 0.0 |
| 90°-100° | 50.8 | 1.6 |
| 100°-110° | 176.7 | 5.7 |
| 110°-120° | 171.2 | 5.5 |
| 120°-130° | 134.2 | 4.3 |
| 130°-140° | 106.3 | 3.4 |
| 140°-150° | 82.0 | 2.6 |
| 150°-160° | 58.8 | 1.9 |
| 160°-170° | 36.0 | 1.2 |
| 170°-180° | 12.2 | 0.4 |
| 0°-30° | 1185.9 | 38.0 |
| 0°-40° | 1704.7 | 54.6 |
| 0°-60° | 2233.4 | 71.5 |
| 0°-90° | 2293.7 | 73.5 |
| 90°-120° | 398.6 | 12.8 |
| 90°-150° | 721.1 | 23.1 |
| 90°-180° | 828.0 | 26.5 |
| 0°-180° | 3121.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1923 | 1923 | 1923 | 1923 | 1923 | |
| 5° | 1884 | 1865 | 1880 | 1886 | 1894 | 175 |
| 15° | 1554 | 1549 | 1604 | 1657 | 1693 | 433 |
| 25° | 1127 | 1136 | 1216 | 1300 | 1361 | 517 |
| 35° | 724 | 742 | 822 | 919 | 1003 | 448 |
| 45° | 347 | 368 | 430 | 513 | 593 | 273 |
| 55° | 125 | 146 | 188 | 241 | 297 | 116 |
| 65° | 14 | 27 | 60 | 72 | 80 | 24 |
| 75° | 2 | 2 | 1 | 0 | 0 | 3 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 2 | 3 | 3 | 2 | 1 | 1 |
| 95° | 9 | 30 | 86 | 22 | 13 | 9 |
| 105° | 30 | 42 | 186 | 313 | 291 | 31 |
| 115° | 51 | 62 | 138 | 291 | 344 | 51 |
| 125° | 70 | 86 | 128 | 217 | 259 | 62 |
| 135° | 84 | 94 | 128 | 181 | 205 | 65 |
| 145° | 98 | 105 | 127 | 156 | 170 | 61 |
| 155° | 111 | 115 | 125 | 139 | 144 | 51 |
| 165° | 122 | 123 | 126 | 131 | 132 | 34 |
| 175° | 128 | 128 | 127 | 128 | 128 | 12 |
| 180° | 128 | 128 | 128 | 128 | 128 | |



TEST NUMBER: P844816

CATALOG NUMBER: SQ4P-BB-025U-100D-B50-1D-UNV

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1922.6 | 1922.6 | 1922.6 | 1922.6 | 1922.6 |
| 2.5° | 1927.0 | 1908.9 | 1913.6 | 1913.6 | 1908.4 |
| 5° | 1884.4 | 1865.3 | 1879.9 | 1886.3 | 1893.8 |
| 7.5° | 1804.8 | 1789.9 | 1817.7 | 1838.4 | 1853.5 |
| 10° | 1743.0 | 1730.3 | 1766.3 | 1794.6 | 1815.6 |
| 12.5° | 1671.6 | 1661.7 | 1705.3 | 1744.2 | 1771.0 |
| 15° | 1554.3 | 1548.8 | 1603.6 | 1657.3 | 1692.9 |
| 17.5° | 1428.6 | 1428.3 | 1490.7 | 1557.6 | 1600.4 |
| 20° | 1342.3 | 1344.9 | 1411.9 | 1485.6 | 1535.5 |
| 22.5° | 1255.9 | 1262.2 | 1333.8 | 1410.7 | 1467.9 |
| 25° | 1127.2 | 1136.2 | 1216.5 | 1299.9 | 1360.7 |
| 27.5° | 1003.8 | 1017.1 | 1101.5 | 1187.8 | 1262.2 |
| 30° | 922.8 | 938.1 | 1024.0 | 1115.0 | 1191.5 |
| 32.5° | 842.9 | 861.5 | 945.1 | 1041.5 | 1119.2 |
| 35° | 723.5 | 741.9 | 822.3 | 919.0 | 1002.6 |
| 37.5° | 600.3 | 618.1 | 696.6 | 792.0 | 882.3 |
| 40° | 519.9 | 539.9 | 614.9 | 707.2 | 798.9 |
| 42.5° | 447.1 | 467.1 | 537.4 | 628.1 | 714.9 |
| 45° | 347.0 | 367.9 | 429.7 | 513.4 | 593.4 |
| 47.5° | 264.1 | 286.6 | 340.9 | 416.7 | 489.6 |
| 50° | 214.8 | 237.5 | 291.0 | 357.8 | 427.9 |
| 52.5° | 175.5 | 197.5 | 245.7 | 308.5 | 372.7 |
| 55° | 124.6 | 145.5 | 187.8 | 241.3 | 296.7 |
| 57.5° | 86.2 | 104.2 | 142.1 | 186.6 | 230.2 |
| 60° | 62.4 | 79.6 | 115.4 | 151.4 | 187.0 |
| 62.5° | 41.5 | 57.3 | 92.3 | 120.1 | 143.9 |
| 65° | 13.9 | 26.8 | 59.6 | 71.8 | 80.1 |
| 67.5° | 7.1 | 8.4 | 31.1 | 33.0 | 35.8 |
| 70° | 5.7 | 5.7 | 14.9 | 15.8 | 18.6 |
| 72.5° | 4.0 | 4.0 | 5.9 | 7.6 | 8.2 |
| 75° | 1.9 | 1.9 | 0.9 | 0.0 | 0.0 |
| 77.5° | 0.9 | 0.9 | 0.9 | 0.0 | 0.0 |
| 80° | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.2 | 0.2 | 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° | 1.9 | 2.9 | 2.9 | 1.9 | 1.0 |
| 92.5° | 4.8 | 14.3 | 13.3 | 5.7 | 4.8 |
| 95° | 8.6 | 29.5 | 85.7 | 21.9 | 13.3 |
| 97.5° | 13.3 | 33.3 | 171.4 | 78.1 | 41.9 |
| 100° | 18.1 | 35.2 | 199.9 | 187.5 | 120.9 |
| 102.5° | 23.8 | 38.1 | 199.0 | 263.7 | 217.1 |
| 105° | 29.5 | 41.9 | 185.6 | 313.3 | 291.4 |



TEST NUMBER: P844816

CATALOG NUMBER: SQ4P-BB-025U-100D-B50-1D-UNV

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 45.7 | 56.2 | 144.7 | 315.2 | 359.0 |
| 115° | 51.4 | 61.9 | 138.0 | 291.4 | 343.8 |
| 117.5° | 57.1 | 68.5 | 134.2 | 269.4 | 321.9 |
| 120° | 61.9 | 74.3 | 131.4 | 248.5 | 300.0 |
| 122.5° | 65.7 | 80.0 | 129.5 | 231.3 | 278.1 |
| 125° | 69.5 | 85.7 | 128.5 | 217.1 | 259.0 |
| 127.5° | 73.3 | 89.5 | 128.5 | 206.6 | 241.8 |
| 130° | 77.1 | 91.4 | 127.6 | 196.1 | 227.5 |
| 132.5° | 80.9 | 92.3 | 127.6 | 188.5 | 215.2 |
| 135° | 83.8 | 94.3 | 127.6 | 180.9 | 204.7 |
| 137.5° | 87.6 | 96.2 | 127.6 | 174.2 | 196.1 |
| 140° | 90.4 | 99.0 | 127.6 | 167.6 | 186.6 |
| 142.5° | 94.3 | 101.9 | 127.6 | 160.9 | 178.0 |
| 145° | 98.1 | 104.7 | 126.6 | 156.1 | 169.5 |
| 147.5° | 101.9 | 107.6 | 125.7 | 151.4 | 161.8 |
| 150° | 104.7 | 110.4 | 125.7 | 146.6 | 155.2 |
| 152.5° | 108.5 | 113.3 | 124.7 | 141.9 | 149.5 |
| 155° | 111.4 | 115.2 | 124.7 | 139.0 | 143.8 |
| 157.5° | 114.2 | 118.1 | 124.7 | 136.1 | 139.9 |
| 160° | 117.1 | 120.0 | 125.7 | 134.2 | 137.1 |
| 162.5° | 120.0 | 121.9 | 125.7 | 132.3 | 134.2 |
| 165° | 121.9 | 122.8 | 125.7 | 131.4 | 132.3 |
| 167.5° | 123.8 | 124.7 | 125.7 | 130.4 | 130.4 |
| 170° | 124.7 | 125.7 | 126.6 | 129.5 | 129.5 |
| 172.5° | 126.6 | 126.6 | 126.6 | 128.5 | 128.5 |
| 175° | 127.6 | 127.6 | 126.6 | 128.5 | 127.6 |
| 177.5° | 127.6 | 127.6 | 126.6 | 128.5 | 127.6 |
| 180° | 127.6 | 127.6 | 127.6 | 127.6 | 127.6 |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







| | | | | | |
|--------|------|------|-------|-------|-------|
| 107.5° | 35.2 | 46.6 | 168.5 | 335.2 | 339.0 |
| 110° | 40.0 | 51.4 | 155.2 | 332.4 | 360.0 |



(END OF REPORT)