Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: PORTFOLIO

Report Number: P857747

Luminaire Tested: **LD4C35D010 EU4359035 4LBMDDWLI**

Issue Date: 4/12/2024

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P857747 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2309-186-3) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 4/12/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | PORTFOLIO |
| Catalog Number: | LD4C35D010 EU4359035 4LBMDDWLI |
| Description: | 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND 4LBMDDW TRIM WITH LI FINISH |
| Light Source: | - |
| Ballast/Driver: | - |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 2163.0 lumens |
| Efficiency: | N/A |
| Efficacy: | 53.5 lumens/watt |
| Spacing Criteria (0/90/45): | 0.88 / 0.88 / 0.85 |
| Luminous Opening: | Circular (Dia: 0.33' x H: 0') |
| CIE Type: | Direct |
| | |
| Input Watts (W): | 40.4 |
| Input Voltage (V): | NR |
| 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: | 25 FT |

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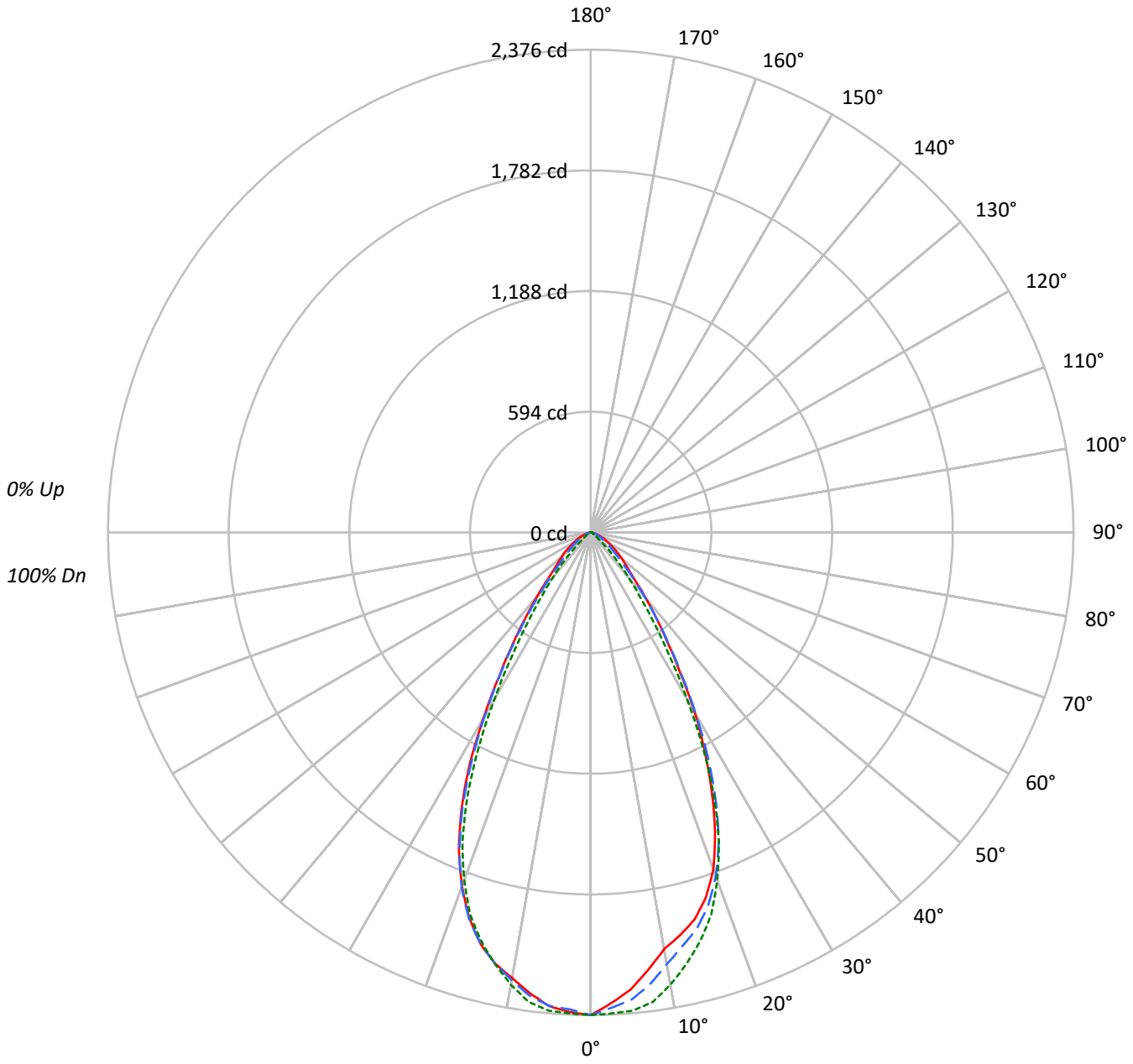
## Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

| RF | 20 | | | | 20 | | | | 20 | | | 20 | | | 20 | | | 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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 113 | 110 | 107 | 105 | 111 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 95 | 94 | 92 |
| 2 | 107 | 102 | 97 | 94 | 105 | 100 | 96 | 93 | 97 | 93 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 |
| 3 | 101 | 94 | 89 | 85 | 99 | 93 | 88 | 84 | 90 | 86 | 83 | 88 | 84 | 81 | 85 | 83 | 80 | 78 |
| 4 | 96 | 88 | 82 | 77 | 94 | 86 | 81 | 77 | 84 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 72 |
| 5 | 91 | 82 | 75 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 76 | 72 | 69 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 62 |
| 7 | 81 | 72 | 65 | 61 | 80 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 64 | 60 | 67 | 63 | 60 | 58 |
| 8 | 77 | 67 | 61 | 57 | 76 | 67 | 61 | 57 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 55 |
| 9 | 74 | 63 | 57 | 53 | 72 | 63 | 57 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 60 | 56 | 53 | 51 |
| 10 | 70 | 60 | 54 | 50 | 69 | 60 | 54 | 50 | 59 | 53 | 50 | 58 | 53 | 50 | 57 | 53 | 49 | 48 |

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

| | 0° | 90° | 180° |
|---|---|---|---|
| 0° | 291900 | 291900 | 291900 |
| 5° | 278537 | 291436 | 288723 |
| 10° | 259789 | 281982 | 277865 |
| 15° | 250864 | 264868 | 266724 |
| 20° | 230752 | 237956 | 242270 |
| 25° | 191253 | 194737 | 204185 |
| 30° | 145491 | 134567 | 149661 |
| 35° | 98505 | 80627 | 99614 |
| 40° | 67084 | 46204 | 65032 |
| 45° | 46545 | 23264 | 43991 |
| 50° | 37881 | 9461 | 35416 |
| 55° | 30650 | 5890 | 27909 |
| 60° | 24350 | 4496 | 22089 |
| 65° | 19215 | 3721 | 17064 |
| 70° | 14512 | 3305 | 13183 |
| 75° | 10443 | 2611 | 9588 |
| 80° | 7782 | 2618 | 6509 |
| 85° | 5215 | 2537 | 5215 |

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Scaled Data Report

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**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 218.5 | 10.1 |
| 10°-20° | 574.0 | 26.5 |
| 20°-30° | 658.6 | 30.4 |
| 30°-40° | 400.1 | 18.5 |
| 40°-50° | 171.5 | 7.9 |
| 50°-60° | 82.2 | 3.8 |
| 60°-70° | 40.0 | 1.8 |
| 70°-80° | 14.8 | 0.7 |
| 80°-90° | 3.4 | 0.2 |
| 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° | 1451.0 | 67.1 |
| 0°-40° | 1851.0 | 85.6 |
| 0°-60° | 2104.7 | 97.3 |
| 0°-90° | 2163.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2163.0 | 100.0 |

**CANDELA DISTRIBUTION:**

| | 0° | 45° | 90° | 135° | 180° | Flux |
|---|---|---|---|---|---|---|
| 0° | 2376 | 2376 | 2376 | 2376 | 2376 | |
| 5° | 2259 | 2308 | 2363 | 2339 | 2341 | 210 |
| 15° | 1972 | 2018 | 2082 | 2095 | 2097 | 549 |
| 25° | 1411 | 1457 | 1437 | 1492 | 1506 | 640 |
| 35° | 657 | 666 | 538 | 650 | 664 | 421 |
| 45° | 268 | 238 | 134 | 215 | 253 | 218 |
| 55° | 143 | 106 | 28 | 95 | 130 | 129 |
| 65° | 66 | 44 | 13 | 40 | 59 | 67 |
| 75° | 22 | 15 | 6 | 13 | 20 | 24 |
| 85° | 4 | 4 | 2 | 2 | 4 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|---|---|---|---|---|---|---|---|---|---|
| 0° | *2376.0* | *2376.0* | *2376.0* | *2376.0* | *2376.0* | *2376.0* | *2376.0* | *2376.0* | *2376.0* |
| 2.5° | *2319.1* | 2344.8 | 2343.0 | 2365.0 | 2370.5 | 2365.0 | 2350.3 | 2365.0 | 2363.2 |
| 5° | *2258.6* | 2288.0 | 2308.1 | 2344.8 | 2363.2 | 2359.5 | 2339.3 | 2343.0 | 2341.2 |
| 7.5° | *2170.5* | 2207.2 | 2242.1 | 2297.1 | 2332.0 | 2330.2 | 2300.8 | 2295.3 | 2288.0 |
| 10° | *2082.5* | 2117.3 | 2157.7 | 2214.6 | 2260.4 | 2267.8 | 2238.4 | 2231.1 | 2227.4 |
| 12.5° | *2031.1* | 2058.6 | 2086.1 | 2135.7 | 2176.0 | 2190.7 | 2174.2 | 2176.0 | 2174.2 |
| 15° | *1972.4* | 1999.9 | 2018.2 | 2054.9 | 2082.5 | 2102.6 | 2095.3 | 2106.3 | 2097.1 |
| 17.5° | *1884.3* | 1917.3 | 1924.7 | 1952.2 | 1972.4 | 1985.2 | 1992.6 | 2003.6 | 1988.9 |
| 20° | *1765.0* | 1790.7 | 1799.9 | 1810.9 | 1820.1 | 1836.6 | 1858.6 | 1869.6 | 1853.1 |
| 22.5° | *1598.1* | 1647.6 | 1645.8 | 1640.3 | 1649.5 | 1655.0 | 1689.8 | 1708.2 | 1695.3 |
| 25° | *1410.9* | 1462.3 | 1456.8 | 1434.8 | 1436.6 | 1447.6 | 1491.7 | 1515.5 | 1506.3 |
| 27.5° | *1214.6* | 1262.3 | 1249.5 | 1207.3 | 1196.3 | 1212.8 | 1269.7 | 1297.2 | 1291.7 |
| 30° | *1025.6* | 1056.8 | 1036.6 | 961.4 | 948.6 | 968.8 | 1042.1 | 1069.7 | 1055.0 |
| 32.5° | *822.0* | 845.8 | 836.7 | 744.9 | 722.9 | 743.1 | 829.3 | 855.0 | 838.5 |
| 35° | *656.8* | 678.9 | 666.0 | 557.8 | 537.6 | 559.6 | 649.5 | 678.9 | 664.2 |
| 37.5° | *526.6* | 543.1 | 526.6 | 411.0 | 392.6 | 414.7 | 500.9 | 539.4 | 521.1 |
| 40° | *418.3* | 431.2 | 409.2 | 302.7 | 288.1 | 299.1 | 379.8 | 418.3 | 405.5 |
| 42.5° | *330.3* | 339.4 | 315.6 | 222.0 | 205.5 | 220.2 | 286.2 | 321.1 | 313.7 |
| 45° | *267.9* | 267.9 | 238.5 | 154.1 | 133.9 | 148.6 | 214.7 | 251.4 | 253.2 |
| 47.5° | *229.3* | 223.8 | 187.1 | 102.7 | 77.1 | 97.2 | 170.6 | 209.2 | 214.7 |
| 50° | *198.2* | 190.8 | 154.1 | 75.2 | 49.5 | 69.7 | 141.3 | 179.8 | 185.3 |
| 52.5° | *170.6* | 165.1 | 128.4 | 58.7 | 34.9 | 53.2 | 119.3 | 156.0 | 161.5 |
| 55° | *143.1* | 139.4 | 106.4 | 45.9 | 27.5 | 40.4 | 95.4 | 126.6 | 130.3 |
| 57.5° | *117.4* | 111.9 | 86.2 | 38.5 | 22.0 | 33.0 | 78.9 | 104.6 | 108.3 |
| 60° | *99.1* | 93.6 | 69.7 | 31.2 | 18.3 | 25.7 | 64.2 | 86.2 | 89.9 |
| 62.5° | *82.6* | 77.1 | 56.9 | 25.7 | 14.7 | 22.0 | 51.4 | 69.7 | 73.4 |
| 65° | *66.1* | 62.4 | 44.0 | 20.2 | 12.8 | 16.5 | 40.4 | 55.0 | 58.7 |
| 67.5° | *53.2* | 49.5 | 34.9 | 16.5 | 11.0 | 12.8 | 31.2 | 44.0 | 47.7 |
| 70° | *40.4* | 36.7 | 25.7 | 12.8 | 9.2 | 11.0 | 23.9 | 33.0 | 36.7 |
| 72.5° | *29.4* | 27.5 | 20.2 | 11.0 | 7.3 | 9.2 | 16.5 | 23.9 | 27.5 |
| 75° | *22.0* | 20.2 | 14.7 | 7.3 | 5.5 | 7.3 | 12.8 | 18.3 | 20.2 |
| 77.5° | *14.7* | 14.7 | 11.0 | 5.5 | 5.5 | 5.5 | 9.2 | 12.8 | 12.8 |
| 80° | *11.0* | 9.2 | 7.3 | 3.7 | 3.7 | 3.7 | 5.5 | 9.2 | 9.2 |
| 82.5° | *7.3* | 5.5 | 5.5 | 3.7 | 3.7 | 3.7 | 3.7 | 5.5 | 5.5 |
| 85° | *3.7* | 3.7 | 3.7 | 1.8 | 1.8 | 1.8 | 1.8 | 3.7 | 3.7 |
| 87.5° | *1.8* | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| 90° | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Report Generated By 670246072 / DESKTOP-50001EG

0°-180° 45°-225° 90°-270°

(END OF REPORT)