

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: P857159

Luminaire Tested: **LD4C20D010 EU4209035 4LBMDSWWH**

Issue Date: 4/12/2024



Test Information

Test Method: LM-79-08
Report Number: P857159
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: LD4C20D010 EU4209035 4LBMDSWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBMDSW TRIM WITH WH FINISH
Light Source: -
Ballast/Driver: -

Summary

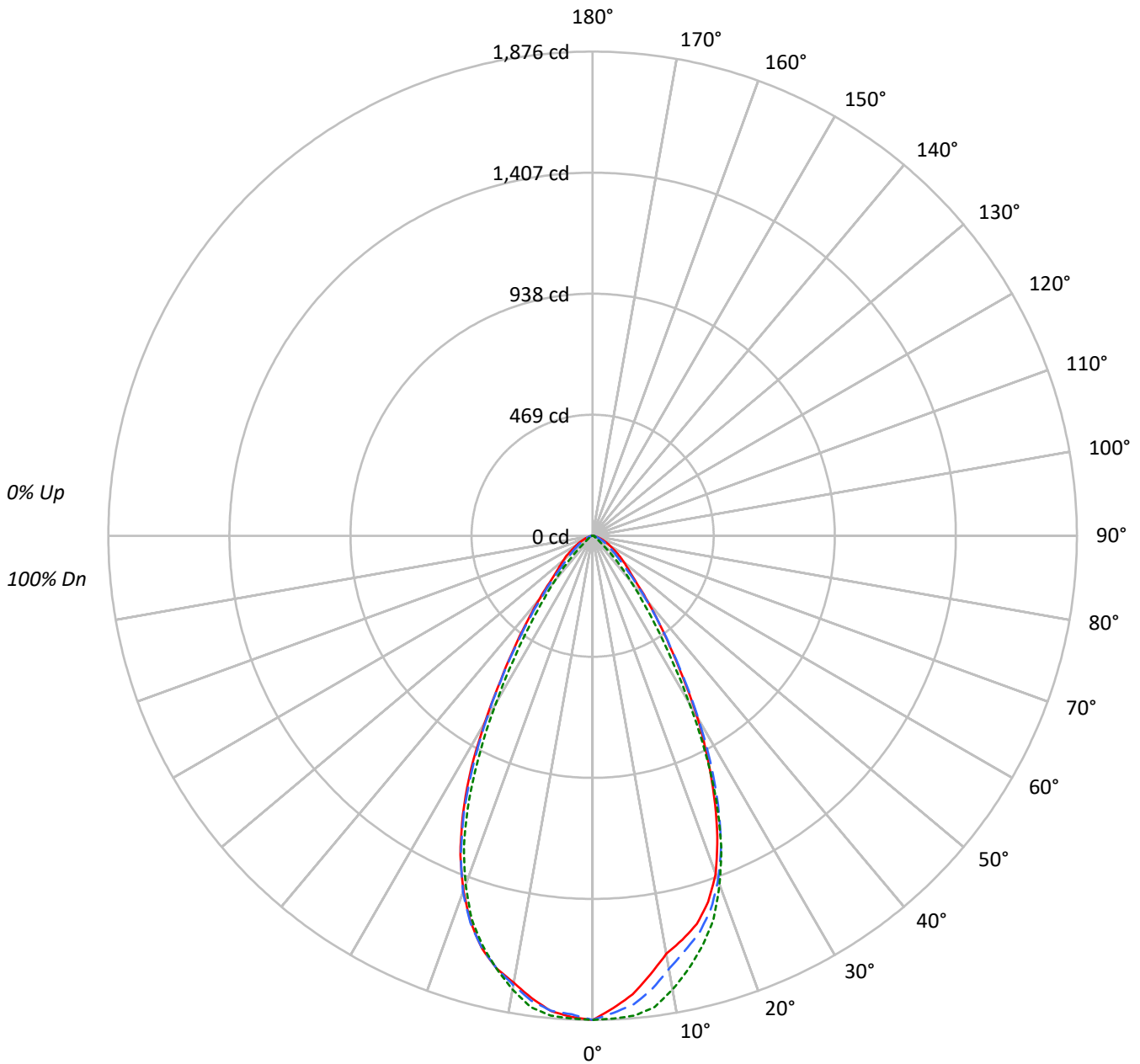
Lumens per Lamp: N/A
Luminaire Lumens: 1708.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
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





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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 230498 | 230498 | 230498 |
| 5° | 219946 | 230133 | 227987 |
| 10° | 205137 | 222664 | 219420 |
| 15° | 198094 | 209147 | 210622 |
| 20° | 182223 | 187897 | 191309 |
| 25° | 151021 | 153772 | 161241 |
| 30° | 114892 | 106252 | 118183 |
| 35° | 77793 | 63665 | 78663 |
| 40° | 52971 | 36485 | 51352 |
| 45° | 36746 | 18382 | 34731 |
| 50° | 29911 | 7473 | 27962 |
| 55° | 24203 | 4648 | 22040 |
| 60° | 19214 | 3563 | 17445 |
| 65° | 15174 | 2936 | 13488 |
| 70° | 11458 | 2586 | 10417 |
| 75° | 8259 | 2041 | 7547 |
| 80° | 6155 | 2052 | 5094 |
| 85° | 4088 | 1973 | 4088 |



TEST NUMBER: P857159

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 172.5 | 10.1 |
| 10°-20° | 453.2 | 26.5 |
| 20°-30° | 520.0 | 30.4 |
| 30°-40° | 315.9 | 18.5 |
| 40°-50° | 135.4 | 7.9 |
| 50°-60° | 64.9 | 3.8 |
| 60°-70° | 31.6 | 1.8 |
| 70°-80° | 11.7 | 0.7 |
| 80°-90° | 2.7 | 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° | 1145.8 | 67.1 |
| 0°-40° | 1461.7 | 85.6 |
| 0°-60° | 1662.0 | 97.3 |
| 0°-90° | 1708.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1708.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1876 | 1876 | 1876 | 1876 | 1876 | |
| 5° | 1784 | 1823 | 1866 | 1847 | 1849 | 166 |
| 15° | 1558 | 1594 | 1644 | 1654 | 1656 | 434 |
| 25° | 1114 | 1150 | 1134 | 1178 | 1190 | 505 |
| 35° | 519 | 526 | 424 | 513 | 524 | 332 |
| 45° | 212 | 188 | 106 | 170 | 200 | 172 |
| 55° | 113 | 84 | 22 | 75 | 103 | 102 |
| 65° | 52 | 35 | 10 | 32 | 46 | 53 |
| 75° | 17 | 12 | 4 | 10 | 16 | 19 |
| 85° | 3 | 3 | 1 | 1 | 3 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P857159

CATALOG NUMBER: LD4C20D010 EU4209035 4LBMDSWWH

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 |
| 2.5° | 1831.3 | 1851.6 | 1850.1 | 1867.5 | 1871.9 | 1867.5 | 1855.9 | 1867.5 | 1866.1 |
| 5° | 1783.5 | 1806.7 | 1822.6 | 1851.6 | 1866.1 | 1863.2 | 1847.2 | 1850.1 | 1848.7 |
| 7.5° | 1713.9 | 1742.9 | 1770.4 | 1813.9 | 1841.4 | 1840.0 | 1816.8 | 1812.5 | 1806.7 |
| 10° | 1644.4 | 1671.9 | 1703.8 | 1748.7 | 1784.9 | 1790.7 | 1767.6 | 1761.8 | 1758.9 |
| 12.5° | 1603.8 | 1625.6 | 1647.3 | 1686.4 | 1718.3 | 1729.9 | 1716.8 | 1718.3 | 1716.8 |
| 15° | 1557.5 | 1579.2 | 1593.7 | 1622.7 | 1644.4 | 1660.3 | 1654.5 | 1663.2 | 1656.0 |
| 17.5° | 1487.9 | 1514.0 | 1519.8 | 1541.5 | 1557.5 | 1567.6 | 1573.4 | 1582.1 | 1570.5 |
| 20° | 1393.8 | 1414.0 | 1421.3 | 1430.0 | 1437.2 | 1450.3 | 1467.6 | 1476.3 | 1463.3 |
| 22.5° | 1261.9 | 1301.0 | 1299.6 | 1295.2 | 1302.5 | 1306.8 | 1334.4 | 1348.8 | 1338.7 |
| 25° | 1114.1 | 1154.7 | 1150.4 | 1133.0 | 1134.4 | 1143.1 | 1177.9 | 1196.7 | 1189.5 |
| 27.5° | 959.1 | 996.8 | 986.6 | 953.3 | 944.6 | 957.7 | 1002.6 | 1024.3 | 1020.0 |
| 30° | 809.9 | 834.5 | 818.6 | 759.2 | 749.0 | 765.0 | 822.9 | 844.7 | 833.1 |
| 32.5° | 649.1 | 667.9 | 660.7 | 588.2 | 570.8 | 586.8 | 654.9 | 675.1 | 662.1 |
| 35° | 518.7 | 536.1 | 525.9 | 440.4 | 424.5 | 441.9 | 512.9 | 536.1 | 524.5 |
| 37.5° | 415.8 | 428.8 | 415.8 | 324.5 | 310.0 | 327.4 | 395.5 | 426.0 | 411.5 |
| 40° | 330.3 | 340.5 | 323.1 | 239.1 | 227.5 | 236.2 | 299.9 | 330.3 | 320.2 |
| 42.5° | 260.8 | 268.0 | 249.2 | 175.3 | 162.3 | 173.9 | 226.0 | 253.5 | 247.7 |
| 45° | 211.5 | 211.5 | 188.3 | 121.7 | 105.8 | 117.4 | 169.5 | 198.5 | 199.9 |
| 47.5° | 181.1 | 176.8 | 147.8 | 81.1 | 60.9 | 76.8 | 134.7 | 165.2 | 169.5 |
| 50° | 156.5 | 150.7 | 121.7 | 59.4 | 39.1 | 55.1 | 111.6 | 142.0 | 146.3 |
| 52.5° | 134.7 | 130.4 | 101.4 | 46.4 | 27.5 | 42.0 | 94.2 | 123.1 | 127.5 |
| 55° | 113.0 | 110.1 | 84.0 | 36.2 | 21.7 | 31.9 | 75.3 | 100.0 | 102.9 |
| 57.5° | 92.7 | 88.4 | 68.1 | 30.4 | 17.4 | 26.1 | 62.3 | 82.6 | 85.5 |
| 60° | 78.2 | 73.9 | 55.1 | 24.6 | 14.5 | 20.3 | 50.7 | 68.1 | 71.0 |
| 62.5° | 65.2 | 60.9 | 44.9 | 20.3 | 11.6 | 17.4 | 40.6 | 55.1 | 58.0 |
| 65° | 52.2 | 49.3 | 34.8 | 15.9 | 10.1 | 13.0 | 31.9 | 43.5 | 46.4 |
| 67.5° | 42.0 | 39.1 | 27.5 | 13.0 | 8.7 | 10.1 | 24.6 | 34.8 | 37.7 |
| 70° | 31.9 | 29.0 | 20.3 | 10.1 | 7.2 | 8.7 | 18.8 | 26.1 | 29.0 |
| 72.5° | 23.2 | 21.7 | 15.9 | 8.7 | 5.8 | 7.2 | 13.0 | 18.8 | 21.7 |
| 75° | 17.4 | 15.9 | 11.6 | 5.8 | 4.3 | 5.8 | 10.1 | 14.5 | 15.9 |
| 77.5° | 11.6 | 11.6 | 8.7 | 4.3 | 4.3 | 4.3 | 7.2 | 10.1 | 10.1 |
| 80° | 8.7 | 7.2 | 5.8 | 2.9 | 2.9 | 2.9 | 4.3 | 7.2 | 7.2 |
| 82.5° | 5.8 | 4.3 | 4.3 | 2.9 | 2.9 | 2.9 | 2.9 | 4.3 | 4.3 |
| 85° | 2.9 | 2.9 | 2.9 | 1.4 | 1.4 | 1.4 | 1.4 | 2.9 | 2.9 |
| 87.5° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 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)