

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: P858100

Luminaire Tested: **LD4C45D010 EU4459027 4LBMDSWLI**

Issue Date: 4/12/2024

Test Information

Test Method: LM-79-08
Report Number: P858100
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2309-186-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C45D010 EU4459027 4LBMDSWLI
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBMDSW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

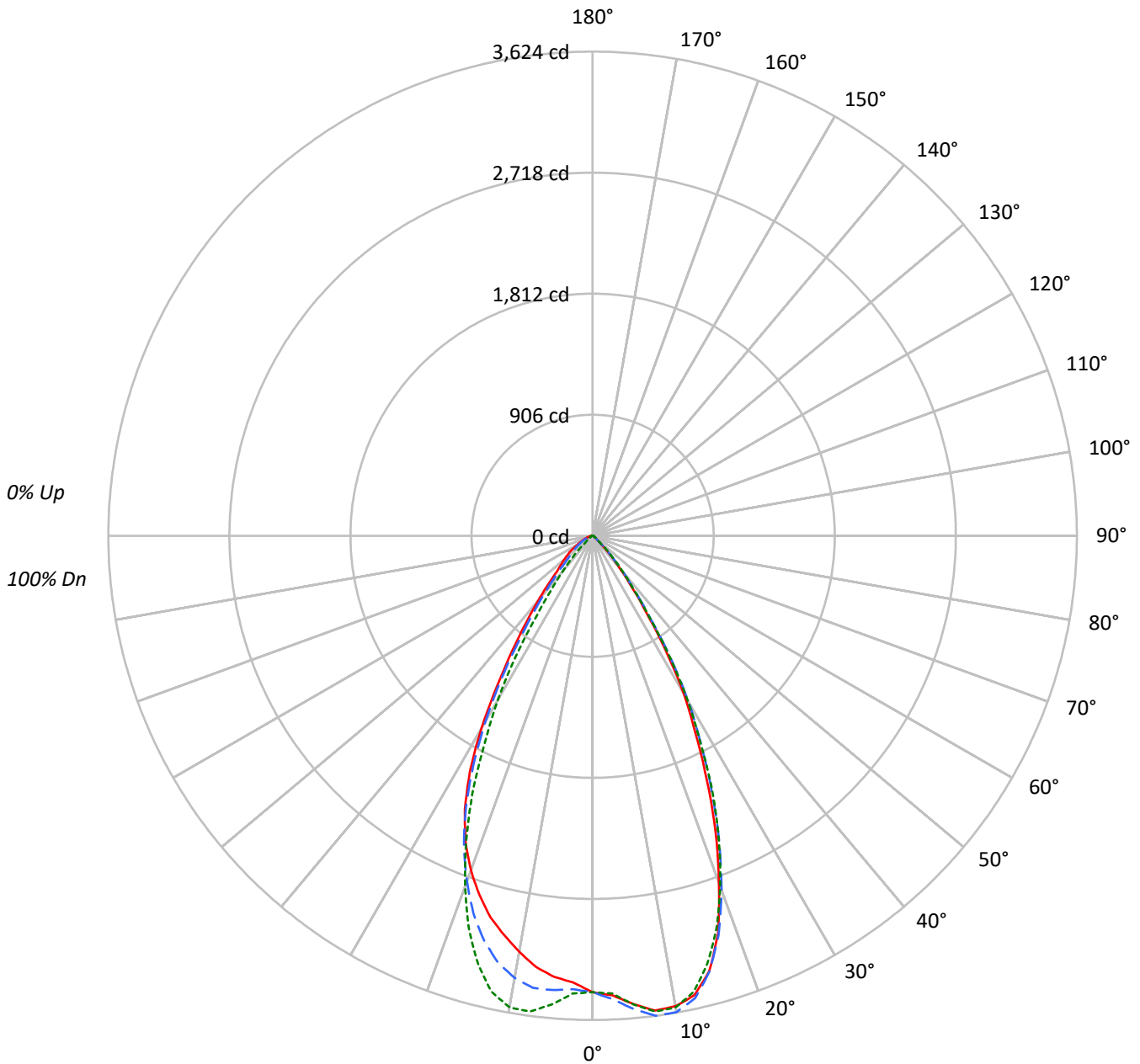
Lumens per Lamp: N/A
Luminaire Lumens: 3037.0 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.85
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | |
| 1 | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | | | | | | | | | | | | | | | |
| 2 | 108 | 103 | 99 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 87 | | | | | | | | | | | | | | | | | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 89 | 86 | 83 | 87 | 84 | 82 | 80 | | | | | | | | | | | | | | | | | | | |
| 4 | 97 | 89 | 84 | 80 | 95 | 88 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 77 | 73 | 81 | 76 | 73 | 79 | 75 | 72 | 78 | 74 | 71 | 70 | | | | | | | | | | | | | | | | | | | |
| 6 | 88 | 79 | 73 | 68 | 86 | 78 | 72 | 68 | 76 | 71 | 68 | 75 | 71 | 67 | 74 | 70 | 67 | 65 | | | | | | | | | | | | | | | | | | | |
| 7 | 83 | 74 | 68 | 64 | 82 | 73 | 68 | 64 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 61 | | | | | | | | | | | | | | | | | | | |
| 8 | 79 | 70 | 64 | 60 | 78 | 69 | 64 | 60 | 68 | 63 | 59 | 67 | 63 | 59 | 66 | 62 | 59 | 58 | | | | | | | | | | | | | | | | | | | |
| 9 | 76 | 66 | 60 | 56 | 75 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 54 | | | | | | | | | | | | | | | | | | | |
| 10 | 72 | 63 | 57 | 53 | 71 | 62 | 57 | 53 | 61 | 56 | 53 | 61 | 56 | 53 | 60 | 56 | 52 | 51 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 419655 | 419655 | 419655 |
| 5° | 433948 | 434244 | 408581 |
| 10° | 445964 | 447137 | 394343 |
| 15° | 429117 | 421677 | 375877 |
| 20° | 361307 | 364667 | 348168 |
| 25° | 274469 | 288418 | 306474 |
| 30° | 193042 | 201000 | 235826 |
| 35° | 104144 | 109048 | 156035 |
| 40° | 50245 | 55489 | 101244 |
| 45° | 17878 | 24376 | 65813 |
| 50° | 6709 | 8486 | 52732 |
| 55° | 5012 | 6019 | 43566 |
| 60° | 4030 | 4595 | 31598 |
| 65° | 3401 | 4070 | 24477 |
| 70° | 2514 | 3376 | 19325 |
| 75° | 2231 | 3323 | 14430 |
| 80° | 1627 | 3325 | 9905 |
| 85° | 0 | 3242 | 6625 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 332.6 | 11.0 |
| 10°-20° | 897.2 | 29.5 |
| 20°-30° | 973.3 | 32.0 |
| 30°-40° | 540.0 | 17.8 |
| 40°-50° | 172.0 | 5.7 |
| 50°-60° | 69.3 | 2.3 |
| 60°-70° | 35.1 | 1.2 |
| 70°-80° | 14.5 | 0.5 |
| 80°-90° | 3.0 | 0.1 |
| 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° | 2203.1 | 72.5 |
| 0°-40° | 2743.1 | 90.3 |
| 0°-60° | 2984.5 | 98.3 |
| 0°-90° | 3037.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3037.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 3416 | 3416 | 3416 | 3416 | 3416 | |
| 5° | 3519 | 3556 | 3521 | 3414 | 3313 | 338 |
| 15° | 3374 | 3376 | 3315 | 3138 | 2955 | 923 |
| 25° | 2025 | 2109 | 2128 | 2242 | 2261 | 925 |
| 35° | 694 | 750 | 727 | 961 | 1040 | 461 |
| 45° | 103 | 122 | 140 | 313 | 379 | 99 |
| 55° | 23 | 23 | 28 | 150 | 203 | 21 |
| 65° | 12 | 12 | 14 | 68 | 84 | 12 |
| 75° | 5 | 5 | 7 | 23 | 30 | 6 |
| 85° | 0 | 0 | 2 | 5 | 5 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P858100

CATALOG NUMBER: LD4C45D010 EU4459027 4LBMSWLI

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3415.9 | 3415.9 | 3415.9 | 3415.9 | 3415.9 | 3415.9 | 3415.9 | 3415.9 | 3415.9 |
| 2.5° | 3444.0 | 3474.4 | 3472.1 | 3448.7 | 3430.0 | 3423.0 | 3397.2 | 3366.8 | 3345.8 |
| 5° | 3518.8 | 3556.2 | 3556.2 | 3537.5 | 3521.2 | 3481.4 | 3413.6 | 3348.1 | 3313.1 |
| 7.5° | 3584.3 | 3621.7 | 3624.0 | 3610.0 | 3591.3 | 3525.8 | 3413.6 | 3308.4 | 3254.6 |
| 10° | 3574.9 | 3603.0 | 3619.4 | 3605.3 | 3584.3 | 3497.8 | 3359.8 | 3219.5 | 3161.1 |
| 12.5° | 3521.2 | 3546.9 | 3544.5 | 3523.5 | 3495.4 | 3406.6 | 3271.0 | 3126.0 | 3060.6 |
| 15° | 3373.9 | 3387.9 | 3376.2 | 3352.8 | 3315.4 | 3247.6 | 3137.7 | 3013.8 | 2955.3 |
| 17.5° | 3119.0 | 3137.7 | 3133.0 | 3095.6 | 3081.6 | 3016.1 | 2964.7 | 2868.8 | 2817.4 |
| 20° | 2763.6 | 2822.1 | 2822.1 | 2794.0 | 2789.3 | 2744.9 | 2751.9 | 2700.5 | 2663.1 |
| 22.5° | 2405.9 | 2457.3 | 2473.7 | 2462.0 | 2471.4 | 2450.3 | 2515.8 | 2501.8 | 2483.0 |
| 25° | 2024.8 | 2076.2 | 2109.0 | 2104.3 | 2127.7 | 2127.7 | 2242.2 | 2270.3 | 2260.9 |
| 27.5° | 1667.1 | 1716.2 | 1753.6 | 1762.9 | 1748.9 | 1774.6 | 1931.3 | 1987.4 | 1987.4 |
| 30° | 1360.8 | 1400.5 | 1435.6 | 1435.6 | 1416.9 | 1435.6 | 1601.6 | 1667.1 | 1662.4 |
| 32.5° | 1014.7 | 1059.2 | 1091.9 | 1087.2 | 1070.8 | 1096.6 | 1271.9 | 1337.4 | 1321.0 |
| 35° | 694.4 | 724.8 | 750.5 | 741.2 | 727.1 | 769.2 | 961.0 | 1042.8 | 1040.4 |
| 37.5° | 470.0 | 498.0 | 514.4 | 507.4 | 502.7 | 551.8 | 727.1 | 818.3 | 813.7 |
| 40° | 313.3 | 332.0 | 343.7 | 341.4 | 346.0 | 388.1 | 547.1 | 631.3 | 631.3 |
| 42.5° | 198.7 | 210.4 | 222.1 | 222.1 | 233.8 | 278.2 | 416.2 | 488.7 | 488.7 |
| 45° | 102.9 | 109.9 | 121.6 | 128.6 | 140.3 | 187.0 | 313.3 | 374.1 | 378.8 |
| 47.5° | 49.1 | 51.4 | 56.1 | 58.5 | 67.8 | 116.9 | 240.8 | 306.3 | 320.3 |
| 50° | 35.1 | 37.4 | 37.4 | 37.4 | 44.4 | 88.8 | 203.4 | 264.2 | 275.9 |
| 52.5° | 28.1 | 28.1 | 28.1 | 30.4 | 35.1 | 74.8 | 175.4 | 229.1 | 238.5 |
| 55° | 23.4 | 23.4 | 23.4 | 23.4 | 28.1 | 60.8 | 149.6 | 196.4 | 203.4 |
| 57.5° | 18.7 | 18.7 | 18.7 | 18.7 | 23.4 | 49.1 | 123.9 | 156.7 | 159.0 |
| 60° | 16.4 | 16.4 | 16.4 | 16.4 | 18.7 | 42.1 | 100.5 | 128.6 | 128.6 |
| 62.5° | 14.0 | 14.0 | 14.0 | 14.0 | 16.4 | 35.1 | 84.2 | 105.2 | 102.9 |
| 65° | 11.7 | 11.7 | 11.7 | 11.7 | 14.0 | 28.1 | 67.8 | 84.2 | 84.2 |
| 67.5° | 9.4 | 9.4 | 9.4 | 9.4 | 11.7 | 23.4 | 53.8 | 67.8 | 67.8 |
| 70° | 7.0 | 7.0 | 7.0 | 7.0 | 9.4 | 18.7 | 44.4 | 53.8 | 53.8 |
| 72.5° | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 14.0 | 32.7 | 42.1 | 39.7 |
| 75° | 4.7 | 4.7 | 4.7 | 4.7 | 7.0 | 11.7 | 23.4 | 30.4 | 30.4 |
| 77.5° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 9.4 | 18.7 | 21.0 | 21.0 |
| 80° | 2.3 | 2.3 | 2.3 | 2.3 | 4.7 | 7.0 | 11.7 | 14.0 | 14.0 |
| 82.5° | 0.0 | 2.3 | 0.0 | 2.3 | 2.3 | 4.7 | 9.4 | 9.4 | 9.4 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 2.3 | 4.7 | 7.0 | 4.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 2.3 | 2.3 | 2.3 |
| 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)