

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: P858181

Luminaire Tested: **LD4C45D010 EU4459050 4LBMDSWGPH**

Issue Date: 4/12/2024

Test Information

Test Method: LM-79-08
Report Number: P858181
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: LD4C45D010 EU4459050 4LBMDSWGPH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBMDSW TRIM WITH GPH FINISH
Light Source: -
Ballast/Driver: -

Summary

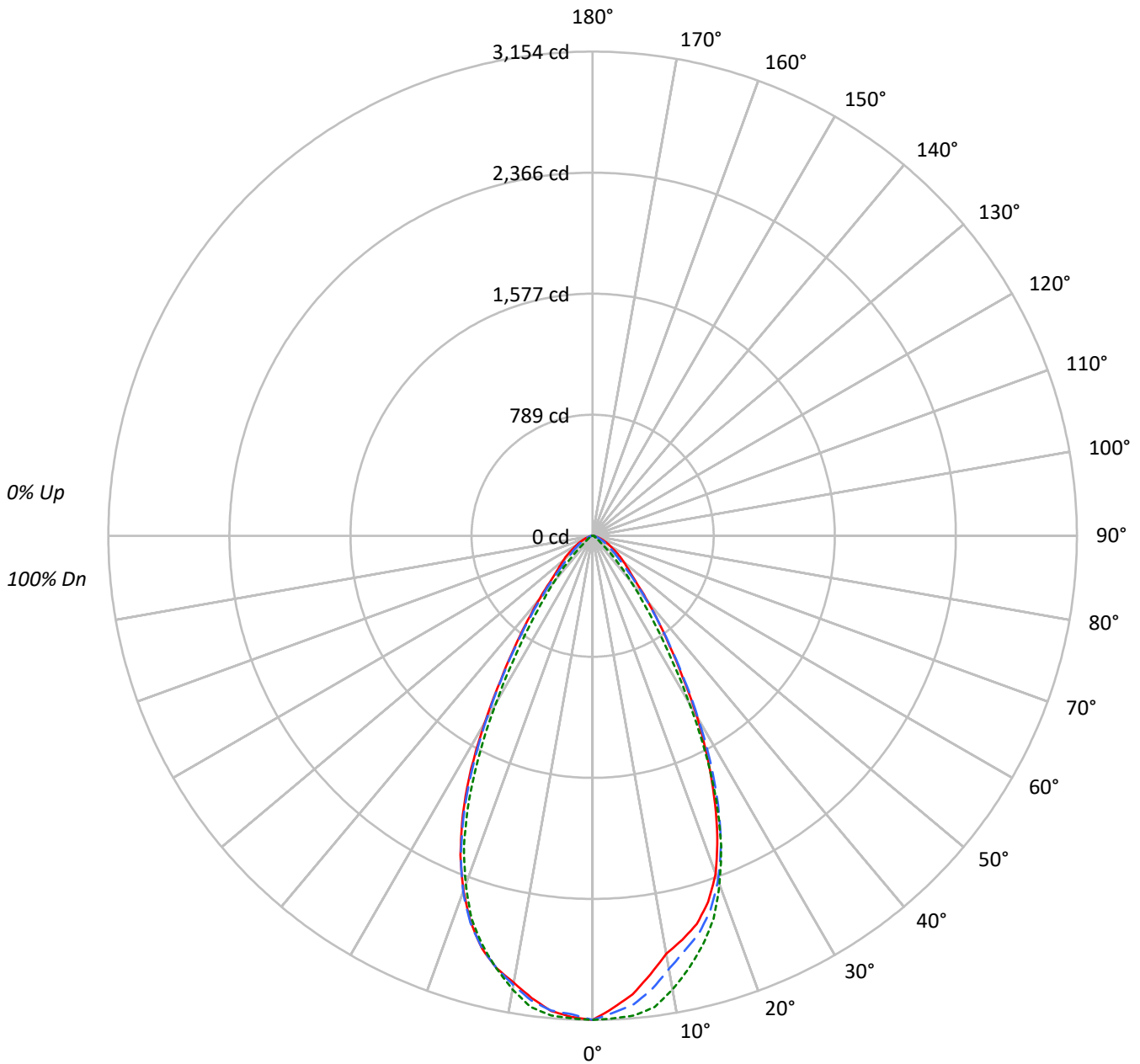
Lumens per Lamp: N/A
Luminaire Lumens: 2871.0 lumens
Efficiency: N/A
Efficacy: 57.9 lumens/watt
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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 | | | | | 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 | | | | | | | | |
| 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° | 387455 | 387455 | 387455 |
| 5° | 369709 | 386826 | 383225 |
| 10° | 344818 | 374283 | 368819 |
| 15° | 332976 | 351558 | 354039 |
| 20° | 306293 | 315837 | 321576 |
| 25° | 253865 | 258488 | 271026 |
| 30° | 193113 | 178615 | 198645 |
| 35° | 130749 | 107023 | 132219 |
| 40° | 89056 | 61311 | 86313 |
| 45° | 61782 | 30891 | 58394 |
| 50° | 50266 | 12576 | 47017 |
| 55° | 40696 | 7818 | 37033 |
| 60° | 32310 | 5995 | 29313 |
| 65° | 25494 | 4942 | 22645 |
| 70° | 19253 | 4382 | 17493 |
| 75° | 13860 | 3465 | 12721 |
| 80° | 10329 | 3467 | 8631 |
| 85° | 6907 | 3383 | 6907 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 290.0 | 10.1 |
| 10°-20° | 761.9 | 26.5 |
| 20°-30° | 874.1 | 30.4 |
| 30°-40° | 531.0 | 18.5 |
| 40°-50° | 227.6 | 7.9 |
| 50°-60° | 109.2 | 3.8 |
| 60°-70° | 53.1 | 1.8 |
| 70°-80° | 19.7 | 0.7 |
| 80°-90° | 4.5 | 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° | 1925.9 | 67.1 |
| 0°-40° | 2456.9 | 85.6 |
| 0°-60° | 2793.7 | 97.3 |
| 0°-90° | 2871.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2871.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 3154 | 3154 | 3154 | 3154 | 3154 | |
| 5° | 2998 | 3064 | 3137 | 3105 | 3108 | 279 |
| 15° | 2618 | 2679 | 2764 | 2781 | 2784 | 729 |
| 25° | 1873 | 1934 | 1907 | 1980 | 1999 | 850 |
| 35° | 872 | 884 | 714 | 862 | 882 | 559 |
| 45° | 356 | 317 | 178 | 285 | 336 | 289 |
| 55° | 190 | 141 | 36 | 127 | 173 | 171 |
| 65° | 88 | 58 | 17 | 54 | 78 | 89 |
| 75° | 29 | 20 | 7 | 17 | 27 | 32 |
| 85° | 5 | 5 | 2 | 2 | 5 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P858181

CATALOG NUMBER: LD4C45D010 EU4459050 4LBMDSWGPB

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3153.8 | 3153.8 | 3153.8 | 3153.8 | 3153.8 | 3153.8 | 3153.8 | 3153.8 | 3153.8 |
| 2.5° | 3078.3 | 3112.4 | 3109.9 | 3139.1 | 3146.4 | 3139.1 | 3119.7 | 3139.1 | 3136.7 |
| 5° | 2997.9 | 3036.9 | 3063.6 | 3112.4 | 3136.7 | 3131.8 | 3105.0 | 3109.9 | 3107.5 |
| 7.5° | 2881.0 | 2929.7 | 2976.0 | 3049.0 | 3095.3 | 3092.9 | 3053.9 | 3046.6 | 3036.9 |
| 10° | 2764.1 | 2810.4 | 2863.9 | 2939.4 | 3000.3 | 3010.1 | 2971.1 | 2961.4 | 2956.5 |
| 12.5° | 2695.9 | 2732.4 | 2769.0 | 2834.7 | 2888.3 | 2907.8 | 2885.9 | 2888.3 | 2885.9 |
| 15° | 2618.0 | 2654.5 | 2678.9 | 2727.6 | 2764.1 | 2790.9 | 2781.1 | 2795.8 | 2783.6 |
| 17.5° | 2501.1 | 2544.9 | 2554.7 | 2591.2 | 2618.0 | 2635.0 | 2644.8 | 2659.4 | 2639.9 |
| 20° | 2342.8 | 2376.9 | 2389.1 | 2403.7 | 2415.8 | 2437.8 | 2467.0 | 2481.6 | 2459.7 |
| 22.5° | 2121.2 | 2186.9 | 2184.5 | 2177.2 | 2189.4 | 2196.7 | 2242.9 | 2267.3 | 2250.2 |
| 25° | 1872.8 | 1941.0 | 1933.7 | 1904.4 | 1906.9 | 1921.5 | 1979.9 | 2011.6 | 1999.4 |
| 27.5° | 1612.2 | 1675.5 | 1658.5 | 1602.4 | 1587.8 | 1609.8 | 1685.2 | 1721.8 | 1714.5 |
| 30° | 1361.3 | 1402.7 | 1376.0 | 1276.1 | 1259.1 | 1285.9 | 1383.3 | 1419.8 | 1400.3 |
| 32.5° | 1091.0 | 1122.7 | 1110.5 | 988.7 | 959.5 | 986.3 | 1100.8 | 1134.9 | 1112.9 |
| 35° | 871.8 | 901.1 | 884.0 | 740.3 | 713.6 | 742.8 | 862.1 | 901.1 | 881.6 |
| 37.5° | 698.9 | 720.9 | 698.9 | 545.5 | 521.2 | 550.4 | 664.8 | 716.0 | 691.6 |
| 40° | 555.3 | 572.3 | 543.1 | 401.8 | 382.3 | 397.0 | 504.1 | 555.3 | 538.2 |
| 42.5° | 438.4 | 450.5 | 418.9 | 294.7 | 272.8 | 292.2 | 379.9 | 426.2 | 416.4 |
| 45° | 355.6 | 355.6 | 316.6 | 204.6 | 177.8 | 197.3 | 284.9 | 333.6 | 336.1 |
| 47.5° | 304.4 | 297.1 | 248.4 | 136.4 | 102.3 | 129.1 | 226.5 | 277.6 | 284.9 |
| 50° | 263.0 | 253.3 | 204.6 | 99.8 | 65.8 | 92.5 | 187.5 | 238.7 | 246.0 |
| 52.5° | 226.5 | 219.2 | 170.5 | 77.9 | 46.3 | 70.6 | 158.3 | 207.0 | 214.3 |
| 55° | 190.0 | 185.1 | 141.2 | 60.9 | 36.5 | 53.6 | 126.6 | 168.0 | 172.9 |
| 57.5° | 155.9 | 148.6 | 114.5 | 51.1 | 29.2 | 43.8 | 104.7 | 138.8 | 143.7 |
| 60° | 131.5 | 124.2 | 92.5 | 41.4 | 24.4 | 34.1 | 85.2 | 114.5 | 119.3 |
| 62.5° | 109.6 | 102.3 | 75.5 | 34.1 | 19.5 | 29.2 | 68.2 | 92.5 | 97.4 |
| 65° | 87.7 | 82.8 | 58.4 | 26.8 | 17.0 | 21.9 | 53.6 | 73.1 | 77.9 |
| 67.5° | 70.6 | 65.8 | 46.3 | 21.9 | 14.6 | 17.0 | 41.4 | 58.4 | 63.3 |
| 70° | 53.6 | 48.7 | 34.1 | 17.0 | 12.2 | 14.6 | 31.7 | 43.8 | 48.7 |
| 72.5° | 39.0 | 36.5 | 26.8 | 14.6 | 9.7 | 12.2 | 21.9 | 31.7 | 36.5 |
| 75° | 29.2 | 26.8 | 19.5 | 9.7 | 7.3 | 9.7 | 17.0 | 24.4 | 26.8 |
| 77.5° | 19.5 | 19.5 | 14.6 | 7.3 | 7.3 | 7.3 | 12.2 | 17.0 | 17.0 |
| 80° | 14.6 | 12.2 | 9.7 | 4.9 | 4.9 | 4.9 | 7.3 | 12.2 | 12.2 |
| 82.5° | 9.7 | 7.3 | 7.3 | 4.9 | 4.9 | 4.9 | 4.9 | 7.3 | 7.3 |
| 85° | 4.9 | 4.9 | 4.9 | 2.4 | 2.4 | 2.4 | 2.4 | 4.9 | 4.9 |
| 87.5° | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| 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)