

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: PORTFOLIO

Report Number: P784636

Luminaire Tested: LER4DD40BD010-EC4DR3040509024-4LBDP1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P784636  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4DD40BD010-EC4DR3040509024-4LBDP1B  
Description: 4 INCH ROUND DEEP 45° CUTOFF SPECULAR BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2534.3 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.49  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.2  
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: 24 FT

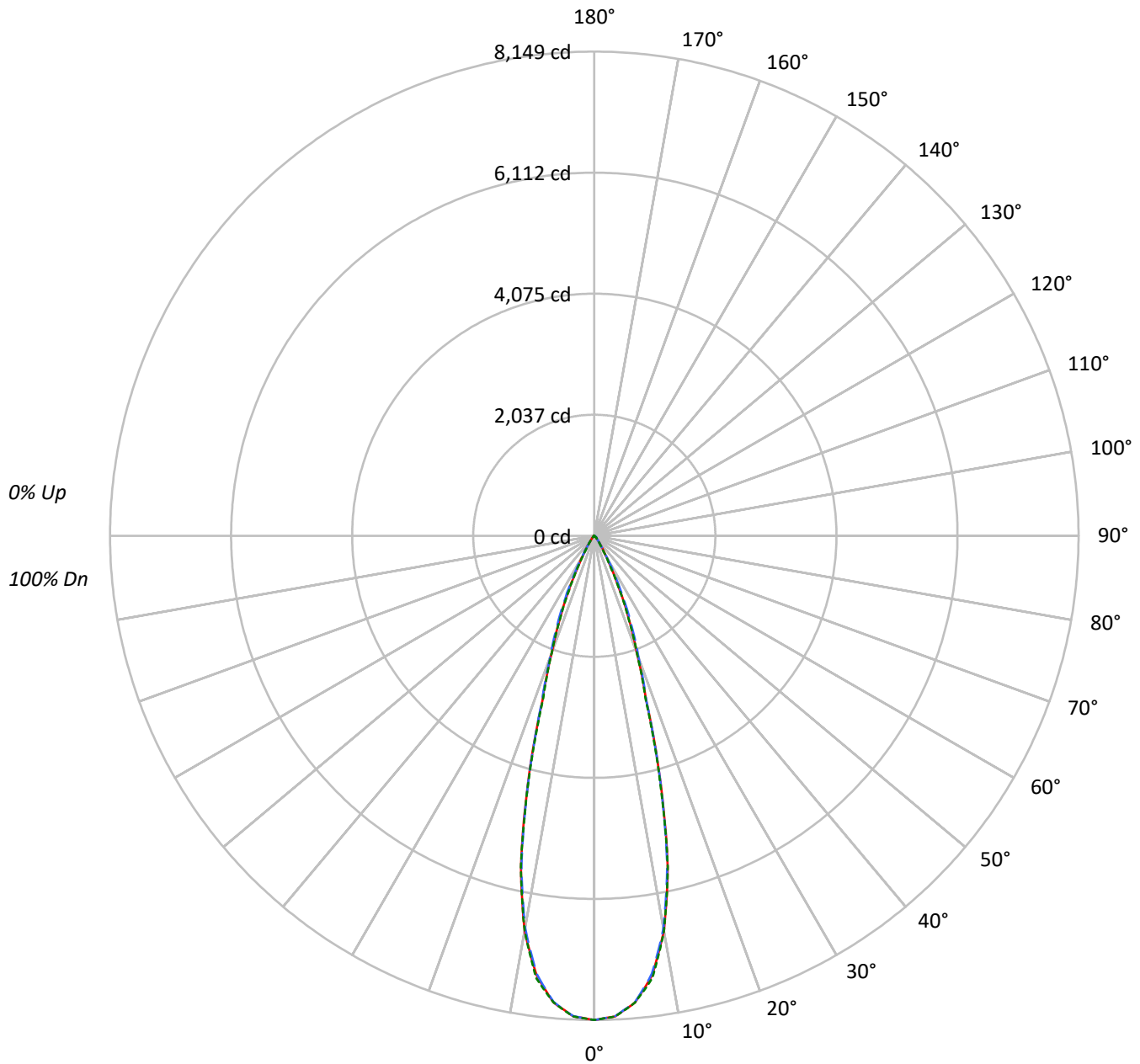


Downlight

TEST NUMBER: P784636

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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 |  | 103 | 102 | 101 |  | 99  |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  |  | 99  | 97  | 96  |  | 97  |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  |  | 96  | 93  | 91  |  | 94  |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  |  | 93  | 90  | 88  |  | 91  |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  |  | 90  | 86  | 84  |  | 88  |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  |  | 87  | 83  | 81  |  | 85  |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  |  | 84  | 81  | 78  |  | 83  |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  |  | 81  | 78  | 75  |  | 80  |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  |  | 79  | 75  | 73  |  | 78  |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  |  | 76  | 73  | 71  |  | 76  |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 623767 | 623767 | 623767 |
| 5°  | 605858 | 605151 | 605889 |
| 10° | 524770 | 521063 | 524646 |
| 15° | 342388 | 340549 | 338830 |
| 20° | 170251 | 176637 | 170023 |
| 25° | 85757  | 96711  | 84000  |
| 30° | 34337  | 37413  | 29918  |
| 35° | 15923  | 15250  | 12783  |
| 40° | 6875   | 7634   | 6475   |
| 45° | 4850   | 6019   | 4893   |
| 50° | 1667   | 4382   | 1762   |
| 55° | 961    | 1815   | 1014   |
| 60° | 674    | 796    | 674    |
| 65° | 435    | 435    | 435    |
| 70° | 269    | 179    | 269    |
| 75° | 0      | 118    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 6019 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 716.6  | 28.3      |
| 10°-20°   | 1154.1 | 45.5      |
| 20°-30°   | 498.7  | 19.7      |
| 30°-40°   | 113.7  | 4.5       |
| 40°-50°   | 39.0   | 1.5       |
| 50°-60°   | 9.5    | 0.4       |
| 60°-70°   | 2.5    | 0.1       |
| 70°-80°   | 0.3    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 2369.4 | 93.5      |
| 0°-40°    | 2483.1 | 98.0      |
| 0°-60°    | 2531.6 | 99.9      |
| 0°-90°    | 2534.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2534.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 8149 | 8149  | 8149 | 8149  | 8149 |      |
| 5°  | 7885 | 7878  | 7876 | 7892  | 7886 | 717  |
| 15° | 4321 | 4269  | 4298 | 4283  | 4276 | 1157 |
| 25° | 1015 | 1054  | 1145 | 1027  | 995  | 486  |
| 35° | 170  | 174   | 163  | 162   | 137  | 116  |
| 45° | 45   | 56    | 56   | 56    | 45   | 32   |
| 55° | 7    | 8     | 14   | 8     | 8    | 7    |
| 65° | 2    | 2     | 2    | 2     | 2    | 2    |
| 75° | 0    | 0     | 0    | 0     | 0    | 0    |
| 85° | 0    | 0     | 0    | 0     | 0    | 0    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 8149.2 | 8149.2 | 8149.2 | 8149.2 | 8149.2 |
| 2.5°  | 8095.2 | 8089.6 | 8092.8 | 8096.8 | 8098.4 |
| 5°    | 7885.1 | 7877.5 | 7875.9 | 7892.3 | 7885.5 |
| 7.5°  | 7461.4 | 7450.6 | 7434.2 | 7471.4 | 7506.2 |
| 10°   | 6751.7 | 6739.7 | 6704.0 | 6721.6 | 6750.1 |
| 12.5° | 5703.8 | 5665.0 | 5664.2 | 5720.2 | 5712.6 |
| 15°   | 4320.7 | 4268.6 | 4297.5 | 4283.4 | 4275.8 |
| 17.5° | 2905.5 | 2885.5 | 2923.9 | 2912.3 | 2862.3 |
| 20°   | 2090.1 | 2095.3 | 2168.5 | 2131.7 | 2087.3 |
| 22.5° | 1525.2 | 1544.0 | 1630.8 | 1536.0 | 1501.2 |
| 25°   | 1015.4 | 1053.9 | 1145.1 | 1027.1 | 994.6  |
| 27.5° | 624.6  | 642.2  | 734.6  | 616.6  | 598.9  |
| 30°   | 388.5  | 379.7  | 423.3  | 363.3  | 338.5  |
| 32.5° | 254.9  | 243.7  | 257.7  | 231.3  | 211.3  |
| 35°   | 170.4  | 174.0  | 163.2  | 162.0  | 136.8  |
| 37.5° | 106.4  | 122.4  | 108.0  | 115.2  | 88.0   |
| 40°   | 68.8   | 88.8   | 76.4   | 84.4   | 64.8   |
| 42.5° | 56.4   | 68.4   | 62.8   | 66.8   | 57.6   |
| 45°   | 44.8   | 55.6   | 55.6   | 55.6   | 45.2   |
| 47.5° | 24.8   | 37.2   | 47.6   | 38.0   | 26.4   |
| 50°   | 14.0   | 18.8   | 36.8   | 19.6   | 14.8   |
| 52.5° | 9.6    | 10.8   | 25.2   | 11.2   | 10.0   |
| 55°   | 7.2    | 7.6    | 13.6   | 8.0    | 7.6    |
| 57.5° | 5.6    | 6.0    | 7.2    | 6.0    | 5.6    |
| 60°   | 4.4    | 4.4    | 5.2    | 4.8    | 4.4    |
| 62.5° | 3.2    | 3.2    | 3.6    | 3.2    | 3.2    |
| 65°   | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    |
| 67.5° | 1.2    | 1.6    | 1.6    | 1.6    | 1.6    |
| 70°   | 1.2    | 0.8    | 0.8    | 0.8    | 1.2    |
| 72.5° | 0.8    | 0.4    | 0.4    | 0.4    | 0.4    |
| 75°   | 0.0    | 0.0    | 0.4    | 0.0    | 0.0    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 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°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)