

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: P781516

Luminaire Tested: LER4D45BD010-EC4DR4040509024-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781516  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-28)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4D45BD010-EC4DR4040509024-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 40° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3644.0 lumens  
Efficiency: N/A  
Efficacy: 94.2 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.6  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.7  
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

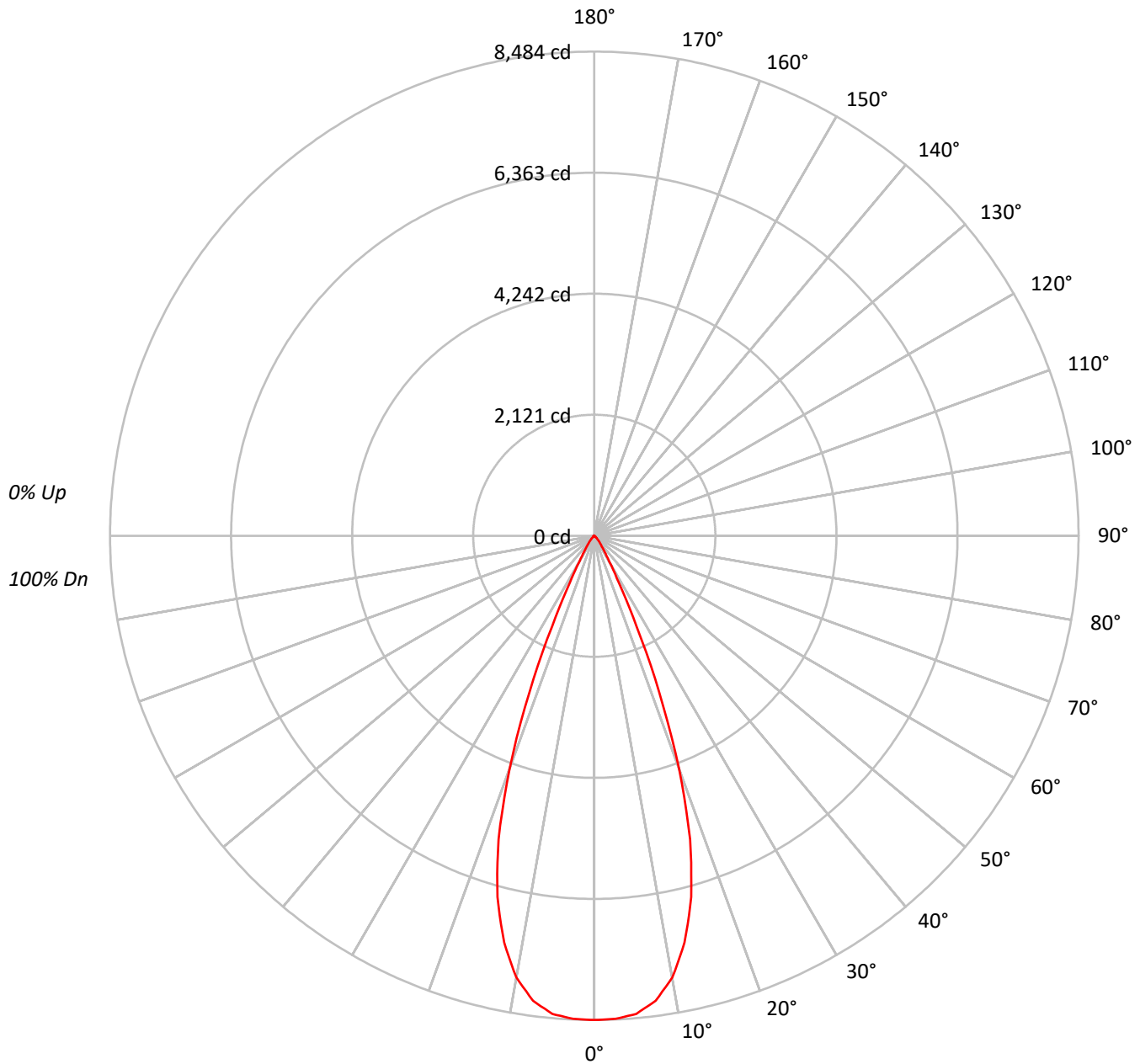


Downlight

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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 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 |  | 103 | 101 | 100 |  | 99  |
| 2   | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99  | 102 | 99  | 97  |  | 99  | 97  | 95  |  | 96  |
| 3   | 106 | 101 | 97  | 94  | 104 | 100 | 96  | 93  | 97  | 94  | 92  |  | 95  | 93  | 90  |  | 93  |
| 4   | 102 | 97  | 92  | 89  | 101 | 95  | 91  | 88  | 93  | 90  | 87  |  | 92  | 89  | 86  |  | 90  |
| 5   | 99  | 92  | 88  | 84  | 97  | 91  | 87  | 84  | 90  | 86  | 83  |  | 88  | 85  | 83  |  | 87  |
| 6   | 95  | 88  | 84  | 80  | 94  | 88  | 83  | 80  | 86  | 82  | 80  |  | 85  | 82  | 79  |  | 84  |
| 7   | 92  | 85  | 80  | 77  | 91  | 84  | 80  | 77  | 83  | 79  | 76  |  | 82  | 79  | 76  |  | 81  |
| 8   | 89  | 82  | 77  | 74  | 88  | 81  | 77  | 74  | 80  | 76  | 73  |  | 79  | 76  | 73  |  | 78  |
| 9   | 86  | 79  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  |  | 76  | 73  | 70  |  | 76  |
| 10  | 83  | 76  | 71  | 68  | 82  | 75  | 71  | 68  | 75  | 71  | 68  |  | 74  | 70  | 68  |  | 73  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 926990 |
| 5°  | 922481 |
| 10° | 871949 |
| 15° | 741266 |
| 20° | 505229 |
| 25° | 210804 |
| 30° | 66286  |
| 35° | 30811  |
| 40° | 17030  |
| 45° | 7819   |
| 50° | 3791   |
| 55° | 2076   |
| 60° | 1093   |
| 65° | 388    |
| 70° | 160    |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7819 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 785.4  | 21.6      |
| 10°-20°   | 1759.4 | 48.3      |
| 20°-30°   | 880.7  | 24.2      |
| 30°-40°   | 161.4  | 4.4       |
| 40°-50°   | 44.5   | 1.2       |
| 50°-60°   | 10.5   | 0.3       |
| 60°-70°   | 2.0    | 0.1       |
| 70°-80°   | 0.1    | 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°    | 3425.5 | 94.0      |
| 0°-40°    | 3586.9 | 98.4      |
| 0°-60°    | 3641.9 | 99.9      |
| 0°-90°    | 3644.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3644.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 8484 |      |
| 5°  | 8411 | 785  |
| 15° | 6553 | 1759 |
| 25° | 1749 | 881  |
| 35° | 231  | 161  |
| 45° | 51   | 45   |
| 55° | 11   | 10   |
| 65° | 2    | 2    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 8484.2 |
| 2.5°  | 8471.8 |
| 5°    | 8410.8 |
| 7.5°  | 8216.5 |
| 10°   | 7859.2 |
| 12.5° | 7302.1 |
| 15°   | 6553.2 |
| 17.5° | 5579.3 |
| 20°   | 4345.2 |
| 22.5° | 2962.4 |
| 25°   | 1748.6 |
| 27.5° | 924.3  |
| 30°   | 525.4  |
| 32.5° | 339.5  |
| 35°   | 231.0  |
| 37.5° | 165.0  |
| 40°   | 119.4  |
| 42.5° | 81.8   |
| 45°   | 50.6   |
| 47.5° | 32.2   |
| 50°   | 22.3   |
| 52.5° | 15.9   |
| 55°   | 10.9   |
| 57.5° | 6.9    |
| 60°   | 5.0    |
| 62.5° | 3.0    |
| 65°   | 1.5    |
| 67.5° | 1.0    |
| 70°   | 0.5    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)