

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: P781576

Luminaire Tested: LER4D45BD010-EC4DR5040509035-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781576  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-44)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4D45BD010-EC4DR5040509035-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 50° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4302.7 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.73  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

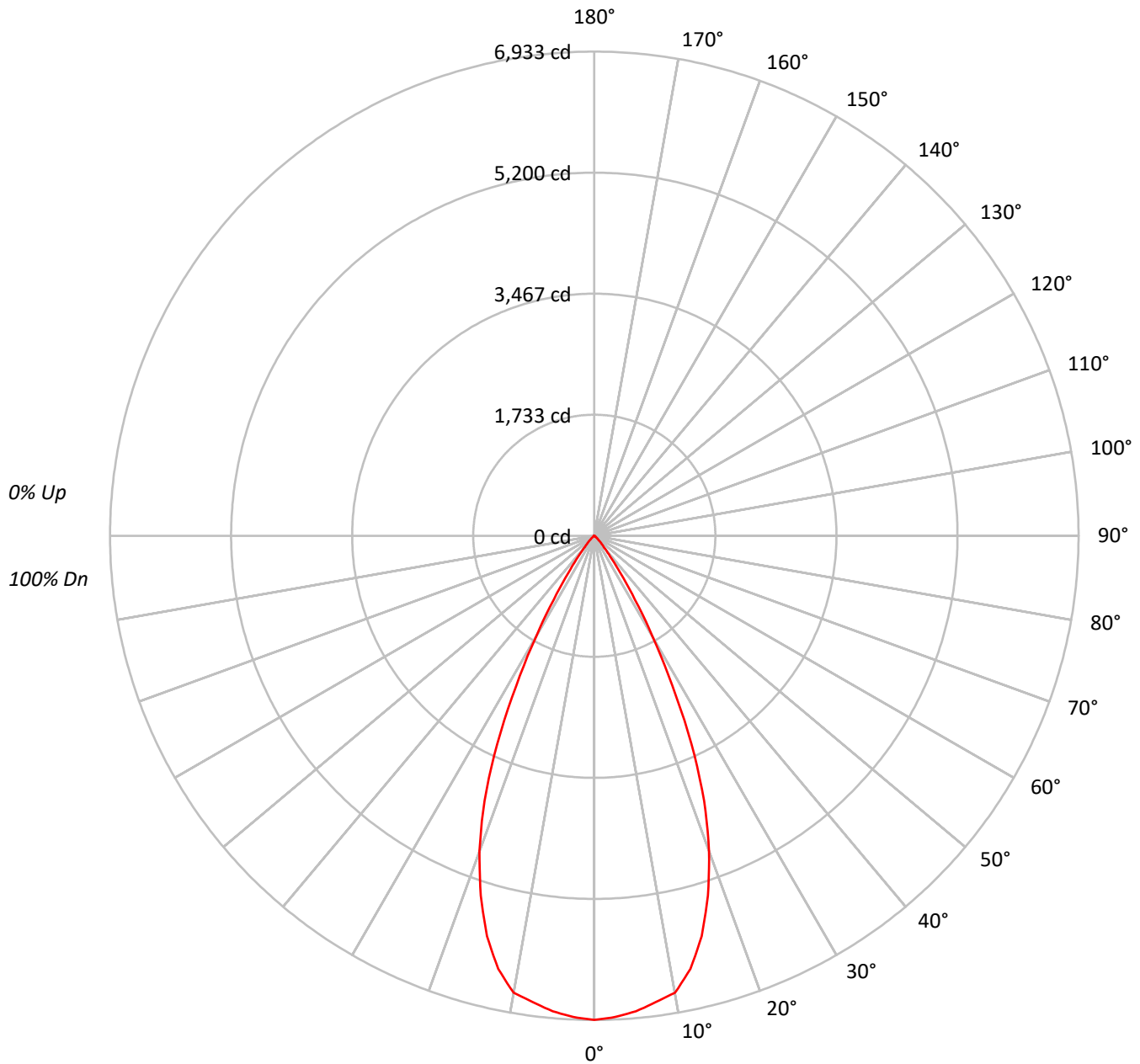


Downlight

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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  |     |     |     |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 114 | 112 | 109 | 107 | 112 | 110 | 108 | 106 | 106 | 104 | 102 | 102 | 101 | 99  | 98  | 97  | 97  | 95  |    |    |
| 2   | 109 | 105 | 101 | 98  | 107 | 103 | 100 | 97  | 100 | 98  | 95  | 97  | 95  | 93  | 95  | 93  | 91  | 90  |    |    |
| 3   | 105 | 99  | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 92  | 89  | 93  | 90  | 88  | 91  | 88  | 86  | 85  |    |    |
| 4   | 100 | 94  | 89  | 85  | 99  | 93  | 88  | 85  | 90  | 87  | 84  | 89  | 85  | 83  | 87  | 84  | 82  | 80  |    |    |
| 5   | 96  | 89  | 84  | 80  | 95  | 88  | 83  | 79  | 86  | 82  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 76  |    |    |
| 6   | 92  | 84  | 79  | 75  | 91  | 83  | 79  | 75  | 82  | 78  | 74  | 81  | 77  | 74  | 79  | 76  | 74  | 72  |    |    |
| 7   | 88  | 80  | 75  | 71  | 87  | 79  | 74  | 71  | 78  | 74  | 71  | 77  | 73  | 70  | 76  | 73  | 70  | 69  |    |    |
| 8   | 85  | 76  | 71  | 67  | 84  | 76  | 71  | 67  | 75  | 70  | 67  | 74  | 70  | 67  | 73  | 69  | 66  | 65  |    |    |
| 9   | 81  | 73  | 68  | 64  | 80  | 72  | 67  | 64  | 71  | 67  | 64  | 71  | 67  | 64  | 70  | 66  | 63  | 62  |    |    |
| 10  | 78  | 70  | 64  | 61  | 77  | 69  | 64  | 61  | 68  | 64  | 61  | 68  | 64  | 61  | 67  | 63  | 60  | 59  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 757461 |
| 5°  | 749518 |
| 10° | 737183 |
| 15° | 671259 |
| 20° | 558563 |
| 25° | 396496 |
| 30° | 209873 |
| 35° | 85525  |
| 40° | 31764  |
| 45° | 14540  |
| 50° | 5966   |
| 55° | 3124   |
| 60° | 1530   |
| 65° | 465    |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14540 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 645.9  | 15.0      |
| 10°-20°   | 1632.4 | 37.9      |
| 20°-30°   | 1466.3 | 34.1      |
| 30°-40°   | 459.1  | 10.7      |
| 40°-50°   | 80.4   | 1.9       |
| 50°-60°   | 16.0   | 0.4       |
| 60°-70°   | 2.4    | 0.1       |
| 70°-80°   | 0.0    | 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°    | 3744.7 | 87.0      |
| 0°-40°    | 4203.8 | 97.7      |
| 0°-60°    | 4300.2 | 99.9      |
| 0°-90°    | 4302.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4302.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 6933 |      |
| 5°  | 6834 | 646  |
| 15° | 5934 | 1632 |
| 25° | 3289 | 1466 |
| 35° | 641  | 459  |
| 45° | 94   | 80   |
| 55° | 16   | 16   |
| 65° | 2    | 2    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 6932.6 |
| 2.5°  | 6898.1 |
| 5°    | 6833.8 |
| 7.5°  | 6735.7 |
| 10°   | 6644.5 |
| 12.5° | 6352.2 |
| 15°   | 5934.3 |
| 17.5° | 5403.6 |
| 20°   | 4803.9 |
| 22.5° | 4110.1 |
| 25°   | 3288.9 |
| 27.5° | 2418.0 |
| 30°   | 1663.5 |
| 32.5° | 1083.1 |
| 35°   | 641.2  |
| 37.5° | 368.2  |
| 40°   | 222.7  |
| 42.5° | 145.0  |
| 45°   | 94.1   |
| 47.5° | 57.3   |
| 50°   | 35.1   |
| 52.5° | 24.0   |
| 55°   | 16.4   |
| 57.5° | 11.1   |
| 60°   | 7.0    |
| 62.5° | 4.1    |
| 65°   | 1.8    |
| 67.5° | 0.6    |
| 70°   | 0.0    |
| 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)