

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: P780380

Luminaire Tested: LER4D20D010-EC4DR7020359040-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P780380  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-76)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4D20D010-EC4DR7020359040-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 70° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1978.5 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.04  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.1  
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



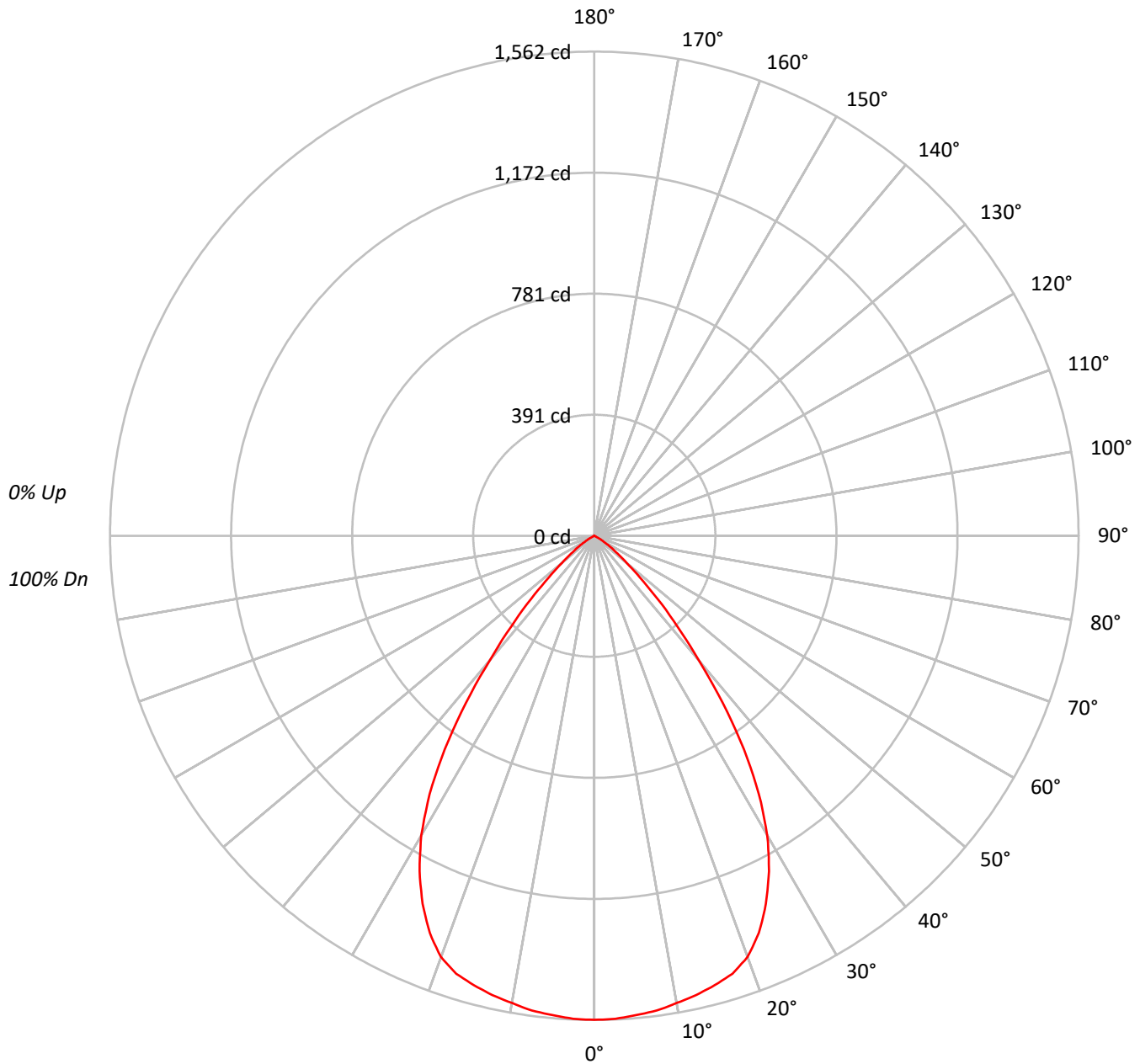
Downlight



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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   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 103 | 104 | 102 | 100 |  | 100 | 99  | 97  |  | 97  |
| 2   | 107 | 102 | 97  | 94  | 105 | 100 | 96  | 92  | 97  | 93  | 90  |  | 94  | 91  | 88  |  | 91  |
| 3   | 101 | 94  | 88  | 84  | 99  | 92  | 87  | 83  | 90  | 85  | 82  |  | 87  | 84  | 81  |  | 85  |
| 4   | 95  | 87  | 81  | 76  | 93  | 86  | 80  | 76  | 83  | 78  | 75  |  | 81  | 77  | 74  |  | 79  |
| 5   | 89  | 80  | 74  | 69  | 88  | 79  | 73  | 69  | 78  | 72  | 68  |  | 76  | 71  | 68  |  | 74  |
| 6   | 84  | 75  | 68  | 63  | 83  | 74  | 68  | 63  | 72  | 67  | 63  |  | 71  | 66  | 62  |  | 69  |
| 7   | 80  | 69  | 63  | 58  | 78  | 69  | 62  | 58  | 67  | 62  | 58  |  | 66  | 61  | 57  |  | 65  |
| 8   | 75  | 65  | 58  | 54  | 74  | 64  | 58  | 54  | 63  | 57  | 53  |  | 62  | 57  | 53  |  | 61  |
| 9   | 71  | 61  | 54  | 50  | 70  | 60  | 54  | 50  | 59  | 53  | 50  |  | 58  | 53  | 49  |  | 57  |
| 10  | 67  | 57  | 50  | 46  | 66  | 56  | 50  | 46  | 55  | 50  | 46  |  | 55  | 50  | 46  |  | 54  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 170622 |
| 5°  | 170198 |
| 10° | 169825 |
| 15° | 169786 |
| 20° | 168119 |
| 25° | 157928 |
| 30° | 140786 |
| 35° | 112255 |
| 40° | 74538  |
| 45° | 44563  |
| 50° | 23100  |
| 55° | 12153  |
| 60° | 4305   |
| 65° | 78     |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 44563 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 147.6  | 7.5       |
| 10°-20°   | 423.2  | 21.4      |
| 20°-30°   | 597.1  | 30.2      |
| 30°-40°   | 515.4  | 26.1      |
| 40°-50°   | 230.8  | 11.7      |
| 50°-60°   | 60.4   | 3.1       |
| 60°-70°   | 3.9    | 0.2       |
| 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°    | 1167.9 | 59.0      |
| 0°-40°    | 1683.3 | 85.1      |
| 0°-60°    | 1974.6 | 99.8      |
| 0°-90°    | 1978.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1978.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1562 |      |
| 5°  | 1552 | 148  |
| 15° | 1501 | 423  |
| 25° | 1310 | 597  |
| 35° | 842  | 515  |
| 45° | 288  | 231  |
| 55° | 64   | 60   |
| 65° | 0    | 4    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1561.6 |
| 2.5°  | 1559.9 |
| 5°    | 1551.8 |
| 7.5°  | 1545.0 |
| 10°   | 1530.7 |
| 12.5° | 1517.8 |
| 15°   | 1501.0 |
| 17.5° | 1481.6 |
| 20°   | 1445.9 |
| 22.5° | 1387.2 |
| 25°   | 1310.0 |
| 27.5° | 1220.4 |
| 30°   | 1115.9 |
| 32.5° | 988.2  |
| 35°   | 841.6  |
| 37.5° | 679.9  |
| 40°   | 522.6  |
| 42.5° | 397.1  |
| 45°   | 288.4  |
| 47.5° | 198.8  |
| 50°   | 135.9  |
| 52.5° | 93.8   |
| 55°   | 63.8   |
| 57.5° | 38.4   |
| 60°   | 19.7   |
| 62.5° | 6.2    |
| 65°   | 0.3    |
| 67.5° | 0.0    |
| 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)