

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: P780252

Luminaire Tested: LER4D20D010-EC4DR4520359030-4LBS1B

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P780252  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LER4D20D010-EC4DR4520359030-4LBS1B  
Description: 4 INCH ROUND SHALLOW SPECULAR BLACK TRIM, WITH 45° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1861.8 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 0.75 / 0.75 / 0.69  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.1  
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



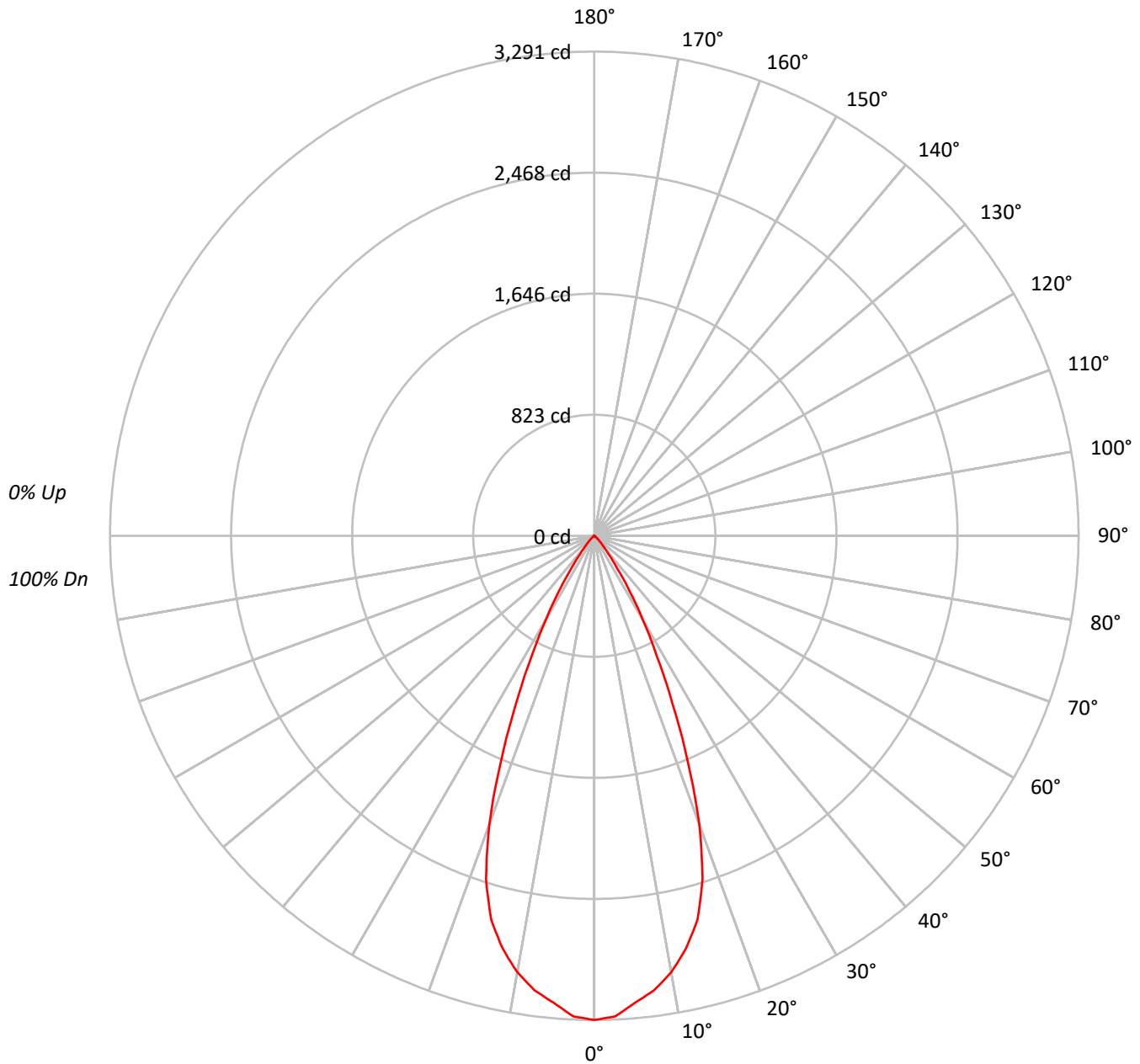
Downlight



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

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 359544 |
| 5°  | 349314 |
| 10° | 334192 |
| 15° | 305863 |
| 20° | 242650 |
| 25° | 151491 |
| 30° | 83495  |
| 35° | 37494  |
| 40° | 14762  |
| 45° | 6953   |
| 50° | 3298   |
| 55° | 1733   |
| 60° | 852    |
| 65° | 207    |
| 70° | 96     |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6953 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 299.2  | 16.1      |
| 10°-20°   | 736.5  | 39.6      |
| 20°-30°   | 583.2  | 31.3      |
| 30°-40°   | 194.2  | 10.4      |
| 40°-50°   | 38.5   | 2.1       |
| 50°-60°   | 8.8    | 0.5       |
| 60°-70°   | 1.3    | 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°    | 1619.0 | 87.0      |
| 0°-40°    | 1813.2 | 97.4      |
| 0°-60°    | 1860.5 | 99.9      |
| 0°-90°    | 1861.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1861.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3291 |      |
| 5°  | 3185 | 299  |
| 15° | 2704 | 736  |
| 25° | 1257 | 583  |
| 35° | 281  | 194  |
| 45° | 45   | 39   |
| 55° | 9    | 9    |
| 65° | 1    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3290.7 |
| 2.5°  | 3269.3 |
| 5°    | 3184.9 |
| 7.5°  | 3115.2 |
| 10°   | 3012.2 |
| 12.5° | 2875.1 |
| 15°   | 2704.0 |
| 17.5° | 2446.7 |
| 20°   | 2086.9 |
| 22.5° | 1658.3 |
| 25°   | 1256.6 |
| 27.5° | 920.2  |
| 30°   | 661.8  |
| 32.5° | 450.1  |
| 35°   | 281.1  |
| 37.5° | 166.7  |
| 40°   | 103.5  |
| 42.5° | 68.1   |
| 45°   | 45.0   |
| 47.5° | 29.0   |
| 50°   | 19.4   |
| 52.5° | 12.9   |
| 55°   | 9.1    |
| 57.5° | 6.0    |
| 60°   | 3.9    |
| 62.5° | 2.1    |
| 65°   | 0.8    |
| 67.5° | 0.3    |
| 70°   | 0.3    |
| 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)