

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: P780241

Luminaire Tested: LER4D20D010-EC4DR4020359050-4LBS1H

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P780241  
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: LER4D20D010-EC4DR4020359050-4LBS1H  
Description: 4 INCH ROUND SHALLOW SEMI-SPECULAR CLEAR TRIM, WITH 40° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2172.4 lumens  
Efficiency: N/A  
Efficacy: 94.0 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): 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



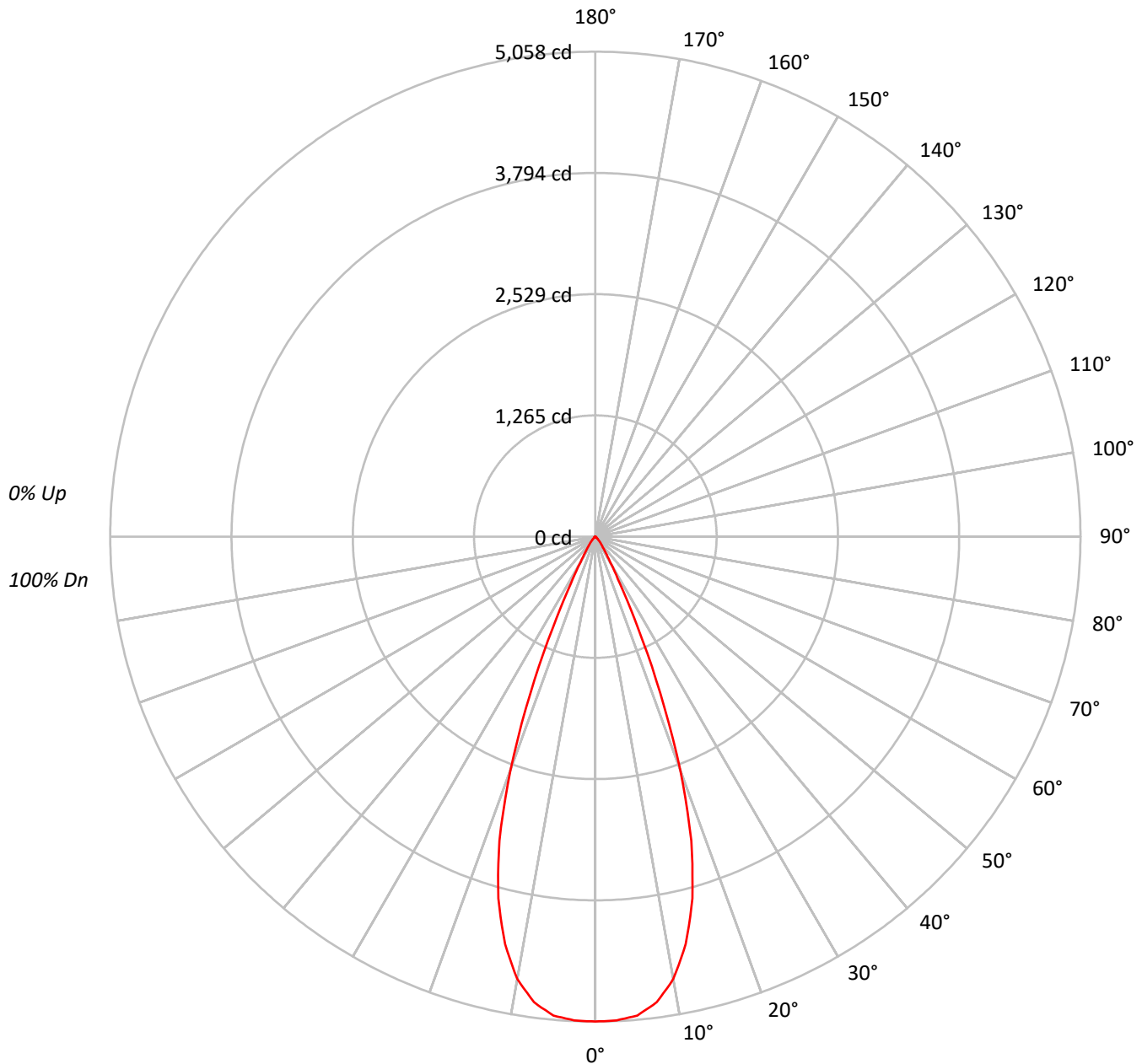
Downlight



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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   | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 103 | 101 | 100 | 99  | 98  | 97  | 96  |    |    |
| 2   | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99  | 102 | 99  | 97  | 99  | 97  | 95  | 96  | 95  | 93  | 92  |    |    |
| 3   | 106 | 101 | 97  | 94  | 104 | 100 | 96  | 93  | 97  | 94  | 92  | 95  | 93  | 90  | 93  | 91  | 89  | 88  |    |    |
| 4   | 102 | 97  | 92  | 89  | 101 | 95  | 91  | 88  | 93  | 90  | 87  | 92  | 89  | 86  | 90  | 87  | 85  | 84  |    |    |
| 5   | 99  | 92  | 88  | 84  | 97  | 91  | 87  | 84  | 90  | 86  | 83  | 88  | 85  | 83  | 87  | 84  | 82  | 81  |    |    |
| 6   | 95  | 88  | 84  | 80  | 94  | 88  | 83  | 80  | 86  | 82  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 77  |    |    |
| 7   | 92  | 85  | 80  | 77  | 91  | 84  | 80  | 77  | 83  | 79  | 76  | 82  | 79  | 76  | 81  | 78  | 76  | 74  |    |    |
| 8   | 89  | 82  | 77  | 74  | 88  | 81  | 77  | 74  | 80  | 76  | 73  | 79  | 76  | 73  | 78  | 75  | 73  | 72  |    |    |
| 9   | 86  | 79  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 70  | 76  | 72  | 70  | 69  |    |    |
| 10  | 83  | 76  | 71  | 68  | 82  | 75  | 71  | 68  | 75  | 71  | 68  | 74  | 70  | 68  | 73  | 70  | 68  | 67  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 552608 |
| 5°  | 549926 |
| 10° | 519805 |
| 15° | 441895 |
| 20° | 301182 |
| 25° | 125667 |
| 30° | 39514  |
| 35° | 18367  |
| 40° | 10155  |
| 45° | 4651   |
| 50° | 2261   |
| 55° | 1238   |
| 60° | 656    |
| 65° | 233    |
| 70° | 96     |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4651 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 468.2  | 21.6      |
| 10°-20°   | 1048.9 | 48.3      |
| 20°-30°   | 525.0  | 24.2      |
| 30°-40°   | 96.2   | 4.4       |
| 40°-50°   | 26.6   | 1.2       |
| 50°-60°   | 6.2    | 0.3       |
| 60°-70°   | 1.2    | 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°    | 2042.1 | 94.0      |
| 0°-40°    | 2138.3 | 98.4      |
| 0°-60°    | 2171.1 | 99.9      |
| 0°-90°    | 2172.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2172.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 5058 |      |
| 5°  | 5014 | 468  |
| 15° | 3907 | 1049 |
| 25° | 1042 | 525  |
| 35° | 138  | 96   |
| 45° | 30   | 27   |
| 55° | 6    | 6    |
| 65° | 1    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 5057.7 |
| 2.5°  | 5050.3 |
| 5°    | 5014.0 |
| 7.5°  | 4898.2 |
| 10°   | 4685.2 |
| 12.5° | 4353.1 |
| 15°   | 3906.6 |
| 17.5° | 3326.0 |
| 20°   | 2590.3 |
| 22.5° | 1766.0 |
| 25°   | 1042.4 |
| 27.5° | 551.1  |
| 30°   | 313.2  |
| 32.5° | 202.4  |
| 35°   | 137.7  |
| 37.5° | 98.4   |
| 40°   | 71.2   |
| 42.5° | 48.8   |
| 45°   | 30.1   |
| 47.5° | 19.2   |
| 50°   | 13.3   |
| 52.5° | 9.5    |
| 55°   | 6.5    |
| 57.5° | 4.1    |
| 60°   | 3.0    |
| 62.5° | 1.8    |
| 65°   | 0.9    |
| 67.5° | 0.6    |
| 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)