

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: P743973

Luminaire Tested: LD4D20D010-EU4DR2015309030-4LBS1MW

Issue Date: 2/2/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P743973  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2310-195-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LD4D20D010-EU4DR2015309030-4LBS1MW  
Description: 4 INCH ROUND SHALLOW MATTE WHITE TRIM, WITH 20° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1954.0 lumens  
Efficiency: N/A  
Efficacy: 84.6 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.36  
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



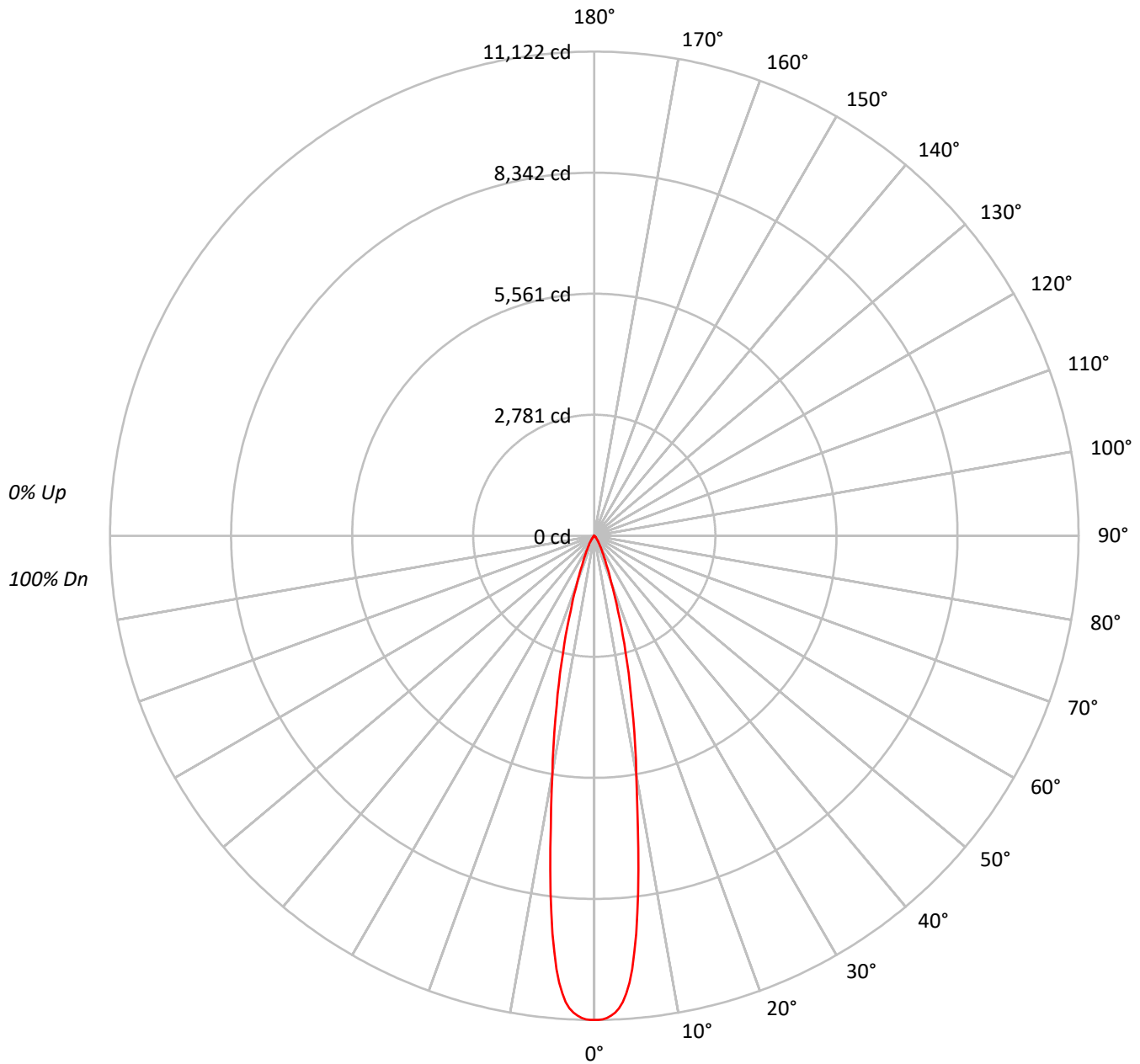
Downlight



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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 108 | 107 | 106 | 104 |  | 103 | 102 | 101 |  | 100 |
| 2   | 111 | 108 | 105 | 102 | 109 | 106 | 104 | 101 | 103 | 101 | 99  |  | 100 | 99  | 97  |  | 98  |
| 3   | 108 | 103 | 100 | 97  | 106 | 102 | 99  | 96  | 100 | 97  | 95  |  | 97  | 95  | 93  |  | 95  |
| 4   | 105 | 99  | 96  | 93  | 103 | 98  | 95  | 92  | 96  | 93  | 91  |  | 95  | 92  | 90  |  | 93  |
| 5   | 102 | 96  | 92  | 89  | 100 | 95  | 91  | 89  | 94  | 90  | 88  |  | 92  | 89  | 87  |  | 91  |
| 6   | 99  | 93  | 89  | 86  | 98  | 92  | 88  | 86  | 91  | 87  | 85  |  | 90  | 87  | 84  |  | 88  |
| 7   | 96  | 90  | 86  | 83  | 95  | 89  | 86  | 83  | 88  | 85  | 82  |  | 87  | 84  | 82  |  | 86  |
| 8   | 94  | 87  | 83  | 81  | 93  | 87  | 83  | 80  | 86  | 83  | 80  |  | 85  | 82  | 80  |  | 84  |
| 9   | 91  | 85  | 81  | 78  | 91  | 85  | 81  | 78  | 84  | 80  | 78  |  | 83  | 80  | 78  |  | 82  |
| 10  | 89  | 83  | 79  | 76  | 88  | 82  | 79  | 76  | 82  | 78  | 76  |  | 81  | 78  | 76  |  | 81  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1215165 |
| 5°  | 1096299 |
| 10° | 615308  |
| 15° | 312774  |
| 20° | 132423  |
| 25° | 61134   |
| 30° | 32361   |
| 35° | 17433   |
| 40° | 9328    |
| 45° | 5516    |
| 50° | 3196    |
| 55° | 1695    |
| 60° | 1093    |
| 65° | 776     |
| 70° | 319     |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5516 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 791.8  | 40.5      |
| 10°-20°   | 779.7  | 39.9      |
| 20°-30°   | 254.7  | 13.0      |
| 30°-40°   | 86.7   | 4.4       |
| 40°-50°   | 29.2   | 1.5       |
| 50°-60°   | 8.8    | 0.4       |
| 60°-70°   | 3.0    | 0.2       |
| 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°    | 1826.3 | 93.5      |
| 0°-40°    | 1913.0 | 97.9      |
| 0°-60°    | 1950.9 | 99.8      |
| 0°-90°    | 1954.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1954.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 11122 |      |
| 5°  | 9996  | 792  |
| 15° | 2765  | 780  |
| 25° | 507   | 255  |
| 35° | 131   | 87   |
| 45° | 36    | 29   |
| 55° | 9     | 9    |
| 65° | 3     | 3    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      |
|-------|---------|
| 0°    | 11121.7 |
| 0.5°  | 11121.7 |
| 1°    | 11107.8 |
| 1.5°  | 11080.1 |
| 2°    | 11029.6 |
| 2.5°  | 10962.2 |
| 3°    | 10867.2 |
| 3.5°  | 10734.5 |
| 4°    | 10537.4 |
| 4.5°  | 10297.7 |
| 5°    | 9995.6  |
| 5.5°  | 9598.5  |
| 6°    | 9191.5  |
| 6.5°  | 8725.0  |
| 7°    | 8268.5  |
| 7.5°  | 7733.7  |
| 8°    | 7256.3  |
| 8.5°  | 6776.0  |
| 9°    | 6332.3  |
| 9.5°  | 5925.3  |
| 10°   | 5546.0  |
| 12.5° | 3982.2  |
| 15°   | 2765.1  |
| 17.5° | 1806.4  |
| 20°   | 1138.9  |
| 22.5° | 737.8   |
| 25°   | 507.1   |
| 27.5° | 356.5   |
| 30°   | 256.5   |
| 32.5° | 184.2   |
| 35°   | 130.7   |
| 37.5° | 91.1    |
| 40°   | 65.4    |
| 42.5° | 47.5    |
| 45°   | 35.7    |
| 47.5° | 27.7    |
| 50°   | 18.8    |
| 52.5° | 11.9    |
| 55°   | 8.9     |
| 57.5° | 6.9     |
| 60°   | 5.0     |
| 62.5° | 4.0     |
| 65°   | 3.0     |



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**CANDELA DISTRIBUTION (continued):**

|       | 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°







|       |     |
|-------|-----|
| 67.5° | 2.0 |
| 70°   | 1.0 |



(END OF REPORT)