

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: P752280

Luminaire Tested: LD4D70BD010-EU4DR3070959050-4LBS1MW

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P752280  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2307-078-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LD4D70BD010-EU4DR3070959050-4LBS1MW  
Description: 4 INCH ROUND SHALLOW MATTE WHITE TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7060.6 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.49  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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

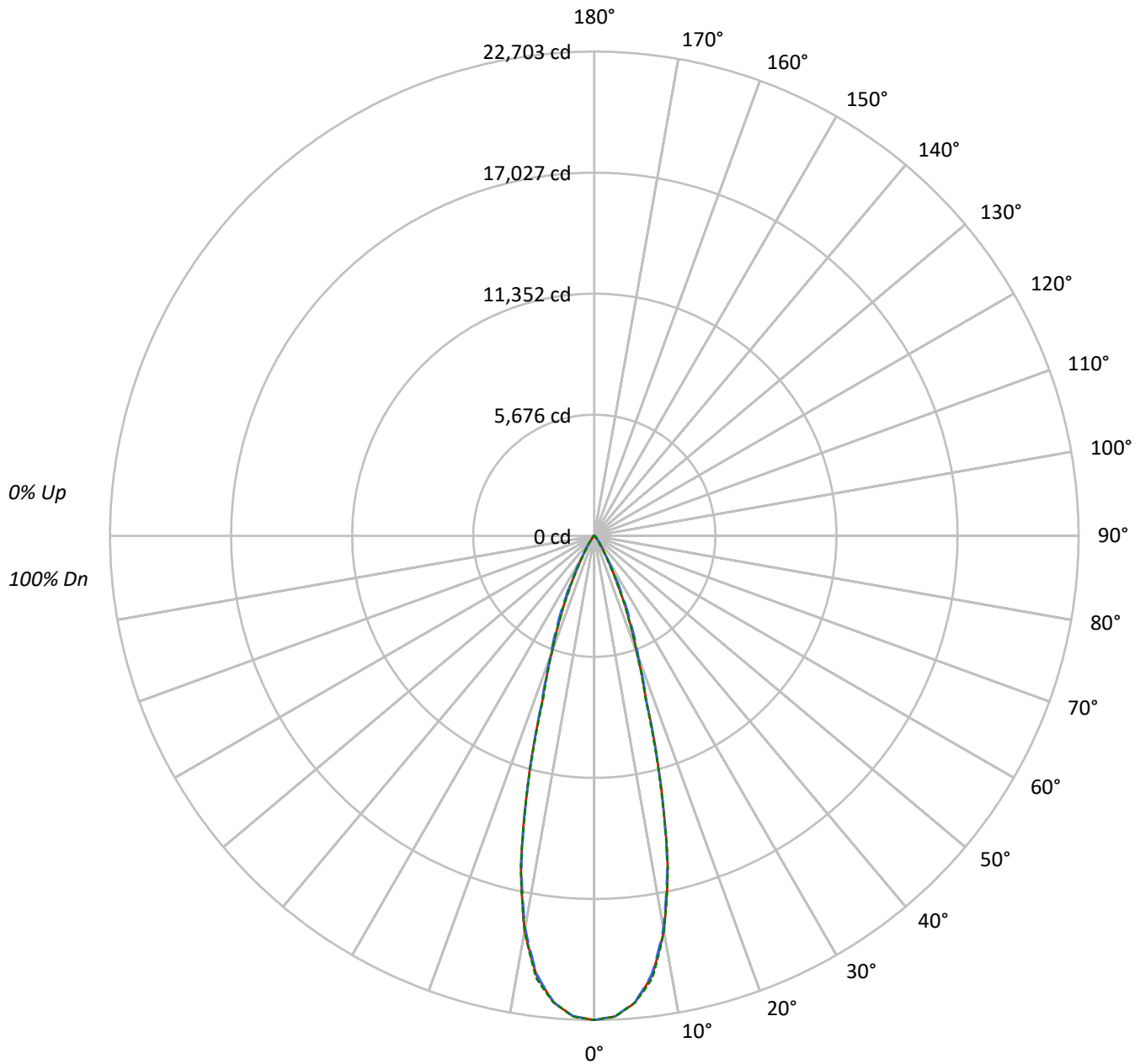


Downlight

TEST NUMBER: P752280

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### Luminous Intensity Polar Plot





TEST NUMBER: P752280

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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 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99  | 99  | 98  | 96  |    |    |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  | 99  | 97  | 96  | 97  | 95  | 94  | 92  |    |    |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  | 96  | 93  | 91  | 94  | 92  | 90  | 89  |    |    |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 85  |    |    |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  | 90  | 86  | 84  | 88  | 86  | 83  | 82  |    |    |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  | 87  | 83  | 81  | 85  | 83  | 80  | 79  |    |    |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  | 84  | 81  | 78  | 83  | 80  | 78  | 77  |    |    |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 75  | 80  | 77  | 75  | 74  |    |    |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  | 79  | 75  | 73  | 78  | 75  | 73  | 72  |    |    |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 71  | 76  | 73  | 70  | 69  |    |    |

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

|     | 0°      | 45°     | 90°     |
|-----|---------|---------|---------|
| 0°  | 1737788 | 1737788 | 1737788 |
| 5°  | 1687898 | 1685931 | 1687982 |
| 10° | 1461977 | 1451670 | 1461627 |
| 15° | 953871  | 948743  | 943973  |
| 20° | 474317  | 492107  | 473682  |
| 25° | 238927  | 269424  | 234028  |
| 30° | 95659   | 104232  | 83347   |
| 35° | 44366   | 42498   | 35620   |
| 40° | 19155   | 21273   | 18046   |
| 45° | 13509   | 16768   | 13639   |
| 50° | 4644    | 12206   | 4906    |
| 55° | 2682    | 5058    | 2829    |
| 60° | 1883    | 2220    | 1883    |
| 65° | 1213    | 1213    | 1213    |
| 70° | 739     | 492     | 739     |
| 75° | 0       | 325     | 0       |
| 80° | 0       | 0       | 0       |
| 85° | 0       | 0       | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 16768 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1996.4 | 28.3      |
| 10°-20°   | 3215.2 | 45.5      |
| 20°-30°   | 1389.4 | 19.7      |
| 30°-40°   | 316.7  | 4.5       |
| 40°-50°   | 108.7  | 1.5       |
| 50°-60°   | 26.6   | 0.4       |
| 60°-70°   | 6.9    | 0.1       |
| 70°-80°   | 0.7    | 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       |
| <hr/>     |        |           |
| 0°-30°    | 6601.0 | 93.5      |
| 0°-40°    | 6917.7 | 98.0      |
| 0°-60°    | 7053.0 | 99.9      |
| 0°-90°    | 7060.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7060.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 22703 | 22703 | 22703 | 22703 | 22703 |      |
| 5°  | 21968 | 21946 | 21942 | 21988 | 21969 | 1998 |
| 15° | 12037 | 11892 | 11972 | 11934 | 11912 | 3223 |
| 25° | 2829  | 2936  | 3190  | 2861  | 2771  | 1354 |
| 35° | 475   | 485   | 455   | 451   | 381   | 322  |
| 45° | 125   | 155   | 155   | 155   | 126   | 89   |
| 55° | 20    | 21    | 38    | 22    | 21    | 20   |
| 65° | 7     | 7     | 7     | 7     | 7     | 7    |
| 75° | 0     | 0     | 1     | 0     | 0     | 1    |
| 85° | 0     | 0     | 0     | 0     | 0     | 0    |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 22703.3 | 22703.3 | 22703.3 | 22703.3 | 22703.3 |
| 2.5°  | 22552.8 | 22537.2 | 22546.1 | 22557.3 | 22561.7 |
| 5°    | 21967.6 | 21946.4 | 21942.0 | 21987.7 | 21968.7 |
| 7.5°  | 20787.2 | 20757.1 | 20711.4 | 20815.1 | 20912.0 |
| 10°   | 18809.8 | 18776.4 | 18677.2 | 18726.2 | 18805.3 |
| 12.5° | 15890.5 | 15782.4 | 15780.2 | 15936.2 | 15915.0 |
| 15°   | 12037.2 | 11892.3 | 11972.5 | 11933.5 | 11912.3 |
| 17.5° | 8094.6  | 8038.9  | 8145.9  | 8113.6  | 7974.2  |
| 20°   | 5823.0  | 5837.4  | 6041.4  | 5938.9  | 5815.2  |
| 22.5° | 4249.1  | 4301.5  | 4543.3  | 4279.2  | 4182.2  |
| 25°   | 2829.0  | 2936.0  | 3190.1  | 2861.3  | 2771.0  |
| 27.5° | 1740.0  | 1789.0  | 2046.5  | 1717.7  | 1668.6  |
| 30°   | 1082.3  | 1057.8  | 1179.3  | 1012.1  | 943.0   |
| 32.5° | 710.0   | 678.8   | 717.8   | 644.3   | 588.5   |
| 35°   | 474.8   | 484.9   | 454.8   | 451.4   | 381.2   |
| 37.5° | 296.5   | 341.1   | 301.0   | 321.0   | 245.2   |
| 40°   | 191.7   | 247.5   | 212.9   | 235.2   | 180.6   |
| 42.5° | 157.2   | 190.6   | 175.0   | 186.1   | 160.5   |
| 45°   | 124.8   | 154.9   | 154.9   | 154.9   | 126.0   |
| 47.5° | 69.1    | 103.7   | 132.6   | 105.9   | 73.6    |
| 50°   | 39.0    | 52.4    | 102.5   | 54.6    | 41.2    |
| 52.5° | 26.8    | 30.1    | 70.2    | 31.2    | 27.9    |
| 55°   | 20.1    | 21.2    | 37.9    | 22.3    | 21.2    |
| 57.5° | 15.6    | 16.7    | 20.1    | 16.7    | 15.6    |
| 60°   | 12.3    | 12.3    | 14.5    | 13.4    | 12.3    |
| 62.5° | 8.9     | 8.9     | 10.0    | 8.9     | 8.9     |
| 65°   | 6.7     | 6.7     | 6.7     | 6.7     | 6.7     |
| 67.5° | 3.3     | 4.5     | 4.5     | 4.5     | 4.5     |
| 70°   | 3.3     | 2.2     | 2.2     | 2.2     | 3.3     |
| 72.5° | 2.2     | 1.1     | 1.1     | 1.1     | 1.1     |
| 75°   | 0.0     | 0.0     | 1.1     | 0.0     | 0.0     |
| 77.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 80°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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— 0°-180°    - - 45°-225°    - - - 90°-270°







(END OF REPORT)