

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: P781235

Luminaire Tested: LER4D40BD010-EC4DR3040509027-4LBS1MW

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P781235  
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: LER4D40BD010-EC4DR3040509027-4LBS1MW  
Description: 4 INCH ROUND SHALLOW MATTE WHITE TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3568.0 lumens  
Efficiency: N/A  
Efficacy: 101.4 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): 35.2  
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

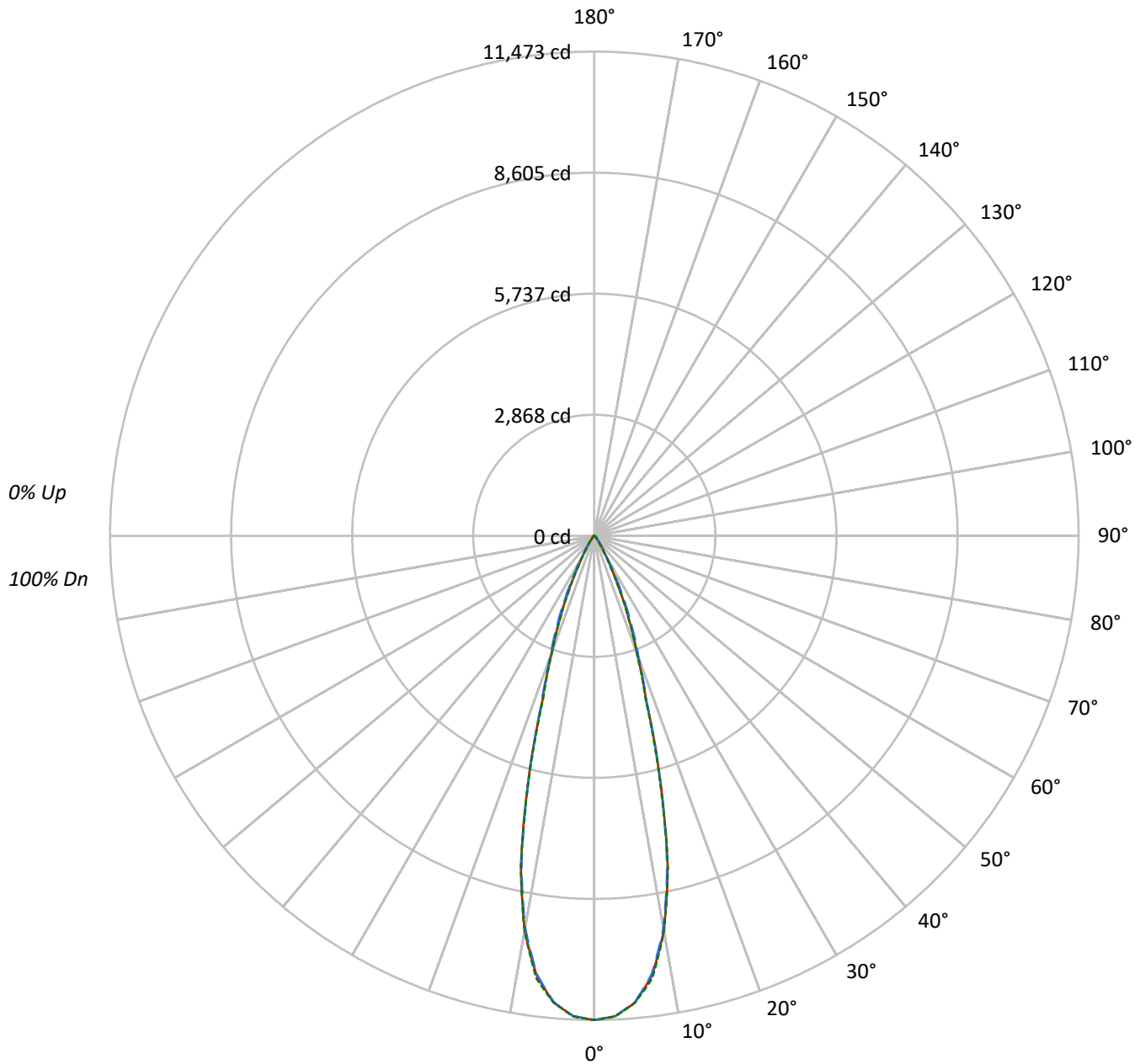


Downlight

TEST NUMBER: P781235

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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 | 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°  | 878159 | 878159 | 878159 |
| 5°  | 852954 | 851955 | 852992 |
| 10° | 738784 | 733577 | 738613 |
| 15° | 482023 | 479431 | 477022 |
| 20° | 239684 | 248676 | 239366 |
| 25° | 120739 | 136152 | 118264 |
| 30° | 48338  | 52668  | 42115  |
| 35° | 22426  | 21473  | 17997  |
| 40° | 9682   | 10751  | 9123   |
| 45° | 6830   | 8476   | 6885   |
| 50° | 2346   | 6168   | 2477   |
| 55° | 1348   | 2562   | 1428   |
| 60° | 949    | 1118   | 949    |
| 65° | 616    | 616    | 616    |
| 70° | 380    | 246    | 380    |
| 75° | 0      | 177    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 8476 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1008.9 | 28.3      |
| 10°-20°   | 1624.8 | 45.5      |
| 20°-30°   | 702.1  | 19.7      |
| 30°-40°   | 160.0  | 4.5       |
| 40°-50°   | 54.9   | 1.5       |
| 50°-60°   | 13.4   | 0.4       |
| 60°-70°   | 3.5    | 0.1       |
| 70°-80°   | 0.4    | 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°    | 3335.7 | 93.5      |
| 0°-40°    | 3495.7 | 98.0      |
| 0°-60°    | 3564.1 | 99.9      |
| 0°-90°    | 3568.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3568.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 11473 | 11473 | 11473 | 11473 | 11473 |      |
| 5°  | 11101 | 11090 | 11088 | 11111 | 11102 | 1010 |
| 15° | 6083  | 6010  | 6050  | 6030  | 6020  | 1629 |
| 25° | 1430  | 1484  | 1612  | 1446  | 1400  | 684  |
| 35° | 240   | 245   | 230   | 228   | 193   | 163  |
| 45° | 63    | 78    | 78    | 78    | 64    | 45   |
| 55° | 10    | 11    | 19    | 11    | 11    | 10   |
| 65° | 3     | 3     | 3     | 3     | 3     | 3    |
| 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°    | 11472.7 | 11472.7 | 11472.7 | 11472.7 | 11472.7 |
| 2.5°  | 11396.7 | 11388.8 | 11393.3 | 11398.9 | 11401.2 |
| 5°    | 11101.0 | 11090.3 | 11088.0 | 11111.1 | 11101.5 |
| 7.5°  | 10504.5 | 10489.2 | 10466.2 | 10518.5 | 10567.5 |
| 10°   | 9505.2  | 9488.3  | 9438.2  | 9463.0  | 9503.0  |
| 12.5° | 8030.0  | 7975.4  | 7974.2  | 8053.1  | 8042.4  |
| 15°   | 6082.8  | 6009.5  | 6050.1  | 6030.4  | 6019.7  |
| 17.5° | 4090.5  | 4062.3  | 4116.4  | 4100.1  | 4029.6  |
| 20°   | 2942.5  | 2949.9  | 3052.9  | 3001.1  | 2938.6  |
| 22.5° | 2147.2  | 2173.7  | 2295.9  | 2162.4  | 2113.4  |
| 25°   | 1429.6  | 1483.7  | 1612.1  | 1445.9  | 1400.3  |
| 27.5° | 879.3   | 904.1   | 1034.2  | 868.0   | 843.2   |
| 30°   | 546.9   | 534.5   | 595.9   | 511.5   | 476.5   |
| 32.5° | 358.8   | 343.0   | 362.7   | 325.6   | 297.4   |
| 35°   | 240.0   | 245.0   | 229.8   | 228.1   | 192.6   |
| 37.5° | 149.8   | 172.4   | 152.1   | 162.2   | 123.9   |
| 40°   | 96.9    | 125.0   | 107.6   | 118.9   | 91.3    |
| 42.5° | 79.4    | 96.3    | 88.4    | 94.1    | 81.1    |
| 45°   | 63.1    | 78.3    | 78.3    | 78.3    | 63.6    |
| 47.5° | 34.9    | 52.4    | 67.0    | 53.5    | 37.2    |
| 50°   | 19.7    | 26.5    | 51.8    | 27.6    | 20.8    |
| 52.5° | 13.5    | 15.2    | 35.5    | 15.8    | 14.1    |
| 55°   | 10.1    | 10.7    | 19.2    | 11.3    | 10.7    |
| 57.5° | 7.9     | 8.4     | 10.1    | 8.4     | 7.9     |
| 60°   | 6.2     | 6.2     | 7.3     | 6.8     | 6.2     |
| 62.5° | 4.5     | 4.5     | 5.1     | 4.5     | 4.5     |
| 65°   | 3.4     | 3.4     | 3.4     | 3.4     | 3.4     |
| 67.5° | 1.7     | 2.3     | 2.3     | 2.3     | 2.3     |
| 70°   | 1.7     | 1.1     | 1.1     | 1.1     | 1.7     |
| 72.5° | 1.1     | 0.6     | 0.6     | 0.6     | 0.6     |
| 75°   | 0.0     | 0.0     | 0.6     | 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)