

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: P747525

Luminaire Tested: LD4D40BD010-EU4DR3040509024-4LBCSSQMB

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P747525  
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: LD4D40BD010-EU4DR3040509024-4LBCSSQMB  
Description: 4 INCH SQAURE SHALLOW CAST MATTE BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2874.6 lumens  
Efficiency: N/A  
Efficacy: 81.7 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

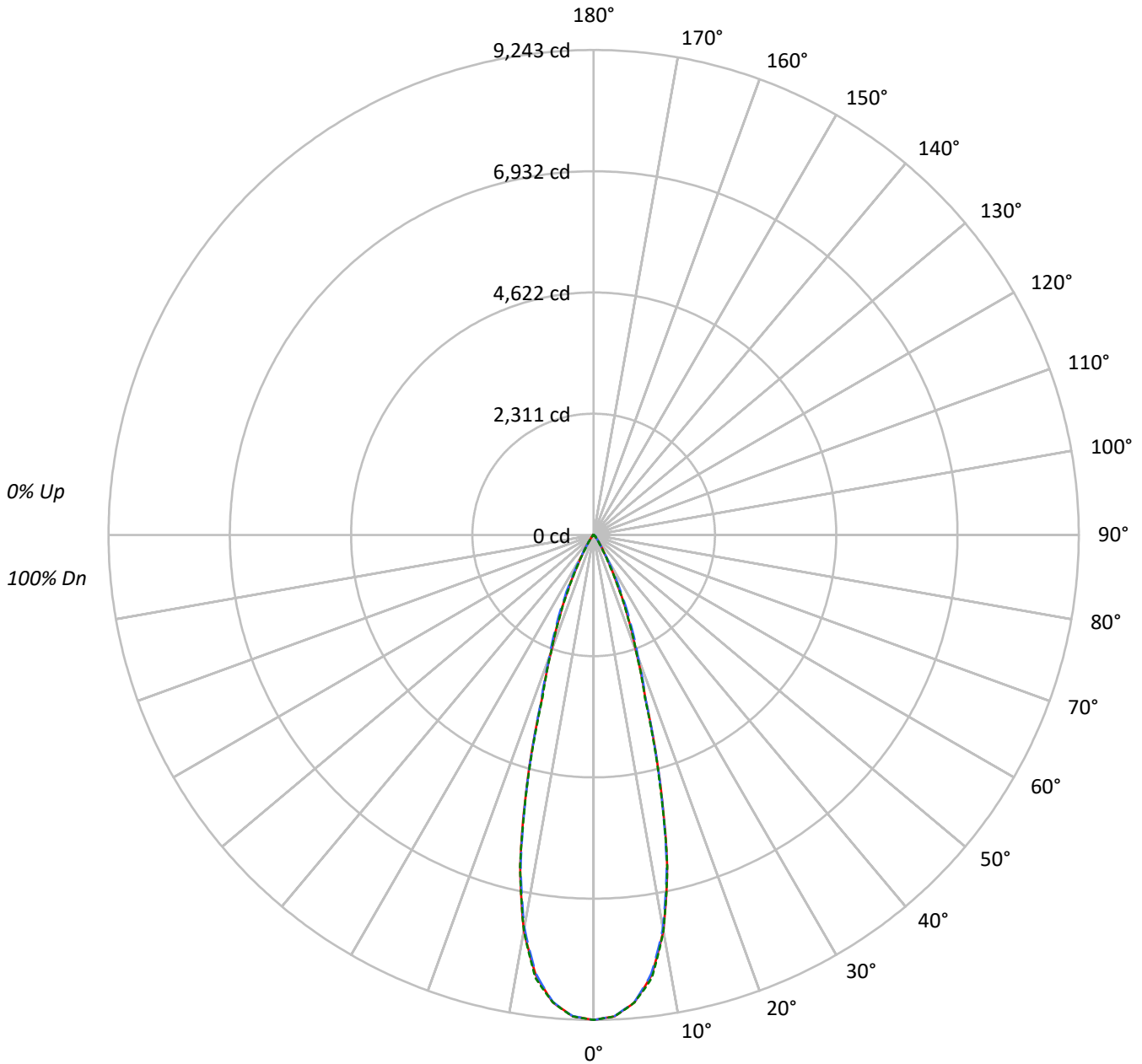
Input Watts (W): 35.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |     |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|-----|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |    |    |    |     |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |    |    |    |     |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 50 | 30 | 10 | 0   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |     |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    |    | 100 |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 115 | 113 | 111 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 99  | 99  | 98  | 96  |    |    |    |    |    | 96  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98  | 99  | 97  | 96  | 97  | 95  | 94  | 92  |    |    |    |    |    | 92  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 93  | 96  | 93  | 91  | 94  | 92  | 90  | 89  |    |    |    |    |    | 89  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 103 | 98  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 85  |    |    |    |    |    | 85  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 100 | 94  | 89  | 86  | 98  | 93  | 89  | 86  | 91  | 88  | 85  | 90  | 86  | 84  | 88  | 86  | 83  | 82  |    |    |    |    |    | 82  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 97  | 90  | 85  | 82  | 95  | 89  | 85  | 82  | 88  | 84  | 81  | 87  | 83  | 81  | 85  | 83  | 80  | 79  |    |    |    |    |    | 79  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 94  | 87  | 82  | 79  | 92  | 86  | 82  | 79  | 85  | 81  | 78  | 84  | 81  | 78  | 83  | 80  | 78  | 77  |    |    |    |    |    | 77  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 91  | 84  | 79  | 76  | 90  | 83  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 75  | 80  | 77  | 75  | 74  |    |    |    |    |    | 74  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 88  | 81  | 76  | 73  | 87  | 80  | 76  | 73  | 80  | 76  | 73  | 79  | 75  | 73  | 78  | 75  | 73  | 72  |    |    |    |    |    | 72  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 85  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 71  | 76  | 73  | 70  | 69  |    |    |    |    |    | 69  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 707514 | 707514 | 707514 |
| 5°  | 687204 | 686405 | 687242 |
| 10° | 595220 | 591023 | 595080 |
| 15° | 388357 | 386265 | 384323 |
| 20° | 193107 | 200357 | 192855 |
| 25° | 97277  | 109692 | 95284  |
| 30° | 38951  | 42433  | 33931  |
| 35° | 18062  | 17306  | 14502  |
| 40° | 7804   | 8663   | 7344   |
| 45° | 5499   | 6830   | 5553   |
| 50° | 1893   | 4978   | 2001   |
| 55° | 1094   | 2055   | 1148   |
| 60° | 765    | 903    | 765    |
| 65° | 489    | 489    | 489    |
| 70° | 313    | 201    | 313    |
| 75° | 0      | 148    | 0      |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 6830 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 812.8  | 28.3      |
| 10°-20°   | 1309.0 | 45.5      |
| 20°-30°   | 565.7  | 19.7      |
| 30°-40°   | 128.9  | 4.5       |
| 40°-50°   | 44.3   | 1.5       |
| 50°-60°   | 10.8   | 0.4       |
| 60°-70°   | 2.8    | 0.1       |
| 70°-80°   | 0.3    | 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°    | 2687.5 | 93.5      |
| 0°-40°    | 2816.5 | 98.0      |
| 0°-60°    | 2871.5 | 99.9      |
| 0°-90°    | 2874.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2874.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 9243 | 9243  | 9243 | 9243  | 9243 |      |
| 5°  | 8944 | 8935  | 8933 | 8952  | 8944 | 813  |
| 15° | 4901 | 4842  | 4874 | 4859  | 4850 | 1312 |
| 25° | 1152 | 1195  | 1299 | 1165  | 1128 | 551  |
| 35° | 193  | 197   | 185  | 184   | 155  | 131  |
| 45° | 51   | 63    | 63   | 63    | 51   | 36   |
| 55° | 8    | 9     | 15   | 9     | 9    | 8    |
| 65° | 3    | 3     | 3    | 3     | 3    | 3    |
| 75° | 0    | 0     | 0    | 0     | 0    | 0    |
| 85° | 0    | 0     | 0    | 0     | 0    | 0    |
| 90° | 0    | 0     | 0    | 0     | 0    | 0    |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 9243.3 | 9243.3 | 9243.3 | 9243.3 | 9243.3 |
| 2.5°  | 9182.1 | 9175.7 | 9179.3 | 9183.9 | 9185.7 |
| 5°    | 8943.8 | 8935.2 | 8933.4 | 8952.0 | 8944.3 |
| 7.5°  | 8463.2 | 8451.0 | 8432.4 | 8474.6 | 8514.0 |
| 10°   | 7658.1 | 7644.5 | 7604.1 | 7624.1 | 7656.3 |
| 12.5° | 6469.6 | 6425.6 | 6424.7 | 6488.2 | 6479.6 |
| 15°   | 4900.8 | 4841.8 | 4874.4 | 4858.6 | 4849.9 |
| 17.5° | 3295.6 | 3272.9 | 3316.5 | 3303.3 | 3246.6 |
| 20°   | 2370.7 | 2376.6 | 2459.7 | 2417.9 | 2367.6 |
| 22.5° | 1729.9 | 1751.3 | 1849.8 | 1742.2 | 1702.7 |
| 25°   | 1151.8 | 1195.4 | 1298.8 | 1164.9 | 1128.2 |
| 27.5° | 708.4  | 728.4  | 833.2  | 699.3  | 679.4  |
| 30°   | 440.7  | 430.7  | 480.1  | 412.1  | 383.9  |
| 32.5° | 289.1  | 276.4  | 292.3  | 262.3  | 239.6  |
| 35°   | 193.3  | 197.4  | 185.2  | 183.8  | 155.2  |
| 37.5° | 120.7  | 138.9  | 122.5  | 130.7  | 99.8   |
| 40°   | 78.1   | 100.7  | 86.7   | 95.8   | 73.5   |
| 42.5° | 64.0   | 77.6   | 71.2   | 75.8   | 65.3   |
| 45°   | 50.8   | 63.1   | 63.1   | 63.1   | 51.3   |
| 47.5° | 28.1   | 42.2   | 54.0   | 43.1   | 30.0   |
| 50°   | 15.9   | 21.3   | 41.8   | 22.2   | 16.8   |
| 52.5° | 10.9   | 12.3   | 28.6   | 12.7   | 11.3   |
| 55°   | 8.2    | 8.6    | 15.4   | 9.1    | 8.6    |
| 57.5° | 6.4    | 6.8    | 8.2    | 6.8    | 6.4    |
| 60°   | 5.0    | 5.0    | 5.9    | 5.4    | 5.0    |
| 62.5° | 3.6    | 3.6    | 4.1    | 3.6    | 3.6    |
| 65°   | 2.7    | 2.7    | 2.7    | 2.7    | 2.7    |
| 67.5° | 1.4    | 1.8    | 1.8    | 1.8    | 1.8    |
| 70°   | 1.4    | 0.9    | 0.9    | 0.9    | 1.4    |
| 72.5° | 0.9    | 0.5    | 0.5    | 0.5    | 0.5    |
| 75°   | 0.0    | 0.0    | 0.5    | 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    |

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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Signify Classified - Internal  
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Scaled Data Report







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

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Scaled Data Report



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