

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



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: P747586

Luminaire Tested: LD4D40BD010-EU4DR3040509040-4LBS1LI

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P747586  
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-EU4DR3040509040-4LBS1LI  
Description: 4 INCH ROUND SHALLOW SPECULAR CLEAR TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4295.0 lumens  
Efficiency: N/A  
Efficacy: 122.0 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

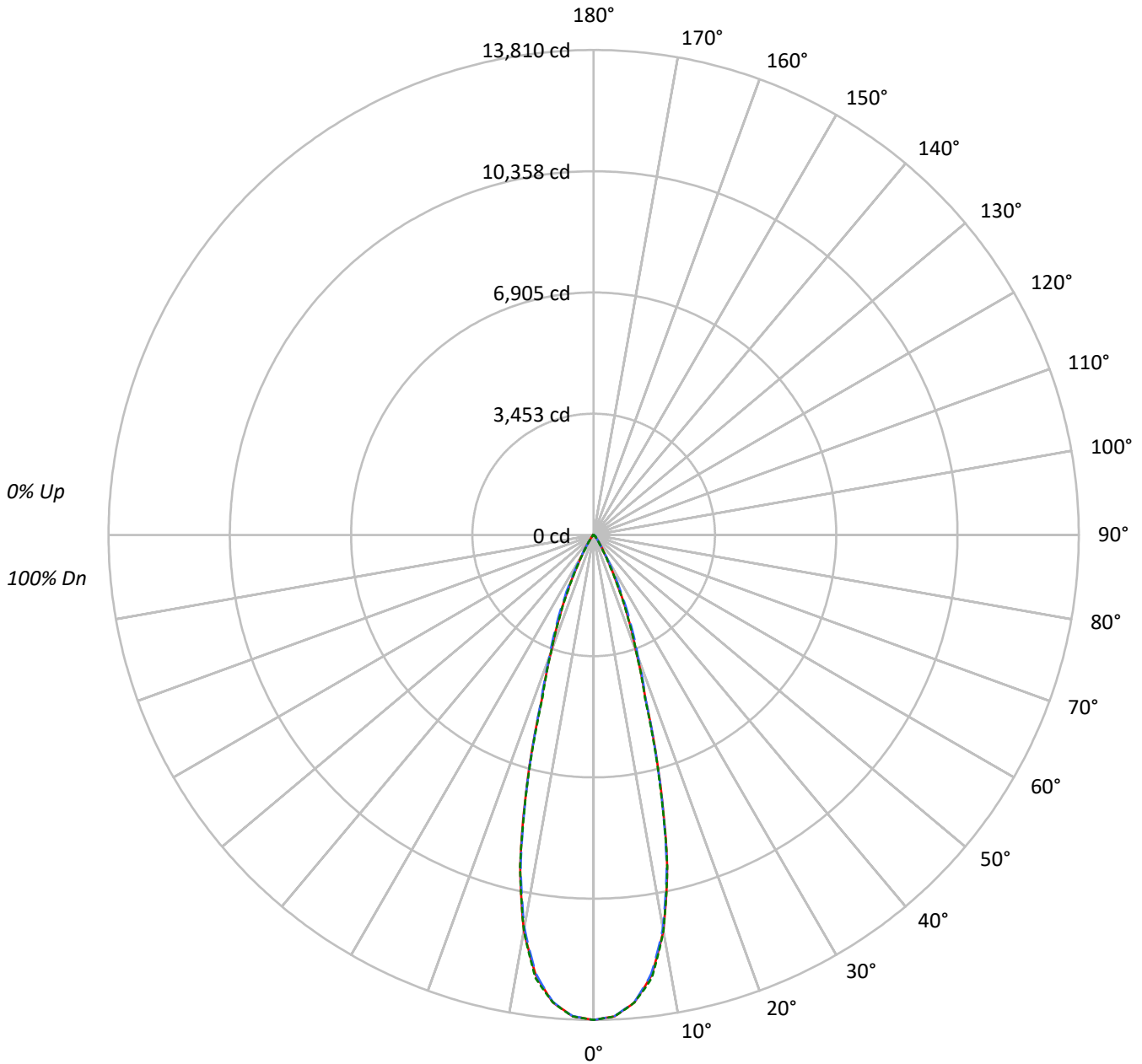
Input Watts (W): 35.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



Downlight

TEST NUMBER: P747586  
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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 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 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°  | 1057087 | 1057087 | 1057087 |
| 5°  | 1026741 | 1025543 | 1026795 |
| 10° | 889313  | 883048  | 889103  |
| 15° | 580237  | 577115  | 574215  |
| 20° | 288525  | 299350  | 288134  |
| 25° | 145341  | 163896  | 142360  |
| 30° | 58192   | 63407   | 50697   |
| 35° | 26986   | 25846   | 21669   |
| 40° | 11651   | 12940   | 10971   |
| 45° | 8216    | 10197   | 8292    |
| 50° | 2822    | 7431    | 2989    |
| 55° | 1628    | 3083    | 1721    |
| 60° | 1148    | 1347    | 1148    |
| 65° | 743     | 743     | 743     |
| 70° | 448     | 313     | 448     |
| 75° | 0       | 207     | 0       |
| 80° | 0       | 0       | 0       |
| 85° | 0       | 0       | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 10197 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1214.4 | 28.3      |
| 10°-20°   | 1955.8 | 45.5      |
| 20°-30°   | 845.2  | 19.7      |
| 30°-40°   | 192.6  | 4.5       |
| 40°-50°   | 66.1   | 1.5       |
| 50°-60°   | 16.2   | 0.4       |
| 60°-70°   | 4.2    | 0.1       |
| 70°-80°   | 0.5    | 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°    | 4015.4 | 93.5      |
| 0°-40°    | 4208.0 | 98.0      |
| 0°-60°    | 4290.3 | 99.9      |
| 0°-90°    | 4295.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4295.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 13810 | 13810 | 13810 | 13810 | 13810 |      |
| 5°  | 13363 | 13350 | 13347 | 13375 | 13364 | 1215 |
| 15° | 7322  | 7234  | 7283  | 7259  | 7246  | 1961 |
| 25° | 1721  | 1786  | 1941  | 1740  | 1686  | 824  |
| 35° | 289   | 295   | 277   | 275   | 232   | 196  |
| 45° | 76    | 94    | 94    | 94    | 77    | 54   |
| 55° | 12    | 13    | 23    | 14    | 13    | 12   |
| 65° | 4     | 4     | 4     | 4     | 4     | 4    |
| 75° | 0     | 0     | 1     | 0     | 0     | 1    |
| 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°    | 13810.3 | 13810.3 | 13810.3 | 13810.3 | 13810.3 |
| 2.5°  | 13718.8 | 13709.3 | 13714.7 | 13721.5 | 13724.2 |
| 5°    | 13362.8 | 13349.9 | 13347.2 | 13375.0 | 13363.5 |
| 7.5°  | 12644.8 | 12626.5 | 12598.7 | 12661.7 | 12720.7 |
| 10°   | 11441.9 | 11421.6 | 11361.3 | 11391.1 | 11439.2 |
| 12.5° | 9666.2  | 9600.4  | 9599.0  | 9694.0  | 9681.1  |
| 15°   | 7322.2  | 7234.0  | 7282.8  | 7259.1  | 7246.2  |
| 17.5° | 4923.9  | 4890.0  | 4955.1  | 4935.5  | 4850.7  |
| 20°   | 3542.1  | 3550.9  | 3675.0  | 3612.6  | 3537.3  |
| 22.5° | 2584.7  | 2616.6  | 2763.7  | 2603.0  | 2544.0  |
| 25°   | 1720.9  | 1786.0  | 1940.6  | 1740.5  | 1685.6  |
| 27.5° | 1058.4  | 1088.3  | 1244.9  | 1044.9  | 1015.0  |
| 30°   | 658.4   | 643.5   | 717.4   | 615.7   | 573.6   |
| 32.5° | 431.9   | 412.9   | 436.7   | 391.9   | 358.0   |
| 35°   | 288.8   | 294.9   | 276.6   | 274.6   | 231.9   |
| 37.5° | 180.4   | 207.5   | 183.1   | 195.3   | 149.2   |
| 40°   | 116.6   | 150.5   | 129.5   | 143.1   | 109.8   |
| 42.5° | 95.6    | 115.9   | 106.5   | 113.2   | 97.6    |
| 45°   | 75.9    | 94.2    | 94.2    | 94.2    | 76.6    |
| 47.5° | 42.0    | 63.1    | 80.7    | 64.4    | 44.8    |
| 50°   | 23.7    | 31.9    | 62.4    | 33.2    | 25.1    |
| 52.5° | 16.3    | 18.3    | 42.7    | 19.0    | 17.0    |
| 55°   | 12.2    | 12.9    | 23.1    | 13.6    | 12.9    |
| 57.5° | 9.5     | 10.2    | 12.2    | 10.2    | 9.5     |
| 60°   | 7.5     | 7.5     | 8.8     | 8.1     | 7.5     |
| 62.5° | 5.4     | 5.4     | 6.1     | 5.4     | 5.4     |
| 65°   | 4.1     | 4.1     | 4.1     | 4.1     | 4.1     |
| 67.5° | 2.0     | 2.7     | 2.7     | 2.7     | 2.7     |
| 70°   | 2.0     | 1.4     | 1.4     | 1.4     | 2.0     |
| 72.5° | 1.4     | 0.7     | 0.7     | 0.7     | 0.7     |
| 75°   | 0.0     | 0.0     | 0.7     | 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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Scaled Data Report



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Scaled Data Report







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

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