

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: P1500379

Luminaire Tested: LD4C10D010 EU4109040 4LBMH

Issue Date: 2/8/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P1500379  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P207151)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/8/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LD4C10D010 EU4109040 4LBMH  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBM TRIM FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

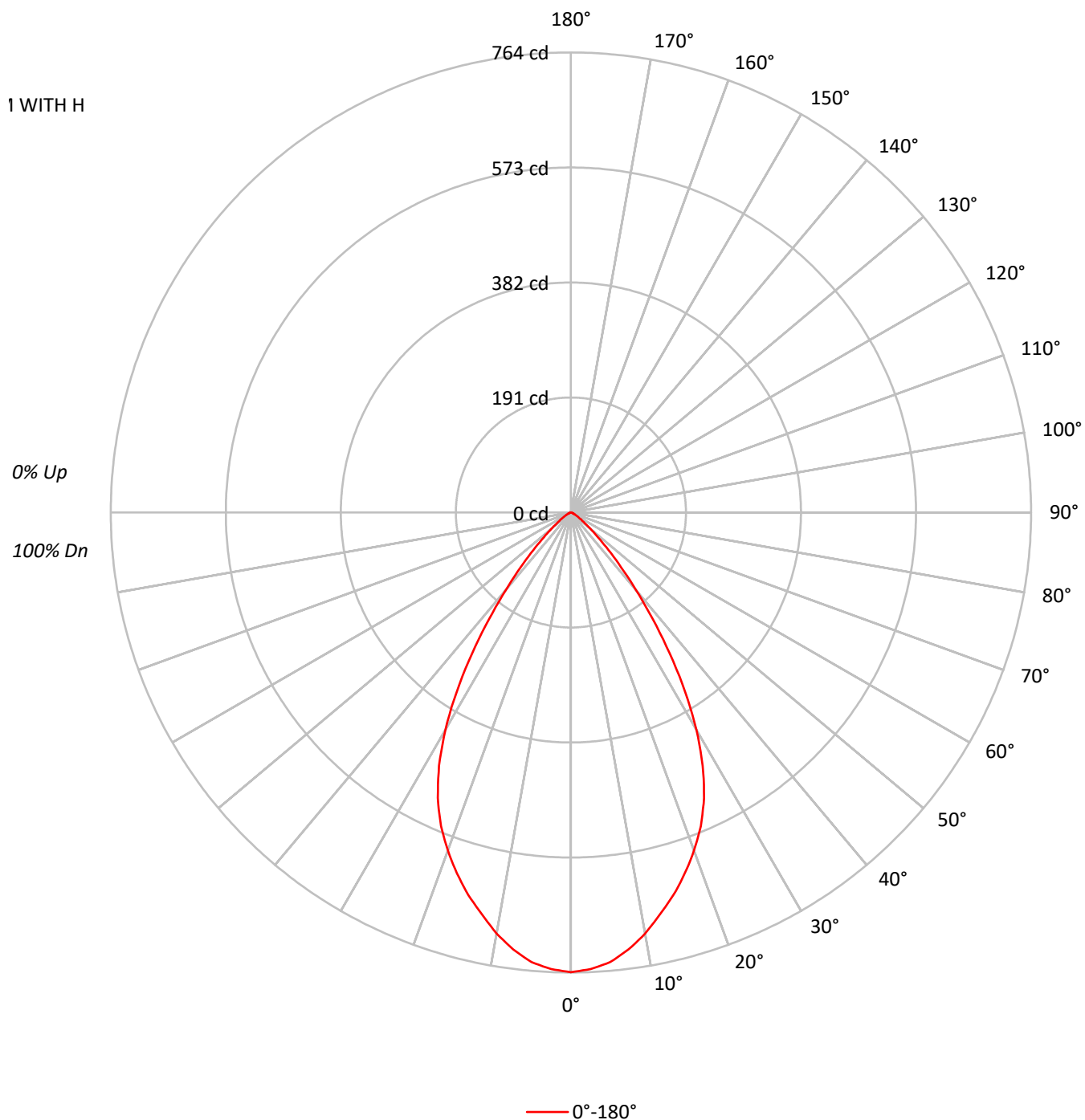
Lumens per Lamp: N/A  
Luminaire Lumens: 770.0 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.8  
Input Voltage (V):  
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

TEST NUMBER: P1500379

CATALOG NUMBER: LD4C10D010 EU4109040 4LBMH

### Luminous Intensity Polar Plot



TEST NUMBER: P1500379

CATALOG NUMBER: LD4C10D010 EU4109040 4LBMH

**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   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 |  | 100 | 99  | 97  |  | 97  |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 96  | 93  | 97  | 94  | 91  |  | 94  | 91  | 89  |  | 91  |
| 3   | 101 | 94  | 89  | 85  | 99  | 93  | 88  | 84  | 90  | 86  | 83  |  | 88  | 84  | 82  |  | 86  |
| 4   | 96  | 88  | 82  | 77  | 94  | 86  | 81  | 77  | 84  | 80  | 76  |  | 82  | 78  | 75  |  | 80  |
| 5   | 90  | 82  | 75  | 71  | 89  | 81  | 75  | 70  | 79  | 74  | 70  |  | 77  | 73  | 69  |  | 75  |
| 6   | 86  | 76  | 70  | 65  | 84  | 75  | 69  | 65  | 74  | 68  | 64  |  | 72  | 68  | 64  |  | 71  |
| 7   | 81  | 71  | 65  | 60  | 80  | 70  | 64  | 60  | 69  | 64  | 60  |  | 68  | 63  | 59  |  | 67  |
| 8   | 77  | 67  | 60  | 56  | 75  | 66  | 60  | 56  | 65  | 59  | 56  |  | 64  | 59  | 55  |  | 63  |
| 9   | 73  | 63  | 56  | 52  | 72  | 62  | 56  | 52  | 61  | 56  | 52  |  | 60  | 55  | 52  |  | 59  |
| 10  | 69  | 59  | 53  | 49  | 68  | 59  | 53  | 49  | 58  | 52  | 49  |  | 57  | 52  | 48  |  | 56  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 93799 |
| 5°  | 92443 |
| 10° | 88572 |
| 15° | 83664 |
| 20° | 78090 |
| 25° | 70895 |
| 30° | 59184 |
| 35° | 42878 |
| 40° | 26847 |
| 45° | 15341 |
| 50° | 8008  |
| 55° | 4477  |
| 60° | 2850  |
| 65° | 1686  |
| 70° | 1257  |
| 75° | 570   |
| 80° | 849   |
| 85° | 0     |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15341 cd/sqm

TEST NUMBER: P1500379

CATALOG NUMBER: LD4C10D010 EU4109040 4LBMH

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.3   | 9.1       |
| 10°-20°   | 184.3  | 23.9      |
| 20°-30°   | 236.9  | 30.8      |
| 30°-40°   | 178.2  | 23.1      |
| 40°-50°   | 71.6   | 9.3       |
| 50°-60°   | 20.3   | 2.6       |
| 60°-70°   | 6.4    | 0.8       |
| 70°-80°   | 1.9    | 0.2       |
| 80°-90°   | 0.2    | 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°    | 491.4  | 63.8      |
| 0°-40°    | 669.6  | 87.0      |
| 0°-60°    | 761.6  | 98.9      |
| 0°-90°    | 770.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 770.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 764 |      |
| 5°  | 750 | 70   |
| 15° | 658 | 184  |
| 25° | 523 | 237  |
| 35° | 286 | 178  |
| 45° | 88  | 72   |
| 55° | 21  | 20   |
| 65° | 6   | 6    |
| 75° | 1   | 2    |
| 85° | 0   | 0    |
| 90° | 0   |      |

TEST NUMBER: P1500379

CATALOG NUMBER: LD4C10D010 EU4109040 4LBMH

**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 763.5 |
| 2.5°  | 758.9 |
| 5°    | 749.6 |
| 7.5°  | 732.1 |
| 10°   | 710.0 |
| 12.5° | 683.3 |
| 15°   | 657.8 |
| 17.5° | 628.7 |
| 20°   | 597.3 |
| 22.5° | 563.6 |
| 25°   | 523.0 |
| 27.5° | 474.1 |
| 30°   | 417.2 |
| 32.5° | 353.3 |
| 35°   | 285.9 |
| 37.5° | 223.1 |
| 40°   | 167.4 |
| 42.5° | 123.2 |
| 45°   | 88.3  |
| 47.5° | 60.5  |
| 50°   | 41.9  |
| 52.5° | 29.1  |
| 55°   | 20.9  |
| 57.5° | 15.1  |
| 60°   | 11.6  |
| 62.5° | 8.1   |
| 65°   | 5.8   |
| 67.5° | 4.7   |
| 70°   | 3.5   |
| 72.5° | 2.3   |
| 75°   | 1.2   |
| 77.5° | 1.2   |
| 80°   | 1.2   |
| 82.5° | 0.0   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |

(END OF REPORT)