

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P843473

Luminaire Tested: **LD4C20DE010B2750 EU4C20B40 4LBNLI**

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P843473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P208279)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C20DE010B2750 EU4C20B40 4LBNLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

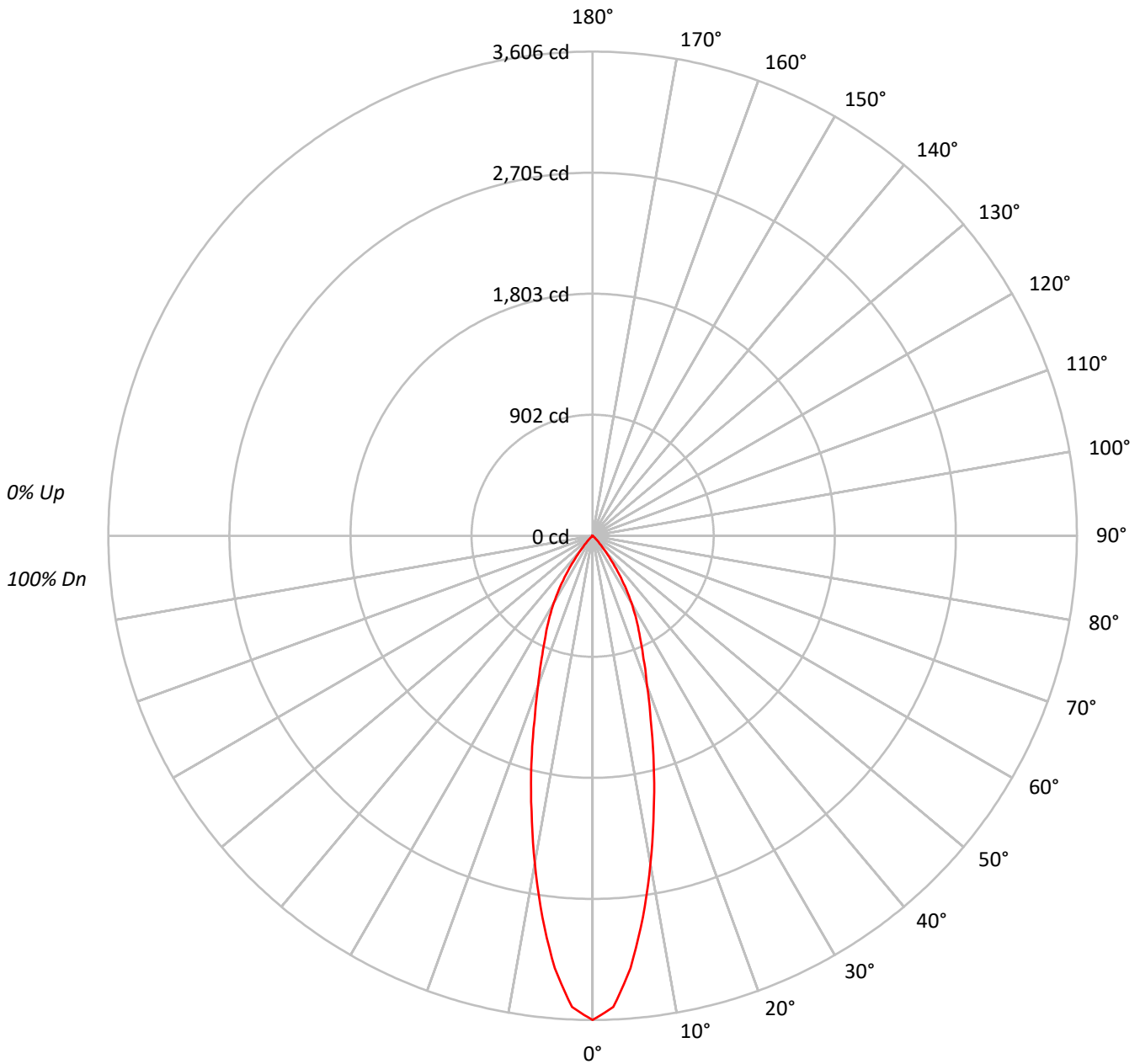
Lumens per Lamp: N/A  
Luminaire Lumens: 1401.3 lumens  
Efficiency: N/A  
Efficacy: 64.3 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.54  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.8  
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: 25 FT

TEST NUMBER: P843473

CATALOG NUMBER: LD4C20DE010B2750 EU4C20B40 4LBNLI

### 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  |     |     | 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 | 100 | 100 | 100 |
| 1   | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  | 95  | 95  | 95  |
| 2   | 109 | 105 | 102 | 99  | 107 | 103 | 100 | 98  | 100 | 98  | 95  | 97  | 95  | 93  | 95  | 93  | 92  | 90  | 90  | 90  | 90  |
| 3   | 105 | 99  | 95  | 92  | 103 | 98  | 94  | 91  | 95  | 92  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 85  | 85  | 85  | 85  |
| 4   | 101 | 94  | 89  | 86  | 99  | 93  | 88  | 85  | 91  | 87  | 84  | 89  | 86  | 83  | 87  | 84  | 82  | 81  | 81  | 81  | 81  |
| 5   | 96  | 89  | 84  | 80  | 95  | 88  | 84  | 80  | 87  | 82  | 79  | 85  | 81  | 79  | 83  | 80  | 78  | 77  | 77  | 77  | 77  |
| 6   | 92  | 85  | 80  | 76  | 91  | 84  | 79  | 76  | 83  | 78  | 75  | 81  | 78  | 75  | 80  | 77  | 74  | 73  | 73  | 73  | 73  |
| 7   | 89  | 81  | 76  | 72  | 88  | 80  | 75  | 72  | 79  | 75  | 71  | 78  | 74  | 71  | 77  | 73  | 71  | 69  | 69  | 69  | 69  |
| 8   | 85  | 77  | 72  | 68  | 84  | 77  | 72  | 68  | 76  | 71  | 68  | 75  | 71  | 68  | 74  | 70  | 67  | 66  | 66  | 66  | 66  |
| 9   | 82  | 74  | 69  | 65  | 81  | 73  | 68  | 65  | 72  | 68  | 65  | 72  | 68  | 65  | 71  | 67  | 64  | 63  | 63  | 63  | 63  |
| 10  | 79  | 71  | 66  | 62  | 78  | 70  | 65  | 62  | 69  | 65  | 62  | 69  | 65  | 62  | 68  | 64  | 62  | 61  | 61  | 61  | 61  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 443046 |
| 5°  | 398702 |
| 10° | 309077 |
| 15° | 223697 |
| 20° | 154898 |
| 25° | 112930 |
| 30° | 82051  |
| 35° | 48547  |
| 40° | 20416  |
| 45° | 6376   |
| 50° | 822    |
| 55° | 450    |
| 60° | 516    |
| 65° | 610    |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 284.2  | 20.3      |
| 10°-20°   | 486.5  | 34.7      |
| 20°-30°   | 386.7  | 27.6      |
| 30°-40°   | 204.7  | 14.6      |
| 40°-50°   | 35.3   | 2.5       |
| 50°-60°   | 2.6    | 0.2       |
| 60°-70°   | 1.3    | 0.1       |
| 70°-80°   | 0.0    | 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°    | 1157.4 | 82.6      |
| 0°-40°    | 1362.1 | 97.2      |
| 0°-60°    | 1400.0 | 99.9      |
| 0°-90°    | 1401.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1401.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3606 |      |
| 5°  | 3233 | 284  |
| 15° | 1759 | 487  |
| 25° | 833  | 387  |
| 35° | 324  | 205  |
| 45° | 37   | 35   |
| 55° | 2    | 3    |
| 65° | 2    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 3606.3 |
| 2.5°  | 3513.5 |
| 5°    | 3233.0 |
| 7.5°  | 2866.1 |
| 10°   | 2477.6 |
| 12.5° | 2102.0 |
| 15°   | 1758.8 |
| 17.5° | 1439.4 |
| 20°   | 1184.8 |
| 22.5° | 990.6  |
| 25°   | 833.1  |
| 27.5° | 705.8  |
| 30°   | 578.4  |
| 32.5° | 448.9  |
| 35°   | 323.7  |
| 37.5° | 213.7  |
| 40°   | 127.3  |
| 42.5° | 73.4   |
| 45°   | 36.7   |
| 47.5° | 13.0   |
| 50°   | 4.3    |
| 52.5° | 4.3    |
| 55°   | 2.1    |
| 57.5° | 2.1    |
| 60°   | 2.1    |
| 62.5° | 2.1    |
| 65°   | 2.1    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)