

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: P755377

Luminaire Tested: LD4D90BD010-EU4DR3070959040-4LBCSSQMB

Issue Date: 1/30/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P755377  
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: LD4D90BD010-EU4DR3070959040-4LBCSSQMB  
Description: 4 INCH SQAURE SHALLOW CAST MATTE BLACK TRIM, WITH 30° OPTIC  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

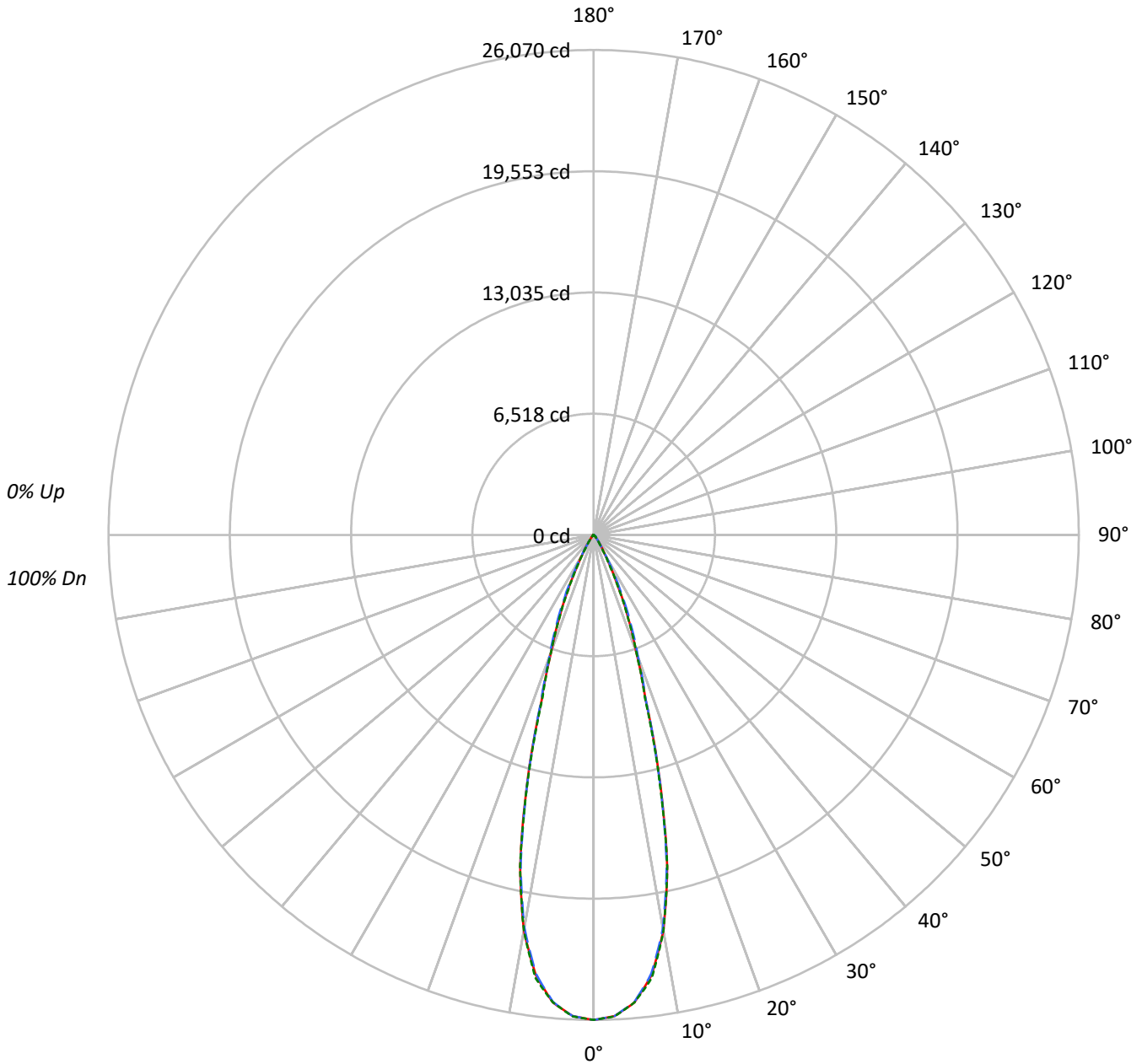
Lumens per Lamp: N/A  
Luminaire Lumens: 8107.5 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.49  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 98.9  
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



TEST NUMBER: P755377  
CATALOG NUMBER: LD4D90BD010-EU4DR3070959040-4LBCSSQMB

### Luminous Intensity Polar Plot





TEST NUMBER: P755377

CATALOG NUMBER: LD4D90BD010-EU4DR3070959040-4LBCSSQMB

**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°  | 1995448 | 1995448 | 1995448 |
| 5°  | 1938167 | 1935908 | 1938267 |
| 10° | 1678749 | 1666912 | 1678345 |
| 15° | 1095296 | 1089417 | 1083941 |
| 20° | 544638  | 565075  | 543913  |
| 25° | 274356  | 309380  | 268731  |
| 30° | 109845  | 119691  | 95703   |
| 35° | 50945   | 48796   | 40900   |
| 40° | 21992   | 24431   | 20713   |
| 45° | 15523   | 19257   | 15653   |
| 50° | 5335    | 14028   | 5644    |
| 55° | 3069    | 5805    | 3243    |
| 60° | 2159    | 2541    | 2159    |
| 65° | 1395    | 1395    | 1395    |
| 70° | 850     | 582     | 850     |
| 75° | 0       | 384     | 0       |
| 80° | 0       | 0       | 0       |
| 85° | 0       | 0       | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 19257 cd/sqm



TEST NUMBER: P755377

CATALOG NUMBER: LD4D90BD010-EU4DR3070959040-4LBCSSQMB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2292.4 | 28.3      |
| 10°-20°   | 3692.0 | 45.5      |
| 20°-30°   | 1595.4 | 19.7      |
| 30°-40°   | 363.6  | 4.5       |
| 40°-50°   | 124.9  | 1.5       |
| 50°-60°   | 30.5   | 0.4       |
| 60°-70°   | 7.9    | 0.1       |
| 70°-80°   | 0.8    | 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°    | 7579.8 | 93.5      |
| 0°-40°    | 7943.4 | 98.0      |
| 0°-60°    | 8098.8 | 99.9      |
| 0°-90°    | 8107.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8107.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 26070 | 26070 | 26070 | 26070 | 26070 |      |
| 5°  | 25225 | 25200 | 25195 | 25248 | 25226 | 2294 |
| 15° | 13822 | 13656 | 13748 | 13703 | 13679 | 3701 |
| 25° | 3248  | 3371  | 3663  | 3286  | 3182  | 1555 |
| 35° | 545   | 557   | 522   | 518   | 438   | 370  |
| 45° | 143   | 178   | 178   | 178   | 145   | 102  |
| 55° | 23    | 24    | 44    | 26    | 24    | 22   |
| 65° | 8     | 8     | 8     | 8     | 8     | 8    |
| 75° | 0     | 0     | 1     | 0     | 0     | 1    |
| 85° | 0     | 0     | 0     | 0     | 0     | 0    |
| 90° | 0     | 0     | 0     | 0     | 0     | 0    |



TEST NUMBER: P755377

CATALOG NUMBER: LD4D90BD010-EU4DR3070959040-4LBCSSQMB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 26069.5 | 26069.5 | 26069.5 | 26069.5 | 26069.5 |
| 2.5°  | 25896.8 | 25878.8 | 25889.1 | 25901.9 | 25907.0 |
| 5°    | 25224.8 | 25200.5 | 25195.4 | 25247.8 | 25226.1 |
| 7.5°  | 23869.4 | 23834.8 | 23782.3 | 23901.4 | 24012.7 |
| 10°   | 21598.8 | 21560.4 | 21446.5 | 21502.8 | 21593.6 |
| 12.5° | 18246.6 | 18122.5 | 18119.9 | 18299.1 | 18274.8 |
| 15°   | 13821.9 | 13655.5 | 13747.7 | 13702.9 | 13678.6 |
| 17.5° | 9294.8  | 9230.8  | 9353.7  | 9316.6  | 9156.6  |
| 20°   | 6686.3  | 6703.0  | 6937.2  | 6819.4  | 6677.4  |
| 22.5° | 4879.1  | 4939.2  | 5217.0  | 4913.6  | 4802.3  |
| 25°   | 3248.5  | 3371.3  | 3663.2  | 3285.6  | 3181.9  |
| 27.5° | 1998.0  | 2054.3  | 2349.9  | 1972.4  | 1916.1  |
| 30°   | 1242.8  | 1214.7  | 1354.2  | 1162.2  | 1082.8  |
| 32.5° | 815.3   | 779.5   | 824.3   | 739.8   | 675.8   |
| 35°   | 545.2   | 556.8   | 522.2   | 518.4   | 437.7   |
| 37.5° | 340.5   | 391.7   | 345.6   | 368.6   | 281.6   |
| 40°   | 220.1   | 284.1   | 244.5   | 270.1   | 207.3   |
| 42.5° | 180.5   | 218.9   | 200.9   | 213.7   | 184.3   |
| 45°   | 143.4   | 177.9   | 177.9   | 177.9   | 144.6   |
| 47.5° | 79.4    | 119.0   | 152.3   | 121.6   | 84.5    |
| 50°   | 44.8    | 60.2    | 117.8   | 62.7    | 47.4    |
| 52.5° | 30.7    | 34.6    | 80.6    | 35.8    | 32.0    |
| 55°   | 23.0    | 24.3    | 43.5    | 25.6    | 24.3    |
| 57.5° | 17.9    | 19.2    | 23.0    | 19.2    | 17.9    |
| 60°   | 14.1    | 14.1    | 16.6    | 15.4    | 14.1    |
| 62.5° | 10.2    | 10.2    | 11.5    | 10.2    | 10.2    |
| 65°   | 7.7     | 7.7     | 7.7     | 7.7     | 7.7     |
| 67.5° | 3.8     | 5.1     | 5.1     | 5.1     | 5.1     |
| 70°   | 3.8     | 2.6     | 2.6     | 2.6     | 3.8     |
| 72.5° | 2.6     | 1.3     | 1.3     | 1.3     | 1.3     |
| 75°   | 0.0     | 0.0     | 1.3     | 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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report







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

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)