

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: HALO

Report Number: P885948

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1RDSL-400LM-2700K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885948  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-131)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1RDSL-400LM-2700K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 389.4 lumens  
Efficiency: N/A  
Efficacy: 64.9 lumens/watt  
Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.77  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

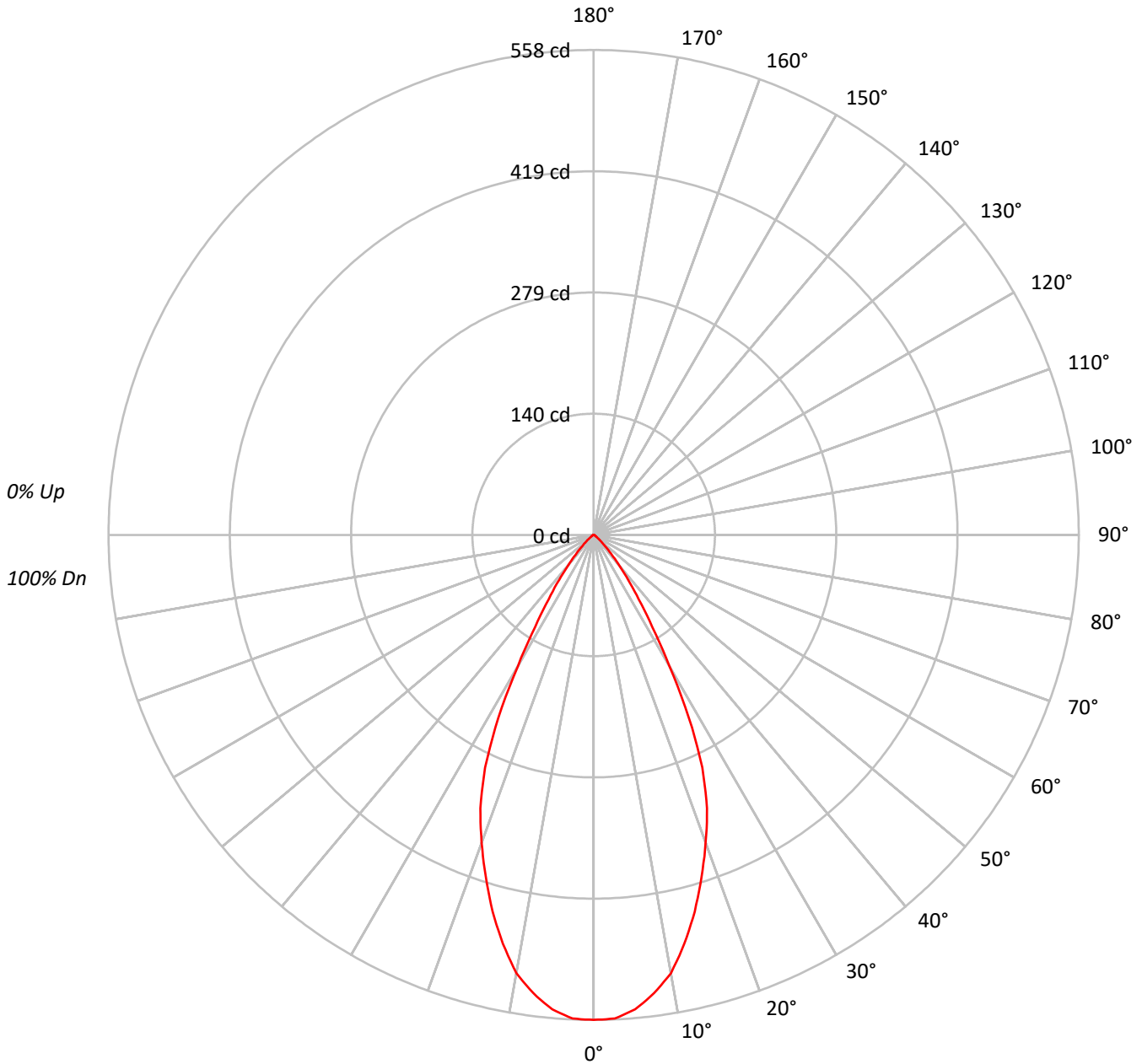
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 94  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 109 | 104 | 100 | 97  | 106 | 102 | 99  | 96  | 99  | 96  | 94  | 96  | 94  | 92  | 93  | 91  | 90  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 103 | 97  | 93  | 89  | 101 | 96  | 92  | 88  | 93  | 90  | 87  | 91  | 88  | 85  | 89  | 86  | 84  | 83  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 99  | 91  | 86  | 82  | 97  | 90  | 85  | 82  | 88  | 84  | 81  | 86  | 83  | 80  | 84  | 81  | 79  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 94  | 86  | 81  | 76  | 92  | 85  | 80  | 76  | 83  | 79  | 75  | 82  | 78  | 75  | 80  | 77  | 74  | 73  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 90  | 81  | 76  | 72  | 88  | 80  | 75  | 71  | 79  | 74  | 71  | 78  | 73  | 70  | 76  | 73  | 70  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 86  | 77  | 71  | 67  | 84  | 76  | 71  | 67  | 75  | 70  | 67  | 74  | 69  | 66  | 73  | 69  | 66  | 65  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 82  | 73  | 67  | 63  | 81  | 72  | 67  | 63  | 71  | 66  | 63  | 70  | 66  | 63  | 69  | 65  | 62  | 61  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 78  | 69  | 63  | 60  | 77  | 69  | 63  | 60  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 59  | 58  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 75  | 66  | 60  | 57  | 74  | 65  | 60  | 56  | 64  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 56  | 55  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1101236 |
| 5°  | 1085632 |
| 10° | 1025841 |
| 15° | 916971  |
| 20° | 791145  |
| 25° | 643470  |
| 30° | 397204  |
| 35° | 217314  |
| 40° | 116190  |
| 45° | 55820   |
| 50° | 27633   |
| 55° | 13763   |
| 60° | 7894    |
| 65° | 9340    |
| 70° | 5770    |
| 75° | 7625    |
| 80° | 0       |
| 85° | 0       |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 55820 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 51.1   | 13.1      |
| 10°-20°   | 124.7  | 32.0      |
| 20°-30°   | 130.2  | 33.4      |
| 30°-40°   | 59.7   | 15.3      |
| 40°-50°   | 17.3   | 4.4       |
| 50°-60°   | 4.1    | 1.1       |
| 60°-70°   | 1.6    | 0.4       |
| 70°-80°   | 0.7    | 0.2       |
| 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°    | 306.0  | 78.6      |
| 0°-40°    | 365.8  | 93.9      |
| 0°-60°    | 387.1  | 99.4      |
| 0°-90°    | 389.4  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 389.4  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 558 |      |
| 5°  | 548 | 51   |
| 15° | 449 | 125  |
| 25° | 296 | 130  |
| 35° | 90  | 60   |
| 45° | 20  | 17   |
| 55° | 4   | 4    |
| 65° | 2   | 2    |
| 75° | 1   | 1    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 558.0 |
| 2.5°  | 557.0 |
| 5°    | 548.0 |
| 7.5°  | 531.9 |
| 10°   | 511.9 |
| 12.5° | 481.8 |
| 15°   | 448.8 |
| 17.5° | 412.7 |
| 20°   | 376.7 |
| 22.5° | 340.6 |
| 25°   | 295.5 |
| 27.5° | 237.4 |
| 30°   | 174.3 |
| 32.5° | 125.2 |
| 35°   | 90.2  |
| 37.5° | 65.1  |
| 40°   | 45.1  |
| 42.5° | 31.1  |
| 45°   | 20.0  |
| 47.5° | 13.0  |
| 50°   | 9.0   |
| 52.5° | 6.0   |
| 55°   | 4.0   |
| 57.5° | 3.0   |
| 60°   | 2.0   |
| 62.5° | 2.0   |
| 65°   | 2.0   |
| 67.5° | 1.0   |
| 70°   | 1.0   |
| 72.5° | 1.0   |
| 75°   | 1.0   |
| 77.5° | 0.0   |
| 80°   | 0.0   |
| 82.5° | 0.0   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 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

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— 0°-180°

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