

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: P886043

Luminaire Tested: ML104LSFLD2W1E-TIR1D55WFL-TL1RDMWB-200LM-4000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886043  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-133)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D55WFL-TL1RDMWB-200LM-4000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE BAFFLED TRIM  
Light Source: (1) D2W LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 230.8 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.78  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

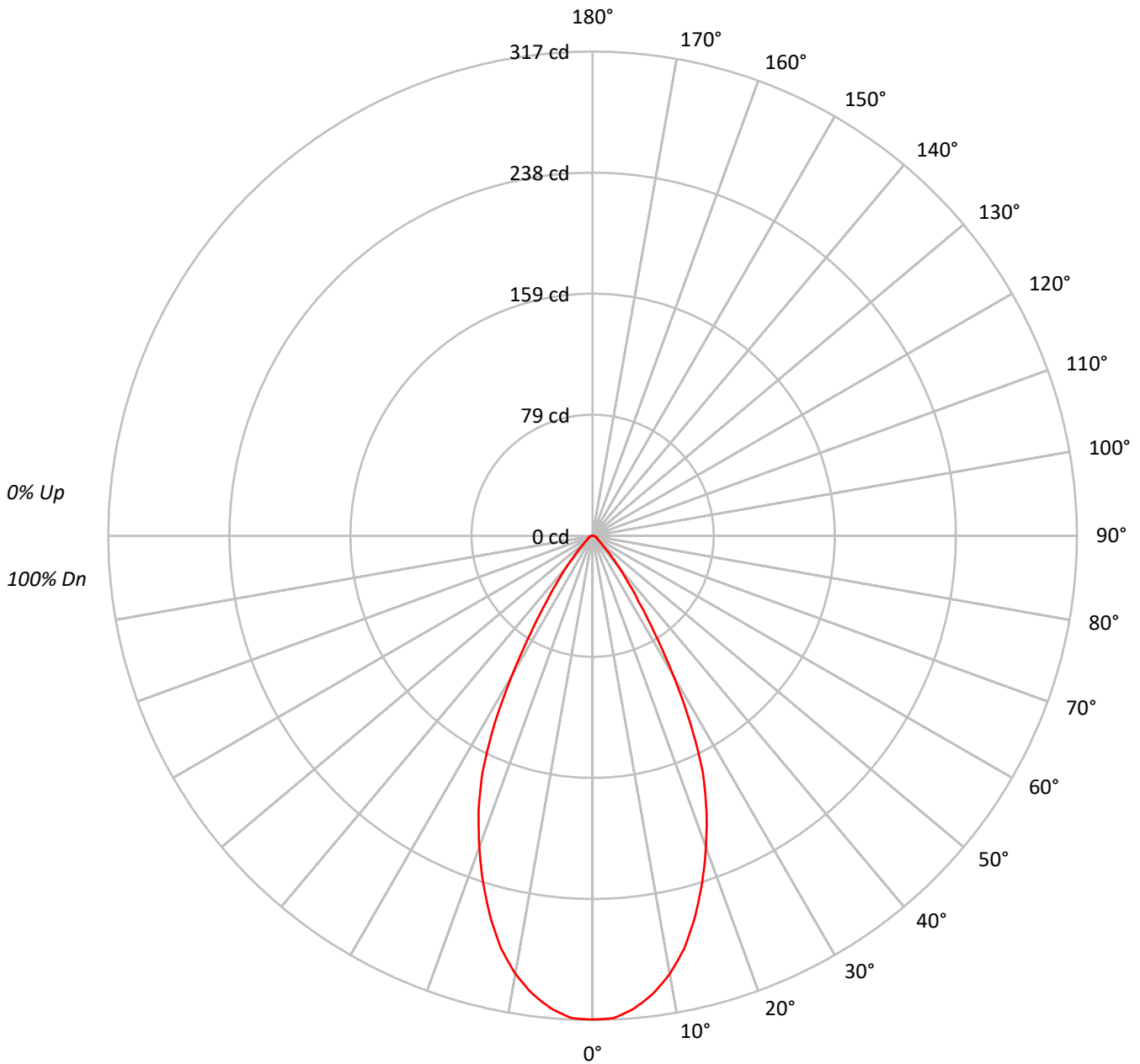
Input Watts (W): 3.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 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 |    |    |   |
| 1   | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |   |
| 2   | 108 | 103 | 99  | 96  | 106 | 101 | 98  | 95  | 98  | 95  | 92  | 95  | 93  | 90  | 92  | 90  | 89  | 87  |    |    |   |
| 3   | 103 | 96  | 91  | 87  | 101 | 95  | 90  | 87  | 92  | 88  | 85  | 90  | 87  | 84  | 88  | 85  | 83  | 81  |    |    |   |
| 4   | 98  | 90  | 85  | 81  | 96  | 89  | 84  | 80  | 87  | 83  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 76  |    |    |   |
| 5   | 93  | 85  | 79  | 75  | 91  | 84  | 79  | 75  | 82  | 77  | 74  | 80  | 76  | 73  | 79  | 75  | 73  | 71  |    |    |   |
| 6   | 89  | 80  | 74  | 70  | 87  | 79  | 74  | 70  | 78  | 73  | 69  | 76  | 72  | 69  | 75  | 71  | 68  | 67  |    |    |   |
| 7   | 84  | 75  | 70  | 66  | 83  | 75  | 69  | 65  | 74  | 69  | 65  | 72  | 68  | 65  | 71  | 67  | 64  | 63  |    |    |   |
| 8   | 81  | 71  | 66  | 62  | 79  | 71  | 65  | 62  | 70  | 65  | 61  | 69  | 64  | 61  | 68  | 64  | 61  | 59  |    |    |   |
| 9   | 77  | 68  | 62  | 58  | 76  | 67  | 62  | 58  | 66  | 61  | 58  | 65  | 61  | 58  | 65  | 61  | 58  | 56  |    |    |   |
| 10  | 74  | 64  | 59  | 55  | 73  | 64  | 59  | 55  | 63  | 58  | 55  | 62  | 58  | 55  | 62  | 58  | 55  | 53  |    |    |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 625021 |
| 5°  | 615720 |
| 10° | 583561 |
| 15° | 528157 |
| 20° | 455533 |
| 25° | 371274 |
| 30° | 239735 |
| 35° | 126004 |
| 40° | 67241  |
| 45° | 33213  |
| 50° | 19957  |
| 55° | 14451  |
| 60° | 14210  |
| 65° | 14009  |
| 70° | 13849  |
| 75° | 13725  |
| 80° | 13638  |
| 85° | 13586  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 33213 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 29.0   | 12.6      |
| 10°-20°   | 71.7   | 31.1      |
| 20°-30°   | 75.5   | 32.7      |
| 30°-40°   | 35.2   | 15.3      |
| 40°-50°   | 10.3   | 4.5       |
| 50°-60°   | 3.9    | 1.7       |
| 60°-70°   | 2.8    | 1.2       |
| 70°-80°   | 1.7    | 0.8       |
| 80°-90°   | 0.5    | 0.2       |
| 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°    | 176.3  | 76.4      |
| 0°-40°    | 211.5  | 91.6      |
| 0°-60°    | 225.7  | 97.8      |
| 0°-90°    | 230.8  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 230.8  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 317 |      |
| 5°  | 311 | 29   |
| 15° | 258 | 72   |
| 25° | 170 | 75   |
| 35° | 52  | 35   |
| 45° | 12  | 10   |
| 55° | 4   | 4    |
| 65° | 3   | 3    |
| 75° | 2   | 2    |
| 85° | 1   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 316.7 |
| 2.5°  | 316.1 |
| 5°    | 310.8 |
| 7.5°  | 302.5 |
| 10°   | 291.2 |
| 12.5° | 276.9 |
| 15°   | 258.5 |
| 17.5° | 238.3 |
| 20°   | 216.9 |
| 22.5° | 194.9 |
| 25°   | 170.5 |
| 27.5° | 139.0 |
| 30°   | 105.2 |
| 32.5° | 74.9  |
| 35°   | 52.3  |
| 37.5° | 37.4  |
| 40°   | 26.1  |
| 42.5° | 17.8  |
| 45°   | 11.9  |
| 47.5° | 8.3   |
| 50°   | 6.5   |
| 52.5° | 4.8   |
| 55°   | 4.2   |
| 57.5° | 3.6   |
| 60°   | 3.6   |
| 62.5° | 3.0   |
| 65°   | 3.0   |
| 67.5° | 2.4   |
| 70°   | 2.4   |
| 72.5° | 1.8   |
| 75°   | 1.8   |
| 77.5° | 1.2   |
| 80°   | 1.2   |
| 82.5° | 0.6   |
| 85°   | 0.6   |
| 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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Scaled Data Report



— 0°-180°

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Scaled Data Report



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