

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: P886548

Luminaire Tested: ML310LSFL95FS1E-TIR4D25NFL-TL3RDDB-650LM-3000K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886548  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL95FS1E-TIR4D25NFL-TL3RDMB-650LM-3000K  
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

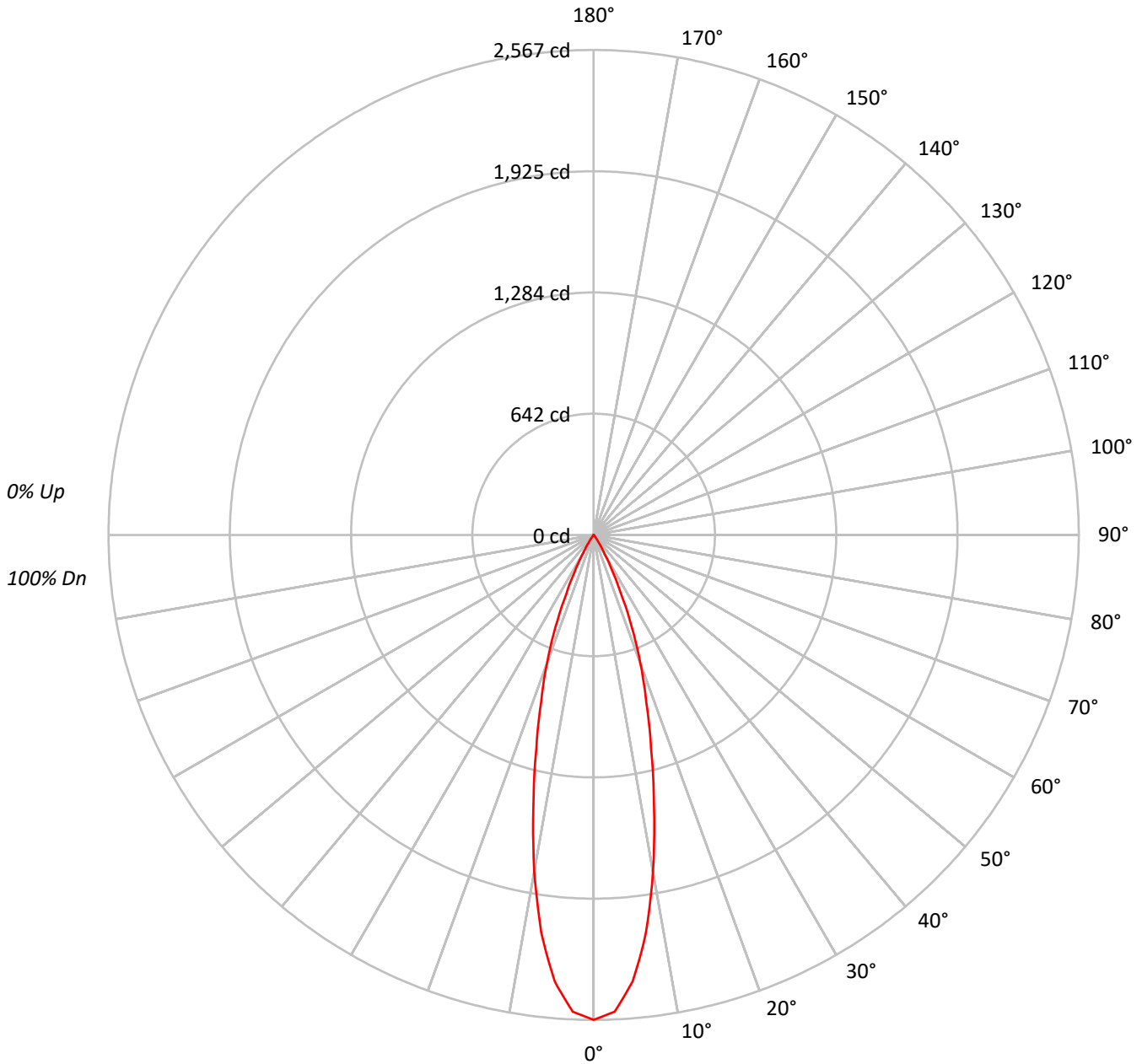
Lumens per Lamp: N/A  
Luminaire Lumens: 728.3 lumens  
Efficiency: N/A  
Efficacy: 68.1 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5  
Luminous Opening: Circular (Dia: 0.25' x H: 0')CIE Type: Direct

Input Watts (W): 10.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 |    |    |   | 100 |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 115 | 113 | 111 | 109 | 112 | 111 | 109 | 107 | 107 | 105 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 96  |    |    |   | 96  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 111 | 107 | 104 | 101 | 109 | 105 | 103 | 100 | 102 | 100 | 98  | 100 | 98  | 96  | 97  | 95  | 94  | 93  |    |    |   | 93  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 107 | 102 | 99  | 96  | 105 | 101 | 98  | 95  | 99  | 96  | 93  | 96  | 94  | 92  | 94  | 92  | 91  | 89  |    |    |   | 89  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 104 | 98  | 94  | 91  | 102 | 97  | 93  | 90  | 95  | 92  | 89  | 93  | 90  | 88  | 91  | 89  | 87  | 86  |    |    |   | 86  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 100 | 94  | 90  | 87  | 99  | 93  | 89  | 86  | 92  | 88  | 86  | 90  | 87  | 85  | 89  | 86  | 84  | 83  |    |    |   | 83  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 97  | 91  | 86  | 83  | 96  | 90  | 86  | 83  | 88  | 85  | 82  | 87  | 84  | 82  | 86  | 83  | 81  | 80  |    |    |   | 80  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 94  | 87  | 83  | 80  | 93  | 87  | 83  | 80  | 86  | 82  | 79  | 85  | 81  | 79  | 84  | 81  | 78  | 77  |    |    |   | 77  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 91  | 84  | 80  | 77  | 90  | 84  | 80  | 77  | 83  | 79  | 76  | 82  | 79  | 76  | 81  | 78  | 76  | 75  |    |    |   | 75  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 89  | 81  | 77  | 74  | 88  | 81  | 77  | 74  | 80  | 77  | 74  | 79  | 76  | 74  | 79  | 76  | 73  | 73  |    |    |   | 73  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 86  | 79  | 75  | 72  | 85  | 79  | 74  | 72  | 78  | 74  | 72  | 77  | 74  | 71  | 77  | 73  | 71  | 70  |    |    |   | 70  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 562893 |
| 5°  | 522055 |
| 10° | 402776 |
| 15° | 266176 |
| 20° | 168341 |
| 25° | 82456  |
| 30° | 30435  |
| 35° | 8191   |
| 40° | 1746   |
| 45° | 713    |
| 50° | 273    |
| 55° | 0      |
| 60° | 0      |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 713 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 208.2  | 28.6      |
| 10°-20°   | 327.1  | 44.9      |
| 20°-30°   | 165.4  | 22.7      |
| 30°-40°   | 25.5   | 3.5       |
| 40°-50°   | 2.1    | 0.3       |
| 50°-60°   | 0.1    | 0.0       |
| 60°-70°   | 0.0    | 0.0       |
| 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°    | 700.6  | 96.2      |
| 0°-40°    | 726.2  | 99.7      |
| 0°-60°    | 728.3  | 100.0     |
| 0°-90°    | 728.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 728.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2567 |      |
| 5°  | 2372 | 208  |
| 15° | 1172 | 327  |
| 25° | 341  | 165  |
| 35° | 31   | 26   |
| 45° | 2    | 2    |
| 55° | 0    | 0    |
| 65° | 0    | 0    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 2567.0 |
| 2.5°  | 2526.4 |
| 5°    | 2371.7 |
| 7.5°  | 2122.8 |
| 10°   | 1808.9 |
| 12.5° | 1475.7 |
| 15°   | 1172.5 |
| 17.5° | 925.1  |
| 20°   | 721.4  |
| 22.5° | 526.1  |
| 25°   | 340.8  |
| 27.5° | 212.9  |
| 30°   | 120.2  |
| 32.5° | 65.1   |
| 35°   | 30.6   |
| 37.5° | 12.3   |
| 40°   | 6.1    |
| 42.5° | 3.8    |
| 45°   | 2.3    |
| 47.5° | 1.5    |
| 50°   | 0.8    |
| 52.5° | 0.0    |
| 55°   | 0.0    |
| 57.5° | 0.0    |
| 60°   | 0.0    |
| 62.5° | 0.0    |
| 65°   | 0.0    |
| 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    |

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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