

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: P643401

Luminaire Tested: ML5615LSVWFL9FS1E - 591WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643401  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-93)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSVWFL9FS1E - 591WB - 900LM - 2700K  
Description: ML56 RR, MILKY OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1021.0 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.23  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

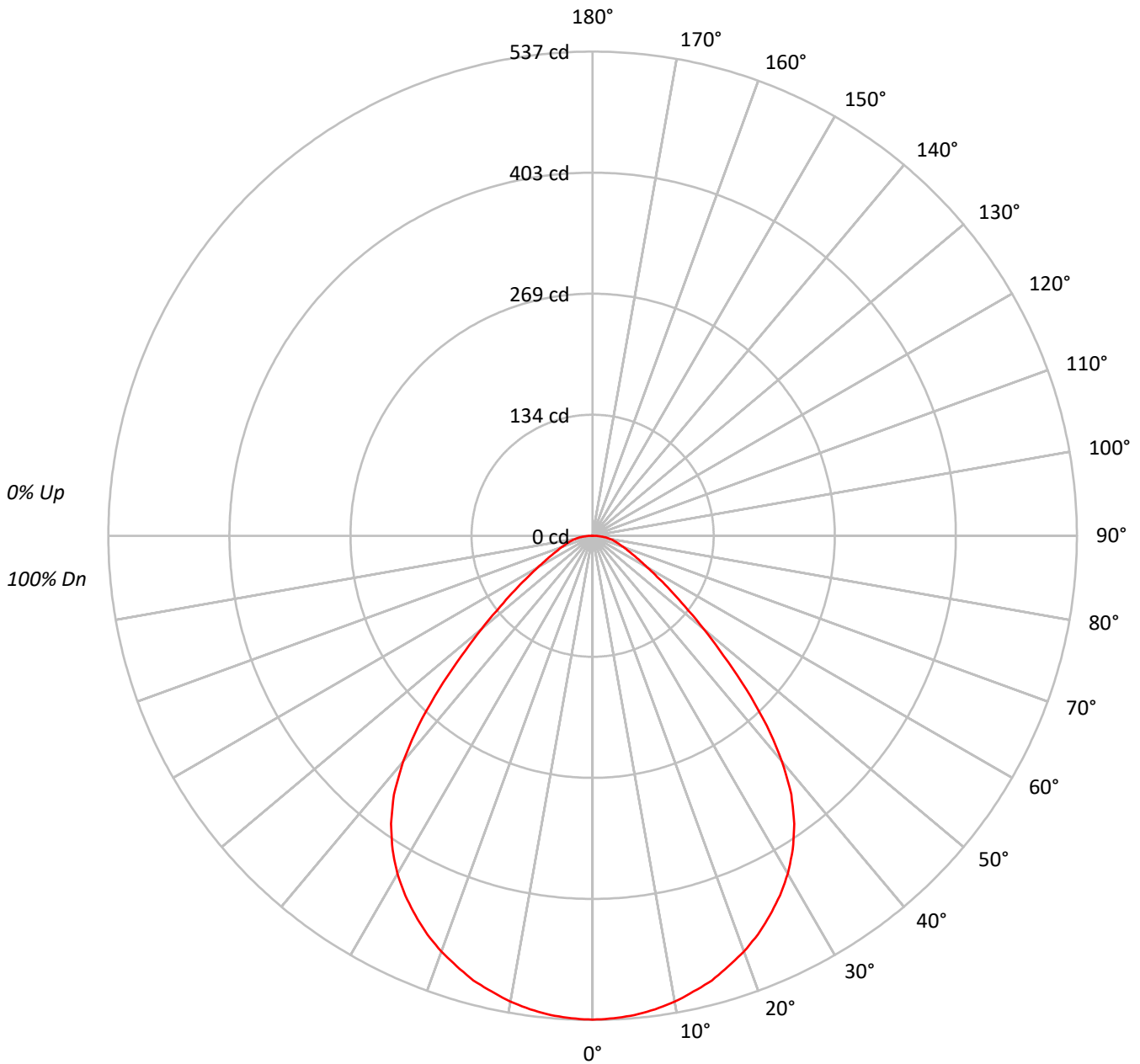
Input Watts (W): 10.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 103 | 96  | 91  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 83  | 88  | 84  | 81  | 85  | 82  | 79  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 95  | 87  | 80  | 74  | 93  | 85  | 79  | 74  | 82  | 77  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 89  | 78  | 71  | 65  | 87  | 77  | 70  | 65  | 75  | 69  | 64  | 73  | 67  | 63  | 71  | 66  | 62  | 61  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 82  | 71  | 64  | 58  | 81  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 56  | 65  | 60  | 56  | 54  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 77  | 65  | 57  | 52  | 75  | 64  | 57  | 52  | 63  | 56  | 51  | 61  | 55  | 51  | 60  | 54  | 50  | 49  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 72  | 60  | 52  | 47  | 70  | 59  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 44  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 67  | 55  | 47  | 42  | 66  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 41  | 40  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 63  | 51  | 44  | 39  | 62  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 59  | 47  | 40  | 35  | 58  | 47  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 33  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 42368 |
| 5°  | 42292 |
| 10° | 42059 |
| 15° | 41737 |
| 20° | 41222 |
| 25° | 40476 |
| 30° | 39451 |
| 35° | 37565 |
| 40° | 33677 |
| 45° | 26894 |
| 50° | 19760 |
| 55° | 14437 |
| 60° | 11052 |
| 65° | 9153  |
| 70° | 8309  |
| 75° | 8235  |
| 80° | 8637  |
| 85° | 9057  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 26894 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 50.6   | 5.0       |
| 10°-20°   | 143.9  | 14.1      |
| 20°-30°   | 213.9  | 20.9      |
| 30°-40°   | 241.2  | 23.6      |
| 40°-50°   | 185.5  | 18.2      |
| 50°-60°   | 96.6   | 9.5       |
| 60°-70°   | 49.9   | 4.9       |
| 70°-80°   | 28.6   | 2.8       |
| 80°-90°   | 10.7   | 1.1       |
| 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°    | 408.4  | 40.0      |
| 0°-40°    | 649.6  | 63.6      |
| 0°-60°    | 931.7  | 91.3      |
| 0°-90°    | 1021.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1021.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 537 |      |
| 5°  | 534 | 51   |
| 15° | 511 | 144  |
| 25° | 465 | 214  |
| 35° | 390 | 241  |
| 45° | 241 | 186  |
| 55° | 105 | 97   |
| 65° | 49  | 50   |
| 75° | 27  | 29   |
| 85° | 10  | 11   |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 536.7 |
| 2.5°  | 535.7 |
| 5°    | 533.7 |
| 7.5°  | 529.7 |
| 10°   | 524.7 |
| 12.5° | 517.7 |
| 15°   | 510.7 |
| 17.5° | 500.7 |
| 20°   | 490.7 |
| 22.5° | 478.7 |
| 25°   | 464.7 |
| 27.5° | 449.8 |
| 30°   | 432.8 |
| 32.5° | 412.8 |
| 35°   | 389.8 |
| 37.5° | 361.8 |
| 40°   | 326.8 |
| 42.5° | 285.8 |
| 45°   | 240.9 |
| 47.5° | 196.9 |
| 50°   | 160.9 |
| 52.5° | 128.9 |
| 55°   | 104.9 |
| 57.5° | 85.0  |
| 60°   | 70.0  |
| 62.5° | 58.0  |
| 65°   | 49.0  |
| 67.5° | 42.0  |
| 70°   | 36.0  |
| 72.5° | 31.0  |
| 75°   | 27.0  |
| 77.5° | 23.0  |
| 80°   | 19.0  |
| 82.5° | 15.0  |
| 85°   | 10.0  |
| 87.5° | 5.0   |
| 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





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Scaled Data Report



— 0°-180°

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