

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: P640349

Luminaire Tested: ML5609LSNFL25D2W1E - 592SC - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640349  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 592SC - 900LM - 2700K  
Description: ML56 RR, 25D TIR OPTIC, 5" SPECULAR CLEAR TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1068.4 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 0.44 / 0.44 / 0.48  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

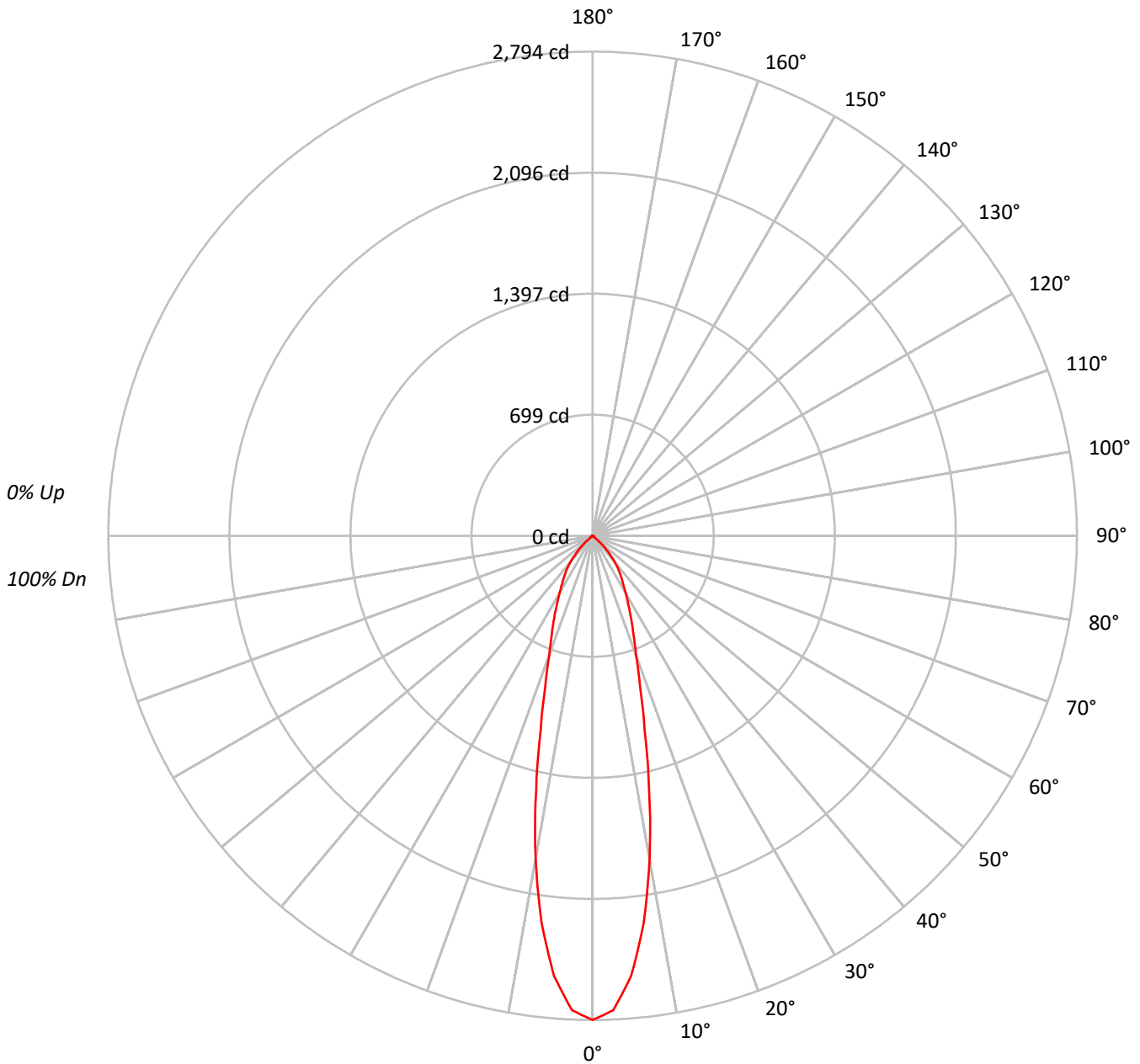
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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   | 114 | 111 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 94  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 109 | 104 | 101 | 97  | 107 | 103 | 99  | 96  | 99  | 97  | 94  | 96  | 94  | 92  | 94  | 92  | 90  | 89  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 104 | 98  | 93  | 90  | 102 | 97  | 92  | 89  | 94  | 91  | 88  | 92  | 89  | 86  | 89  | 87  | 85  | 83  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 99  | 92  | 87  | 83  | 97  | 91  | 86  | 83  | 89  | 85  | 82  | 87  | 84  | 81  | 85  | 82  | 80  | 79  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 95  | 87  | 82  | 78  | 93  | 86  | 81  | 78  | 85  | 80  | 77  | 83  | 79  | 76  | 81  | 78  | 76  | 74  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 91  | 83  | 77  | 73  | 89  | 82  | 77  | 73  | 80  | 76  | 72  | 79  | 75  | 72  | 78  | 74  | 71  | 70  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 87  | 78  | 73  | 69  | 86  | 78  | 73  | 69  | 77  | 72  | 69  | 75  | 71  | 68  | 74  | 71  | 68  | 67  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 83  | 75  | 69  | 65  | 82  | 74  | 69  | 65  | 73  | 68  | 65  | 72  | 68  | 65  | 71  | 67  | 64  | 63  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 80  | 71  | 66  | 62  | 79  | 71  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 68  | 64  | 61  | 60  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 77  | 68  | 63  | 59  | 76  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 59  | 65  | 62  | 59  | 58  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 220561 |
| 5°  | 202060 |
| 10° | 151805 |
| 15° | 94508  |
| 20° | 61275  |
| 25° | 45772  |
| 30° | 34620  |
| 35° | 27398  |
| 40° | 20909  |
| 45° | 12113  |
| 50° | 3205   |
| 55° | 1376   |
| 60° | 947    |
| 65° | 374    |
| 70° | 231    |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12113 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 222.1  | 20.8      |
| 10°-20°   | 328.9  | 30.8      |
| 20°-30°   | 242.8  | 22.7      |
| 30°-40°   | 178.1  | 16.7      |
| 40°-50°   | 82.9   | 7.8       |
| 50°-60°   | 10.9   | 1.0       |
| 60°-70°   | 2.6    | 0.2       |
| 70°-80°   | 0.1    | 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°    | 793.8  | 74.3      |
| 0°-40°    | 971.9  | 91.0      |
| 0°-60°    | 1065.7 | 99.7      |
| 0°-90°    | 1068.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1068.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2794 |      |
| 5°  | 2550 | 222  |
| 15° | 1156 | 329  |
| 25° | 526  | 243  |
| 35° | 284  | 178  |
| 45° | 108  | 83   |
| 55° | 10   | 11   |
| 65° | 2    | 3    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2794.0 |
| 2.5°  | 2739.8 |
| 5°    | 2549.9 |
| 7.5°  | 2253.5 |
| 10°   | 1893.8 |
| 12.5° | 1507.0 |
| 15°   | 1156.4 |
| 17.5° | 906.2  |
| 20°   | 729.4  |
| 22.5° | 614.9  |
| 25°   | 525.5  |
| 27.5° | 444.1  |
| 30°   | 379.8  |
| 32.5° | 326.5  |
| 35°   | 284.3  |
| 37.5° | 245.1  |
| 40°   | 202.9  |
| 42.5° | 153.7  |
| 45°   | 108.5  |
| 47.5° | 61.3   |
| 50°   | 26.1   |
| 52.5° | 15.1   |
| 55°   | 10.0   |
| 57.5° | 8.0    |
| 60°   | 6.0    |
| 62.5° | 4.0    |
| 65°   | 2.0    |
| 67.5° | 1.0    |
| 70°   | 1.0    |
| 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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