

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: P640500

Luminaire Tested: ML5609LSWFL55D2W1E - 594SNB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640500  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-56)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSWFL55D2W1E - 594SNB - 900LM - 3000K  
Description: ML56 RR, 55D TIR OPTIC, 5" SATIN NICKLE GIMBAL TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1227.6 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.88  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

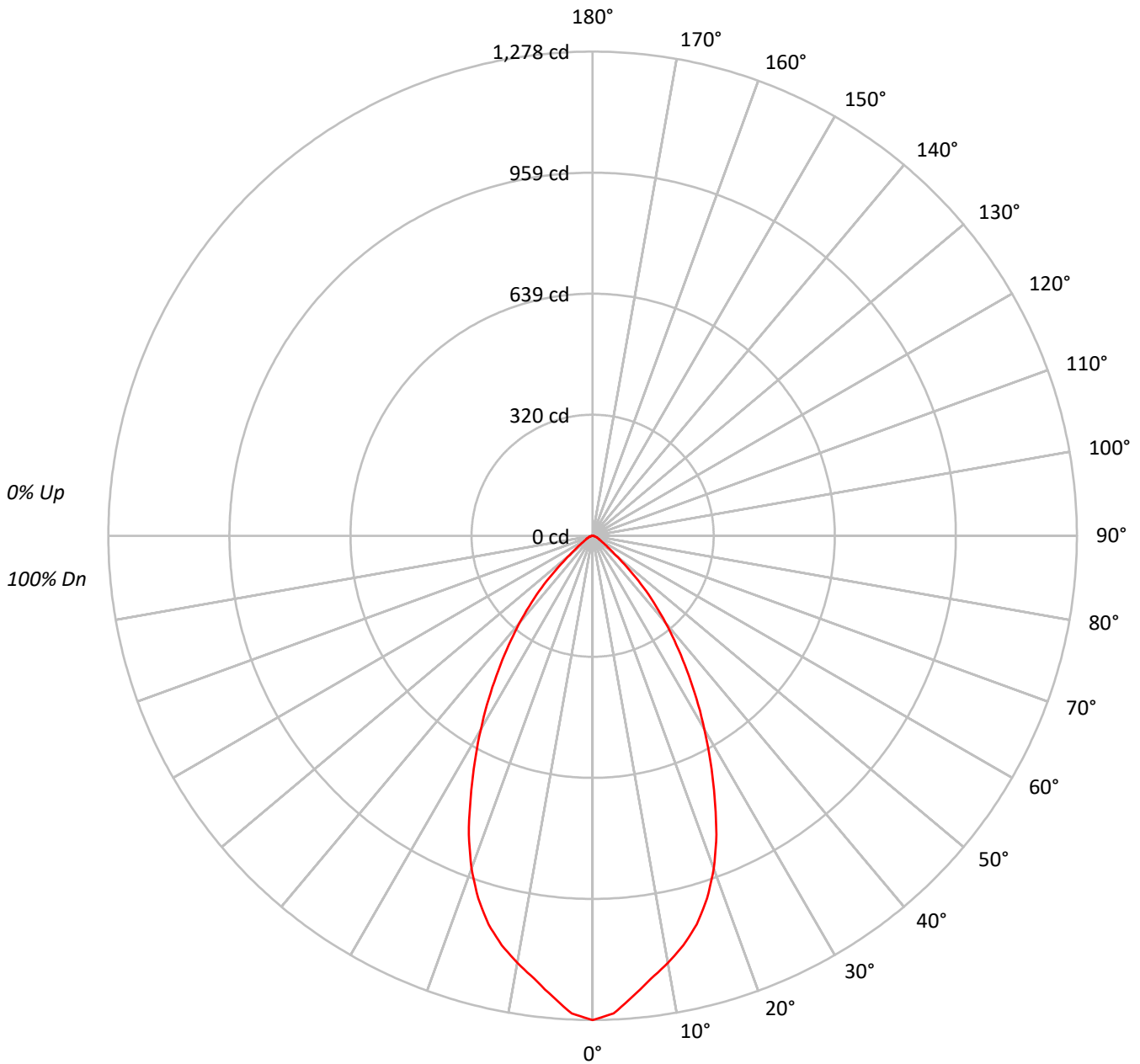
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 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 | 100 | 100 | 100 |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 97  | 95  | 94  | 92  | 92  | 92  | 92  |
| 2   | 107 | 101 | 97  | 93  | 105 | 100 | 96  | 92  | 96  | 93  | 90  | 93  | 91  | 88  | 91  | 88  | 87  | 85  | 85  | 85  | 85  |
| 3   | 101 | 94  | 88  | 84  | 99  | 92  | 87  | 83  | 90  | 86  | 82  | 87  | 84  | 81  | 85  | 82  | 80  | 78  | 78  | 78  | 78  |
| 4   | 95  | 87  | 81  | 76  | 93  | 86  | 80  | 76  | 84  | 79  | 75  | 82  | 77  | 74  | 80  | 76  | 73  | 72  | 72  | 72  | 72  |
| 5   | 90  | 81  | 74  | 70  | 88  | 80  | 74  | 69  | 78  | 73  | 69  | 76  | 72  | 68  | 75  | 71  | 68  | 66  | 66  | 66  | 66  |
| 6   | 85  | 75  | 69  | 64  | 83  | 74  | 68  | 64  | 73  | 68  | 64  | 71  | 67  | 63  | 70  | 66  | 63  | 61  | 61  | 61  | 61  |
| 7   | 80  | 70  | 64  | 59  | 79  | 70  | 64  | 59  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 58  | 57  | 57  | 57  | 57  |
| 8   | 76  | 66  | 59  | 55  | 75  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 54  | 62  | 58  | 54  | 53  | 53  | 53  | 53  |
| 9   | 72  | 62  | 56  | 51  | 71  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 59  | 54  | 51  | 49  | 49  | 49  | 49  |
| 10  | 69  | 58  | 52  | 48  | 68  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 48  | 55  | 51  | 47  | 46  | 46  | 46  | 46  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 100918 |
| 5°  | 96692  |
| 10° | 91758  |
| 15° | 86768  |
| 20° | 78505  |
| 25° | 66284  |
| 30° | 53744  |
| 35° | 41757  |
| 40° | 30884  |
| 45° | 20218  |
| 50° | 9665   |
| 55° | 5189   |
| 60° | 3410   |
| 65° | 2821   |
| 70° | 2493   |
| 75° | 1647   |
| 80° | 1000   |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20218 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 114.1  | 9.3       |
| 10°-20°   | 295.5  | 24.1      |
| 20°-30°   | 348.2  | 28.4      |
| 30°-40°   | 271.5  | 22.1      |
| 40°-50°   | 138.8  | 11.3      |
| 50°-60°   | 37.6   | 3.1       |
| 60°-70°   | 15.4   | 1.3       |
| 70°-80°   | 5.9    | 0.5       |
| 80°-90°   | 0.6    | 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°    | 757.8  | 61.7      |
| 0°-40°    | 1029.3 | 83.8      |
| 0°-60°    | 1205.6 | 98.2      |
| 0°-90°    | 1227.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1227.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1278 |      |
| 5°  | 1220 | 114  |
| 15° | 1062 | 295  |
| 25° | 761  | 348  |
| 35° | 433  | 271  |
| 45° | 181  | 139  |
| 55° | 38   | 38   |
| 65° | 15   | 15   |
| 75° | 5    | 6    |
| 85° | 0    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1278.4 |
| 2.5°  | 1262.2 |
| 5°    | 1220.2 |
| 7.5°  | 1179.2 |
| 10°   | 1144.7 |
| 12.5° | 1107.0 |
| 15°   | 1061.7 |
| 17.5° | 1003.5 |
| 20°   | 934.5  |
| 22.5° | 853.7  |
| 25°   | 761.0  |
| 27.5° | 673.7  |
| 30°   | 589.6  |
| 32.5° | 509.9  |
| 35°   | 433.3  |
| 37.5° | 363.3  |
| 40°   | 299.7  |
| 42.5° | 238.2  |
| 45°   | 181.1  |
| 47.5° | 120.7  |
| 50°   | 78.7   |
| 52.5° | 53.9   |
| 55°   | 37.7   |
| 57.5° | 28.0   |
| 60°   | 21.6   |
| 62.5° | 18.3   |
| 65°   | 15.1   |
| 67.5° | 12.9   |
| 70°   | 10.8   |
| 72.5° | 7.5    |
| 75°   | 5.4    |
| 77.5° | 3.2    |
| 80°   | 2.2    |
| 82.5° | 1.1    |
| 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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Scaled Data Report



— 0°-180°

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Scaled Data Report



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