

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: P641181

Luminaire Tested: ML5612LSNFL2597FS1E - 693WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P641181  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSNFL2597FS1E - 693WB - 900LM - 2700K  
Description: ML56 RR, 25D TIR OPTIC, 6" WHITE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

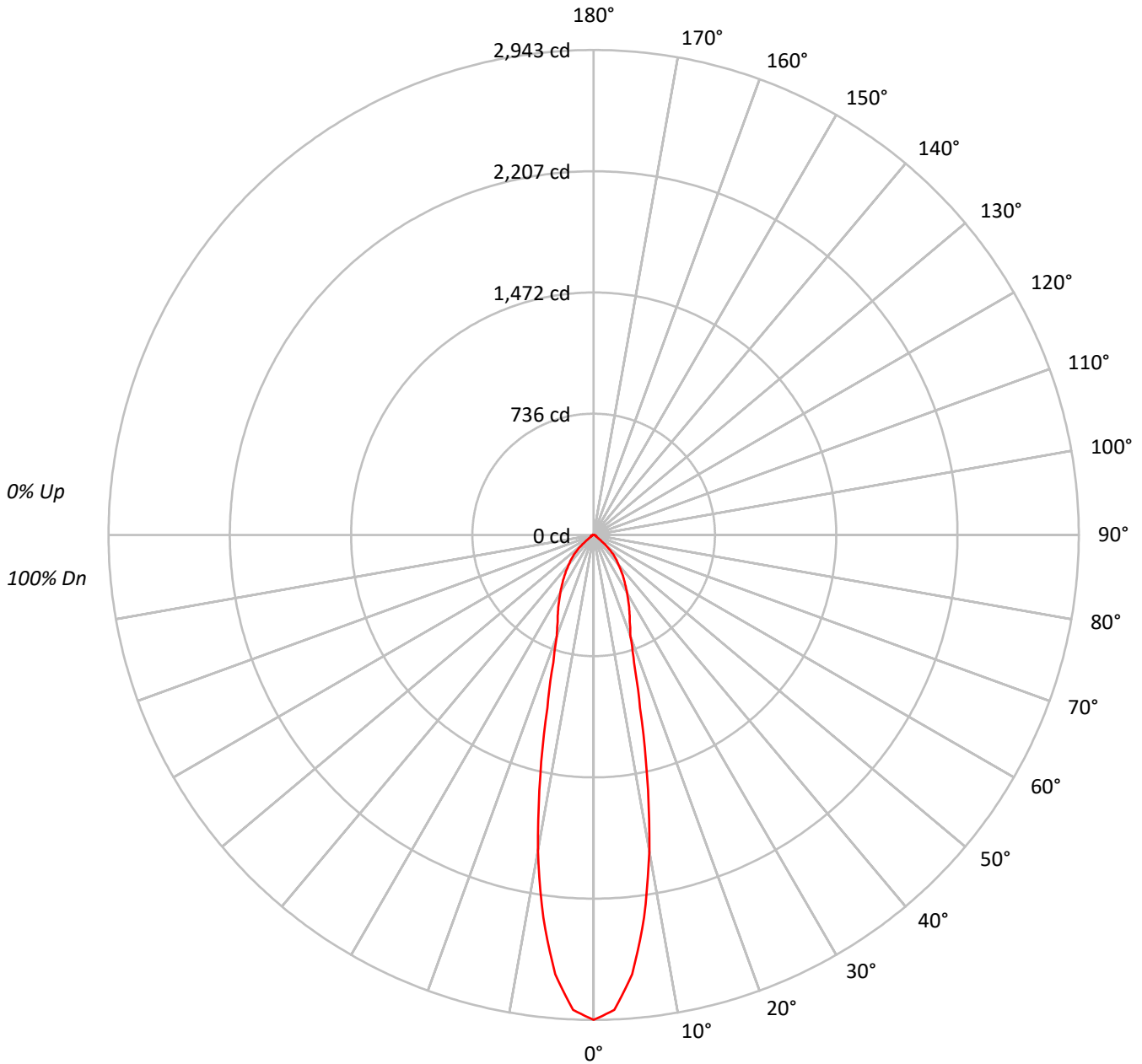
Lumens per Lamp: N/A  
Luminaire Lumens: 1164.1 lumens  
Efficiency: N/A  
Efficacy: 87.5 lumens/watt  
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.44  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 13.3  
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 |  |  |  |  |  |  |  |  |   |
| 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   | 113 | 110 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 86  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 102 | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 85  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 97  | 90  | 84  | 80  | 95  | 88  | 83  | 79  | 86  | 82  | 78  | 84  | 81  | 77  | 82  | 79  | 77  | 75  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 92  | 84  | 78  | 74  | 91  | 83  | 78  | 74  | 81  | 77  | 73  | 80  | 76  | 72  | 78  | 75  | 72  | 70  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 88  | 79  | 73  | 69  | 87  | 79  | 73  | 69  | 77  | 72  | 68  | 76  | 71  | 68  | 74  | 71  | 68  | 66  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 84  | 75  | 69  | 65  | 83  | 74  | 69  | 65  | 73  | 68  | 64  | 72  | 67  | 64  | 71  | 67  | 64  | 62  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 80  | 71  | 65  | 61  | 79  | 71  | 65  | 61  | 70  | 64  | 61  | 68  | 64  | 61  | 68  | 63  | 60  | 59  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 77  | 68  | 62  | 58  | 76  | 67  | 62  | 58  | 66  | 61  | 58  | 65  | 61  | 58  | 65  | 60  | 57  | 56  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 74  | 65  | 59  | 55  | 73  | 64  | 59  | 55  | 63  | 58  | 55  | 63  | 58  | 55  | 62  | 58  | 55  | 53  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 161325 |
| 5°  | 147232 |
| 10° | 108237 |
| 15° | 61680  |
| 20° | 38002  |
| 25° | 31018  |
| 30° | 25555  |
| 35° | 20960  |
| 40° | 16789  |
| 45° | 13195  |
| 50° | 7539   |
| 55° | 2714   |
| 60° | 2270   |
| 65° | 1985   |
| 70° | 1747   |
| 75° | 1843   |
| 80° | 2052   |
| 85° | 2076   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13195 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 231.5  | 19.9      |
| 10°-20°   | 313.4  | 26.9      |
| 20°-30°   | 236.1  | 20.3      |
| 30°-40°   | 195.9  | 16.8      |
| 40°-50°   | 126.3  | 10.8      |
| 50°-60°   | 33.5   | 2.9       |
| 60°-70°   | 15.0   | 1.3       |
| 70°-80°   | 9.2    | 0.8       |
| 80°-90°   | 3.3    | 0.3       |
| 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°    | 781.0  | 67.1      |
| 0°-40°    | 976.9  | 83.9      |
| 0°-60°    | 1136.7 | 97.6      |
| 0°-90°    | 1164.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1164.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2943 |      |
| 5°  | 2676 | 232  |
| 15° | 1087 | 313  |
| 25° | 513  | 236  |
| 35° | 313  | 196  |
| 45° | 170  | 126  |
| 55° | 28   | 34   |
| 65° | 15   | 15   |
| 75° | 9    | 9    |
| 85° | 3    | 3    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2942.8 |
| 2.5°  | 2885.0 |
| 5°    | 2675.5 |
| 7.5°  | 2342.7 |
| 10°   | 1944.4 |
| 12.5° | 1493.8 |
| 15°   | 1086.8 |
| 17.5° | 812.9  |
| 20°   | 651.4  |
| 22.5° | 571.8  |
| 25°   | 512.8  |
| 27.5° | 456.1  |
| 30°   | 403.7  |
| 32.5° | 356.8  |
| 35°   | 313.2  |
| 37.5° | 271.7  |
| 40°   | 234.6  |
| 42.5° | 201.9  |
| 45°   | 170.2  |
| 47.5° | 126.6  |
| 50°   | 88.4   |
| 52.5° | 45.8   |
| 55°   | 28.4   |
| 57.5° | 22.9   |
| 60°   | 20.7   |
| 62.5° | 17.5   |
| 65°   | 15.3   |
| 67.5° | 12.0   |
| 70°   | 10.9   |
| 72.5° | 9.8    |
| 75°   | 8.7    |
| 77.5° | 7.6    |
| 80°   | 6.5    |
| 82.5° | 4.4    |
| 85°   | 3.3    |
| 87.5° | 1.1    |
| 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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