

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: P642044

Luminaire Tested: ML5612LSWFL5597FS1E - 594SNB - 1200LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642044  
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: ML5612LSWFL5597FS1E - 594SNB - 1200LM - 4000K  
Description: ML56 RR, 55D TIR OPTIC, 5" SATIN NICKLE GIMBAL TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

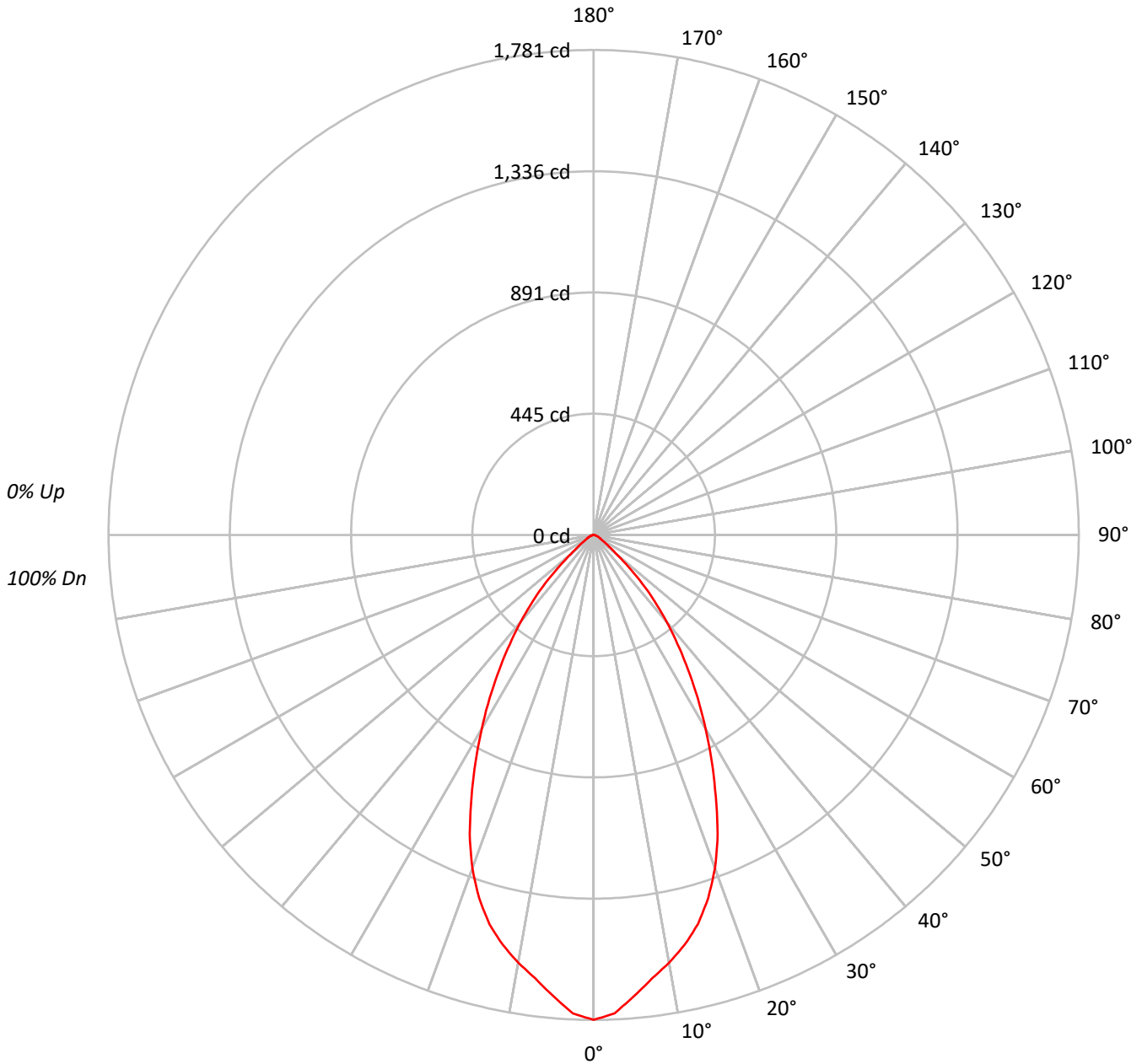
Lumens per Lamp: N/A  
Luminaire Lumens: 1710.1 lumens  
Efficiency: N/A  
Efficacy: 103.6 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.88  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.5  
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 |    |    | 100 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 97  | 95  | 94  | 92  |    |    | 92  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 107 | 101 | 97  | 93  | 105 | 100 | 96  | 92  | 96  | 93  | 90  | 93  | 91  | 88  | 91  | 88  | 87  | 85  |    |    | 85  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 101 | 94  | 88  | 84  | 99  | 92  | 87  | 83  | 90  | 86  | 82  | 87  | 84  | 81  | 85  | 82  | 80  | 78  |    |    | 78  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 95  | 87  | 81  | 76  | 93  | 86  | 80  | 76  | 84  | 79  | 75  | 82  | 77  | 74  | 80  | 76  | 73  | 72  |    |    | 72  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 90  | 81  | 74  | 70  | 88  | 80  | 74  | 70  | 78  | 73  | 69  | 76  | 72  | 68  | 75  | 71  | 68  | 66  |    |    | 66  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 85  | 75  | 69  | 64  | 83  | 74  | 68  | 64  | 73  | 68  | 64  | 71  | 67  | 63  | 70  | 66  | 63  | 61  |    |    | 61  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 80  | 70  | 64  | 59  | 79  | 70  | 64  | 59  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 58  | 57  |    |    | 57  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 76  | 66  | 59  | 55  | 75  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 54  | 62  | 58  | 54  | 53  |    |    | 53  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 72  | 62  | 56  | 51  | 71  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 59  | 54  | 51  | 49  |    |    | 49  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 69  | 58  | 52  | 48  | 68  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 48  | 55  | 51  | 47  | 46  |    |    | 46  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 140586 |
| 5°  | 134696 |
| 10° | 127829 |
| 15° | 120880 |
| 20° | 109369 |
| 25° | 92336  |
| 30° | 74873  |
| 35° | 58168  |
| 40° | 43013  |
| 45° | 28167  |
| 50° | 13460  |
| 55° | 7239   |
| 60° | 4736   |
| 65° | 3923   |
| 70° | 3462   |
| 75° | 2288   |
| 80° | 1364   |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 28167 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 159.0  | 9.3       |
| 10°-20°   | 411.6  | 24.1      |
| 20°-30°   | 485.1  | 28.4      |
| 30°-40°   | 378.1  | 22.1      |
| 40°-50°   | 193.4  | 11.3      |
| 50°-60°   | 52.4   | 3.1       |
| 60°-70°   | 21.5   | 1.3       |
| 70°-80°   | 8.3    | 0.5       |
| 80°-90°   | 0.8    | 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°    | 1055.7 | 61.7      |
| 0°-40°    | 1433.8 | 83.8      |
| 0°-60°    | 1679.6 | 98.2      |
| 0°-90°    | 1710.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1710.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1781 |      |
| 5°  | 1700 | 159  |
| 15° | 1479 | 412  |
| 25° | 1060 | 485  |
| 35° | 604  | 378  |
| 45° | 252  | 193  |
| 55° | 53   | 52   |
| 65° | 21   | 21   |
| 75° | 8    | 8    |
| 85° | 0    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1780.9 |
| 2.5°  | 1758.4 |
| 5°    | 1699.8 |
| 7.5°  | 1642.7 |
| 10°   | 1594.7 |
| 12.5° | 1542.1 |
| 15°   | 1479.1 |
| 17.5° | 1398.0 |
| 20°   | 1301.9 |
| 22.5° | 1189.3 |
| 25°   | 1060.1 |
| 27.5° | 938.5  |
| 30°   | 821.4  |
| 32.5° | 710.3  |
| 35°   | 603.6  |
| 37.5° | 506.0  |
| 40°   | 417.4  |
| 42.5° | 331.9  |
| 45°   | 252.3  |
| 47.5° | 168.2  |
| 50°   | 109.6  |
| 52.5° | 75.1   |
| 55°   | 52.6   |
| 57.5° | 39.0   |
| 60°   | 30.0   |
| 62.5° | 25.5   |
| 65°   | 21.0   |
| 67.5° | 18.0   |
| 70°   | 15.0   |
| 72.5° | 10.5   |
| 75°   | 7.5    |
| 77.5° | 4.5    |
| 80°   | 3.0    |
| 82.5° | 1.5    |
| 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





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— 0°-180°

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