

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: P642014

Luminaire Tested: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642014  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-54)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K  
Description: ML56 RR, 55D TIR OPTIC, 5" TUSCON BRONZE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1636.6 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.89  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

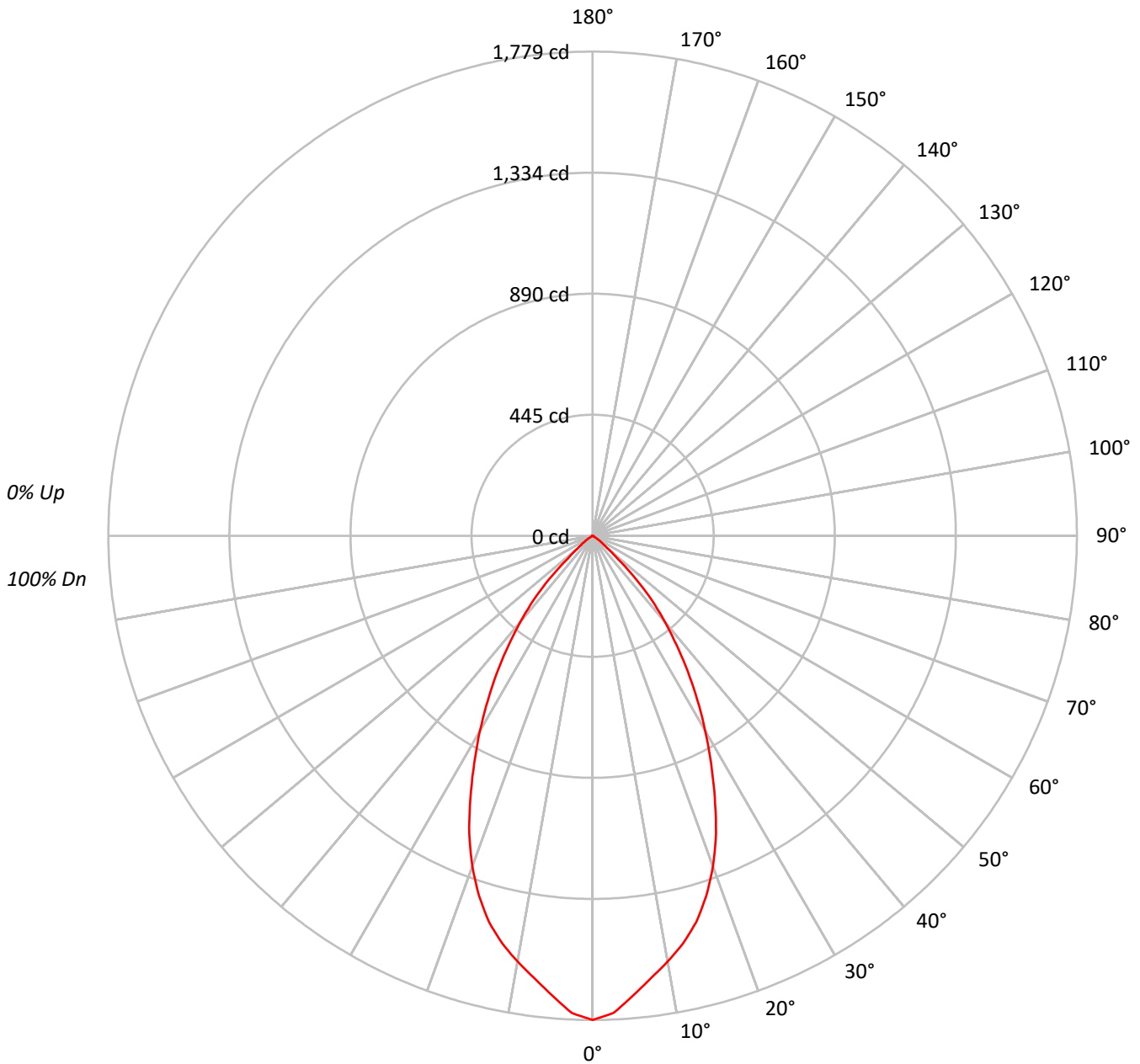
Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P642014

CATALOG NUMBER: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P642014

CATALOG NUMBER: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K

**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 |    |    |   |
| 1   | 113 | 110 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |   |
| 2   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  | 97  | 94  | 92  | 94  | 92  | 90  | 92  | 90  | 88  | 86  |    |    |   |
| 3   | 102 | 95  | 90  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 84  | 89  | 85  | 82  | 86  | 83  | 81  | 79  |    |    |   |
| 4   | 96  | 88  | 83  | 78  | 94  | 87  | 82  | 78  | 85  | 80  | 77  | 83  | 79  | 76  | 81  | 78  | 75  | 73  |    |    |   |
| 5   | 91  | 82  | 76  | 72  | 89  | 81  | 76  | 71  | 80  | 75  | 71  | 78  | 73  | 70  | 76  | 72  | 69  | 68  |    |    |   |
| 6   | 86  | 77  | 71  | 66  | 85  | 76  | 70  | 66  | 75  | 69  | 65  | 73  | 68  | 65  | 72  | 68  | 65  | 63  |    |    |   |
| 7   | 82  | 72  | 66  | 61  | 80  | 71  | 65  | 61  | 70  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 59  |    |    |   |
| 8   | 77  | 67  | 61  | 57  | 76  | 67  | 61  | 57  | 66  | 60  | 57  | 65  | 60  | 56  | 64  | 59  | 56  | 55  |    |    |   |
| 9   | 73  | 63  | 57  | 53  | 72  | 63  | 57  | 53  | 62  | 57  | 53  | 61  | 56  | 53  | 60  | 56  | 52  | 51  |    |    |   |
| 10  | 70  | 60  | 54  | 50  | 69  | 59  | 54  | 50  | 58  | 53  | 49  | 58  | 53  | 49  | 57  | 52  | 49  | 48  |    |    |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 140444 |
| 5°  | 134435 |
| 10° | 127324 |
| 15° | 120120 |
| 20° | 108596 |
| 25° | 92458  |
| 30° | 75411  |
| 35° | 58747  |
| 40° | 42395  |
| 45° | 25476  |
| 50° | 8670   |
| 55° | 3922   |
| 60° | 1184   |
| 65° | 280    |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25476 cd/sqm



TEST NUMBER: P642014

CATALOG NUMBER: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.6  | 9.7       |
| 10°-20°   | 409.0  | 25.0      |
| 20°-30°   | 485.1  | 29.6      |
| 30°-40°   | 379.8  | 23.2      |
| 40°-50°   | 173.6  | 10.6      |
| 50°-60°   | 28.4   | 1.7       |
| 60°-70°   | 2.0    | 0.1       |
| 70°-80°   | 0.0    | 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°    | 1052.7 | 64.3      |
| 0°-40°    | 1432.6 | 87.5      |
| 0°-60°    | 1634.6 | 99.9      |
| 0°-90°    | 1636.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1636.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1779 |      |
| 5°  | 1696 | 159  |
| 15° | 1470 | 409  |
| 25° | 1062 | 485  |
| 35° | 610  | 380  |
| 45° | 228  | 174  |
| 55° | 28   | 28   |
| 65° | 2    | 2    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



TEST NUMBER: P642014

CATALOG NUMBER: ML5612LSWFL5597FS1E - 593TBZB - 1200LM - 4000K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1779.1 |
| 2.5°  | 1755.1 |
| 5°    | 1696.5 |
| 7.5°  | 1639.5 |
| 10°   | 1588.4 |
| 12.5° | 1534.4 |
| 15°   | 1469.8 |
| 17.5° | 1387.3 |
| 20°   | 1292.7 |
| 22.5° | 1184.6 |
| 25°   | 1061.5 |
| 27.5° | 941.4  |
| 30°   | 827.3  |
| 32.5° | 716.2  |
| 35°   | 609.6  |
| 37.5° | 506.0  |
| 40°   | 411.4  |
| 42.5° | 322.8  |
| 45°   | 228.2  |
| 47.5° | 124.6  |
| 50°   | 70.6   |
| 52.5° | 45.0   |
| 55°   | 28.5   |
| 57.5° | 16.5   |
| 60°   | 7.5    |
| 62.5° | 3.0    |
| 65°   | 1.5    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)