

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: P640411

Luminaire Tested: ML5609LSVWFL75D2W1E - 594WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-78)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSVWFL75D2W1E - 594WB - 900LM - 2700K  
Description: ML56 RR, 75D TIR OPTIC, 5" WHITE GIMBAL TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1104.5 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.09  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

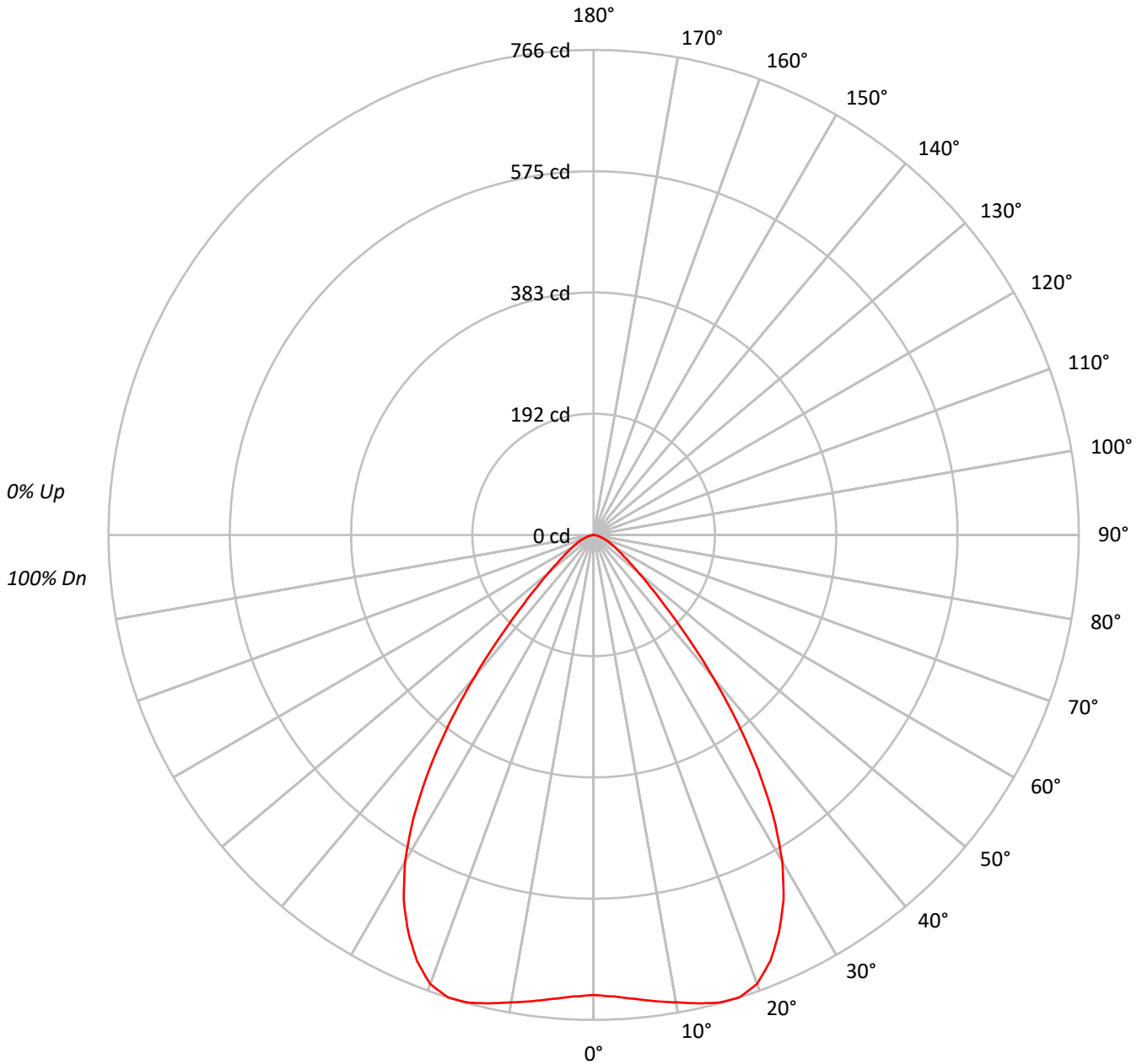
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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   | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 98  | 96  | 96  | 94  | 93  | 91  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 87  | 84  | 83  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 80  | 87  | 83  | 79  | 85  | 81  | 78  | 83  | 79  | 77  | 75  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 93  | 84  | 78  | 73  | 91  | 83  | 77  | 72  | 81  | 76  | 71  | 79  | 74  | 71  | 77  | 73  | 70  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 87  | 78  | 71  | 66  | 86  | 77  | 70  | 66  | 75  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 64  | 62  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 82  | 72  | 65  | 60  | 81  | 71  | 64  | 60  | 69  | 64  | 59  | 68  | 63  | 59  | 67  | 62  | 58  | 57  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 77  | 67  | 60  | 55  | 76  | 66  | 59  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 73  | 62  | 55  | 50  | 72  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 50  | 48  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 69  | 58  | 51  | 47  | 68  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 54  | 50  | 46  | 44  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 65  | 54  | 48  | 43  | 64  | 54  | 47  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 51  | 46  | 43  | 41  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 57366 |
| 5°  | 58299 |
| 10° | 60103 |
| 15° | 62504 |
| 20° | 63409 |
| 25° | 60327 |
| 30° | 54254 |
| 35° | 43626 |
| 40° | 30101 |
| 45° | 17929 |
| 50° | 11335 |
| 55° | 7872  |
| 60° | 6015  |
| 65° | 4875  |
| 70° | 3947  |
| 75° | 3050  |
| 80° | 1818  |
| 85° | 906   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17929 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.7   | 6.4       |
| 10°-20°   | 215.6  | 19.5      |
| 20°-30°   | 315.6  | 28.6      |
| 30°-40°   | 278.6  | 25.2      |
| 40°-50°   | 132.1  | 12.0      |
| 50°-60°   | 53.4   | 4.8       |
| 60°-70°   | 26.6   | 2.4       |
| 70°-80°   | 10.7   | 1.0       |
| 80°-90°   | 1.4    | 0.1       |
| 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°    | 601.9  | 54.5      |
| 0°-40°    | 880.4  | 79.7      |
| 0°-60°    | 1065.9 | 96.5      |
| 0°-90°    | 1104.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1104.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 727 |      |
| 5°  | 736 | 71   |
| 15° | 765 | 216  |
| 25° | 693 | 316  |
| 35° | 453 | 279  |
| 45° | 161 | 132  |
| 55° | 57  | 53   |
| 65° | 26  | 27   |
| 75° | 10  | 11   |
| 85° | 1   | 1    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 726.7 |
| 2.5°  | 729.7 |
| 5°    | 735.7 |
| 7.5°  | 742.8 |
| 10°   | 749.8 |
| 12.5° | 757.8 |
| 15°   | 764.8 |
| 17.5° | 765.8 |
| 20°   | 754.8 |
| 22.5° | 728.7 |
| 25°   | 692.6 |
| 27.5° | 649.4 |
| 30°   | 595.2 |
| 32.5° | 529.0 |
| 35°   | 452.7 |
| 37.5° | 372.4 |
| 40°   | 292.1 |
| 42.5° | 219.8 |
| 45°   | 160.6 |
| 47.5° | 120.4 |
| 50°   | 92.3  |
| 52.5° | 71.3  |
| 55°   | 57.2  |
| 57.5° | 46.2  |
| 60°   | 38.1  |
| 62.5° | 32.1  |
| 65°   | 26.1  |
| 67.5° | 22.1  |
| 70°   | 17.1  |
| 72.5° | 13.0  |
| 75°   | 10.0  |
| 77.5° | 7.0   |
| 80°   | 4.0   |
| 82.5° | 2.0   |
| 85°   | 1.0   |
| 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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Scaled Data Report



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