

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P189773

Luminaire Tested: **ML5612D2W- 593WB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P189773  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27313)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML5612D2W- 593WB  
Description: 5" D2W DIMMED TO 3000K, WITH WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1257.9 lumens  
Efficiency: N/A  
Efficacy: 70.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.13 / 1.12  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

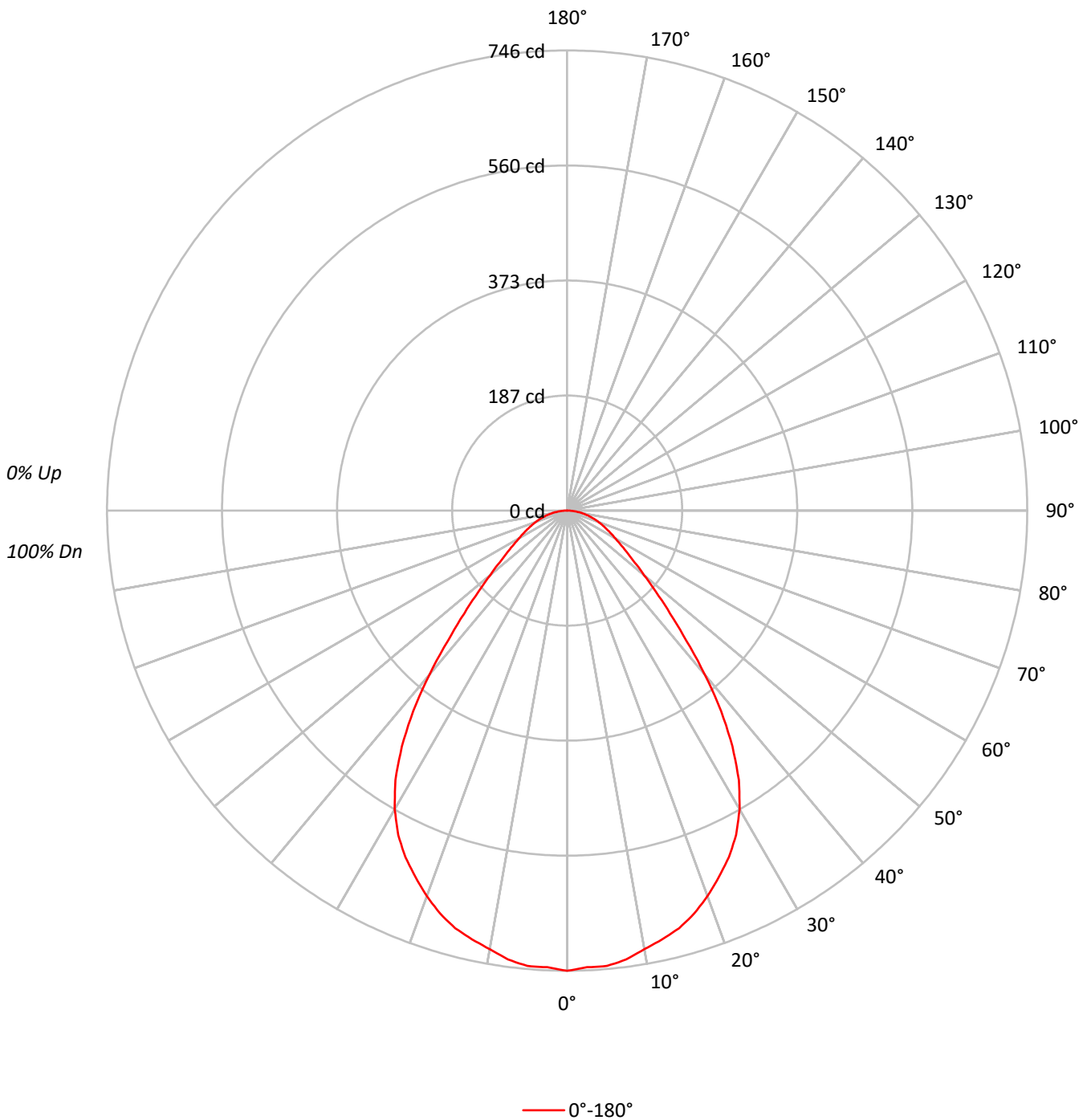
Input Watts (W): 17.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  |  | 97  | 95  | 93  |  | 93  | 92  | 90  | 88  |
| 2   | 103 | 96  | 91  | 86  | 101 | 95  | 90  | 85  | 91  | 87  | 83  |  | 88  | 85  | 81  |  | 85  | 82  | 80  | 78  |
| 3   | 96  | 87  | 80  | 75  | 94  | 86  | 79  | 74  | 83  | 77  | 73  |  | 80  | 76  | 72  |  | 78  | 74  | 71  | 69  |
| 4   | 89  | 79  | 72  | 66  | 87  | 78  | 71  | 66  | 76  | 70  | 65  |  | 73  | 68  | 64  |  | 71  | 67  | 63  | 61  |
| 5   | 83  | 72  | 65  | 59  | 81  | 71  | 64  | 59  | 69  | 63  | 58  |  | 67  | 62  | 58  |  | 66  | 61  | 57  | 55  |
| 6   | 78  | 66  | 59  | 53  | 76  | 65  | 58  | 53  | 64  | 57  | 52  |  | 62  | 56  | 52  |  | 61  | 56  | 52  | 50  |
| 7   | 73  | 61  | 53  | 48  | 71  | 60  | 53  | 48  | 59  | 52  | 48  |  | 57  | 52  | 47  |  | 56  | 51  | 47  | 45  |
| 8   | 68  | 56  | 49  | 44  | 67  | 56  | 49  | 44  | 55  | 48  | 43  |  | 53  | 48  | 43  |  | 52  | 47  | 43  | 41  |
| 9   | 64  | 52  | 45  | 40  | 63  | 52  | 45  | 40  | 51  | 44  | 40  |  | 50  | 44  | 40  |  | 49  | 43  | 40  | 38  |
| 10  | 61  | 49  | 42  | 37  | 59  | 48  | 42  | 37  | 47  | 41  | 37  |  | 46  | 41  | 37  |  | 46  | 40  | 37  | 35  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 58890 |
| 5°  | 58719 |
| 10° | 57875 |
| 15° | 57290 |
| 20° | 55865 |
| 25° | 54003 |
| 30° | 50955 |
| 35° | 45004 |
| 40° | 35758 |
| 45° | 26347 |
| 50° | 20018 |
| 55° | 16240 |
| 60° | 14209 |
| 65° | 13075 |
| 70° | 12464 |
| 75° | 11895 |
| 80° | 11365 |
| 85° | 9963  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.1   | 5.6       |
| 10°-20°   | 197.0  | 15.7      |
| 20°-30°   | 284.2  | 22.6      |
| 30°-40°   | 287.6  | 22.9      |
| 40°-50°   | 186.3  | 14.8      |
| 50°-60°   | 108.3  | 8.6       |
| 60°-70°   | 70.2   | 5.6       |
| 70°-80°   | 41.5   | 3.3       |
| 80°-90°   | 12.7   | 1.0       |
| 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°    | 551.3  | 43.8      |
| 0°-40°    | 838.9  | 66.7      |
| 0°-60°    | 1133.4 | 90.1      |
| 0°-90°    | 1257.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1257.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 746 |      |
| 5°  | 741 | 70   |
| 15° | 701 | 197  |
| 25° | 620 | 284  |
| 35° | 467 | 288  |
| 45° | 236 | 186  |
| 55° | 118 | 108  |
| 65° | 70  | 70   |
| 75° | 39  | 42   |
| 85° | 11  | 13   |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°  |
|-------|-----|
| 0°    | 746 |
| 2.5°  | 741 |
| 5°    | 741 |
| 7.5°  | 734 |
| 10°   | 722 |
| 12.5° | 712 |
| 15°   | 701 |
| 17.5° | 685 |
| 20°   | 665 |
| 22.5° | 643 |
| 25°   | 620 |
| 27.5° | 593 |
| 30°   | 559 |
| 32.5° | 518 |
| 35°   | 467 |
| 37.5° | 410 |
| 40°   | 347 |
| 42.5° | 286 |
| 45°   | 236 |
| 47.5° | 195 |
| 50°   | 163 |
| 52.5° | 138 |
| 55°   | 118 |
| 57.5° | 103 |
| 60°   | 90  |
| 62.5° | 80  |
| 65°   | 70  |
| 67.5° | 62  |
| 70°   | 54  |
| 72.5° | 47  |
| 75°   | 39  |
| 77.5° | 32  |
| 80°   | 25  |
| 82.5° | 18  |
| 85°   | 11  |
| 87.5° | 5   |
| 90°   | 0   |

(END OF REPORT)