

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 COMMERCIAL

Report Number: P582842

Luminaire Tested: **HC650D010-HM64560940-61WDWB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582842  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC650D010-HM64560940-61WDWB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5266.1 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.05  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

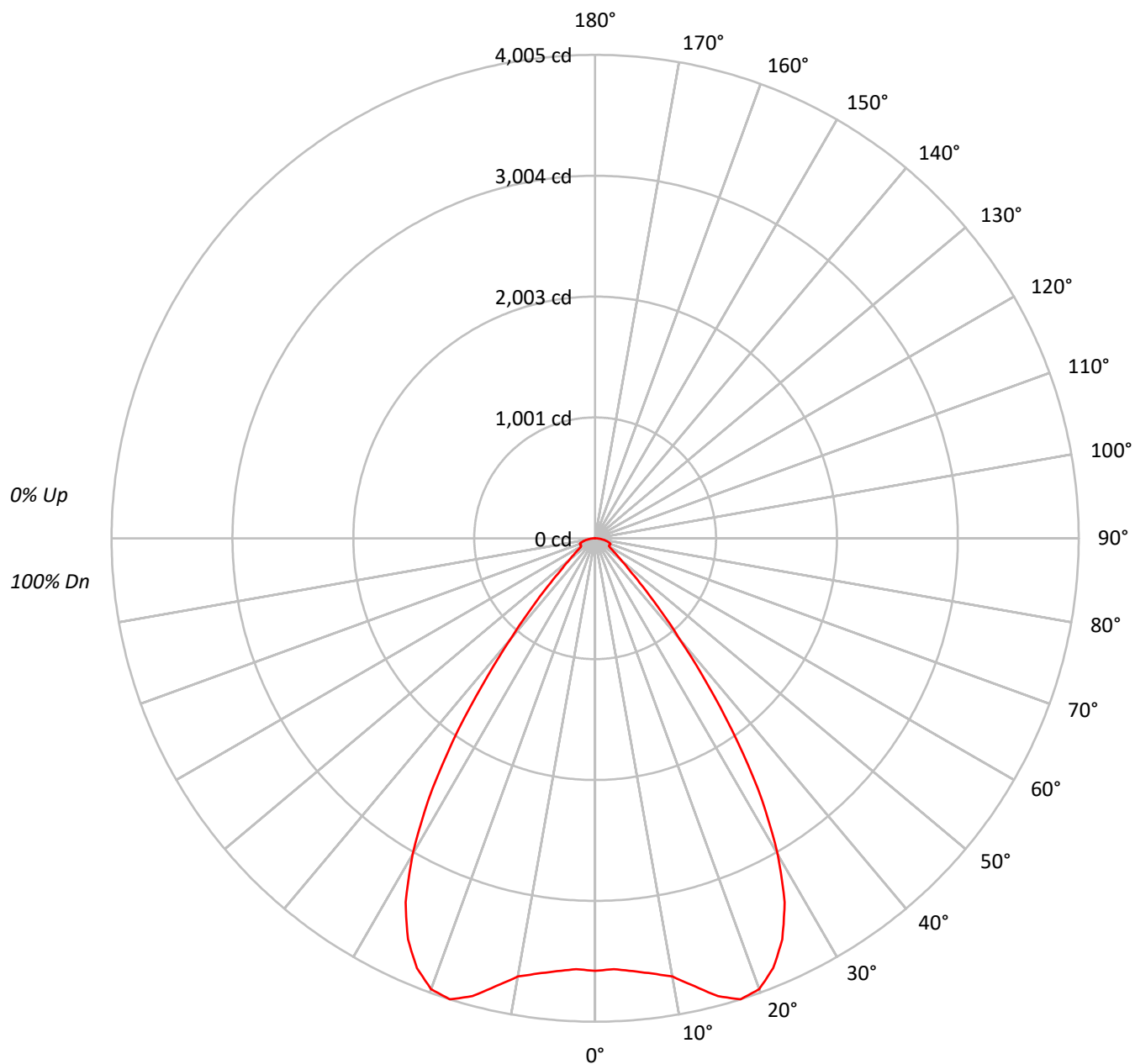
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98  |  | 99  | 97  | 95  |  | 95  |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  |  | 92  | 89  | 86  |  | 89  |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  |  | 85  | 81  | 78  |  | 83  |
| 4   | 93  | 85  | 78  | 73  | 91  | 83  | 78  | 73  | 81  | 76  | 72  |  | 79  | 75  | 71  |  | 77  |
| 5   | 88  | 78  | 72  | 67  | 86  | 77  | 71  | 66  | 75  | 70  | 66  |  | 74  | 69  | 65  |  | 72  |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 70  | 65  | 60  |  | 69  | 64  | 60  |  | 67  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  |  | 64  | 59  | 55  |  | 63  |
| 8   | 74  | 63  | 57  | 52  | 73  | 63  | 56  | 52  | 61  | 56  | 52  |  | 60  | 55  | 51  |  | 59  |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 52  | 48  | 58  | 52  | 48  |  | 57  | 51  | 48  |  | 56  |
| 10  | 66  | 56  | 49  | 45  | 65  | 55  | 49  | 45  | 54  | 48  | 45  |  | 53  | 48  | 44  |  | 53  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 196410 |
| 5°  | 198084 |
| 10° | 205218 |
| 15° | 222913 |
| 20° | 231866 |
| 25° | 221777 |
| 30° | 191397 |
| 35° | 137815 |
| 40° | 77638  |
| 45° | 40237  |
| 50° | 23991  |
| 55° | 17280  |
| 60° | 14681  |
| 65° | 16941  |
| 70° | 21462  |
| 75° | 22685  |
| 80° | 22193  |
| 85° | 21071  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 346.4  | 6.6       |
| 10°-20°   | 1107.8 | 21.0      |
| 20°-30°   | 1655.8 | 31.4      |
| 30°-40°   | 1265.7 | 24.0      |
| 40°-50°   | 442.1  | 8.4       |
| 50°-60°   | 168.5  | 3.2       |
| 60°-70°   | 132.1  | 2.5       |
| 70°-80°   | 111.8  | 2.1       |
| 80°-90°   | 36.0   | 0.7       |
| 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°    | 3110.0 | 59.1      |
| 0°-40°    | 4375.7 | 83.1      |
| 0°-60°    | 4986.2 | 94.7      |
| 0°-90°    | 5266.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5266.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3583 |      |
| 5°  | 3600 | 346  |
| 15° | 3928 | 1108 |
| 25° | 3666 | 1656 |
| 35° | 2059 | 1266 |
| 45° | 519  | 442  |
| 55° | 181  | 168  |
| 65° | 131  | 132  |
| 75° | 107  | 112  |
| 85° | 34   | 36   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3582.8 |
| 2.5°  | 3572.8 |
| 5°    | 3599.6 |
| 7.5°  | 3636.4 |
| 10°   | 3686.6 |
| 12.5° | 3800.5 |
| 15°   | 3927.7 |
| 17.5° | 4004.8 |
| 20°   | 3974.5 |
| 22.5° | 3854.1 |
| 25°   | 3666.5 |
| 27.5° | 3398.7 |
| 30°   | 3023.6 |
| 32.5° | 2574.9 |
| 35°   | 2059.3 |
| 37.5° | 1526.9 |
| 40°   | 1084.9 |
| 42.5° | 760.1  |
| 45°   | 519.0  |
| 47.5° | 364.9  |
| 50°   | 281.3  |
| 52.5° | 221.0  |
| 55°   | 180.8  |
| 57.5° | 147.4  |
| 60°   | 133.9  |
| 62.5° | 130.6  |
| 65°   | 130.6  |
| 67.5° | 137.2  |
| 70°   | 133.9  |
| 72.5° | 123.9  |
| 75°   | 107.1  |
| 77.5° | 90.5   |
| 80°   | 70.3   |
| 82.5° | 50.2   |
| 85°   | 33.5   |
| 87.5° | 13.3   |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)