

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



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: P582674

Luminaire Tested: **HCC6W45D010MW-HM64560935-61RWWC**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582674  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC6W45D010MW-HM64560935-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

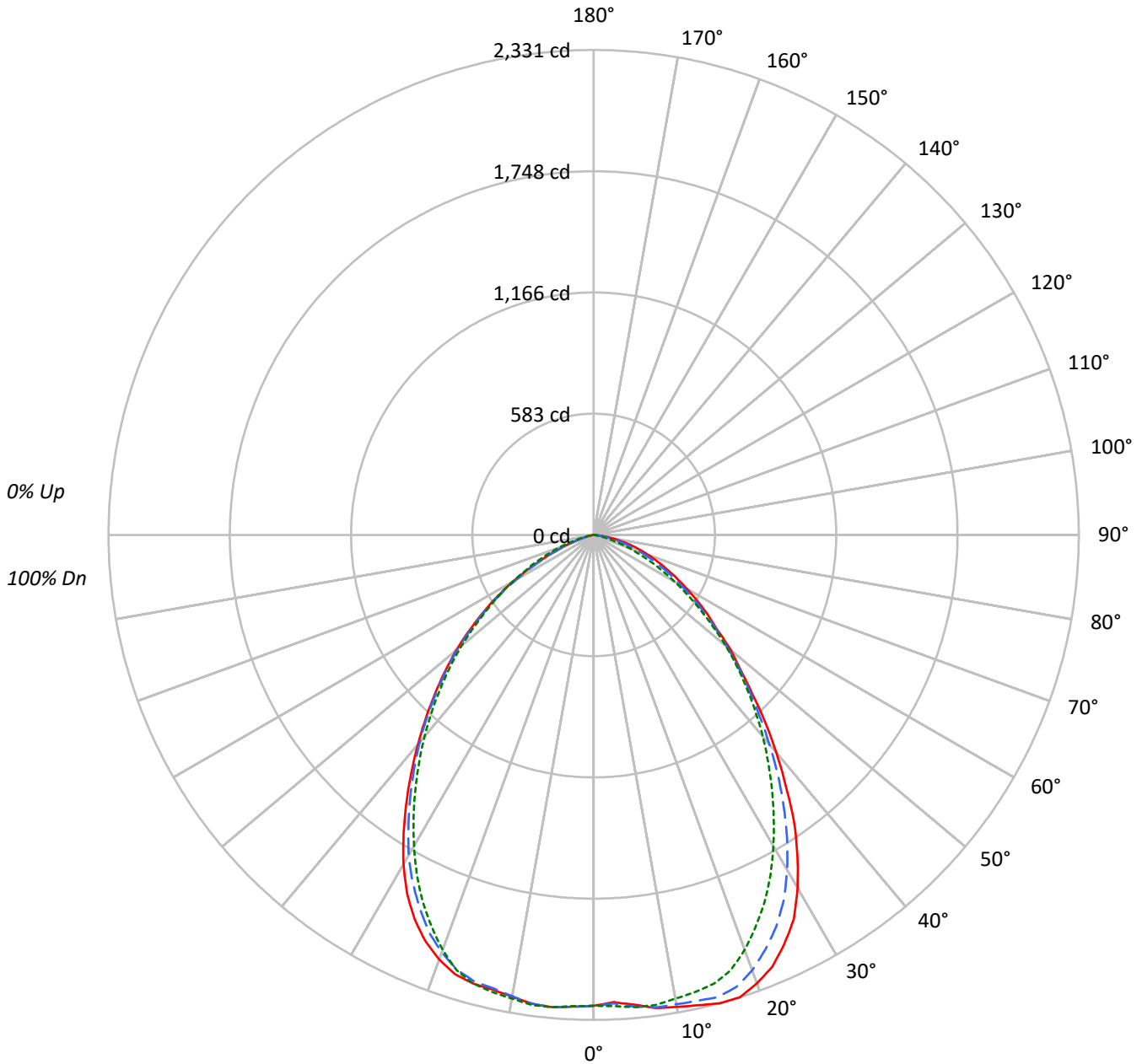
Lumens per Lamp: N/A  
Luminaire Lumens: 4569.2 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 44  
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: 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 |  |  |  |  |  |  |  |  |   |
| 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   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 94  | 92  | 90  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 103 | 96  | 90  | 86  | 100 | 94  | 89  | 85  | 91  | 86  | 83  | 88  | 84  | 81  | 85  | 82  | 79  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 95  | 86  | 79  | 74  | 93  | 85  | 78  | 73  | 82  | 76  | 72  | 79  | 75  | 71  | 77  | 73  | 69  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 88  | 78  | 70  | 64  | 86  | 76  | 69  | 64  | 74  | 68  | 63  | 72  | 67  | 62  | 70  | 65  | 61  | 60  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 82  | 70  | 62  | 57  | 80  | 69  | 62  | 56  | 67  | 61  | 56  | 65  | 60  | 55  | 64  | 59  | 55  | 53  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 62  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 71  | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 54  | 48  | 44  | 42  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 124074 | 124074 | 124074 |
| 5°  | 124719 | 125390 | 125390 |
| 10° | 128210 | 125989 | 125471 |
| 15° | 132282 | 126709 | 126709 |
| 20° | 133822 | 123806 | 126664 |
| 25° | 131149 | 117612 | 123170 |
| 30° | 124044 | 109289 | 115701 |
| 35° | 112263 | 99950  | 104875 |
| 40° | 97662  | 90427  | 93933  |
| 45° | 83458  | 80598  | 83458  |
| 50° | 73226  | 70616  | 73499  |
| 55° | 63902  | 59496  | 61847  |
| 60° | 56487  | 49426  | 48757  |
| 65° | 50122  | 38980  | 33415  |
| 70° | 44238  | 27521  | 20148  |
| 75° | 37660  | 15568  | 9743   |
| 80° | 28065  | 4862   | 2873   |
| 85° | 15410  | 1887   | 1887   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 217.1  | 4.8       |
| 10°-20°   | 635.2  | 13.9      |
| 20°-30°   | 927.7  | 20.3      |
| 30°-40°   | 972.9  | 21.3      |
| 40°-50°   | 819.7  | 17.9      |
| 50°-60°   | 574.3  | 12.6      |
| 60°-70°   | 307.9  | 6.7       |
| 70°-80°   | 103.2  | 2.3       |
| 80°-90°   | 11.2   | 0.2       |
| 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°    | 1780.0 | 39.0      |
| 0°-40°    | 2752.9 | 60.2      |
| 0°-60°    | 4146.9 | 90.8      |
| 0°-90°    | 4569.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4569.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2263 | 2263 | 2263 | 2263 | 2263 |      |
| 5°  | 2266 | 2276 | 2279 | 2279 | 2279 | 218  |
| 15° | 2331 | 2300 | 2233 | 2220 | 2233 | 657  |
| 25° | 2168 | 2076 | 1944 | 1978 | 2036 | 993  |
| 35° | 1678 | 1592 | 1494 | 1536 | 1567 | 1041 |
| 45° | 1076 | 1058 | 1040 | 1067 | 1076 | 839  |
| 55° | 669  | 647  | 622  | 635  | 647  | 602  |
| 65° | 386  | 353  | 300  | 248  | 258  | 386  |
| 75° | 178  | 138  | 74   | 46   | 46   | 189  |
| 85° | 24   | 12   | 3    | 3    | 3    | 34   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2263.3 | 2263.3 | 2263.3 | 2263.3 | 2263.3 | 2263.3 | 2263.3 | 2263.3 | 2263.3 |
| 2.5°  | 2247.9 | 2247.9 | 2254.0 | 2260.3 | 2266.4 | 2266.4 | 2269.4 | 2272.5 | 2269.4 |
| 5°    | 2266.4 | 2266.4 | 2275.5 | 2278.6 | 2278.6 | 2275.5 | 2278.6 | 2278.6 | 2278.6 |
| 7.5°  | 2293.9 | 2287.8 | 2290.9 | 2284.8 | 2278.6 | 2275.5 | 2272.5 | 2272.5 | 2272.5 |
| 10°   | 2303.2 | 2297.0 | 2290.9 | 2278.6 | 2263.3 | 2254.0 | 2251.0 | 2254.0 | 2254.0 |
| 12.5° | 2315.4 | 2309.3 | 2293.9 | 2269.4 | 2251.0 | 2235.6 | 2232.6 | 2238.8 | 2238.8 |
| 15°   | 2330.8 | 2324.7 | 2300.0 | 2260.3 | 2232.6 | 2217.3 | 2220.4 | 2226.5 | 2232.6 |
| 17.5° | 2330.8 | 2318.4 | 2278.6 | 2226.5 | 2192.7 | 2177.4 | 2189.6 | 2205.0 | 2214.2 |
| 20°   | 2293.9 | 2281.7 | 2226.5 | 2162.1 | 2122.2 | 2113.0 | 2134.5 | 2162.1 | 2171.2 |
| 22.5° | 2244.9 | 2220.4 | 2156.0 | 2079.3 | 2036.3 | 2036.3 | 2066.9 | 2100.7 | 2113.0 |
| 25°   | 2168.2 | 2149.8 | 2076.2 | 1987.3 | 1944.4 | 1941.3 | 1978.0 | 2024.0 | 2036.3 |
| 27.5° | 2082.3 | 2057.8 | 1978.0 | 1886.1 | 1840.1 | 1843.1 | 1883.0 | 1929.0 | 1941.3 |
| 30°   | 1959.6 | 1929.0 | 1858.5 | 1769.5 | 1726.5 | 1738.9 | 1778.7 | 1812.4 | 1827.8 |
| 32.5° | 1821.7 | 1794.1 | 1729.7 | 1646.9 | 1610.1 | 1622.3 | 1656.0 | 1686.8 | 1699.0 |
| 35°   | 1677.5 | 1646.9 | 1591.6 | 1518.1 | 1493.5 | 1505.8 | 1536.4 | 1561.0 | 1567.1 |
| 37.5° | 1514.9 | 1493.5 | 1453.7 | 1395.4 | 1377.0 | 1392.4 | 1416.9 | 1432.2 | 1438.3 |
| 40°   | 1364.7 | 1346.3 | 1312.6 | 1269.7 | 1263.6 | 1275.8 | 1300.3 | 1309.5 | 1312.6 |
| 42.5° | 1217.5 | 1202.2 | 1180.7 | 1150.0 | 1150.0 | 1162.3 | 1183.8 | 1189.9 | 1192.9 |
| 45°   | 1076.5 | 1067.2 | 1058.0 | 1033.5 | 1039.6 | 1055.0 | 1067.2 | 1076.5 | 1076.5 |
| 47.5° | 953.8  | 956.8  | 944.6  | 926.2  | 932.3  | 947.7  | 956.8  | 966.1  | 966.1  |
| 50°   | 858.6  | 849.5  | 837.2  | 818.9  | 828.0  | 840.3  | 852.5  | 858.6  | 861.8  |
| 52.5° | 748.3  | 745.2  | 736.1  | 714.6  | 720.7  | 726.8  | 739.1  | 748.3  | 751.3  |
| 55°   | 668.6  | 659.3  | 647.1  | 622.5  | 622.5  | 628.7  | 634.8  | 640.9  | 647.1  |
| 57.5° | 591.9  | 582.6  | 564.3  | 536.6  | 533.6  | 533.6  | 530.5  | 536.6  | 545.9  |
| 60°   | 515.2  | 512.1  | 484.6  | 460.1  | 450.8  | 441.6  | 429.3  | 432.4  | 444.7  |
| 62.5° | 447.7  | 441.6  | 417.1  | 386.4  | 368.0  | 352.7  | 337.4  | 334.3  | 346.5  |
| 65°   | 386.4  | 380.3  | 352.7  | 322.0  | 300.5  | 273.0  | 248.4  | 248.4  | 257.6  |
| 67.5° | 331.3  | 318.9  | 294.4  | 260.6  | 233.1  | 199.3  | 174.8  | 181.0  | 184.0  |
| 70°   | 276.0  | 266.9  | 239.2  | 205.5  | 171.7  | 138.1  | 122.7  | 125.7  | 125.7  |
| 72.5° | 227.0  | 214.7  | 187.1  | 153.3  | 119.6  | 88.9   | 82.8   | 79.8   | 79.8   |
| 75°   | 177.8  | 165.6  | 138.1  | 104.3  | 73.5   | 52.1   | 46.0   | 46.0   | 46.0   |
| 77.5° | 128.8  | 119.6  | 95.0   | 64.4   | 39.9   | 24.5   | 21.5   | 18.4   | 18.4   |
| 80°   | 88.9   | 79.8   | 58.3   | 33.8   | 15.4   | 9.1    | 9.1    | 9.1    | 9.1    |
| 82.5° | 52.1   | 42.9   | 27.6   | 15.4   | 6.1    | 3.0    | 3.0    | 3.0    | 3.0    |
| 85°   | 24.5   | 18.4   | 12.3   | 6.1    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    |
| 87.5° | 3.0    | 3.0    | 3.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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Scaled Data Report



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— 0°-180°    - - 45°-225°    - - - - 90°-270°

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