

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: P593265

Luminaire Tested: **HC635D010-HM63040950-61WWBB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593265  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC635D010-HM63040950-61WWBB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3143.6 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

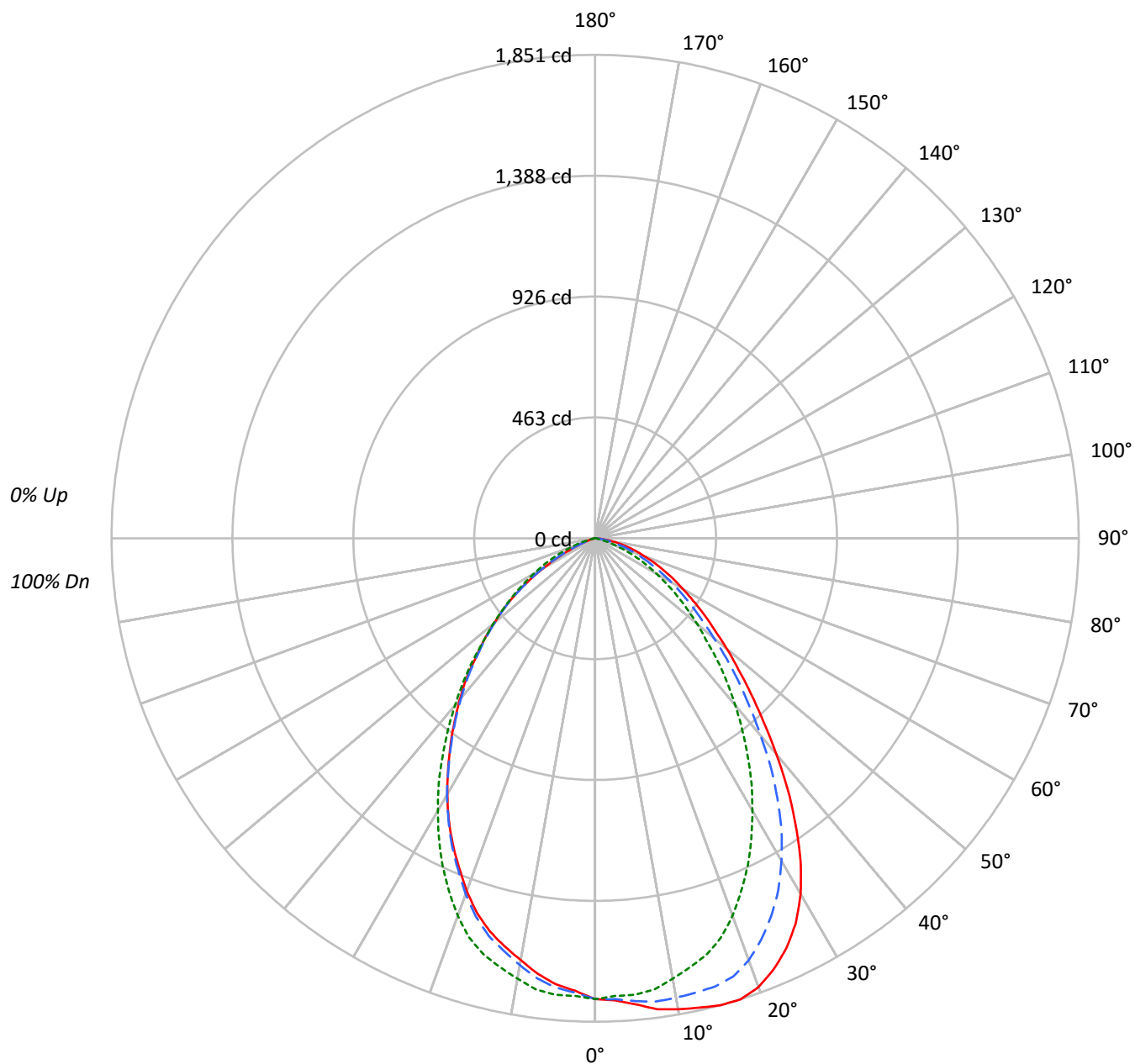
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P593265

CATALOG NUMBER: HC635D010-HM63040950-61WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P593265

CATALOG NUMBER: HC635D010-HM63040950-61WWBB

**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  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 |  | 101 | 99  | 97  |  | 97  | 95  | 94  |  | 94  | 92  | 91  |
| 2   | 103 | 97  | 91  | 87  | 101 | 95  | 90  | 86  |  | 91  | 87  | 84  |  | 88  | 85  | 82  |  | 85  | 83  | 80  |
| 3   | 96  | 87  | 80  | 75  | 93  | 86  | 79  | 74  |  | 83  | 77  | 73  |  | 80  | 76  | 72  |  | 78  | 74  | 71  |
| 4   | 89  | 79  | 71  | 66  | 87  | 78  | 71  | 65  |  | 75  | 69  | 64  |  | 73  | 68  | 64  |  | 71  | 66  | 63  |
| 5   | 83  | 72  | 64  | 58  | 81  | 71  | 63  | 58  |  | 69  | 62  | 57  |  | 67  | 61  | 57  |  | 65  | 60  | 56  |
| 6   | 77  | 65  | 58  | 52  | 75  | 65  | 57  | 52  |  | 63  | 56  | 51  |  | 61  | 55  | 51  |  | 60  | 55  | 51  |
| 7   | 72  | 60  | 52  | 47  | 70  | 59  | 52  | 47  |  | 58  | 51  | 46  |  | 56  | 51  | 46  |  | 55  | 50  | 46  |
| 8   | 67  | 55  | 48  | 43  | 66  | 55  | 47  | 42  |  | 53  | 47  | 42  |  | 52  | 46  | 42  |  | 51  | 46  | 42  |
| 9   | 63  | 51  | 44  | 39  | 62  | 51  | 44  | 39  |  | 50  | 43  | 39  |  | 49  | 43  | 38  |  | 48  | 42  | 38  |
| 10  | 60  | 48  | 40  | 36  | 58  | 47  | 40  | 36  |  | 46  | 40  | 36  |  | 45  | 40  | 35  |  | 45  | 39  | 35  |

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

|     | 0°     | 90°   | 180°  |
|-----|--------|-------|-------|
| 0°  | 96703  | 96703 | 96703 |
| 5°  | 98574  | 96527 | 94343 |
| 10° | 101924 | 95300 | 91292 |
| 15° | 105046 | 93638 | 88428 |
| 20° | 106678 | 89736 | 83809 |
| 25° | 104752 | 83594 | 78035 |
| 30° | 99572  | 76170 | 71619 |
| 35° | 89496  | 68081 | 64587 |
| 40° | 77230  | 59655 | 57708 |
| 45° | 65394  | 51354 | 50013 |
| 50° | 56075  | 43376 | 42958 |
| 55° | 48610  | 36520 | 35105 |
| 60° | 42442  | 29647 | 25031 |
| 65° | 37332  | 22843 | 13841 |
| 70° | 32217  | 15115 | 6748  |
| 75° | 27345  | 7371  | 2626  |
| 80° | 21152  | 3125  | 1578  |
| 85° | 12454  | 1572  | 1572  |



TEST NUMBER: P593265

CATALOG NUMBER: HC635D010-HM63040950-61WWBB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 166.5  | 5.3       |
| 10°-20°   | 470.7  | 15.0      |
| 20°-30°   | 662.9  | 21.1      |
| 30°-40°   | 677.3  | 21.5      |
| 40°-50°   | 546.1  | 17.4      |
| 50°-60°   | 366.3  | 11.7      |
| 60°-70°   | 185.4  | 5.9       |
| 70°-80°   | 59.3   | 1.9       |
| 80°-90°   | 9.1    | 0.3       |
| 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°    | 1300.1 | 41.4      |
| 0°-40°    | 1977.5 | 62.9      |
| 0°-60°    | 2889.8 | 91.9      |
| 0°-90°    | 3143.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3143.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1764 | 1764 | 1764 | 1764 | 1764 |      |
| 5°  | 1791 | 1779 | 1754 | 1727 | 1714 | 172  |
| 15° | 1851 | 1776 | 1650 | 1575 | 1558 | 523  |
| 25° | 1732 | 1595 | 1382 | 1298 | 1290 | 793  |
| 35° | 1337 | 1216 | 1017 | 960  | 965  | 832  |
| 45° | 844  | 776  | 662  | 640  | 645  | 656  |
| 55° | 509  | 452  | 382  | 365  | 367  | 458  |
| 65° | 288  | 238  | 176  | 117  | 107  | 287  |
| 75° | 129  | 92   | 35   | 12   | 12   | 139  |
| 85° | 20   | 10   | 2    | 2    | 2    | 27   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P593265

CATALOG NUMBER: HC635D010-HM63040950-61WWBB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1764.0 | 1764.0 | 1764.0 | 1764.0 | 1764.0 | 1764.0 | 1764.0 | 1764.0 | 1764.0 |
| 2.5°  | 1771.5 | 1769.1 | 1766.5 | 1761.6 | 1754.1 | 1746.6 | 1741.7 | 1736.7 | 1734.3 |
| 5°    | 1791.3 | 1786.3 | 1779.0 | 1769.1 | 1754.1 | 1736.7 | 1726.8 | 1716.9 | 1714.4 |
| 7.5°  | 1818.7 | 1808.7 | 1788.9 | 1766.5 | 1741.7 | 1716.9 | 1699.5 | 1689.6 | 1682.1 |
| 10°   | 1831.0 | 1813.6 | 1786.3 | 1749.1 | 1712.0 | 1682.1 | 1659.8 | 1645.0 | 1640.0 |
| 12.5° | 1840.9 | 1821.1 | 1781.4 | 1731.8 | 1682.1 | 1642.4 | 1617.7 | 1605.2 | 1600.3 |
| 15°   | 1850.9 | 1831.0 | 1776.4 | 1712.0 | 1649.9 | 1602.8 | 1575.4 | 1563.1 | 1558.1 |
| 17.5° | 1850.9 | 1823.6 | 1759.1 | 1677.2 | 1602.8 | 1545.7 | 1518.4 | 1506.0 | 1503.6 |
| 20°   | 1828.6 | 1798.8 | 1719.3 | 1622.6 | 1538.2 | 1473.8 | 1448.9 | 1441.5 | 1436.6 |
| 22.5° | 1786.3 | 1751.7 | 1662.3 | 1553.2 | 1461.3 | 1399.3 | 1372.0 | 1367.0 | 1362.1 |
| 25°   | 1731.8 | 1697.1 | 1595.3 | 1478.7 | 1382.0 | 1319.9 | 1297.6 | 1292.7 | 1290.1 |
| 27.5° | 1662.3 | 1625.0 | 1518.4 | 1399.3 | 1295.1 | 1235.6 | 1215.8 | 1215.8 | 1213.2 |
| 30°   | 1573.0 | 1530.9 | 1426.7 | 1307.5 | 1203.3 | 1148.7 | 1133.9 | 1133.9 | 1131.4 |
| 32.5° | 1463.9 | 1421.6 | 1327.3 | 1213.2 | 1114.0 | 1057.0 | 1044.6 | 1049.5 | 1047.0 |
| 35°   | 1337.3 | 1302.6 | 1215.8 | 1104.1 | 1017.3 | 965.1  | 960.2  | 965.1  | 965.1  |
| 37.5° | 1210.8 | 1178.6 | 1104.1 | 1007.4 | 925.4  | 878.3  | 878.3  | 885.8  | 883.3  |
| 40°   | 1079.2 | 1054.5 | 984.9  | 900.6  | 833.6  | 801.4  | 796.5  | 803.8  | 806.4  |
| 42.5° | 955.2  | 935.4  | 875.8  | 806.4  | 746.8  | 714.6  | 722.0  | 726.9  | 729.5  |
| 45°   | 843.5  | 823.7  | 776.5  | 704.6  | 662.4  | 640.1  | 640.1  | 647.6  | 645.1  |
| 47.5° | 744.3  | 729.5  | 682.3  | 612.8  | 575.6  | 565.6  | 570.7  | 575.6  | 575.6  |
| 50°   | 657.5  | 635.2  | 590.5  | 535.9  | 508.6  | 496.2  | 501.2  | 503.7  | 503.7  |
| 52.5° | 575.6  | 560.7  | 516.0  | 466.4  | 441.6  | 434.2  | 434.2  | 436.7  | 436.7  |
| 55°   | 508.6  | 491.3  | 451.5  | 401.9  | 382.1  | 372.2  | 364.7  | 362.2  | 367.3  |
| 57.5° | 444.2  | 429.2  | 392.0  | 344.8  | 322.6  | 312.6  | 297.7  | 292.8  | 297.7  |
| 60°   | 387.1  | 374.6  | 337.4  | 292.8  | 270.4  | 250.6  | 233.2  | 223.2  | 228.3  |
| 62.5° | 337.4  | 322.6  | 285.3  | 248.1  | 223.2  | 201.0  | 173.6  | 158.8  | 166.2  |
| 65°   | 287.8  | 275.4  | 238.2  | 201.0  | 176.1  | 148.9  | 116.6  | 106.7  | 106.7  |
| 67.5° | 243.2  | 230.7  | 196.1  | 163.7  | 134.0  | 101.8  | 72.0   | 69.4   | 72.0   |
| 70°   | 201.0  | 188.6  | 158.8  | 126.5  | 94.3   | 62.1   | 42.1   | 42.1   | 42.1   |
| 72.5° | 166.2  | 151.4  | 124.1  | 91.8   | 59.5   | 32.2   | 22.3   | 24.9   | 24.9   |
| 75°   | 129.1  | 116.6  | 91.8   | 62.1   | 34.8   | 14.9   | 12.4   | 12.4   | 12.4   |
| 77.5° | 96.7   | 86.8   | 64.5   | 39.7   | 17.4   | 5.0    | 5.0    | 5.0    | 5.0    |
| 80°   | 67.0   | 57.1   | 42.1   | 24.9   | 9.9    | 5.0    | 5.0    | 5.0    | 5.0    |
| 82.5° | 39.7   | 34.8   | 24.9   | 12.4   | 5.0    | 2.5    | 2.5    | 2.5    | 2.5    |
| 85°   | 19.8   | 17.4   | 9.9    | 5.0    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    |
| 87.5° | 5.0    | 5.0    | 2.5    | 2.5    | 0.0    | 2.5    | 2.5    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)