

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: P582303

Luminaire Tested: **HC635D010-HM63040830-61WWBB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582303  
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-HM63040830-61WWBB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3306.1 lumens  
Efficiency: N/A  
Efficacy: 98.1 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

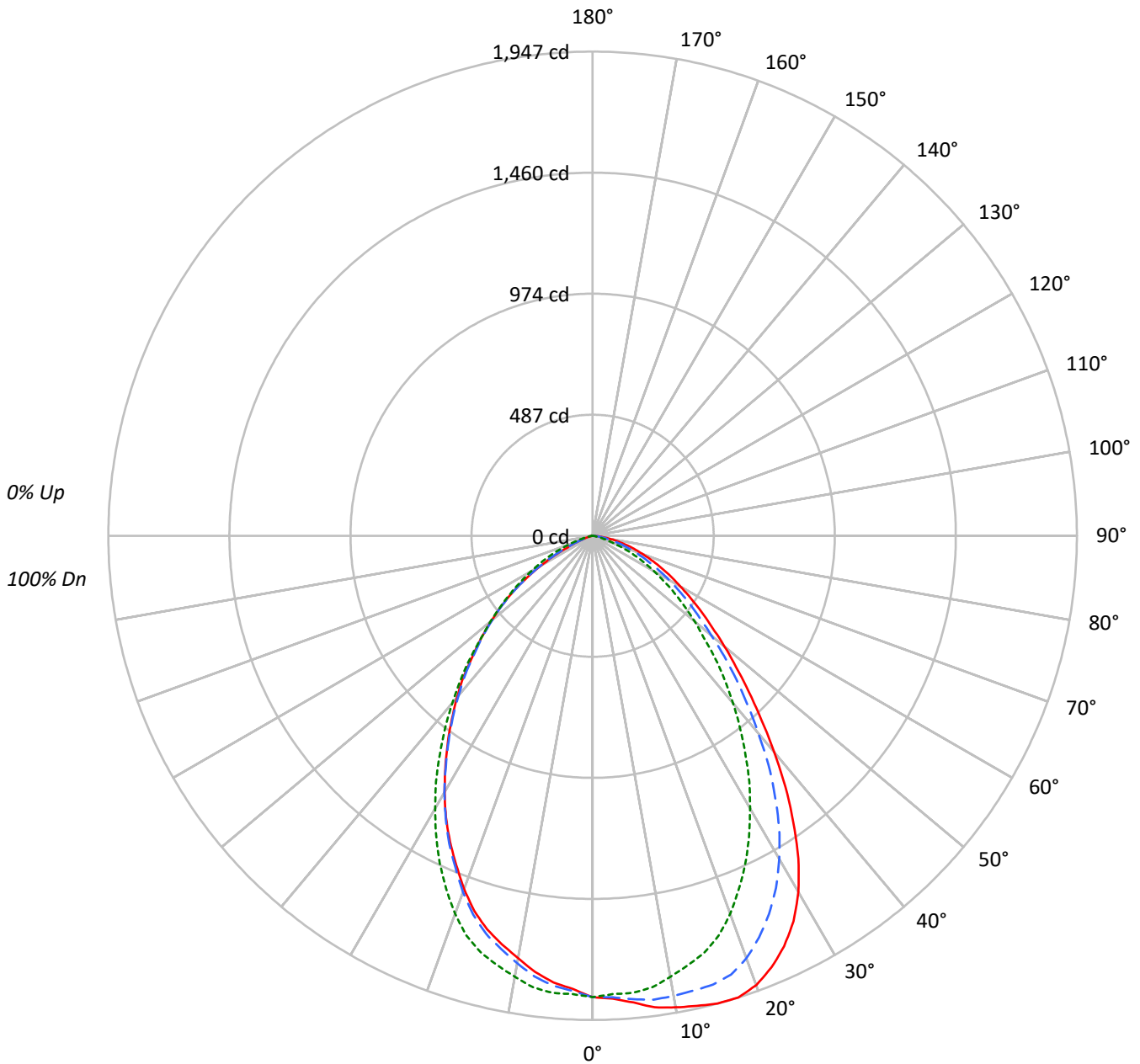
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582303

CATALOG NUMBER: HC635D010-HM63040830-61WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P582303

CATALOG NUMBER: HC635D010-HM63040830-61WWBB

**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  | 50  | 30 | 10 | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    | 100 |
| 1   | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99  | 97  | 97  | 95  | 94  | 94  | 92  | 91  | 89  |    |    | 89  |
| 2   | 103 | 97  | 91  | 87  | 101 | 95  | 90  | 86  | 91  | 87  | 84  | 88  | 85  | 82  | 85  | 83  | 80  | 78  |    |    | 78  |
| 3   | 96  | 87  | 80  | 75  | 93  | 86  | 79  | 74  | 83  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 69  |    |    | 69  |
| 4   | 89  | 79  | 71  | 66  | 87  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 68  | 64  | 71  | 66  | 63  | 61  |    |    | 61  |
| 5   | 83  | 72  | 64  | 58  | 81  | 71  | 63  | 58  | 69  | 62  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |    |    | 54  |
| 6   | 77  | 65  | 58  | 52  | 75  | 65  | 57  | 52  | 63  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 49  |    |    | 49  |
| 7   | 72  | 60  | 52  | 47  | 70  | 59  | 52  | 47  | 58  | 51  | 46  | 56  | 51  | 46  | 55  | 50  | 46  | 44  |    |    | 44  |
| 8   | 67  | 55  | 48  | 43  | 66  | 55  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    | 40  |
| 9   | 63  | 51  | 44  | 39  | 62  | 51  | 44  | 39  | 50  | 43  | 39  | 49  | 43  | 38  | 48  | 42  | 38  | 37  |    |    | 37  |
| 10  | 60  | 48  | 40  | 36  | 58  | 47  | 40  | 36  | 46  | 40  | 36  | 45  | 40  | 35  | 45  | 39  | 35  | 34  |    |    | 34  |

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

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 101708 | 101708 | 101708 |
| 5°  | 103676 | 101519 | 99224  |
| 10° | 107196 | 100221 | 96012  |
| 15° | 110477 | 98480  | 93003  |
| 20° | 112191 | 94380  | 88138  |
| 25° | 110166 | 87912  | 82075  |
| 30° | 104719 | 80107  | 75322  |
| 35° | 94127  | 71594  | 67934  |
| 40° | 81224  | 62746  | 60692  |
| 45° | 68782  | 54013  | 52602  |
| 50° | 58966  | 45627  | 45175  |
| 55° | 51133  | 38402  | 36911  |
| 60° | 44624  | 31182  | 26325  |
| 65° | 39265  | 24036  | 14541  |
| 70° | 33868  | 15900  | 7101   |
| 75° | 28742  | 7731   | 2775   |
| 80° | 22257  | 3283   | 1673   |
| 85° | 13146  | 1635   | 1635   |



TEST NUMBER: P582303

CATALOG NUMBER: HC635D010-HM63040830-61WWBB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 175.1  | 5.3       |
| 10°-20°   | 495.1  | 15.0      |
| 20°-30°   | 697.2  | 21.1      |
| 30°-40°   | 712.3  | 21.5      |
| 40°-50°   | 574.4  | 17.4      |
| 50°-60°   | 385.2  | 11.7      |
| 60°-70°   | 194.9  | 5.9       |
| 70°-80°   | 62.3   | 1.9       |
| 80°-90°   | 9.6    | 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°    | 1367.4 | 41.4      |
| 0°-40°    | 2079.7 | 62.9      |
| 0°-60°    | 3039.3 | 91.9      |
| 0°-90°    | 3306.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3306.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1855 | 1855 | 1855 | 1855 | 1855 |      |
| 5°  | 1884 | 1871 | 1845 | 1816 | 1803 | 181  |
| 15° | 1947 | 1868 | 1735 | 1657 | 1639 | 550  |
| 25° | 1821 | 1678 | 1453 | 1365 | 1357 | 834  |
| 35° | 1406 | 1279 | 1070 | 1010 | 1015 | 875  |
| 45° | 887  | 817  | 697  | 673  | 678  | 690  |
| 55° | 535  | 475  | 402  | 384  | 386  | 481  |
| 65° | 303  | 251  | 185  | 123  | 112  | 302  |
| 75° | 136  | 96   | 36   | 13   | 13   | 146  |
| 85° | 21   | 10   | 3    | 3    | 3    | 28   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P582303

CATALOG NUMBER: HC635D010-HM63040830-61WWBB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1855.3 | 1855.3 | 1855.3 | 1855.3 | 1855.3 | 1855.3 | 1855.3 | 1855.3 | 1855.3 |
| 2.5°  | 1863.1 | 1860.4 | 1857.9 | 1852.6 | 1844.8 | 1837.0 | 1831.7 | 1826.6 | 1823.9 |
| 5°    | 1884.0 | 1878.8 | 1870.9 | 1860.4 | 1844.8 | 1826.6 | 1816.1 | 1805.7 | 1803.1 |
| 7.5°  | 1912.7 | 1902.2 | 1881.3 | 1857.9 | 1831.7 | 1805.7 | 1787.4 | 1777.0 | 1769.2 |
| 10°   | 1925.7 | 1907.5 | 1878.8 | 1839.7 | 1800.4 | 1769.2 | 1745.7 | 1730.0 | 1724.8 |
| 12.5° | 1936.2 | 1915.3 | 1873.5 | 1821.3 | 1769.2 | 1727.4 | 1701.3 | 1688.3 | 1683.0 |
| 15°   | 1946.6 | 1925.7 | 1868.4 | 1800.4 | 1735.2 | 1685.6 | 1656.9 | 1644.0 | 1638.7 |
| 17.5° | 1946.6 | 1917.8 | 1850.0 | 1763.9 | 1685.6 | 1625.6 | 1596.9 | 1583.9 | 1581.3 |
| 20°   | 1923.1 | 1891.8 | 1808.3 | 1706.5 | 1617.8 | 1550.0 | 1523.9 | 1516.0 | 1510.8 |
| 22.5° | 1878.8 | 1842.2 | 1748.3 | 1633.4 | 1536.9 | 1471.7 | 1443.0 | 1437.7 | 1432.5 |
| 25°   | 1821.3 | 1784.8 | 1677.8 | 1555.1 | 1453.4 | 1388.1 | 1364.7 | 1359.4 | 1356.9 |
| 27.5° | 1748.3 | 1709.2 | 1596.9 | 1471.7 | 1362.1 | 1299.5 | 1278.6 | 1278.6 | 1276.0 |
| 30°   | 1654.3 | 1610.0 | 1500.4 | 1375.2 | 1265.5 | 1208.2 | 1192.4 | 1192.4 | 1189.9 |
| 32.5° | 1539.5 | 1495.2 | 1396.0 | 1276.0 | 1171.6 | 1111.6 | 1098.5 | 1103.7 | 1101.2 |
| 35°   | 1406.5 | 1369.9 | 1278.6 | 1161.2 | 1069.8 | 1015.1 | 1009.8 | 1015.1 | 1015.1 |
| 37.5° | 1273.4 | 1239.5 | 1161.2 | 1059.4 | 973.3  | 923.7  | 923.7  | 931.5  | 928.9  |
| 40°   | 1135.0 | 1109.0 | 1035.9 | 947.3  | 876.8  | 842.8  | 837.6  | 845.5  | 848.1  |
| 42.5° | 1004.6 | 983.8  | 921.1  | 848.1  | 785.4  | 751.5  | 759.4  | 764.5  | 767.2  |
| 45°   | 887.2  | 866.3  | 816.8  | 741.0  | 696.7  | 673.2  | 673.2  | 681.1  | 678.5  |
| 47.5° | 782.8  | 767.2  | 717.6  | 644.5  | 605.3  | 594.9  | 600.2  | 605.3  | 605.3  |
| 50°   | 691.4  | 668.0  | 621.1  | 563.7  | 535.0  | 521.9  | 527.1  | 529.7  | 529.7  |
| 52.5° | 605.3  | 589.7  | 542.8  | 490.6  | 464.5  | 456.6  | 456.6  | 459.2  | 459.2  |
| 55°   | 535.0  | 516.6  | 474.9  | 422.7  | 401.8  | 391.4  | 383.6  | 381.0  | 386.2  |
| 57.5° | 467.0  | 451.4  | 412.3  | 362.7  | 339.2  | 328.7  | 313.1  | 307.9  | 313.1  |
| 60°   | 407.0  | 394.0  | 354.9  | 307.9  | 284.4  | 263.5  | 245.3  | 234.8  | 240.1  |
| 62.5° | 354.9  | 339.2  | 300.0  | 260.9  | 234.8  | 211.3  | 182.6  | 167.0  | 174.8  |
| 65°   | 302.7  | 289.6  | 250.6  | 211.3  | 185.3  | 156.6  | 122.7  | 112.1  | 112.1  |
| 67.5° | 255.7  | 242.6  | 206.1  | 172.2  | 140.9  | 107.0  | 75.6   | 73.1   | 75.6   |
| 70°   | 211.3  | 198.3  | 167.0  | 133.0  | 99.2   | 65.2   | 44.3   | 44.3   | 44.3   |
| 72.5° | 174.8  | 159.2  | 130.5  | 96.5   | 62.7   | 34.0   | 23.5   | 26.1   | 26.1   |
| 75°   | 135.7  | 122.7  | 96.5   | 65.2   | 36.5   | 15.6   | 13.1   | 13.1   | 13.1   |
| 77.5° | 101.8  | 91.4   | 67.8   | 41.8   | 18.3   | 5.3    | 5.3    | 5.3    | 5.3    |
| 80°   | 70.5   | 60.0   | 44.3   | 26.1   | 10.4   | 5.3    | 5.3    | 5.3    | 5.3    |
| 82.5° | 41.8   | 36.5   | 26.1   | 13.1   | 5.3    | 2.6    | 2.6    | 2.6    | 2.6    |
| 85°   | 20.9   | 18.3   | 10.4   | 5.3    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    |
| 87.5° | 5.3    | 5.3    | 2.6    | 2.6    | 0.0    | 2.6    | 2.6    | 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)