

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: P582646

Luminaire Tested: **HCC6S45D010BZ-HM64560927-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC6S45D010BZ-HM64560927-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

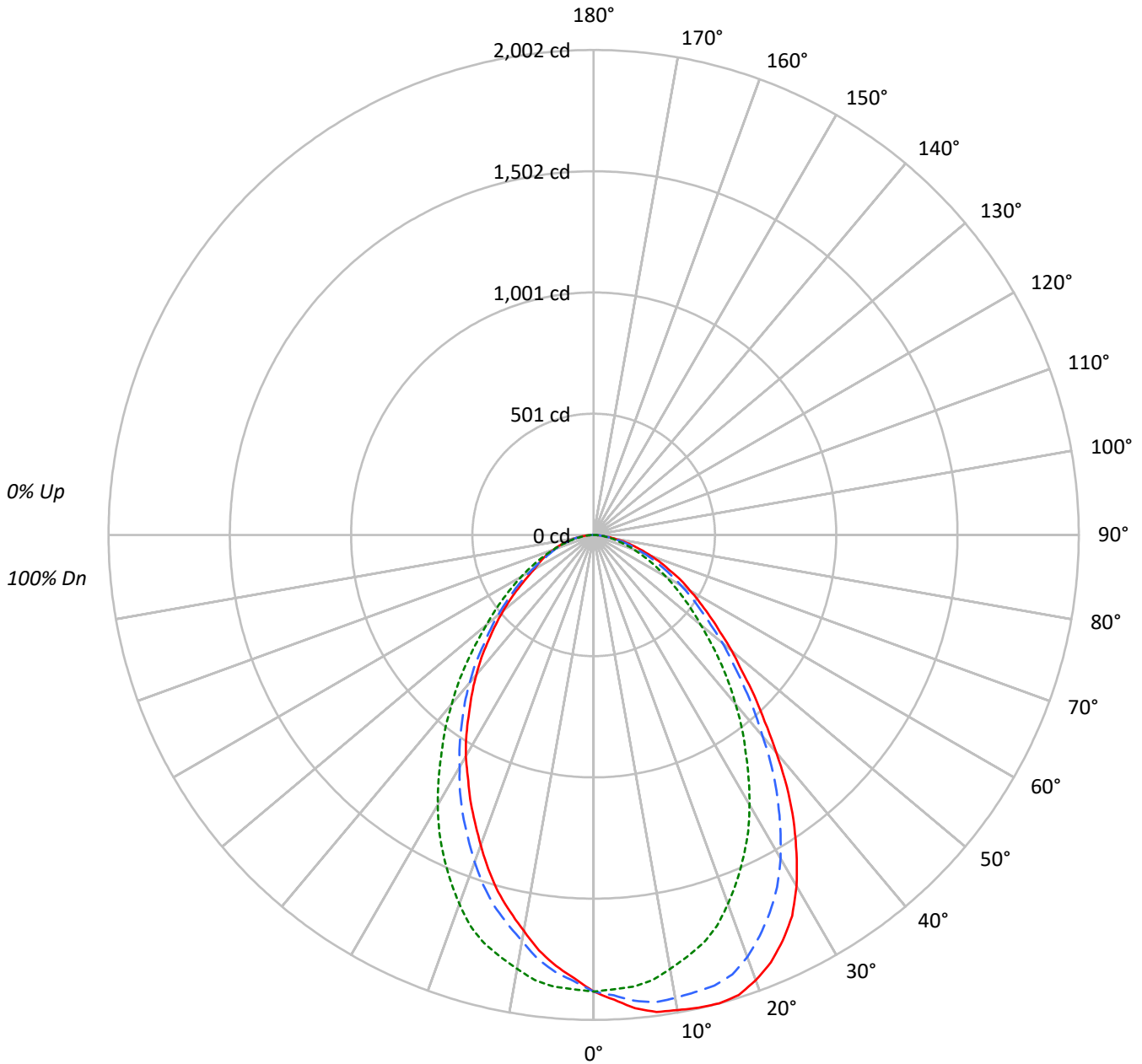
Lumens per Lamp: N/A
Luminaire Lumens: 3511.3 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): 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 | 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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | | 87 | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 83 | 80 | 78 | 76 | | | | | 76 | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | 66 | | | |
| 4 | 87 | 76 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 53 | 51 | | | | | 51 | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | 46 | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 43 | 42 | | | | | 42 | | | |
| 8 | 66 | 53 | 46 | 40 | 64 | 53 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 39 | 38 | | | | | 38 | | | |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 10 | 58 | 46 | 39 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 32 | | | | | 32 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 103336 | 103336 | 103336 |
| 5° | 107918 | 103032 | 98283 |
| 10° | 110859 | 101256 | 92361 |
| 15° | 113605 | 99058 | 86539 |
| 20° | 114110 | 94572 | 79474 |
| 25° | 111714 | 88541 | 72887 |
| 30° | 105997 | 81418 | 66801 |
| 35° | 96262 | 73180 | 59936 |
| 40° | 83879 | 65179 | 53922 |
| 45° | 72581 | 57037 | 47400 |
| 50° | 63392 | 49116 | 41542 |
| 55° | 56008 | 43162 | 35640 |
| 60° | 50347 | 37826 | 30875 |
| 65° | 45089 | 32909 | 29938 |
| 70° | 40247 | 28050 | 28050 |
| 75° | 34927 | 23659 | 26328 |
| 80° | 28034 | 20047 | 24025 |
| 85° | 19184 | 17549 | 20757 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 177.2 | 5.0 |
| 10°-20° | 492.5 | 14.0 |
| 20°-30° | 686.3 | 19.5 |
| 30°-40° | 707.1 | 20.1 |
| 40°-50° | 586.1 | 16.7 |
| 50°-60° | 421.2 | 12.0 |
| 60°-70° | 268.2 | 7.6 |
| 70°-80° | 137.7 | 3.9 |
| 80°-90° | 35.1 | 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° | 1355.9 | 38.6 |
| 0°-40° | 2063.1 | 58.8 |
| 0°-60° | 3070.3 | 87.4 |
| 0°-90° | 3511.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3511.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1885 | 1885 | 1885 | 1885 | 1885 | |
| 5° | 1961 | 1931 | 1872 | 1811 | 1786 | 188 |
| 15° | 2002 | 1926 | 1745 | 1586 | 1525 | 564 |
| 25° | 1847 | 1720 | 1464 | 1276 | 1205 | 846 |
| 35° | 1438 | 1322 | 1094 | 949 | 896 | 894 |
| 45° | 936 | 870 | 736 | 642 | 611 | 725 |
| 55° | 586 | 538 | 452 | 401 | 373 | 528 |
| 65° | 348 | 310 | 254 | 221 | 231 | 348 |
| 75° | 165 | 142 | 112 | 117 | 124 | 176 |
| 85° | 30 | 28 | 28 | 30 | 33 | 39 |
| 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° | 1885.0 | 1885.0 | 1885.0 | 1885.0 | 1885.0 | 1885.0 | 1885.0 | 1885.0 | 1885.0 |
| 2.5° | 1920.6 | 1912.9 | 1902.7 | 1892.6 | 1877.4 | 1859.6 | 1844.4 | 1839.3 | 1831.8 |
| 5° | 1961.1 | 1950.9 | 1930.6 | 1905.3 | 1872.3 | 1839.3 | 1811.3 | 1793.6 | 1786.0 |
| 7.5° | 1986.5 | 1973.8 | 1945.9 | 1902.7 | 1854.5 | 1806.3 | 1765.7 | 1740.4 | 1730.2 |
| 10° | 1991.5 | 1978.9 | 1940.8 | 1882.4 | 1819.0 | 1753.0 | 1702.3 | 1671.9 | 1659.2 |
| 12.5° | 1999.1 | 1981.4 | 1933.2 | 1864.7 | 1783.5 | 1707.4 | 1644.0 | 1606.0 | 1593.2 |
| 15° | 2001.7 | 1981.4 | 1925.6 | 1841.8 | 1745.4 | 1654.2 | 1585.7 | 1539.9 | 1524.8 |
| 17.5° | 1991.5 | 1968.6 | 1902.7 | 1801.3 | 1692.2 | 1595.7 | 1514.6 | 1466.4 | 1446.1 |
| 20° | 1956.0 | 1930.6 | 1854.5 | 1740.4 | 1621.1 | 1519.6 | 1436.0 | 1385.2 | 1362.3 |
| 22.5° | 1910.3 | 1877.4 | 1791.1 | 1669.3 | 1545.1 | 1438.4 | 1354.7 | 1304.0 | 1281.2 |
| 25° | 1846.9 | 1816.5 | 1720.1 | 1590.7 | 1463.8 | 1352.2 | 1276.1 | 1222.9 | 1205.0 |
| 27.5° | 1773.3 | 1737.8 | 1638.9 | 1509.5 | 1380.2 | 1268.5 | 1194.9 | 1146.7 | 1123.9 |
| 30° | 1674.5 | 1641.4 | 1542.5 | 1413.1 | 1286.2 | 1182.3 | 1106.1 | 1065.6 | 1055.3 |
| 32.5° | 1557.7 | 1529.8 | 1433.4 | 1311.6 | 1189.9 | 1093.5 | 1030.0 | 986.8 | 976.8 |
| 35° | 1438.4 | 1405.5 | 1321.7 | 1207.6 | 1093.5 | 1007.1 | 948.8 | 910.8 | 895.6 |
| 37.5° | 1309.1 | 1278.7 | 1207.6 | 1106.1 | 1004.7 | 923.5 | 872.7 | 839.8 | 824.5 |
| 40° | 1172.1 | 1149.3 | 1083.3 | 1002.1 | 910.8 | 839.8 | 796.6 | 768.7 | 753.5 |
| 42.5° | 1045.3 | 1022.4 | 976.8 | 900.6 | 824.5 | 761.0 | 723.0 | 697.7 | 685.0 |
| 45° | 936.2 | 915.9 | 870.1 | 804.2 | 735.7 | 682.5 | 641.9 | 624.2 | 611.4 |
| 47.5° | 827.1 | 816.9 | 776.3 | 715.4 | 652.0 | 606.3 | 578.4 | 558.1 | 548.0 |
| 50° | 743.3 | 730.7 | 692.5 | 629.2 | 575.9 | 540.4 | 515.1 | 497.2 | 487.1 |
| 52.5° | 657.1 | 644.4 | 608.9 | 555.7 | 512.5 | 479.5 | 454.1 | 438.9 | 428.7 |
| 55° | 586.0 | 575.9 | 537.8 | 489.6 | 451.6 | 423.7 | 400.8 | 383.1 | 372.9 |
| 57.5° | 520.1 | 509.9 | 474.4 | 428.7 | 395.8 | 370.4 | 350.1 | 334.9 | 322.2 |
| 60° | 459.2 | 451.6 | 416.1 | 372.9 | 345.0 | 319.6 | 301.9 | 289.3 | 281.6 |
| 62.5° | 406.0 | 390.7 | 360.2 | 322.2 | 296.8 | 276.5 | 258.8 | 251.1 | 256.2 |
| 65° | 347.6 | 339.9 | 309.6 | 276.5 | 253.7 | 233.4 | 220.8 | 225.8 | 230.8 |
| 67.5° | 299.3 | 289.3 | 263.8 | 233.4 | 213.1 | 197.9 | 190.3 | 200.5 | 202.9 |
| 70° | 251.1 | 241.1 | 218.2 | 192.8 | 175.0 | 164.9 | 164.9 | 172.5 | 175.0 |
| 72.5° | 205.5 | 197.9 | 177.6 | 157.3 | 144.6 | 137.0 | 142.1 | 147.1 | 149.7 |
| 75° | 164.9 | 157.3 | 142.1 | 124.3 | 111.7 | 111.7 | 116.7 | 121.8 | 124.3 |
| 77.5° | 126.8 | 121.8 | 106.5 | 93.8 | 88.8 | 88.8 | 93.8 | 96.4 | 98.9 |
| 80° | 88.8 | 83.8 | 76.1 | 68.5 | 63.5 | 68.5 | 73.5 | 73.5 | 76.1 |
| 82.5° | 58.3 | 55.8 | 50.8 | 45.6 | 45.6 | 48.2 | 50.8 | 53.3 | 53.3 |
| 85° | 30.5 | 30.5 | 27.9 | 25.3 | 27.9 | 30.5 | 30.5 | 33.0 | 33.0 |
| 87.5° | 10.2 | 10.2 | 10.2 | 10.2 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 |
| 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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Scaled Data Report



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

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