

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: P580663

Luminaire Tested: **HCC4W40D010BZ-HM43040935-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4W40D010BZ-HM43040935-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

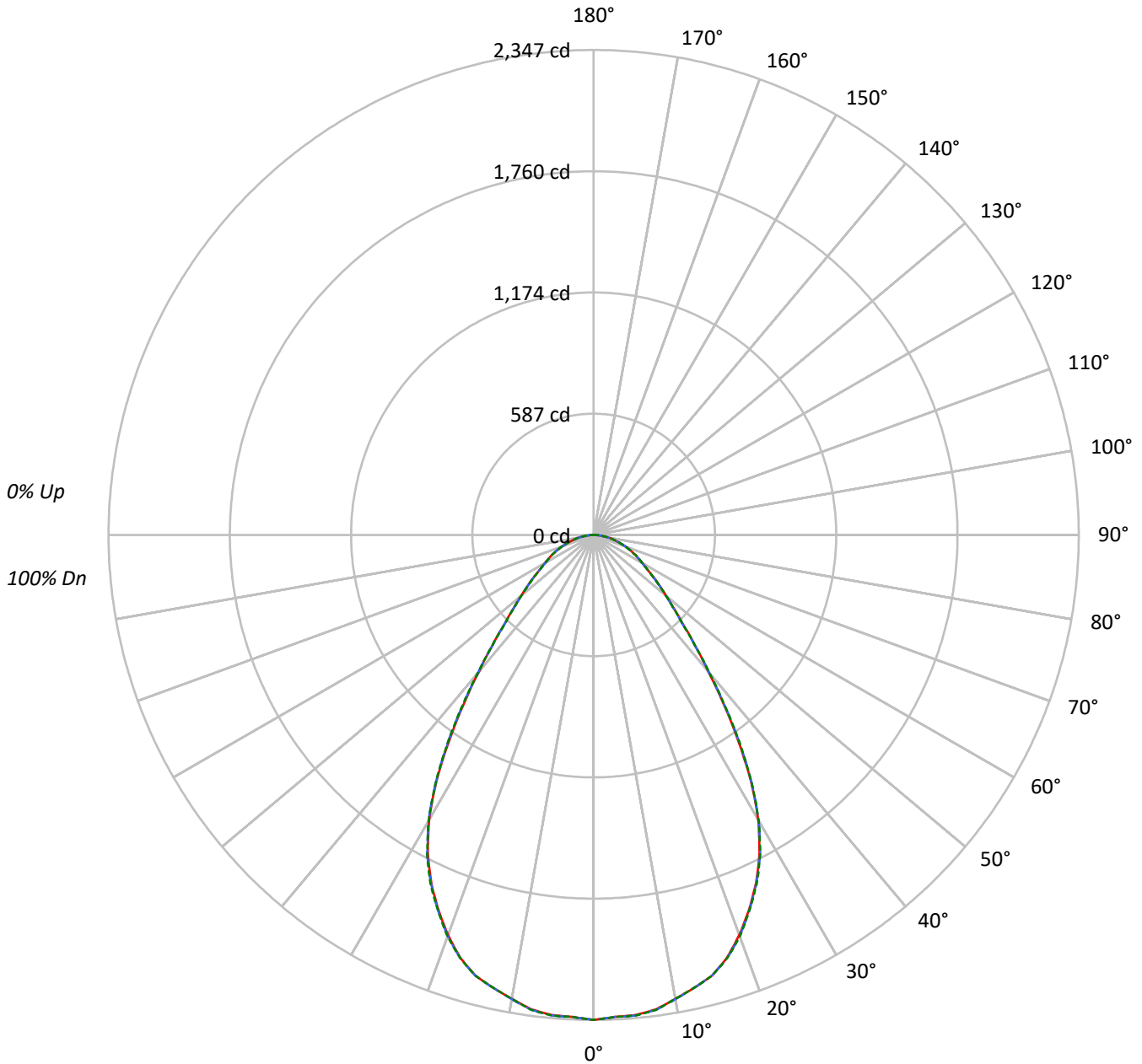
Lumens per Lamp: N/A
Luminaire Lumens: 3621.2 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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 | | | | | | | | | |
| 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 | 89 | | | | | | | | | | | | | | | | | | | |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 91 | 87 | 84 | 88 | 85 | 82 | 85 | 83 | 80 | 78 | | | | | | | | | | | | | | | | | | | |
| 3 | 96 | 87 | 81 | 76 | 94 | 86 | 80 | 75 | 83 | 78 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 69 | | | | | | | | | | | | | | | | | | | |
| 4 | 90 | 80 | 72 | 67 | 87 | 78 | 72 | 66 | 76 | 70 | 66 | 74 | 69 | 65 | 72 | 68 | 64 | 62 | | | | | | | | | | | | | | | | | | | |
| 5 | 84 | 73 | 65 | 60 | 82 | 72 | 65 | 59 | 70 | 64 | 59 | 68 | 63 | 58 | 66 | 62 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 6 | 78 | 67 | 59 | 54 | 77 | 66 | 59 | 54 | 64 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 53 | 51 | | | | | | | | | | | | | | | | | | | |
| 7 | 73 | 62 | 54 | 49 | 72 | 61 | 54 | 49 | 60 | 53 | 49 | 58 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 8 | 69 | 57 | 50 | 45 | 68 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 53 | 48 | 44 | 42 | | | | | | | | | | | | | | | | | | | |
| 9 | 65 | 53 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | | | | | | | | | | | | | | | |
| 10 | 61 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 48 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 289505 | 289505 | 289505 |
| 5° | 288815 | 289100 | 289100 |
| 10° | 285454 | 285754 | 285454 |
| 15° | 282031 | 282031 | 282031 |
| 20° | 270452 | 271082 | 271410 |
| 25° | 252963 | 253303 | 253957 |
| 30° | 226673 | 227357 | 227357 |
| 35° | 184020 | 185496 | 185857 |
| 40° | 138877 | 139666 | 140052 |
| 45° | 106372 | 105971 | 105971 |
| 50° | 87656 | 87176 | 87176 |
| 55° | 75245 | 74707 | 74707 |
| 60° | 67149 | 66533 | 66533 |
| 65° | 63100 | 63100 | 63100 |
| 70° | 58712 | 58712 | 58712 |
| 75° | 53281 | 54424 | 53281 |
| 80° | 50078 | 48302 | 50078 |
| 85° | 41183 | 41183 | 41183 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 221.1 | 6.1 |
| 10°-20° | 618.8 | 17.1 |
| 20°-30° | 850.4 | 23.5 |
| 30°-40° | 764.6 | 21.1 |
| 40°-50° | 483.1 | 13.3 |
| 50°-60° | 315.4 | 8.7 |
| 60°-70° | 213.7 | 5.9 |
| 70°-80° | 120.3 | 3.3 |
| 80°-90° | 33.7 | 0.9 |
| 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° | 1690.4 | 46.7 |
| 0°-40° | 2455.0 | 67.8 |
| 0°-60° | 3253.5 | 89.8 |
| 0°-90° | 3621.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3621.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2347 | 2347 | 2347 | 2347 | 2347 | |
| 5° | 2333 | 2333 | 2335 | 2335 | 2335 | 221 |
| 15° | 2209 | 2209 | 2209 | 2209 | 2209 | 618 |
| 25° | 1859 | 1861 | 1861 | 1866 | 1866 | 848 |
| 35° | 1222 | 1227 | 1232 | 1237 | 1234 | 761 |
| 45° | 610 | 608 | 608 | 608 | 608 | 484 |
| 55° | 350 | 350 | 347 | 350 | 347 | 317 |
| 65° | 216 | 216 | 216 | 216 | 216 | 214 |
| 75° | 112 | 114 | 114 | 114 | 112 | 120 |
| 85° | 29 | 29 | 29 | 29 | 29 | 34 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2347.1 | 2347.1 | 2347.1 | 2347.1 | 2347.1 |
| 2.5° | 2334.9 | 2334.9 | 2334.9 | 2334.9 | 2334.9 |
| 5° | 2332.6 | 2332.6 | 2334.9 | 2334.9 | 2334.9 |
| 7.5° | 2315.5 | 2318.0 | 2318.0 | 2318.0 | 2318.0 |
| 10° | 2279.1 | 2279.1 | 2281.5 | 2281.5 | 2279.1 |
| 12.5° | 2245.0 | 2245.0 | 2245.0 | 2247.5 | 2245.0 |
| 15° | 2208.6 | 2208.6 | 2208.6 | 2208.6 | 2208.6 |
| 17.5° | 2145.5 | 2147.8 | 2147.8 | 2147.8 | 2147.8 |
| 20° | 2060.4 | 2065.2 | 2065.2 | 2067.7 | 2067.7 |
| 22.5° | 1963.2 | 1965.7 | 1968.0 | 1970.5 | 1968.0 |
| 25° | 1858.7 | 1861.2 | 1861.2 | 1866.0 | 1866.0 |
| 27.5° | 1737.2 | 1739.7 | 1744.5 | 1744.5 | 1744.5 |
| 30° | 1591.5 | 1593.9 | 1596.3 | 1596.3 | 1596.3 |
| 32.5° | 1419.0 | 1419.0 | 1423.8 | 1426.2 | 1423.8 |
| 35° | 1222.1 | 1227.0 | 1231.9 | 1236.7 | 1234.3 |
| 37.5° | 1035.0 | 1040.0 | 1042.3 | 1042.3 | 1044.8 |
| 40° | 862.5 | 867.4 | 867.4 | 872.3 | 869.8 |
| 42.5° | 726.5 | 724.1 | 724.1 | 728.9 | 726.5 |
| 45° | 609.8 | 607.5 | 607.5 | 607.5 | 607.5 |
| 47.5° | 524.9 | 522.4 | 522.4 | 522.4 | 522.4 |
| 50° | 456.8 | 454.3 | 454.3 | 454.3 | 454.3 |
| 52.5° | 400.9 | 398.5 | 398.5 | 398.5 | 396.0 |
| 55° | 349.9 | 349.9 | 347.4 | 349.9 | 347.4 |
| 57.5° | 303.7 | 303.7 | 303.7 | 303.7 | 303.7 |
| 60° | 272.2 | 269.7 | 269.7 | 269.7 | 269.7 |
| 62.5° | 242.9 | 242.9 | 242.9 | 242.9 | 242.9 |
| 65° | 216.2 | 216.2 | 216.2 | 216.2 | 216.2 |
| 67.5° | 189.6 | 187.1 | 189.6 | 189.6 | 187.1 |
| 70° | 162.8 | 160.4 | 162.8 | 162.8 | 162.8 |
| 72.5° | 136.1 | 136.1 | 136.1 | 138.4 | 136.1 |
| 75° | 111.8 | 114.2 | 114.2 | 114.2 | 111.8 |
| 77.5° | 89.9 | 92.4 | 89.9 | 89.9 | 89.9 |
| 80° | 70.5 | 68.0 | 68.0 | 68.0 | 70.5 |
| 82.5° | 48.5 | 48.5 | 48.5 | 48.5 | 48.5 |
| 85° | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 |
| 87.5° | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

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