

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: P592812

Luminaire Tested: **HCC4W40D010BZ-HM43040850-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592812
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-HM43040850-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

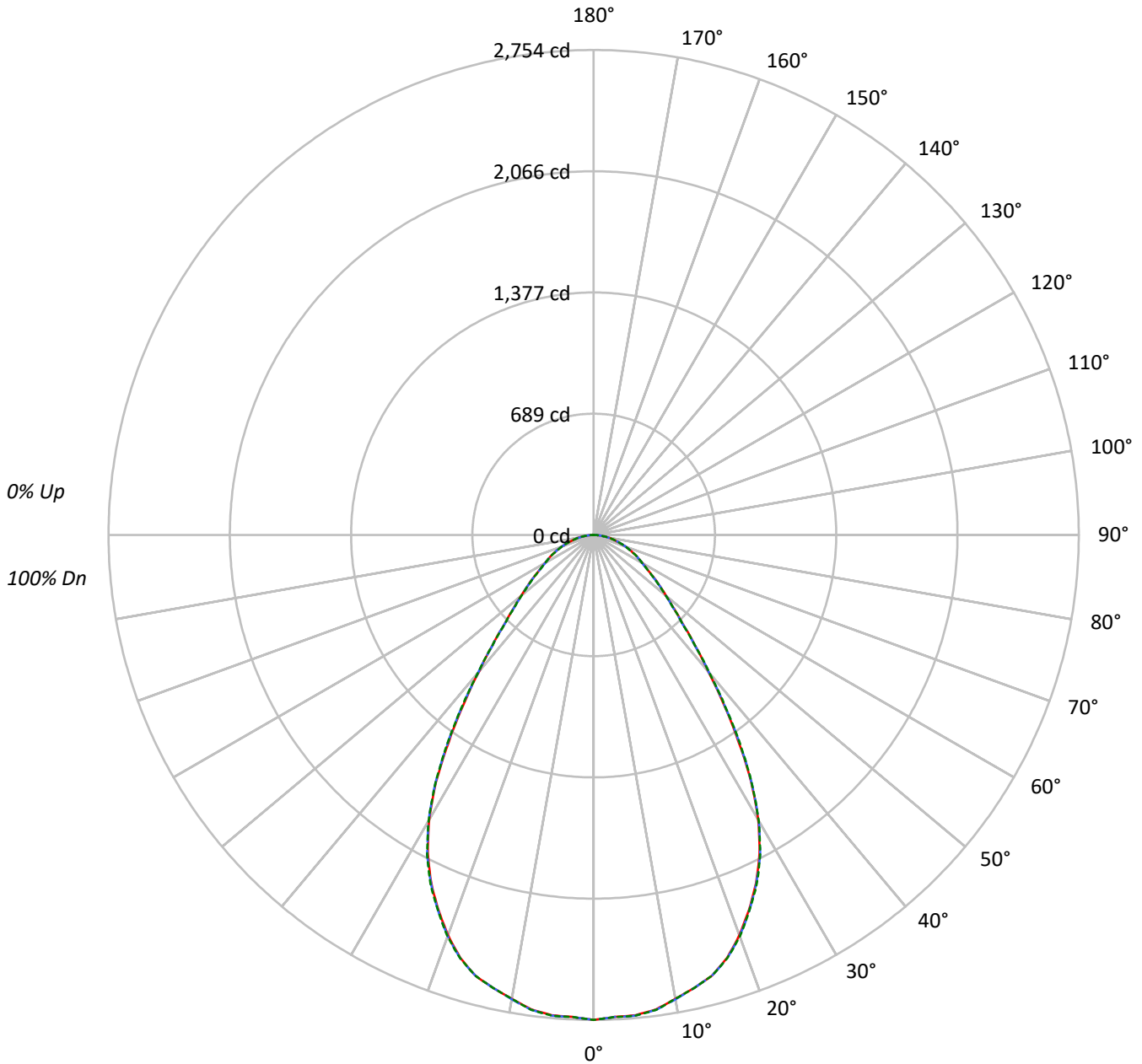
Lumens per Lamp: N/A
Luminaire Lumens: 4249.8 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
Input Voltage (V): NR
Input Current (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 | 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° | 339743 | 339743 | 339743 |
| 5° | 338936 | 339283 | 339283 |
| 10° | 334989 | 335340 | 334989 |
| 15° | 330977 | 330977 | 330977 |
| 20° | 317391 | 318139 | 318506 |
| 25° | 296882 | 297263 | 298038 |
| 30° | 266011 | 266809 | 266809 |
| 35° | 215958 | 217674 | 218126 |
| 40° | 162997 | 163915 | 164365 |
| 45° | 124827 | 124339 | 124339 |
| 50° | 102873 | 102336 | 102336 |
| 55° | 88298 | 87674 | 87674 |
| 60° | 78793 | 78078 | 78078 |
| 65° | 74074 | 74074 | 74074 |
| 70° | 68882 | 68882 | 68882 |
| 75° | 62526 | 63861 | 62526 |
| 80° | 58743 | 56683 | 58743 |
| 85° | 48401 | 48401 | 48401 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 259.5 | 6.1 |
| 10°-20° | 726.2 | 17.1 |
| 20°-30° | 998.0 | 23.5 |
| 30°-40° | 897.3 | 21.1 |
| 40°-50° | 567.0 | 13.3 |
| 50°-60° | 370.2 | 8.7 |
| 60°-70° | 250.8 | 5.9 |
| 70°-80° | 141.1 | 3.3 |
| 80°-90° | 39.6 | 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° | 1983.7 | 46.7 |
| 0°-40° | 2881.0 | 67.8 |
| 0°-60° | 3818.2 | 89.8 |
| 0°-90° | 4249.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4249.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2754 | 2754 | 2754 | 2754 | 2754 | |
| 5° | 2737 | 2737 | 2740 | 2740 | 2740 | 259 |
| 15° | 2592 | 2592 | 2592 | 2592 | 2592 | 726 |
| 25° | 2181 | 2184 | 2184 | 2190 | 2190 | 996 |
| 35° | 1434 | 1440 | 1446 | 1451 | 1449 | 893 |
| 45° | 716 | 713 | 713 | 713 | 713 | 568 |
| 55° | 411 | 411 | 408 | 411 | 408 | 372 |
| 65° | 254 | 254 | 254 | 254 | 254 | 251 |
| 75° | 131 | 134 | 134 | 134 | 131 | 141 |
| 85° | 34 | 34 | 34 | 34 | 34 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2754.4 | 2754.4 | 2754.4 | 2754.4 | 2754.4 |
| 2.5° | 2740.2 | 2740.2 | 2740.2 | 2740.2 | 2740.2 |
| 5° | 2737.4 | 2737.4 | 2740.2 | 2740.2 | 2740.2 |
| 7.5° | 2717.4 | 2720.2 | 2720.2 | 2720.2 | 2720.2 |
| 10° | 2674.6 | 2674.6 | 2677.4 | 2677.4 | 2674.6 |
| 12.5° | 2634.7 | 2634.7 | 2634.7 | 2637.5 | 2634.7 |
| 15° | 2591.9 | 2591.9 | 2591.9 | 2591.9 | 2591.9 |
| 17.5° | 2517.8 | 2520.6 | 2520.6 | 2520.6 | 2520.6 |
| 20° | 2418.0 | 2423.7 | 2423.7 | 2426.5 | 2426.5 |
| 22.5° | 2303.9 | 2306.8 | 2309.6 | 2312.5 | 2309.6 |
| 25° | 2181.4 | 2184.2 | 2184.2 | 2189.9 | 2189.9 |
| 27.5° | 2038.8 | 2041.6 | 2047.3 | 2047.3 | 2047.3 |
| 30° | 1867.7 | 1870.5 | 1873.3 | 1873.3 | 1873.3 |
| 32.5° | 1665.2 | 1665.2 | 1671.0 | 1673.8 | 1671.0 |
| 35° | 1434.2 | 1439.9 | 1445.6 | 1451.4 | 1448.6 |
| 37.5° | 1214.7 | 1220.4 | 1223.2 | 1223.2 | 1226.0 |
| 40° | 1012.3 | 1018.0 | 1018.0 | 1023.7 | 1020.8 |
| 42.5° | 852.5 | 849.7 | 849.7 | 855.4 | 852.5 |
| 45° | 715.6 | 712.8 | 712.8 | 712.8 | 712.8 |
| 47.5° | 615.9 | 613.1 | 613.1 | 613.1 | 613.1 |
| 50° | 536.1 | 533.3 | 533.3 | 533.3 | 533.3 |
| 52.5° | 470.5 | 467.7 | 467.7 | 467.7 | 464.8 |
| 55° | 410.6 | 410.6 | 407.7 | 410.6 | 407.7 |
| 57.5° | 356.5 | 356.5 | 356.5 | 356.5 | 356.5 |
| 60° | 319.4 | 316.5 | 316.5 | 316.5 | 316.5 |
| 62.5° | 285.2 | 285.2 | 285.2 | 285.2 | 285.2 |
| 65° | 253.8 | 253.8 | 253.8 | 253.8 | 253.8 |
| 67.5° | 222.4 | 219.6 | 222.4 | 222.4 | 219.6 |
| 70° | 191.0 | 188.2 | 191.0 | 191.0 | 191.0 |
| 72.5° | 159.6 | 159.6 | 159.6 | 162.5 | 159.6 |
| 75° | 131.2 | 134.0 | 134.0 | 134.0 | 131.2 |
| 77.5° | 105.5 | 108.4 | 105.5 | 105.5 | 105.5 |
| 80° | 82.7 | 79.8 | 79.8 | 79.8 | 82.7 |
| 82.5° | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 |
| 85° | 34.2 | 34.2 | 34.2 | 34.2 | 34.2 |
| 87.5° | 14.2 | 14.2 | 14.2 | 14.2 | 14.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Report Generated By 670245859 / DESKTOP-T8S5UU9

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

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