

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: P579786

Luminaire Tested: **HCC4W10D010MB-HM40525930-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579786  
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: HCC4W10D010MB-HM40525930-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

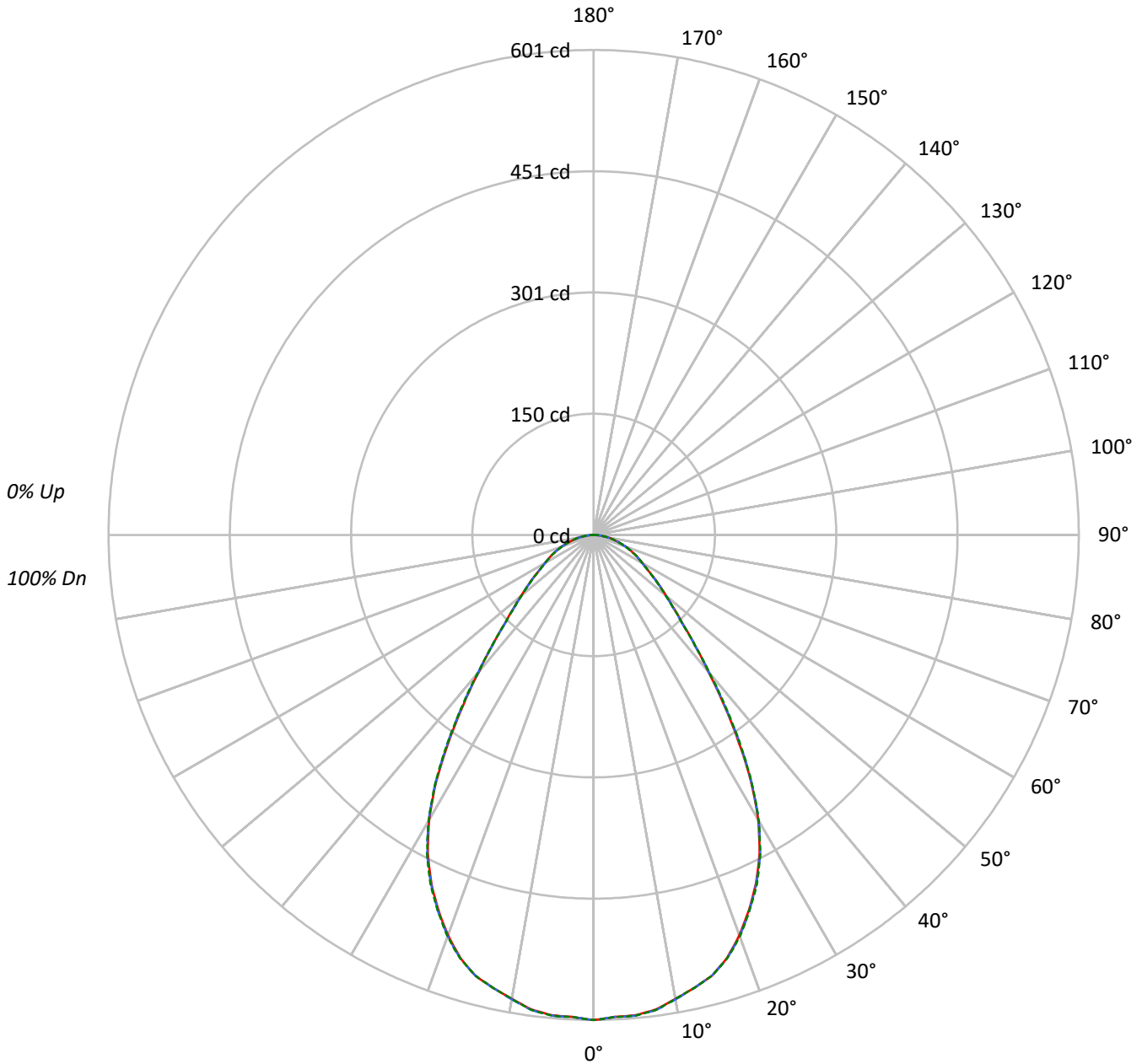
Lumens per Lamp: N/A  
Luminaire Lumens: 927.5 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.9  
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



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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  |     |     |     |     | 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°  | 74155 | 74155 | 74155 |
| 5°  | 73968 | 74042 | 74042 |
| 10° | 73120 | 73195 | 73120 |
| 15° | 72238 | 72238 | 72238 |
| 20° | 69267 | 69424 | 69516 |
| 25° | 64782 | 64877 | 65054 |
| 30° | 58053 | 58239 | 58239 |
| 35° | 47146 | 47522 | 47597 |
| 40° | 35568 | 35762 | 35874 |
| 45° | 27247 | 27142 | 27142 |
| 50° | 22451 | 22336 | 22336 |
| 55° | 19268 | 19139 | 19139 |
| 60° | 17170 | 17046 | 17046 |
| 65° | 16169 | 16169 | 16169 |
| 70° | 15039 | 15039 | 15039 |
| 75° | 13678 | 13916 | 13678 |
| 80° | 12857 | 12360 | 12857 |
| 85° | 10614 | 10614 | 10614 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.6   | 6.1       |
| 10°-20°   | 158.5  | 17.1      |
| 20°-30°   | 217.8  | 23.5      |
| 30°-40°   | 195.9  | 21.1      |
| 40°-50°   | 123.7  | 13.3      |
| 50°-60°   | 80.8   | 8.7       |
| 60°-70°   | 54.7   | 5.9       |
| 70°-80°   | 30.8   | 3.3       |
| 80°-90°   | 8.6    | 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°    | 433.0  | 46.7      |
| 0°-40°    | 628.8  | 67.8      |
| 0°-60°    | 833.4  | 89.8      |
| 0°-90°    | 927.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 927.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 601 | 601   | 601 | 601   | 601 |      |
| 5°  | 597 | 597   | 598 | 598   | 598 | 57   |
| 15° | 566 | 566   | 566 | 566   | 566 | 158  |
| 25° | 476 | 477   | 477 | 478   | 478 | 217  |
| 35° | 313 | 314   | 316 | 317   | 316 | 195  |
| 45° | 156 | 156   | 156 | 156   | 156 | 124  |
| 55° | 90  | 90    | 89  | 90    | 89  | 81   |
| 65° | 55  | 55    | 55  | 55    | 55  | 55   |
| 75° | 29  | 29    | 29  | 29    | 29  | 31   |
| 85° | 8   | 8     | 8   | 8     | 8   | 9    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 601.2 | 601.2 | 601.2 | 601.2 | 601.2 |
| 2.5°  | 598.0 | 598.0 | 598.0 | 598.0 | 598.0 |
| 5°    | 597.4 | 597.4 | 598.0 | 598.0 | 598.0 |
| 7.5°  | 593.1 | 593.7 | 593.7 | 593.7 | 593.7 |
| 10°   | 583.8 | 583.8 | 584.4 | 584.4 | 583.8 |
| 12.5° | 575.0 | 575.0 | 575.0 | 575.6 | 575.0 |
| 15°   | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 |
| 17.5° | 549.5 | 550.1 | 550.1 | 550.1 | 550.1 |
| 20°   | 527.7 | 528.9 | 528.9 | 529.6 | 529.6 |
| 22.5° | 502.9 | 503.5 | 504.1 | 504.7 | 504.1 |
| 25°   | 476.0 | 476.7 | 476.7 | 478.0 | 478.0 |
| 27.5° | 445.0 | 445.6 | 446.8 | 446.8 | 446.8 |
| 30°   | 407.6 | 408.2 | 408.9 | 408.9 | 408.9 |
| 32.5° | 363.5 | 363.5 | 364.7 | 365.3 | 364.7 |
| 35°   | 313.1 | 314.3 | 315.6 | 316.8 | 316.1 |
| 37.5° | 265.2 | 266.4 | 267.0 | 267.0 | 267.7 |
| 40°   | 220.9 | 222.1 | 222.1 | 223.4 | 222.8 |
| 42.5° | 186.1 | 185.5 | 185.5 | 186.7 | 186.1 |
| 45°   | 156.2 | 155.6 | 155.6 | 155.6 | 155.6 |
| 47.5° | 134.4 | 133.8 | 133.8 | 133.8 | 133.8 |
| 50°   | 117.0 | 116.4 | 116.4 | 116.4 | 116.4 |
| 52.5° | 102.6 | 102.1 | 102.1 | 102.1 | 101.4 |
| 55°   | 89.6  | 89.6  | 89.0  | 89.6  | 89.0  |
| 57.5° | 77.8  | 77.8  | 77.8  | 77.8  | 77.8  |
| 60°   | 69.6  | 69.1  | 69.1  | 69.1  | 69.1  |
| 62.5° | 62.2  | 62.2  | 62.2  | 62.2  | 62.2  |
| 65°   | 55.4  | 55.4  | 55.4  | 55.4  | 55.4  |
| 67.5° | 48.6  | 47.9  | 48.6  | 48.6  | 47.9  |
| 70°   | 41.7  | 41.1  | 41.7  | 41.7  | 41.7  |
| 72.5° | 34.8  | 34.8  | 34.8  | 35.5  | 34.8  |
| 75°   | 28.7  | 29.2  | 29.2  | 29.2  | 28.7  |
| 77.5° | 23.0  | 23.7  | 23.0  | 23.0  | 23.0  |
| 80°   | 18.1  | 17.4  | 17.4  | 17.4  | 18.1  |
| 82.5° | 12.4  | 12.4  | 12.4  | 12.4  | 12.4  |
| 85°   | 7.5   | 7.5   | 7.5   | 7.5   | 7.5   |
| 87.5° | 3.1   | 3.1   | 3.1   | 3.1   | 3.1   |
| 90°   | 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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