

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: P592578

Luminaire Tested: **HCC4S07D010MB-HM40525850-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592578  
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: HCC4S07D010MB-HM40525850-41WDW  
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**

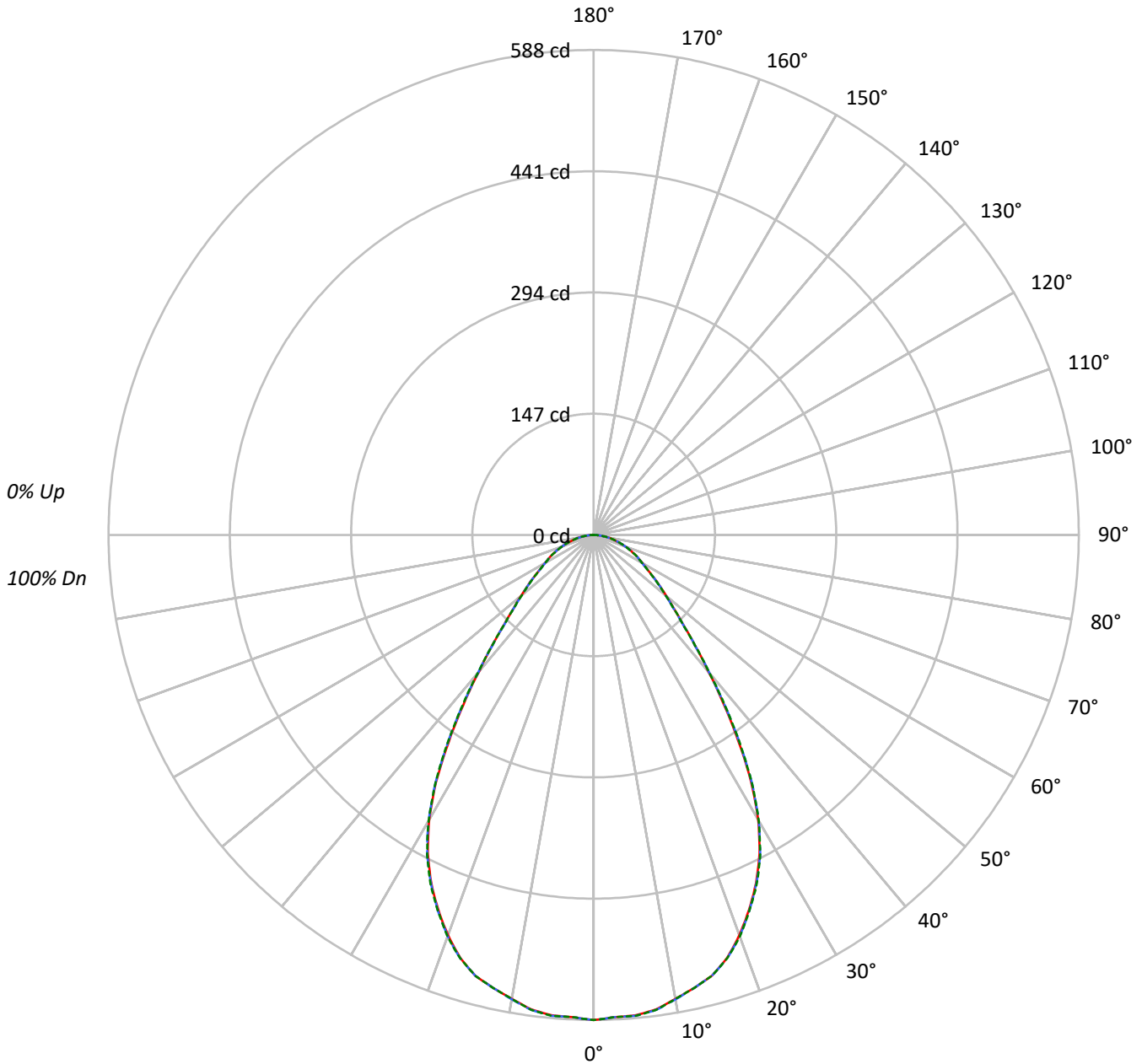
Lumens per Lamp: N/A  
Luminaire Lumens: 907.6 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 8  
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  |     |     |    |    | 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   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 94  | 92  | 90  | 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  | 81  | 76  | 94  | 86  | 80  | 75  | 83  | 78  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 69  |    |    |    |    | 69  |   |  |   |
| 4   | 90  | 80  | 72  | 67  | 87  | 78  | 72  | 66  | 76  | 70  | 66  | 74  | 69  | 65  | 72  | 67  | 64  | 62  |    |    |    |    | 62  |   |  |   |
| 5   | 84  | 73  | 65  | 60  | 82  | 72  | 65  | 59  | 70  | 64  | 59  | 68  | 63  | 58  | 66  | 62  | 58  | 56  |    |    |    |    | 56  |   |  |   |
| 6   | 78  | 67  | 59  | 54  | 77  | 66  | 59  | 54  | 64  | 58  | 53  | 63  | 57  | 53  | 61  | 56  | 53  | 51  |    |    |    |    | 51  |   |  |   |
| 7   | 73  | 62  | 54  | 49  | 72  | 61  | 54  | 49  | 60  | 53  | 49  | 58  | 53  | 48  | 57  | 52  | 48  | 46  |    |    |    |    | 46  |   |  |   |
| 8   | 69  | 57  | 50  | 45  | 68  | 57  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 44  | 53  | 48  | 44  | 42  |    |    |    |    | 42  |   |  |   |
| 9   | 65  | 53  | 46  | 41  | 64  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 10  | 61  | 50  | 43  | 38  | 60  | 49  | 43  | 38  | 48  | 42  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |    |    |    |    | 36  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 72552 | 72552 | 72552 |
| 5°  | 72383 | 72458 | 72458 |
| 10° | 71542 | 71605 | 71542 |
| 15° | 70680 | 70680 | 70680 |
| 20° | 67784 | 67941 | 68020 |
| 25° | 63394 | 63489 | 63639 |
| 30° | 56814 | 56985 | 56985 |
| 35° | 46107 | 46483 | 46574 |
| 40° | 34812 | 35005 | 35102 |
| 45° | 26654 | 26567 | 26567 |
| 50° | 21972 | 21856 | 21856 |
| 55° | 18860 | 18731 | 18731 |
| 60° | 16824 | 16676 | 16676 |
| 65° | 15819 | 15819 | 15819 |
| 70° | 14750 | 14750 | 14750 |
| 75° | 13344 | 13630 | 13344 |
| 80° | 12502 | 12146 | 12502 |
| 85° | 10331 | 10331 | 10331 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 55.4   | 6.1       |
| 10°-20°   | 155.1  | 17.1      |
| 20°-30°   | 213.1  | 23.5      |
| 30°-40°   | 191.6  | 21.1      |
| 40°-50°   | 121.1  | 13.3      |
| 50°-60°   | 79.1   | 8.7       |
| 60°-70°   | 53.6   | 5.9       |
| 70°-80°   | 30.1   | 3.3       |
| 80°-90°   | 8.5    | 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°    | 423.6  | 46.7      |
| 0°-40°    | 615.3  | 67.8      |
| 0°-60°    | 815.4  | 89.8      |
| 0°-90°    | 907.6  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 907.6  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 588 | 588   | 588 | 588   | 588 |      |
| 5°  | 585 | 585   | 585 | 585   | 585 | 55   |
| 15° | 554 | 554   | 554 | 554   | 554 | 155  |
| 25° | 466 | 466   | 466 | 468   | 468 | 213  |
| 35° | 306 | 308   | 309 | 310   | 309 | 191  |
| 45° | 153 | 152   | 152 | 152   | 152 | 121  |
| 55° | 88  | 88    | 87  | 88    | 87  | 79   |
| 65° | 54  | 54    | 54  | 54    | 54  | 54   |
| 75° | 28  | 29    | 29  | 29    | 28  | 30   |
| 85° | 7   | 7     | 7   | 7     | 7   | 9    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 588.2 | 588.2 | 588.2 | 588.2 | 588.2 |
| 2.5°  | 585.2 | 585.2 | 585.2 | 585.2 | 585.2 |
| 5°    | 584.6 | 584.6 | 585.2 | 585.2 | 585.2 |
| 7.5°  | 580.3 | 580.9 | 580.9 | 580.9 | 580.9 |
| 10°   | 571.2 | 571.2 | 571.7 | 571.7 | 571.2 |
| 12.5° | 562.6 | 562.6 | 562.6 | 563.3 | 562.6 |
| 15°   | 553.5 | 553.5 | 553.5 | 553.5 | 553.5 |
| 17.5° | 537.7 | 538.3 | 538.3 | 538.3 | 538.3 |
| 20°   | 516.4 | 517.6 | 517.6 | 518.2 | 518.2 |
| 22.5° | 492.0 | 492.6 | 493.2 | 493.9 | 493.2 |
| 25°   | 465.8 | 466.5 | 466.5 | 467.6 | 467.6 |
| 27.5° | 435.4 | 436.0 | 437.2 | 437.2 | 437.2 |
| 30°   | 398.9 | 399.4 | 400.1 | 400.1 | 400.1 |
| 32.5° | 355.6 | 355.6 | 356.9 | 357.4 | 356.9 |
| 35°   | 306.2 | 307.5 | 308.7 | 310.0 | 309.3 |
| 37.5° | 259.4 | 260.6 | 261.3 | 261.3 | 261.9 |
| 40°   | 216.2 | 217.4 | 217.4 | 218.6 | 218.0 |
| 42.5° | 182.1 | 181.5 | 181.5 | 182.6 | 182.1 |
| 45°   | 152.8 | 152.3 | 152.3 | 152.3 | 152.3 |
| 47.5° | 131.6 | 130.9 | 130.9 | 130.9 | 130.9 |
| 50°   | 114.5 | 113.9 | 113.9 | 113.9 | 113.9 |
| 52.5° | 100.5 | 99.9  | 99.9  | 99.9  | 99.2  |
| 55°   | 87.7  | 87.7  | 87.1  | 87.7  | 87.1  |
| 57.5° | 76.1  | 76.1  | 76.1  | 76.1  | 76.1  |
| 60°   | 68.2  | 67.6  | 67.6  | 67.6  | 67.6  |
| 62.5° | 60.9  | 60.9  | 60.9  | 60.9  | 60.9  |
| 65°   | 54.2  | 54.2  | 54.2  | 54.2  | 54.2  |
| 67.5° | 47.5  | 46.9  | 47.5  | 47.5  | 46.9  |
| 70°   | 40.9  | 40.2  | 40.9  | 40.9  | 40.9  |
| 72.5° | 34.1  | 34.1  | 34.1  | 34.7  | 34.1  |
| 75°   | 28.0  | 28.6  | 28.6  | 28.6  | 28.0  |
| 77.5° | 22.5  | 23.1  | 22.5  | 22.5  | 22.5  |
| 80°   | 17.6  | 17.1  | 17.1  | 17.1  | 17.6  |
| 82.5° | 12.2  | 12.2  | 12.2  | 12.2  | 12.2  |
| 85°   | 7.3   | 7.3   | 7.3   | 7.3   | 7.3   |
| 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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