

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: P581095

Luminaire Tested: **HCC4S05D010MB-HM40525935-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581095  
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: HCC4S05D010MB-HM40525935-41WDW  
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**

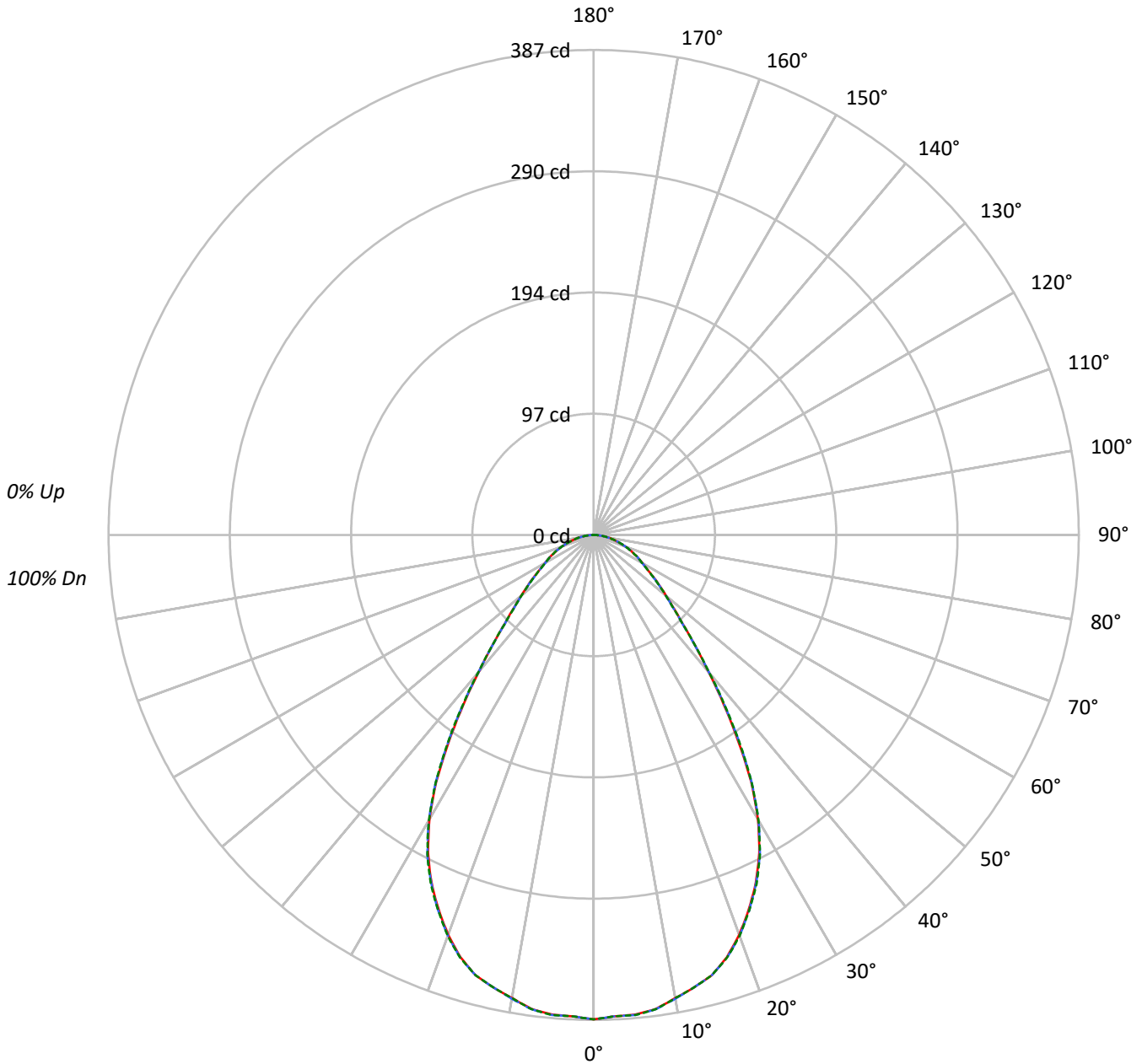
Lumens per Lamp: N/A  
Luminaire Lumens: 596.5 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 6  
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 | 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  | 67  | 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°  | 47685 | 47685 | 47685 |
| 5°  | 47570 | 47608 | 47608 |
| 10° | 47006 | 47068 | 47006 |
| 15° | 46456 | 46456 | 46456 |
| 20° | 44550 | 44655 | 44695 |
| 25° | 41659 | 41727 | 41836 |
| 30° | 37330 | 37444 | 37444 |
| 35° | 30296 | 30537 | 30612 |
| 40° | 22880 | 23009 | 23058 |
| 45° | 17513 | 17444 | 17444 |
| 50° | 14449 | 14354 | 14354 |
| 55° | 12408 | 12301 | 12301 |
| 60° | 11052 | 10953 | 10953 |
| 65° | 10390 | 10390 | 10390 |
| 70° | 9665  | 9665  | 9665  |
| 75° | 8769  | 8960  | 8769  |
| 80° | 8240  | 7956  | 8240  |
| 85° | 6793  | 6793  | 6793  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 36.4   | 6.1       |
| 10°-20°   | 101.9  | 17.1      |
| 20°-30°   | 140.1  | 23.5      |
| 30°-40°   | 125.9  | 21.1      |
| 40°-50°   | 79.6   | 13.3      |
| 50°-60°   | 52.0   | 8.7       |
| 60°-70°   | 35.2   | 5.9       |
| 70°-80°   | 19.8   | 3.3       |
| 80°-90°   | 5.6    | 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°    | 278.4  | 46.7      |
| 0°-40°    | 404.3  | 67.8      |
| 0°-60°    | 535.9  | 89.8      |
| 0°-90°    | 596.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 596.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 387 | 387   | 387 | 387   | 387 |      |
| 5°  | 384 | 384   | 384 | 384   | 384 | 36   |
| 15° | 364 | 364   | 364 | 364   | 364 | 102  |
| 25° | 306 | 307   | 307 | 307   | 307 | 140  |
| 35° | 201 | 202   | 203 | 204   | 203 | 125  |
| 45° | 100 | 100   | 100 | 100   | 100 | 80   |
| 55° | 58  | 58    | 57  | 58    | 57  | 52   |
| 65° | 36  | 36    | 36  | 36    | 36  | 35   |
| 75° | 18  | 19    | 19  | 19    | 18  | 20   |
| 85° | 5   | 5     | 5   | 5     | 5   | 6    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 386.6 | 386.6 | 386.6 | 386.6 | 386.6 |
| 2.5°  | 384.5 | 384.5 | 384.5 | 384.5 | 384.5 |
| 5°    | 384.2 | 384.2 | 384.5 | 384.5 | 384.5 |
| 7.5°  | 381.4 | 381.7 | 381.7 | 381.7 | 381.7 |
| 10°   | 375.3 | 375.3 | 375.8 | 375.8 | 375.3 |
| 12.5° | 369.8 | 369.8 | 369.8 | 370.1 | 369.8 |
| 15°   | 363.8 | 363.8 | 363.8 | 363.8 | 363.8 |
| 17.5° | 353.3 | 353.8 | 353.8 | 353.8 | 353.8 |
| 20°   | 339.4 | 340.2 | 340.2 | 340.5 | 340.5 |
| 22.5° | 323.4 | 323.7 | 324.2 | 324.5 | 324.2 |
| 25°   | 306.1 | 306.6 | 306.6 | 307.4 | 307.4 |
| 27.5° | 286.1 | 286.5 | 287.3 | 287.3 | 287.3 |
| 30°   | 262.1 | 262.5 | 262.9 | 262.9 | 262.9 |
| 32.5° | 233.7 | 233.7 | 234.5 | 234.9 | 234.5 |
| 35°   | 201.2 | 202.0 | 202.8 | 203.7 | 203.3 |
| 37.5° | 170.5 | 171.3 | 171.6 | 171.6 | 172.1 |
| 40°   | 142.1 | 142.9 | 142.9 | 143.7 | 143.2 |
| 42.5° | 119.6 | 119.3 | 119.3 | 120.1 | 119.6 |
| 45°   | 100.4 | 100.0 | 100.0 | 100.0 | 100.0 |
| 47.5° | 86.5  | 86.0  | 86.0  | 86.0  | 86.0  |
| 50°   | 75.3  | 74.8  | 74.8  | 74.8  | 74.8  |
| 52.5° | 66.1  | 65.6  | 65.6  | 65.6  | 65.3  |
| 55°   | 57.7  | 57.7  | 57.2  | 57.7  | 57.2  |
| 57.5° | 50.1  | 50.1  | 50.1  | 50.1  | 50.1  |
| 60°   | 44.8  | 44.4  | 44.4  | 44.4  | 44.4  |
| 62.5° | 40.1  | 40.1  | 40.1  | 40.1  | 40.1  |
| 65°   | 35.6  | 35.6  | 35.6  | 35.6  | 35.6  |
| 67.5° | 31.2  | 30.8  | 31.2  | 31.2  | 30.8  |
| 70°   | 26.8  | 26.4  | 26.8  | 26.8  | 26.8  |
| 72.5° | 22.4  | 22.4  | 22.4  | 22.8  | 22.4  |
| 75°   | 18.4  | 18.8  | 18.8  | 18.8  | 18.4  |
| 77.5° | 14.8  | 15.2  | 14.8  | 14.8  | 14.8  |
| 80°   | 11.6  | 11.2  | 11.2  | 11.2  | 11.6  |
| 82.5° | 8.1   | 8.1   | 8.1   | 8.1   | 8.1   |
| 85°   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   |
| 87.5° | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| 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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Scaled Data Report





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Scaled Data Report



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

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