

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: P581478

Luminaire Tested: **HCC4W07D010MW-HM40525840-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581478  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W07D010MW-HM40525840-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

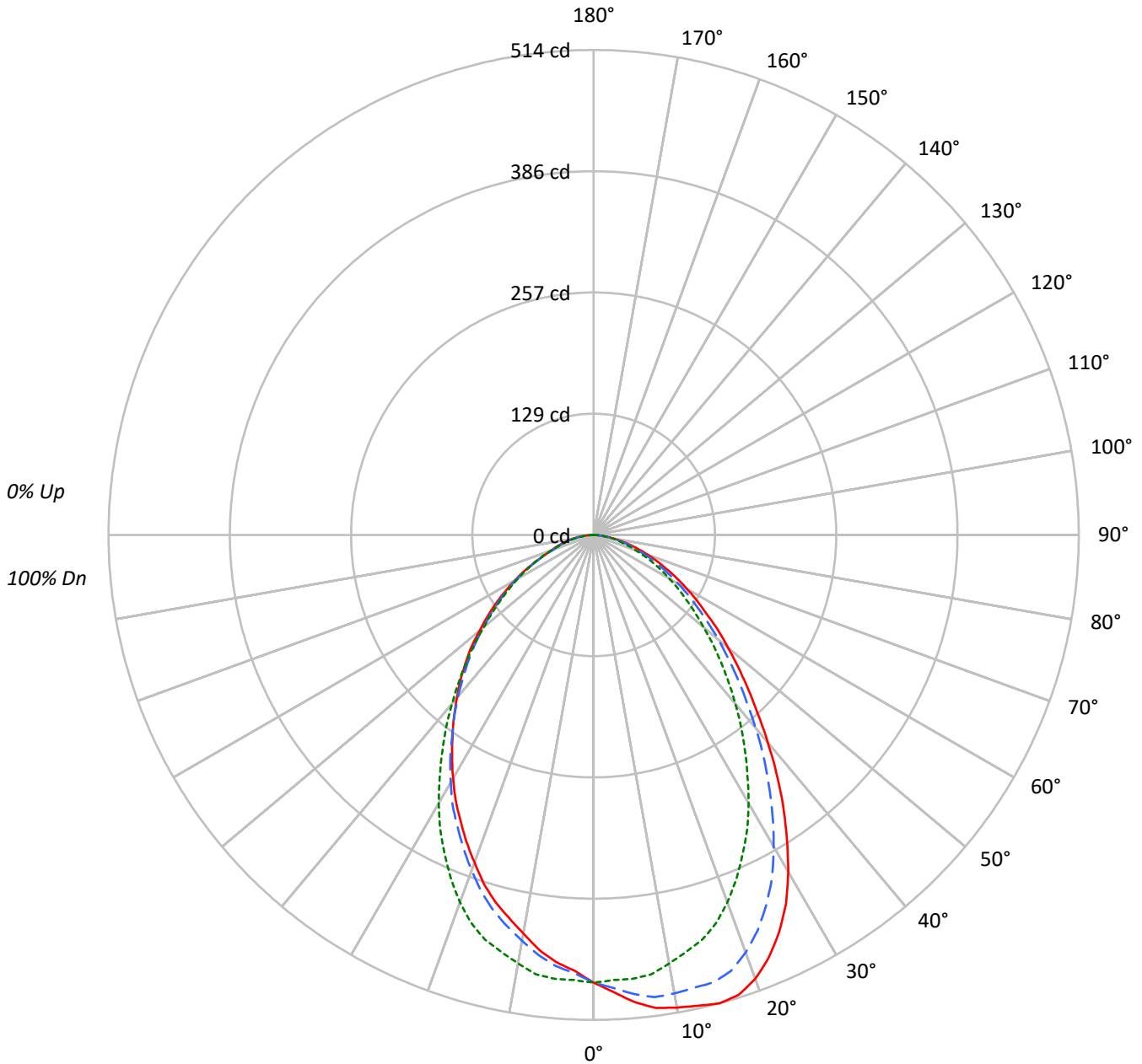
Lumens per Lamp: N/A  
Luminaire Lumens: 920.3 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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   | 110 | 106 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 92  | 91  | 89  | 87  |    |    |    |    | 87  |   |  |   |
| 2   | 102 | 95  | 89  | 84  | 99  | 93  | 87  | 83  | 89  | 85  | 81  | 86  | 82  | 79  | 83  | 80  | 77  | 75  |    |    |    |    | 75  |   |  |   |
| 3   | 94  | 85  | 77  | 72  | 92  | 83  | 76  | 71  | 80  | 75  | 70  | 78  | 73  | 69  | 75  | 71  | 68  | 66  |    |    |    |    | 66  |   |  |   |
| 4   | 87  | 76  | 68  | 62  | 85  | 75  | 68  | 62  | 72  | 66  | 61  | 70  | 65  | 60  | 68  | 63  | 60  | 58  |    |    |    |    | 58  |   |  |   |
| 5   | 81  | 69  | 61  | 55  | 79  | 68  | 60  | 55  | 66  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 53  | 51  |    |    |    |    | 51  |   |  |   |
| 6   | 75  | 63  | 55  | 49  | 73  | 62  | 54  | 49  | 60  | 53  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 46  |    |    |    |    | 46  |   |  |   |
| 7   | 70  | 58  | 50  | 44  | 68  | 57  | 49  | 44  | 55  | 48  | 43  | 54  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |    |    | 41  |   |  |   |
| 8   | 65  | 53  | 45  | 40  | 64  | 52  | 45  | 40  | 51  | 44  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 37  |    |    |    |    | 37  |   |  |   |
| 9   | 61  | 49  | 41  | 36  | 60  | 48  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 36  | 45  | 40  | 36  | 34  |    |    |    |    | 34  |   |  |   |
| 10  | 58  | 45  | 38  | 33  | 57  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 42  | 37  | 33  | 31  |    |    |    |    | 31  |   |  |   |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 58528 | 58528 | 58528 |
| 5°  | 61549 | 58466 | 56275 |
| 10° | 63714 | 57752 | 53719 |
| 15° | 65649 | 56723 | 51423 |
| 20° | 65723 | 54369 | 48462 |
| 25° | 63271 | 50832 | 45443 |
| 30° | 58737 | 46759 | 42429 |
| 35° | 52657 | 42101 | 39255 |
| 40° | 46196 | 37565 | 36293 |
| 45° | 40382 | 33265 | 33474 |
| 50° | 35653 | 29110 | 30165 |
| 55° | 31440 | 25827 | 27117 |
| 60° | 28098 | 22844 | 23756 |
| 65° | 24867 | 20080 | 20080 |
| 70° | 21747 | 17166 | 17166 |
| 75° | 18586 | 14535 | 16251 |
| 80° | 14704 | 12999 | 14704 |
| 85° | 9482  | 11322 | 13869 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 45.0   | 4.9       |
| 10°-20°   | 126.6  | 13.8      |
| 20°-30°   | 177.4  | 19.3      |
| 30°-40°   | 182.8  | 19.9      |
| 40°-50°   | 155.6  | 16.9      |
| 50°-60°   | 115.3  | 12.5      |
| 60°-70°   | 72.4   | 7.9       |
| 70°-80°   | 36.0   | 3.9       |
| 80°-90°   | 9.4    | 1.0       |
| 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°    | 349.0  | 37.9      |
| 0°-40°    | 531.7  | 57.8      |
| 0°-60°    | 802.6  | 87.2      |
| 0°-90°    | 920.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 920.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 474 | 474 | 474 | 474  | 474  |      |
| 5°  | 497 | 488 | 472 | 459  | 454  | 48   |
| 15° | 514 | 491 | 444 | 412  | 403  | 145  |
| 25° | 465 | 433 | 374 | 341  | 334  | 213  |
| 35° | 350 | 324 | 280 | 261  | 261  | 218  |
| 45° | 232 | 216 | 191 | 187  | 192  | 180  |
| 55° | 146 | 135 | 120 | 122  | 126  | 132  |
| 65° | 85  | 77  | 69  | 68   | 69   | 85   |
| 75° | 39  | 35  | 30  | 33   | 34   | 42   |
| 85° | 7   | 7   | 8   | 9    | 10   | 9    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0°    | 474.5 | 474.5 | 474.5 | 474.5 | 474.5 | 474.5  | 474.5 | 474.5  | 474.5 |
| 2.5°  | 484.9 | 483.1 | 480.7 | 476.4 | 472.2 | 468.5  | 464.9 | 463.1  | 462.4 |
| 5°    | 497.1 | 493.4 | 488.5 | 480.7 | 472.2 | 464.9  | 458.7 | 455.7  | 454.5 |
| 7.5°  | 505.6 | 502.0 | 494.1 | 481.8 | 469.7 | 458.7  | 448.9 | 444.7  | 443.5 |
| 10°   | 508.7 | 504.5 | 493.4 | 477.0 | 461.1 | 447.8  | 436.8 | 431.3  | 428.9 |
| 12.5° | 511.1 | 505.6 | 491.6 | 472.2 | 452.6 | 436.2  | 424.6 | 417.3  | 415.5 |
| 15°   | 514.1 | 508.1 | 491.0 | 467.3 | 444.2 | 424.6  | 411.8 | 405.1  | 402.7 |
| 17.5° | 511.1 | 504.5 | 484.3 | 457.5 | 431.3 | 410.0  | 396.0 | 389.9  | 387.5 |
| 20°   | 500.7 | 493.4 | 470.9 | 442.2 | 414.2 | 392.4  | 378.3 | 372.2  | 369.2 |
| 22.5° | 484.9 | 477.0 | 453.8 | 423.4 | 394.8 | 373.5  | 360.1 | 353.9  | 352.1 |
| 25°   | 464.9 | 456.9 | 432.6 | 401.5 | 373.5 | 352.8  | 341.2 | 335.7  | 333.9 |
| 27.5° | 441.1 | 433.1 | 409.3 | 379.0 | 352.1 | 332.6  | 323.5 | 318.0  | 316.8 |
| 30°   | 412.4 | 404.6 | 381.3 | 353.3 | 328.3 | 310.1  | 302.8 | 298.5  | 297.9 |
| 32.5° | 380.8 | 374.1 | 352.8 | 327.2 | 303.4 | 288.1  | 282.7 | 279.6  | 279.0 |
| 35°   | 349.7 | 342.4 | 323.5 | 300.3 | 279.6 | 266.2  | 261.4 | 260.7  | 260.7 |
| 37.5° | 318.0 | 310.7 | 295.4 | 274.1 | 256.5 | 244.3  | 242.5 | 243.1  | 243.1 |
| 40°   | 286.9 | 280.3 | 266.9 | 249.1 | 233.3 | 224.2  | 223.6 | 224.8  | 225.4 |
| 42.5° | 257.6 | 252.2 | 240.0 | 224.8 | 211.4 | 204.0  | 204.7 | 207.1  | 208.9 |
| 45°   | 231.5 | 226.6 | 215.7 | 202.2 | 190.7 | 185.2  | 187.0 | 190.0  | 191.9 |
| 47.5° | 207.7 | 203.5 | 193.1 | 180.9 | 171.2 | 167.5  | 170.0 | 173.7  | 176.0 |
| 50°   | 185.8 | 182.2 | 172.4 | 159.7 | 151.7 | 149.3  | 152.3 | 155.9  | 157.2 |
| 52.5° | 166.3 | 162.6 | 152.3 | 141.3 | 135.2 | 134.1  | 137.0 | 140.1  | 141.9 |
| 55°   | 146.2 | 143.2 | 134.6 | 124.8 | 120.1 | 119.4  | 122.4 | 124.8  | 126.1 |
| 57.5° | 129.7 | 126.7 | 118.8 | 110.3 | 105.9 | 105.4  | 108.5 | 110.3  | 110.8 |
| 60°   | 113.9 | 110.8 | 103.6 | 95.6  | 92.6  | 92.6   | 94.5  | 95.6   | 96.3  |
| 62.5° | 99.3  | 96.3  | 89.6  | 82.8  | 80.5  | 80.5   | 80.5  | 81.0   | 82.8  |
| 65°   | 85.2  | 82.8  | 76.8  | 70.7  | 68.8  | 67.6   | 67.6  | 67.6   | 68.8  |
| 67.5° | 72.5  | 70.1  | 65.2  | 59.7  | 57.9  | 56.1   | 55.4  | 56.7   | 56.7  |
| 70°   | 60.3  | 58.5  | 53.6  | 49.4  | 47.6  | 45.6   | 45.1  | 47.6   | 47.6  |
| 72.5° | 49.4  | 47.6  | 44.5  | 40.2  | 38.4  | 37.8   | 39.0  | 40.2   | 40.9  |
| 75°   | 39.0  | 37.2  | 34.7  | 32.3  | 30.5  | 31.1   | 32.9  | 33.5   | 34.1  |
| 77.5° | 29.2  | 28.7  | 26.2  | 24.4  | 24.4  | 24.9   | 26.2  | 27.4   | 28.0  |
| 80°   | 20.7  | 20.1  | 18.9  | 17.6  | 18.3  | 19.5   | 20.1  | 21.3   | 20.7  |
| 82.5° | 12.7  | 12.7  | 12.2  | 12.2  | 12.7  | 14.0   | 14.6  | 15.2   | 15.8  |
| 85°   | 6.7   | 6.7   | 6.7   | 7.3   | 8.0   | 8.5    | 9.1   | 9.8    | 9.8   |
| 87.5° | 1.8   | 2.4   | 2.4   | 3.1   | 3.6   | 3.6    | 4.2   | 4.2    | 4.2   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 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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