

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: P580195

Luminaire Tested: **HCC4W25D010MB-HM40525927-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580195  
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: HCC4W25D010MB-HM40525927-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

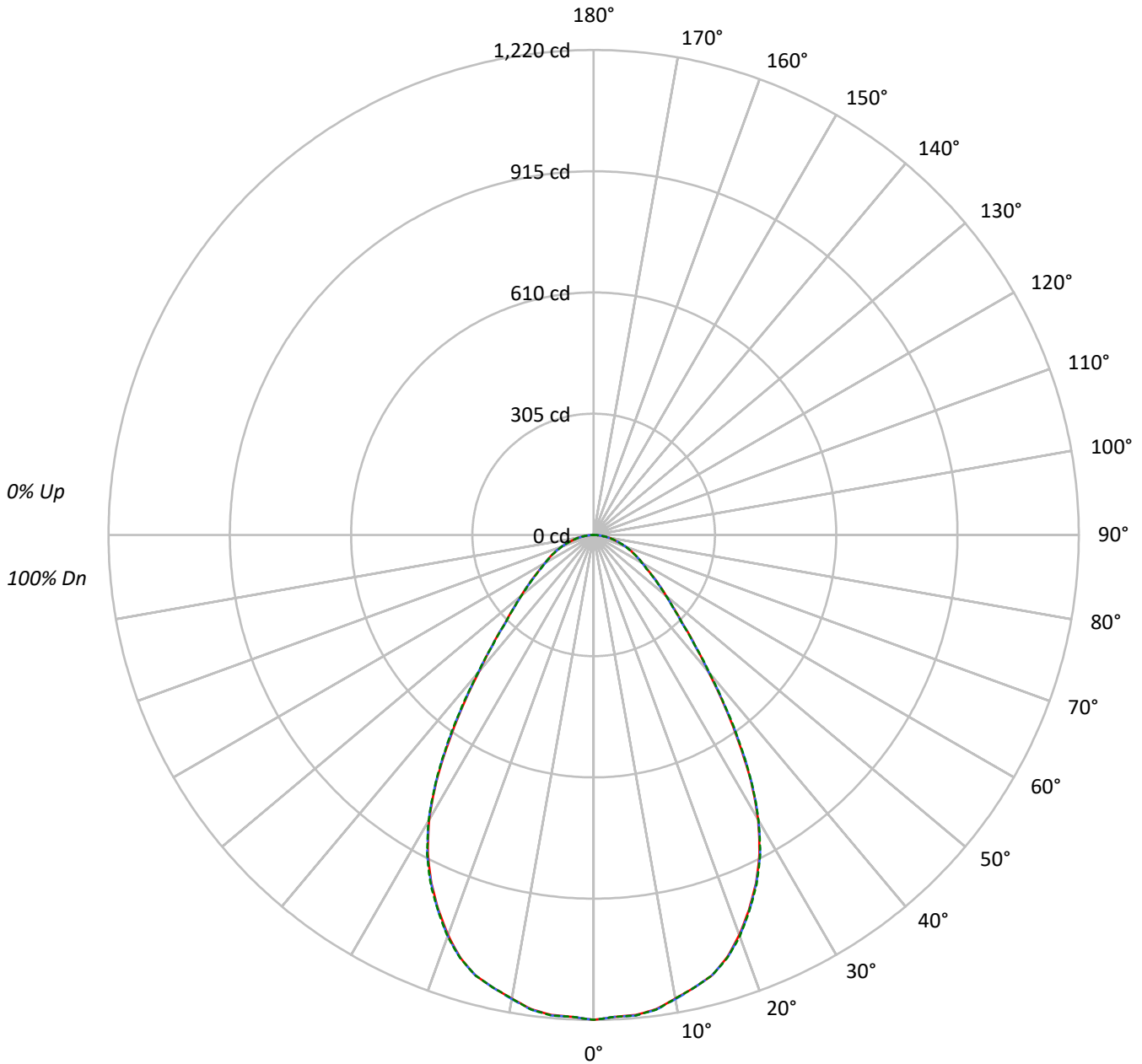
Lumens per Lamp: N/A  
Luminaire Lumens: 1881.9 lumens  
Efficiency: N/A  
Efficacy: 70.2 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.8  
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 |    |    |    |    |    |   |  |   |
| 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°  | 150457 | 150457 | 150457 |
| 5°  | 150091 | 150239 | 150239 |
| 10° | 148344 | 148507 | 148344 |
| 15° | 146558 | 146558 | 146558 |
| 20° | 140542 | 140883 | 141054 |
| 25° | 131470 | 131633 | 131973 |
| 30° | 117802 | 118158 | 118158 |
| 35° | 95647  | 96384  | 96595  |
| 40° | 72167  | 72586  | 72795  |
| 45° | 55279  | 55070  | 55070  |
| 50° | 45555  | 45306  | 45306  |
| 55° | 39117  | 38816  | 38816  |
| 60° | 34907  | 34561  | 34561  |
| 65° | 32776  | 32776  | 32776  |
| 70° | 30510  | 30510  | 30510  |
| 75° | 27641  | 28308  | 27641  |
| 80° | 25998  | 25074  | 25998  |
| 85° | 21370  | 21370  | 21370  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 114.9  | 6.1       |
| 10°-20°   | 321.6  | 17.1      |
| 20°-30°   | 441.9  | 23.5      |
| 30°-40°   | 397.4  | 21.1      |
| 40°-50°   | 251.1  | 13.3      |
| 50°-60°   | 163.9  | 8.7       |
| 60°-70°   | 111.0  | 5.9       |
| 70°-80°   | 62.5   | 3.3       |
| 80°-90°   | 17.5   | 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°    | 878.5  | 46.7      |
| 0°-40°    | 1275.8 | 67.8      |
| 0°-60°    | 1690.8 | 89.8      |
| 0°-90°    | 1881.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1881.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1220 | 1220  | 1220 | 1220  | 1220 |      |
| 5°  | 1212 | 1212  | 1213 | 1213  | 1213 | 115  |
| 15° | 1148 | 1148  | 1148 | 1148  | 1148 | 321  |
| 25° | 966  | 967   | 967  | 970   | 970  | 441  |
| 35° | 635  | 638   | 640  | 643   | 642  | 395  |
| 45° | 317  | 316   | 316  | 316   | 316  | 251  |
| 55° | 182  | 182   | 180  | 182   | 180  | 165  |
| 65° | 112  | 112   | 112  | 112   | 112  | 111  |
| 75° | 58   | 59    | 59   | 59    | 58   | 62   |
| 85° | 15   | 15    | 15   | 15    | 15   | 18   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1219.8 | 1219.8 | 1219.8 | 1219.8 | 1219.8 |
| 2.5°  | 1213.4 | 1213.4 | 1213.4 | 1213.4 | 1213.4 |
| 5°    | 1212.2 | 1212.2 | 1213.4 | 1213.4 | 1213.4 |
| 7.5°  | 1203.3 | 1204.6 | 1204.6 | 1204.6 | 1204.6 |
| 10°   | 1184.4 | 1184.4 | 1185.7 | 1185.7 | 1184.4 |
| 12.5° | 1166.7 | 1166.7 | 1166.7 | 1168.0 | 1166.7 |
| 15°   | 1147.7 | 1147.7 | 1147.7 | 1147.7 | 1147.7 |
| 17.5° | 1115.0 | 1116.2 | 1116.2 | 1116.2 | 1116.2 |
| 20°   | 1070.7 | 1073.3 | 1073.3 | 1074.6 | 1074.6 |
| 22.5° | 1020.3 | 1021.5 | 1022.8 | 1024.0 | 1022.8 |
| 25°   | 966.0  | 967.2  | 967.2  | 969.7  | 969.7  |
| 27.5° | 902.9  | 904.1  | 906.6  | 906.6  | 906.6  |
| 30°   | 827.1  | 828.3  | 829.6  | 829.6  | 829.6  |
| 32.5° | 737.5  | 737.5  | 739.9  | 741.2  | 739.9  |
| 35°   | 635.2  | 637.7  | 640.1  | 642.7  | 641.5  |
| 37.5° | 537.9  | 540.5  | 541.7  | 541.7  | 542.9  |
| 40°   | 448.2  | 450.8  | 450.8  | 453.3  | 452.1  |
| 42.5° | 377.5  | 376.3  | 376.3  | 378.8  | 377.5  |
| 45°   | 316.9  | 315.7  | 315.7  | 315.7  | 315.7  |
| 47.5° | 272.8  | 271.5  | 271.5  | 271.5  | 271.5  |
| 50°   | 237.4  | 236.1  | 236.1  | 236.1  | 236.1  |
| 52.5° | 208.3  | 207.1  | 207.1  | 207.1  | 205.8  |
| 55°   | 181.9  | 181.9  | 180.5  | 181.9  | 180.5  |
| 57.5° | 157.8  | 157.8  | 157.8  | 157.8  | 157.8  |
| 60°   | 141.5  | 140.1  | 140.1  | 140.1  | 140.1  |
| 62.5° | 126.2  | 126.2  | 126.2  | 126.2  | 126.2  |
| 65°   | 112.3  | 112.3  | 112.3  | 112.3  | 112.3  |
| 67.5° | 98.4   | 97.2   | 98.4   | 98.4   | 97.2   |
| 70°   | 84.6   | 83.3   | 84.6   | 84.6   | 84.6   |
| 72.5° | 70.7   | 70.7   | 70.7   | 71.9   | 70.7   |
| 75°   | 58.0   | 59.4   | 59.4   | 59.4   | 58.0   |
| 77.5° | 46.7   | 48.0   | 46.7   | 46.7   | 46.7   |
| 80°   | 36.6   | 35.3   | 35.3   | 35.3   | 36.6   |
| 82.5° | 25.3   | 25.3   | 25.3   | 25.3   | 25.3   |
| 85°   | 15.1   | 15.1   | 15.1   | 15.1   | 15.1   |
| 87.5° | 6.3    | 6.3    | 6.3    | 6.3    | 6.3    |
| 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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