

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: P581419

Luminaire Tested: **HCC4S07D010MW-HM40525827-41WDW**

Issue Date: 9/9/2021

### Test Information

Test Method: LM-41-14  
 Report Number: P581419  
 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: HCC4S07D010MW-HM40525827-41WDW  
 Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
 Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
 CYLINDER  
 Ballast/Driver: ELECTRONIC DRIVER

### Summary

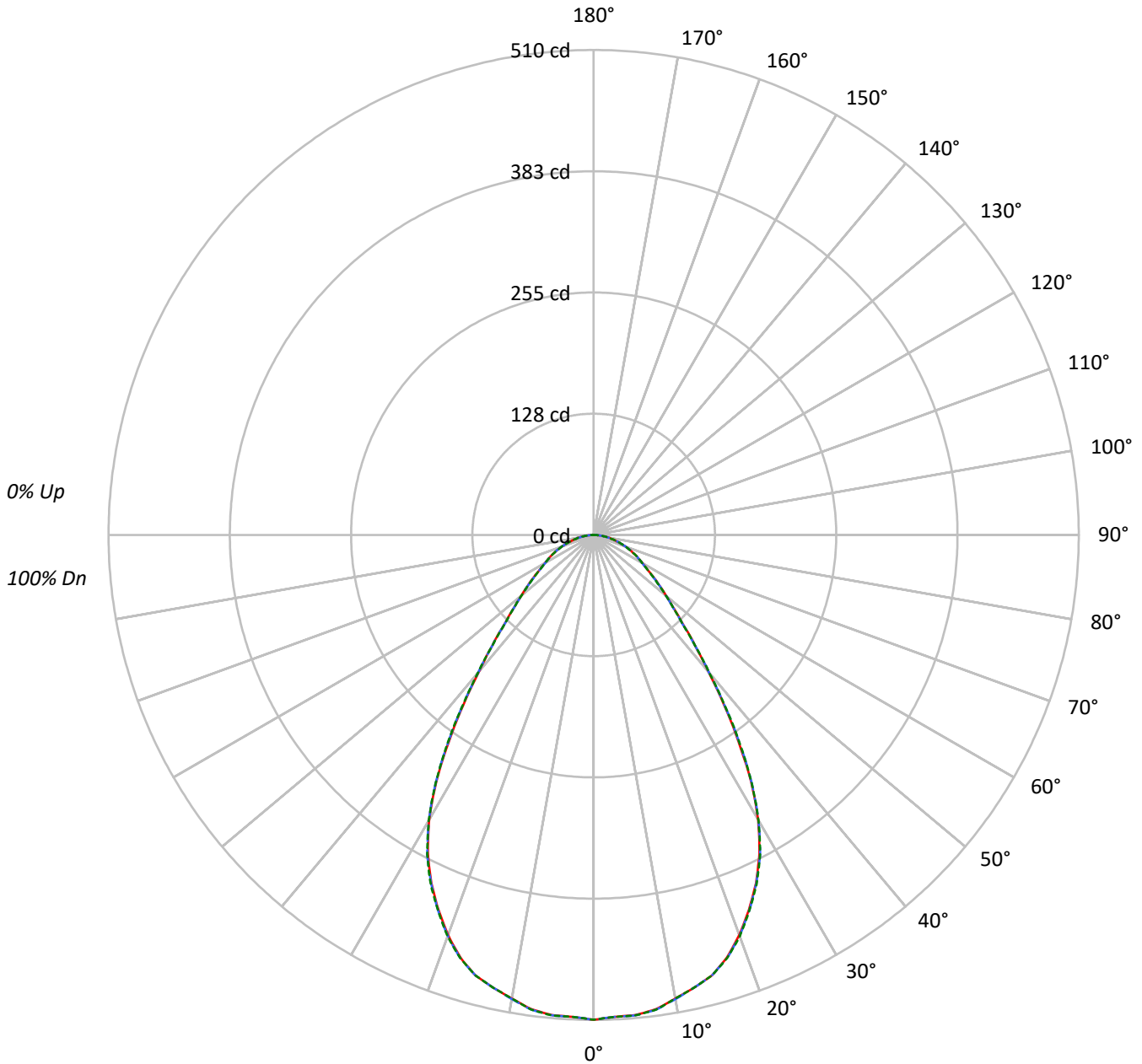
Lumens per Lamp: N/A  
 Luminaire Lumens: 786.7 lumens  
 Efficiency: N/A  
 Efficacy: 98.3 lumens/watt  
 Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
 Luminous Opening: Circular (Dia: 0.33' x H: 0')  
 CIE Type: Direct

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  |     |     |    |    |    |  |  |  |  |   |
| 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°  | 62882 | 62882 | 62882 |
| 5°  | 62750 | 62800 | 62800 |
| 10° | 61998 | 62073 | 61998 |
| 15° | 61269 | 61269 | 61269 |
| 20° | 58753 | 58884 | 58963 |
| 25° | 54956 | 55024 | 55174 |
| 30° | 49237 | 49380 | 49380 |
| 35° | 39978 | 40279 | 40370 |
| 40° | 30158 | 30352 | 30416 |
| 45° | 23113 | 23026 | 23026 |
| 50° | 19036 | 18940 | 18940 |
| 55° | 16344 | 16215 | 16215 |
| 60° | 14579 | 14456 | 14456 |
| 65° | 13717 | 13717 | 13717 |
| 70° | 12767 | 12767 | 12767 |
| 75° | 11533 | 11819 | 11533 |
| 80° | 10939 | 10513 | 10939 |
| 85° | 9057  | 9057  | 9057  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 48.0   | 6.1       |
| 10°-20°   | 134.4  | 17.1      |
| 20°-30°   | 184.7  | 23.5      |
| 30°-40°   | 166.1  | 21.1      |
| 40°-50°   | 105.0  | 13.3      |
| 50°-60°   | 68.5   | 8.7       |
| 60°-70°   | 46.4   | 5.9       |
| 70°-80°   | 26.1   | 3.3       |
| 80°-90°   | 7.4    | 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°    | 367.2  | 46.7      |
| 0°-40°    | 533.3  | 67.8      |
| 0°-60°    | 706.8  | 89.8      |
| 0°-90°    | 786.7  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 786.7  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 510 | 510   | 510 | 510   | 510 |      |
| 5°  | 507 | 507   | 507 | 507   | 507 | 48   |
| 15° | 480 | 480   | 480 | 480   | 480 | 134  |
| 25° | 404 | 404   | 404 | 405   | 405 | 184  |
| 35° | 266 | 266   | 268 | 269   | 268 | 165  |
| 45° | 132 | 132   | 132 | 132   | 132 | 105  |
| 55° | 76  | 76    | 75  | 76    | 75  | 69   |
| 65° | 47  | 47    | 47  | 47    | 47  | 47   |
| 75° | 24  | 25    | 25  | 25    | 24  | 26   |
| 85° | 6   | 6     | 6   | 6     | 6   | 7    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 509.8 | 509.8 | 509.8 | 509.8 | 509.8 |
| 2.5°  | 507.2 | 507.2 | 507.2 | 507.2 | 507.2 |
| 5°    | 506.8 | 506.8 | 507.2 | 507.2 | 507.2 |
| 7.5°  | 503.0 | 503.6 | 503.6 | 503.6 | 503.6 |
| 10°   | 495.0 | 495.0 | 495.6 | 495.6 | 495.0 |
| 12.5° | 487.7 | 487.7 | 487.7 | 488.2 | 487.7 |
| 15°   | 479.8 | 479.8 | 479.8 | 479.8 | 479.8 |
| 17.5° | 466.0 | 466.6 | 466.6 | 466.6 | 466.6 |
| 20°   | 447.6 | 448.6 | 448.6 | 449.2 | 449.2 |
| 22.5° | 426.5 | 427.0 | 427.5 | 428.0 | 427.5 |
| 25°   | 403.8 | 404.3 | 404.3 | 405.4 | 405.4 |
| 27.5° | 377.4 | 377.9 | 379.0 | 379.0 | 379.0 |
| 30°   | 345.7 | 346.3 | 346.7 | 346.7 | 346.7 |
| 32.5° | 308.3 | 308.3 | 309.3 | 309.9 | 309.3 |
| 35°   | 265.5 | 266.5 | 267.5 | 268.7 | 268.1 |
| 37.5° | 224.9 | 225.9 | 226.5 | 226.5 | 226.9 |
| 40°   | 187.3 | 188.5 | 188.5 | 189.5 | 188.9 |
| 42.5° | 157.8 | 157.3 | 157.3 | 158.3 | 157.8 |
| 45°   | 132.5 | 132.0 | 132.0 | 132.0 | 132.0 |
| 47.5° | 114.0 | 113.5 | 113.5 | 113.5 | 113.5 |
| 50°   | 99.2  | 98.7  | 98.7  | 98.7  | 98.7  |
| 52.5° | 87.1  | 86.6  | 86.6  | 86.6  | 86.0  |
| 55°   | 76.0  | 76.0  | 75.4  | 76.0  | 75.4  |
| 57.5° | 66.0  | 66.0  | 66.0  | 66.0  | 66.0  |
| 60°   | 59.1  | 58.6  | 58.6  | 58.6  | 58.6  |
| 62.5° | 52.8  | 52.8  | 52.8  | 52.8  | 52.8  |
| 65°   | 47.0  | 47.0  | 47.0  | 47.0  | 47.0  |
| 67.5° | 41.2  | 40.6  | 41.2  | 41.2  | 40.6  |
| 70°   | 35.4  | 34.8  | 35.4  | 35.4  | 35.4  |
| 72.5° | 29.6  | 29.6  | 29.6  | 30.0  | 29.6  |
| 75°   | 24.2  | 24.8  | 24.8  | 24.8  | 24.2  |
| 77.5° | 19.6  | 20.0  | 19.6  | 19.6  | 19.6  |
| 80°   | 15.4  | 14.8  | 14.8  | 14.8  | 15.4  |
| 82.5° | 10.6  | 10.6  | 10.6  | 10.6  | 10.6  |
| 85°   | 6.4   | 6.4   | 6.4   | 6.4   | 6.4   |
| 87.5° | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   |
| 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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