

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: P580387

Luminaire Tested: **HCC4S30D010MW-HM43040940-41MDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580387  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010MW-HM43040940-41MDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

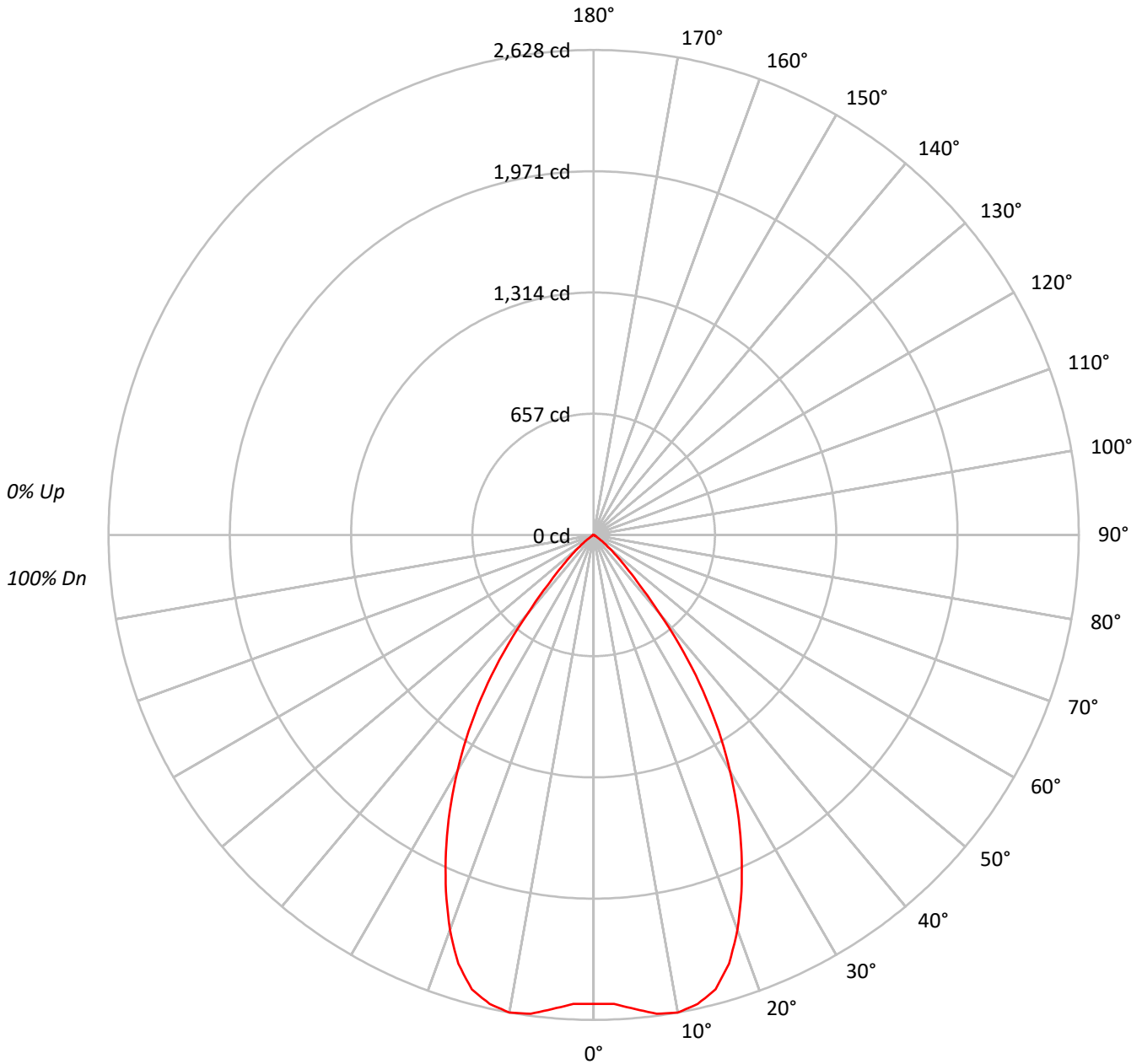
Lumens per Lamp: N/A  
Luminaire Lumens: 2706.8 lumens  
Efficiency: N/A  
Efficacy: 96.7 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 0.96  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |
| 2   | 108 | 103 | 98  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 86  |
| 3   | 102 | 95  | 90  | 86  | 100 | 94  | 89  | 86  | 91  | 87  | 84  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |
| 4   | 97  | 89  | 83  | 79  | 95  | 88  | 82  | 78  | 86  | 81  | 77  | 84  | 80  | 77  | 82  | 78  | 76  | 74  |
| 5   | 91  | 83  | 77  | 72  | 90  | 82  | 76  | 72  | 80  | 75  | 72  | 78  | 74  | 71  | 77  | 73  | 70  | 69  |
| 6   | 87  | 78  | 71  | 67  | 85  | 77  | 71  | 67  | 75  | 70  | 66  | 74  | 69  | 66  | 72  | 68  | 65  | 64  |
| 7   | 82  | 73  | 66  | 62  | 81  | 72  | 66  | 62  | 71  | 65  | 62  | 69  | 65  | 61  | 68  | 64  | 61  | 60  |
| 8   | 78  | 68  | 62  | 58  | 77  | 68  | 62  | 58  | 67  | 61  | 57  | 65  | 61  | 57  | 65  | 60  | 57  | 56  |
| 9   | 74  | 64  | 58  | 54  | 73  | 64  | 58  | 54  | 63  | 57  | 54  | 62  | 57  | 54  | 61  | 57  | 53  | 52  |
| 10  | 70  | 61  | 55  | 51  | 69  | 60  | 54  | 51  | 59  | 54  | 50  | 58  | 54  | 50  | 58  | 53  | 50  | 49  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 313520 |
| 5°  | 319286 |
| 10° | 329128 |
| 15° | 325486 |
| 20° | 298883 |
| 25° | 257849 |
| 30° | 210123 |
| 35° | 155576 |
| 40° | 89251  |
| 45° | 43156  |
| 50° | 20532  |
| 55° | 7161   |
| 60° | 2590   |
| 65° | 1547   |
| 70° | 1262   |
| 75° | 858    |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 248.0  | 9.2       |
| 10°-20°   | 706.6  | 26.1      |
| 20°-30°   | 862.9  | 31.9      |
| 30°-40°   | 634.4  | 23.4      |
| 40°-50°   | 210.3  | 7.8       |
| 50°-60°   | 37.1   | 1.4       |
| 60°-70°   | 5.6    | 0.2       |
| 70°-80°   | 1.9    | 0.1       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 1817.6 | 67.1      |
| 0°-40°    | 2452.0 | 90.6      |
| 0°-60°    | 2699.3 | 99.7      |
| 0°-90°    | 2706.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2706.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2542 |      |
| 5°  | 2579 | 248  |
| 15° | 2549 | 707  |
| 25° | 1895 | 863  |
| 35° | 1033 | 634  |
| 45° | 247  | 210  |
| 55° | 33   | 37   |
| 65° | 5    | 6    |
| 75° | 2    | 2    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2541.8 |
| 2.5°  | 2543.6 |
| 5°    | 2578.7 |
| 7.5°  | 2617.3 |
| 10°   | 2627.8 |
| 12.5° | 2603.3 |
| 15°   | 2548.9 |
| 17.5° | 2436.6 |
| 20°   | 2277.0 |
| 22.5° | 2091.1 |
| 25°   | 1894.6 |
| 27.5° | 1689.3 |
| 30°   | 1475.3 |
| 32.5° | 1261.3 |
| 35°   | 1033.2 |
| 37.5° | 801.7  |
| 40°   | 554.3  |
| 42.5° | 366.6  |
| 45°   | 247.4  |
| 47.5° | 164.9  |
| 50°   | 107.0  |
| 52.5° | 63.2   |
| 55°   | 33.3   |
| 57.5° | 14.0   |
| 60°   | 10.5   |
| 62.5° | 7.0    |
| 65°   | 5.3    |
| 67.5° | 3.5    |
| 70°   | 3.5    |
| 72.5° | 1.8    |
| 75°   | 1.8    |
| 77.5° | 1.8    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |

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— 0°-180°

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