

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: P580497

Luminaire Tested: **HCC4S35D010MB-HM43040930-41WDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580497  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S35D010MB-HM43040930-41WDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

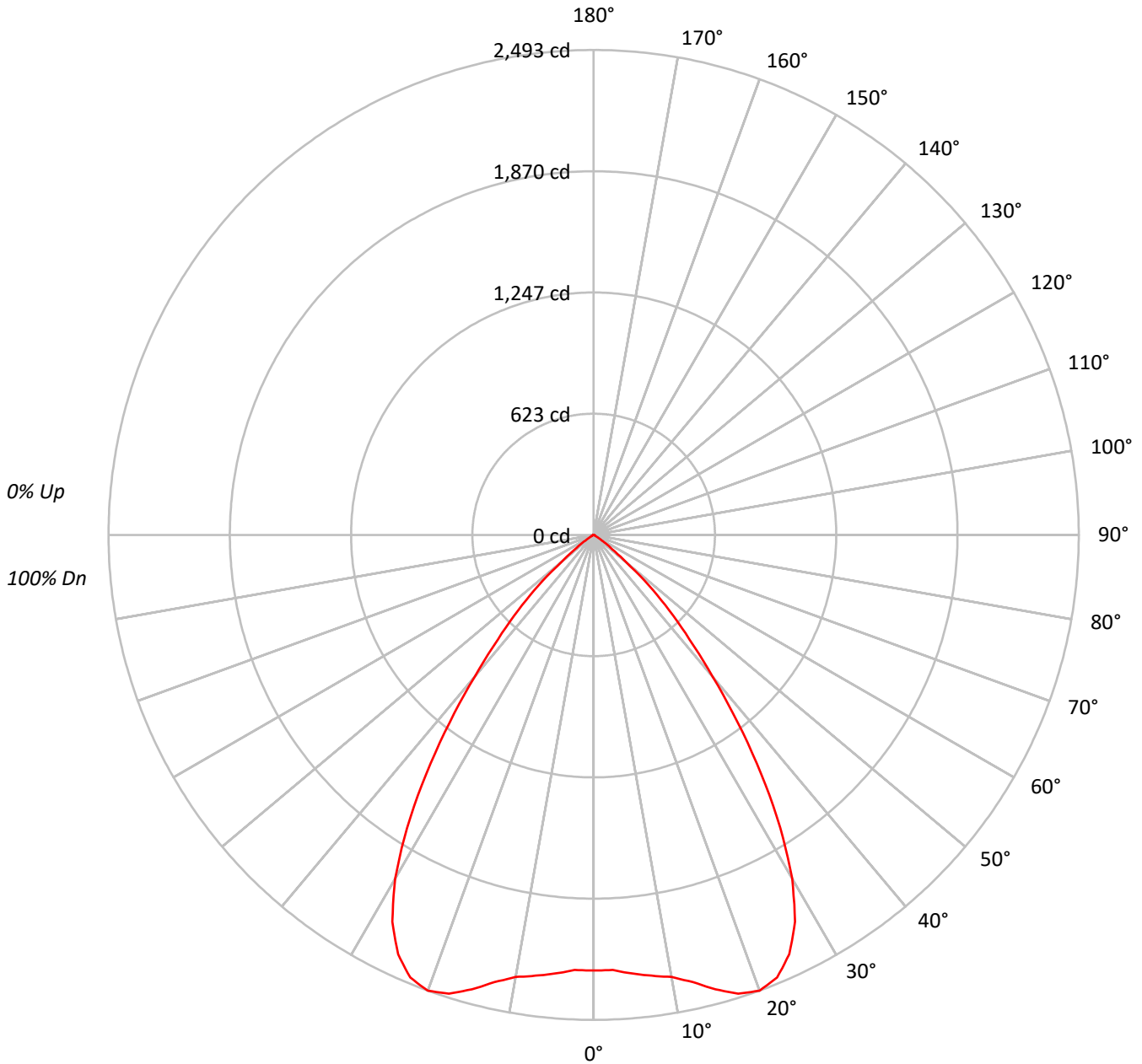
Lumens per Lamp: N/A  
Luminaire Lumens: 3418.8 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.7  
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  |     |     |     |     |     |     |     |     | 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   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 97  | 95  | 94  | 92  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 107 | 101 | 97  | 93  | 104 | 100 | 96  | 92  | 96  | 93  | 90  | 93  | 91  | 88  | 91  | 88  | 86  | 85  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 101 | 93  | 88  | 84  | 98  | 92  | 87  | 83  | 89  | 85  | 82  | 87  | 83  | 80  | 85  | 82  | 79  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 95  | 86  | 80  | 76  | 93  | 85  | 79  | 75  | 83  | 78  | 74  | 81  | 77  | 73  | 79  | 75  | 72  | 71  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 89  | 80  | 73  | 69  | 87  | 79  | 73  | 68  | 77  | 72  | 68  | 75  | 71  | 67  | 74  | 70  | 66  | 65  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 84  | 74  | 67  | 63  | 82  | 73  | 67  | 62  | 72  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 61  | 60  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 79  | 69  | 62  | 57  | 78  | 68  | 62  | 57  | 67  | 61  | 57  | 65  | 60  | 57  | 64  | 60  | 56  | 55  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 75  | 64  | 57  | 53  | 73  | 63  | 57  | 53  | 62  | 57  | 53  | 61  | 56  | 52  | 60  | 56  | 52  | 51  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 70  | 60  | 53  | 49  | 69  | 59  | 53  | 49  | 58  | 53  | 49  | 57  | 52  | 48  | 56  | 52  | 48  | 47  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 67  | 56  | 50  | 45  | 66  | 55  | 49  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 43  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 276171 |
| 5°  | 280235 |
| 10° | 289023 |
| 15° | 308822 |
| 20° | 327235 |
| 25° | 323666 |
| 30° | 290480 |
| 35° | 226077 |
| 40° | 153159 |
| 45° | 95626  |
| 50° | 41391  |
| 55° | 13871  |
| 60° | 3503   |
| 65° | 2364   |
| 70° | 1443   |
| 75° | 953    |
| 80° | 1421   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 217.4  | 6.4       |
| 10°-20°   | 686.5  | 20.1      |
| 20°-30°   | 1075.7 | 31.5      |
| 30°-40°   | 928.4  | 27.2      |
| 40°-50°   | 426.9  | 12.5      |
| 50°-60°   | 72.5   | 2.1       |
| 60°-70°   | 8.2    | 0.2       |
| 70°-80°   | 2.9    | 0.1       |
| 80°-90°   | 0.3    | 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°    | 1979.6 | 57.9      |
| 0°-40°    | 2907.9 | 85.1      |
| 0°-60°    | 3407.4 | 99.7      |
| 0°-90°    | 3418.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3418.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2239 |      |
| 5°  | 2263 | 217  |
| 15° | 2418 | 687  |
| 25° | 2378 | 1076 |
| 35° | 1501 | 928  |
| 45° | 548  | 427  |
| 55° | 64   | 73   |
| 65° | 8    | 8    |
| 75° | 2    | 3    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2239.0 |
| 2.5°  | 2239.0 |
| 5°    | 2263.3 |
| 7.5°  | 2285.4 |
| 10°   | 2307.6 |
| 12.5° | 2354.0 |
| 15°   | 2418.4 |
| 17.5° | 2472.8 |
| 20°   | 2493.0 |
| 22.5° | 2462.8 |
| 25°   | 2378.2 |
| 27.5° | 2241.0 |
| 30°   | 2039.5 |
| 32.5° | 1785.6 |
| 35°   | 1501.4 |
| 37.5° | 1215.3 |
| 40°   | 951.2  |
| 42.5° | 727.6  |
| 45°   | 548.2  |
| 47.5° | 385.0  |
| 50°   | 215.7  |
| 52.5° | 118.9  |
| 55°   | 64.5   |
| 57.5° | 32.3   |
| 60°   | 14.2   |
| 62.5° | 10.1   |
| 65°   | 8.1    |
| 67.5° | 6.1    |
| 70°   | 4.0    |
| 72.5° | 4.0    |
| 75°   | 2.0    |
| 77.5° | 2.0    |
| 80°   | 2.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |

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Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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