

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: P593739

Luminaire Tested: **HC840D010-HM82555950-81MDH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593739  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC840D010-HM82555950-81MDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" MEDIUM DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4875.5 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.81  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

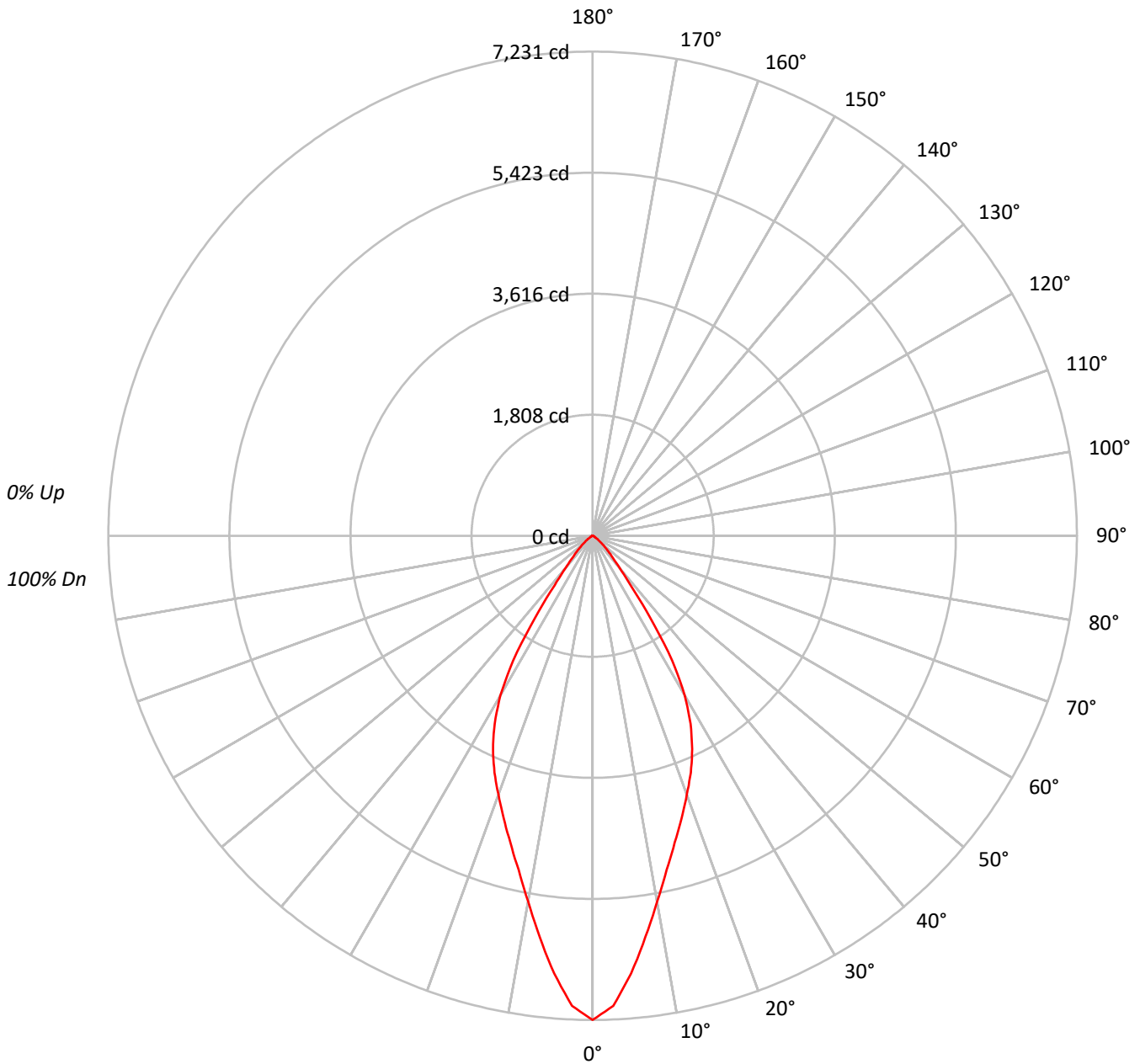
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 0 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |
| 1   | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 94  |    |    |   |
| 2   | 108 | 103 | 99  | 96  | 106 | 101 | 98  | 95  | 98  | 95  | 93  | 95  | 93  | 91  | 92  | 90  | 89  | 87  |    |    |   |
| 3   | 103 | 96  | 91  | 87  | 101 | 95  | 90  | 87  | 92  | 88  | 85  | 90  | 87  | 84  | 88  | 85  | 83  | 81  |    |    |   |
| 4   | 97  | 90  | 85  | 80  | 96  | 89  | 84  | 80  | 87  | 82  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 76  |    |    |   |
| 5   | 93  | 84  | 79  | 74  | 91  | 83  | 78  | 74  | 82  | 77  | 73  | 80  | 76  | 73  | 78  | 75  | 72  | 71  |    |    |   |
| 6   | 88  | 79  | 73  | 69  | 87  | 78  | 73  | 69  | 77  | 72  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 66  |    |    |   |
| 7   | 84  | 75  | 69  | 64  | 82  | 74  | 68  | 64  | 73  | 68  | 64  | 71  | 67  | 64  | 70  | 66  | 63  | 62  |    |    |   |
| 8   | 80  | 70  | 64  | 60  | 79  | 70  | 64  | 60  | 69  | 64  | 60  | 68  | 63  | 60  | 67  | 63  | 60  | 58  |    |    |   |
| 9   | 76  | 67  | 61  | 57  | 75  | 66  | 61  | 57  | 65  | 60  | 56  | 64  | 60  | 56  | 63  | 59  | 56  | 55  |    |    |   |
| 10  | 73  | 63  | 57  | 54  | 72  | 63  | 57  | 53  | 62  | 57  | 53  | 61  | 56  | 53  | 60  | 56  | 53  | 52  |    |    |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 222971 |
| 5°  | 203189 |
| 10° | 173603 |
| 15° | 151397 |
| 20° | 134937 |
| 25° | 119697 |
| 30° | 98004  |
| 35° | 56278  |
| 40° | 24978  |
| 45° | 14535  |
| 50° | 8390   |
| 55° | 4790   |
| 60° | 2652   |
| 65° | 1685   |
| 70° | 1190   |
| 75° | 774    |
| 80° | 586    |
| 85° | 1168   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 594.2  | 12.2      |
| 10°-20°   | 1333.1 | 27.3      |
| 20°-30°   | 1595.7 | 32.7      |
| 30°-40°   | 965.3  | 19.8      |
| 40°-50°   | 270.5  | 5.5       |
| 50°-60°   | 84.0   | 1.7       |
| 60°-70°   | 24.0   | 0.5       |
| 70°-80°   | 6.5    | 0.1       |
| 80°-90°   | 2.2    | 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°    | 3522.9 | 72.3      |
| 0°-40°    | 4488.3 | 92.1      |
| 0°-60°    | 4842.8 | 99.3      |
| 0°-90°    | 4875.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4875.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 7231 |      |
| 5°  | 6564 | 594  |
| 15° | 4742 | 1333 |
| 25° | 3518 | 1596 |
| 35° | 1495 | 965  |
| 45° | 333  | 271  |
| 55° | 89   | 84   |
| 65° | 23   | 24   |
| 75° | 6    | 6    |
| 85° | 3    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 7230.8 |
| 2.5°  | 7026.2 |
| 5°    | 6564.2 |
| 7.5°  | 6042.7 |
| 10°   | 5544.3 |
| 12.5° | 5108.8 |
| 15°   | 4742.4 |
| 17.5° | 4418.9 |
| 20°   | 4112.0 |
| 22.5° | 3828.2 |
| 25°   | 3518.0 |
| 27.5° | 3168.3 |
| 30°   | 2752.4 |
| 32.5° | 2214.5 |
| 35°   | 1495.0 |
| 37.5° | 930.7  |
| 40°   | 620.5  |
| 42.5° | 445.5  |
| 45°   | 333.3  |
| 47.5° | 244.2  |
| 50°   | 174.9  |
| 52.5° | 122.1  |
| 55°   | 89.1   |
| 57.5° | 59.4   |
| 60°   | 43.0   |
| 62.5° | 29.8   |
| 65°   | 23.1   |
| 67.5° | 16.5   |
| 70°   | 13.2   |
| 72.5° | 6.5    |
| 75°   | 6.5    |
| 77.5° | 3.3    |
| 80°   | 3.3    |
| 82.5° | 3.3    |
| 85°   | 3.3    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)