

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: P593762

Luminaire Tested: **HC845D010-HM82555850-81MDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593762  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC845D010-HM82555850-81MDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5467.8 lumens  
Efficiency: N/A  
Efficacy: 124.3 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 0.95  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

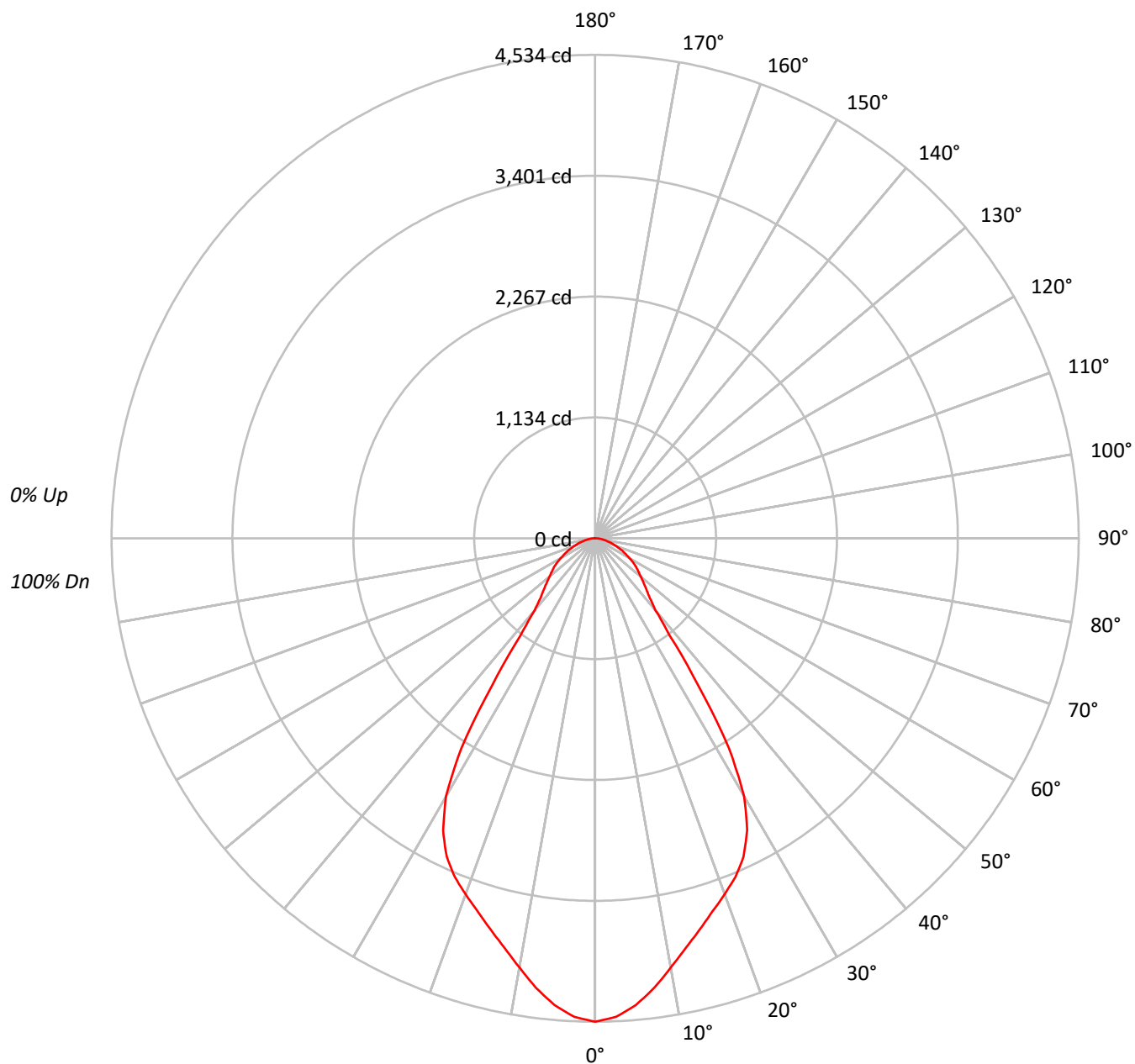
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 92  | 90  |    |    |
| 2   | 104 | 98  | 93  | 89  | 102 | 96  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 84  | 82  | 80  |    |    |
| 3   | 98  | 89  | 83  | 78  | 95  | 88  | 82  | 78  | 85  | 80  | 76  | 83  | 78  | 75  | 80  | 77  | 74  | 72  |    |    |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 69  | 76  | 72  | 68  | 74  | 70  | 67  | 65  |    |    |
| 5   | 86  | 76  | 68  | 63  | 84  | 75  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 62  | 57  | 67  | 61  | 57  | 66  | 61  | 56  | 64  | 60  | 56  | 54  |    |    |
| 7   | 76  | 65  | 58  | 53  | 74  | 64  | 57  | 53  | 63  | 57  | 52  | 62  | 56  | 52  | 60  | 55  | 52  | 50  |    |    |
| 8   | 72  | 61  | 54  | 49  | 70  | 60  | 53  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 46  |    |    |
| 9   | 68  | 57  | 50  | 45  | 67  | 56  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 43  |    |    |
| 10  | 64  | 53  | 46  | 42  | 63  | 53  | 46  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 50  | 45  | 42  | 40  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 139815 |
| 5°  | 136003 |
| 10° | 127982 |
| 15° | 121171 |
| 20° | 116560 |
| 25° | 112055 |
| 30° | 99521  |
| 35° | 63378  |
| 40° | 35371  |
| 45° | 29628  |
| 50° | 26745  |
| 55° | 25214  |
| 60° | 22998  |
| 65° | 20744  |
| 70° | 18302  |
| 75° | 16287  |
| 80° | 14419  |
| 85° | 13055  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 409.6  | 7.5       |
| 10°-20°   | 1070.4 | 19.6      |
| 20°-30°   | 1493.3 | 27.3      |
| 30°-40°   | 1074.5 | 19.7      |
| 40°-50°   | 532.5  | 9.7       |
| 50°-60°   | 416.7  | 7.6       |
| 60°-70°   | 282.0  | 5.2       |
| 70°-80°   | 146.5  | 2.7       |
| 80°-90°   | 42.2   | 0.8       |
| 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°    | 2973.4 | 54.4      |
| 0°-40°    | 4047.9 | 74.0      |
| 0°-60°    | 4997.1 | 91.4      |
| 0°-90°    | 5467.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5467.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 4534 |      |
| 5°  | 4394 | 410  |
| 15° | 3796 | 1070 |
| 25° | 3293 | 1493 |
| 35° | 1684 | 1075 |
| 45° | 679  | 533  |
| 55° | 469  | 417  |
| 65° | 284  | 282  |
| 75° | 137  | 147  |
| 85° | 37   | 42   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 4534.1 |
| 2.5°  | 4493.4 |
| 5°    | 4393.7 |
| 7.5°  | 4253.4 |
| 10°   | 4087.3 |
| 12.5° | 3932.2 |
| 15°   | 3795.6 |
| 17.5° | 3666.4 |
| 20°   | 3552.0 |
| 22.5° | 3437.5 |
| 25°   | 3293.4 |
| 27.5° | 3086.7 |
| 30°   | 2795.0 |
| 32.5° | 2337.2 |
| 35°   | 1683.6 |
| 37.5° | 1148.2 |
| 40°   | 878.7  |
| 42.5° | 756.9  |
| 45°   | 679.4  |
| 47.5° | 612.9  |
| 50°   | 557.5  |
| 52.5° | 509.6  |
| 55°   | 469.0  |
| 57.5° | 420.9  |
| 60°   | 372.9  |
| 62.5° | 324.9  |
| 65°   | 284.3  |
| 67.5° | 243.6  |
| 70°   | 203.0  |
| 72.5° | 169.9  |
| 75°   | 136.7  |
| 77.5° | 107.1  |
| 80°   | 81.2   |
| 82.5° | 59.1   |
| 85°   | 36.9   |
| 87.5° | 18.4   |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)