

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: P585181

Luminaire Tested: **HC860D010-HM86080940-81WDH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P585181  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC860D010-HM86080940-81WDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6061.8 lumens  
Efficiency: N/A  
Efficacy: 108.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.06  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

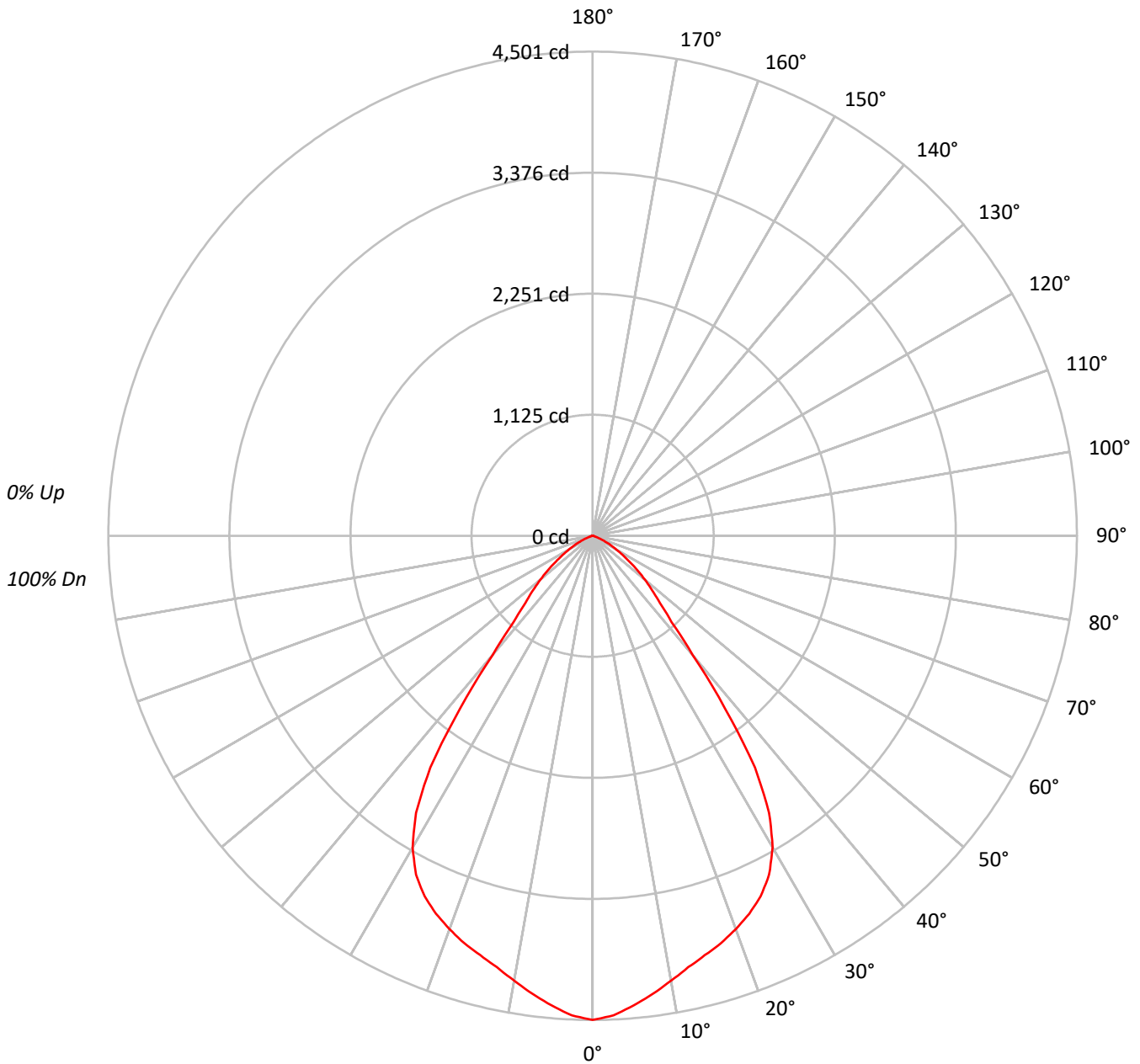
Input Watts (W): 56  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  | 99  | 98  | 96  | 96  | 95  | 93  | 92  |    |    |   |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 87  | 85  | 83  |    |    |   |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 75  |    |    |   |
| 4   | 93  | 84  | 78  | 73  | 91  | 83  | 77  | 72  | 81  | 76  | 72  | 79  | 74  | 71  | 77  | 73  | 70  | 68  |    |    |   |
| 5   | 87  | 78  | 71  | 66  | 86  | 77  | 70  | 66  | 75  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 64  | 62  |    |    |   |
| 6   | 82  | 72  | 65  | 60  | 80  | 71  | 64  | 60  | 69  | 64  | 59  | 68  | 63  | 59  | 66  | 62  | 58  | 57  |    |    |   |
| 7   | 77  | 67  | 60  | 55  | 76  | 66  | 59  | 55  | 64  | 59  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |   |
| 8   | 73  | 62  | 55  | 50  | 71  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 49  | 48  |    |    |   |
| 9   | 69  | 58  | 51  | 46  | 67  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 54  | 49  | 46  | 44  |    |    |   |
| 10  | 65  | 54  | 47  | 43  | 64  | 53  | 47  | 43  | 53  | 47  | 43  | 52  | 46  | 43  | 51  | 46  | 42  | 41  |    |    |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 138785 |
| 5°  | 135656 |
| 10° | 131495 |
| 15° | 128836 |
| 20° | 127681 |
| 25° | 125770 |
| 30° | 119136 |
| 35° | 98985  |
| 40° | 58292  |
| 45° | 38555  |
| 50° | 30348  |
| 55° | 22327  |
| 60° | 15517  |
| 65° | 9449   |
| 70° | 4120   |
| 75° | 1811   |
| 80° | 1350   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 412.7  | 6.8       |
| 10°-20°   | 1140.9 | 18.8      |
| 20°-30°   | 1690.4 | 27.9      |
| 30°-40°   | 1562.0 | 25.8      |
| 40°-50°   | 720.2  | 11.9      |
| 50°-60°   | 378.8  | 6.2       |
| 60°-70°   | 133.8  | 2.2       |
| 70°-80°   | 21.0   | 0.3       |
| 80°-90°   | 2.1    | 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°    | 3244.0 | 53.5      |
| 0°-40°    | 4806.0 | 79.3      |
| 0°-60°    | 5904.9 | 97.4      |
| 0°-90°    | 6061.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6061.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 4501 |      |
| 5°  | 4382 | 413  |
| 15° | 4036 | 1141 |
| 25° | 3696 | 1690 |
| 35° | 2630 | 1562 |
| 45° | 884  | 720  |
| 55° | 415  | 379  |
| 65° | 130  | 134  |
| 75° | 15   | 21   |
| 85° | 0    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 4500.7 |
| 2.5°  | 4462.5 |
| 5°    | 4382.5 |
| 7.5°  | 4294.8 |
| 10°   | 4199.5 |
| 12.5° | 4108.1 |
| 15°   | 4035.7 |
| 17.5° | 3970.9 |
| 20°   | 3890.9 |
| 22.5° | 3803.2 |
| 25°   | 3696.5 |
| 27.5° | 3551.8 |
| 30°   | 3345.9 |
| 32.5° | 3052.5 |
| 35°   | 2629.5 |
| 37.5° | 2019.7 |
| 40°   | 1448.1 |
| 42.5° | 1086.0 |
| 45°   | 884.1  |
| 47.5° | 750.7  |
| 50°   | 632.6  |
| 52.5° | 518.2  |
| 55°   | 415.3  |
| 57.5° | 327.7  |
| 60°   | 251.6  |
| 62.5° | 190.5  |
| 65°   | 129.5  |
| 67.5° | 76.2   |
| 70°   | 45.7   |
| 72.5° | 26.6   |
| 75°   | 15.2   |
| 77.5° | 11.4   |
| 80°   | 7.6    |
| 82.5° | 3.8    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)