

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: P583759

Luminaire Tested: **HC810D010-HM80520840-81WDWB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583759  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC810D010-HM80520840-81WDWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1425.8 lumens  
Efficiency: N/A  
Efficacy: 144.0 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.14  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

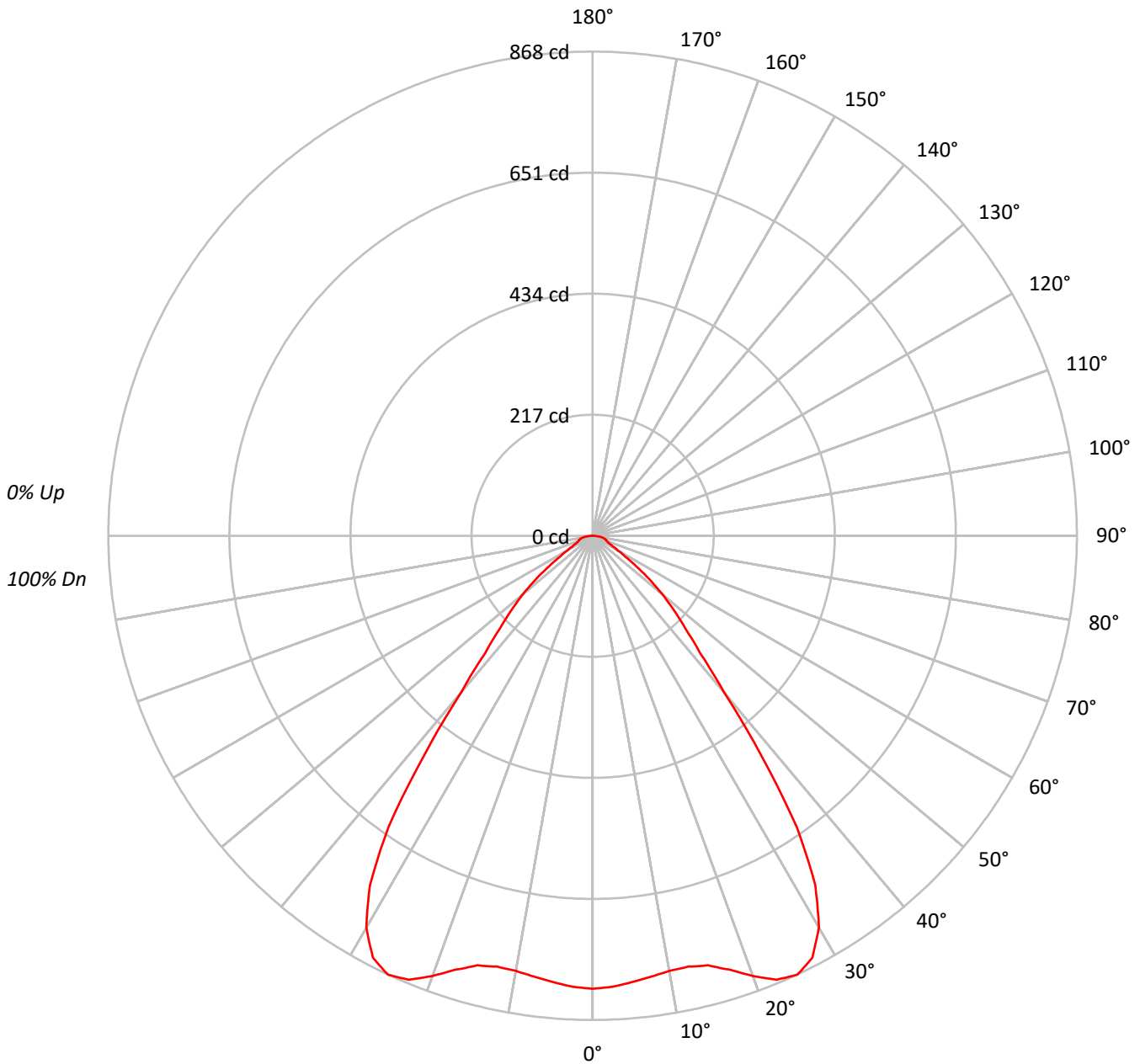
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |    |    | 100 |
| 1   | 112 | 108 | 105 | 103 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 97  | 95  | 95  | 93  | 92  | 90  |    |    | 90  |
| 2   | 105 | 99  | 94  | 89  | 102 | 97  | 92  | 88  | 93  | 90  | 86  | 90  | 87  | 84  | 88  | 85  | 83  | 81  |    |    | 81  |
| 3   | 98  | 90  | 84  | 79  | 96  | 88  | 83  | 78  | 86  | 81  | 77  | 83  | 79  | 76  | 81  | 77  | 74  | 73  |    |    | 73  |
| 4   | 92  | 82  | 75  | 70  | 90  | 81  | 75  | 70  | 79  | 73  | 69  | 77  | 72  | 68  | 75  | 71  | 67  | 65  |    |    | 65  |
| 5   | 86  | 75  | 68  | 63  | 84  | 74  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |    |    | 59  |
| 6   | 80  | 69  | 62  | 57  | 79  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 54  |    |    | 54  |
| 7   | 75  | 64  | 57  | 52  | 74  | 63  | 57  | 52  | 62  | 56  | 51  | 61  | 55  | 51  | 59  | 55  | 51  | 49  |    |    | 49  |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  |    |    | 45  |
| 9   | 67  | 55  | 48  | 43  | 65  | 55  | 48  | 43  | 54  | 47  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 41  |    |    | 41  |
| 10  | 63  | 51  | 45  | 40  | 62  | 51  | 44  | 40  | 50  | 44  | 40  | 49  | 44  | 40  | 48  | 43  | 40  | 38  |    |    | 38  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 25042 |
| 5°  | 24869 |
| 10° | 24802 |
| 15° | 25453 |
| 20° | 27555 |
| 25° | 29543 |
| 30° | 28884 |
| 35° | 24051 |
| 40° | 14777 |
| 45° | 10231 |
| 50° | 7810  |
| 55° | 5118  |
| 60° | 3201  |
| 65° | 2401  |
| 70° | 2416  |
| 75° | 2776  |
| 80° | 3072  |
| 85° | 2760  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 76.3   | 5.4       |
| 10°-20°   | 228.9  | 16.1      |
| 20°-30°   | 394.0  | 27.6      |
| 30°-40°   | 381.8  | 26.8      |
| 40°-50°   | 188.1  | 13.2      |
| 50°-60°   | 88.7   | 6.2       |
| 60°-70°   | 35.0   | 2.5       |
| 70°-80°   | 24.1   | 1.7       |
| 80°-90°   | 9.0    | 0.6       |
| 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°    | 699.2  | 49.0      |
| 0°-40°    | 1081.0 | 75.8      |
| 0°-60°    | 1357.8 | 95.2      |
| 0°-90°    | 1425.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1425.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 812 |      |
| 5°  | 803 | 76   |
| 15° | 797 | 229  |
| 25° | 868 | 394  |
| 35° | 639 | 382  |
| 45° | 235 | 188  |
| 55° | 95  | 89   |
| 65° | 33  | 35   |
| 75° | 23  | 24   |
| 85° | 8   | 9    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 812.1 |
| 2.5°  | 809.4 |
| 5°    | 803.4 |
| 7.5°  | 797.3 |
| 10°   | 792.1 |
| 12.5° | 791.3 |
| 15°   | 797.3 |
| 17.5° | 815.6 |
| 20°   | 839.7 |
| 22.5° | 861.4 |
| 25°   | 868.3 |
| 27.5° | 852.7 |
| 30°   | 811.2 |
| 32.5° | 742.8 |
| 35°   | 638.9 |
| 37.5° | 496.1 |
| 40°   | 367.1 |
| 42.5° | 284.9 |
| 45°   | 234.6 |
| 47.5° | 197.4 |
| 50°   | 162.8 |
| 52.5° | 128.1 |
| 55°   | 95.2  |
| 57.5° | 69.2  |
| 60°   | 51.9  |
| 62.5° | 40.7  |
| 65°   | 32.9  |
| 67.5° | 28.6  |
| 70°   | 26.8  |
| 72.5° | 25.1  |
| 75°   | 23.3  |
| 77.5° | 20.8  |
| 80°   | 17.3  |
| 82.5° | 13.0  |
| 85°   | 7.8   |
| 87.5° | 3.5   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)