

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: P583704

Luminaire Tested: **HC810D010-HM80520827-81WDBB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583704  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC810D010-HM80520827-81WDBB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1166.5 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.13  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

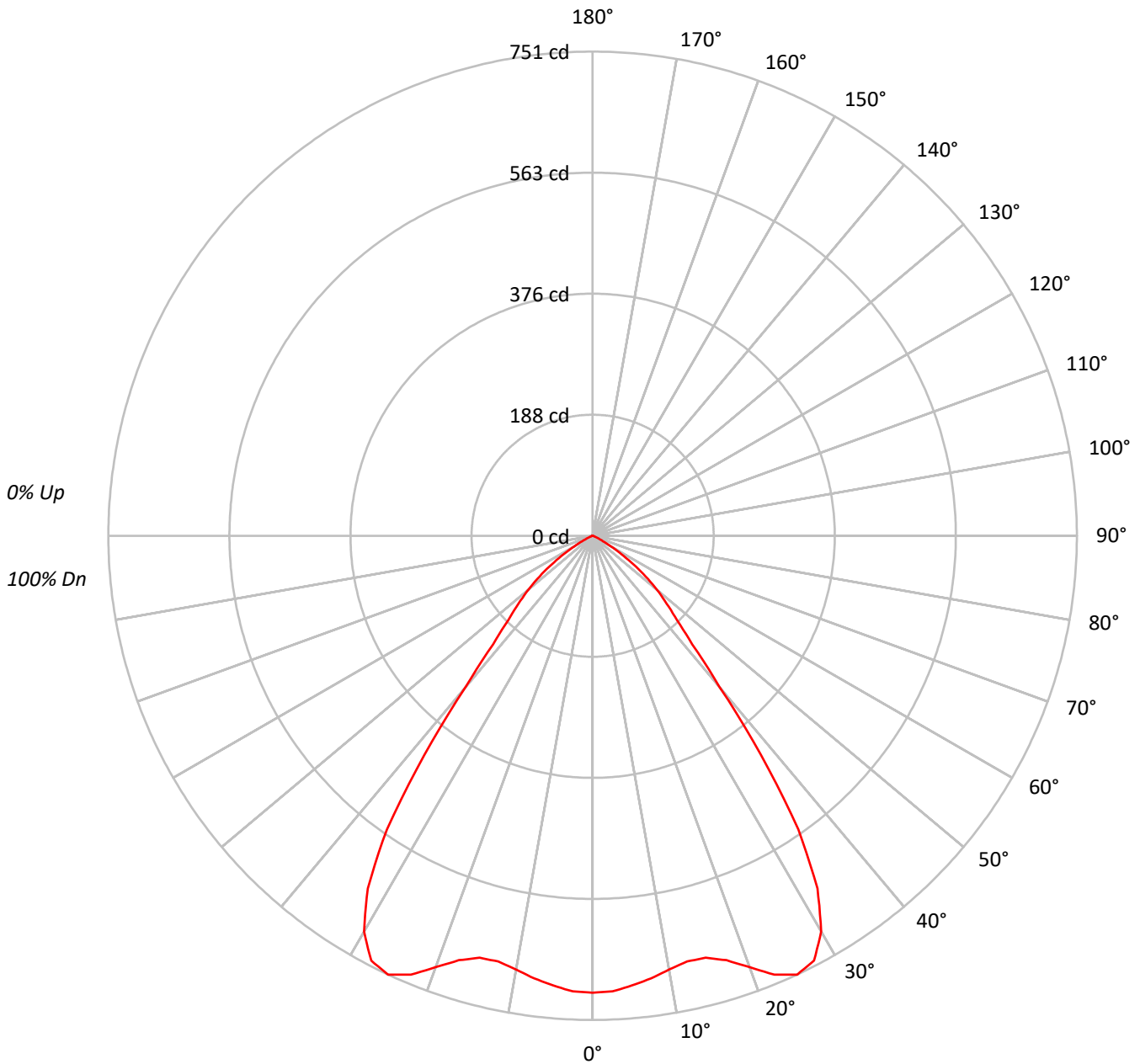
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |    |    |   |
| 1   | 113 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  | 99  | 98  | 96  | 96  | 95  | 93  | 92  |    |    |   |
| 2   | 106 | 100 | 95  | 92  | 104 | 98  | 94  | 91  | 95  | 92  | 89  | 92  | 89  | 87  | 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  | 71  | 79  | 74  | 71  | 77  | 73  | 70  | 68  |    |    |   |
| 5   | 87  | 77  | 71  | 66  | 85  | 76  | 70  | 65  | 74  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 63  | 62  |    |    |   |
| 6   | 82  | 71  | 64  | 59  | 80  | 70  | 64  | 59  | 69  | 63  | 59  | 67  | 62  | 58  | 66  | 61  | 58  | 56  |    |    |   |
| 7   | 77  | 66  | 59  | 54  | 75  | 65  | 59  | 54  | 64  | 58  | 54  | 63  | 57  | 53  | 61  | 57  | 53  | 51  |    |    |   |
| 8   | 72  | 61  | 54  | 49  | 71  | 61  | 54  | 49  | 59  | 53  | 49  | 58  | 53  | 49  | 57  | 52  | 49  | 47  |    |    |   |
| 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  | 45  | 42  | 50  | 45  | 41  | 40  |    |    |   |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 21857 |
| 5°  | 21677 |
| 10° | 21389 |
| 15° | 21635 |
| 20° | 23361 |
| 25° | 25549 |
| 30° | 25238 |
| 35° | 20938 |
| 40° | 12322 |
| 45° | 8050  |
| 50° | 6241  |
| 55° | 4150  |
| 60° | 2017  |
| 65° | 620   |
| 70° | 207   |
| 75° | 191   |
| 80° | 124   |
| 85° | 248   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 66.3   | 5.7       |
| 10°-20°   | 194.7  | 16.7      |
| 20°-30°   | 340.4  | 29.2      |
| 30°-40°   | 331.1  | 28.4      |
| 40°-50°   | 150.6  | 12.9      |
| 50°-60°   | 69.8   | 6.0       |
| 60°-70°   | 11.6   | 1.0       |
| 70°-80°   | 1.4    | 0.1       |
| 80°-90°   | 0.5    | 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°    | 601.4  | 51.6      |
| 0°-40°    | 932.5  | 79.9      |
| 0°-60°    | 1153.0 | 98.8      |
| 0°-90°    | 1166.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1166.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 709 |      |
| 5°  | 700 | 66   |
| 15° | 678 | 195  |
| 25° | 751 | 340  |
| 35° | 556 | 331  |
| 45° | 185 | 151  |
| 55° | 77  | 70   |
| 65° | 8   | 12   |
| 75° | 2   | 1    |
| 85° | 1   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 708.8 |
| 2.5°  | 707.3 |
| 5°    | 700.3 |
| 7.5°  | 692.5 |
| 10°   | 683.1 |
| 12.5° | 676.1 |
| 15°   | 677.7 |
| 17.5° | 690.2 |
| 20°   | 711.9 |
| 22.5° | 736.8 |
| 25°   | 750.9 |
| 27.5° | 743.1 |
| 30°   | 708.8 |
| 32.5° | 648.8 |
| 35°   | 556.2 |
| 37.5° | 428.4 |
| 40°   | 306.1 |
| 42.5° | 228.3 |
| 45°   | 184.6 |
| 47.5° | 155.8 |
| 50°   | 130.1 |
| 52.5° | 103.6 |
| 55°   | 77.2  |
| 57.5° | 53.0  |
| 60°   | 32.7  |
| 62.5° | 17.9  |
| 65°   | 8.5   |
| 67.5° | 3.8   |
| 70°   | 2.3   |
| 72.5° | 1.6   |
| 75°   | 1.6   |
| 77.5° | 0.7   |
| 80°   | 0.7   |
| 82.5° | 0.7   |
| 85°   | 0.7   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)