

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: P583700

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC810D010-HM80520827-81NDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1042.8 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.92  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

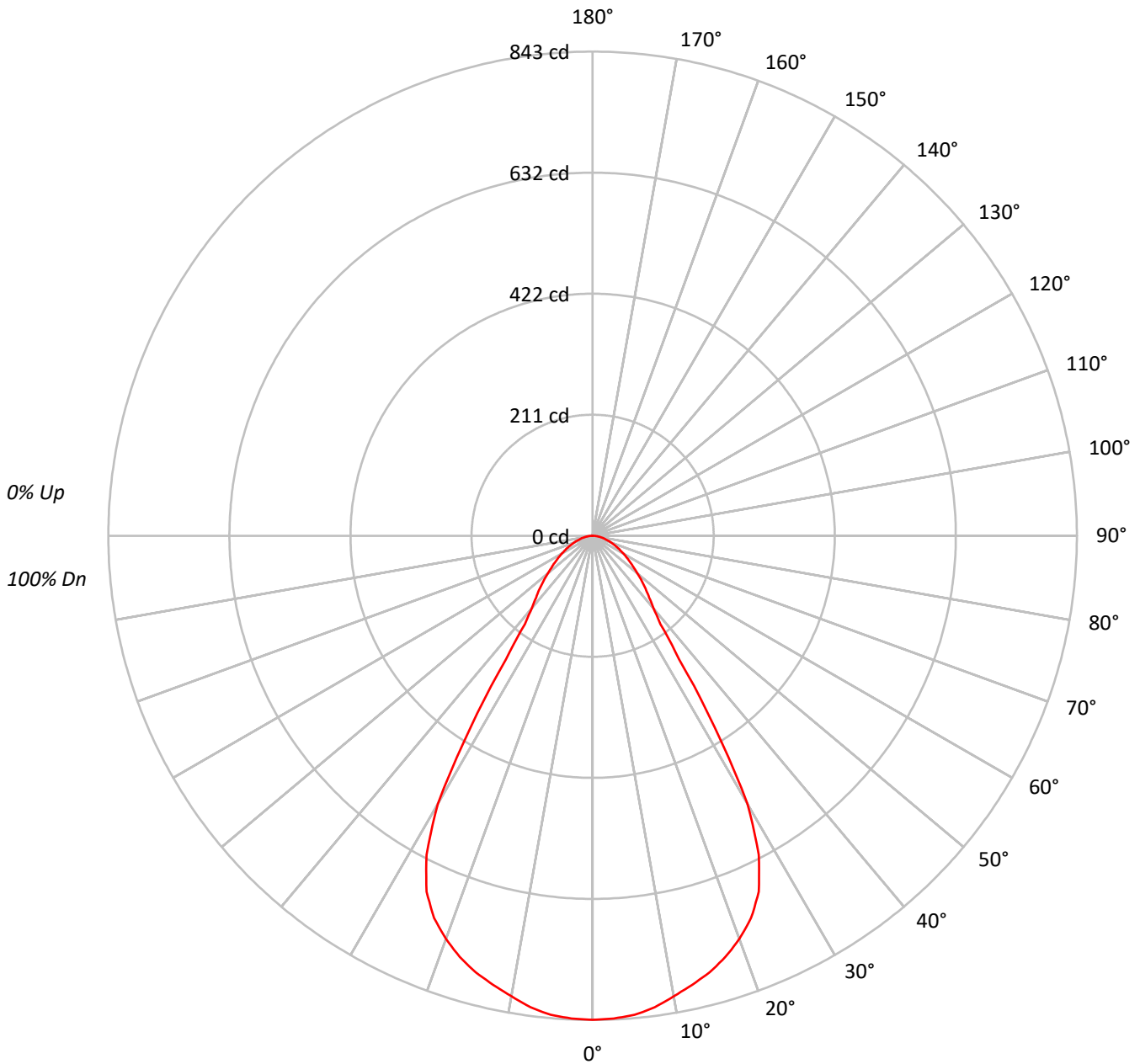
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P583700

CATALOG NUMBER: HC810D010-HM80520827-81NDW

### Luminous Intensity Polar Plot





TEST NUMBER: P583700

CATALOG NUMBER: HC810D010-HM80520827-81NDW

**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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |   |
| 2   | 105 | 99  | 94  | 90  | 102 | 97  | 92  | 88  | 94  | 90  | 87  | 91  | 87  | 85  | 88  | 85  | 83  | 81  |    |    |   |
| 3   | 98  | 90  | 84  | 79  | 96  | 89  | 83  | 79  | 86  | 81  | 77  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |   |
| 4   | 92  | 83  | 76  | 71  | 90  | 82  | 76  | 71  | 80  | 74  | 70  | 77  | 73  | 69  | 75  | 72  | 68  | 67  |    |    |   |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 69  | 64  | 74  | 68  | 64  | 72  | 67  | 63  | 70  | 66  | 63  | 61  |    |    |   |
| 6   | 82  | 71  | 64  | 59  | 80  | 70  | 64  | 59  | 69  | 63  | 58  | 67  | 62  | 58  | 66  | 61  | 58  | 56  |    |    |   |
| 7   | 77  | 66  | 59  | 54  | 76  | 66  | 59  | 54  | 64  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 53  | 52  |    |    |   |
| 8   | 73  | 62  | 55  | 50  | 71  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 49  | 48  |    |    |   |
| 9   | 69  | 58  | 51  | 47  | 68  | 57  | 51  | 47  | 56  | 51  | 46  | 55  | 50  | 46  | 55  | 50  | 46  | 45  |    |    |   |
| 10  | 65  | 55  | 48  | 44  | 64  | 54  | 48  | 44  | 53  | 47  | 43  | 52  | 47  | 43  | 52  | 47  | 43  | 42  |    |    |   |

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

|     | 0°    |
|-----|-------|
| 0°  | 25989 |
| 5°  | 25921 |
| 10° | 25491 |
| 15° | 25118 |
| 20° | 24513 |
| 25° | 23269 |
| 30° | 19196 |
| 35° | 9882  |
| 40° | 6614  |
| 45° | 5674  |
| 50° | 4893  |
| 55° | 4274  |
| 60° | 3793  |
| 65° | 3415  |
| 70° | 3092  |
| 75° | 2776  |
| 80° | 2504  |
| 85° | 2477  |



TEST NUMBER: P583700

CATALOG NUMBER: HC810D010-HM80520827-81NDW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 79.2   | 7.6       |
| 10°-20°   | 221.4  | 21.2      |
| 20°-30°   | 306.7  | 29.4      |
| 30°-40°   | 184.2  | 17.7      |
| 40°-50°   | 100.8  | 9.7       |
| 50°-60°   | 71.6   | 6.9       |
| 60°-70°   | 46.5   | 4.5       |
| 70°-80°   | 24.9   | 2.4       |
| 80°-90°   | 7.4    | 0.7       |
| 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°    | 607.3  | 58.2      |
| 0°-40°    | 791.5  | 75.9      |
| 0°-60°    | 964.0  | 92.4      |
| 0°-90°    | 1042.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1042.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 843 |      |
| 5°  | 837 | 79   |
| 15° | 787 | 221  |
| 25° | 684 | 307  |
| 35° | 262 | 184  |
| 45° | 130 | 101  |
| 55° | 80  | 72   |
| 65° | 47  | 47   |
| 75° | 23  | 25   |
| 85° | 7   | 7    |
| 90° | 0   |      |



TEST NUMBER: P583700

CATALOG NUMBER: HC810D010-HM80520827-81NDW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 842.8 |
| 2.5°  | 841.3 |
| 5°    | 837.4 |
| 7.5°  | 828.1 |
| 10°   | 814.1 |
| 12.5° | 800.8 |
| 15°   | 786.8 |
| 17.5° | 768.9 |
| 20°   | 747.0 |
| 22.5° | 720.6 |
| 25°   | 683.9 |
| 27.5° | 626.4 |
| 30°   | 539.1 |
| 32.5° | 395.0 |
| 35°   | 262.5 |
| 37.5° | 194.0 |
| 40°   | 164.3 |
| 42.5° | 145.7 |
| 45°   | 130.1 |
| 47.5° | 115.3 |
| 50°   | 102.0 |
| 52.5° | 89.5  |
| 55°   | 79.5  |
| 57.5° | 70.1  |
| 60°   | 61.5  |
| 62.5° | 53.7  |
| 65°   | 46.8  |
| 67.5° | 39.8  |
| 70°   | 34.3  |
| 72.5° | 28.0  |
| 75°   | 23.3  |
| 77.5° | 18.8  |
| 80°   | 14.1  |
| 82.5° | 10.1  |
| 85°   | 7.0   |
| 87.5° | 3.1   |
| 90°   | 0.0   |



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°







(END OF REPORT)