

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: P580151

Luminaire Tested: **HC425D010-HM40525835-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580151  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC425D010-HM40525835-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2647.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

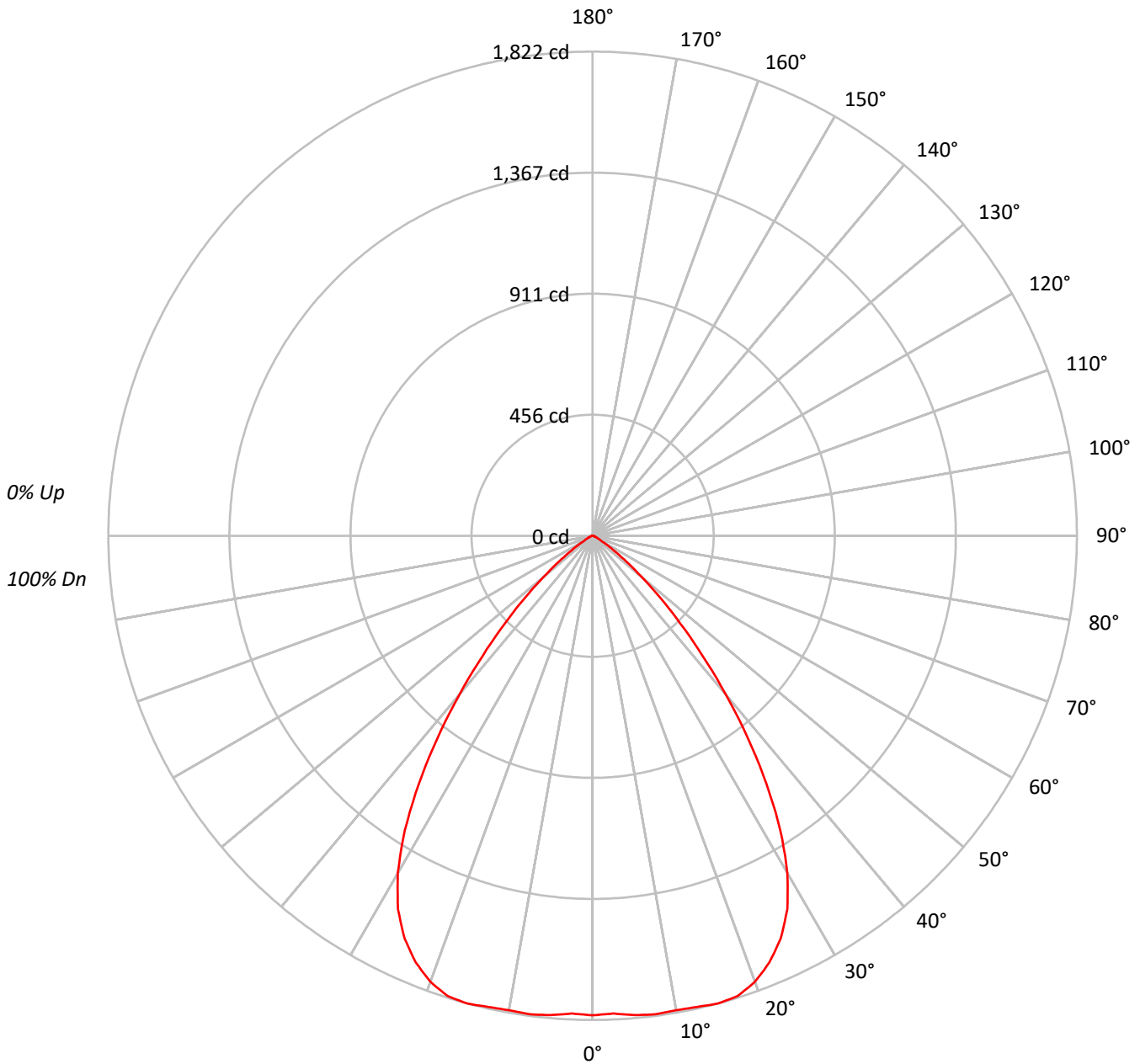
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 100 | 100 |
| 1   | 113 | 110 | 107 | 104 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  | 92  | 92  | 92  |
| 2   | 106 | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 96  | 92  | 89  | 93  | 90  | 87  | 90  | 88  | 86  | 84  | 84  | 84  | 84  |
| 3   | 100 | 93  | 87  | 82  | 98  | 91  | 86  | 82  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 81  | 78  | 76  | 76  | 76  | 76  |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  | 80  | 75  | 72  | 78  | 74  | 71  | 69  | 69  | 69  | 69  |
| 5   | 88  | 79  | 72  | 67  | 86  | 78  | 72  | 67  | 76  | 70  | 66  | 74  | 69  | 66  | 72  | 68  | 65  | 63  | 63  | 63  | 63  |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 70  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 58  | 58  | 58  | 58  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 60  | 56  | 65  | 60  | 55  | 64  | 59  | 55  | 63  | 58  | 55  | 53  | 53  | 53  | 53  |
| 8   | 74  | 63  | 56  | 51  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 49  | 49  | 49  | 49  |
| 9   | 69  | 59  | 52  | 47  | 68  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  | 45  | 45  | 45  |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 53  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 43  | 42  | 42  | 42  | 42  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 222553 |
| 5°  | 224220 |
| 10° | 227025 |
| 15° | 232727 |
| 20° | 234446 |
| 25° | 227731 |
| 30° | 208798 |
| 35° | 171809 |
| 40° | 125238 |
| 45° | 81270  |
| 50° | 45824  |
| 55° | 21763  |
| 60° | 8585   |
| 65° | 5341   |
| 70° | 3570   |
| 75° | 2383   |
| 80° | 1208   |
| 85° | 2406   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 172.9  | 6.5       |
| 10°-20°   | 513.8  | 19.4      |
| 20°-30°   | 762.1  | 28.8      |
| 30°-40°   | 703.9  | 26.6      |
| 40°-50°   | 367.5  | 13.9      |
| 50°-60°   | 100.7  | 3.8       |
| 60°-70°   | 19.4   | 0.7       |
| 70°-80°   | 5.5    | 0.2       |
| 80°-90°   | 1.2    | 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°    | 1448.8 | 54.7      |
| 0°-40°    | 2152.7 | 81.3      |
| 0°-60°    | 2621.0 | 99.0      |
| 0°-90°    | 2647.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2647.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1804 |      |
| 5°  | 1811 | 173  |
| 15° | 1822 | 514  |
| 25° | 1673 | 762  |
| 35° | 1141 | 704  |
| 45° | 466  | 368  |
| 55° | 101  | 101  |
| 65° | 18   | 19   |
| 75° | 5    | 5    |
| 85° | 2    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1804.3 |
| 2.5°  | 1799.3 |
| 5°    | 1810.9 |
| 7.5°  | 1815.9 |
| 10°   | 1812.6 |
| 12.5° | 1815.9 |
| 15°   | 1822.5 |
| 17.5° | 1815.9 |
| 20°   | 1786.1 |
| 22.5° | 1738.0 |
| 25°   | 1673.3 |
| 27.5° | 1585.3 |
| 30°   | 1466.0 |
| 32.5° | 1315.1 |
| 35°   | 1141.0 |
| 37.5° | 958.5  |
| 40°   | 777.8  |
| 42.5° | 611.9  |
| 45°   | 465.9  |
| 47.5° | 341.6  |
| 50°   | 238.8  |
| 52.5° | 159.2  |
| 55°   | 101.2  |
| 57.5° | 59.7   |
| 60°   | 34.8   |
| 62.5° | 24.8   |
| 65°   | 18.3   |
| 67.5° | 13.3   |
| 70°   | 9.9    |
| 72.5° | 6.7    |
| 75°   | 5.0    |
| 77.5° | 3.3    |
| 80°   | 1.7    |
| 82.5° | 1.7    |
| 85°   | 1.7    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)