

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: P582444

Luminaire Tested: **HC640D010-HM63040830-61WDH**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582444  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC640D010-HM63040830-61WDH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4481.5 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.08  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

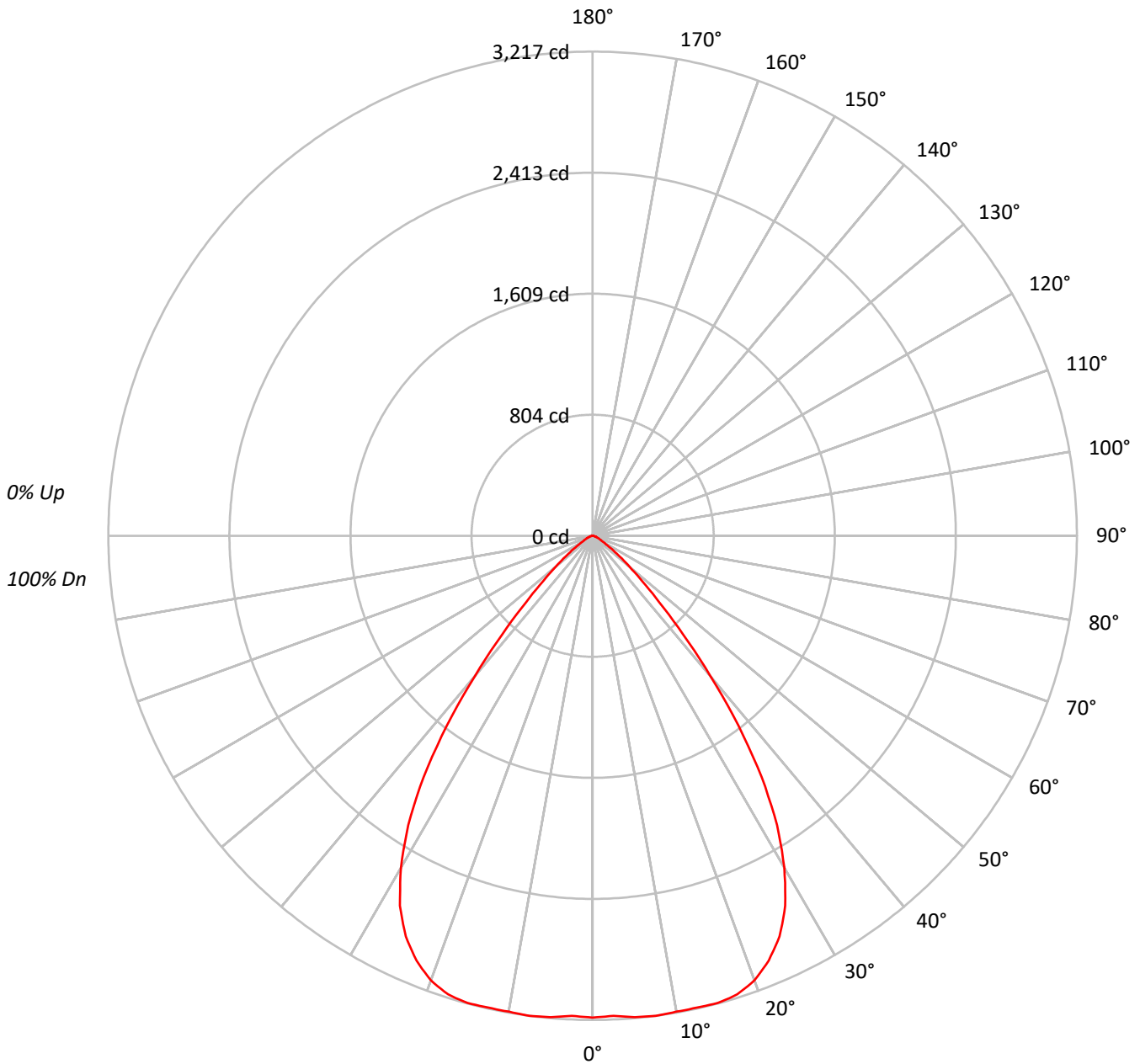
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 105 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  | 92  | 92  | 92  |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 92  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  | 84  | 84  | 84  |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  | 86  | 83  | 80  | 84  | 81  | 78  | 77  | 77  | 77  | 77  |
| 4   | 94  | 86  | 79  | 75  | 92  | 85  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 75  | 72  | 70  | 70  | 70  | 70  |
| 5   | 89  | 79  | 73  | 68  | 87  | 78  | 72  | 68  | 76  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  | 64  | 64  | 64  |
| 6   | 83  | 73  | 67  | 62  | 82  | 73  | 66  | 62  | 71  | 65  | 61  | 70  | 65  | 61  | 68  | 64  | 60  | 59  | 59  | 59  | 59  |
| 7   | 79  | 68  | 62  | 57  | 77  | 68  | 61  | 57  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 54  | 54  | 54  | 54  |
| 8   | 74  | 64  | 57  | 52  | 73  | 63  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  | 50  | 50  | 50  |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 48  | 46  | 46  | 46  | 46  |
| 10  | 66  | 56  | 49  | 45  | 65  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 53  | 48  | 44  | 43  | 43  | 43  | 43  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 175512 |
| 5°  | 176683 |
| 10° | 178726 |
| 15° | 182390 |
| 20° | 183416 |
| 25° | 177700 |
| 30° | 161208 |
| 35° | 131076 |
| 40° | 86999  |
| 45° | 48416  |
| 50° | 27155  |
| 55° | 15063  |
| 60° | 8311   |
| 65° | 6291   |
| 70° | 4376   |
| 75° | 3219   |
| 80° | 1926   |
| 85° | 1887   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 306.5  | 6.8       |
| 10°-20°   | 906.1  | 20.2      |
| 20°-30°   | 1335.6 | 29.8      |
| 30°-40°   | 1194.6 | 26.7      |
| 40°-50°   | 518.2  | 11.6      |
| 50°-60°   | 152.3  | 3.4       |
| 60°-70°   | 48.6   | 1.1       |
| 70°-80°   | 17.2   | 0.4       |
| 80°-90°   | 2.5    | 0.1       |
| 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°    | 2548.2 | 56.9      |
| 0°-40°    | 3742.8 | 83.5      |
| 0°-60°    | 4413.3 | 98.5      |
| 0°-90°    | 4481.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4481.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3202 |      |
| 5°  | 3211 | 306  |
| 15° | 3214 | 906  |
| 25° | 2938 | 1336 |
| 35° | 1959 | 1195 |
| 45° | 624  | 518  |
| 55° | 158  | 152  |
| 65° | 48   | 49   |
| 75° | 15   | 17   |
| 85° | 3    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3201.6 |
| 2.5°  | 3192.5 |
| 5°    | 3210.7 |
| 7.5°  | 3216.8 |
| 10°   | 3210.7 |
| 12.5° | 3210.7 |
| 15°   | 3213.7 |
| 17.5° | 3195.5 |
| 20°   | 3144.0 |
| 22.5° | 3056.1 |
| 25°   | 2937.8 |
| 27.5° | 2771.1 |
| 30°   | 2546.7 |
| 32.5° | 2279.9 |
| 35°   | 1958.6 |
| 37.5° | 1591.8 |
| 40°   | 1215.7 |
| 42.5° | 888.3  |
| 45°   | 624.5  |
| 47.5° | 445.7  |
| 50°   | 318.4  |
| 52.5° | 227.4  |
| 55°   | 157.6  |
| 57.5° | 106.2  |
| 60°   | 75.8   |
| 62.5° | 60.7   |
| 65°   | 48.5   |
| 67.5° | 36.4   |
| 70°   | 27.3   |
| 72.5° | 21.2   |
| 75°   | 15.2   |
| 77.5° | 12.1   |
| 80°   | 6.1    |
| 82.5° | 3.0    |
| 85°   | 3.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)