

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: P582518

Luminaire Tested: **HC640D010-HM63040930-61WDWB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582518  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC640D010-HM63040930-61WDWB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4480.8 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.05  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

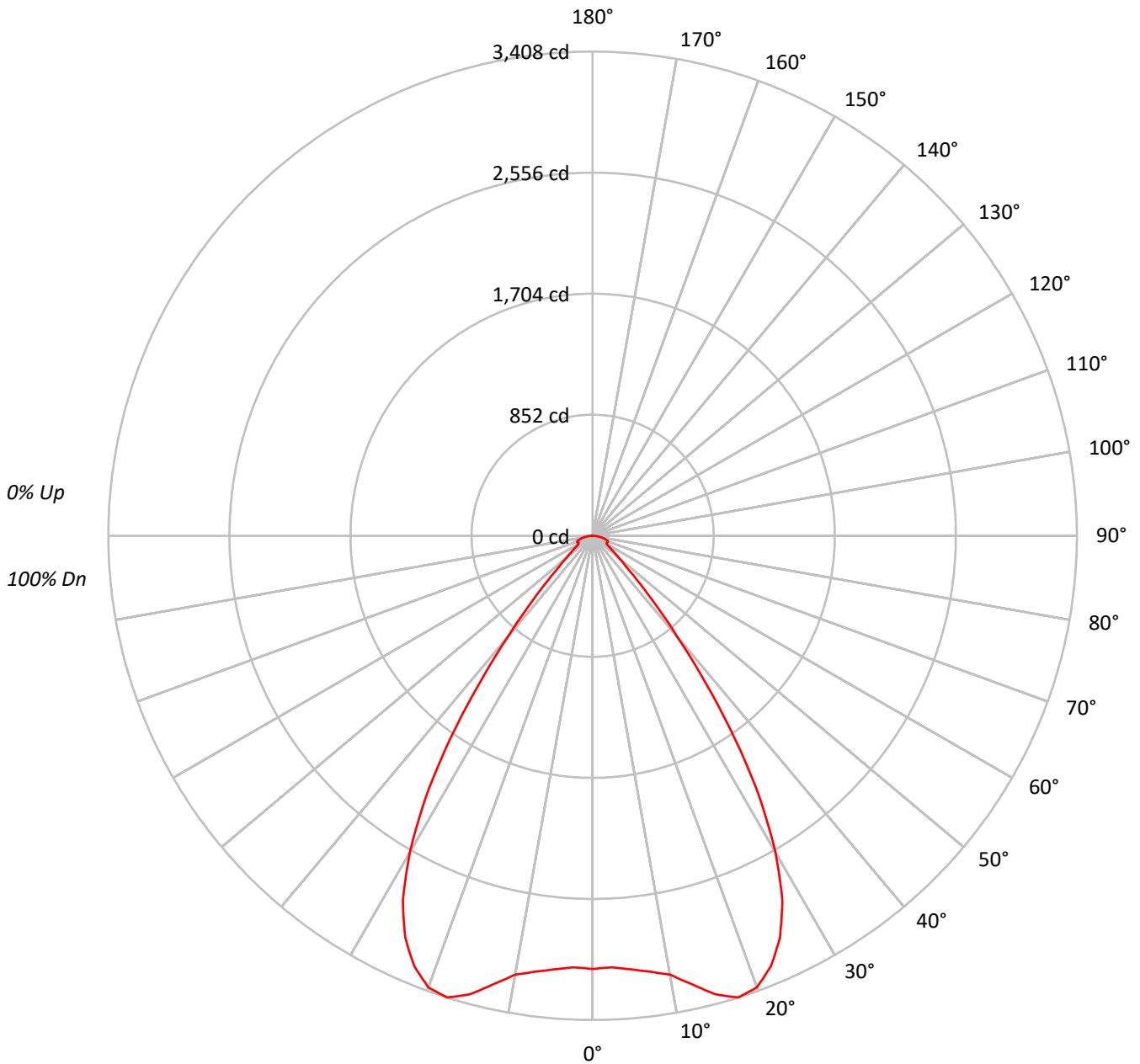
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 93  | 91  |    |    |   |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 86  | 84  | 82  |    |    |   |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 75  |    |    |   |
| 4   | 93  | 85  | 78  | 73  | 91  | 83  | 78  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 73  | 70  | 69  |    |    |   |
| 5   | 88  | 78  | 72  | 67  | 86  | 77  | 71  | 66  | 75  | 70  | 66  | 74  | 69  | 65  | 72  | 68  | 65  | 63  |    |    |   |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 70  | 65  | 60  | 69  | 64  | 60  | 67  | 63  | 60  | 58  |    |    |   |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 63  | 59  | 55  | 54  |    |    |   |
| 8   | 74  | 63  | 57  | 52  | 73  | 63  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 59  | 55  | 51  | 50  |    |    |   |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 52  | 48  | 58  | 52  | 48  | 57  | 51  | 48  | 56  | 51  | 48  | 46  |    |    |   |
| 10  | 66  | 56  | 49  | 45  | 65  | 55  | 49  | 45  | 54  | 48  | 45  | 53  | 48  | 44  | 53  | 48  | 44  | 43  |    |    |   |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 167119 |
| 5°  | 168539 |
| 10° | 174613 |
| 15° | 189672 |
| 20° | 197295 |
| 25° | 188702 |
| 30° | 162854 |
| 35° | 117263 |
| 40° | 66067  |
| 45° | 34236  |
| 50° | 20409  |
| 55° | 14700  |
| 60° | 12499  |
| 65° | 14411  |
| 70° | 18272  |
| 75° | 19296  |
| 80° | 18910  |
| 85° | 17926  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 294.7  | 6.6       |
| 10°-20°   | 942.6  | 21.0      |
| 20°-30°   | 1408.9 | 31.4      |
| 30°-40°   | 1077.0 | 24.0      |
| 40°-50°   | 376.2  | 8.4       |
| 50°-60°   | 143.3  | 3.2       |
| 60°-70°   | 112.5  | 2.5       |
| 70°-80°   | 95.1   | 2.1       |
| 80°-90°   | 30.6   | 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°    | 2646.2 | 59.1      |
| 0°-40°    | 3723.1 | 83.1      |
| 0°-60°    | 4242.6 | 94.7      |
| 0°-90°    | 4480.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4480.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3048 |      |
| 5°  | 3063 | 295  |
| 15° | 3342 | 943  |
| 25° | 3120 | 1409 |
| 35° | 1752 | 1077 |
| 45° | 442  | 376  |
| 55° | 154  | 143  |
| 65° | 111  | 112  |
| 75° | 91   | 95   |
| 85° | 28   | 31   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 3048.5 |
| 2.5°  | 3040.0 |
| 5°    | 3062.7 |
| 7.5°  | 3094.1 |
| 10°   | 3136.8 |
| 12.5° | 3233.7 |
| 15°   | 3342.0 |
| 17.5° | 3407.5 |
| 20°   | 3381.9 |
| 22.5° | 3279.3 |
| 25°   | 3119.7 |
| 27.5° | 2891.8 |
| 30°   | 2572.7 |
| 32.5° | 2191.0 |
| 35°   | 1752.2 |
| 37.5° | 1299.2 |
| 40°   | 923.2  |
| 42.5° | 646.7  |
| 45°   | 441.6  |
| 47.5° | 310.5  |
| 50°   | 239.3  |
| 52.5° | 188.1  |
| 55°   | 153.8  |
| 57.5° | 125.3  |
| 60°   | 114.0  |
| 62.5° | 111.1  |
| 65°   | 111.1  |
| 67.5° | 116.9  |
| 70°   | 114.0  |
| 72.5° | 105.4  |
| 75°   | 91.1   |
| 77.5° | 76.9   |
| 80°   | 59.9   |
| 82.5° | 42.7   |
| 85°   | 28.5   |
| 87.5° | 11.3   |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)