

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: P582554

Luminaire Tested: **HC640D010-HM63040940-61WDWB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582554  
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-HM63040940-61WDWB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4532.0 lumens  
Efficiency: N/A  
Efficacy: 110.5 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

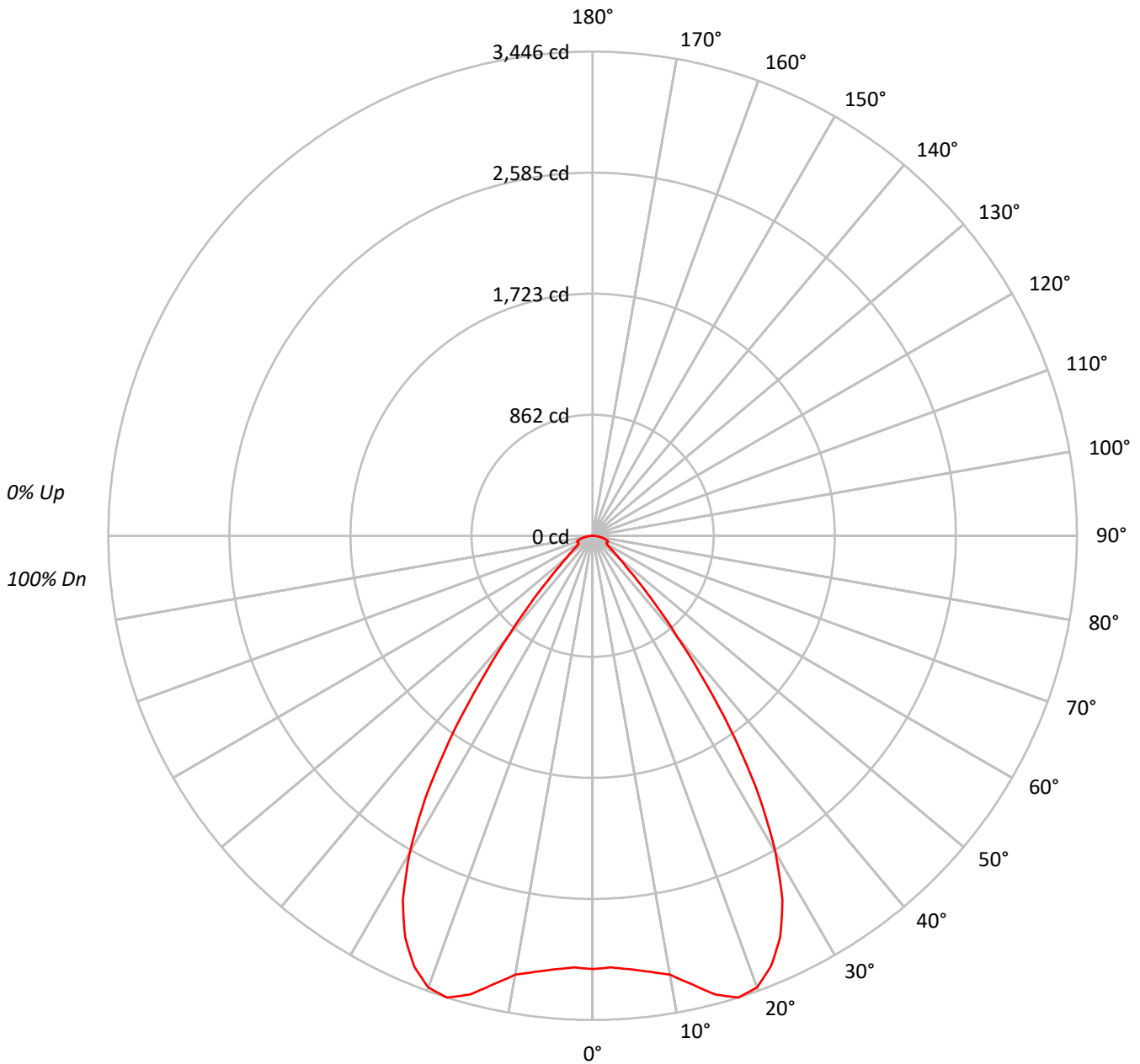
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |
| 1   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 93  | 91  |    |    | 91  |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 86  | 84  | 82  |    |    | 82  |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 75  |    |    | 75  |
| 4   | 93  | 85  | 78  | 73  | 91  | 83  | 78  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 73  | 70  | 69  |    |    | 69  |
| 5   | 88  | 78  | 72  | 67  | 86  | 77  | 71  | 66  | 75  | 70  | 66  | 74  | 69  | 65  | 72  | 68  | 65  | 63  |    |    | 63  |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 70  | 65  | 60  | 69  | 64  | 60  | 67  | 63  | 60  | 58  |    |    | 58  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 63  | 59  | 55  | 54  |    |    | 54  |
| 8   | 74  | 63  | 57  | 52  | 73  | 63  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 59  | 55  | 51  | 50  |    |    | 50  |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 52  | 48  | 58  | 52  | 48  | 57  | 51  | 48  | 56  | 51  | 48  | 46  |    |    | 46  |
| 10  | 66  | 56  | 49  | 45  | 65  | 55  | 49  | 45  | 54  | 48  | 45  | 53  | 48  | 44  | 53  | 48  | 44  | 43  |    |    | 43  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 169027 |
| 5°  | 170471 |
| 10° | 176611 |
| 15° | 191840 |
| 20° | 199541 |
| 25° | 190862 |
| 30° | 164715 |
| 35° | 118601 |
| 40° | 66811  |
| 45° | 34624  |
| 50° | 20639  |
| 55° | 14872  |
| 60° | 12642  |
| 65° | 14580  |
| 70° | 18481  |
| 75° | 19529  |
| 80° | 19100  |
| 85° | 18115  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 298.1  | 6.6       |
| 10°-20°   | 953.4  | 21.0      |
| 20°-30°   | 1425.0 | 31.4      |
| 30°-40°   | 1089.2 | 24.0      |
| 40°-50°   | 380.4  | 8.4       |
| 50°-60°   | 145.0  | 3.2       |
| 60°-70°   | 113.8  | 2.5       |
| 70°-80°   | 96.2   | 2.1       |
| 80°-90°   | 31.0   | 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°    | 2676.4 | 59.1      |
| 0°-40°    | 3765.6 | 83.1      |
| 0°-60°    | 4291.1 | 94.7      |
| 0°-90°    | 4532.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4532.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3083 |      |
| 5°  | 3098 | 298  |
| 15° | 3380 | 953  |
| 25° | 3155 | 1425 |
| 35° | 1772 | 1089 |
| 45° | 447  | 380  |
| 55° | 156  | 145  |
| 65° | 112  | 114  |
| 75° | 92   | 96   |
| 85° | 29   | 31   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3083.3 |
| 2.5°  | 3074.7 |
| 5°    | 3097.8 |
| 7.5°  | 3129.5 |
| 10°   | 3172.7 |
| 12.5° | 3270.6 |
| 15°   | 3380.2 |
| 17.5° | 3446.4 |
| 20°   | 3420.4 |
| 22.5° | 3316.8 |
| 25°   | 3155.4 |
| 27.5° | 2924.9 |
| 30°   | 2602.1 |
| 32.5° | 2215.9 |
| 35°   | 1772.2 |
| 37.5° | 1314.0 |
| 40°   | 933.6  |
| 42.5° | 654.1  |
| 45°   | 446.6  |
| 47.5° | 314.1  |
| 50°   | 242.0  |
| 52.5° | 190.2  |
| 55°   | 155.6  |
| 57.5° | 126.8  |
| 60°   | 115.3  |
| 62.5° | 112.4  |
| 65°   | 112.4  |
| 67.5° | 118.2  |
| 70°   | 115.3  |
| 72.5° | 106.6  |
| 75°   | 92.2   |
| 77.5° | 77.8   |
| 80°   | 60.5   |
| 82.5° | 43.3   |
| 85°   | 28.8   |
| 87.5° | 11.5   |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)