

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: P593254

Luminaire Tested: **HC635D010-HM63040950-61WDH**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593254  
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: HC635D010-HM63040950-61WDH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3669.5 lumens  
Efficiency: N/A  
Efficacy: 108.9 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

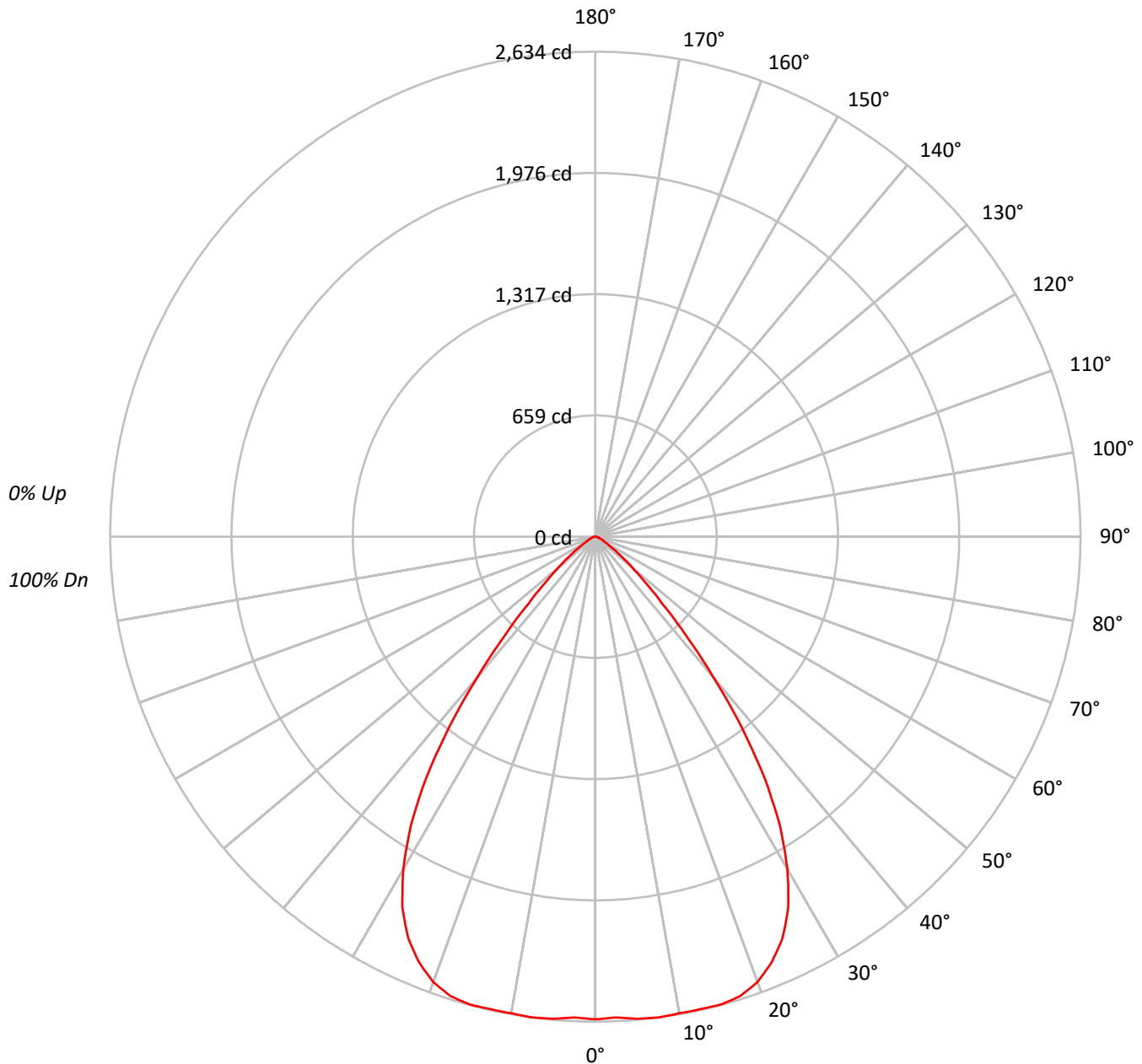
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  |    |    |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 92  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  |    |    |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  | 86  | 83  | 80  | 84  | 81  | 78  | 77  |    |    |
| 4   | 94  | 86  | 79  | 75  | 92  | 85  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 75  | 72  | 70  |    |    |
| 5   | 89  | 79  | 73  | 68  | 87  | 78  | 72  | 68  | 76  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  |    |    |
| 6   | 83  | 73  | 67  | 62  | 82  | 73  | 66  | 62  | 71  | 65  | 61  | 70  | 65  | 61  | 68  | 64  | 60  | 59  |    |    |
| 7   | 79  | 68  | 62  | 57  | 77  | 68  | 61  | 57  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 54  |    |    |
| 8   | 74  | 64  | 57  | 52  | 73  | 63  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  |    |    |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 48  | 46  |    |    |
| 10  | 66  | 56  | 49  | 45  | 65  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 53  | 48  | 44  | 43  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 143711 |
| 5°  | 144673 |
| 10° | 146346 |
| 15° | 149348 |
| 20° | 150186 |
| 25° | 145502 |
| 30° | 132001 |
| 35° | 107325 |
| 40° | 71241  |
| 45° | 39648  |
| 50° | 22234  |
| 55° | 12339  |
| 60° | 6809   |
| 65° | 5150   |
| 70° | 3574   |
| 75° | 2626   |
| 80° | 1578   |
| 85° | 1572   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 250.9  | 6.8       |
| 10°-20°   | 742.0  | 20.2      |
| 20°-30°   | 1093.6 | 29.8      |
| 30°-40°   | 978.1  | 26.7      |
| 40°-50°   | 424.4  | 11.6      |
| 50°-60°   | 124.7  | 3.4       |
| 60°-70°   | 39.8   | 1.1       |
| 70°-80°   | 14.0   | 0.4       |
| 80°-90°   | 2.0    | 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°    | 2086.5 | 56.9      |
| 0°-40°    | 3064.6 | 83.5      |
| 0°-60°    | 3613.7 | 98.5      |
| 0°-90°    | 3669.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3669.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2622 |      |
| 5°  | 2629 | 251  |
| 15° | 2632 | 742  |
| 25° | 2406 | 1094 |
| 35° | 1604 | 978  |
| 45° | 511  | 424  |
| 55° | 129  | 125  |
| 65° | 40   | 40   |
| 75° | 12   | 14   |
| 85° | 2    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2621.5 |
| 2.5°  | 2614.1 |
| 5°    | 2629.0 |
| 7.5°  | 2633.9 |
| 10°   | 2629.0 |
| 12.5° | 2629.0 |
| 15°   | 2631.5 |
| 17.5° | 2616.5 |
| 20°   | 2574.4 |
| 22.5° | 2502.4 |
| 25°   | 2405.5 |
| 27.5° | 2269.0 |
| 30°   | 2085.3 |
| 32.5° | 1866.8 |
| 35°   | 1603.7 |
| 37.5° | 1303.3 |
| 40°   | 995.5  |
| 42.5° | 727.4  |
| 45°   | 511.4  |
| 47.5° | 364.9  |
| 50°   | 260.7  |
| 52.5° | 186.1  |
| 55°   | 129.1  |
| 57.5° | 86.9   |
| 60°   | 62.1   |
| 62.5° | 49.6   |
| 65°   | 39.7   |
| 67.5° | 29.8   |
| 70°   | 22.3   |
| 72.5° | 17.4   |
| 75°   | 12.4   |
| 77.5° | 9.9    |
| 80°   | 5.0    |
| 82.5° | 2.5    |
| 85°   | 2.5    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)