

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: P584567

Luminaire Tested: **HC840D010-HM82555840-81WDBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC840D010-HM82555840-81WDBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5195.5 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

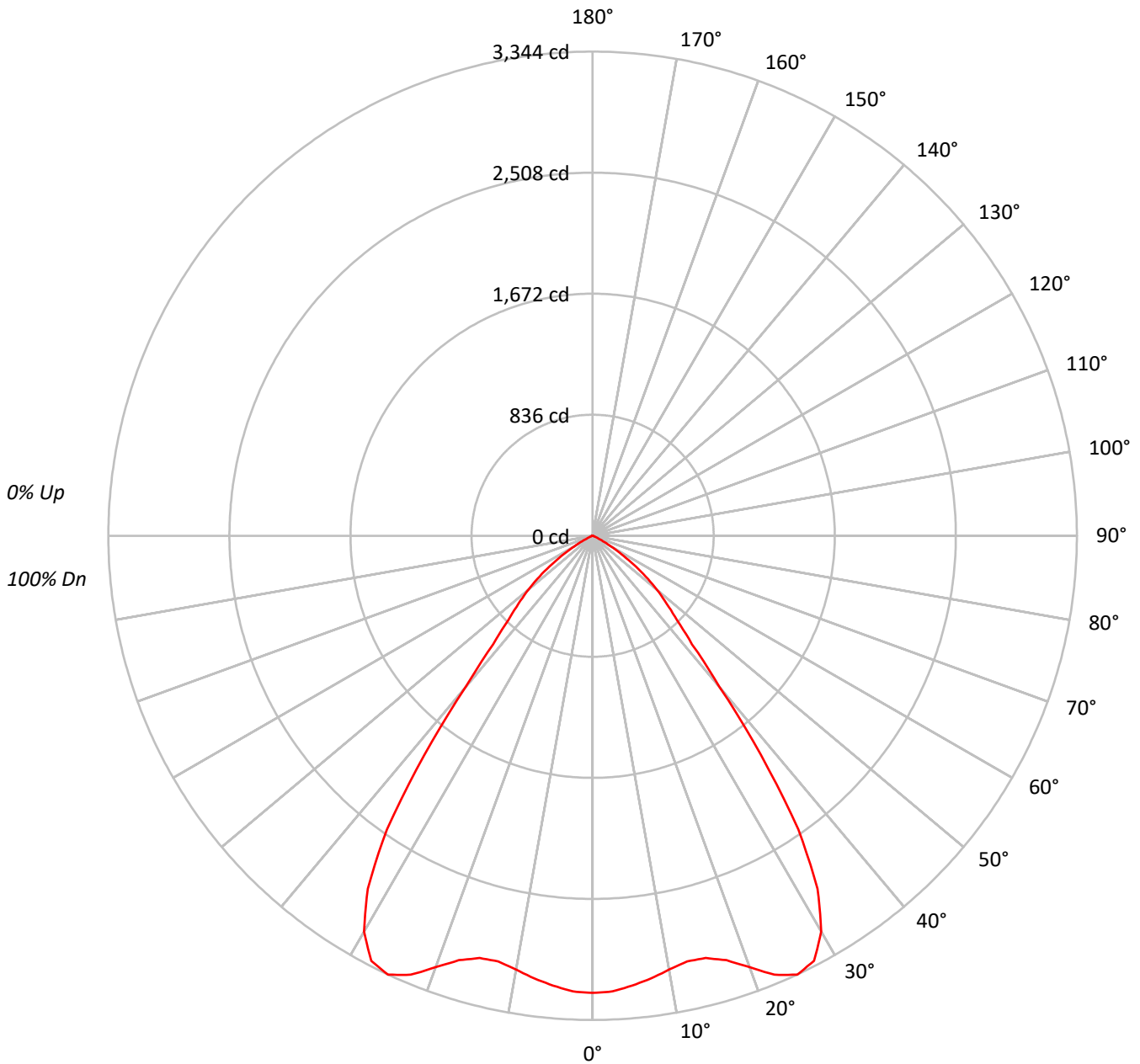
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | 100 |
| 1 | 113 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 95 | 93 | 92 | | | 92 |
| 2 | 106 | 100 | 95 | 92 | 104 | 98 | 94 | 91 | 95 | 92 | 89 | 92 | 89 | 87 | 89 | 87 | 85 | 83 | | | 83 |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 75 | | | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 76 | 71 | 79 | 74 | 71 | 77 | 73 | 70 | 68 | | | 68 |
| 5 | 87 | 77 | 71 | 66 | 85 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 62 | | | 62 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | | | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 61 | 57 | 53 | 51 | | | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 | | | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 | | | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 | | | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 97344 |
| 5° | 96533 |
| 10° | 95264 |
| 15° | 96350 |
| 20° | 104044 |
| 25° | 113780 |
| 30° | 112403 |
| 35° | 93241 |
| 40° | 54882 |
| 45° | 35855 |
| 50° | 27791 |
| 55° | 18462 |
| 60° | 8986 |
| 65° | 2787 |
| 70° | 938 |
| 75° | 822 |
| 80° | 622 |
| 85° | 1238 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 295.3 | 5.7 |
| 10°-20° | 867.1 | 16.7 |
| 20°-30° | 1516.0 | 29.2 |
| 30°-40° | 1474.7 | 28.4 |
| 40°-50° | 670.6 | 12.9 |
| 50°-60° | 310.9 | 6.0 |
| 60°-70° | 52.1 | 1.0 |
| 70°-80° | 6.4 | 0.1 |
| 80°-90° | 2.4 | 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° | 2678.4 | 51.6 |
| 0°-40° | 4153.0 | 79.9 |
| 0°-60° | 5134.6 | 98.8 |
| 0°-90° | 5195.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5195.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3157 | |
| 5° | 3119 | 295 |
| 15° | 3018 | 867 |
| 25° | 3344 | 1516 |
| 35° | 2477 | 1475 |
| 45° | 822 | 671 |
| 55° | 343 | 311 |
| 65° | 38 | 52 |
| 75° | 7 | 6 |
| 85° | 4 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 3156.8 |
| 2.5° | 3149.9 |
| 5° | 3118.6 |
| 7.5° | 3084.0 |
| 10° | 3042.4 |
| 12.5° | 3011.2 |
| 15° | 3018.1 |
| 17.5° | 3073.5 |
| 20° | 3170.6 |
| 22.5° | 3281.7 |
| 25° | 3344.1 |
| 27.5° | 3309.5 |
| 30° | 3156.8 |
| 32.5° | 2889.7 |
| 35° | 2476.9 |
| 37.5° | 1907.9 |
| 40° | 1363.4 |
| 42.5° | 1016.4 |
| 45° | 822.2 |
| 47.5° | 693.8 |
| 50° | 579.3 |
| 52.5° | 461.4 |
| 55° | 343.4 |
| 57.5° | 235.9 |
| 60° | 145.7 |
| 62.5° | 79.7 |
| 65° | 38.2 |
| 67.5° | 17.4 |
| 70° | 10.4 |
| 72.5° | 6.9 |
| 75° | 6.9 |
| 77.5° | 3.5 |
| 80° | 3.5 |
| 82.5° | 3.5 |
| 85° | 3.5 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)