

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: P584984

Luminaire Tested: **HC855D010-HM82555927-81MDH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC855D010-HM82555927-81MDH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" MEDIUM DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4324.2 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.81
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

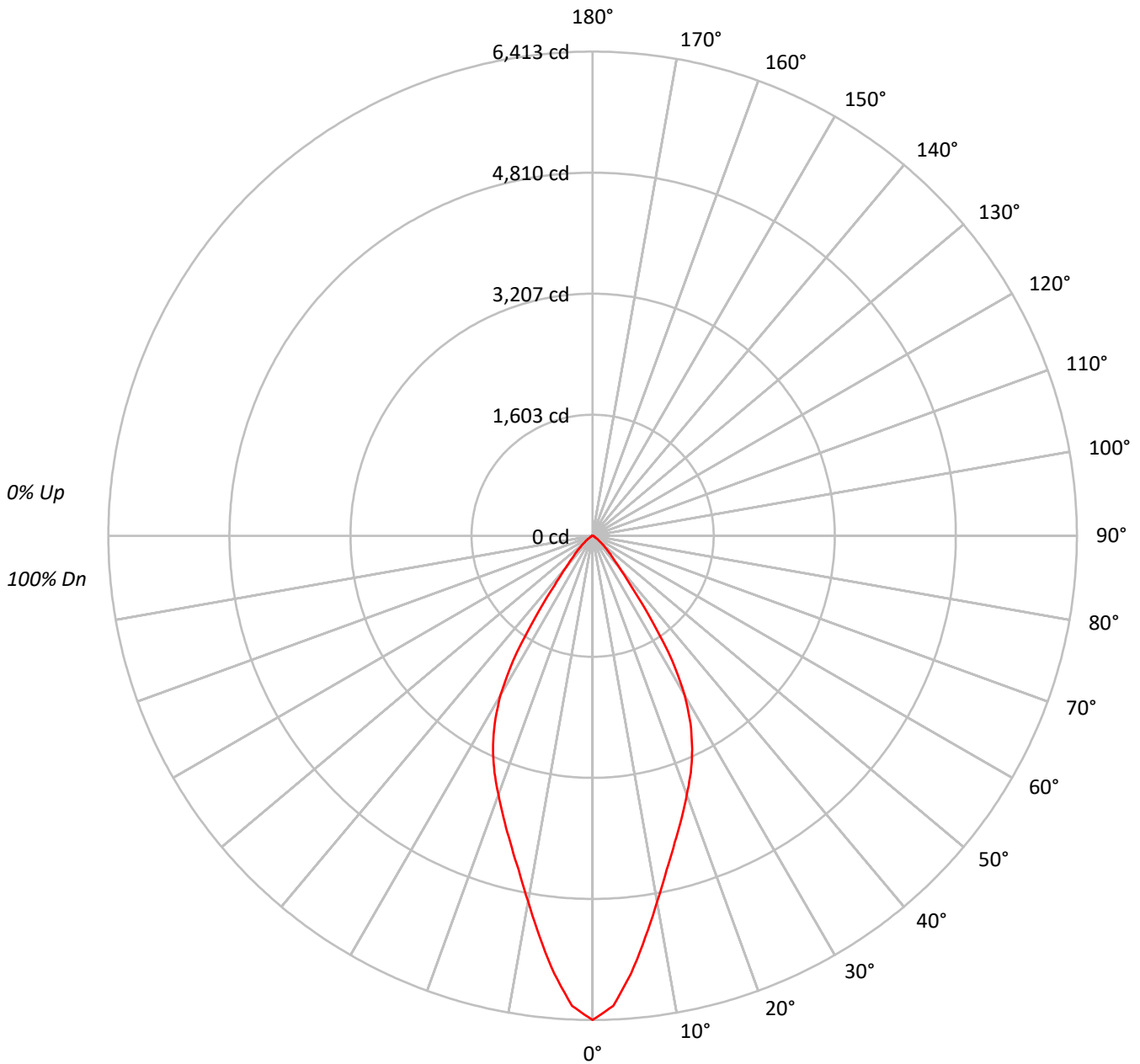
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 94 | | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 95 | 98 | 95 | 93 | 95 | 93 | 91 | 92 | 90 | 89 | 87 | | | |
| 3 | 103 | 96 | 91 | 87 | 101 | 95 | 90 | 87 | 92 | 88 | 85 | 90 | 87 | 84 | 88 | 85 | 83 | 81 | | | |
| 4 | 97 | 90 | 85 | 80 | 96 | 89 | 84 | 80 | 87 | 82 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 76 | | | |
| 5 | 93 | 84 | 79 | 74 | 91 | 83 | 78 | 74 | 82 | 77 | 73 | 80 | 76 | 73 | 78 | 75 | 72 | 71 | | | |
| 6 | 88 | 79 | 73 | 69 | 87 | 78 | 73 | 69 | 77 | 72 | 68 | 76 | 71 | 68 | 74 | 70 | 67 | 66 | | | |
| 7 | 84 | 75 | 69 | 64 | 82 | 74 | 68 | 64 | 73 | 68 | 64 | 71 | 67 | 64 | 70 | 66 | 63 | 62 | | | |
| 8 | 80 | 70 | 64 | 60 | 79 | 70 | 64 | 60 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 | | | |
| 9 | 76 | 67 | 61 | 57 | 75 | 66 | 61 | 57 | 65 | 60 | 56 | 64 | 60 | 56 | 63 | 59 | 56 | 55 | | | |
| 10 | 73 | 63 | 57 | 54 | 72 | 63 | 57 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 60 | 56 | 53 | 52 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 197756 |
| 5° | 180209 |
| 10° | 153974 |
| 15° | 134276 |
| 20° | 119677 |
| 25° | 106162 |
| 30° | 86923 |
| 35° | 49912 |
| 40° | 22152 |
| 45° | 12891 |
| 50° | 7445 |
| 55° | 4247 |
| 60° | 2350 |
| 65° | 1496 |
| 70° | 1055 |
| 75° | 703 |
| 80° | 515 |
| 85° | 1026 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 527.0 | 12.2 |
| 10°-20° | 1182.3 | 27.3 |
| 20°-30° | 1415.2 | 32.7 |
| 30°-40° | 856.2 | 19.8 |
| 40°-50° | 240.0 | 5.5 |
| 50°-60° | 74.5 | 1.7 |
| 60°-70° | 21.3 | 0.5 |
| 70°-80° | 5.8 | 0.1 |
| 80°-90° | 2.0 | 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° | 3124.5 | 72.3 |
| 0°-40° | 3980.7 | 92.1 |
| 0°-60° | 4295.1 | 99.3 |
| 0°-90° | 4324.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4324.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 6413 | |
| 5° | 5822 | 527 |
| 15° | 4206 | 1182 |
| 25° | 3120 | 1415 |
| 35° | 1326 | 856 |
| 45° | 296 | 240 |
| 55° | 79 | 75 |
| 65° | 20 | 21 |
| 75° | 6 | 6 |
| 85° | 3 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 6413.1 |
| 2.5° | 6231.5 |
| 5° | 5821.8 |
| 7.5° | 5359.3 |
| 10° | 4917.4 |
| 12.5° | 4531.0 |
| 15° | 4206.1 |
| 17.5° | 3919.3 |
| 20° | 3647.0 |
| 22.5° | 3395.3 |
| 25° | 3120.2 |
| 27.5° | 2809.9 |
| 30° | 2441.2 |
| 32.5° | 1964.0 |
| 35° | 1325.9 |
| 37.5° | 825.4 |
| 40° | 550.3 |
| 42.5° | 395.2 |
| 45° | 295.6 |
| 47.5° | 216.6 |
| 50° | 155.2 |
| 52.5° | 108.3 |
| 55° | 79.0 |
| 57.5° | 52.7 |
| 60° | 38.1 |
| 62.5° | 26.4 |
| 65° | 20.5 |
| 67.5° | 14.6 |
| 70° | 11.7 |
| 72.5° | 5.9 |
| 75° | 5.9 |
| 77.5° | 2.9 |
| 80° | 2.9 |
| 82.5° | 2.9 |
| 85° | 2.9 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)