

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: P583831

Luminaire Tested: **HC815D010-HM80520827-81MDC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC815D010-HM80520827-81MDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" MEDIUM DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1727.6 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.67
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

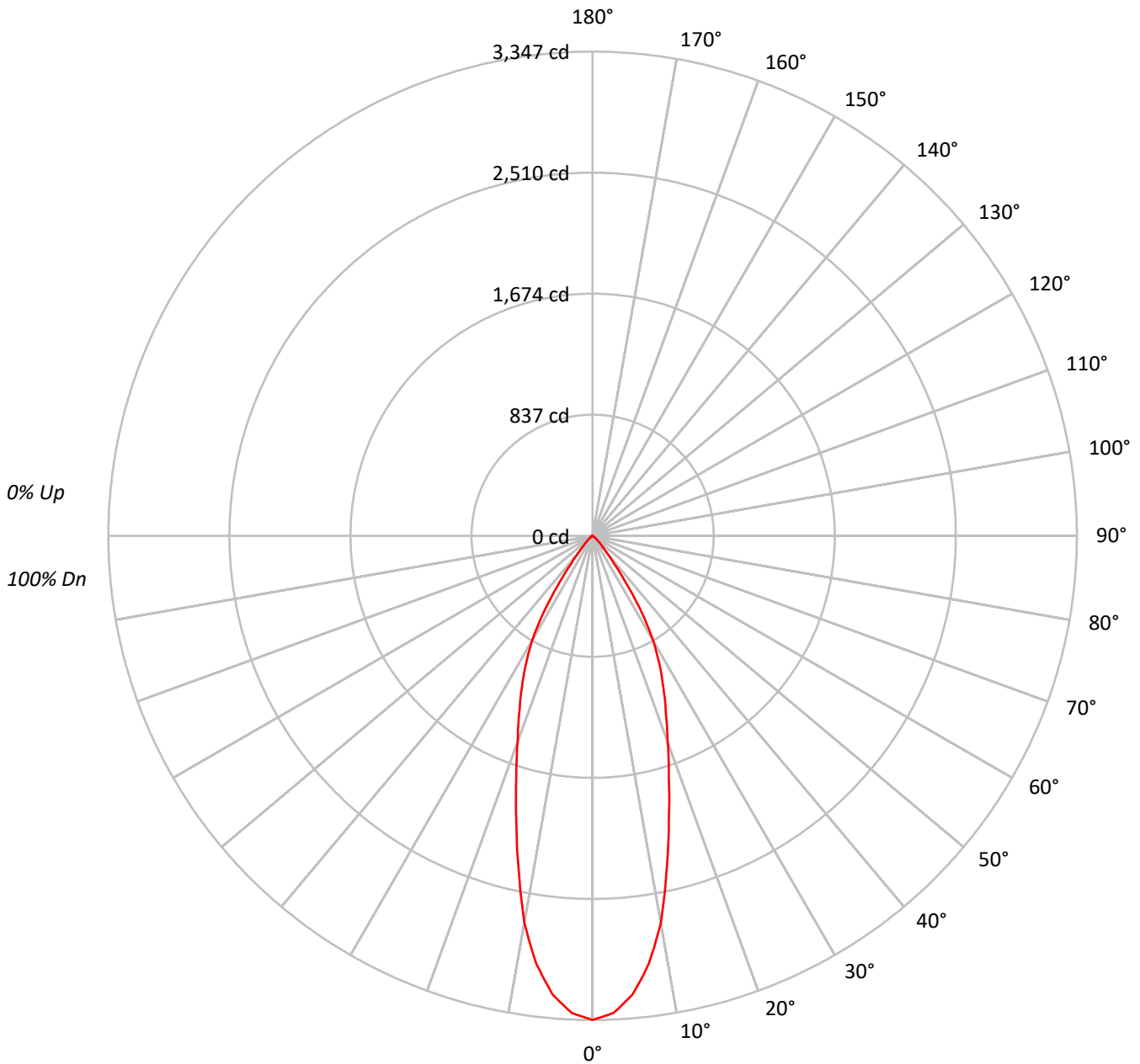
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 114 | 111 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 102 | 100 | 99 | 98 | 97 | 96 | 95 | | | 95 |
| 2 | 109 | 105 | 101 | 98 | 107 | 103 | 100 | 97 | 100 | 97 | 95 | 97 | 95 | 93 | 94 | 92 | 91 | 89 | | | 89 |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 90 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 | | | 84 |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 90 | 86 | 82 | 88 | 84 | 82 | 86 | 83 | 81 | 79 | | | 79 |
| 5 | 95 | 88 | 82 | 78 | 94 | 87 | 82 | 78 | 85 | 81 | 77 | 83 | 80 | 77 | 82 | 79 | 76 | 75 | | | 75 |
| 6 | 91 | 83 | 78 | 74 | 90 | 82 | 77 | 73 | 81 | 76 | 73 | 79 | 76 | 73 | 78 | 75 | 72 | 71 | | | 71 |
| 7 | 87 | 79 | 73 | 70 | 86 | 78 | 73 | 69 | 77 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 68 | 67 | | | 67 |
| 8 | 84 | 75 | 70 | 66 | 82 | 74 | 69 | 66 | 73 | 69 | 65 | 72 | 68 | 65 | 71 | 68 | 65 | 64 | | | 64 |
| 9 | 80 | 71 | 66 | 62 | 79 | 71 | 66 | 62 | 70 | 65 | 62 | 69 | 65 | 62 | 68 | 65 | 62 | 61 | | | 61 |
| 10 | 77 | 68 | 63 | 59 | 76 | 68 | 63 | 59 | 67 | 62 | 59 | 66 | 62 | 59 | 65 | 62 | 59 | 58 | | | 58 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 103215 |
| 5° | 98484 |
| 10° | 85028 |
| 15° | 65017 |
| 20° | 49745 |
| 25° | 39356 |
| 30° | 29728 |
| 35° | 15818 |
| 40° | 6026 |
| 45° | 2891 |
| 50° | 1233 |
| 55° | 516 |
| 60° | 204 |
| 65° | 161 |
| 70° | 99 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 288.8 | 16.7 |
| 10°-20° | 568.6 | 32.9 |
| 20°-30° | 529.5 | 30.6 |
| 30°-40° | 273.2 | 15.8 |
| 40°-50° | 55.7 | 3.2 |
| 50°-60° | 9.5 | 0.5 |
| 60°-70° | 1.9 | 0.1 |
| 70°-80° | 0.4 | 0.0 |
| 80°-90° | 0.0 | 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° | 1386.9 | 80.3 |
| 0°-40° | 1660.1 | 96.1 |
| 0°-60° | 1725.2 | 99.9 |
| 0°-90° | 1727.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1727.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3347 | |
| 5° | 3182 | 289 |
| 15° | 2037 | 569 |
| 25° | 1157 | 529 |
| 35° | 420 | 273 |
| 45° | 66 | 56 |
| 55° | 10 | 9 |
| 65° | 2 | 2 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 3347.2 |
| 2.5° | 3302.3 |
| 5° | 3181.6 |
| 7.5° | 2982.7 |
| 10° | 2715.5 |
| 12.5° | 2364.8 |
| 15° | 2036.6 |
| 17.5° | 1752.2 |
| 20° | 1515.9 |
| 22.5° | 1323.5 |
| 25° | 1156.7 |
| 27.5° | 998.5 |
| 30° | 834.9 |
| 32.5° | 640.3 |
| 35° | 420.2 |
| 37.5° | 243.8 |
| 40° | 149.7 |
| 42.5° | 98.3 |
| 45° | 66.3 |
| 47.5° | 41.7 |
| 50° | 25.7 |
| 52.5° | 14.9 |
| 55° | 9.6 |
| 57.5° | 4.2 |
| 60° | 3.3 |
| 62.5° | 2.2 |
| 65° | 2.2 |
| 67.5° | 1.1 |
| 70° | 1.1 |
| 72.5° | 1.1 |
| 75° | 0.0 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)