

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: P583997

Luminaire Tested: **HC820D010-HM80520830-81WDWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC820D010-HM80520830-81WDWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2384.6 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.14
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

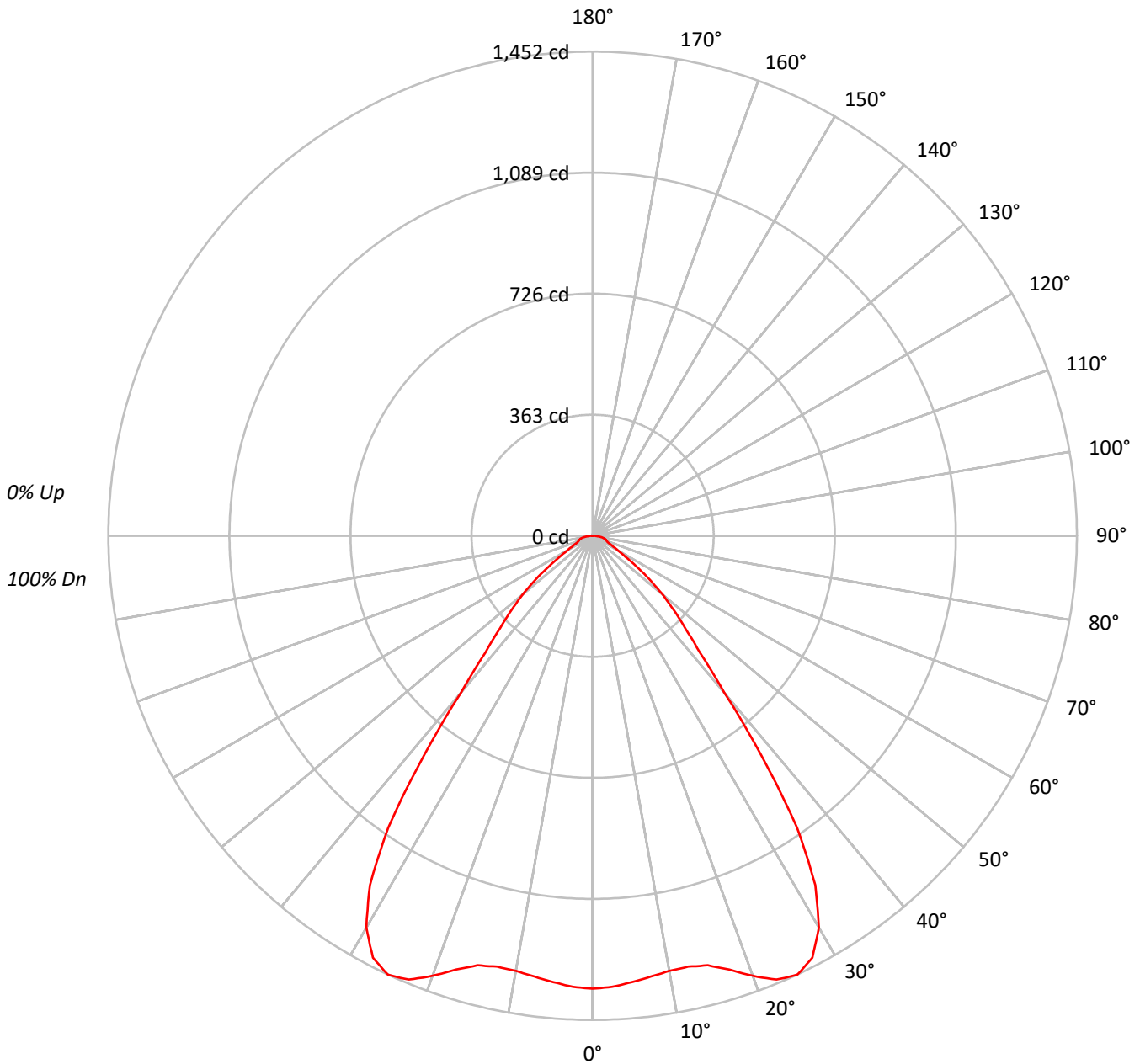
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 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 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | | | | | | |
| | 1 | 112 | 108 | 105 | 103 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 97 | 95 | 95 | 93 | 92 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | | | | | | | | | | | | | | | | |
| | 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 93 | 90 | 86 | 90 | 87 | 84 | 88 | 85 | 83 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | | | | | | | | | | | | | | | | |
| | 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 77 | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | | | | | | | | | | | | | | | | |
| | 4 | 92 | 82 | 75 | 70 | 90 | 81 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | | |
| | 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | | |
| | 6 | 80 | 69 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | | | | | | | | | | | | | | | | |
| | 7 | 75 | 64 | 57 | 52 | 74 | 63 | 57 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 59 | 55 | 51 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | | |
| | 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | | | | | | | | | | | | | | | | |
| | 9 | 67 | 55 | 48 | 43 | 65 | 55 | 48 | 43 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | | | | | | | | | | | | | | | |
| | 10 | 63 | 51 | 45 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 40 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 41879 |
| 5° | 41593 |
| 10° | 41485 |
| 15° | 42571 |
| 20° | 46089 |
| 25° | 49413 |
| 30° | 48308 |
| 35° | 40223 |
| 40° | 24712 |
| 45° | 17112 |
| 50° | 13058 |
| 55° | 8559 |
| 60° | 5359 |
| 65° | 4013 |
| 70° | 4048 |
| 75° | 4658 |
| 80° | 5150 |
| 85° | 4599 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 127.7 | 5.4 |
| 10°-20° | 382.8 | 16.1 |
| 20°-30° | 659.0 | 27.6 |
| 30°-40° | 638.5 | 26.8 |
| 40°-50° | 314.5 | 13.2 |
| 50°-60° | 148.4 | 6.2 |
| 60°-70° | 58.5 | 2.5 |
| 70°-80° | 40.4 | 1.7 |
| 80°-90° | 15.0 | 0.6 |
| 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° | 1169.5 | 49.0 |
| 0°-40° | 1808.0 | 75.8 |
| 0°-60° | 2270.8 | 95.2 |
| 0°-90° | 2384.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2384.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1358 | |
| 5° | 1344 | 128 |
| 15° | 1334 | 383 |
| 25° | 1452 | 659 |
| 35° | 1068 | 638 |
| 45° | 392 | 314 |
| 55° | 159 | 148 |
| 65° | 55 | 58 |
| 75° | 39 | 40 |
| 85° | 13 | 15 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1358.1 |
| 2.5° | 1353.9 |
| 5° | 1343.7 |
| 7.5° | 1333.5 |
| 10° | 1324.9 |
| 12.5° | 1323.4 |
| 15° | 1333.5 |
| 17.5° | 1363.9 |
| 20° | 1404.5 |
| 22.5° | 1440.7 |
| 25° | 1452.3 |
| 27.5° | 1426.2 |
| 30° | 1356.7 |
| 32.5° | 1242.3 |
| 35° | 1068.5 |
| 37.5° | 829.6 |
| 40° | 613.9 |
| 42.5° | 476.3 |
| 45° | 392.4 |
| 47.5° | 330.1 |
| 50° | 272.2 |
| 52.5° | 214.3 |
| 55° | 159.2 |
| 57.5° | 115.8 |
| 60° | 86.9 |
| 62.5° | 68.1 |
| 65° | 55.0 |
| 67.5° | 47.8 |
| 70° | 44.9 |
| 72.5° | 42.0 |
| 75° | 39.1 |
| 77.5° | 34.8 |
| 80° | 29.0 |
| 82.5° | 21.7 |
| 85° | 13.0 |
| 87.5° | 5.8 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)