

Classified
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P579912

Luminaire Tested: **HCC4S15D010MB-HM40525927-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S15D010MB-HM40525927-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

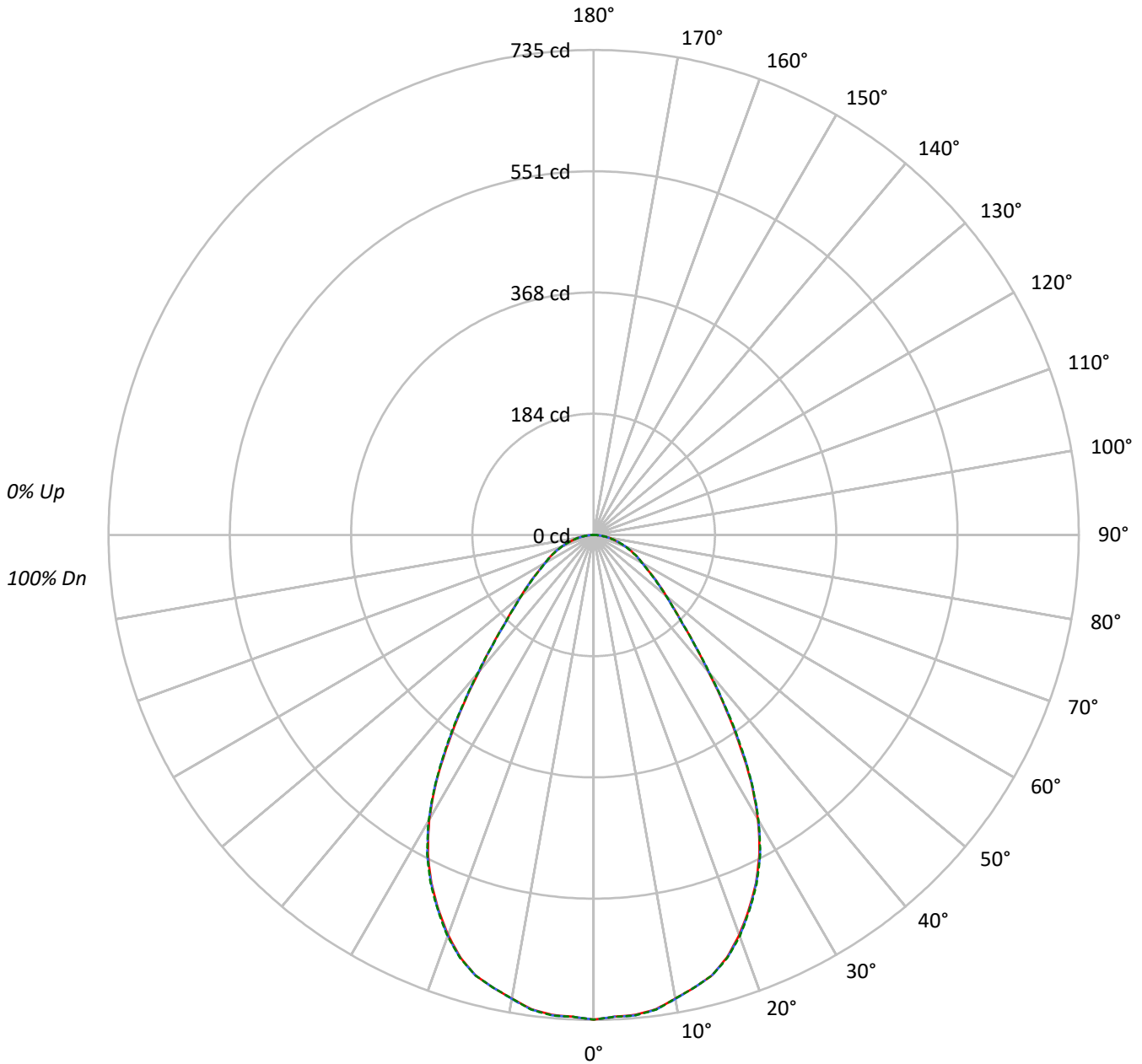
Lumens per Lamp: N/A
Luminaire Lumens: 1133.5 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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 | | | | | | | | | | |
| 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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 89 | | | | | | | | |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 91 | 87 | 84 | 88 | 85 | 82 | 85 | 83 | 80 | 78 | | | | | | | | |
| 3 | 96 | 87 | 81 | 76 | 94 | 86 | 80 | 75 | 83 | 78 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 69 | | | | | | | | |
| 4 | 90 | 80 | 72 | 67 | 87 | 78 | 72 | 66 | 76 | 70 | 66 | 74 | 69 | 65 | 72 | 68 | 64 | 62 | | | | | | | | |
| 5 | 84 | 73 | 65 | 60 | 82 | 72 | 65 | 59 | 70 | 64 | 59 | 68 | 63 | 58 | 66 | 62 | 58 | 56 | | | | | | | | |
| 6 | 78 | 67 | 59 | 54 | 77 | 66 | 59 | 54 | 64 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 53 | 51 | | | | | | | | |
| 7 | 73 | 62 | 54 | 49 | 72 | 61 | 54 | 49 | 60 | 53 | 49 | 58 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | |
| 8 | 69 | 57 | 50 | 45 | 68 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 53 | 48 | 44 | 42 | | | | | | | | |
| 9 | 65 | 53 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | | | | | |
| 10 | 61 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 48 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 90610 | 90610 | 90610 |
| 5° | 90399 | 90498 | 90498 |
| 10° | 89352 | 89440 | 89352 |
| 15° | 88277 | 88277 | 88277 |
| 20° | 84651 | 84861 | 84953 |
| 25° | 79181 | 79290 | 79494 |
| 30° | 70943 | 71171 | 71171 |
| 35° | 57611 | 58063 | 58183 |
| 40° | 43474 | 43716 | 43845 |
| 45° | 33300 | 33160 | 33160 |
| 50° | 27441 | 27287 | 27287 |
| 55° | 23548 | 23397 | 23397 |
| 60° | 21018 | 20821 | 20821 |
| 65° | 19759 | 19759 | 19759 |
| 70° | 18356 | 18356 | 18356 |
| 75° | 16680 | 17014 | 16680 |
| 80° | 15698 | 15130 | 15698 |
| 85° | 12879 | 12879 | 12879 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.2 | 6.1 |
| 10°-20° | 193.7 | 17.1 |
| 20°-30° | 266.2 | 23.5 |
| 30°-40° | 239.3 | 21.1 |
| 40°-50° | 151.2 | 13.3 |
| 50°-60° | 98.7 | 8.7 |
| 60°-70° | 66.9 | 5.9 |
| 70°-80° | 37.6 | 3.3 |
| 80°-90° | 10.6 | 0.9 |
| 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° | 529.1 | 46.7 |
| 0°-40° | 768.4 | 67.8 |
| 0°-60° | 1018.4 | 89.8 |
| 0°-90° | 1133.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1133.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 735 | 735 | 735 | 735 | 735 | |
| 5° | 730 | 730 | 731 | 731 | 731 | 69 |
| 15° | 691 | 691 | 691 | 691 | 691 | 194 |
| 25° | 582 | 583 | 583 | 584 | 584 | 266 |
| 35° | 383 | 384 | 386 | 387 | 386 | 238 |
| 45° | 191 | 190 | 190 | 190 | 190 | 151 |
| 55° | 110 | 110 | 109 | 110 | 109 | 99 |
| 65° | 68 | 68 | 68 | 68 | 68 | 67 |
| 75° | 35 | 36 | 36 | 36 | 35 | 37 |
| 85° | 9 | 9 | 9 | 9 | 9 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 734.6 | 734.6 | 734.6 | 734.6 | 734.6 |
| 2.5° | 730.9 | 730.9 | 730.9 | 730.9 | 730.9 |
| 5° | 730.1 | 730.1 | 730.9 | 730.9 | 730.9 |
| 7.5° | 724.8 | 725.5 | 725.5 | 725.5 | 725.5 |
| 10° | 713.4 | 713.4 | 714.1 | 714.1 | 713.4 |
| 12.5° | 702.8 | 702.8 | 702.8 | 703.5 | 702.8 |
| 15° | 691.3 | 691.3 | 691.3 | 691.3 | 691.3 |
| 17.5° | 671.5 | 672.3 | 672.3 | 672.3 | 672.3 |
| 20° | 644.9 | 646.5 | 646.5 | 647.2 | 647.2 |
| 22.5° | 614.5 | 615.2 | 616.0 | 616.8 | 616.0 |
| 25° | 581.8 | 582.6 | 582.6 | 584.1 | 584.1 |
| 27.5° | 543.8 | 544.5 | 546.1 | 546.1 | 546.1 |
| 30° | 498.1 | 498.9 | 499.7 | 499.7 | 499.7 |
| 32.5° | 444.1 | 444.1 | 445.7 | 446.4 | 445.7 |
| 35° | 382.6 | 384.1 | 385.6 | 387.1 | 386.4 |
| 37.5° | 323.9 | 325.5 | 326.3 | 326.3 | 327.0 |
| 40° | 270.0 | 271.5 | 271.5 | 273.0 | 272.3 |
| 42.5° | 227.4 | 226.6 | 226.6 | 228.2 | 227.4 |
| 45° | 190.9 | 190.1 | 190.1 | 190.1 | 190.1 |
| 47.5° | 164.3 | 163.5 | 163.5 | 163.5 | 163.5 |
| 50° | 143.0 | 142.2 | 142.2 | 142.2 | 142.2 |
| 52.5° | 125.5 | 124.7 | 124.7 | 124.7 | 123.9 |
| 55° | 109.5 | 109.5 | 108.8 | 109.5 | 108.8 |
| 57.5° | 95.1 | 95.1 | 95.1 | 95.1 | 95.1 |
| 60° | 85.2 | 84.4 | 84.4 | 84.4 | 84.4 |
| 62.5° | 76.1 | 76.1 | 76.1 | 76.1 | 76.1 |
| 65° | 67.7 | 67.7 | 67.7 | 67.7 | 67.7 |
| 67.5° | 59.4 | 58.6 | 59.4 | 59.4 | 58.6 |
| 70° | 50.9 | 50.1 | 50.9 | 50.9 | 50.9 |
| 72.5° | 42.6 | 42.6 | 42.6 | 43.3 | 42.6 |
| 75° | 35.0 | 35.7 | 35.7 | 35.7 | 35.0 |
| 77.5° | 28.1 | 28.9 | 28.1 | 28.1 | 28.1 |
| 80° | 22.1 | 21.3 | 21.3 | 21.3 | 22.1 |
| 82.5° | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 |
| 85° | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 |
| 87.5° | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report



— 0°-180° - - 45°-225° - - - - 90°-270°

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