

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: P581077

Luminaire Tested: **HCC4S05D010MB-HM40525930-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581077
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: HCC4S05D010MB-HM40525930-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

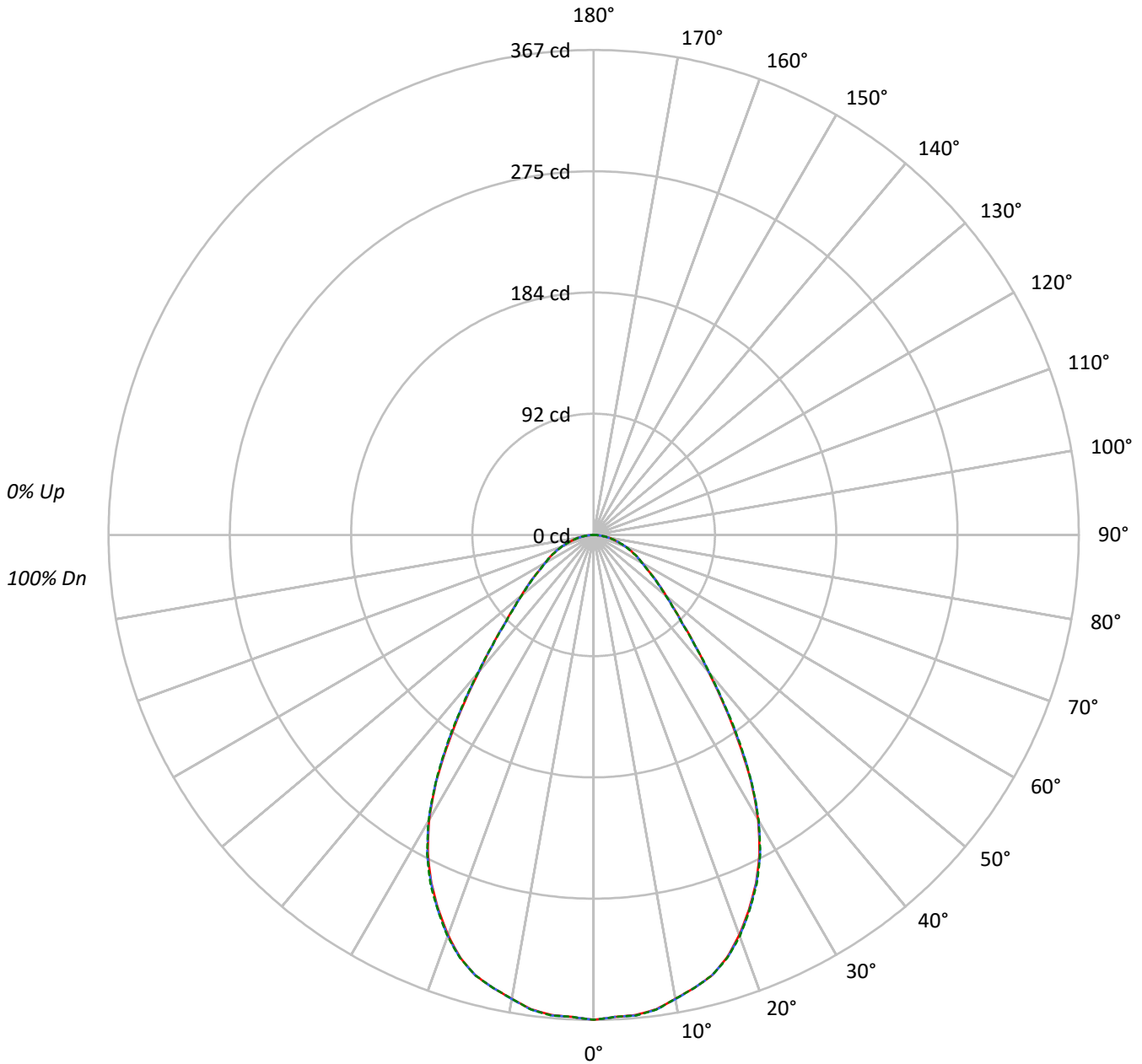
Lumens per Lamp: N/A
Luminaire Lumens: 566.2 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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 | 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° | 45256 | 45256 | 45256 |
| 5° | 45156 | 45206 | 45206 |
| 10° | 44639 | 44676 | 44639 |
| 15° | 44094 | 44094 | 44094 |
| 20° | 42279 | 42384 | 42424 |
| 25° | 39550 | 39604 | 39713 |
| 30° | 35436 | 35550 | 35550 |
| 35° | 28775 | 29001 | 29061 |
| 40° | 21705 | 21834 | 21898 |
| 45° | 16624 | 16572 | 16572 |
| 50° | 13701 | 13644 | 13644 |
| 55° | 11763 | 11699 | 11699 |
| 60° | 10509 | 10410 | 10410 |
| 65° | 9865 | 9865 | 9865 |
| 70° | 9160 | 9160 | 9160 |
| 75° | 8340 | 8483 | 8340 |
| 80° | 7814 | 7600 | 7814 |
| 85° | 6369 | 6369 | 6369 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.6 | 6.1 |
| 10°-20° | 96.8 | 17.1 |
| 20°-30° | 132.9 | 23.5 |
| 30°-40° | 119.6 | 21.1 |
| 40°-50° | 75.6 | 13.3 |
| 50°-60° | 49.3 | 8.7 |
| 60°-70° | 33.4 | 5.9 |
| 70°-80° | 18.8 | 3.3 |
| 80°-90° | 5.3 | 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° | 264.3 | 46.7 |
| 0°-40° | 383.8 | 67.8 |
| 0°-60° | 508.7 | 89.8 |
| 0°-90° | 566.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 566.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 367 | 367 | 367 | 367 | 367 | |
| 5° | 365 | 365 | 365 | 365 | 365 | 35 |
| 15° | 345 | 345 | 345 | 345 | 345 | 97 |
| 25° | 291 | 291 | 291 | 292 | 292 | 133 |
| 35° | 191 | 192 | 193 | 193 | 193 | 119 |
| 45° | 95 | 95 | 95 | 95 | 95 | 76 |
| 55° | 55 | 55 | 54 | 55 | 54 | 49 |
| 65° | 34 | 34 | 34 | 34 | 34 | 33 |
| 75° | 18 | 18 | 18 | 18 | 18 | 19 |
| 85° | 4 | 4 | 4 | 4 | 4 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 |
| 2.5° | 365.1 | 365.1 | 365.1 | 365.1 | 365.1 |
| 5° | 364.7 | 364.7 | 365.1 | 365.1 | 365.1 |
| 7.5° | 362.1 | 362.4 | 362.4 | 362.4 | 362.4 |
| 10° | 356.4 | 356.4 | 356.7 | 356.7 | 356.4 |
| 12.5° | 351.1 | 351.1 | 351.1 | 351.4 | 351.1 |
| 15° | 345.3 | 345.3 | 345.3 | 345.3 | 345.3 |
| 17.5° | 335.4 | 335.8 | 335.8 | 335.8 | 335.8 |
| 20° | 322.1 | 322.9 | 322.9 | 323.2 | 323.2 |
| 22.5° | 306.9 | 307.4 | 307.7 | 308.0 | 307.7 |
| 25° | 290.6 | 291.0 | 291.0 | 291.8 | 291.8 |
| 27.5° | 271.6 | 271.9 | 272.7 | 272.7 | 272.7 |
| 30° | 248.8 | 249.2 | 249.6 | 249.6 | 249.6 |
| 32.5° | 221.9 | 221.9 | 222.6 | 223.0 | 222.6 |
| 35° | 191.1 | 191.8 | 192.6 | 193.4 | 193.0 |
| 37.5° | 161.9 | 162.6 | 163.0 | 163.0 | 163.3 |
| 40° | 134.8 | 135.6 | 135.6 | 136.4 | 136.0 |
| 42.5° | 113.6 | 113.2 | 113.2 | 114.0 | 113.6 |
| 45° | 95.3 | 95.0 | 95.0 | 95.0 | 95.0 |
| 47.5° | 82.1 | 81.7 | 81.7 | 81.7 | 81.7 |
| 50° | 71.4 | 71.1 | 71.1 | 71.1 | 71.1 |
| 52.5° | 62.7 | 62.3 | 62.3 | 62.3 | 62.0 |
| 55° | 54.7 | 54.7 | 54.4 | 54.7 | 54.4 |
| 57.5° | 47.4 | 47.4 | 47.4 | 47.4 | 47.4 |
| 60° | 42.6 | 42.2 | 42.2 | 42.2 | 42.2 |
| 62.5° | 38.0 | 38.0 | 38.0 | 38.0 | 38.0 |
| 65° | 33.8 | 33.8 | 33.8 | 33.8 | 33.8 |
| 67.5° | 29.6 | 29.3 | 29.6 | 29.6 | 29.3 |
| 70° | 25.4 | 25.1 | 25.4 | 25.4 | 25.4 |
| 72.5° | 21.2 | 21.2 | 21.2 | 21.7 | 21.2 |
| 75° | 17.5 | 17.8 | 17.8 | 17.8 | 17.5 |
| 77.5° | 14.1 | 14.4 | 14.1 | 14.1 | 14.1 |
| 80° | 11.0 | 10.7 | 10.7 | 10.7 | 11.0 |
| 82.5° | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| 85° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 87.5° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| 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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— 0°-180° - - 45°-225° - - - - 90°-270°

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