

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: P579733

Luminaire Tested: **HCC4W10D010MB-HM40525835-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4W10D010MB-HM40525835-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

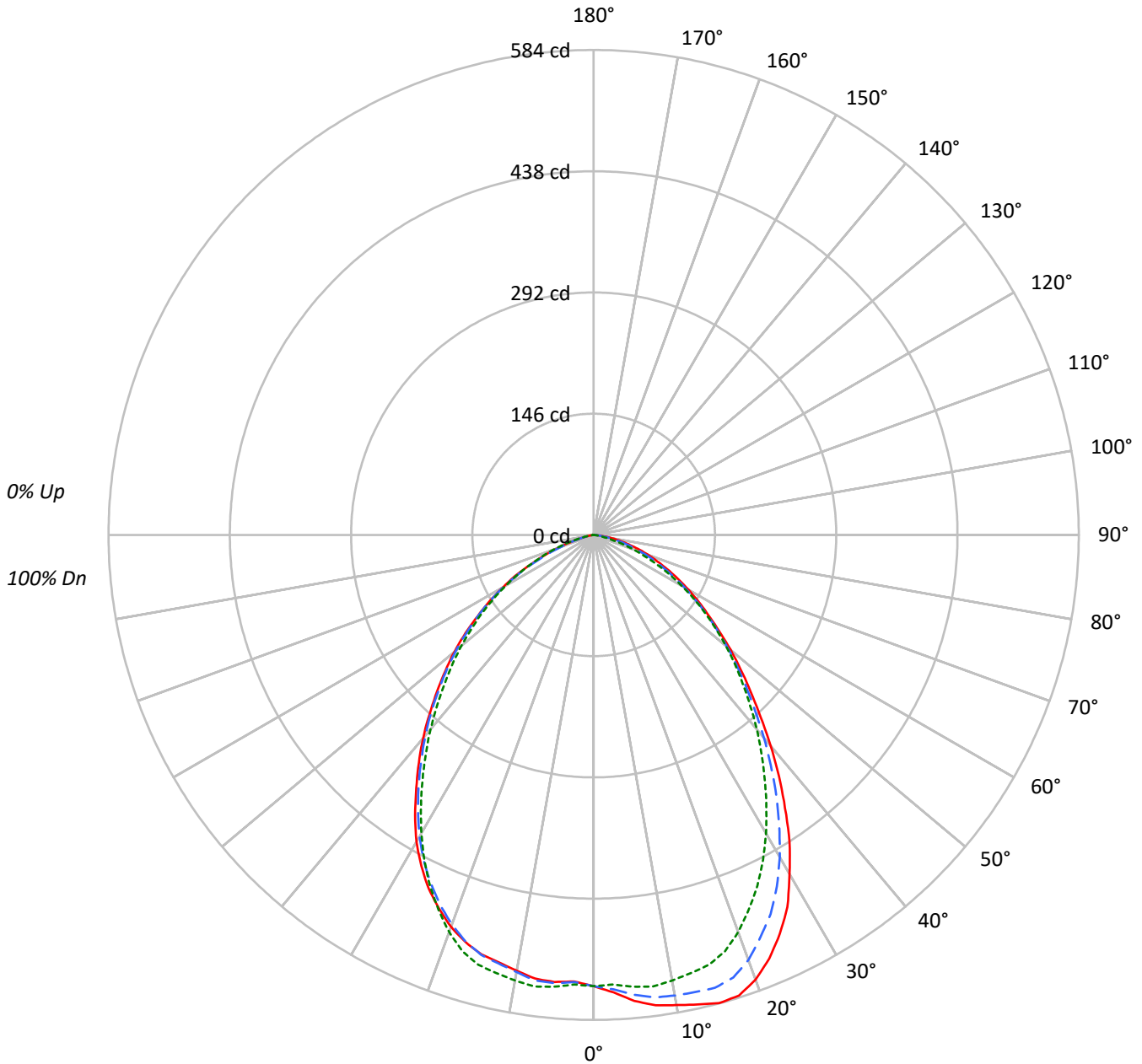
Lumens per Lamp: N/A
Luminaire Lumens: 1132.2 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | | | | | |
| 2 | 102 | 95 | 90 | 85 | 100 | 94 | 88 | 84 | 90 | 86 | 82 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | | | | | |
| 3 | 95 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 67 | | | | | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 76 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | | | | |
| 5 | 81 | 70 | 61 | 56 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 52 | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 74 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 46 | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 49 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 41 | | | | | | | | |
| 8 | 66 | 53 | 45 | 40 | 64 | 53 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | |
| 9 | 62 | 49 | 42 | 36 | 60 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | | | | | | | | |
| 10 | 58 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 31 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 67014 | 67014 | 67014 |
| 5° | 69734 | 67629 | 66911 |
| 10° | 72005 | 68235 | 66757 |
| 15° | 74537 | 68445 | 66760 |
| 20° | 74793 | 66786 | 65920 |
| 25° | 72145 | 63448 | 63952 |
| 30° | 67140 | 59079 | 60759 |
| 35° | 60472 | 54057 | 56045 |
| 40° | 53329 | 49174 | 51429 |
| 45° | 46610 | 44307 | 46487 |
| 50° | 41276 | 39875 | 41986 |
| 55° | 36321 | 35225 | 36644 |
| 60° | 32415 | 30072 | 30960 |
| 65° | 28486 | 24458 | 24020 |
| 70° | 24884 | 18032 | 16409 |
| 75° | 20683 | 10866 | 8721 |
| 80° | 15698 | 4191 | 2557 |
| 85° | 7218 | 991 | 991 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.4 | 4.6 |
| 10°-20° | 152.9 | 13.5 |
| 20°-30° | 221.5 | 19.6 |
| 30°-40° | 233.7 | 20.6 |
| 40°-50° | 202.2 | 17.9 |
| 50°-60° | 149.8 | 13.2 |
| 60°-70° | 86.4 | 7.6 |
| 70°-80° | 30.2 | 2.7 |
| 80°-90° | 3.2 | 0.3 |
| 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° | 426.8 | 37.7 |
| 0°-40° | 660.5 | 58.3 |
| 0°-60° | 1012.5 | 89.4 |
| 0°-90° | 1132.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1132.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 543 | 543 | 543 | 543 | 543 | |
| 5° | 563 | 556 | 546 | 542 | 540 | 54 |
| 15° | 584 | 565 | 536 | 524 | 523 | 164 |
| 25° | 530 | 504 | 466 | 463 | 470 | 243 |
| 35° | 402 | 383 | 359 | 367 | 372 | 251 |
| 45° | 267 | 260 | 254 | 264 | 266 | 207 |
| 55° | 169 | 165 | 164 | 170 | 170 | 152 |
| 65° | 98 | 92 | 84 | 79 | 82 | 98 |
| 75° | 43 | 37 | 23 | 18 | 18 | 47 |
| 85° | 5 | 3 | 1 | 1 | 1 | 8 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0° | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 |
| 2.5° | 551.4 | 549.9 | 547.7 | 544.8 | 541.8 | 539.6 | 539.0 | 538.2 | 538.2 |
| 5° | 563.2 | 560.2 | 555.8 | 549.9 | 546.2 | 544.1 | 541.8 | 540.4 | 540.4 |
| 7.5° | 571.3 | 568.3 | 561.7 | 553.6 | 548.5 | 544.1 | 541.1 | 539.0 | 539.0 |
| 10° | 574.9 | 571.3 | 563.2 | 552.8 | 544.8 | 539.0 | 534.5 | 533.0 | 533.0 |
| 12.5° | 579.2 | 574.9 | 563.9 | 550.7 | 540.4 | 533.0 | 528.6 | 527.1 | 527.1 |
| 15° | 583.7 | 578.6 | 564.6 | 549.2 | 536.0 | 527.1 | 523.5 | 522.8 | 522.8 |
| 17.5° | 581.5 | 574.9 | 558.8 | 540.4 | 525.6 | 516.9 | 513.2 | 513.2 | 513.9 |
| 20° | 569.8 | 563.2 | 544.8 | 524.3 | 508.8 | 502.2 | 499.2 | 500.7 | 502.2 |
| 22.5° | 552.2 | 544.1 | 524.3 | 504.4 | 488.2 | 482.4 | 482.4 | 484.6 | 486.8 |
| 25° | 530.1 | 522.8 | 503.7 | 481.6 | 466.2 | 461.8 | 463.3 | 466.9 | 469.9 |
| 27.5° | 505.2 | 497.1 | 477.3 | 456.7 | 441.3 | 439.0 | 442.7 | 447.9 | 449.4 |
| 30° | 471.4 | 464.8 | 447.9 | 428.0 | 414.8 | 414.1 | 419.2 | 422.9 | 426.6 |
| 32.5° | 439.0 | 431.8 | 415.6 | 396.5 | 386.9 | 387.7 | 393.5 | 398.0 | 400.1 |
| 35° | 401.6 | 395.0 | 383.3 | 367.8 | 359.0 | 360.5 | 367.1 | 371.6 | 372.2 |
| 37.5° | 366.3 | 362.0 | 350.3 | 338.4 | 331.8 | 334.8 | 340.7 | 345.8 | 345.8 |
| 40° | 331.2 | 327.5 | 318.6 | 309.1 | 305.4 | 309.1 | 315.0 | 319.4 | 319.4 |
| 42.5° | 297.4 | 295.2 | 287.8 | 281.2 | 279.0 | 284.2 | 289.3 | 292.9 | 292.2 |
| 45° | 267.2 | 265.0 | 259.9 | 254.8 | 254.0 | 259.1 | 263.6 | 265.8 | 266.5 |
| 47.5° | 240.1 | 238.6 | 234.2 | 230.6 | 230.6 | 235.7 | 239.3 | 241.6 | 242.3 |
| 50° | 215.1 | 213.6 | 210.0 | 207.0 | 207.8 | 212.9 | 215.9 | 218.0 | 218.8 |
| 52.5° | 190.2 | 189.5 | 186.5 | 182.9 | 185.0 | 188.7 | 192.3 | 193.8 | 194.6 |
| 55° | 168.9 | 168.9 | 165.2 | 162.3 | 163.8 | 167.4 | 169.6 | 170.4 | 170.4 |
| 57.5° | 149.8 | 149.1 | 144.6 | 141.7 | 142.5 | 146.1 | 147.6 | 148.3 | 148.3 |
| 60° | 131.4 | 130.6 | 126.3 | 121.9 | 121.9 | 124.0 | 124.8 | 125.5 | 125.5 |
| 62.5° | 113.8 | 113.1 | 107.9 | 104.2 | 102.8 | 102.1 | 102.1 | 103.6 | 106.5 |
| 65° | 97.6 | 97.0 | 91.7 | 85.9 | 83.8 | 81.5 | 79.3 | 80.8 | 82.3 |
| 67.5° | 83.0 | 81.5 | 76.4 | 71.2 | 66.1 | 62.4 | 58.7 | 61.0 | 63.8 |
| 70° | 69.0 | 67.6 | 61.7 | 55.8 | 50.0 | 44.0 | 41.1 | 44.0 | 45.5 |
| 72.5° | 55.8 | 54.3 | 48.5 | 42.6 | 35.3 | 29.4 | 28.7 | 29.4 | 30.2 |
| 75° | 43.4 | 42.6 | 36.8 | 30.2 | 22.8 | 18.3 | 18.3 | 18.3 | 18.3 |
| 77.5° | 32.3 | 30.8 | 24.9 | 19.1 | 13.2 | 10.2 | 9.6 | 9.6 | 9.6 |
| 80° | 22.1 | 20.6 | 15.4 | 11.0 | 5.9 | 4.4 | 4.4 | 3.6 | 3.6 |
| 82.5° | 12.5 | 11.7 | 8.1 | 4.4 | 2.2 | 1.5 | 1.5 | 1.5 | 1.5 |
| 85° | 5.1 | 4.4 | 3.0 | 1.5 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 87.5° | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 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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