

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: P579881

Luminaire Tested: **HCC4W15D010SL-HM40525835-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4W15D010SL-HM40525835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

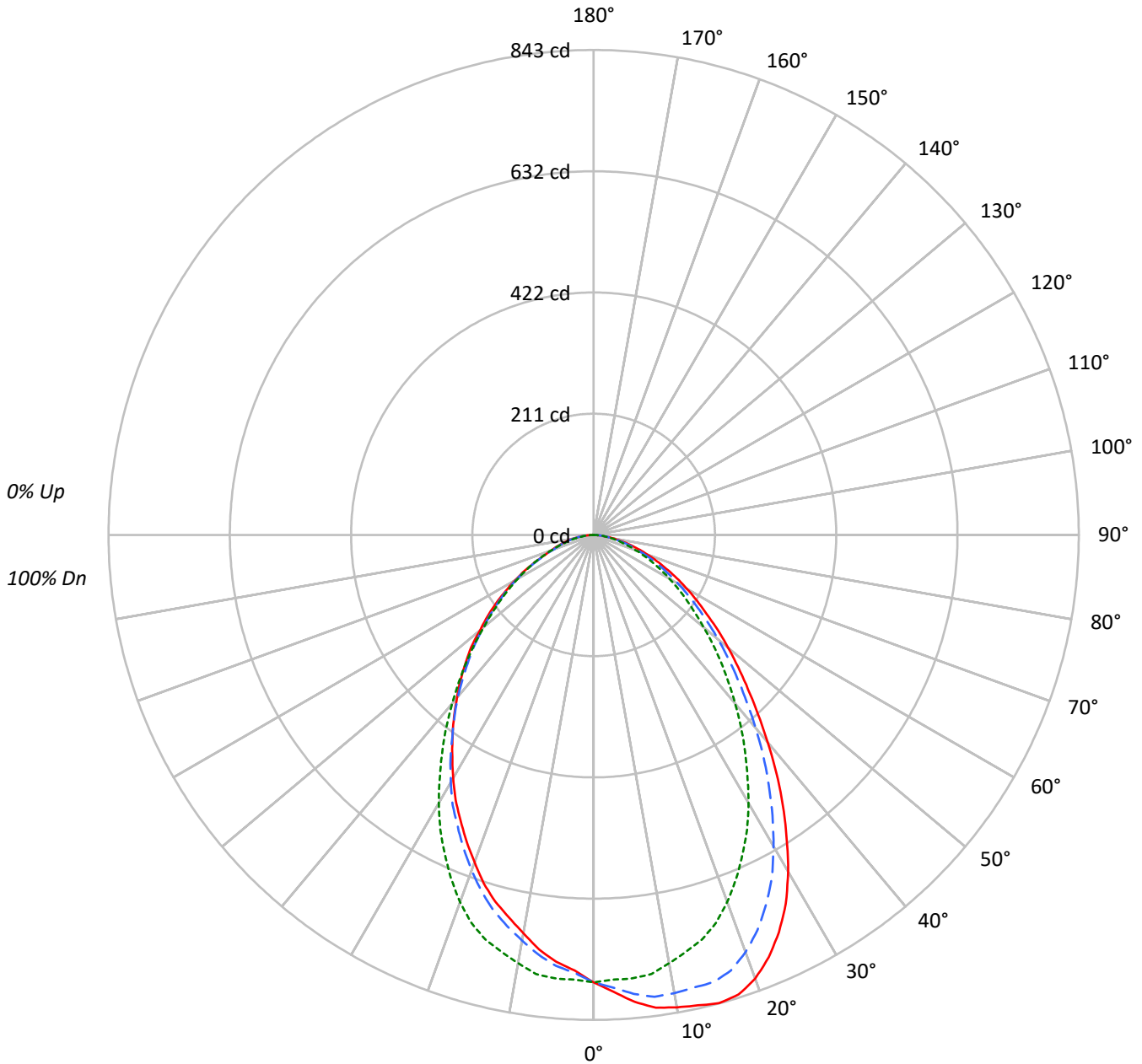
Lumens per Lamp: N/A
Luminaire Lumens: 1508.4 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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 | | | | | 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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 92 | 91 | 89 | 87 | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 87 | 83 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | | | | | | | | |
| 3 | 94 | 85 | 77 | 72 | 92 | 83 | 76 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | | | | |
| 4 | 87 | 76 | 68 | 62 | 85 | 75 | 68 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 60 | 58 | | | | | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 60 | 55 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 51 | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 53 | 48 | 59 | 53 | 48 | 57 | 52 | 47 | 46 | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 43 | 41 | | | | | | | | |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | | | | | | | | |
| 10 | 58 | 45 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 31 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|-------|-------|
| 0° | 95938 | 95938 | 95938 |
| 5° | 100886 | 95809 | 92219 |
| 10° | 104432 | 94675 | 88037 |
| 15° | 107610 | 92950 | 84280 |
| 20° | 107726 | 89114 | 79426 |
| 25° | 103679 | 83291 | 74459 |
| 30° | 96267 | 76640 | 69533 |
| 35° | 86311 | 69010 | 64357 |
| 40° | 75726 | 61573 | 59479 |
| 45° | 66181 | 54529 | 54860 |
| 50° | 58431 | 47723 | 49431 |
| 55° | 51547 | 42300 | 44450 |
| 60° | 46057 | 37448 | 38903 |
| 65° | 40773 | 32922 | 32922 |
| 70° | 35631 | 28094 | 28094 |
| 75° | 30453 | 23781 | 26640 |
| 80° | 24151 | 21239 | 24151 |
| 85° | 15568 | 18398 | 22644 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 73.7 | 4.9 |
| 10°-20° | 207.5 | 13.8 |
| 20°-30° | 290.7 | 19.3 |
| 30°-40° | 299.5 | 19.9 |
| 40°-50° | 255.0 | 16.9 |
| 50°-60° | 189.0 | 12.5 |
| 60°-70° | 118.6 | 7.9 |
| 70°-80° | 58.9 | 3.9 |
| 80°-90° | 15.5 | 1.0 |
| 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° | 572.0 | 37.9 |
| 0°-40° | 871.5 | 57.8 |
| 0°-60° | 1315.5 | 87.2 |
| 0°-90° | 1508.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1508.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 778 | 778 | 778 | 778 | 778 | |
| 5° | 815 | 801 | 774 | 752 | 745 | 78 |
| 15° | 843 | 805 | 728 | 675 | 660 | 237 |
| 25° | 762 | 709 | 612 | 559 | 547 | 348 |
| 35° | 573 | 530 | 458 | 428 | 427 | 357 |
| 45° | 379 | 354 | 313 | 306 | 314 | 294 |
| 55° | 240 | 221 | 197 | 201 | 207 | 217 |
| 65° | 140 | 126 | 113 | 111 | 113 | 139 |
| 75° | 64 | 57 | 50 | 54 | 56 | 68 |
| 85° | 11 | 11 | 13 | 15 | 16 | 14 |
| 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° | 777.8 | 777.8 | 777.8 | 777.8 | 777.8 | 777.8 | 777.8 | 777.8 | 777.8 |
| 2.5° | 794.8 | 791.8 | 787.8 | 780.8 | 773.8 | 767.8 | 761.8 | 758.8 | 757.8 |
| 5° | 814.8 | 808.7 | 800.8 | 787.8 | 773.8 | 761.8 | 751.9 | 746.9 | 744.8 |
| 7.5° | 828.8 | 822.7 | 809.8 | 789.8 | 769.9 | 751.9 | 735.9 | 728.9 | 726.9 |
| 10° | 833.8 | 826.7 | 808.7 | 781.8 | 755.9 | 733.8 | 715.9 | 706.9 | 702.9 |
| 12.5° | 837.7 | 828.8 | 805.8 | 773.8 | 741.9 | 714.9 | 696.0 | 683.9 | 680.9 |
| 15° | 842.7 | 832.7 | 804.8 | 765.8 | 727.9 | 696.0 | 674.9 | 664.0 | 660.0 |
| 17.5° | 837.7 | 826.7 | 793.7 | 749.9 | 706.9 | 672.0 | 649.0 | 639.0 | 635.0 |
| 20° | 820.7 | 808.7 | 771.8 | 724.8 | 678.9 | 643.0 | 620.0 | 610.1 | 605.1 |
| 22.5° | 794.8 | 781.8 | 743.8 | 693.9 | 647.0 | 612.0 | 590.1 | 580.1 | 577.1 |
| 25° | 761.8 | 748.8 | 708.9 | 658.0 | 612.0 | 578.2 | 559.2 | 550.2 | 547.1 |
| 27.5° | 722.9 | 709.9 | 670.9 | 621.0 | 577.1 | 545.2 | 530.2 | 521.2 | 519.2 |
| 30° | 675.9 | 663.0 | 625.0 | 579.1 | 538.1 | 508.2 | 496.2 | 489.3 | 488.2 |
| 32.5° | 624.0 | 613.1 | 578.2 | 536.2 | 497.2 | 472.3 | 463.3 | 458.3 | 457.3 |
| 35° | 573.2 | 561.1 | 530.2 | 492.2 | 458.3 | 436.4 | 428.3 | 427.4 | 427.4 |
| 37.5° | 521.2 | 509.3 | 484.2 | 449.3 | 420.3 | 400.3 | 397.4 | 398.4 | 398.4 |
| 40° | 470.3 | 459.3 | 437.3 | 408.4 | 382.4 | 367.5 | 366.5 | 368.4 | 369.4 |
| 42.5° | 422.4 | 413.4 | 393.4 | 368.4 | 346.4 | 334.5 | 335.5 | 339.5 | 342.5 |
| 45° | 379.4 | 371.5 | 353.5 | 331.4 | 312.6 | 303.6 | 306.5 | 311.5 | 314.5 |
| 47.5° | 340.5 | 333.5 | 316.5 | 296.5 | 280.6 | 274.6 | 278.6 | 284.6 | 288.6 |
| 50° | 304.5 | 298.6 | 282.5 | 261.6 | 248.7 | 244.6 | 249.6 | 255.6 | 257.6 |
| 52.5° | 272.5 | 266.6 | 249.6 | 231.6 | 221.7 | 219.7 | 224.7 | 229.7 | 232.6 |
| 55° | 239.7 | 234.7 | 220.7 | 204.7 | 196.7 | 195.7 | 200.7 | 204.7 | 206.7 |
| 57.5° | 212.6 | 207.7 | 194.7 | 180.7 | 173.7 | 172.7 | 177.7 | 180.7 | 181.7 |
| 60° | 186.7 | 181.7 | 169.8 | 156.8 | 151.8 | 151.8 | 154.7 | 156.8 | 157.7 |
| 62.5° | 162.7 | 157.7 | 146.8 | 135.8 | 131.8 | 131.8 | 131.8 | 132.8 | 135.8 |
| 65° | 139.7 | 135.8 | 125.8 | 115.9 | 112.8 | 110.9 | 110.9 | 110.9 | 112.8 |
| 67.5° | 118.8 | 114.8 | 106.9 | 97.9 | 94.8 | 91.9 | 90.8 | 92.9 | 92.9 |
| 70° | 98.8 | 95.8 | 87.9 | 80.8 | 77.9 | 74.9 | 73.9 | 77.9 | 77.9 |
| 72.5° | 80.8 | 77.9 | 72.9 | 65.9 | 62.9 | 61.9 | 63.9 | 65.9 | 66.9 |
| 75° | 63.9 | 60.9 | 57.0 | 52.9 | 49.9 | 50.9 | 53.9 | 54.9 | 55.9 |
| 77.5° | 48.0 | 47.0 | 43.0 | 39.9 | 39.9 | 40.9 | 43.0 | 44.9 | 45.9 |
| 80° | 34.0 | 33.0 | 30.9 | 29.0 | 29.9 | 31.9 | 33.0 | 34.9 | 34.0 |
| 82.5° | 20.9 | 20.9 | 20.0 | 20.0 | 20.9 | 23.0 | 24.0 | 25.0 | 25.9 |
| 85° | 11.0 | 11.0 | 11.0 | 11.9 | 13.0 | 14.0 | 15.0 | 16.0 | 16.0 |
| 87.5° | 3.0 | 4.0 | 4.0 | 5.0 | 6.0 | 6.0 | 6.9 | 6.9 | 6.9 |
| 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



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

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