

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: P592565

Luminaire Tested: **HCC4S05D010SL-HM40525950-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592565
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: HCC4S05D010SL-HM40525950-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

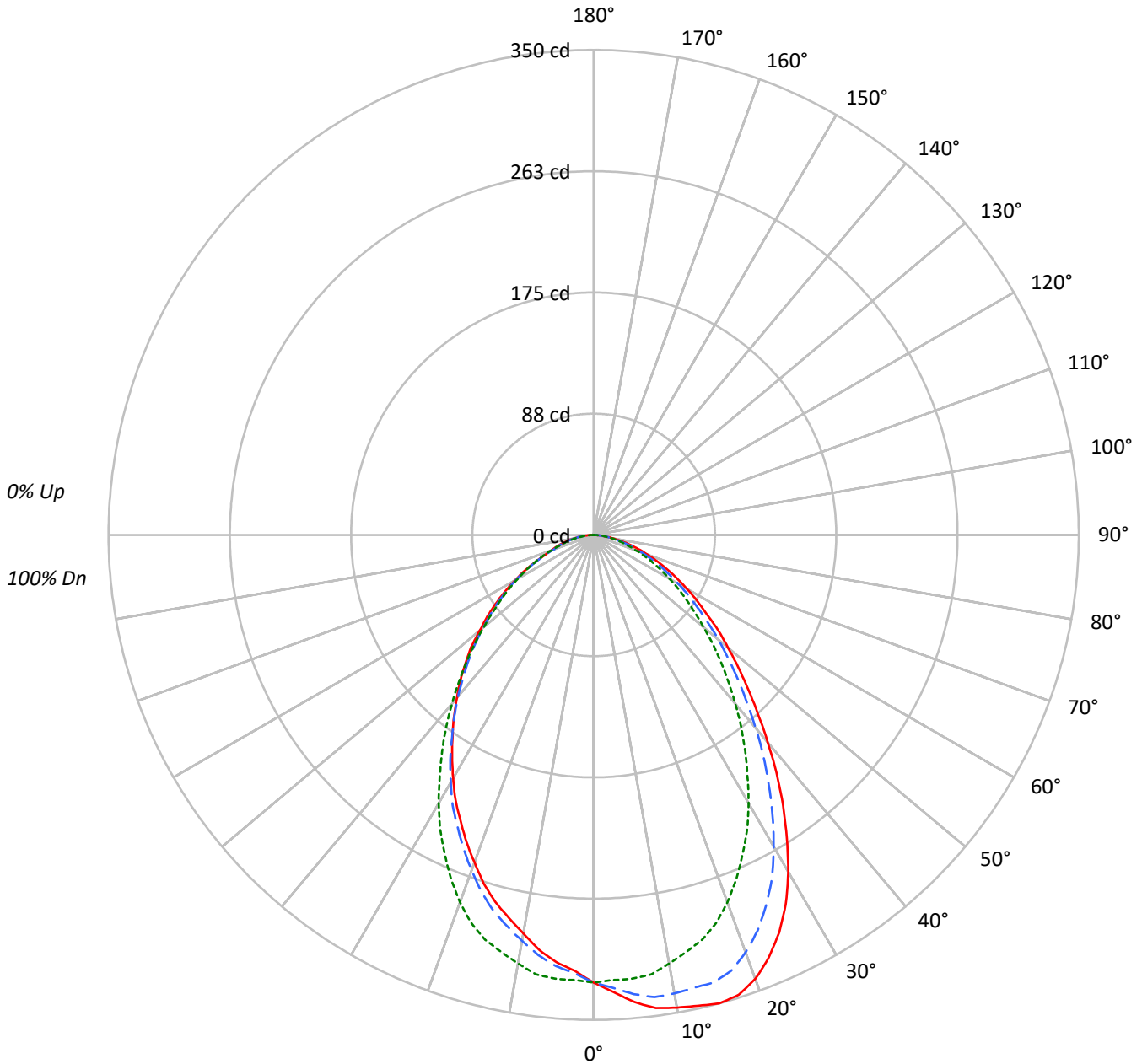
Lumens per Lamp: N/A
Luminaire Lumens: 626.7 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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 | 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 | 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° | 39853 | 39853 | 39853 |
| 5° | 41912 | 39807 | 38321 |
| 10° | 43386 | 39341 | 36573 |
| 15° | 44707 | 38616 | 35014 |
| 20° | 44760 | 37016 | 32999 |
| 25° | 43088 | 34596 | 30935 |
| 30° | 39994 | 31847 | 28884 |
| 35° | 35852 | 28685 | 26727 |
| 40° | 31446 | 25585 | 24716 |
| 45° | 27509 | 22642 | 22781 |
| 50° | 24293 | 19822 | 20532 |
| 55° | 21397 | 17569 | 18472 |
| 60° | 19119 | 15566 | 16158 |
| 65° | 16957 | 13688 | 13688 |
| 70° | 14822 | 11649 | 11649 |
| 75° | 12677 | 9913 | 11104 |
| 80° | 10016 | 8879 | 10016 |
| 85° | 6369 | 7642 | 9341 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 30.6 | 4.9 |
| 10°-20° | 86.2 | 13.8 |
| 20°-30° | 120.8 | 19.3 |
| 30°-40° | 124.5 | 19.9 |
| 40°-50° | 106.0 | 16.9 |
| 50°-60° | 78.5 | 12.5 |
| 60°-70° | 49.3 | 7.9 |
| 70°-80° | 24.5 | 3.9 |
| 80°-90° | 6.4 | 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° | 237.6 | 37.9 |
| 0°-40° | 362.1 | 57.8 |
| 0°-60° | 546.5 | 87.2 |
| 0°-90° | 626.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 626.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 323 | 323 | 323 | 323 | 323 | |
| 5° | 338 | 333 | 322 | 312 | 310 | 33 |
| 15° | 350 | 334 | 302 | 280 | 274 | 98 |
| 25° | 317 | 294 | 254 | 232 | 227 | 145 |
| 35° | 238 | 220 | 190 | 178 | 178 | 148 |
| 45° | 158 | 147 | 130 | 127 | 131 | 122 |
| 55° | 100 | 92 | 82 | 83 | 86 | 90 |
| 65° | 58 | 52 | 47 | 46 | 47 | 58 |
| 75° | 27 | 24 | 21 | 22 | 23 | 28 |
| 85° | 4 | 4 | 5 | 6 | 7 | 6 |
| 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° | 323.1 | 323.1 | 323.1 | 323.1 | 323.1 | 323.1 | 323.1 | 323.1 | 323.1 |
| 2.5° | 330.2 | 328.9 | 327.3 | 324.4 | 321.5 | 319.0 | 316.6 | 315.3 | 314.8 |
| 5° | 338.5 | 336.0 | 332.7 | 327.3 | 321.5 | 316.6 | 312.4 | 310.3 | 309.5 |
| 7.5° | 344.4 | 341.9 | 336.4 | 328.1 | 319.8 | 312.4 | 305.8 | 302.8 | 302.0 |
| 10° | 346.4 | 343.5 | 336.0 | 324.8 | 314.1 | 304.9 | 297.5 | 293.7 | 292.0 |
| 12.5° | 348.0 | 344.4 | 334.7 | 321.5 | 308.3 | 297.0 | 289.1 | 284.2 | 283.0 |
| 15° | 350.1 | 345.9 | 334.4 | 318.1 | 302.4 | 289.1 | 280.5 | 275.8 | 274.2 |
| 17.5° | 348.0 | 343.5 | 329.8 | 311.6 | 293.7 | 279.2 | 269.7 | 265.5 | 263.8 |
| 20° | 341.0 | 336.0 | 320.6 | 301.1 | 282.0 | 267.2 | 257.6 | 253.4 | 251.4 |
| 22.5° | 330.2 | 324.8 | 309.1 | 288.3 | 268.8 | 254.2 | 245.2 | 241.0 | 239.8 |
| 25° | 316.6 | 311.1 | 294.5 | 273.4 | 254.2 | 240.2 | 232.3 | 228.6 | 227.3 |
| 27.5° | 300.3 | 295.0 | 278.8 | 258.0 | 239.8 | 226.5 | 220.3 | 216.6 | 215.8 |
| 30° | 280.8 | 275.5 | 259.7 | 240.6 | 223.6 | 211.1 | 206.1 | 203.3 | 202.8 |
| 32.5° | 259.2 | 254.7 | 240.2 | 222.8 | 206.6 | 196.2 | 192.5 | 190.5 | 190.0 |
| 35° | 238.1 | 233.1 | 220.3 | 204.5 | 190.5 | 181.3 | 178.0 | 177.5 | 177.5 |
| 37.5° | 216.6 | 211.6 | 201.2 | 186.7 | 174.7 | 166.4 | 165.1 | 165.5 | 165.5 |
| 40° | 195.3 | 190.8 | 181.7 | 169.7 | 158.9 | 152.7 | 152.2 | 153.1 | 153.5 |
| 42.5° | 175.5 | 171.7 | 163.4 | 153.1 | 143.9 | 138.9 | 139.4 | 141.1 | 142.3 |
| 45° | 157.7 | 154.4 | 146.9 | 137.7 | 129.8 | 126.1 | 127.3 | 129.4 | 130.6 |
| 47.5° | 141.4 | 138.6 | 131.5 | 123.1 | 116.6 | 114.1 | 115.8 | 118.3 | 119.9 |
| 50° | 126.6 | 124.1 | 117.4 | 108.7 | 103.3 | 101.6 | 103.7 | 106.2 | 107.0 |
| 52.5° | 113.3 | 110.8 | 103.7 | 96.2 | 92.0 | 91.3 | 93.3 | 95.5 | 96.7 |
| 55° | 99.5 | 97.5 | 91.7 | 85.0 | 81.7 | 81.3 | 83.4 | 85.0 | 85.9 |
| 57.5° | 88.3 | 86.3 | 80.9 | 75.1 | 72.2 | 71.7 | 73.9 | 75.1 | 75.5 |
| 60° | 77.5 | 75.5 | 70.5 | 65.1 | 63.1 | 63.1 | 64.4 | 65.1 | 65.5 |
| 62.5° | 67.6 | 65.5 | 60.9 | 56.4 | 54.7 | 54.7 | 54.7 | 55.2 | 56.4 |
| 65° | 58.1 | 56.4 | 52.3 | 48.1 | 46.9 | 46.1 | 46.1 | 46.1 | 46.9 |
| 67.5° | 49.4 | 47.7 | 44.4 | 40.6 | 39.4 | 38.1 | 37.8 | 38.6 | 38.6 |
| 70° | 41.1 | 39.8 | 36.5 | 33.6 | 32.3 | 31.1 | 30.6 | 32.3 | 32.3 |
| 72.5° | 33.6 | 32.3 | 30.3 | 27.4 | 26.1 | 25.8 | 26.6 | 27.4 | 27.8 |
| 75° | 26.6 | 25.3 | 23.6 | 22.0 | 20.8 | 21.1 | 22.4 | 22.8 | 23.3 |
| 77.5° | 19.9 | 19.5 | 17.8 | 16.6 | 16.6 | 17.0 | 17.8 | 18.6 | 19.1 |
| 80° | 14.1 | 13.7 | 12.8 | 12.0 | 12.5 | 13.3 | 13.7 | 14.5 | 14.1 |
| 82.5° | 8.7 | 8.7 | 8.3 | 8.3 | 8.7 | 9.5 | 10.0 | 10.3 | 10.8 |
| 85° | 4.5 | 4.5 | 4.5 | 5.0 | 5.4 | 5.8 | 6.2 | 6.6 | 6.6 |
| 87.5° | 1.2 | 1.7 | 1.7 | 2.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 |
| 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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