

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: P592614

Luminaire Tested: **HCC4S10D010SL-HM40525850-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592614
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: HCC4S10D010SL-HM40525850-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

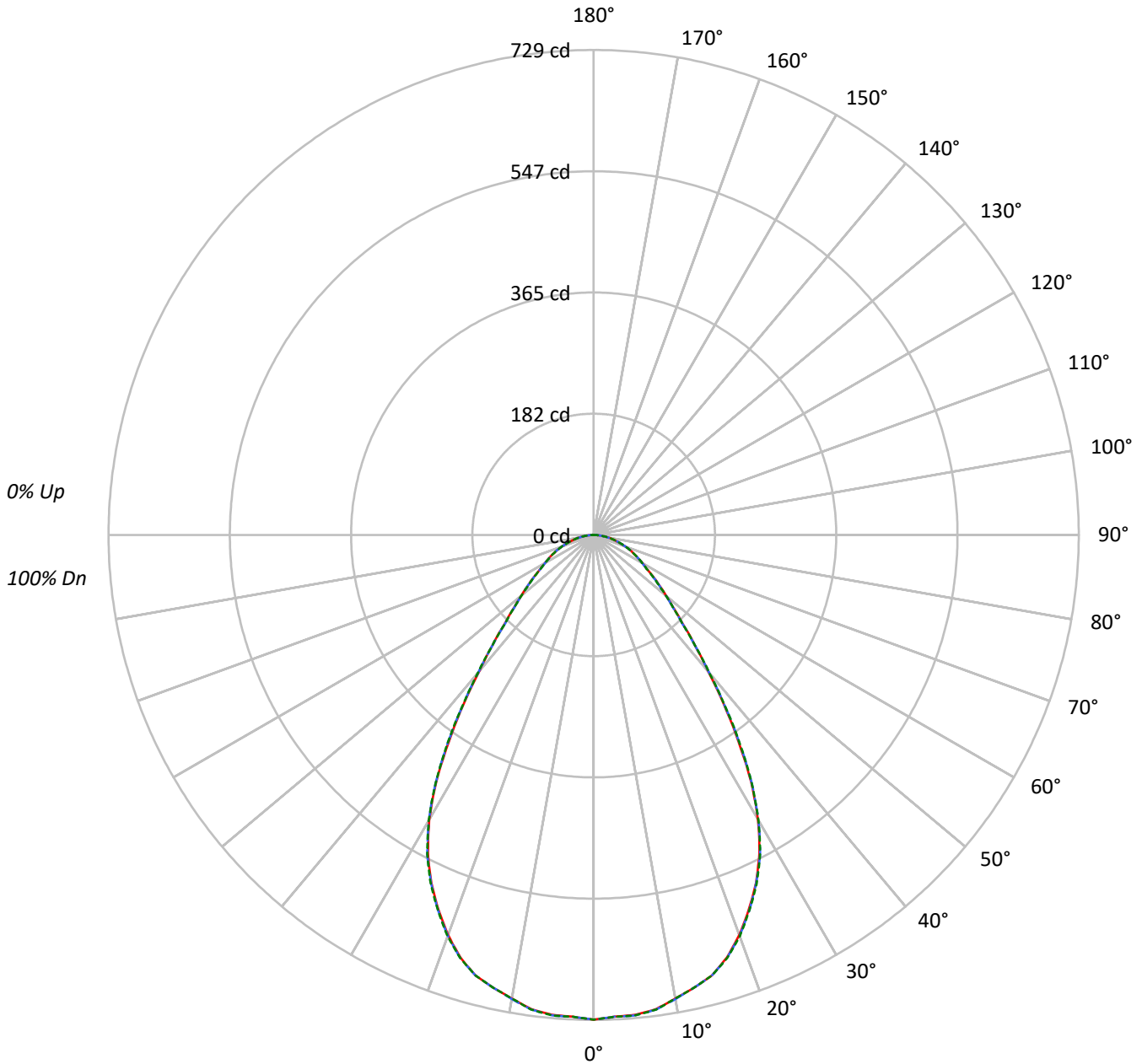
Lumens per Lamp: N/A
Luminaire Lumens: 1124.3 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): 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° | 89882 | 89882 | 89882 |
| 5° | 89656 | 89755 | 89755 |
| 10° | 88613 | 88713 | 88613 |
| 15° | 87549 | 87549 | 87549 |
| 20° | 83968 | 84152 | 84257 |
| 25° | 78541 | 78637 | 78855 |
| 30° | 70373 | 70587 | 70587 |
| 35° | 57129 | 57596 | 57701 |
| 40° | 43120 | 43362 | 43474 |
| 45° | 33038 | 32899 | 32899 |
| 50° | 27210 | 27057 | 27057 |
| 55° | 23354 | 23204 | 23204 |
| 60° | 20821 | 20673 | 20673 |
| 65° | 19584 | 19584 | 19584 |
| 70° | 18212 | 18212 | 18212 |
| 75° | 16537 | 16918 | 16537 |
| 80° | 15485 | 15059 | 15485 |
| 85° | 12879 | 12879 | 12879 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 68.7 | 6.1 |
| 10°-20° | 192.1 | 17.1 |
| 20°-30° | 264.0 | 23.5 |
| 30°-40° | 237.4 | 21.1 |
| 40°-50° | 150.0 | 13.3 |
| 50°-60° | 97.9 | 8.7 |
| 60°-70° | 66.3 | 5.9 |
| 70°-80° | 37.3 | 3.3 |
| 80°-90° | 10.5 | 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° | 524.8 | 46.7 |
| 0°-40° | 762.2 | 67.8 |
| 0°-60° | 1010.1 | 89.8 |
| 0°-90° | 1124.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1124.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 729 | 729 | 729 | 729 | 729 | |
| 5° | 724 | 724 | 725 | 725 | 725 | 69 |
| 15° | 686 | 686 | 686 | 686 | 686 | 192 |
| 25° | 577 | 578 | 578 | 579 | 579 | 263 |
| 35° | 379 | 381 | 382 | 384 | 383 | 236 |
| 45° | 189 | 189 | 189 | 189 | 189 | 150 |
| 55° | 109 | 109 | 108 | 109 | 108 | 98 |
| 65° | 67 | 67 | 67 | 67 | 67 | 66 |
| 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° | 728.7 | 728.7 | 728.7 | 728.7 | 728.7 |
| 2.5° | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 |
| 5° | 724.1 | 724.1 | 724.9 | 724.9 | 724.9 |
| 7.5° | 718.9 | 719.6 | 719.6 | 719.6 | 719.6 |
| 10° | 707.5 | 707.5 | 708.3 | 708.3 | 707.5 |
| 12.5° | 697.0 | 697.0 | 697.0 | 697.7 | 697.0 |
| 15° | 685.6 | 685.6 | 685.6 | 685.6 | 685.6 |
| 17.5° | 666.1 | 666.8 | 666.8 | 666.8 | 666.8 |
| 20° | 639.7 | 641.1 | 641.1 | 641.9 | 641.9 |
| 22.5° | 609.5 | 610.2 | 611.0 | 611.8 | 611.0 |
| 25° | 577.1 | 577.8 | 577.8 | 579.4 | 579.4 |
| 27.5° | 539.3 | 540.1 | 541.6 | 541.6 | 541.6 |
| 30° | 494.1 | 494.8 | 495.6 | 495.6 | 495.6 |
| 32.5° | 440.5 | 440.5 | 442.0 | 442.8 | 442.0 |
| 35° | 379.4 | 380.9 | 382.5 | 384.0 | 383.2 |
| 37.5° | 321.4 | 322.9 | 323.6 | 323.6 | 324.3 |
| 40° | 267.8 | 269.3 | 269.3 | 270.8 | 270.0 |
| 42.5° | 225.6 | 224.8 | 224.8 | 226.2 | 225.6 |
| 45° | 189.4 | 188.6 | 188.6 | 188.6 | 188.6 |
| 47.5° | 163.0 | 162.2 | 162.2 | 162.2 | 162.2 |
| 50° | 141.8 | 141.0 | 141.0 | 141.0 | 141.0 |
| 52.5° | 124.5 | 123.7 | 123.7 | 123.7 | 122.9 |
| 55° | 108.6 | 108.6 | 107.9 | 108.6 | 107.9 |
| 57.5° | 94.3 | 94.3 | 94.3 | 94.3 | 94.3 |
| 60° | 84.4 | 83.8 | 83.8 | 83.8 | 83.8 |
| 62.5° | 75.4 | 75.4 | 75.4 | 75.4 | 75.4 |
| 65° | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 |
| 67.5° | 58.8 | 58.0 | 58.8 | 58.8 | 58.0 |
| 70° | 50.5 | 49.7 | 50.5 | 50.5 | 50.5 |
| 72.5° | 42.2 | 42.2 | 42.2 | 43.0 | 42.2 |
| 75° | 34.7 | 35.5 | 35.5 | 35.5 | 34.7 |
| 77.5° | 27.9 | 28.7 | 27.9 | 27.9 | 27.9 |
| 80° | 21.8 | 21.2 | 21.2 | 21.2 | 21.8 |
| 82.5° | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 |
| 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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