

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: P580669

Luminaire Tested: **HCC4S40D010MW-HM43040940-41WDBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580669
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S40D010MW-HM43040940-41WDBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

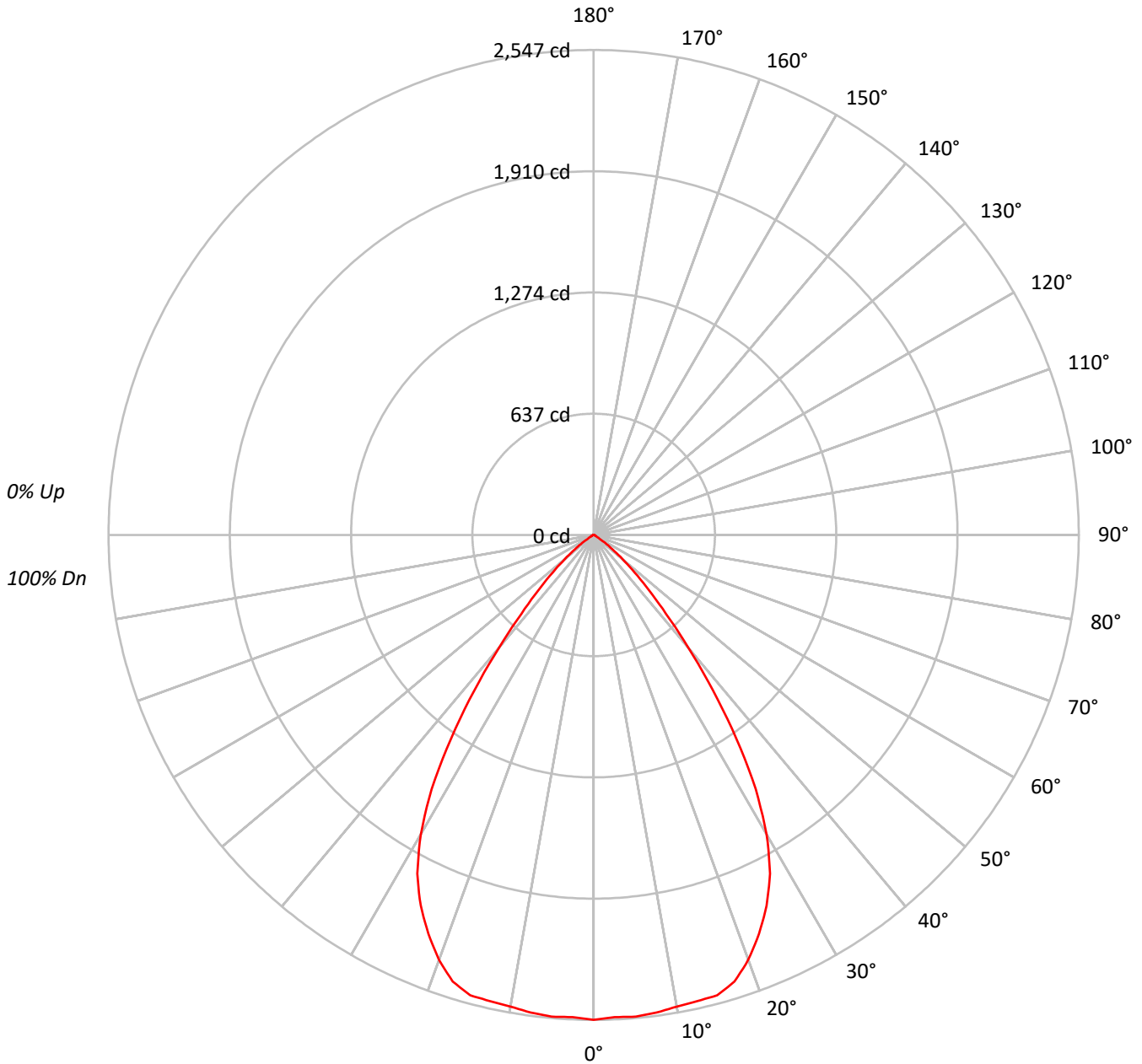
Lumens per Lamp: N/A
Luminaire Lumens: 3150.1 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.03
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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 | 100 | 100 | 100 |
| 1 | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 103 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 94 | 93 | 93 | 93 | 93 |
| 2 | 107 | 102 | 97 | 94 | 105 | 100 | 96 | 93 | 97 | 93 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 | 85 | 85 | 85 |
| 3 | 101 | 94 | 89 | 84 | 99 | 93 | 88 | 84 | 90 | 86 | 82 | 87 | 84 | 81 | 85 | 82 | 80 | 78 | 78 | 78 | 78 |
| 4 | 95 | 87 | 81 | 77 | 93 | 86 | 80 | 76 | 84 | 79 | 75 | 82 | 78 | 74 | 80 | 76 | 73 | 72 | 72 | 72 | 72 |
| 5 | 90 | 81 | 75 | 70 | 88 | 80 | 74 | 70 | 78 | 73 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 66 | 66 | 66 | 66 |
| 6 | 85 | 75 | 69 | 64 | 83 | 74 | 68 | 64 | 73 | 67 | 63 | 71 | 67 | 63 | 70 | 66 | 62 | 61 | 61 | 61 | 61 |
| 7 | 80 | 70 | 64 | 59 | 79 | 69 | 63 | 59 | 68 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | 56 | 56 | 56 |
| 8 | 76 | 65 | 59 | 55 | 74 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 | 52 | 52 | 52 |
| 9 | 72 | 61 | 55 | 51 | 71 | 61 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 50 | 49 | 49 | 49 | 49 |
| 10 | 68 | 58 | 51 | 47 | 67 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 55 | 50 | 47 | 45 | 45 | 45 | 45 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 314149 |
| 5° | 314445 |
| 10° | 315037 |
| 15° | 319651 |
| 20° | 311681 |
| 25° | 292431 |
| 30° | 258662 |
| 35° | 196684 |
| 40° | 123934 |
| 45° | 71153 |
| 50° | 37726 |
| 55° | 15677 |
| 60° | 4194 |
| 65° | 3532 |
| 70° | 2633 |
| 75° | 2288 |
| 80° | 1776 |
| 85° | 3538 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 241.5 | 7.7 |
| 10°-20° | 700.9 | 22.3 |
| 20°-30° | 978.2 | 31.1 |
| 30°-40° | 805.0 | 25.6 |
| 40°-50° | 331.6 | 10.5 |
| 50°-60° | 74.7 | 2.4 |
| 60°-70° | 12.0 | 0.4 |
| 70°-80° | 4.5 | 0.1 |
| 80°-90° | 1.7 | 0.1 |
| 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° | 1920.6 | 61.0 |
| 0°-40° | 2725.6 | 86.5 |
| 0°-60° | 3131.9 | 99.4 |
| 0°-90° | 3150.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3150.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2547 | |
| 5° | 2540 | 242 |
| 15° | 2503 | 701 |
| 25° | 2149 | 978 |
| 35° | 1306 | 805 |
| 45° | 408 | 332 |
| 55° | 73 | 75 |
| 65° | 12 | 12 |
| 75° | 5 | 4 |
| 85° | 2 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2546.9 |
| 2.5° | 2534.7 |
| 5° | 2539.6 |
| 7.5° | 2529.9 |
| 10° | 2515.3 |
| 12.5° | 2508.0 |
| 15° | 2503.2 |
| 17.5° | 2459.5 |
| 20° | 2374.5 |
| 22.5° | 2267.7 |
| 25° | 2148.7 |
| 27.5° | 2005.5 |
| 30° | 1816.1 |
| 32.5° | 1583.0 |
| 35° | 1306.2 |
| 37.5° | 1027.1 |
| 40° | 769.7 |
| 42.5° | 560.8 |
| 45° | 407.9 |
| 47.5° | 291.3 |
| 50° | 196.6 |
| 52.5° | 123.9 |
| 55° | 72.9 |
| 57.5° | 36.4 |
| 60° | 17.0 |
| 62.5° | 14.6 |
| 65° | 12.1 |
| 67.5° | 9.8 |
| 70° | 7.3 |
| 72.5° | 4.8 |
| 75° | 4.8 |
| 77.5° | 2.5 |
| 80° | 2.5 |
| 82.5° | 2.5 |
| 85° | 2.5 |
| 87.5° | 0.0 |
| 90° | 0.0 |

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)