

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: P592829

Luminaire Tested: **HCC4S40D010BZ-HM43040950-41PSMDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592829
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S40D010BZ-HM43040950-41PSMDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

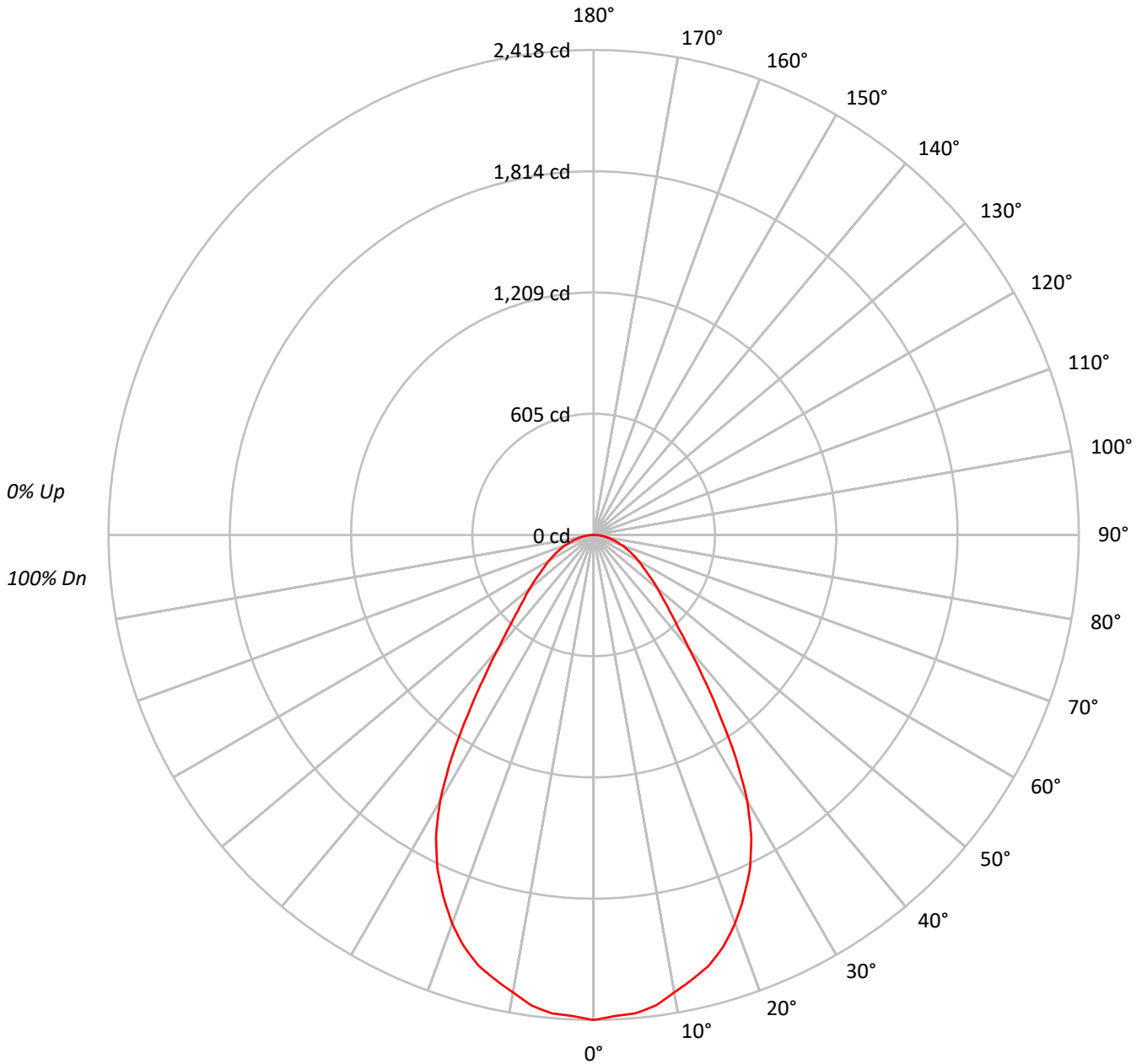
Lumens per Lamp: N/A
Luminaire Lumens: 3434.2 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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 |
| 1 | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 99 | 101 | 99 | 96 | 97 | 95 | 93 | 94 | 92 | 91 | 89 | | | 89 |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 80 | 78 | | | 78 |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 75 | 84 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | 70 |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 66 | 74 | 69 | 65 | 72 | 68 | 65 | 63 | | | 63 |
| 5 | 84 | 74 | 66 | 61 | 82 | 72 | 66 | 60 | 71 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | 57 | | | 57 |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 53 | 52 | | | 52 |
| 7 | 74 | 63 | 55 | 50 | 73 | 62 | 55 | 50 | 61 | 54 | 50 | 59 | 54 | 49 | 58 | 53 | 49 | 47 | | | 47 |
| 8 | 70 | 58 | 51 | 46 | 68 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 45 | 54 | 49 | 45 | 44 | | | 44 |
| 9 | 66 | 54 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 298287 |
| 5° | 296430 |
| 10° | 290113 |
| 15° | 283704 |
| 20° | 270583 |
| 25° | 250486 |
| 30° | 217871 |
| 35° | 164521 |
| 40° | 119233 |
| 45° | 93184 |
| 50° | 79673 |
| 55° | 68922 |
| 60° | 63498 |
| 65° | 58109 |
| 70° | 54312 |
| 75° | 49754 |
| 80° | 46597 |
| 85° | 44721 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 226.1 | 6.6 |
| 10°-20° | 622.3 | 18.1 |
| 20°-30° | 836.8 | 24.4 |
| 30°-40° | 688.1 | 20.0 |
| 40°-50° | 422.6 | 12.3 |
| 50°-60° | 292.5 | 8.5 |
| 60°-70° | 199.4 | 5.8 |
| 70°-80° | 111.1 | 3.2 |
| 80°-90° | 35.3 | 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° | 1685.3 | 49.1 |
| 0°-40° | 2373.3 | 69.1 |
| 0°-60° | 3088.4 | 89.9 |
| 0°-90° | 3434.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3434.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2418 | |
| 5° | 2394 | 226 |
| 15° | 2222 | 622 |
| 25° | 1840 | 837 |
| 35° | 1093 | 688 |
| 45° | 534 | 423 |
| 55° | 320 | 292 |
| 65° | 199 | 199 |
| 75° | 104 | 111 |
| 85° | 32 | 35 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2418.3 |
| 2.5° | 2401.3 |
| 5° | 2394.1 |
| 7.5° | 2367.3 |
| 10° | 2316.3 |
| 12.5° | 2270.2 |
| 15° | 2221.7 |
| 17.5° | 2151.3 |
| 20° | 2061.4 |
| 22.5° | 1954.6 |
| 25° | 1840.5 |
| 27.5° | 1702.0 |
| 30° | 1529.7 |
| 32.5° | 1318.4 |
| 35° | 1092.6 |
| 37.5° | 898.4 |
| 40° | 740.5 |
| 42.5° | 619.1 |
| 45° | 534.2 |
| 47.5° | 468.6 |
| 50° | 415.2 |
| 52.5° | 366.7 |
| 55° | 320.5 |
| 57.5° | 286.5 |
| 60° | 257.4 |
| 62.5° | 228.2 |
| 65° | 199.1 |
| 67.5° | 174.9 |
| 70° | 150.6 |
| 72.5° | 126.2 |
| 75° | 104.4 |
| 77.5° | 82.5 |
| 80° | 65.6 |
| 82.5° | 48.5 |
| 85° | 31.6 |
| 87.5° | 17.0 |
| 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)