

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: P580585

Luminaire Tested: **HCC4S40D010BZ-HM43040835-41MDC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S40D010BZ-HM43040835-41MDC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

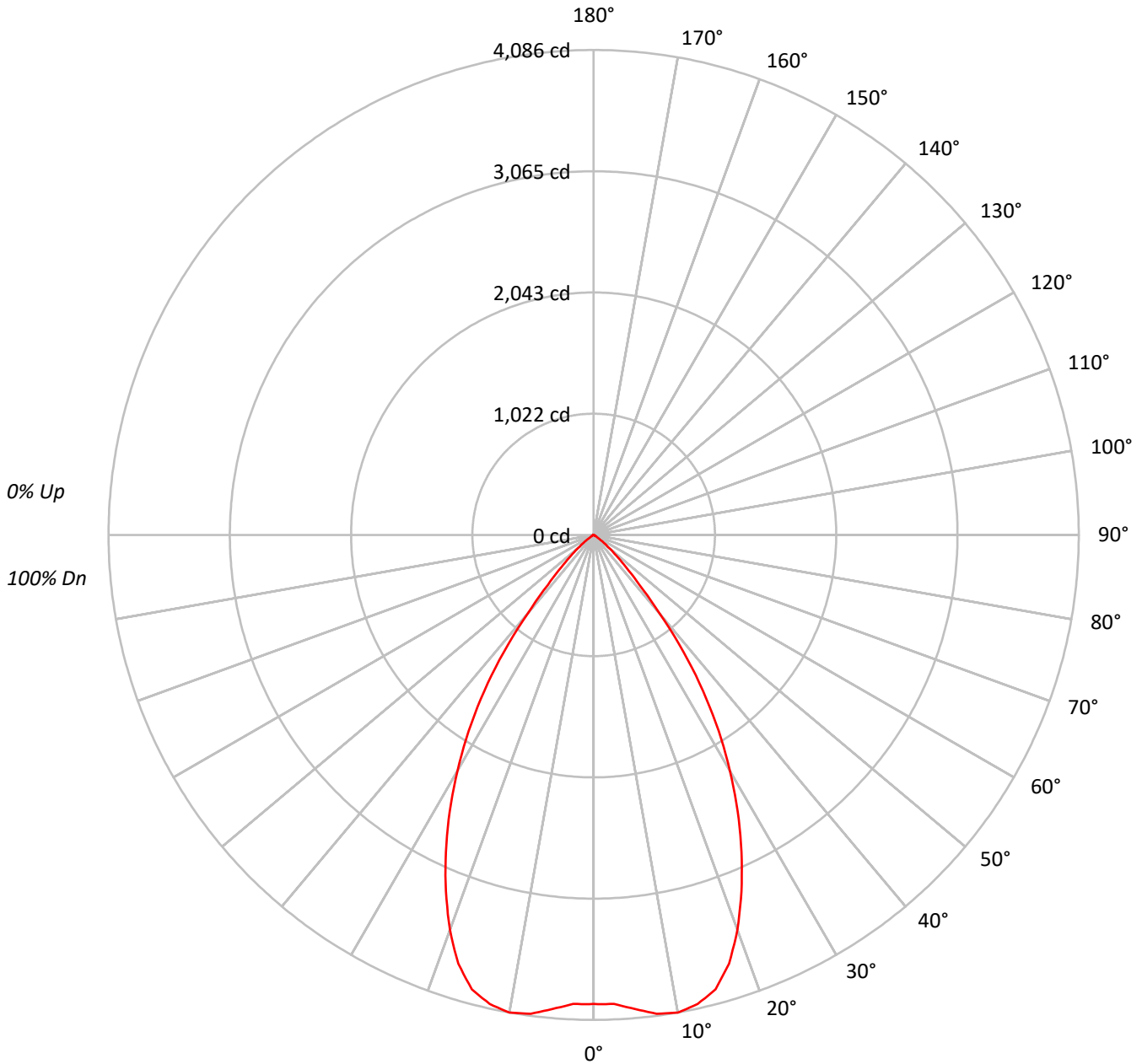
Lumens per Lamp: N/A
Luminaire Lumens: 4209.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 0.96
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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 | 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 | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | 93 | | | |
| 2 | 108 | 103 | 99 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 86 | | | | | 86 | | | |
| 3 | 102 | 95 | 90 | 86 | 100 | 94 | 89 | 86 | 91 | 87 | 84 | 89 | 86 | 83 | 87 | 84 | 82 | 80 | | | | | 80 | | | |
| 4 | 97 | 89 | 83 | 79 | 95 | 88 | 82 | 78 | 86 | 81 | 77 | 84 | 80 | 77 | 82 | 78 | 76 | 74 | | | | | 74 | | | |
| 5 | 91 | 83 | 77 | 72 | 90 | 82 | 76 | 72 | 80 | 75 | 72 | 78 | 74 | 71 | 77 | 73 | 70 | 69 | | | | | 69 | | | |
| 6 | 87 | 78 | 71 | 67 | 85 | 77 | 71 | 67 | 75 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 64 | | | | | 64 | | | |
| 7 | 82 | 73 | 66 | 62 | 81 | 72 | 66 | 62 | 71 | 65 | 62 | 69 | 65 | 61 | 68 | 64 | 61 | 60 | | | | | 60 | | | |
| 8 | 78 | 68 | 62 | 58 | 77 | 68 | 62 | 58 | 67 | 61 | 57 | 65 | 61 | 57 | 65 | 60 | 57 | 56 | | | | | 56 | | | |
| 9 | 74 | 64 | 58 | 54 | 73 | 64 | 58 | 54 | 63 | 57 | 54 | 62 | 57 | 54 | 61 | 57 | 53 | 52 | | | | | 52 | | | |
| 10 | 70 | 61 | 55 | 51 | 69 | 60 | 54 | 51 | 59 | 54 | 50 | 58 | 54 | 50 | 58 | 53 | 50 | 49 | | | | | 49 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 487524 |
| 5° | 496481 |
| 10° | 511790 |
| 15° | 506113 |
| 20° | 464745 |
| 25° | 400941 |
| 30° | 326728 |
| 35° | 241917 |
| 40° | 138780 |
| 45° | 67088 |
| 50° | 31931 |
| 55° | 11139 |
| 60° | 4046 |
| 65° | 2393 |
| 70° | 1984 |
| 75° | 1287 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 385.7 | 9.2 |
| 10°-20° | 1098.8 | 26.1 |
| 20°-30° | 1341.8 | 31.9 |
| 30°-40° | 986.4 | 23.4 |
| 40°-50° | 326.9 | 7.8 |
| 50°-60° | 57.8 | 1.4 |
| 60°-70° | 8.8 | 0.2 |
| 70°-80° | 2.9 | 0.1 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 2826.3 | 67.1 |
| 0°-40° | 3812.7 | 90.6 |
| 0°-60° | 4197.4 | 99.7 |
| 0°-90° | 4209.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4209.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3952 | |
| 5° | 4010 | 386 |
| 15° | 3963 | 1099 |
| 25° | 2946 | 1342 |
| 35° | 1607 | 986 |
| 45° | 385 | 327 |
| 55° | 52 | 58 |
| 65° | 8 | 9 |
| 75° | 3 | 3 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 3952.5 |
| 2.5° | 3955.2 |
| 5° | 4009.8 |
| 7.5° | 4069.8 |
| 10° | 4086.2 |
| 12.5° | 4047.9 |
| 15° | 3963.4 |
| 17.5° | 3788.9 |
| 20° | 3540.6 |
| 22.5° | 3251.5 |
| 25° | 2946.0 |
| 27.5° | 2626.8 |
| 30° | 2294.0 |
| 32.5° | 1961.2 |
| 35° | 1606.6 |
| 37.5° | 1246.6 |
| 40° | 861.9 |
| 42.5° | 570.1 |
| 45° | 384.6 |
| 47.5° | 256.4 |
| 50° | 166.4 |
| 52.5° | 98.2 |
| 55° | 51.8 |
| 57.5° | 21.9 |
| 60° | 16.4 |
| 62.5° | 10.9 |
| 65° | 8.2 |
| 67.5° | 5.5 |
| 70° | 5.5 |
| 72.5° | 2.7 |
| 75° | 2.7 |
| 77.5° | 2.7 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 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)