

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: P580058

Luminaire Tested: **HCC4S20D010MB-HM40525930-41WDWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580058
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S20D010MB-HM40525930-41WDWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

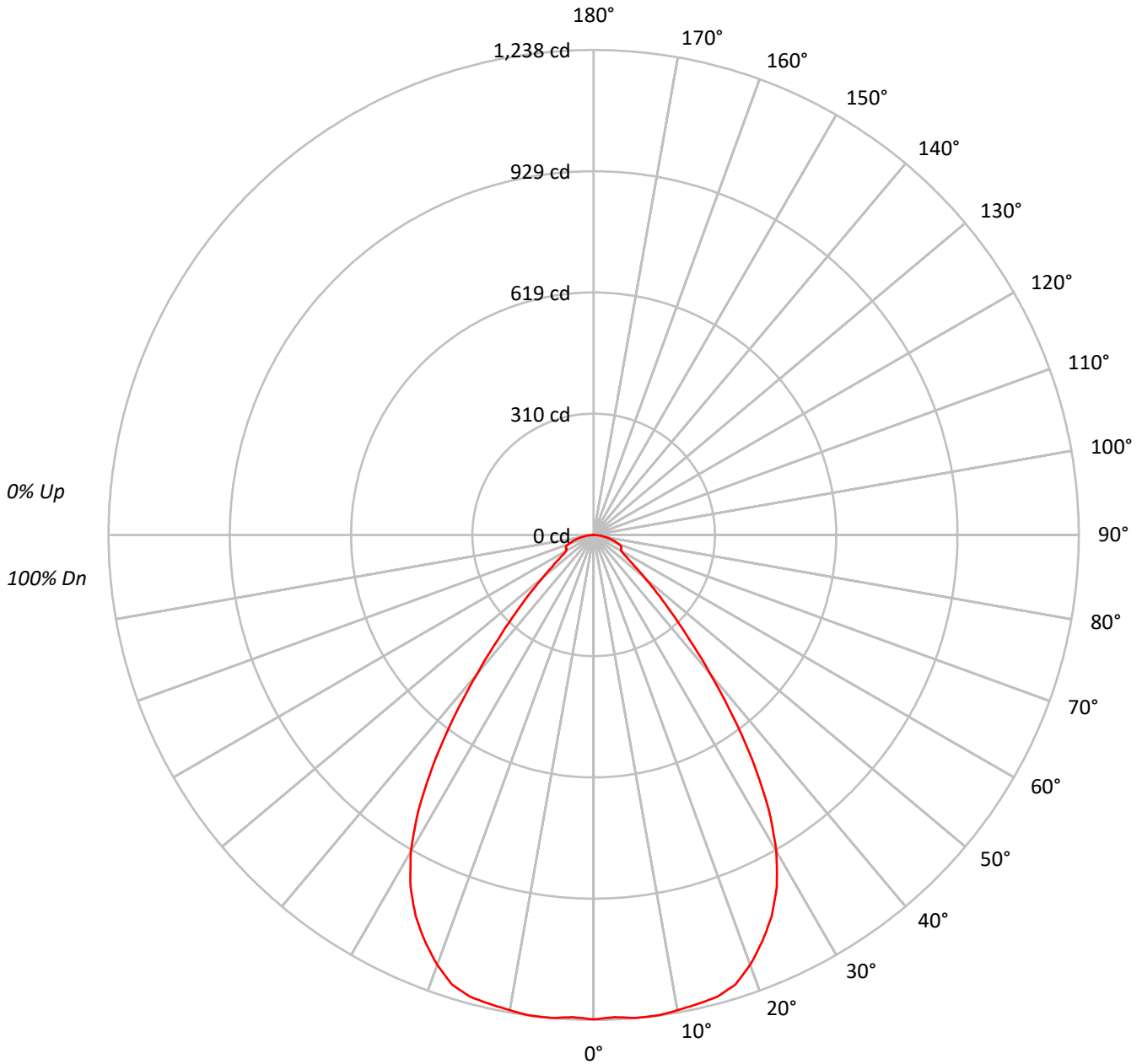
Lumens per Lamp: N/A
Luminaire Lumens: 1857.9 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.14 / 1.07
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 92 | 90 | | |
| 2 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 84 | 82 | 80 | | |
| 3 | 98 | 89 | 83 | 78 | 95 | 88 | 82 | 78 | 85 | 80 | 76 | 83 | 78 | 75 | 80 | 77 | 74 | 72 | | |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 74 | 69 | 78 | 73 | 69 | 76 | 72 | 68 | 74 | 70 | 67 | 65 | | |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 72 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 61 | 59 | | |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 59 | 56 | 54 | | |
| 7 | 76 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 49 | | |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 46 | | |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 | | |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 152529 |
| 5° | 153248 |
| 10° | 154306 |
| 15° | 155854 |
| 20° | 153248 |
| 25° | 146209 |
| 30° | 132828 |
| 35° | 107151 |
| 40° | 74341 |
| 45° | 48807 |
| 50° | 32698 |
| 55° | 23290 |
| 60° | 19883 |
| 65° | 22853 |
| 70° | 24487 |
| 75° | 23638 |
| 80° | 21239 |
| 85° | 19530 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 118.0 | 6.3 |
| 10°-20° | 342.9 | 18.5 |
| 20°-30° | 489.9 | 26.4 |
| 30°-40° | 437.6 | 23.6 |
| 40°-50° | 224.4 | 12.1 |
| 50°-60° | 102.0 | 5.5 |
| 60°-70° | 76.1 | 4.1 |
| 70°-80° | 51.8 | 2.8 |
| 80°-90° | 15.3 | 0.8 |
| 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° | 950.7 | 51.2 |
| 0°-40° | 1388.3 | 74.7 |
| 0°-60° | 1714.8 | 92.3 |
| 0°-90° | 1857.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1857.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1237 | |
| 5° | 1238 | 118 |
| 15° | 1220 | 343 |
| 25° | 1074 | 490 |
| 35° | 712 | 438 |
| 45° | 280 | 224 |
| 55° | 108 | 102 |
| 65° | 78 | 76 |
| 75° | 50 | 52 |
| 85° | 14 | 15 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1236.6 |
| 2.5° | 1232.0 |
| 5° | 1237.7 |
| 7.5° | 1237.7 |
| 10° | 1232.0 |
| 12.5° | 1226.3 |
| 15° | 1220.5 |
| 17.5° | 1203.2 |
| 20° | 1167.5 |
| 22.5° | 1123.8 |
| 25° | 1074.3 |
| 27.5° | 1012.1 |
| 30° | 932.6 |
| 32.5° | 831.3 |
| 35° | 711.6 |
| 37.5° | 583.8 |
| 40° | 461.7 |
| 42.5° | 360.4 |
| 45° | 279.8 |
| 47.5° | 218.7 |
| 50° | 170.4 |
| 52.5° | 133.5 |
| 55° | 108.3 |
| 57.5° | 91.0 |
| 60° | 80.6 |
| 62.5° | 78.3 |
| 65° | 78.3 |
| 67.5° | 76.0 |
| 70° | 67.9 |
| 72.5° | 58.7 |
| 75° | 49.6 |
| 77.5° | 39.1 |
| 80° | 29.9 |
| 82.5° | 21.9 |
| 85° | 13.8 |
| 87.5° | 5.7 |
| 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)