

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: P580537

Luminaire Tested: **HCC4W35D010MW-HM43040940-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580537
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: HCC4W35D010MW-HM43040940-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

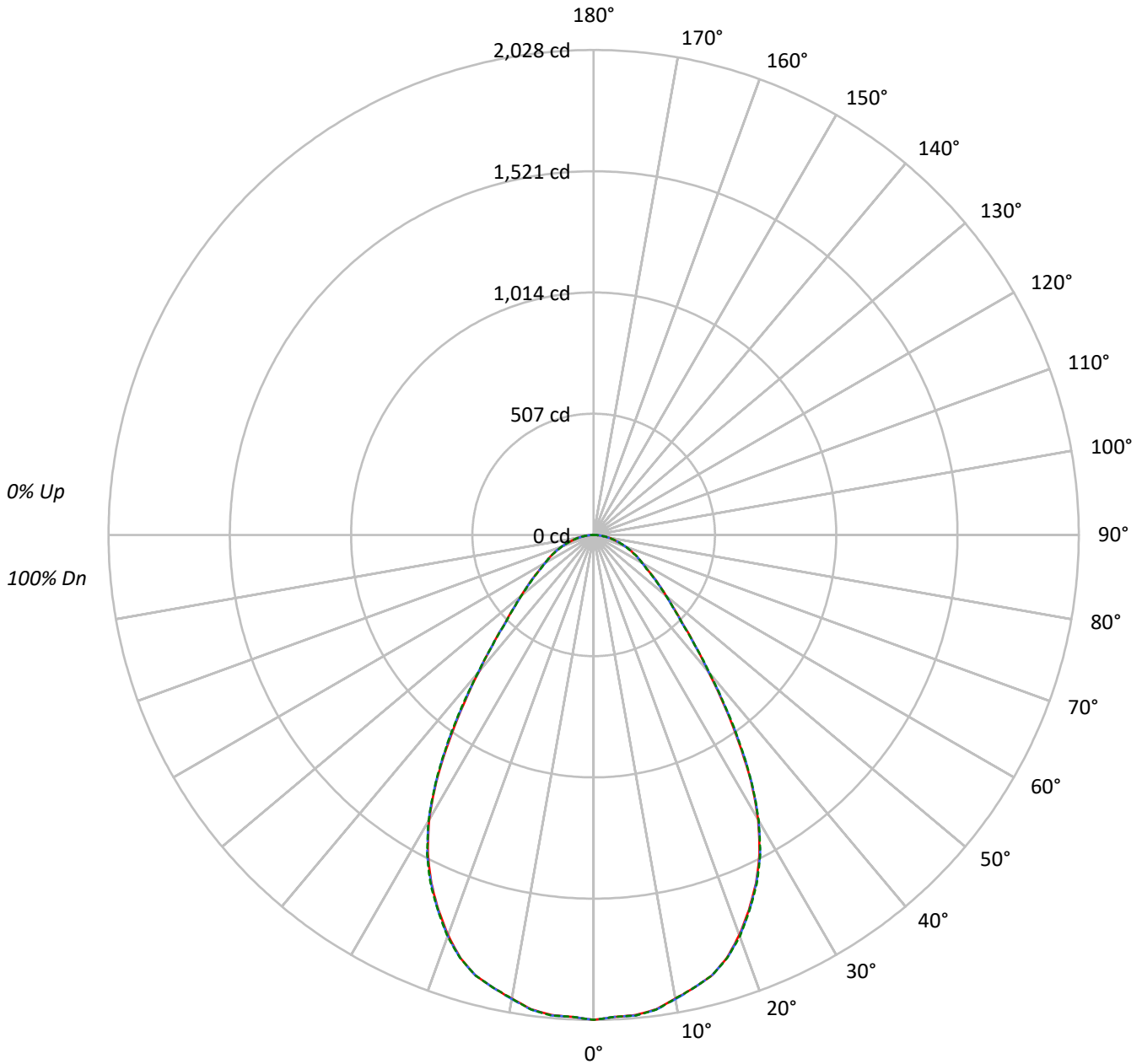
Lumens per Lamp: N/A
Luminaire Lumens: 3128.7 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 33.7
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 | | | | | | | | |
| 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° | 250120 | 250120 | 250120 |
| 5° | 249516 | 249763 | 249763 |
| 10° | 246614 | 246890 | 246614 |
| 15° | 243658 | 243658 | 243658 |
| 20° | 233659 | 234197 | 234486 |
| 25° | 218558 | 218844 | 219415 |
| 30° | 195837 | 196421 | 196421 |
| 35° | 158994 | 160259 | 160560 |
| 40° | 119989 | 120666 | 121004 |
| 45° | 91911 | 91545 | 91545 |
| 50° | 75720 | 75318 | 75318 |
| 55° | 64987 | 64557 | 64557 |
| 60° | 57997 | 57479 | 57479 |
| 65° | 54520 | 54520 | 54520 |
| 70° | 50706 | 50706 | 50706 |
| 75° | 46037 | 47038 | 46037 |
| 80° | 43258 | 41767 | 43258 |
| 85° | 35664 | 35664 | 35664 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 191.1 | 6.1 |
| 10°-20° | 534.6 | 17.1 |
| 20°-30° | 734.7 | 23.5 |
| 30°-40° | 660.6 | 21.1 |
| 40°-50° | 417.4 | 13.3 |
| 50°-60° | 272.5 | 8.7 |
| 60°-70° | 184.6 | 5.9 |
| 70°-80° | 104.0 | 3.3 |
| 80°-90° | 29.2 | 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° | 1460.4 | 46.7 |
| 0°-40° | 2121.0 | 67.8 |
| 0°-60° | 2810.8 | 89.8 |
| 0°-90° | 3128.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3128.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2028 | 2028 | 2028 | 2028 | 2028 | |
| 5° | 2015 | 2015 | 2017 | 2017 | 2017 | 191 |
| 15° | 1908 | 1908 | 1908 | 1908 | 1908 | 534 |
| 25° | 1606 | 1608 | 1608 | 1612 | 1612 | 733 |
| 35° | 1056 | 1060 | 1064 | 1068 | 1066 | 657 |
| 45° | 527 | 525 | 525 | 525 | 525 | 418 |
| 55° | 302 | 302 | 300 | 302 | 300 | 274 |
| 65° | 187 | 187 | 187 | 187 | 187 | 185 |
| 75° | 97 | 99 | 99 | 99 | 97 | 104 |
| 85° | 25 | 25 | 25 | 25 | 25 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2027.8 | 2027.8 | 2027.8 | 2027.8 | 2027.8 |
| 2.5° | 2017.2 | 2017.2 | 2017.2 | 2017.2 | 2017.2 |
| 5° | 2015.2 | 2015.2 | 2017.2 | 2017.2 | 2017.2 |
| 7.5° | 2000.5 | 2002.6 | 2002.6 | 2002.6 | 2002.6 |
| 10° | 1969.0 | 1969.0 | 1971.2 | 1971.2 | 1969.0 |
| 12.5° | 1939.6 | 1939.6 | 1939.6 | 1941.7 | 1939.6 |
| 15° | 1908.1 | 1908.1 | 1908.1 | 1908.1 | 1908.1 |
| 17.5° | 1853.6 | 1855.6 | 1855.6 | 1855.6 | 1855.6 |
| 20° | 1780.1 | 1784.2 | 1784.2 | 1786.4 | 1786.4 |
| 22.5° | 1696.1 | 1698.3 | 1700.3 | 1702.4 | 1700.3 |
| 25° | 1605.9 | 1608.0 | 1608.0 | 1612.2 | 1612.2 |
| 27.5° | 1500.9 | 1503.0 | 1507.2 | 1507.2 | 1507.2 |
| 30° | 1375.0 | 1377.0 | 1379.1 | 1379.1 | 1379.1 |
| 32.5° | 1225.9 | 1225.9 | 1230.1 | 1232.2 | 1230.1 |
| 35° | 1055.9 | 1060.0 | 1064.3 | 1068.5 | 1066.3 |
| 37.5° | 894.3 | 898.4 | 900.5 | 900.5 | 902.7 |
| 40° | 745.2 | 749.4 | 749.4 | 753.6 | 751.5 |
| 42.5° | 627.6 | 625.5 | 625.5 | 629.8 | 627.6 |
| 45° | 526.9 | 524.8 | 524.8 | 524.8 | 524.8 |
| 47.5° | 453.4 | 451.3 | 451.3 | 451.3 | 451.3 |
| 50° | 394.6 | 392.5 | 392.5 | 392.5 | 392.5 |
| 52.5° | 346.4 | 344.3 | 344.3 | 344.3 | 342.1 |
| 55° | 302.2 | 302.2 | 300.2 | 302.2 | 300.2 |
| 57.5° | 262.3 | 262.3 | 262.3 | 262.3 | 262.3 |
| 60° | 235.1 | 233.0 | 233.0 | 233.0 | 233.0 |
| 62.5° | 210.0 | 210.0 | 210.0 | 210.0 | 210.0 |
| 65° | 186.8 | 186.8 | 186.8 | 186.8 | 186.8 |
| 67.5° | 163.8 | 161.6 | 163.8 | 163.8 | 161.6 |
| 70° | 140.6 | 138.6 | 140.6 | 140.6 | 140.6 |
| 72.5° | 117.6 | 117.6 | 117.6 | 119.7 | 117.6 |
| 75° | 96.6 | 98.7 | 98.7 | 98.7 | 96.6 |
| 77.5° | 77.7 | 79.8 | 77.7 | 77.7 | 77.7 |
| 80° | 60.9 | 58.8 | 58.8 | 58.8 | 60.9 |
| 82.5° | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| 85° | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| 87.5° | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 |
| 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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— 0°-180° - - 45°-225° - - - - 90°-270°

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