

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: P592740

Luminaire Tested: **HCC4S30D010MW-HM43040850-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592740
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: HCC4S30D010MW-HM43040850-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

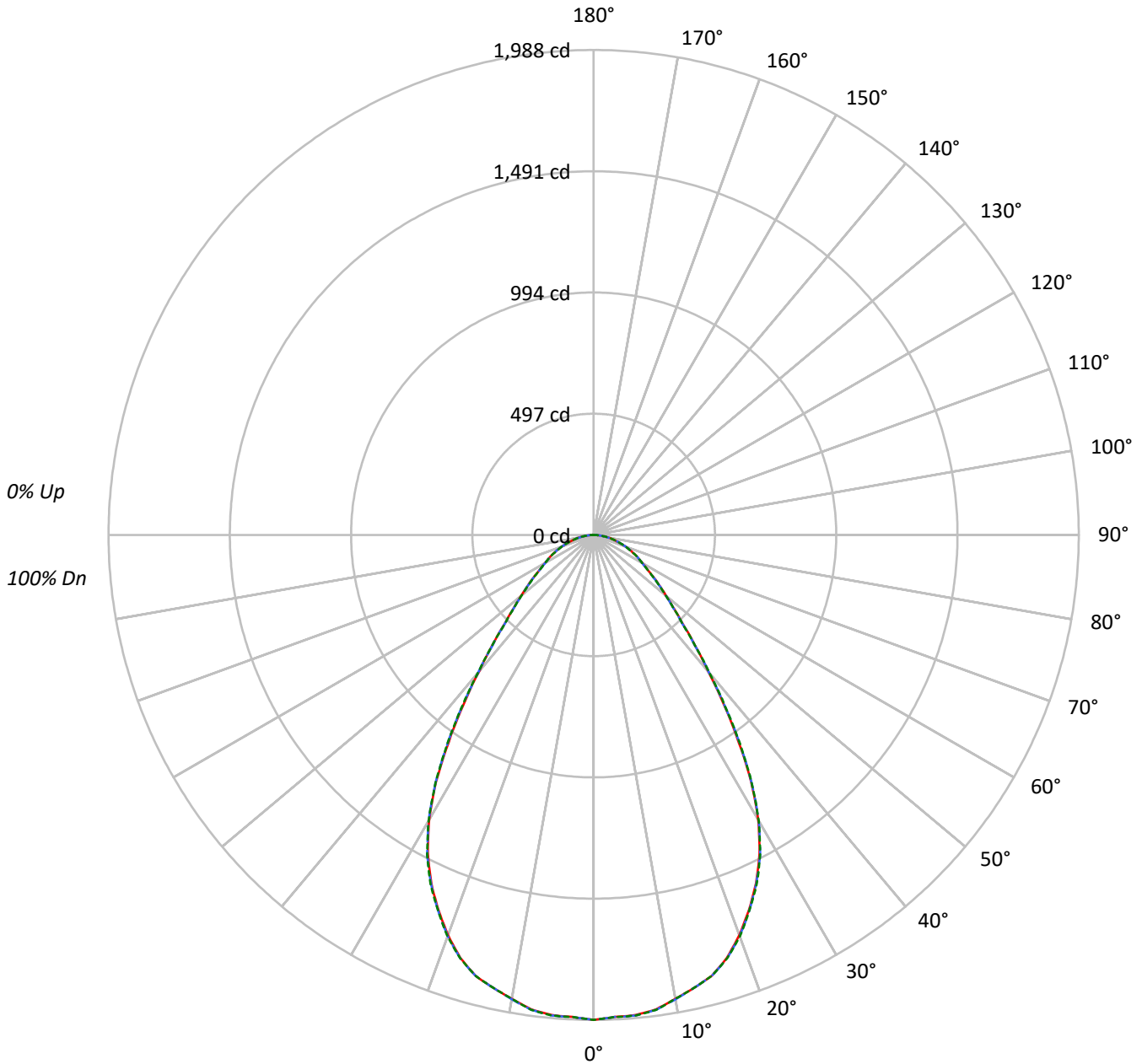
Lumens per Lamp: N/A
Luminaire Lumens: 3067.7 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 28
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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° | 245236 | 245236 | 245236 |
| 5° | 244650 | 244897 | 244897 |
| 10° | 241805 | 242068 | 241805 |
| 15° | 238908 | 238908 | 238908 |
| 20° | 229104 | 229642 | 229918 |
| 25° | 214298 | 214570 | 215128 |
| 30° | 192020 | 192590 | 192590 |
| 35° | 155893 | 157127 | 157428 |
| 40° | 117655 | 118315 | 118637 |
| 45° | 90114 | 89765 | 89765 |
| 50° | 74243 | 73859 | 73859 |
| 55° | 63740 | 63288 | 63288 |
| 60° | 56887 | 56344 | 56344 |
| 65° | 53469 | 53469 | 53469 |
| 70° | 49768 | 49768 | 49768 |
| 75° | 45084 | 46132 | 45084 |
| 80° | 42406 | 40914 | 42406 |
| 85° | 34956 | 34956 | 34956 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 187.3 | 6.1 |
| 10°-20° | 524.2 | 17.1 |
| 20°-30° | 720.4 | 23.5 |
| 30°-40° | 647.7 | 21.1 |
| 40°-50° | 409.3 | 13.3 |
| 50°-60° | 267.2 | 8.7 |
| 60°-70° | 181.0 | 5.9 |
| 70°-80° | 101.9 | 3.3 |
| 80°-90° | 28.6 | 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° | 1431.9 | 46.7 |
| 0°-40° | 2079.6 | 67.8 |
| 0°-60° | 2756.1 | 89.8 |
| 0°-90° | 3067.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3067.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1988 | 1988 | 1988 | 1988 | 1988 | |
| 5° | 1976 | 1976 | 1978 | 1978 | 1978 | 187 |
| 15° | 1871 | 1871 | 1871 | 1871 | 1871 | 524 |
| 25° | 1575 | 1577 | 1577 | 1581 | 1581 | 719 |
| 35° | 1035 | 1040 | 1044 | 1048 | 1046 | 645 |
| 45° | 517 | 515 | 515 | 515 | 515 | 410 |
| 55° | 296 | 296 | 294 | 296 | 294 | 268 |
| 65° | 183 | 183 | 183 | 183 | 183 | 182 |
| 75° | 95 | 97 | 97 | 97 | 95 | 101 |
| 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° | 1988.2 | 1988.2 | 1988.2 | 1988.2 | 1988.2 |
| 2.5° | 1977.9 | 1977.9 | 1977.9 | 1977.9 | 1977.9 |
| 5° | 1975.9 | 1975.9 | 1977.9 | 1977.9 | 1977.9 |
| 7.5° | 1961.5 | 1963.5 | 1963.5 | 1963.5 | 1963.5 |
| 10° | 1930.6 | 1930.6 | 1932.7 | 1932.7 | 1930.6 |
| 12.5° | 1901.8 | 1901.8 | 1901.8 | 1903.8 | 1901.8 |
| 15° | 1870.9 | 1870.9 | 1870.9 | 1870.9 | 1870.9 |
| 17.5° | 1817.4 | 1819.5 | 1819.5 | 1819.5 | 1819.5 |
| 20° | 1745.4 | 1749.5 | 1749.5 | 1751.6 | 1751.6 |
| 22.5° | 1663.0 | 1665.2 | 1667.2 | 1669.2 | 1667.2 |
| 25° | 1574.6 | 1576.6 | 1576.6 | 1580.7 | 1580.7 |
| 27.5° | 1471.6 | 1473.7 | 1477.8 | 1477.8 | 1477.8 |
| 30° | 1348.2 | 1350.2 | 1352.2 | 1352.2 | 1352.2 |
| 32.5° | 1202.0 | 1202.0 | 1206.2 | 1208.2 | 1206.2 |
| 35° | 1035.3 | 1039.5 | 1043.5 | 1047.7 | 1045.5 |
| 37.5° | 876.8 | 881.0 | 883.0 | 883.0 | 885.0 |
| 40° | 730.7 | 734.8 | 734.8 | 739.0 | 736.8 |
| 42.5° | 615.4 | 613.4 | 613.4 | 617.5 | 615.4 |
| 45° | 516.6 | 514.6 | 514.6 | 514.6 | 514.6 |
| 47.5° | 444.5 | 442.5 | 442.5 | 442.5 | 442.5 |
| 50° | 386.9 | 384.9 | 384.9 | 384.9 | 384.9 |
| 52.5° | 339.6 | 337.5 | 337.5 | 337.5 | 335.5 |
| 55° | 296.4 | 296.4 | 294.3 | 296.4 | 294.3 |
| 57.5° | 257.3 | 257.3 | 257.3 | 257.3 | 257.3 |
| 60° | 230.6 | 228.4 | 228.4 | 228.4 | 228.4 |
| 62.5° | 205.9 | 205.9 | 205.9 | 205.9 | 205.9 |
| 65° | 183.2 | 183.2 | 183.2 | 183.2 | 183.2 |
| 67.5° | 160.5 | 158.5 | 160.5 | 160.5 | 158.5 |
| 70° | 138.0 | 135.8 | 138.0 | 138.0 | 138.0 |
| 72.5° | 115.3 | 115.3 | 115.3 | 117.3 | 115.3 |
| 75° | 94.6 | 96.8 | 96.8 | 96.8 | 94.6 |
| 77.5° | 76.1 | 78.2 | 76.1 | 76.1 | 76.1 |
| 80° | 59.7 | 57.6 | 57.6 | 57.6 | 59.7 |
| 82.5° | 41.2 | 41.2 | 41.2 | 41.2 | 41.2 |
| 85° | 24.7 | 24.7 | 24.7 | 24.7 | 24.7 |
| 87.5° | 10.3 | 10.3 | 10.3 | 10.3 | 10.3 |
| 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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