

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: P580195

Luminaire Tested: **HCC4S25D010MW-HM40525927-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580195
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: HCC4S25D010MW-HM40525927-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

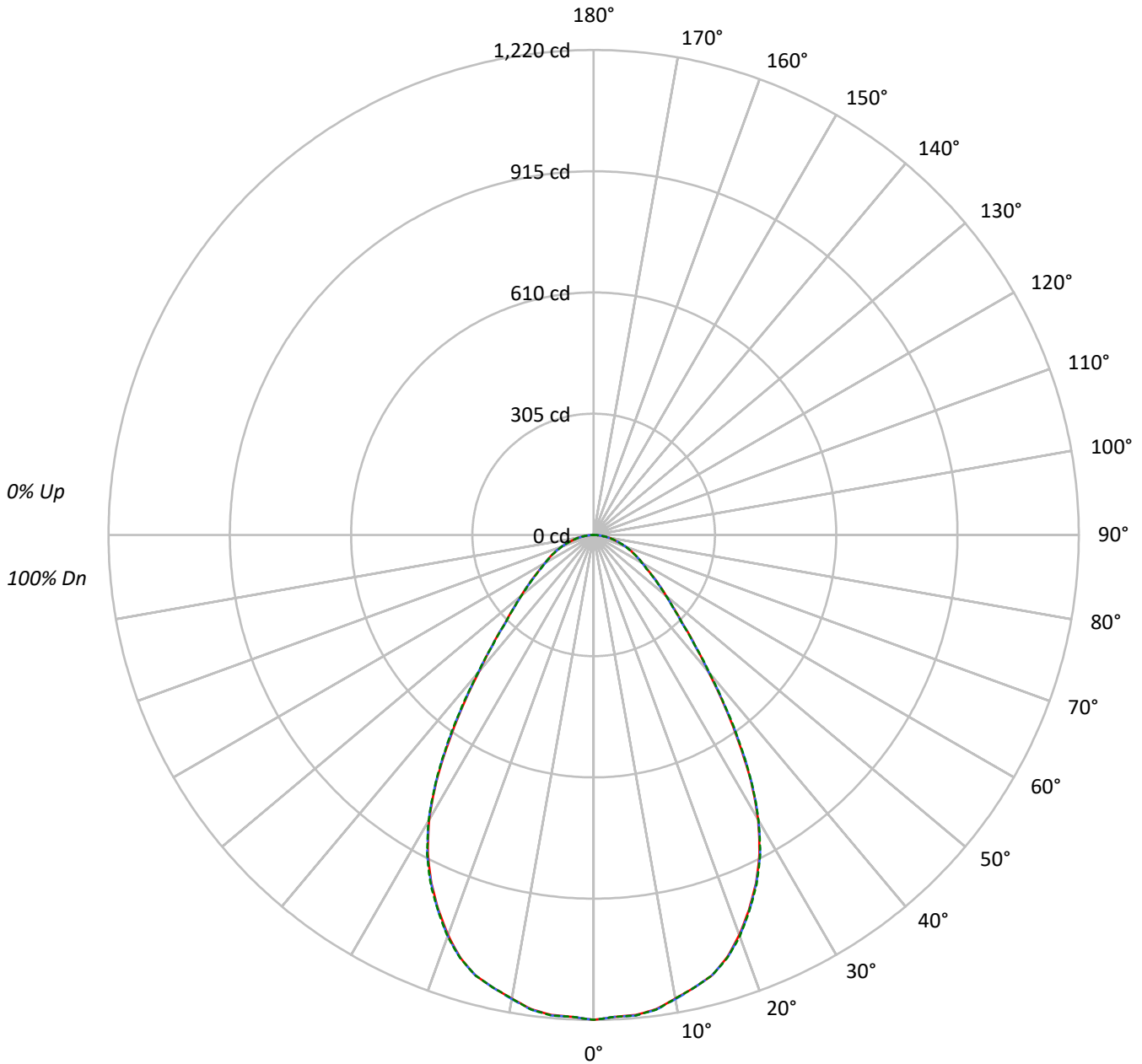
Lumens per Lamp: N/A
Luminaire Lumens: 1881.9 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 26.8
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 | | | | | 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° | 150457 | 150457 | 150457 |
| 5° | 150091 | 150239 | 150239 |
| 10° | 148344 | 148507 | 148344 |
| 15° | 146558 | 146558 | 146558 |
| 20° | 140542 | 140883 | 141054 |
| 25° | 131470 | 131633 | 131973 |
| 30° | 117802 | 118158 | 118158 |
| 35° | 95647 | 96384 | 96595 |
| 40° | 72167 | 72586 | 72795 |
| 45° | 55279 | 55070 | 55070 |
| 50° | 45555 | 45306 | 45306 |
| 55° | 39117 | 38816 | 38816 |
| 60° | 34907 | 34561 | 34561 |
| 65° | 32776 | 32776 | 32776 |
| 70° | 30510 | 30510 | 30510 |
| 75° | 27641 | 28308 | 27641 |
| 80° | 25998 | 25074 | 25998 |
| 85° | 21370 | 21370 | 21370 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.9 | 6.1 |
| 10°-20° | 321.6 | 17.1 |
| 20°-30° | 441.9 | 23.5 |
| 30°-40° | 397.4 | 21.1 |
| 40°-50° | 251.1 | 13.3 |
| 50°-60° | 163.9 | 8.7 |
| 60°-70° | 111.0 | 5.9 |
| 70°-80° | 62.5 | 3.3 |
| 80°-90° | 17.5 | 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° | 878.5 | 46.7 |
| 0°-40° | 1275.8 | 67.8 |
| 0°-60° | 1690.8 | 89.8 |
| 0°-90° | 1881.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1881.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1220 | 1220 | 1220 | 1220 | 1220 | |
| 5° | 1212 | 1212 | 1213 | 1213 | 1213 | 115 |
| 15° | 1148 | 1148 | 1148 | 1148 | 1148 | 321 |
| 25° | 966 | 967 | 967 | 970 | 970 | 441 |
| 35° | 635 | 638 | 640 | 643 | 642 | 395 |
| 45° | 317 | 316 | 316 | 316 | 316 | 251 |
| 55° | 182 | 182 | 180 | 182 | 180 | 165 |
| 65° | 112 | 112 | 112 | 112 | 112 | 111 |
| 75° | 58 | 59 | 59 | 59 | 58 | 62 |
| 85° | 15 | 15 | 15 | 15 | 15 | 18 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1219.8 | 1219.8 | 1219.8 | 1219.8 | 1219.8 |
| 2.5° | 1213.4 | 1213.4 | 1213.4 | 1213.4 | 1213.4 |
| 5° | 1212.2 | 1212.2 | 1213.4 | 1213.4 | 1213.4 |
| 7.5° | 1203.3 | 1204.6 | 1204.6 | 1204.6 | 1204.6 |
| 10° | 1184.4 | 1184.4 | 1185.7 | 1185.7 | 1184.4 |
| 12.5° | 1166.7 | 1166.7 | 1166.7 | 1168.0 | 1166.7 |
| 15° | 1147.7 | 1147.7 | 1147.7 | 1147.7 | 1147.7 |
| 17.5° | 1115.0 | 1116.2 | 1116.2 | 1116.2 | 1116.2 |
| 20° | 1070.7 | 1073.3 | 1073.3 | 1074.6 | 1074.6 |
| 22.5° | 1020.3 | 1021.5 | 1022.8 | 1024.0 | 1022.8 |
| 25° | 966.0 | 967.2 | 967.2 | 969.7 | 969.7 |
| 27.5° | 902.9 | 904.1 | 906.6 | 906.6 | 906.6 |
| 30° | 827.1 | 828.3 | 829.6 | 829.6 | 829.6 |
| 32.5° | 737.5 | 737.5 | 739.9 | 741.2 | 739.9 |
| 35° | 635.2 | 637.7 | 640.1 | 642.7 | 641.5 |
| 37.5° | 537.9 | 540.5 | 541.7 | 541.7 | 542.9 |
| 40° | 448.2 | 450.8 | 450.8 | 453.3 | 452.1 |
| 42.5° | 377.5 | 376.3 | 376.3 | 378.8 | 377.5 |
| 45° | 316.9 | 315.7 | 315.7 | 315.7 | 315.7 |
| 47.5° | 272.8 | 271.5 | 271.5 | 271.5 | 271.5 |
| 50° | 237.4 | 236.1 | 236.1 | 236.1 | 236.1 |
| 52.5° | 208.3 | 207.1 | 207.1 | 207.1 | 205.8 |
| 55° | 181.9 | 181.9 | 180.5 | 181.9 | 180.5 |
| 57.5° | 157.8 | 157.8 | 157.8 | 157.8 | 157.8 |
| 60° | 141.5 | 140.1 | 140.1 | 140.1 | 140.1 |
| 62.5° | 126.2 | 126.2 | 126.2 | 126.2 | 126.2 |
| 65° | 112.3 | 112.3 | 112.3 | 112.3 | 112.3 |
| 67.5° | 98.4 | 97.2 | 98.4 | 98.4 | 97.2 |
| 70° | 84.6 | 83.3 | 84.6 | 84.6 | 84.6 |
| 72.5° | 70.7 | 70.7 | 70.7 | 71.9 | 70.7 |
| 75° | 58.0 | 59.4 | 59.4 | 59.4 | 58.0 |
| 77.5° | 46.7 | 48.0 | 46.7 | 46.7 | 46.7 |
| 80° | 36.6 | 35.3 | 35.3 | 35.3 | 36.6 |
| 82.5° | 25.3 | 25.3 | 25.3 | 25.3 | 25.3 |
| 85° | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 |
| 87.5° | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |
| 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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