

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: P580123

Luminaire Tested: **HCC4S25D010MW-HM40525827-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580123
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-HM40525827-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

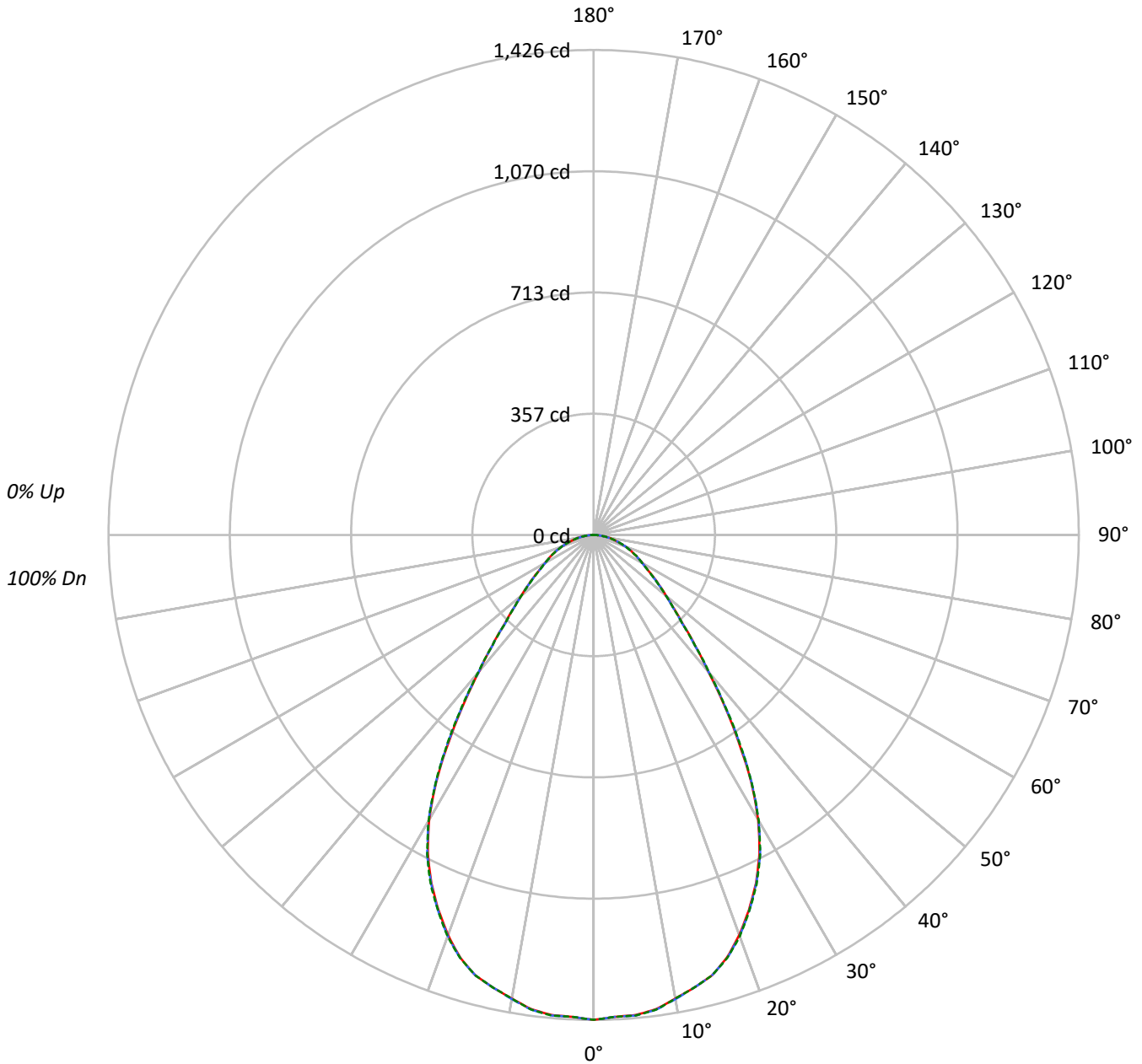
Lumens per Lamp: N/A
Luminaire Lumens: 2199.7 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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 | | | | | 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° | 175854 | 175854 | 175854 |
| 5° | 175436 | 175622 | 175622 |
| 10° | 173394 | 173569 | 173394 |
| 15° | 171318 | 171318 | 171318 |
| 20° | 164287 | 164668 | 164865 |
| 25° | 153667 | 153871 | 154266 |
| 30° | 137699 | 138112 | 138112 |
| 35° | 111789 | 112677 | 112903 |
| 40° | 84373 | 84839 | 85081 |
| 45° | 64611 | 64367 | 64367 |
| 50° | 53250 | 52962 | 52962 |
| 55° | 45697 | 45375 | 45375 |
| 60° | 40778 | 40408 | 40408 |
| 65° | 38321 | 38321 | 38321 |
| 70° | 35667 | 35667 | 35667 |
| 75° | 32359 | 33026 | 32359 |
| 80° | 30402 | 29336 | 30402 |
| 85° | 25050 | 25050 | 25050 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 134.3 | 6.1 |
| 10°-20° | 375.9 | 17.1 |
| 20°-30° | 516.6 | 23.5 |
| 30°-40° | 464.5 | 21.1 |
| 40°-50° | 293.5 | 13.3 |
| 50°-60° | 191.6 | 8.7 |
| 60°-70° | 129.8 | 5.9 |
| 70°-80° | 73.0 | 3.3 |
| 80°-90° | 20.5 | 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° | 1026.8 | 46.7 |
| 0°-40° | 1491.3 | 67.8 |
| 0°-60° | 1976.4 | 89.8 |
| 0°-90° | 2199.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2199.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1426 | 1426 | 1426 | 1426 | 1426 | |
| 5° | 1417 | 1417 | 1418 | 1418 | 1418 | 134 |
| 15° | 1342 | 1342 | 1342 | 1342 | 1342 | 376 |
| 25° | 1129 | 1131 | 1131 | 1134 | 1134 | 515 |
| 35° | 742 | 745 | 748 | 751 | 750 | 462 |
| 45° | 370 | 369 | 369 | 369 | 369 | 294 |
| 55° | 212 | 212 | 211 | 212 | 211 | 192 |
| 65° | 131 | 131 | 131 | 131 | 131 | 130 |
| 75° | 68 | 69 | 69 | 69 | 68 | 73 |
| 85° | 18 | 18 | 18 | 18 | 18 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1425.7 | 1425.7 | 1425.7 | 1425.7 | 1425.7 |
| 2.5° | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 |
| 5° | 1416.9 | 1416.9 | 1418.4 | 1418.4 | 1418.4 |
| 7.5° | 1406.5 | 1408.0 | 1408.0 | 1408.0 | 1408.0 |
| 10° | 1384.4 | 1384.4 | 1385.8 | 1385.8 | 1384.4 |
| 12.5° | 1363.7 | 1363.7 | 1363.7 | 1365.2 | 1363.7 |
| 15° | 1341.6 | 1341.6 | 1341.6 | 1341.6 | 1341.6 |
| 17.5° | 1303.2 | 1304.7 | 1304.7 | 1304.7 | 1304.7 |
| 20° | 1251.6 | 1254.5 | 1254.5 | 1256.0 | 1256.0 |
| 22.5° | 1192.6 | 1194.0 | 1195.5 | 1197.0 | 1195.5 |
| 25° | 1129.1 | 1130.6 | 1130.6 | 1133.5 | 1133.5 |
| 27.5° | 1055.3 | 1056.7 | 1059.7 | 1059.7 | 1059.7 |
| 30° | 966.8 | 968.2 | 969.7 | 969.7 | 969.7 |
| 32.5° | 861.9 | 861.9 | 864.9 | 866.4 | 864.9 |
| 35° | 742.4 | 745.4 | 748.3 | 751.2 | 749.8 |
| 37.5° | 628.7 | 631.7 | 633.1 | 633.1 | 634.6 |
| 40° | 524.0 | 526.9 | 526.9 | 529.8 | 528.4 |
| 42.5° | 441.3 | 439.9 | 439.9 | 442.8 | 441.3 |
| 45° | 370.4 | 369.0 | 369.0 | 369.0 | 369.0 |
| 47.5° | 318.8 | 317.4 | 317.4 | 317.4 | 317.4 |
| 50° | 277.5 | 276.0 | 276.0 | 276.0 | 276.0 |
| 52.5° | 243.5 | 242.1 | 242.1 | 242.1 | 240.6 |
| 55° | 212.5 | 212.5 | 211.0 | 212.5 | 211.0 |
| 57.5° | 184.5 | 184.5 | 184.5 | 184.5 | 184.5 |
| 60° | 165.3 | 163.8 | 163.8 | 163.8 | 163.8 |
| 62.5° | 147.6 | 147.6 | 147.6 | 147.6 | 147.6 |
| 65° | 131.3 | 131.3 | 131.3 | 131.3 | 131.3 |
| 67.5° | 115.2 | 113.7 | 115.2 | 115.2 | 113.7 |
| 70° | 98.9 | 97.4 | 98.9 | 98.9 | 98.9 |
| 72.5° | 82.6 | 82.6 | 82.6 | 84.1 | 82.6 |
| 75° | 67.9 | 69.3 | 69.3 | 69.3 | 67.9 |
| 77.5° | 54.6 | 56.1 | 54.6 | 54.6 | 54.6 |
| 80° | 42.8 | 41.3 | 41.3 | 41.3 | 42.8 |
| 82.5° | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 |
| 85° | 17.7 | 17.7 | 17.7 | 17.7 | 17.7 |
| 87.5° | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| 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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