

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: P592667

Luminaire Tested: **HCC4S20D010MW-HM40525850-41PSMDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592667
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S20D010MW-HM40525850-41PSMDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

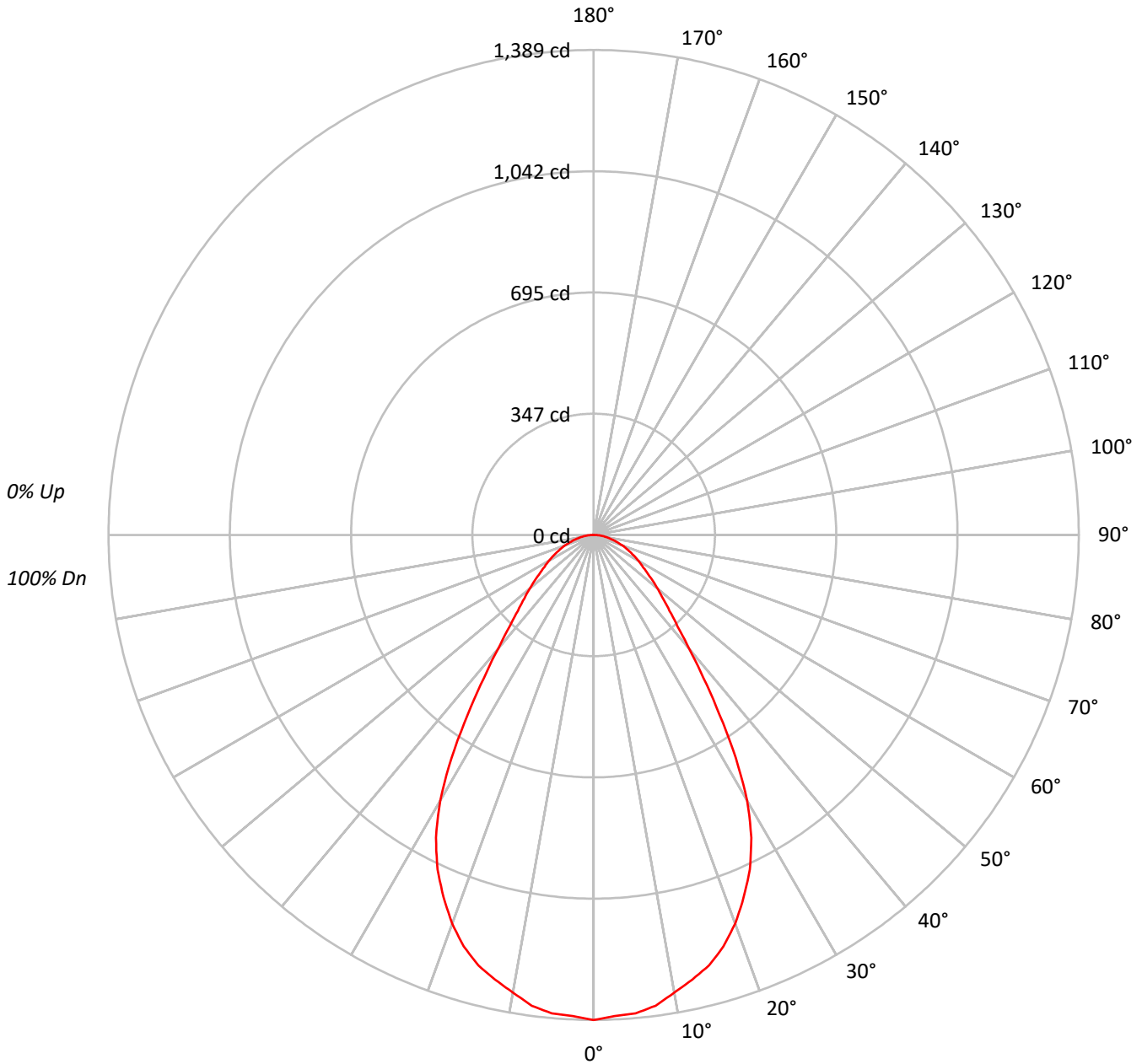
Lumens per Lamp: N/A
Luminaire Lumens: 1972.9 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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 | 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 | 109 | 105 | 102 | 99 | 101 | 99 | 96 | 97 | 95 | 93 | 94 | 92 | 91 | 89 |
| 2 | 103 | 97 | 92 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 80 | 78 |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 75 | 84 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 66 | 74 | 69 | 65 | 72 | 68 | 65 | 63 |
| 5 | 84 | 74 | 66 | 61 | 82 | 72 | 66 | 60 | 71 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | 57 |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 53 | 52 |
| 7 | 74 | 63 | 55 | 50 | 73 | 62 | 55 | 50 | 61 | 54 | 50 | 59 | 54 | 49 | 58 | 53 | 49 | 47 |
| 8 | 70 | 58 | 51 | 46 | 68 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 45 | 54 | 49 | 45 | 44 |
| 9 | 66 | 54 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 171376 |
| 5° | 170298 |
| 10° | 166668 |
| 15° | 162992 |
| 20° | 155453 |
| 25° | 143895 |
| 30° | 125165 |
| 35° | 94532 |
| 40° | 68496 |
| 45° | 53535 |
| 50° | 45785 |
| 55° | 39590 |
| 60° | 36461 |
| 65° | 33389 |
| 70° | 31195 |
| 75° | 28594 |
| 80° | 26708 |
| 85° | 25616 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 129.9 | 6.6 |
| 10°-20° | 357.5 | 18.1 |
| 20°-30° | 480.7 | 24.4 |
| 30°-40° | 395.3 | 20.0 |
| 40°-50° | 242.8 | 12.3 |
| 50°-60° | 168.0 | 8.5 |
| 60°-70° | 114.5 | 5.8 |
| 70°-80° | 63.8 | 3.2 |
| 80°-90° | 20.3 | 1.0 |
| 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° | 968.2 | 49.1 |
| 0°-40° | 1363.5 | 69.1 |
| 0°-60° | 1774.3 | 89.9 |
| 0°-90° | 1972.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1972.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1389 | |
| 5° | 1375 | 130 |
| 15° | 1276 | 358 |
| 25° | 1057 | 481 |
| 35° | 628 | 395 |
| 45° | 307 | 243 |
| 55° | 184 | 168 |
| 65° | 114 | 115 |
| 75° | 60 | 64 |
| 85° | 18 | 20 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1389.4 |
| 2.5° | 1379.6 |
| 5° | 1375.4 |
| 7.5° | 1360.0 |
| 10° | 1330.7 |
| 12.5° | 1304.3 |
| 15° | 1276.4 |
| 17.5° | 1235.9 |
| 20° | 1184.3 |
| 22.5° | 1122.9 |
| 25° | 1057.3 |
| 27.5° | 977.8 |
| 30° | 878.8 |
| 32.5° | 757.5 |
| 35° | 627.8 |
| 37.5° | 516.2 |
| 40° | 425.4 |
| 42.5° | 355.7 |
| 45° | 306.9 |
| 47.5° | 269.2 |
| 50° | 238.6 |
| 52.5° | 210.6 |
| 55° | 184.1 |
| 57.5° | 164.6 |
| 60° | 147.8 |
| 62.5° | 131.1 |
| 65° | 114.4 |
| 67.5° | 100.5 |
| 70° | 86.5 |
| 72.5° | 72.5 |
| 75° | 60.0 |
| 77.5° | 47.4 |
| 80° | 37.6 |
| 82.5° | 27.9 |
| 85° | 18.1 |
| 87.5° | 9.7 |
| 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)