

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: P592660

Luminaire Tested: **HCC4W20D010SL-HM40525850-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592660  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W20D010SL-HM40525850-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

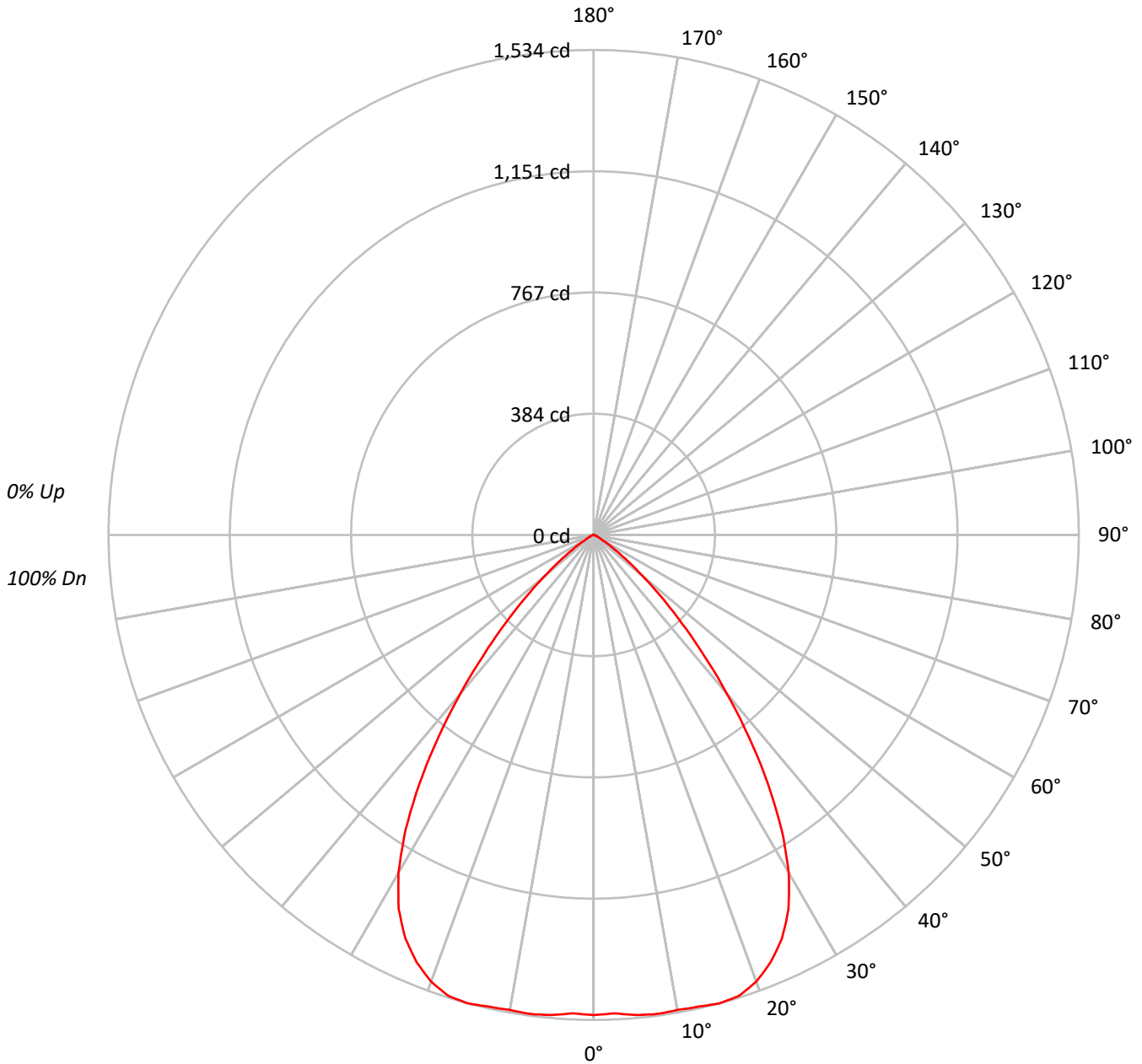
Lumens per Lamp: N/A  
Luminaire Lumens: 2228.3 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 |    |    |   | 100 |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 113 | 110 | 107 | 104 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  |    |    |   | 92  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 106 | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 96  | 92  | 89  | 93  | 90  | 87  | 90  | 88  | 86  | 84  |    |    |   | 84  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 100 | 93  | 87  | 82  | 98  | 91  | 86  | 82  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 81  | 78  | 76  |    |    |   | 76  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  | 80  | 75  | 72  | 78  | 74  | 71  | 69  |    |    |   | 69  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 88  | 79  | 72  | 67  | 86  | 78  | 72  | 67  | 76  | 70  | 66  | 74  | 69  | 66  | 72  | 68  | 65  | 63  |    |    |   | 63  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 70  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 58  |    |    |   | 58  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 60  | 56  | 65  | 60  | 55  | 64  | 59  | 55  | 63  | 58  | 55  | 53  |    |    |   | 53  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 74  | 63  | 56  | 51  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 49  |    |    |   | 49  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 69  | 59  | 52  | 47  | 68  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  |    |    |   | 45  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 53  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 43  | 42  |    |    |   | 42  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     |
|-----|--------|
| 0°  | 187350 |
| 5°  | 188759 |
| 10° | 191117 |
| 15° | 195912 |
| 20° | 197352 |
| 25° | 191706 |
| 30° | 175769 |
| 35° | 144629 |
| 40° | 105417 |
| 45° | 68432  |
| 50° | 38589  |
| 55° | 18300  |
| 60° | 7253   |
| 65° | 4495   |
| 70° | 3029   |
| 75° | 2002   |
| 80° | 994    |
| 85° | 1981   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 145.6  | 6.5       |
| 10°-20°   | 432.5  | 19.4      |
| 20°-30°   | 641.5  | 28.8      |
| 30°-40°   | 592.6  | 26.6      |
| 40°-50°   | 309.4  | 13.9      |
| 50°-60°   | 84.8   | 3.8       |
| 60°-70°   | 16.3   | 0.7       |
| 70°-80°   | 4.6    | 0.2       |
| 80°-90°   | 1.0    | 0.0       |
| 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°    | 1219.6 | 54.7      |
| 0°-40°    | 1812.2 | 81.3      |
| 0°-60°    | 2206.4 | 99.0      |
| 0°-90°    | 2228.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2228.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1519 |      |
| 5°  | 1524 | 146  |
| 15° | 1534 | 433  |
| 25° | 1409 | 642  |
| 35° | 960  | 593  |
| 45° | 392  | 309  |
| 55° | 85   | 85   |
| 65° | 15   | 16   |
| 75° | 4    | 5    |
| 85° | 1    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1518.9 |
| 2.5°  | 1514.7 |
| 5°    | 1524.5 |
| 7.5°  | 1528.6 |
| 10°   | 1525.9 |
| 12.5° | 1528.6 |
| 15°   | 1534.2 |
| 17.5° | 1528.6 |
| 20°   | 1503.5 |
| 22.5° | 1463.0 |
| 25°   | 1408.6 |
| 27.5° | 1334.5 |
| 30°   | 1234.1 |
| 32.5° | 1107.1 |
| 35°   | 960.5  |
| 37.5° | 806.9  |
| 40°   | 654.7  |
| 42.5° | 515.1  |
| 45°   | 392.3  |
| 47.5° | 287.6  |
| 50°   | 201.1  |
| 52.5° | 134.0  |
| 55°   | 85.1   |
| 57.5° | 50.2   |
| 60°   | 29.4   |
| 62.5° | 21.0   |
| 65°   | 15.4   |
| 67.5° | 11.1   |
| 70°   | 8.4    |
| 72.5° | 5.6    |
| 75°   | 4.2    |
| 77.5° | 2.8    |
| 80°   | 1.4    |
| 82.5° | 1.4    |
| 85°   | 1.4    |
| 87.5° | 0.0    |
| 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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