

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: P584020

Luminaire Tested: **HCC8S20D010SL-HM80520840-81PSMDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584020  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC8S20D010SL-HM80520840-81PSMDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

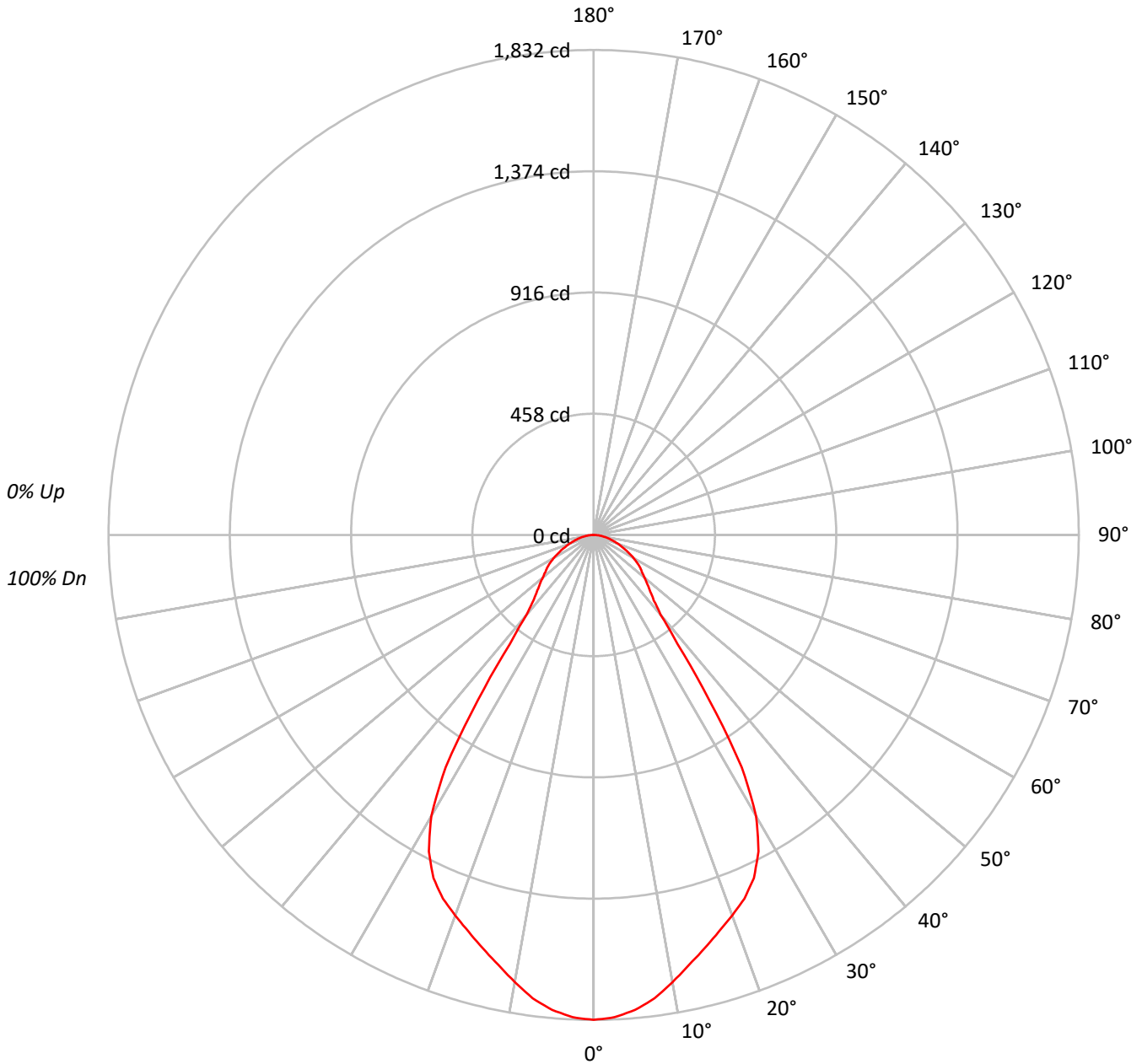
Lumens per Lamp: N/A  
Luminaire Lumens: 2406.4 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.97  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

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  |     |     |     | 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 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |    |    |
| 2   | 104 | 98  | 92  | 88  | 102 | 96  | 91  | 87  | 92  | 88  | 85  | 89  | 86  | 83  | 86  | 84  | 81  | 79  |    |    |
| 3   | 97  | 89  | 83  | 77  | 95  | 87  | 82  | 77  | 85  | 80  | 76  | 82  | 78  | 74  | 80  | 76  | 73  | 71  |    |    |
| 4   | 91  | 81  | 74  | 69  | 89  | 80  | 74  | 69  | 78  | 72  | 68  | 76  | 71  | 67  | 74  | 70  | 66  | 64  |    |    |
| 5   | 85  | 75  | 68  | 62  | 83  | 74  | 67  | 62  | 72  | 66  | 61  | 70  | 65  | 61  | 68  | 64  | 60  | 58  |    |    |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 61  | 56  | 67  | 61  | 56  | 65  | 60  | 56  | 64  | 59  | 55  | 53  |    |    |
| 7   | 75  | 64  | 57  | 52  | 74  | 63  | 57  | 52  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 49  |    |    |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 52  | 48  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 45  |    |    |
| 9   | 67  | 56  | 49  | 44  | 66  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 44  | 42  |    |    |
| 10  | 64  | 52  | 46  | 41  | 62  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 39  |    |    |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 56489 |
| 5°  | 55751 |
| 10° | 53709 |
| 15° | 51609 |
| 20° | 50184 |
| 25° | 48675 |
| 30° | 43679 |
| 35° | 28632 |
| 40° | 15832 |
| 45° | 13196 |
| 50° | 12032 |
| 55° | 11483 |
| 60° | 10682 |
| 65° | 9682  |
| 70° | 8745  |
| 75° | 7899  |
| 80° | 7174  |
| 85° | 6864  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 169.2  | 7.0       |
| 10°-20°   | 456.1  | 19.0      |
| 20°-30°   | 649.1  | 27.0      |
| 30°-40°   | 480.4  | 20.0      |
| 40°-50°   | 237.9  | 9.9       |
| 50°-60°   | 189.9  | 7.9       |
| 60°-70°   | 131.8  | 5.5       |
| 70°-80°   | 71.0   | 3.0       |
| 80°-90°   | 20.9   | 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°    | 1274.4 | 53.0      |
| 0°-40°    | 1754.9 | 72.9      |
| 0°-60°    | 2182.7 | 90.7      |
| 0°-90°    | 2406.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2406.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1832 |      |
| 5°  | 1801 | 169  |
| 15° | 1617 | 456  |
| 25° | 1431 | 649  |
| 35° | 761  | 480  |
| 45° | 303  | 238  |
| 55° | 214  | 190  |
| 65° | 133  | 132  |
| 75° | 66   | 71   |
| 85° | 19   | 21   |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1831.9 |
| 2.5°  | 1823.7 |
| 5°    | 1801.1 |
| 7.5°  | 1765.6 |
| 10°   | 1715.3 |
| 12.5° | 1663.5 |
| 15°   | 1616.6 |
| 17.5° | 1571.4 |
| 20°   | 1529.3 |
| 22.5° | 1487.2 |
| 25°   | 1430.6 |
| 27.5° | 1348.0 |
| 30°   | 1226.7 |
| 32.5° | 1040.5 |
| 35°   | 760.6  |
| 37.5° | 519.5  |
| 40°   | 393.3  |
| 42.5° | 336.6  |
| 45°   | 302.6  |
| 47.5° | 275.1  |
| 50°   | 250.8  |
| 52.5° | 229.8  |
| 55°   | 213.6  |
| 57.5° | 194.2  |
| 60°   | 173.2  |
| 62.5° | 152.1  |
| 65°   | 132.7  |
| 67.5° | 113.2  |
| 70°   | 97.0   |
| 72.5° | 81.0   |
| 75°   | 66.3   |
| 77.5° | 53.4   |
| 80°   | 40.4   |
| 82.5° | 29.1   |
| 85°   | 19.4   |
| 87.5° | 8.0    |
| 90°   | 0.0    |

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— 0°-180°

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