

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P210111

Luminaire Tested: **PR810D010 - PR8M12MDMB - 4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210111  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29044)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR810D010 - PR8M12MDMB - 4000K  
Description: HALO 8" ROUND DOWNLIGHT, MEDIUM LENS, MATTE BLACK FINISH  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1134.3 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.13  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

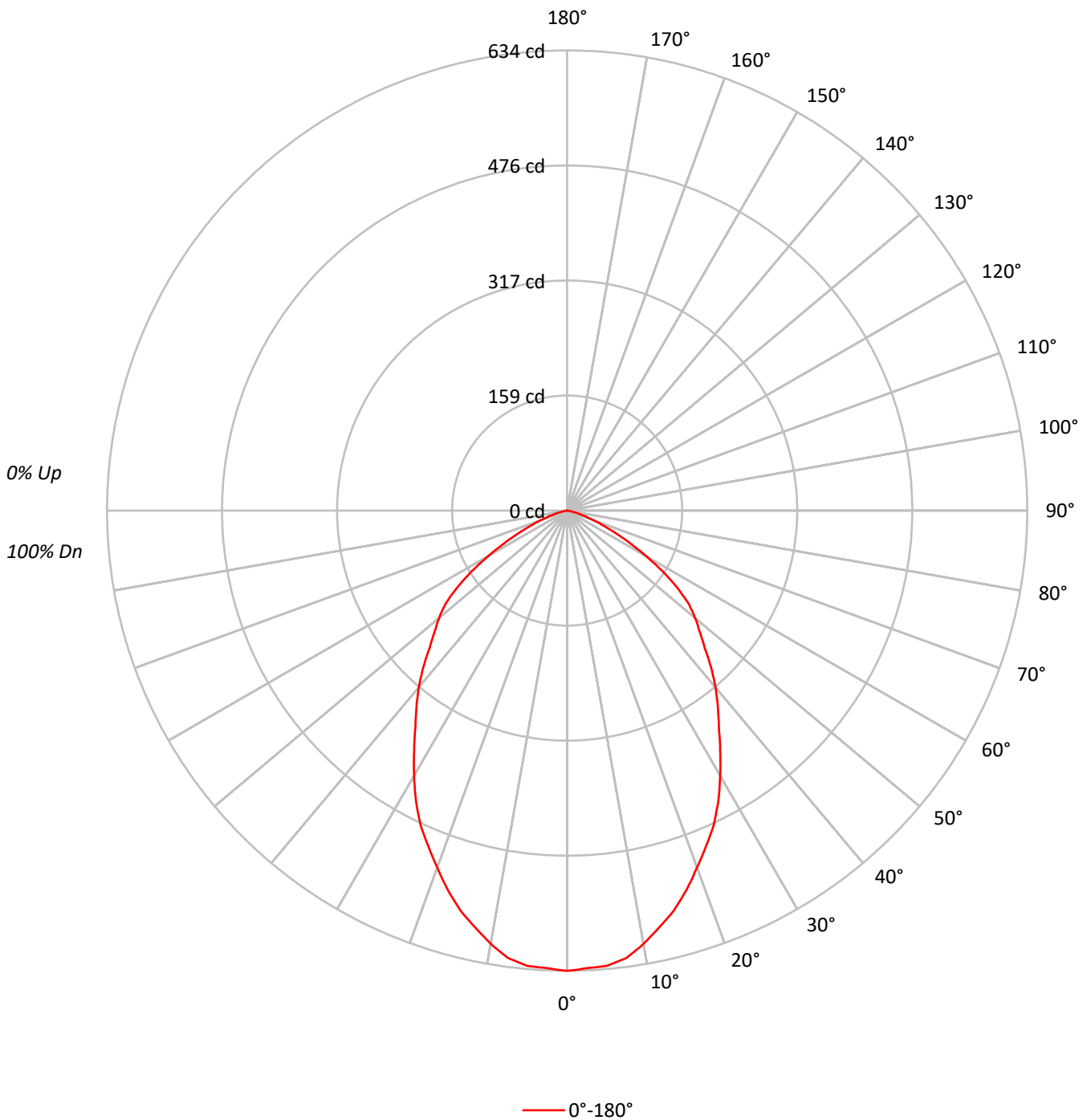
Input Watts (W): 10.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 96  | 91  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 83  |  | 88  | 84  | 81  |  | 85  | 82  | 79  | 77  |
| 3   | 95  | 86  | 79  | 74  | 93  | 85  | 78  | 73  | 82  | 76  | 72  |  | 79  | 75  | 71  |  | 77  | 73  | 70  | 68  |
| 4   | 88  | 78  | 70  | 64  | 86  | 76  | 69  | 64  | 74  | 68  | 63  |  | 72  | 67  | 62  |  | 70  | 65  | 61  | 60  |
| 5   | 82  | 70  | 62  | 57  | 80  | 69  | 62  | 56  | 67  | 61  | 56  |  | 65  | 60  | 55  |  | 64  | 59  | 55  | 53  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 61  | 55  | 50  |  | 60  | 54  | 49  |  | 58  | 53  | 49  | 47  |
| 7   | 71  | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 50  | 45  |  | 55  | 49  | 44  |  | 54  | 48  | 44  | 42  |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 41  |  | 51  | 45  | 40  |  | 50  | 44  | 40  | 38  |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  |  | 47  | 41  | 37  |  | 46  | 41  | 37  | 35  |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  |  | 44  | 38  | 34  |  | 43  | 38  | 34  | 32  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 19553 |
| 5°  | 19486 |
| 10° | 18978 |
| 15° | 18197 |
| 20° | 17169 |
| 25° | 16260 |
| 30° | 15022 |
| 35° | 13718 |
| 40° | 12805 |
| 45° | 11696 |
| 50° | 11058 |
| 55° | 9957  |
| 60° | 7783  |
| 65° | 5421  |
| 70° | 3444  |
| 75° | 1942  |
| 80° | 550   |
| 85° | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 59.4   | 5.2       |
| 10°-20°   | 159.7  | 14.1      |
| 20°-30°   | 218.7  | 19.3      |
| 30°-40°   | 229.3  | 20.2      |
| 40°-50°   | 208.9  | 18.4      |
| 50°-60°   | 163.0  | 14.4      |
| 60°-70°   | 75.9   | 6.7       |
| 70°-80°   | 18.9   | 1.7       |
| 80°-90°   | 0.6    | 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°    | 437.7  | 38.6      |
| 0°-40°    | 667.0  | 58.8      |
| 0°-60°    | 1038.9 | 91.6      |
| 0°-90°    | 1134.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1134.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 634 |      |
| 5°  | 630 | 59   |
| 15° | 570 | 160  |
| 25° | 478 | 219  |
| 35° | 364 | 229  |
| 45° | 268 | 209  |
| 55° | 185 | 163  |
| 65° | 74  | 76   |
| 75° | 16  | 19   |
| 85° | 0   | 1    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 634.1 |
| 2.5°  | 631.1 |
| 5°    | 629.5 |
| 7.5°  | 621.9 |
| 10°   | 606.1 |
| 12.5° | 587.8 |
| 15°   | 570.0 |
| 17.5° | 547.6 |
| 20°   | 523.2 |
| 22.5° | 500.3 |
| 25°   | 477.9 |
| 27.5° | 450.9 |
| 30°   | 421.9 |
| 32.5° | 392.4 |
| 35°   | 364.4 |
| 37.5° | 341.0 |
| 40°   | 318.1 |
| 42.5° | 293.6 |
| 45°   | 268.2 |
| 47.5° | 247.8 |
| 50°   | 230.5 |
| 52.5° | 211.2 |
| 55°   | 185.2 |
| 57.5° | 156.2 |
| 60°   | 126.2 |
| 62.5° | 97.7  |
| 65°   | 74.3  |
| 67.5° | 53.9  |
| 70°   | 38.2  |
| 72.5° | 26.0  |
| 75°   | 16.3  |
| 77.5° | 9.2   |
| 80°   | 3.1   |
| 82.5° | 0.5   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |

(END OF REPORT)