

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: P210186

Luminaire Tested: **PR810D010 - PR8M12WDMB - 4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210186
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29051)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PR810D010 - PR8M12WDMB - 4000K
Description: HALO 8" ROUND DOWNLIGHT, WIDE 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: 1124.7 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.39
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

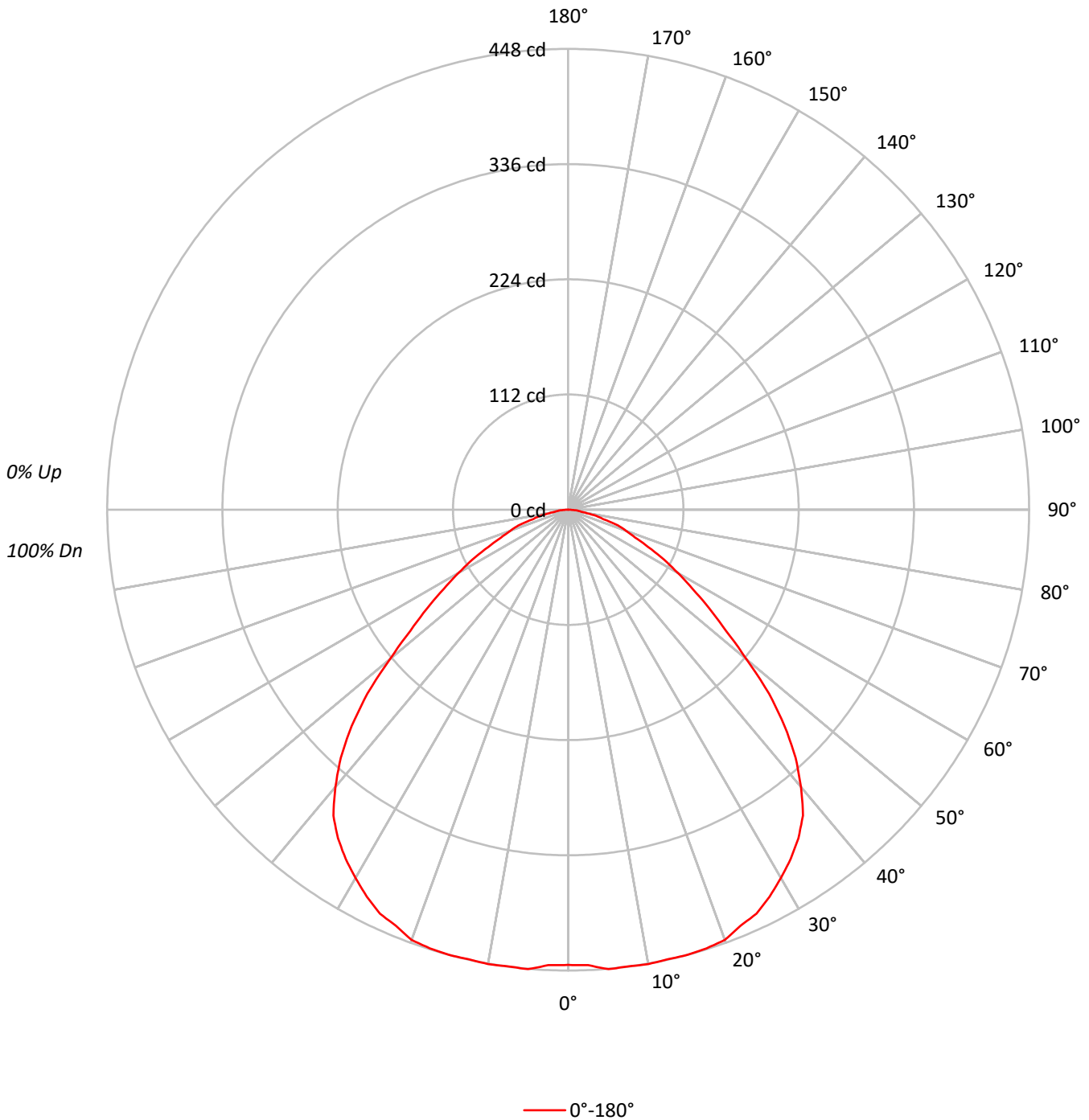
Input Watts (W): 10.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | | 96 | 94 | 92 | | 92 | 91 | 89 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | | 86 | 82 | 79 | | 83 | 80 | 77 | 75 |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 79 | 74 | 69 | | 77 | 72 | 68 | | 74 | 70 | 67 | 65 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 61 | 71 | 65 | 60 | | 69 | 64 | 59 | | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 64 | 58 | 52 | | 63 | 57 | 52 | | 61 | 56 | 51 | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 47 | 59 | 52 | 46 | | 57 | 51 | 46 | | 55 | 50 | 46 | 44 |
| 7 | 68 | 56 | 48 | 42 | 67 | 55 | 47 | 42 | 53 | 46 | 41 | | 52 | 46 | 41 | | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | | 48 | 42 | 37 | | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | | 44 | 38 | 33 | | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | | 41 | 35 | 30 | | 40 | 34 | 30 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 13645 |
| 5° | 13877 |
| 10° | 14043 |
| 15° | 14302 |
| 20° | 14606 |
| 25° | 14739 |
| 30° | 14716 |
| 35° | 14677 |
| 40° | 14169 |
| 45° | 12974 |
| 50° | 10842 |
| 55° | 9010 |
| 60° | 7573 |
| 65° | 6260 |
| 70° | 5383 |
| 75° | 4218 |
| 80° | 2930 |
| 85° | 3078 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 42.7 | 3.8 |
| 10°-20° | 126.8 | 11.3 |
| 20°-30° | 199.1 | 17.7 |
| 30°-40° | 242.7 | 21.6 |
| 40°-50° | 226.8 | 20.2 |
| 50°-60° | 151.3 | 13.5 |
| 60°-70° | 87.0 | 7.7 |
| 70°-80° | 40.1 | 3.6 |
| 80°-90° | 8.1 | 0.7 |
| 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° | 368.6 | 32.8 |
| 0°-40° | 611.3 | 54.3 |
| 0°-60° | 989.4 | 88.0 |
| 0°-90° | 1124.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1124.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 442 | |
| 5° | 448 | 43 |
| 15° | 448 | 127 |
| 25° | 433 | 199 |
| 35° | 390 | 243 |
| 45° | 298 | 227 |
| 55° | 168 | 151 |
| 65° | 86 | 87 |
| 75° | 35 | 40 |
| 85° | 9 | 8 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|-------|
| 0° | 442.5 |
| 2.5° | 443.2 |
| 5° | 448.3 |
| 7.5° | 447.8 |
| 10° | 448.5 |
| 12.5° | 447.6 |
| 15° | 448.0 |
| 17.5° | 447.1 |
| 20° | 445.1 |
| 22.5° | 437.7 |
| 25° | 433.2 |
| 27.5° | 424.0 |
| 30° | 413.3 |
| 32.5° | 402.5 |
| 35° | 389.9 |
| 37.5° | 374.8 |
| 40° | 352.0 |
| 42.5° | 327.0 |
| 45° | 297.5 |
| 47.5° | 264.8 |
| 50° | 226.0 |
| 52.5° | 193.0 |
| 55° | 167.6 |
| 57.5° | 143.4 |
| 60° | 122.8 |
| 62.5° | 105.0 |
| 65° | 85.8 |
| 67.5° | 70.4 |
| 70° | 59.7 |
| 72.5° | 50.8 |
| 75° | 35.4 |
| 77.5° | 28.1 |
| 80° | 16.5 |
| 82.5° | 10.5 |
| 85° | 8.7 |
| 87.5° | 2.5 |
| 90° | 0.0 |

(END OF REPORT)