

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: P210399

Luminaire Tested: **PR8R20D010 - PR8M12WDMMS - 3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210399
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: PR8R20D010 - PR8M12WDMMS - 3000K
Description: HALO 8" ROUND DOWNLIGHT, WIDE LENS, MATTE METALLIC SILVER FINISH
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2093.4 lumens
Efficiency: N/A
Efficacy: 95.2 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

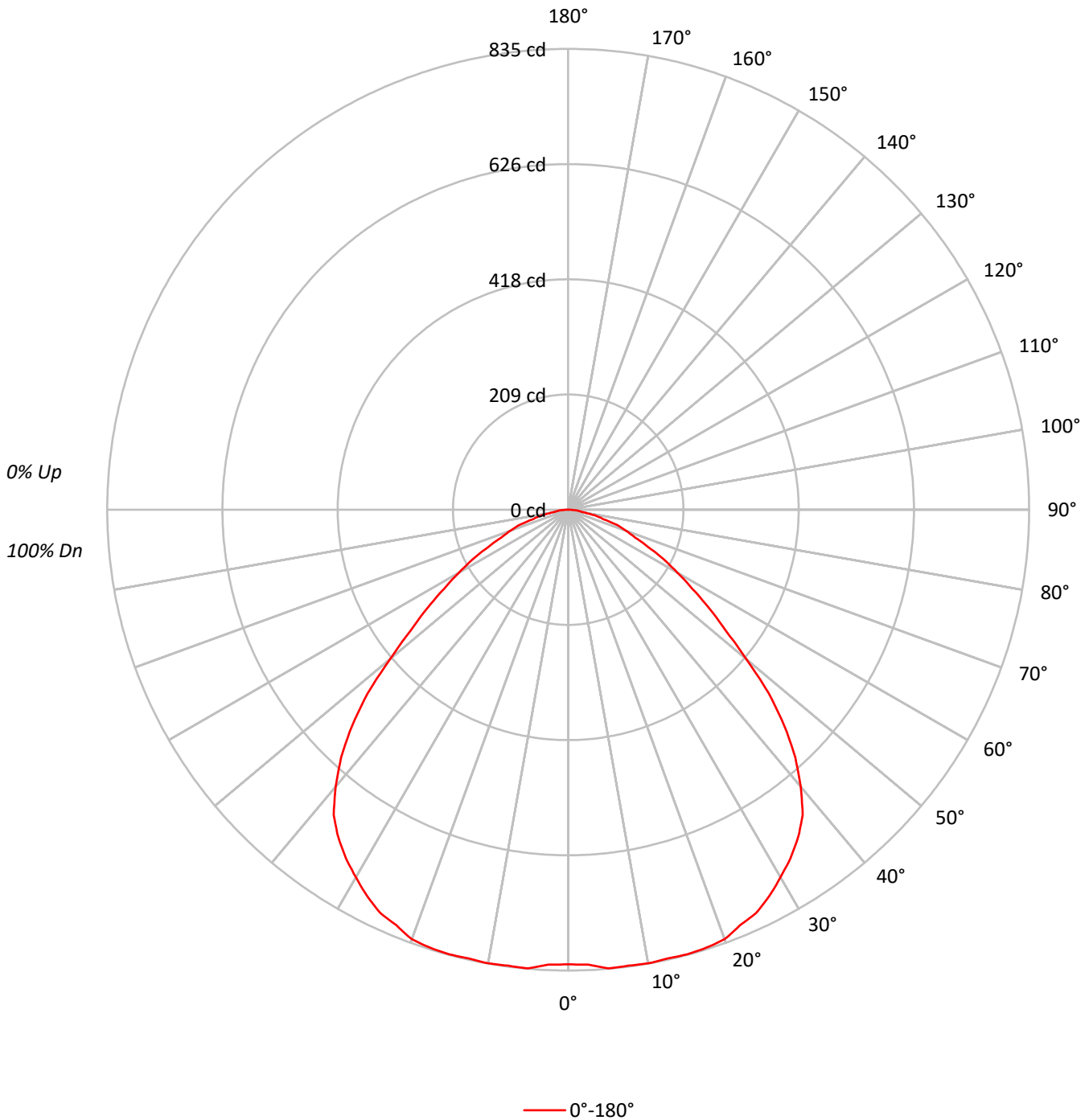
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 25400 |
| 5° | 25825 |
| 10° | 26136 |
| 15° | 26622 |
| 20° | 27181 |
| 25° | 27430 |
| 30° | 27389 |
| 35° | 27322 |
| 40° | 26370 |
| 45° | 24151 |
| 50° | 20177 |
| 55° | 16774 |
| 60° | 14098 |
| 65° | 11645 |
| 70° | 10017 |
| 75° | 7863 |
| 80° | 5434 |
| 85° | 5732 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.5 | 3.8 |
| 10°-20° | 236.0 | 11.3 |
| 20°-30° | 370.6 | 17.7 |
| 30°-40° | 451.7 | 21.6 |
| 40°-50° | 422.2 | 20.2 |
| 50°-60° | 281.6 | 13.5 |
| 60°-70° | 162.0 | 7.7 |
| 70°-80° | 74.7 | 3.6 |
| 80°-90° | 15.2 | 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° | 686.0 | 32.8 |
| 0°-40° | 1137.7 | 54.3 |
| 0°-60° | 1841.5 | 88.0 |
| 0°-90° | 2093.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2093.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 824 | |
| 5° | 834 | 79 |
| 15° | 834 | 236 |
| 25° | 806 | 371 |
| 35° | 726 | 452 |
| 45° | 554 | 422 |
| 55° | 312 | 282 |
| 65° | 160 | 162 |
| 75° | 66 | 75 |
| 85° | 16 | 15 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 823.7 |
| 2.5° | 824.9 |
| 5° | 834.3 |
| 7.5° | 833.5 |
| 10° | 834.7 |
| 12.5° | 833.0 |
| 15° | 833.9 |
| 17.5° | 832.2 |
| 20° | 828.3 |
| 22.5° | 814.7 |
| 25° | 806.2 |
| 27.5° | 789.2 |
| 30° | 769.2 |
| 32.5° | 749.2 |
| 35° | 725.8 |
| 37.5° | 697.7 |
| 40° | 655.1 |
| 42.5° | 608.7 |
| 45° | 553.8 |
| 47.5° | 492.9 |
| 50° | 420.6 |
| 52.5° | 359.3 |
| 55° | 312.0 |
| 57.5° | 266.9 |
| 60° | 228.6 |
| 62.5° | 195.4 |
| 65° | 159.6 |
| 67.5° | 131.1 |
| 70° | 111.1 |
| 72.5° | 94.5 |
| 75° | 66.0 |
| 77.5° | 52.4 |
| 80° | 30.6 |
| 82.5° | 19.6 |
| 85° | 16.2 |
| 87.5° | 4.7 |
| 90° | 0.0 |

(END OF REPORT)