

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: P210384

Luminaire Tested: **PR8R20D010 - PR8M12WDMB - 3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210384
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 - PR8M12WDMB - 3000K
Description: HALO 8" ROUND DOWNLIGHT, WIDE LENS, MATTE BLACK FINISH
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1975.5 lumens
Efficiency: N/A
Efficacy: 89.8 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

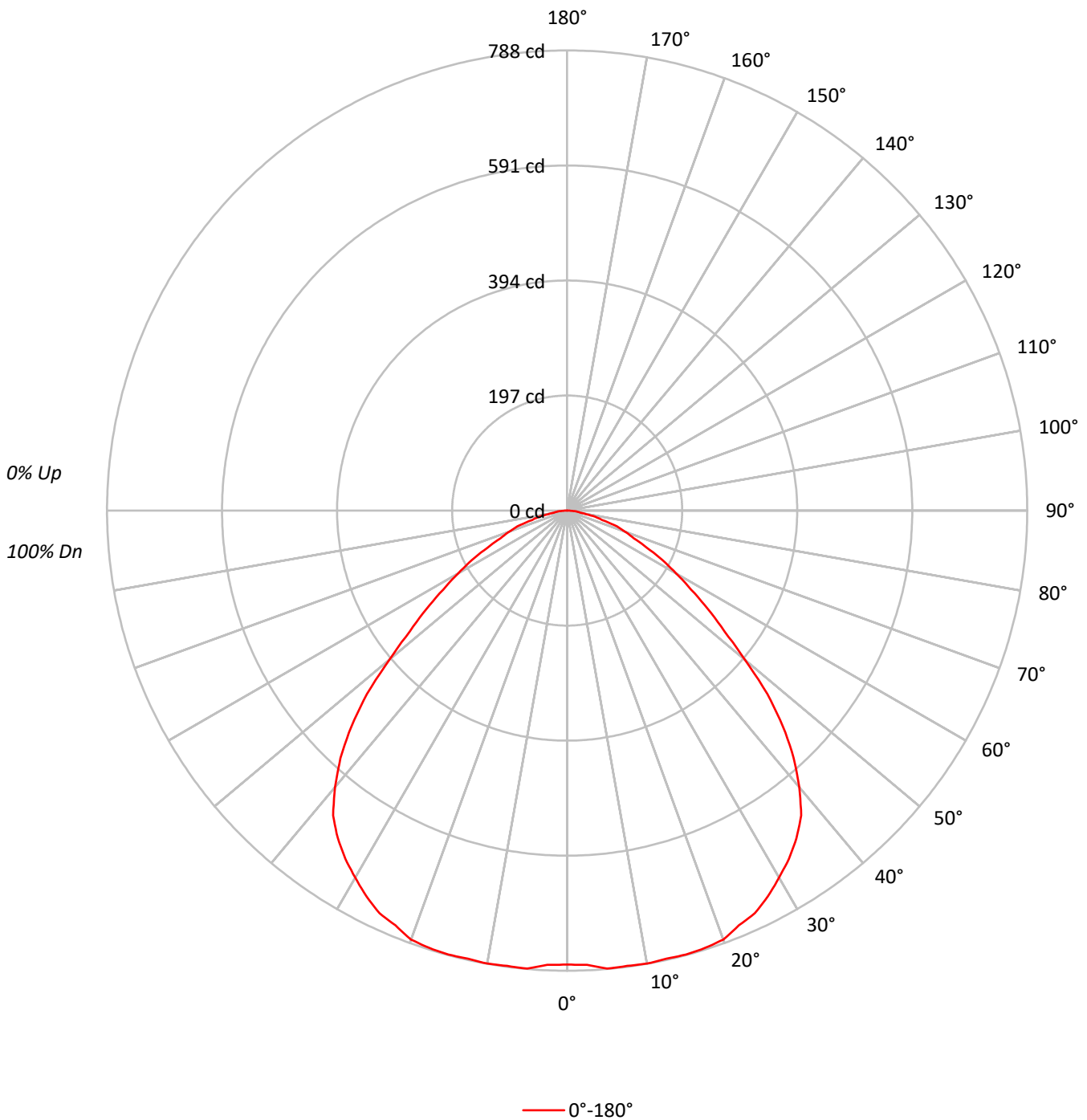
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 23969 |
| 5° | 24370 |
| 10° | 24664 |
| 15° | 25121 |
| 20° | 25652 |
| 25° | 25886 |
| 30° | 25847 |
| 35° | 25783 |
| 40° | 24885 |
| 45° | 22790 |
| 50° | 19040 |
| 55° | 15827 |
| 60° | 13303 |
| 65° | 10989 |
| 70° | 9449 |
| 75° | 7423 |
| 80° | 5132 |
| 85° | 5413 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 75.0 | 3.8 |
| 10°-20° | 222.7 | 11.3 |
| 20°-30° | 349.7 | 17.7 |
| 30°-40° | 426.3 | 21.6 |
| 40°-50° | 398.4 | 20.2 |
| 50°-60° | 265.7 | 13.5 |
| 60°-70° | 152.9 | 7.7 |
| 70°-80° | 70.5 | 3.6 |
| 80°-90° | 14.3 | 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° | 647.4 | 32.8 |
| 0°-40° | 1073.6 | 54.3 |
| 0°-60° | 1737.8 | 88.0 |
| 0°-90° | 1975.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1975.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 777 | |
| 5° | 787 | 75 |
| 15° | 787 | 223 |
| 25° | 761 | 350 |
| 35° | 685 | 426 |
| 45° | 523 | 398 |
| 55° | 294 | 266 |
| 65° | 151 | 153 |
| 75° | 62 | 71 |
| 85° | 15 | 14 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 777.3 |
| 2.5° | 778.5 |
| 5° | 787.3 |
| 7.5° | 786.5 |
| 10° | 787.7 |
| 12.5° | 786.1 |
| 15° | 786.9 |
| 17.5° | 785.3 |
| 20° | 781.7 |
| 22.5° | 768.8 |
| 25° | 760.8 |
| 27.5° | 744.7 |
| 30° | 725.9 |
| 32.5° | 707.0 |
| 35° | 684.9 |
| 37.5° | 658.4 |
| 40° | 618.2 |
| 42.5° | 574.4 |
| 45° | 522.6 |
| 47.5° | 465.2 |
| 50° | 396.9 |
| 52.5° | 339.0 |
| 55° | 294.4 |
| 57.5° | 251.9 |
| 60° | 215.7 |
| 62.5° | 184.4 |
| 65° | 150.6 |
| 67.5° | 123.7 |
| 70° | 104.8 |
| 72.5° | 89.2 |
| 75° | 62.3 |
| 77.5° | 49.4 |
| 80° | 28.9 |
| 82.5° | 18.5 |
| 85° | 15.3 |
| 87.5° | 4.4 |
| 90° | 0.0 |

(END OF REPORT)