

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: P238137

Luminaire Tested: **PRS640D010-S6M24-61SNDMB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238137
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-13)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS640D010-S6M24-61SNDMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" NARROW DISTRIBUTION, DEEP TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3816.2 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.83 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

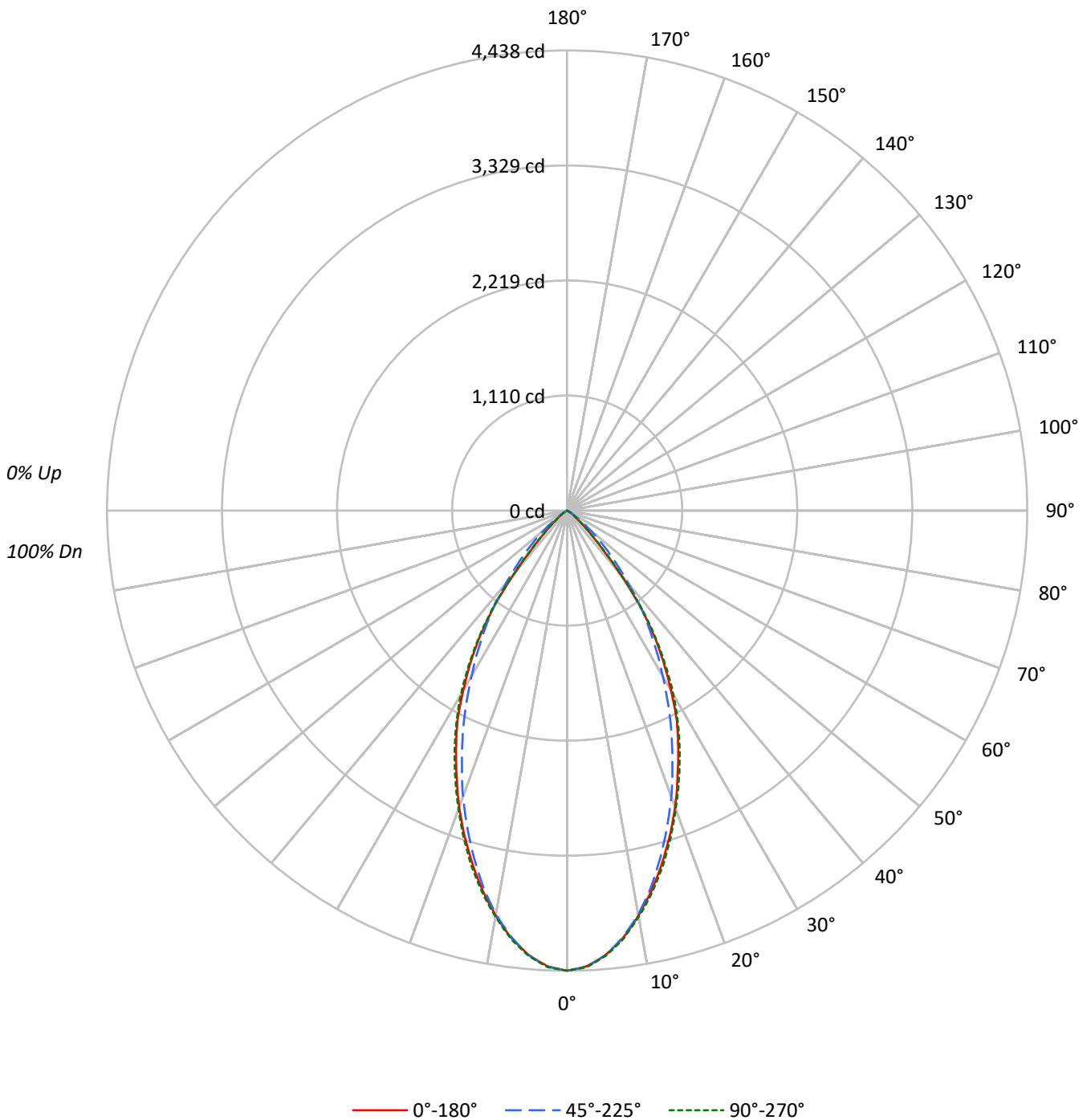
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | 93 | | | |
| 2 | 108 | 103 | 98 | 95 | 105 | 101 | 97 | 94 | 98 | 94 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 86 | | | | | 86 | | | |
| 3 | 102 | 95 | 90 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 84 | 89 | 85 | 83 | 86 | 84 | 81 | 80 | | | | | 80 | | | |
| 4 | 96 | 89 | 83 | 79 | 95 | 87 | 82 | 78 | 85 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 74 | | | | | 74 | | | |
| 5 | 91 | 83 | 77 | 72 | 90 | 82 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 71 | 77 | 73 | 70 | 68 | | | | | 68 | | | |
| 6 | 87 | 77 | 71 | 67 | 85 | 77 | 71 | 66 | 75 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 64 | | | | | 64 | | | |
| 7 | 82 | 72 | 66 | 62 | 81 | 72 | 66 | 62 | 70 | 65 | 61 | 69 | 65 | 61 | 68 | 64 | 61 | 59 | | | | | 59 | | | |
| 8 | 78 | 68 | 62 | 58 | 77 | 67 | 62 | 58 | 66 | 61 | 57 | 65 | 61 | 57 | 64 | 60 | 57 | 55 | | | | | 55 | | | |
| 9 | 74 | 64 | 58 | 54 | 73 | 64 | 58 | 54 | 63 | 57 | 54 | 62 | 57 | 53 | 61 | 56 | 53 | 52 | | | | | 52 | | | |
| 10 | 70 | 60 | 55 | 51 | 69 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 54 | 50 | 58 | 53 | 50 | 49 | | | | | 49 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 191068 | 191068 | 191068 |
| 5° | 185808 | 185981 | 186149 |
| 10° | 173419 | 172899 | 173939 |
| 15° | 157223 | 154575 | 158458 |
| 20° | 139482 | 134584 | 140389 |
| 25° | 120363 | 113213 | 122054 |
| 30° | 99587 | 91712 | 101948 |
| 35° | 75946 | 71783 | 77402 |
| 40° | 44054 | 51619 | 45391 |
| 45° | 19527 | 33745 | 20008 |
| 50° | 9284 | 18829 | 9284 |
| 55° | 5052 | 7724 | 5052 |
| 60° | 1705 | 3066 | 1705 |
| 65° | 0 | 805 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 399.8 | 10.5 |
| 10°-20° | 976.2 | 25.6 |
| 20°-30° | 1125.5 | 29.5 |
| 30°-40° | 867.8 | 22.7 |
| 40°-50° | 356.1 | 9.3 |
| 50°-60° | 83.9 | 2.2 |
| 60°-70° | 7.0 | 0.2 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 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° | 2501.5 | 65.5 |
| 0°-40° | 3369.3 | 88.3 |
| 0°-60° | 3809.3 | 99.8 |
| 0°-90° | 3816.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3816.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 4438 | 4438 | 4438 | 4438 | 4438 | |
| 5° | 4299 | 4299 | 4303 | 4307 | 4307 | 400 |
| 15° | 3527 | 3500 | 3468 | 3503 | 3555 | 984 |
| 25° | 2534 | 2446 | 2383 | 2470 | 2569 | 1159 |
| 35° | 1445 | 1374 | 1366 | 1405 | 1473 | 880 |
| 45° | 321 | 416 | 554 | 428 | 329 | 282 |
| 55° | 67 | 87 | 103 | 87 | 67 | 62 |
| 65° | 0 | 0 | 8 | 0 | 0 | 2 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 4437.7 | 4437.7 | 4437.7 | 4437.7 | 4437.7 |
| 2.5° | 4398.1 | 4402.1 | 4402.1 | 4406.0 | 4406.0 |
| 5° | 4299.1 | 4299.1 | 4303.1 | 4307.0 | 4307.0 |
| 7.5° | 4152.7 | 4148.7 | 4144.7 | 4152.7 | 4164.5 |
| 10° | 3966.6 | 3954.7 | 3954.7 | 3962.6 | 3978.5 |
| 12.5° | 3756.8 | 3737.0 | 3725.1 | 3741.0 | 3776.6 |
| 15° | 3527.2 | 3499.5 | 3467.8 | 3503.4 | 3554.9 |
| 17.5° | 3289.7 | 3250.1 | 3202.6 | 3254.0 | 3313.4 |
| 20° | 3044.2 | 2980.9 | 2937.3 | 2992.8 | 3064.0 |
| 22.5° | 2783.0 | 2715.7 | 2652.3 | 2735.4 | 2814.6 |
| 25° | 2533.6 | 2446.5 | 2383.1 | 2470.2 | 2569.2 |
| 27.5° | 2292.1 | 2177.3 | 2110.0 | 2205.0 | 2315.8 |
| 30° | 2003.1 | 1920.0 | 1844.7 | 1943.7 | 2050.6 |
| 32.5° | 1726.0 | 1638.9 | 1603.3 | 1666.6 | 1761.6 |
| 35° | 1444.9 | 1373.7 | 1365.7 | 1405.3 | 1472.6 |
| 37.5° | 1132.2 | 1128.2 | 1152.0 | 1144.1 | 1155.9 |
| 40° | 783.8 | 878.8 | 918.4 | 886.7 | 807.6 |
| 42.5° | 506.7 | 617.6 | 716.5 | 633.4 | 534.4 |
| 45° | 320.7 | 415.7 | 554.2 | 427.5 | 328.6 |
| 47.5° | 201.9 | 269.2 | 415.7 | 277.1 | 205.9 |
| 50° | 138.6 | 178.1 | 281.1 | 178.1 | 138.6 |
| 52.5° | 95.0 | 122.7 | 174.2 | 122.7 | 99.0 |
| 55° | 67.3 | 87.1 | 102.9 | 87.1 | 67.3 |
| 57.5° | 39.6 | 55.4 | 59.4 | 55.4 | 43.5 |
| 60° | 19.8 | 31.7 | 35.6 | 31.7 | 19.8 |
| 62.5° | 0.0 | 11.9 | 19.8 | 11.9 | 0.0 |
| 65° | 0.0 | 0.0 | 7.9 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)