

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: P238038

Luminaire Tested: **PRS610D010-S6M12-64SNDH-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238038  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS610D010-S6M12-64SNDH-3000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" NARROW DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1084.7 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.83 / 0.85  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

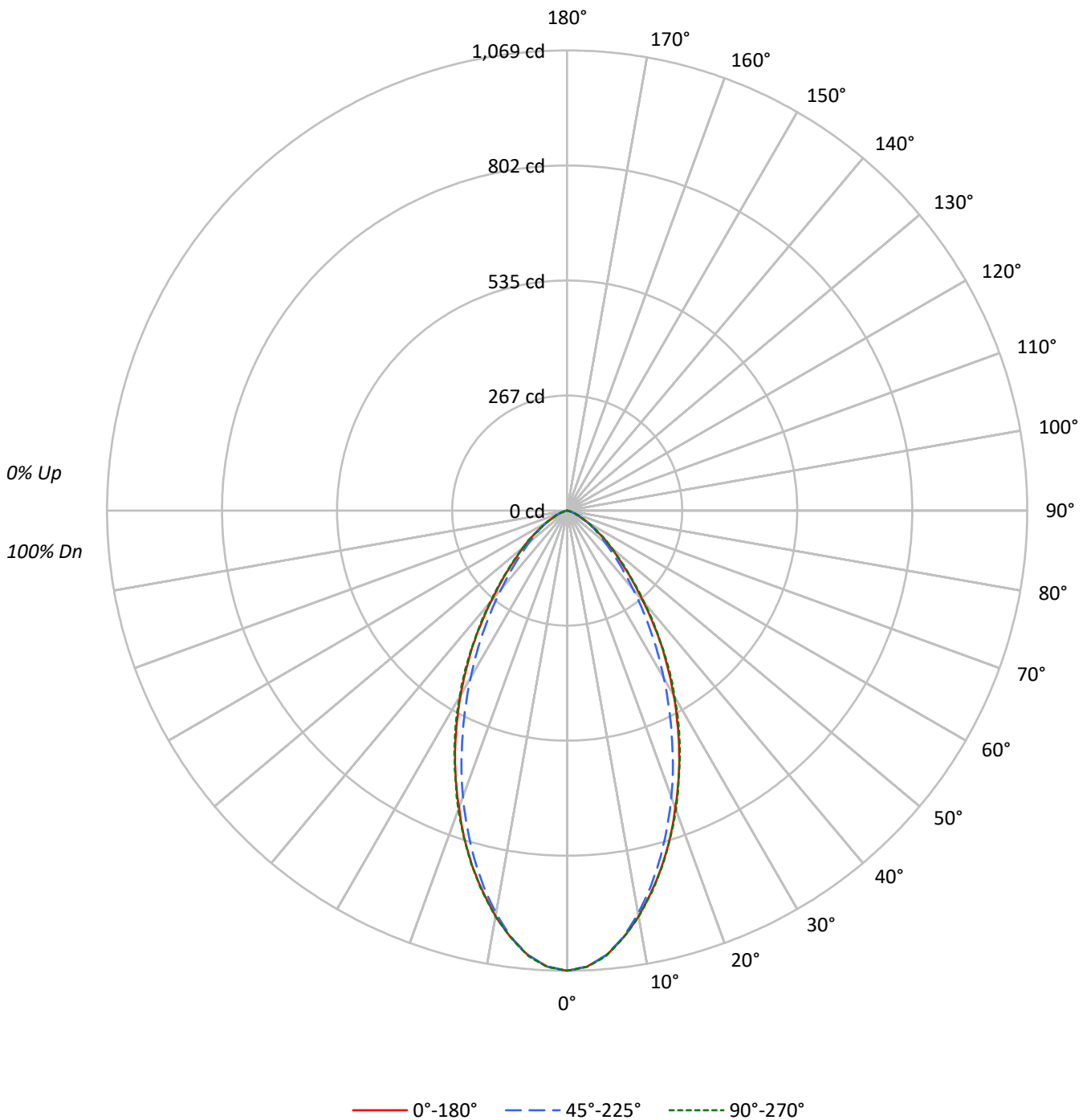
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 112 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  | 99  | 98  | 96  | 96  | 94  | 93  | 91  |    |    |    |    | 91  |   |  |   |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 87  | 85  | 83  |    |    |    |    | 83  |   |  |   |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 83  | 79  | 77  | 75  |    |    |    |    | 75  |   |  |   |
| 4   | 93  | 84  | 78  | 73  | 91  | 83  | 77  | 73  | 81  | 76  | 72  | 79  | 74  | 71  | 77  | 73  | 70  | 68  |    |    |    |    | 68  |   |  |   |
| 5   | 88  | 78  | 71  | 66  | 86  | 77  | 71  | 66  | 75  | 69  | 65  | 73  | 68  | 65  | 72  | 67  | 64  | 62  |    |    |    |    | 62  |   |  |   |
| 6   | 82  | 72  | 65  | 60  | 81  | 71  | 65  | 60  | 70  | 64  | 60  | 68  | 63  | 59  | 67  | 62  | 59  | 57  |    |    |    |    | 57  |   |  |   |
| 7   | 78  | 67  | 60  | 56  | 76  | 66  | 60  | 55  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 54  | 53  |    |    |    |    | 53  |   |  |   |
| 8   | 74  | 63  | 56  | 51  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 9   | 70  | 59  | 52  | 48  | 68  | 58  | 52  | 48  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 51  | 47  | 46  |    |    |    |    | 46  |   |  |   |
| 10  | 66  | 55  | 49  | 44  | 65  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 44  | 43  |    |    |    |    | 43  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 46018 | 46018 | 46018 |
| 5°  | 44828 | 44789 | 44871 |
| 10° | 41831 | 41538 | 41871 |
| 15° | 38035 | 37224 | 38080 |
| 20° | 33659 | 32431 | 33878 |
| 25° | 29255 | 27297 | 29440 |
| 30° | 24620 | 22283 | 24808 |
| 35° | 20036 | 17571 | 20084 |
| 40° | 15395 | 13405 | 15608 |
| 45° | 11606 | 10089 | 11837 |
| 50° | 8855  | 7696  | 9043  |
| 55° | 6613  | 6043  | 6613  |
| 60° | 4616  | 4865  | 4702  |
| 65° | 3117  | 3708  | 3219  |
| 70° | 2165  | 2417  | 2052  |
| 75° | 948   | 1115  | 948   |
| 80° | 0     | 0     | 0     |
| 85° | 0     | 0     | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 96.3   | 8.9       |
| 10°-20°   | 235.3  | 21.7      |
| 20°-30°   | 272.2  | 25.1      |
| 30°-40°   | 222.8  | 20.5      |
| 40°-50°   | 139.4  | 12.8      |
| 50°-60°   | 76.7   | 7.1       |
| 60°-70°   | 34.2   | 3.2       |
| 70°-80°   | 7.8    | 0.7       |
| 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°    | 603.8  | 55.7      |
| 0°-40°    | 826.6  | 76.2      |
| 0°-60°    | 1042.6 | 96.1      |
| 0°-90°    | 1084.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1084.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1069 | 1069  | 1069 | 1069  | 1069 |      |
| 5°  | 1037 | 1036  | 1036 | 1038  | 1038 | 96   |
| 15° | 853  | 844   | 835  | 846   | 854  | 238  |
| 25° | 616  | 592   | 575  | 595   | 620  | 282  |
| 35° | 381  | 352   | 334  | 355   | 382  | 237  |
| 45° | 191  | 174   | 166  | 177   | 194  | 150  |
| 55° | 88   | 84    | 80   | 86    | 88   | 80   |
| 65° | 31   | 34    | 36   | 34    | 32   | 32   |
| 75° | 6    | 7     | 7    | 7     | 6    | 7    |
| 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°    | 1068.8 | 1068.8 | 1068.8 | 1068.8 | 1068.8 |
| 2.5°  | 1060.2 | 1061.2 | 1060.2 | 1061.2 | 1061.2 |
| 5°    | 1037.2 | 1036.3 | 1036.3 | 1038.2 | 1038.2 |
| 7.5°  | 1000.8 | 999.9  | 998.9  | 1000.8 | 1000.8 |
| 10°   | 956.8  | 954.9  | 950.1  | 955.8  | 957.7  |
| 12.5° | 906.0  | 902.2  | 895.5  | 902.2  | 907.9  |
| 15°   | 853.3  | 843.8  | 835.1  | 845.7  | 854.3  |
| 17.5° | 795.9  | 783.4  | 771.9  | 782.5  | 796.8  |
| 20°   | 734.6  | 720.2  | 707.8  | 721.2  | 739.4  |
| 22.5° | 676.2  | 656.1  | 641.7  | 658.0  | 677.1  |
| 25°   | 615.8  | 591.9  | 574.6  | 594.8  | 619.7  |
| 27.5° | 554.5  | 528.7  | 510.5  | 532.5  | 560.3  |
| 30°   | 495.2  | 467.4  | 448.2  | 472.2  | 499.0  |
| 32.5° | 435.8  | 409.9  | 390.8  | 413.7  | 442.5  |
| 35°   | 381.2  | 352.4  | 334.3  | 355.3  | 382.1  |
| 37.5° | 324.7  | 298.8  | 284.4  | 302.6  | 329.5  |
| 40°   | 273.9  | 250.9  | 238.5  | 254.8  | 277.7  |
| 42.5° | 229.9  | 209.7  | 199.2  | 211.7  | 234.6  |
| 45°   | 190.6  | 174.3  | 165.7  | 177.2  | 194.4  |
| 47.5° | 158.0  | 145.6  | 137.0  | 147.5  | 160.9  |
| 50°   | 132.2  | 120.7  | 114.9  | 122.6  | 135.0  |
| 52.5° | 109.2  | 101.5  | 94.8   | 102.5  | 112.1  |
| 55°   | 88.1   | 84.3   | 80.5   | 86.2   | 88.1   |
| 57.5° | 69.0   | 68.0   | 67.0   | 69.0   | 69.9   |
| 60°   | 53.6   | 54.6   | 56.5   | 54.6   | 54.6   |
| 62.5° | 41.2   | 43.1   | 46.9   | 43.1   | 42.1   |
| 65°   | 30.6   | 33.5   | 36.4   | 33.5   | 31.6   |
| 67.5° | 23.0   | 24.9   | 26.8   | 24.9   | 23.0   |
| 70°   | 17.2   | 18.2   | 19.2   | 18.2   | 16.3   |
| 72.5° | 10.5   | 12.5   | 12.5   | 12.5   | 10.5   |
| 75°   | 5.7    | 6.7    | 6.7    | 6.7    | 5.7    |
| 77.5° | 1.0    | 2.9    | 2.9    | 2.9    | 1.0    |
| 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)