

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: P238181

Luminaire Tested: **PRS630D010-S6M24-61SNDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238181  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-16)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS630D010-S6M24-61SNDMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" NARROW DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3048.6 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.87  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

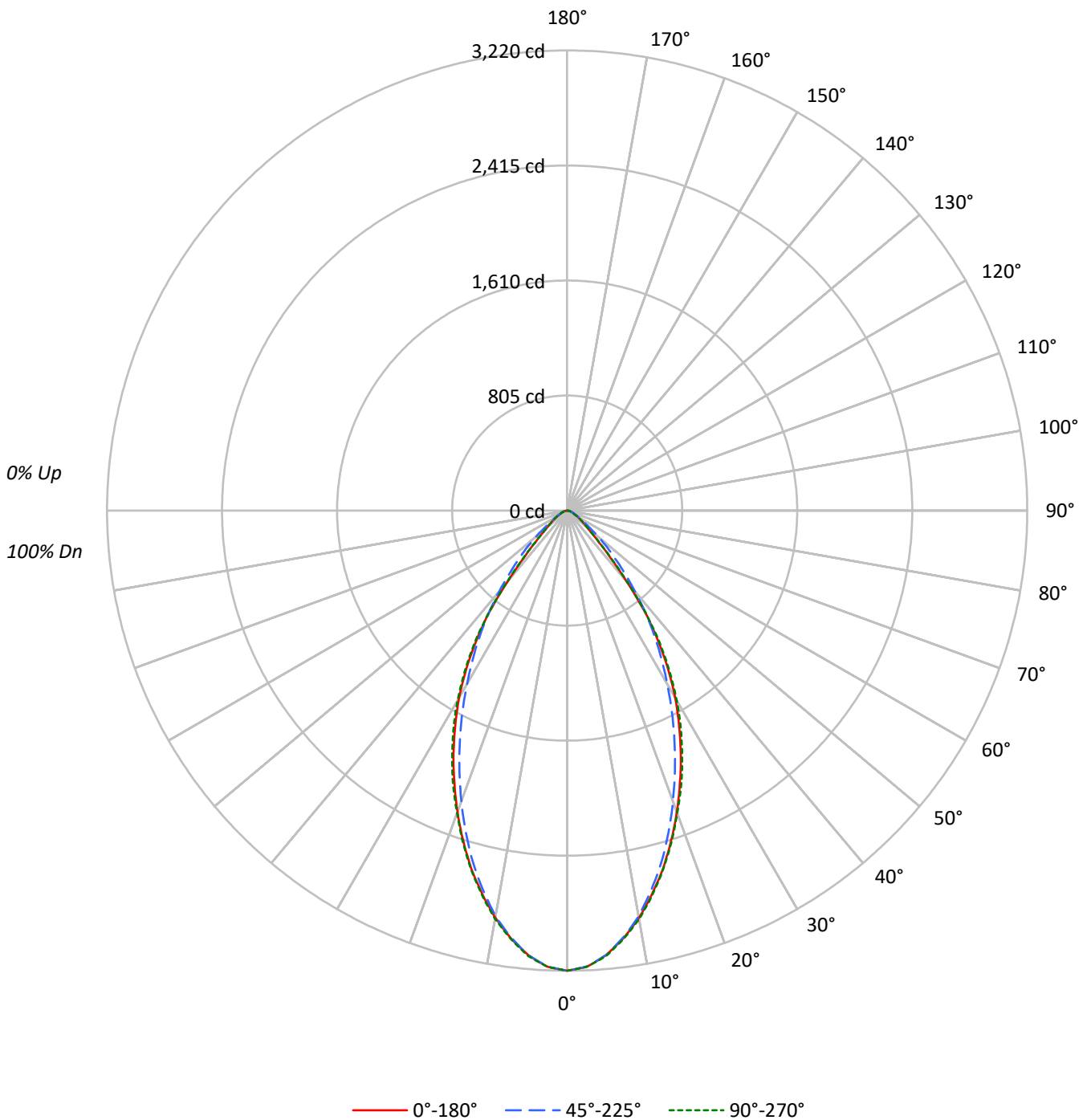
Input Watts (W): 25.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 0  |     |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    | 100 |
| 1   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 100 | 100 | 98  | 97  | 96  | 95  | 94  |     |    |    | 92 |     |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 93  | 90  | 93  | 90  | 88  | 90  | 88  | 86  |     |    |    | 84 |     |
| 3   | 100 | 93  | 88  | 83  | 98  | 92  | 87  | 83  | 89  | 85  | 81  | 87  | 83  | 80  | 84  | 81  | 79  |     |    |    | 77 |     |
| 4   | 95  | 86  | 80  | 75  | 93  | 85  | 79  | 75  | 83  | 78  | 74  | 81  | 77  | 73  | 79  | 75  | 72  |     |    |    | 71 |     |
| 5   | 89  | 80  | 74  | 69  | 88  | 79  | 73  | 69  | 77  | 72  | 68  | 76  | 71  | 67  | 74  | 70  | 67  |     |    |    | 65 |     |
| 6   | 84  | 75  | 68  | 63  | 83  | 74  | 68  | 63  | 72  | 67  | 63  | 71  | 66  | 62  | 69  | 65  | 62  |     |    |    | 60 |     |
| 7   | 80  | 70  | 63  | 59  | 78  | 69  | 63  | 58  | 68  | 62  | 58  | 66  | 61  | 58  | 65  | 61  | 57  |     |    |    | 56 |     |
| 8   | 76  | 65  | 59  | 54  | 74  | 65  | 58  | 54  | 64  | 58  | 54  | 62  | 57  | 54  | 61  | 57  | 53  |     |    |    | 52 |     |
| 9   | 72  | 61  | 55  | 51  | 71  | 61  | 55  | 51  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 50  |     |    |    | 49 |     |
| 10  | 68  | 58  | 51  | 47  | 67  | 57  | 51  | 47  | 56  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  |     |    |    | 45 |     |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 138635 | 138635 | 138635 |
| 5°  | 134981 | 134981 | 135218 |
| 10° | 126512 | 126031 | 126875 |
| 15° | 115559 | 113585 | 115805 |
| 20° | 102827 | 99157  | 103207 |
| 25° | 89417  | 84424  | 90467  |
| 30° | 75161  | 69668  | 76260  |
| 35° | 58106  | 55783  | 59415  |
| 40° | 36348  | 41631  | 37129  |
| 45° | 19186  | 28947  | 19521  |
| 50° | 12030  | 18882  | 12218  |
| 55° | 8918   | 10997  | 9128   |
| 60° | 6665   | 7612   | 6665   |
| 65° | 5063   | 5909   | 5063   |
| 70° | 4519   | 4872   | 4519   |
| 75° | 4142   | 4142   | 4142   |
| 80° | 3422   | 3422   | 3422   |
| 85° | 2717   | 2717   | 2717   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 290.6  | 9.5       |
| 10°-20°   | 716.1  | 23.5      |
| 20°-30°   | 838.6  | 27.5      |
| 30°-40°   | 670.0  | 22.0      |
| 40°-50°   | 318.5  | 10.4      |
| 50°-60°   | 125.2  | 4.1       |
| 60°-70°   | 55.7   | 1.8       |
| 70°-80°   | 26.6   | 0.9       |
| 80°-90°   | 7.2    | 0.2       |
| 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°    | 1845.3 | 60.5      |
| 0°-40°    | 2515.3 | 82.5      |
| 0°-60°    | 2959.0 | 97.1      |
| 0°-90°    | 3048.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3048.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3220 | 3220  | 3220 | 3220  | 3220 |      |
| 5°  | 3123 | 3123  | 3123 | 3126  | 3129 | 291  |
| 15° | 2592 | 2565  | 2548 | 2570  | 2598 | 723  |
| 25° | 1882 | 1827  | 1777 | 1838  | 1904 | 860  |
| 35° | 1106 | 1064  | 1061 | 1078  | 1130 | 679  |
| 45° | 315  | 379   | 475  | 384   | 321  | 267  |
| 55° | 119  | 133   | 146  | 135   | 122  | 110  |
| 65° | 50   | 52    | 58   | 52    | 50   | 52   |
| 75° | 25   | 25    | 25   | 25    | 25   | 26   |
| 85° | 6    | 6     | 6    | 6     | 6    | 7    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3219.9 | 3219.9 | 3219.9 | 3219.9 | 3219.9 |
| 2.5°  | 3195.0 | 3195.0 | 3192.2 | 3195.0 | 3195.0 |
| 5°    | 3123.1 | 3123.1 | 3123.1 | 3125.9 | 3128.6 |
| 7.5°  | 3018.1 | 3018.1 | 3012.6 | 3020.9 | 3023.6 |
| 10°   | 2893.7 | 2885.4 | 2882.7 | 2888.2 | 2902.0 |
| 12.5° | 2747.2 | 2733.4 | 2719.6 | 2736.2 | 2755.5 |
| 15°   | 2592.5 | 2564.8 | 2548.2 | 2570.4 | 2598.0 |
| 17.5° | 2421.1 | 2385.2 | 2360.3 | 2393.5 | 2429.4 |
| 20°   | 2244.2 | 2205.5 | 2164.1 | 2211.1 | 2252.5 |
| 22.5° | 2061.8 | 2012.1 | 1970.6 | 2025.9 | 2083.9 |
| 25°   | 1882.2 | 1826.9 | 1777.1 | 1837.9 | 1904.3 |
| 27.5° | 1697.0 | 1636.2 | 1586.4 | 1652.8 | 1724.6 |
| 30°   | 1511.8 | 1448.2 | 1401.3 | 1470.4 | 1533.9 |
| 32.5° | 1312.8 | 1249.2 | 1227.1 | 1271.4 | 1332.2 |
| 35°   | 1105.5 | 1064.1 | 1061.3 | 1077.9 | 1130.4 |
| 37.5° | 892.7  | 887.2  | 895.5  | 898.2  | 898.2  |
| 40°   | 646.7  | 704.8  | 740.7  | 718.6  | 660.6  |
| 42.5° | 447.7  | 527.9  | 594.2  | 536.2  | 461.6  |
| 45°   | 315.1  | 378.6  | 475.4  | 384.2  | 320.6  |
| 47.5° | 229.4  | 279.1  | 375.9  | 281.9  | 232.2  |
| 50°   | 179.6  | 210.1  | 281.9  | 207.3  | 182.4  |
| 52.5° | 146.5  | 165.8  | 201.8  | 165.8  | 149.2  |
| 55°   | 118.8  | 132.7  | 146.5  | 135.4  | 121.6  |
| 57.5° | 99.5   | 107.8  | 110.6  | 110.6  | 99.5   |
| 60°   | 77.4   | 85.7   | 88.4   | 85.7   | 77.4   |
| 62.5° | 58.0   | 66.3   | 71.9   | 69.1   | 58.0   |
| 65°   | 49.7   | 52.5   | 58.0   | 52.5   | 49.7   |
| 67.5° | 44.2   | 44.2   | 47.0   | 44.2   | 44.2   |
| 70°   | 35.9   | 38.7   | 38.7   | 38.7   | 35.9   |
| 72.5° | 30.4   | 30.4   | 30.4   | 30.4   | 30.4   |
| 75°   | 24.9   | 24.9   | 24.9   | 24.9   | 24.9   |
| 77.5° | 19.3   | 19.3   | 19.3   | 19.3   | 19.3   |
| 80°   | 13.8   | 13.8   | 13.8   | 16.6   | 13.8   |
| 82.5° | 11.1   | 11.1   | 11.1   | 11.1   | 11.1   |
| 85°   | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    |
| 87.5° | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)