

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: P238108

Luminaire Tested: **PRS610D010-S6M12-64SMDC-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238108  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-11)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS610D010-S6M12-64SMDC-4000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" MEDIUM DISTRIBUTION, SHALLOW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1111.6 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.96 / 1.03  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

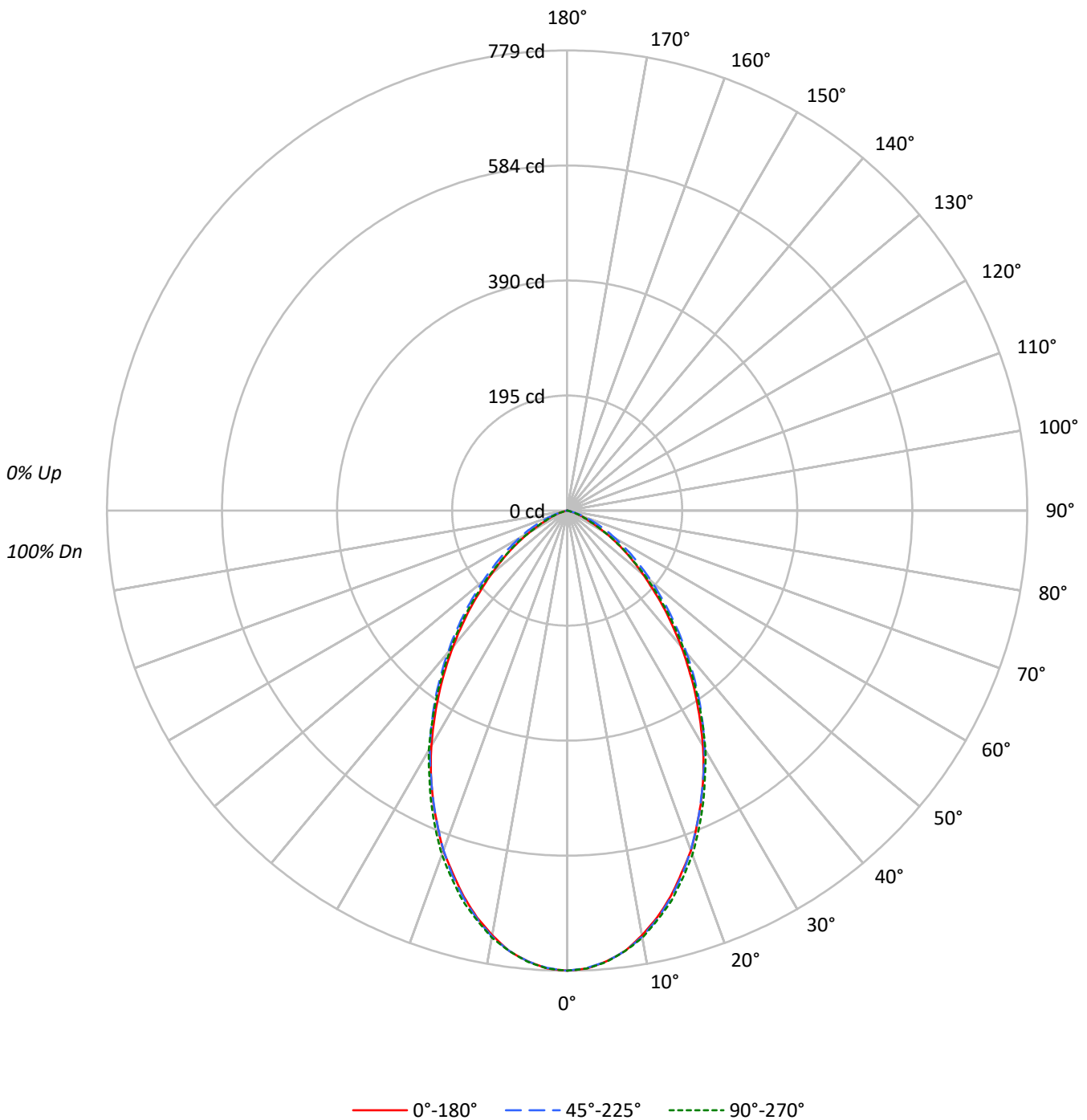
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 108 | 105 | 103 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |    | 90  |   |  |   |
| 2   | 104 | 98  | 93  | 89  | 102 | 96  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 84  | 82  | 80  |    |    |    |    | 80  |   |  |   |
| 3   | 97  | 89  | 83  | 78  | 95  | 87  | 82  | 77  | 85  | 80  | 76  | 82  | 78  | 74  | 80  | 76  | 73  | 71  |    |    |    |    | 71  |   |  |   |
| 4   | 91  | 81  | 74  | 69  | 89  | 80  | 73  | 68  | 77  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  |    |    |    |    | 64  |   |  |   |
| 5   | 84  | 74  | 67  | 61  | 83  | 73  | 66  | 61  | 71  | 65  | 60  | 69  | 64  | 60  | 67  | 63  | 59  | 57  |    |    |    |    | 57  |   |  |   |
| 6   | 79  | 68  | 60  | 55  | 77  | 67  | 60  | 55  | 65  | 59  | 54  | 64  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 7   | 74  | 63  | 55  | 50  | 72  | 62  | 55  | 50  | 60  | 54  | 50  | 59  | 53  | 49  | 58  | 53  | 49  | 47  |    |    |    |    | 47  |   |  |   |
| 8   | 70  | 58  | 51  | 46  | 68  | 57  | 50  | 46  | 56  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 43  |    |    |    |    | 43  |   |  |   |
| 9   | 66  | 54  | 47  | 42  | 64  | 53  | 46  | 42  | 52  | 46  | 42  | 51  | 46  | 41  | 50  | 45  | 41  | 40  |    |    |    |    | 40  |   |  |   |
| 10  | 62  | 50  | 43  | 39  | 61  | 50  | 43  | 39  | 49  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 37  |    |    |    |    | 37  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 33536 | 33536 | 33536 |
| 5°  | 33102 | 33102 | 33146 |
| 10° | 31920 | 32007 | 32095 |
| 15° | 30150 | 30239 | 30462 |
| 20° | 28078 | 28032 | 28394 |
| 25° | 25563 | 25521 | 25896 |
| 30° | 22850 | 23143 | 23292 |
| 35° | 19868 | 20441 | 20236 |
| 40° | 16884 | 17665 | 17277 |
| 45° | 13992 | 14961 | 14352 |
| 50° | 11193 | 12459 | 11528 |
| 55° | 8813  | 10231 | 8963  |
| 60° | 6252  | 8051  | 6338  |
| 65° | 4055  | 6082  | 4157  |
| 70° | 2757  | 3751  | 2757  |
| 75° | 1331  | 1647  | 1331  |
| 80° | 0     | 248   | 0     |
| 85° | 0     | 0     | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 72.1   | 6.5       |
| 10°-20°   | 190.1  | 17.1      |
| 20°-30°   | 247.5  | 22.3      |
| 30°-40°   | 240.0  | 21.6      |
| 40°-50°   | 185.5  | 16.7      |
| 50°-60°   | 114.7  | 10.3      |
| 60°-70°   | 50.6   | 4.6       |
| 70°-80°   | 11.1   | 1.0       |
| 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°    | 509.7  | 45.8      |
| 0°-40°    | 749.7  | 67.4      |
| 0°-60°    | 1049.9 | 94.4      |
| 0°-90°    | 1111.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1111.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 779 | 779   | 779 | 779   | 779 |      |
| 5°  | 766 | 767   | 766 | 767   | 767 | 72   |
| 15° | 676 | 677   | 678 | 682   | 683 | 189  |
| 25° | 538 | 537   | 537 | 542   | 545 | 247  |
| 35° | 378 | 382   | 389 | 386   | 385 | 236  |
| 45° | 230 | 239   | 246 | 243   | 236 | 177  |
| 55° | 117 | 126   | 136 | 128   | 119 | 105  |
| 65° | 40  | 48    | 60  | 48    | 41  | 42   |
| 75° | 8   | 10    | 10  | 10    | 8   | 9    |
| 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°    | 778.9 | 778.9 | 778.9 | 778.9 | 778.9 |
| 2.5°  | 775.9 | 775.9 | 774.9 | 775.9 | 775.9 |
| 5°    | 765.9 | 766.9 | 765.9 | 766.9 | 766.9 |
| 7.5°  | 752.0 | 752.0 | 752.0 | 753.0 | 752.0 |
| 10°   | 730.1 | 731.1 | 732.1 | 733.1 | 734.1 |
| 12.5° | 705.3 | 706.3 | 707.2 | 709.2 | 709.2 |
| 15°   | 676.4 | 677.4 | 678.4 | 682.4 | 683.4 |
| 17.5° | 643.6 | 644.6 | 646.6 | 650.6 | 651.5 |
| 20°   | 612.8 | 609.8 | 611.8 | 614.7 | 619.7 |
| 22.5° | 575.0 | 575.0 | 575.0 | 578.9 | 582.9 |
| 25°   | 538.1 | 537.2 | 537.2 | 542.1 | 545.1 |
| 27.5° | 499.4 | 499.4 | 500.3 | 503.3 | 505.3 |
| 30°   | 459.6 | 459.6 | 465.5 | 464.5 | 468.5 |
| 32.5° | 417.8 | 420.8 | 426.7 | 424.7 | 425.7 |
| 35°   | 378.0 | 382.0 | 388.9 | 386.0 | 385.0 |
| 37.5° | 338.2 | 343.2 | 351.1 | 348.2 | 345.2 |
| 40°   | 300.4 | 307.4 | 314.3 | 310.4 | 307.4 |
| 42.5° | 263.6 | 271.6 | 279.5 | 275.5 | 271.6 |
| 45°   | 229.8 | 238.7 | 245.7 | 242.7 | 235.7 |
| 47.5° | 196.0 | 206.9 | 213.9 | 210.9 | 203.9 |
| 50°   | 167.1 | 178.1 | 186.0 | 181.0 | 172.1 |
| 52.5° | 141.3 | 151.2 | 159.2 | 153.2 | 144.2 |
| 55°   | 117.4 | 126.3 | 136.3 | 128.3 | 119.4 |
| 57.5° | 94.5  | 104.4 | 113.4 | 106.4 | 96.5  |
| 60°   | 72.6  | 83.6  | 93.5  | 85.5  | 73.6  |
| 62.5° | 53.7  | 64.7  | 76.6  | 65.7  | 54.7  |
| 65°   | 39.8  | 47.7  | 59.7  | 47.7  | 40.8  |
| 67.5° | 29.8  | 34.8  | 44.8  | 35.8  | 29.8  |
| 70°   | 21.9  | 25.9  | 29.8  | 25.9  | 21.9  |
| 72.5° | 14.9  | 17.9  | 17.9  | 17.9  | 14.9  |
| 75°   | 8.0   | 9.9   | 9.9   | 9.9   | 8.0   |
| 77.5° | 1.0   | 3.0   | 4.0   | 3.0   | 1.0   |
| 80°   | 0.0   | 0.0   | 1.0   | 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)