

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: P238141

Luminaire Tested: **PRS630D010-S6M24-61SNDMB-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238141  
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: PRS630D010-S6M24-61SNDMB-4000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" NARROW DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2540.9 lumens  
Efficiency: N/A  
Efficacy: 99.6 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

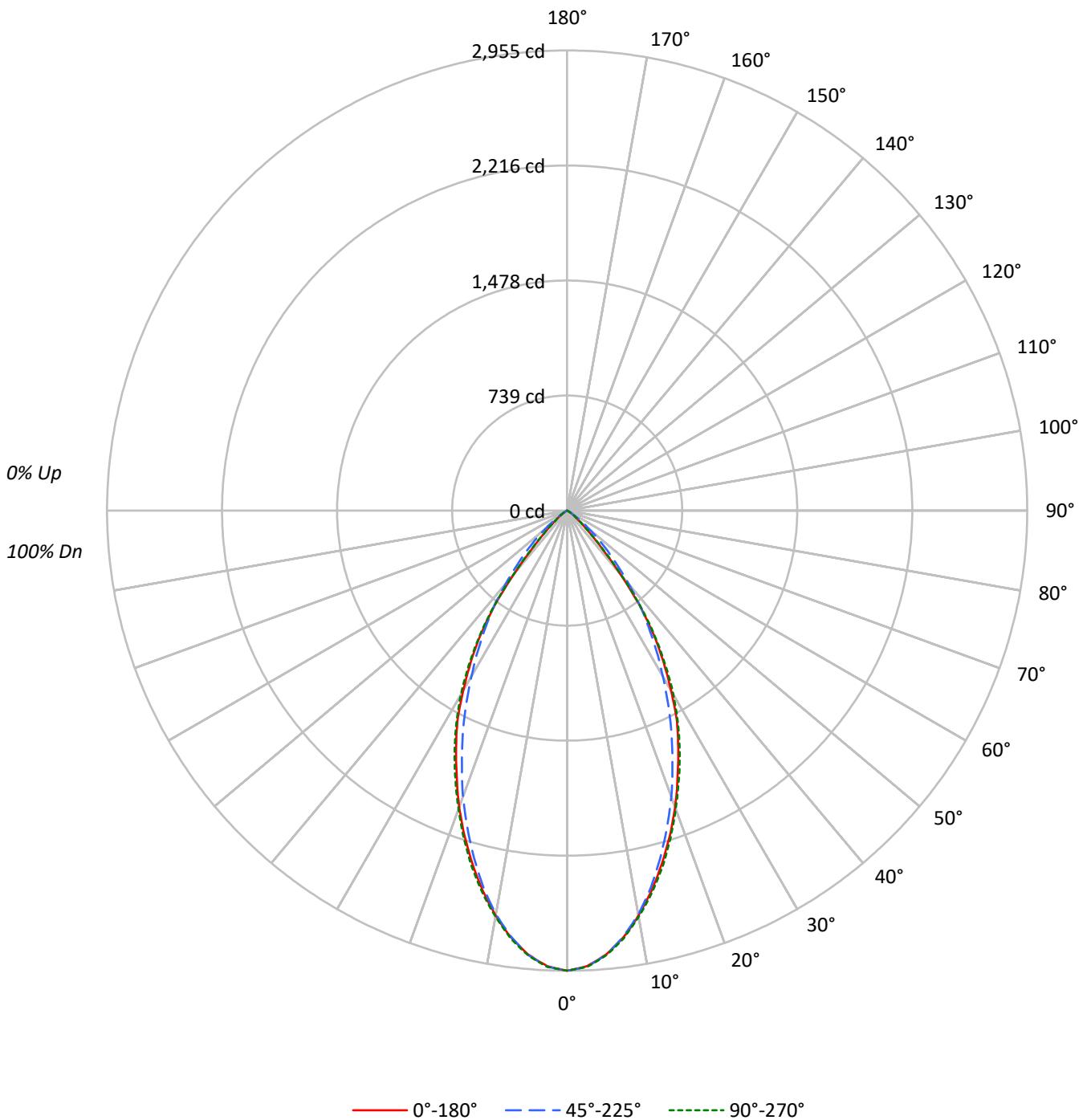
Input Watts (W): 25.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 127212 | 127212 | 127212 |
| 5°  | 123713 | 123826 | 123942 |
| 10° | 115464 | 115119 | 115810 |
| 15° | 104679 | 102918 | 105503 |
| 20° | 92870  | 89608  | 93471  |
| 25° | 80139  | 75379  | 81265  |
| 30° | 66307  | 61062  | 67878  |
| 35° | 50564  | 47794  | 51536  |
| 40° | 29333  | 34369  | 30222  |
| 45° | 13000  | 22468  | 13323  |
| 50° | 6176   | 12532  | 6176   |
| 55° | 3363   | 5142   | 3363   |
| 60° | 1137   | 2041   | 1137   |
| 65° | 0      | 540    | 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°    | 266.2  | 10.5      |
| 10°-20°   | 650.0  | 25.6      |
| 20°-30°   | 749.4  | 29.5      |
| 30°-40°   | 577.8  | 22.7      |
| 40°-50°   | 237.1  | 9.3       |
| 50°-60°   | 55.8   | 2.2       |
| 60°-70°   | 4.6    | 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°    | 1665.5 | 65.5      |
| 0°-40°    | 2243.3 | 88.3      |
| 0°-60°    | 2536.2 | 99.8      |
| 0°-90°    | 2540.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2540.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2955 | 2955  | 2955 | 2955  | 2955 |      |
| 5°  | 2862 | 2862  | 2865 | 2868  | 2868 | 266  |
| 15° | 2348 | 2330  | 2309 | 2333  | 2367 | 655  |
| 25° | 1687 | 1629  | 1587 | 1645  | 1711 | 771  |
| 35° | 962  | 915   | 909  | 936   | 980  | 586  |
| 45° | 214  | 277   | 369  | 285   | 219  | 188  |
| 55° | 45   | 58    | 68   | 58    | 45   | 41   |
| 65° | 0    | 0     | 5    | 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°    | 2954.6 | 2954.6 | 2954.6 | 2954.6 | 2954.6 |
| 2.5°  | 2928.3 | 2930.9 | 2930.9 | 2933.5 | 2933.5 |
| 5°    | 2862.4 | 2862.4 | 2865.0 | 2867.7 | 2867.7 |
| 7.5°  | 2764.9 | 2762.2 | 2759.6 | 2764.9 | 2772.8 |
| 10°   | 2641.0 | 2633.1 | 2633.1 | 2638.3 | 2648.9 |
| 12.5° | 2501.3 | 2488.1 | 2480.2 | 2490.7 | 2514.5 |
| 15°   | 2348.4 | 2330.0 | 2308.9 | 2332.6 | 2366.9 |
| 17.5° | 2190.3 | 2163.9 | 2132.3 | 2166.6 | 2206.1 |
| 20°   | 2026.9 | 1984.7 | 1955.7 | 1992.6 | 2040.0 |
| 22.5° | 1852.9 | 1808.1 | 1765.9 | 1821.3 | 1874.0 |
| 25°   | 1686.9 | 1628.9 | 1586.7 | 1644.7 | 1710.6 |
| 27.5° | 1526.1 | 1449.6 | 1404.8 | 1468.1 | 1541.9 |
| 30°   | 1333.7 | 1278.3 | 1228.2 | 1294.1 | 1365.3 |
| 32.5° | 1149.2 | 1091.2 | 1067.5 | 1109.6 | 1172.9 |
| 35°   | 962.0  | 914.6  | 909.3  | 935.7  | 980.5  |
| 37.5° | 753.8  | 751.2  | 767.0  | 761.7  | 769.6  |
| 40°   | 521.9  | 585.1  | 611.5  | 590.4  | 537.7  |
| 42.5° | 337.4  | 411.2  | 477.1  | 421.7  | 355.8  |
| 45°   | 213.5  | 276.7  | 369.0  | 284.7  | 218.8  |
| 47.5° | 134.4  | 179.2  | 276.7  | 184.5  | 137.1  |
| 50°   | 92.2   | 118.6  | 187.1  | 118.6  | 92.2   |
| 52.5° | 63.3   | 81.7   | 116.0  | 81.7   | 65.9   |
| 55°   | 44.8   | 58.0   | 68.5   | 58.0   | 44.8   |
| 57.5° | 26.4   | 36.9   | 39.5   | 36.9   | 29.0   |
| 60°   | 13.2   | 21.1   | 23.7   | 21.1   | 13.2   |
| 62.5° | 0.0    | 7.9    | 13.2   | 7.9    | 0.0    |
| 65°   | 0.0    | 0.0    | 5.3    | 0.0    | 0.0    |
| 67.5° | 0.0    | 0.0    | 2.6    | 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)