

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: P238145

Luminaire Tested: **PRS620D010-S6M12-61SMDMB-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238145  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-14)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS620D010-S6M12-61SMDMB-3000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1820.4 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.95 / 1  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

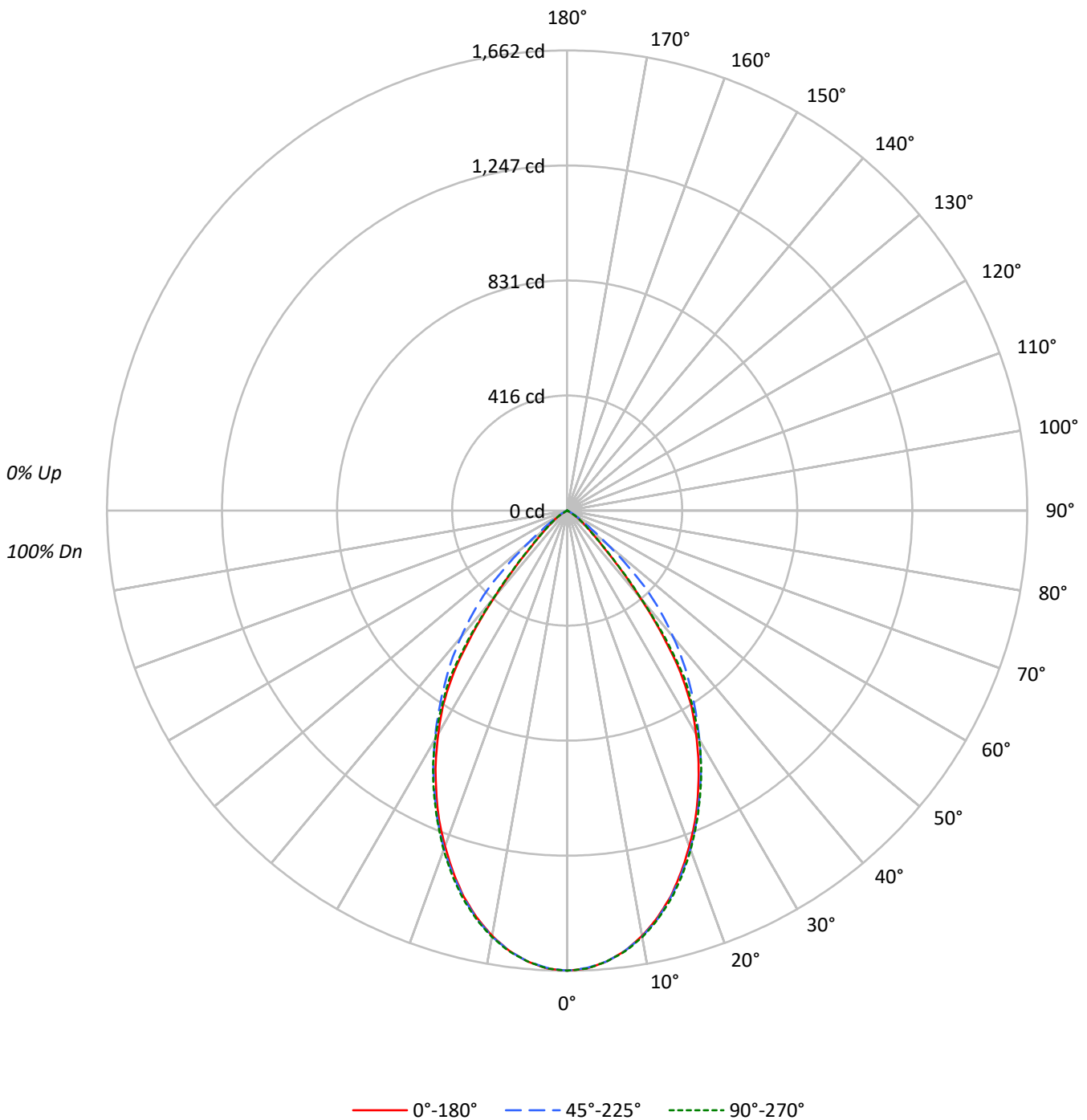
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 100 | 97 | 96 | 94 | 93 |  |   |
| 1   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 103 | 104 | 102 | 100 | 100 | 99  | 97  | 97  | 96  | 94  | 93  | 93  | 93  | 91 | 89 | 87 | 85 |  |   |
| 2   | 107 | 102 | 97  | 94  | 105 | 100 | 96  | 93  | 97  | 93  | 91  | 94  | 91  | 89  | 91  | 89  | 87  | 85  | 85  | 85  | 81 | 80 | 78 | 78 |  |   |
| 3   | 101 | 94  | 88  | 84  | 99  | 92  | 88  | 84  | 90  | 86  | 82  | 87  | 84  | 81  | 85  | 82  | 80  | 78  | 78  | 78  | 74 | 73 | 72 | 72 |  |   |
| 4   | 95  | 87  | 81  | 76  | 93  | 86  | 80  | 76  | 83  | 79  | 75  | 81  | 77  | 74  | 80  | 76  | 73  | 72  | 72  | 72  | 68 | 67 | 66 | 66 |  |   |
| 5   | 90  | 81  | 74  | 70  | 88  | 80  | 74  | 69  | 78  | 73  | 69  | 76  | 72  | 68  | 74  | 70  | 67  | 66  | 66  | 66  | 63 | 62 | 61 | 61 |  |   |
| 6   | 85  | 75  | 68  | 64  | 83  | 74  | 68  | 63  | 73  | 67  | 63  | 71  | 66  | 63  | 70  | 65  | 62  | 61  | 61  | 61  | 58 | 57 | 56 | 56 |  |   |
| 7   | 80  | 70  | 63  | 59  | 78  | 69  | 63  | 59  | 68  | 62  | 58  | 67  | 62  | 58  | 65  | 61  | 58  | 56  | 56  | 56  | 53 | 52 | 51 | 51 |  |   |
| 8   | 76  | 65  | 59  | 54  | 74  | 65  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 61  | 57  | 53  | 52  | 52  | 52  | 50 | 49 | 48 | 48 |  |   |
| 9   | 72  | 61  | 55  | 50  | 70  | 61  | 54  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 50  | 48  | 48  | 48  | 46 | 45 | 44 | 44 |  |   |
| 10  | 68  | 57  | 51  | 47  | 67  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 54  | 50  | 46  | 45  | 45  | 45  | 43 | 42 | 41 | 41 |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 71546 | 71546 | 71546 |
| 5°  | 70652 | 70652 | 70652 |
| 10° | 68199 | 68290 | 68382 |
| 15° | 64348 | 64441 | 64718 |
| 20° | 59102 | 59578 | 59766 |
| 25° | 53188 | 53778 | 53977 |
| 30° | 46266 | 47504 | 47400 |
| 35° | 37555 | 40724 | 38869 |
| 40° | 22999 | 33504 | 23466 |
| 45° | 11003 | 25166 | 11380 |
| 50° | 6122  | 12519 | 6122  |
| 55° | 3588  | 5142  | 3746  |
| 60° | 896   | 2325  | 1076  |
| 65° | 0     | 632   | 214   |
| 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°    | 153.8  | 8.4       |
| 10°-20°   | 404.5  | 22.2      |
| 20°-30°   | 517.3  | 28.4      |
| 30°-40°   | 461.5  | 25.4      |
| 40°-50°   | 220.6  | 12.1      |
| 50°-60°   | 57.8   | 3.2       |
| 60°-70°   | 4.9    | 0.3       |
| 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°    | 1075.6 | 59.1      |
| 0°-40°    | 1537.1 | 84.4      |
| 0°-60°    | 1815.5 | 99.7      |
| 0°-90°    | 1820.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1820.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1662 | 1662  | 1662 | 1662  | 1662 |      |
| 5°  | 1635 | 1635  | 1635 | 1637  | 1635 | 154  |
| 15° | 1444 | 1444  | 1446 | 1450  | 1452 | 403  |
| 25° | 1120 | 1124  | 1132 | 1136  | 1136 | 512  |
| 35° | 714  | 750   | 775  | 760   | 740  | 430  |
| 45° | 181  | 249   | 413  | 251   | 187  | 158  |
| 55° | 48   | 62    | 68   | 62    | 50   | 43   |
| 65° | 0    | 2     | 6    | 0     | 2    | 1    |
| 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°    | 1661.7 | 1661.7 | 1661.7 | 1661.7 | 1661.7 |
| 2.5°  | 1655.5 | 1655.5 | 1653.4 | 1655.5 | 1655.5 |
| 5°    | 1634.7 | 1634.7 | 1634.7 | 1636.8 | 1634.7 |
| 7.5°  | 1603.5 | 1603.5 | 1603.5 | 1605.6 | 1605.6 |
| 10°   | 1559.9 | 1559.9 | 1562.0 | 1564.1 | 1564.1 |
| 12.5° | 1505.9 | 1505.9 | 1510.1 | 1512.1 | 1512.1 |
| 15°   | 1443.6 | 1443.6 | 1445.7 | 1449.8 | 1451.9 |
| 17.5° | 1368.8 | 1370.9 | 1375.1 | 1379.2 | 1381.3 |
| 20°   | 1289.9 | 1292.0 | 1300.3 | 1304.4 | 1304.4 |
| 22.5° | 1208.9 | 1211.0 | 1219.3 | 1223.4 | 1221.4 |
| 25°   | 1119.6 | 1123.7 | 1132.0 | 1136.2 | 1136.2 |
| 27.5° | 1028.2 | 1034.4 | 1046.9 | 1044.8 | 1048.9 |
| 30°   | 930.6  | 940.9  | 955.5  | 955.5  | 953.4  |
| 32.5° | 835.0  | 847.5  | 864.1  | 855.8  | 845.4  |
| 35°   | 714.5  | 749.8  | 774.8  | 760.2  | 739.5  |
| 37.5° | 562.9  | 641.8  | 687.5  | 656.4  | 585.8  |
| 40°   | 409.2  | 502.7  | 596.1  | 515.1  | 417.5  |
| 42.5° | 276.3  | 359.3  | 504.7  | 369.7  | 286.6  |
| 45°   | 180.7  | 249.3  | 413.3  | 251.3  | 186.9  |
| 47.5° | 124.6  | 166.2  | 299.1  | 168.2  | 126.7  |
| 50°   | 91.4   | 116.3  | 186.9  | 116.3  | 91.4   |
| 52.5° | 68.5   | 85.2   | 114.2  | 85.2   | 68.5   |
| 55°   | 47.8   | 62.3   | 68.5   | 62.3   | 49.9   |
| 57.5° | 29.1   | 41.5   | 41.5   | 41.5   | 29.1   |
| 60°   | 10.4   | 22.8   | 27.0   | 22.8   | 12.5   |
| 62.5° | 0.0    | 6.2    | 14.5   | 6.2    | 0.0    |
| 65°   | 0.0    | 2.1    | 6.2    | 0.0    | 2.1    |
| 67.5° | 0.0    | 0.0    | 2.1    | 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)