

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: P238140

Luminaire Tested: **PRS620D010-S6M12-61SNDMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238140
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: PRS620D010-S6M12-61SNDMB-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: 2080.7 lumens
Efficiency: N/A
Efficacy: 104.0 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

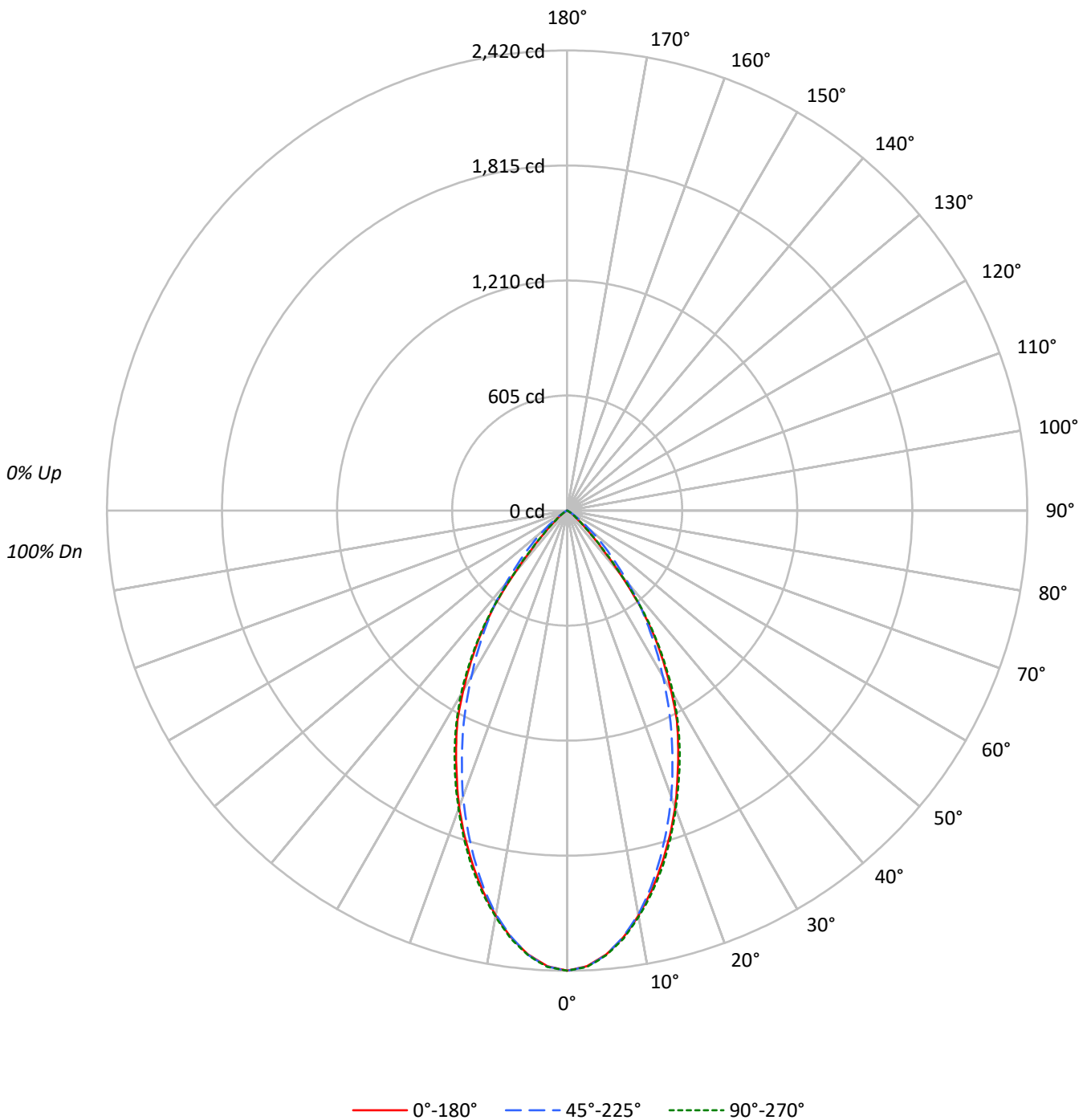
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | |
| 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° | 104173 | 104173 | 104173 |
| 5° | 101304 | 101399 | 101489 |
| 10° | 94549 | 94269 | 94833 |
| 15° | 85721 | 84277 | 86394 |
| 20° | 76046 | 73379 | 76540 |
| 25° | 65621 | 61725 | 66543 |
| 30° | 54295 | 50005 | 55583 |
| 35° | 41408 | 39137 | 42201 |
| 40° | 24016 | 28142 | 24747 |
| 45° | 10644 | 18401 | 10905 |
| 50° | 5057 | 10262 | 5057 |
| 55° | 2755 | 4211 | 2755 |
| 60° | 930 | 1671 | 930 |
| 65° | 0 | 438 | 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° | 218.0 | 10.5 |
| 10°-20° | 532.2 | 25.6 |
| 20°-30° | 613.6 | 29.5 |
| 30°-40° | 473.1 | 22.7 |
| 40°-50° | 194.1 | 9.3 |
| 50°-60° | 45.7 | 2.2 |
| 60°-70° | 3.8 | 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° | 1363.8 | 65.5 |
| 0°-40° | 1837.0 | 88.3 |
| 0°-60° | 2076.9 | 99.8 |
| 0°-90° | 2080.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2080.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2420 | 2420 | 2420 | 2420 | 2420 | |
| 5° | 2344 | 2344 | 2346 | 2348 | 2348 | 218 |
| 15° | 1923 | 1908 | 1891 | 1910 | 1938 | 537 |
| 25° | 1381 | 1334 | 1299 | 1347 | 1401 | 632 |
| 35° | 788 | 749 | 745 | 766 | 803 | 480 |
| 45° | 175 | 227 | 302 | 233 | 179 | 154 |
| 55° | 37 | 48 | 56 | 48 | 37 | 34 |
| 65° | 0 | 0 | 4 | 0 | 0 | 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° | 2419.5 | 2419.5 | 2419.5 | 2419.5 | 2419.5 |
| 2.5° | 2397.9 | 2400.0 | 2400.0 | 2402.2 | 2402.2 |
| 5° | 2343.9 | 2343.9 | 2346.1 | 2348.2 | 2348.2 |
| 7.5° | 2264.1 | 2261.9 | 2259.7 | 2264.1 | 2270.5 |
| 10° | 2162.6 | 2156.2 | 2156.2 | 2160.5 | 2169.1 |
| 12.5° | 2048.2 | 2037.4 | 2031.0 | 2039.6 | 2059.0 |
| 15° | 1923.1 | 1907.9 | 1890.7 | 1910.1 | 1938.2 |
| 17.5° | 1793.6 | 1772.0 | 1746.1 | 1774.1 | 1806.5 |
| 20° | 1659.7 | 1625.2 | 1601.5 | 1631.7 | 1670.5 |
| 22.5° | 1517.3 | 1480.6 | 1446.1 | 1491.4 | 1534.6 |
| 25° | 1381.3 | 1333.8 | 1299.3 | 1346.8 | 1400.7 |
| 27.5° | 1249.7 | 1187.1 | 1150.4 | 1202.2 | 1262.6 |
| 30° | 1092.1 | 1046.8 | 1005.8 | 1059.7 | 1118.0 |
| 32.5° | 941.0 | 893.5 | 874.1 | 908.6 | 960.4 |
| 35° | 787.8 | 748.9 | 744.6 | 766.2 | 802.9 |
| 37.5° | 617.3 | 615.1 | 628.1 | 623.8 | 630.2 |
| 40° | 427.3 | 479.1 | 500.7 | 483.5 | 440.3 |
| 42.5° | 276.3 | 336.7 | 390.7 | 345.3 | 291.4 |
| 45° | 174.8 | 226.6 | 302.2 | 233.1 | 179.1 |
| 47.5° | 110.1 | 146.8 | 226.6 | 151.1 | 112.2 |
| 50° | 75.5 | 97.1 | 153.2 | 97.1 | 75.5 |
| 52.5° | 51.8 | 66.9 | 95.0 | 66.9 | 54.0 |
| 55° | 36.7 | 47.5 | 56.1 | 47.5 | 36.7 |
| 57.5° | 21.6 | 30.2 | 32.4 | 30.2 | 23.7 |
| 60° | 10.8 | 17.3 | 19.4 | 17.3 | 10.8 |
| 62.5° | 0.0 | 6.5 | 10.8 | 6.5 | 0.0 |
| 65° | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 2.2 | 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)