

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: P253002

Luminaire Tested: **PRS640D010-S6M24-64SWDC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P253002
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS640D010-S6M24-64SWDC-4000K
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WIDE 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: 3933.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.32 / 1.41
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

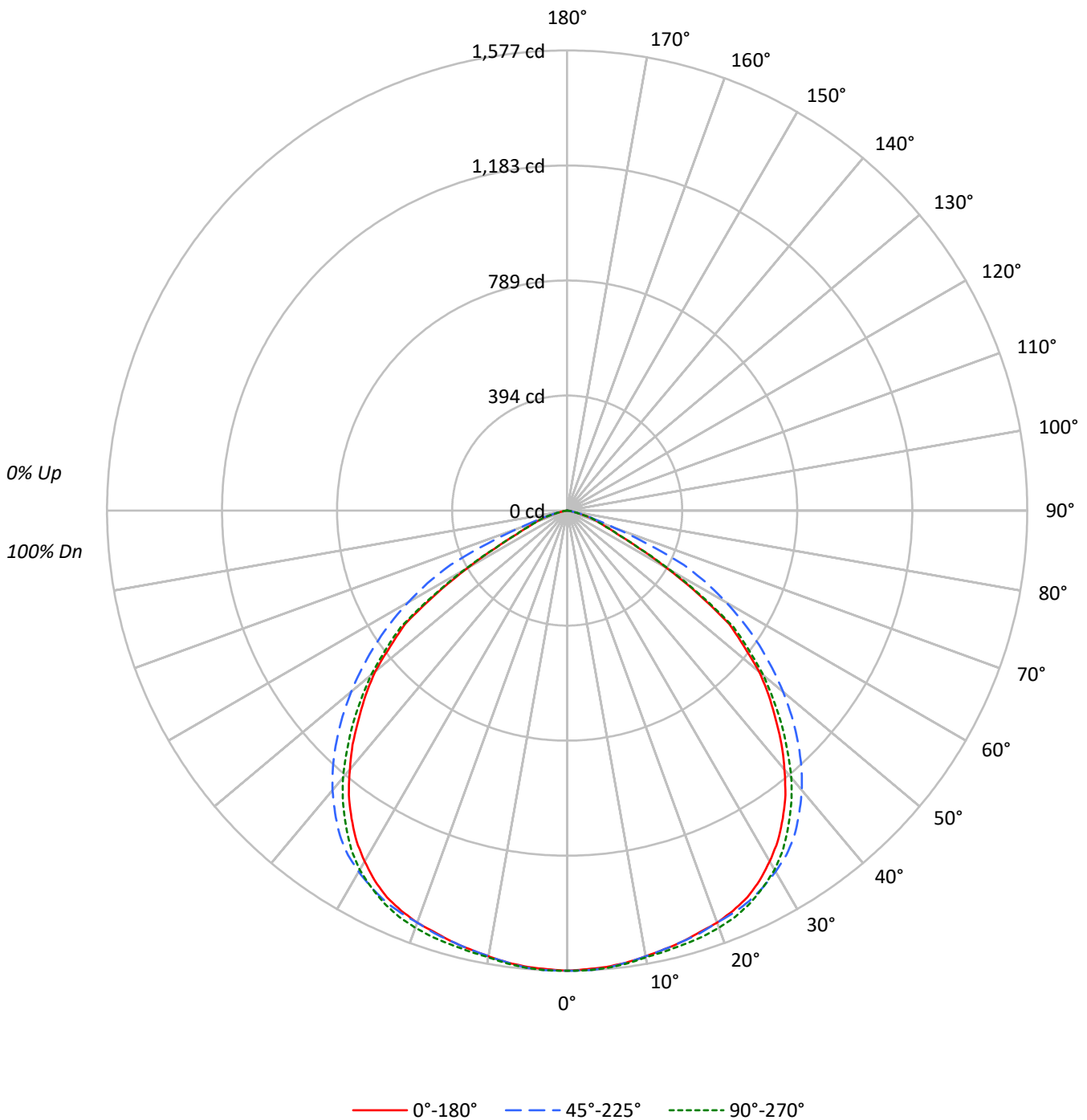
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 101 | 99 | 100 | 98 | 95 | 97 | 95 | 93 | 93 | 91 | 90 | 88 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 84 | 80 | 78 | 76 |
| 3 | 94 | 84 | 77 | 72 | 91 | 83 | 76 | 71 | 80 | 74 | 70 | 77 | 73 | 68 | 75 | 71 | 67 | 65 |
| 4 | 86 | 76 | 68 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 59 | 67 | 63 | 59 | 57 |
| 5 | 80 | 68 | 60 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 55 | 50 | 46 | 44 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 36 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 67894 | 67894 | 67894 |
| 5° | 67834 | 67994 | 67994 |
| 10° | 67810 | 67810 | 67971 |
| 15° | 68145 | 68145 | 68640 |
| 20° | 68861 | 68861 | 69709 |
| 25° | 69464 | 70167 | 70519 |
| 30° | 69016 | 71040 | 70672 |
| 35° | 67709 | 71404 | 69460 |
| 40° | 65119 | 70324 | 67205 |
| 45° | 61535 | 68069 | 63338 |
| 50° | 57525 | 64719 | 58764 |
| 55° | 50849 | 60300 | 52238 |
| 60° | 34109 | 54190 | 35065 |
| 65° | 19235 | 44877 | 19235 |
| 70° | 14452 | 21904 | 13986 |
| 75° | 8617 | 9848 | 9233 |
| 80° | 3670 | 4587 | 3670 |
| 85° | 1828 | 1828 | 1828 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 149.4 | 3.8 |
| 10°-20° | 433.3 | 11.0 |
| 20°-30° | 678.9 | 17.3 |
| 30°-40° | 829.4 | 21.1 |
| 40°-50° | 824.6 | 21.0 |
| 50°-60° | 651.1 | 16.6 |
| 60°-70° | 291.4 | 7.4 |
| 70°-80° | 67.9 | 1.7 |
| 80°-90° | 7.0 | 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° | 1261.6 | 32.1 |
| 0°-40° | 2091.0 | 53.2 |
| 0°-60° | 3566.6 | 90.7 |
| 0°-90° | 3933.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3933.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1577 | 1577 | 1577 | 1577 | 1577 | |
| 5° | 1570 | 1570 | 1573 | 1573 | 1573 | 149 |
| 15° | 1529 | 1525 | 1529 | 1532 | 1540 | 432 |
| 25° | 1462 | 1466 | 1477 | 1481 | 1484 | 672 |
| 35° | 1288 | 1314 | 1358 | 1340 | 1322 | 804 |
| 45° | 1011 | 1059 | 1118 | 1085 | 1040 | 780 |
| 55° | 677 | 729 | 803 | 744 | 696 | 579 |
| 65° | 189 | 248 | 440 | 252 | 189 | 211 |
| 75° | 52 | 63 | 59 | 63 | 56 | 59 |
| 85° | 4 | 4 | 4 | 4 | 4 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P253002

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1576.9 | 1576.9 | 1576.9 | 1576.9 | 1576.9 |
| 2.5° | 1573.2 | 1576.9 | 1576.9 | 1576.9 | 1576.9 |
| 5° | 1569.5 | 1569.5 | 1573.2 | 1573.2 | 1573.2 |
| 7.5° | 1562.1 | 1562.1 | 1562.1 | 1565.8 | 1565.8 |
| 10° | 1551.0 | 1551.0 | 1551.0 | 1554.7 | 1554.7 |
| 12.5° | 1539.9 | 1539.9 | 1539.9 | 1543.6 | 1547.3 |
| 15° | 1528.8 | 1525.1 | 1528.8 | 1532.5 | 1539.9 |
| 17.5° | 1514.0 | 1517.7 | 1517.7 | 1525.1 | 1532.5 |
| 20° | 1502.9 | 1502.9 | 1502.9 | 1514.0 | 1521.4 |
| 22.5° | 1484.4 | 1484.4 | 1491.8 | 1499.2 | 1506.6 |
| 25° | 1462.2 | 1465.9 | 1477.0 | 1480.7 | 1484.4 |
| 27.5° | 1428.9 | 1440.0 | 1454.8 | 1458.5 | 1454.8 |
| 30° | 1388.2 | 1403.0 | 1428.9 | 1425.2 | 1421.5 |
| 32.5° | 1343.7 | 1362.2 | 1399.3 | 1388.2 | 1377.0 |
| 35° | 1288.2 | 1314.1 | 1358.5 | 1340.0 | 1321.5 |
| 37.5° | 1229.0 | 1262.3 | 1306.7 | 1288.2 | 1262.3 |
| 40° | 1158.6 | 1199.4 | 1251.2 | 1225.3 | 1195.7 |
| 42.5° | 1088.3 | 1132.7 | 1188.3 | 1154.9 | 1117.9 |
| 45° | 1010.6 | 1058.7 | 1117.9 | 1084.6 | 1040.2 |
| 47.5° | 936.5 | 984.7 | 1043.9 | 1003.2 | 958.8 |
| 50° | 858.8 | 903.2 | 966.2 | 921.7 | 877.3 |
| 52.5° | 762.6 | 821.8 | 884.7 | 836.6 | 784.8 |
| 55° | 677.4 | 729.2 | 803.3 | 744.1 | 695.9 |
| 57.5° | 533.1 | 636.7 | 718.1 | 647.8 | 547.9 |
| 60° | 396.1 | 496.0 | 629.3 | 510.8 | 407.2 |
| 62.5° | 273.9 | 366.5 | 540.5 | 370.2 | 277.6 |
| 65° | 188.8 | 248.0 | 440.5 | 251.7 | 188.8 |
| 67.5° | 140.7 | 166.6 | 296.1 | 166.6 | 140.7 |
| 70° | 114.8 | 122.2 | 174.0 | 122.2 | 111.1 |
| 72.5° | 85.1 | 96.2 | 96.2 | 96.2 | 88.8 |
| 75° | 51.8 | 62.9 | 59.2 | 62.9 | 55.5 |
| 77.5° | 22.2 | 29.6 | 37.0 | 33.3 | 22.2 |
| 80° | 14.8 | 14.8 | 18.5 | 14.8 | 14.8 |
| 82.5° | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 |
| 85° | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| 87.5° | 3.7 | 3.7 | 3.7 | 3.7 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)