

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838417

Luminaire Tested: HCSQ620D010-HM60525827-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525827-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

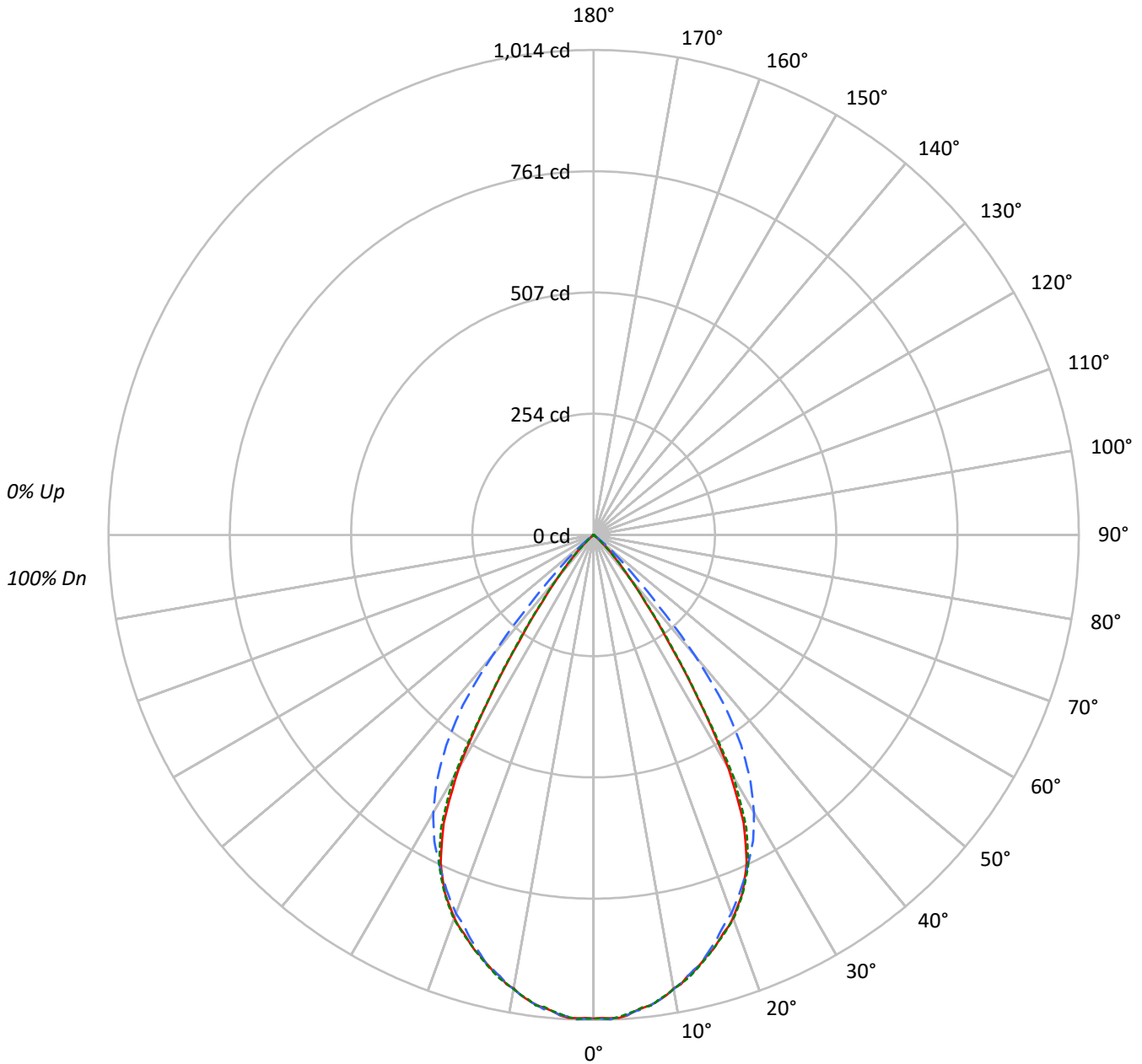
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1005.1 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
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 (A_{in}): 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: 24 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P838417

CATALOG NUMBER: HCSQ620D010-HM60525827-61SQMB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | | | | | | | | | | | | | | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 94 | 98 | 95 | 92 | 95 | 93 | 90 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 89 | 86 | 83 | 87 | 85 | 82 | 81 | | | | | | | | | | | | | | | | | | | |
| 4 | 97 | 89 | 84 | 80 | 95 | 88 | 83 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 5 | 92 | 84 | 78 | 73 | 90 | 83 | 77 | 73 | 81 | 76 | 72 | 79 | 75 | 72 | 78 | 74 | 71 | 70 | | | | | | | | | | | | | | | | | | | |
| 6 | 87 | 78 | 72 | 68 | 86 | 77 | 72 | 68 | 76 | 71 | 67 | 75 | 70 | 67 | 73 | 69 | 66 | 65 | | | | | | | | | | | | | | | | | | | |
| 7 | 83 | 73 | 67 | 63 | 81 | 73 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 62 | 69 | 65 | 62 | 60 | | | | | | | | | | | | | | | | | | | |
| 8 | 79 | 69 | 63 | 59 | 77 | 68 | 63 | 59 | 67 | 62 | 58 | 66 | 62 | 58 | 65 | 61 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 9 | 75 | 65 | 59 | 55 | 74 | 64 | 59 | 55 | 63 | 58 | 55 | 63 | 58 | 54 | 62 | 57 | 54 | 53 | | | | | | | | | | | | | | | | | | | |
| 10 | 71 | 61 | 55 | 51 | 70 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 58 | 54 | 51 | 50 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 43538 | 43538 | 43538 |
| 5° | 43173 | 43207 | 43173 |
| 10° | 42089 | 42163 | 42163 |
| 15° | 40643 | 40532 | 40750 |
| 20° | 39029 | 38579 | 39143 |
| 25° | 35939 | 36214 | 36290 |
| 30° | 28015 | 33325 | 29079 |
| 35° | 14202 | 28236 | 14722 |
| 40° | 6464 | 18469 | 6464 |
| 45° | 2503 | 6954 | 2448 |
| 50° | 382 | 2204 | 382 |
| 55° | 120 | 428 | 120 |
| 60° | 69 | 69 | 69 |
| 65° | 82 | 0 | 82 |
| 70° | 0 | 0 | 101 |
| 75° | 0 | 0 | 133 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 6954 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.4 | 9.4 |
| 10°-20° | 256.1 | 25.5 |
| 20°-30° | 345.2 | 34.3 |
| 30°-40° | 242.7 | 24.1 |
| 40°-50° | 62.0 | 6.2 |
| 50°-60° | 4.3 | 0.4 |
| 60°-70° | 0.5 | 0.1 |
| 70°-80° | 0.1 | 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° | 695.7 | 69.2 |
| 0°-40° | 938.3 | 93.4 |
| 0°-60° | 1004.6 | 99.9 |
| 0°-90° | 1005.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1005.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1011 | 1011 | 1011 | 1011 | 1011 | |
| 5° | 999 | 1000 | 1000 | 1000 | 999 | 94 |
| 15° | 912 | 910 | 909 | 912 | 914 | 257 |
| 25° | 756 | 759 | 762 | 765 | 764 | 338 |
| 35° | 270 | 358 | 537 | 367 | 280 | 182 |
| 45° | 41 | 62 | 114 | 62 | 40 | 36 |
| 55° | 2 | 2 | 6 | 2 | 2 | 2 |
| 65° | 1 | 1 | 0 | 1 | 1 | 1 |
| 75° | 0 | 0 | 0 | 0 | 1 | 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° | 1011.2 | 1011.2 | 1011.2 | 1011.2 | 1011.2 |
| 1° | 1010.4 | 1011.2 | 1012.0 | 1012.0 | 1011.2 |
| 2° | 1011.2 | 1008.7 | 1013.6 | 1011.2 | 1012.0 |
| 3° | 1011.2 | 1006.2 | 1008.7 | 1010.4 | 1009.5 |
| 4° | 1007.1 | 1003.8 | 1006.2 | 1005.4 | 1003.8 |
| 5° | 998.9 | 1000.5 | 999.7 | 1000.5 | 998.9 |
| 6° | 993.9 | 995.6 | 997.2 | 994.7 | 992.3 |
| 7° | 989.8 | 989.0 | 989.8 | 991.5 | 991.5 |
| 8° | 982.4 | 984.1 | 982.4 | 983.2 | 980.8 |
| 9° | 974.2 | 974.2 | 974.2 | 975.9 | 973.4 |
| 10° | 962.7 | 966.8 | 964.4 | 966.0 | 964.4 |
| 11° | 957.0 | 955.3 | 955.3 | 956.1 | 955.3 |
| 12° | 943.0 | 944.6 | 943.8 | 945.5 | 947.9 |
| 13° | 935.6 | 936.4 | 933.1 | 937.2 | 937.2 |
| 14° | 924.1 | 923.3 | 924.9 | 924.1 | 925.7 |
| 15° | 911.8 | 910.1 | 909.3 | 911.8 | 914.2 |
| 16° | 902.7 | 898.6 | 896.2 | 899.5 | 902.7 |
| 17° | 889.6 | 885.5 | 882.2 | 888.8 | 889.6 |
| 18° | 876.5 | 874.8 | 866.6 | 874.8 | 878.9 |
| 19° | 865.8 | 860.0 | 852.6 | 861.7 | 866.6 |
| 20° | 851.8 | 846.9 | 842.0 | 846.9 | 854.3 |
| 22.5° | 811.6 | 807.5 | 803.4 | 809.1 | 813.2 |
| 25° | 756.5 | 759.0 | 762.3 | 764.7 | 763.9 |
| 27.5° | 678.5 | 700.7 | 721.2 | 708.1 | 690.8 |
| 30° | 563.5 | 619.4 | 670.3 | 628.4 | 584.9 |
| 32.5° | 408.2 | 503.5 | 609.5 | 522.4 | 412.4 |
| 35° | 270.2 | 358.1 | 537.2 | 367.2 | 280.1 |
| 37.5° | 175.8 | 240.7 | 448.5 | 241.5 | 184.0 |
| 40° | 115.0 | 156.9 | 328.6 | 160.2 | 115.0 |
| 42.5° | 70.6 | 99.4 | 199.6 | 103.5 | 70.6 |
| 45° | 41.1 | 61.6 | 114.2 | 62.4 | 40.2 |
| 47.5° | 18.9 | 33.7 | 64.9 | 32.9 | 19.7 |
| 50° | 5.7 | 14.8 | 32.9 | 14.8 | 5.7 |
| 52.5° | 2.5 | 4.1 | 15.6 | 4.1 | 2.5 |
| 55° | 1.6 | 1.6 | 5.7 | 1.6 | 1.6 |
| 57.5° | 1.6 | 0.8 | 1.6 | 1.6 | 1.6 |
| 60° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 62.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 65° | 0.8 | 0.8 | 0.0 | 0.8 | 0.8 |
| 67.5° | 0.8 | 0.0 | 0.0 | 0.0 | 0.8 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 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 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report



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