

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: P838313

Luminaire Tested: HCSQ607D010-HM60525840-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ607D010-HM60525840-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

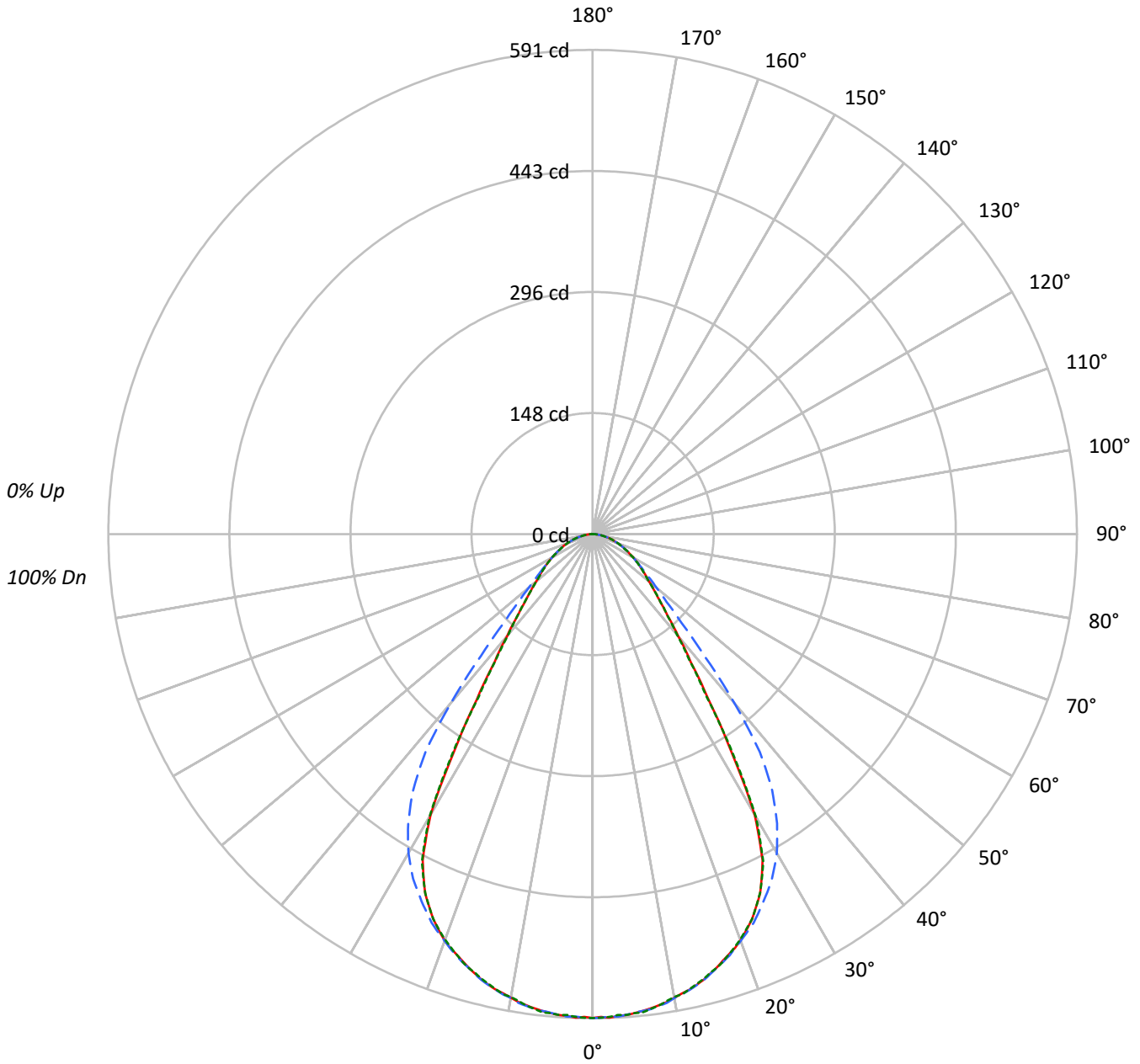
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 871.3 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 8
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





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|--|--|--|--|---|
| RF | 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 | 0 | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | |
| 1 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | | | | |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 | | | | | | | | |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 | | | | | | | | |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 67 | 73 | 69 | 66 | 64 | | | | | | | | |
| 5 | 85 | 74 | 67 | 62 | 83 | 73 | 66 | 61 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 63 | 60 | 58 | | | | | | | | |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 54 | 53 | | | | | | | | |
| 7 | 75 | 63 | 56 | 51 | 73 | 63 | 56 | 51 | 61 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 48 | | | | | | | | |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | | | | | |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 43 | 41 | | | | | | | | |
| 10 | 63 | 51 | 45 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 40 | 38 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 25433 | 25433 | 25433 |
| 5° | 25370 | 25349 | 25370 |
| 10° | 25121 | 25139 | 25086 |
| 15° | 24748 | 24766 | 24712 |
| 20° | 24188 | 24206 | 24133 |
| 25° | 22984 | 23473 | 22965 |
| 30° | 19678 | 22348 | 19802 |
| 35° | 12930 | 20089 | 12736 |
| 40° | 9139 | 15147 | 8976 |
| 45° | 7088 | 9322 | 7136 |
| 50° | 6028 | 6799 | 5975 |
| 55° | 5420 | 5577 | 5420 |
| 60° | 4908 | 4908 | 4908 |
| 65° | 4503 | 4462 | 4462 |
| 70° | 4104 | 4104 | 4154 |
| 75° | 3843 | 3710 | 3776 |
| 80° | 3372 | 3372 | 3372 |
| 85° | 2865 | 2865 | 2865 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9322 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 55.7 | 6.4 |
| 10°-20° | 156.4 | 17.9 |
| 20°-30° | 222.8 | 25.6 |
| 30°-40° | 190.0 | 21.8 |
| 40°-50° | 105.1 | 12.1 |
| 50°-60° | 66.2 | 7.6 |
| 60°-70° | 44.0 | 5.0 |
| 70°-80° | 24.2 | 2.8 |
| 80°-90° | 6.9 | 0.8 |
| 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° | 434.9 | 49.9 |
| 0°-40° | 624.9 | 71.7 |
| 0°-60° | 796.3 | 91.4 |
| 0°-90° | 871.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 871.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 591 | 591 | 591 | 591 | 591 | |
| 5° | 587 | 588 | 586 | 586 | 587 | 56 |
| 15° | 555 | 555 | 556 | 555 | 554 | 156 |
| 25° | 484 | 490 | 494 | 489 | 483 | 219 |
| 35° | 246 | 290 | 382 | 291 | 242 | 160 |
| 45° | 116 | 128 | 153 | 127 | 117 | 92 |
| 55° | 72 | 74 | 74 | 73 | 72 | 65 |
| 65° | 44 | 45 | 44 | 44 | 44 | 44 |
| 75° | 23 | 23 | 22 | 23 | 23 | 24 |
| 85° | 6 | 6 | 6 | 6 | 6 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 590.7 | 590.7 | 590.7 | 590.7 | 590.7 |
| 1° | 589.4 | 590.3 | 590.3 | 589.8 | 590.3 |
| 2° | 590.7 | 589.4 | 589.4 | 589.4 | 589.8 |
| 3° | 589.0 | 589.8 | 589.8 | 588.6 | 587.8 |
| 4° | 588.6 | 588.2 | 588.2 | 589.4 | 588.6 |
| 5° | 587.0 | 587.8 | 586.5 | 585.7 | 587.0 |
| 6° | 585.3 | 585.7 | 585.3 | 585.7 | 587.0 |
| 7° | 583.2 | 584.5 | 584.1 | 583.7 | 583.7 |
| 8° | 580.8 | 582.4 | 581.6 | 581.6 | 581.2 |
| 9° | 578.3 | 578.7 | 579.5 | 579.5 | 577.1 |
| 10° | 574.6 | 575.8 | 575.0 | 575.4 | 573.8 |
| 11° | 571.3 | 572.9 | 572.5 | 571.7 | 572.1 |
| 12° | 568.4 | 569.2 | 568.8 | 567.6 | 568.0 |
| 13° | 564.7 | 565.5 | 565.1 | 565.1 | 563.8 |
| 14° | 560.5 | 559.7 | 561.0 | 560.1 | 559.7 |
| 15° | 555.2 | 555.2 | 555.6 | 555.2 | 554.4 |
| 16° | 550.2 | 550.6 | 550.6 | 550.2 | 550.6 |
| 17° | 544.4 | 546.1 | 545.7 | 544.9 | 545.3 |
| 18° | 539.1 | 540.3 | 540.7 | 540.3 | 539.1 |
| 19° | 534.1 | 535.0 | 534.5 | 532.9 | 532.9 |
| 20° | 527.9 | 528.3 | 528.3 | 527.5 | 526.7 |
| 22.5° | 508.5 | 511.4 | 513.5 | 511.8 | 508.5 |
| 25° | 483.8 | 489.5 | 494.1 | 489.1 | 483.4 |
| 27.5° | 449.1 | 460.7 | 474.3 | 461.9 | 451.2 |
| 30° | 395.8 | 422.3 | 449.5 | 424.7 | 398.3 |
| 32.5° | 314.9 | 367.0 | 419.0 | 371.9 | 319.9 |
| 35° | 246.0 | 290.2 | 382.2 | 290.6 | 242.3 |
| 37.5° | 196.5 | 227.8 | 335.2 | 225.8 | 194.4 |
| 40° | 162.6 | 183.7 | 269.5 | 182.9 | 159.7 |
| 42.5° | 135.8 | 151.9 | 201.8 | 150.2 | 135.8 |
| 45° | 116.4 | 127.5 | 153.1 | 126.7 | 117.2 |
| 47.5° | 102.0 | 109.0 | 122.6 | 108.6 | 102.0 |
| 50° | 90.0 | 94.1 | 101.5 | 93.7 | 89.2 |
| 52.5° | 80.5 | 83.0 | 85.9 | 82.1 | 79.7 |
| 55° | 72.2 | 73.5 | 74.3 | 73.1 | 72.2 |
| 57.5° | 64.4 | 65.2 | 64.8 | 64.4 | 64.0 |
| 60° | 57.0 | 57.4 | 57.0 | 57.4 | 57.0 |
| 62.5° | 50.4 | 50.8 | 49.9 | 50.4 | 49.9 |
| 65° | 44.2 | 44.6 | 43.8 | 44.2 | 43.8 |
| 67.5° | 38.4 | 38.4 | 38.4 | 38.4 | 38.0 |
| 70° | 32.6 | 33.0 | 32.6 | 33.0 | 33.0 |
| 72.5° | 27.7 | 27.7 | 27.2 | 27.7 | 27.7 |
| 75° | 23.1 | 22.7 | 22.3 | 22.7 | 22.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 82.5° | 9.9 | 9.9 | 9.5 | 9.9 | 9.9 |
| 85° | 5.8 | 5.8 | 5.8 | 6.2 | 5.8 |
| 87.5° | 2.9 | 2.5 | 2.5 | 2.9 | 2.9 |
| 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° | 18.2 | 18.2 | 17.7 | 18.2 | 18.2 |
| 80° | 13.6 | 14.0 | 13.6 | 14.0 | 13.6 |

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Scaled Data Report



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