

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: P838407

Luminaire Tested: HCSQ615D010-HM60525935-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838407
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: HCSQ615D010-HM60525935-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

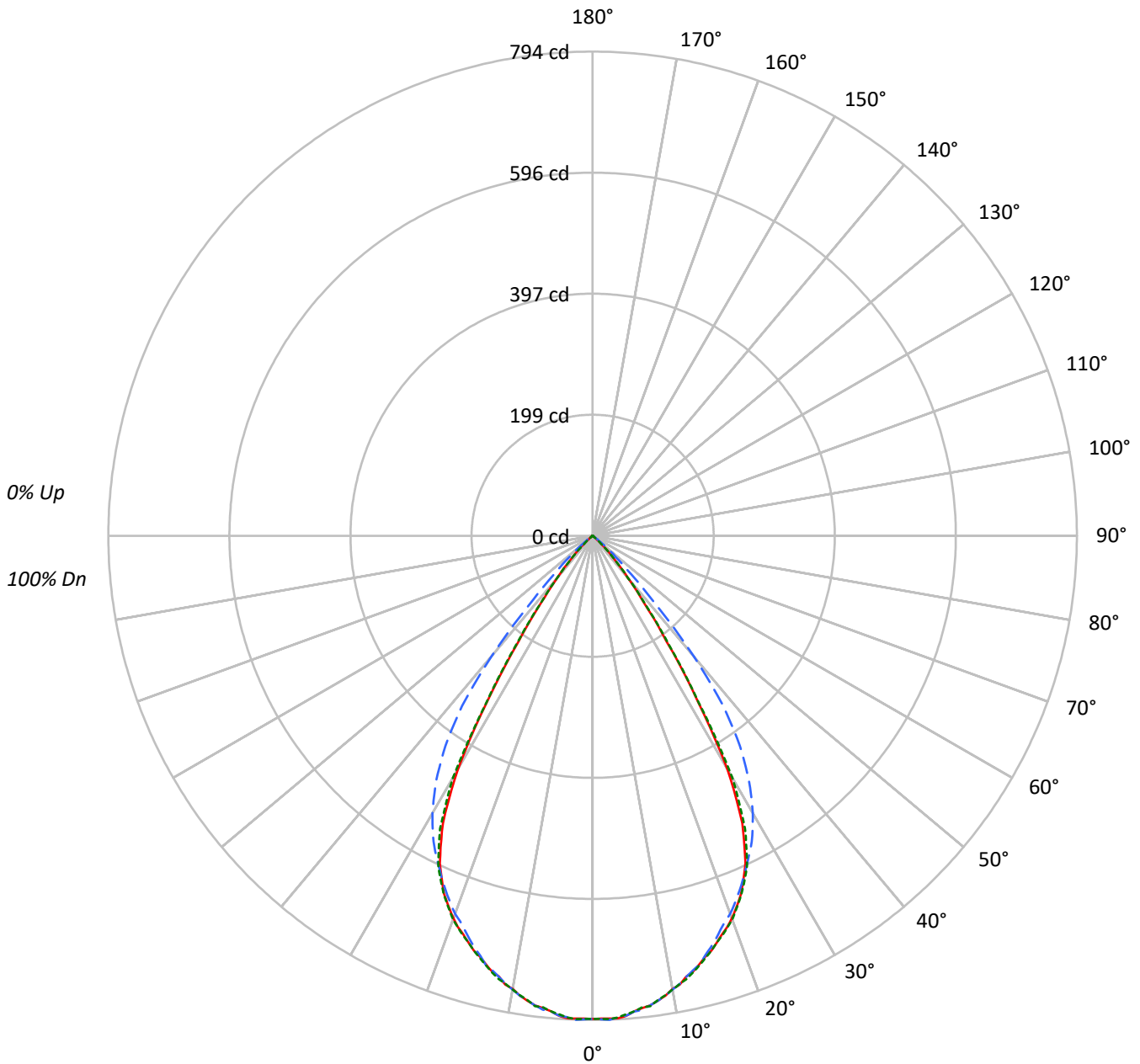
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 787.7 lumens
Efficiency: N/A
Efficacy: 56.3 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): 14
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: P838407

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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° | 34117 | 34117 | 34117 |
| 5° | 33833 | 33859 | 33833 |
| 10° | 32987 | 33039 | 33039 |
| 15° | 31848 | 31764 | 31938 |
| 20° | 30589 | 30231 | 30676 |
| 25° | 28167 | 28380 | 28442 |
| 30° | 21955 | 26116 | 22785 |
| 35° | 11132 | 22128 | 11537 |
| 40° | 5064 | 14473 | 5064 |
| 45° | 1961 | 5450 | 1918 |
| 50° | 301 | 1721 | 301 |
| 55° | 98 | 338 | 98 |
| 60° | 52 | 52 | 52 |
| 65° | 61 | 0 | 61 |
| 70° | 0 | 0 | 76 |
| 75° | 0 | 0 | 100 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5450 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.0 | 9.4 |
| 10°-20° | 200.7 | 25.5 |
| 20°-30° | 270.5 | 34.3 |
| 30°-40° | 190.2 | 24.1 |
| 40°-50° | 48.6 | 6.2 |
| 50°-60° | 3.3 | 0.4 |
| 60°-70° | 0.4 | 0.0 |
| 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° | 545.2 | 69.2 |
| 0°-40° | 735.4 | 93.4 |
| 0°-60° | 787.3 | 99.9 |
| 0°-90° | 787.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 787.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 792 | 792 | 792 | 792 | 792 | |
| 5° | 783 | 784 | 783 | 784 | 783 | 74 |
| 15° | 714 | 713 | 713 | 714 | 716 | 201 |
| 25° | 593 | 595 | 597 | 599 | 599 | 265 |
| 35° | 212 | 281 | 421 | 288 | 220 | 143 |
| 45° | 32 | 48 | 90 | 49 | 32 | 28 |
| 55° | 1 | 1 | 4 | 1 | 1 | 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° | 792.4 | 792.4 | 792.4 | 792.4 | 792.4 |
| 1° | 791.8 | 792.4 | 793.1 | 793.1 | 792.4 |
| 2° | 792.4 | 790.5 | 794.4 | 792.4 | 793.1 |
| 3° | 792.4 | 788.6 | 790.5 | 791.8 | 791.1 |
| 4° | 789.2 | 786.6 | 788.6 | 787.9 | 786.6 |
| 5° | 782.8 | 784.1 | 783.4 | 784.1 | 782.8 |
| 6° | 778.9 | 780.2 | 781.5 | 779.6 | 777.6 |
| 7° | 775.7 | 775.1 | 775.7 | 777.0 | 777.0 |
| 8° | 769.9 | 771.2 | 769.9 | 770.5 | 768.6 |
| 9° | 763.5 | 763.5 | 763.5 | 764.8 | 762.8 |
| 10° | 754.5 | 757.7 | 755.7 | 757.0 | 755.7 |
| 11° | 749.9 | 748.7 | 748.7 | 749.3 | 748.7 |
| 12° | 739.0 | 740.3 | 739.6 | 740.9 | 742.9 |
| 13° | 733.2 | 733.9 | 731.3 | 734.5 | 734.5 |
| 14° | 724.2 | 723.6 | 724.8 | 724.2 | 725.5 |
| 15° | 714.5 | 713.3 | 712.6 | 714.5 | 716.5 |
| 16° | 707.5 | 704.2 | 702.3 | 704.9 | 707.5 |
| 17° | 697.2 | 693.9 | 691.4 | 696.5 | 697.2 |
| 18° | 686.9 | 685.6 | 679.1 | 685.6 | 688.8 |
| 19° | 678.5 | 674.0 | 668.2 | 675.3 | 679.1 |
| 20° | 667.6 | 663.7 | 659.8 | 663.7 | 669.5 |
| 22.5° | 636.0 | 632.8 | 629.6 | 634.1 | 637.3 |
| 25° | 592.9 | 594.8 | 597.4 | 599.3 | 598.7 |
| 27.5° | 531.7 | 549.1 | 565.2 | 554.9 | 541.4 |
| 30° | 441.6 | 485.4 | 525.3 | 492.5 | 458.3 |
| 32.5° | 319.9 | 394.6 | 477.7 | 409.4 | 323.2 |
| 35° | 211.8 | 280.7 | 421.0 | 287.7 | 219.5 |
| 37.5° | 137.8 | 188.6 | 351.5 | 189.3 | 144.2 |
| 40° | 90.1 | 123.0 | 257.5 | 125.5 | 90.1 |
| 42.5° | 55.4 | 77.9 | 156.4 | 81.1 | 55.4 |
| 45° | 32.2 | 48.3 | 89.5 | 48.9 | 31.5 |
| 47.5° | 14.8 | 26.4 | 50.9 | 25.7 | 15.4 |
| 50° | 4.5 | 11.6 | 25.7 | 11.6 | 4.5 |
| 52.5° | 1.9 | 3.2 | 12.2 | 3.2 | 1.9 |
| 55° | 1.3 | 1.3 | 4.5 | 1.3 | 1.3 |
| 57.5° | 1.3 | 0.6 | 1.3 | 1.3 | 1.3 |
| 60° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 62.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 65° | 0.6 | 0.6 | 0.0 | 0.6 | 0.6 |
| 67.5° | 0.6 | 0.0 | 0.0 | 0.0 | 0.6 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |



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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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