

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

Report Number: P885726

Luminaire Tested: ML104LSFL95FS1E-TIR1D40FL-TL1SDMWB-340LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885726
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-145)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D40FL-TL1SDMWB-340LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE BAFFLED TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 440.3 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.69 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

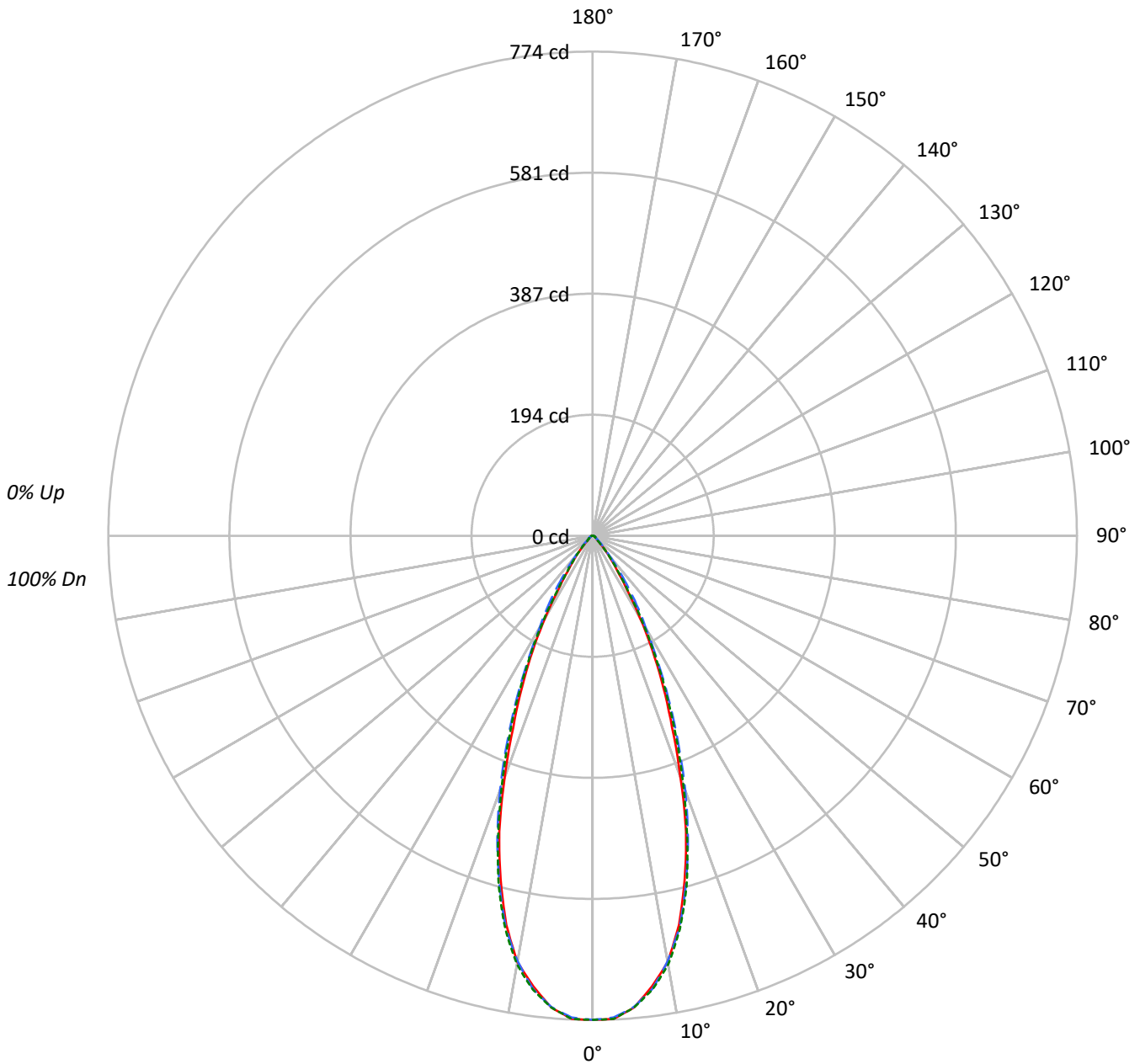
Input Watts (W): 6.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P885726

CATALOG NUMBER: ML104LSFL95FS1E-TIR1D40FL-TL1SDMWB-340LM-4000K

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 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | |
| 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | | | | |
| 2 | 109 | 104 | 100 | 97 | 106 | 102 | 99 | 96 | 99 | 96 | 94 | 96 | 94 | 92 | 93 | 91 | 90 | 88 | | | | |
| 3 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 89 | 94 | 90 | 87 | 91 | 88 | 86 | 89 | 87 | 84 | 83 | | | | |
| 4 | 99 | 92 | 87 | 83 | 97 | 91 | 86 | 82 | 89 | 85 | 81 | 87 | 83 | 81 | 85 | 82 | 80 | 78 | | | | |
| 5 | 95 | 87 | 82 | 78 | 93 | 86 | 81 | 77 | 84 | 80 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 74 | | | | |
| 6 | 91 | 82 | 77 | 73 | 89 | 82 | 76 | 73 | 80 | 76 | 72 | 79 | 75 | 72 | 78 | 74 | 71 | 70 | | | | |
| 7 | 87 | 78 | 73 | 69 | 85 | 78 | 72 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 74 | 70 | 68 | 66 | | | | |
| 8 | 83 | 74 | 69 | 65 | 82 | 74 | 69 | 65 | 73 | 68 | 65 | 72 | 68 | 65 | 71 | 67 | 64 | 63 | | | | |
| 9 | 80 | 71 | 66 | 62 | 79 | 70 | 65 | 62 | 70 | 65 | 62 | 69 | 64 | 61 | 68 | 64 | 61 | 60 | | | | |
| 10 | 77 | 68 | 62 | 59 | 76 | 67 | 62 | 59 | 67 | 62 | 59 | 66 | 62 | 59 | 65 | 61 | 58 | 57 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1199558 | 1199558 | 1199558 |
| 5° | 1177844 | 1176288 | 1177844 |
| 10° | 1088686 | 1087112 | 1095454 |
| 15° | 912429 | 924144 | 930883 |
| 20° | 677282 | 713736 | 698230 |
| 25° | 455612 | 489817 | 477161 |
| 30° | 271334 | 303372 | 286369 |
| 35° | 131509 | 179382 | 139457 |
| 40° | 72438 | 87411 | 74664 |
| 45° | 32223 | 46252 | 30031 |
| 50° | 20256 | 25320 | 20256 |
| 55° | 17025 | 19998 | 17025 |
| 60° | 16430 | 16430 | 16430 |
| 65° | 15404 | 15404 | 15404 |
| 70° | 14502 | 14502 | 14502 |
| 75° | 12576 | 12576 | 12576 |
| 80° | 9819 | 18745 | 18745 |
| 85° | 19563 | 19563 | 19563 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 46252 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 70.2 | 15.9 |
| 10°-20° | 157.4 | 35.7 |
| 20°-30° | 128.2 | 29.1 |
| 30°-40° | 54.8 | 12.5 |
| 40°-50° | 15.5 | 3.5 |
| 50°-60° | 6.3 | 1.4 |
| 60°-70° | 4.4 | 1.0 |
| 70°-80° | 2.6 | 0.6 |
| 80°-90° | 0.9 | 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° | 355.8 | 80.8 |
| 0°-40° | 410.6 | 93.3 |
| 0°-60° | 432.4 | 98.2 |
| 0°-90° | 440.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 440.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 774 | 774 | 774 | 774 | 774 | |
| 5° | 757 | 756 | 756 | 756 | 757 | 70 |
| 15° | 569 | 571 | 576 | 578 | 580 | 156 |
| 25° | 266 | 273 | 286 | 280 | 279 | 122 |
| 35° | 70 | 78 | 95 | 83 | 74 | 48 |
| 45° | 15 | 18 | 21 | 18 | 14 | 14 |
| 55° | 6 | 7 | 7 | 7 | 6 | 6 |
| 65° | 4 | 4 | 4 | 4 | 4 | 4 |
| 75° | 2 | 2 | 2 | 2 | 2 | 3 |
| 85° | 1 | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 773.9 | 773.9 | 773.9 | 773.9 | 773.9 |
| 2.5° | 772.8 | 771.8 | 770.7 | 771.8 | 772.8 |
| 5° | 757.0 | 756.0 | 756.0 | 756.0 | 757.0 |
| 7.5° | 726.5 | 729.6 | 730.7 | 731.8 | 731.8 |
| 10° | 691.7 | 689.6 | 690.7 | 692.8 | 696.0 |
| 12.5° | 637.0 | 638.0 | 641.2 | 643.3 | 644.4 |
| 15° | 568.6 | 570.7 | 575.9 | 578.0 | 580.1 |
| 17.5° | 495.9 | 498.0 | 506.4 | 505.4 | 502.2 |
| 20° | 410.6 | 418.0 | 432.7 | 432.7 | 423.3 |
| 22.5° | 331.7 | 342.2 | 355.9 | 351.7 | 348.5 |
| 25° | 266.4 | 272.7 | 286.4 | 280.1 | 279.0 |
| 27.5° | 207.4 | 215.8 | 222.2 | 222.2 | 215.8 |
| 30° | 151.6 | 165.3 | 169.5 | 169.5 | 160.0 |
| 32.5° | 102.1 | 114.8 | 130.6 | 121.1 | 107.4 |
| 35° | 69.5 | 77.9 | 94.8 | 83.2 | 73.7 |
| 37.5° | 50.5 | 54.7 | 65.3 | 55.8 | 52.6 |
| 40° | 35.8 | 39.0 | 43.2 | 40.0 | 36.9 |
| 42.5° | 24.2 | 26.3 | 29.5 | 27.4 | 24.2 |
| 45° | 14.7 | 17.9 | 21.1 | 17.9 | 13.7 |
| 47.5° | 10.5 | 11.6 | 15.8 | 11.6 | 10.5 |
| 50° | 8.4 | 9.5 | 10.5 | 9.5 | 8.4 |
| 52.5° | 7.4 | 7.4 | 8.4 | 7.4 | 7.4 |
| 55° | 6.3 | 7.4 | 7.4 | 7.4 | 6.3 |
| 57.5° | 5.3 | 6.3 | 6.3 | 6.3 | 5.3 |
| 60° | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 |
| 62.5° | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 |
| 65° | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 |
| 67.5° | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 |
| 70° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 72.5° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 75° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 77.5° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 80° | 1.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 82.5° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 85° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 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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