

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: P885663

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMWB-340LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-139)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMWB-340LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE BAFFLED TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

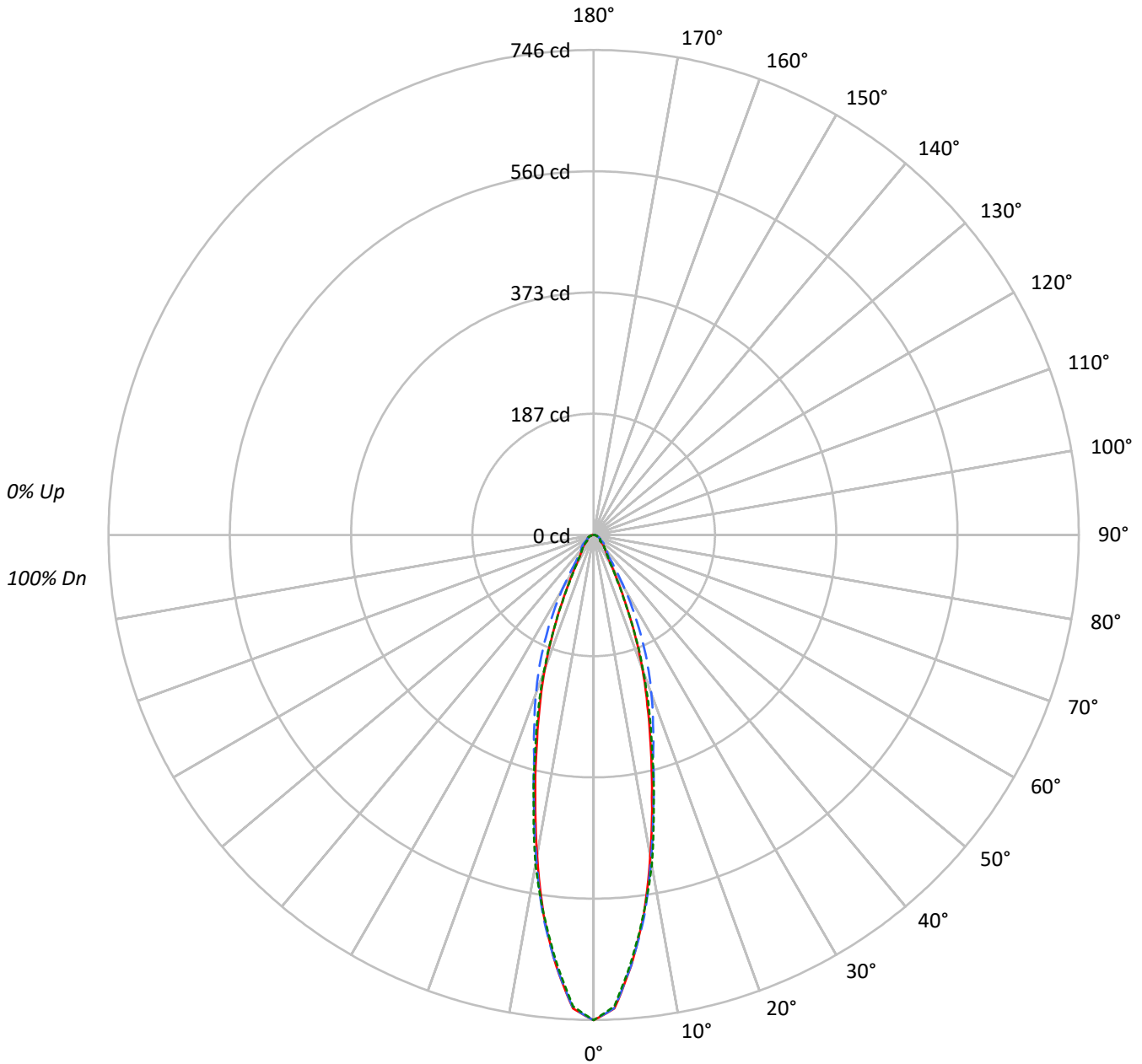
Lumens per Lamp: N/A
Luminaire Lumens: 290.6 lumens
Efficiency: N/A
Efficacy: 47.6 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.56
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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





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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 | 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 | | | | | 100 | | | |
| 1 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | 93 | | | |
| 2 | 108 | 103 | 99 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 86 | | | | | 86 | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 95 | 90 | 86 | 92 | 88 | 85 | 90 | 86 | 84 | 87 | 85 | 82 | 81 | | | | | 81 | | | |
| 4 | 98 | 90 | 85 | 81 | 96 | 89 | 84 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 76 | | | | | 76 | | | |
| 5 | 93 | 85 | 80 | 75 | 92 | 84 | 79 | 75 | 83 | 78 | 74 | 81 | 77 | 74 | 79 | 76 | 73 | 72 | | | | | 72 | | | |
| 6 | 89 | 81 | 75 | 71 | 88 | 80 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 68 | | | | | 68 | | | |
| 7 | 86 | 77 | 71 | 67 | 84 | 76 | 71 | 67 | 75 | 70 | 67 | 74 | 69 | 66 | 73 | 69 | 66 | 65 | | | | | 65 | | | |
| 8 | 82 | 73 | 68 | 64 | 81 | 73 | 67 | 64 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 62 | | | | | 62 | | | |
| 9 | 79 | 70 | 65 | 61 | 78 | 70 | 64 | 61 | 69 | 64 | 61 | 68 | 63 | 60 | 67 | 63 | 60 | 59 | | | | | 59 | | | |
| 10 | 76 | 67 | 62 | 58 | 75 | 67 | 62 | 58 | 66 | 61 | 58 | 65 | 61 | 58 | 64 | 61 | 58 | 56 | | | | | 56 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1157087 | 1157087 | 1157087 |
| 5° | 1034076 | 1032675 | 1025674 |
| 10° | 788066 | 799398 | 810730 |
| 15° | 543350 | 566457 | 557792 |
| 20° | 360909 | 427878 | 368332 |
| 25° | 197192 | 298781 | 194114 |
| 30° | 98260 | 169316 | 96649 |
| 35° | 64714 | 76635 | 64714 |
| 40° | 52811 | 61916 | 52811 |
| 45° | 41430 | 55240 | 43403 |
| 50° | 32554 | 47746 | 32554 |
| 55° | 34050 | 31618 | 34050 |
| 60° | 33480 | 33480 | 33480 |
| 65° | 33009 | 33009 | 33009 |
| 70° | 28551 | 28551 | 28551 |
| 75° | 26950 | 26950 | 26950 |
| 80° | 24101 | 24101 | 24101 |
| 85° | 16006 | 16006 | 16006 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 55240 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 58.4 | 20.1 |
| 10°-20° | 97.9 | 33.7 |
| 20°-30° | 65.2 | 22.4 |
| 30°-40° | 26.6 | 9.1 |
| 40°-50° | 16.7 | 5.8 |
| 50°-60° | 11.2 | 3.9 |
| 60°-70° | 8.7 | 3.0 |
| 70°-80° | 4.7 | 1.6 |
| 80°-90° | 1.1 | 0.4 |
| 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° | 221.5 | 76.2 |
| 0°-40° | 248.1 | 85.4 |
| 0°-60° | 276.1 | 95.0 |
| 0°-90° | 290.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 290.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 746 | 746 | 746 | 746 | 746 | |
| 5° | 665 | 663 | 664 | 662 | 659 | 58 |
| 15° | 339 | 347 | 353 | 354 | 348 | 94 |
| 25° | 115 | 135 | 175 | 138 | 114 | 55 |
| 35° | 34 | 40 | 40 | 40 | 34 | 22 |
| 45° | 19 | 22 | 25 | 22 | 20 | 14 |
| 55° | 13 | 13 | 12 | 13 | 13 | 11 |
| 65° | 9 | 9 | 9 | 9 | 9 | 9 |
| 75° | 4 | 4 | 4 | 4 | 4 | 5 |
| 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° | 746.5 | 746.5 | 746.5 | 746.5 | 746.5 |
| 2.5° | 729.4 | 730.3 | 728.5 | 727.6 | 725.8 |
| 5° | 664.6 | 662.8 | 663.7 | 661.9 | 659.2 |
| 7.5° | 589.8 | 588.0 | 593.4 | 589.8 | 588.0 |
| 10° | 500.7 | 502.5 | 507.9 | 507.0 | 515.1 |
| 12.5° | 414.2 | 419.6 | 424.1 | 425.0 | 426.8 |
| 15° | 338.6 | 346.7 | 353.0 | 353.9 | 347.6 |
| 17.5° | 274.7 | 289.1 | 303.5 | 293.6 | 283.7 |
| 20° | 218.8 | 235.0 | 259.4 | 238.6 | 223.3 |
| 22.5° | 163.9 | 182.8 | 217.0 | 188.2 | 166.6 |
| 25° | 115.3 | 135.1 | 174.7 | 137.8 | 113.5 |
| 27.5° | 79.2 | 92.8 | 133.3 | 95.5 | 76.5 |
| 30° | 54.9 | 68.4 | 94.6 | 68.4 | 54.0 |
| 32.5° | 40.5 | 53.1 | 61.2 | 51.3 | 41.4 |
| 35° | 34.2 | 40.5 | 40.5 | 39.6 | 34.2 |
| 37.5° | 29.7 | 32.4 | 34.2 | 32.4 | 29.7 |
| 40° | 26.1 | 27.9 | 30.6 | 27.9 | 26.1 |
| 42.5° | 23.4 | 25.2 | 27.9 | 25.2 | 23.4 |
| 45° | 18.9 | 21.6 | 25.2 | 22.5 | 19.8 |
| 47.5° | 13.5 | 17.1 | 23.4 | 18.0 | 13.5 |
| 50° | 13.5 | 13.5 | 19.8 | 13.5 | 13.5 |
| 52.5° | 12.6 | 12.6 | 15.3 | 12.6 | 12.6 |
| 55° | 12.6 | 12.6 | 11.7 | 12.6 | 12.6 |
| 57.5° | 11.7 | 11.7 | 11.7 | 11.7 | 11.7 |
| 60° | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 |
| 62.5° | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 |
| 65° | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| 67.5° | 7.2 | 8.1 | 7.2 | 8.1 | 8.1 |
| 70° | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |
| 72.5° | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| 75° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 77.5° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| 80° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 82.5° | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| 85° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 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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