

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: P886049

Luminaire Tested: ML104LSFLD2W1E-TIR1D55WFL-TL1SDMB-200LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P886049
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-150)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFLD2W1E-TIR1D55WFL-TL1SDMB-200LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 224.8 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

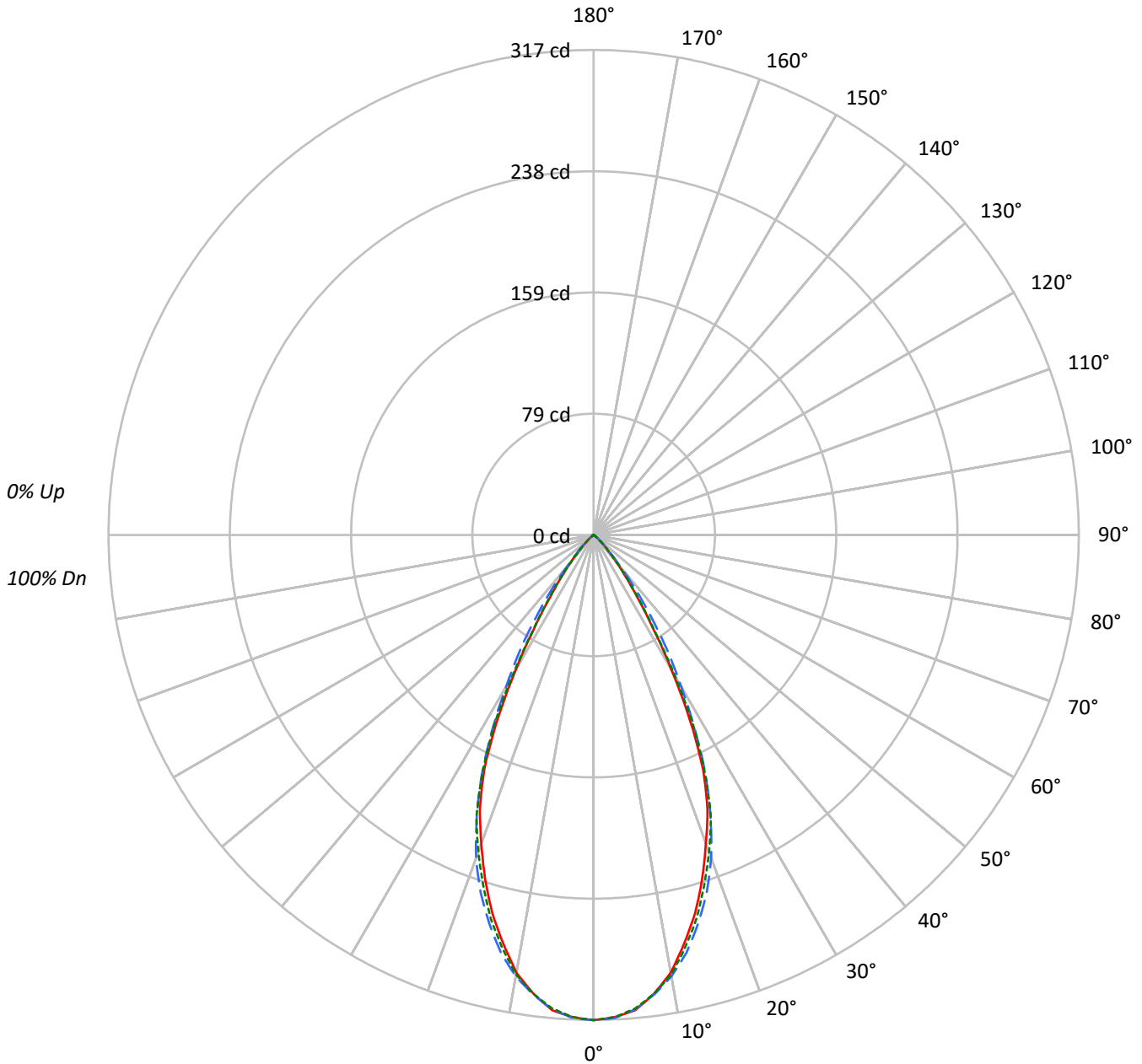
Input Watts (W): 3.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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 | 100 | 100 | 100 | 100 | | |
| | 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| | 2 | 109 | 104 | 100 | 97 | 107 | 102 | 99 | 96 | 99 | 96 | 94 | 96 | 94 | 92 | 94 | 92 | 90 | 89 | 94 | 92 | 90 | 89 | 89 | | |
| | 3 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 89 | 94 | 90 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | 89 | 87 | 85 | 83 | 83 | | |
| | 4 | 99 | 92 | 87 | 83 | 97 | 91 | 86 | 82 | 89 | 85 | 81 | 87 | 83 | 80 | 85 | 82 | 79 | 78 | 85 | 82 | 79 | 78 | 78 | | |
| | 5 | 94 | 87 | 81 | 77 | 93 | 86 | 81 | 77 | 84 | 79 | 76 | 82 | 78 | 75 | 81 | 77 | 75 | 73 | 81 | 77 | 75 | 73 | 73 | | |
| | 6 | 90 | 82 | 76 | 72 | 89 | 81 | 76 | 72 | 79 | 75 | 71 | 78 | 74 | 71 | 77 | 73 | 70 | 69 | 77 | 73 | 70 | 69 | 69 | | |
| | 7 | 86 | 77 | 72 | 68 | 85 | 77 | 71 | 68 | 75 | 71 | 67 | 74 | 70 | 67 | 73 | 69 | 66 | 65 | 73 | 69 | 66 | 65 | 65 | | |
| | 8 | 82 | 73 | 68 | 64 | 81 | 73 | 67 | 64 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 62 | 70 | 66 | 63 | 62 | 62 | | |
| | 9 | 79 | 69 | 64 | 60 | 77 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 66 | 62 | 60 | 58 | 66 | 62 | 60 | 58 | 58 | | |
| | 10 | 75 | 66 | 61 | 57 | 74 | 66 | 60 | 57 | 65 | 60 | 57 | 64 | 60 | 57 | 63 | 59 | 56 | 55 | 63 | 59 | 56 | 55 | 55 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 491665 | 491665 | 491665 |
| 5° | 485297 | 484363 | 483430 |
| 10° | 457226 | 461003 | 459115 |
| 15° | 410802 | 422356 | 416579 |
| 20° | 353816 | 370476 | 363548 |
| 25° | 289546 | 295703 | 294677 |
| 30° | 181844 | 204217 | 188287 |
| 35° | 93286 | 123562 | 96692 |
| 40° | 46943 | 56453 | 46943 |
| 45° | 19509 | 23455 | 19509 |
| 50° | 5787 | 8681 | 7234 |
| 55° | 1621 | 3243 | 1621 |
| 60° | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 23455 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 29.1 | 12.9 |
| 10°-20° | 72.4 | 32.2 |
| 20°-30° | 76.9 | 34.2 |
| 30°-40° | 37.0 | 16.5 |
| 40°-50° | 8.5 | 3.8 |
| 50°-60° | 0.9 | 0.4 |
| 60°-70° | 0.0 | 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° | 178.3 | 79.3 |
| 0°-40° | 215.3 | 95.8 |
| 0°-60° | 224.8 | 100.0 |
| 0°-90° | 224.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 224.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 317 | 317 | 317 | 317 | 317 | |
| 5° | 312 | 311 | 311 | 311 | 311 | 29 |
| 15° | 256 | 260 | 263 | 262 | 260 | 71 |
| 25° | 169 | 170 | 173 | 176 | 172 | 75 |
| 35° | 49 | 54 | 65 | 55 | 51 | 33 |
| 45° | 9 | 10 | 11 | 10 | 9 | 8 |
| 55° | 1 | 1 | 1 | 1 | 1 | 1 |
| 65° | 0 | 0 | 0 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 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° | 317.2 | 317.2 | 317.2 | 317.2 | 317.2 |
| 2.5° | 315.5 | 315.5 | 316.0 | 316.0 | 315.5 |
| 5° | 311.9 | 311.3 | 311.3 | 311.3 | 310.7 |
| 7.5° | 302.4 | 302.4 | 303.0 | 303.6 | 302.4 |
| 10° | 290.5 | 291.1 | 292.9 | 291.7 | 291.7 |
| 12.5° | 273.3 | 275.7 | 279.8 | 278.6 | 276.2 |
| 15° | 256.0 | 259.6 | 263.2 | 262.0 | 259.6 |
| 17.5° | 235.8 | 240.0 | 245.4 | 243.0 | 240.0 |
| 20° | 214.5 | 218.0 | 224.6 | 222.2 | 220.4 |
| 22.5° | 194.3 | 196.0 | 199.6 | 199.6 | 200.2 |
| 25° | 169.3 | 170.5 | 172.9 | 176.4 | 172.3 |
| 27.5° | 136.0 | 140.2 | 143.2 | 144.4 | 141.4 |
| 30° | 101.6 | 108.1 | 114.1 | 112.3 | 105.2 |
| 32.5° | 71.9 | 79.0 | 89.7 | 82.0 | 73.1 |
| 35° | 49.3 | 54.1 | 65.3 | 54.7 | 51.1 |
| 37.5° | 33.9 | 36.8 | 44.6 | 36.8 | 35.1 |
| 40° | 23.2 | 25.0 | 27.9 | 25.0 | 23.2 |
| 42.5° | 14.9 | 16.0 | 17.2 | 16.0 | 14.9 |
| 45° | 8.9 | 9.5 | 10.7 | 9.5 | 8.9 |
| 47.5° | 4.8 | 5.3 | 5.9 | 5.3 | 4.8 |
| 50° | 2.4 | 3.0 | 3.6 | 3.0 | 3.0 |
| 52.5° | 1.2 | 1.8 | 1.8 | 1.8 | 1.8 |
| 55° | 0.6 | 0.6 | 1.2 | 0.6 | 0.6 |
| 57.5° | 0.0 | 0.0 | 0.6 | 0.6 | 0.0 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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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