

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: P886104

Luminaire Tested: ML204LSFL95FS1E-TIR1D25NFL-TL2SDMB-468LM-5000K

Issue Date: 6/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P886104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-91)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML204LSFL95FS1E-TIR1D25NFL-TL2SDMB-468LM-5000K
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

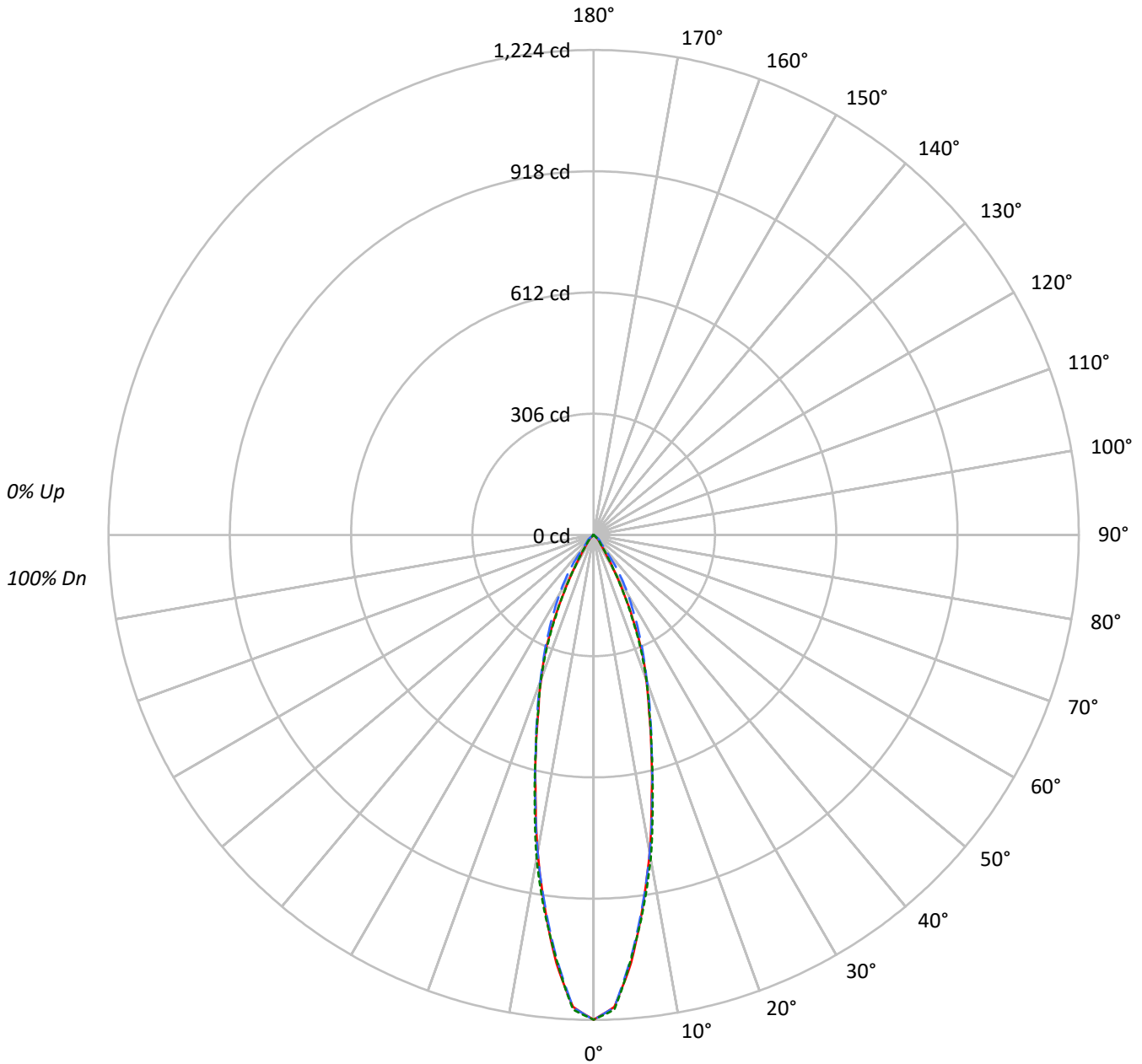
Lumens per Lamp: N/A
Luminaire Lumens: 421.8 lumens
Efficiency: N/A
Efficacy: 52.7 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.46 / 0.53
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 8
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 | | | | | | | | | | |
| 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 | 99 | 98 | 97 | 95 | |
| | 1 | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 95 | 95 | 94 | 92 | 91 | 91 | 91 | |
| | 2 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 98 | 101 | 98 | 96 | 98 | 96 | 94 | 95 | 94 | 92 | 91 | 91 | 90 | 88 | 86 | 86 | 86 | |
| | 3 | 105 | 100 | 96 | 93 | 104 | 99 | 95 | 92 | 96 | 93 | 90 | 94 | 91 | 89 | 92 | 90 | 88 | 86 | 86 | 86 | 83 | 82 | 82 | 82 | |
| | 4 | 101 | 95 | 90 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 90 | 87 | 84 | 88 | 86 | 83 | 82 | 82 | 80 | 78 | 78 | 78 | 78 | |
| | 5 | 97 | 90 | 86 | 82 | 96 | 90 | 85 | 82 | 88 | 84 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 78 | 78 | 76 | 75 | 75 | 75 | 75 | |
| | 6 | 94 | 86 | 81 | 78 | 92 | 86 | 81 | 77 | 84 | 80 | 77 | 83 | 79 | 76 | 82 | 78 | 76 | 75 | 75 | 73 | 72 | 72 | 72 | 72 | |
| | 7 | 90 | 82 | 77 | 74 | 89 | 82 | 77 | 74 | 81 | 76 | 73 | 80 | 76 | 73 | 79 | 75 | 73 | 72 | 72 | 70 | 69 | 69 | 69 | 69 | |
| | 8 | 87 | 79 | 74 | 71 | 86 | 78 | 74 | 70 | 77 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 70 | 69 | 69 | 67 | 66 | 66 | 66 | 66 | |
| | 9 | 84 | 76 | 71 | 68 | 83 | 75 | 71 | 67 | 74 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 66 | 66 | 64 | 63 | 63 | 63 | 63 | |
| | 10 | 81 | 73 | 68 | 65 | 80 | 72 | 68 | 65 | 72 | 67 | 65 | 71 | 67 | 64 | 70 | 67 | 64 | 63 | 63 | 61 | 60 | 60 | 60 | 60 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 474183 | 474183 | 474183 |
| 5° | 421809 | 417258 | 418775 |
| 10° | 319740 | 320487 | 326232 |
| 15° | 225537 | 226701 | 226299 |
| 20° | 159916 | 161896 | 160288 |
| 25° | 99963 | 114158 | 97056 |
| 30° | 44476 | 77140 | 43581 |
| 35° | 18875 | 44703 | 19821 |
| 40° | 11331 | 17755 | 11331 |
| 45° | 6412 | 12275 | 5316 |
| 50° | 603 | 9404 | 603 |
| 55° | 0 | 1959 | 676 |
| 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: 12275 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.6 | 22.4 |
| 10°-20° | 157.8 | 37.4 |
| 20°-30° | 114.5 | 27.2 |
| 30°-40° | 41.2 | 9.8 |
| 40°-50° | 12.1 | 2.9 |
| 50°-60° | 1.5 | 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° | 367.0 | 87.0 |
| 0°-40° | 408.2 | 96.8 |
| 0°-60° | 421.8 | 100.0 |
| 0°-90° | 421.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 421.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1224 | 1224 | 1224 | 1224 | 1224 | |
| 5° | 1084 | 1075 | 1073 | 1082 | 1077 | 95 |
| 15° | 562 | 562 | 565 | 558 | 564 | 157 |
| 25° | 234 | 258 | 267 | 250 | 227 | 106 |
| 35° | 40 | 55 | 94 | 55 | 42 | 29 |
| 45° | 12 | 16 | 22 | 16 | 10 | 8 |
| 55° | 0 | 1 | 3 | 1 | 1 | 0 |
| 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 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1223.7 | 1223.7 | 1223.7 | 1223.7 | 1223.7 |
| 2.5° | 1192.5 | 1189.6 | 1193.5 | 1194.5 | 1199.3 |
| 5° | 1084.4 | 1074.6 | 1072.7 | 1081.5 | 1076.6 |
| 7.5° | 947.0 | 948.0 | 943.1 | 953.8 | 954.8 |
| 10° | 812.6 | 813.5 | 814.5 | 818.4 | 829.1 |
| 12.5° | 676.2 | 679.1 | 680.1 | 678.1 | 686.9 |
| 15° | 562.2 | 562.2 | 565.1 | 558.3 | 564.1 |
| 17.5° | 463.8 | 467.7 | 472.5 | 466.7 | 465.7 |
| 20° | 387.8 | 390.7 | 392.6 | 391.7 | 388.7 |
| 22.5° | 318.6 | 324.4 | 326.4 | 318.6 | 307.9 |
| 25° | 233.8 | 258.2 | 267.0 | 250.4 | 227.0 |
| 27.5° | 158.8 | 191.9 | 214.3 | 185.1 | 156.9 |
| 30° | 99.4 | 127.6 | 172.4 | 127.6 | 97.4 |
| 32.5° | 60.4 | 79.9 | 132.5 | 82.8 | 63.3 |
| 35° | 39.9 | 54.6 | 94.5 | 54.6 | 41.9 |
| 37.5° | 29.2 | 38.0 | 55.5 | 38.0 | 30.2 |
| 40° | 22.4 | 26.3 | 35.1 | 27.3 | 22.4 |
| 42.5° | 17.5 | 20.5 | 26.3 | 20.5 | 16.6 |
| 45° | 11.7 | 15.6 | 22.4 | 15.6 | 9.7 |
| 47.5° | 1.9 | 8.8 | 19.5 | 7.8 | 4.9 |
| 50° | 1.0 | 1.0 | 15.6 | 2.9 | 1.0 |
| 52.5° | 1.0 | 1.0 | 8.8 | 1.0 | 1.0 |
| 55° | 0.0 | 1.0 | 2.9 | 1.0 | 1.0 |
| 57.5° | 0.0 | 0.0 | 0.0 | 0.0 | 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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