

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: P886686

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-5000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886686
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-5000K
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

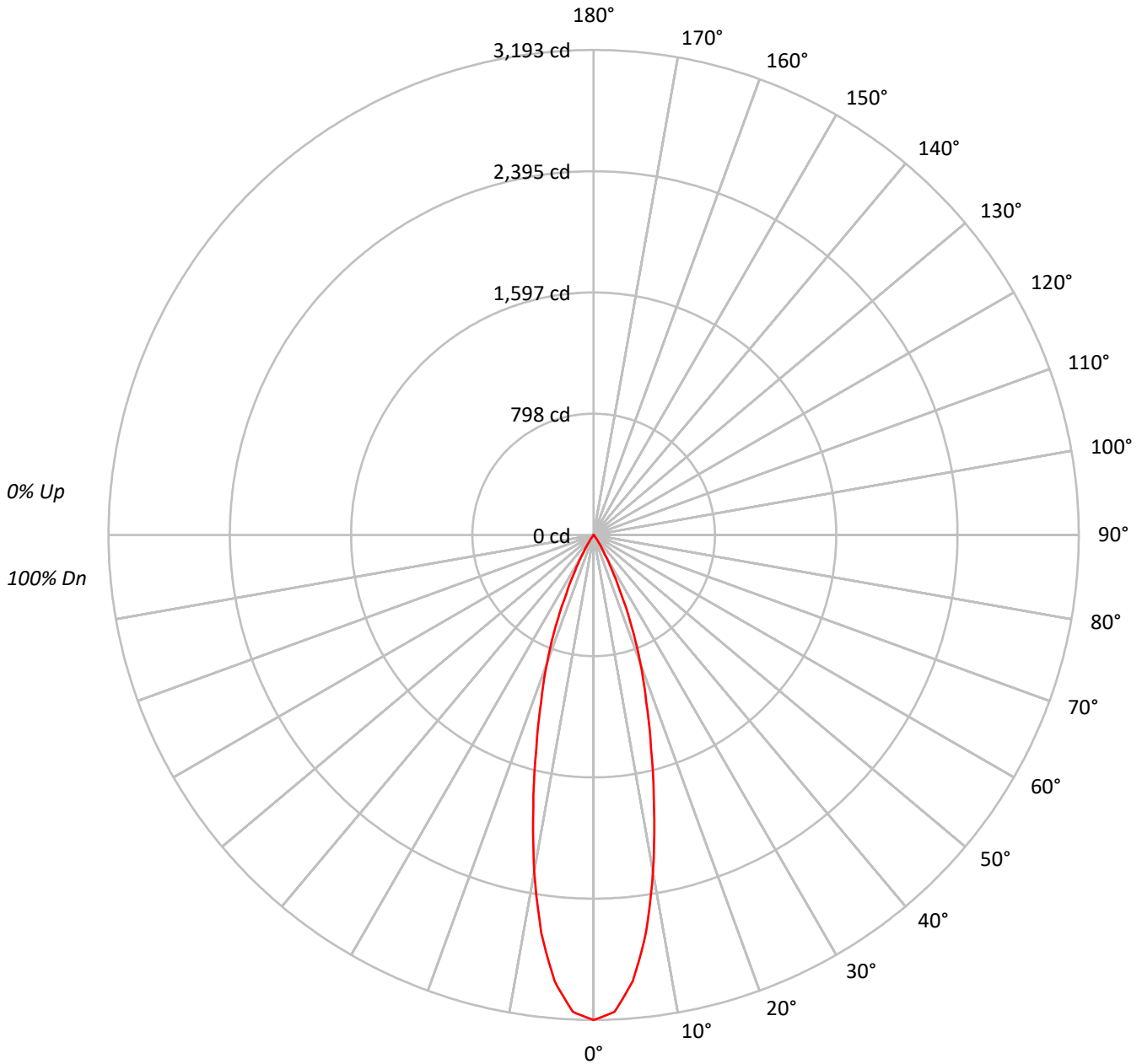
Lumens per Lamp: N/A
Luminaire Lumens: 906.1 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 10.9
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: P886686

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDDB-800LM-5000K

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 102 | 102 | 102 | 100 |
| 1 | 115 | 113 | 111 | 109 | 112 | 111 | 109 | 107 | 107 | 105 | 104 | | 103 | 102 | 101 | | 100 | 99 | 98 | 96 |
| 2 | 111 | 107 | 104 | 101 | 109 | 105 | 103 | 100 | 102 | 100 | 98 | | 100 | 98 | 96 | | 97 | 95 | 94 | 93 |
| 3 | 107 | 102 | 99 | 96 | 105 | 101 | 98 | 95 | 99 | 96 | 93 | | 96 | 94 | 92 | | 94 | 92 | 91 | 89 |
| 4 | 104 | 98 | 94 | 91 | 102 | 97 | 93 | 90 | 95 | 92 | 89 | | 93 | 90 | 88 | | 91 | 89 | 87 | 86 |
| 5 | 100 | 94 | 90 | 87 | 99 | 93 | 89 | 86 | 92 | 88 | 86 | | 90 | 87 | 85 | | 89 | 86 | 84 | 83 |
| 6 | 97 | 91 | 86 | 83 | 96 | 90 | 86 | 83 | 88 | 85 | 82 | | 87 | 84 | 82 | | 86 | 83 | 81 | 80 |
| 7 | 94 | 87 | 83 | 80 | 93 | 87 | 83 | 80 | 86 | 82 | 79 | | 85 | 81 | 79 | | 84 | 81 | 78 | 77 |
| 8 | 91 | 84 | 80 | 77 | 90 | 84 | 80 | 77 | 83 | 79 | 76 | | 82 | 79 | 76 | | 81 | 78 | 76 | 75 |
| 9 | 89 | 81 | 77 | 74 | 88 | 81 | 77 | 74 | 80 | 77 | 74 | | 79 | 76 | 74 | | 79 | 76 | 73 | 73 |
| 10 | 86 | 79 | 75 | 72 | 85 | 79 | 74 | 72 | 78 | 74 | 72 | | 77 | 74 | 71 | | 77 | 73 | 71 | 70 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 700251 |
| 5° | 649459 |
| 10° | 501037 |
| 15° | 331126 |
| 20° | 209412 |
| 25° | 102562 |
| 30° | 37879 |
| 35° | 10199 |
| 40° | 2176 |
| 45° | 899 |
| 50° | 341 |
| 55° | 0 |
| 60° | 0 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 899 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 259.0 | 28.6 |
| 10°-20° | 406.9 | 44.9 |
| 20°-30° | 205.7 | 22.7 |
| 30°-40° | 31.7 | 3.5 |
| 40°-50° | 2.6 | 0.3 |
| 50°-60° | 0.1 | 0.0 |
| 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° | 871.6 | 96.2 |
| 0°-40° | 903.3 | 99.7 |
| 0°-60° | 906.1 | 100.0 |
| 0°-90° | 906.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 906.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3193 | |
| 5° | 2950 | 259 |
| 15° | 1459 | 407 |
| 25° | 424 | 206 |
| 35° | 38 | 32 |
| 45° | 3 | 3 |
| 55° | 0 | 0 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 3193.4 |
| 2.5° | 3142.9 |
| 5° | 2950.5 |
| 7.5° | 2640.8 |
| 10° | 2250.2 |
| 12.5° | 1835.8 |
| 15° | 1458.6 |
| 17.5° | 1150.8 |
| 20° | 897.4 |
| 22.5° | 654.5 |
| 25° | 423.9 |
| 27.5° | 264.8 |
| 30° | 149.6 |
| 32.5° | 81.0 |
| 35° | 38.1 |
| 37.5° | 15.2 |
| 40° | 7.6 |
| 42.5° | 4.8 |
| 45° | 2.9 |
| 47.5° | 1.9 |
| 50° | 1.0 |
| 52.5° | 0.0 |
| 55° | 0.0 |
| 57.5° | 0.0 |
| 60° | 0.0 |
| 62.5° | 0.0 |
| 65° | 0.0 |
| 67.5° | 0.0 |
| 70° | 0.0 |
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 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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— 0°-180°

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