

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: P886672

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-1000LM-2700K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886672
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-1000LM-2700K
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

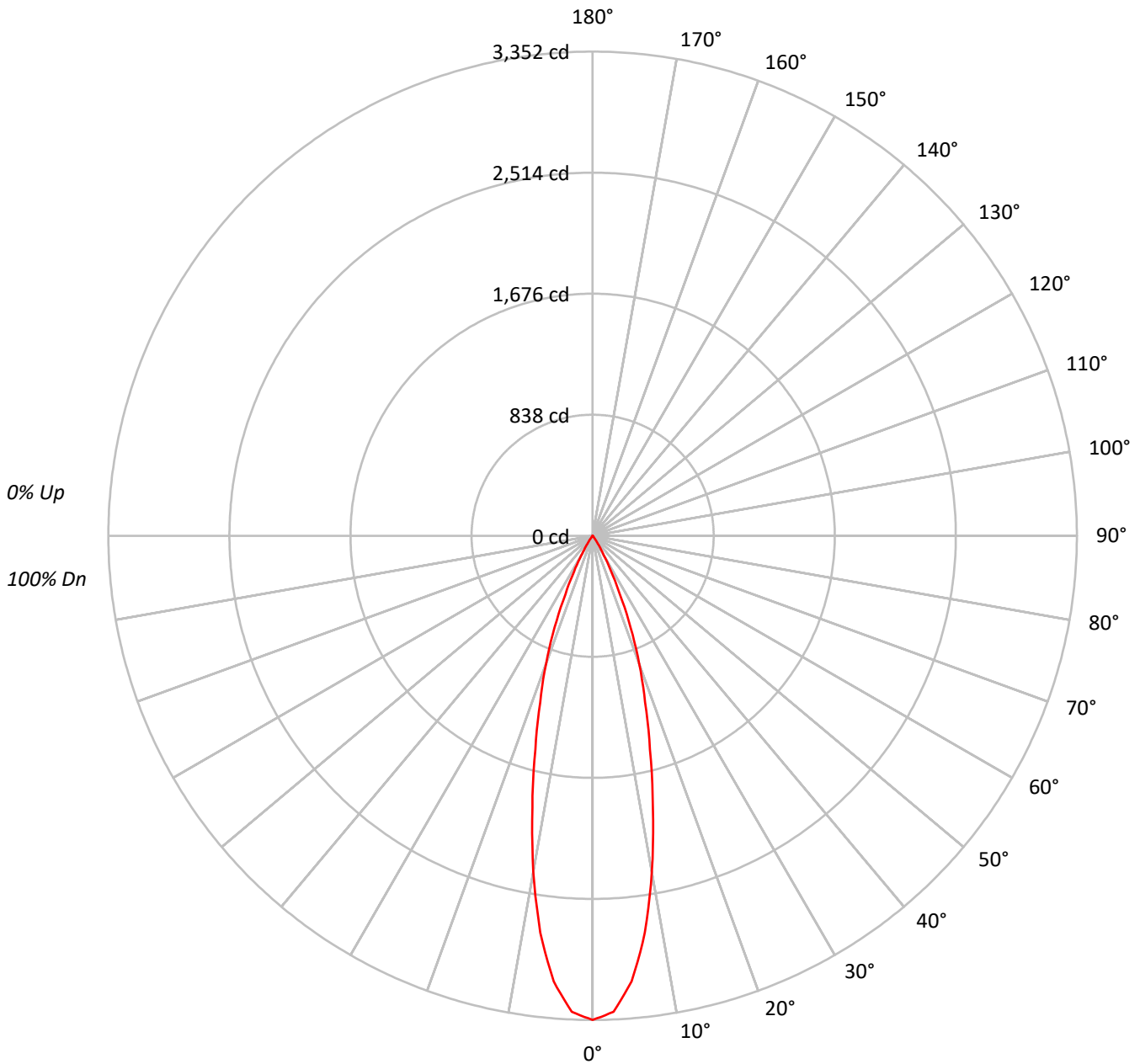
Lumens per Lamp: N/A
Luminaire Lumens: 951.1 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
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: P886672

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDDB-1000LM-2700K

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

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 735051 |
| 5° | 681728 |
| 10° | 525953 |
| 15° | 347562 |
| 20° | 219819 |
| 25° | 107668 |
| 30° | 39753 |
| 35° | 10708 |
| 40° | 2290 |
| 45° | 930 |
| 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: 930 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 271.9 | 28.6 |
| 10°-20° | 427.1 | 44.9 |
| 20°-30° | 215.9 | 22.7 |
| 30°-40° | 33.3 | 3.5 |
| 40°-50° | 2.7 | 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° | 914.9 | 96.2 |
| 0°-40° | 948.2 | 99.7 |
| 0°-60° | 951.1 | 100.0 |
| 0°-90° | 951.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 951.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3352 | |
| 5° | 3097 | 272 |
| 15° | 1531 | 427 |
| 25° | 445 | 216 |
| 35° | 40 | 33 |
| 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° | 3352.1 |
| 2.5° | 3299.1 |
| 5° | 3097.1 |
| 7.5° | 2772.1 |
| 10° | 2362.1 |
| 12.5° | 1927.1 |
| 15° | 1531.0 |
| 17.5° | 1208.0 |
| 20° | 942.0 |
| 22.5° | 687.0 |
| 25° | 445.0 |
| 27.5° | 278.0 |
| 30° | 157.0 |
| 32.5° | 85.0 |
| 35° | 40.0 |
| 37.5° | 16.0 |
| 40° | 8.0 |
| 42.5° | 5.0 |
| 45° | 3.0 |
| 47.5° | 2.0 |
| 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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