

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P885808

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-400LM-2700K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P885808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-120)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-400LM-2700K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

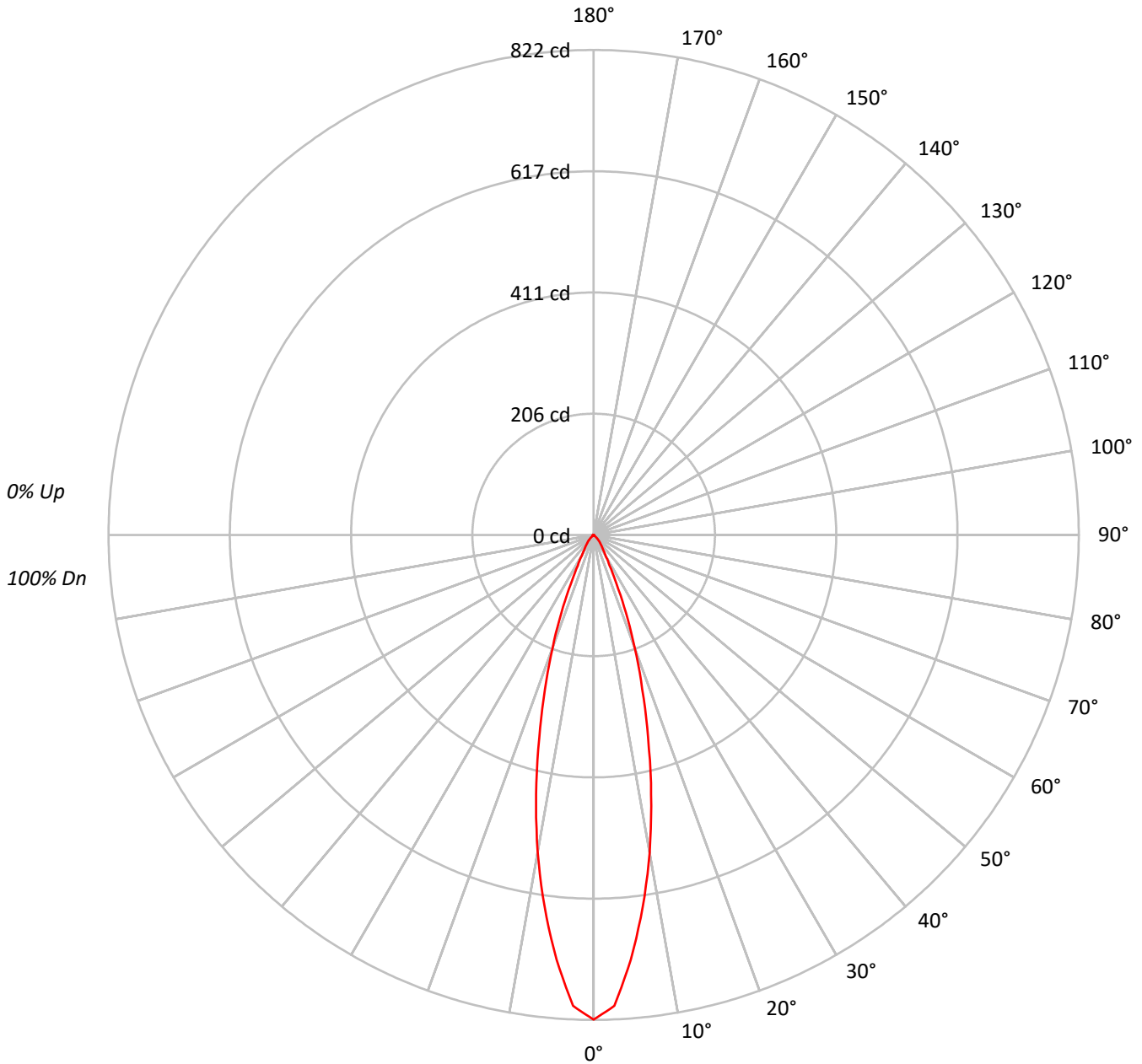
Lumens per Lamp: N/A
Luminaire Lumens: 230.0 lumens
Efficiency: N/A
Efficacy: 38.3 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.45 / 0.48
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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





TEST NUMBER: P885808

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDDB-400LM-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 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 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 104 | 103 | 101 | 100 | 99 | 98 | 98 | 96 | 96 | 96 | 96 |
| 2 | 110 | 106 | 103 | 101 | 108 | 105 | 102 | 99 | 102 | 99 | 97 | 99 | 97 | 95 | 96 | 95 | 93 | 92 | 92 | 92 | 92 |
| 3 | 106 | 101 | 97 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 92 | 95 | 93 | 91 | 93 | 91 | 89 | 88 | 88 | 88 | 88 |
| 4 | 103 | 97 | 92 | 89 | 101 | 96 | 92 | 89 | 94 | 90 | 88 | 92 | 89 | 87 | 90 | 88 | 86 | 84 | 84 | 84 | 84 |
| 5 | 99 | 93 | 88 | 85 | 98 | 92 | 87 | 84 | 90 | 86 | 84 | 88 | 85 | 83 | 87 | 84 | 82 | 81 | 81 | 81 | 81 |
| 6 | 96 | 89 | 84 | 81 | 94 | 88 | 84 | 81 | 87 | 83 | 80 | 85 | 82 | 80 | 84 | 81 | 79 | 78 | 78 | 78 | 78 |
| 7 | 92 | 85 | 81 | 77 | 91 | 85 | 80 | 77 | 84 | 80 | 77 | 83 | 79 | 77 | 82 | 78 | 76 | 75 | 75 | 75 | 75 |
| 8 | 89 | 82 | 78 | 74 | 88 | 82 | 77 | 74 | 81 | 77 | 74 | 80 | 76 | 74 | 79 | 76 | 73 | 72 | 72 | 72 | 72 |
| 9 | 87 | 79 | 75 | 72 | 86 | 79 | 75 | 72 | 78 | 74 | 71 | 77 | 74 | 71 | 77 | 73 | 71 | 70 | 70 | 70 | 70 |
| 10 | 84 | 77 | 72 | 69 | 83 | 76 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 74 | 71 | 69 | 68 | 68 | 68 | 68 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 1621462 |
| 5° | 1431331 |
| 10° | 1094177 |
| 15° | 726548 |
| 20° | 425500 |
| 25° | 198811 |
| 30° | 91154 |
| 35° | 58545 |
| 40° | 40190 |
| 45° | 21770 |
| 50° | 5219 |
| 55° | 3097 |
| 60° | 3552 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21770 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.4 | 27.6 |
| 10°-20° | 98.0 | 42.6 |
| 20°-30° | 45.6 | 19.8 |
| 30°-40° | 15.7 | 6.8 |
| 40°-50° | 5.9 | 2.6 |
| 50°-60° | 1.1 | 0.5 |
| 60°-70° | 0.3 | 0.1 |
| 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° | 207.1 | 90.0 |
| 0°-40° | 222.7 | 96.8 |
| 0°-60° | 229.7 | 99.9 |
| 0°-90° | 230.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 230.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 822 | |
| 5° | 722 | 63 |
| 15° | 356 | 98 |
| 25° | 91 | 46 |
| 35° | 24 | 16 |
| 45° | 8 | 6 |
| 55° | 1 | 1 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 821.6 |
| 2.5° | 799.0 |
| 5° | 722.5 |
| 7.5° | 636.4 |
| 10° | 546.0 |
| 12.5° | 450.3 |
| 15° | 355.6 |
| 17.5° | 273.9 |
| 20° | 202.6 |
| 22.5° | 142.6 |
| 25° | 91.3 |
| 27.5° | 58.2 |
| 30° | 40.0 |
| 32.5° | 30.4 |
| 35° | 24.3 |
| 37.5° | 19.1 |
| 40° | 15.6 |
| 42.5° | 12.2 |
| 45° | 7.8 |
| 47.5° | 2.6 |
| 50° | 1.7 |
| 52.5° | 1.7 |
| 55° | 0.9 |
| 57.5° | 0.9 |
| 60° | 0.9 |
| 62.5° | 0.9 |
| 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 |

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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