

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: P643019

Luminaire Tested: ML5615LSNFL259FS1E - 694WB - 1200LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P643019
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-21)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSNFL259FS1E - 694WB - 1200LM - 4000K
Description: ML56 RR, 25D TIR OPTIC, 6" WHITE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

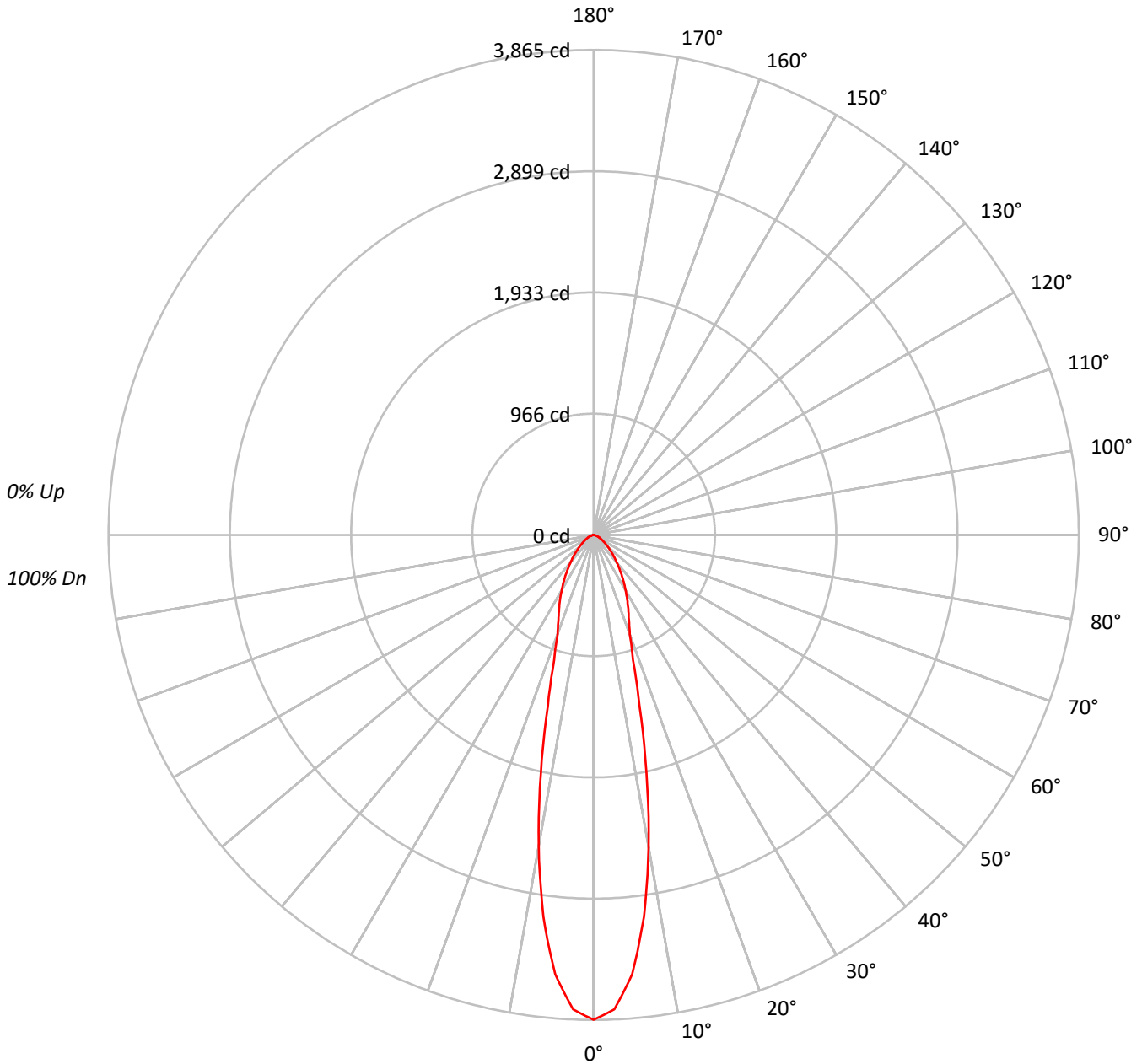
Lumens per Lamp: N/A
Luminaire Lumens: 1574.4 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.43
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 13.4
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





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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | 100 |
| 1 | 113 | 110 | 107 | 105 | 111 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 95 | 94 | 92 | | | 92 |
| 2 | 107 | 102 | 97 | 94 | 105 | 100 | 96 | 93 | 97 | 93 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 | | | 85 |
| 3 | 101 | 94 | 89 | 85 | 99 | 93 | 88 | 84 | 90 | 86 | 83 | 88 | 84 | 81 | 85 | 83 | 80 | 78 | | | 78 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 82 | 78 | 75 | 81 | 77 | 74 | 73 | | | 73 |
| 5 | 91 | 82 | 76 | 72 | 89 | 81 | 76 | 71 | 79 | 74 | 71 | 78 | 73 | 70 | 76 | 72 | 69 | 68 | | | 68 |
| 6 | 87 | 77 | 71 | 67 | 85 | 77 | 71 | 66 | 75 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 64 | | | 64 |
| 7 | 82 | 73 | 67 | 62 | 81 | 72 | 66 | 62 | 71 | 66 | 62 | 70 | 65 | 62 | 69 | 64 | 61 | 60 | | | 60 |
| 8 | 79 | 69 | 63 | 59 | 77 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 62 | 58 | 65 | 61 | 58 | 57 | | | 57 |
| 9 | 75 | 66 | 60 | 56 | 74 | 65 | 60 | 56 | 64 | 59 | 55 | 63 | 59 | 55 | 62 | 58 | 55 | 54 | | | 54 |
| 10 | 72 | 63 | 57 | 53 | 71 | 62 | 57 | 53 | 61 | 56 | 53 | 61 | 56 | 53 | 60 | 56 | 52 | 51 | | | 51 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 211864 |
| 5° | 193456 |
| 10° | 140406 |
| 15° | 79938 |
| 20° | 48963 |
| 25° | 39468 |
| 30° | 32207 |
| 35° | 25872 |
| 40° | 20467 |
| 45° | 16157 |
| 50° | 12622 |
| 55° | 9892 |
| 60° | 7883 |
| 65° | 6343 |
| 70° | 4600 |
| 75° | 2436 |
| 80° | 1799 |
| 85° | 881 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16157 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 303.1 | 19.3 |
| 10°-20° | 405.6 | 25.8 |
| 20°-30° | 300.7 | 19.1 |
| 30°-40° | 242.7 | 15.4 |
| 40°-50° | 162.4 | 10.3 |
| 50°-60° | 94.3 | 6.0 |
| 60°-70° | 49.3 | 3.1 |
| 70°-80° | 14.4 | 0.9 |
| 80°-90° | 1.9 | 0.1 |
| 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° | 1009.3 | 64.1 |
| 0°-40° | 1252.1 | 79.5 |
| 0°-60° | 1508.8 | 95.8 |
| 0°-90° | 1574.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1574.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3865 | |
| 5° | 3516 | 303 |
| 15° | 1408 | 406 |
| 25° | 652 | 301 |
| 35° | 387 | 243 |
| 45° | 208 | 162 |
| 55° | 104 | 94 |
| 65° | 49 | 49 |
| 75° | 12 | 14 |
| 85° | 1 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 3864.7 |
| 2.5° | 3784.2 |
| 5° | 3515.5 |
| 7.5° | 3067.1 |
| 10° | 2522.3 |
| 12.5° | 1943.1 |
| 15° | 1408.5 |
| 17.5° | 1043.4 |
| 20° | 839.3 |
| 22.5° | 731.6 |
| 25° | 652.5 |
| 27.5° | 577.8 |
| 30° | 508.8 |
| 32.5° | 445.5 |
| 35° | 386.6 |
| 37.5° | 333.4 |
| 40° | 286.0 |
| 42.5° | 245.8 |
| 45° | 208.4 |
| 47.5° | 175.3 |
| 50° | 148.0 |
| 52.5° | 123.6 |
| 55° | 103.5 |
| 57.5° | 86.2 |
| 60° | 71.9 |
| 62.5° | 60.4 |
| 65° | 48.9 |
| 67.5° | 40.2 |
| 70° | 28.7 |
| 72.5° | 18.7 |
| 75° | 11.5 |
| 77.5° | 7.2 |
| 80° | 5.7 |
| 82.5° | 2.9 |
| 85° | 1.4 |
| 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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