

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: P640690

Luminaire Tested: ML5612LSFL4097FS1E - 594TBZB - 900LM - 5000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P640690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-34)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5612LSFL4097FS1E - 594TBZB - 900LM - 5000K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

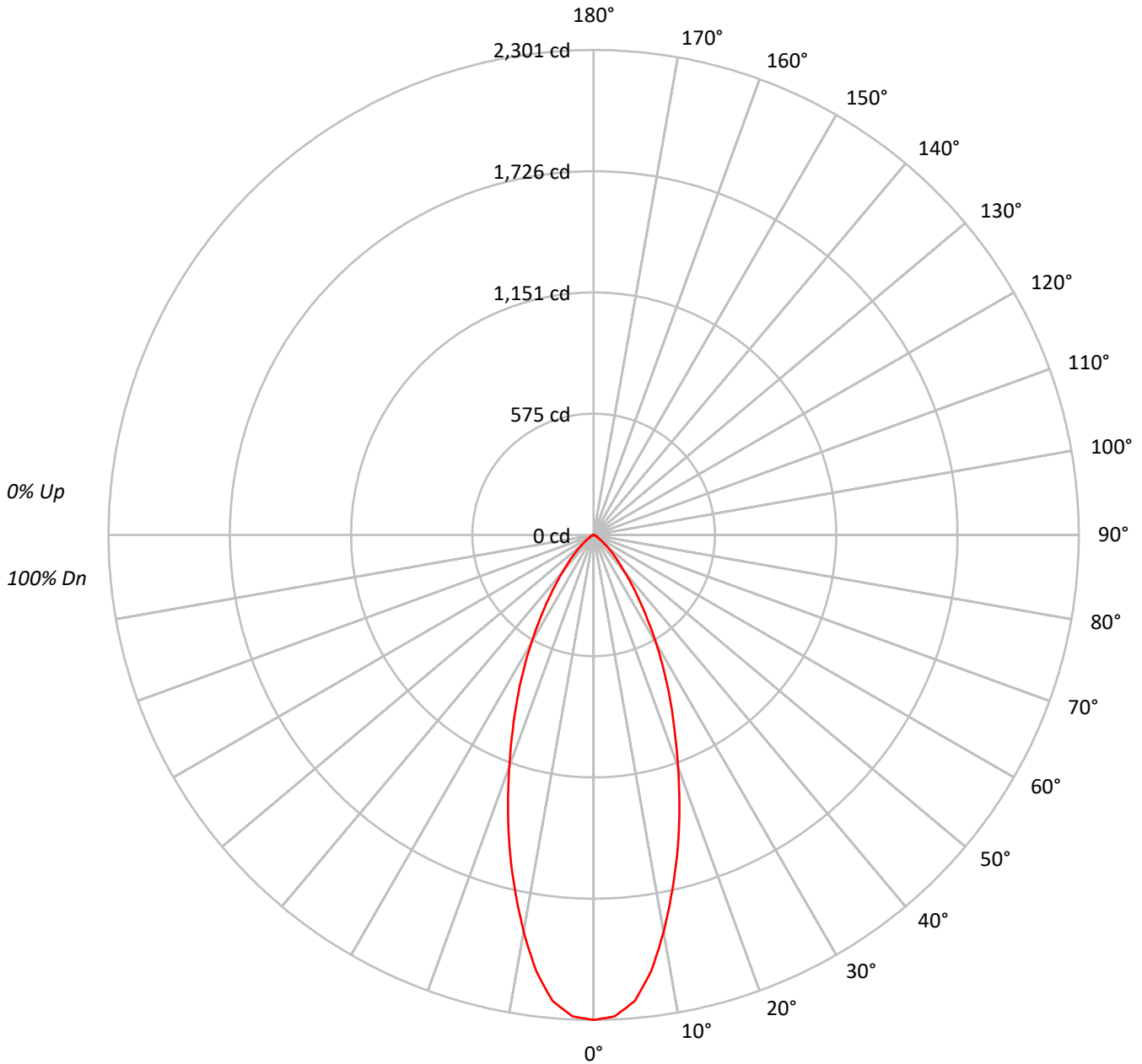
Lumens per Lamp: N/A
Luminaire Lumens: 1419.5 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 13.3
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | |
| 1 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | | | | | | | | | | | | | | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 95 | 98 | 95 | 92 | 95 | 93 | 91 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 3 | 103 | 96 | 91 | 87 | 101 | 95 | 90 | 87 | 92 | 88 | 85 | 90 | 87 | 84 | 87 | 85 | 83 | 81 | | | | | | | | | | | | | | | | | | | |
| 4 | 97 | 90 | 85 | 80 | 96 | 89 | 84 | 80 | 87 | 82 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 76 | | | | | | | | | | | | | | | | | | | |
| 5 | 93 | 84 | 79 | 74 | 91 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 76 | 73 | 79 | 75 | 72 | 71 | | | | | | | | | | | | | | | | | | | |
| 6 | 88 | 79 | 74 | 69 | 87 | 79 | 73 | 69 | 77 | 72 | 69 | 76 | 71 | 68 | 74 | 71 | 68 | 66 | | | | | | | | | | | | | | | | | | | |
| 7 | 84 | 75 | 69 | 65 | 83 | 74 | 69 | 65 | 73 | 68 | 64 | 72 | 67 | 64 | 71 | 67 | 64 | 62 | | | | | | | | | | | | | | | | | | | |
| 8 | 80 | 71 | 65 | 61 | 79 | 70 | 65 | 61 | 69 | 64 | 61 | 68 | 64 | 60 | 67 | 63 | 60 | 59 | | | | | | | | | | | | | | | | | | | |
| 9 | 77 | 67 | 61 | 58 | 76 | 67 | 61 | 58 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 57 | 56 | | | | | | | | | | | | | | | | | | | |
| 10 | 73 | 64 | 58 | 55 | 72 | 63 | 58 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 61 | 57 | 54 | 53 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 181667 |
| 5° | 175974 |
| 10° | 153151 |
| 15° | 125825 |
| 20° | 98179 |
| 25° | 74559 |
| 30° | 53717 |
| 35° | 36225 |
| 40° | 23392 |
| 45° | 15094 |
| 50° | 8842 |
| 55° | 4955 |
| 60° | 3331 |
| 65° | 2316 |
| 70° | 1708 |
| 75° | 1525 |
| 80° | 546 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15094 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 201.8 | 14.2 |
| 10°-20° | 425.4 | 30.0 |
| 20°-30° | 391.8 | 27.6 |
| 30°-40° | 239.5 | 16.9 |
| 40°-50° | 107.1 | 7.5 |
| 50°-60° | 35.4 | 2.5 |
| 60°-70° | 13.3 | 0.9 |
| 70°-80° | 4.7 | 0.3 |
| 80°-90° | 0.5 | 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° | 1019.0 | 71.8 |
| 0°-40° | 1258.5 | 88.7 |
| 0°-60° | 1400.9 | 98.7 |
| 0°-90° | 1419.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1419.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2301 | |
| 5° | 2221 | 202 |
| 15° | 1540 | 425 |
| 25° | 856 | 392 |
| 35° | 376 | 240 |
| 45° | 135 | 107 |
| 55° | 36 | 35 |
| 65° | 12 | 13 |
| 75° | 5 | 5 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2301.3 |
| 2.5° | 2286.5 |
| 5° | 2220.7 |
| 7.5° | 2088.0 |
| 10° | 1910.6 |
| 12.5° | 1724.5 |
| 15° | 1539.6 |
| 17.5° | 1351.0 |
| 20° | 1168.7 |
| 22.5° | 1002.4 |
| 25° | 856.0 |
| 27.5° | 715.8 |
| 30° | 589.3 |
| 32.5° | 473.9 |
| 35° | 375.9 |
| 37.5° | 295.3 |
| 40° | 227.0 |
| 42.5° | 176.2 |
| 45° | 135.2 |
| 47.5° | 100.5 |
| 50° | 72.0 |
| 52.5° | 50.9 |
| 55° | 36.0 |
| 57.5° | 26.1 |
| 60° | 21.1 |
| 62.5° | 17.4 |
| 65° | 12.4 |
| 67.5° | 9.9 |
| 70° | 7.4 |
| 72.5° | 6.2 |
| 75° | 5.0 |
| 77.5° | 2.5 |
| 80° | 1.2 |
| 82.5° | 1.2 |
| 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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Scaled Data Report



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