

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: P643826

Luminaire Tested: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P643826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-54)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 2700K
Description: ML56 RR, 55D TIR OPTIC, 5" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1378.6 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.89
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

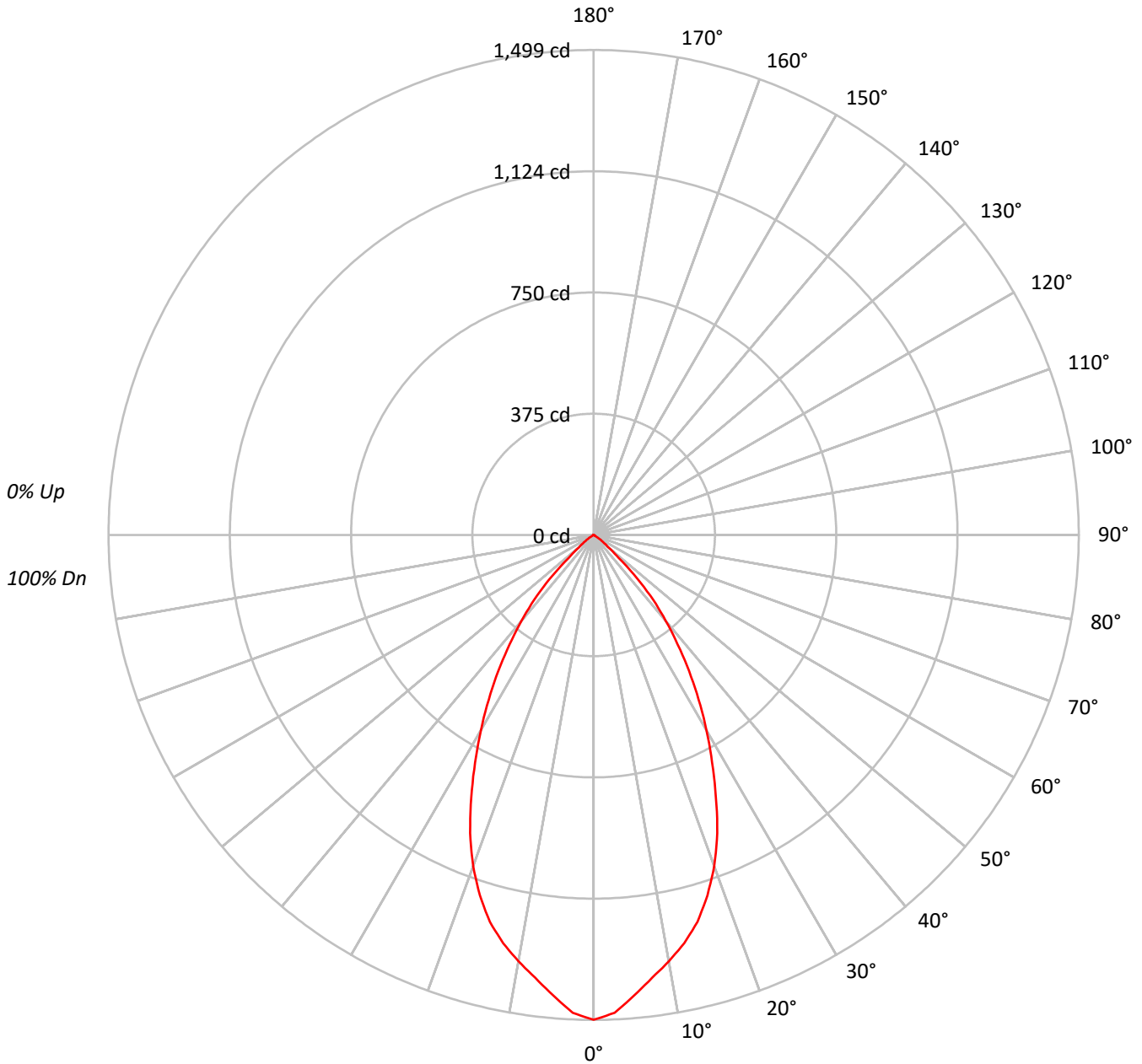
Input Watts (W): 13.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P643826

CATALOG NUMBER: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P643826

CATALOG NUMBER: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 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 | | | | |
| 1 | 113 | 110 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 93 | | | | |
| 2 | 107 | 102 | 98 | 95 | 105 | 101 | 97 | 94 | 97 | 94 | 92 | 94 | 92 | 90 | 92 | 90 | 88 | 86 | | | | |
| 3 | 102 | 95 | 90 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 84 | 89 | 85 | 82 | 86 | 83 | 81 | 79 | | | | |
| 4 | 96 | 88 | 83 | 78 | 94 | 87 | 82 | 78 | 85 | 80 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 | | | | |
| 5 | 91 | 82 | 76 | 72 | 89 | 81 | 76 | 71 | 80 | 75 | 71 | 78 | 73 | 70 | 76 | 72 | 69 | 68 | | | | |
| 6 | 86 | 77 | 71 | 66 | 85 | 76 | 70 | 66 | 75 | 69 | 65 | 73 | 68 | 65 | 72 | 68 | 65 | 63 | | | | |
| 7 | 82 | 72 | 66 | 61 | 80 | 71 | 65 | 61 | 70 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 59 | | | | |
| 8 | 77 | 67 | 61 | 57 | 76 | 67 | 61 | 57 | 66 | 60 | 57 | 65 | 60 | 56 | 64 | 59 | 56 | 55 | | | | |
| 9 | 73 | 63 | 57 | 53 | 72 | 63 | 57 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 60 | 56 | 52 | 51 | | | | |
| 10 | 70 | 60 | 54 | 50 | 69 | 59 | 54 | 50 | 58 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 48 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 118301 |
| 5° | 113245 |
| 10° | 107252 |
| 15° | 101185 |
| 20° | 91475 |
| 25° | 77878 |
| 30° | 63515 |
| 35° | 49486 |
| 40° | 35707 |
| 45° | 21457 |
| 50° | 7295 |
| 55° | 3303 |
| 60° | 995 |
| 65° | 243 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21457 cd/sqm



TEST NUMBER: P643826

CATALOG NUMBER: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 133.6 | 9.7 |
| 10°-20° | 344.6 | 25.0 |
| 20°-30° | 408.6 | 29.6 |
| 30°-40° | 319.9 | 23.2 |
| 40°-50° | 146.2 | 10.6 |
| 50°-60° | 23.9 | 1.7 |
| 60°-70° | 1.7 | 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° | 886.7 | 64.3 |
| 0°-40° | 1206.7 | 87.5 |
| 0°-60° | 1376.9 | 99.9 |
| 0°-90° | 1378.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1378.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1499 | |
| 5° | 1429 | 134 |
| 15° | 1238 | 345 |
| 25° | 894 | 409 |
| 35° | 514 | 320 |
| 45° | 192 | 146 |
| 55° | 24 | 24 |
| 65° | 1 | 2 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



TEST NUMBER: P643826

CATALOG NUMBER: ML5615LSWFL559FS1E - 593TBZB - 1200LM - 2700K

CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1498.6 |
| 2.5° | 1478.4 |
| 5° | 1429.1 |
| 7.5° | 1381.0 |
| 10° | 1338.0 |
| 12.5° | 1292.5 |
| 15° | 1238.1 |
| 17.5° | 1168.6 |
| 20° | 1088.9 |
| 22.5° | 997.8 |
| 25° | 894.1 |
| 27.5° | 793.0 |
| 30° | 696.8 |
| 32.5° | 603.3 |
| 35° | 513.5 |
| 37.5° | 426.2 |
| 40° | 346.5 |
| 42.5° | 271.9 |
| 45° | 192.2 |
| 47.5° | 105.0 |
| 50° | 59.4 |
| 52.5° | 37.9 |
| 55° | 24.0 |
| 57.5° | 13.9 |
| 60° | 6.3 |
| 62.5° | 2.5 |
| 65° | 1.3 |
| 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

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

Scaled Data Report



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

Scaled Data Report



— 0°-180°

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)