

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: P886818

Luminaire Tested: ML310LSFLD2W1E-TIR4D55WFL-TL3SDSL-600LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-20)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFLD2W1E-TIR4D55WFL-TL3SDSL-600LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 748.2 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')

CIE Type: Direct

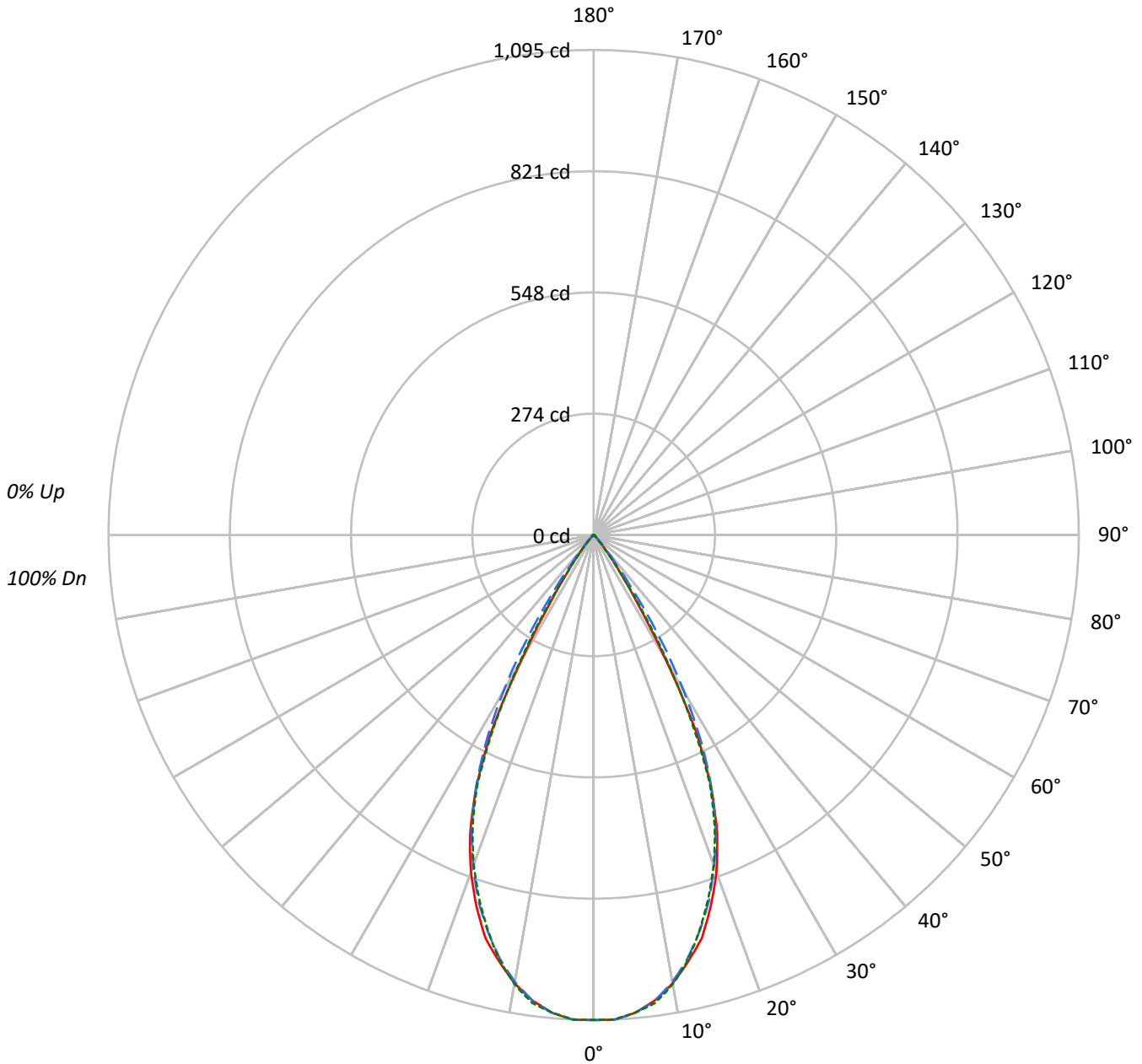
Input Watts (W): 9.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P886818

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|---|--|---|
| RF | 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 | 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 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 102 | 100 | 99 | 98 | 97 | 96 | 94 | | | | | | | | |
| 2 | 109 | 104 | 101 | 98 | 107 | 103 | 99 | 97 | 100 | 97 | 94 | 97 | 94 | 92 | 94 | 92 | 91 | 89 | | | | | | | | |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 | | | | | | | | |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 90 | 86 | 82 | 88 | 84 | 81 | 86 | 83 | 81 | 79 | | | | | | | | |
| 5 | 95 | 88 | 82 | 78 | 94 | 87 | 82 | 78 | 85 | 81 | 77 | 83 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | |
| 6 | 91 | 83 | 78 | 74 | 90 | 82 | 77 | 73 | 81 | 76 | 73 | 79 | 76 | 73 | 78 | 75 | 72 | 71 | | | | | | | | |
| 7 | 87 | 79 | 73 | 69 | 86 | 78 | 73 | 69 | 77 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 68 | 67 | | | | | | | | |
| 8 | 83 | 75 | 69 | 66 | 82 | 74 | 69 | 66 | 73 | 69 | 65 | 72 | 68 | 65 | 71 | 68 | 65 | 64 | | | | | | | | |
| 9 | 80 | 71 | 66 | 62 | 79 | 71 | 66 | 62 | 70 | 65 | 62 | 69 | 65 | 62 | 68 | 64 | 62 | 60 | | | | | | | | |
| 10 | 77 | 68 | 63 | 59 | 76 | 67 | 62 | 59 | 67 | 62 | 59 | 66 | 62 | 59 | 65 | 61 | 59 | 57 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 188635 | 188635 | 188635 |
| 5° | 187178 | 187299 | 187178 |
| 10° | 179759 | 179216 | 180091 |
| 15° | 168117 | 164979 | 164640 |
| 20° | 148453 | 145686 | 145099 |
| 25° | 118976 | 119337 | 117893 |
| 30° | 64512 | 80799 | 67515 |
| 35° | 22244 | 35363 | 21718 |
| 40° | 5665 | 9195 | 4946 |
| 45° | 1388 | 3385 | 1534 |
| 50° | 1018 | 1340 | 1179 |
| 55° | 1141 | 1141 | 1141 |
| 60° | 1068 | 1068 | 1068 |
| 65° | 774 | 1019 | 1019 |
| 70° | 957 | 957 | 957 |
| 75° | 865 | 1264 | 1264 |
| 80° | 595 | 1289 | 1289 |
| 85° | 1186 | 1186 | 1186 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 3385 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 101.6 | 13.6 |
| 10°-20° | 258.4 | 34.5 |
| 20°-30° | 277.9 | 37.1 |
| 30°-40° | 93.3 | 12.5 |
| 40°-50° | 9.0 | 1.2 |
| 50°-60° | 3.4 | 0.4 |
| 60°-70° | 2.5 | 0.3 |
| 70°-80° | 1.6 | 0.2 |
| 80°-90° | 0.5 | 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° | 638.0 | 85.3 |
| 0°-40° | 731.2 | 97.7 |
| 0°-60° | 743.5 | 99.4 |
| 0°-90° | 748.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 748.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1095 | 1095 | 1095 | 1095 | 1095 | |
| 5° | 1083 | 1083 | 1083 | 1083 | 1083 | 102 |
| 15° | 943 | 933 | 925 | 926 | 923 | 261 |
| 25° | 626 | 635 | 628 | 631 | 620 | 274 |
| 35° | 106 | 109 | 168 | 112 | 103 | 78 |
| 45° | 6 | 7 | 14 | 8 | 6 | 7 |
| 55° | 4 | 4 | 4 | 4 | 4 | 3 |
| 65° | 2 | 2 | 2 | 2 | 2 | 2 |
| 75° | 1 | 1 | 2 | 2 | 2 | 1 |
| 85° | 1 | 1 | 1 | 1 | 1 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1095.3 | 1095.3 | 1095.3 | 1095.3 | 1095.3 |
| 2.5° | 1095.3 | 1094.7 | 1095.3 | 1095.3 | 1094.7 |
| 5° | 1082.7 | 1082.7 | 1083.4 | 1083.4 | 1082.7 |
| 7.5° | 1060.0 | 1060.0 | 1060.7 | 1064.5 | 1065.7 |
| 10° | 1027.9 | 1026.0 | 1024.8 | 1027.3 | 1029.8 |
| 12.5° | 986.4 | 985.1 | 979.4 | 978.8 | 983.2 |
| 15° | 942.9 | 933.4 | 925.3 | 925.9 | 923.4 |
| 17.5° | 879.3 | 875.5 | 865.4 | 865.4 | 860.4 |
| 20° | 810.0 | 801.8 | 794.9 | 795.5 | 791.7 |
| 22.5° | 728.7 | 728.7 | 719.9 | 725.0 | 714.3 |
| 25° | 626.1 | 634.9 | 628.0 | 631.1 | 620.4 |
| 27.5° | 500.7 | 515.9 | 524.7 | 517.7 | 485.6 |
| 30° | 324.4 | 378.5 | 406.3 | 372.2 | 339.5 |
| 32.5° | 183.9 | 218.6 | 286.6 | 227.4 | 211.0 |
| 35° | 105.8 | 109.0 | 168.2 | 112.1 | 103.3 |
| 37.5° | 54.8 | 57.9 | 84.4 | 56.1 | 52.3 |
| 40° | 25.2 | 29.0 | 40.9 | 29.0 | 22.0 |
| 42.5° | 10.1 | 15.7 | 23.3 | 12.6 | 10.1 |
| 45° | 5.7 | 6.9 | 13.9 | 7.6 | 6.3 |
| 47.5° | 5.0 | 5.0 | 8.2 | 5.7 | 5.0 |
| 50° | 3.8 | 4.4 | 5.0 | 4.4 | 4.4 |
| 52.5° | 3.8 | 3.8 | 4.4 | 3.8 | 3.8 |
| 55° | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| 57.5° | 3.1 | 3.1 | 3.8 | 3.8 | 3.1 |
| 60° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 62.5° | 2.5 | 2.5 | 3.1 | 3.1 | 3.1 |
| 65° | 1.9 | 2.5 | 2.5 | 2.5 | 2.5 |
| 67.5° | 1.9 | 1.9 | 2.5 | 2.5 | 2.5 |
| 70° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| 72.5° | 1.3 | 1.9 | 1.9 | 1.9 | 1.9 |
| 75° | 1.3 | 1.3 | 1.9 | 1.9 | 1.9 |
| 77.5° | 0.6 | 1.3 | 1.3 | 1.3 | 1.3 |
| 80° | 0.6 | 0.6 | 1.3 | 1.3 | 1.3 |
| 82.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 85° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 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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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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