

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: P886727

Luminaire Tested: ML310LSFL9FS1E-TIR4D40FL-TL3SDMB-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886727
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D40FL-TL3SDMB-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1223.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

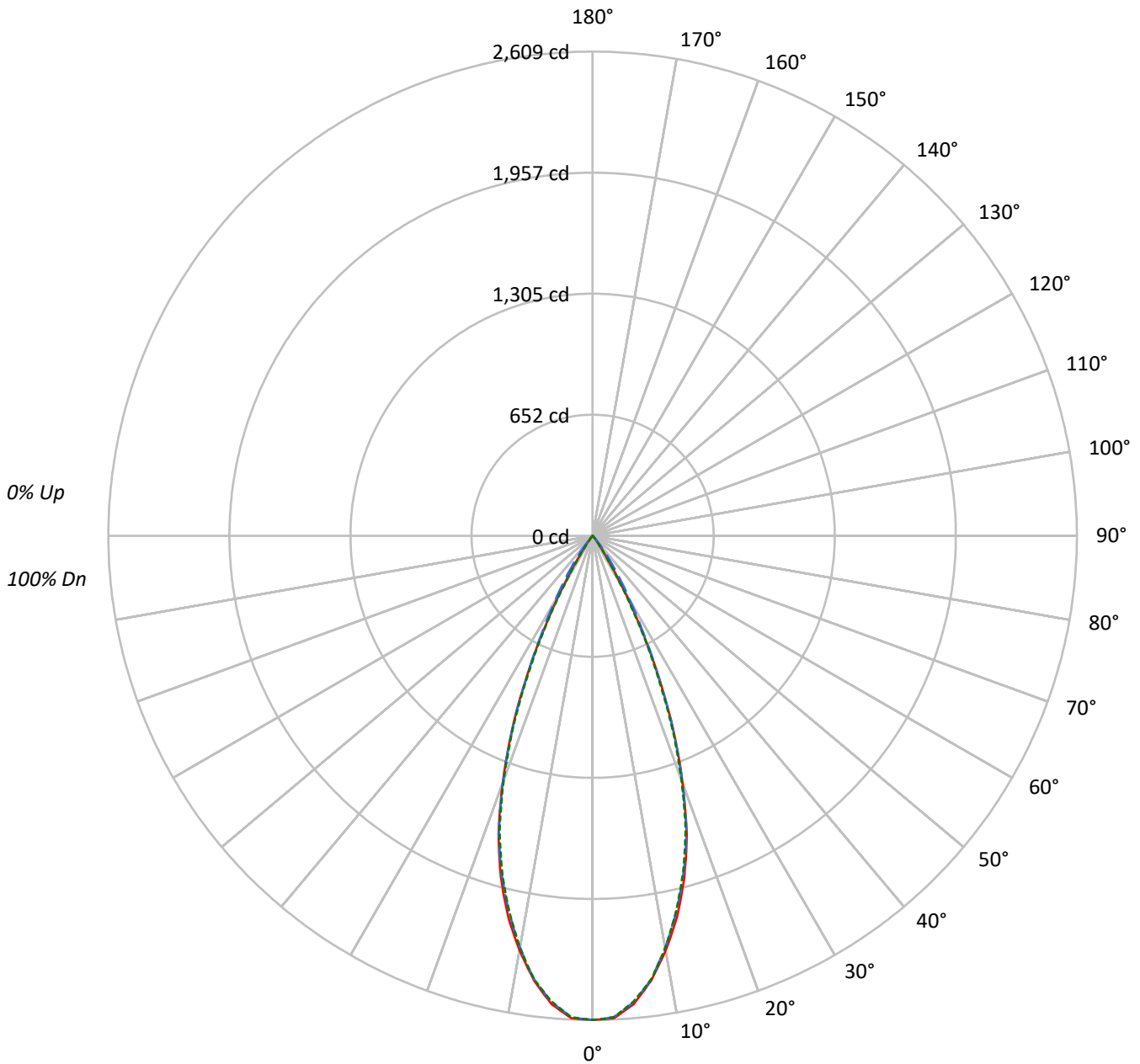
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95								
2	110	106	103	100	108	104	101	99	101	99	97	98	96	94	96	94	93	91								
3	106	100	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87								
4	102	96	91	88	100	94	90	87	92	89	86	91	88	85	89	86	84	83								
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79								
6	94	87	82	79	93	86	82	78	85	81	78	84	80	77	82	79	77	76								
7	91	83	78	75	90	83	78	75	81	77	74	80	77	74	79	76	74	72								
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69								
9	84	76	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	66								
10	81	73	69	65	80	73	68	65	72	68	65	72	68	65	71	67	65	64								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	449346	449346	449346
5°	438096	436195	435676
10°	396592	394143	394143
15°	340121	336894	335289
20°	259371	258803	256421
25°	160706	159755	155575
30°	65486	80004	58109
35°	13687	34501	12404
40°	3372	10567	3372
45°	731	2923	974
50°	268	804	268
55°	0	300	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 2923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.5	19.0
10°-20°	518.8	42.4
20°-30°	383.2	31.3
30°-40°	81.3	6.7
40°-50°	6.7	0.6
50°-60°	0.4	0.0
60°-70°	0.0	0.0
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°	1134.5	92.8
0°-40°	1215.9	99.4
0°-60°	1223.0	100.0
0°-90°	1223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2609	2609	2609	2609	2609	
5°	2534	2527	2523	2522	2520	233
15°	1908	1907	1890	1884	1880	522
25°	846	851	841	840	819	381
35°	65	94	164	86	59	63
45°	3	5	12	5	4	4
55°	0	0	1	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2609.1	2609.1	2609.1	2609.1	2609.1
2.5°	2602.1	2600.1	2597.1	2597.1	2597.1
5°	2534.1	2527.1	2523.1	2522.1	2520.1
7.5°	2417.0	2409.0	2411.0	2411.0	2411.0
10°	2267.8	2257.8	2253.8	2253.8	2253.8
12.5°	2102.7	2103.7	2077.7	2077.7	2073.7
15°	1907.6	1906.6	1889.5	1883.5	1880.5
17.5°	1686.4	1685.4	1681.4	1666.4	1665.4
20°	1415.2	1420.2	1412.1	1402.1	1399.1
22.5°	1140.9	1135.9	1132.9	1132.9	1118.9
25°	845.7	850.7	840.7	839.7	818.7
27.5°	564.5	600.5	595.5	570.5	545.4
30°	329.3	370.3	402.3	343.3	292.2
32.5°	154.1	196.2	265.2	184.1	141.1
35°	65.1	94.1	164.1	86.1	59.0
37.5°	31.0	43.0	92.1	41.0	28.0
40°	15.0	21.0	47.0	21.0	15.0
42.5°	8.0	11.0	24.0	10.0	8.0
45°	3.0	5.0	12.0	5.0	4.0
47.5°	2.0	2.0	5.0	2.0	2.0
50°	1.0	1.0	3.0	1.0	1.0
52.5°	0.0	1.0	1.0	1.0	0.0
55°	0.0	0.0	1.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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



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Scaled Data Report





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

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