

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: P886609

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDSL-850LM-3500K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDSL-850LM-3500K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1234.1 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

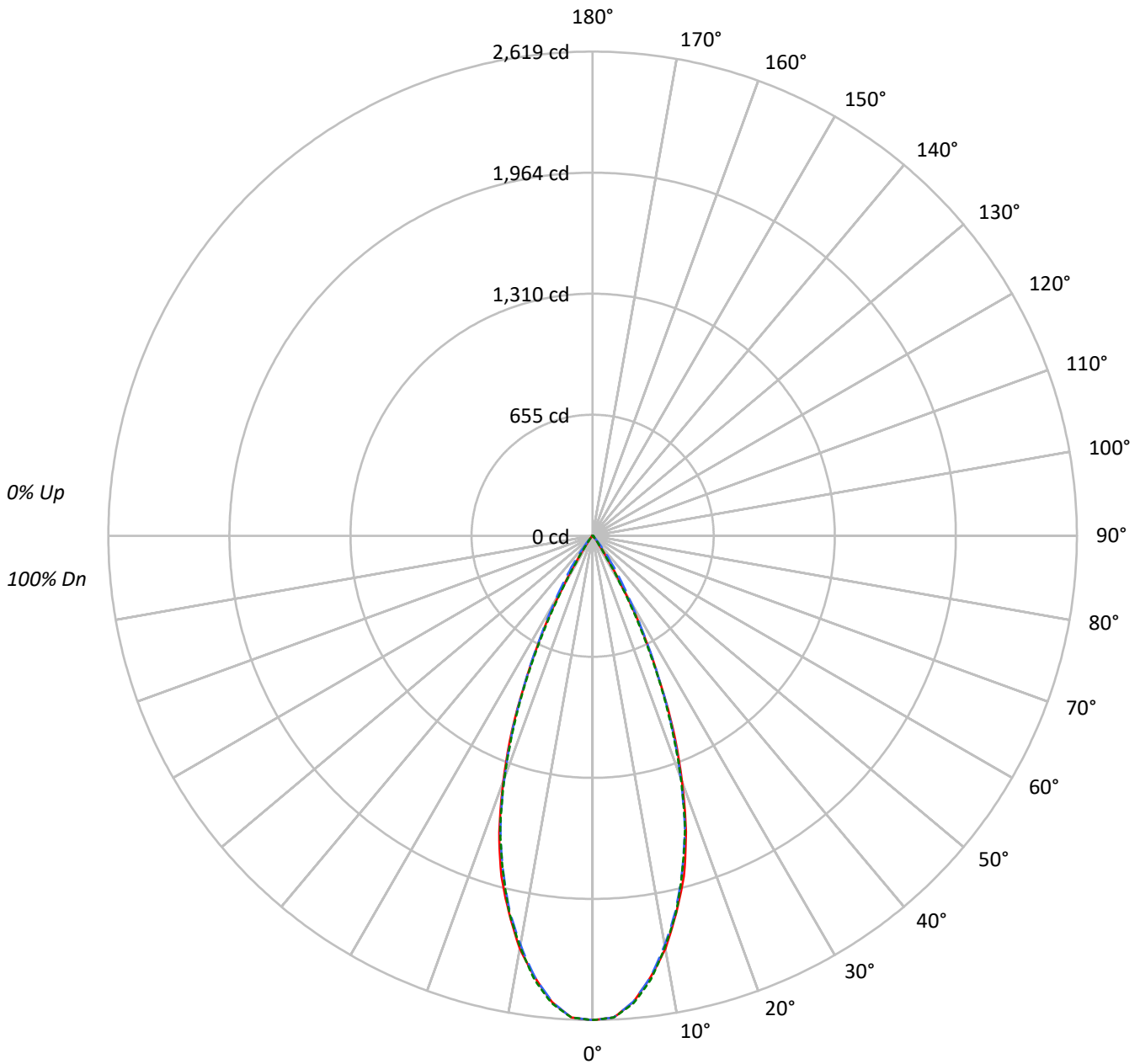
Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	94	92	91					91			
3	105	100	96	93	104	99	95	92	96	93	90	94	91	89	92	89	88	86					86			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	84	82					82			
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78					78			
6	94	86	81	78	92	86	81	78	84	80	77	83	79	77	82	79	76	75					75			
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72					72			
8	87	79	74	71	86	79	74	71	78	73	70	77	73	70	76	72	70	69					69			
9	84	76	71	68	83	75	71	68	74	70	67	74	70	67	73	69	67	66					66			
10	81	73	68	65	80	72	68	65	72	67	65	71	67	64	70	67	64	63					63			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	451086	451086	451086
5°	437526	437180	438857
10°	396504	392937	394633
15°	339943	334041	334220
20°	258913	255339	255871
25°	159261	159812	156297
30°	64771	79467	59163
35°	13897	35153	13287
40°	4586	11376	4811
45°	2143	4019	2143
50°	1554	2090	1554
55°	1471	1742	1471
60°	1343	1688	1343
65°	1182	1589	1589
70°	1460	1460	1460
75°	1264	1264	1264
80°	992	992	1884
85°	1976	1976	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 4019 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.6	18.9
10°-20°	516.4	41.8
20°-30°	381.4	30.9
30°-40°	82.0	6.6
40°-50°	10.5	0.9
50°-60°	4.7	0.4
60°-70°	3.6	0.3
70°-80°	2.2	0.2
80°-90°	0.7	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°	1130.4	91.6
0°-40°	1212.4	98.2
0°-60°	1227.6	99.5
0°-90°	1234.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1234.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2531	2529	2529	2528	2538	233
15°	1907	1889	1874	1879	1874	520
25°	838	849	841	837	822	382
35°	66	95	167	85	63	64
45°	9	10	16	10	9	8
55°	5	5	6	5	5	4
65°	3	4	4	4	4	3
75°	2	2	2	2	2	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2619.2	2619.2	2619.2	2619.2	2619.2
2.5°	2608.5	2607.6	2608.5	2609.5	2608.5
5°	2530.8	2528.8	2528.8	2527.8	2538.5
7.5°	2406.3	2407.3	2405.3	2412.1	2418.9
10°	2267.3	2249.8	2246.9	2259.5	2256.6
12.5°	2088.4	2089.4	2074.8	2078.7	2085.5
15°	1906.6	1889.1	1873.5	1879.3	1874.5
17.5°	1679.1	1670.3	1657.7	1658.6	1661.6
20°	1412.7	1414.6	1393.2	1401.0	1396.1
22.5°	1141.4	1127.8	1122.9	1114.2	1109.3
25°	838.1	848.8	841.0	837.1	822.5
27.5°	583.3	585.3	595.0	574.6	543.5
30°	325.7	362.6	399.6	344.2	297.5
32.5°	156.5	194.4	266.4	179.9	138.1
35°	66.1	95.3	167.2	84.6	63.2
37.5°	35.0	45.7	93.3	42.8	33.1
40°	20.4	25.3	50.6	25.3	21.4
42.5°	11.7	15.6	28.2	15.6	12.6
45°	8.8	9.7	16.5	9.7	8.8
47.5°	6.8	7.8	9.7	7.8	6.8
50°	5.8	5.8	7.8	5.8	5.8
52.5°	4.9	5.8	5.8	5.8	5.8
55°	4.9	4.9	5.8	4.9	4.9
57.5°	4.9	4.9	4.9	4.9	4.9
60°	3.9	3.9	4.9	4.9	3.9
62.5°	3.9	3.9	3.9	3.9	3.9
65°	2.9	3.9	3.9	3.9	3.9
67.5°	2.9	2.9	3.9	2.9	2.9
70°	2.9	2.9	2.9	2.9	2.9
72.5°	1.9	1.9	2.9	2.9	2.9
75°	1.9	1.9	1.9	1.9	1.9
77.5°	1.0	1.9	1.9	1.9	1.9
80°	1.0	1.0	1.0	1.9	1.9
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
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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