

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: P886707

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3SDSL-1000LM-2700K

Issue Date: 7/5/2024

Test Information

Test Method: LM-79-2019
Report Number: P886707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D25NFL-TL3SDSL-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1089.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 0.5 / 0.49 / 0.52
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')

CIE Type: Direct

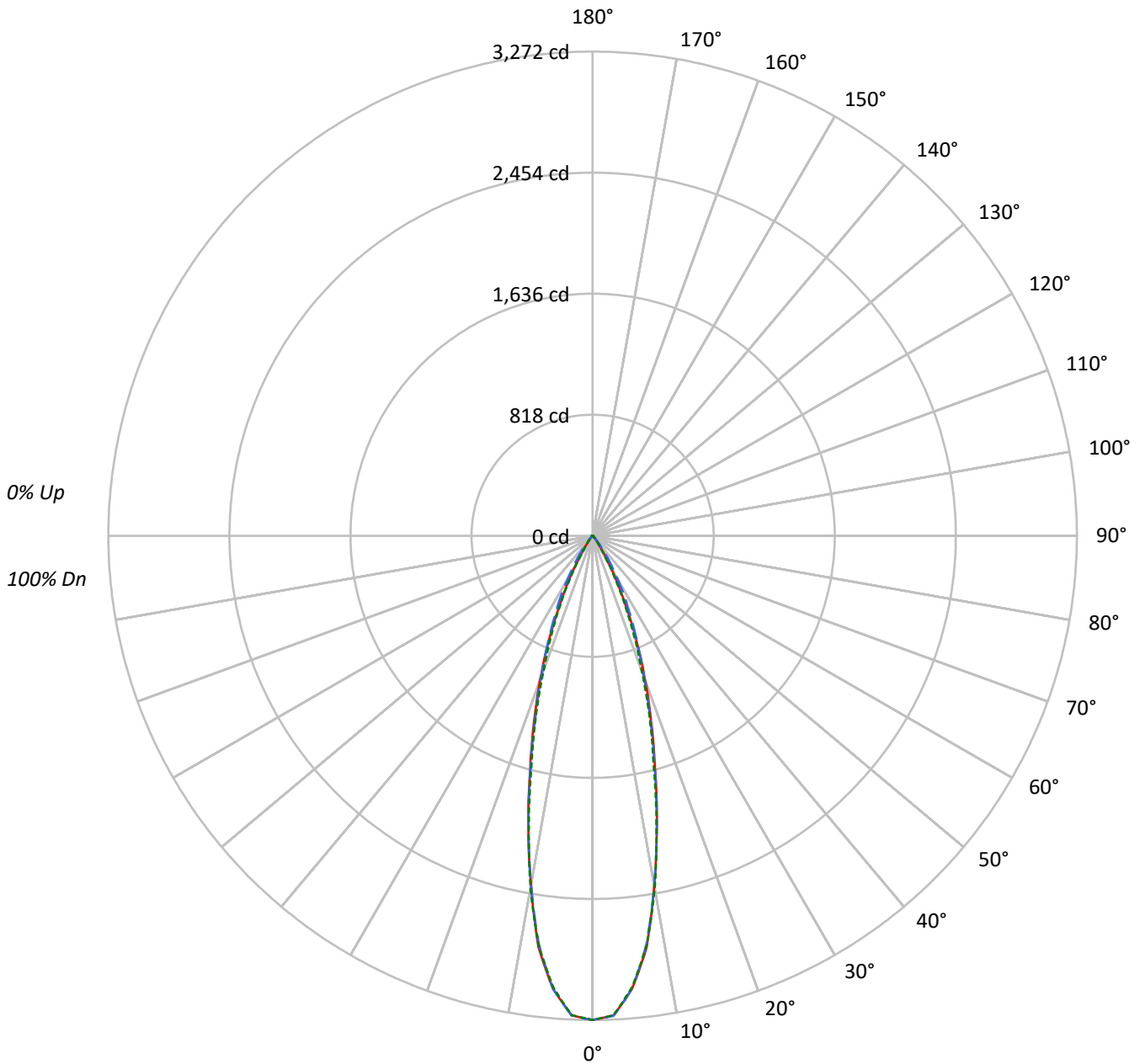
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	95	96	94	93	91				
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87				
4	102	96	91	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83				
5	98	92	87	84	97	91	86	83	89	85	82	88	84	82	86	83	81	80				
6	95	88	83	80	94	87	83	79	86	82	79	84	81	78	83	80	78	77				
7	92	84	79	76	90	84	79	76	82	78	76	81	78	75	80	77	75	74				
8	88	81	76	73	87	80	76	73	79	75	73	79	75	72	78	74	72	71				
9	86	78	73	70	85	78	73	70	77	73	70	76	72	70	75	72	69	68				
10	83	75	71	68	82	75	70	67	74	70	67	73	70	67	73	69	67	66				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	563564	563564	563564
5°	531158	531158	529256
10°	419501	418976	422998
15°	290483	288878	283529
20°	190148	185933	176953
25°	105028	116619	98757
30°	45123	67177	41344
35°	14927	31516	13666
40°	4721	11691	5171
45°	2923	4628	3166
50°	2411	2679	2411
55°	2102	2402	2102
60°	2067	2067	2067
65°	1630	2038	2038
70°	1511	2014	2014
75°	1331	1996	1996
80°	992	1984	1984
85°	1976	1976	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 4628 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.6	24.9
10°-20°	447.7	41.1
20°-30°	268.5	24.7
30°-40°	72.8	6.7
40°-50°	13.0	1.2
50°-60°	6.5	0.6
60°-70°	4.8	0.4
70°-80°	3.0	0.3
80°-90°	1.1	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°	987.8	90.7
0°-40°	1060.6	97.4
0°-60°	1080.1	99.2
0°-90°	1089.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1089.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3272	3272	3272	3272	3272	
5°	3072	3075	3072	3068	3061	272
15°	1629	1625	1620	1600	1590	453
25°	553	590	614	560	520	260
35°	71	99	150	90	65	55
45°	12	13	19	14	13	10
55°	7	7	8	7	7	6
65°	4	5	5	5	5	4
75°	2	3	3	3	3	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°	3272.3	3272.3	3272.3	3272.3	3272.3
2.5°	3243.4	3245.4	3247.4	3243.4	3241.4
5°	3072.4	3075.4	3072.4	3068.4	3061.4
7.5°	2802.6	2784.6	2784.6	2765.6	2791.6
10°	2398.8	2410.8	2395.8	2398.8	2418.8
12.5°	2006.0	1992.0	2003.0	1984.0	1991.0
15°	1629.2	1625.2	1620.2	1600.2	1590.2
17.5°	1314.3	1293.3	1288.3	1272.4	1272.4
20°	1037.5	1039.5	1014.5	997.5	965.5
22.5°	784.6	808.6	797.6	768.6	731.6
25°	552.7	589.7	613.7	559.7	519.7
27.5°	370.8	408.8	468.8	399.8	340.8
30°	226.9	265.9	337.8	255.9	207.9
32.5°	132.9	170.9	231.9	156.9	116.9
35°	71.0	98.9	149.9	90.0	65.0
37.5°	36.0	54.0	88.0	51.0	38.0
40°	21.0	28.0	52.0	30.0	23.0
42.5°	15.0	17.0	32.0	19.0	17.0
45°	12.0	13.0	19.0	14.0	13.0
47.5°	10.0	11.0	13.0	11.0	11.0
50°	9.0	9.0	10.0	9.0	9.0
52.5°	7.0	8.0	9.0	8.0	8.0
55°	7.0	7.0	8.0	7.0	7.0
57.5°	6.0	6.0	7.0	6.0	6.0
60°	6.0	6.0	6.0	6.0	6.0
62.5°	5.0	5.0	6.0	5.0	5.0
65°	4.0	5.0	5.0	5.0	5.0
67.5°	4.0	4.0	5.0	5.0	4.0
70°	3.0	4.0	4.0	4.0	4.0
72.5°	3.0	3.0	4.0	4.0	3.0
75°	2.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	3.0	2.0
80°	1.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	2.0	2.0
85°	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	1.0	1.0	1.0
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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