

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: P886783

Luminaire Tested: ML310LSFLD2W1E-TIR4D25AWW-TL3SWSL-600LM-3000K

Issue Date: 7/8/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886783  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-23)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/8/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFLD2W1E-TIR4D25AWW-TL3SWSL-600LM-3000K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, METALLIC SILVER TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

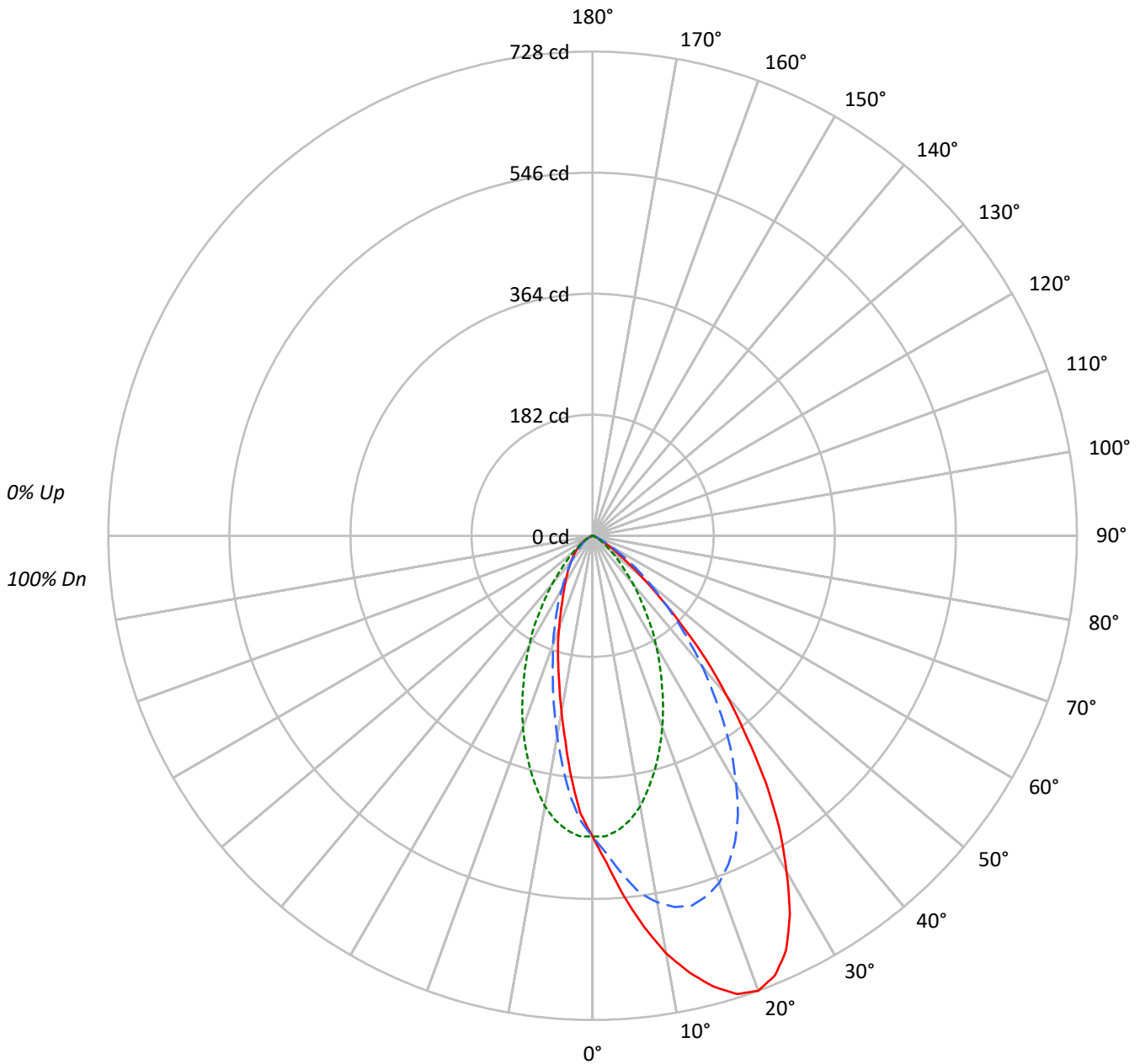
Lumens per Lamp: N/A  
Luminaire Lumens: 542.9 lumens  
Efficiency: N/A  
Efficacy: 57.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 0.81 / 0.99  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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								
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92								
2	106	101	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83								
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76								
4	94	85	79	74	92	84	78	73	82	77	72	80	75	72	78	74	71	69								
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63								
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58								
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53								
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49								
9	70	59	52	48	68	58	52	48	57	52	48	56	51	47	55	51	47	46								
10	66	55	49	44	65	55	49	44	54	48	44	53	48	44	52	47	44	42								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	77879	77879	77879	77879	77879
5°	94185	88221	76776	67544	63222
10°	111573	97863	72225	53548	46920
15°	125094	102682	64722	41098	35553
20°	133406	101828	56119	31835	26887
25°	130757	96325	46747	24399	20295
30°	115998	85751	37904	18276	16406
35°	95493	72198	28846	14065	13498
40°	70346	57599	21268	10949	11398
45°	45765	42964	14321	8232	9548
50°	25909	30062	9779	6162	7797
55°	13812	19067	6486	4864	6305
60°	6510	10230	4409	3720	4650
65°	3301	5216	3301	2486	2771
70°	2065	2367	2065	1360	1360
75°	932	932	932	932	466
80°	0	694	694	0	0
85°	0	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 48225 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.4	7.8
10°-20°	113.5	20.9
20°-30°	145.6	26.8
30°-40°	125.7	23.1
40°-50°	74.5	13.7
50°-60°	30.4	5.6
60°-70°	9.1	1.7
70°-80°	1.7	0.3
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°	301.5	55.5
0°-40°	427.2	78.7
0°-60°	532.1	98.0
0°-90°	542.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	542.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	545	510	444	391	366	55
15°	702	576	363	230	199	198
25°	688	507	246	128	107	311
35°	454	343	137	67	64	280
45°	188	176	59	34	39	149
55°	46	64	22	16	21	44
65°	8	13	8	6	7	9
75°	1	1	1	1	1	2
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°	112.5°	135°	157.5°	180°
0°	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2
2.5°	492.7	488.7	477.9	464.3	452.2	437.3	427.8	422.4	417.7
5°	544.8	536.7	510.3	478.5	444.1	413.0	390.7	373.8	365.7
7.5°	592.8	577.2	541.4	484.6	431.2	386.6	347.4	323.1	312.3
10°	638.0	615.7	559.6	483.9	413.0	353.5	306.2	275.1	268.3
12.5°	672.5	648.2	571.8	476.5	388.6	322.4	266.3	240.6	230.5
15°	701.6	667.1	575.9	464.3	363.0	285.9	230.5	205.5	199.4
17.5°	722.5	677.2	568.4	446.1	334.6	253.5	198.7	178.4	173.0
20°	727.9	678.6	555.6	421.8	306.2	222.4	173.7	152.1	146.7
22.5°	715.8	665.1	534.0	393.4	276.4	193.3	149.4	130.4	125.0
25°	688.1	635.3	506.9	362.3	246.0	166.9	128.4	110.8	106.8
27.5°	642.1	597.5	473.1	329.2	218.3	141.9	109.5	95.3	94.6
30°	583.3	543.4	431.2	296.7	190.6	121.7	91.9	83.1	82.5
32.5°	522.5	490.7	389.3	262.9	165.6	104.1	78.4	73.0	73.0
35°	454.2	432.6	343.4	227.1	137.2	86.5	66.9	63.5	64.2
37.5°	379.8	367.0	297.4	193.3	114.9	71.0	56.8	54.7	56.8
40°	312.9	308.2	256.2	160.9	94.6	58.8	48.7	48.0	50.7
42.5°	252.8	248.1	213.6	133.8	74.3	47.3	39.9	42.6	44.6
45°	187.9	198.0	176.4	105.4	58.8	37.2	33.8	37.8	39.2
47.5°	137.2	149.4	140.6	81.1	48.0	31.1	27.7	33.1	33.8
50°	96.7	110.2	112.2	63.5	36.5	25.0	23.0	28.4	29.1
52.5°	66.9	78.4	87.2	48.0	27.7	19.6	19.6	24.3	24.3
55°	46.0	56.8	63.5	33.8	21.6	14.9	16.2	20.3	21.0
57.5°	29.7	38.5	44.6	25.0	15.5	11.5	13.5	16.2	16.9
60°	18.9	25.7	29.7	17.6	12.8	10.1	10.8	12.8	13.5
62.5°	12.8	17.6	18.9	12.8	9.5	8.1	8.1	10.1	10.1
65°	8.1	11.5	12.8	10.1	8.1	6.1	6.1	7.4	6.8
67.5°	5.4	6.8	8.1	7.4	6.1	4.7	4.1	4.7	4.1
70°	4.1	4.1	4.7	5.4	4.1	3.4	2.7	3.4	2.7
72.5°	2.7	2.0	2.7	3.4	2.7	2.7	2.0	1.4	1.4
75°	1.4	1.4	1.4	2.0	1.4	1.4	1.4	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0
80°	0.0	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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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