

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: P886605

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-4000K

Issue Date: 7/5/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886605  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-4000K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1274.1 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 0.69 / 0.68 / 0.65  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')

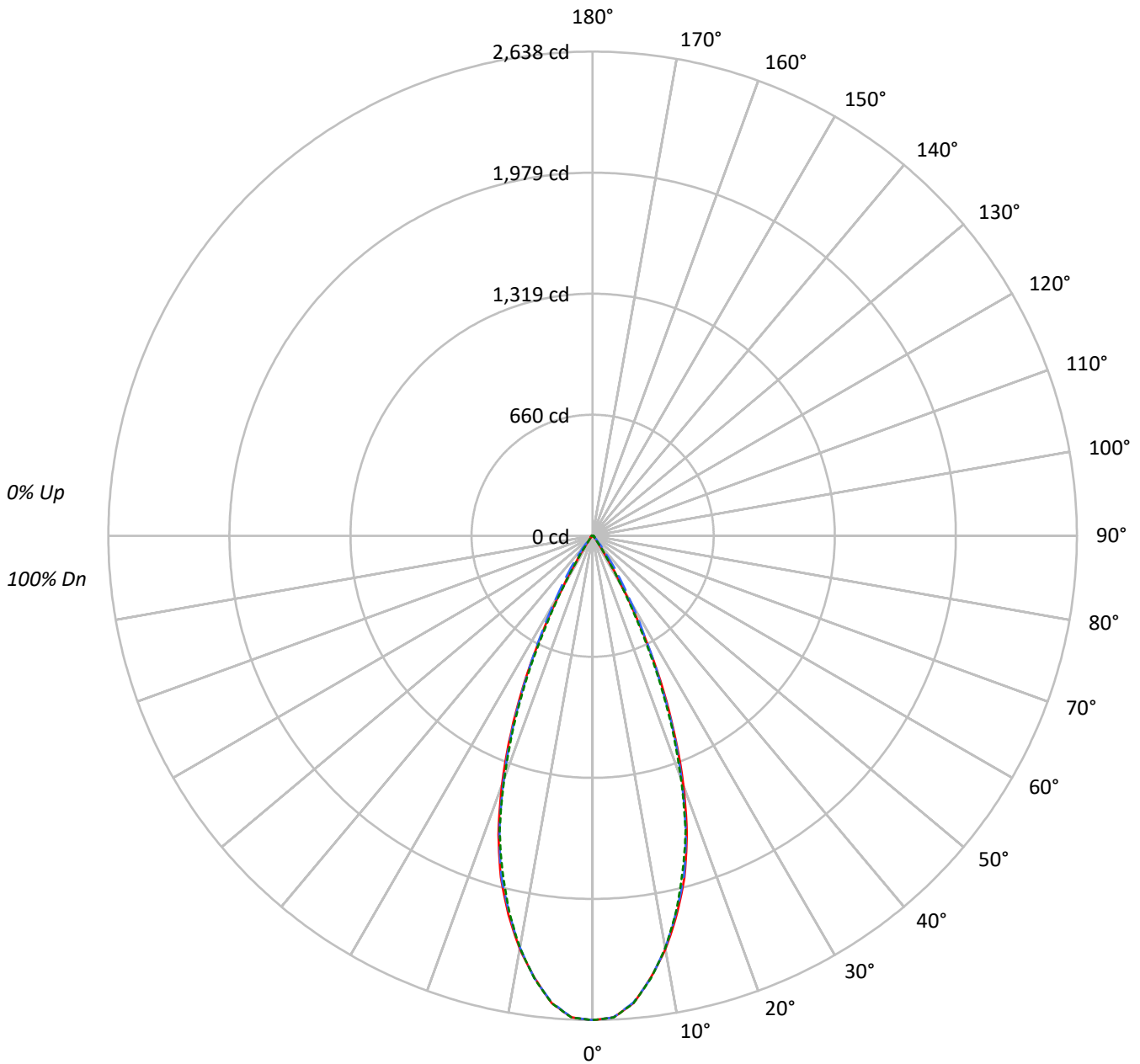
CIE Type: Direct

Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (A<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									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	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95																			
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	92	90																			
3	105	99	95	92	103	98	94	91	96	92	90	93	90	88	91	89	87	85																			
4	101	94	90	86	99	93	89	86	91	87	85	89	86	84	87	85	83	81																			
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77																			
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74																			
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71																			
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68																			
9	83	75	70	67	82	74	70	66	74	69	66	73	69	66	72	68	66	65																			
10	80	72	67	64	79	72	67	64	71	66	64	70	66	63	69	66	63	62																			

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

	0°	45°	90°
0°	454358	454358	454358
5°	441865	441174	441865
10°	399617	398568	398743
15°	343937	342510	337679
20°	264925	259958	257392
25°	166406	162397	157836
30°	64631	82589	59640
35°	15180	36267	14759
40°	5868	13085	5868
45°	3410	5626	3410
50°	2947	3483	3215
55°	3303	3303	3303
60°	3444	3444	3444
65°	3260	3668	3260
70°	3021	3525	3525
75°	3327	3327	3327
80°	2975	2975	3967
85°	1976	3952	3952

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5626 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.8	18.4
10°-20°	523.5	41.1
20°-30°	388.0	30.5
30°-40°	87.2	6.8
40°-50°	15.2	1.2
50°-60°	9.8	0.8
60°-70°	8.4	0.7
70°-80°	5.4	0.4
80°-90°	1.9	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°	1146.3	90.0
0°-40°	1233.5	96.8
0°-60°	1258.4	98.8
0°-90°	1274.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1274.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2638	2638	2638	2638	2638	
5°	2556	2555	2552	2550	2556	235
15°	1929	1916	1921	1895	1894	528
25°	876	864	855	844	831	390
35°	72	102	172	97	70	67
45°	14	16	23	16	14	12
55°	11	11	11	11	11	10
65°	8	9	9	9	8	8
75°	5	5	5	5	5	5
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2638.2	2638.2	2638.2	2638.2	2638.2
2.5°	2626.1	2628.1	2626.1	2626.1	2627.1
5°	2555.9	2554.9	2551.9	2549.9	2555.9
7.5°	2428.5	2431.5	2430.5	2433.5	2431.5
10°	2285.1	2276.1	2279.1	2275.1	2280.1
12.5°	2115.6	2113.6	2102.5	2099.5	2097.5
15°	1929.0	1915.9	1921.0	1894.9	1893.9
17.5°	1706.3	1697.3	1688.2	1684.2	1684.2
20°	1445.5	1441.5	1418.4	1416.4	1404.4
22.5°	1161.6	1144.5	1145.6	1142.5	1124.5
25°	875.7	863.7	854.6	843.6	830.6
27.5°	582.8	605.9	606.9	580.8	534.7
30°	325.0	374.2	415.3	350.1	299.9
32.5°	160.5	208.6	273.8	192.6	152.5
35°	72.2	102.3	172.5	97.3	70.2
37.5°	39.1	52.2	103.3	50.2	38.1
40°	26.1	31.1	58.2	31.1	26.1
42.5°	18.1	21.1	35.1	21.1	19.1
45°	14.0	16.0	23.1	16.0	14.0
47.5°	12.0	13.0	17.1	13.0	13.0
50°	11.0	12.0	13.0	12.0	12.0
52.5°	11.0	11.0	12.0	11.0	11.0
55°	11.0	11.0	11.0	11.0	11.0
57.5°	10.0	10.0	11.0	10.0	10.0
60°	10.0	10.0	10.0	10.0	10.0
62.5°	9.0	9.0	9.0	9.0	9.0
65°	8.0	9.0	9.0	9.0	8.0
67.5°	7.0	8.0	8.0	8.0	8.0
70°	6.0	7.0	7.0	7.0	7.0
72.5°	6.0	6.0	6.0	6.0	6.0
75°	5.0	5.0	5.0	5.0	5.0
77.5°	4.0	4.0	4.0	5.0	4.0
80°	3.0	3.0	3.0	4.0	4.0
82.5°	2.0	2.0	2.0	3.0	3.0
85°	1.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	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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