

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: P886637

Luminaire Tested: ML310LSFL95FS1E-TIR4D55WFL-TL3SDSL-1000LM-2700K

Issue Date: 7/8/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886637  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-20)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/8/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL95FS1E-TIR4D55WFL-TL3SDSL-1000LM-2700K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1079.6 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.84 / 0.81  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')

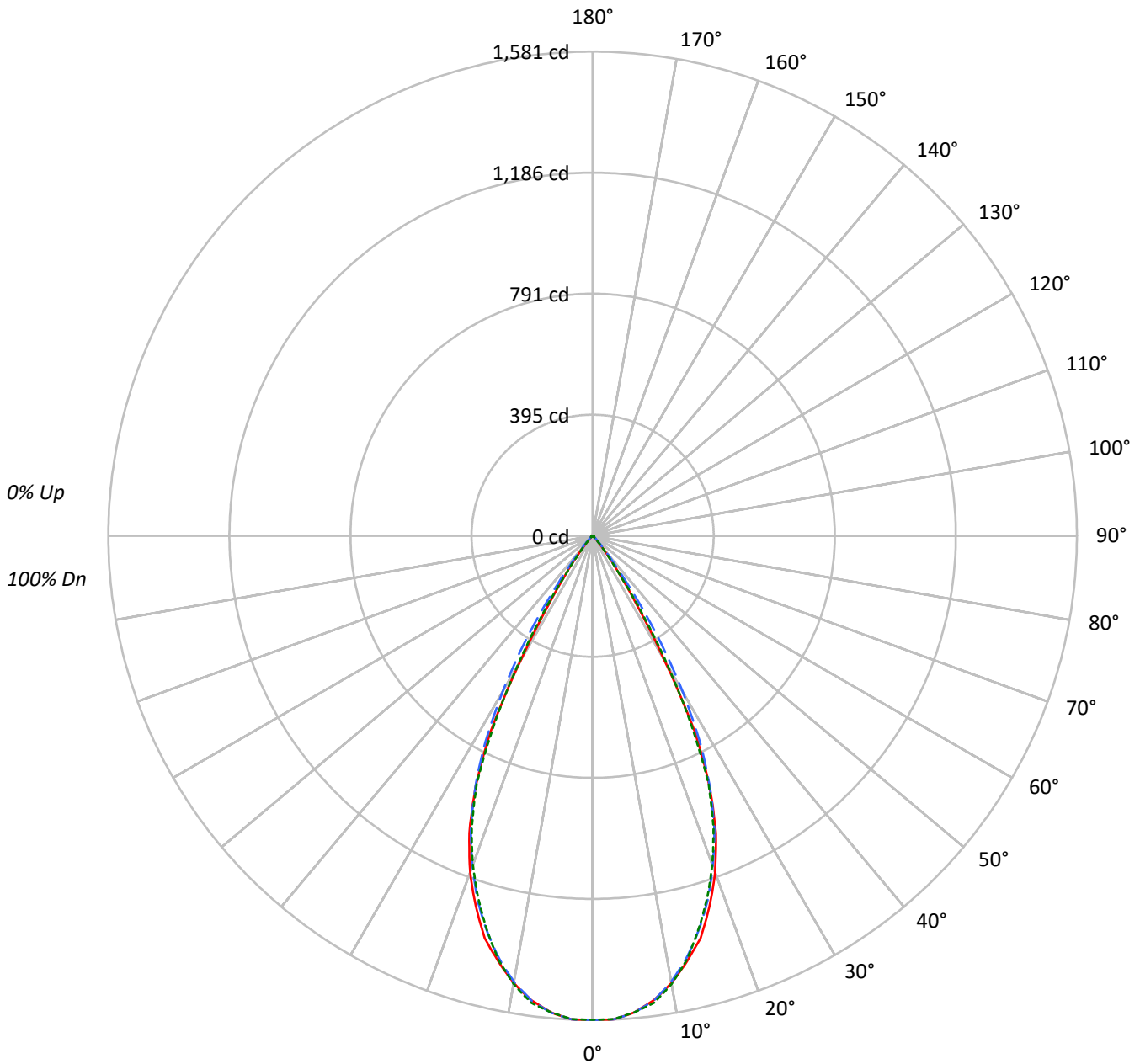
CIE Type: Direct  
  
Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 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	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94																			
2	109	104	101	98	107	103	99	97	100	97	94	97	94	92	94	92	91	89																			
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84																			
4	100	93	88	84	98	92	87	83	90	86	82	88	84	81	86	83	81	79																			
5	95	88	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76	75																			
6	91	83	78	74	90	82	77	73	81	76	73	79	76	73	78	75	72	71																			
7	87	79	73	70	86	78	73	69	77	72	69	76	72	69	75	71	68	67																			
8	83	75	69	66	82	74	69	66	73	69	65	72	68	65	71	68	65	64																			
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	62	60																			
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	59	57																			

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

	0°	45°	90°
0°	272215	272215	272215
5°	270108	270264	270108
10°	259399	258612	259871
15°	242592	238063	237564
20°	214212	210217	209392
25°	171670	172202	170131
30°	93089	116575	97424
35°	32104	51026	31348
40°	8183	13287	7149
45°	1997	4871	2216
50°	1474	1956	1715
55°	1651	1651	1651
60°	1550	1550	1550
65°	1100	1467	1467
70°	1360	1360	1360
75°	1198	1797	1797
80°	893	1785	1785
85°	1778	1778	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 4871 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.7	13.6
10°-20°	372.9	34.5
20°-30°	401.0	37.1
30°-40°	134.6	12.5
40°-50°	12.9	1.2
50°-60°	4.9	0.5
60°-70°	3.6	0.3
70°-80°	2.3	0.2
80°-90°	0.8	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°	920.6	85.3
0°-40°	1055.2	97.7
0°-60°	1073.0	99.4
0°-90°	1079.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1079.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1581	1581	1581	1581	1581	
5°	1562	1562	1563	1563	1562	147
15°	1361	1347	1335	1336	1332	377
25°	903	916	906	911	895	395
35°	153	157	243	162	149	113
45°	8	10	20	11	9	10
55°	6	6	6	6	6	5
65°	3	4	4	4	4	3
75°	2	2	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°	1580.6	1580.6	1580.6	1580.6	1580.6
2.5°	1580.6	1579.6	1580.6	1580.6	1579.6
5°	1562.4	1562.4	1563.3	1563.3	1562.4
7.5°	1529.7	1529.7	1530.6	1536.0	1537.8
10°	1483.3	1480.6	1478.8	1482.4	1486.0
12.5°	1423.3	1421.5	1413.3	1412.4	1418.8
15°	1360.6	1347.0	1335.2	1336.1	1332.4
17.5°	1268.8	1263.4	1248.8	1248.8	1241.5
20°	1168.8	1157.0	1147.0	1147.9	1142.5
22.5°	1051.6	1051.6	1038.9	1046.1	1030.7
25°	903.4	916.2	906.2	910.7	895.3
27.5°	722.6	744.4	757.1	747.1	700.8
30°	468.1	546.2	586.2	537.2	489.9
32.5°	265.4	315.4	413.5	328.1	304.5
35°	152.7	157.2	242.7	161.8	149.1
37.5°	79.1	83.6	121.8	80.9	75.4
40°	36.4	41.8	59.1	41.8	31.8
42.5°	14.5	22.7	33.6	18.2	14.5
45°	8.2	10.0	20.0	10.9	9.1
47.5°	7.3	7.3	11.8	8.2	7.3
50°	5.5	6.4	7.3	6.4	6.4
52.5°	5.5	5.5	6.4	5.5	5.5
55°	5.5	5.5	5.5	5.5	5.5
57.5°	4.5	4.5	5.5	5.5	4.5
60°	4.5	4.5	4.5	4.5	4.5
62.5°	3.6	3.6	4.5	4.5	4.5
65°	2.7	3.6	3.6	3.6	3.6
67.5°	2.7	2.7	3.6	3.6	3.6
70°	2.7	2.7	2.7	2.7	2.7
72.5°	1.8	2.7	2.7	2.7	2.7
75°	1.8	1.8	2.7	2.7	2.7
77.5°	0.9	1.8	1.8	1.8	1.8
80°	0.9	0.9	1.8	1.8	1.8
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.9	0.9
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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