

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: P886598

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K

Issue Date: 7/8/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886598  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/8/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1151.0 lumens  
Efficiency: N/A  
Efficacy: 84.6 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.65  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

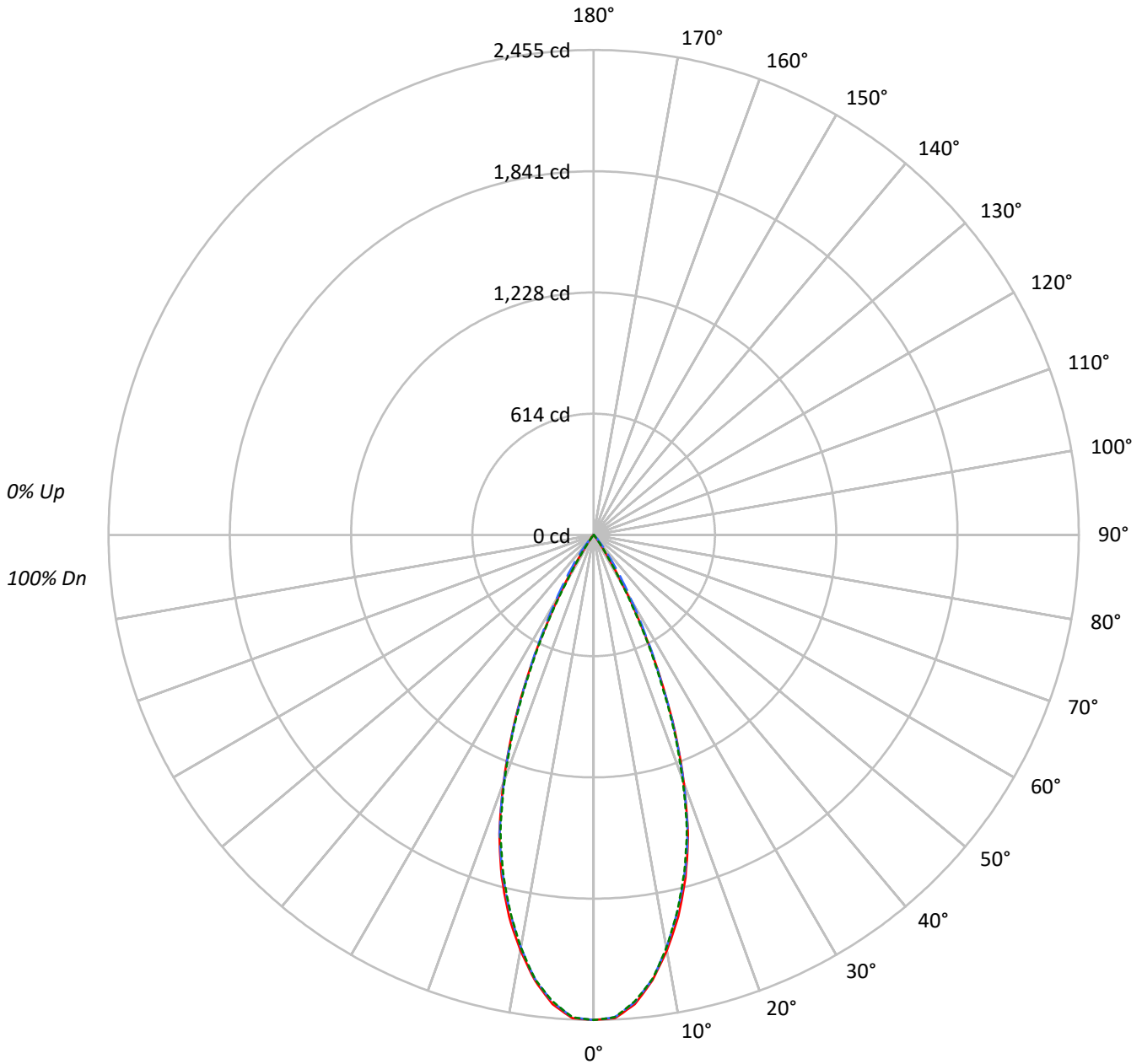
Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P886598

CATALOG NUMBER: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P886598

CATALOG NUMBER: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K

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

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

	0°	45°	90°
0°	422875	422875	422875
5°	412285	410487	410003
10°	373245	370937	370937
15°	320081	317049	315552
20°	244086	243573	241319
25°	151242	150349	146397
30°	61628	75291	54688
35°	12867	32483	11690
40°	3170	9960	3170
45°	682	2752	926
50°	241	750	241
55°	0	270	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 2752 cd/sqm



TEST NUMBER: P886598

CATALOG NUMBER: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.8	19.0
10°-20°	488.2	42.4
20°-30°	360.7	31.3
30°-40°	76.6	6.7
40°-50°	6.4	0.6
50°-60°	0.3	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	1067.7	92.8
0°-40°	1144.3	99.4
0°-60°	1151.0	100.0
0°-90°	1151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1151.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2455	2455	2455	2455	2455	
5°	2385	2378	2374	2374	2372	219
15°	1795	1794	1778	1773	1770	491
25°	796	801	791	790	770	359
35°	61	88	154	81	56	59
45°	3	5	11	5	4	4
55°	0	0	1	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P886598

CATALOG NUMBER: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2455.4	2455.4	2455.4	2455.4	2455.4
2.5°	2448.8	2447.0	2444.1	2444.1	2444.1
5°	2384.8	2378.2	2374.4	2373.5	2371.6
7.5°	2274.6	2267.1	2269.0	2269.0	2269.0
10°	2134.3	2124.8	2121.1	2121.1	2121.1
12.5°	1978.9	1979.8	1955.3	1955.3	1951.5
15°	1795.2	1794.3	1778.2	1772.6	1769.8
17.5°	1587.0	1586.1	1582.3	1568.2	1567.3
20°	1331.8	1336.5	1329.0	1319.6	1316.7
22.5°	1073.7	1069.0	1066.2	1066.2	1053.0
25°	795.9	800.6	791.2	790.2	770.4
27.5°	531.2	565.1	560.4	536.9	513.3
30°	309.9	348.5	378.6	323.1	275.0
32.5°	145.0	184.6	249.6	173.3	132.8
35°	61.2	88.5	154.5	81.0	55.6
37.5°	29.2	40.5	86.7	38.6	26.4
40°	14.1	19.8	44.3	19.8	14.1
42.5°	7.5	10.4	22.6	9.4	7.5
45°	2.8	4.7	11.3	4.7	3.8
47.5°	1.9	1.9	4.7	1.9	1.9
50°	0.9	0.9	2.8	0.9	0.9
52.5°	0.0	0.9	0.9	0.9	0.0
55°	0.0	0.0	0.9	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report







— 0°-180°    - - 45°-225°    - - - - 90°-270°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)