

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: P886684

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-3500K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-3500K  
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 836.2 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

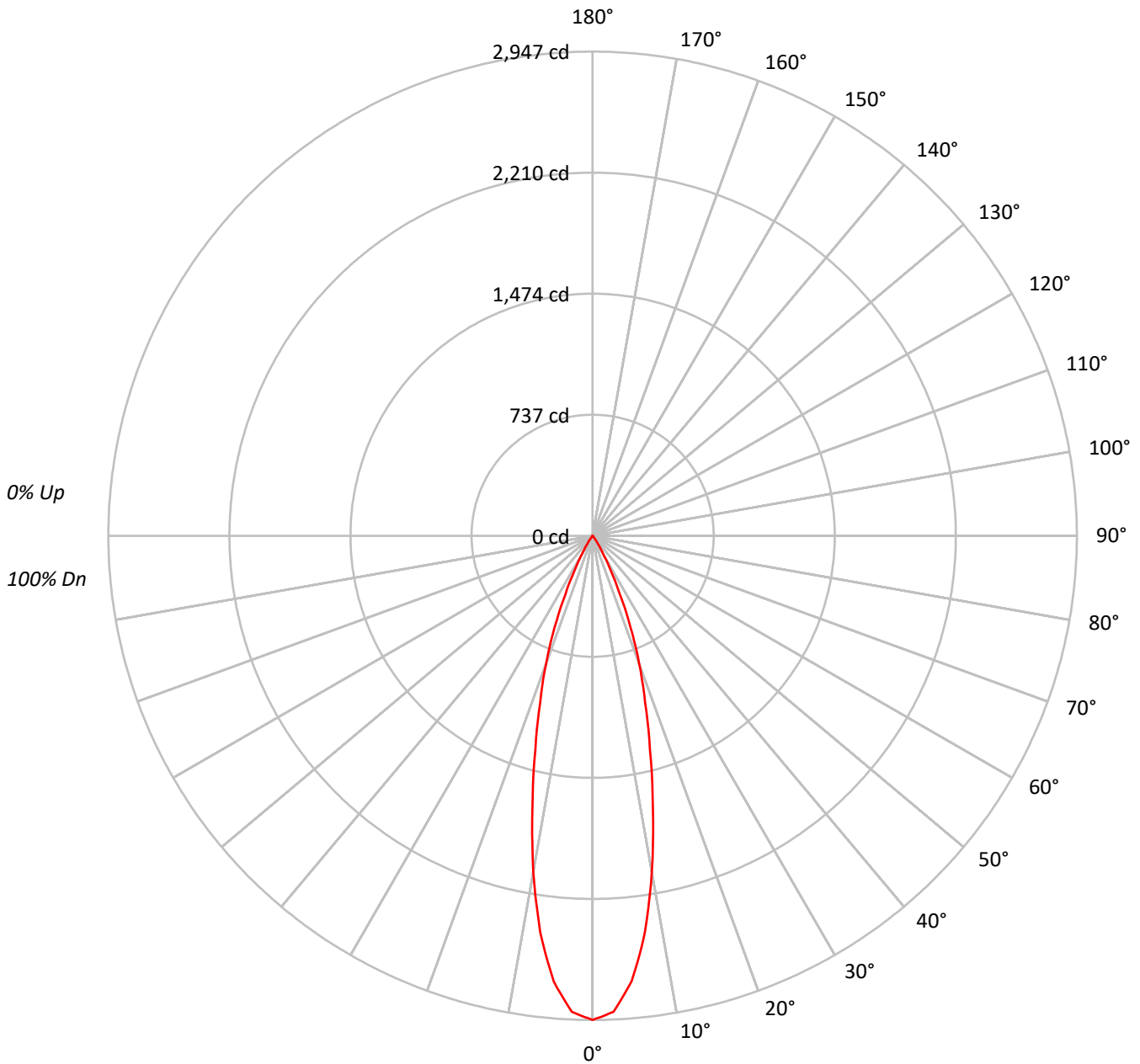
Input Watts (W): 10.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P886684

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P886684

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDDB-800LM-3500K

**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	100	100	100
1	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96
2	111	107	104	101	109	105	103	100	102	100	98	100	98	96	97	95	94	93	93	93	93
3	107	102	99	96	105	101	98	95	99	96	93	96	94	92	94	92	91	89	89	89	89
4	104	98	94	91	102	97	93	90	95	92	89	93	90	88	91	89	87	86	86	86	86
5	100	94	90	87	99	93	89	86	92	88	86	90	87	85	89	86	84	83	83	83	83
6	97	91	86	83	96	90	86	83	88	85	82	87	84	82	86	83	81	80	80	80	80
7	94	87	83	80	93	87	83	80	86	82	79	85	81	79	84	81	78	77	77	77	77
8	91	84	80	77	90	84	80	77	83	79	76	82	79	76	81	78	76	75	75	75	75
9	89	81	77	74	88	81	77	74	80	77	74	79	76	74	79	76	73	73	73	73	73
10	86	79	75	72	85	79	74	72	78	74	72	77	74	71	77	73	71	70	70	70	70

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

	0°
0°	646242
5°	599360
10°	462405
15°	305586
20°	193263
25°	94651
30°	34942
35°	9423
40°	2004
45°	806
50°	307
55°	0
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 806 cd/sqm



TEST NUMBER: P886684

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDDB-800LM-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.0	28.6
10°-20°	375.5	44.9
20°-30°	189.8	22.7
30°-40°	29.3	3.5
40°-50°	2.4	0.3
50°-60°	0.1	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°	804.4	96.2
0°-40°	833.7	99.7
0°-60°	836.2	100.0
0°-90°	836.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	836.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2947	
5°	2723	239
15°	1346	376
25°	391	190
35°	35	29
45°	3	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P886684

CATALOG NUMBER: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMB-800LM-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2947.1
2.5°	2900.5
5°	2722.9
7.5°	2437.1
10°	2076.7
12.5°	1694.2
15°	1346.1
17.5°	1062.1
20°	828.2
22.5°	604.0
25°	391.2
27.5°	244.4
30°	138.0
32.5°	74.7
35°	35.2
37.5°	14.1
40°	7.0
42.5°	4.4
45°	2.6
47.5°	1.8
50°	0.9
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	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





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

Scaled Data Report



— 0°-180°

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)