

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: P886689

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMW-1000LM-3500K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886689  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMW-1000LM-3500K  
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

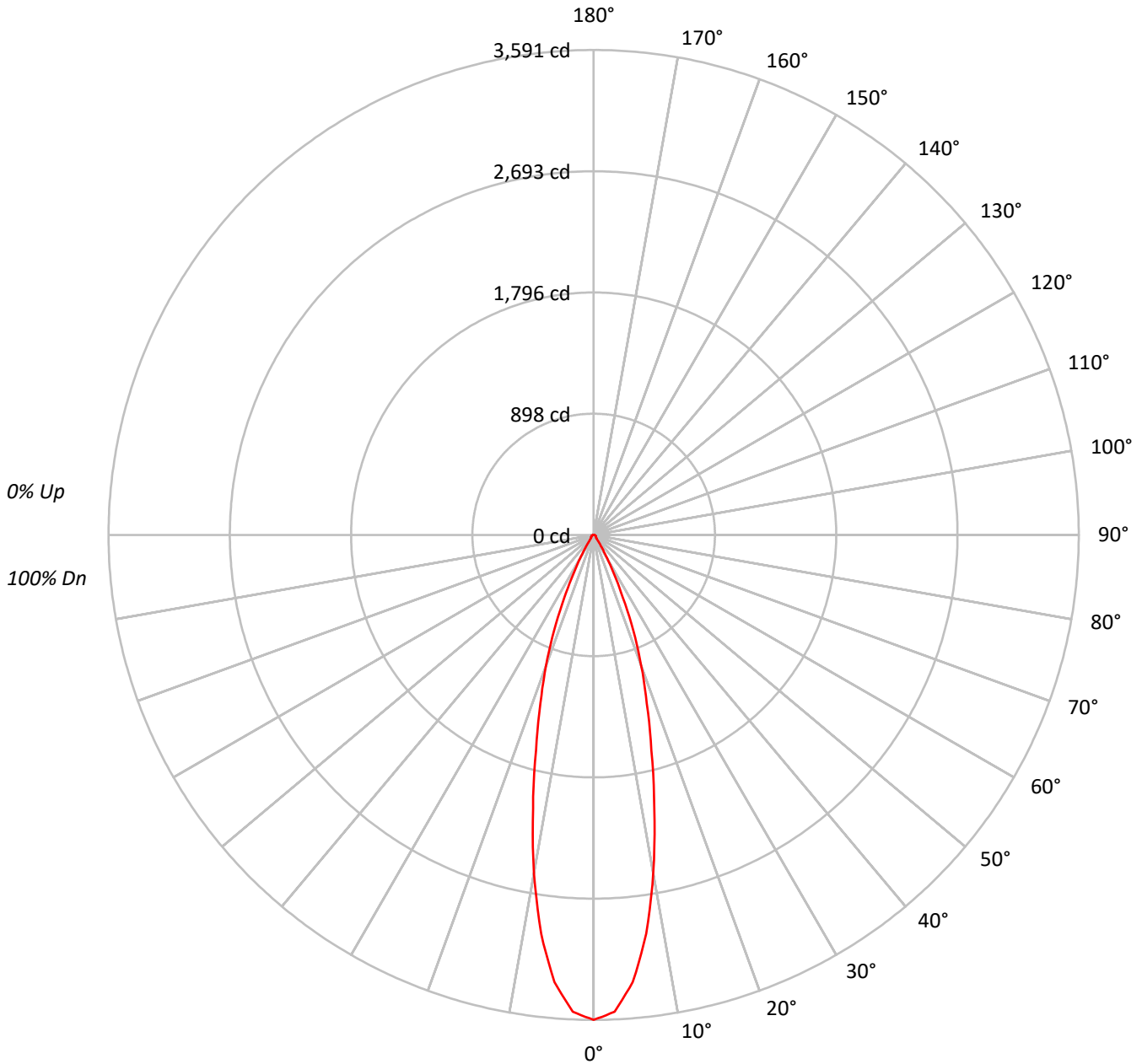
Lumens per Lamp: N/A  
Luminaire Lumens: 1119.6 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 13.8  
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				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
1	114	112	109	107	112	109	107	106	105	104	102	102	101	99	98	97	97	95			95
2	110	105	102	99	107	104	100	98	100	98	96	97	95	93	95	93	92	90			90
3	105	100	95	92	103	98	95	91	96	93	90	94	91	89	91	89	87	86			86
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82			82
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79			79
6	94	87	82	78	93	86	82	78	85	81	78	83	80	77	82	79	77	76			76
7	91	83	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73			73
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70			70
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68			68
10	82	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	66	65			65

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

	0°
0°	787459
5°	731563
10°	566344
15°	374327
20°	239958
25°	123491
30°	49856
35°	18337
40°	8874
45°	7970
50°	7676
55°	8181
60°	8464
65°	8873
70°	8912
75°	9065
80°	8082
85°	8051

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 82.5°  
 Luminance: 9072 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.0	26.1
10°-20°	461.2	41.2
20°-30°	244.6	21.8
30°-40°	51.6	4.6
40°-50°	20.2	1.8
50°-60°	19.1	1.7
60°-70°	16.6	1.5
70°-80°	10.9	1.0
80°-90°	3.5	0.3
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°	997.8	89.1
0°-40°	1049.4	93.7
0°-60°	1088.6	97.2
0°-90°	1119.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3591	
5°	3324	292
15°	1649	461
25°	510	245
35°	68	52
45°	26	20
55°	21	19
65°	17	17
75°	11	11
85°	3	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3591.1
2.5°	3534.3
5°	3323.5
7.5°	2979.0
10°	2543.5
12.5°	2074.8
15°	1648.9
17.5°	1308.7
20°	1028.3
22.5°	764.0
25°	510.4
27.5°	326.4
30°	196.9
32.5°	117.7
35°	68.5
37.5°	40.7
40°	31.0
42.5°	27.8
45°	25.7
47.5°	24.6
50°	22.5
52.5°	22.5
55°	21.4
57.5°	20.3
60°	19.3
62.5°	18.2
65°	17.1
67.5°	15.0
70°	13.9
72.5°	11.8
75°	10.7
77.5°	8.6
80°	6.4
82.5°	5.4
85°	3.2
87.5°	1.1
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

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— 0°-180°

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(END OF REPORT)