

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: P886691

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMW-1000LM-5000K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886691  
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-5000K  
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

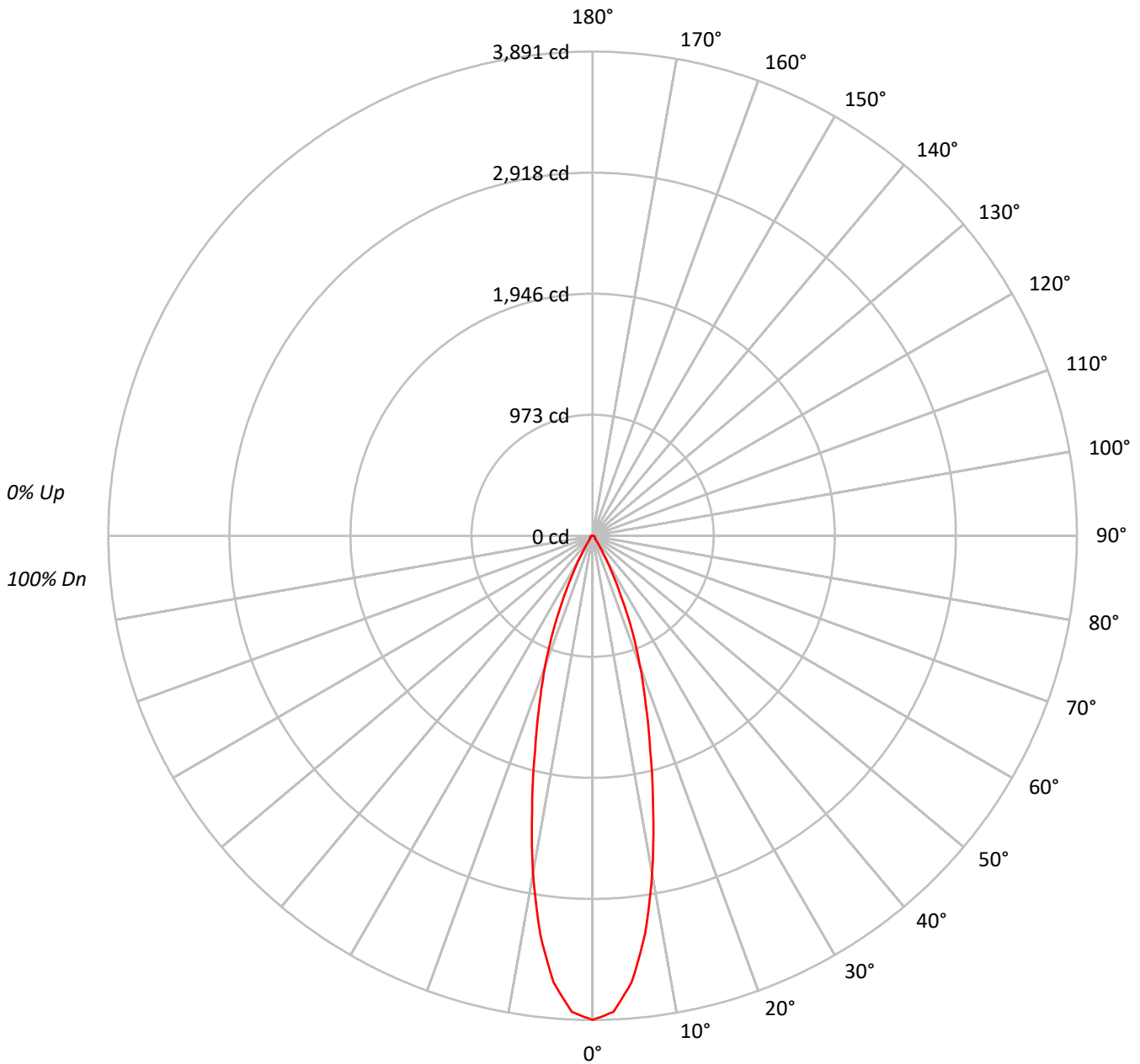
Lumens per Lamp: N/A  
Luminaire Lumens: 1213.1 lumens  
Efficiency: N/A  
Efficacy: 87.9 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

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

	0°
0°	853265
5°	792712
10°	613683
15°	405610
20°	260026
25°	133822
30°	54008
35°	19863
40°	9618
45°	8621
50°	8290
55°	8869
60°	9166
65°	9651
70°	9681
75°	9828
80°	8840
85°	8806

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 75°  
 Luminance: 9828 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.4	26.1
10°-20°	499.8	41.2
20°-30°	265.1	21.8
30°-40°	55.8	4.6
40°-50°	21.9	1.8
50°-60°	20.6	1.7
60°-70°	18.0	1.5
70°-80°	11.8	1.0
80°-90°	3.8	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°	1081.2	89.1
0°-40°	1137.1	93.7
0°-60°	1179.6	97.2
0°-90°	1213.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1213.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3891	
5°	3601	316
15°	1787	500
25°	553	265
35°	74	56
45°	28	22
55°	23	21
65°	19	18
75°	12	12
85°	4	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3891.2
2.5°	3829.7
5°	3601.3
7.5°	3228.0
10°	2756.1
12.5°	2248.2
15°	1786.7
17.5°	1418.0
20°	1114.3
22.5°	827.9
25°	553.1
27.5°	353.6
30°	213.3
32.5°	127.5
35°	74.2
37.5°	44.1
40°	33.6
42.5°	30.1
45°	27.8
47.5°	26.7
50°	24.3
52.5°	24.3
55°	23.2
57.5°	22.0
60°	20.9
62.5°	19.7
65°	18.6
67.5°	16.2
70°	15.1
72.5°	12.8
75°	11.6
77.5°	9.3
80°	7.0
82.5°	5.8
85°	3.5
87.5°	1.2
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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Scaled Data Report



(END OF REPORT)