

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: P885827

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMWB-400LM-5000K

Issue Date: 7/18/2024

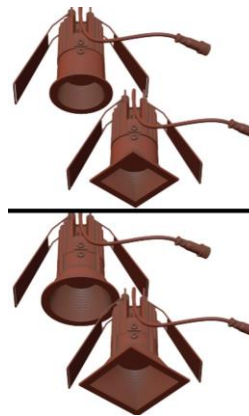
**Test Information**

Test Method: LM-79-2019  
Report Number: P885827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-121)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMWB-400LM-5000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE BAFFLED TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

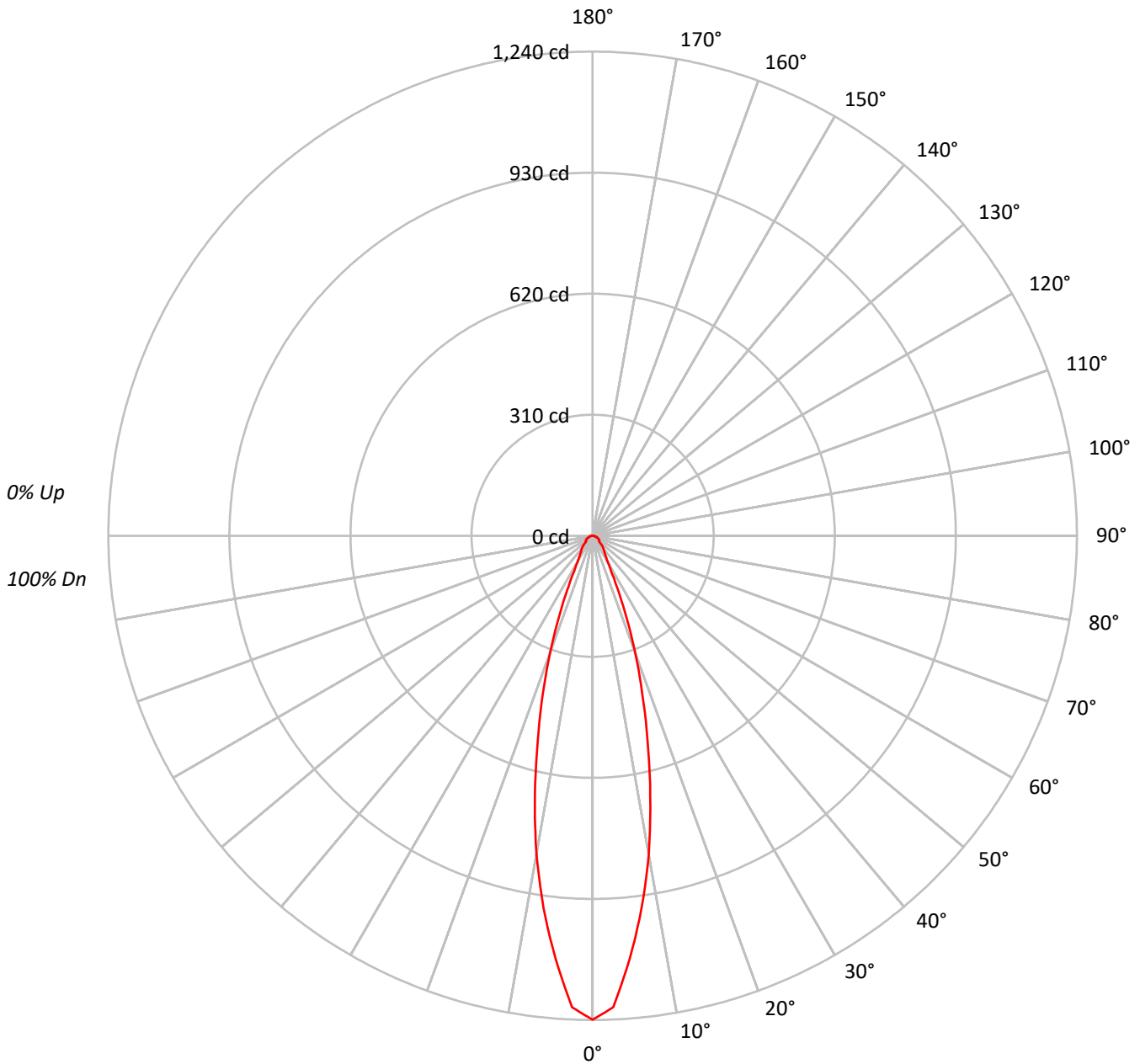
Lumens per Lamp: N/A  
Luminaire Lumens: 422.2 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 0.45 / 0.45 / 0.48  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): 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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93																			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86																			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81																			
4	98	91	85	81	96	89	84	81	87	83	80	85	82	79	83	80	78	76																			
5	94	86	80	76	92	85	79	76	83	78	75	81	77	74	80	76	74	72																			
6	90	81	76	72	88	81	75	71	79	74	71	78	74	70	76	73	70	69																			
7	86	78	72	68	85	77	72	68	76	71	68	75	70	67	73	70	67	66																			
8	83	74	69	65	82	74	68	65	73	68	65	72	67	64	71	67	64	63																			
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	61	60																			
10	77	68	63	60	76	68	63	60	67	63	59	66	62	59	66	62	59	58																			

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

	0°
0°	2446205
5°	2154227
10°	1658500
15°	1106985
20°	665763
25°	330990
30°	174788
35°	128413
40°	110522
45°	90708
50°	67853
55°	71568
60°	71837
65°	66778
70°	60011
75°	59476
80°	44324
85°	29437

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 90708 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.8	22.7
10°-20°	149.8	35.5
20°-30°	75.1	17.8
30°-40°	34.7	8.2
40°-50°	24.2	5.7
50°-60°	18.5	4.4
60°-70°	14.5	3.4
70°-80°	7.7	1.8
80°-90°	1.9	0.5
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°	320.7	76.0
0°-40°	355.4	84.2
0°-60°	398.0	94.3
0°-90°	422.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1240	
5°	1087	96
15°	542	150
25°	152	75
35°	53	35
45°	32	24
55°	21	18
65°	14	14
75°	8	8
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1239.5
2.5°	1208.3
5°	1087.4
7.5°	961.4
10°	827.6
12.5°	682.1
15°	541.8
17.5°	422.2
20°	317.0
22.5°	226.1
25°	152.0
27.5°	102.6
30°	76.7
32.5°	62.4
35°	53.3
37.5°	48.1
40°	42.9
42.5°	37.7
45°	32.5
47.5°	23.4
50°	22.1
52.5°	22.1
55°	20.8
57.5°	19.5
60°	18.2
62.5°	16.9
65°	14.3
67.5°	13.0
70°	10.4
72.5°	9.1
75°	7.8
77.5°	5.2
80°	3.9
82.5°	2.6
85°	1.3
87.5°	1.3
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)