

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: P885809

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-400LM-3000K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885809  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-120)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-400LM-3000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

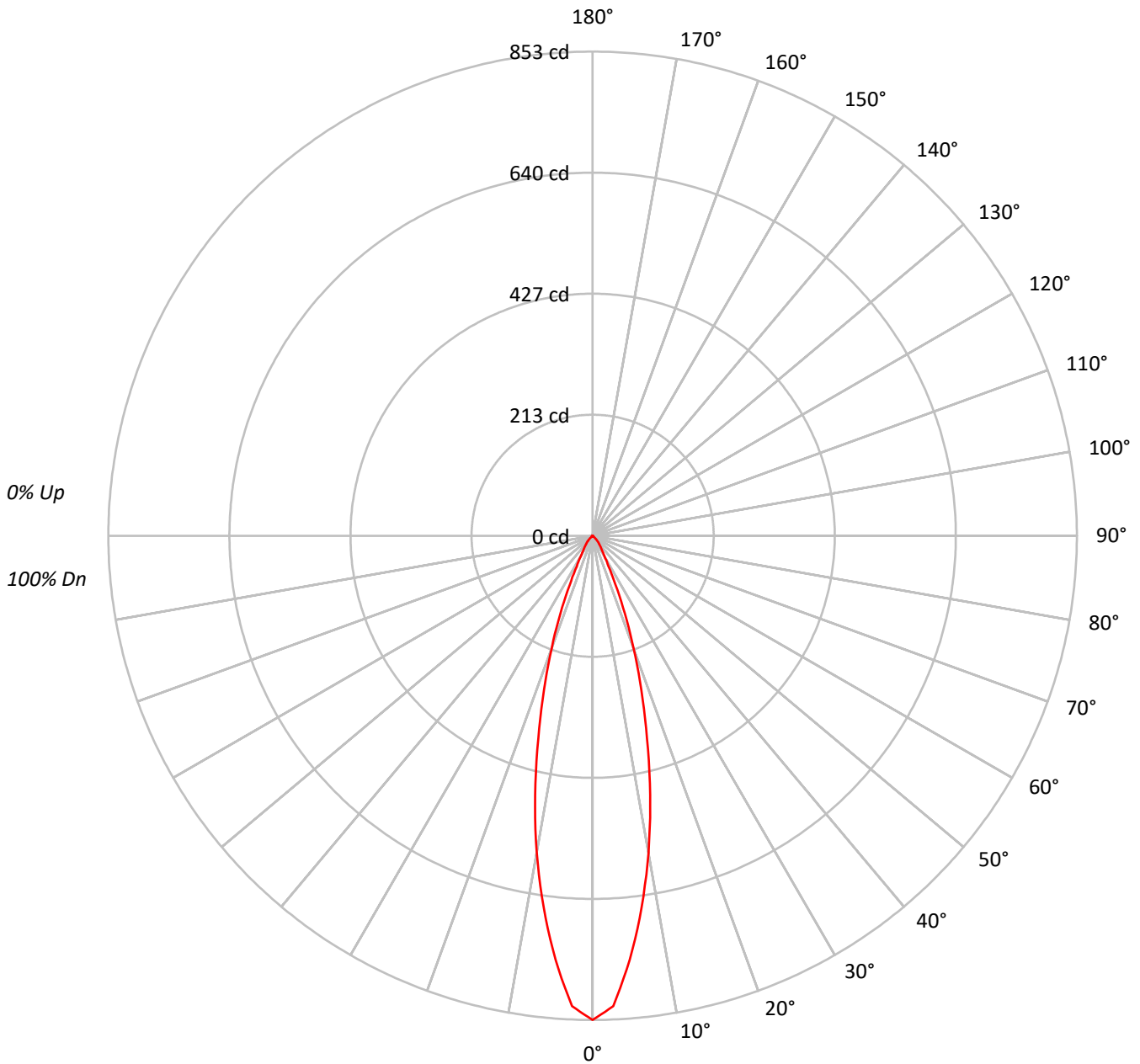
Lumens per Lamp: N/A  
Luminaire Lumens: 238.8 lumens  
Efficiency: N/A  
Efficacy: 39.8 lumens/watt  
Spacing Criteria (0/90/45): 0.45 / 0.45 / 0.48  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

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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CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDDB-400LM-3000K

**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	115	112	110	108	112	110	108	107	106	105	104	103	101	100	99	98	98	96																			
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92																			
3	106	101	97	94	105	100	96	93	97	95	92	95	93	91	93	91	89	88																			
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84																			
5	99	93	88	85	98	92	87	84	90	86	84	88	85	83	87	84	82	81																			
6	96	89	84	81	94	88	84	81	87	83	80	85	82	80	84	81	79	78																			
7	92	85	81	77	91	85	80	77	84	80	77	83	79	77	82	78	76	75																			
8	89	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72																			
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70																			
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68																			

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

	0°
0°	1683431
5°	1486008
10°	1136060
15°	754335
20°	441672
25°	206433
30°	94572
35°	60954
40°	41736
45°	22607
50°	5527
55°	3097
60°	3552
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 22607 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.8	27.6
10°-20°	101.8	42.6
20°-30°	47.3	19.8
30°-40°	16.3	6.8
40°-50°	6.1	2.6
50°-60°	1.1	0.5
60°-70°	0.3	0.1
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°	215.0	90.0
0°-40°	231.3	96.8
0°-60°	238.5	99.9
0°-90°	238.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	238.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	853	
5°	750	66
15°	369	102
25°	95	47
35°	25	16
45°	8	6
55°	1	1
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	853.0
2.5°	829.5
5°	750.1
7.5°	660.7
10°	566.9
12.5°	467.6
15°	369.2
17.5°	284.3
20°	210.3
22.5°	148.0
25°	94.8
27.5°	60.5
30°	41.5
32.5°	31.6
35°	25.3
37.5°	19.9
40°	16.2
42.5°	12.6
45°	8.1
47.5°	2.7
50°	1.8
52.5°	1.8
55°	0.9
57.5°	0.9
60°	0.9
62.5°	0.9
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

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— 0°-180°

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Scaled Data Report



(END OF REPORT)