

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: P885802

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-100LM-5000K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885802  
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-100LM-5000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

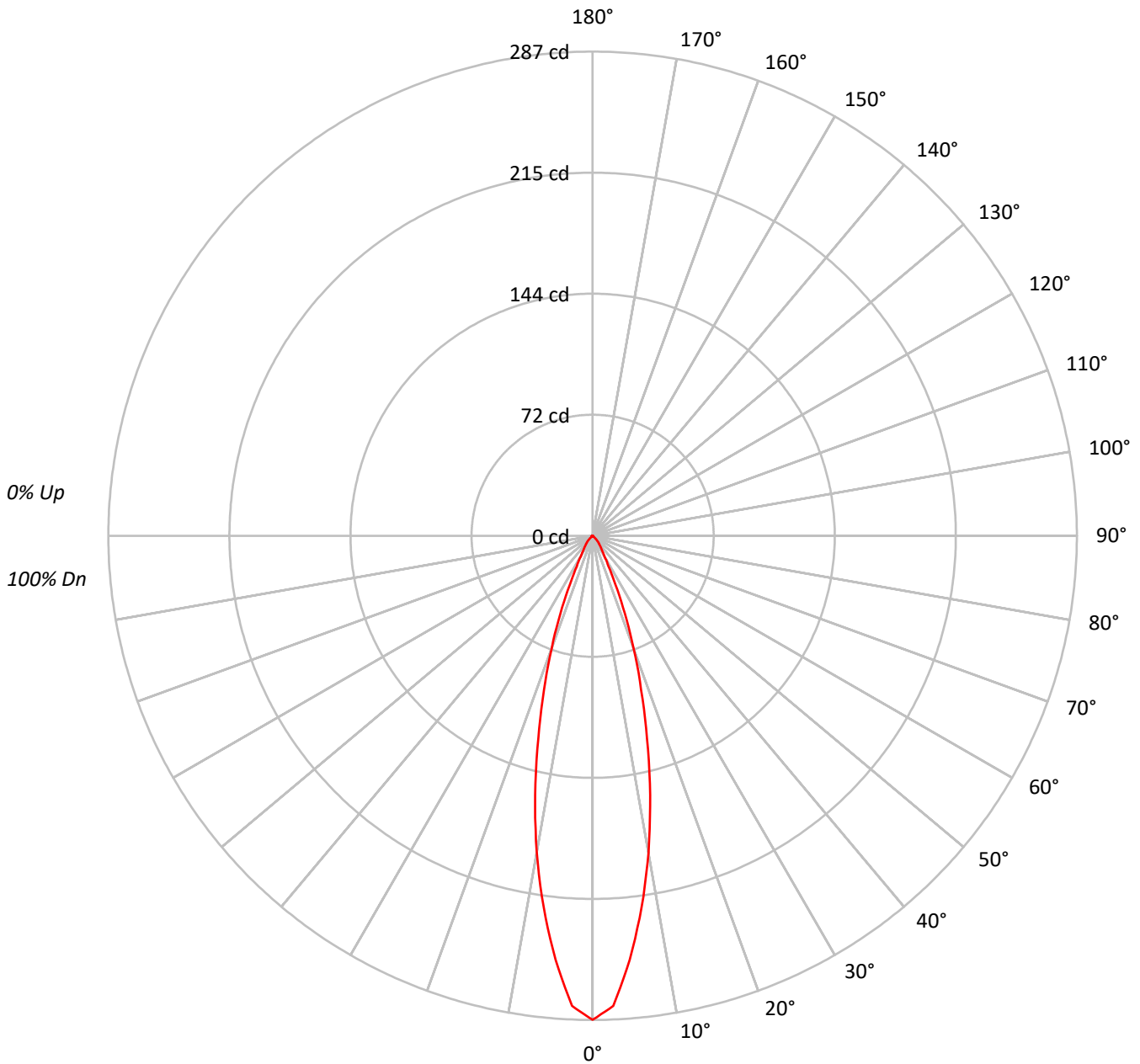
Lumens per Lamp: N/A  
Luminaire Lumens: 80.3 lumens  
Efficiency: N/A  
Efficacy: 36.5 lumens/watt  
Spacing Criteria (0/90/45): 0.45 / 0.45 / 0.48  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

Input Watts (W): 2.2  
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-100LM-5000K

**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				100															
1	115	112	110	108	112	110	108	107	106	105	104	103	101	100	99	98	98	96				96															
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92				92															
3	106	101	97	94	105	100	96	93	97	95	92	95	93	91	93	91	89	88				88															
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84				84															
5	99	93	88	85	98	92	87	84	90	86	84	88	85	83	87	84	82	81				81															
6	96	89	84	81	94	88	84	81	87	83	80	85	82	80	84	81	79	78				78															
7	92	85	81	77	91	85	80	77	84	80	77	83	79	77	82	78	76	75				75															
8	89	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72				72															
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70				70															
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68				68															

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

	0°
0°	566209
5°	499827
10°	381960
15°	253761
20°	148484
25°	69464
30°	31904
35°	20479
40°	14170
45°	7536
50°	1842
55°	1032
60°	1184
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7536 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.1	27.6
10°-20°	34.2	42.6
20°-30°	15.9	19.8
30°-40°	5.5	6.8
40°-50°	2.1	2.6
50°-60°	0.4	0.5
60°-70°	0.1	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°	72.3	90.0
0°-40°	77.8	96.8
0°-60°	80.2	99.9
0°-90°	80.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	80.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	287	
5°	252	22
15°	124	34
25°	32	16
35°	8	5
45°	3	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	286.9
2.5°	279.0
5°	252.3
7.5°	222.2
10°	190.6
12.5°	157.3
15°	124.2
17.5°	95.6
20°	70.7
22.5°	49.8
25°	31.9
27.5°	20.3
30°	14.0
32.5°	10.6
35°	8.5
37.5°	6.7
40°	5.5
42.5°	4.3
45°	2.7
47.5°	0.9
50°	0.6
52.5°	0.6
55°	0.3
57.5°	0.3
60°	0.3
62.5°	0.3
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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(END OF REPORT)