

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: P885872

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-5000K

Issue Date: 6/19/2024

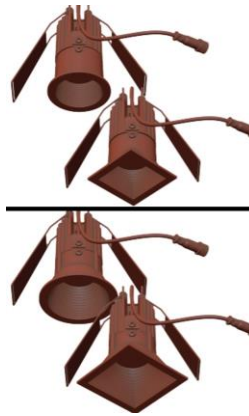
**Test Information**

Test Method: LM-79-2019  
Report Number: P885872  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-126)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-5000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

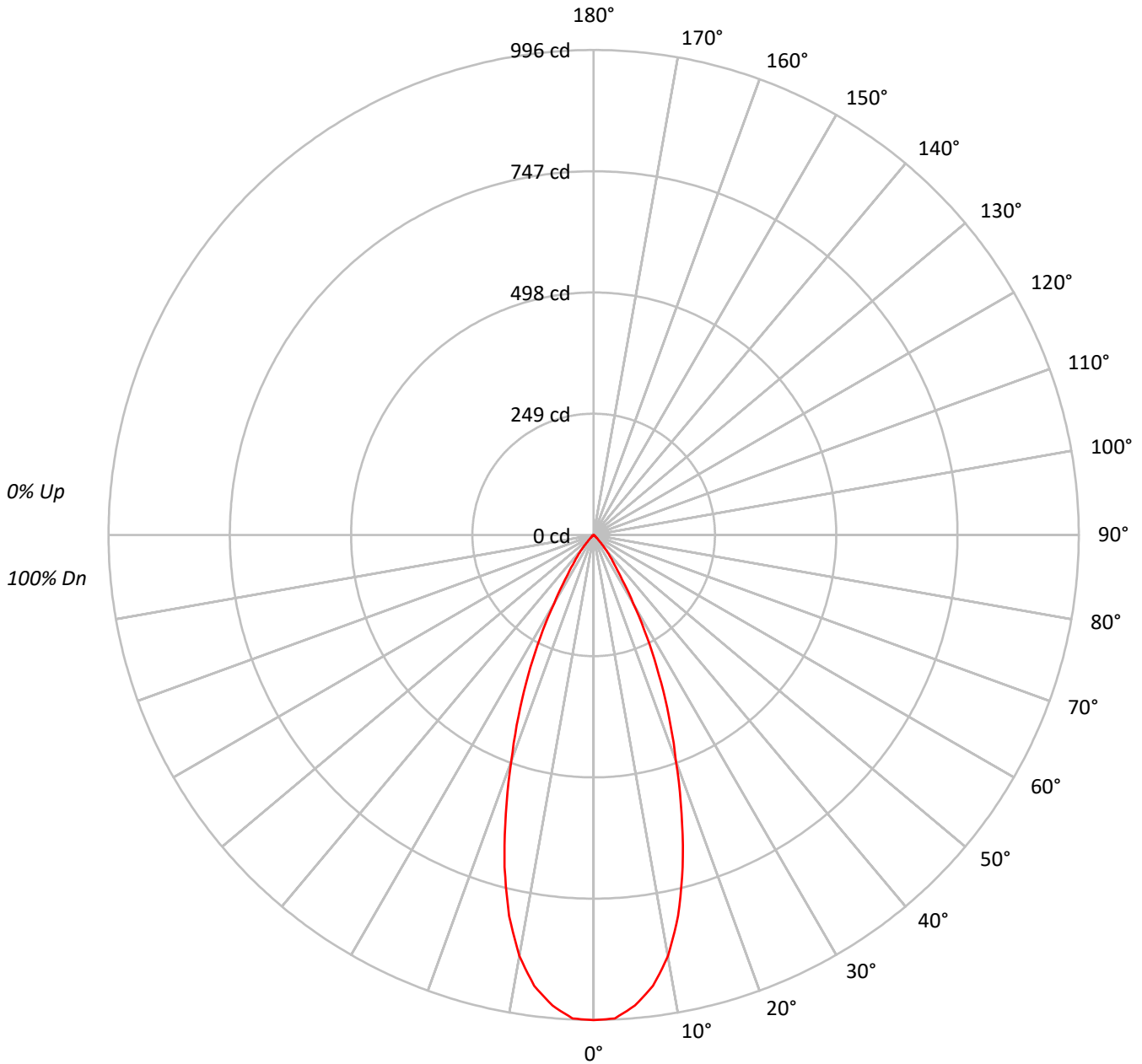
Lumens per Lamp: N/A  
Luminaire Lumens: 489.1 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.65  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

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			100																
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95			95																
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90			90																
3	105	100	95	92	103	98	94	91	96	93	90	93	91	88	91	89	87	86			86																
4	101	94	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83	81			81																
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77			77																
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75	74			74																
7	89	81	76	73	88	81	76	73	80	75	72	79	75	72	77	74	72	70			70																
8	86	78	73	69	85	77	72	69	76	72	69	75	71	69	74	71	68	67			67																
9	83	74	69	66	82	74	69	66	73	69	66	72	68	66	72	68	65	64			64																
10	80	71	66	63	79	71	66	63	70	66	63	70	66	63	69	65	63	61			61																

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

	0°
0°	1966634
5°	1922639
10°	1759701
15°	1443289
20°	1038129
25°	691158
30°	370541
35°	178525
40°	90427
45°	25398
50°	11974
55°	4473
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25398 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.8	18.4
10°-20°	192.3	39.3
20°-30°	144.3	29.5
30°-40°	51.2	10.5
40°-50°	10.3	2.1
50°-60°	1.3	0.3
60°-70°	0.0	0.0
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°	426.4	87.2
0°-40°	477.6	97.6
0°-60°	489.1	100.0
0°-90°	489.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	489.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	996	
5°	970	90
15°	706	192
25°	317	144
35°	74	51
45°	9	10
55°	1	1
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	996.5
2.5°	993.9
5°	970.5
7.5°	934.0
10°	878.1
12.5°	801.3
15°	706.4
17.5°	599.7
20°	494.3
22.5°	403.3
25°	317.4
27.5°	236.8
30°	162.6
32.5°	109.3
35°	74.1
37.5°	53.3
40°	35.1
42.5°	19.5
45°	9.1
47.5°	6.5
50°	3.9
52.5°	2.6
55°	1.3
57.5°	0.0
60°	0.0
62.5°	0.0
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)