

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: P885885

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-127)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE BAFFLED TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

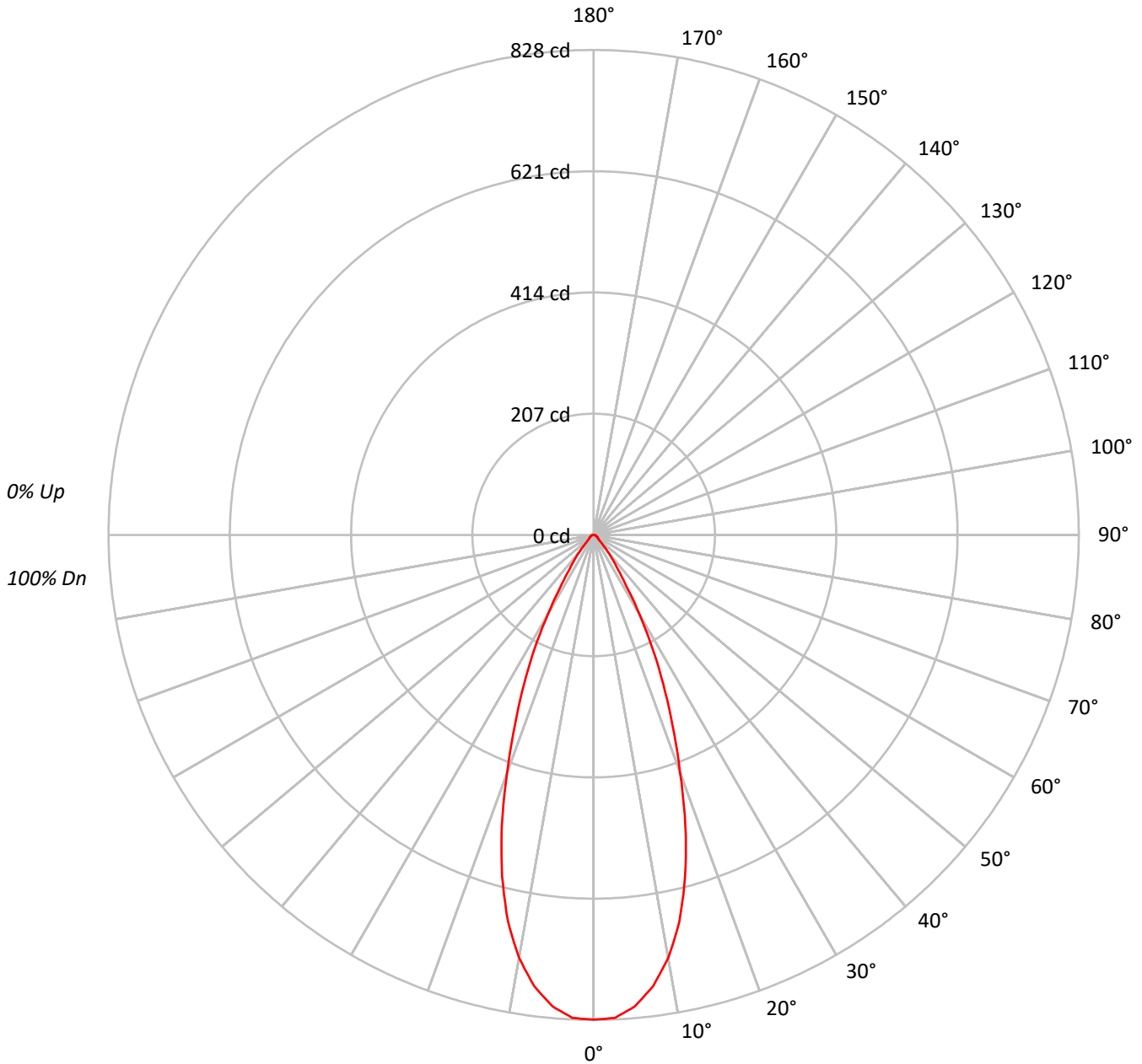
Lumens per Lamp: N/A  
Luminaire Lumens: 450.6 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.66  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P885885  
CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P885885  
 CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K

**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	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88																			
3	104	98	93	89	102	96	92	88	94	90	87	91	88	86	89	87	84	83																			
4	99	92	87	83	97	91	86	82	89	85	82	87	83	81	85	82	80	78																			
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74																			
6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	78	74	71	70																			
7	87	78	73	69	86	78	73	69	77	72	69	75	71	68	74	71	68	67																			
8	83	75	69	66	82	74	69	65	73	68	65	72	68	65	71	67	65	63																			
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	62	60																			
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	66	62	59	58																			

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

	0°
0°	1633303
5°	1600515
10°	1469123
15°	1232843
20°	904976
25°	610371
30°	353222
35°	174671
40°	99187
45°	46052
50°	33773
55°	30279
60°	26051
65°	25684
70°	25389
75°	25163
80°	25003
85°	24908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 46052 cd/sqm



TEST NUMBER: P885885

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.7	16.6
10°-20°	164.4	36.5
20°-30°	128.3	28.5
30°-40°	50.2	11.2
40°-50°	14.9	3.3
50°-60°	7.6	1.7
60°-70°	5.7	1.3
70°-80°	3.8	0.8
80°-90°	0.9	0.2
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°	367.4	81.5
0°-40°	417.7	92.7
0°-60°	440.2	97.7
0°-90°	450.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	450.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	828	
5°	808	75
15°	603	164
25°	280	128
35°	72	50
45°	16	15
55°	9	8
65°	6	6
75°	3	4
85°	1	1
90°	0	



TEST NUMBER: P885885

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMWB-400LM-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	827.6
2.5°	825.4
5°	807.9
7.5°	777.1
10°	733.1
12.5°	676.0
15°	603.4
17.5°	521.0
20°	430.9
22.5°	350.6
25°	280.3
27.5°	216.5
30°	155.0
32.5°	105.5
35°	72.5
37.5°	53.9
40°	38.5
42.5°	25.3
45°	16.5
47.5°	12.1
50°	11.0
52.5°	8.8
55°	8.8
57.5°	7.7
60°	6.6
62.5°	6.6
65°	5.5
67.5°	5.5
70°	4.4
72.5°	4.4
75°	3.3
77.5°	3.3
80°	2.2
82.5°	1.1
85°	1.1
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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)