

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: P885880

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885880  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-124)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 470.2 lumens  
Efficiency: N/A  
Efficacy: 78.4 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

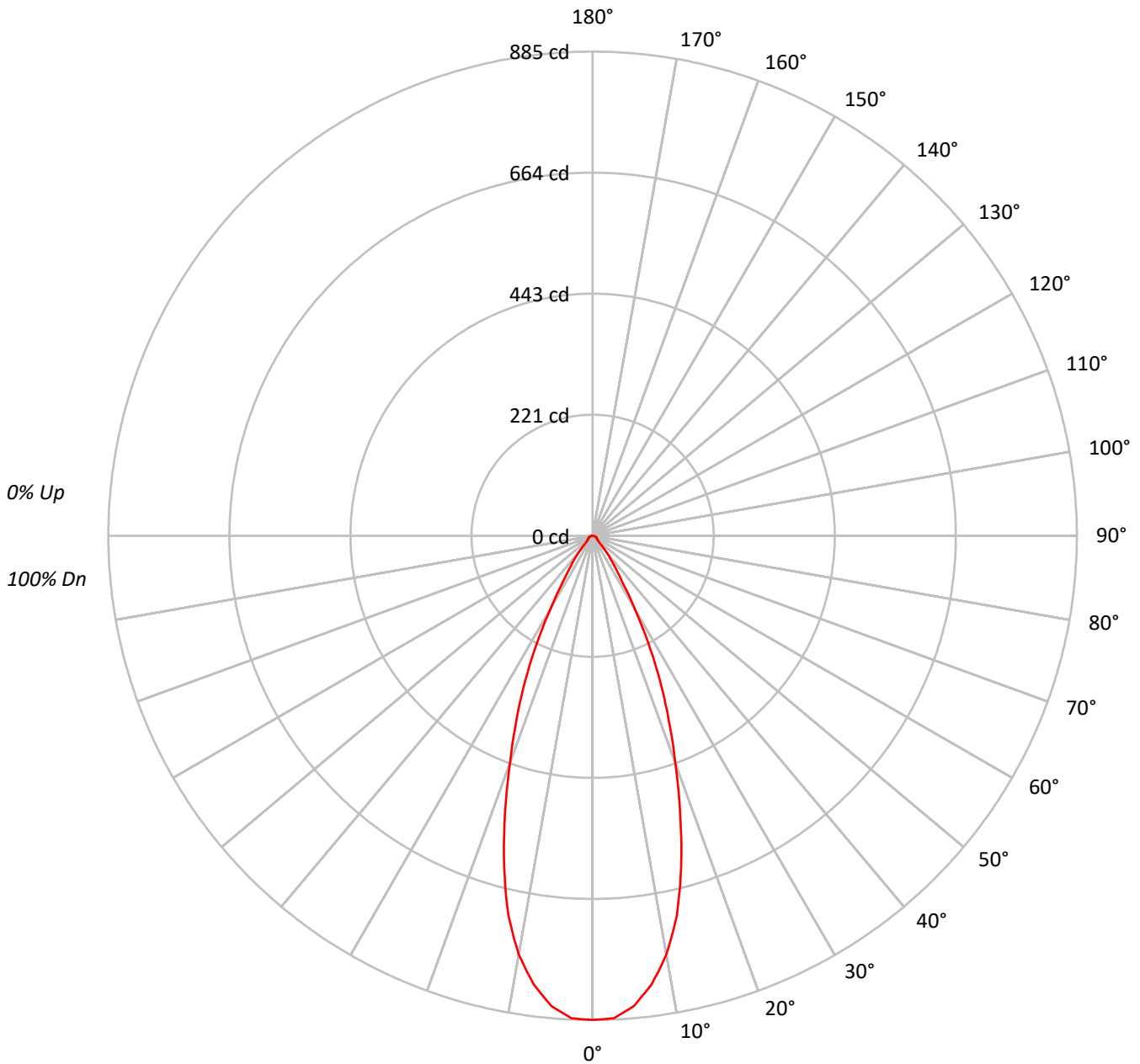
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P885880

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P885880

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				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	108	106	111	109	106	105	105	103	101	101	100	98	98	96	95	94			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			
3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	83			
4	99	92	87	83	97	91	86	82	88	84	81	87	83	80	85	82	79	78			
5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74			
6	90	82	77	73	89	81	76	73	80	75	72	79	75	72	77	74	71	70			
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66			
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	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	59	76	68	63	59	67	62	59	66	62	59	65	62	59	58			

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

	0°
0°	1746387
5°	1709474
10°	1557499
15°	1277997
20°	925768
25°	629533
30°	348208
35°	180212
40°	102021
45°	46052
50°	37150
55°	34064
60°	34734
65°	35957
70°	31736
75°	33551
80°	37505
85°	24908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 87.5°  
 Luminance: 49769 cd/sqm



TEST NUMBER: P885880

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.6	16.9
10°-20°	170.6	36.3
20°-30°	131.1	27.9
30°-40°	50.6	10.8
40°-50°	15.6	3.3
50°-60°	9.0	1.9
60°-70°	7.2	1.5
70°-80°	4.9	1.1
80°-90°	1.6	0.4
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°	381.3	81.1
0°-40°	431.8	91.8
0°-60°	456.4	97.1
0°-90°	470.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	470.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	885	
5°	863	80
15°	626	171
25°	289	131
35°	75	51
45°	16	16
55°	10	9
65°	8	7
75°	4	5
85°	1	2
90°	0	



TEST NUMBER: P885880

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	884.9
2.5°	882.7
5°	862.9
7.5°	826.7
10°	777.2
12.5°	711.2
15°	625.5
17.5°	532.0
20°	440.8
22.5°	362.8
25°	289.1
27.5°	217.7
30°	152.8
32.5°	104.4
35°	74.8
37.5°	55.0
40°	39.6
42.5°	26.4
45°	16.5
47.5°	13.2
50°	12.1
52.5°	11.0
55°	9.9
57.5°	8.8
60°	8.8
62.5°	7.7
65°	7.7
67.5°	6.6
70°	5.5
72.5°	5.5
75°	4.4
77.5°	4.4
80°	3.3
82.5°	2.2
85°	1.1
87.5°	1.1
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)