

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: P885869

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-3000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885869  
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-3000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

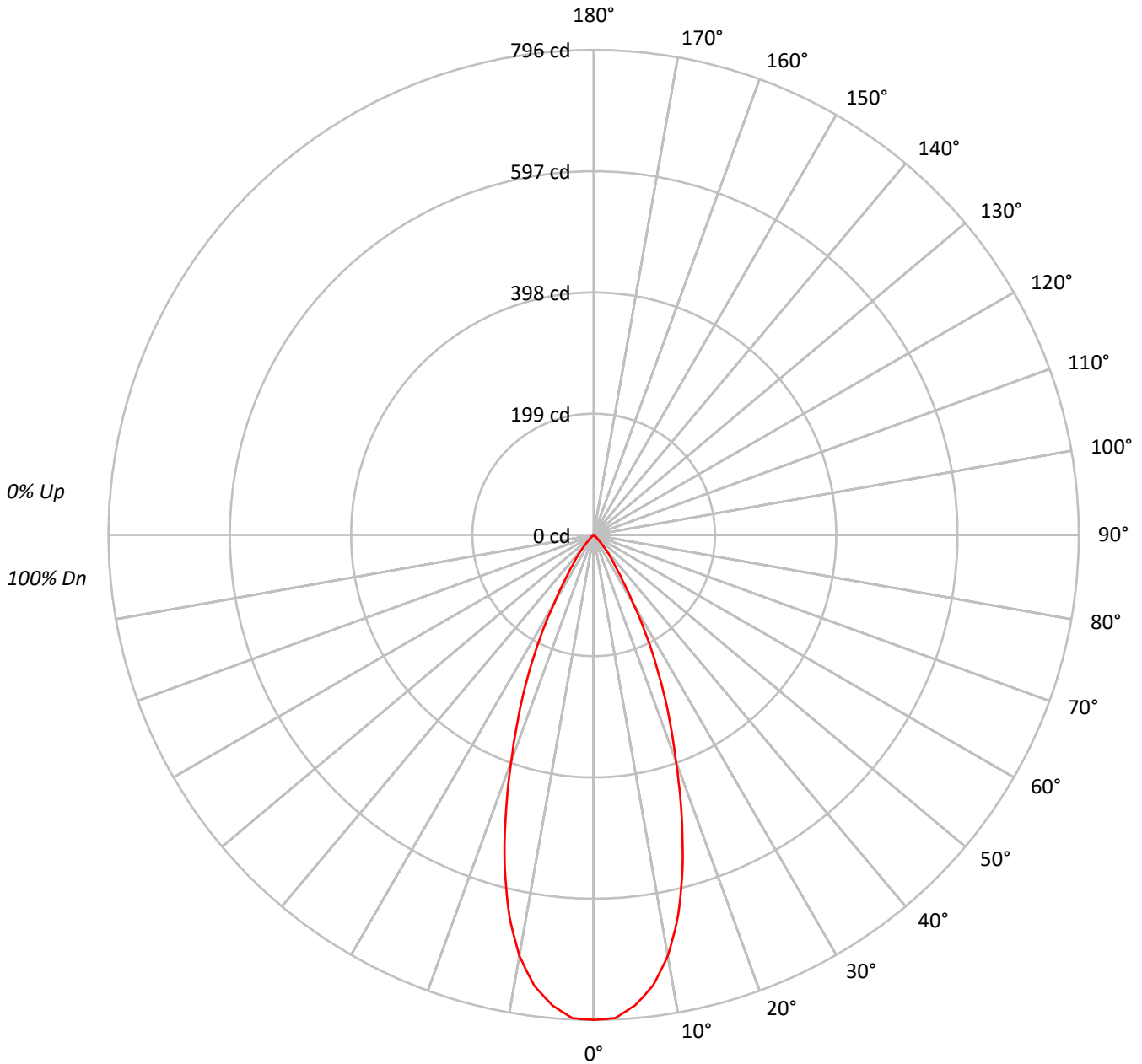
Lumens per Lamp: N/A  
Luminaire Lumens: 390.8 lumens  
Efficiency: N/A  
Efficacy: 65.1 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.65  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

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: P885869  
CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P885869

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-3000K

**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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103		102	101	100		99	98	97	95
2	110	105	102	99	108	104	101	98	101	98	96		98	96	94		95	93	92	90
3	105	100	95	92	103	98	94	91	96	93	90		93	91	88		91	89	87	86
4	101	94	90	86	99	93	89	86	91	88	85		89	86	84		88	85	83	81
5	97	90	85	81	95	89	84	81	87	83	80		86	82	79		84	81	79	77
6	93	85	80	77	92	85	80	76	83	79	76		82	78	75		81	77	75	74
7	89	81	76	73	88	81	76	73	80	75	72		79	75	72		77	74	72	70
8	86	78	73	69	85	77	72	69	76	72	69		75	71	69		74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66		72	68	66		72	68	65	64
10	80	71	66	63	79	71	66	63	70	66	63		70	66	63		69	65	63	61

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

	0°
0°	1571137
5°	1535932
10°	1405797
15°	1152956
20°	829369
25°	552230
30°	296023
35°	142628
40°	72393
45°	20374
50°	9518
55°	3441
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20374 cd/sqm



TEST NUMBER: P885869

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.7	18.4
10°-20°	153.6	39.3
20°-30°	115.3	29.5
30°-40°	40.9	10.5
40°-50°	8.2	2.1
50°-60°	1.0	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°	340.7	87.2
0°-40°	381.6	97.6
0°-60°	390.8	100.0
0°-90°	390.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	390.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	796	
5°	775	72
15°	564	154
25°	254	115
35°	59	41
45°	7	8
55°	1	1
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P885869  
CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1RDMB-400LM-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	796.1
2.5°	794.0
5°	775.3
7.5°	746.2
10°	701.5
12.5°	640.2
15°	564.3
17.5°	479.1
20°	394.9
22.5°	322.2
25°	253.6
27.5°	189.2
30°	129.9
32.5°	87.3
35°	59.2
37.5°	42.6
40°	28.1
42.5°	15.6
45°	7.3
47.5°	5.2
50°	3.1
52.5°	2.1
55°	1.0
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

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)