

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: P885903

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-147)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 395.1 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

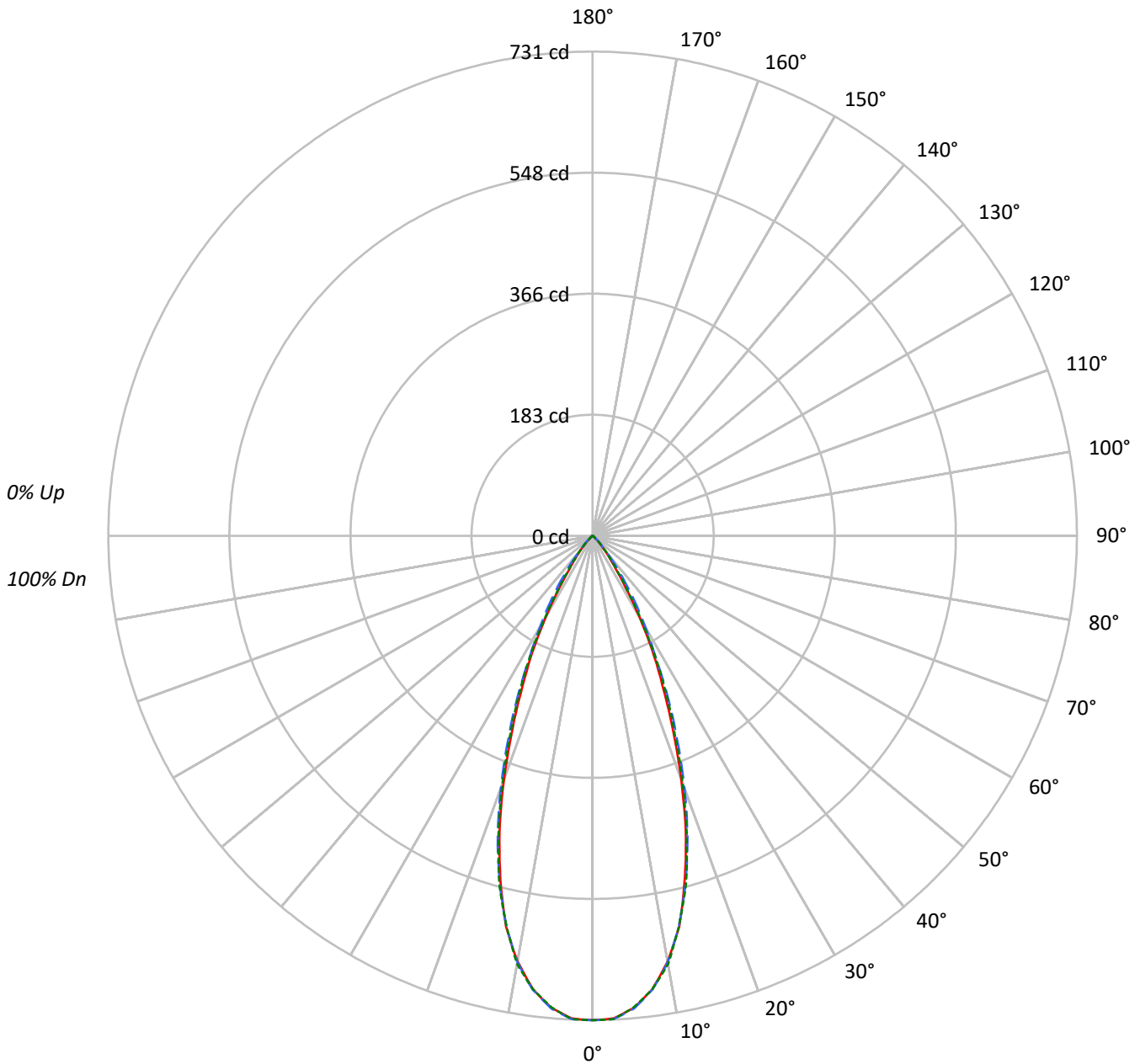
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P885903

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P885903

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	100	100	100	100		
	1	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97	95	95	95	95	95	95		
	2	109	105	101	98	107	103	100	97	100	98	95	97	95	93	95	93	91	90	90	90	90	90	90		
	3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	86	85	85	85	85	85	85		
	4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80	80	80	80	80	80		
	5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76	76	76	76	76	76		
	6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72	72	72	72	72	72		
	7	88	80	75	71	87	80	75	71	78	74	71	77	73	70	76	73	70	69	69	69	69	69	69		
	8	85	77	71	68	84	76	71	68	75	70	67	74	70	67	73	69	67	66	66	66	66	66	66		
	9	81	73	68	64	80	73	68	64	72	67	64	71	67	64	70	66	64	63	63	63	63	63	63		
	10	78	70	65	61	77	69	65	61	69	64	61	68	64	61	67	64	61	60	60	60	60	60	60		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1133682	1133682	1133682
5°	1113117	1114673	1111561
10°	1026830	1028404	1033126
15°	862203	870226	873435
20°	643632	668374	655179
25°	426195	458690	446718
30°	250752	282968	259701
35°	113533	161028	122994
40°	56655	68796	60702
45°	19728	32881	19728
50°	7234	12057	7234
55°	2702	2702	2702
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 32881 cd/sqm



TEST NUMBER: P885903

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	16.8
10°-20°	148.3	37.5
20°-30°	120.0	30.4
30°-40°	48.8	12.3
40°-50°	10.5	2.7
50°-60°	1.1	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°	334.7	84.7
0°-40°	383.4	97.1
0°-60°	395.1	100.0
0°-90°	395.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	395.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	715	715	716	714	714	66
15°	537	541	542	540	544	147
25°	249	257	268	261	261	115
35°	60	70	85	73	65	42
45°	9	11	15	12	9	9
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P885903

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.4	731.4	731.4	731.4	731.4
2.5°	729.4	729.4	730.4	729.4	730.4
5°	715.4	715.4	716.4	714.4	714.4
7.5°	690.4	690.4	691.4	691.4	690.4
10°	652.4	654.4	653.4	655.4	656.4
12.5°	604.4	603.4	602.4	604.4	602.4
15°	537.3	541.3	542.3	540.3	544.3
17.5°	467.3	470.3	476.3	476.3	472.3
20°	390.2	400.2	405.2	401.2	397.2
22.5°	316.2	324.2	333.2	330.2	324.2
25°	249.2	257.2	268.2	261.2	261.2
27.5°	194.1	201.1	205.1	207.1	203.1
30°	140.1	150.1	158.1	155.1	145.1
32.5°	93.1	104.1	119.1	110.1	98.1
35°	60.0	70.0	85.1	73.0	65.0
37.5°	41.0	46.0	57.0	48.0	44.0
40°	28.0	32.0	34.0	32.0	30.0
42.5°	17.0	20.0	22.0	21.0	18.0
45°	9.0	11.0	15.0	12.0	9.0
47.5°	4.0	6.0	9.0	6.0	4.0
50°	3.0	3.0	5.0	3.0	3.0
52.5°	2.0	2.0	2.0	2.0	2.0
55°	1.0	1.0	1.0	1.0	1.0
57.5°	0.0	0.0	1.0	1.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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





— 0°-180° - - 45°-225° - - - - 90°-270°

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)